

HALLIBURTON

DUAL SPACED NEUTRON SPECTRAL DENSITY LOG

DUAL SPACED NEUTRON SPECTRAL DENSITY LOG									
HALLIBURTON									
SANDRIDGE ENERGY					SANDRIDGE ENERGY				
MELISSA 3119 1-5					MELISSA 3119 1-5				
SIX MOONS					SIX MOONS				
COMANCHE					COMANCHE				
KANSAS					KANSAS				
COMPANY	WELL	FIELD	COUNTY	STATE	COMPANY	WELL	FIELD	COUNTY	STATE
SANDRIDGE ENERGY	MELISSA 3119 1-5	SIX MOONS	COMANCHE	KANSAS	SANDRIDGE ENERGY	MELISSA 3119 1-5	SIX MOONS	COMANCHE	KANSAS
API No. 15-033-21638					Other Services: MICRO CSNG ACRT WSTT XRMI MRIL				
Location 551' FSL 1156' FWL OF THE SW/4									
Sect. 5	Twp. 31S	Rge. 19W			Elev. 2118.0 ft	D.F. 2137.0 ft			
					21.0 ft above perm. Datum				
Permanent Datum	GL				Elev. 2118.0 ft				
Log measured from	KB				D.F. 2137.0 ft				
Drilling measured from	KB				GL. 2118.0 ft				
Date	14-Jun-12								
Run No.	ONE								
Depth - Driller	6119.00 ft								
Depth - Logger	6102.0 ft								
Bottom - Logged Interval	6014.0 ft								
Top - Logged Interval	200.0 ft								
Casing - Driller	13.375 in @ 646.0 ft								
Casing - Logger	642.0 ft								
Bit Size	12.250 in								
Type Fluid in Hole	WATER BASED MUD								
Density	9.3 ppg	43.00	s/qt						
PH	9.00 pH	8.0	cpm						
Source of Sample	FLOWLINE								
Rm @ Meas. Temperature	0.150 ohmm @ 75.00 degF								
Rmf @ Meas. Temperature	0.12 ohmm @ 75.00 degF								
Rmc @ Meas. Temperature	0.170 ohmm @ 75.00 degF								
Source Rmf	MEASURED	MEASURED							
Rm @ BHT	0.09 ohmm @ 131.0 degF								
Time Since Circulation	12.0 hr								
Time on Bottom	15-Jun-12 23:06								
Max. Rec. Temperature	131.0 degF @ 6102.0 ft								
Equipment	10782954	LIBERAL							
Recorded By	T. HYDE								
Witnessed By	T. WHITLOW								

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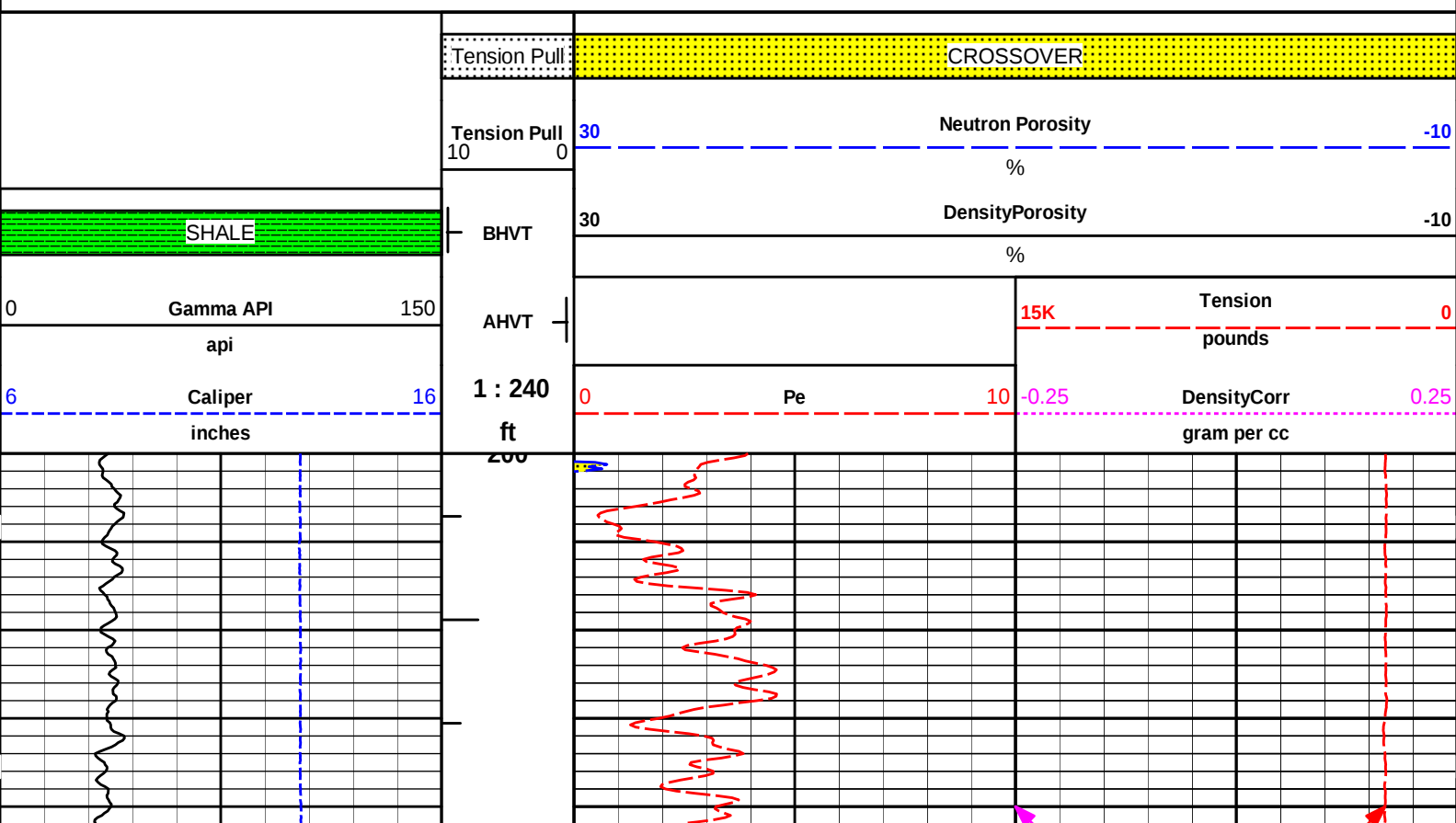
Service Ticket No.: 9572561					API Serial No.: 15-033-21638					PGM Version: WL INSITE R3.4.2 (Build 2)				
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE							RESISTIVITY SCALE CHANGES							
Date	Sample No.						Type Log	Depth	Scale Up Hole		Scale Down Hole			
Depth-Driller														
Type Fluid in Hole														
Density	Viscosity													
Ph	Fluid Loss													
Source of Sample								RESISTIVITY EQUIPMENT DATA						
Rm @ Meas. Temp		@		@		Run No.		Tool Type & No.	Pad Type	Tool Pos.	Other			
Rmf @ Meas. Temp.		@		@										
Rmc @ Meas. Temp.		@		@										
Source Rmf	Rmc													
Rm @ BHT		@		@										
Rmf @ BHT		@		@										
Rmc @ BHT		@		@										
EQUIPMENT DATA														
GAMMA			ACOUSTIC				DENSITY			NEUTRON				
Run No.	ONE		Run No.			Run No.	ONE		Run No.	ONE				
Serial No.	10811258		Serial No.			Serial No.	I066_M85803_P45		Serial No.	10755066				
Model No.	GTET		Model No.			Model No.	SDLT		Model No.	DSNT				
Diameter	3.625"		No. of Cent.			Diameter	4.5"		Diameter	3.625"				
Detector Model No.	T-102		Spacing			Log Type	GAM-GAM		Log Type	NEU-NEU				
Type	SCINT					Source Type	Cs137		Source Type	Am241Be				
Length	8"		LSA [Y/N]			Serial No.	5073 GW		Serial No.	DSN-436				
Distance to Source	18'		FWDA [Y/N]			Strength	1.5 Ci		Strength	15 Ci				

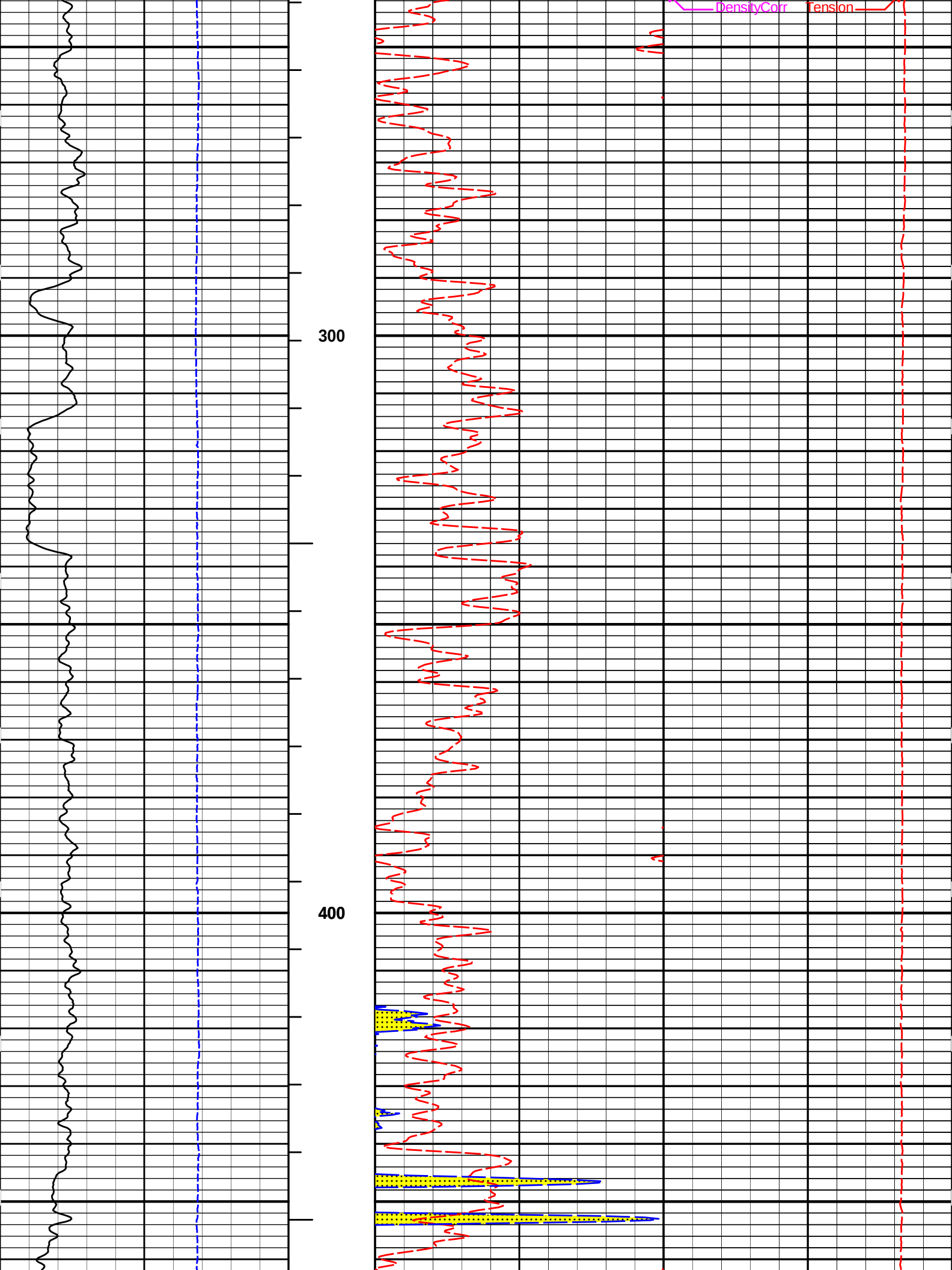
GENERAL			GAMMA		ACOUSTIC		DENSITY		NEUTRON					
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	6102	200	REC	0	150				30	-10	2.71	30	-10	LIME
DIRECTIONAL INFORMATION														
Maximum Deviation @									KOP @					
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 9.625 INCH CASING														
CHLORIDES REPORTED AT 28000 MG/L														
PRE CALIBRATIONS NOT PERFORMED DUE TO HIGH WINDS AND RAIN ON LOCATION														
TODAY'S CREW A. VAQUERA F. VILLA														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KANSAS 620-624-8123														
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.														
HALLIBURTON														

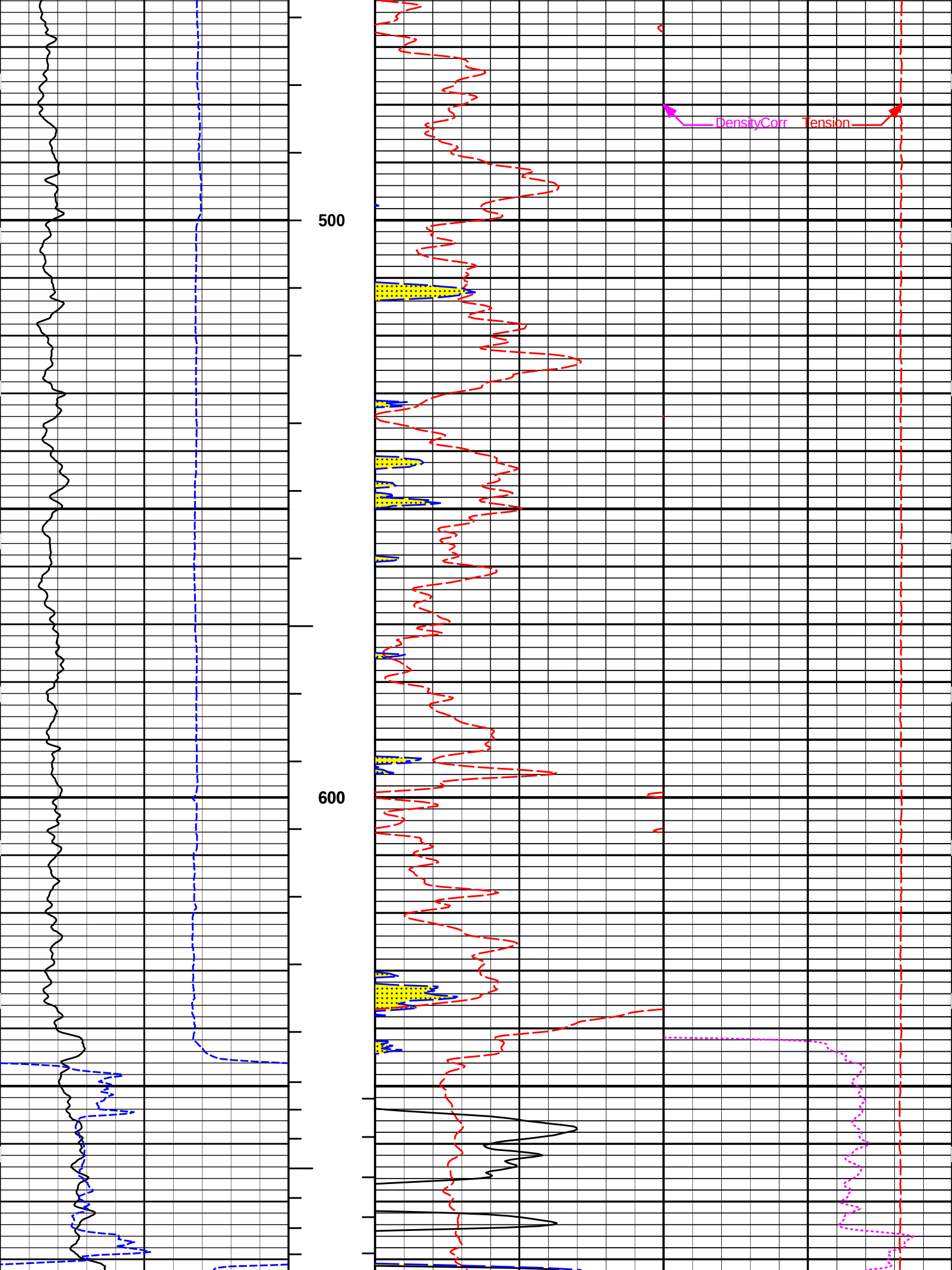
HALLIBURTON

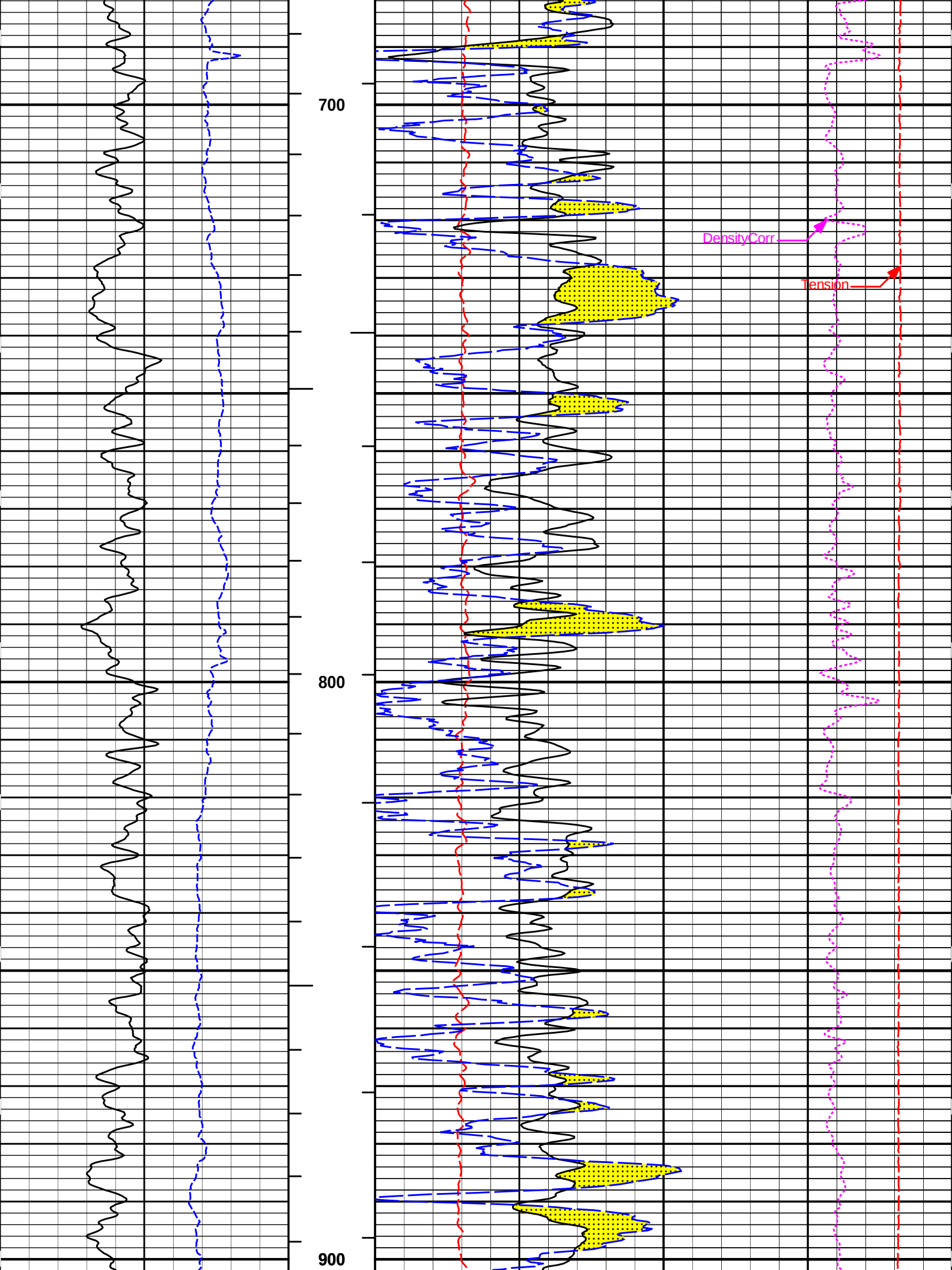
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Plot Range: 200 ft to 6102 ft
Data: MELISSA_3119_5\Well Based\DAQ-0001-0061
Plot File: \\PORO\Porosity_IQ_5_MAIN_LIB

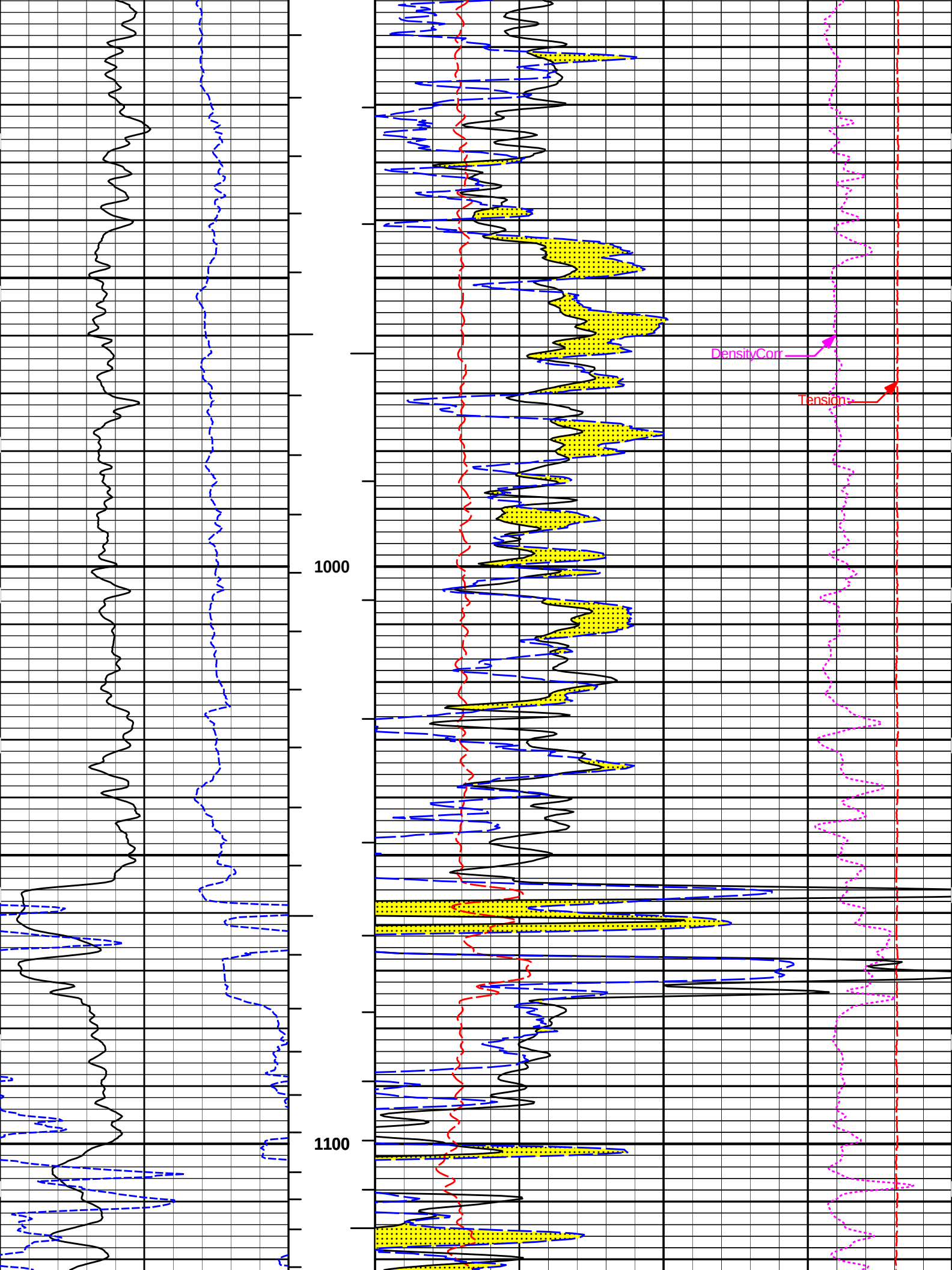
5 INCH MAIN LOG

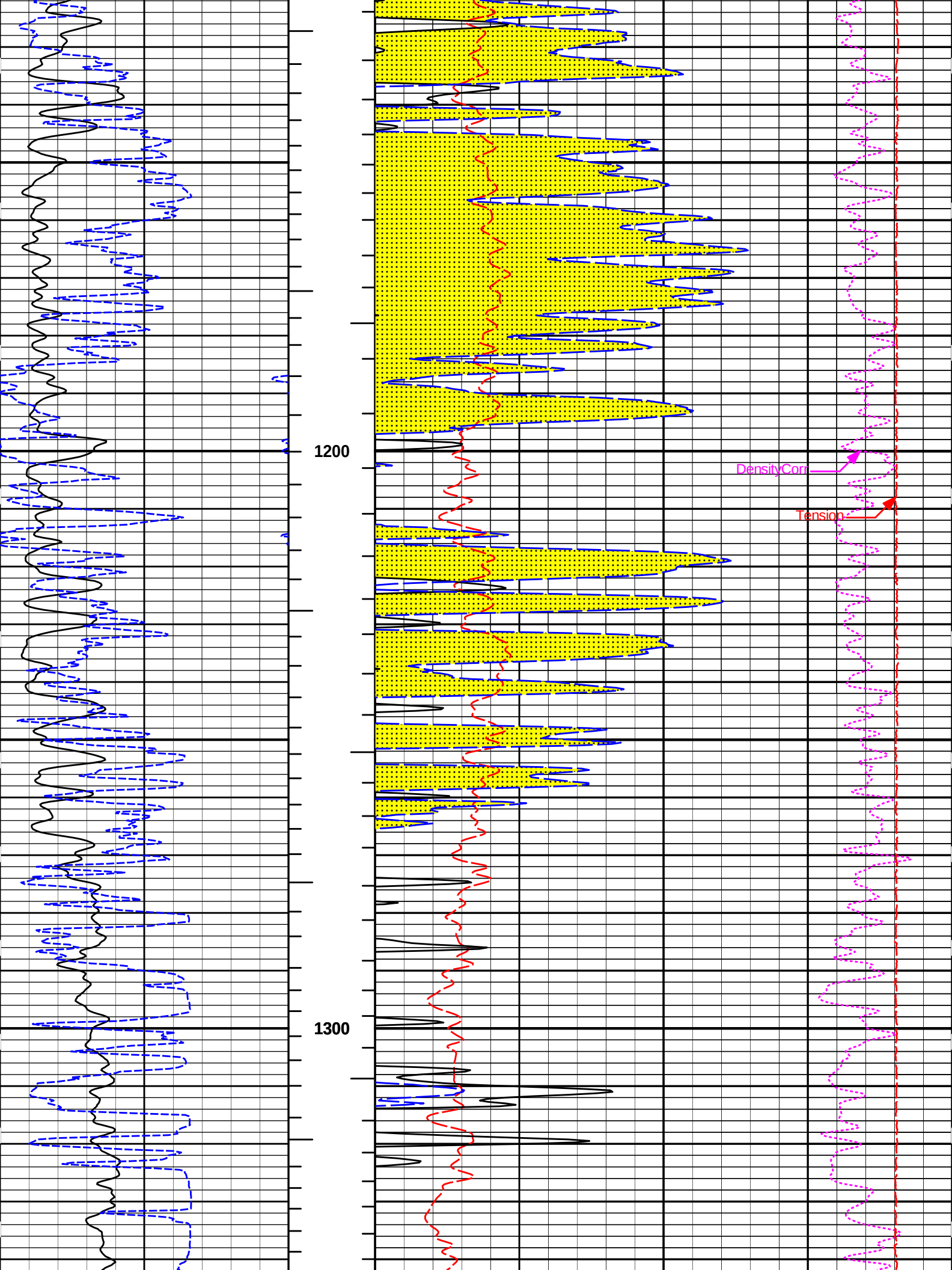


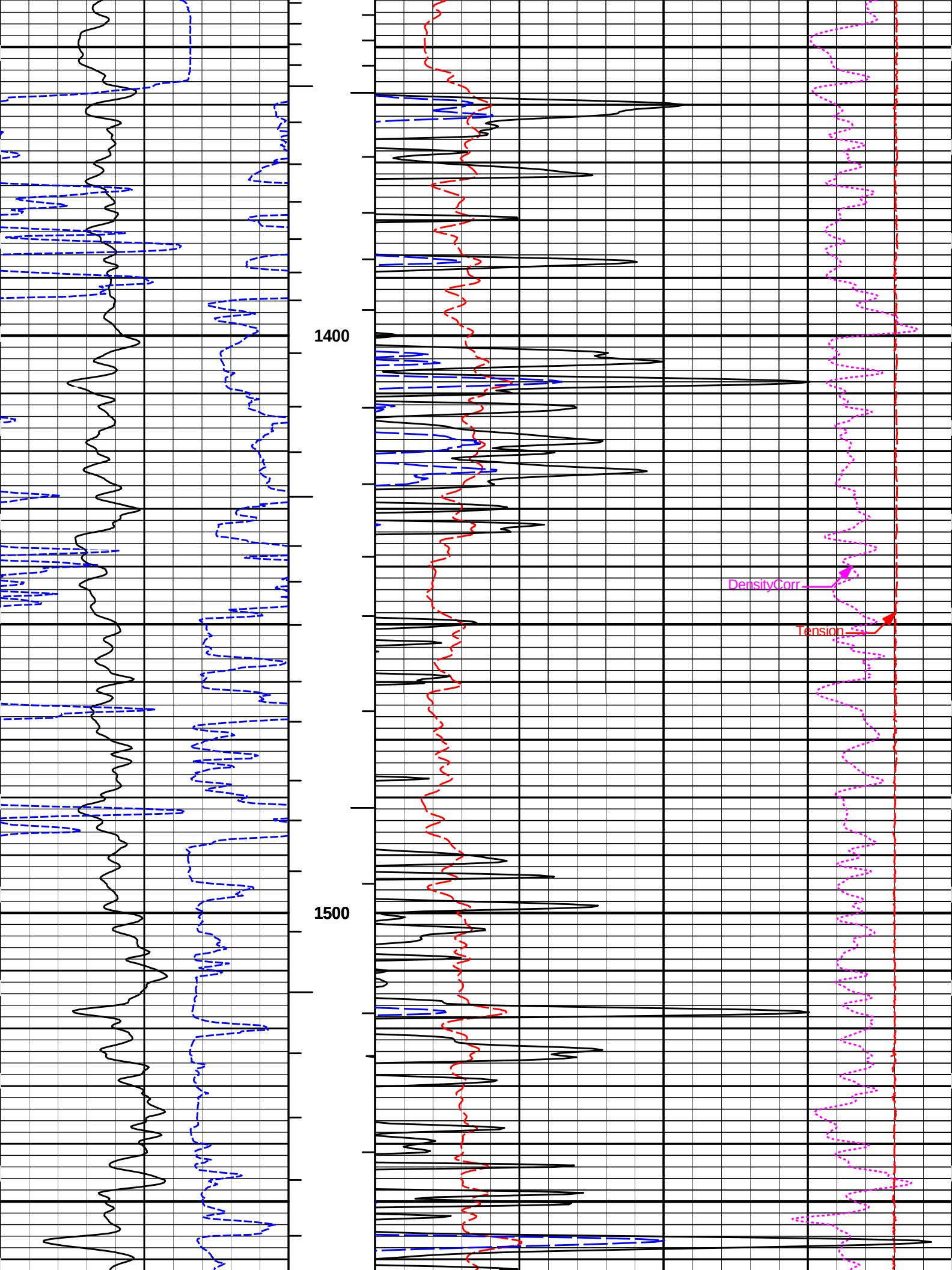


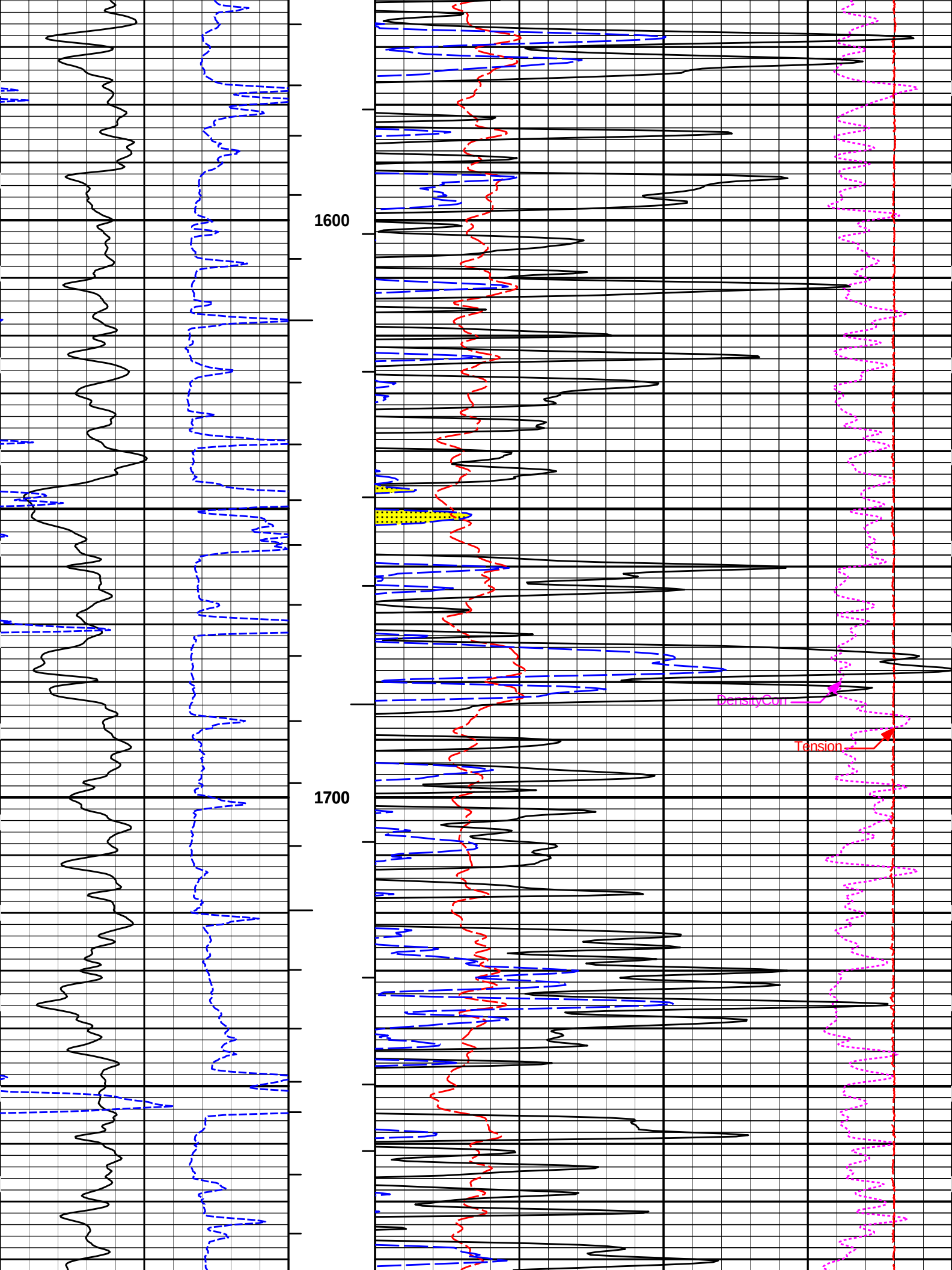


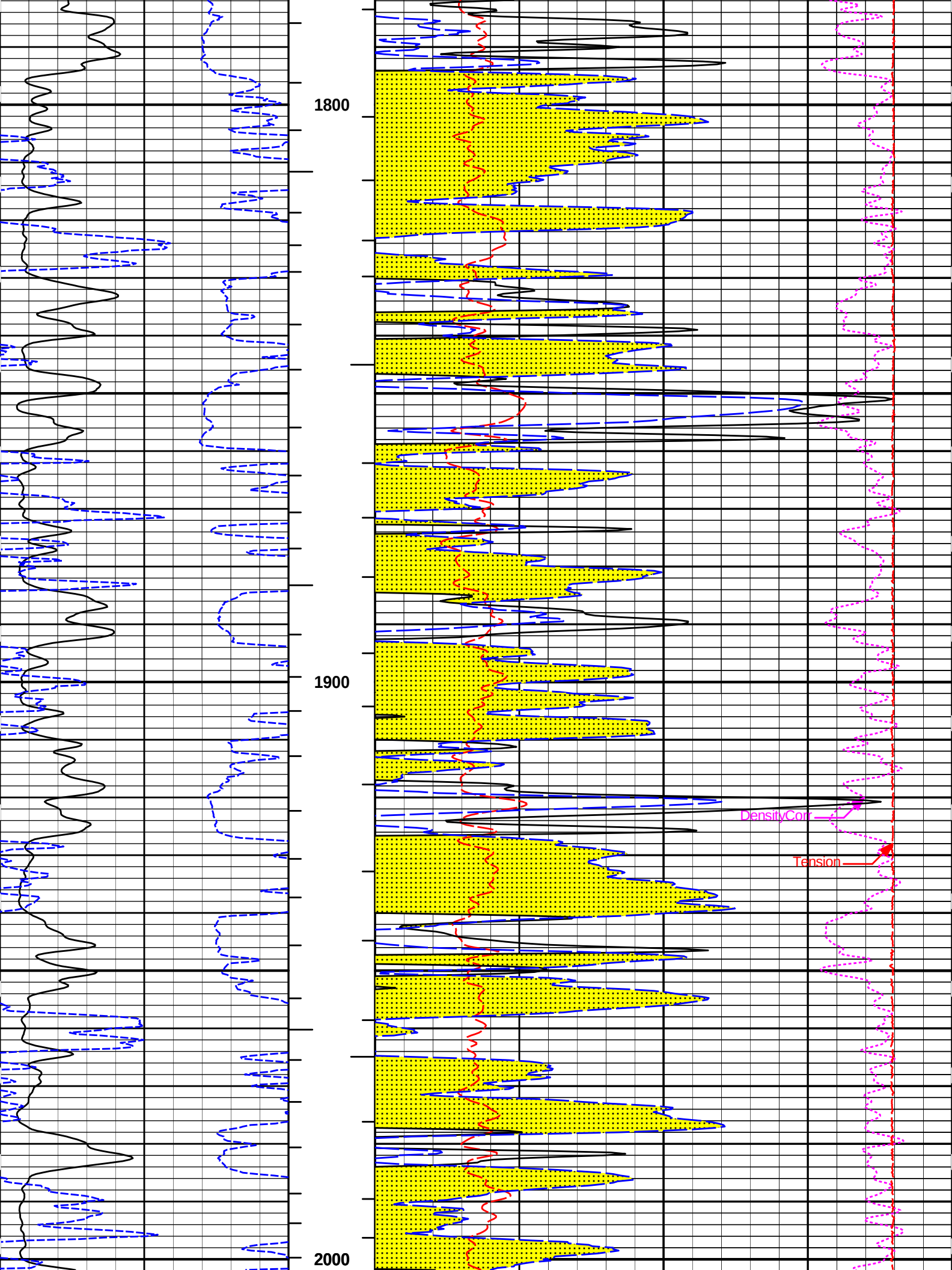


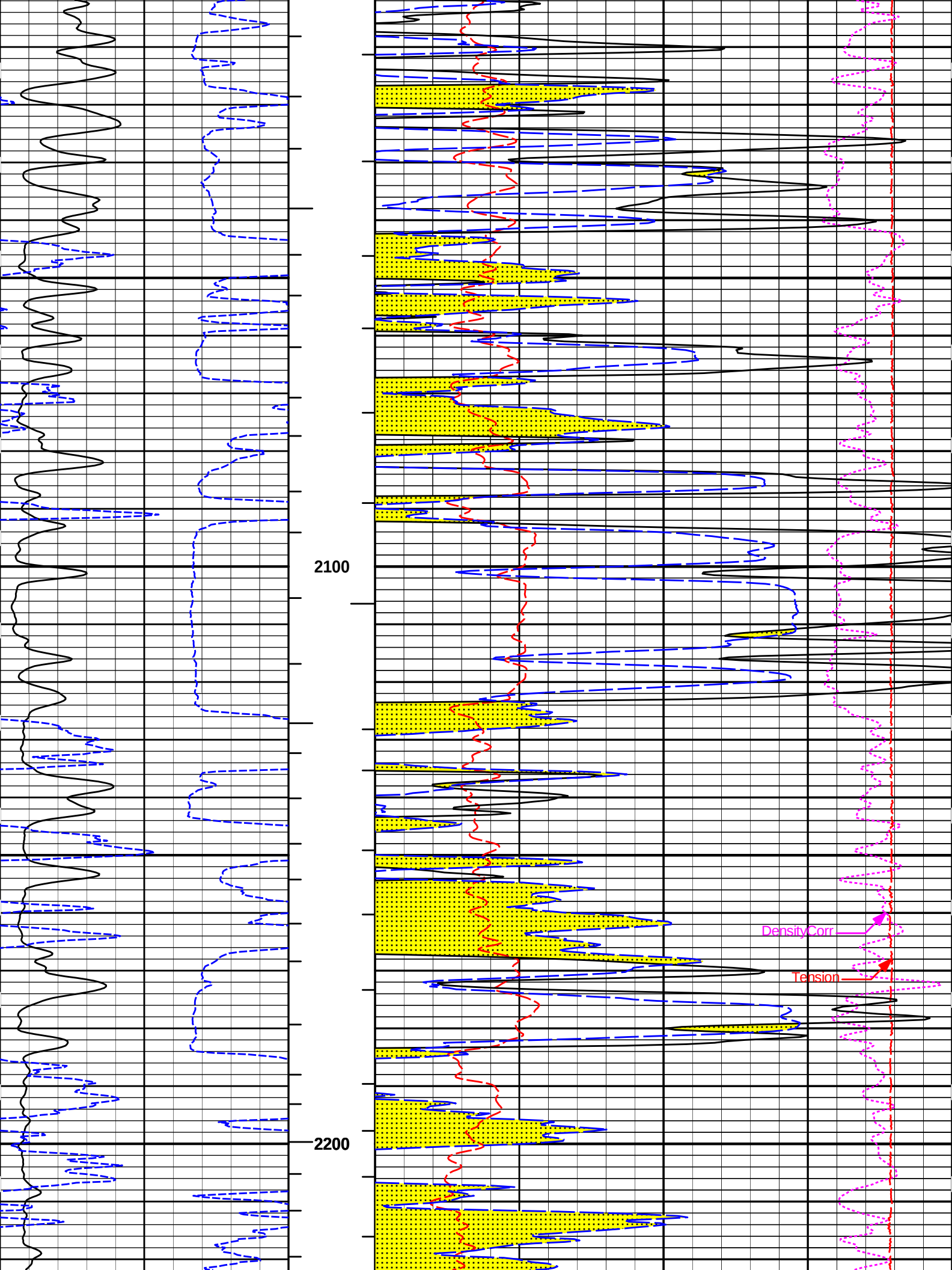


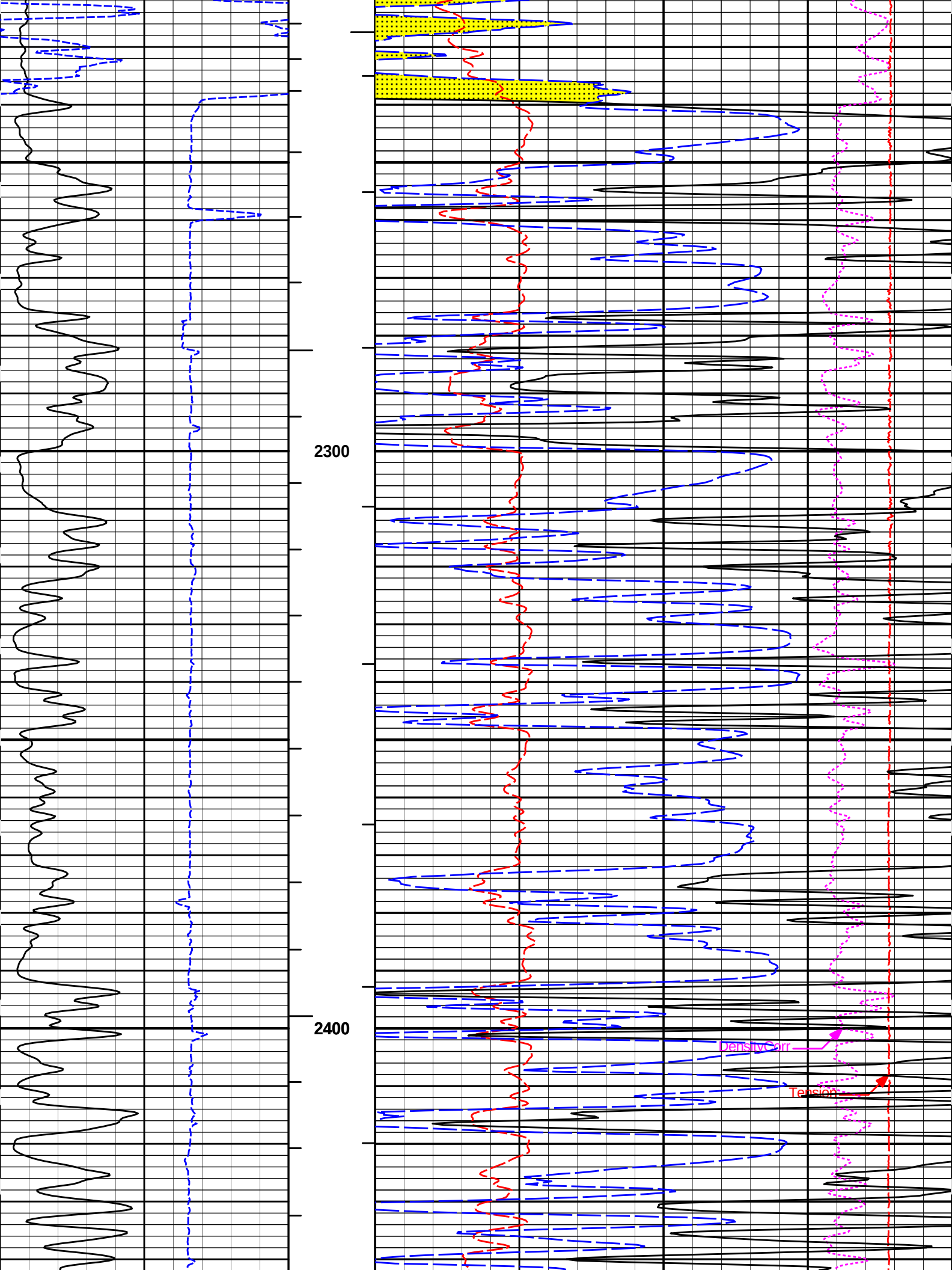


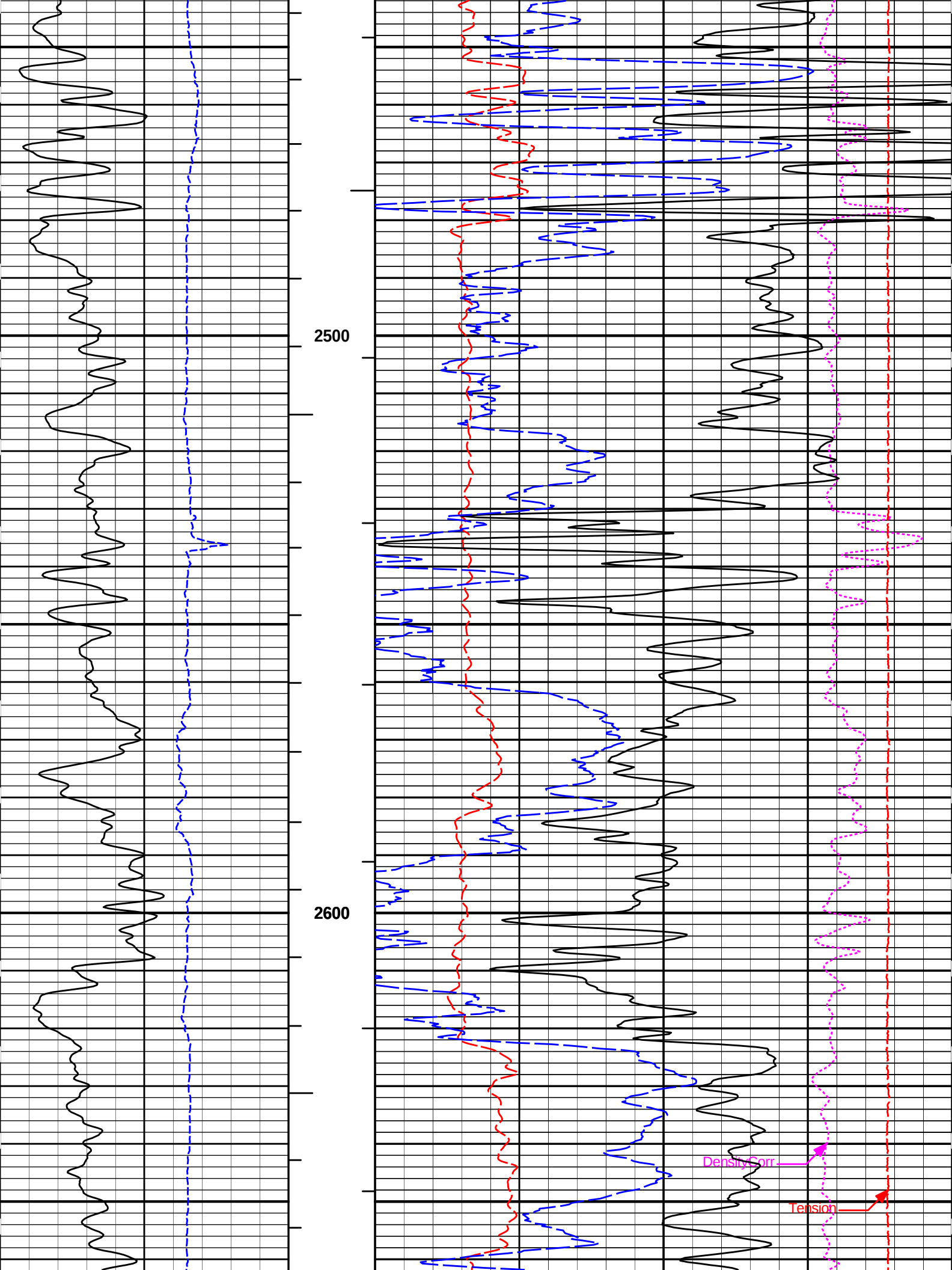


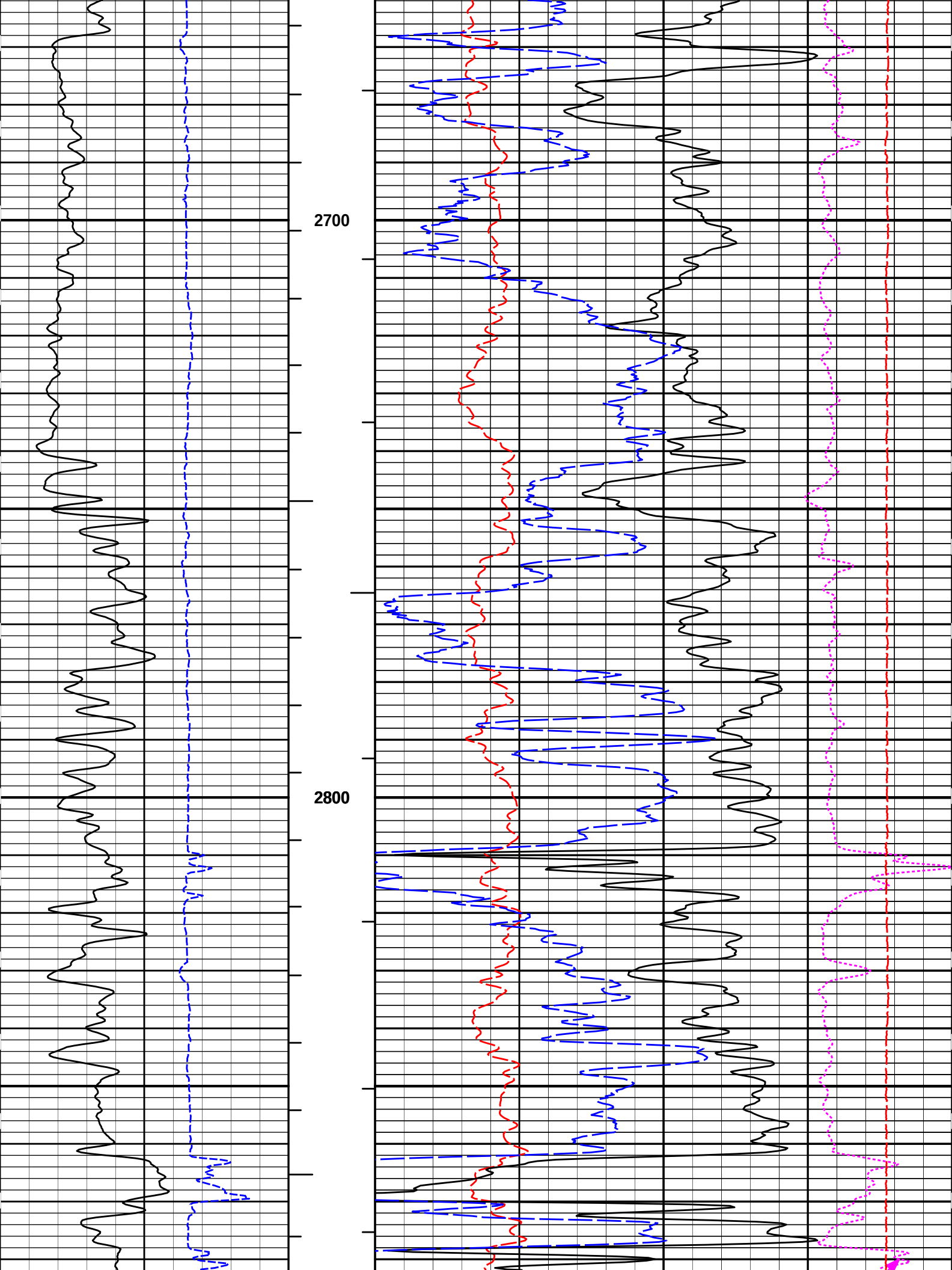


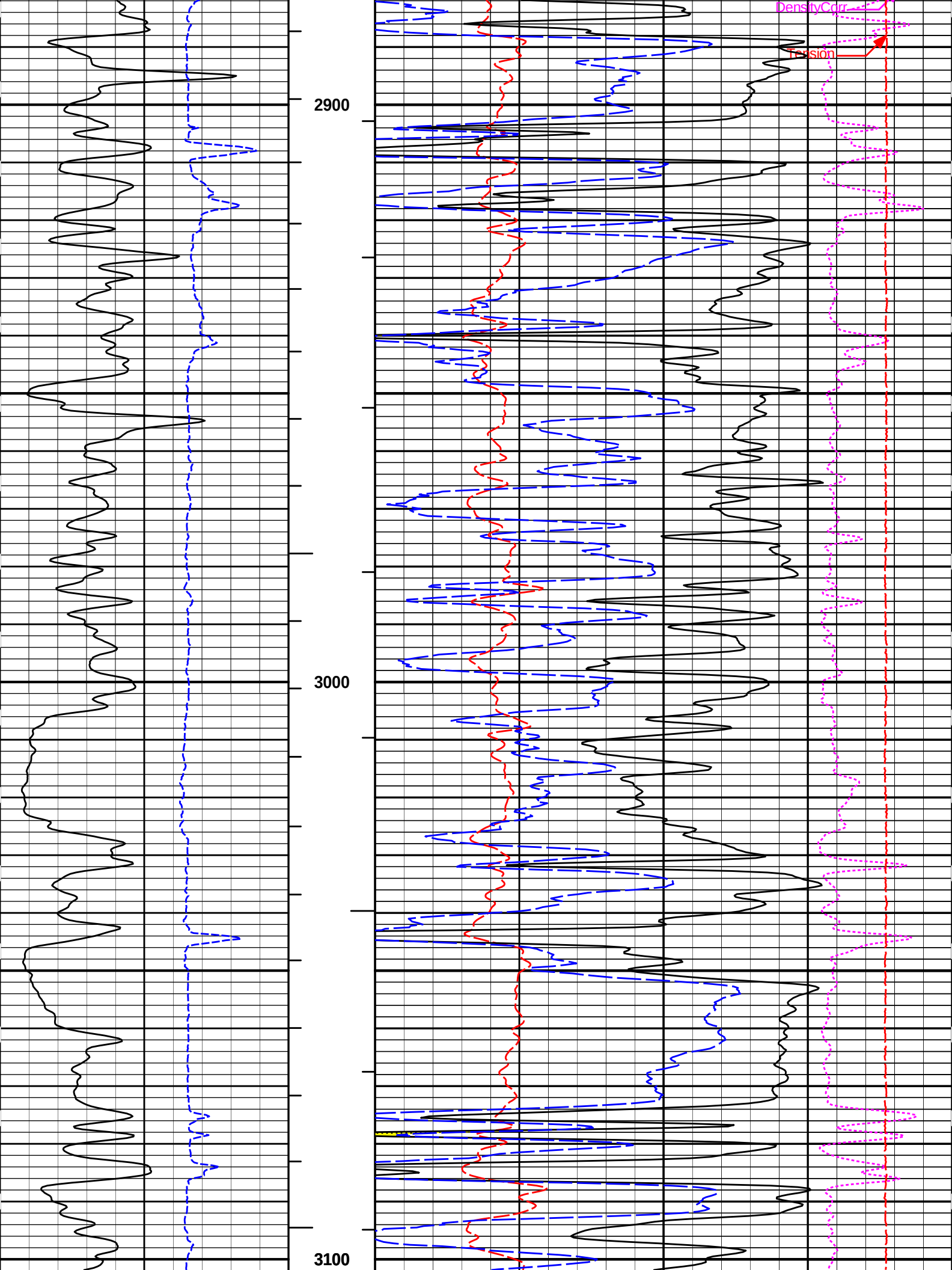


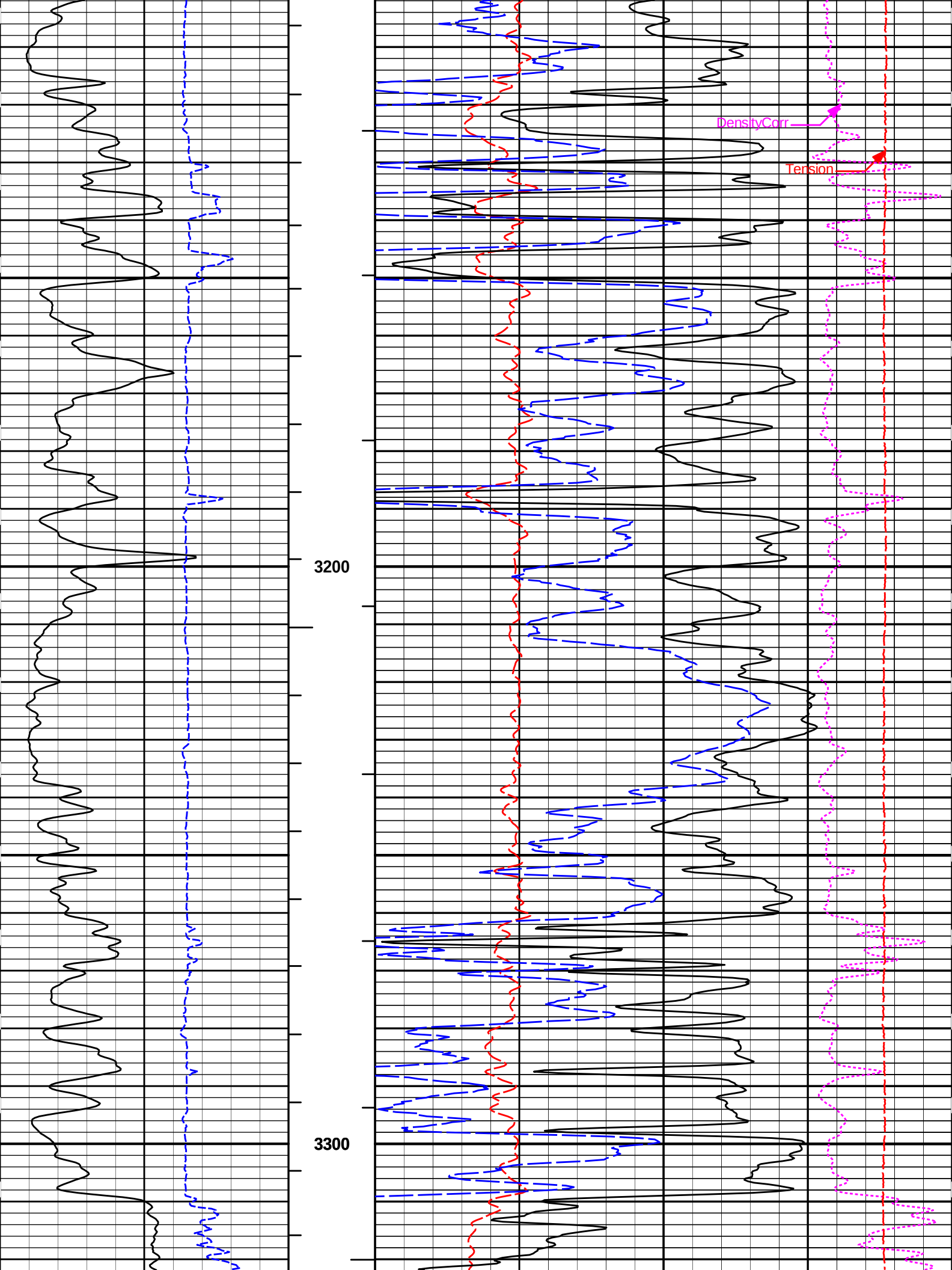


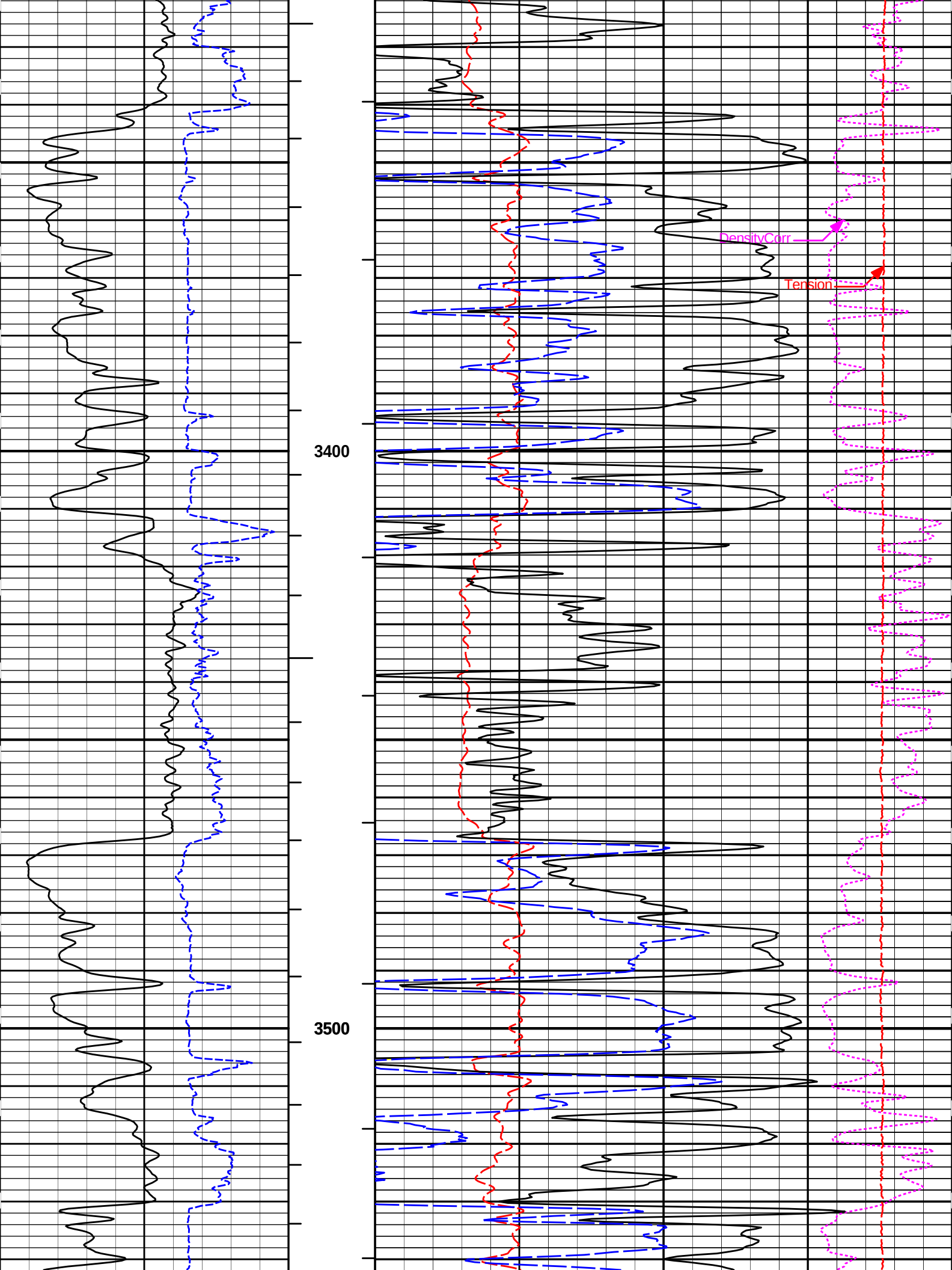


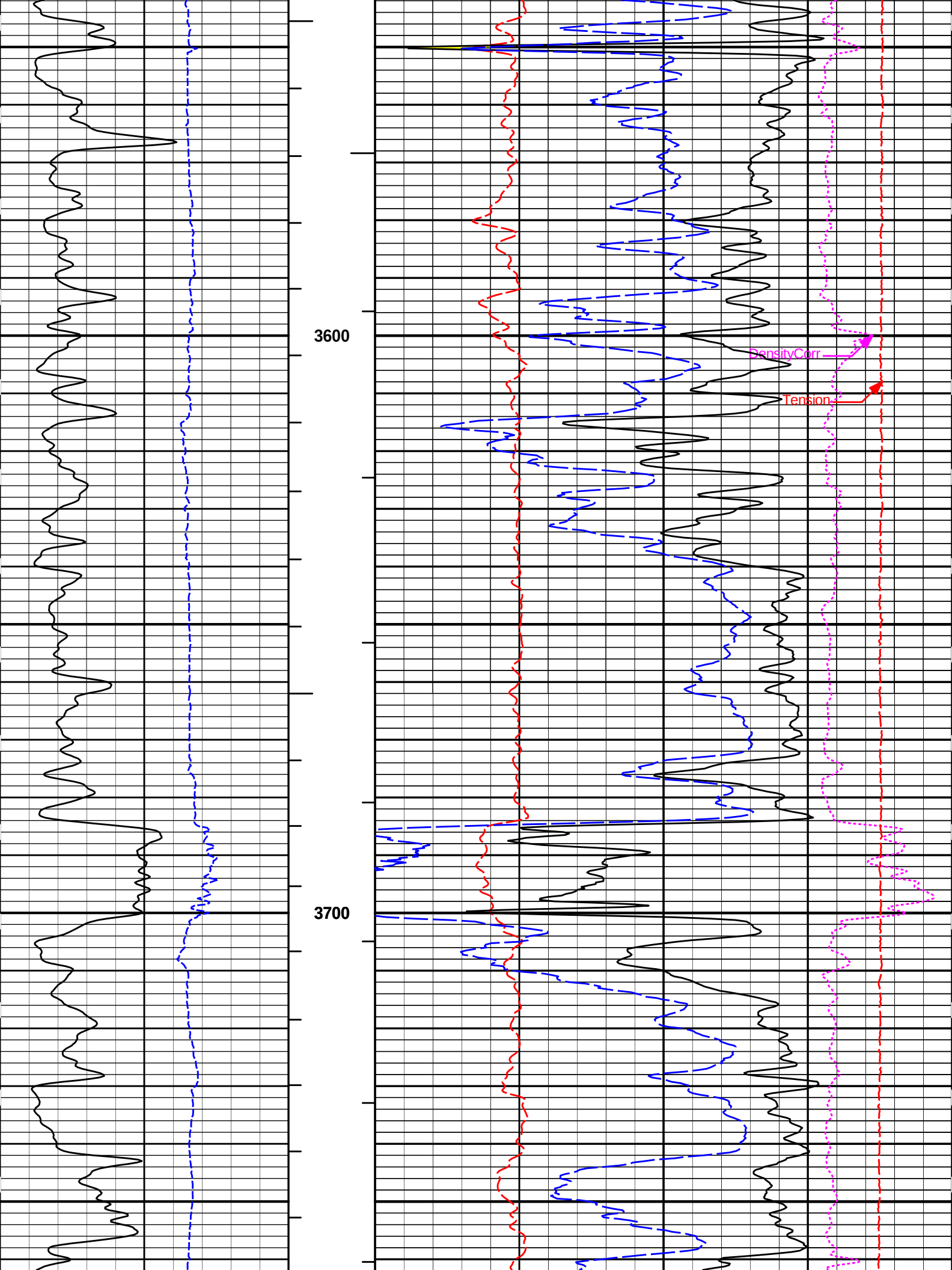


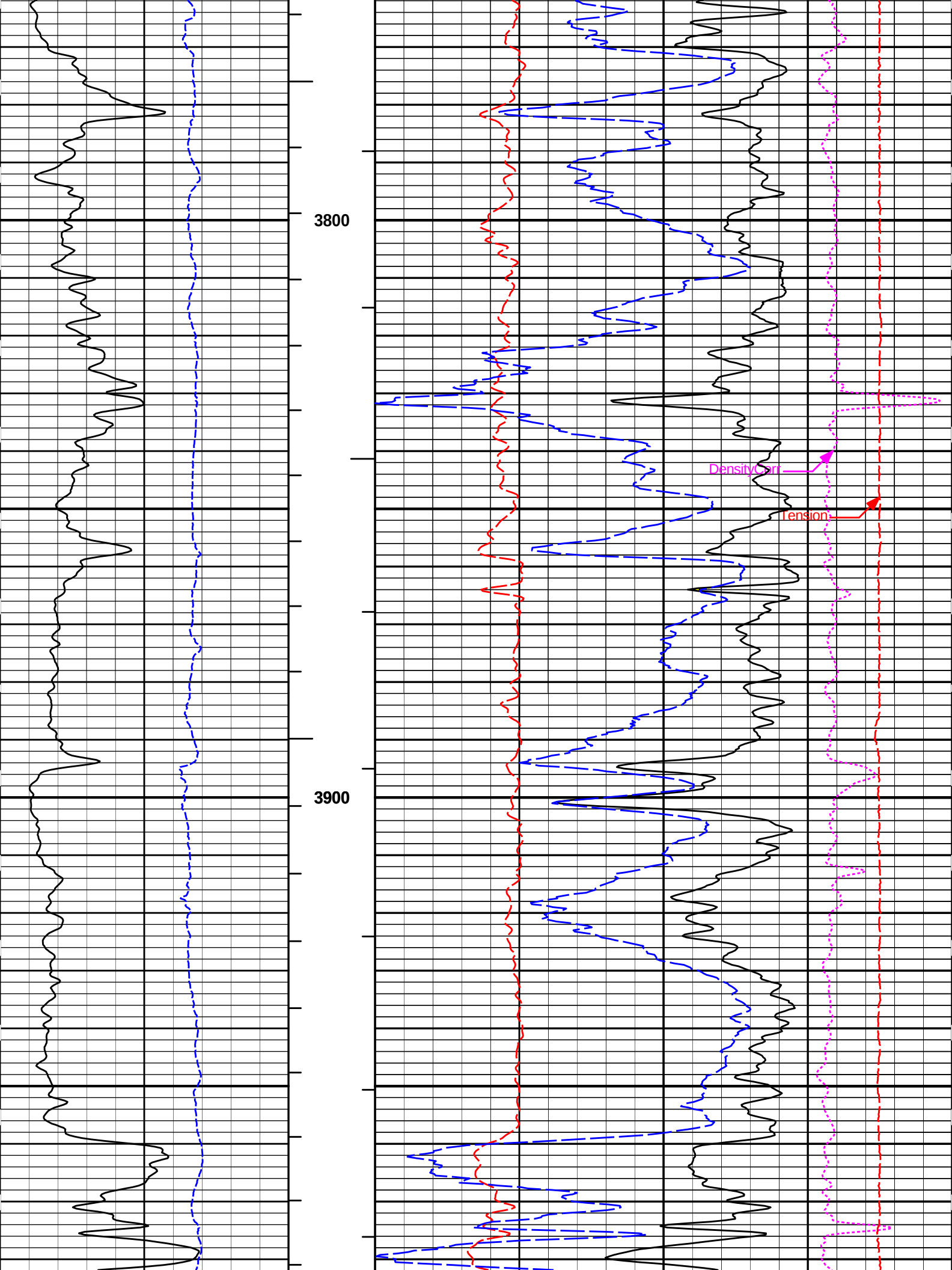


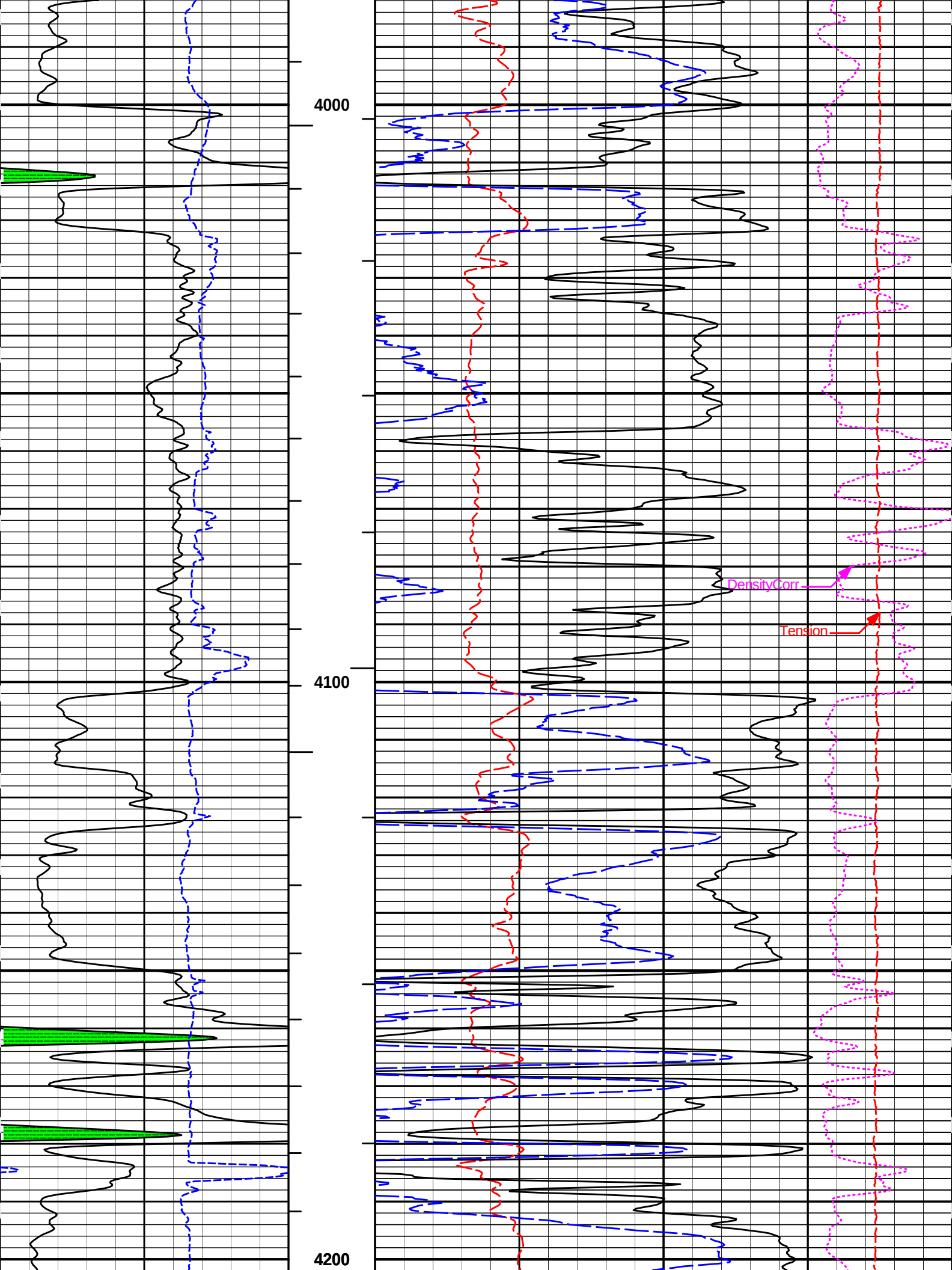


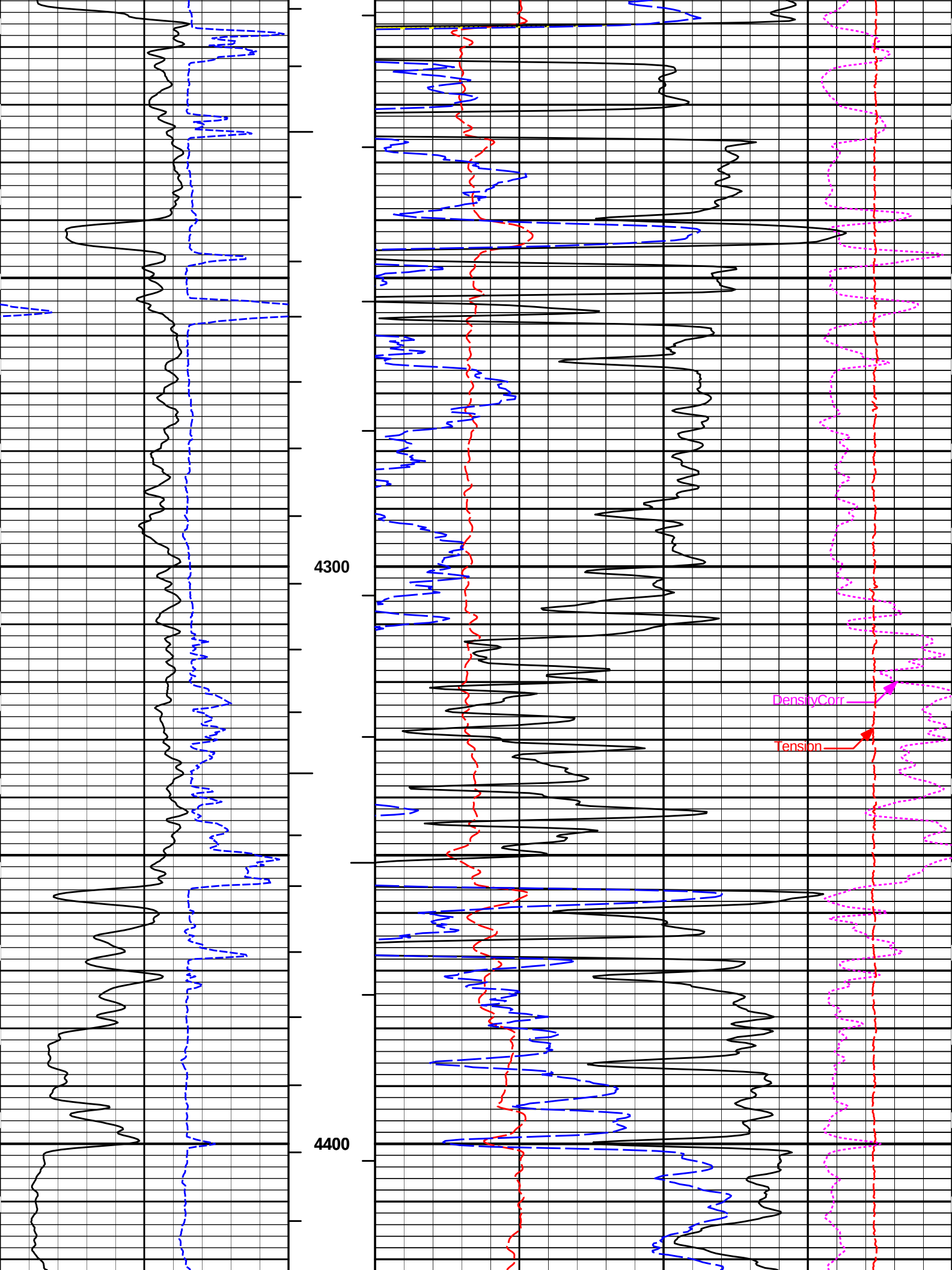


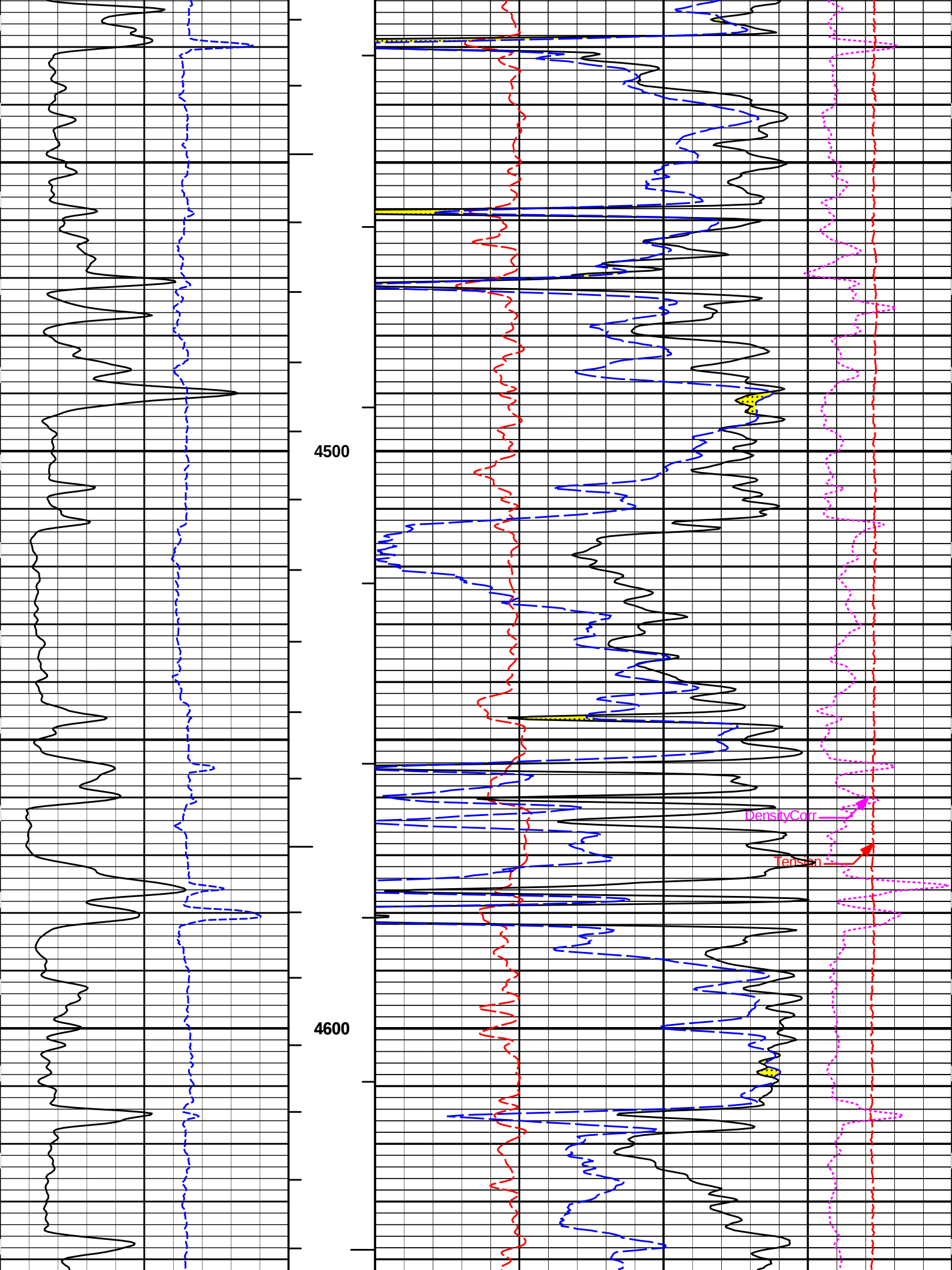


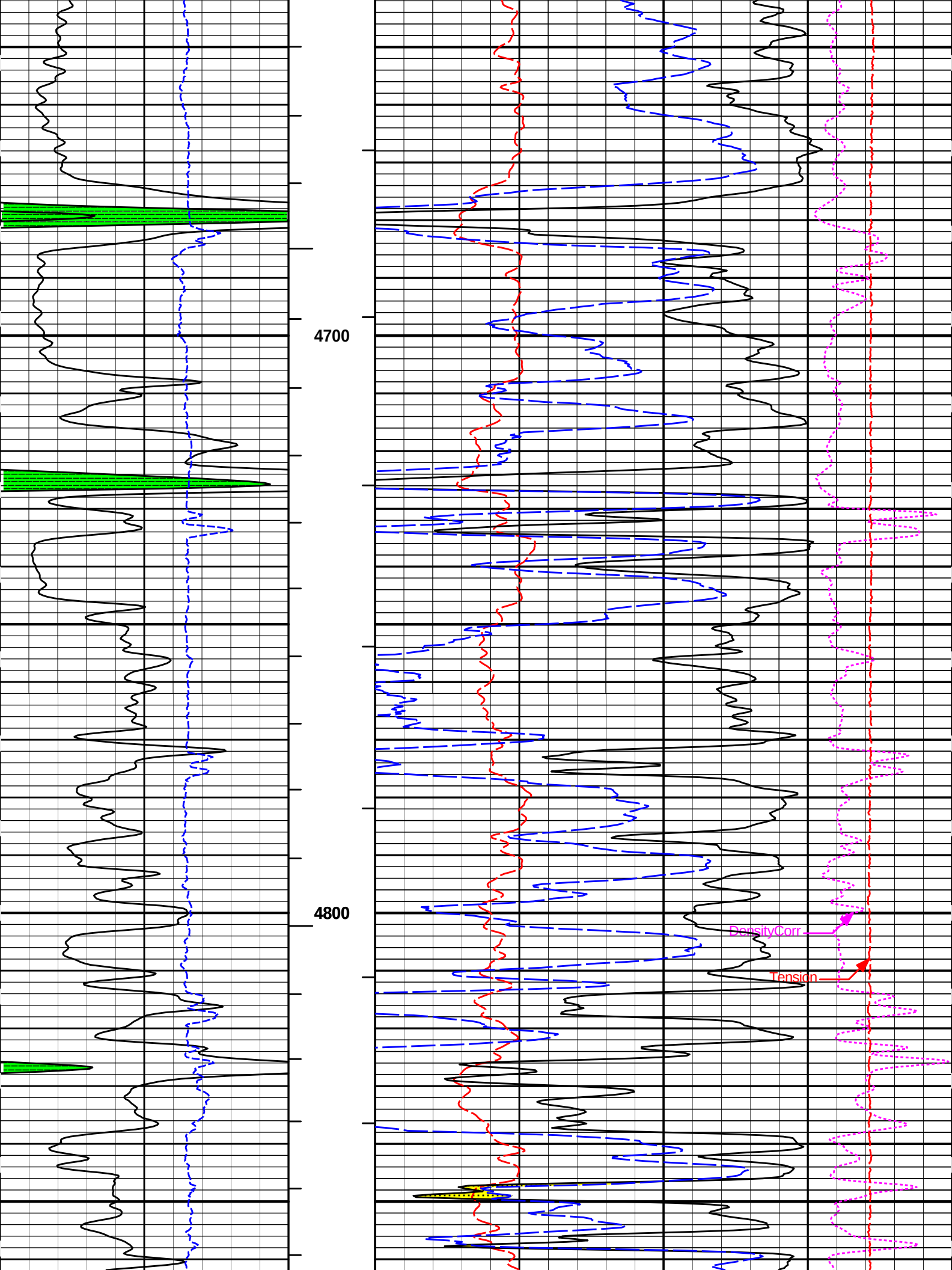


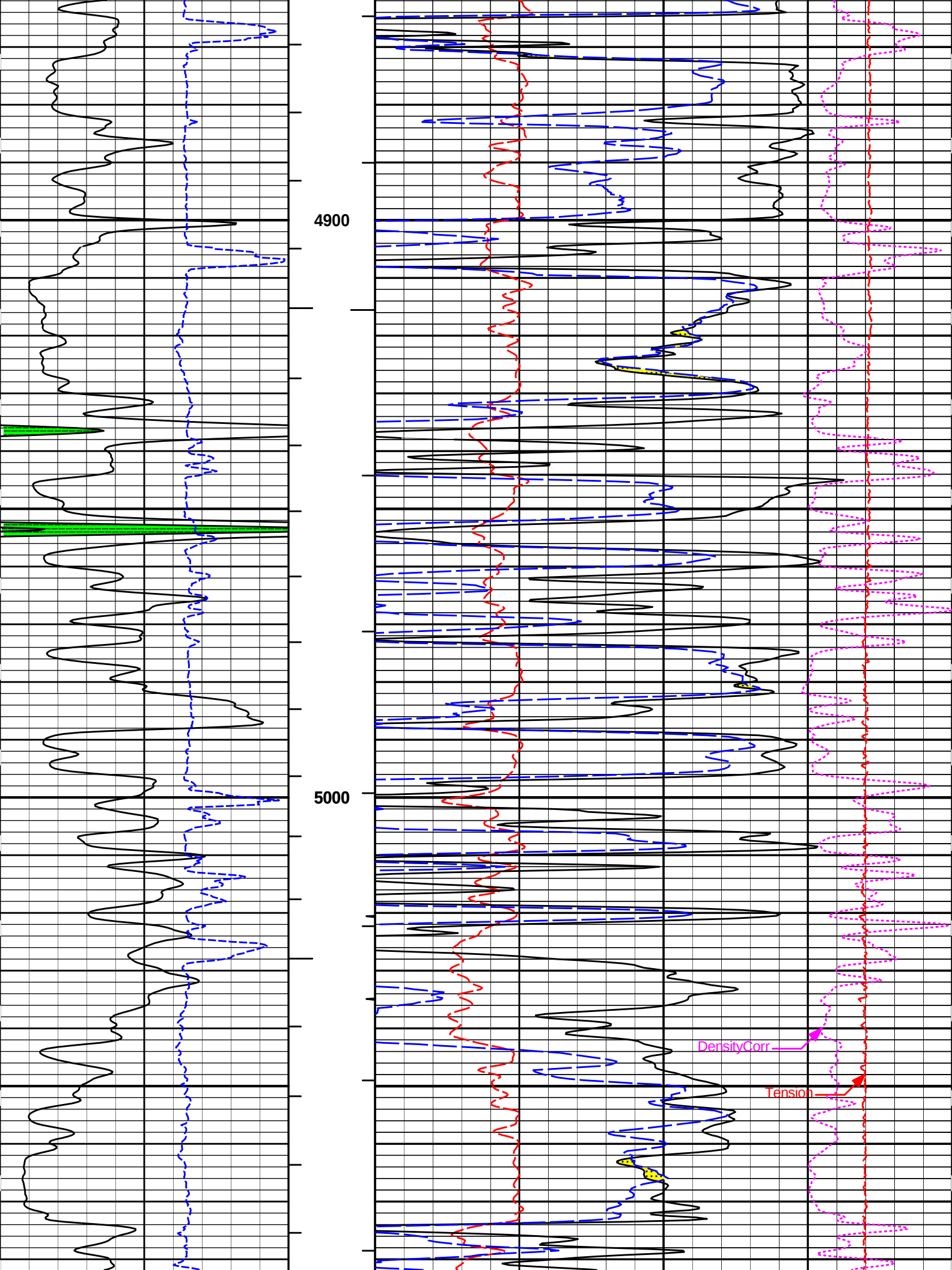


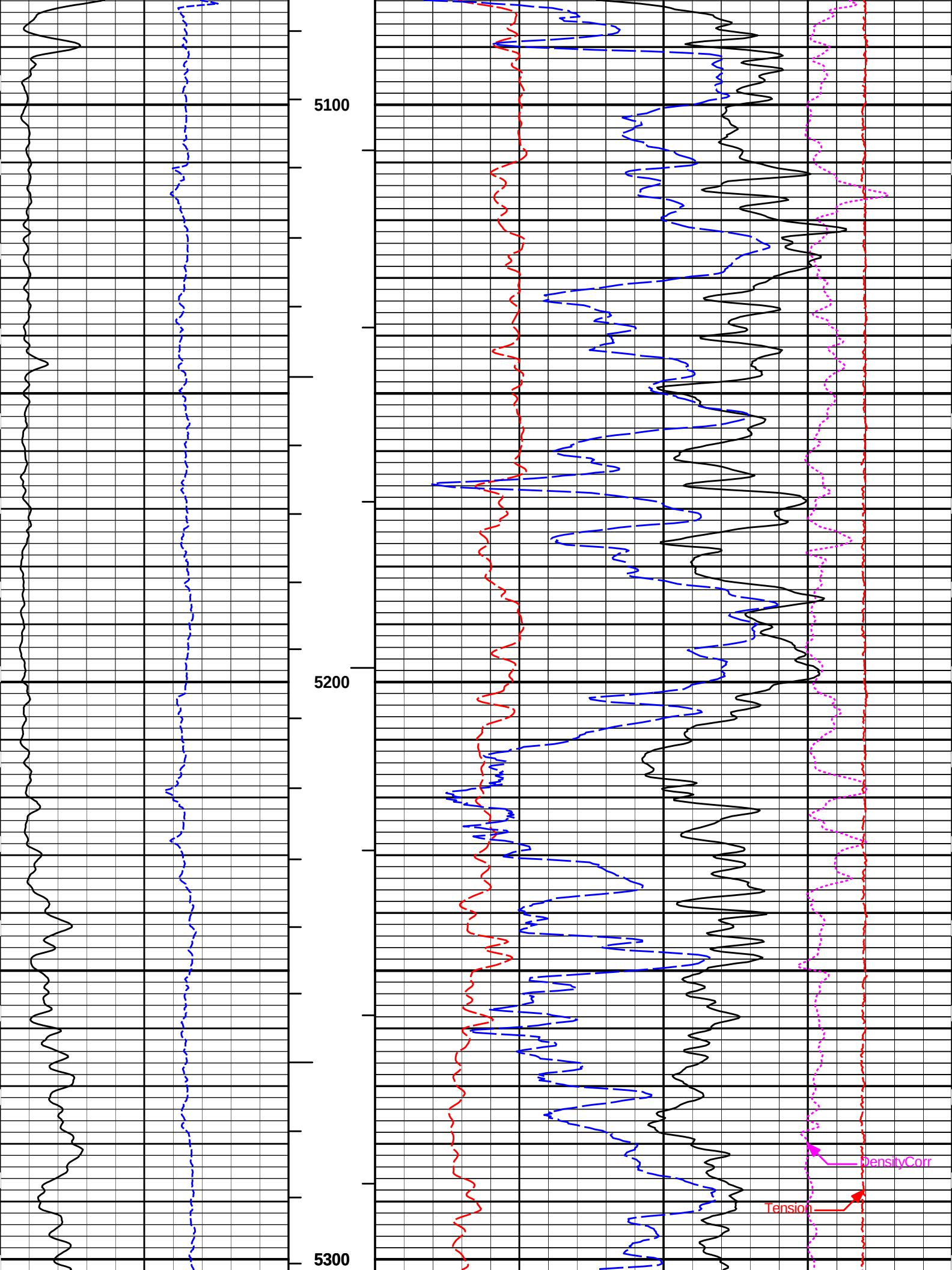


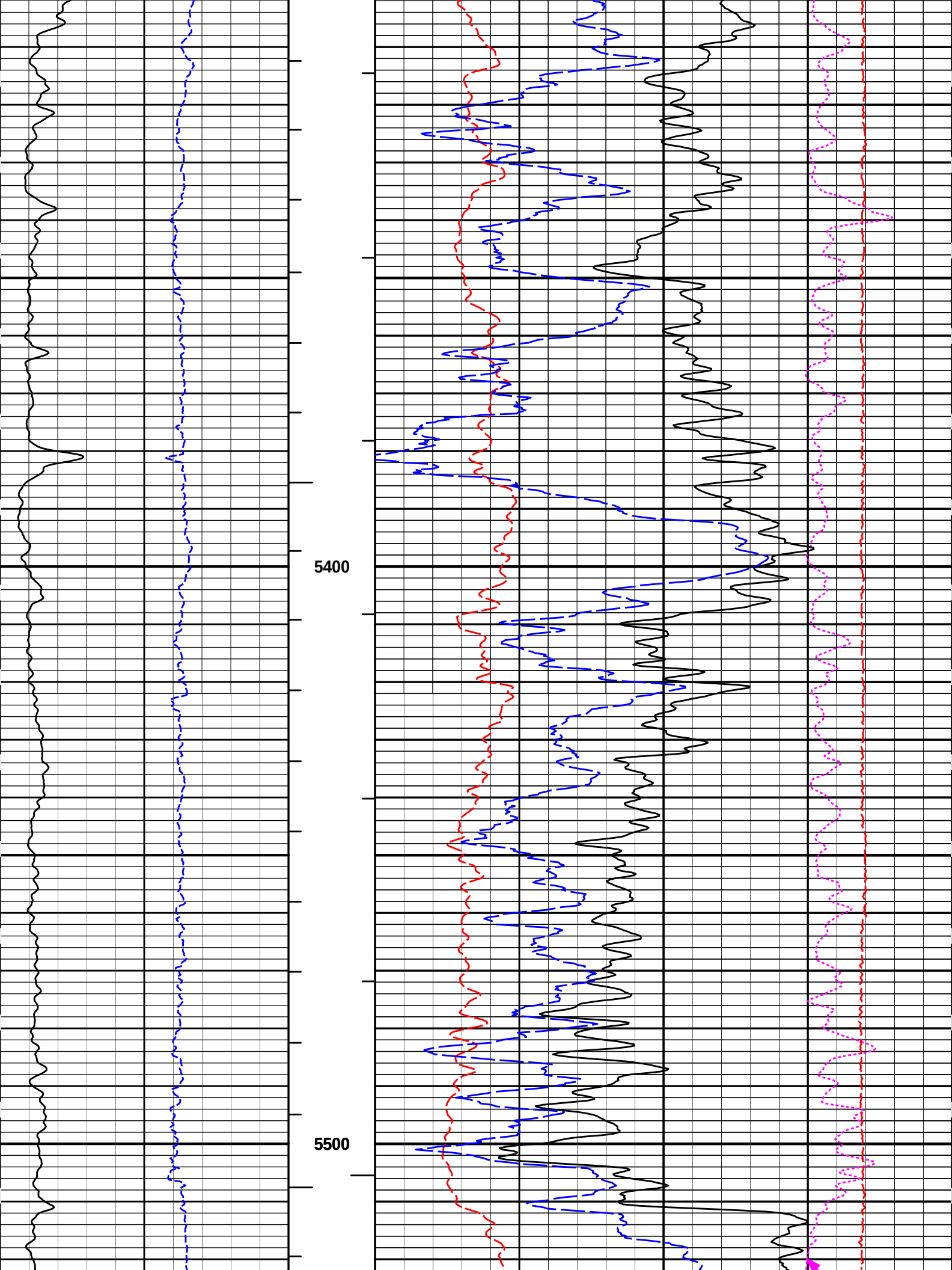


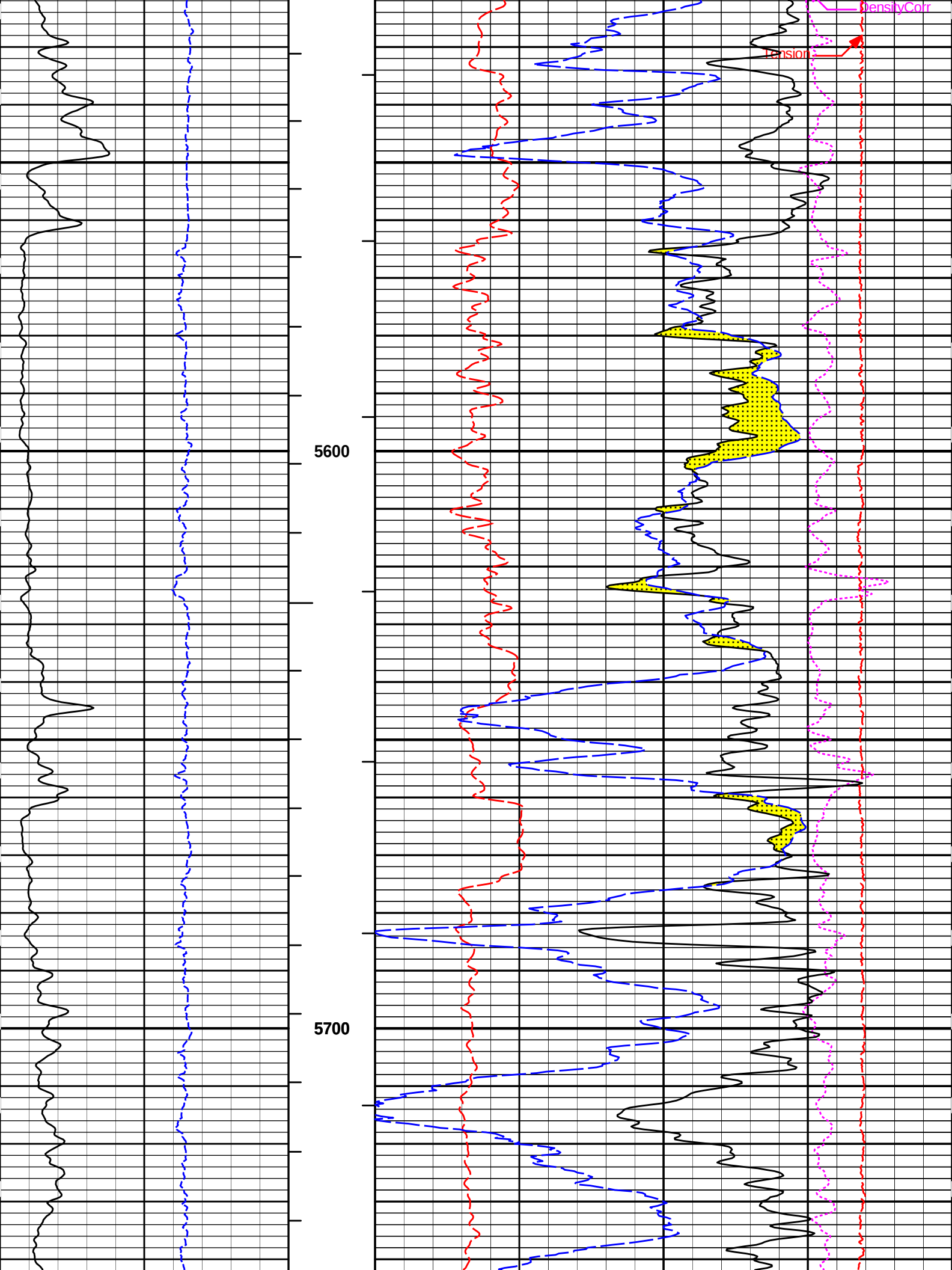


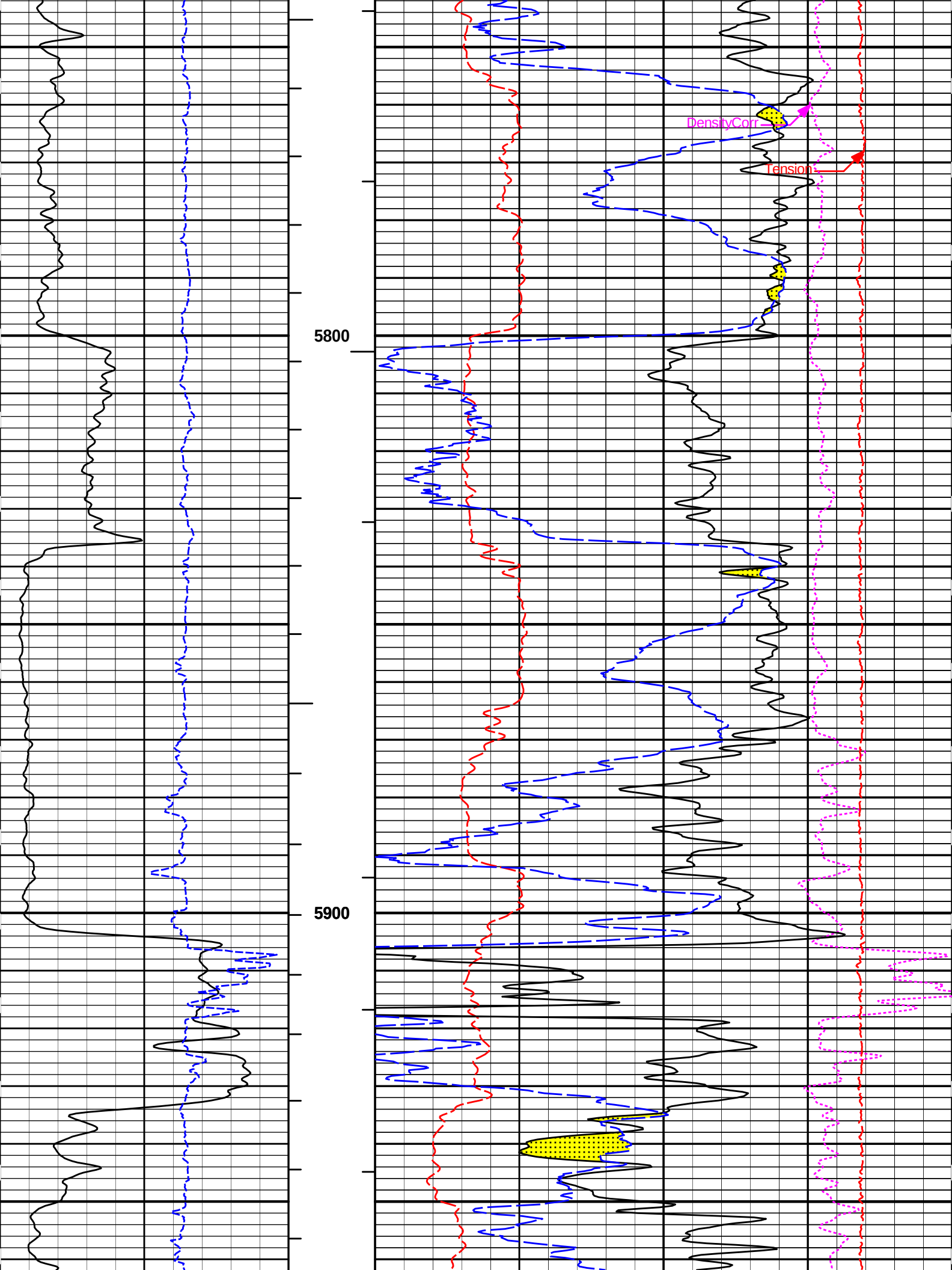


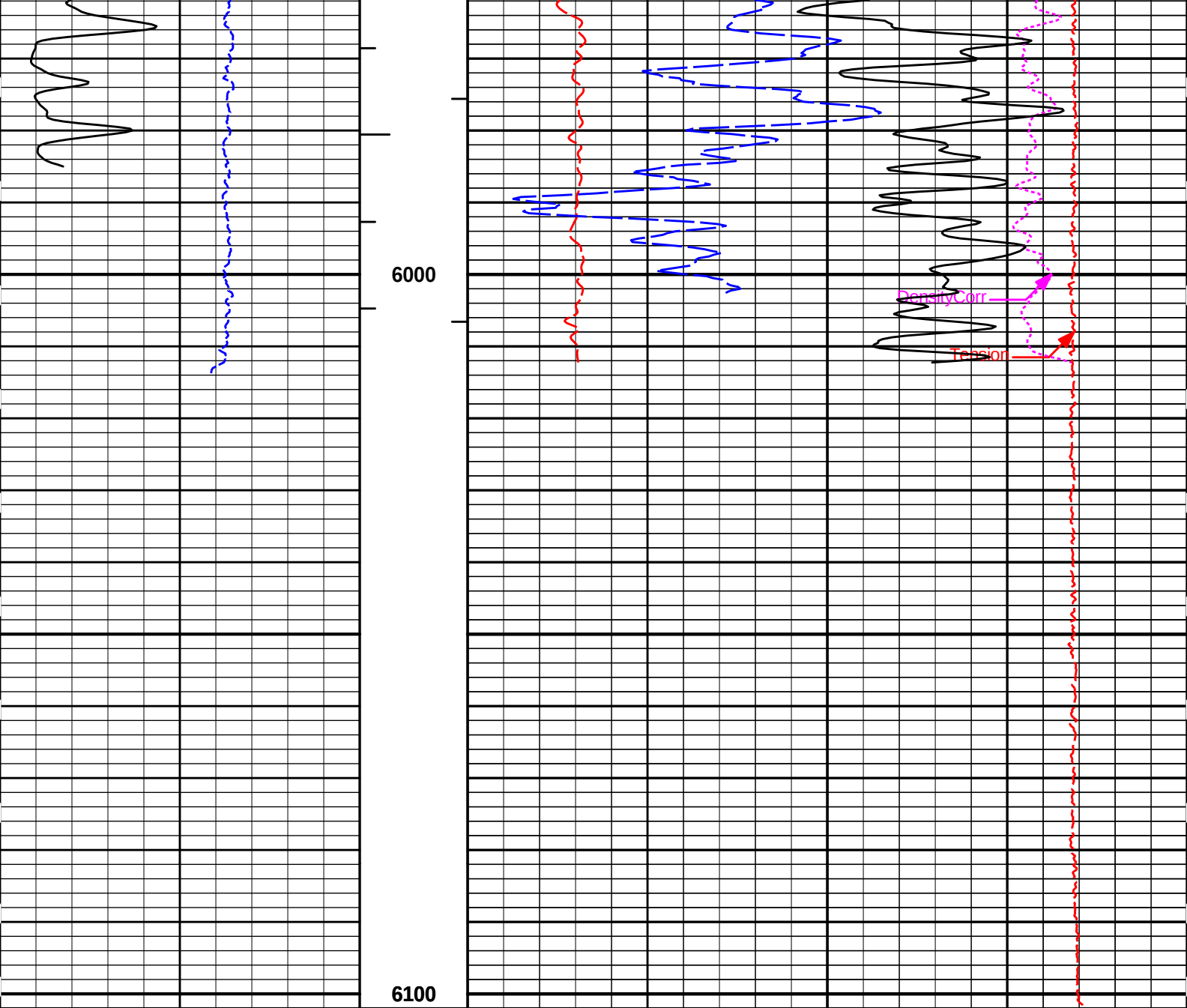












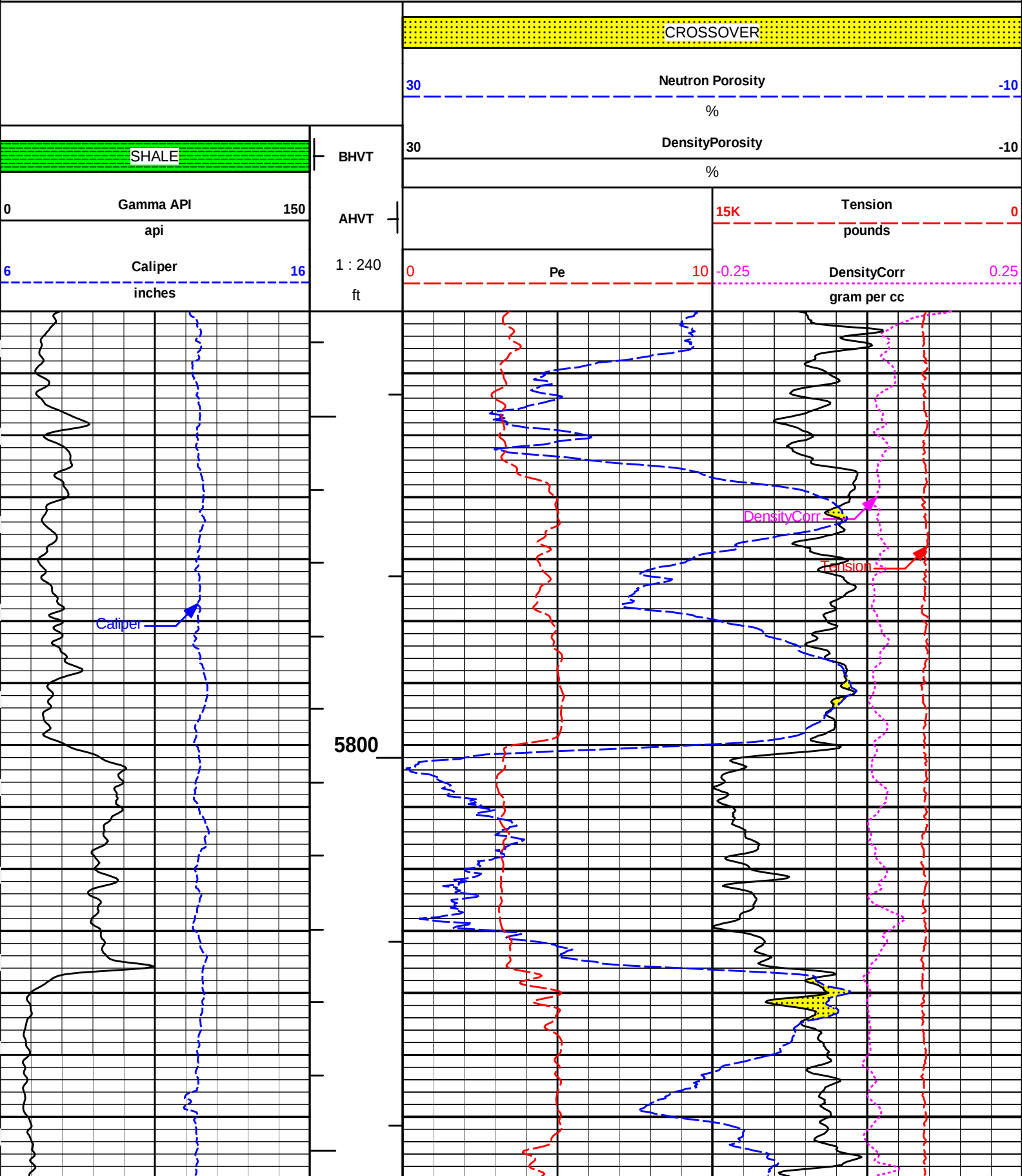
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0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE		BHVT	30	DensityPorosity				-10
					%				
			Tension Pull	30	Neutron Porosity				-10
			10	0	%				
			Tension Pull		CROSSOVER				

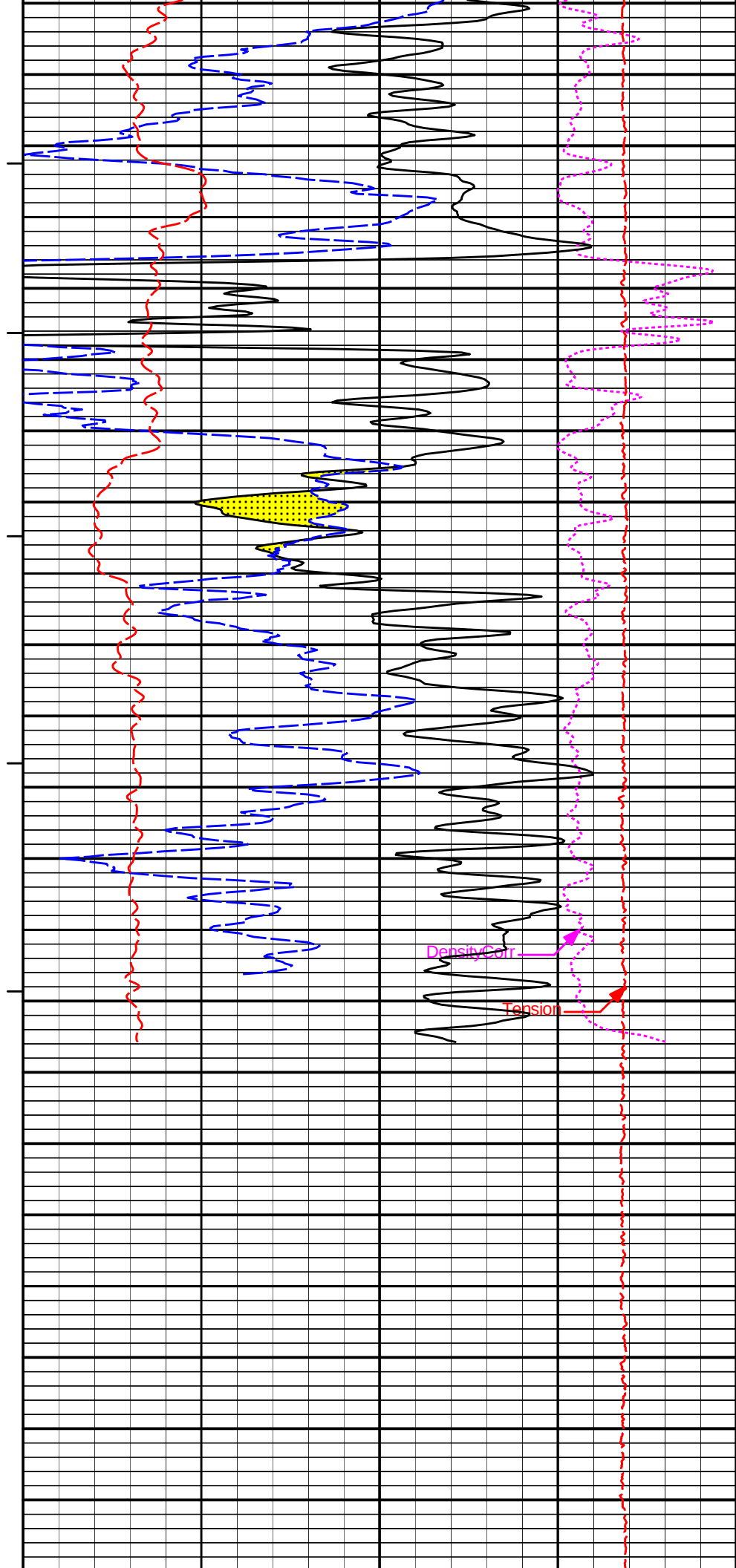
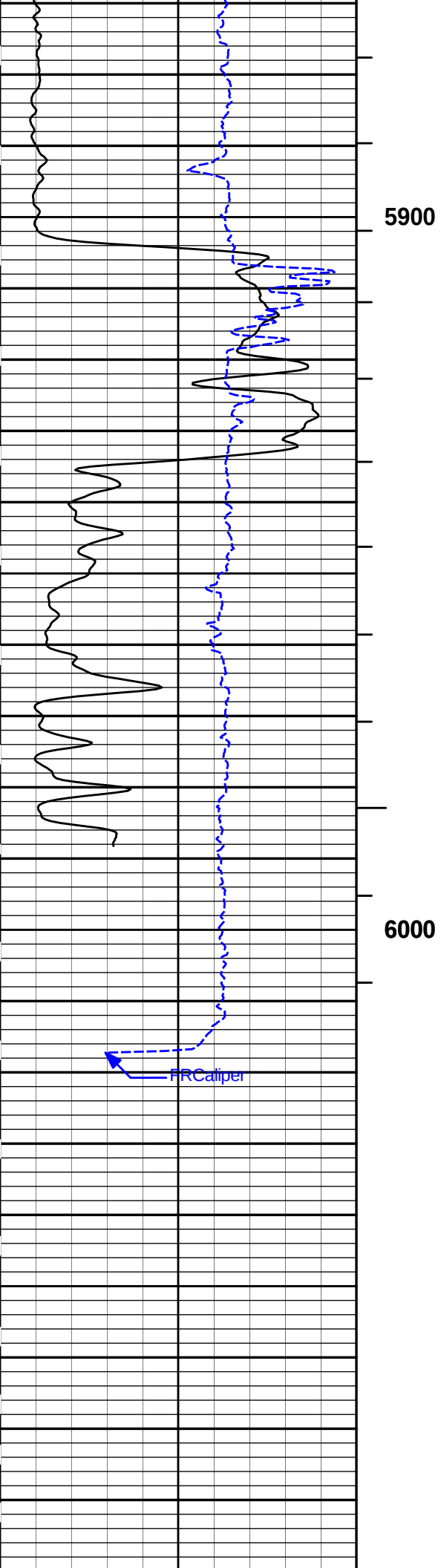
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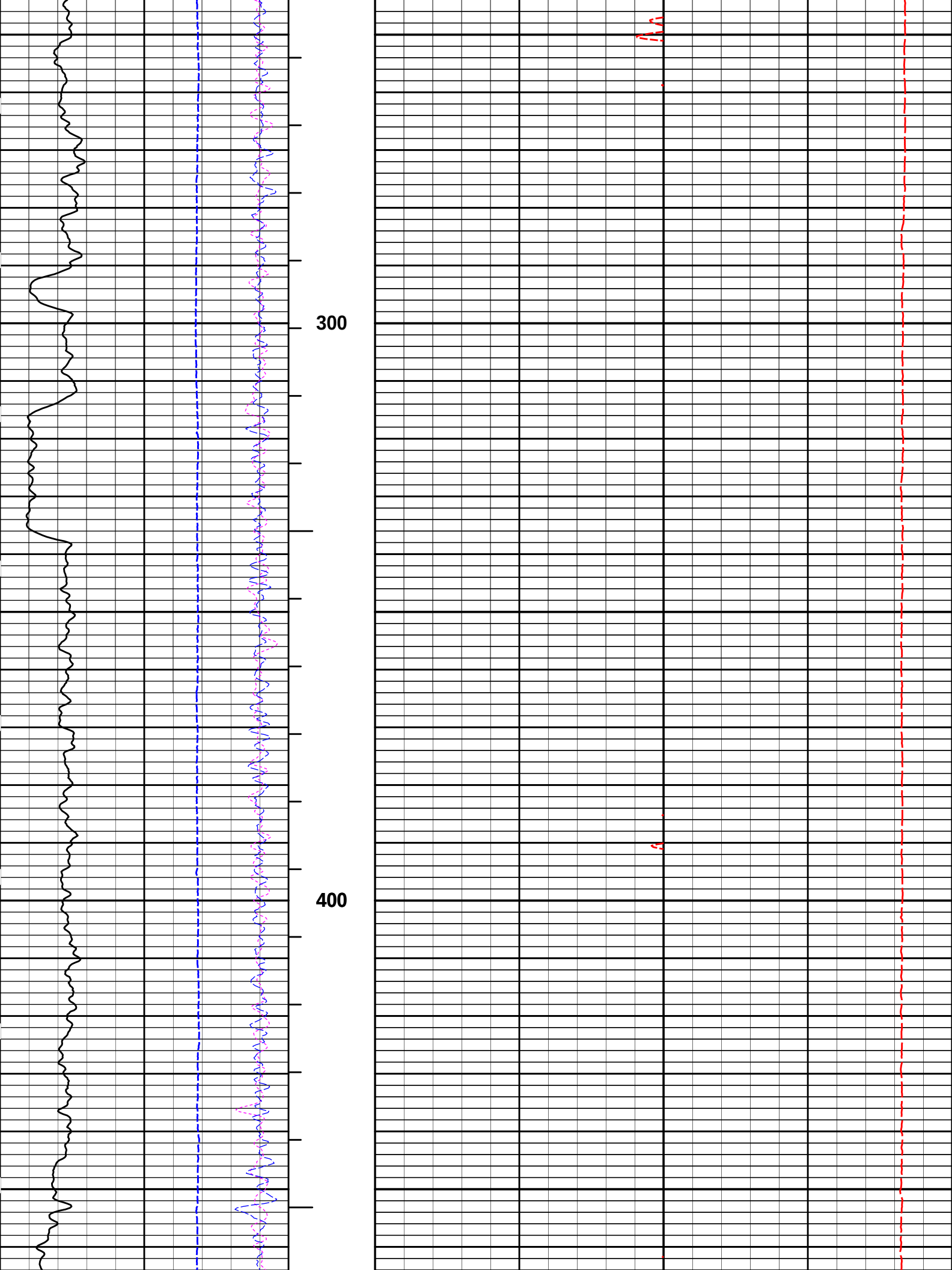
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Plot Range: 200 ft to 6102 ft
Data: MELISSA_3119_5\Well Based\DAQ-0001-006\
Plot File: \\POROI\Poroi_Q_5_MAIN_LIB

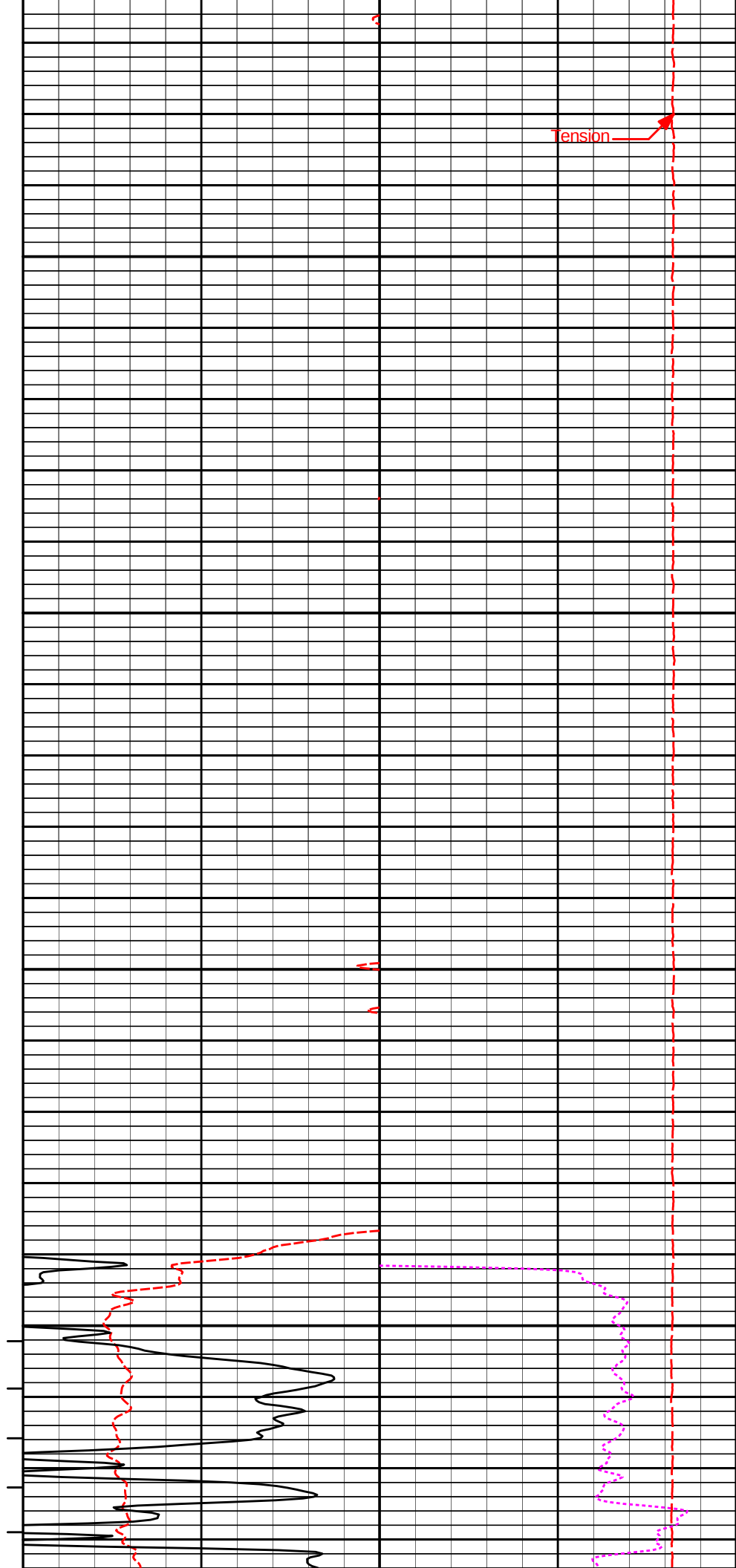
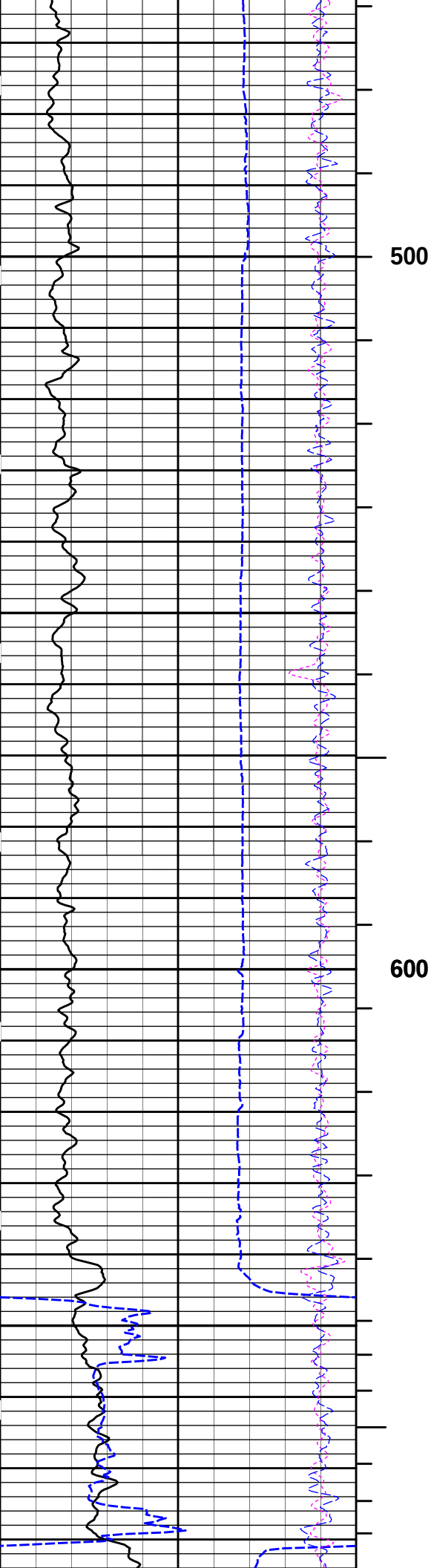
5 INCH MAIN LOG

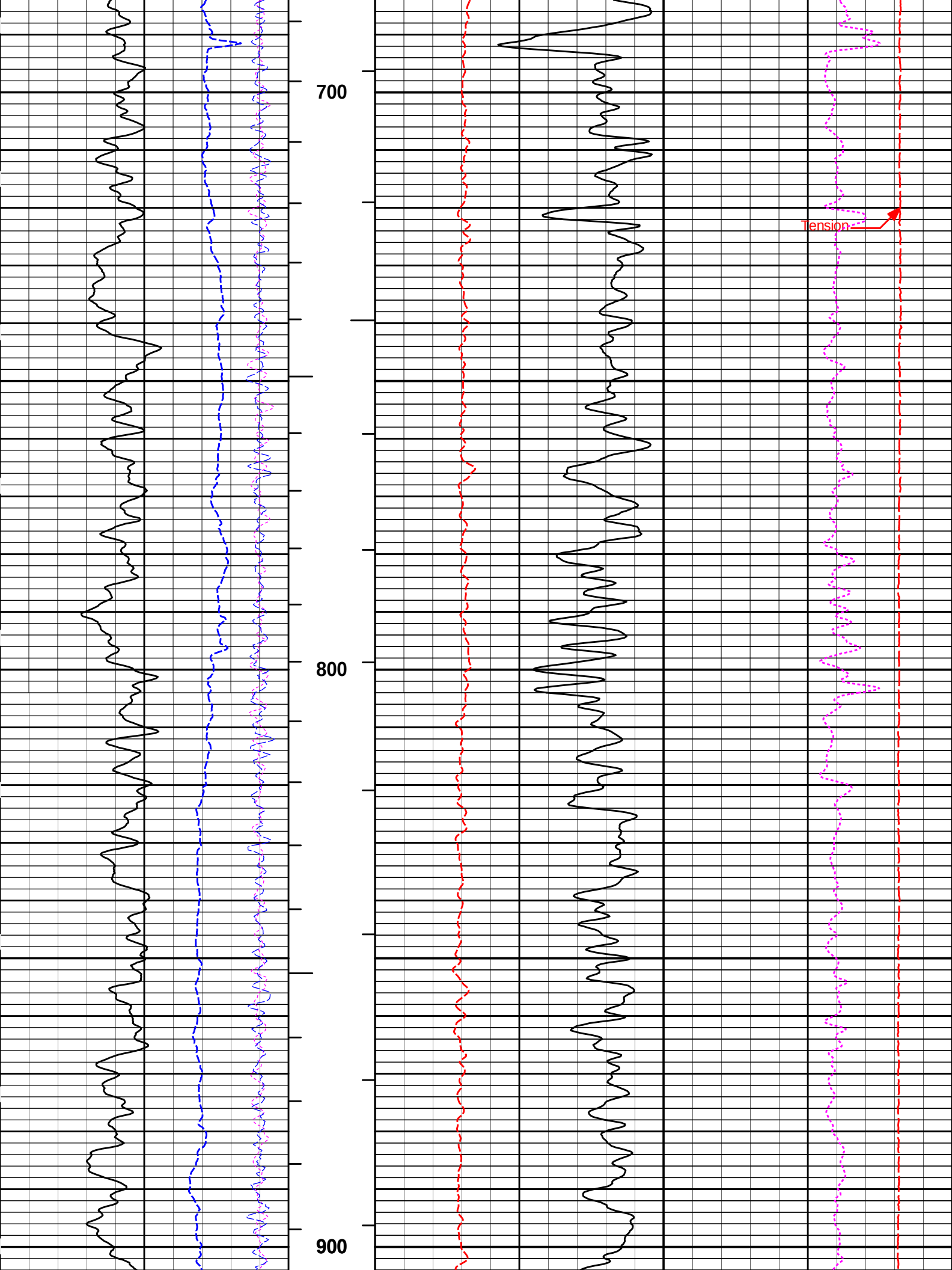
REPEAT SECTION

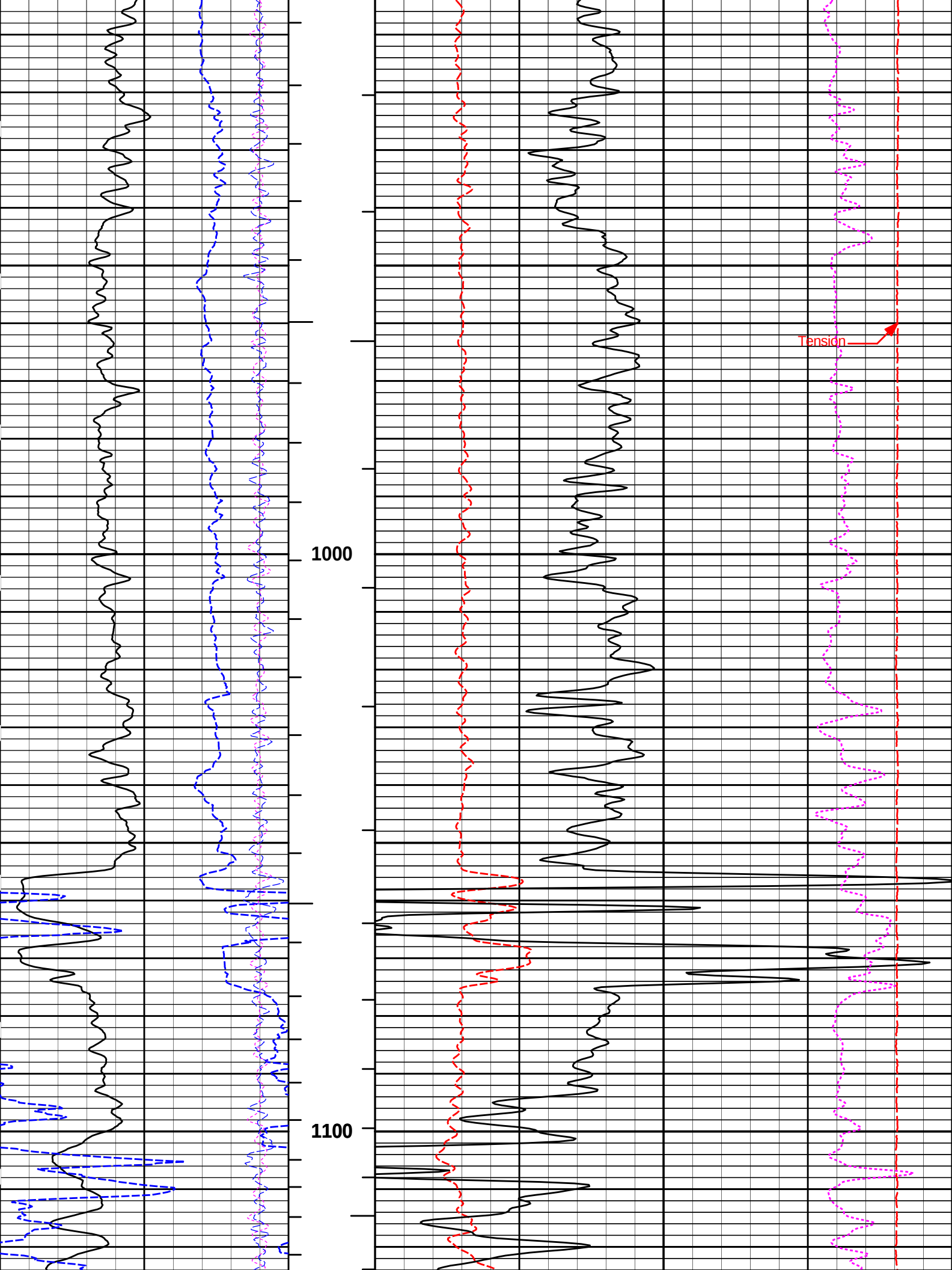


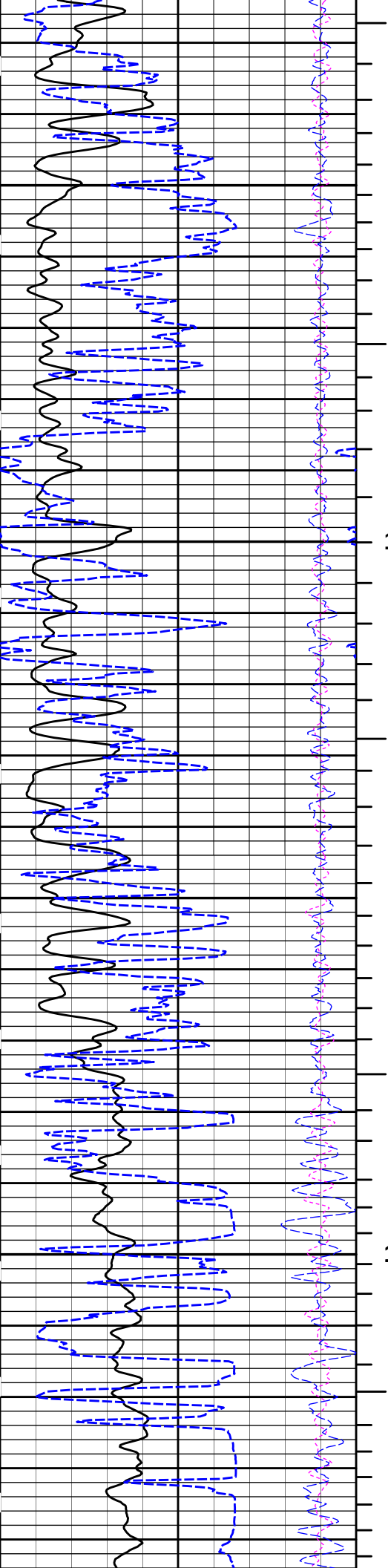






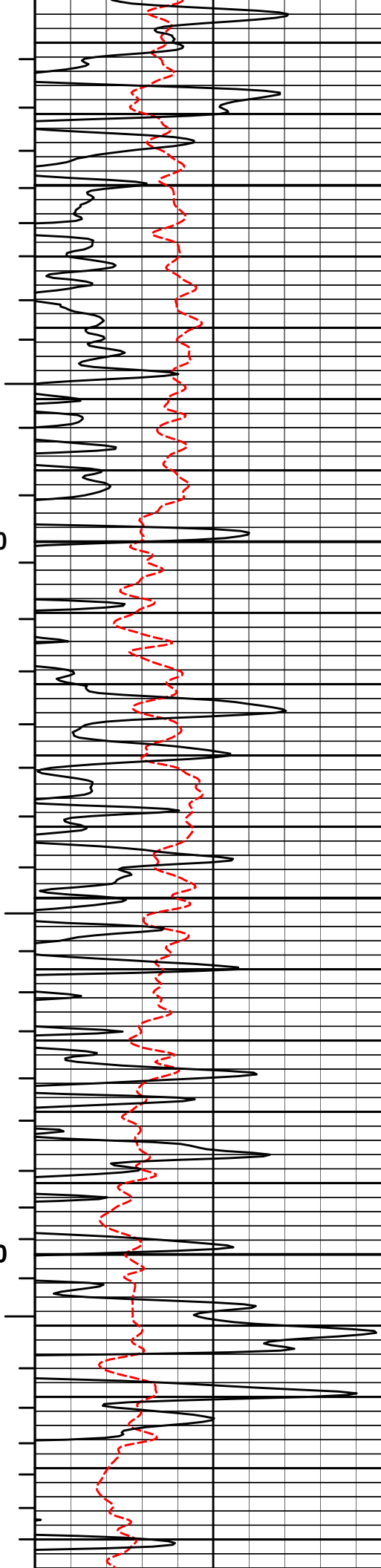




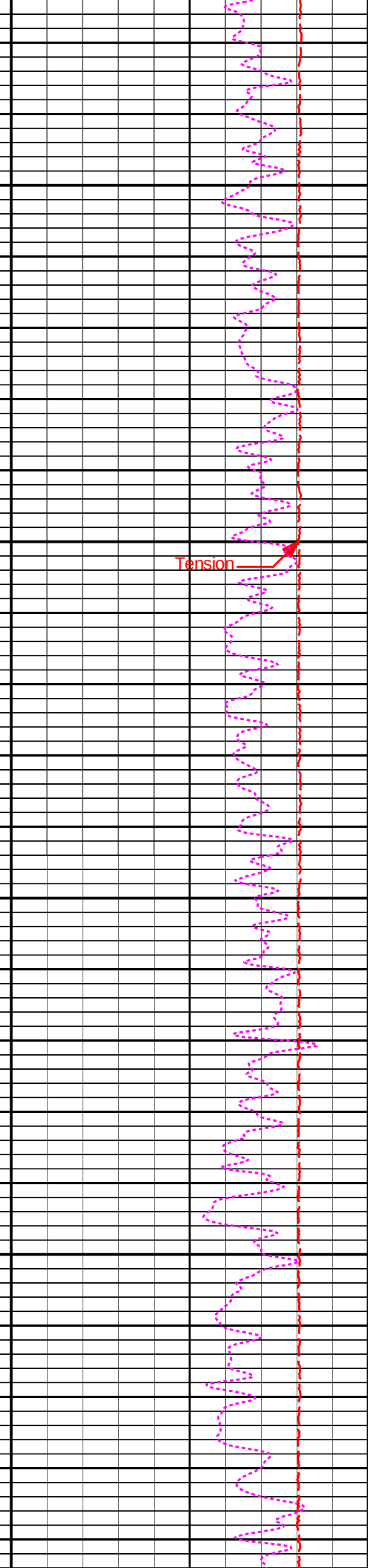


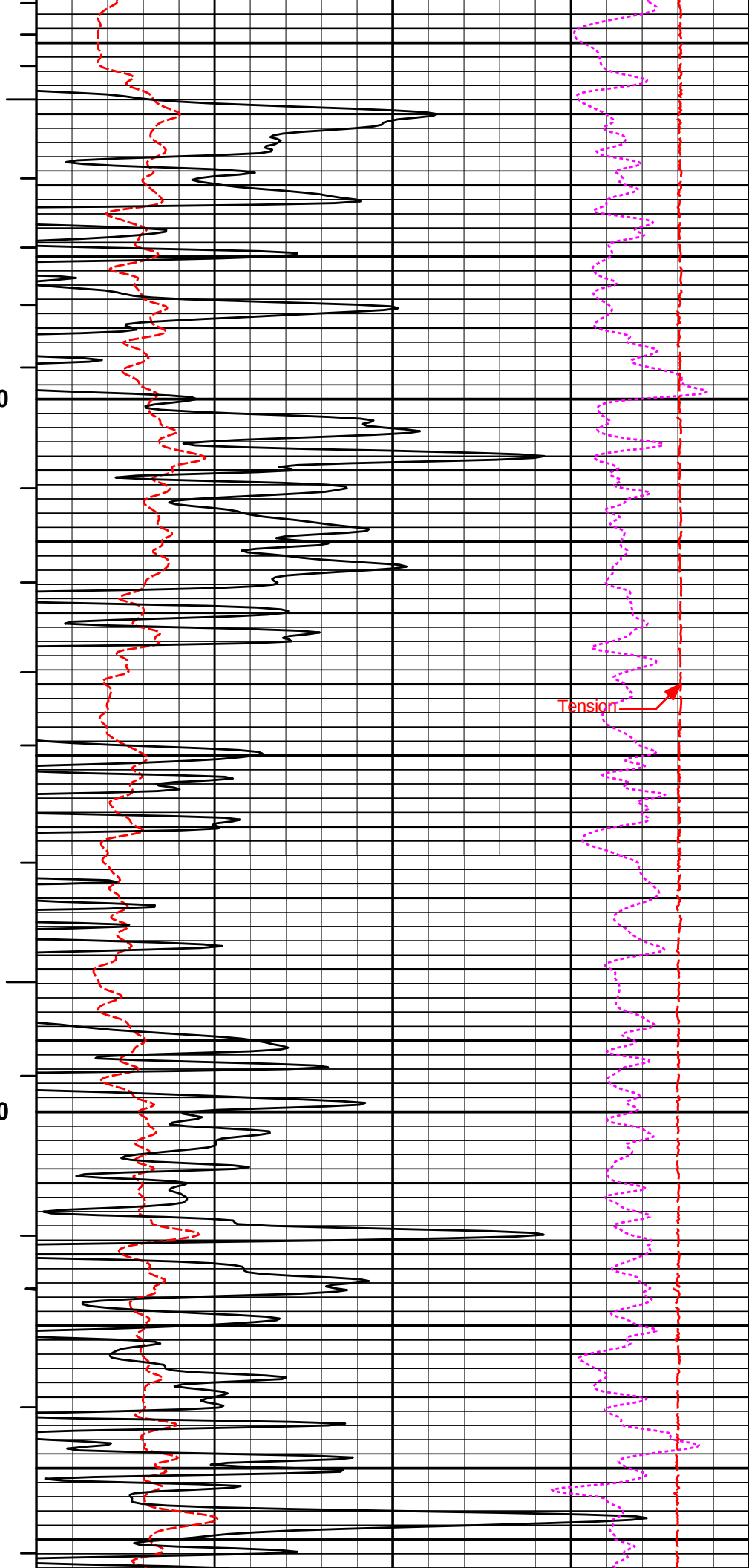
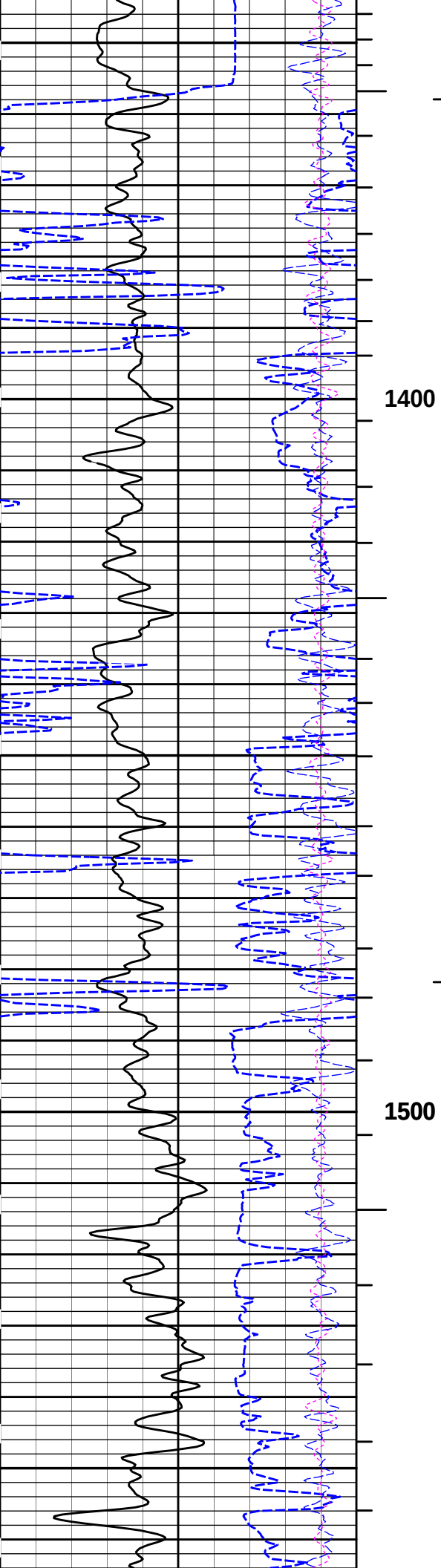
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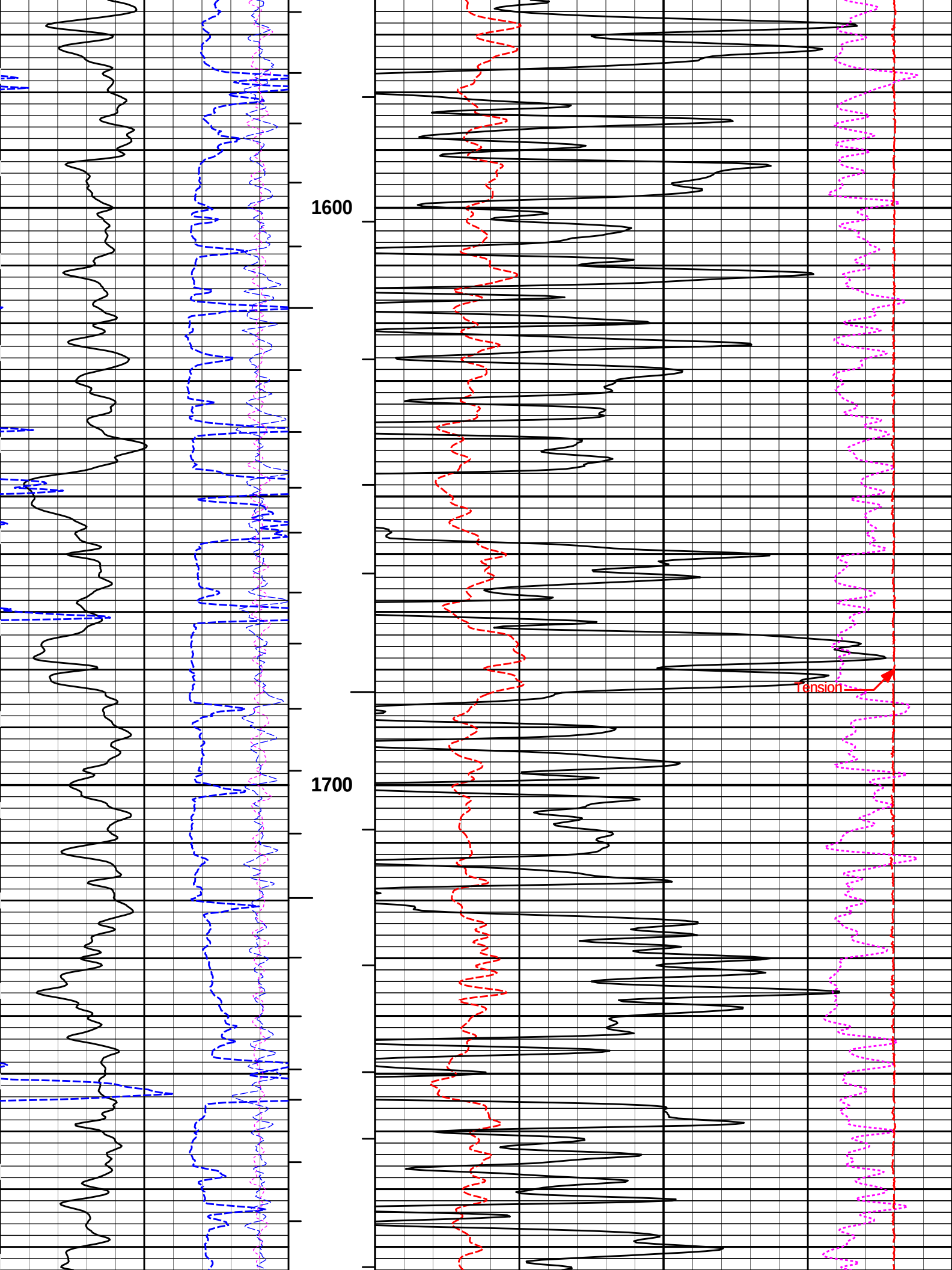
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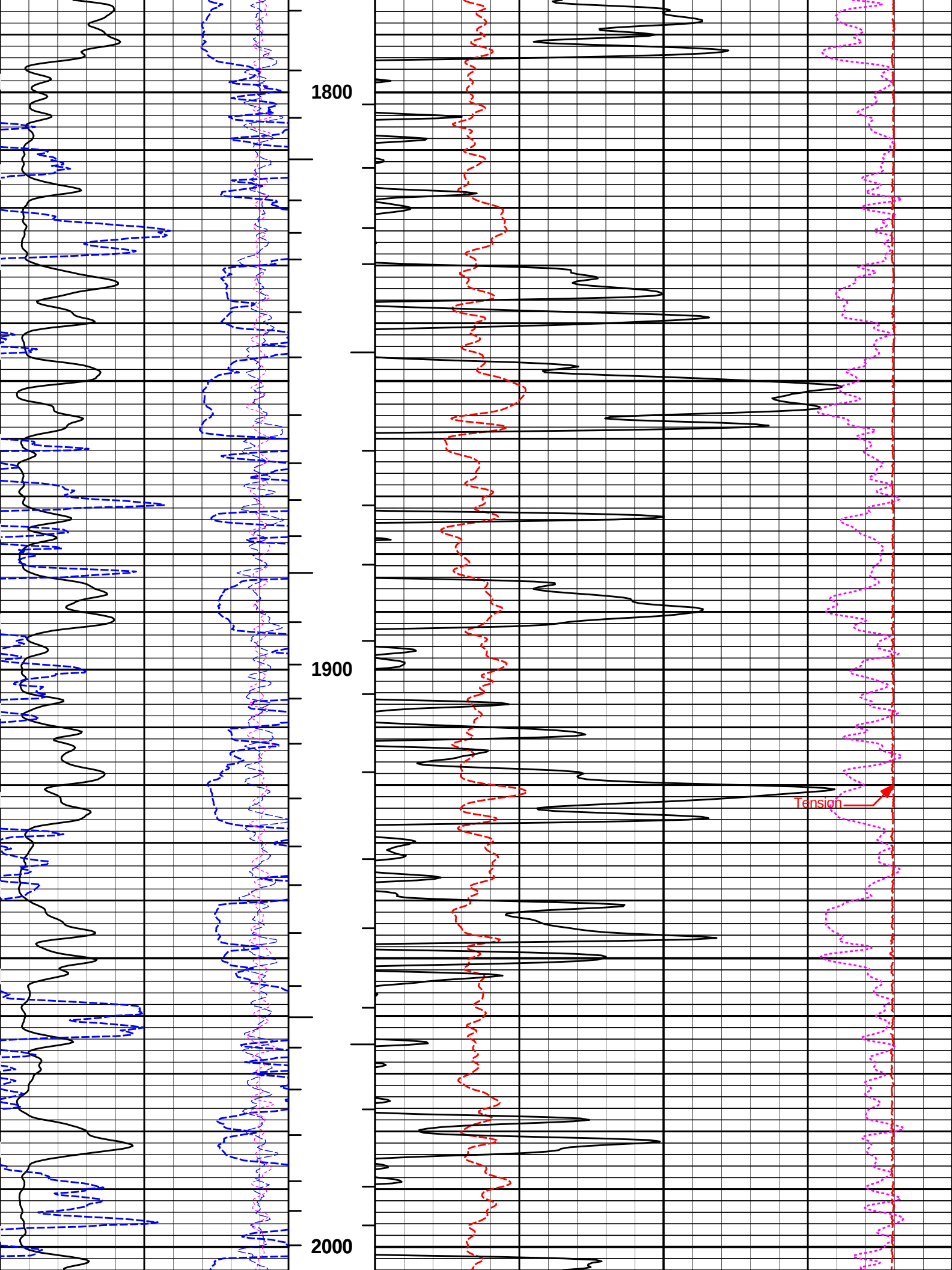


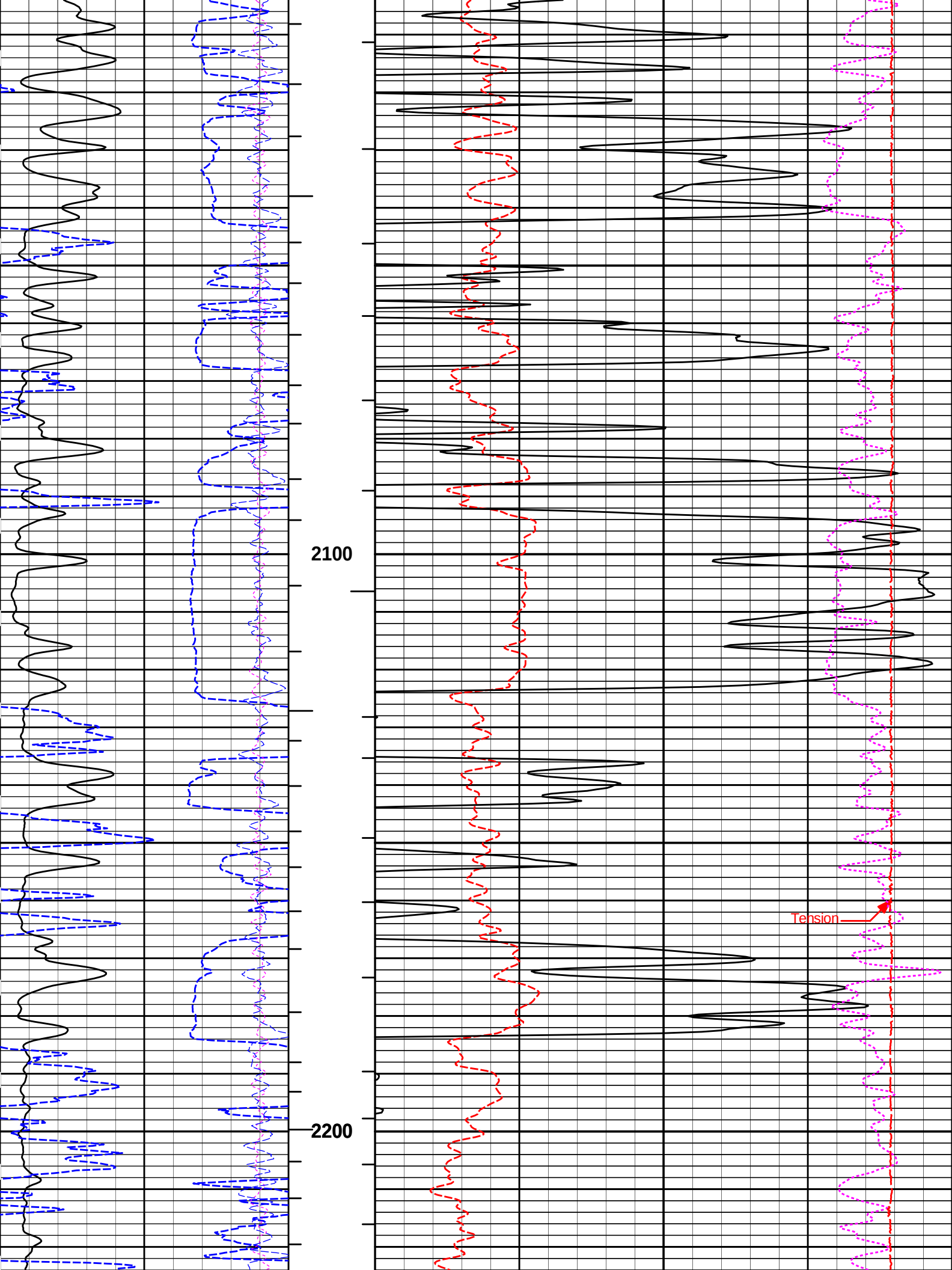
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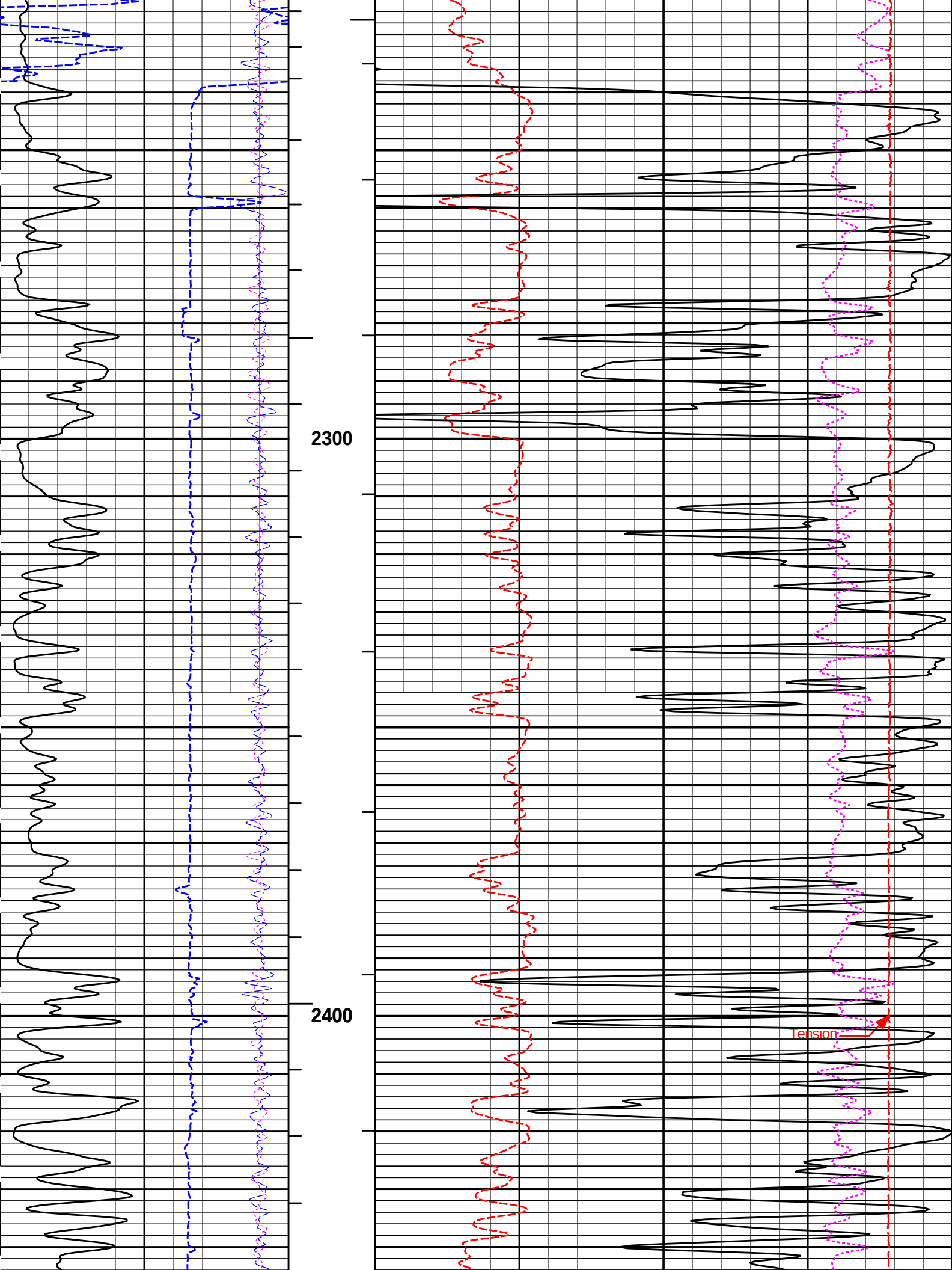


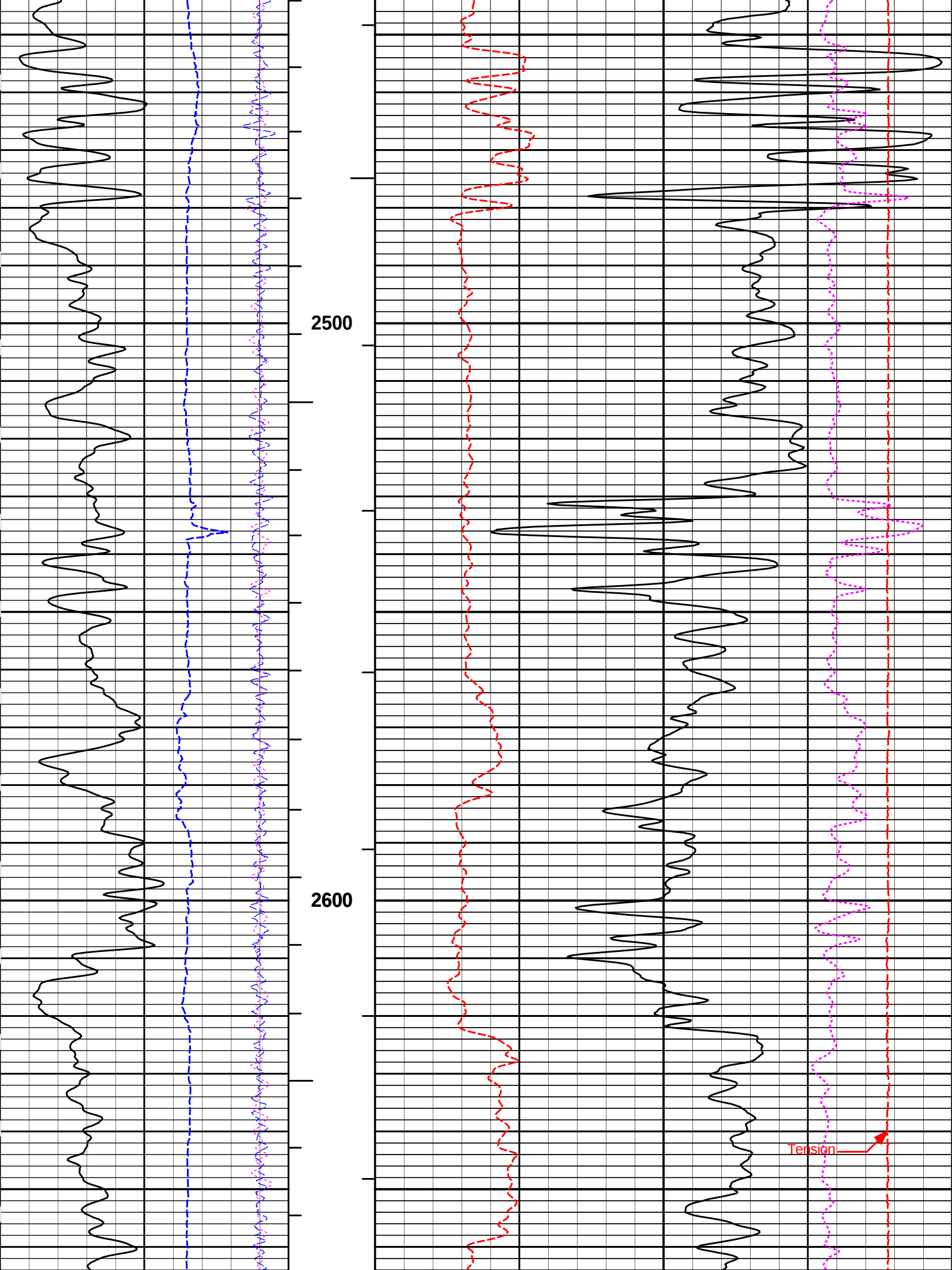


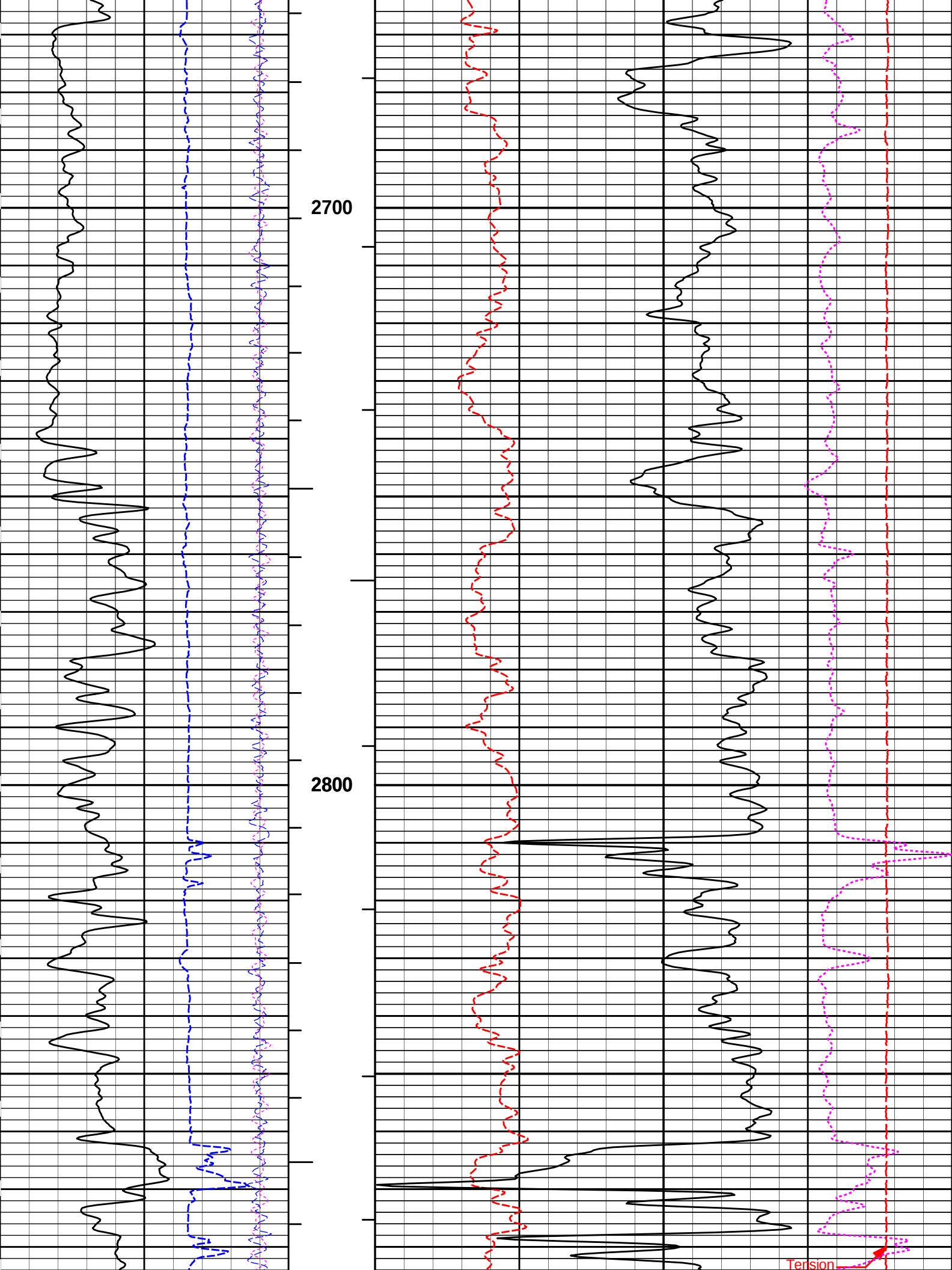


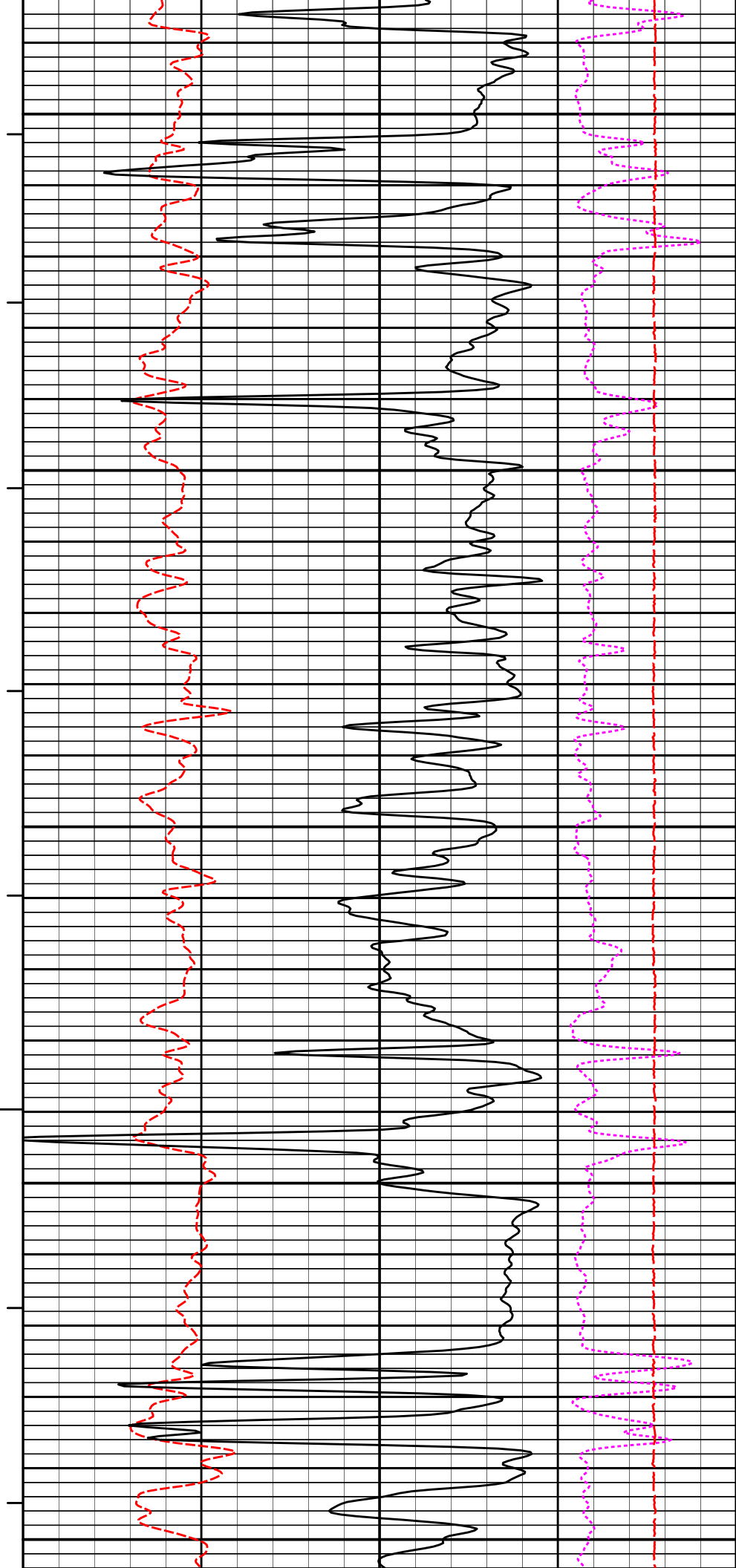
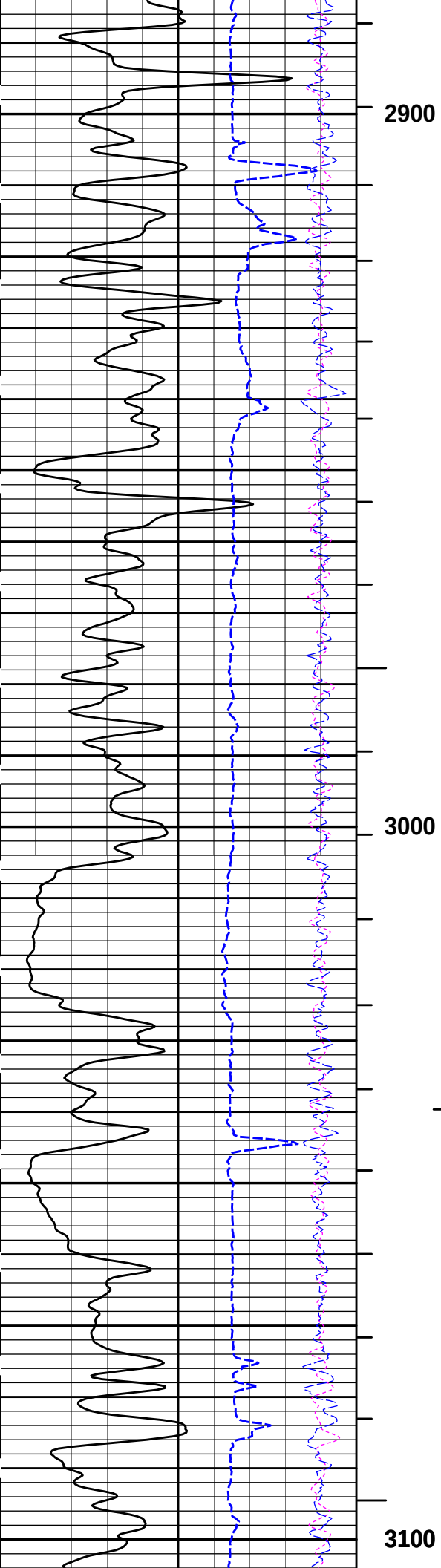


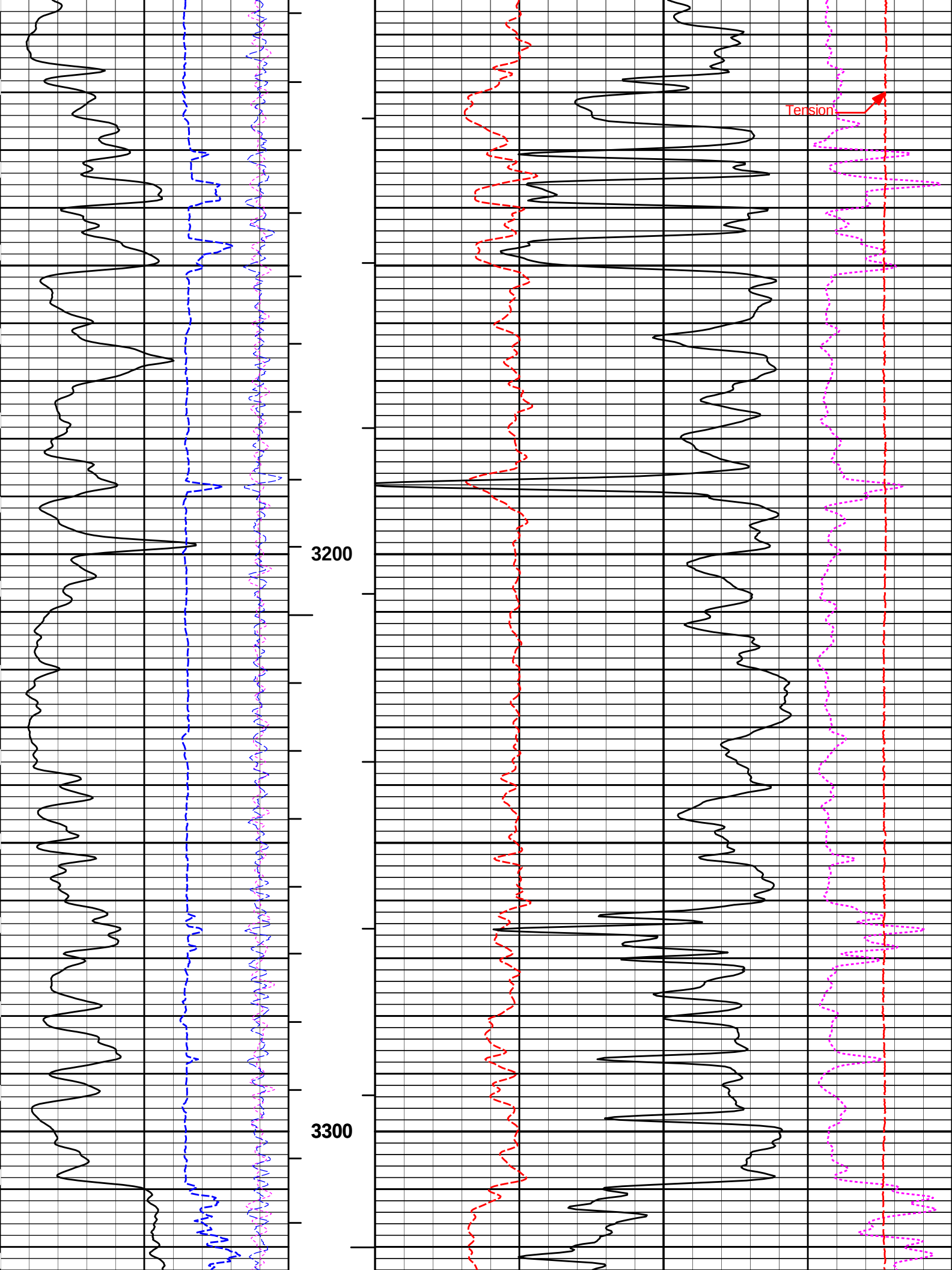


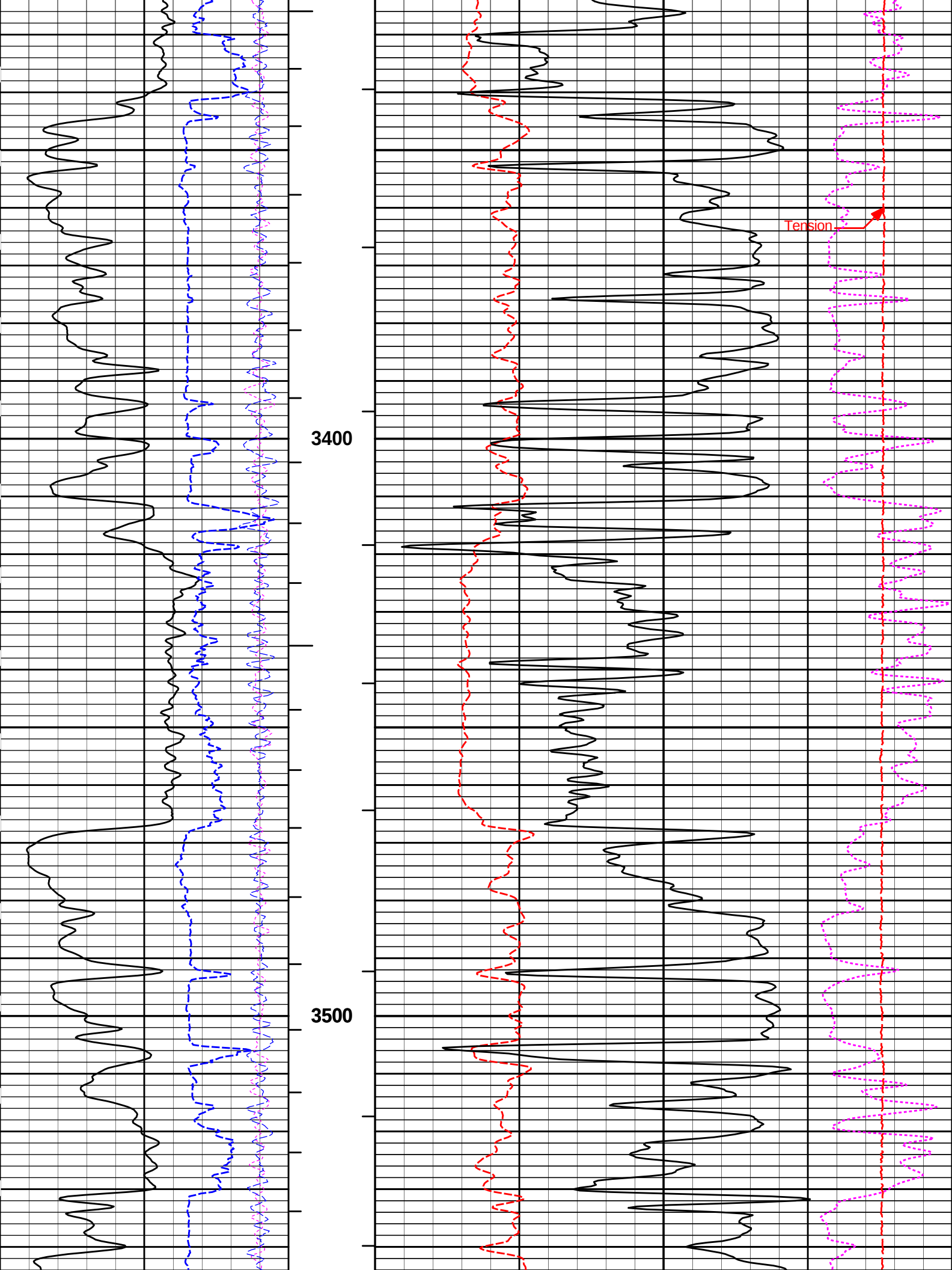


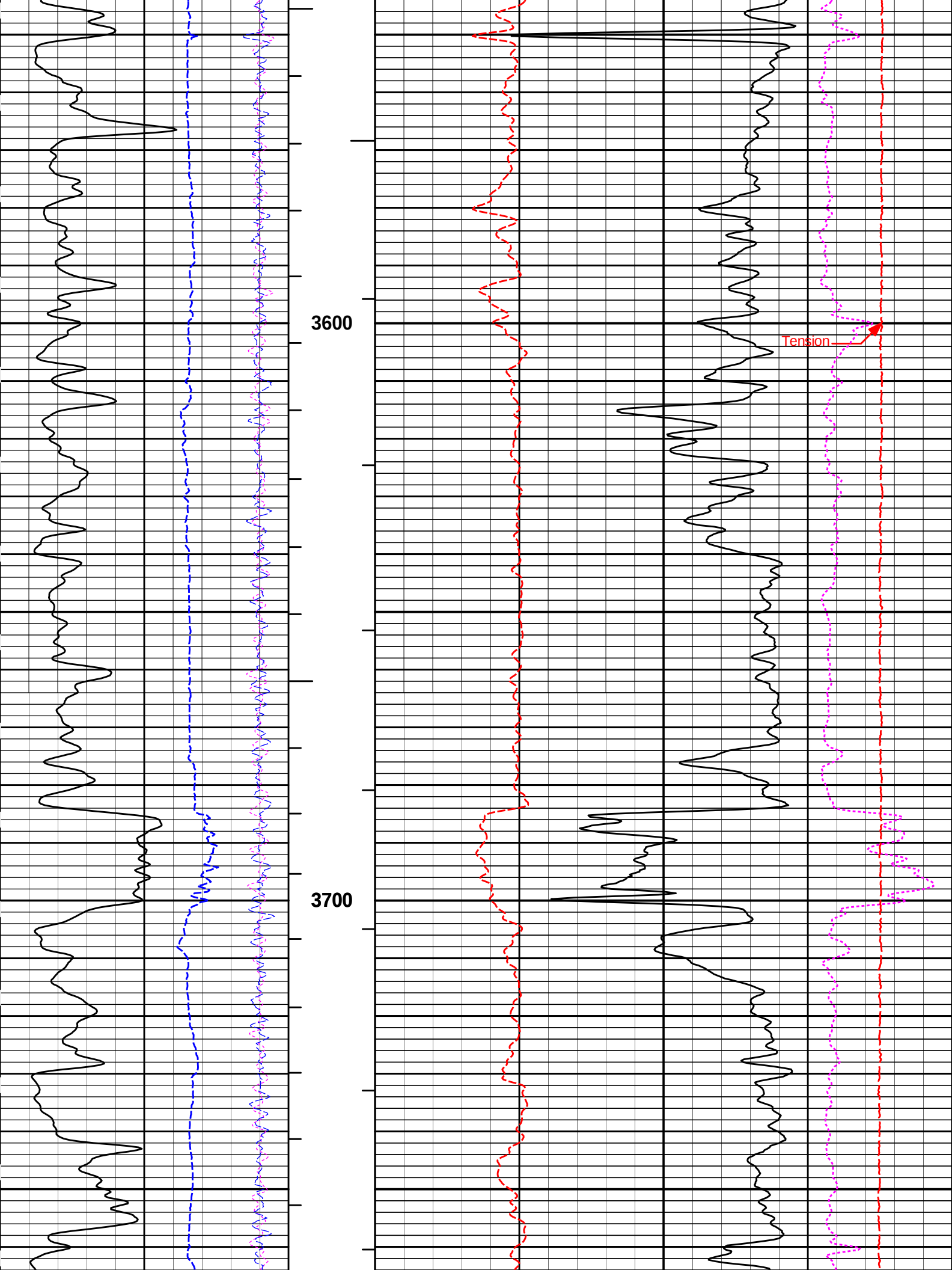


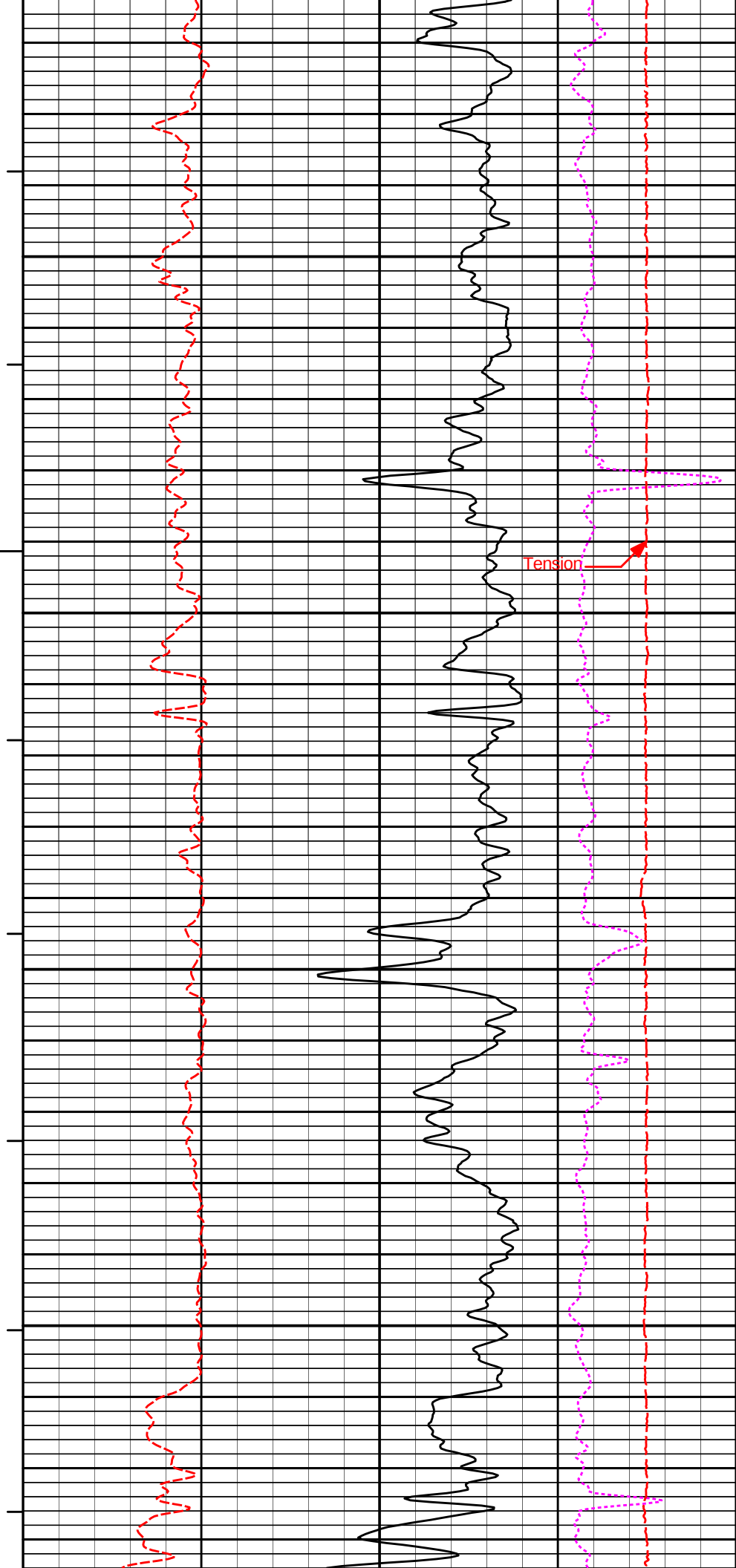
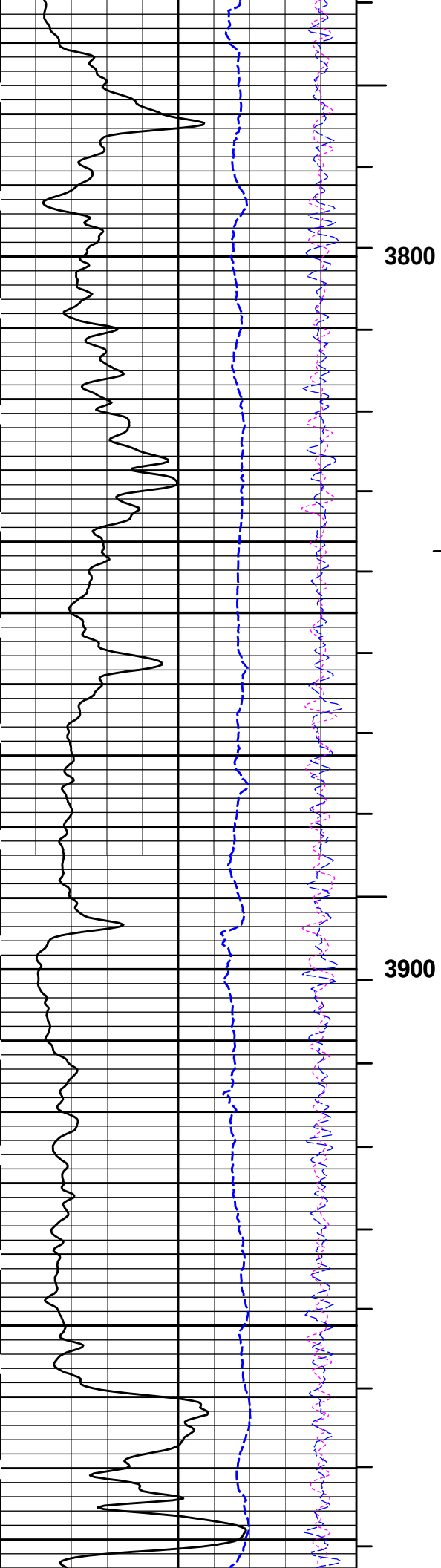


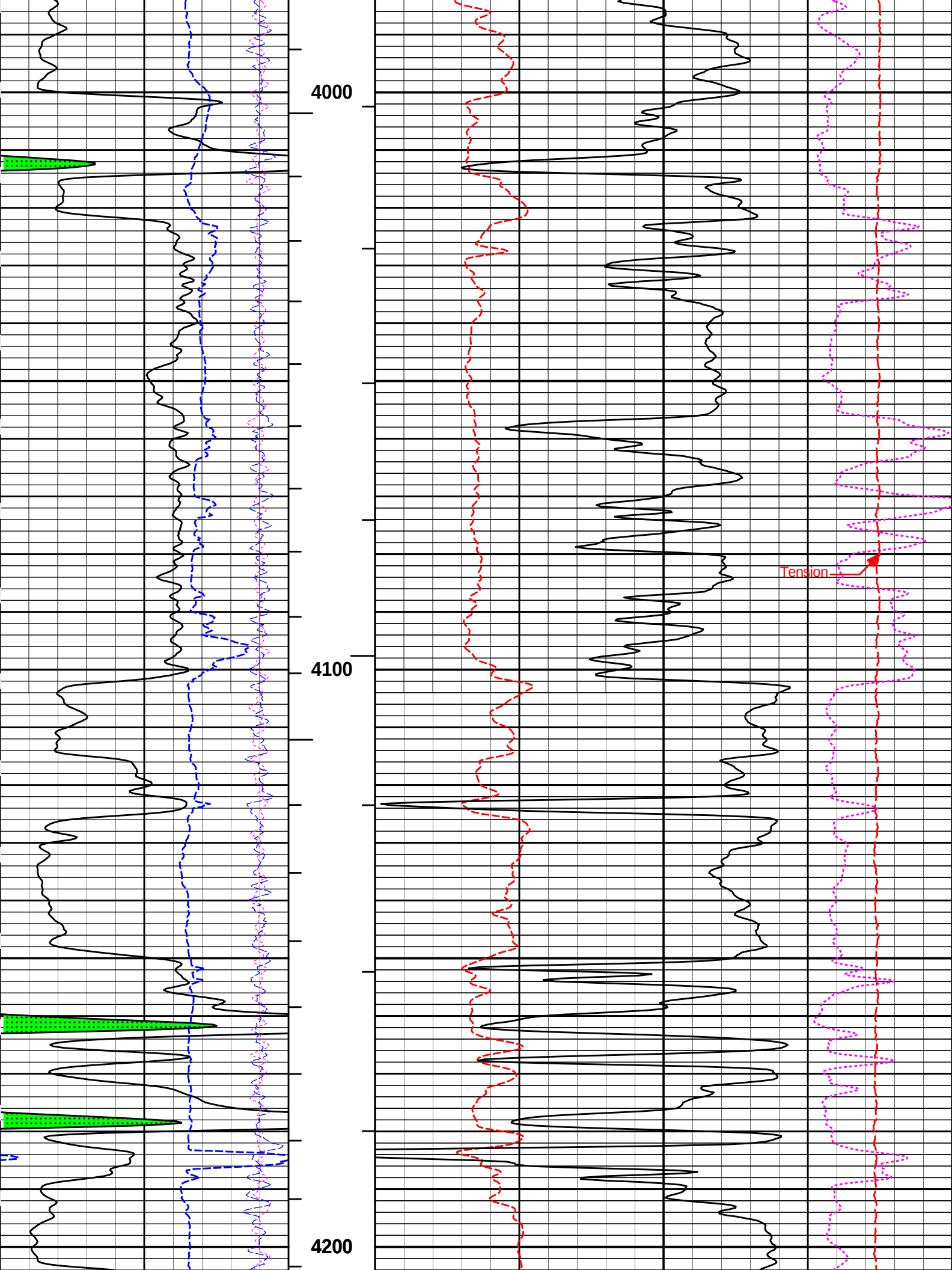


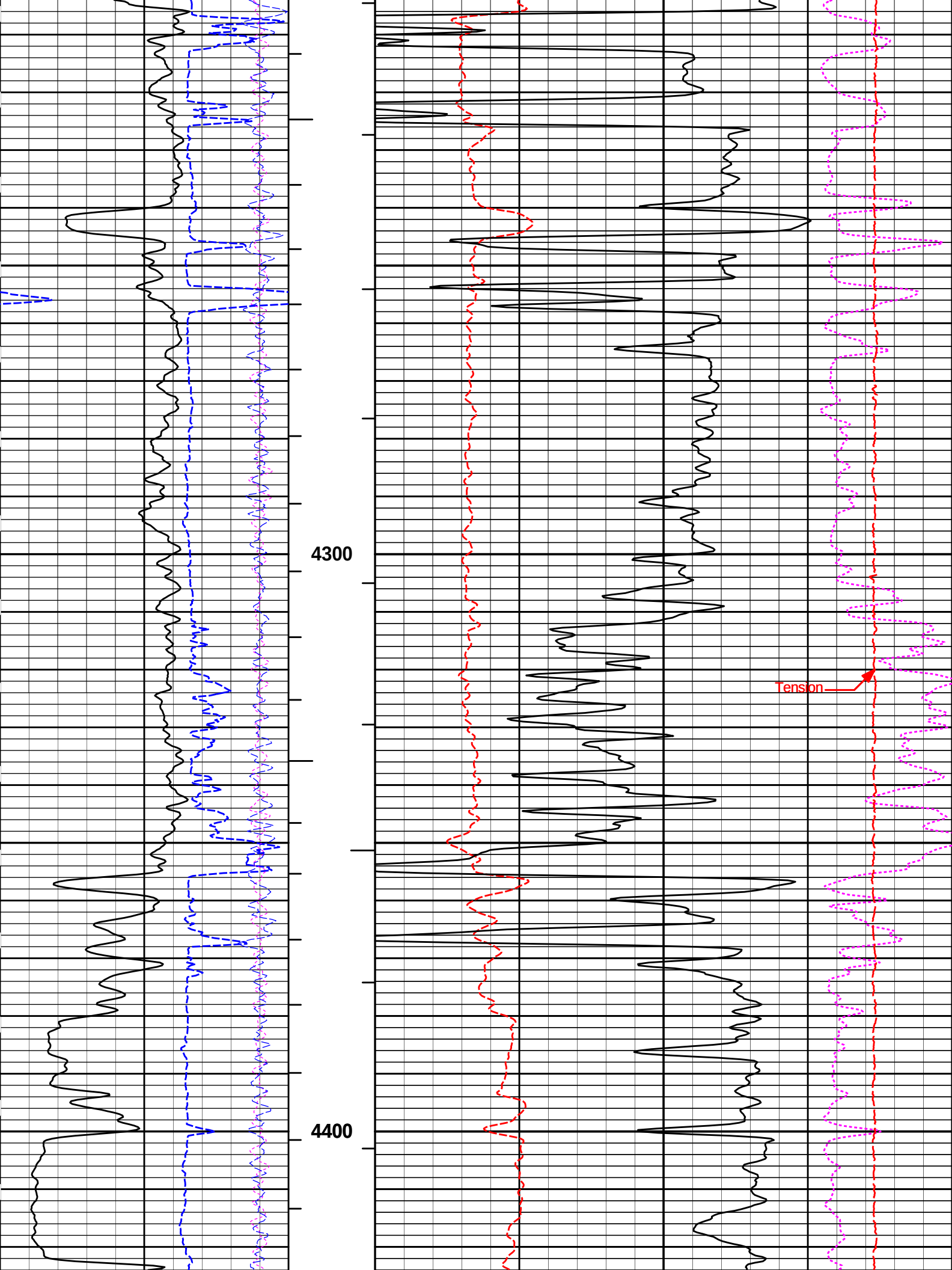


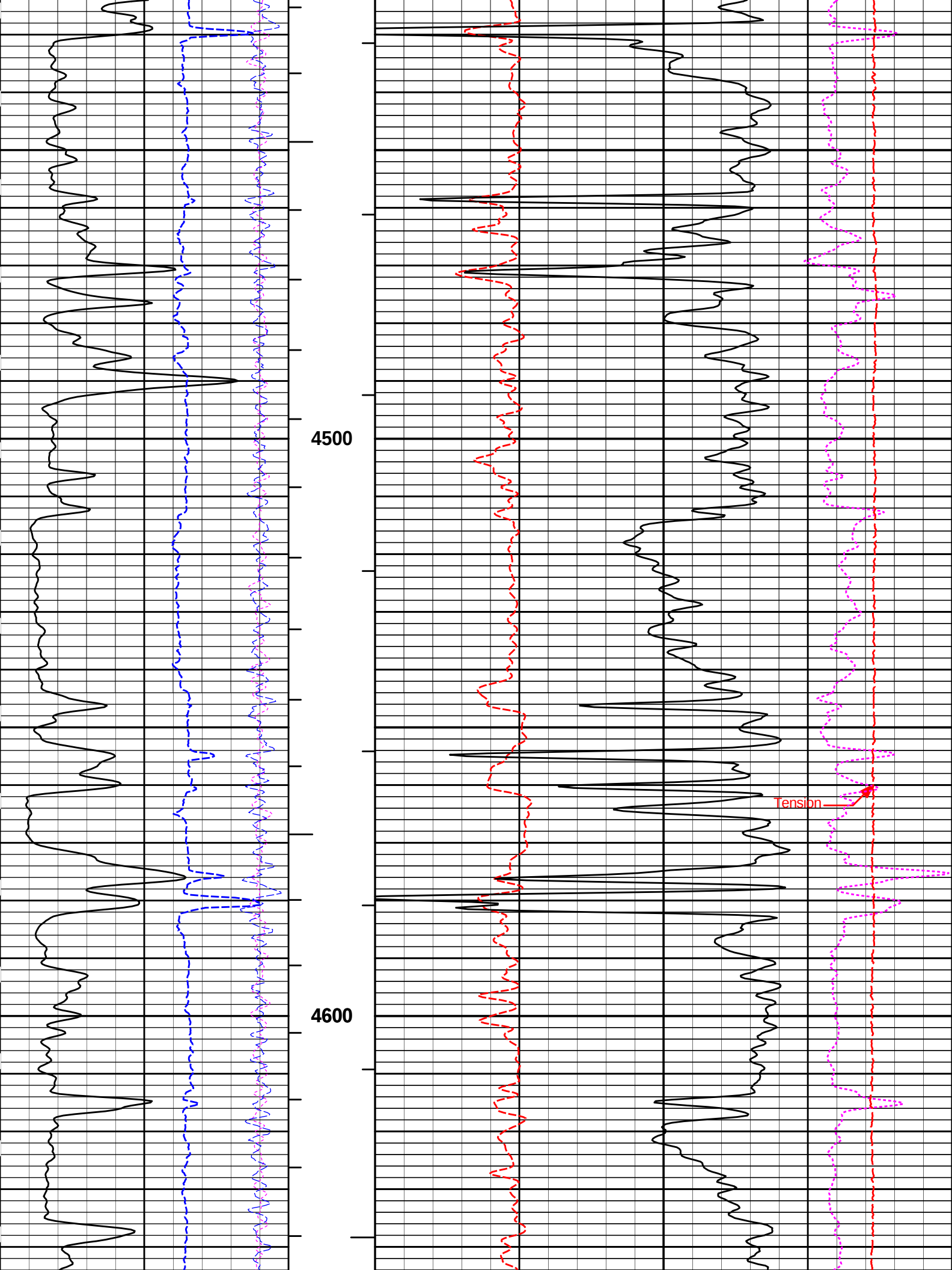


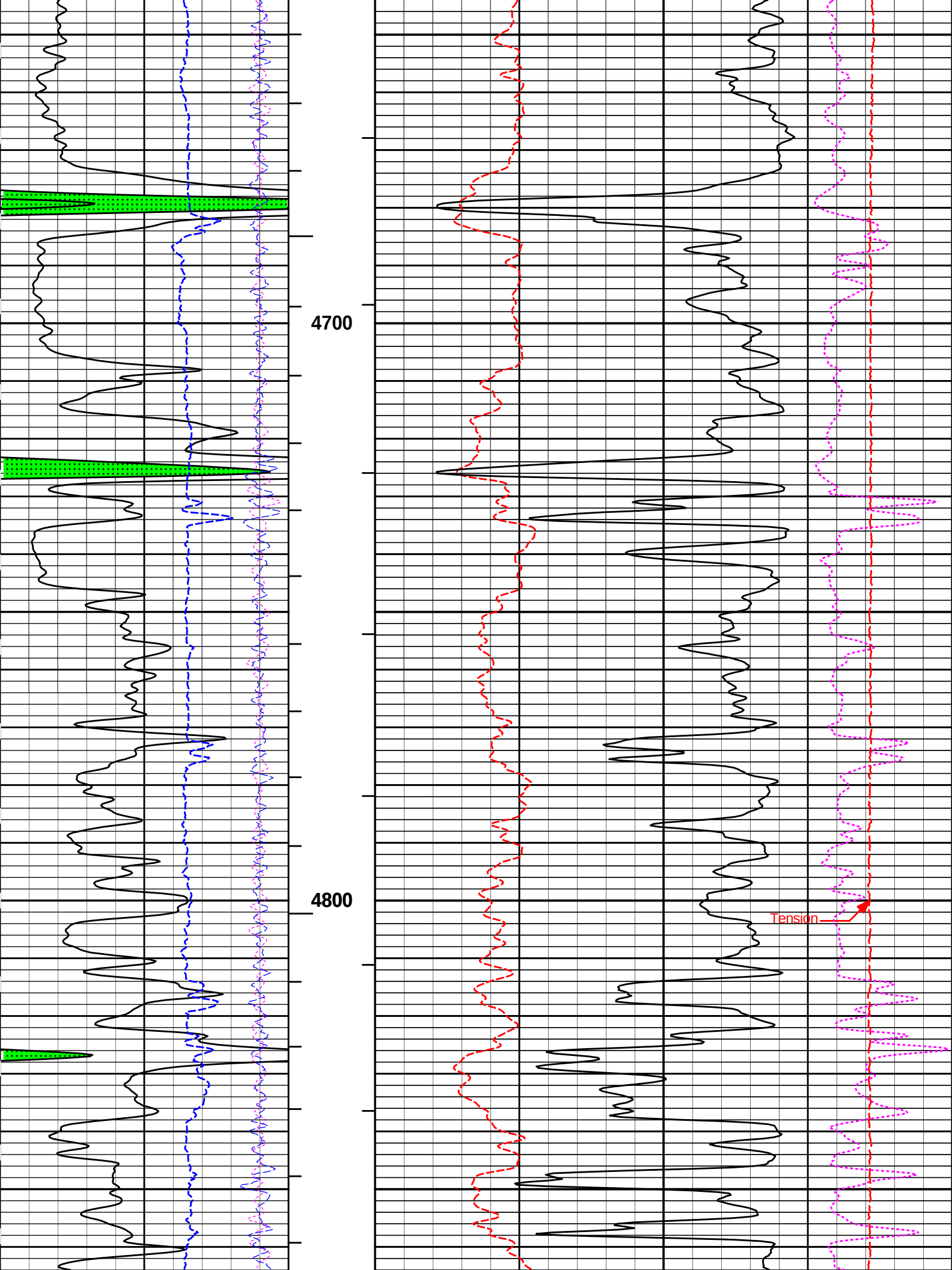


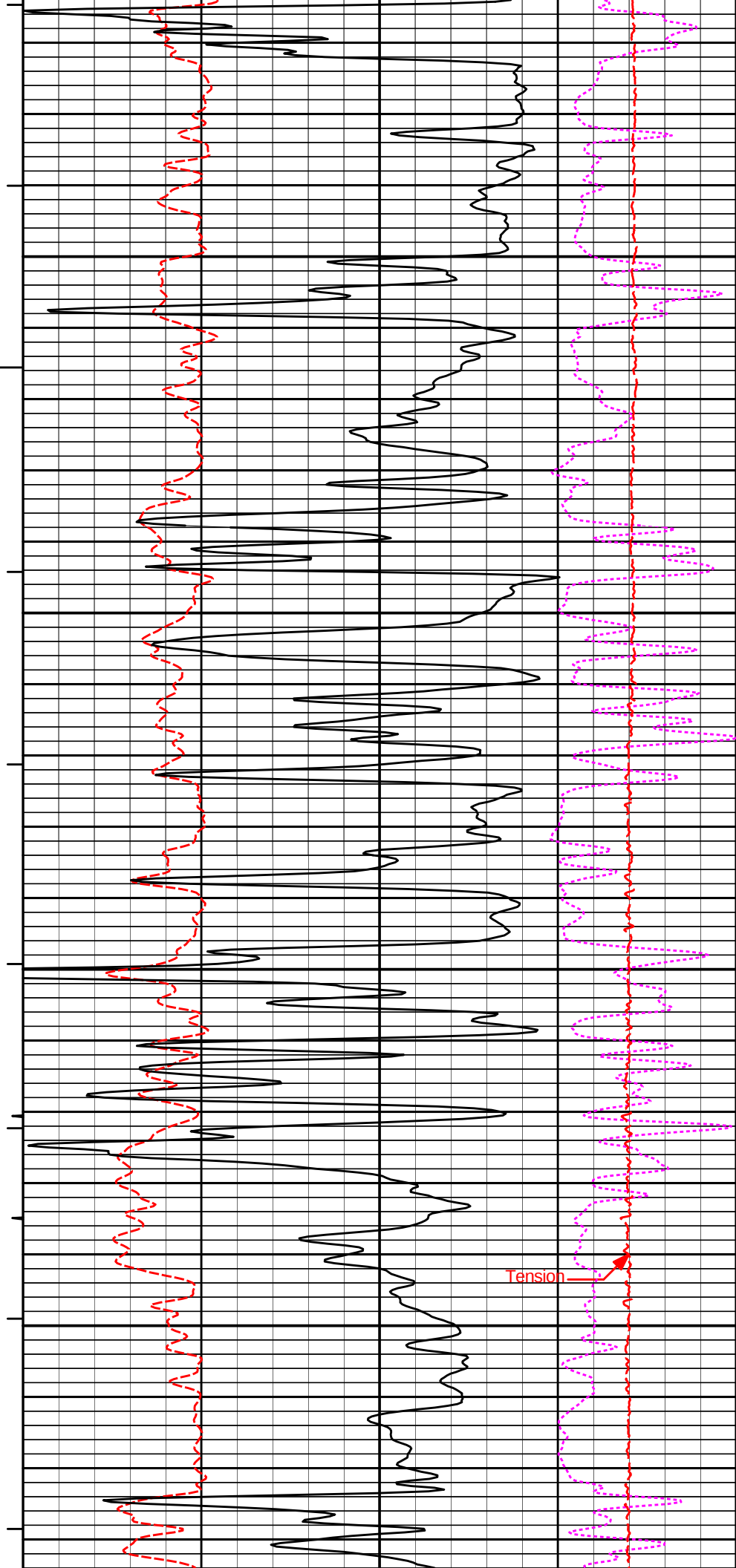
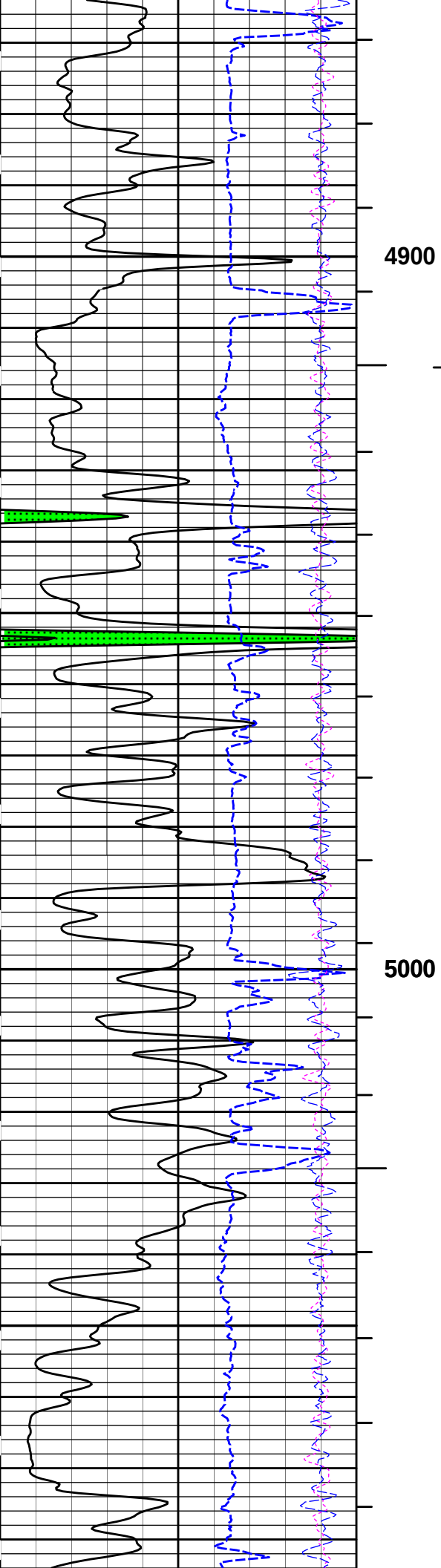


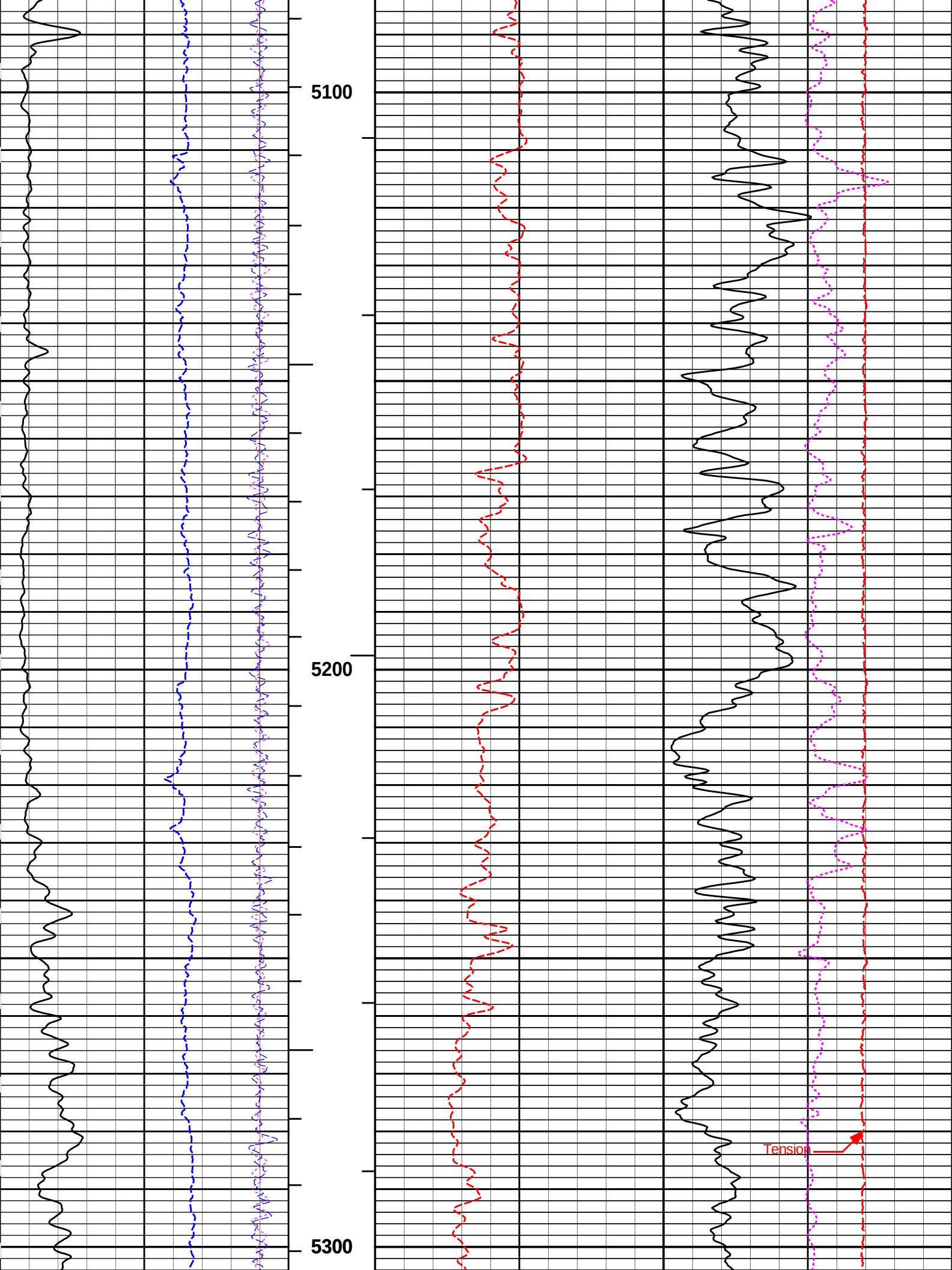


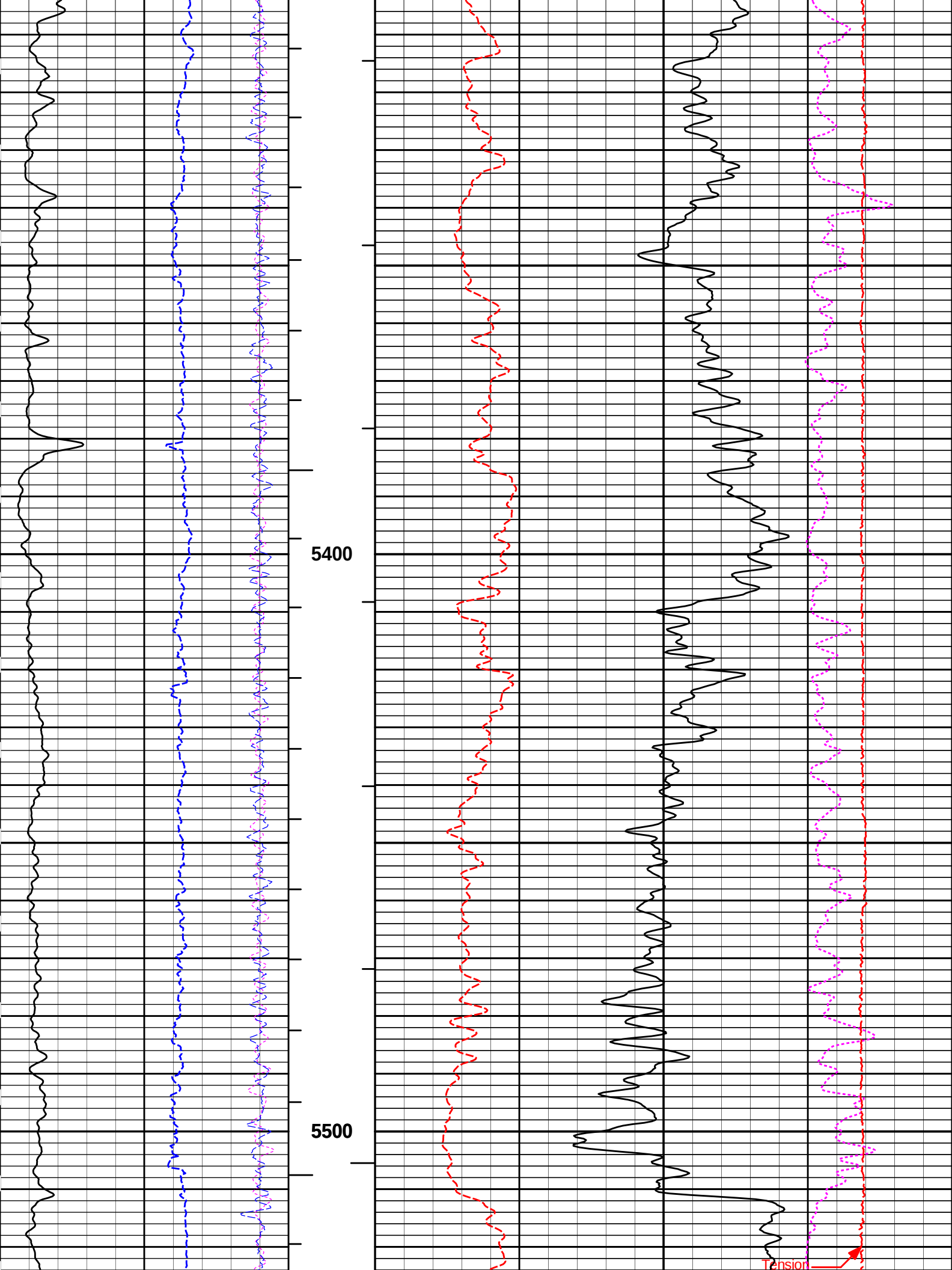


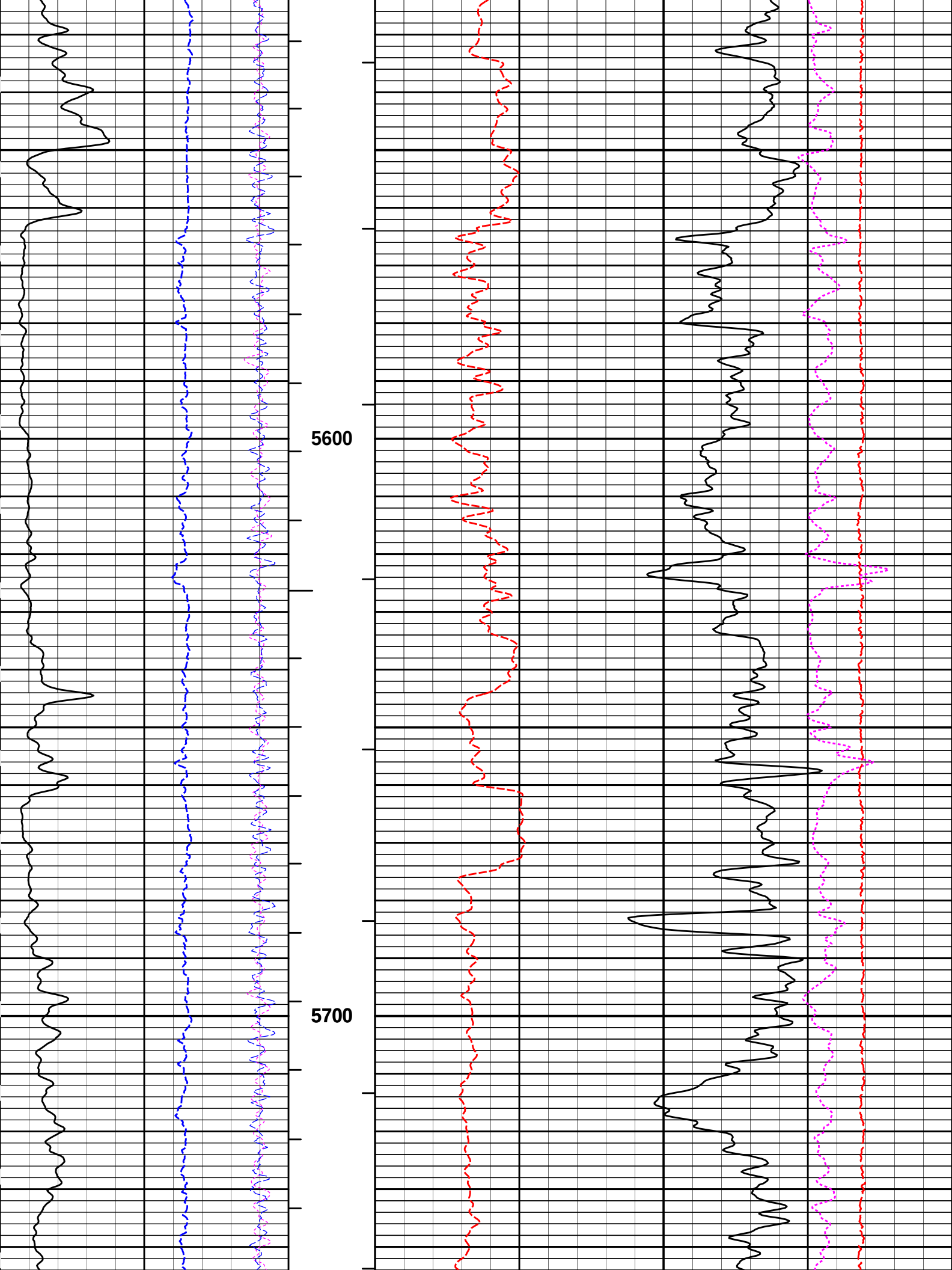


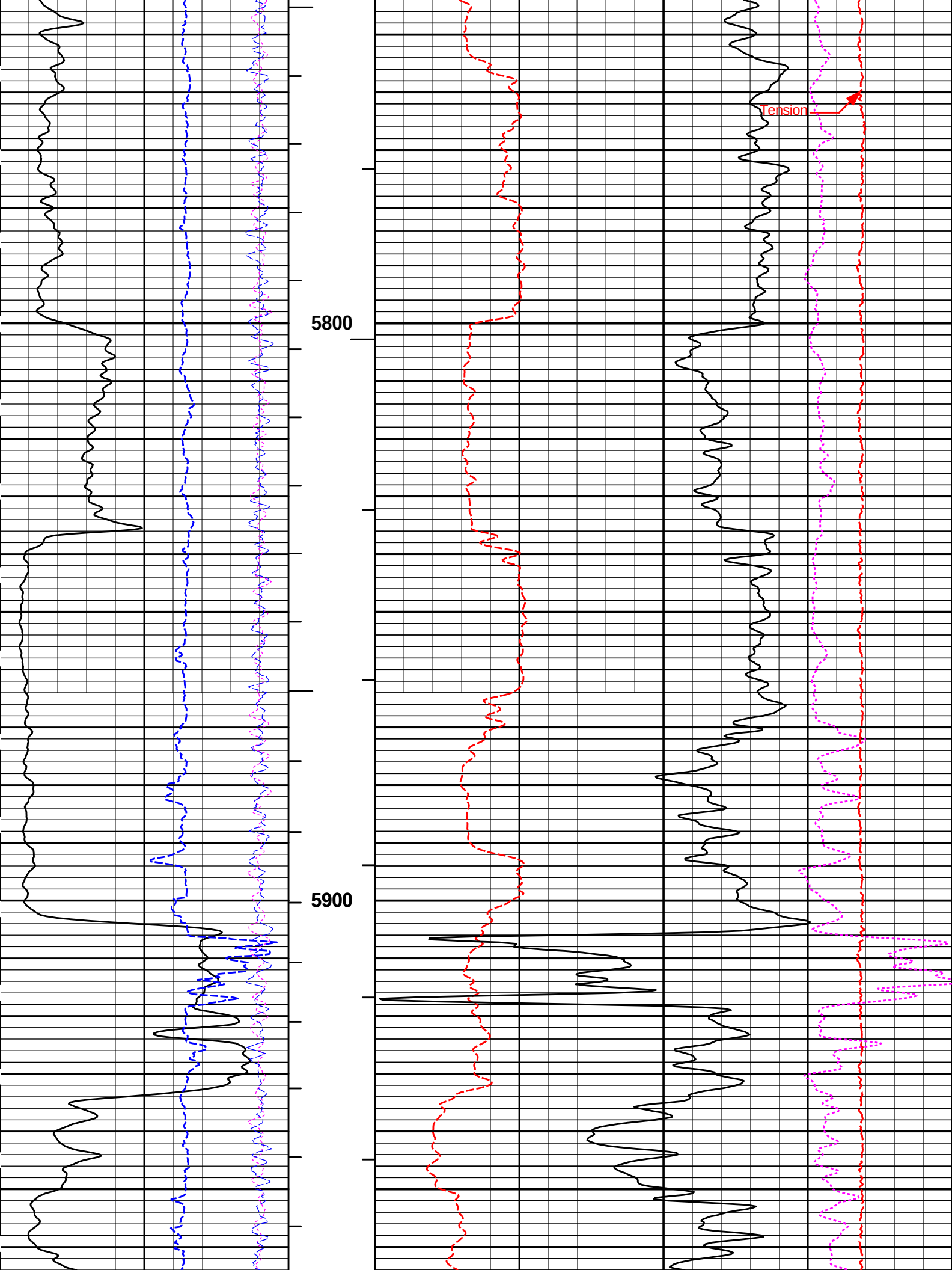












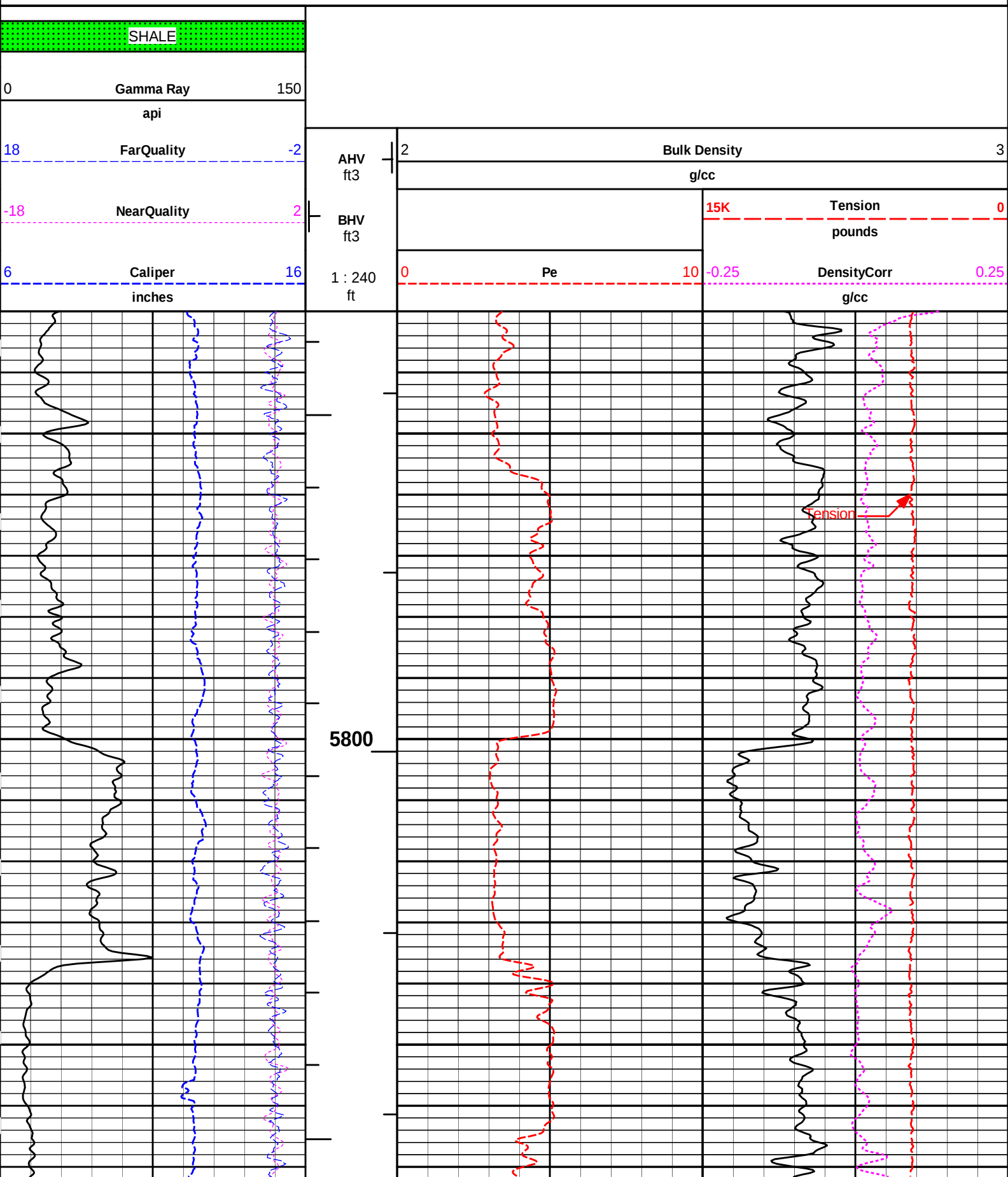
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	inches		ft					g/cc		
-18	NearQuality	2	BHV				15K	Tension	0	
			ft3					pounds		
18	FarQuality	-2	AHV	2	Bulk Density					3
			ft3		g/cc					
0	Gamma Ray	150	Tension Pull							
	api		10	0						
SHALE			Tension Pull							

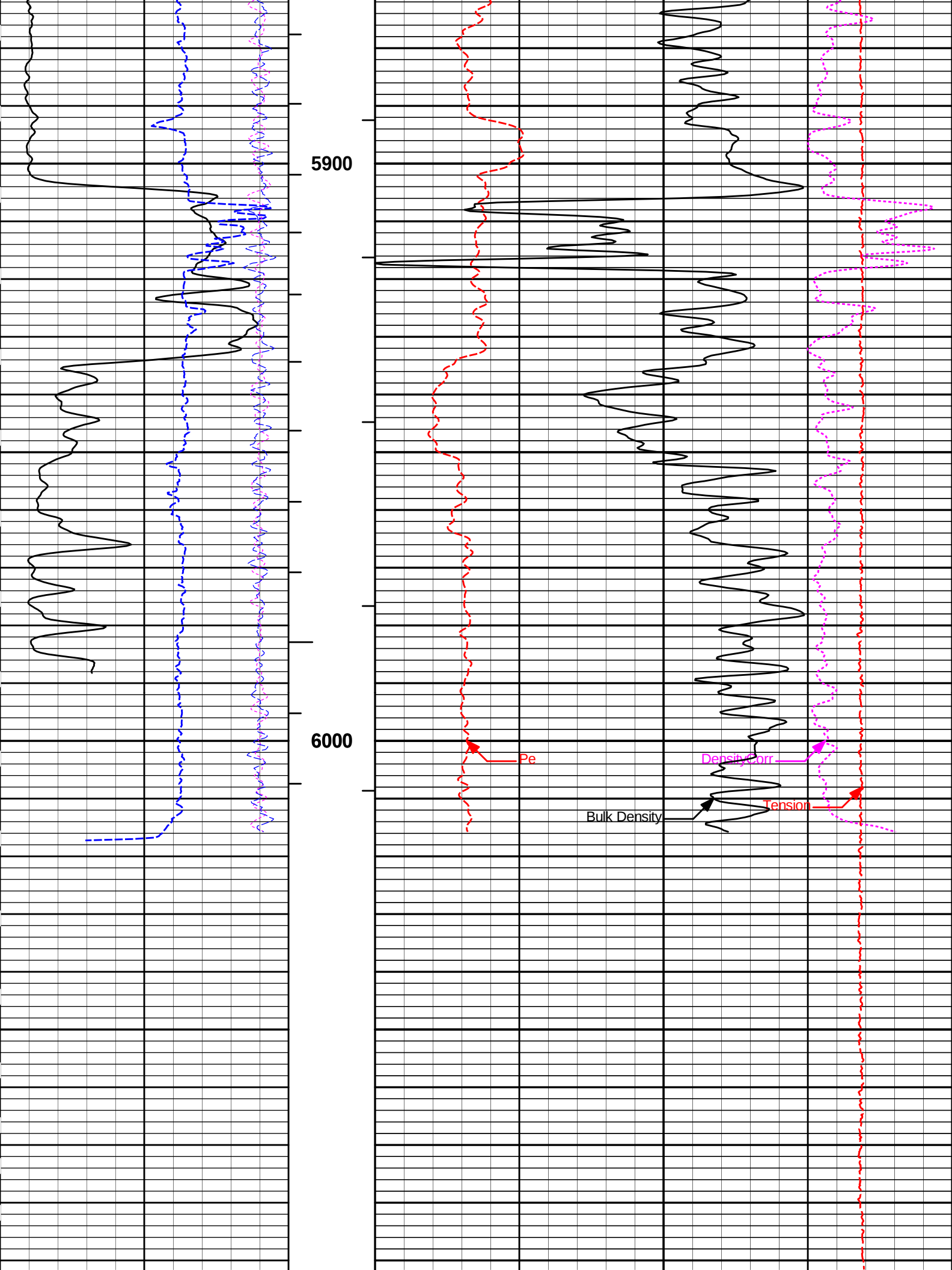
HALLIBURTON

Plot Time: 16-Jun-12 05:28:27
Plot Range: 200 ft to 6102 ft
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5 INCH MAIN LOG

REPEAT SECTION





			6100							
6	Caliper	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr	0.25	
							g/cc			
-18	NearQuality	2	BHV ft3				15K	Tension	0	
							pounds			
18	FarQuality	-2	AHV ft3	2	Bulk Density					3
				g/cc						
0	Gamma Ray	150								
api										
SHALE										

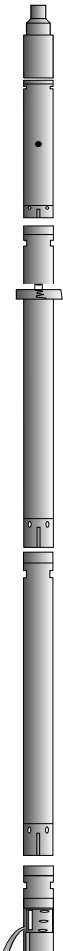
HALLIBURTON

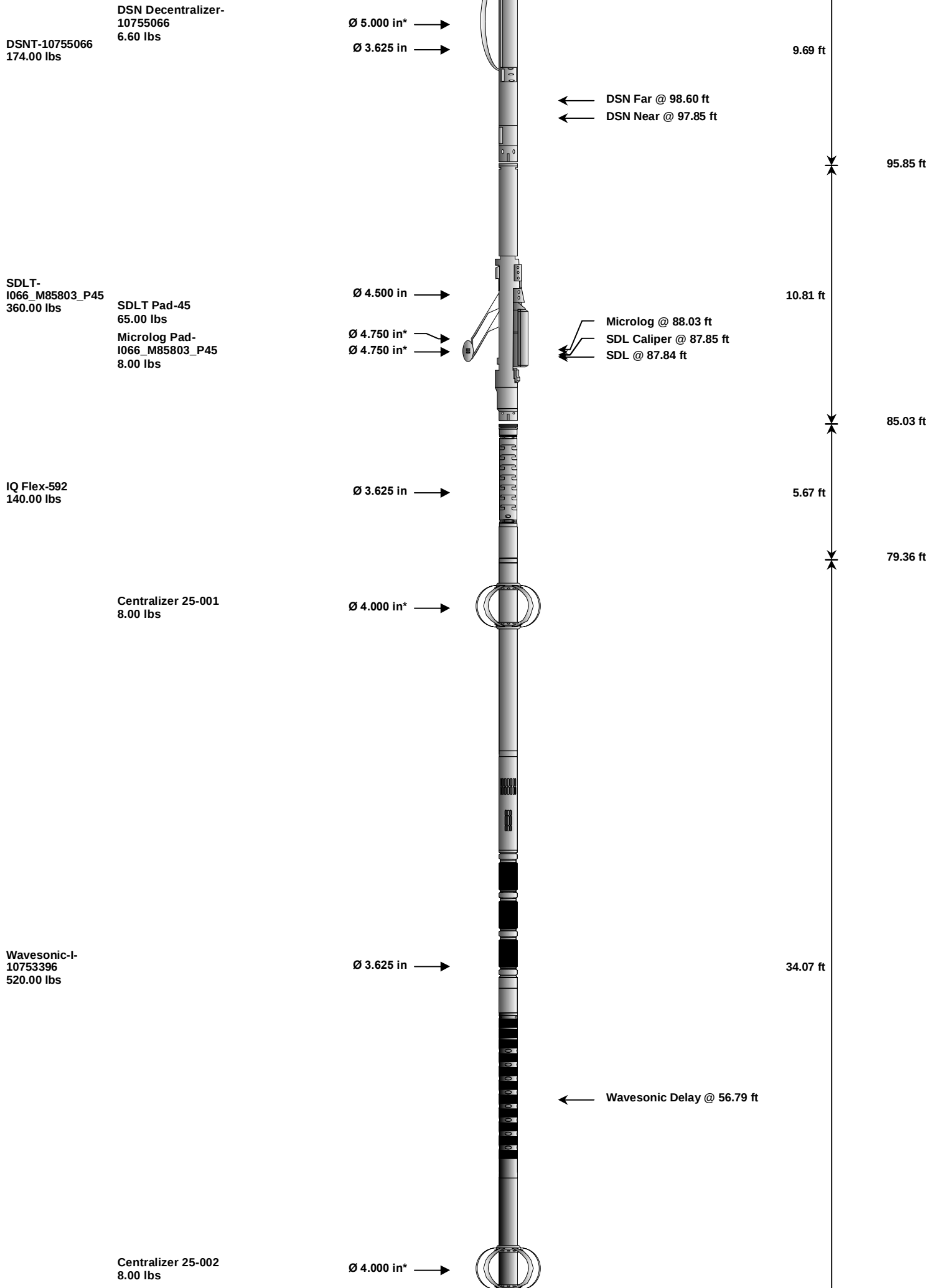
Plot Time: 16-Jun-12 05:28:29
Plot Range: 5730 ft to 6105.25 ft
Data: MELISSA_3119_5\Well Based\DAQ-0001-005\
Plot File: \\LOCAL-IMELISSA_3119_5\0001 SP-GTET-CSNG-DSNT-SDLT-FLEX-WSTT-XRMI-ACRT-CHIPOROIBULKD_5_REP_LIB

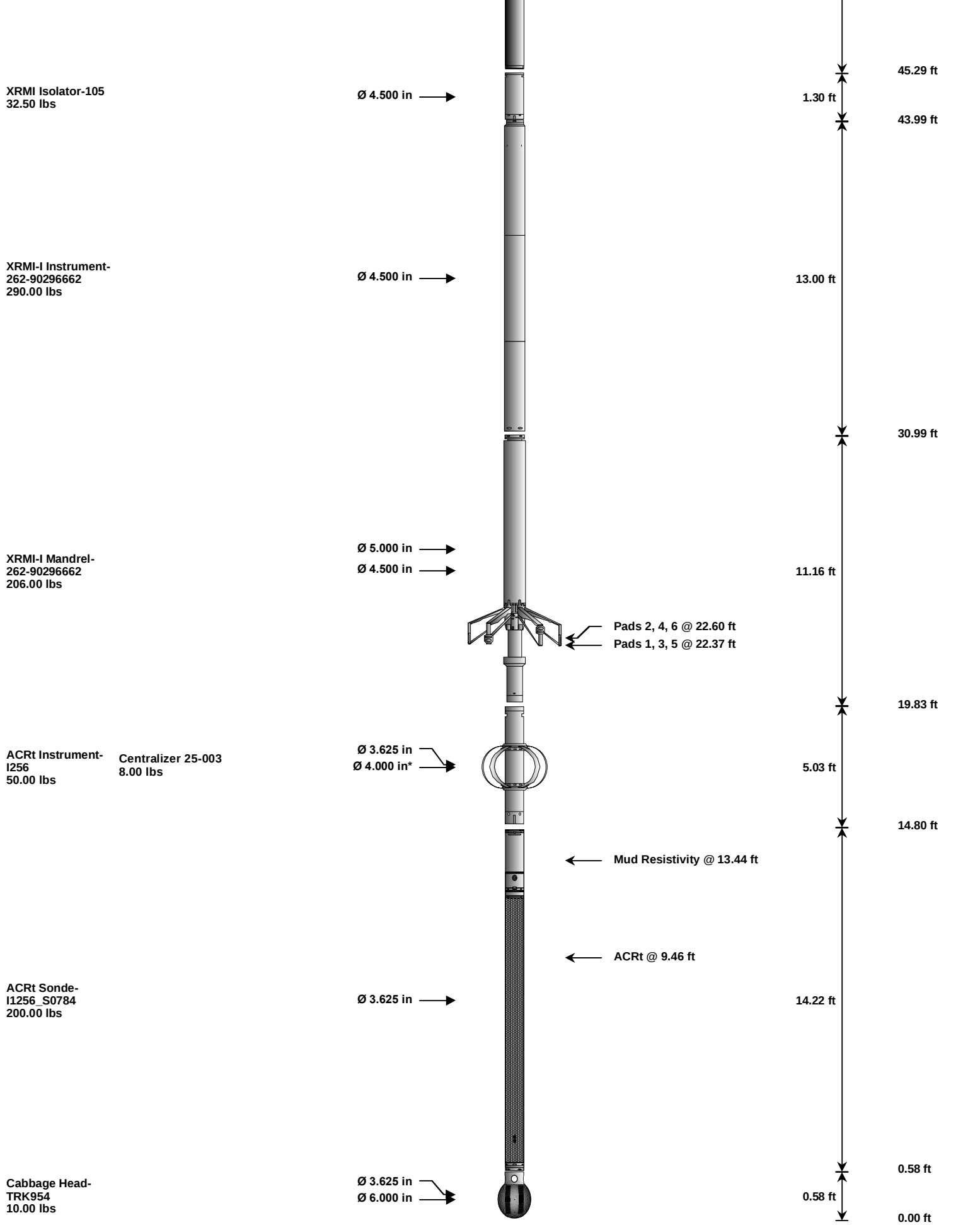
REPEAT SECTION

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TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
Cable Head- PROT01 30.00 lbs		Ø 3.625 in →			1.92 ft	127.88 ft
SP Sub-PROT01 60.00 lbs		Ø 3.625 in →		← SP @ 124.18 ft	3.74 ft	125.96 ft
Regal Standoff 6_75-01 2.00 lbs		Ø 5.625 in* →				122.22 ft
GTET-10811258 165.00 lbs		Ø 3.625 in →		← GammaRay @ 116.16 ft	8.52 ft	
						113.70 ft
CSNG-10736164 114.00 lbs		Ø 3.625 in →		← CSNG @ 108.07 ft	8.17 ft	
						105.53 ft





Mnemonic		Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head		PROT01	30.00	1.92	125.96	300.00
SP	SP Sub		PROT01	60.00	3.74	122.22	300.00

GTET	Gamma Telemetry Tool	10811258	165.00	8.52	113.70	60.00
RSOF	Regal Standoff 6.75in	01	2.00	0.52	*	120.10 300.00
CSNG	Compensated Spectral Natural Gamma	10736164	114.00	8.17		105.53 15.00
DSNT	Dual Spaced Neutron	10755066	174.00	9.69		95.85 60.00
DCNT	DSN Decentralizer	10755066	6.60	5.13	*	99.18 300.00
SDLT	Spectral Density Tool	I066_M85803_P45	360.00	10.81		85.03 60.00
MICP	Microlog Pad	I066_M85803_P45	8.00	1.00	*	87.53 60.00
SDLP	Density Insite Pad	45	65.00	2.55	*	87.24 60.00
IQF	IQ Flex tool	592	140.00	5.67		79.36 300.00
WSTT	WaveSonic Insite	10753396	520.00	34.07		45.29 30.00
OBCEN	Centralizer - 25 in. Overbody	001	8.00	2.08	*	76.30 300.00
OBCEN	Centralizer - 25 in. Overbody	002	8.00	2.08	*	48.58 300.00
	Isolator for the XRMI tool	105	32.50	1.30		43.99 300.00
XRMI	XRMI Navigation - Insite	262-90296662	290.00	13.00		30.99 30.00
XRMI-I	XRMI Imager - Insite	262-90296662	206.00	11.16		19.83 30.00
ACRt	Array Compensated True Resistivity Instrument Section	I256	50.00	5.03		14.80 300.00
OBCEN	Centralizer - 25 in. Overbody	003	8.00	2.08	*	16.24 300.00
ACRt	Array Compensated True Resistivity	I1256_S0784	200.00	14.22		0.58 300.00
CBHD	Cabbage Head	TRK954	10.00	0.58		0.00 300.00
Total			2,457.10	127.88		
* Not included in Total Length and Length Accumulation.						
Data: MELISSA_3119_5I0001 SP-GTET-CSNG-DSNT-SDLT-FLEX-WSTT-XRMI-ACRT-CHWDL						
Date: 14-Jun-12 21:30:32						

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10811258	Reference Calibration Date:	25-May-12 10:45:16
Engineer:	T. HYDE	Calibration Date:	30-May-12 09:20:02
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1
Calibrator Source S/N: TB-185 Calibrator API Reference:228.00 api Equivalent Calibrator API Reference:232.0 api			
Measurement	Measured	Calibrated	Units
Background	47.0	44.6	api
Background + Calibrator	287.6	272.6	api
Calibrator	225.5	228.0	api

DUAL SPACED NEUTRON SHOP CALIBRATION			
Tool Name:	DSNT - 10755066	Reference Calibration Date:	25-May-12 08:59:08
Engineer:	T. HYDE	Calibration Date:	25-May-12 09:23:21
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1
Logging Source S/N: DSN-436 Tank Serial Number: 105060 Reference value assigned to Tank: 51.680 Snow Block S/N: TRK_954 Calibration Tank Water Temperature: 75 degF Min. Tool Housing Outside Diameter: 3.620 in			
CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.958	0.953	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decp):	0.2120	0.2107	0.0014	+/- 0.0020
Calibrated Ratio:	9.76	9.72	0.047	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0599	0.02000 - 0.09000

PASS/FAIL SUMMARY	
Background Check:	Passed
Gain-Range Check:	Passed
Snow-Block Check:	Passed

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - I066_M85803_P45	Reference Calibration Date:	02-Jun-12 09:55:07
Engineer:	T. HYDE	Calibration Date:	02-Jun-12 09:59:25
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-4942.95	-4885.64	-7000.00 - -1000.00
Pad Gain	0.0003779	0.0003739	0.000200 - 0.000600
Arm Offset	-1736.53	-920.01	-5000.00 - 3000.00
Arm Gain	0.0005409	0.0004428	0.000300 - 0.000700
Arm Power	-0.000007149	-0.000000490	-0.000010 - 0.000010

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

CALIBRATION RINGS				
Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (in)	2.00	2.00	0.00	+/- 0.20
Medium Ring (in)	3.77	3.75	-0.02	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.44	6.50	0.06	+/- 0.20
Medium Ring (in)	8.40	8.25	-0.15	+/- 0.20
Large Ring (in)	14.97	15.00	0.03	+/- 0.20

PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed

PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION			
Tool Name:	SDLT Pad - 45	Reference Calibration Date:	02-Jun-12 08:37:36
Engineer:	T. HYDE	Calibration Date:	02-Jun-12 08:56:06
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

Logging Source S/N: 5073GW

Aluminum Block S/N: 63061

Density: 2.591g/cc

Pe: 3.170

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	0.9437	0.9579	0.90 - 1.10
Near Dens Gain	0.9460	0.9677	0.90 - 1.10
Near Peak Gain	0.9321	0.9868	0.90 - 1.10
Near Lith Gain	0.9069	0.9729	0.90 - 1.10
Far Bar Gain	0.9860	0.9846	0.90 - 1.10
Far Dens Gain	0.9798	0.9784	0.90 - 1.10
Far Peak Gain	0.9732	0.9730	0.90 - 1.10
Far Lith Gain	0.9489	0.9465	0.90 - 1.10
Near Bar Offset	0.7390	0.6125	NONE
Near Dens Offset	0.6748	0.4894	NONE
Near Peak Offset	0.7427	0.2925	NONE
Near Lith Offset	0.9095	0.3667	NONE
Far Bar Offset	0.2527	0.2641	NONE
Far Dens Offset	0.2843	0.2952	NONE
Far Peak Offset	0.2995	0.2998	NONE
Far Lith Offset	0.4090	0.4293	NONE
Near Bar Background	989.98	995.94	700 - 1450
Near Dens Background	330.00	329.85	230 - 480
Near Peak Background	145.31	144.18	100 - 210
Near Lith Background	175.64	175.17	125 - 260
Far Bar Background	511.67	508.47	450 - 900
Far Dens Background	198.77	196.98	175 - 345
Far Peak Background	78.77	77.28	70 - 140
Far Lith Background	81.33	81.69	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.681	1.690	0.009	+/- 0.015
Pe	2.631	2.555	-0.076	+/- 0.150
ALUMINUM				
Density (g/cc)	2.590	2.591	0.001	+/- 0.01500
Pe	3.113	3.129	0.016	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0005	+/- 0.0110	-0.0005	+/- 0.0140
Magnesium Block	-0.0007	+/- 0.0110	0.0003	+/- 0.0140
Aluminum Block	-0.0002	+/- 0.0110	-0.0004	+/- 0.0140
Resolution	9.80	6.00 - 11.50	9.12	6.00 - 11.50
Internal Verifier(B+D+P+L)	1645	1200 - 2700	864	800 - 1700

PASS/FAIL SUMMARY	
Background Quality Check:	Passed

Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10811258						
Gamma Ray Calibrator	228.0	-----	-----	0.0	+/- 9.00	api
DSNT-10755066						
Snow-Block Porosity	0.0599	-----	-----	0.0000	+/- -.--	decp
SDLT-I066_M85803_P45						
Pad Extension	3.75	-----	-----	0.00	+/-0.20	in
Ring Diameter	8.25	-----	-----	0.00	+/-0.20	in
SDLT Pad-45						
Near(B+D+P+L)	1645.136	-----	-----	0.000	+/-14.247	cps
Far(B+D+P+L)	864.415	-----	-----	0.000	+/-14.602	cps
Data: MELISSA_3119_5I0001 SP-GTET-CSNG-DSNT-SDLT-FLEX-WSTT-XRMI-ACRT-CHIDLE					Date: 14-Jun-12 22:10:03	

HALLIBURTON PARAMETERS REPORT	
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Depth (ft))	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	12.250	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.300	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	9.625	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	6119.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	XRMI-I Instrument	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	XRMI-I Instrument	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa /				

Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GRSO	Gamma Tool Standoff	0.000	in
GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
CSNG	CGOK	Process CSNG Data?	Yes	
CSNG	CENT	Is Tool Centralized?	No	
CSNG	GBOK	Gamma Enviromental Corrections?	Yes	
CSNG	BARF	Barite Correction Factor	1.00	
CSNG	ORDG	Use Fixed Gain	No	
CSNG	ORDO	Use Fixed Offset	No	
CSNG	ORDR	Use Fixed Resolution Degradation Factor	No	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
Wavesonic-I	WSOK	Process WSTT?	Yes	
Wavesonic-I	MSWN	Monopole Sliding Window Length	-1.00	us
Wavesonic-I	DSWN	Dipole Sliding Window Length	-1.00	us
Wavesonic-I	PINT	Process 1 Sample and Skip	0	
Wavesonic-I	PROM	Process Mode: M=1,MX=2,MY=3,MXY=4	4	
Wavesonic-I	SMTH	Semblance Smoothing	-2.00	
Wavesonic-I	DTSH	Delta -T Shale	100.00	uspf
Wavesonic-I	DTMT	Delta -T Matrix Type	User define	
Wavesonic-I	DTMA	Delta -T Matrix	47.60	uspf
Wavesonic-I	DTFL	Delta -T Fluid	189.00	uspf
Wavesonic-I	RHOM	Matrix Density	2.7100	g/cc
Wavesonic-I	RHOF	Fluid Density	1.0000	g/cc
Wavesonic-I	STOL	Slow Tolerance	40.00	
Wavesonic-I	SMTL	Semblance Tolerance	0.25	
Wavesonic-I	SMTL	Semblance Threshold	0.25	
Wavesonic-I	VPVS	VPVS Ratio for Porosity	1.40	
Wavesonic-I	APEQ	Acoustic Porosity Equation	Wylie	
Wavesonic-I	SHAO	Show Advanced Options?	Yes	
Wavesonic-I	WRNM	Wavesonic Receiver Normalization Method	None	
Wavesonic-I	DTRM	Transmitter to First Receiver Distance - Monopole	10.24	ft
Wavesonic-I	DTRX	Transmitter to First Receiver Distance Dipole X	9.24	ft
Wavesonic-I	DTRY	Transmitter to First Receiver Distance Dipole Y	9.24	ft
Wavesonic-I	DIRM	Receiver Spacing	0.50	ft

Wavesonic-I	NRAM	Number of Receivers in Array	8	
Wavesonic-I	DWCM	Digitizer Word Count Monopole	400	
Wavesonic-I	DSIM	Digital Sample Interval - Monopole	20.3174	us
Wavesonic-I	WDDM	Waveform Recording Delay Monopole	-304.761	us
Wavesonic-I	DWCX	Digitizer Word Count Dipole X	400	
Wavesonic-I	DSIX	Digital Sample Interval Dipole X	40.635	us
Wavesonic-I	WDDX	Waveform Digitization Delay Dipole X	-304.761	us
Wavesonic-I	DWCY	Digitizer Word Count Dipole Y	400	
Wavesonic-I	DSIY	Digital Sample Interval Dipole Y	40.635	us
Wavesonic-I	WDDY	Waveform Digitization Delay Dipole Y	-304.761	us
Wavesonic-I	NAVS	Navigation Source Tool	XRMI-I Instrument	
XRMI-I Instrument	WRTI	Survey Writing Interval	30	ft
XRMI-I Instrument	SOPT	Smoothing Option	None	
XRMI-I Mandrel	DIMG	Process XRMI?	Yes	
XRMI-I Mandrel	ROTI	Rotate Image (N-E-S-W-N)?	Yes	
XRMI-I Mandrel	AGN	Use Button Auto Gain?	Yes	
XRMI-I Mandrel	BCLR	Button Auto Gain Color	127	
XRMI-I Mandrel	BFIL	Button Auto Gain Filter	0.020	
XRMI-I Mandrel	BGAN	Button Gain Value	0.001	
XRMI-I Mandrel	BOFF	Button Offset	0	
XRMI-I Mandrel	DIPE	Process Dipmeter Calculations?	Yes	
XRMI-I Mandrel	BHCS	Process Borehole Corrections?	Yes	
XRMI-I Mandrel	CLOK	Process Caliper Outputs?	Yes	
XRMI-I Mandrel	CMAX	Caliper Maximum Limit	100.0	in
XRMI-I Mandrel	CMIN	Caliper Mimimum Limit	3.5	in
XRMI-I Mandrel	NAVS	Navigation Source Tool	XRMI-I Instrument	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Centered	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
BOTTOM_____				
Data: MELISSA_3119_5I0001 SP-GTET-CSNG-DSNT-SDLT-FLEX-WSTT-XRMI-ACRT-CHWDL			Date: 14-Jun-12 22:14:07	

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INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
SP Sub				
PLTC	Plot Control Mask	124.18	NO	
SP	Spontaneous Potential	124.18	BLK	1.250
CRP	Depth Control Point	124.18	NO	

SPR	Raw Spontaneous Potential	124.18	NO	
SPO	Spontaneous Potential Offset	124.18	NO	
GTET				
TPUL	Tension Pull	116.16	NO	
GR	Natural Gamma Ray API	116.16	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	116.16	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	116.16	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
CSNG				
TPUL	Tension Pull	108.07	NO	
STAT	Status	108.07	NO	
FRMC	Tool Frame Count	108.07	BLK	0.250
TFRM	Total Frames	108.07	NO	
LSPD	Line Speed	108.07	BLK	0.250
CTIM	Accumulation time for sample	108.07	BLK	0.250
NOIS	Spectral Noise	108.07	BLK	0.250
STAB	Stabilizer Voltage in mv	108.07	BLK	0.250
STBP	Stabilizer 60 KEV Peak	108.07	BLK	0.250
AMER	Americium	108.07	BLK	0.250
FTMP	Flask PCB Temperature	108.07	BLK	0.250
SPEL	Low Energy Spectrum	108.07	BLK	0.250
SPEH	High Energy Spectrum	108.07	BLK	0.250
SSP	Stabilization Energy Spectrum	108.07	BLK	0.250
CSPC	CSNG Lo Hi Spectrum Data	108.07	NO	
DSNT				
TPUL	Tension Pull	97.75	NO	
RNDS	Near Detector Telemetry Counts	97.85	BLK	1.417
RFDS	Far Detector Telemetry Counts	98.60	TRI	0.583
DNTT	DSN Tool Temperature	97.85	NO	
DSNS	DSN Tool Status	97.75	NO	
ERND	Near Detector Telemetry Counts EVR	97.85	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	98.60	BLK	0.000
ENTM	DSN Tool Temperature EVR	97.85	NO	
SDLT				
TPUL	Tension Pull	87.85	NO	
PCAL	Pad Caliper	87.85	TRI	0.250
ACAL	Arm Caliper	87.85	TRI	0.250
Wavesonic-I				
TPUL	Tension Pull	56.79	NO	
DPSX	Dipole Source X StructureI	45.29	NO	
DPSY	Dipole Source Y StructureI	45.29	NO	
DPSM	Monopole Source Structure	45.29	NO	
WVST	Wavesonic Compressed Data	56.79	NO	
TPUL	Tension Pull	56.79	NO	
XMS1	Wave Sonic Status Word 1	45.29	NO	
XMS2	Wave Sonic Status Word 2	45.29	NO	
XMS1	Wave Sonic XMITStatus Word 1	45.29	NO	
XMS1	Wave Sonic XMITStatus Word 2	45.29	NO	
F1HA	Dipole 1 HV After	45.29	NO	
F1HB	Dipole 1 HV Before	45.29	NO	
F2HA	Dipole 2 HV After	45.29	NO	

F2HB	Dipole 2 HV Before	45.29	NO
F3HA	Monopole HV After	45.29	NO
F3HB	Monopole HV Before	45.29	NO
INVT	Input Voltage	45.29	NO
5VOL	5 Volts	45.29	NO
MI5A	Minus 5 Volts Analog	45.29	NO
ITMP	Instrument Temperature	45.29	NO
PL5A	Plus 5 Volts Analog	45.29	NO
5VD	Plus 5 Volts Digital	45.29	NO
TCUR	Tool Current	45.29	NO
SUPV	Supply Voltage	45.29	NO
PRVT	Preregulated voltage	45.29	NO
PRVT	Pre-regulated voltage Xmter	45.29	NO
TEMP	Temperature	45.29	NO
ACQN	Acquisition Number	45.29	NO
XDP	Delay Reference	56.79	NO
MITM	MIT Mode	56.79	NO
VERS	Version	45.29	NO
D1CT	Dipole 1 Compressed Word Count	56.79	NO
D2CT	Dipole 2 Compressed Word Count	56.79	NO
MCNT	Monopole Compressed Word Count	56.79	NO
SEQN	Sequence Number	45.29	NO
FREV	Firmware Revision	45.29	NO
MSMP	Monopole Sample Rate	45.29	NO
MSMP	Dipole Sample Rate	45.29	NO
MFWF	Monopole Firing Waveform	45.29	NO
MFRQ	Monopole Frequency	45.29	NO
MDLY	Monopole Delay	45.29	NO
DXWF	Dipole X Firing Waveform	45.29	NO
XFRQ	Dipole X Frequency	45.29	NO
XDLY	Dipole X Delay	45.29	NO
DYWF	Dipole Y Firing Waveform	45.29	NO
YFRQ	Dipole Y Frequency	45.29	NO
YDLY	Dipole Y Delay	45.29	NO
DPSX	Dipole Source X StructureI	45.29	NO
DPSY	Dipole Source Y StructureI	45.29	NO
DPSM	Monopole Source Structure	45.29	NO
WVST	Wavesonic Compressed Data	56.79	NO
AUTM	Auto Mode	45.29	NO
SONM	tool mode for sonic - 0 for normal or 3 for calibration	45.29	NO
MSL	Monopole Lower Travel Time	56.79	NO
MSH	Monopole Upper Travel Time	56.79	NO
MLFC	Monopole-1 Lower Filter Bandpass Frequency Cut-off	45.29	NO
MUFC	Monopole-1 Upper Filter Bandpass Frequency Cut-off	45.29	NO
DLTT	Dipole Lower Travel Time	45.29	NO
DUTT	Dipole Upper Travel Time	45.29	NO
DLFC	Dipole Lower Filter Bandpass Frequency Cut-off	45.29	NO
DUFC	Dipole Upper Filter Bandpass Frequency Cut-off	45.29	NO
MUTE	WaveSonic Mute/Enable Channels and Sides map	45.29	NO
MUTS	Mute/Enable Sides	45.29	NO
WSRB	Relative Bearing	56.79	NO
WSAZ	WSX Azimuth Pad 1	56.79	NO
TPUL	Tension Pull	56.79	NO
WMP	Summed array of Monopole for SIDES - A,B,C,D	56.79	NO
WXX	Dipole X for SIDES - A-C	56.79	NO
WXX	Dipole Y for SIDES - B-D	56.79	NO

WYY	Dipole Y for SIDES - B-D	56.79	NO
WXY	Dipole X for SIDES - B-D	56.79	NO
WYX	Dipole Y for SIDES - A-C	56.79	NO
TPUL	Tension Pull	56.79	NO
WMA	Monopole Waveform Side A - Channel 1 to Channel 8 Receivers	56.79	NO
WMB	Monopole Waveform Side B - Channel 1 to Channel 8 Receivers	56.79	NO
WMC	Monopole Waveform Side C - Channel 1 to Channel 8 Receivers	56.79	NO
WMD	Monopole Waveform Side D - Channel 1 to Channel 8 Receivers	56.79	NO
WXA	Dipole X Waveform Side A - Channel 1 to Channel 8 Receivers	56.79	NO
WXB	Dipole X Waveform Side B - Channel 1 to Channel 8 Receivers	56.79	NO
WXC	Dipole X Waveform Side C - Channel 1 to Channel 8 Receivers	56.79	NO
WXD	Dipole X Waveform Side D - Channel 1 to Channel 8 Receivers	56.79	NO
WYA	Dipole Y Waveform Side A - Channel 1 to Channel 8 Receivers	56.79	NO
WYB	Dipole Y Waveform Side B - Channel 1 to Channel 8 Receivers	56.79	NO
WYC	Dipole Y Waveform Side C - Channel 1 to Channel 8 Receivers	56.79	NO
WYD	Dipole Y Waveform Side D - Channel 1 to Channel 8 Receivers	56.79	NO
XRMI-I Mandrel			
TPUL	Tension Pull	22.60	NO
PAD1	XRMI Pad 1 values	22.36	NO
PAD2	XRMI Pad 2 values	22.36	NO
PAD3	XRMI Pad 3 values	22.36	NO
PAD4	XRMI Pad 4 values	22.36	NO
PAD5	XRMI Pad 5 values	22.36	NO
PAD6	XRMI Pad 6 values	22.36	NO
OD1	EMI Odd Button Values Pad 1	22.36	NO
OD2	EMI Odd Button Values Pad 2	22.60	NO
OD3	EMI Odd Button Values Pad 3	22.36	NO
OD4	EMI Odd Button Values Pad 4	22.60	NO
OD5	EMI Odd Button Values Pad 5	22.36	NO
OD6	EMI Odd Button Values Pad 6	22.60	NO
EV1	EMI Even Button Values Pad 1	22.39	NO
EV2	EMI Even Button Values Pad 2	22.57	NO
EV3	EMI Even Button Values Pad 3	22.39	NO
EV4	EMI Even Button Values Pad 4	22.57	NO
EV5	EMI Even Button Values Pad 5	22.39	NO
EV6	EMI Even Button Values Pad 6	22.57	NO
ITMP	Instrument Temperature	19.83	NO
EMIM	Tool Mode	19.83	NO
HAZI	Hole Azimuth	22.11	NO
HAZI	Hole Azimuth - Down Delay	22.61	NO
ZACC	Accelerometer Z	22.36	NO
TPUL	Tension Pull	22.60	NO
FIR1	Current Button R - Pad 1	22.36	NO
FIR2	Current Button R - Pad 2	22.60	NO
FIR3	Current Button R - Pad 3	22.36	NO
FIR4	Current Button R - Pad 4	22.60	NO
FIR5	Current Button R - Pad 5	22.36	NO
FIR6	Current Button R - Pad 6	22.60	NO
FIX1	Current Button X - Pad 1	22.36	NO

FIX2	Current Button X - Pad 2	22.60	NO	
FIX3	Current Button X - Pad 3	22.36	NO	
FIX4	Current Button X - Pad 4	22.60	NO	
FIX5	Current Button X - Pad 5	22.36	NO	
FIX6	Current Button X - Pad 6	22.60	NO	
SIR1	Current Slow Button R - Pad 1	22.36	BLK	3.000
SIR2	Current Slow Button R - Pad 2	22.60	BLK	3.000
SIR3	Current Slow Button R - Pad 3	22.36	BLK	3.000
SIR4	Current Slow Button R - Pad 4	22.60	BLK	3.000
SIR5	Current Slow Button R - Pad 5	22.36	BLK	3.000
SIR6	Current Slow Button R - Pad 6	22.60	BLK	3.000
SIX1	Current Slow Button X - Pad 1	22.36	BLK	3.000
SIX2	Current Slow Button X - Pad 2	22.60	BLK	3.000
SIX3	Current Slow Button X - Pad 3	22.36	BLK	3.000
SIX4	Current Slow Button X - Pad 4	22.60	BLK	3.000
SIX5	Current Slow Button X - Pad 5	22.36	BLK	3.000
SIX6	Current Slow Button X - Pad 6	22.60	BLK	3.000
EMMR	Phasor Voltage - Real Part	22.36	NO	
EMMX	Phasor Voltage - Imaginary Part	22.36	NO	
PADV	Pad Voltage	19.83	BLK	0.250
ITMP	Instrument Temperature	19.83	BLK	0.000
CON1	Conductivity Pad 1	22.36	BLK	3.000
CON2	Conductivity Pad 2	22.60	BLK	3.000
CON3	Conductivity Pad 3	22.36	BLK	3.000
CON4	Conductivity Pad 4	22.60	BLK	3.000
CON5	Conductivity Pad 5	22.36	BLK	3.000
CON6	Conductivity Pad 6	22.60	BLK	3.000
UIR2	Current Button R No Delay - Pad 2	22.36	NO	
UIR4	Current Button R No Delay - Pad 4	22.36	NO	
UIR6	Current Button R No Delay - Pad 6	22.36	NO	
UIX2	Current Button X No Delay - Pad 2	22.36	NO	
UIX4	Current Button X No Delay - Pad 4	22.36	NO	
UIX6	Current Button X No Delay - Pad 6	22.36	NO	
TPUL	Tension Pull	22.60	NO	
ARM1	Caliper 1 measurement	22.36	BLK	0.000
ARM2	Caliper 2 measurement	22.36	BLK	0.000
ARM3	Caliper 3 measurement	22.36	BLK	0.000
ARM4	Caliper 4 measurement	22.36	BLK	0.000
ARM5	Caliper 5 measurement	22.36	BLK	0.000
ARM6	Caliper 6 measurement	22.36	BLK	0.000
MOTV	Motor Voltage Monitor 1	22.36	BLK	0.000
PRES	Caliper percentage of total compression of the spring	19.83	BLK	0.000
HAZI	Hole Azimuth	22.36	NO	
RB	Relative Bearing	22.36	NO	
AZI1	PAD1 Azimuth	22.36	NO	
DEVI	Inclination	22.36	NO	
ACRt Sonde				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000

F1R1	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	
SDLT Pad				
TPUL	Tension Pull	87.84	NO	
NAB	Near Above	87.66	BLK	0.920
NHI	Near Cesium High	87.66	BLK	0.920
NLO	Near Cesium Low	87.66	BLK	0.920
NVA	Near Valley	87.66	BLK	0.920
NBA	Near Barite	87.66	BLK	0.920
NDE	Near Density	87.66	BLK	0.920
NPK	Near Peak	87.66	BLK	0.920
NLI	Near Lithology	87.66	BLK	0.920
NRAH	Near Density Filtered	87.66	BLK	0.920

NBAU	Near Barite Unfiltered	87.66	BLK	0.250
NLIU	Near Lithology Unfiltered	87.66	BLK	0.250
FAB	Far Above	88.01	BLK	0.250
FHI	Far Cesium High	88.01	BLK	0.250
FLO	Far Cesium Low	88.01	BLK	0.250
FVA	Far Valley	88.01	BLK	0.250
FBA	Far Barite	88.01	BLK	0.250
FDE	Far Density	88.01	BLK	0.250
FPK	Far Peak	88.01	BLK	0.250
FLI	Far Lithology	88.01	BLK	0.250
PTMP	Pad Temperature	87.85	BLK	0.920
NHV	Near Detector High Voltage	87.24	NO	
FHV	Far Detector High Voltage	87.24	NO	
ITMP	Instrument Temperature	87.24	NO	
DDHV	Detector High Voltage	87.24	NO	

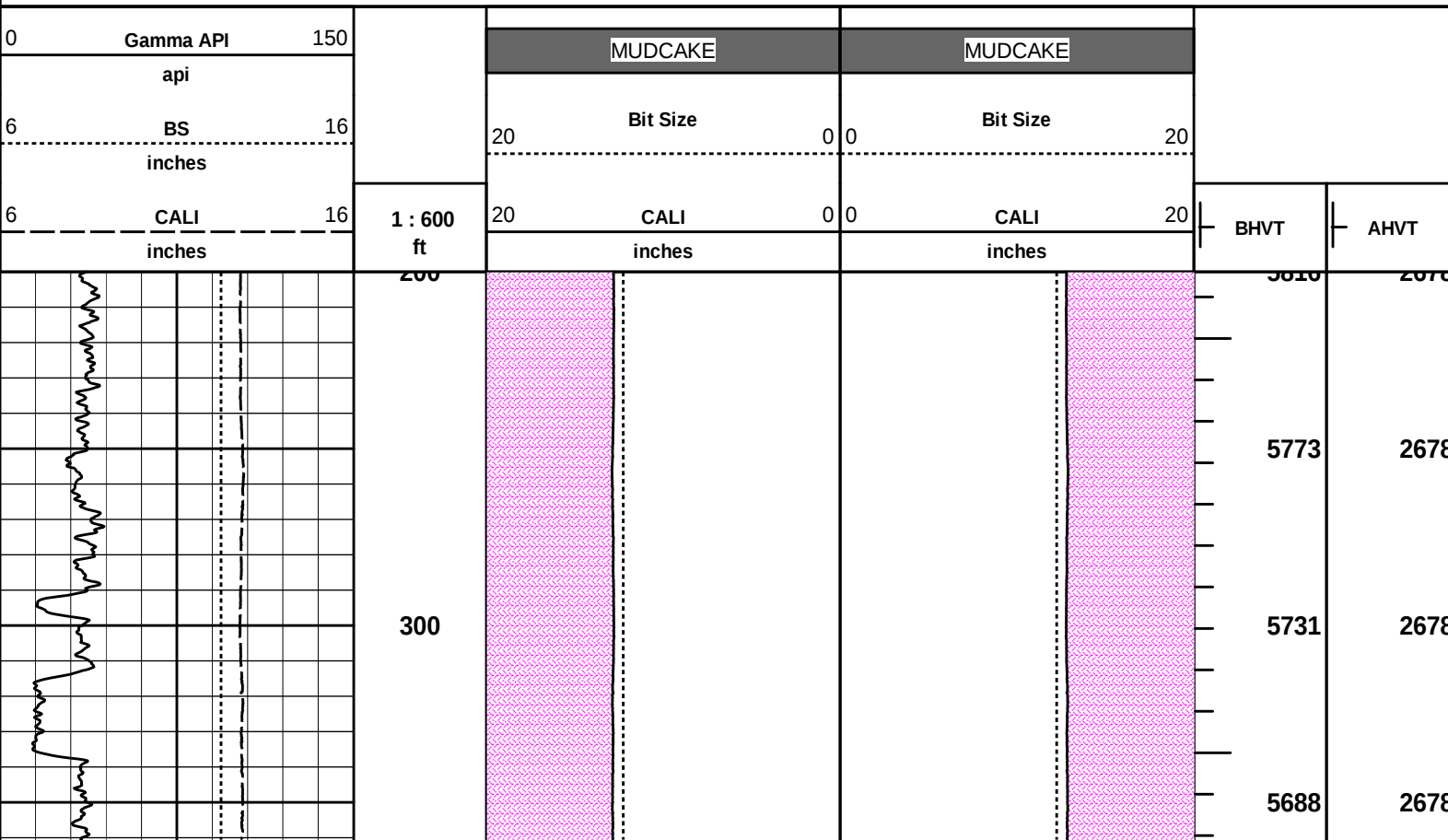
Microlog Pad				
TPUL	Tension Pull	88.03	NO	
MINV	Microlog Lateral	88.03	BLK	0.750
MNOR	Microlog Normal	88.03	BLK	0.750

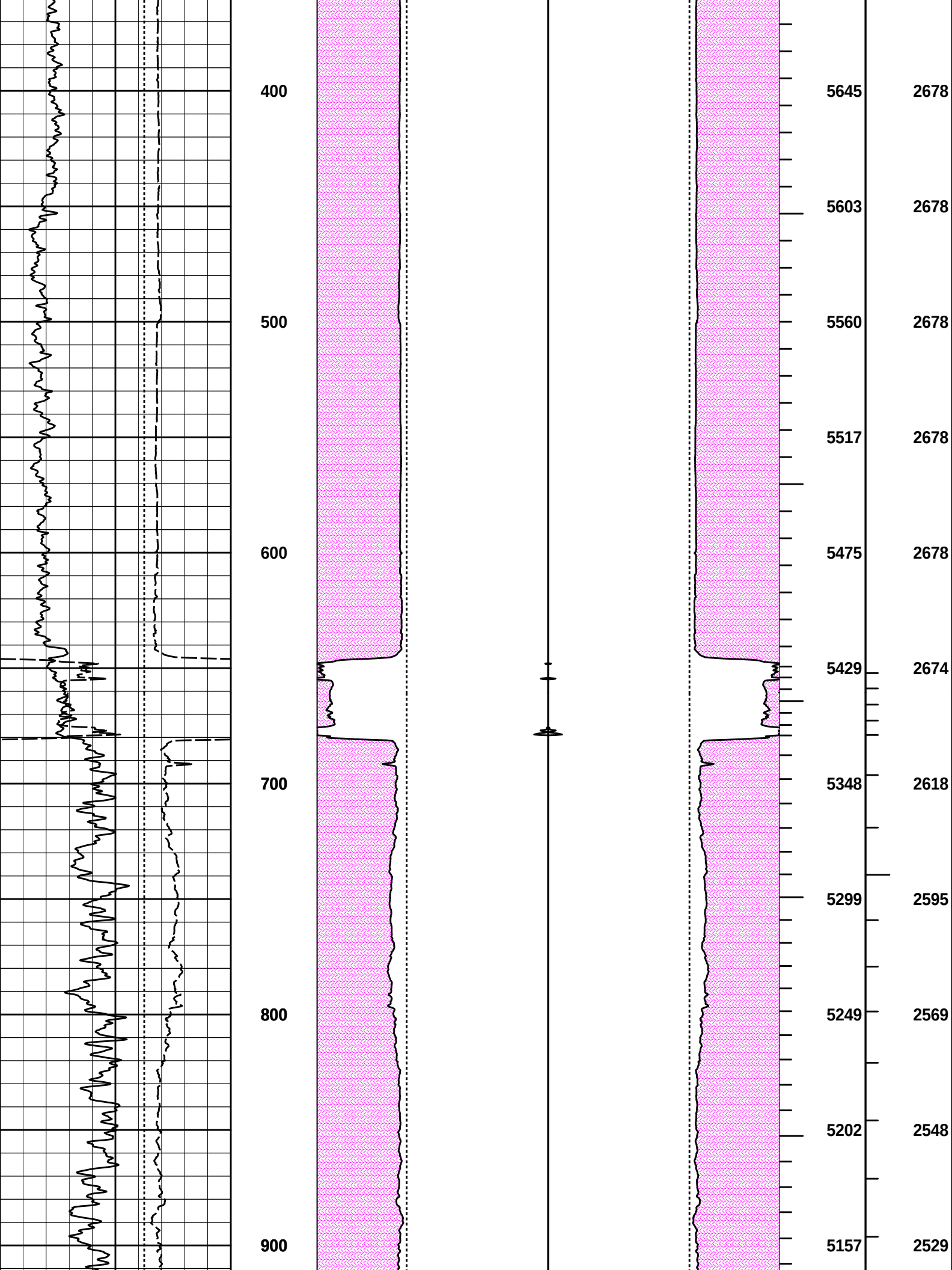
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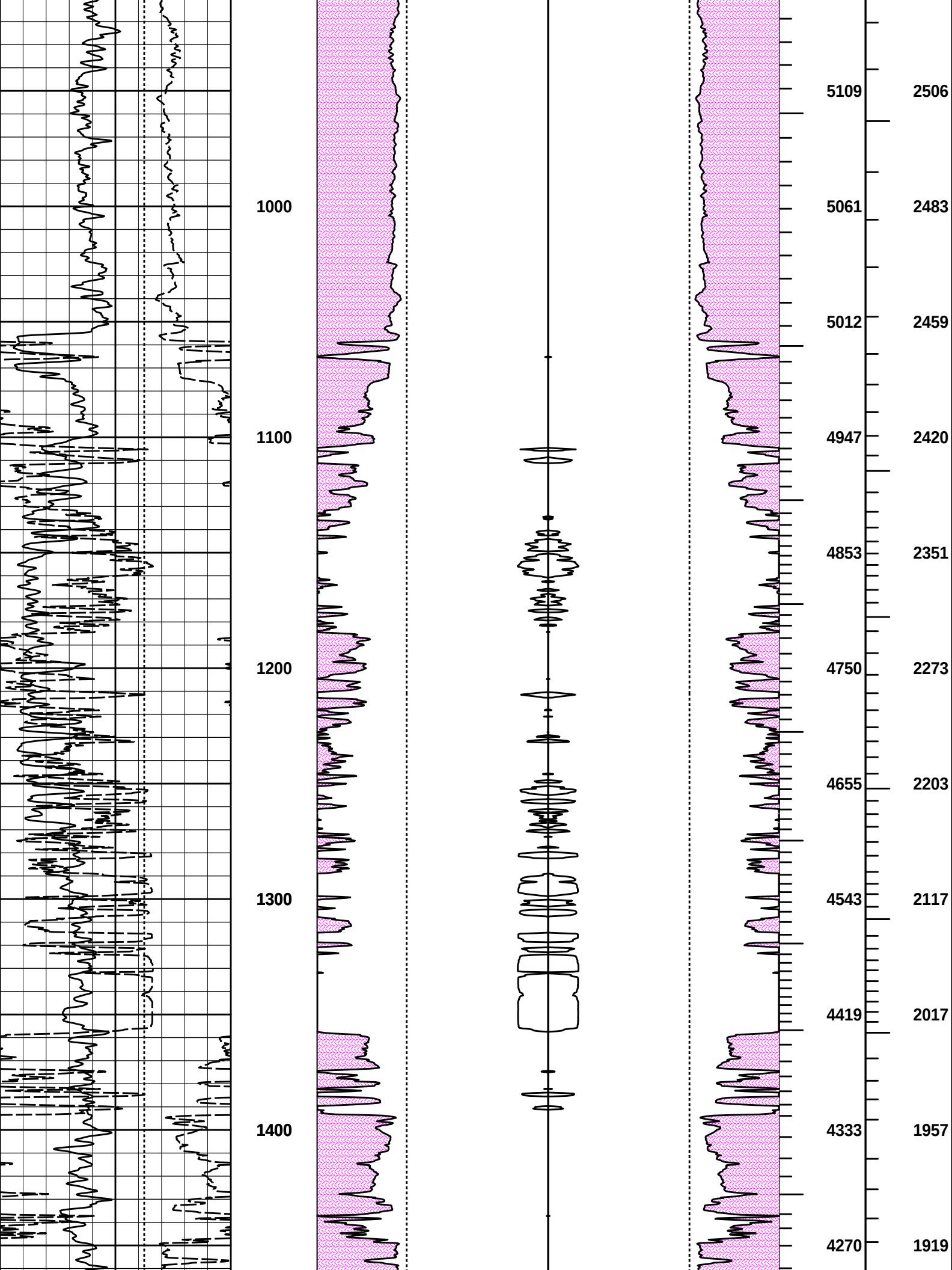


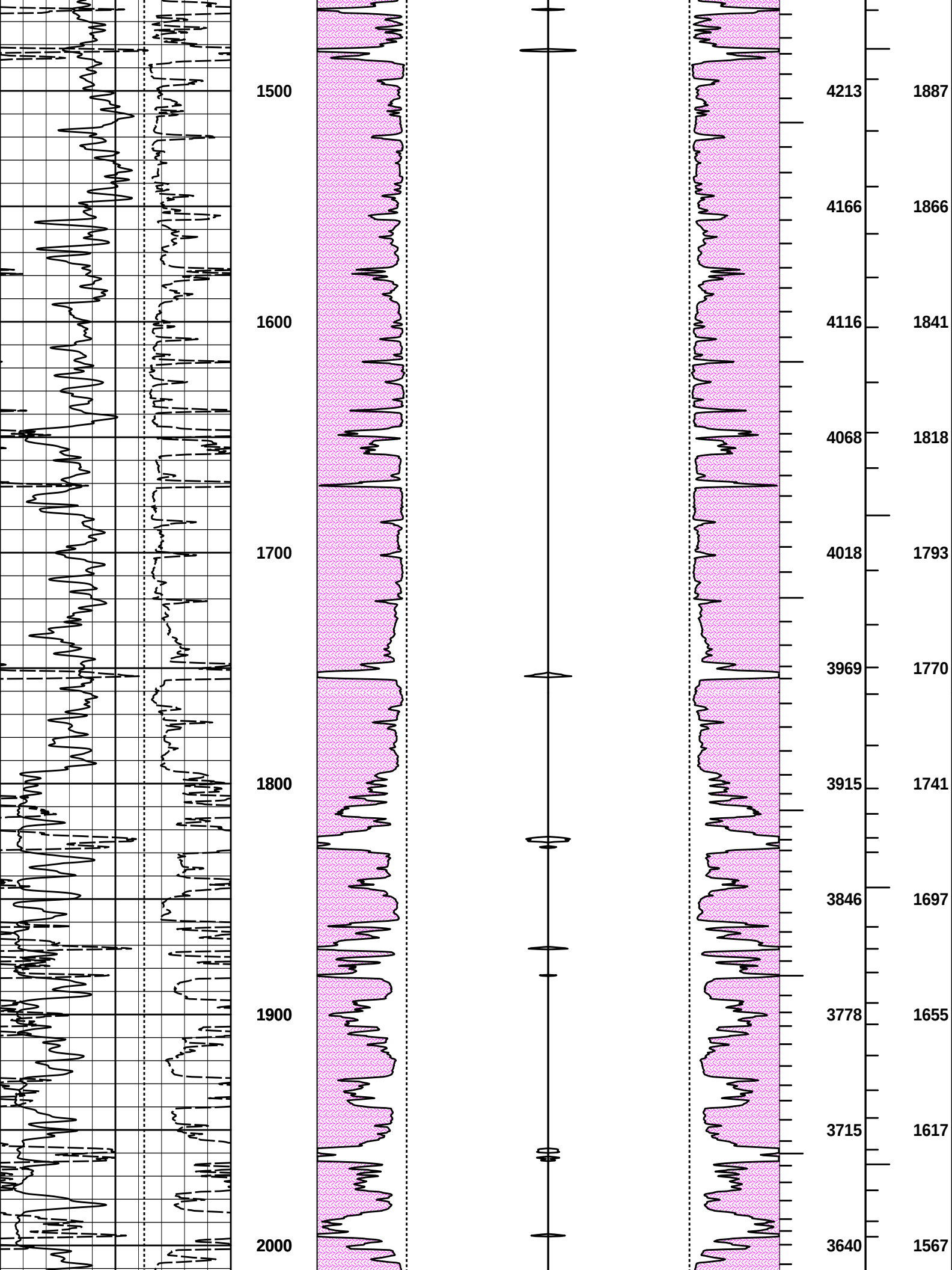
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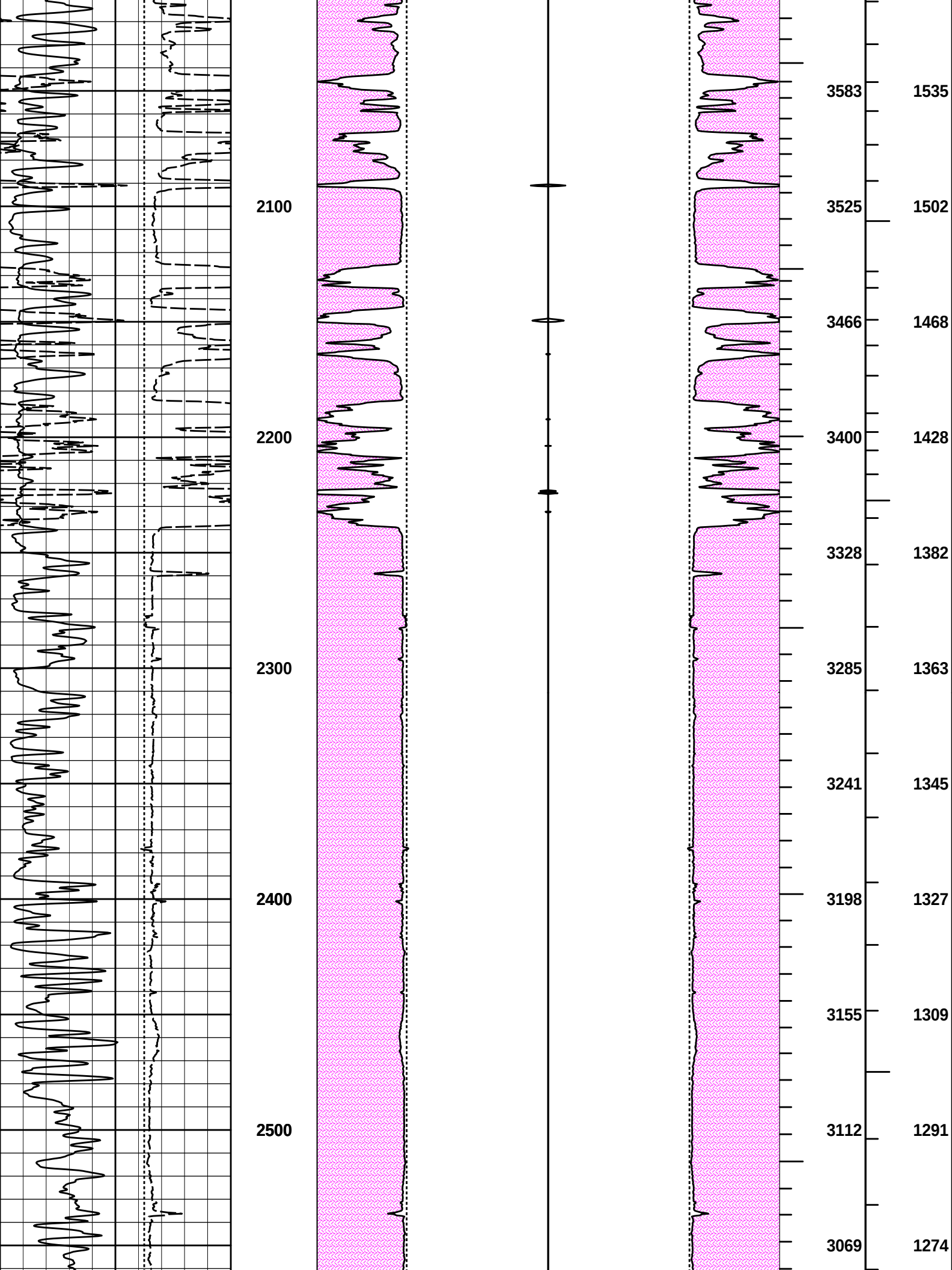
ANNULAR HOLE VOLUME PLOT

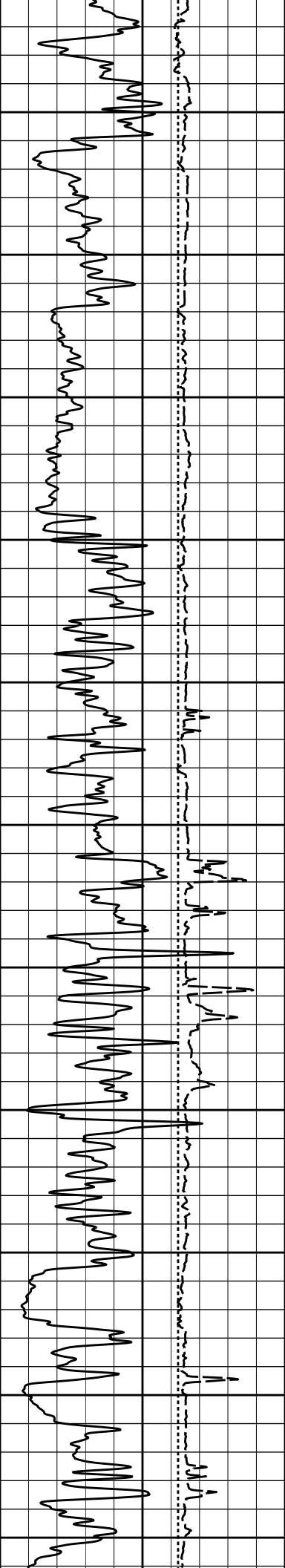












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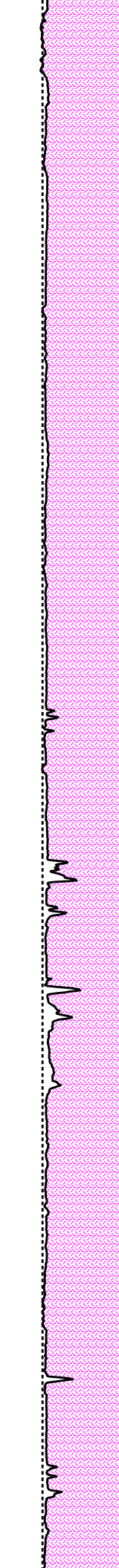
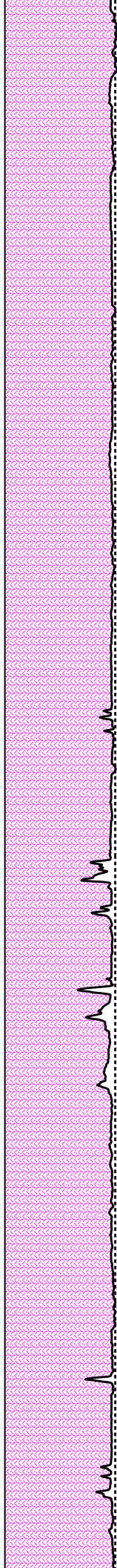
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2900

3000

3100



3027

2984

2942

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2814

2769

2724

2681

2639

2595

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1222

1205

1188

1170

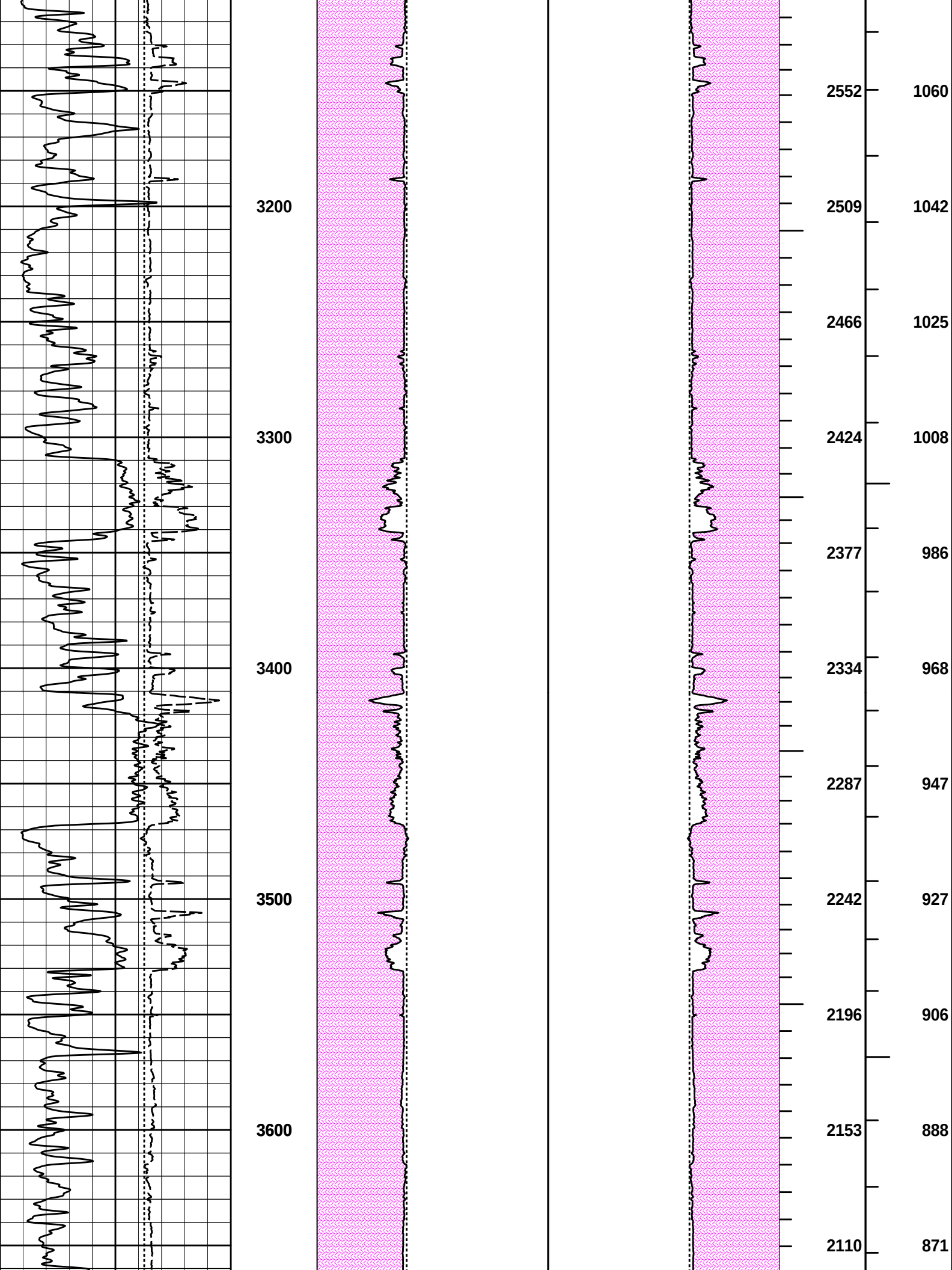
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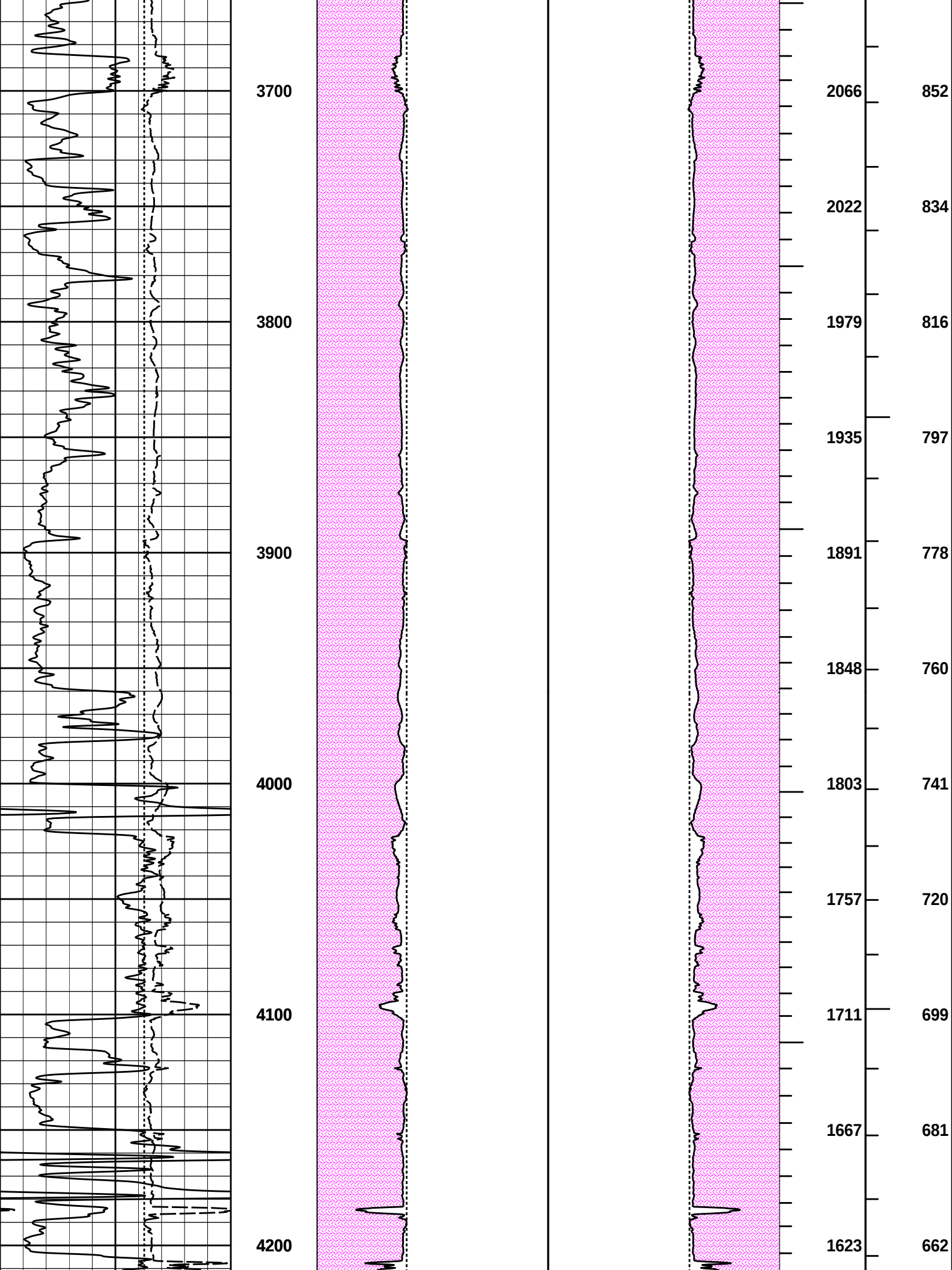
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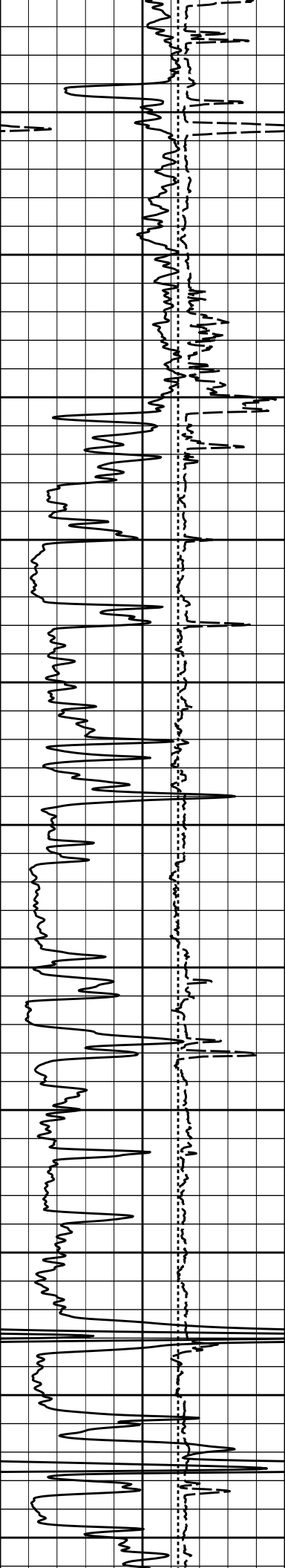
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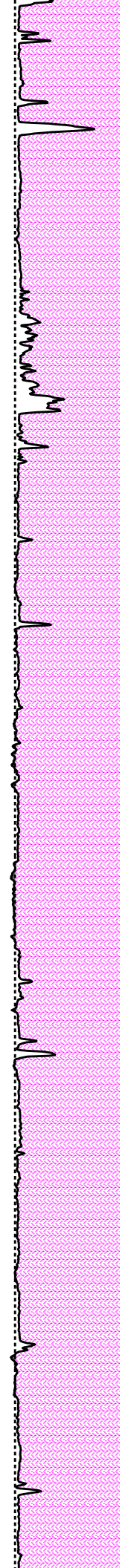
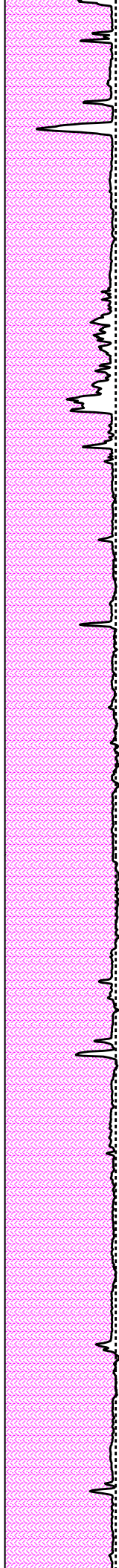
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4700



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581

564

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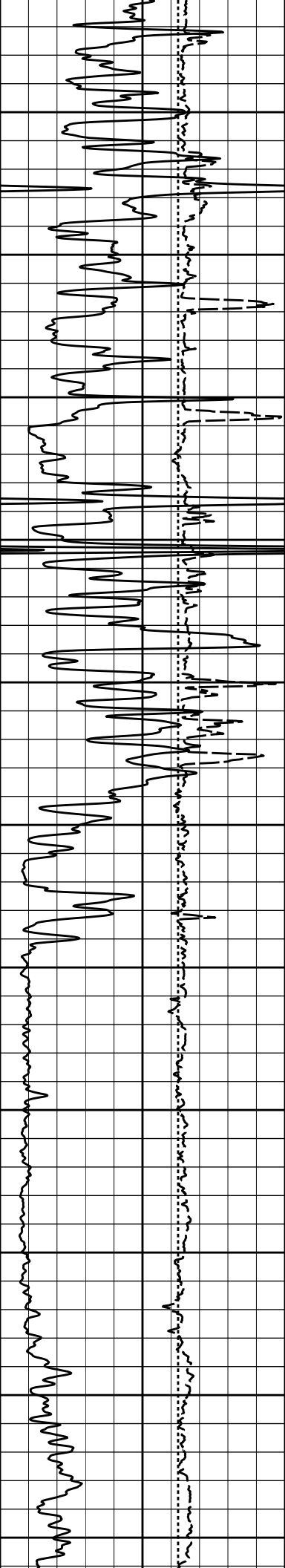
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513

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461



4800

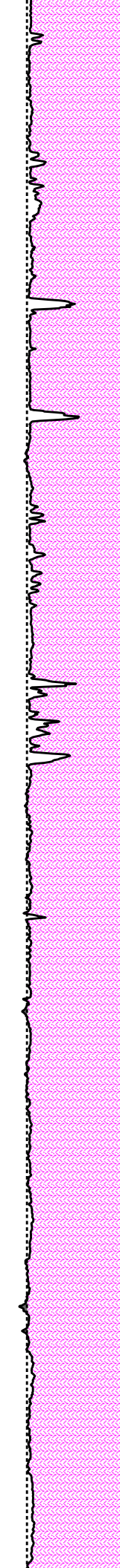
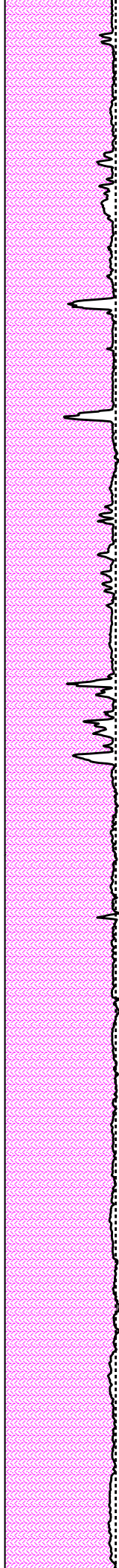
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5200

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370

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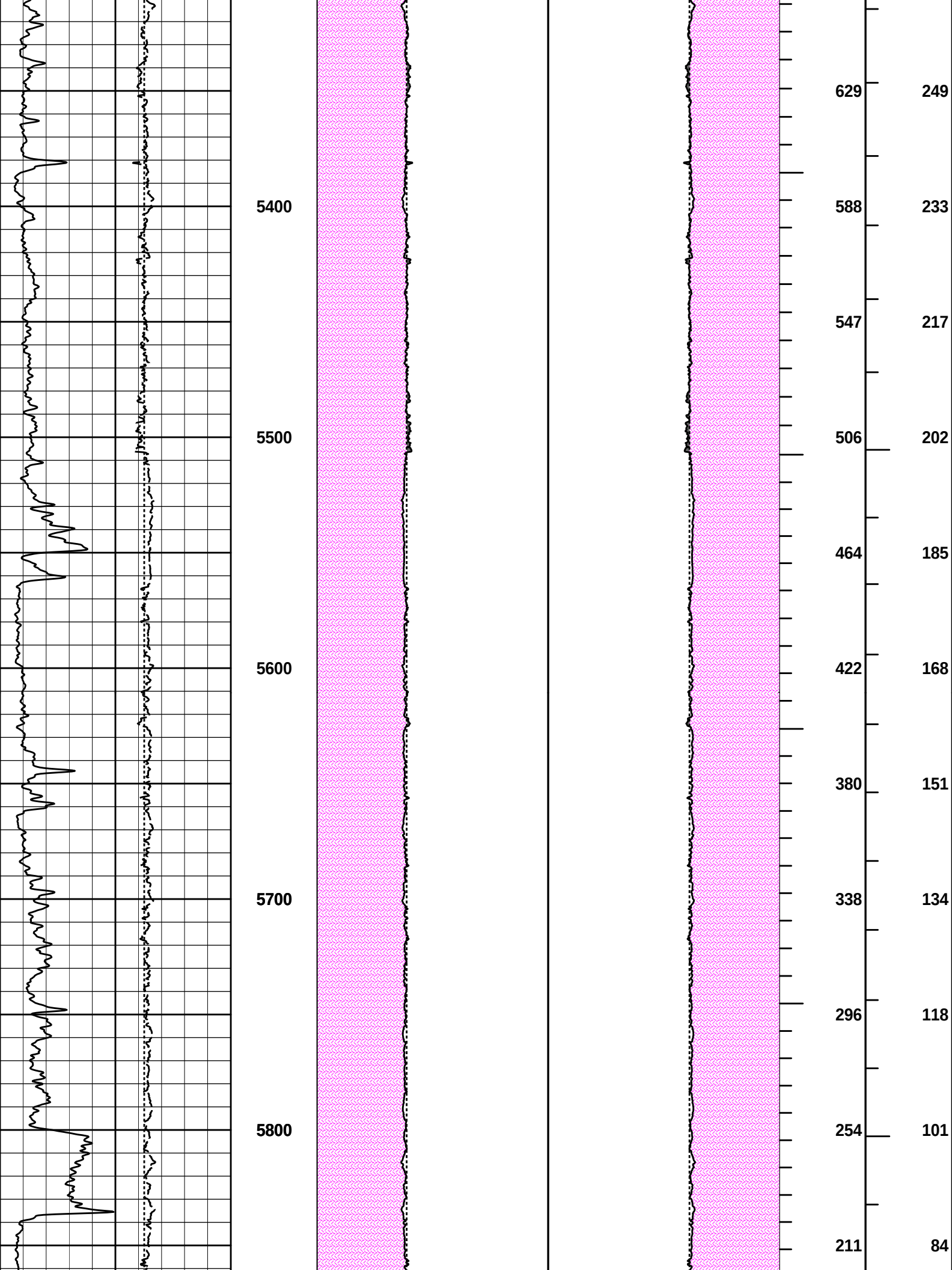
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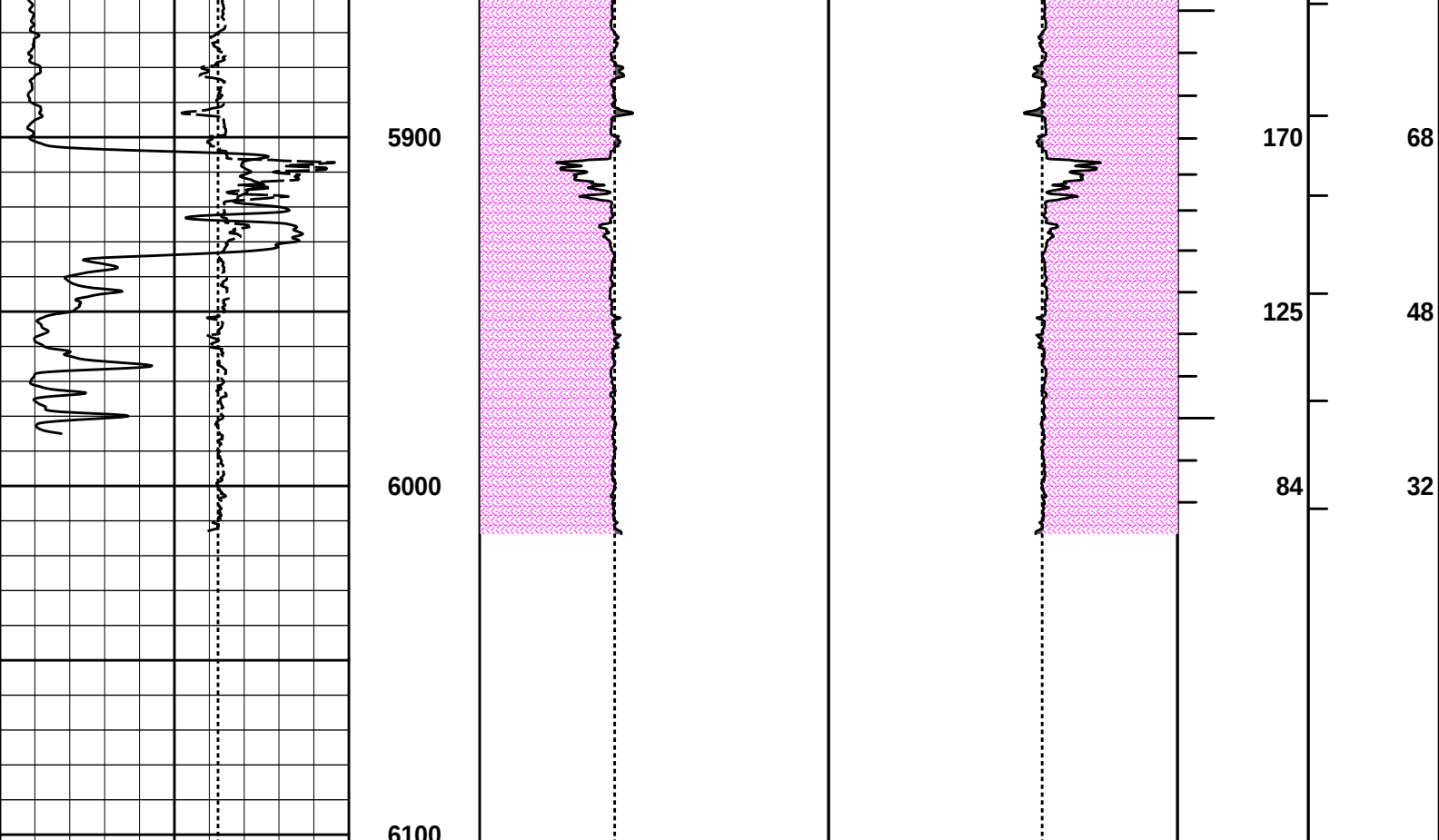
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265





6	CALI	16	1 : 600	20	CALI	0 0	20	BHVT	AHVT
6	inches	16	ft	20	inches	0 0	20		
6	BS	16		20	Bit Size	0 0	20		
6	inches	16							
0	Gamma API	150							
0	api	150							

HALLIBURTON

Plot Time: 16-Jun-12 05:28:40
Plot Range: 200 ft to 6102 ft
Data: MELISSA_3119_5\Well Based\DAQ-0001-006\
Plot File: \\LOCAL-IMELISSA_3119_5\0001 SP-GTET-CSNG-DSNT-SDLT-FLEX-WSTT-XRMI-ACRT-CHIPOROA\HV_2INCH_SDL_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	SANDRIDGE ENERGY		
WELL	MELISSA 3119 1-5		
FIELD	SIX MOONS		
COUNTY	COMANCHE	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	