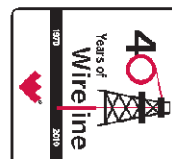




Weatherford®

CML IMPULSE SHUTTLE PHOTO DENSITY/ NEUTRON ARRAY INDUCTION

COMPANY **SEPCO**
 WELL **Chain Lane Ranch 3509 11-1H**
 FIELD **WILDCAT**
 PROVINCE/COUNTY **Barber**
 COUNTRY/STATE **U.S.A / Kansas**
 LOCATION **SHL 400' FNL & 490' FWL
 BHL 330' FNL & 410' FWL**



SEC **TWP** **RGE** **Other Services**
 11 **35S** **9W**
 API Number **15077218110100**
 Permit Number

Permanent Datum G.L., Elevation 1242 feet
 Log Measured From DF
 Drilling Measured From D.F.

Elevations: **feet**
 KB **1269.83**
 DF **1269.83**
 GL **1242.00**

Date	21-JUL-2012
Run Number	DESCENT 1
Depth Driller	9774.00 feet
Depth Logger	9774.00 feet
First Reading	9596.00 feet
Last Reading	5156.00 feet
Casing Driller	5156.00 feet
Casing Logger	5156.00 feet
Bit Size	6.125 inches
Hole Fluid Type	WBM
Density / Viscosity	8.35 g/c3 28.00 CP
PH / Fluid Loss	8.60
Sample Source	FLOWLINE
Rm @ Measured Temp	0.56 @ 84.0 ohm-m
Rmf @ Measured Temp	0.45 @ 84.0 ohm-m
Rmc @ Measured Temp	0.67 @ 84.0 ohm-m
Source Rmf / Rmc	MEASURED MEASURED
Rm @ BHT	0.39 @121.0 ohm-m
Time Since Circulation	1 HOUR
Max Recorded Temp	121.00 deg F
Equipment Name	COMPACT
Equipment / Base	18077 OKC
Recorded By	STEVEN TOTTEY
Witnessed By	AHMAD LATIFZAI
S.O. #	3536724

BOREHOLE RECORD

Last Edited: 23-JUL-2012 01:29

Bit Size inches	Depth From feet	Depth To feet
6.125	5156.00	9774.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	832.00	32.00
INTER	7.000	0.00	5156.00	23.00

REMARKS

ALL LOGS WERE SET TO DEPTH WITH MWD

DRILL PIPE DEPTH DURING DEPLOYMENT: UNKNOWN
 LOGGING TOOL DEPTH AFTER DEPLOYMENT: UNKNOWN

4'5" PRODUCTION CASING USED TO CALCULATE AHV

NaCl EQ=23760 PPM (17300 * 1.6488*0.833)

NEUTRON CONSTANTS USED
 MUD DENSITY:
 FORMATION SALINITY:
 FORMATION PRESSURE: 1.8 kpsi

LAT: 37.020389
 LONG: 98.272119

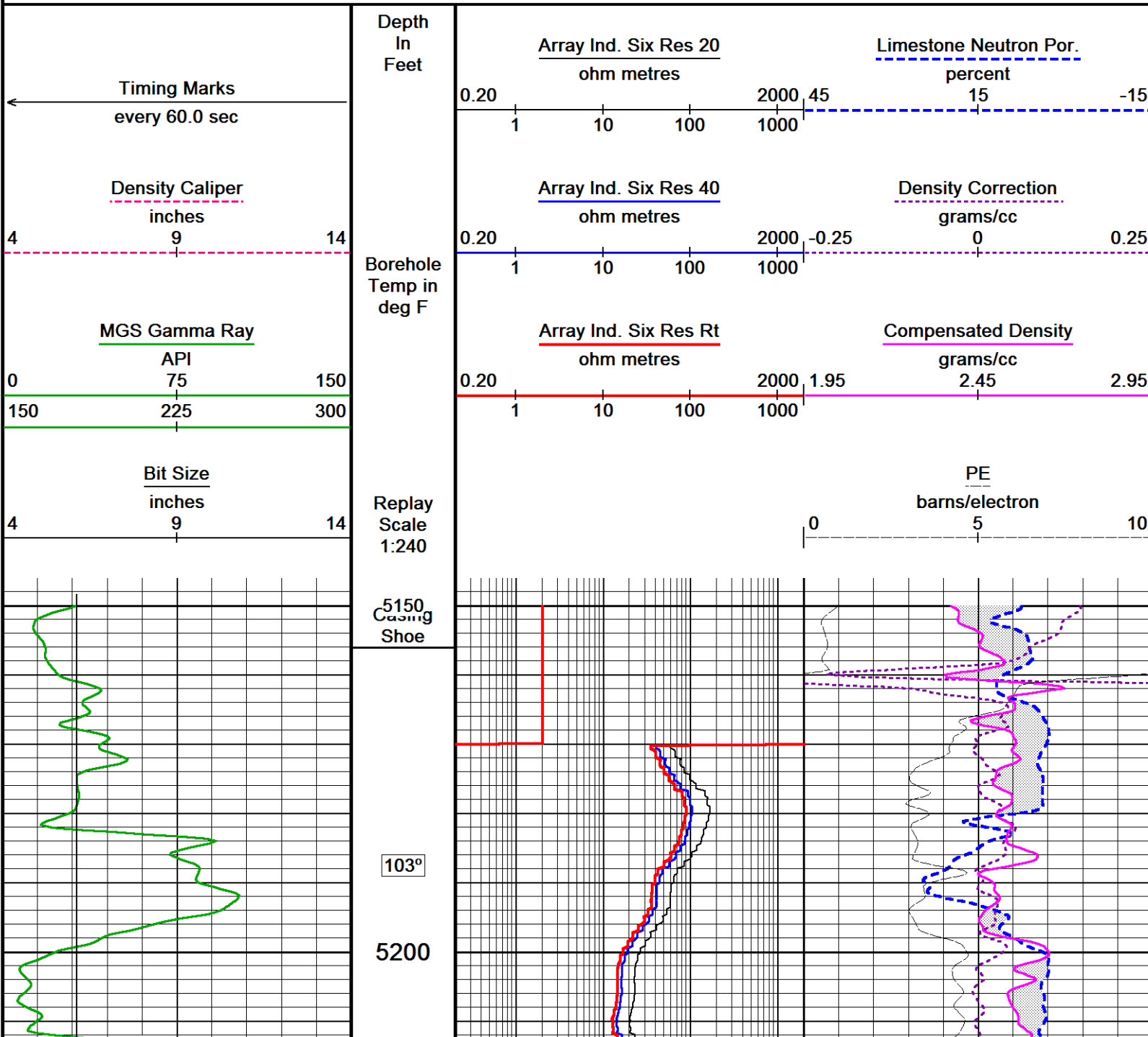
OPERATORS: R. CASPARIAN AND G. GARICA
 S.O: 3536724
 RIG NABORS F01\

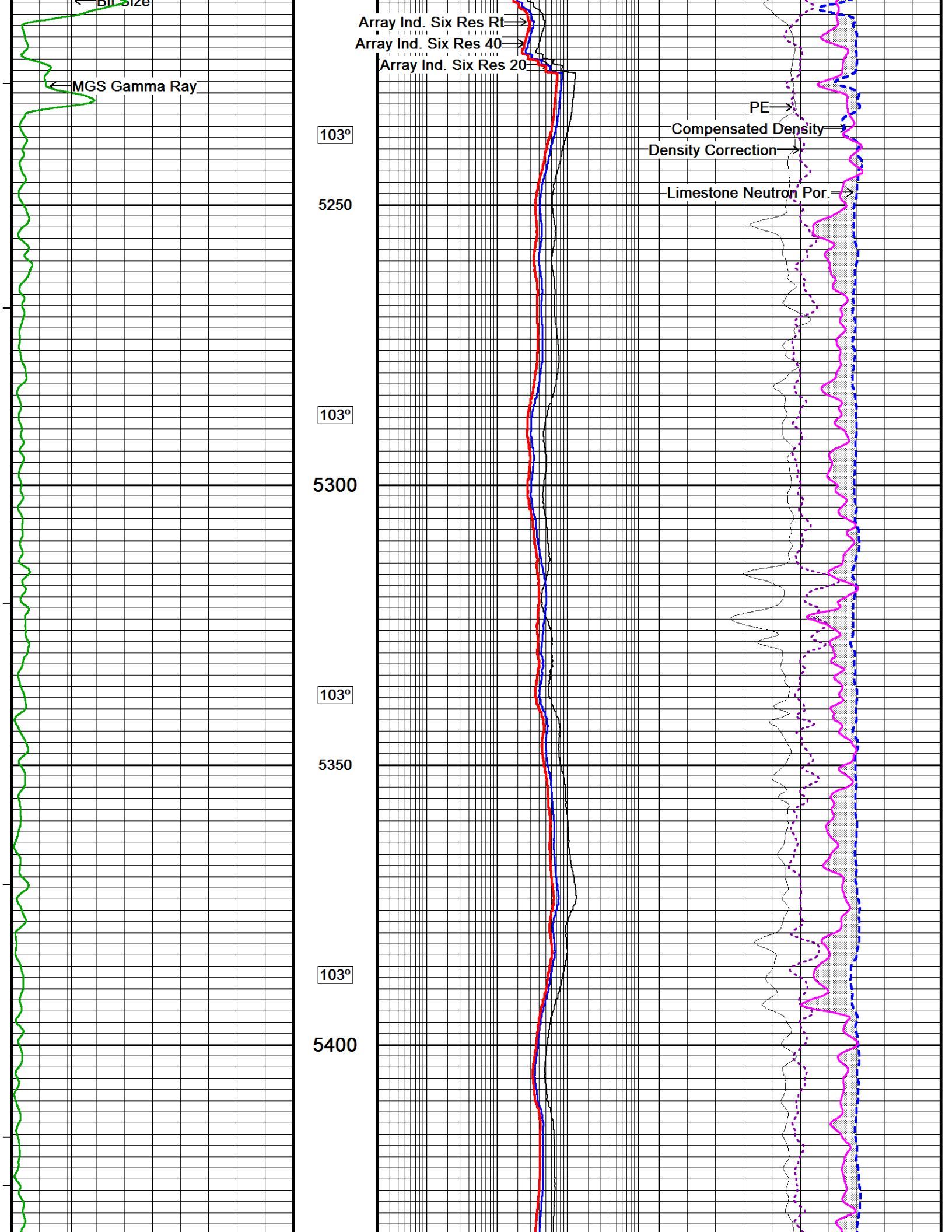
TOOLS DEPLOYED EARLY.
 DENSITY CALIPER WAS DAMAGE AND DID NOT READ.
 ALL LOGGING TOOLS WILL BE EFFECTED BY TRIP OUT SPEED BEING FASTER THAN NORMAL LOGGING SPEED.
 ALSO TOOL READING MAY NOT BE CORRECT BECAUSE OF DENSITY CALIPER NOT WORKING.
 THE IMAGER DID NOT WORK AT ALL BECAUSE OF TRIP SPEED.

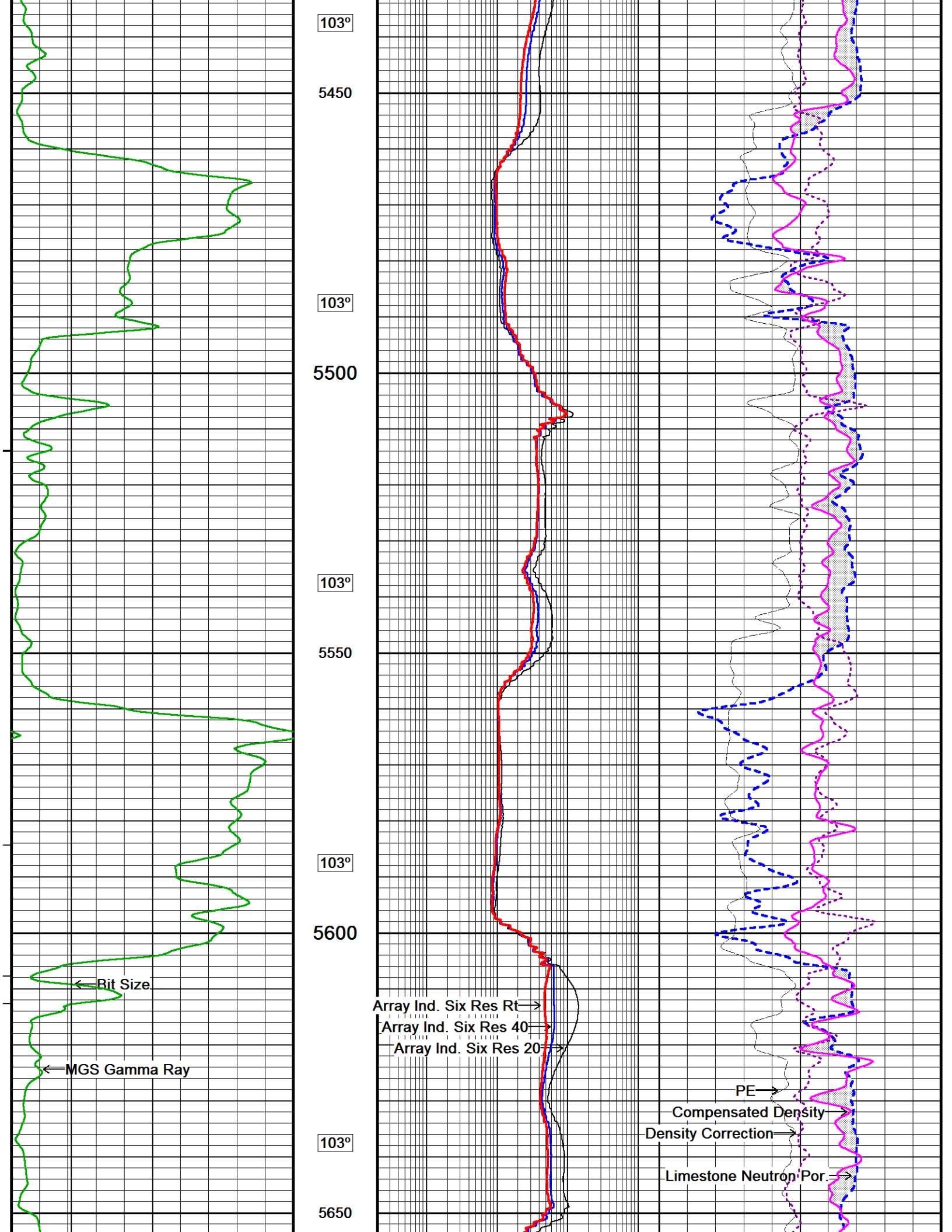
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.

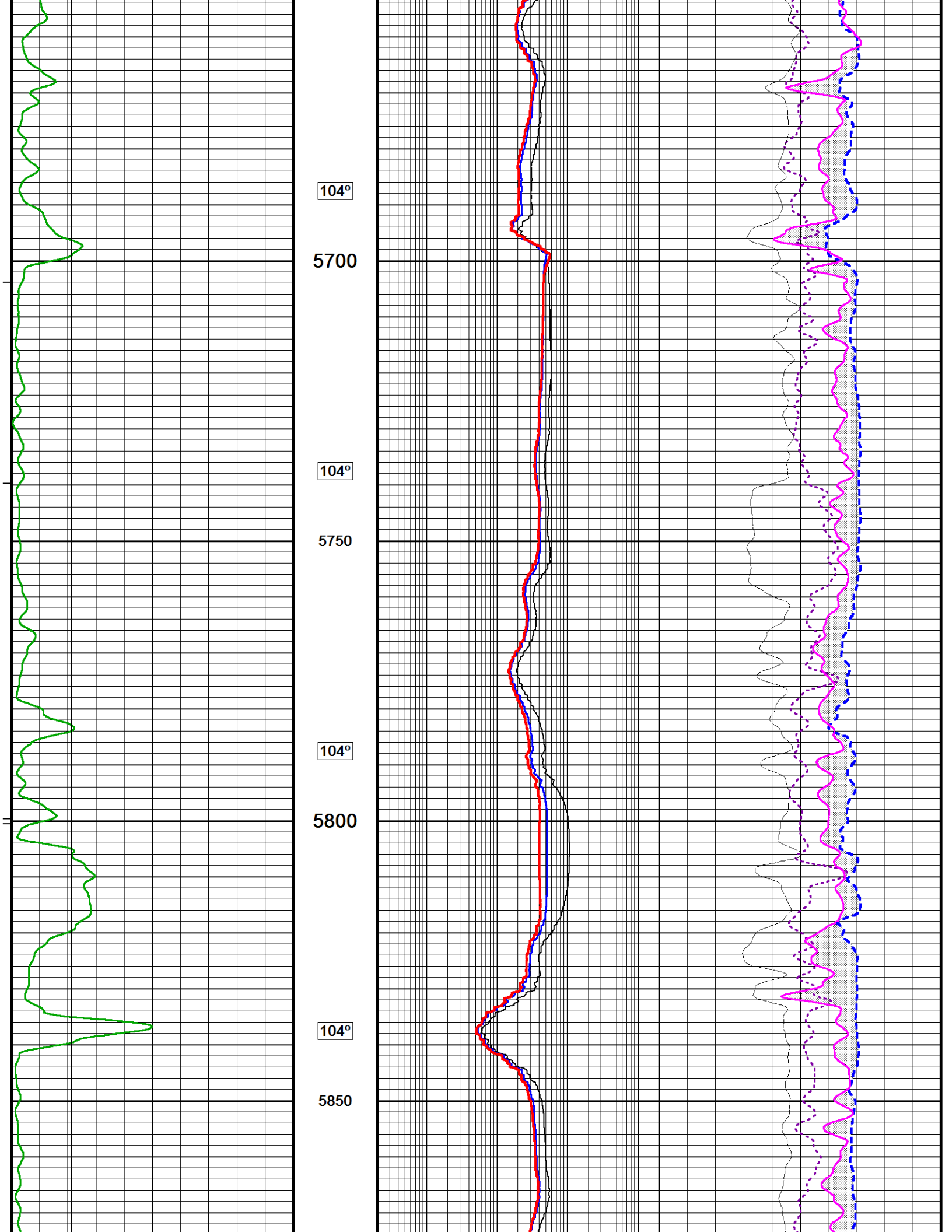
RUN 1 / DESCENT 1

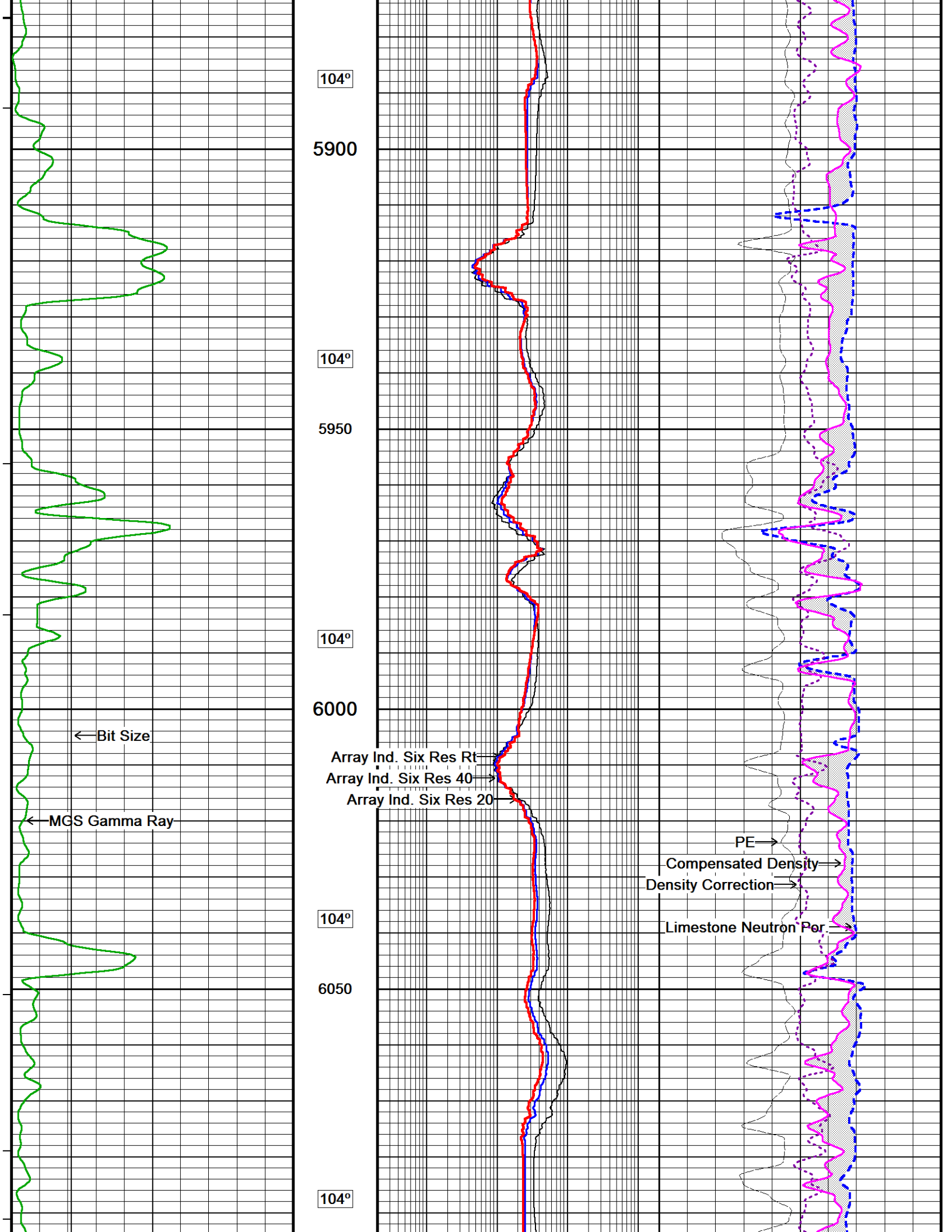
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 25-JUL-2012 09:42
 Filename: C:\Users\AHMAD~1.LAT\AppData\Local\Te...RTAP SAPCO CHAIN LANE 3509 11-1H.dta Recorded on 22-JUL-2012 22:15
 System Versions: Processed with 13.02.6600 Plotted with 12.01.3513

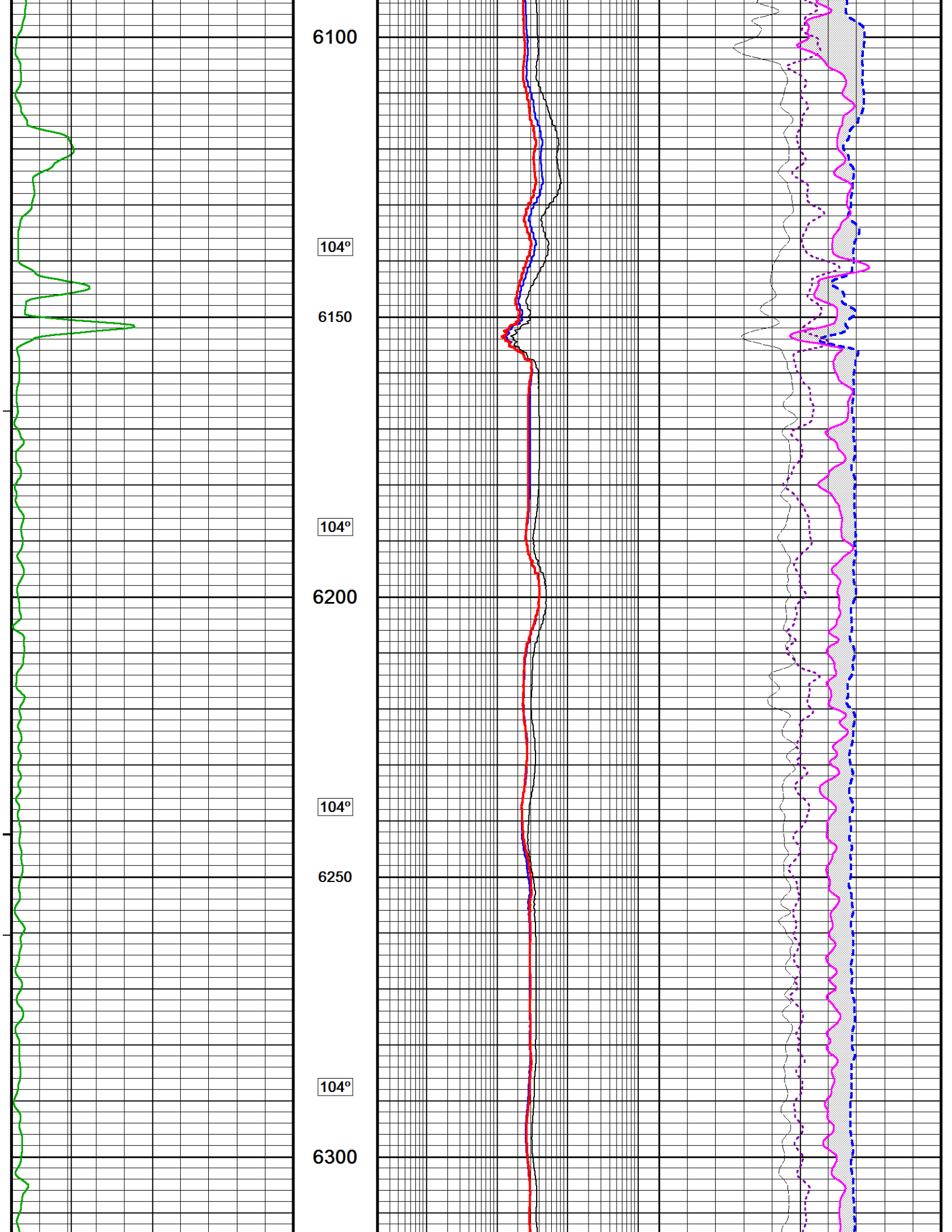


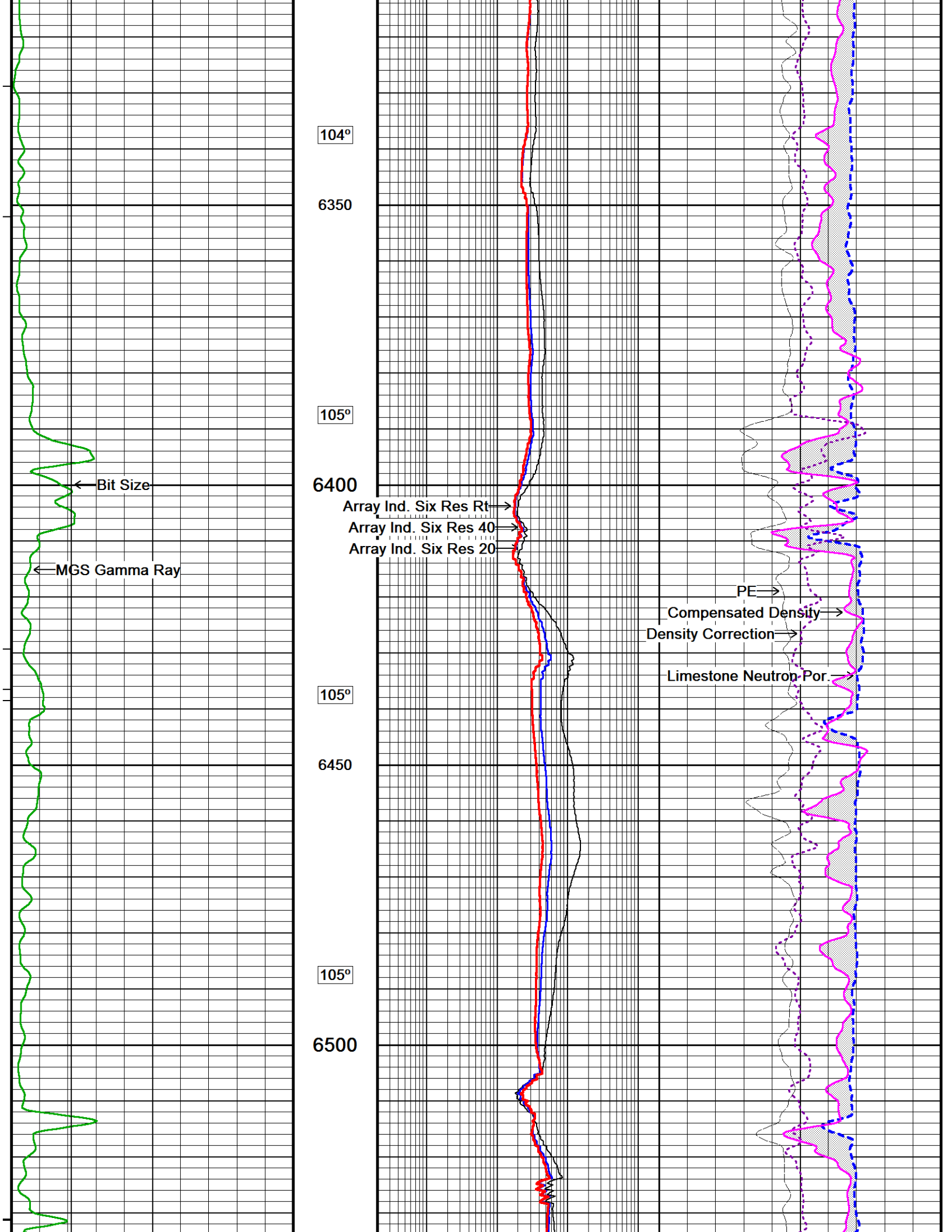












104°

6350

105°

6400

Array Ind. Six Res Rt

Array Ind. Six Res 40

Array Ind. Six Res 20

PE

Compensated Density

Density Correction

Limestone Neutron Por.

105°

6450

105°

6500

← Bit Size

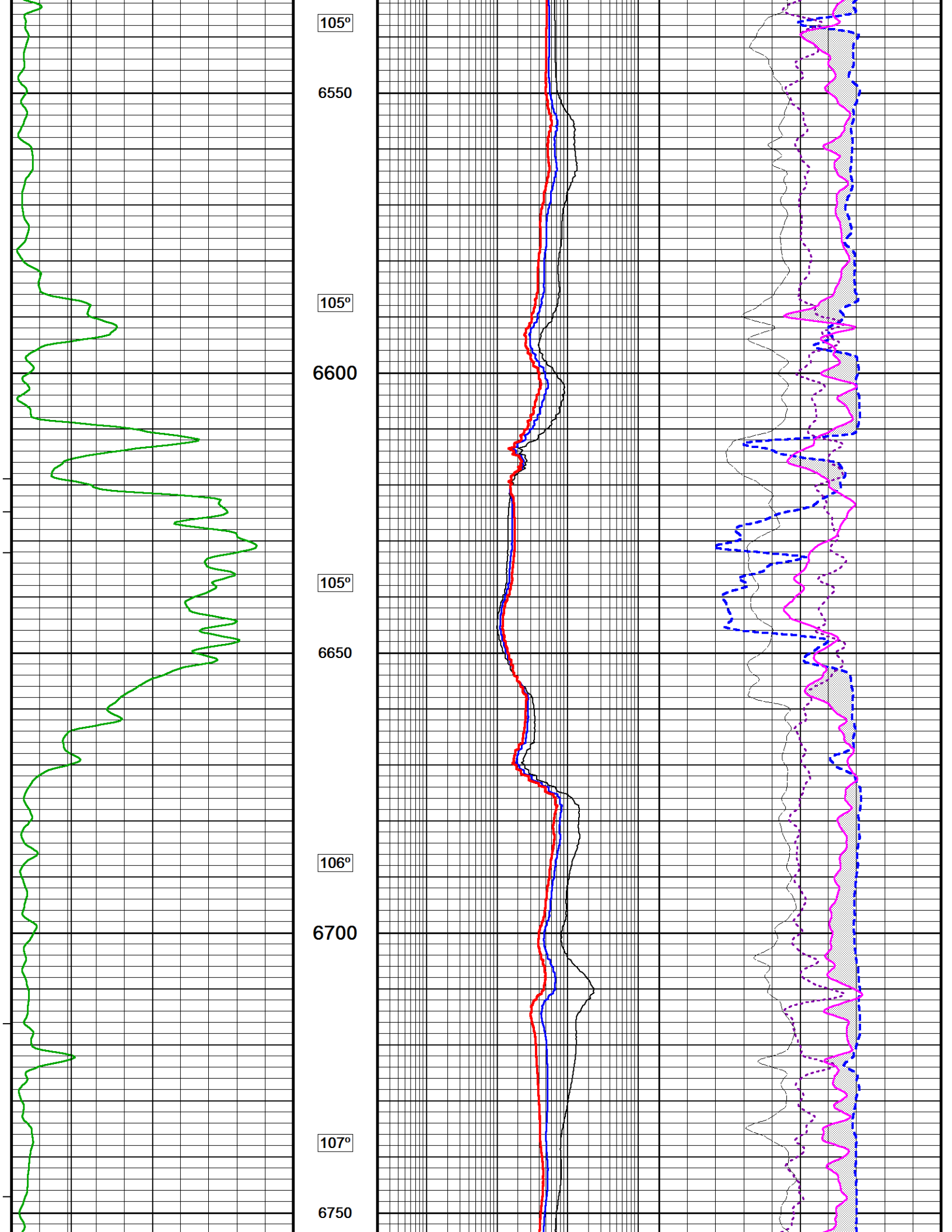
← MGS Gamma Ray

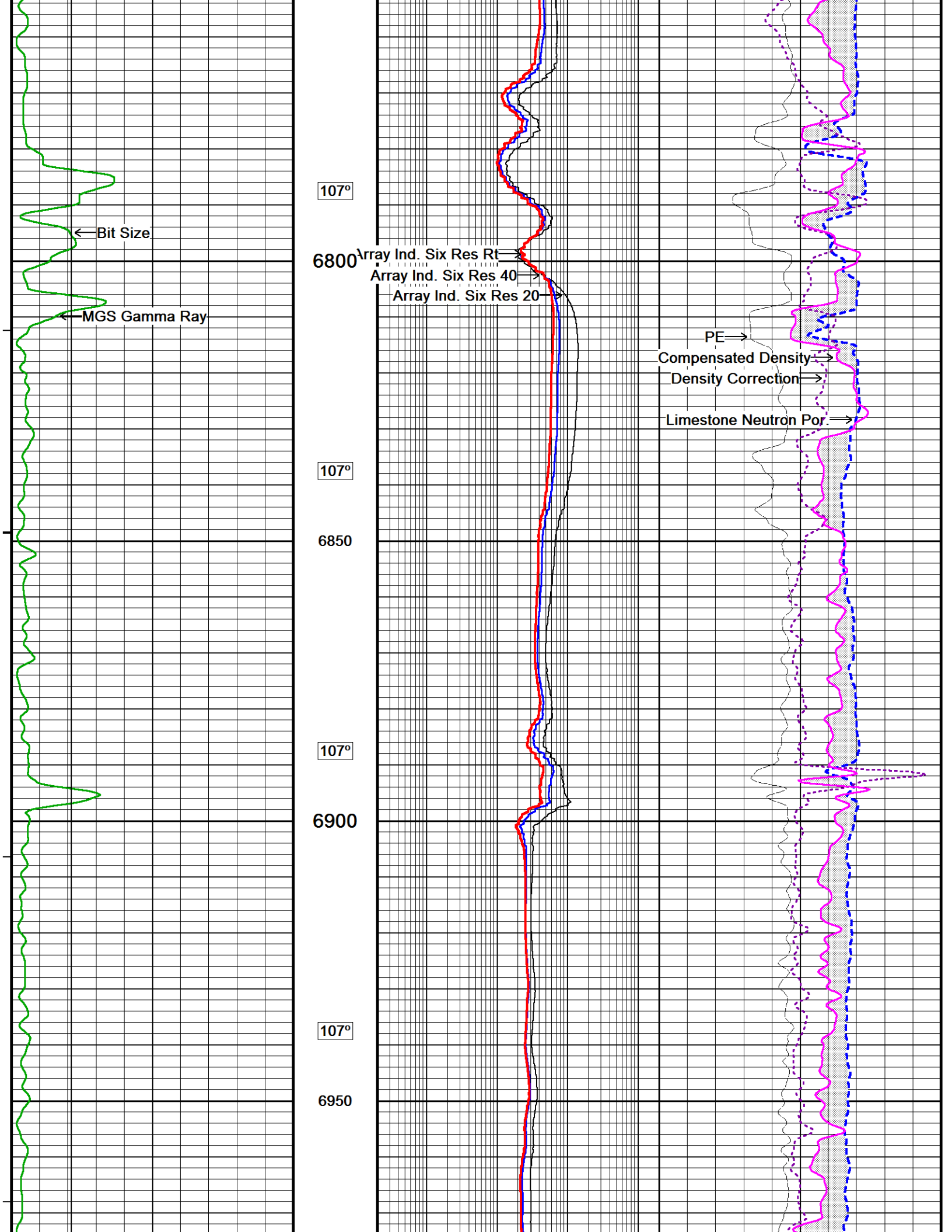
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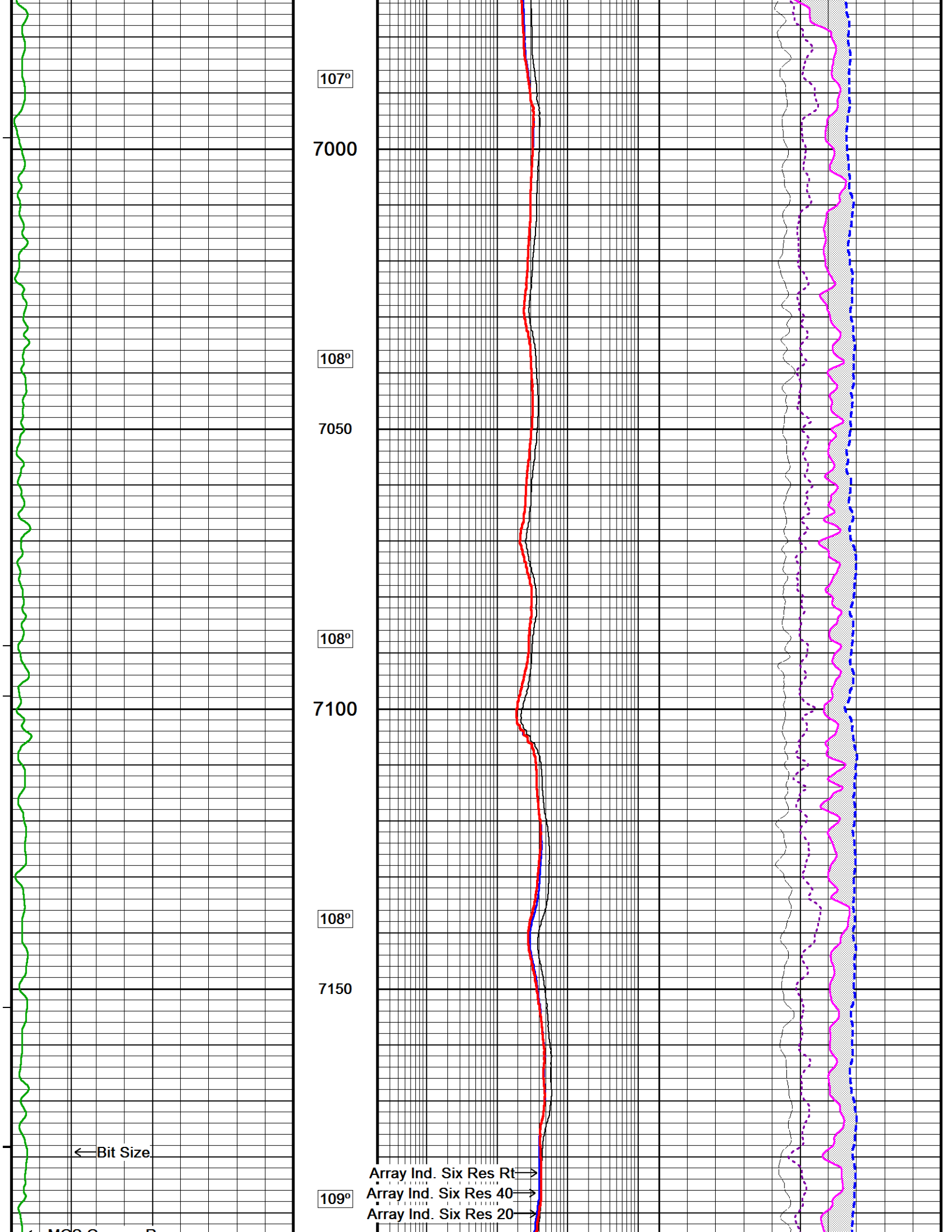
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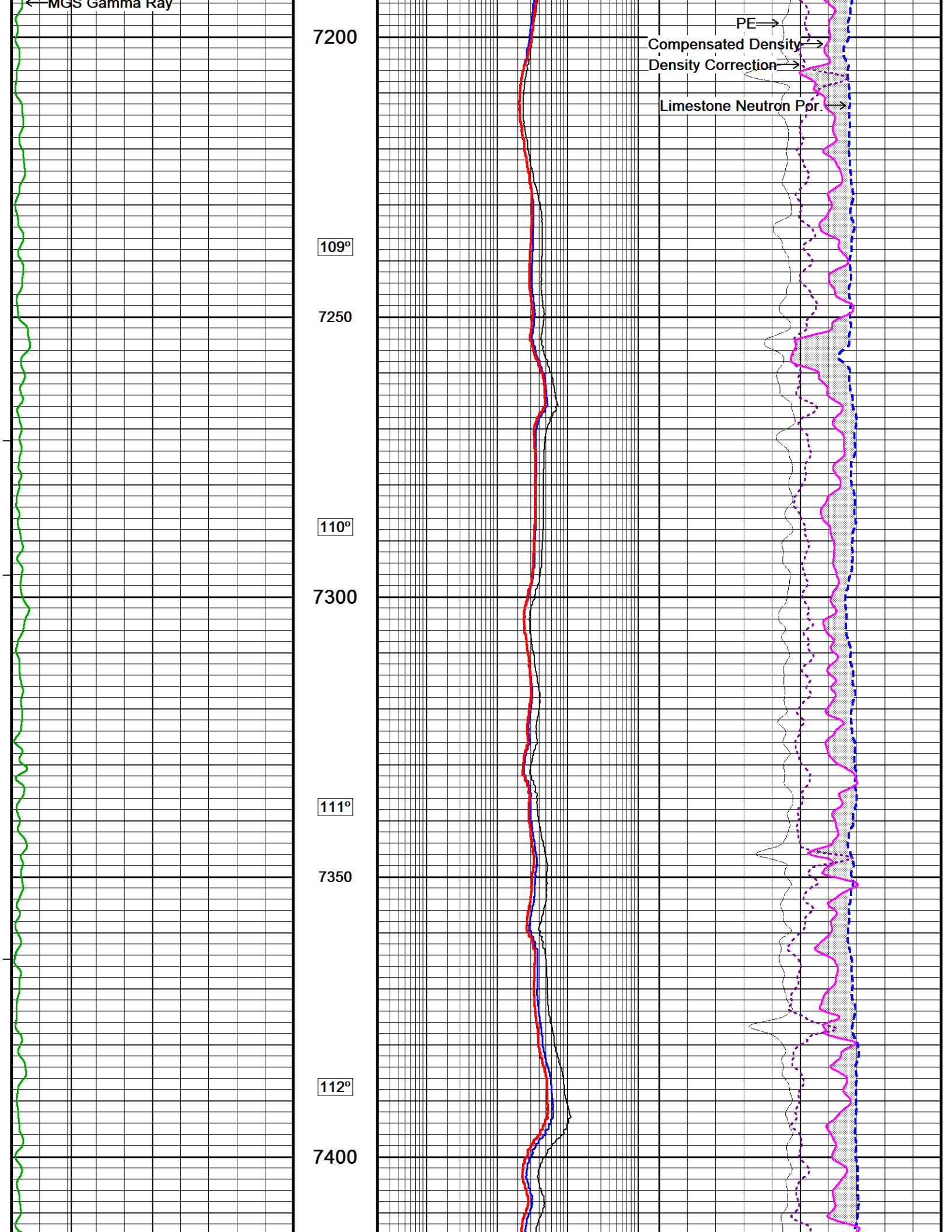
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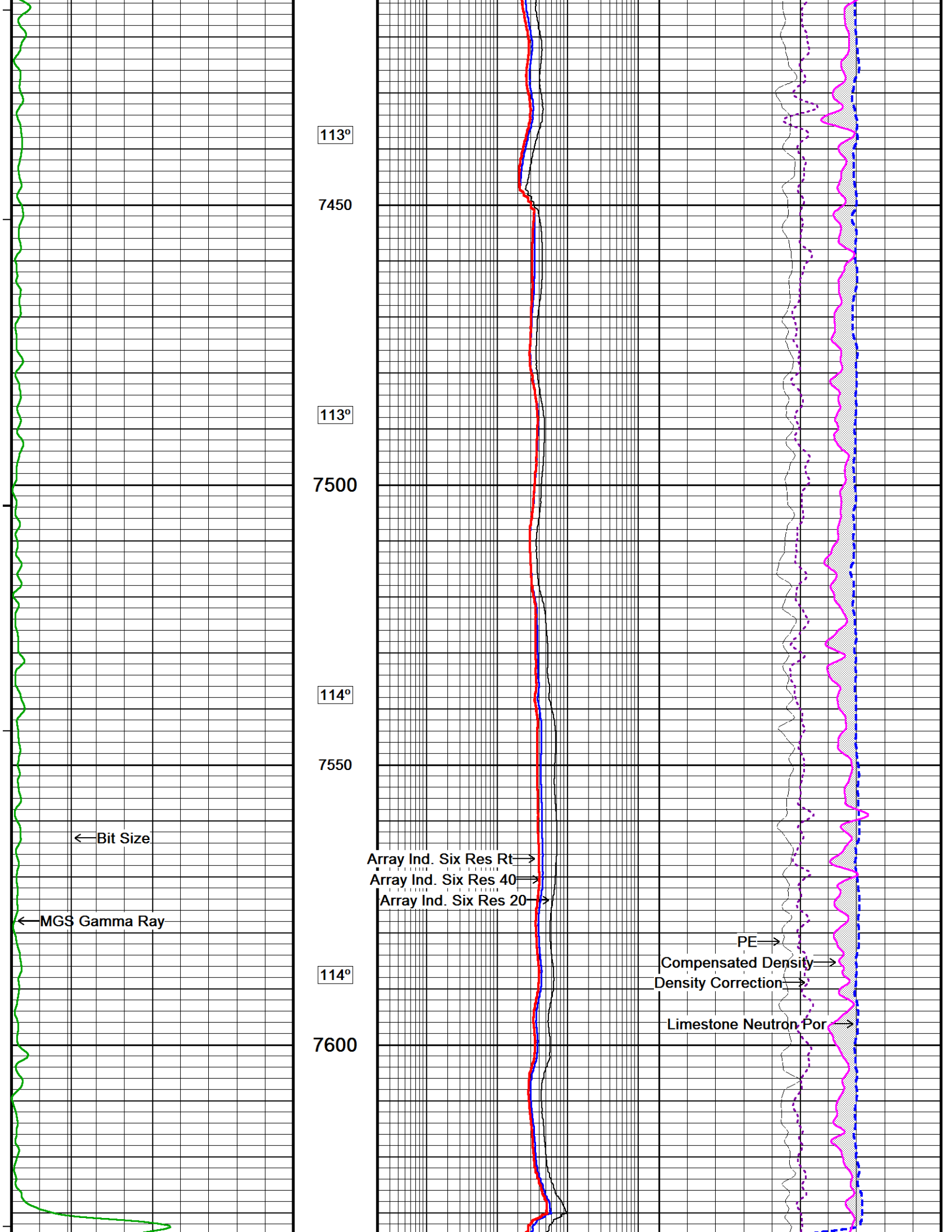
→











113°

7450

113°

7500

114°

7550

← Bit Size

Array Ind. Six Res Rt →

Array Ind. Six Res 40 →

Array Ind. Six Res 20 →

← MGS Gamma Ray

114°

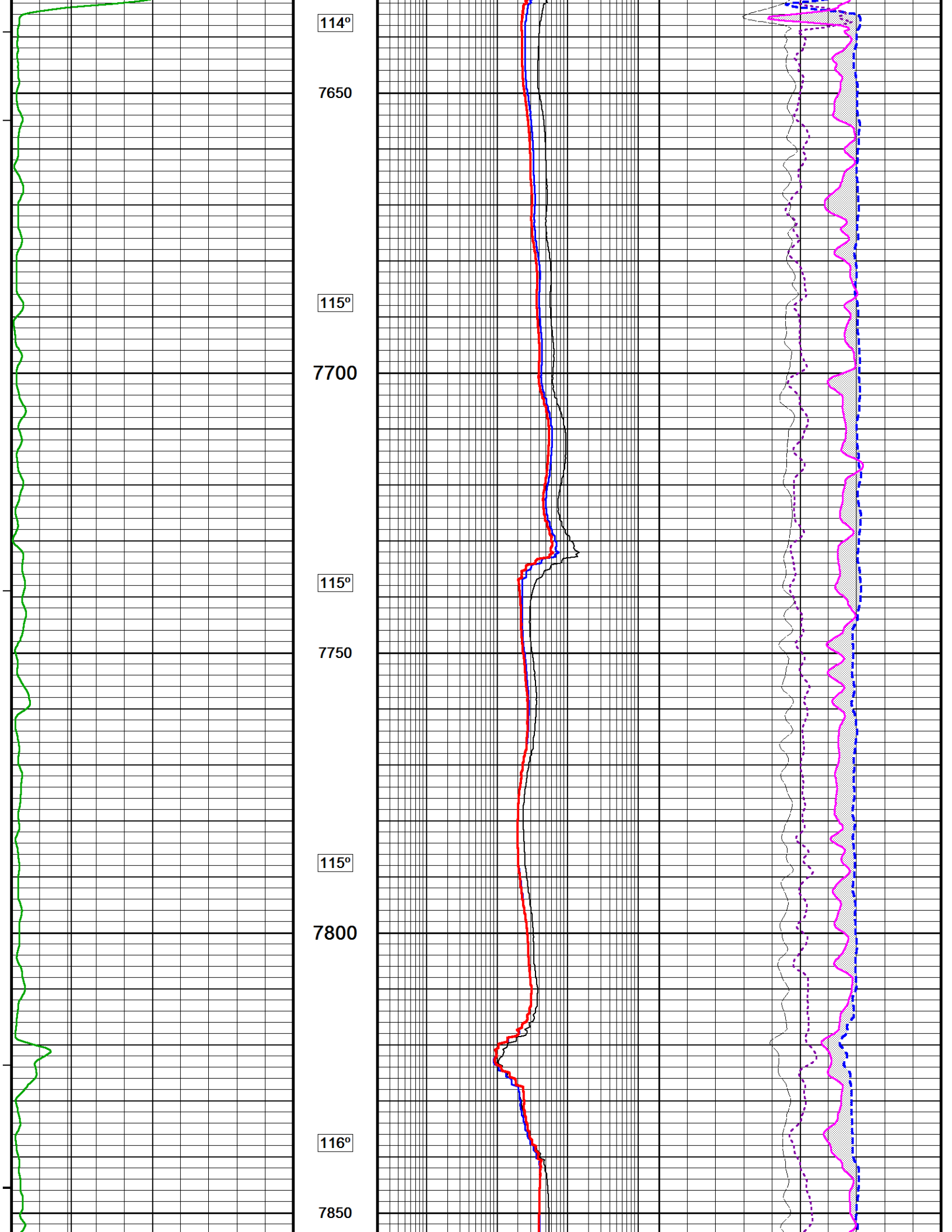
7600

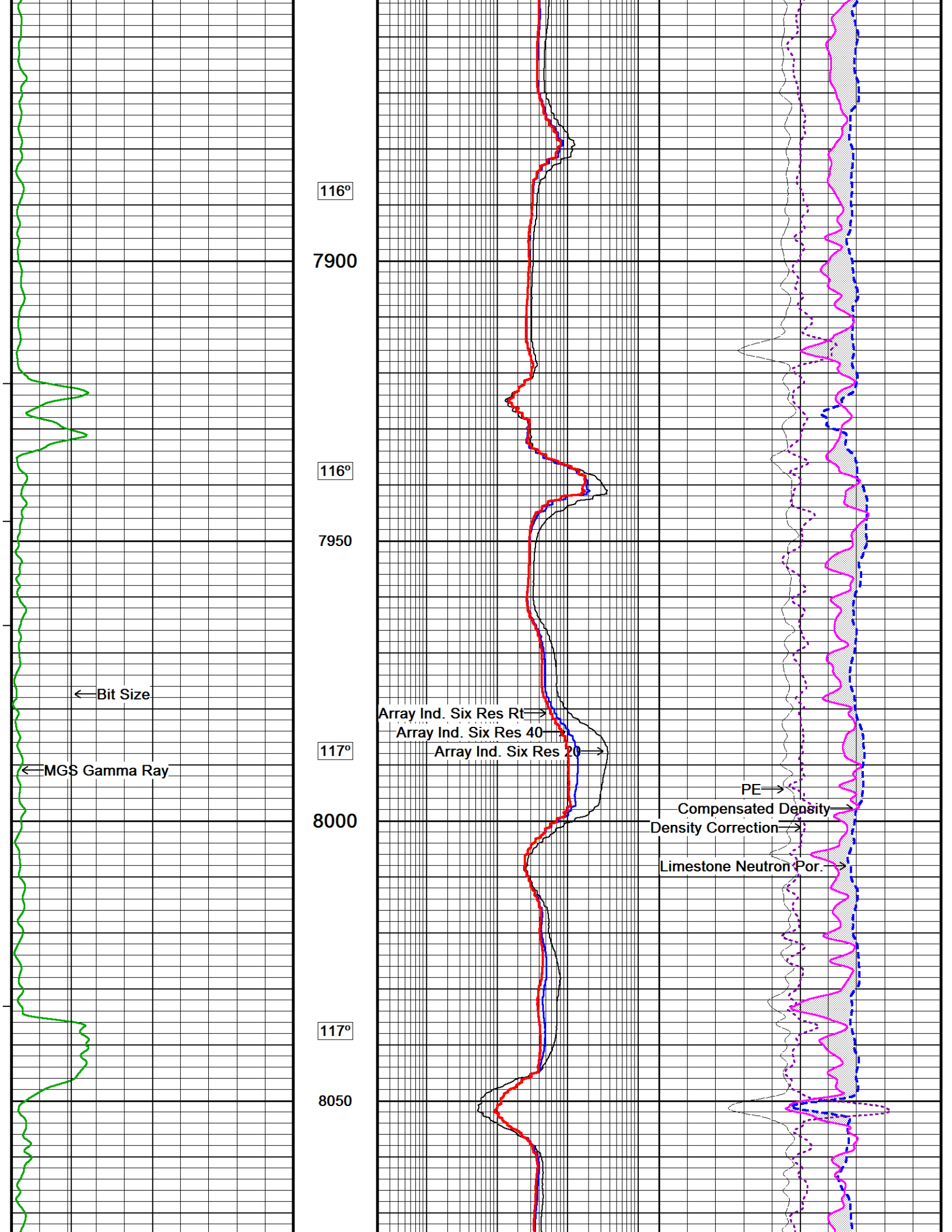
PE →

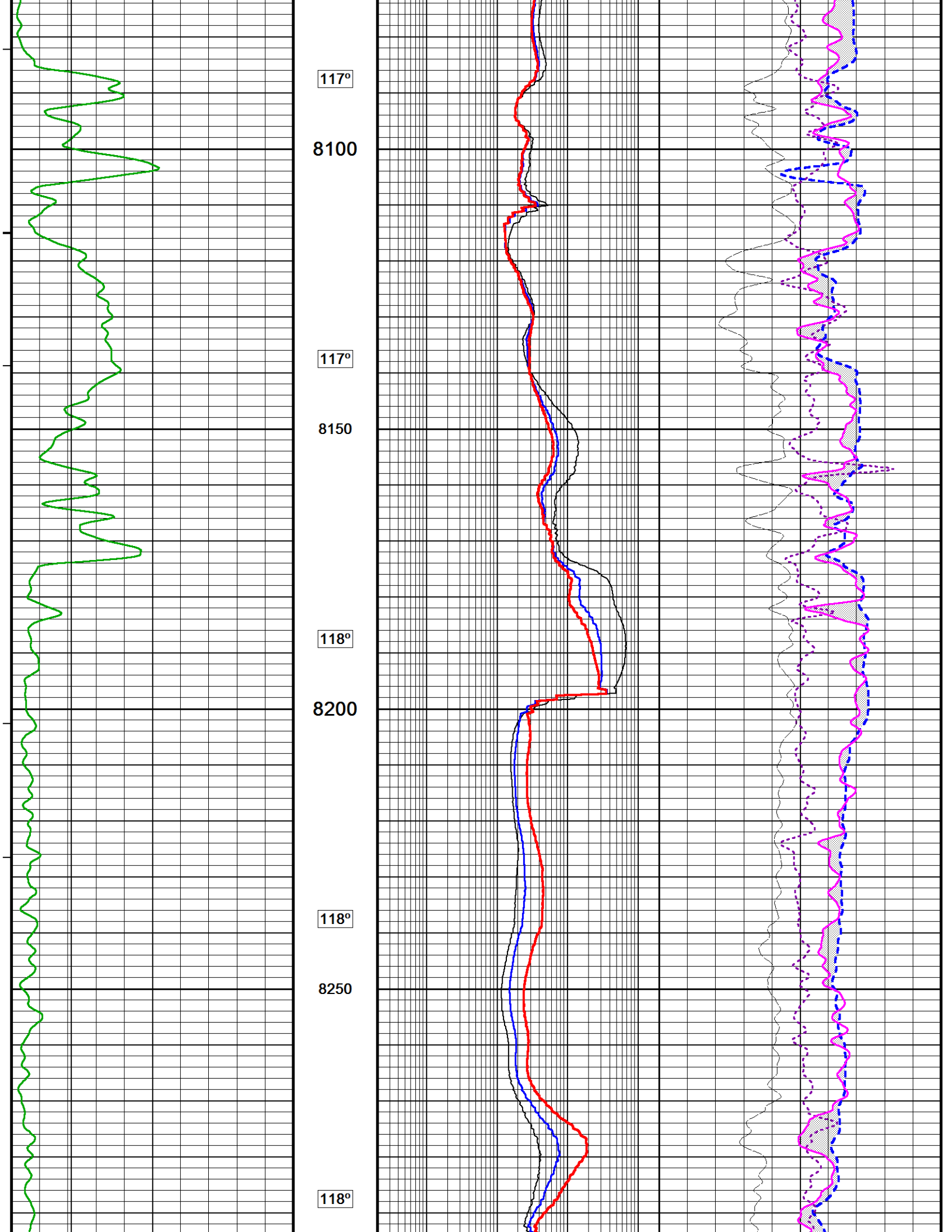
Compensated Density →

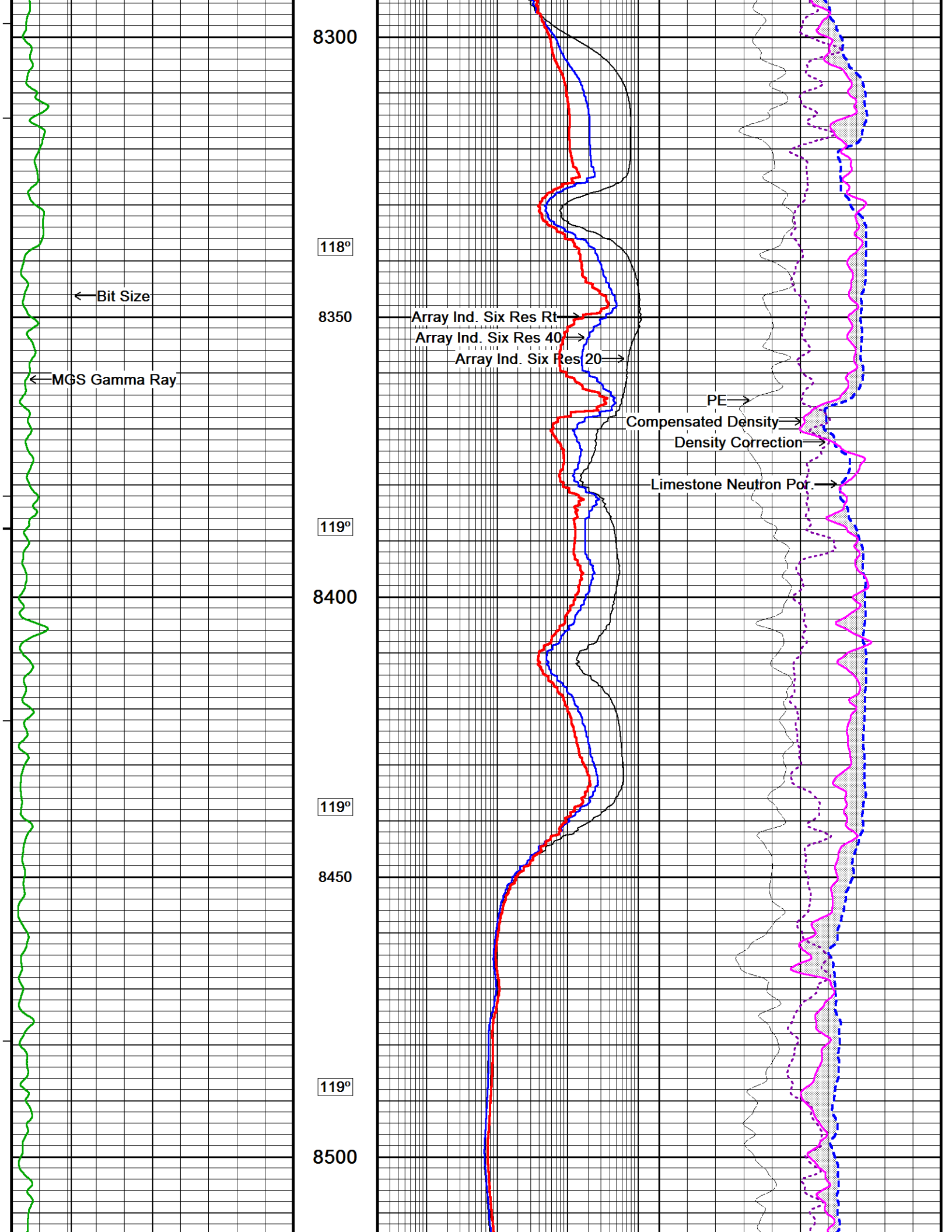
Density Correction →

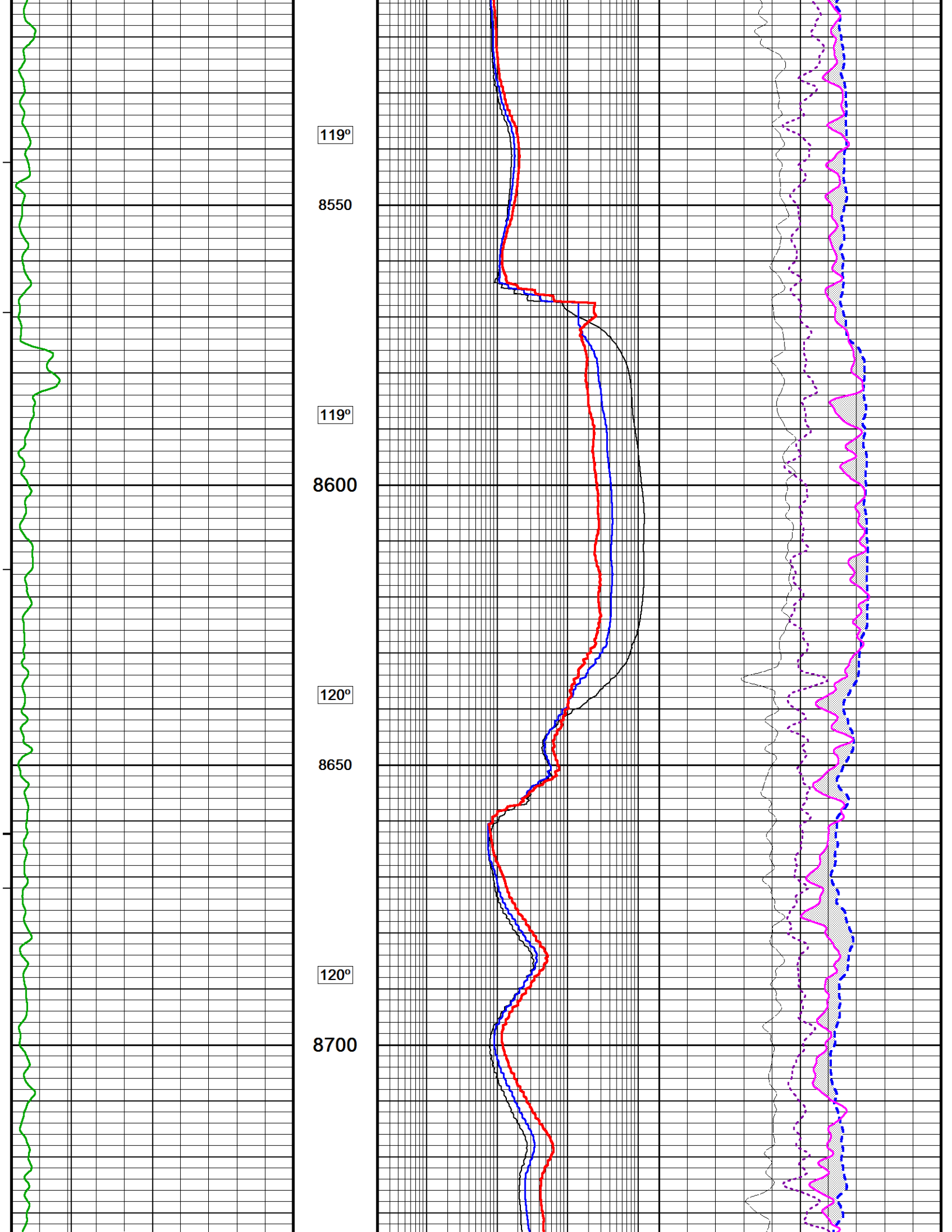
Limestone Neutron Por →

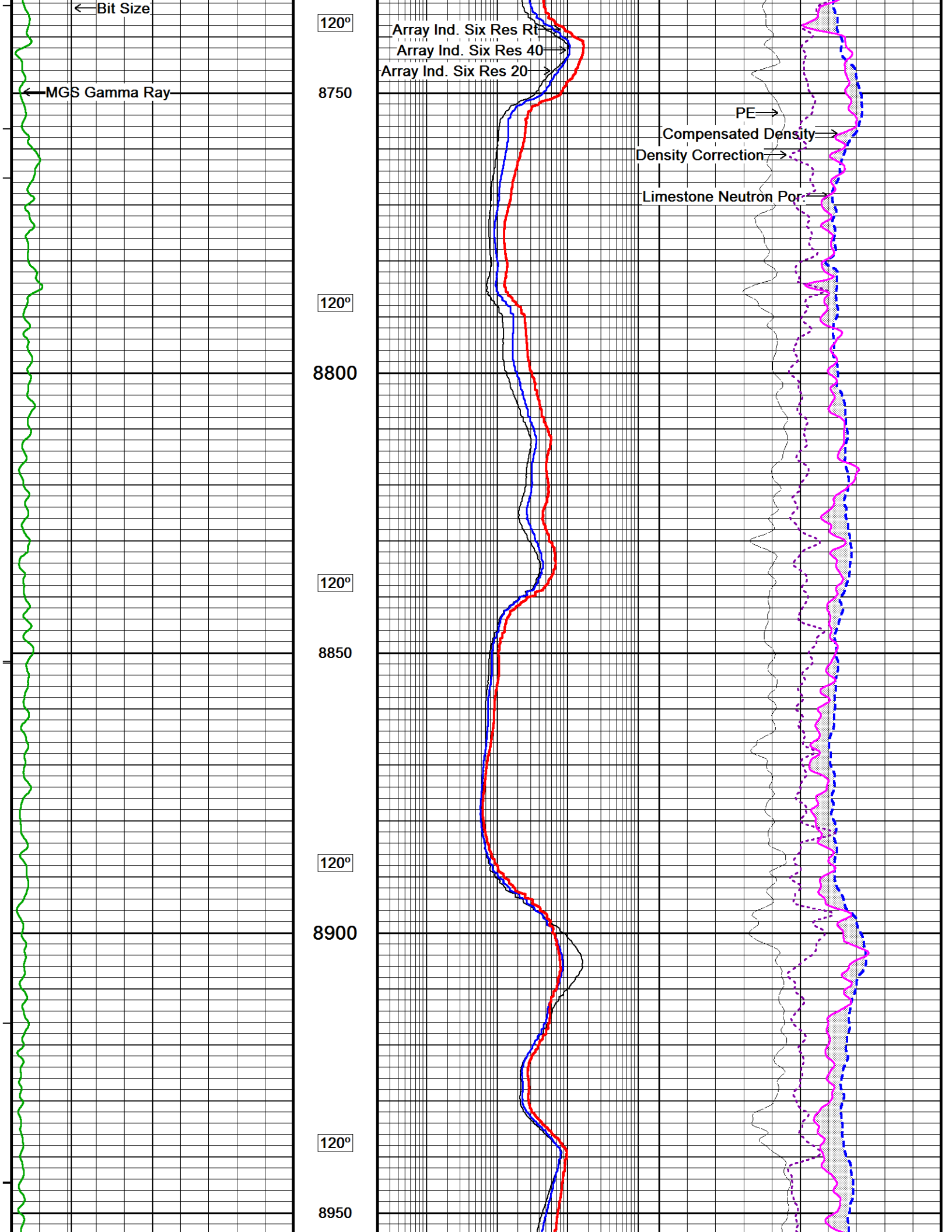


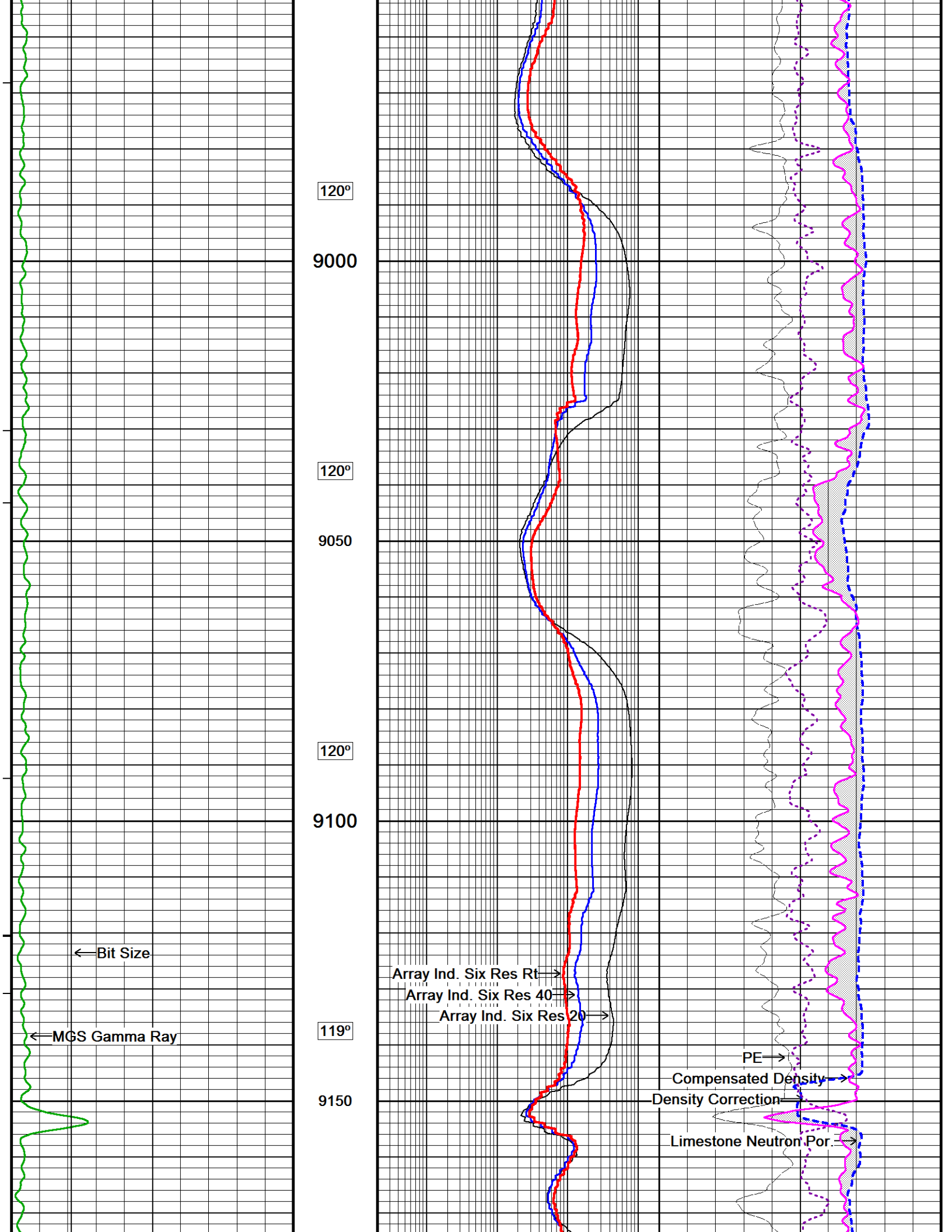


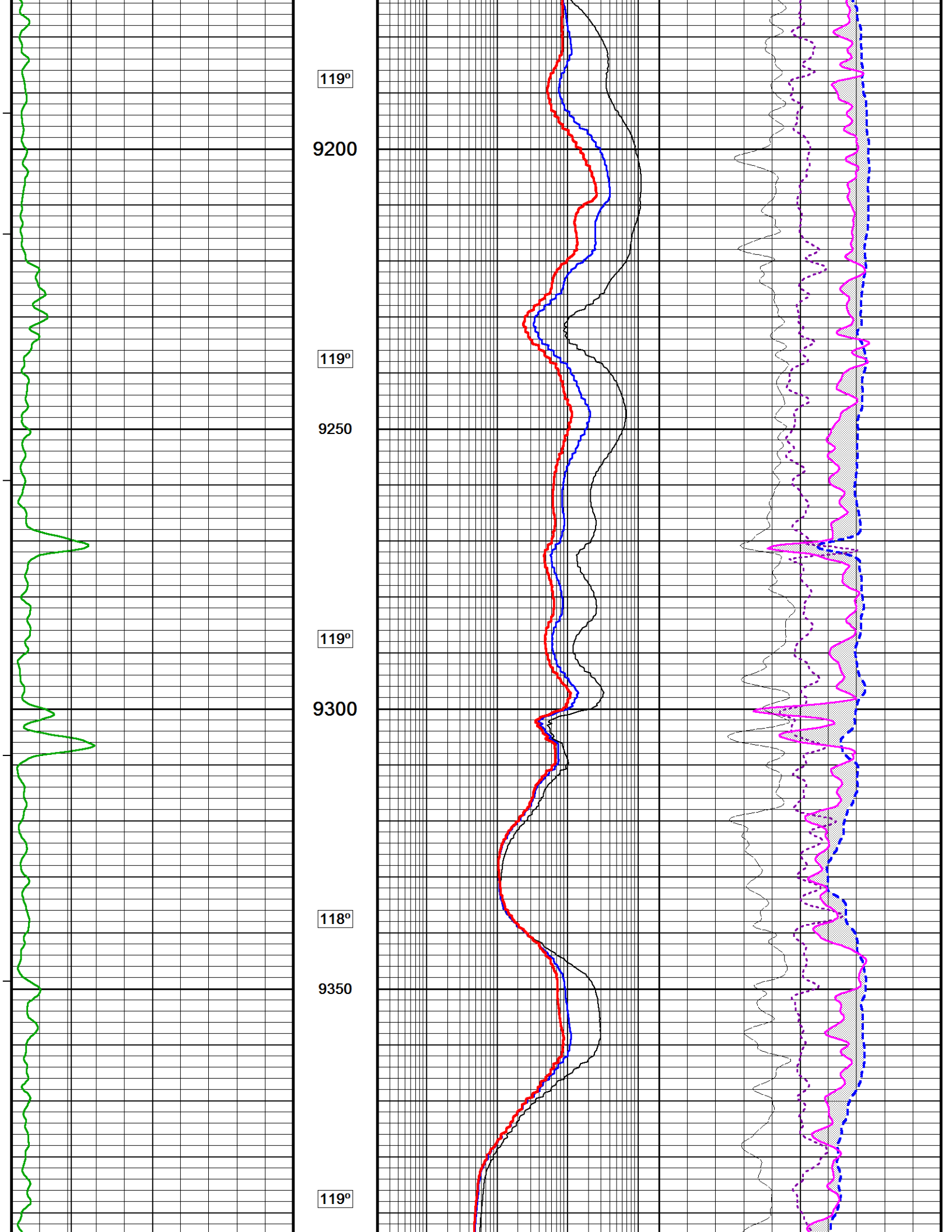


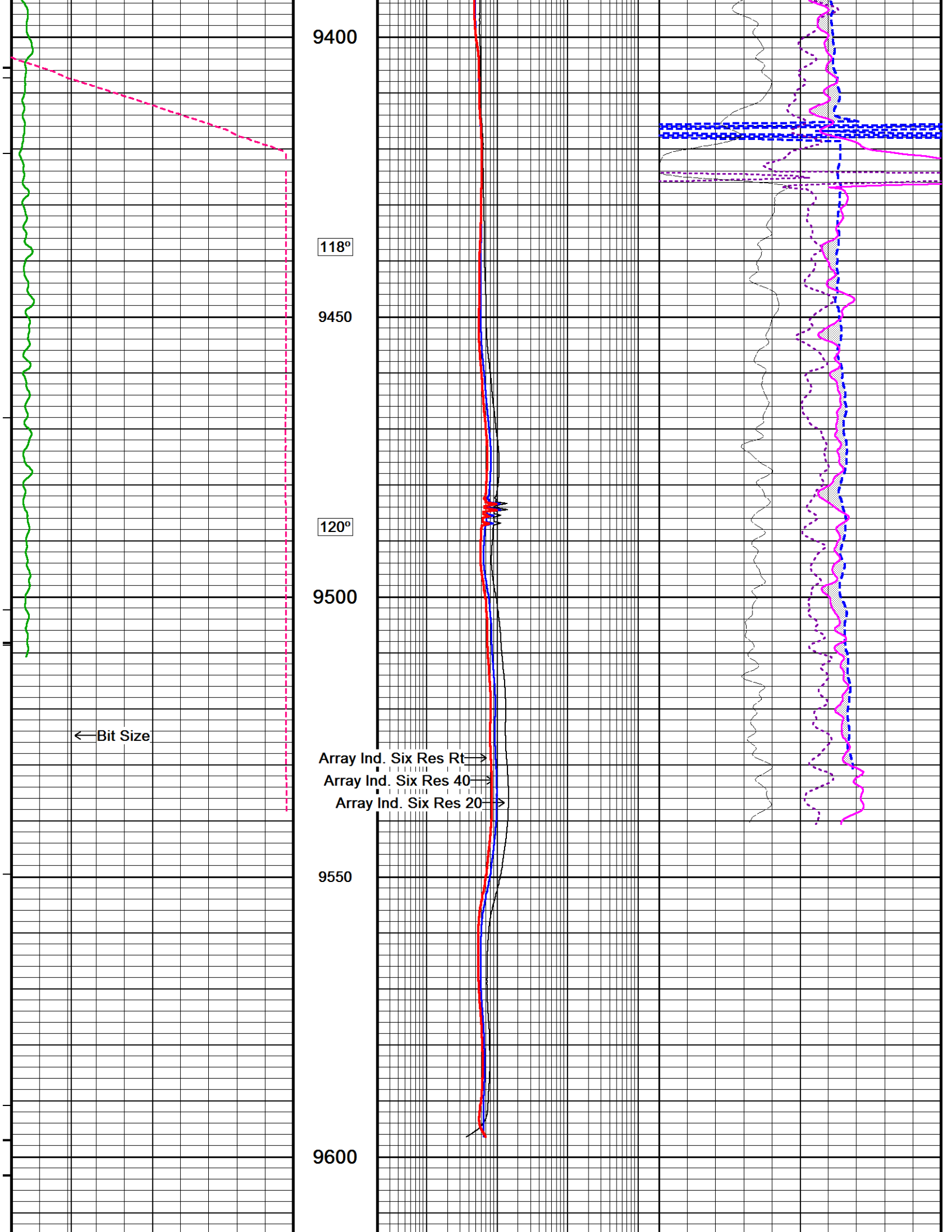


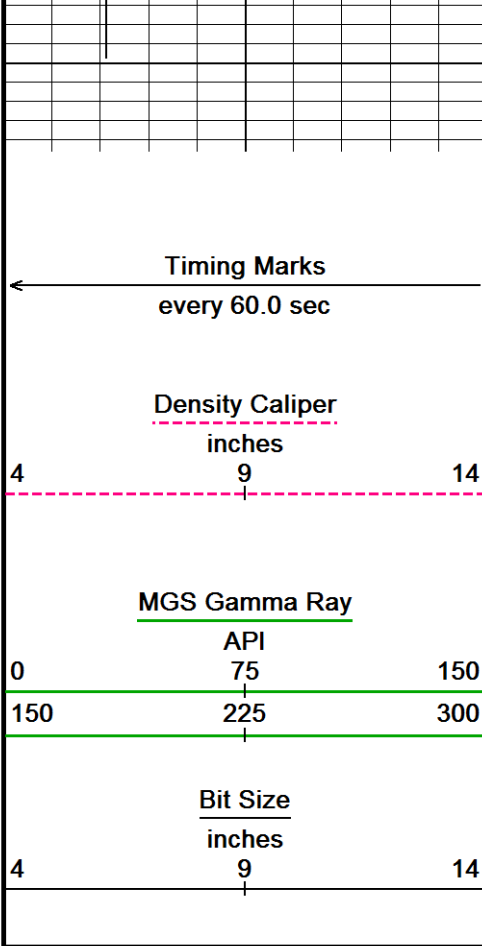








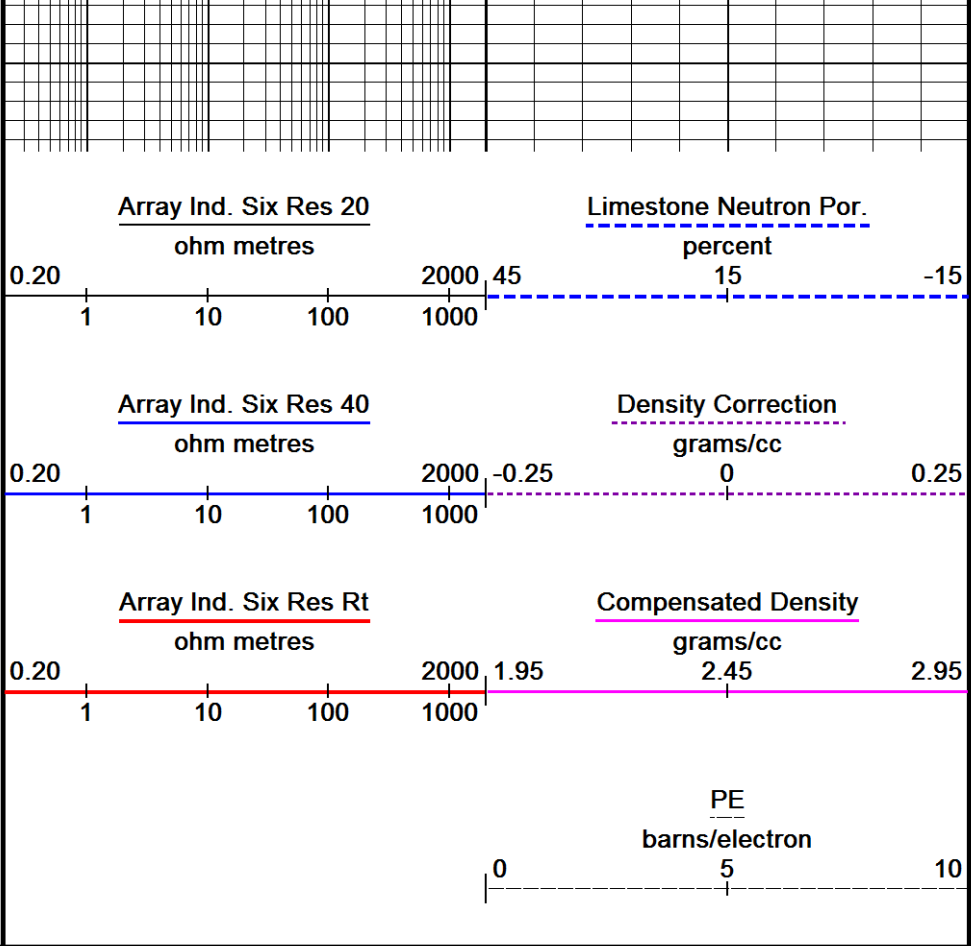




9626
Depth In Feet

Borehole Temp in deg F

Replay Scale 1:240

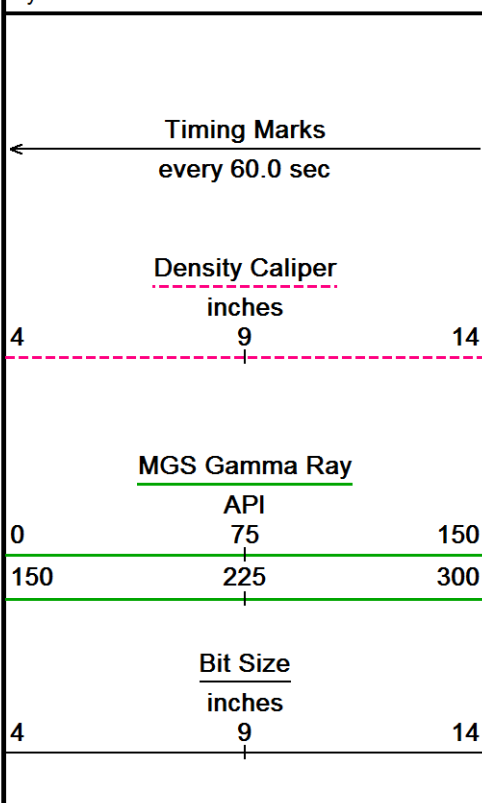


Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 25-JUL-2012 09:42
 Filename: C:\Users\AHMAD~1.LAT\AppData\Local\Te...RTAP SAPCO CHAIN LANE 3509 11-1H.dta
 Recorded on 22-JUL-2012 22:15
 System Versions: Processed with 13.02.6600 Plotted with 12.01.3513

↑ RUN 1 / DESCENT 1 ↑

↓ RUN 1 / DESCENT 1 ↓

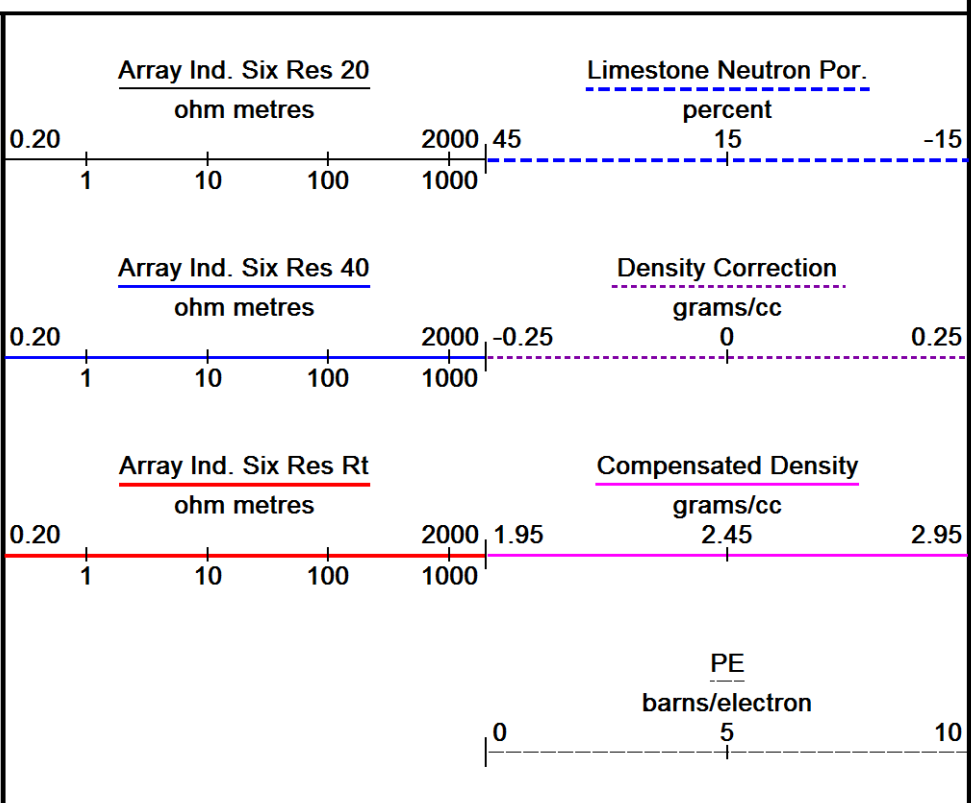
Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 25-JUL-2012 09:42
 Filename: C:\Users\AHMAD~1.LAT\AppData\Local\Te...RTAP SAPCO CHAIN LANE 3509 11-1H.dta
 Recorded on 22-JUL-2012 22:15
 System Versions: Processed with 13.02.6600 Plotted with 12.01.3513

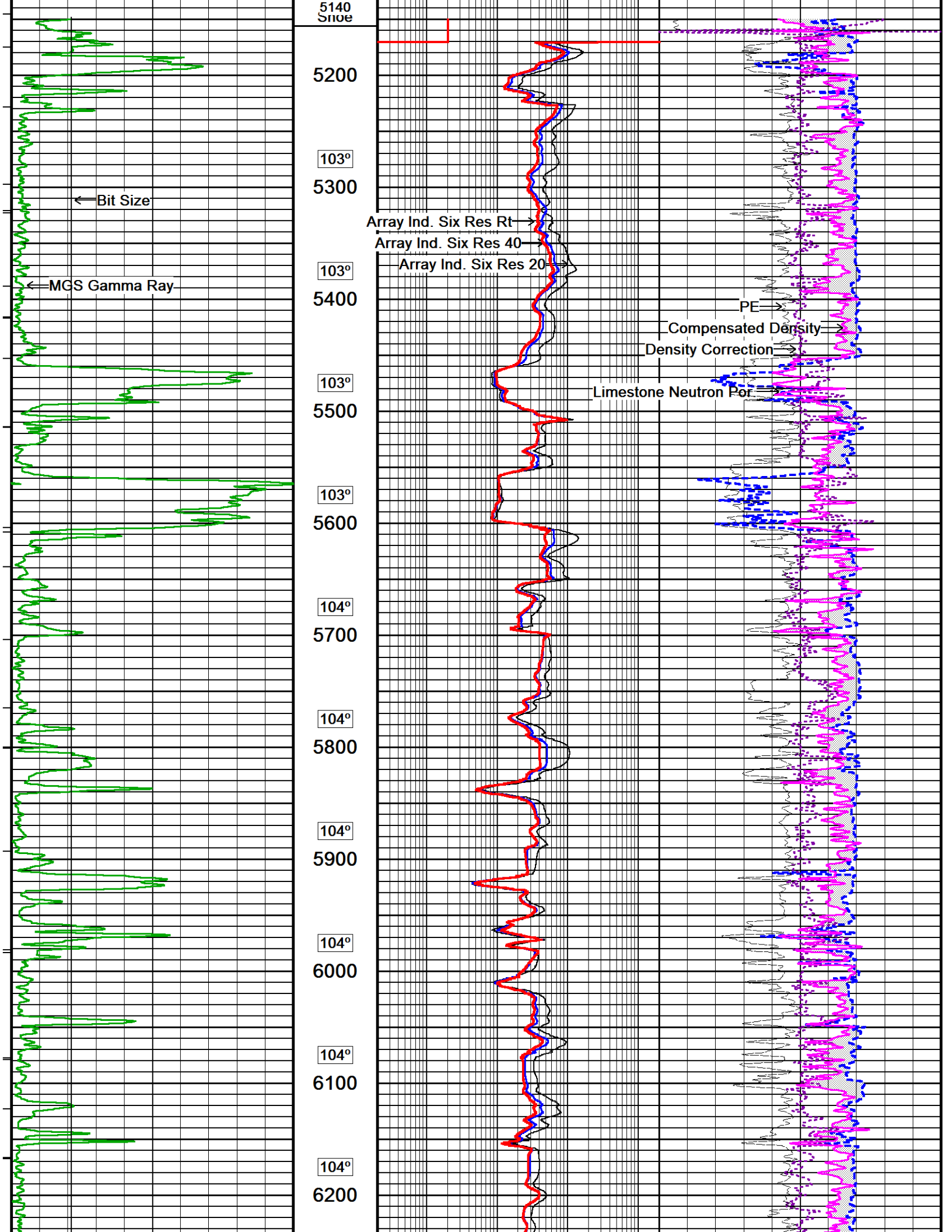


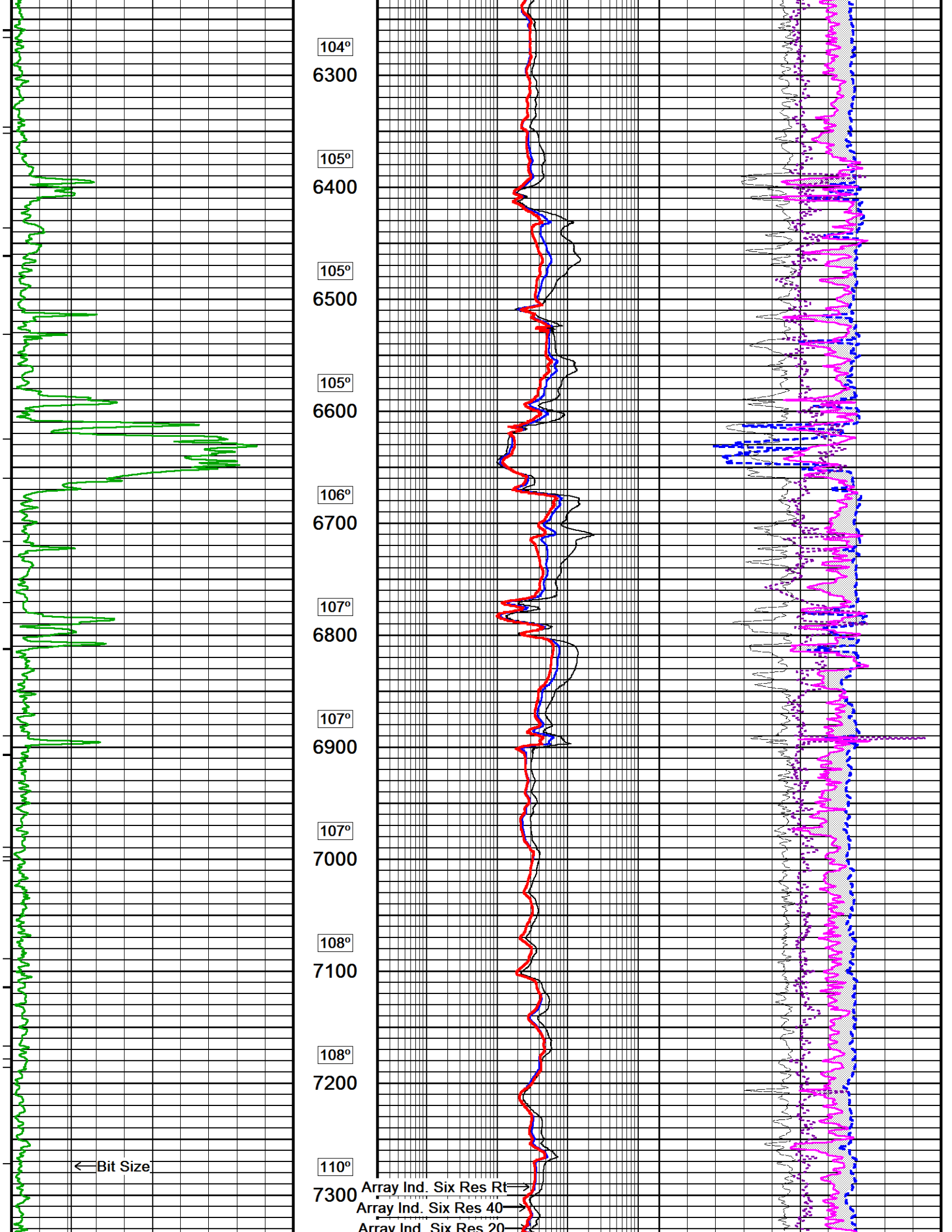
Depth In Feet

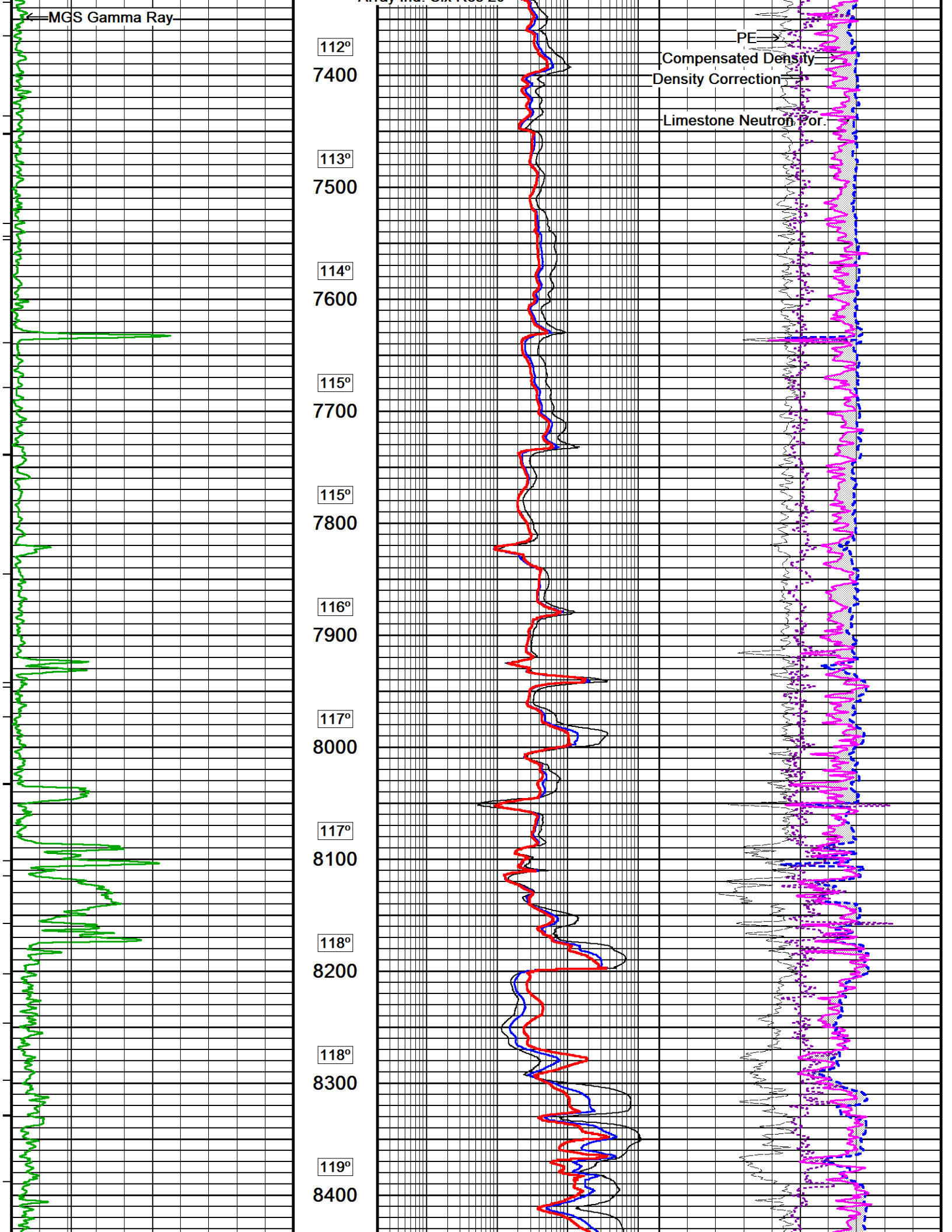
Borehole Temp in deg F

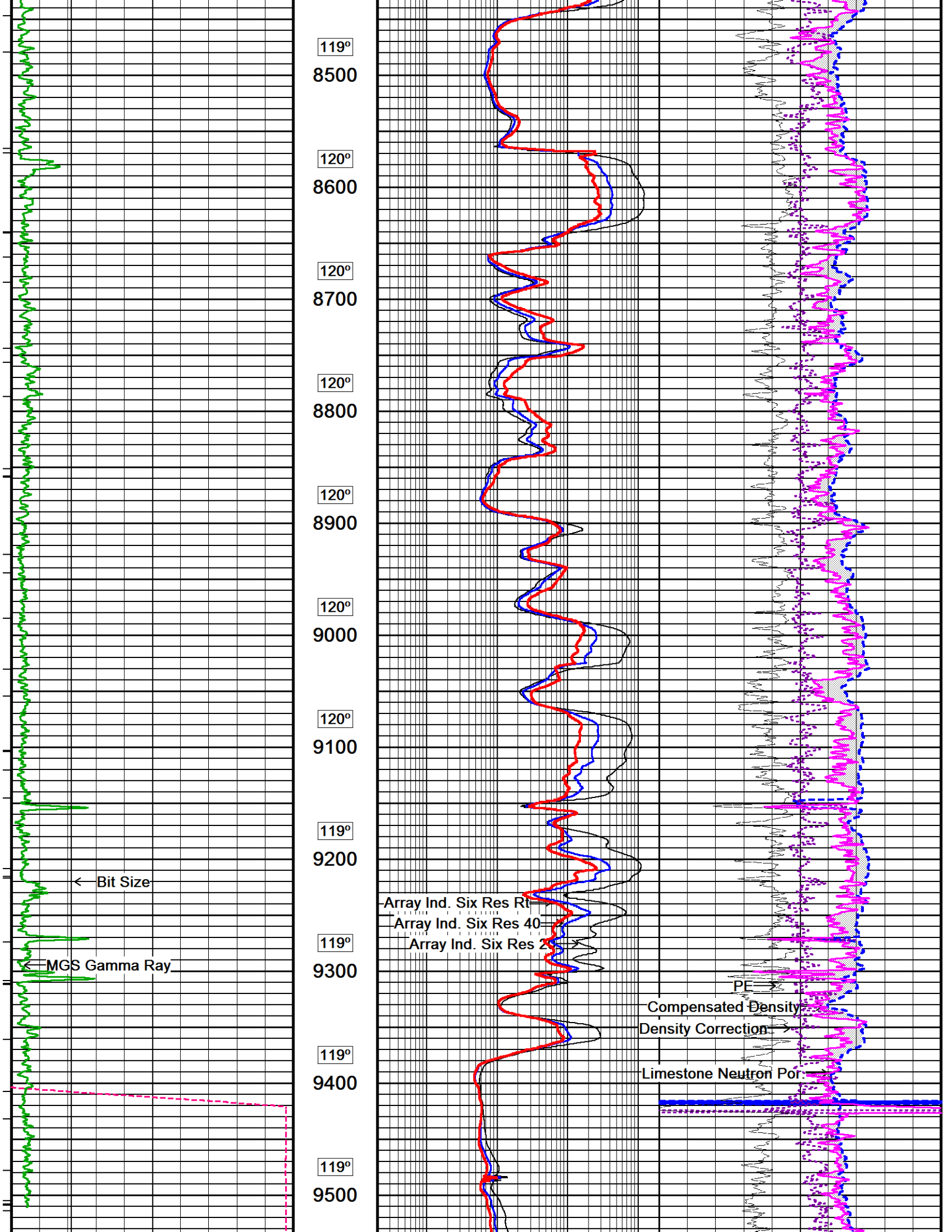
Replay Scale 1:1200

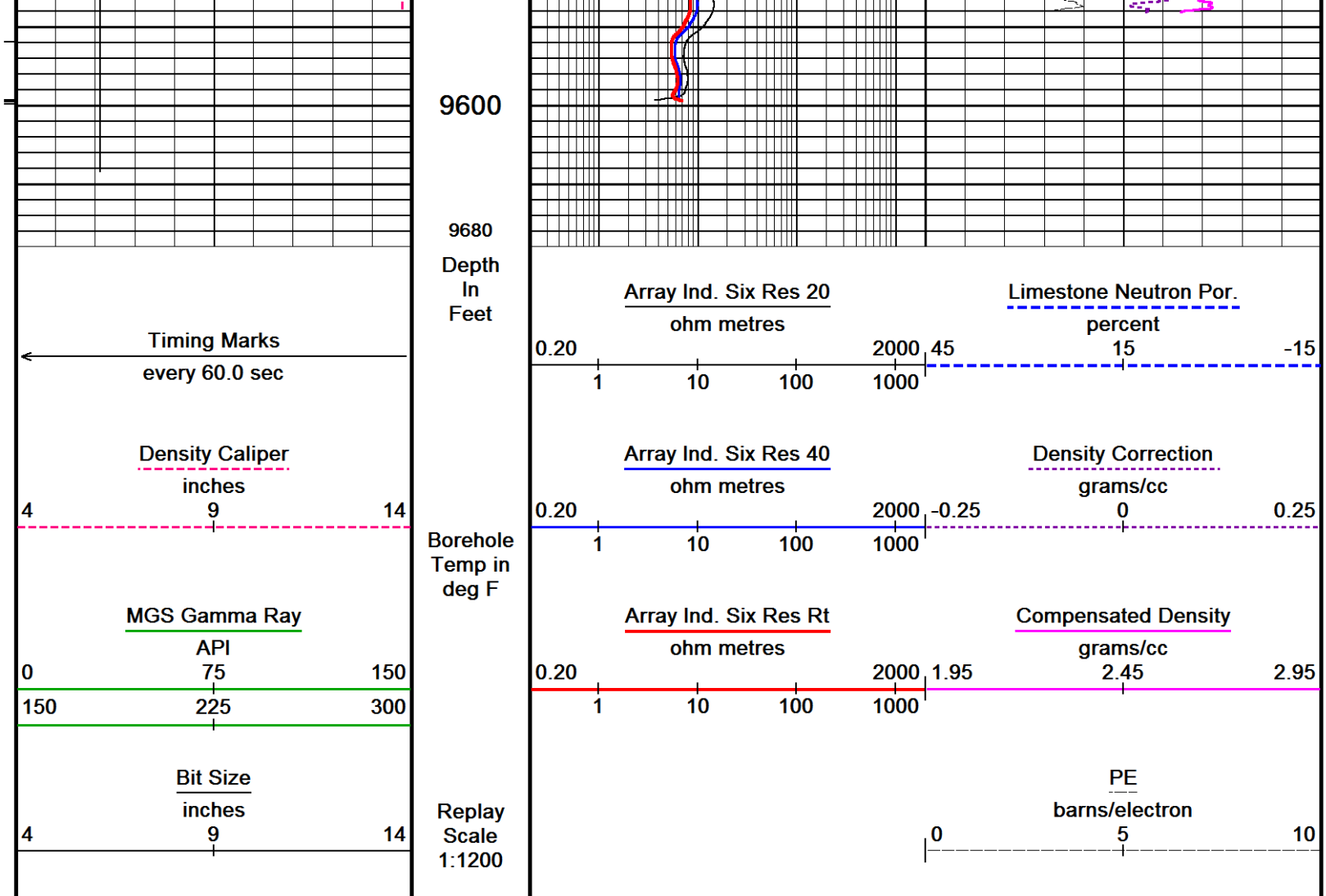












Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 25-JUL-2012 09:42
 Filename: C:\Users\AHMAD~1.LAT\AppData\Local\Temp\Weatherford PreView\0\CHAIN LANE 3509 11-1H.dta Recorded on 22-JUL-2012 22:15
 System Versions: Processed with 13.02.6600 Plotted with 12.01.3513

↑ RUN 1 / DESCENT 1 ↑

BEFORE SURVEY CALIBRATION
 C:\Users\AHMAD~1.LAT\AppData\Local\Temp\Weatherford PreView\0\CHAIN LANE 3509 11-1H TIME FILE.dta

General Constants All 000		Last Edited on 16-JUL-2012 09:03
General Parameters		
Mud Resistivity	1.000	ohm-metres
Mud Resistivity Temperature	80.000	degrees F
Water Level	0.000	feet
Density/Neutron 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	4.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	

Strain Gauge Constants SER-B.A 166 Last Edited on 20-JUL-2012 00:30

Atmospheric Pressure	14.70	psi
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Serial Number 0
 Calibration Date 000000000000
 Base Check Date
 Dead Weight Serial Number 0
 Dead Weight Gravitational Correction 1.0

Temperature	75.0		150.0		250.0		350.0		degrees F
	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	
Pressure psia									
0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10000.0	0.000		0.000		0.000		0.000		

Strain Gauge Constants MMS-E.B 157

Last Edited on

Atmospheric Pressure 14.70 psi
 Serial Number 0
 Calibration Date 000000000000
 Base Check Date
 Dead Weight Serial Number 0
 Dead Weight Gravitational Correction 1.0

Temperature	75.0		150.0		250.0		350.0		degrees F
	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	
Pressure psia									
0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10000.0	0.000		0.000		0.000		0.000		

MMS Parameters MMS-E.B 157

Last Edited on 20-JUL-2012 13:49

Logging Parameters

Firmware Version 2v40
 Caliper Open On MAI
 Caliper Open Delay 0.0 minutes
 Caliper Closed On Unknown
 Caliper Closed Delay N/A minutes
 Sample Rate 1.00 seconds
 Use Deep Sleep No
 Delay Deep Sleep N/A
 Deep Sleep Wake Time N/A minutes
 Deep Sleep Wake on Temperature N/A
 Deep Sleep Wake Temperature N/A degrees C
 Deep Sleep Wake on Pressure N/A
 Deep Sleep Wake Pressure N/A psi
 MMI Pad Pressure 8.0

Release Parameters

Pulse Duration Base Level 10.0 seconds
 Pulse Duration Transition Time 60.0 seconds
 Pulse Duration Status Pulse From 20.0 seconds
 Pulse Duration Caliper Close From 145.0 seconds
 Pulse Duration Caliper Open From 150.0 seconds
 Pulse Duration Release Pulse From 215.0 seconds
 Pulse Duration Release Pulse To 280.0 seconds
 Pulse Release Duration 240.0 seconds
 Pulse Discriminator Pressure Band 96.0 seconds
 Pulse Pressure Discriminator 213.0 seconds
 Use Negative Pulsing No
 Good Status Reply Open Hole 65535.0 seconds
 Good Status Reply Cased Hole 20.0 seconds
 Bad Status Reply 60.0 seconds
 Status Pulse To 80.0 seconds
 Caliper Close To 0.0 seconds
 Caliper Open To 210.0 seconds

Configuration

Gamma Calibration MGS-C.J 134

Field Calibration on 20-JUL-2012 12:06

	Measured	Calibrated (API)
Background	78	56
Calibrator (Gross)	1037	752
Calibrator (Net)	960	696

Gamma Constants MGS-C.J 134

Last Edited on 23-MAR-2012 03:12

Gamma Calibrator Number	696	
Mud Density	1.03	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Centred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Constants MGS-C.J 134

Last Edited on

Pre-filter Length	11
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Neutron Calibration MDN-A.B 165

Base Calibration on 29-JUN-2012 16:30

Field Check on 20-JUL-2012 11:59

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	3361	104	3714	110
	32.379		33.764	

Field Calibrator at Base

	Calibrated (cps)	
Ratio	2194	3235
	0.678	

Field Check

	Calibrated (cps)	
Ratio	2236	3224
	0.693	

Neutron Constants MDN-A.B 165

Last Edited on 21-JUL-2012 12:39

Neutron Source Id	N1055	
Neutron Jig Number	N639	
Epithermal Neutron	No	
Caliper Source for Processing	Bit Size	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	Constant Value	
Formation Pressure	1.80	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	140.00	kppm
Barite Mud Correction	Not Applied	

Caliper Calibration MIE-A.A 206

Base Calibration on 20-JUL-2012 12:30

Field Calibration on 20-JUL-2012 12:38

Base Calibration

Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)		
1	26554	26603	5.96		
2	36826	37210	7.97		
3	46234	46943	9.84		
4	57980	58640	11.91		
5	0	0	0.00		

Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	24950	24526	25020	25358	5.96
2	33711	33882	34125	34019	7.97
3	41963	41893	42373	42202	9.84
4	51872	51750	52365	52104	11.91
5	0	0	0	0	0.00

Field Calibration					
Measured Pads 1-5 Caliper(in) 7.93		Measured Pads 3-7 Caliper(in) 7.77		Actual Caliper(in) 7.98	
Measured Pad 2 Caliper(in) 3.91	Measured Pad 4 Caliper(in) 3.88	Measured Pad 6 Caliper(in) 3.89	Measured Pad 8 Caliper(in) 3.94	Actual Caliper(in) 7.98	

Caliper Constants MIE-A.A 206 Last Edited on 20-JUL-2012 11:36

Caliper Difference for BRKT 0.120 inches

Accelerometer Parameters MIE-A.A 206

Date Of Last Accelerometer Calibration		30-OCT-2010,09:29			
	X Accelerometer	Y Accelerometer	Z Accelerometer		
Slope	-1.103661	-1.102160	-1.107009		
Offset	-0.002408	0.011091	0.009792		

Accelerometer Constants MIE-A.A 206 Last Edited on 20-JUL-2012 13:20

Accelerometer Calibrator Number 000

Accelerometer Temperature Characterisation

X Accelerometer

Serial Number	804			
Calibration Date	02-Mar-2009			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	3.20605e-005	-1.12731e-008	2.86357e-010
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.80966e-004	3.68001e-007	7.99954e-010

Y Accelerometer

Serial Number	843			
Calibration Date	20-Mar-2009			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	-1.81451e-005	2.66540e-009	2.91740e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.83209e-004	2.71515e-007	1.12626e-009

Z Accelerometer

Serial Number	842			
Calibration Date	19-Mar-2009			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	-1.76598e-005	1.30453e-008	-1.02318e-010
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.80729e-004	3.11940e-007	7.03827e-010

Magnetometer Parameters MIE-A.A 206

Date Of Last Magnetometer Calibration		20-JUL-2012,12:22			
	X Magnetometer	Y Magnetometer	Z Magnetometer		
Slope	-1.000000	-0.993587	-0.972812		
Offset	0.012207	-0.017649	0.016538		

Magnetometer Constants MIE-A.A 206 Last Edited on

Magnetometer Calibrator Number 000

Navigation Constants MIE-A.A 206 Last Edited on

Magnetic Declination 0.00 degrees East

Imager Pad Check MIE-A.A 206 Field Check on

Pad 1	Pad Not Tested	Pad 5	Pad Not Tested
Pad 2	Pad Not Tested	Pad 6	Pad Not Tested
Pad 3	Pad Not Tested	Pad 7	Pad Not Tested
Pad 4	Pad Not Tested	Pad 8	Pad Not Tested

Compact Micro Imager Constants MIE-A.A 206 Last Edited on 20-JUL-2012 12:51

Sonde Configuration	Imager Mode	degrees
Arm-Pad Kit	Normal Pads (12.25 in)	
Centre Pad 1 Rotational Offset	0.00	
Image/Borehole Ovality Reference	Azimuth of Pad 1	degrees
Non Active Buttons	Omit	feet
Search Angle	0.00	feet
Correlation Interval	3.28	mAmp
Correlation Step	1.64	mAmp
Current Offset	0.0000	
Squasher Start	N/A	
Image Processing	Enabled	

Induction Calibration MAI-B.J 390

Base Calibration on 16-AUG-2010 15:24
Field Check on 20-JUL-2012 05:43

Base Calibration

Test Loop Calibration Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	16.8	458.6	9.3	966.2
2	6.3	377.7	7.6	821.4
3	3.8	258.6	5.2	566.0
4	1.9	132.3	2.6	279.2

Array Temperature 77.9 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	14.9	3953.7	14.4	3953.7
2	30.3	3556.5	30.4	3557.4
3	28.1	3055.3	28.2	3056.1
4	19.7	2083.8	19.8	2084.4
Deep	17.3	2002.3	17.3	2002.6
Medium	40.5	4004.2	40.7	4005.4
Shallow	45.4	5250.3	45.4	5251.8

Array Temperature 89.3 78.9 Deg F

Induction Constants MAI-B.J 390

Last Edited on 20-JUL-2012 14:52

Induction Model	VECTAR		
Caliper for Borehole Corr.	Bit Size		
Hole Size for Borehole Correction	N/A	inches	
Tool Centred	No		
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	
Borehole Corr. Rm Source	Temperature Corr		
Temp. for Rm Corr.	MGS External Temperature		
Squasher Start	0.0060	mhos/metre	
Squasher Offset	0.0000	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 Apparent	100.00

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 390

Field Calibration on 07-NOV-2011 02:31

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	100.00	100.00

High Resolution Temperature Constants MAI-B.J 390

Last Edited on

Pre-filter Length	11
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Caliper Calibration MPD-B 166

Base Calibration on 20-JUL-2012 12:40

Field Calibration on 20-JUL-2012 12:45

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	11102	4.02
2	20537	5.96
3	30848	8.03
4	41232	10.02
5	51982	12.01
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.91	7.98

Photo Density Calibration MPD-B 166

Base Calibration on 20-JUL-2012 11:36

Field Check on 20-JUL-2012 11:41

Density Calibration				
Base Calibration				
	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	49845	22463	59869	31110
Reference 2	20737	2400	24557	2522

Field Check at Base

1190.7	1364.5
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Field Check

1183.5	1358.0
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PE Calibration

Base Calibration				
	WS	Measured	Ratio	Calibrated
		WH		Ratio
Background	215	1064		
Reference 1	19934	49660	0.406	0.369
Reference 2	5690	20604	0.280	0.271

Field Check at Base

215.4	1064.3
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Field Check

217.3	1060.0
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Density Constants MPD-B 166

Last Edited on 12-JUN-2012 12:24

Density Source Id	236	
Nylon Calibrator Number	633	
Aluminium Calibrator Number	633	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.00	gm/cc
Mud Density Z/A Multiplier	1.11	
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	

Density 2.71
 Matrix density (gm/cc)
 2.71
 0.00
 0.00
 0.00
 0.00
 0.00
 0.00
 0.00
 0.00

Hybrid
 Depth (m)
 0.00
 0.00
 0.00
 0.00
 0.00
 0.00
 0.00
 0.00
 0.00

DOWNHOLE EQUIPMENT

C:\Users\AHMAD~1.LAT\AppData\Local\Temp\Weatherford PreView\0\CHAIN LANE 3509 11-1H TIME FILE.dta

Shuttle Mechanical Release (SMR A)
 SMR-A 155 LG: 8.53 ft WT: 77.2 lb OD: 2.52 in

Shuttle Electrical Release
 SER-B.A 166 LG: 6.90 ft WT: 50.7 lb OD: 2.24 in

MBS-G.A 200v Compact Battery Sub
 MBS-G.A 119 LG: 16.66 ft WT: 132.3 lb OD: 2.24 in

Compact Memory Sub E.B
 MMS-E.B 157 LG: 5.20 ft WT: 37.5 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
 SKJ-E.B 459 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Spacer - Empty Battery
 MLK-A 2 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
 SKJ-E.B 458 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Tool Isolator sub.
 MTI-B.A 62 LG: 1.54 ft WT: 13.2 lb OD: 2.24 in

Compact Short Gamma
 MGS-C.J 134 LG: 3.41 ft WT: 24.3 lb OD: 2.24 in

Compact Collar Locator
 MCL-B.J 72 LG: 3.17 ft WT: 26.5 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
 SKJ-E.B 479 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
 SHA-J.A 431 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

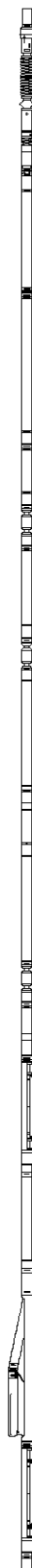
MIS-A.A Compact Inline Bowspring sub
 MIS-A.A 36 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron
 MDN-A.B 165 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
 MPD-B 166 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

MIS-A.A Compact Inline Bowspring sub
 MIS-A.A 275 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor



88.01 ft GRGM - MGS Gamma Ray
 86.02 ft GSXT - MGS External Temperature

69.14 ft NPRL - Limestone Neutron Por.

61.90 ft CLDC - Density Caliper
 59.97 ft DPRL - Limestone Density Por.
 59.97 ft DEN - Compensated Density
 59.97 ft DCOR - Density Correction
 59.91 ft PDPE - PE

SHA-J.A 434 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint

SKJ-E.B 474 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-E.B Compact Inline Standoff sub

MIS-E.B 565 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

SHA-J.B Compact Swivel Head Adaptor

SHA-J.B 471 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

MIS-A.A Compact Inline Bowspring sub

MIS-A.A 62 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact MMI Memory Section

MIM-A.J 233 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

Compact MMI Electrode Section

MIE-A.A 206 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

MIS-D.B Compact Inline Bowspring sub

MIS-D.B 696 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

MIS-E.B Compact Inline Standoff sub

MIS-E.B 575 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Induction

MAI-B.J 390 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 146.33 ft Weight: 1034.0 lb




- 20.89 ft IECY - MIE Caliper Y
- 20.89 ft IECX - MIE Caliper X
- 20.37 ft IEC2 - MIE Caliper 2
- 20.37 ft IEC4 - MIE Caliper 4
- 20.37 ft IMZA - Z Accelerometer
- 20.37 ft IEC8 - MIE Caliper 8
- 20.37 ft IEC6 - MIE Caliper 6

- 2.58 ft CILD - Deep Conductivity
 - 2.58 ft RILM - Medium Induction
 - 2.58 ft RILD - Deep Induction
 - Tool Zero (0.13ft from bottom)
- All measurements relative to tool zero.

COMPANY	SEPCO		
WELL	Chain Lane Ranch 3509 11-1H		
FIELD	WILDCAT		
PROVINCE/COUNTY	Barber		
COUNTRY/STATE	U.S.A / Kansas		

Elevation Kelly Bushing	1269.83	feet	First Reading	9596.00	feet
Elevation Drill Floor	1269.83	feet	Depth Driller	9774.00	feet
Elevation Ground Level	1242.00	feet	Depth Logger	9774.00	feet



CML IMPULSE SHUTTLE

PHOTO DENSITY/ NEUTRON

ARRAY INDUCTION

