Weatherford®

MEASURED DEPTH
COMPACT QUAD COMBO

COMPANY	SNAKE RIVER OIL AND GAS, LLC
WELL	BARLOW #3-14
FIELD	WILDCAT
COUNTY	PAYETTE
STATE	U.S.A. / IDAHO
UWI	SHL: 2494' FWL & 1567' FSL

SEC 14	TWP 8N	RGE 5W	Other Services
Latitude		44.029874	
Longitude		116.903009	
API Number		11-075-20040	

Permanent Datum GL, Elevation 2164 feet
Log Measured From KB, 12.50 feet above Permanent Datum
Drilling Measured From KB

Elevations:	feet
KB	2176.50
DF	2176.50
GL	2164.00

Date	10-NOV-2022				
Run Number	1				
Service Order	6443-354696525				
Depth Driller	5501.00	feet			
Depth Logger	5501.00	feet			
First Reading	5475.50	feet			
Last Reading	1135.00	feet			
Casing Driller	1135.00	feet			
Casing Logger	1135.00	feet			
Bit Size	8.500	inches			
Hole Fluid Type	WBM				
Density / Viscosity	10.95 lb/USg		38.00 sec/qt		
PH / Fluid Loss	7.00		3.00 ml/30Min		
Sample Source	FLOWLINE				
Rm @ Measured Temp	2.68 @ 75.0	ohm-m			
Rmf @ Measured Temp	2.01 @ 75.0	ohm-m			
Rmc @ Measured Temp	3.35 @ 75.0	ohm-m			
Source Rmf / Rmc	CALC		CALC		
Rm @ BHT	1.24 @166.0	ohm-m			
Time Since Circulation	0.15 HRS				
Max Recorded Temp	166.00	deg F			
Equipment / Base	4214		FTW		
Recorded By	ARBER CUKU				
Witnessed By	DAVE SMITH			CLINT HARMAN	
RIG	PAUL GRAHAM4				

RECEIVED
jthum , 11/17/2022, 11:28:39 AM

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

BOREHOLE RECORD

Last Edited: 10-NOV-2022 09:17

Bit Size (inches)	Depth From (feet)	Depth To (feet)
8.500	1135.00	5501.00

CASING RECORD

Type	Size (inches)	Depth From (feet)	Shoe Depth (feet)	Weight (pounds/ft)
CASING	9.625	0.00	1135.00	40.00

REMARKS

TOOLSTRING RUN AS PER THE TOOL STRING DIAGRAM. MAXIMUM OD OF 3.25 inches AT THE MAI TOOL.

TOOLSTRING CONFIGURED FOR VERTICAL AND LOW DEVIATION TRAJECTORY

DIRECTIONAL DATA PROVIDED BY "TITAN DIRECTIONAL DRILLING": 9-NOV-2022.

MAXIMUM DEVIATION: 36.7 degrees @ 2620.0 feet.

PRIMARY SERVICES ACQUIRED:
MGS: COMPACT GAMMA RAY
MDN: DUAL SPACED NEUTRON
MPD: PHOTO-DENSITY
MSS: MONOPOLE SONIC.
MAI-MFE: ARRAY INDUCTION

HARDWARE USED:
MPD: 4 inch PROFILE PLATE
MIS-D: DOUBLE BOWSPRING TO SIDEWALL THE MDN FROM ABOVE.
MVC: USED TO SIDEWALL THE MPD FROM BELOW.
MSS: 0.5 INCH STANDOFF AT MIDDLE.
MSS: 0.5 INCH INLINE STANDOFF AT TOP AND BOTTOM
MFE: 0.5 INCH INLINE STANDOFF AT TOP AND BOTTOM
MAI: 0.5 INCH PINEAPPLE STANDOFF ON BOTTOM

CORRECTIONS APPLIED:

2.65 G/CC MATRIX DENSITY USED TO CALCULATE POROSITY.

BARITE CORRECTION WAS APPLIED TO THE PHOTO DENSITY DUE TO ITS PRESENCE IN THE MUD SYSTEM

BARITE CORRECTION WAS APPLIED TO THE NEUTRON DUE TO ITS PRESENCE IN THE MUD SYSTEM

DEPTH CONTROL:

PRIMARY DEPTH REFERENCE USED WAS PIPE STRAP

PRIMARY DEPTH SYSTEM USED WAS MD TOTCO

LOGGING TOOLS DEPLOYED AT 5378.99 ft.
||BOTTOM OF LOGGING TOOLS AFTER DEPLOYMENT : 5481.0 ft .

LOGGING TOOLS DEPLOYED BY USING MESSENGER COMPACT WELL SHUTTLE CONVEYANCE.

BOREHOLE CONDITION:

BOTTOMS UP CIRCULATED BEFORE TOOLS DEPLOYED..

A HEAVY MUD WAS PUMPED PRIOR LOGGING UPHOLE AS PER CLIENT REQUEST.

POST ACQUISITION PROCESSING:

DUE TO PRESENCE OF A VERY HIGH RESISTIVITY MATERIAL IN THE FORMATION THE INDUCTION TOOL GAVE THE COMMAND TO CLOSE THE DENSITY CALIPER CALIPER IN THE INTERVAL 4386.2 FT to 4321.4 FT.

HOLE VOLUME FROM 5422.27 FT to CASING SHOE = 2480 CU.FT

ANNULAR HOLE VOLUME FROM 5422.27 FT to CASING SHOE = 1790 CU.FT

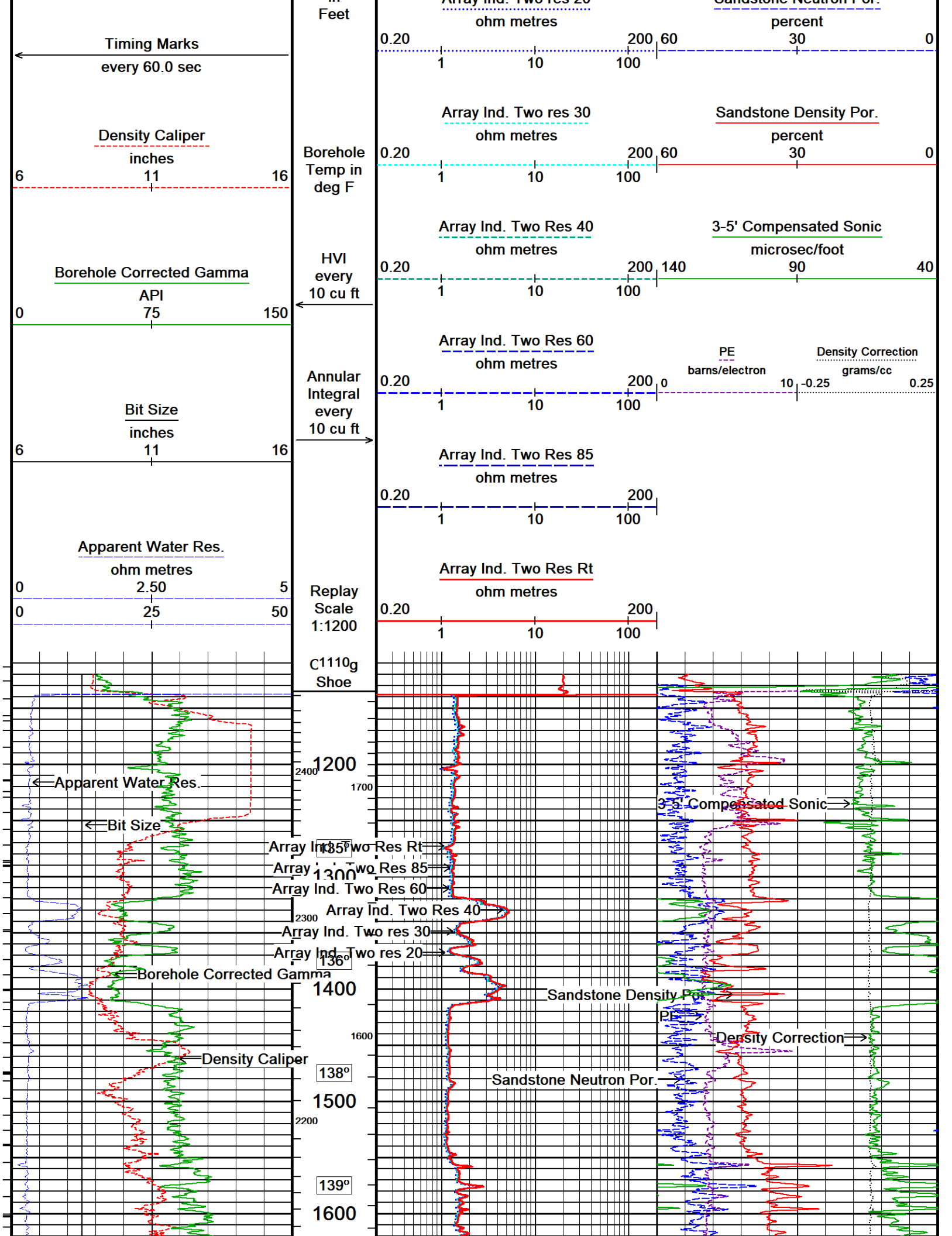
ANNULAR VOLUME WAS CALCULATED BASED ON FUTURE CASING SIZE OF 5.5 inches.

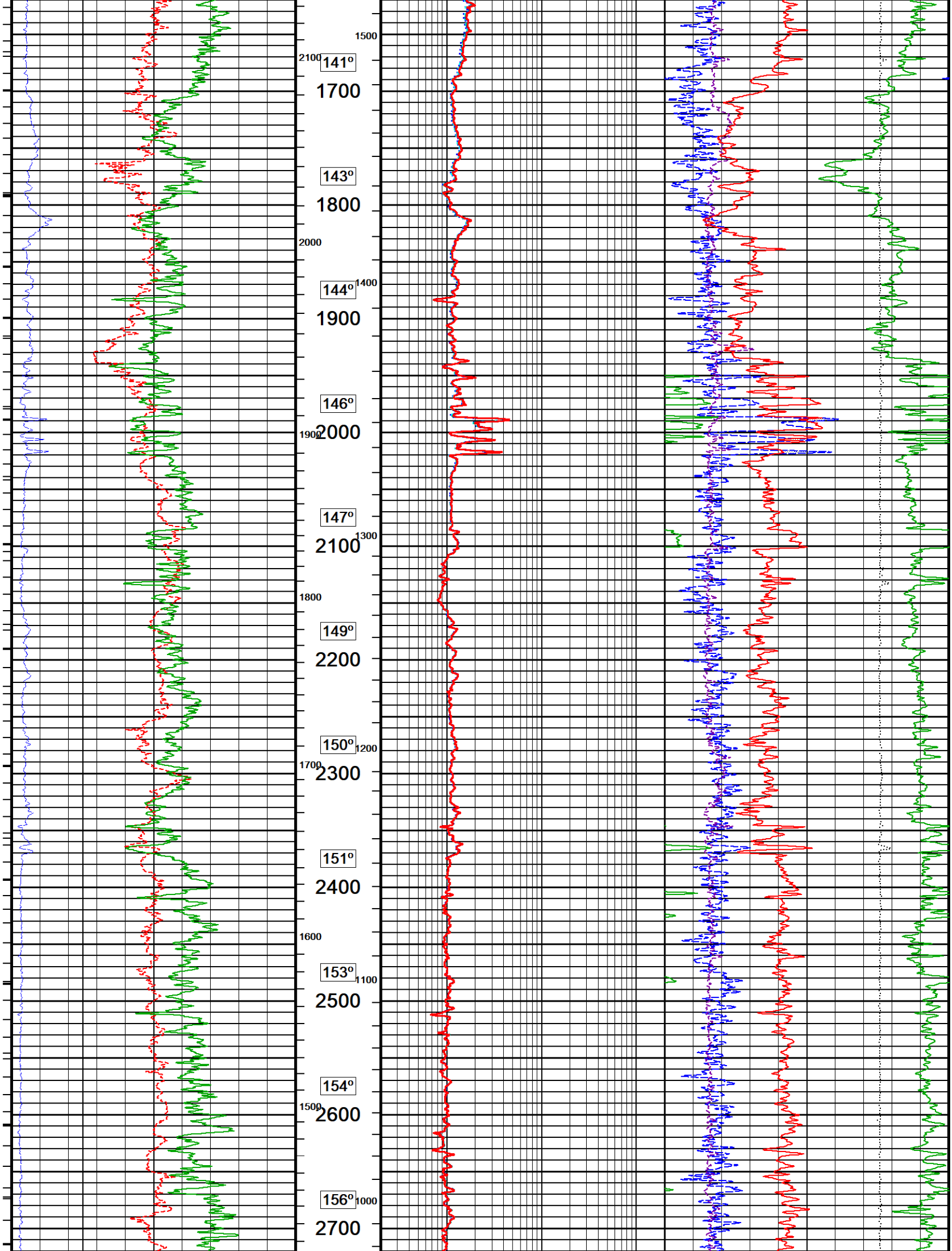
ANNULAR AND HOLE VOLUMES CALCULATED FROM DENSITY CALIPER MEASUREMENTS.

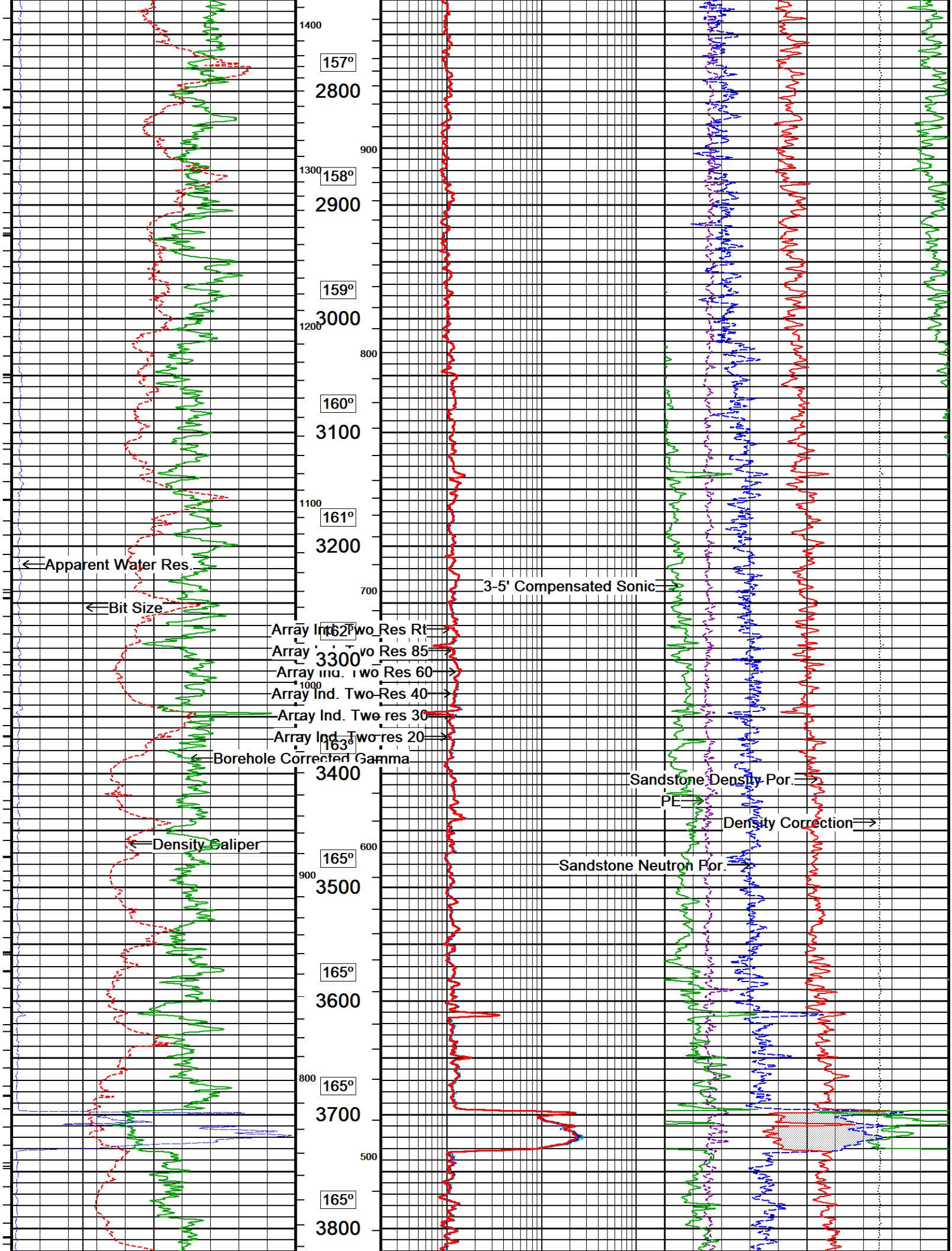
1 INCH MAIN PASS

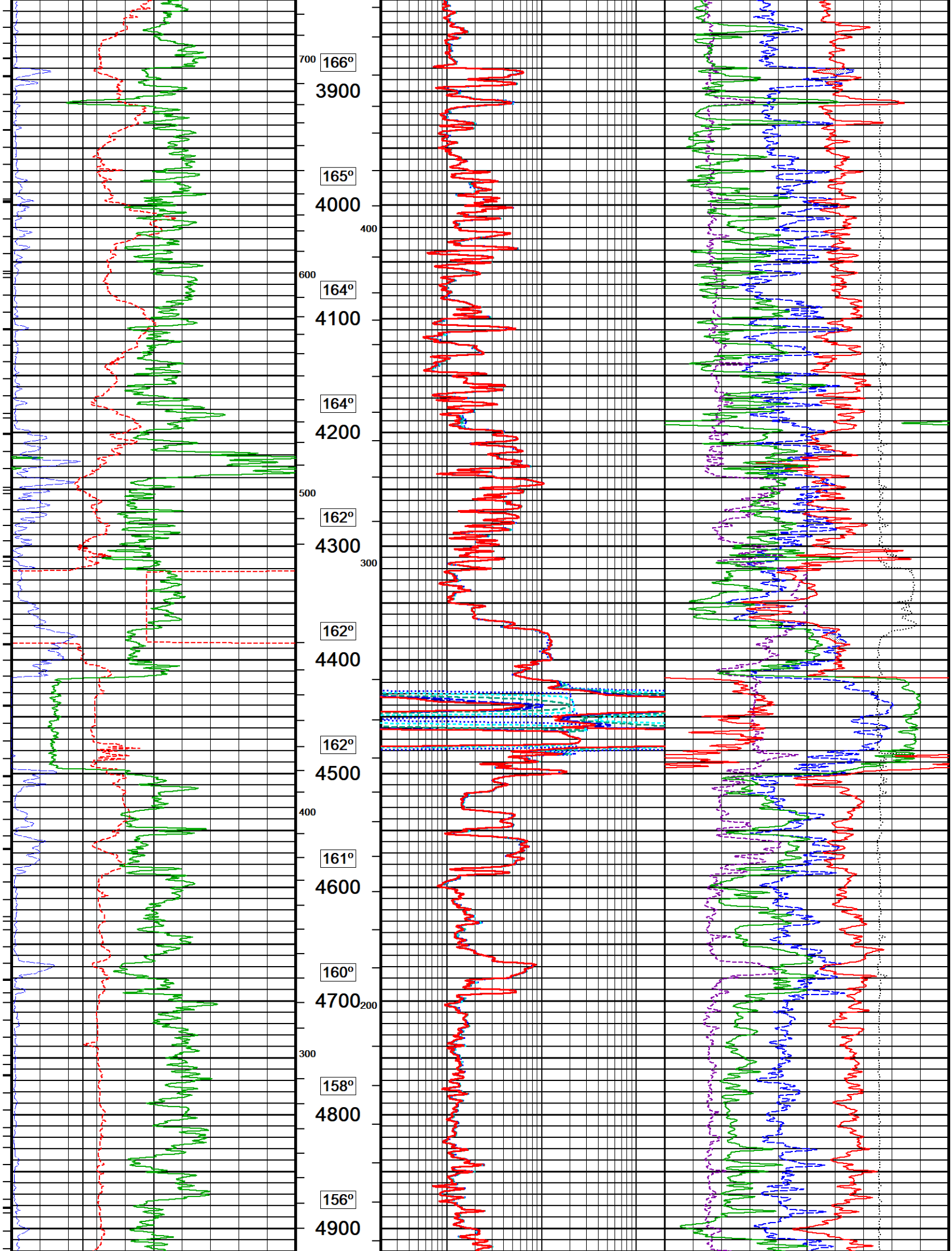
Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-NOV-2022 05:12
Filename: C:\LOGS\Snake River\Barlow 3-14\MAIN PASS.dta
Recorded on 11-NOV-2022 03:27
System Versions: Logged with 22.01.1627 Processed with 22.01.1627 Plotted with 22.01.1627

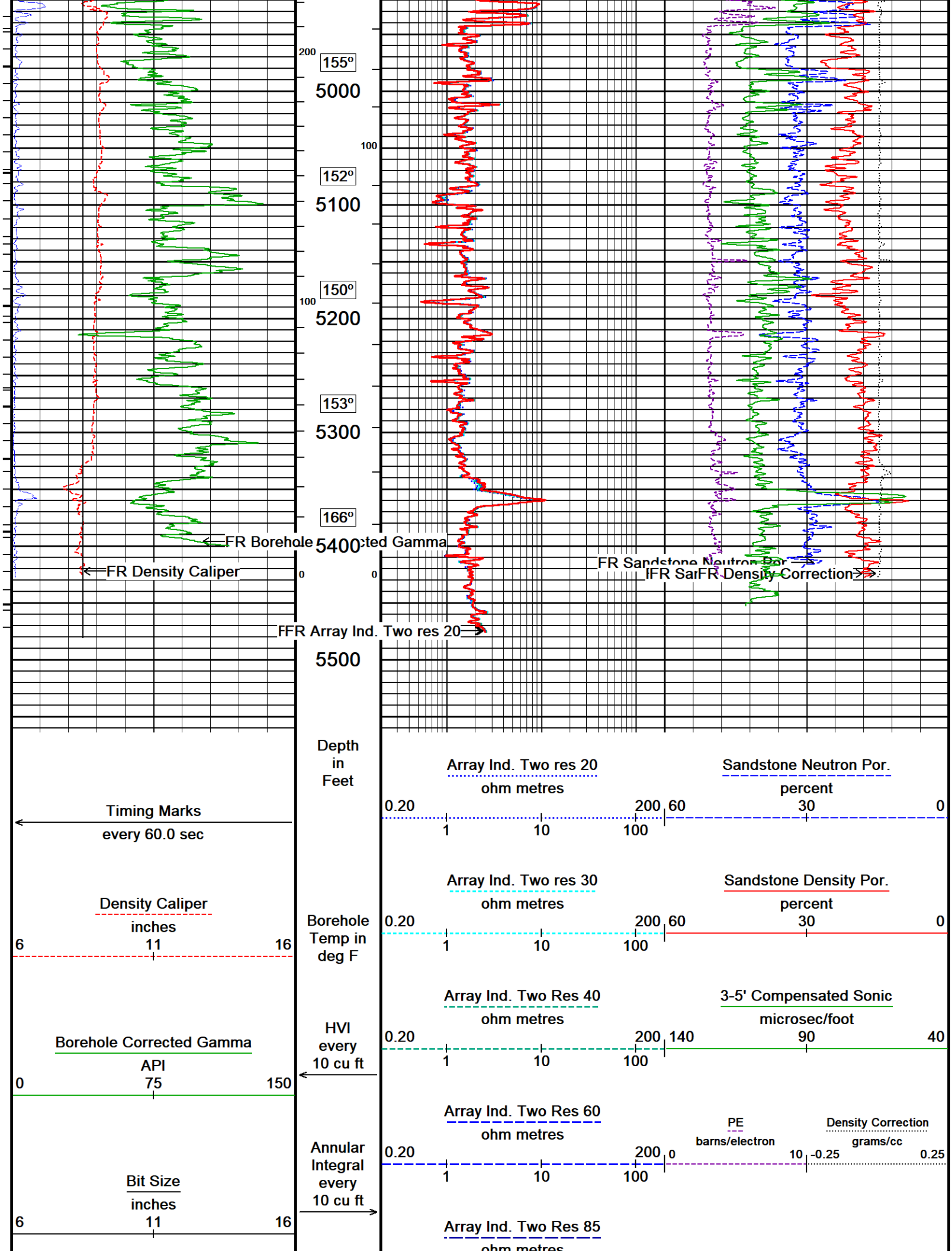
	Depth in	Array Ind. Two res 20	Sandstone Neutron Por

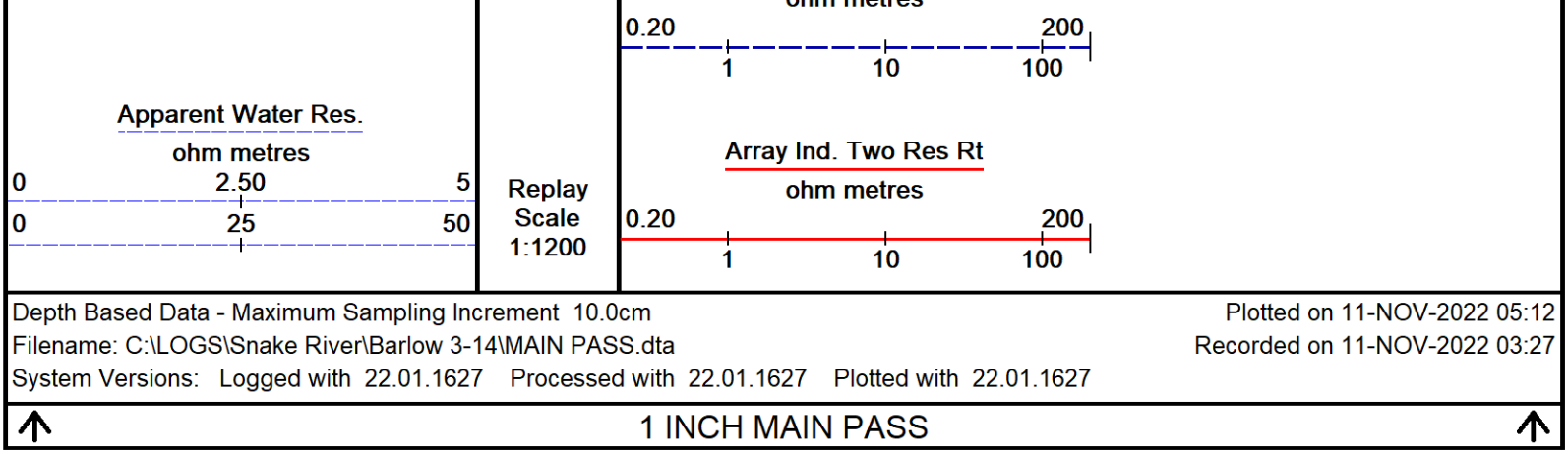

Timing Marks
every 60.0 sec
Density Caliper
inches
6
11
16
Borehole Corrected Gamma
API
0
75
150
Bit Size
inches
6
11
16
Apparent Water Res.
ohm metres
0
2.50
5
0
25
50
Feet
Borehole Temp in deg F
HVI every 10 cu ft
Annular Integral every 10 cu ft
Replay Scale 1:1200
Array Ind. Two res 20
ohm metres
0.20
200
1
10
100
Sandstone Neutron Por.
percent
60
30
0
Array Ind. Two res 30
ohm metres
Sandstone Density Por.
percent
Array Ind. Two Res 40
ohm metres
3-5' Compensated Sonic
microsec/foot
140
90
40
Array Ind. Two Res 60
ohm metres
PE
barns/electron
0
10
Density Correction
grams/cc
-0.25
0.25
Array Ind. Two Res 85
ohm metres
Array Ind. Two Res Rt
ohm metres
C1110g Shoe
2400
1200
1700
1300
2300
1400
1600
1500
2200
1600
135°
136°
138°
139°
Apparent Water Res.
Bit Size
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.


141°
143°
144°
146°
147°
149°
150°
151°
153°
154°
156°
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2100
2000
1900
1800
1700
1600
1500
1500
1400
1300
1200
1100
1000


1400
157°
2800
900
1300
158°
2900
159°
3000
1200
800
160°
3100
1100
161°
3200
700
162°
3300
1000
163°
3400
600
165°
900
3500
165°
3600
800
165°
3700
500
165°
3800
Apparent Water Res.
Bit Size
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.


700
166°
3900
165°
4000
400
600
164°
4100
164°
4200
500
162°
4300
300
162°
4400
162°
4500
400
161°
4600
160°
4700
200
300
158°
4800
156°
4900


200
155°
5000
100
152°
5100
100
150°
5200
153°
5300
166°
5400
0
0
5500
FR Borehole
ted Gamma
FR Density Caliper
FR Sandstone Neutron Por.
IFR SarFR Density Correction
FFR Array Ind. Two res 20
Depth
in
Feet
Timing Marks
every 60.0 sec
Array Ind. Two res 20
ohm metres
0.20
200
1
10
100
Sandstone Neutron Por.
percent
60
30
0
Density Caliper
inches
6
11
16
Array Ind. Two res 30
ohm metres
0.20
200
1
10
100
Sandstone Density Por.
percent
60
30
0
Borehole
Temp in
deg F
Array Ind. Two Res 40
ohm metres
0.20
200
1
10
100
3-5' Compensated Sonic
microsec/foot
140
90
40
Borehole Corrected Gamma
API
0
75
150
HVI
every
10 cu ft
Array Ind. Two Res 60
ohm metres
0.20
200
1
10
100
PE
barns/electron
0
10
Density Correction
grams/cc
-0.25
0.25
Annular
Integral
every
10 cu ft
Bit Size
inches
6
11
16
Array Ind. Two Res 85
ohm metres



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-NOV-2022 05:12
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1 INCH MAIN PASS

2 INCH MAIN PASS

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 11-NOV-2022 05:12
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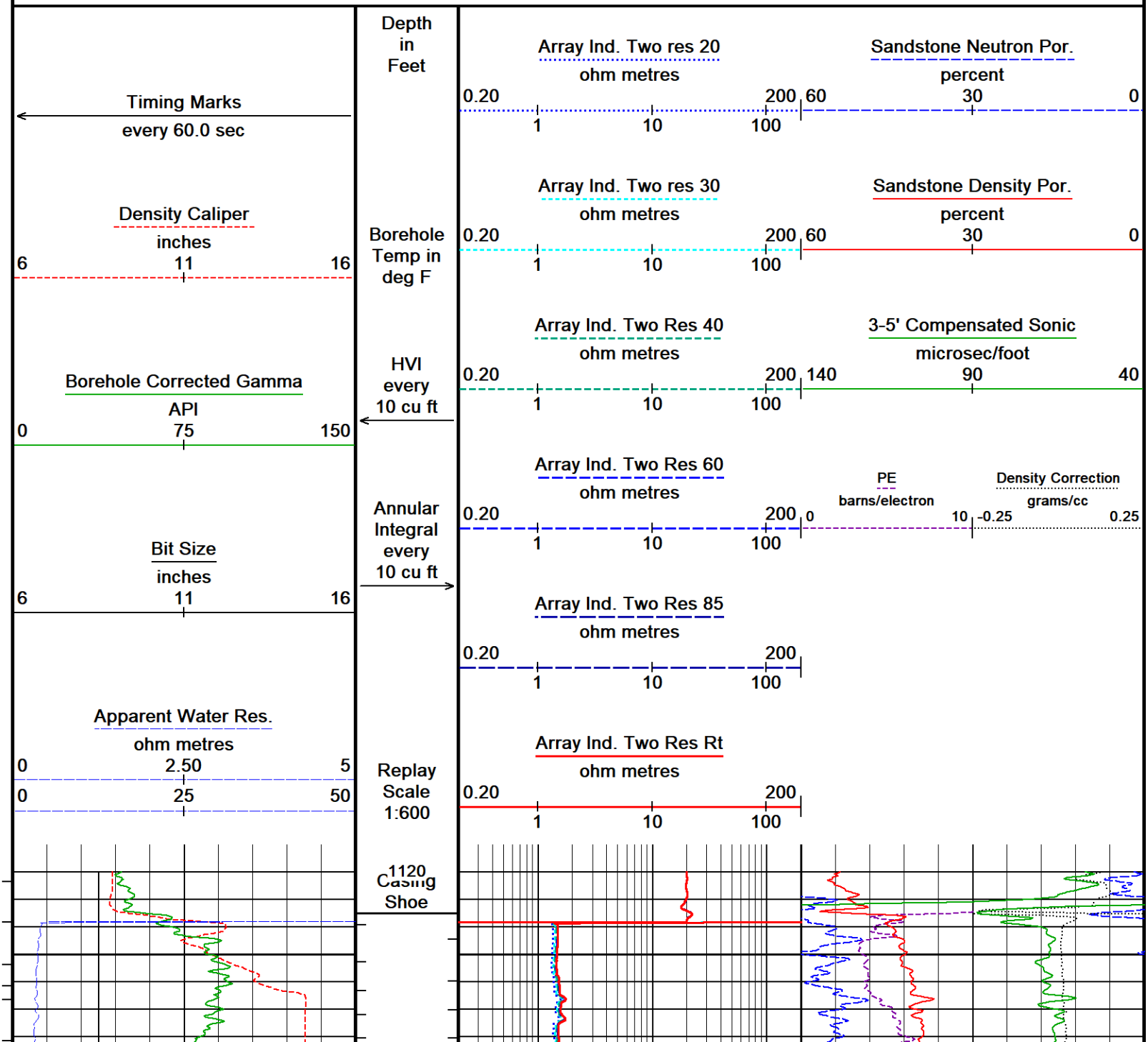
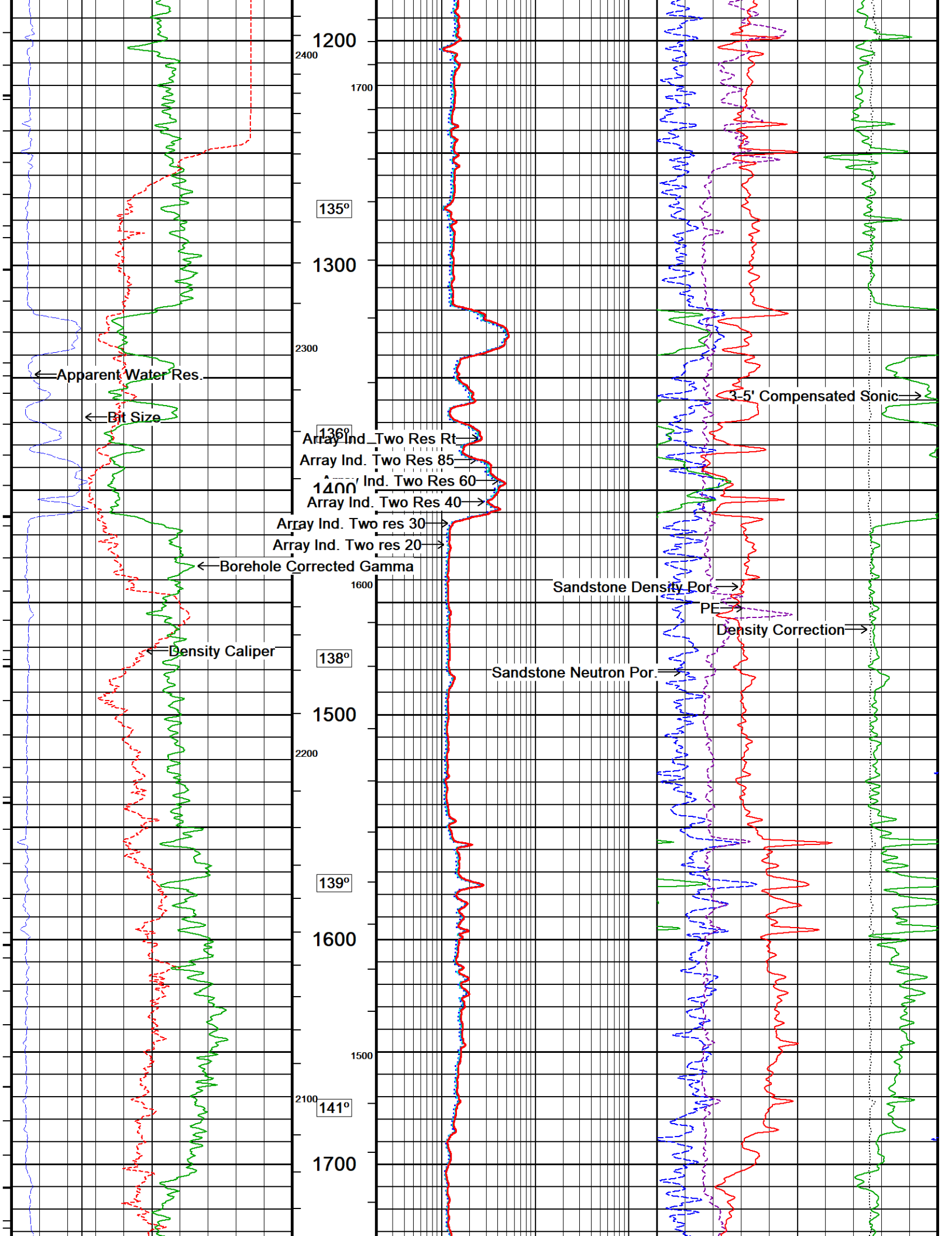
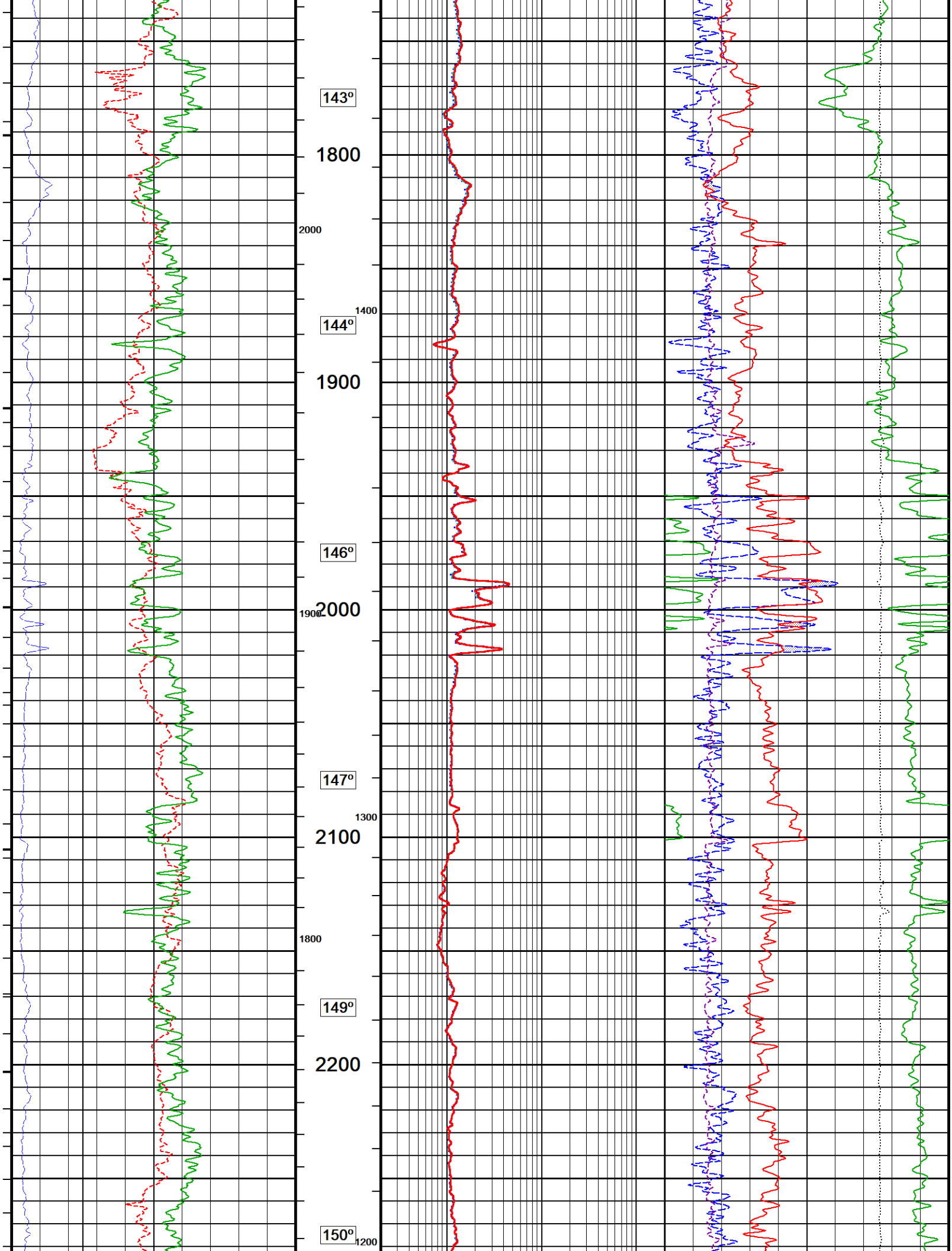
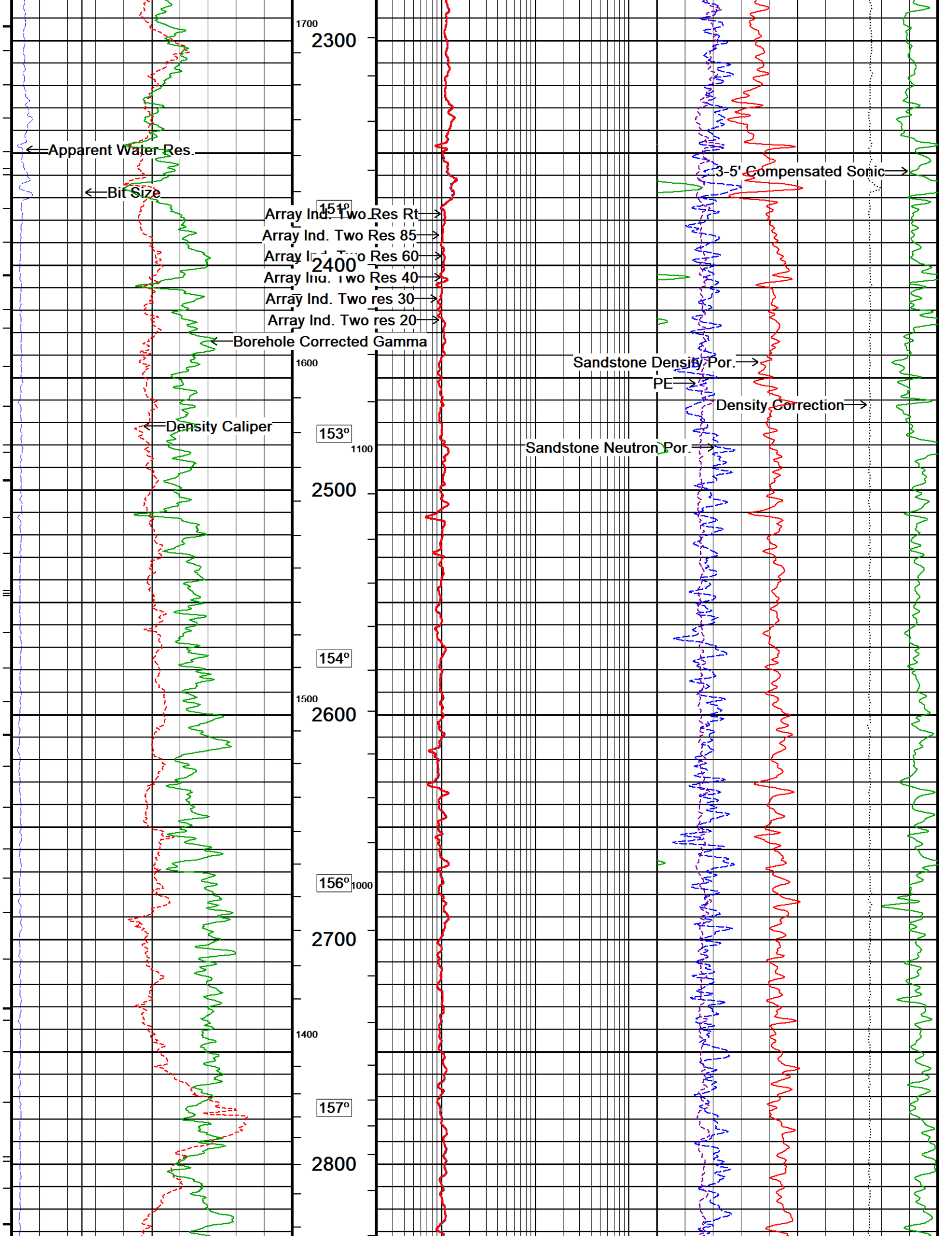
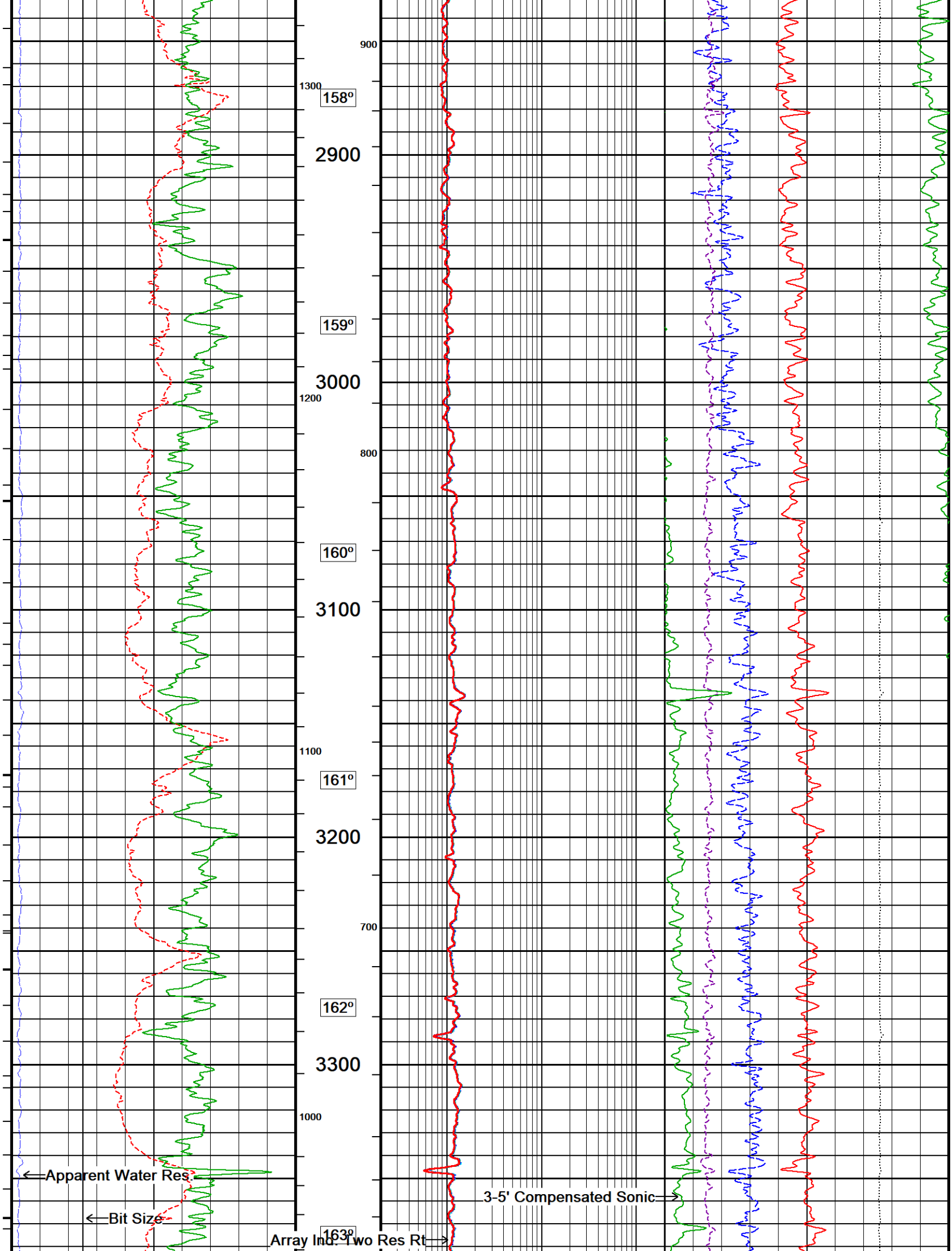
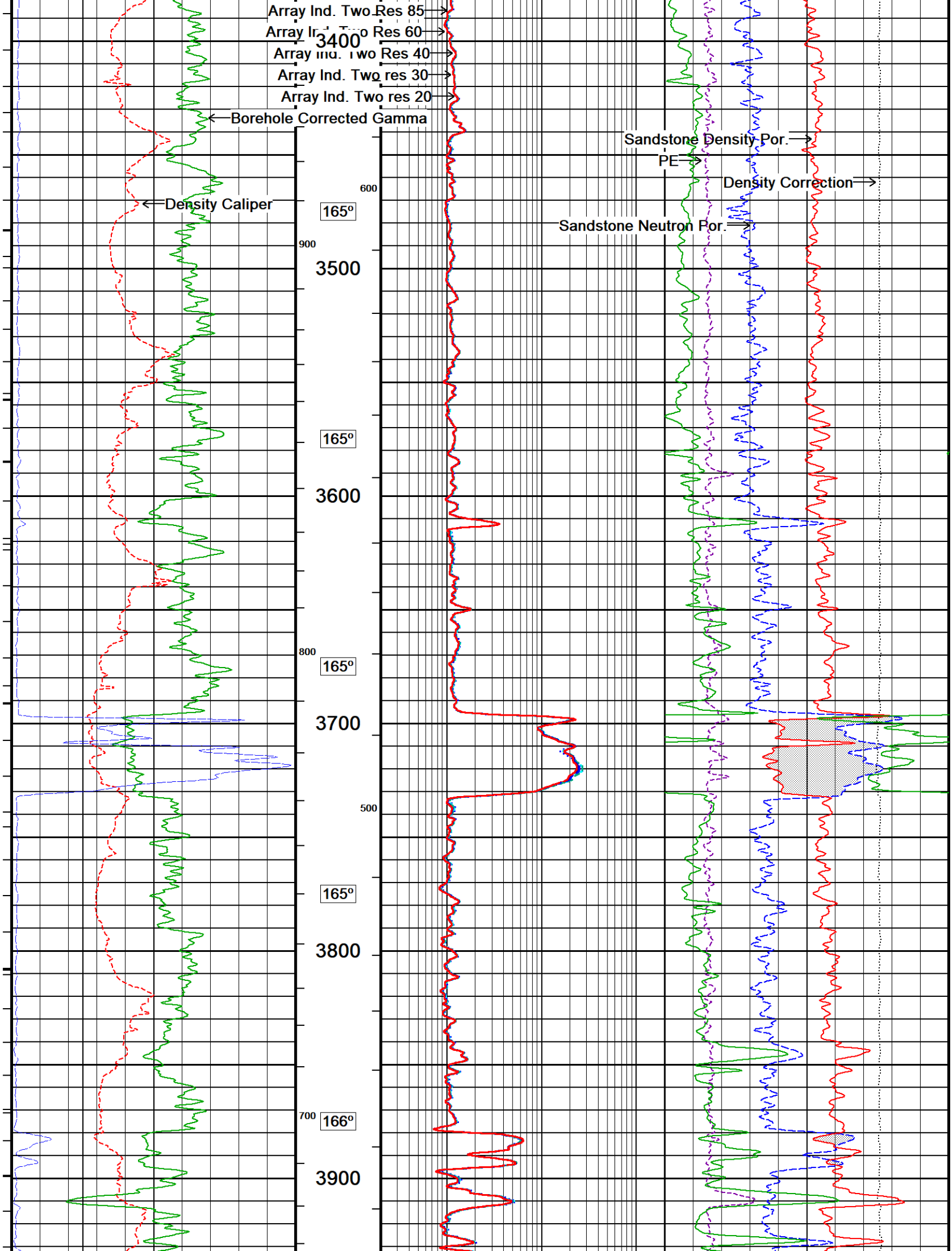


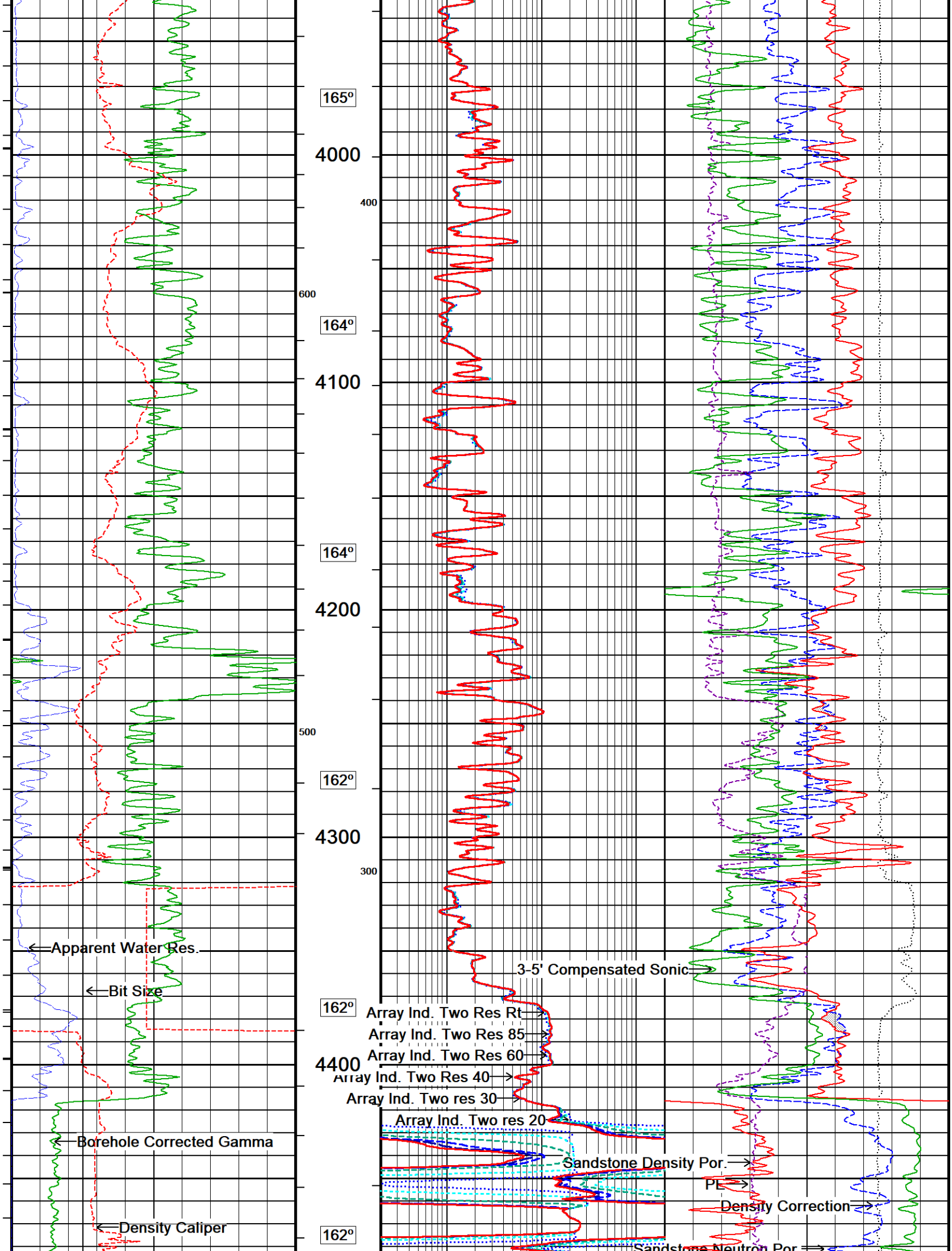

Apparent Water Res.
Bit Size
Borehole Corrected Gamma
Density Caliper
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.
1200
2400
1700
135°
1300
2300
136°
1400
138°
1500
2200
139°
1600
1500
2100
141°
1700

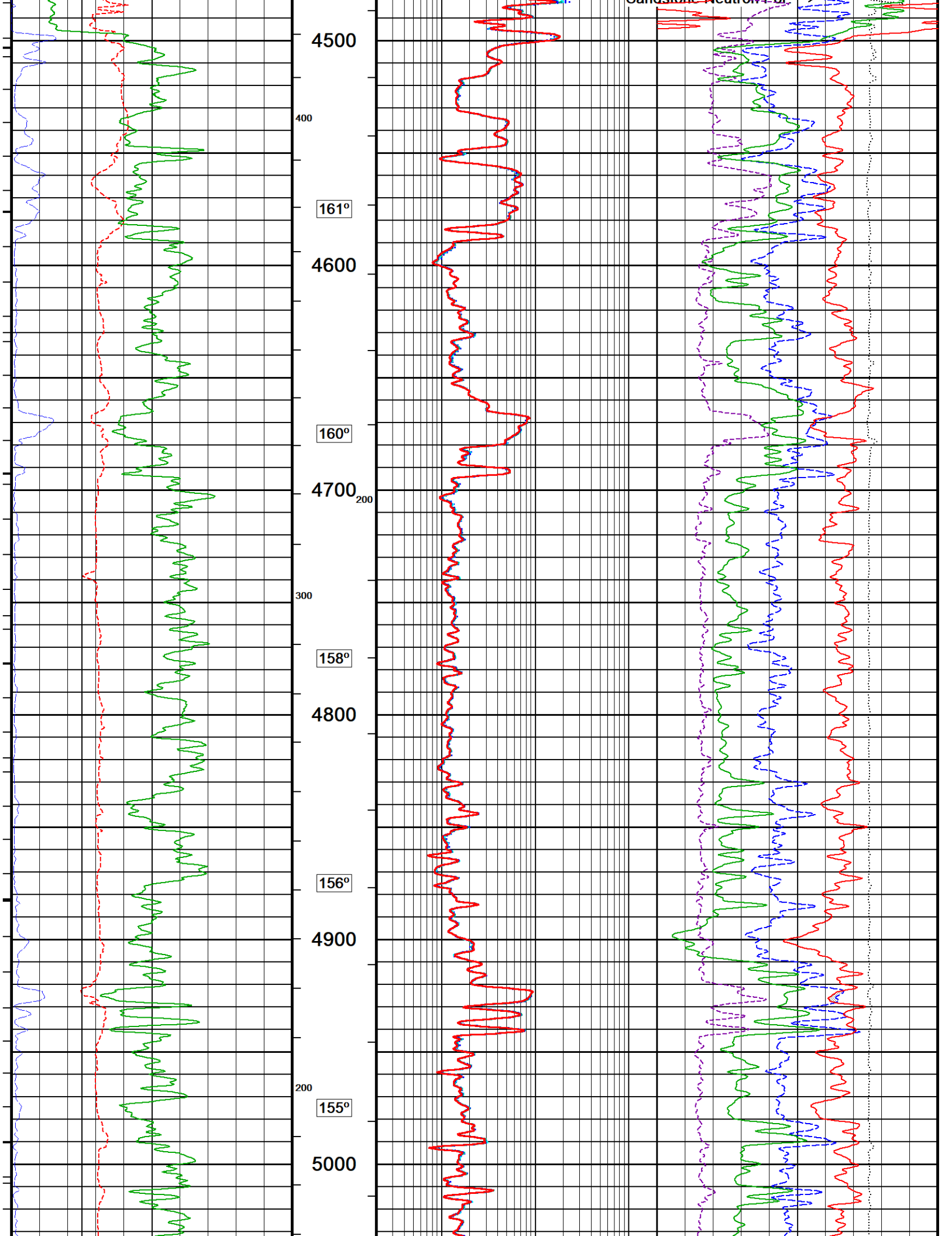

143°
1800
2000
1400
144°
1900
146°
1900
2000
147°
1300
2100
1800
149°
2200
150°
1200

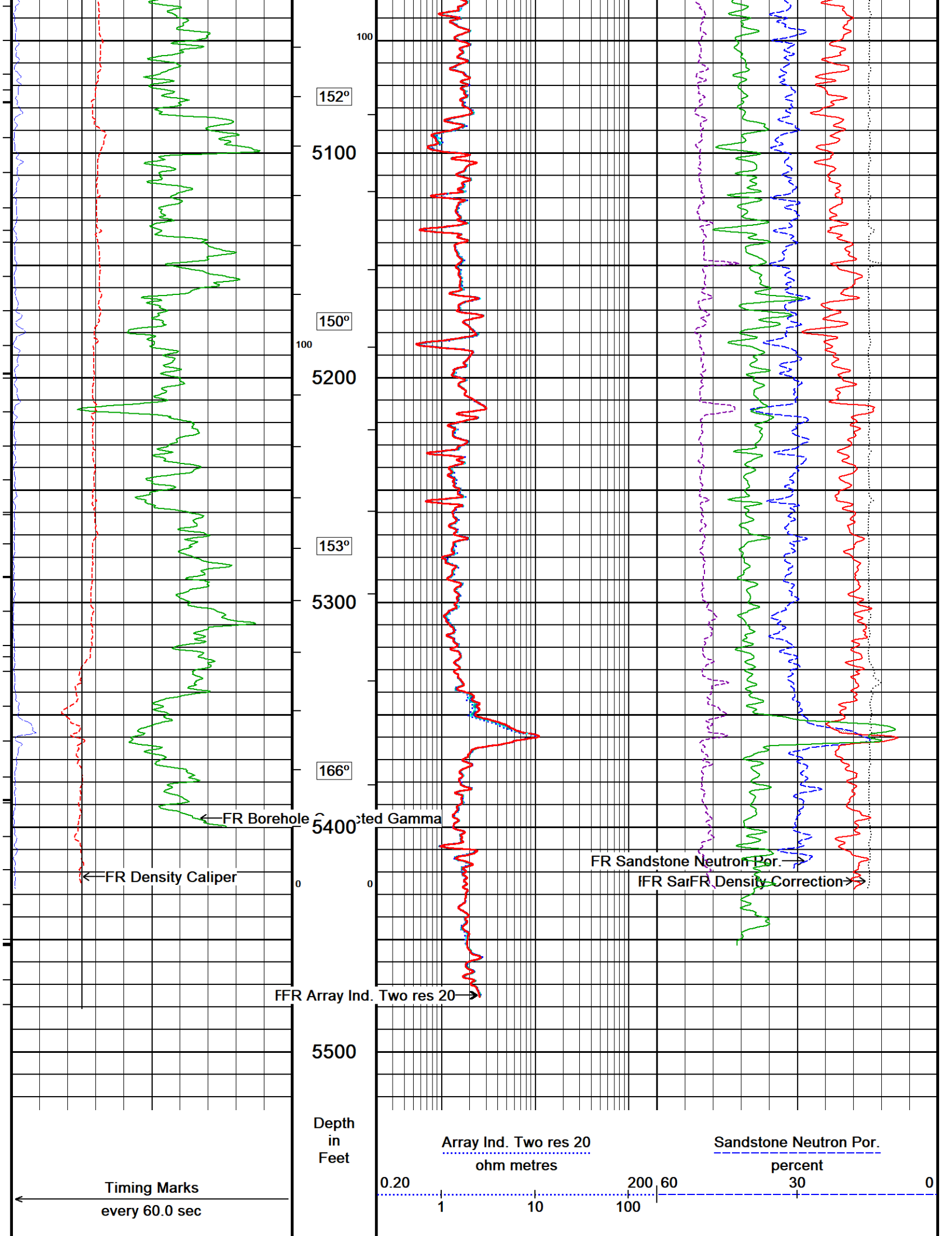

Apparent Water Res.
Bit Size
Density Caliper
Borehole Corrected Gamma
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.
151°
153°
154°
156°
157°
1700
1600
1500
1400
1100
1000
2300
2400
2500
2600
2700
2800

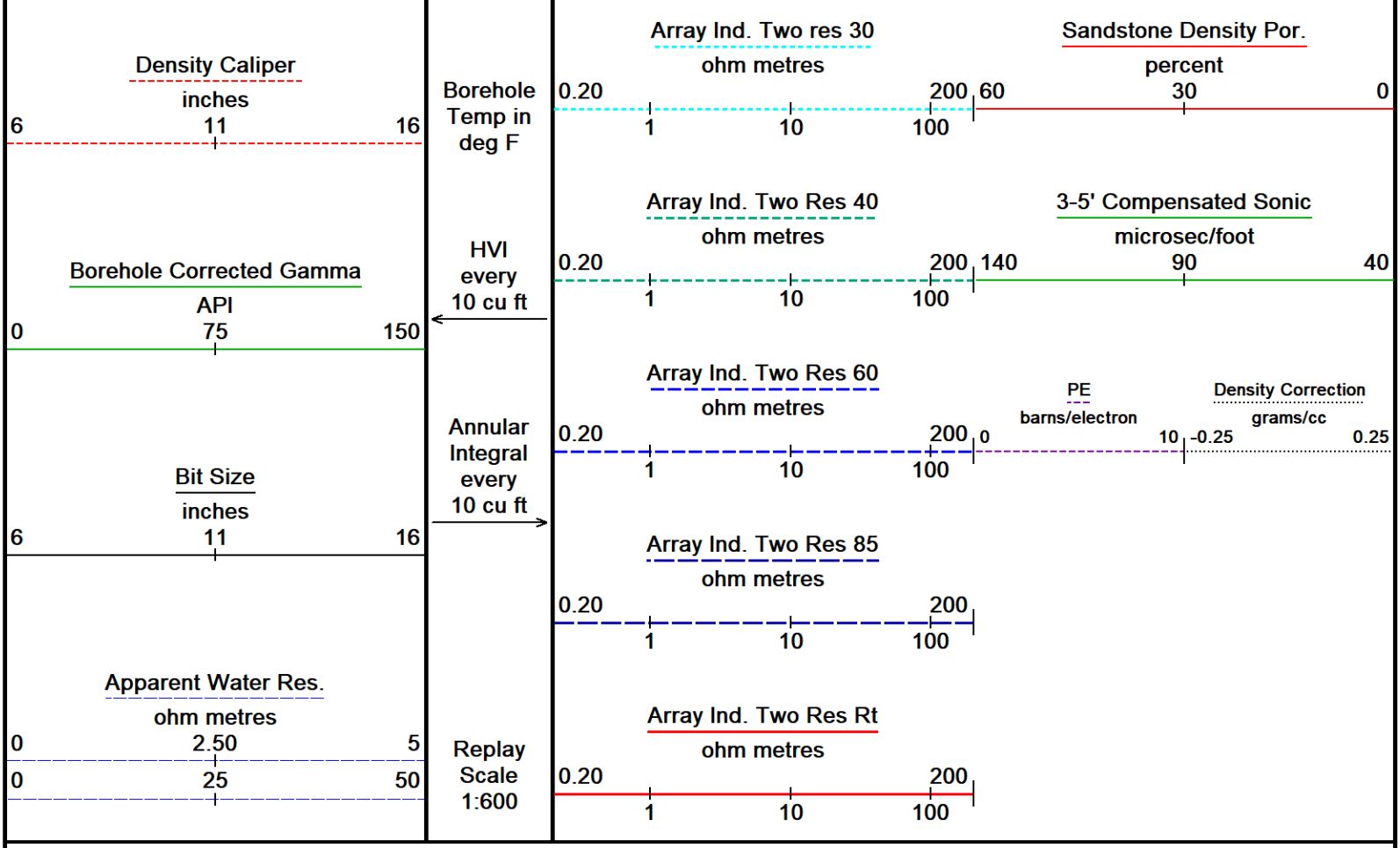

1300
158°
2900
159°
3000
1200
160°
3100
1100
161°
3200
162°
3300
1000
163°
900
800
700
←Apparent Water Res.
←Bit Size
Array Ind. Two Res Rt→
3-5' Compensated Sonic→


Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.
3400
3500
3600
3700
3800
3900
165°
165°
165°
165°
166°
600
500
900
800
700


165°
4000
400
600
164°
4100
164°
4200
500
162°
4300
300
162°
4400
162°
⟸Apparent Water Res.
⟵Bit Size
⟵Borehole Corrected Gamma
⟵Density Caliper
3-5' Compensated Sonic→
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two res 30→
Array Ind. Two res 20
Sandstone Density Por.→
PE→
Density Correction→
Sandstone Neutron Por.→


4500
400
161°
4600
160°
4700
200
300
158°
4800
156°
4900
200
155°
5000


100
152°
5100
150°
100
5200
153°
5300
166°
FR Borehole Corrected Gamma
5400
FR Density Caliper
0
0
FR Sandstone Neutron Por.
IFR SarFR Density Correction
FFR Array Ind. Two res 20
5500
Depth
in
Feet
Array Ind. Two res 20
ohm metres
0.20
200
1
10
100
Sandstone Neutron Por.
percent
60
30
0
Timing Marks
every 60.0 sec



Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-NOV-2022 05:12
Filename: C:\LOGS\Snake River\Barlow 3-14\MAIN PASS.dta
Recorded on 11-NOV-2022 03:27
System Versions: Logged with 22.01.1627 Processed with 22.01.1627 Plotted with 22.01.1627

2 INCH MAIN PASS

5 INCH MAIN PASS

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-NOV-2022 05:12
Filename: C:\LOGS\Snake River\Barlow 3-14\MAIN PASS.dta
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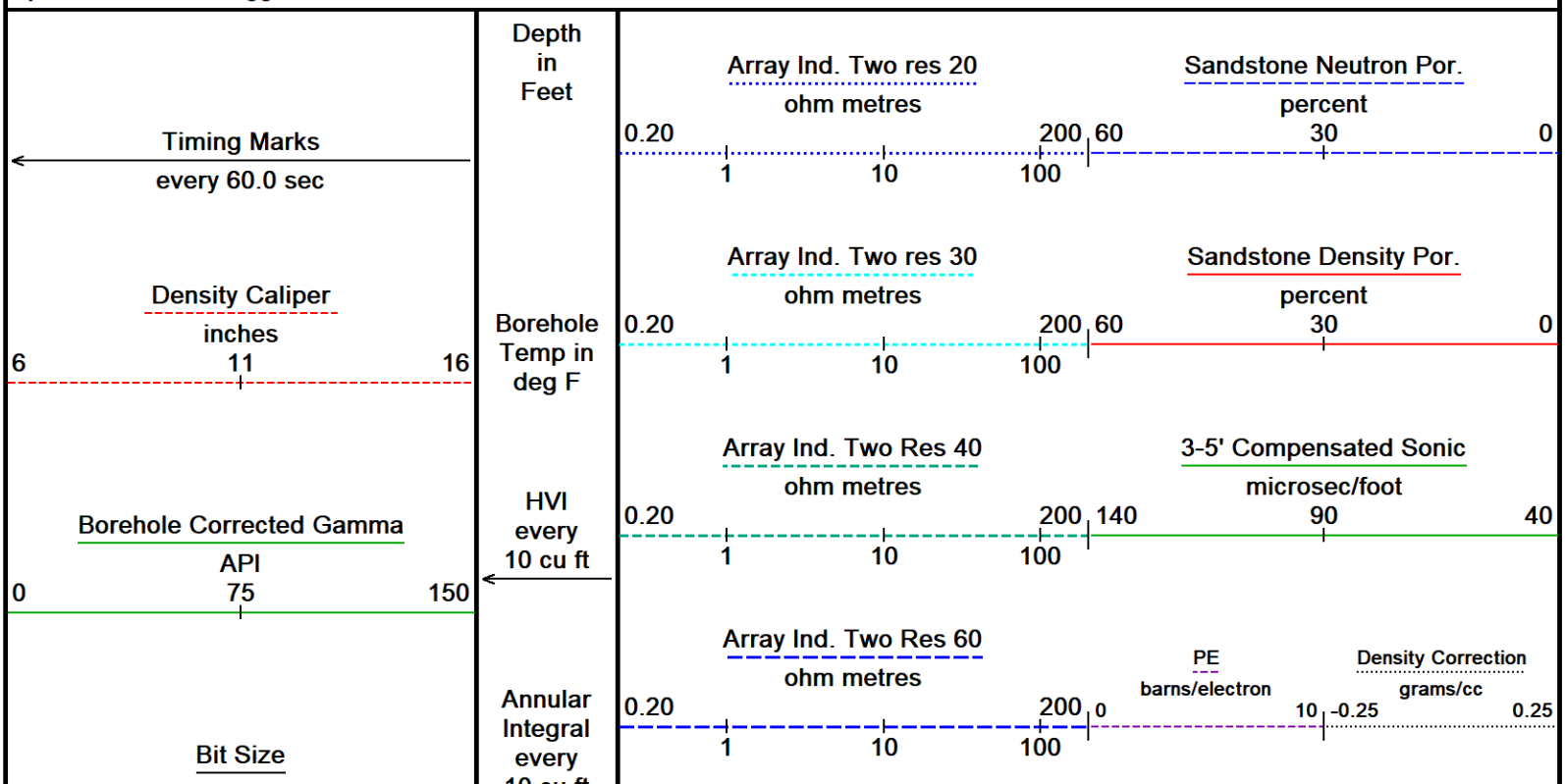
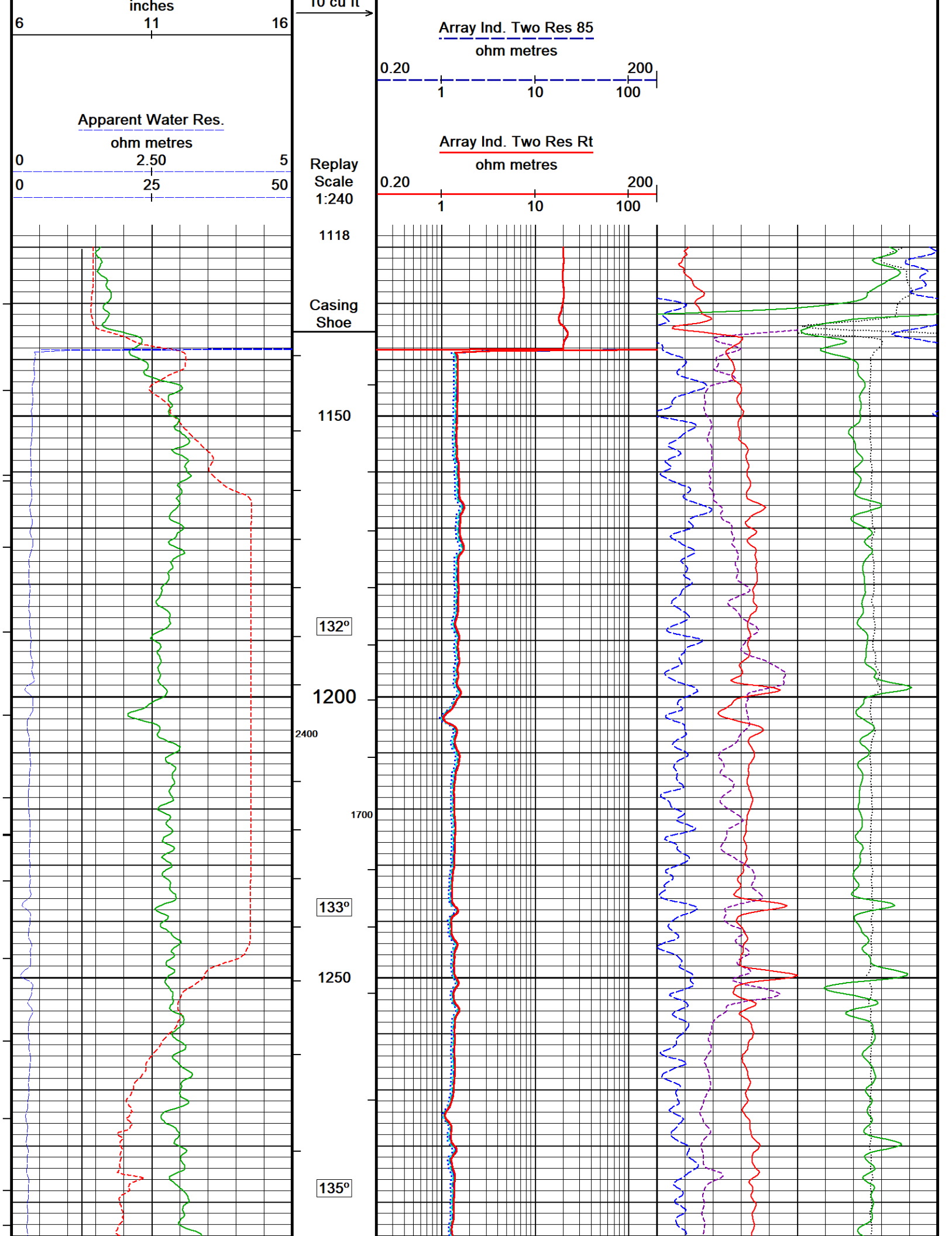
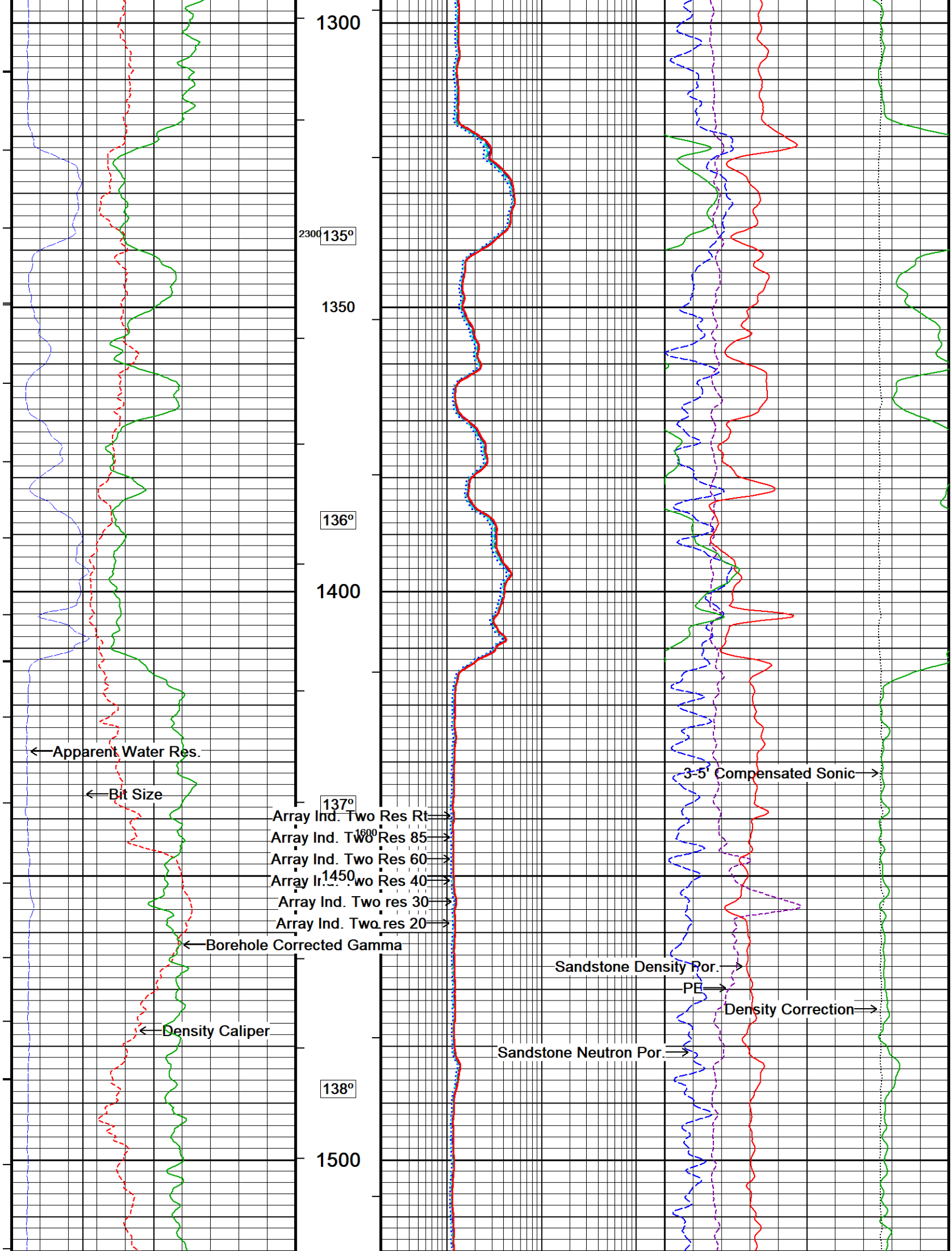
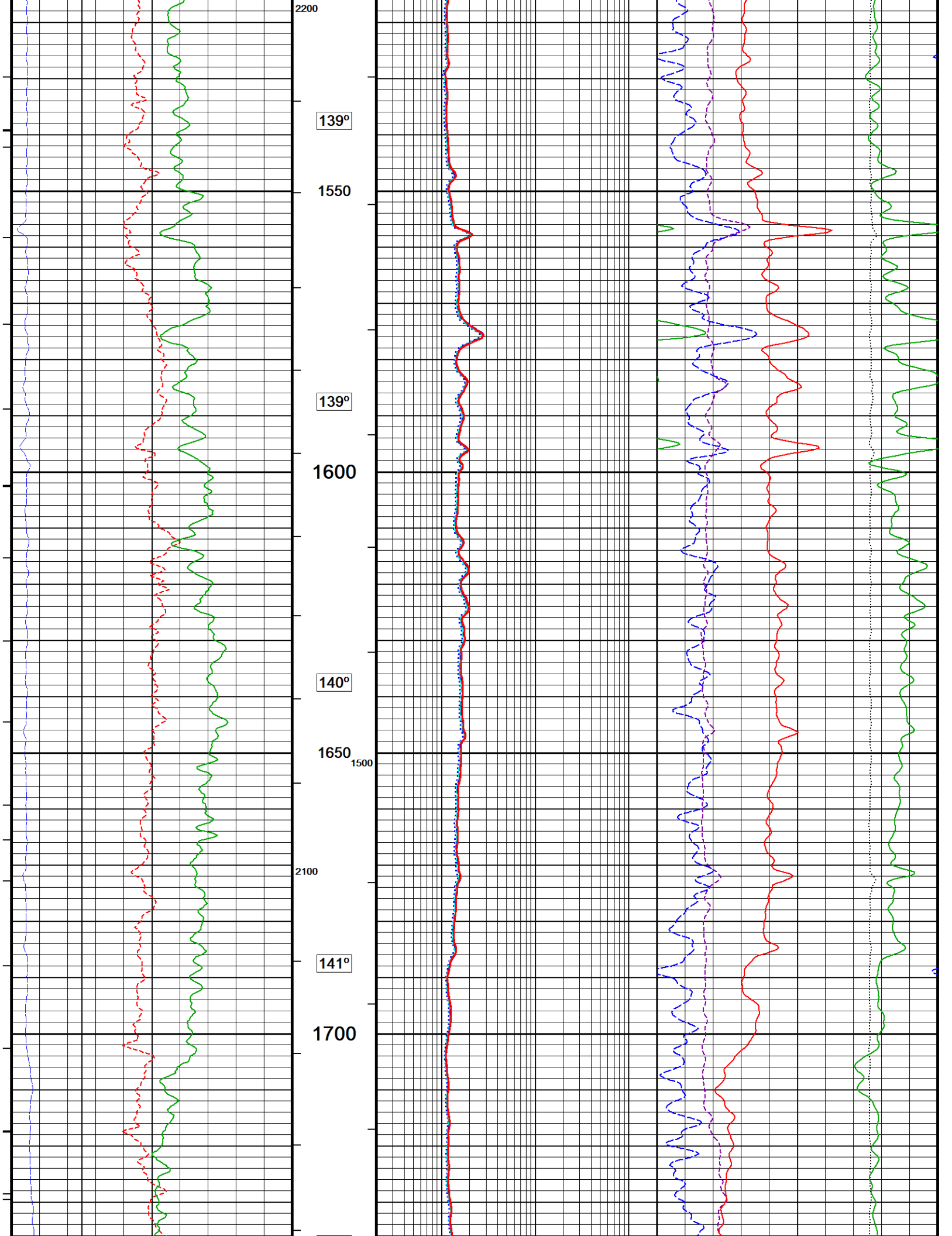
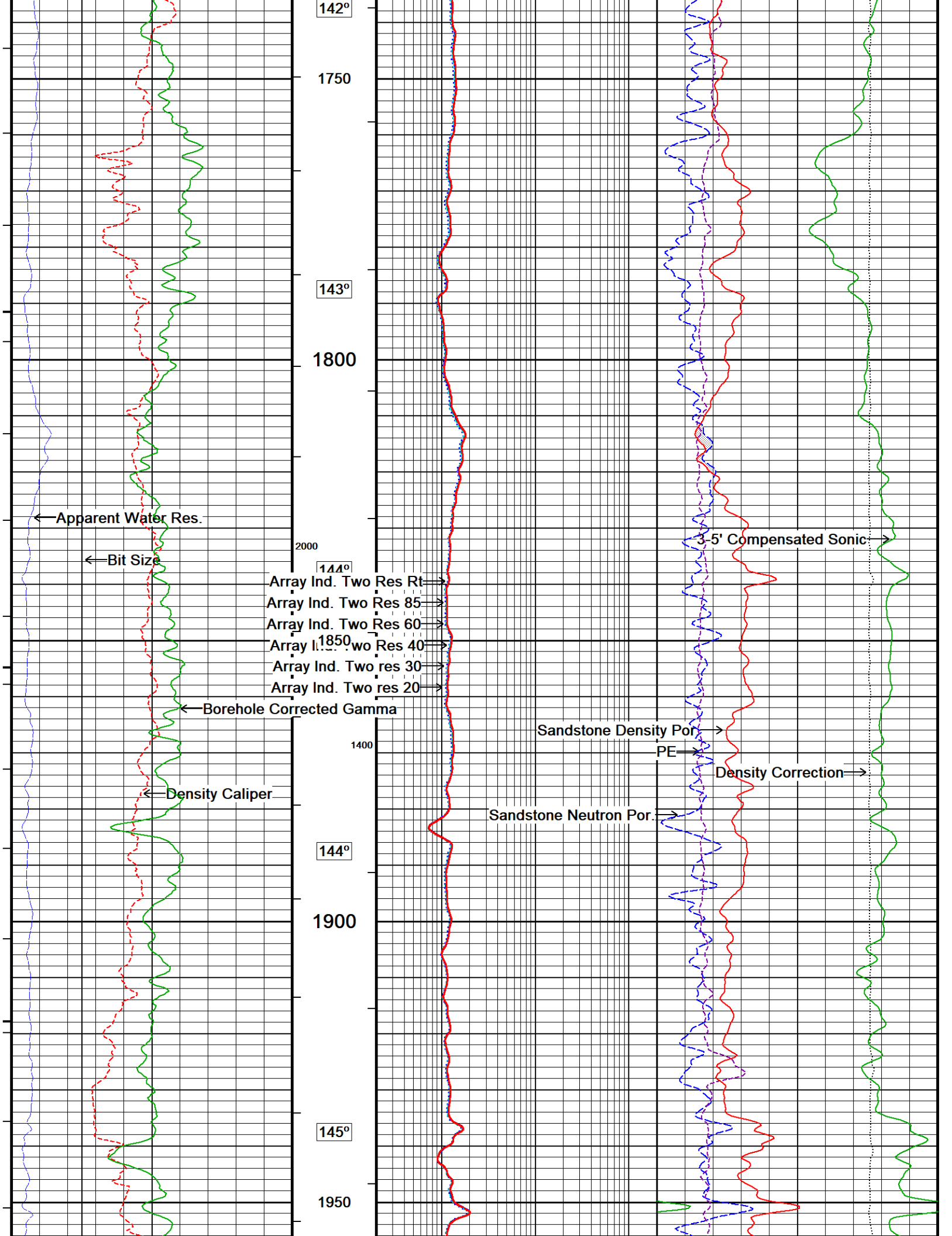
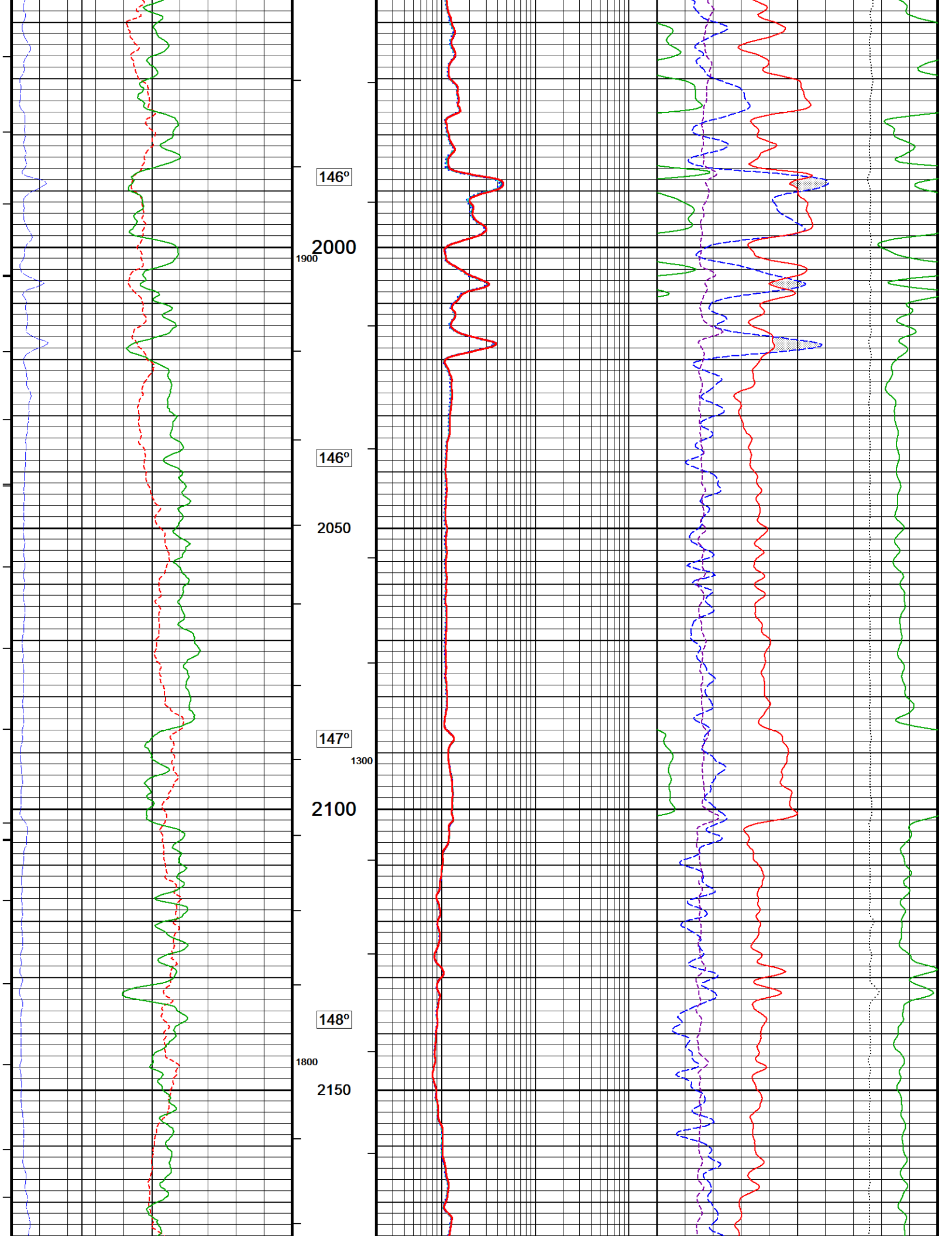


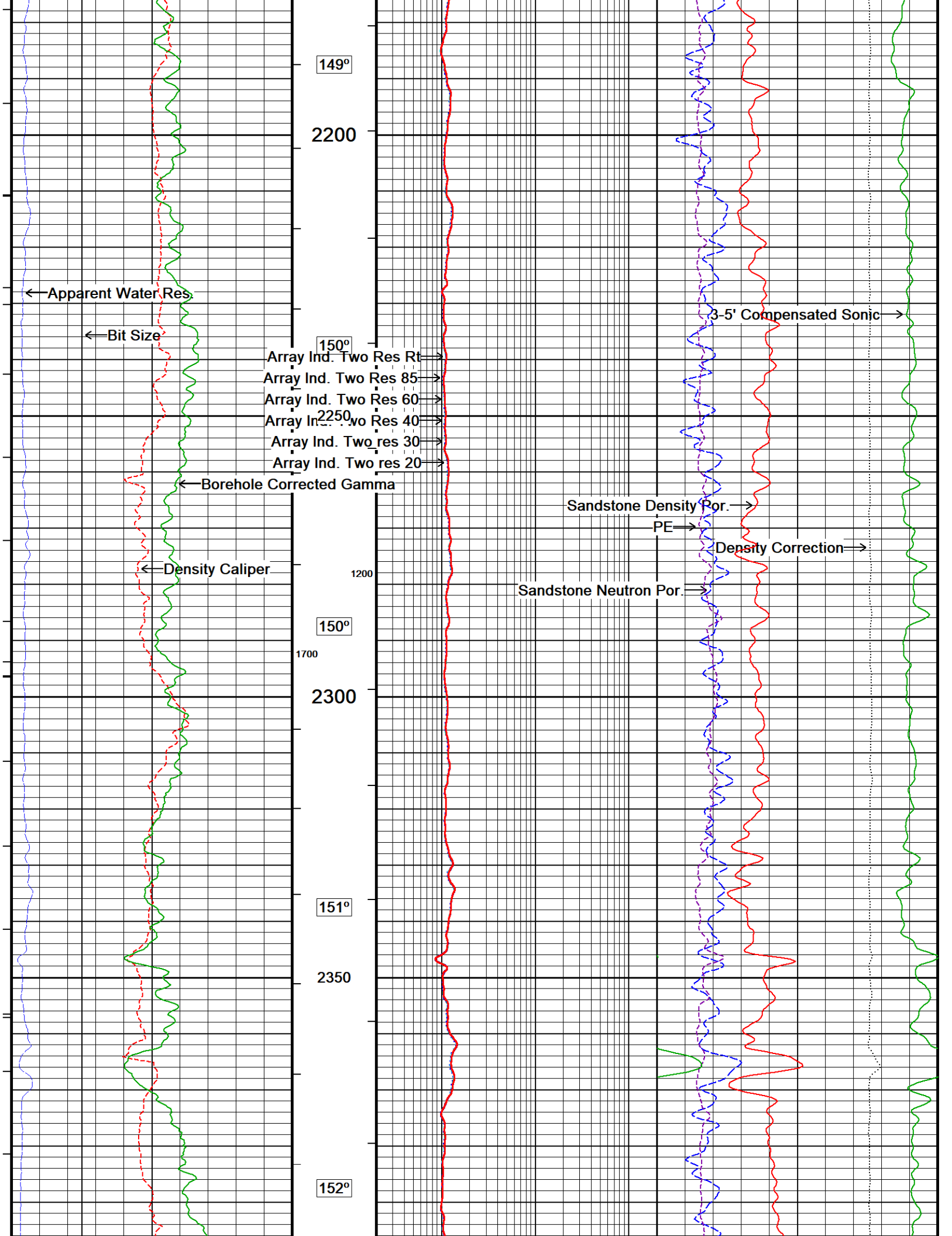

inches
6
11
16
10 cu ft
Array Ind. Two Res 85
ohm metres
0.20
200
1
10
100
Apparent Water Res.
ohm metres
0
2.50
5
0
25
50
Array Ind. Two Res Rt
ohm metres
0.20
200
1
10
100
Replay
Scale
1:240
1118
Casing
Shoe
1150
132°
1200
2400
1700
133°
1250
135°

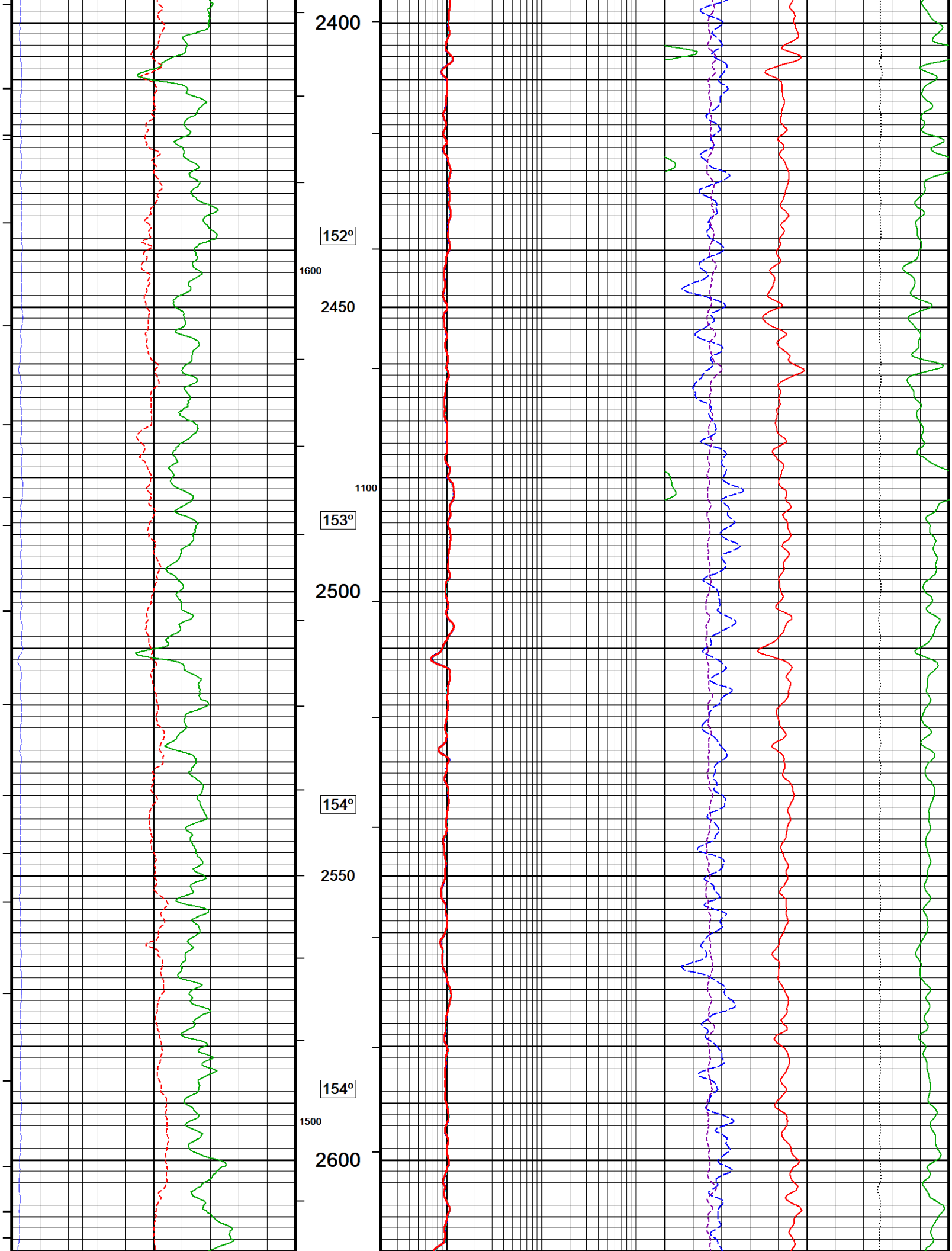

1300
2300
135°
1350
136°
1400
137°
1600
1450
138°
1500
←Apparent Water Res.
←Bit Size
←Borehole Corrected Gamma
←Density Caliper
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two res 30→
Array Ind. Two res 20→
3-5' Compensated Sonic→
Sandstone Density Por.→
PE→
Density Correction→
Sandstone Neutron Por.→

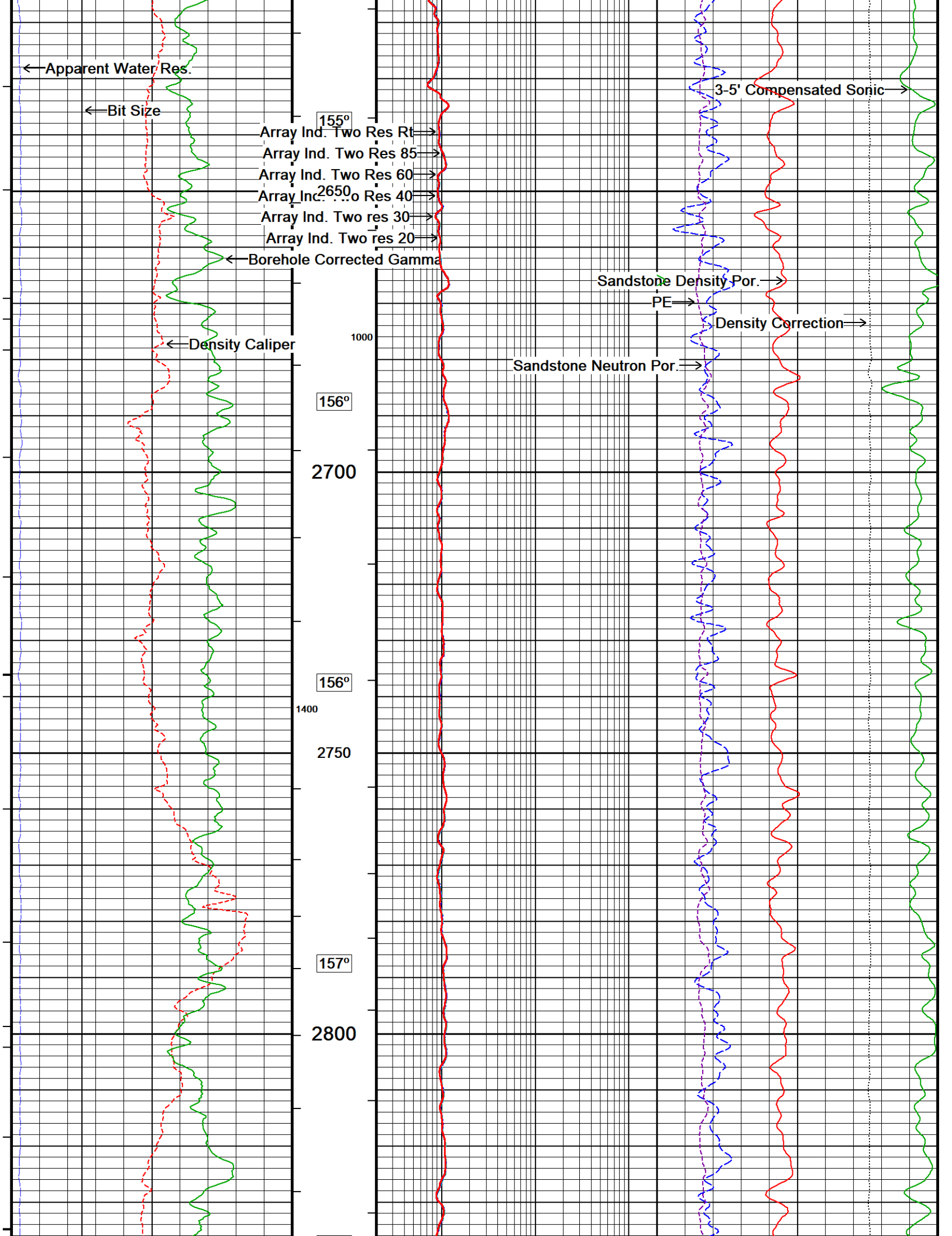

2200
139°
1550
139°
1600
140°
1650
1500
2100
141°
1700

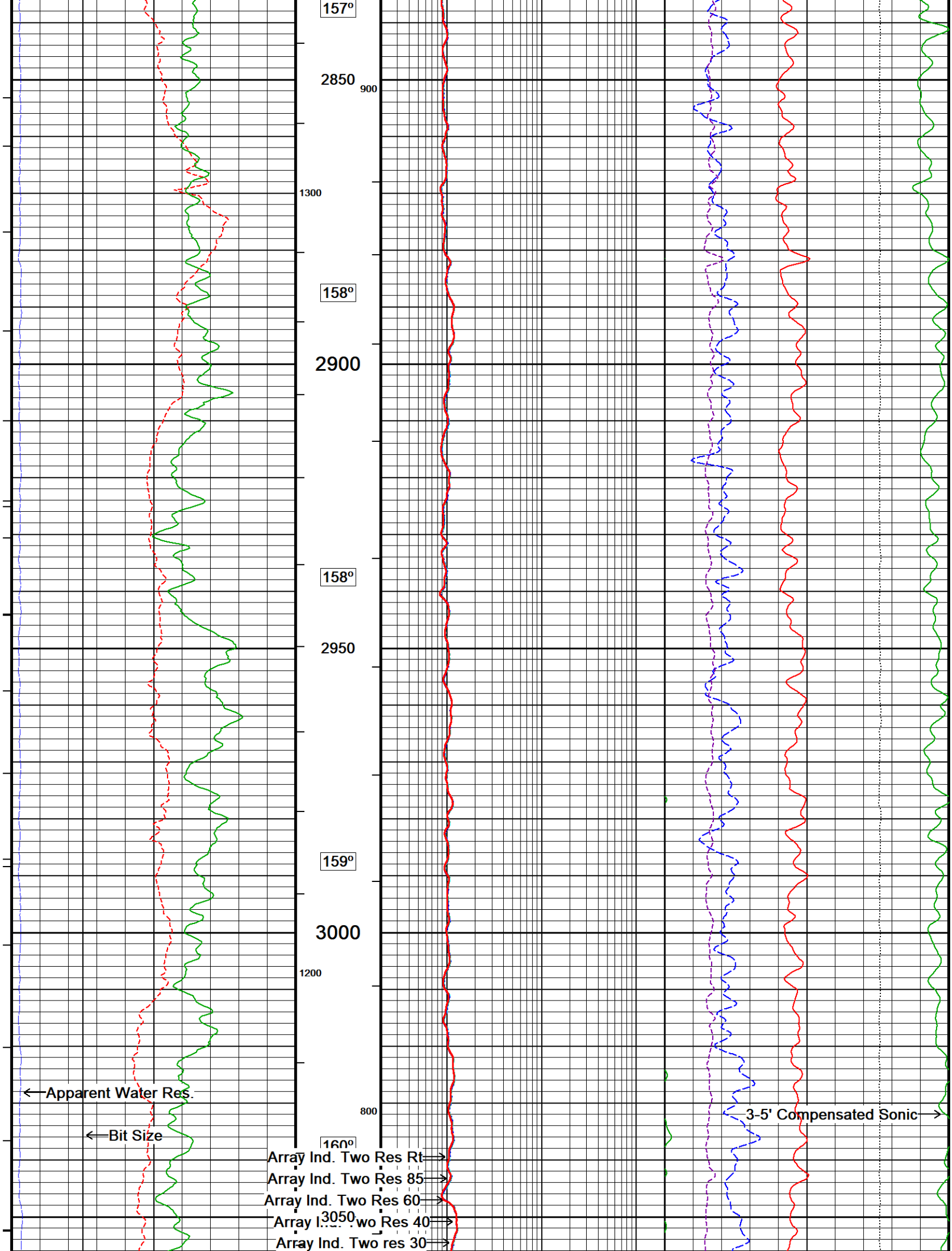

142°
1750
143°
1800
Apparent Water Res.
2000
Bit Size
144°
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
1850
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
1400
Density Caliper
144°
1900
145°
1950
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.

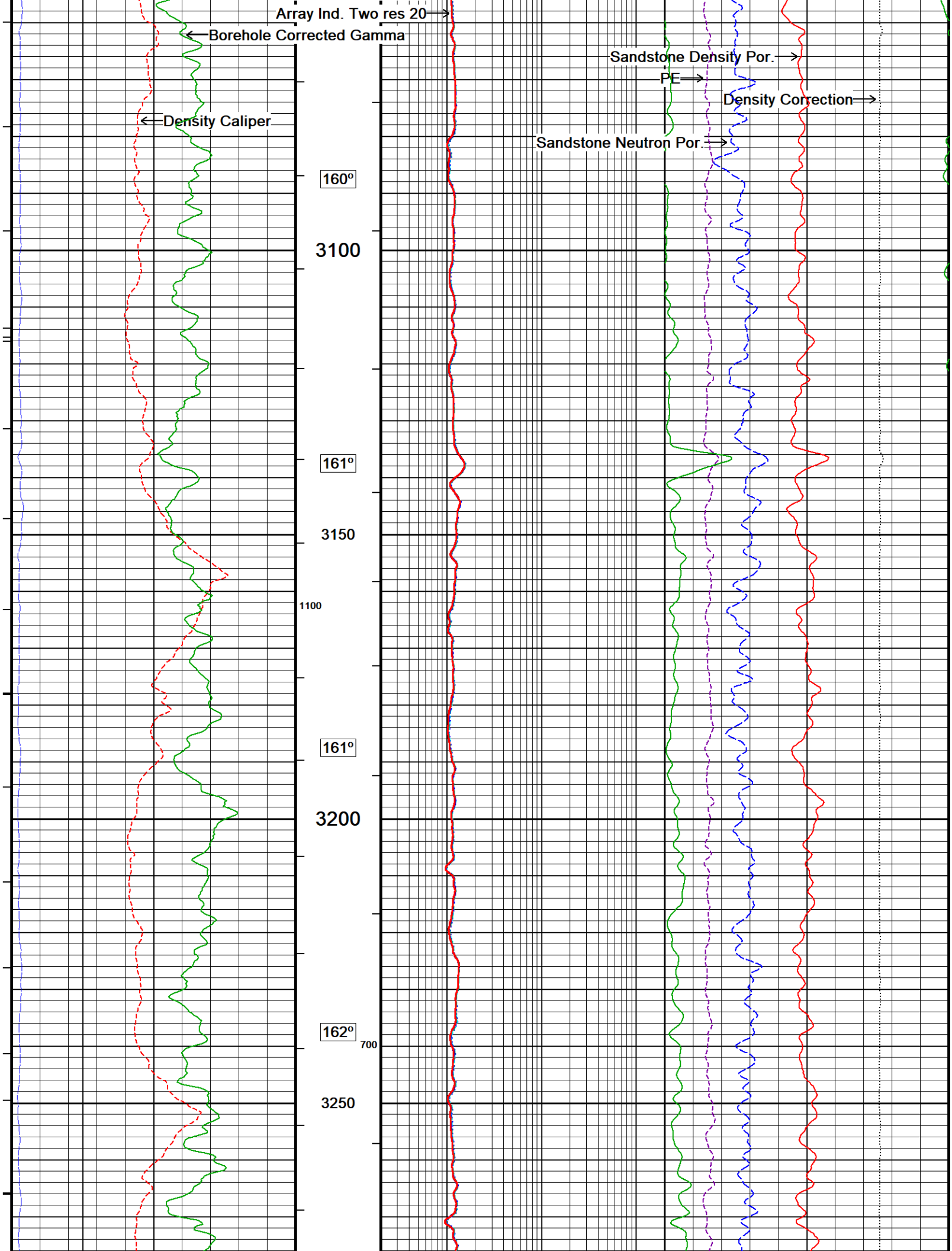

146°
1900
2000
146°
2050
147°
1300
2100
148°
1800
2150

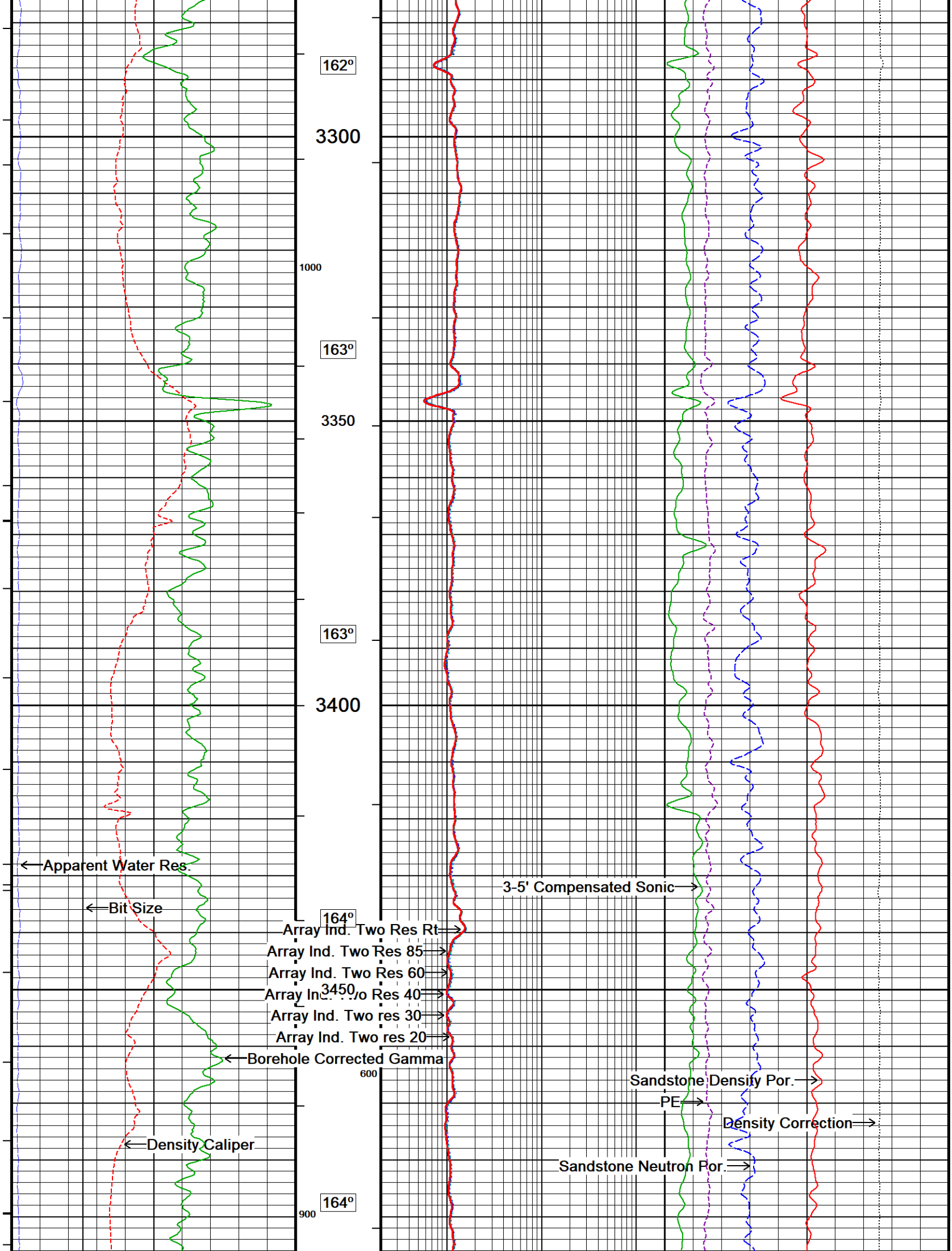

149°
2200
Apparent Water Res.
Bit Size
150°
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
2250
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
1200
150°
1700
2300
151°
2350
152°
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.

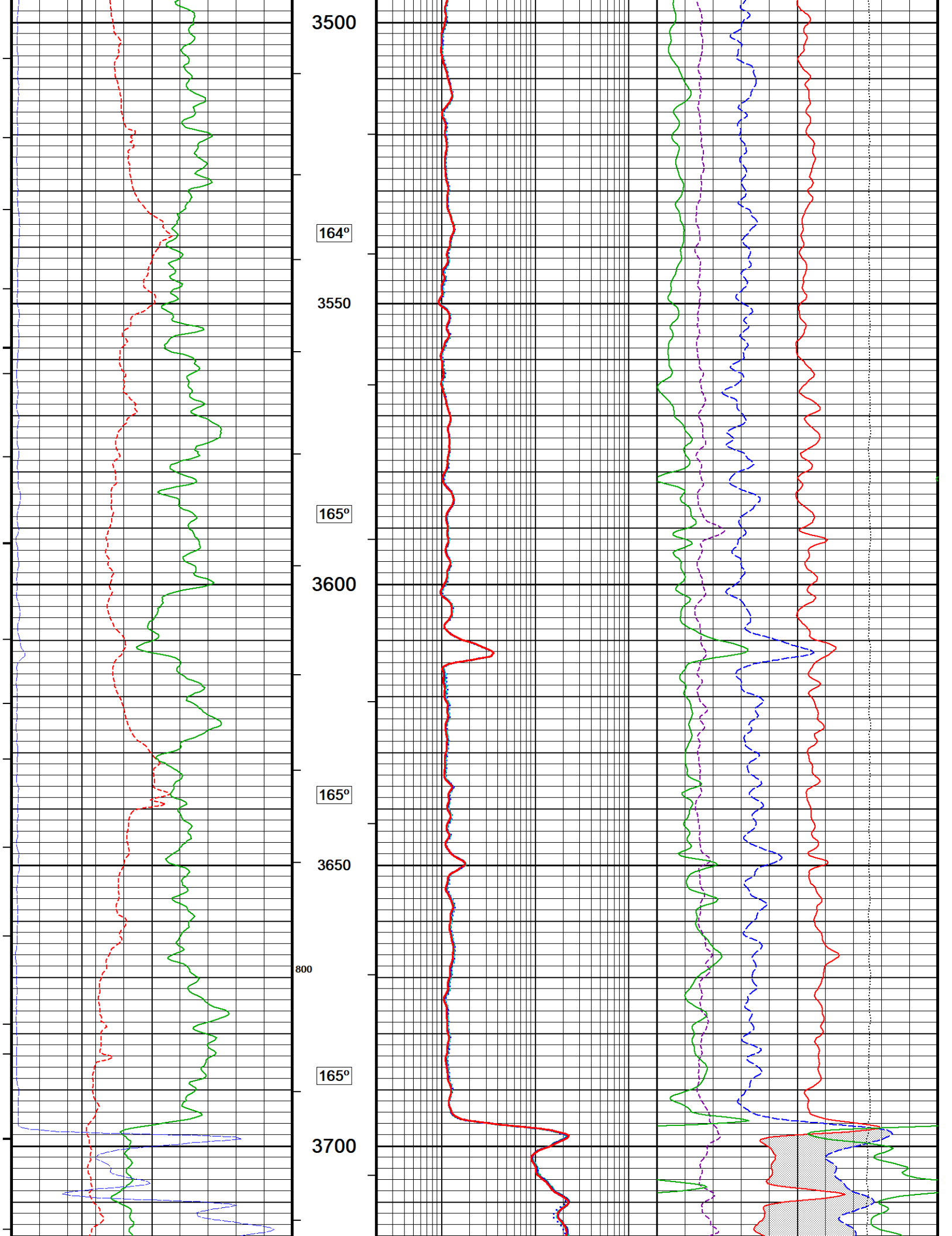

2400
152°
1600
2450
1100
153°
2500
154°
2550
154°
1500
2600

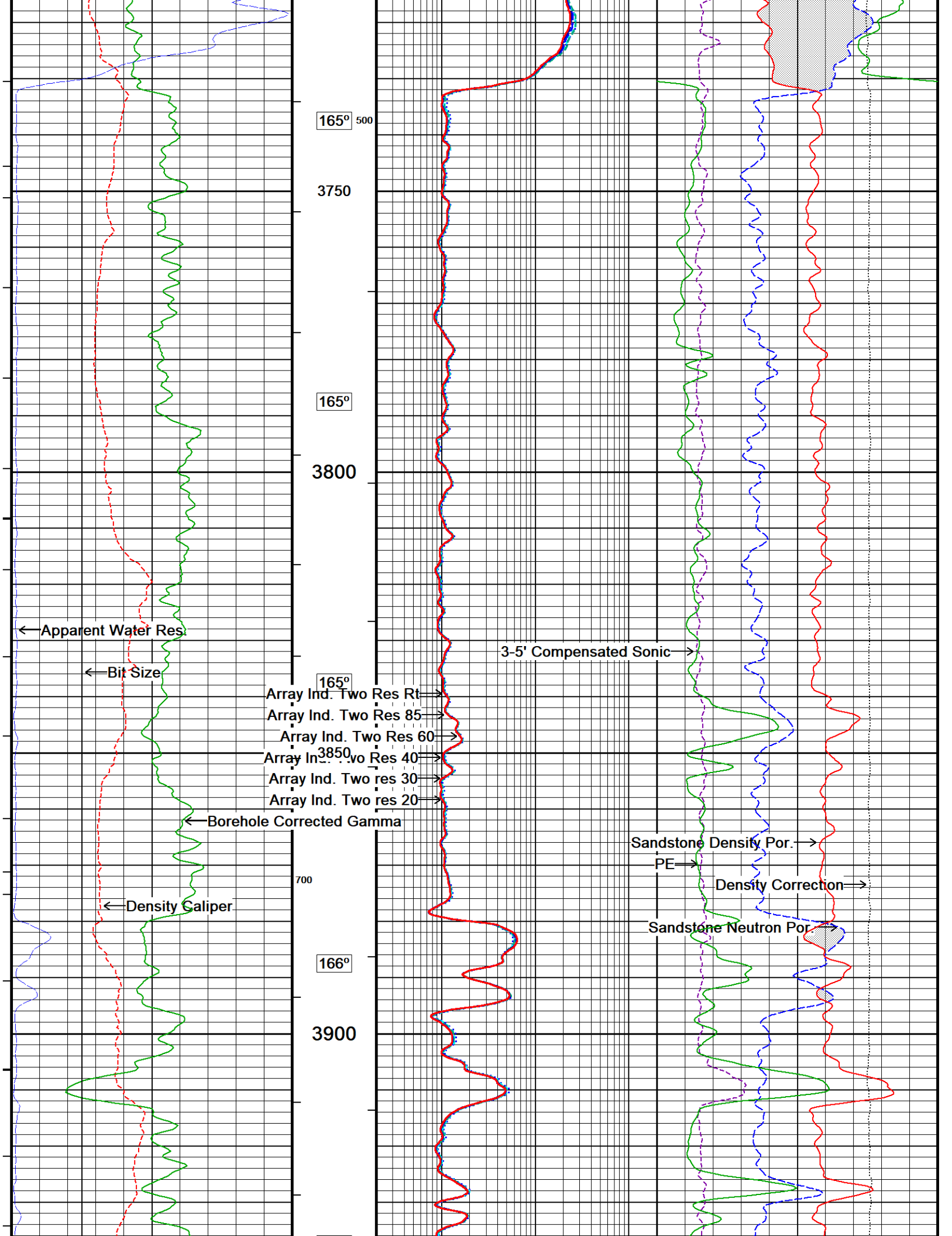

Apparent Water Res.
Bit Size
155°
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
2650
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
1000
156°
2700
156°
1400
2750
157°
2800
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.

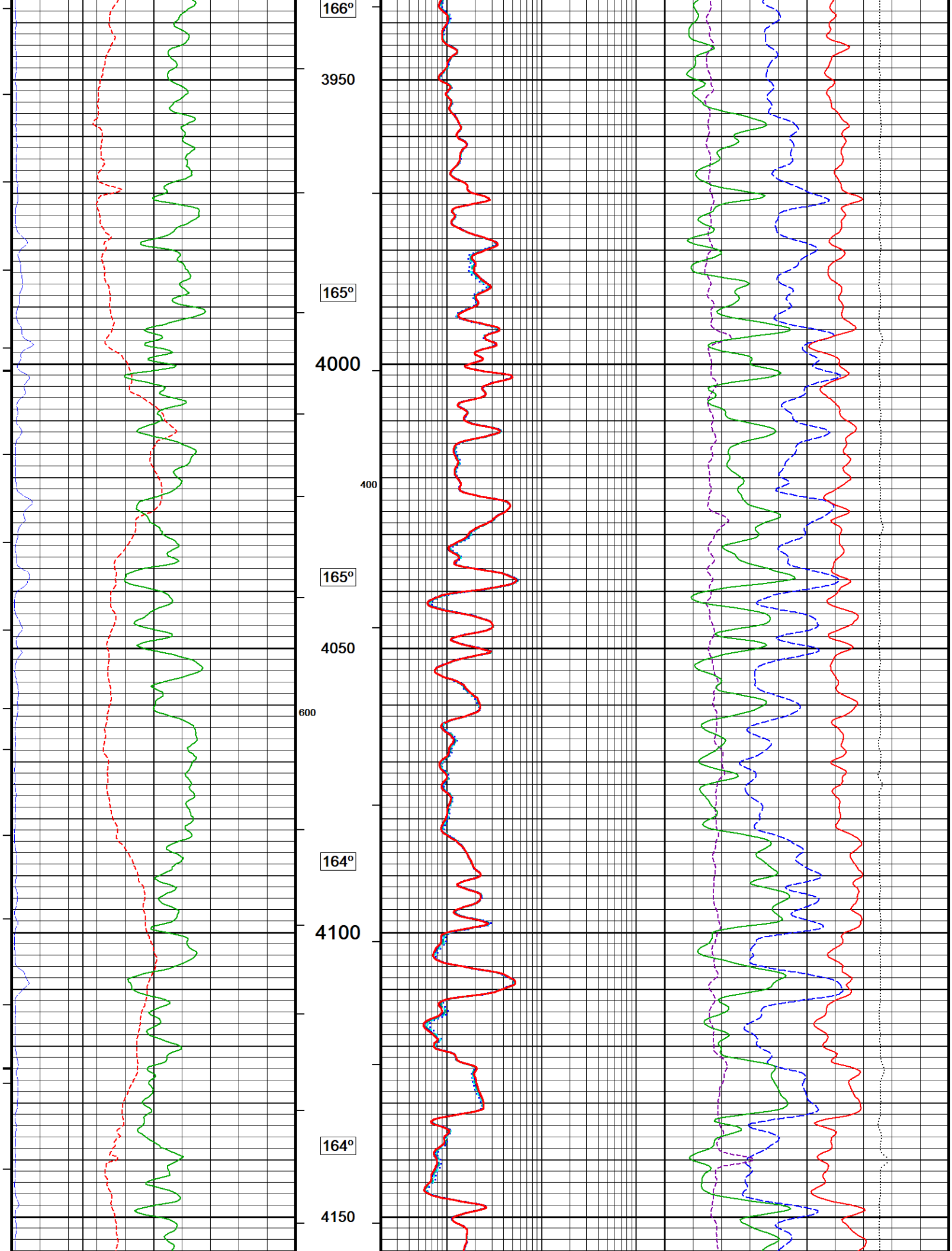

157°
2850
900
1300
158°
2900
158°
2950
159°
3000
1200
800
160°
3050
←Apparent Water Res.
←Bit Size
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two res 30→
3-5' Compensated Sonic→

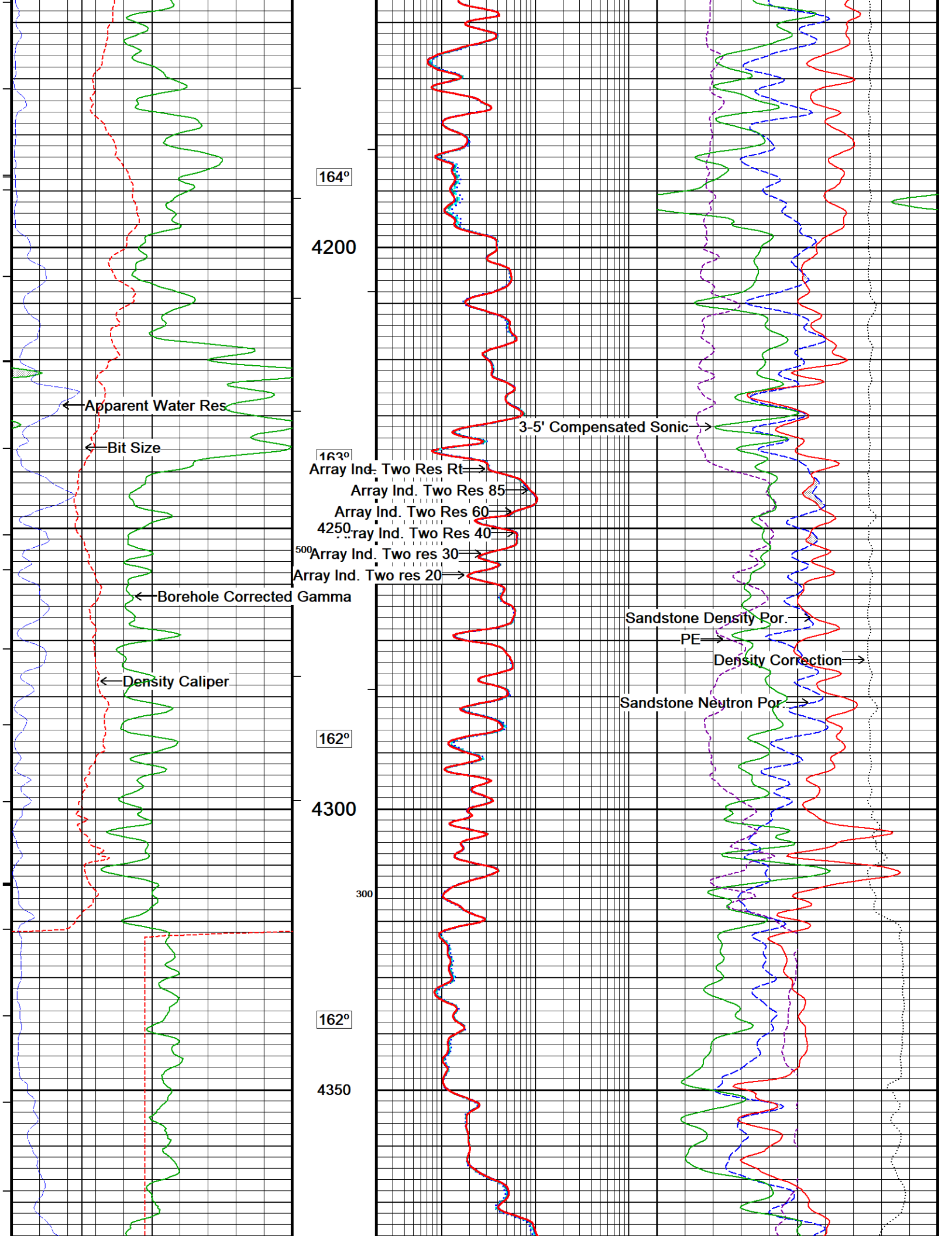

Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.
160°
3100
161°
3150
1100
161°
3200
162°
700
3250

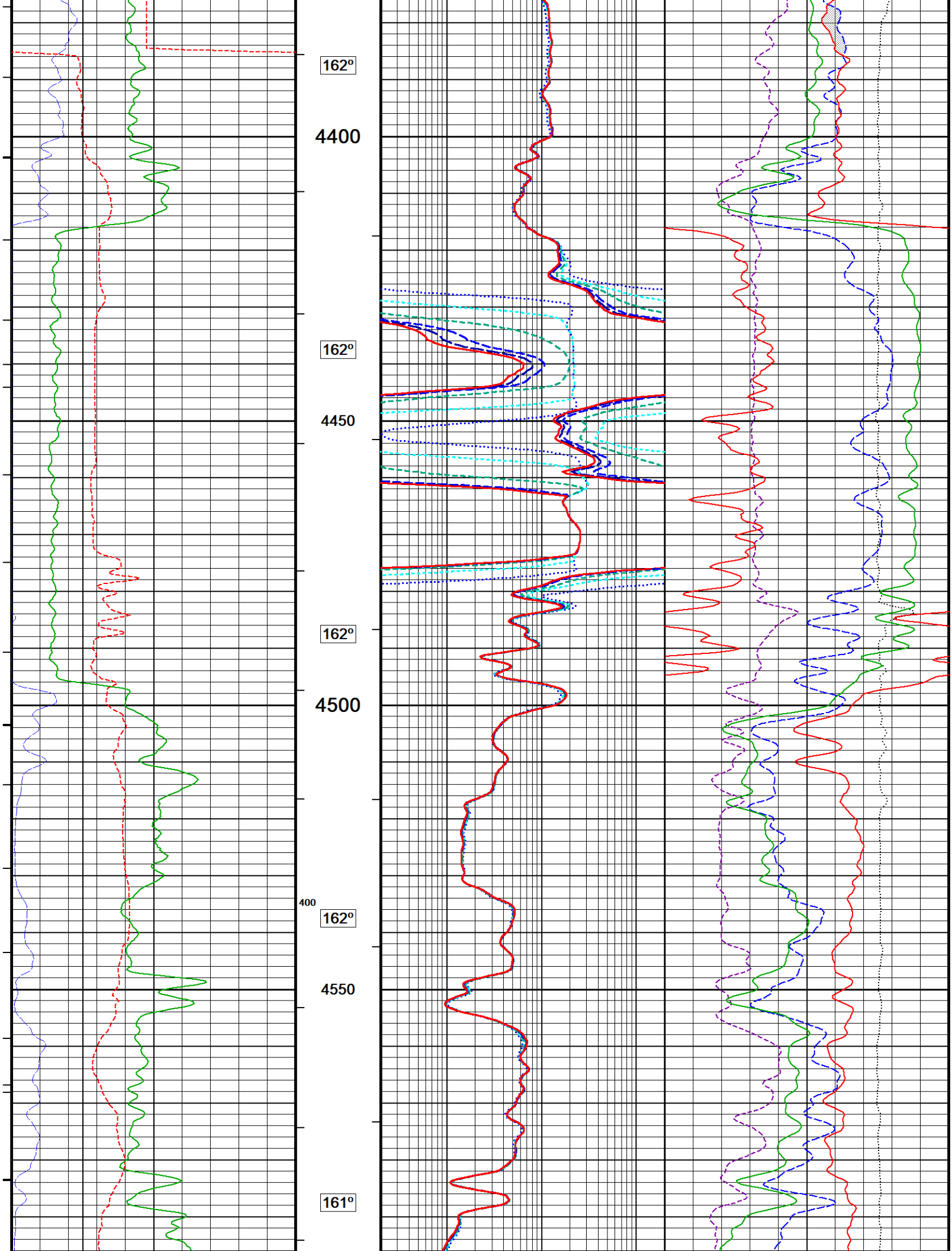

162°
3300
1000
163°
3350
163°
3400
164°
3450
600
900
164°
←Apparent Water Res.
←Bit Size
←Density Caliper
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two res 30→
Array Ind. Two res 20→
←Borehole Corrected Gamma
3-5' Compensated Sonic→
Sandstone Density Por.→
PE→
Density Correction→
Sandstone Neutron Por.→

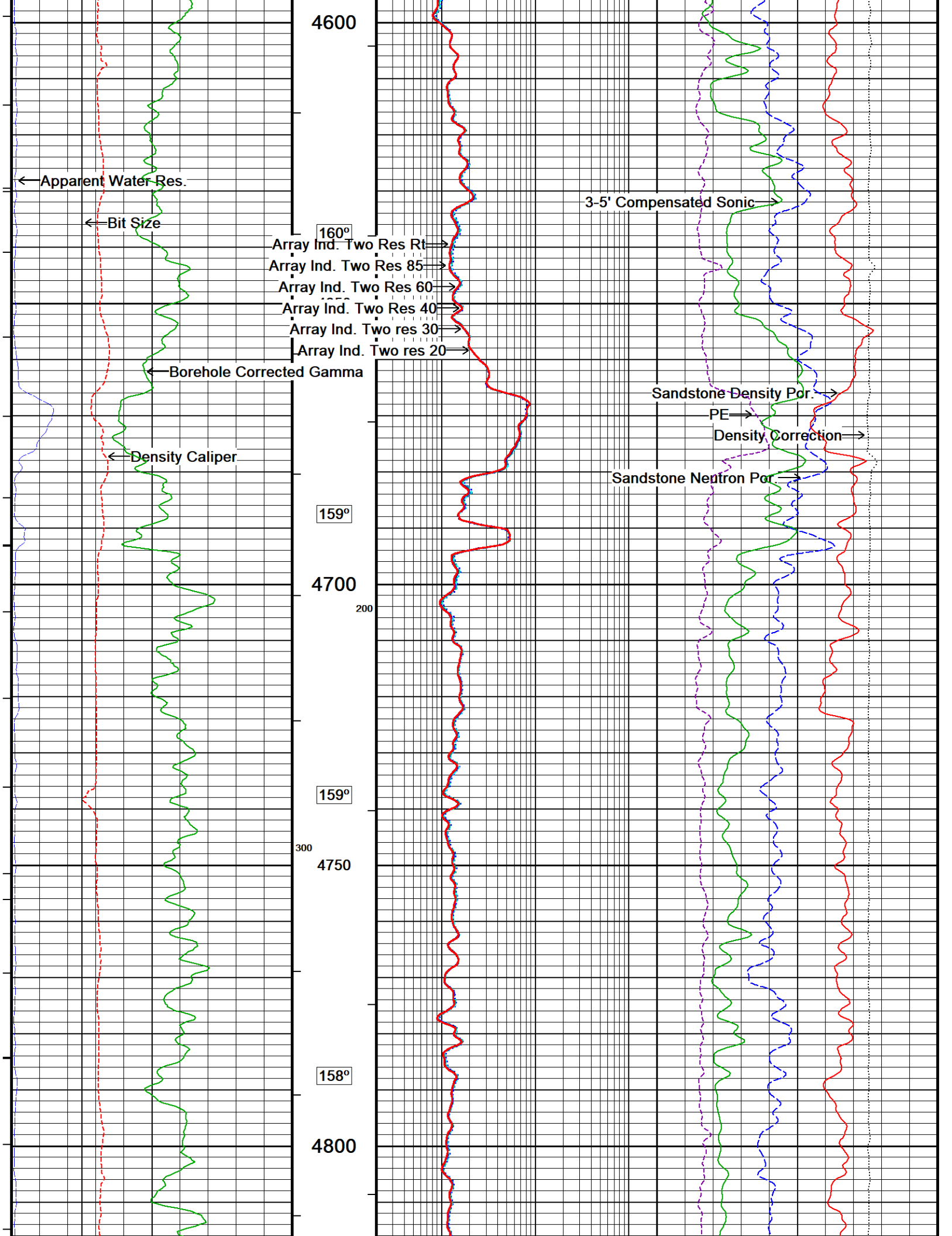

3500
164°
3550
165°
3600
165°
3650
800
165°
3700

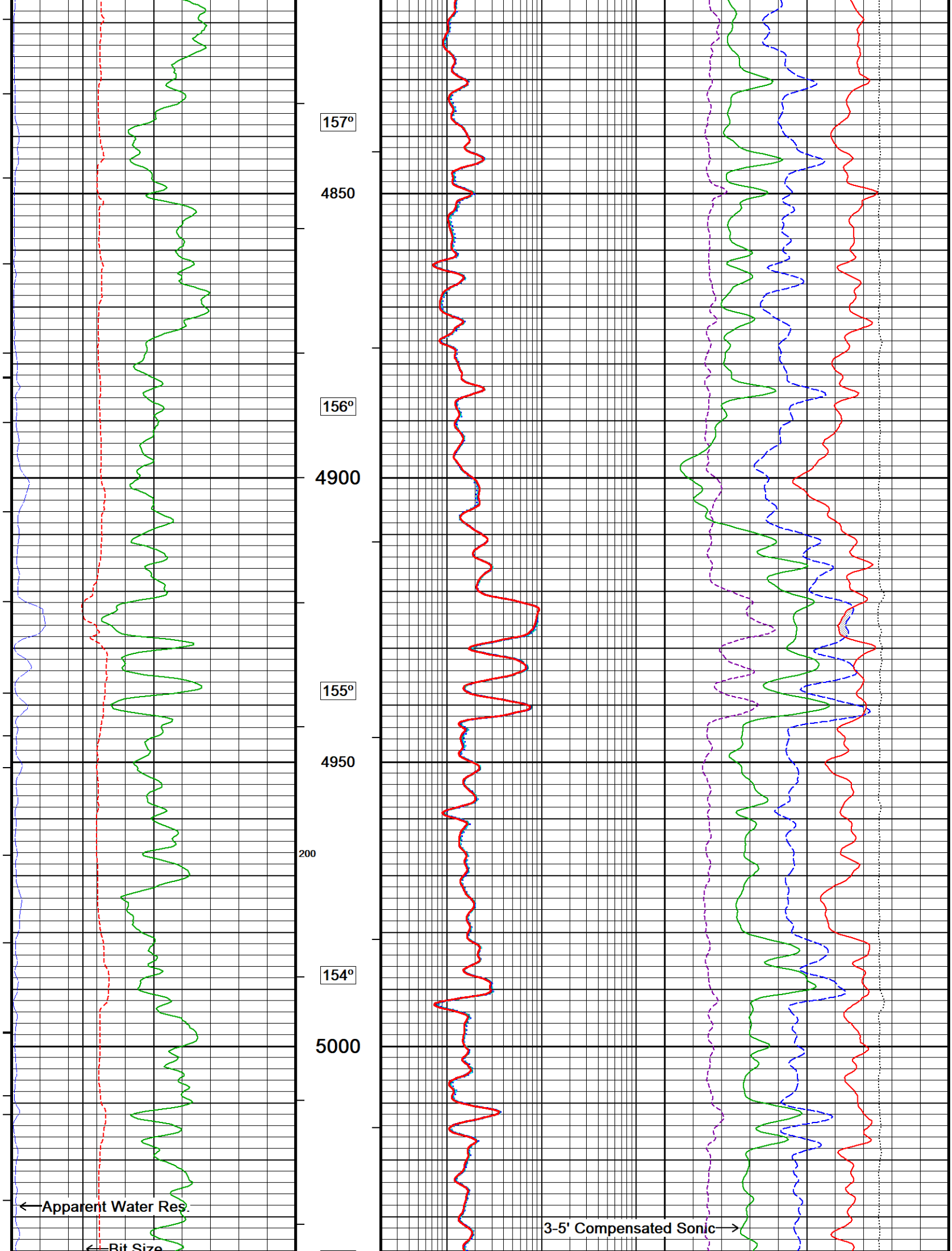

165°
500
3750
165°
3800
←Apparent Water Res.
←Bit Size
165°
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
3850
Array Ind. Two Res 40→
Array Ind. Two res 30→
Array Ind. Two res 20→
←Borehole Corrected Gamma
3-5' Compensated Sonic→
Sandstone Density Por.→
PE→
700
Density Correction→
←Density Caliper
Sandstone Neutron Por.→
166°
3900

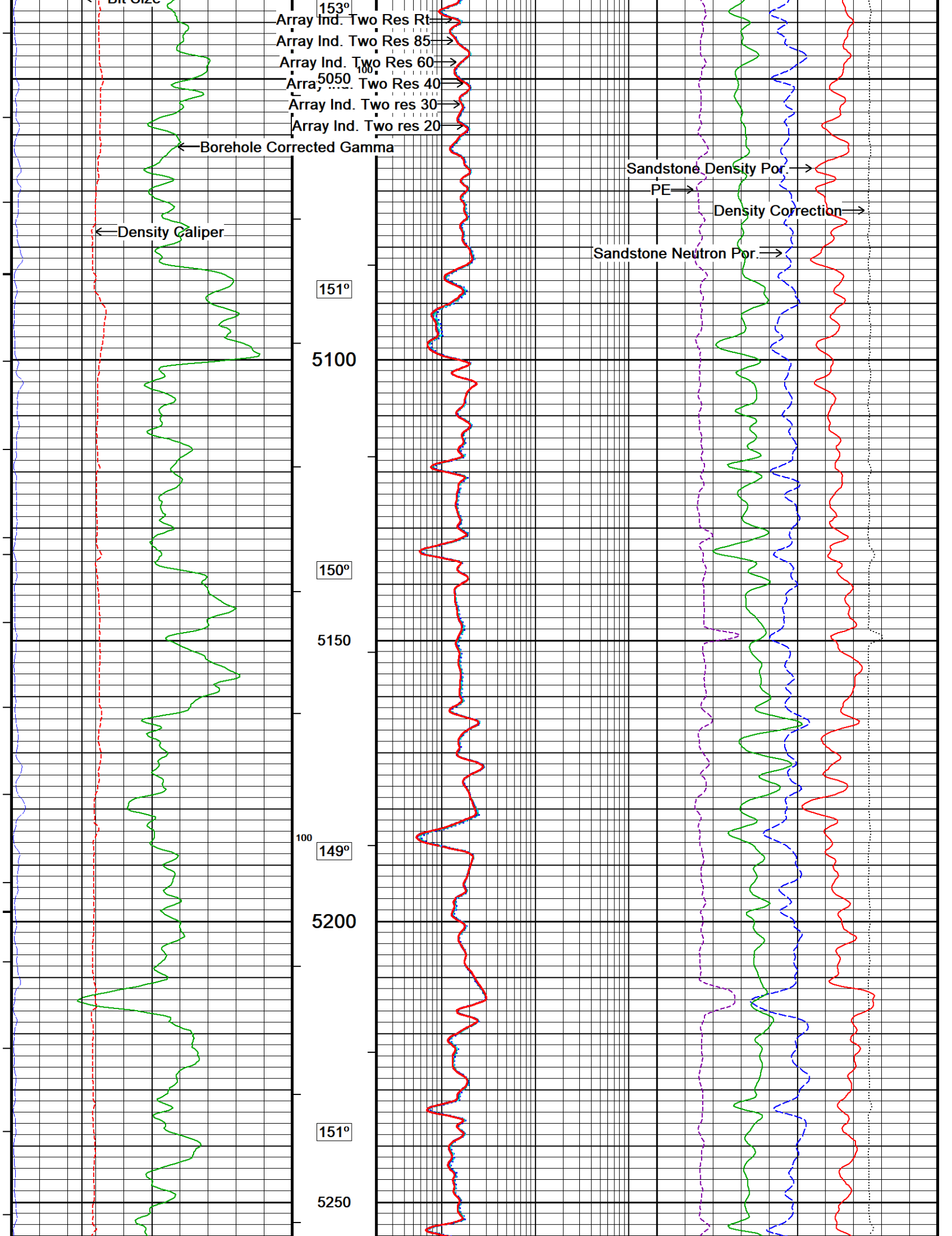

166°
3950
165°
4000
400
165°
4050
600
164°
4100
164°
4150

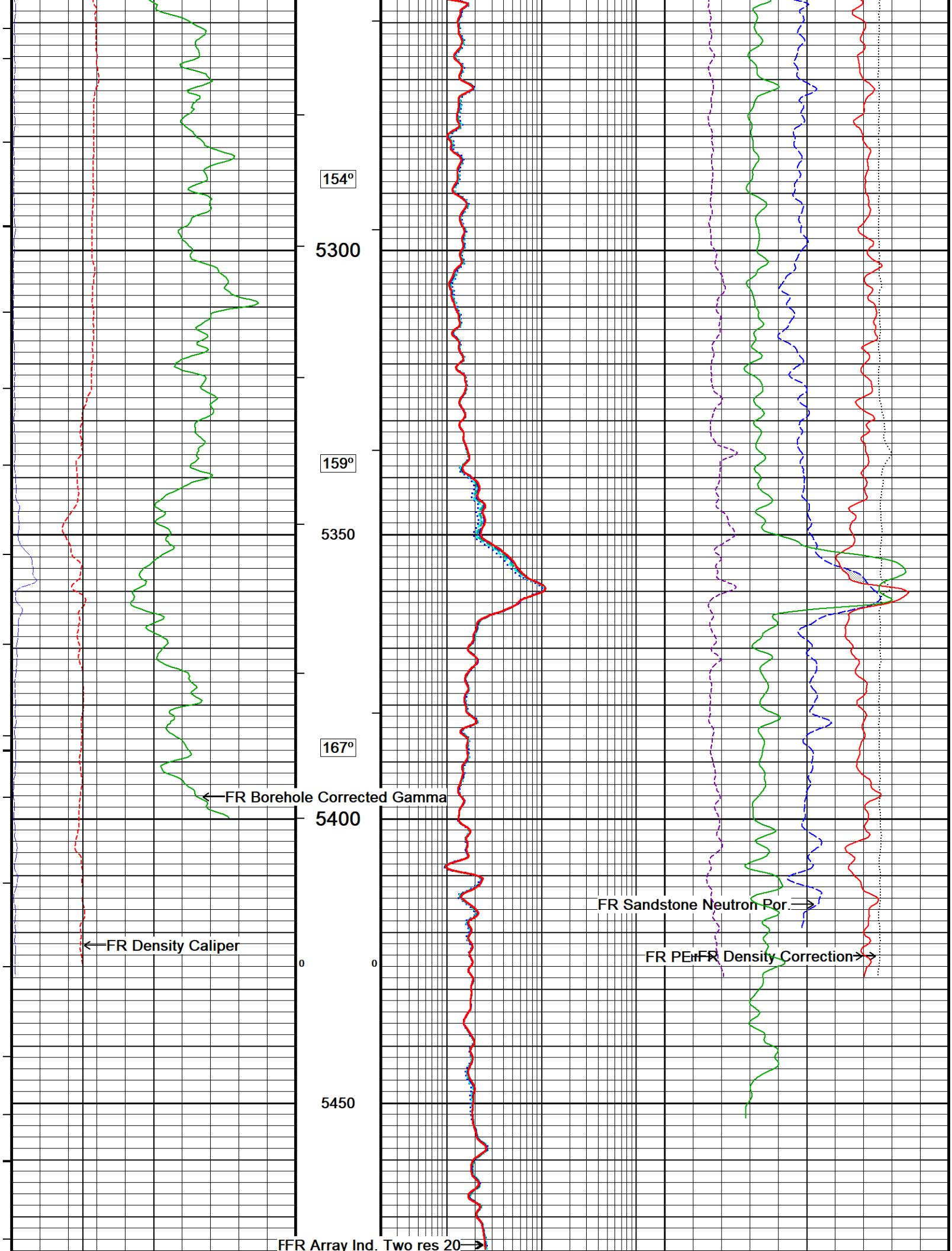

164°
4200
Apparent Water Res
Bit Size
163°
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
4250
Array Ind. Two Res 40
500
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.
162°
4300
300
162°
4350

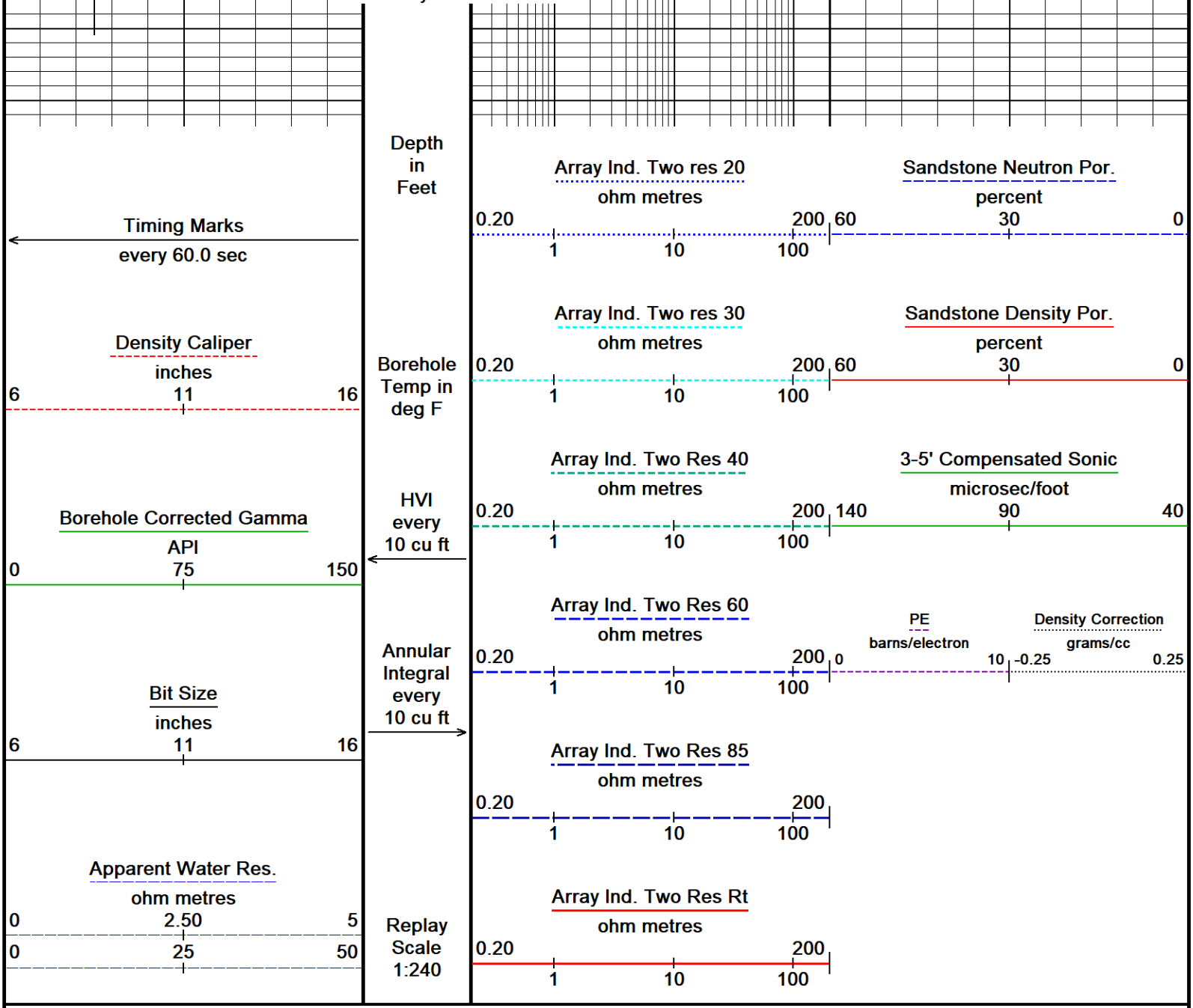

162º
4400
162º
4450
162º
4500
400
162º
4550
161º


4600
Apparent Water Res.
Bit Size
160°
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Density Caliper
159°
4700
200
159°
300
4750
158°
4800
3-5' Compensated Sonic
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.


157°
4850
156°
4900
155°
4950
200
154°
5000
←Apparent Water Res.
←Bit Size
3-5' Compensated Sonic→


Bit Size
153°
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
100
5050
Array Ind. Two Res 40
Array Ind. Two res 30
Array Ind. Two res 20
Borehole Corrected Gamma
Sandstone Density Por.
PE
Density Correction
Density Caliper
Sandstone Neutron Por.
151°
5100
150°
5150
100
149°
5200
151°
5250


154°
5300
159°
5350
167°
FR Borehole Corrected Gamma
5400
FR Density Caliper
0
0
FR Sandstone Neutron Por.
FR PE
FR Density Correction
5450
FFR Array Ind. Two res 20



Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 11-NOV-2022 05:12
Filename: C:\LOGS\Snake River\Barlow 3-14\MAIN PASS.dta
Recorded on 11-NOV-2022 03:27
System Versions: Logged with 22.01.1627 Processed with 22.01.1627 Plotted with 22.01.1627

5 INCH MAIN PASS

BEFORE SURVEY CALIBRATION

C:\LOGS\Snake River\Barlow 3-14\MAIN PASS.dta

General Constants All 000

Last Edited on 10-NOV-2022,17:41

General Parameters		
Mud Resistivity	2.680	ohm-metres
Mud Resistivity Temperature	75.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

Porosity used	Base Density Porosity
Resistivity used	Array Ind. Two Res Rt
RWA Constant A	0.620
RWA Constant M	2.150
SW/APOR Tool Source	0.000

Gamma Calibration MGS-D.A 184

Field Calibration on 07-NOV-2022 10:01

	Measured	Calibrated (API)
Background	135	91
Calibrator (Gross)	902	610
Calibrator (Net)	767	519

Gamma Calibration Tolerances MGS-D.A 184

		1.40	1.475	1.55	
Ratio	1.479				Counts/API

Gamma Constants MGS-D.A 184

Last Edited on 11-NOV-2022,04:26

Gamma Calibrator Number	GRCC119	
GRC-M Calibrator Jig in Use?	NO	
Inactive Background Jig in Use?	NO	
Mud Density	1.31	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Eccentred	
Potassium Equivalence	Chloride	
K Mud Concentration	0.00	%

High Resolution Temperature Calibration MGS-D.A 184

Field Calibration on 03-AUG-2022 11:17

	Measured	Calibrated(Deg F)
Lower	32.00	32.00
Upper	212.00	212.00

High Resolution Temperature Constants MGS-D.A 184

Last Edited on 03-AUG-2022 11:16

Pre-filter Length	11

Neutron Calibration MDN-C.A 533

Base Calibration on 05-NOV-2022 14:46
Field Check on 07-NOV-2022 09:36

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2884	89	3714	110
Ratio	32.585		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	2164	3228
Ratio	0.671	

Field Check

	Calibrated (cps)	
	2116	3147
Ratio	0.672	

Neutron Calibration Tolerances MDN-C.A 533

		-5%	33	+5%
Ratio	32.585			

		0.65	0.7	0.75
Base Check	0.671			

		0.651	0.671	0.691
Field Check	0.672			

Neutron Constants MDN-C.A 533

Last Edited on 11-NOV-2022,04:26

Neutron Source Id	P44385B	
Neutron Jig Number	NJ5735	
Air Hole Processing	Modified Ratio	
Caliper Source for Processing	Bit Size	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu

Sandstone Sigma	7.00	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Applied	

Sonic Constants MSS-D.A 401

Last Edited on 10-NOV-2022,17:44

Maximum Boundary Contrast	70.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	micro-sec/ft
Sandstone Transit Time	55.50	micro-sec/ft
Dolomite Transit Time	43.50	micro-sec/ft
Sonic used for Porosities	3-5' Compensated Sonic	
Correction for Sonde Skew	Applied	
Cycle Stretch Algorithm	Applied	
MN3FT	N/A	micro-sec
MX3FT	N/A	micro-sec
Hunt-Raymer Constant	83.12	micro-sec/ft

Sonde Mode	Full Waveform
Hole Type	Open Hole

Sonde Parameters

	Measured	Calibrated
Offset		0.0000
Free Pipe	0.0000	

Peak Amplitude Source

Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'	N/A	N/A	N/A	N/A	N/A
4'	N/A	N/A	N/A	N/A	N/A
5'	N/A	N/A	N/A	N/A	N/A
6'	N/A	N/A	N/A	N/A	N/A

Processed Fixed Gate Parameters

Waveform Used For Processing 3 foot

Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (ft)
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	

Full Waveform Parameters

Use 3' Waveform to derive TR	No	
Use 4' Waveform to derive TR	No	
Use 5' Waveform to derive TR	No	
Use 6' Waveform to derive TR	No	
3' Waveform Discriminator Level	0.30	mV
4' Waveform Discriminator Level	0.30	mV
5' Waveform Discriminator Level	0.15	mV
6' Waveform Discriminator Level	0.15	mV
Waveform Discriminator Filter	Not Applied	
Semblance Window Width	150.00	micro-sec
Semblance Processing Enabled	Yes	
Tracking Boxes Enabled In Processing	Yes	

Induction Calibration MAI-B.J 299

Factory Loop Calibration 19-FEB-2018 09:42
Field Check on 07-NOV-2022 10:05

Factory Loop Calibration

High Conductivity Reference Resistor	3.3	ohm
Low Conductivity Reference Resistor	333.3	ohm

Low Conductivity Reference Resistor 555.5 ohm

Array	Measured Signal (unitless) Low	High	Reference Conductivity (mmho/m) Low	High	Calibration Gain	Offset
1 (near)	16.9	474.4	9.3	966.2	2.092	-26.1
2	6.0	377.0	7.6	821.4	2.194	-5.7
3	4.3	258.7	5.2	566.0	2.204	-4.2
4 (far)	1.4	135.1	2.6	279.2	2.068	-0.2

Array Temperature 72.0 Deg F

Tool Checks 25-OCT-2022 16:07

Array	Factory Reference (mmho/m) Low	High	Before Survey (mmho/m) Low	High
1 (near)	12.9	3831.7	12.9	3830.7
2	30.6	3580.3	30.6	3578.7
3	26.9	3068.5	26.9	3067.1
4 (far)	20.4	2039.4	20.4	2038.5
Array Temperature		89.7		44.6 Deg F

Tool Zero Corrections

Array		
1 (near)	0.0	mmho/m
2	0.0	mmho/m
3	0.0	mmho/m
4 (far)	0.0	mmho/m

Induction Check Tolerances MAI-B.J 299

Low Array 1	12.9	11.4 12.9 14.4	mmho/m	High Array 1	3830.7	-0.5% 3831.7 +0.5% mmho/m
Low Array 2	30.6	29.1 30.6 32.1	mmho/m	High Array 2	3578.7	-0.5% 3580.3 +0.5% mmho/m
Low Array 3	26.9	25.4 26.9 28.4	mmho/m	High Array 3	3067.1	-0.5% 3068.5 +0.5% mmho/m
Low Array 4	20.4	18.9 20.4 21.9	mmho/m	High Array 4	2038.5	-0.5% 2039.4 +0.5% mmho/m

Induction Constants MAI-B.J 299

Last Edited on 11-NOV-2022,04:27

Induction Model	RtAP	
Borehole Correction Constants		
Tool Centred	No	
Hole Size Source	Bit Size	
Hole Size Constant Value	N/A	inches
Stand-off Type	Pineapple	
Stand-off	0.49	inches
Number of Fins on Stand-off	5.0000	
Stand-off Fin Angle	72.00	degrees
Stand-off Fin Width	1.3878	inches
Rm Source	Global Value: Temperature Corrected	
Temp. for Rm Corr.	MGS External Temperature	
Borehole Correction Method	Default	
Squasher Start	0.0020	mhos/metre
Squasher Offset	N/A	mhos/metre

Borehole Normalisation

DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000

Calibration Site Corrections

Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre

Symmetrised Receiver Gains

Receiver 1	1.00	
Receiver 2	1.00	
Receiver 3	1.00	
Receiver 4	1.00	
Apparent Porosity and Water Saturation Constants		
Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	1.00	v/v
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

Caliper Calibration MPD-D.A 513

Base Calibration on 05-NOV-2022 16:25
Field Calibration on 07-NOV-2022 09:38

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17281	3.99
2	25452	5.96
3	34140	7.96
4	42314	9.85
5	51698	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.87	7.96

Caliper Calibration Tolerances MPD-D.A 513

Long Arm Field Cal. 7.87 in

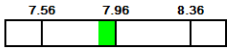


Photo Density Calibration MPD-D.A 513

Base Calibration on 05-NOV-2022 17:20
Field Check on 07-NOV-2022 09:46

Density Calibration

Base Calibration	Measured Near	Measured Far	Calibrated (sdu) Near	Calibrated (sdu) Far
Background	1078	1298		
Reference 1	42182	19825	59898	31131
Reference 2	17586	2193	25116	2544

Field Check at Base

1078.0	1297.9

Field Check

1086.7	1301.3

PE Calibration

Base Calibration	WS	Measured WH	Ratio	Calibrated Ratio
Background	204	966		
Reference 1	18502	42019	0.446	0.369
Reference 2	5367	17469	0.313	0.273

Field Check at Base

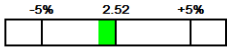
204.0	966.3

Field Check

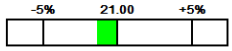
204.6	974.0

Photo Density Calibration Tolerances MPD-D.A 513

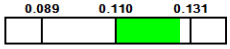
Near Density Ratio 2.49



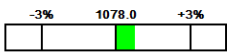
Far Density Ratio 20.70



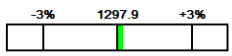
PE Calibration 0.128



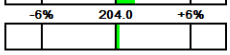
Near Den. Field Check 1086.7



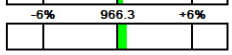
Far Den. Field Check 1301.3



PE WS Field Check 204.6



PE WH Field Check 974.0



Density Constants MPD-D.A 513 — Last Edited on 11-NOV-2022,04:27

Density Source Id	P44268B	
Nylon Calibrator Number	DNCE666	
Aluminium Calibrator Number	DACD535	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Bit Size	
PE Correction to Density	Not Applied	
Mud Density	1.31	gm/cc
Mud Density Type	Barite	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	
Precision Enhanced Density Processing	Not Applied	
Density Detector Type	Compensated Density	

Matrix Density (gm/cc)	Depth (ft)
2.65	
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	

DOWNHOLE EQUIPMENT

C:\LOGS\Snake River\Barlow 3-14\MAIN PASS.dta

Shuttle Running Tool 3.5"
SRT-A.A 59 LG: 5.90 ft WT: 37.5 lb OD: 2.520 in

Compact Knuckle Joint
SKJ-E.B 456 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Linker
MLK-E.A 107 LG: 14.23 ft WT: 99.2 lb OD: 2.240 in

Compact Linker
MLK-E.A 101 LG: 14.23 ft WT: 99.2 lb OD: 2.240 in

Compact Knuckle Joint
SKJ-E.A 349 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

200v Compact Battery Sub
MBS-G.A 117 LG: 17.06 ft WT: 123.5 lb OD: 2.240 in

Compact Memory Sub F.A
MMS-F.A 262 LG: 5.20 ft WT: 37.5 lb OD: 2.244 in

Compact Swivel Head Adaptor
SHA-J.B 726 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

Compact Tool Isolator sub.
MTI-C.A 150 LG: 1.54 ft WT: 13.2 lb OD: 2.244 in

Compact Short Gamma
MGS-D.A 184 LG: 3.41 ft WT: 24.3 lb OD: 2.244 in

Compact Collar Locator
MCL-C.A 144 LG: 3.17 ft WT: 26.5 lb OD: 2.244 in

Compact Knuckle Joint
SKJ-E.B 729 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Swivel Head Adaptor
SHA-J.B 705 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

Compact Inline Bowspring sub
MIS-D.B 849 LG: 5.70 ft WT: 33.1 lb OD: 2.240 in

Compact Neutron
MDN-C.A 533 LG: 5.04 ft WT: 50.7 lb OD: 2.244 in

Compact Density/Caliper
MPD-D.A 513 LG: 9.59 ft WT: 90.4 lb OD: 2.244 in

Compact Vee Arm Caliper
MVC-A.A 148 LG: 8.06 ft WT: 61.7 lb OD: 2.244 in

Compact Knuckle Joint
SKJ-E.B 705 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Inline Bowspring sub
MIS-D.B 830 LG: 5.70 ft WT: 33.1 lb OD: 2.240 in

Compact Inline Standoff sub
MIS-E.B 774 LG: 2.14 ft WT: 15.4 lb OD: 2.244 in

Compact Sonic
MSS-D.A 401 LG: 12.52 ft WT: 72.8 lb OD: 2.244 in

Compact Inline Standoff sub
MIS-E.B 788 LG: 2.14 ft WT: 15.4 lb OD: 2.244 in

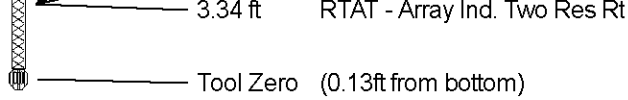
Compact Focussed Electric
MFE-C.A 426 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Inline Standoff sub
MIS-E.B 791 LG: 2.14 ft WT: 15.4 lb OD: 2.244 in

Compact Induction
MAI-B.J 299 LG: 10.81 ft WT: 48.5 lb OD: 2.240 in

Total Length: 147.88 ft Weight: 1086.9 lb

82.17 ft GRGM - MGS Gamma Ray
80.19 ft GSXT - MGS External Temperature
78.17 ft GCSL - MCL C. Collar Locator
63.30 ft NPRS - Sandstone Neutron Por.
56.06 ft AVOL - Annular Volume
56.06 ft HVOL - Hole Volume
56.06 ft CLDC - Density Caliper
54.13 ft DPRS - Sandstone Density Por.
54.13 ft DEN - Compensated Density
54.13 ft DCOR - Density Correction
54.07 ft PDPE - PE
46.65 ft VCAD - Vee Arm Caliper A
27.28 ft TR11 - 4' Transit Time
26.78 ft TR21 - 3' Transit Time
26.28 ft TR12 - 6' Transit Time
25.78 ft TR22 - 5' Transit Time
23.28 ft SPRS_W - Wyllie Sst Sonic Por.
23.28 ft DT35 - 3-5' Compensated Sonic
16.05 ft FEFC - Shallow FE (Phase Corr.)
3.34 ft R40T - Array Ind. Two Res 40
3.34 ft R30T - Array Ind. Two Res 30
3.34 ft R20T - Array Ind. Two Res 20
3.34 ft R60T - Array Ind. Two Res 60
3.34 ft R85T - Array Ind. Two Res 85



All measurements relative to tool zero.

COMPANY	SNAKE RIVER OIL AND GAS, LLC
WELL	BARLOW #3-14
FIELD	WILDCAT
PROVINCE/COUNTY	PAYETTE
COUNTRY/STATE	U.S.A. / IDAHO

Elevation Kelly Bushing	2176.50	feet	Last Reading	1135.00	feet
Elevation Drill Floor	2176.50	feet	First Reading	5475.50	feet
Elevation Ground Level	2164.00	feet	Depth Driller	5501.00	feet
			Depth Logger	5501.00	feet

Weatherford®

MEASURED DEPTH

COMPACT QUAD COMBO