



**GAMMA RAY
NEUTRON
LOG**

Comp. ENTRANSCO ENERGY LLC
Well T. WIEBE #31-4
Field HAZLETT
Co. BUTLER
State KANSAS

Company **ENTRANSCO ENERGY LLC**
Well **T. WIEBE #31-4**
Field **HAZLETT**
County **BUTLER** State **KANSAS**

Location: 990' N & 1650' E
API #: 15-015-24109-00-00
SEC 31 TWP 23S RGE 5E
Permanent Datum GL Elevation 1463'
Log Measured From KB 6' Above Perm. Datum
Drilling Measured From KB
Other Services
CBL
Elevation
K.B. 1469'
D.F. N/A
G.L. 1463'

Date of Service	10-23-2018		
Run Number	ONE		
Depth Driller or PBTD	2603'		
Depth Logger	2593'		
Bottom Log Interval	2586'		
Top Log Interval	1200'		
Open Hole Size	7.875"		
Type Fluid	WATER		
Fluid Level	FULL		
Fluid Density	N/A		
Max. Recorded Temperature	100 DEG. F.		
Max. Wellhead Pressure	00 PSI		
Wellhead Connection	N/A		
Estimated Cement Top	1400'		
Unit Number	106		
Wireline Size	.288"		
Location	HAYS, KS		
Recorded By	M. HISS		
Witnessed By	RAY GILBERT		
	Size	Wt/Ft	Top
Tubing Record			Bottom
Surface Casing	8.625"	23#	00'
Production Casing	5.5"	15.5#	00'
Liner Record			TD

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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.
NEWTON KANSAS
WEST ON RD 150TH TO PURITY SPRINGS
SOUTH 2 MILES, WEST 1/4 MILES
SOUTH AND WEST INTO.

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: M. HISS Operator: K. PHANNENSTIEL Operator: Operator:	RBT-011	

Log Variables

DatabaseC:\ProgramData\Warrior\Data\transco_t_wiebe#31_4_cbl_grn.db
Dataset field/well/run1/pass3/_vars_

Top - Bottom


BOREID in 7.875	BOTTEMP degF 100	CASEOD in 5.5	CASETHCK in 0.275	CASEWGHT lb/ft 15.5	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.08
NPORSEL Limestone	NPORSHIFT 0	PERFS 0	PPT usec 0	SRFTEMP degF 70	TDEPTH ft 2600		

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

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	16.35			PROBE-RBT-DIGITAL-RBL-D (080554) Probe 2 3/4" Radii Bond-Digital	8.75	2.75	100.00
WVFS7	16.35						
WVFS6	16.35						
WVFS5	16.35						
WVFS4	16.35						
WVFS3	16.35						
WVFS2	16.35						
WVFS1	16.35						
WVFCAL	16.35						
WVF3FT	16.35						
WVF5FT	15.35						
HEADVOLT	12.17		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
CCL	8.39						

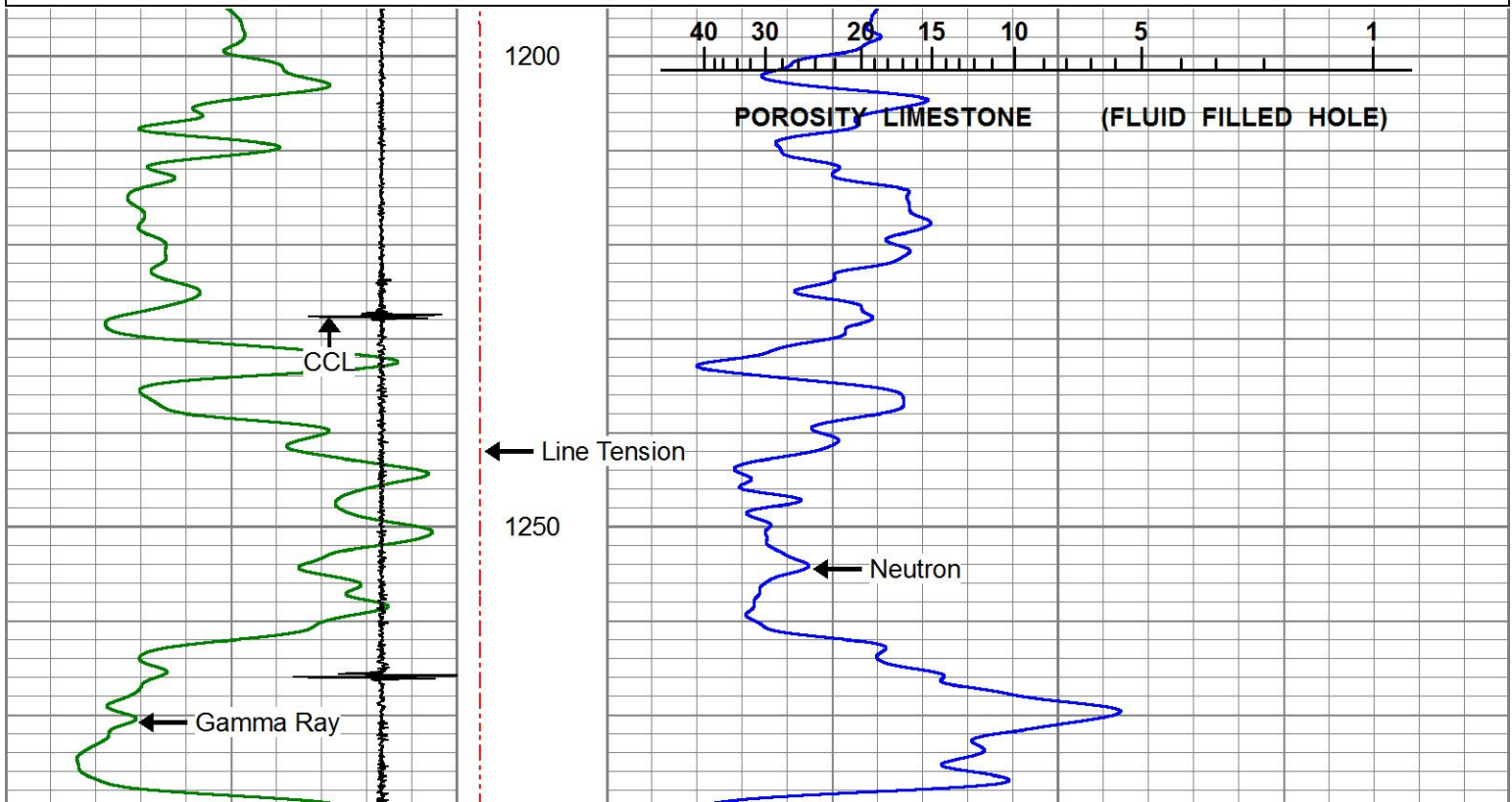
GR	7.08		PROBE-GR/CCL-DIGITAL-275 Probe GR-4.54 (11102.75 Probe 2 3/4" Gamma Ray / CCL DIGITAL			60.00
NEU	1.08		NEU-PRNEU (ProbeNEU1)	4.75	1.88	

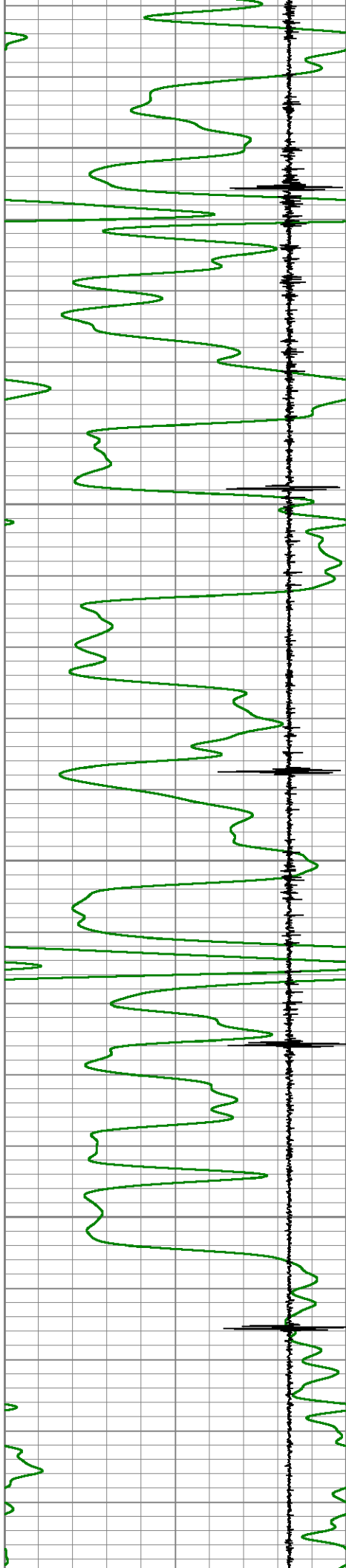
Dataset: entransco_t_wiebe#31_4_cbl_grn.db: field/well/run1/pass3
 Total length: 24.83 ft
 Total weight: 192.00 lb
 O.D.: 2.75 in

	<h1>MAIN LOG</h1>
	<h2>ZERO PSI APPLIED AT SURFACE</h2>

Database File: entransco_t_wiebe#31_4_cbl_grn.db
 Dataset Pathname: pass3
 Presentation Format: PINR_G~4
 Dataset Creation: Tue Oct 23 11:24:46 2018
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150	LTEN	30	NEU (NAPI)	325
-5	CCL	1	0	(lb2000)		





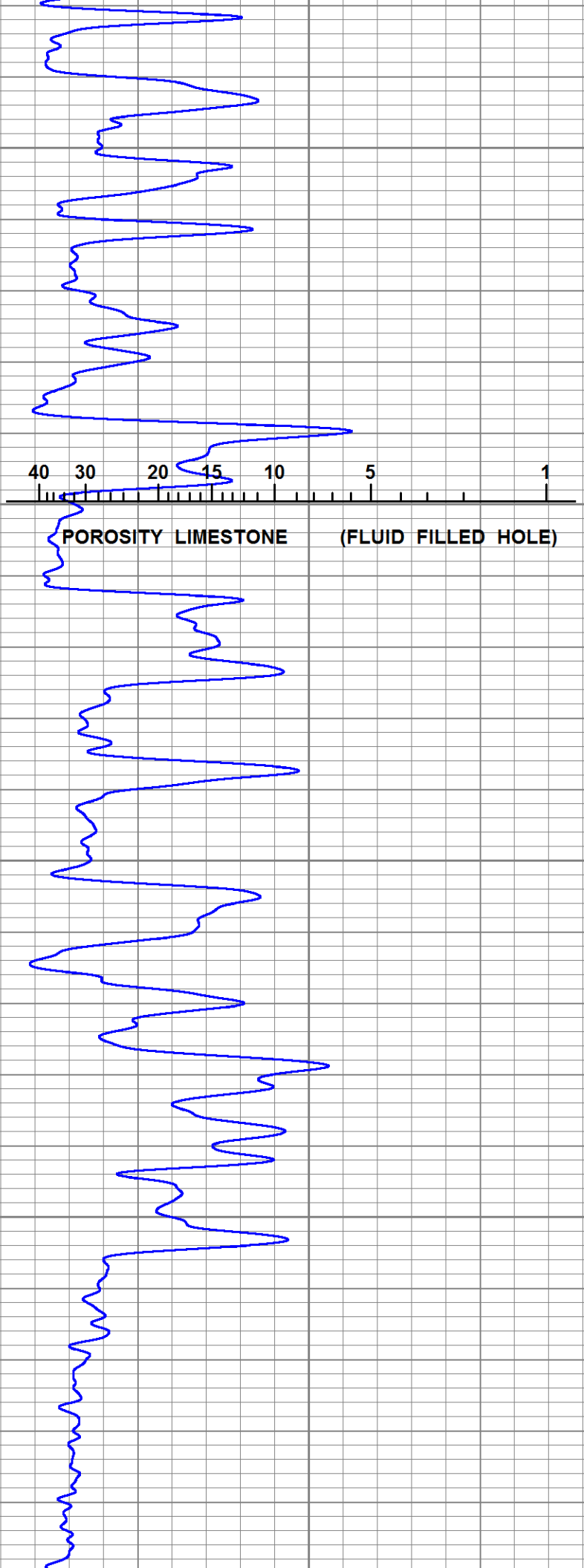
1300

1350

1400

1450

1500



40

30

20

15

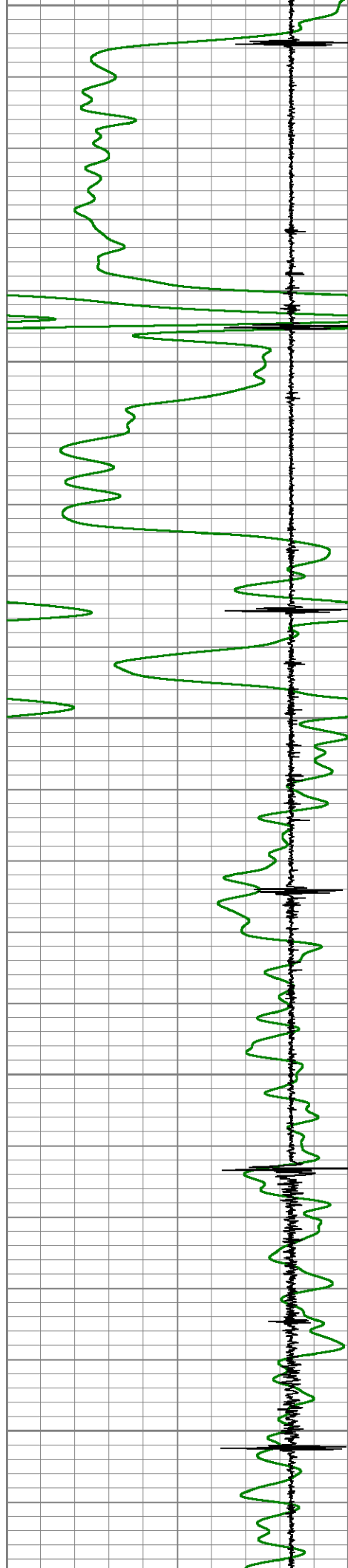
10

5

1

POROSITY LIMESTONE

(FLUID FILLED HOLE)



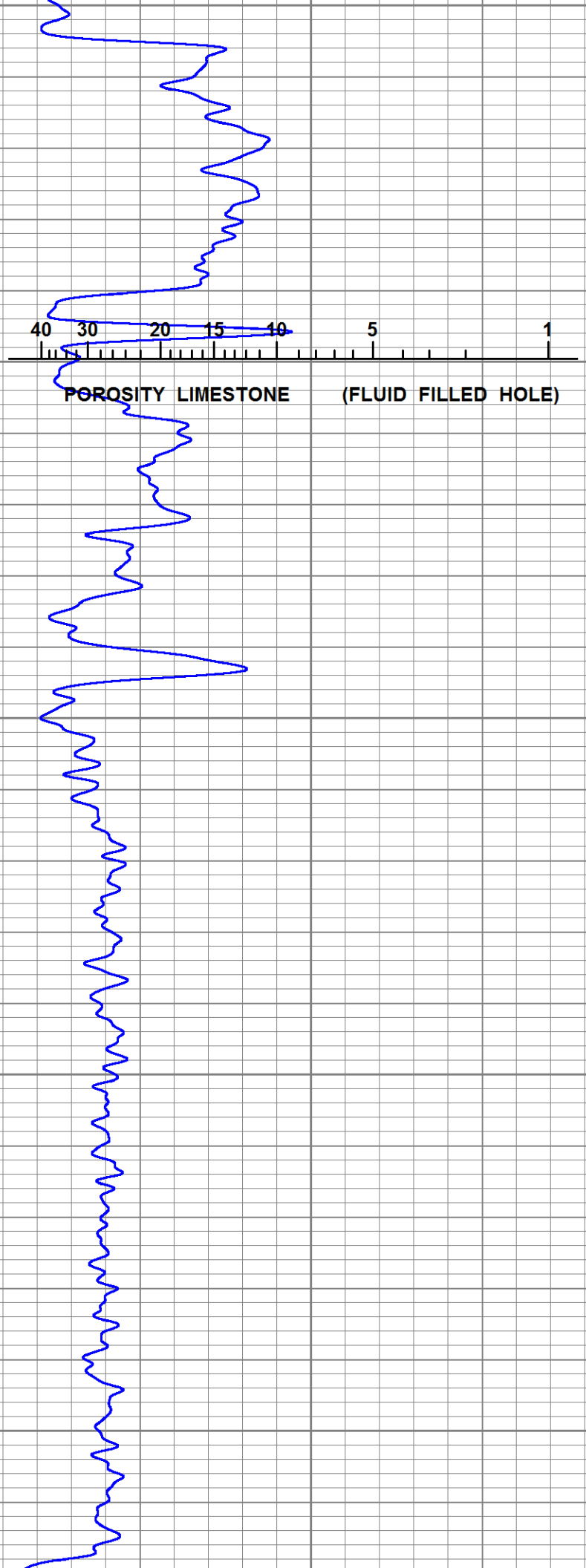
1500

1550

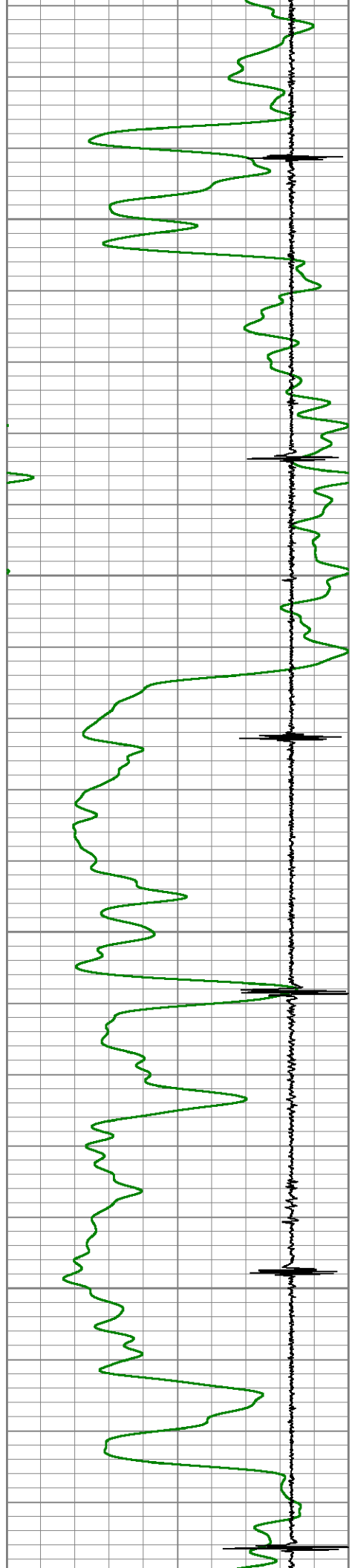
1600

1650

1700



40 30 20 15 10 5 1
POROSITY LIMESTONE (FLUID FILLED HOLE)

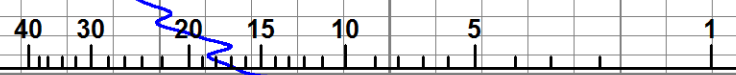
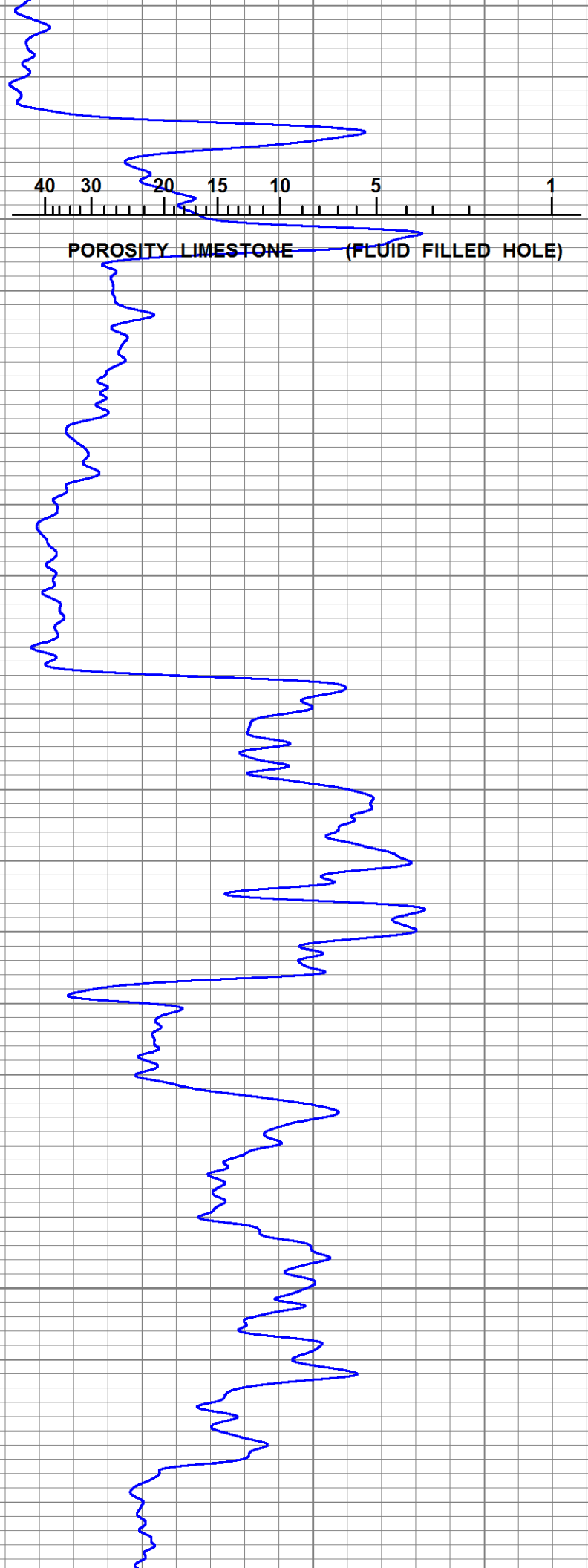


1750

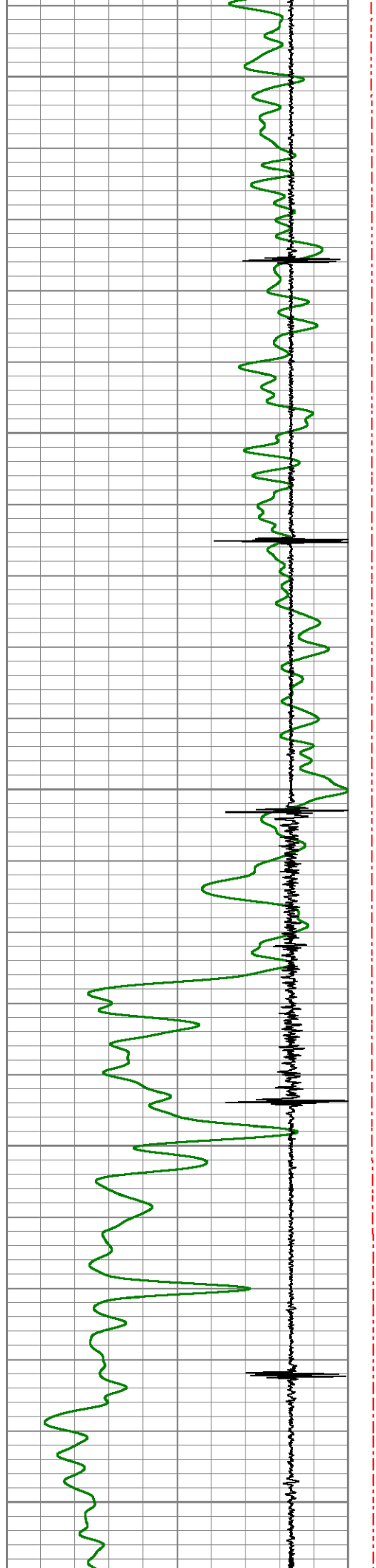
1800

1850

1900



POROSITY LIMESTONE (FLUID FILLED HOLE)



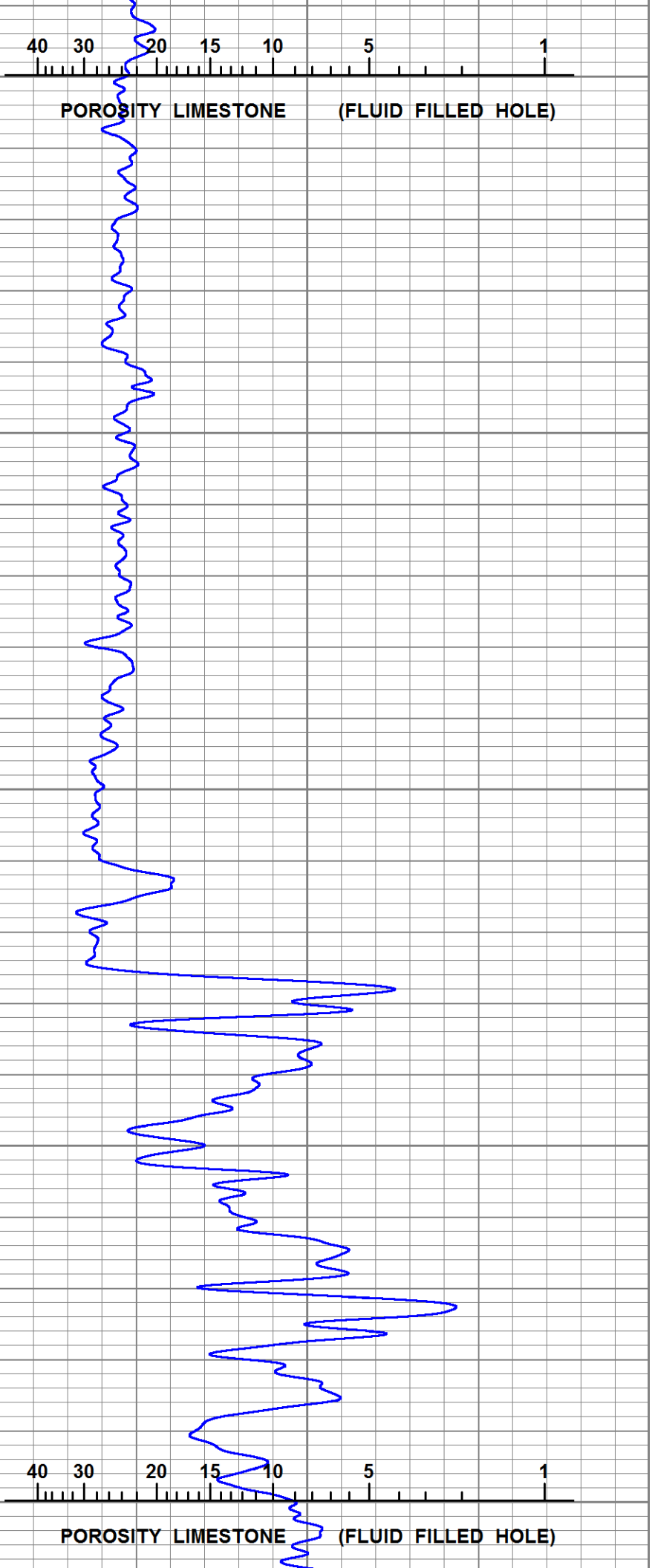
1950

2000

2050

2100

2150

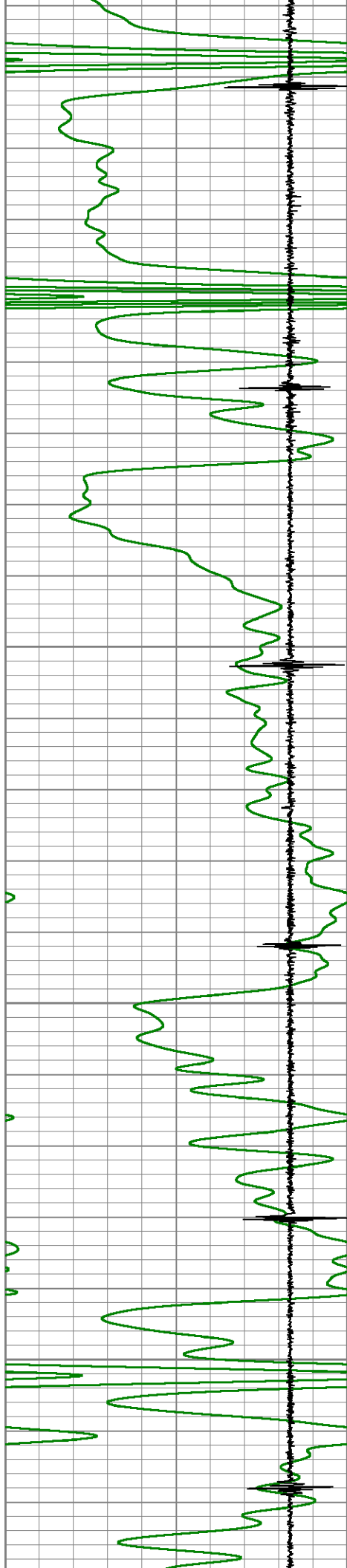


40 30 20 15 10 5 1

POROSITY LIMESTONE (FLUID FILLED HOLE)

40 30 20 15 10 5 1

POROSITY LIMESTONE (FLUID FILLED HOLE)

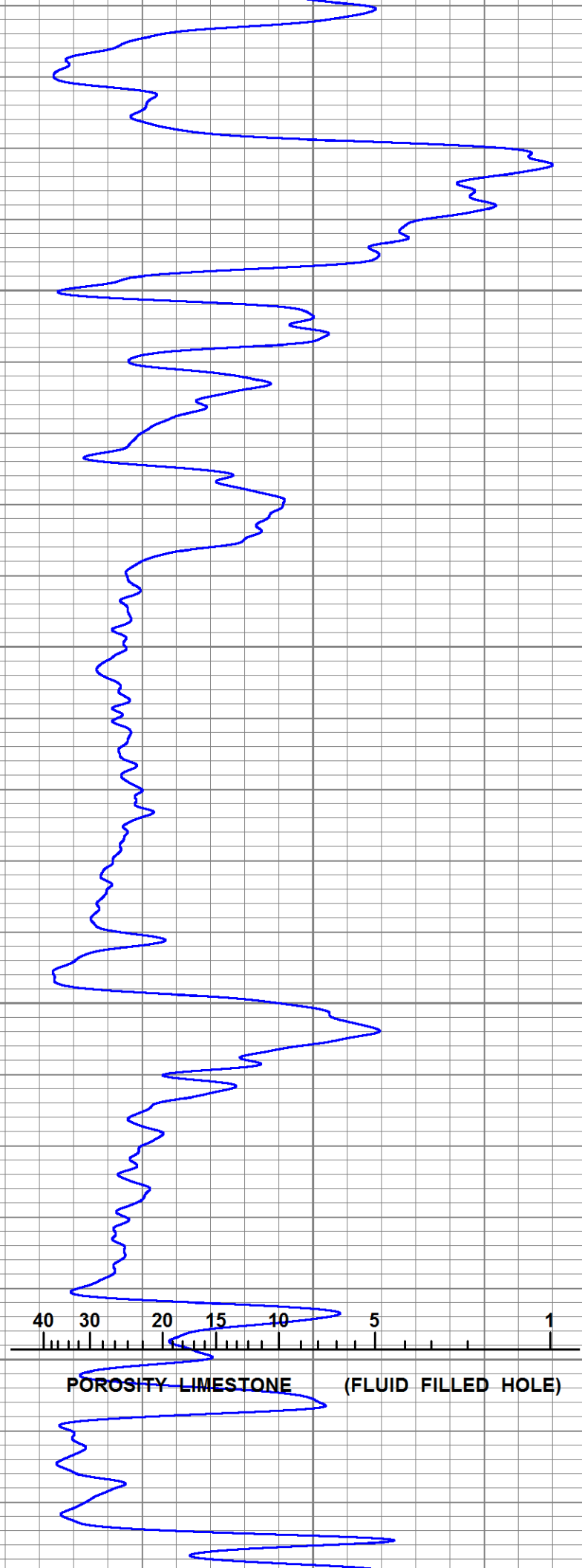


2200

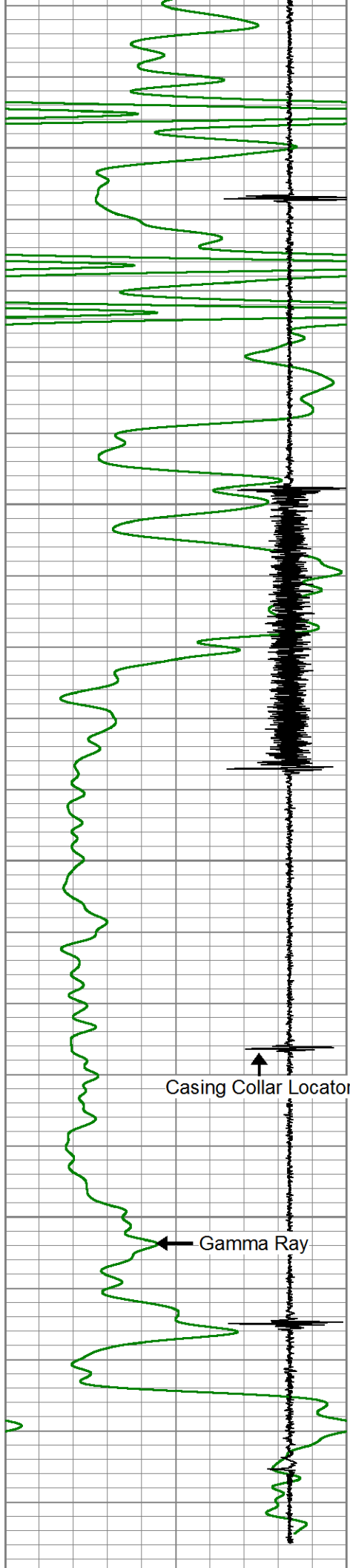
2250

2300

2350



40 30 20 15 10 5 1
POROSITY LIMESTONE (FLUID FILLED HOLE)



Casing Collar Locator

Gamma Ray

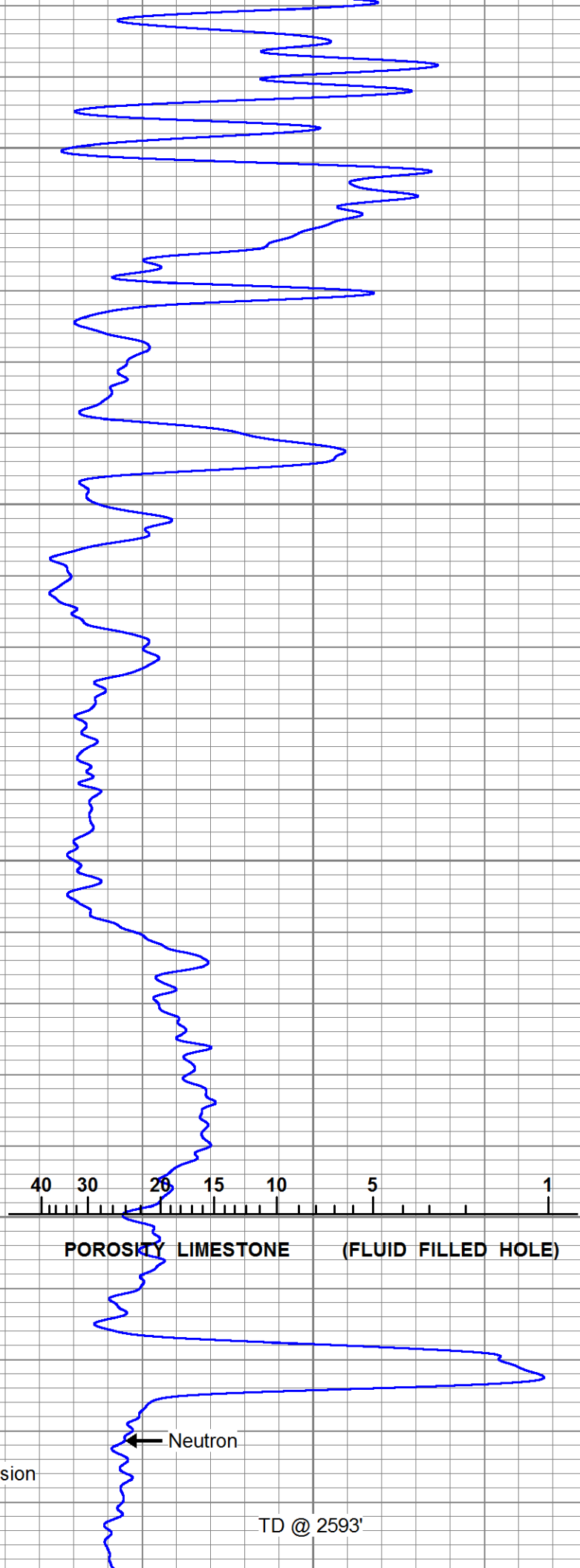
2400

2450

2500

2550

Line Tension



40 30 25 15 10 5 1

POROSITY LIMESTONE (FLUID FILLED HOLE)

Neutron

TD @ 2593'

0	GR (GAPI)	150	LTEN	30	NEU (NAPI)	325
-5	CCL	1	0	(lb2000)		

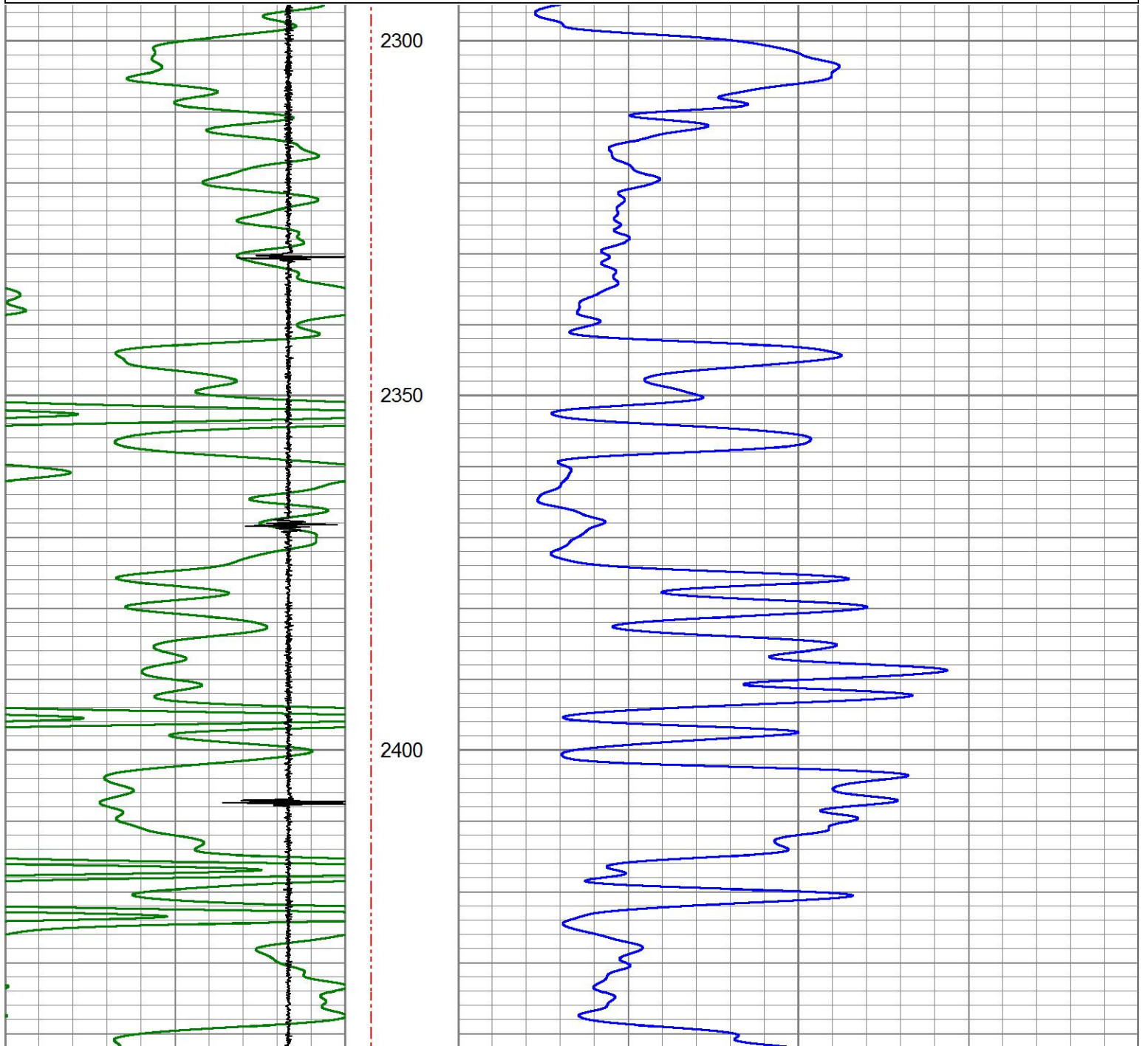


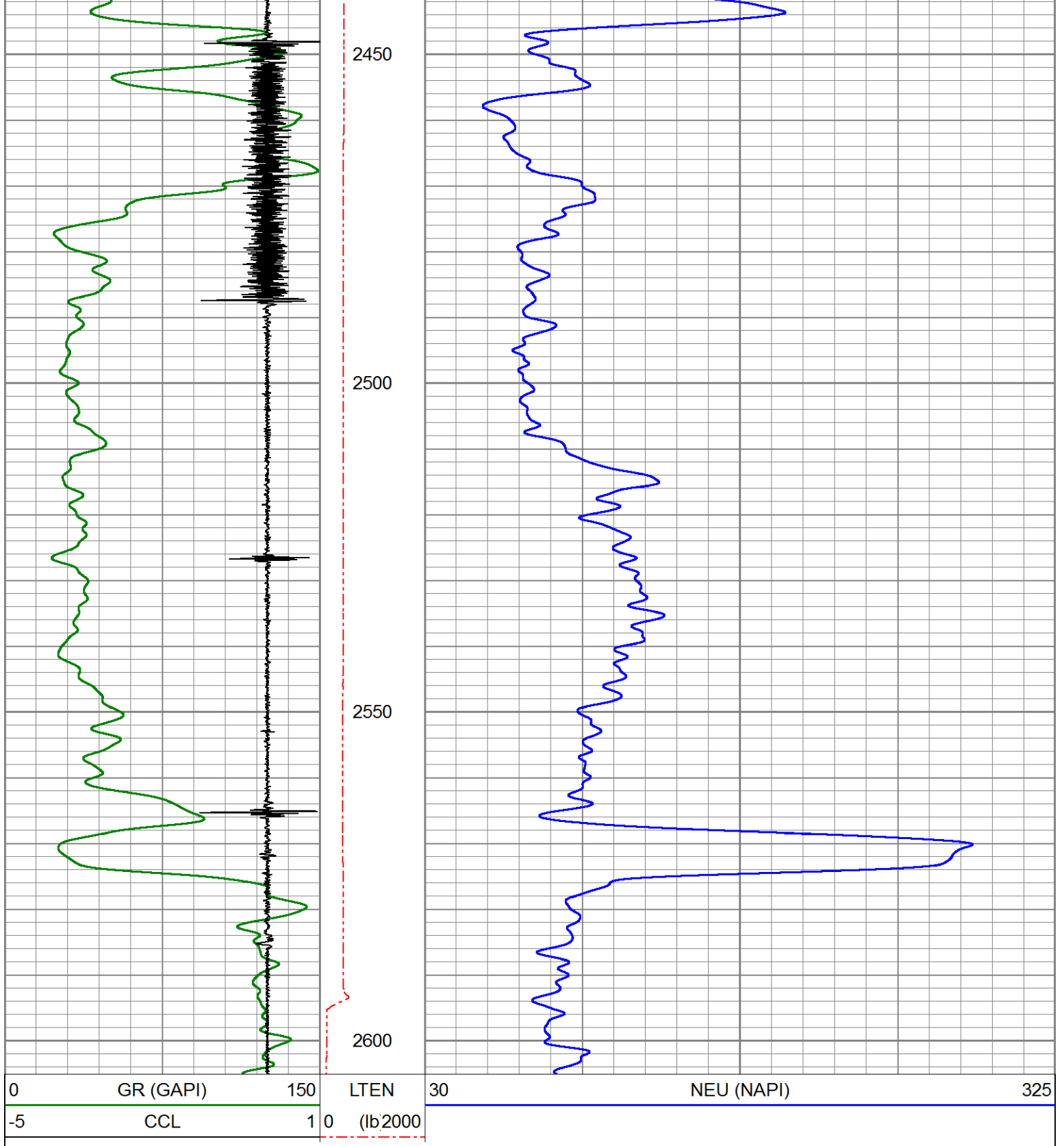
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File	entransco_t_wiebe#31_4_cbl_grn.db					
Dataset Pathname	pass2					
Presentation Format	PINR_G~4					
Dataset Creation	Tue Oct 23 11:16:06 2018					
Charted by	Depth in Feet scaled 1:240					

0	GR (GAPI)	150	LTEN	30	NEU (NAPI)	325
-5	CCL	1	0	(lb2000)		





Calibration Report

Database File entransco_t_wiebe#31_4_cbl_grn.db
 Dataset Pathname pass3
 Dataset Creation Tue Oct 23 11:24:46 2018

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: 111032
 Tool Model: 275 Probe GR-CCL
 Performed: Wed Sep 26 09:20:51 2018
 Calibrator Value: 1.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps
 Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 080554
 Tool Model: RBL-D
 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 1279.589 ft

Master Calibration, performed Tue Oct 23 08:26:33 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	2.145	0.700	71.921	33.214	0.692
CAL	-0.004	2.370				
5'	-0.001	2.151	0.700	71.921	33.102	0.728
SUM						
S1	0.036	2.010	0.000	100.000	50.637	-1.801
S2	0.013	2.047	0.000	100.000	49.165	-0.619
S3	0.014	2.123	0.000	100.000	47.429	-0.681
S4	0.018	2.189	0.000	100.000	46.060	-0.838
S5	0.017	2.251	0.000	100.000	44.759	-0.742
S6	0.018	2.280	0.000	100.000	44.214	-0.797
S7	0.009	2.228	0.000	100.000	45.065	-0.422
S8	0.005	2.071	0.000	100.000	48.411	-0.255

Air Zero Calibration, performed Tue Oct 23 11:00:43 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.006		0.000			-0.006
5'	0.007		0.000			-0.008
SUM						
S1	0.015		0.000			0.020
S2	0.010		0.000			0.003
S3	0.010		0.000			0.004
S4	0.006		0.000			0.012
S5	0.007		0.000			0.009
S6	0.011		0.000			0.008
S7	0.015		0.000			-0.006
S8	0.013		0.000			-0.008





PIONEER

Pioneer Energy Services

Well

T. WIEBE #31-4

Field

HAZLETT

County

BUTLER

State

KANSAS