



**SUPERIOR**  
Black Lick, Pa.  
Mercer, Pa.  
Wooster, Oh.  
Cleveland, Ok.  
Trinidad, Co.

## SINGLE INDUCTION LOG

Company	Pioneer Natural Resources	Company	Pioneer Natural Resources
Well	General Vera 11-28	Well	General Vera 11-28
Field	Purgatoire River	Field	Purgatoire River
County	Las Animas	County	Las Animas
State	Colorado	State	Colorado
Location:	API # : 05 071 09084 00 1094' FNL & 210' FWL	Other Services	cdl
Permanent Datum	SEC 28 TWP 31S RGE 66W	Elevation	
Log Measured From	Ground Level	K.B. 7266'	
Drilling Measured From	Kelly Bushing 4' Above G.L. Kelly Bushing	D.F. -----	
		G.L. 7262'	
Date	03-03-07	03-05-07	03-05-07
Run Number	One	Two	Nineteen
Depth Driller	2490'	2490'	2490'
Depth Logger	1088'	1052'	2406'
Bottom Logged Interval	1086'	no log ran	2404'
Top Log Interval	Surface Casing	///	5.5" casing @ 1932'
Casing Driller	8.625" @ 700'	8.625" @ 700'	8.625" @ 700'
Casing Logger	700'	700'	700'
Bit Size	7.875"	7.875"	7.875"
Type Fluid in Hole	Water	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	10:30 a.m.	6:00 p.m. / 3-4-07	6:00 p.m. / 3-4-07
Time Logger on Bottom	12:45 p.m.	8:30 p.m.	9:30 p.m.
Maximum Recorded Temperature	84 @ 1088'	///	///
Equipment Number	T701	T701	T701
Location	Trinidad	Trinidad	Trinidad
Recorded By	L. Smith	L. Smith	L. Smith
Witnessed By	Mr. Ray Decker	Mr. Clayton Brooker	Mr. Clayton Brooker

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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 hit bridge at 1088'.Ran spud bar TD 1088'

Pass two ran after well was reconditioned TD 1052'.Ran spud bar TD 1052'.

Ran spud bar below 5.5" casing @ 1042' TD 1082'.Ran spud bar below 5.5" casing @ 1082' TD 1236'.

Pass three below 5.5" casing @ 1082' TD 1236'.Ran spud bar below 5.5" casing @ 1202' TD 1374'.

Pass five below 5.5" casing @ 1202' TD 1374'. Ran spud bar below 5.5" casing @ 1362' TD 1453'.

Pass seven below 5.5" casing @ 1362' TD 1453'.Ran spud bar below 5.5" casing @ 1446' TD 1516'.

Pass nine below 5.5" casing @ 1446' TD 1516'.Ran spud bar below 5.5" casing @ 1486' TD 1676'.

Pass eleven below 5.5" casing @ 1486' TD 1618'. Ran spud bar below 5.5" casing @ 1570' TD 1657'.

Pass thirteen below 5.5" casing @ 1570' TD 1657'. Ran spud bar below 5.5" casing @ 1730 TD 1963'.

Pass seventeen below 5.5" casing @ 1730' TD 1963'. Ran spud bar below 5.5" casing @ 1932 TD 2415'.

Pass nineteen below 5.5" casing @ 1932' TD 2406'.

Ludlow to Gulnare, turn left and go 1.8 miles and turn right on cnty. rd. 46



**SUPERIOR**

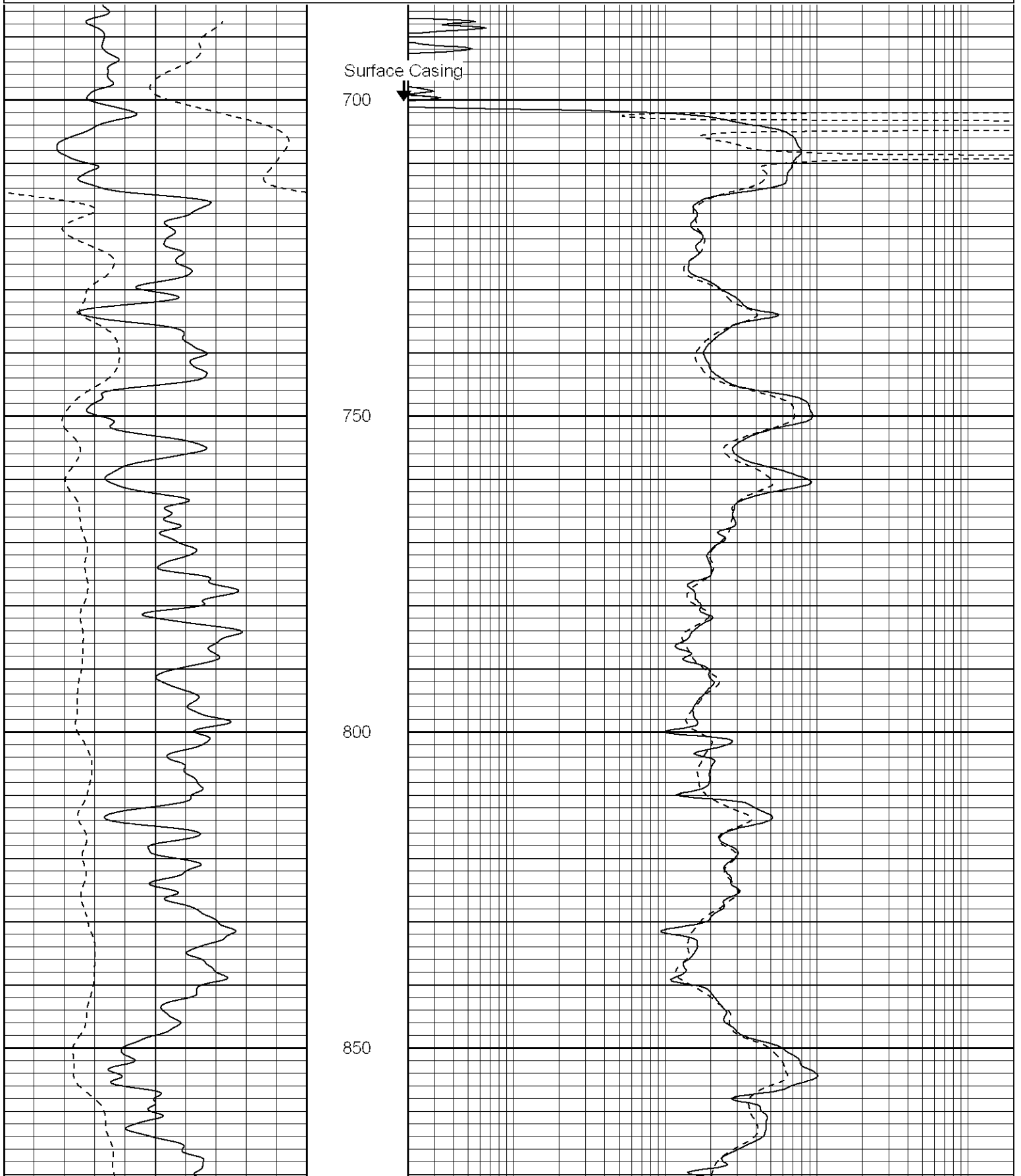
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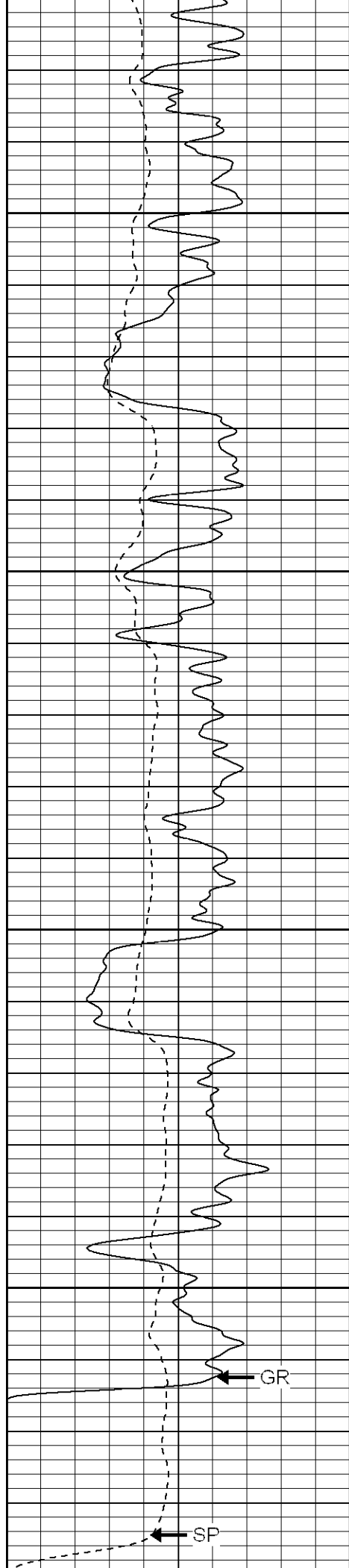
# Main Pass

Database File: general vera.db  
Dataset Pathname: pass2.1  
Presentation Format: iel  
Dataset Creation: Mon Mar 05 02:48:36 2007 by Calc Open-Cased 061129  
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



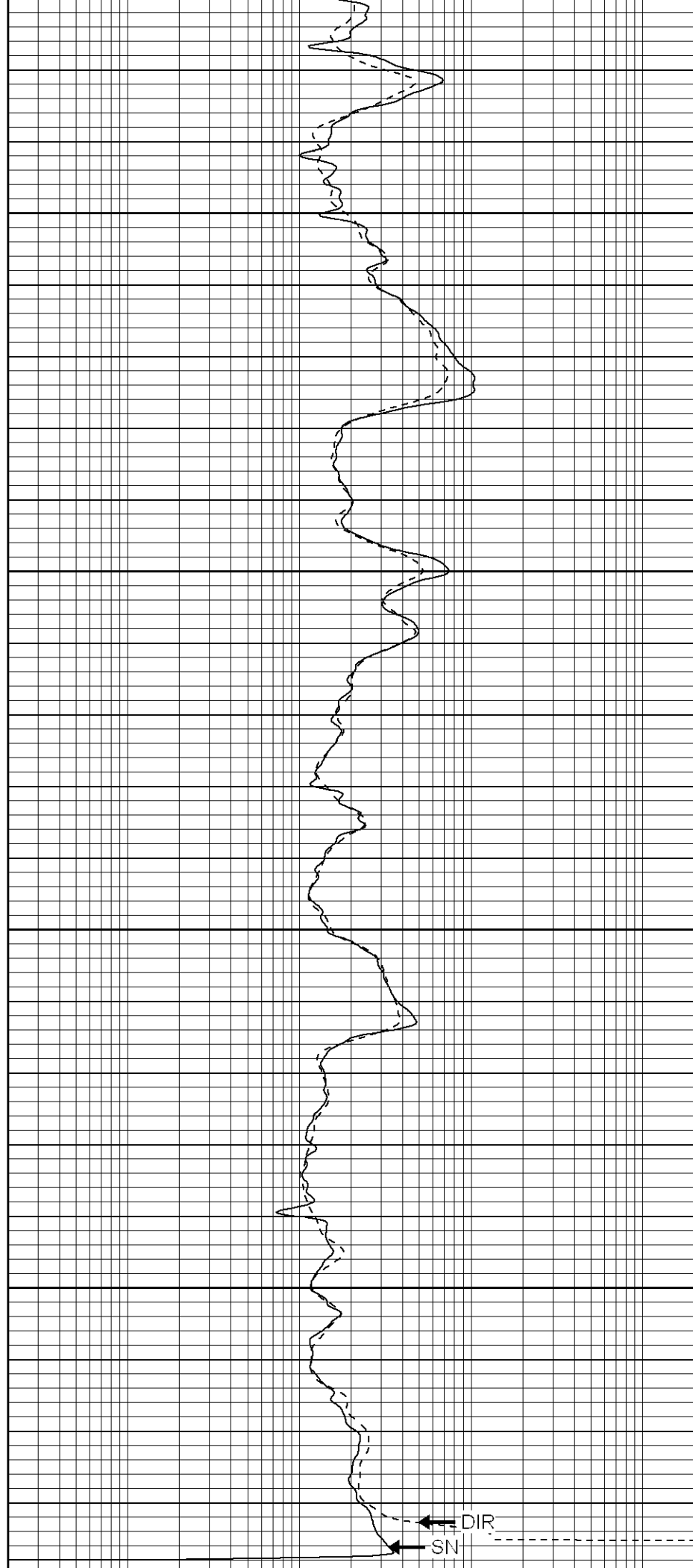


900

950

1000

1050



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

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



**SUPERIOR**

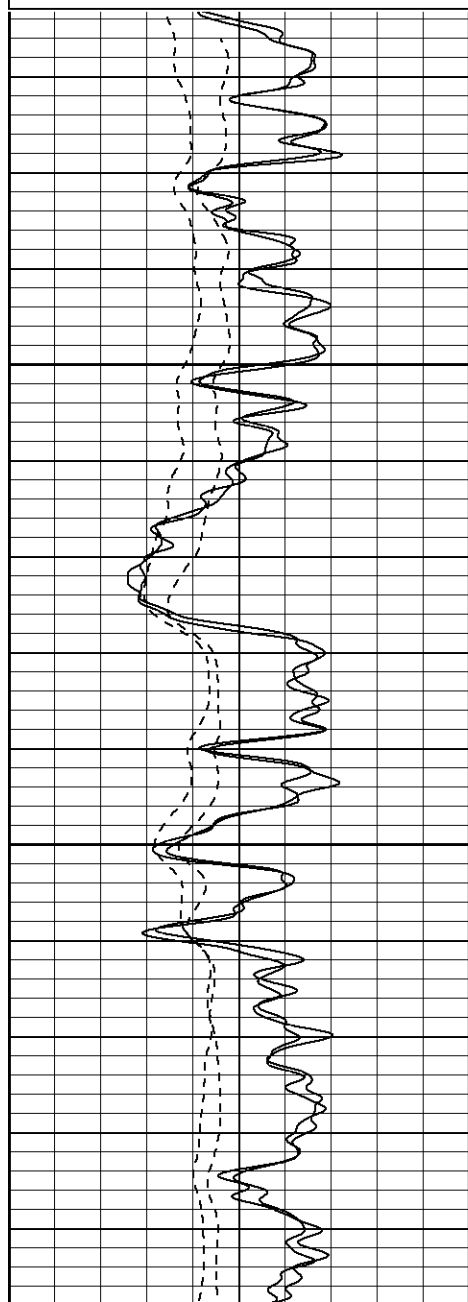
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# Repeat Pass

Database File: general vera.db  
Dataset Pathname: pass1.1  
Presentation Format: iel  
Dataset Creation: Mon Mar 05 02:47:28 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240

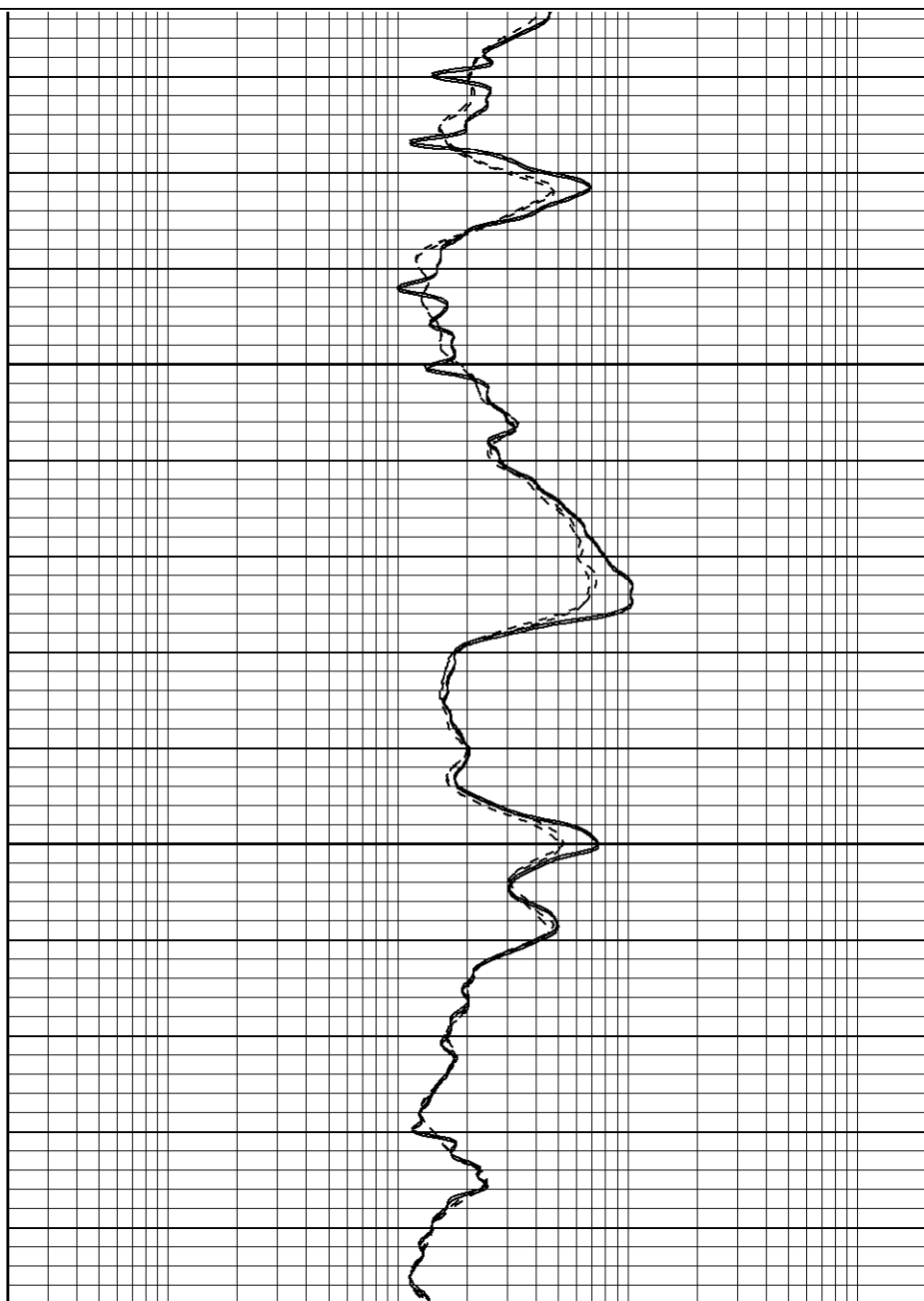
0	GR (GAPI)	200
-200	SP (mV)	0
-200	SP-repeat (mV)	0
0	GR-repeat (GAPI)	200

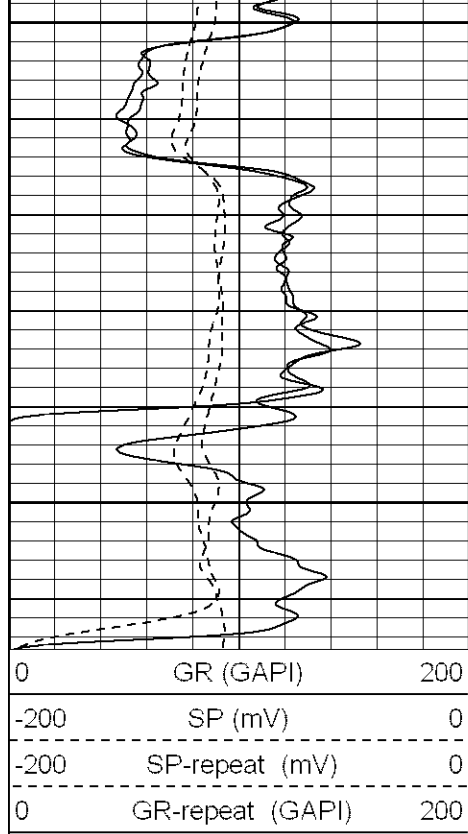
0.2	DIR (Ohm-m)	2000
0.2	SN (Ohm-m)	2000
0.2	DIR-repeat (Ohm-m)	2000
0.2	SN-repeat (Ohm-m)	2000



900

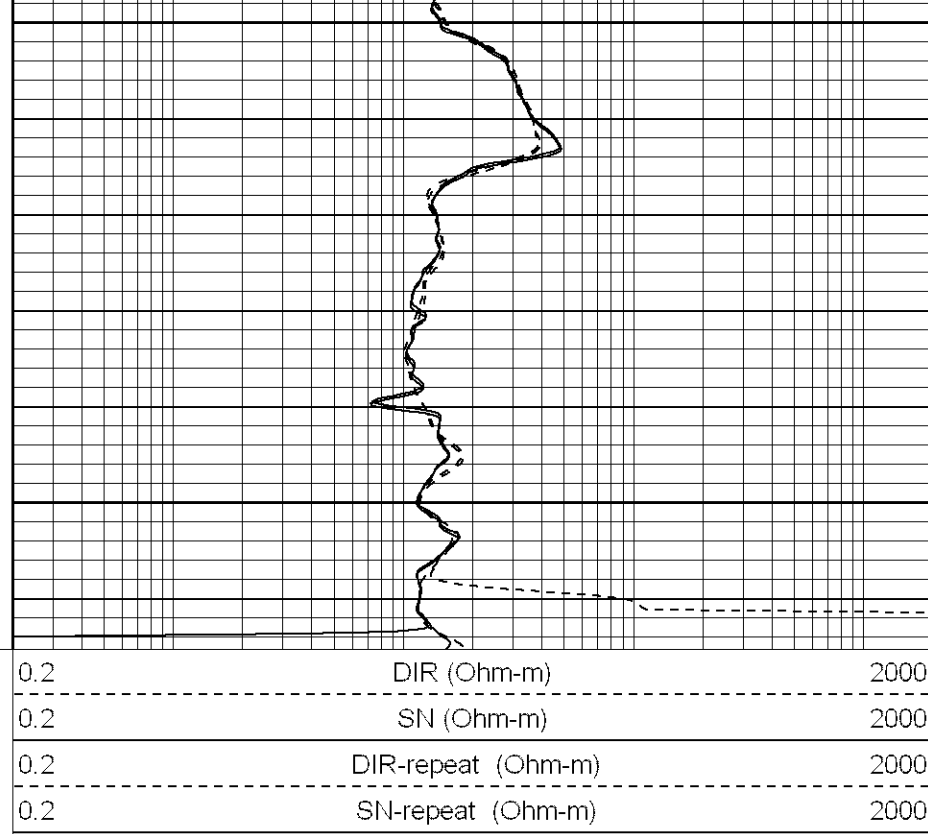
950



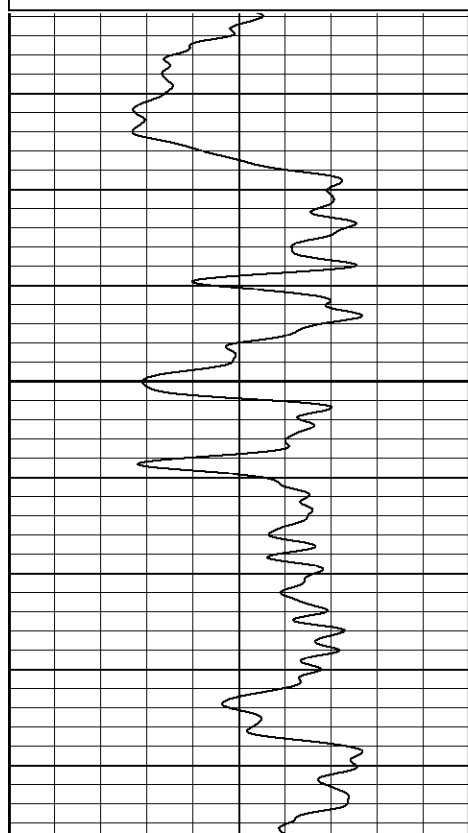
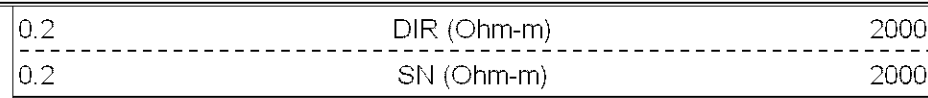
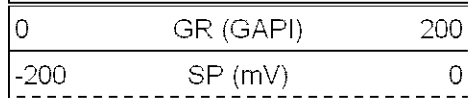


1000

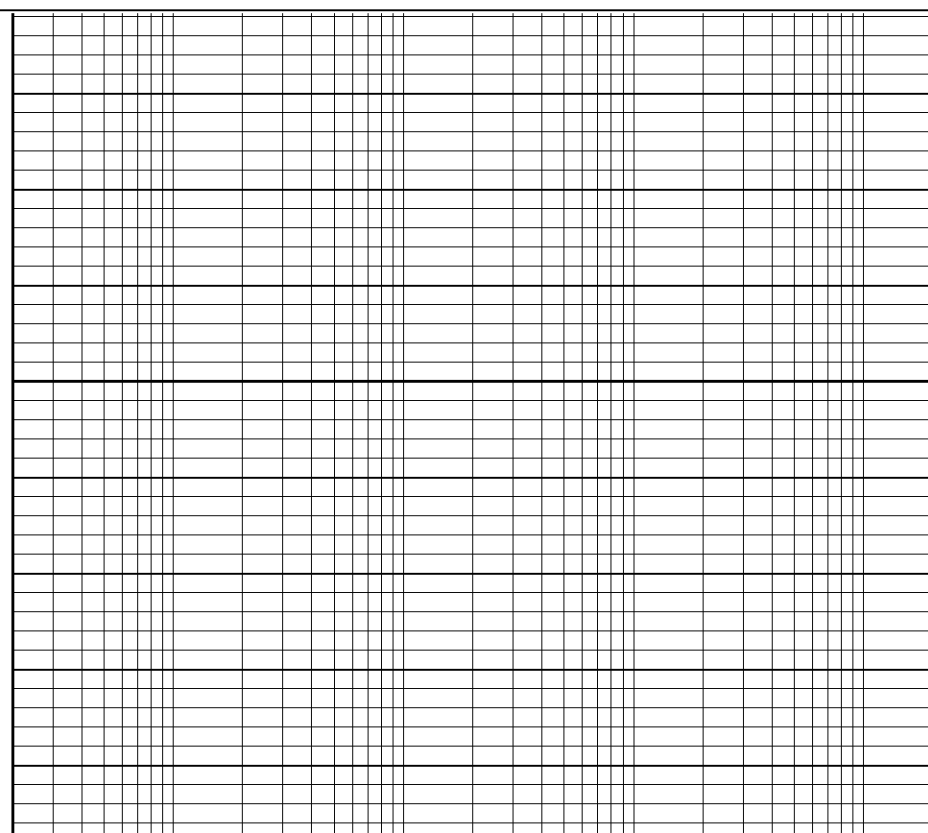
1050

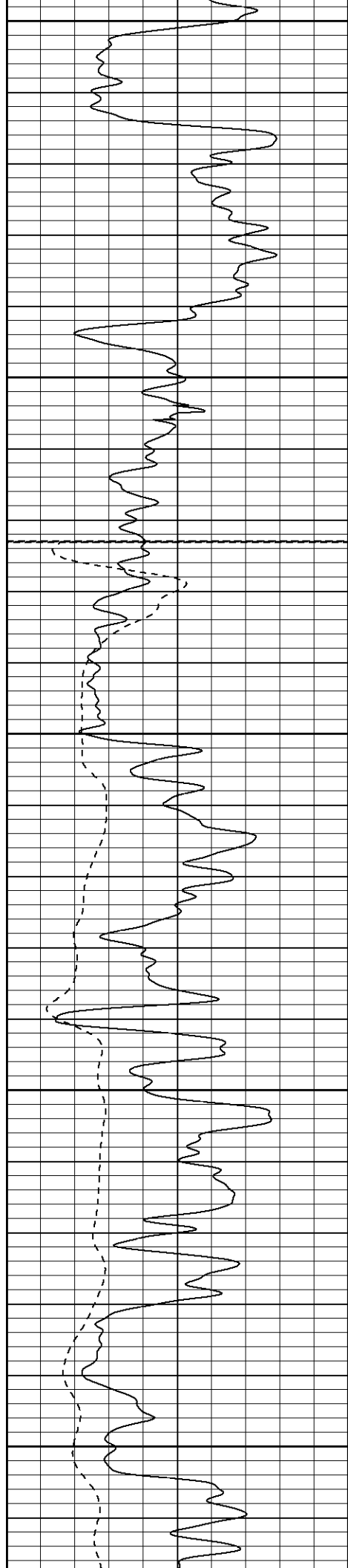


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 Dataset Creation: Mon Mar 05 09:15:58 2007 by Calc Open-Cased 061129  
 Charted by: Depth in Feet scaled 1:240



950





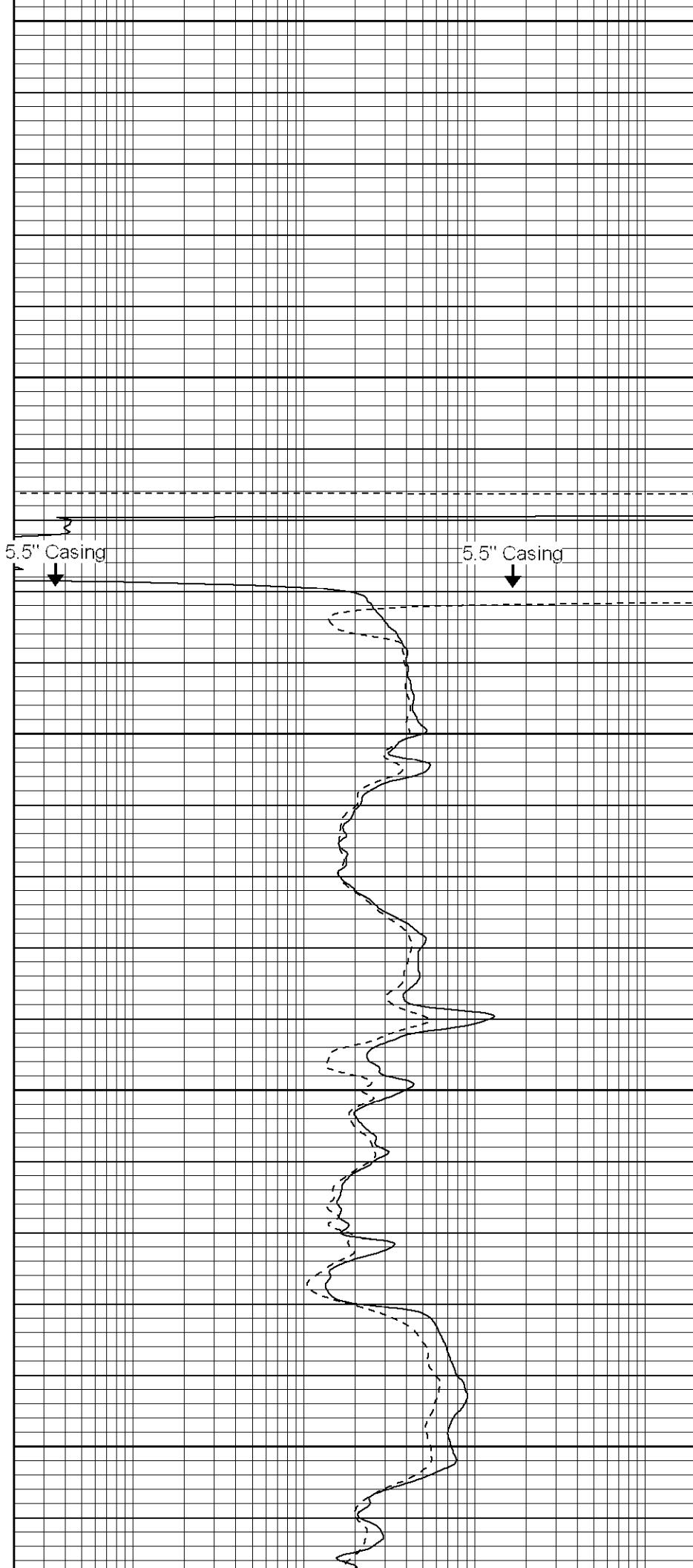
1000

1050

1100

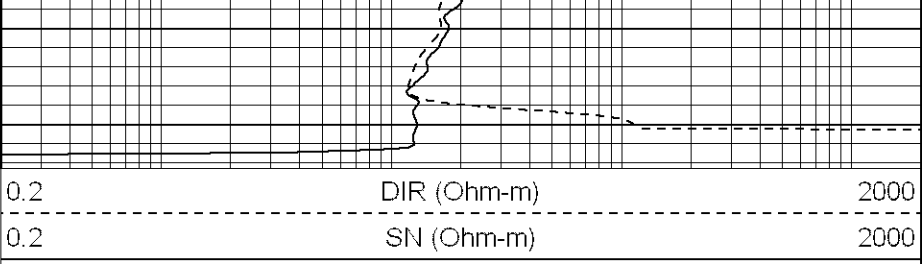
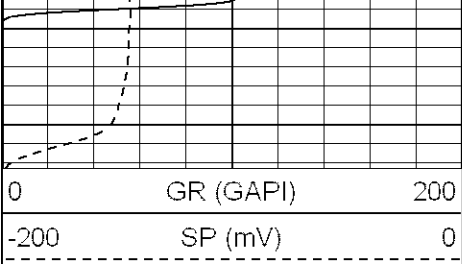
1150

1200

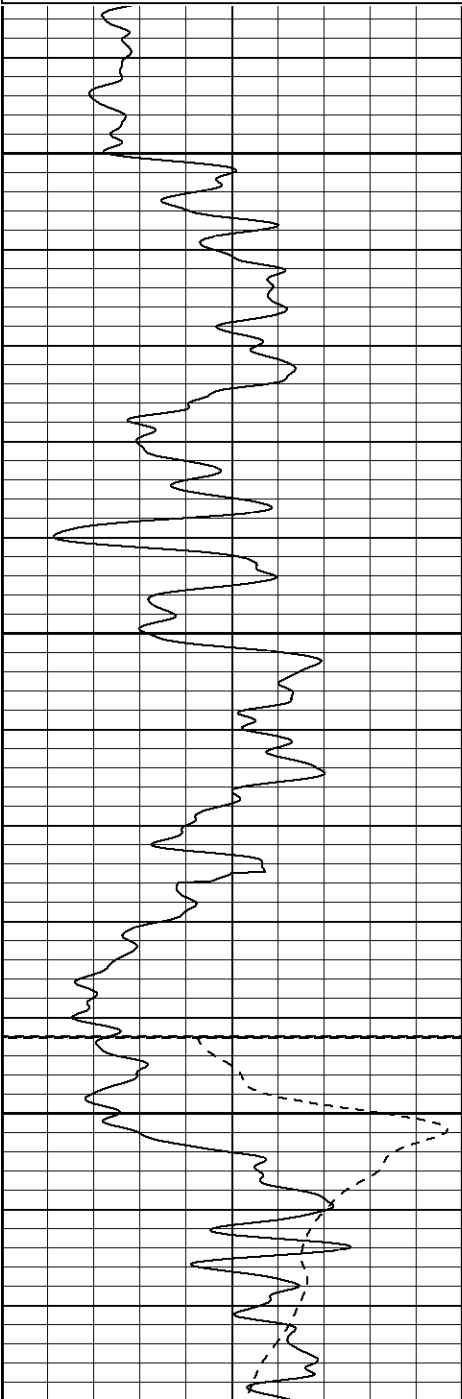
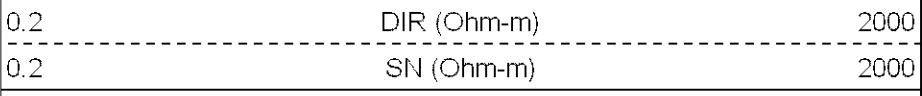
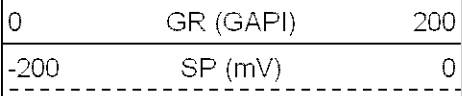


5.5" Casing

5.5" Casing



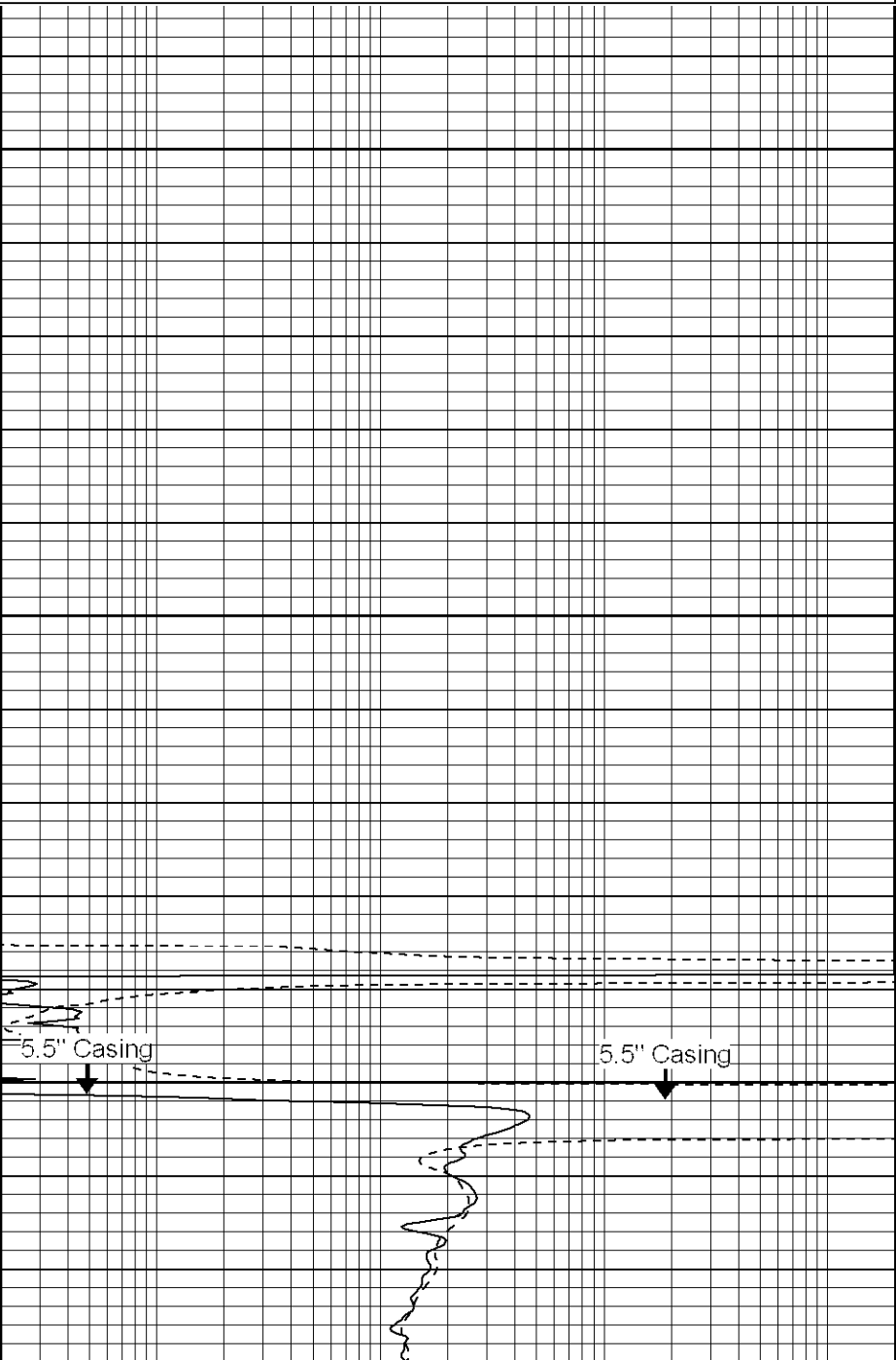
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Dataset Pathname: pass5.1  
Presentation Format: iel  
Dataset Creation: Mon Mar 05 11:43:14 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240



1100

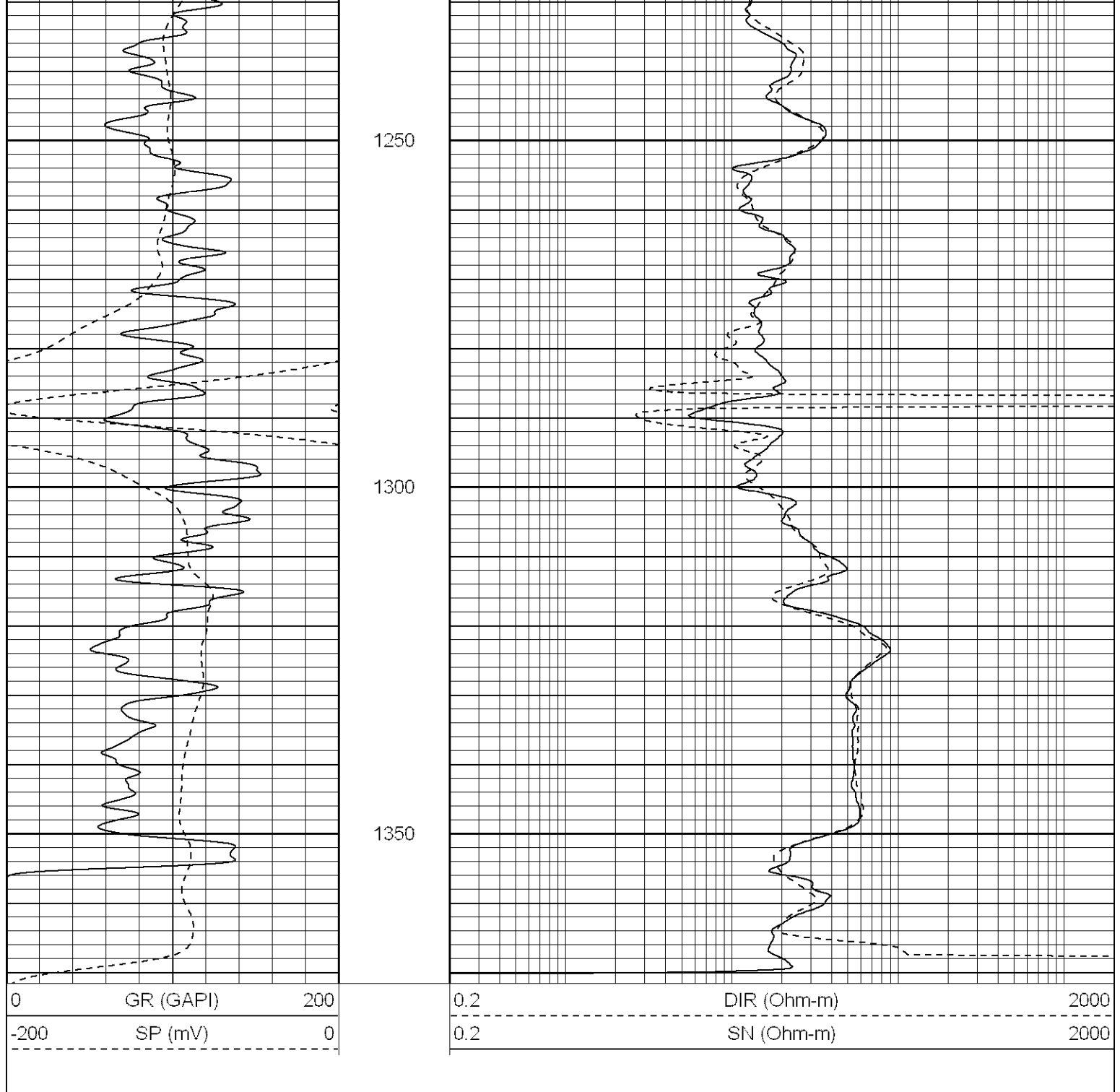
1150

1200

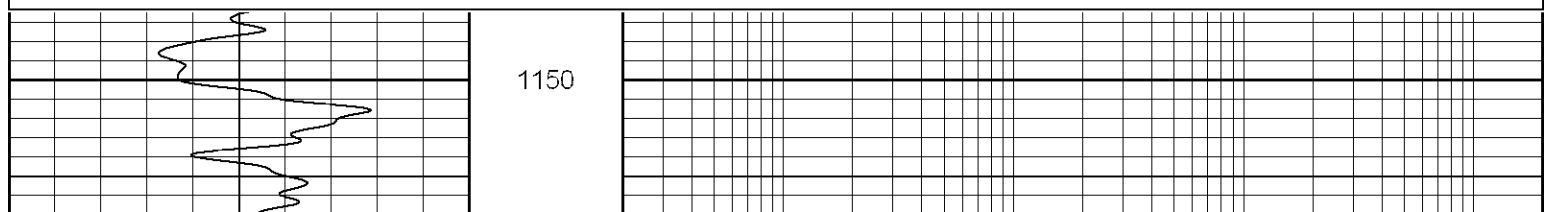


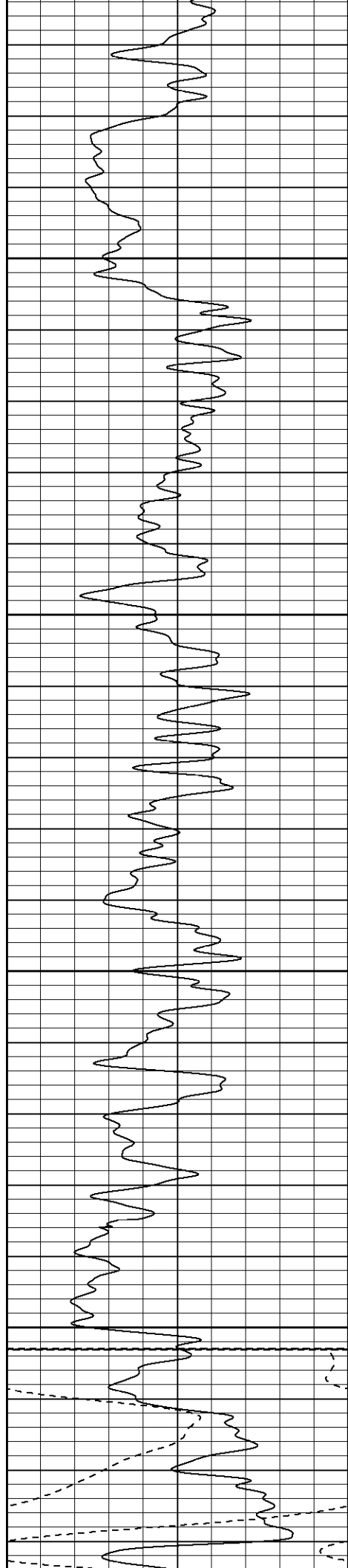
5.5\" Casing

5.5\" Casing



Database File: general vera.db  
Dataset Pathname: pass7.1  
Presentation Format: iel  
Dataset Creation: Mon Mar 05 12:32:10 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240





1200

1250

1300

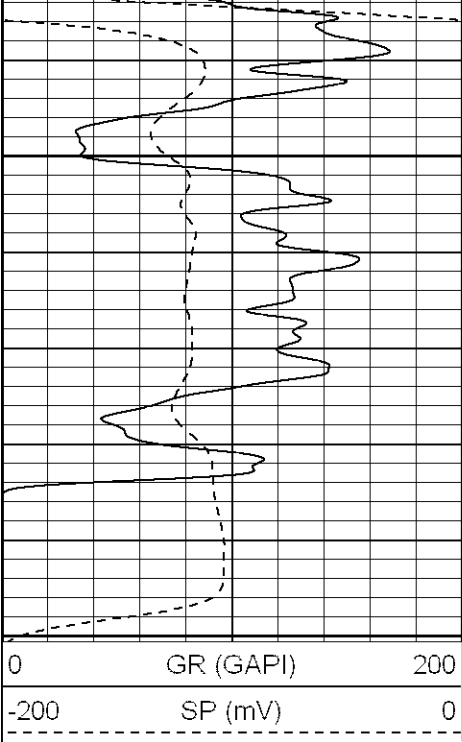
1350

5.5" Casing



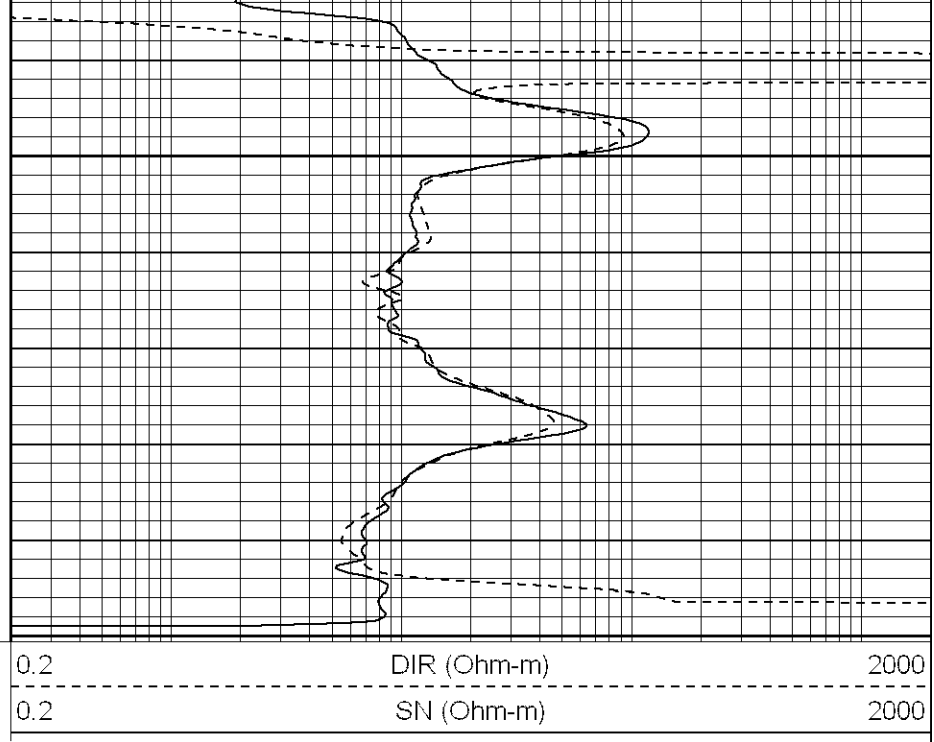
5.5" Casing



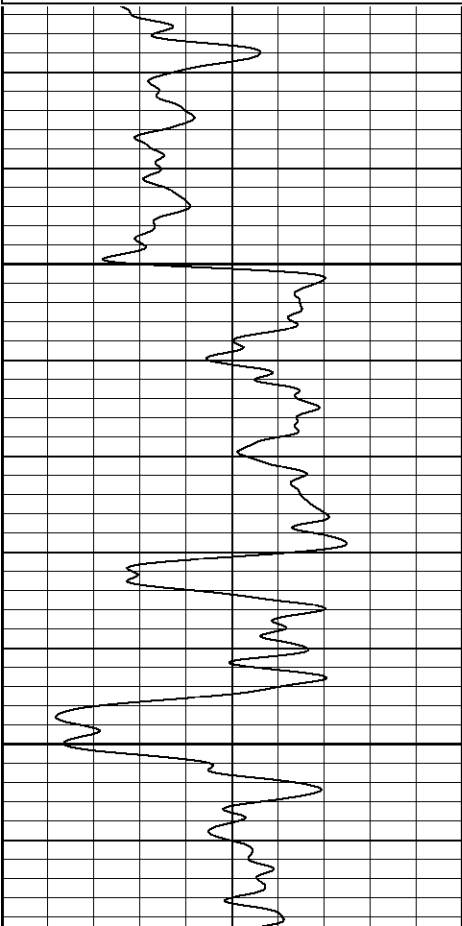
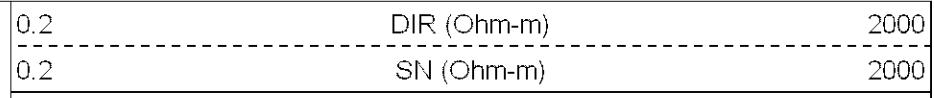
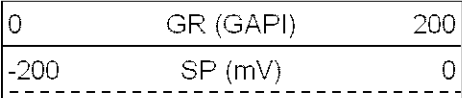


1400

1450

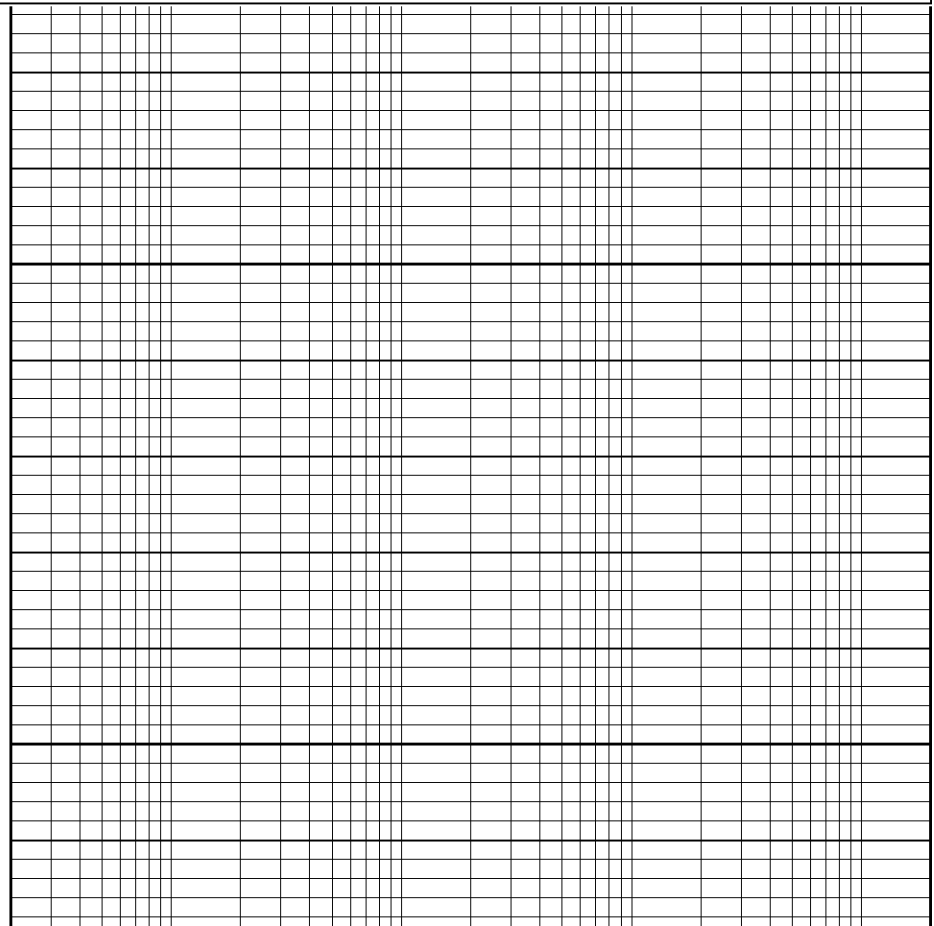


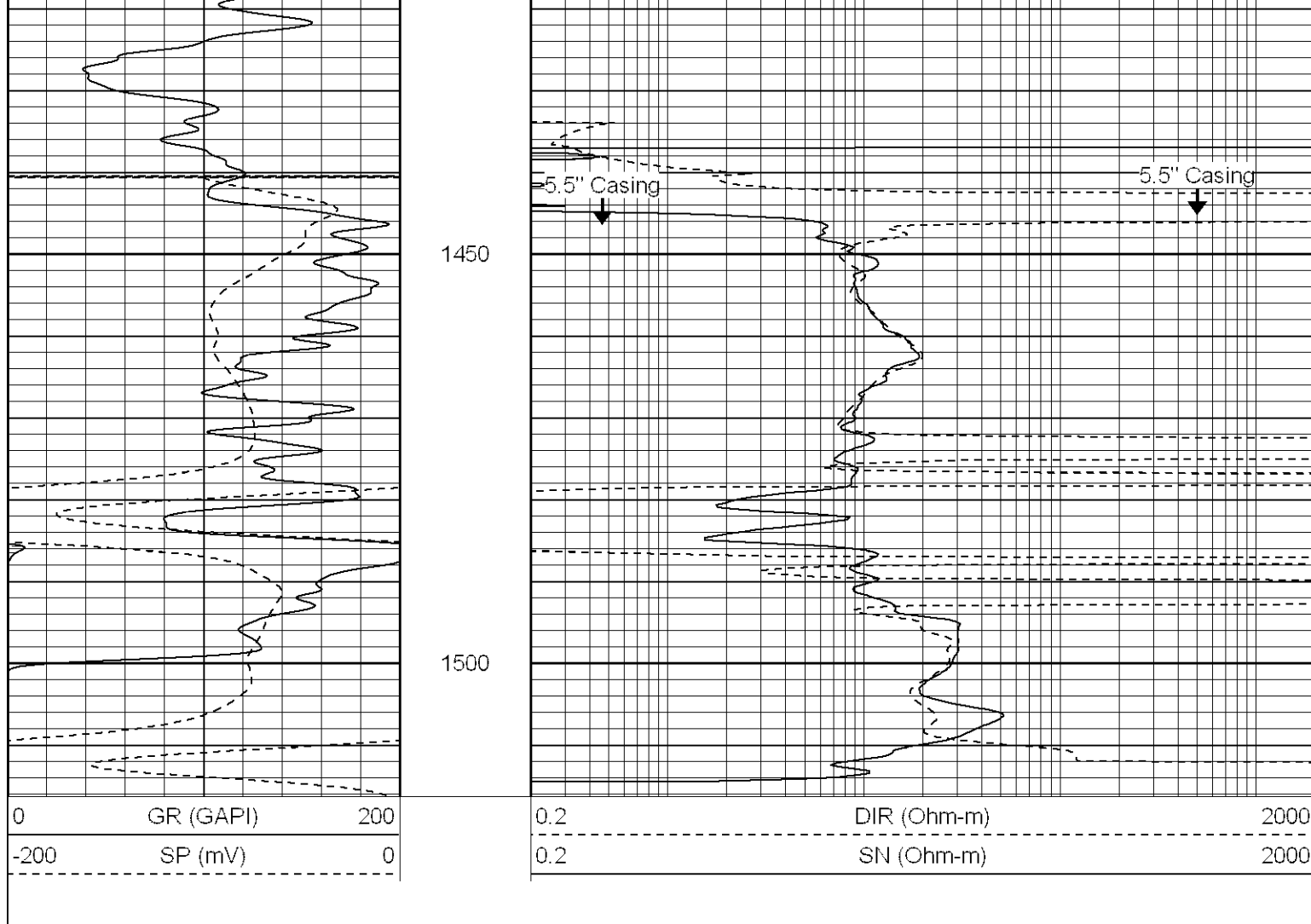
Database File: general vera.db  
Dataset Pathname: pass10.1  
Presentation Format: iel  
Dataset Creation: Mon Mar 05 13:36:24 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240



1350

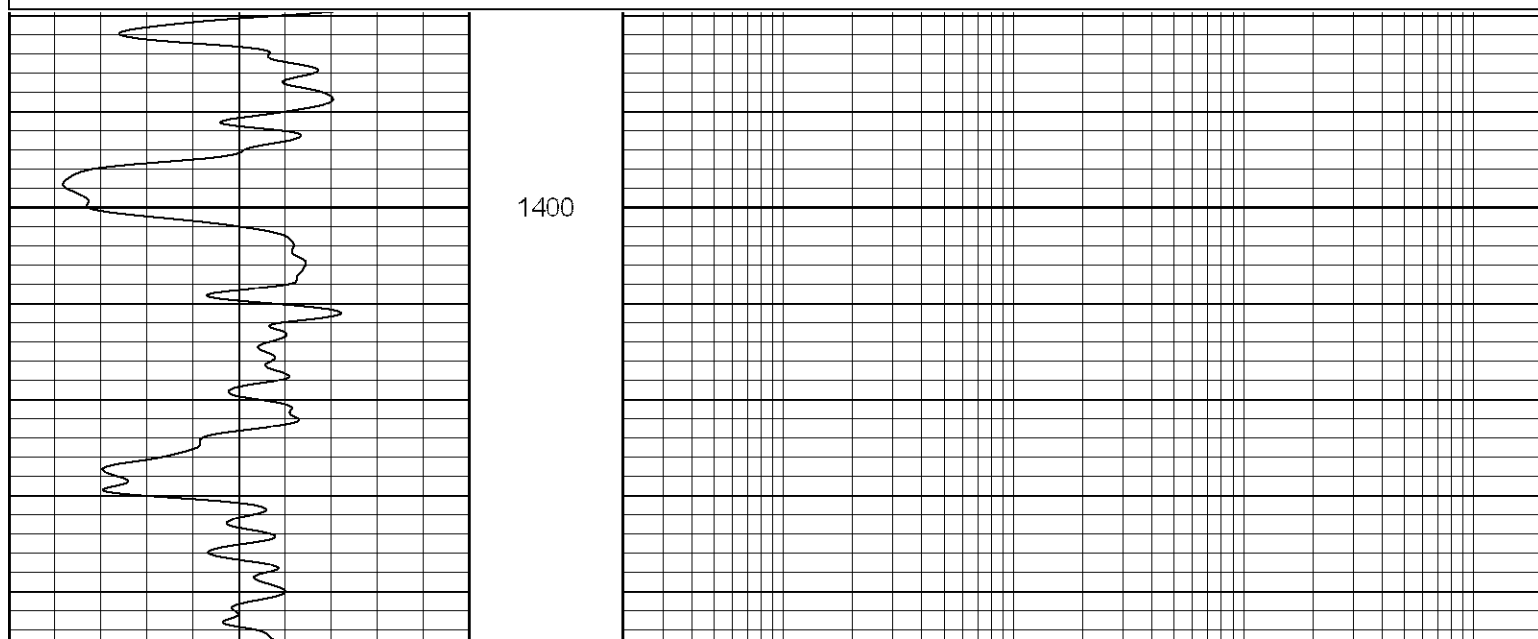
1400

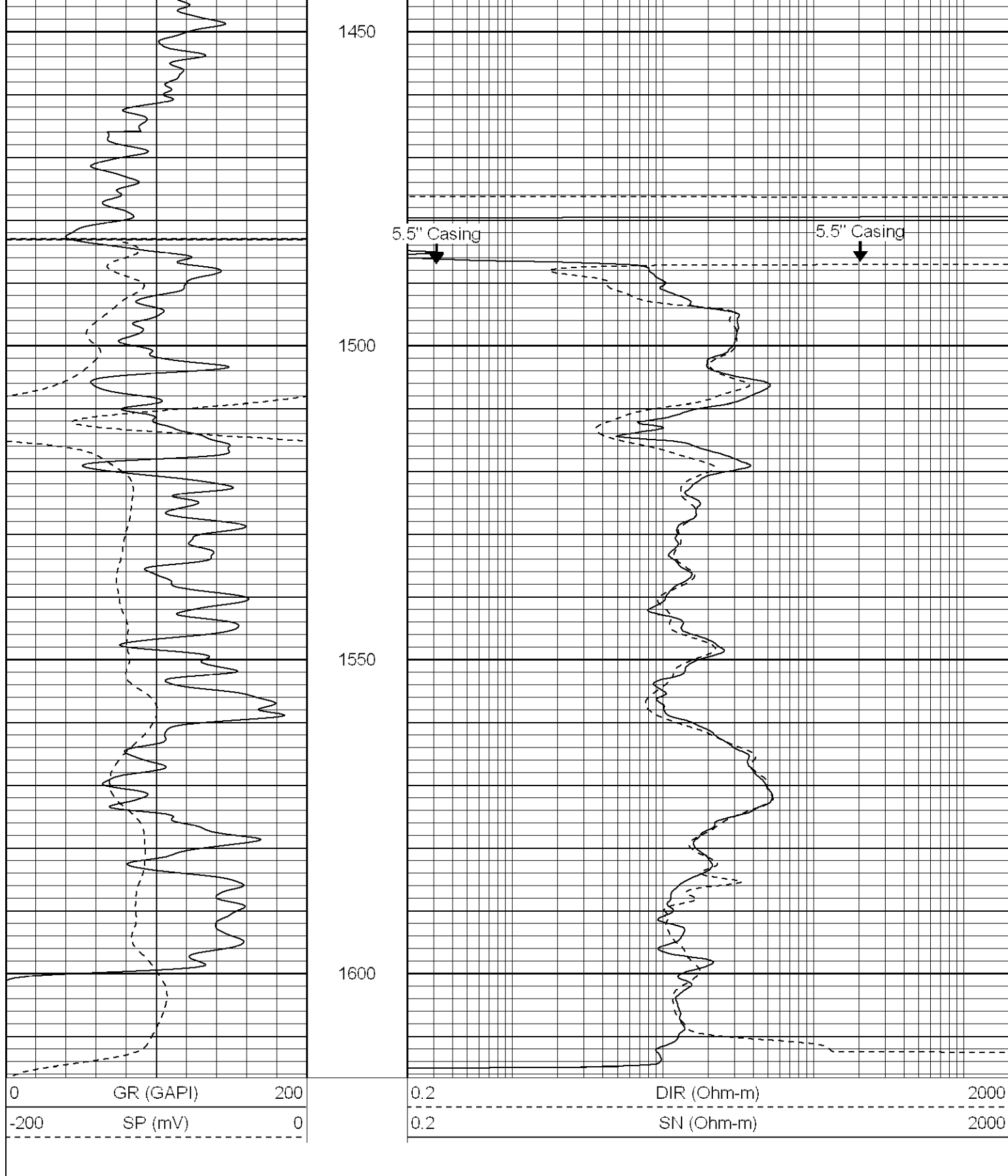




Database File: general vera.db  
Dataset Pathname: pass12.1  
Presentation Format: iel  
Dataset Creation: Mon Mar 05 14:51:52 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	0.2	DIR (Ohm-m)	2000
-200	SP (mV)	0	0.2	SN (Ohm-m)	2000

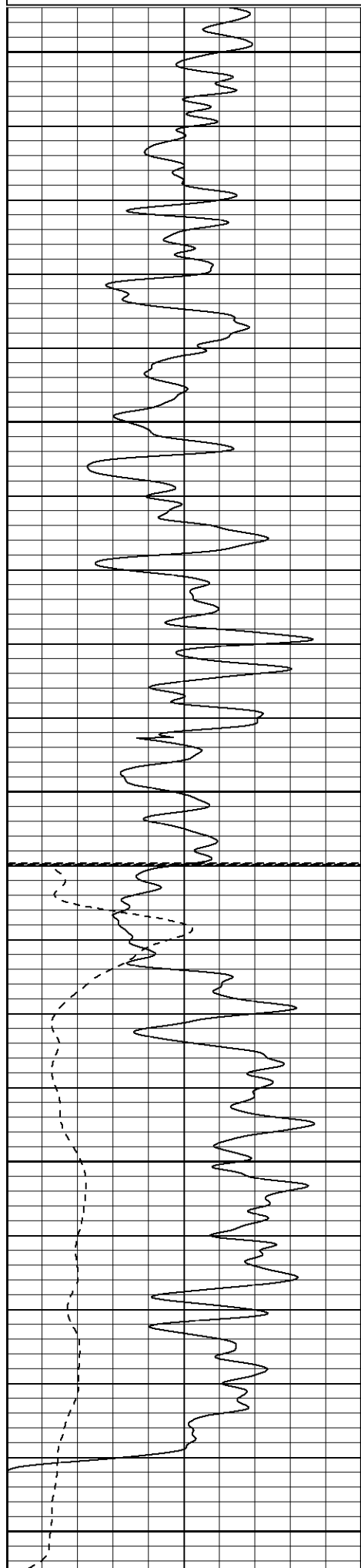




Database File: general vera.db  
 Dataset Pathname: pass14.1  
 Presentation Format: iel  
 Dataset Creation: Mon Mar 05 16:15:00 2007 by Calc Open-Cased 061129  
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	0.2	DIR (Ohm-m)	2000
200	SP (mV)	0	0.2	SN (Ohm-m)	2000

-200 SP (mV) 0



1450

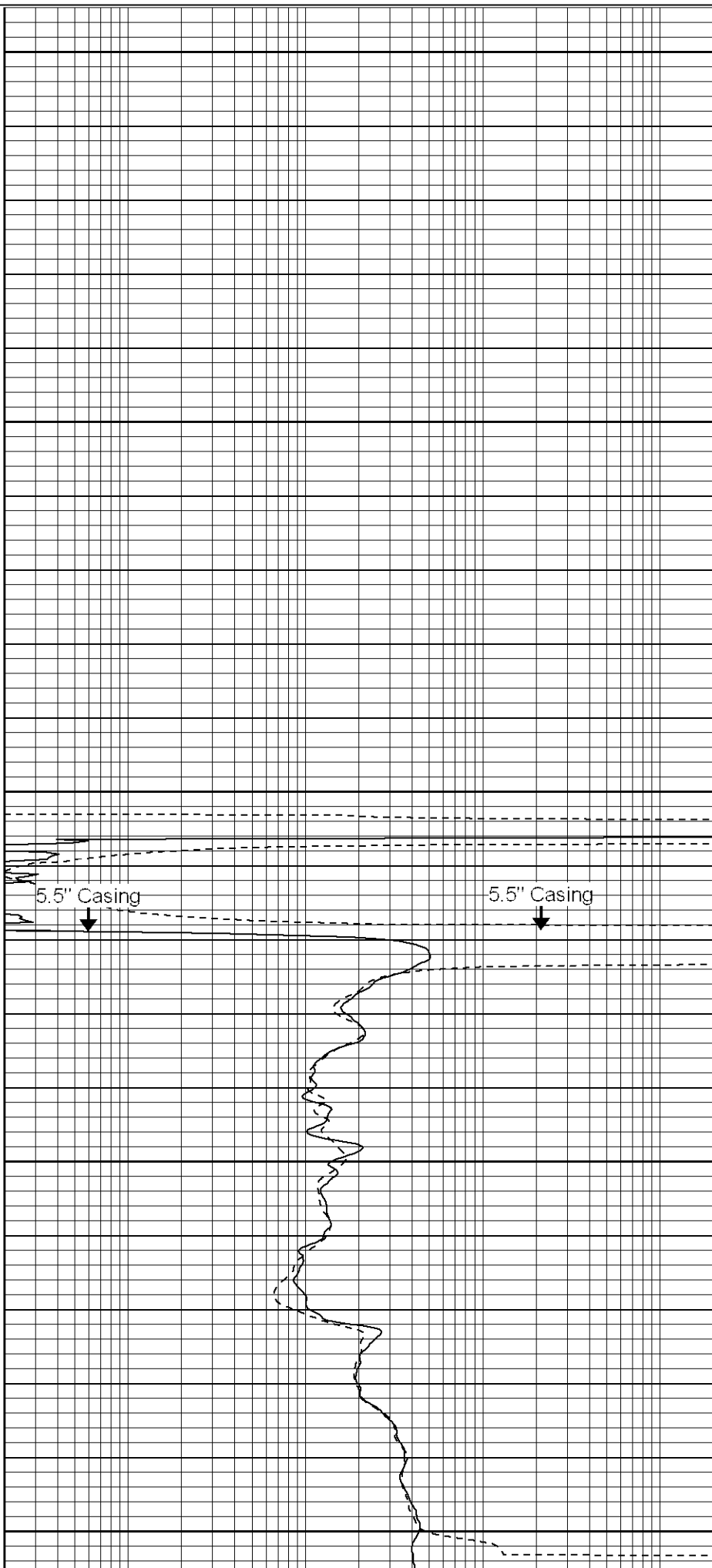
1500

1550

1600

1650

0.2 SN (Ohm-ft) 2000



5.5" Casing

5.5" Casing

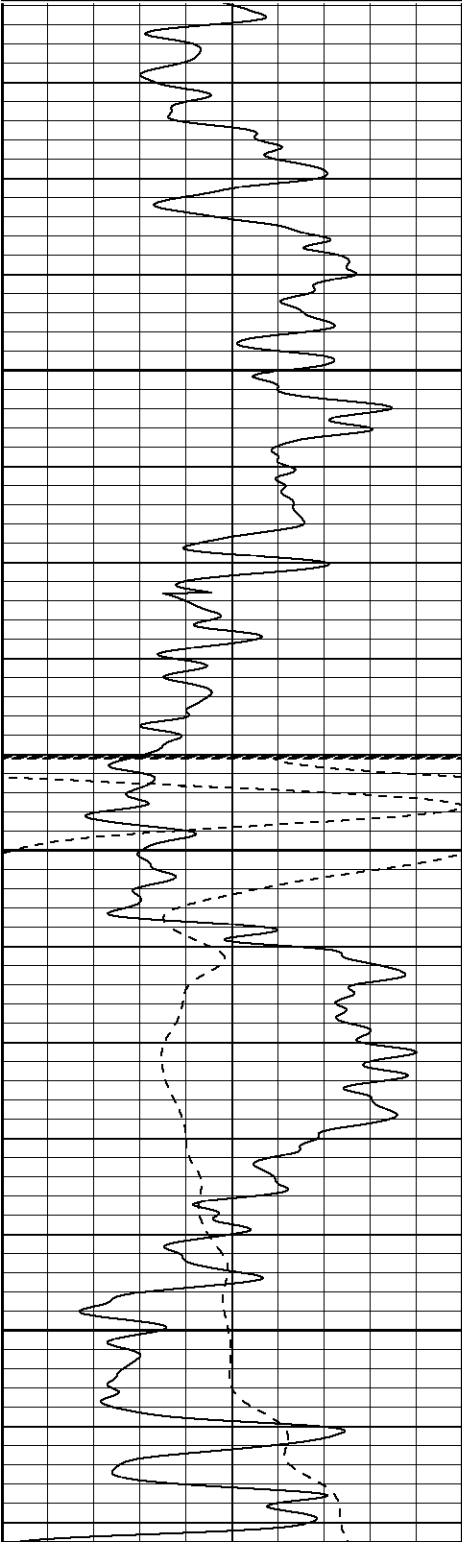
0	GR (GAPI)	200
-200	SP (mV)	0

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

Database File:	general vera.db
Dataset Pathname:	pass16.1
Presentation Format:	iel
Dataset Creation:	Mon Mar 05 17:23:23 2007 by Calc Open-Cased 061129
Charted by:	Depth in Feet scaled 1:240

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

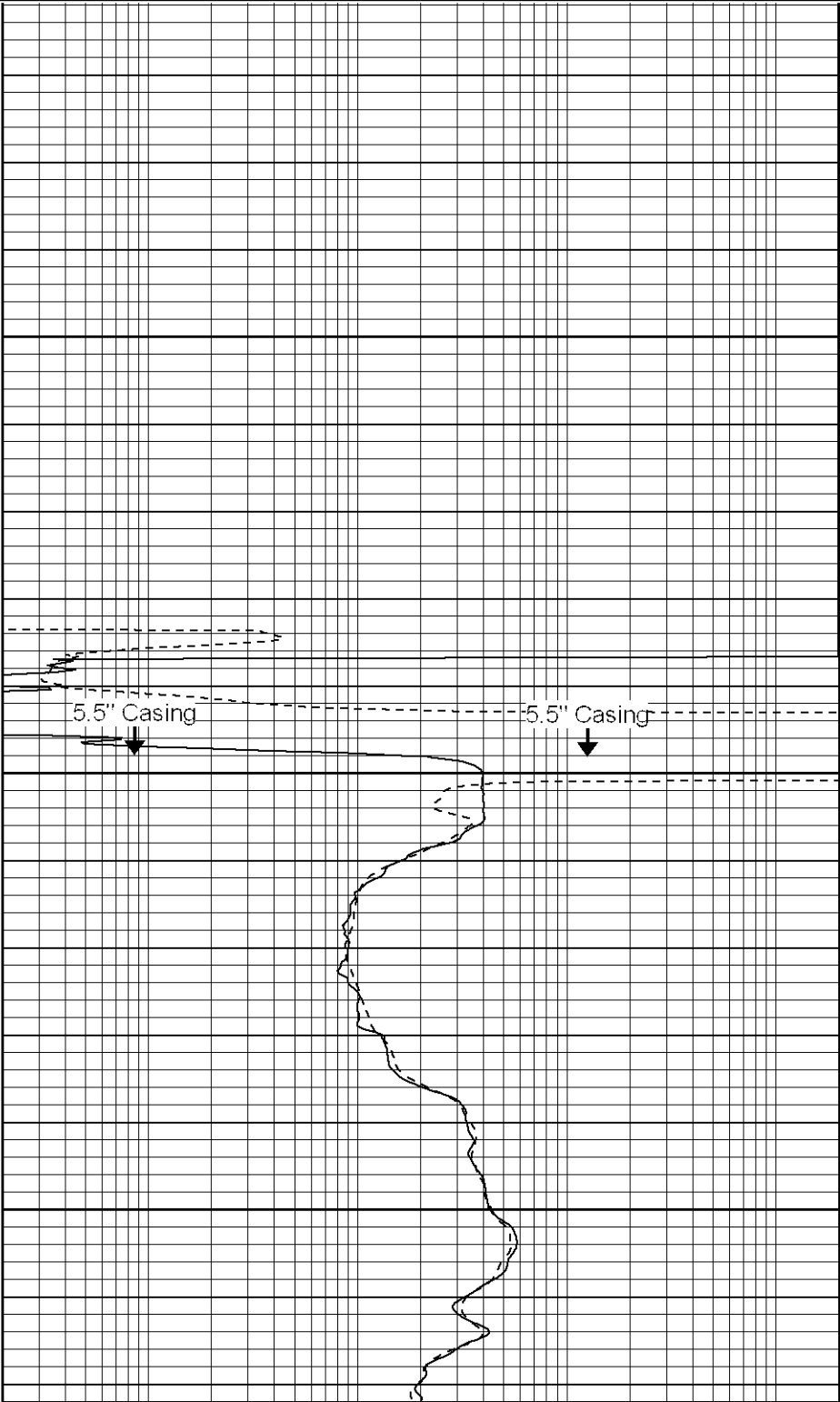
0.2	DIR (Ohm-m)	2000
0.2	SN (Ohm-m)	2000

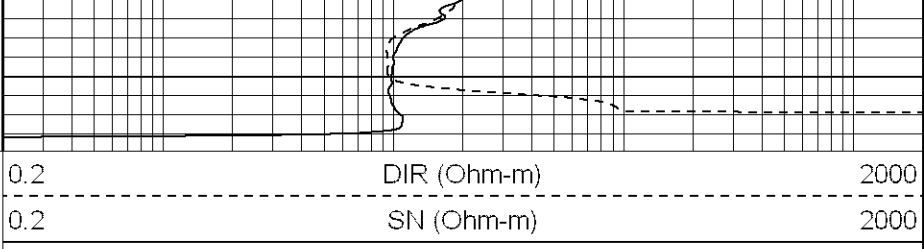
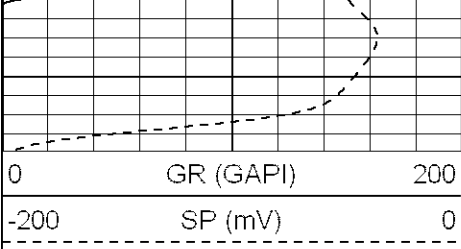


1600

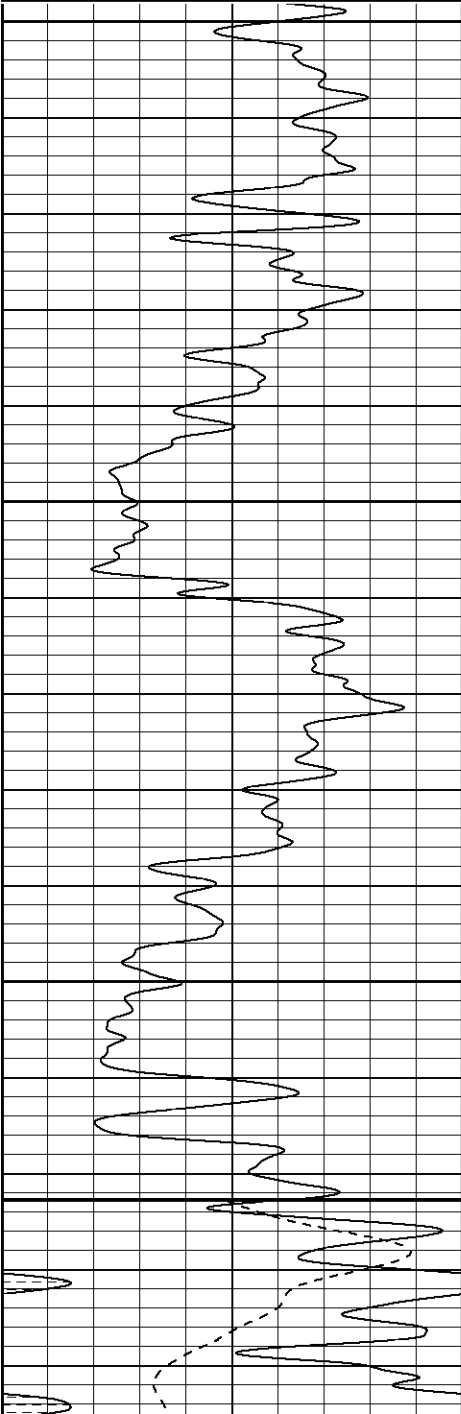
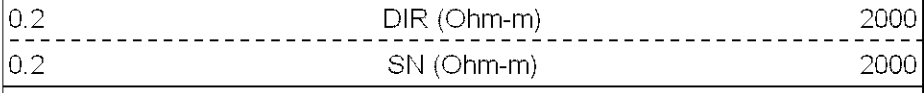
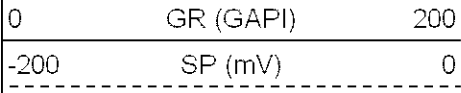
1650

1700





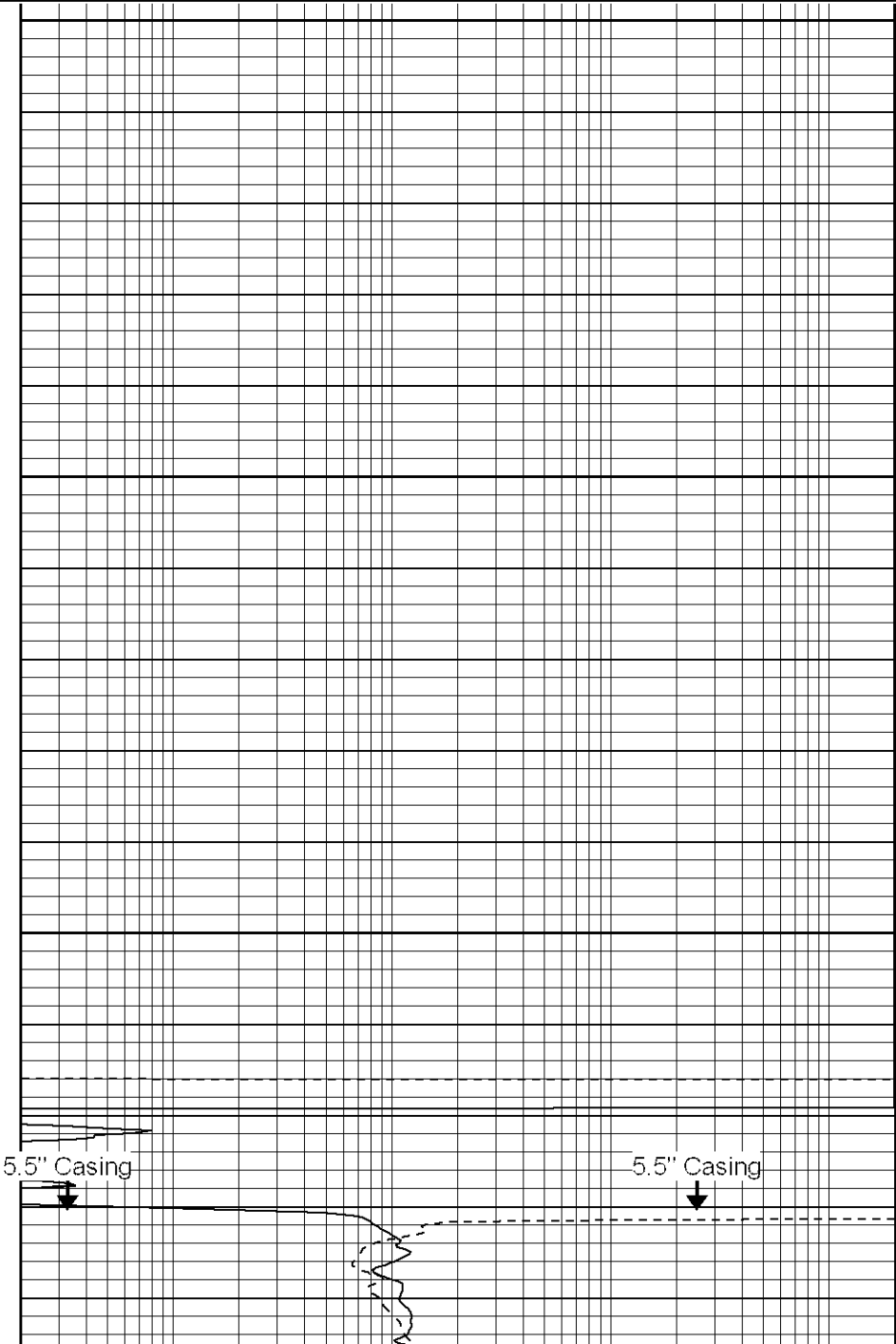
Database File: general vera.db  
Dataset Pathname: pass18.1  
Presentation Format: iel  
Dataset Creation: Mon Mar 05 19:20:16 2007 by Calc Open-Cased 061129  
Charted by: Depth in Feet scaled 1:240

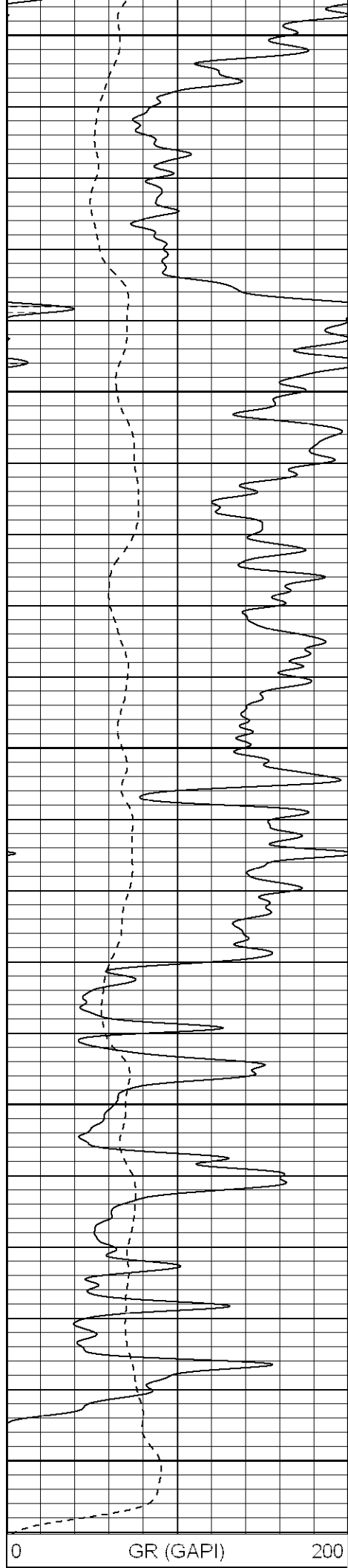


1600

1650

1700





1750

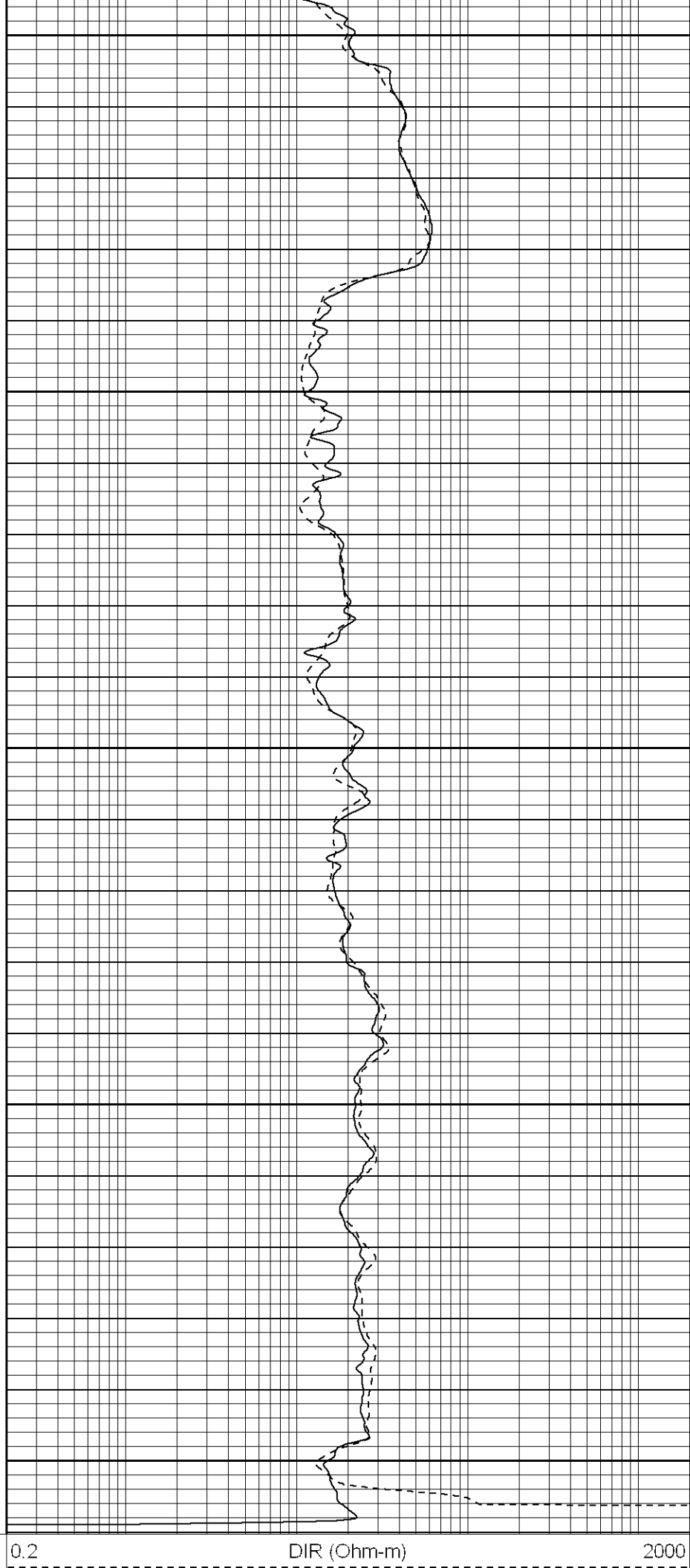
1800

1850

1900

1950

0 GR (GAPI) 200

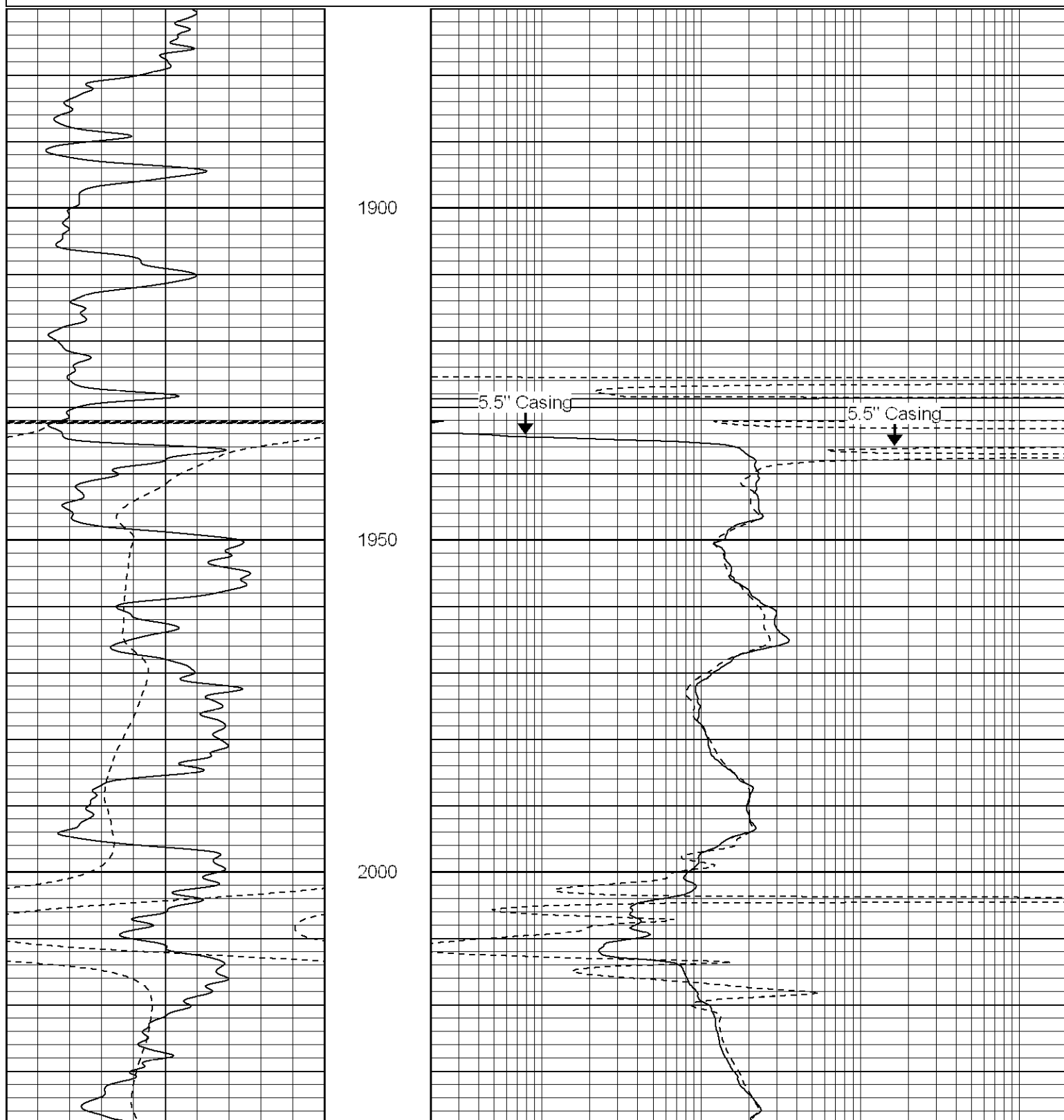


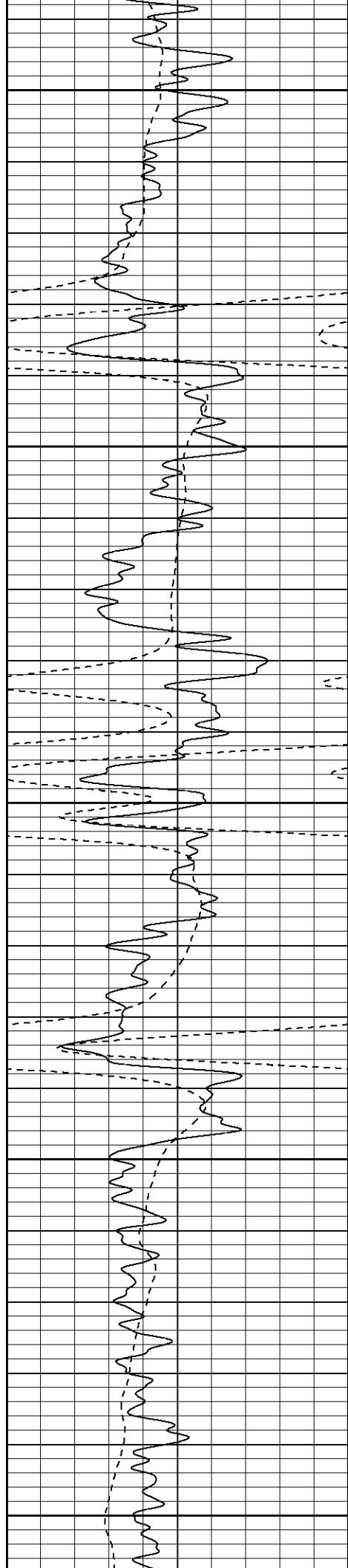
0.2 DIR (Ohm-m) 2000

-200	SP (mV)	0	0.2	SN (Ohm-m)	2000
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Database File: general vera.db  
 Dataset Pathname: pass20.1  
 Presentation Format: iel  
 Dataset Creation: Mon Mar 05 21:38:23 2007 by Calc Open-Cased 061129  
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	200	0.2	DIR (Ohm-m)	2000
-200	SP (mV)	0	0.2	SN (Ohm-m)	2000





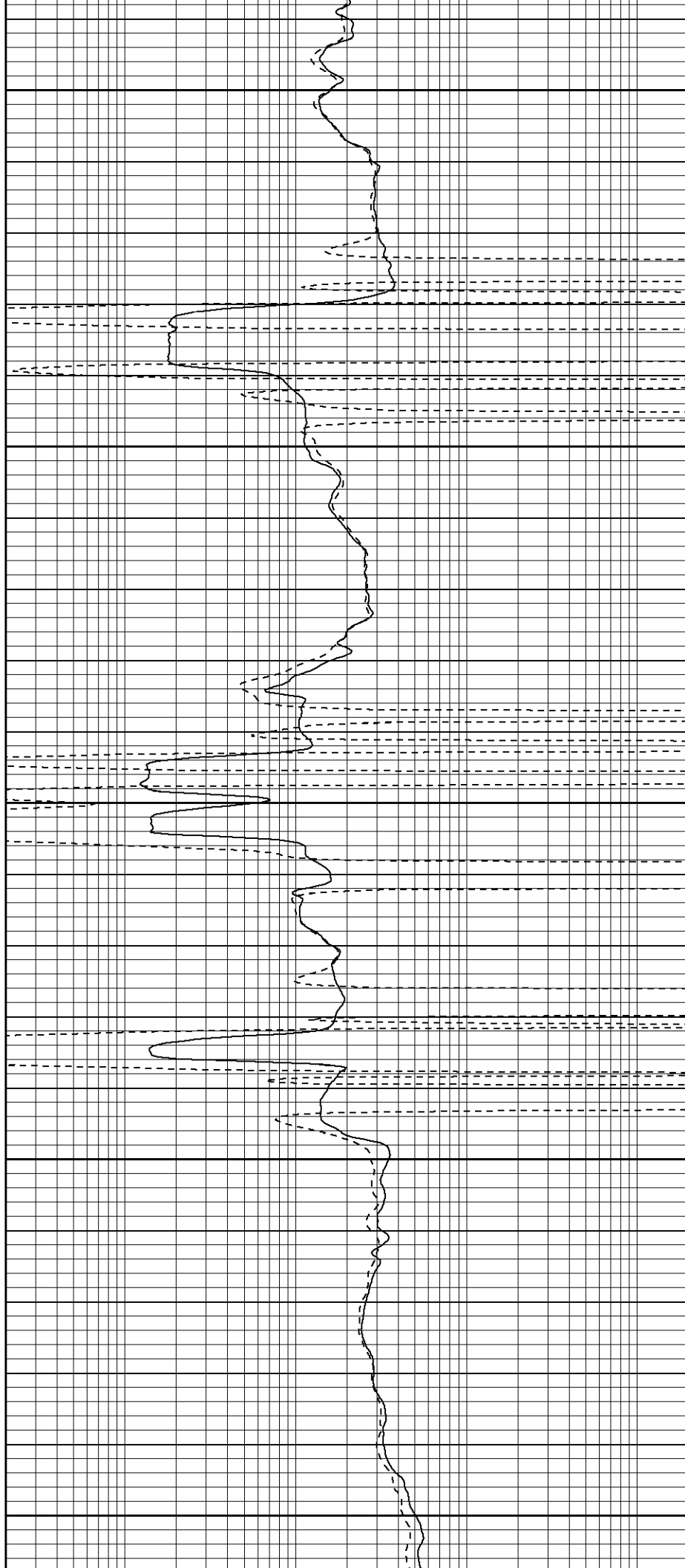
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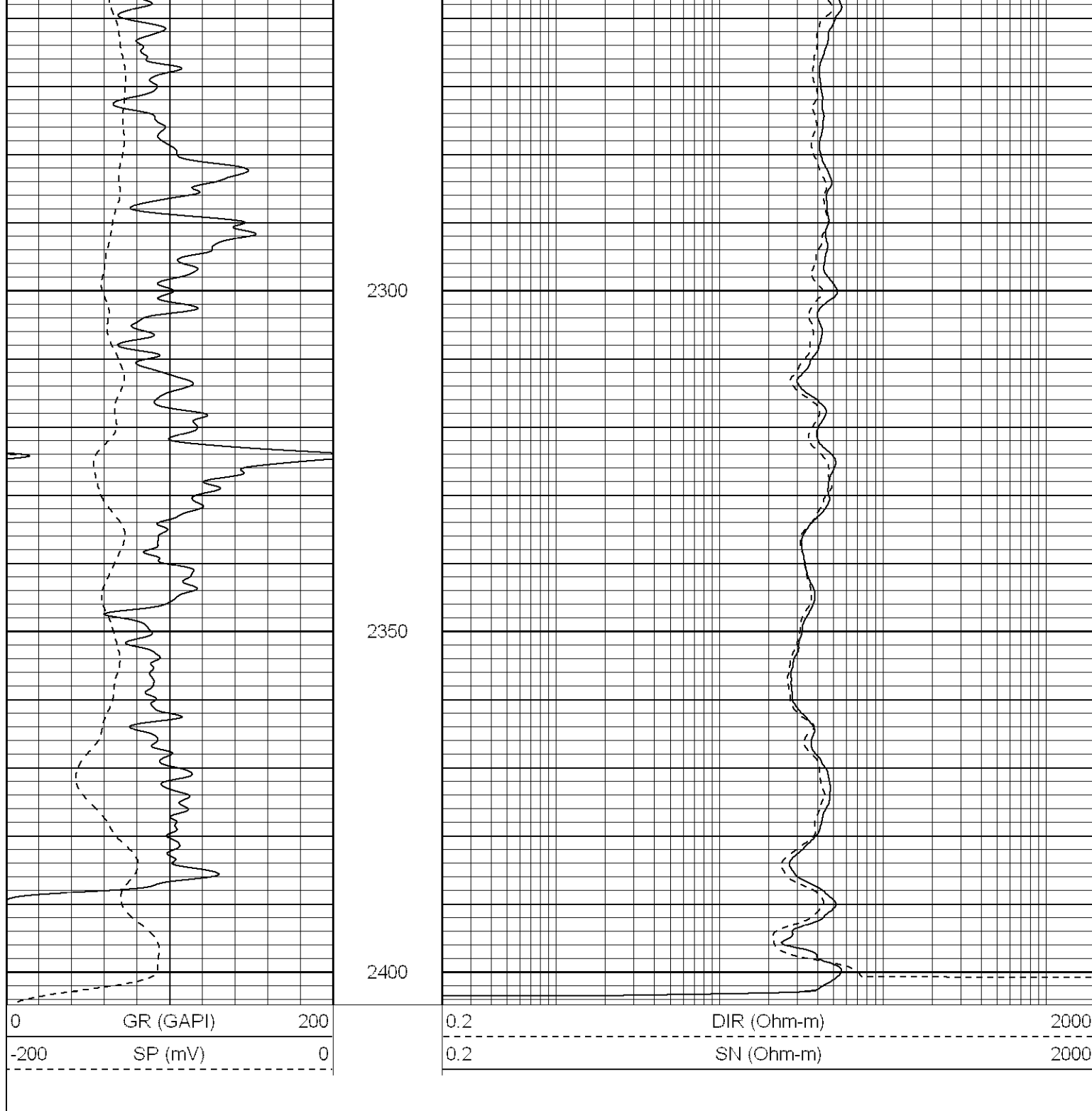
2100

2150

2200

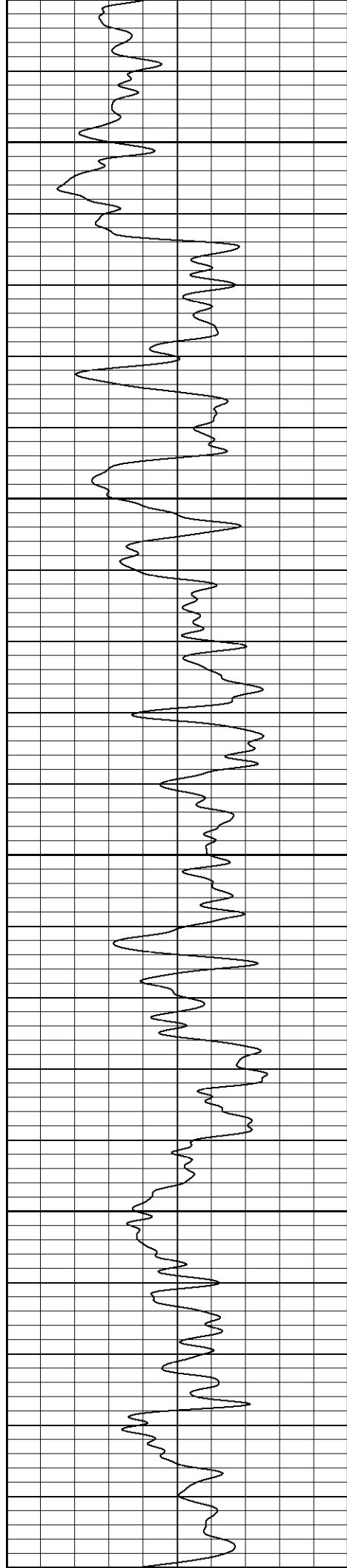
2250





Database File: general vera.db  
Dataset Pathname: pass1gr  
Presentation Format: iel  
Dataset Creation: Wed Mar 07 08:17:30 2007  
Charted by: Depth in Feet scaled 1:240

0 GR (GAPI) 200



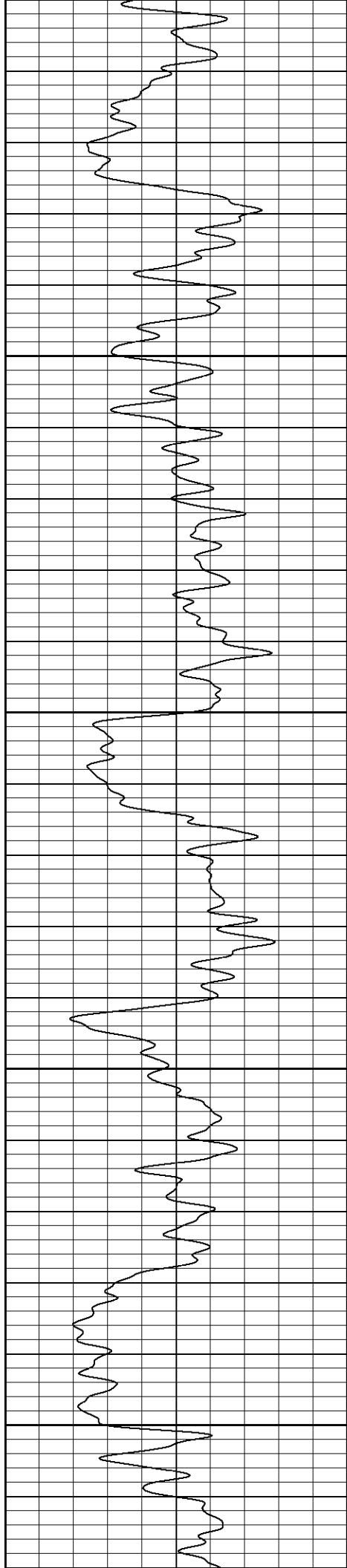
700

750

800

850

900



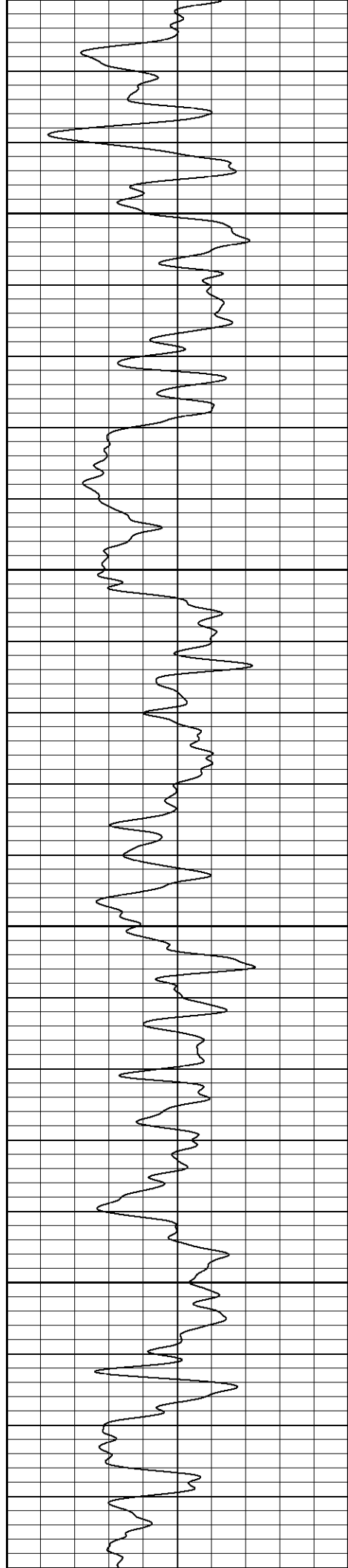
900

950

1000

1050

1100

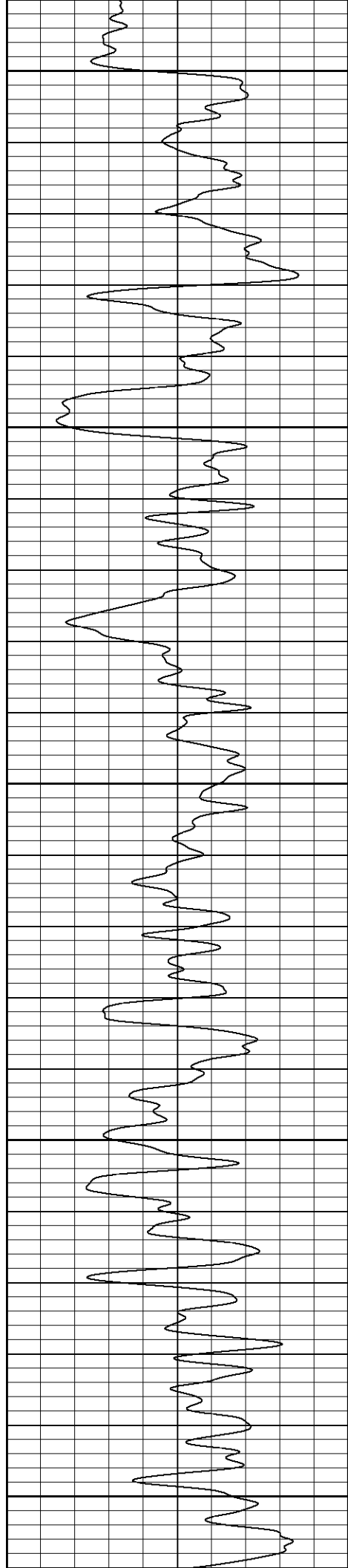


1150

1200

1250

1300



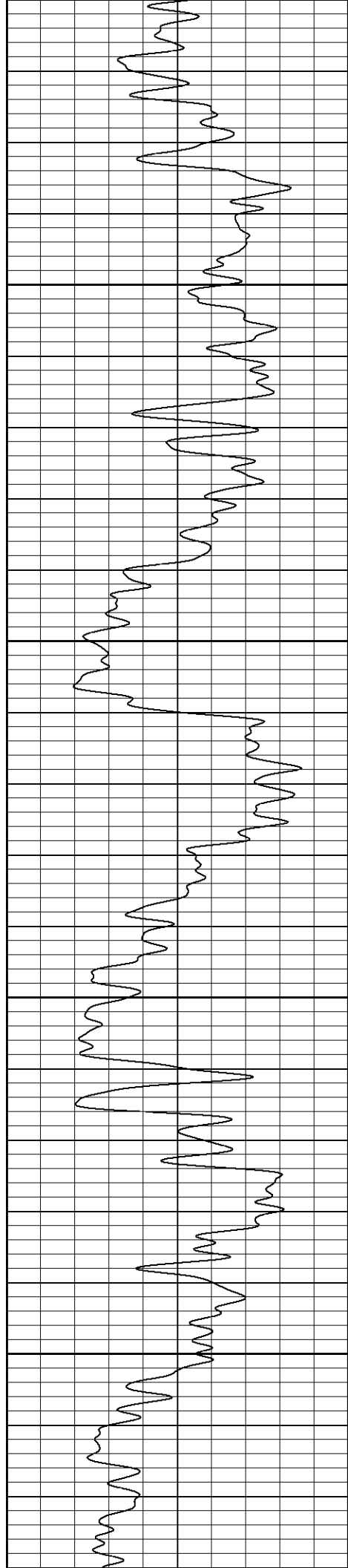
1350

1400

1450

1500

1550

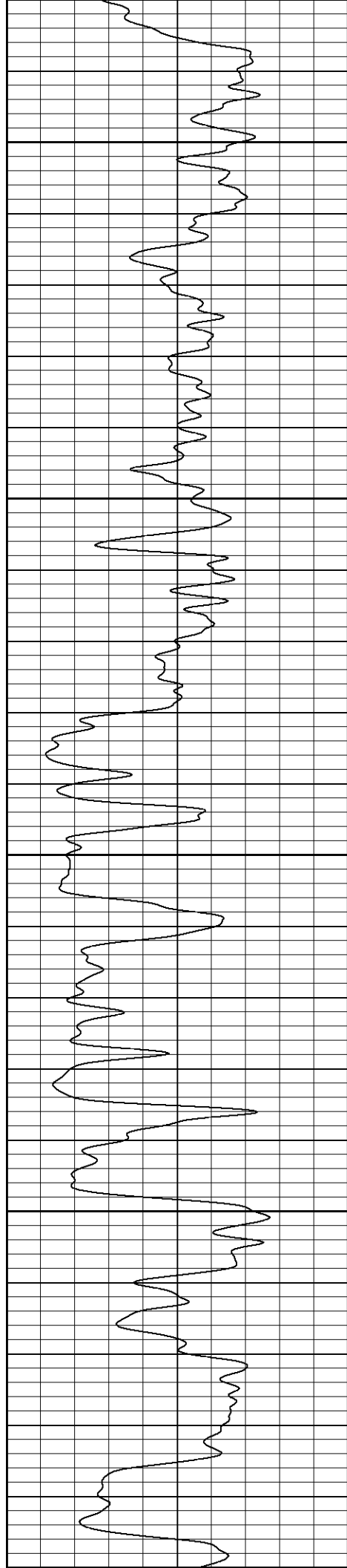


1600

1650

1700

1750



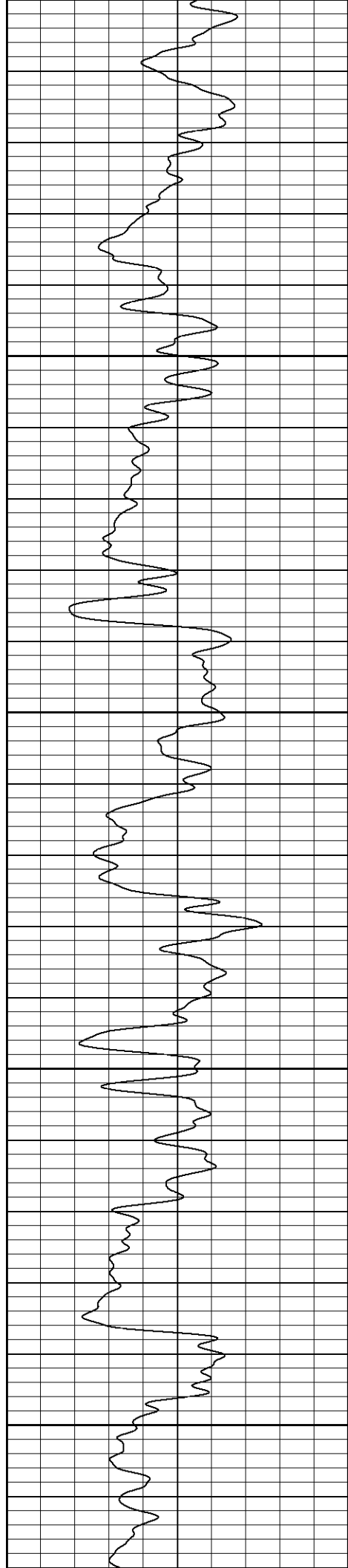
1800

1850

1900

1950

2000



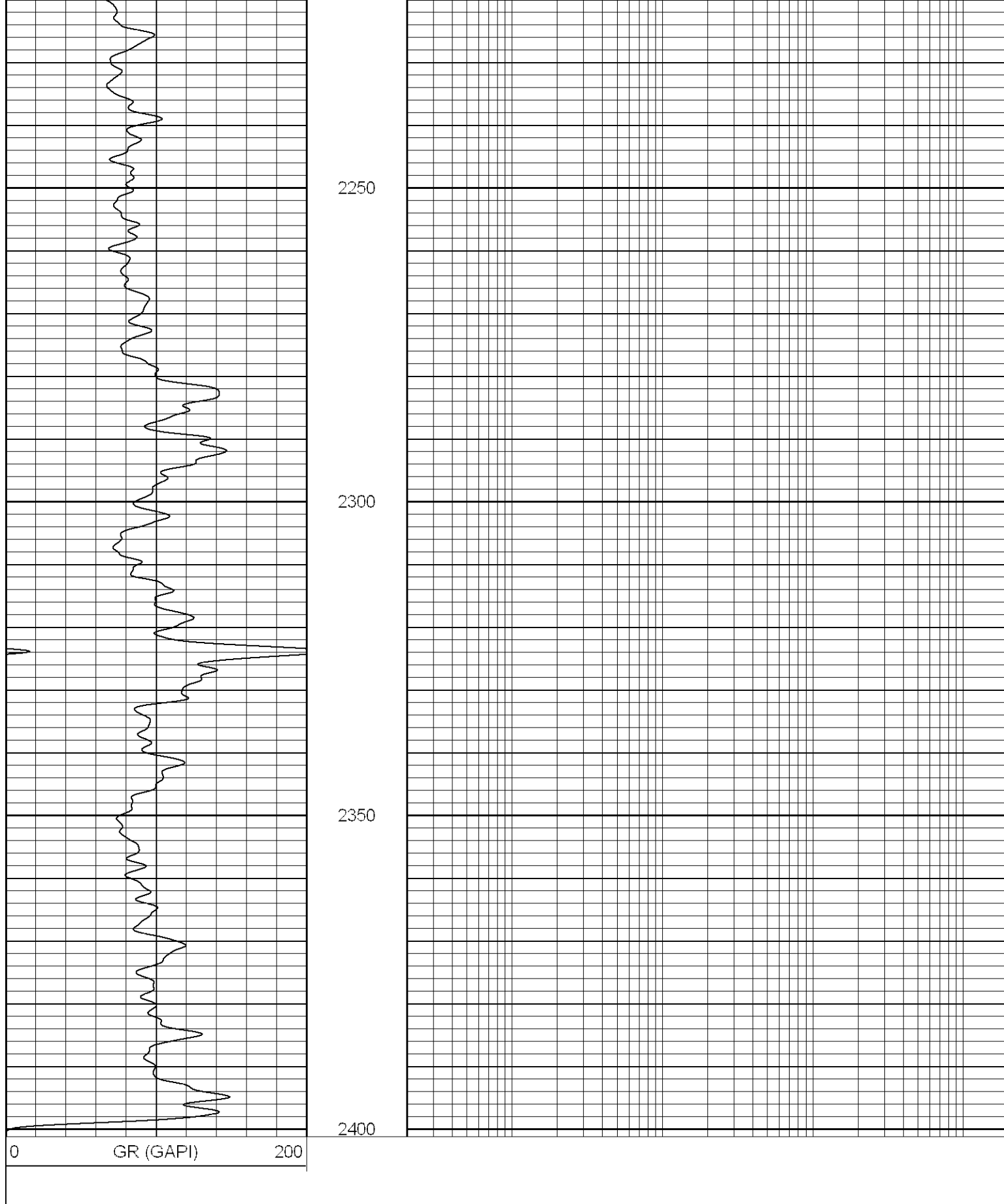
2000

2050

2100

2150

2200



### Calibration Report

Database File: general vera.db  
Dataset Pathname: pass1  
Dataset Creation: Sat Mar 03 18:46:23 2007 by Log Open-Cased 061129

Induction Tool Calibration Report

Serial Number: 040903		Probe	
Tool Model:		Thu Feb 15 05:01:25 2007	
Downhole Cal Performed:		Thu Feb 15 05:01:01 2007	
Surface Cal Performed:			
Surface Calibration:	Air	Loop	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.015	0.649	V
Internal Reference:	Zero	Cal	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.015	0.649	V
Downhole Calibration:	Internal Zero	Internal Cal	
Conductivity Reference:	-0.289	500.164	mmho
Conductivity Reading:	0.255	499.961	V
Short Normal Reference:	0.000	20.000	Ohm-m
Short Normal Reading:	0.007	0.235	V
Results:	Gain	Offset	
Loop Conductivity:	788.860	-11.782	
Downhole Correction:	1.001	-0.544	
Short Normal Resistivity:	62.000	-0.570	

#### Compensated Density Calibration Report

Serial-Model: 902-2.75POH  
 Source / Verifier: /  
 Master Calibration Performed: Fri Feb 09 11:24:21 2007

#### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1015.57	498.52	cps
Aluminum	2.590	g/cc	183.60	250.82	cps
Spine Angle = 68.12			Density/Spine Ratio = 0.477		
	Size		Reading		
Small Ring	7.95	in	1.84	V	
Large Ring	17.00	in	4.32	V	


#### Gamma Ray Calibration Report

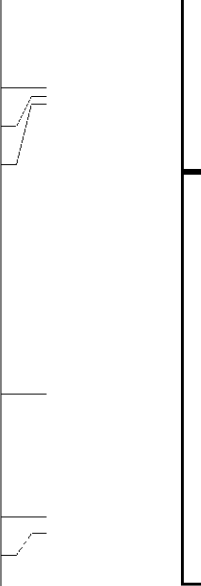
Serial Number: 804  
 Tool Model: 2.75POH  
 Performed: Fri Feb 09 00:46:24 2007

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	24.84		None	0.75	1.50	5.00
			GR-2.75POH (804) Probe	3.73	2.75	43.00

LSD	16.21		CDL-2.75POH (902) Probe	8.43	2.75	106.00	
DCAL	15.94						
SSD	15.69						
DIC	6.24			IEL-Probe (040903)	13.46	2.75	93.00
SP	2.25						
SN	1.71						
Dataset: general vera.db: field/well/run1/pass1 Total Length: 26.37 ft Total Weight: 247.00 lb O.D. 2.75 in							