

**SPECTRAL DENSITY
DUAL SPACED NEUTRON
ARRAY COMPENSATED
TRUE RESISTIVITY**

Fold here

LOGGING DATA

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	3499'	100'	REC	0	150				30%	-10%	2.65 g/cc	30%	-10%	SAND
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: RWCH-CCL-GTET-DSNT-SDLT-FLEX-BSAT-ACRT RAN IN COMBINATION														
BOREHOLE RUGOSITY, TENSION PULLS, AND WASHOUTS MAY EFFECT LOG QUALITY														
ANNULAR HOLE VOLUME CALCULATED FOR 7-INCH CASING														
LATITUDE: 40.106933														
LONGITUDE: -108.224175														
TODAY'S CREW: J. DAVIS & J. HARBISON								RIG: CAPSTAR 311						
*** THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES, ROCK SPRINGS, WY (307) 356-8600 ***														
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PARAMETERS REPORT

Depth (ft)	Tool Name	Description	Value	Units
TOP				
	SHARED	Bit Size	8.750	in
	SHARED	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	Mud Base	Water	
	SHARED	Borehole Fluid Weight	9.200	ppg
	SHARED	Weighting Agent	Barite	
	SHARED	Borehole salinity	0.00	ppm
	SHARED	Formation Salinity NaCl	0.00	ppm
	SHARED	Percent K in Mud by Weight?	0.00	%
	SHARED	Mud Resistivity	1.800	ohmm
	SHARED	Temperature of Mud	87.2	degF
	SHARED	Logging Interval is Cased?	No	
	SHARED	AHV Casing OD	7.000	in
	SHARED	Surface Temperature	67.0	degF
	SHARED	Total Well Depth	3499.00	ft
	SHARED	Bottom Hole Temperature	113.0	degF
	SHARED	Navigation and Survey Master Tool	NONE	
	SHARED	High Res Z Accelerometer Master Tool	GTET	
	SHARED	Temperature Master Tool	NONE	
	SHARED	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	Process Crossplot?	Yes	
	Rwa / CrossPlot	Select Source of F	Automatic	
	Rwa / CrossPlot	Archie A factor	0.6200	
	Rwa / CrossPlot	Archie M factor	2 1500	

Rwa / CrossPlot	Rmf Reference	0.10	ohmm
Rwa / CrossPlot	Rmf Ref Temp	75.00	degF
Rwa / CrossPlot	Resistivity of Formation Water	0.05	ohmm
Rwa / CrossPlot	Use Air Porosity to calculate CrossplotPhi	No	
CCL-D	Process CCL?	Yes	
CCL-D	CCL Processing Selection	Raw	
GTET	Process Gamma Ray?	Yes	
GTET	Gamma Tool Standoff	0.000	in
GTET	Process Gamma Ray EVR?	No	
GTET	Tool Position for Gamma Ray Tools.	Eccentered	
DSNT	Process DSN?	Yes	
DSNT	Process DSN EVR?	No	
DSNT	Neutron Lithology	Sandstone	
DSNT	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	Temperature Correction Type	None	
DSNT	DSN Pressure Correction Type	None	
DSNT	View More Correction Options	No	
DSNT	Use TVD for Gradient Corrections?	No	
DSNT	Logging Horizontal Water Tank?	No	
SDLT	Process Caliper Outputs?	Yes	
SDLT Pad	Process Density?	Yes	
SDLT Pad	Process Density EVR?	No	
SDLT Pad	Logging Calibration Blocks?	No	
SDLT Pad	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	Disable temperature warning	No	
SDLT Pad	Formation Density Matrix	2.650	g/cc
SDLT Pad	Formation Density Fluid	1.000	g/cc
BSAT	Compute BCAS Results?	Yes	
BSAT	Frequency Filter Low Pass Value?	5000	Hz
BSAT	Frequency Filter High Pass Value?	27000	Hz
BSAT	Delta -T Fluid	189.00	uspf
BSAT	Delta -T Matrix Type	Sandstone 55.5	
BSAT	Delta -T Shale	100.00	uspf
BSAT	Acoustic Porosity Equation	Wylie	
ACRt Sonde	Process ACRt?	Yes	
ACRt Sonde	Minimum Tool Standoff	1.50	in
ACRt Sonde	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	Tool Position	Free Hanging	
ACRt Sonde	Rmud Source	Mud Cell	
ACRt Sonde	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	Threshold Quality	0.50	
ACRt Sonde	Fixed mud resistivity	2000	ohmm

BOTTOM

Data: AW_25_43_SWDI0001 QUAD_BSATI.DLE

Date: 26-Sep-13 10:33:18

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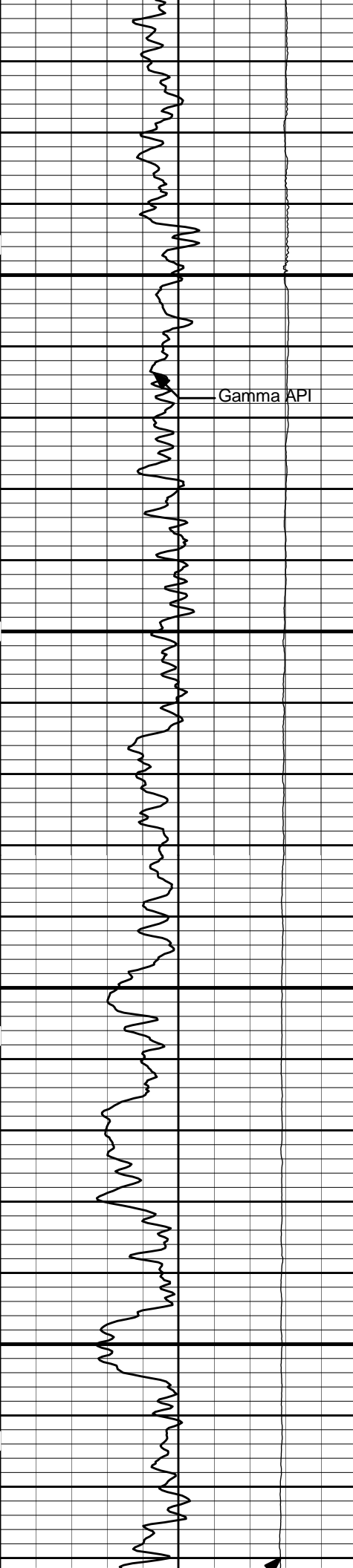
Plot Time: 26-Sep-13 11:53:26

Plot Range: 98 ft to 3502 ft

Data: AW_25_43_SWDIWell Based\MAIN*

Plot File: \COMPIQ_BP_COMPOSITE_ACRt_5IN_DHT

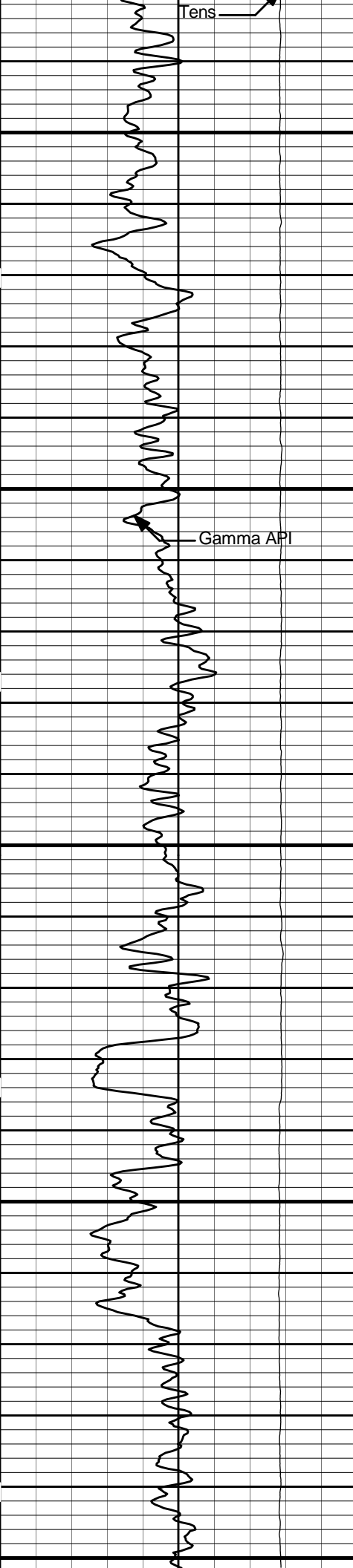
MAIN PASS 5" = 100'



300

400

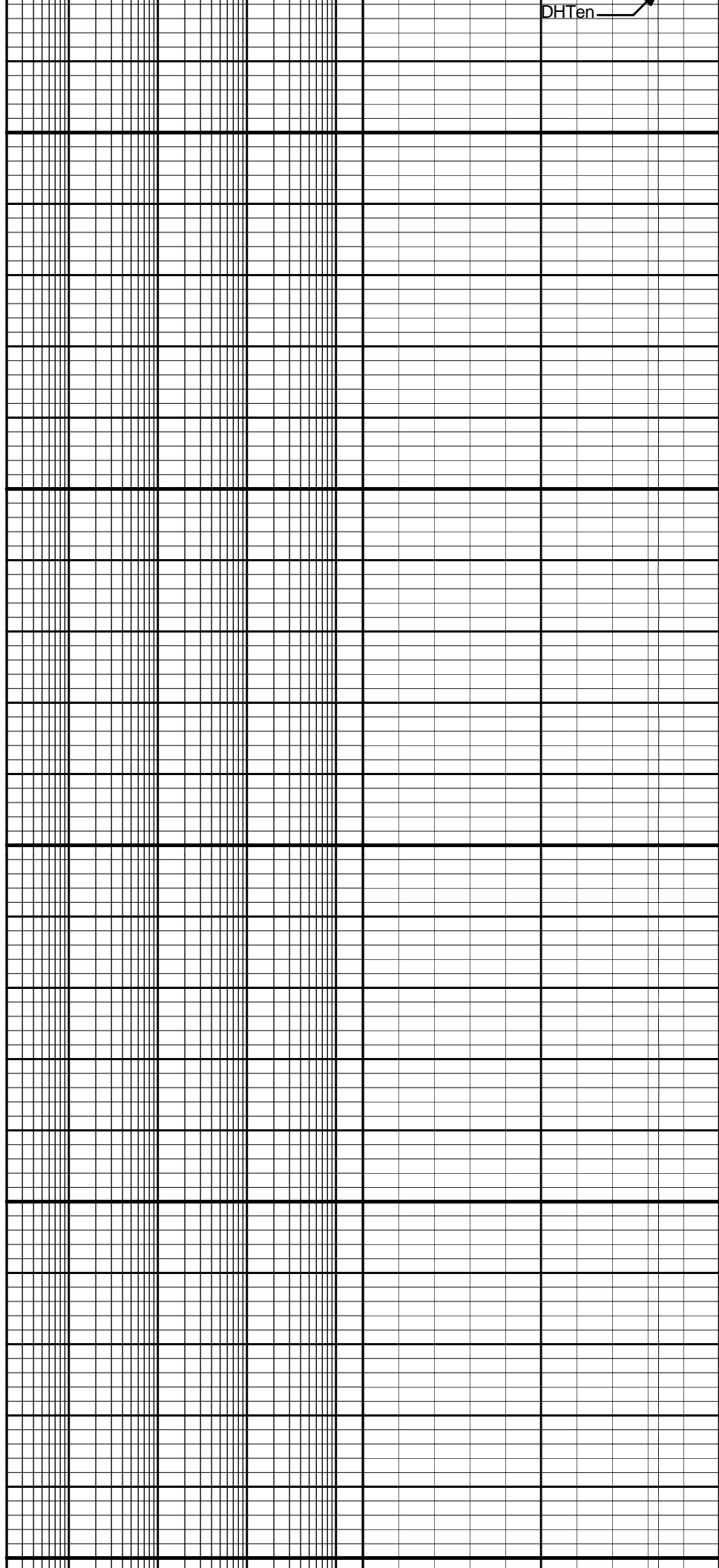
Gamma API



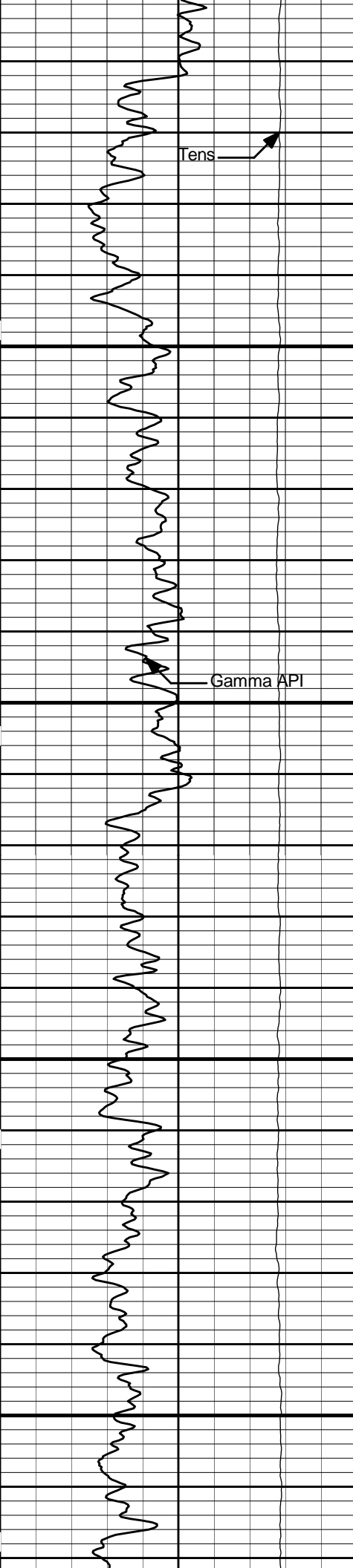
500

600

700



DHTen

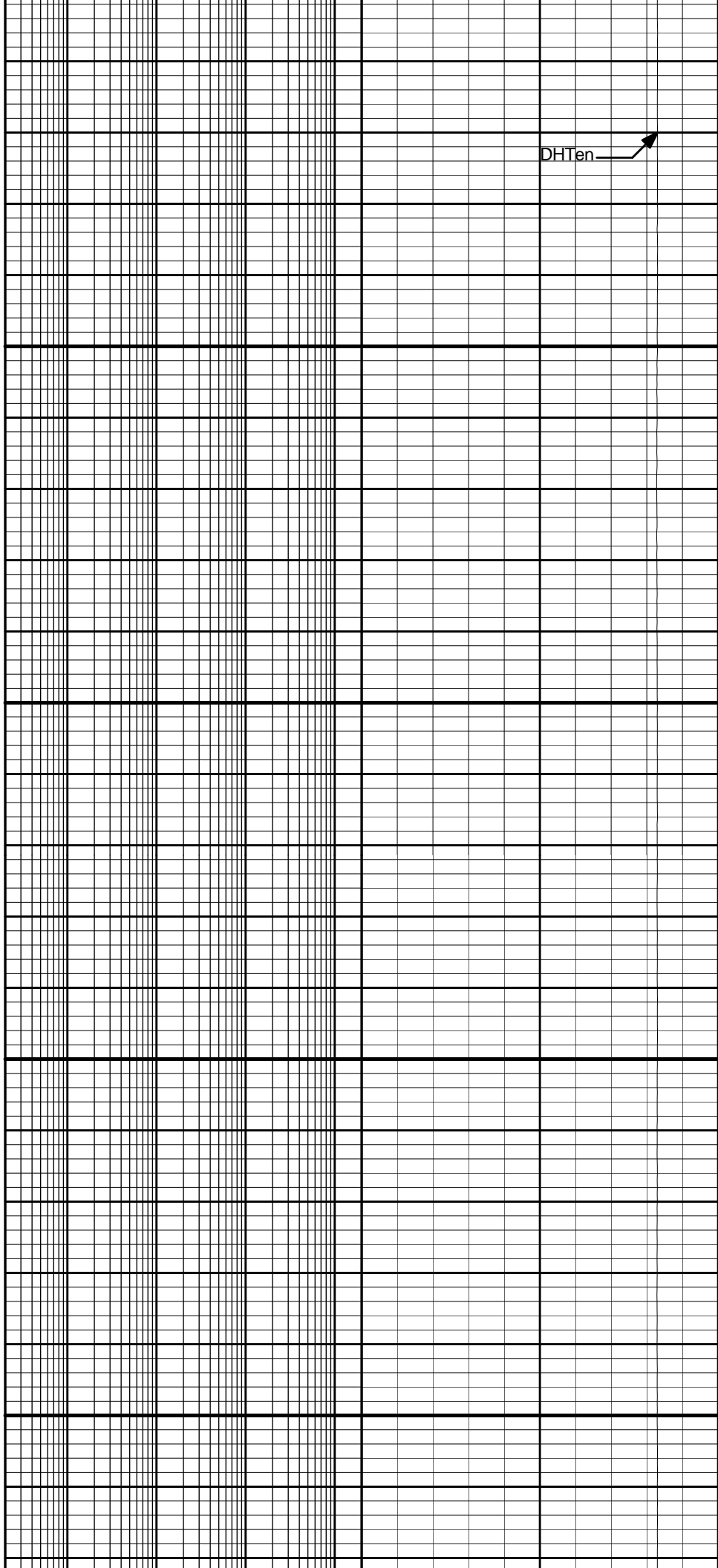


Tens

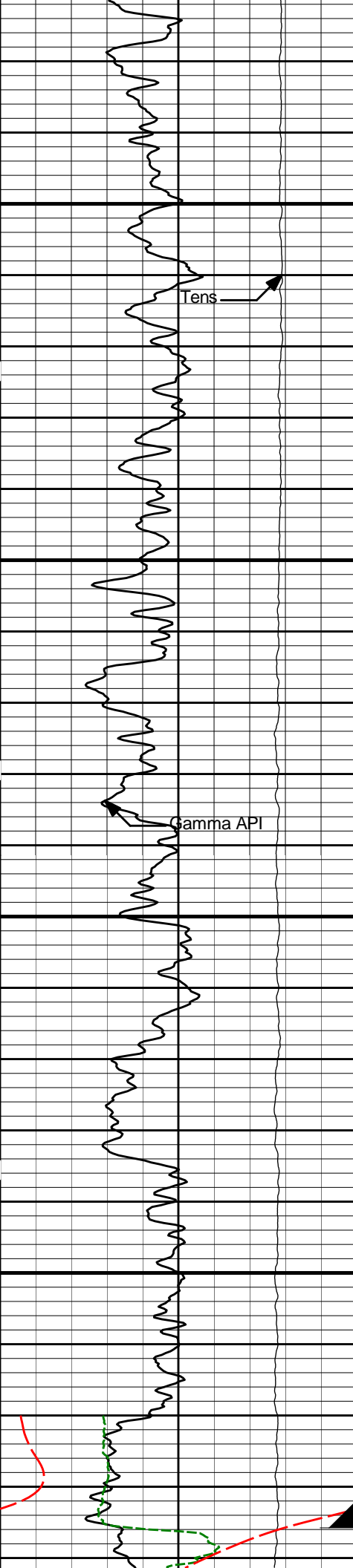
Gamma API

800

900



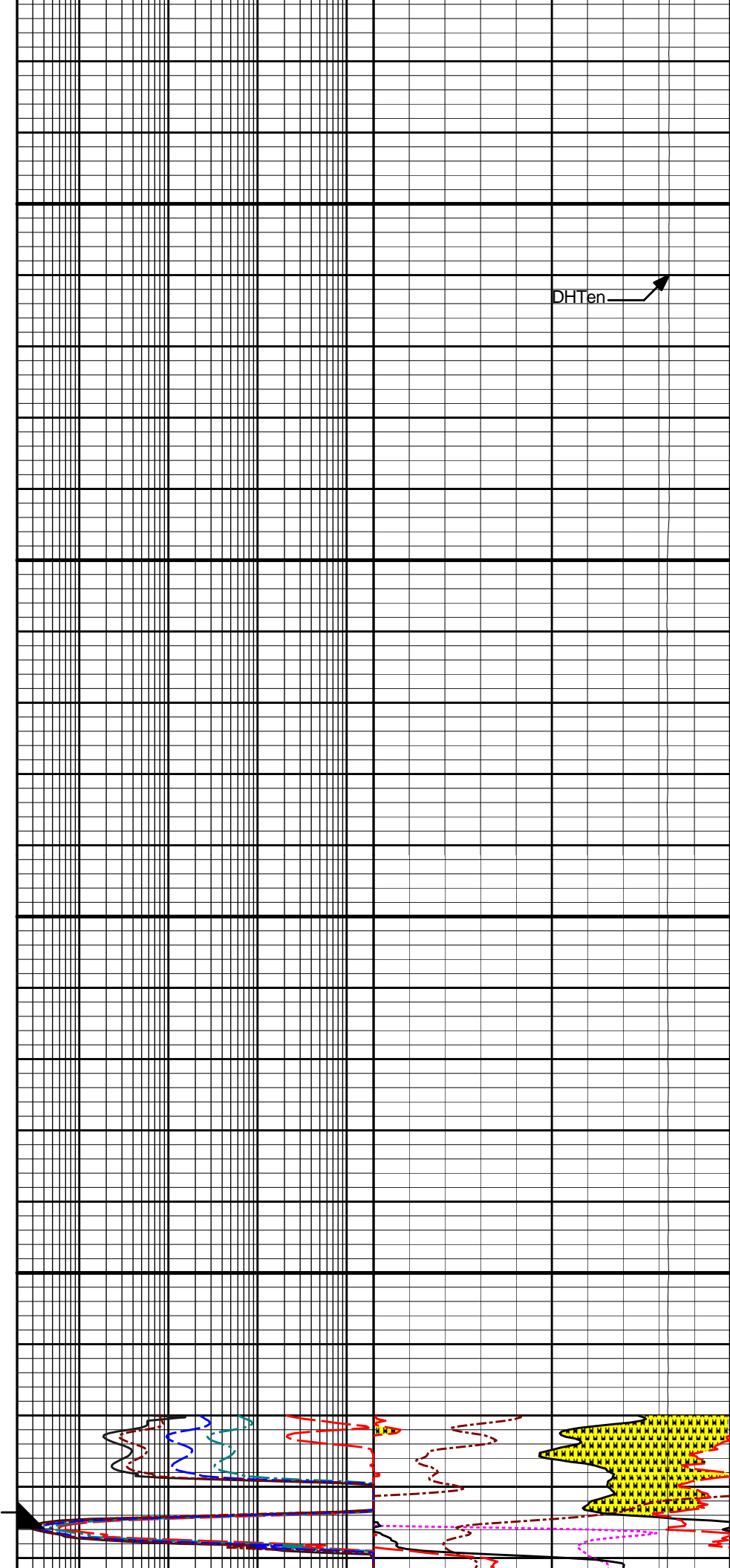
DHTen



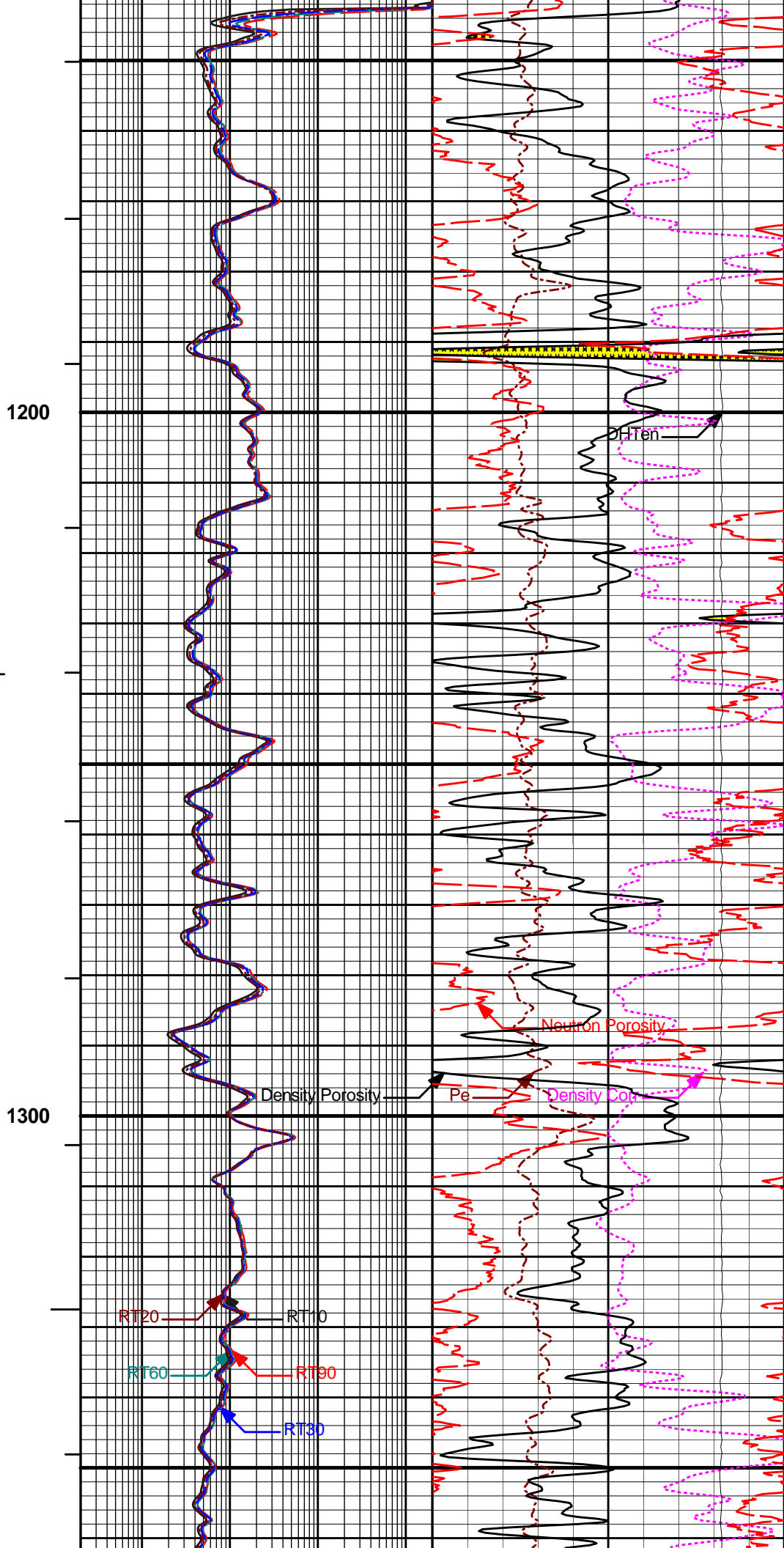
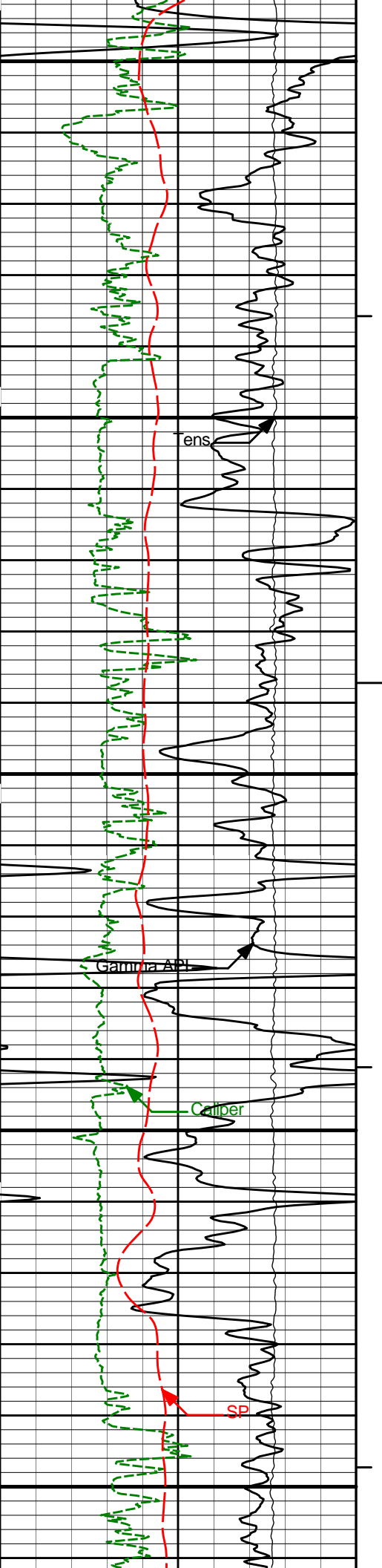
1000

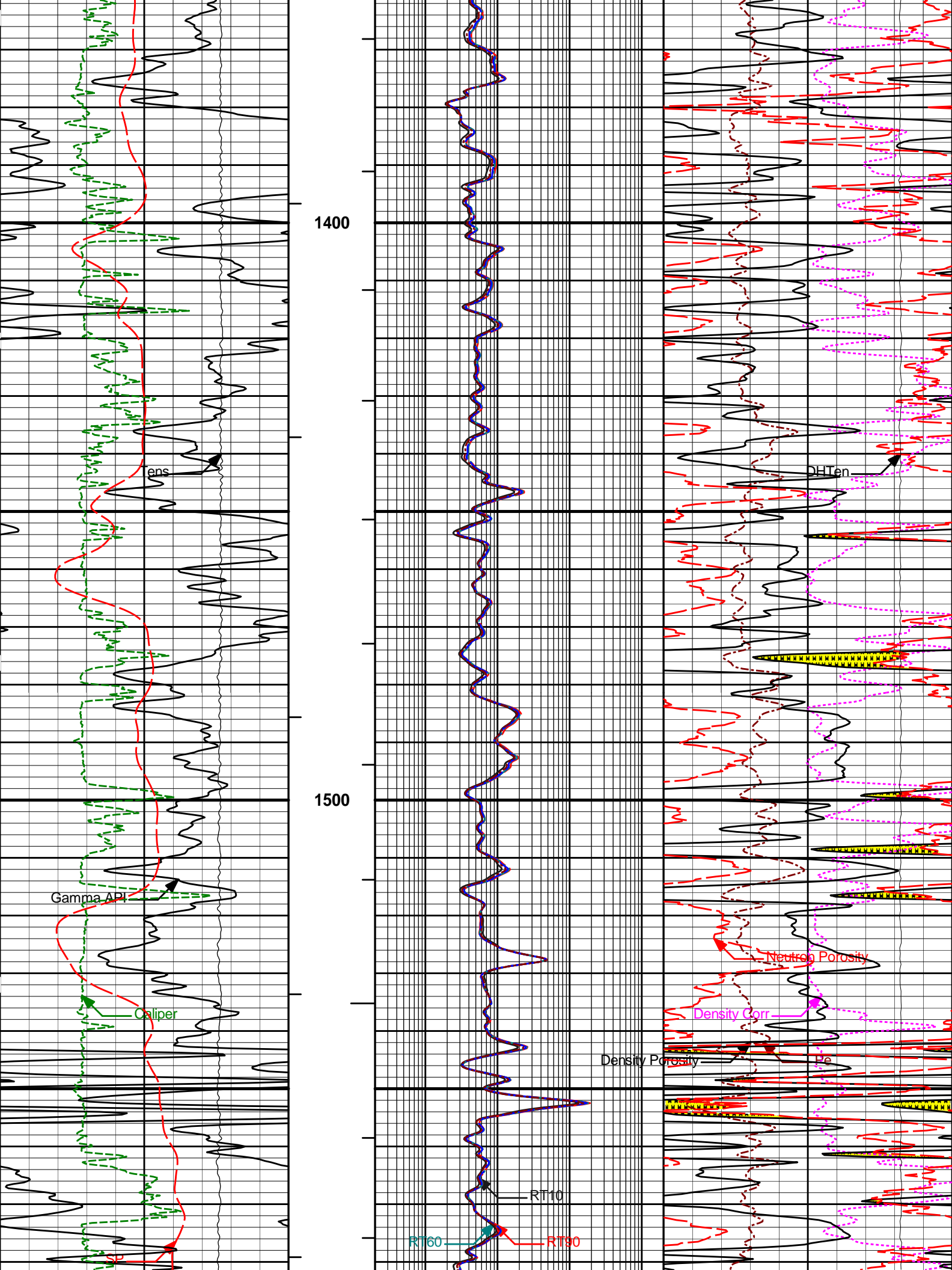
1100

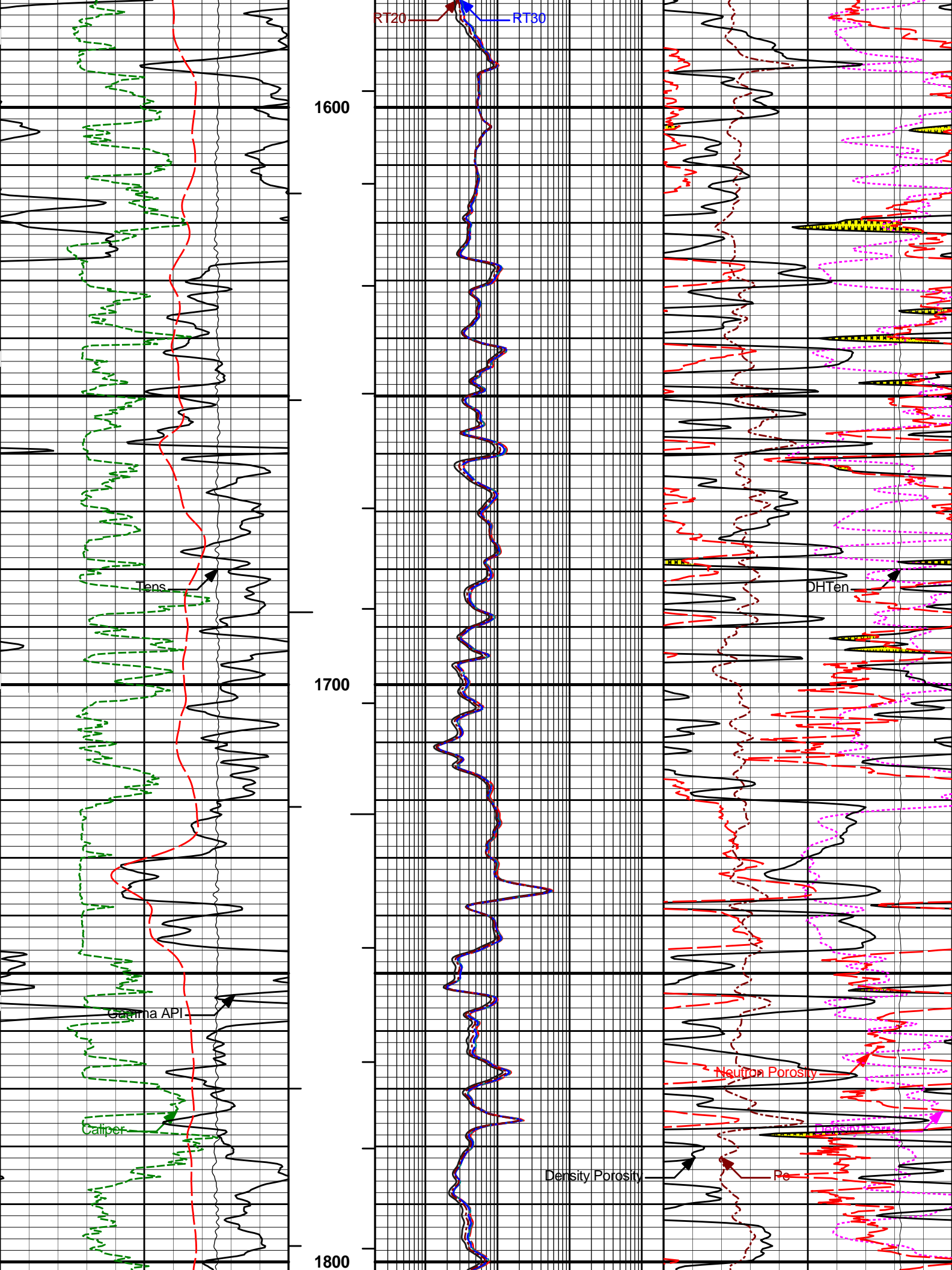
CSG

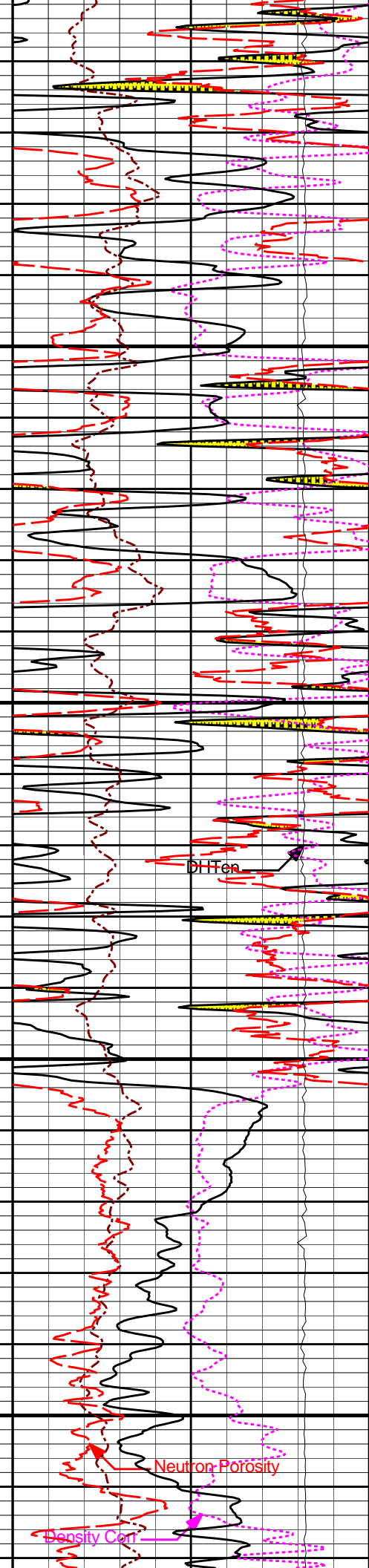
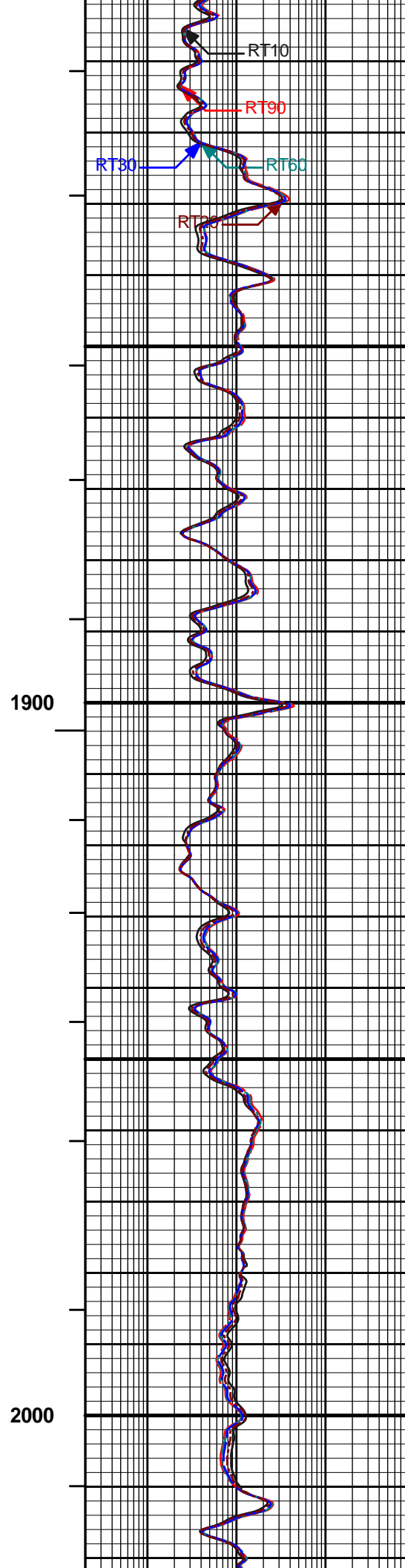
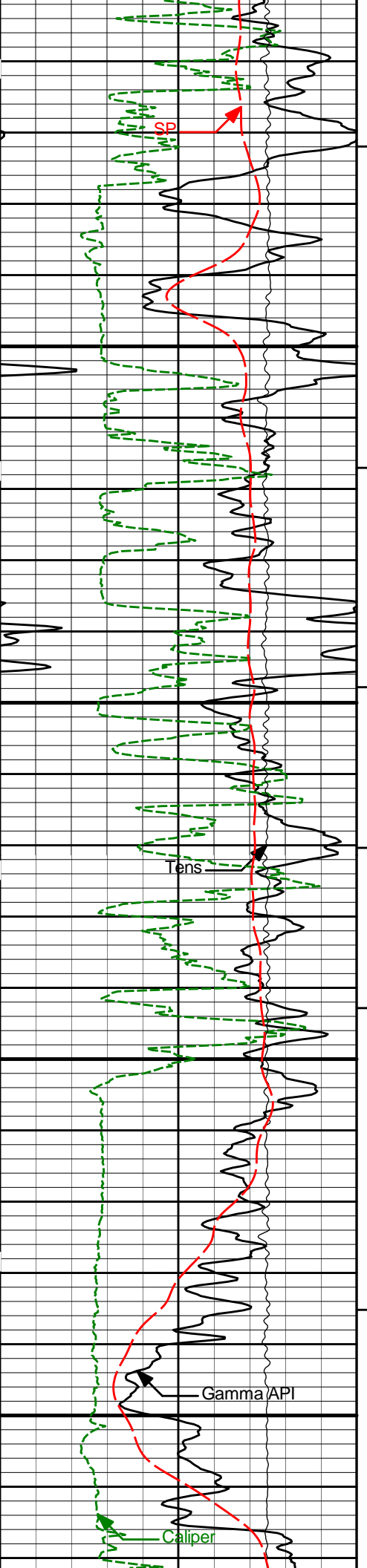


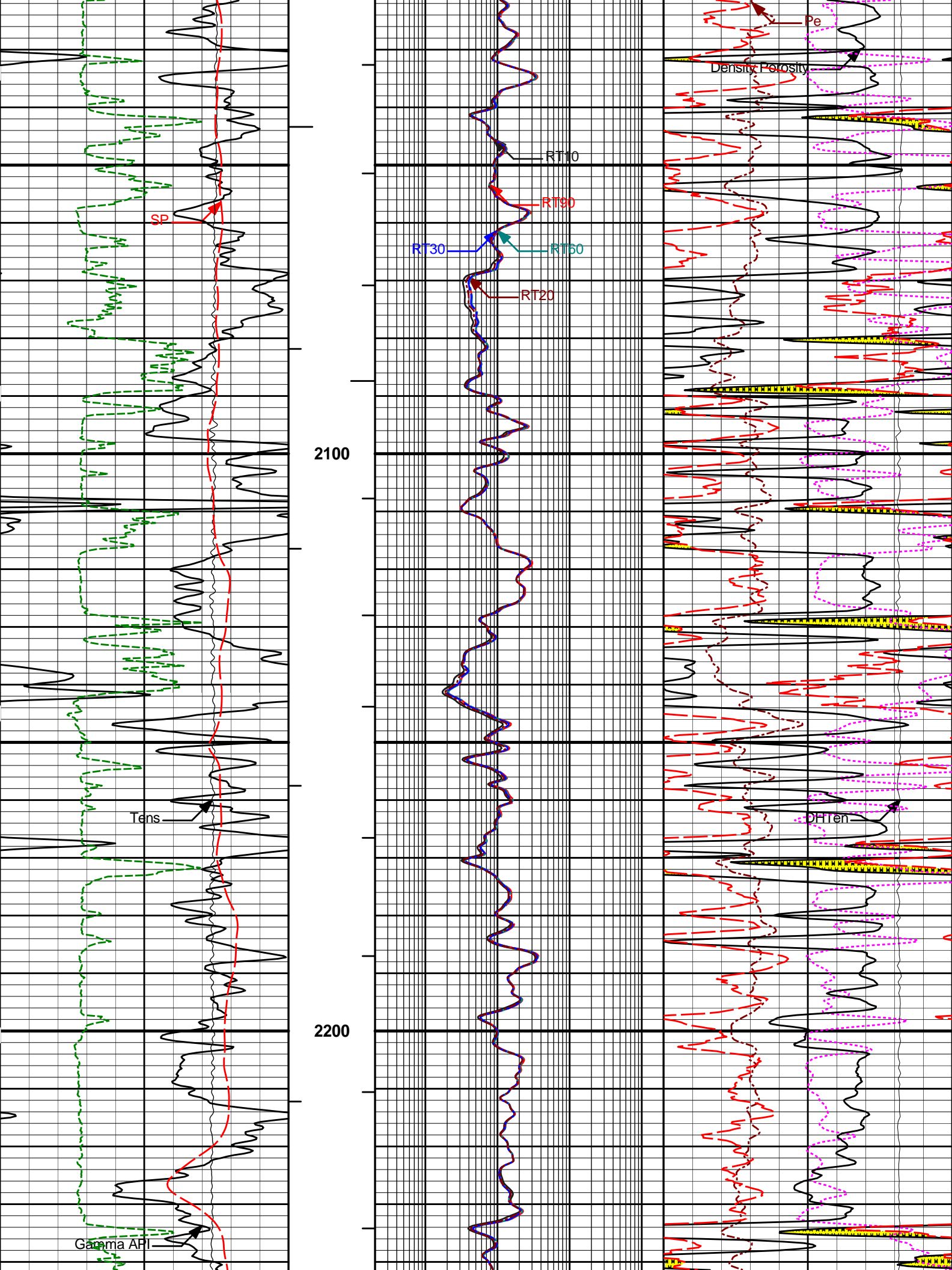
DHTen

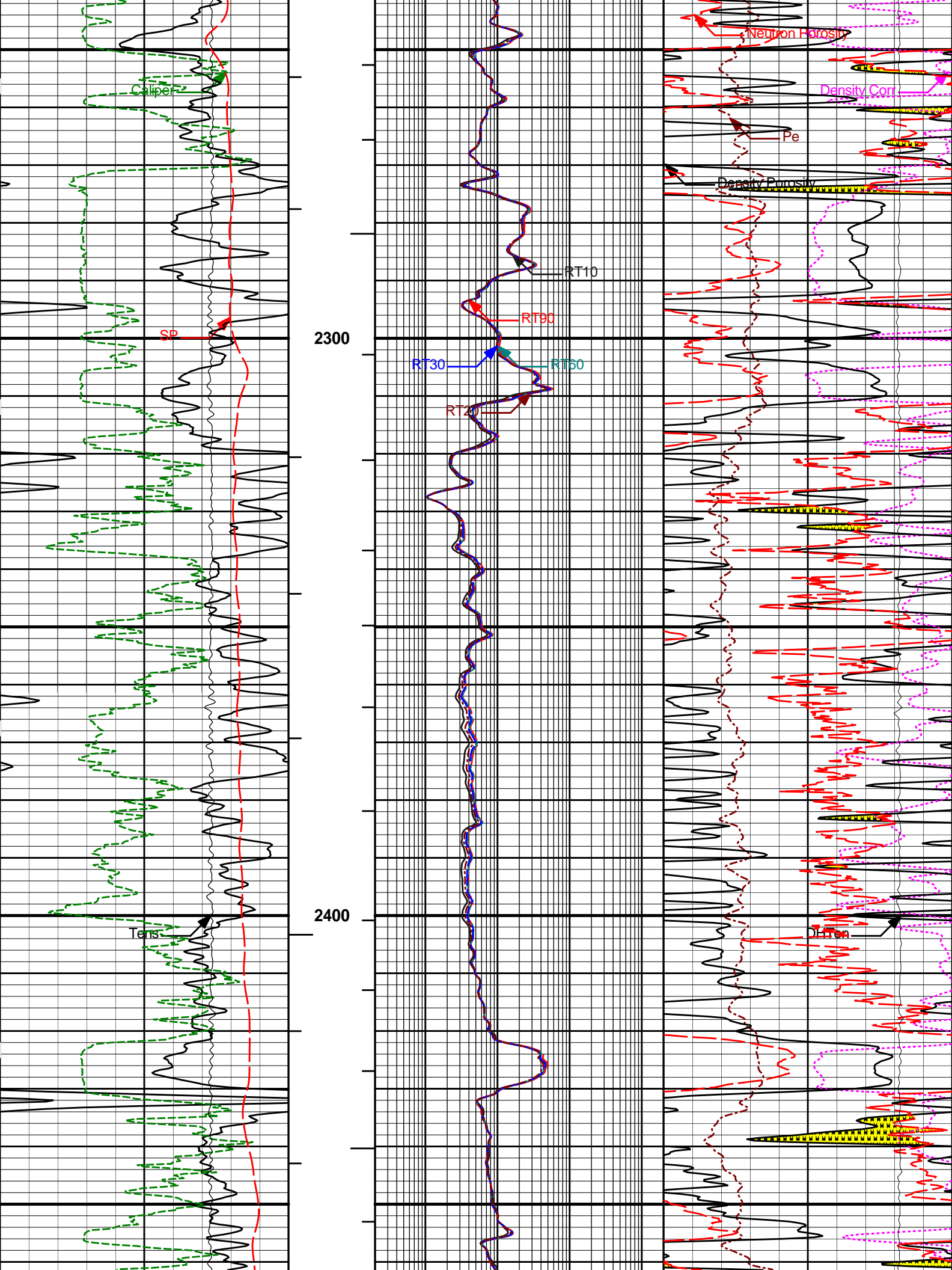


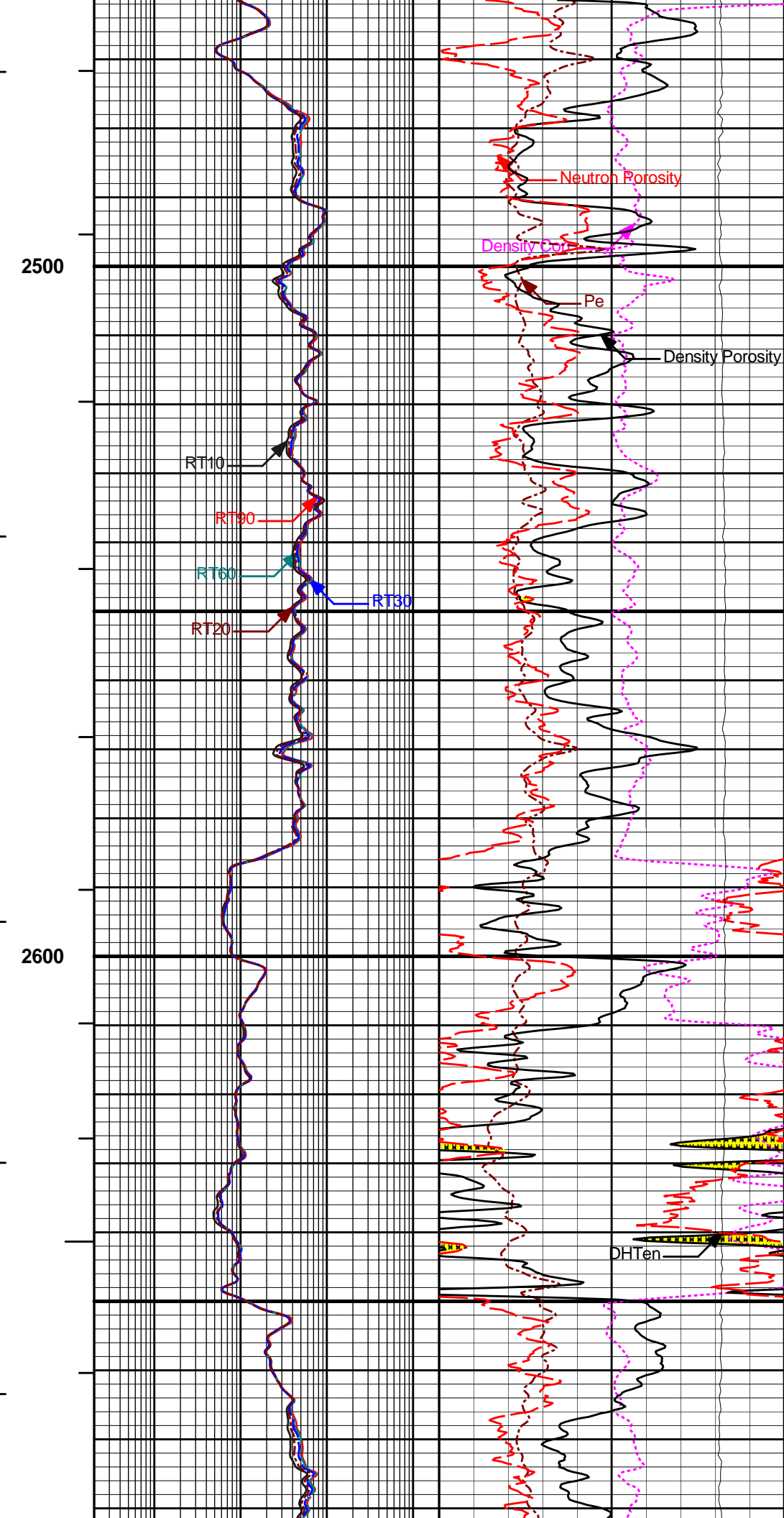
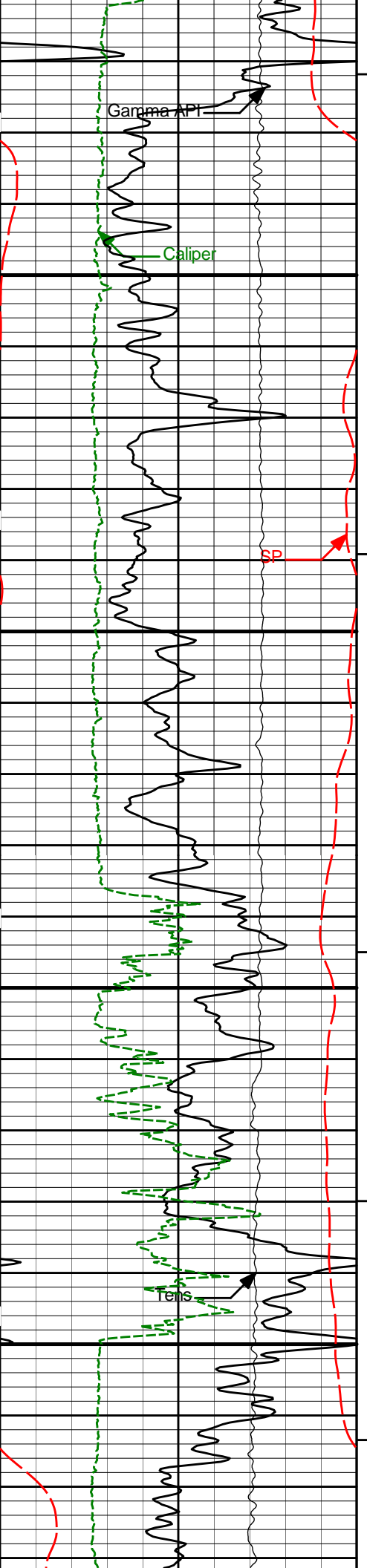












2500

2600

RT10

RT90

RT60

RT20

RT30

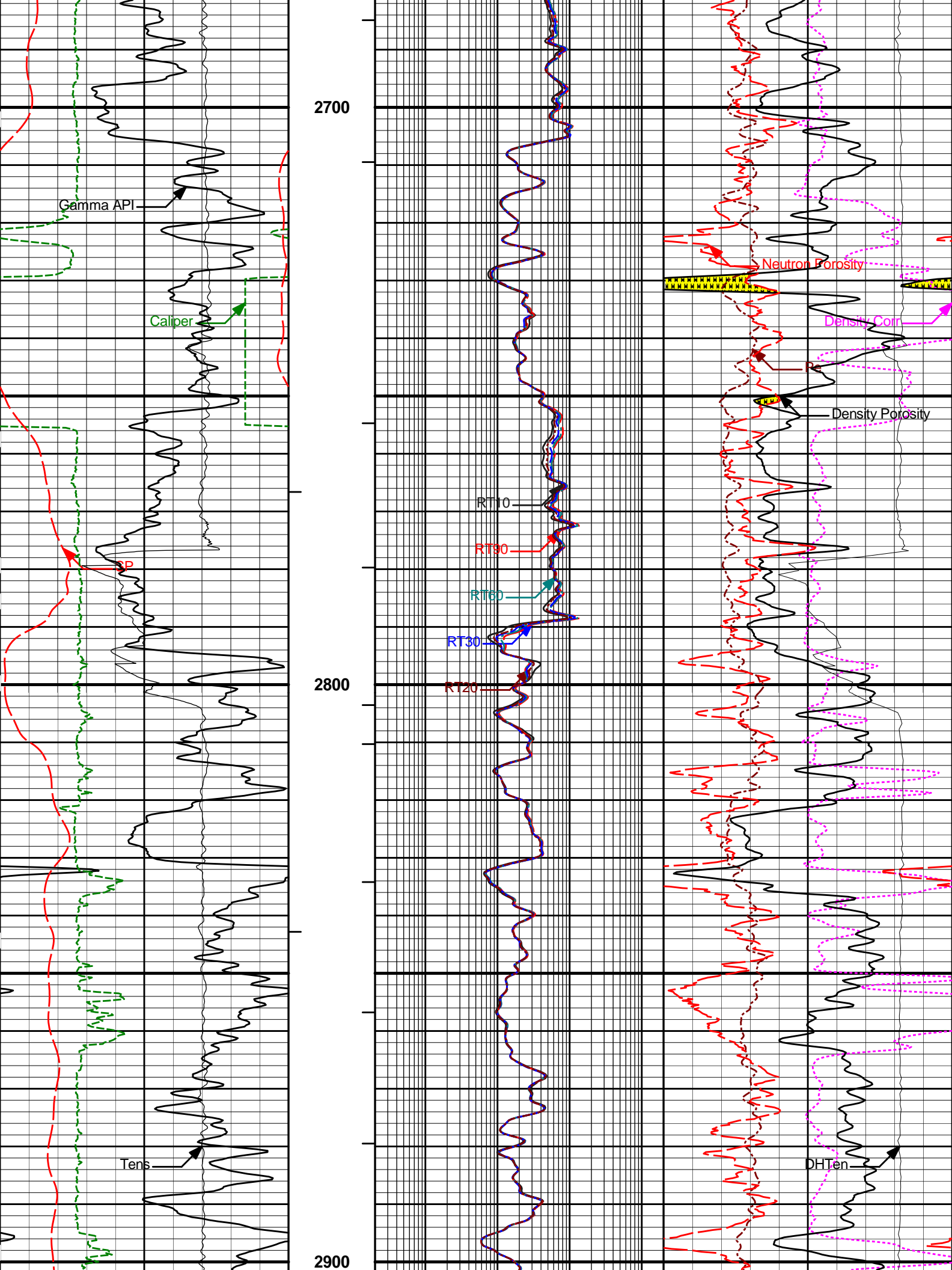
Density Core

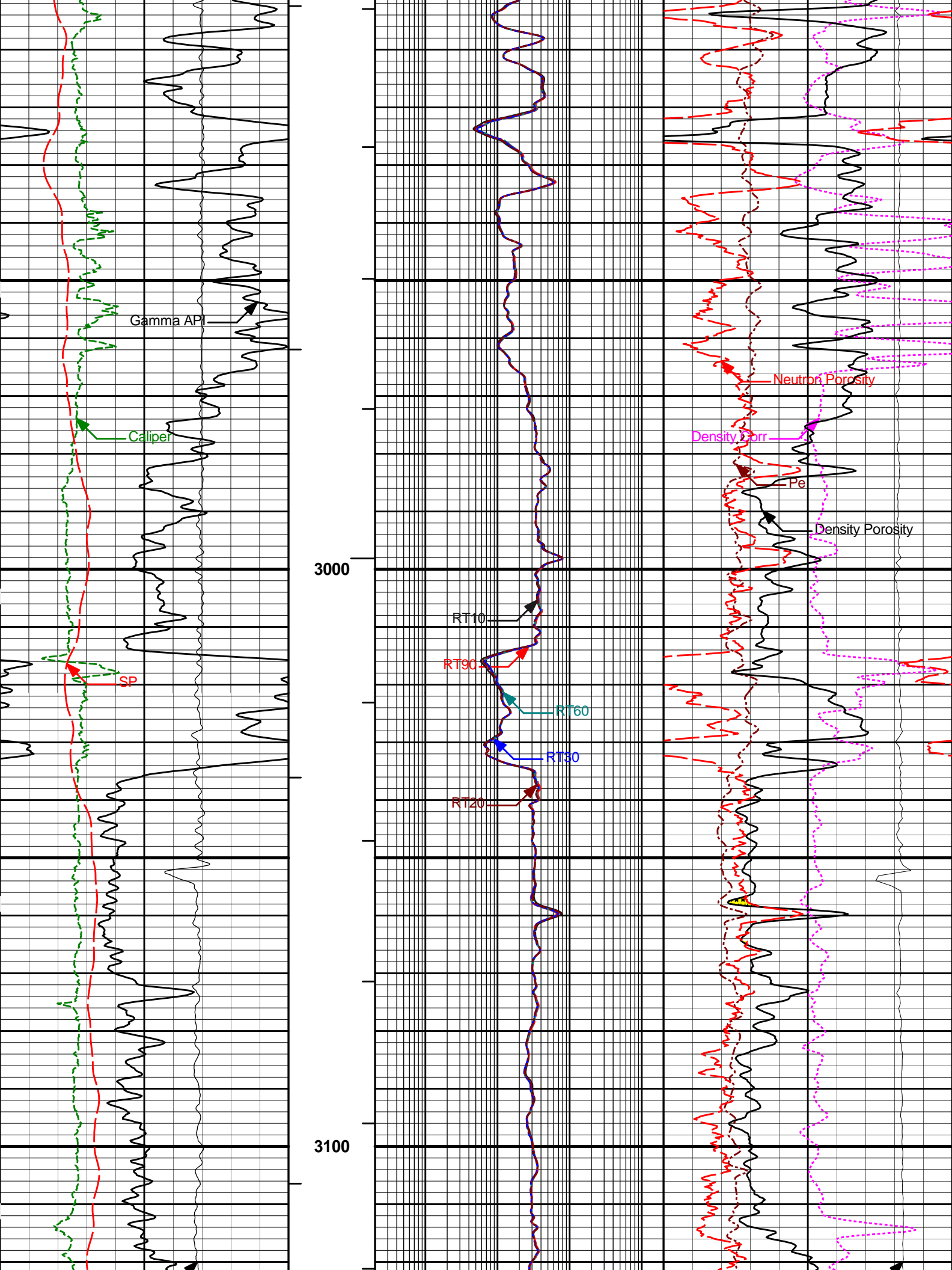
Neutron Porosity

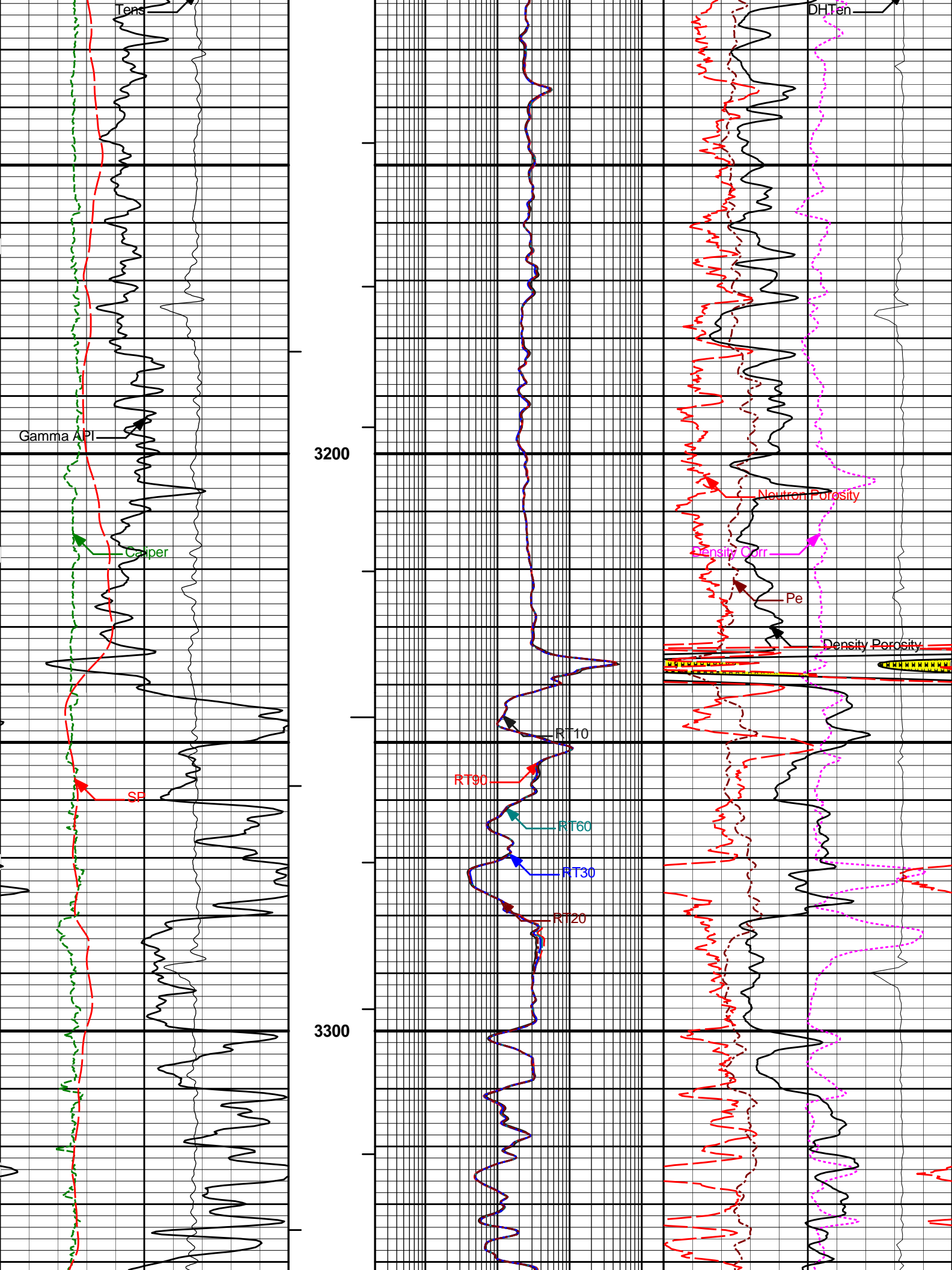
Pe

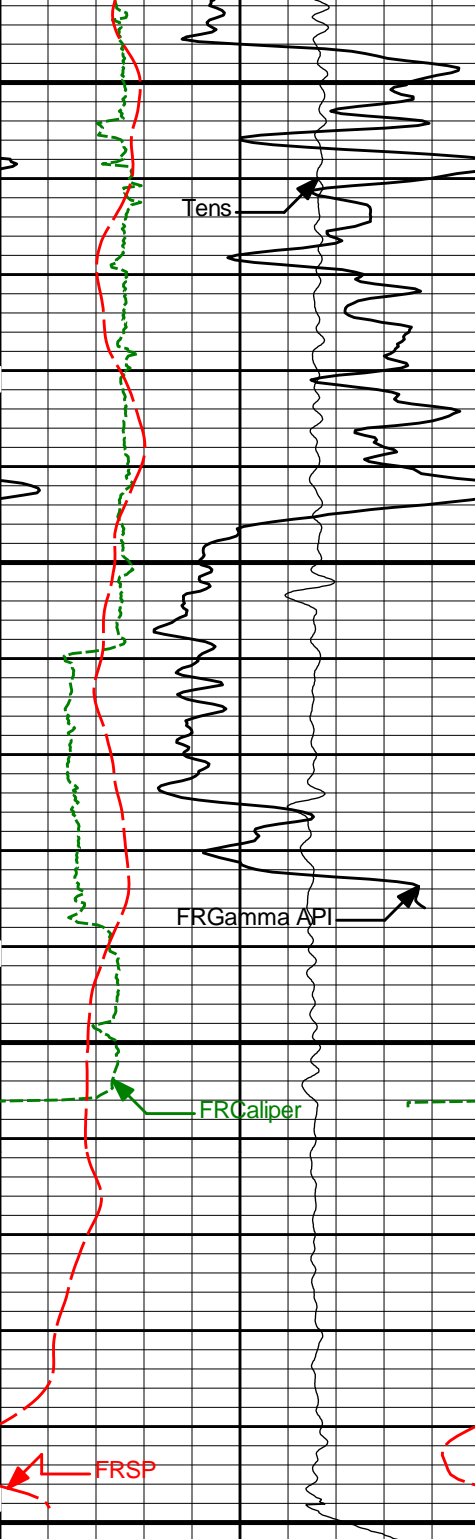
Density Porosity

DHTen



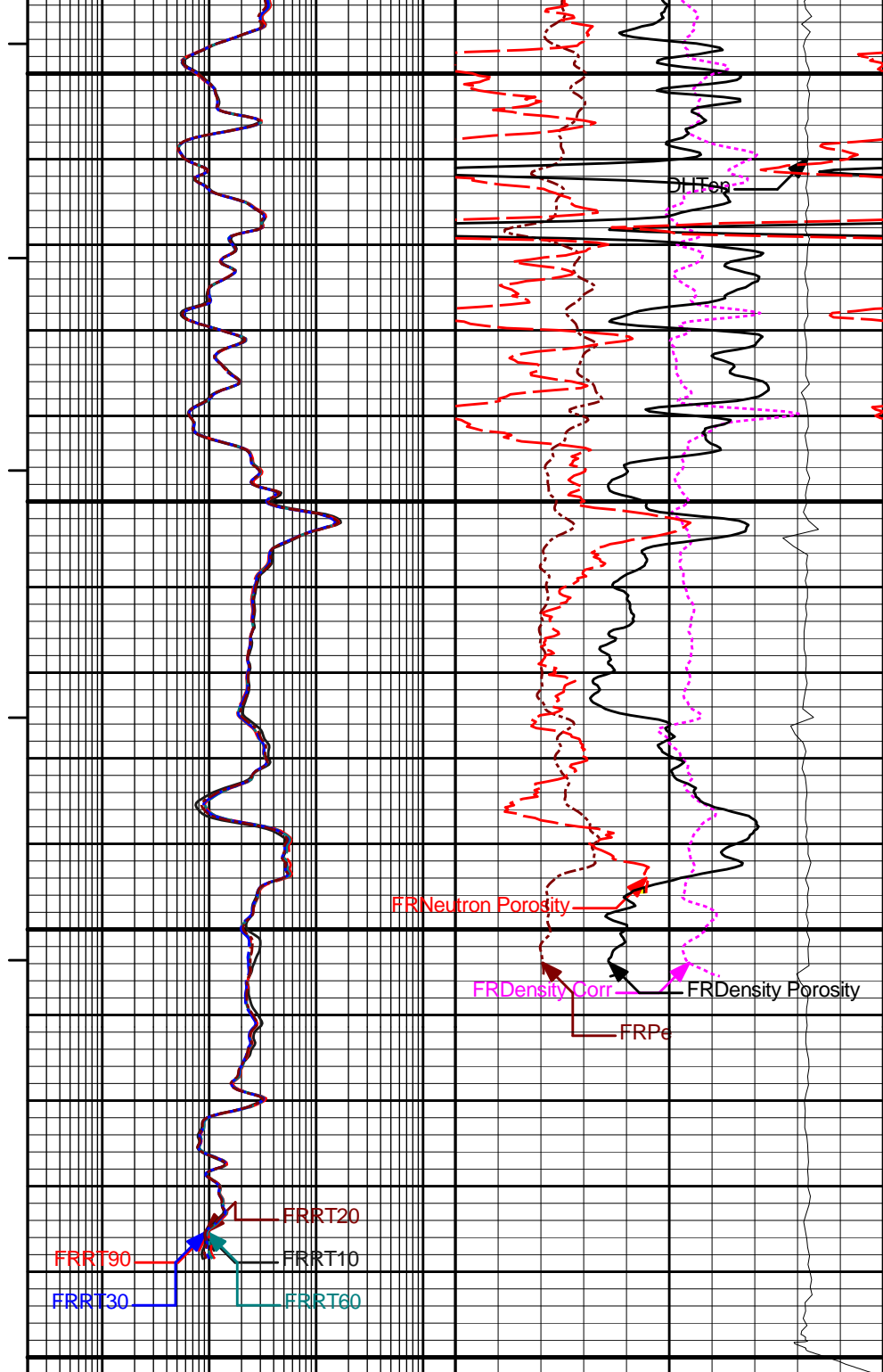






3400

TD
3500



0	SP	100
	millivolts	
0	Gamma API	150
	api	
6	Caliper	16
	inches	
10K	Tens	0
	pounds	

1 : 240

BHVT

AHVT

0.2	RT90	2K
	Ohm-m	
0.2	RT60	2K
	Ohm-m	
0.2	RT30	2K
	Ohm-m	
0.2	RT20	2K
	Ohm-m	
0.2	RT10	2K
	Ohm-m	

-0.25	Density Corr	0.25
	gram per cc	
0	Pe	10
30	Density Porosity	-10
	percent	
30	Neutron Porosity	-10
	percent	
10K	DHTen	0
	pounds	

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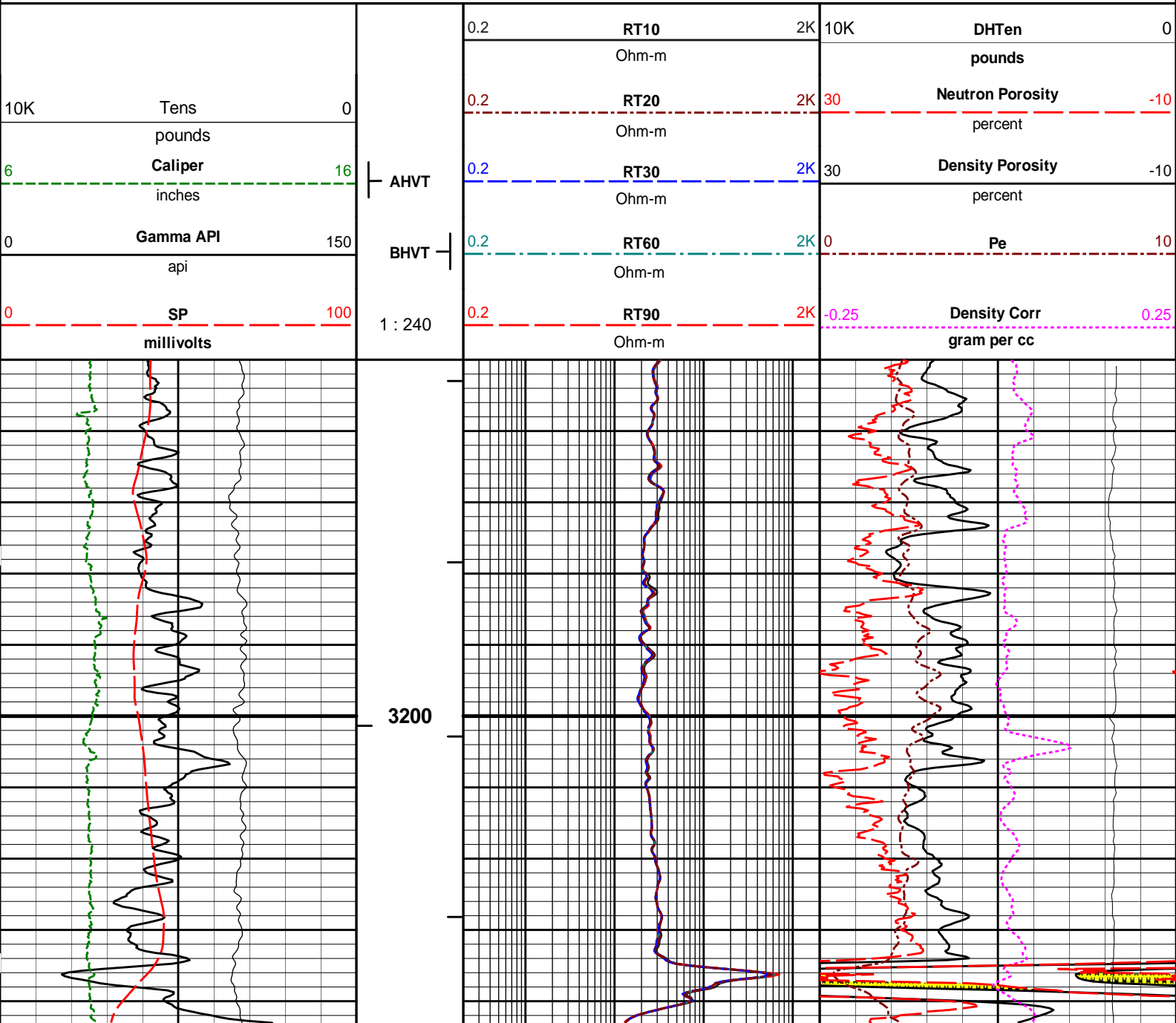
Plot Time: 26-Sep-13 11:53:31
 Plot Range: 98 ft to 3502 ft
 Data: AW 25 43 SWD\Well Based\MAIN*

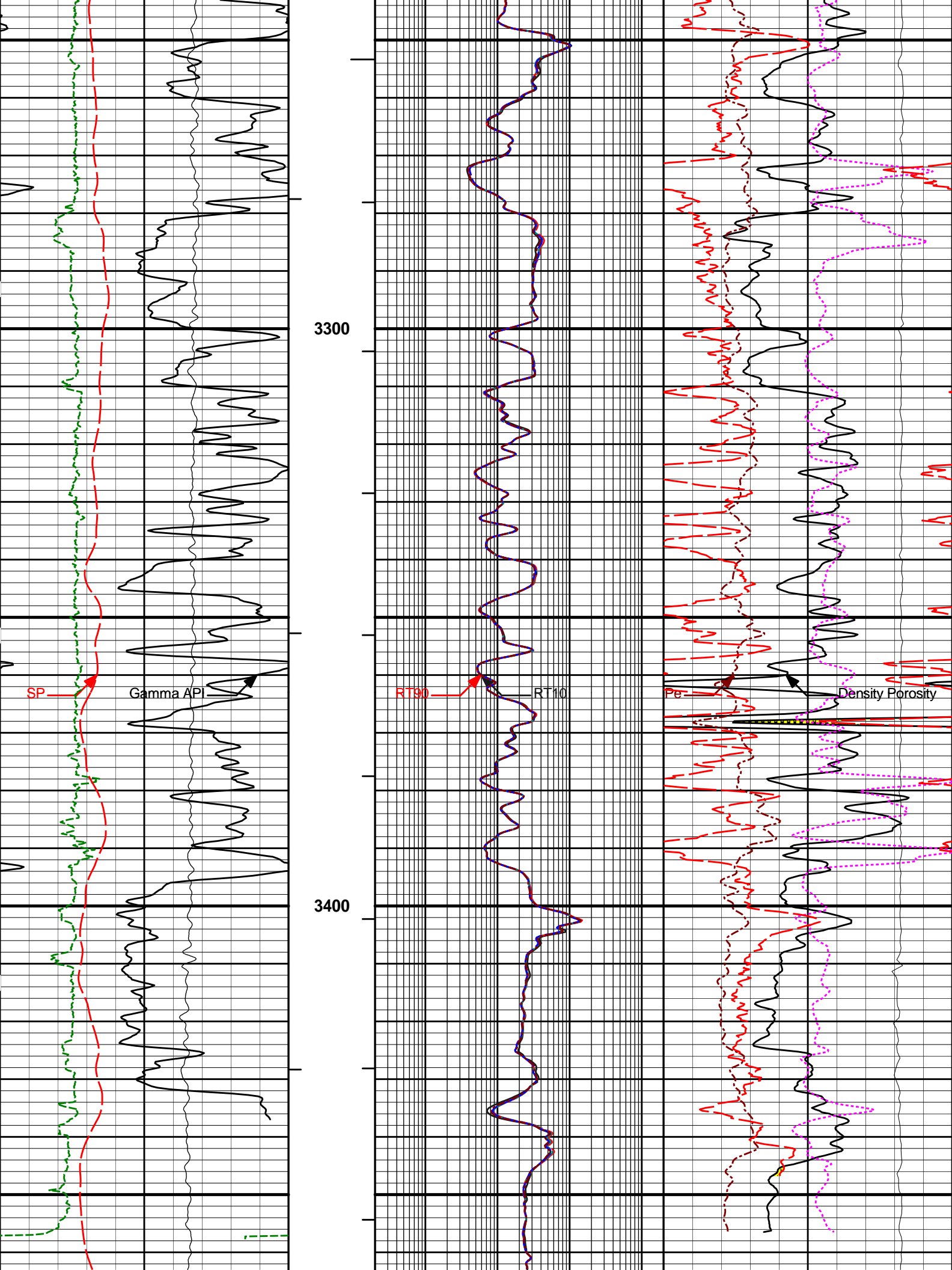
MAIN PASS 5" = 100'

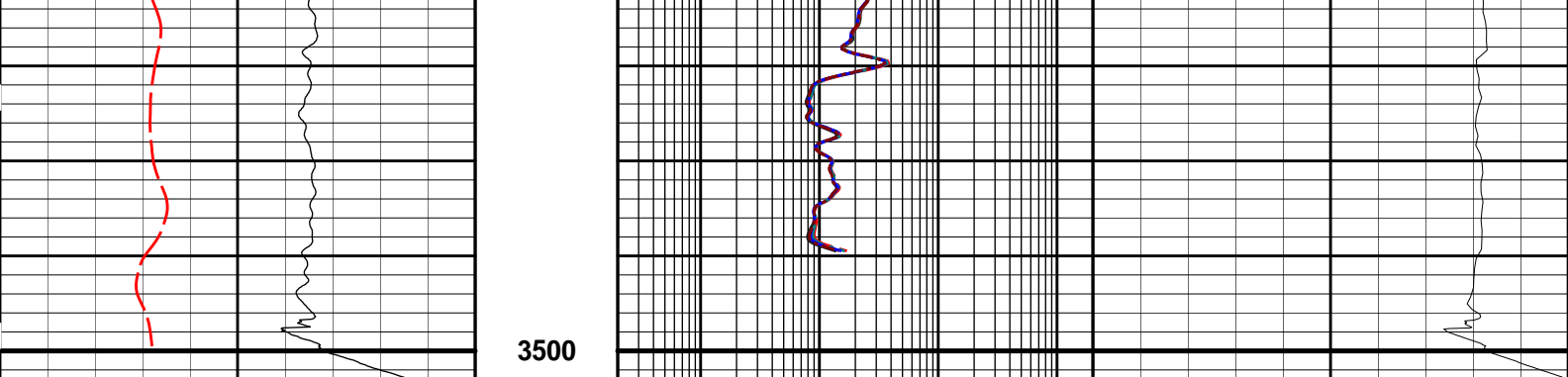
HALLIBURTON

Plot Time: 26-Sep-13 11:53:31
Plot Range: 3150 ft to 3503 ft
Data: AW_25_43_SWDWell Based\RPT*\nPlot File: \\COMPIQ_BP_COMPOSITE_ACRT_5IN_DHT_RPT

REPEAT SECTION 5" = 100'







0	SP	100	1 : 240	0.2	RT90	2K	-0.25	Density Corr	0.25
	millivolts				Ohm-m			gram per cc	
0	Gamma API	150	BHVT	0.2	RT60	2K	0	Pe	10
	api				Ohm-m				
6	Caliper	16	AHVT	0.2	RT30	2K	30	Density Porosity	-10
	inches				Ohm-m			percent	
10K	Tens	0		0.2	RT20	2K	30	Neutron Porosity	-10
	pounds				Ohm-m			percent	
				0.2	RT10	2K	10K	DHTen	0
					Ohm-m			pounds	

HALLIBURTON Plot Time: 26-Sep-13 11:53:32
Plot Range: 3150 ft to 3503 ft
Data: AW_25_43_SWDIWell Based\RPT*
Plot File: \\COMPIQ_BP_COMPOSITE_ACRT_5IN_DHT_RPT

REPEAT SECTION 5" = 100'

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CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10843477	Reference Calibration Date:	14-Aug-13 10:58:08
Engineer:	B. PEDERSEN	Calibration Date:	14-Sep-13 16:14:25
Software Version:	WL INSITE R3.8.10 (Build 5)	Calibration Version:	1

Calibrator Source S/N: TB-270			
Calibrator API Reference:259.00 api			
Equivalent Calibrator API Reference:263.5 api			
Measurement	Measured	Calibrated	Units
Background	55.7	57.2	api
Background + Calibrator	311.9	320.8	api
Calibrator	256.3	263.5	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION			
Tool Name:	GTET - 10843477	Reference Calibration Date:	14-Sep-13 16:14:25
Engineer:	V. CREWS	Calibration Date:	26-Sep-13 07:10:10
Software Version:	WL INSITE R3.8.10 (Build 5)	Calibration Version:	1

Calibrator Source S/N: TB-270
Calibrator API Reference:259.00 api
Equivalent Calibrator API Reference:263.5 api

Field Verification	Shop	Field	Units
Background	57.2	81.8	api
Background + Calibrator	320.8	349.3	api
Calibrator	263.5	267.5	api

Shop	Field	Difference	Tolerance
263.5	267.5	-4.0	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 10846353	Reference Calibration Date:	14-Aug-13 10:52:18
Engineer:	B. PEDERSEN	Calibration Date:	14-Sep-13 16:03:11
Software Version:	WL INSITE R3.8.10 (Build 5)	Calibration Version:	1

Logging Source S/N: 08-018
Tank Serial Number: 105039
Reference value assigned to Tank: 49.230
Snow Block S/N: 111
Calibration Tank Water Temperature: 72 degF
Min. Tool Housing Outside Diameter: 3.600 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.943	0.941	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):	0.1961	0.1954	0.0008	+/- 0.0020
Calibrated Ratio:	9.22	9.20	0.026	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0687	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 - 10846353	Reference Calibration Date:	14-Sep-13 16:03:11
Engineer:	V. CREWS	Calibration Date:	26-Sep-13 08:31:13
Software Version:	WL INSITE R3.8.10 (Build 5)	Calibration Version:	1

Logging Source S/N: 08-018
Snow Block S/N: 111

NEUTRON FIELD-CHECK SUMMARY			
	Shop	Field	Difference
Snow-Block Porosity (decp):	0.0687	0.0630	-0.0057
			+/- 0.0150

PASS/FAIL SUMMARY

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

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	SDLT - 11014275	Reference Calibration Date:	06-Sep-13 11:36:23
Engineer:	B. PEDERSEN	Calibration Date:	14-Sep-13 15:21:42
Software Version:	WL INSITE R3.8.10 (Build 5)	Calibration Version:	1
Host Tool Name:	DSNT - 10846353		

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2073.62	-1851.37	-7000.00 - -1000.00
Pad Gain	0.0003838	0.0003765	0.000200 - 0.000600
Arm Offset	-3561.36	-3614.60	-5000.00 - 3000.00
Arm Gain	0.0005513	0.0005514	0.000300 - 0.000700
Arm Power	-0.000004724	-0.000004456	-0.000010000 - 0.000010000

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)	1.95	2.00	0.05	+/- 0.20
Medium Ring (in)	3.74	3.75	0.01	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.44	6.50	0.06	+/- 0.20
Medium Ring (in)	8.19	8.25	0.06	+/- 0.20
Large Ring (in)	14.87	15.00	0.13	+/- 0.20

PASS/FAIL SUMMARY

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

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
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SDLT CALIPER FIELD CALIBRATION

Tool Name:	SDLT - 11014275	Reference Calibration Date:	14-Sep-13 15:21:42
Engineer:	V. CREWS	Calibration Date:	26-Sep-13 07:10:52
Software Version:	WL INSITE R3.8.10 (Build 5)	Calibration Version:	1

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.70	-0.05	+/- 0.10
Ring Diameter	8.25	8.24	-0.01	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION

Logging Source S/N: 5235GW

Aluminum Block S/N: ROCK SPRINGS

Density: 2.602g/cc

Pe: 3.110

Magnesium Block S/N: ROCK SPRINGS

Density: 1.690g/cc

Pe: 2.610

Density Calibration Summary			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0394	1.0691	0.90 - 1.10
Near Dens Gain	1.0038	1.0331	0.90 - 1.10
Near Peak Gain	1.0092	1.0435	0.90 - 1.10
Near Lith Gain	1.0149	1.0352	0.90 - 1.10
Far Bar Gain	1.0135	1.0184	0.90 - 1.10
Far Dens Gain	1.0011	1.0058	0.90 - 1.10
Far Peak Gain	0.9964	0.9990	0.90 - 1.10
Far Lith Gain	0.9739	0.9761	0.90 - 1.10
Near Bar Offset	-0.3089	-0.5863	NONE
Near Dens Offset	0.0132	-0.2544	NONE
Near Peak Offset	-0.0440	-0.3479	NONE
Near Lith Offset	-0.0886	-0.2818	NONE
Far Bar Offset	-0.1563	-0.1936	NONE
Far Dens Offset	-0.0299	-0.0689	NONE
Far Peak Offset	-0.0143	-0.0352	NONE
Far Lith Offset	0.0808	0.0602	NONE
Near Bar Background	888.38	886.63	700 - 1450
Near Dens Background	294.07	293.03	230 - 480
Near Peak Background	127.29	127.14	100 - 210
Near Lith Background	154.16	155.11	125 - 260
Far Bar Background	469.22	467.59	450 - 900
Far Dens Background	186.11	186.92	175 - 345
Far Peak Background	72.47	72.50	70 - 140
Far Lith Background	76.47	76.37	75 - 145

Calibration Block Summary				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.697	1.690	-0.007	+/- 0.015
Pe	2.442	2.566	0.124	+/- 0.150
ALUMINUM				
Density (g/cc)	2.608	2.602	-0.006	+/- 0.01500
Pe	2.954	3.072	0.118	+/- 0.150

Tool Summary				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0005	+/- 0.0110	-0.0033	+/- 0.0140
Magnesium Block	-0.0007	+/- 0.0110	-0.0001	+/- 0.0140

	Aluminum Block	-0.0006	+/- 0.0110	-0.0011	+/- 0.0140
	Resolution	9.00	6.00 - 11.50	9.83	6.00 - 11.50
	Internal Verifier(B+D+P+L)	1462	1200 - 2700	803	800 - 1700
<div>PASS/FAIL SUMMARY</div> <div>Background Quality Check: Passed</div> <div>Background Range Check: Passed</div> <div>Background Resolution Check: Passed</div> <div>Background Verification Check: Passed</div> <div>Magnesium Quality Check: Passed</div> <div>Aluminum Quality Check: Passed</div> <div>Gains Check: Passed</div> <div>Changes in Calibration Blocks: Passed</div>					

SPECTRAL DENSITY FIELD CHECK				
Tool Name:	SDLT Pad - 11045462		Reference Calibration Date:	14-Sep-13 14:24:51
Engineer:	V. CREWS		Calibration Date:	26-Sep-13 07:10:31
Software Version:	WL INSITE R3.8.10 (Build 5)		Calibration Version:	1

Pad Temperature: 43.5 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1461.914	1458.999	-2.915	15.419
Far (B+D+P+L) cps	803.389	804.501	1.112	15.689
Near Resolution	9.00	9.15	0.150	0.50
Far Resolution	9.83	10.52	0.690	1.00

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

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION					
Tool Name:	ACRt Sonde - 11953684			Reference Calibration Date:	14-May-13 15:32:46
Engineer:	B. CRAWFORD			Calibration Date:	01-Sep-13 13:41:47
Software Version:	WL INSITE R3.8.10 (Build 5)			Calibration Version:	1
Host Tool Name:	ACRt Instrument - 11999267				

TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	0.99	1.05	0.95	1.00	1.05	0.95	1.00	1.05
A2 (50")	0.95	0.99	1.05	0.95	1.00	1.05	0.95	1.01	1.05
A3 (29")	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05
A4 (17")	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.99	1.05	0.95	1.00	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.98	1.05	0.95	0.99	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	-0.66	2	-6	-3.85	-2	-8	-4.54	-2

A1 (50")	-7	-2.39	0	-7	-3.57	0	-7	-4.54	0
A3 (29")	-27	-13.44	-9	-9	-3.72	-3	-7	-3.12	-1
A4 (17")	-180	-100.61	-60	-45	-35.24	-15	-39	-28.78	-13
A5 (10")	N/A	N/A	N/A	-150	-94.54	-50	-80	-48.49	-10
A6 (6")	N/A	N/A	N/A	175	274.17	525	90	133.16	270

TRANSMITTER CURRENT GAIN				R-MUD VERIFICATION			
Signal	Lower	R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
12K	0.6	0.85	1.3	Mud Cell	0.95	1.00	1.05
36K	1.0	1.78	2.0				
72K	1.0	1.08	2.0				
PASS/FAIL SUMMARY							
GAIN RANGE CHK				PASS			
TOOL OK TO LOG							

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10843477						
Gamma Ray Calibrator	263.5	267.5	-----	-4.0	+/- 9.00	api
DSNT-10846353						
Snow-Block Porosity	0.0687	0.0630	-----	0.0057	+/- 0.0150	decp
SDLT-11014275						
Pad Extension	3.75	3.70	-----	0.05	+/-0.10	in
Ring Diameter	8.25	8.24	-----	0.01	+/-0.15	in
SDLT Pad-11045462						
Near(B+D+P+L)	1461.914	1458.999	-----	2.915	+/-15.419	cps
Far(B+D+P+L)	803.389	804.501	-----	-1.112	+/-15.689	cps
ACRt Sonde-11953684						
Mud Cell	1.00	-----	-----	0.00	-----	ohm-m

Data: AW_25_43_SWD\0001 QUAD_BSAT\004 26-Sep-13 09:22 Up @3502.5f

Date: 26-Sep-13 09:30:21

HALLIBURTON	
CUSTOMER EVENT LOG	

Event Type	Time & Date	Depth (ft)	Event Description
	26-Sep-13 08:49:21	1470.75	Logging 001 26-Sep-13 08:49 Up @1470.8f
	26-Sep-13 08:55:17	1153.66	Halting 001 26-Sep-13 08:49 Up @1470.8f
	26-Sep-13 08:56:17	1022.25	Logging 002 26-Sep-13 08:56 Dn @1022.3f
	26-Sep-13 09:09:19	3471.17	Halting 002 26-Sep-13 08:56 Dn @1022.3f
	26-Sep-13 09:10:52	3503.50	Logging 003 26-Sep-13 09:10 Up @3503.5f
	26-Sep-13 09:19:49	3065.92	Halting 003 26-Sep-13 09:10 Up @3503.5f
	26-Sep-13 09:22:14	3502.50	Logging 004 26-Sep-13 09:22 Up @3502.5f
	26-Sep-13 09:37:17	2812.29	Halting 004 26-Sep-13 09:22 Up @3502.5f
	26-Sep-13 09:37:56	2899.75	Logging 005 26-Sep-13 09:37 Up @2899.8f
	26-Sep-13 10:32:11	94.41	Halting 005 26-Sep-13 09:37 Up @2899.8f

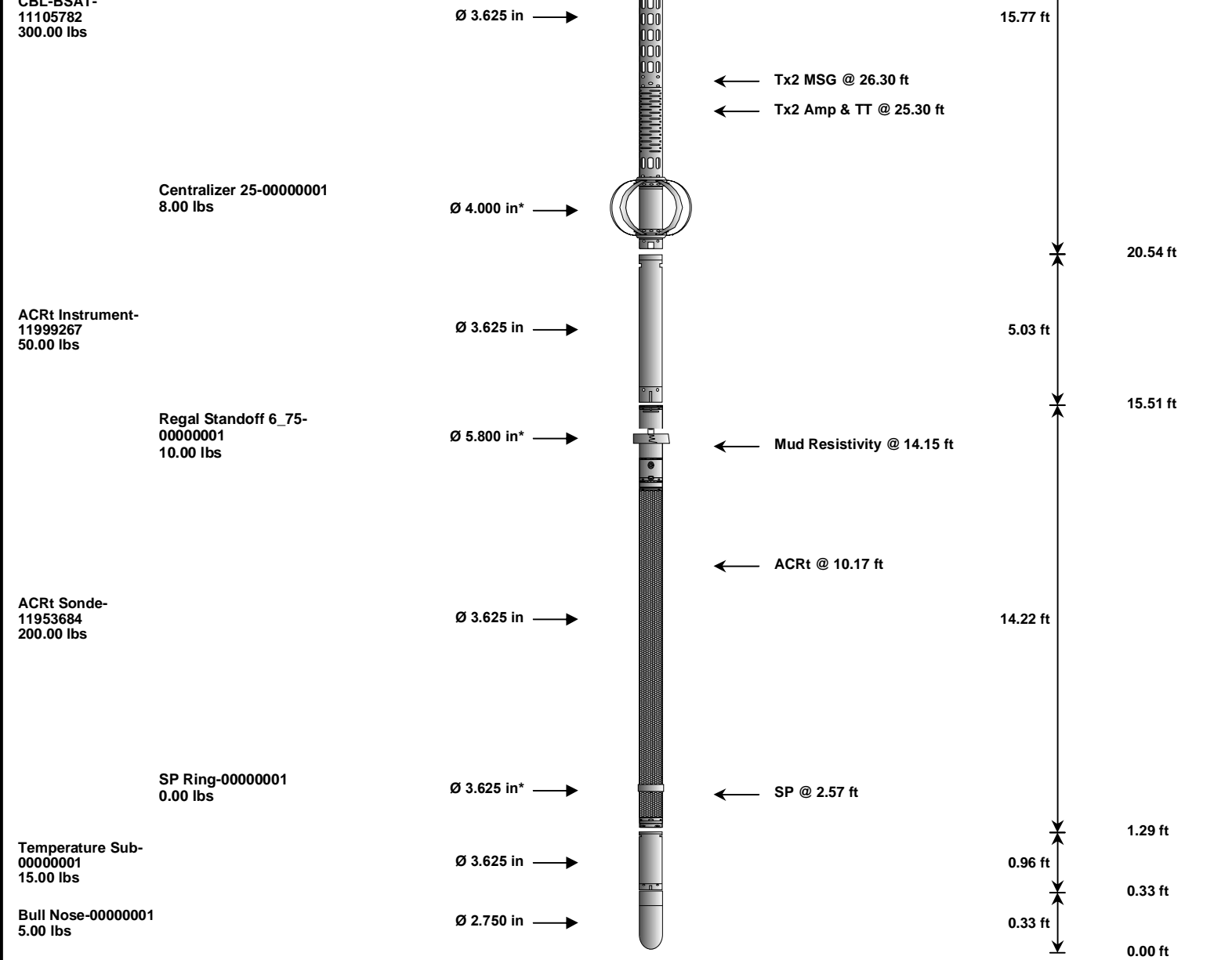
Data: AW_25_43_SWD\0001 QUAD_BSAT\HW11433

Date: 26-Sep-13 10:33:35

HALLIBURTON	
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TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						79.56 ft
RWCH-11103904 135.00 lbs		Ø 3.625 in →		← Load Cell @ 75.87 ft ← BH Temperature @ 75.31 ft	6.25 ft	
CCL-D-00115000 60.00 lbs		Ø 3.625 in →		← CCL @ 72.60 ft	2.00 ft	73.31 ft
GTET-10843477 165.00 lbs		Ø 3.625 in →				71.31 ft
				← GammaRay @ 65.25 ft	8.52 ft	
						62.79 ft
DSNT-10846353 174.00 lbs	DSN Decentralizer- 10846353 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 55.85 ft ← DSN Near @ 55.10 ft	9.69 ft	
						53.10 ft
SDLT-11014275 360.00 lbs		Ø 4.500 in →			10.81 ft	
	SDLT Pad-11045462 65.00 lbs	Ø 4.750 in* →		← SDL Caliper @ 45.10 ft ← SDL @ 45.09 ft		42.29 ft
Flex Joint - Pressure Comp- 12002107 140.00 lbs		Ø 3.625 in →			5.97 ft	
						36.32 ft
	Centralizer 25-00000002 8.00 lbs	Ø 4.000 in* →				
				← Tx1 Amp & TT @ 30.30 ft ← Tx1 MSG @ 29.30 ft		



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	11103904	135.00	6.25	73.31	300.00
CCL	Casing Collar Locator - Digital Source	00115000	60.00	2.00	71.31	300.00
GTET	Gamma Telemetry Tool	10843477	165.00	8.52	62.79	60.00
DSNT	Dual Spaced Neutron	10846353	174.00	9.69	53.10	60.00
DCNT	DSN Decentralizer	10846353	6.60	5.13	* 56.43	300.00
SDLT	Spectral Density Tool	11014275	360.00	10.81	42.29	60.00
SDLP	Density Insite Pad	11045462	65.00	2.55	* 44.50	60.00
FLEX	Flex Joint - Pressure Compensated	12002107	140.00	5.97	36.32	300.00
CBL-BSAT	Borehole Sonic Array Tool - CBL	11105782	300.00	15.77	20.54	60.00
OBCEN	Centralizer - 25 in. Overbody	00000001	8.00	2.08	* 20.96	300.00
OBCEN	Centralizer - 25 in. Overbody	00000002	8.00	2.08	* 33.45	300.00
ACRt	Array Compensated True Resistivity Instrument Section	11999267	50.00	5.03	15.51	300.00
ACRt	Array Compensated True Resistivity Sonde Section	11953684	200.00	14.22	1.29	300.00
RSOF	Regal Standoff 6.75in	00000001	10.00	0.52	* 14.16	300.00
SP	SP Ring	00000001	0.00	0.25	* 2.57	300.00
TMAX	Temperature Sub - 3_625 OD	00000001	15.00	0.96	0.33	300.00
BLNS	Bull Nose	00000001	5.00	0.33	0.00	300.00
Total			1,701.60	79.56		

* Not included in Total Length and Length Accumulation.

Data: AW_25_43_SWDI0002 QUAD_BSAT_CBL\IDLE

Date: 26-Sep-13 11:00:15

COMPANY	KOCH EXPLORATION COMPANY, LLC		
WELL	AHU WYATT 25-43 SWD		
FIELD	WHITE RIVER DOME		
COUNTY	RIO BLANCO	STATE	COLORADO
HALLIBURTON		SPECTRAL DENSITY DUAL SPACED NEUTRON ARRAY COMPENSATED TRUE RESISTIVITY	