

Company: Noble Energy, Inc.

Well: Stults 34-4

Field: Republican

County: Yuma

State: Colorado

CBL – VDL
GR – CCL

County: Yuma
Field: Republican
Location: Sec. 4, T1S, R45W
Well: Stults 34-4
Company: Noble Energy, Inc.

LOCATION			
Sec. 4, T1S, R45W SHL: 1150' FSL / 1415' FEL		Elev.: K.B. 3871.00 ft G.L. 3865.00 ft D.F. 3870.00 ft	
Permanent Datum:	Ground Level	Elev.: 3865.00 ft	
Log Measured From:	Kelly Bushing	6.00 ft	above Perm. Datum
Drilling Measured From:	Kelly Bushing		
API Serial No. 05-125-12020-000C		Section 4	Township 1S Range 45W

		Run 1	Run 2	Run
PVT DATA				
Oil Density				
Water Salinity				
Gas Gravity				
Bo				
Bw				
1/Bg				
Bubble Point Pressure				
Bubble Point Temperature				
Solution GOR				
Maximum Deviation				
CEMENTING DATA				
Primary/Squeeze		Primary		
Casing String No				
Lead Cement Type				
Volume				
Density				
Water Loss				
Additives				
Tail Cement Type				
Volume				
Density				
Water Loss				
Additives				
Expected Cement Top				

Logging Date	4-Jan-2012			
--------------	------------	--	--	--

Run Number	1			
------------	---	--	--	--

Depth Driller	2515 ft			
---------------	---------	--	--	--

Schlumberger Depth	2417 ft			
--------------------	---------	--	--	--

Bottom Log Interval	2409 ft			
---------------------	---------	--	--	--

Top Log Interval	0 ft			
------------------	------	--	--	--

Casing Fluid Type	Water			
-------------------	-------	--	--	--

Salinity				
----------	--	--	--	--

Density	8.4 lbm/gal			
---------	-------------	--	--	--

Fluid Level	0 ft			
-------------	------	--	--	--

BIT/CASING/TUBING STRING				
--------------------------	--	--	--	--

Bit Size	6.250 in			
----------	----------	--	--	--

From				
------	--	--	--	--

To				
----	--	--	--	--

Casing/Tubing Size	4.500 in			
--------------------	----------	--	--	--

Weight	10.5 lbm/ft			
--------	-------------	--	--	--

Grade				
-------	--	--	--	--

From				
------	--	--	--	--

To				
----	--	--	--	--

Maximum Recorded Temperatures	117 degF			
-------------------------------	----------	--	--	--

Logger On Bottom	4-Jan-2012	Time	10:15	
------------------	------------	------	-------	--

Unit Number	383	Location	Fort Morgan	
-------------	-----	----------	-------------	--

Recorded By	Shane Walker			
-------------	--------------	--	--	--

Witnessed By	Phillip Logan			
--------------	---------------	--	--	--

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1

OS1: Swab

OS2: Perf

OS3:

OS4:

OS5:

OTHER SERVICES2

OS1:

OS2:

OS3:

OS4:

OS5:

REMARKS: RUN NUMBER 1

REMARKS: RUN NUMBER 2

Log correlated to log ran by Schlumberger dated 21-Dec-2011

Perf interval 2300' – 2330'

Gun Length: 30', 3 SPF, 90 shots

120 deg phasing,

Thank you for choosing Schlumberger

Crew: Shane Walker, Matt Steinman

RUN 1

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

BEW4-00194
18C0-147
0 ft

LOGGED INTERVAL

START

STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL

START

STOP

EQUIPMENT	DESCRIPTION

RUN 1

RUN 2

SURFACE EQUIPMENT

WITM-A
PSC 16MHZ

DOWNHOLE EQUIPMENT

MH-22
MH-22

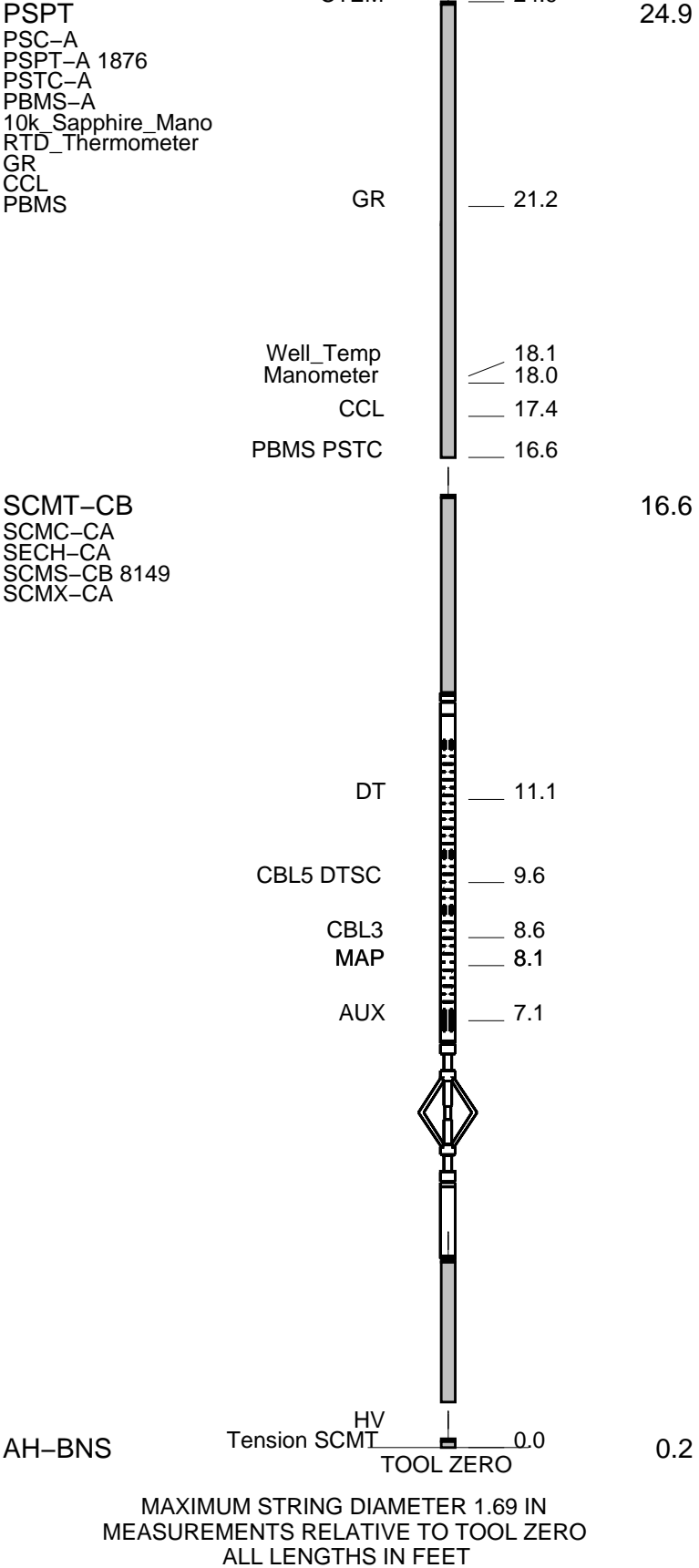
26.7

AH-38

Detail MT
TelStatus
CTEM

25.2

24.9



Output DLIS Files

DEFAULT

SCMT_PSP_002LUP

FN:1

PRODUCER

04-Jan-2012 10:13

OP System Version: 18C0-147

SCMT-CB

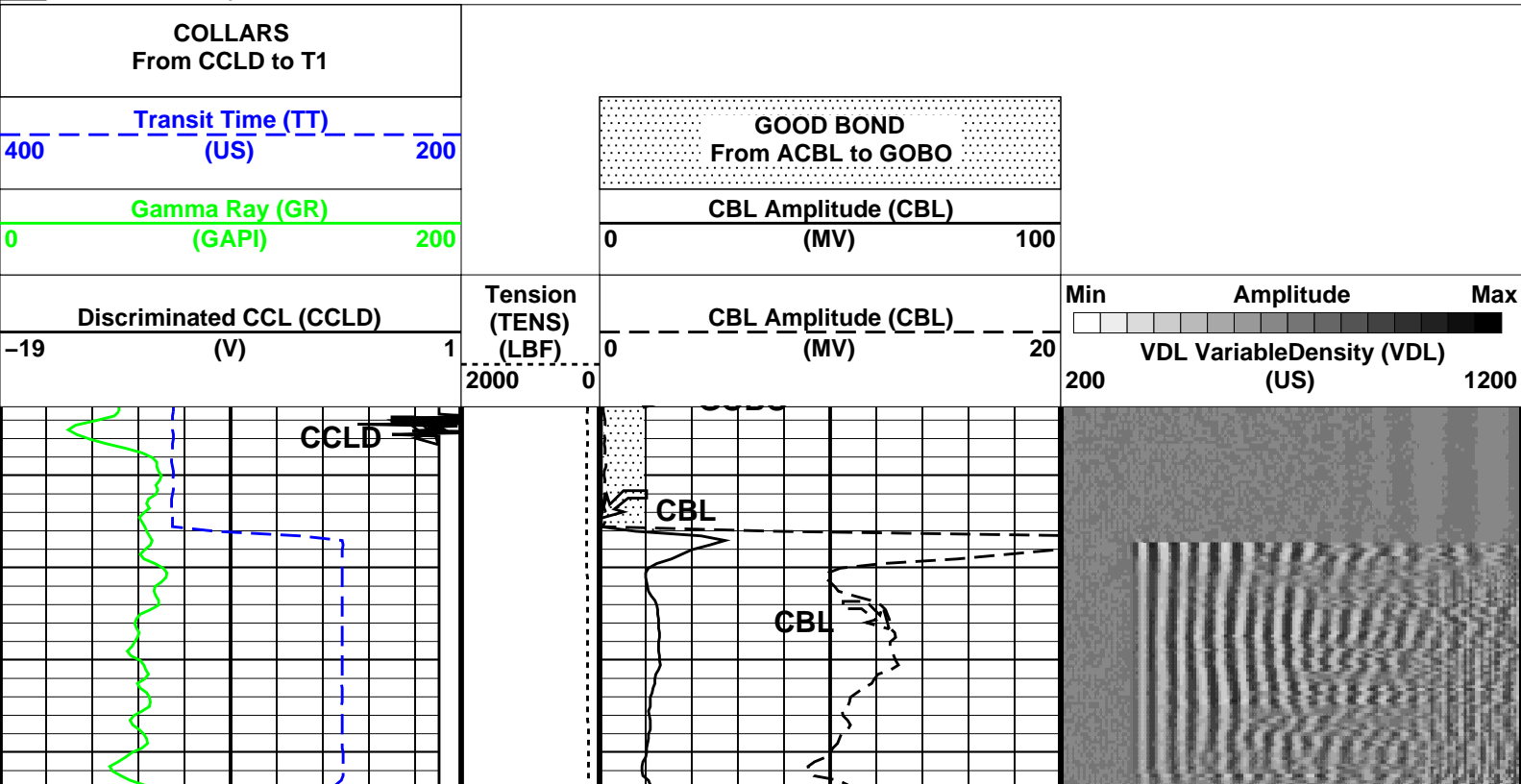
HFE-4028-IFLEX

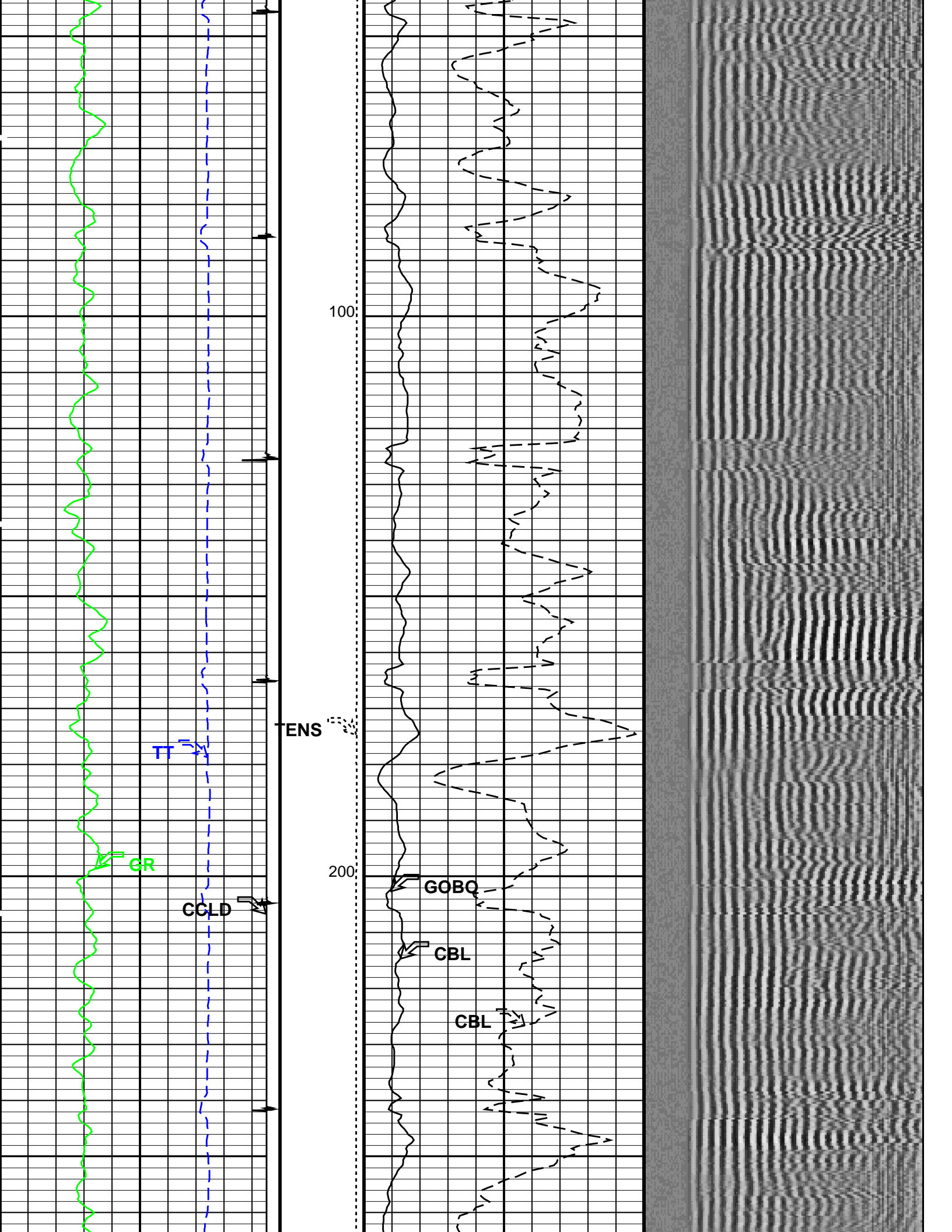
PSPT

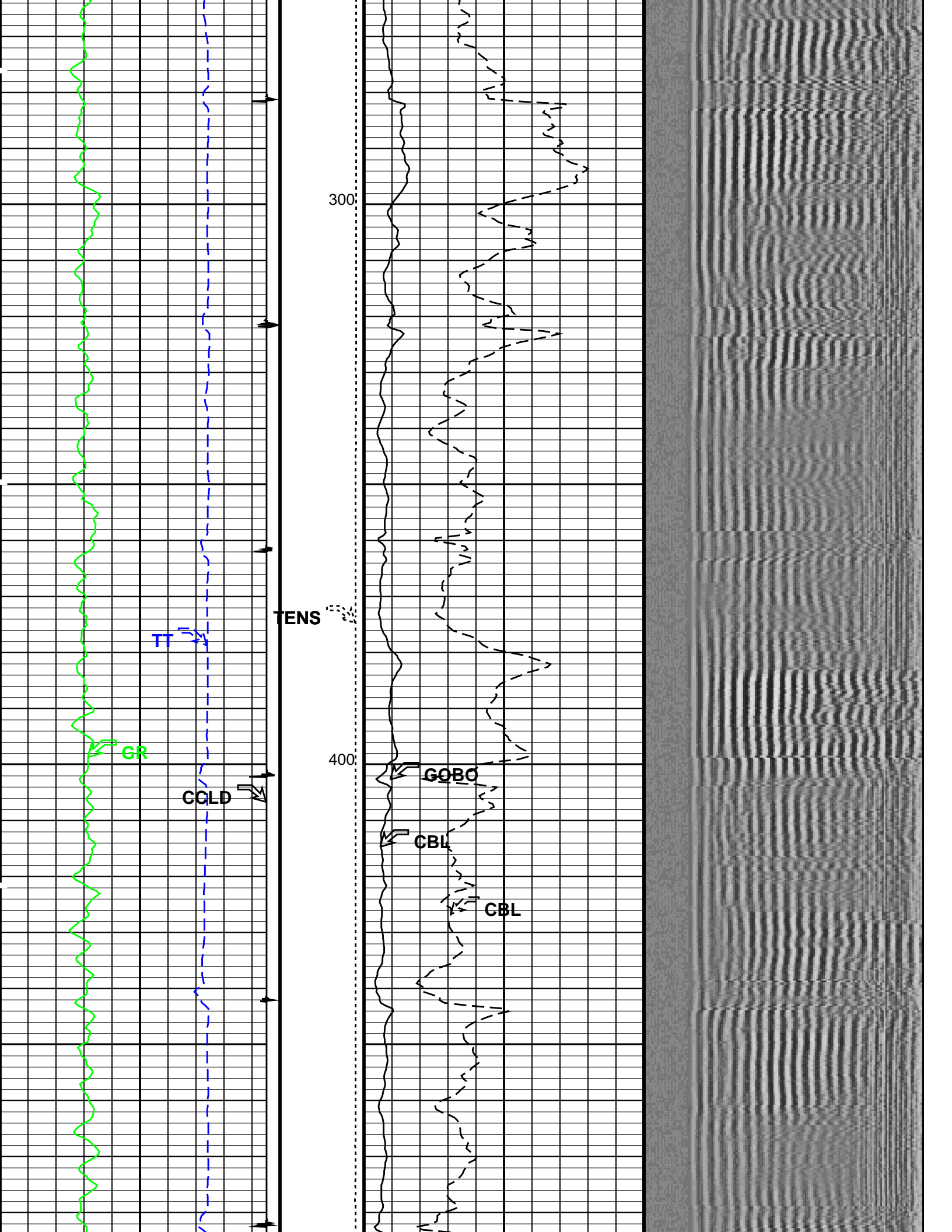
HFE-4028-IFLEX

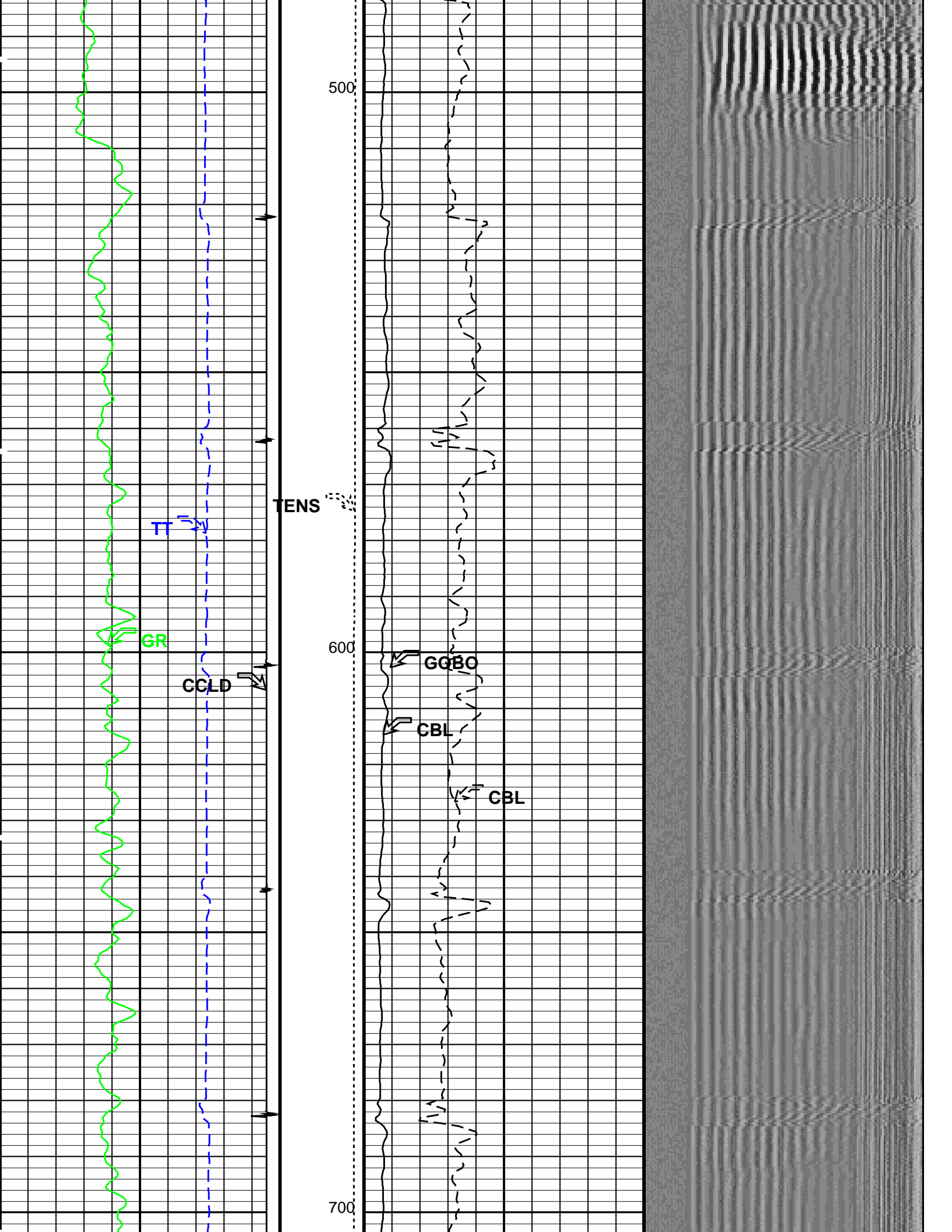
PIP SUMMARY

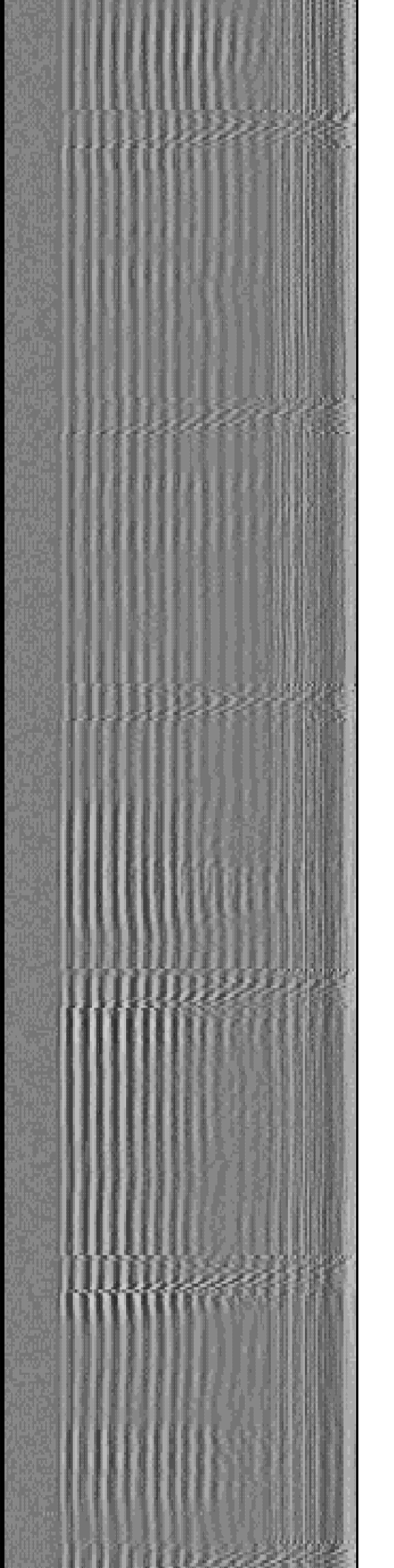
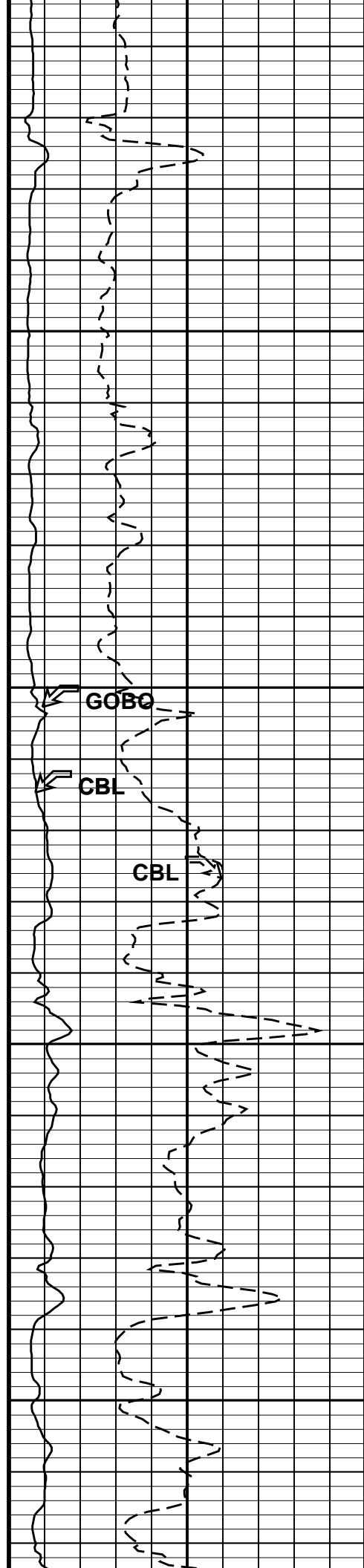
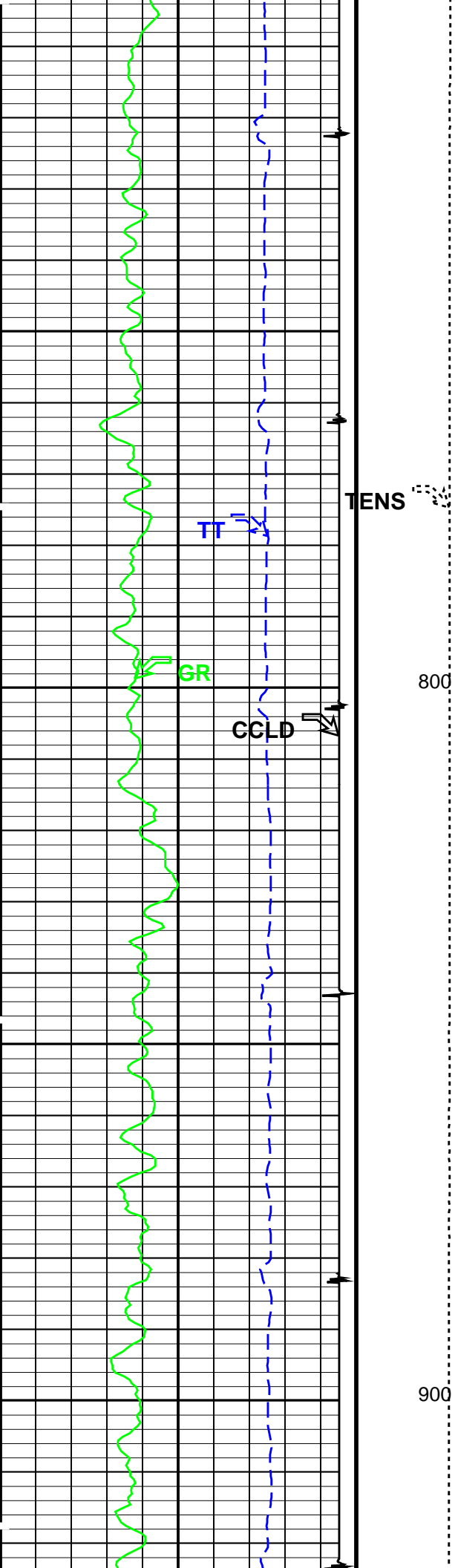
Time Mark Every 60 S

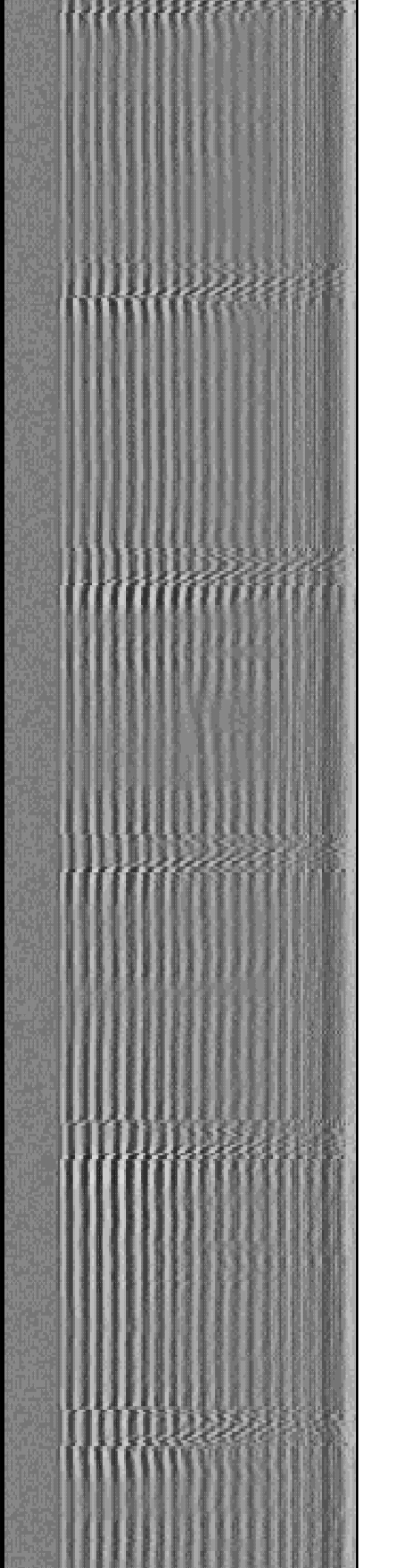
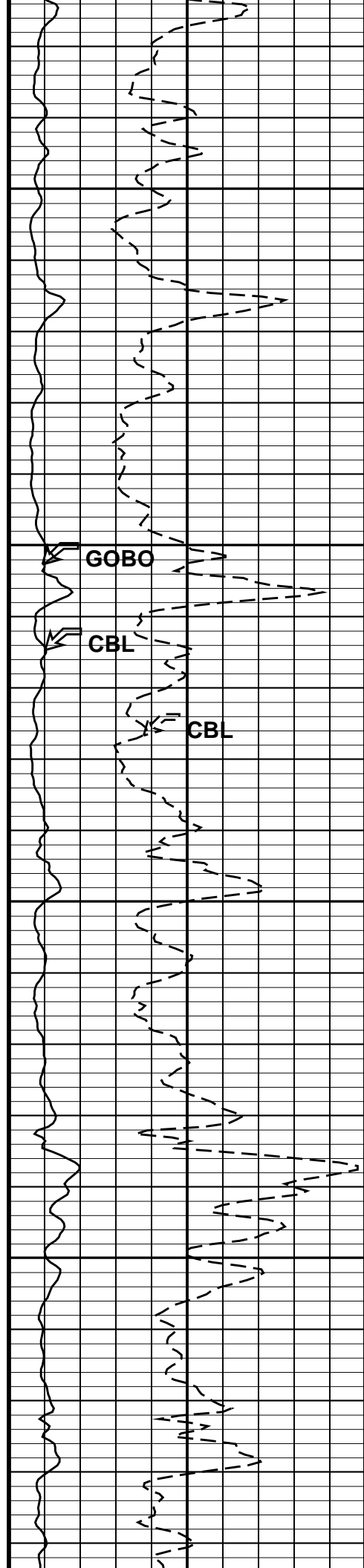
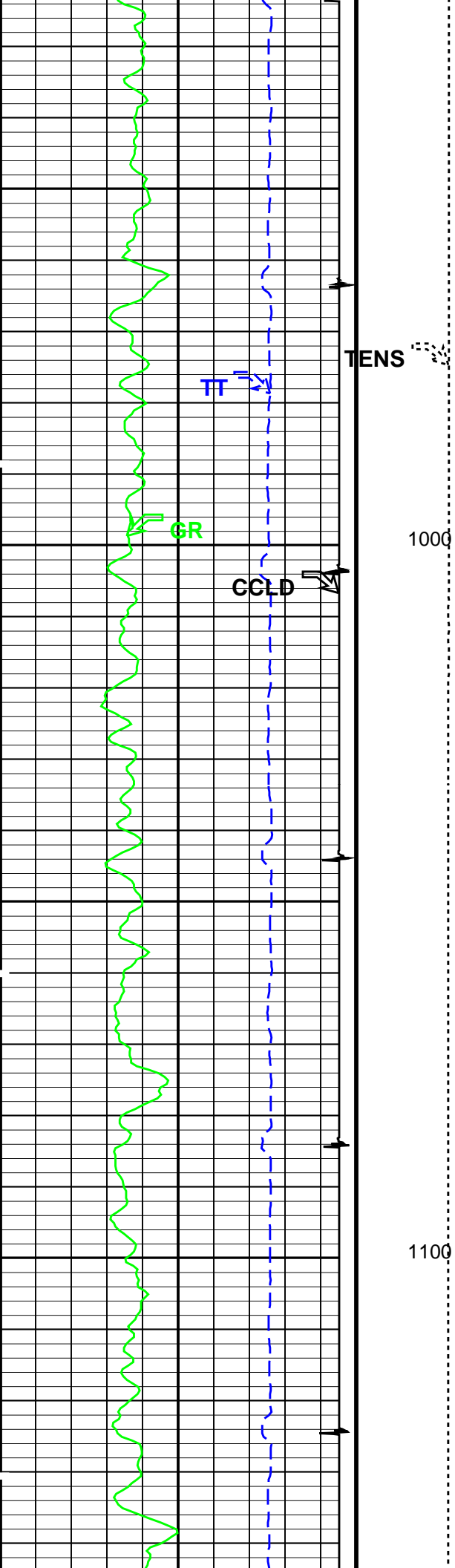


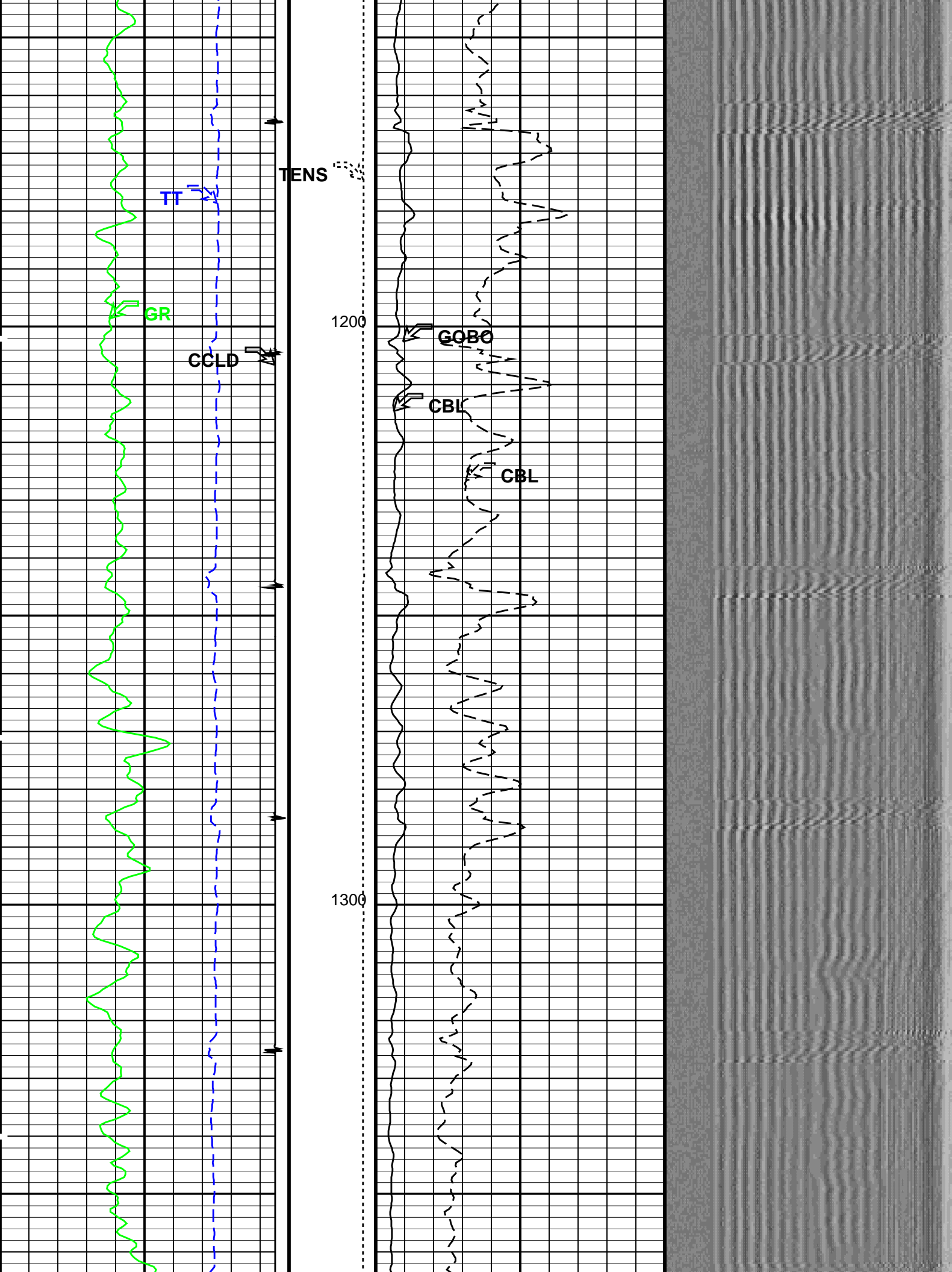


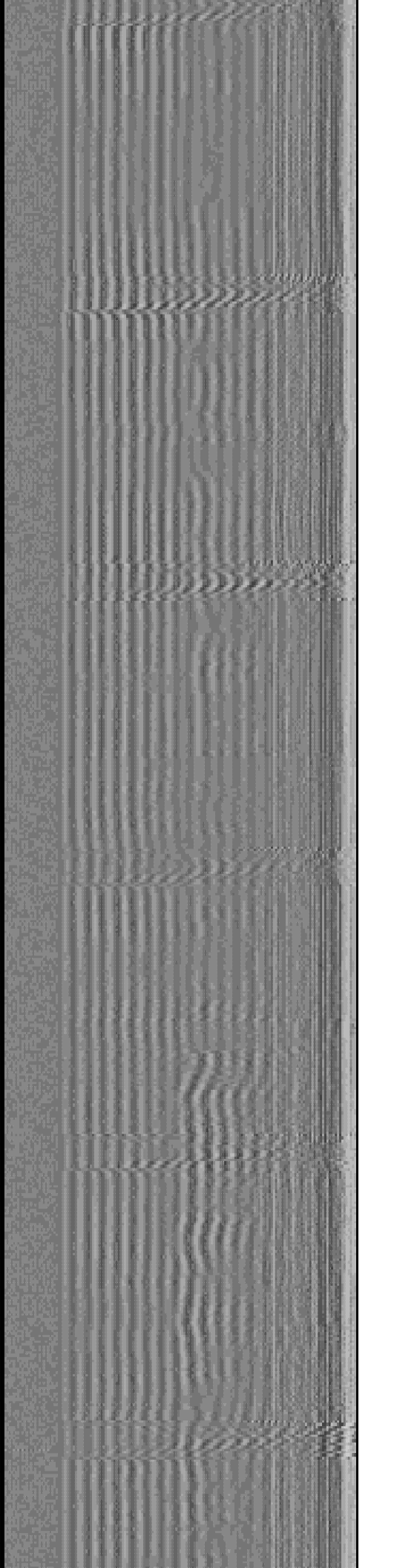
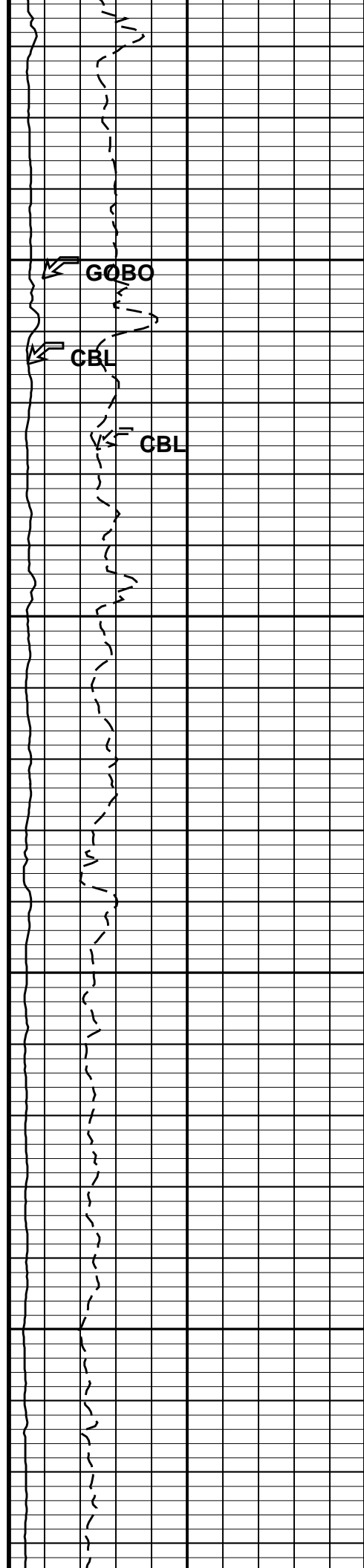
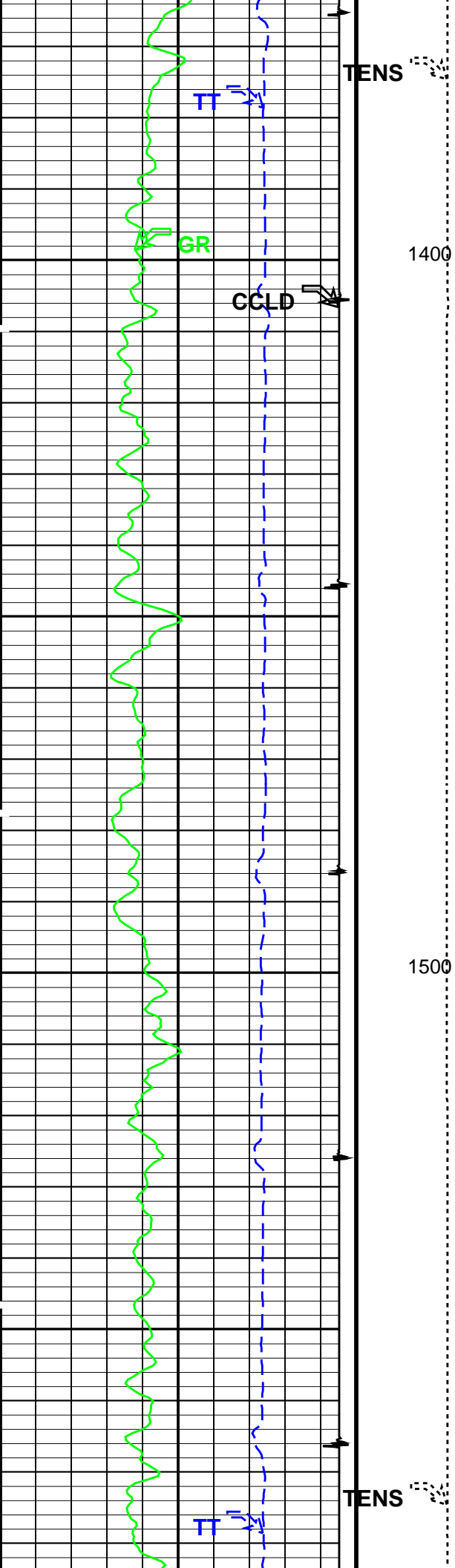


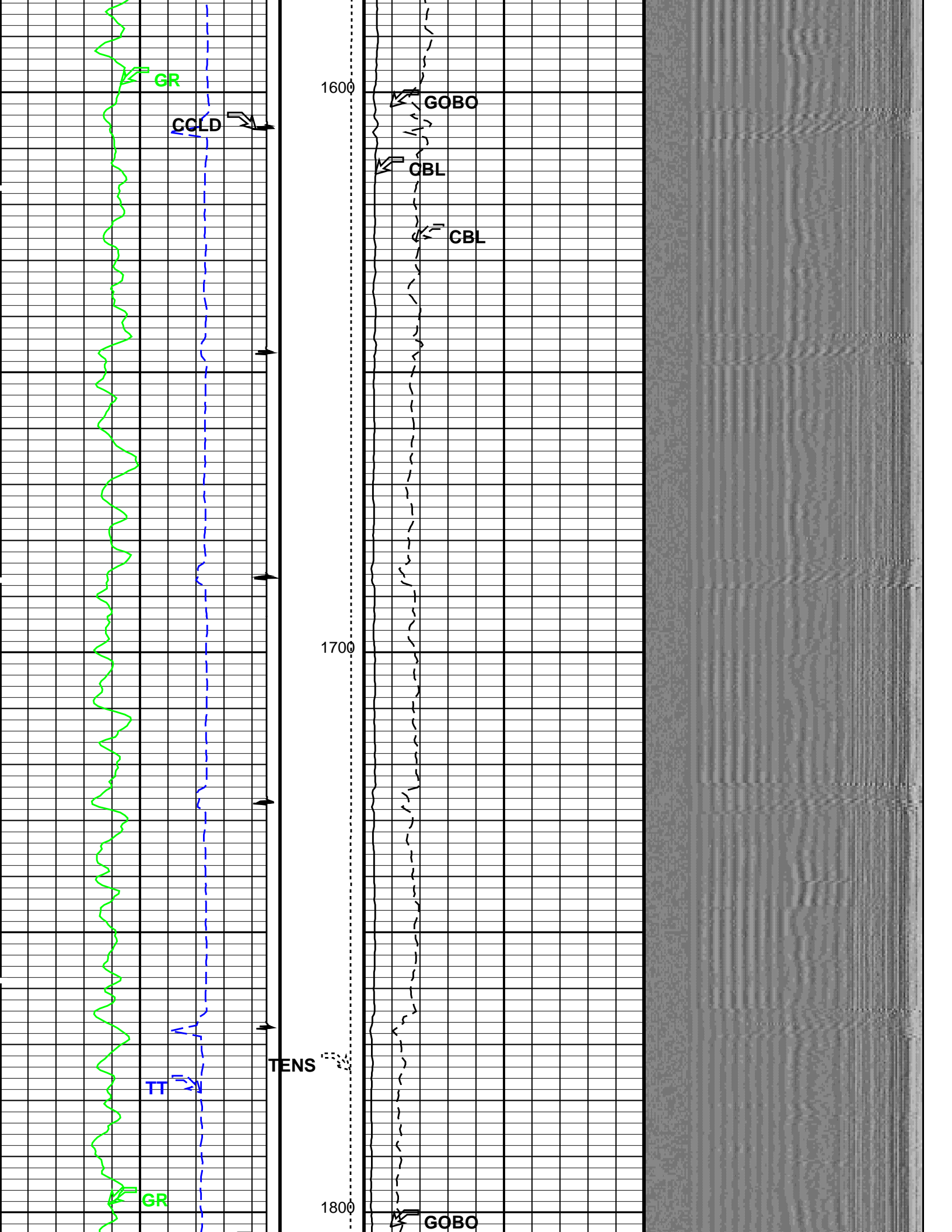


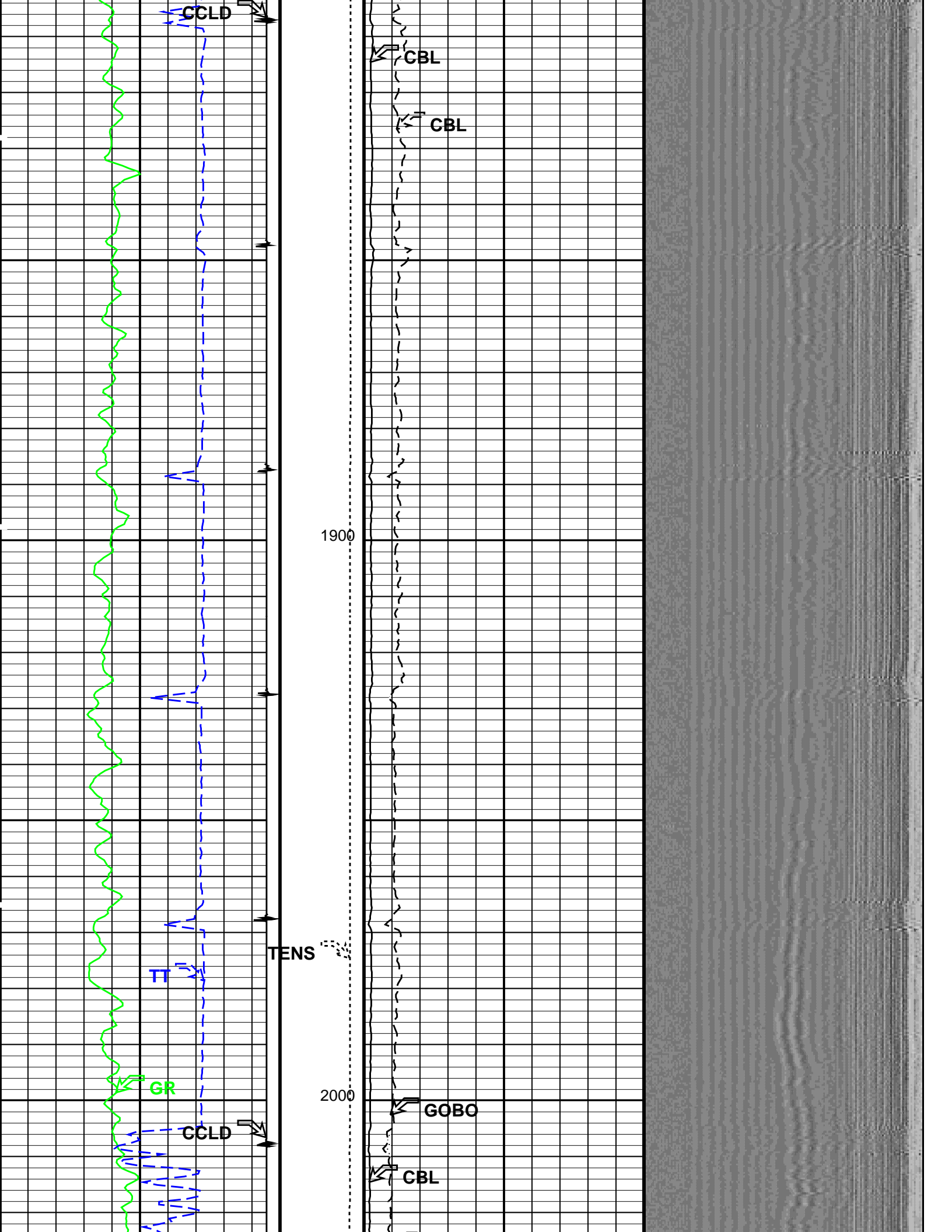


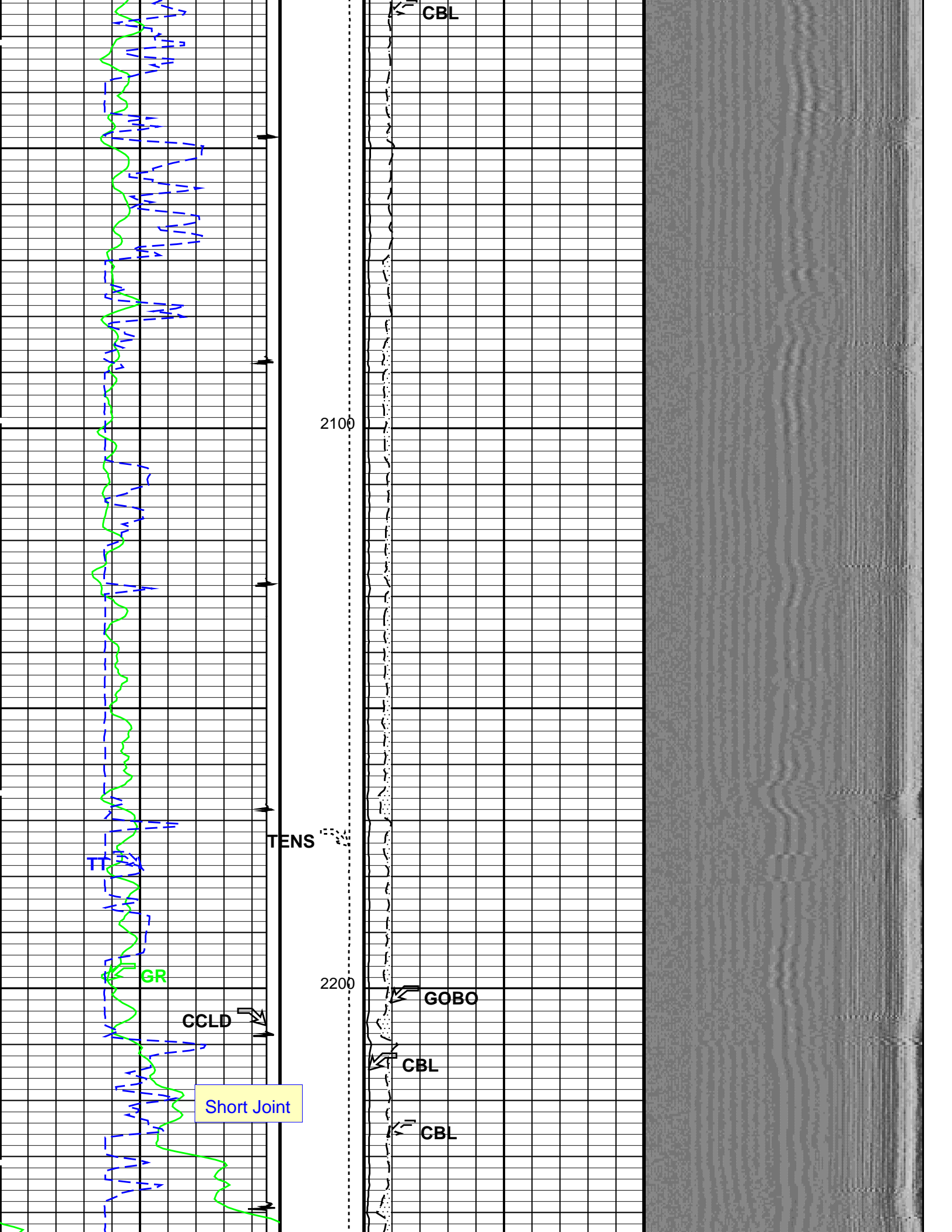


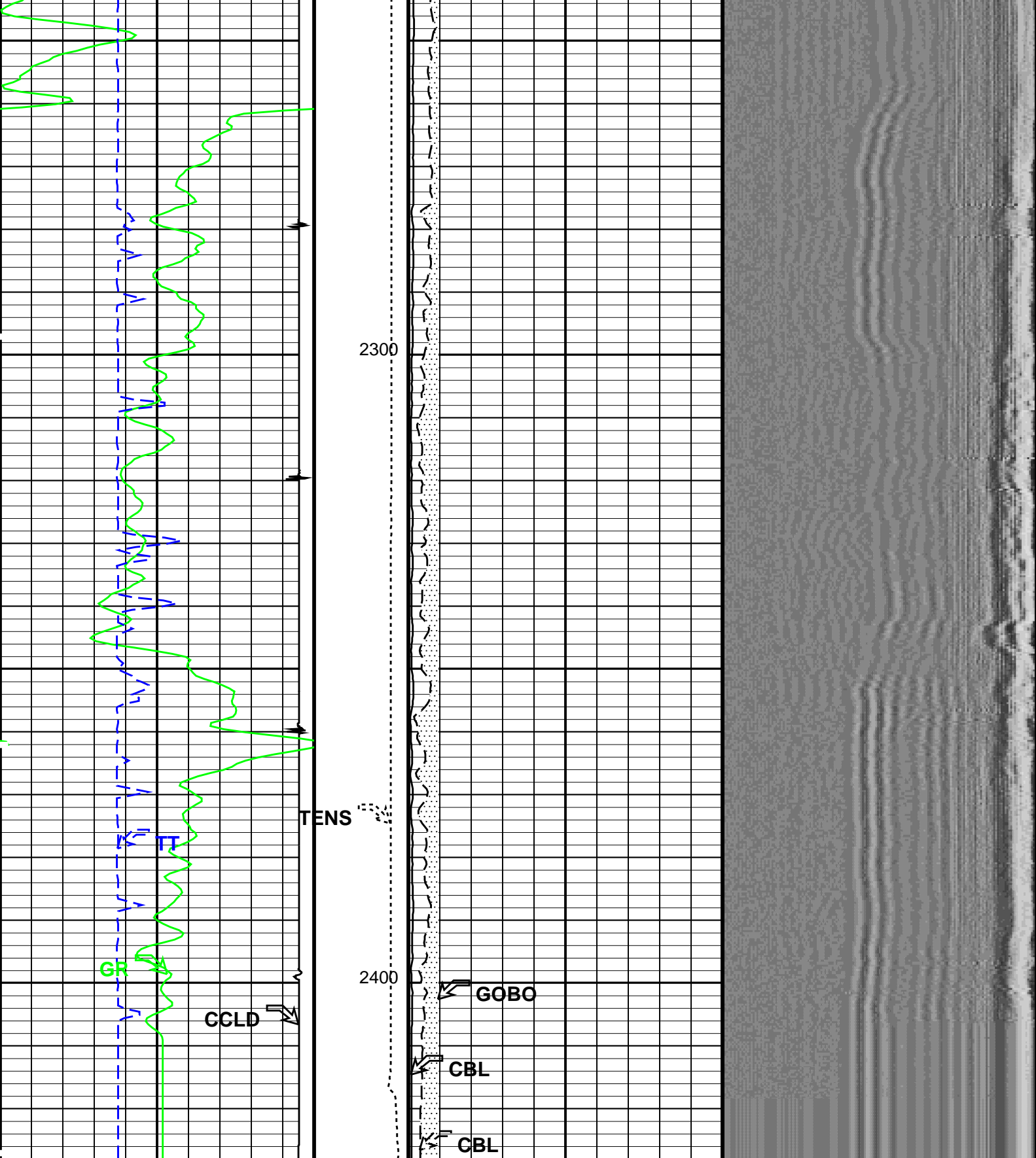












Discriminated CCL (CCLD) (V)	Tension (TENS) (LBF)	CBL Amplitude (CBL) (MV)	Min 200	Amplitude VDL VariableDensity (VDL) (US)	Max 1200
-19	2000	0			
1	0	20			
Gamma Ray (GR) (GAPI)		CBL Amplitude (CBL) (MV)			
0		0			
200		100			
Transit Time (TT) (US)		GOOD BOND From ACBL to GOBO			
400					
200					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD			
BILI	Bond Index Level for Zone Isolation	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	225.329	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	339.329	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	40	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	79	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.229988	IN
DTF	Delta-T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	0.945006	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	168.329	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	18.4392	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	10	FT
MMSA	MAP Minimum Sonic Amplitude	2.94385	MV
MSA	Minimum Sonic Amplitude	0.312526	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
System and Miscellaneous			
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	10.50	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
TD	Total Depth	2515	FT

Format: CBL_VDL Vertical Scale: 5" per 100'

Graphics File Created: 04-Jan-2012 10:13

OP System Version: 18C0-147

SCMT-CB HFE-4028-IFLEX PSPT HFE-4028-IFLEX

Output DLIS Files

DEFAULT SCMT_PSP_002LUP FN:1 PRODUCER 04-Jan-2012 10:13

Company: Noble Energy, Inc.

Schlumberger

Well: Stults 34-4

Field: Republican

County: Yuma

State: Colorado

CBL - VDL

GR - CCL