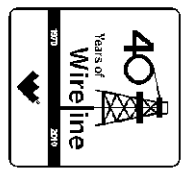




**Weatherford**

**COMPENSATED SONIC  
W/ INTEGRATED TRANSIT TIME**

COMPANY OXY USA, INC.  
 WELL ELIZABETH A. COX #6  
 FIELD VICTORY  
 PROVINCE/COUNTY HASKELL  
 COUNTRY/STATE U.S.A. / KANSAS  
 LOCATION 2080' FSL & 1230' FEL



SEC 8 TWP 30S RGE 33W Other Services MAI/MFE MDN/MPD MML  
 API Number 15-081-21943  
 Permit Number

Permanent Datum G.L., Elevation 2968 feet  
 Log Measured From K.B. @ 11 FEET above Permanent Datum  
 Drilling Measured From K.B.

Elevations: KB 2979.00 DF 2977.00 GL 2968.00

Date	05-JUL-2011
Run Number	ONE
Depth Driller	5560.00 feet
Depth Logger	5566.00 feet
First Reading	5553.00 feet
Last Reading	1818.00 feet
Casing Driller	1815.00 feet
Casing Logger	1818.00 feet
Bit Size	8.750 inches
Hole Fluid Type	CHEMICAL
Density / Viscosity	9.10 lb/USg 41.00 CP
PH / Fluid Loss	10.40 7.60 ml/30Min
Sample Source	FLOWLINE
Rm @ Measured Temp	1.37 @ 84.0 ohm-m
Rmf @ Measured Temp	1.10 @ 84.0 ohm-m
Rmc @ Measured Temp	1.64 @ 84.0 ohm-m
Source Rmf / Rmc	CALC CALC
Rm @ BHT	0.84 @139.0 ohm-m
Time Since Circulation	5 HOURS
Max Recorded Temp	140.00 deg F
Equipment Name	COMPACT
Equipment / Base	13057 LIB
Recorded By	A. GIAMBALVO
Witnessed By	AUSTIN GARNER
S.O. / JOB #	3531101 LB11-154

BOREHOLE RECORD			Last Edited: 05-JUL-2011 19:05
Bit Size inches	Depth From feet	Depth To feet	
8.750	1818.00	5566.00	

CASING RECORD				
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	1818.00	36.00

**REMARKS**

Tools Ran: MCG, MML, MDN, MPD, SKJ, MFE, MAI, MSS.  
 Hardware Used: MDN Dual Eccentralizer used. MPD 8 inch profile plate used. MFE MSS and MAI 0.5 inch standoffs used.  
 2.71 g/cc Limestone Density Matrix used to calculate porosity.  
 Sonic porosity calculated using a Limestone scale (47.5 usec/ft).  
 All intervals logged and scaled per customer's request.  
 Annular volume with 7 inch production casing from TD to 3500 = 305 cu. ft.  
 Service order #3531101  
 Rig: Trinidad Drilling #202  
 Engineer: A. Giambalvo  
 Operator(s): B. Reeves

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.

# 5 INCH MAIN PASS

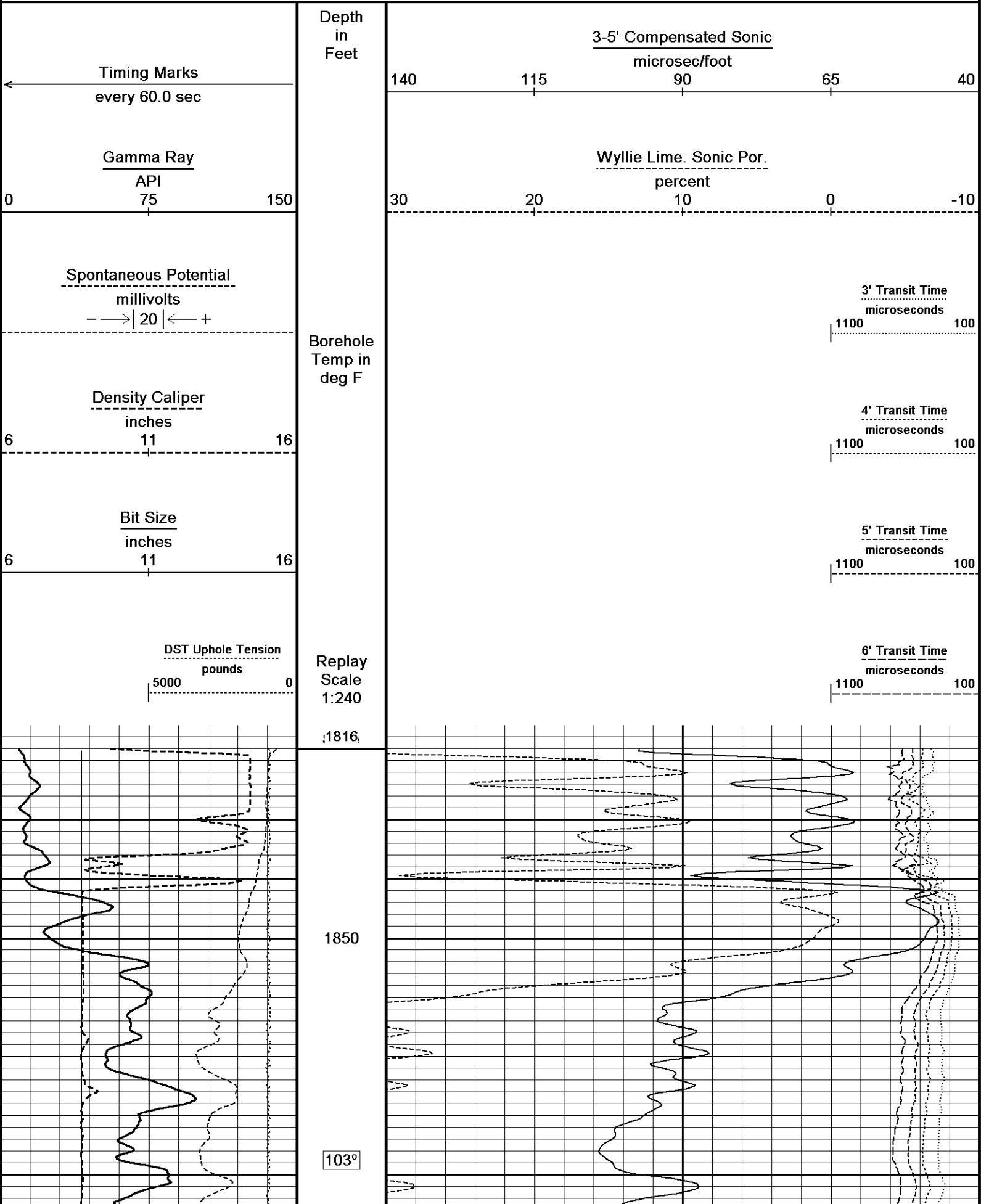
Depth Based Data - Maximum Sampling Increment 10.0cm

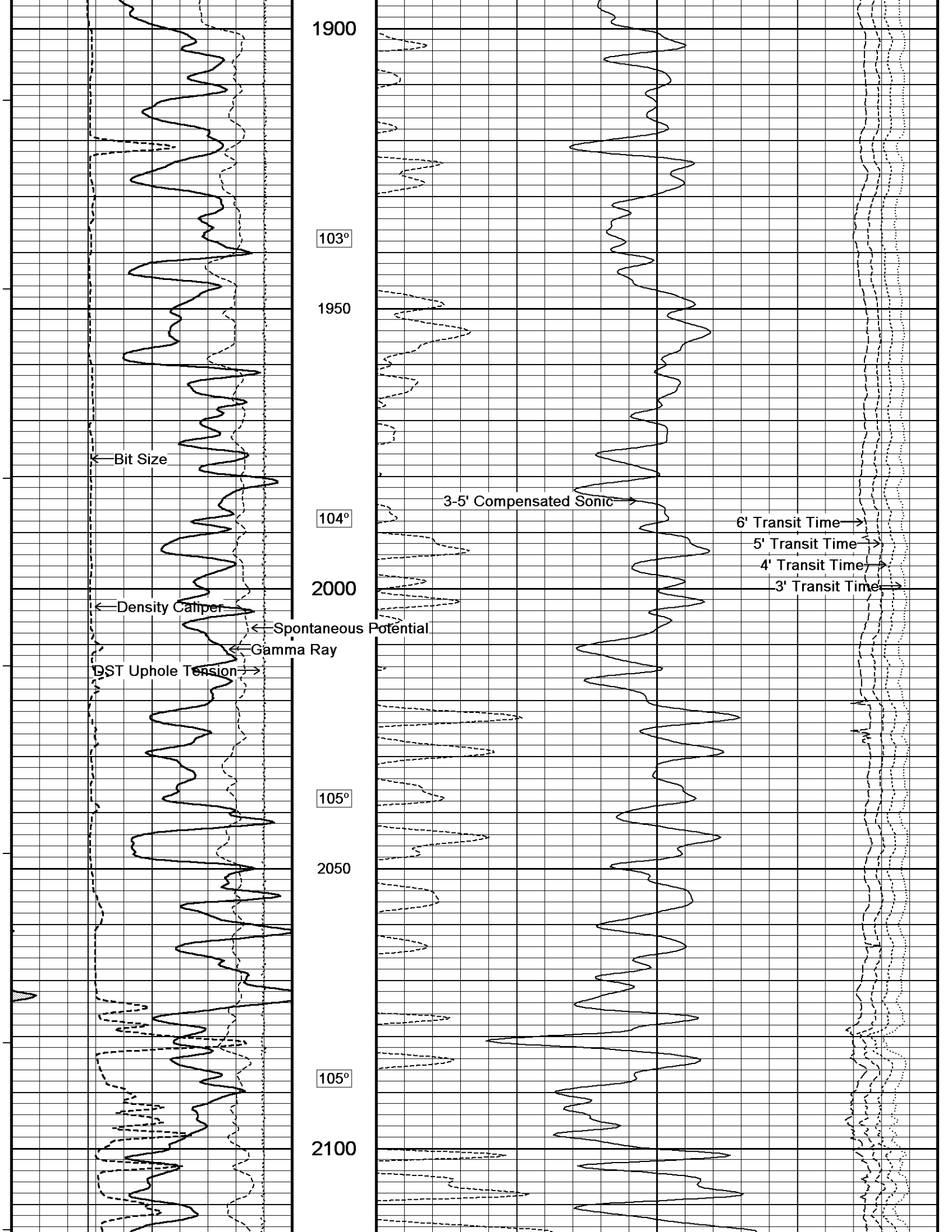
Plotted on 05-JUL-2011 19:30

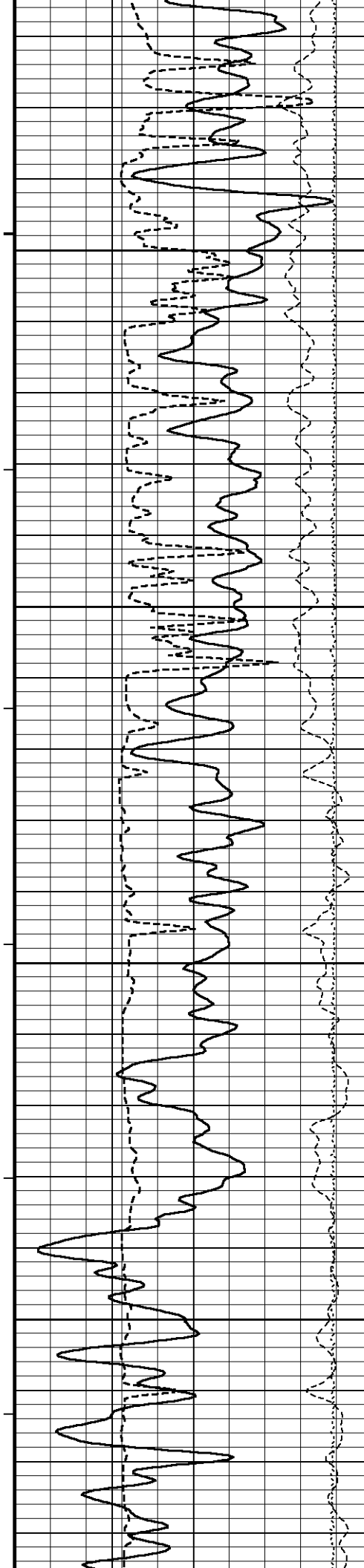
Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6\_004.dta

Recorded on 05-JUL-2011 16:55

System Versions: Logged with 11.02.3186 Plotted with 11.02.3186







105°

2150

106°

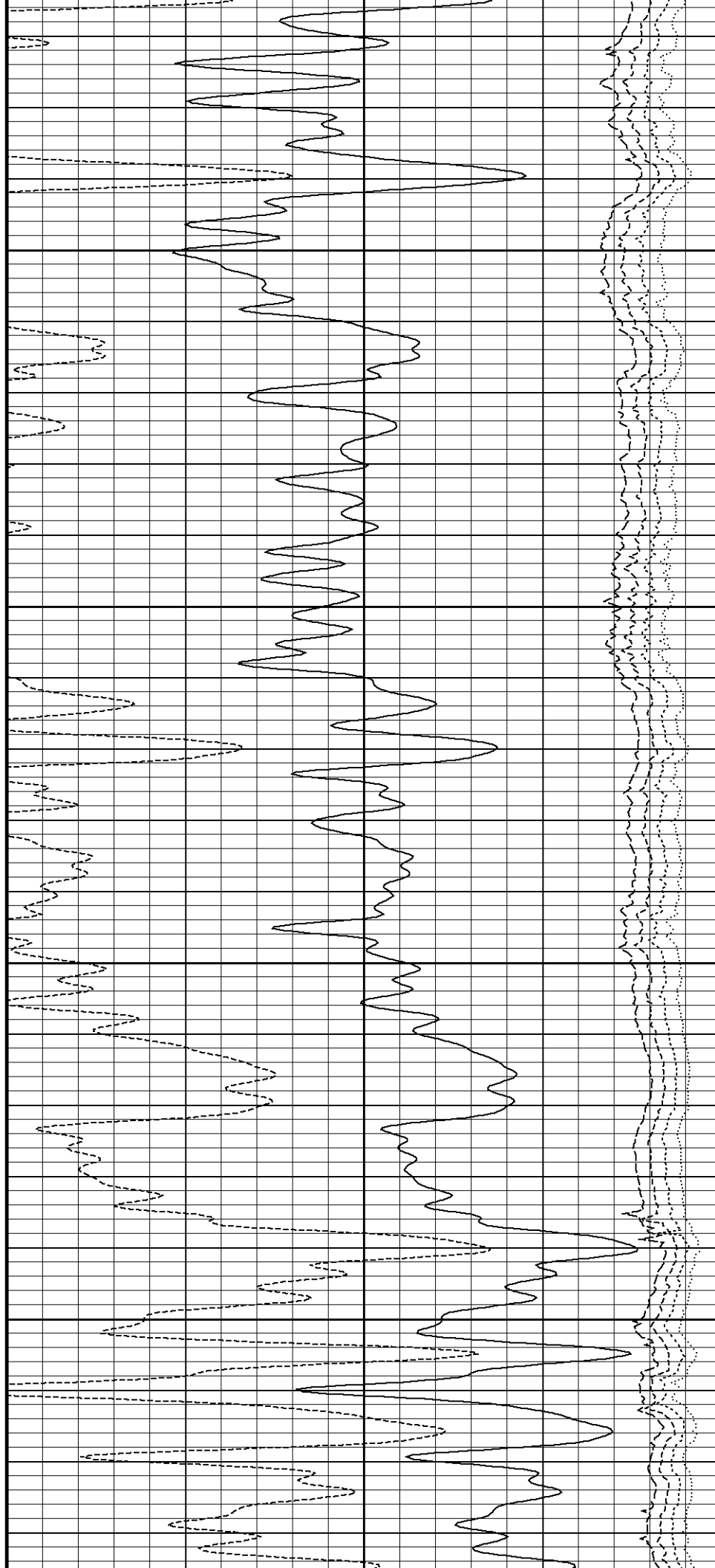
2200

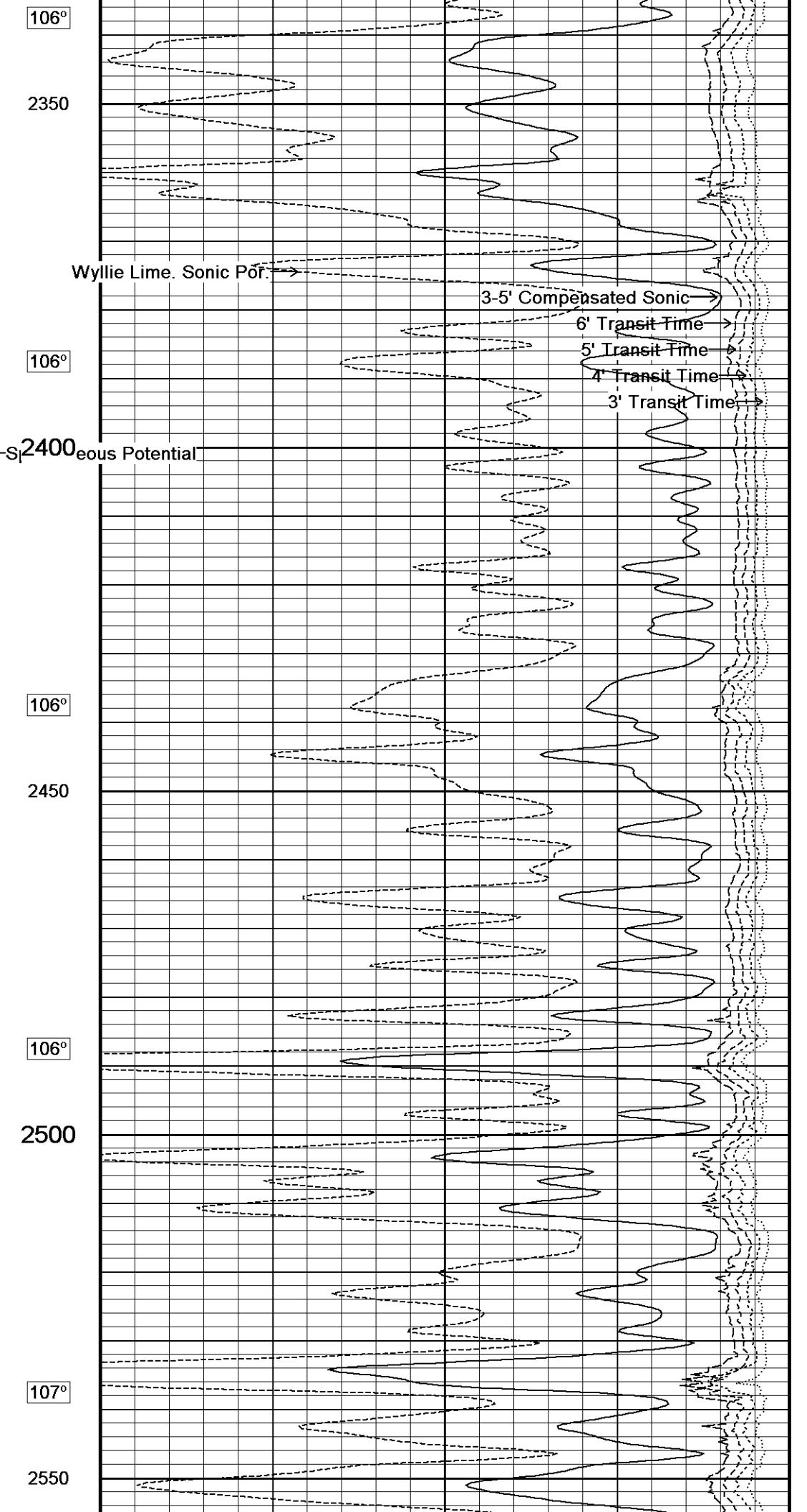
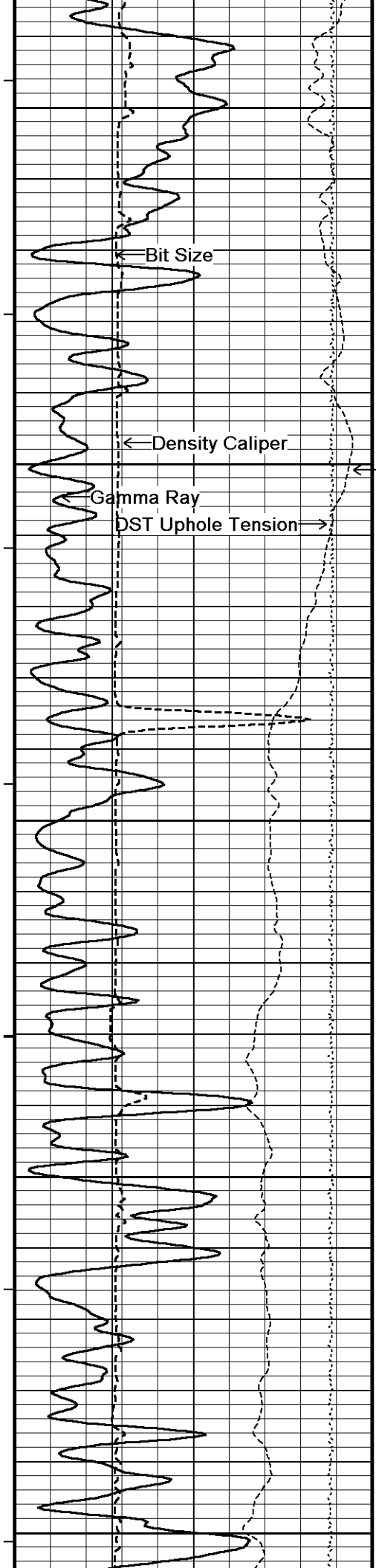
106°

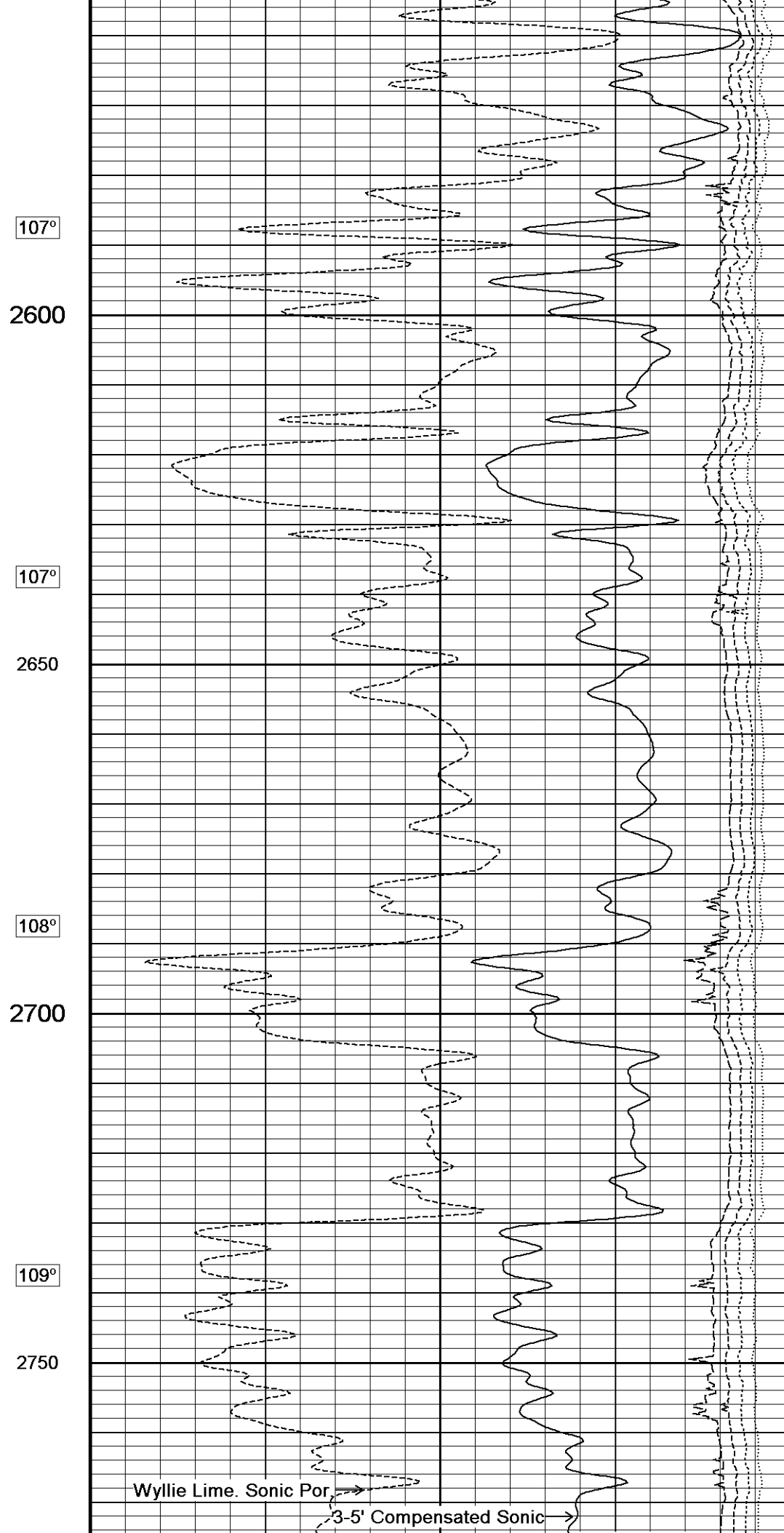
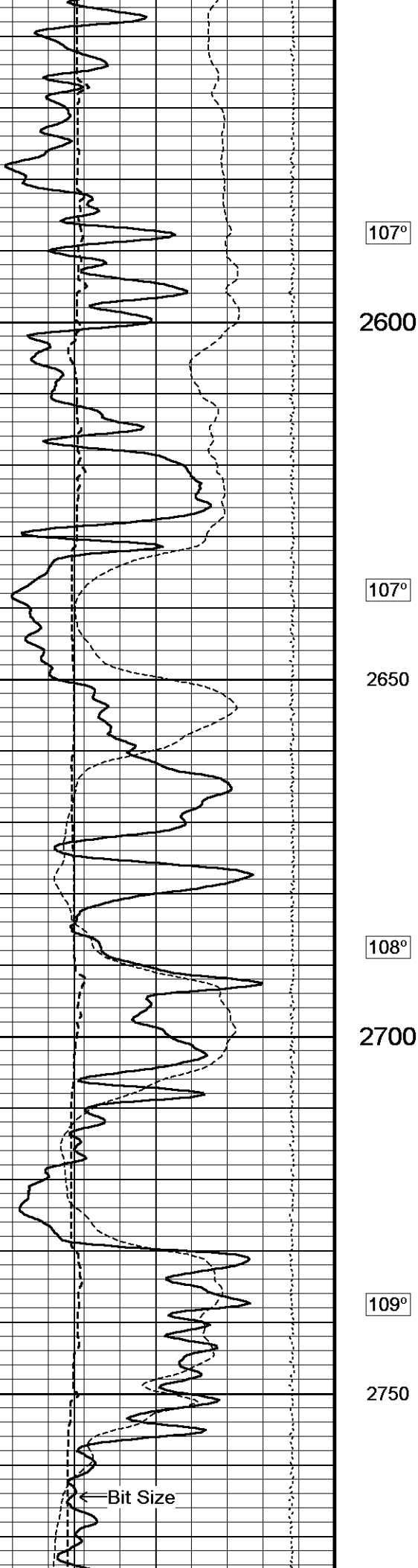
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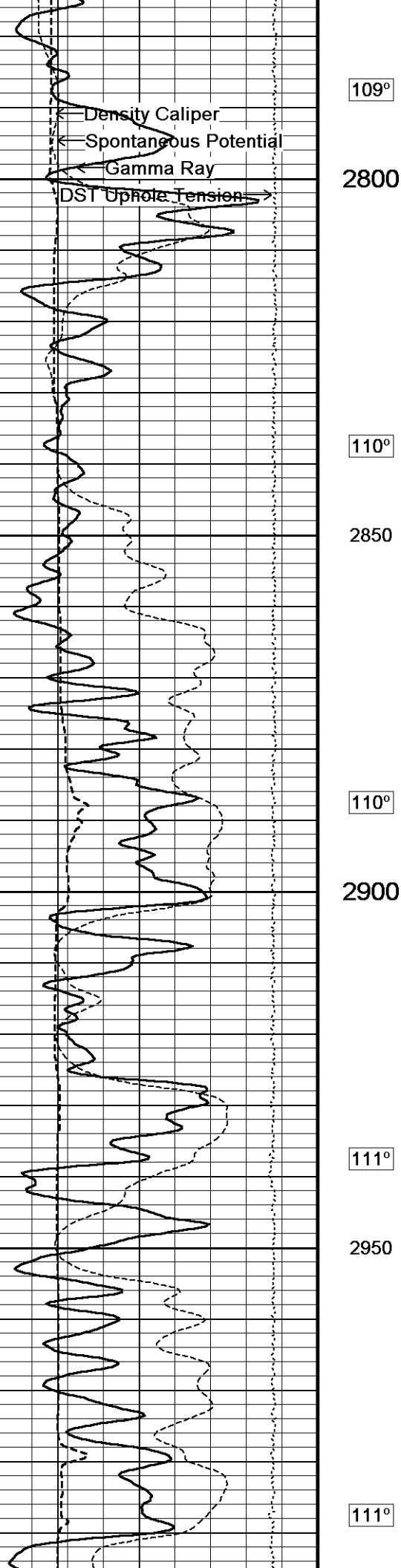
106°

2300

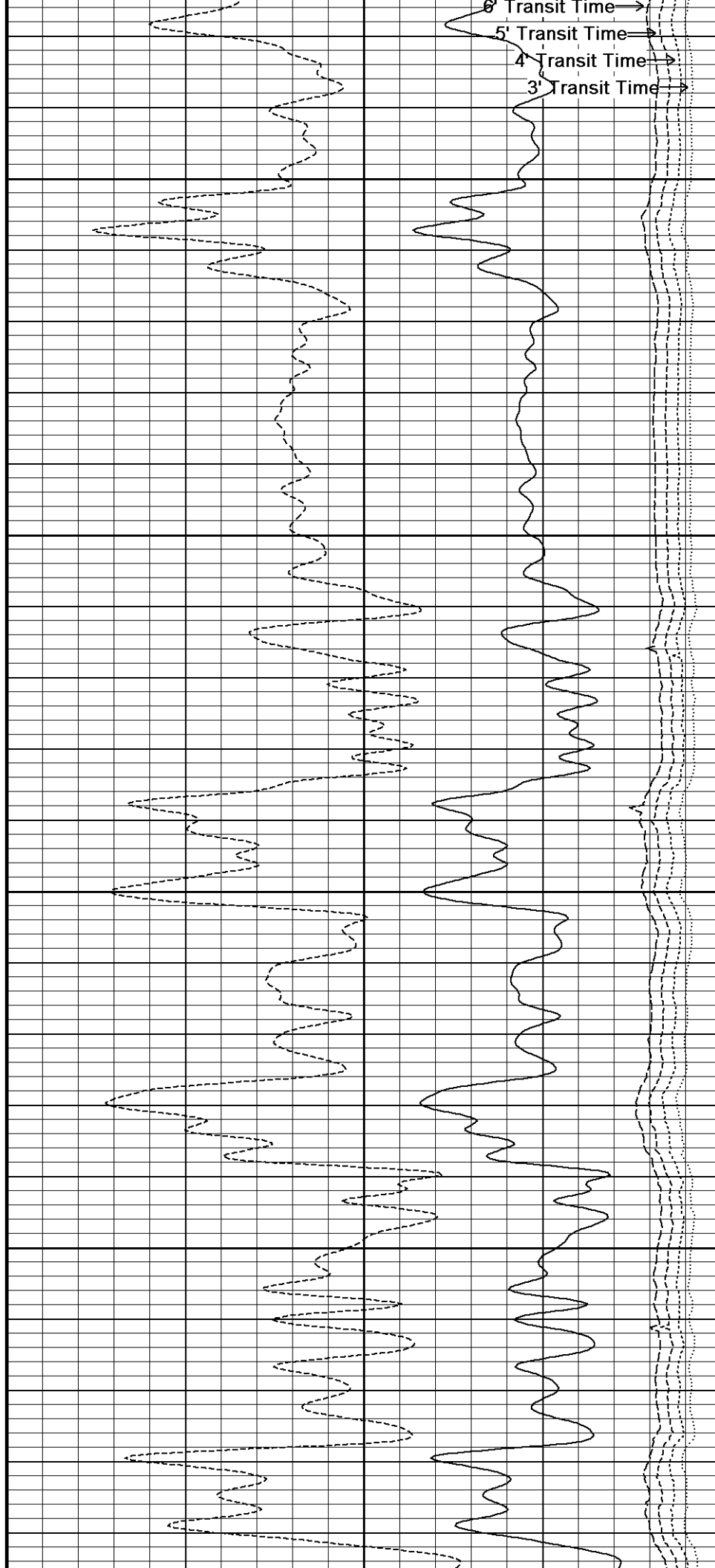




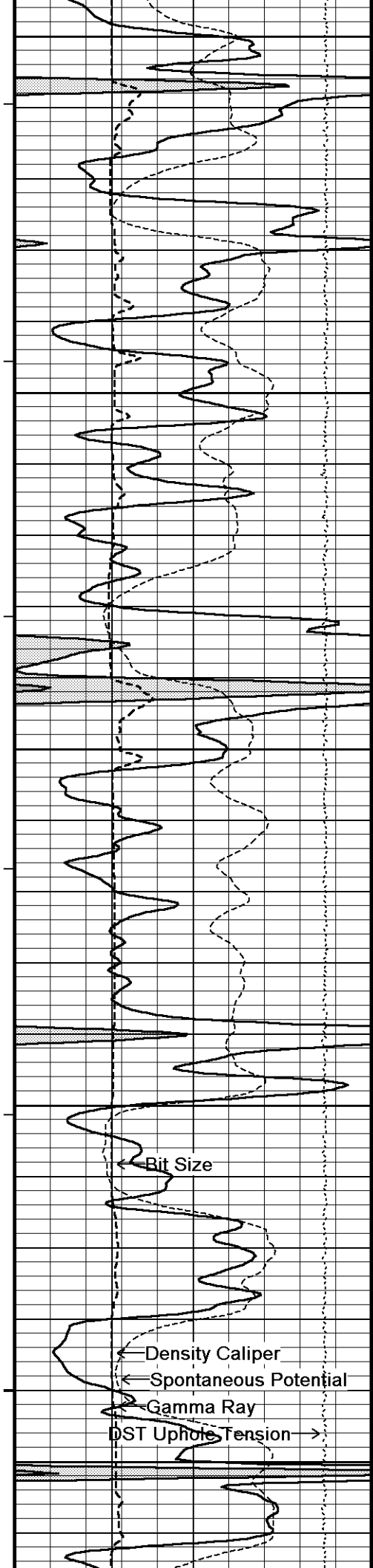




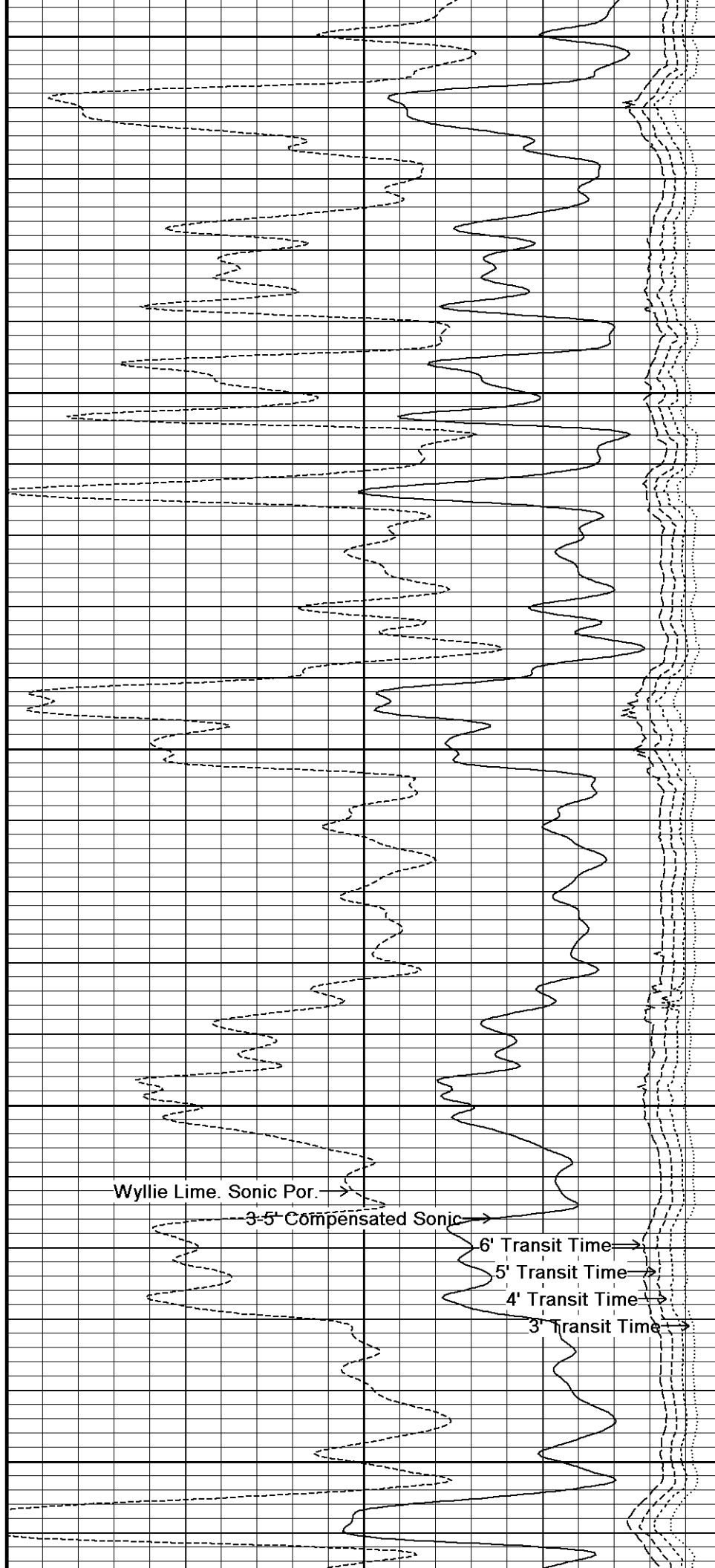
109°  
2800  
110°  
2850  
110°  
2900  
111°  
2950  
111°



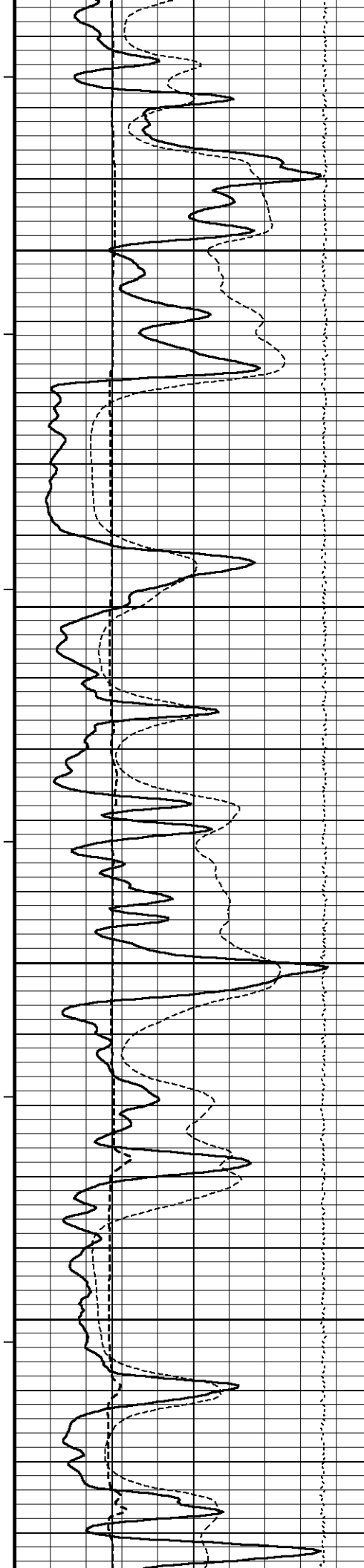
6' Transit Time →  
5' Transit Time →  
4' Transit Time →  
3' Transit Time →



3000  
112°  
3050  
112°  
3100  
113°  
3150  
113°  
3200



Wyllie Lime. Sonic Por. →  
3-5' Compensated Sonic →  
6' Transit Time →  
5' Transit Time →  
4' Transit Time →  
3' Transit Time →



114°

3250

114°

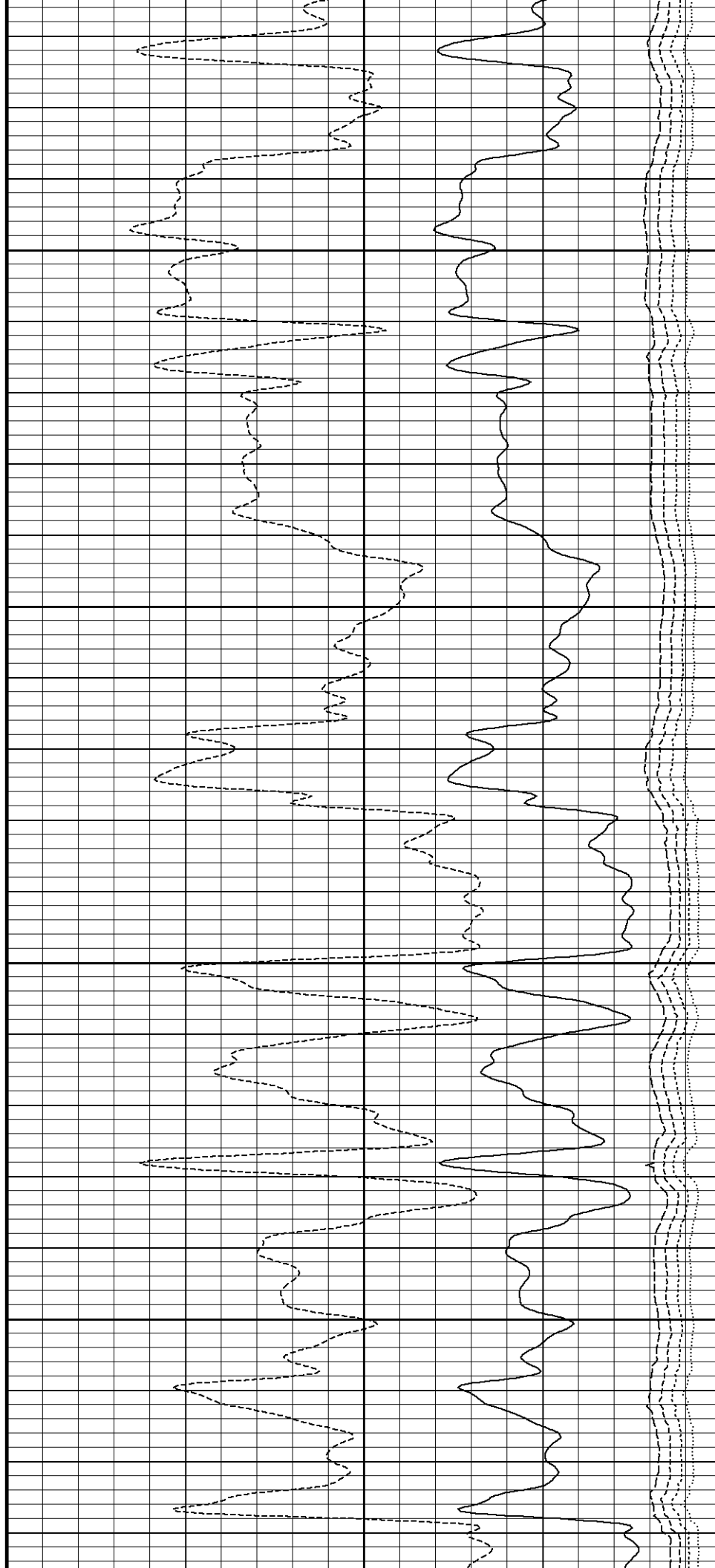
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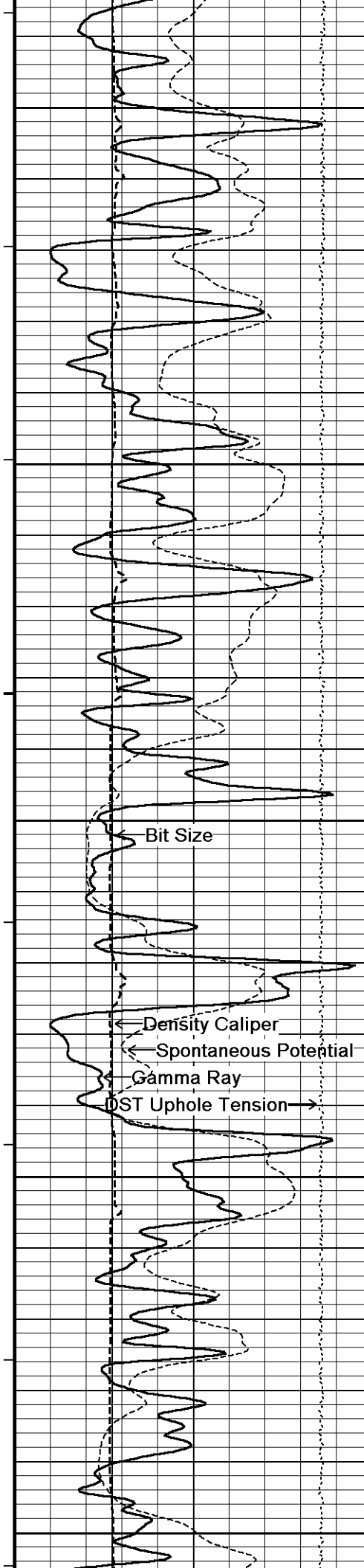
114°

3350

115°

3400





115°

3450

116°

3500

116°

3550

Wyllie Lime. Sonic Por. →

3-5' Compensated Sonic →

6' Transit Time →

5' Transit Time →

4' Transit Time →

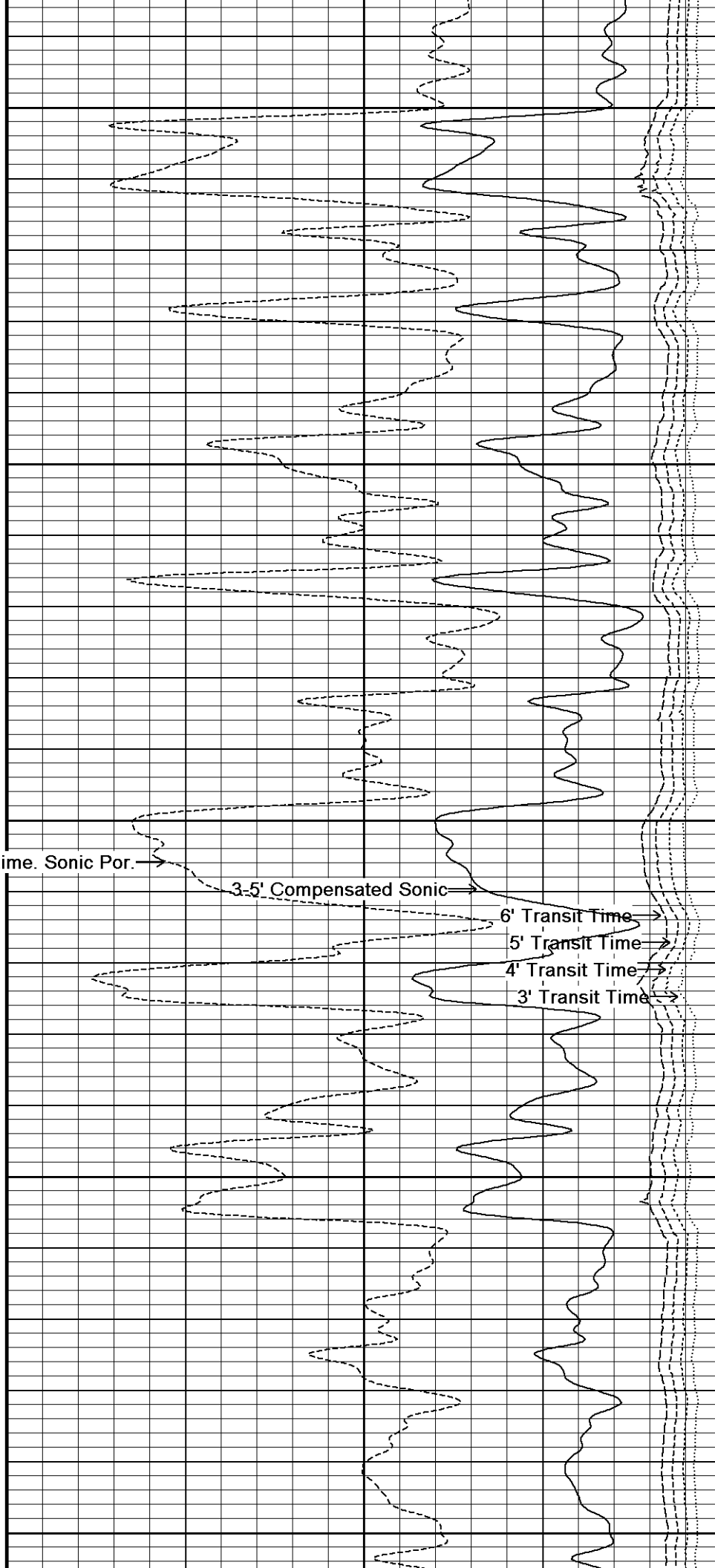
3' Transit Time →

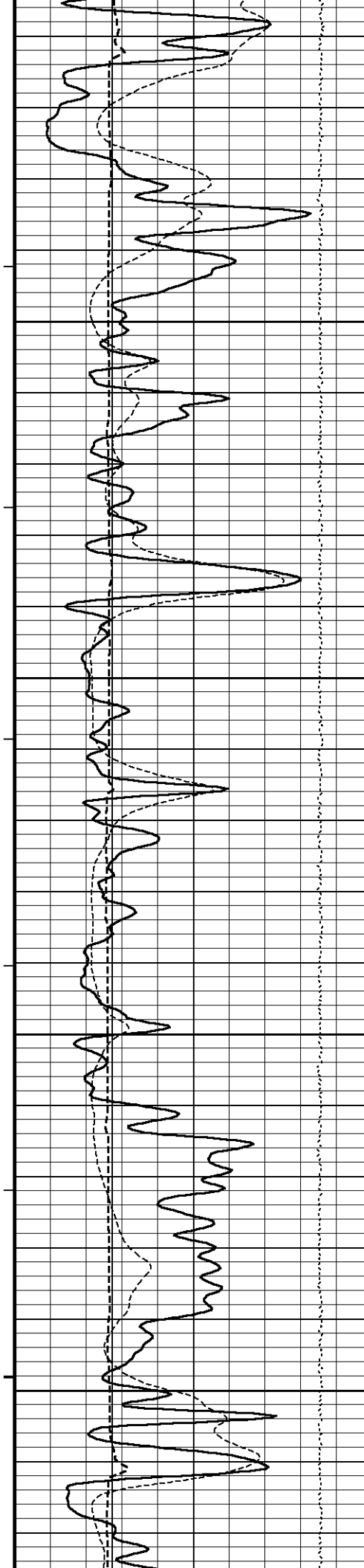
117°

3600

117°

3650





118°

3700

118°

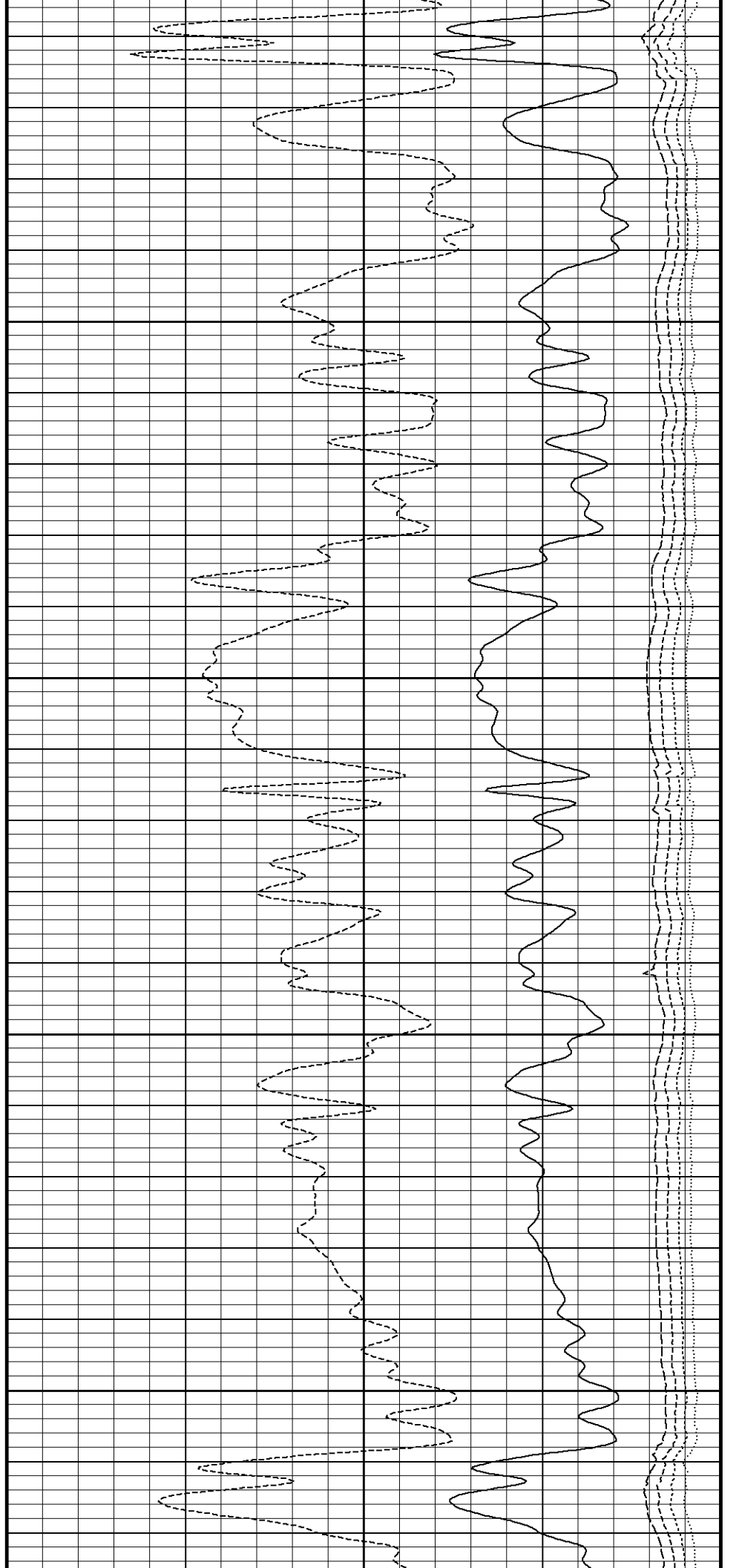
3750

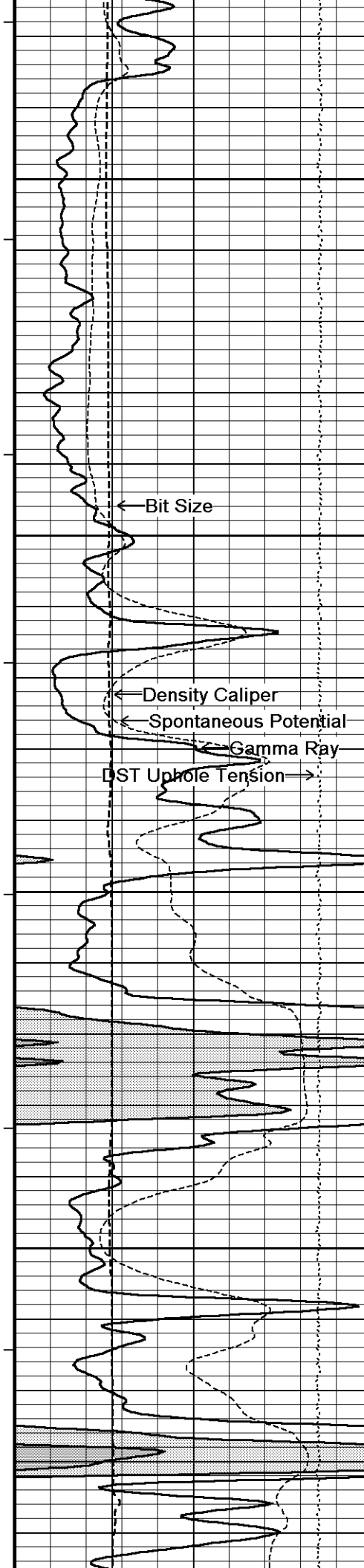
119°

3800

119°

3850





120°

3900

120°

3950

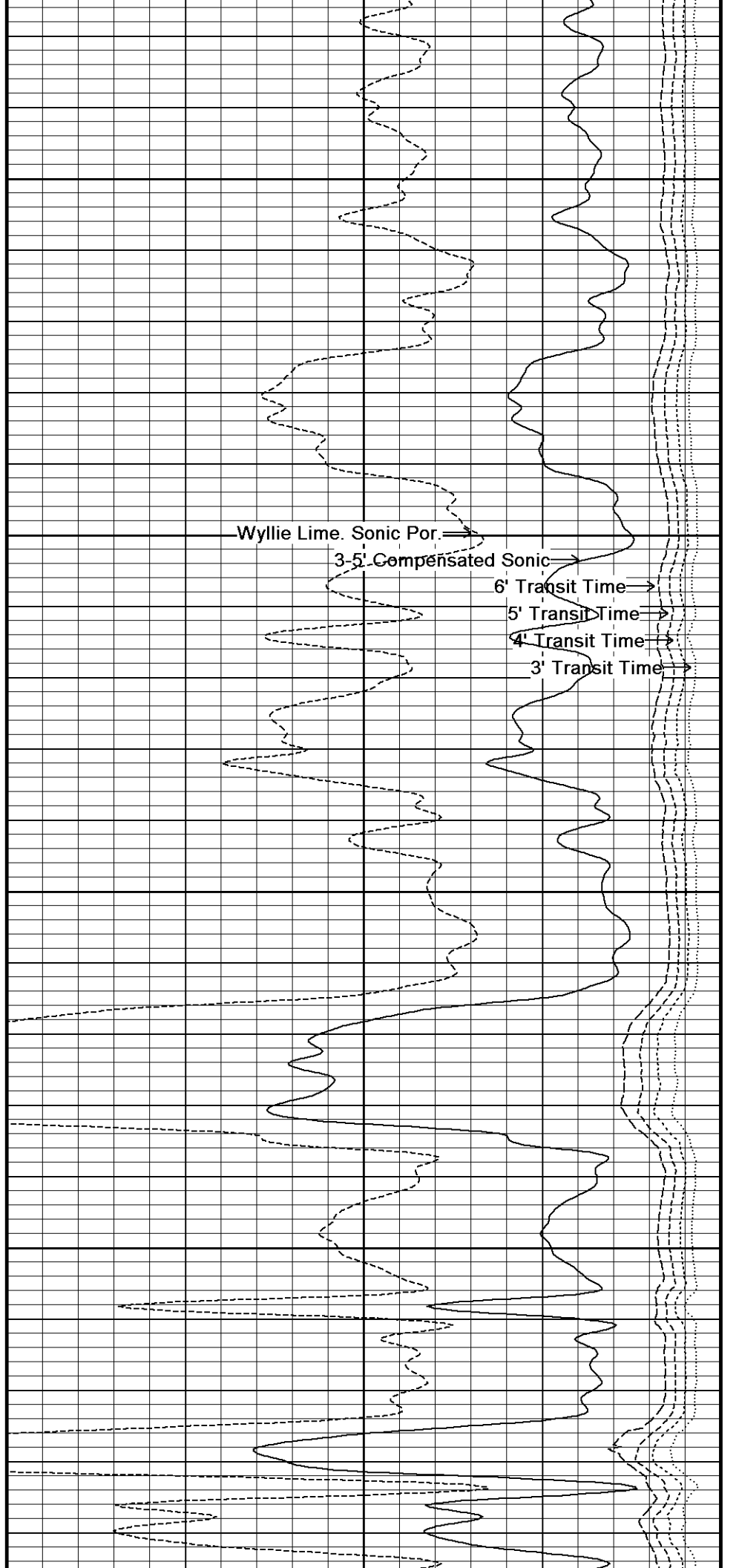
121°

4000

121°

4050

122°



Wyllie Lime. Sonic Por.

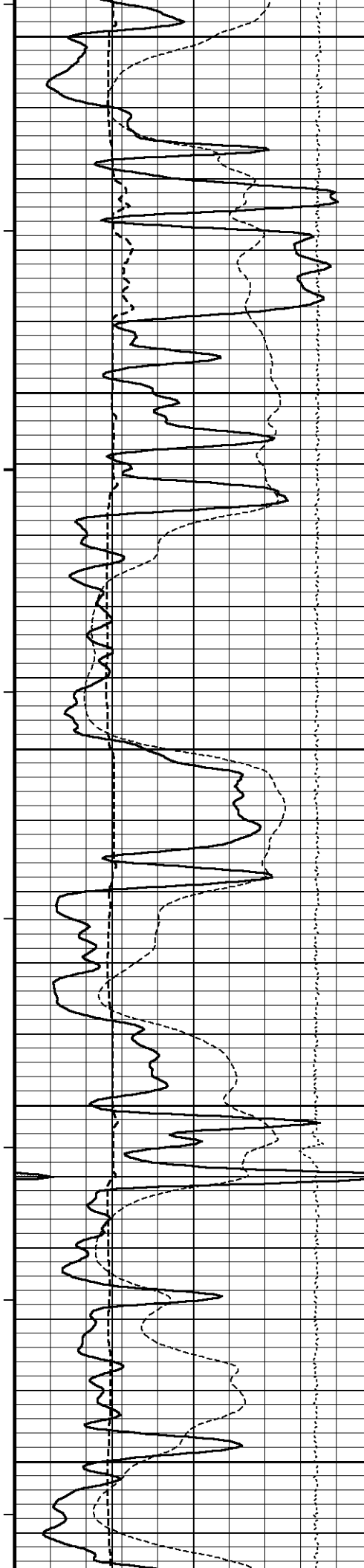
3-5' Compensated Sonic

6' Transit Time

5' Transit Time

4' Transit Time

3' Transit Time



4100

122°

4150

123°

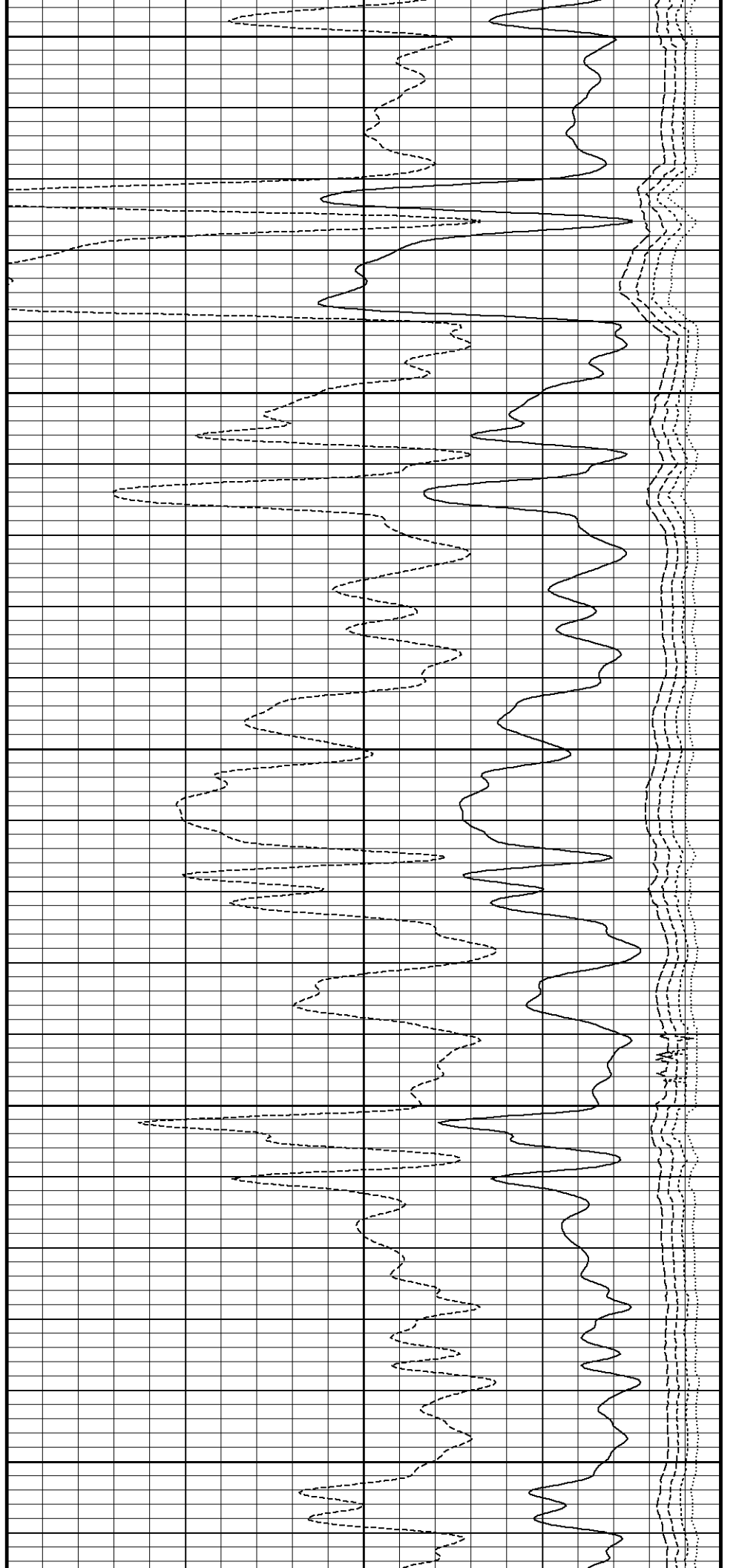
4200

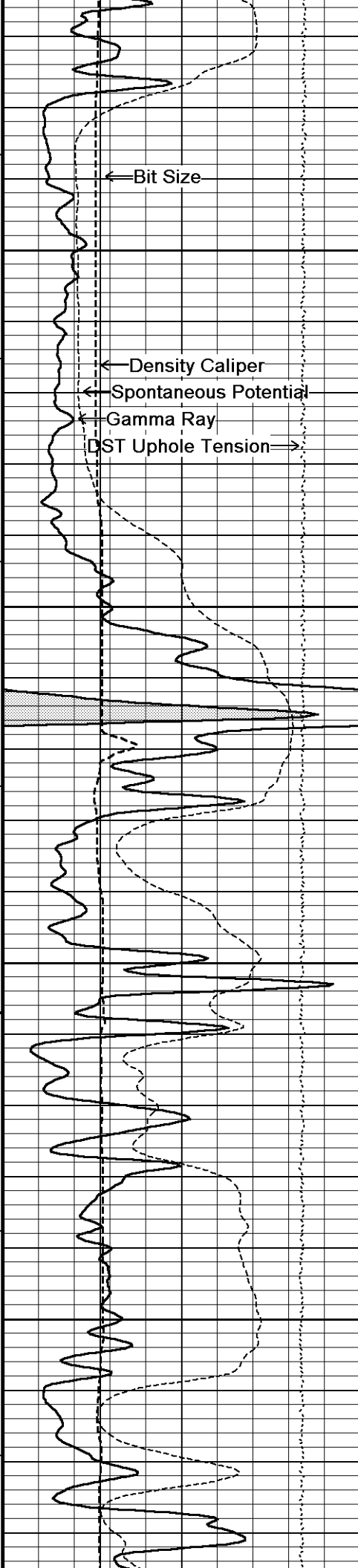
123°

4250

124°

4300





124°

4350

125°

4400

125°

4450

125°

4500

Wyllie Lime. Sonic Por. →

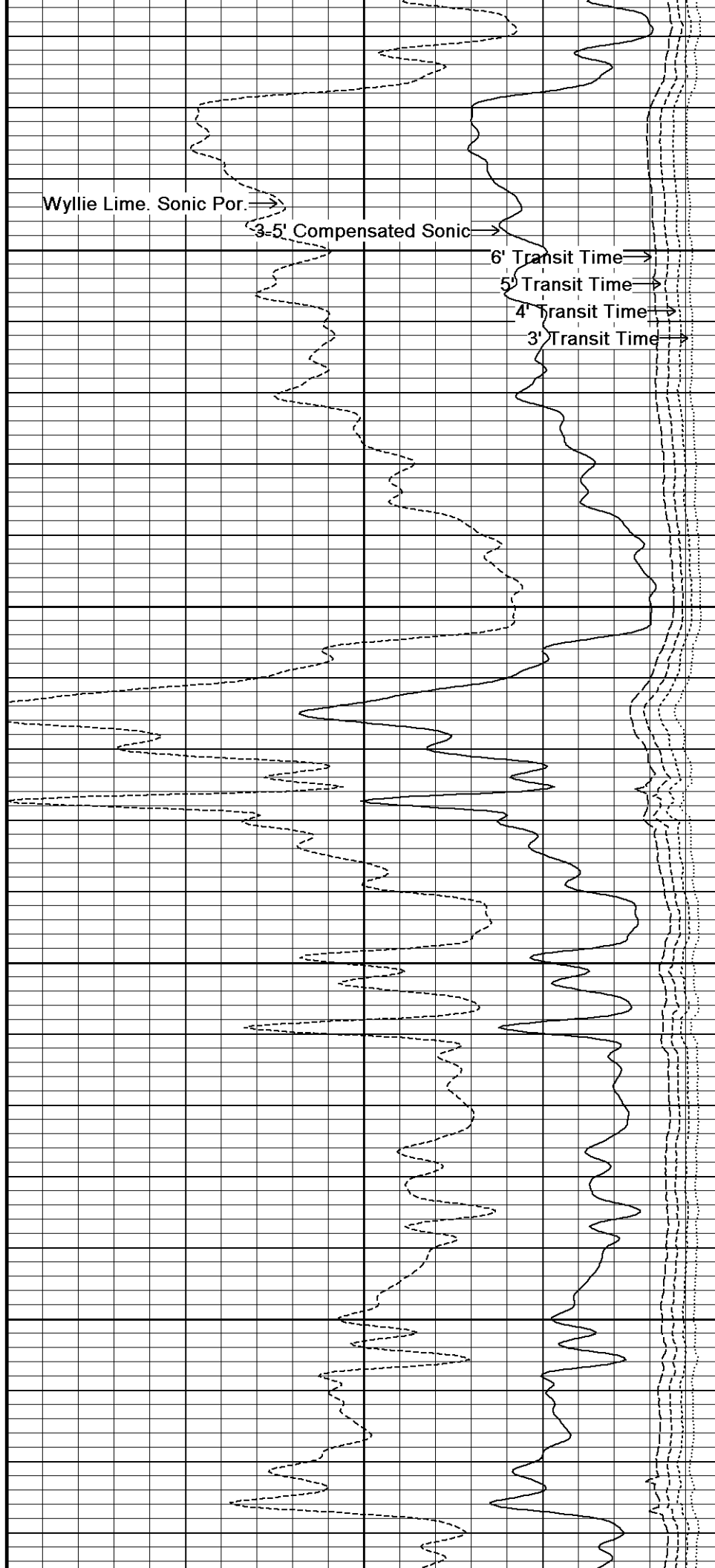
3-5' Compensated Sonic →

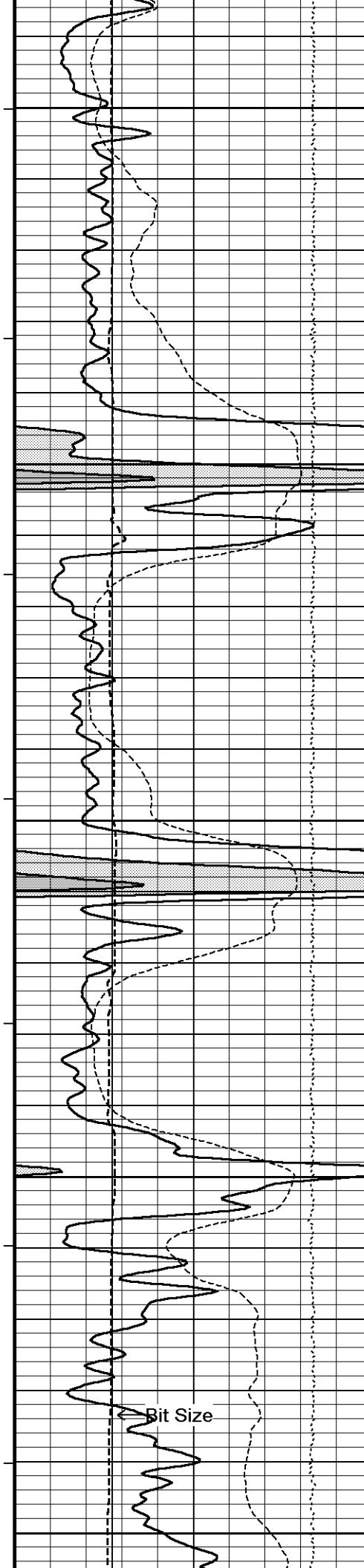
6' Transit Time →

5' Transit Time →

4' Transit Time →

3' Transit Time →





126°

4550

126°

4600

127°

4650

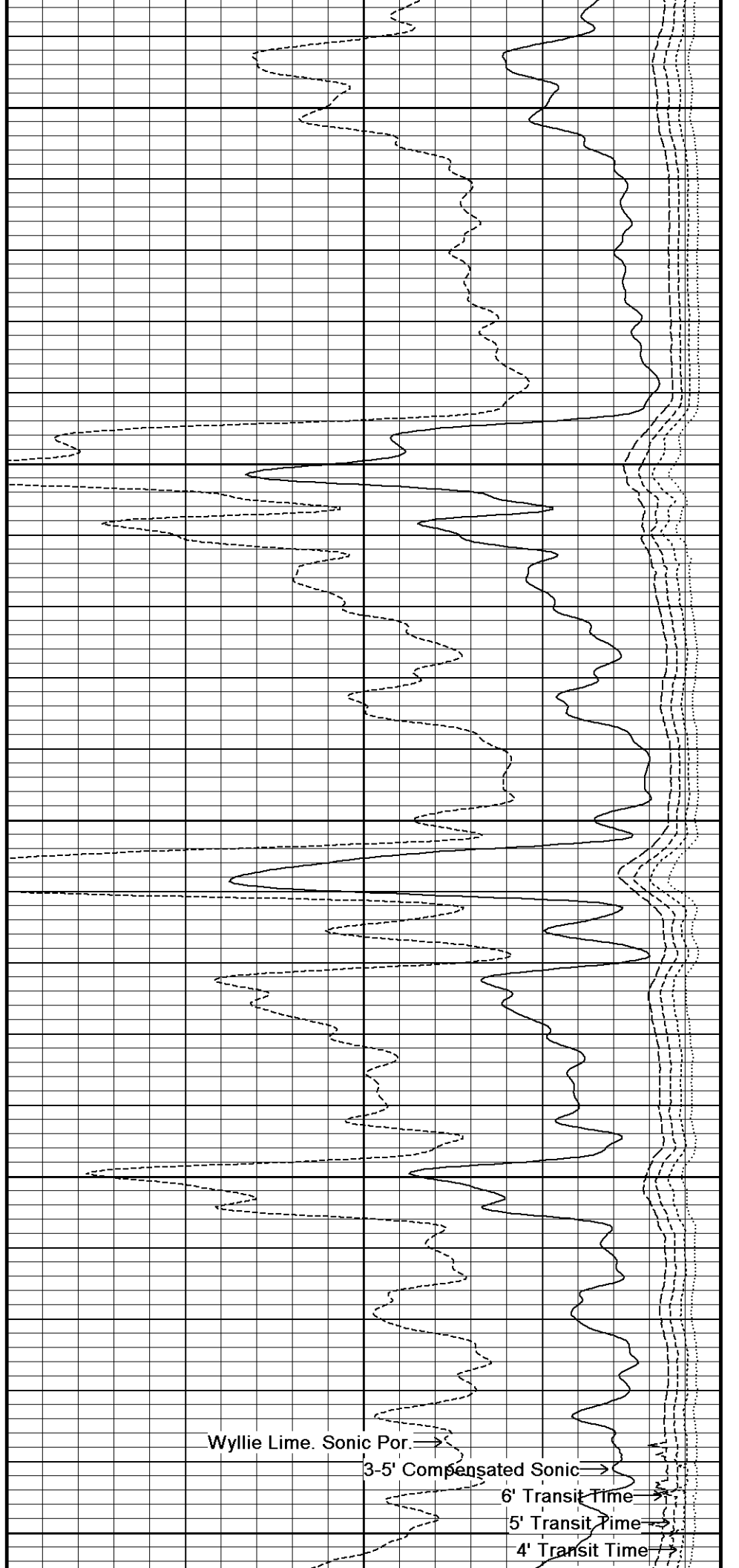
128°

4700

128°

4750

Bit Size



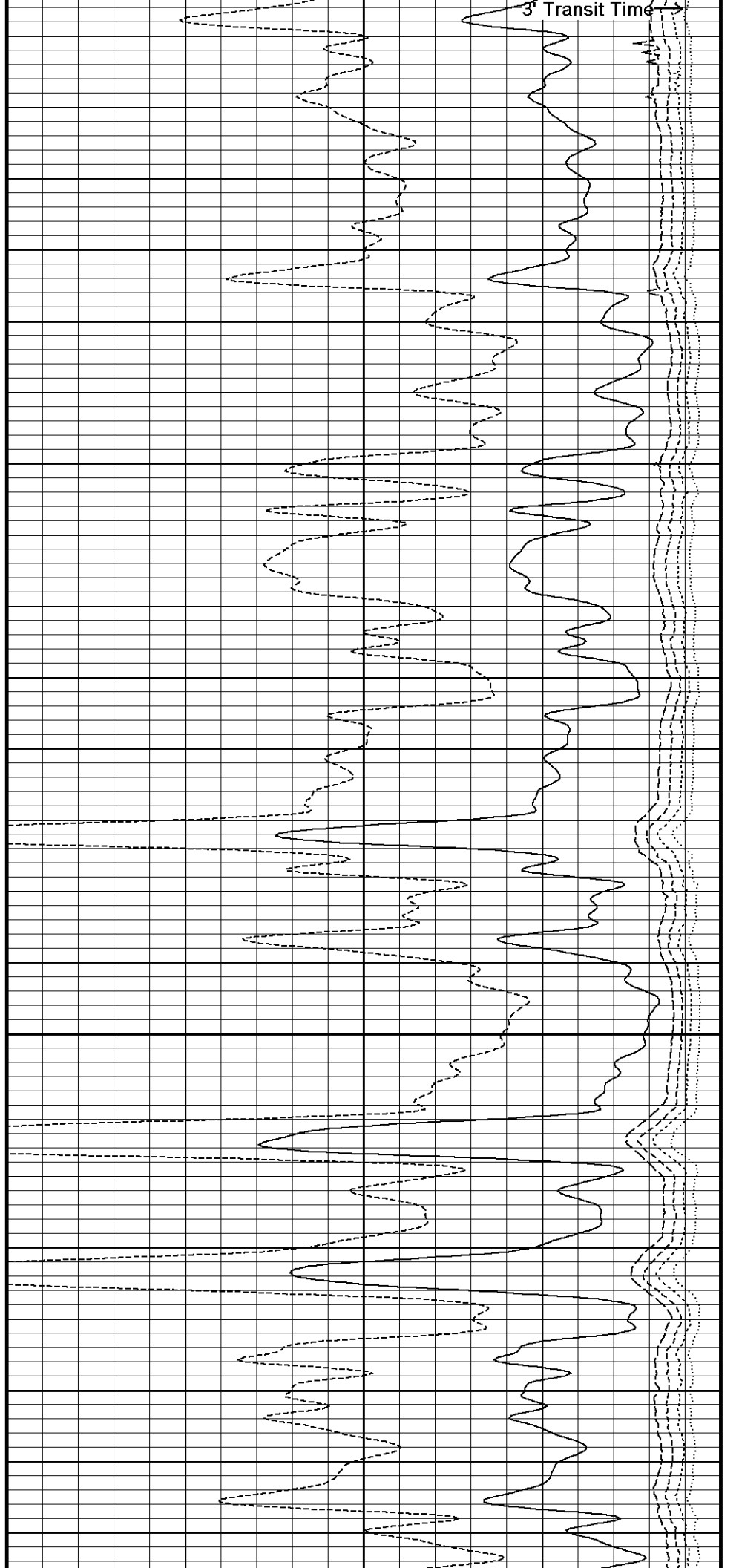
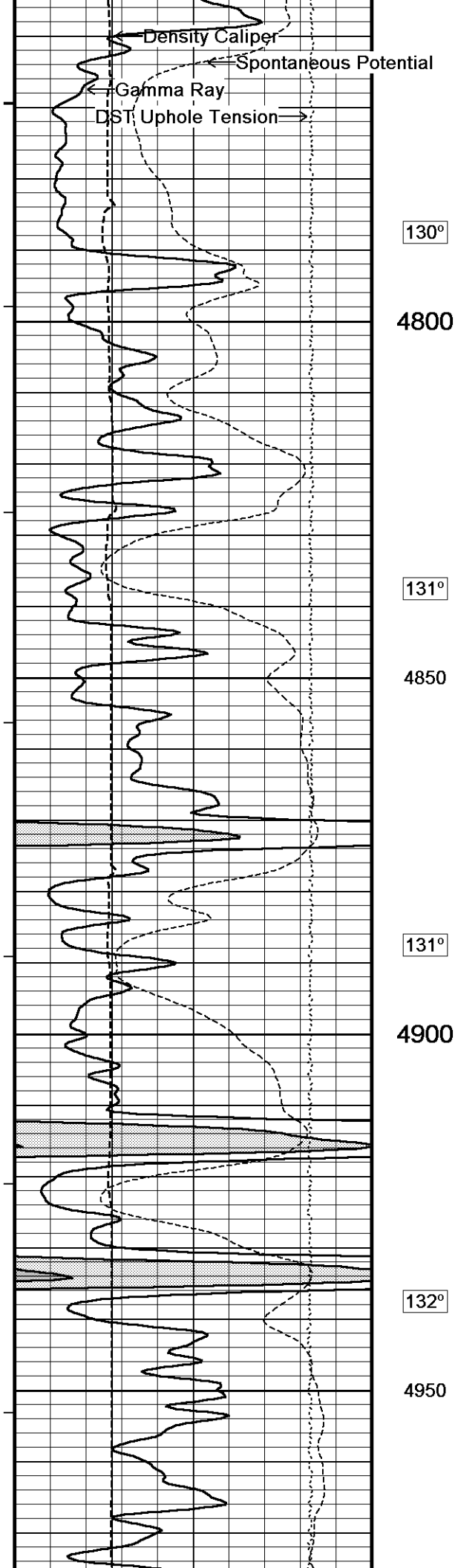
Wyllie Lime. Sonic Por. →

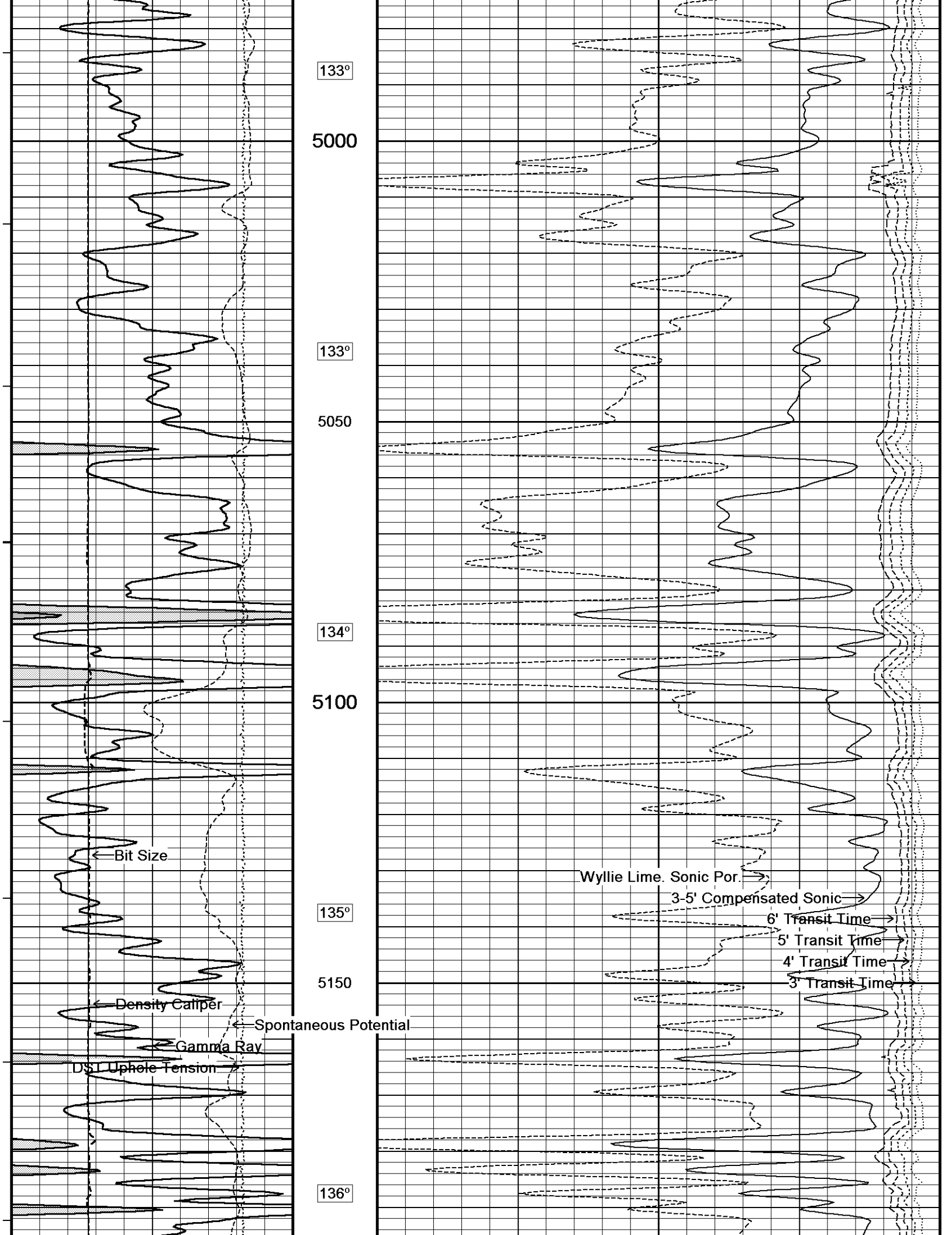
3-5' Compensated Sonic →

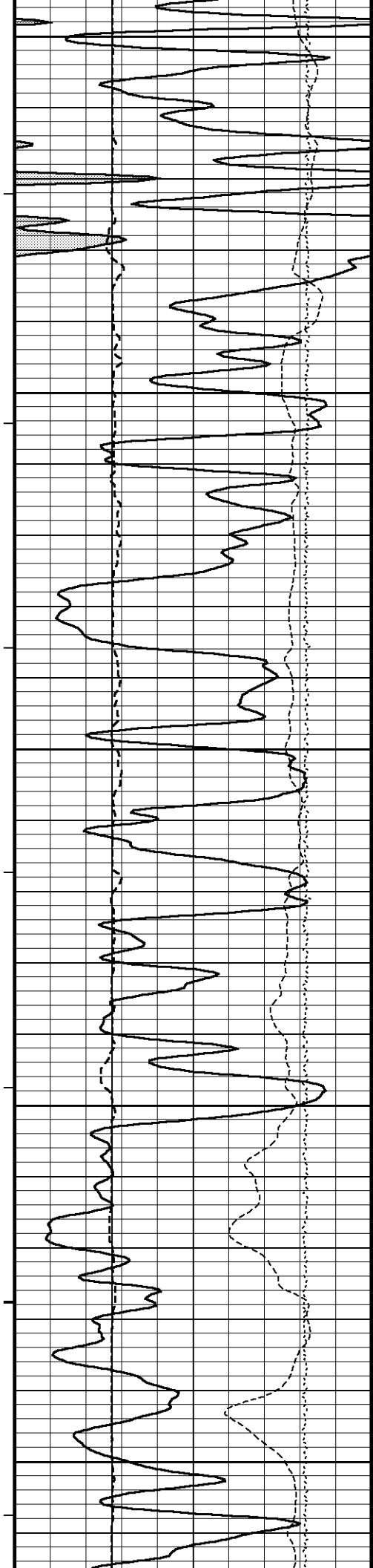
6' Transit Time →

5' Transit Time →

4' Transit Time →







5200

137°

5250

138°

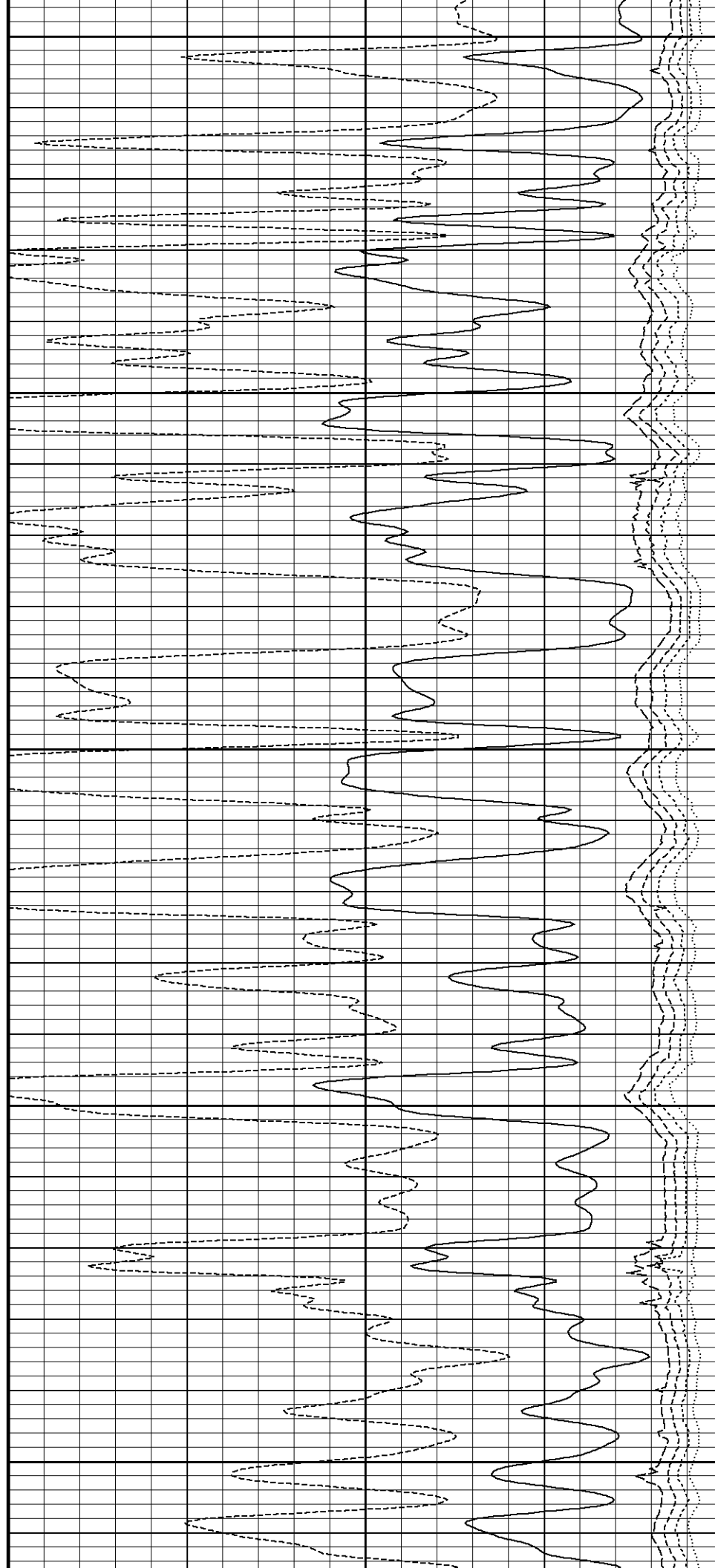
5300

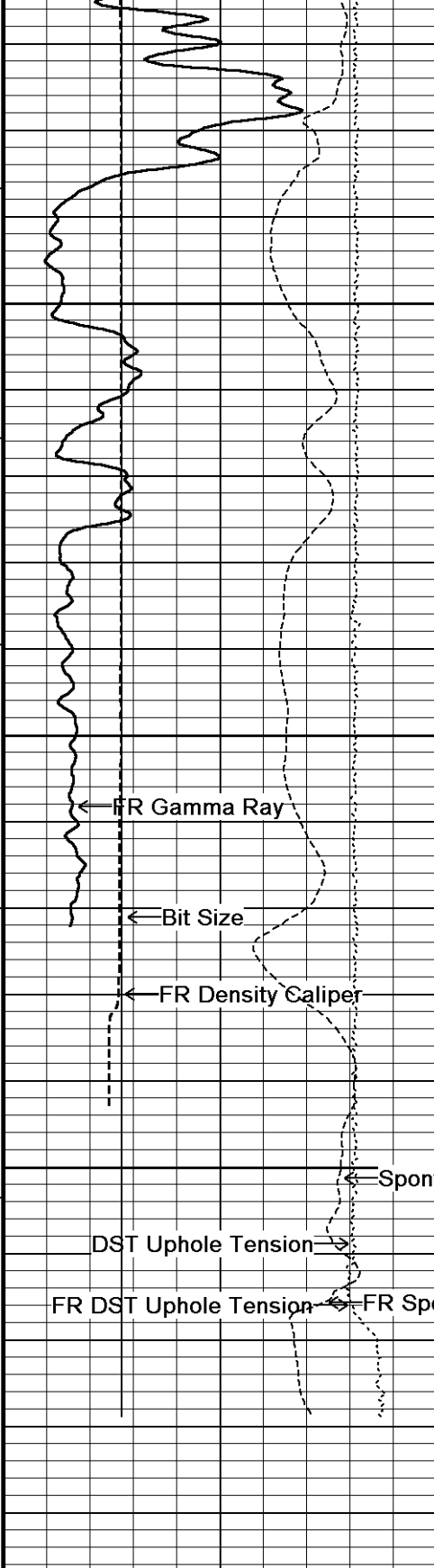
139°

5350

139°

5400





140°

5450

139°

5500

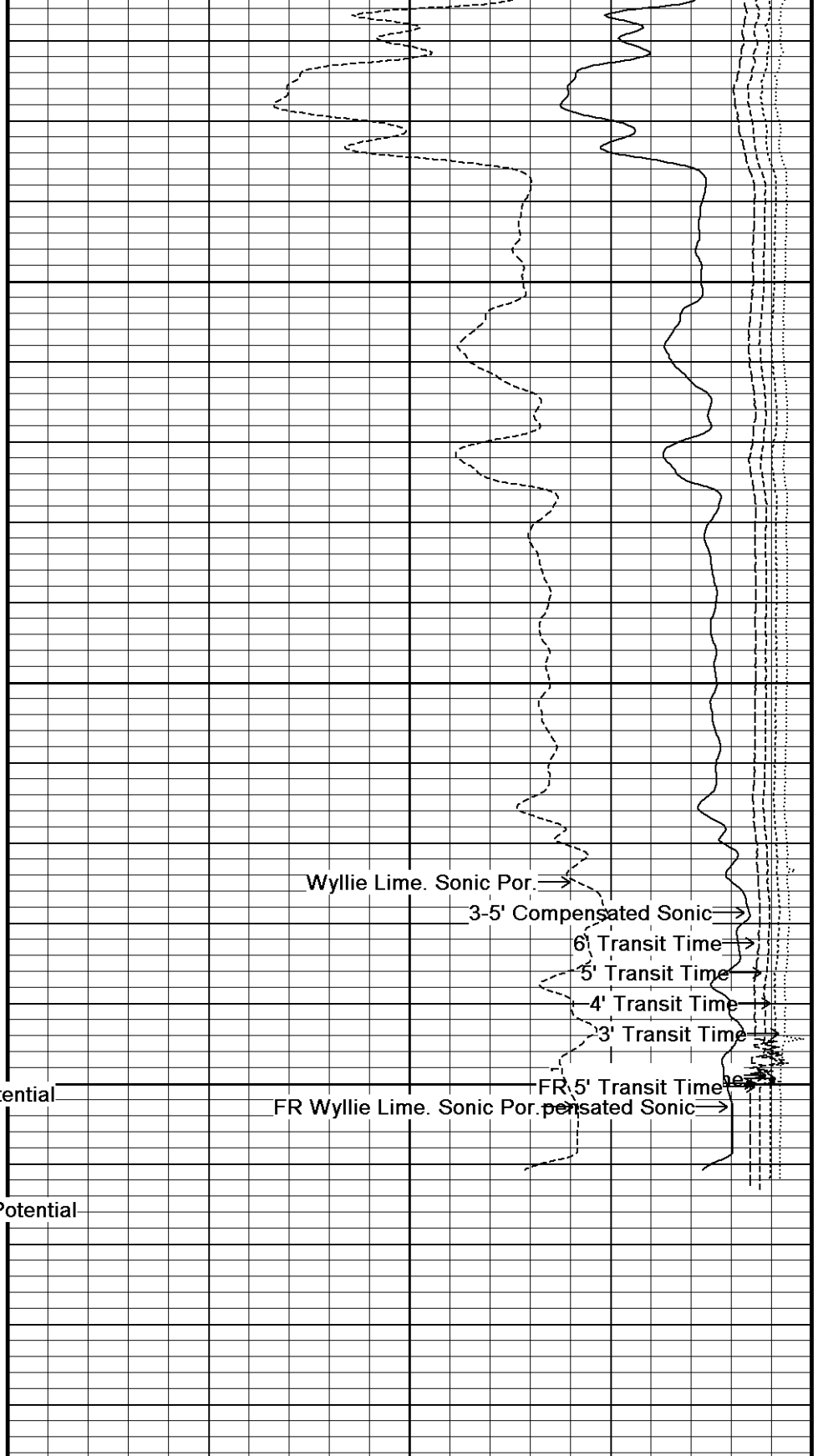
5550  
← Spontaneous Potential

5594

Depth  
in  
Feet

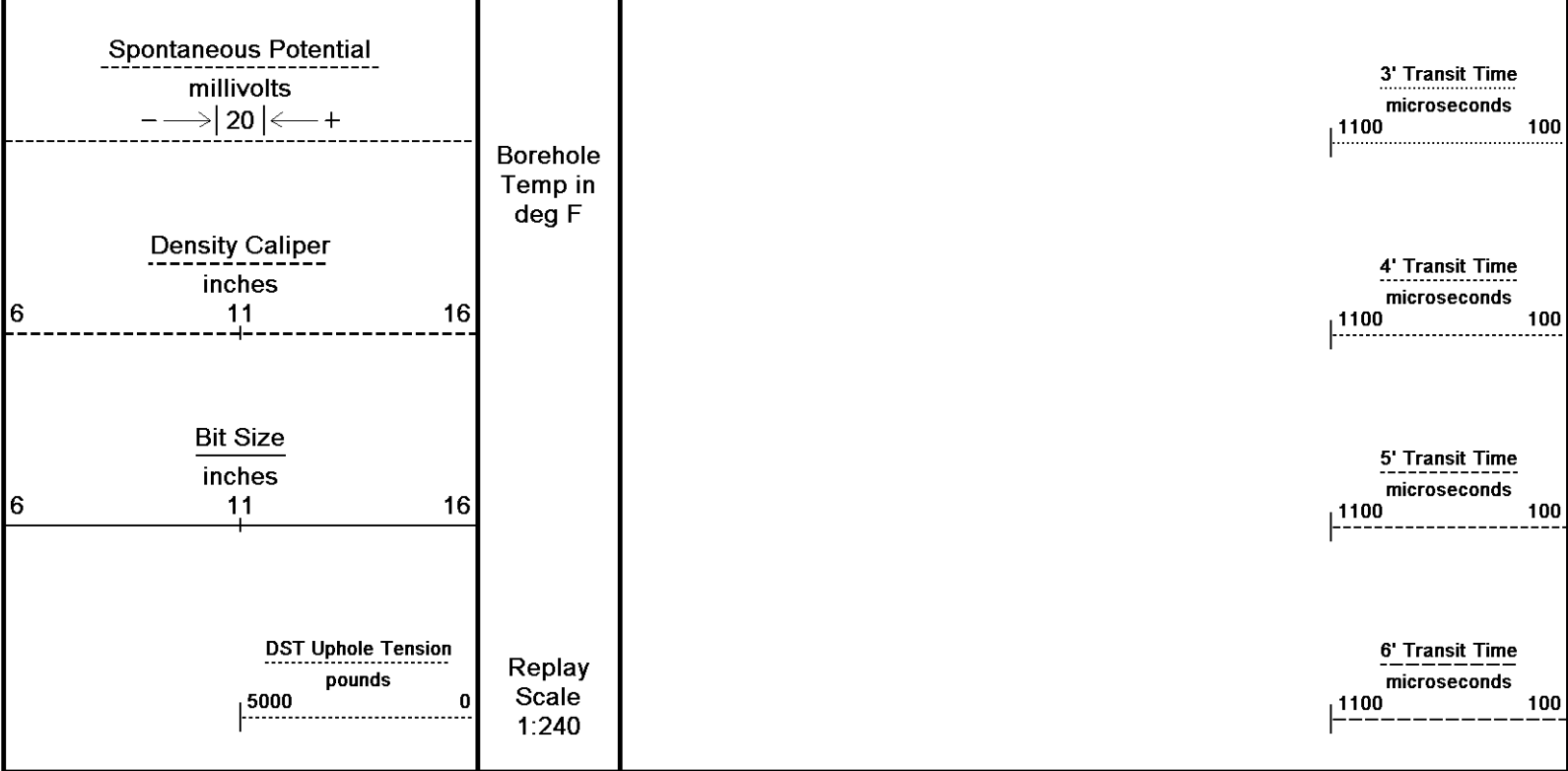
← Timing Marks  
every 60.0 sec

Gamma Ray  
 API  
 0      75      150



3-5' Compensated Sonic  
 microsec/foot  
 140      115      90      65      40

Wyllie Lime. Sonic Por.  
 percent  
 30      20      10      0      -10

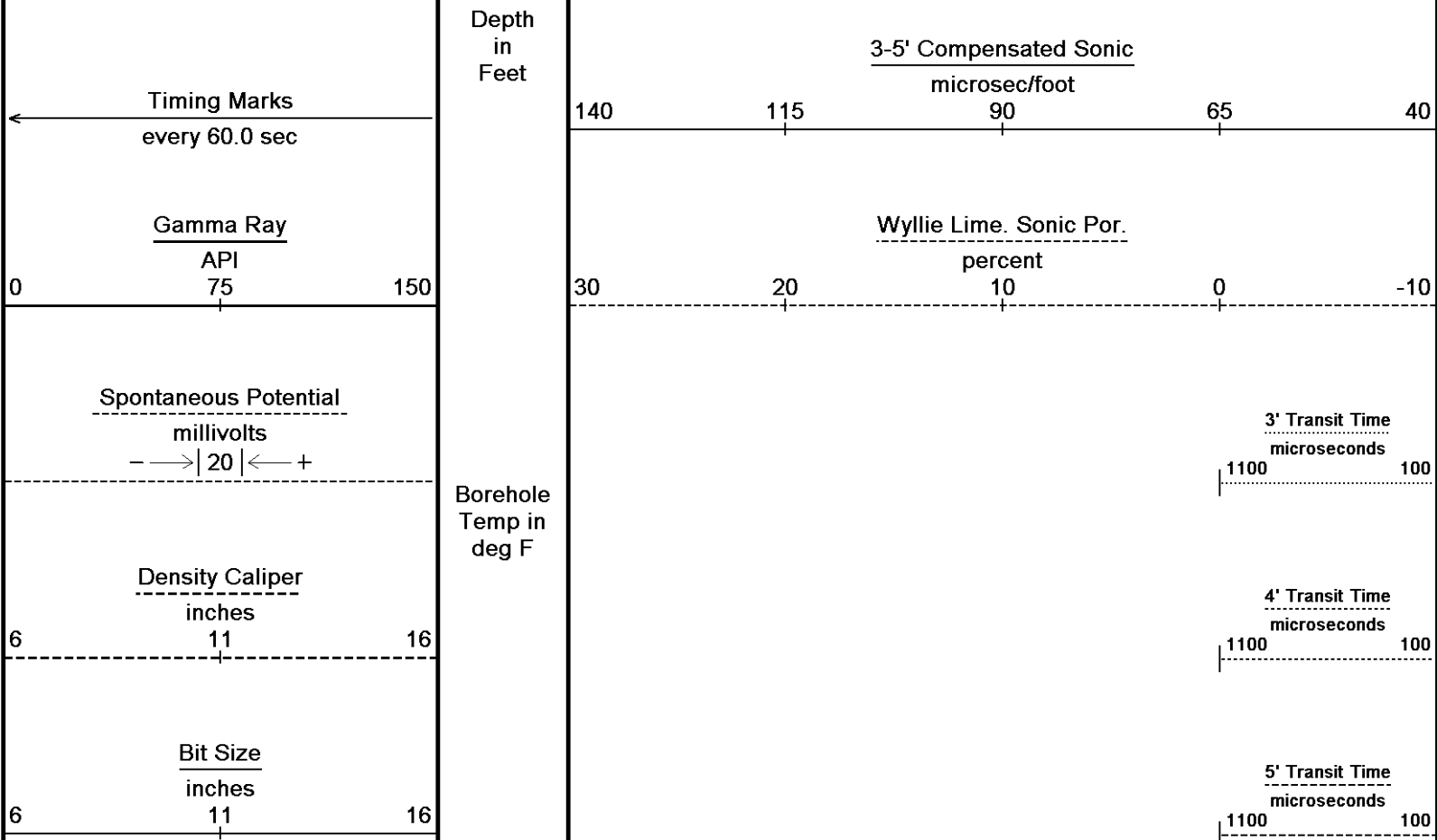


Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 05-JUL-2011 19:30  
 Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6\_004.dta Recorded on 05-JUL-2011 16:55  
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

↑ **5 INCH MAIN PASS** ↑

↓ **5 INCH REPEAT PASS** ↓

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 05-JUL-2011 19:30  
 Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6\_003.dta Recorded on 05-JUL-2011 16:18  
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

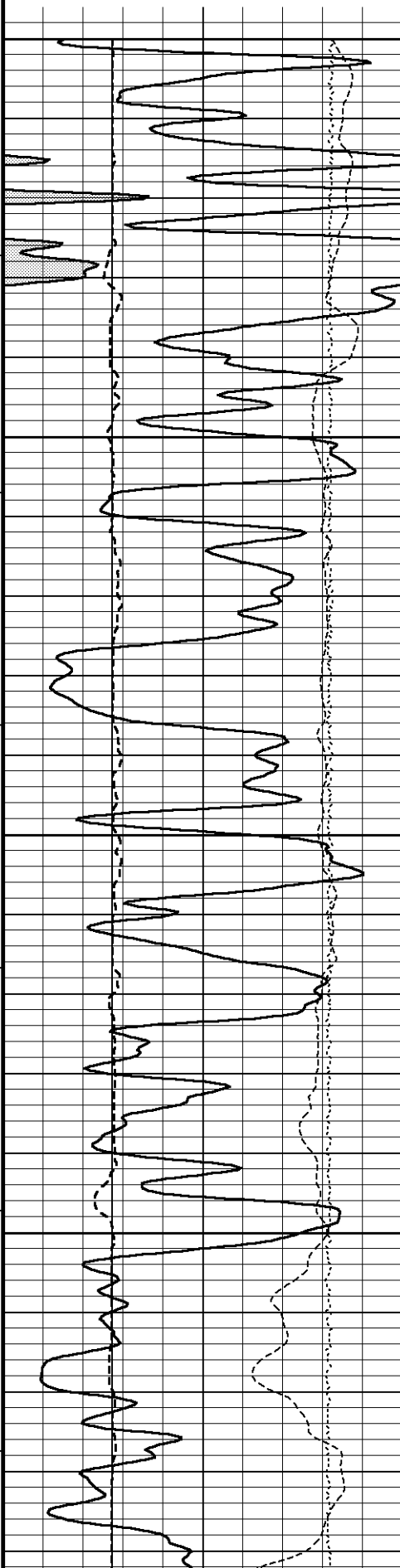


Borehole  
 Temp in  
 deg F

DST Uphole Tension  
pounds  
5000 0

Replay  
Scale  
1:240

6' Transit Time  
microseconds  
1100 100



5200

136°

5250

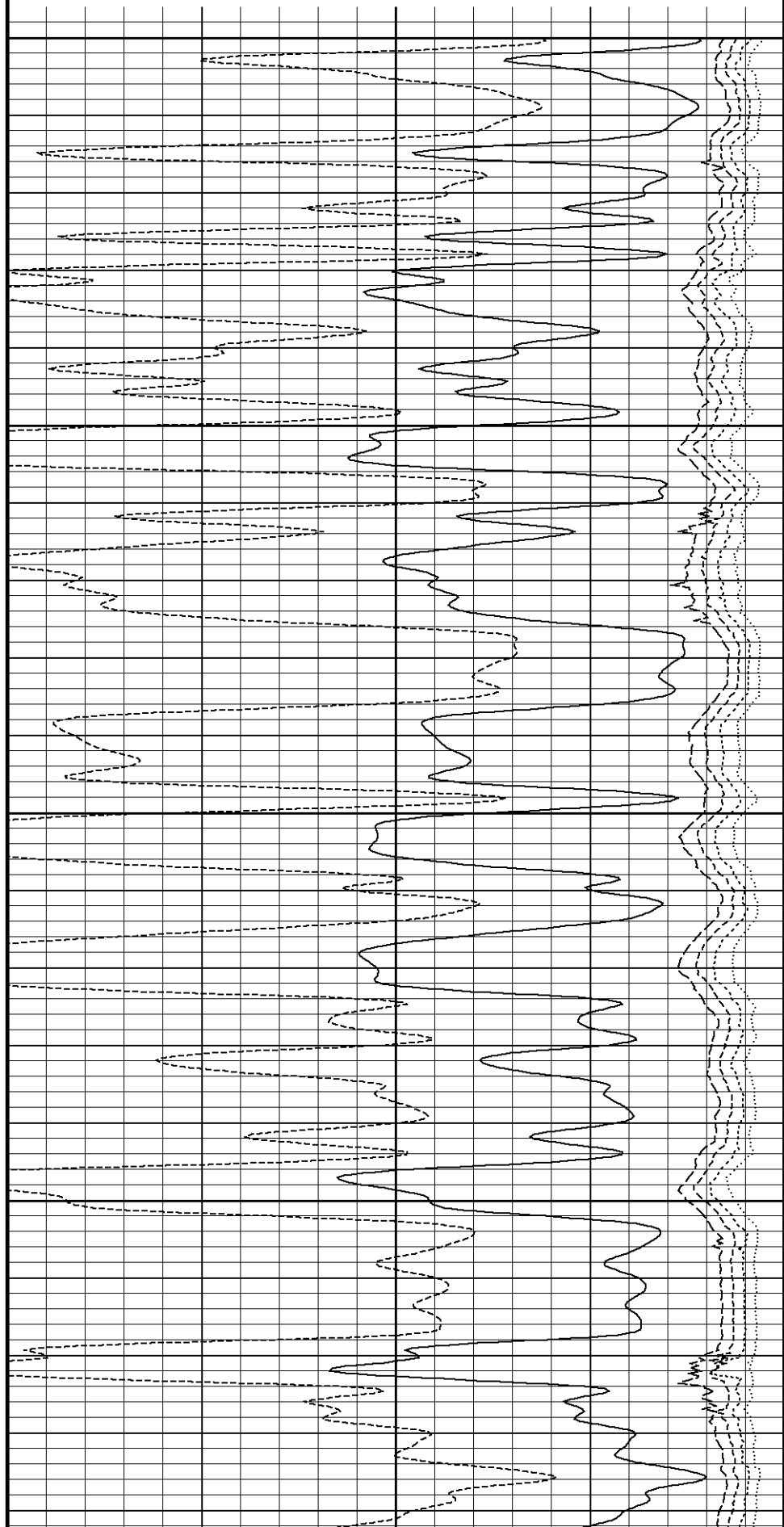
137°

5300

138°

5350

138°



5400

139°

5450

139°

5500

FR Gamma Ray

Bit Size

FR Density Caliper

Spontaneous Potential

DST Uphole Tension

5550

FR DST Uphole Tension

FR Spontaneous Potential

Wyllie Lime. Sonic Por. →

3-5' Compensated Sonic →

8' Transit Time →

5' Transit Time →

4' Transit Time →

3' Transit Time →

FR 5' Transit Time →

FR Wyllie Lime.FR 3-5' Compensated Sonic →

5588  
Depth  
in  
Feet

3-5' Compensated Sonic

microsec/foot

140

115

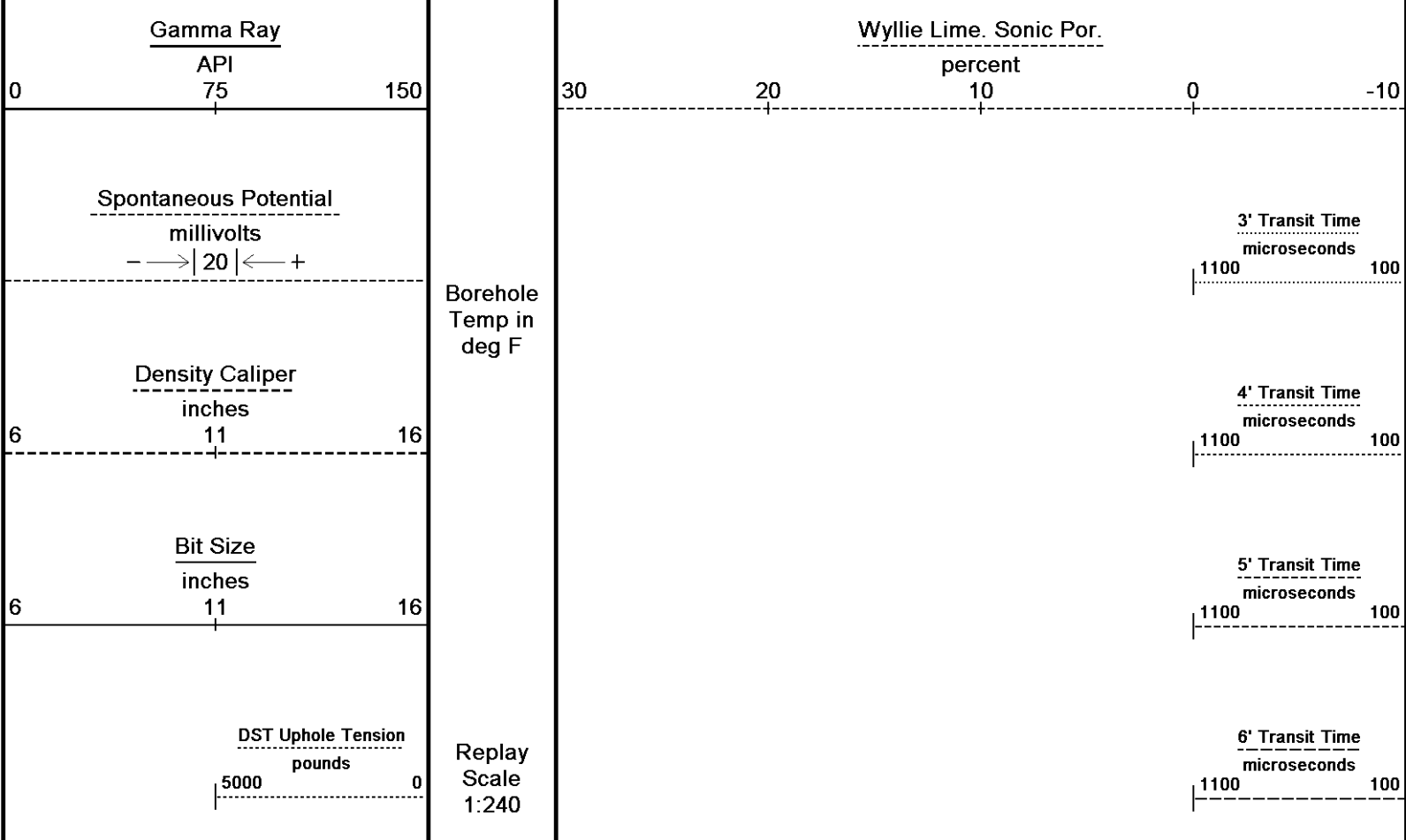
90

65

40

Timing Marks  
every 60.0 sec





Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 05-JUL-2011 19:30  
 Filename: C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6\_003.dta  
 Recorded on 05-JUL-2011 16:18  
 System Versions: Logged with 11.02.3186 Plotted with 11.02.3186

↑ **5 INCH REPEAT PASS** ↑

### DOWNHOLE EQUIPMENT

C:\Minimus 11.02.3186\Data\Oxy Elizabeth A. Cox #6\Oxy Elizabeth A. Cox #6\_004.dta

3/8" Triple Cone Cable Head (MCB C A)  
 MCB-C.A 5 LG: 1.58 ft WT: 15.4 lb OD: 2.24 in

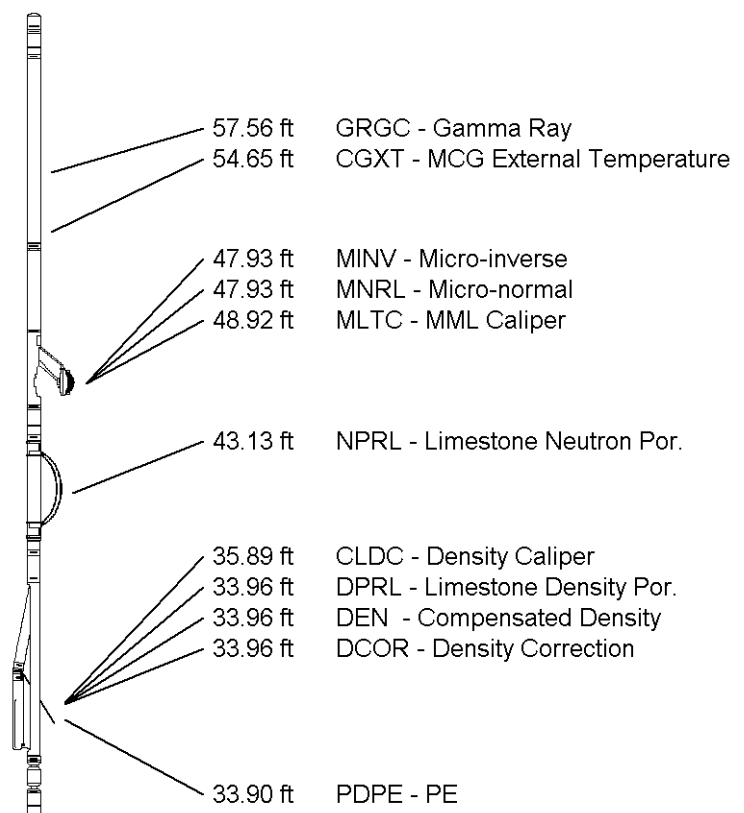
Compact Comms Gamma  
 MCG-B 34 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-log  
 MML-A 4 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron  
 MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper  
 MPD-B 65 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint  
 SKJ-D.A 37 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

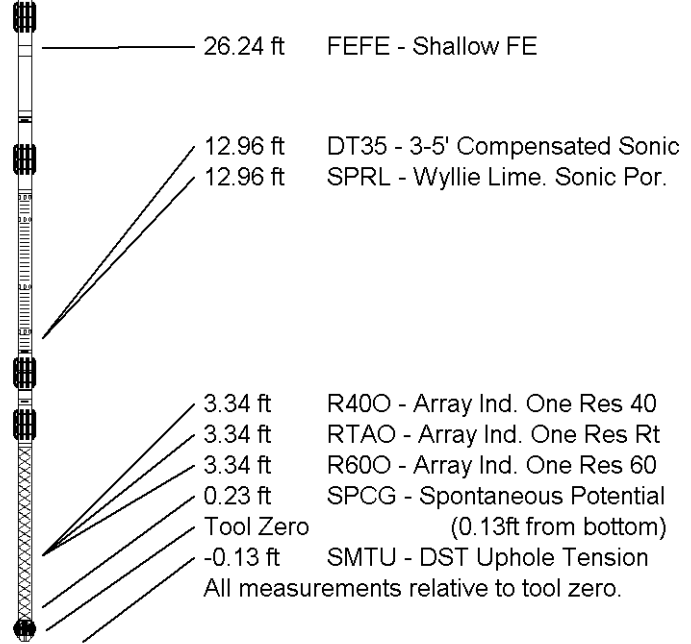


Compact Focussed Electric  
MFE-A.A 55 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic  
MSS-A.A 126 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction  
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 64.42 ft Weight: 496.0 lb



COMPANY OXY USA, INC.  
WELL ELIZABETH A. COX #6  
FIELD VICTORY  
PROVINCE/COUNTY HASKELL  
COUNTRY/STATE U.S.A. / KANSAS

Elevation Kelly Bushing	2979.00	feet	First Reading	5553.00	feet
Elevation Drill Floor	2977.00	feet	Depth Driller	5560.00	feet
Elevation Ground Level	2968.00	feet	Depth Logger	5566.00	feet



**Weatherford**<sup>®</sup>

COMPENSATED SONIC  
W/ INTEGRATED TRANSIT TIME

