



GAMMA RAY NEUTRON LOG

PIONEER
Pioneer Energy Services

Company **ENTRANSO ENERGY, LLC**
Well **T. WIEBE NO.31-3**
Field **HAZLETT**
County **BUTLER** State **KANSAS**

Comp. ENTRANSO ENERGY, LLC
Well T. WIEBE NO.31-3
Field HAZLETT
Co. BUTLER
State KANSAS

Location: API #: 15-015-24108-00-00
NE NE SE
2970' FNL & 330' FEL
SEC 31 TWP 23S RGE 05E
Permanent Datum GL Elevation 1480'
Log Measured From KB 6' Above Perm. Datum
Drilling Measured From KB
CBL/
PERF
Elevation
K.B. 1486'
D.F. 1485'
G.L. 1480'

Date of Service	10/30/2018		
Run Number	ONE		
Depth Driller or PBTID	2590'		
Depth Logger	2579'		
Bottom Log Interval	2578'		
Top Log Interval	1200'		
Open Hole Size	7.875"		
Type Fluid	WATER		
Fluid Level	FULL		
Fluid Density	N/A		
Max. Recorded Temperature	114 DEG F		
Max. Wellhead Pressure	00 PSI		
Wellhead Connection	N/A		
Estimated Cement Top	1410'		
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
EAST ON RD 150TH (FIRST ST.) TO PURITY SPRINGS RD,
SOUTH 2.5 MILES
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:		

Log Variables

DatabaseC:\ProgramData\Warrior\Data\transco_t_wiebe_31_3_cbl_grn.db
Dataset field/well/run1/pass5/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 114	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 2579		

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					
WV3FT	16.35					
WV5FT	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_3_cbl_grn.db: field/well/run1/pass5 Total length: 24.83 ft Total weight: 192.00 lb O.D.: 2.75 in						

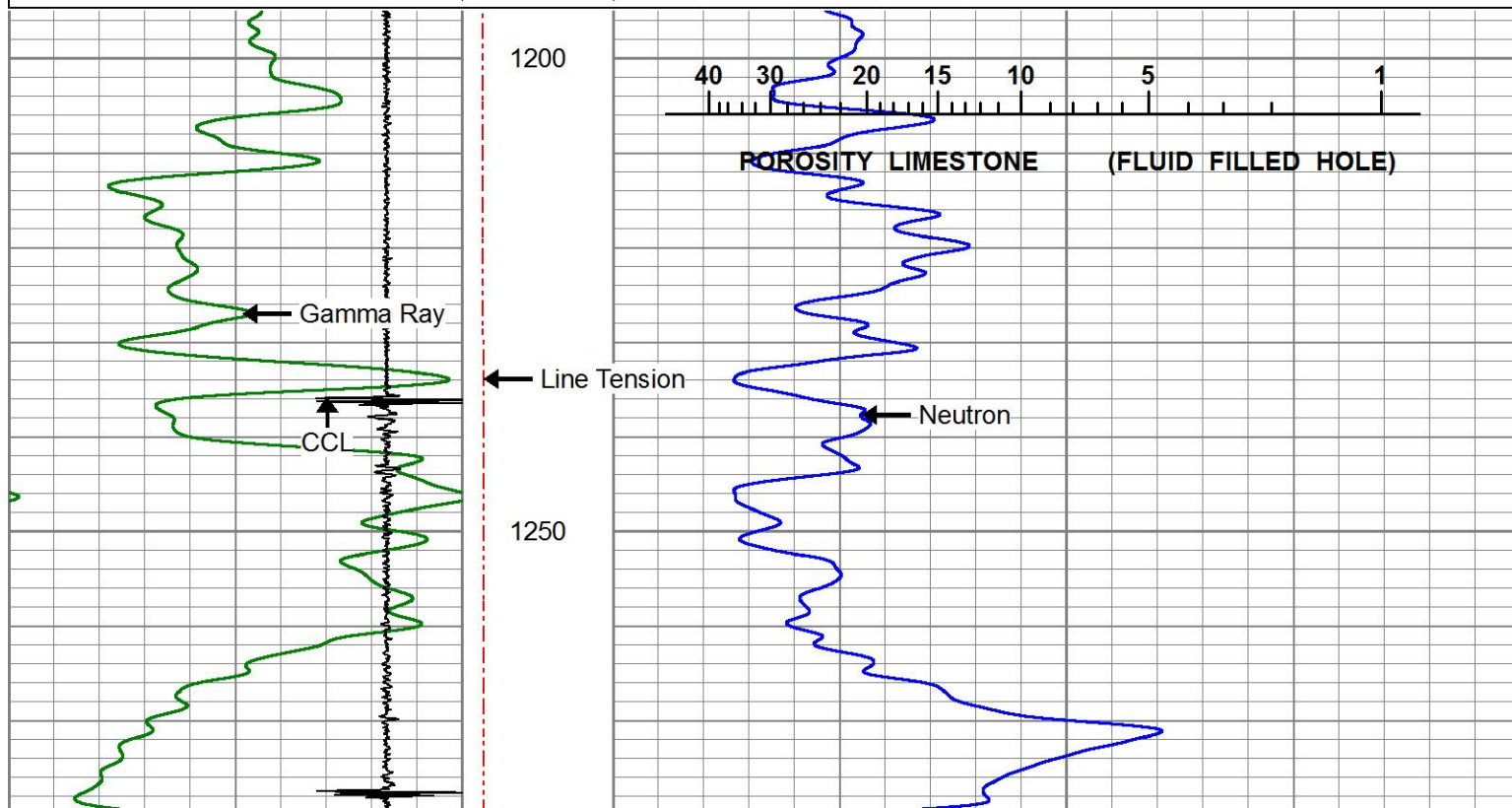


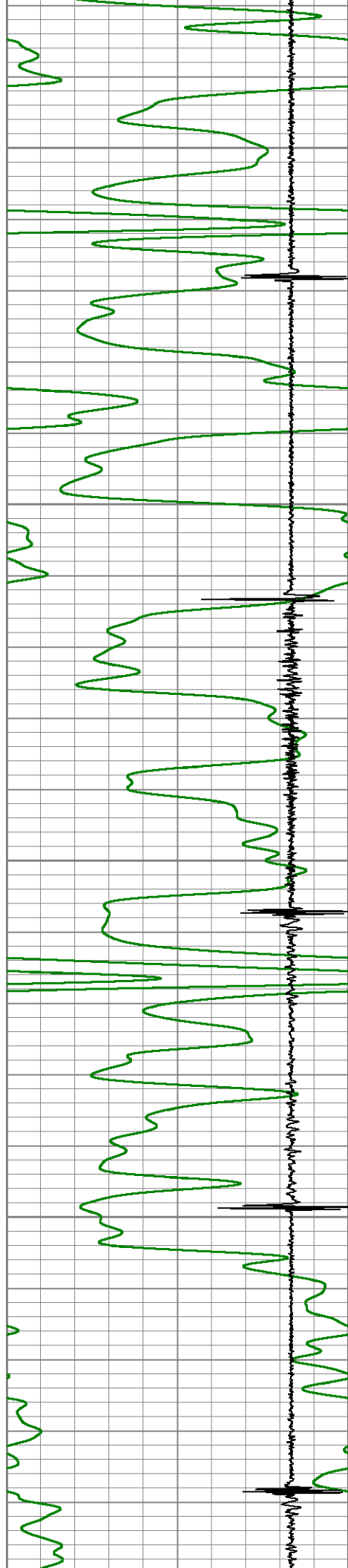
MAIN LOG

ZERO PSI APPLIED AT SURFACE

Database File	entransco_t_wiebe_31_3_cbl_grn.db
Dataset Pathname	pass5
Presentation Format	PINR_G~4
Dataset Creation	Tue Oct 30 14:50:35 2018
Charted by	Depth in Feet scaled 1:240

0	GR (GAPI)	150	LTEN	30	NEU (NAPI)	330
-5	CCL	1	0 (lb2000)			





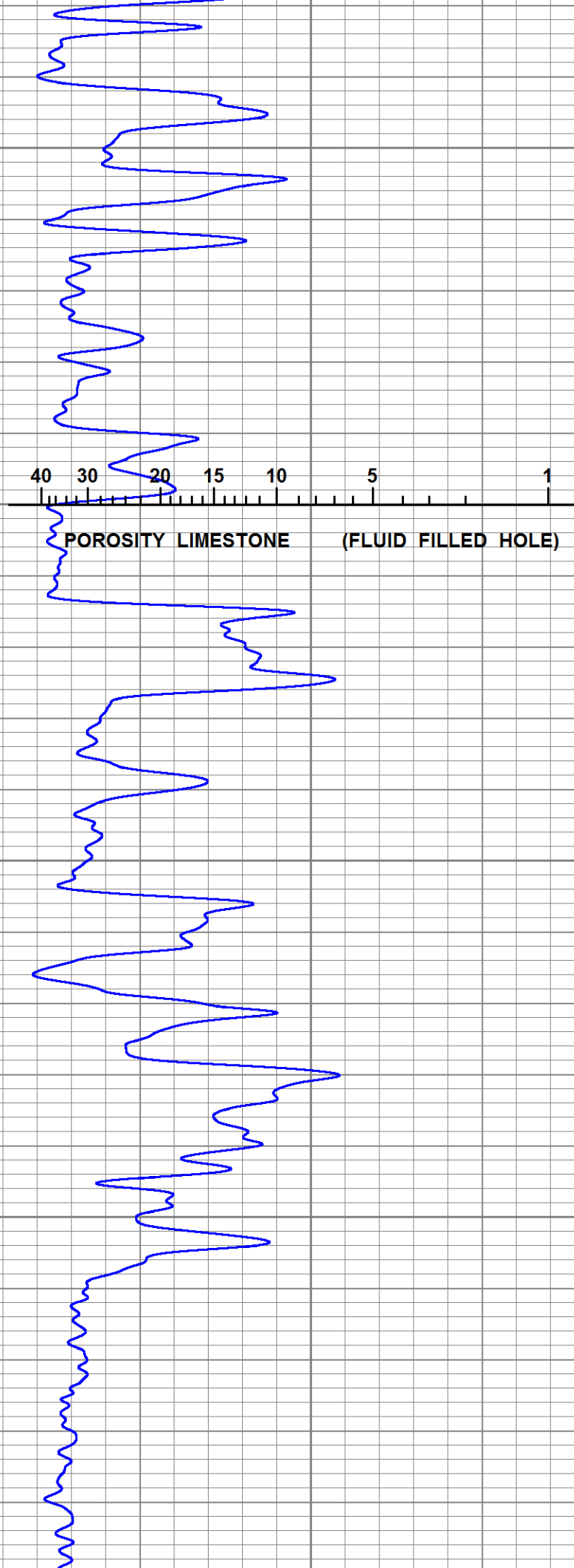
1300

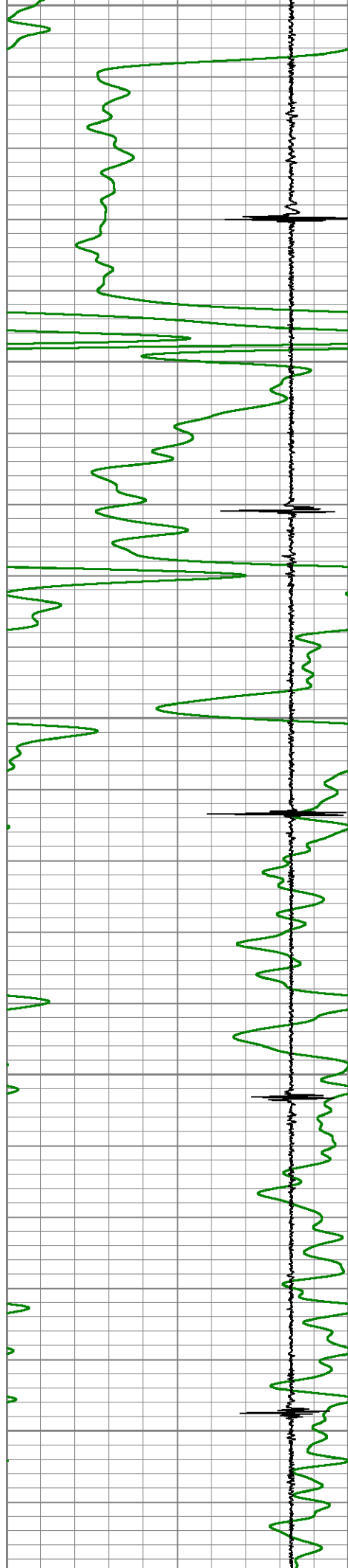
1350

1400

1450

1500





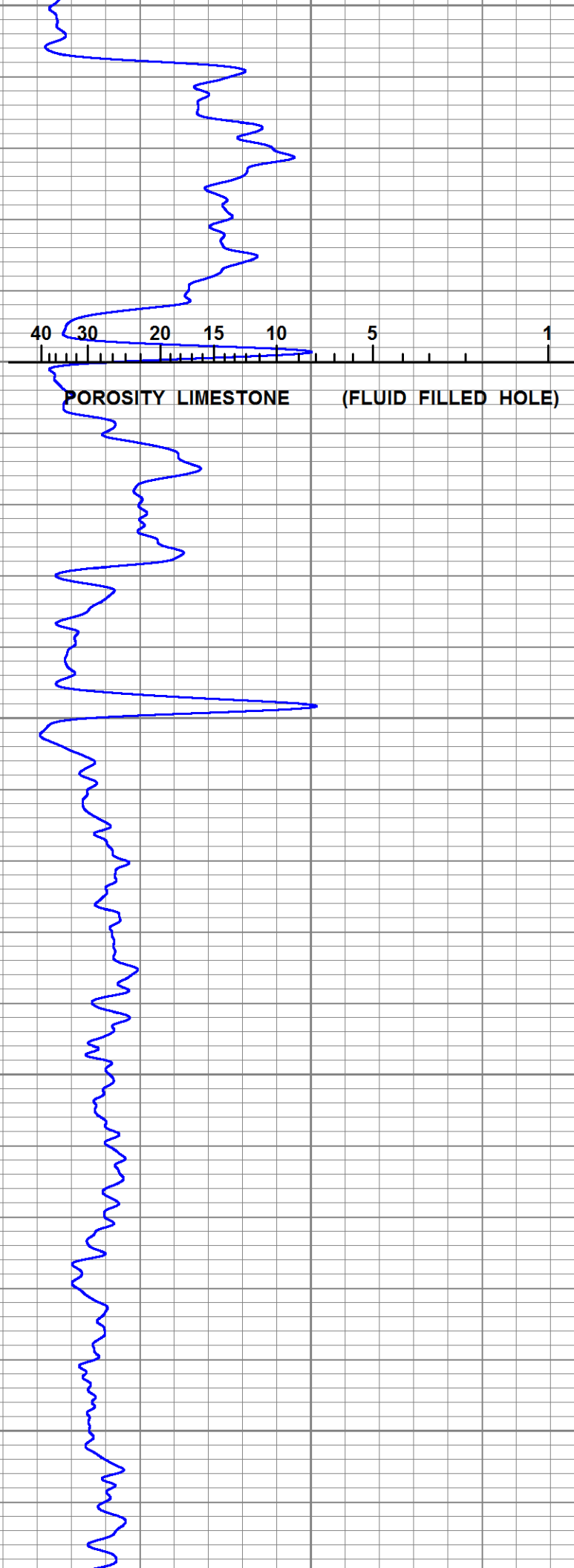
1500

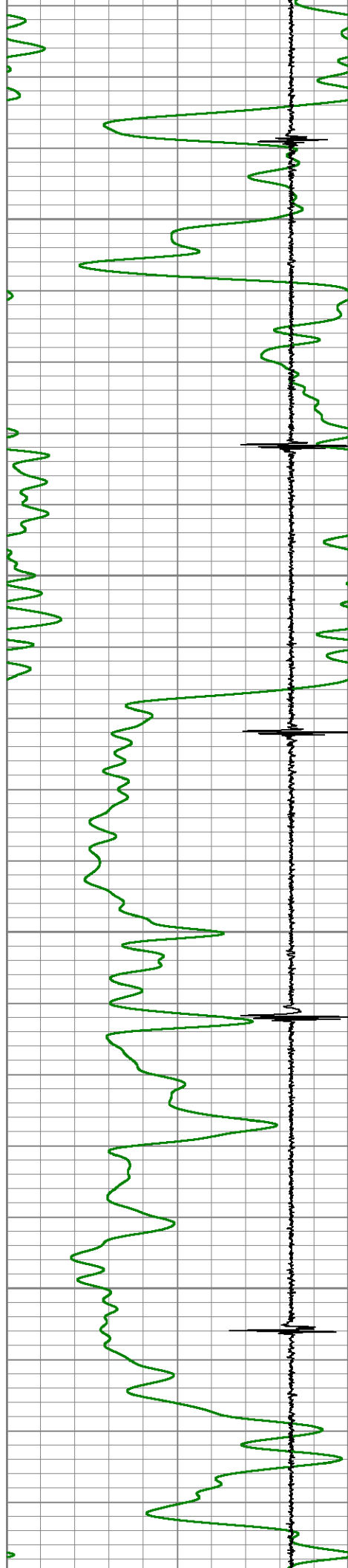
1550

1600

1650

1700



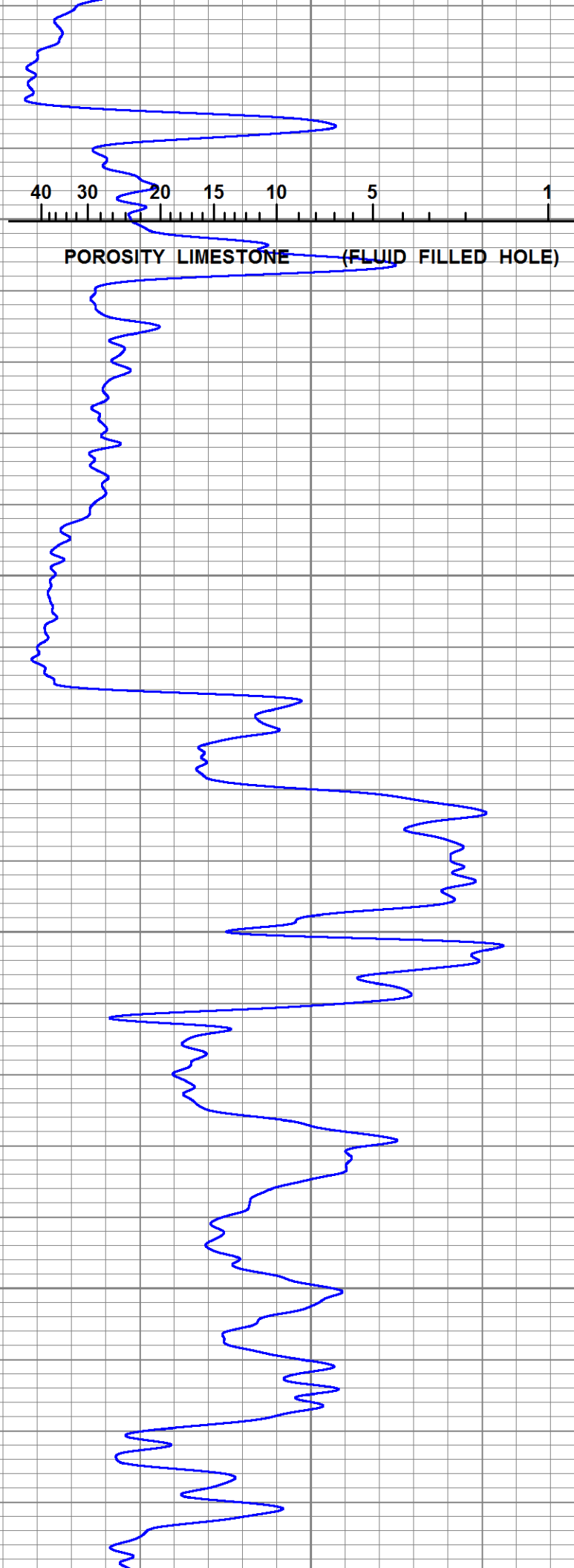


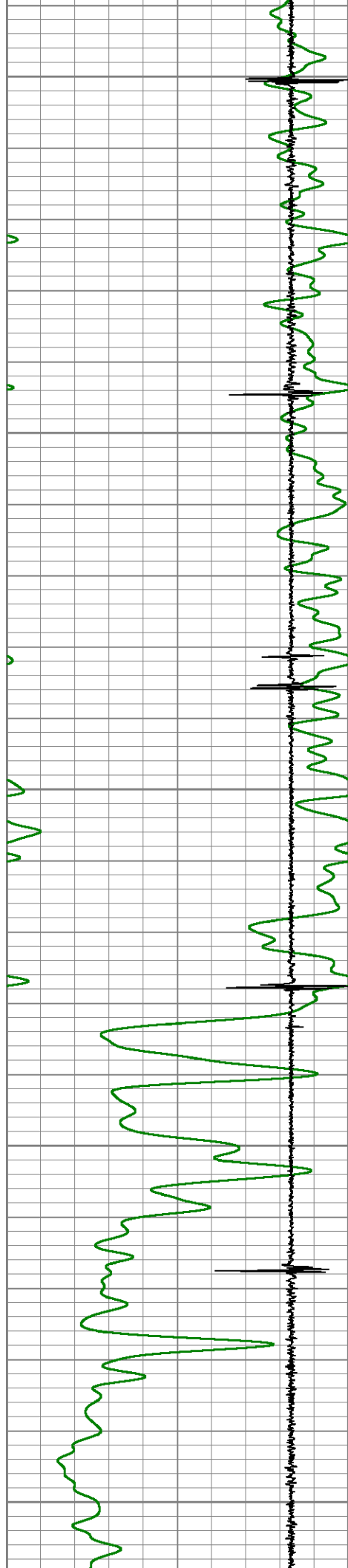
1750

1800

1850

1900





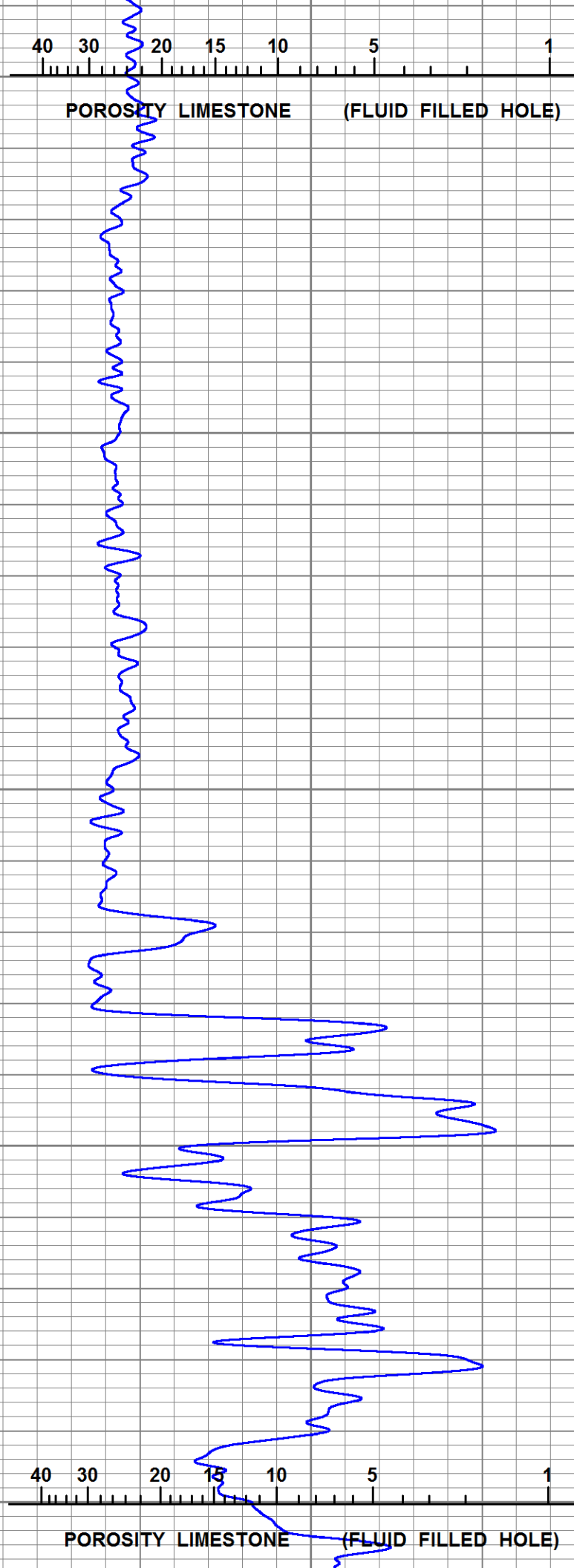
1950

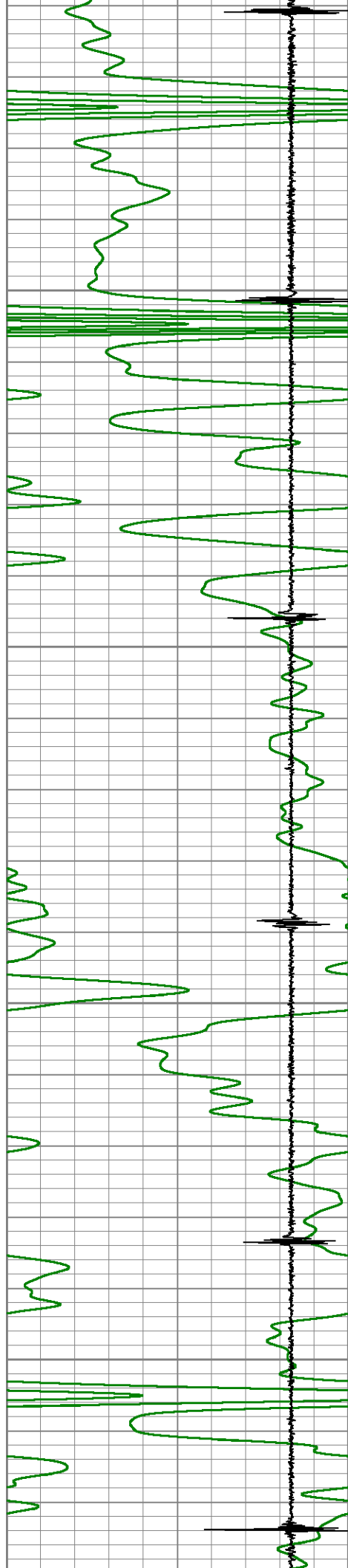
2000

2050

2100

2150



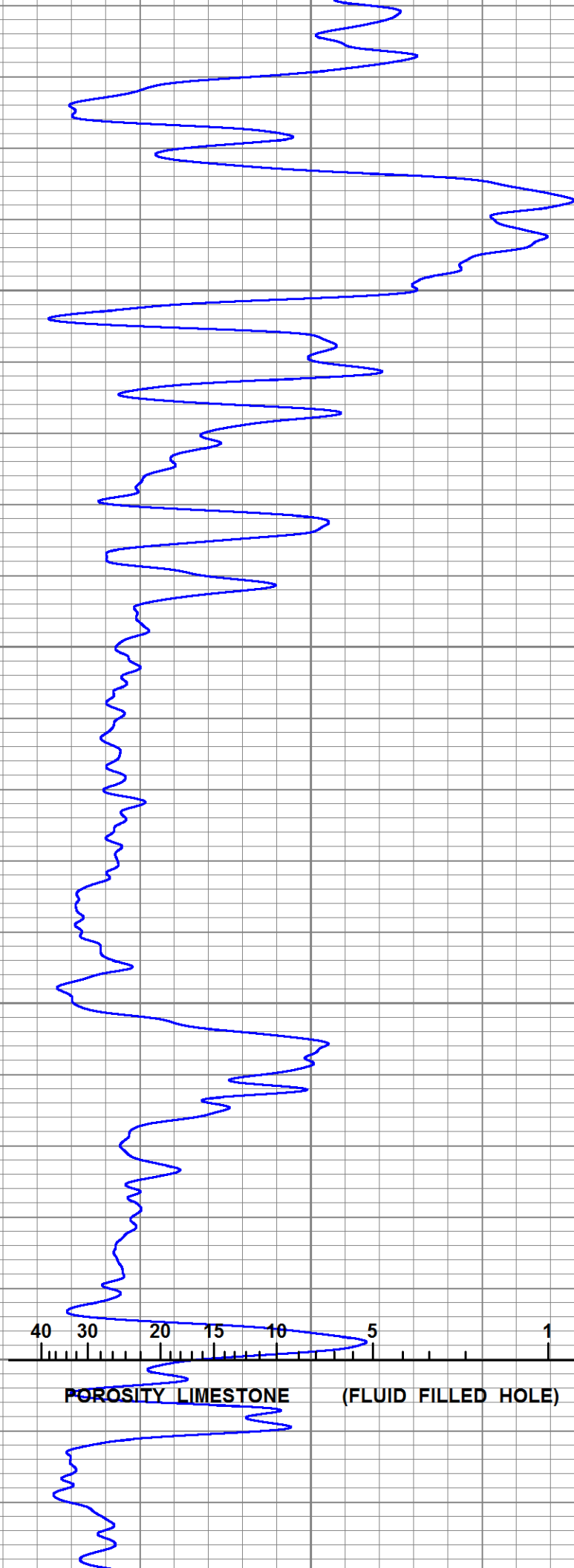


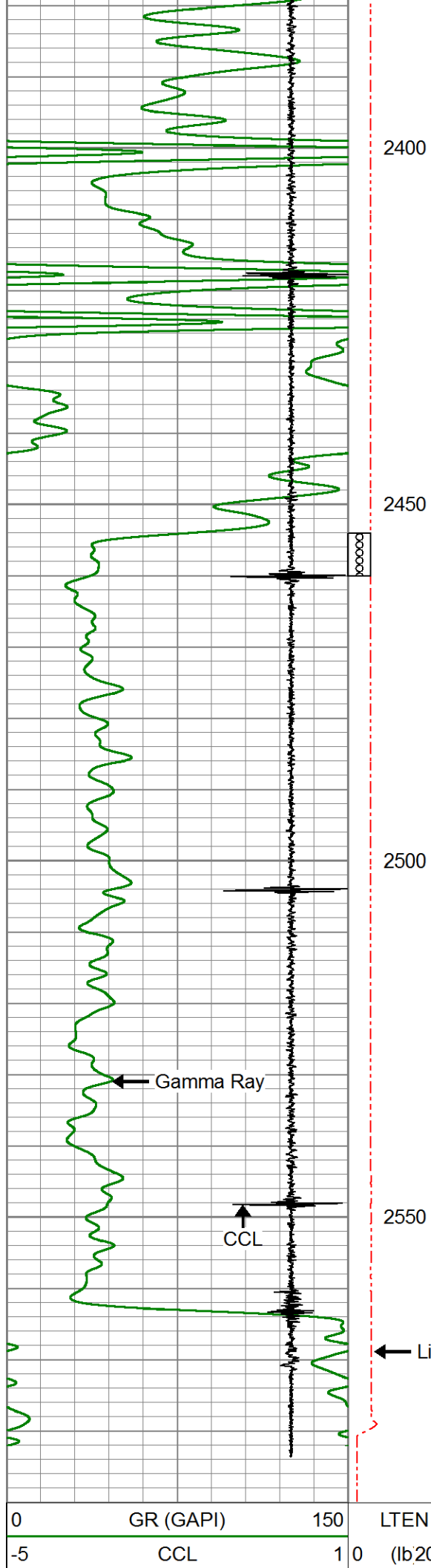
2200

2250

2300

2350





2400

2450

2500

2550

Gamma Ray

CCL

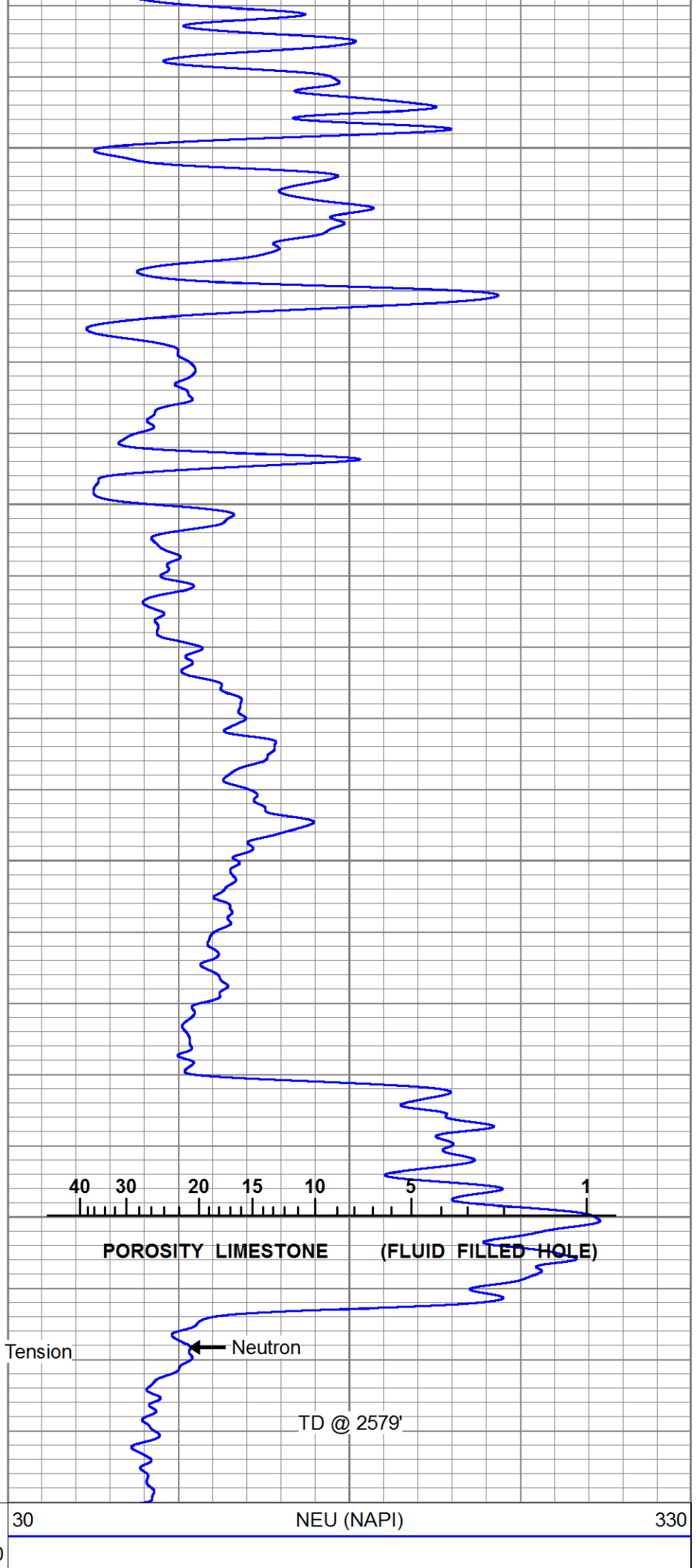
Line Tension

0 GR (GAPI) 150

-5 CCL 1

LTEN 30

(lb2000)



40 30 20 15 10 5 1

POROSITY LIMESTONE (FLUID FILLED HOLE)

Neutron

TD @ 2579'

NEU (NAPI)

330

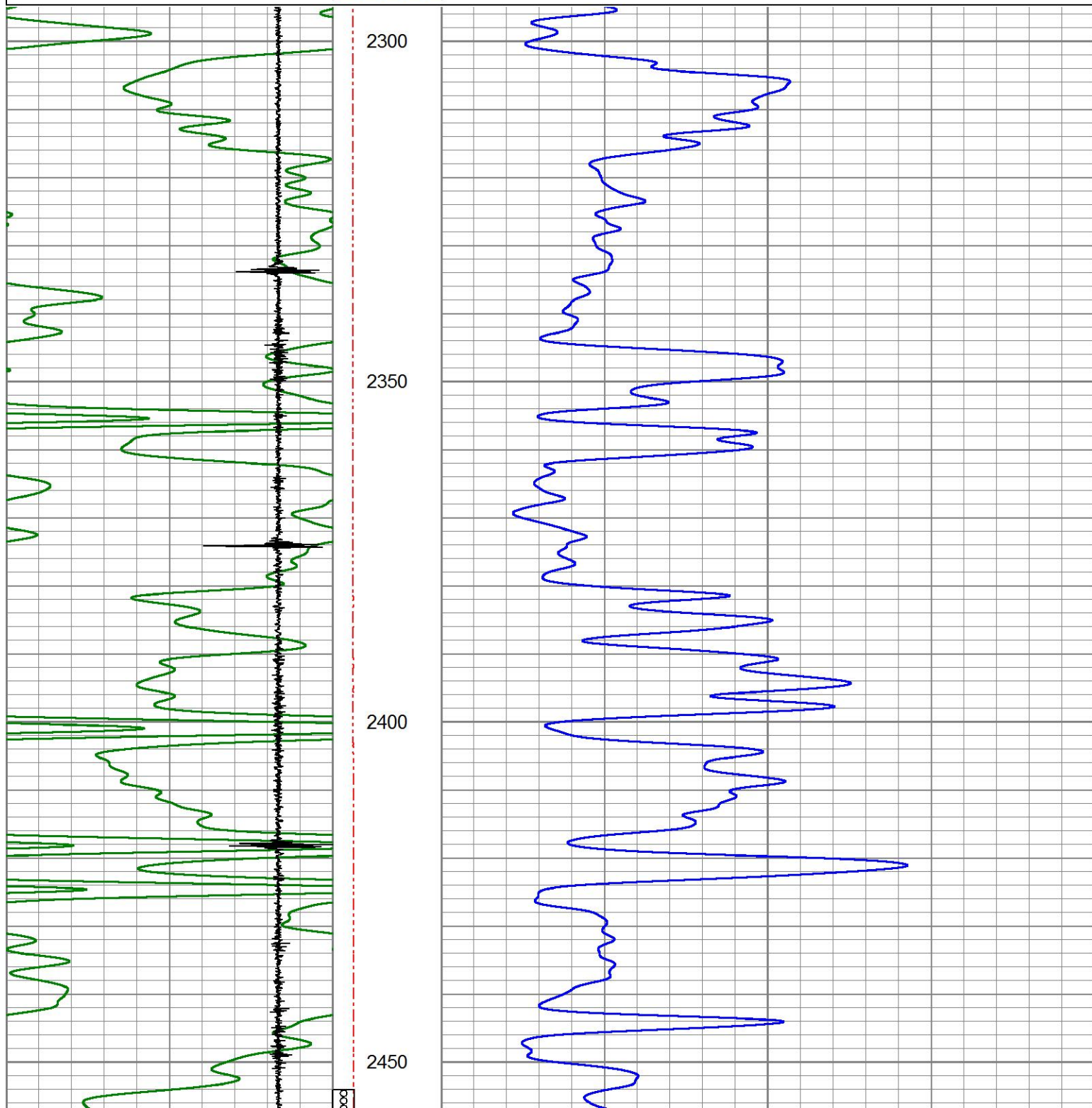


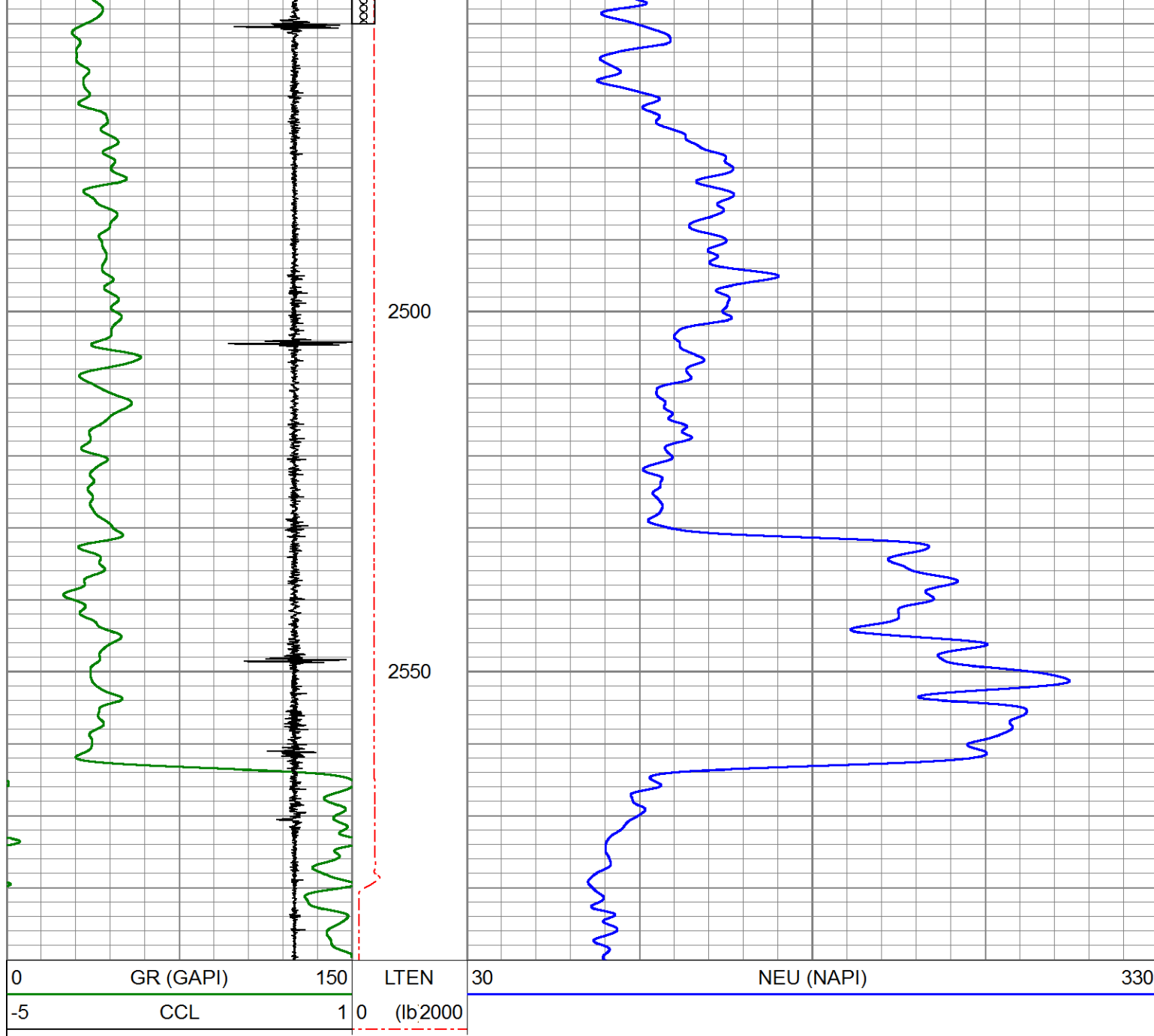
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File entransco_t_wiebe_31_3_cbl_grn.db
Dataset Pathname pass4
Presentation Format PINR_G~4
Dataset Creation Tue Oct 30 14:39:43 2018
Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	LTEN	30	NEU (NAPI)	330
-5	CCL	1	0	(lb)2000		





Calibration Report		
Database File	entransco_t_wiebe_31_3_cbl_grn.db	
Dataset Pathname	pass4	
Dataset Creation	Tue Oct 30 14:39:43 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:	(Not Performed)	

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.1000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	080554	
Tool Model:	RBL-D	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	1340.426	ft

Master Calibration, performed Tue Oct 30 14:31:15 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	2.077	0.700	71.921	34.300	0.669
CAL	-0.003	2.282				
5'	0.001	2.071	0.700	71.921	34.398	0.683
SUM						
S1	0.033	1.942	0.000	100.000	52.367	-1.718
S2	0.011	1.977	0.000	100.000	50.851	-0.552
S3	0.013	2.054	0.000	100.000	48.988	-0.637
S4	0.015	2.124	0.000	100.000	47.425	-0.716
S5	0.016	2.179	0.000	100.000	46.227	-0.726
S6	0.016	2.206	0.000	100.000	45.676	-0.747
S7	0.012	2.156	0.000	100.000	46.631	-0.549
S8	0.003	1.997	0.000	100.000	50.158	-0.172

Air Zero Calibration, performed Tue Oct 30 14:15:31 2018:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000



Company	ENTRANSO ENERGY, LLC
Well	T. WIEBE NO.31-3
Field	HAZLETT
County	BUTLER
State	KANSAS