Weatherford®

ARRAY INDUCTION LOG
GAMMA RAY LOG

COMPANY	ANADARKO PETROLEUM
WELL	BANE 27N2-9HZ
FIELD	WATTENBERG
PROVINCE/COUNTY	WELD
COUNTRY/STATE	USA/COLORADO
LOCATION	SHL: 620' FSL & 1440' FEL

SEC 9	TWP 1N	RGE 65W	Other Services
Latitude		40.060443	
Longitude		-104.664736	
API Number		0512341304	

Permanent Datum GL, Elevation 4966 feet
Log Measured From KB
Drilling Measured From KB @ 25 FT

Elevations:	feet
KB	4991.00
DF	4991.00
GL	4966.00

Date	20-JUN-2015				
Run Number	ONE				
Service Order	1746-122031571				
Depth Driller	6591.00	feet			
Depth Logger	6611.00	feet			
First Reading	6611.00	feet			
Last Reading	1595.00	feet			
Casing Driller	1595.00	feet			
Casing Logger	1595.00	feet			
Bit Size	8.500	inches			
Hole Fluid Type	OBM				
Density / Viscosity	9.50	lb/USg	61.00	sec/Qt	
PH / Fluid Loss	---		14.00	ml/30Min	
Sample Source	---				
Rm @ Measured Temp	---				
Rmf @ Measured Temp	---				
Rmc @ Measured Temp	---				
Source Rmf / Rmc	---		---		
Rm @ BHT	---				
Time Since Circulation	8 HRS				
Max Recorded Temp	200.00	deg F			
Equipment / Base	13173	CASPER			
Recorded By	MAXIM FILIMONOV				
Witnessed By	KALIB FORD				

BOREHOLE RECORD

Last Edited: 20-JUN-2015 18:56

Bit Size inches	Depth From feet	Depth To feet
8.500	1595.00	6591.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	1595.00	40.00

REMARKS

SOFTWARE: 15.01.3109

DEPTH CONTROL: CALIBRATED MEASURE WHEEL METHOD.

TOOLS: MAI, MFE, SKJ, MCG, SHA, MLK RUN IN COMBINATION.

HARDWARE: MAI: 2 x 0.5" STANDOFFS

ALL INTERVALS LOGGED AND SCALED PER CLIENT REQUEST FROM KOP DEPTH (6591 FT) TO SURFACE CASING SHOE.

BARITE ADDED TO MUD MAY AFFECT POROSITY MEASUREMENTS.

MAXIMUM DEVIATION ADVISED: APPROX 15 DEG.

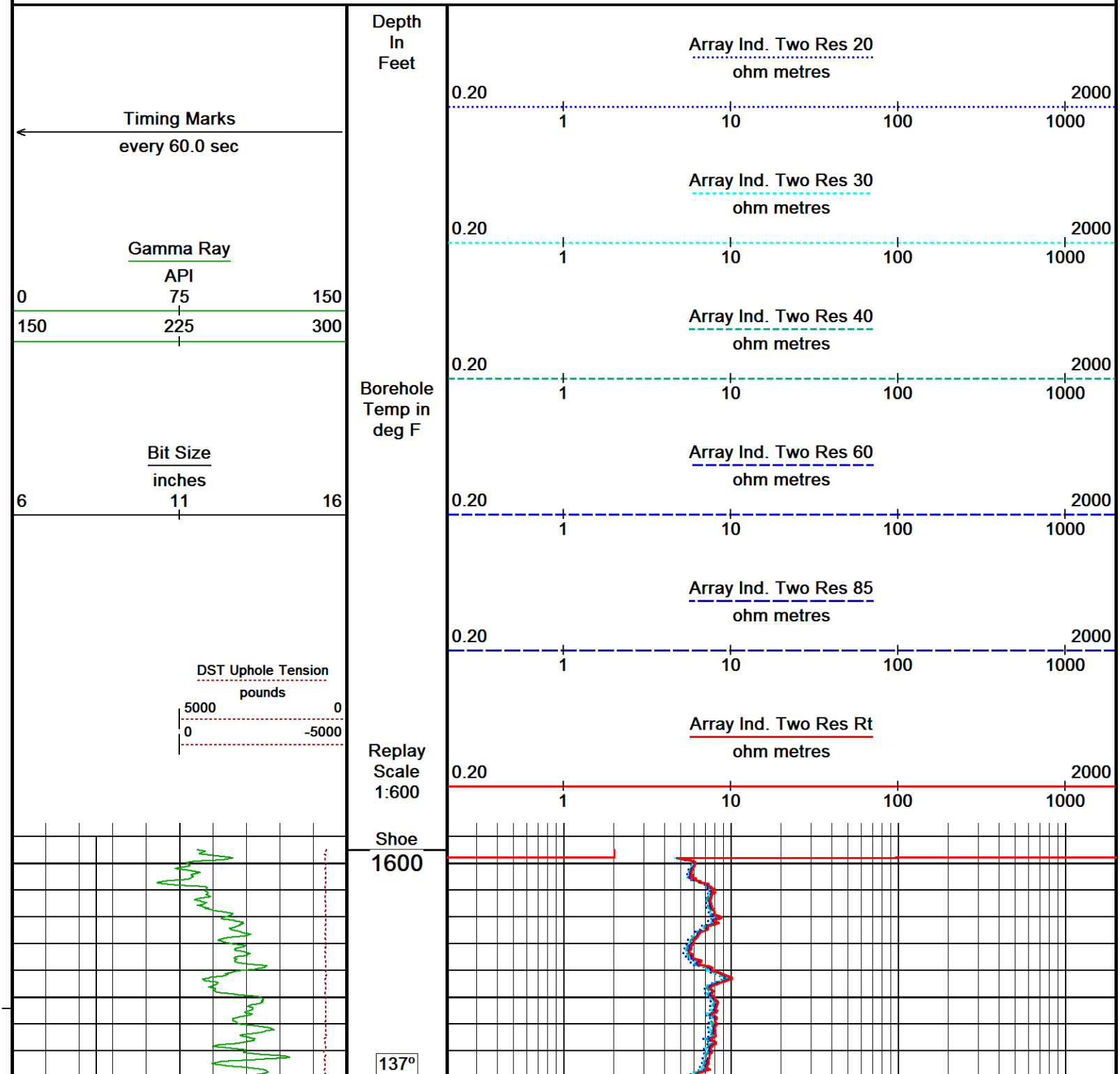
RIG: HP 307

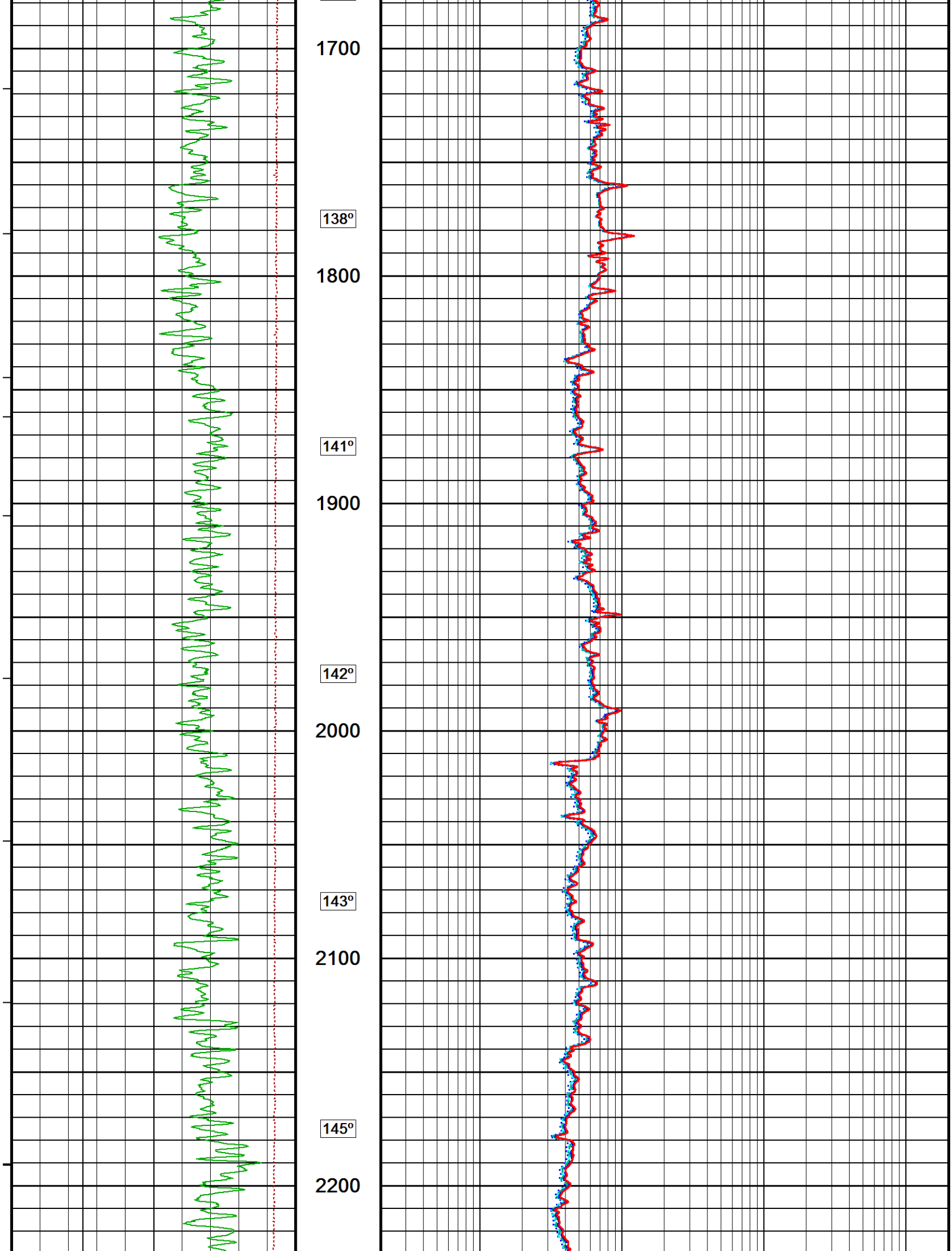
type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike 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.

2 INCH MAIN LOG

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\MAINPASS.dta
System Versions: Logged with 15.01.3109 Plotted with 15.01.3109

Plotted on 20-JUN-2015 23:53
Recorded on 20-JUN-2015 21:51

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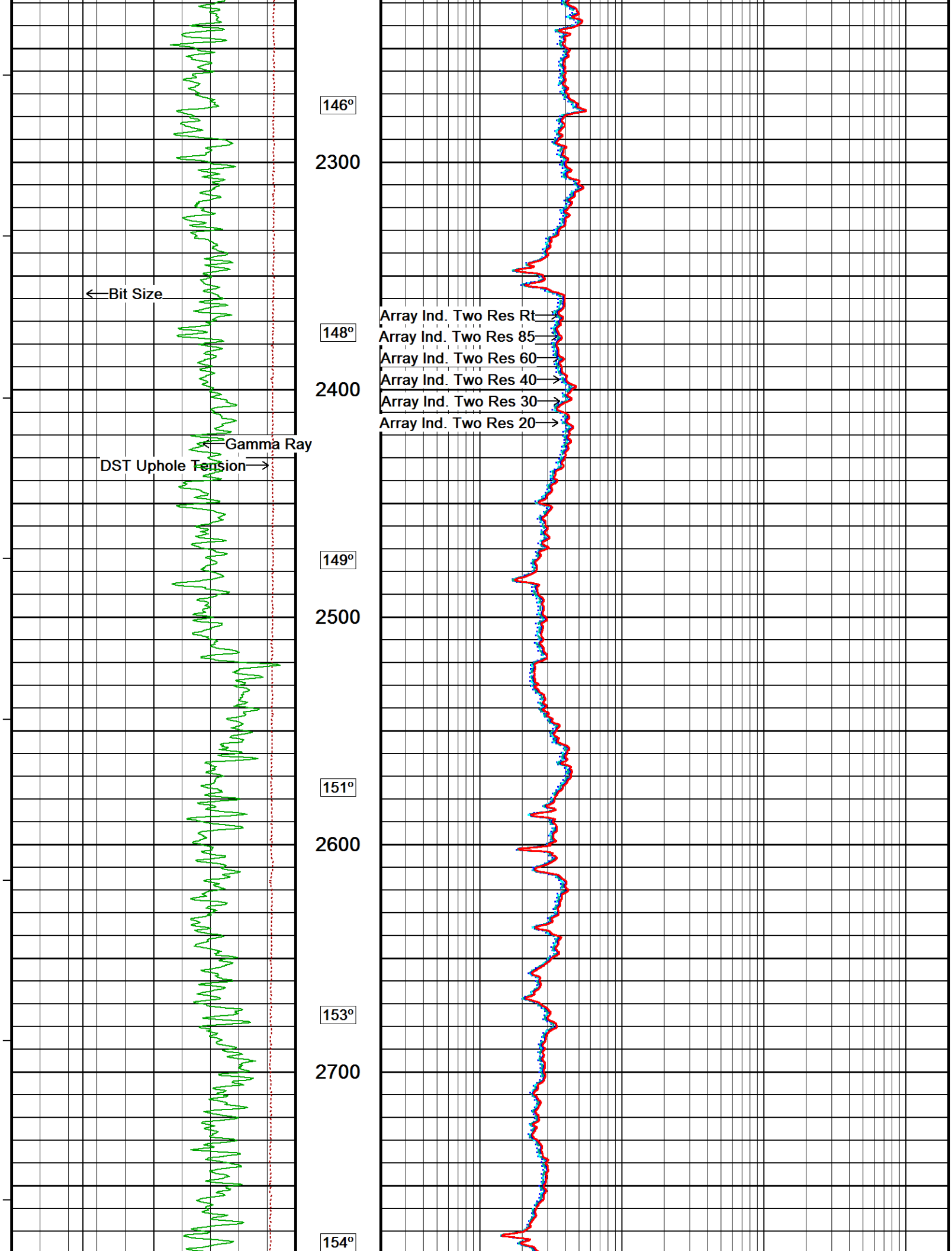
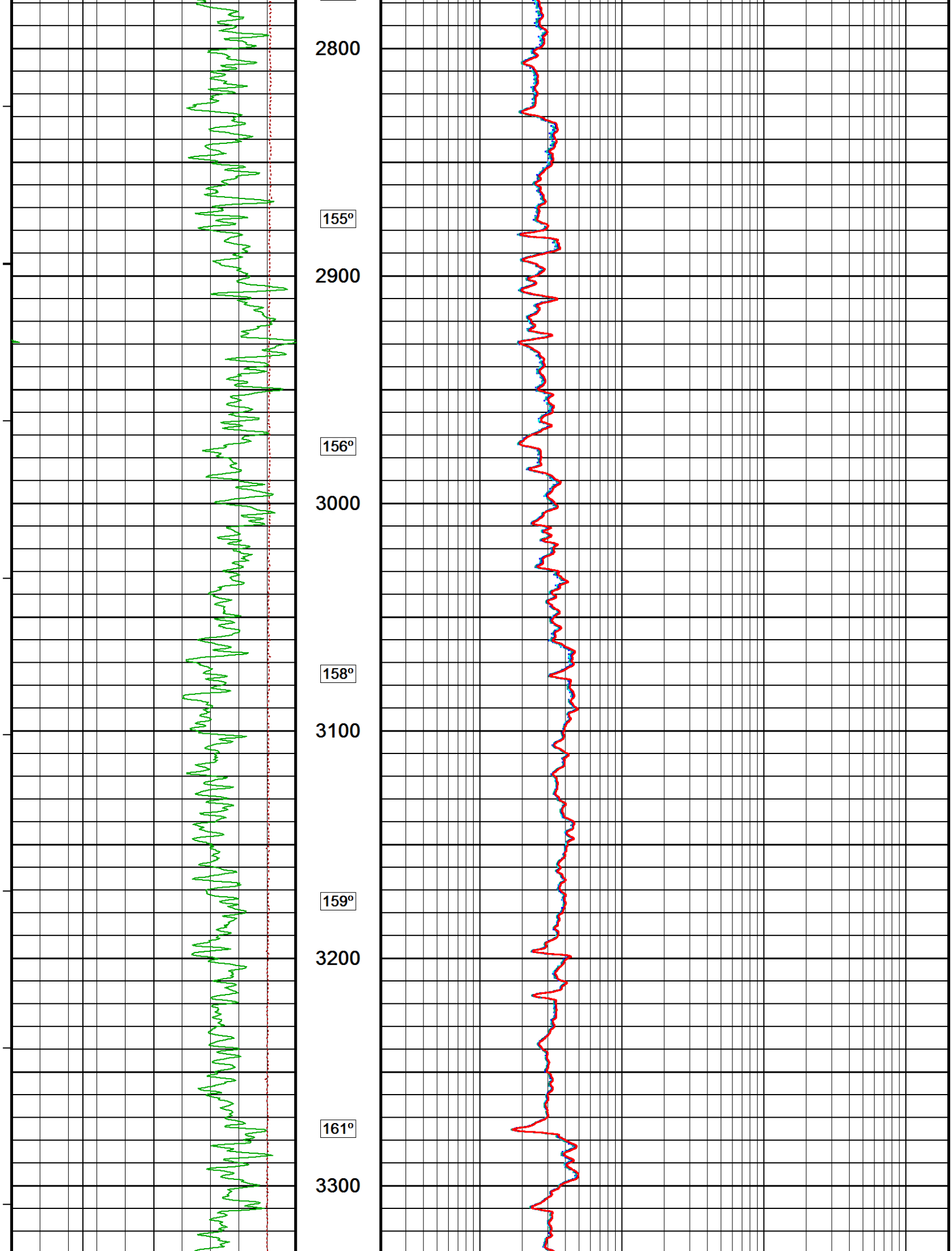
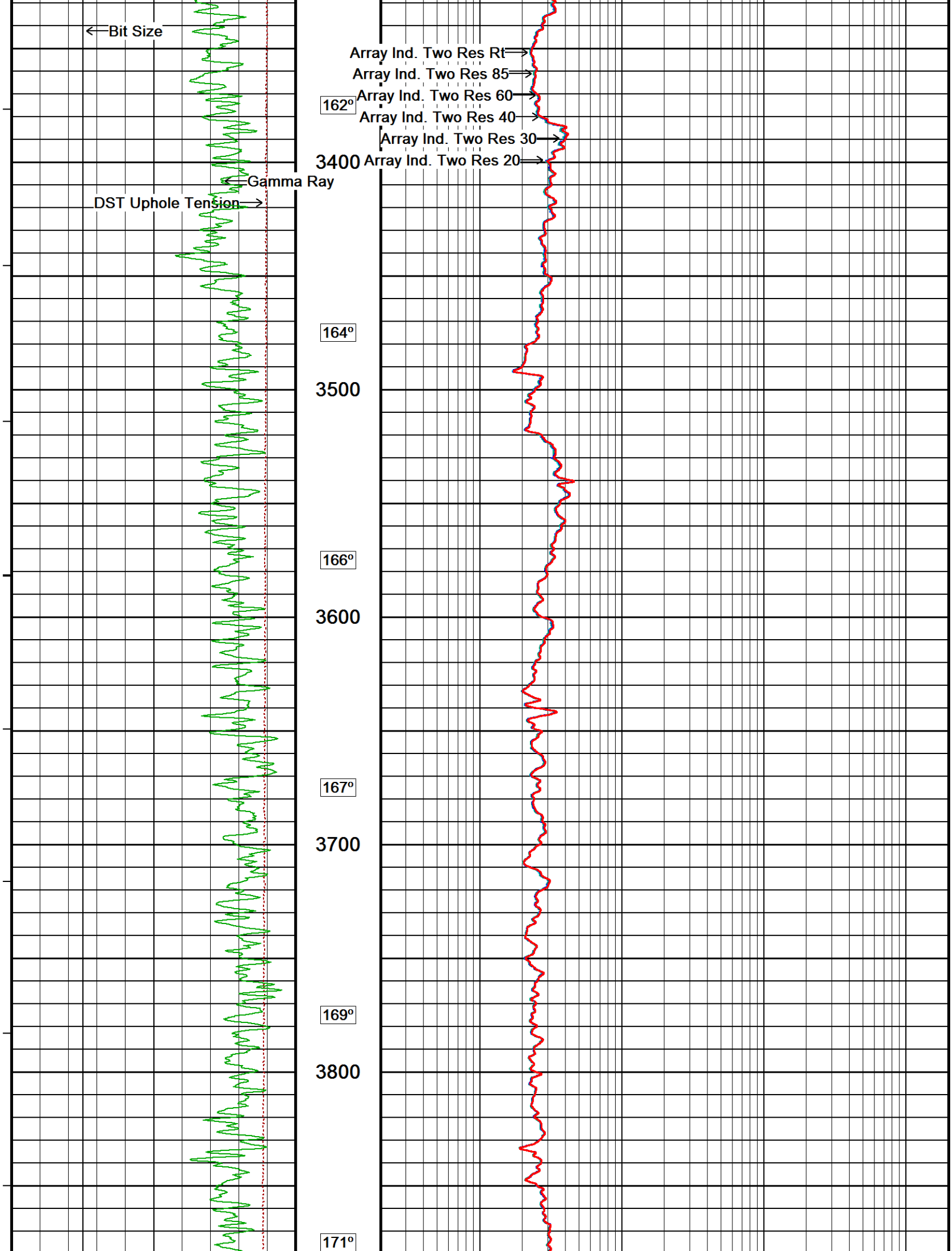
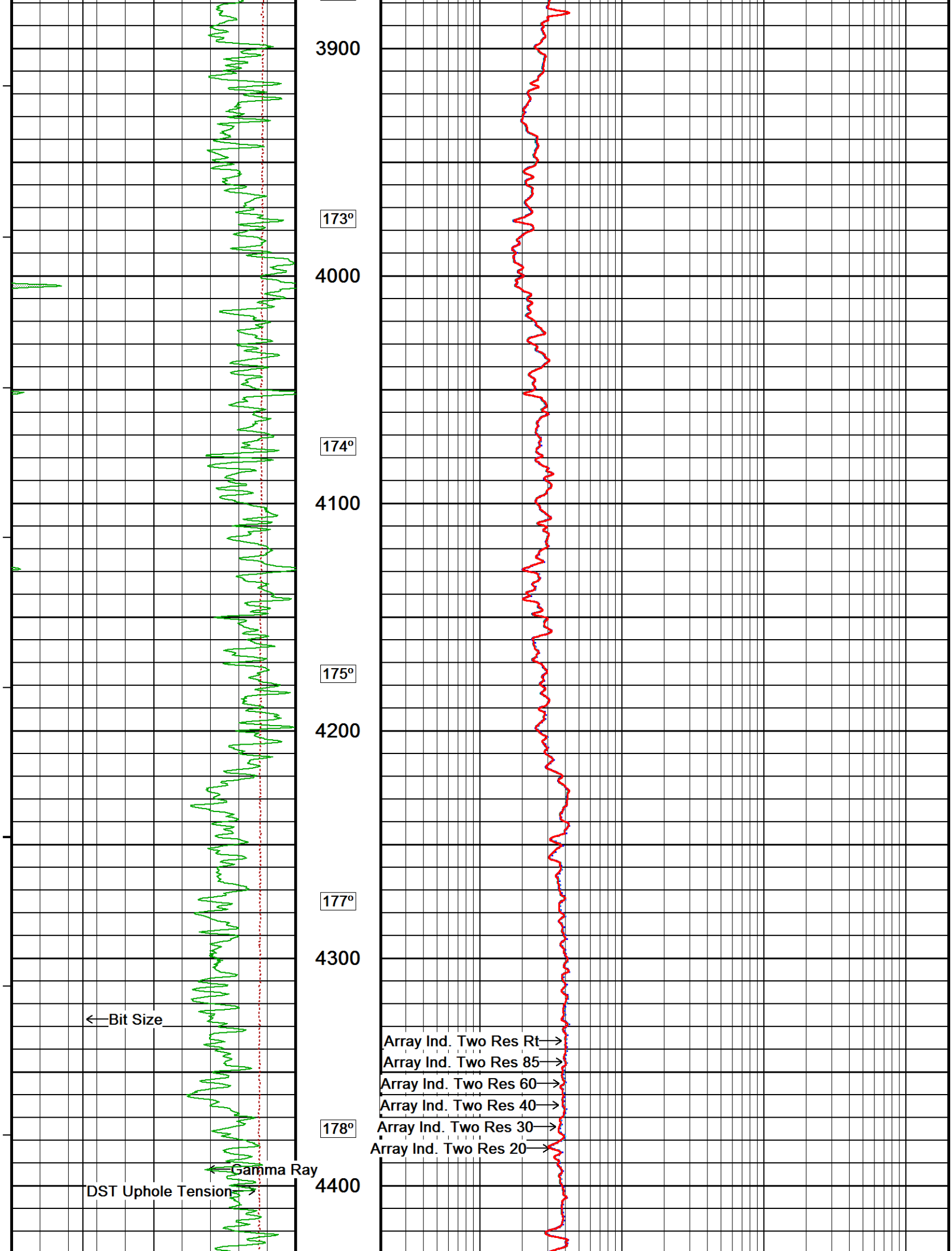
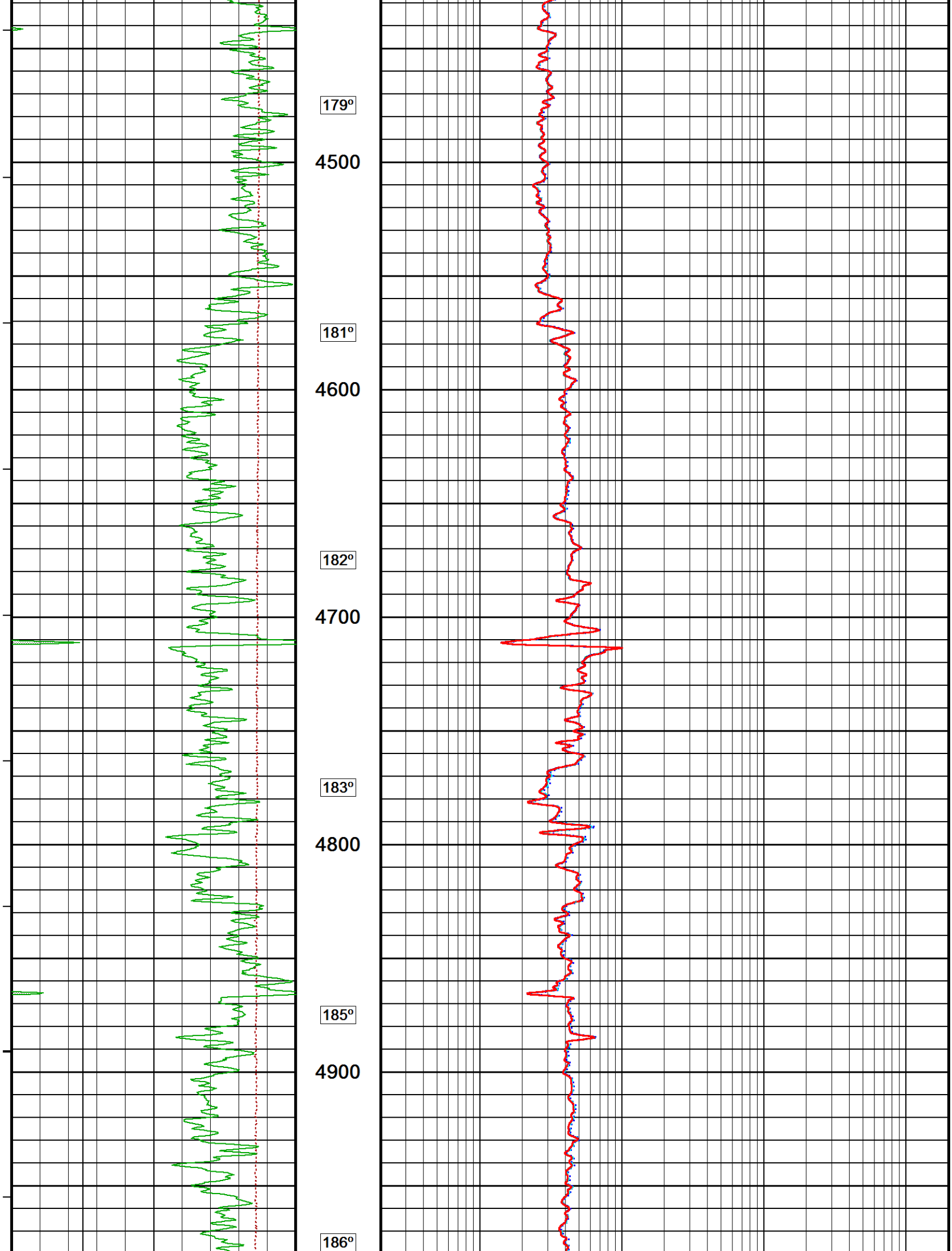
1800
141°
1900
142°
2000
143°
2100
145°
2200

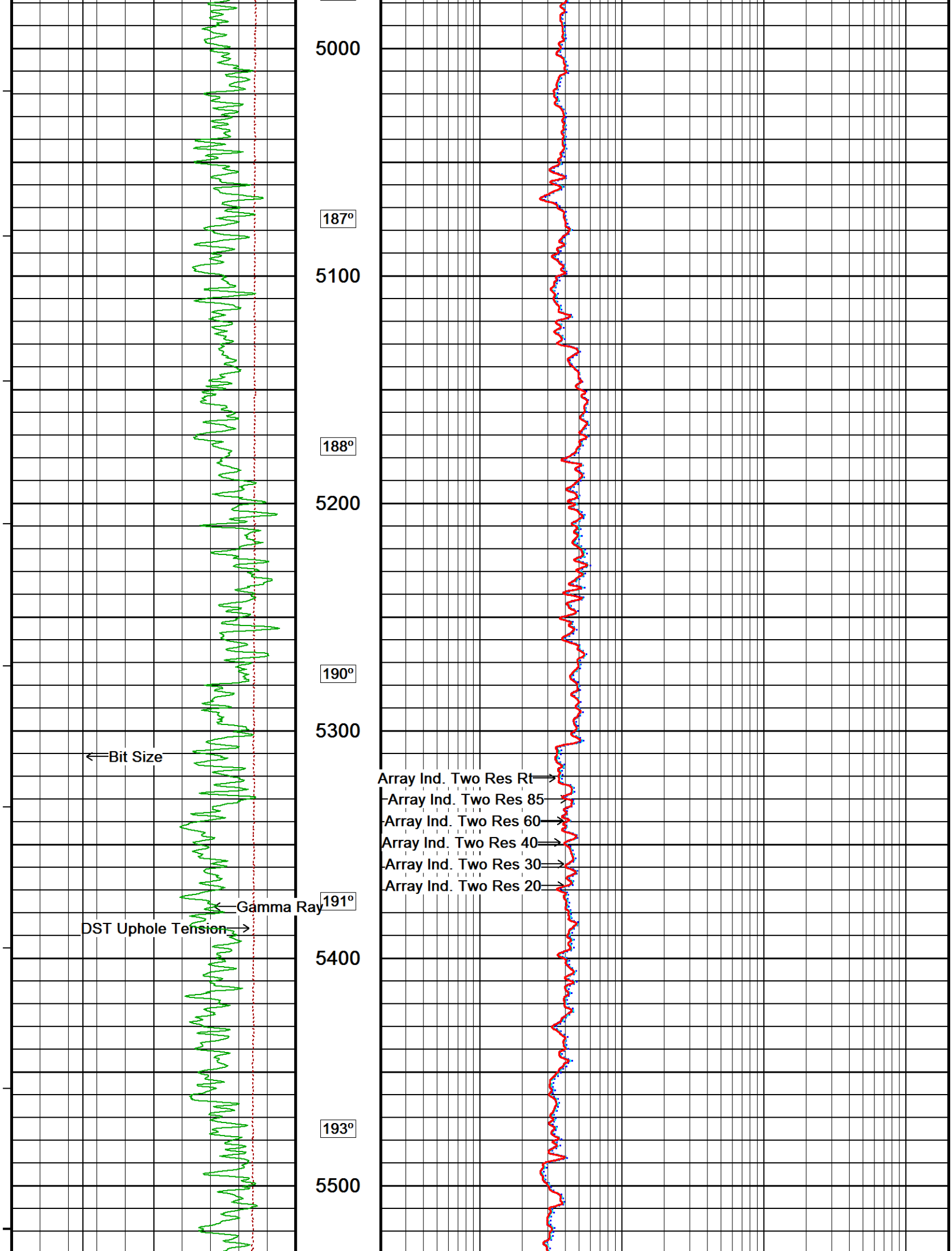

146°
2300
148°
2400
149°
2500
151°
2600
153°
2700
154°
←Bit Size
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two Res 30→
Array Ind. Two Res 20→
←Gamma Ray
DST Uphole Tension→


2800
155°
2900
156°
3000
158°
3100
159°
3200
161°
3300


Bit Size
Gamma Ray
DST Uphole Tension
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
162°
164°
166°
167°
169°
171°
3400
3500
3600
3700
3800


3900
173°
4000
174°
4100
175°
4200
177°
4300
178°
4400
←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→
←Gamma Ray
TDST Uphole Tension→


179°
4500
181°
4600
182°
4700
183°
4800
185°
4900
186°


5000
187°
5100
188°
5200
190°
5300
Bit Size
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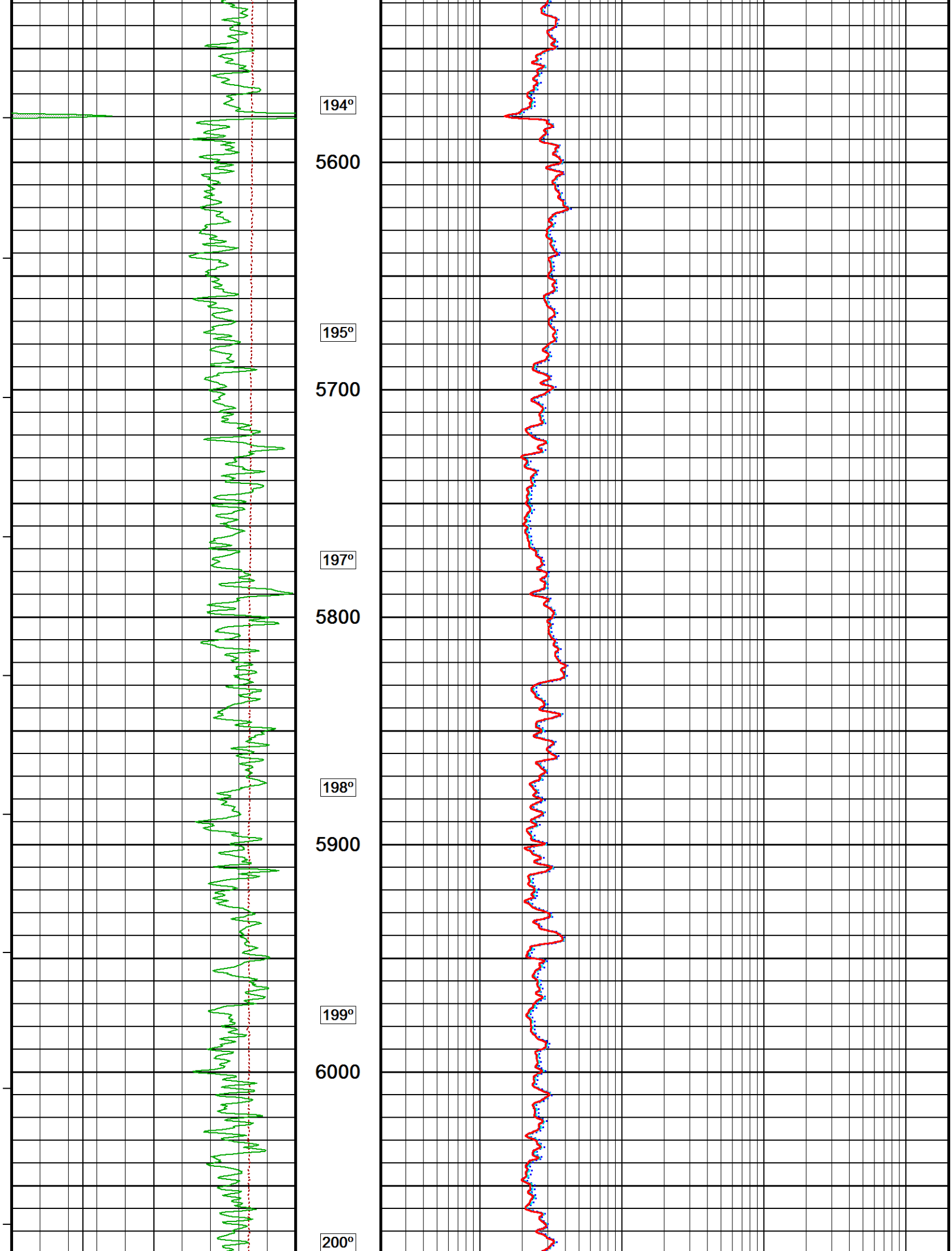
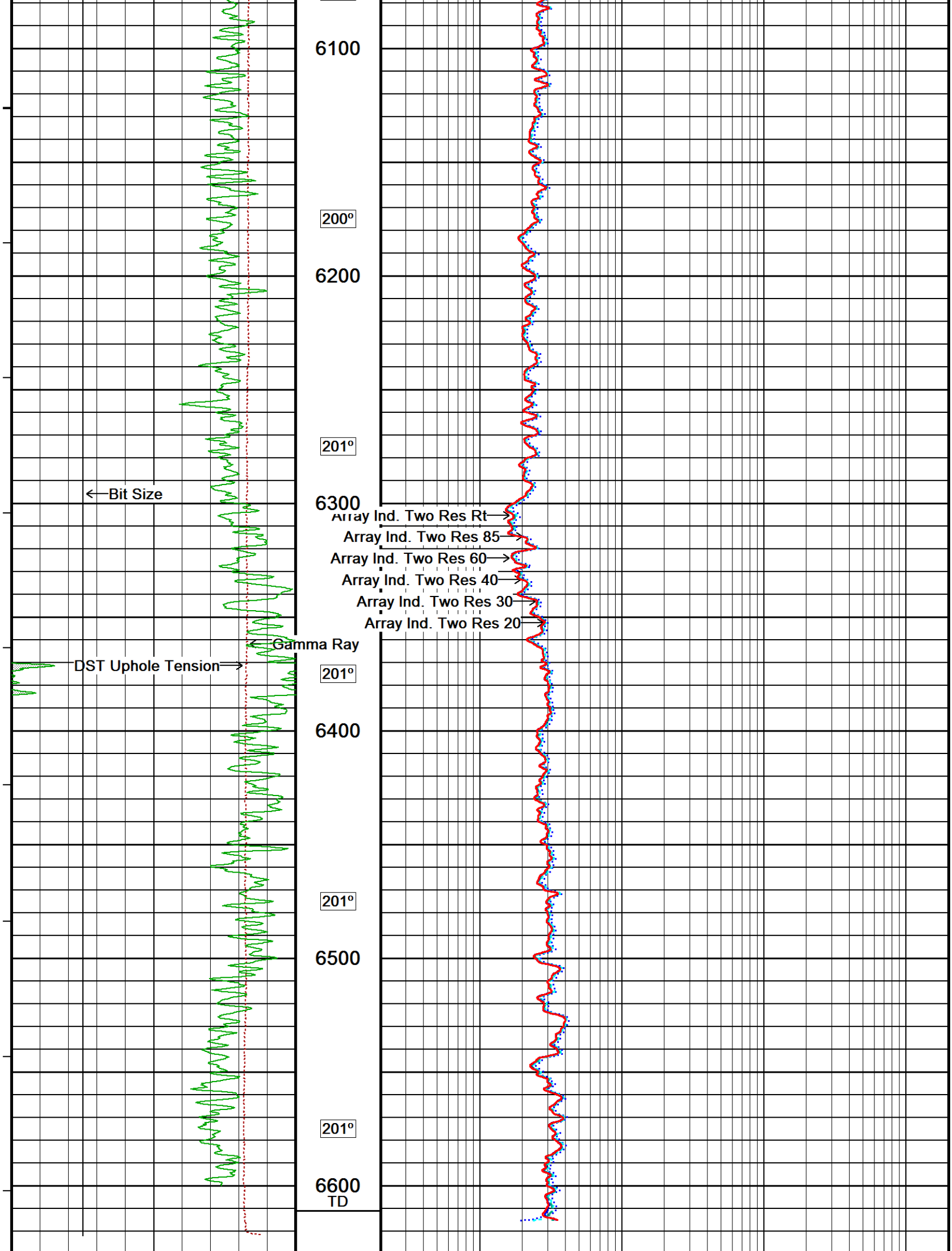
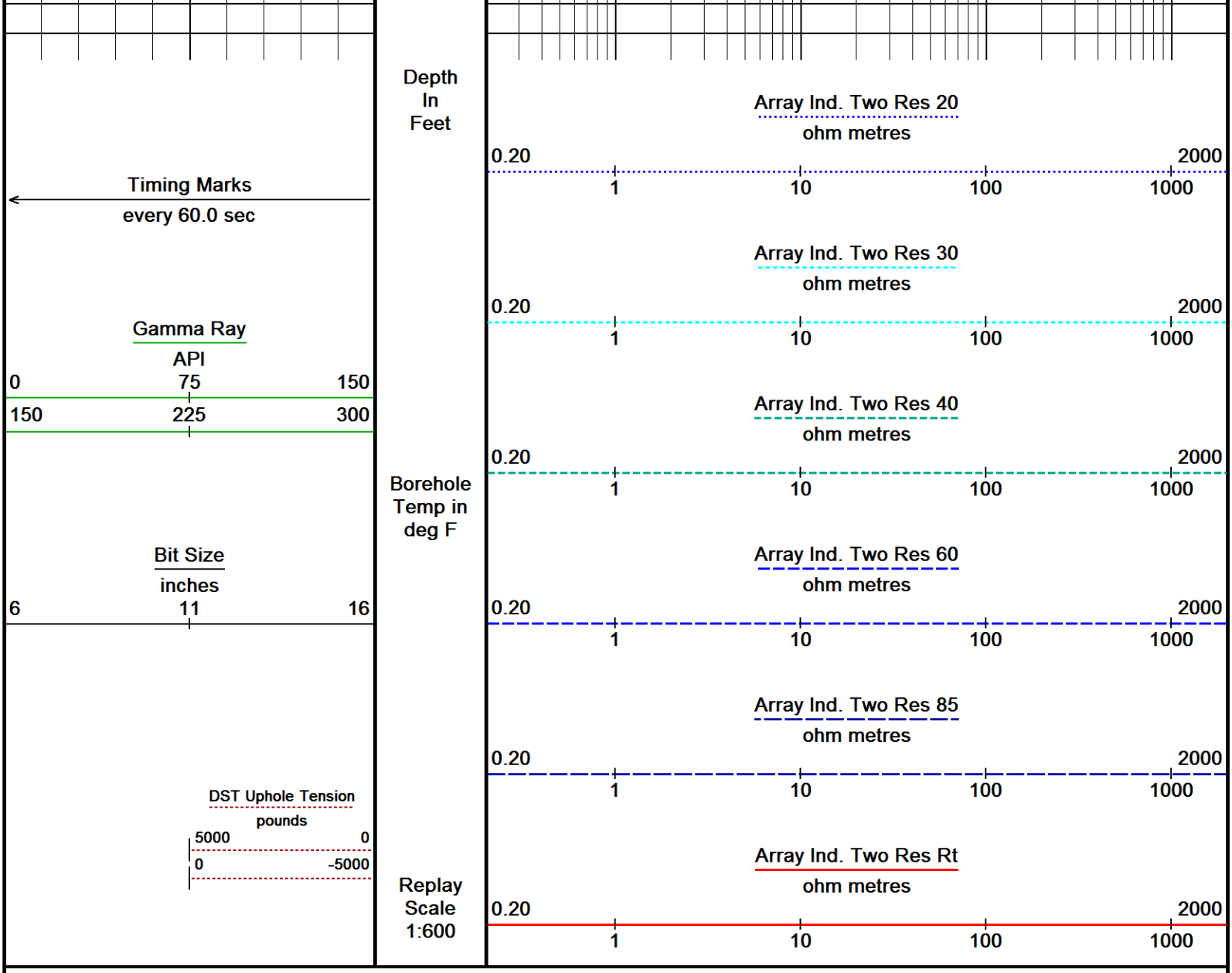
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
191°
Gamma Ray
DST Uphole Tension
5400
193°
5500


194°
5600
195°
5700
197°
5800
198°
5900
199°
6000
200°


6100
200°
6200
201°
Bit Size
6300
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
Gamma Ray
DST Uphole Tension
201°
6400
201°
6500
201°
6600
TD



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Plotted on 20-JUN-2015 23:53
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2 INCH MAIN LOG

5 INCH MAIN LOG

Depth Based Data - Maximum Sampling Increment 10.0cm
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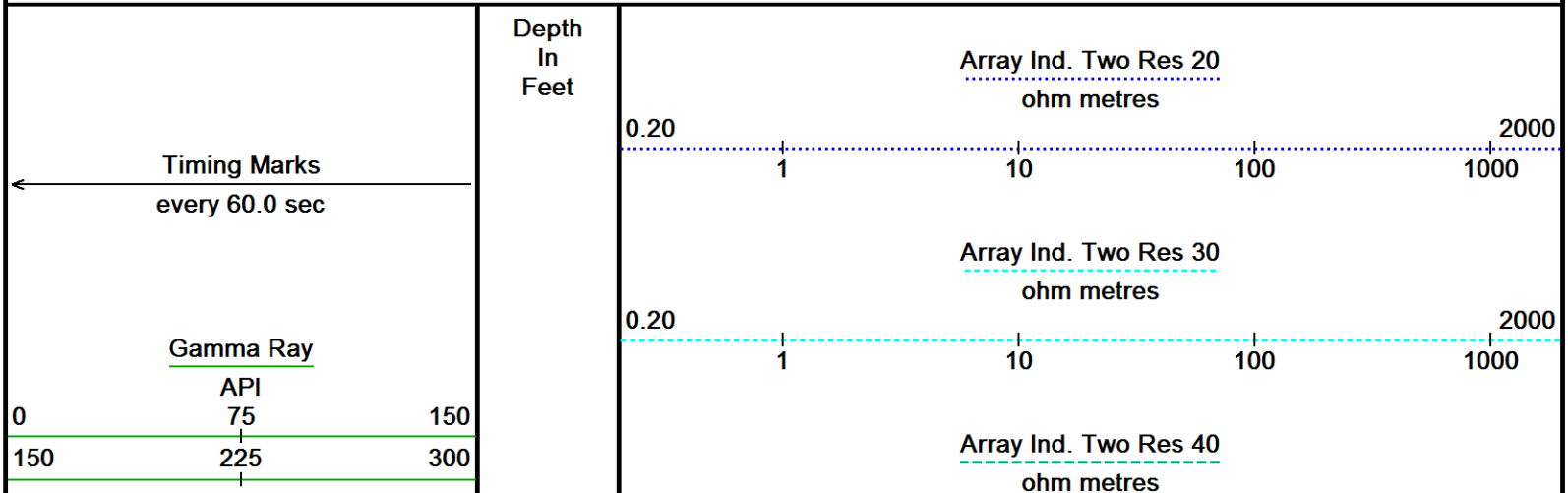
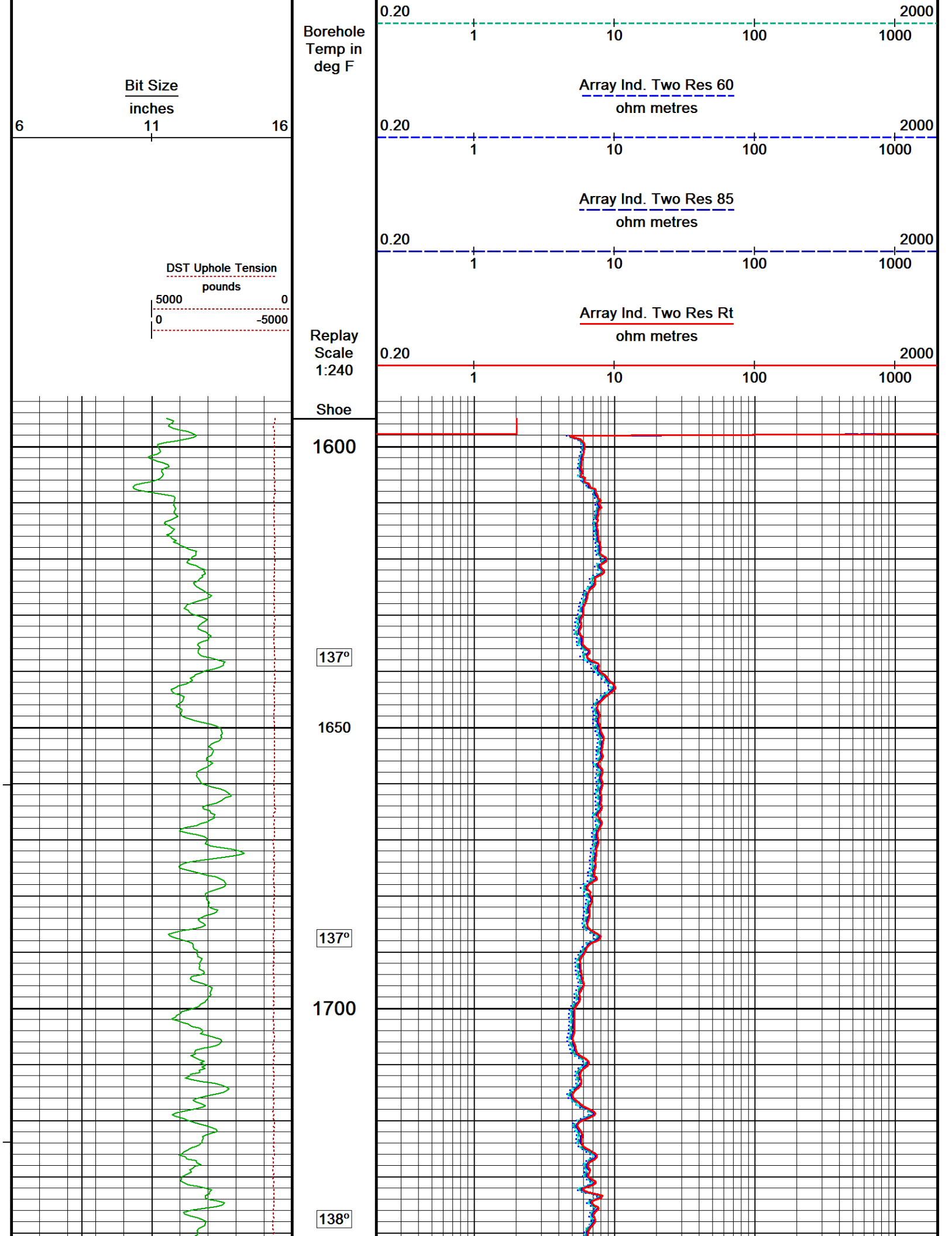
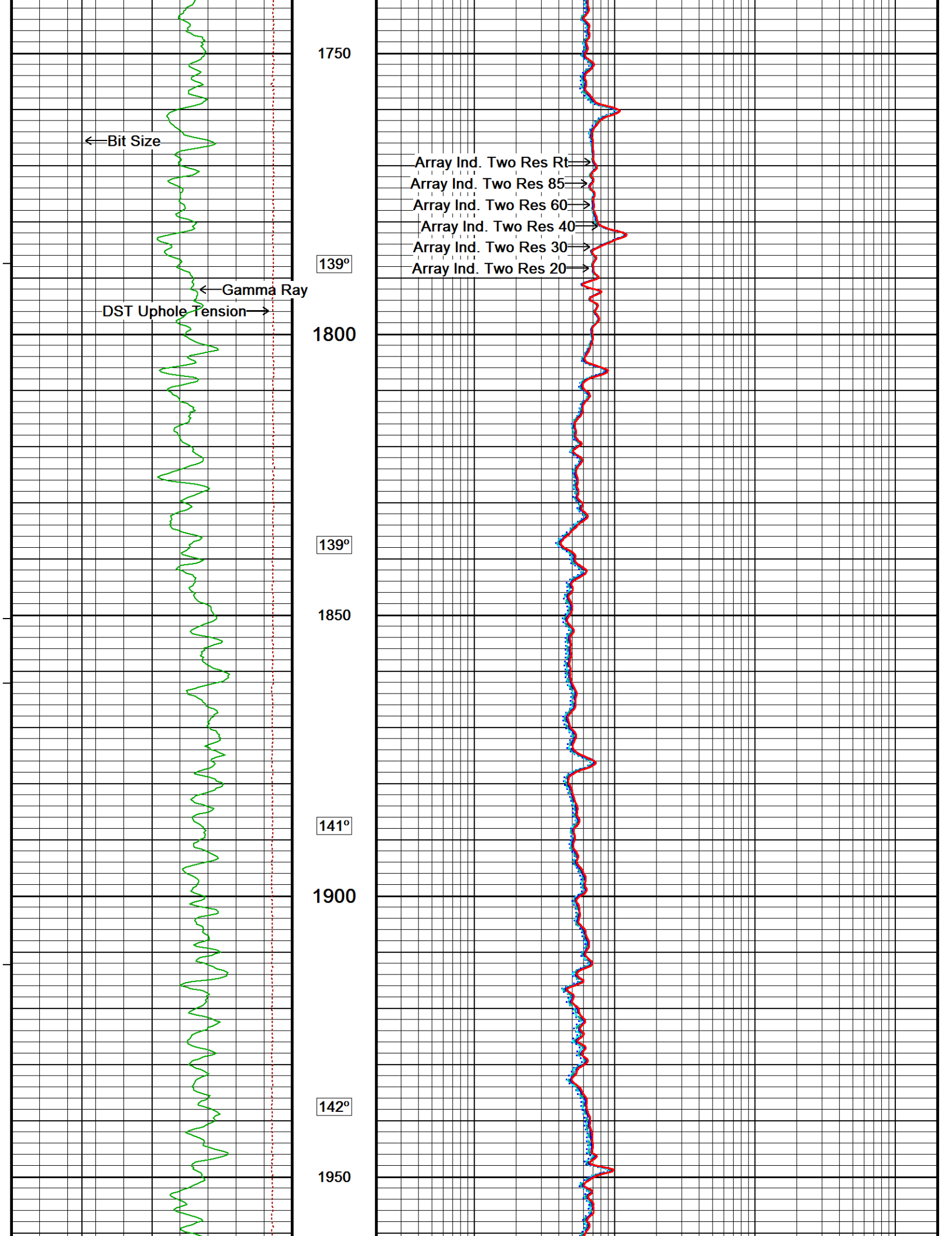
System Versions: Logged with 15.01.3109 Plotted with 15.01.3109




Bit Size
inches
6
11
16
DST Uphole Tension
pounds
5000
0
0
-5000
Borehole Temp in deg F
Replay Scale 1:240
Shoe
0.20
2000
1
10
100
1000
Array Ind. Two Res 60
ohm metres
Array Ind. Two Res 85
ohm metres
Array Ind. Two Res Rt
ohm metres
1600
137°
1650
137°
1700
138°


1750
Bit Size
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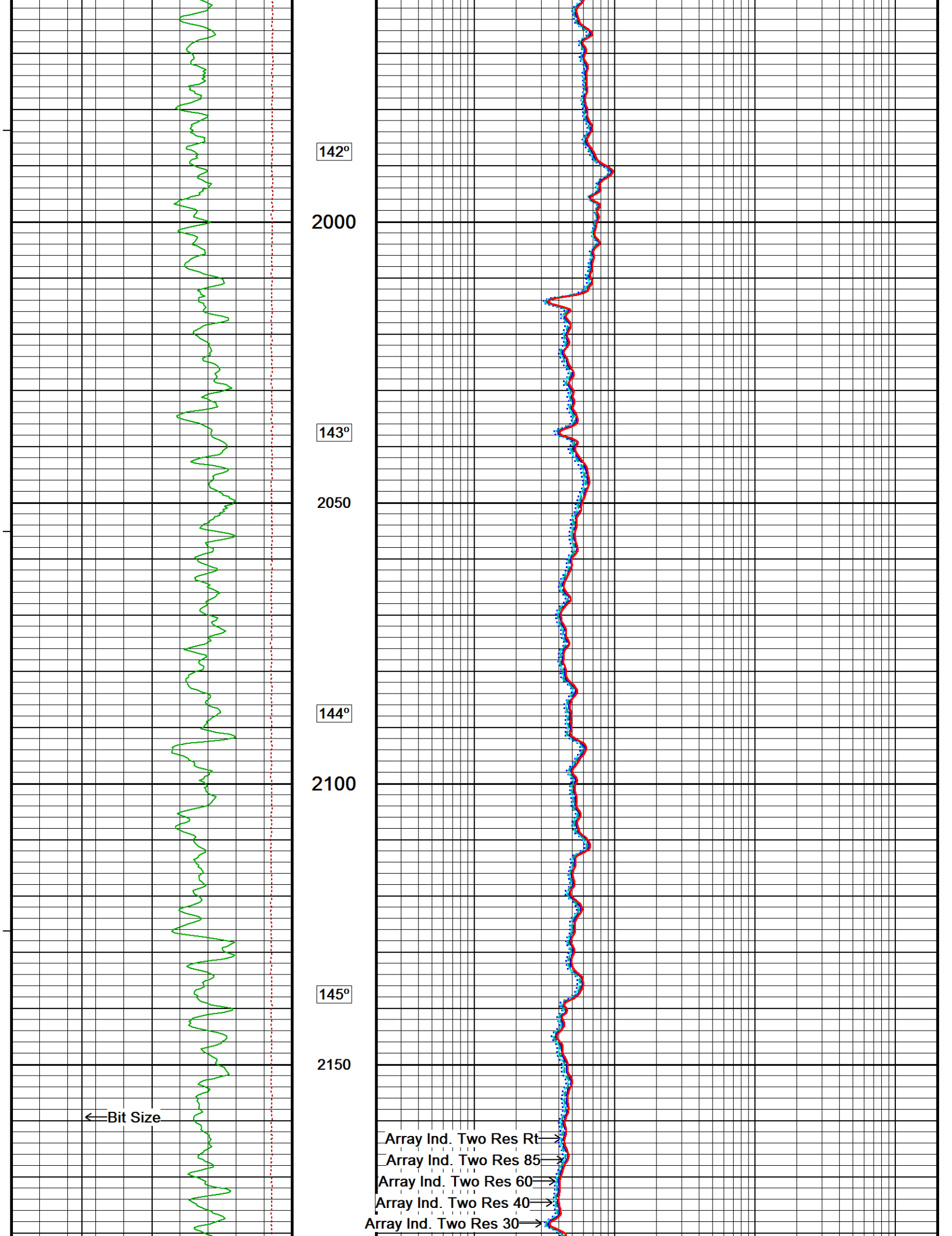
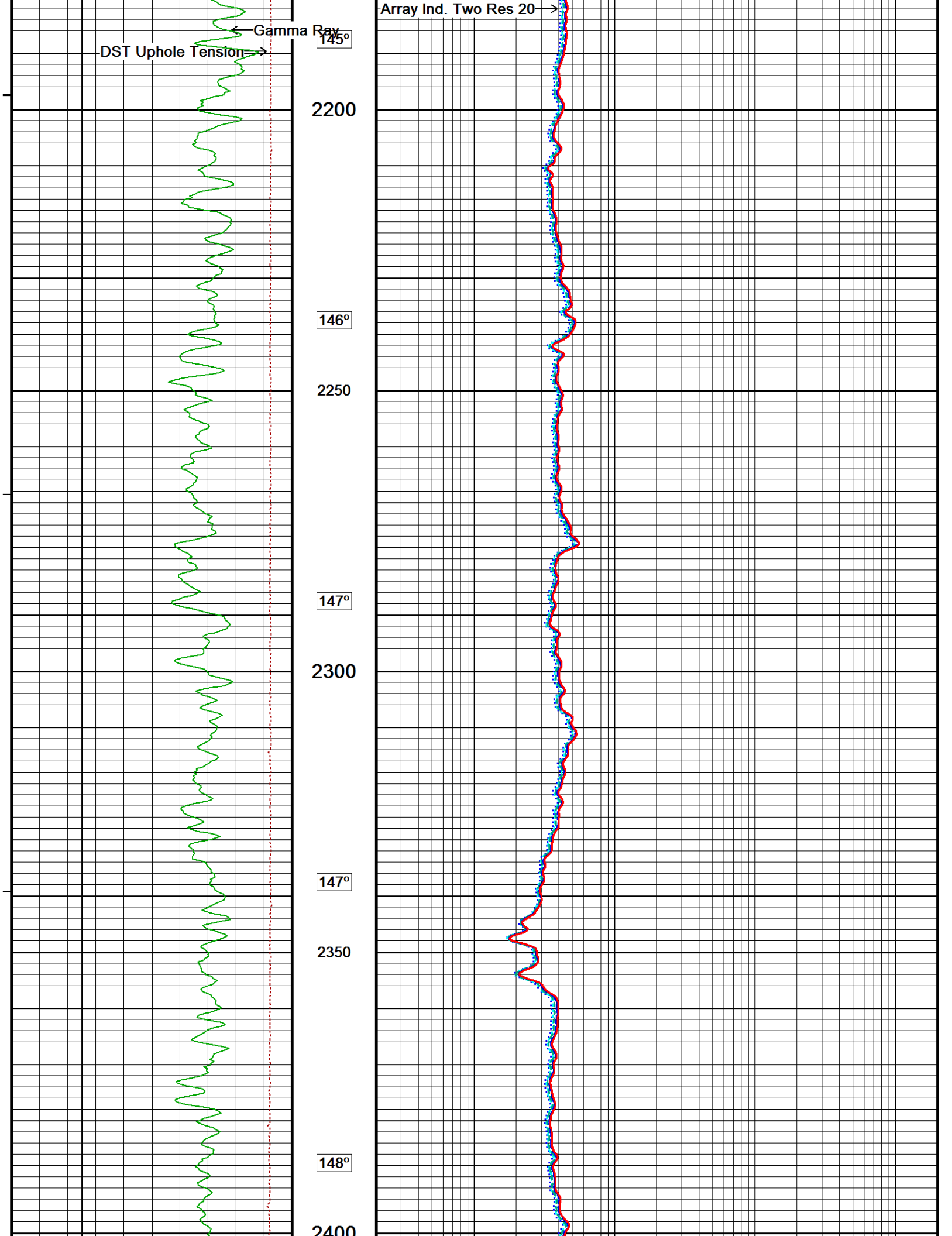
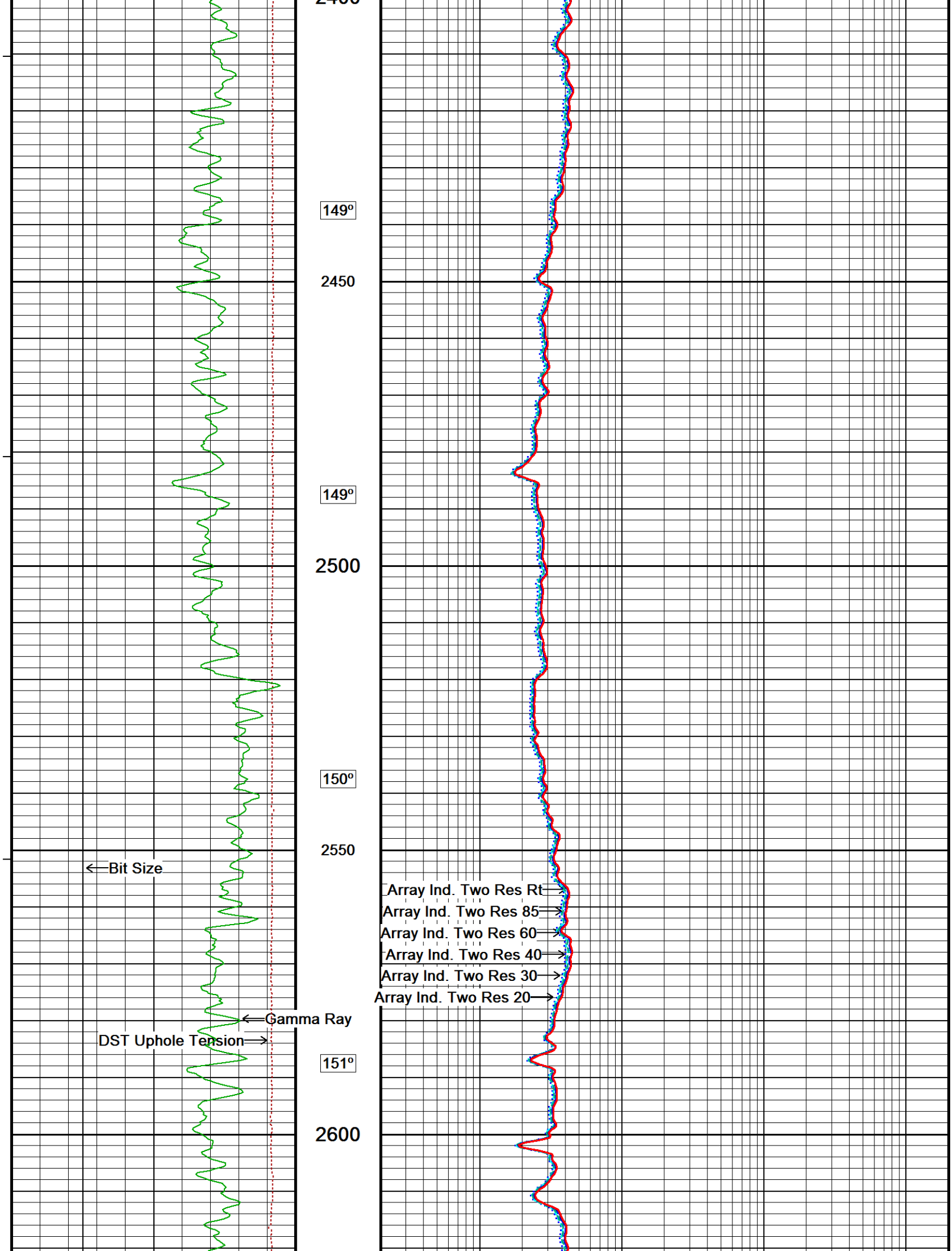
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
139°
Gamma Ray
DST Uphole Tension
1800
139°
1850
141°
1900
142°
1950


142°
2000
143°
2050
144°
2100
145°
2150
←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
Gamma Ray
DST Uphole Tension
145°
2200
146°
2250
147°
2300
147°
2350
148°
2400


149°
2450
149°
2500
150°
2550
Bit Size
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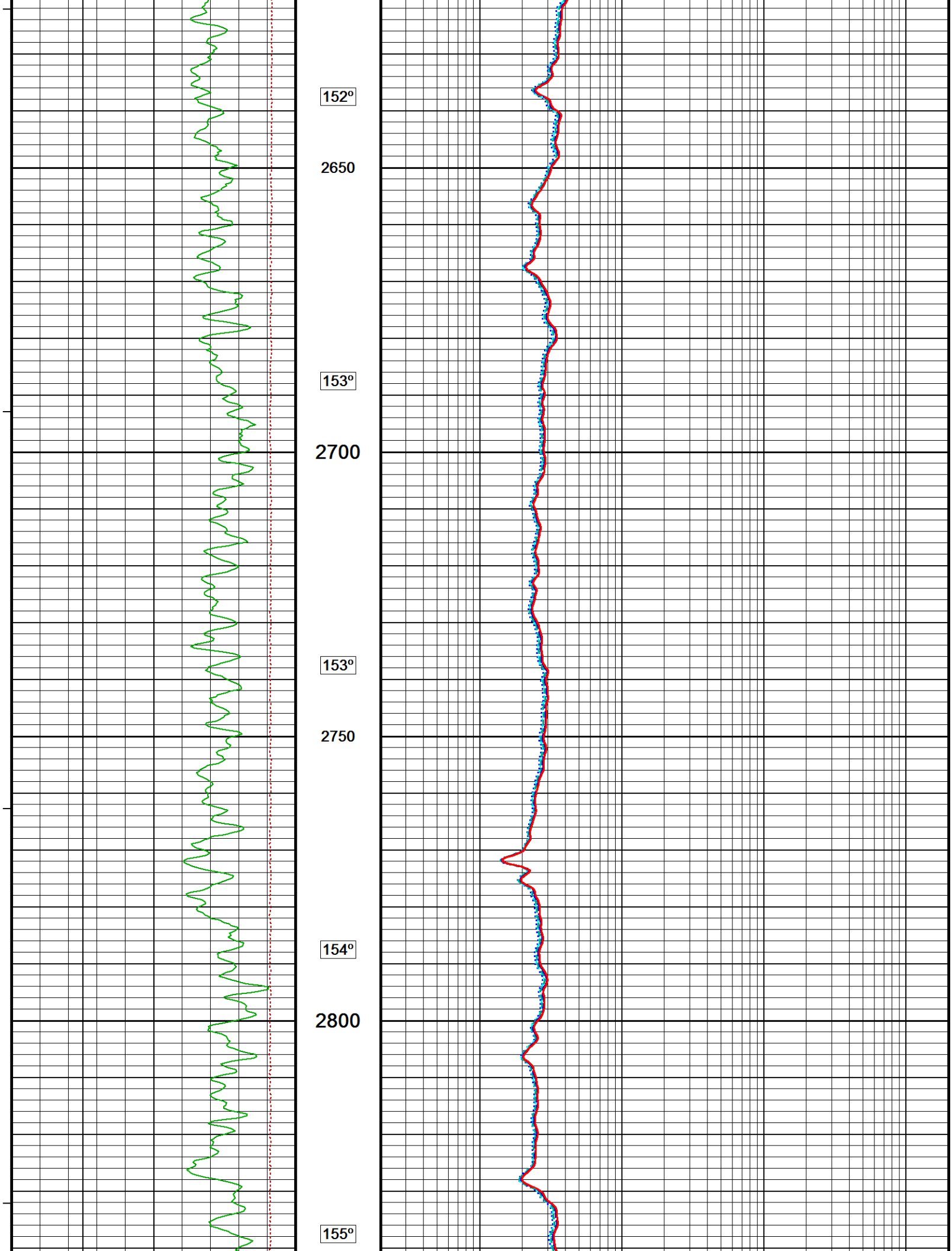
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
Gamma Ray
DST Uphole Tension
151°
2600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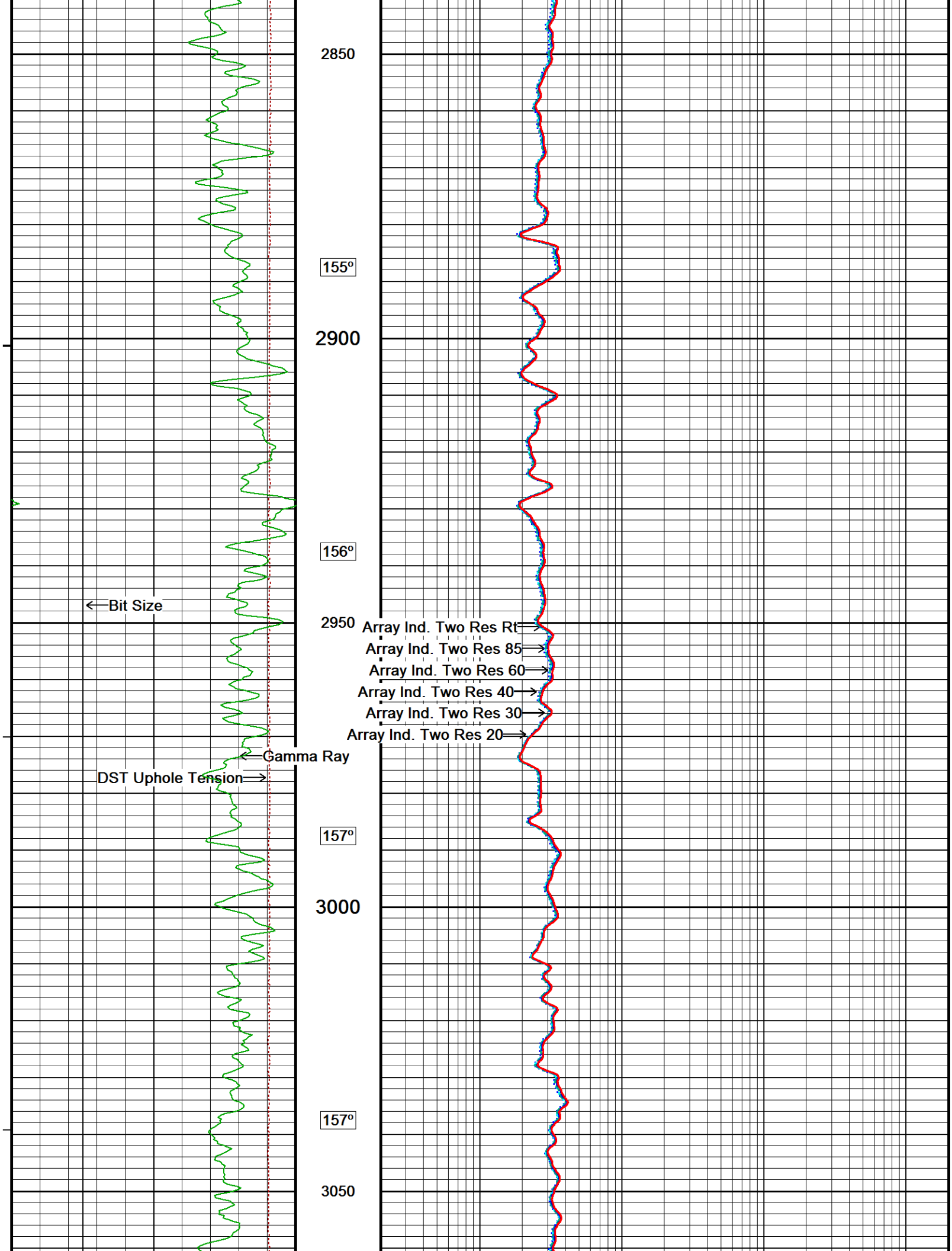
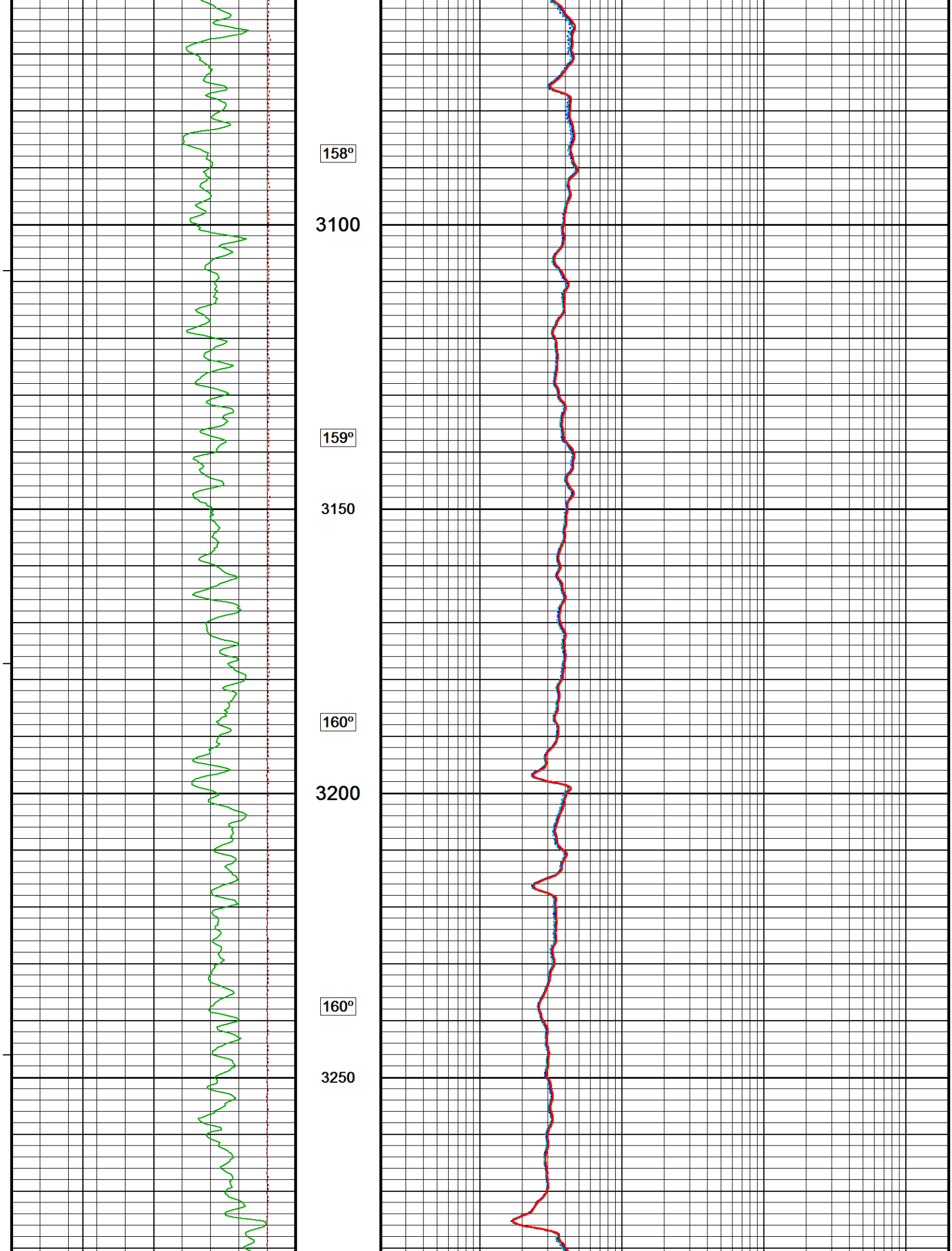
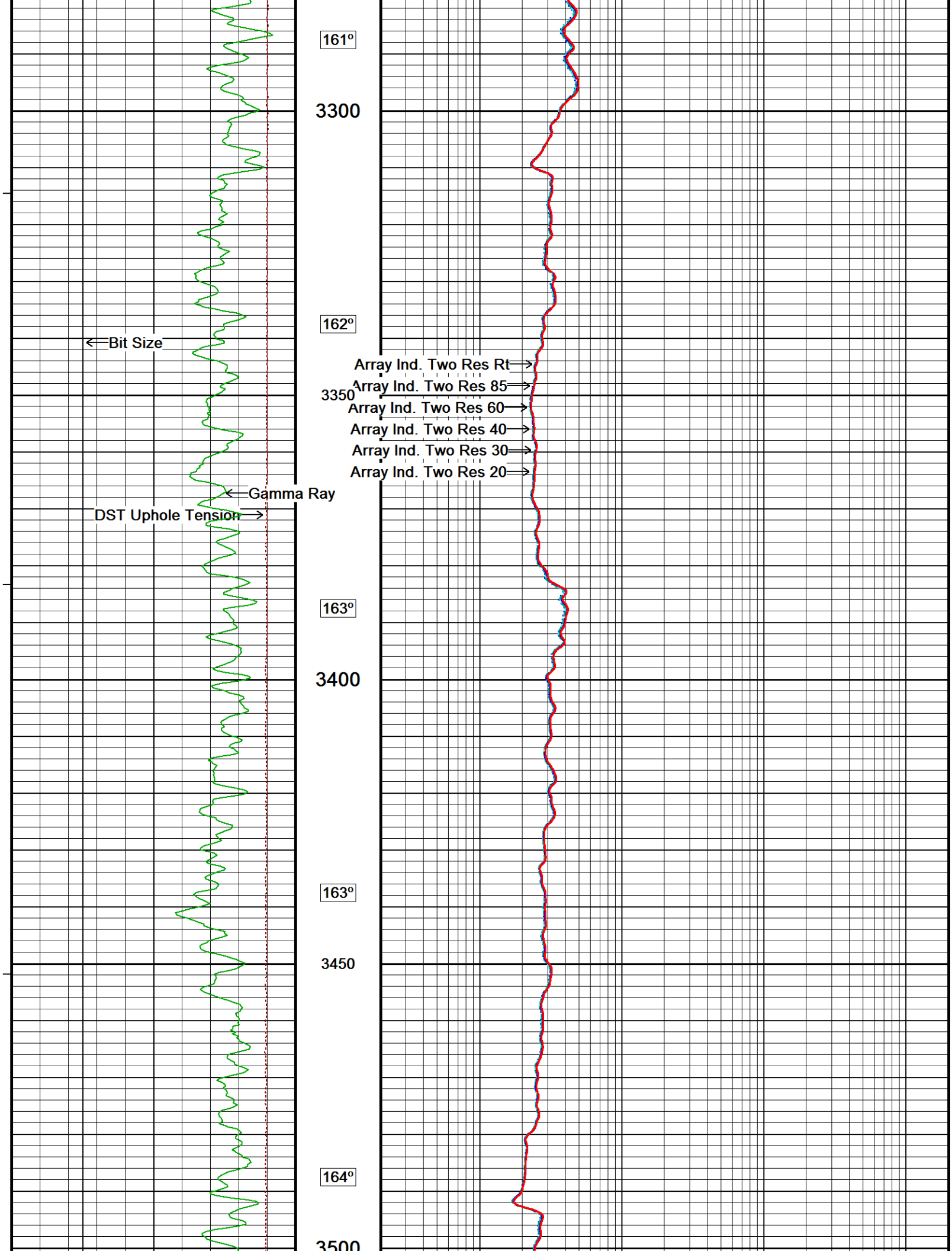
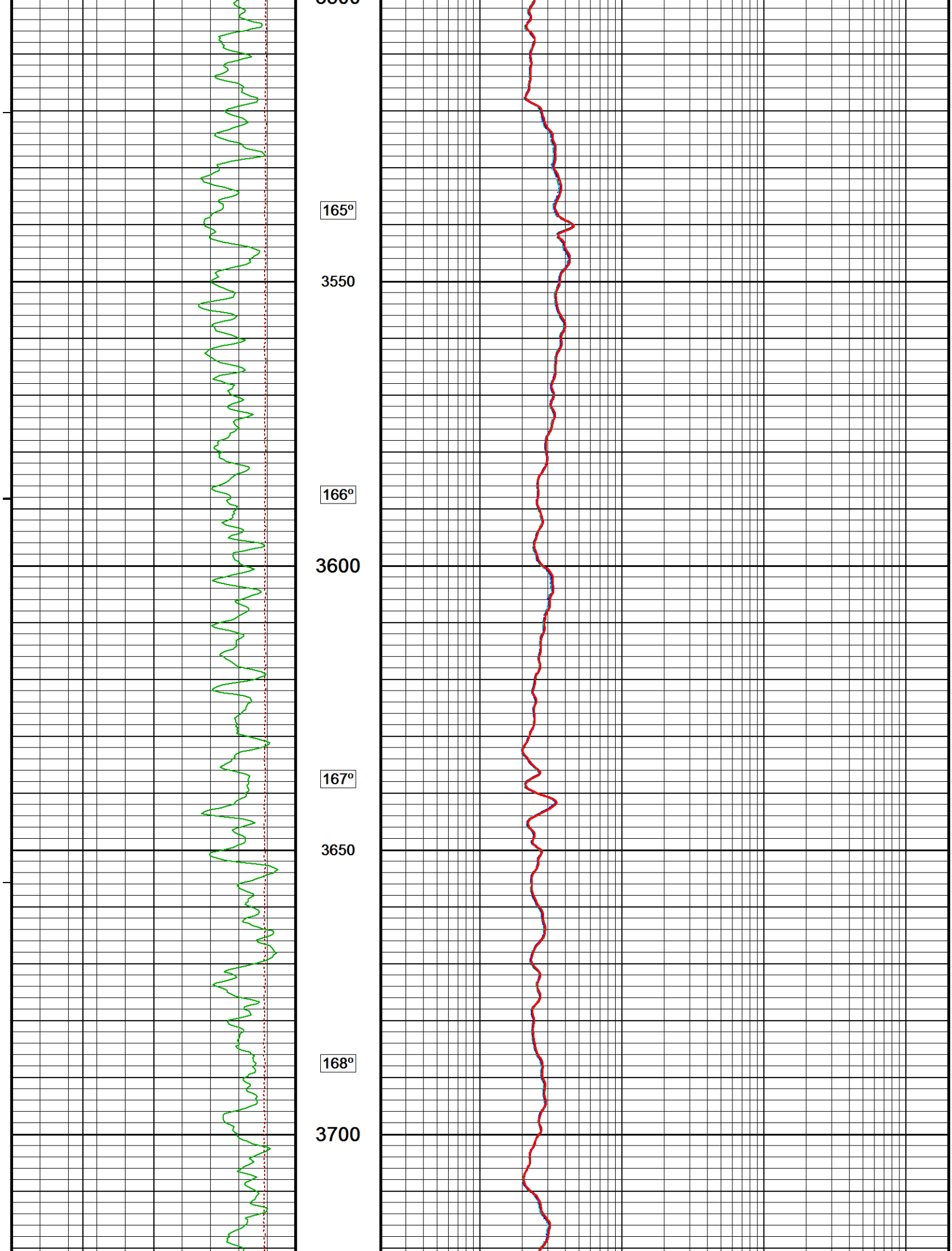
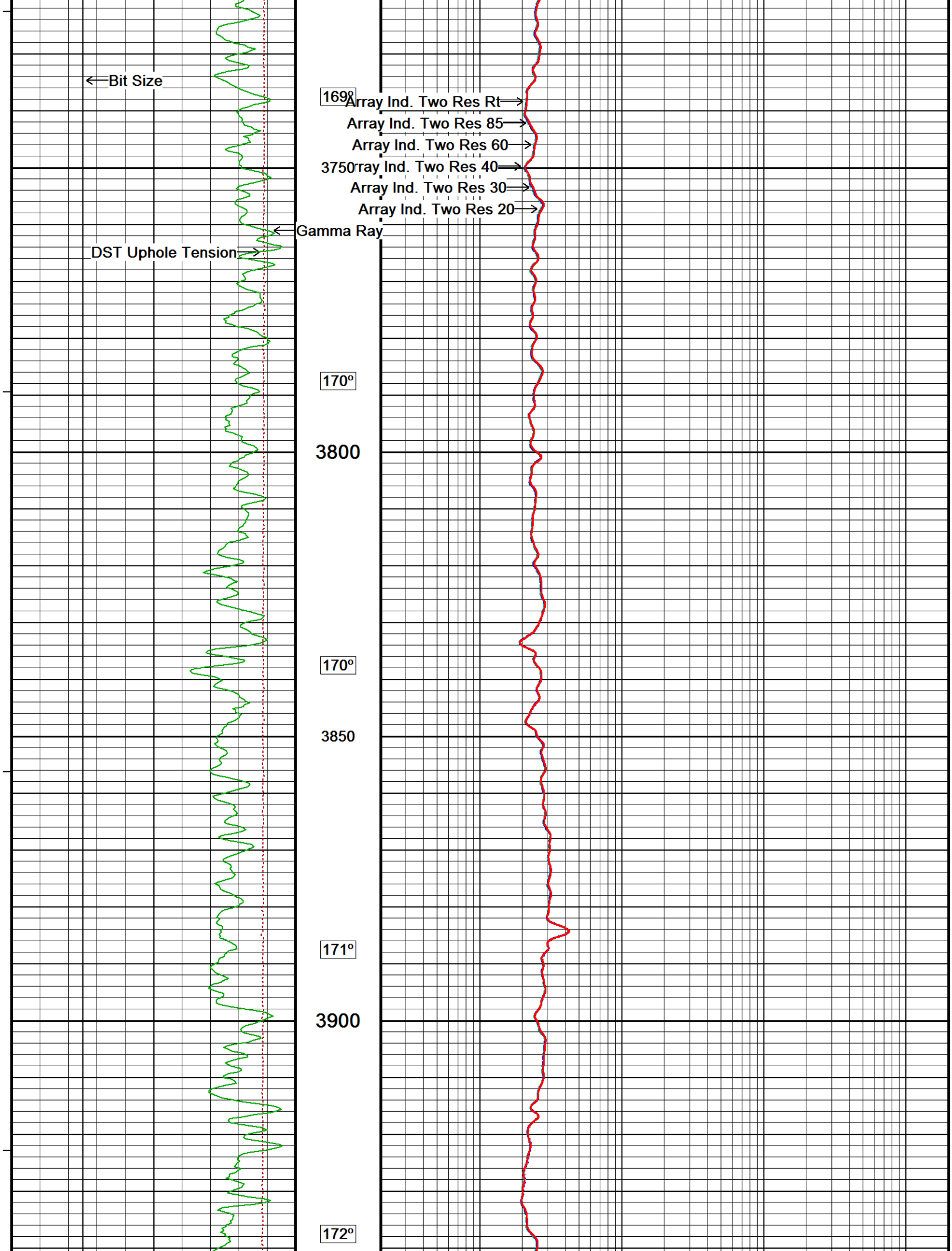
2650
153°
2700
153°
2750
154°
2800
155°

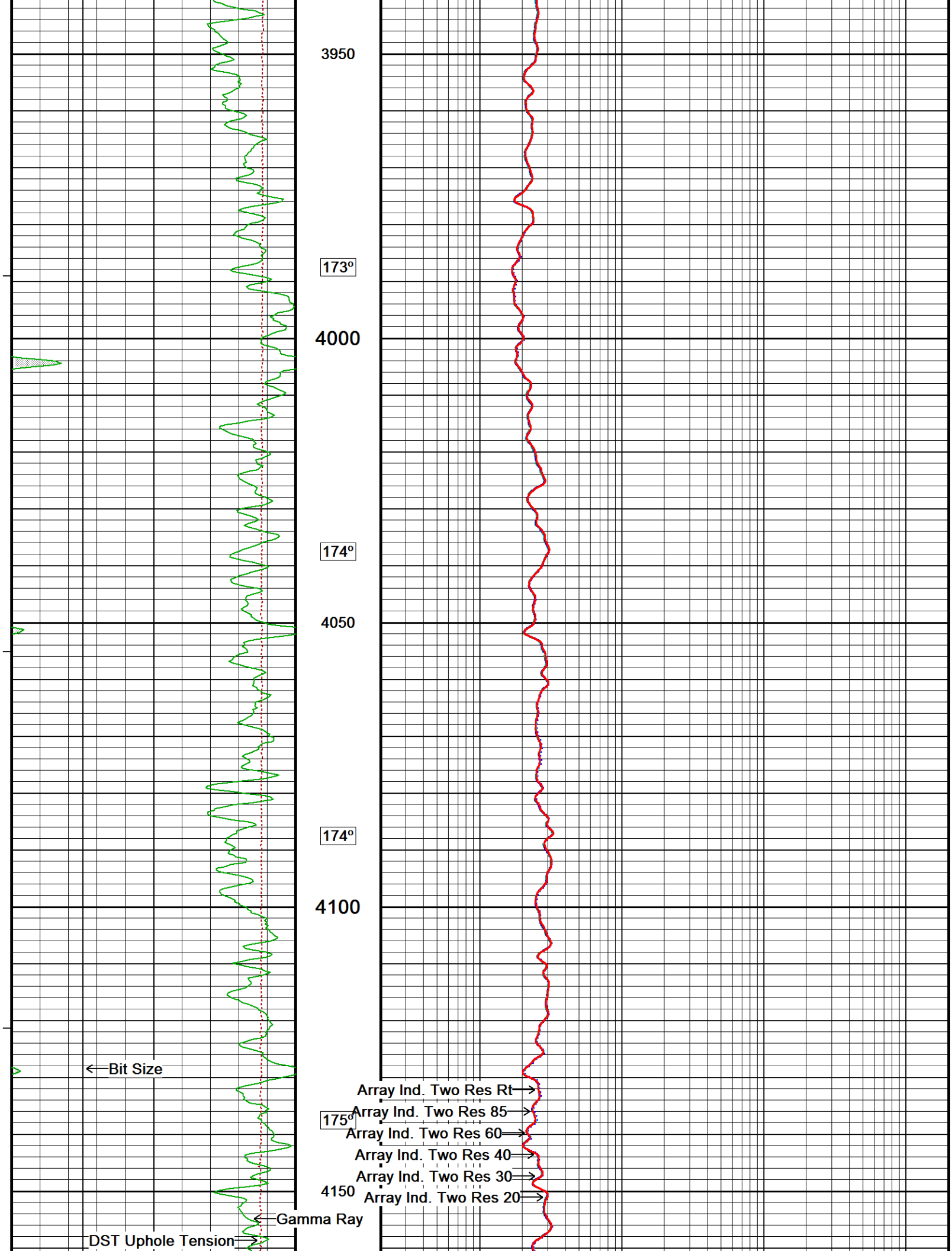

2850
155°
2900
156°
←Bit Size
2950
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two Res 30→
Array Ind. Two Res 20→
←Gamma Ray
DST Uphole Tension→
157°
3000
157°
3050

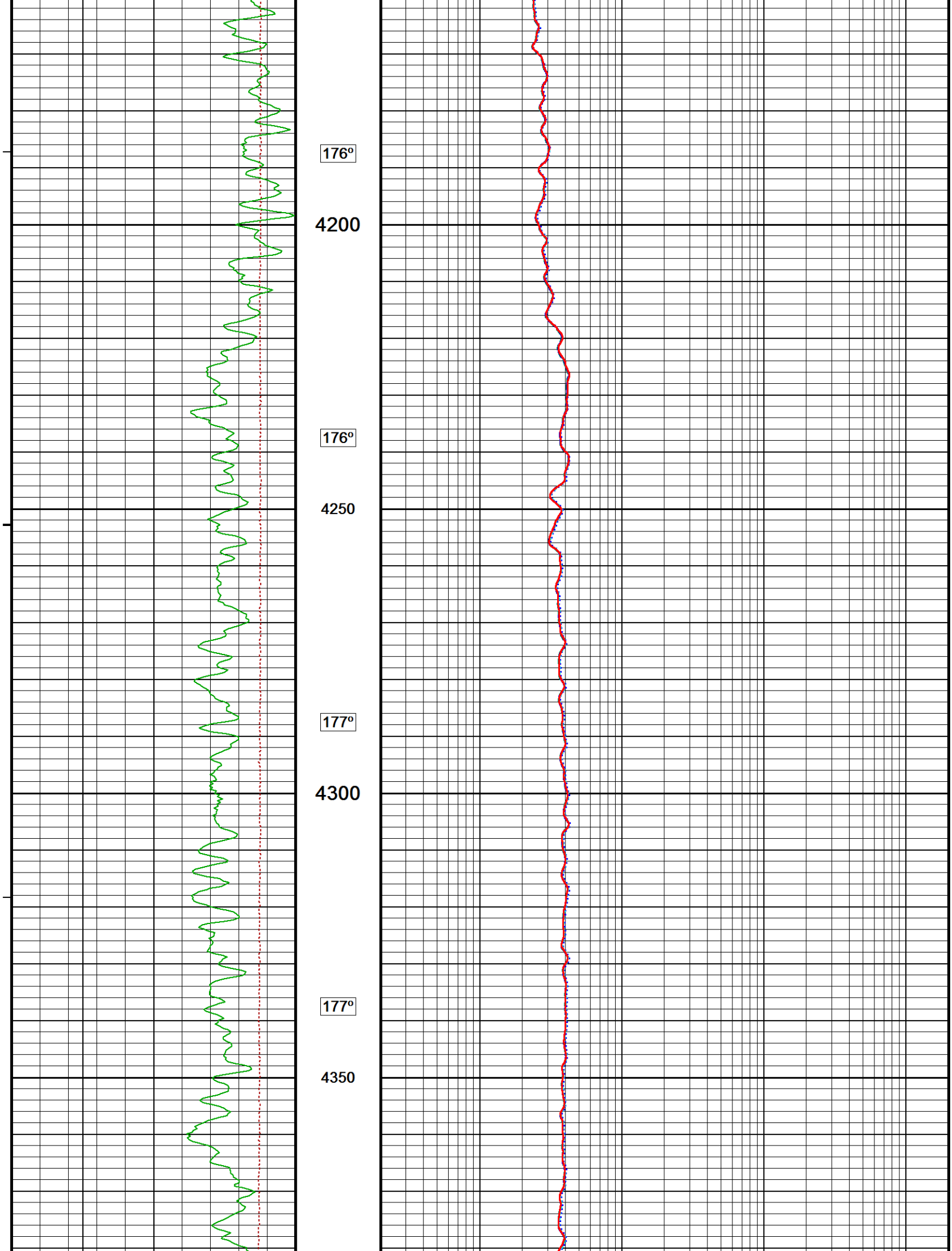

158°
3100
159°
3150
160°
3200
160°
3250

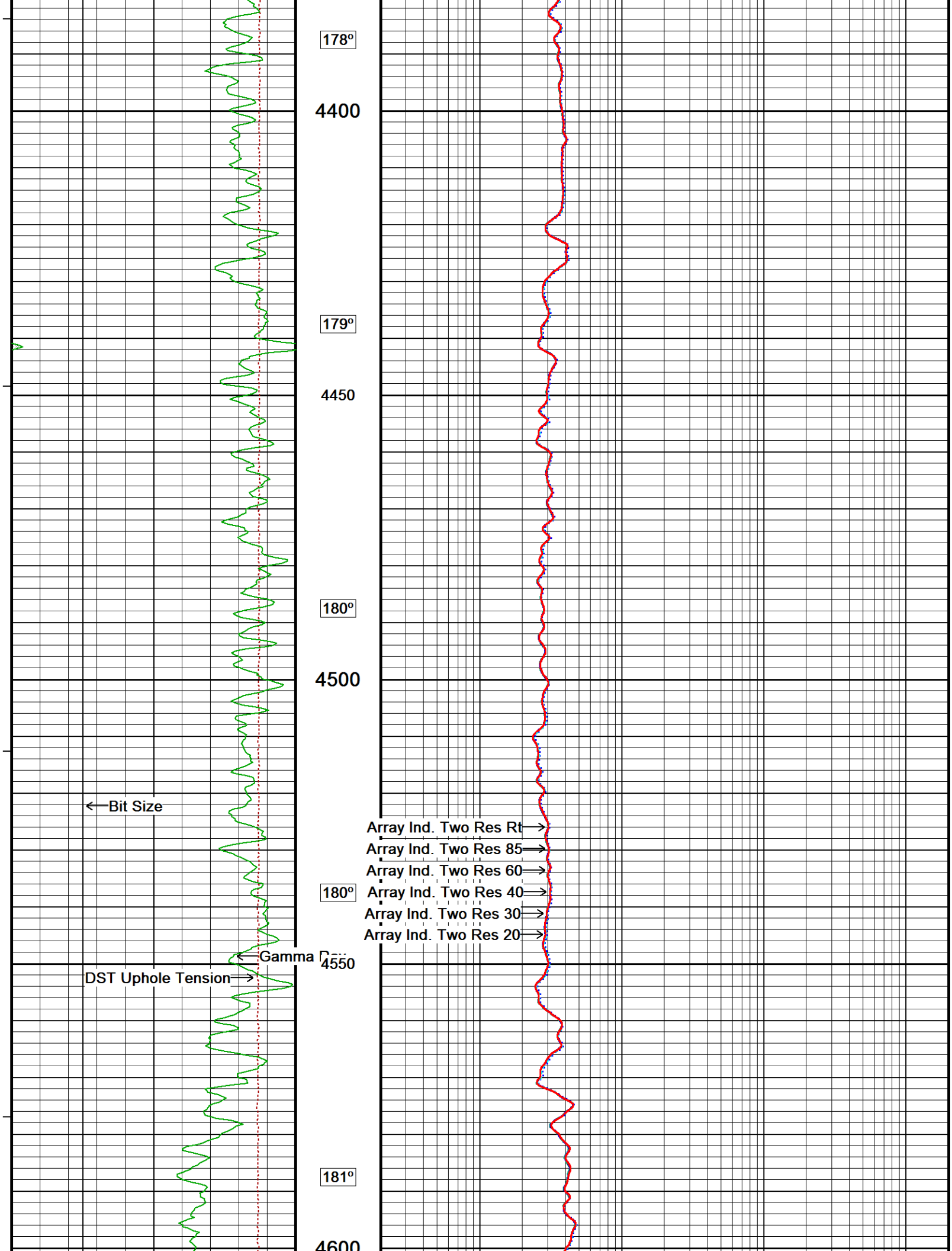

161°
3300
162°
Bit Size
Array Ind. Two Res Rt
Array Ind. Two Res 85
3350
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
Gamma Ray
DST Uphole Tension
163°
3400
163°
3450
164°
3500

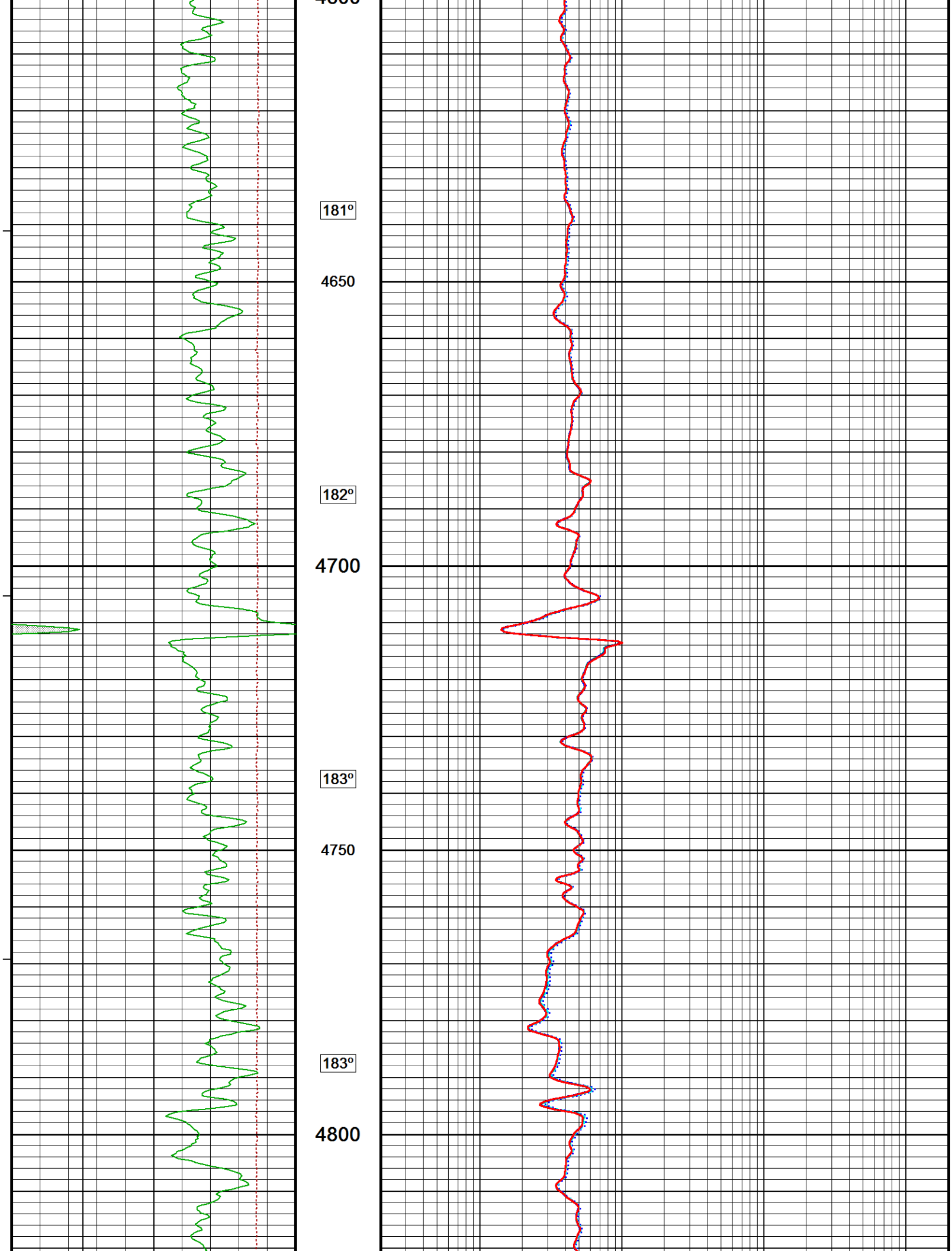

165°
3550
166°
3600
167°
3650
168°
3700

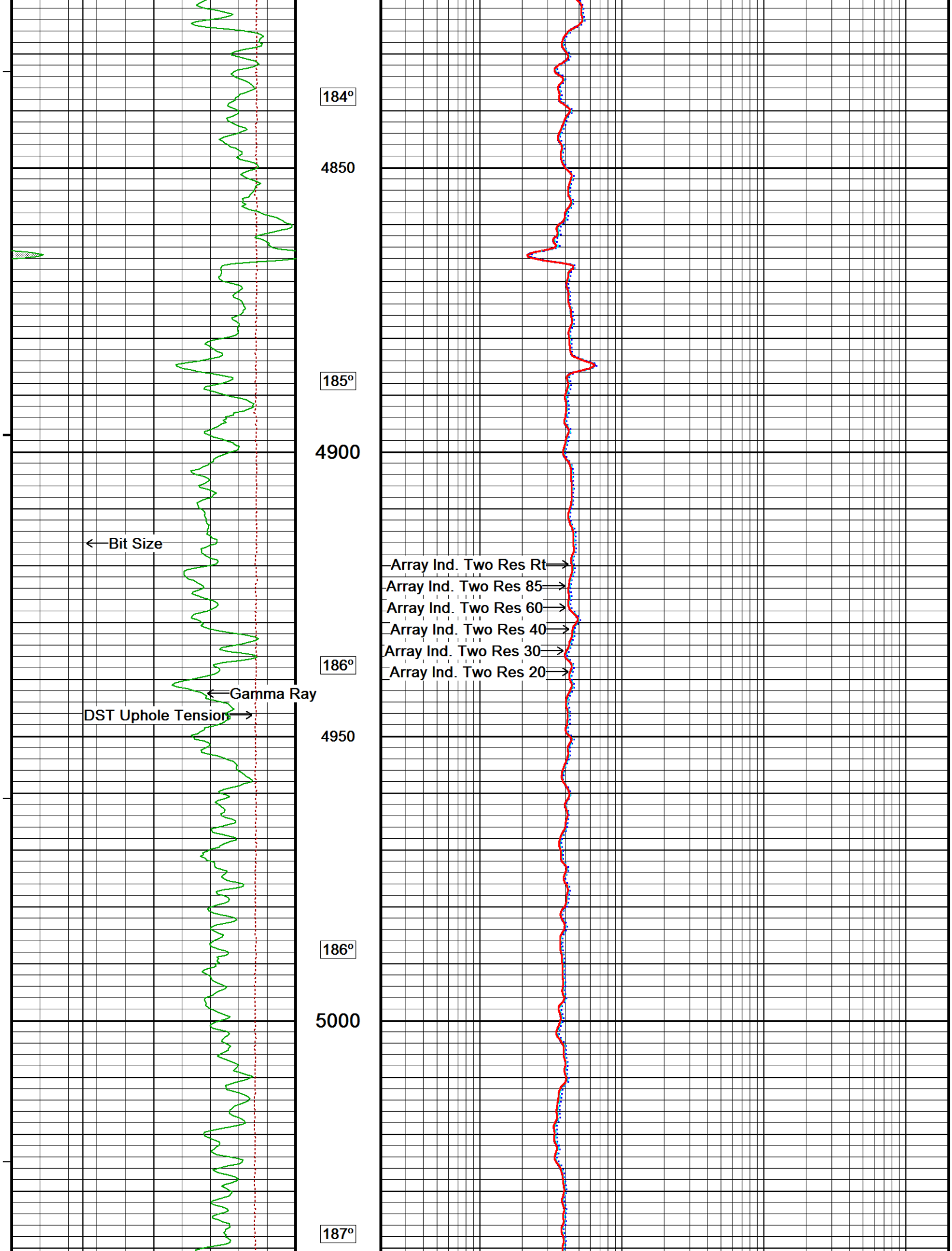

Bit Size
169°
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
3750
ray Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
Gamma Ray
DST Uphole Tension
170°
3800
170°
3850
171°
3900
172°

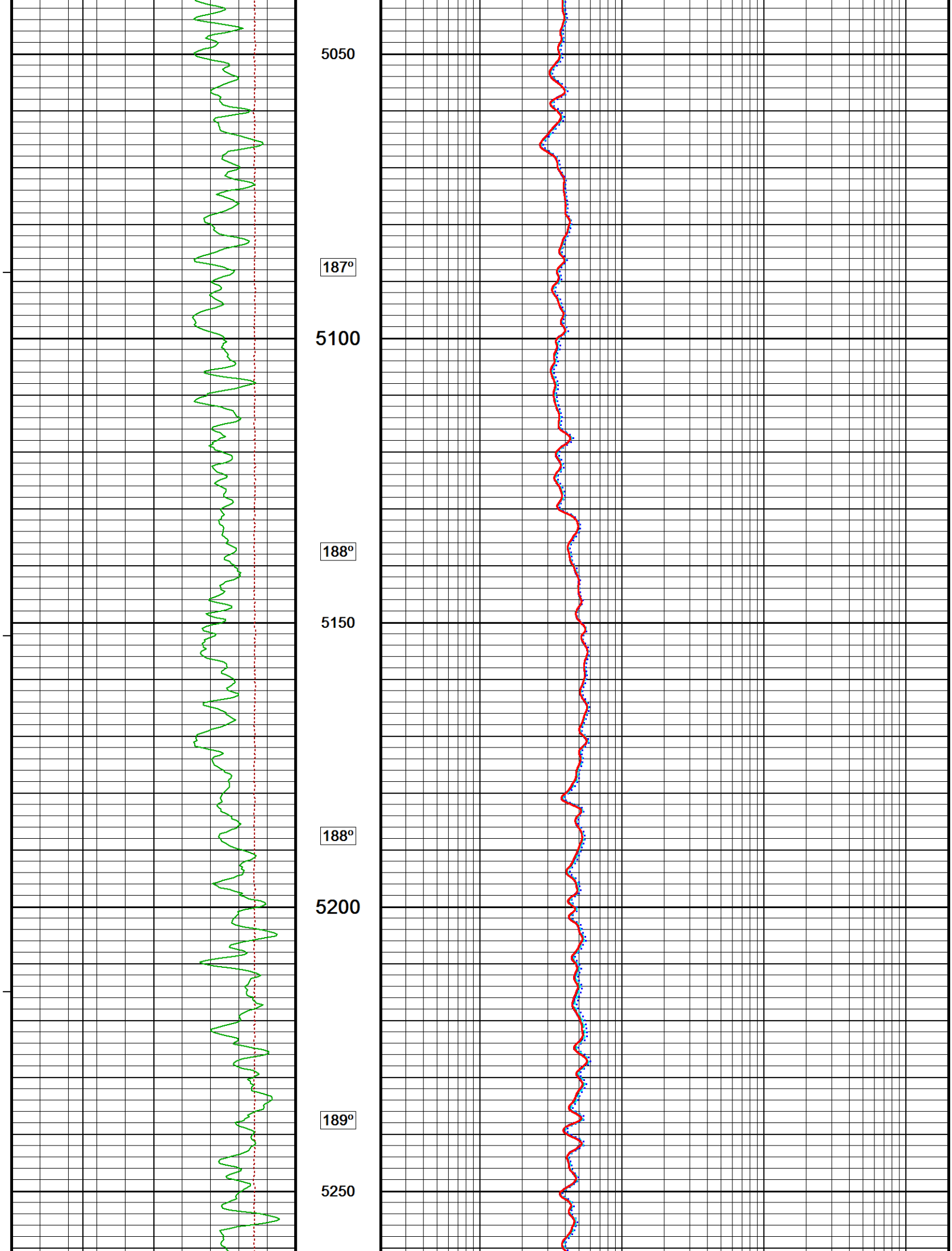

3950
173°
4000
174°
4050
174°
4100
175°
4150
←Bit Size
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two Res 30→
Array Ind. Two Res 20→
←Gamma Ray
DST Uphole Tension→

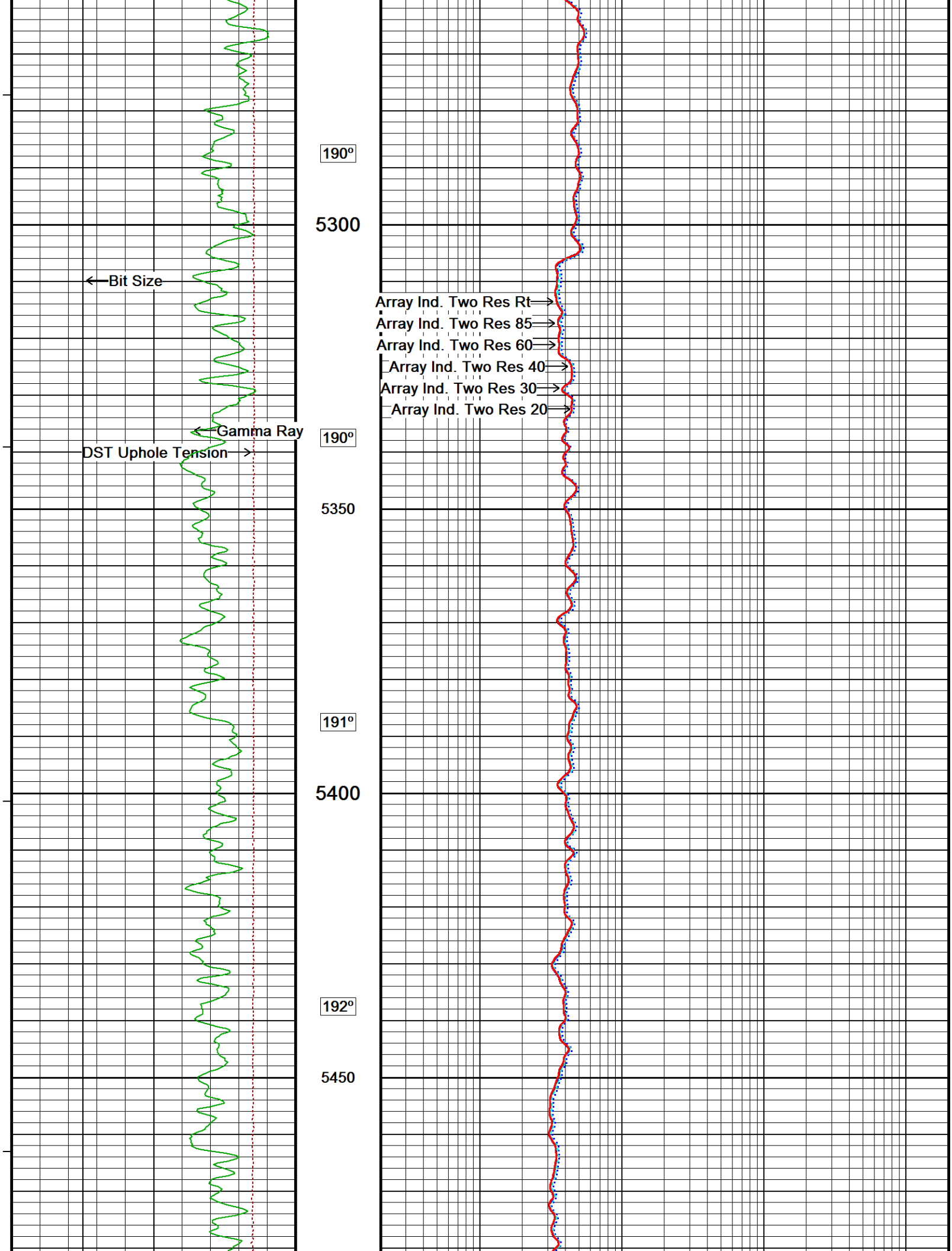

176°
4200
176°
4250
177°
4300
177°
4350

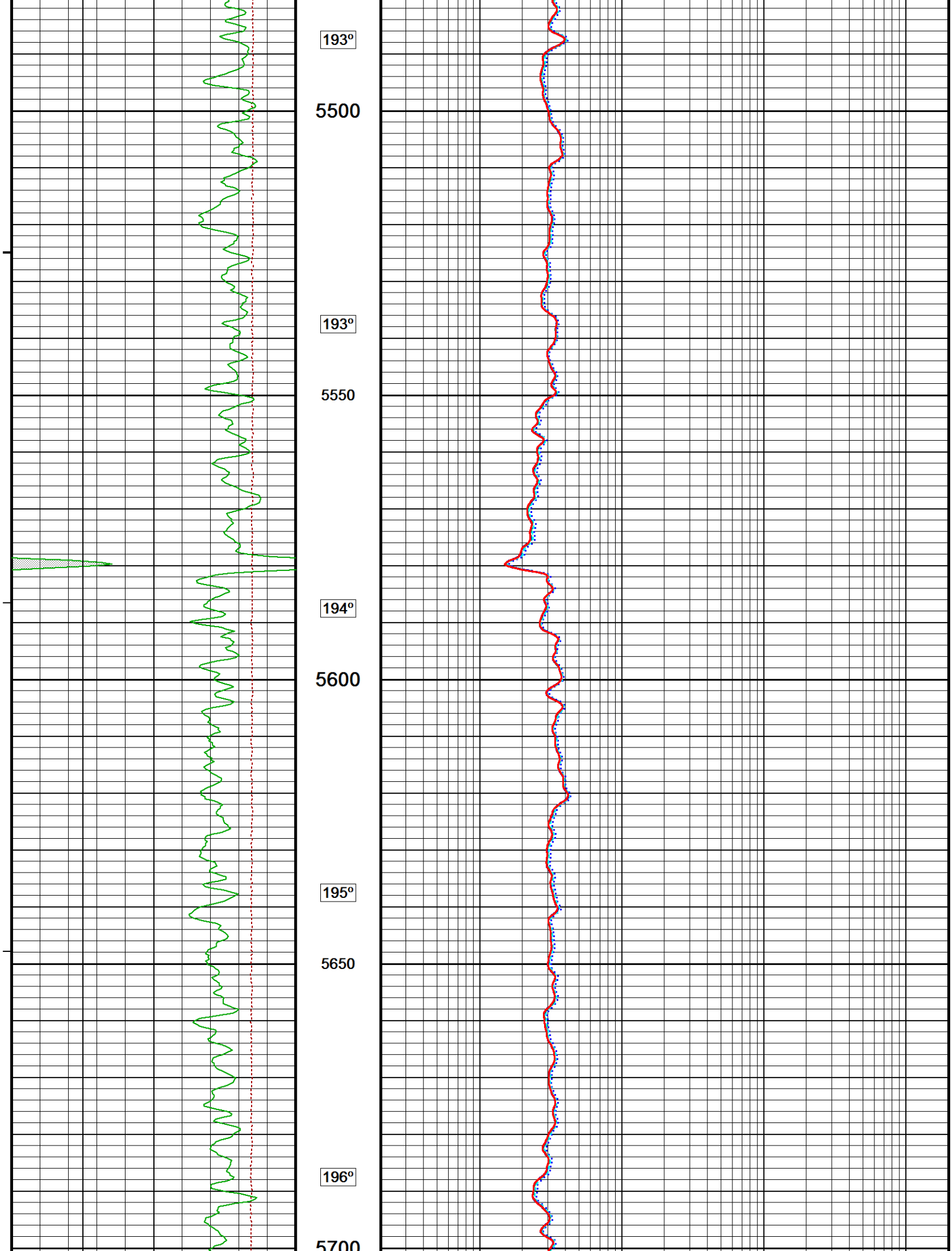

178°
4400
179°
4450
180°
4500
180°
4550
181°
4600
←Bit Size
DST Uphole Tension→
←Gamma R...
Array Ind. Two Res Rt→
Array Ind. Two Res 85→
Array Ind. Two Res 60→
Array Ind. Two Res 40→
Array Ind. Two Res 30→
Array Ind. Two Res 20→

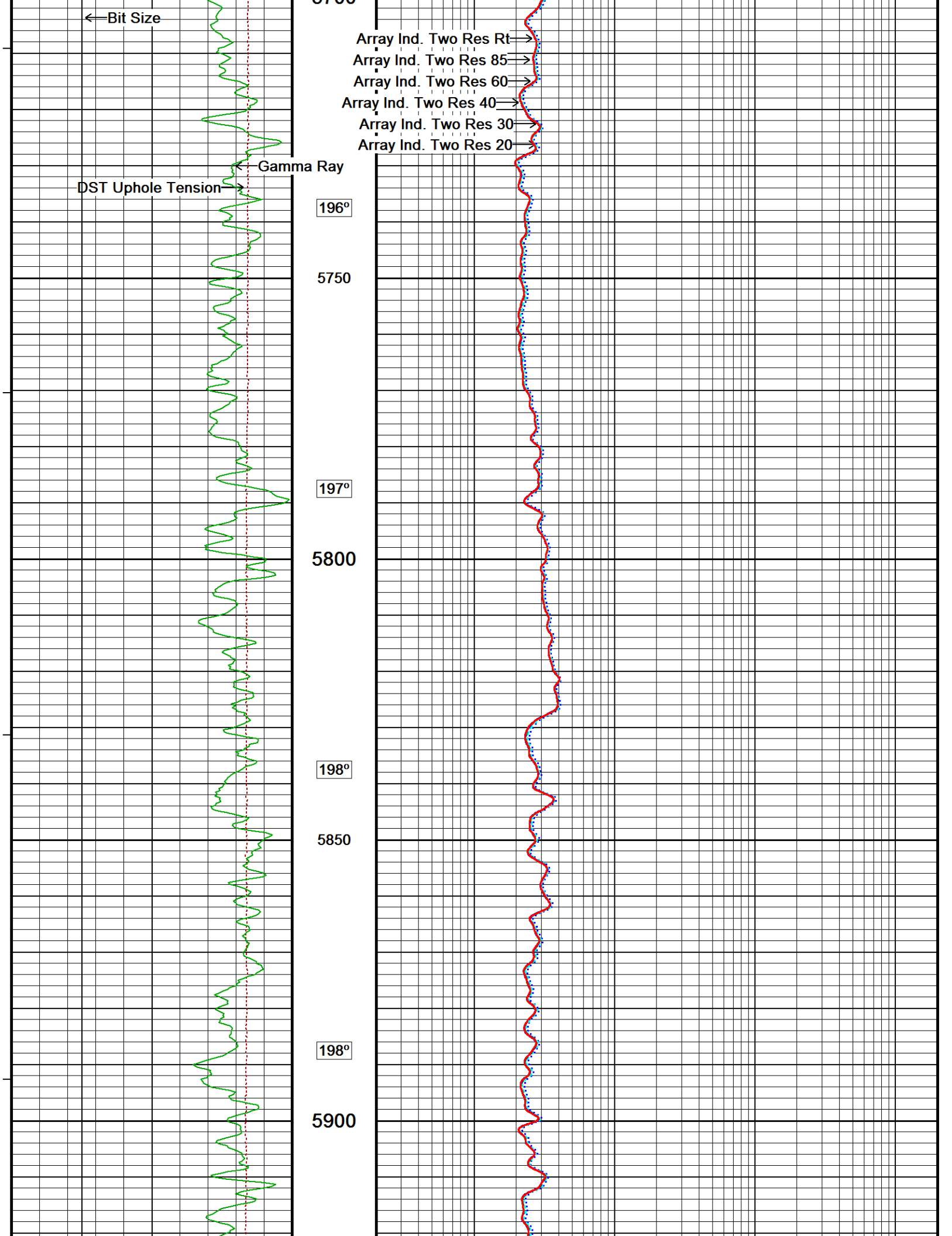

181°
4650
182°
4700
183°
4750
183°
4800

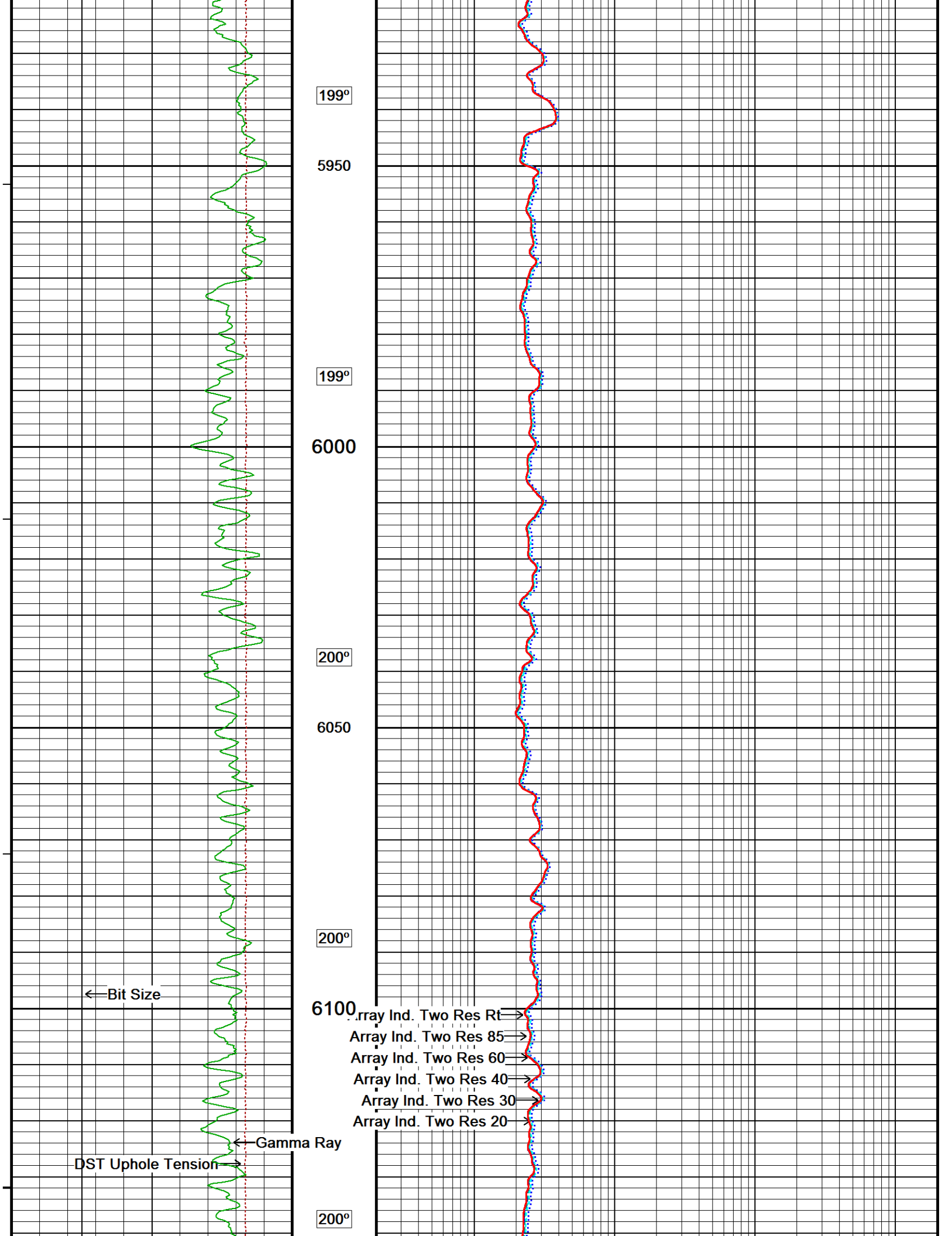

184°
4850
185°
4900
Bit Size
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
186°
Gamma Ray
DST Uphole Tension
4950
186°
5000
187°

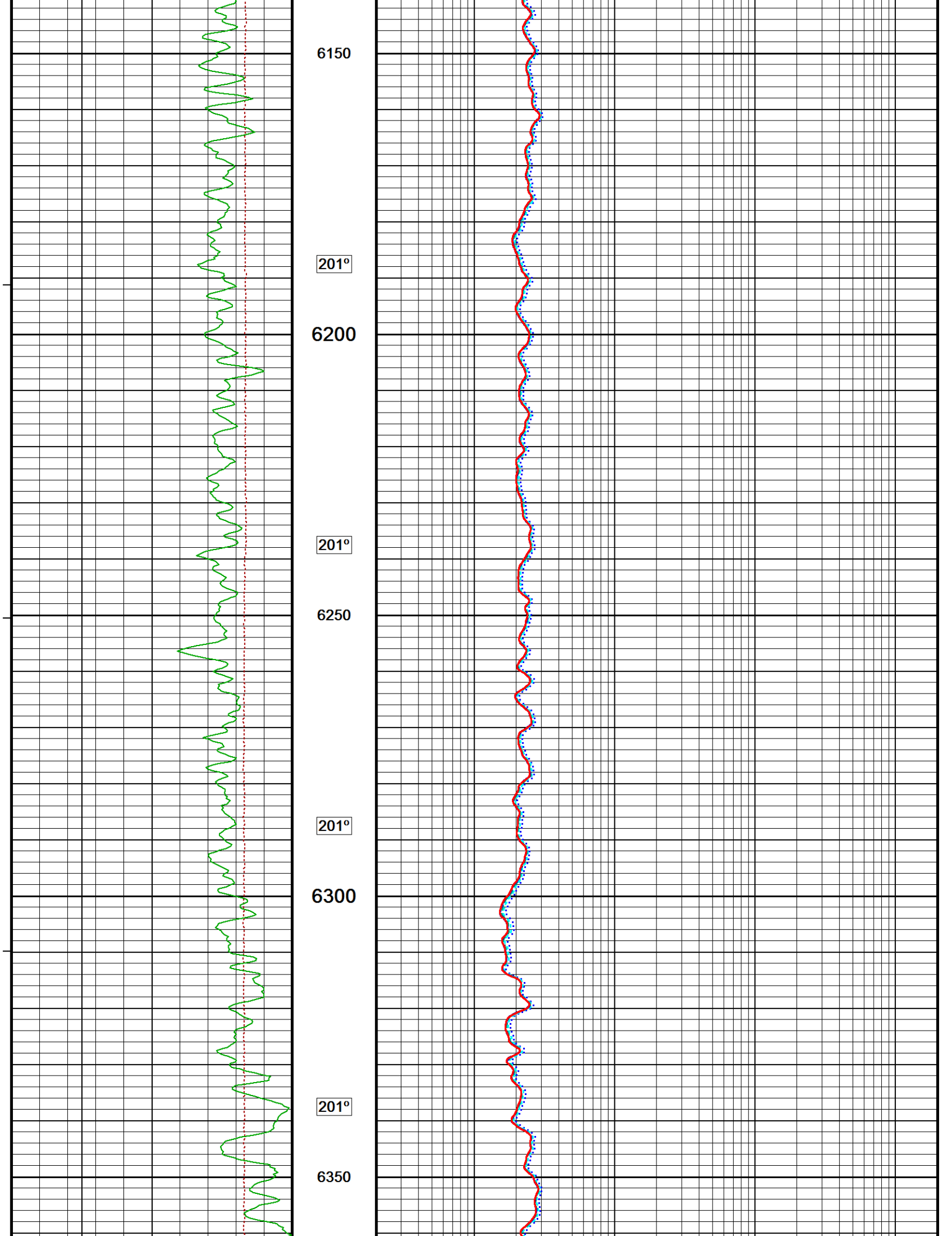

5050
187°
5100
188°
5150
188°
5200
189°
5250

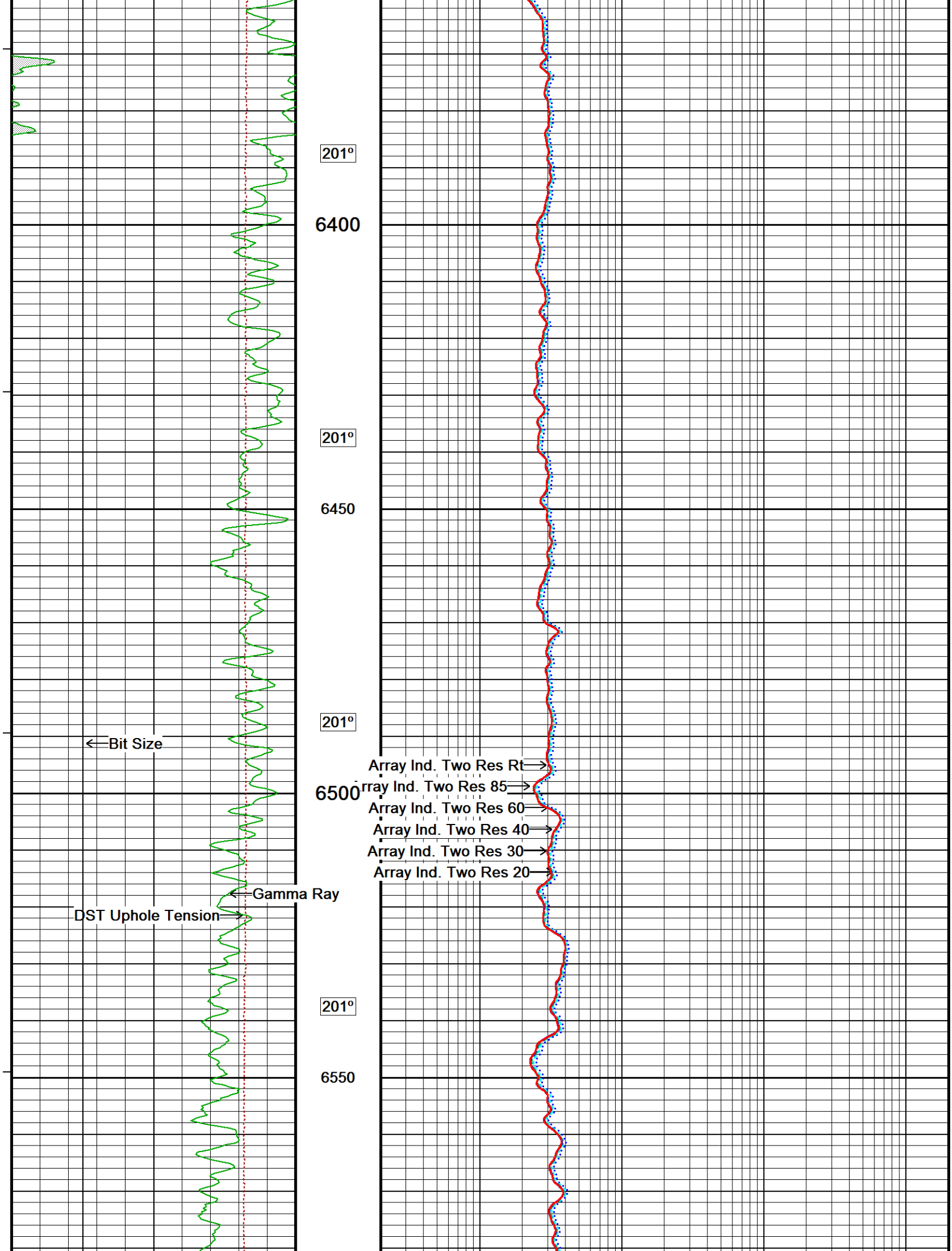

190°
5300
Bit Size
Array Ind. Two Res Rt
Array Ind. Two Res 85
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
Gamma Ray
DST Uphole Tension
190°
5350
191°
5400
192°
5450

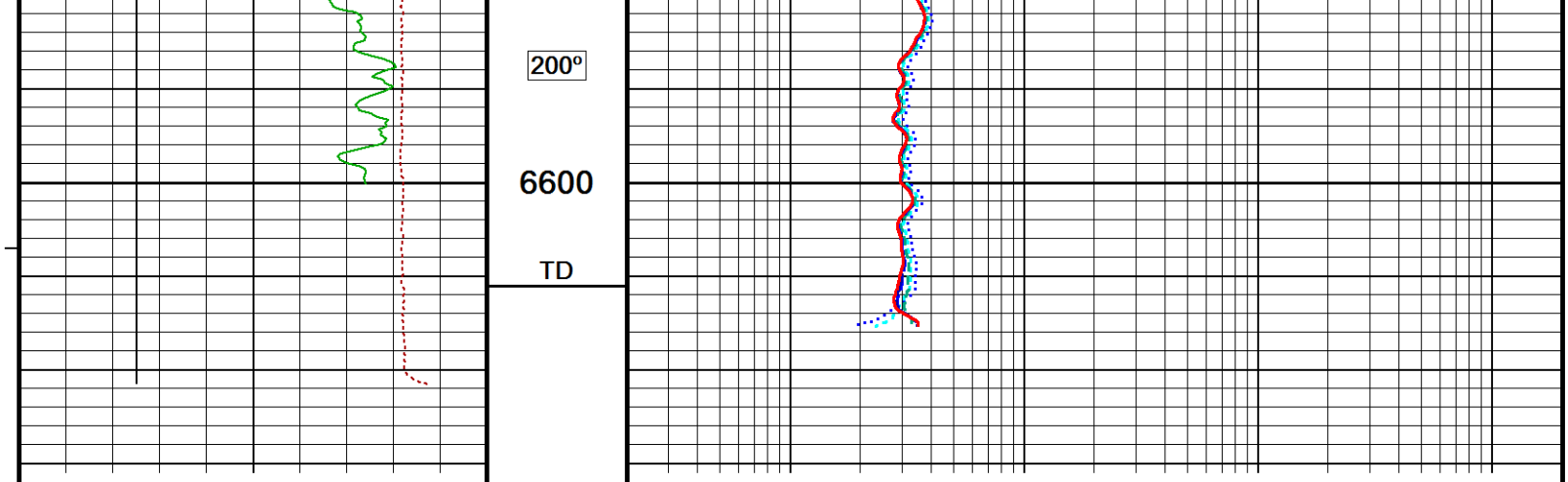

193°
5500
193°
5550
194°
5600
195°
5650
196°
5700


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
Gamma Ray
DST Uphole Tension
196°
5750
197°
5800
198°
5850
198°
5900


199°
5950
199°
6000
200°
6050
200°
6100
200°
←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→
←Gamma Ray
DST Uphole Tension→


6150
201°
6200
201°
6250
201°
6300
201°
6350


201°
6400
201°
6450
201°
Bit Size
Array Ind. Two Res Rt
rray Ind. Two Res 85
6500
Array Ind. Two Res 60
Array Ind. Two Res 40
Array Ind. Two Res 30
Array Ind. Two Res 20
Gamma Ray
DST Uphole Tension
201°
6550



Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0
0 -5000

Depth In Feet

Borehole Temp in deg F

Replay Scale 1:240

Array Ind. Two Res 20
ohm metres
0.20 1 10 100 2000

Array Ind. Two Res 30
ohm metres
0.20 1 10 100 2000

Array Ind. Two Res 40
ohm metres
0.20 1 10 100 2000

Array Ind. Two Res 60
ohm metres
0.20 1 10 100 2000

Array Ind. Two Res 85
ohm metres
0.20 1 10 100 2000

Array Ind. Two Res Rt
ohm metres
0.20 1 10 100 2000

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\MAINPASS.dta
System Versions: Logged with 15.01.3109 Plotted with 15.01.3109

Plotted on 20-JUN-2015 23:53
Recorded on 20-JUN-2015 21:51

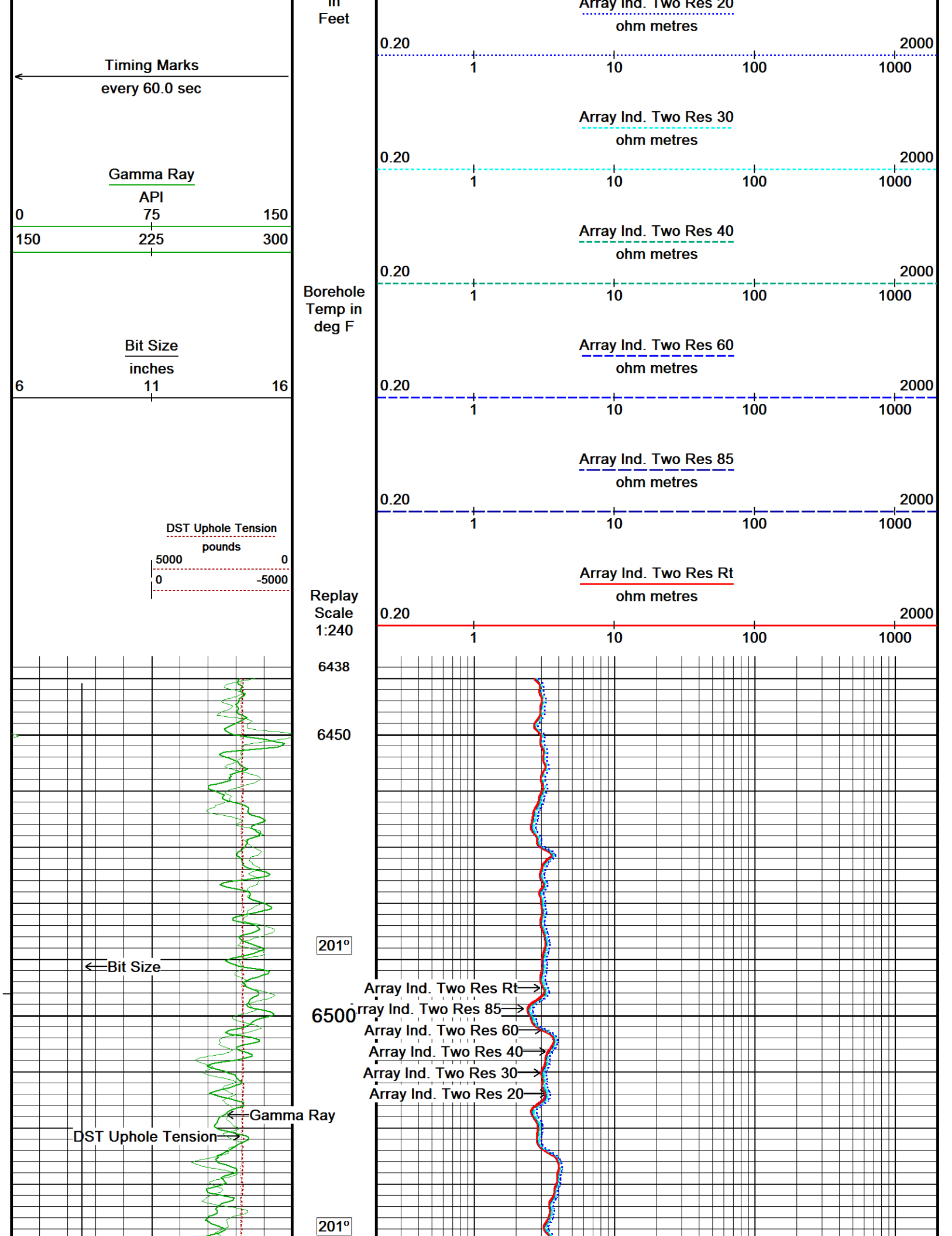
5 INCH MAIN LOG

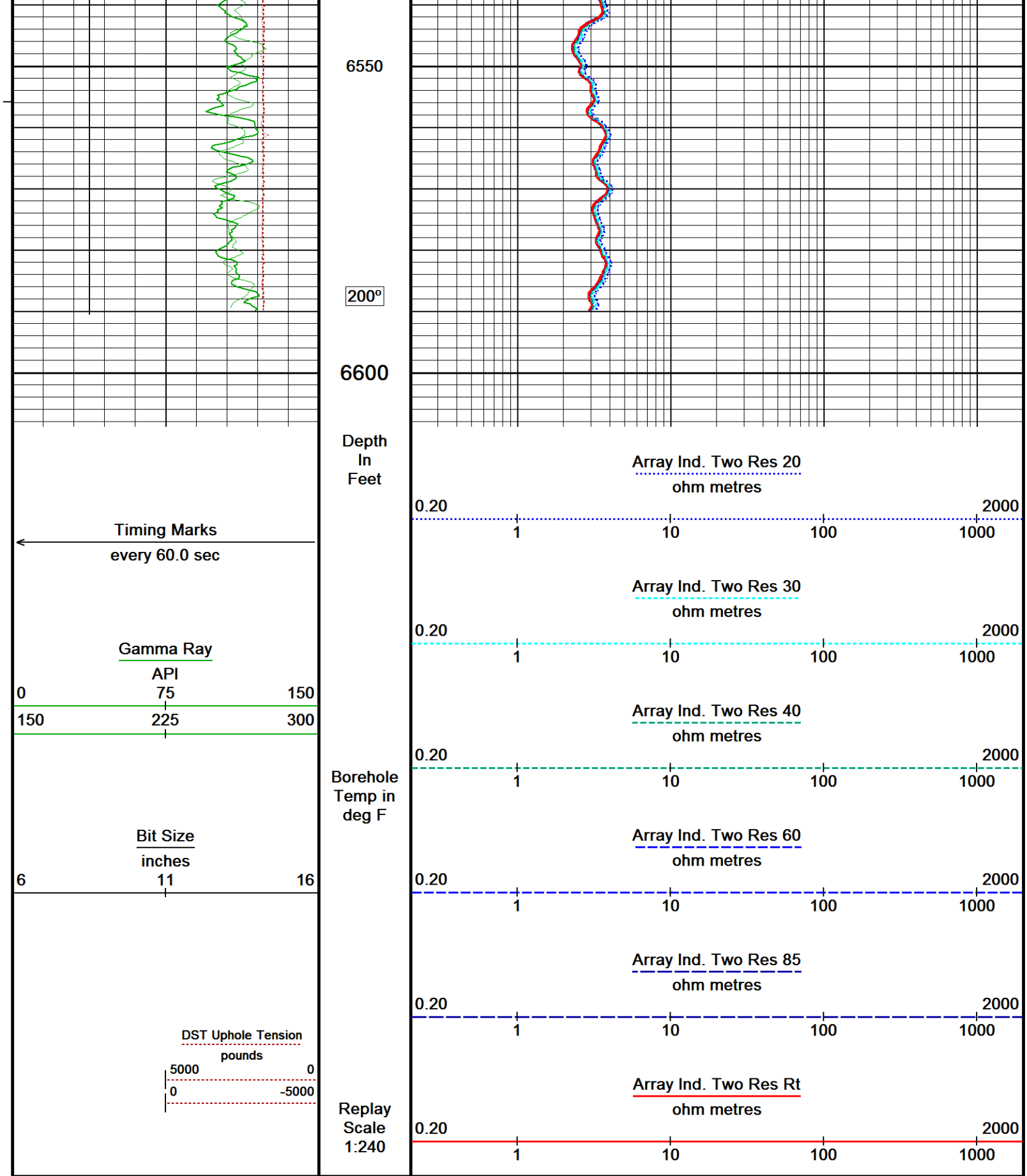
REPEAT SECTION OVERLAY

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\MAINPASS.dta
Filename: C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\REPEAT.dta
System Versions: Logged with 15.01.3109 Plotted with 15.01.3109

Plotted on 20-JUN-2015 23:53
Recorded on 20-JUN-2015 21:51
Recorded on 20-JUN-2015 21:44

Depth


in
Feet
Timing Marks
every 60.0 sec
Gamma Ray
API
0
75
150
150
225
300
Bit Size
inches
6
11
16
DST Uphole Tension
pounds
5000
0
0
-5000
Borehole
Temp in
deg F
Replay
Scale
1:240
Array Ind. Two Res 20
ohm metres
0.20
2000
1
10
100
1000
Array Ind. Two Res 30
ohm metres
Array Ind. Two Res 40
ohm metres
Array Ind. Two Res 60
ohm metres
Array Ind. Two Res 85
ohm metres
Array Ind. Two Res Rt
ohm metres
6438
6450
201°
Bit Size
6500
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
Gamma Ray
DST Uphole Tension
201°



Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 20-JUN-2015 23:53
Filename: C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\MAINPASS.dta
Recorded on 20-JUN-2015 21:51
Filename: C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\REPEAT.dta
Recorded on 20-JUN-2015 21:44
System Versions: Logged with 15.01.3109 Plotted with 15.01.3109

REPEAT SECTION OVERLAY

BEFORE SURVEY CALIBRATION

C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\MAINPASS.dta

Down-hole Tension Calibration All 000

Field Calibration on 24-OCT-2010 03:34

Reading No	Measured	
1	15659.85	0.00
2	15734.68	370.00

General Constants All 000

Last Edited on 20-JUN-2015,18:21

General Parameters		
Mud Resistivity	1000.000	ohm-metres
Mud Resistivity Temperature	83.000	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	None	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	None	
Rwa Parameters		
Porosity used	N/A	
Resistivity used	N/A	
RWA Constant A	N/A	
RWA Constant M	N/A	
SW/APOR Tool Source	0.000	

Down-hole Tension Calibration SMS 0

Field Calibration on 20-JUN-2015 20:55

Reading No	Measured	Calibrated (lbs)
1	16362.40	0.00
2	16509.49	280.00

High Resolution Temperature Calibration MCG-D.K 482

Field Calibration on 03-JUN-2015,23:54

	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	100.00	100.00

High Resolution Temperature Constants MCG-D.K 482

Last Edited on 03-APR-2014,07:59

Pre-filter Length	11

SP Calibration MCG-D.K 482

Field Calibration on 03-JUN-2015,23:53

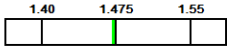
	Measured	Calibrated (mV)
Reference 1	102.0	100.0
Reference 2	-98.0	-100.0

Gamma Calibration MCG-D.K 482

Field Calibration on 20-JUN-2015 17:21

	Measured	Calibrated (API)
Background	117	79
Calibrator (Gross)	1458	991
Calibrator (Net)	1341	912

Gamma Calibration Tolerances MCG-D.K 482

Ratio 1.470 

Counts/API

Gamma Constants MCG-D.K 482

Last Edited on 20-JUN-2015,18:20

Gamma Calibrator Number	GRC.C.072	
GRC-M Calibrator Jig in Use?	NO	
Inactive Background Jig in Use?	NO	
Mud Density	1.14	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Eccentred	
Potassium Equivalence	Chloride	
K Mud Concentration	0.00	%

FE Calibration MFE-C.A 400

Base Calibration on 11-JUN-2015 09:36
Field Check on 20-JUN-2015 17:10

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	964.6	126.8
Base Check		280.7
Field Check		281.0

FE Calibration Tolerances MFE-C.A 400

Reference 2	964.6	-3% 980.0 +3%	ohm
Base Check	280.7	-2% 277.0 +2%	ohm-m
Field Check	281.0	-2% 280.7 +2%	ohm-m

FE Constants MFE-C.A 400

Last Edited on 20-JUN-2015,18:21

Running Mode	No Sleeve	
MFE K Factor	0.1268	
Borehole Correction Constants		
Sonde Position	0.5	inches
Hole Size Source	Bit Size	
Hole Size Constant Value	N/A	inches
Rm Source	Global Value: Temperature Corrected	
Temp. for Rm Corr.	MCG External Temperature	

High Resolution Temperature Calibration MAI-B.J 374

Field Calibration on 11-MAR-2013,14:43

	Measured	Calibrated(Deg C)
Lower	10.00	10.00
Upper	100.00	100.00

High Resolution Temperature Constants MAI-B.J 374

Last Edited on 11-MAR-2013,14:43

Pre-filter Length	11

Induction Calibration MAI-B.J 374

Base Calibration on 11-MAR-2013,14:44
Field Check on 20-JUN-2015 17:08

Base Calibration

Test Loop Calibration

Channel	Measured Low	Measured High	Calibrated (mmho/m) Low	Calibrated (mmho/m) High
1	16.0	476.0	9.3	966.2
2	5.4	382.2	7.6	821.4
3	3.7	260.5	5.2	566.0
4	1.8	133.4	2.6	279.2
Array Temperature		71.2	Deg F	

Test Loop Calibration Verified 11-JUN-2015 14:09

Channel	Base Check (mmho/m) Low	Base Check (mmho/m) High	Field Check (mmho/m) Low	Field Check (mmho/m) High
1	14.4	3784.2	16.1	3784.5
2	31.4	3500.4	31.7	3498.9
3	27.8	3021.4	28.0	3020.1
4	19.8	2056.6	19.8	2055.9
Deep	16.1	1969.8	16.3	1969.5
Medium	40.6	3986.7	40.6	3984.5
Shallow	48.5	5174.8	48.7	5172.1
Array Temperature		57.4	83.1	Deg F

Induction Calibration Tolerances MAI-B.J 374

Low Conductivity 1	16.0	13.0 17.0 21.0 (4.5 6.0 7.5)	mmho/m	High Conductivity 1	476.0 430.0 475.0 520.0 (345.0 385.0 425.0) mmho/m

Low Conductivity 2	5.4	1.0 3.5 6.0	mmho/m	High Conductivity 2	382.2	240.0 260.0 280.0	mmho/m
Low Conductivity 3	3.7	0.0 2.0 4.0	mmho/m	High Conductivity 3	260.5	120.0 135.0 150.0	mmho/m
Low Conductivity 4	1.8	-110.0 -32.5 45.0	mmho/m	High Conductivity 4	133.4	-2.0 0.0 2.0	mmho/m
Background Vx 1	0.0	-35.0 20.0 75.0	mmho/m	Phase Check Loop 1	0.0	-2.0 0.0 2.0	%
Background Vx 2	0.0	-60.0 2.5 65.0	mmho/m	Phase Check Loop 2	0.0	-2.0 0.0 2.0	%
Background Vx 3	0.0	-50.0 -17.5 15.0	mmho/m	Phase Check Loop 3	0.0	-2.0 0.0 2.0	%
Background Vx 4	0.0		mmho/m	Phase Check Loop 4	0.0		%

Induction Constants MAI-B.J 374

Last Edited on 20-JUN-2015,17:01

Induction Model	RtAP-NC	
Borehole Correction Constants		
Tool Centred	No	
Hole Size Source	Bit Size	
Hole Size Constant Value	N/A	inches
Stand-off Type	Fins	
Stand-off	0.50	inches
Number of Fins on Stand-off	6.0000	
Stand-off Fin Angle	60.00	degrees
Stand-off Fin Width	0.5000	inches
Rm Source	Global Value: Temperature Corrected	
Temp. for Rm Corr.	MCG External Temperature	
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
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	100.00	percent
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	

DOWNHOLE EQUIPMENT

C:\Logs\Anadarko\Bane 27N2-9HZ GR_MAI\MAINPASS.dta

CBH-C, Cablehead, 11 pin
CBH-C 0 LG: 2.40 ft WT: 24.3 lb OD: 2.244 in

Compact Linker
MLK-D.A 104 LG: 4.87 ft WT: 70.5 lb OD: 2.240 in

SHA-J.B Compact Swivel Head Adaptor
SHA-J.B 509 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

22.44 ft GRGC - MCG Gamma Ray

19.53 ft CGXT - MCG External Temperature

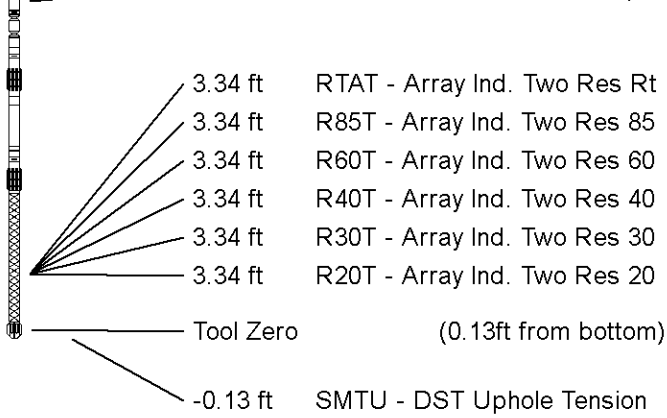
Compact Comms Gamma
MCG-D.K 482 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

SKJ-D Compact Knuckle Joint
SKJ-D 29 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Focussed Electric
MFE-C.A 400 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction
MAI-B.J 374 LG: 10.81 ft WT: 48.5 lb OD: 2.240 in

Total Length: 37.29 ft Weight: 302.0 lb



All measurements relative to tool zero.

COMPANY	ANADARKO PETROLEUM
WELL	BANE 27N2-9HZ
FIELD	WATTENBERG
PROVINCE/COUNTY	WELD
COUNTRY/STATE	USA/COLORADO

Elevation Kelly Bushing	4991.00	feet	First Reading	6611.00	feet
Elevation Drill Floor	4991.00	feet	Depth Driller	6591.00	feet
Elevation Ground Level	4966.00	feet	Depth Logger	6611.00	feet

Weatherford®

ARRAY INDUCTION LOG
GAMMA RAY LOG