

**Weatherford****COMPOSITE LOG**

COMPANY	TAOS RESOURCES OPERATING COMPANY			
WELL	WMU #29			
FIELD	MADDIX NORTH			
PROVINCE/COUNTY	COWLEY			
COUNTRY/STATE	U.S.A / KANSAS			
LOCATION	1485FNL & 165' FWL			
SEC 2	TWP 33S	RGE 5E	Other Services MAI/MFE MML MSS	SGS
API Number	15-035-24583			MSS
Permanent Datum GL, Elevation	1294 feet			Elevations: KB 1304.00 DF 1303.00 GL 1294.00
Log Measured From	KB			
Drilling Measured From	KB			
Date	17-JUN-2014			
Run Number	ONE			
Service Order	5820-90188070			
Depth Driller	3623.00			feet
Depth Logger	3617.00			feet
First Reading	3614.00			feet
Last Reading	247.00			feet
Casing Driller	252.00			feet
Casing Logger	247.00			feet
Bit Size	7.875			inches
Hole Fluid Type	WBM			
Density / Viscosity	8.80 lb/USg			47.00 sec/qt
PH / Fluid Loss	9.00			10.40 ml/30Min
Sample Source	MUD TANK			
Rm @ Measured Temp	1.30 @ 73.0			ohm-m
Rmf @ Measured Temp	1.04 @ 73.0			ohm-m
Rmc @ Measured Temp	1.56 @ 73.0			ohm-m
Source Rmf / Rmc	CALC	CALC		
Rm @ BHT	1.28 @ 115.0			ohm-m
Time Since Circulation	4 HOURS			
Max Recorded Temp	120.00			deg F
Equipment / Base	13026			OKC
Recorded By	L.HEATON			
Witnessed By	MARYAM NASIZADEH			
SALES	B. CONCHEWSKI			

BOREHOLE RECORD

Last Edited: 17-JUN-2014 00:29

Bit Size inches	Depth From feet	Depth To feet
7.625	252.00	3623.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	252.00	26.00

REMARKS

TOOLS RAN: MCG, SGS, MMR, MDN, MPD, MFE, MSS, MAI RAN IN COMBINATION

HARDWARE:

MAI: TWO 0.5 INCH STANDOFFS USED.

MFE: ONE 0.5 INCH STANDOFF USED.

MDN: DUAL NEUTRON BOW SPRINGS USED.

MPD: 8 INCH PROFILE PLATE USED.

MSS: THREE 0.5 INCH STANDOFFS USED.

2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 1420 CU.FT.

ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO SURFACE CASING = 880 CU.FT.

FIELD TICKET NUMBER:5820-90188070

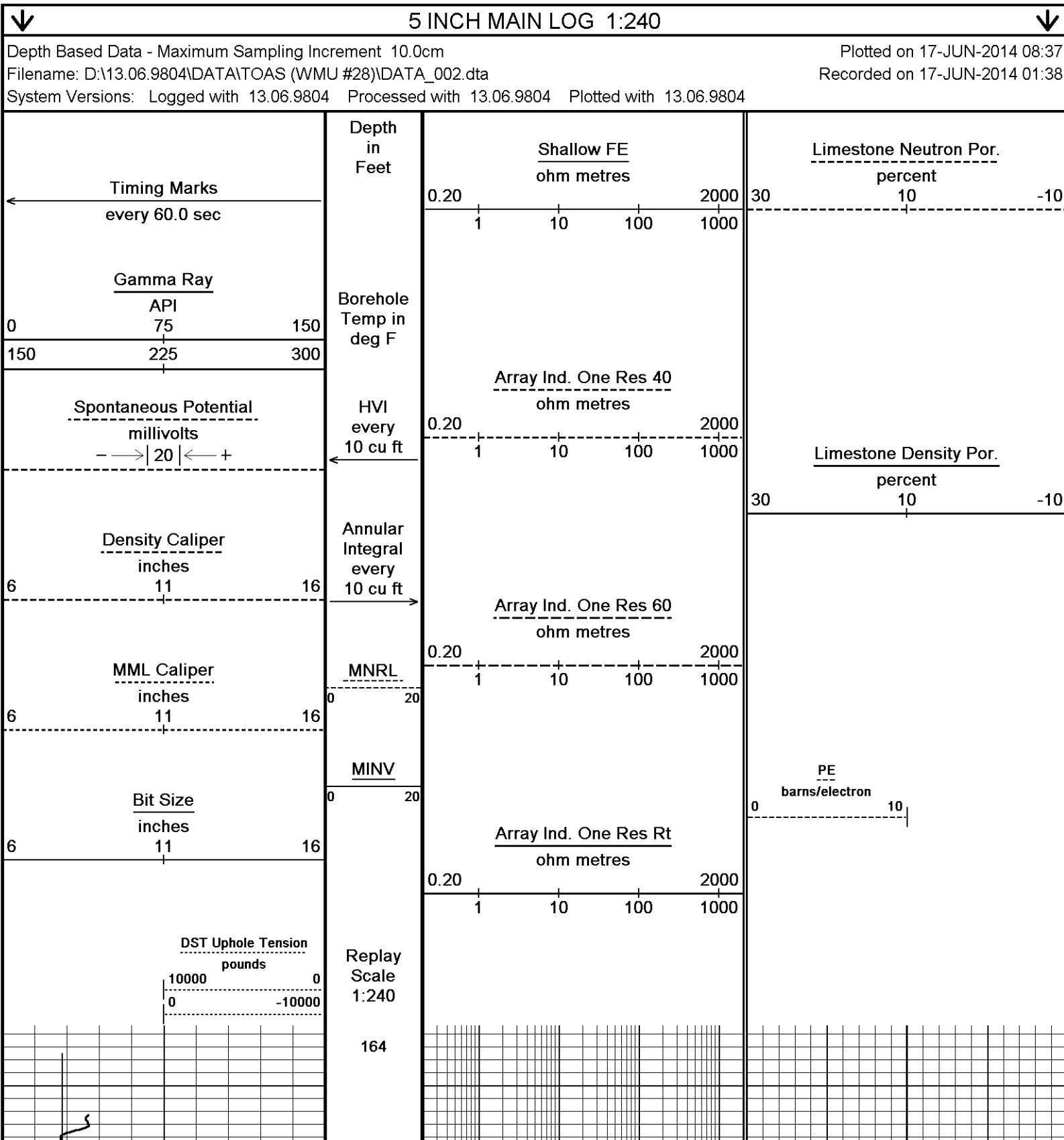
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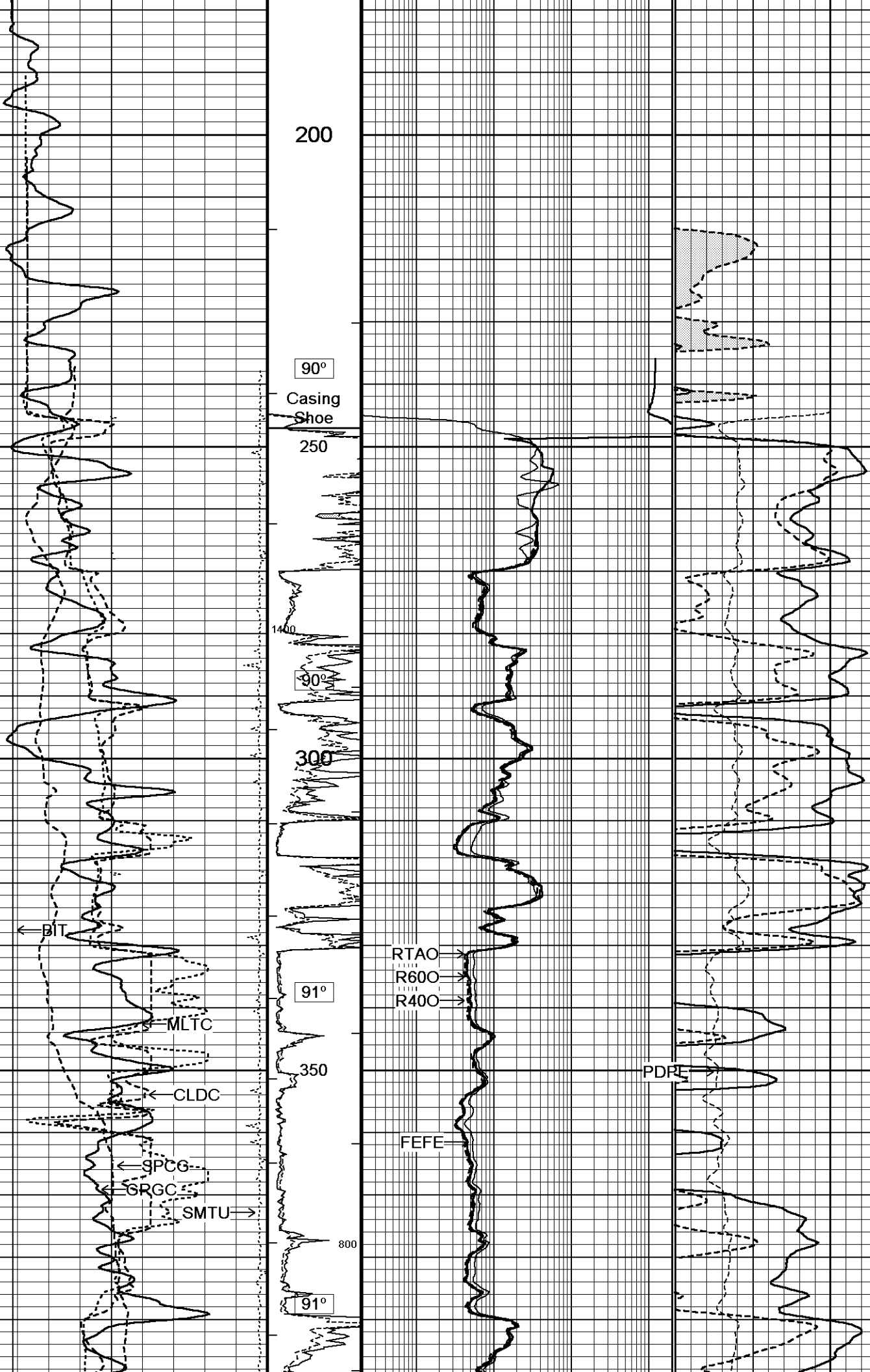
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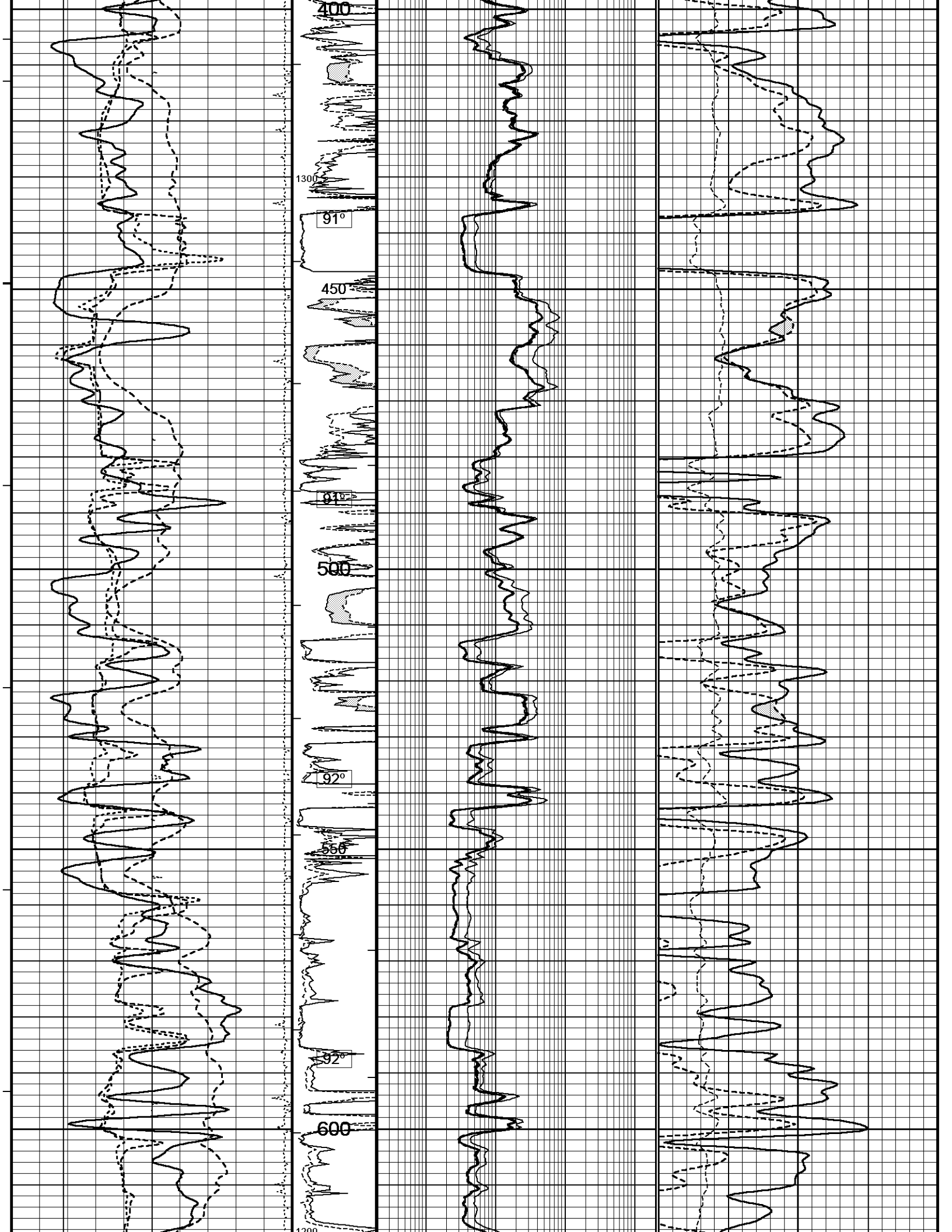
OPERATOR(S): JEFF HILL

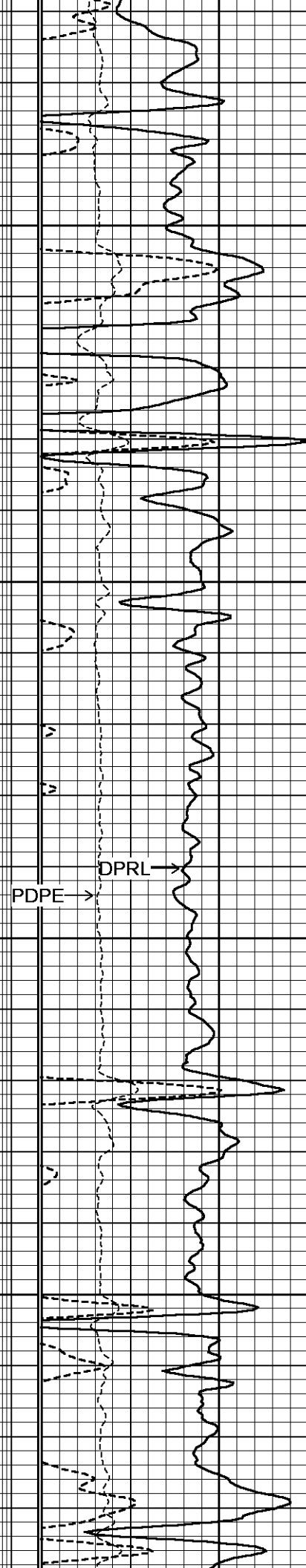
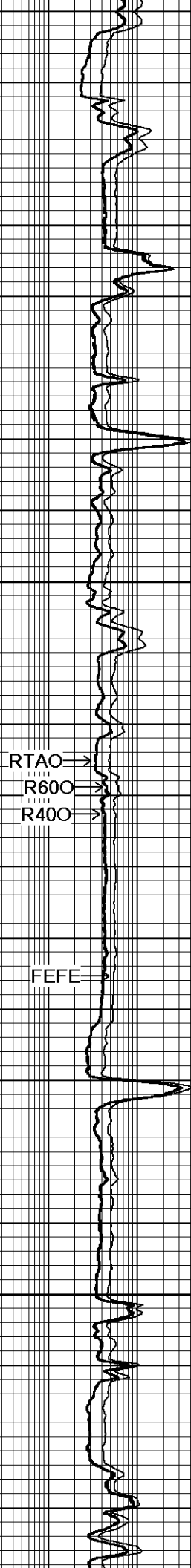
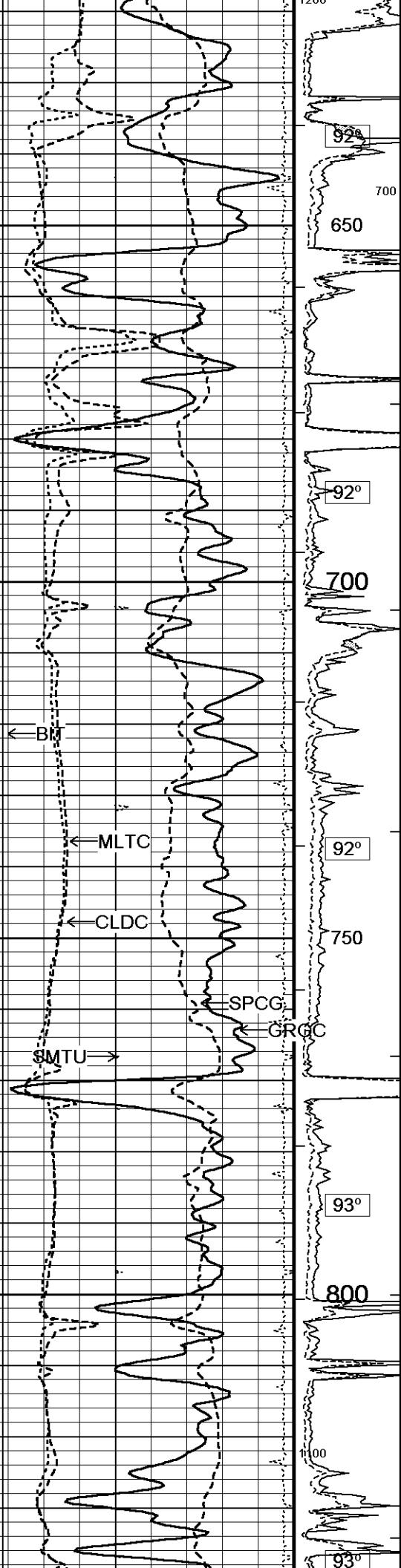
HOLE WASHOUTS AND RUGOSITY WILL AFFECT LOG QUALITY AND REPEATABILITY.

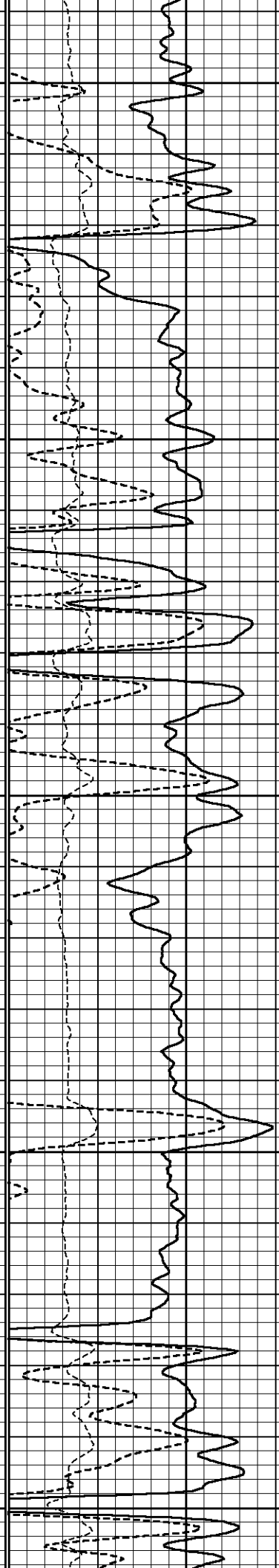
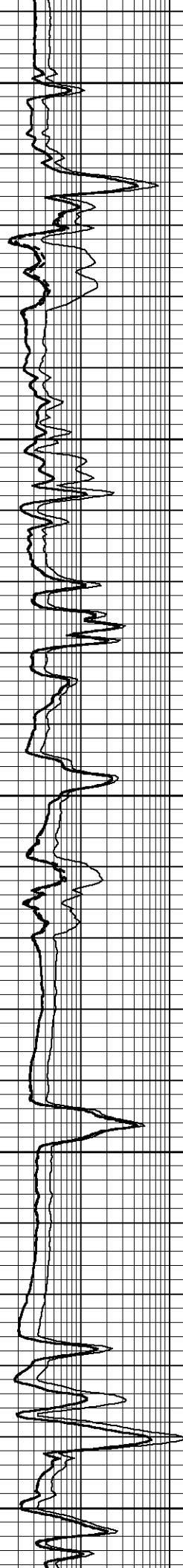
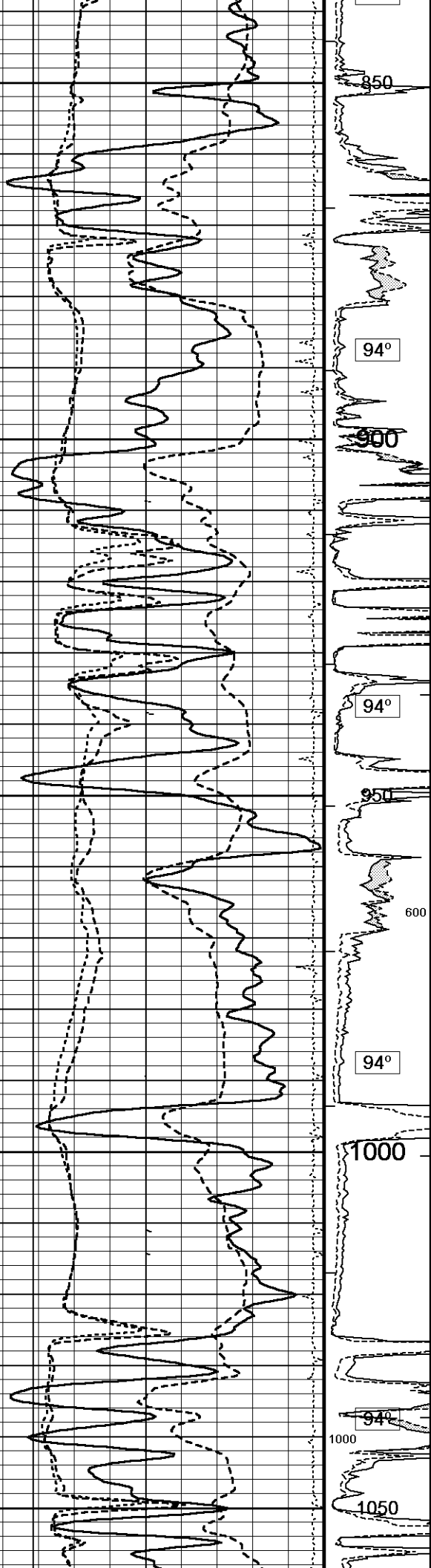
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.

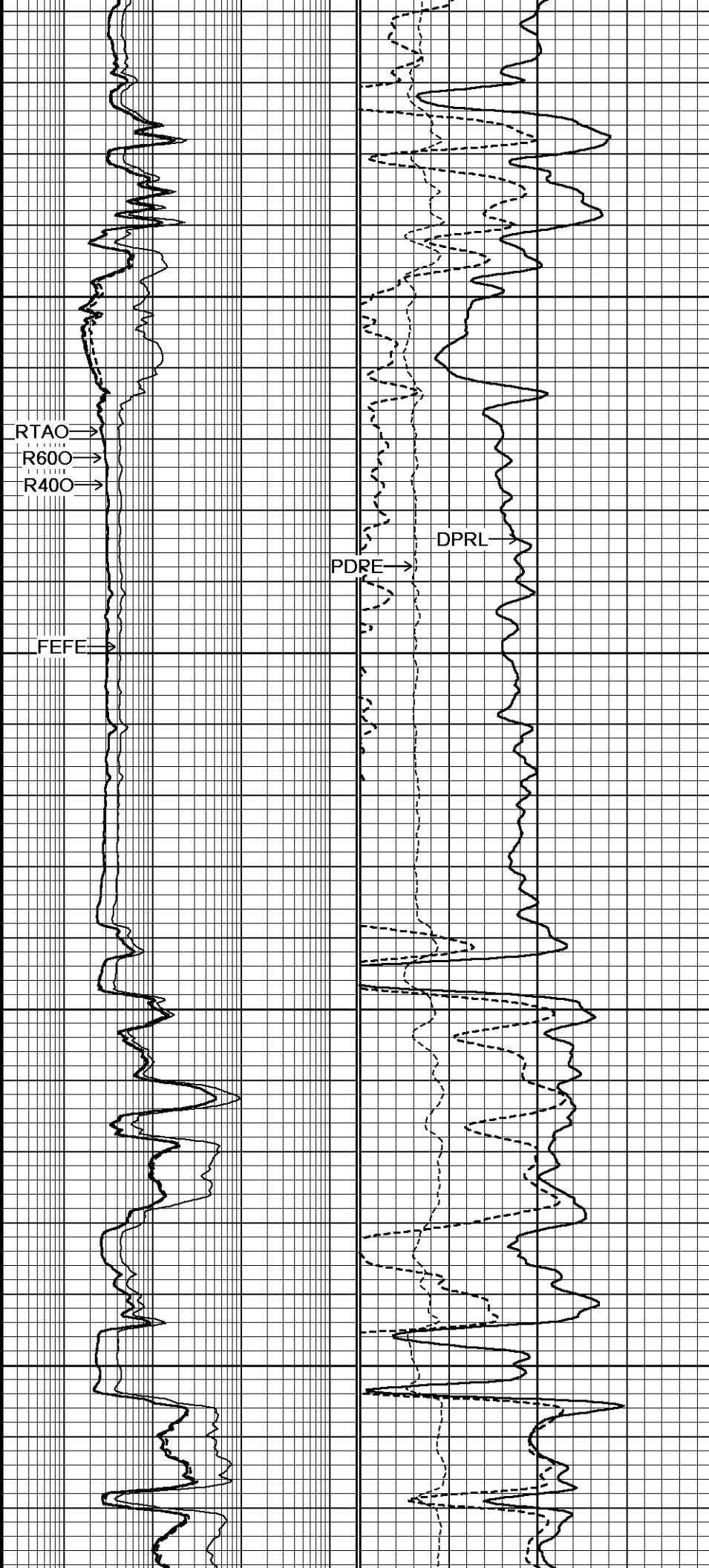
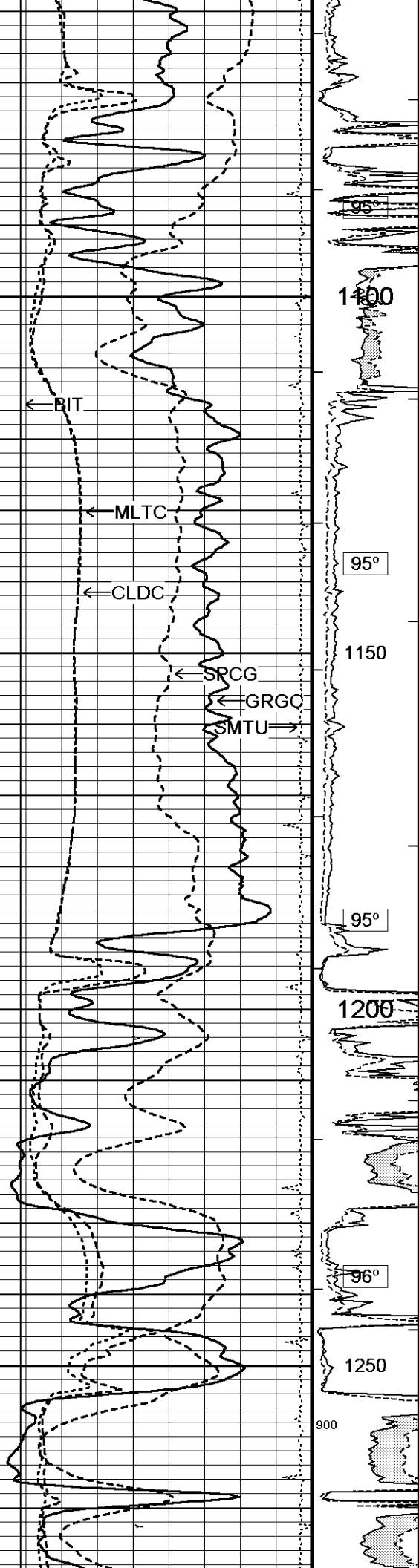


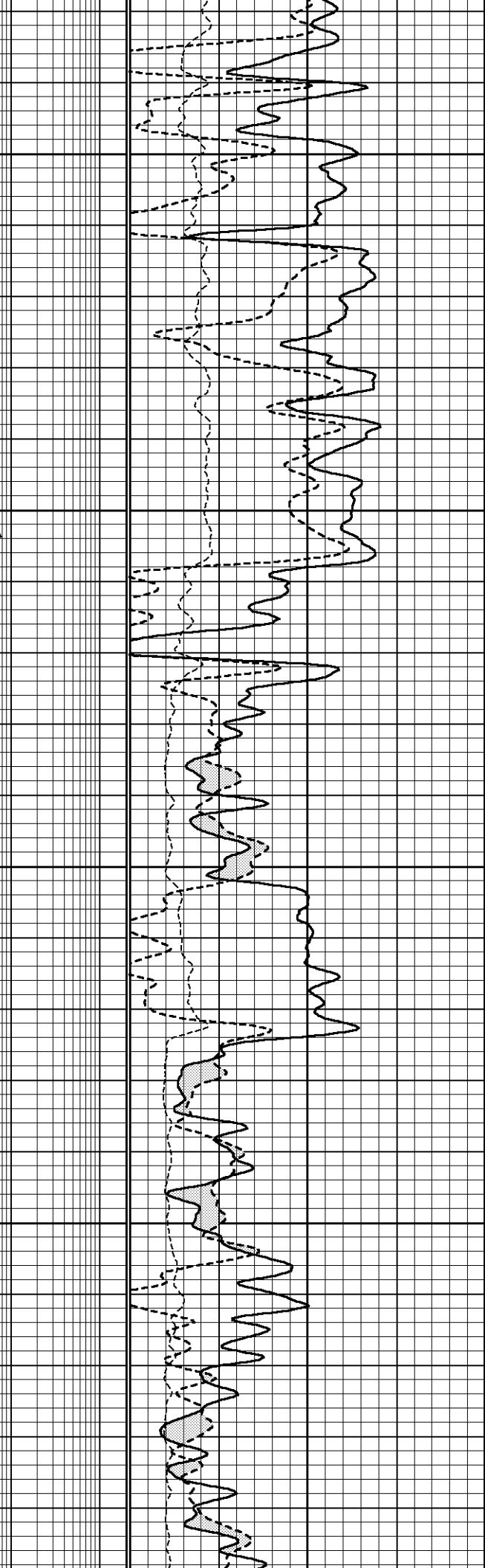
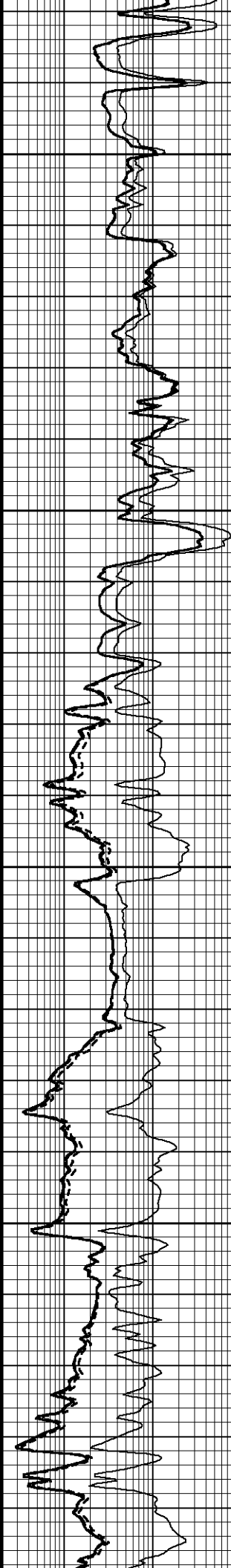
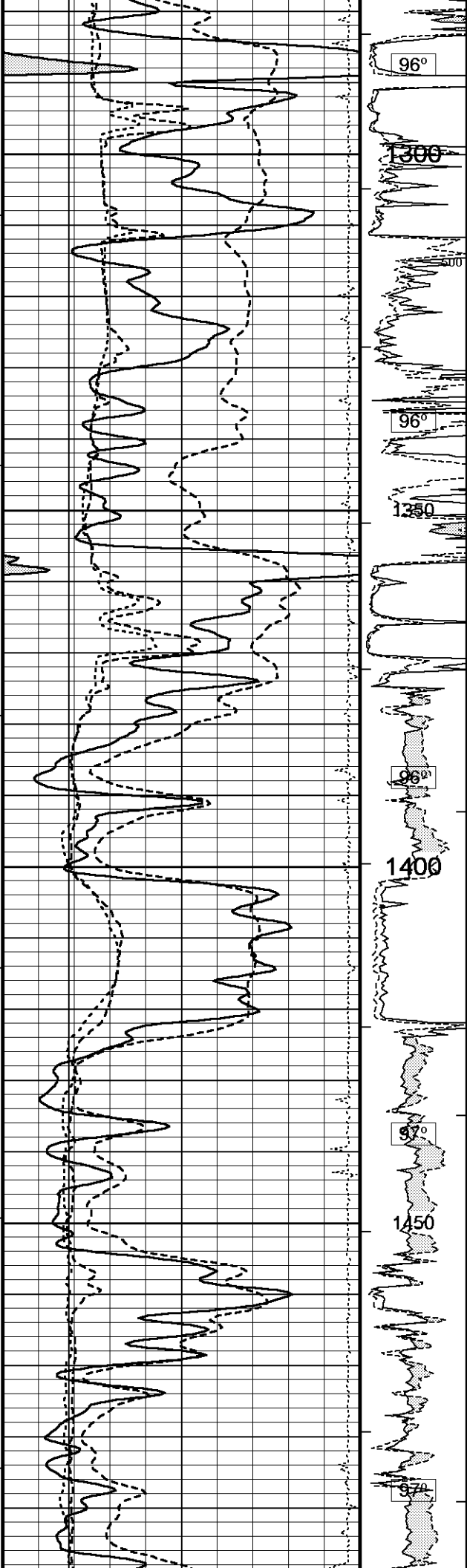


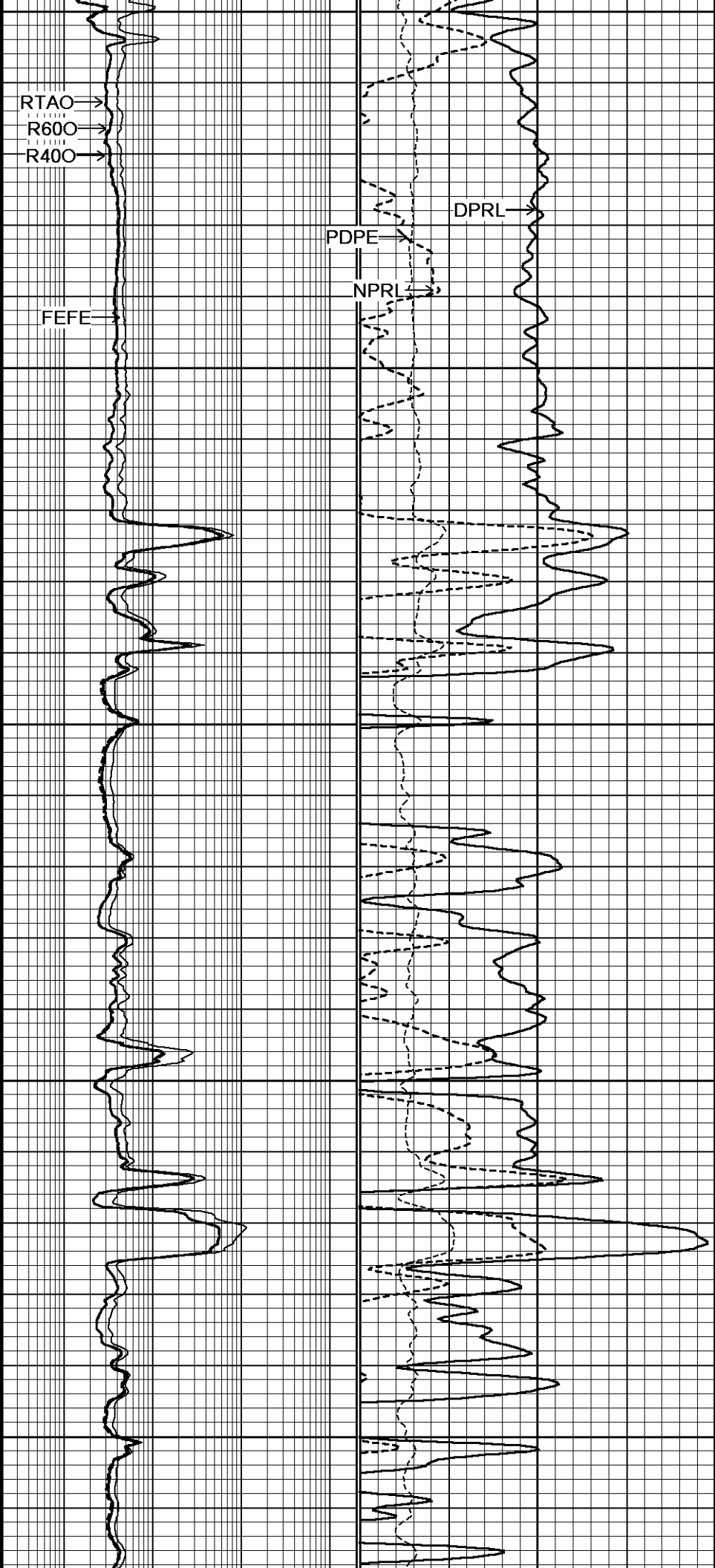
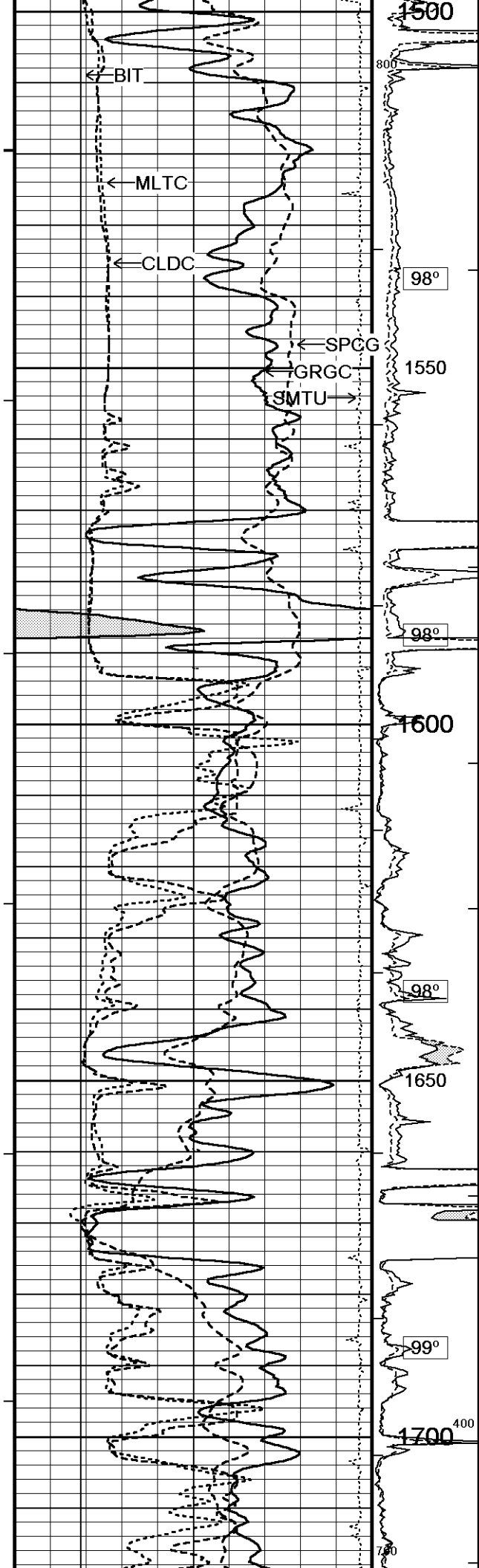


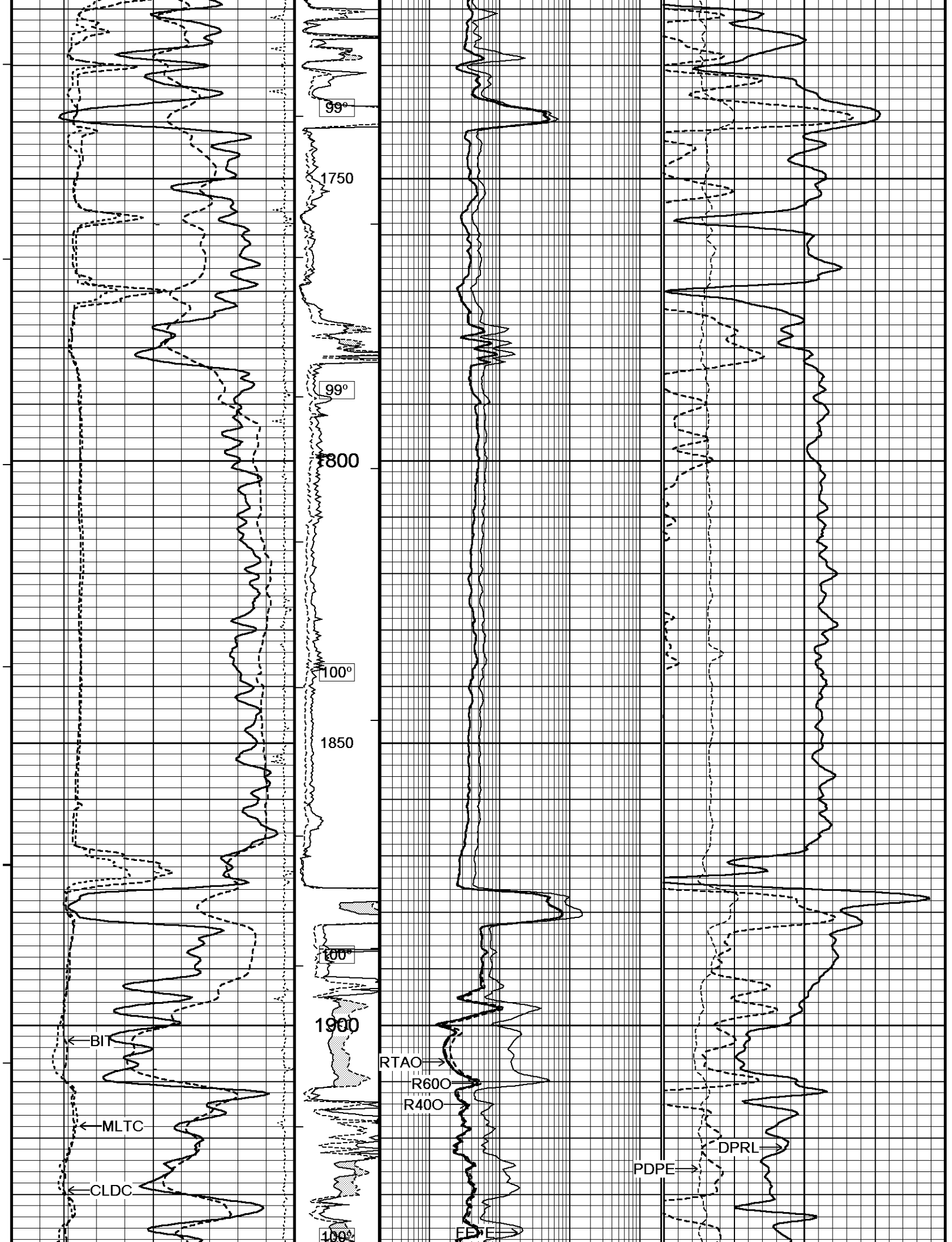




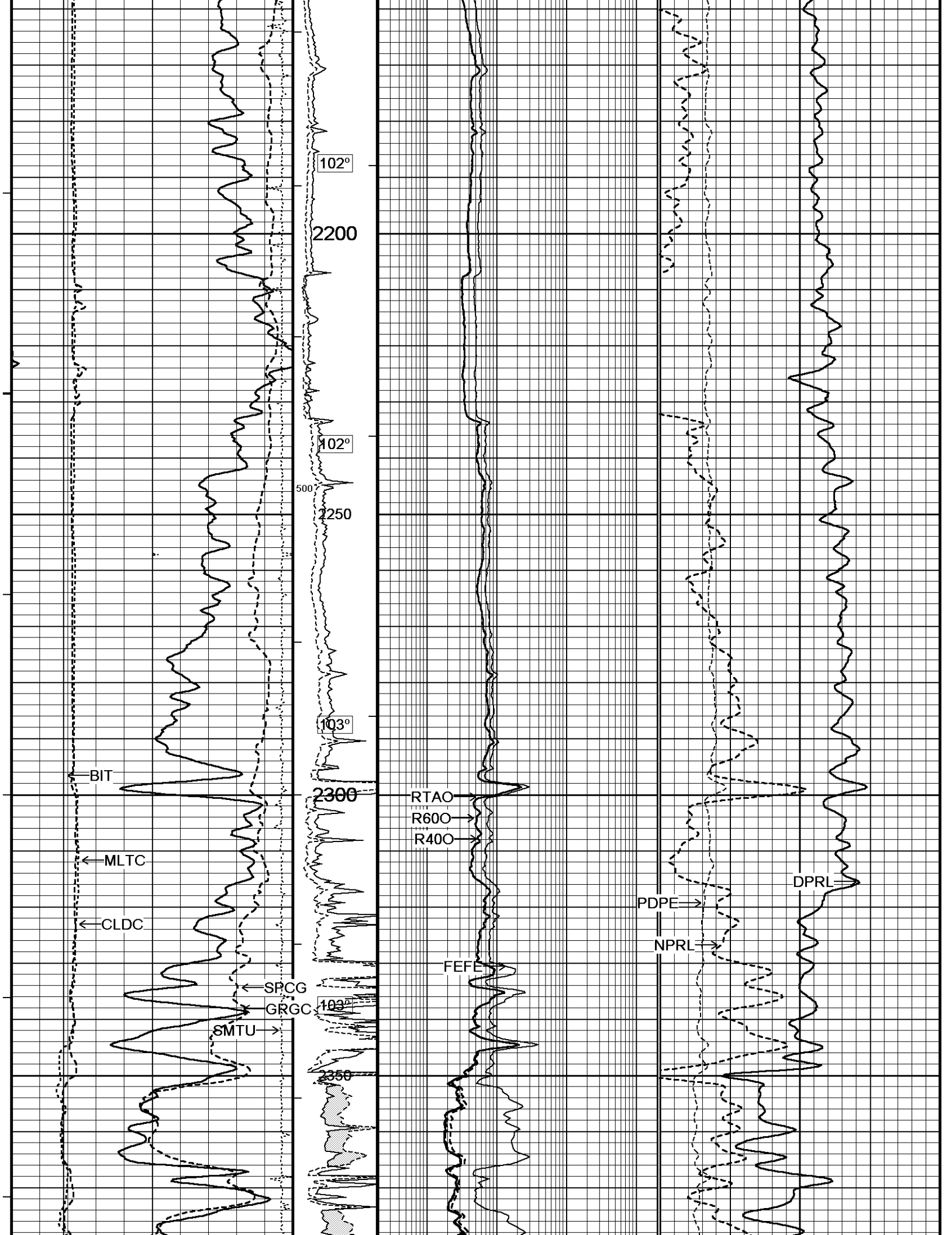


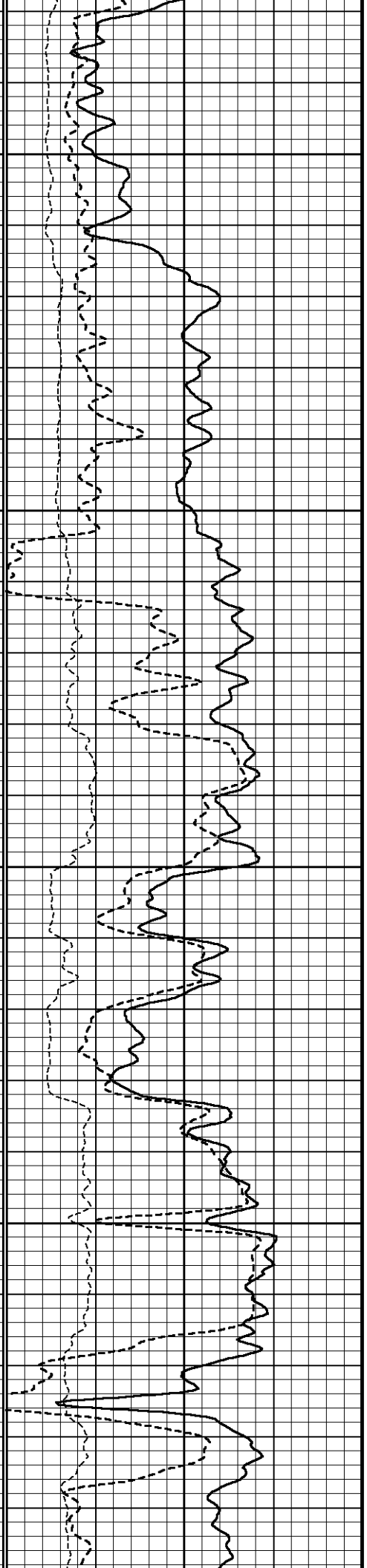
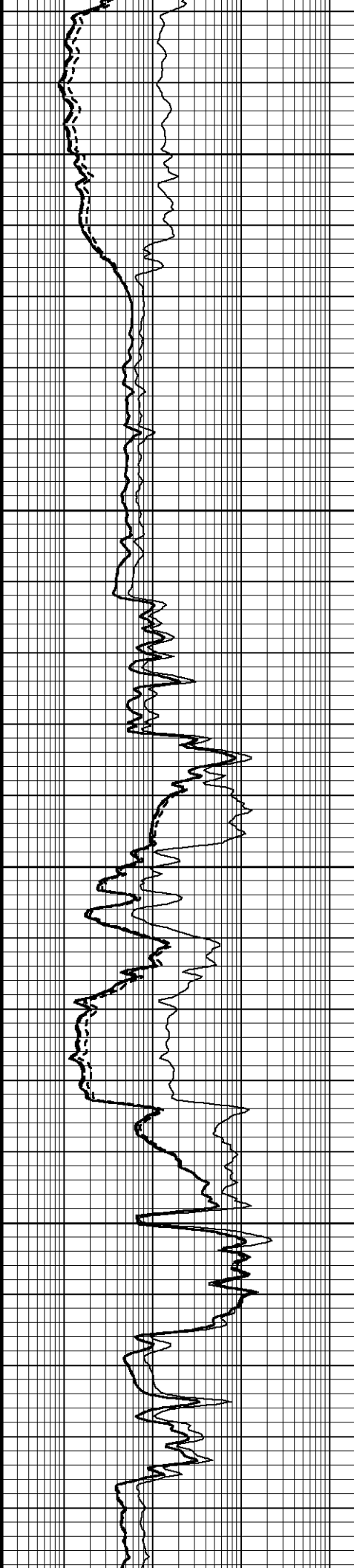
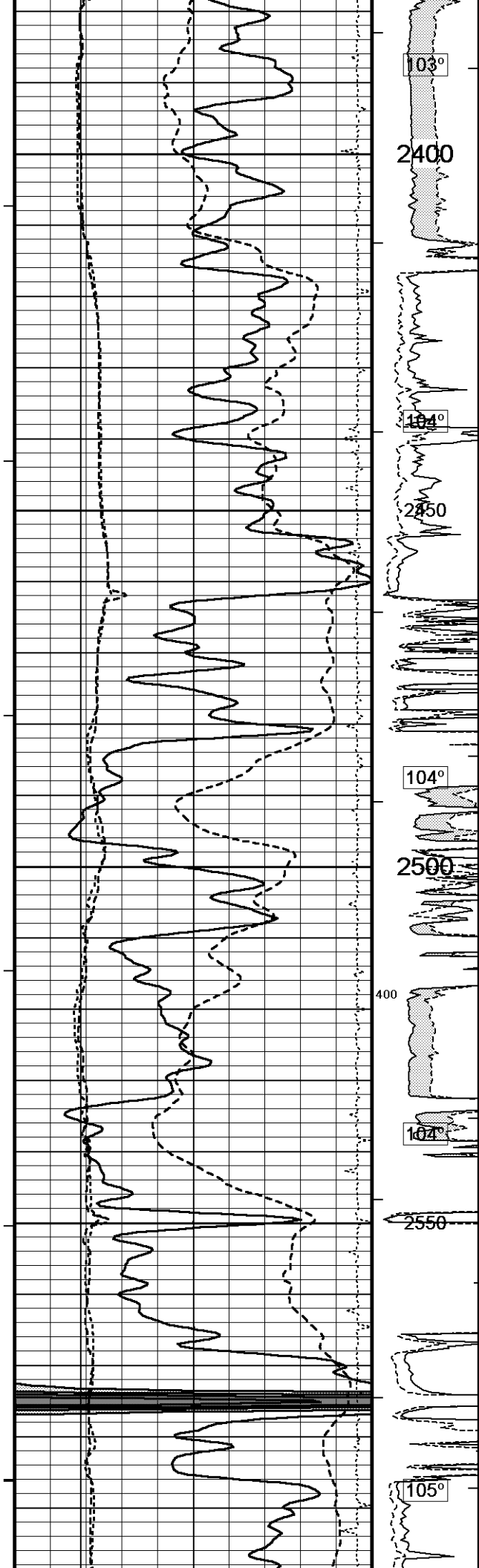


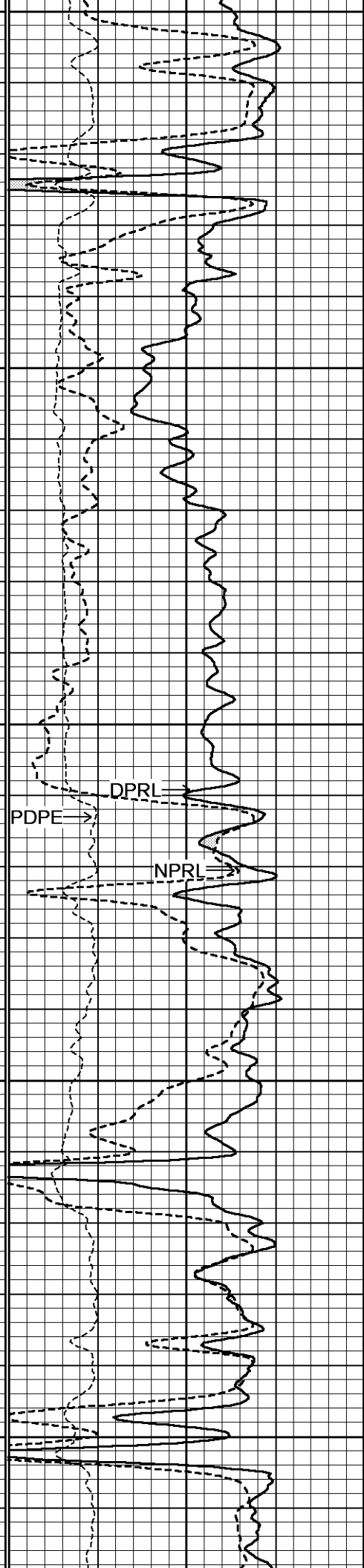
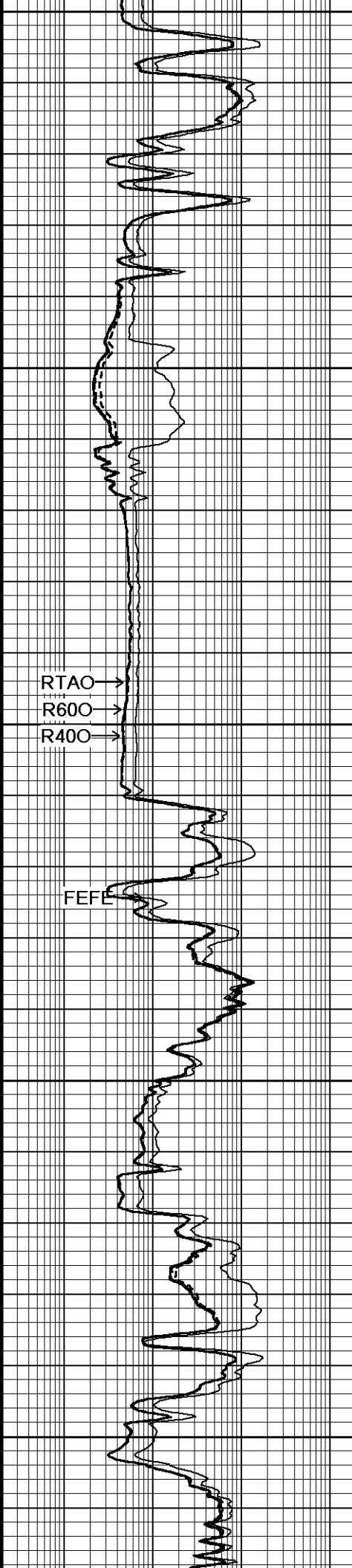
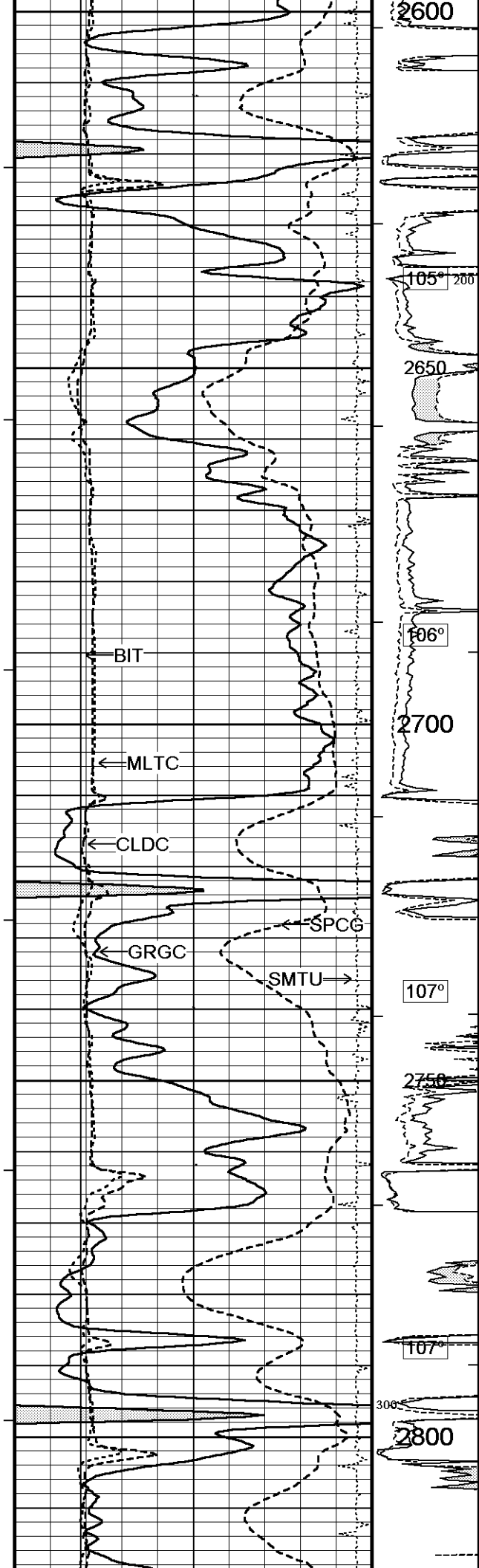


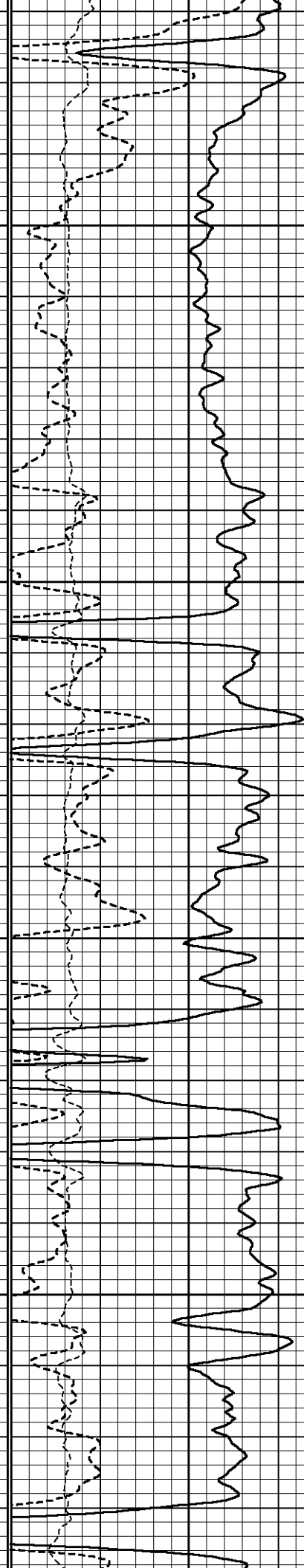
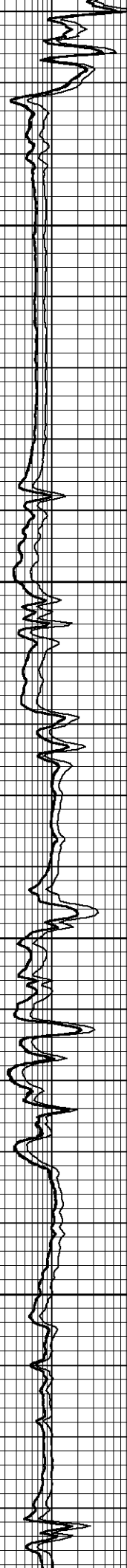
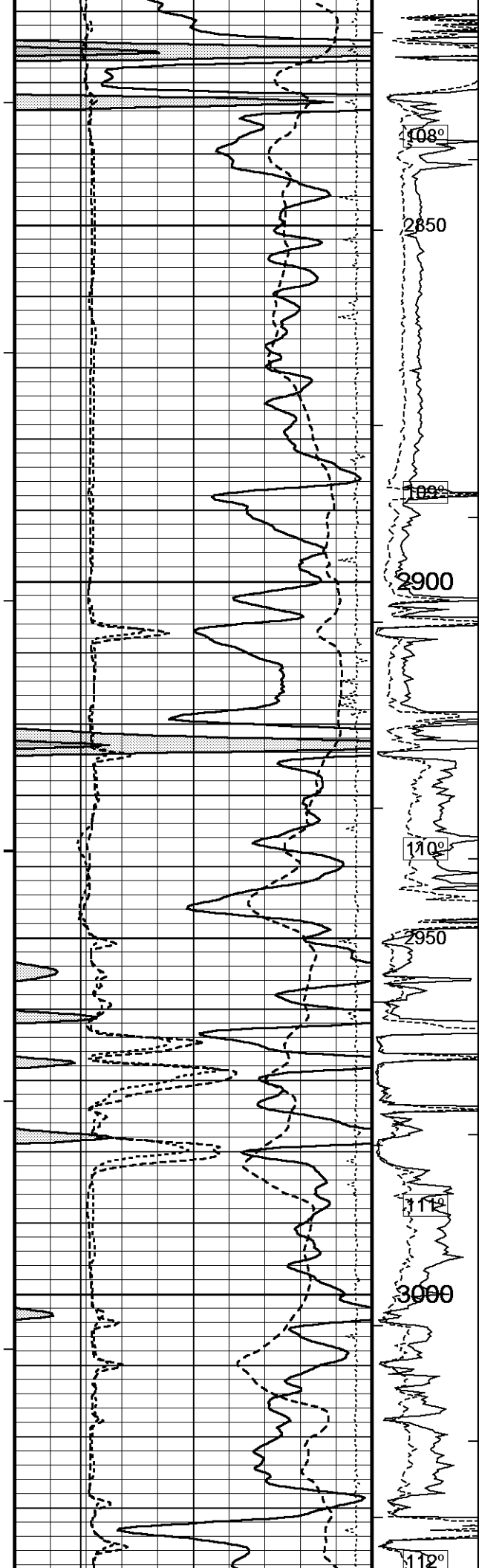


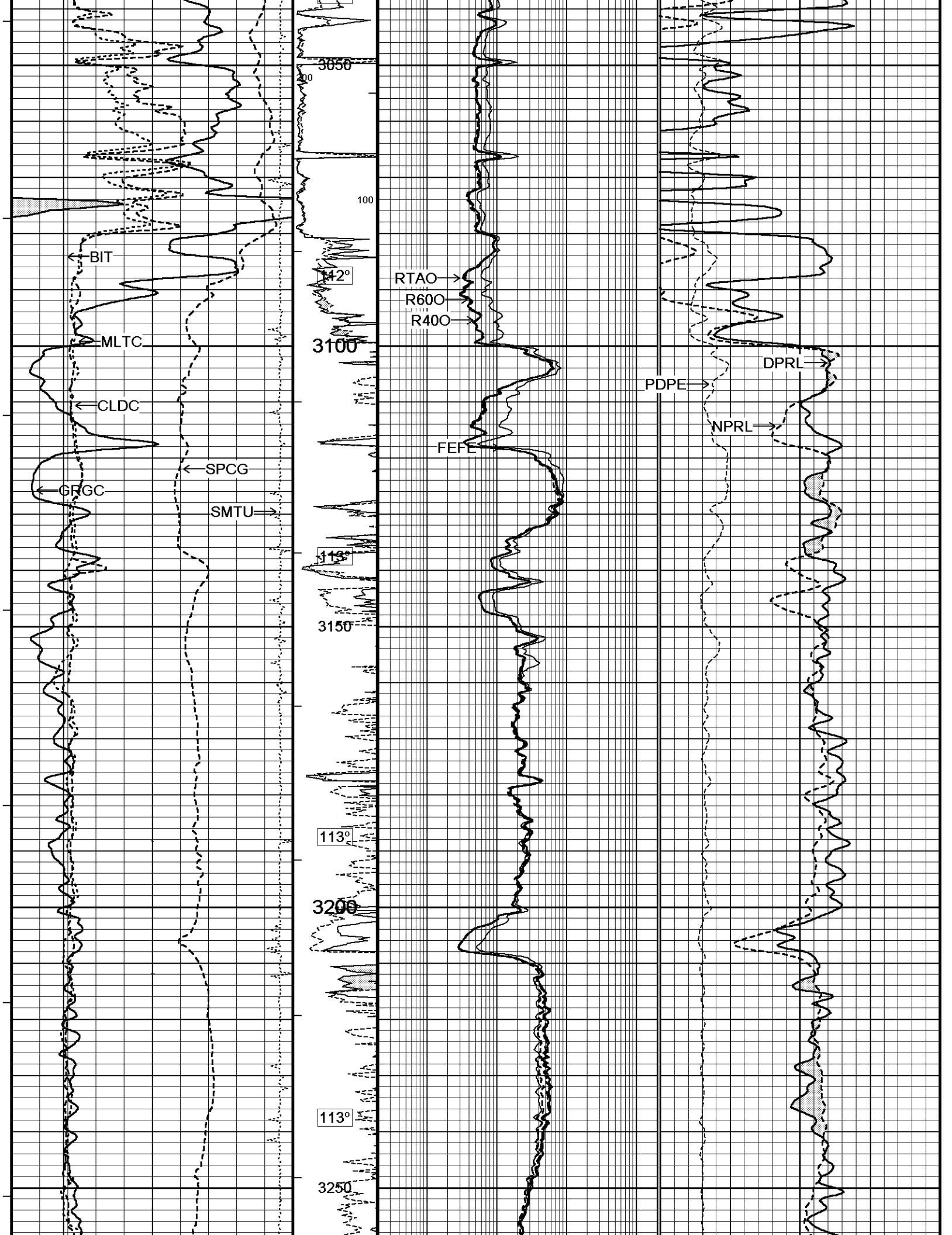


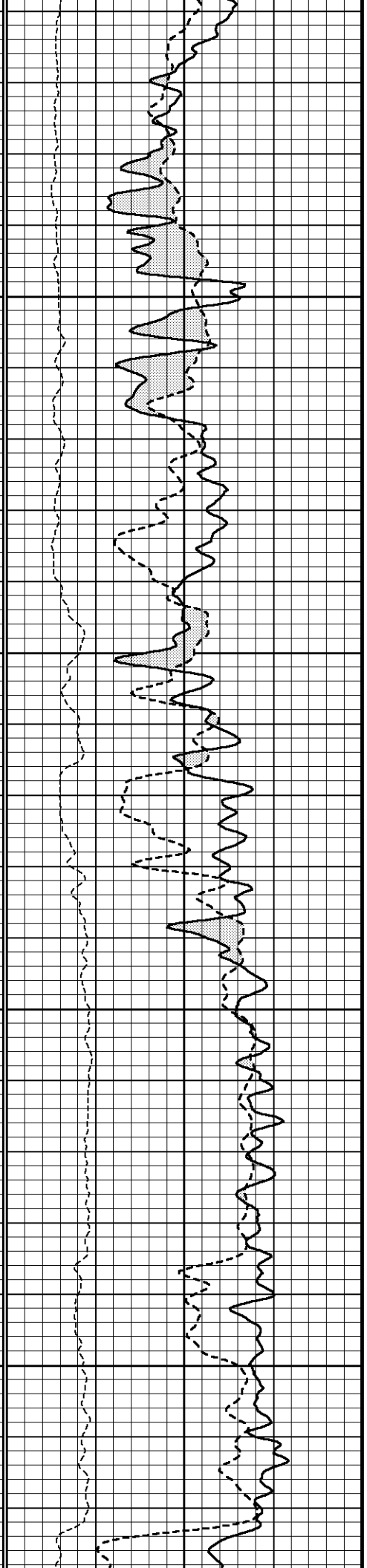
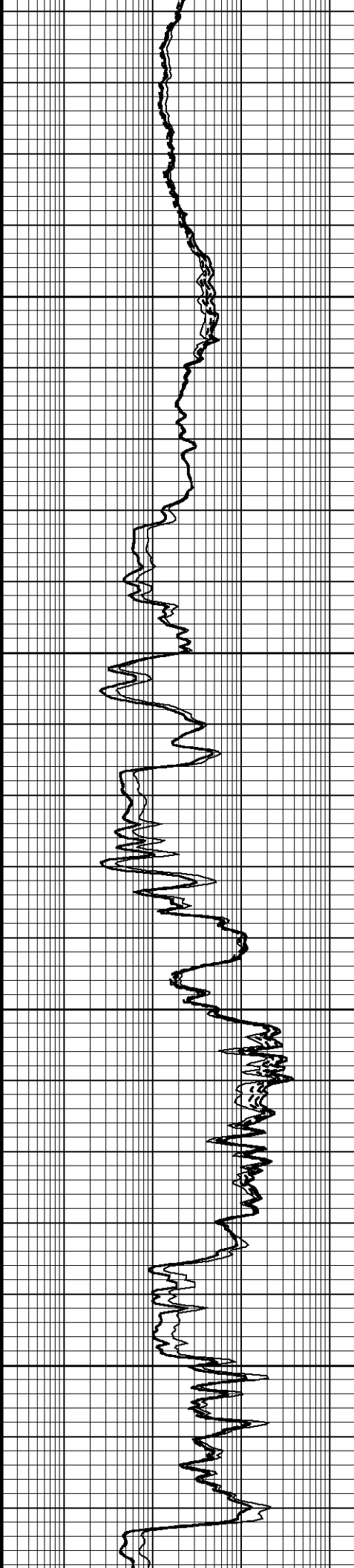
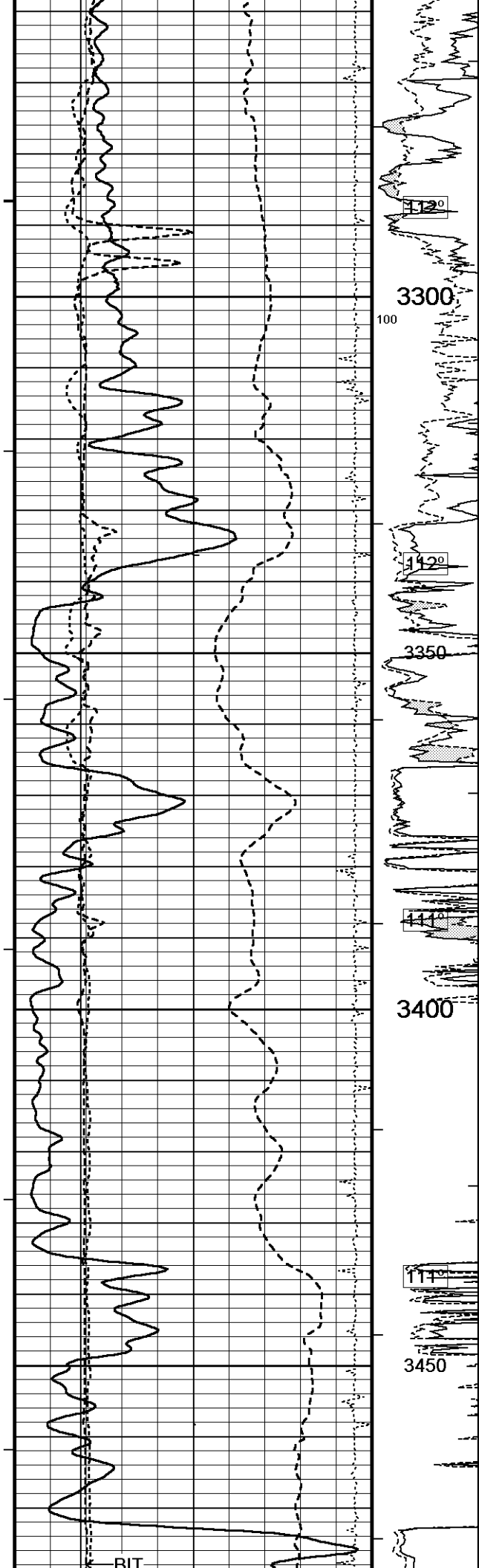


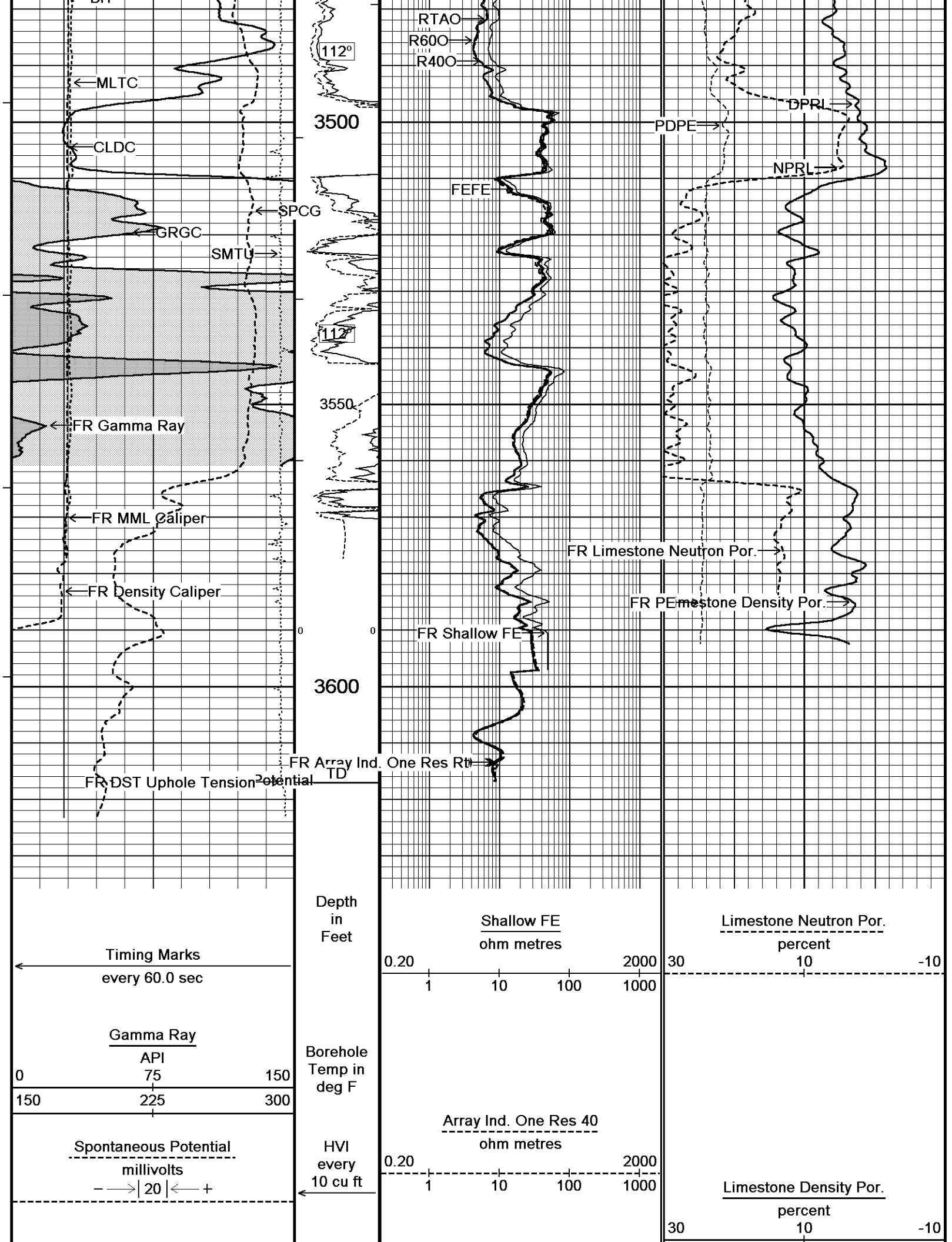


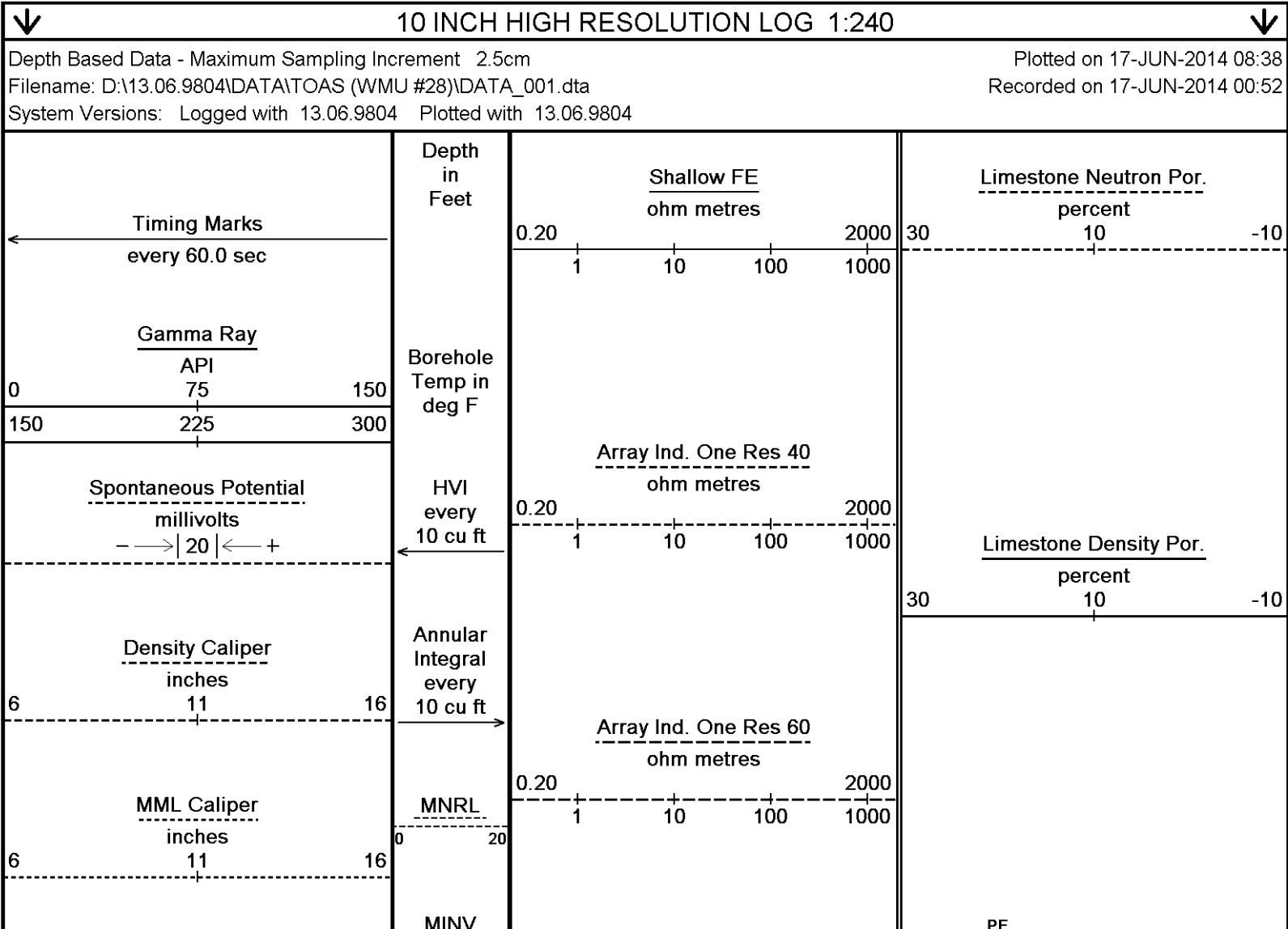
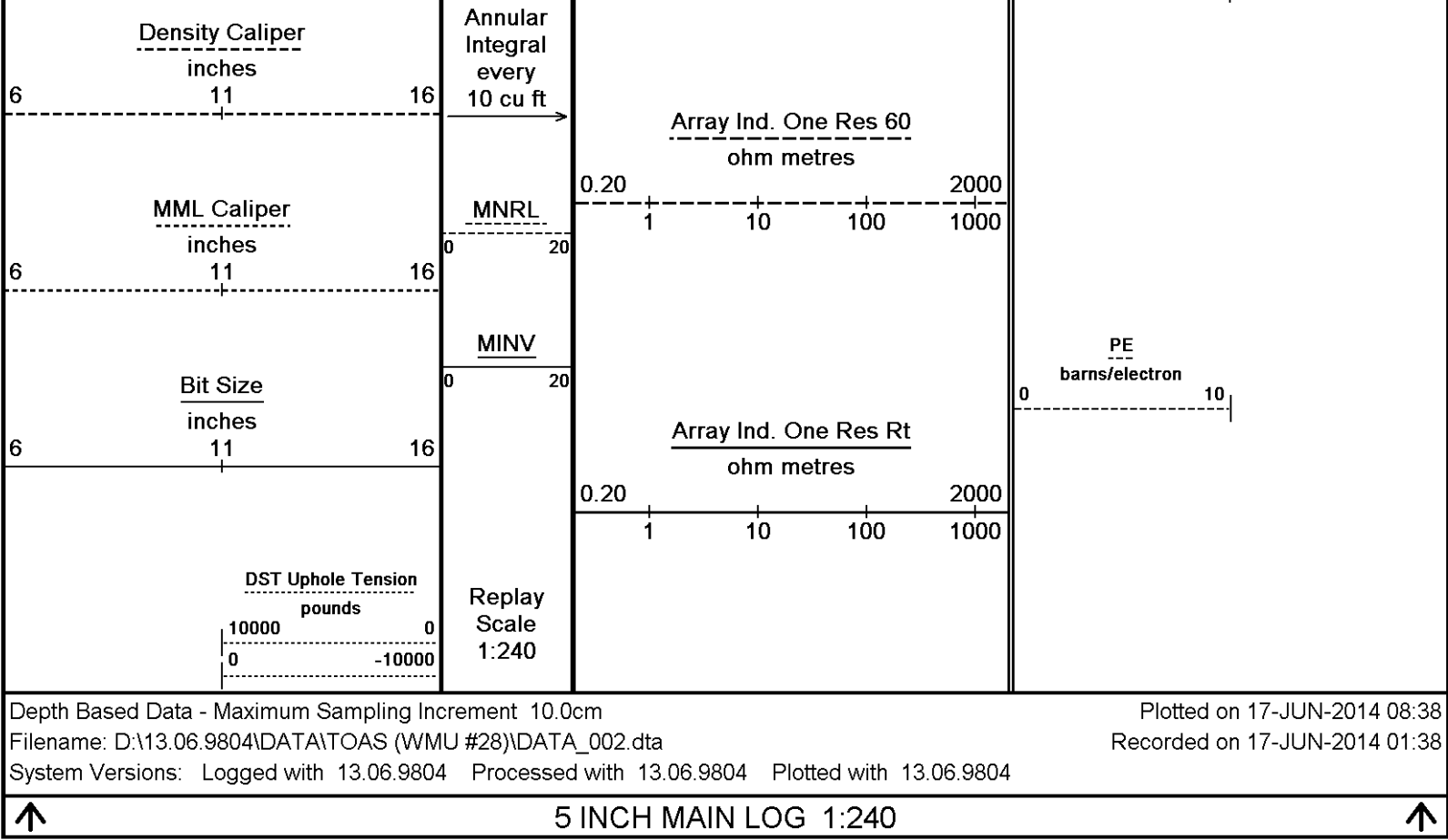












Bit Size
inches

6 11 16

DST Uphole Tension
pounds

10000 0
0 -10000

Replay
Scale
1:240

3100

3150

3200

3250

Array Ind. One Res Rt
ohm metres

0.20 1 10 100 1000 2000

barns/electron

0 10

CLDC

GRGC

SPOG

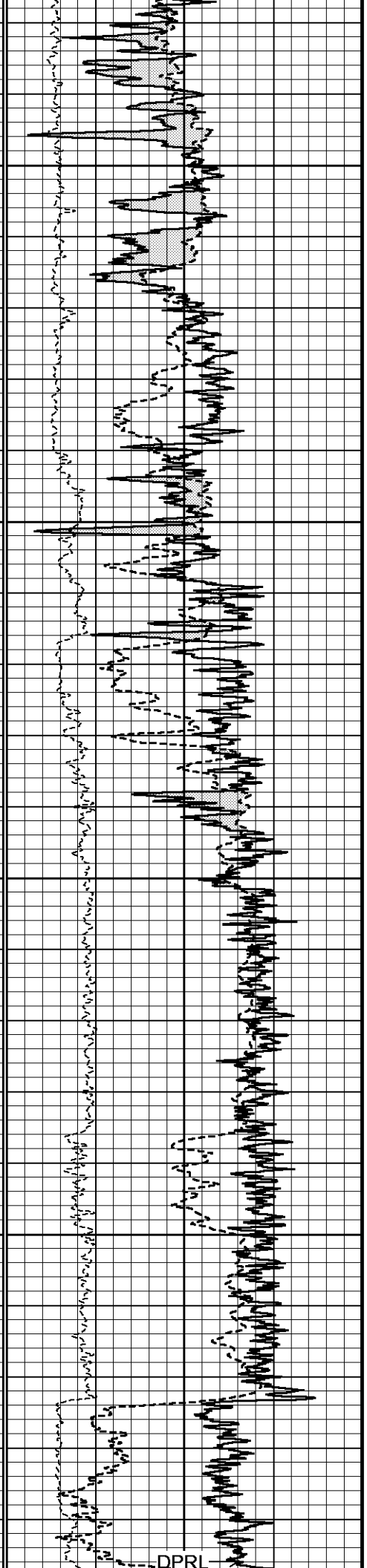
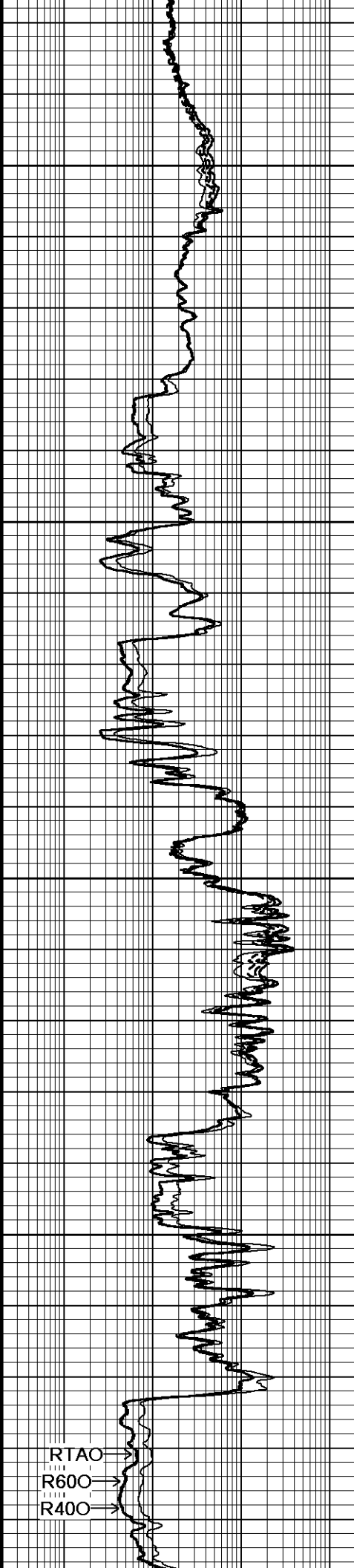
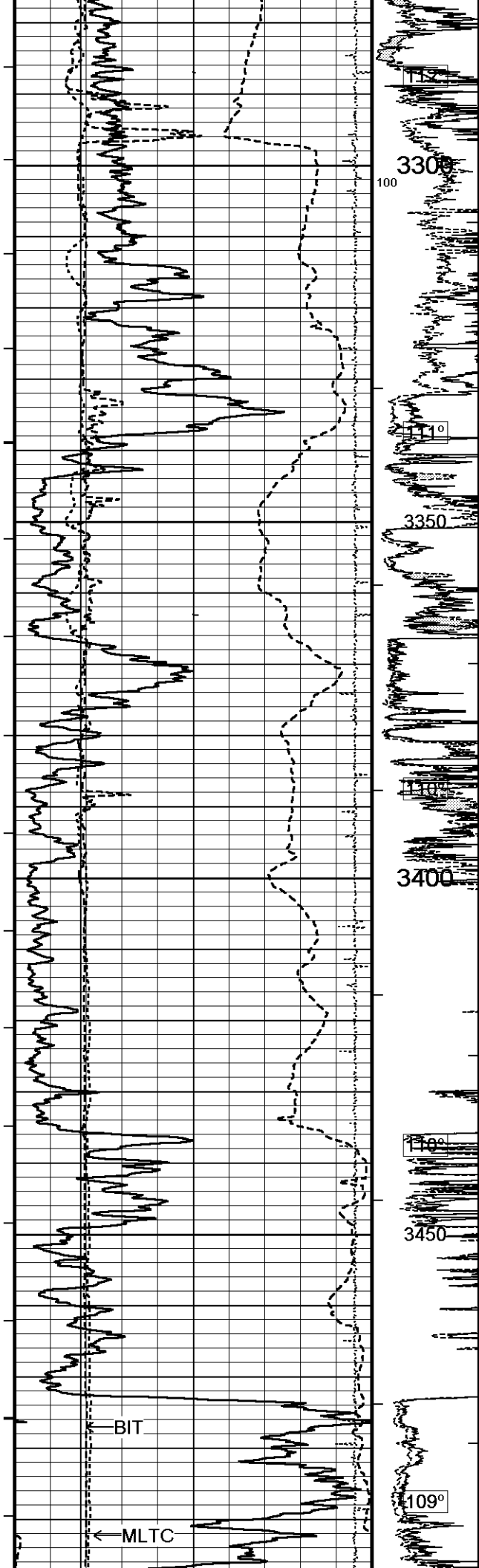
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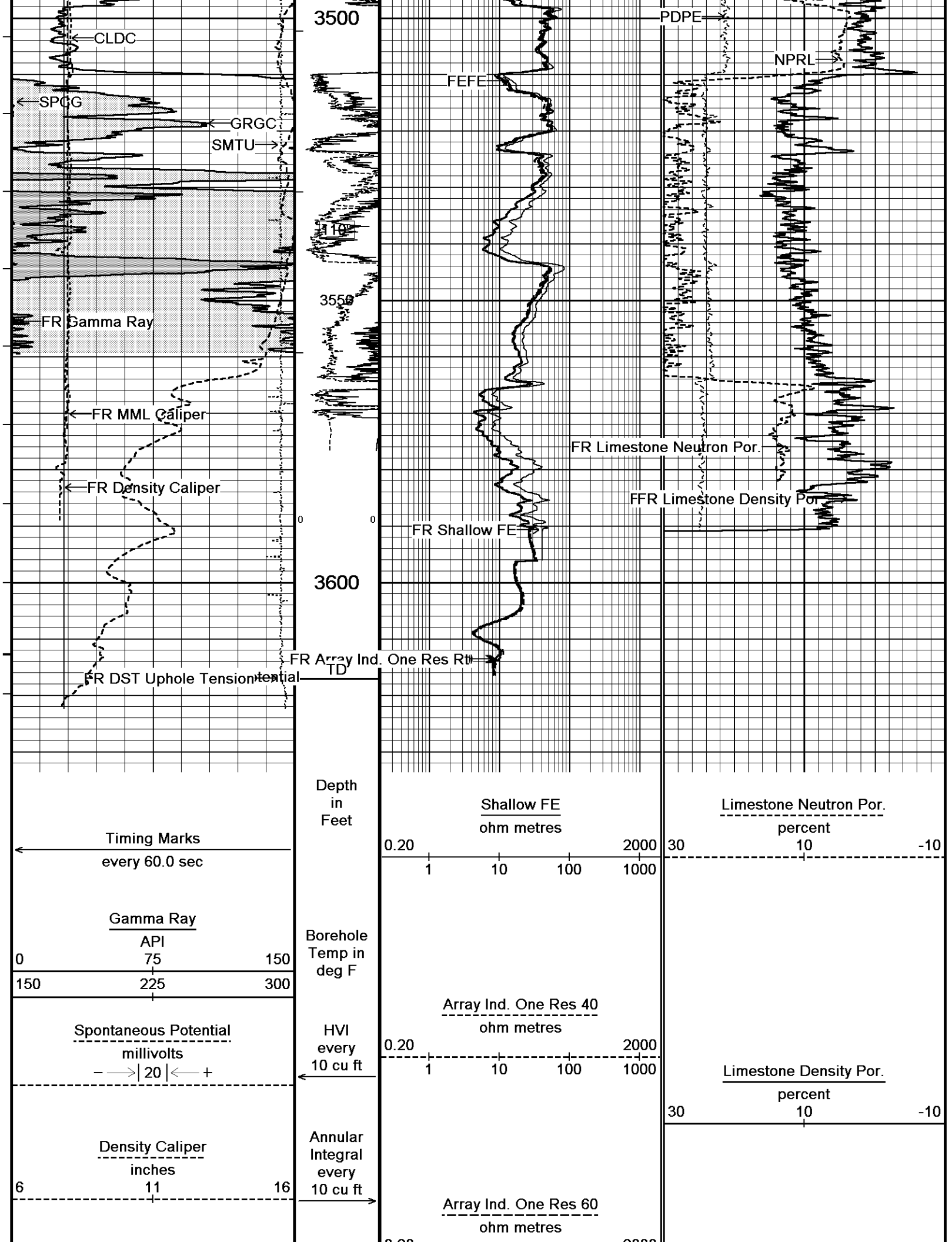
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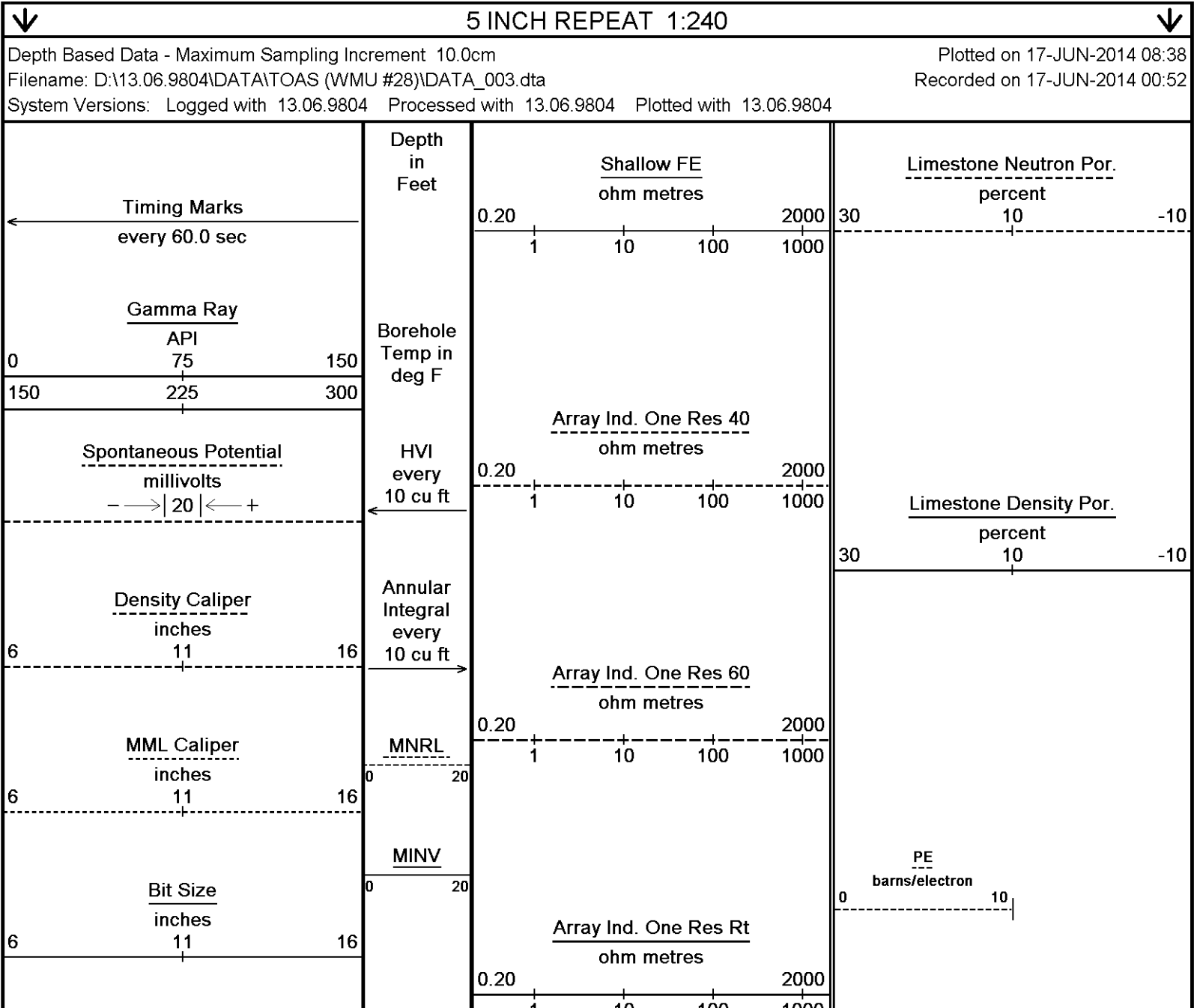
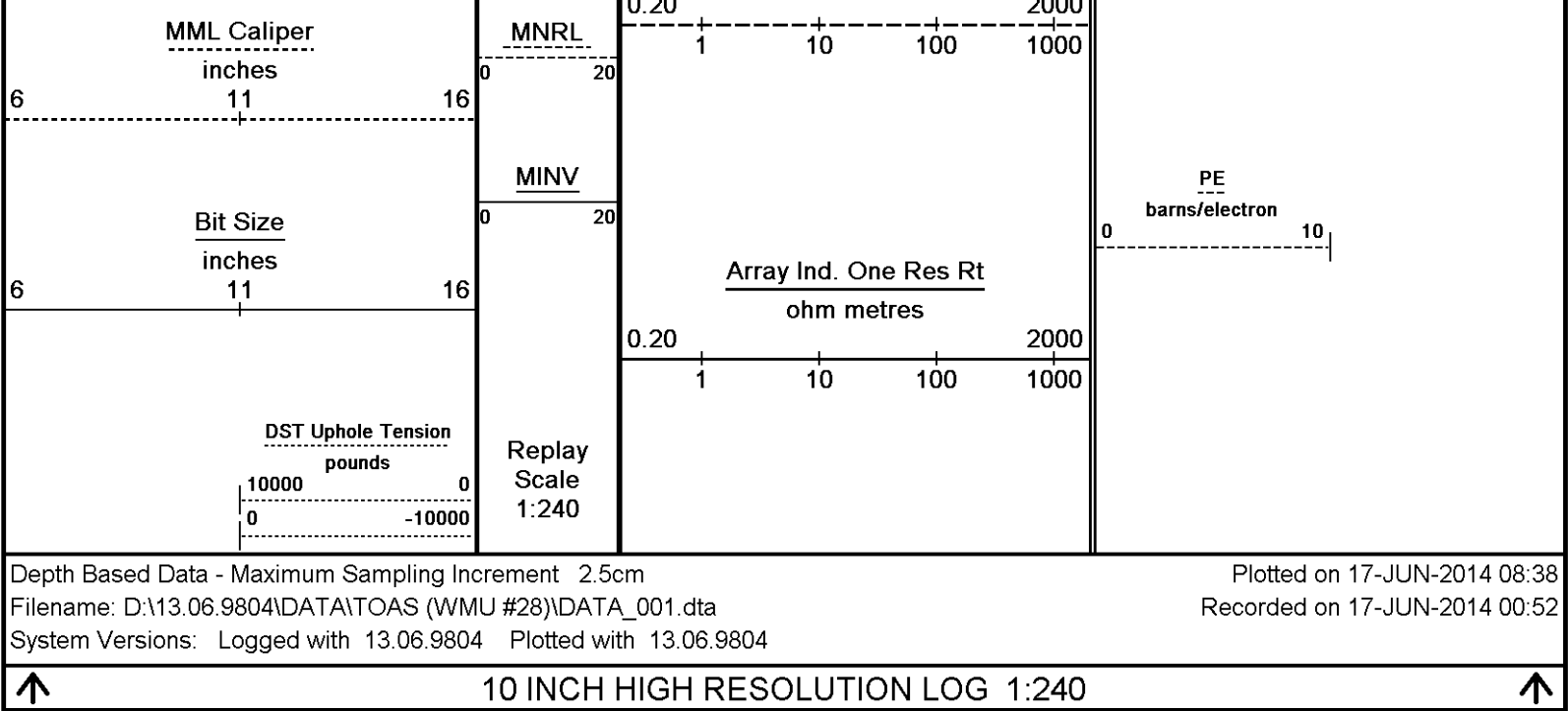
PDPE

DPRL

NPRL

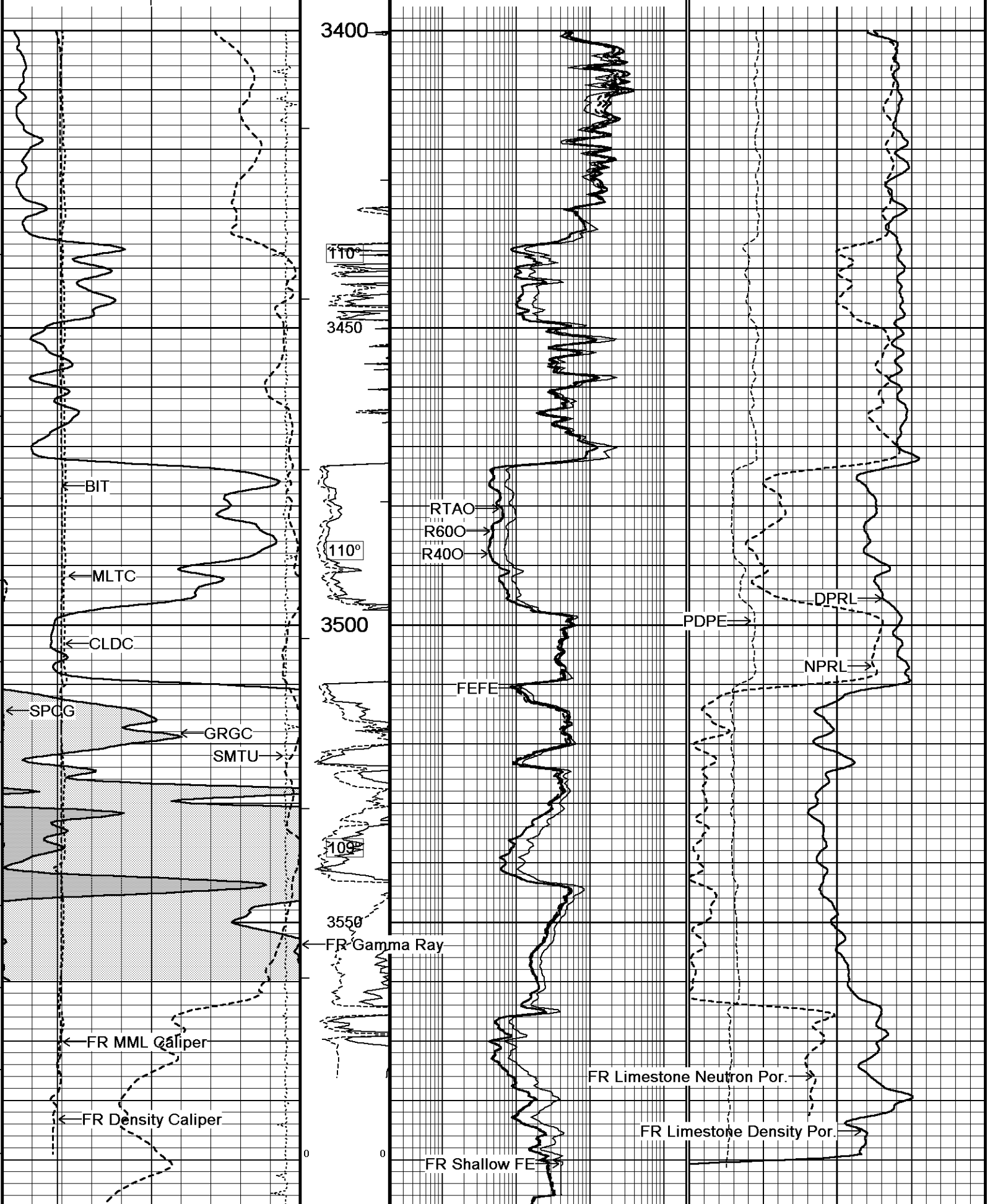


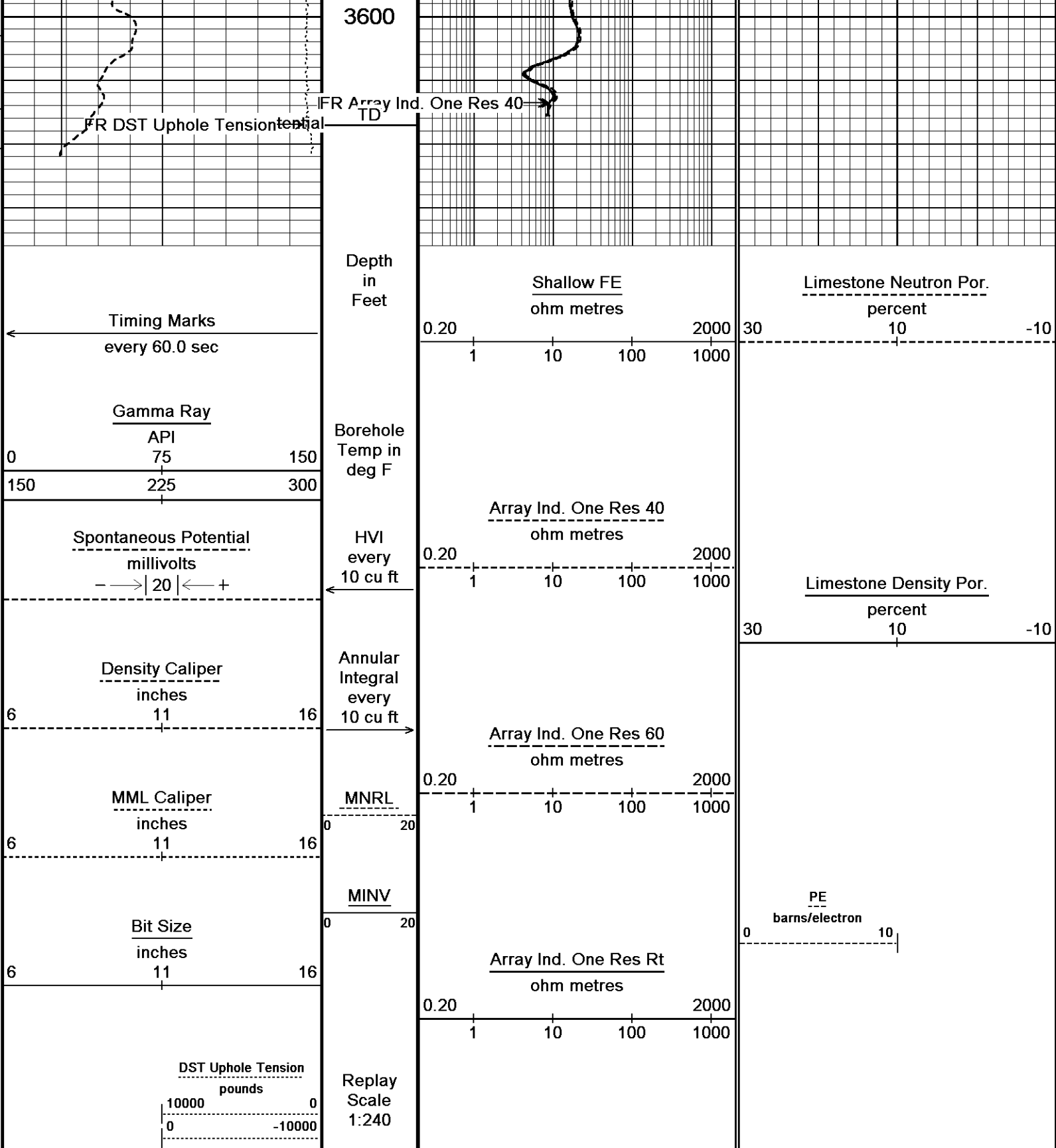




DST Uphole Tension
pounds
10000 0
0 -10000

Replay
Scale
1:240





Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 17-JUN-2014 08:38
Filename: D:\13.06.9804\DATA\TOAS (WMU #28)\DATA_003.dta Recorded on 17-JUN-2014 00:52
System Versions: Logged with 13.06.9804 Processed with 13.06.9804 Plotted with 13.06.9804

5 INCH REPEAT 1:240

BEFORE SURVEY CALIBRATION
D:\13.06.9804\DATA\TOAS (WMU #28)\DATA_001.dta
General Constants All 000
Last Edited on 17-JUN-2014,00:29

General Parameters				
Mud Resistivity	1.300	ohm-metres		
Mud Resistivity Temperature	79.000	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	0.610			
RWA Constant M	2.150			
SW/APOR Tool Source	0.000			
Down-hole Tension Calibration SMS 0		Field Calibration on 11-MAY-2014 05:04		
Reading No	Measured	Calibrated (lbs)		
1	14333.61	0.00		
2	14375.40	302.00		
High Resolution Temperature Calibration MCG-C 86		Field Calibration on 11-MAY-2014,00:51		
	Measured	Calibrated(Deg F)		
Lower	50.00	50.00		
Upper	100.00	100.00		
High Resolution Temperature Constants MCG-C 86		Last Edited on 11-MAY-2014,00:51		
Pre-filter Length	11			
SP Calibration MCG-C 86		Field Calibration on 11-MAY-2014,00:51		
	Measured	Calibrated (mV)		
Reference 1	100.0	100.0		
Reference 2	-100.0	-100.0		
Gamma Calibration MCG-C 86		Field Calibration on 16-JUN-2014 14:27		
	Measured	Calibrated (API)		
Background	37	25		
Calibrator (Gross)	1074	721		
Calibrator (Net)	1038	696		
Gamma Constants MCG-C 86		Last Edited on 16-JUN-2014,23:39		
Gamma Calibrator Number	36			
Mud Density	1.05	gm/cc		
Caliper Source for Processing	Density Caliper			
Tool Position	Eccentred			
Concentration of KCl		kppm		
K Mud Type	Chloride			
K Mud Concentration	0.00	%		
Micro Normal and Micro Inverse Calibration MML-A 7		Base Calibration on 10-JUN-2014 10:58 Field Check on 16-JUN-2014 14:09		
Base Calibration				
		Measured	Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	11.9	60.2	5.0	25.0
Micro Inverse	15.7	78.0	5.0	25.0
Channel	Base Check (ohm-m)		Field Check (ohm-m)	
Micro Normal	62.6		62.6	
Micro Inverse	48.5		48.5	
Micro Normal and Micro Inverse Constants MML-A 7		Last Edited on 16-JUN-2014,14:07		
Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159			

Micro Normal K Factor	1.0000	
Micro Inverse K Factor	1.0000	
Standoff Offset	N/A	inches

Caliper Calibration MML-A 7			Base Calibration on 12-MAR-2014 14:05 Field Calibration on 26-APR-2014,10:33		
Base Calibration					
Reading No	Measured	Calibrator Size (in)			
1	14367	5.96			
2	17548	7.97			
3	20740	9.84			
4	24637	11.91			
5	0	0.00			
6	N/A	N/A			
Field Calibration					
	Measured Caliper (in)	Actual Caliper (in)			
	9.81	9.84			

Neutron Calibration MDN-C.A 460				Base Calibration on 12-MAY-2014 09:00	
				Field Check on 16-JUN-2014 14:38	
Base Calibration					
		Measured		Calibrated (cps)	
	Near	Far		Near	Far
	3014	93		3714	110
Ratio	32.513			33.764	
Field Calibrator at Base					
				Calibrated (cps)	
				2359	3502
Ratio				0.674	
Field Check					
				Calibrated (cps)	
				2350	3509
Ratio				0.679	

Neutron Constants MDN-C.A 460			Last Edited on 16-JUN-2014,14:27		
Neutron Source Id	P14043B				
Neutron Jig Number	N639				
Epithermal Neutron	No				
Caliper Source for Processing	Density Caliper				
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	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				

FE Calibration MFE-A.A 54			Base Calibration on 10-JUN-2014 11:11 Field Check on 16-JUN-2014 14:16		
Base Calibration					
	Measured	Calibrated (ohm-m)			
Reference 1	10.0	1.3			
Reference 2	967.0	126.8			
Base Check			282.6		
Field Check			282.7		

FE Constants MFE-A.A 54		Last Edited on 16-JUN-2014,14:15	
Running Mode	No Sleeve		
MFE K Factor	0.1268		
Caliper Source for FE correction	Density Caliper		

Caliper Value for FE correction	N/A	inches
Rm Source for FE correction	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Stand-off	0.5	inches

Sonic Constants MSS-C.K 336				Last Edited on	
Maximum Boundary Contrast	100.00	micro-sec/ft			
Fluid Transit Time	189.00	micro-sec/ft			
Limestone Transit Time	47.50	micro-sec/ft			
Sandstone Transit Time	55.50	micro-sec/ft			
Dolomite Transit Time	43.50	micro-sec/ft			
Sonic used for Porosities	3-5' Compensated				
Correction for Sonde Skew	Applied				
Cycle Stretch Algorithm	Applied				
MN3FT	0.00	micro-sec			
MX3FT	1500.00	micro-sec			
Hunt-Raymer Constant	83.13	micro-sec/ft			
Sonde Mode	Compensated				
Hole Type	Open Hole				
Sonde Parameters					
	Measured	Calibrated			
Offset	0.0000	0.0000			
Free Pipe	0.0000				
Peak Amplitude Source					
Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'	N/A	N/A	N/A	N/A	N/A
4'	N/A	N/A	N/A	N/A	N/A
5'	N/A	N/A	N/A	N/A	N/A
6'	N/A	N/A	N/A	N/A	N/A
Processed Fixed Gate Parameters					
Waveform Used For Processing	N/A				
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (m)		
0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00		
Full Waveform Parameters					
Use 3' Waveform to derive TR	No				
Use 4' Waveform to derive TR	No				
Use 5' Waveform to derive TR	No				
Use 6' Waveform to derive TR	No				
3' Waveform Discriminator Level	0.30	mV			
4' Waveform Discriminator Level	0.30	mV			
5' Waveform Discriminator Level	0.15	mV			
6' Waveform Discriminator Level	0.15	mV			
3' Waveform Filter					
4' Waveform Filter					
5' Waveform Filter					
6' Waveform Filter					
Semblance Level	0.50				
Semblance Window Width	120.00	micro-sec			
Sonic 1 Despiker	100.00	micro-sec/ft			
Sonic 2 Despiker	100.00	micro-sec/ft			

High Resolution Temperature Calibration MAI-A.A 102			Field Calibration on 09-APR-2014,22:06	
	Measured	Calibrated(Deg F)		
Lower	50.00	50.00		
Upper	100.00	100.00		

High Resolution Temperature Constants MAI-A.A 102	Last Edited on 09-APR-2014,22:16
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Induction Calibration MAI-A.A 102

Base Calibration on 18-MAR-2014,09:37

Field Check on 16-JUN-2014 14:19

Base Calibration

Test Loop Calibration

Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	18.0	481.9	9.3	966.2
2	6.6	378.8	7.6	821.4
3	4.0	256.0	5.2	566.0
4	3.8	134.5	2.6	279.2

Array Temperature 86.5 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1			12.1	3809.4
2			29.7	3603.4
3			28.1	3131.2
4			15.9	2100.1
Deep			14.3	2018.8
Medium			44.5	4177.3
Shallow			48.1	5349.0

Array Temperature 86.1 Deg F

Induction Constants MAI-A.A 102

Last Edited on 16-JUN-2014,14:17

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	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.	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	

Caliper Calibration MPD-A.A 11

Base Calibration on 21-APR-2014 10:42

Field Calibration on 11-MAY-2014 00:45

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	19600	3.98
2	29656	5.98

3	39776	7.97
4	49377	9.84
5	60416	11.91
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.89	7.97

Photo Density Calibration MPD-A.A 11

Base Calibration on 10-JUN-2014 13:23
Field Check on 16-JUN-2014 14:14

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	47359	25094	59869	31110
Reference 2	19901	2434	24557	2522

Field Check at Base

1153.8 1238.7

Field Check

1150.9 1239.8

PE Calibration

Base Calibration	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	209	1032		
Reference 1	17546	47184	0.376	0.369
Reference 2	5290	19769	0.271	0.271

Field Check at Base

209.1 1032.2

Field Check

208.8 1028.1

Density Constants MPD-A.A 11

Last Edited on 16-JUN-2014,23:39

Density Source Id	263
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	1.05 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

Spectral Gamma Calibration SGS-E.J 171

Base Calibration on 06-JUN-2013 15:09
Field Calibration on 26-APR-2014,10:33

Base Calibration

Potassium Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	376.5	33.7	3.4	2.0	3.5
Calibrator (Gross)	210.0	120.1	14.0	1.0	1.7
Calibrator (Net)	-166.5	86.4	10.6	-1.0	-1.8

K % U ppm Th ppm

Concentrations	K %	5.8	U ppm	0.0	Th ppm	0.0
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Uranium Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	376.5	33.7	3.4	2.0	3.5
Calibrator (Gross)	535.3	182.8	16.2	6.0	4.0
Calibrator (Net)	158.8	149.1	12.8	4.0	0.4

Concentrations	K %	0.0	U ppm	14.8	Th ppm	0.0
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Thorium Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	376.5	33.7	3.4	2.0	3.5
Calibrator (Gross)	401.9	137.9	10.7	7.0	13.8
Calibrator (Net)	25.4	104.2	7.4	5.1	10.3

Concentrations	K %	0.0	U ppm	0.0	Th ppm	44.3
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Mixture Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	376.5	33.7	3.4	2.0	3.5
Calibrator (Gross)	957.5	376.2	36.2	11.7	15.4
Calibrator (Net)	581.0	342.5	32.8	9.7	11.9

Field Calibration

Gamma Ray

	Measured	Calibrated (API)
Background	426	109
Calibrator (Gross)	1402	359
Calibrator (Net)	976	250

Mixture Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	376.5	33.7	3.4	2.0	3.5
Calibrator (Gross)	957.5	376.2	36.2	11.7	15.4
Calibrator (Net)	581.0	342.5	32.8	9.7	11.9

Spectral Gamma Constants SGS-E.J 171

Last Edited on 16-JUN-2014,23:39

Background Calibrator Number	496	
Mixture Calibrator Number	525	
Potassium Calibrator Number	499	
Uranium Calibrator Number	505	
Thorium Calibrator Number	502	
Mud Density	1.05	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

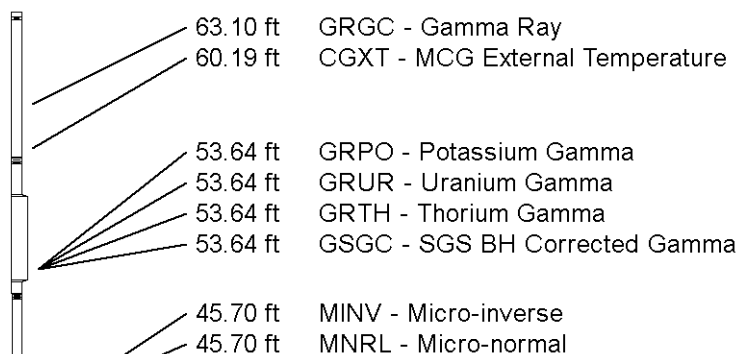
DOWNHOLE EQUIPMENT

D:\13.06.9804\DATA\TOAS (WMU #28)\DATA_001.dta

Compact Comms Gamma
MCG-C 86 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Spectral Gamma Ray Sub
SGS-E.J 171 LG: 7.78 ft WT: 105.8 lb OD: 3.54 in

Compact Micro-log
MML-A 7 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in



Compact Neutron
MDN-C.A 460 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

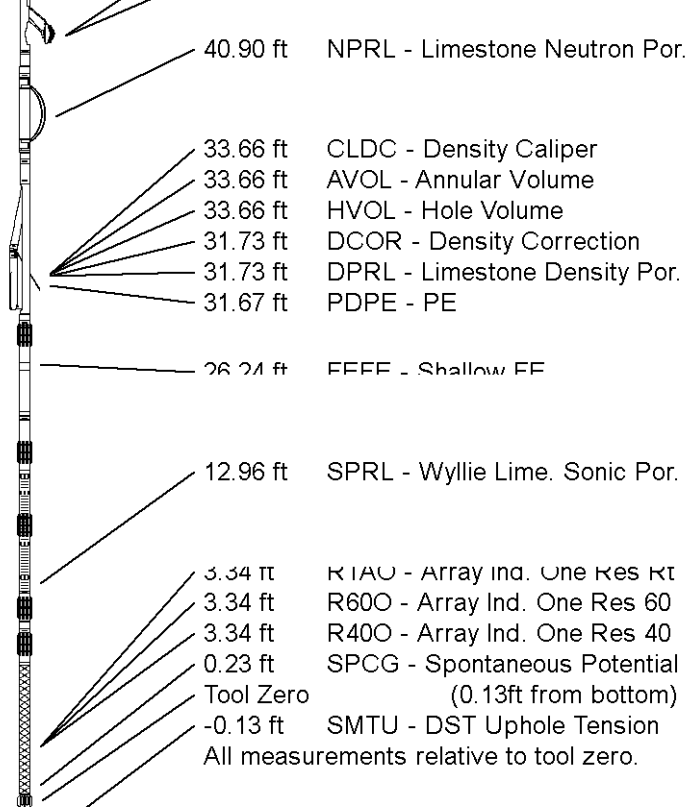
Compact Density/Caliper
MPD-A.A 11 LG: 9.53 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-A.A 54 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic
MSS-C.K 336 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction
MAI-A.A 102 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 68.39 ft Weight: 562.2 lb



COMPANY	TAOS RESOURCES OPERATING COMPANY
WELL	WMU #29
FIELD	MADDIX NORTH
PROVINCE/COUNTY	COWLEY
COUNTRY/STATE	U.S.A / KANSAS

Elevation Kelly Bushing	1304.00	feet	First Reading	3614.00	feet
Elevation Drill Floor	1303.00	feet	Depth Driller	3623.00	feet
Elevation Ground Level	1294.00	feet	Depth Logger	3617.00	feet



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COMPOSITE LOG