Weatherford®

COMPACT TRIPLE COMBO
QUICKLOOK LOG

COMPANY	ALTA MESA SERVICES LLC
WELL	BARLOW 1-14
FIELD	WILDCAT
PROVINCE/COUNTY	PAYETTE
COUNTRY/STATE	U.S.A. / IDAHO
LOCATION	SHL: 2468' FWL & 1598' FSL

SEC 14	TWP 8N	RGE 5W	Other Services
Latitude		44.0299614	COMPACT CROSS DIPOLE COMPACT MICRO IMAGER
Longitude		-116.9031064	SPECTRAL GAMMA RAY
API Number		11-075-20033	

Permanent Datum GL, Elevation 2164 feet
Log Measured From KB, 14.00 feet above Permanent Datum
Drilling Measured From KB

Elevations:	feet
KB	2178.00
DF	2178.00
GL	2164.00

CONFIDENTIAL

Date	26-JAN-2018					
Run Number	1					
Service Order	2938-201375062					
Depth Driller	4150.00	feet				
Depth Logger	4143.00	feet				
First Reading	4139.70	feet				
Last Reading	1088.00	feet				
Casing Driller	1092.00	feet				
Casing Logger	1088.00	feet				
Bit Size	8.500	inches				
Hole Fluid Type	WBM					
Density / Viscosity	11.40	lb/USg	44.00	sec/qt		
PH / Fluid Loss	7.00		3.60	ml/30Min		
Sample Source	SUCTION					
Rm @ Measured Temp	0.24 @ 93.0	ohm-m				
Rmf @ Measured Temp	0.18 @ 93.0	ohm-m				
Rmc @ Measured Temp	0.36 @ 93.0	ohm-m				
Source Rmf / Rmc	CALC		CALC			
Rm @ BHT	0.123 @172.0	ohm-m				
Time Since Circulation	5 HRS					
Max Recorded Temp	189.00	deg F				
Equipment / Base	13174		CASPER			
Recorded By	BLAKE CARROLL				MARIO SALAZAR	
Witnessed By	DAVE SMITH					

REMARKS

- SOFTWARE: LOGGED WITH WLS 17.05.5669
- TOOLS: RUN 1 - HFS, MIE, MIM, MTD, MRD, MDM, MSG, MCG, MTAK, CBH RAN IN COMBINATION
  RUN 2 - MAI, MFE, SKJ, MISE, SKJ, SHA, MVC, MPD, MDN, MCG, MTAK, CBH RAN IN COMBINATION
- HARDWARE: RUN 1
  MTD: OVERBODY BASKET
  MDM: OVERBODY BASKET
  MIM: OVERBODY BASKET
  RUN 2
  MDN: DUAL BOWSPRING ECCENTRALIZER
  MPD: 8 INCH PROFILE PLATE
- 2.65 G/CC SANDSTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 1350 CU.FT.
- ANNULAR VOLUME FROM TD TO SURFACE CASING USING 5.5" PRODUCTION CASING: 850 CU FT.
- LATITUDE: 44 DEG 1 MIN 47.861 SEC
- LONGITUDE: -116 DEG 54 MIN 11.183 SEC

CONFIDENTIAL

BOREHOLE RECORD

Last Edited: 26-JAN-2018 18:53

Bit Size (inches)	Depth From (feet)	Depth To (feet)
8.500	1092.00	4150.00

CASING RECORD

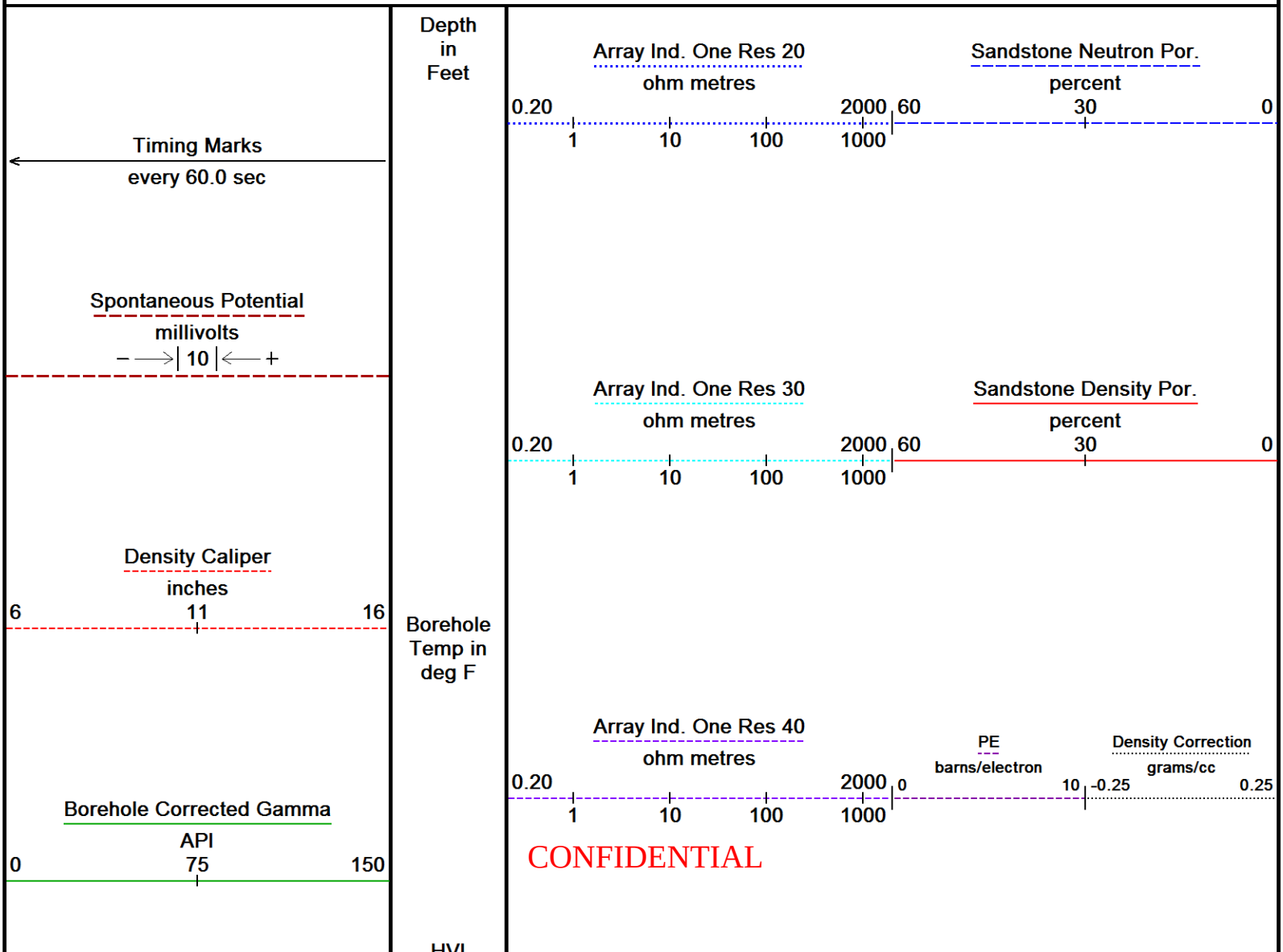
Type	Size (inches)	Depth From (feet)	Shoe Depth (feet)	Weight (pounds/ft)
	9.625	0.00	1092.00	40.00

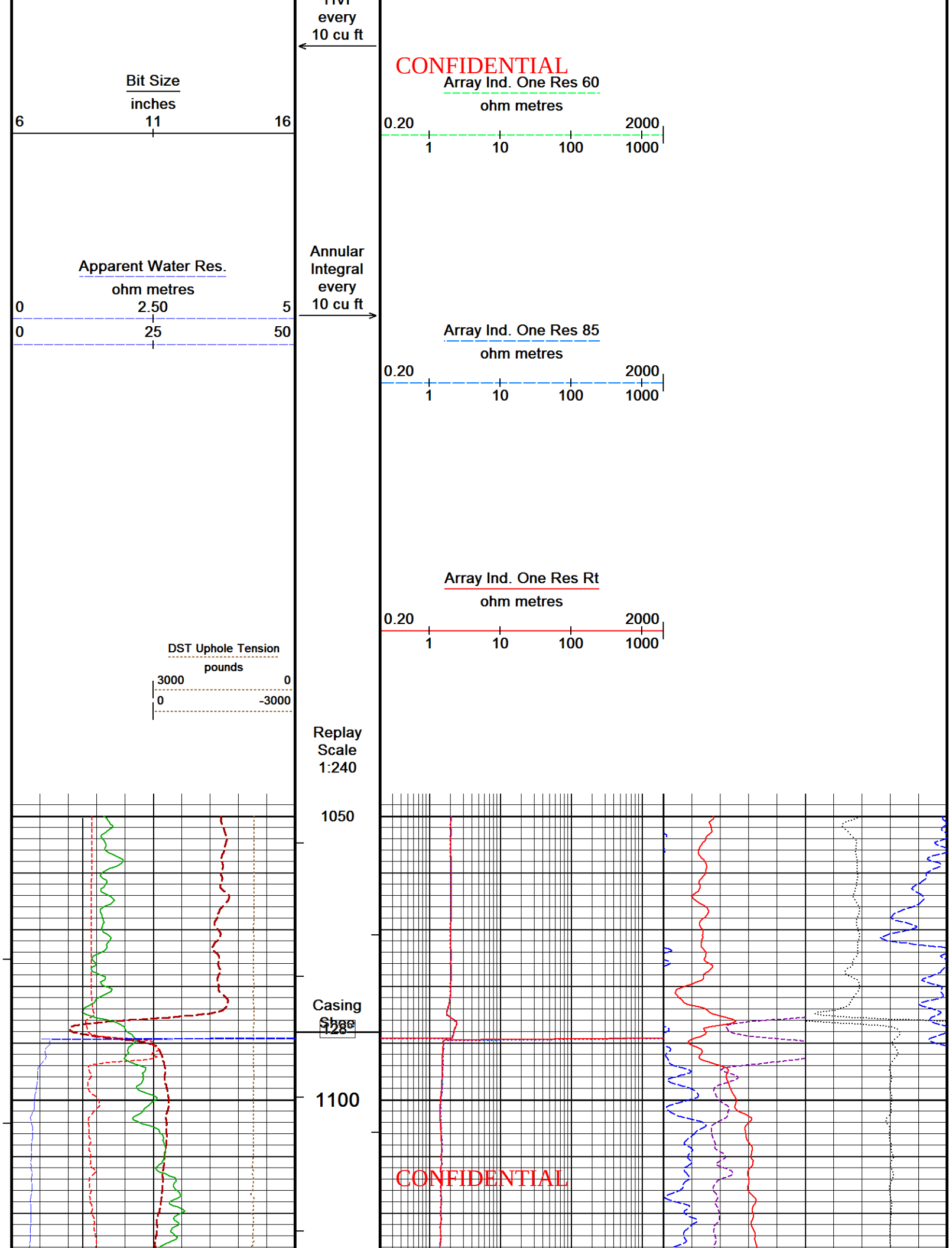
5 INCH MAIN PASS

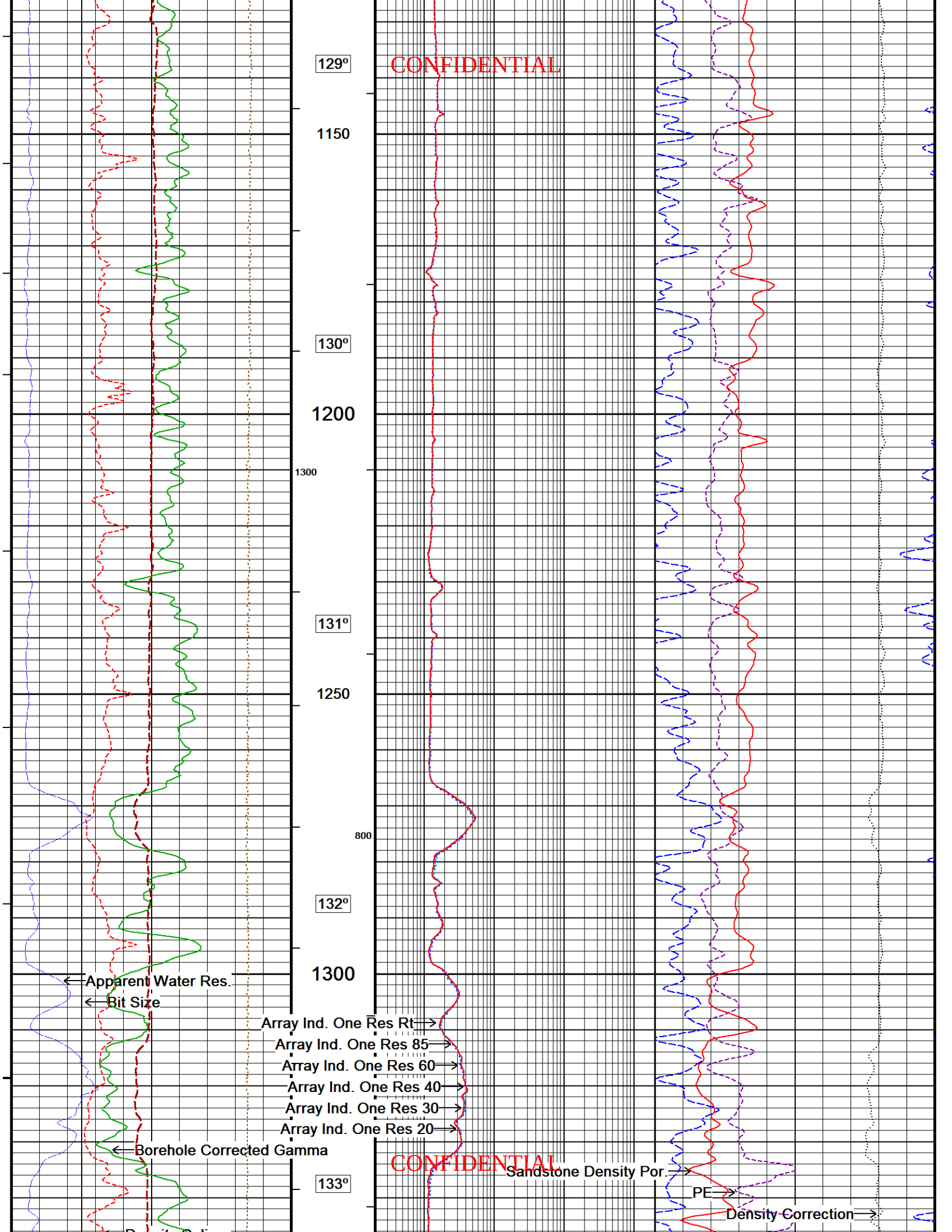
Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 29-JAN-2018 14:29

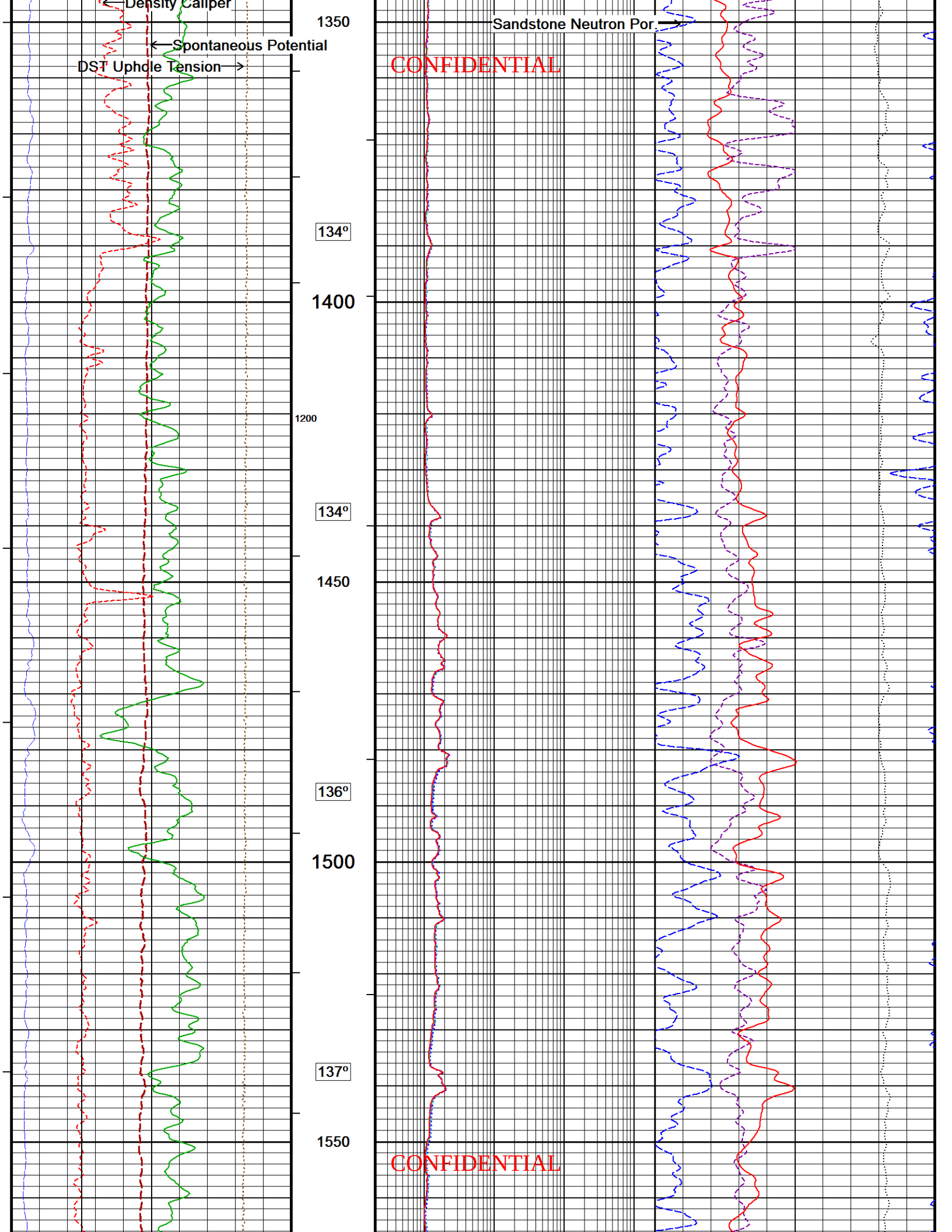
Filename: C:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\MAIN PASS R2.dta — Recorded on 26-JAN-2018 20:18

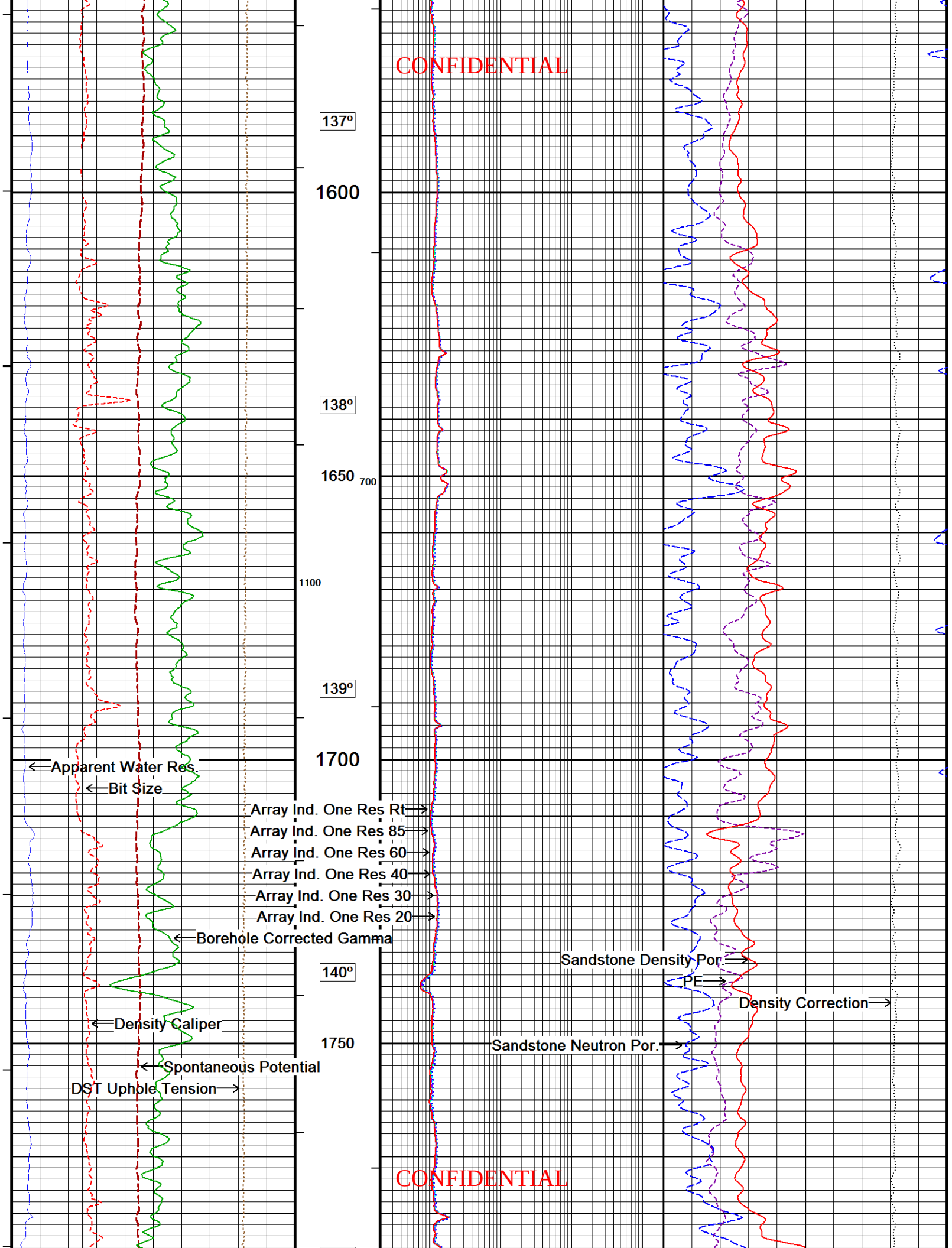
System Versions: Logged with 17.05.5669 Processed with 17.05.5956 Plotted with 17.05.5802

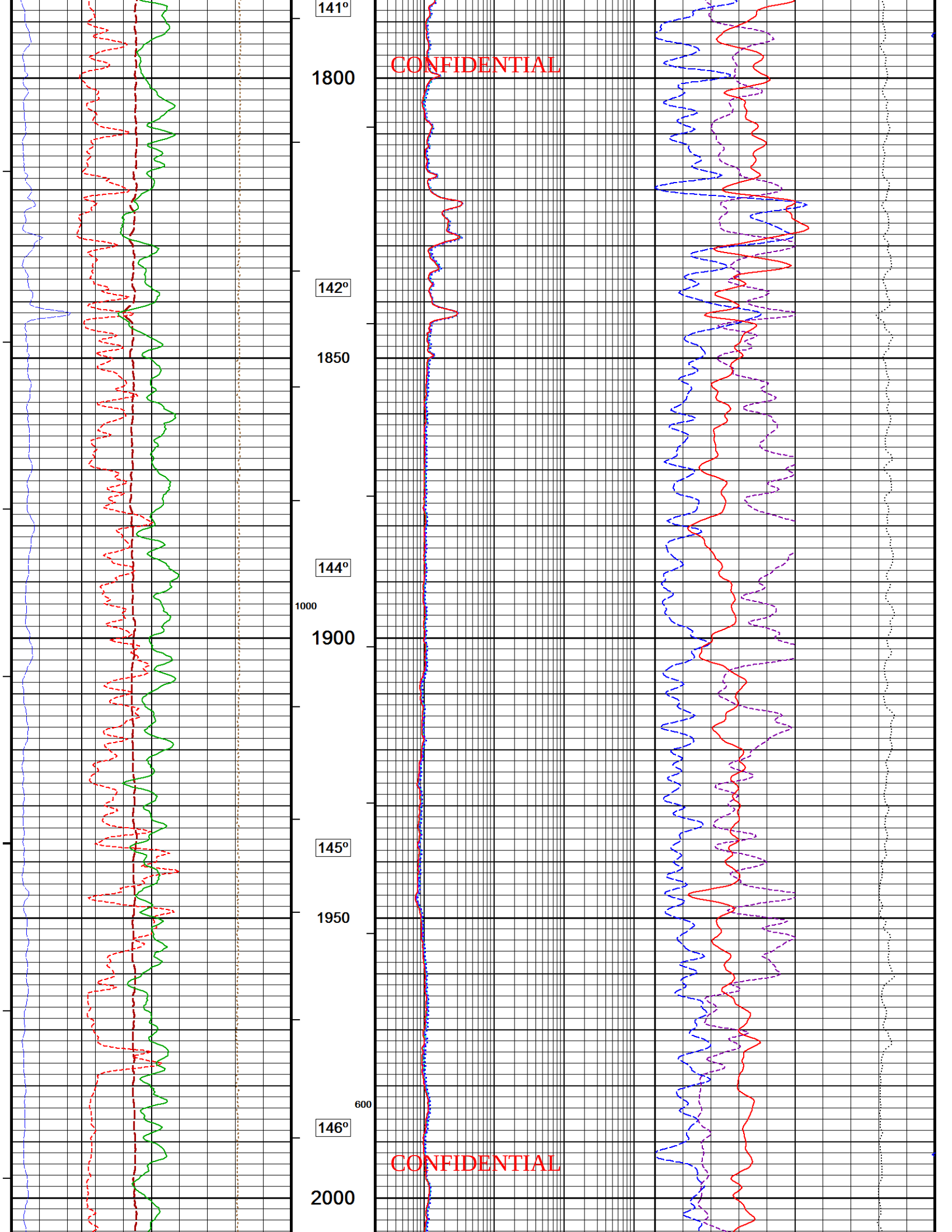


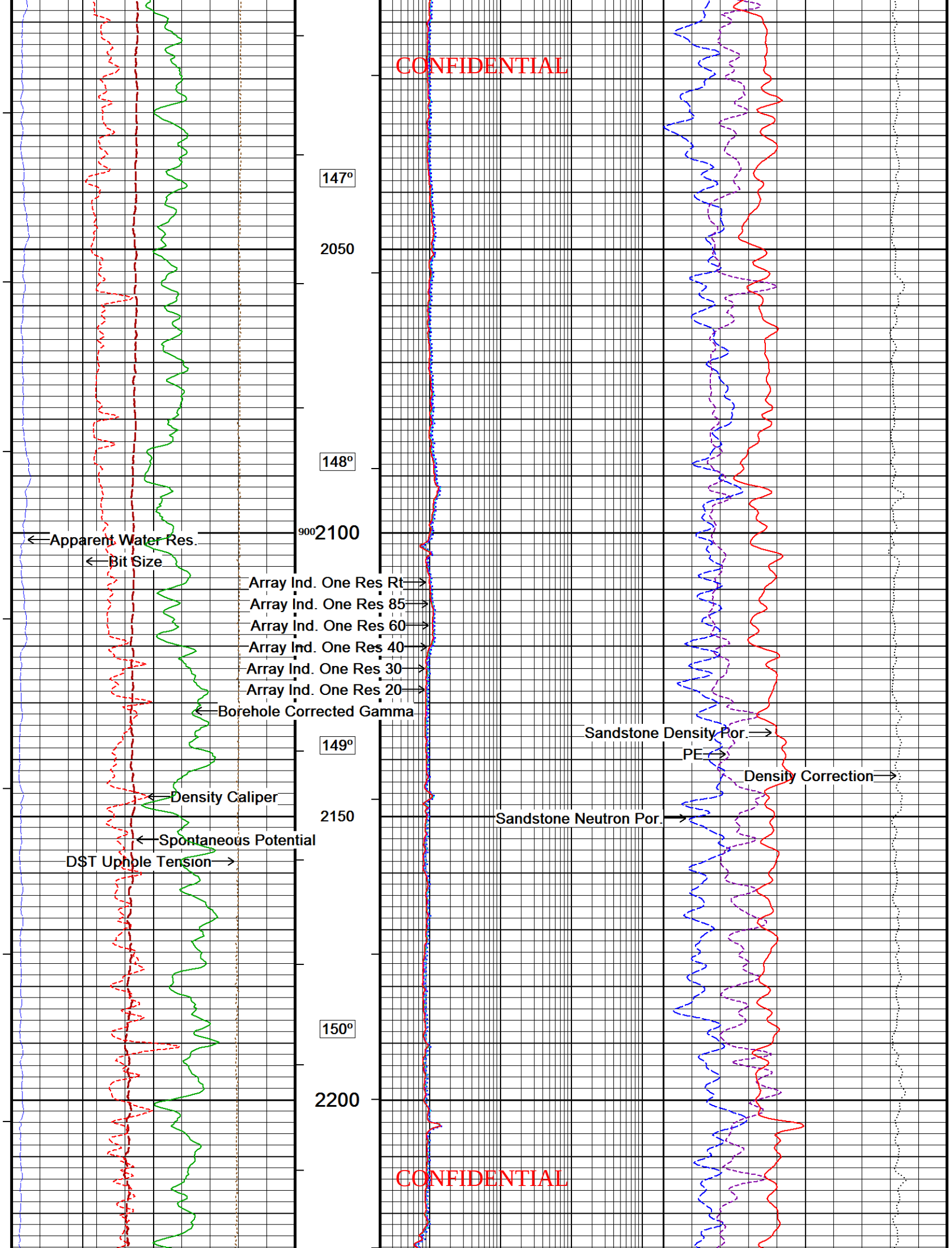

every
10 cu ft
CONFIDENTIAL
Bit Size
inches
6
11
16
Array Ind. One Res 60
ohm metres
0.20
2000
1
10
100
1000
Annular
Integral
every
10 cu ft
Apparent Water Res.
ohm metres
0
2.50
5
0
25
50
Array Ind. One Res 85
ohm metres
0.20
2000
1
10
100
1000
Array Ind. One Res Rt
ohm metres
0.20
2000
1
10
100
1000
DST Uphole Tension
pounds
3000
0
0
-3000
Replay
Scale
1:240
1050
Casing
Shoe
1100
CONFIDENTIAL

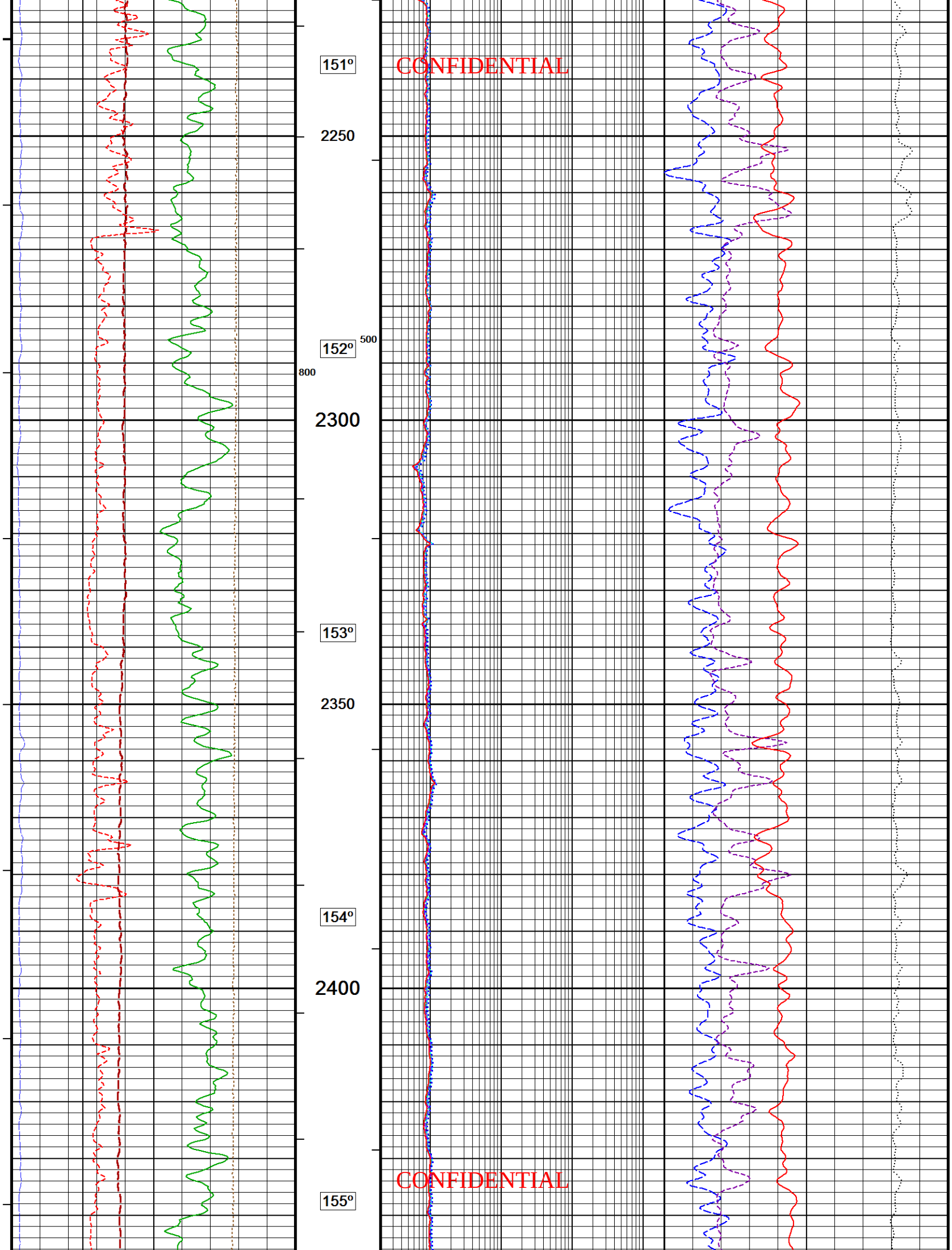

CONFIDENTIAL
129°
1150
130°
1200
1300
131°
1250
800
132°
1300
133°
Apparent Water Res.
Bit Size
Array Ind. One Res Rt
Array Ind. One Res 85
Array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Array Ind. One Res 20
Borehole Corrected Gamma
CONFIDENTIAL
Sandstone Density Por.
PE
Density Correction

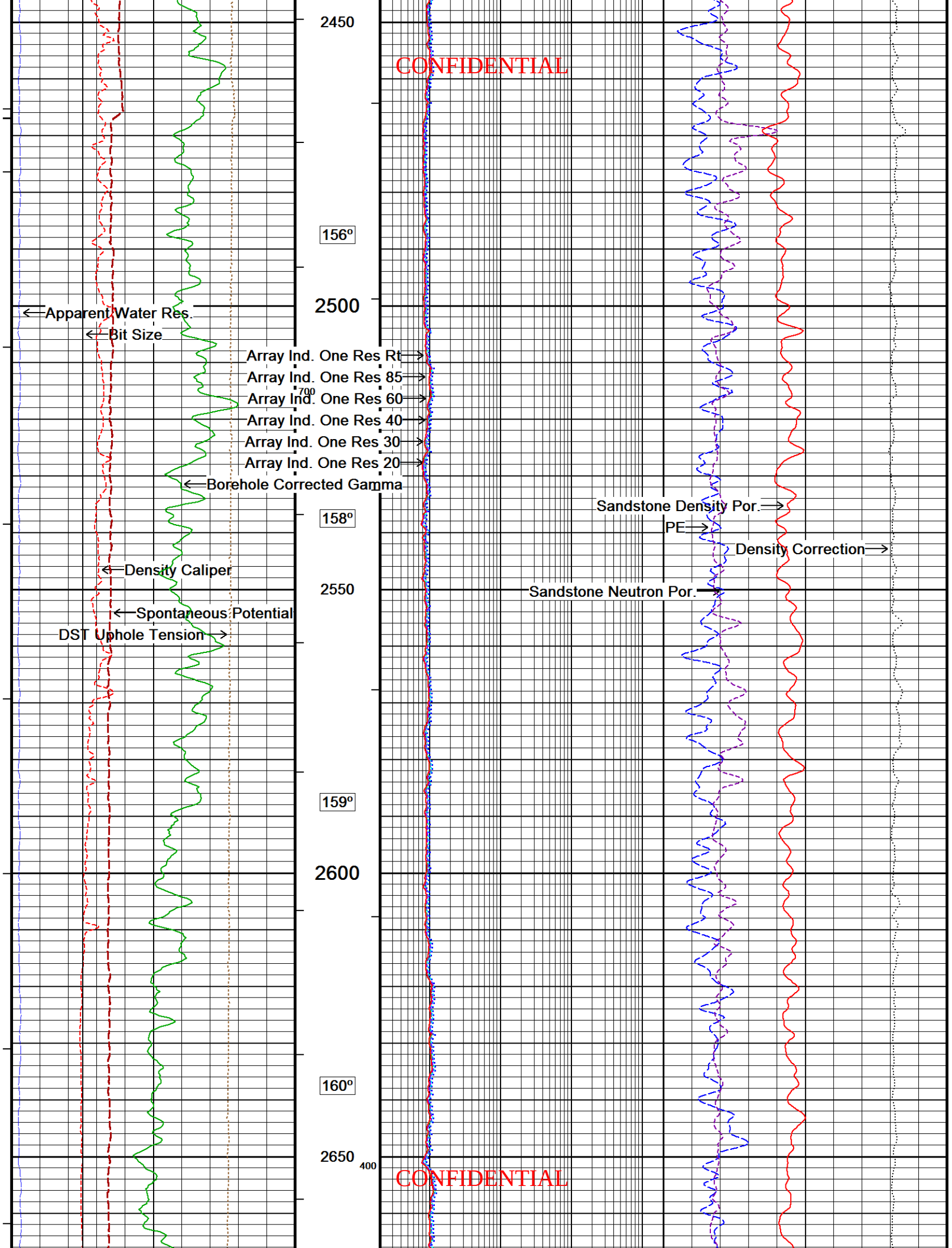

Density Caliper
Spontaneous Potential
DST Uphole Tension
Sandstone Neutron Por
CONFIDENTIAL
CONFIDENTIAL
1350
134°
1400
1200
134°
1450
136°
1500
137°
1550

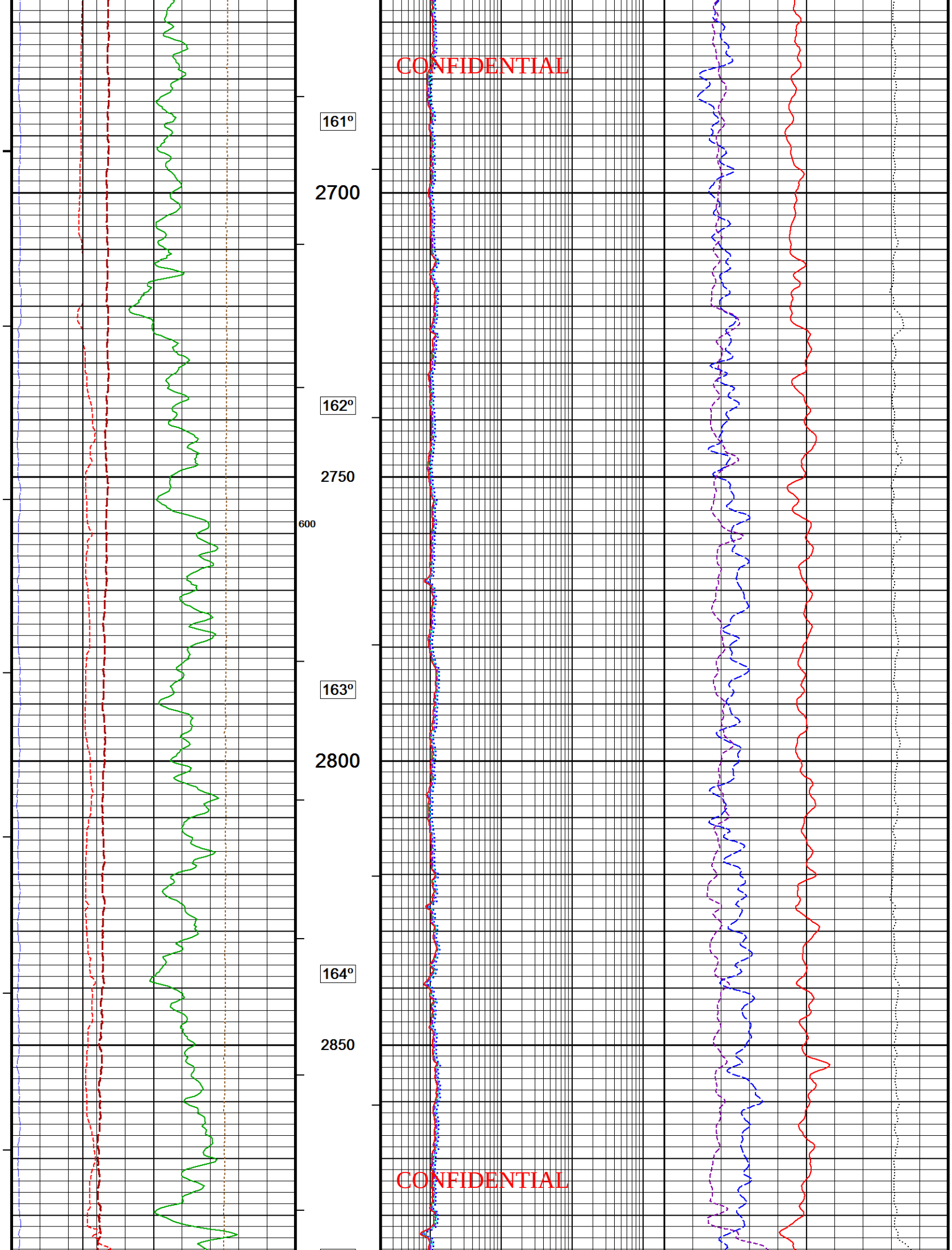

CONFIDENTIAL
137°
1600
138°
1650
700
1100
139°
1700
Apparent Water Res.
Bit Size
Array Ind. One Res Rt
Array Ind. One Res 85
Array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Array Ind. One Res 20
Borehole Corrected Gamma
140°
Sandstone Density Por.
PE
Density Correction
Density Caliper
1750
Sandstone Neutron Por.
Spontaneous Potential
DST Uphole Tension
CONFIDENTIAL

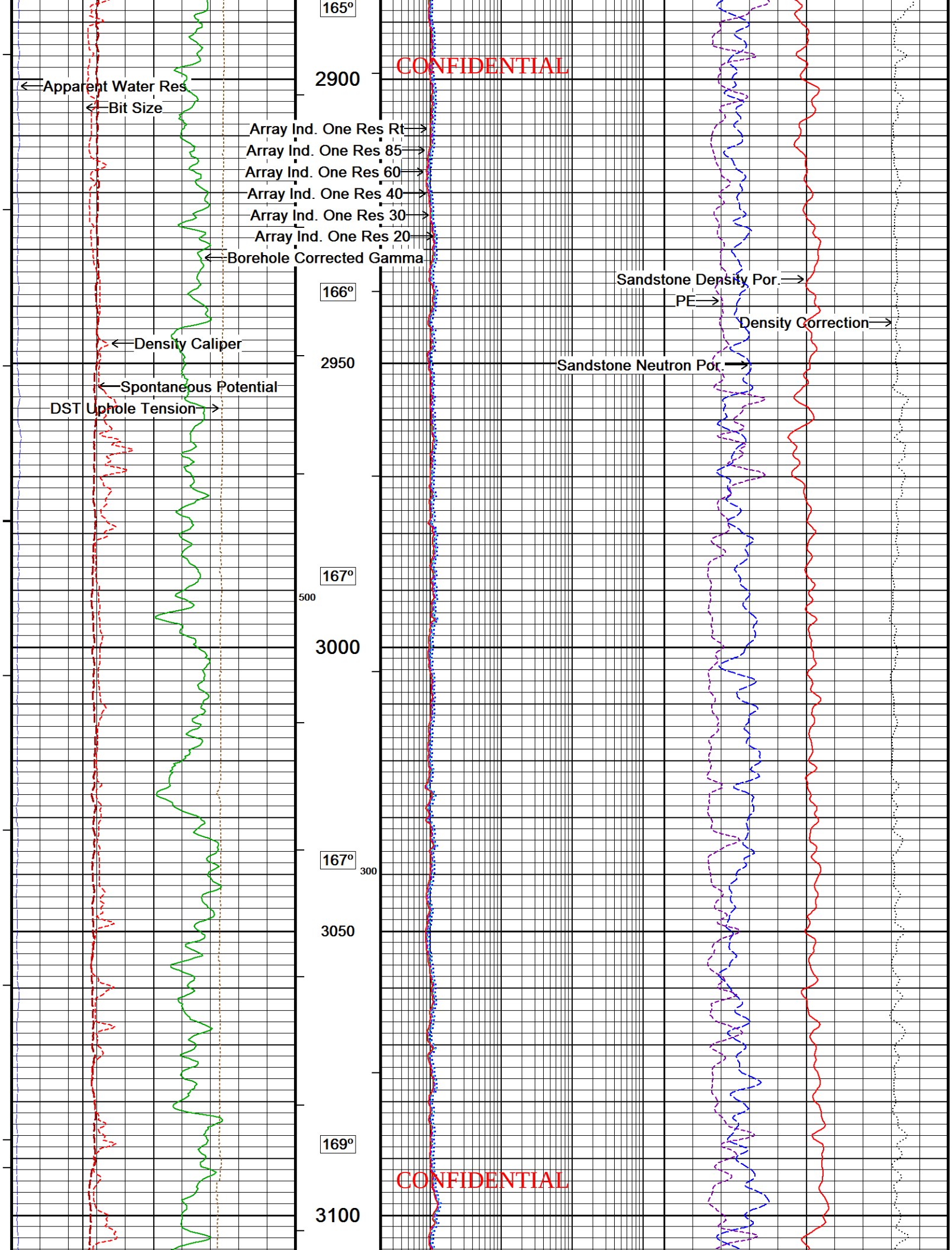

141°
1800
142°
1850
144°
1000
1900
145°
1950
600
146°
2000
CONFIDENTIAL
CONFIDENTIAL

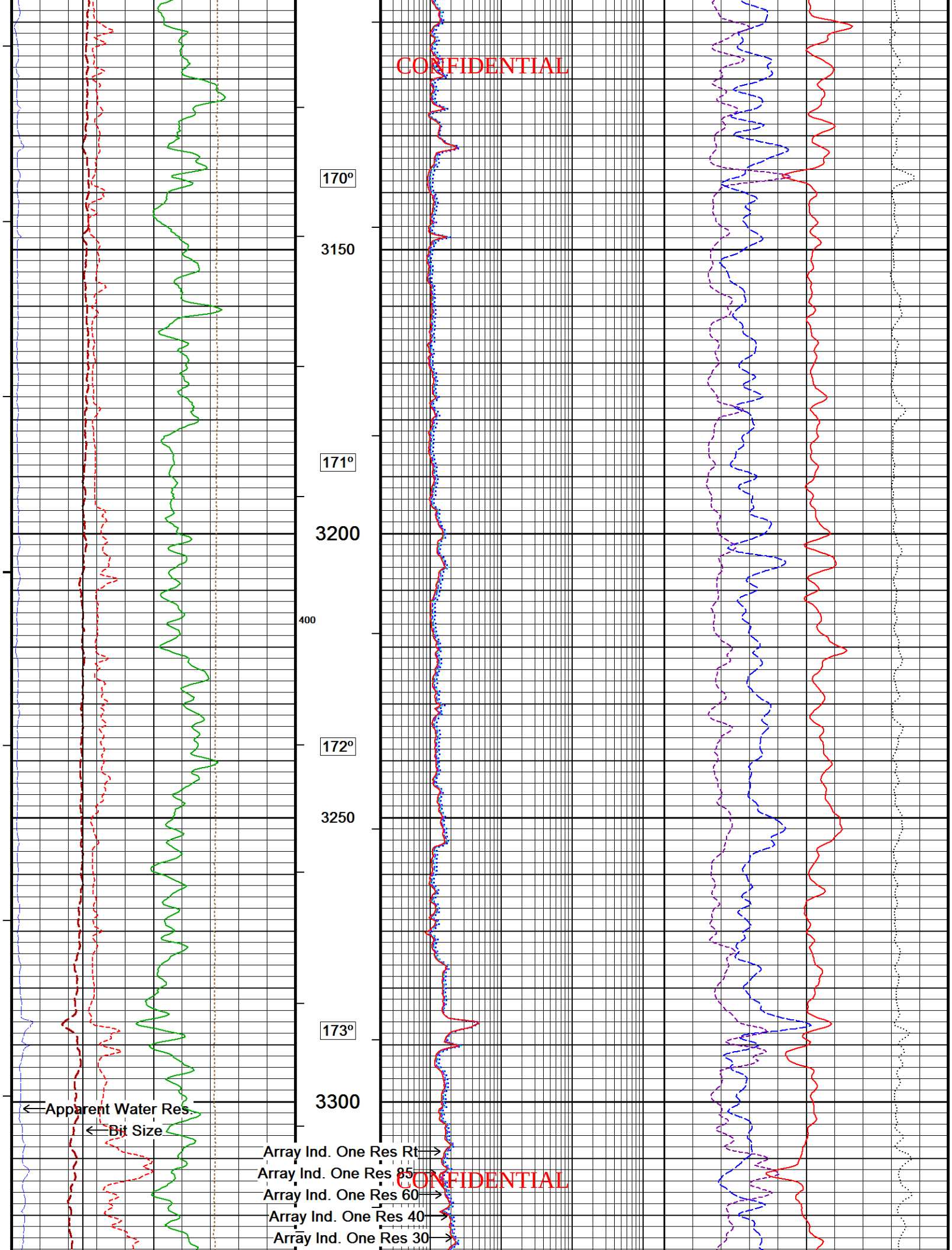

CONFIDENTIAL
147°
2050
148°
900 2100
Apparent Water Res.
Bit Size
Array Ind. One Res Rt
Array Ind. One Res 85
Array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Array Ind. One Res 20
Borehole Corrected Gamma
149°
Sandstone Density Por.
PE
Density Correction
Density Caliper
2150
Sandstone Neutron Por.
Spontaneous Potential
DST Uphole Tension
150°
2200
CONFIDENTIAL

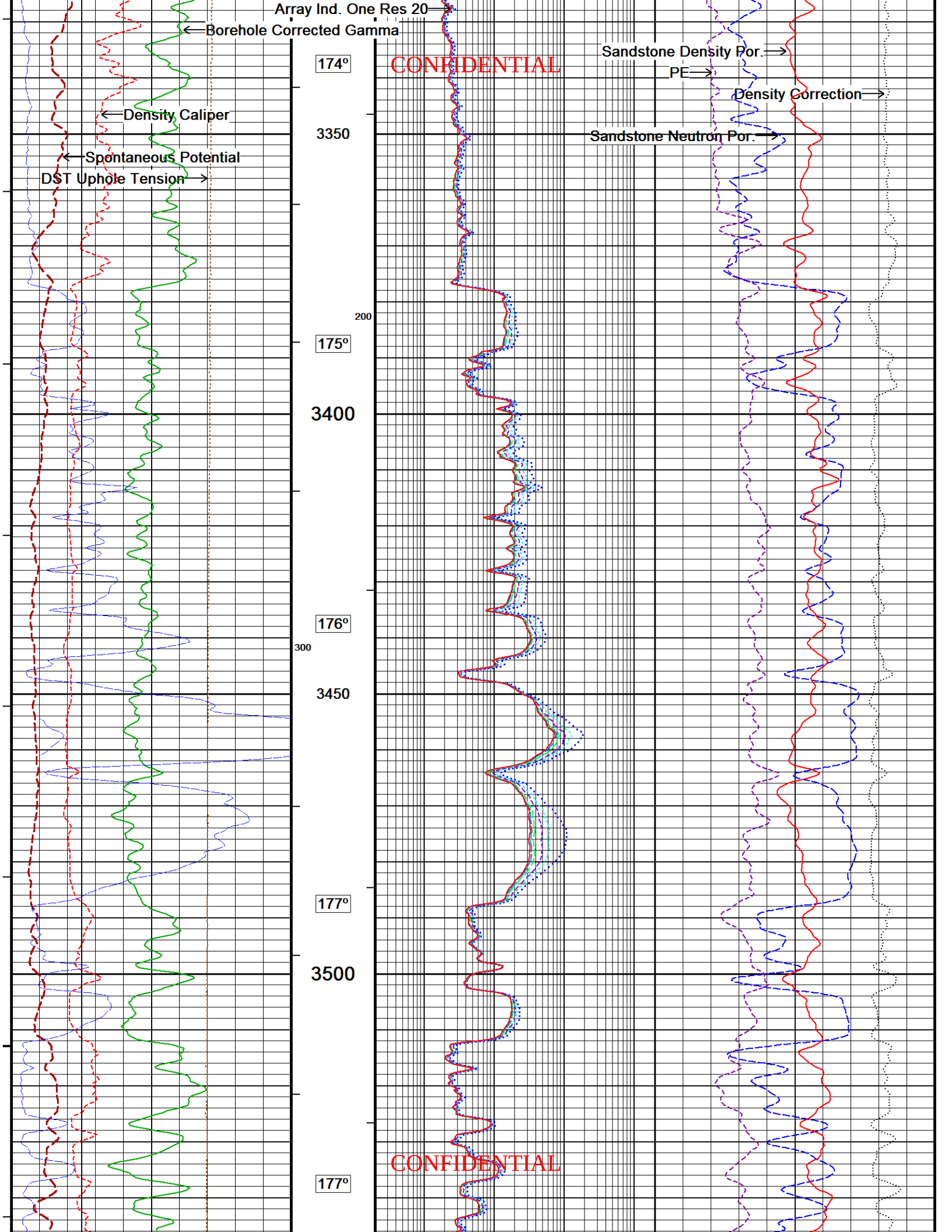

151°
2250
CONFIDENTIAL
152°
500
800
2300
153°
2350
154°
2400
155°
CONFIDENTIAL

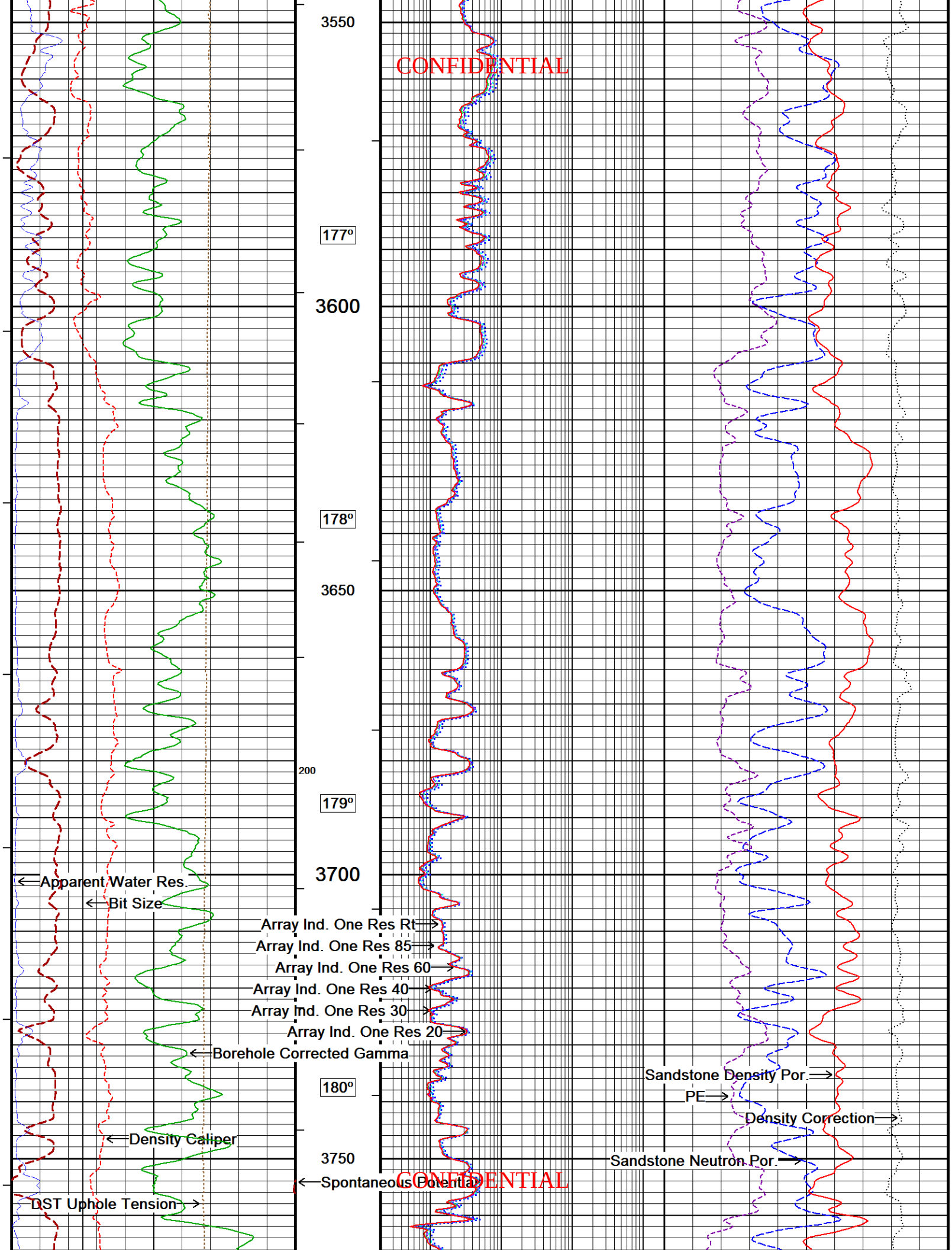

2450
CONFIDENTIAL
156°
2500
Apparent Water Res.
Bit Size
Array Ind. One Res Rt
Array Ind. One Res 85
700
Array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Array Ind. One Res 20
Borehole Corrected Gamma
158°
Sandstone Density Por.
PE
Density Correction
Density Caliper
2550
Sandstone Neutron Por.
Spontaneous Potential
DST Uphole Tension
159°
2600
160°
2650
400
CONFIDENTIAL

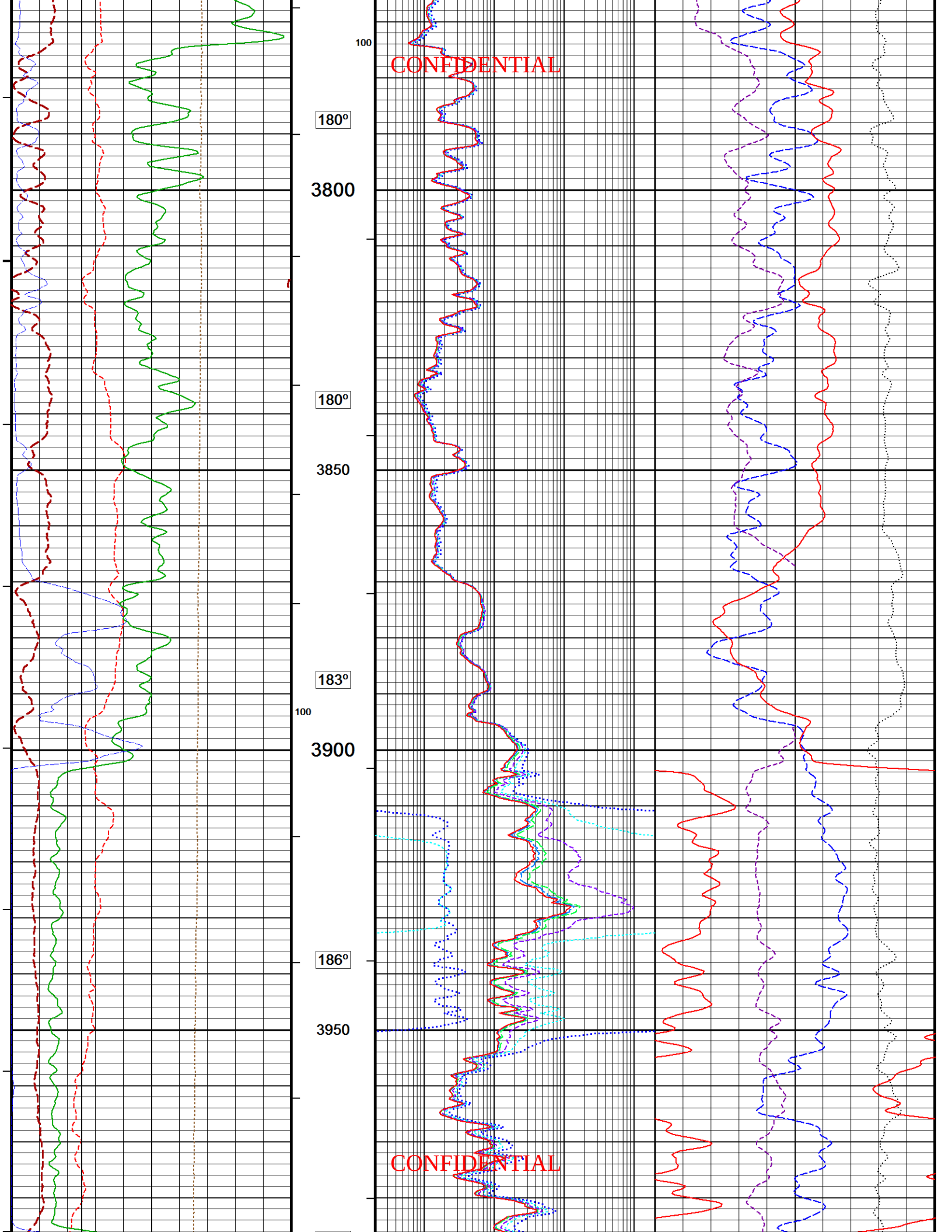

CONFIDENTIAL
161°
2700
162°
2750
600
163°
2800
164°
2850
CONFIDENTIAL

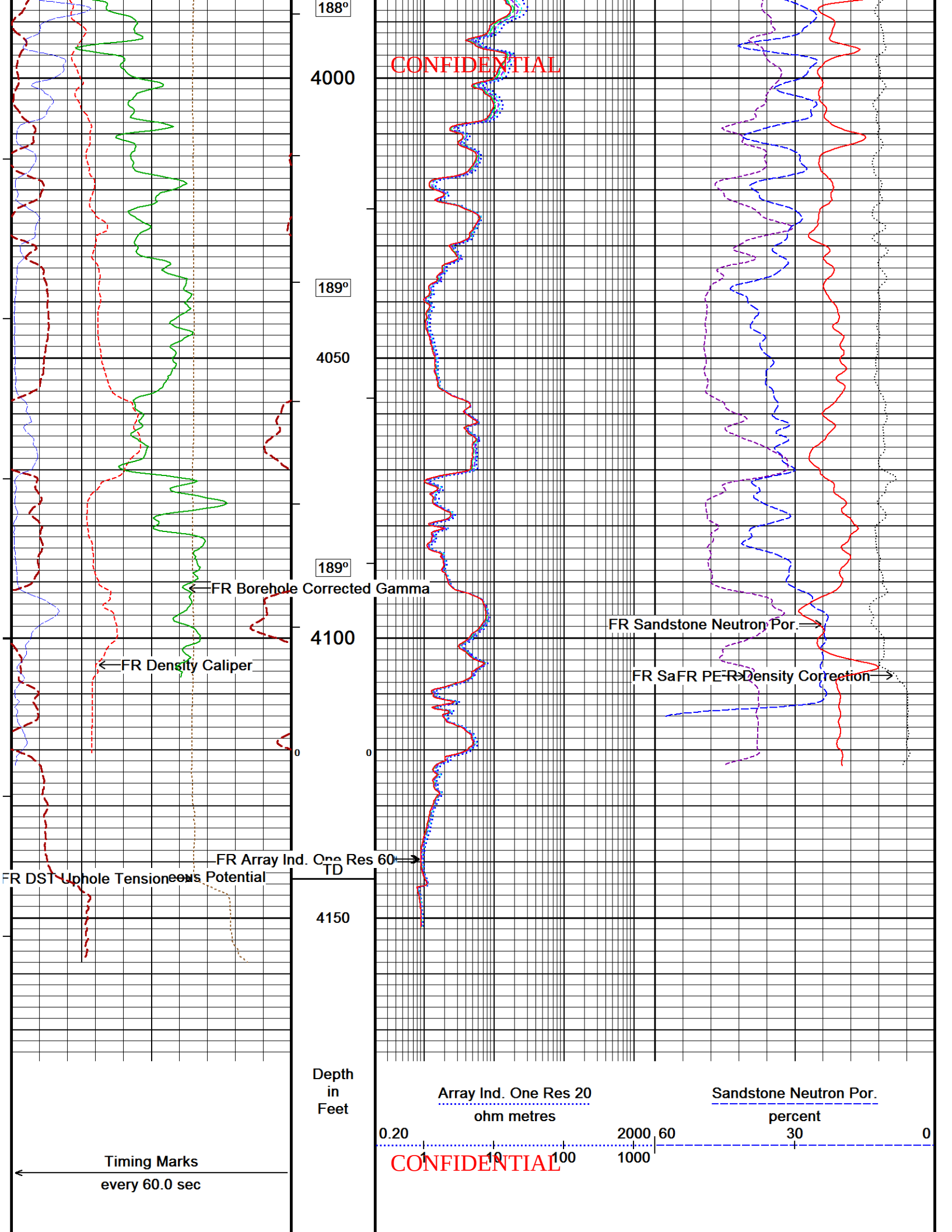

165°
CONFIDENTIAL
2900
Apparent Water Res
Bit Size
Array Ind. One Res Rt
Array Ind. One Res 85
Array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Array Ind. One Res 20
Borehole Corrected Gamma
166°
Sandstone Density Por.
PE
Density Correction
Density Caliper
2950
Sandstone Neutron Por.
Spontaneous Potential
DST Uphole Tension
167°
500
3000
167°
300
3050
169°
CONFIDENTIAL
3100

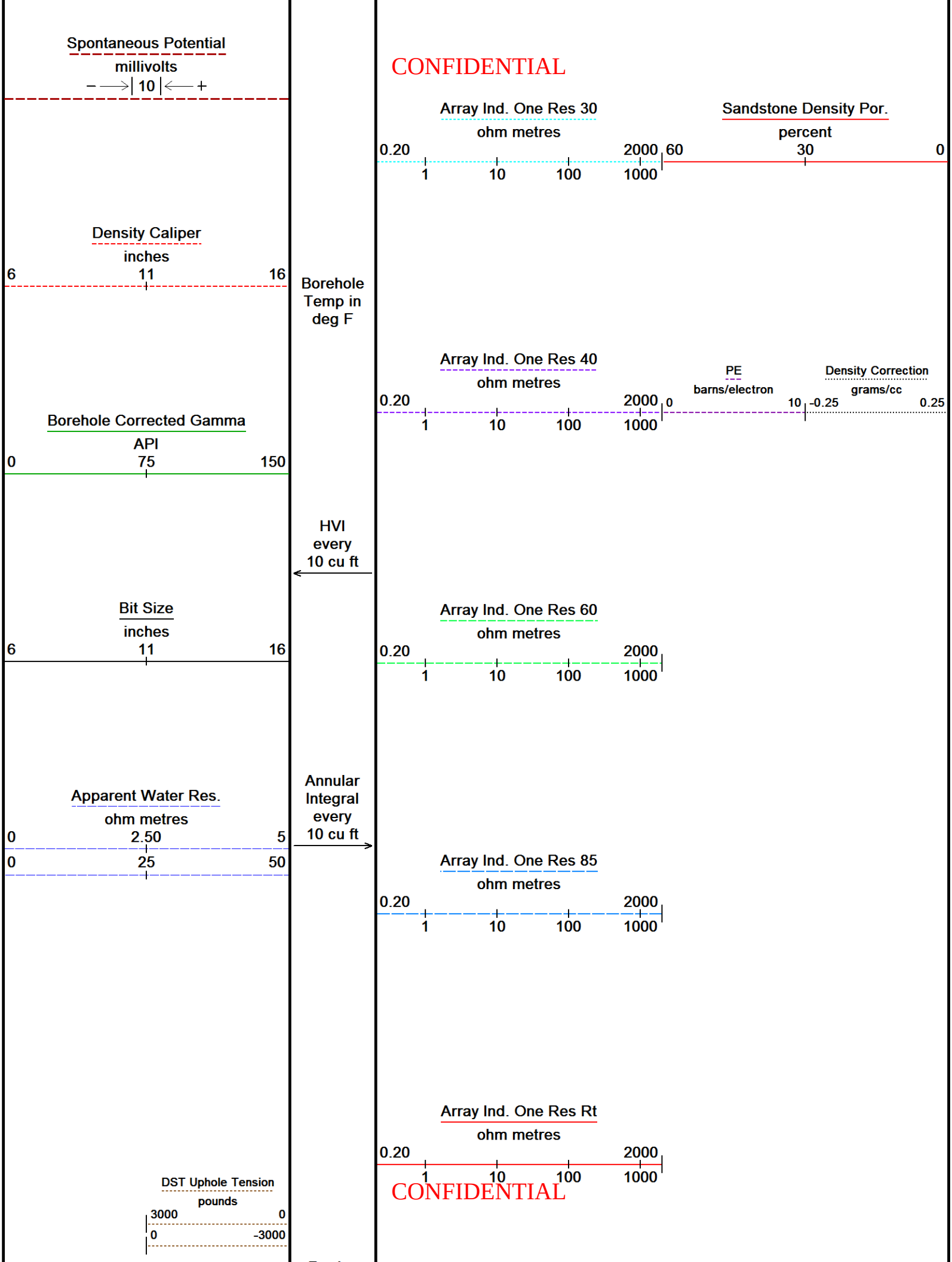

CONFIDENTIAL
170°
3150
171°
3200
400
172°
3250
173°
3300
←Apparent Water Res.
←Bit Size
Array Ind. One Res Rt→
Array Ind. One Res 85→
Array Ind. One Res 60→
Array Ind. One Res 40→
Array Ind. One Res 30→
CONFIDENTIAL


Array Ind. One Res 20
Borehole Corrected Gamma
Density Caliper
Spontaneous Potential
DST Uphole Tension
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.
CONFIDENTIAL
174°
3350
200
175°
3400
176°
300
3450
177°
3500
CONFIDENTIAL
177°


3550
CONFIDENTIAL
177°
3600
178°
3650
200
179°
3700
Apparent Water Res.
Bit Size
Array Ind. One Res Rt
Array Ind. One Res 85
Array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Array Ind. One Res 20
Borehole Corrected Gamma
180°
Sandstone Density Por.
PE
Density Correction
Density Caliper
3750
Sandstone Neutron Por.
Spontaneous Potential
CONFIDENTIAL
DST Uphole Tension


100
CONFIDENTIAL
180°
3800
180°
3850
183°
100
3900
186°
3950
CONFIDENTIAL


188°
CONFIDENTIAL
4000
189°
4050
189°
FR Borehole Corrected Gamma
FR Sandstone Neutron Por.
4100
FR Density Caliper
FR SaFR PE-R>Density Correction
0
0
FR Array Ind. One Res 60
TD
FR DST Uphole Tension
eous Potential
4150
Depth
in
Feet
Array Ind. One Res 20
ohm metres
Sandstone Neutron Por.
percent
0.20
2000
60
30
0
1
10
100
1000
CONFIDENTIAL
Timing Marks
every 60.0 sec


Spontaneous Potential
millivolts
– 10 +
CONFIDENTIAL
Array Ind. One Res 30
ohm metres
0.20
2000
1
10
100
1000
Sandstone Density Por.
percent
60
30
0
Density Caliper
inches
6
11
16
Borehole Temp in deg F
Array Ind. One Res 40
ohm metres
0.20
2000
1
10
100
1000
PE
barns/electron
0
10
Density Correction
grams/cc
-0.25
0.25
Borehole Corrected Gamma
API
0
75
150
HVI every 10 cu ft
Bit Size
inches
6
11
16
Array Ind. One Res 60
ohm metres
0.20
2000
1
10
100
1000
Annular Integral every 10 cu ft
Apparent Water Res.
ohm metres
0
2.50
5
0
25
50
Array Ind. One Res 85
ohm metres
0.20
2000
1
10
100
1000
Array Ind. One Res Rt
ohm metres
0.20
2000
1
10
100
1000
DST Uphole Tension
pounds
3000
0
0
-3000
CONFIDENTIAL

Replay
Scale
1:240

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 29-JAN-2018 14:29
Filename: C:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\MAIN PASS R2.dta — Recorded on 26-JAN-2018 20:18
System Versions: Logged with 17.05.5669 Processed with 17.05.5956 Plotted with 17.05.5802

5 INCH MAIN PASS

5 INCH REPEAT OVERLAY

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 29-JAN-2018 14:29
Filename: C:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\MAIN PASS R2.dta — Recorded on 26-JAN-2018 20:18
Filename: C:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\REPEAT PASS R2.dta — Recorded on 26-JAN-2018 19:46
System Versions: Logged with 17.05.5669 Processed with 17.05.5956 Plotted with 17.05.5802

Depth in Feet

Timing Marks
every 60.0 sec

Array Ind. One Res 20
ohm metres
0.20 2000
1 10 100 1000

Sandstone Neutron Por.
percent
60 30 0

Spontaneous Potential
millivolts
– → | 10 | ← +

Array Ind. One Res 30
ohm metres
0.20 2000
1 10 100 1000

Sandstone Density Por.
percent
60 30 0

Density Caliper
inches
6 11 16

Borehole Temp in deg F

Borehole Corrected Gamma
API
0 75 150

Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

PE
barns/electron
0 10

Density Correction
grams/cc
-0.25 0.25

Bit Size
inches
6 11 16

HVI
every
10 cu ft

Array Ind. One Res 60
ohm metres
0.20 2000
1 10 100 1000

Apparent Water Res.

ohm metres
0 2.50 5
0 25 50

CONFIDENTIAL

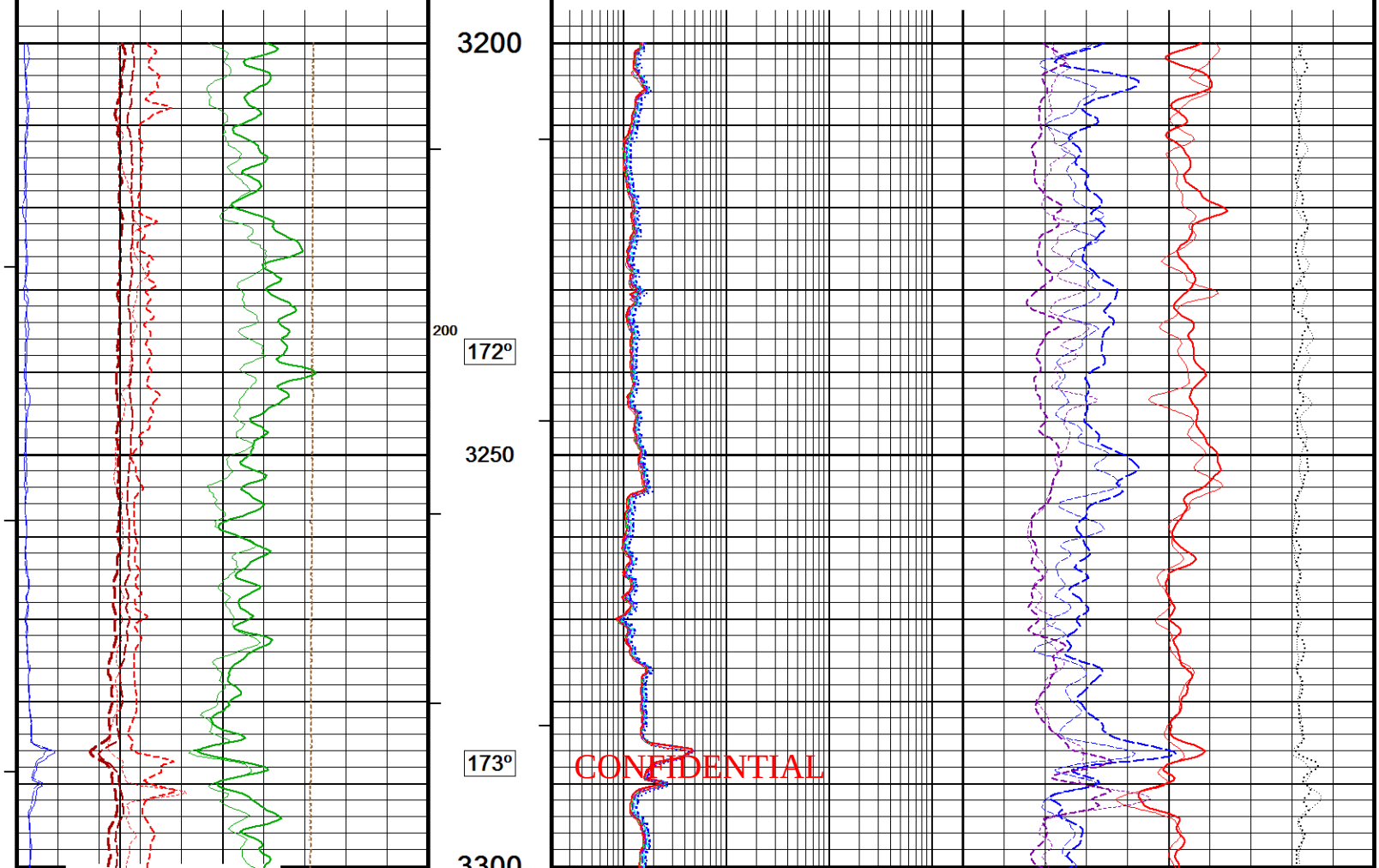
Annular Integral every 10 cu ft

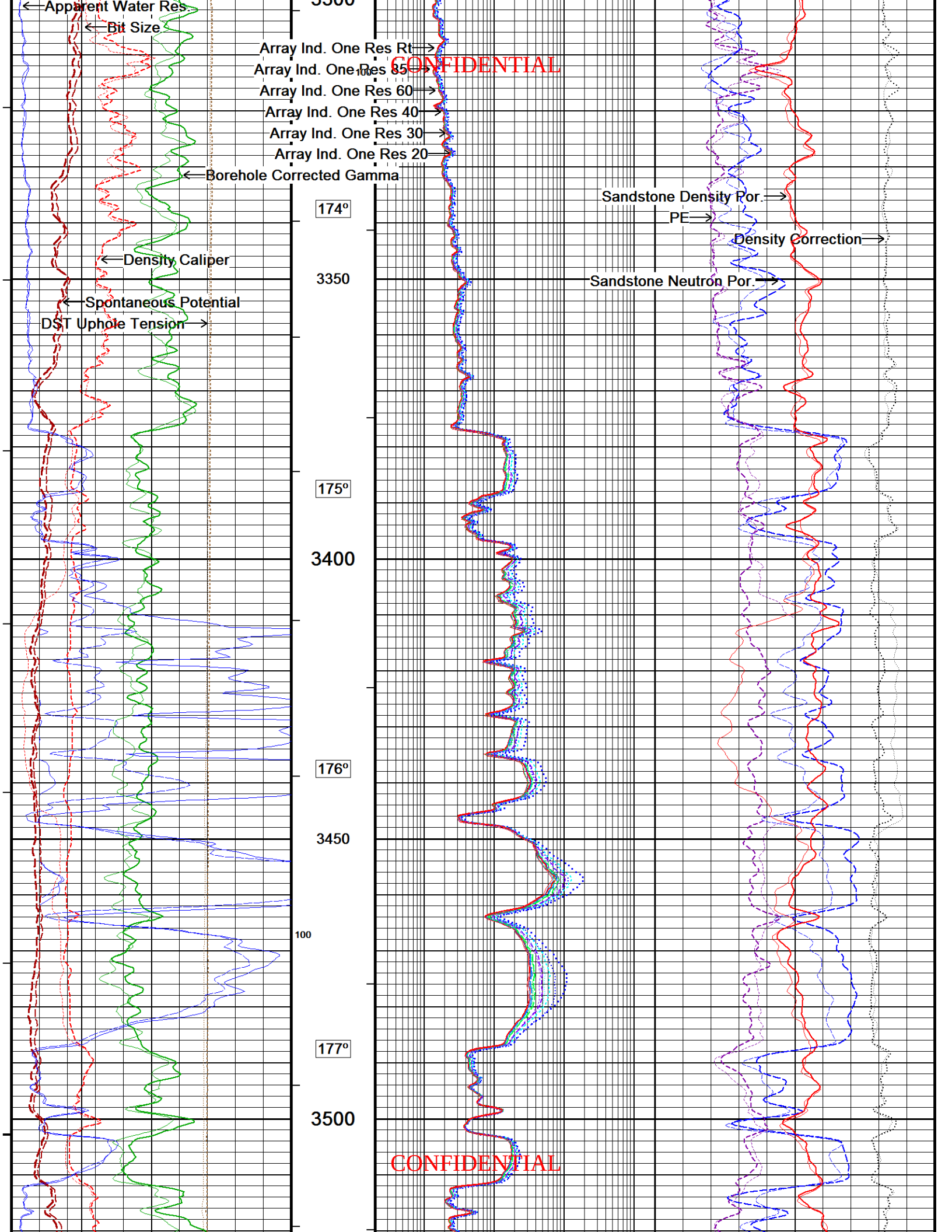
Array Ind. One Res 85
ohm metres
0.20 2000
1 10 100 1000

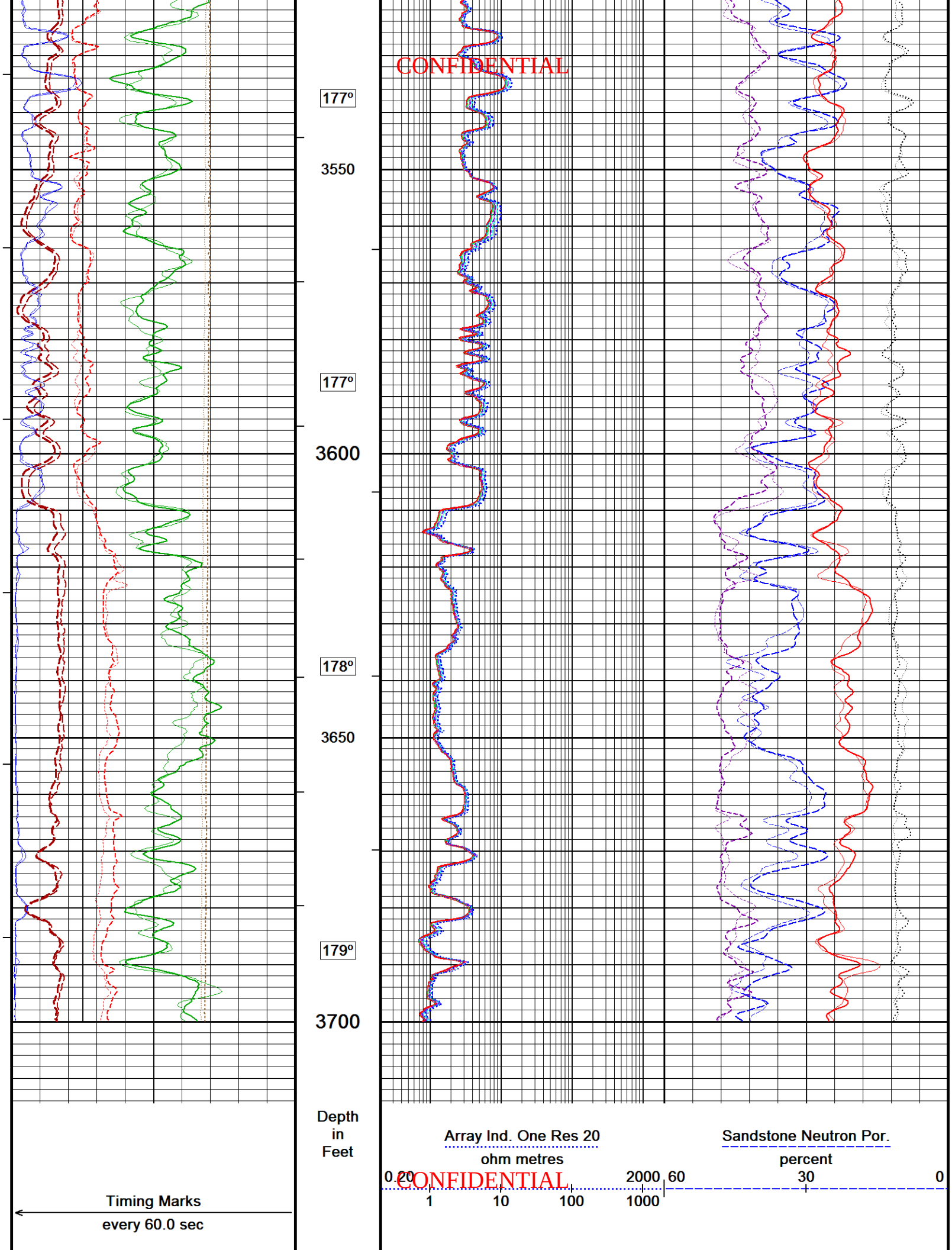
Array Ind. One Res Rt
ohm metres
0.20 2000
1 10 100 1000

DST Uphole Tension
pounds
3000 0
0 -3000

Replay Scale 1:240




Apparent Water Res.
Bit Size
Array Ind. One Res Rt
Array Ind. One Res 85
Array Ind. One Res 60
Array Ind. One Res 40
Array Ind. One Res 30
Array Ind. One Res 20
Borehole Corrected Gamma
Sandstone Density Por.
PE
Density Correction
Sandstone Neutron Por.
Density Caliper
Spontaneous Potential
DST Uphole Tension
CONFIDENTIAL
CONFIDENTIAL
100
100
174°
175°
176°
177°
3350
3400
3450
3500


CONFIDENTIAL
177°
3550
177°
3600
178°
3650
179°
3700
Depth
in
Feet
Timing Marks
every 60.0 sec
Array Ind. One Res 20
ohm metres
0.20
2000
1
10
100
1000
Sandstone Neutron Por.
percent
60
30
0
CONFIDENTIAL

CONFIDENTIAL

Spontaneous Potential
millivolts
− → | 10 | ← +

Array Ind. One Res 30
ohm metres
0.20 2000
1 10 100 1000

Sandstone Density Por.
percent
60 30 0

Density Caliper
inches
6 11 16

Borehole Temp in deg F

Borehole Corrected Gamma
API
0 75 150

Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

PE
barns/electron
0 10

Density Correction
grams/cc
-0.25 0.25

Bit Size
inches
6 11 16

HVI every 10 cu ft

Array Ind. One Res 60
ohm metres
0.20 2000
1 10 100 1000

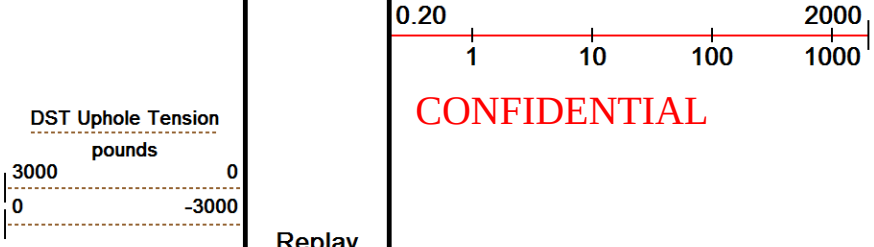
Apparent Water Res.
ohm metres
0 2.50 5
0 25 50

Annular Integral every 10 cu ft

Array Ind. One Res 85
ohm metres
0.20 2000
1 10 100 1000

CONFIDENTIAL

Array Ind. One Res Rt
ohm metres



Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 29-JAN-2018 14:29
Filename: C:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\MAIN PASS R2.dta — Recorded on 26-JAN-2018 20:18
Filename: C:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\REPEAT PASS R2.dta — Recorded on 26-JAN-2018 19:46
System Versions: Logged with 17.05.5669 Processed with 17.05.5956 Plotted with 17.05.5802

5 INCH REPEAT OVERLAY

BEFORE SURVEY CALIBRATION

C:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\MAIN PASS R2.dta

General Constants All 000

Last Edited on 26-JAN-2018,18:54

General Parameters		
Mud Resistivity	0.240	ohm-metres
Mud Resistivity Temperature	93.000	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. One Res Rt	
RWA Constant A	0.620	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

Down-hole Tension Calibration SMS 0

Field Calibration on 26-JAN-2018 12:56

Reading No	Measured	
1	11091.42	0.00
2	12450.58	533.00

Gamma Calibration MCG-D.K 483

Field Calibration on 25-JAN-2018 14:10

	Measured	Calibrated (API)
Background	121	82
Calibrator (Gross)	1459	994
Calibrator (Net)	1338	912

Gamma Calibration Tolerances MCG-D.K 483

Ratio 1.467 (1.40 | 1.475 | 1.55) Counts/API

Gamma Constants MCG-D.K 483

Last Edited on 26-JAN-2018,18:54

Gamma Calibrator Number	GRCC072	
GRC-M Calibrator Jig in Use?	NO	
Inactive Background Jig in Use?	NO	
Mud Density	1.38	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Potassium Equivalence	Chloride	
K Mud Concentration	0.00	%

K Mud Concentration 0.00 %

SP Calibration MCG-D.K 483

Field Calibration on 25-JAN-2018 14:39

	Measured	Calibrated(mV)
Reference 1	101.2	100.0
Reference 2	-96.8	-100.0

High Resolution Temperature Calibration MCG-D.K 483

Field Calibration on 23-JAN-2018,04:35

	Measured	Calibrated(Deg F)
Lower	22.00	22.00
Upper	210.00	210.00

High Resolution Temperature Constants MCG-D.K 483

Last Edited on 23-JAN-2018,04:34

Pre-filter Length	11

Neutron Calibration MDN-B.J 426

Base Calibration on 16-JAN-2018 11:37
Field Check on 25-JAN-2018 14:29

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3216	97	3714	110
Ratio	33.152		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	1302	1957
Ratio	0.665	

Field Check

	Calibrated (cps)	
	1321	2003
Ratio	0.659	

Neutron Calibration Tolerances MDN-B.J 426

Ratio	33.152	-5% 33 +5%
Base Check	0.665	0.65 0.7 0.75
Field Check	0.659	0.645 0.665 0.685

Neutron Constants MDN-B.J 426

Last Edited on 26-JAN-2018,18:54

Neutron Source Id	N-1057	
Neutron Jig Number	5922NE	
Air Hole Processing	Modified Ratio	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.38	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	7.00	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	Constant Value	
Formation Pressure	0.00	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MVC-A.A 141

Base Calibration on 10-JAN-2018 14:58
Field Calibration on 25-JAN-2018 14:35

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	9460	3.99
2	16304	5.96
3	23361	7.96
4	30022	9.85
5	37217	11.88
6	N/A	N/A

6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.93	7.96

FE Calibration MFE-C.A 417

Base Calibration on 20-JAN-2018 15:34
Field Check on 25-JAN-2018 15:03

	Resistor 1 (ohm)	Resistor 2 (ohm)
	0.0	1000.0

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	967.8	126.8
Base Check		280.1
Field Check		280.1

FE Calibration Tolerances MFE-C.A 417

Reference 2	967.8	-3% 980.0 +3%	ohm
Base Check	280.1	-2% 277.0 +2%	ohm-m
Field Check	280.1	-2% 280.1 +2%	ohm-m

FE Constants MFE-C.A 417

Last Edited on 26-JAN-2018,18:53

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

Induction Calibration MAI-B.J 362

Factory Loop Calibration 15-JAN-2018 16:26
Field Check on 25-JAN-2018 14:37

Factory Loop Calibration

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

	Measured Signal (unitless)		Reference Conductivity (mmho/m)		Calibration	
Array	Low	High	Low	High	Gain	Offset
1 (near)	16.0	468.7	9.3	966.2	2.114	-24.6
2	6.2	374.5	7.6	821.4	2.210	-6.1
3	3.6	258.3	5.2	566.0	2.202	-2.6
4 (far)	1.8	133.1	2.6	279.2	2.108	-1.3
Array Temperature		74.8	Deg F			

Tool Checks

	Factory Reference (mmho/m)		Before Survey (mmho/m)		
Array	Low	High	Low	High	
1 (near)	14.7	3869.9	14.8	3869.0	
2	30.4	3601.9	30.4	3601.9	
3	28.4	3065.8	28.4	3066.1	
4 (far)	19.7	2076.8	19.7	2076.9	
Array Temperature		36.9	55.2	Deg F	

Induction Check Tolerances MAI-B.J 362

Low Array 1	14.8	13.2 14.7 16.2	mmho/m	High Array 1	3869.0	-0.5% 3869.9 +0.5% mmho/m
Low Array 2	30.4	28.9 30.4 31.9	mmho/m	High Array 2	3601.9	-0.5% 3601.9 +0.5% mmho/m
Low Array 3	28.4	26.9 28.4 29.9	mmho/m	High Array 3	3066.1	-0.5% 3065.8 +0.5% mmho/m
Low Array 4	19.7	18.2 19.7 21.2	mmho/m	High Array 4	2076.9	-0.5% 2076.8 +0.5% mmho/m

Induction Constants MAI-B.J 362

Last Edited on 26-JAN-2018,18:53

Induction Model	RtAP WBM	
Borehole Correction Constants		
Tool Centred	No	
Hole Size Source	Density Caliper	
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	
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	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	

High Resolution Temperature Calibration MAI-B.J 362

Field Calibration on 16-JAN-2018,21:47

	Measured	Calibrated(Deg F)
Lower	33.00	33.00
Upper	212.00	212.00

High Resolution Temperature Constants MAI-B.J 362

Last Edited on 16-JAN-2018,21:47

Pre-filter Length	11

Caliper Calibration MPD-C.J 380

Base Calibration on 25-JAN-2018,15:36
Field Calibration on 25-JAN-2018 15:38

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14144	3.99
2	22912	5.96
3	31439	7.96
4	39648	9.85
5	48723	11.88
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.93	7.96

Caliper Calibration Tolerances MPD-C.J 380

Short Arm Field Cal.	7.93	7.76 / 7.96 / 8.16	in

Photo Density Calibration MPD-C.J 380

Base Calibration on 25-JAN-2018 15:26
Field Check on 26-JAN-2018 18:45

Density Calibration

Base Calibration	Measured Near	Measured Far	Calibrated (sdu) Near	Calibrated (sdu) Far
Background	1217	1373		
Reference 1	51989	24391	59690	30917
Reference 2	21363	2444	25135	2545

Field Check at Base		
	1217.0	1373.2

Field Check		
	1219.0	1377.3

PE Calibration

Base Calibration	WS	Measured WH	Measured Ratio	Calibrated Ratio
Background	220	1095		
Reference 1	21952	51811	0.429	0.371
Reference 2	6161	21236	0.295	0.274

Field Check at Base		
	220.2	1095.0

Field Check		
	220.0	1088.6

Photo Density Calibration Tolerances MPD-C.J 380

Near Density Ratio	2.52	-5% / 2.52 / +5%	Far Density Ratio	21.49	-5% / 21.00 / +5%
PE Calibration	0.128	0.089 / 0.110 / 0.131			
Near Den. Field Check	1219.0	-3% / 1217.0 / +3%	Far Den. Field Check	1377.3	-3% / 1373.2 / +3%
PE WS Field Check	220.0	-6% / 220.2 / +6%	PE WH Field Check	1088.6	-6% / 1095.0 / +6%

Density Constants MPD-C.J 380

Last Edited on 26-JAN-2018,18:52

Density Source Id	P50562B	
Nylon Calibrator Number	DNCE-675	
Aluminium Calibrator Number	DACD-532	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.38	gm/cc
Mud Density Type		
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	

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:\Users\E234530\AppData\Local\Temp\Weatherford PreView\0\MAIN PASS R2.dta

Cablehead, 11 pin
CBH-CA 121 LG: 2.40 ft WT: 24.3 lb OD: 2.244 in

11C-11B Compact Tool Adaptor
MTA-K.A 164 LG: 1.53 ft WT: 13.2 lb OD: 2.244 in

Compact Swivel Head Adaptor
SHA-J.B 512 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

Compact Comms Gamma
MCG-D.K 483 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Neutron
MDN-B.J 426 LG: 5.04 ft WT: 50.7 lb OD: 2.240 in

Compact Density/Caliper
MPD-C.J 380 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in

Compact Vee Arm Caliper
MVC-A.A 141 LG: 8.06 ft WT: 61.7 lb OD: 2.244 in

Compact Swivel Head Adaptor
SHA-J.B 723 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

Compact Knuckle Joint
SKJ-D.A 211 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

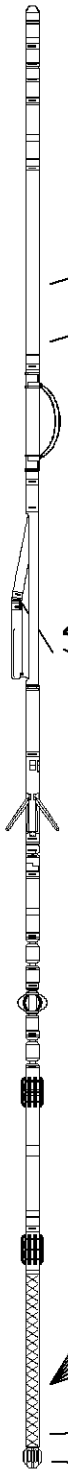
Compact Inline Standoff sub
MIS-E.B 723 LG: 2.14 ft WT: 15.4 lb OD: 2.244 in

Compact Knuckle Joint
SKJ-E.B 730 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

Compact Focussed Electric
MFE-C.A 417 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction
MAI-B.J 362 LG: 10.81 ft WT: 48.5 lb OD: 2.244 in

Total Length: 63.24 ft Weight: 509.3 lb



51.73 ft	GGCE - MCG BH Corrected Gamma
48.83 ft	CGXT - MCG External Temperature
45.28 ft	NPRS - Sandstone Neutron Por.
38.03 ft	AVOL - Annular Volume
38.03 ft	HVOL - Hole Volume
38.03 ft	CLDC - Density Caliper
36.11 ft	DPRS - Sandstone Density Por.
36.11 ft	DCOR - Density Correction
36.04 ft	PDPE - PE
3.34 ft	R20O - Array Ind. One Res 20
3.34 ft	R40O - Array Ind. One Res 40
3.34 ft	R30O - Array Ind. One Res 30
3.34 ft	RTAO - Array Ind. One Res Rt
3.34 ft	R85O - Array Ind. One Res 85
3.34 ft	R60O - Array Ind. One Res 60
0.23 ft	SPCG - Spontaneous Potential
Tool Zero	(0.13ft from bottom)
-0.13 ft	SMTU - DST Uphole Tension

All measurements relative to tool zero.

COMPANY	ALTA MESA SERVICES LLC
WELL	BARLOW 1-14
FIELD	WILDCAT CONFIDENTIAL
PROVINCE/COUNTY	PAYETTE
COUNTRY/STATE	U.S.A. / IDAHO

Elevation Kelly Bushing	2178	feet	First Reading	4139.70	feet
Elevation Drill Floor	2178	feet	Depth Driller	4150.00	feet
Elevation Ground Level	2164	feet	Depth Logger	4143.00	feet

Weatherford®

COMPACT TRIPLE COMBO
QUICKLOOK LOG