

STEP

energy services

BOREHOLE VOLUME CALIPER LOG

Company ENTRANSCO ENERGY, LLC Well D. WIEBE #32-1 Field HAZLETT County BULTER State KANSAS Country USA API No. 15-015-24131-00-00	File No : HAYS-70384 Company : ENTRANSCO ENERGY, LLC Well : D. WIEBE #32-1 Field : HAZLETT County : BULTER State : KANSAS Country : USA API No : 15-015-24131-00-00
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Permanent Datum: GL Drilling Measured From: KB Log Measured From: KB Above Permanent Datum: 9.00 Ft	Elevations: KB 1495.00 Ft DF 1494.00 Ft GL 1486.00 Ft
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Date	11-08-2019		
Run Number	0		
Depth--Driller	2615.0	Ft	
Depth--Logger	2613.0	Ft	
First Reading	2582.0	Ft	
Last Reading	221.0	Ft	
Casing--Driller	221.0	Ft	
Casing--Logger	221.0	Ft	
Bit Size	7.875	In	
Casing Size	8.625	In	
Hole Fluid Type	WBM		
Density	9.2		
Fluid Loss	10.4		
PH/Viscosity	10.0	38.0	
Sample Source	MEASURED		
RM@Measured Temp.	4.500	@ 41 F	
RMF@Measured Temp	3.830	@ 41 F	
RMG@Measured Temp.	5.180	@ 41 F	
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	2.110	@ 95 F	
Time Circulation Stopped	11-08-2019 04:00		
Max Recorded Temp.	95	F	
Equipment/Base	TRK-137	HAYS	
Recorded By	B. BAILEY		
Witnessed By	J. WISE, R. GILBERT, B. STOUT		

LSD : **Sect :** 32 **Twp :** 23S **Rge :** 5E
Location :
 1925' FSL & 350' FWL
 NE SW NW SW

The customer is hereby warned that by providing the log data herein, STEP Energy Services does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. STEP Energy Services does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by STEP Energy Services personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by STEP Energy Services for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings			
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
7.875	2615.00	8.625	15.00	221.00	0.00

Run Number	0
Date	11-08-2019
Date/Time On Bottom	11-08-2019 08:33
Depth to Fluid	0.0 Ft
Salinity	0.000
RMF@BHT	1.800 @ 95 F
RMC@BHT	2.430 @ 95 F

Run Number 0

Comments

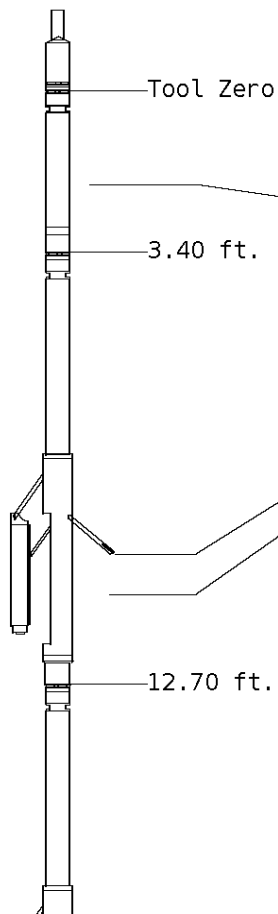
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED
 SURFS MESURED FROM GL AT 212' SO ADD 9FT BECAUSE LOGGER MEASURED FORM GL

GRT: GRP, GRX
 CNT: PHIN, CLCNIN, PHXN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN, PRXL, PECLX, LDENNX, LCORX
 MLT: NOR_RF, INV_RF, MSCLPIN
 PIT: ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS:
 J.VAUGH
 D.RAGSDALE
 D.LEGLEITER

Tool String Schematic

Total Tool Length - 53.15 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 943.00 lbs.



Tool: GRT-B **Length:** 3.40 ft. **O.D.** 3.60 in.
 Gamma Ray Controller

Sonde ID :GRT-BC-038

Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	51.15

Tool: CNT-AA **Length:** 9.30 ft. **O.D.** 4.36 in.
 Compensated Neutron A Pad on NDT-A

Sonde ID :NDT-AF-411

Source ID :N-1104

Pad ID :CNP-AE-41

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	43.75
PHIN	6.80	10.20	42.95

Tool: LDT-DA **Length:** 9.30 ft. **O.D.** 4.80 in.
 Litho Density D Pad on NDT-A

Sonde ID :NDT-FA-404

Source ID :1637GW

Pad ID :LDP-DA-062

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	34.45
PEL	7.00	19.70	33.45
PES	7.40	20.10	33.05



LDEN 7.20 19.90 33.25
 LCOR 7.20 19.90 33.25

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
 Micro Spherically Focused (IC,D)
Sonde ID :MST-DA-29

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	23.55
MSCLP	7.60	29.60	23.55
INV	7.60	29.60	23.55
NOR	7.60	29.60	23.55

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-043

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	40.58	12.56
ILM	10.10	41.76	11.39
SFLU	17.49	49.15	4.00
SP	20.60	52.26	0.88

Well File: ENTRANSCO D-WIEBE 32-1 NOV 8 MST **Scale:** 1:600 **Format:** CAL-600
Segment: V1.D1.S6 Reprocess MAIN **Acquired:** 2019-11/08 07:32 3.4.1-13972
Reference: 0 **Processed:** 2019-11/08 08:32 3.4.1-13972

BIT SIZE INCHES (IN)	
6	16

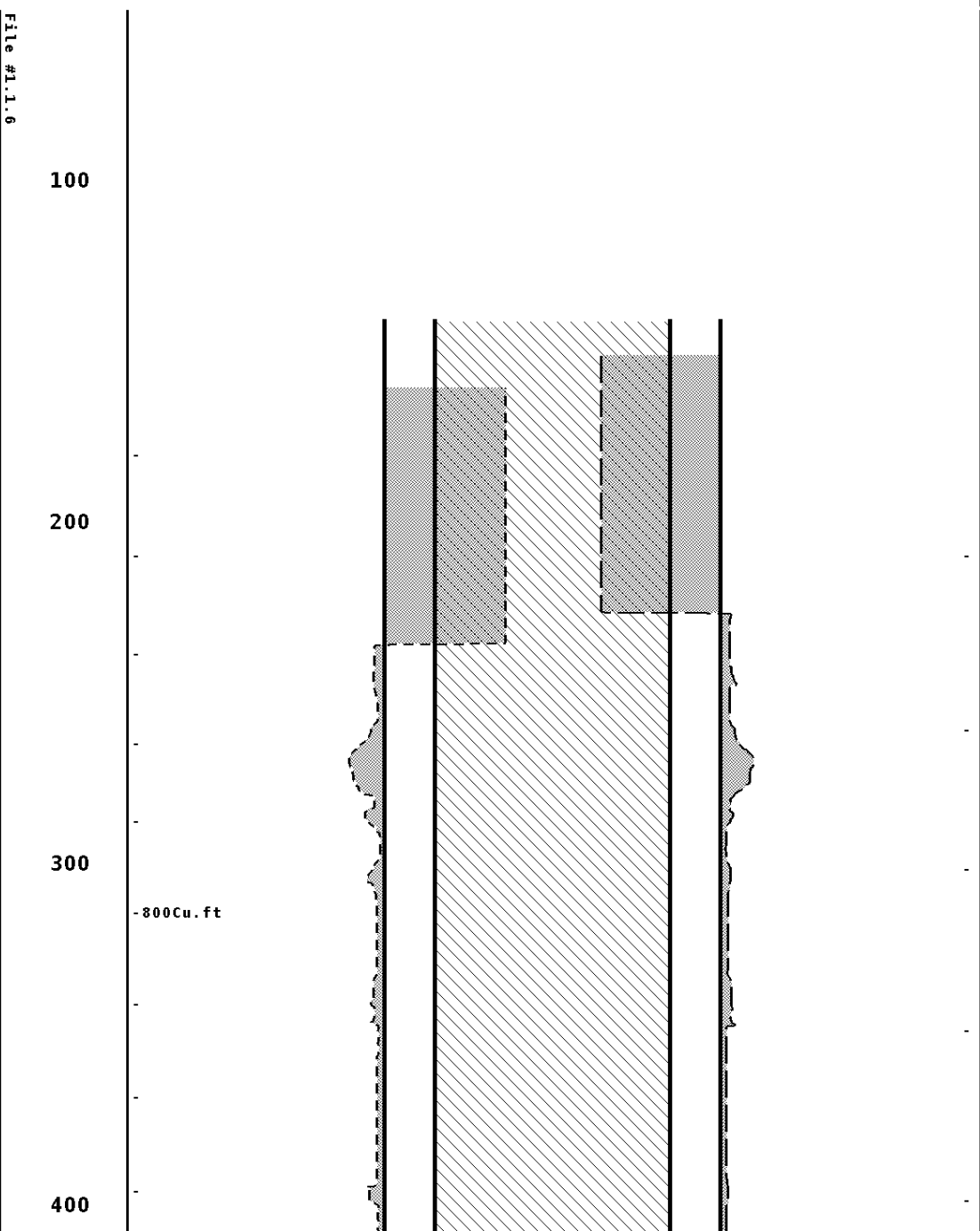
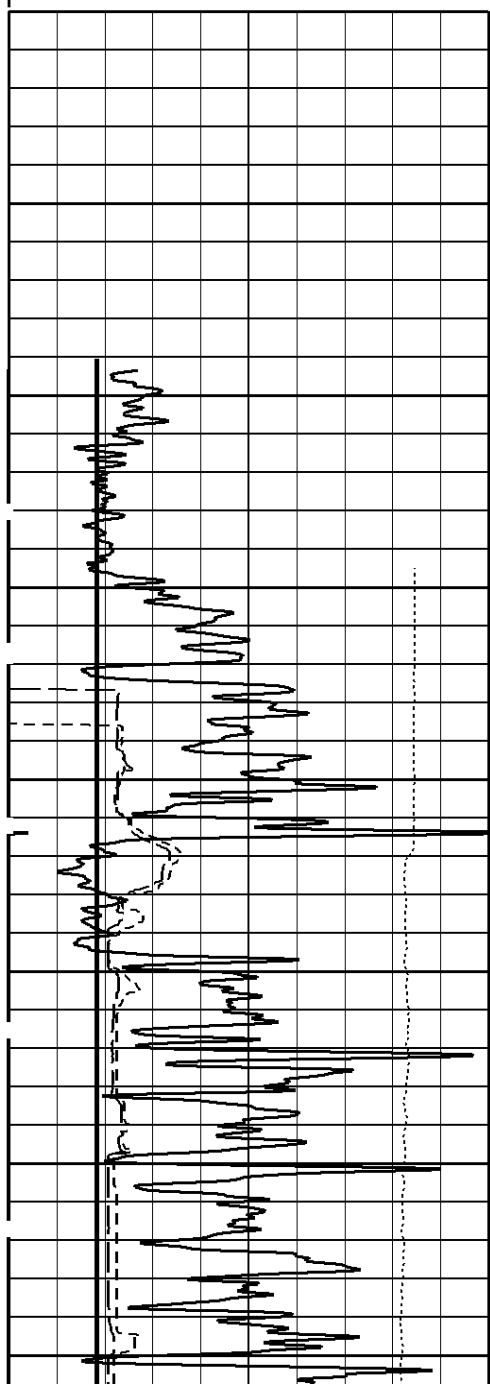
Y CALIPER INCHES (IN)	
16	26

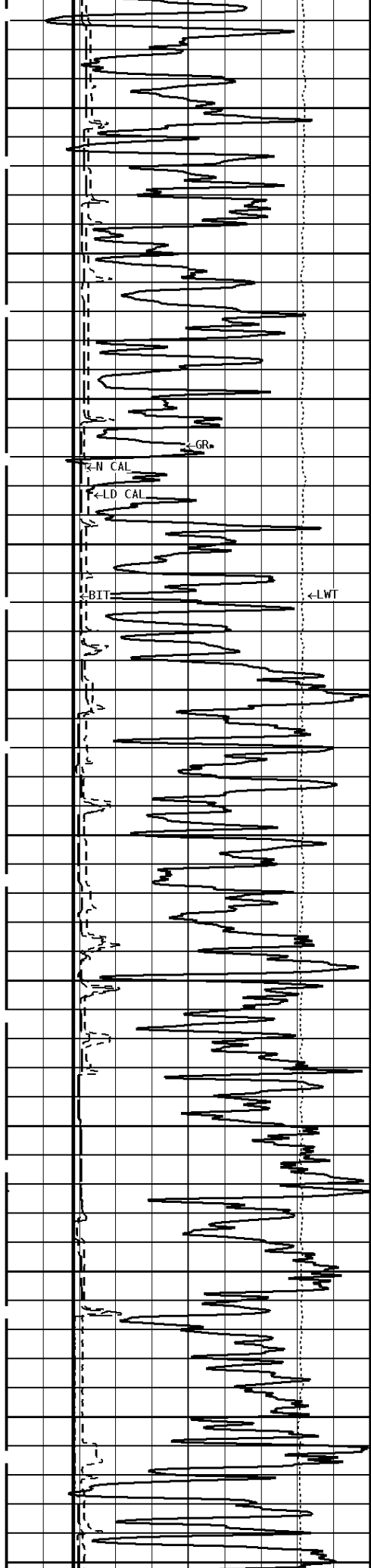
16 6	26 16
X CALIPER INCHES (IN)	
16 6	26 16
TENSION LBS	
10000	0
GAMMA RAY API UNITS	
150 0	300 150

**BOREHOLE VOLUME
CU.FT**

**ANNULAR HOLE VOLUME
CU.FT.**

1:600 MAIN SECTION





500

600

700

800

900

400Cu.ft-

-700Cu.ft

-600Cu.ft

300Cu.ft-

GR

R-N CAL

F-LD CAL

BIT

LWT

L CAL

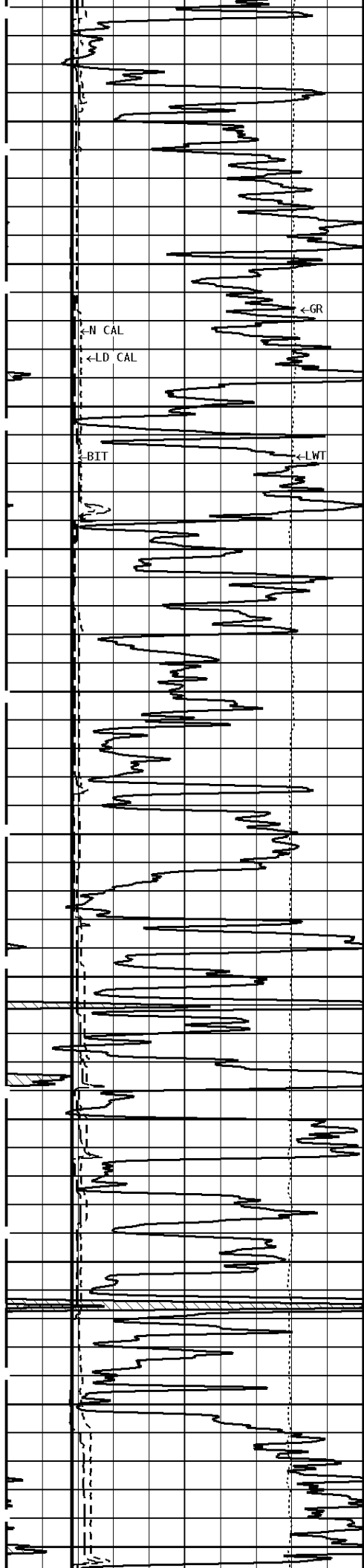
BIT

CASING

N CAL

BIT

CASING



1000

1100

1200

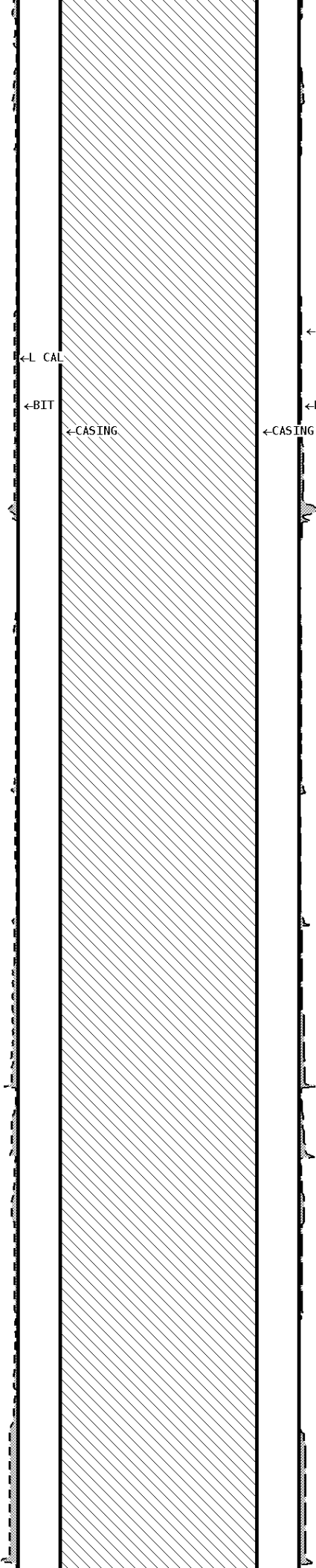
1300

1400

1500

-500Cu. ft

-400Cu. ft



←L CAL

←BIT

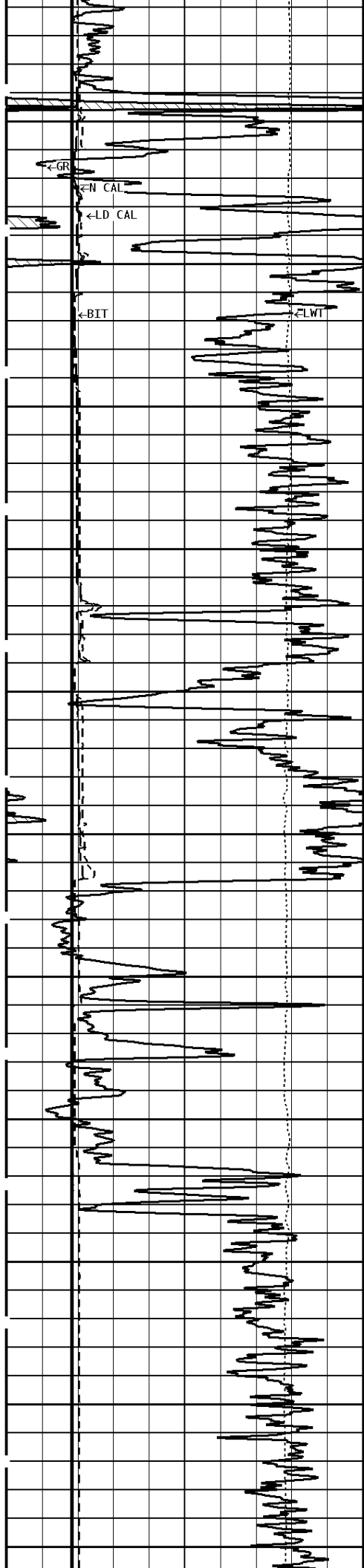
←CASING

←N CAL

←BIT

←CASING

200Cu. ft-



1600

1700

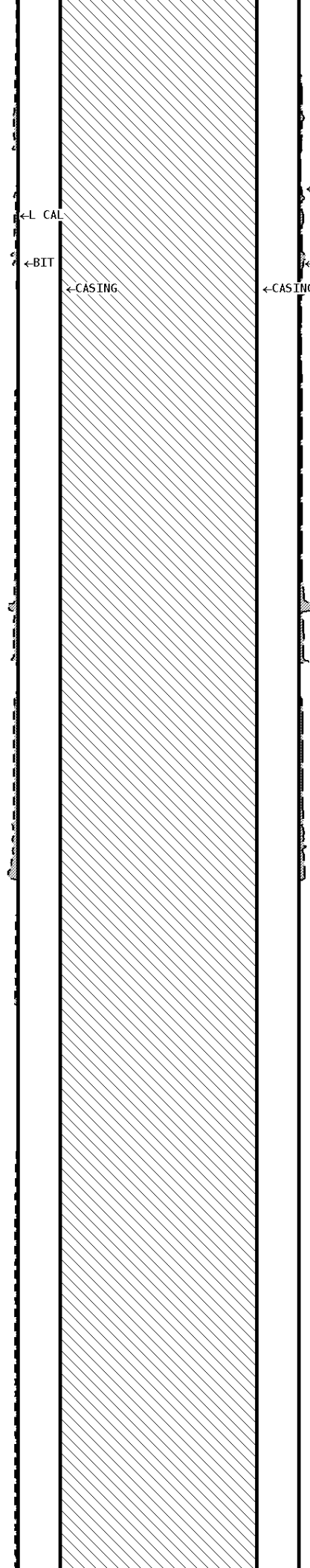
1800

1900

2000

-300Cu. ft

-200Cu. ft



←L CAL

←BIT

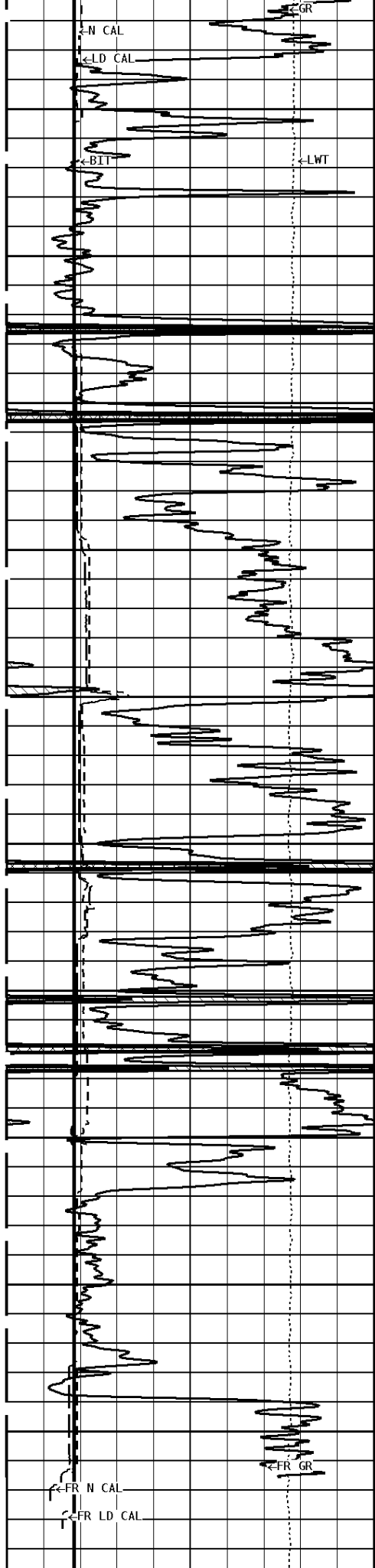
←CASING

←N CAL

←BIT

←CASING

100Cu. ft-



2100

2200

2300

2400

2500

2600

←N CAL

←LD CAL

←BIT

←LWT

←GR

←FR N CAL

←FR LD CAL

←FR GR

←L CAL

←BIT

←CASING

←FR L CAL

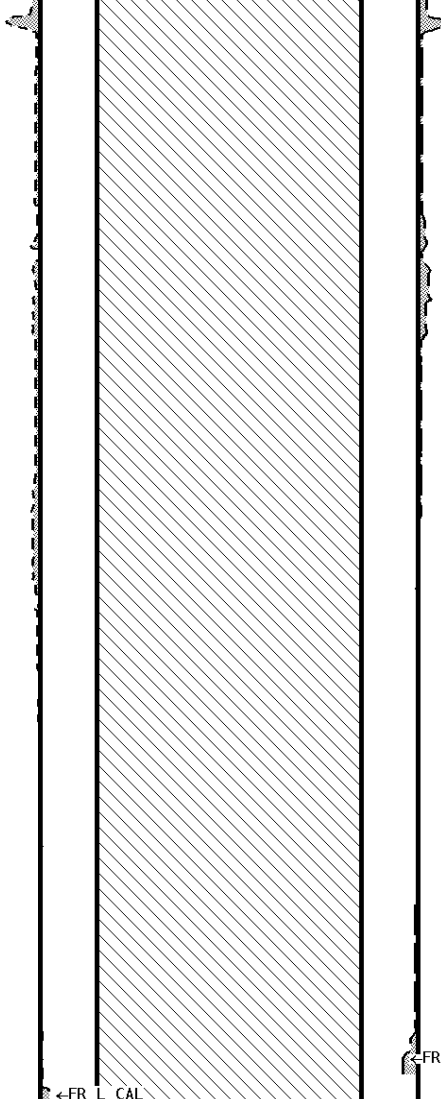
←N CAL

←BIT

←CASING

←FR N CAL

100Cu. ft





Company: ENTRANSCO ENERGY, LLC
Well: D. WIEBE #32-1
Location: 1925' FSL & 350' FWL
Logged: 11-08-2019
K.B. Elev: 1495.0 Ft