



Weatherford

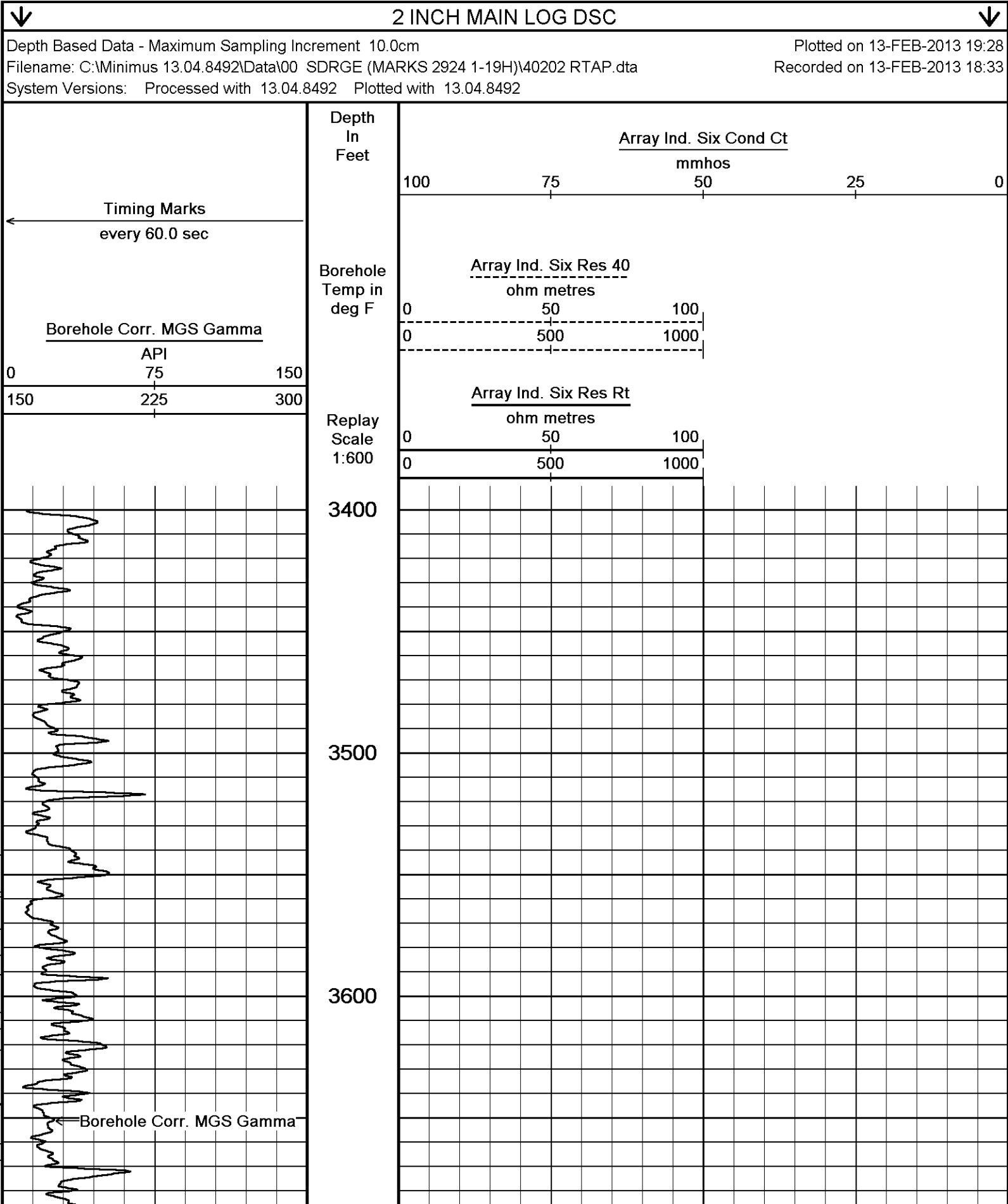
**CML MESSENGER SHUTTLE
ARRAY INDUCTION
ELECTRIC LOG**

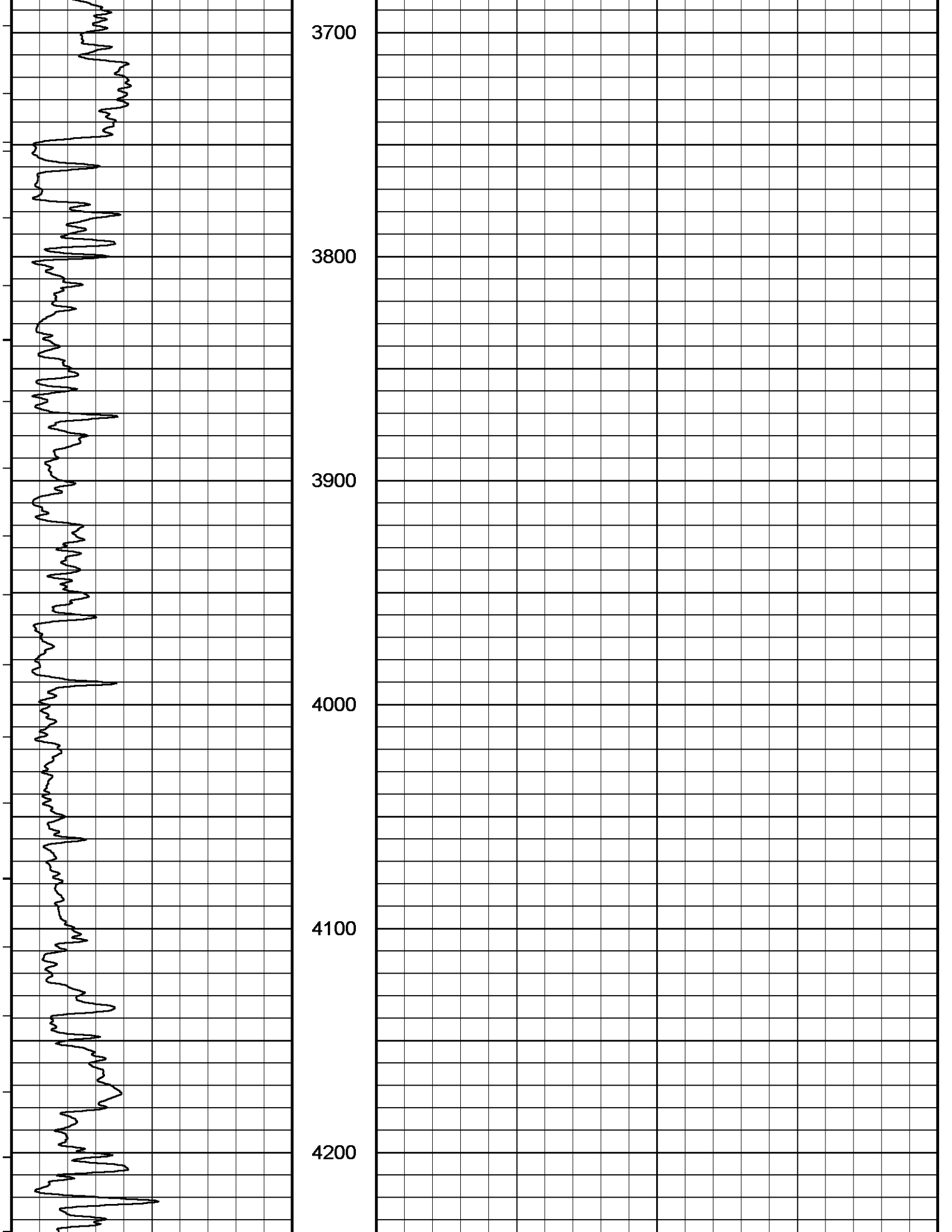
COMPANY				SANDRIDGE ENERGY			
WELL				MARKS 2924 1-19H			
FIELD				MISSISSIPPIAN / ST. LOUIS			
PROVINCE/COUNTY				FORD			
COUNTRY/STATE				USA / KANSAS			
LOCATION				SHL: 200' FNL & 920' FEL			
				BHL: 330' FSL & 920' FWL			
SEC	TWP	RGE	Other Services				
19	29S	24W	MDN/MPD				
API Number		15-057-20871-01		CMI			
Permit Number							
Permanent Datum G.L., Elevation 2612 feet							
Log Measured From DF							
Drilling Measured From D.F. 19.6 FEET							
Date	13-FEB-2013					Elevations: KB 2631.60 DF 2631.60 GL 2612.00	
Run Number	ONE						
Service Order	3539397						
Depth Driller	9720.00			feet			
Depth Logger	9702.00			feet			
First Reading	9699.00			feet			
Last Reading	3400.00			feet			
Casing Driller	5807.00			feet			
Casing Logger	5807.00			inches			
Bit Size	6.125						
Hole Fluid Type	WATER			lb/USg			
Density / Viscosity	9.05 lb/USg		37.00 CP				
PH / Fluid Loss	10.50		10.50				
Sample Source	FLOWLINE						
Rm @ Measured Temp	0.55 @ 50.0		ohm-m				
Rmf @ Measured Temp	0.44 @ 50.0		ohm-m				
Rmc @ Measured Temp	0.66 @ 50.0		ohm-m				
Source Rmf / Rmc	CALC		CALC				
Rm @ BHT	0.20 @131.0		ohm-m				
Time Since Circulation	0 HOURS						
Max Recorded Temp	131.00		deg F				
Equipment / Base	18006		OKC				
Recorded By	D. ROWELL						
Witnessed By	M. RODEN					W. SCOTT	
AFF #	DC12647						

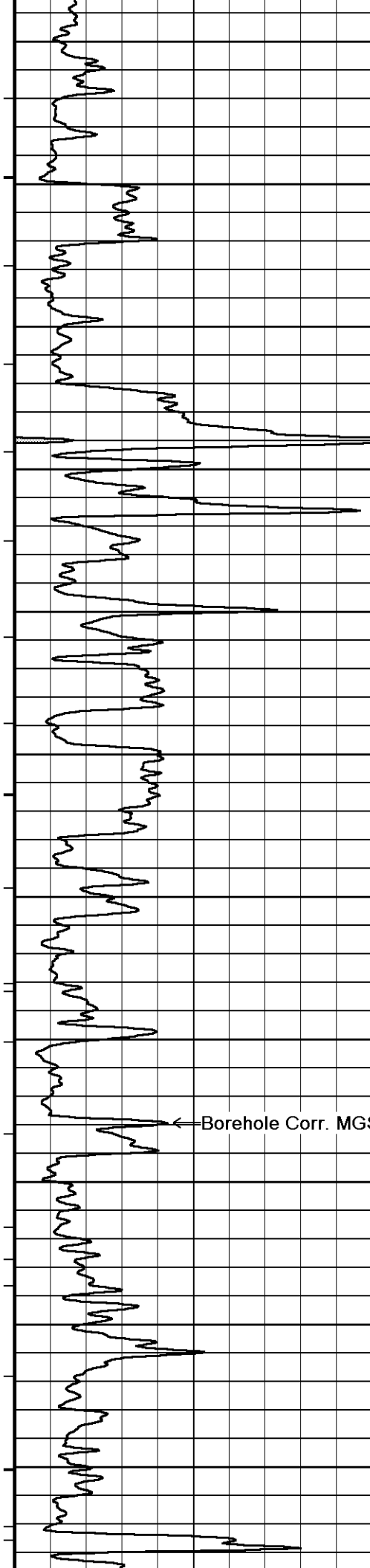
BOREHOLE RECORD				Last Edited: 13-FEB-2013 19:17
Bit Size inches	Depth From feet		Depth To feet	
8.750	0.00		5708.00	
6.125	5708.00		9720.00	
CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
INTERMED	7.000	0.00	5708.00	26.00

REMARKS
LOGGED WITH WLS VER 13.04.8492 SOFTWARE
WELL LOGGED USING MESSENGER METHOD OF DEPLOYMENT, AND MEMORY LOGGING SYSTEM
HARDWARE: MAI: ISA STANDOFF BELOW
ALL INTERVALS LOGGED AND SCALED PER CUSTOMER REQUEST
DRILL PIPE DEPTH DURING DEPLOYMENT - 9598
LOGGING TOOL DEPTH AFTER DEPLOYMENT: 9702
SERVICE ORDER # 3539397
RIG: LARIAT 41
OPERATORS: D. TURNER, C. ALEXANDER

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.







4300

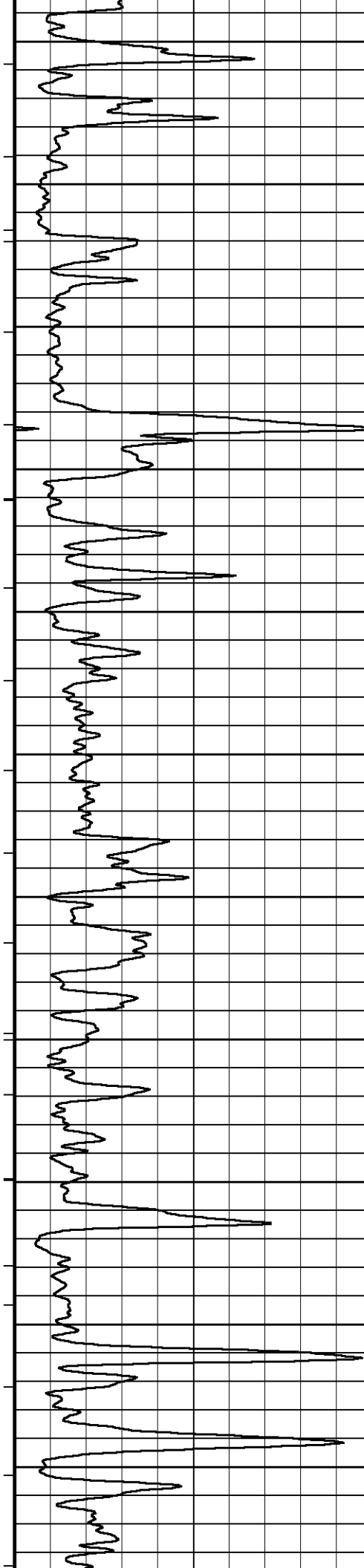
4400

4500

4600

4700

← Borehole Corr. MGS Gamma



4800

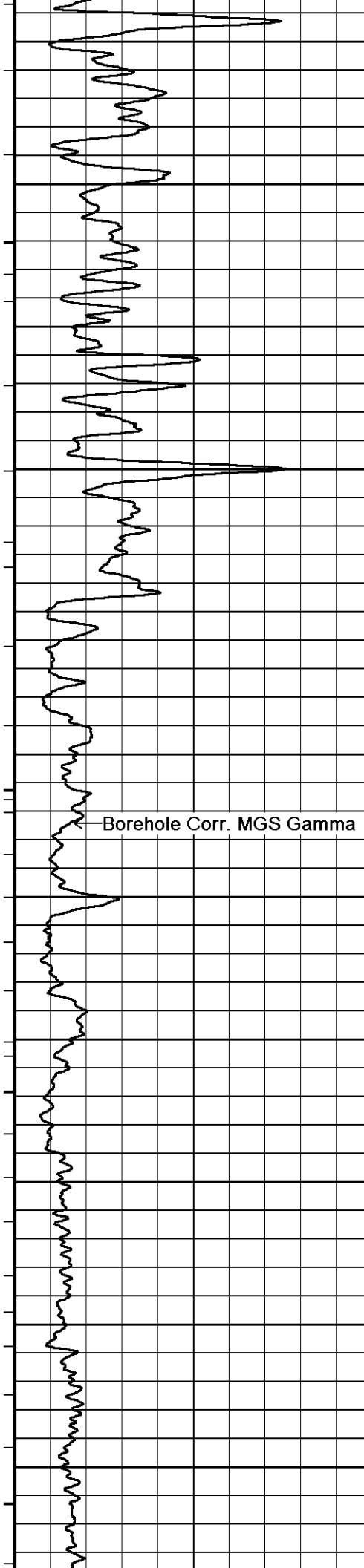
4900

5000

5100

5200

5300



5400

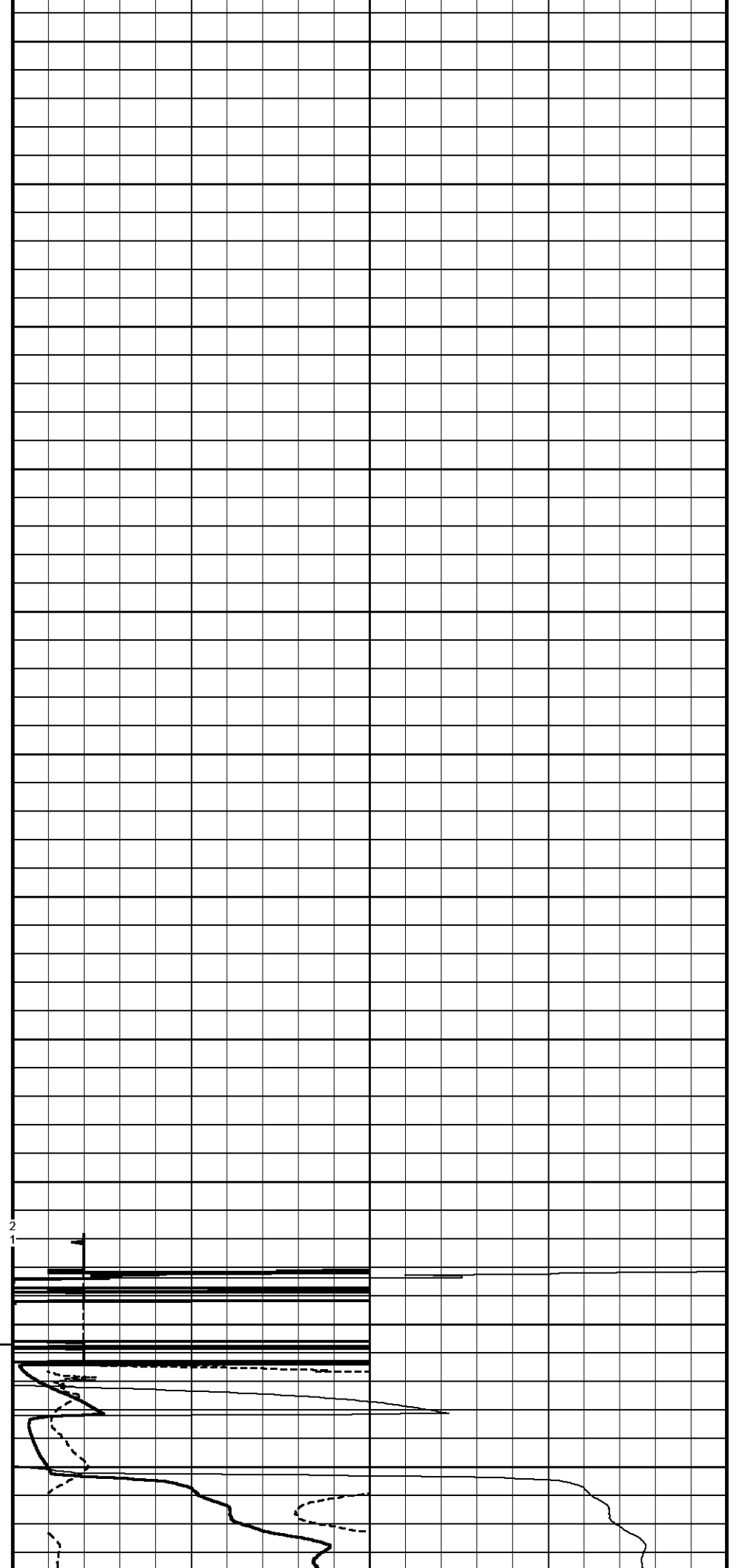
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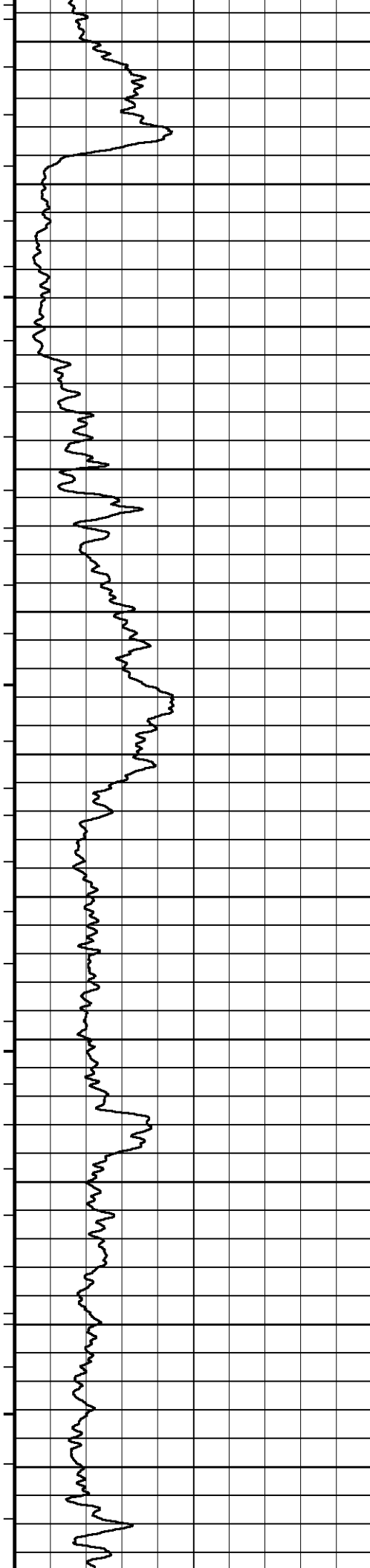
5600

5700

Borehole Corr. MGS Gamma

5800





5900

126°

6000

126°

6100

127°

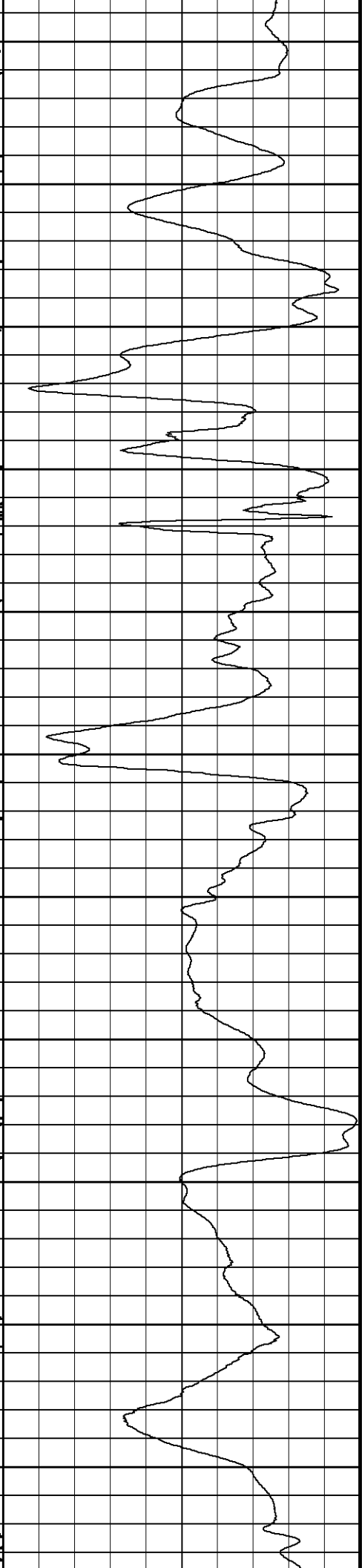
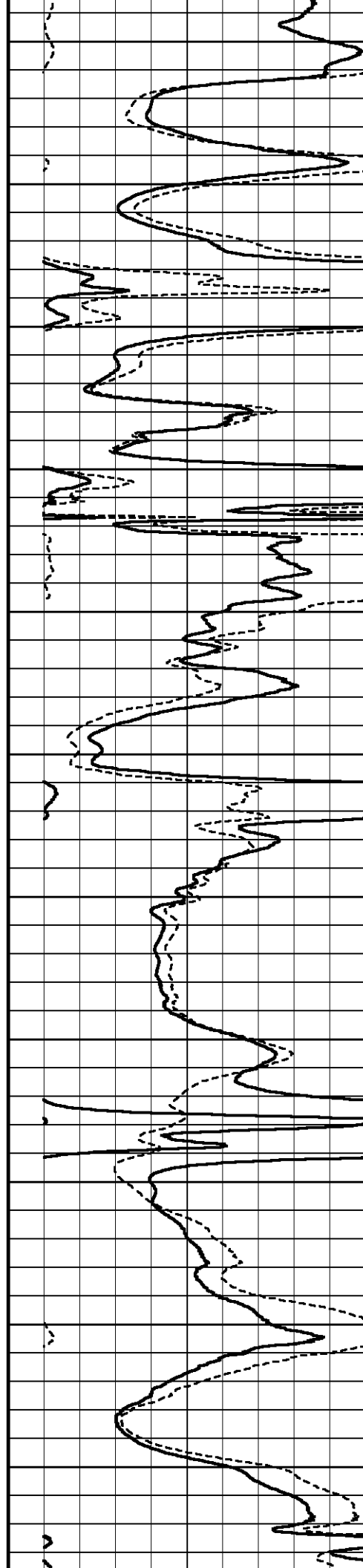
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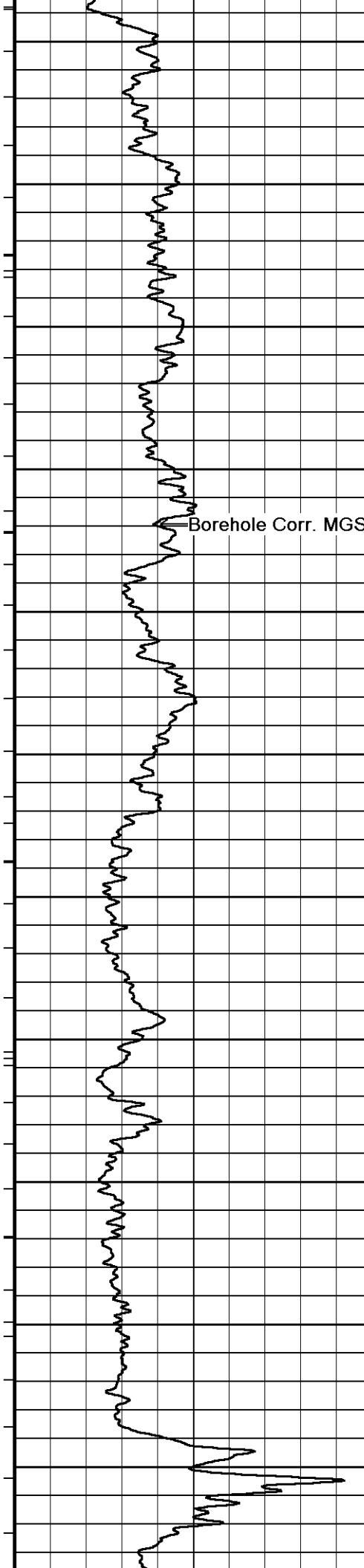
127°

6300

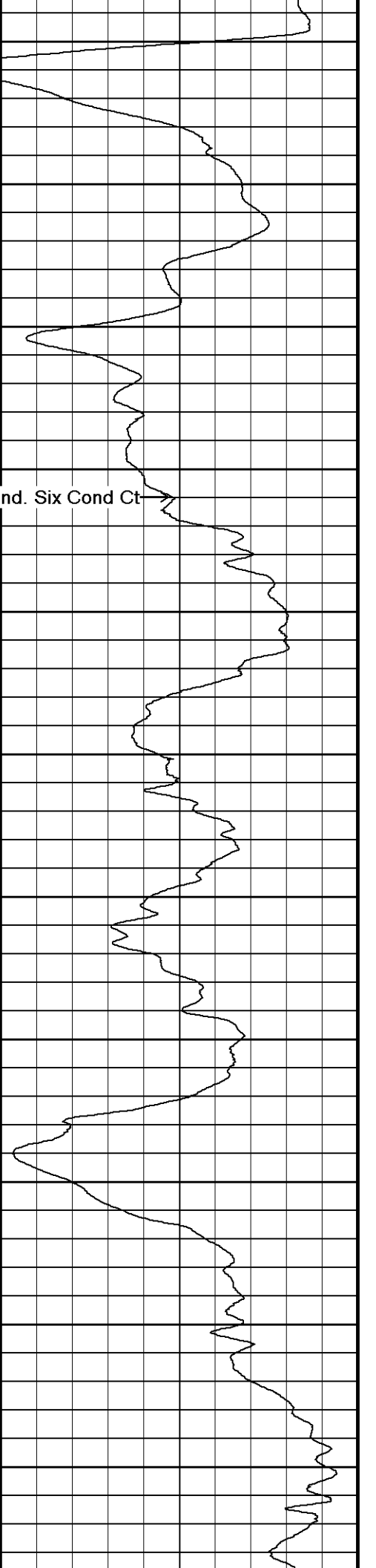
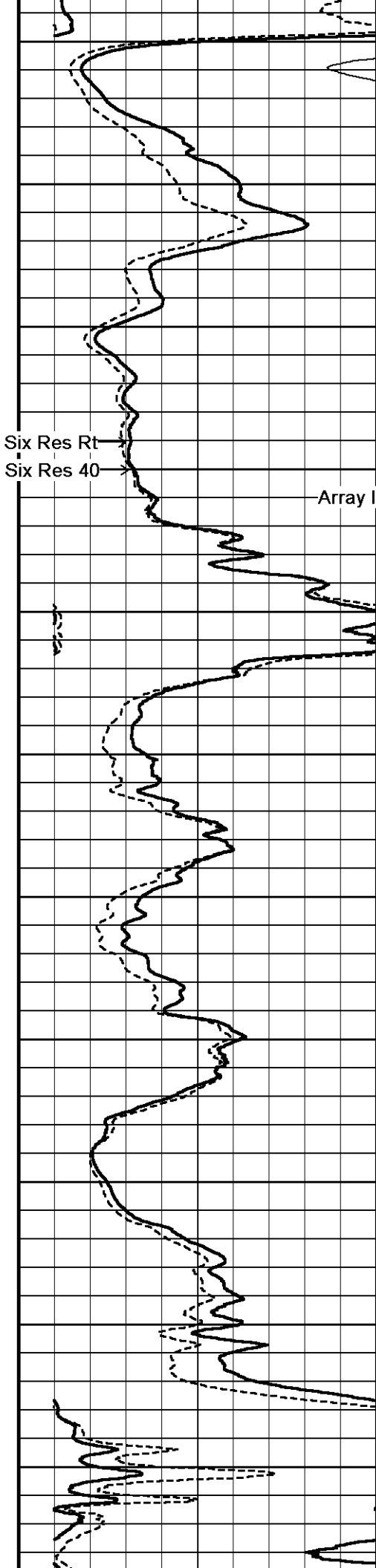
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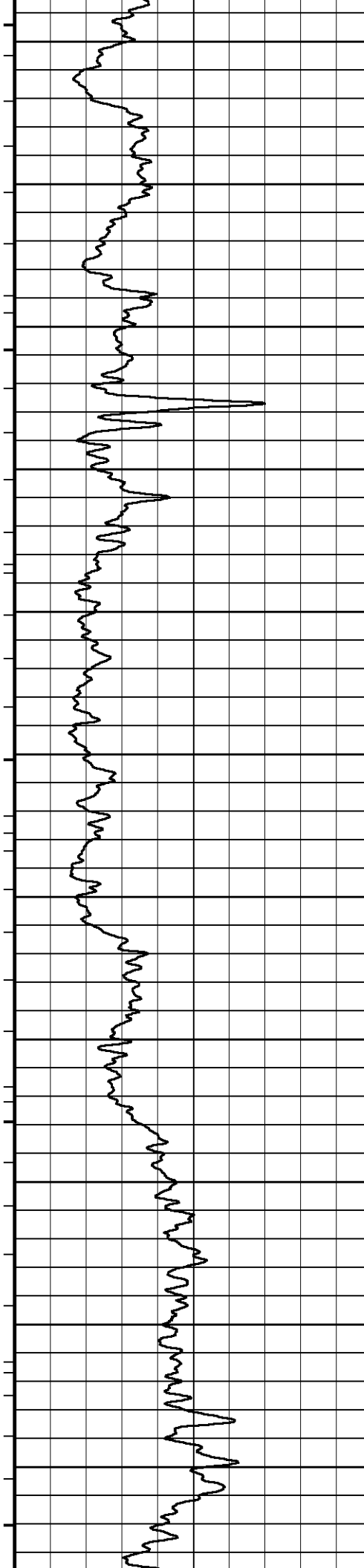
6400





127°
6500
128°
6600
128°
6700
128°
6800
128°
6900
129°





7000

129°

7100

129°

7200

129°

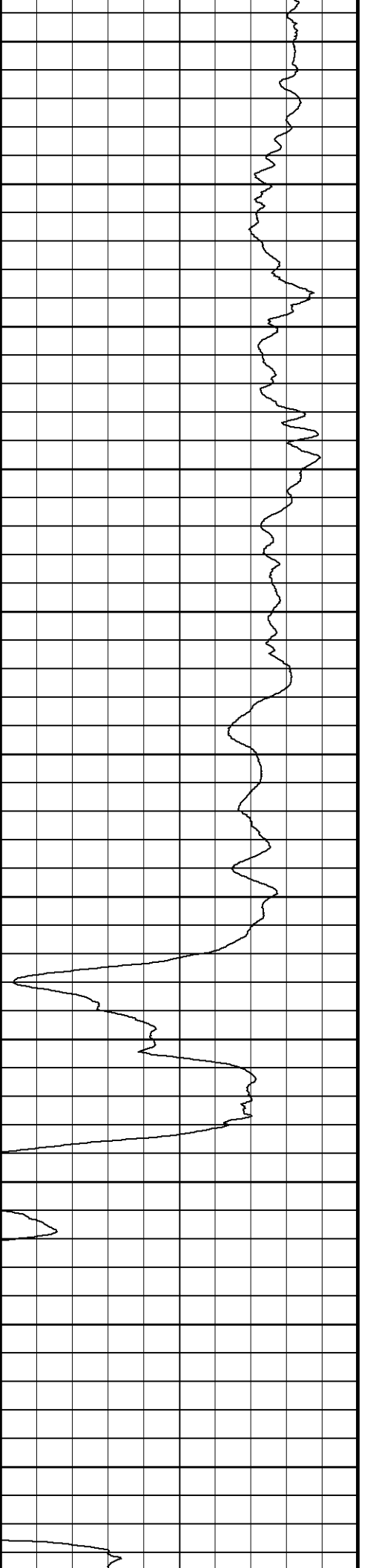
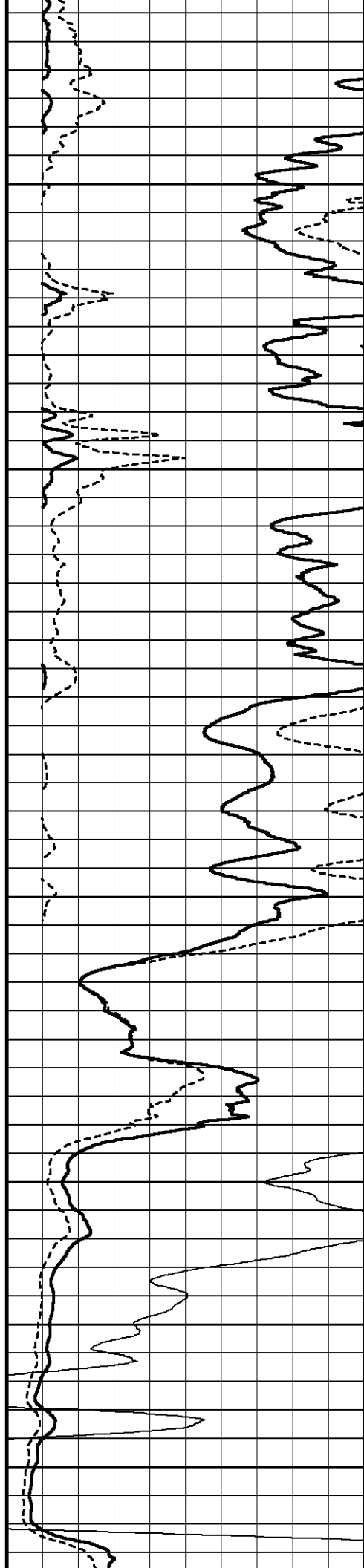
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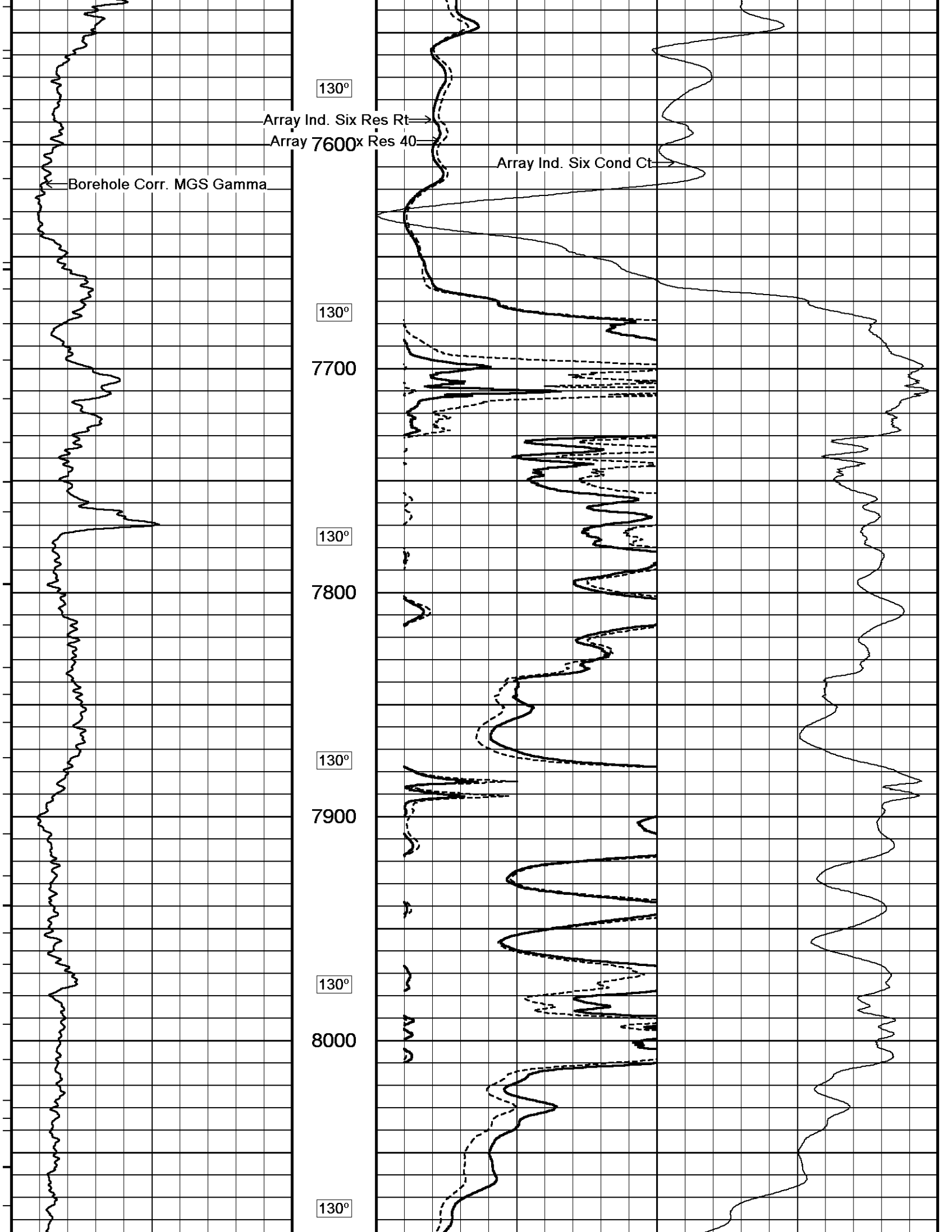
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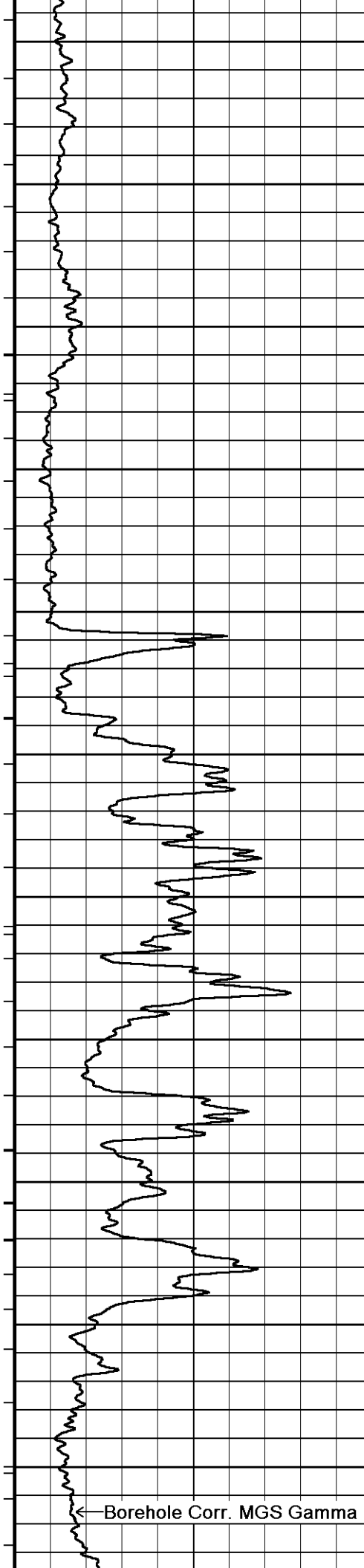
7400

129°

7500







8100

130°

8200

131°

8300

131°

8400

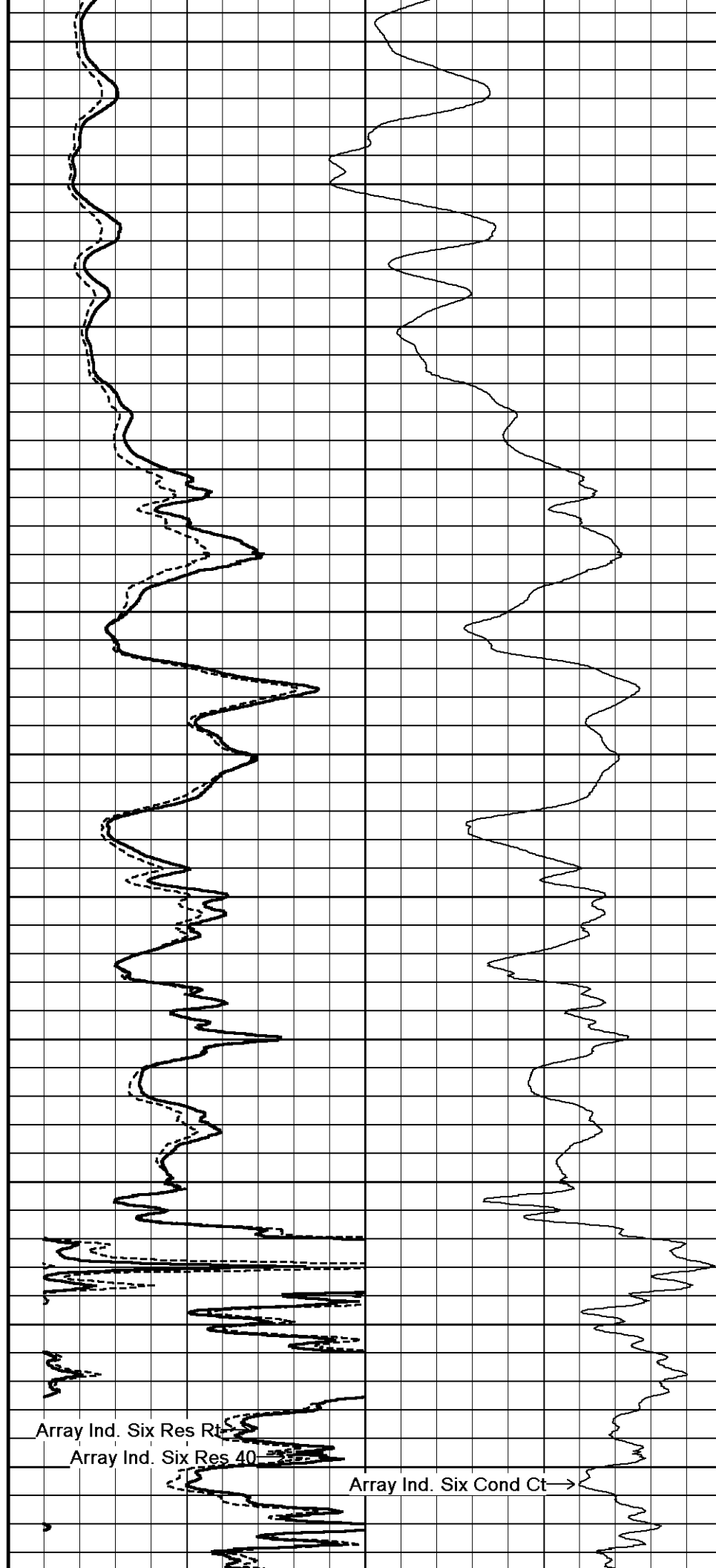
131°

8500

131°

8600

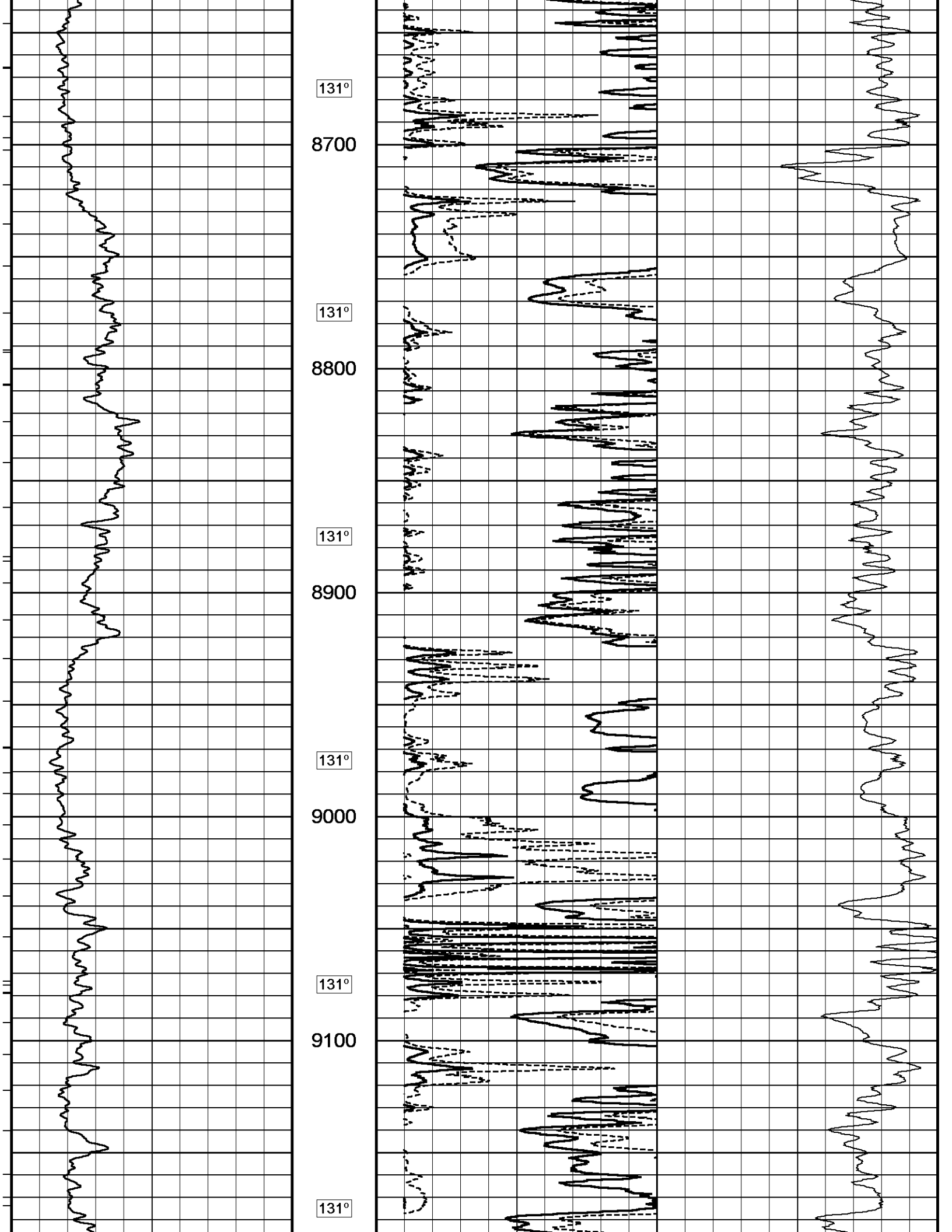
Borehole Corr. MGS Gamma

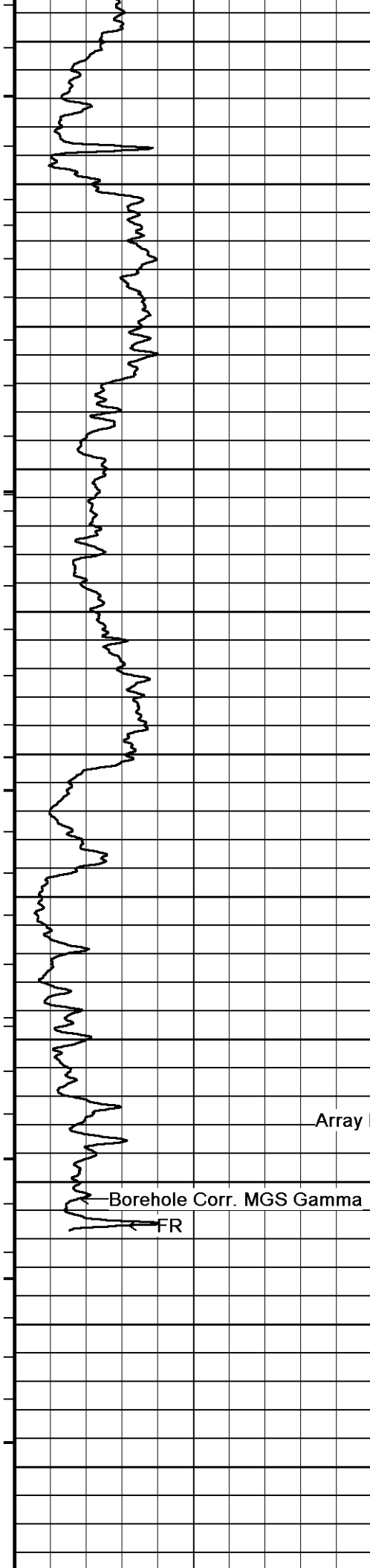


Array Ind. Six Res Rt

Array Ind. Six Res 40

Array Ind. Six Cond Ct





9200

131°

9300

131°

9400

131°

9500

131°

Array Ind. Six Res Rt →

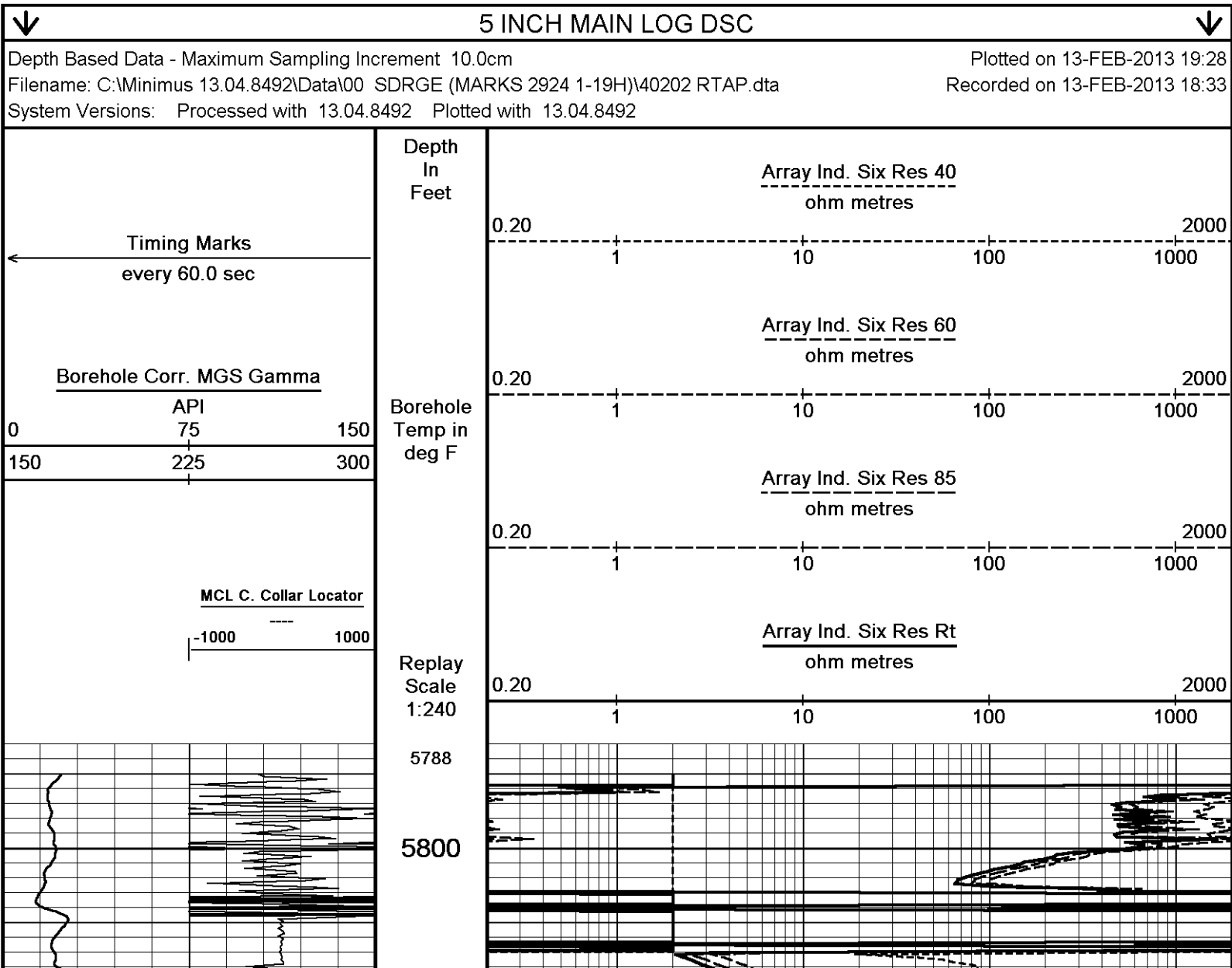
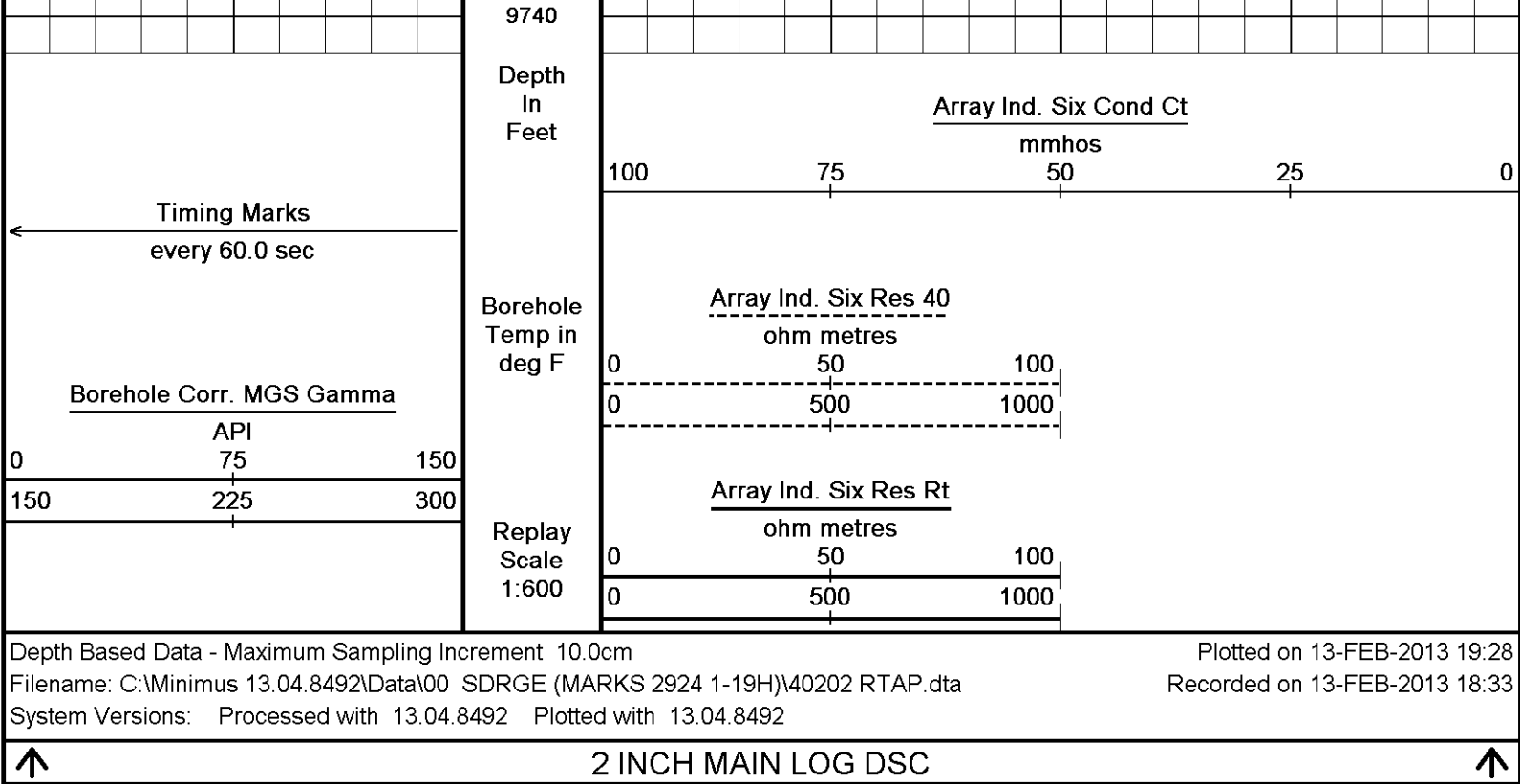
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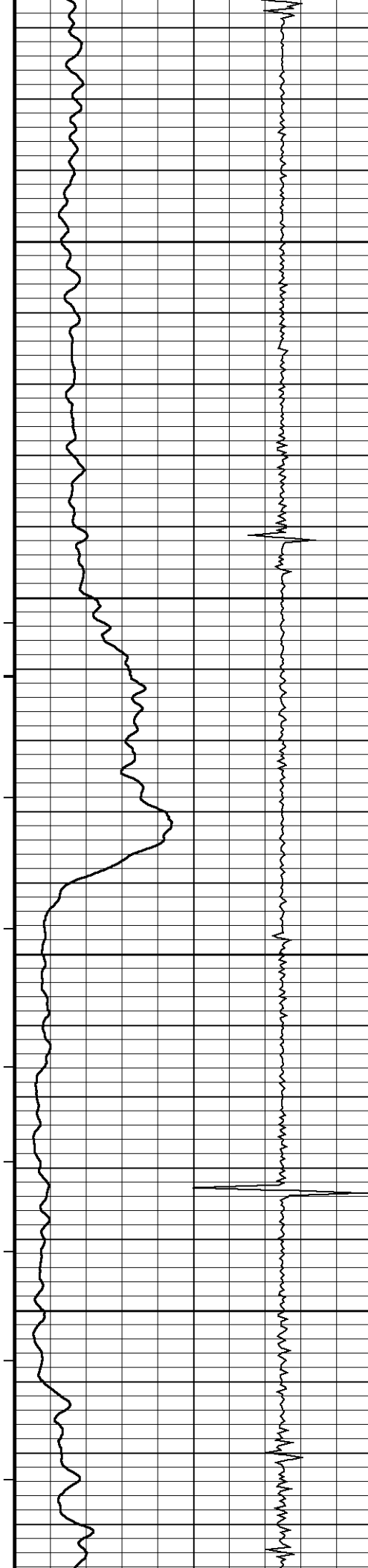
9600

Array Ind. Six Cond Ct →

9700

FR





126°

5850

126°

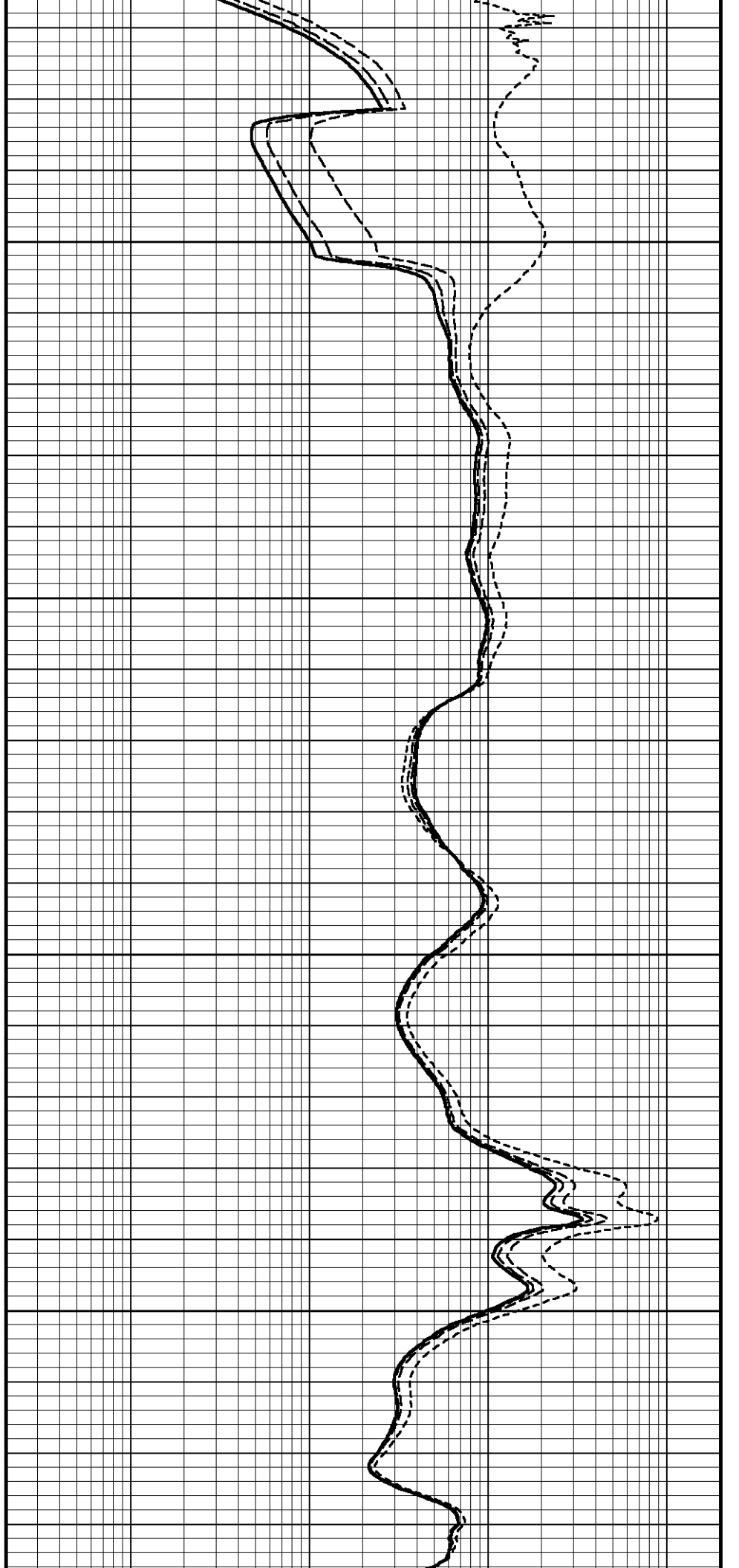
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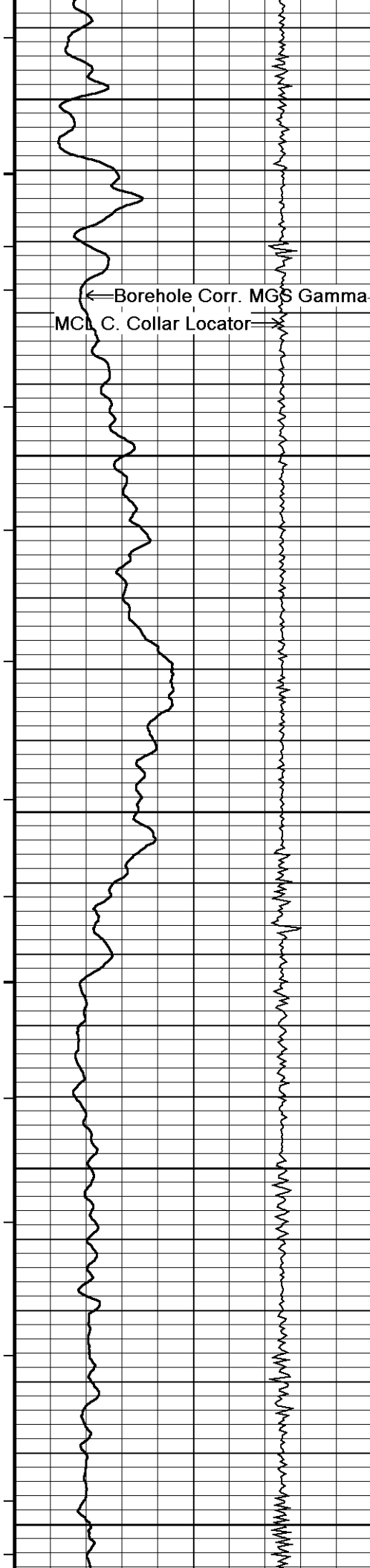
126°

5950

126°

6000





126°

6050

127°

6100

127°

6150

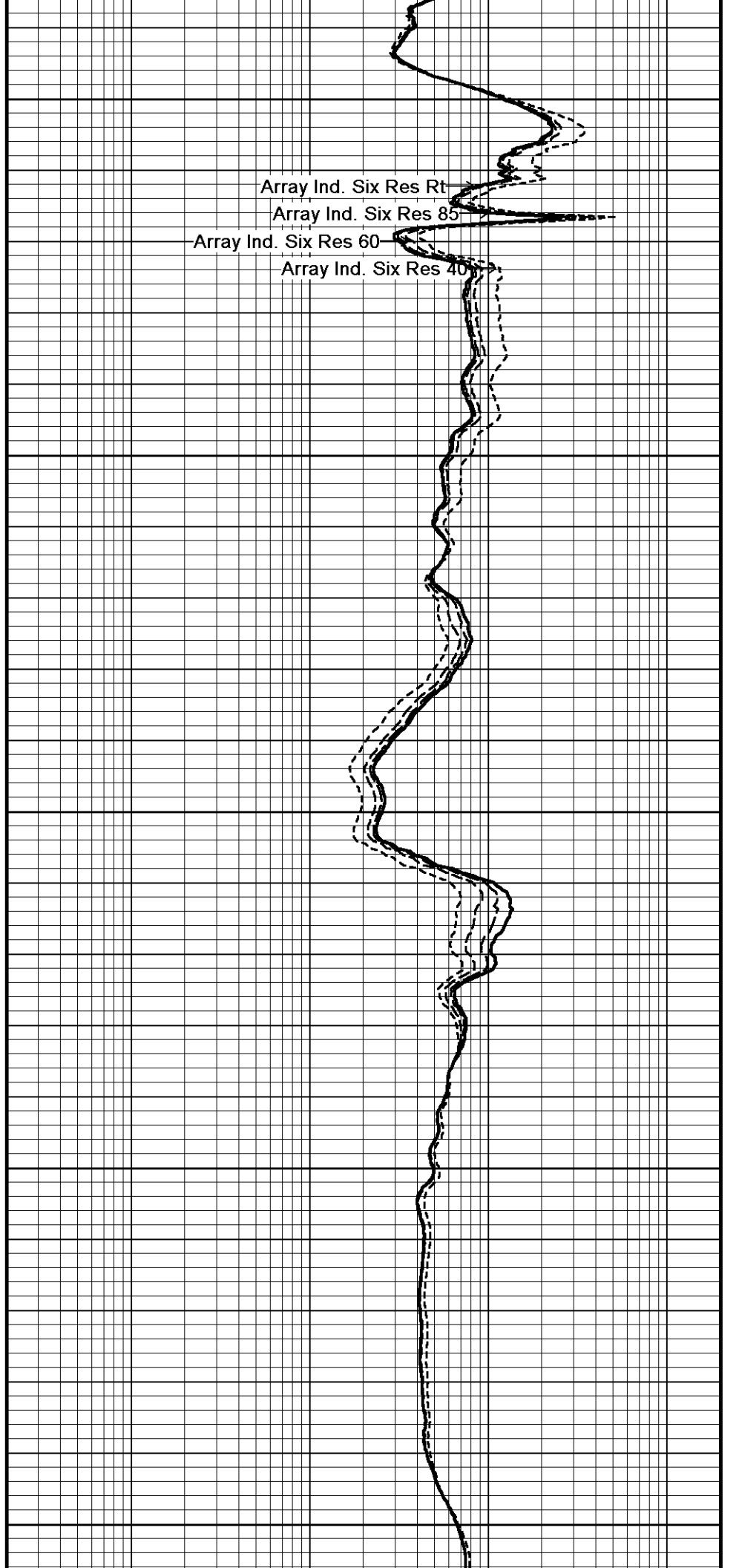
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6200

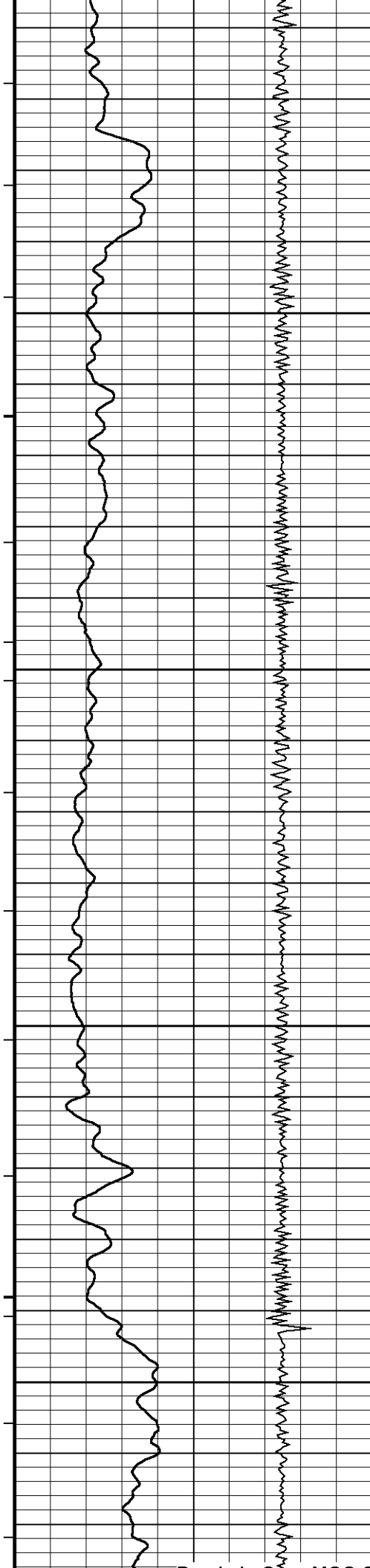
127°

6250

← Borehole Corr. MGS Gamma
MCL C. Collar Locator →



Array Ind. Six Res Rt
Array Ind. Six Res 85
Array Ind. Six Res 60
Array Ind. Six Res 40



127°

6300

127°

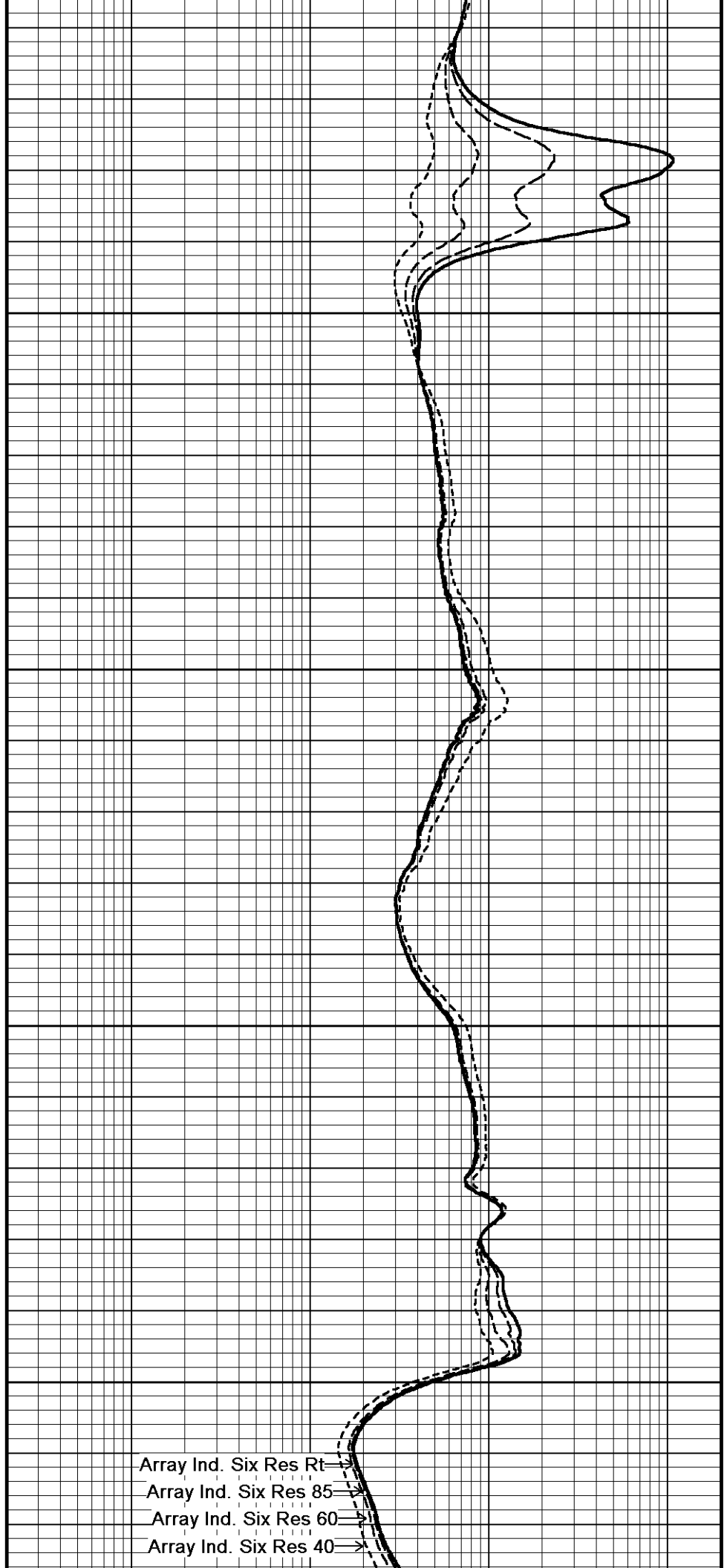
6350

127°

6400

127°

6450

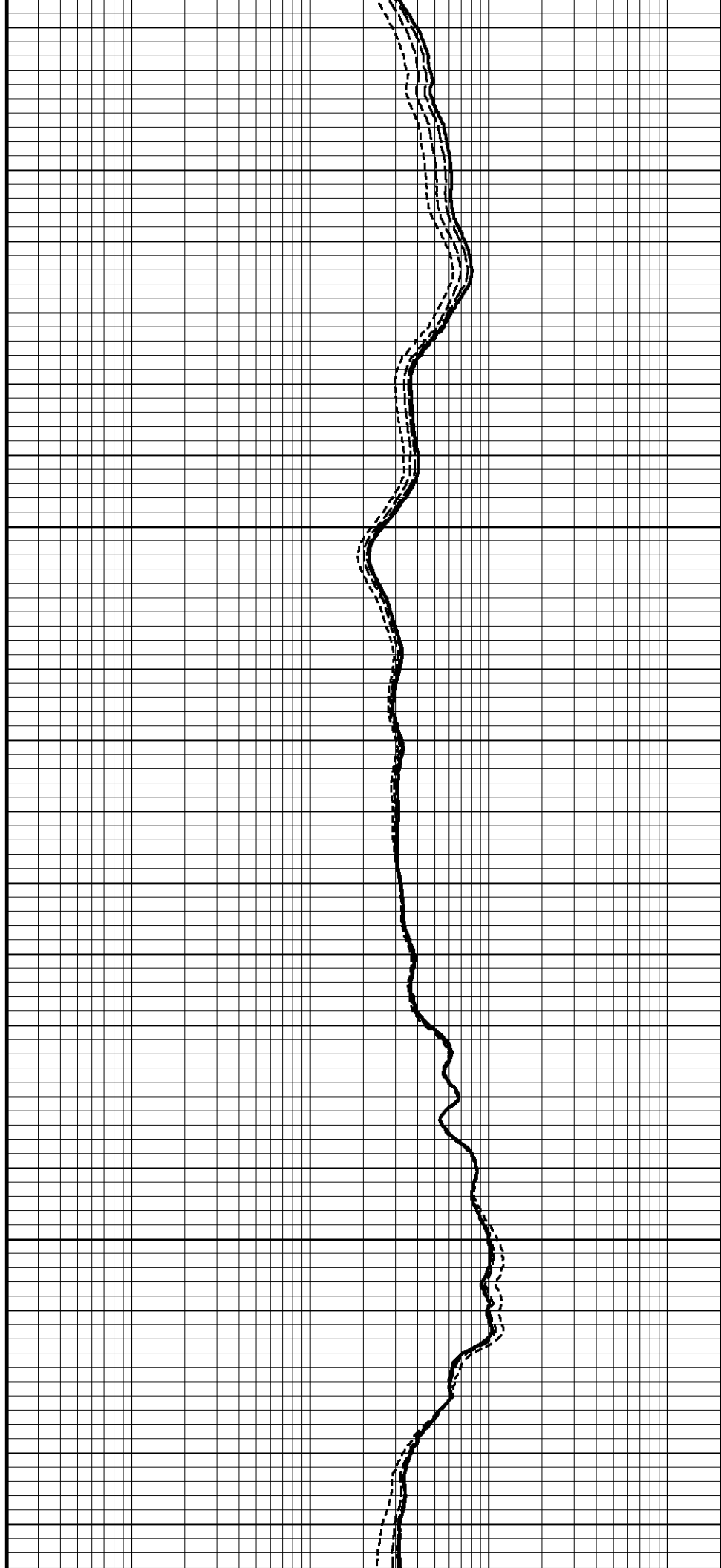
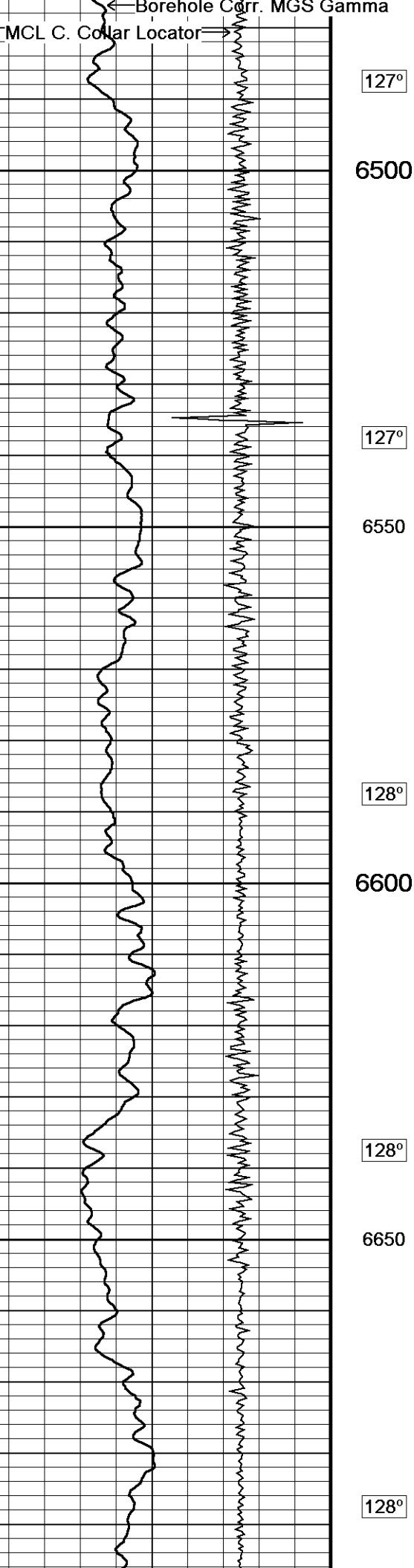


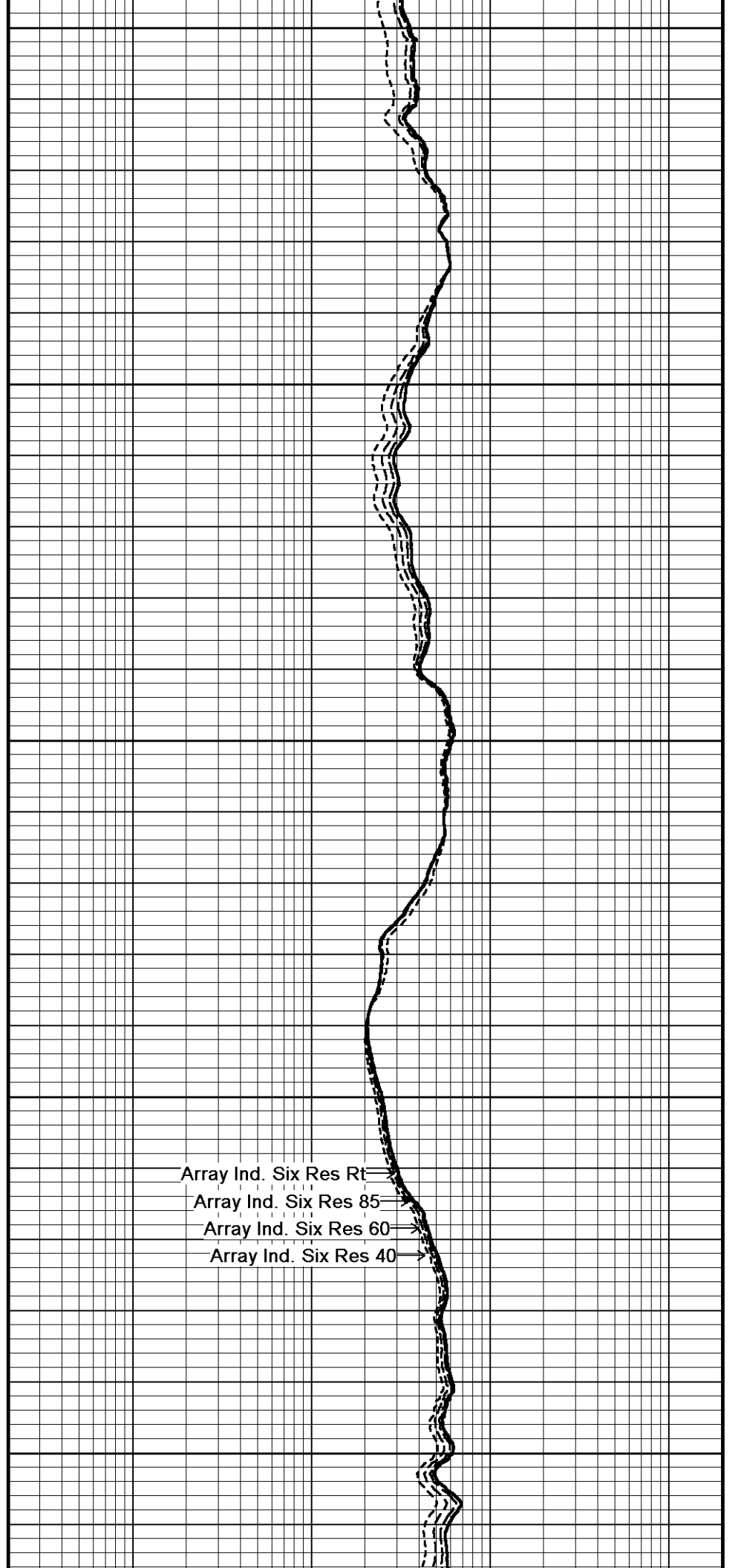
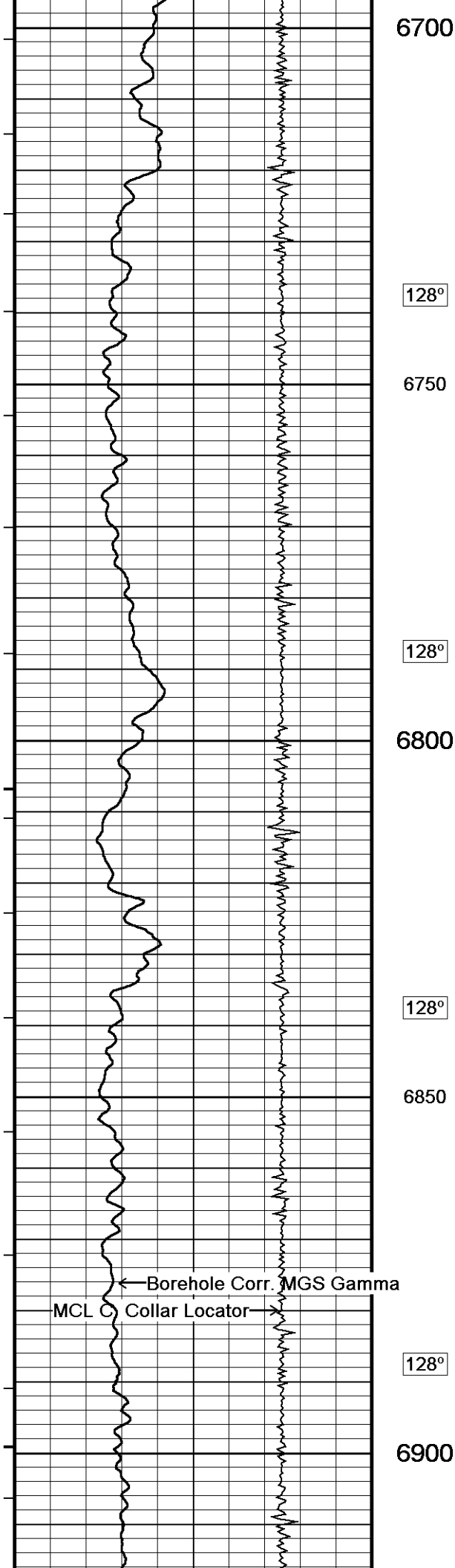
Array Ind. Six Res Rt→

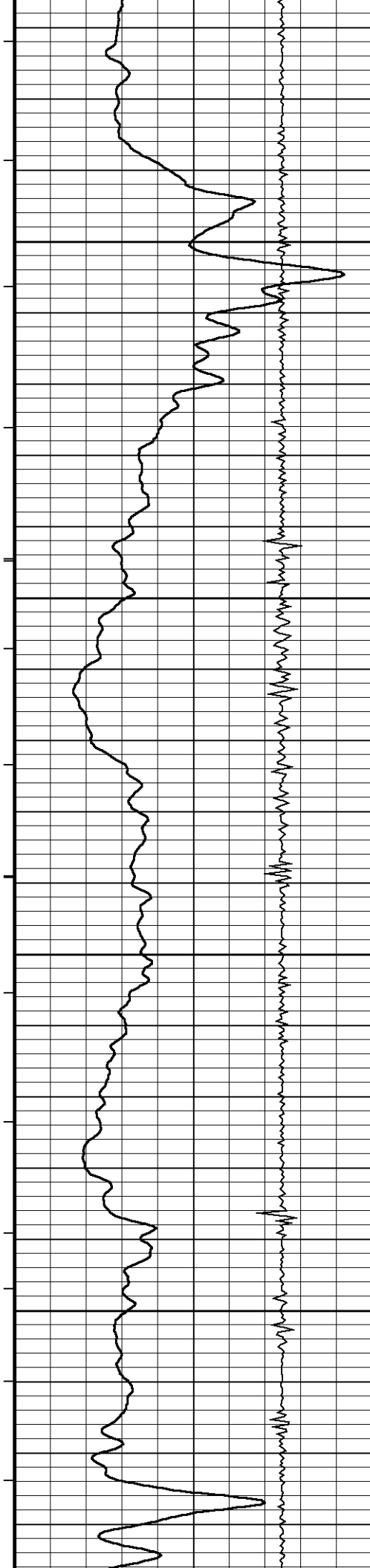
Array Ind. Six Res 85→

Array Ind. Six Res 60→

Array Ind. Six Res 40→







128°

6950

129°

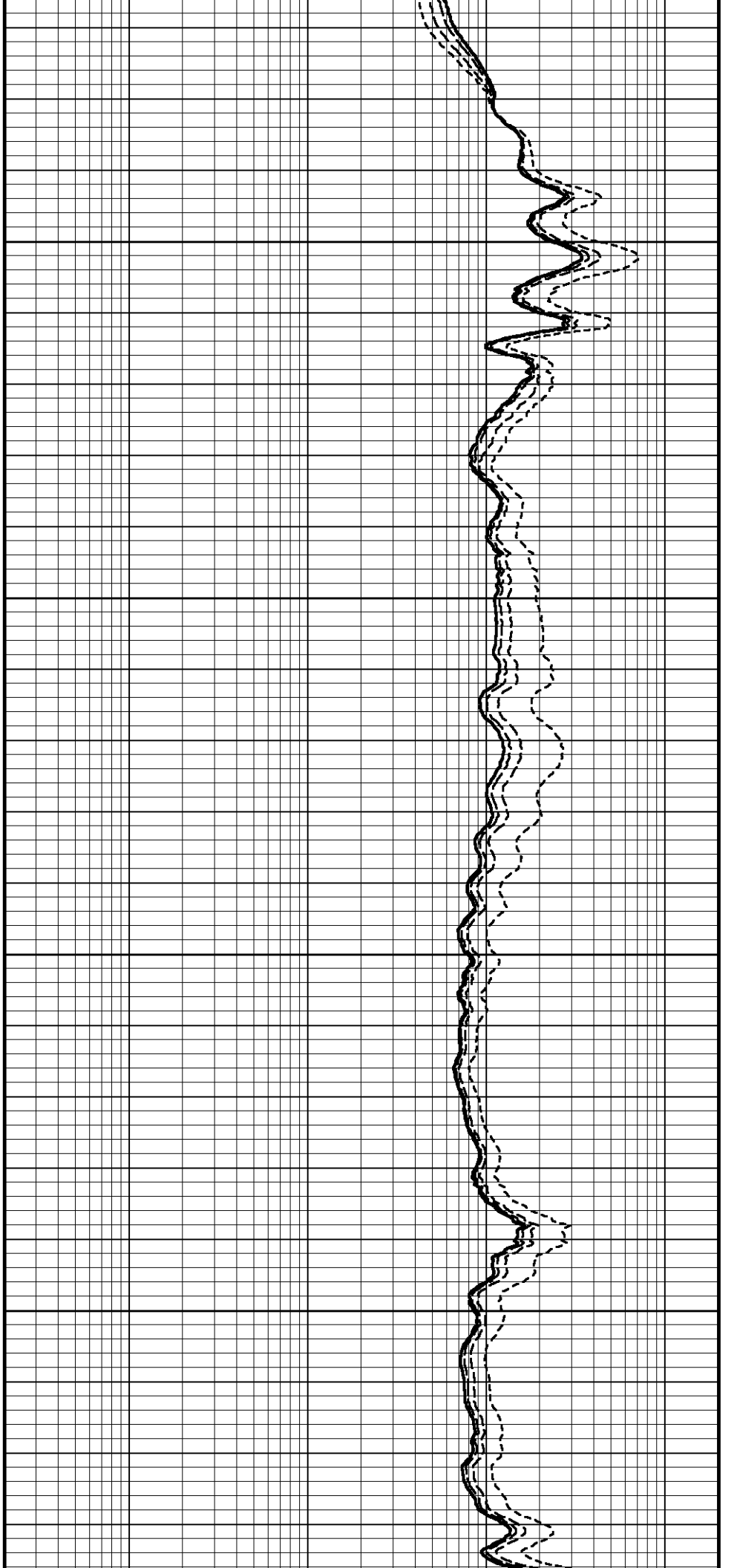
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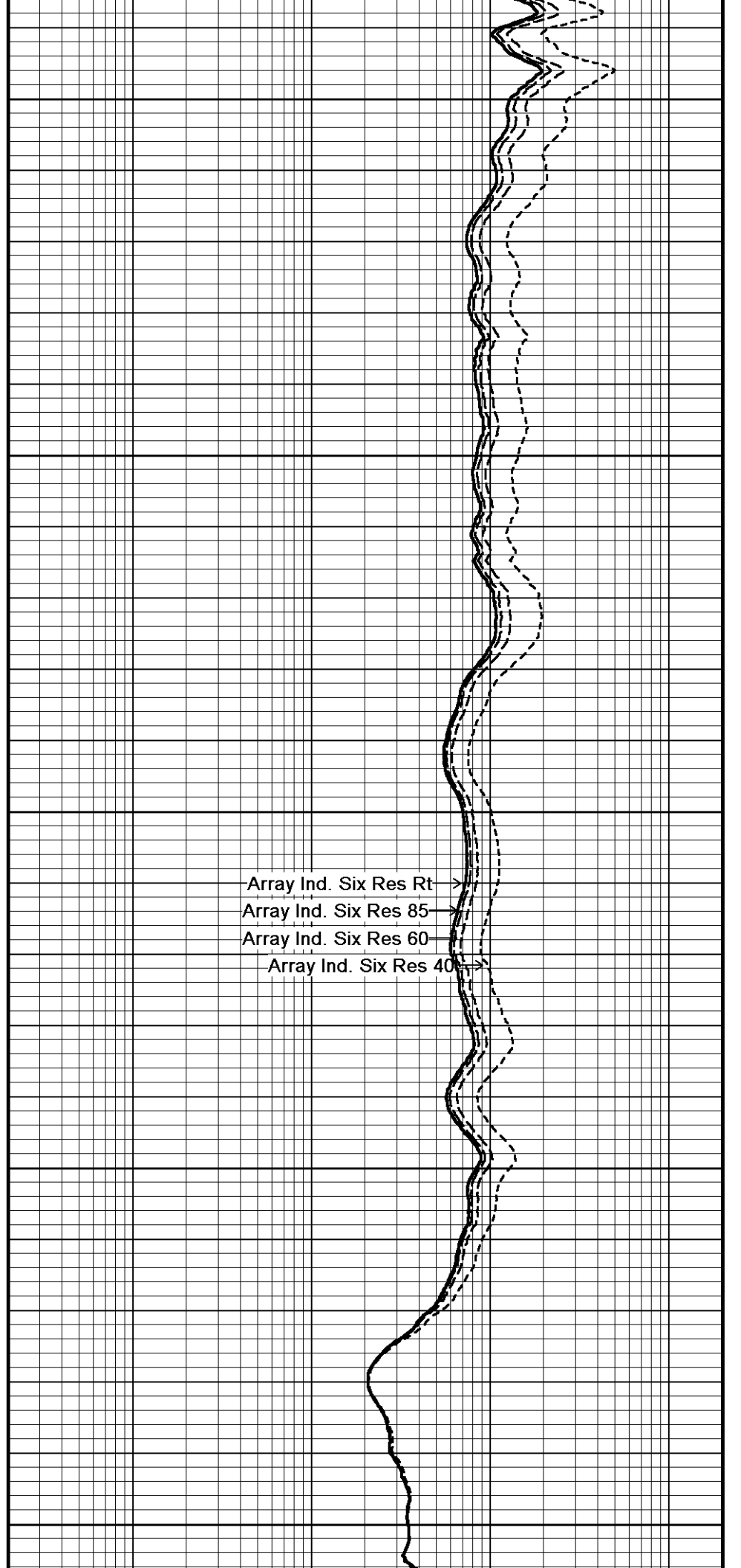
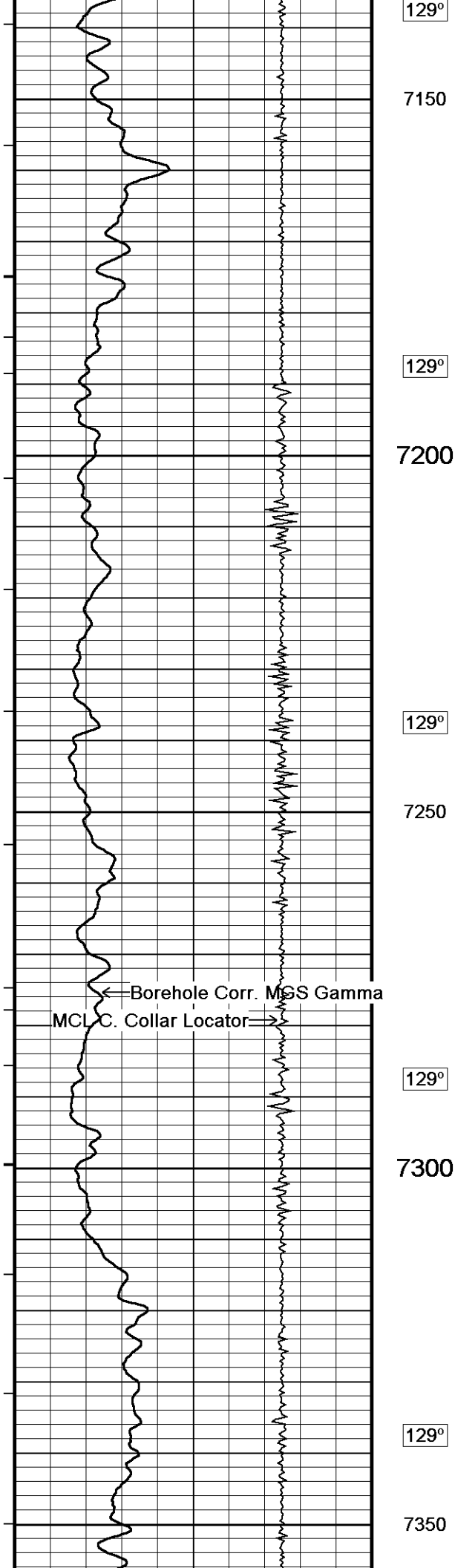
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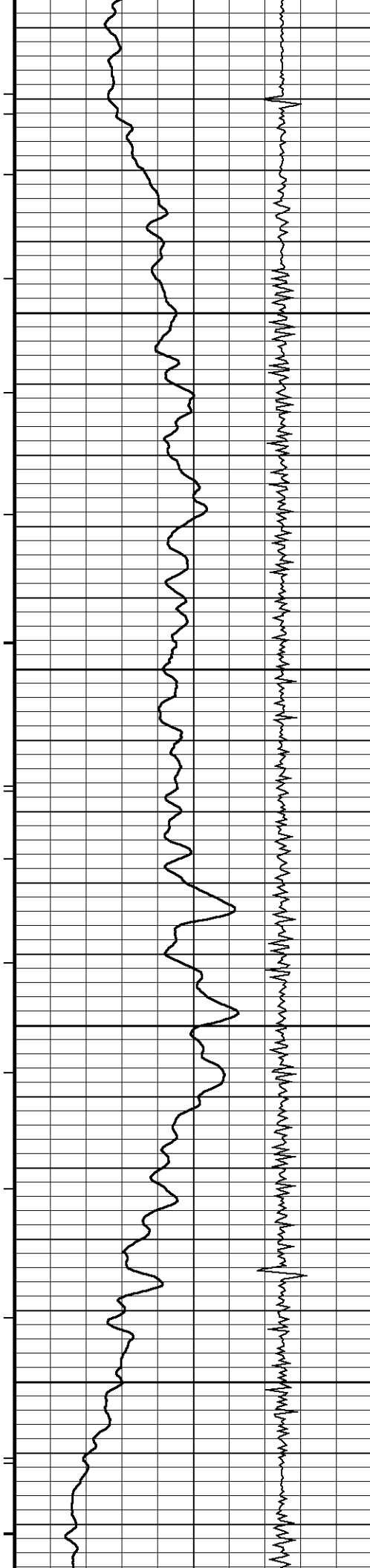
7050

129°

7100







129°

7400

129°

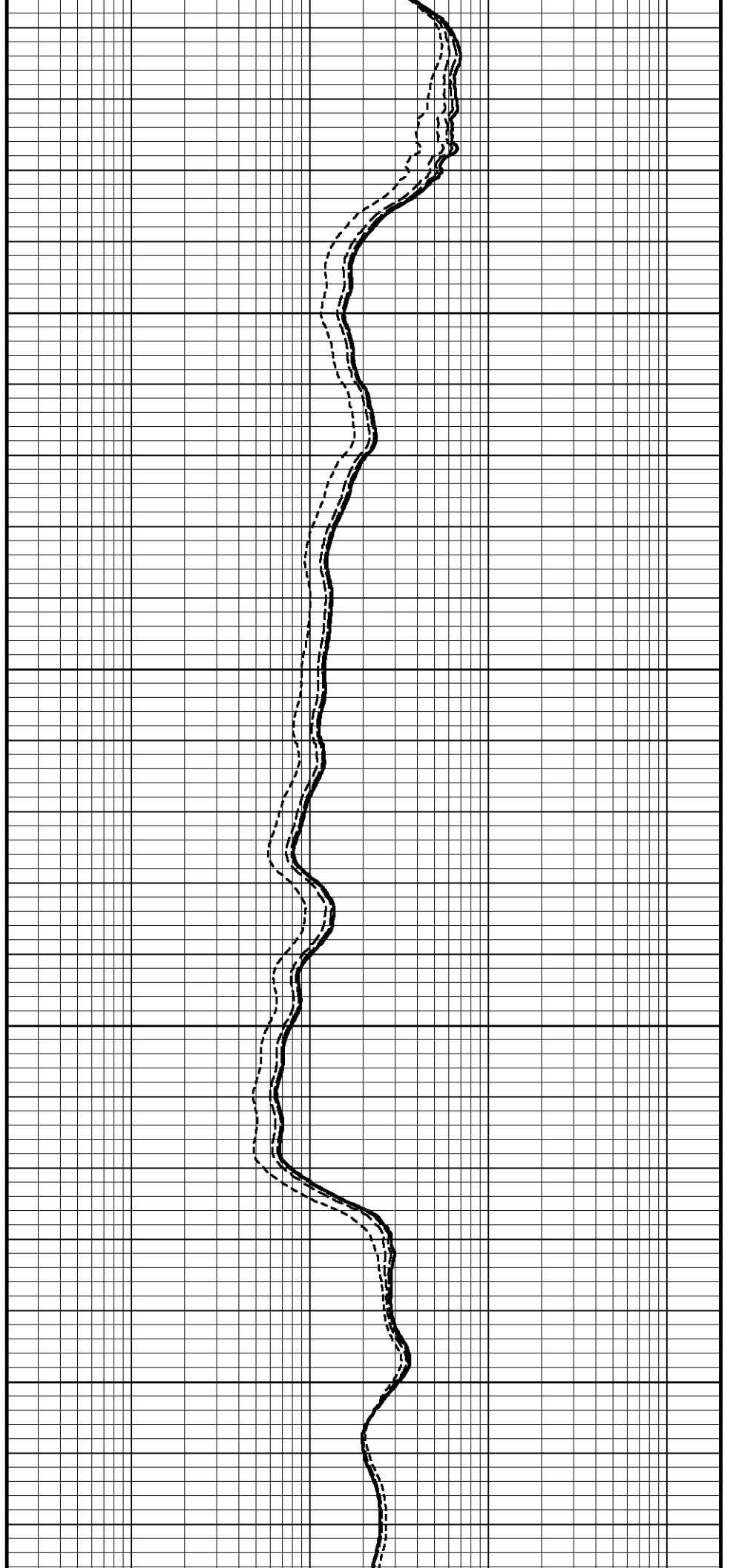
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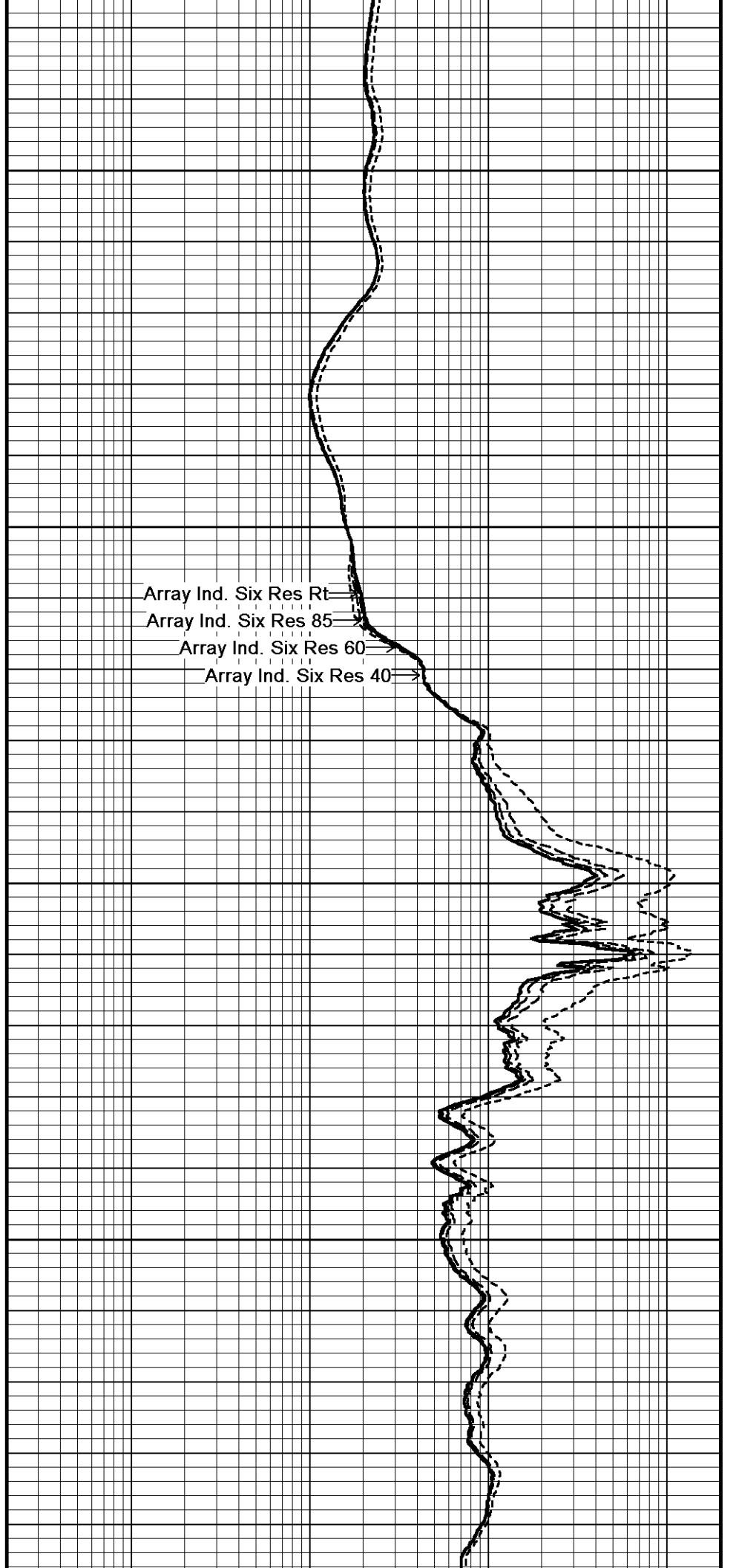
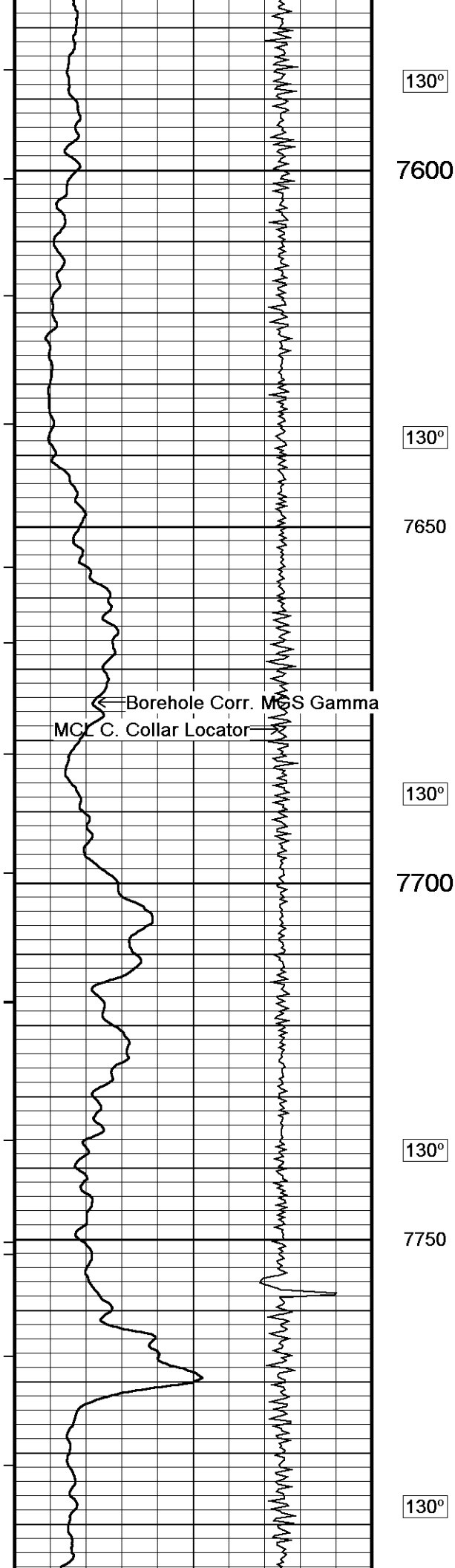
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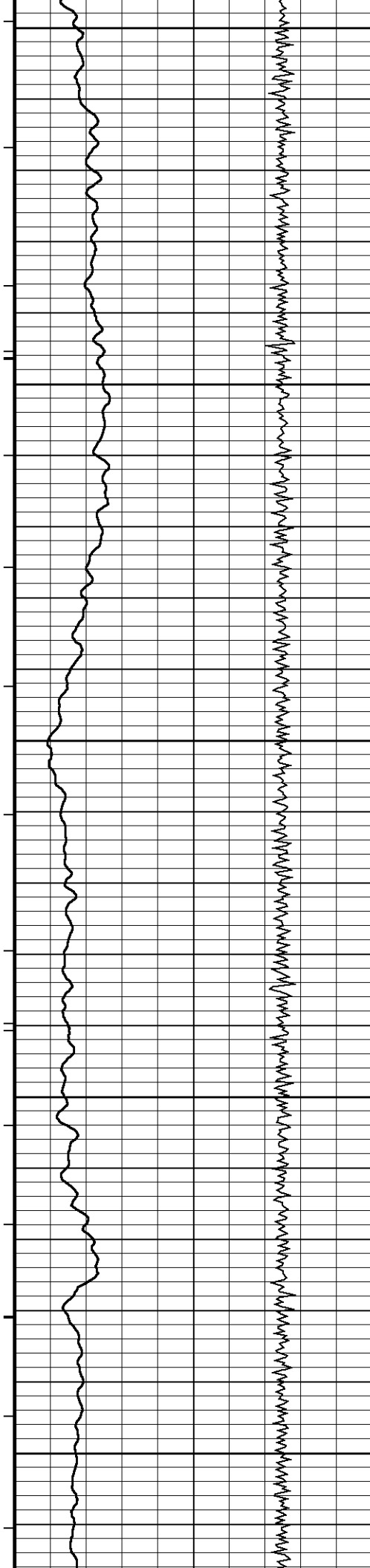
7500

130°

7550







7800

130°

7850

130°

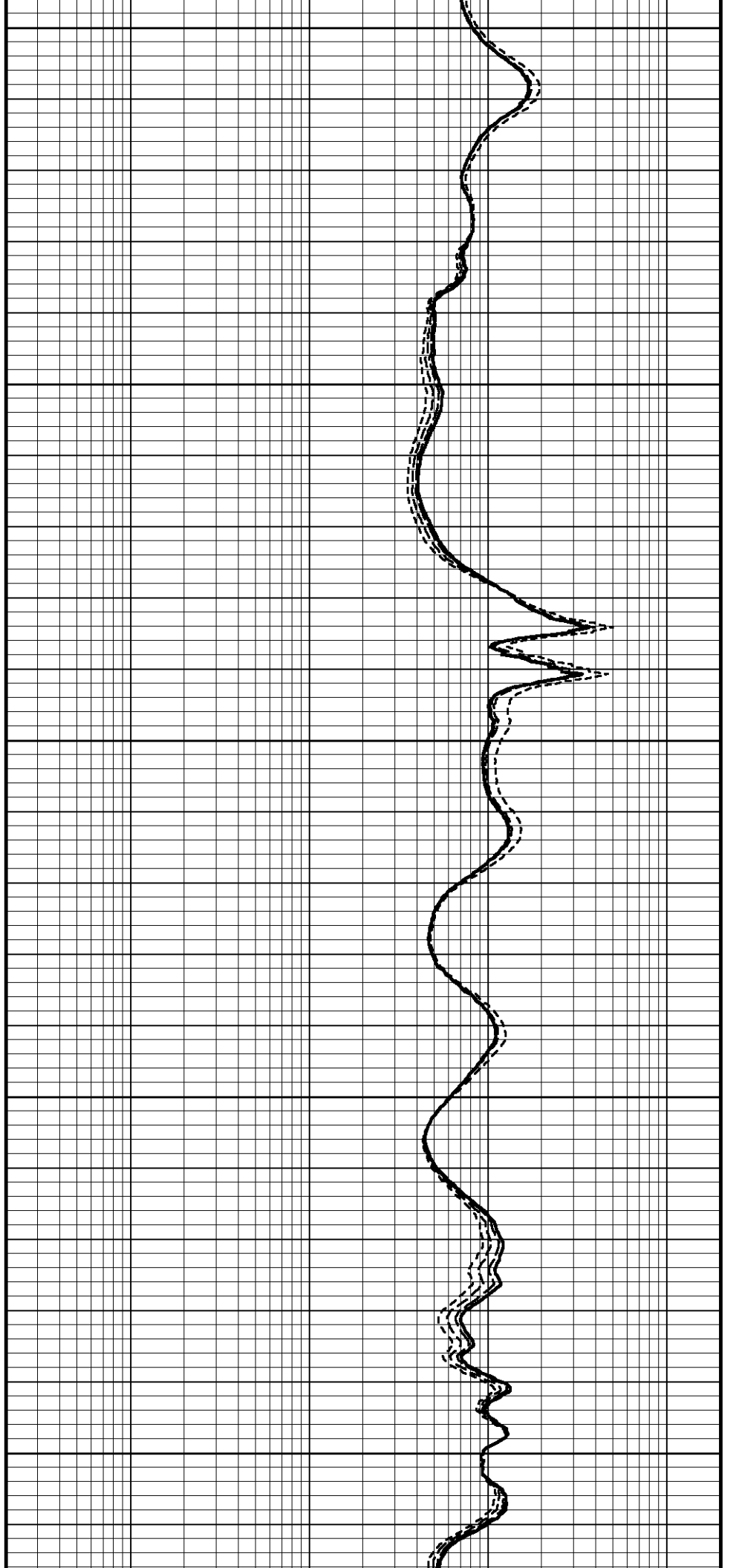
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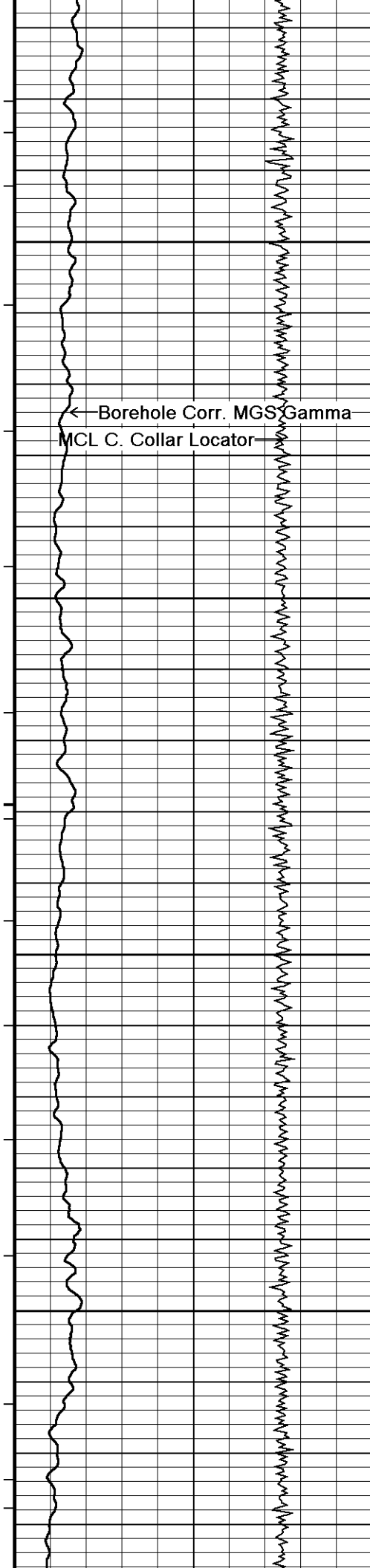
130°

7950

130°

8000





130°

8050

← Borehole Corr. MGS Gamma
MCL C. Collar Locator

130°

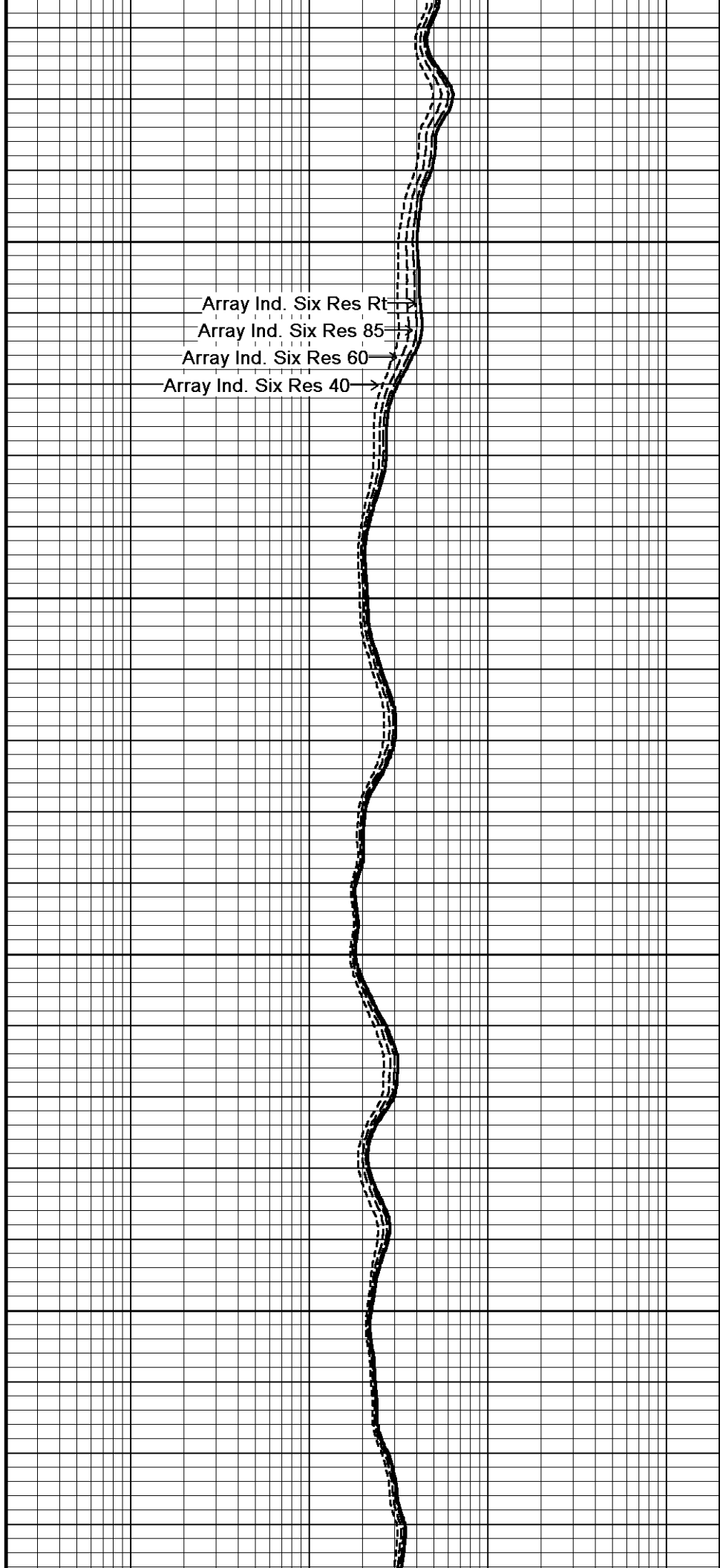
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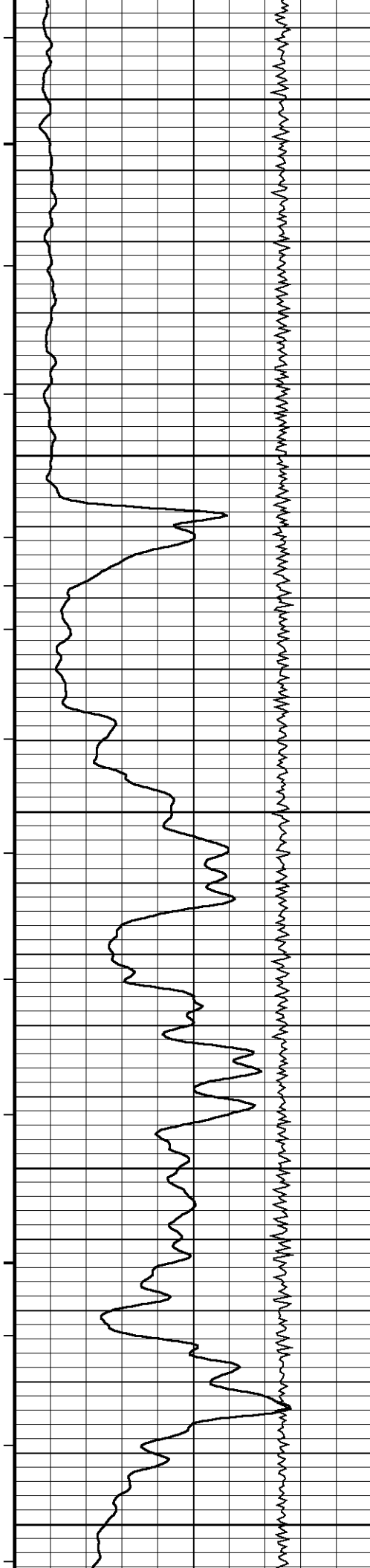
130°

8150

130°

8200





131°

8250

131°

8300

131°

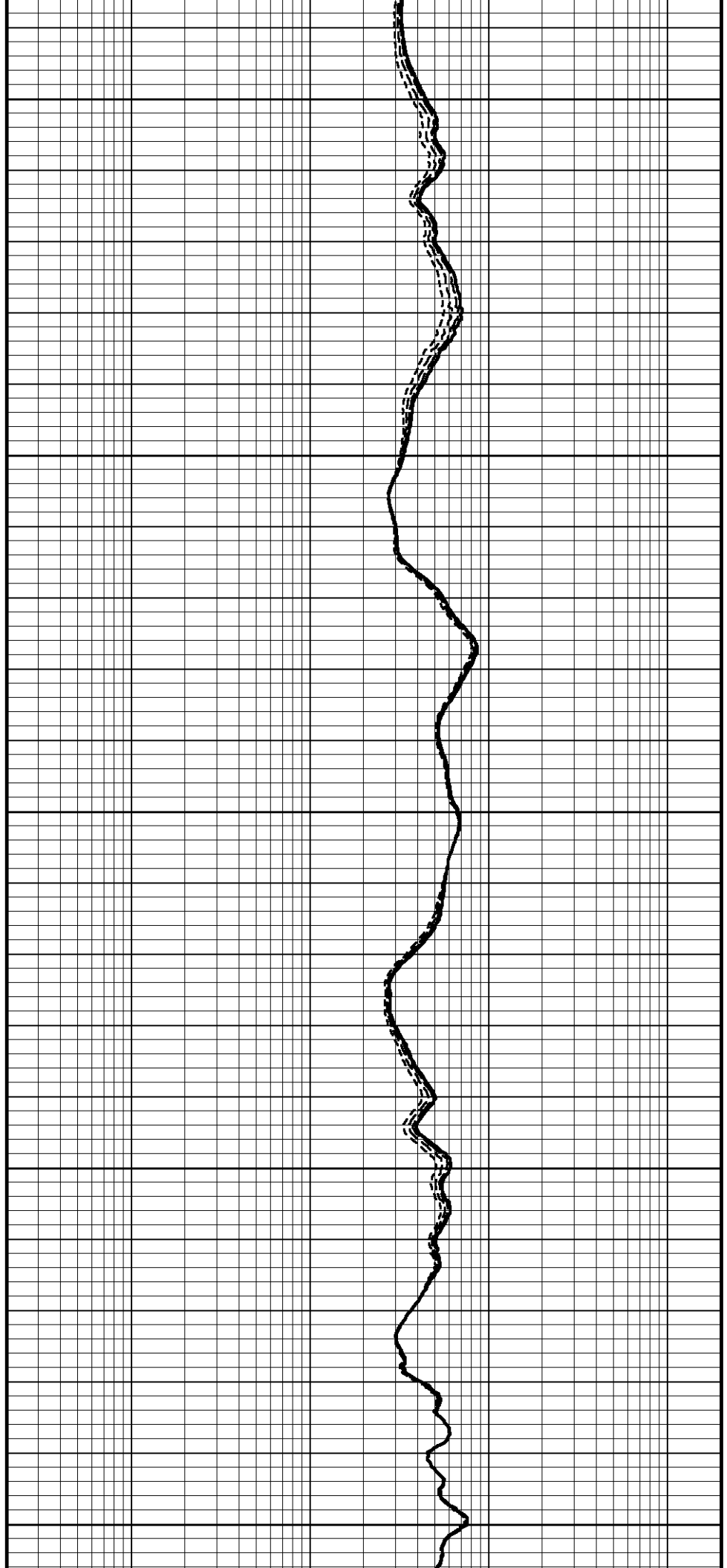
8350

131°

8400

131°

8450



MCL C. Collar Locator

Borehole Corr. MGS Gamma

131°

8500

131°

8550

131°

8600

131°

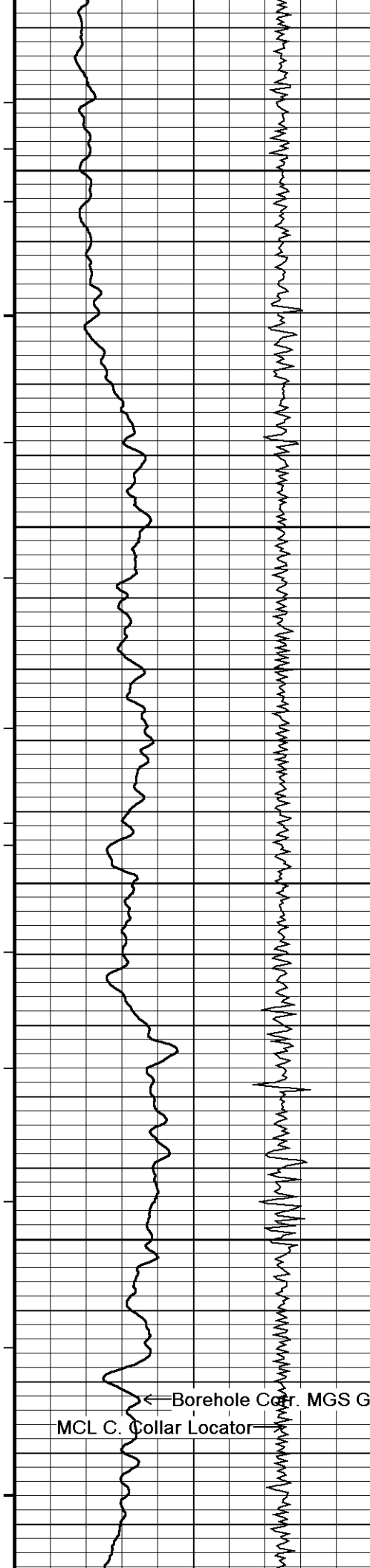
8650

Array Ind. Six Res Rt

Array Ind. Six Res 85

Array Ind. Six Res 60

Array Ind. Six Res 40



131°

8700

131°

8750

131°

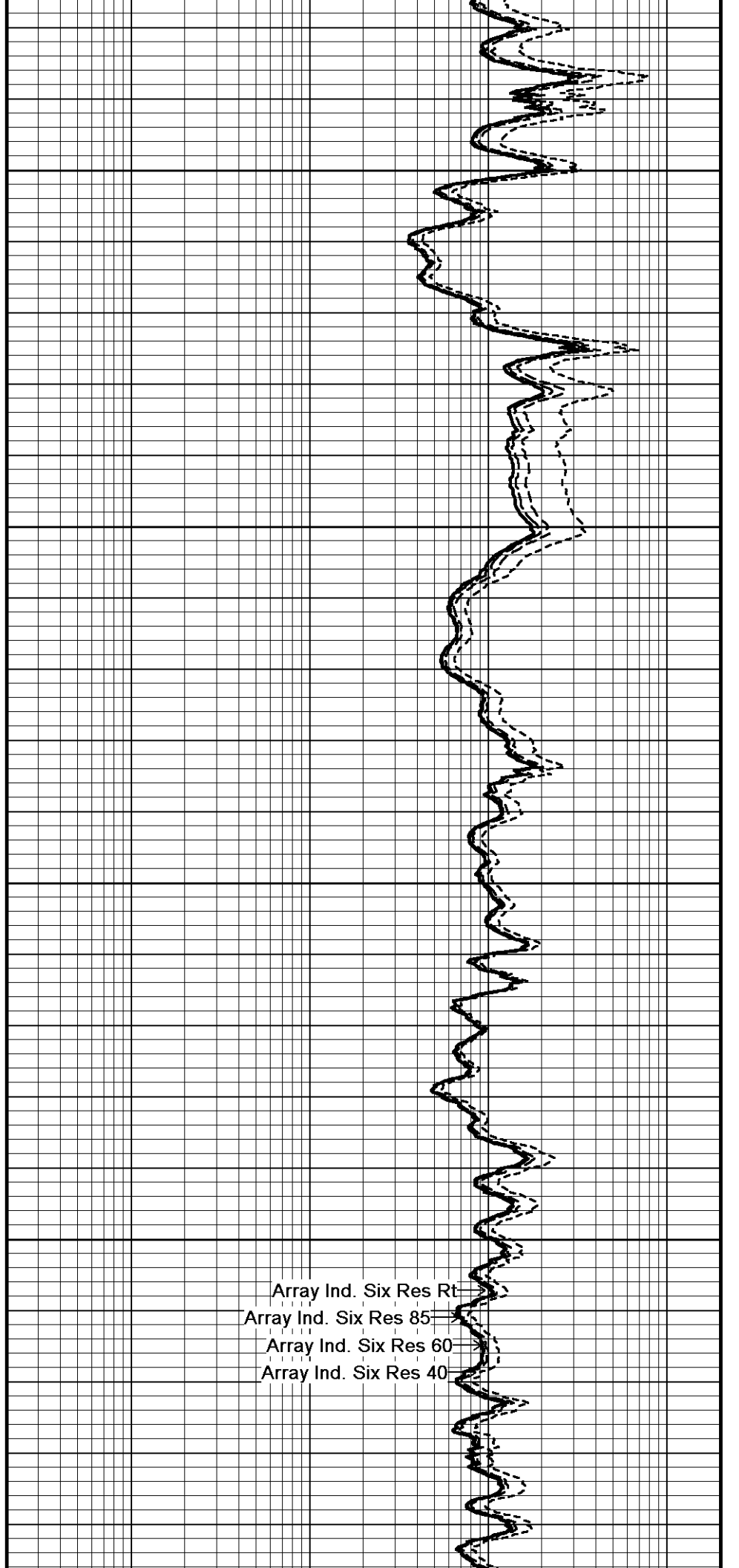
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131°

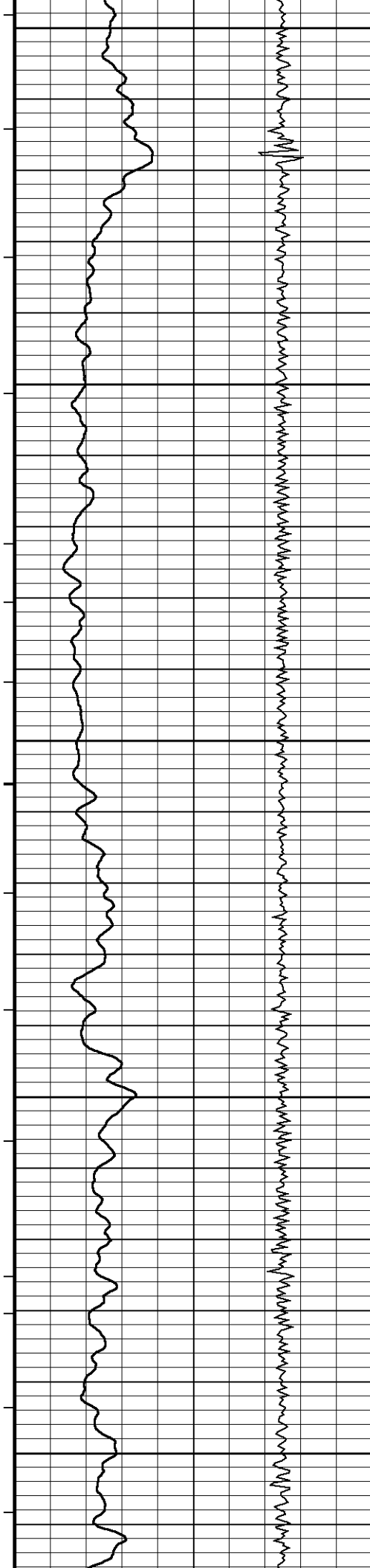
8850

131°

← Borehole Corr. MGS Gamma
MCL C. Collar Locator



Array Ind. Six Res Rt
Array Ind. Six Res 85
Array Ind. Six Res 60
Array Ind. Six Res 40



8900

131°

8950

131°

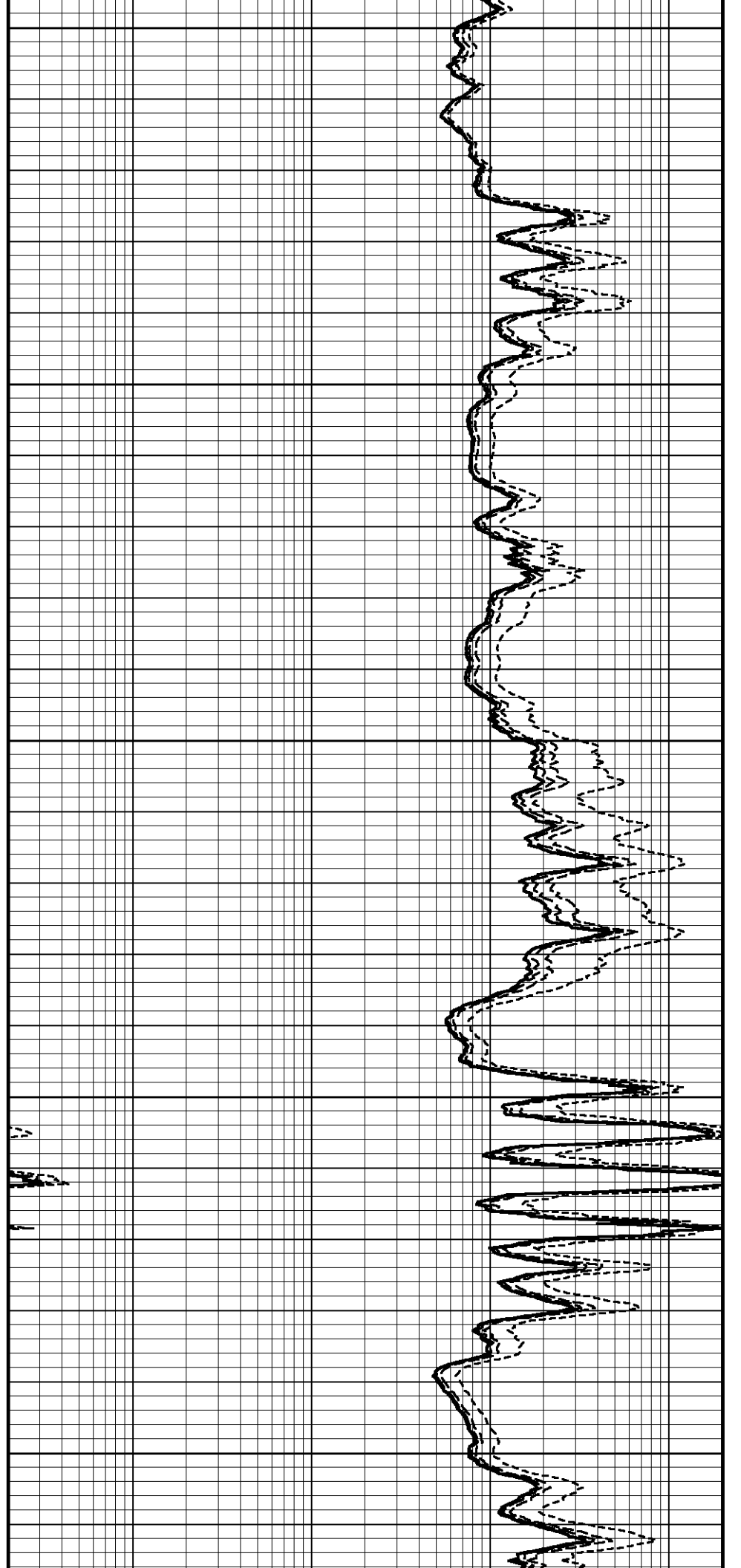
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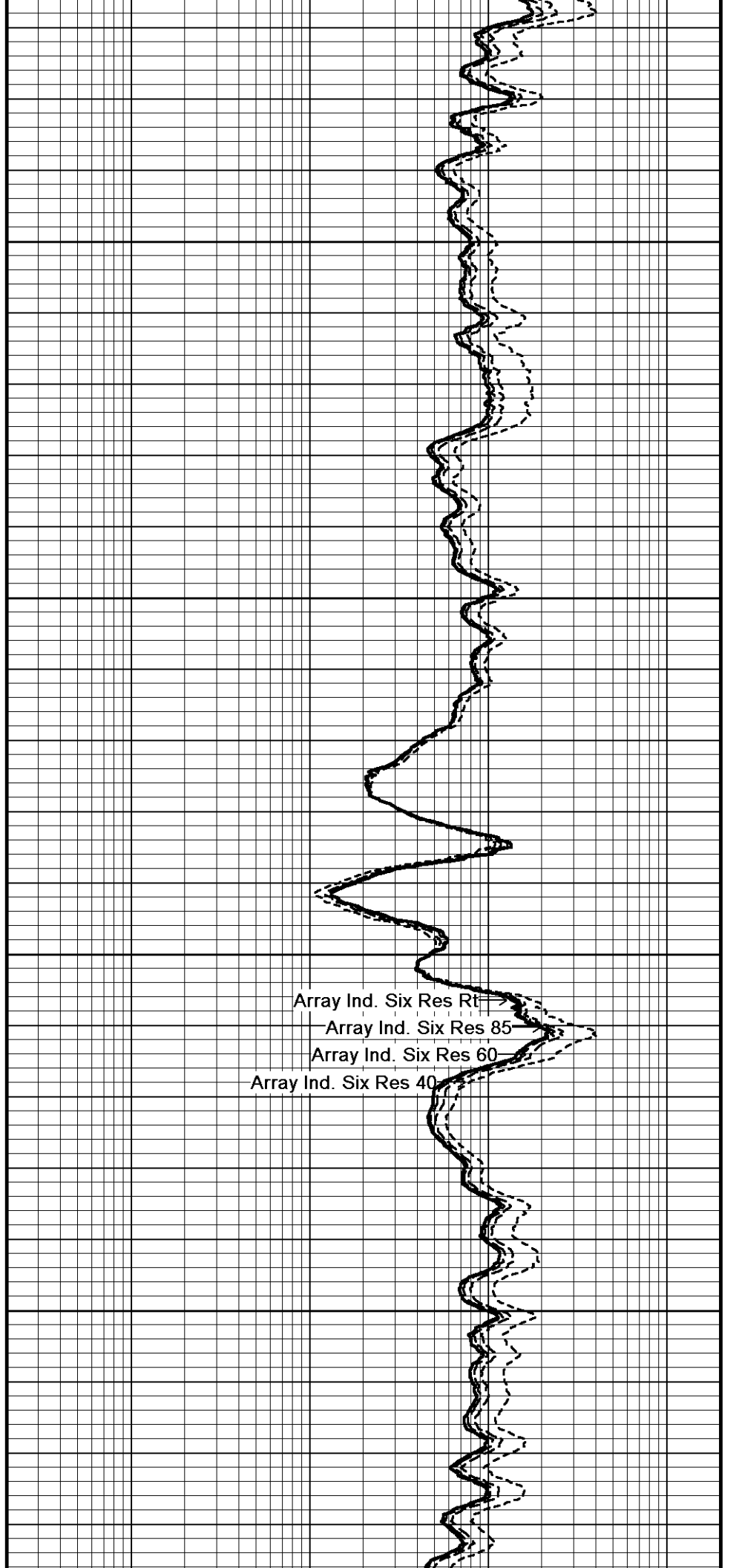
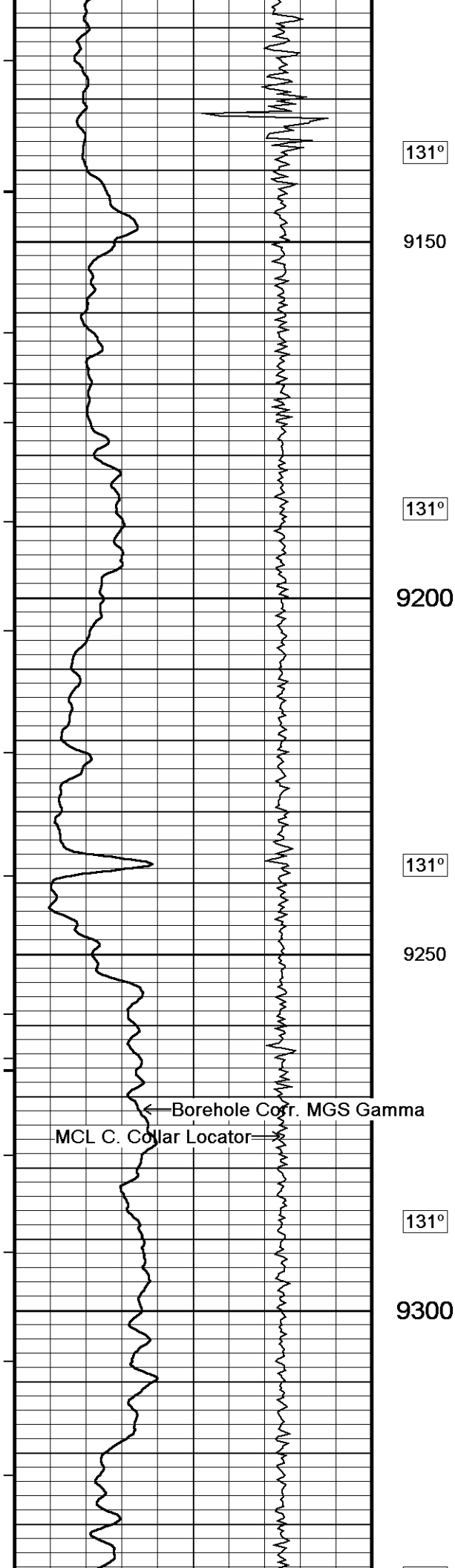
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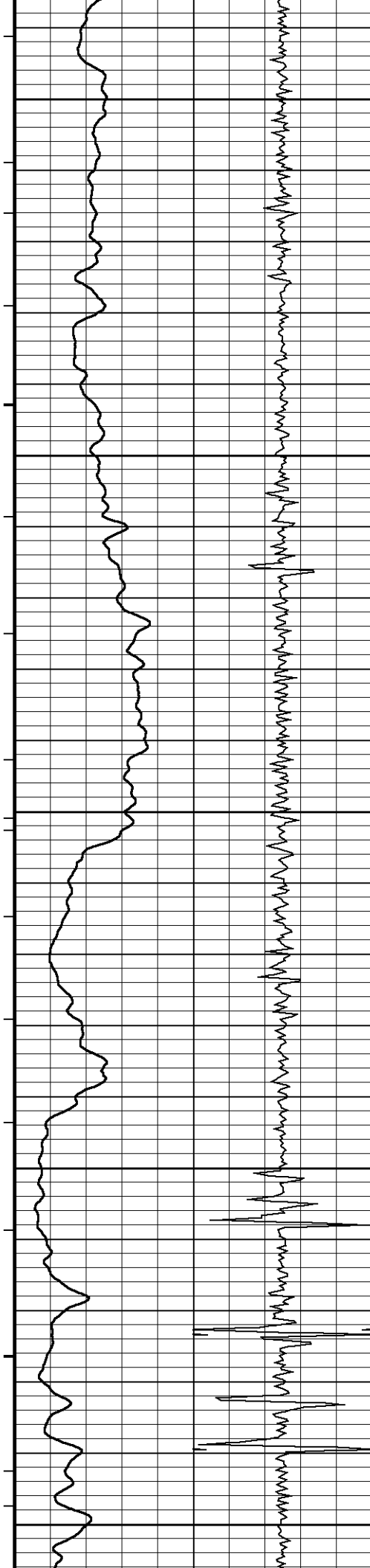
9050

131°

9100







131°

9350

131°

9400

131°

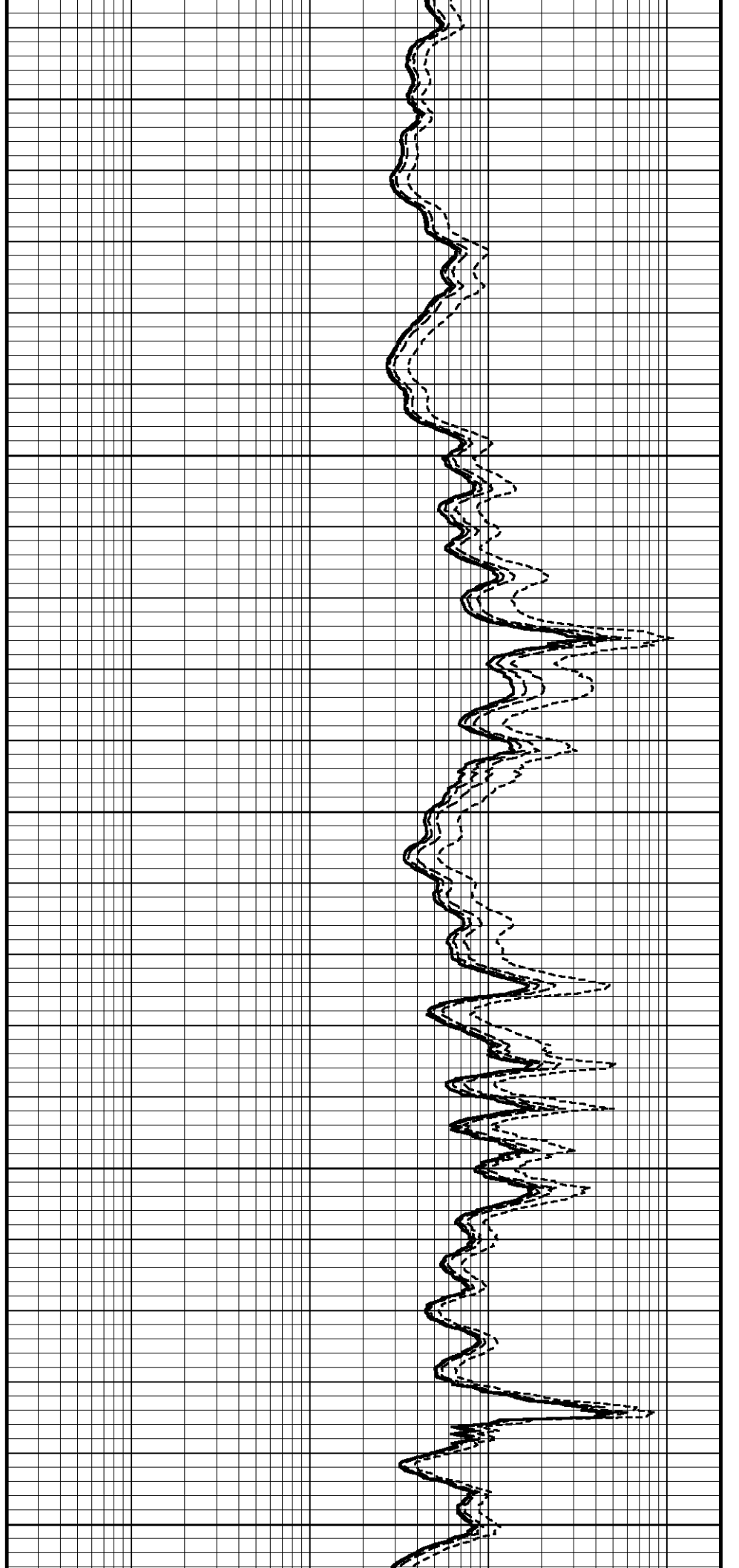
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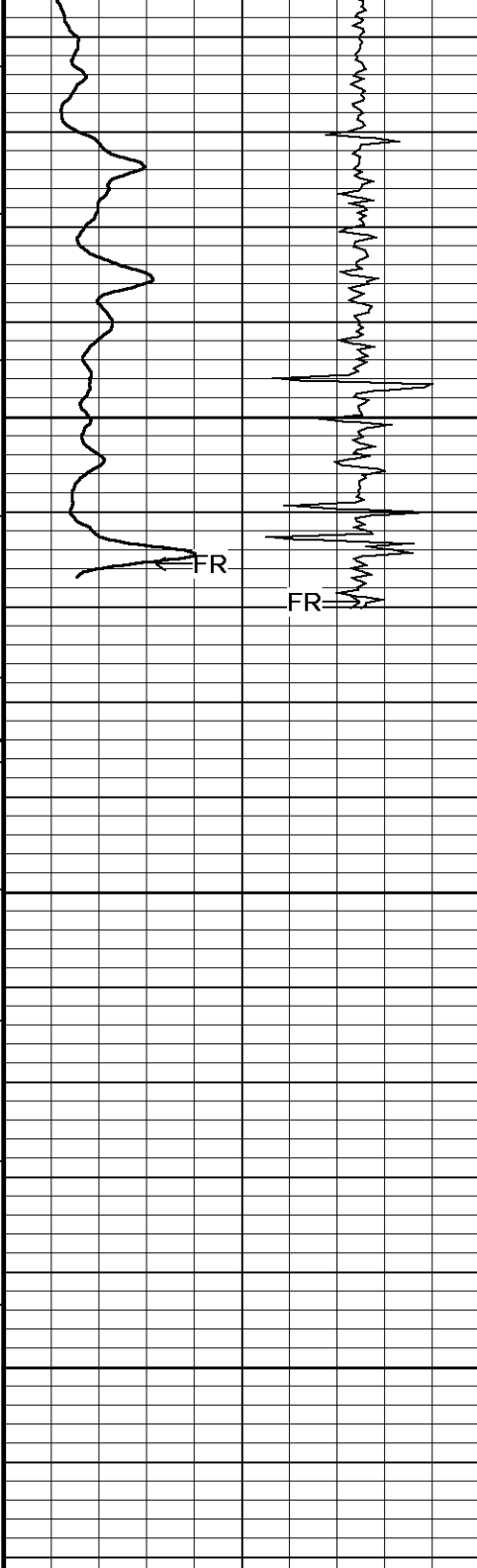
131°

9500

131°

9550





132°

9600

9650

9700

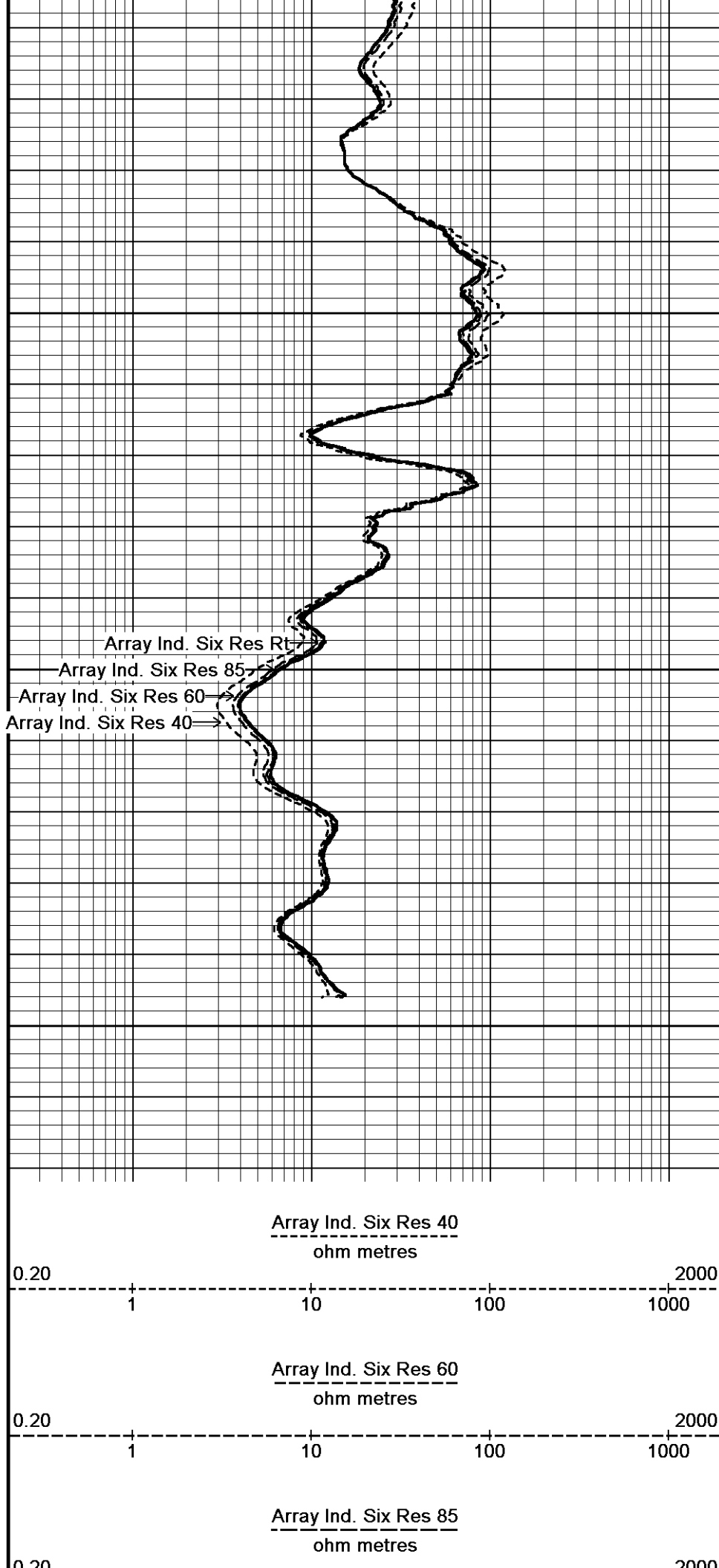
9720
Depth
In
Feet

Timing Marks
every 60.0 sec

Borehole Corr. MGS Gamma

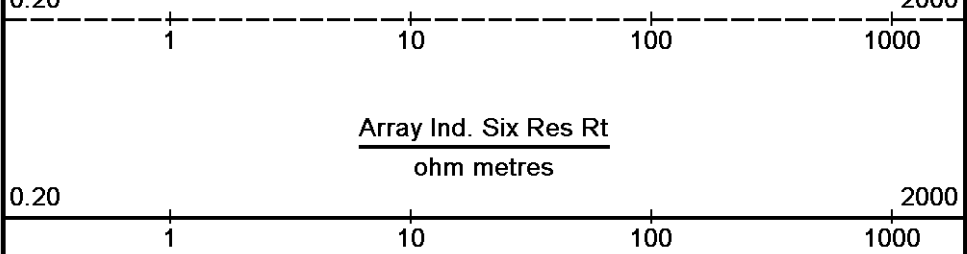
0	API 75	150
150	225	300

Borehole
Temp in
deg F



MCL C. Collar Locator

-1000 1000

Replay
Scale
1:240

Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 13-FEB-2013 19:28

Filename: C:\Minimus 13.04.8492\Data\00 SDRGE (MARKS 2924 1-19H)\40202 RTAP.dta

Recorded on 13-FEB-2013 18:33

System Versions: Processed with 13.04.8492 Plotted with 13.04.8492



5 INCH MAIN LOG DSC



BEFORE SURVEY CALIBRATION

C:\Minimus 13.04.8492\Data\00 SDRGE (MARKS 2924 1-19H)\40202 RTAP.dta

Down-hole Tension Calibration All 000

Field Calibration on 24-FEB-2009 00:00

Reading No	Measured	
1	14953.75	0.00
2	17846.38	1500.00

General Constants All 000

Last Edited on 13-FEB-2013,09:35

General Parameters

Mud Resistivity	0.550	ohm-metres
Mud Resistivity Temperature	50.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Method	XY Caliper	
HVOL Caliper 1	MIE Caliper X	
HVOL Caliper 2	MIE Caliper Y	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	None	

Rwa Parameters

Porosity used	Limestone Density Por.
Resistivity used	Array Ind. Six Res Rt
RWA Constant A	0.610
RWA Constant M	2.150

Down-hole Tension Calibration SMS 0

Field Calibration on 05-SEP-2012,13:01

Reading No	Measured	Calibrated (lbs)
1	15152.07	0.00
2	18386.74	2000.00

Strain Gauge Constants MMS-E.B 167

Last Edited on 02-FEB-2013,08:19

Atmospheric Pressure	14.70	psi
Serial Number	262784	
Calibration Date	21-Jan-2011	
Base Check Date		
Dead Weight Serial Number	0	
Dead Weight Gravitational Correction	1.0	

Temperature Pressure psia	75.0		150.0		250.0		350.0		degrees F
	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	Inc.	Dec.	
0.0	0.038	0.038	0.049	0.049	0.063	0.063	0.077	0.078	
3000.0	5.218	5.220	5.230	5.232	5.244	5.246	5.257	5.259	
6000.0	10.409	10.412	10.422	10.425	10.436	10.440	10.447	10.452	
9000.0	15.610	15.615	15.623	15.628	15.638	15.643	15.650	15.656	
12000.0	20.823	20.826	20.837	20.841	20.853	20.857	20.866	20.869	
15000.0	26.048		26.064		26.081		26.093		

High Resolution Temperature Calibration MGS-C.J 136

Field Calibration on 12-FEB-2013,10:08

Lower	Measured	Calibrated(Deg F)	
Upper	0.00	0.00	
	0.00	0.00	
High Resolution Temperature Constants MGS-C.J 136			Last Edited on 12-FEB-2013,10:08
Pre-filter Length	11		
SP Calibration MGS-C.J 136			Field Calibration on 12-FEB-2013,10:08
	Measured	Calibrated (mV)	
Reference 1	102.2	98.7	
Reference 2	-94.7	-98.3	
Gamma Calibration MGS-C.J 136			Field Calibration on 12-FEB-2013 10:24
	Measured	Calibrated (API)	
Background	93	65	
Calibrator (Gross)	1901	1326	
Calibrator (Net)	1808	1261	
Gamma Constants MGS-C.J 136			Last Edited on 12-FEB-2013,19:24
Gamma Calibrator Number	BLUE		
Mud Density	1.08	gm/cc	
Caliper Source for Processing	Density Caliper		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	
Neutron Calibration MDN-B.J 390			Base Calibration on 12-FEB-2013,10:08 Field Check on 12-FEB-2013 10:28
Base Calibration			
	Measured		Calibrated (cps)
	Near	Far	Near Far
	2954	90	3714 110
Ratio	32.847		33.764
Field Calibrator at Base			Calibrated (cps)
			1273 1896
Ratio	0.671		
Field Check			Calibrated (cps)
			0.675
Neutron Constants MDN-B.J 390			Last Edited on 12-FEB-2013,19:24
Neutron Source Id	p33312b		
Neutron Jig Number	blue		
Epithermal Neutron	No		
Caliper Source for Processing	Density Caliper		
Stand-off	0.00	inches	
Mud Density	1.08	gm/cc	
Limestone Sigma	7.10	cu	
Sandstone Sigma	4.26	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	Not Applied		
Caliper Calibration MIE-A.J 233			Base Calibration on 12-FEB-2013 10:35 Field Calibration on 12-FEB-2013 10:37
Base Calibration			
Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)
1	27417	27508	6.00
2	37578	37810	8.01
3	48010	47844	10.01

4	60114	59789	12.13		
5	0	0	0.00		
Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	26967	24850	25731	26459	6.00
2	36133	32977	33726	35347	8.01
3	44667	41657	42931	44525	10.01
4	54963	51980	53342	54805	12.13
5	0	0	0	0	0.00
Field Calibration					
	Measured	Measured		Actual	
	Pads 1-5 Caliper(in)	Pads 3-7 Caliper(in)		Caliper(in)	
	6.04	6.06		6.01	
	Measured	Measured	Measured	Measured	Actual
	Pad 2 Caliper(in)	Pad 4 Caliper(in)	Pad 6 Caliper(in)	Pad 8 Caliper(in)	Caliper(in)
	3.07	3.00	2.94	2.97	6.01
Caliper Constants MIE-A.J 233				Last Edited on 10-NOV-2012 06:39	
Caliper Difference for BRKT		0.120	inches		
Accelerometer Parameters MIE-A.J 233					
Date Of Last Accelerometer Calibration		11-JUL-2012,16:04			
	X Accelerometer	Y Accelerometer	Z Accelerometer		
Slope	-1.103264	-1.116469	-1.106207		
Offset	0.010635	0.006475	0.004891		
Accelerometer Constants MIE-A.J 233				Last Edited on 14-JAN-2013,13:07	
Accelerometer Calibrator Number		000			
Accelerometer Temperature Characterisation					
X Accelerometer					
Serial Number		468			
Calibration Date		17-Dec-2007			
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	-6.34516e-006	-5.01333e-009	5.89860e-011	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.86986e-004	5.01603e-007	3.36551e-011	
Y Accelerometer					
Serial Number		1073			
Calibration Date		02-May-2011			
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	-1.04005e-005	2.19294e-008	-1.31489e-010	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.69223e-004	2.39527e-007	9.12553e-010	
Z Accelerometer					
Serial Number		977			
Calibration Date		20-Jan-2011			
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	1.86594e-005	1.00709e-008	3.83419e-011	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.74913e-004	2.75506e-007	1.29284e-009	
Magnetometer Parameters MIE-A.J 233					
Date Of Last Magnetometer Calibration		28-NOV-2012,18:05			
	X Magnetometer	Y Magnetometer	Z Magnetometer		
Slope	-1.000000	-1.001739	-0.998267		
Offset	-0.005746	-0.010400	0.000941		
Magnetometer Constants MIE-A.J 233				Last Edited on	
Magnetometer Calibrator Number		000			
Navigation Constants MIE-A.J 233					
				Last Edited on 30-DEC-2012,14:46	
Magnetic Declination		4.75	degrees	East	

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.J 233

Last Edited on 12-FEB-2013,10:37

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

Induction Calibration MAI-A.A 158

Base Calibration on 12-FEB-2013,10:07

Field Check on 12-FEB-2013 10:13

Base Calibration				
Test Loop Calibration	Measured	Calibrated (mmho/m)		
Channel	Low High	Low High		
1	17.2 475.3	9.3 966.2		
2	6.1 381.2	7.6 821.4		
3	3.8 265.2	5.2 566.0		
4	2.7 132.2	2.6 279.2		
Array Temperature	22.3	Deg F		

Channel	Base Check (mmho/m)	Field Check (mmho/m)		
	Low High	Low High		
1		10.8 3816.2		
2		29.5 3533.0		
3		26.9 2983.7		
4		17.8 2099.1		
Deep		14.7 1945.2		
Medium		40.8 3890.6		
Shallow		46.4 5239.9		

Array Temperature 45.2 Deg F

Induction Constants MAI-A.A 158

Last Edited on 13-FEB-2013,09:35

Induction Model	RtAP-WBM
Caliper for Borehole Corr.	Density Caliper
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	0.0000
Stand-off Fin Angle	60.00 degrees
Stand-off Fin Width	0.0000 inches
Borehole Corr. Rm Source	Temperature Corr
Temp. for Rm Corr.	MGS 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 mhos/metre
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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	

High Resolution Temperature Calibration MAI-A.A 158

Field Calibration on 12-FEB-2013,10:07

	Measured	Calibrated(Deg F)
Lower	0.00	0.00
Upper	0.00	0.00

High Resolution Temperature Constants MAI-A.A 158

Last Edited on 12-FEB-2013,10:07

Pre-filter Length	11
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Caliper Calibration MPD-C.J 435

Base Calibration on 12-FEB-2013,10:08

Field Calibration on 12-FEB-2013 10:29

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	16608	4.01
2	26160	5.96
3	36208	7.98
4	45936	9.86
5	56688	11.88
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.90	5.96

Photo Density Calibration MPD-C.J 435

Base Calibration on 12-FEB-2013,10:07

Field Check on 12-FEB-2013 10:17

Density Calibration

Base Calibration

	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	56419	27206	59869	31110
Reference 2	23392	2610	24557	2522

Field Check at Base

1291.0	1337.1
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Field Check

1287.5	1331.8
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PE Calibration

Base Calibration

	WS	Measured WH	Ratio	Calibrated Ratio
Background	233	1153		
Reference 1	22844	56212	0.411	0.369
Reference 2	6353	23241	0.277	0.271

Field Check at Base

233.0	1152.9
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Field Check

236.2	1149.6
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Density Constants MPD-C.J 435

Last Edited on 12-FEB-2013,19:24

Density Source Id	p21137b
Nylon Calibrator Number	633
Aluminium Calibrator Number	633
Density Shoe Profile	4 inch

Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.08	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	
Matrix Density (gm/cc)	Depth (ft)	
2.71	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	

DOWNHOLE EQUIPMENT

C:\Minimus 13.04.8492\Data\00 SDRGE (MARKS 2924 1-19H)\40202 RTAP.dta

RUNNING TOOL

MLK-A 1 LG: 4.87 ft WT: 30.9 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint

SKJ-E.B 424 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

Spacer-Empty Battery

MLK-A 3 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

MBS-G.A 200v Compact Battery Sub

MBS-G.A 117 LG: 17.06 ft WT: 123.5 lb OD: 2.24 in

Compact Memory Sub E.B

MMS-E.B 167 LG: 5.20 ft WT: 37.5 lb OD: 2.24 in

Compact Tool Isolator sub.

MTI-B.A 67 LG: 1.54 ft WT: 13.2 lb OD: 2.24 in

Compact Short Gamma

MGS-C.J 136 LG: 3.41 ft WT: 24.3 lb OD: 2.24 in

Compact Collar Locator

MCL-B.J 60 LG: 3.17 ft WT: 26.5 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 41 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor

SHA-J.A 454 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

MIS-A.A Compact Inline Bowspring sub

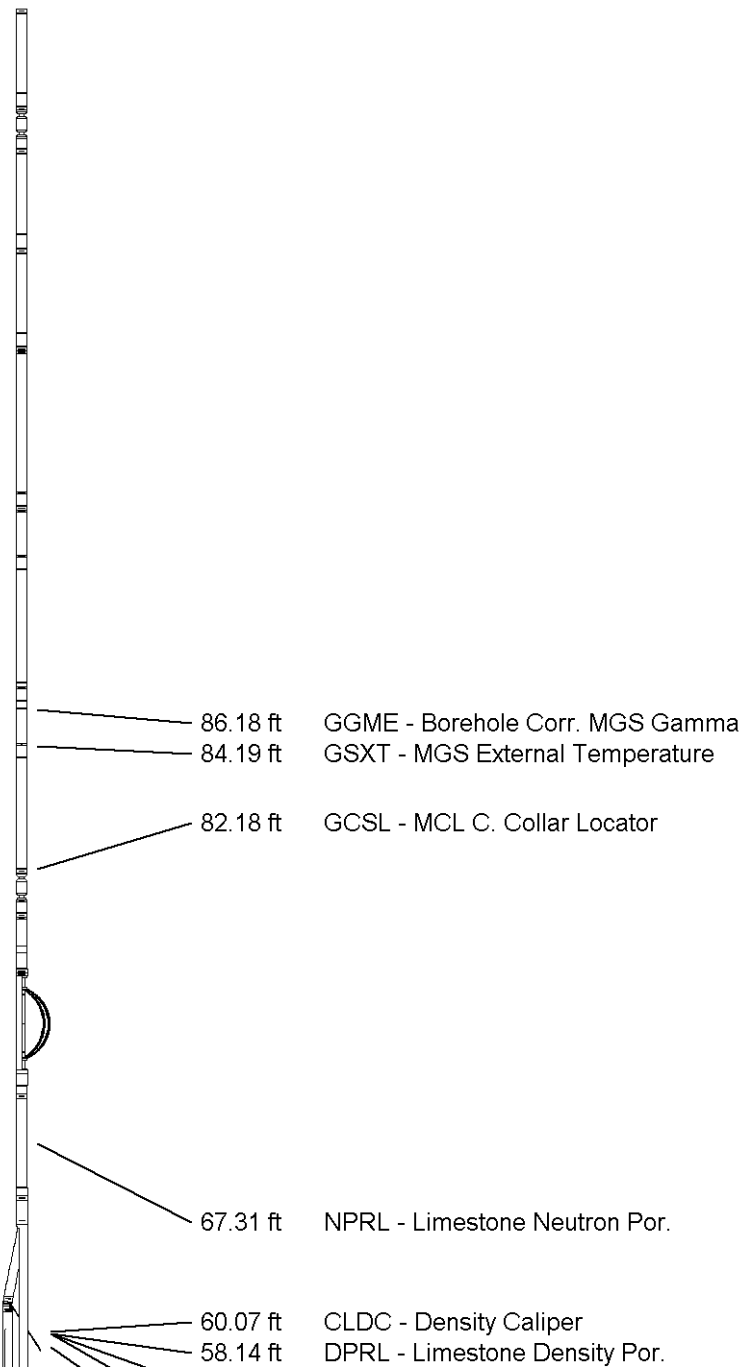
MIS-A.A 260 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron

MDN-B.J 390 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

MPD-C.J 435 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in



MIS-A.A Compact Inline Bowspring sub
MIS-A.A 15 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-F Compact Swivel Head Adaptor
SHA-F 33 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 42 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-A.A Compact Inline Bowspring sub
MIS-A.A 18 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact MMI Memory Section
MIM-B.A 254 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

Compact MMI Electrode Section
MIE-A.J 233 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

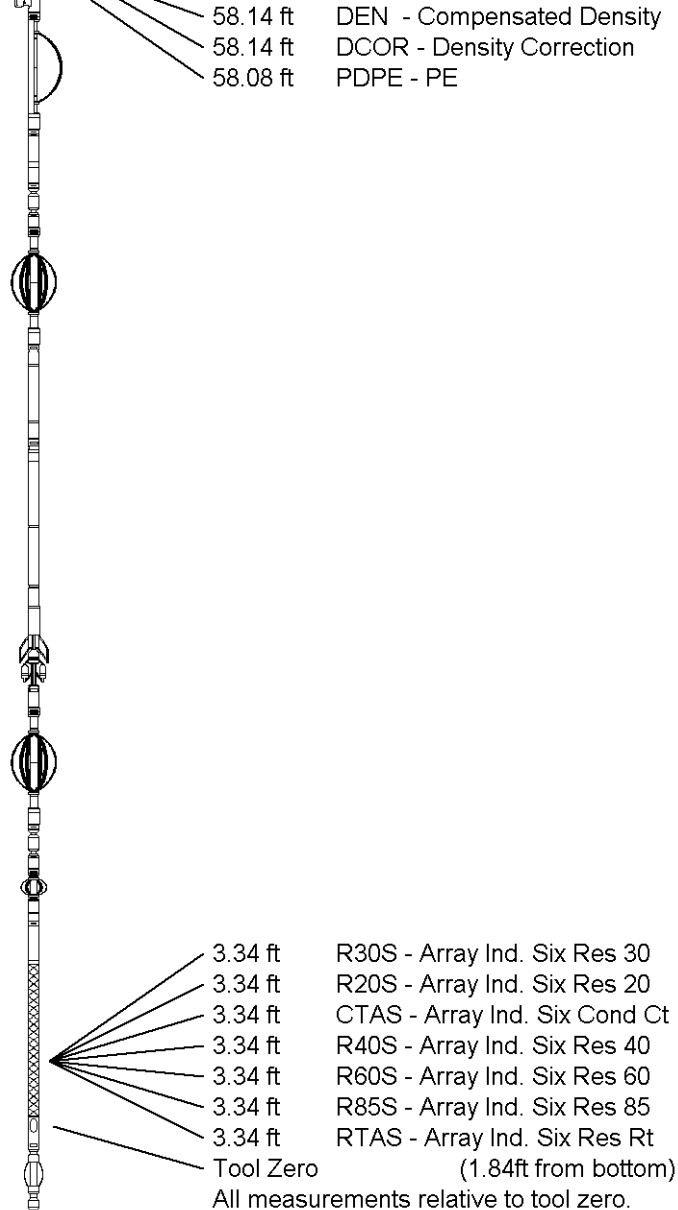
MIS-A.A Compact Inline Bowspring sub
MIS-A.A 170 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint
SKJ-E.B 469 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-B Compact Inline Standoff sub
MIS-B 27 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

Compact Induction
MAI-A.A 158 LG: 12.52 ft WT: 48.5 lb OD: 2.24 in

Total Length: 148.10 ft Weight: 925.9 lb



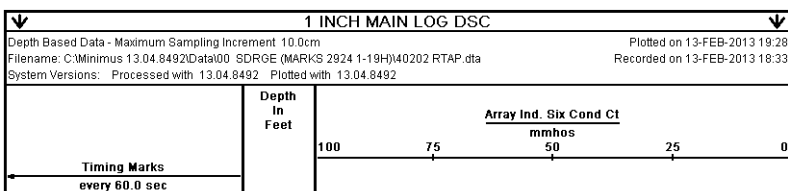
COMPANY SANDRIDGE ENERGY
WELL MARKS 2924 1-19H
FIELD MISSISSIPPIAN / ST. LOUIS
PROVINCE/COUNTY FORD
COUNTRY/STATE USA / KANSAS

Elevation Kelly Bushing	2631.60	feet	First Reading	9699.00	feet
Elevation Drill Floor	2631.60	feet	Depth Driller	9720.00	feet
Elevation Ground Level	2612.00	feet	Depth Logger	9702.00	feet

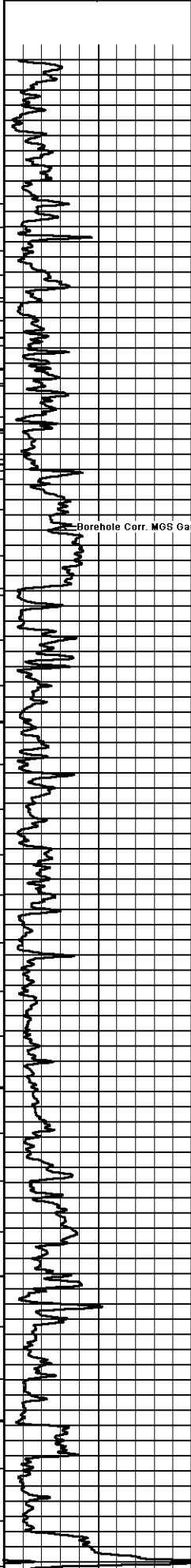


Weatherford®

CML MESSENGER SHUTTLE
ARRAY INDUCTION
ELECTRIC LOG

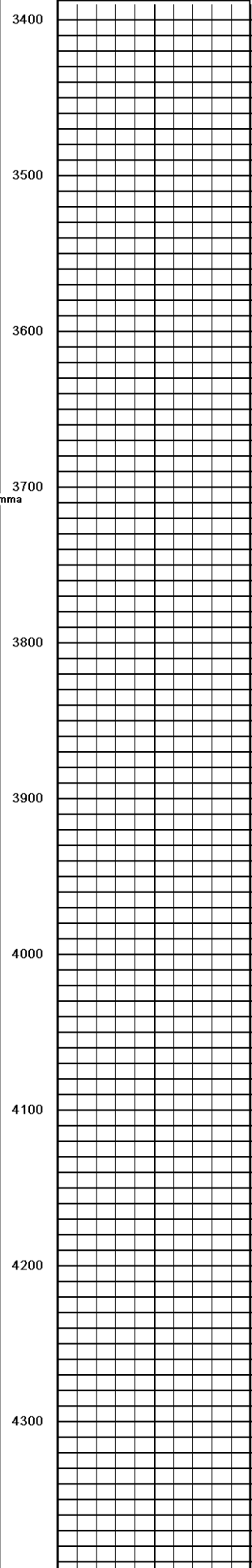


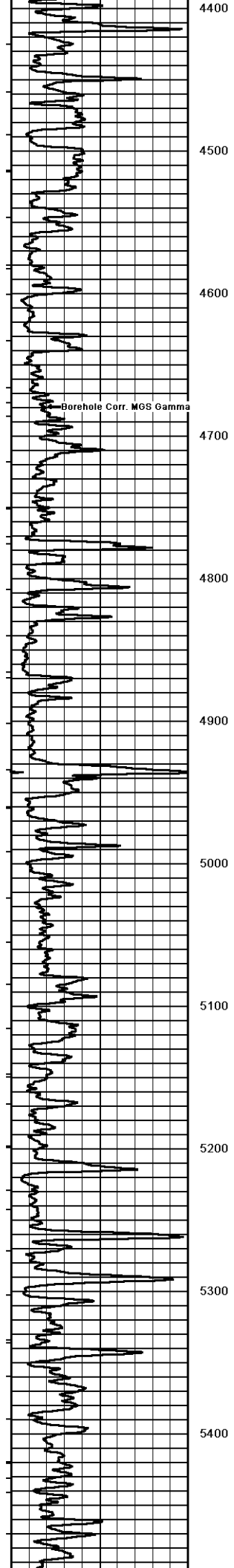
Borehole Corr. MGS Gamma		
0	API	150
	75	
150	225	300

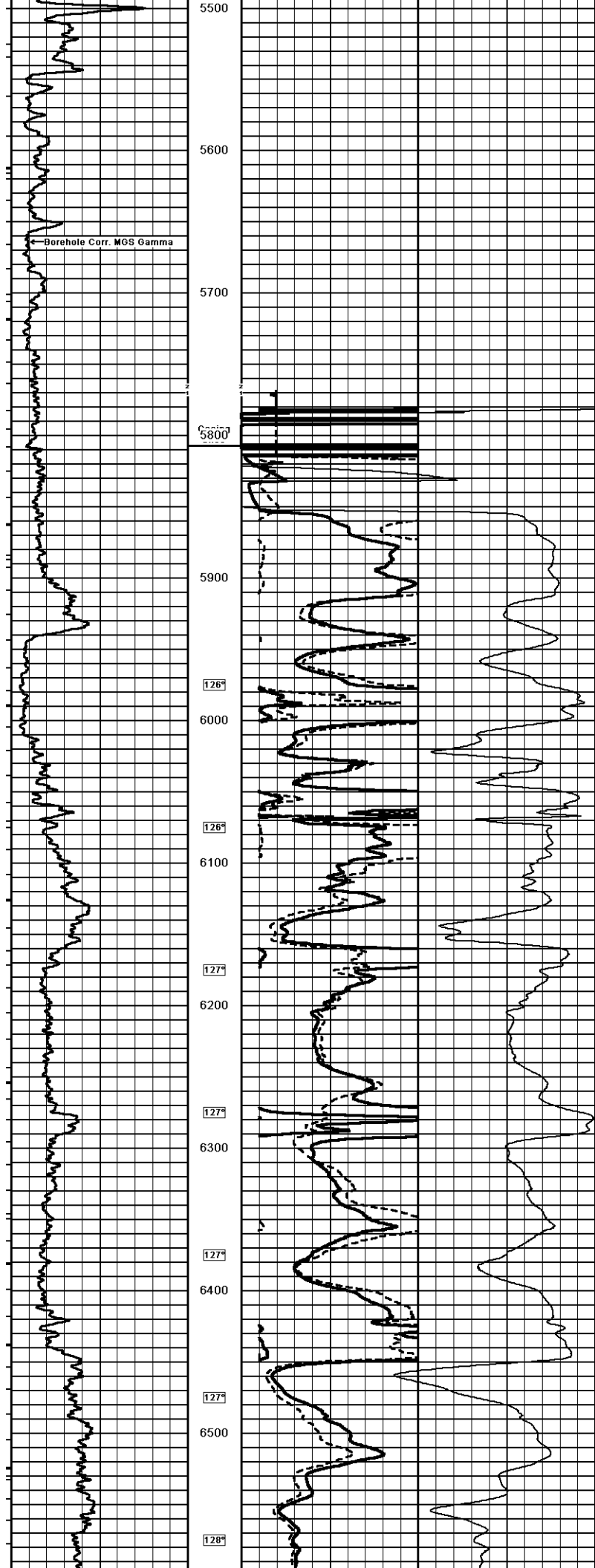


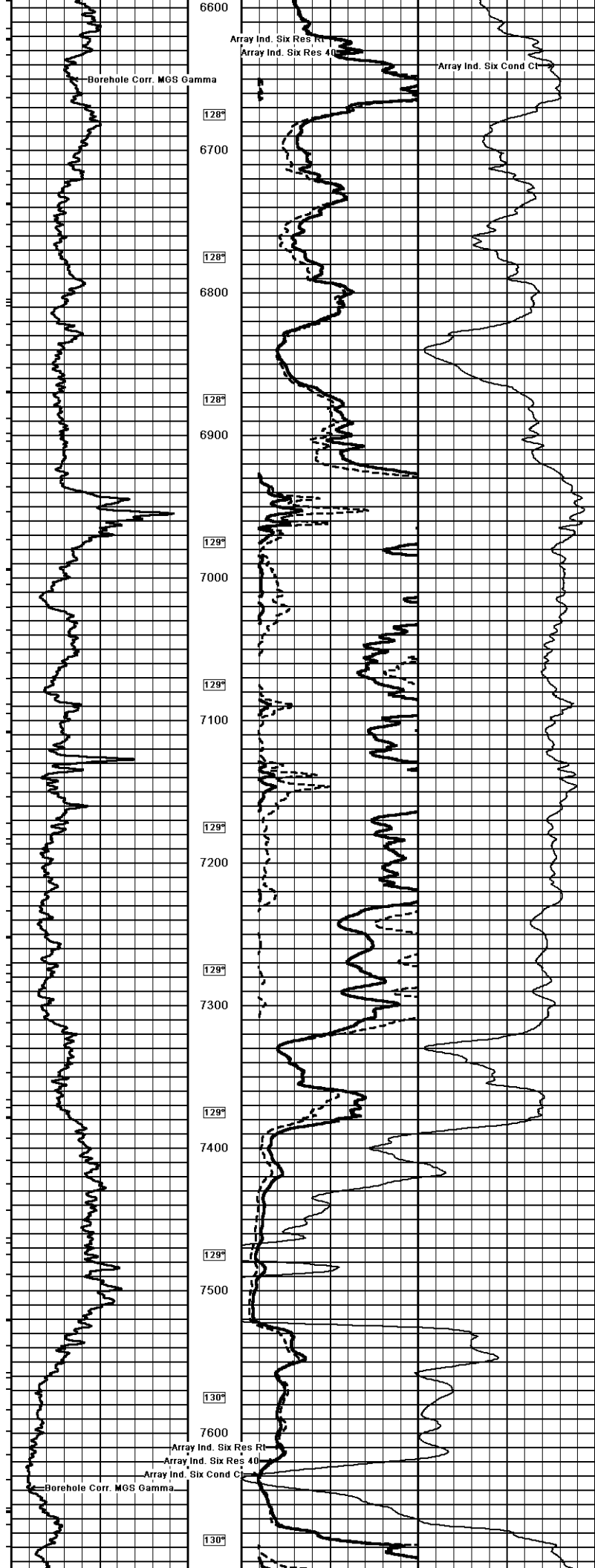
Borehole Temp in deg F		
0	50	100
0	500	1000

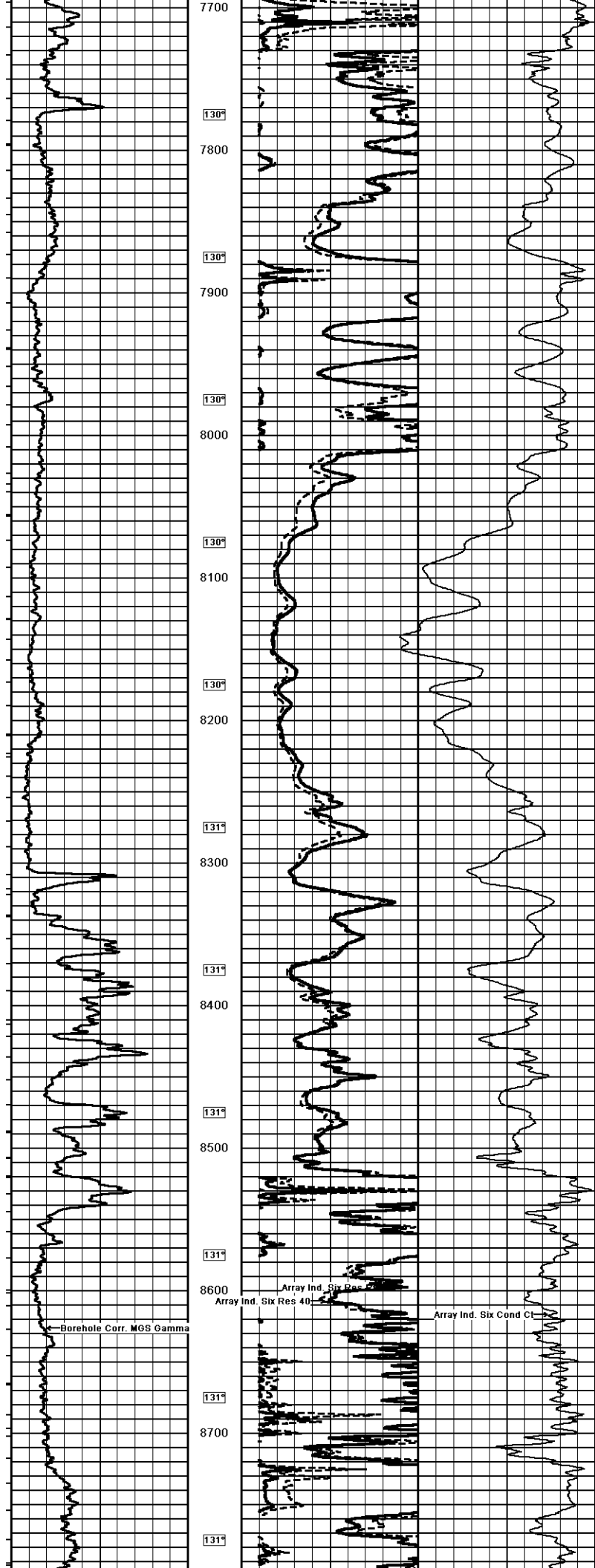
Array Ind. Six Res Rt		
0	ohm metres	100
0	500	1000

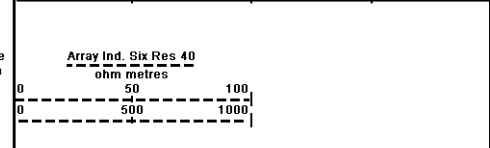
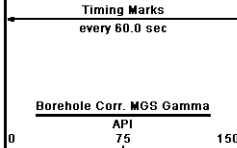
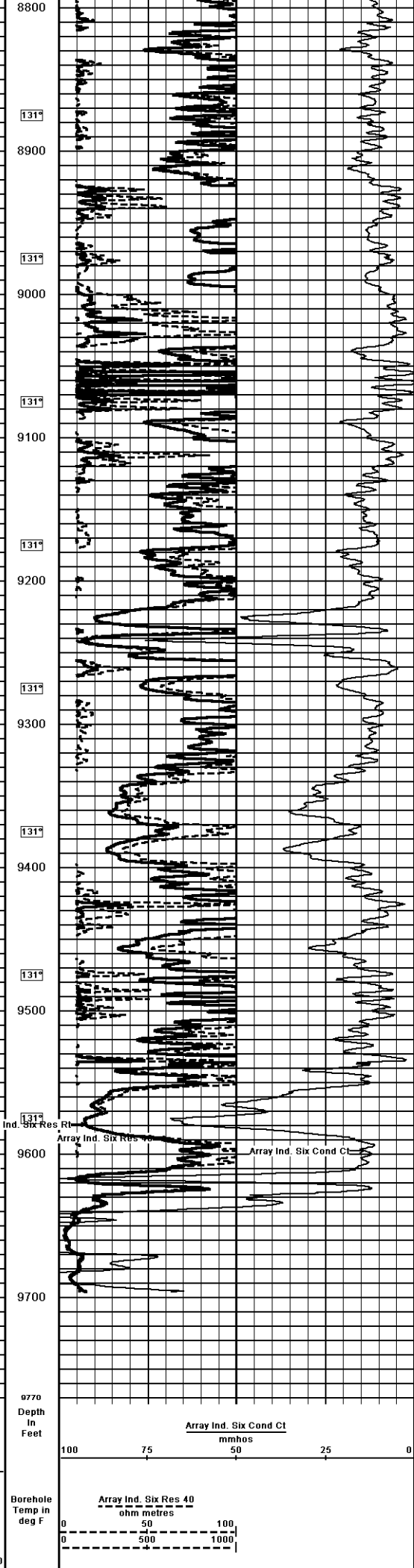
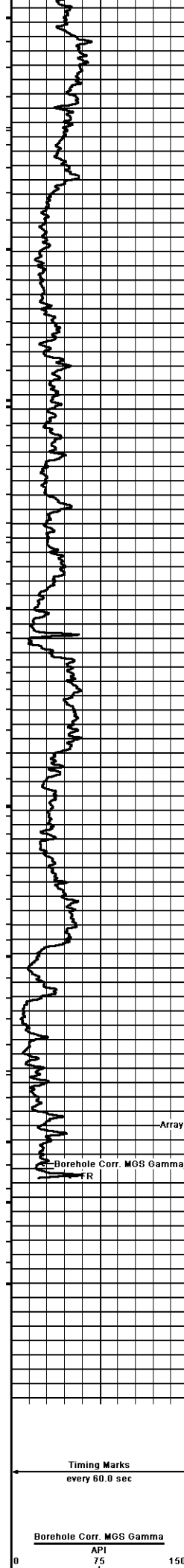












150	225	300	Replay Scale 1:600	ohm metres		
				0	50	100
				0	500	1000

Depth Based Data - Maximum Sampling Increment: 10.0cm

Filename: C:\Minimus 13.04.8492\Data\00_SDRGE (MARKS 2924 1-19H)\40202 RTAP.dta

System Versions: Processed with 13.04.8492 Plotted with 13.04.8492

Plotted on 13-FEB-2013 19:28

Recorded on 13-FEB-2013 18:33

1 INCH MAIN LOG DSC

COMPANY		SANDRIDGE ENERGY	
WELL		MARKS 2924 1-19H	
FIELD		MISSISSIPPIAN / ST. LOUIS	
PROVINCE/COUNTY		FORD	
COUNTRY/STATE		USA / KANSAS	

Elevation Kelly Bushing	2631.60	feet	First Reading	9699.00	feet
Elevation Drill Floor	2631.60	feet	Depth Driller	9720.00	feet
Elevation Ground Level	2612.00	feet	Depth Logger	9702.00	feet


Weatherford

CML MESSENGER SHUTTLE
ARRAY INDUCTION
ELECTRIC LOG