

Single Induction Log

Company		Pioneer Natural Resources	
Well		Argon 43-31	
Field		Purgatoire River	
County		Las animas	
State		CO	
Location:		API #: 05 071 09823 0000	
SEC 31 TWP 33S RGE 65W		NE/SE	
Permanent Datum Log Measured From		Ground Level KB	
Drilling Measured From		KB	
Other Services		CDNL	
Elevation		K.B. 6543 D.F. G.L. 6538	
Date	22 April 11		
Run Number	one		
Depth Driller	925		
Depth Logger	924		
Bottom Logged Interval	922		
Top Log Interval	250		
Casing Driller	258		
Casing Logger	258		
Bit Size	7 7/8		
Type Fluid in Hole	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	6:00 PM		
Time Logger on Bottom	8:00 PM		
Maximum Recorded Temperature	//		
Equipment Number	590		
Location	TR		
Recorded By	Patterson		
Witnessed By	B Vigil		

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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.

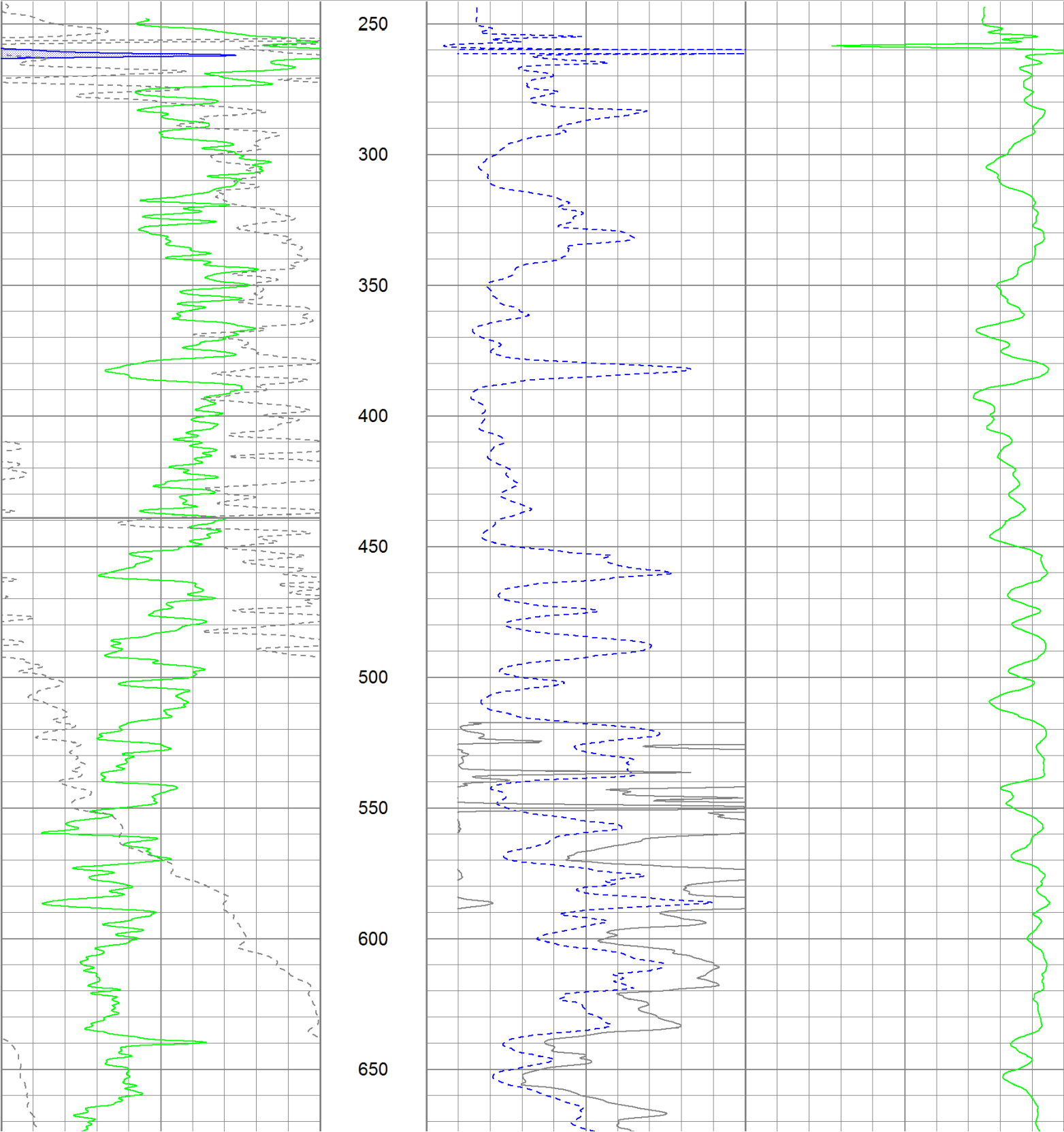
Comments

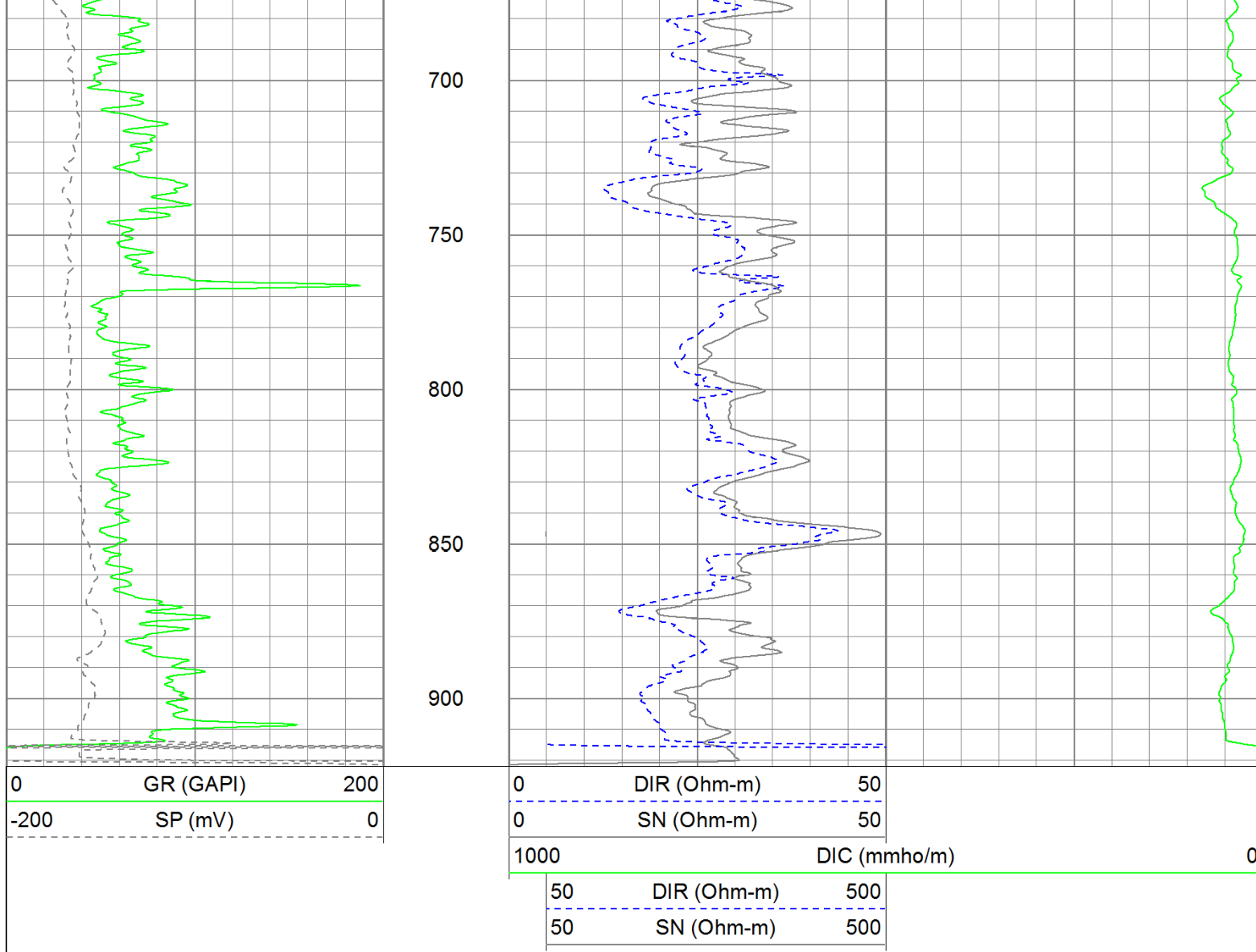
Database File: argon4331.db
Dataset Pathname: pass2.2
Presentation Format: ielin
Dataset Creation: Sun Apr 24 13:47:53 2011 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:600

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

0	DIR (Ohm-m)	50
0	SN (Ohm-m)	50

1000	DIC (mmho/m)	0
50	DIR (Ohm-m)	500
50	SN (Ohm-m)	500

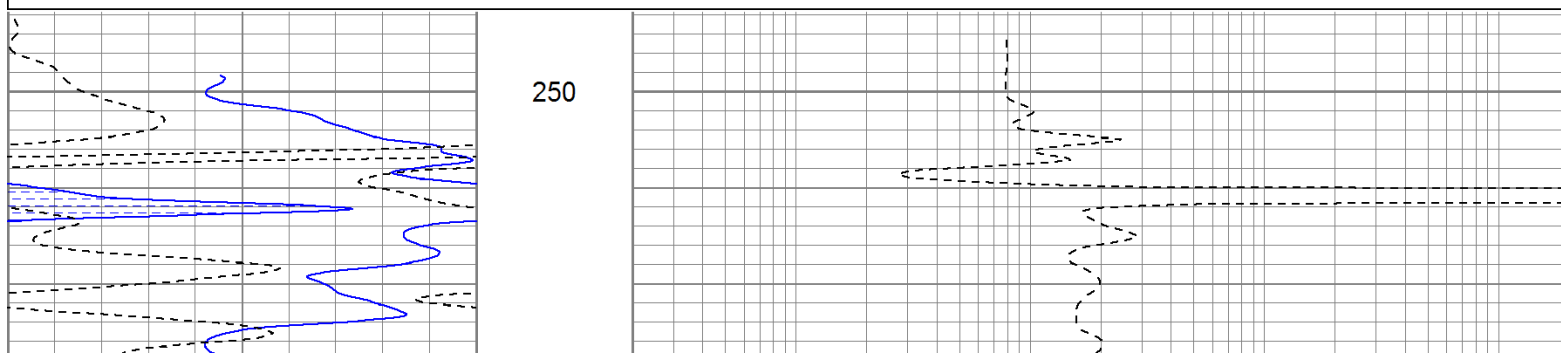


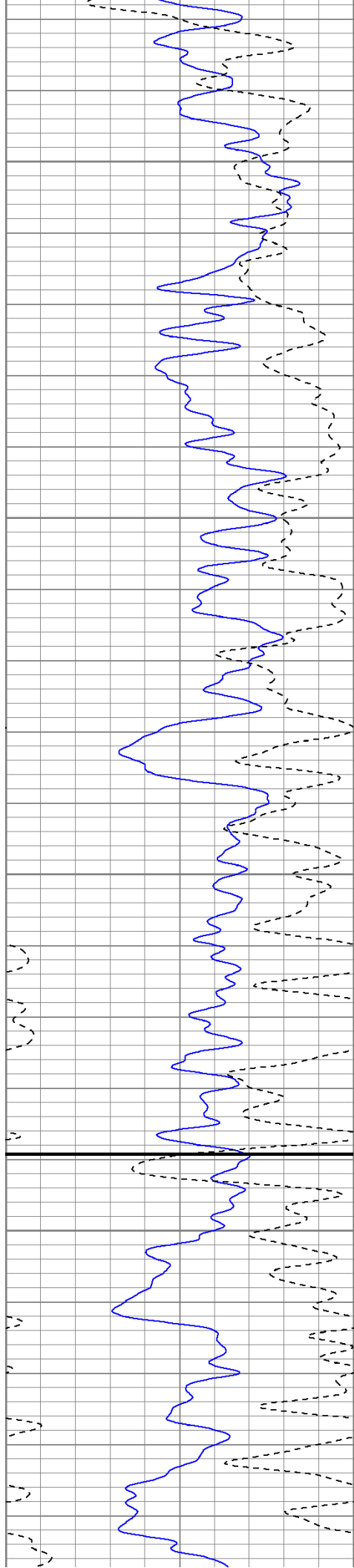


Main Pass

Database File: argon4331.db
 Dataset Pathname: pass2.2
 Presentation Format: iel
 Dataset Creation: Sun Apr 24 13:47:53 2011 by Calc Open-Cased 110302
 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



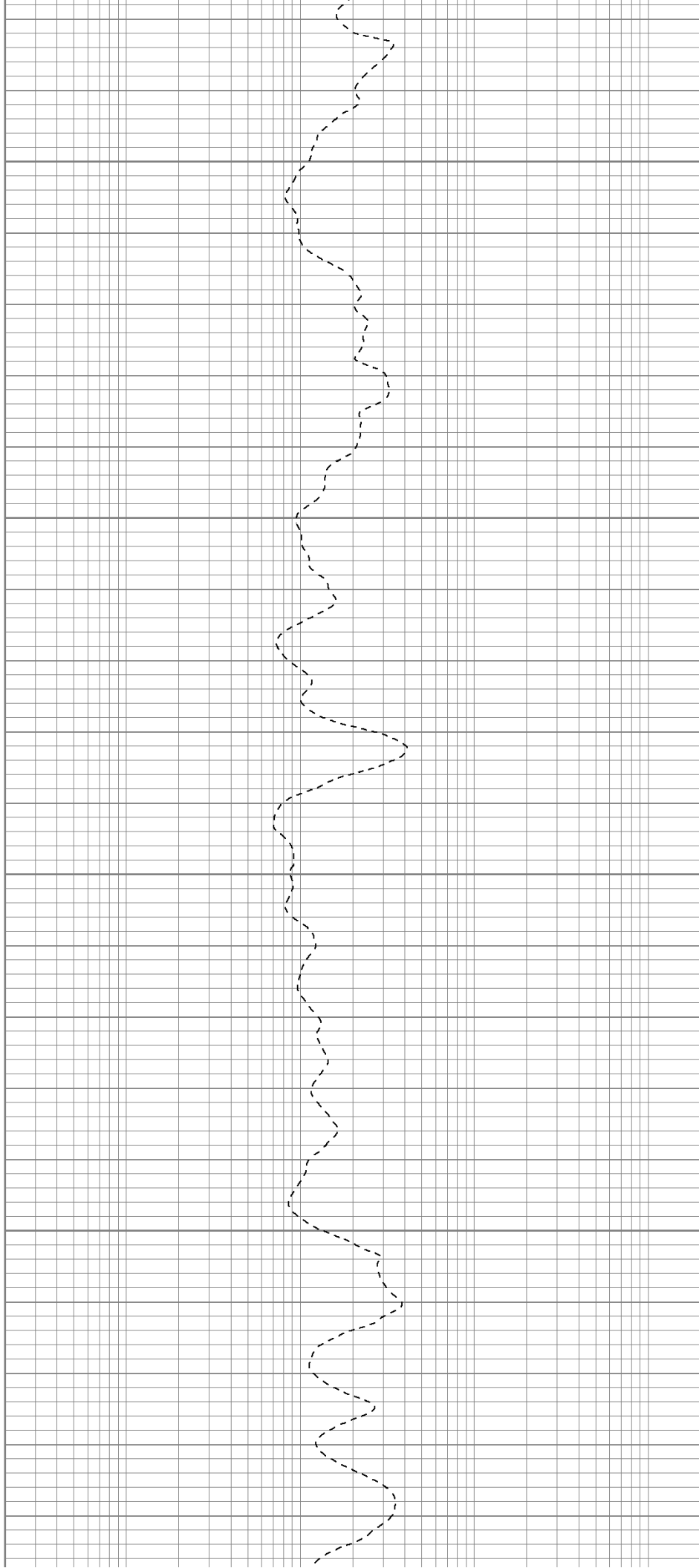


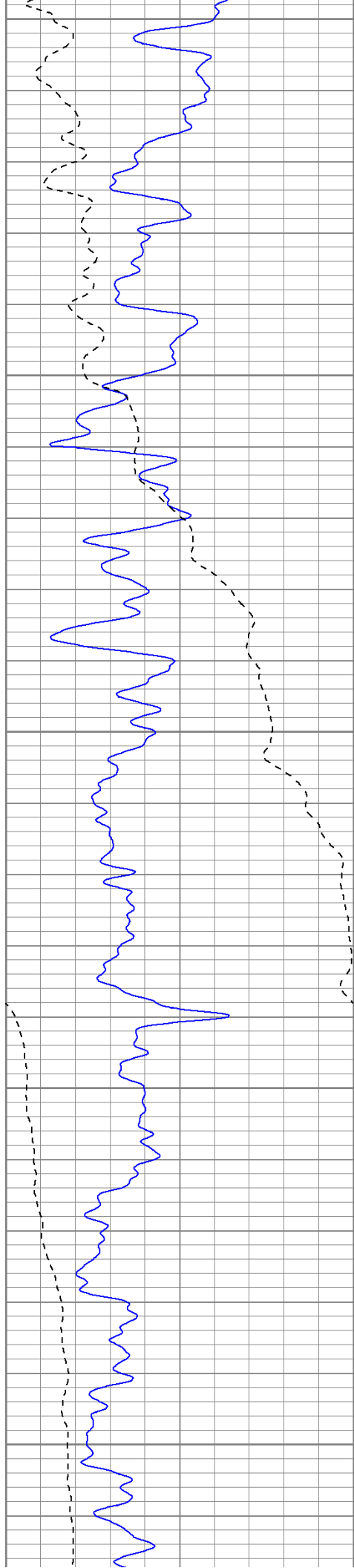
300

350

400

450





500

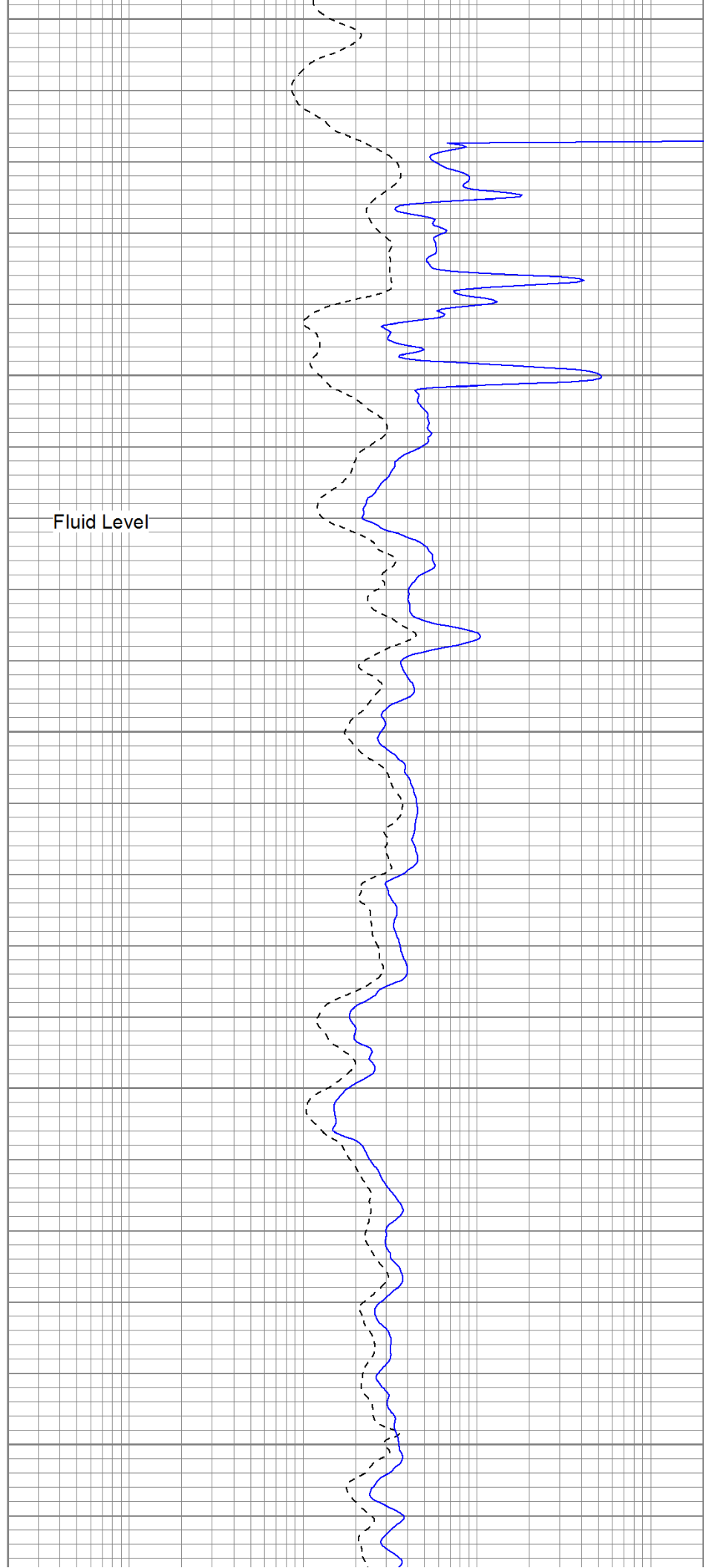
550

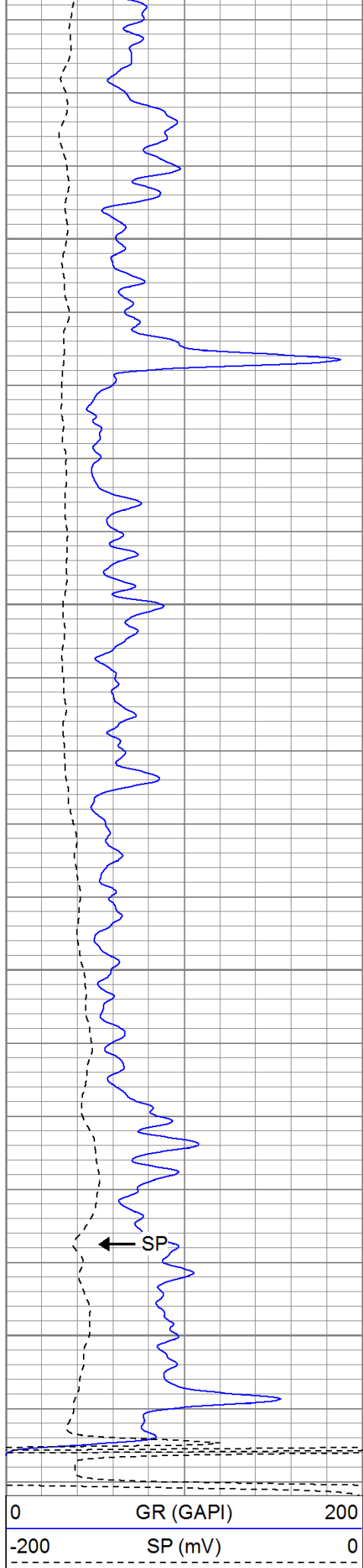
600

650

700

Fluid Level



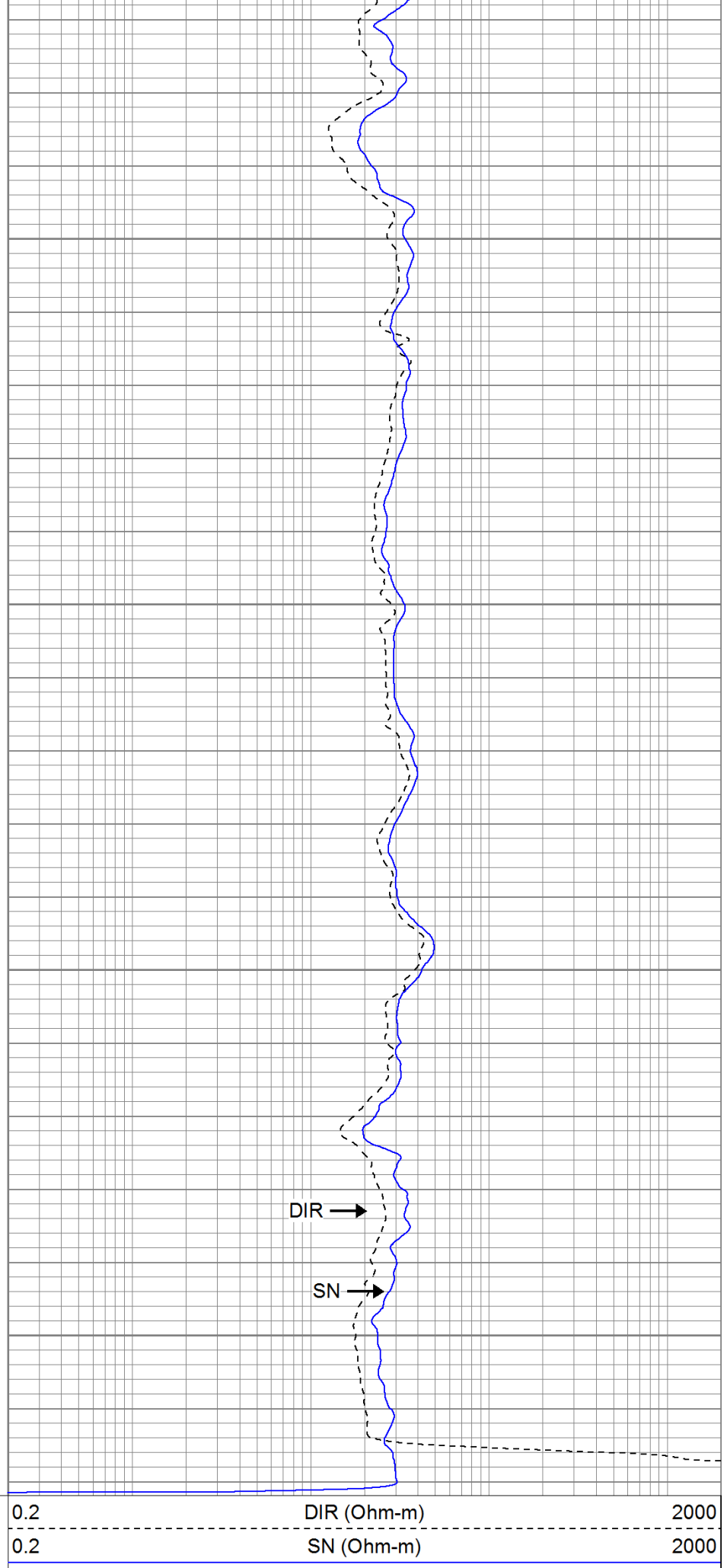


750

800

850

900



DIR →

SN →

Calibration Report

Database File: argon4331.db
 Dataset Pathname: pass2.2
 Dataset Creation: Sun Apr 24 13:47:53 2011 by Calc Open-Cased 110302

Induction Tool Calibration Report

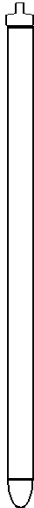


Serial Number: 121
 Tool Model: GL120
 Downhole Cal Performed: Sat Jan 15 09:52:44 2011
 Surface Cal Performed: Sat Jan 15 09:51:57 2011
 After Survey Verification Performed:

Surface Calibration:	Air	Loop	
Conductivity Reference:	0.000	450.000	mmho
Conductivity Reading:	0.005	0.639	V
Internal Reference:	Zero	Cal	
Conductivity Reference:	0.000	500.000	mmho
Conductivity Reading:	0.002	0.639	V

Downhole Calibration:	Internal Zero	Internal Cal	
Conductivity Reference:	-1.493	449.883	mmho
Conductivity Reading:	1.086	437.420	V
Short Normal Reference:	0.000	17.000	Ohm-m
Short Normal Reading:	-0.001	0.190	V

Results:	Gain	Offset
Loop Conductivity:	708.794	-3.000
Downhole Correction:	1.034	-2.616
Short Normal Resistivity:	88.992	2000.000

After Survey Verification	Internal Zero	Internal Cal	
Conductivity Reading:	0.000	0.000	V
Conductivity Result:	0.000	0.000	mmho
Short Normal Reading:	0.000	0.000	V
Short Normal Result:	0.000	0.000	Ohm-m

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			None	0.75	1.50	5.00
DIC	6.89		IEL-GL120 (121)	15.81	4.00	178.00
SP	1.50					
SN	1.00					

Dataset: argon4331.db: field/well/run1/pass2.2
 Total Length: 16.56 ft
 Total Weight: 183.00 lb
 O.D. 4.00 in