PIONEER
Pioneer Energy Services

GAMMA RAY NEUTRON LOG

Company **BEREXCO LLC**
Well **HINES UNIT #27X**
Field **FAIRPORT**
County **RUSSELL** State **KANSAS**

Location: API # : 15-167-24098-00-00
2010' FSL & 1320' FEL
S/2 N/2 N/2 SE
SEC 17 TWP 11S RGE 15W

Other Services
CBL
PERFORATE

Permanent Datum GL Elevation 1870'
Log Measured From KB 6' Above Perm. Datum
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1876'
D.F. 1875'
G.L. 1870'

Comp. BEREXCO LLC
Well HINES UNIT #27X
Field FAIRPORT
Co. RUSSELL
State KANSAS

		Size	Wt/Ft	Top	Bottom
Date of Service	1/22/2020				
Run Number	ONE				
Depth Driller or PBTD	3525'				
Depth Logger	3414'				
Bottom Log Interval	3414'				
Top Log Interval	SURFACE				
Open Hole Size	7.875"				
Type Fluid	WATER				
Fluid Level	FULL				
Fluid Density	N/A				
Max. Recorded Temperature	111 DEG. F.				
Max. Wellhead Pressure	00 PSI				
Wellhead Connection	N/A				
Estimated Cement Top	1530'				
Unit Number	P-106				
Wireline Size	.288"				
Location	HAYS, KANSAS				
Recorded By	M. HISS				
Witnessed By	ALLEX KOWALSKI				
		Size	Wt/Ft	Top	Bottom
Tubing Record					
Surface Casing		8.625"	24#	00'	265'
Production Casing		5.5"	15.5#	00'	TD
Liner Record					

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
FAIRPORT KANSAS,
NORTH 3 MILES TO CURVE, 1/4 EAST,
NORTH INTO

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: M. HISS		
Operator: J. BEGLER		
Operator:		
Operator:		

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
WVFS8	16.36		PROBE-RBT-DIGITAL-RBL-D (PR-012) Probe 2 3/4" Radii Bond-Digital	8.75	2.75	100.00
WVFS7	16.36					
WVFS6	16.36					
WVFS5	16.36					
WVFS4	16.36					
WVFS3	16.36					
WVFS2	16.36					
WVFS1	16.36					
WVFCAL	16.36					
WVF3FT	16.36					
WVF5FT	15.36					
HEADVOLT	12.17		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
CCL	8.39					
GR	7.05		GR_CCL-2 3/4" Probe (060802)	4.54	2.75	50.00
			NEU-PRNEU (ProbeNEU1)	4.75	1.88	
NEU	1.08					

Dataset: berexco_hines_#27x_cbl_grn.db: field/well/run1/pass3
Total length: 24.83 ft
Total weight: 182.00 lb
O.D.: 2.75 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\berexco_hines_#27x_cbl_grn.db
Dataset field/well/run1/pass3/_vars_

Top - Bottom

BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft
7.875	111	5.5	0.275	15.5	0	1	0.08

NPORSEL	NPORSHIFT	PERFS	PPT usec	SRFTEMP degF	TDEPTH ft
Limestone	0	0	0	50	3414

Variable Description

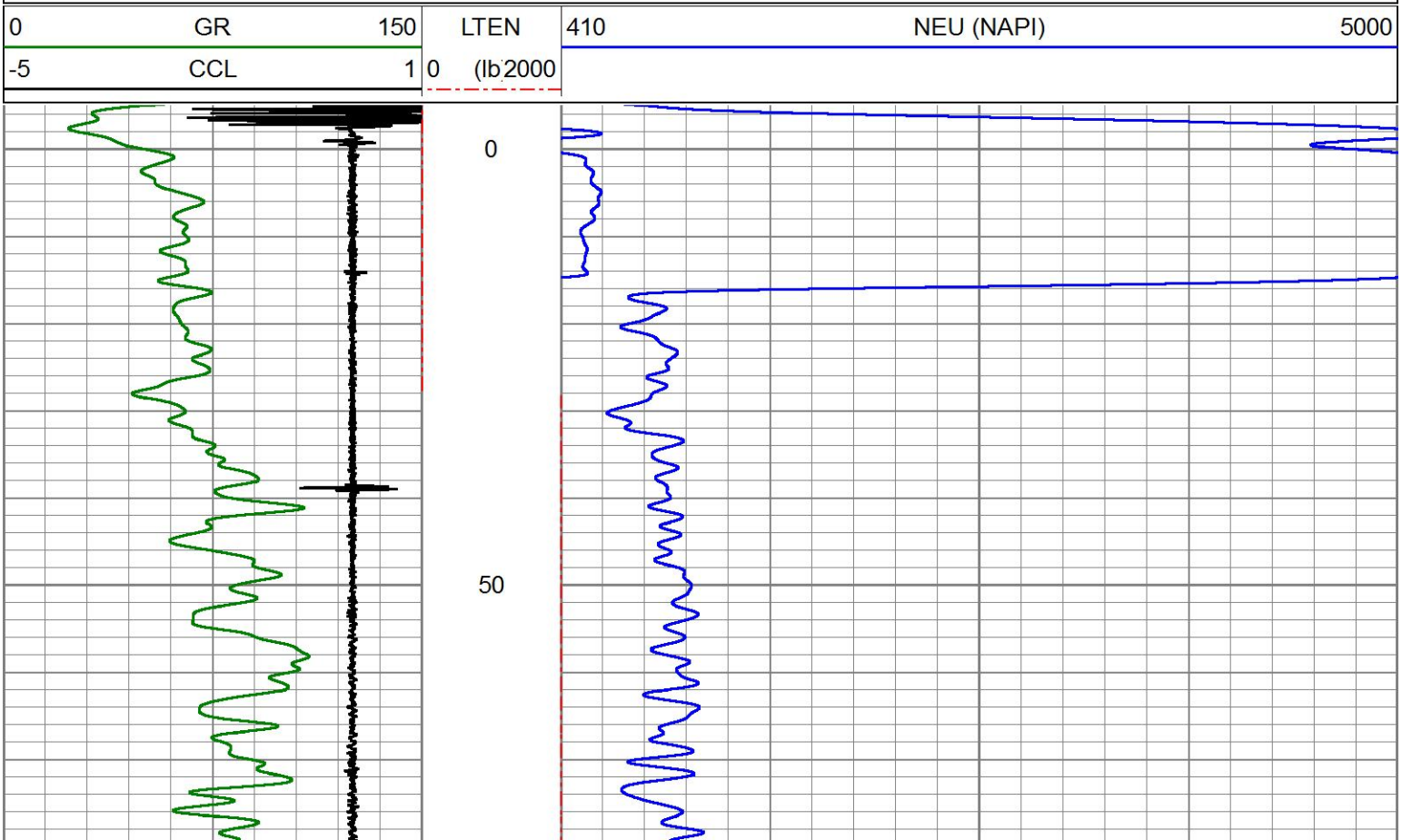
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude
MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation
NPORSEL : Neutron Porosity Curve Select
NPORSHIFT : NPORSHIFT
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

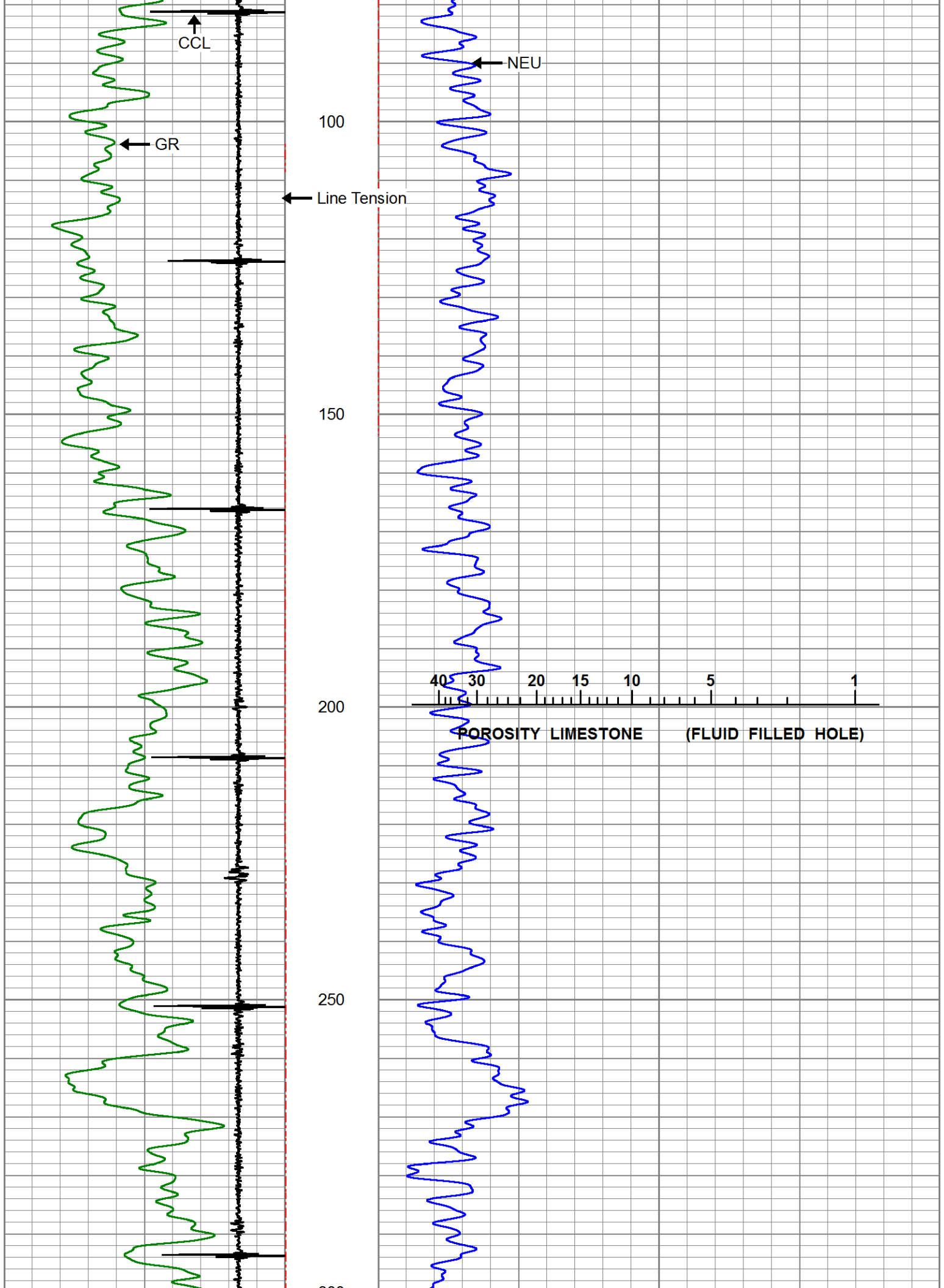
PIONEER
Pioneer Energy Services

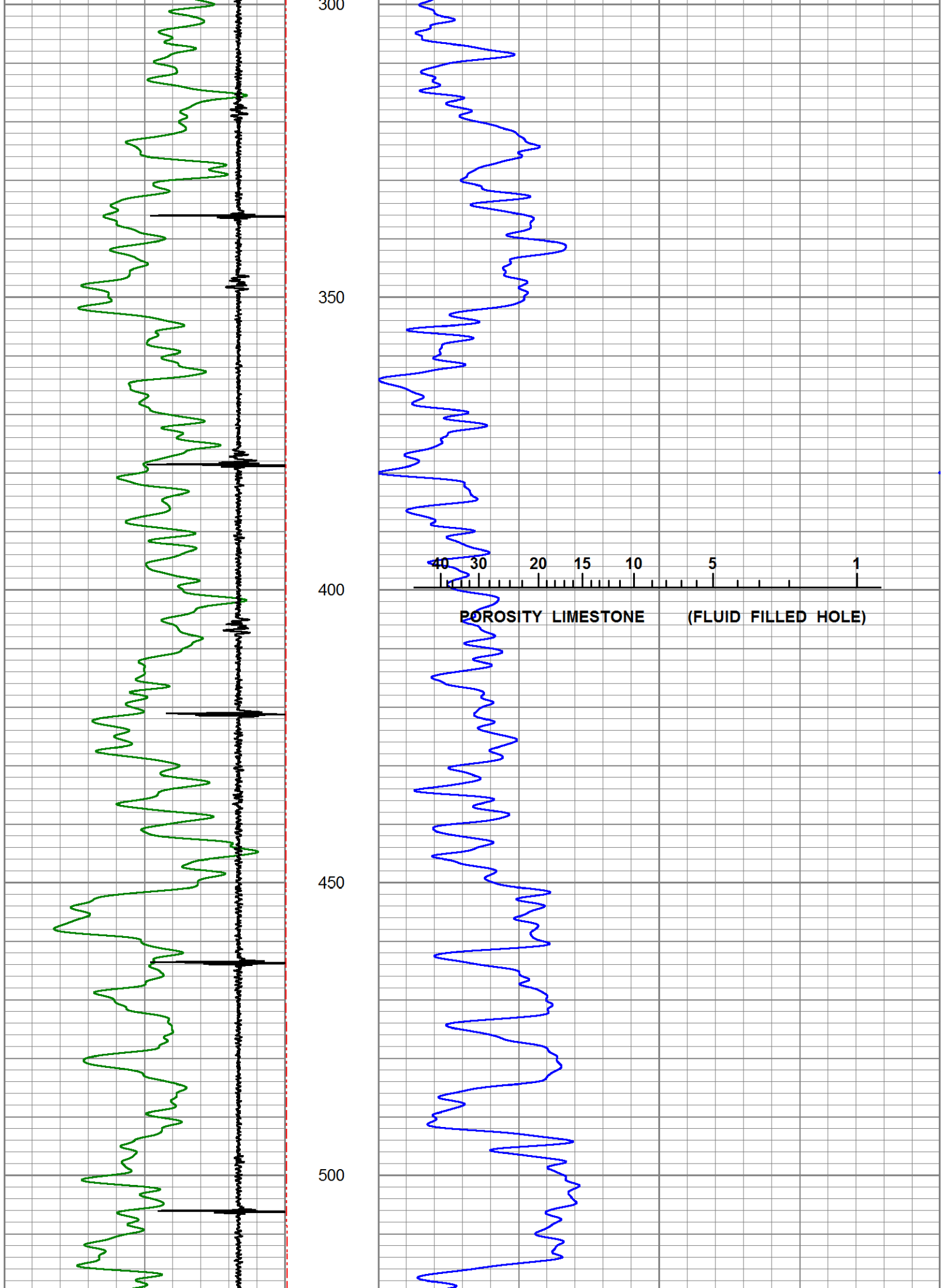
MAIN LOG

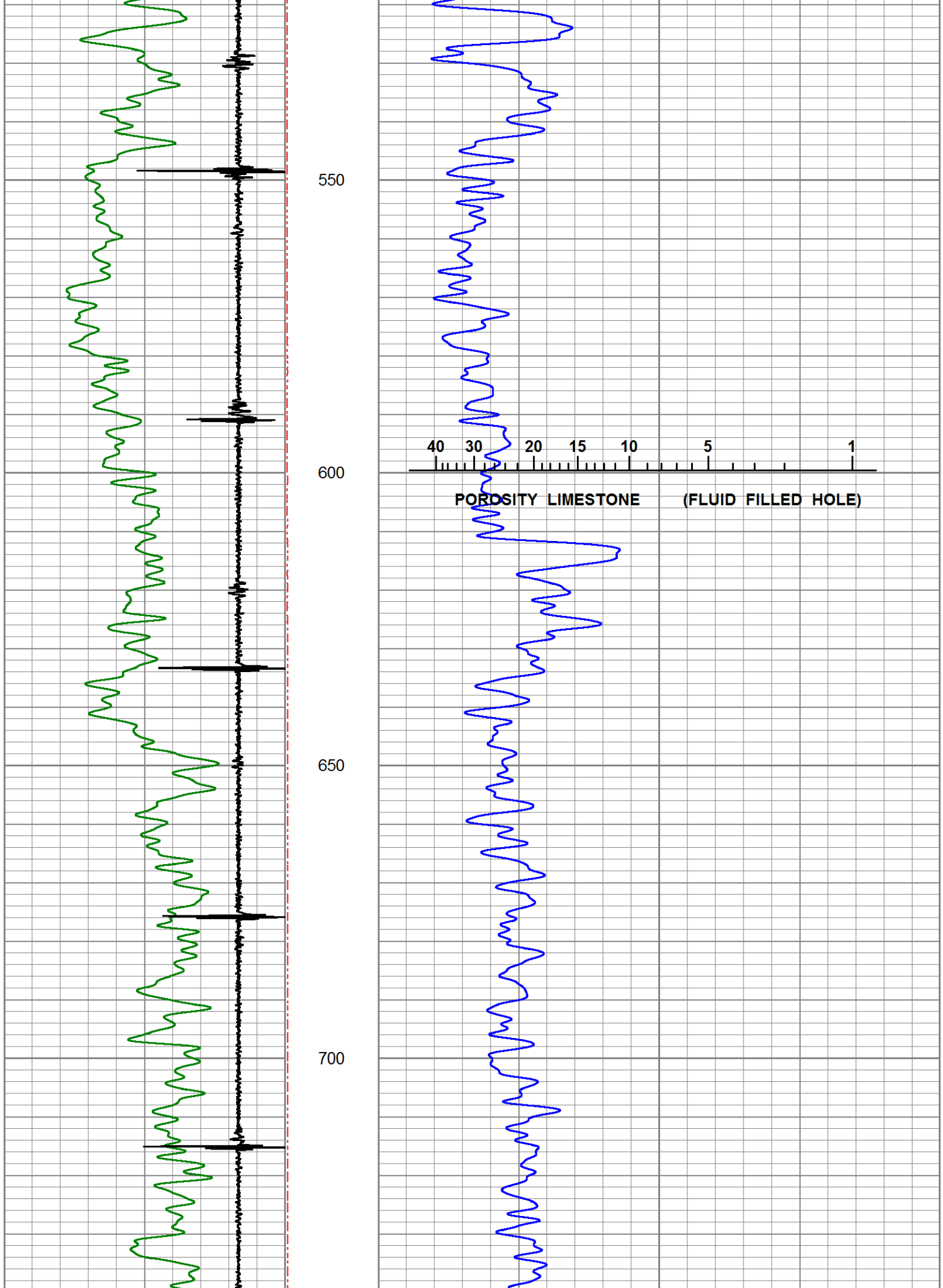
ZERO PSI APPLIED AT SURFACE

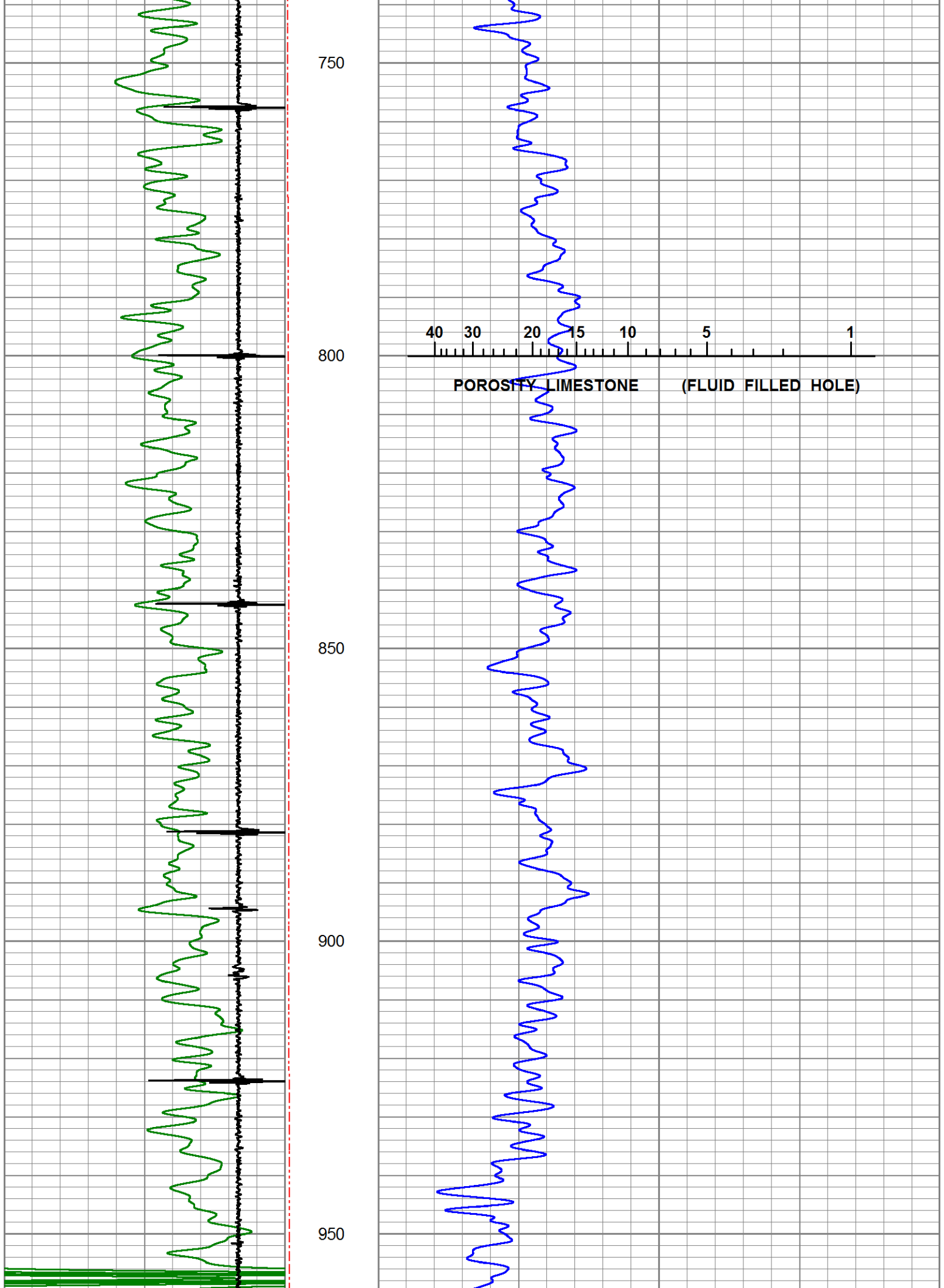
Database File	berexco_hines_#27x_cbl_grn.db
Dataset Pathname	pass3
Presentation Format	PINR_G~4
Dataset Creation	Wed Jan 22 18:16:40 2020
Charted by	Depth in Feet scaled 1:240

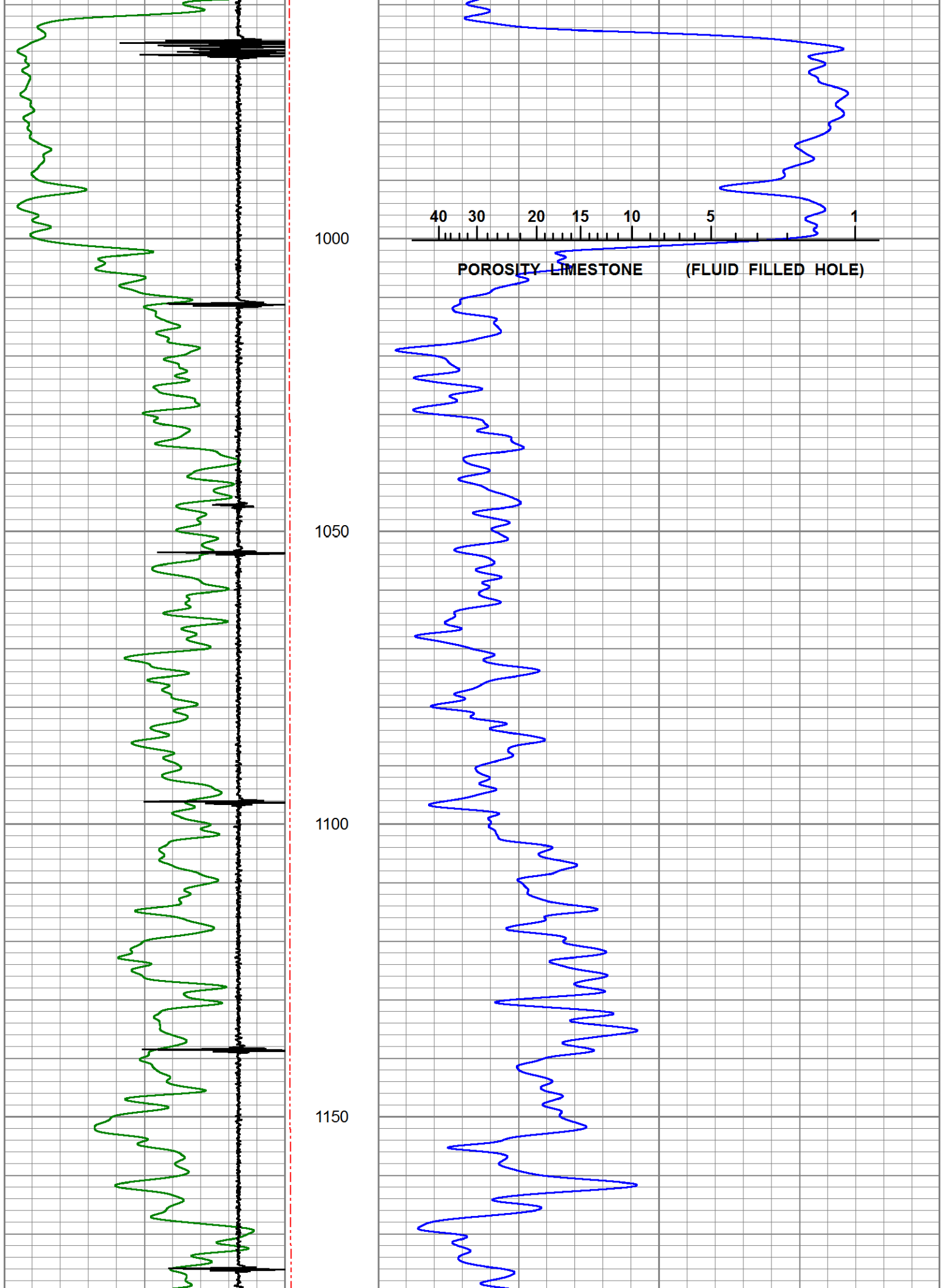


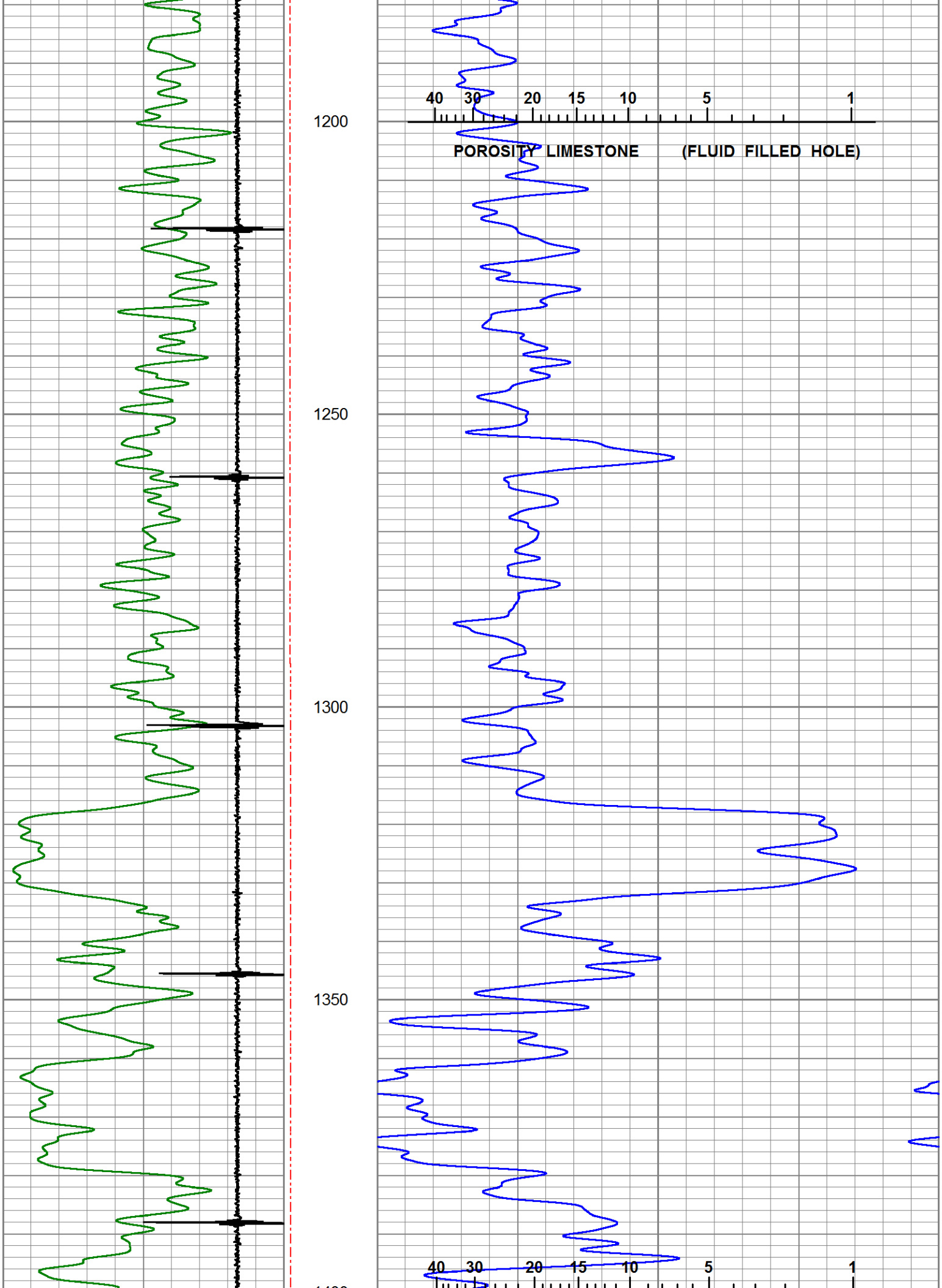

CCL
GR
Line Tension
NEU
100
150
200
250
40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)

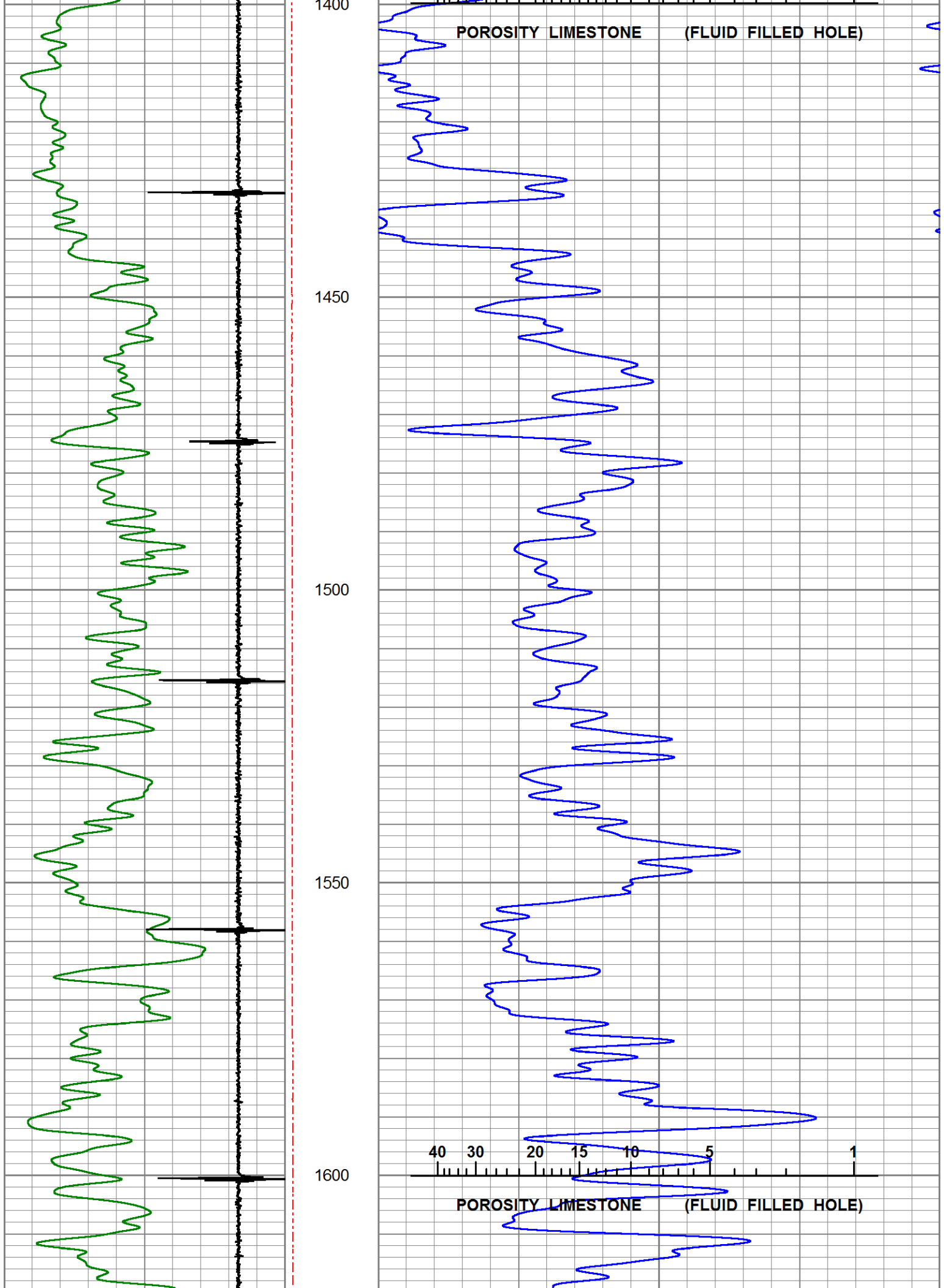

300
350
400
450
500
40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)

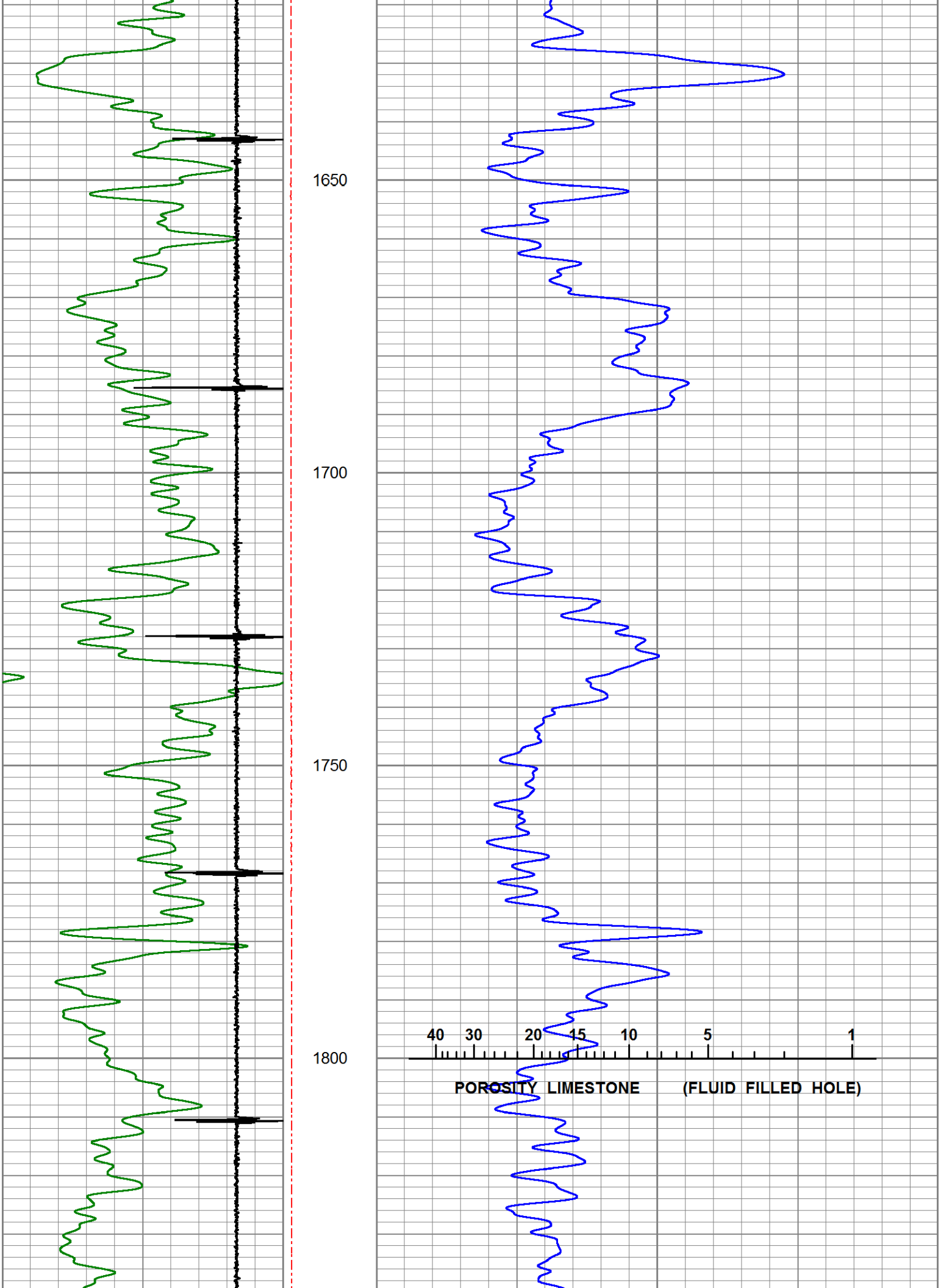

550
600
650
700
40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)

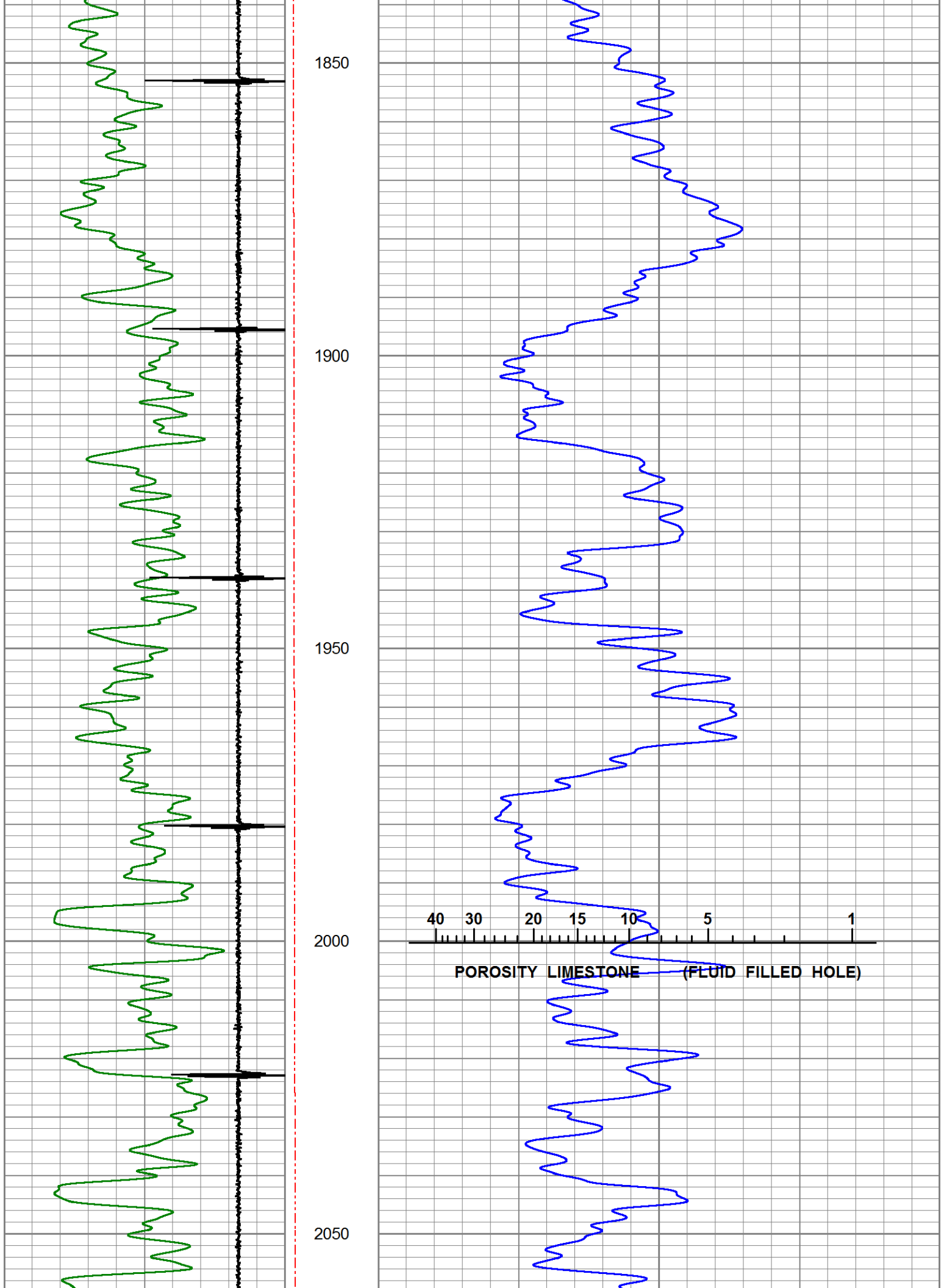

750
800
850
900
950
40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)

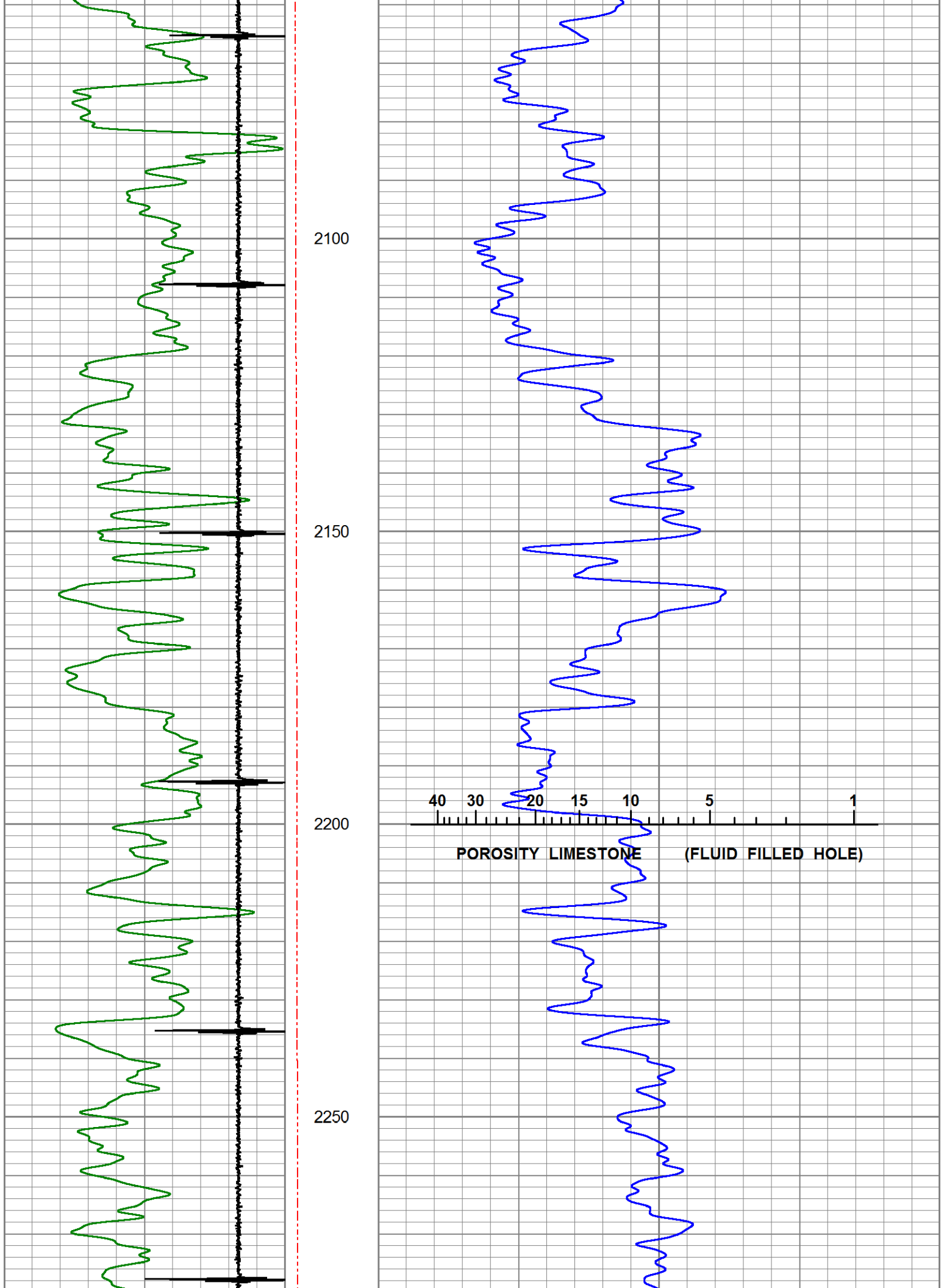

40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)
1000
1050
1100
1150

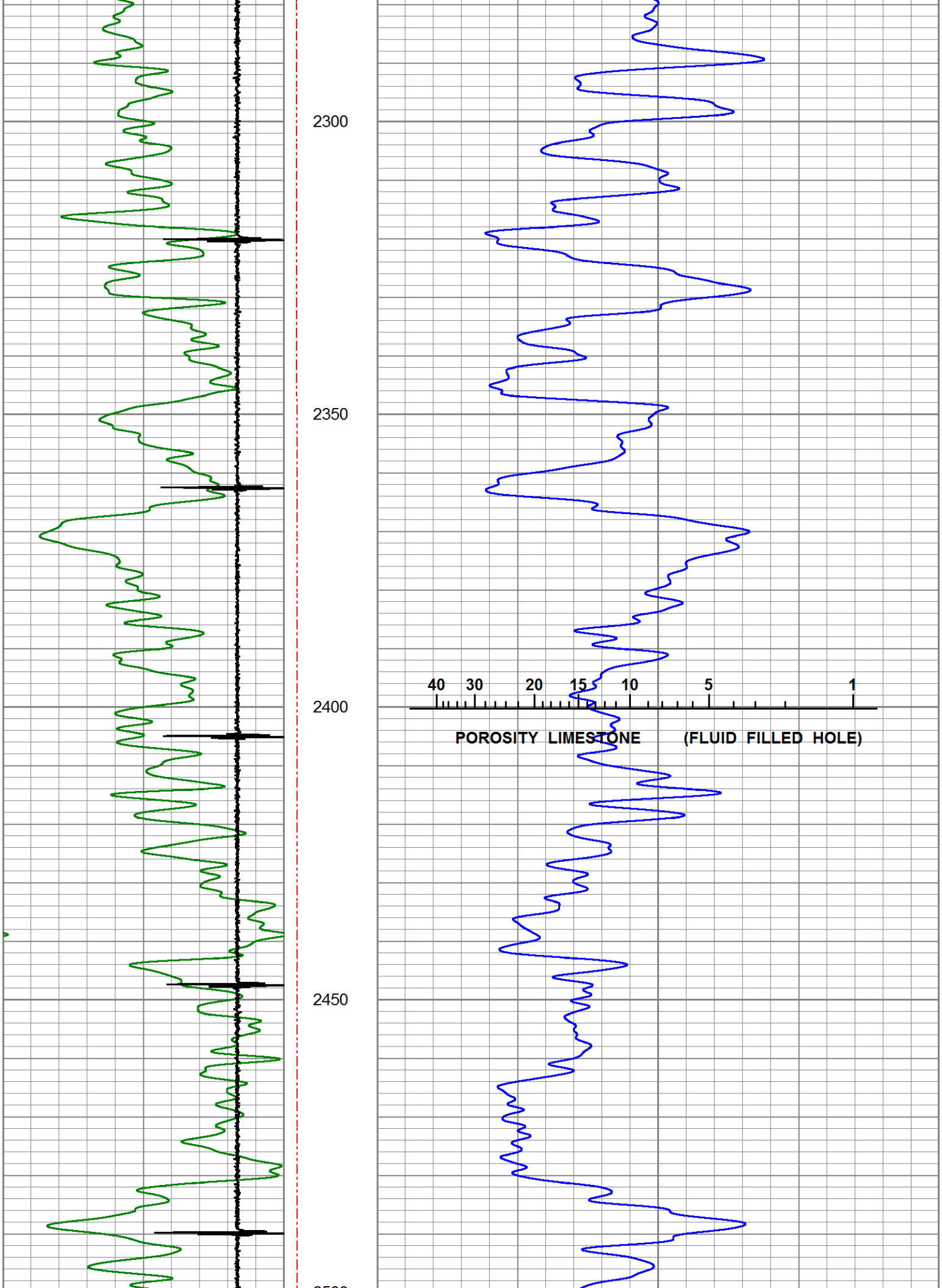

40 30 20 15 10 5 1
POROSITY LIMESTONE (FLUID FILLED HOLE)
1200
1250
1300
1350
40 30 20 15 10 5 1

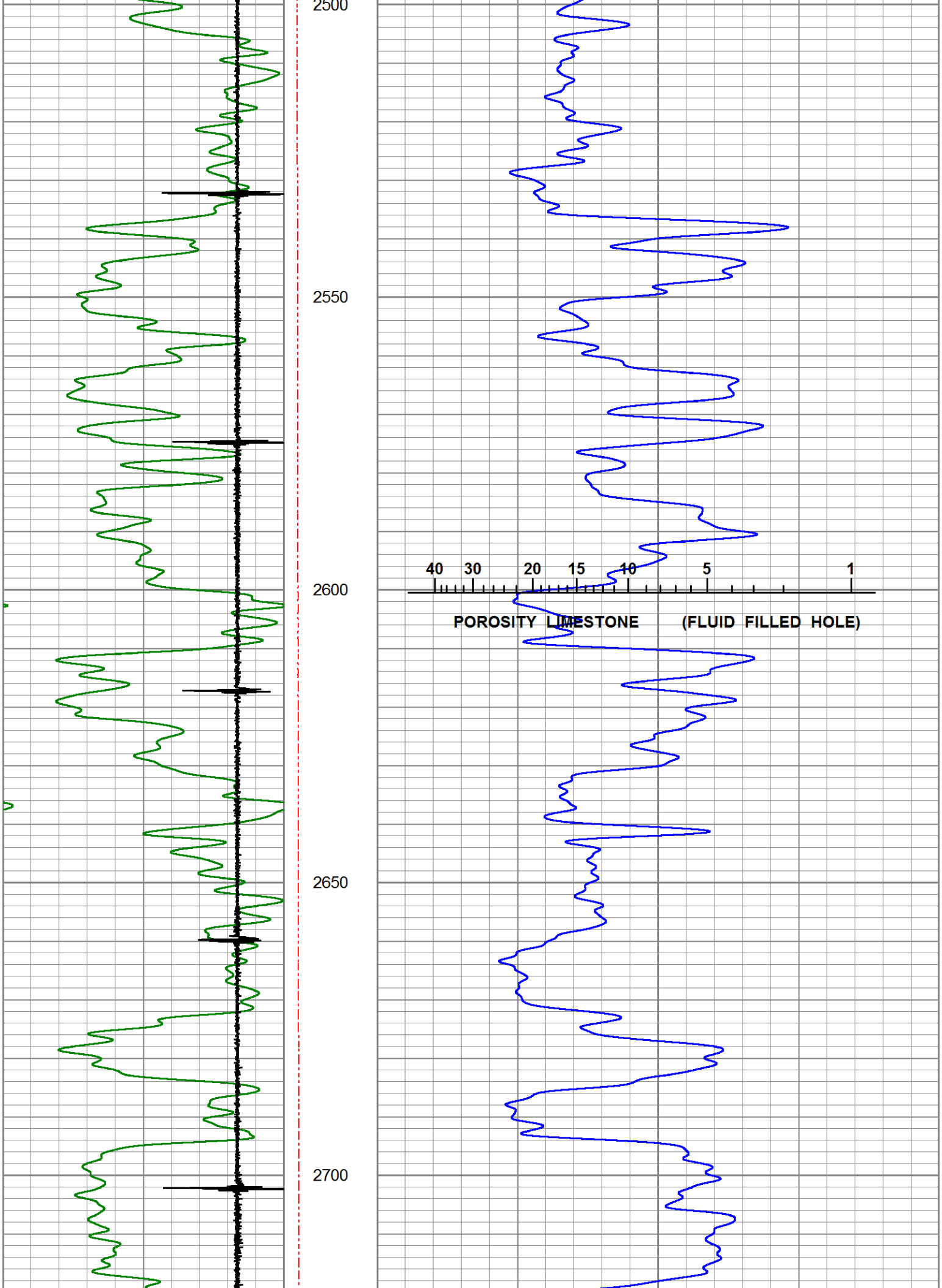

1400
1450
1500
1550
1600
POROSITY LIMESTONE (FLUID FILLED HOLE)
40 30 20 15 10 5 1
POROSITY LIMESTONE (FLUID FILLED HOLE)

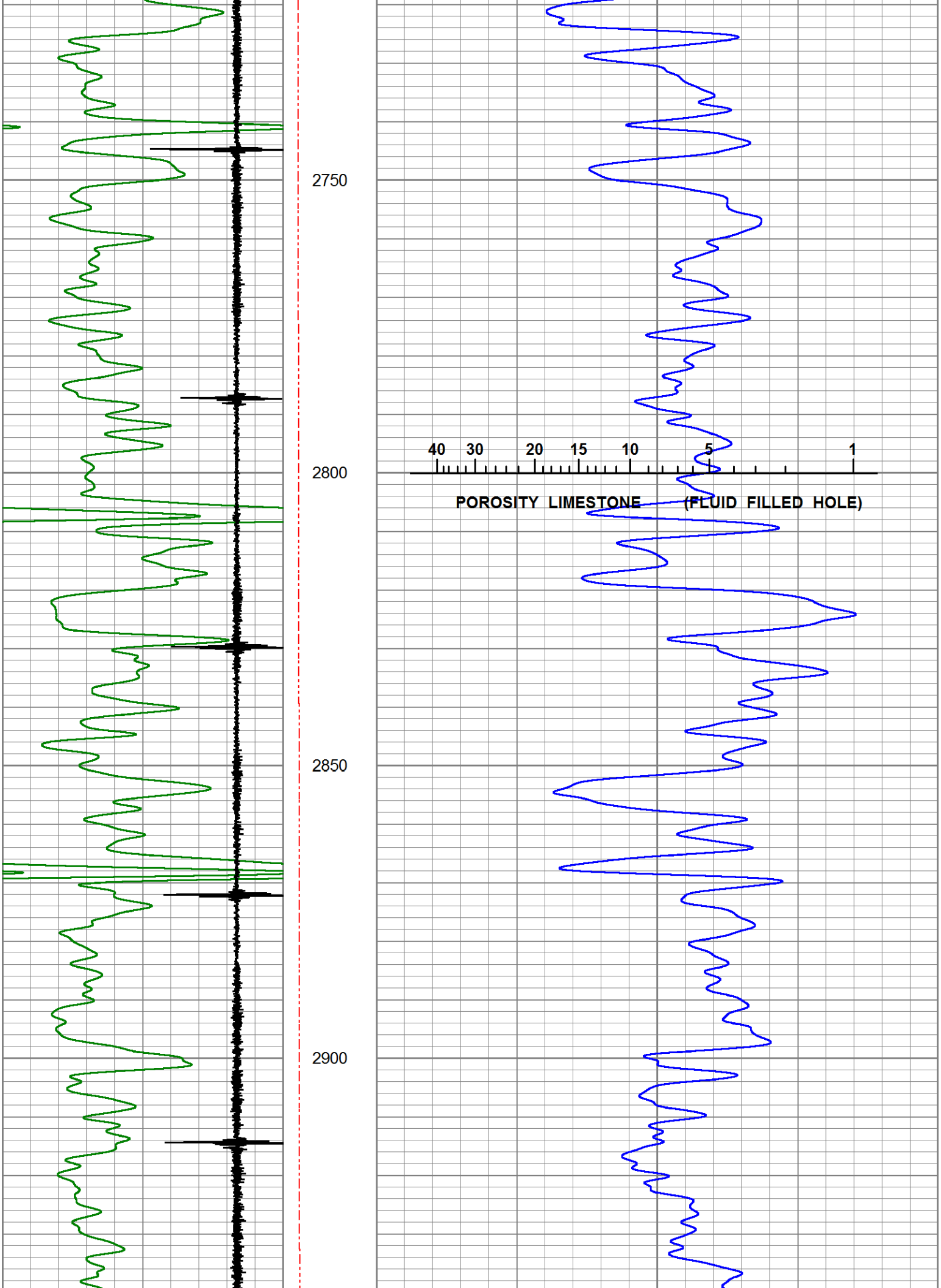

1650
1700
1750
1800
40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)

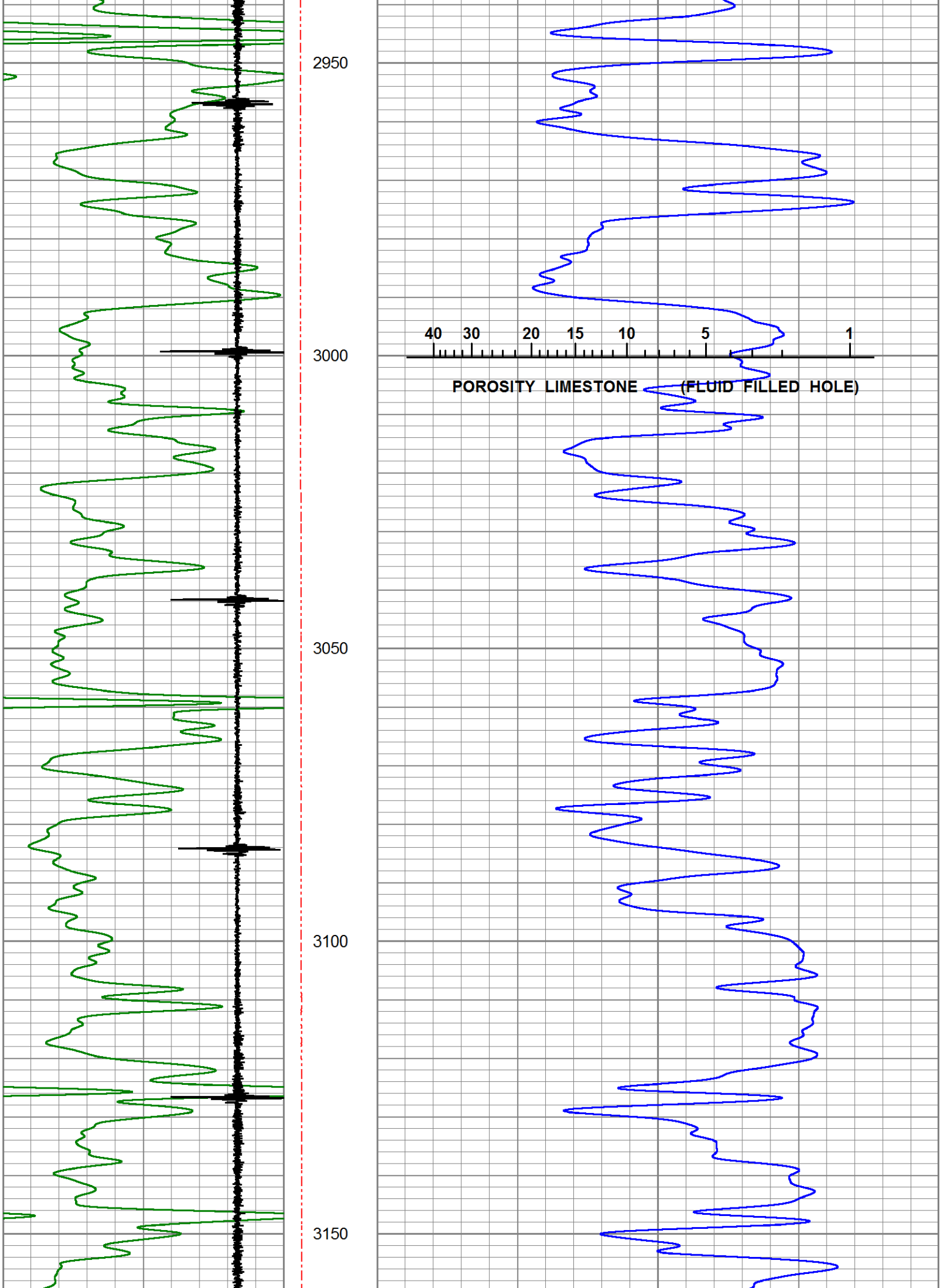

1850
1900
1950
2000
2050
40
30
20
15
10
5
1
POROSITY LIMESTONE (FLUID FILLED HOLE)

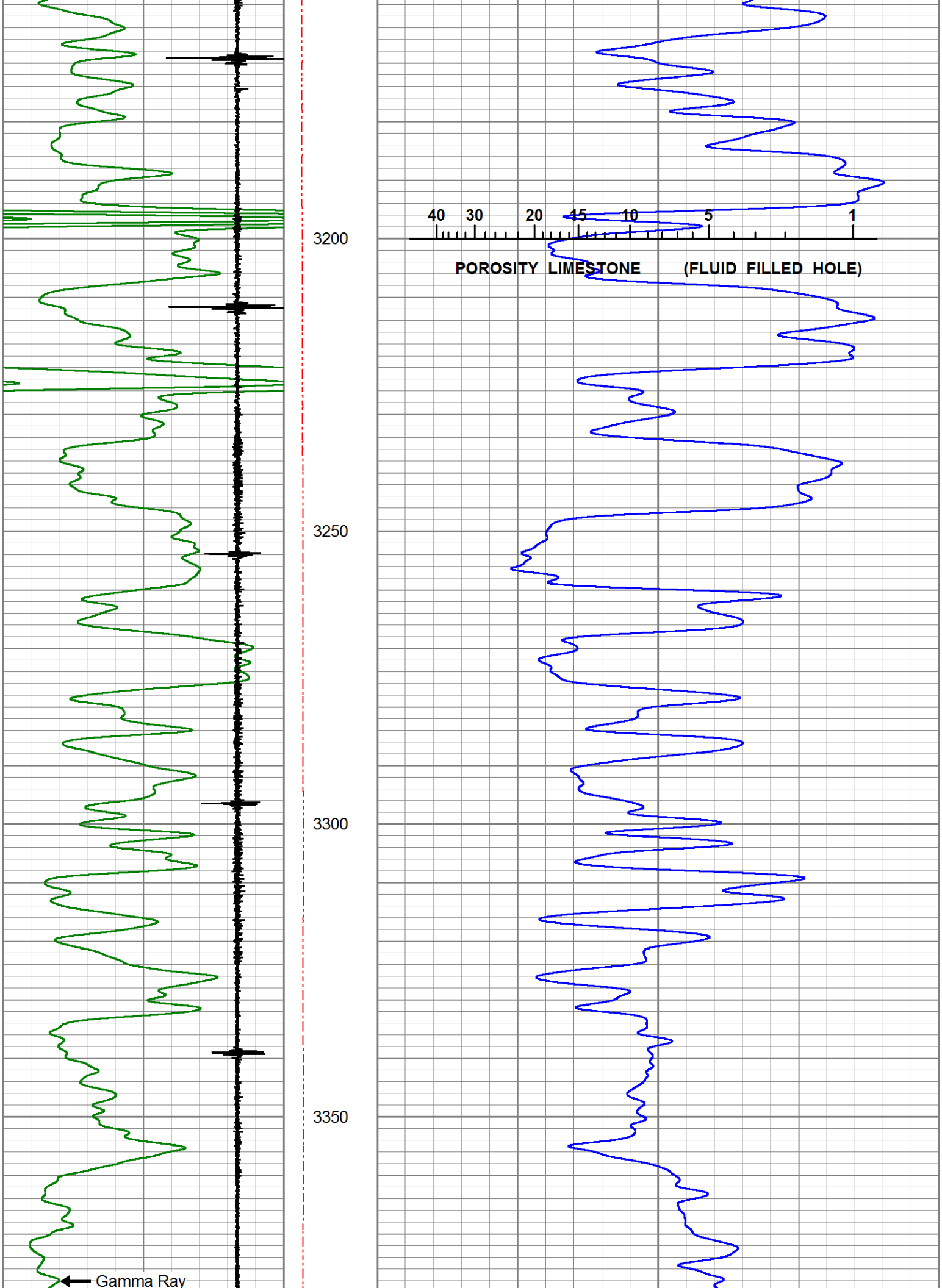

2100
2150
2200
2250
40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)

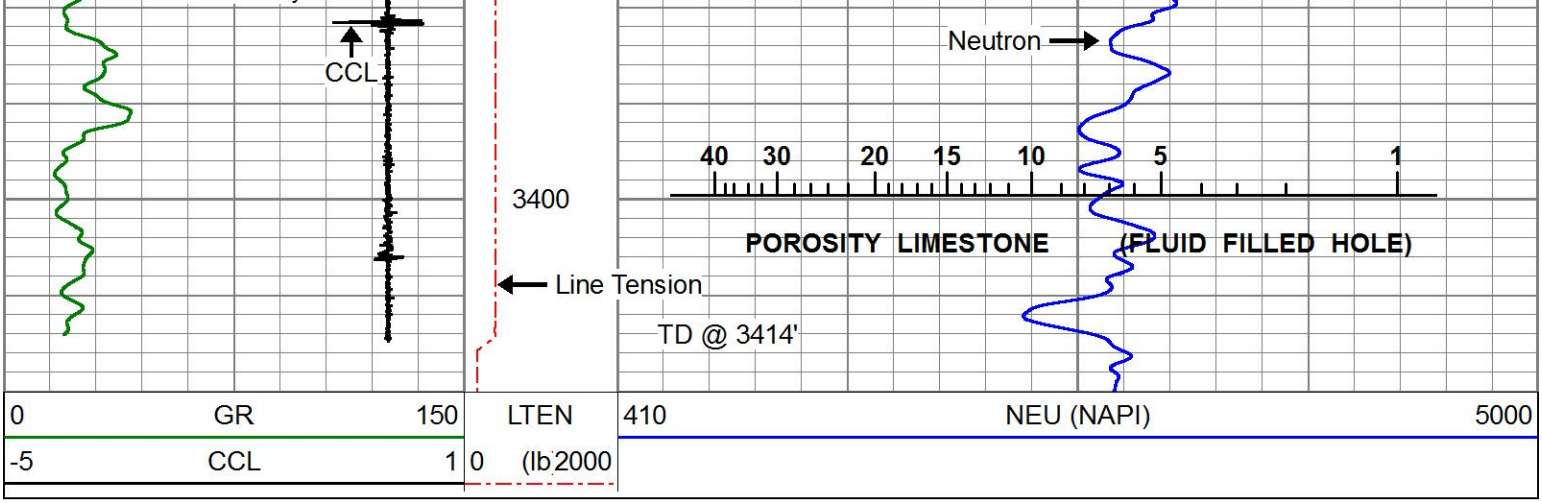

2300
2350
2400
2450
40
30
20
15
10
5
1
POROSITY LIMESTONE
(FLUID FILLED HOLE)


2500
2550
2600
2650
2700
40
30
20
15
10
5
1
POROSITY LIMESTONE (FLUID FILLED HOLE)


2750
2800
2850
2900
40 30 20 15 10 5 1
POROSITY LIMESTONE (FLUID FILLED HOLE)


2950
3000
3050
3100
3150
40
30
20
15
10
5
1
POROSITY LIMESTONE (FLUID FILLED HOLE)


40
30
20
15
10
5
1
POROSITY LIMESTONE (FLUID FILLED HOLE)
3200
3250
3300
3350
Gamma Ray

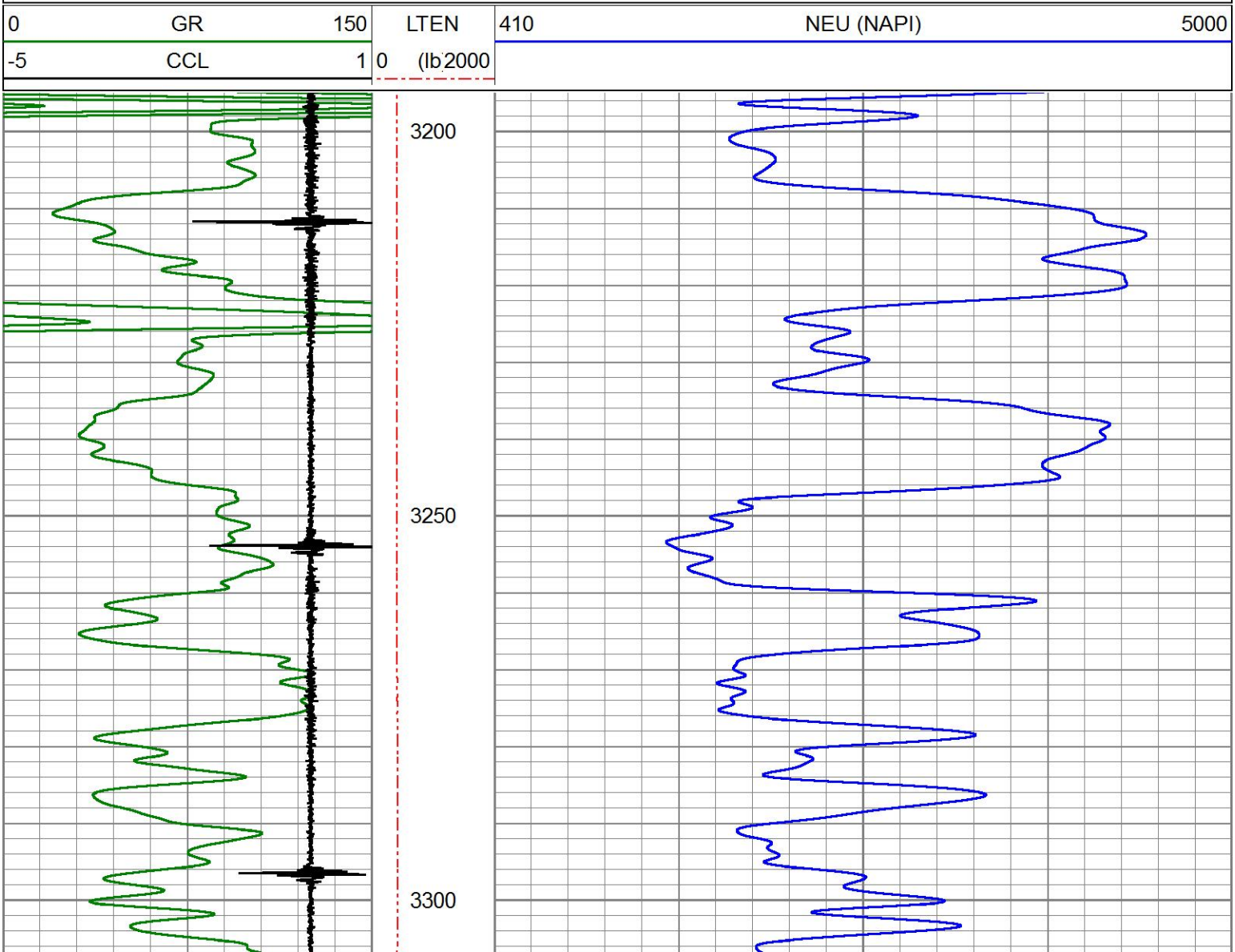


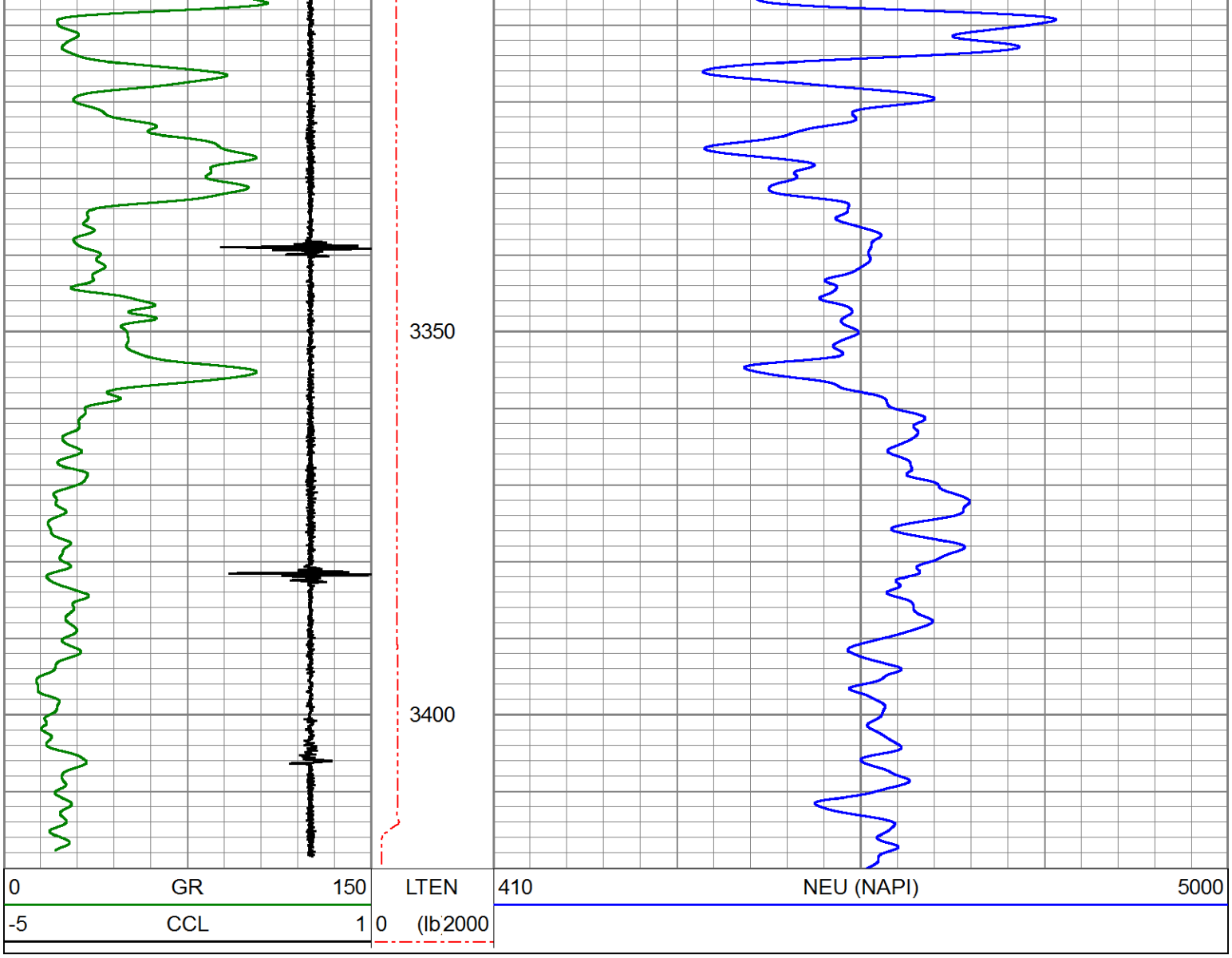
PIONEER
Pioneer Energy Services

REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File	berexco_hines_#27x_cbl_grn.db
Dataset Pathname	pass2
Presentation Format	PINR_G~4
Dataset Creation	Wed Jan 22 18:08:46 2020
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File	berexco_hines_#27x_cbl_grn.db
Dataset Pathname	pass3
Dataset Creation	Wed Jan 22 18:16:40 2020

Neutron Calibration Report

Serial Number:	ProbeNEU1	
Tool Model:	PRNEU	
Performed:	(Not Performed)	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Gamma Ray Calibration Report

Serial Number:	060802	
Tool Model:	2 3/4" Probe	
Performed:	(Not Performed)	
Calibrator Value:	1.0	
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps

Sensitivity:	1.0000	/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	PR-012	
Tool Model:	RBL-D	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	3092.602	ft

Master Calibration, performed Tue Jan 21 13:20:55 2020:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.050	1.810	0.700	71.921	38.286	2.614
CAL	-0.002	2.138				
5'	0.003	2.307	0.700	71.921	30.913	0.619
SUM						
S1	0.005	1.867	0.000	100.000	53.712	-0.292
S2	0.002	1.950	0.000	100.000	51.341	-0.124
S3	0.003	1.950	0.000	100.000	51.361	-0.140
S4	0.003	1.833	0.000	100.000	54.633	-0.149
S5	0.003	1.732	0.000	100.000	57.819	-0.145
S6	0.003	1.778	0.000	100.000	56.312	-0.141
S7	0.003	1.799	0.000	100.000	55.663	-0.148
S8	0.003	1.843	0.000	100.000	54.349	-0.143

Air Zero Calibration, performed Wed Jan 22 16:34:23 2020:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.045	0.000	-0.042
5'	0.031	0.000	-0.029
SUM			
S1	0.024	0.000	-0.019
S2	0.023	0.000	-0.021
S3	0.034	0.000	-0.031
S4	0.058	0.000	-0.055
S5	0.072	0.000	-0.070
S6	0.072	0.000	-0.070
S7	0.049	0.000	-0.046
S8	0.031	0.000	-0.028

PIONEER
Pioneer Energy Services

Company	BEREXCO LLC
Well	HINES UNIT #27X
Field	FAIRPORT
County	RUSSELL
State	KANSAS