

HALLIBURTON

ARRAY COMPENSATED
TURE RESISTIVITY
DUAL SPACED NEUTRON
SPECTRAL DENSITY

COMPANY		KERR-MCGEE OIL & GAS ONSHORE LP	
WELL		NICHOLS 24-6	
FIELD		WATTENBERG	
COUNTY		WELD	
STATE		CO	
Permanent Datum		GL	
Log measured from		KB	
Drilling measured from		KB	
Date		19-May-11	
Run No.		ONE	
Depth - Driller		8042.00 ft	
Depth - Logger		8029.0 ft	
Bottom - Logged Interval		8020.0 ft	
Top - Logged Interval		CASING	
Casing - Driller		8.625 in @ 850.0 ft	
Casing - Logger		835.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED MUD	
Density		8.8 ppg	
Viscosity		26.00 s/qt	
PH		7.00 pH	
Source of Sample		MUD CELL	
Rm @ Meas. Temperature		0.850 ohmm @ 75.00 degF	
Rmf @ Meas. Temperature		0.71 ohmm @ 75.00 degF	
Rmc @ Meas. Temperature		0.786 ohmm @ 75.00 degF	
Source Rmf		CHART	
Rmc		CHART	
Rm @ BHT		0.29 ohmm @ 234.0 degF	
Time Since Circulation		7.5 hr	
Time on Bottom		19-May-11 16:42	
Max. Rec. Temperature		234.0 degF @ 8029.0 ft	
Equipment		11454566	
Location		BRIGHTON	
Recorded By		C. GULLETT	
Witnessed By		W. TEKELL	
J. ADAMS			

Service Ticket No.: 8183503		API Serial No.: 05123332360000		PGM Version: WL INSITE R3.2.5 (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.		@		@		ONE		ACRt		N/A		1.5" STANDOFF		N/A					
Rmc @ Meas. Temp.		@		@				E2817-S4353											
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.		11294346		Serial No.				Serial No.		M271-P123		Serial No.		10958655					
Model No.		GTET		Model No.				Model No.		SDLT		Model No.		DSNT					
Diameter		3.625"		No. of Cent.				Diameter		4.75"		Diameter		3.625"					
Detector Model No.		102-T		Spacing				Log Type		GAMMA-GAMMA		Log Type		THERMAL					
Type		SCINT.						Source Type		Cs137		Source Type		Am241Be					
Length		8"		LSA [Y/N]				Serial No.		2770GW		Serial No.		DSN-434					
Distance to Source		9.5'		FWDA [Y/N]				Strength		1.5 Ci		Strength		15 Ci					
LOGGING DATA																			
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.500	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	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	5.500	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	10000.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	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 / 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	Centered	
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	DNOK	Process Density?	Yes	
SDLT	DNOK	Process Density EVR?	No	
SDLT	CB	Logging Calibration Blocks?	No	
SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT	DTWN	Disable temperature warning	No	
SDLT	DMA	Formation Density Matrix	2.710	g/cc
SDLT	DFL	Formation Density Fluid	1.000	g/cc
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT	MLOK	Process MicroLog Outputs?	Yes	
ACRt	RTOK	Process ACRt?	Yes	
ACRt	MNSO	Minimum Tool Standoff	1.50	in
ACRt	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt	TPOS	Tool Position	Free Hanging	
ACRt	RMOP	Rmud Source	Mud Cell	
ACRt	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt	THQY	Threshold Quality	0.50	
BOTTOM_____				

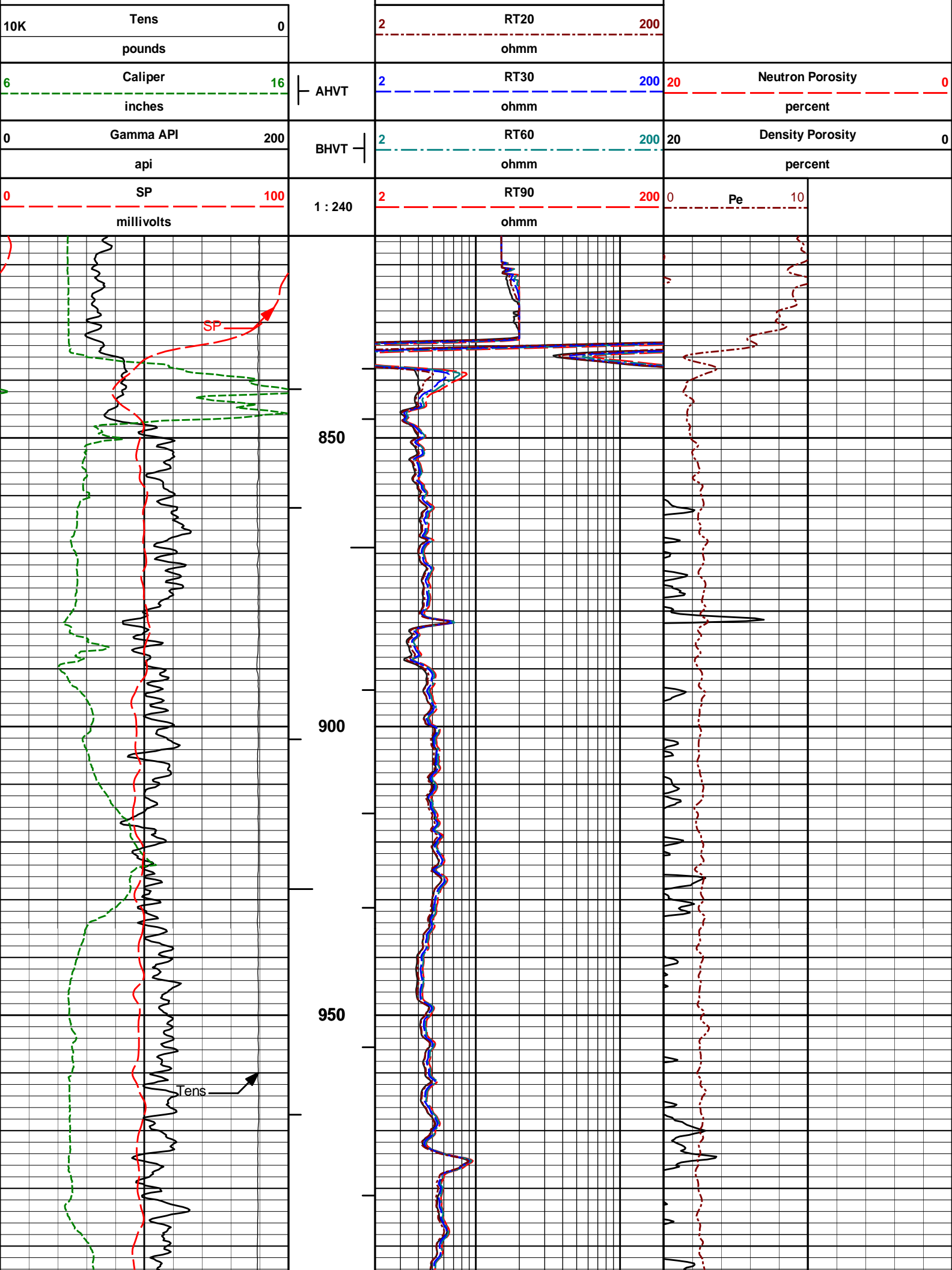
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Date: 19-May-11 19:06:33

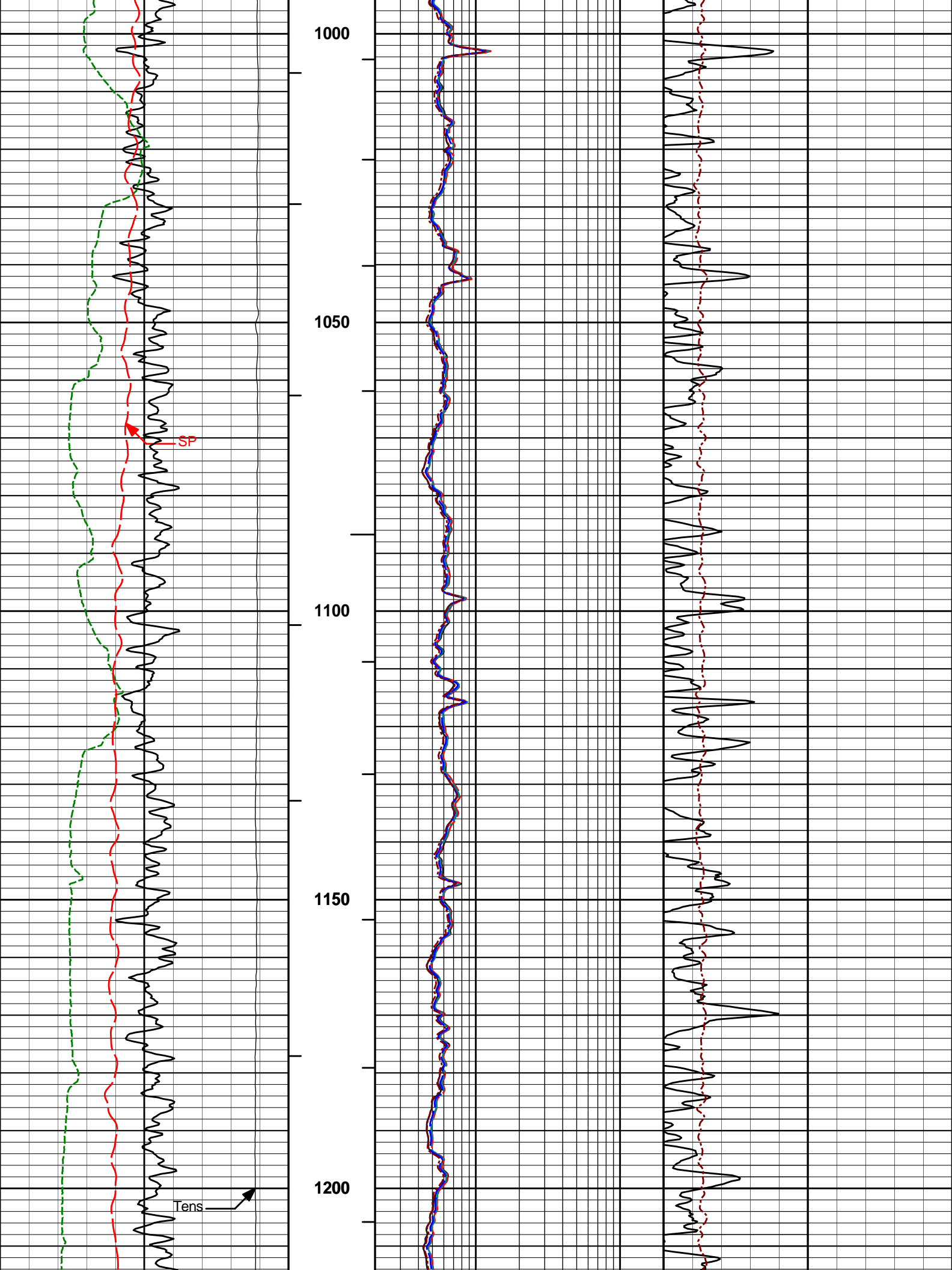


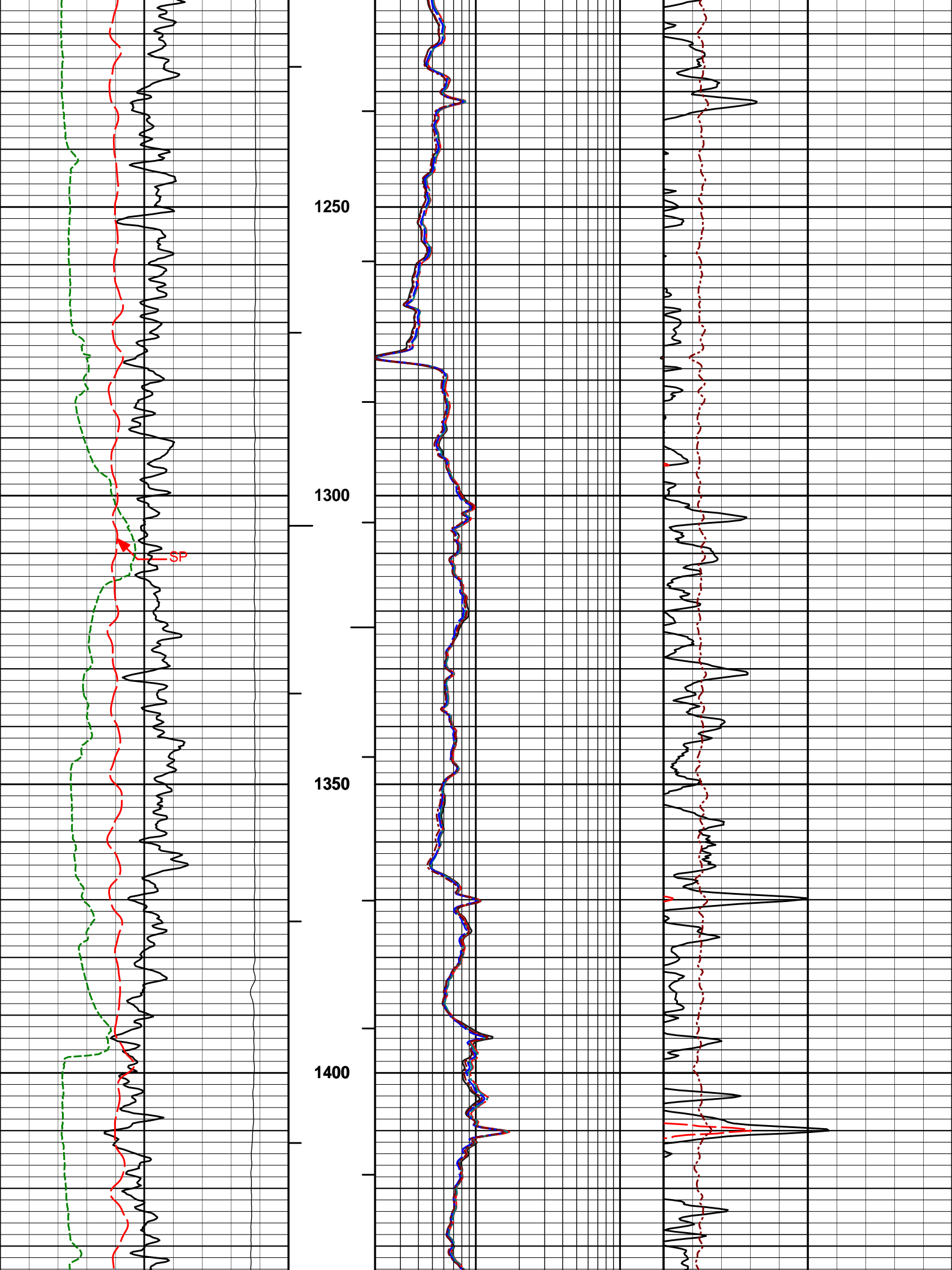
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Data: {ActiveWell}\Well Based\MAIN*
Plot File: \COMP\MAIN

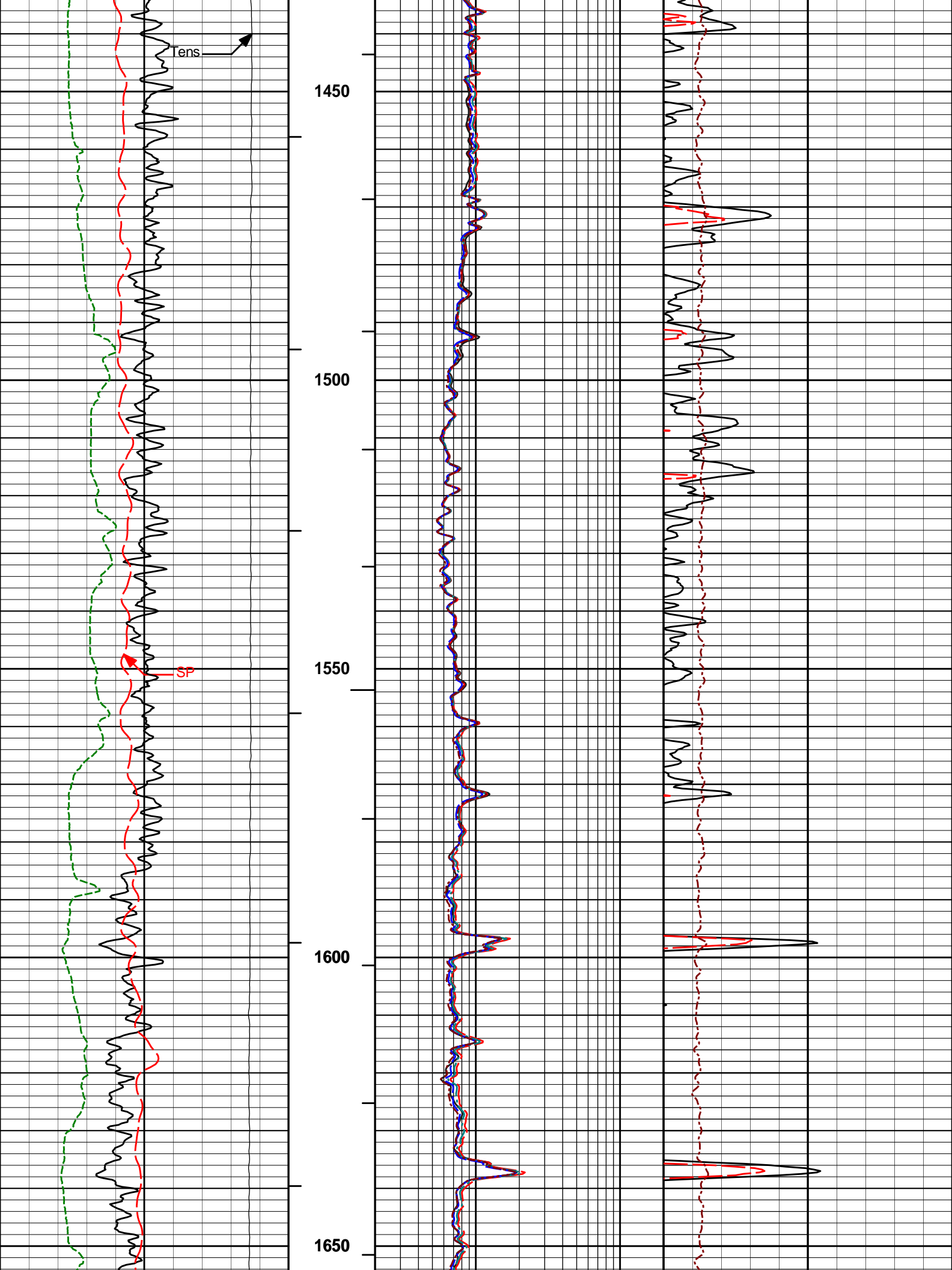
MAIN PASS 5" = 100'

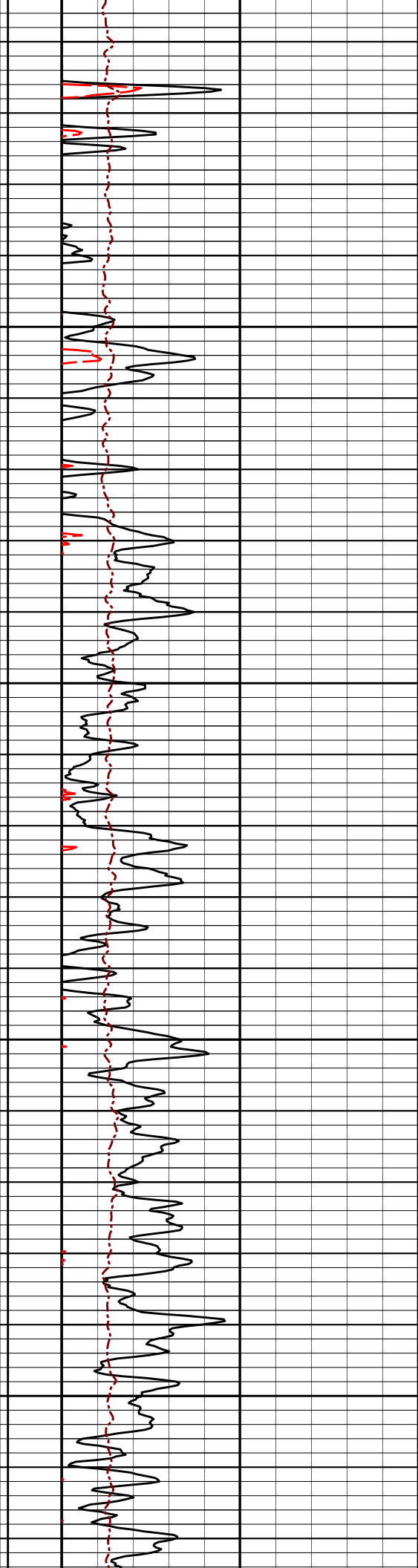
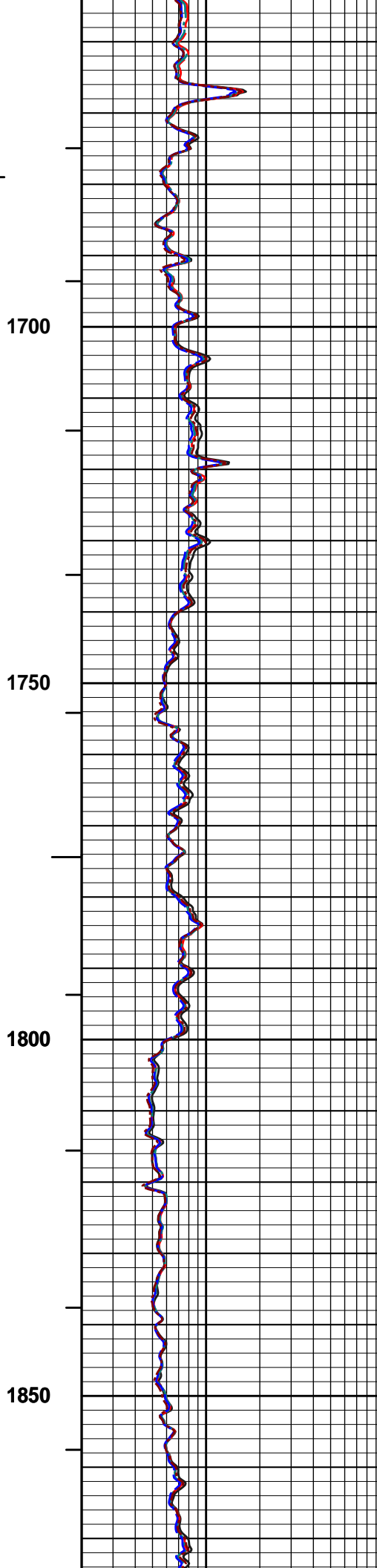
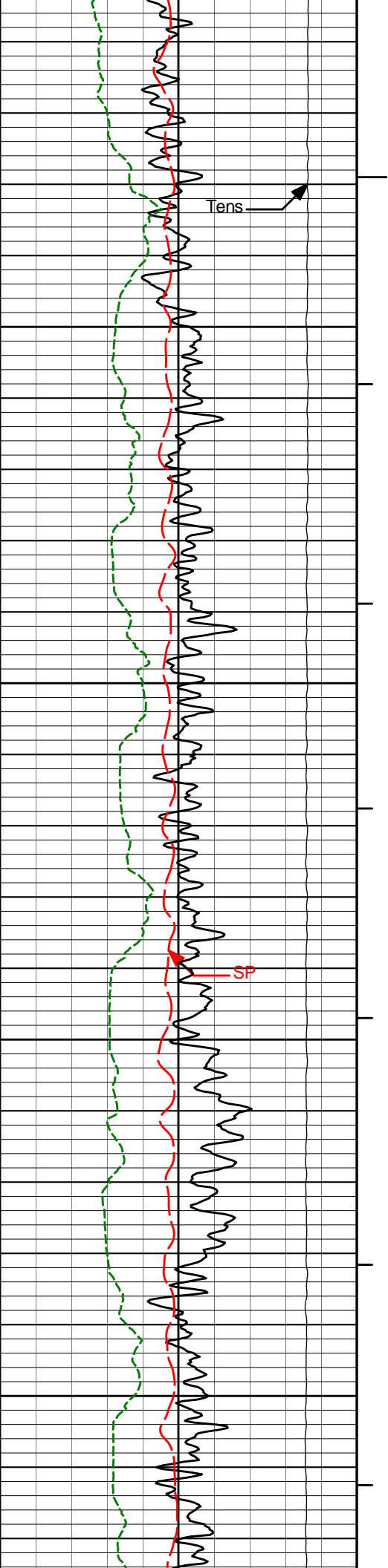
	2	RT10	200	
		ohmm		

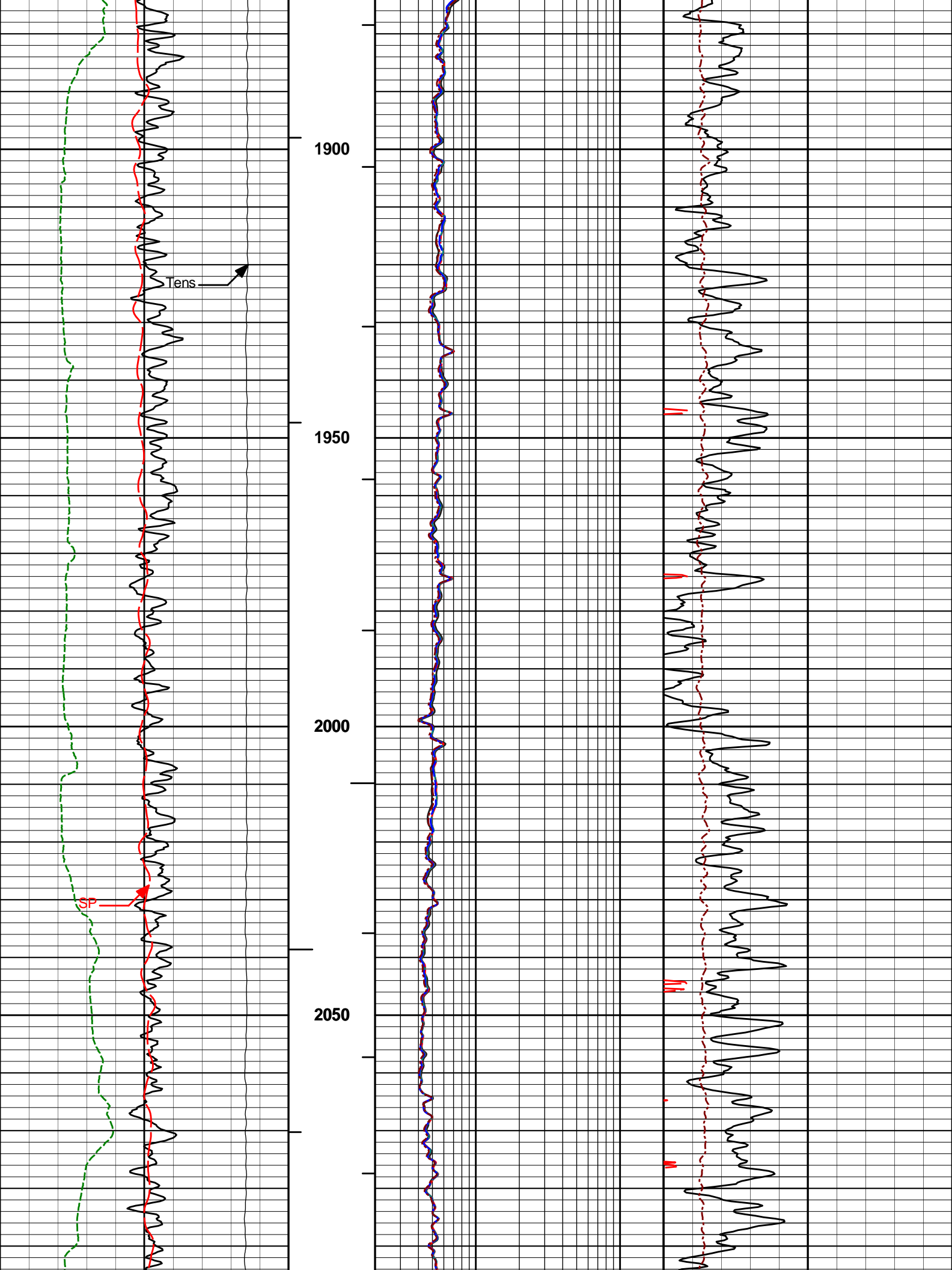


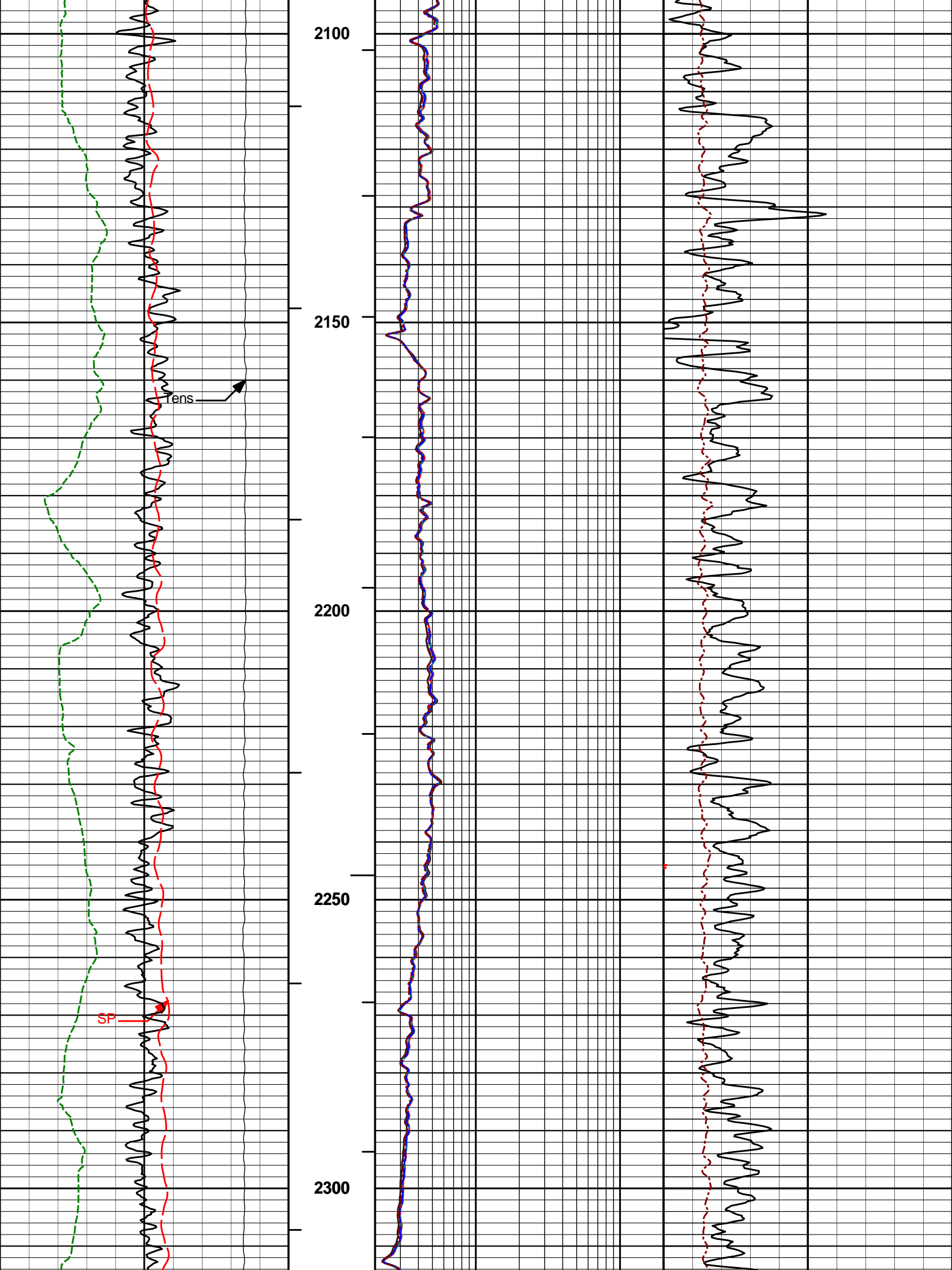


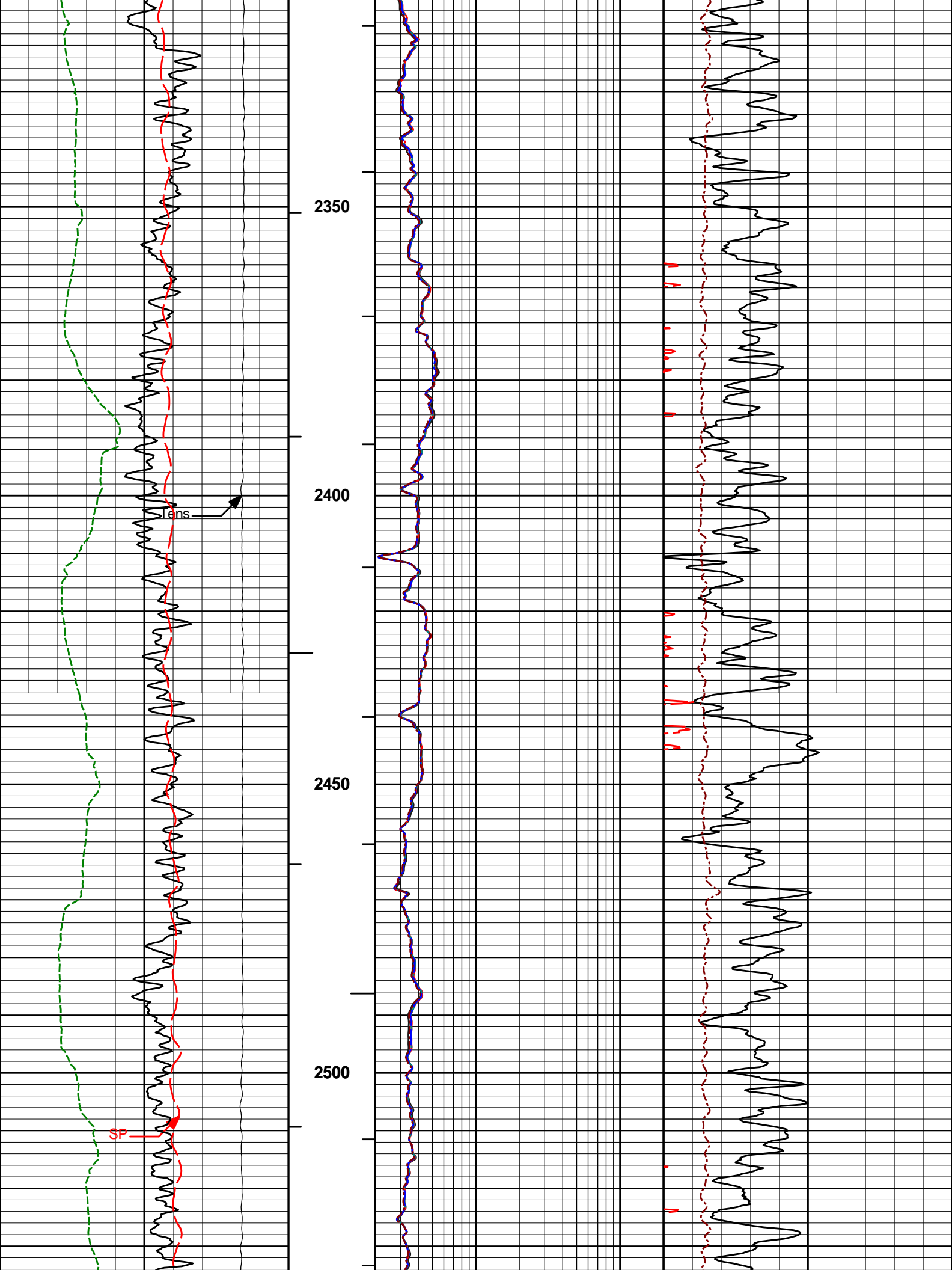


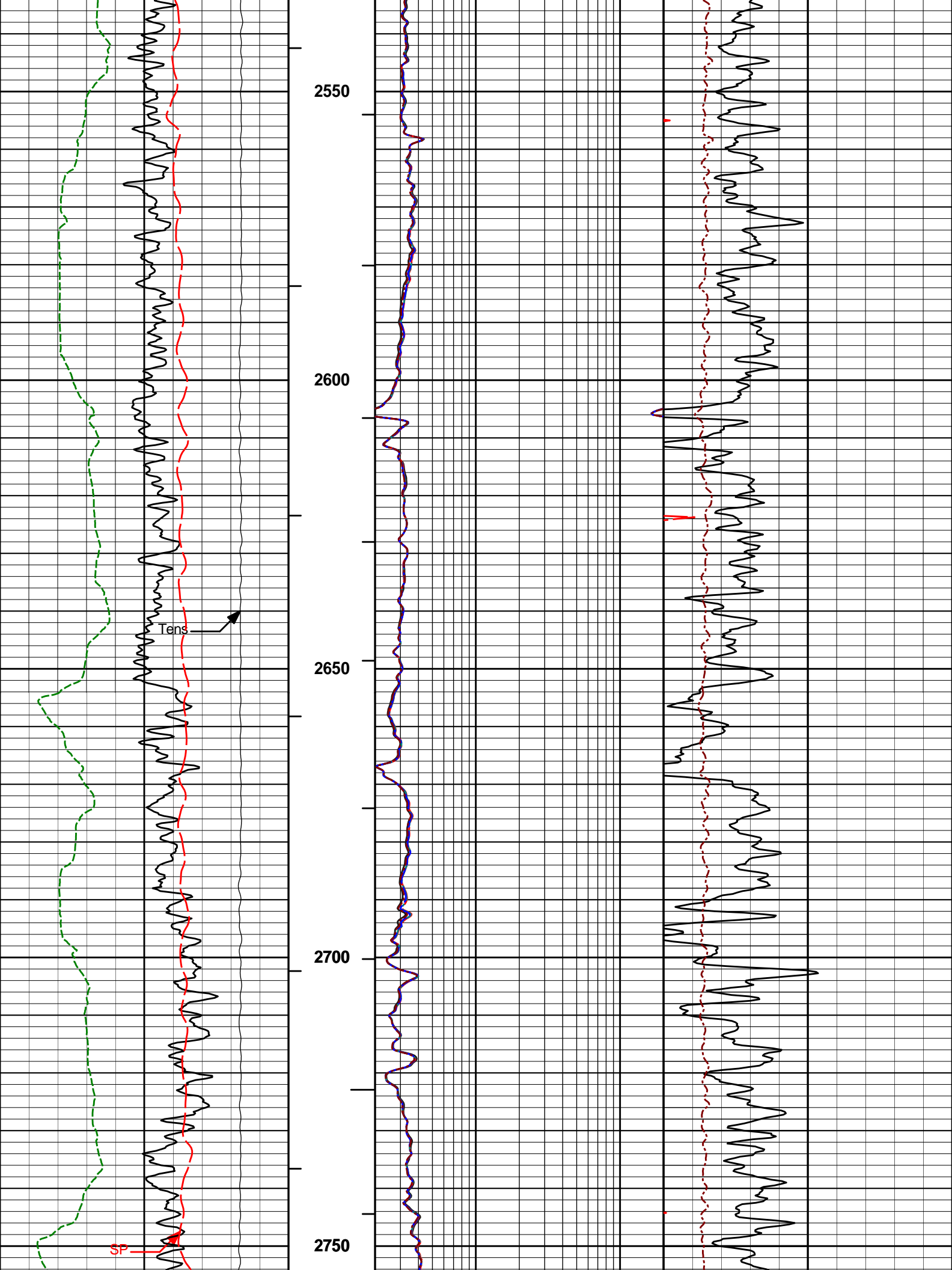


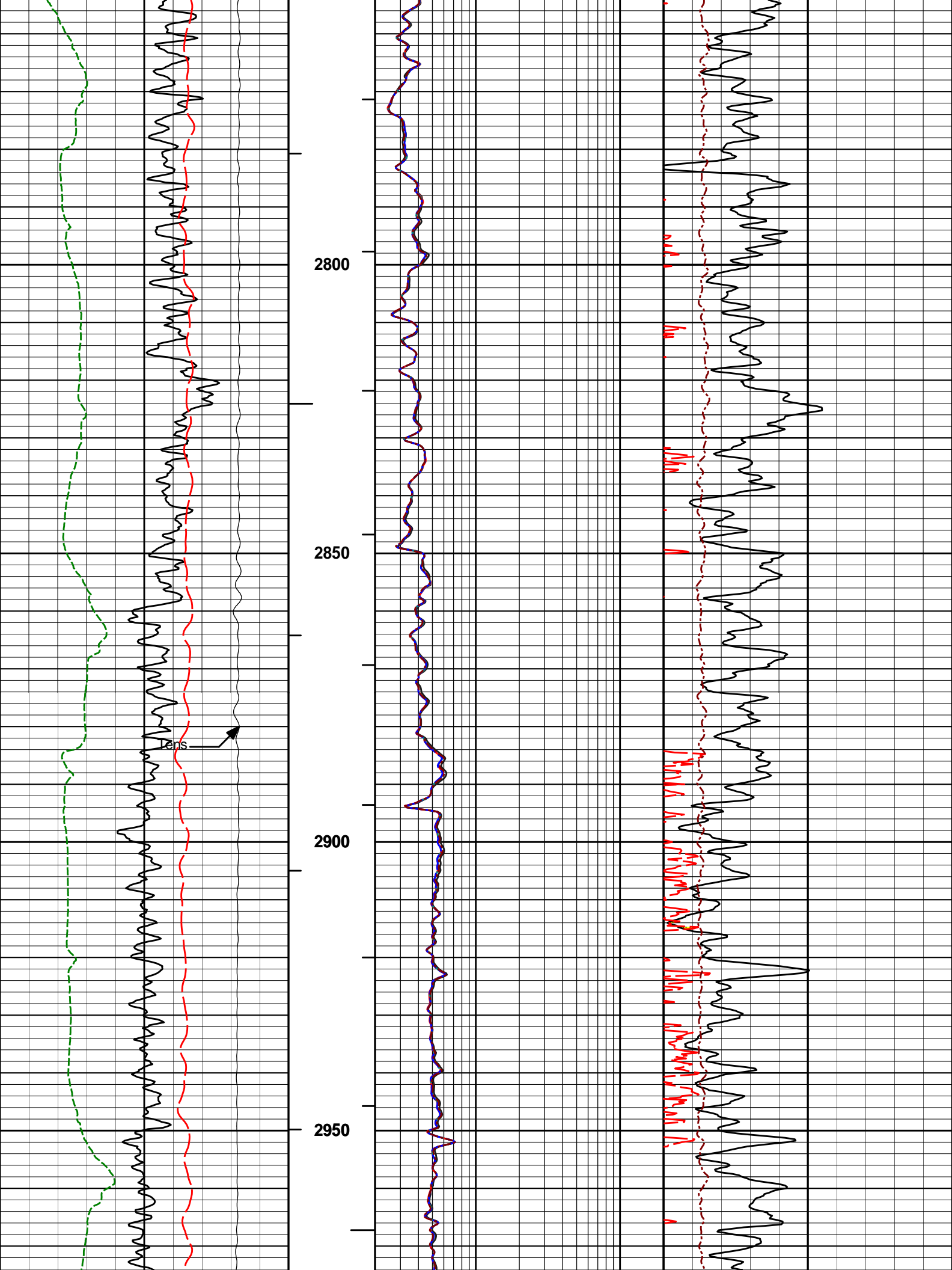


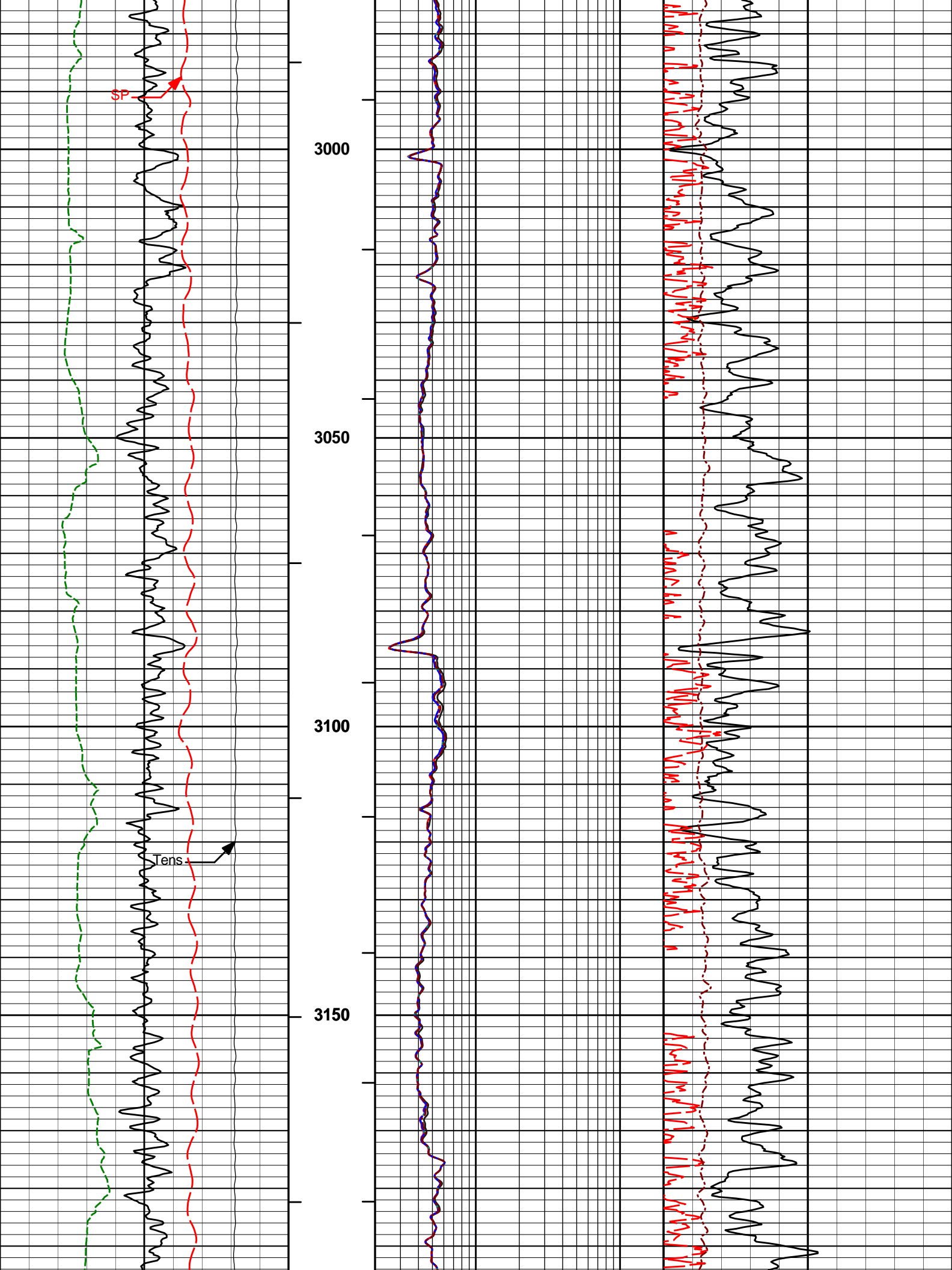


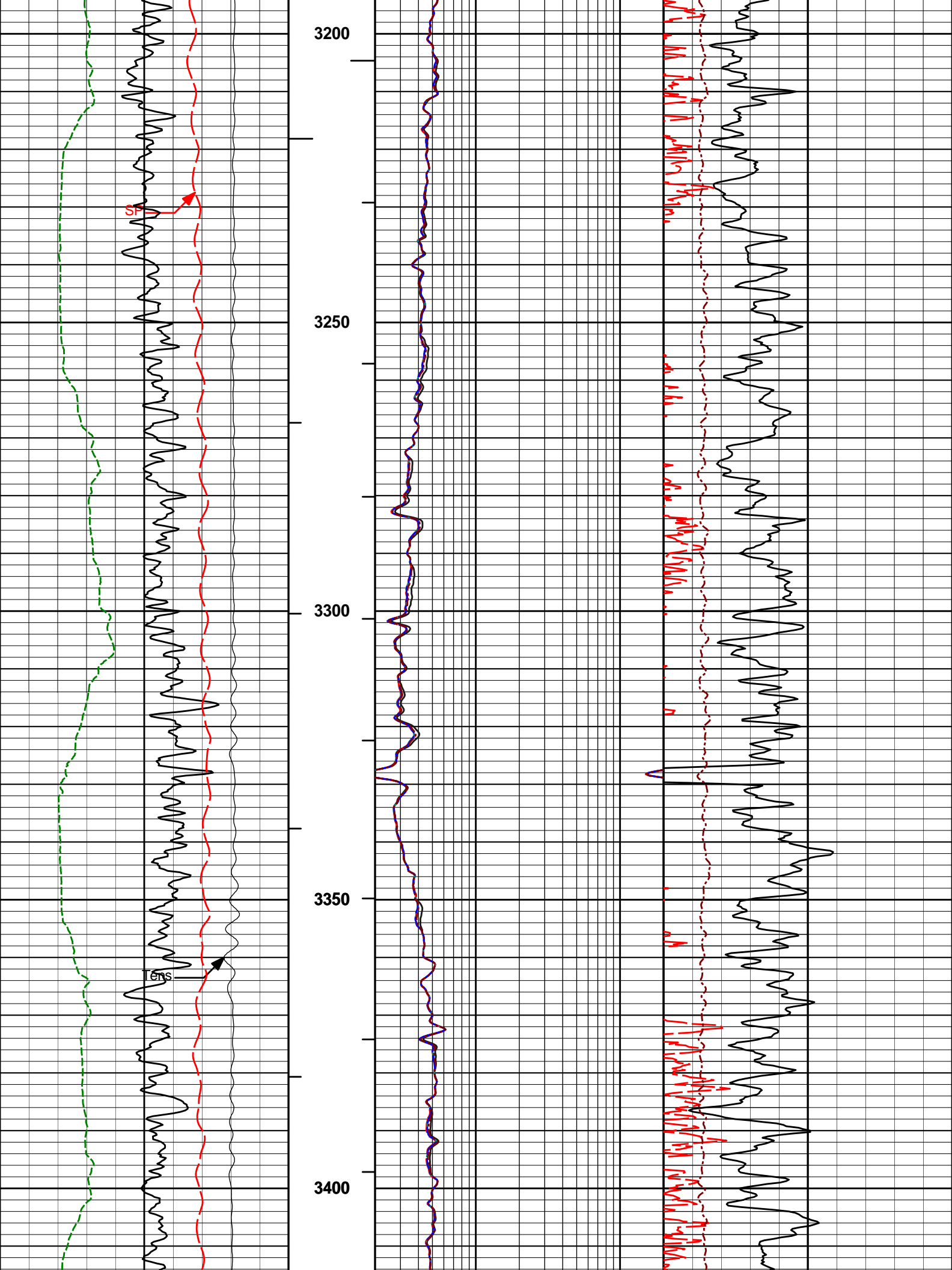


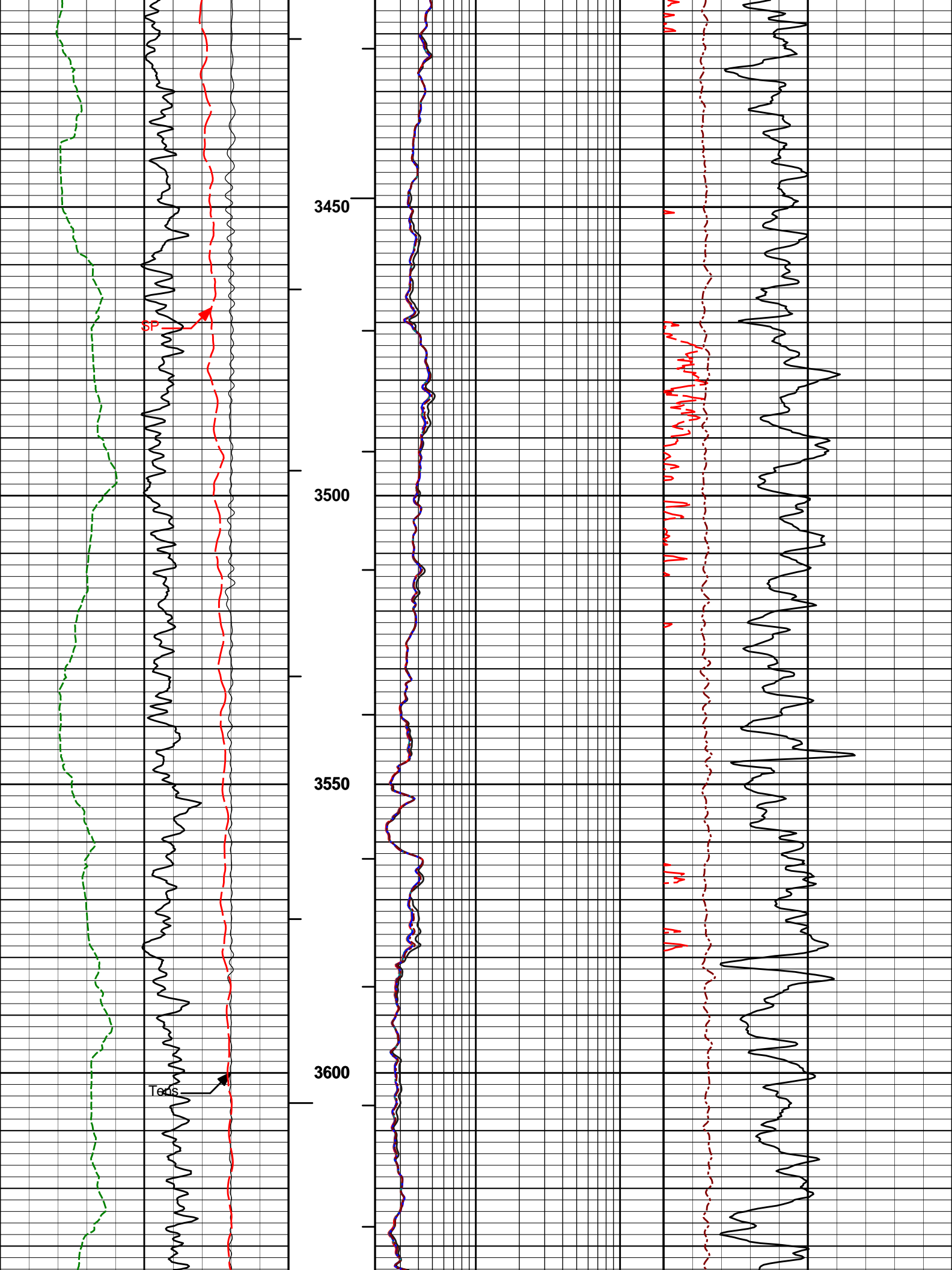


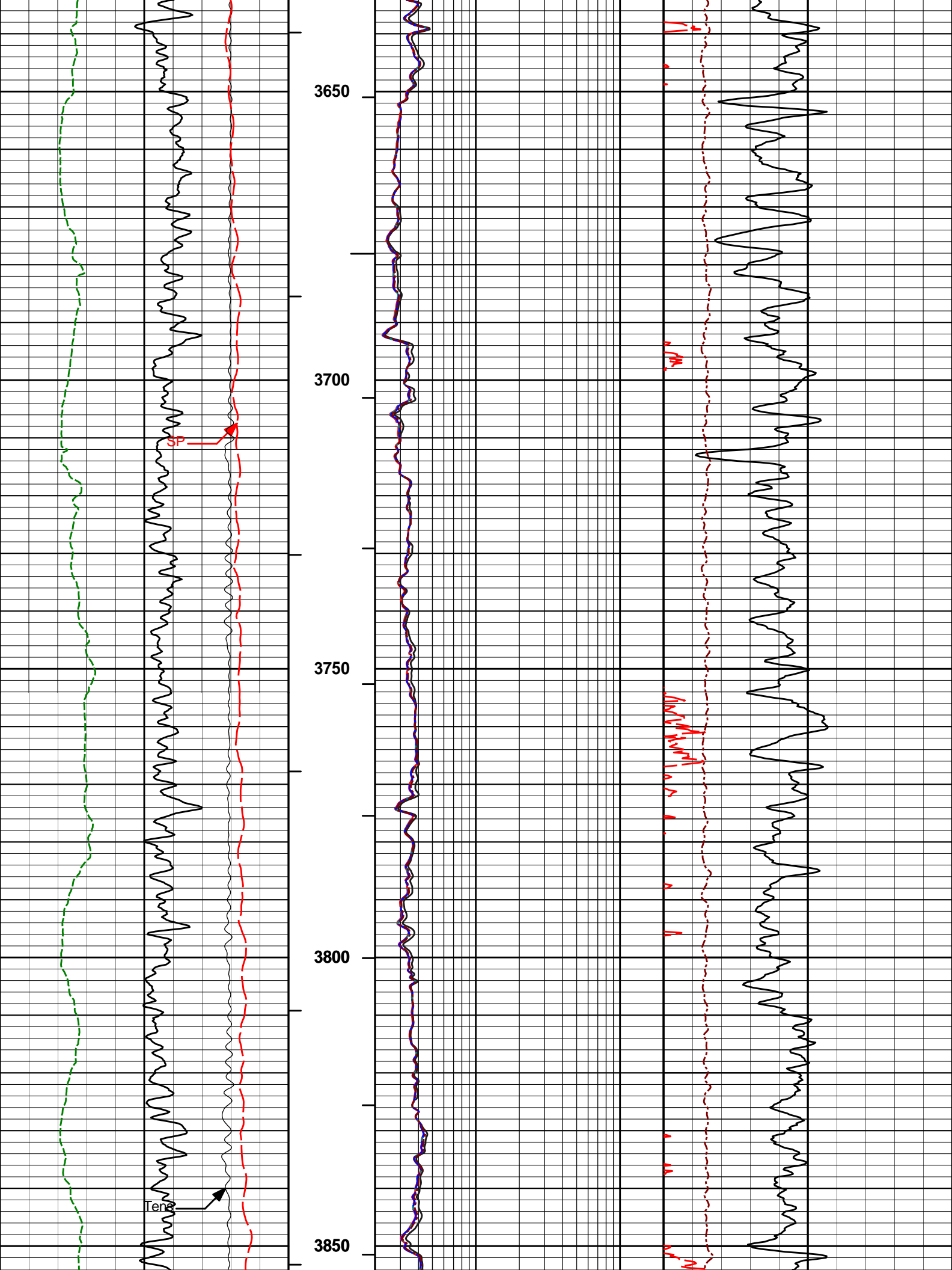


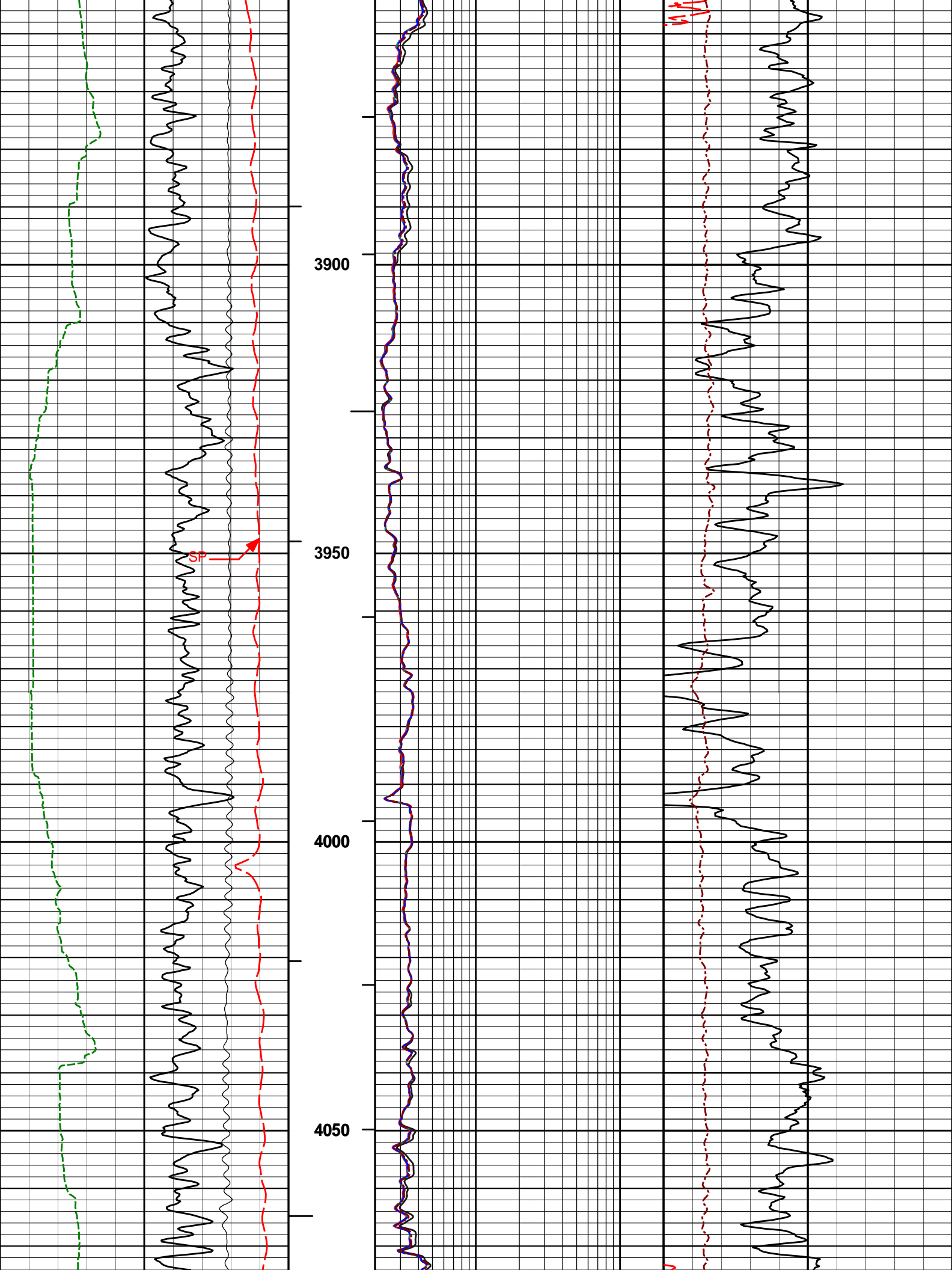


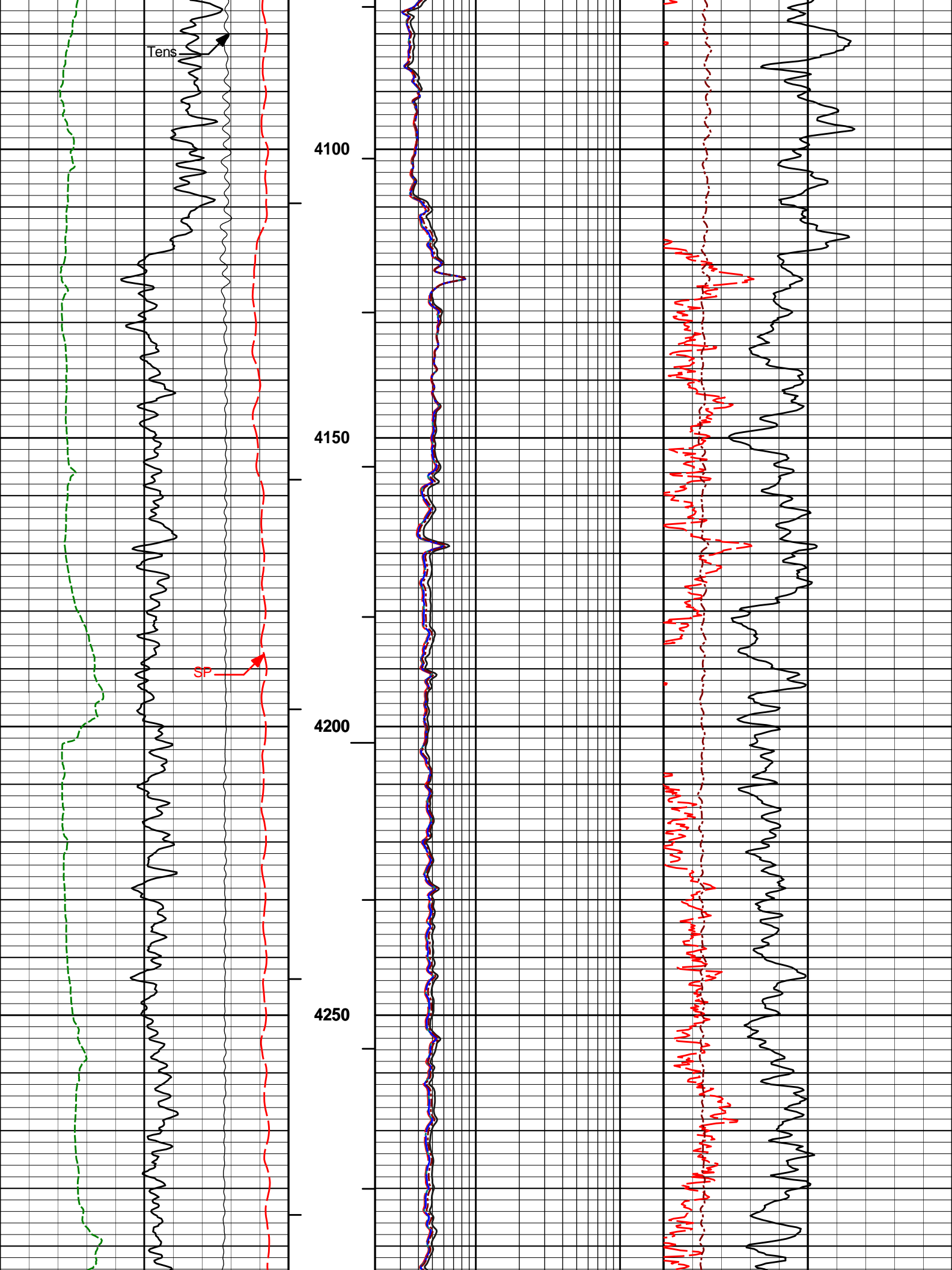


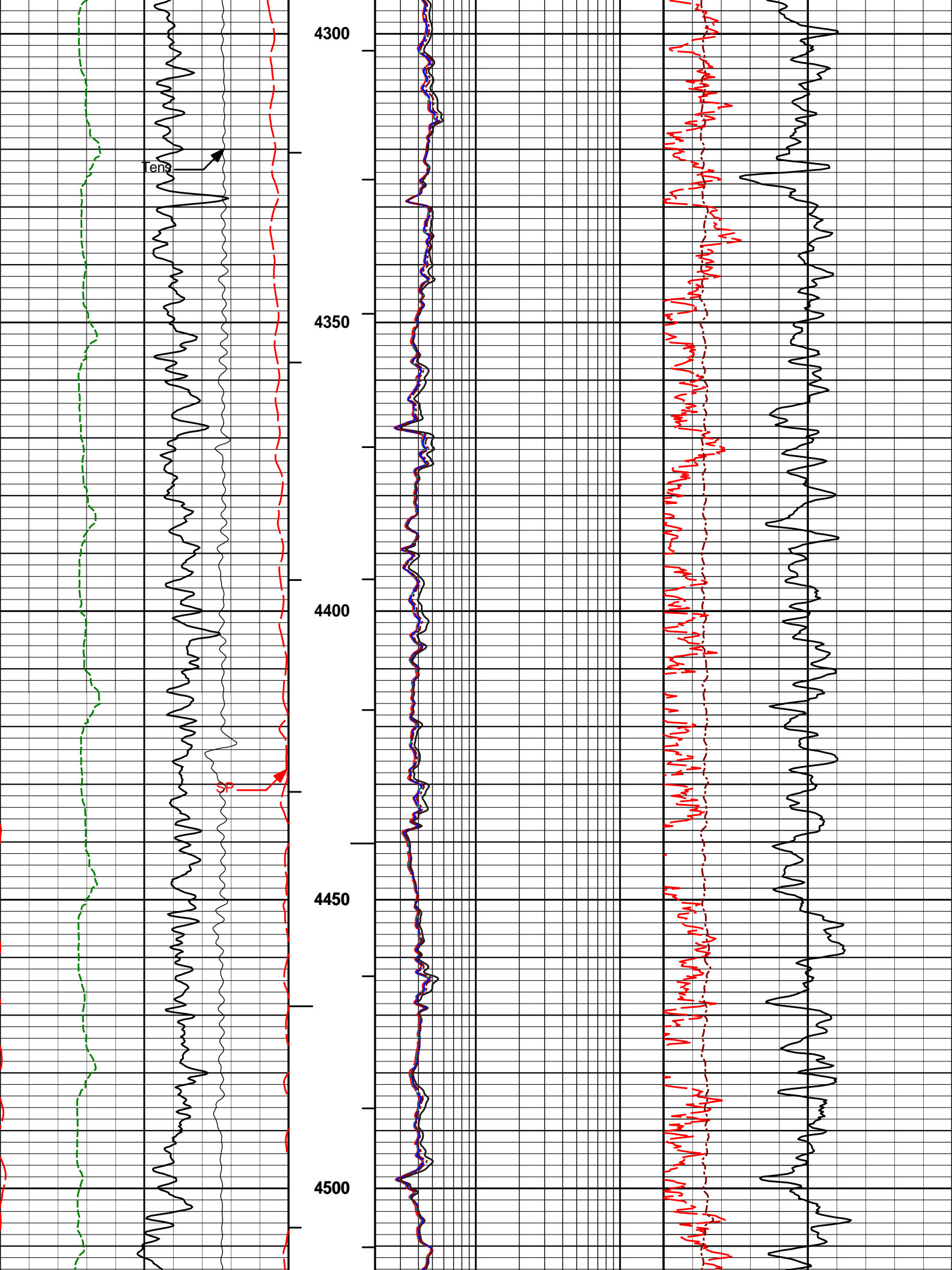


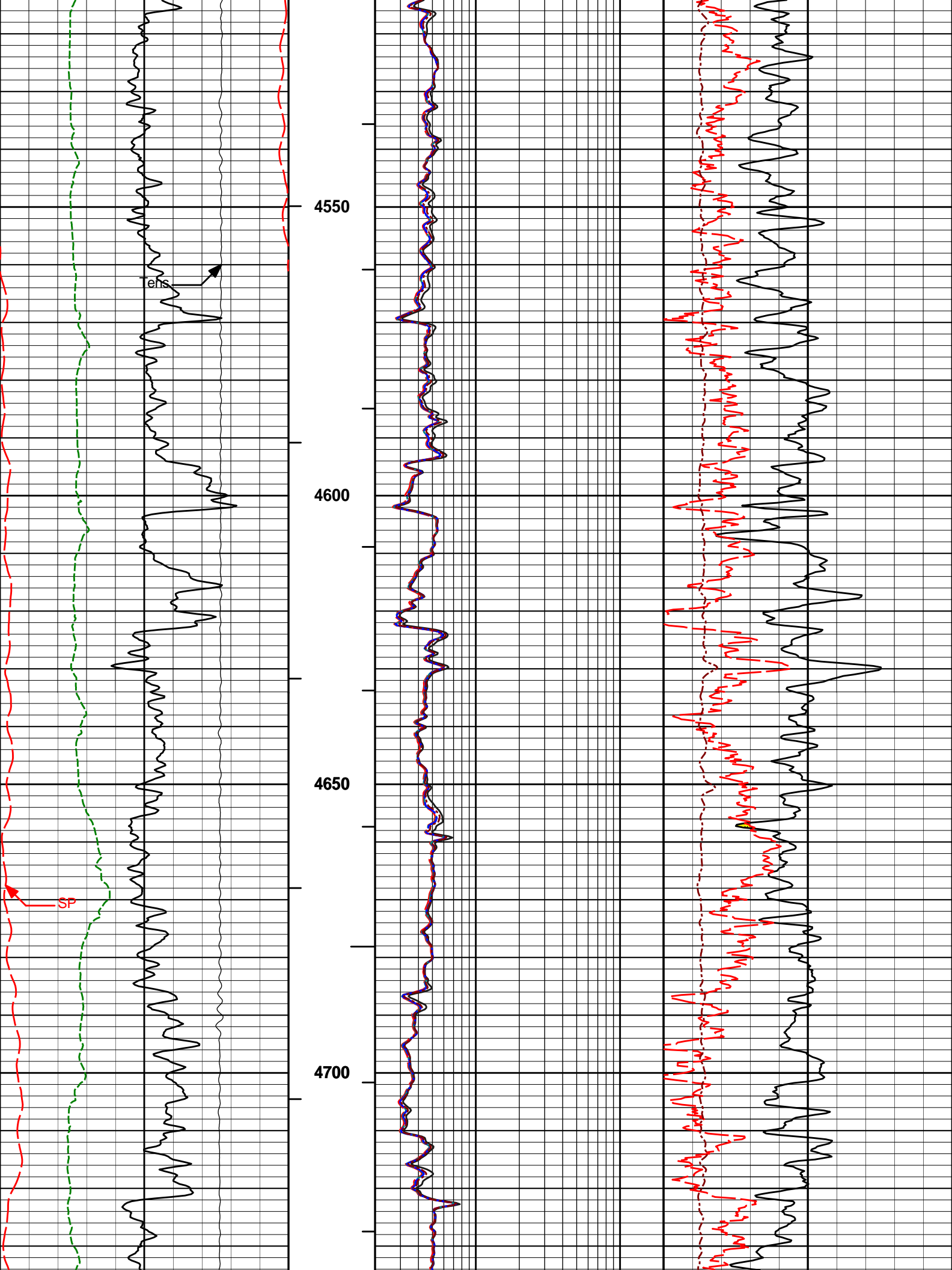


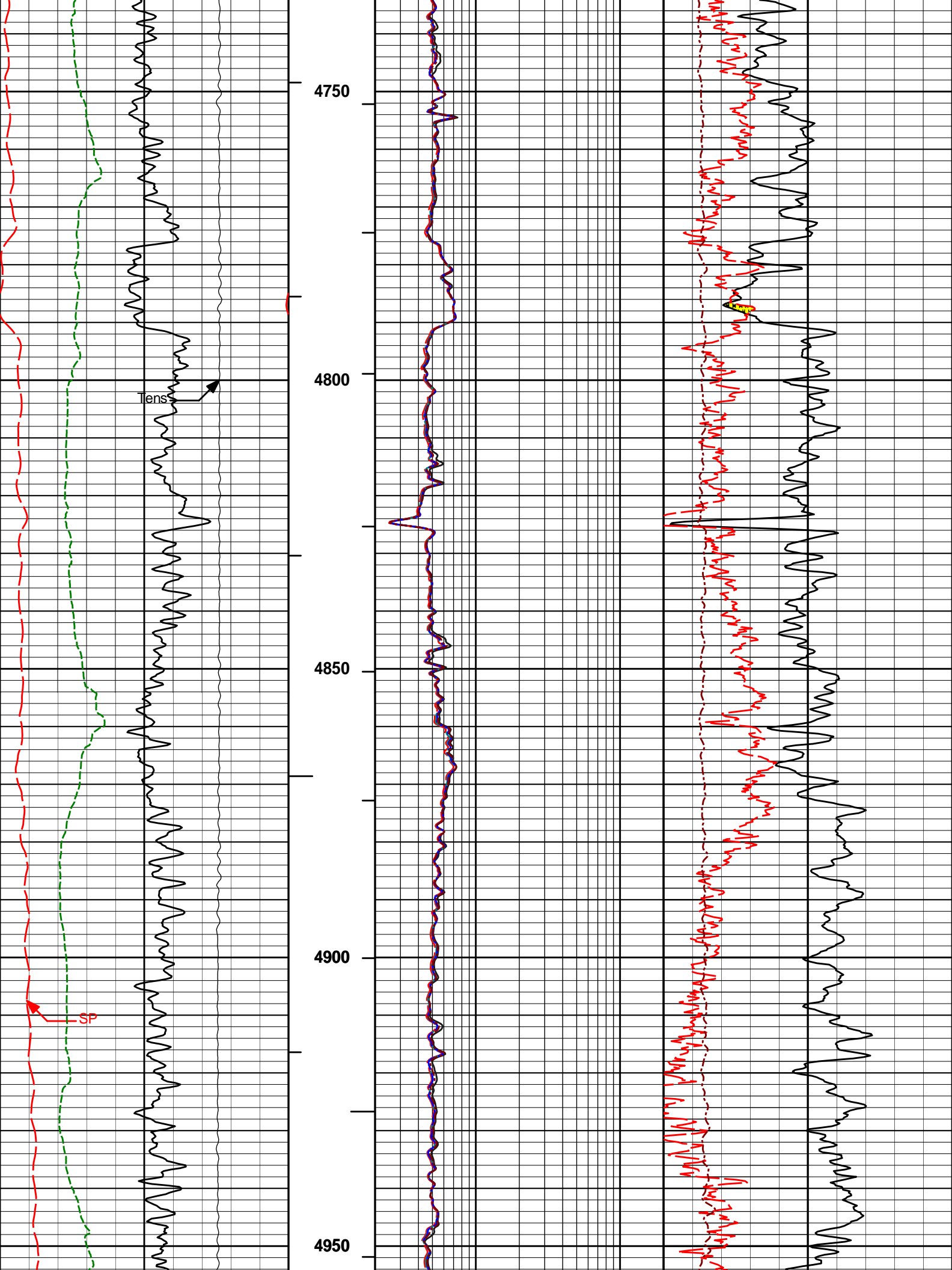


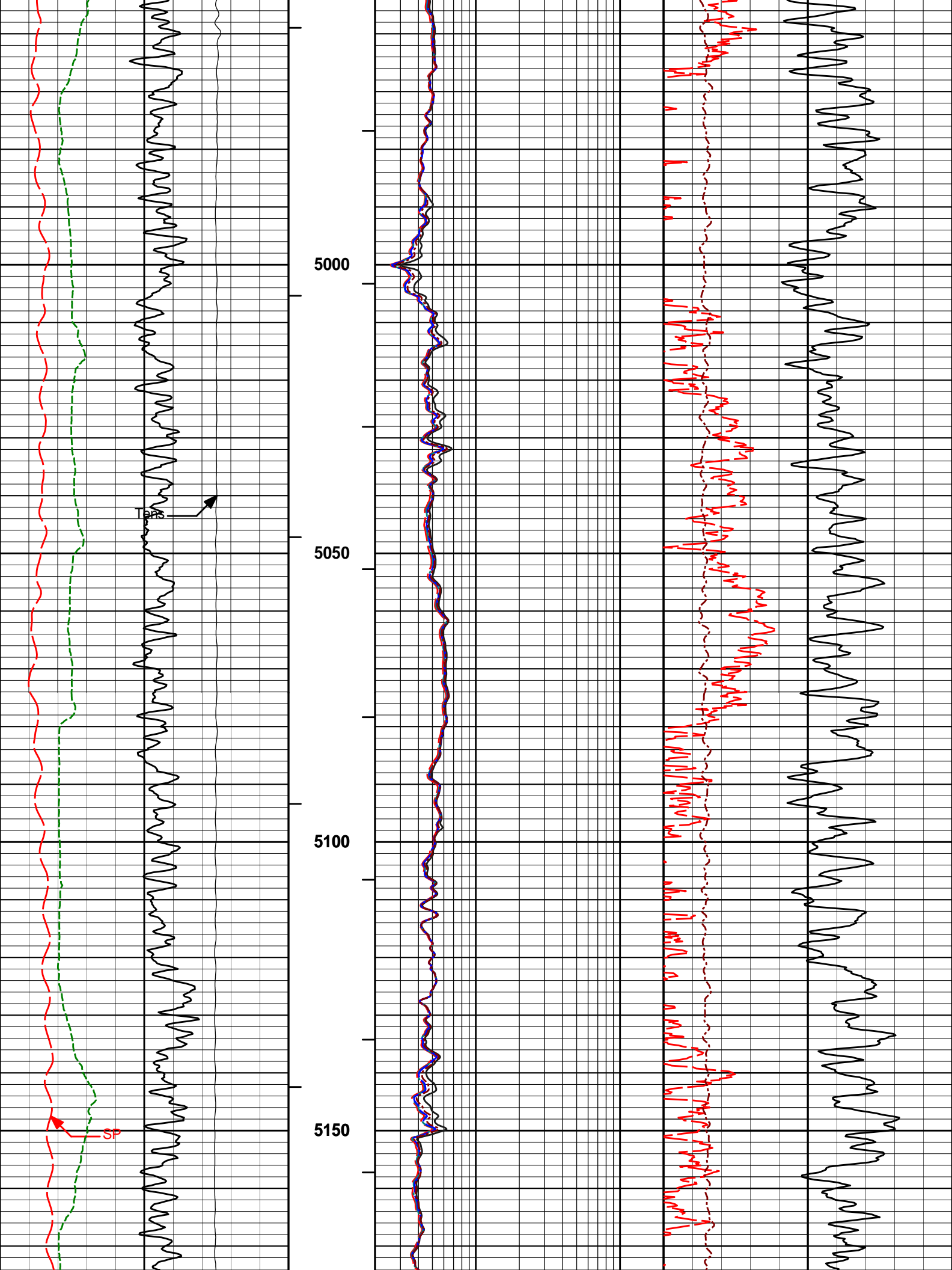


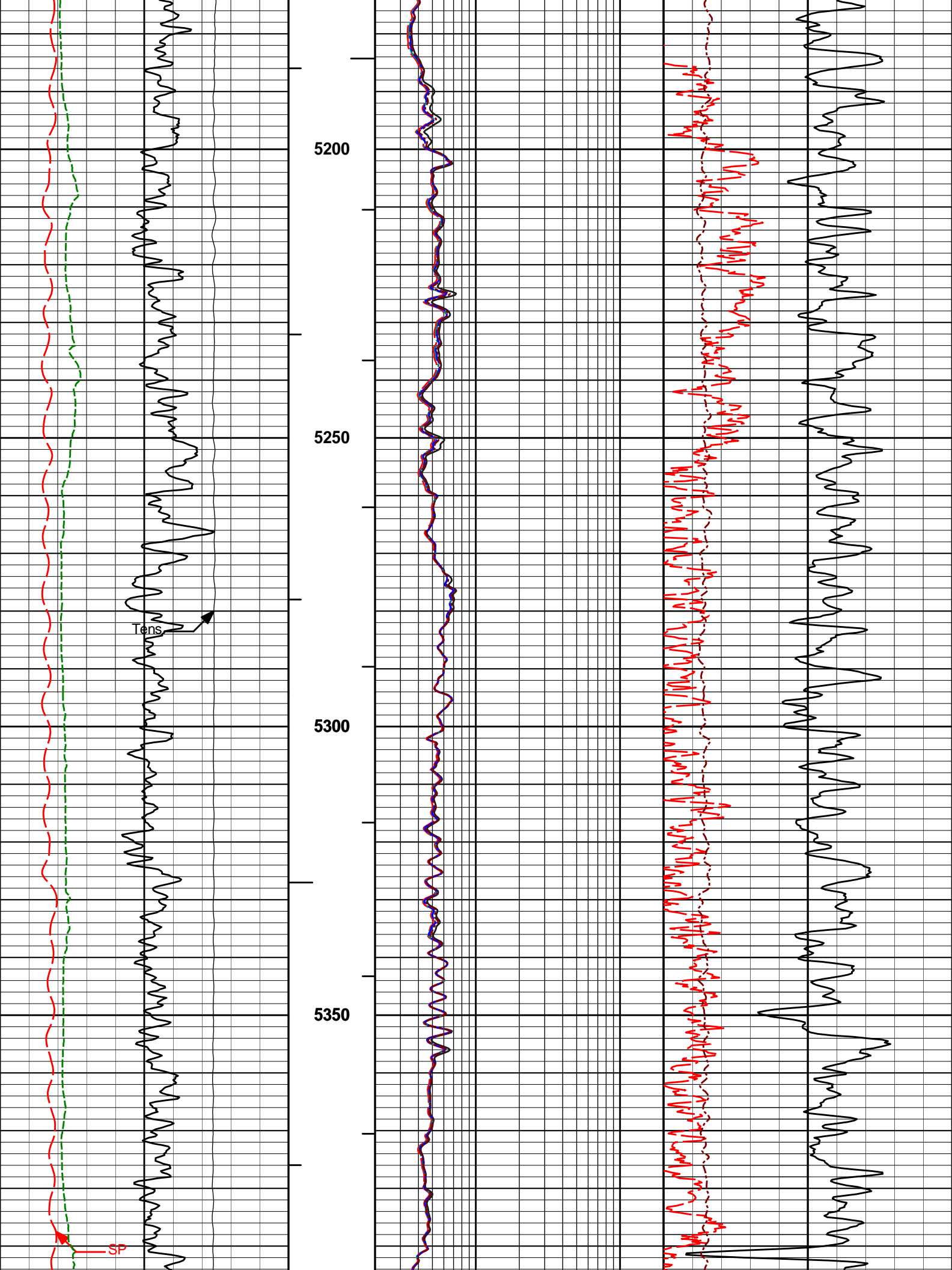


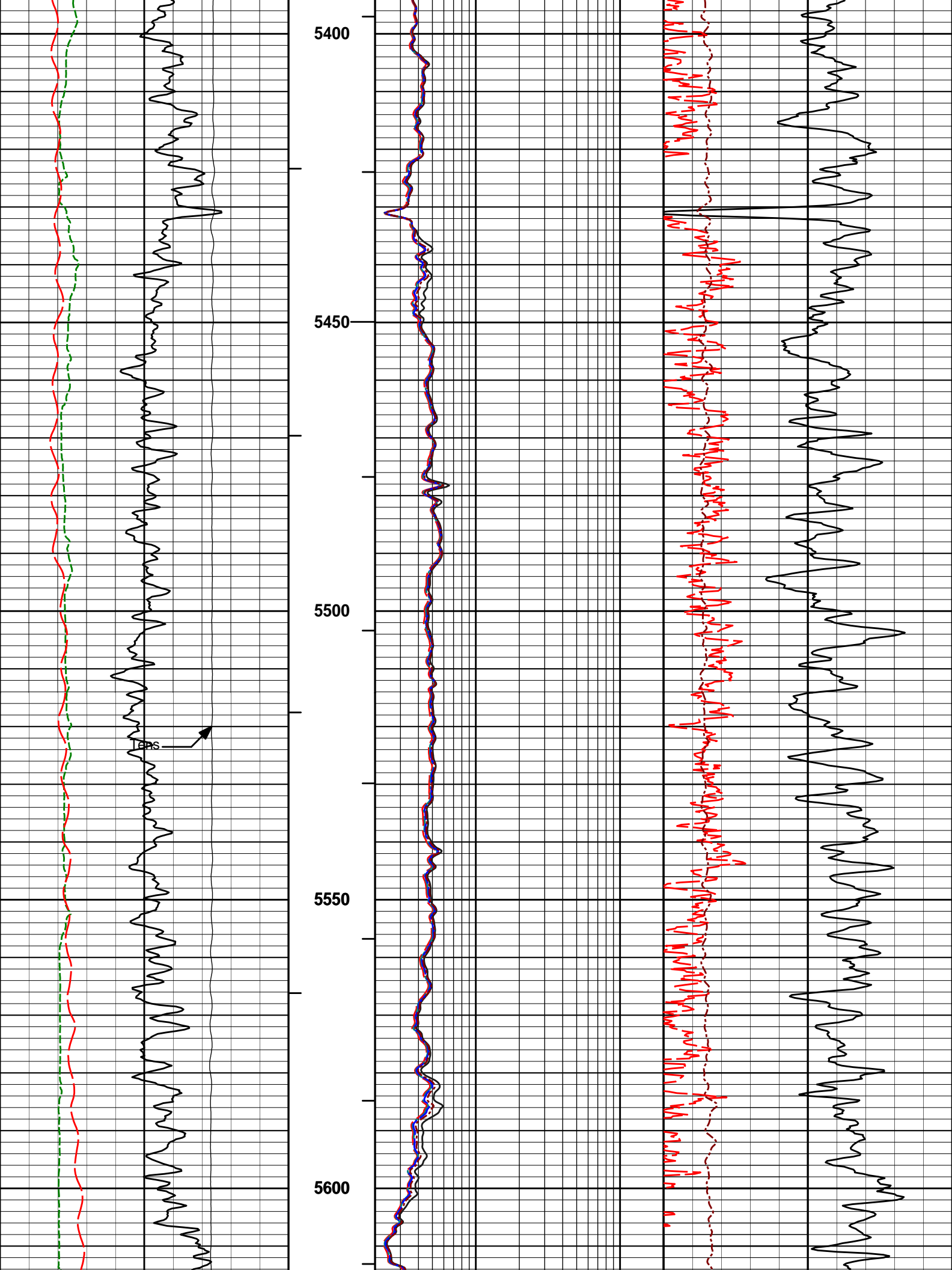


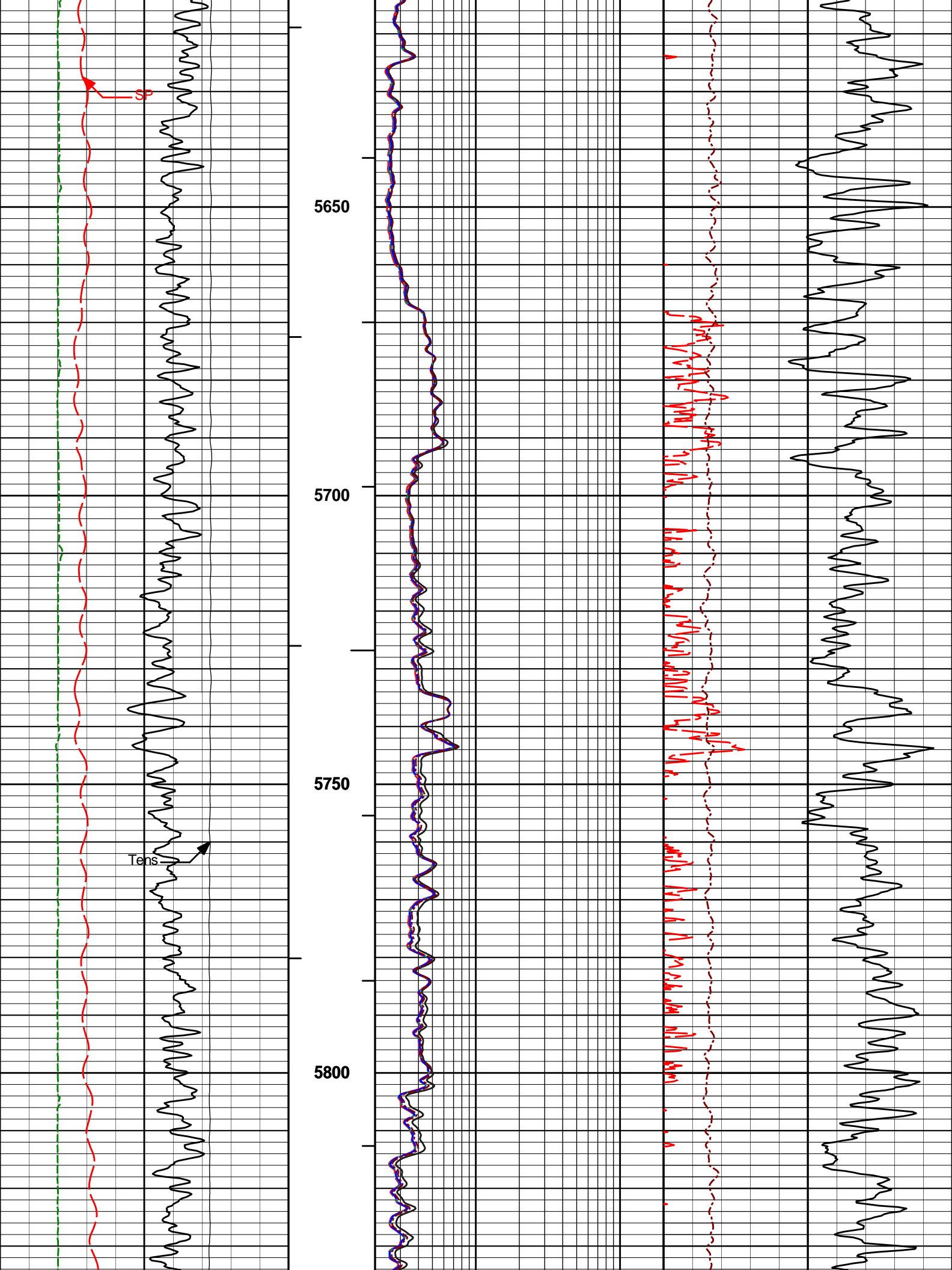


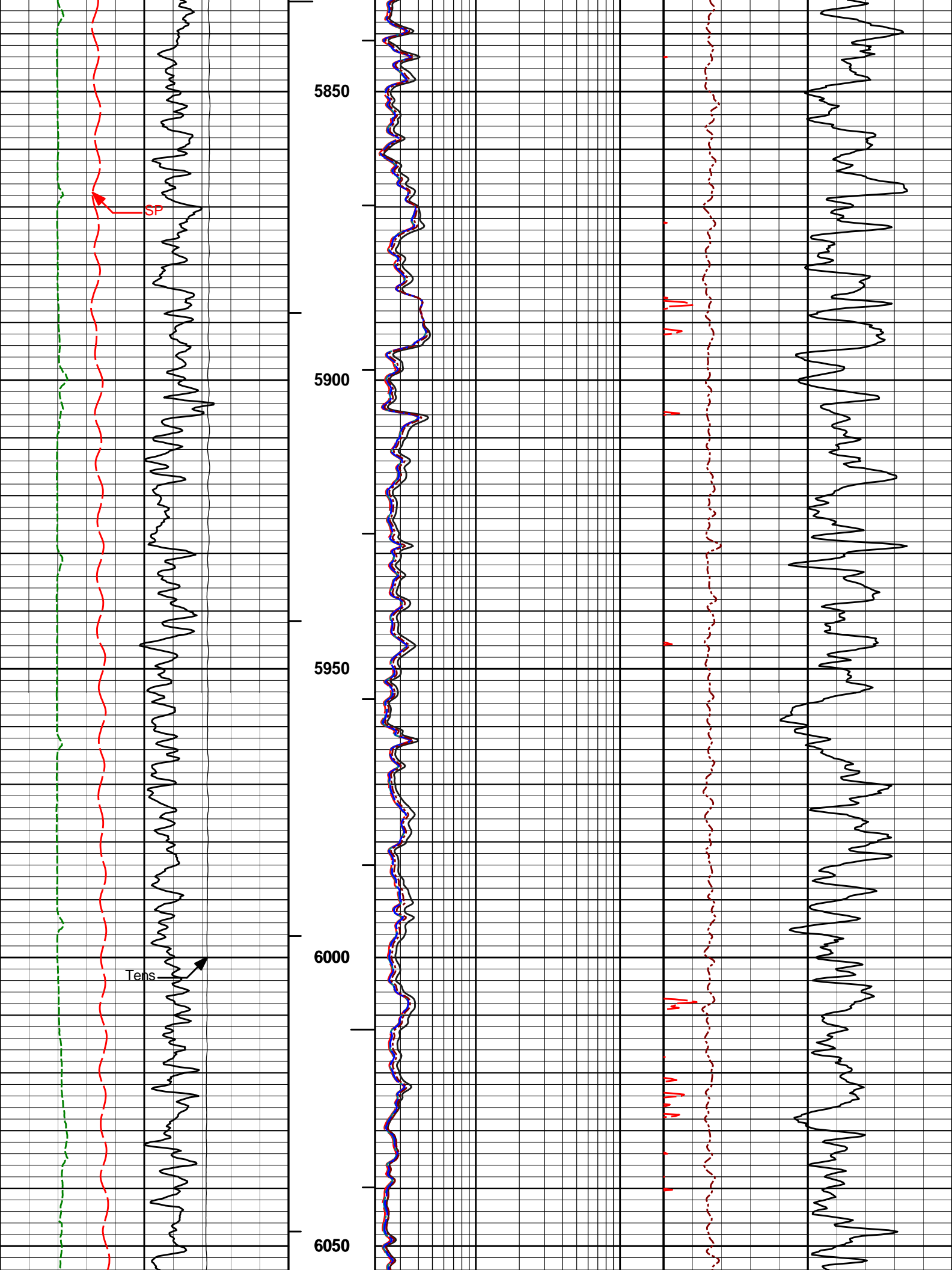


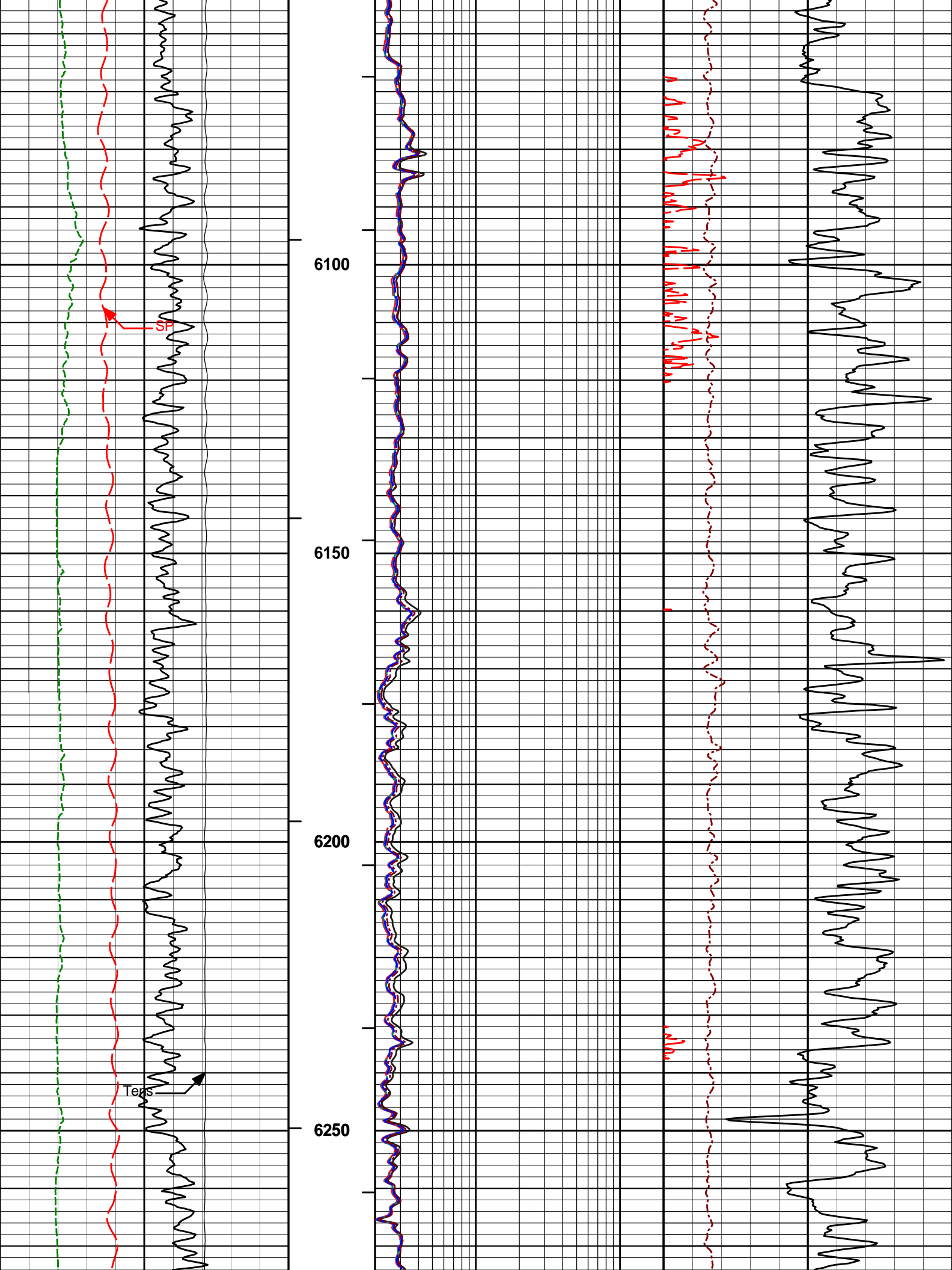


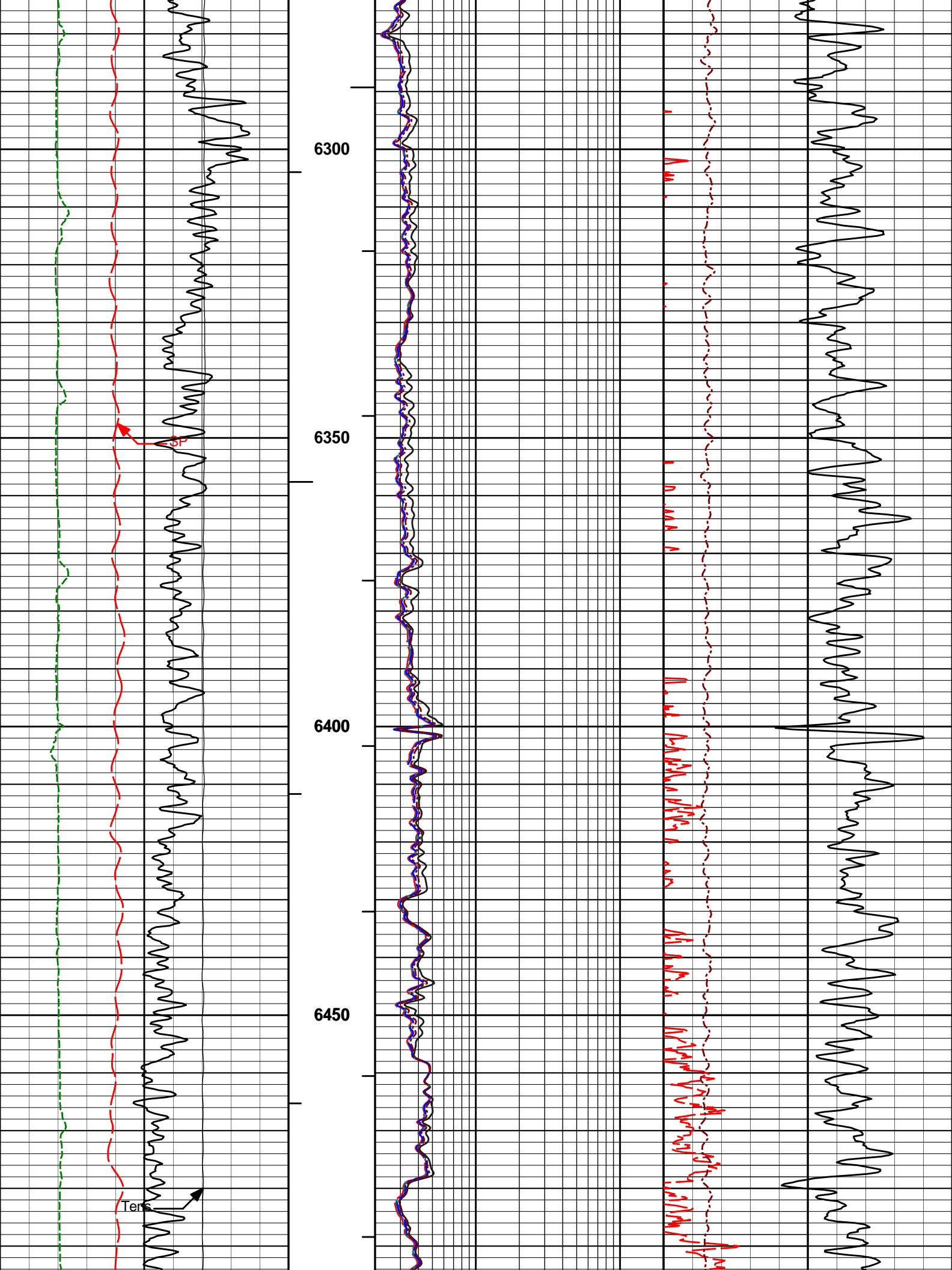


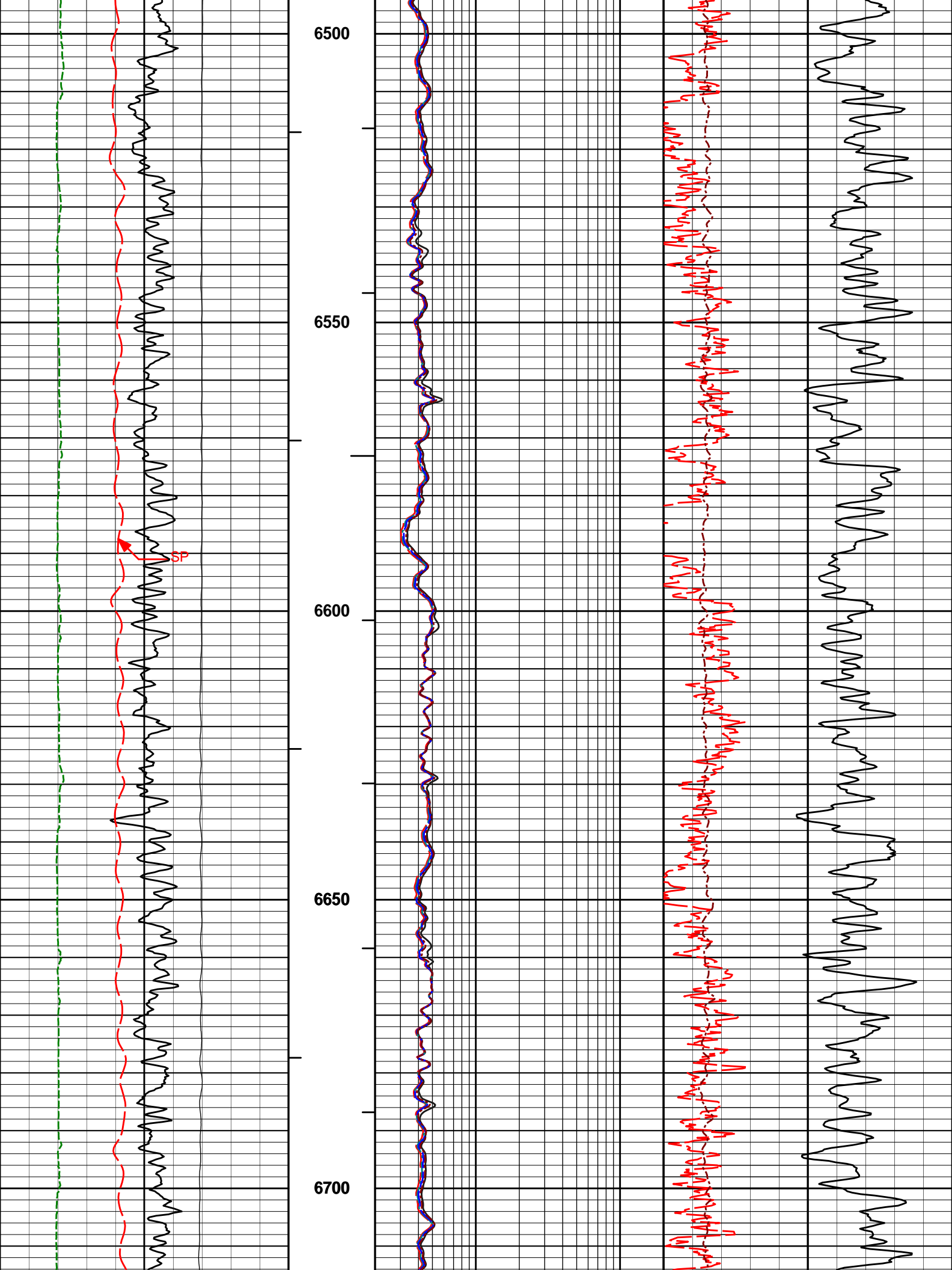


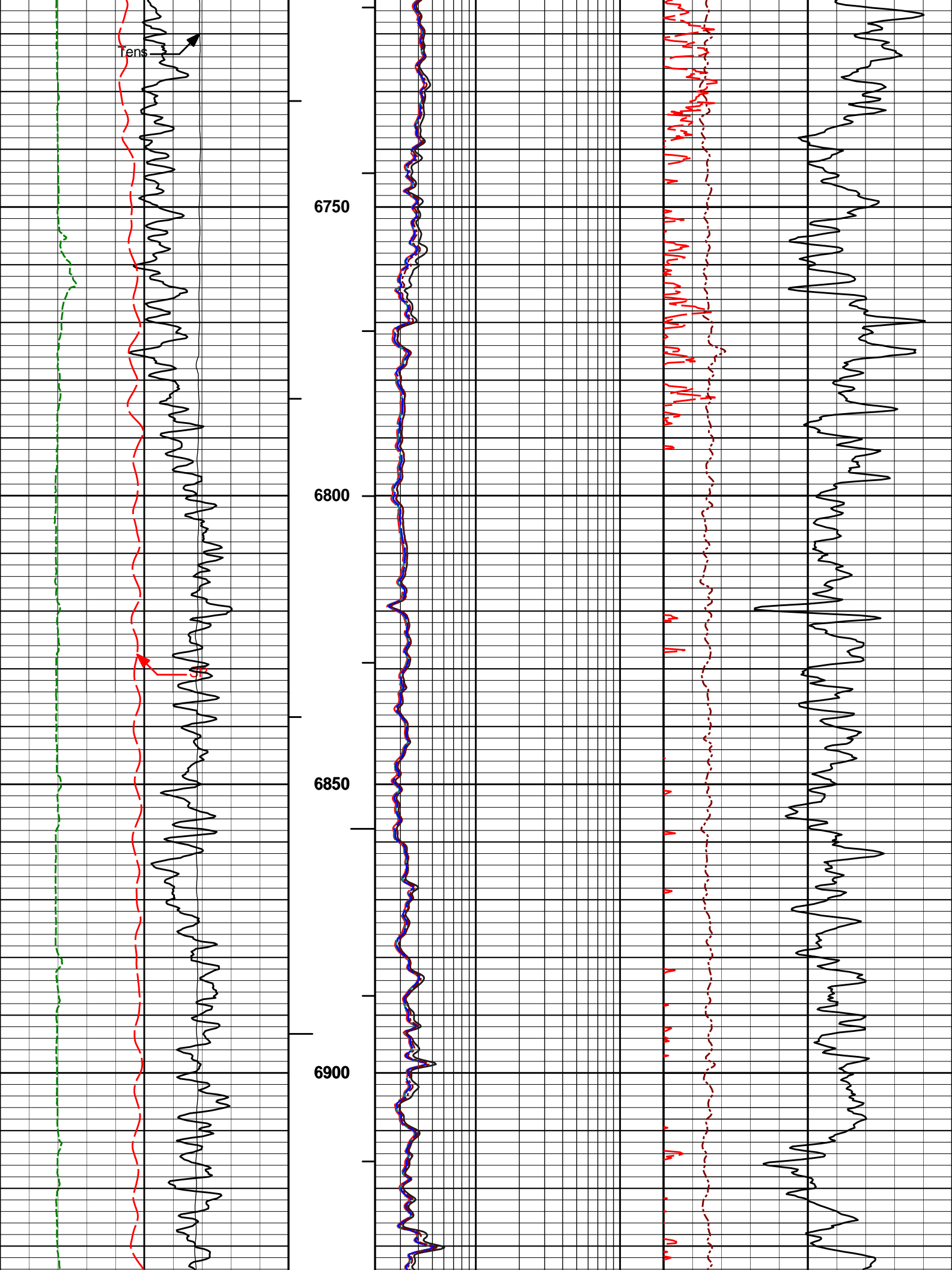


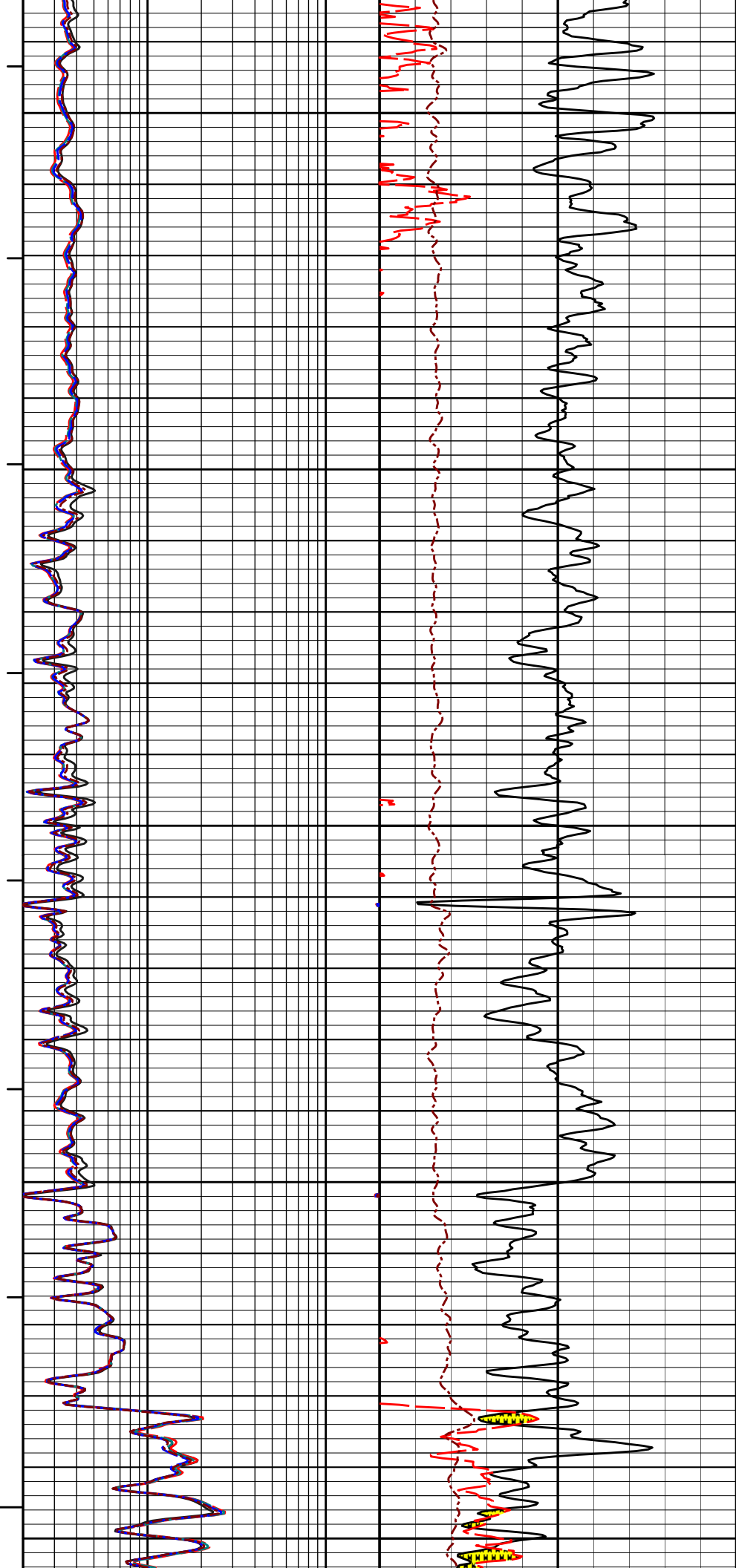
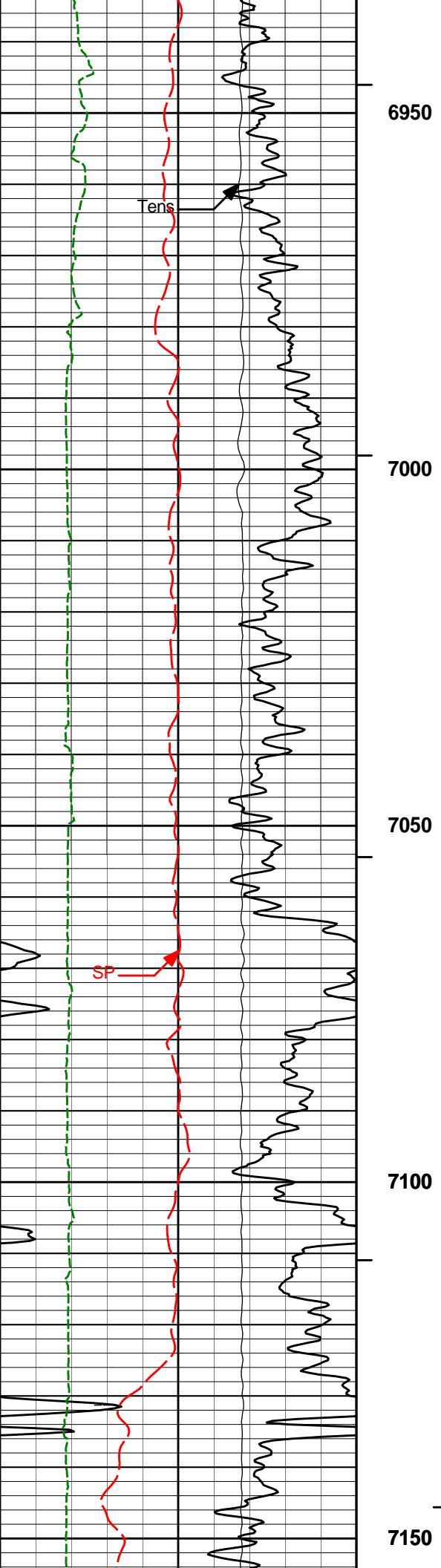


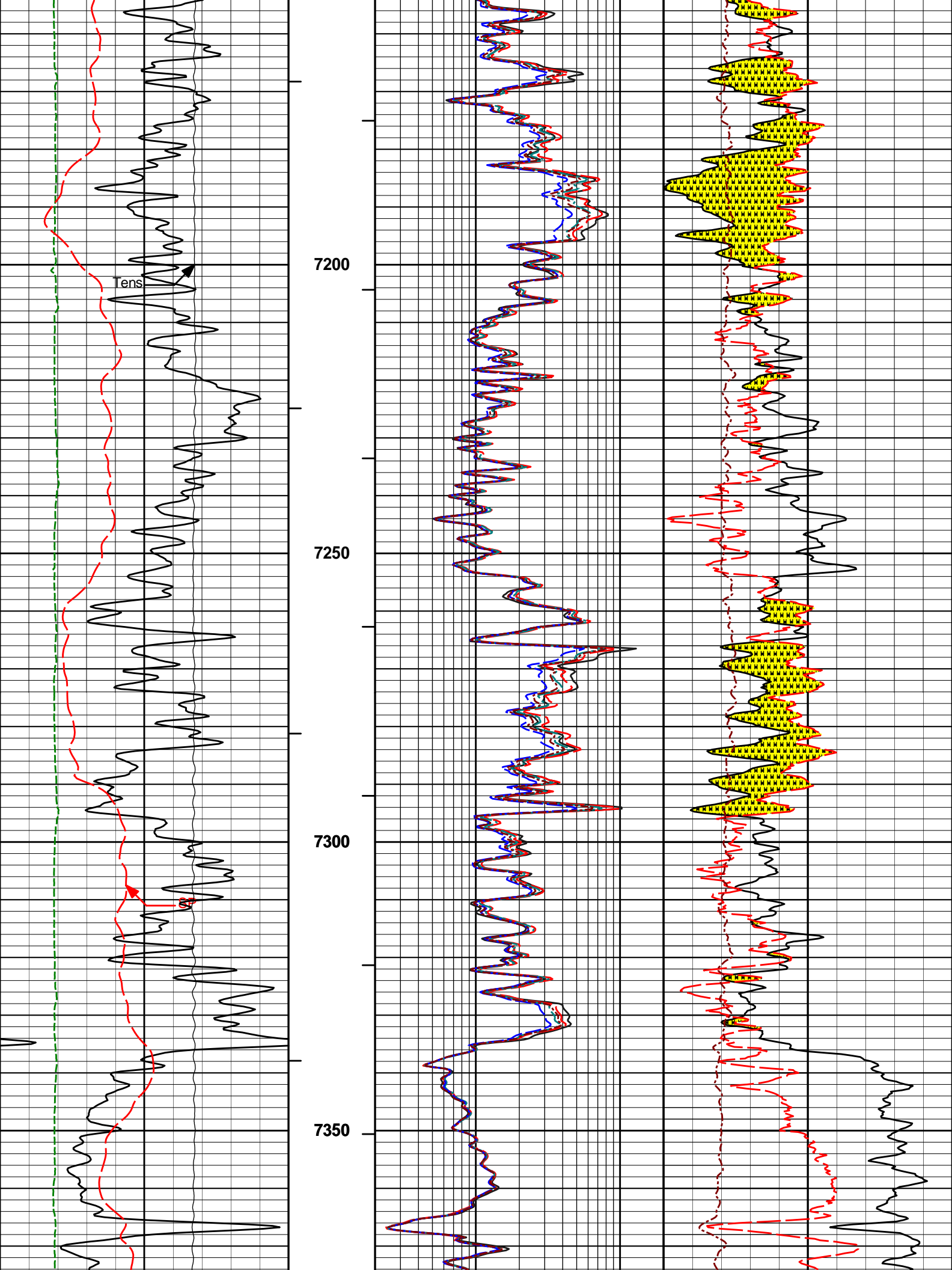


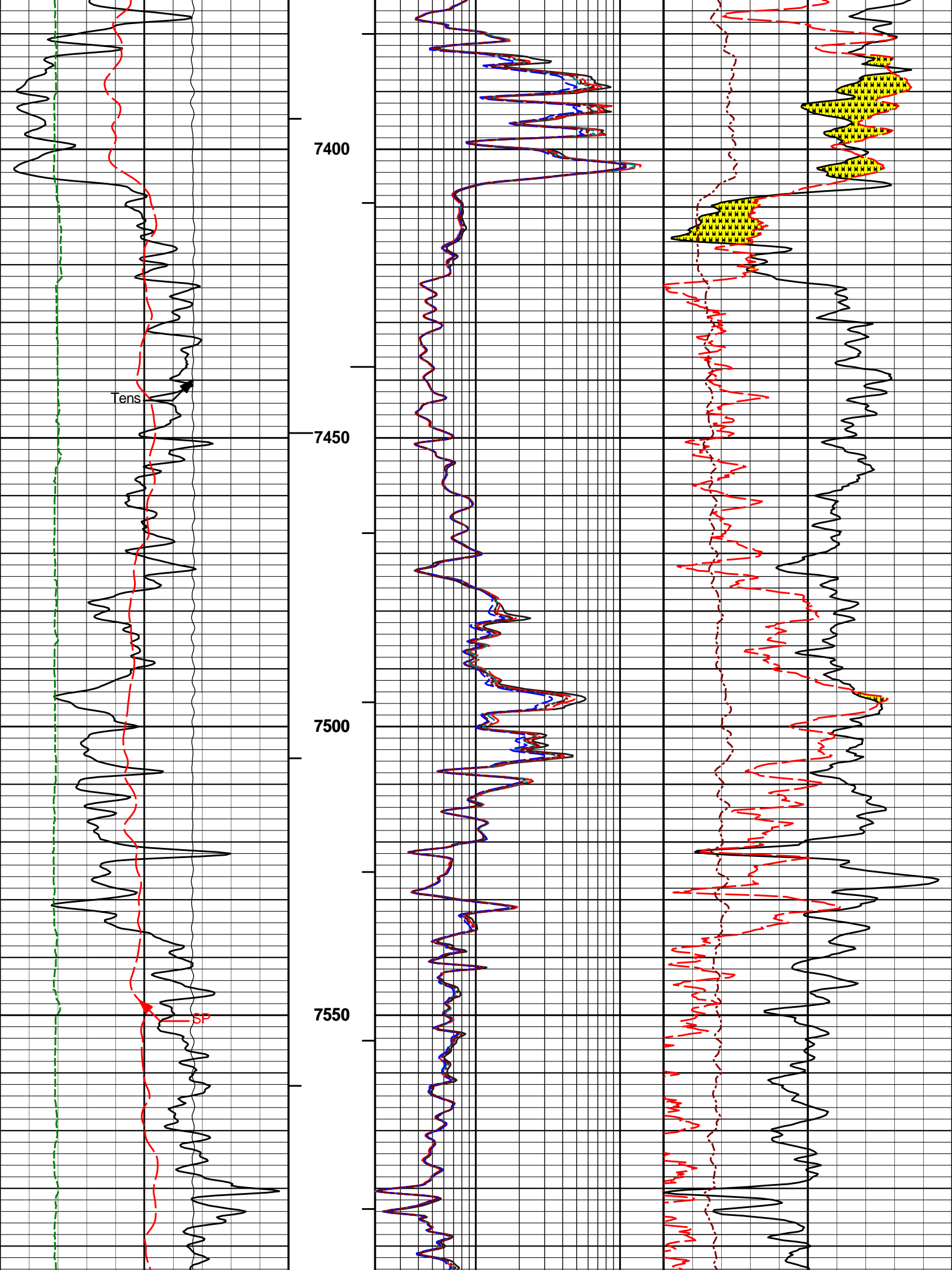


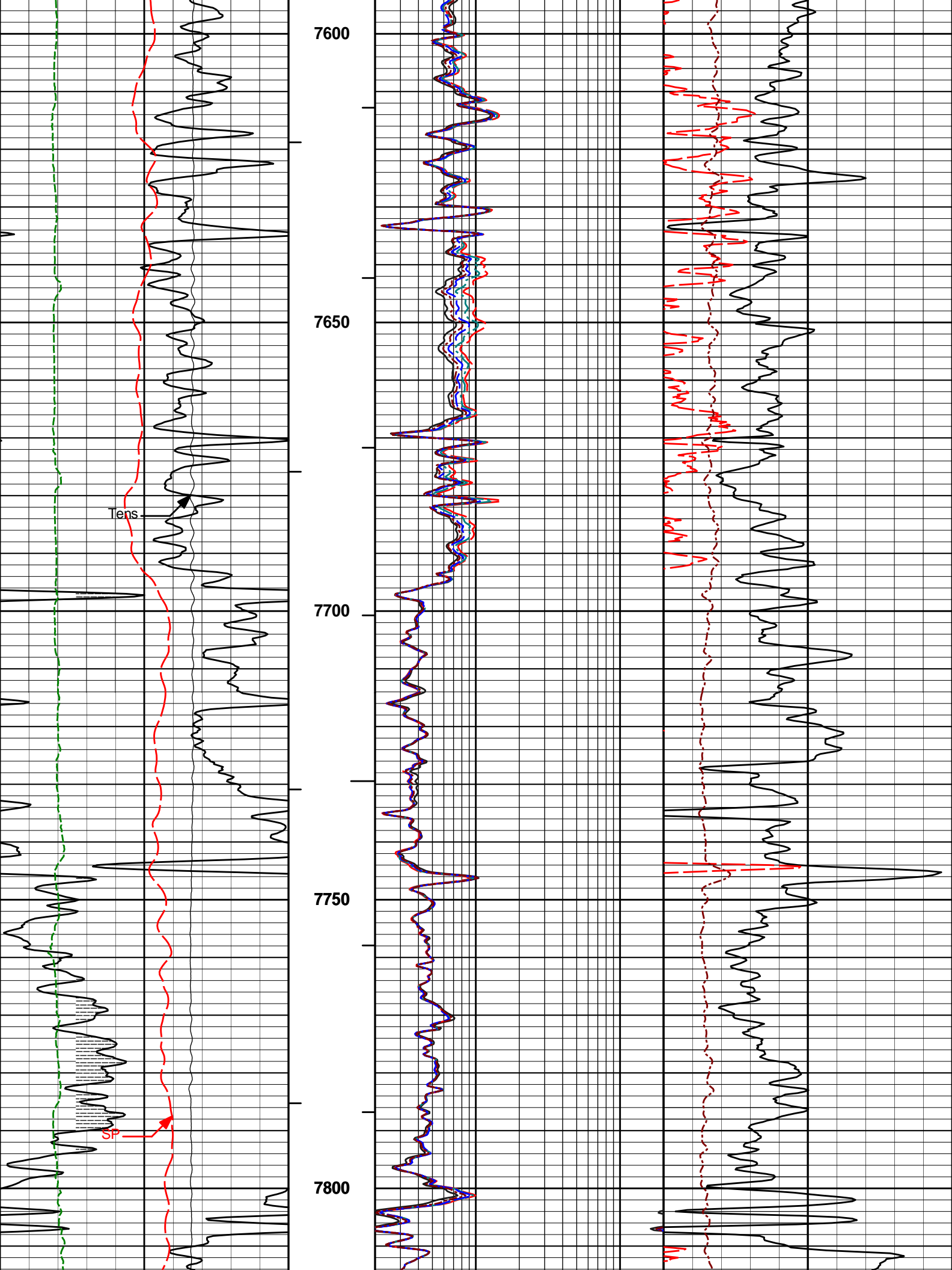


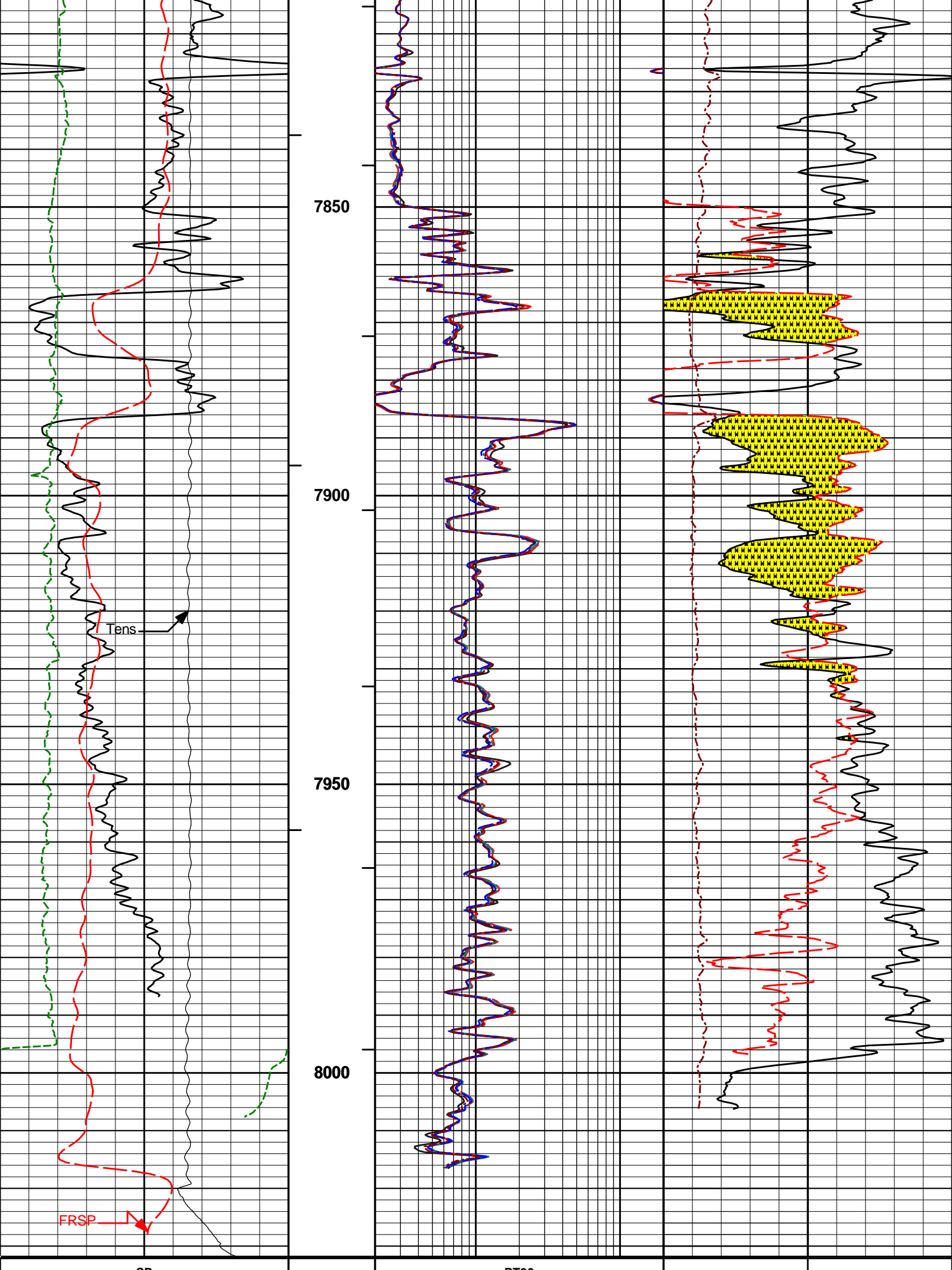












SP 100		1 : 240	RT90 200		Pe 10	
millivolts			ohmm			
0	Gamma API 200	BHVT	RT60 200		Density Porosity 0	
api			ohmm		percent	
6	Caliper 16	AHVT	RT30 200		Neutron Porosity 0	
inches			ohmm		percent	
10K	Tens 0		RT20 200			
pounds			ohmm			
			RT10 200			
			ohmm			

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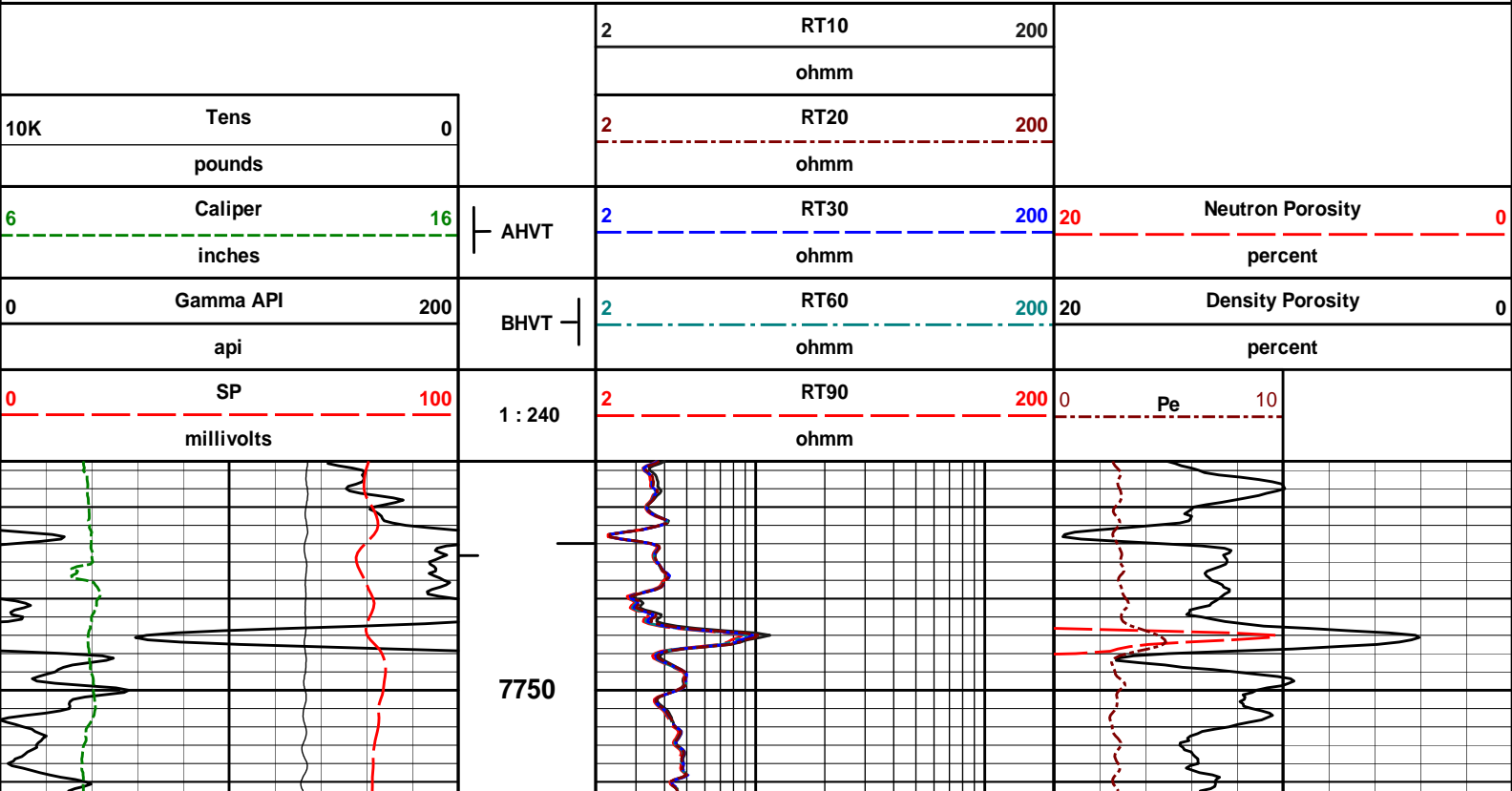
Plot Time: 19-May-11 19:53:08
Plot Range: 815 ft to 8031.83 ft
Data: {ActiveWell}\Well Based\MAIN*
Plot File: \COMP\MAIN

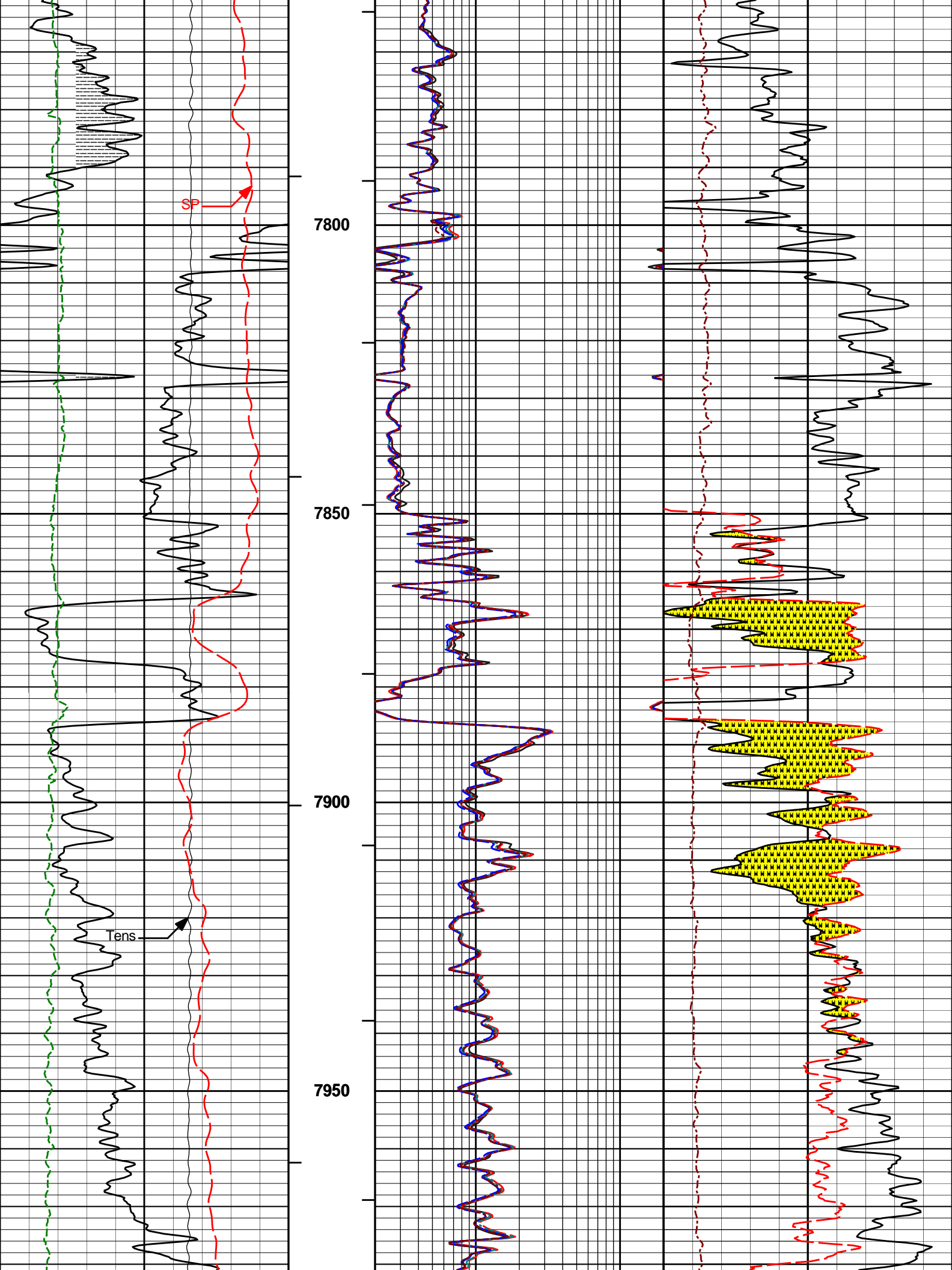
MAIN PASS 5" = 100'

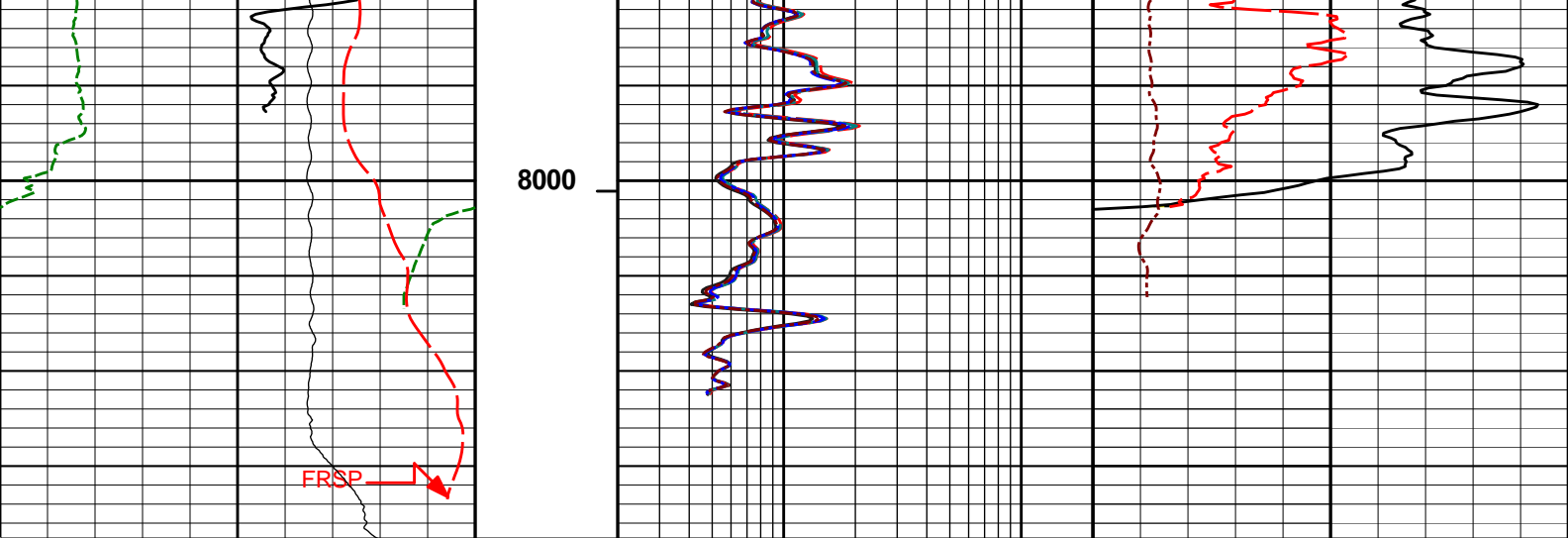
HALLIBURTON

Plot Time: 19-May-11 19:53:08
Plot Range: 7725 ft to 8037.67 ft
Data: {ActiveWell}\Well Based\DAQ-0001-002*
Plot File: \COMP\MAIN

MAIN PASS 5" = 100'







0	SP	100	1 : 240	2	RT90	200	0	Pe	10
	millivolts				ohmm				
0	Gamma API	200	BHVT	2	RT60	200	20	Density Porosity	0
	api				ohmm			percent	
6	Caliper	16	AHVT	2	RT30	200	20	Neutron Porosity	0
	inches				ohmm			percent	
10K	Tens	0		2	RT20	200			
	pounds				ohmm				
				2	RT10	200			
					ohmm				

HALLIBURTON Plot Time: 19-May-11 19:53:11
Plot Range: 7725 ft to 8037.67 ft
Data: {ActiveWell}\Well Based\DAQ-0001-002\
Plot File: \COMP\MAIN

MAIN PASS 5" = 100'

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 11294346_RED	Reference Calibration Date:	21-Apr-11 09:03:17
Engineer:	C. GULLETT	Calibration Date:	19-May-11 08:35:12
Software Version:	WL INSITE R3.2.5 (Build 2)	Calibration Version:	1

Calibrator Source S/N: TB 289			
Calibrator API Reference:264.00 api			
Equivalent Calibrator API Reference:268.6 api			
Measurement	Measured	Calibrated	Units
Background	76.3	75.1	api
Background + Calibrator	349.3	343.7	api
Calibrator	267.4	268.6	api

ACCELEROMETER SHOP CALIBRATION

ACCELEROMETER SHOP CALIBRATION				
Tool Name:	GTET - 11294346_RED		Reference Calibration Date:	25-Feb-09 10:34:33
Engineer:	F. LODER		Calibration Date:	25-Feb-09 10:38:18
Software Version:	WL INSITE R2.4 (Build 1)		Calibration Version:	1
	Horizontal-1 Telemetry	Horizontal-2 Telemetry	Vertical Telemetry	Units
	-316.36	-109.09	-16383.00	cnts
	Coefficient	Coefficient Value	Tolerance	
	Gain	-0.000062	-0.0100 - 0.0100	
	Offset	-0.013	-----	
	Noise	0.0009	0.0030	
	Orientation	Measured	Calibrated	
	Horizontal	-0.01	0.00	
	Vertical	1.00	1.00	

DUAL SPACED NEUTRON SHOP CALIBRATION				
Tool Name:	DSNT - 10958655_RED		Reference Calibration Date:	19-May-11 07:59:14
Engineer:	C. GULLETT		Calibration Date:	19-May-11 08:12:23
Software Version:	WL INSITE R3.2.5 (Build 2)		Calibration Version:	1
Logging Source S/N: DSN-434				
Tank Serial Number: 11068236				
Reference value assigned to Tank: 53.720				
Snow Block S/N: BRIGHTON				
Calibration Tank Water Temperature: 60 degF				
Min. Tool Housing Outside Diameter: 3.625 in				
CALIBRATION CONSTANTS				
Measurement	Prev. Value	New Value	Control Limit On New Value	
Gain:	0.971	0.968	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):	0.2231	0.2223	0.0008	+/- 0.0020
Calibrated Ratio:	10.14	10.11	0.026	+/- 0.050
VERIFIER				
Measurement	Value	Control Limit		
Snow-Block Porosity (decp):	0.0629	0.02000 - 0.09000		
PASS/FAIL SUMMARY				
Background Check:			Passed	
Gain-Range Check:			Passed	
Snow-Block Check:			Passed	

SPECTRAL DENSITY SHOP CALIBRATION				
Tool Name:	SDLT - M271_P123_RED		Reference Calibration Date:	07-Apr-11 11:14:21
Engineer:	C. GULLETT		Calibration Date:	19-May-11 09:40:58
Software Version:	WL INSITE R3.2.5 (Build 2)		Calibration Version:	1

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0184	1.0195	0.90 - 1.10
Near Dens Gain	1.0043	1.0063	0.90 - 1.10
Near Peak Gain	0.9977	1.0031	0.90 - 1.10
Near Lith Gain	0.9868	0.9763	0.90 - 1.10
Far Bar Gain	1.0167	1.0203	0.90 - 1.10
Far Dens Gain	1.0041	1.0093	0.90 - 1.10
Far Peak Gain	0.9981	1.0007	0.90 - 1.10
Far Lith Gain	0.9686	0.9787	0.90 - 1.10
Near Bar Offset	0.1167	0.1010	NONE
Near Dens Offset	0.2263	0.2009	NONE
Near Peak Offset	0.3095	0.2548	NONE
Near Lith Offset	0.3948	0.4701	NONE
Far Bar Offset	0.0527	0.0151	NONE
Far Dens Offset	0.1347	0.0871	NONE
Far Peak Offset	0.1644	0.1426	NONE
Far Lith Offset	0.3614	0.2874	NONE
Near Bar Background	851.77	850.14	700 - 1450
Near Dens Background	281.54	278.92	230 - 480
Near Peak Background	120.33	119.62	100 - 210
Near Lith Background	150.02	149.90	125 - 260
Far Bar Background	540.70	540.95	450 - 900
Far Dens Background	207.93	207.29	175 - 345
Far Peak Background	81.00	80.21	70 - 140
Far Lith Background	85.36	85.38	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.686	1.680	-0.006	+/- 0.015
Pe	2.485	2.545	0.060	+/- 0.150
ALUMINUM				
Density (g/cc)	2.599	2.600	0.001	+/- 0.01500
Pe	3.026	3.052	0.026	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0000	+/- 0.0110	0.0004	+/- 0.0140
Magnesium Block	-0.0029	+/- 0.0110	-0.0029	+/- 0.0140
Aluminum Block	-0.0003	+/- 0.0110	-0.0006	+/- 0.0140
Resolution	9.54	6.00 - 11.50	9.69	6.00 - 11.50
Internal Verifier(B+D+P+L)	1399	1200 - 2700	914	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

MICRO LOG SHOP CALIBRATION

Tool Name:	SDLT - M271_P123_RED	Reference Calibration Date:	11-Apr-11 14:13:57
Engineer:	C. GULLETT	Calibration Date:	19-May-11 10:14:14
Software Version:	WL INSITE R3.2.5 (Build 2)	Calibration Version:	1

CALIBRATION COEFFICIENT SUMMARY					
Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.06	-0.19	0.00	0.00	ohmm
Calibration Point #1	0.14	0.00	-0.00	0.00	ohmm
Calibration Point #2	21.66	20.00	21.54	20.00	ohmm
Internal Reference	21.68	20.02	21.54	20.00	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	-1.13	2.13	V
Calibration Point #1	48.61	0.52	V
Calibration Point #2	5270.08	6831.79	V
Internal Reference	5275.53	6832.59	V

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	SDLT - M271_P123_RED	Reference Calibration Date:	07-Apr-11 11:34:36
Engineer:	C. GULLETT	Calibration Date:	19-May-11 10:00:20
Software Version:	WL INSITE R3.2.5 (Build 2)	Calibration Version:	1

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-1312.99	-1516.16	-7000.00 - -1000.00
Pad Gain	0.0003906	0.0003981	0.000200 - 0.000600
Arm Offset	-182.14	-428.29	-5000.00 - 3000.00
Arm Gain	0.0005088	0.0005506	0.000300 - 0.000700
Arm Power	-0.000004888	-0.000007351	-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)	2.04	2.00	-0.04	+/- 0.20
Medium Ring (in)	3.76	3.75	-0.01	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.56	6.50	-0.06	+/- 0.20
Medium Ring (in)	8.22	8.25	0.03	+/- 0.20
Large Ring (in)	15.04	15.00	-0.04	+/- 0.20

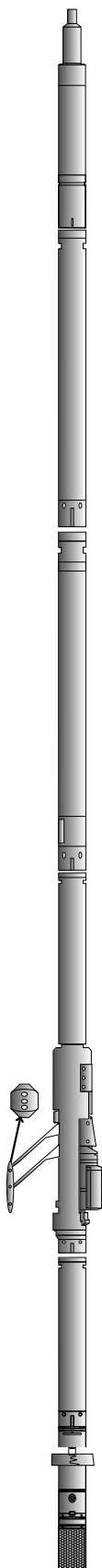
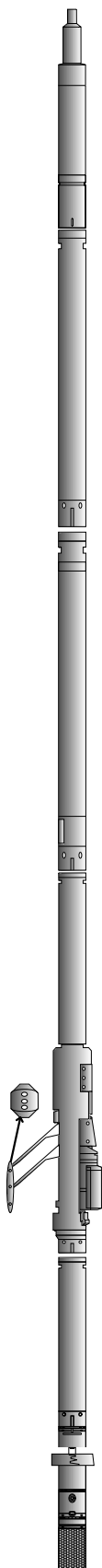
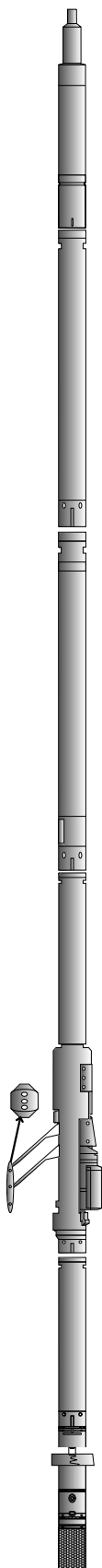
<div> <div>PASS/FAIL SUMMARY</div> <div> <div>Calibration-Coefficients Range Check:</div> <div>Passed</div> </div> <div> <div>Ring-Measurement Check:</div> <div>Passed</div> </div> </div> <div> <div>PASS/FAIL SUMMARY</div> <div> <div>Calibration-Coefficients Range Check:</div> <div>Passed</div> </div> </div>									
<div> <div>ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION</div> <div> <div> <div>Tool Name:</div> <div>ACRt - E2817-S4353_RED</div> </div> <div> <div>Reference Calibration Date:</div> <div>13-Aug-10 20:06:47</div> </div> </div> <div> <div> <div>Engineer:</div> <div>F. LODER</div> </div> <div> <div>Calibration Date:</div> <div>30-Mar-11 18:36:19</div> </div> </div> <div> <div> <div>Software Version:</div> <div>WL INSITE R3.2.3 (Build 5)</div> </div> <div> <div>Calibration Version:</div> <div>1</div> </div> </div> </div>									
TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0059	1.05	0.95	1.0075	1.05	0.95	1.0051	1.05
A2 (50")	0.95	1.0076	1.05	0.95	1.0107	1.05	0.95	1.0110	1.05
A3 (29")	0.95	1.0065	1.05	0.95	1.0088	1.05	0.95	1.0066	1.05
A4 (17")	0.95	1.0010	1.05	0.95	1.0019	1.05	0.95	1.0026	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.9944	1.05	0.95	0.9930	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9793	1.05	0.95	0.9785	1.05
TYPICAL SONDE OFFSET RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	-5	-1.036	2	-6	-4.390	-2	-8	-4.791	-2
A2 (50")	-7	-1.751	-1	-6	-2.896	-2	-7	-4.731	-2
A3 (29")	-27	-12.778	-9	-9	-3.452	-3	-7	-3.636	-1
A4 (17")	-180	-88.705	-60	-45	-28.593	-15	-39	-24.648	-13
A5 (10")	N/A	N/A	N/A	-150	-91.844	-50	-80	-44.230	-10
A6 (6")	N/A	N/A	N/A	175	331.191	525	90	166.676	270
TRANSMITTER CURRENT GAIN					R-MUD VERIFICATION				
Signal	Lower	R	Upper		Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)	
12K	0.6	0.8814	1.3		Mud Cell	0.95	0.997	1.05	
36K	1.0	1.8411	2.0						
72K	1.0	1.1239	2.0						
CALIBRATION SUMMARY									
Sensor	Shop	Field	Post	Difference	Tolerance	Units			
GTET-11294346_RED									
Gamma Ray Calibrator	268.6	-----	-----	0.0	+/- 9.00	api			
DSNT-10958655_RED									
Snow-Block Porosity	0.0629	-----	-----	0.0000	+/- .--	decp			
SDLT-M271_P123_RED									
Near(B+D+P+L)	1398.590	-----	-----	0.000	+/-13.214	cps			
Far(B+D+P+L)	913.824	-----	-----	0.000	+/-14.873	cps			
MicroLog Normal	20.02	-----	-----	0.00	-----	ohmm			
MicroLog Lateral	20.00	-----	-----	0.00	-----	ohmm			
Pad Extension	3.75	-----	-----	0.00	+/-0.20	in			
Ring Diameter	8.25	-----	-----	0.00	+/-0.20	in			

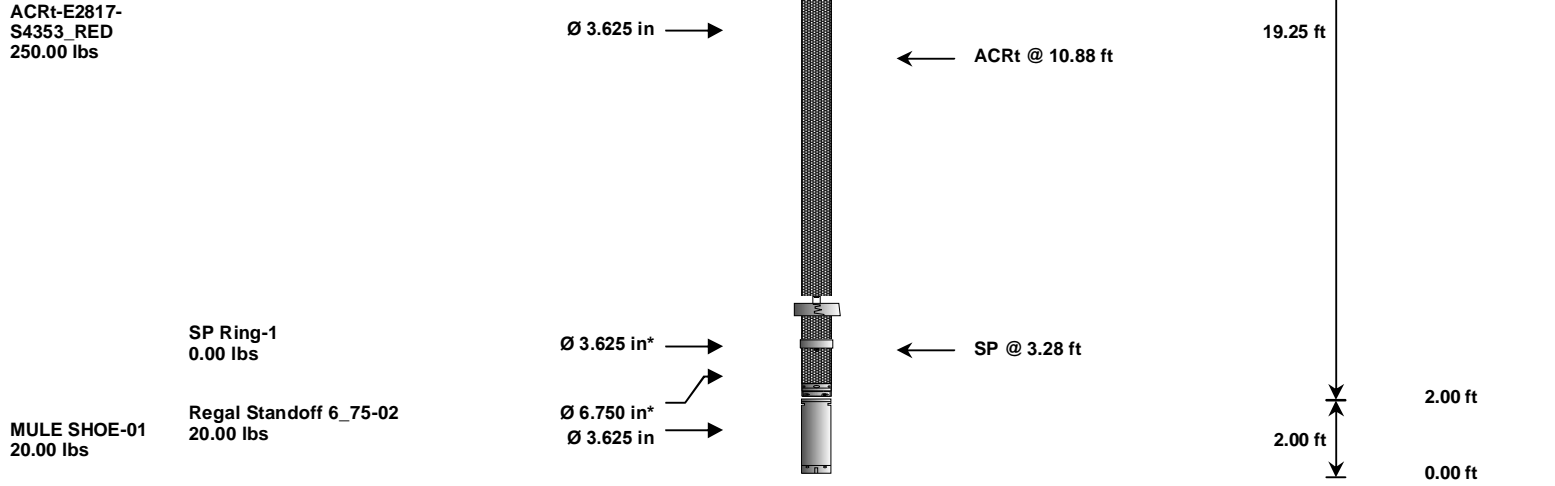
Mud Cell	0.997	-----	-----	0.000	-----	ohm-m
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Data: NICHOLS_24_6\0001 TRIPLEIDLE

Date: 19-May-11 19:06:51

HALLIBURTON**TOOL STRING DIAGRAM REPORT**

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						56.52 ft
RWCH-10347226 135.00 lbs		Ø 3.625 in →		← Load Cell @ 52.84 ft ← BH Temperature @ 52.27 ft	6.25 ft	
						50.27 ft
GTET- 11294346_RED 165.00 lbs		Ø 3.625 in →		← GammaRay @ 44.21 ft	8.52 ft	
						41.75 ft
DSNT- 10958655_RED 174.00 lbs		Ø 3.625 in →		← DSN Far @ 34.81 ft ← DSN Near @ 34.06 ft	9.69 ft	
						32.06 ft
SDLT- M271_P123_RED 360.00 lbs		Ø 4.500 in → Ø 4.750 in →		SDL Microlog @ 24.25 ft SDL Caliper @ 24.07 ft SDL @ 24.06 ft	10.81 ft	
						21.25 ft
Regal Standoff 6_75-01 20.00 lbs		Ø 6.750 in* →		← Mud Resistivity @ 14.86 ft		



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	10347226	135.00	6.25	50.27	300.00
GTET	Gamma Telemetry Tool	11294346_RED	165.00	8.52	41.75	60.00
DSNT	Dual Spaced Neutron	10958655_RED	174.00	9.69	32.06	60.00
SDLT	Spectral Density Tool	M271_P123_RED	360.00	10.81	21.25	60.00
ACRt	Array Compensated True Resistivity	E2817-S4353_RED	250.00	19.25	2.00	300.00
SP	SP Ring	1	0.00	0.25	*	3.28
RSOF	Regal Standoff 6.75in	01	20.00	0.52	*	15.28
MS	MULE SHOE	01	20.00	2.00	0.00	300.00
RSOF	Regal Standoff 6.75in	02	20.00	0.52	*	2.14

Total			1,144.00	56.52		
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* Not included in Total Length and Length Accumulation.

Data: NICHOLS_24_6\0001 TRIPLE\003 19-May-11 18:25 Up @8032.0f Date: 19-May-11 19:32:59

COMPANY	KERR-MCGEE OIL & GAS ONSHORE LP		
WELL	NICHOLS 24-6		
FIELD	WATTENBERG		
COUNTY	WELD	STATE	CO
HALLIBURTON		ARRAY COMPENSATED TURE RESISTIVITY DUAL SPACED NEUTRON SPECTRAL DENSITY	