

**Weatherford****COMPOSITE
LOG**

COMPANY	TAOS RESOURCES OPERATING COMPANY		
WELL	LFJ#1		
FIELD	WEST MADDIX		
PROVINCE/COUNTY	COWLEY		
COUNTRY/STATE	U.S.A / KANSAS		
LOCATION	2235' FSL & 990' FEL S/2-NW-NE-SE		
SEC 34	TWP 32S	RGE 5E	Other Services
API Number	15-035-24590		
Permanent Datum GL, Elevation	1300 feet		
Log Measured From	KB		
Drilling Measured From	KB		
Date	19-JUN-2014		Elevations: KB 1310.00 DF 1309.00 GL 1300.00
Run Number	ONE		
Service Order	5820-93017915		
Depth Driller	3683.00	feet	
Depth Logger	3680.00	feet	
First Reading	3677.00	feet	
Last Reading	275.00	feet	
Casing Driller	265.00	feet	
Casing Logger	275.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	WBM		
Density / Viscosity	9.20 lb/USg	57.00 sec/qt	
PH / Fluid Loss	9.50	8.00 ml/30Min	
Sample Source	MUD TANK		
Rm @ Measured Temp	1.90 @ 89.0	ohm-m	
Rmf @ Measured Temp	1.52 @ 89.0	ohm-m	
Rmc @ Measured Temp	2.28 @ 89.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	1.48 @ 115.0	ohm-m	
Time Since Circulation	4 HOURS		
Max Recorded Temp	115.00	deg F	
Equipment / Base	13026	OKC	
Recorded By	L.HEATON		
Witnessed By	MARYAM NASIZADEH		
SALES	B. CONCHEWSKI		

BOREHOLE RECORD

Last Edited: 19-JUL-2014 22:48

Bit Size inches	Depth From feet	Depth To feet
7.875	264.00	3683.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	264.00	24.00

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 = 1430 CU.FT.
ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO SURFACE CASING = 880 CU.FT.

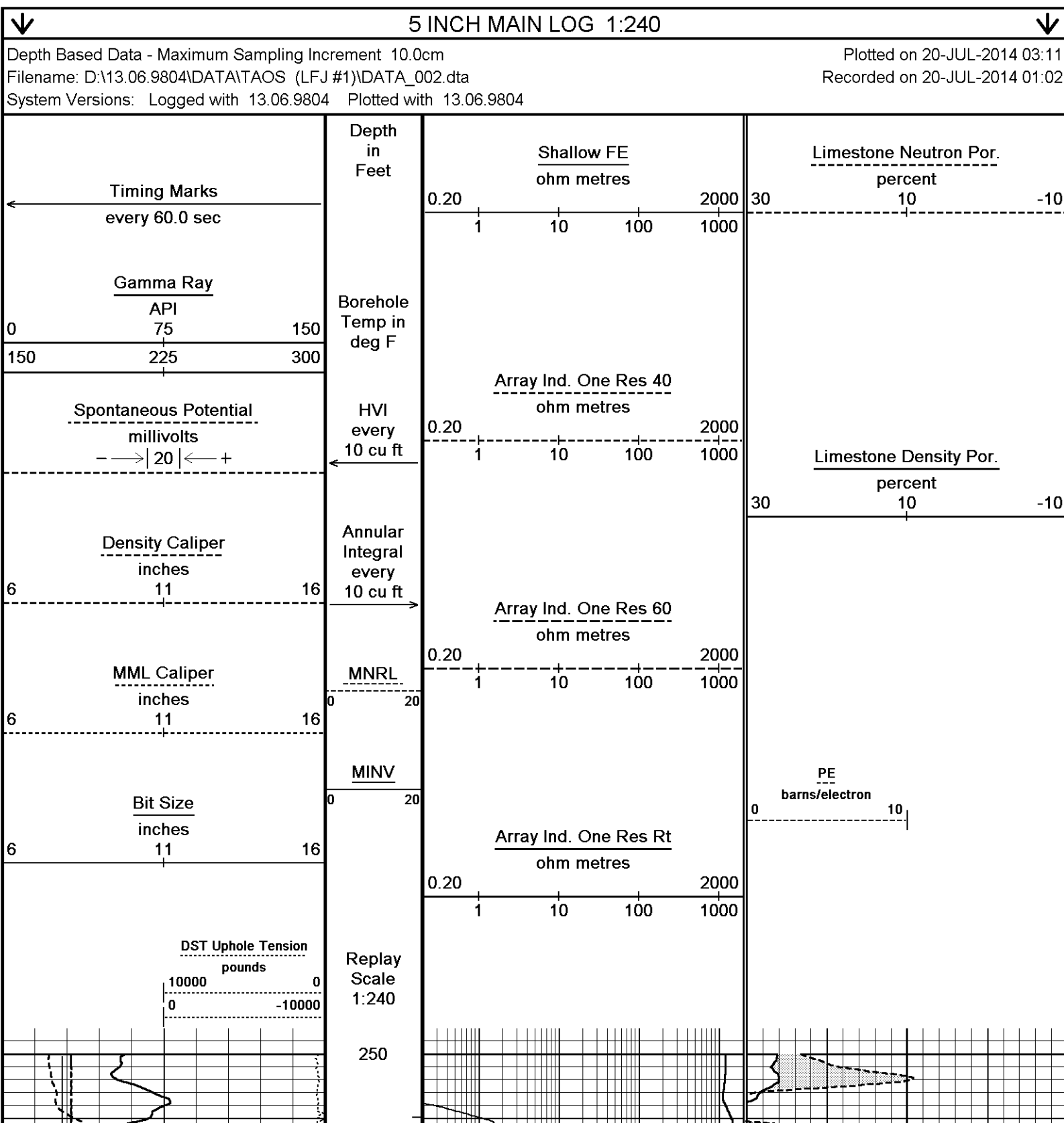
FIELD TICKET NUMBER:5820-93017915

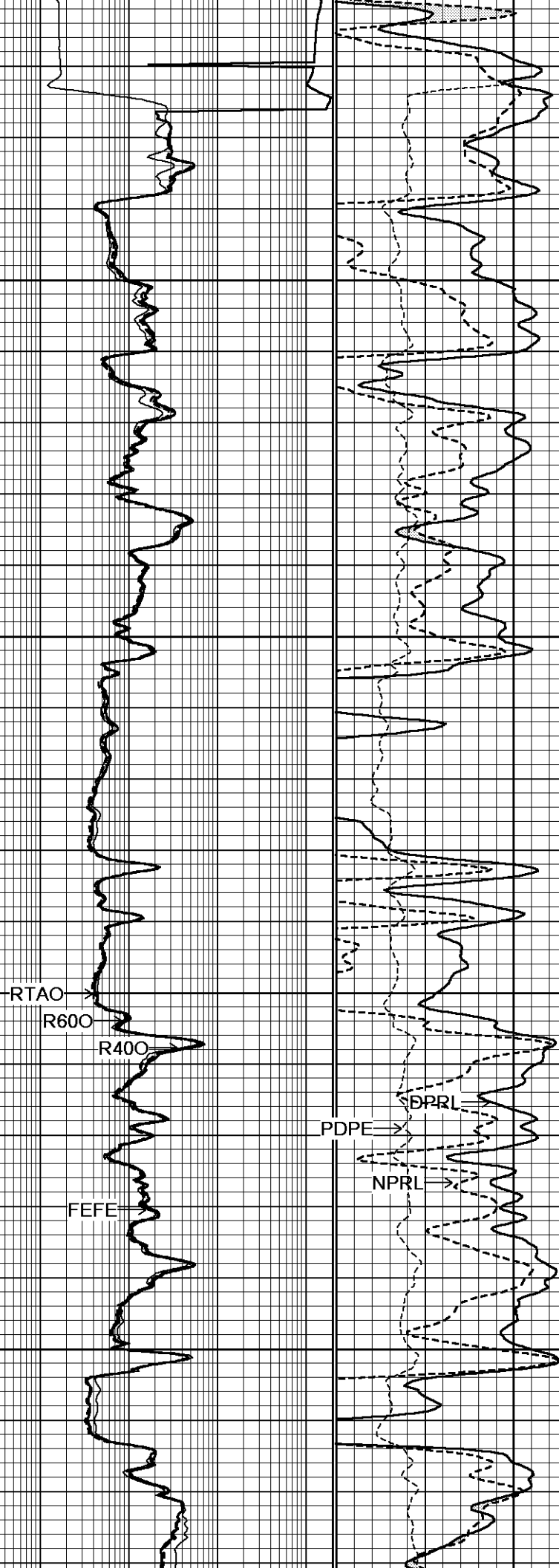
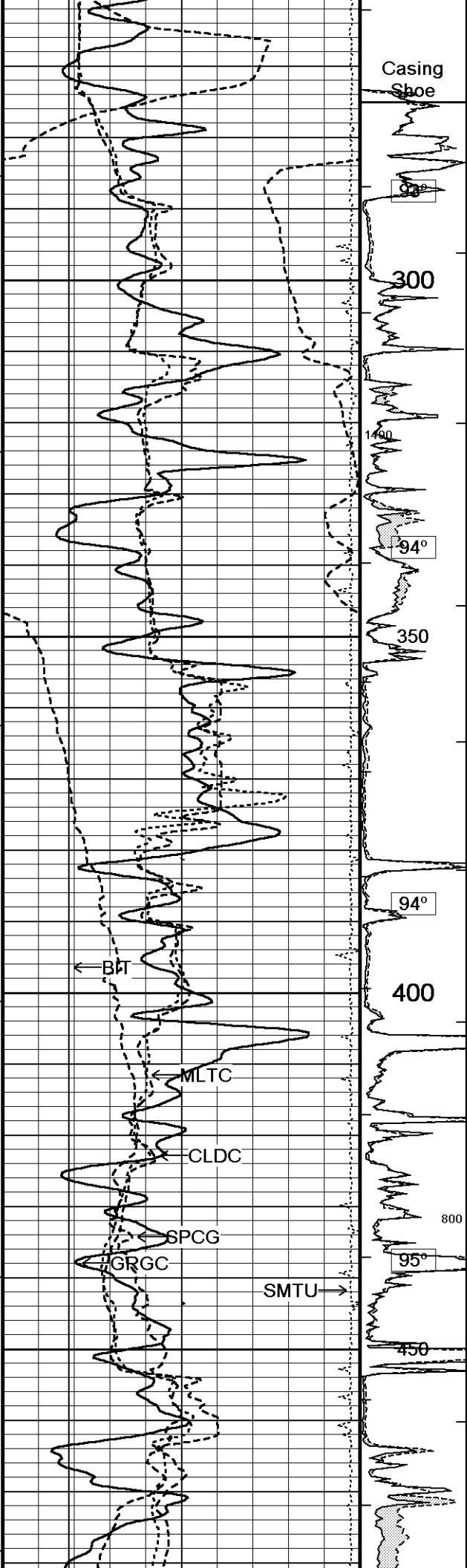
RIG: VAL DRILLING #5

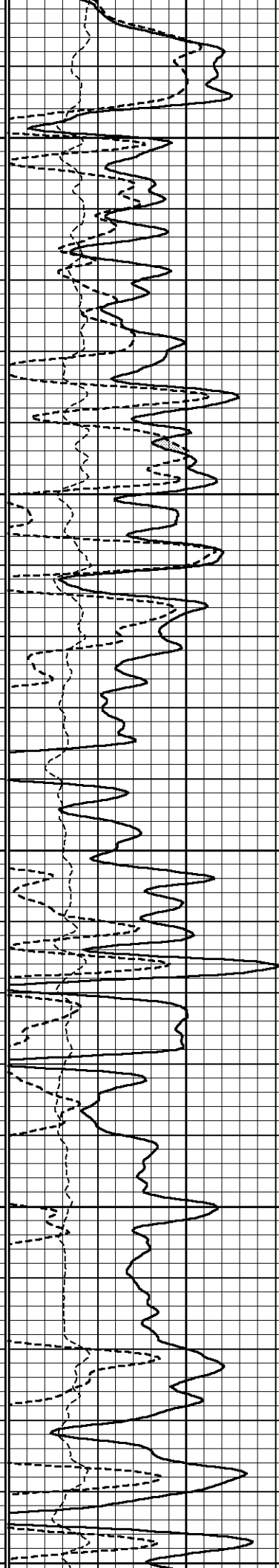
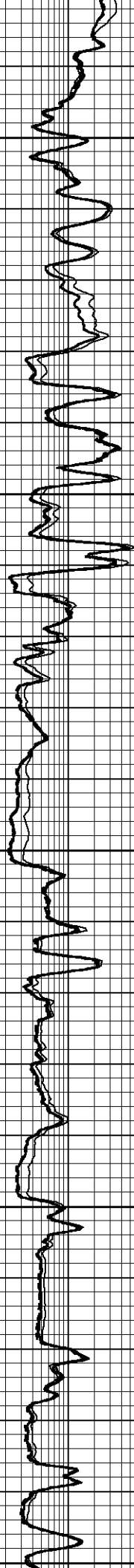
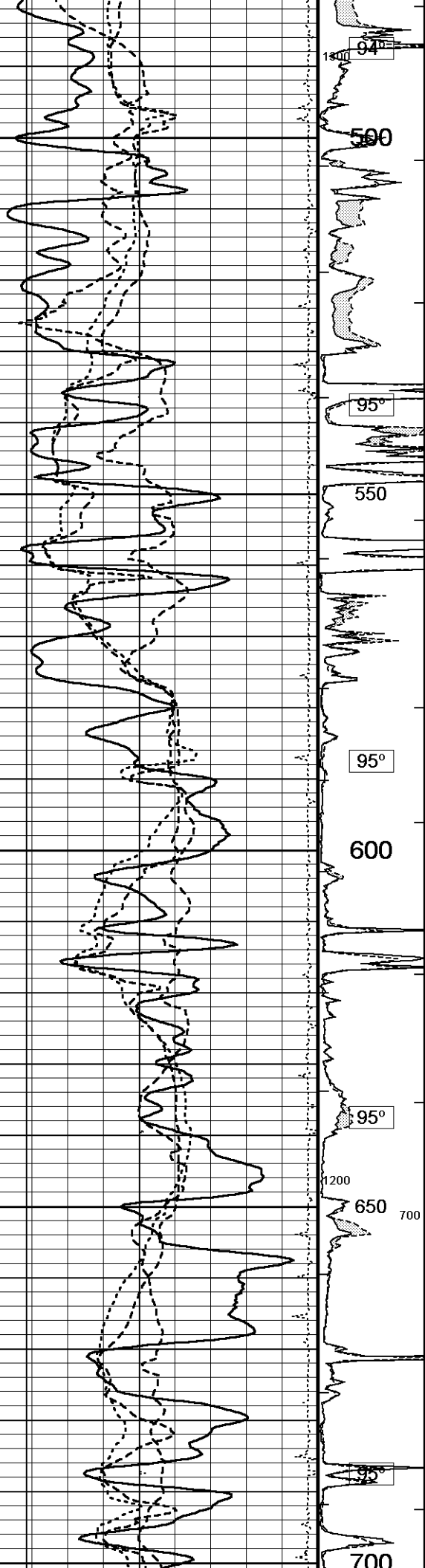
HOLE WASHOUTS AND RUGOSITY WILL AFFECT LOG QUALITY AND REPEATABILITY.

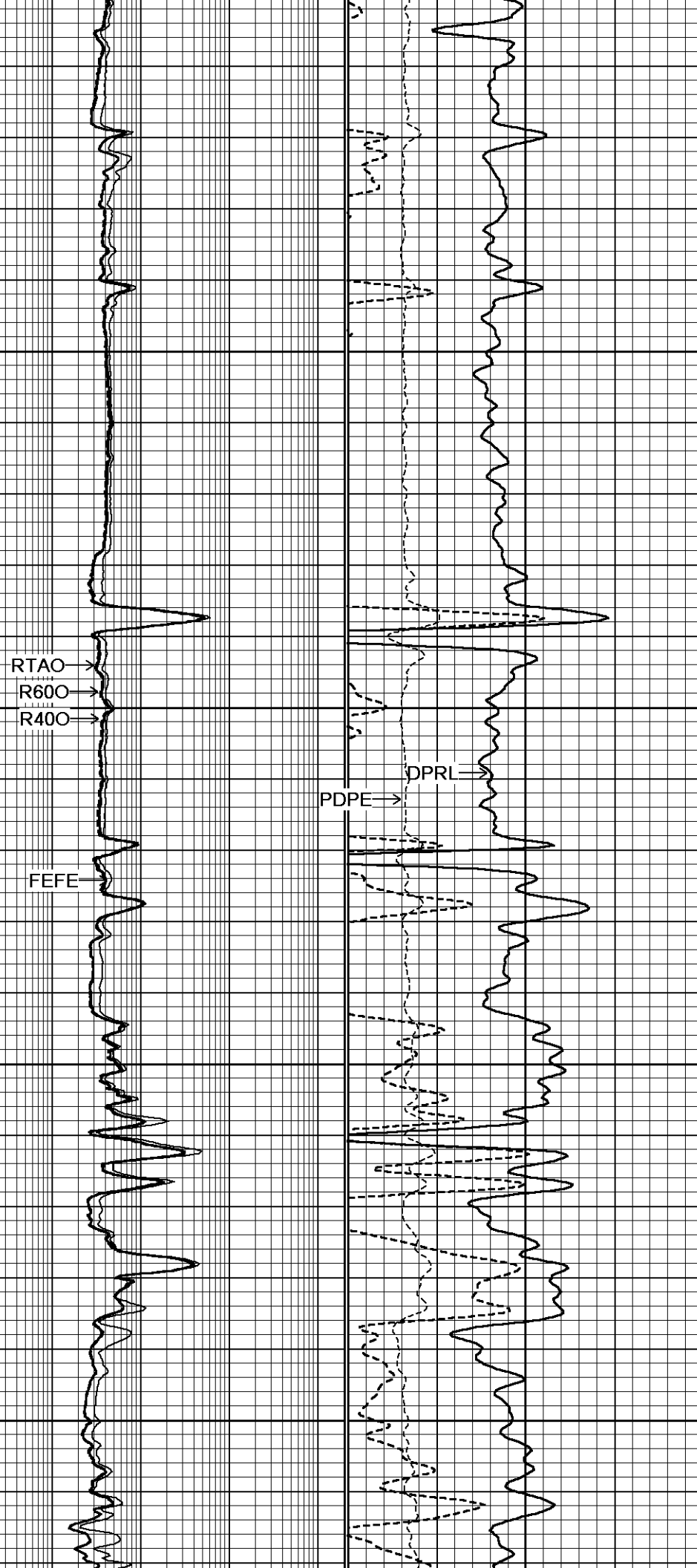
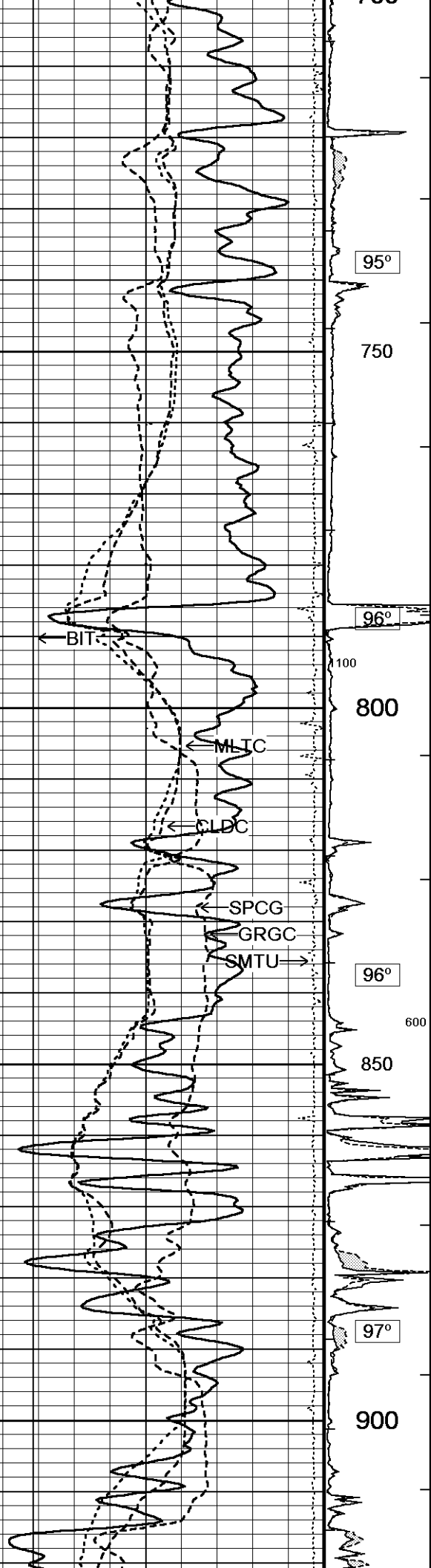
ENCOUNTERED BRIDGE INSIDE OF CASING, AFTER PULLING UP AND GOING BACK DOWN IT WENT THROUGH, CASING CHECK SHOWED THAT THE CASING HAD SEPERATED CREATING OPEN HOLE FROM 221' TO 232', INFORMED COMPANY MAN

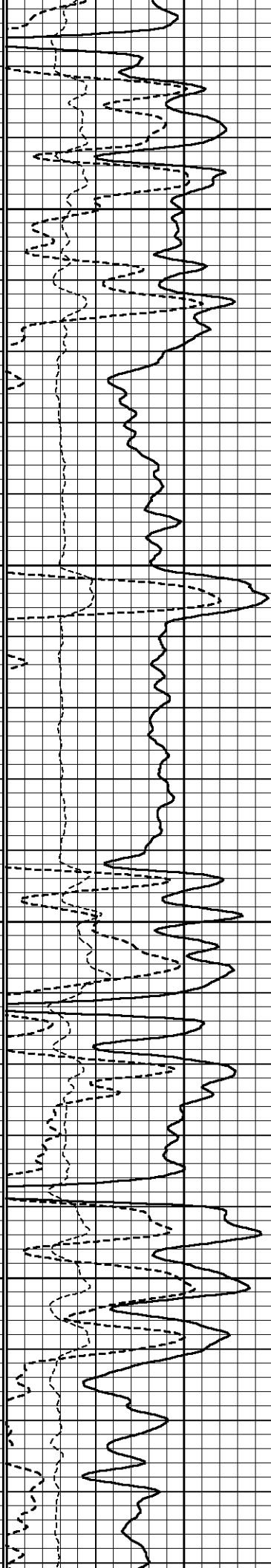
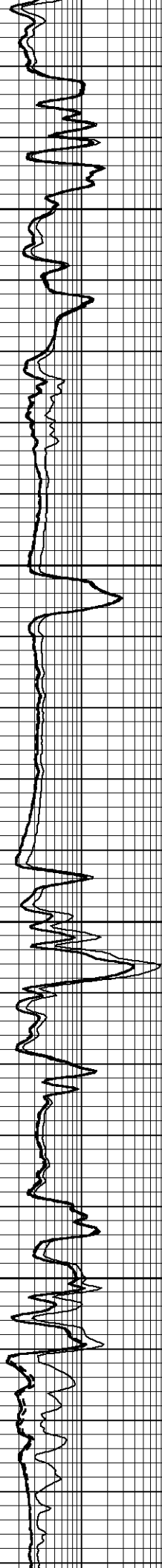
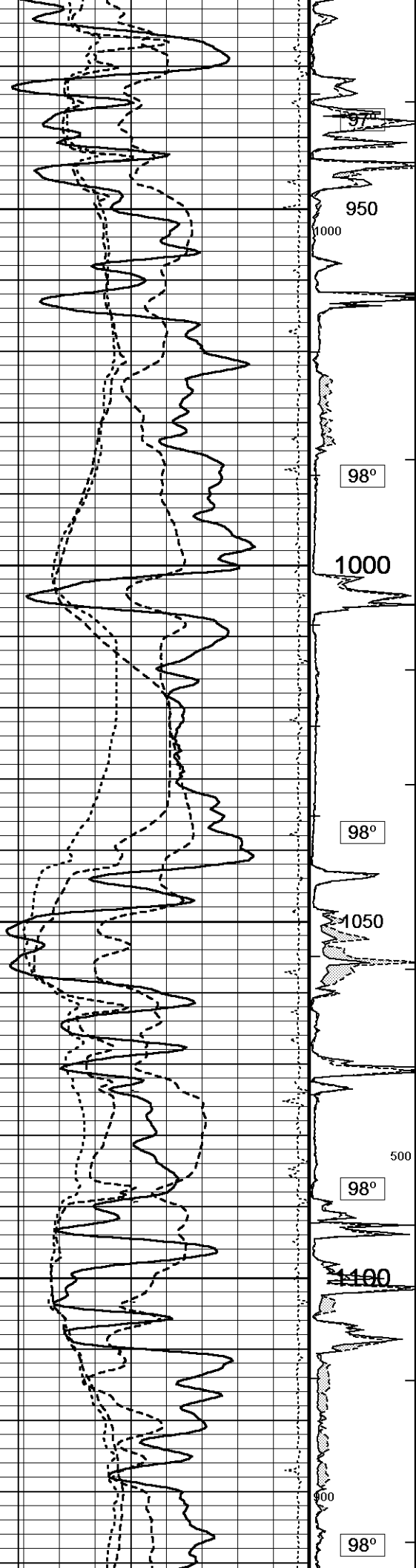
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

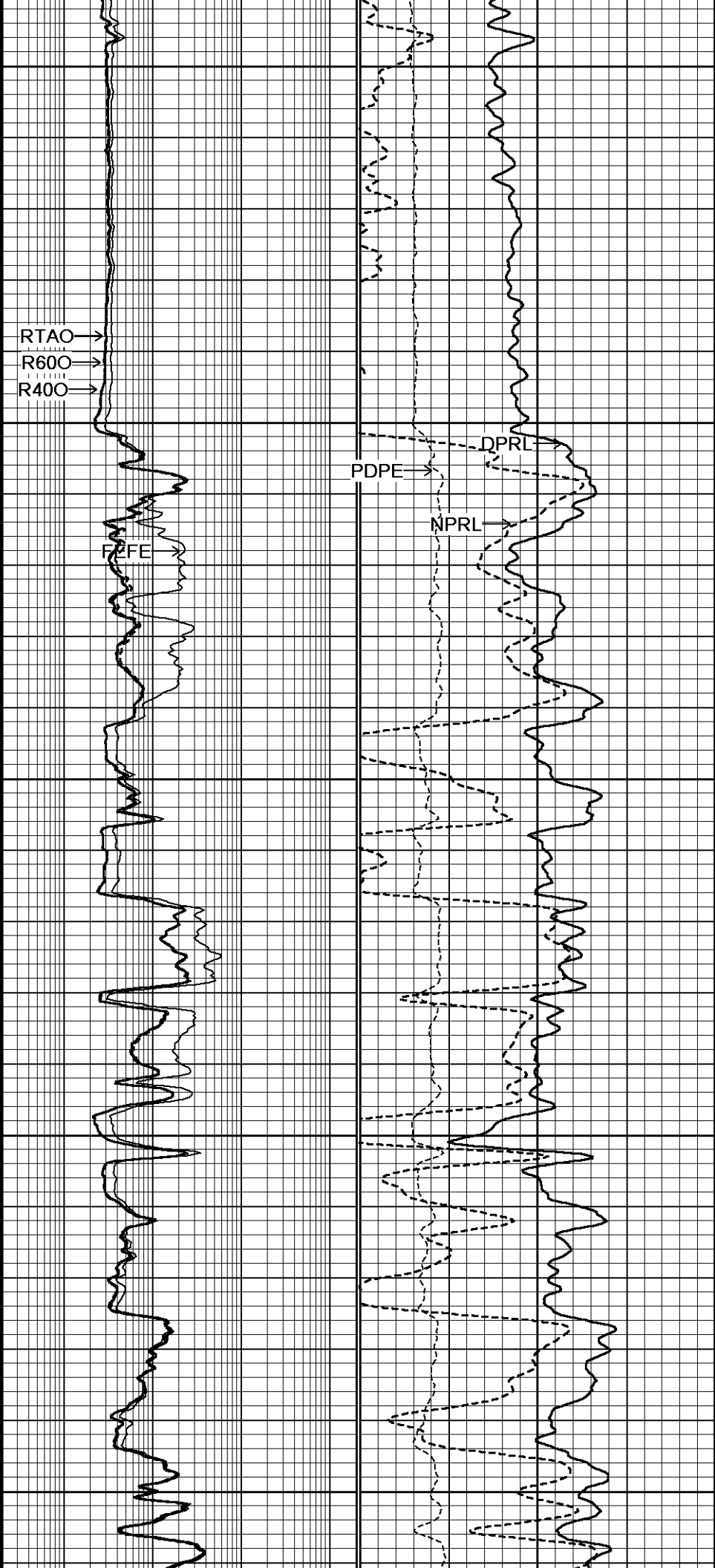
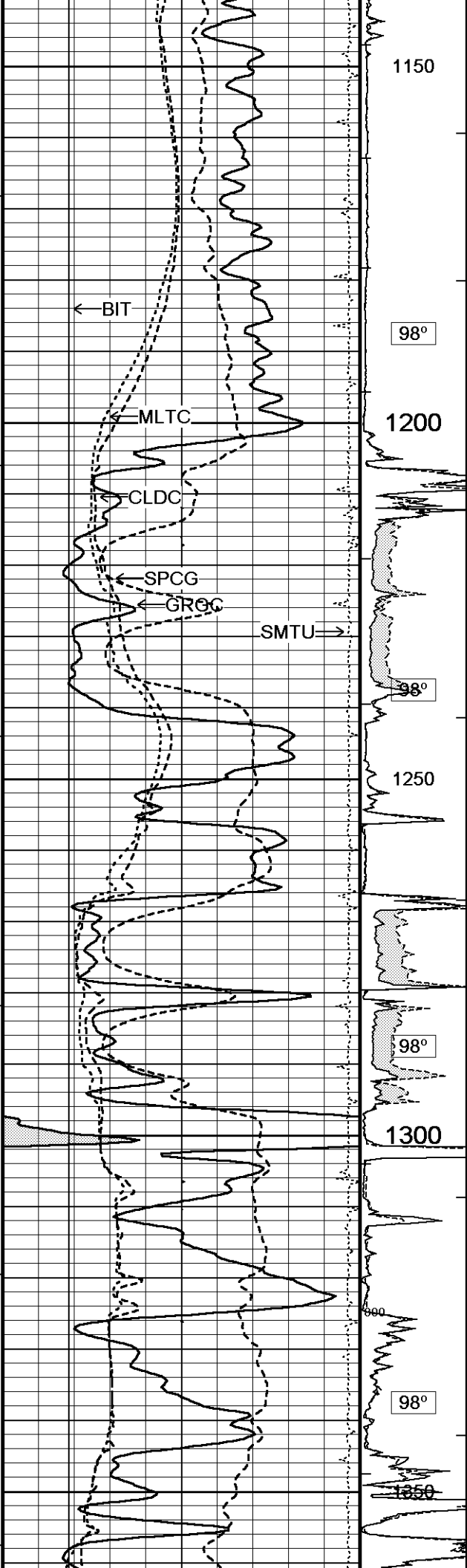


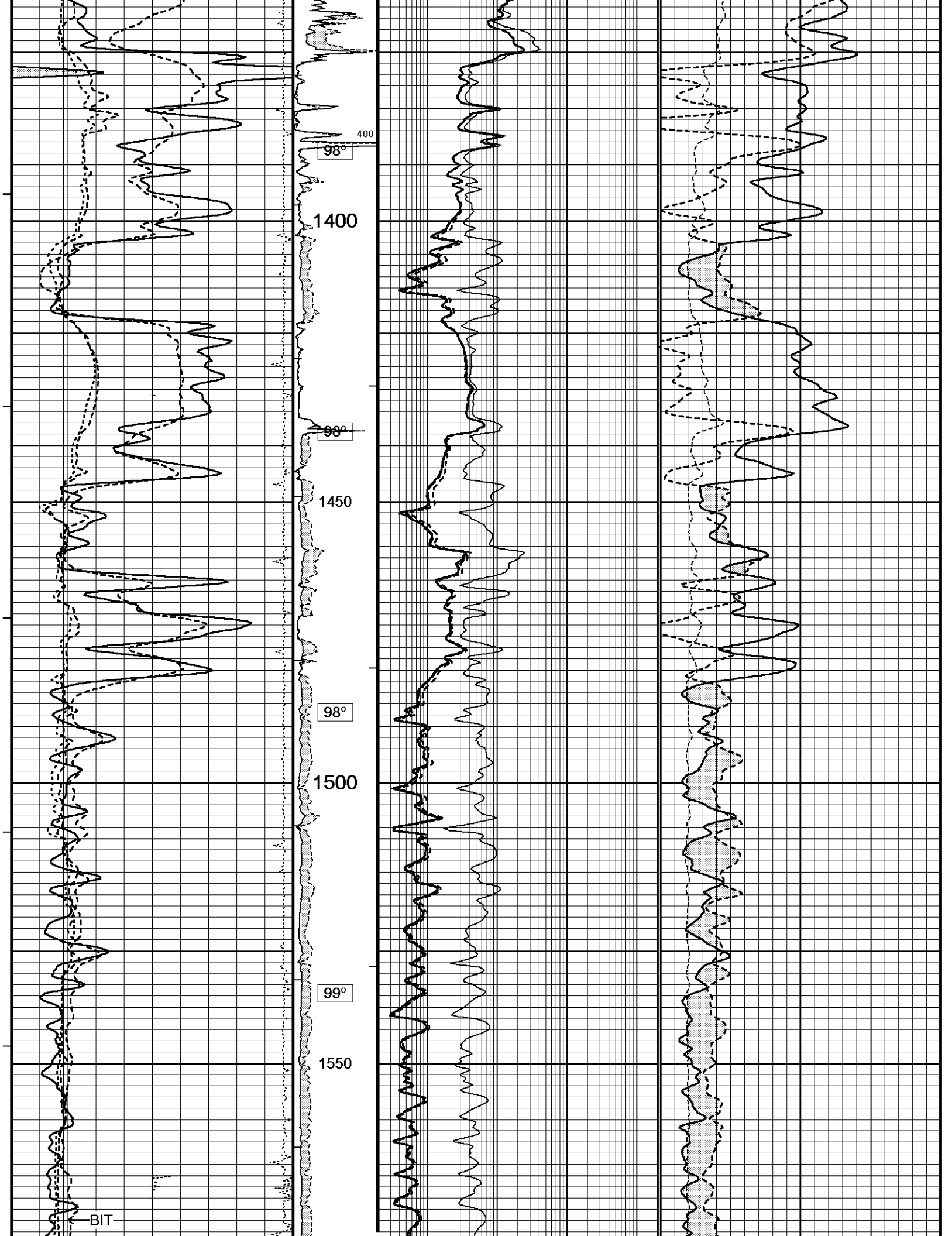


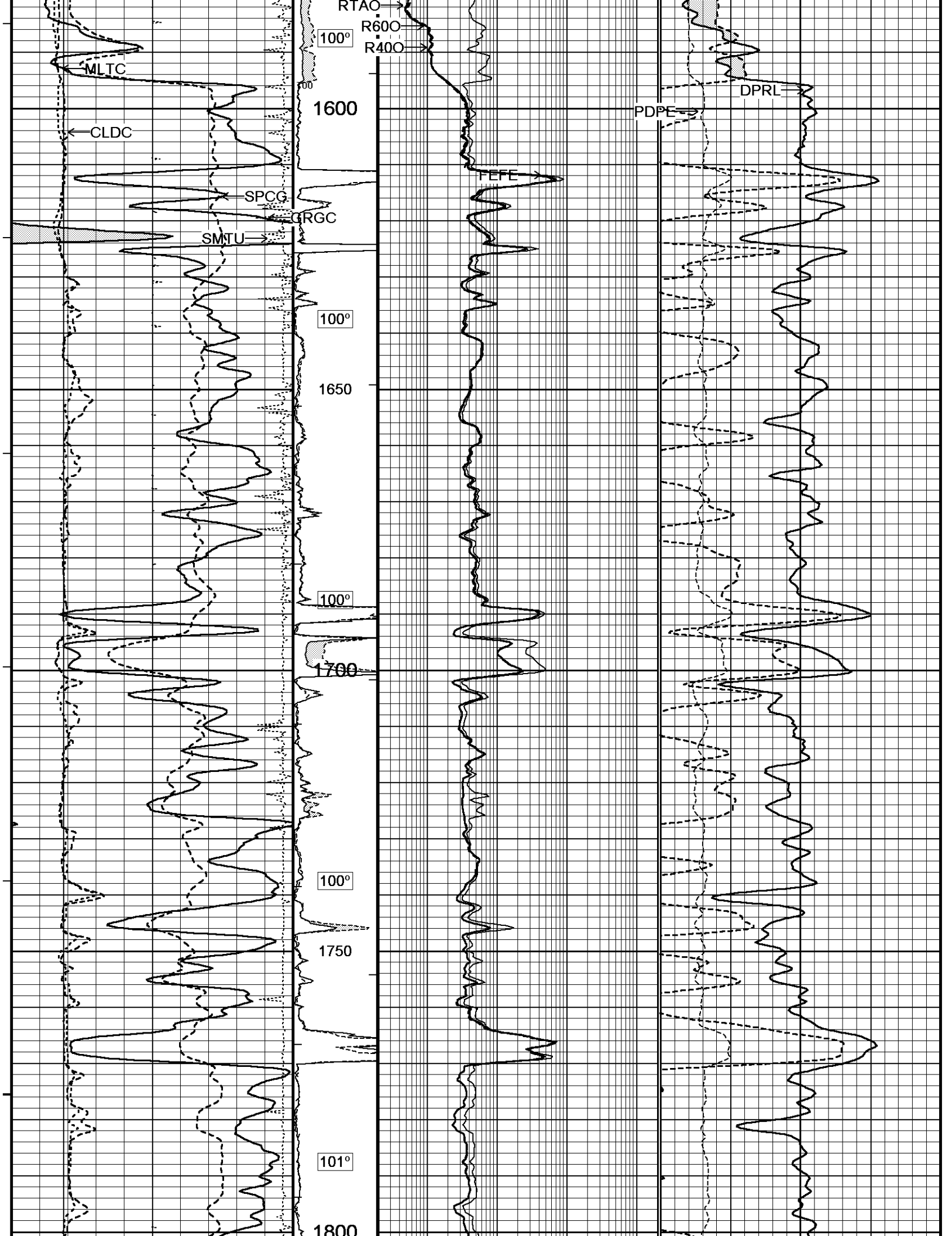


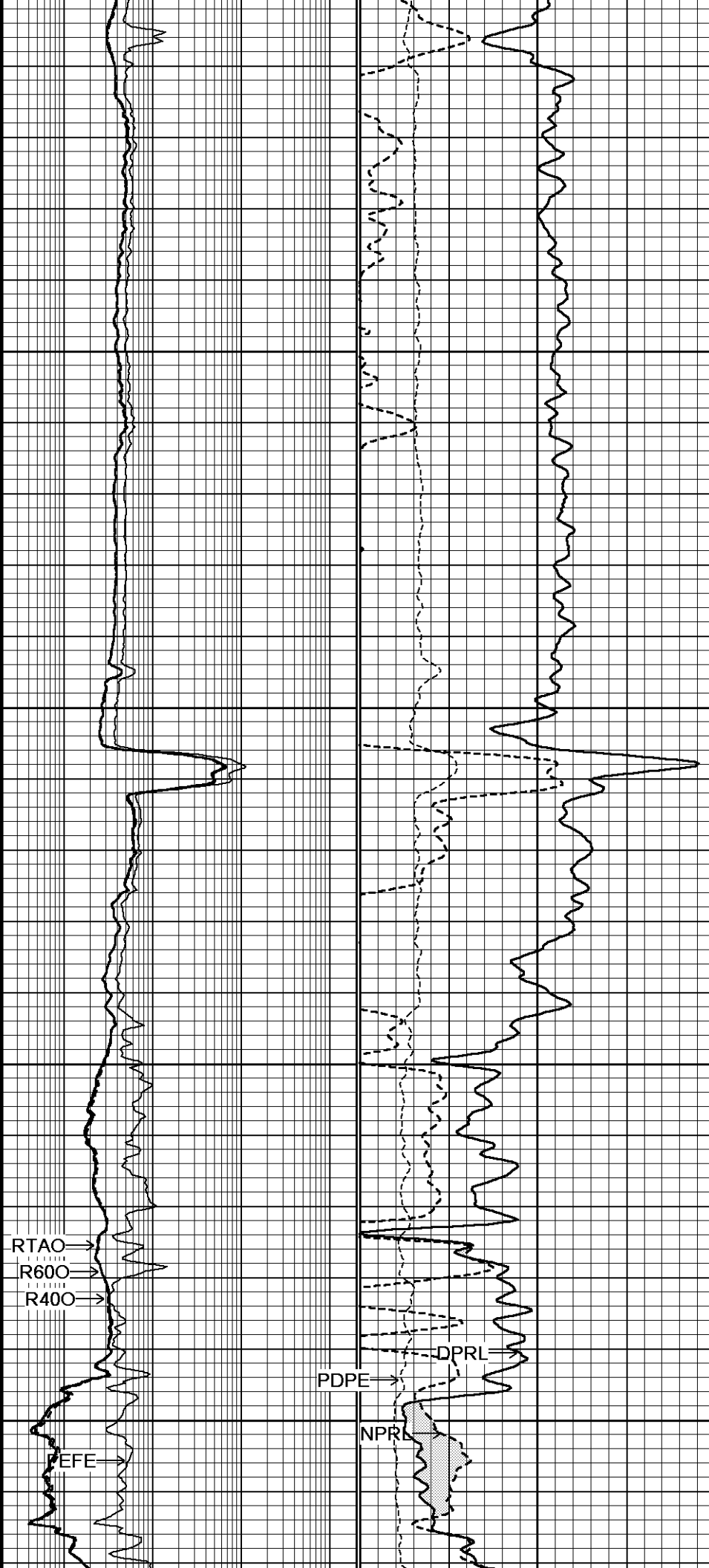
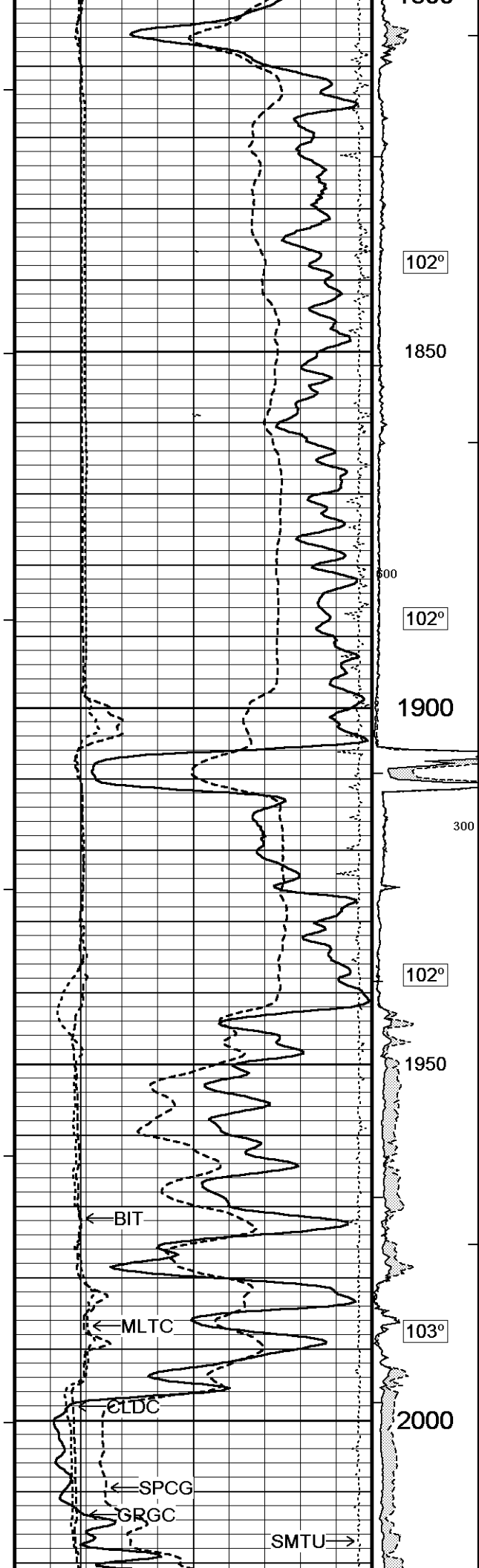


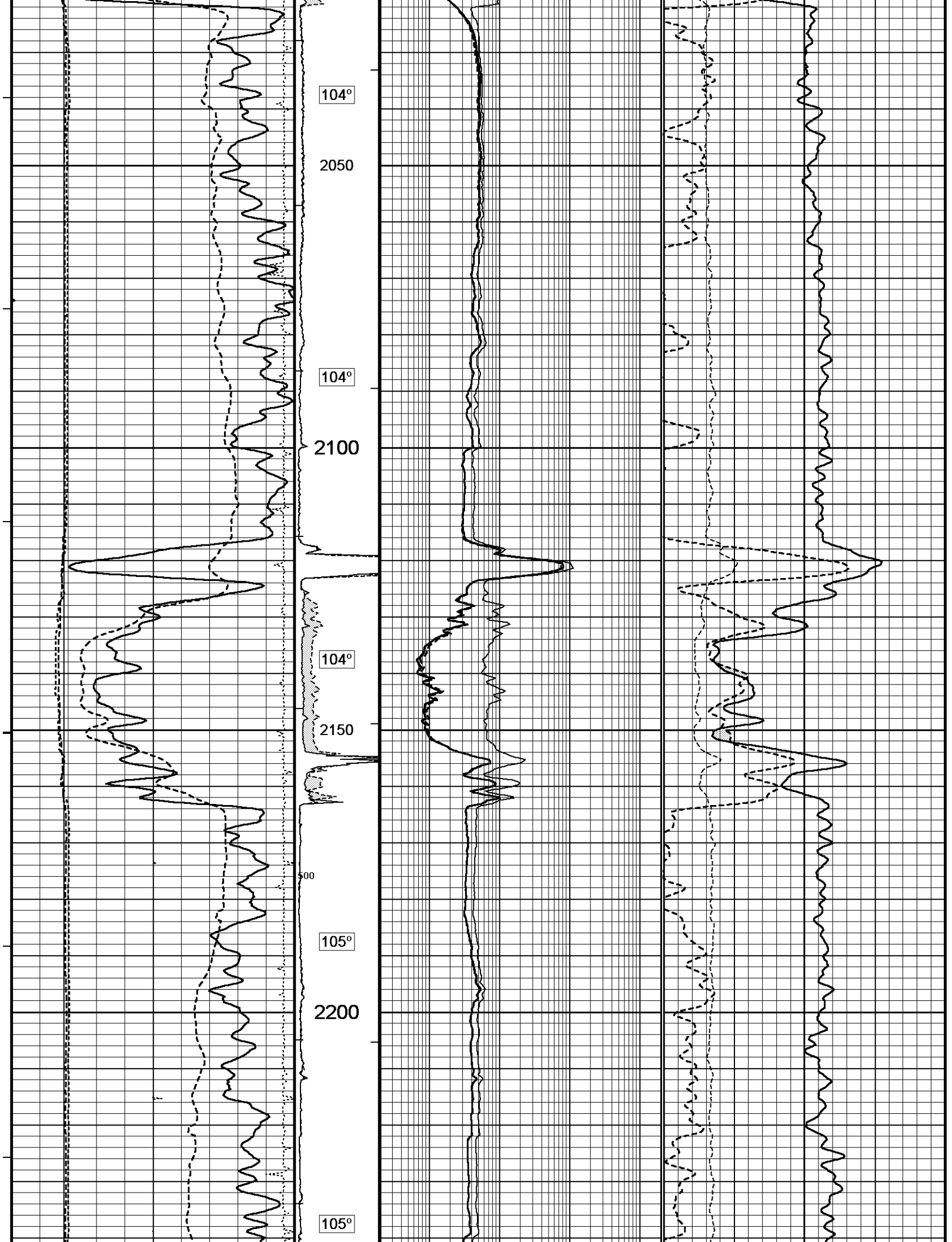


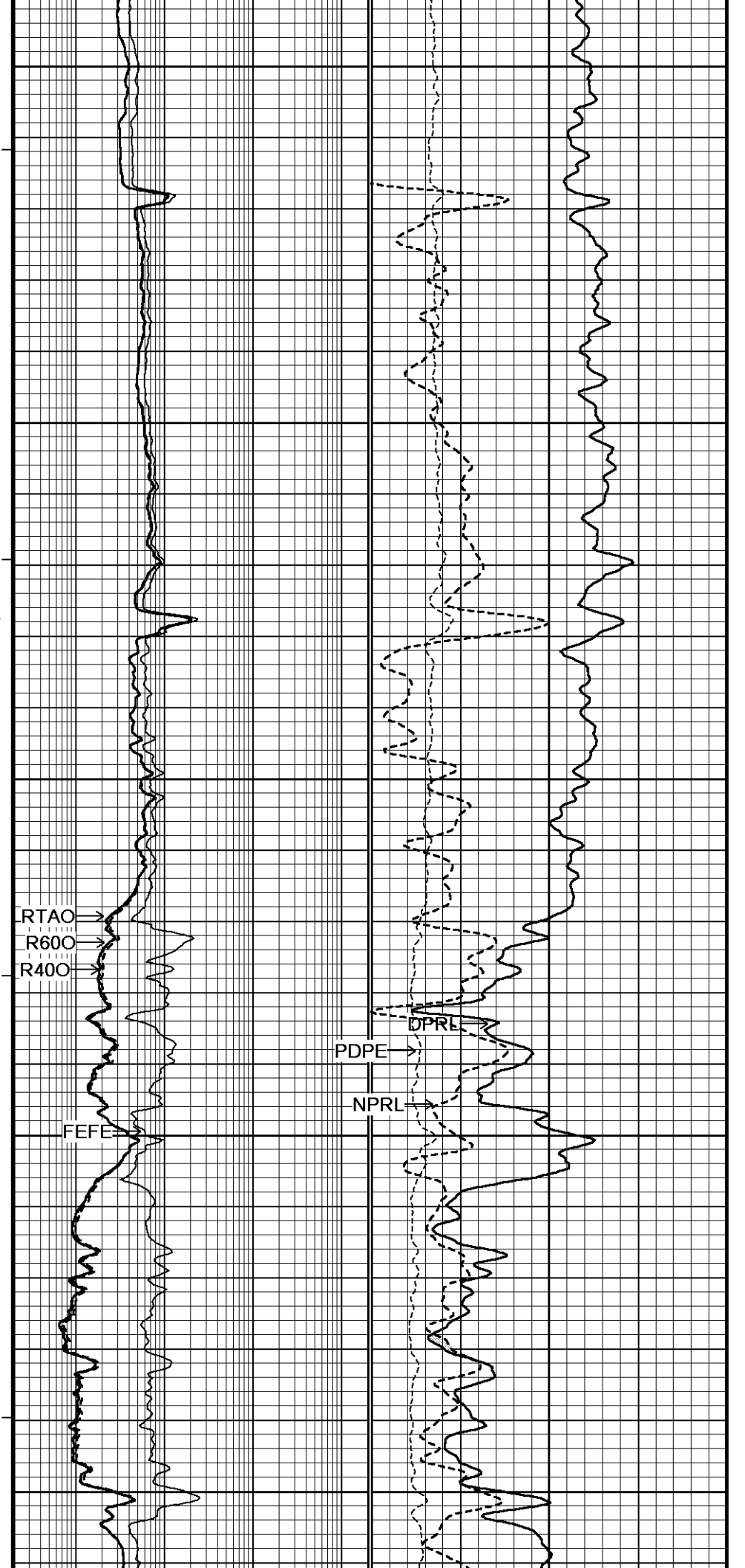
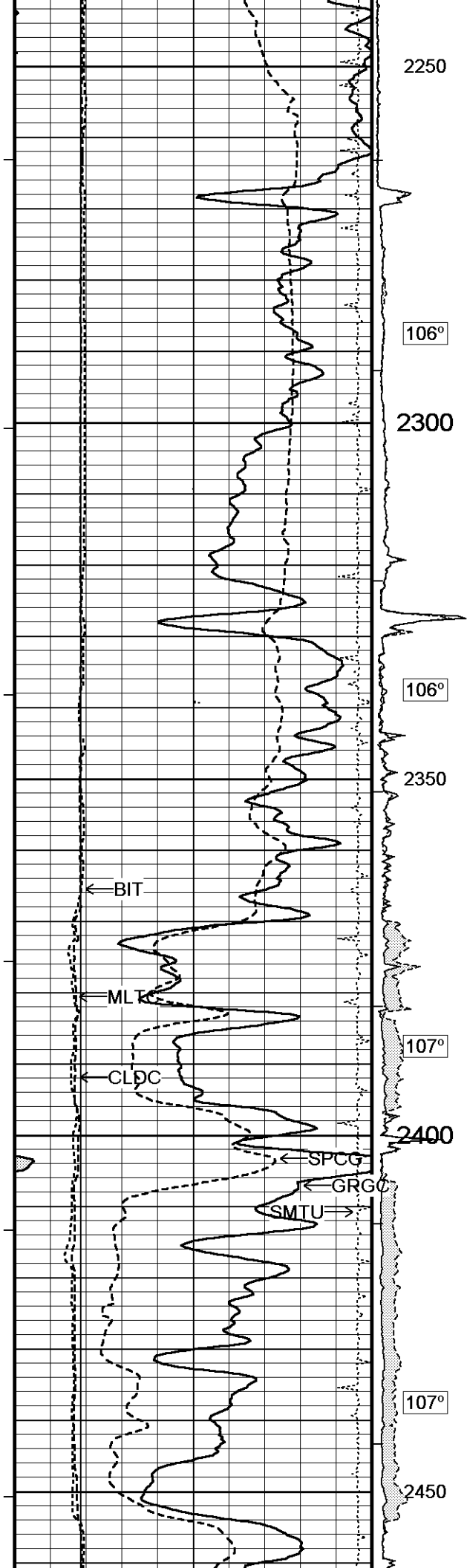


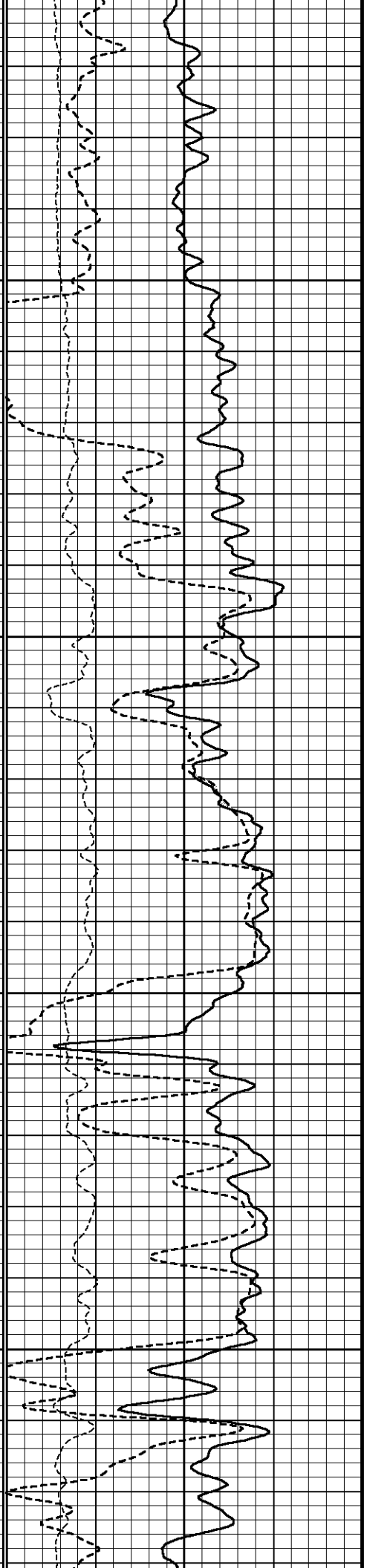
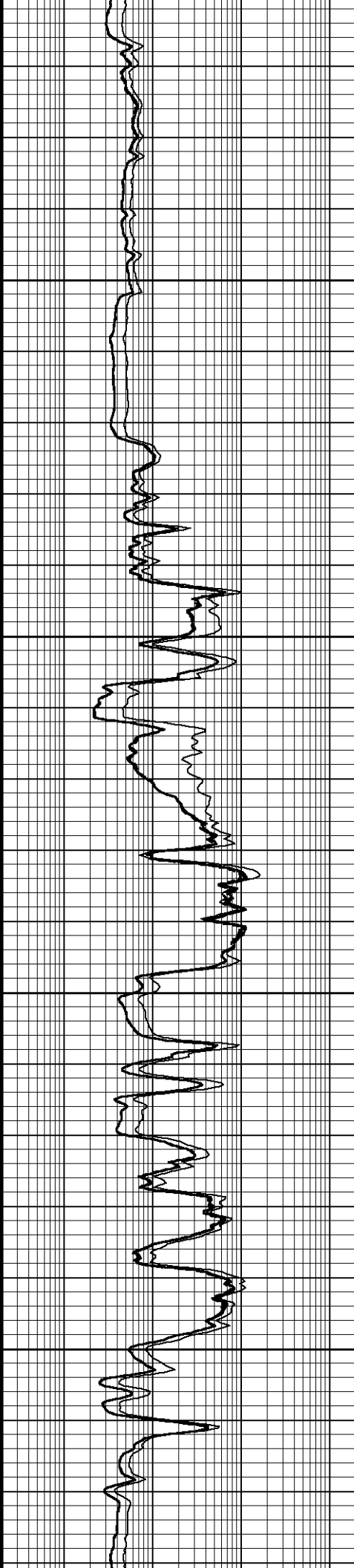
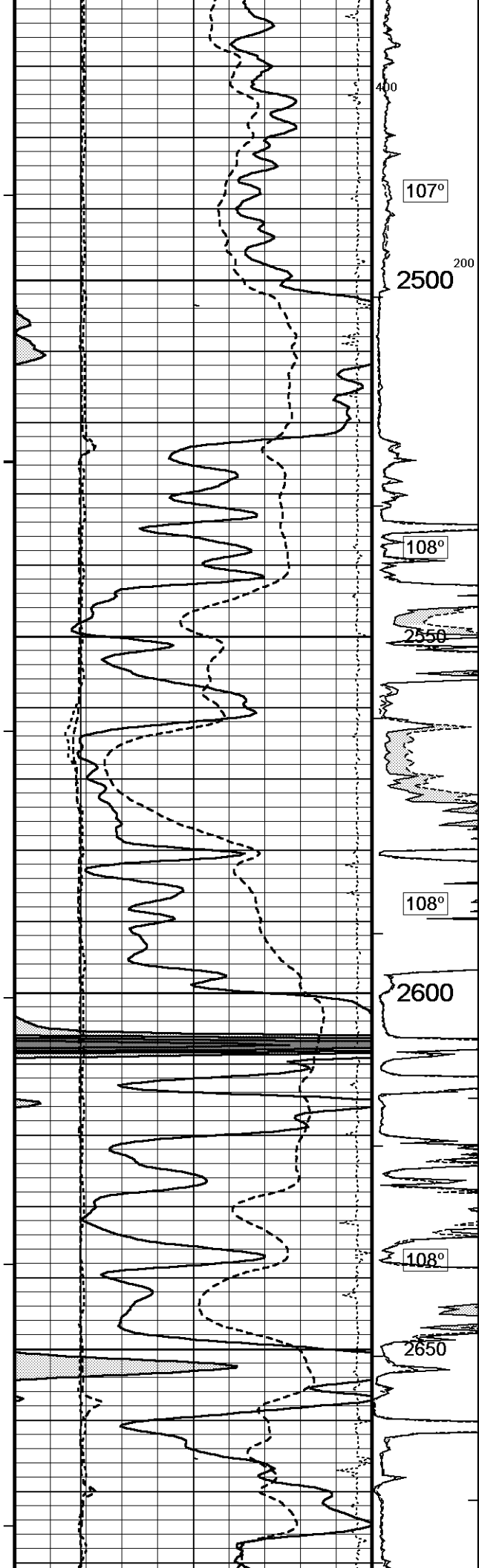


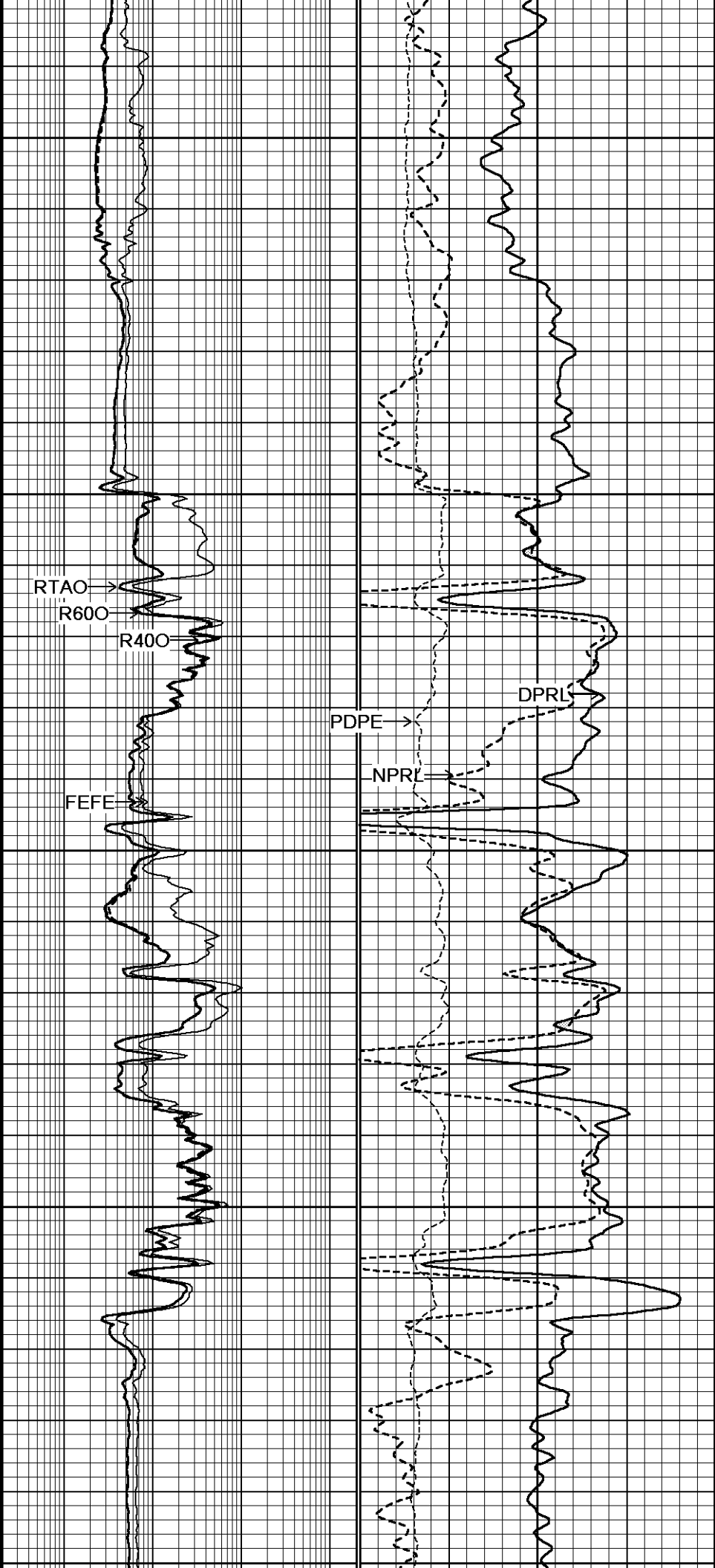
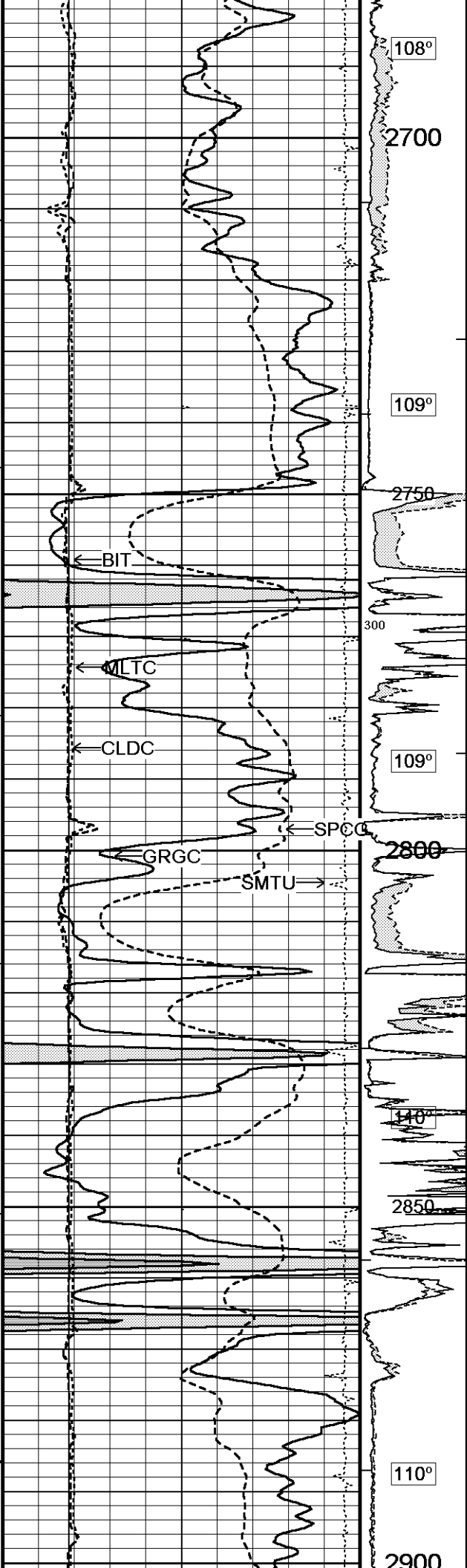


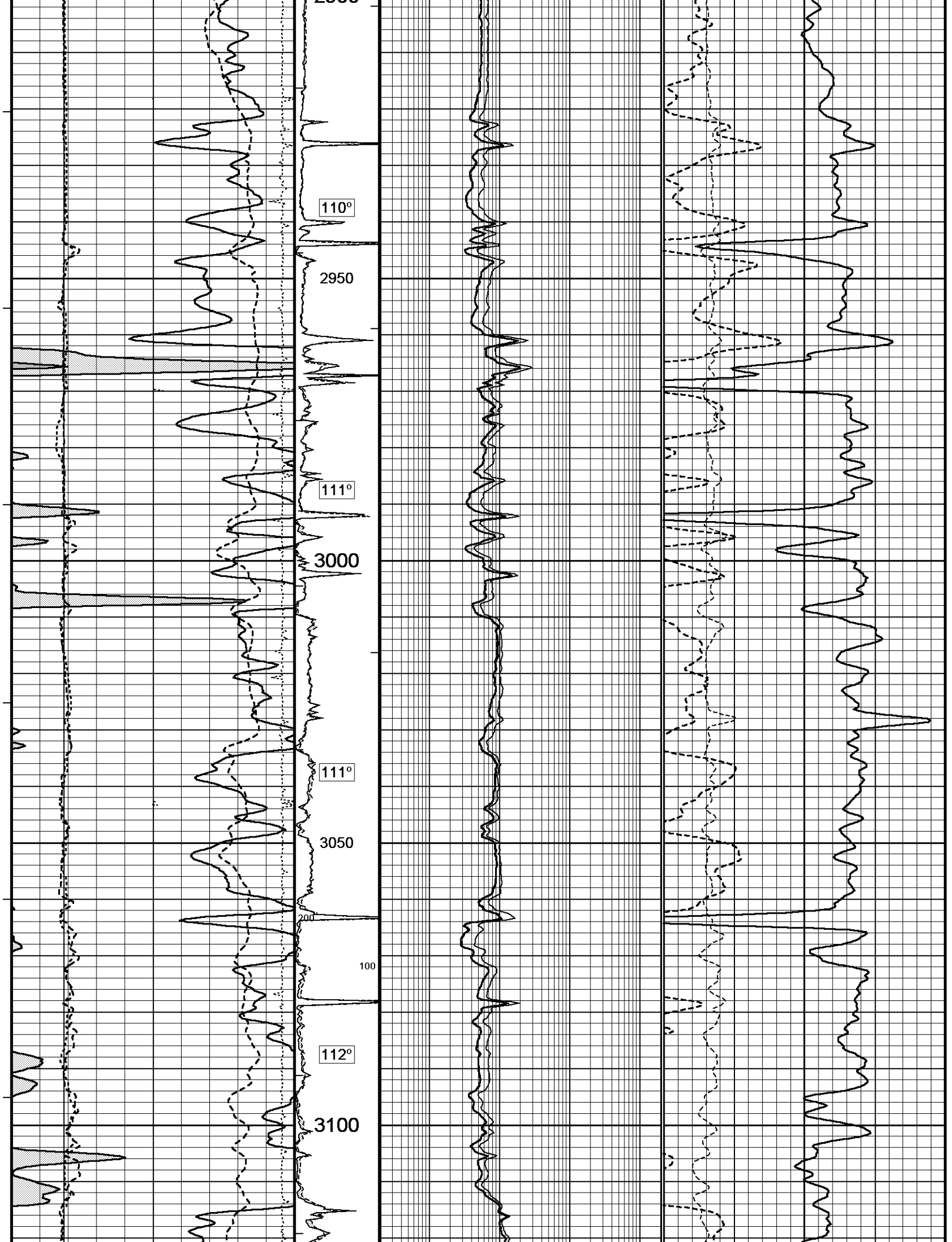


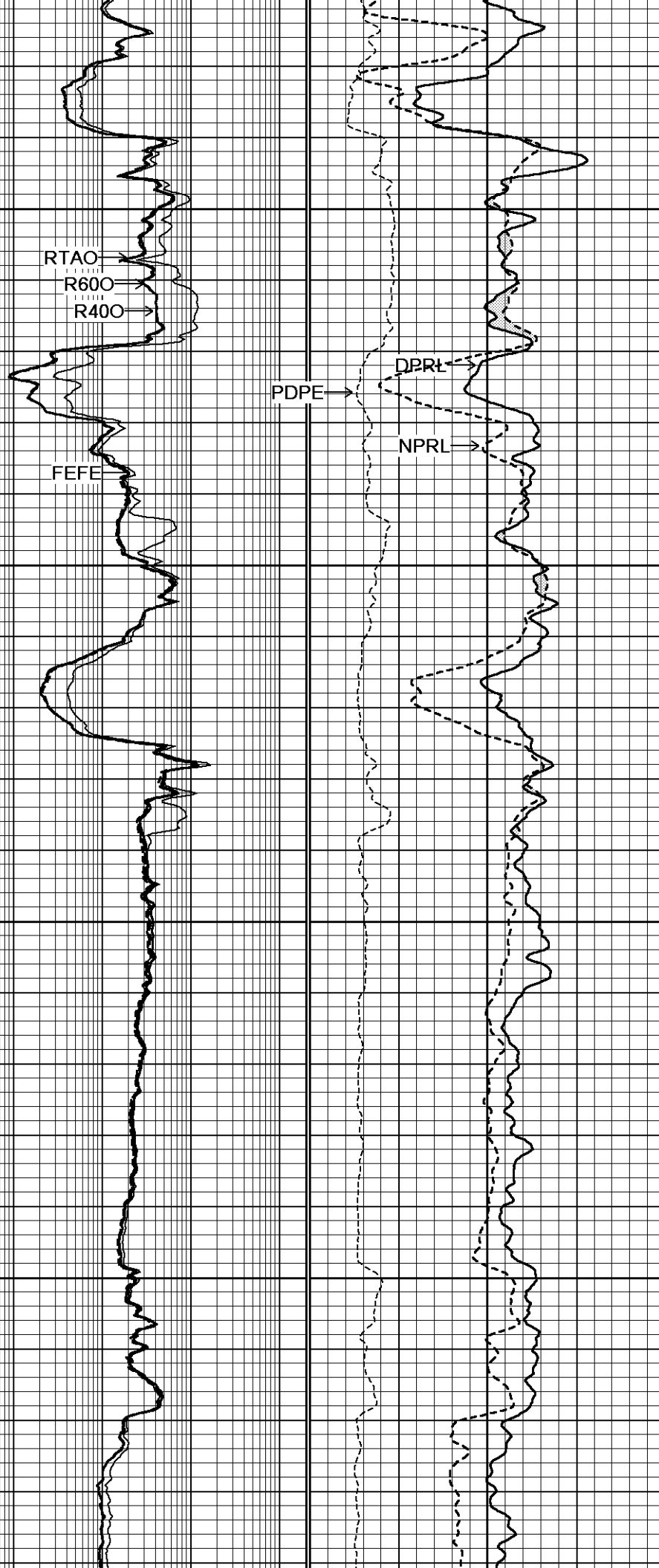
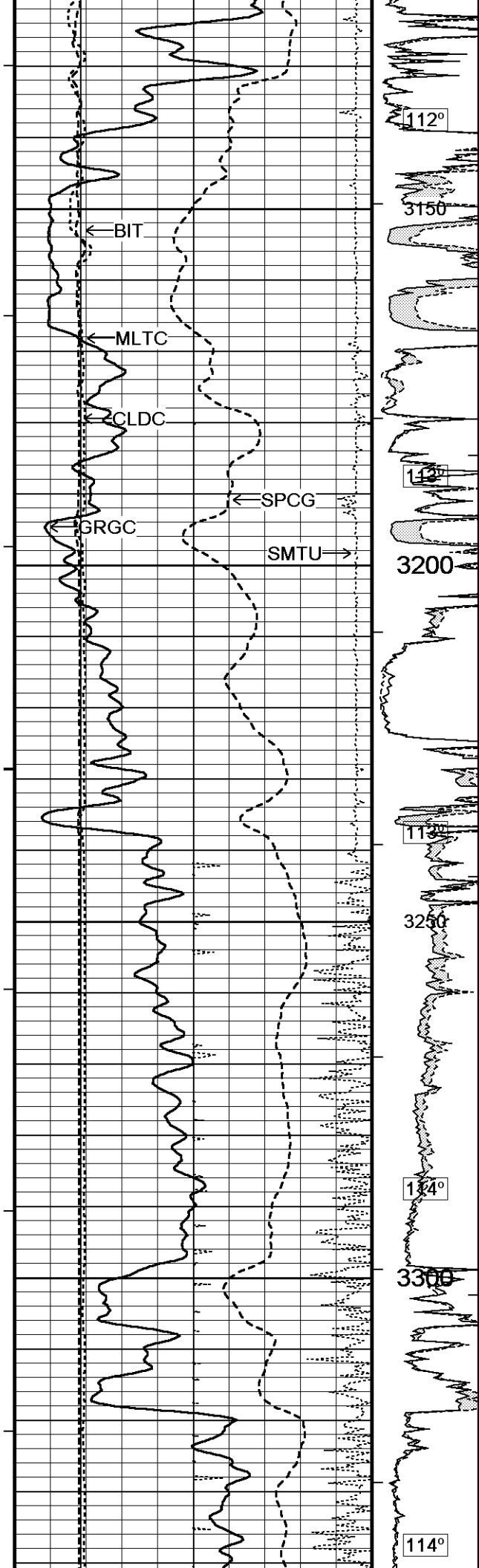


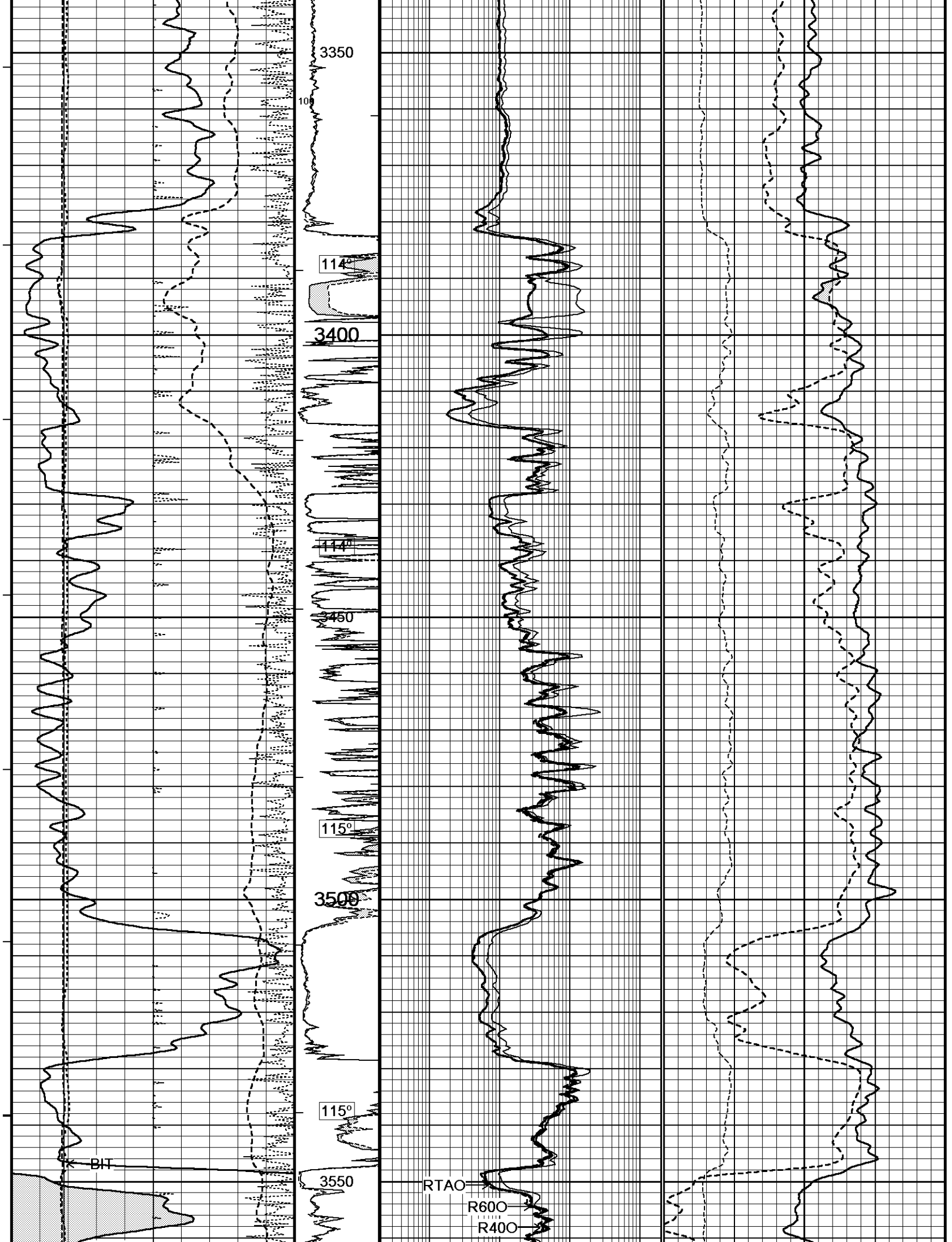


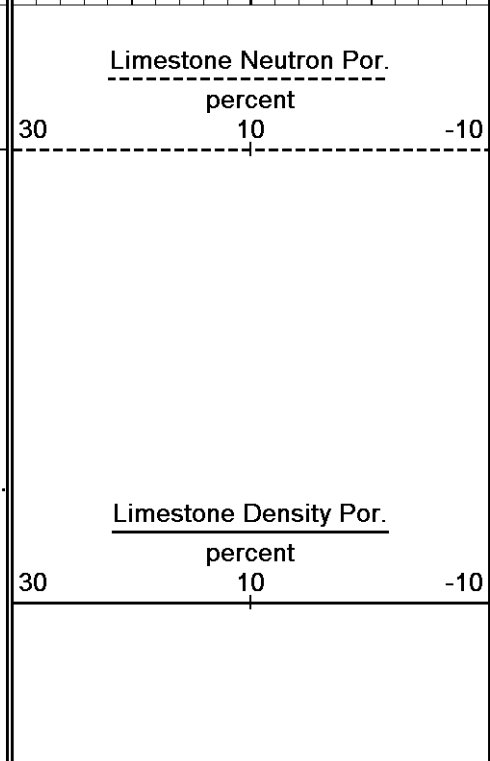
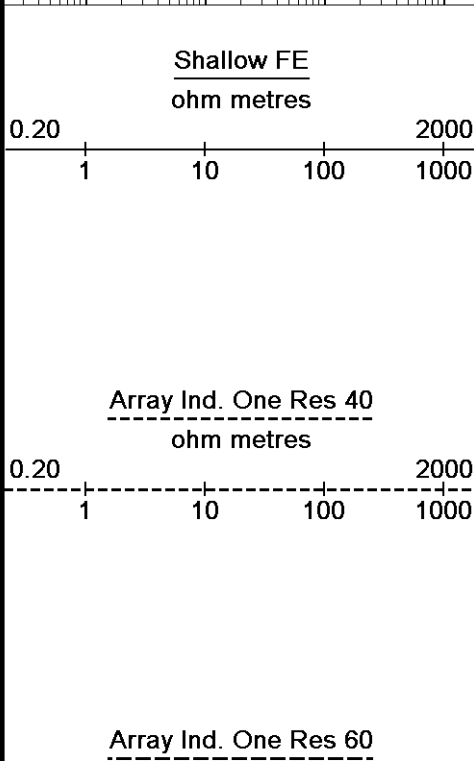
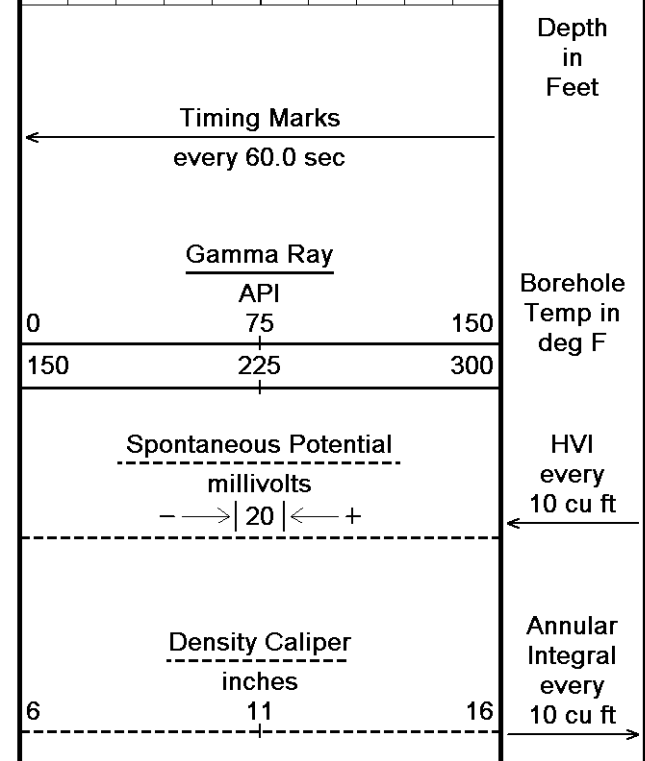
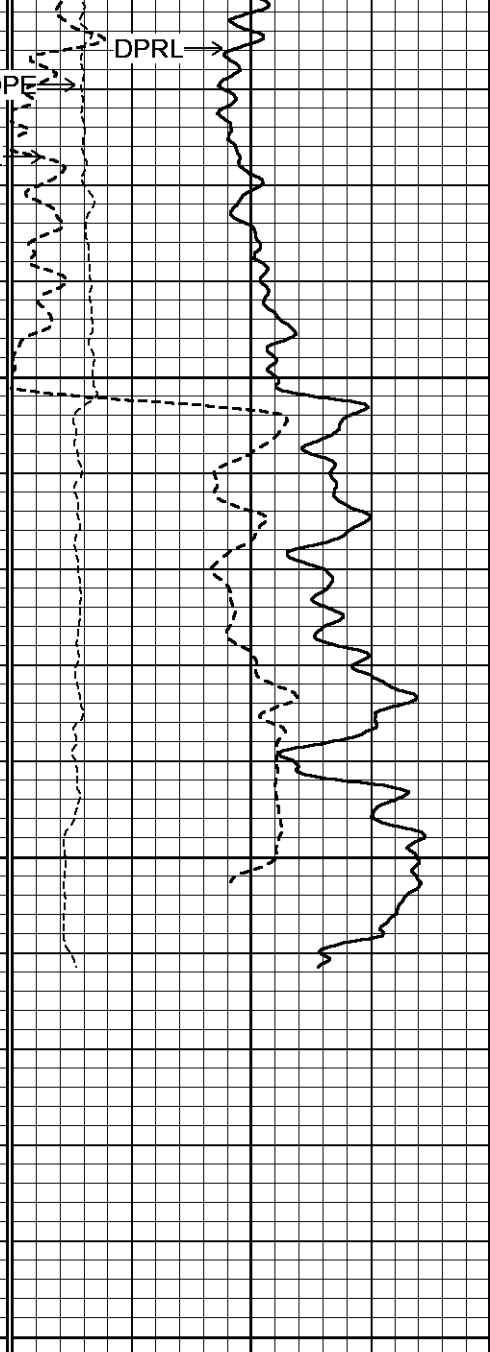
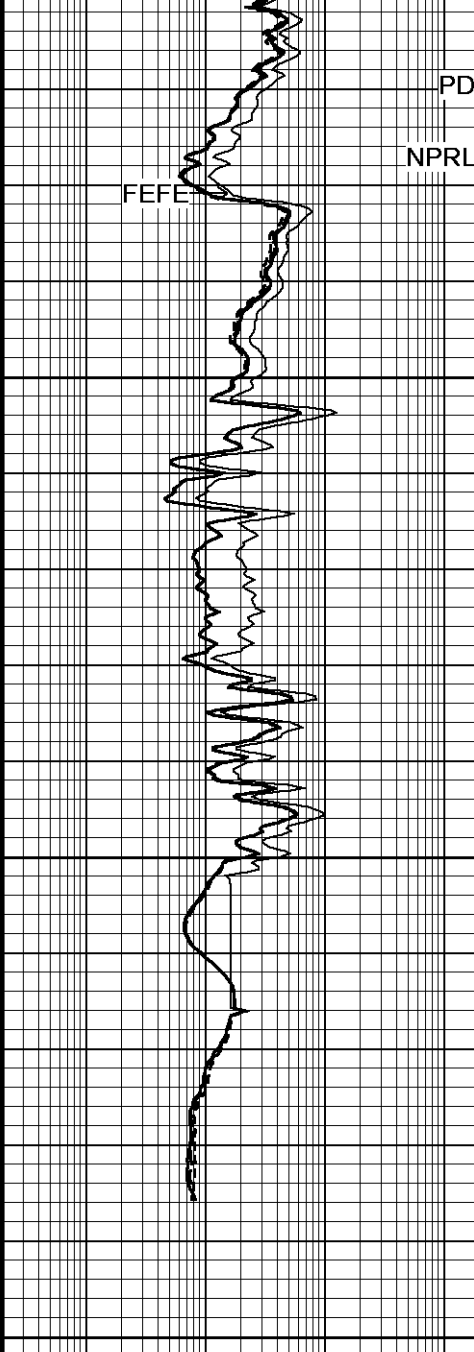
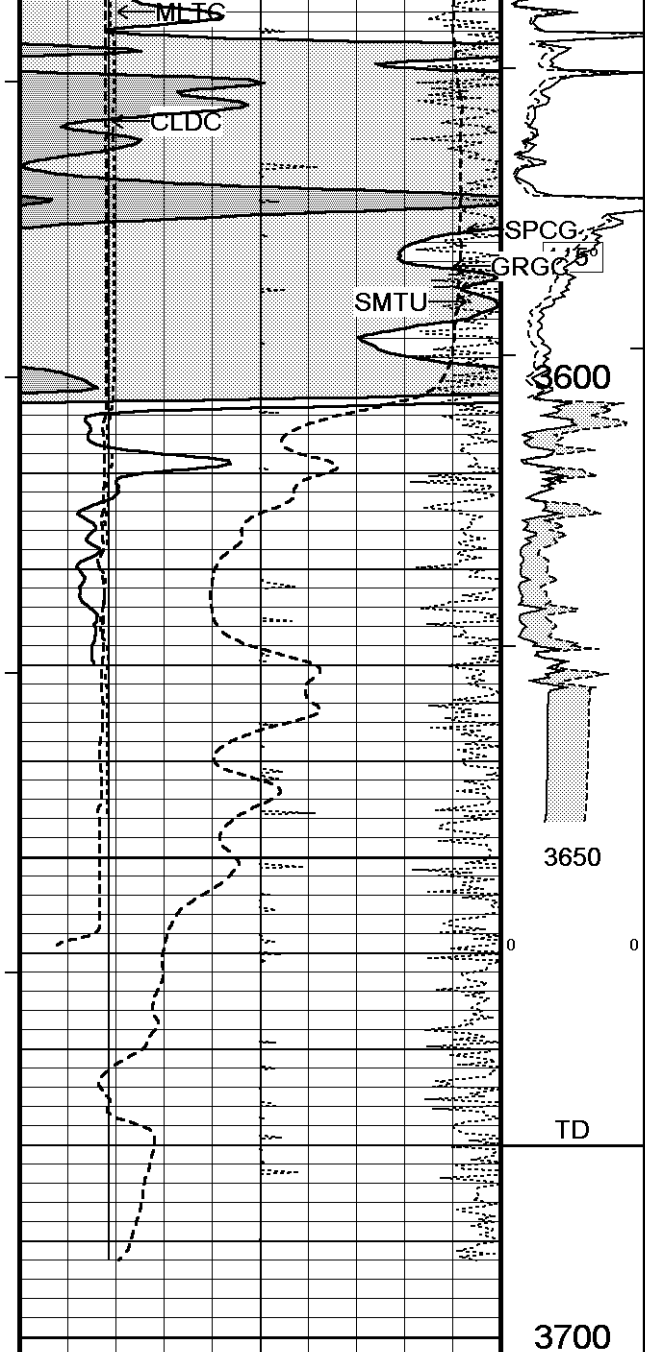


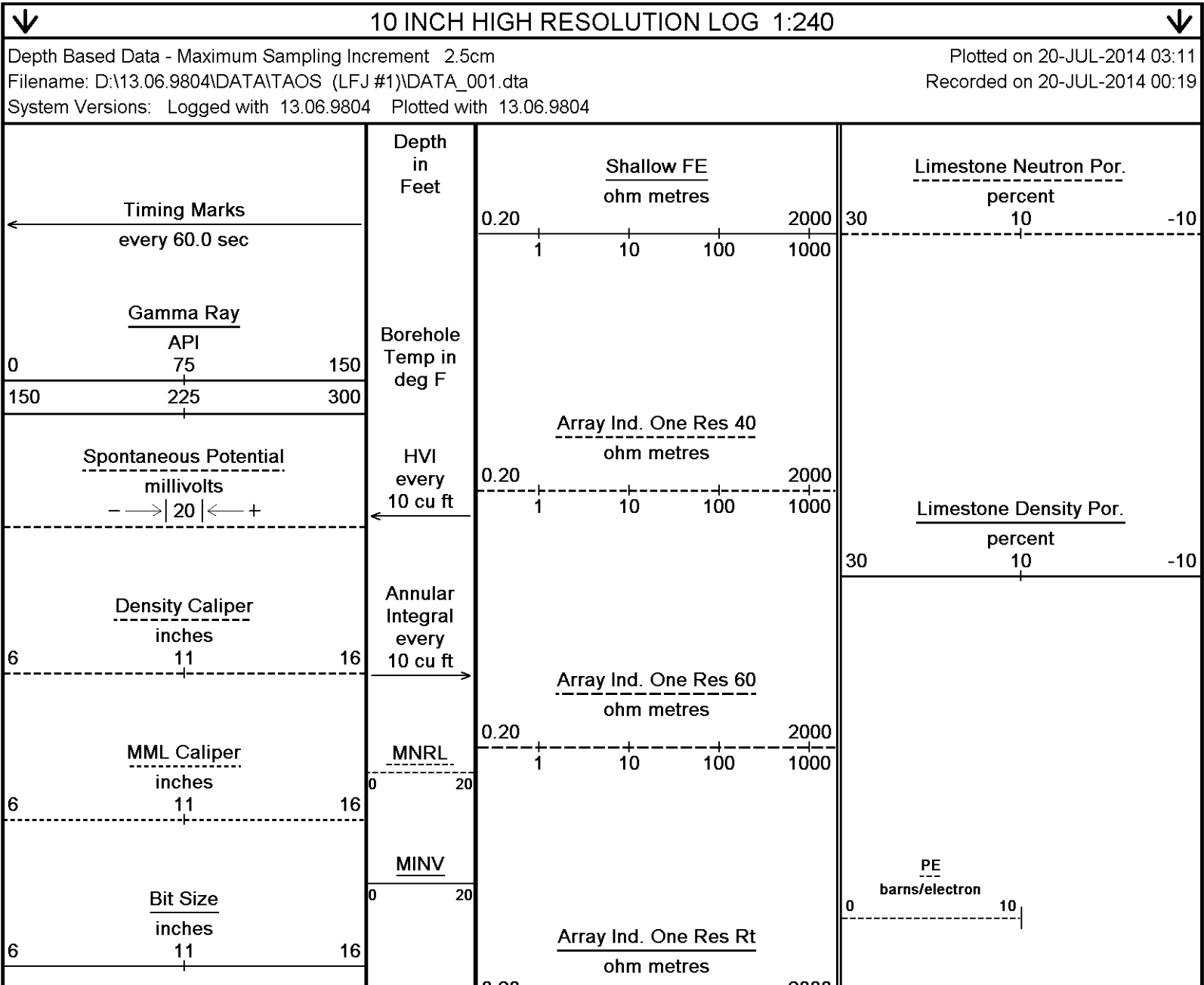
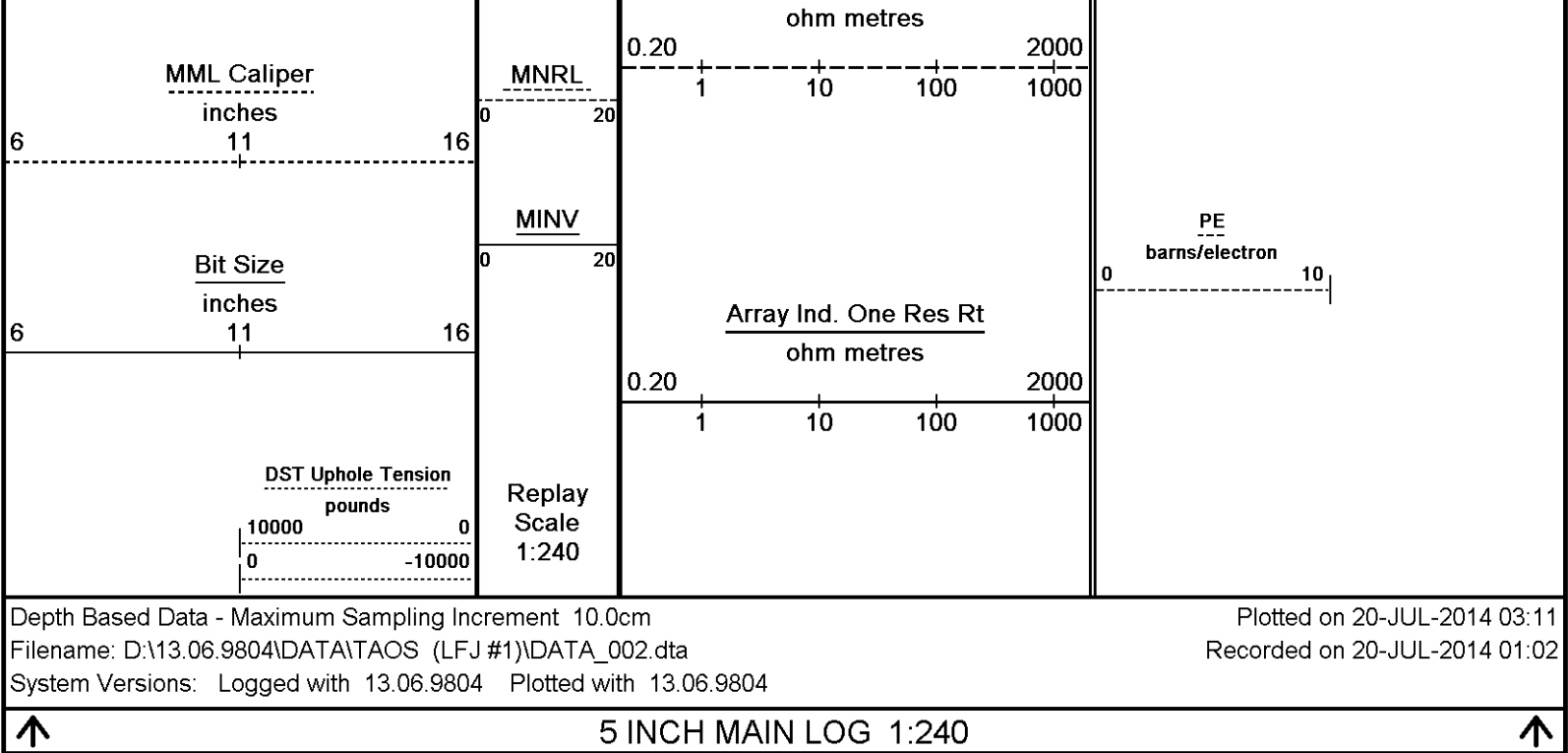


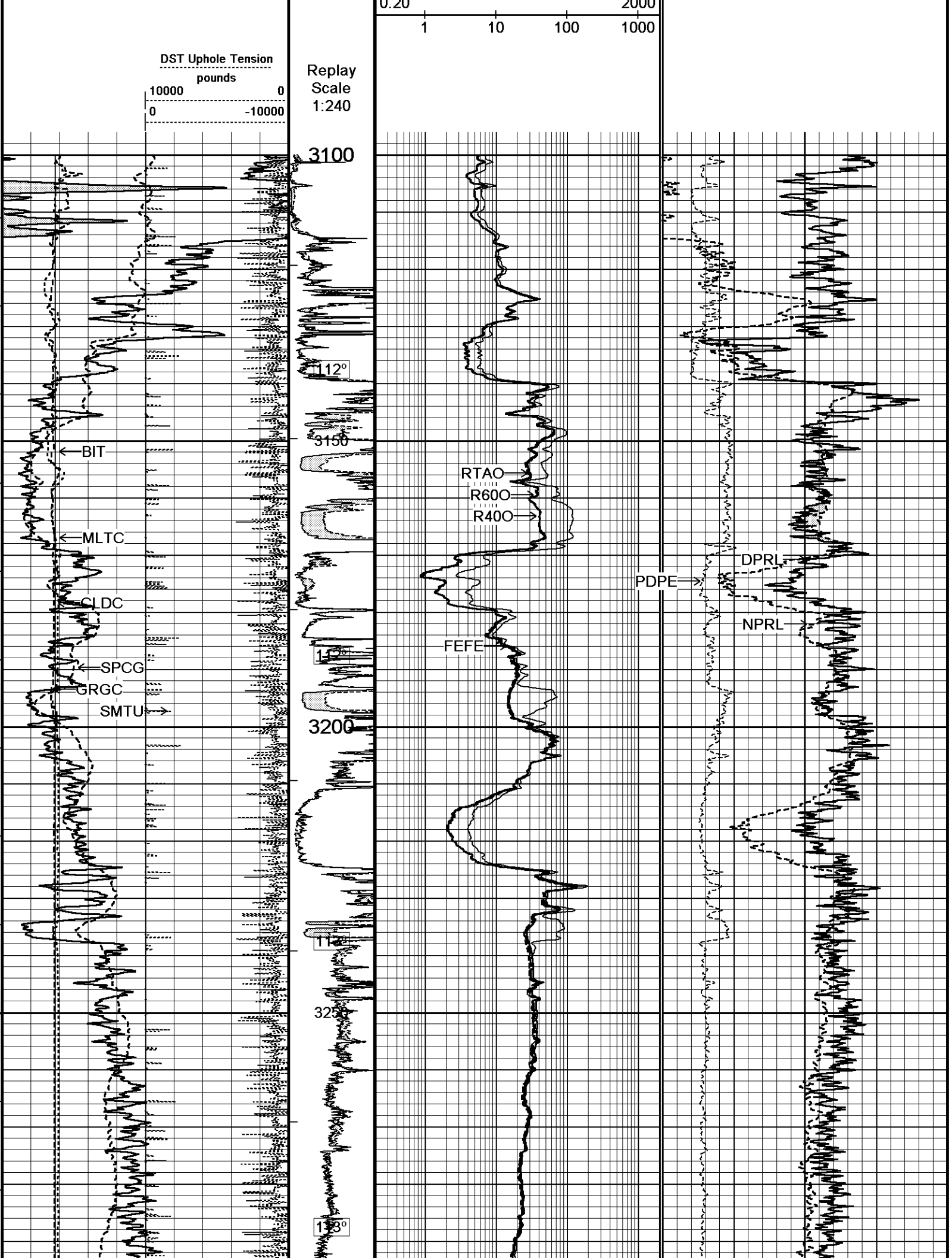




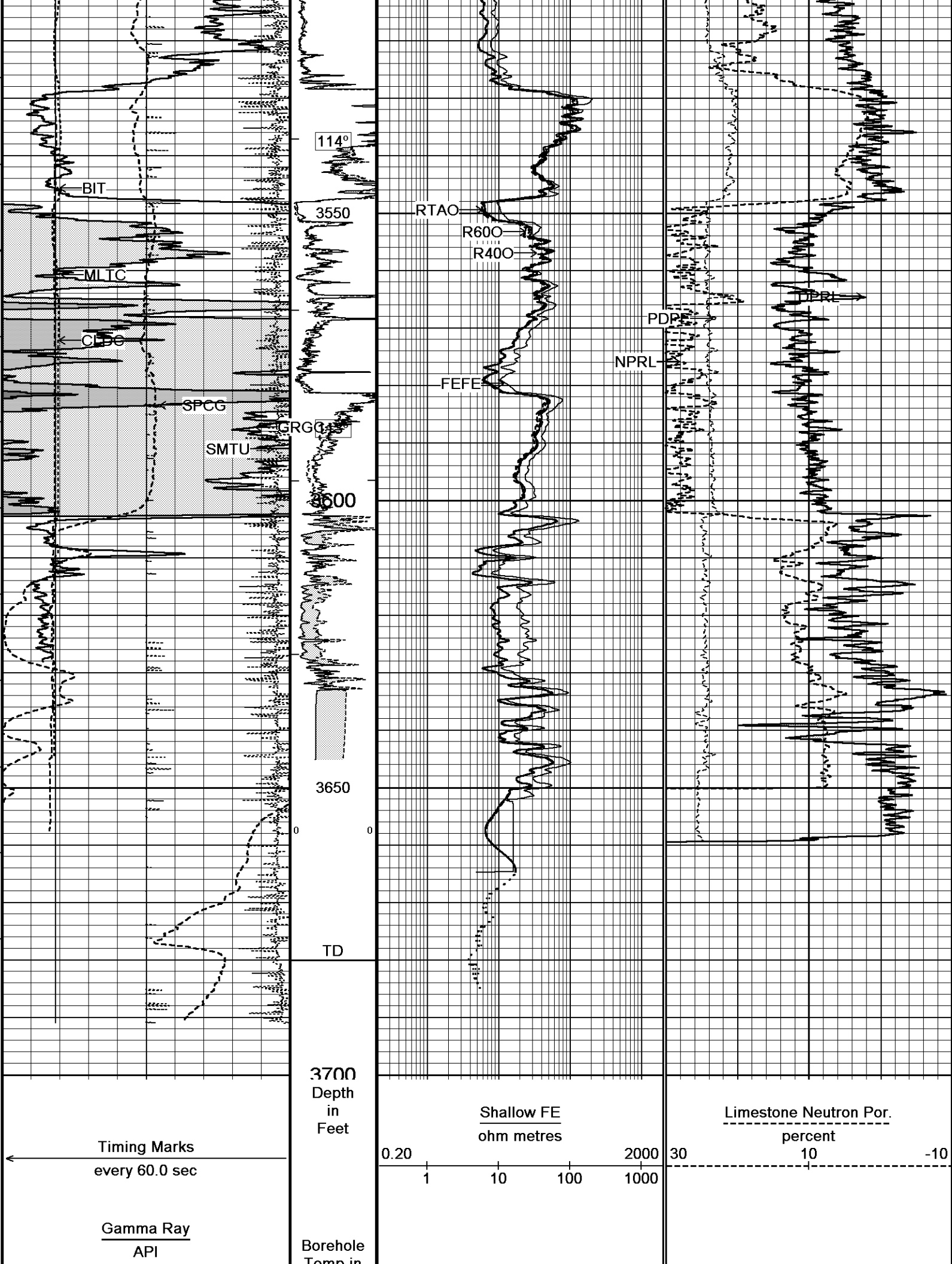


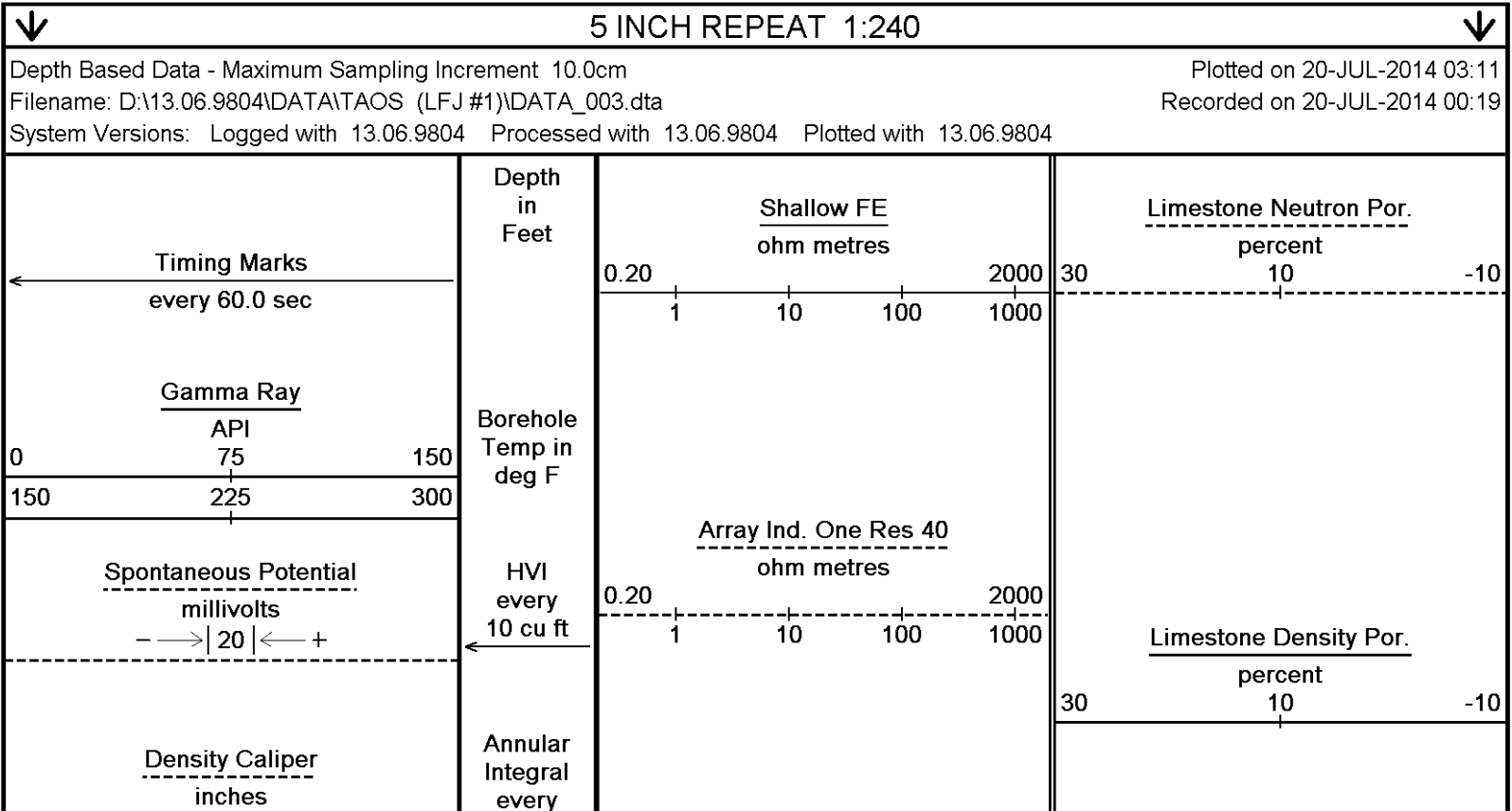
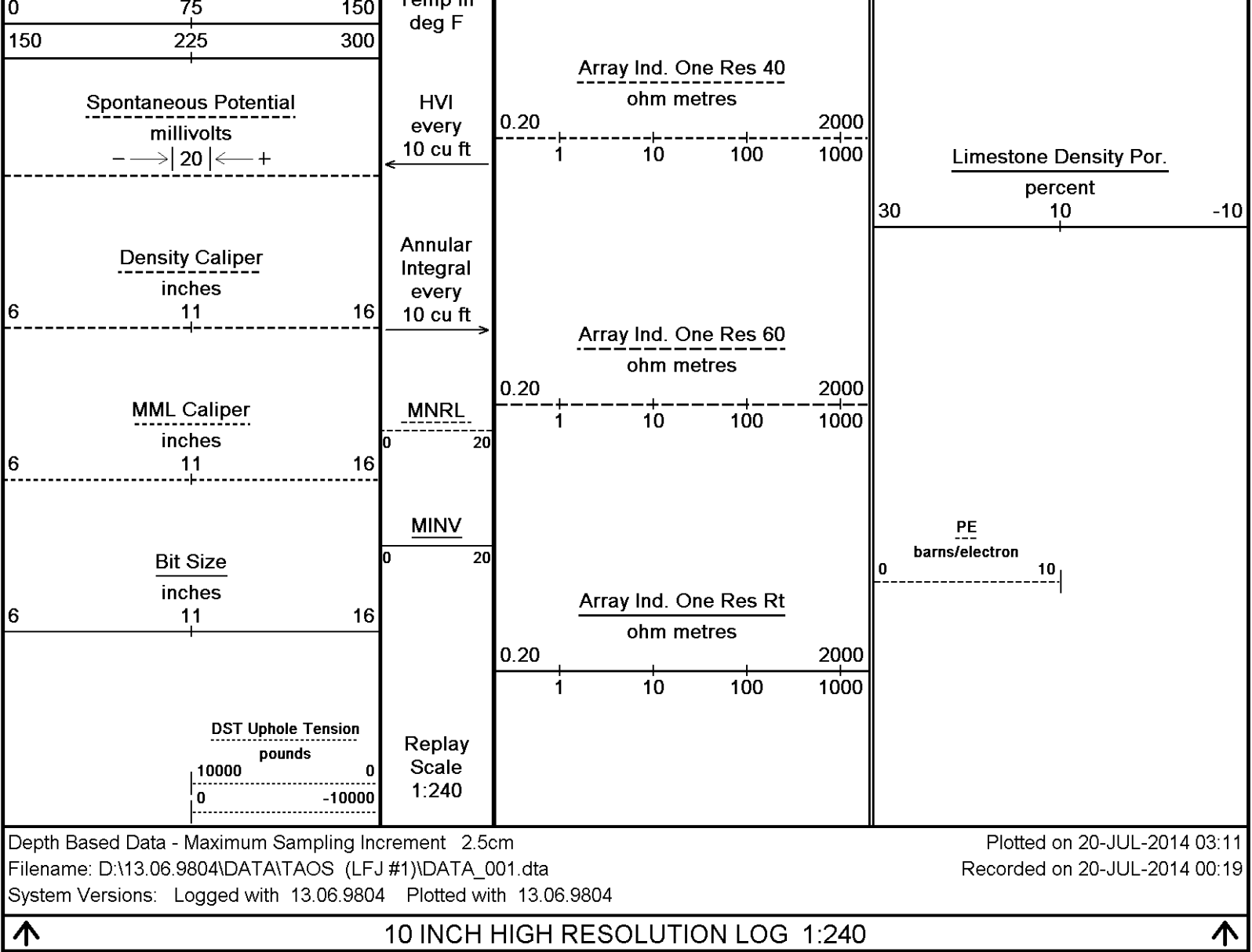


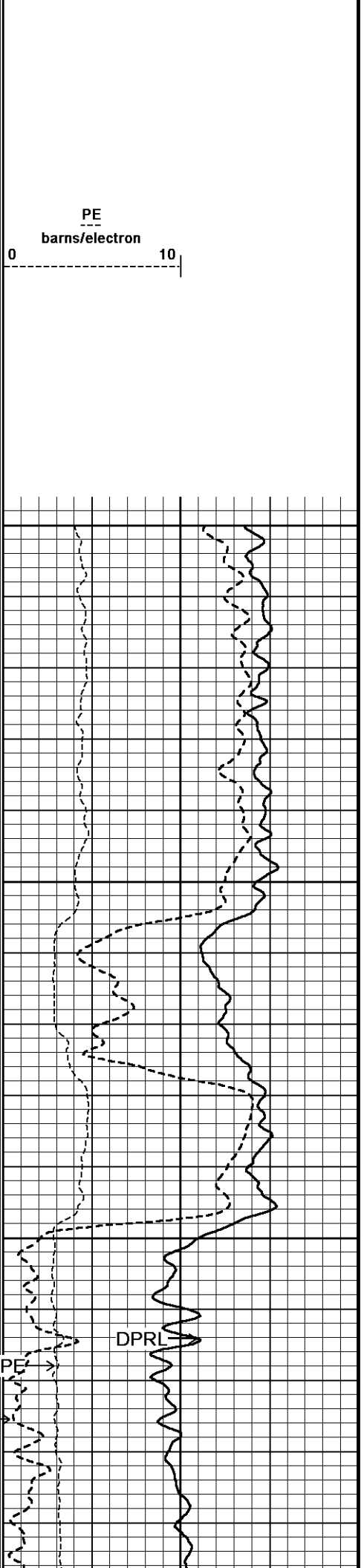
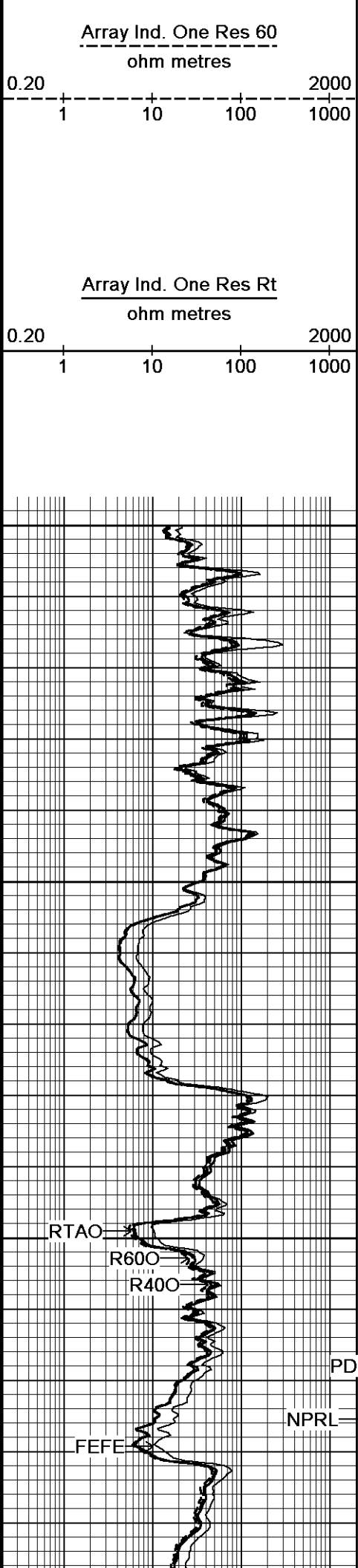
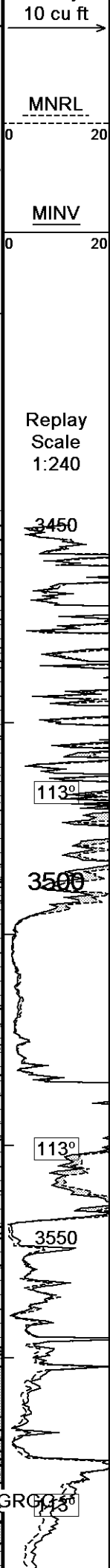
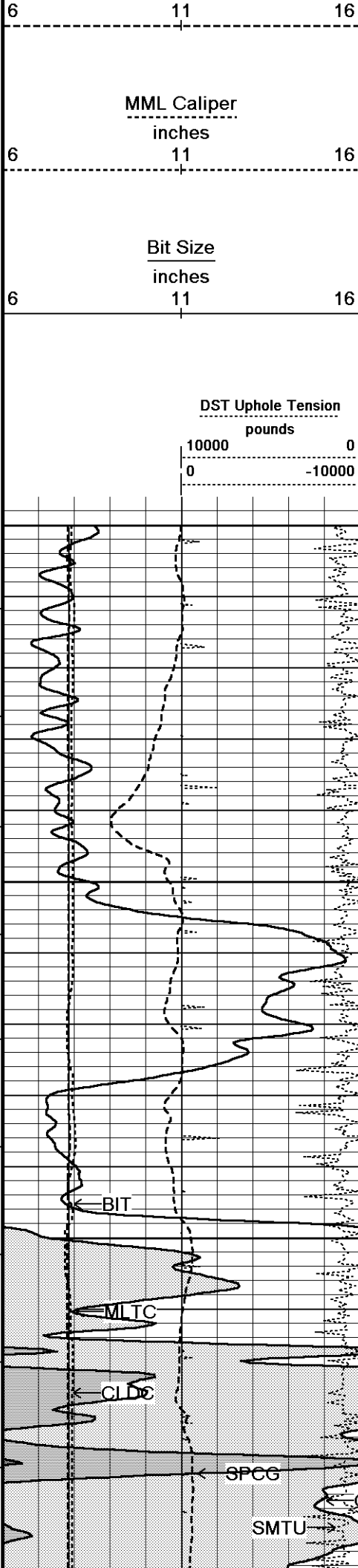


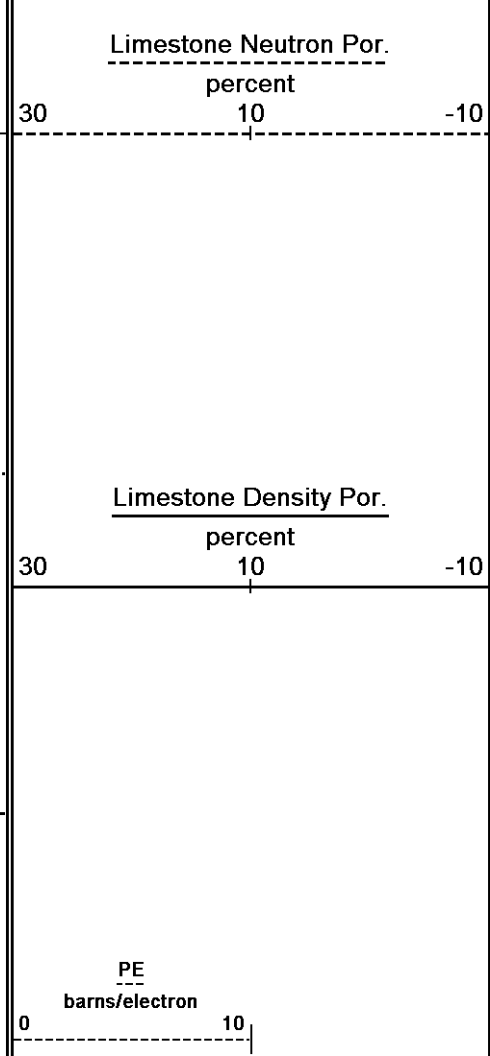
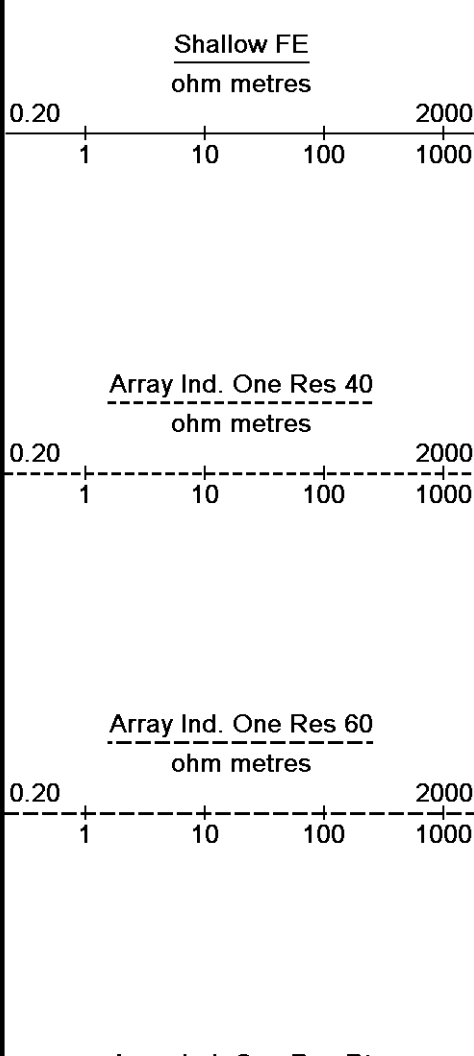
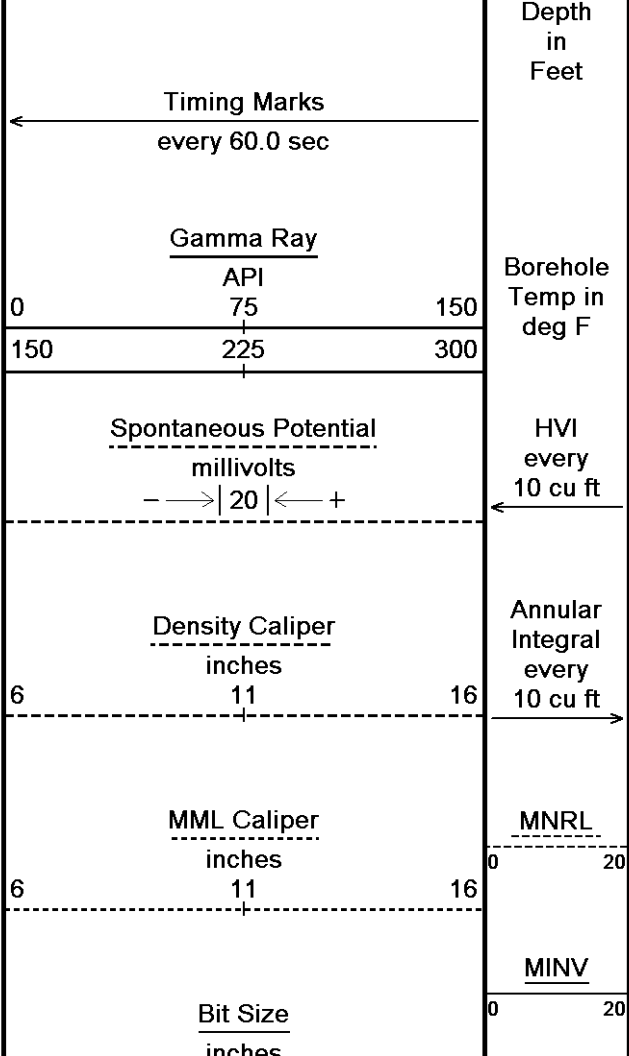
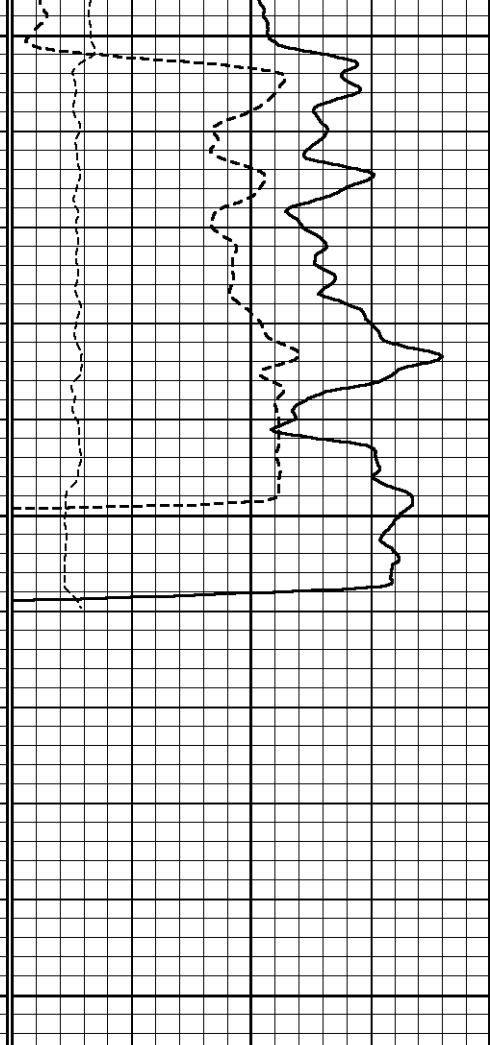
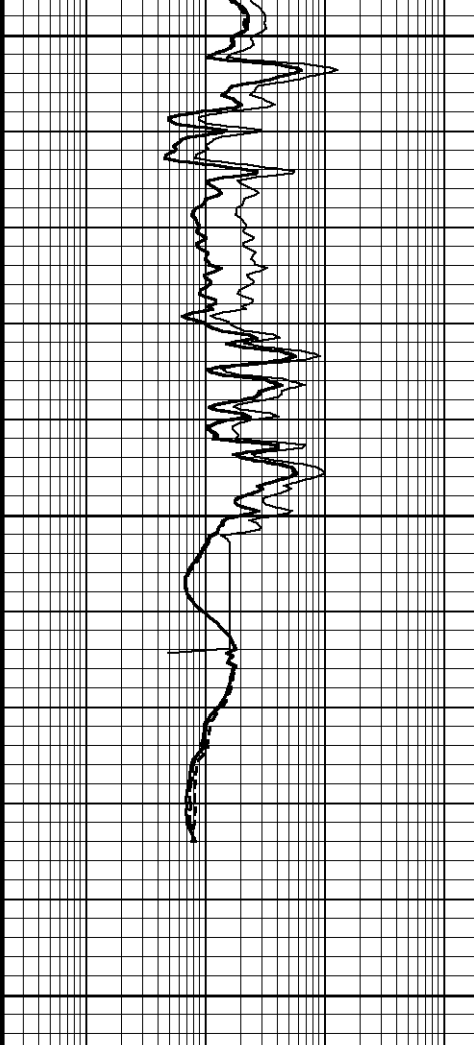
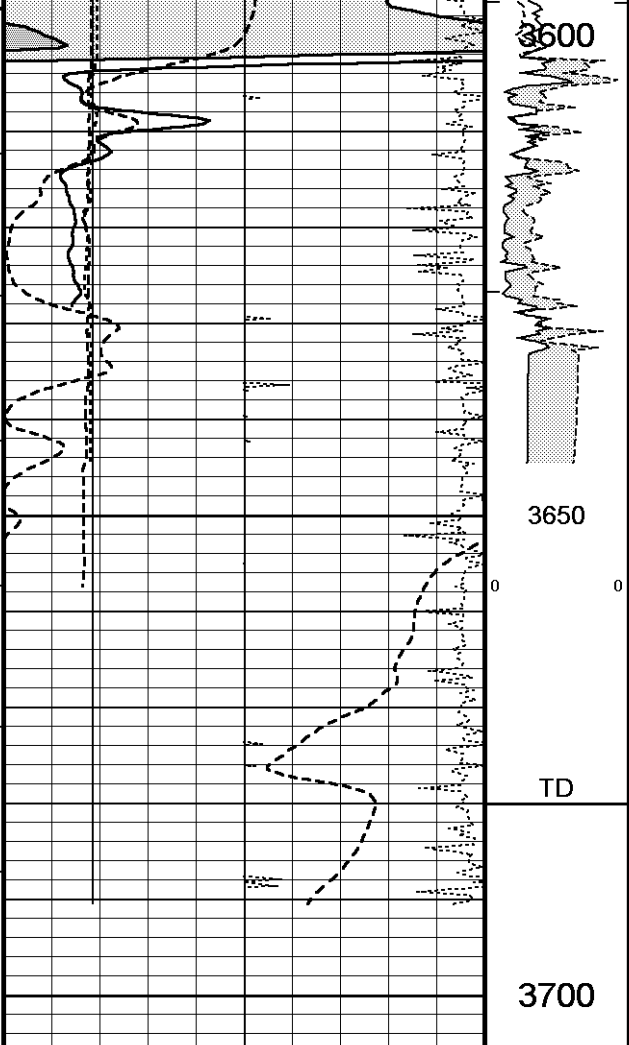


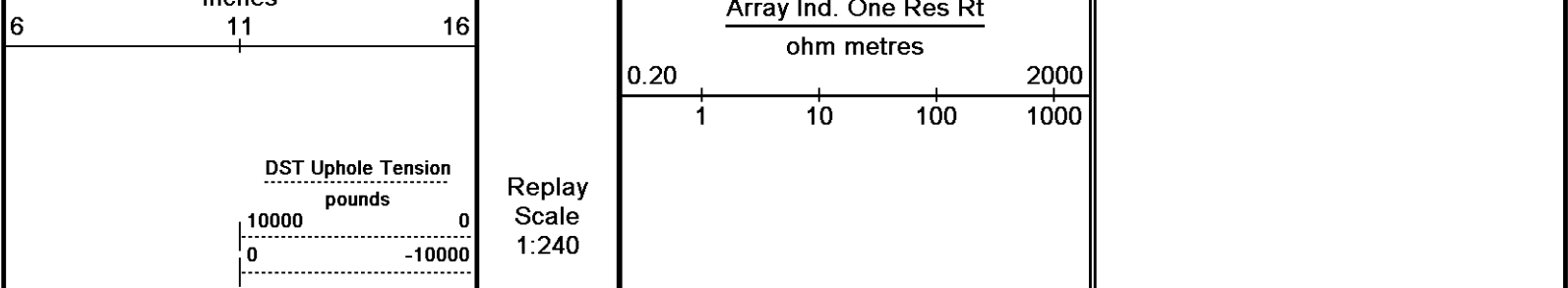












Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 20-JUL-2014 03:11
 Filename: D:\13.06.9804\DATA\TAOS (LFJ #1)\DATA_003.dta Recorded on 20-JUL-2014 00:19
 System Versions: Logged with 13.06.9804 Processed with 13.06.9804 Plotted with 13.06.9804

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↑
 5 INCH REPEAT 1:240

BEFORE SURVEY CALIBRATION
 D:\13.06.9804\DATA\TAOS (LFJ #1)\DATA_001.dta

General Constants All 000		Last Edited on 19-JUL-2014,22:48
General Parameters		
Mud Resistivity	1.900	ohm-metres
Mud Resistivity Temperature	90.000	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-D.K 475			Field Calibration on 14-JUL-2014,11:07
	Measured	Calibrated(Deg F)	
Lower	50.00	50.00	
Upper	100.00	100.00	

High Resolution Temperature Constants MCG-D.K 475		Last Edited on 14-JUL-2014,11:07
Pre-filter Length	11	

SP Calibration MCG-D.K 475			Field Calibration on 14-JUL-2014,11:08
	Measured	Calibrated (mV)	
Reference 1	100.0	100.0	
Reference 2	-100.0	-100.0	

Gamma Calibration MCG-D.K 475			Field Calibration on 14-JUL-2014 12:58
	Measured	Calibrated (API)	
Background	37	25	
Calibrator (Gross)	1067	721	
Calibrator (Net)	1029	696	

Gamma Constants MCG-D.K 475		Last Edited on 19-JUL-2014,22:36
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Gamma Calibrator Number	36	
Mud Density	1.10	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 11-JUL-2014,10:55 Field Check on 19-JUL-2014 17:01	
Base Calibration					
		Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2	
Micro Normal	11.8	60.2	2.6	12.8	
Micro Inverse	15.7	78.1	1.7	8.4	
Channel	Base Check (ohm-m)		Field Check (ohm-m)		
Micro Normal	32.0		32.0		
Micro Inverse	16.4		16.4		

Micro Normal and Micro Inverse Constants MML-A 7				Last Edited on 19-JUL-2014,17:00	
Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159				
Micro Normal K Factor	0.5110				
Micro Inverse K Factor	0.3380				
Standoff Offset	N/A inches				

Caliper Calibration MML-A 7				Base Calibration on 12-MAR-2014 14:05 Field Calibration on 14-JUL-2014 11:06	
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)		
	9.99		9.84		

Neutron Calibration MDN-C.A 460				Base Calibration on 12-MAY-2014 09:00 Field Check on 14-JUL-2014 13:07	
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	0.674				

Neutron Constants MDN-C.A 460				Last Edited on 19-JUL-2014,17:16	
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 11-JUL-2014 13:14 Field Check on 19-JUL-2014 17:09
Base Calibration		
	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	967.3	126.8
Base Check		282.5
Field Check		282.5
FE Constants MFE-A.A 54		Last Edited on 19-JUL-2014,17:06
Running Mode	No Sleeve	
MFE K Factor	0.1268	
Caliper Source for FE correction	Bit Size	
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)
3'	N/A	N/A
4'	N/A	N/A
5'	N/A	N/A
6'	N/A	N/A
Pre Gain		
Start Gain		
Discriminator (mV)		
Processed Fixed Gate Parameters		
Waveform Used For Processing	N/A	
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)
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 14-JUL-2014,10:36
	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 14-JUL-2014,10:36
Pre-filter Length	11		

Induction Calibration MAI-A.A 102				Base Calibration on 18-MAR-2014,09:37	
				Field Check on 19-JUL-2014 17:14	
Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	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			11.6	3808.9	
2			29.5	3603.3	
3			27.9	3131.0	
4			15.7	2099.9	
Deep			14.1	2018.6	
Medium			44.3	4177.3	
Shallow			47.8	5348.9	
Array Temperature			80.6	Deg F	

Induction Constants MAI-A.A 102			Last Edited on 19-JUL-2014,17:11
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 11-JUL-2014 14:48

Field Calibration on 14-JUL-2014 10:47

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	20532	3.98
2	29639	5.96
3	39502	7.97
4	49205	9.84
5	60303	11.91
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.06	7.97

Photo Density Calibration MPD-A.A 11

Base Calibration on 11-JUL-2014 13:55

Field Check on 19-JUL-2014 17:06

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	47948	25311	59869	31110
Reference 2	19880	2417	24557	2522

Field Check at Base

1151.8 1240.9

Field Check

1146.9 1241.2

PE Calibration

Base Calibration	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	210	1027		
Reference 1	17658	47767	0.373	0.369
Reference 2	5294	19747	0.272	0.271

Field Check at Base

209.5 1026.8

Field Check

209.0 1024.3

Density Constants MPD-A.A 11

Last Edited on 19-JUL-2014,22:36

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	1.10	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
DMCT	0.00	

DNCI	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 131

Base Calibration on 11-SEP-2013 10:27

Field Calibration on 11-SEP-2013 10:00

Base Calibration

Potassium Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	77.6	27.1	3.1	0.9	1.5
Calibrator (Gross)	202.6	110.6	26.3	0.8	1.4
Calibrator (Net)	125.0	83.5	23.2	-0.1	-0.0

Concentrations	K %	U ppm	Th ppm
	5.8	0.0	0.0

Uranium Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	77.6	27.1	3.1	0.9	1.5
Calibrator (Gross)	526.2	185.8	15.9	10.3	4.7
Calibrator (Net)	448.5	158.7	12.8	9.3	3.2

Concentrations	K %	U ppm	Th ppm
	0.0	14.8	0.0

Thorium Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	77.6	27.1	3.1	0.9	1.5
Calibrator (Gross)	394.6	144.2	11.6	6.3	15.8
Calibrator (Net)	316.9	117.1	8.5	5.4	14.4

Concentrations	K %	U ppm	Th ppm
	0.0	0.0	44.3

Mixture Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	77.6	27.1	3.1	0.9	1.5
Calibrator (Gross)	937.8	380.4	48.6	15.2	18.3
Calibrator (Net)	860.2	353.3	45.5	14.3	16.9

Field Calibration

Gamma Ray

	Measured	Calibrated (API)
Background	115	22
Calibrator (Gross)	1406	272
Calibrator (Net)	1290	250

Mixture Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	77.6	27.1	3.1	0.9	1.5
Calibrator (Gross)	937.8	380.4	48.6	15.2	18.3
Calibrator (Net)	860.2	353.3	45.5	14.3	16.9

Spectral Gamma Constants SGS-E.J 131

Last Edited on 19-JUL-2014,22:36

Background Calibrator Number	496	
Mixture Calibrator Number	525	
Potassium Calibrator Number	499	
Uranium Calibrator Number	505	
Thorium Calibrator Number	502	
Mud Density	1.10	gm/cc
Caliner Source for Processing	Bit Size	

Caliper Course for Processing

Tool Position
Concentration of KCl
K Mud Type
K Mud Concentration

Bit Size
Centred

Chloride
0.00

kppm

%

DOWNHOLE EQUIPMENT

D:\13.06.9804\DATA\TAOS (LFJ #1)\DATA_001.dta

Compact Comms Gamma
MCG-D.K 475 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Spectral Gamma Ray Sub
SGS-E.J 131 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

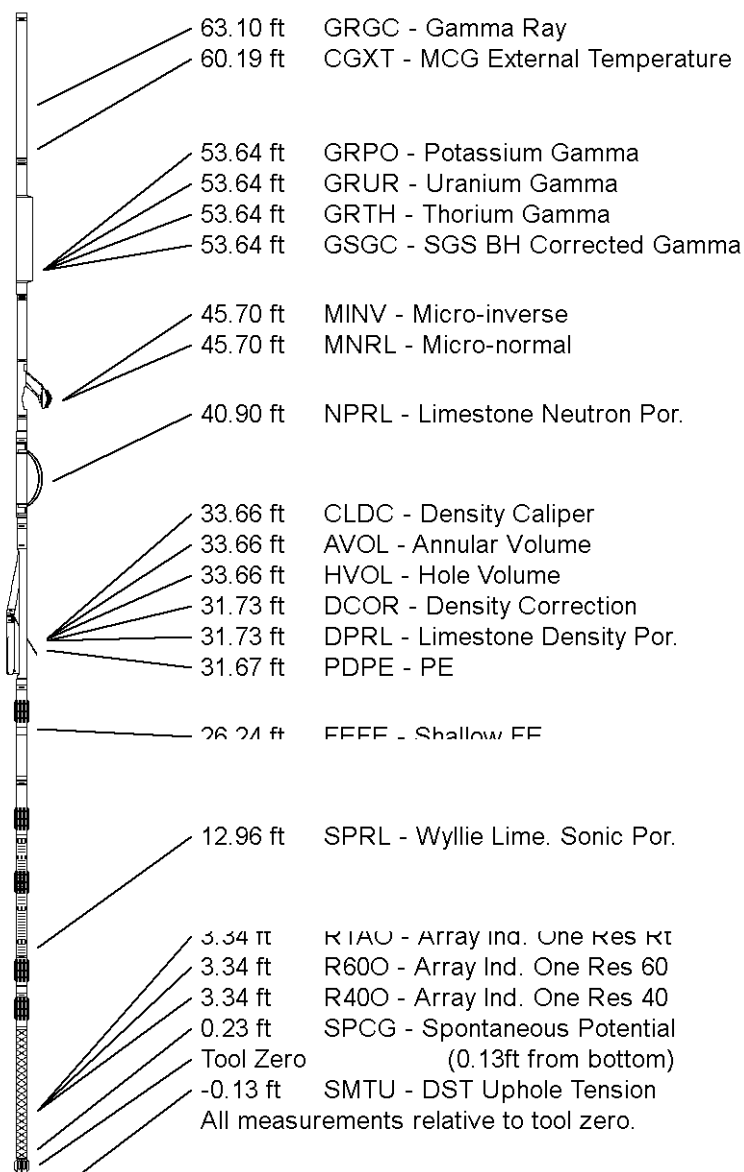
Compact Density/Caliper
MPD-A.A 11 LG: 9.53 ft WT: 90.4 lb OD: 2.45 in

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

LFJ#1

FIELD

WEST MADDIX

PROVINCE/COUNTY

COWLEY

COUNTRY/STATE

U.S.A / KANSAS

Elevation Kelly Bushing 1310.00 feet
Elevation Drill Floor 1309.00 feet
Elevation Ground Level 1300.00 feet

First Reading 3677.00 feet
Depth Driller 3683.00 feet
Depth Logger 3680.00 feet



COMPOSITE

LOG

Weatherford®

