

Patterson

SINGLE INDUCTION LOG

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	Hill Climb 22-2	Well	Hill Climb 22-2
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API # : 05 071 08175 00 1820' FNL & 2193' FWL	Other Services cdl neutron	
Permanent Datum	SEC 2 TWP 33S RGE 67W	Elevation	
Log Measured From	Ground Level	Elevation	7518'
Drilling Measured From	Kelly Bushing 4' Above G.L. Kelly Bushing	D.F. ----- G.L. 7518'	
Date	10-18-04		
Run Number	One	Thirteen	
Depth Driller	2475'	2475'	
Depth Logger	718'	2345'	
Bottom Logged Interval	716'	2343'	
Top Log Interval	Surface	1700'	
Casing Driller	8 5/8" @ 522'	8 5/8" @ 522'	
Casing Logger	522'	522'	
Bit Size	7 7/8"	7 7/8"	
Type Fluid in Hole	Water	Water	
Density / Viscosity	///	///	
pH / Fluid Loss	///	///	
Source of Sample	///	///	
Rm @ Meas. Temp	///	///	
Rmf @ Meas. Temp	///	///	
Rmc @ Meas. Temp	///	///	
Source of Rmf / Rmc	///	///	
Rm @ BHT	///	///	
Time Circulation Stopped	4:00 P.M.	///	
Time Logger on Bottom	5:50 P.M.	1:15 P.M.	
Maximum Recorded Temperature	///	///	
Equipment Number	T720	T720	
Location	Trinidad	Trinidad	
Recorded By	L. Smith	L. Smith	
Witnessed By	Mr. Bill Grande	Mr. Bill Grande	Mr. Jack Wiseman

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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 interpretation, and we shall not, except in the case of gross or willful 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 set out in our current Price Schedule.

Comments

Pass One TD 718'.
 Pass Three, Tool Would Not Go Through Insert In 5.5" Casing.
 Pass Five Below 5.5" Casing @ 774' TD 971'.
 Pass Seven Below 5.5" Casing @ 1035' TD 1252'.
 Pass Nine Below 5.5" Casing @ 1294' TD 1581'.
 Pass Ten Below 5.5" Casing @ 1635' TD 1642'.
 Pass Eleven Below 5.5" Casing @1766' TD 1829'.
 Pass Twelve TD 1975' 5.5" Casing Plugged.
 Pass Thirteen Below 5.5" Casing @ 2026' TD 2345'.
 Sarcillo Canyon Past W. McDonalds House To T.
 Turn Left Take First Left Then Stay On Main Road To Vermejo Well,
 Take Sharp Left Up Hill Then First Left To Location.

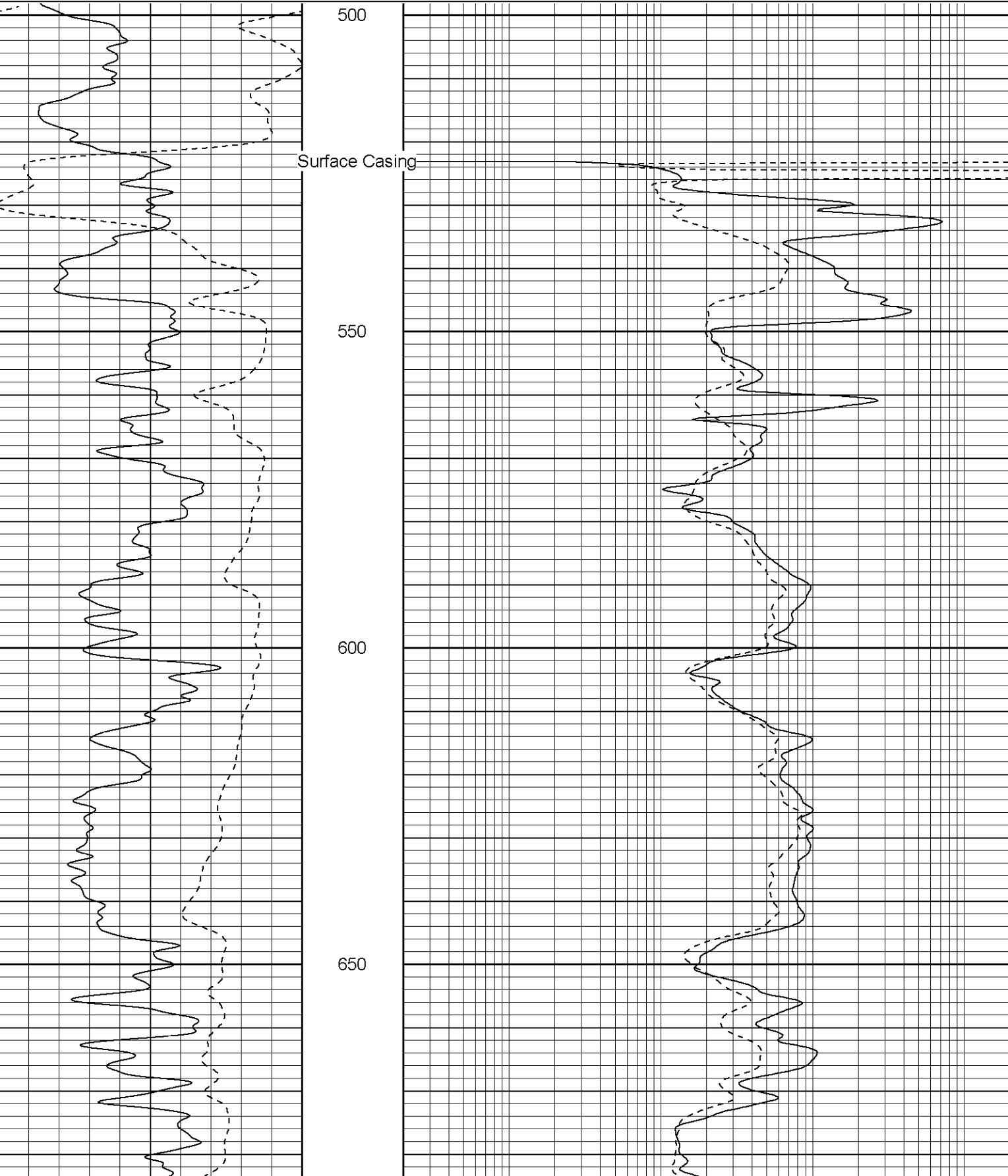
Patterson

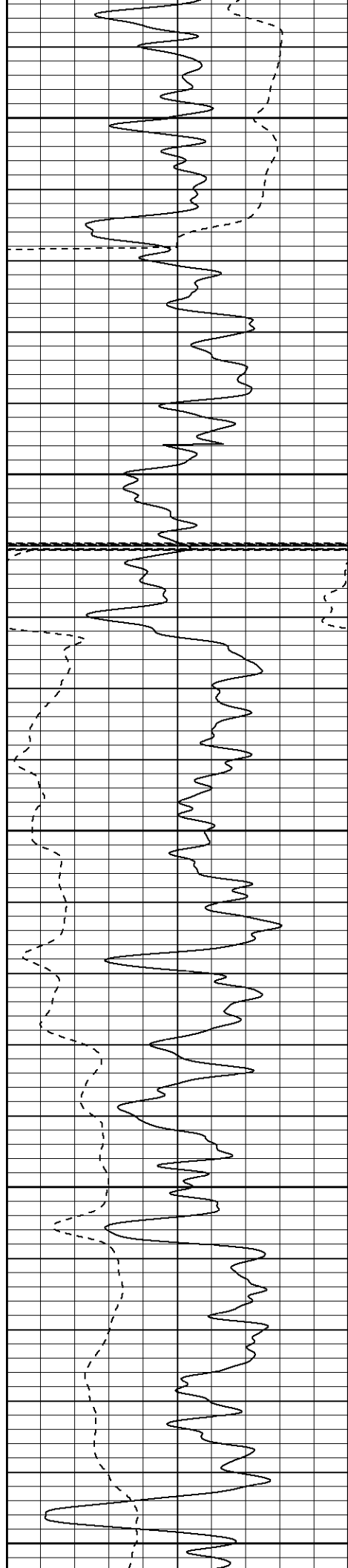
Main Merged Pass

Database File: hillclimb.db
Dataset Pathname: merge3
Presentation Format: iel
Dataset Creation: Wed Oct 20 08:57:51 2004
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200
-200	SP (mV)	0

0.2	DIR (Ohm-m)	2000
0.2	SN (Ohm-m)	2000





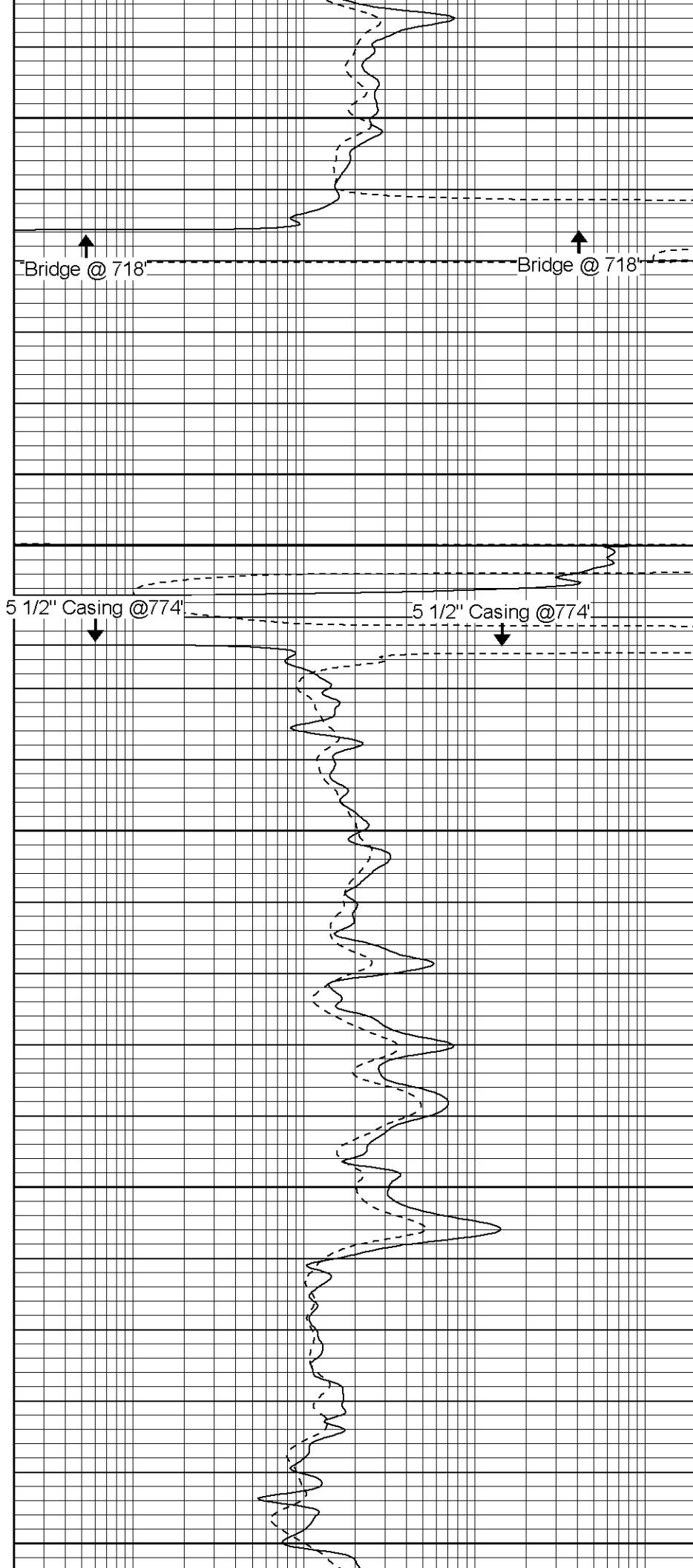
700

750

800

850

900

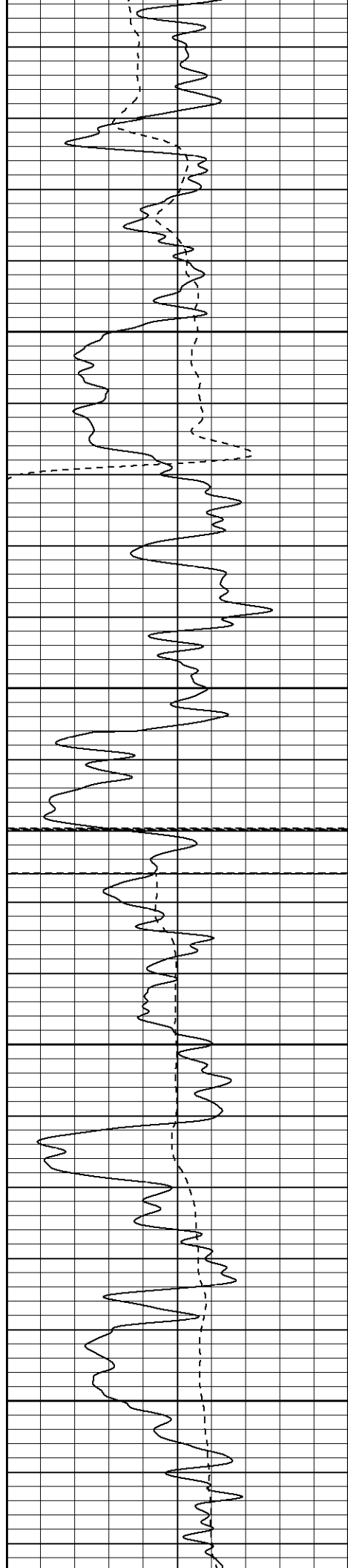


Bridge @ 718

Bridge @ 718

5 1/2" Casing @ 774'

5 1/2" Casing @ 774'

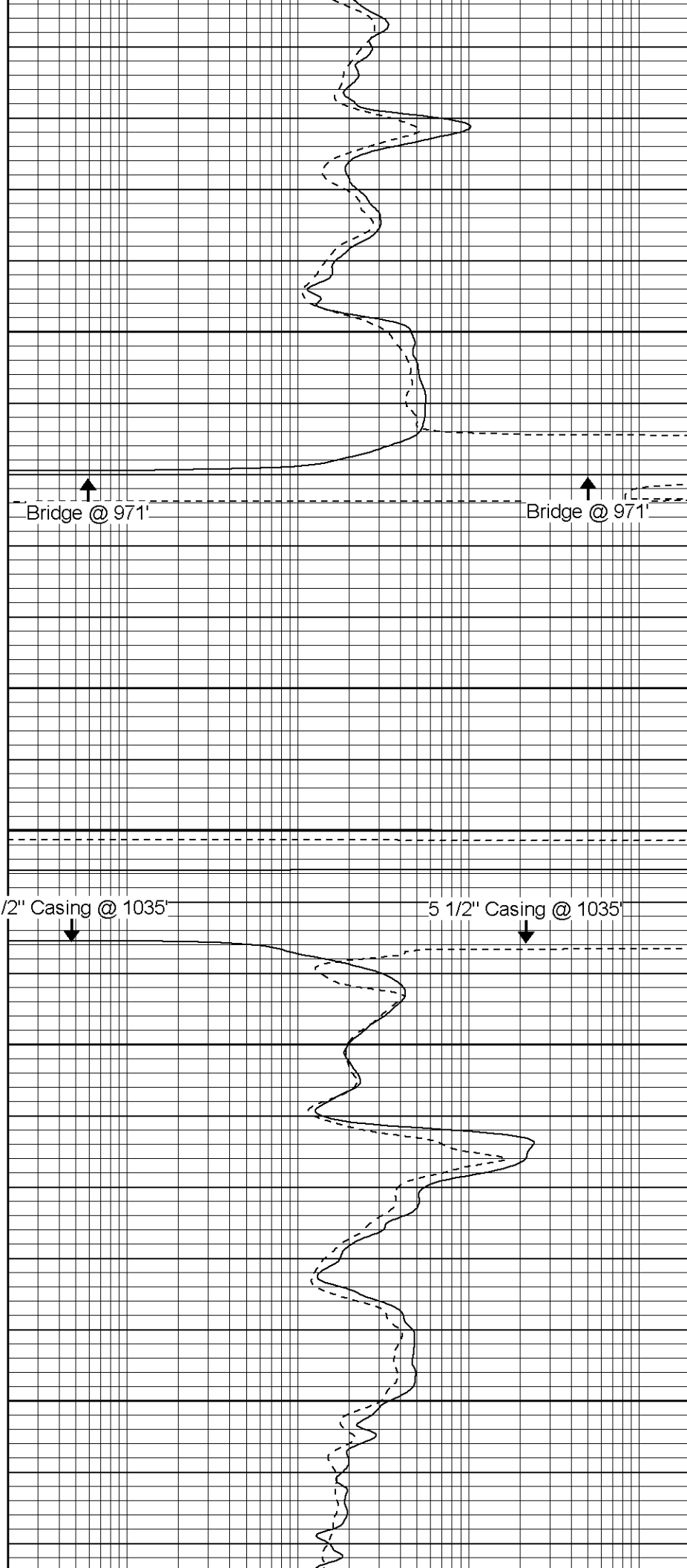


950

1000

1050

1100

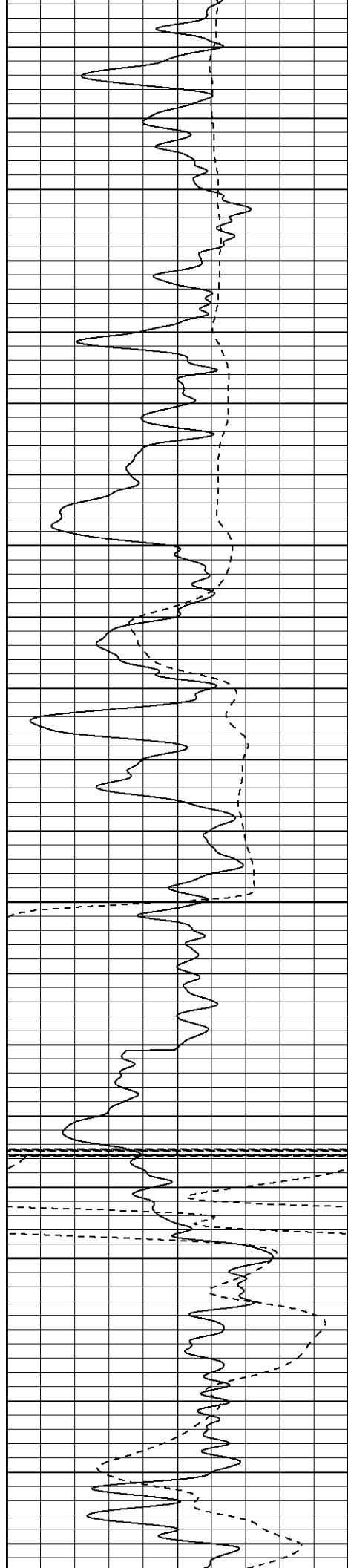


Bridge @ 971'

Bridge @ 971'

5 1/2" Casing @ 1035'

5 1/2" Casing @ 1035'

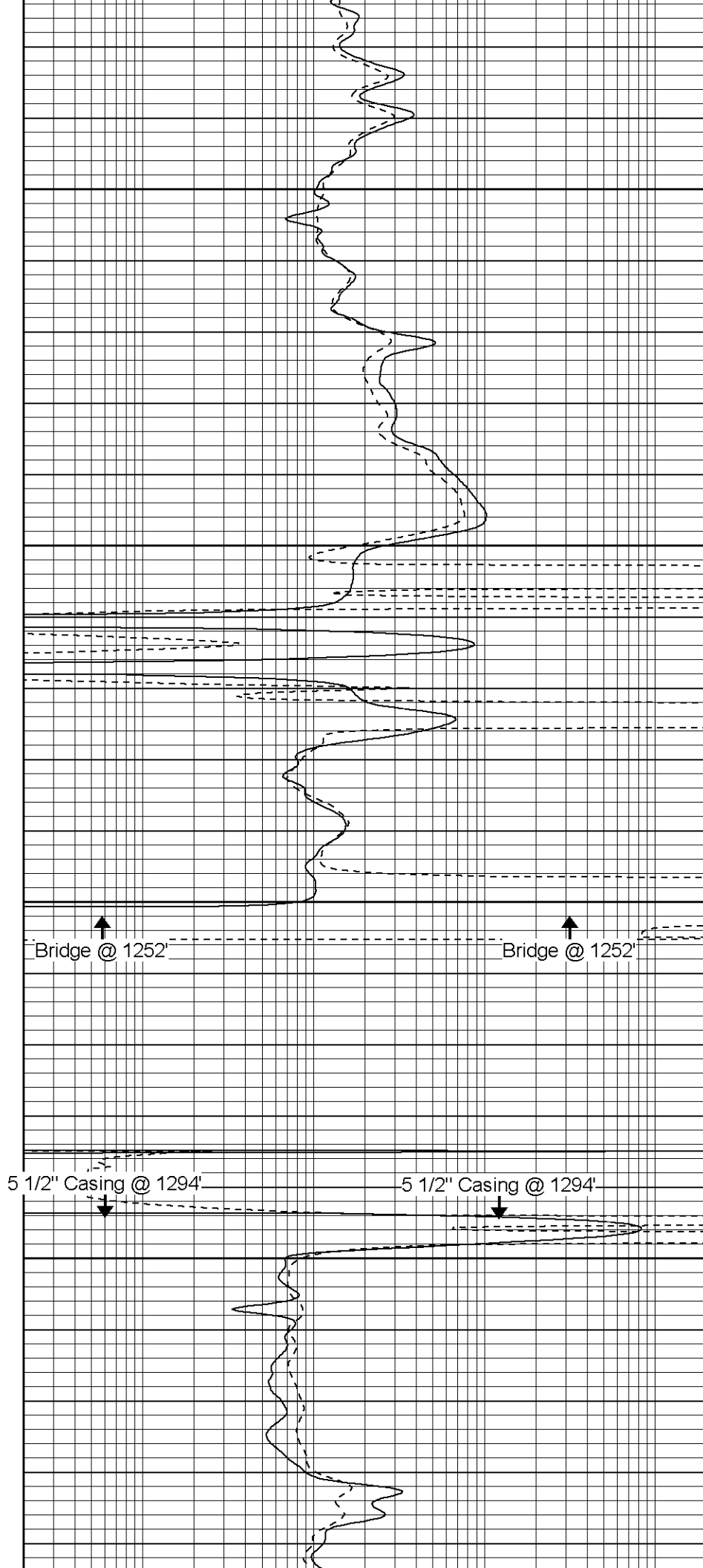


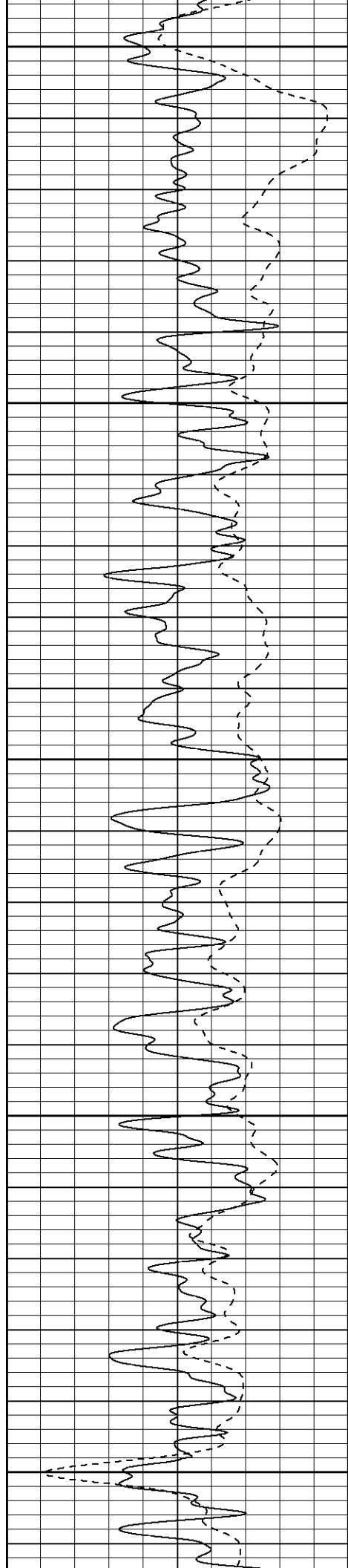
1150

1200

1250

1300





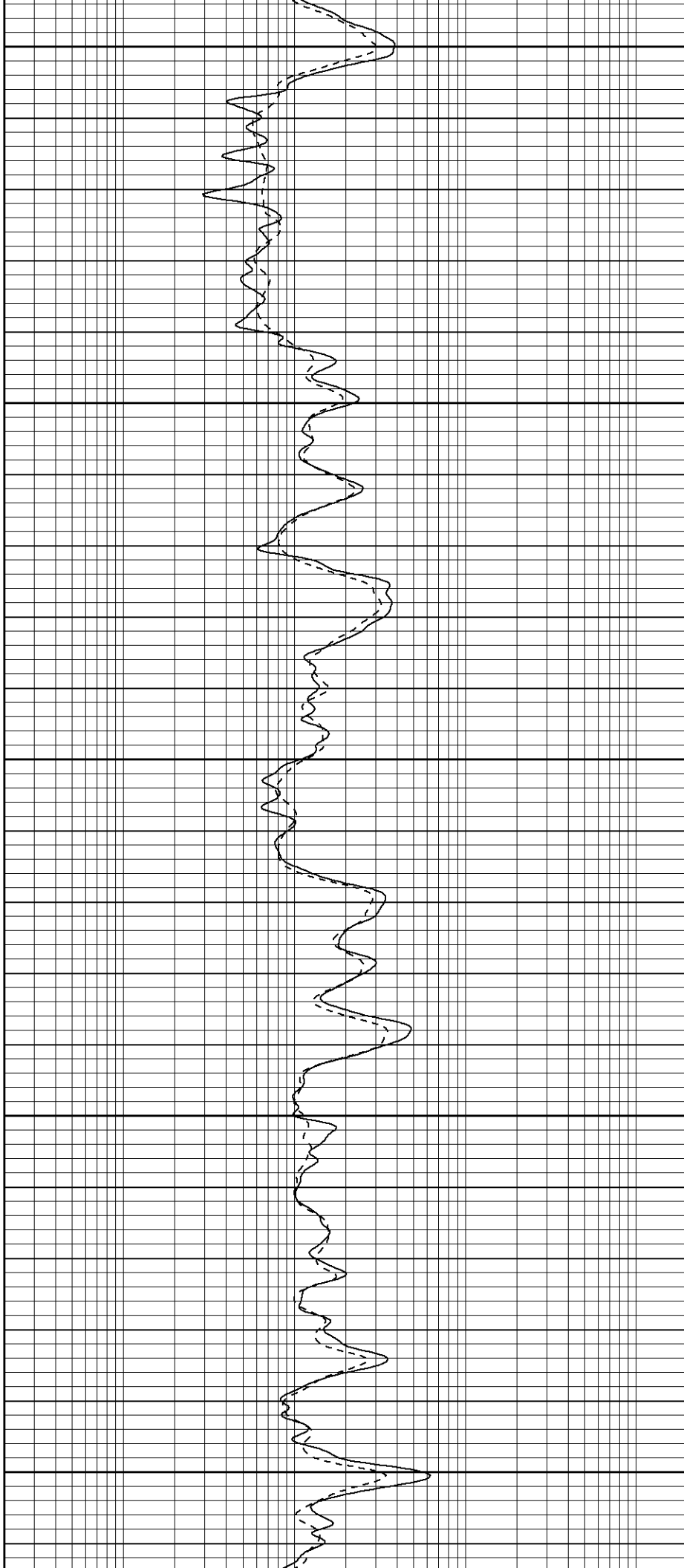
1350

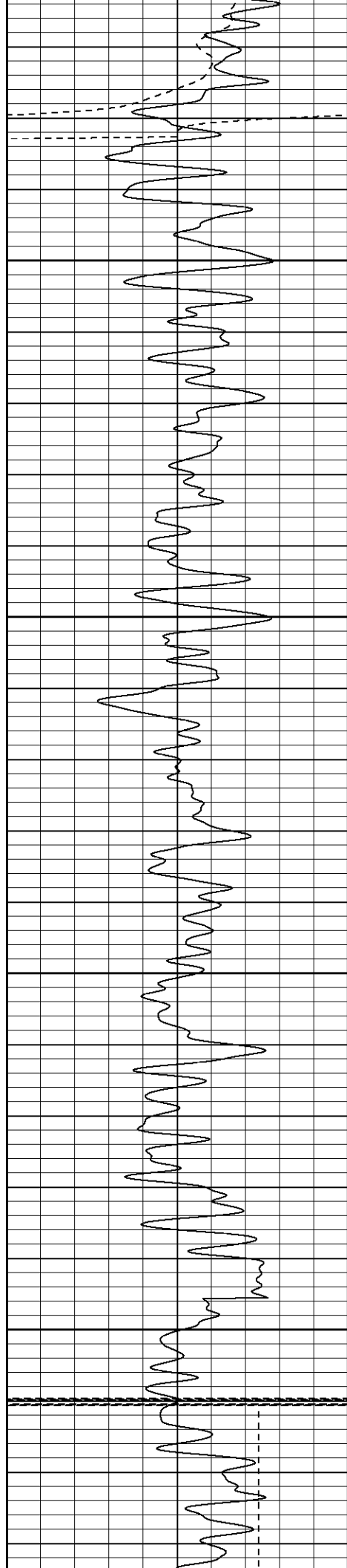
1400

1450

1500

1550



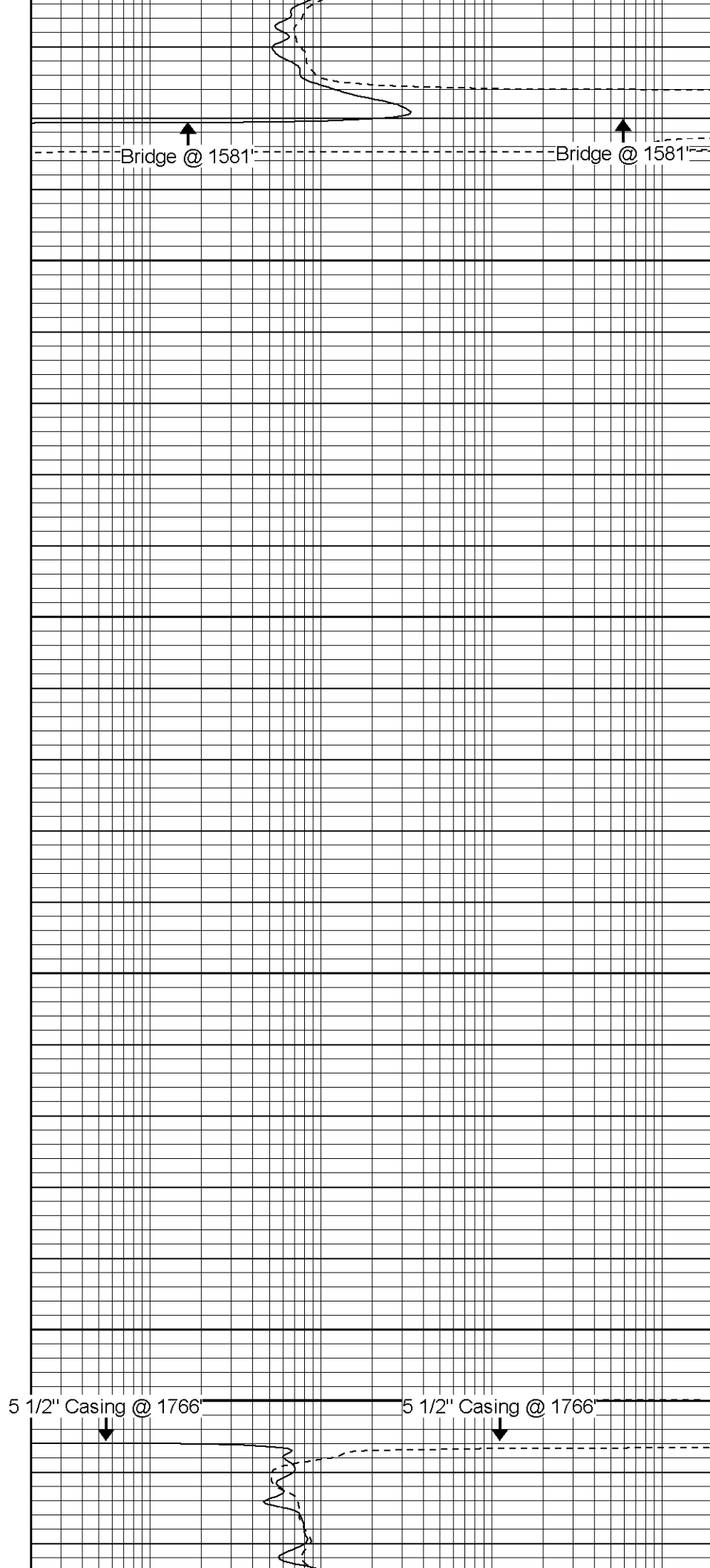


1600

1650

1700

1750

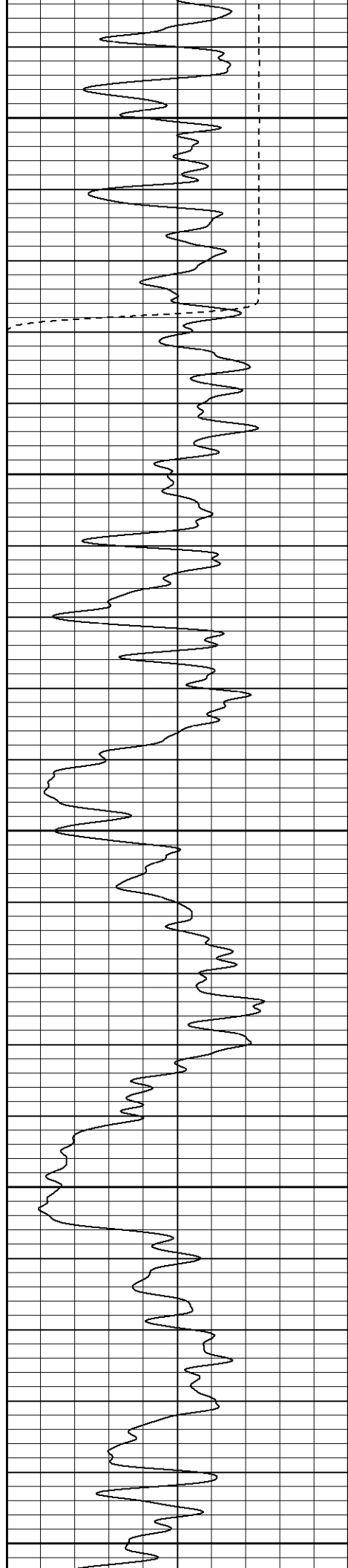


Bridge @ 1581'

Bridge @ 1581'

5 1/2' Casing @ 1766'

5 1/2' Casing @ 1766'



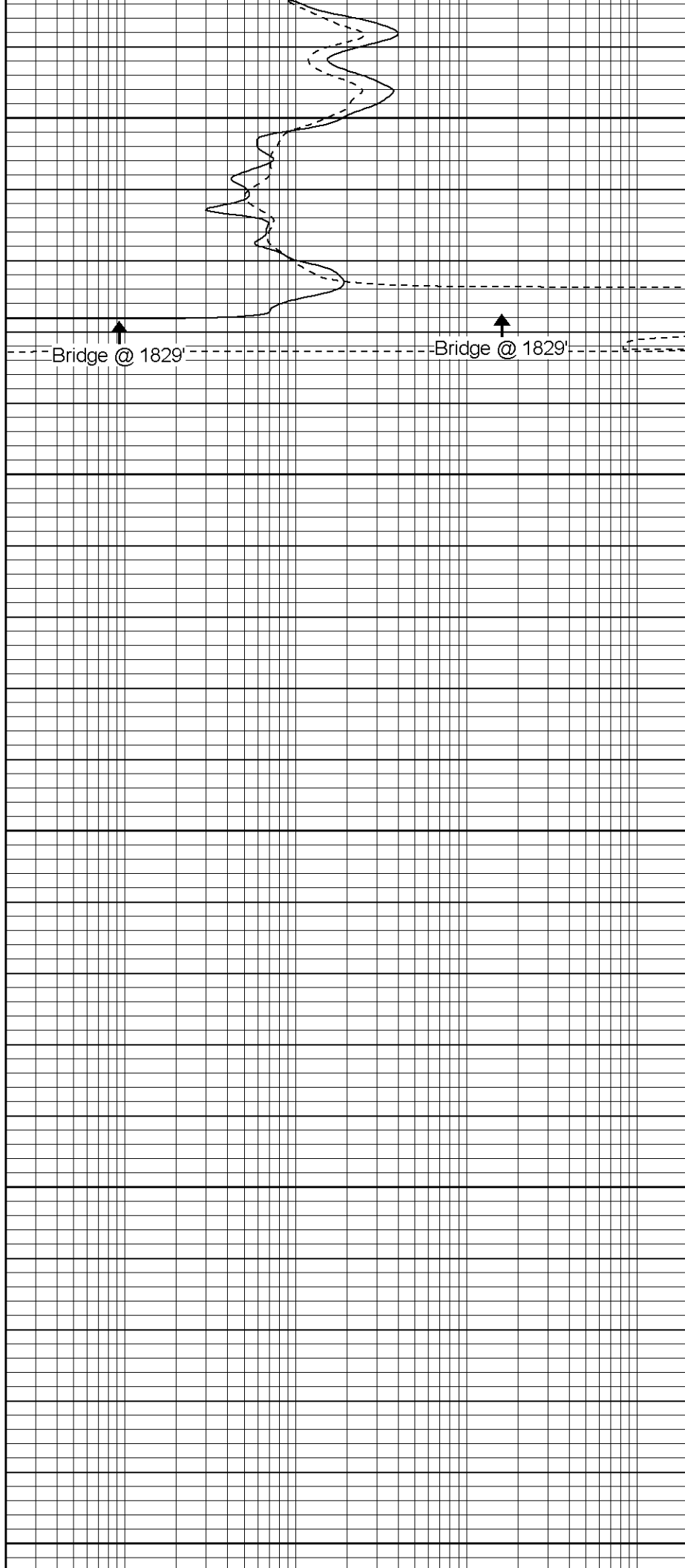
1800

1850

1900

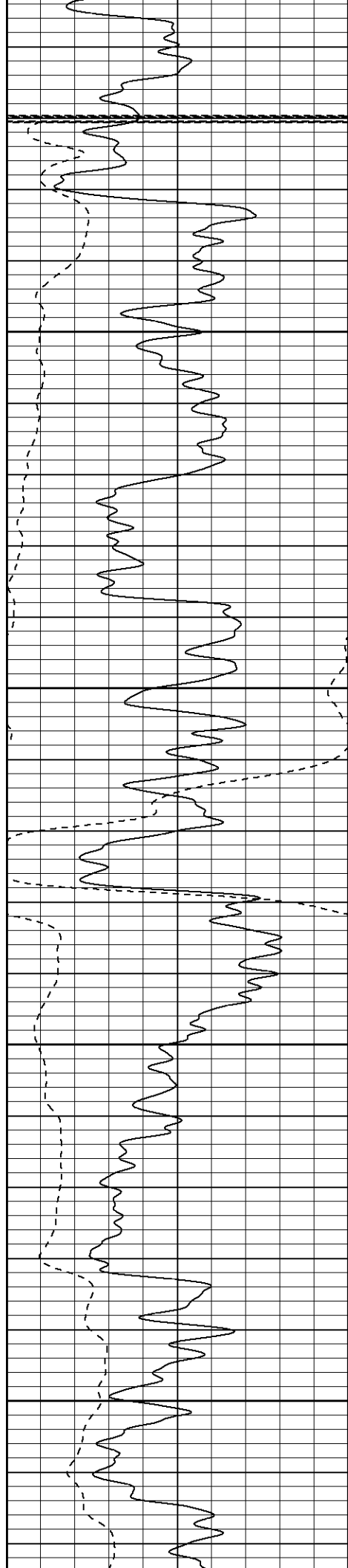
1950

2000



Bridge @ 1829'

Bridge @ 1829'



2050

2100

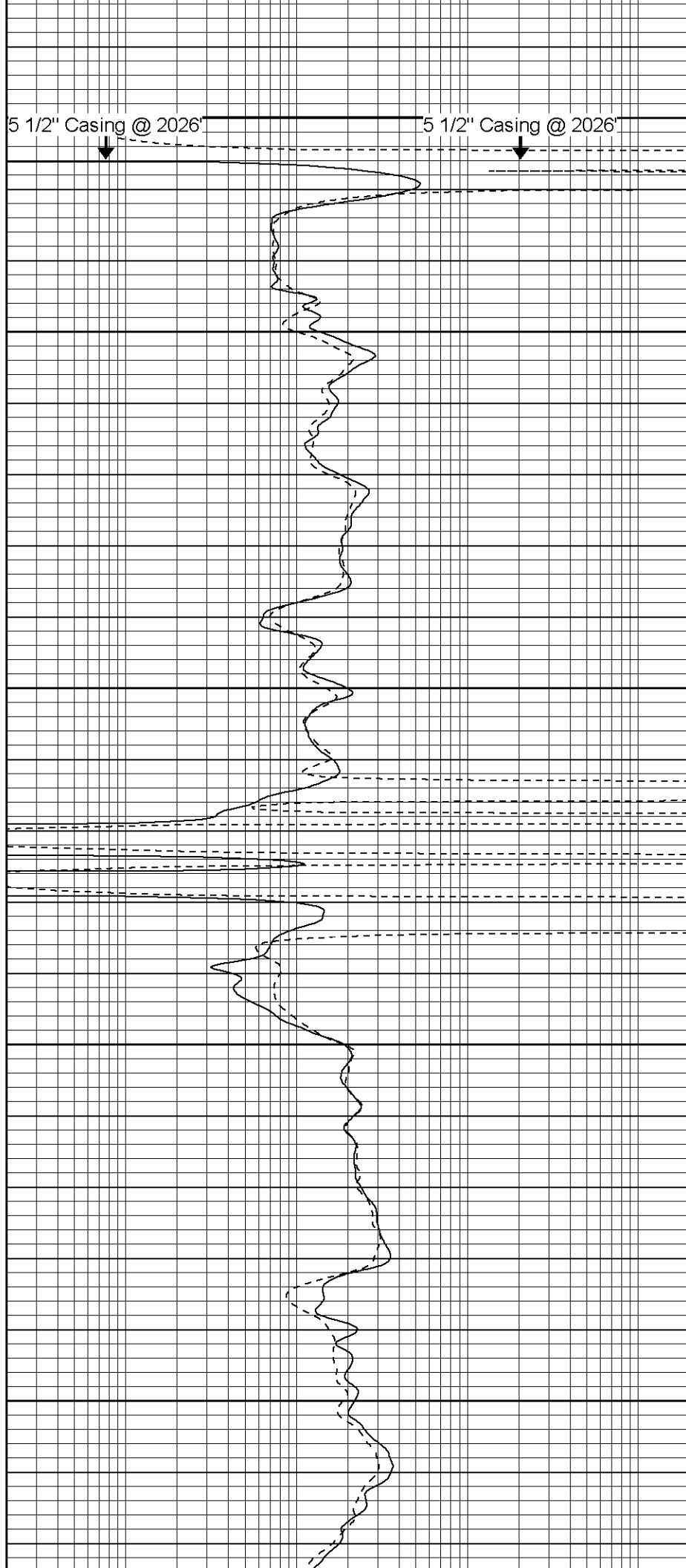
2150

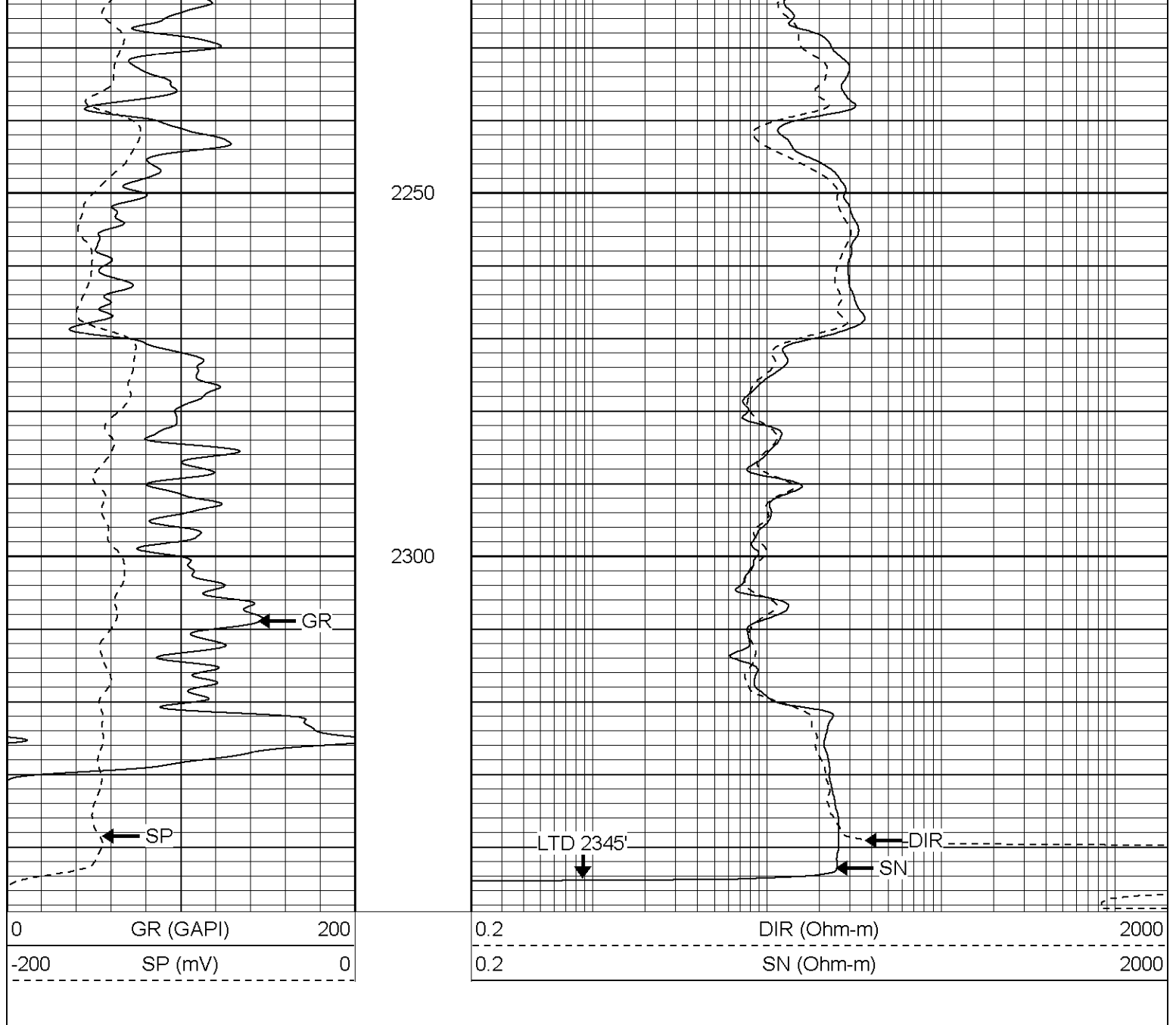
2200

5 1/2" Casing @ 2026'



5 1/2" Casing @ 2026'





Induction Tool Calibration Report				
Serial Number:		040903		
Tool Model:		Probe		
Downhole Cal Performed:		Tue Oct 12 10:04:19 2004		
Surface Cal Performed:		Fri Oct 15 11:11:19 2004		
Surface Calibration:		Air	Loop	
Conductivity Reference:		0.000	500.000	mmho
Conductivity Reading:		0.030	0.650	V
Internal Reference:		Zero	Cal	
Conductivity Reference:		0.000	500.000	mmho
Conductivity Reading:		0.017	0.652	V
Downhole Calibration:		Internal Zero	Internal Cal	
Conductivity Reference:		-0.101	501.161	mmho
Conductivity Reading:		-0.496	501.041	V
Short Normal Reference:		0.000	20.000	Ohm-m
Short Normal Reading:		0.011	0.241	V
Results:		Gain	Offset	
Loop Conductivity:		806.221	-24.187	
Downhole Conductivity:		806.221	2.005	

Downhole Correction:	0.999	0.395
Short Normal Resistivity:	86.902	-7.000

Compensated Density Calibration Report

Serial-Model:	902-2.75POH
Source / Verifier:	/
Master Calibration Performed:	Wed Sep 08 14:10:53 2004

Master Calibration


	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	791.84	380.89	cps
Aluminum	2.580	g/cc	140.96	191.94	cps
Spine Angle = 68.34			Density/Spine Ratio = 0.469		
	Size		Reading		
Small Ring	7.90	in	1.80	V	
Large Ring	17.00	in	4.11	V	

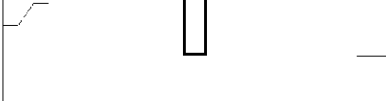
Neutron Calibration Report

Serial Number:	803
Tool Model:	2.75POH
Performed:	Wed Oct 06 09:51:02 2004
Calibrator Value:	1 NAPI
Calibrator Reading:	1 cps
Sensitivity:	1 NAPI/cps

Gamma Ray Calibration Report

Serial Number:	801
Tool Model:	2.75POH
Performed:	Thu Oct 07 18:43:13 2004
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.8000 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CHD	17.94		None	0.75	1.50	5.00
GR	16.21		GR-2.75POH (801) Probe	3.73	2.75	43.00
DIC	6.24		IEL-Probe (040903)	13.46	2.75	93.00
SP	2.25					

SN	1.71				
Dataset: /field/well/run1/_plots/_jobs_/i Total Length: 17.94 ft Total Weight: 141.00 lb O.D. 2.75 in					