

HALLIBURTON

DUAL SPACED NEUTRON SPECTRAL DENSITY ARRAY COMPENSATED RESISTIVITY 5 IN = 100 FT MD

COMPANY	SMITH PRODUCTION CO.		
WELL	SL 18593 #2		
FIELD	GILLIS-ENGLISH BAYOU		
PARISH	CALCASIEU		
STATE	LOUISIANA		
COMPANY	SMITH PRODUCTION CO.	WELL	SL 18593 #2
FIELD	GILLIS-ENGLISH BAYOU	PARISH	CALCASIEU
STATE	LOUISIANA	Other Services:	NONE
API No.	17019222560000	Location	Longitude: 98° 8' 34.52" W Latitude: 30° 17' 17.67" N
Location	Longitude: 98° 8' 34.52" W Latitude: 30° 17' 17.67" N	Other Services:	NONE
Permanent Datum	GL	Elev. 3.0 ft	Elev. K.B. 17.0 ft
Log measured from	KB	14.0 ft above perm. Datum	D.F. 16.0 ft
Drilling measured from	KB		G.L. 3.0 ft
Date	06-Feb-11		
Run No.	ONE		
Depth - Driller	8202.00 ft		
Depth - Logger	8017.0 ft		
Bottom - Logged Interval	8007.0 ft		
Top - Logged Interval	2507.0 ft		
Casing - Driller	9.625 in @ 2510.0 ft		
Casing - Logger	2507.0 ft		
Bit Size	8.500 in		
Type Fluid in Hole	WATER BASED MUD		
Density	10.2 ppg	47.00 s/qt	
PH	9.90 pH	5.0 cp/m	
Source of Sample	FLOWLINE		
Rm @ Meas. Temperature	0.770 ohmm @ 77.00 degF		
Rmf @ Meas. Temperature	0.64 ohmm @ 75.00 degF		
Rmc @ Meas. Temperature	0.720 ohmm @ 75.00 degF		
Source Rmf	MEASURED	MEASURED	
Rm @ BHT	0.36 ohmm @ 172.0 degF		
Time Since Circulation	10.0 hr		
Time on Bottom	06-Feb-11 12:52		
Max. Rec. Temperature	172.0 degF @ 8017.0 ft		
Equipment	Location	NEW IBERIA	
Recorded By	C. HARRELL		
Witnessed By	B. FURRH		

Fold here

Service Ticket No.: 7945504		API Serial No.: 17019222560000		PGM Version: WL INSITE R3.2.0 (Build 7)			
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.
Rmf @ Meas. Temp.	@	@		ONE	ACRt-310I309S	N/A	1.5 IN S.O.
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.	10958652	Serial No.		Serial No.	325M767P	Serial No.	112589761
Model No.	GTET	Model No.		Model No.	SDLT	Model No.	DSNT
Diameter	3.625 IN	No. of Cent.		Diameter	4.5 IN	Diameter	3.625 IN
Detector Model No.	GTET	Spacing		Log Type	GAM GAM	Log Type	NEU NEU
Type	SCINT			Source Type	Cs 137	Source Type	Am241Be
Length	8 IN	ISA IY/NI		Serial Nn	20786B	Serial Nn	DSN-414

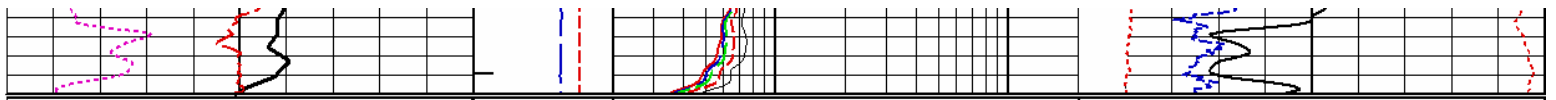
Distance to Source	N/A	FWDA [Y/N]		Strength	1.5 Ci	Strength	15 Ci							
LOGGING DATA														
GENERAL			GAMMA		ACOUSTIC		DENSITY		NEUTRON					
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Scale		Matrix	
No.	From	To	ft/min	L	R	L	R		L	R	L	R		
ONE	TD	C SG	REC	0	150				60%	0%	2.65 g/cc	60%	0%	SAND
DIRECTIONAL INFORMATION														
Maximum Deviation			25.90 deg	@	6578.00 ft			KOP	@	4056.00 ft				
DIRECTIONAL DATA PROVIDED TRI CITY SERVICES														
Remarks: GTET-DSNT-SDLT-ACRT RAN IN COMBINATION														
AHV CALCULATED FOR 5.5 IN GASING														
MAXIMUM TEMPERATURES: 172 degF, 172 degF, 170 degF														
CHLORIDES: 2900 mg/L														
SERIAL NO. 242566														
RIG: CROWN #2														
CREW: T. NORA, C. THOMAS, H. HARGROVE														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES: NEW IBERIA, LA (337) 367-9261														
<p>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.</p>														
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Plot Time: 06-Feb-11 16:05:30
 Plot Range: 2490 ft to 2710 ft
 Data: {ActiveWell}\Well Based\DAQ-0001-0021
 PlotFile: \\5N_MD\CHUCK_TRIPLE_WBM_REPEAT

5 IN = 100 FT MEASURED DEPTH REPEAT PASS

		-20		DCAL		20	
		in					
		5K CH Tension 0	0.2	10in Resistivity 1ft Res	20		
				ohmm			
		5K TENS lbs	0.2	20in Resistivity 1ft Res	20		
				ohmm			
0	GR	150	0.2	30in Resistivity 1ft Res	20	60	NPHI
		api					%
		SP	0.2	60in Resistivity 1ft Res	20	60	DPHI
		-]20[+					%
0	Rwa	0.5	0.2	90in Resistivity 1ft Res	20	-1.8	DRHO
		ohmm					g/cc
		MD 1 : 240 ft					



0	Rwa ohmm	0.5	MD 1 : 240 ft	0.2	90in Resistivity 1ft Res ohmm	20	-1.8	DRHO g/cc	0.2
	SP -]20[+		BHV ←	0.2	60in Resistivity 1ft Res ohmm	20	60	DPHI %	0
0	GR api	150	AHV →	0.2	30in Resistivity 1ft Res ohmm	20	60	NPHI %	0
			5K TENS lbs	0	20in Resistivity 1ft Res ohmm	20			
			5K CH Tension	0	10in Resistivity 1ft Res ohmm	20			
							-20	DCAL in	20

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Plot Time: 06-Feb-11 16:05:33
 Plot Range: 2490 ft to 2710 ft
 Data: {ActiveWell}\Well Based\DAQ-0001-002\
 Plot File: \\5IN_MD\CHUCK_TRIPLE_WBM_REPEAT

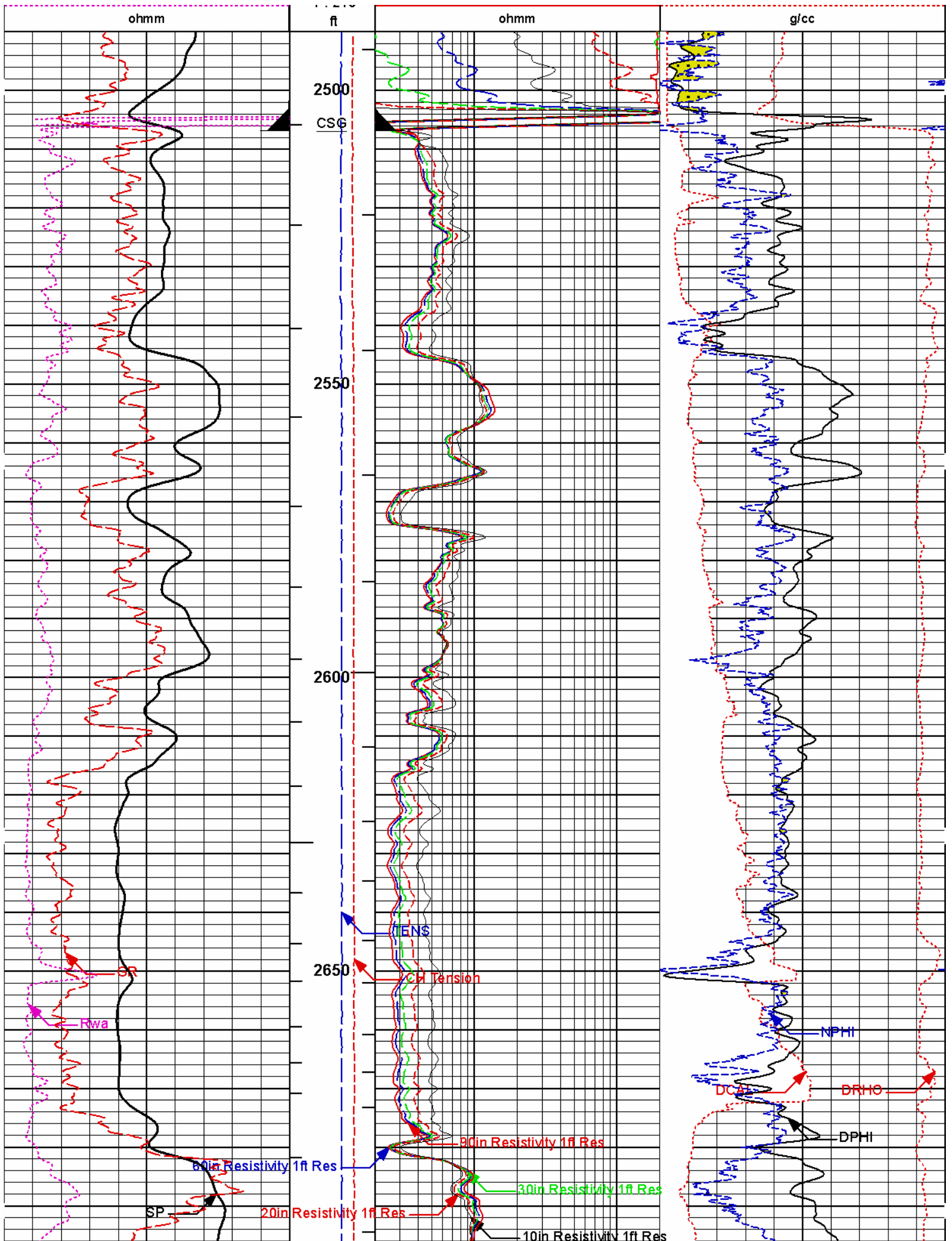
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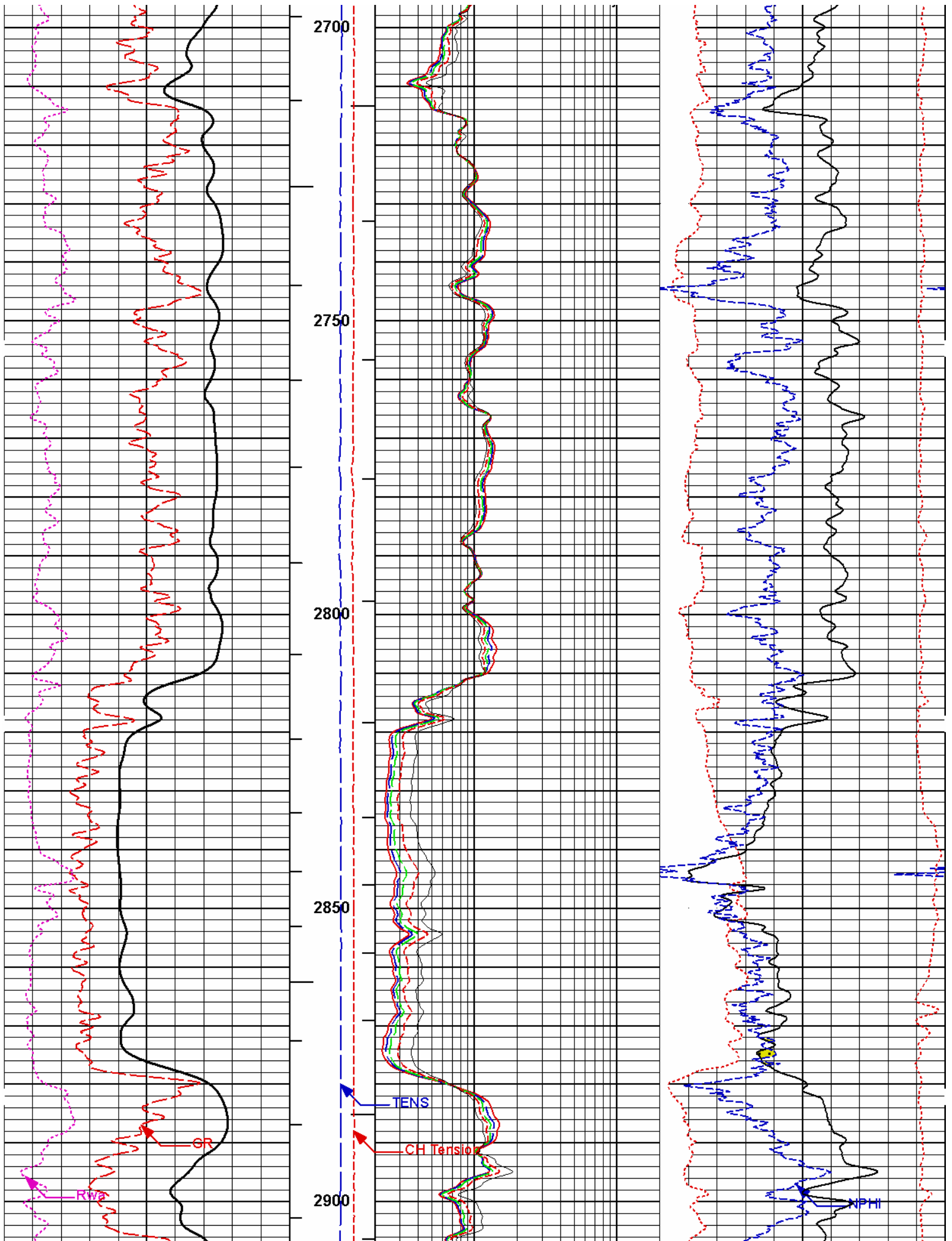
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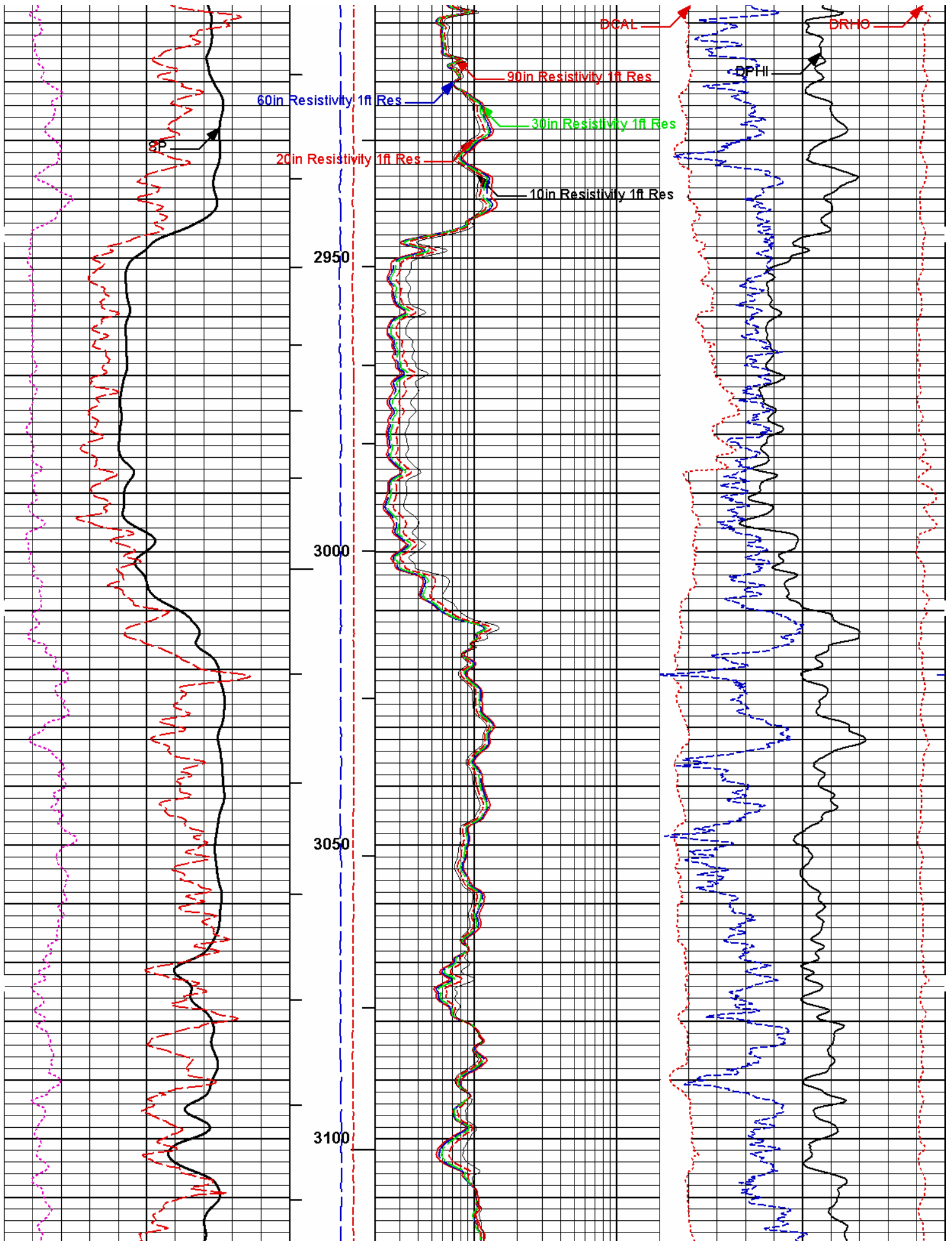
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 Plot Range: 2490 ft to 8225 ft
 Data: {ActiveWell}\Well Based\DAQ Current\
 Plot File: \\5IN_MD\CHUCK_TRIPLE_WBM_MAIN

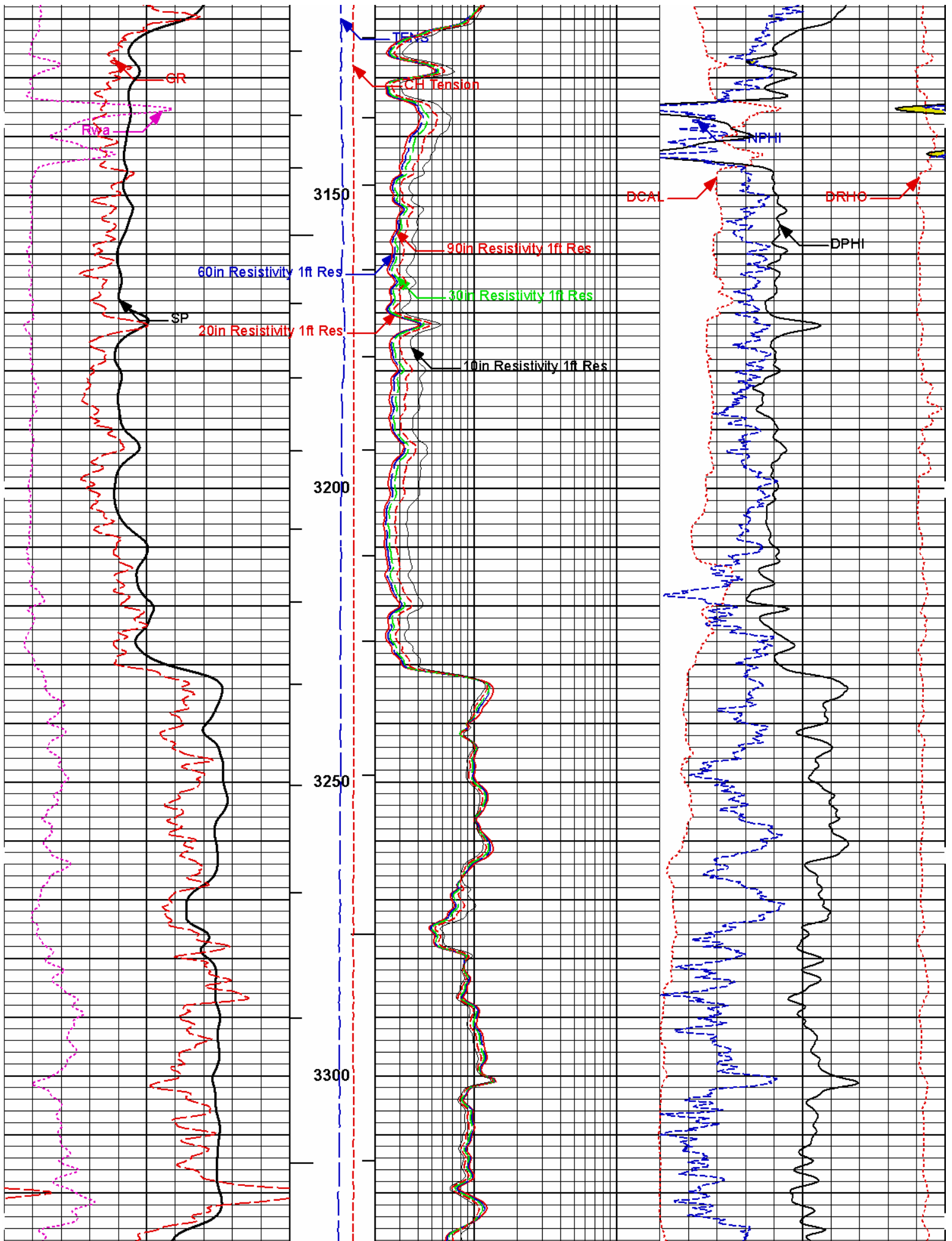
5 IN = 100 FT MEASURED DEPTH MAIN PASS

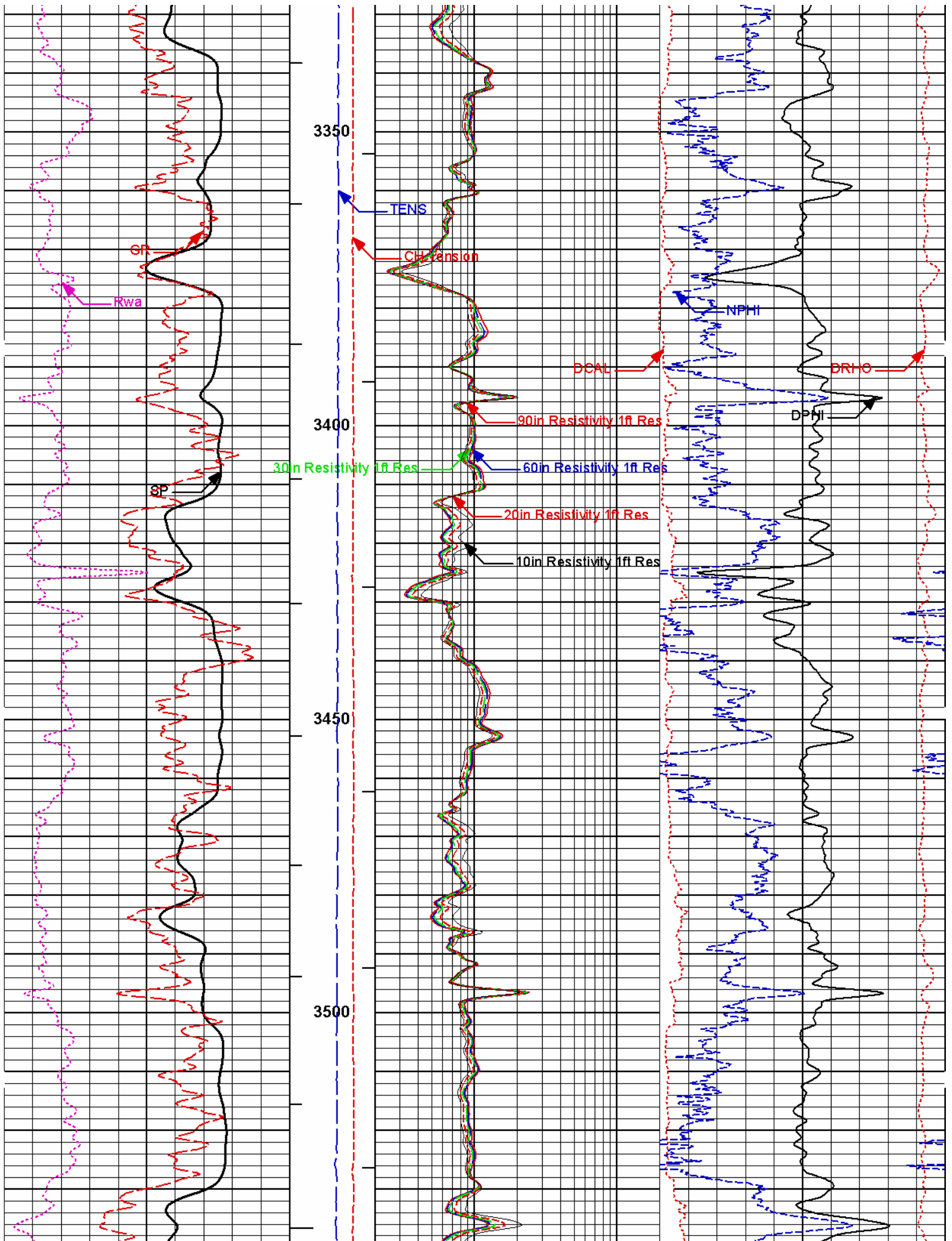
							-20	DCAL in	20
			5K CH Tension lbs	0	10in Resistivity 1ft Res ohmm	20			
			5K TENS lbs	0	20in Resistivity 1ft Res ohmm	20			
0	GR api	150	AHV →	0.2	30in Resistivity 1ft Res ohmm	20	60	NPHI %	0
	SP -]20[+		BHV ←	0.2	60in Resistivity 1ft Res ohmm	20	60	DPHI %	0
0	Rwa ohmm	0.5	MD 1 : 240 ft	0.2	90in Resistivity 1ft Res ohmm	20	-1.8	DRHO g/cc	0.2

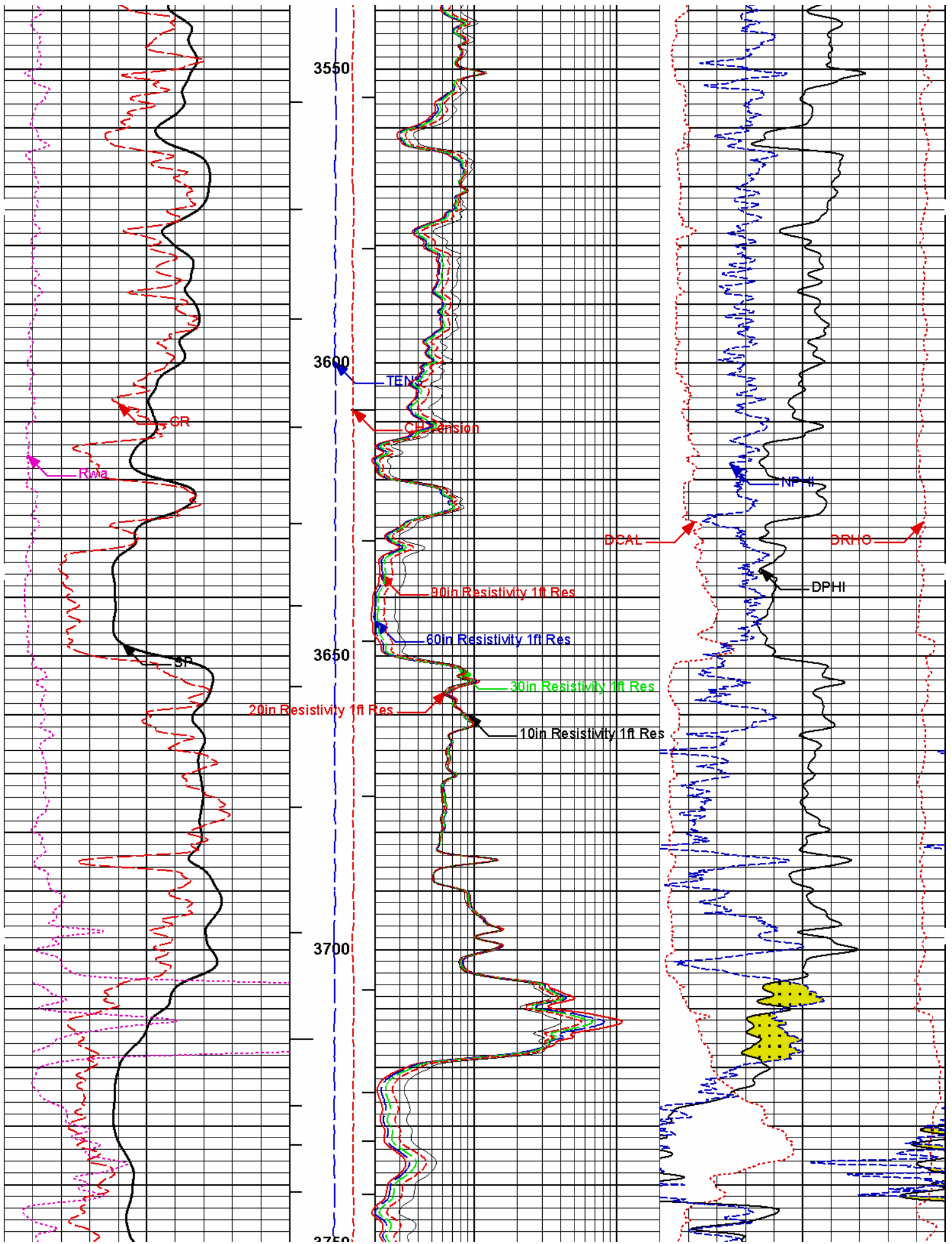


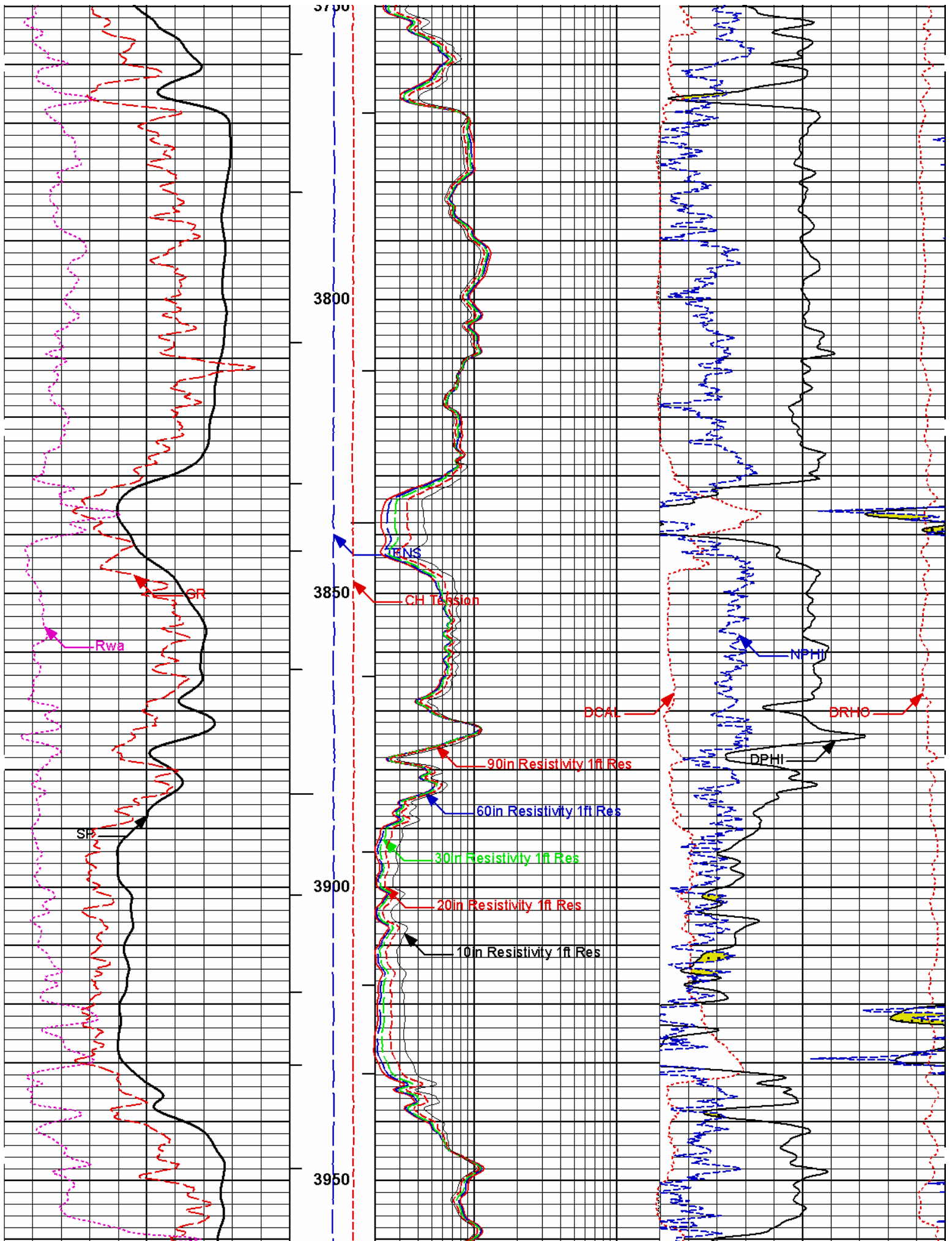


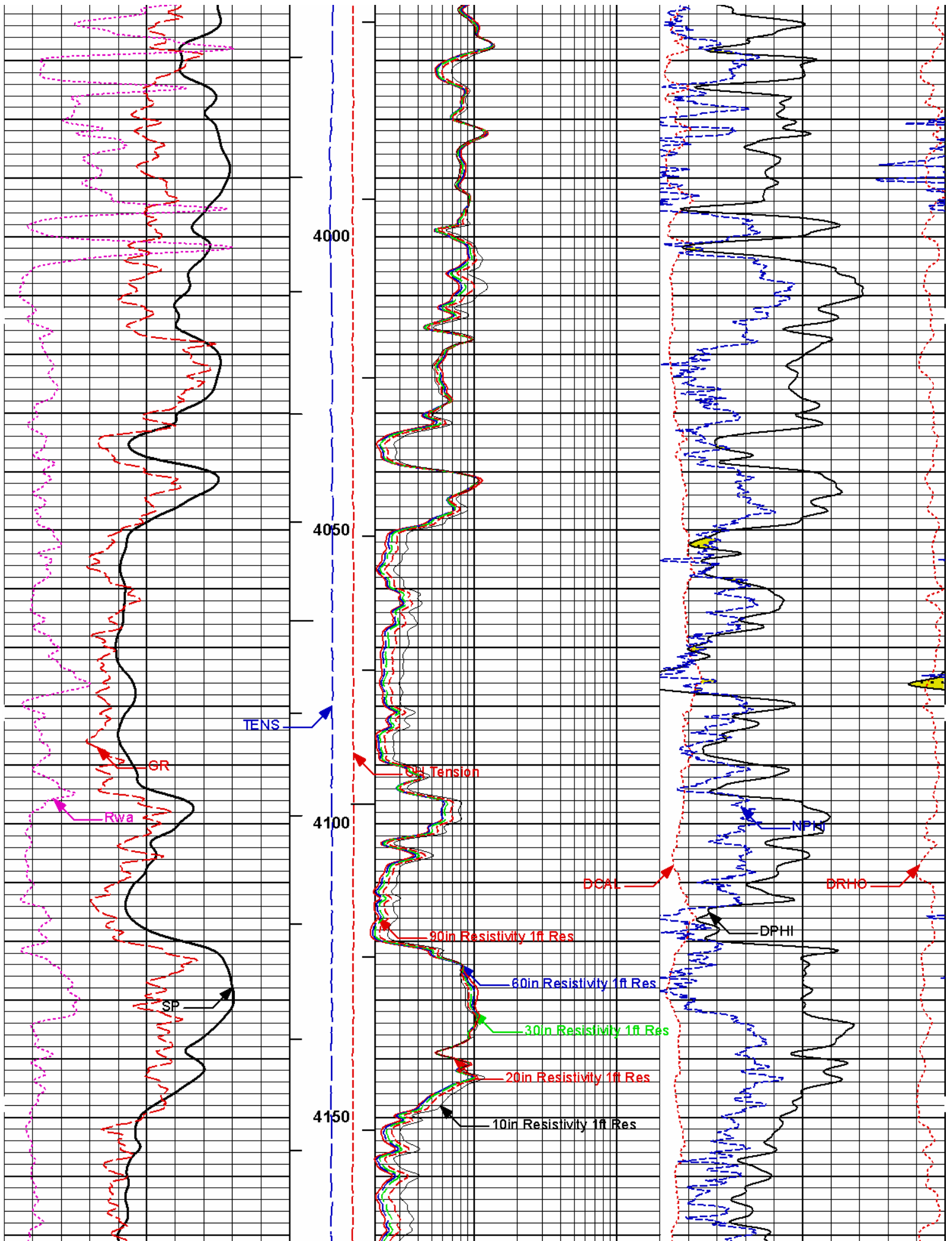


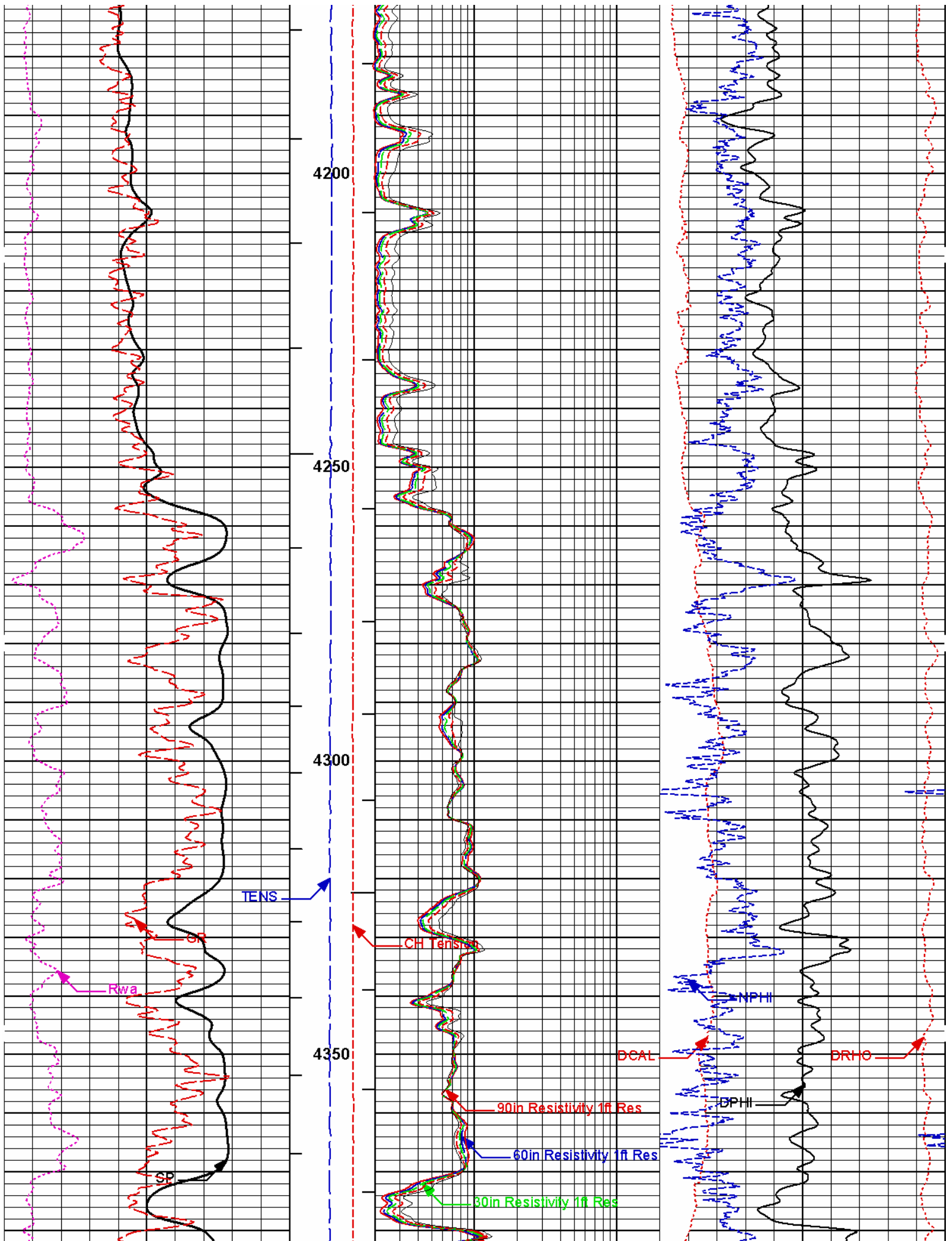


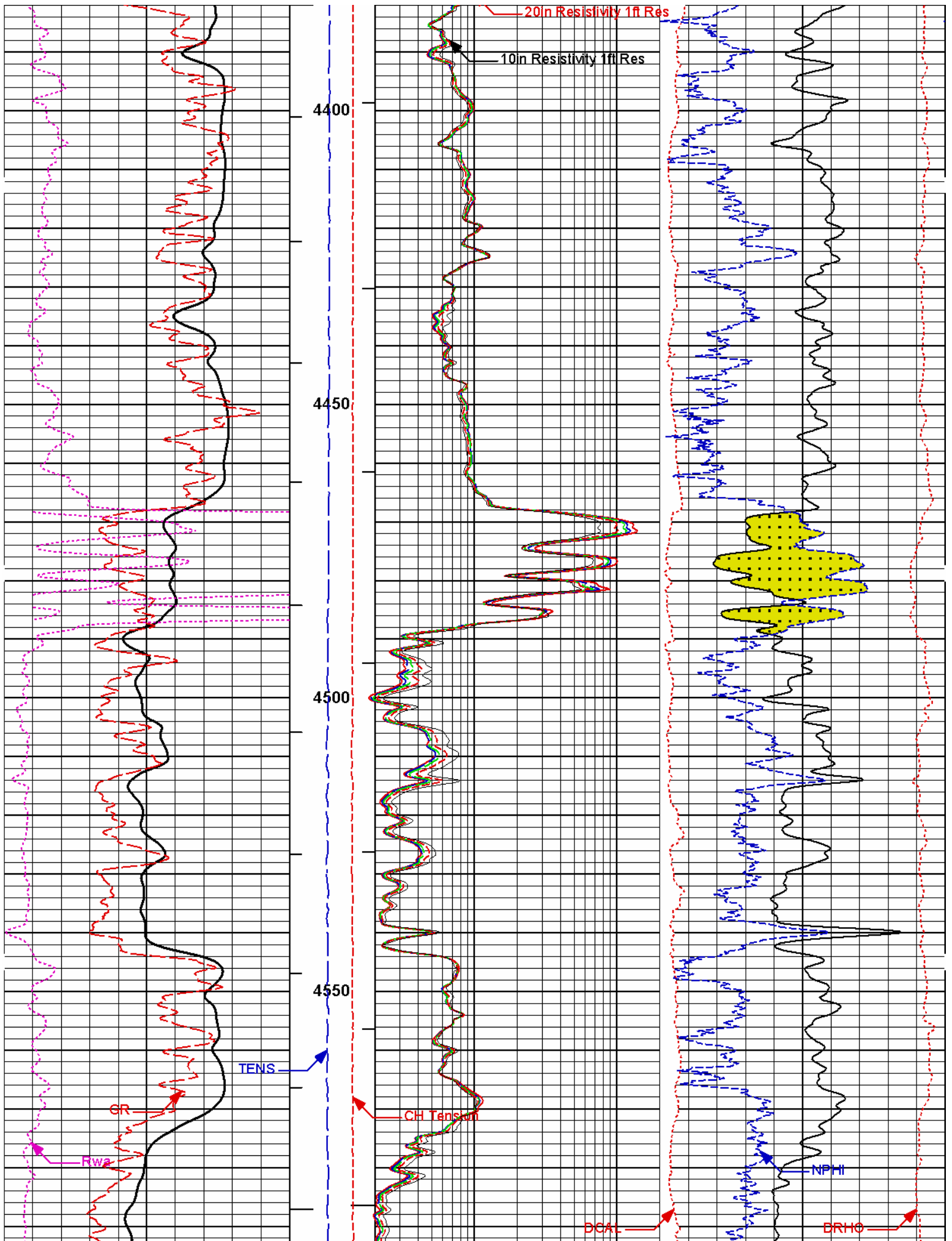


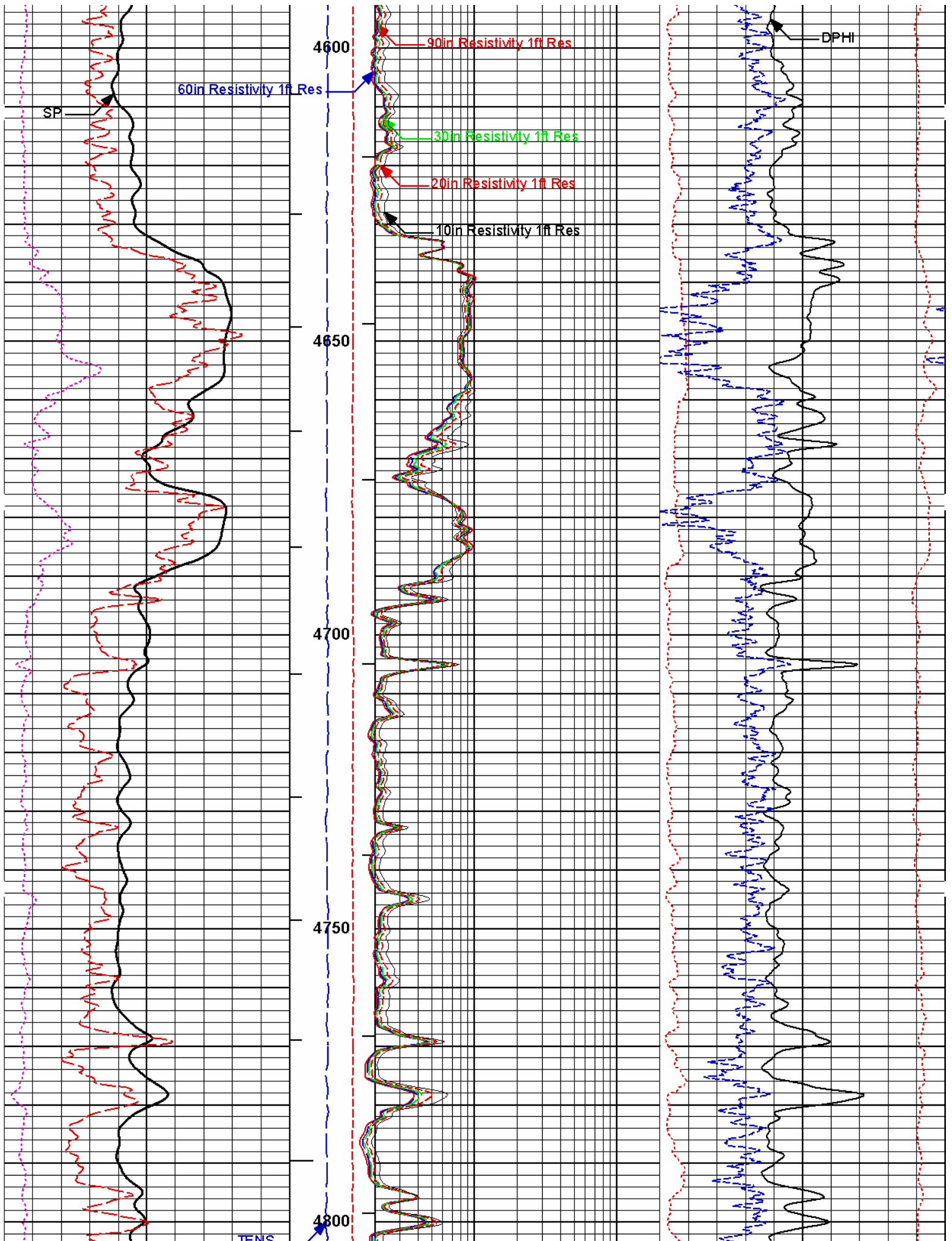


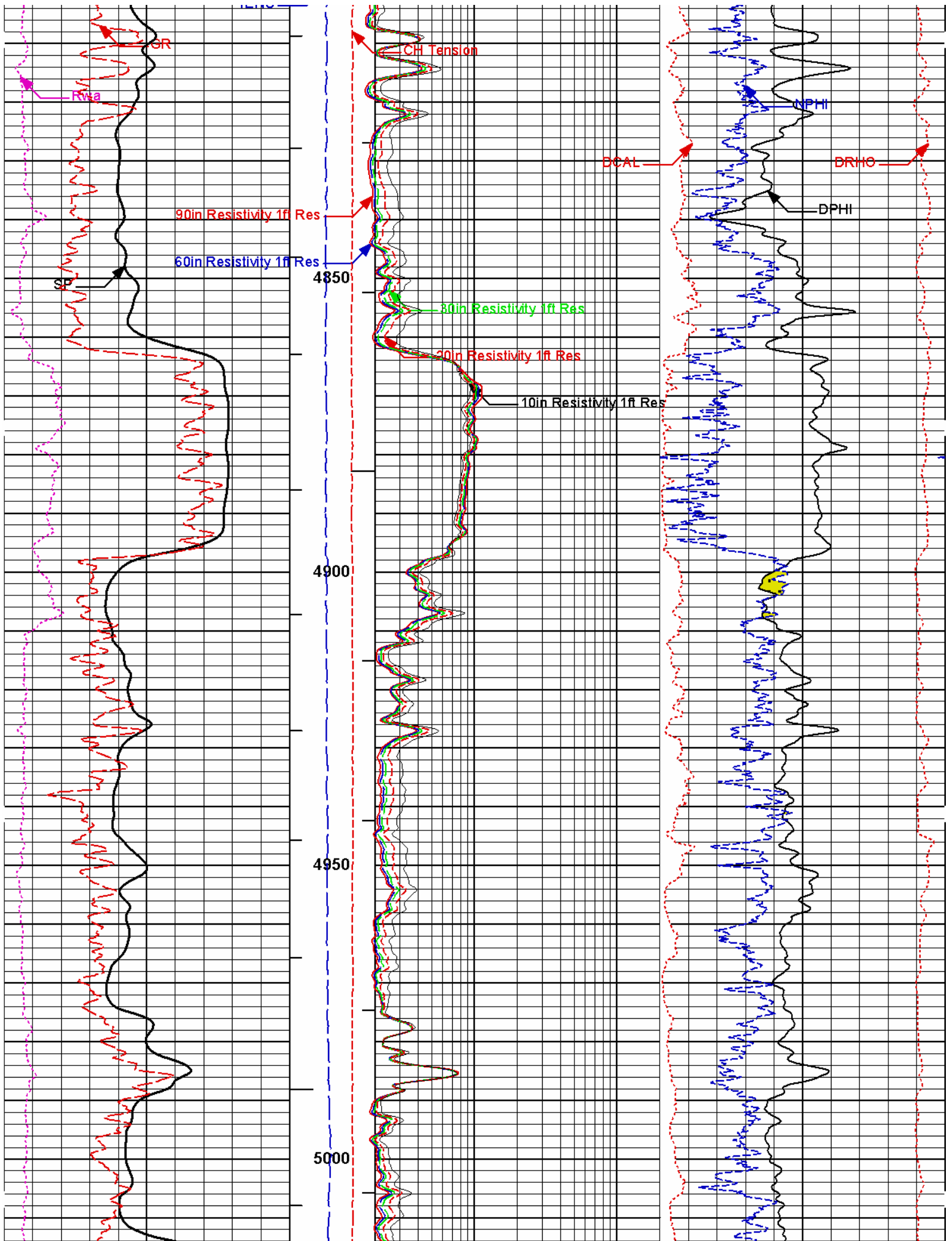


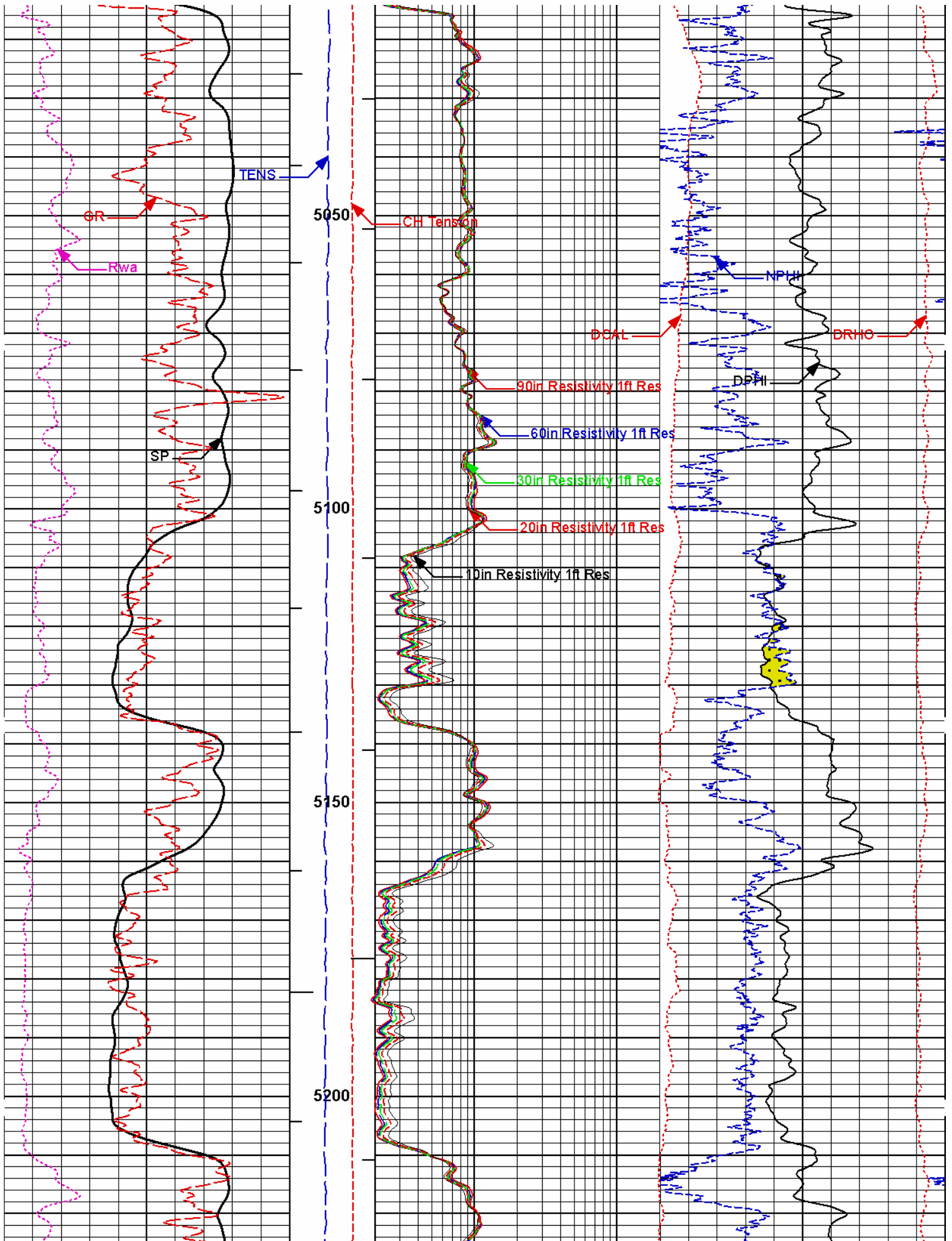


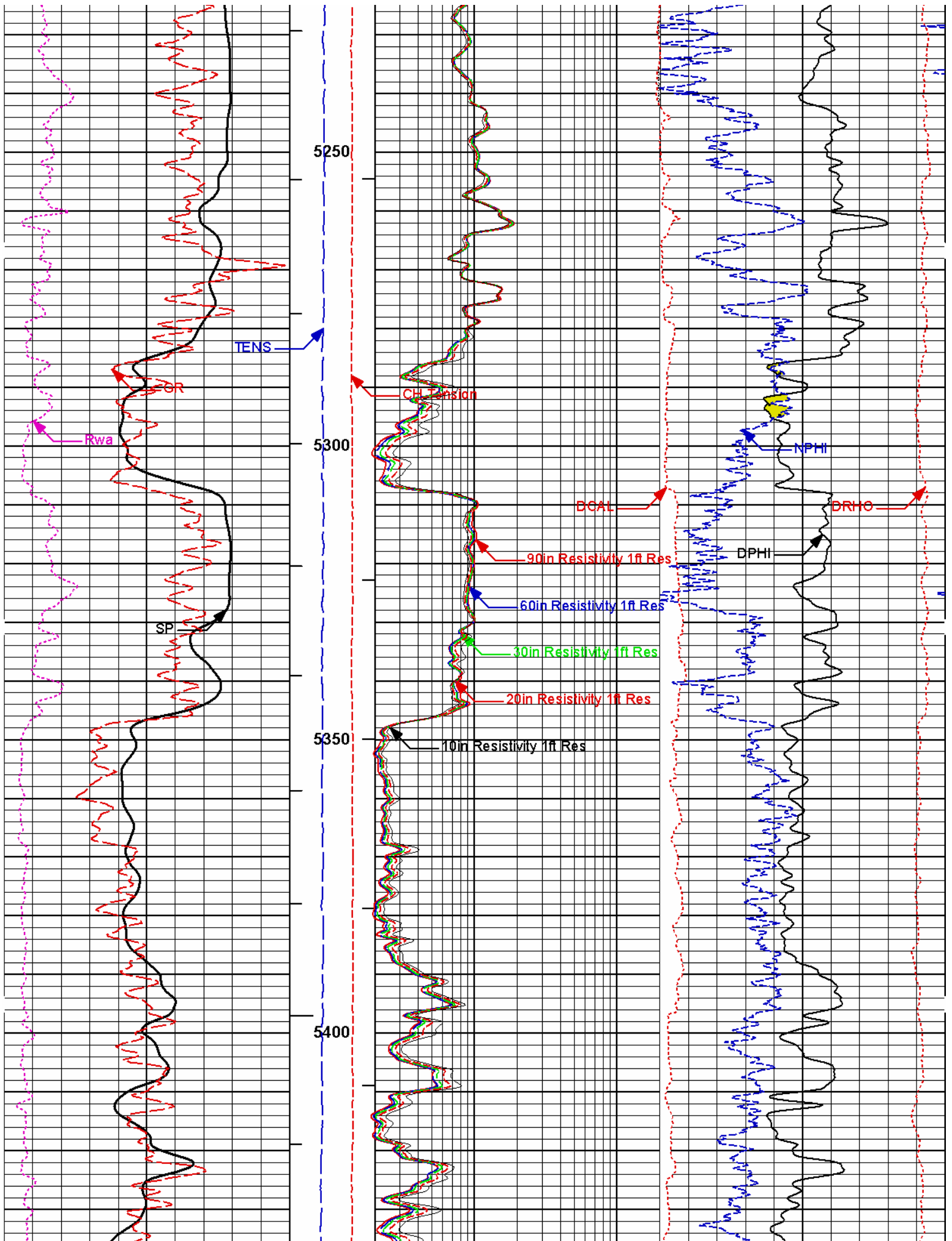


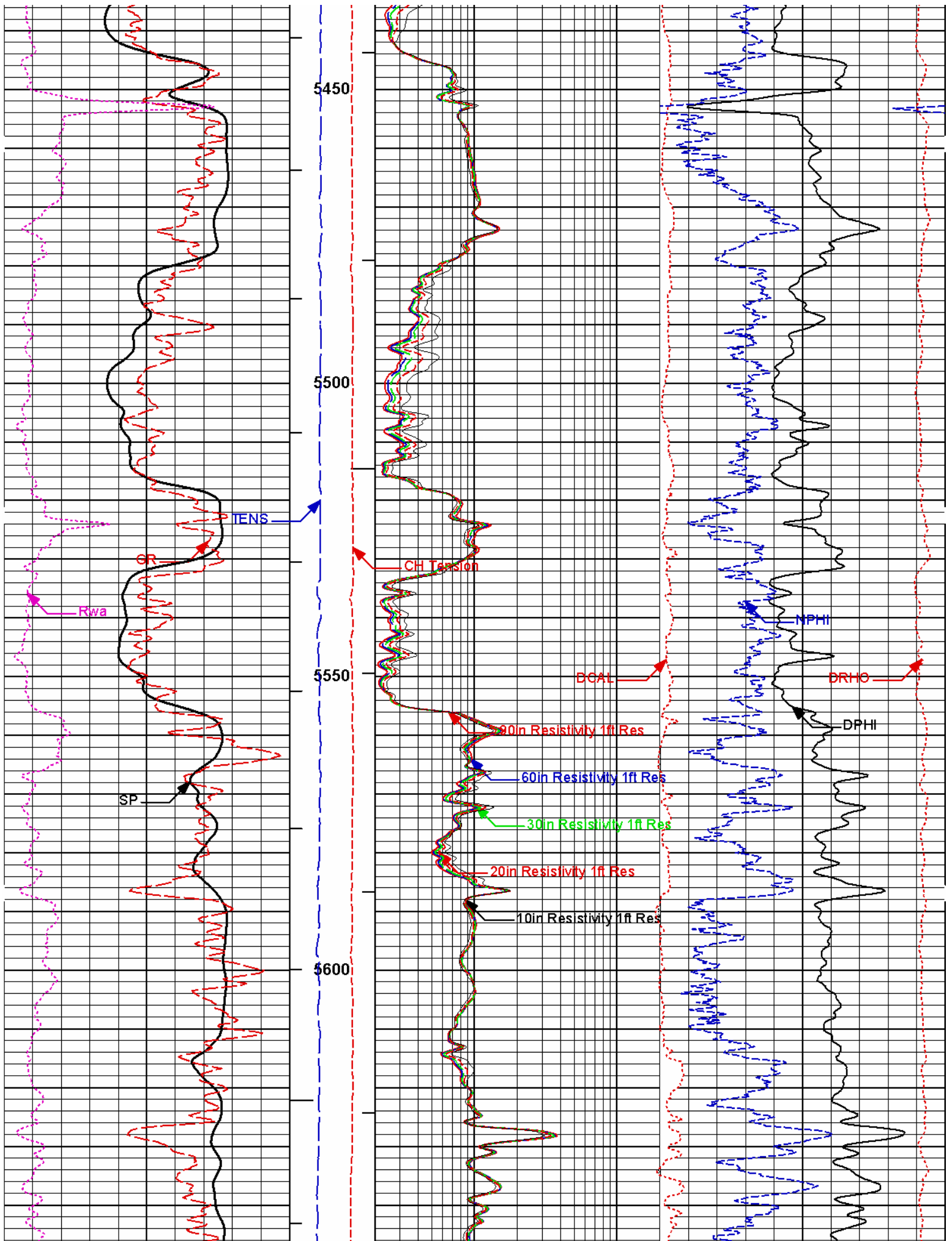


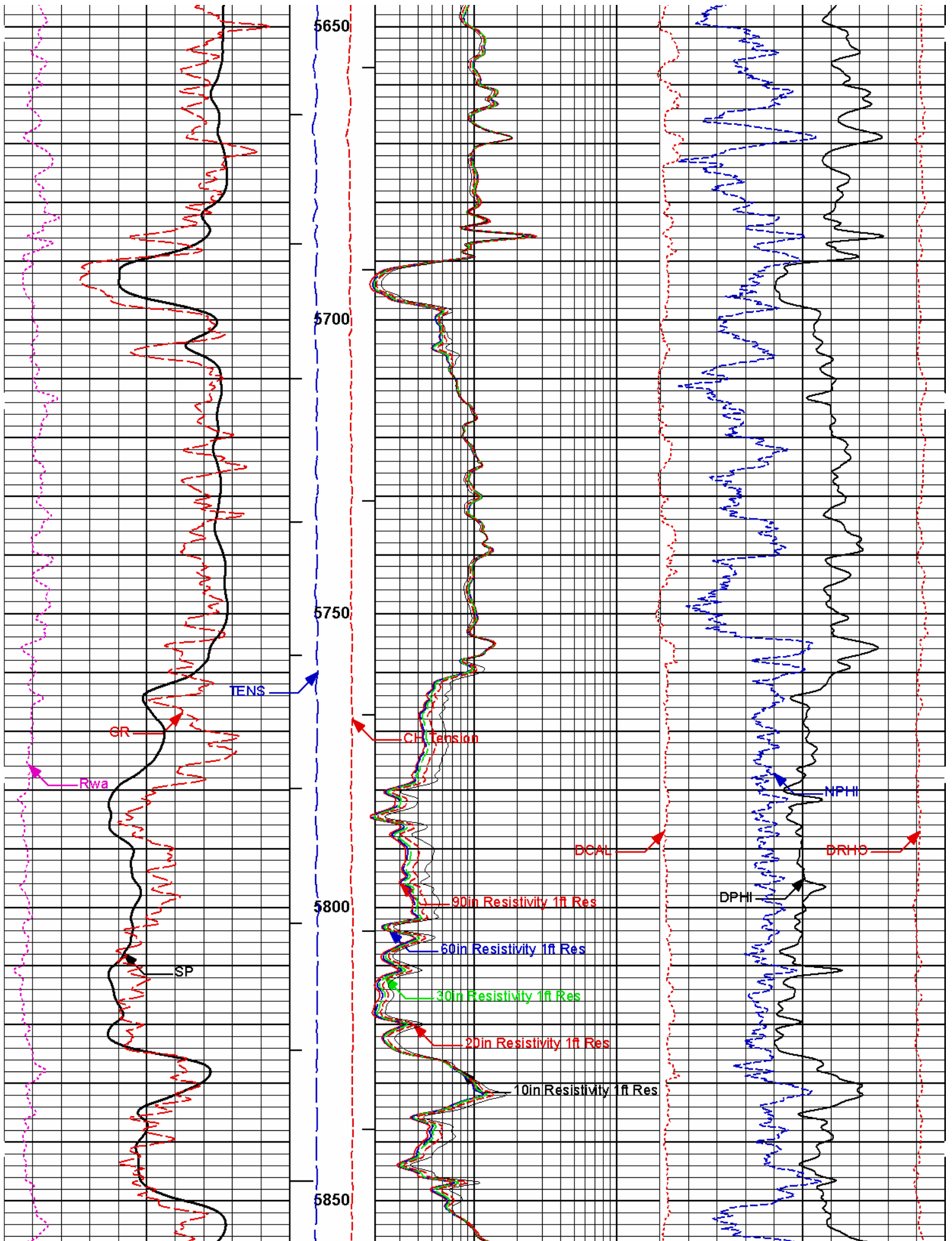


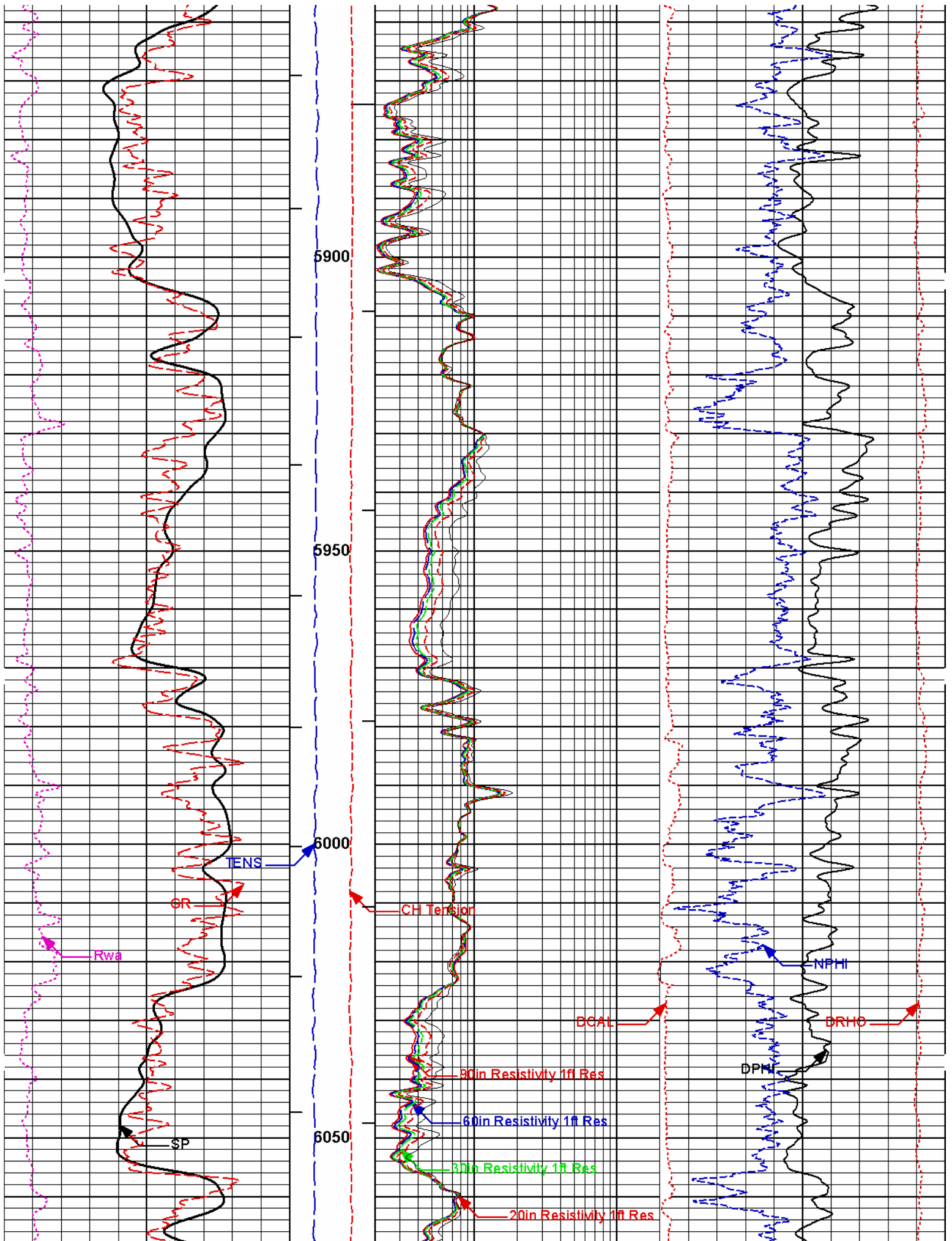


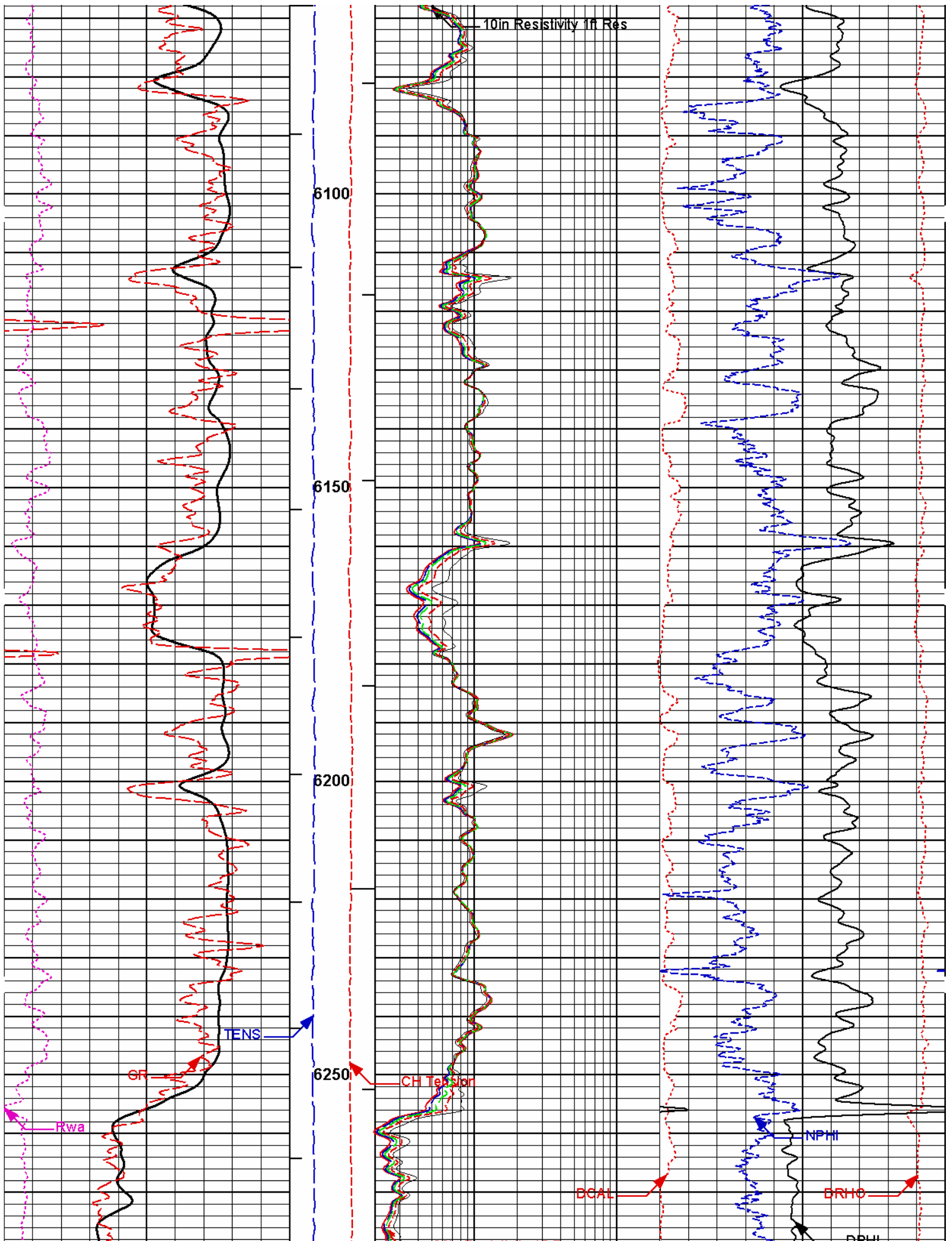


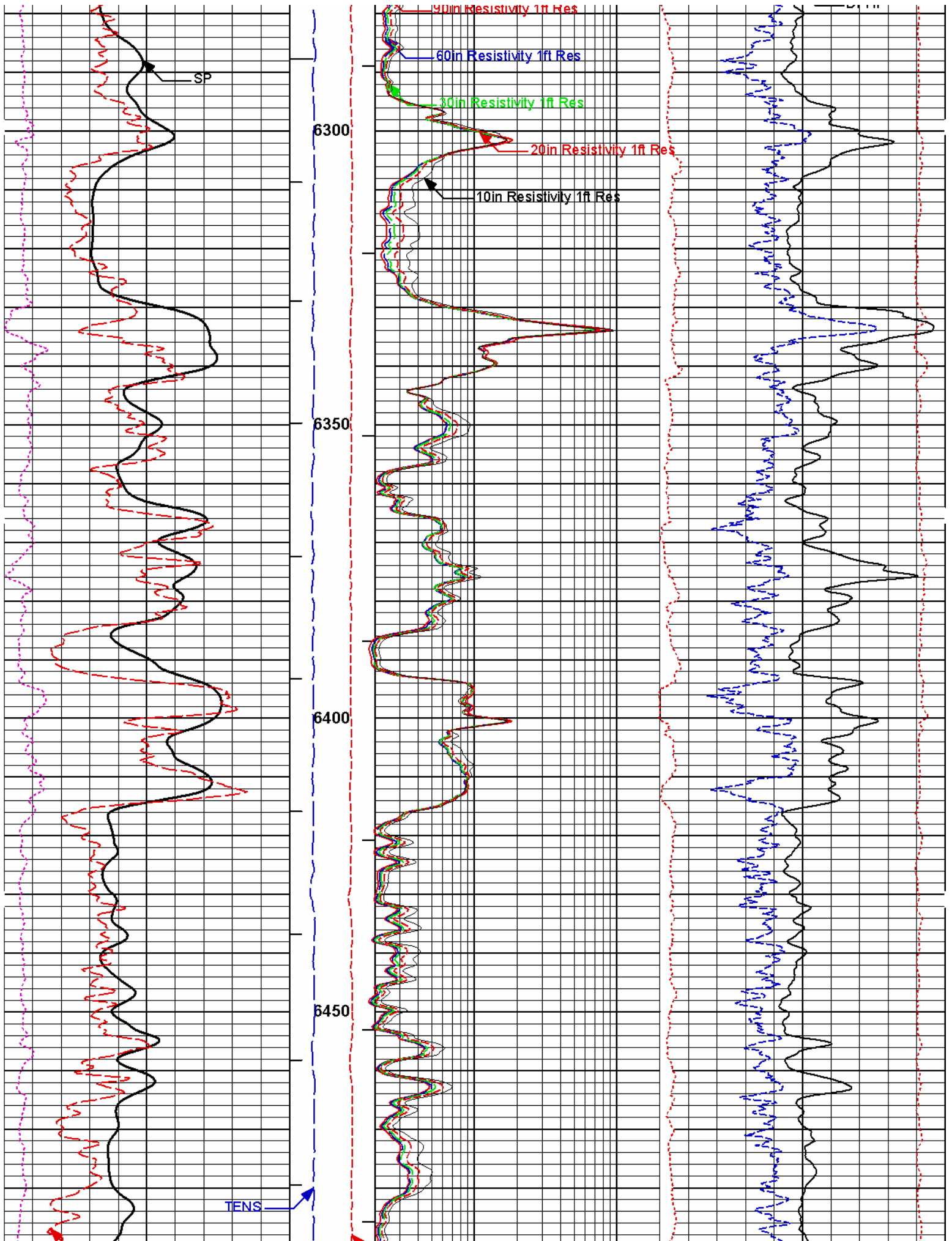


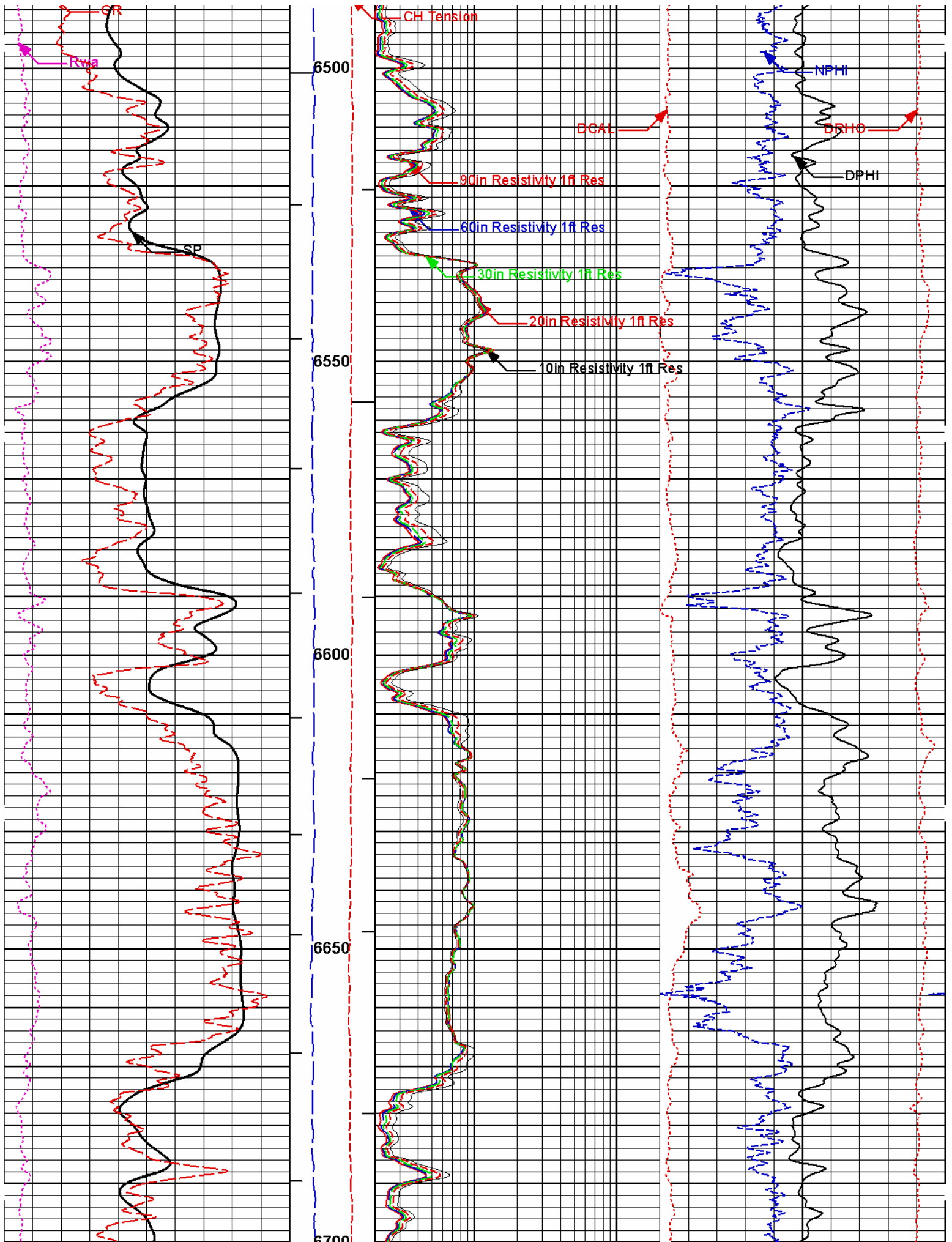


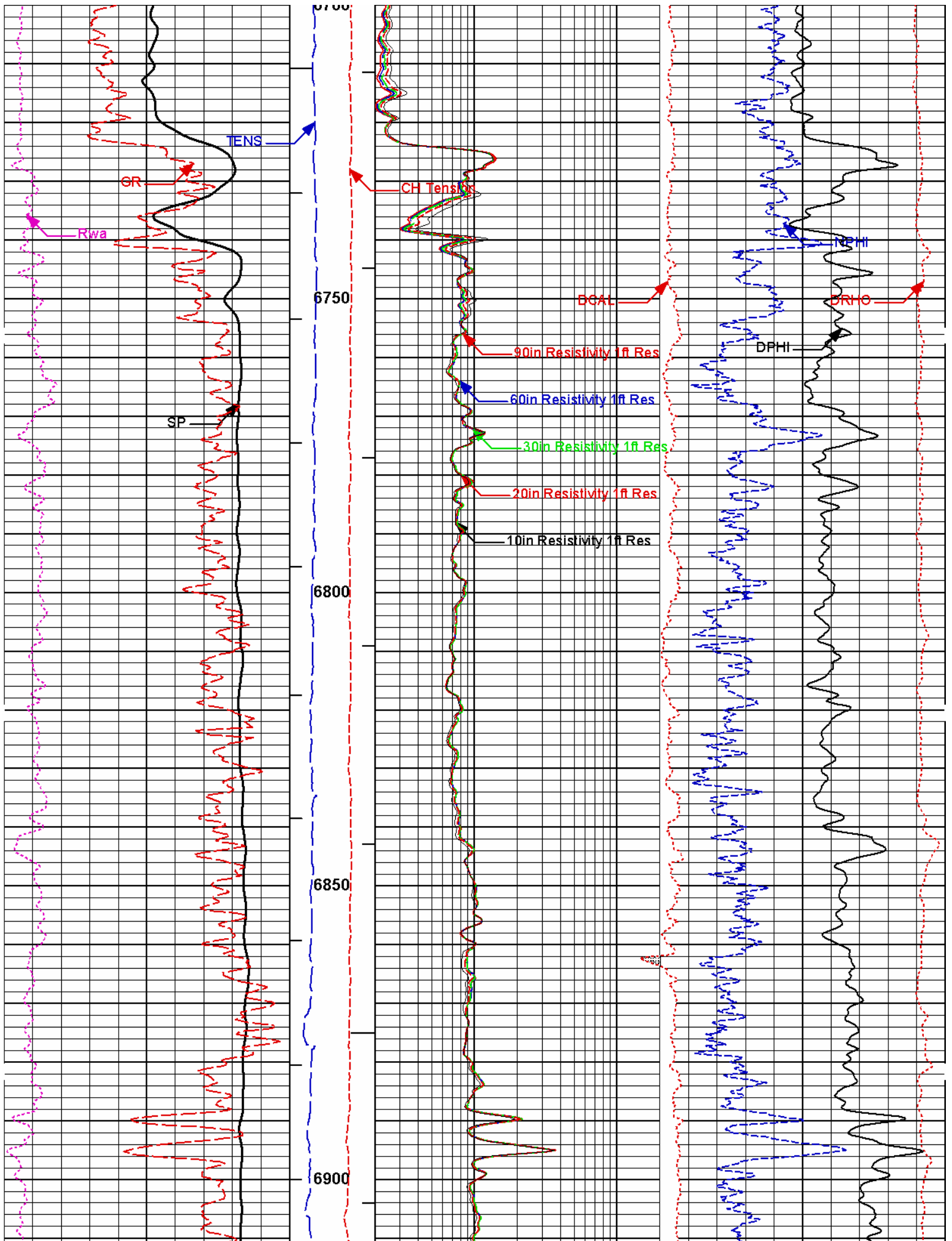


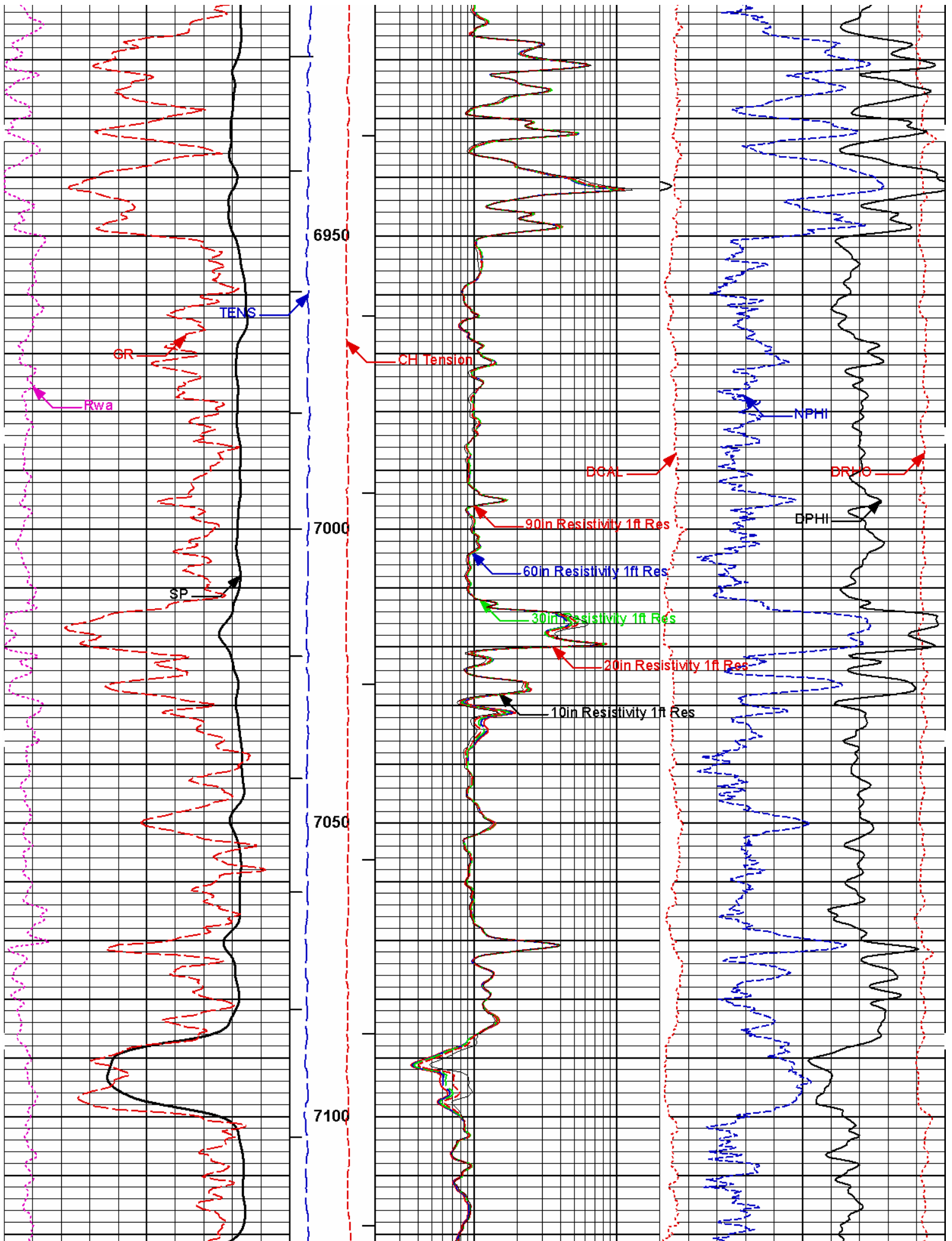


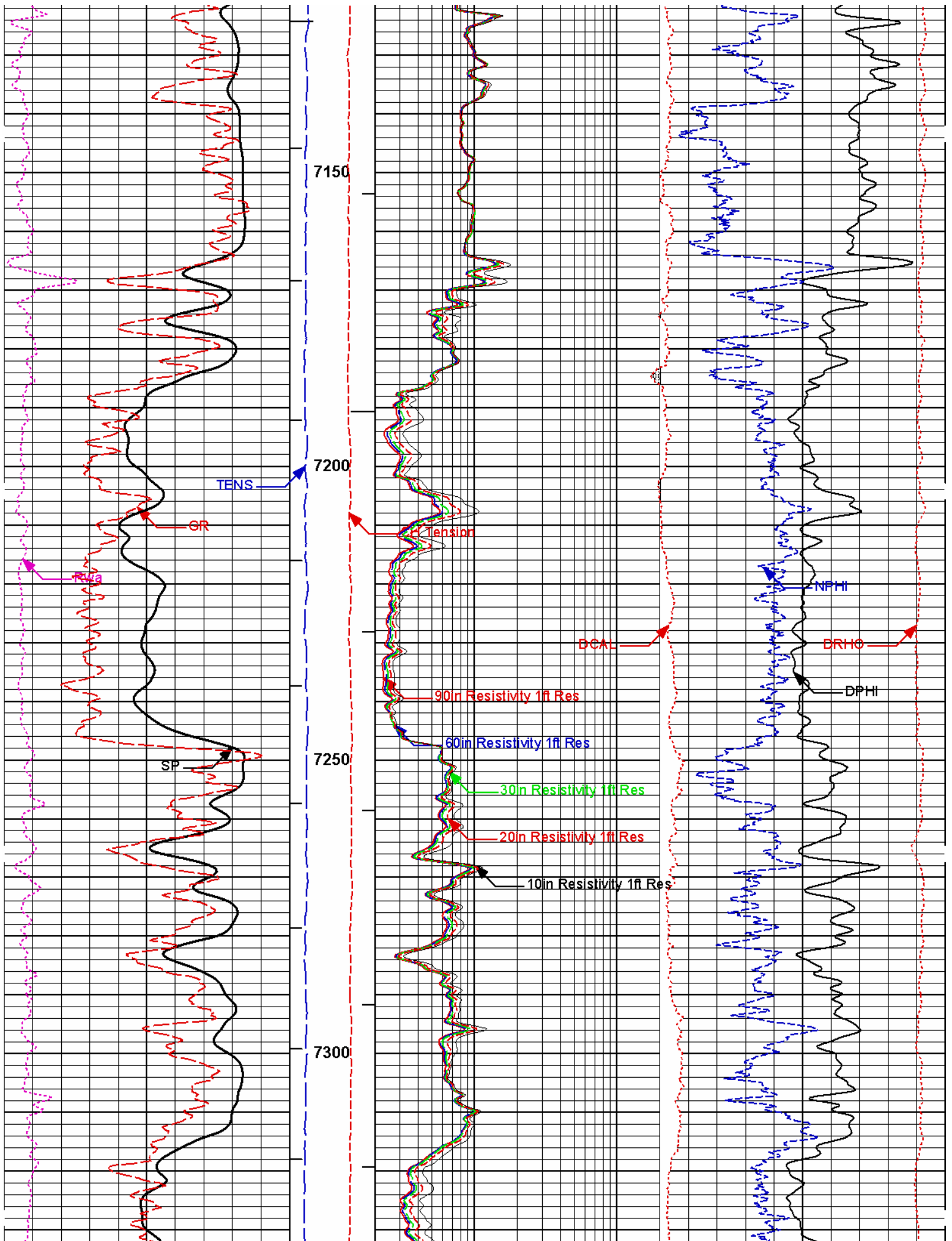


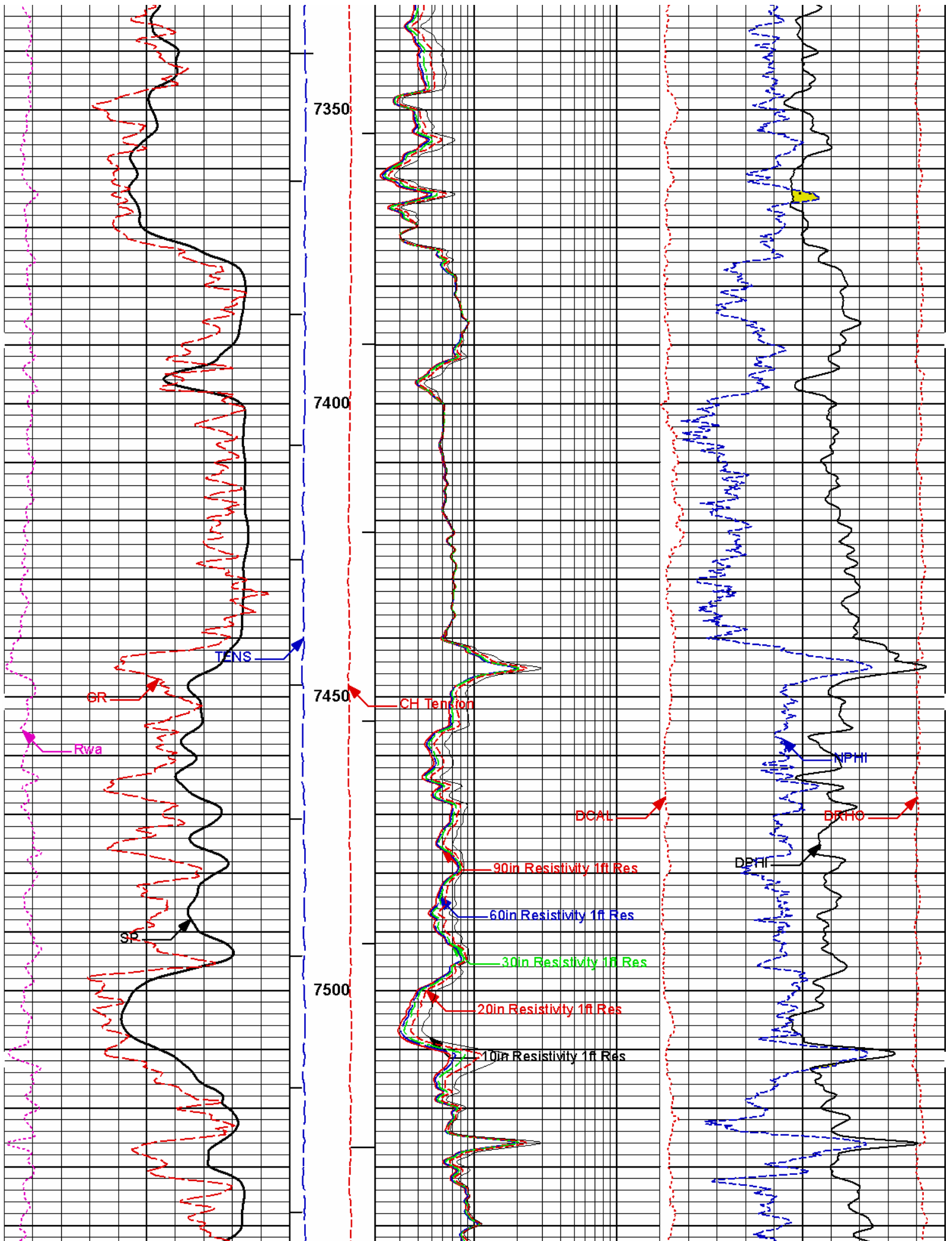


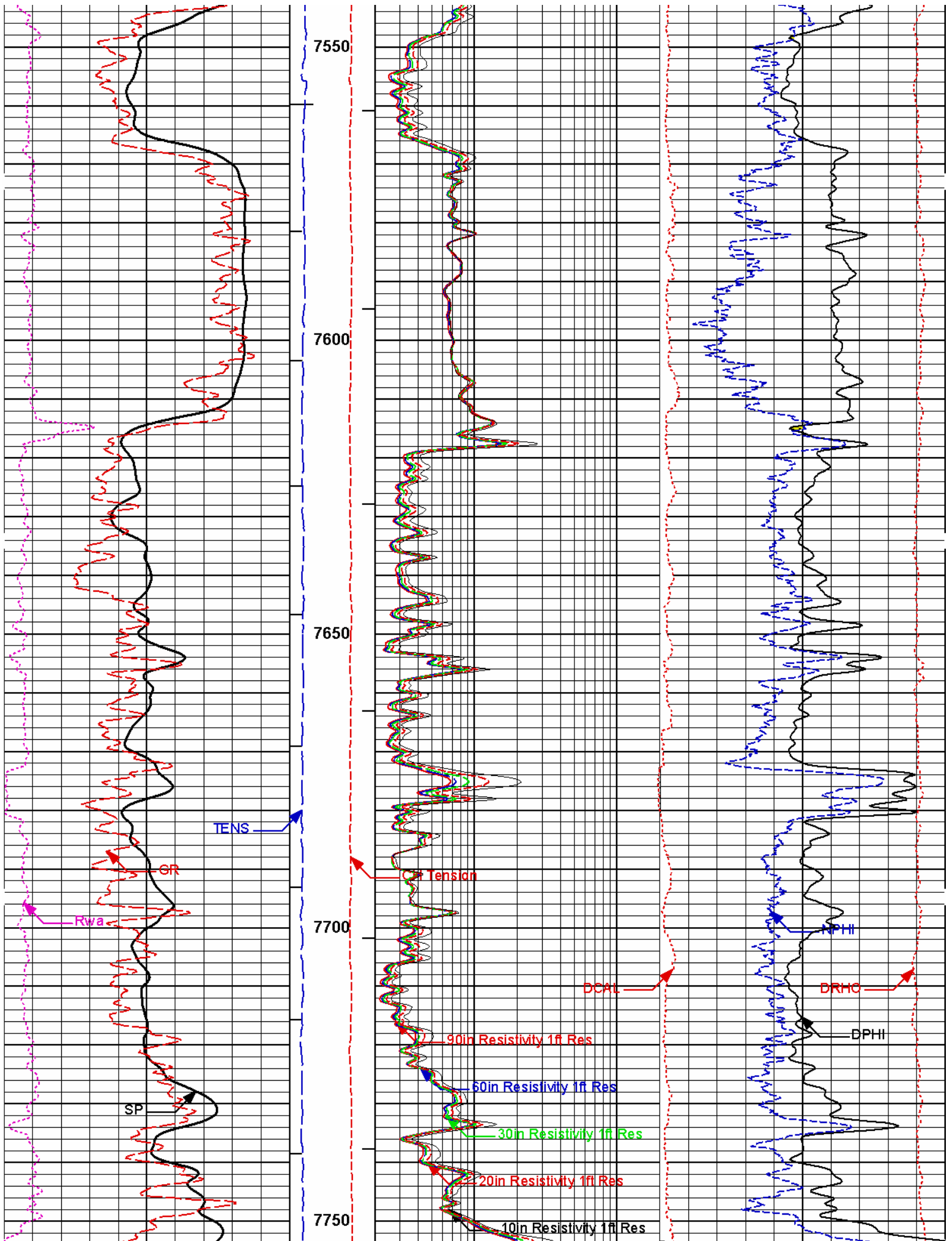


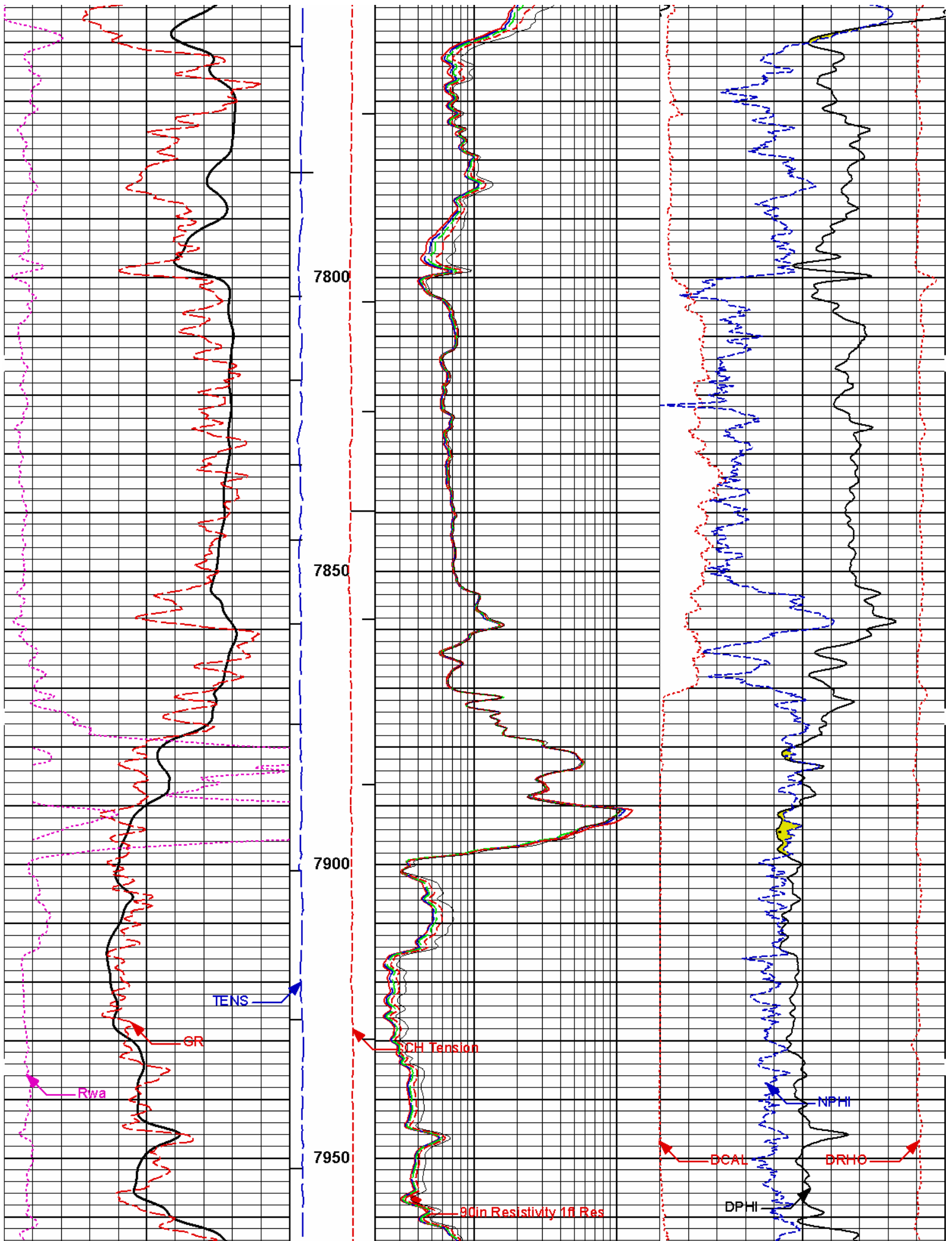


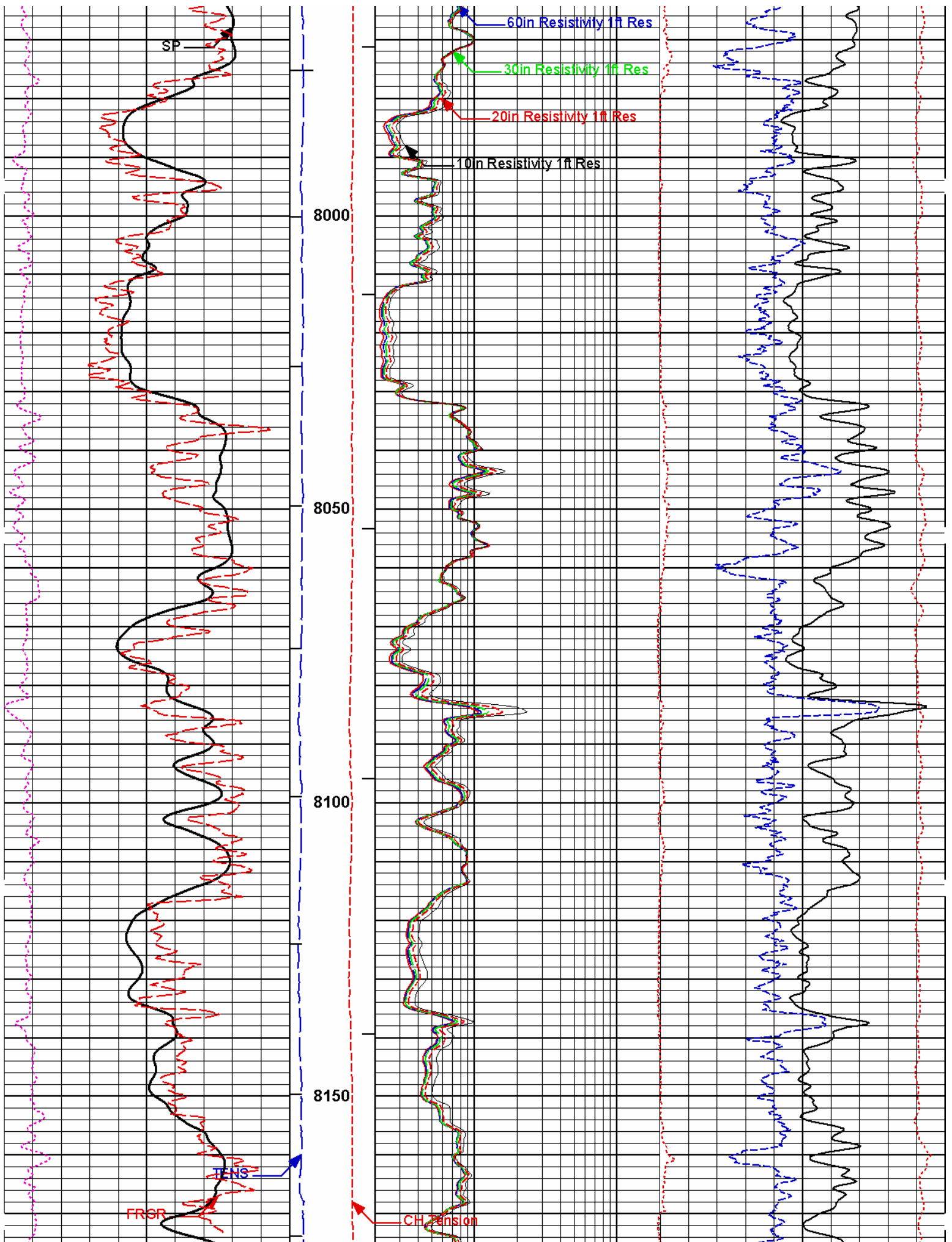












SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
SHARED	RMUD	Mud Resistivity	2.000	ohmm
SHARED	TRM	Temperature of Mud	75.0	degF
SHARED	CSD	Logging Interval is Cased?	No	
SHARED	ICOD	AHV Casing OD	5.500	in
SHARED	ST	Surface Temperature	75.0	degF
SHARED	TD	Total Well Depth	8202.00	ft
SHARED	BHT	Bottom Hole Temperature	175.0	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	Density	
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	Eccentered	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Sandstone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.000	in
DSNT	DNTP	Temperature Correction Type	Gradient	
DSNT	DNTT	Top Zone Temperature Value	75.0	degF
DSNT	DNBT	DSN Bottom Zone Temperature Value	175.0	degF
DSNT	DTDT	Top Depth for Temperature Gradient Calculation (Measured Depth)	0	ft
DSNT	DBDT	Bottom Zone Temperature Depth (Measured Depth)	8202	ft
DSNT	DPRS	DSN Pressure Correction Type	Gradient	
DSNT	DNTP	DSN Top Zone Pressure Value	14.70	psia
DSNT	DNBP	DSN Bottom Zone Pressure Value	4216.00	psia
DSNT	DTDP	Top Depth for Pressure Gradient Calculation (Measured Depth)	0	ft
DSNT	DNDP	Bottom Zone Pressure Depth (Measured Depth)	8202	ft
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	2.650	g/cc
SDLT	DFL	Formation Density Fluid	1.000	g/cc

SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT	MLOK	Process MicroLog Outputs?	No	
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	Eccentered	
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

Data: SL_18593_210001 TRIPLE001 06-Feb-11 09:49 Up @9998.0f

Date: 06-Feb-11 16:00:05

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CUSTOMER EVENT LOG

Event Type	Time & Date	Depth (ft)	Event Description
	06-Feb-11 09:49:31	9998.00	Logging 001 06-Feb-11 09:49 Up @9998.0f
	06-Feb-11 09:50:26	9969.90	Halting 001 06-Feb-11 09:49 Up @9998.0f
	06-Feb-11 11:54:08	2806.50	Logging 002 06-Feb-11 11:54 Up @2806.5f
	06-Feb-11 12:00:34	2419.19	Halting 002 06-Feb-11 11:54 Up @2806.5f
	06-Feb-11 12:00:50	2357.00	Logging 003 06-Feb-11 12:00 Dn @2357.0f
	06-Feb-11 12:52:22	8205.50	Halting 003 06-Feb-11 12:00 Dn @2357.0f
	06-Feb-11 12:52:50	8224.50	Logging 004 06-Feb-11 12:52 Up @8224.5f
	06-Feb-11 14:29:50	2136.98	Halting 004 06-Feb-11 12:52 Up @8224.5f

Data: SL_18593_210001 TRIPLEHWI1090

Date: 06-Feb-11 16:01:43

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 10958652	Reference Calibration Date:	30-Nov-10 10:50:11
Engineer:	C. HARRELL	Calibration Date:	02-Feb-11 11:02:38
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1

Calibrator Source S/N: TB 2193

Calibrator API Reference:237.00 api

Equivalent Calibrator API Reference:241.2 api

Measurement	Measured	Calibrated	Units
Background	38.9	36.0	api
Background + Calibrator	299.3	277.2	api
Calibrator	238.3	241.2	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 10958652	Reference Calibration Date:	02-Feb-11 11:02:38
Engineer:	C. HARRELL	Calibration Date:	06-Feb-11 07:49:53
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1

Calibrator Source S/N: TB 2193

Calibrator Source S/N: 1B 2195

Calibrator API Reference:237.00 api

Equivalent Calibrator API Reference:241.2 api

Field Verification	Shop	Field	Units
Background	36.0	29.8	api
Background + Calibrator	277.2	266.6	api
Calibrator	241.2	236.8	api

Shop	Field	Difference	Tolerance
241.2	236.8	4.4	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 11259761

Reference Calibration Date: 12-Jan-11 17:01:37

Engineer: C. HARRELL

Calibration Date: 02-Feb-11 11:23:34

Software Version: WL INSITE R3.2.0 (Build 7)

Calibration Version: 1

Logging Source S/N: DSN-414

Tank Serial Number: NEW IBERIA

Reference value assigned to Tank: 54.020

Snow Block S/N: A 1

Calibration Tank Water Temperature: 42 degF

Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.977	0.979	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):	0.2234	0.2237	0.0003	+/- 0.0020
Calibrated Ratio:	10.15	10.16	0.011	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0705	0.02000 - 0.09000

PASS/FAIL SUMMARY

Background Check:	Passed
Gain-Range Check:	Passed
Snow-Block Check:	Passed

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name: DSNT - 11259761

Reference Calibration Date: 02-Feb-11 11:23:34

Engineer: C. HARRELL

Calibration Date: 06-Feb-11 07:55:29

Software Version: WL INSITE R3.2.0 (Build 7)

Calibration Version: 1

Logging Source S/N: DSN-414

Snow Block S/N: A 1

NEUTRON FIELD-CHECK SUMMARY

Shop	Field	Difference	Control Limit On Change
------	-------	------------	-------------------------

Snow-Block Porosity (dec): 0.0705 0.0647 -0.0058 +/- 0.0150

PASS/FAIL SUMMARY

Block Change Check: Passed
 Snow Block Stat Check: Passed
 Temperature Check: Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT - 325M767P **Reference Calibration Date:** 12-Jan-11 15:05:51
Engineer: C. HARRELL **Calibration Date:** 02-Feb-11 13:52:50
Software Version: WL INSITE R3.2.0 (Build 7) **Calibration Version:** 1

Logging Source S/N: 20786B

Aluminum Block S/N: NEW IBERIA

Density: 2.598g/cc

Pe: 3.150

Magnesium Block S/N: NEW IBERIA

Density: 1.680g/cc

Pe: 2.594

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0120	1.0327	0.90 - 1.10
Near Dens Gain	0.9762	0.9978	0.90 - 1.10
Near Peak Gain	1.0027	1.0229	0.90 - 1.10
Near Lith Gain	1.0111	1.0264	0.90 - 1.10
Far Bar Gain	1.0065	1.0126	0.90 - 1.10
Far Dens Gain	0.9939	0.9991	0.90 - 1.10
Far Peak Gain	0.9908	0.9984	0.90 - 1.10
Far Lith Gain	0.9680	0.9789	0.90 - 1.10
<hr/>			
Near Bar Offset	0.1484	-0.0261	NONE
Near Dens Offset	0.4196	0.2424	NONE
Near Peak Offset	0.1602	0.0105	NONE
Near Lith Offset	0.0481	-0.0503	NONE
Far Bar Offset	0.1516	0.0955	NONE
Far Dens Offset	0.2594	0.2185	NONE
Far Peak Offset	0.2536	0.2045	NONE
Far Lith Offset	0.3960	0.3419	NONE
<hr/>			
Near Bar Background	922.30	926.15	700 - 1450
Near Dens Background	305.76	304.93	230 - 480
Near Peak Background	132.98	131.17	100 - 210
Near Lith Background	165.39	164.42	125 - 260
Far Bar Background	515.13	512.76	450 - 900
Far Dens Background	205.95	204.98	175 - 345
Far Peak Background	81.95	81.28	70 - 140
Far Lith Background	84.95	84.88	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.669	1.680	0.011	+/- 0.015
Pe	2.644	2.540	-0.104	+/- 0.150
ALUMINUM				

Density (g/cc)	2.584	2.598	0.014	+/- 0.01500
Pe	3.192	3.092	-0.100	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits

QUALITY				
Background	-0.0012	+/- 0.0110	-0.0002	+/- 0.0140
Magnesium Block	-0.0016	+/- 0.0110	-0.0020	+/- 0.0140
Aluminum Block	-0.0003	+/- 0.0110	0.0003	+/- 0.0140
Resolution	9.56	6.00 - 11.50	8.91	6.00 - 11.50
Internal Verifier(B+D+P+L)	1527	1200 - 2700	884	800 - 1700

PASS/FAIL SUMMARY	
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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

SPECTRAL DENSITY FIELD CHECK

Tool Name: SDLT - 325M767P	Reference Calibration Date: 02-Feb-11 13:52:50
Engineer: C. HARRELL	Calibration Date: 06-Feb-11 07:42:07
Software Version: WL INSITE R3.2.0 (Build 7)	Calibration Version: 1

Pad Temperature: 47.9 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1526.661	1533.657	6.996	15.735
Far (B+D+P+L) cps	883.890	886.017	2.127	16.212
Near Resolution	9.56	9.51	-0.050	0.50
Far Resolution	8.91	9.06	0.150	1.00

PASS/FAIL SUMMARY	
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Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - 325M767P	Reference Calibration Date: 12-Jan-11 15:55:28
Engineer: C. HARRELL	Calibration Date: 02-Feb-11 14:11:27
Software Version: WL INSITE R3.2.0 (Build 7)	Calibration Version: 1

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value

Pad Offset	-2598.41	-2564.20	-7000.00 - -1000.00
Pad Gain	0.000000	0.000000	0.000000 - 0.000000

Pad Gain	0.0003964	0.0003959	0.000200 - 0.000600
Arm Offset	-3451.46	-3559.13	-5000.00 - 3000.00
Arm Gain	0.0005151	0.0005208	0.000300 - 0.000700
Arm Power	-0.000001661	-0.000002302	-0.000010 - 0.000010

The ring diameter is computed from: $\text{DIAMETER} = \text{PAD EXTENSION} + \text{ARM EXTENSION} + \text{TOOL DIAMETER}$

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)	1.99	2.00	0.01	+/- 0.20
Medium Ring (in)	3.74	3.75	0.01	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.53	6.50	-0.03	+/- 0.20
Medium Ring (in)	8.27	8.25	-0.02	+/- 0.20
Large Ring (in)	15.07	15.00	-0.07	+/- 0.20

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check: Passed
 Ring-Measurement Check: Passed

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check: Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - 325M767P **Reference Calibration Date:** 02-Feb-11 14:11:27
Engineer: C. HARRELL **Calibration Date:** 06-Feb-11 07:46:16
Software Version: WL INSITE R3.2.0 (Build 7) **Calibration Version:** 1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.77	0.02	+/- 0.10
Ring Diameter	8.25	8.22	-0.03	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check: Passed
 Diameter Check: Passed

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION

Tool Name: ACRT - 310I309S **Reference Calibration Date:** 06-Jan-11 14:59:01
Engineer: C. HARRELL **Calibration Date:** 02-Feb-11 11:27:55
Software Version: WL INSITE R3.2.0 (Build 7) **Calibration Version:** 1

TYPICAL GAIN RANGE

Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0027	1.05	0.95	1.0042	1.05	0.95	1.0036	1.05
A2 (50")	0.95	1.0136	1.05	0.95	1.0157	1.05	0.95	1.0168	1.05
A3 (29")	0.95	0.9998	1.05	0.95	0.9998	1.05	0.95	0.9959	1.05
A4 (17")	0.95	1.0066	1.05	0.95	1.0057	1.05	0.95	1.0067	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.9908	1.05	0.95	0.9909	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9778	1.05	0.95	0.9780	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	0.013	2	-6	-3.624	-2	-8	-5.017	-2
A2 (50")	-7	-0.775	-1	-6	-3.309	-2	-7	-4.248	-2
A3 (29")	-27	-16.453	-9	-9	-4.928	-3	-7	-3.474	-1
A4 (17")	-180	-96.994	-60	-45	-32.921	-15	-39	-27.216	-13
A5 (10")	N/A	N/A	N/A	-150	-95.910	-50	-80	-45.393	-10
A6 (6")	N/A	N/A	N/A	175	280.253	525	90	143.631	270

TRANSMITTER CURRENT GAIN

R-MUD VERIFICATION

Signal	Lower	R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
12K	0.6	0.7713	1.3	Mud Cell	0.95	0.998	1.05
36K	1.0	1.2481	2.0				
72K	1.0	1.5576	2.0				

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10958652						
Gamma Ray Calibrator	241.2	236.8	-----	4.4	+/- 9.00	api
DSNT-11259761						
Snow-Block Porosity	0.0705	0.0647	-----	0.0058	+/- 0.0150	decp
SDLT-325M767P						
Near(B+D+P+L)	1526.661	1533.657	-----	-6.996	+/-15.735	cps
Far(B+D+P+L)	883.890	886.017	-----	-2.127	+/-16.212	cps
Pad Extension	3.75	3.77	-----	-0.02	+/-0.10	in
Ring Diameter	8.25	8.22	-----	0.030	+/-0.15	in
ACRt-310I309S						
Mud Cell	0.998	-----	-----	0.000	-----	ohm-m

Data: SL_18593_210001 TRIPLE001 06-Feb-11 09:49 Up @9998.0f

Date: 06-Feb-11 16:03:54

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length	
Cable Head Tension-101 30.00 lbs		∅ 3.625 in		← Load Cell @ 57.10 ft	2.00 ft	58.10 ft	
							56.10 ft
GTET-10958652 165.00 lbs		∅ 3.625 in		← GammaRay @ 50.04 ft	8.52 ft	47.58 ft	

DSNT-11259761
174.00 lbs

DSN Decentralizer-
10971181
6.60 lbs

Ø 3.625 in
Ø 3.625 in

DSN Far @ 40.64 ft
DSN Near @ 39.89 ft

9.69 ft
37.89 ft

SDLT-325M767P
360.00 lbs

Ø 4.500 in
Ø 4.750 in

SDL Microlog @ 30.08 ft
SDL Caliper @ 29.90 ft
SDL @ 29.89 ft

10.81 ft
27.08 ft

ACRt-310I309S
250.00 lbs

Ø 3.625 in

Mud Resistivity @ 20.69 ft
ACRt @ 16.71 ft

19.25 ft
7.83 ft

SP Ring-998I953S
0.00 lbs

Ø 3.625 in

SP @ 9.11 ft

7.25 ft
0.58 ft

Spacer-E1
110.00 lbs

Ø 3.625 in

Cabbage Head-E1
10.00 lbs

Ø 3.625 in
Ø 6.000 in

0.58 ft
0.00 ft

Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max. Log. Speed (fpm)
CHT	Cable Head with Load Cell	101	30.00	2.00	56.10	300.00
GTET	Gamma Telemetry Tool	10958652	165.00	8.52	47.58	60.00

DSNT	Dual Spaced Neutron	11259761	174.00	9.69	37.89	60.00
DCNT	DSN Decentralizer	10971181	6.60	5.13 *	41.22	300.00
SDLT	Spectral Density Tool	325M767P	360.00	10.81	27.08	60.00
ACRt	Array Compensated True Resistivity	310I309S	250.00	19.25	7.83	300.00
SP	SP Ring	998I953S	0.00	0.25 *	9.11	300.00
SPC	WEIGHT BAR	E1	110.00	7.25	0.58	100.00
CBHD	Cabbage Head	E1	10.00	0.58	0.00	300.00
Total			1,105.60	58.10		

* Not included in Total Length and Length Accumulation.

Data: SL_18593_2I0001 TRIPLEIDLE Date: 06-Feb-11 09:11:45

COMPANY	SMITH PRODUCTION CO.		
WELL	SL 18593 #2		
FIELD	GILLIS-ENGLISH BAYOU		
PARISH	CALCASIEU	STATE	LOUISIANA
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY ARRAY COMPENSATED RESISITIVY 5 IN = 100 FT MD	