

Rig:

ENSCO 102

Lc	
Rr	
Dd	
Ss	
Bb	
Tt	
Cc	
Cc	
Bi	
Tj	
MUD	D
	F
	S
Rr	
Rr	
Rr	
Ss	
Rr	
M	
Ct	
Lc	
Un	
Rr	
W	

Company: Origin Energy Resources Ltd.

Well: **Trefoil-1**
Field: **Trefoil**
Rig: **ENSCO 102**
Country: **Australia**

Field: Trefoil
Location: GDA94 Zone 55
Well: Trefoil-1
Company: Origin Energy Resources Ltd.

<h1>SP-HRLA-PEX-CMR-C</h1> <h2>Nuclear-Resistivity Print</h2> <h3>1:500 Scale</h3>			
LOCATION			
GDA94 Zone 55 Northings 5,586,346 m Eastings 361,028 m		Elev.: K.B. 39.9 m G.L. -68.9 m D.F. 39.9 m	
Permanent Datum: _____ Log Measured From: Drill Floor (RT) _____ Drilling Measured From: Drill Floor (RT) _____		Elev.: 0 m above Perm. Datum	
State: Tasmania	Max. Well Deviation 0.67 deg	Longitude 145 22' 30.87"E	Latitude 39 51' 41.58"S














[illegible][illegible]

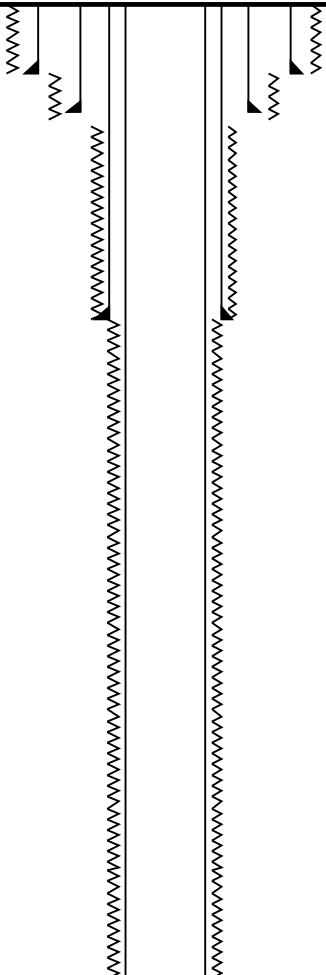
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
Density	Viscosity		
Fluid Loss	PH		
Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF	RMC		
RM @ MRT	RMF @ MRT	@	@
Maximum Recorded Temperatures			
Circulation Stopped	Time		
Logger On Bottom	Time		
Unit Number	Location		
Recorded By			
Witnessed By			

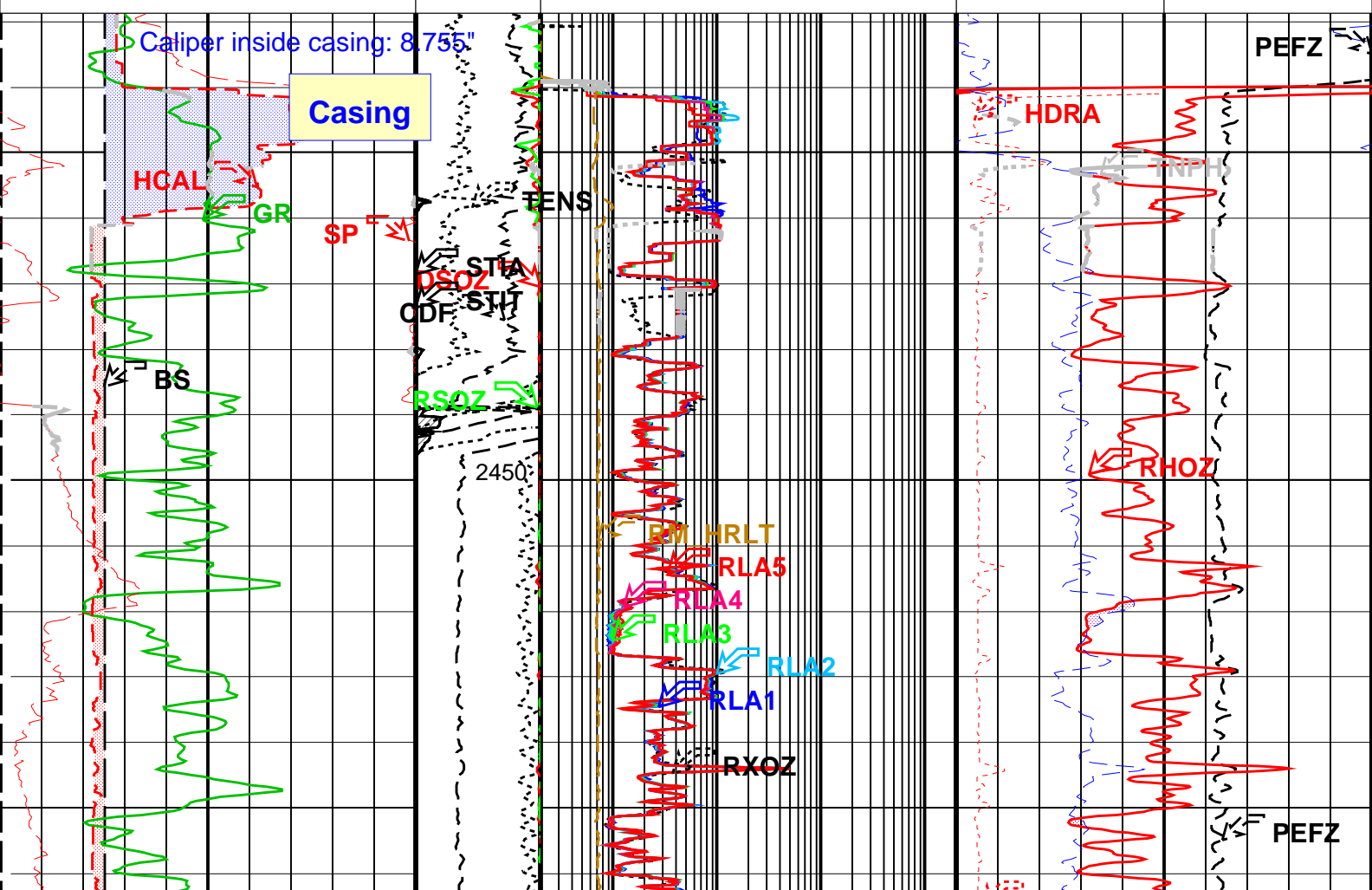
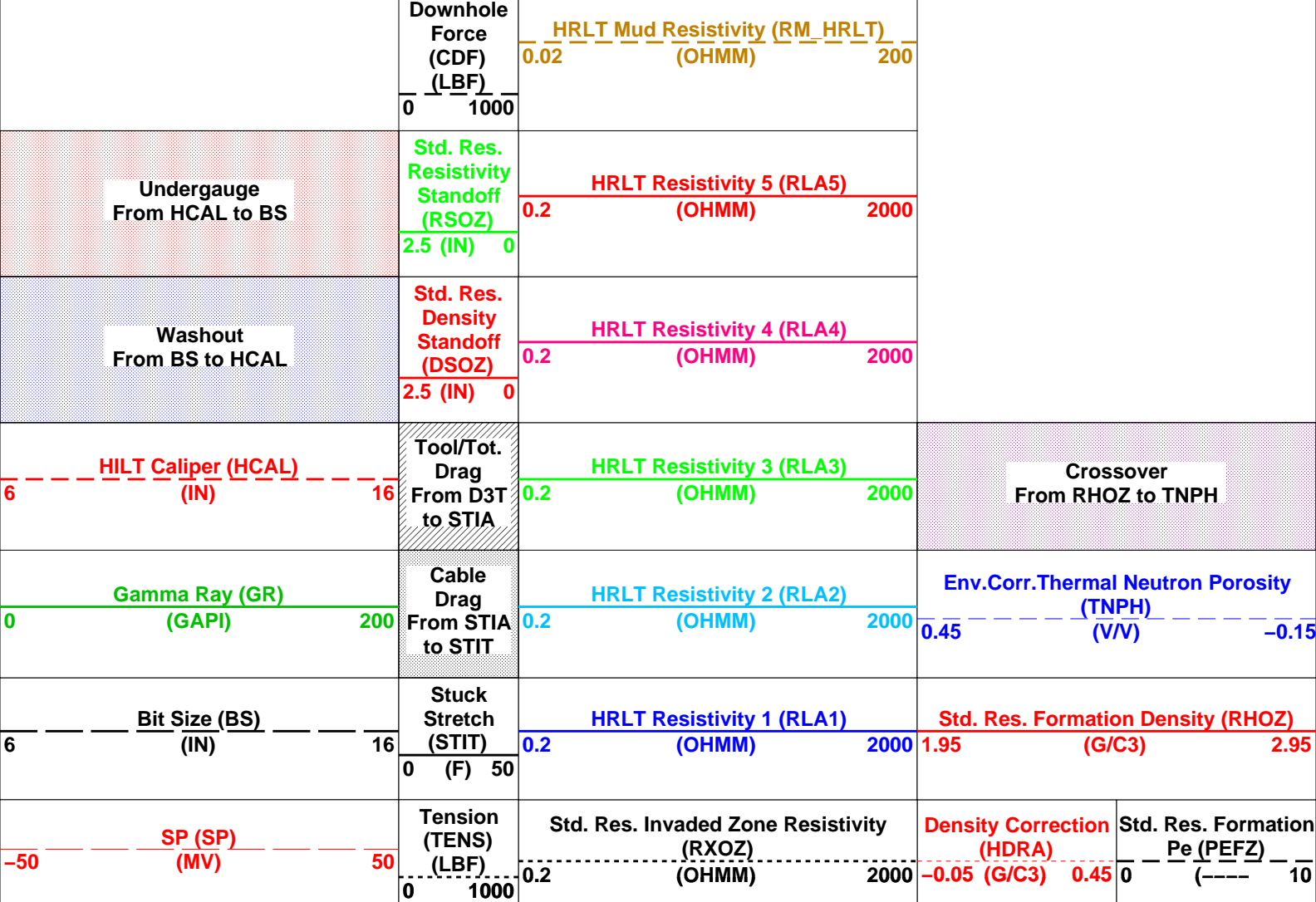
Maximum hole deviation from Sperry Sun survey.
Maximum temperature of 117 degC from thermometers in logging head.
Mud data taken from Baroid Mud Report, 23–NOV–2004, from flowline sample taken at 20:00.
Additional mud data: PV/YP = 49degC/51lbs/100ft2, Gels = 3/4/7 lbs/100ft2, LGS/HGS = 5.0/0.9%.

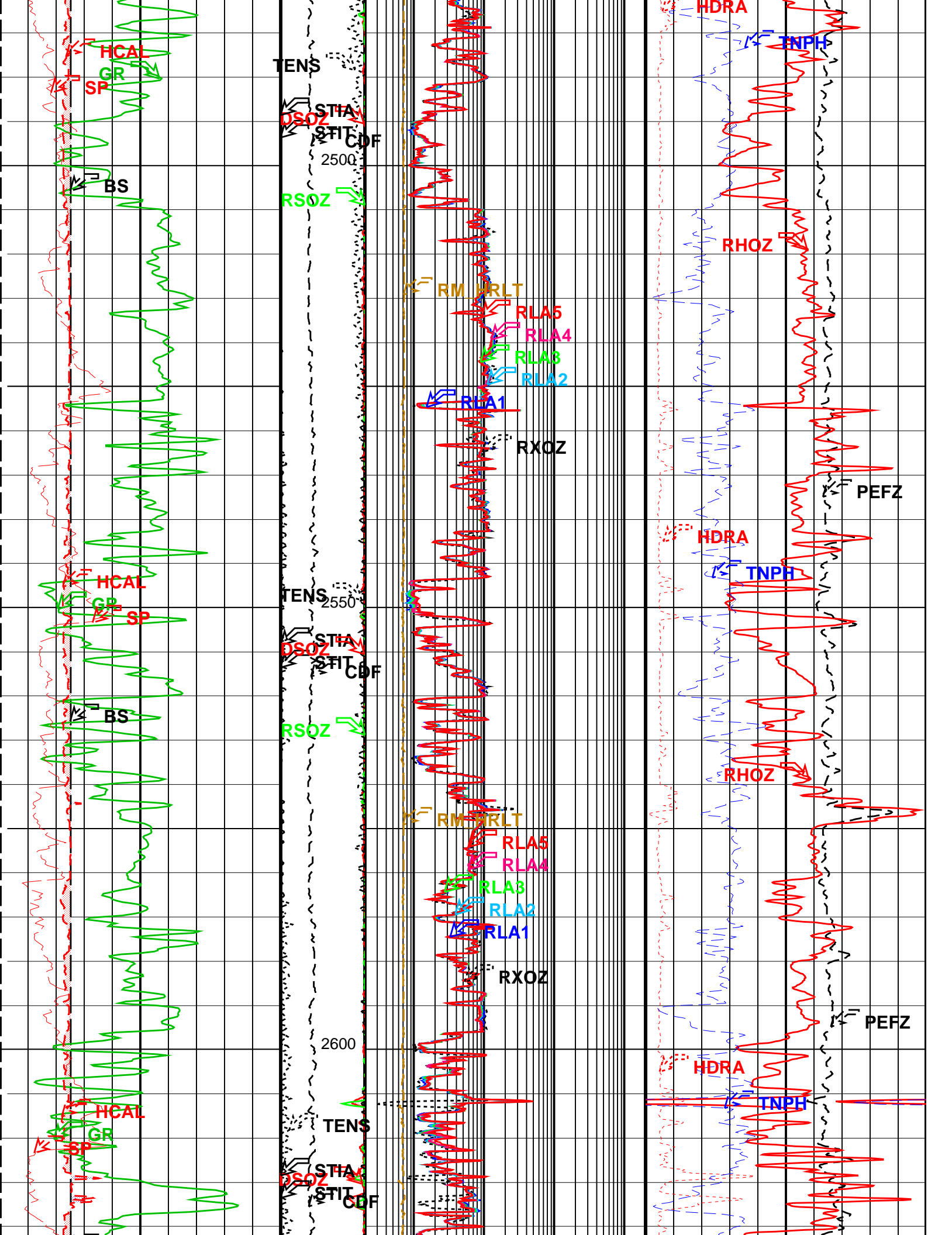
RUN 1					
SERVICE ORDER #:					
PROGRAM VERSION:		12C0–301			
FLUID LEVEL:		0 m			

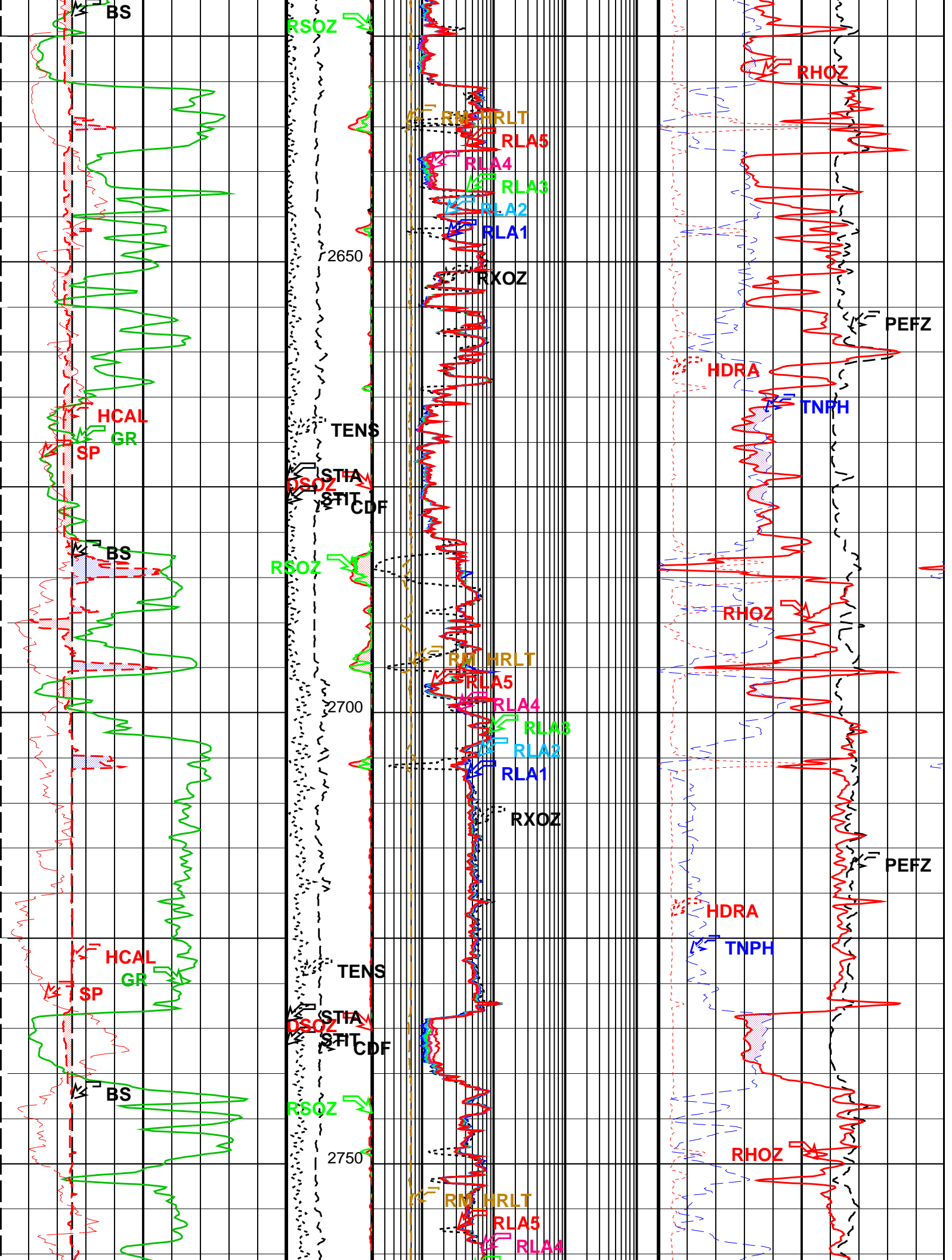
EQUIPMENT DESCRIPTION

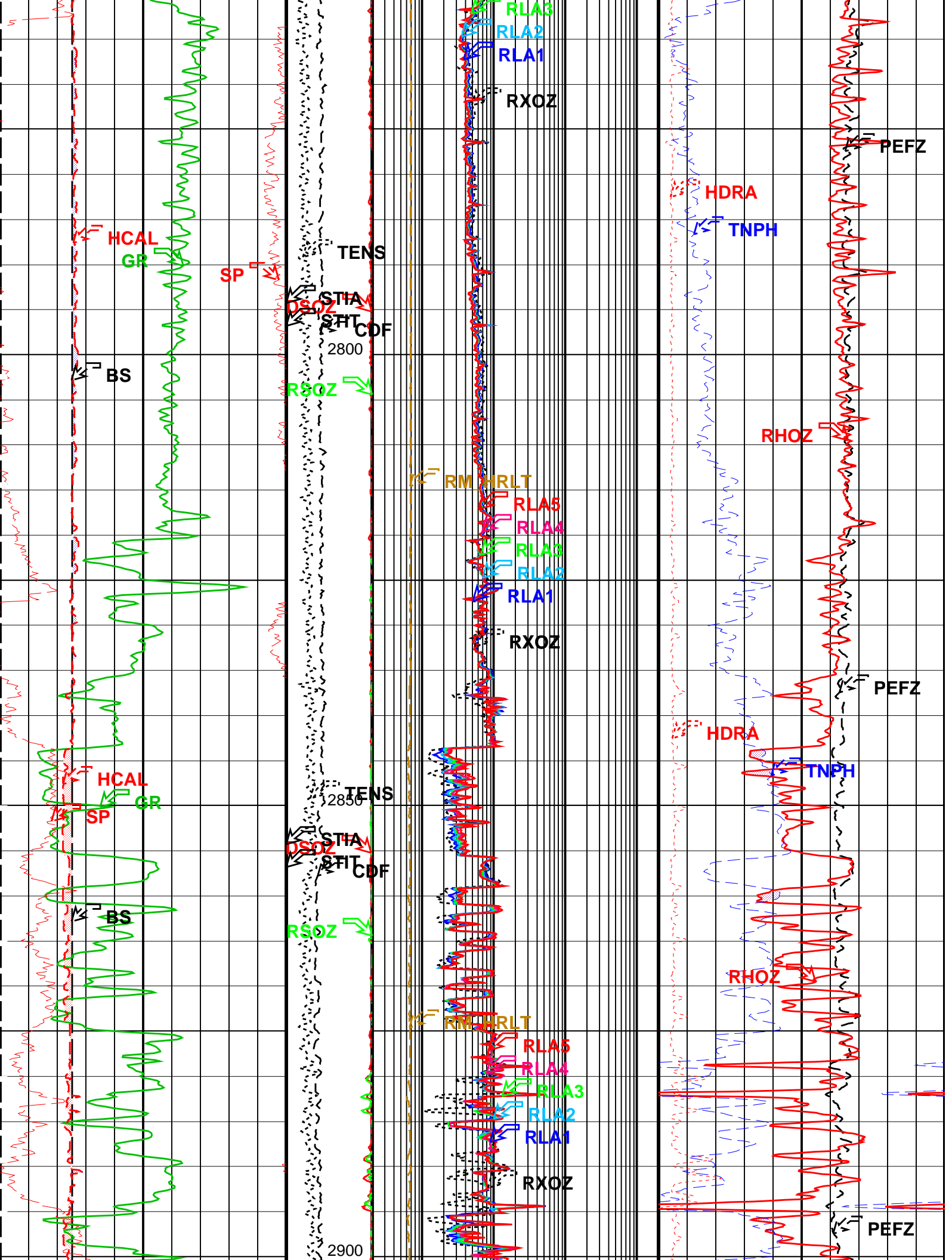
RUN 1					
SURFACE EQUIPMENT					
WITM (DTS)–A 964 NCS–YC 5025					
GSR–U 2003					
NCT–B 2033					
CNB–AB					
DOWNHOLE EQUIPMENT					
LEH–QT				27.42	
LEH–QT 1519					
AH–169				26.53	
DTC–H	CTEM		25.85	26.13	
ECH–KC 10247	TelStatus		25.21	0.5 IN	
	ToolStatu			Standoff	
CMRT–B				25.21	
CMRC–BA 87					
CMRS–BA 92					
EME–F					
	CMR–B Raw		21.05		
	CMR–B Sen		20.46		
	CMR–B Dia				
AH–107	HGNS HTEM		19.85	20.46	
	HMCA				
HILTH–FTB	Gamma–Ray		19.63	19.85	
HGNSD–H 3747					
HMCA–H					
HGNH–B 2743	Neutron F		17.85		
NLS–KL	Neutron N		17.70		
NSR–F 2478					
HACCZ–H	HGNS sens		16.98		
HCNT–H					
HGR	HRCC cart		15.77		
HRCC–H 3724	MCFL		14.11		
HRMS–H 3736	HILT cali		13.96		
HRGD–H 3737	HRDD–LS				
GLS–VJ 2957	HRDD–SS				
MCFL Device–H	HRDD–BS		13.84		
HILT Nucl. LS–H					
HILT Nucl. SS–H					
AH–107				13.25	
HRLT–B				12.64	
HRLH–B 705				2.0 IN	
HRUC–B 705				Standoff	
HRLS–B 782				2.0 IN	
HRLH–B 705				Standoff	
HRLC–B 705					

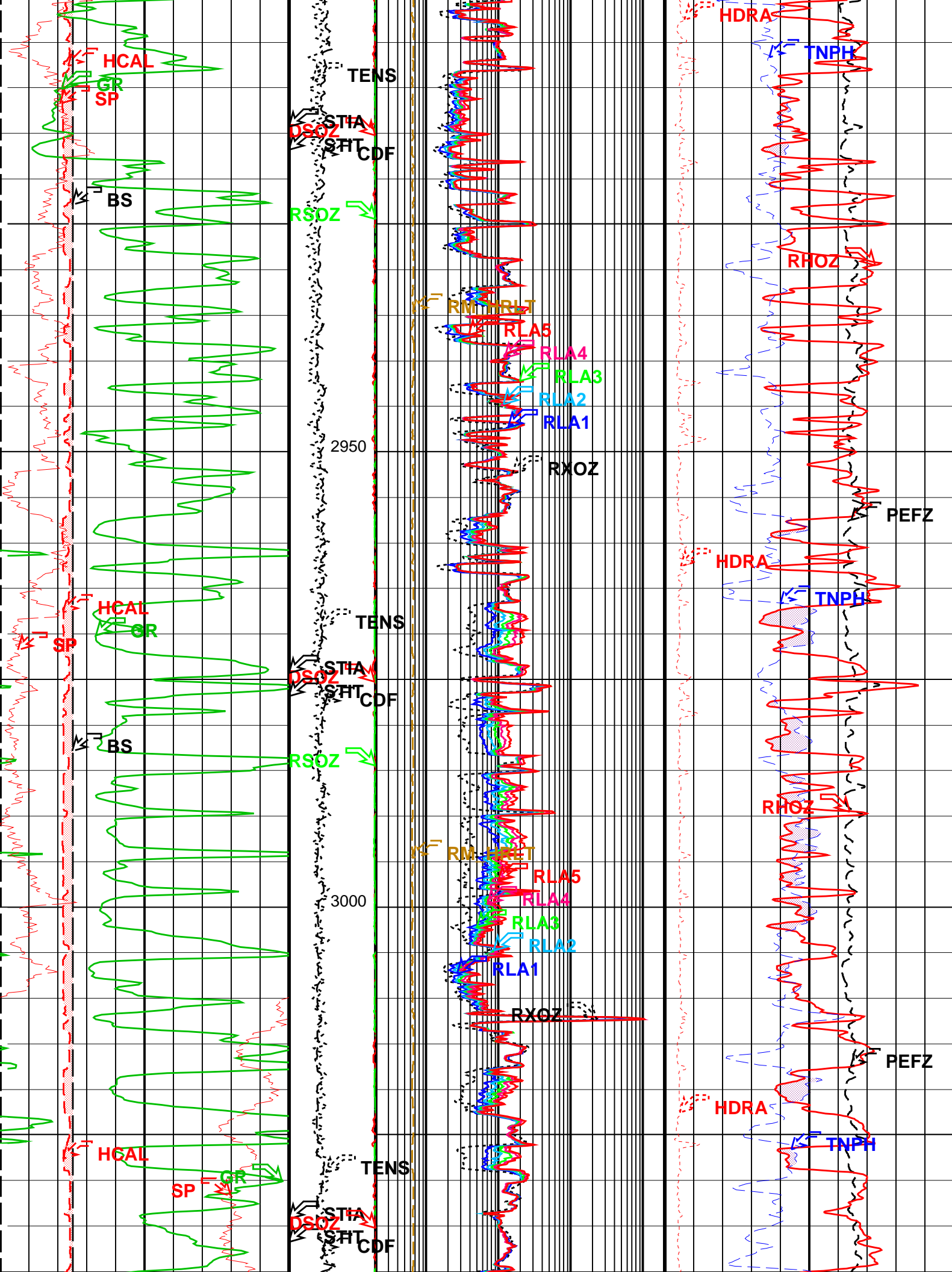
Production String	(in)		(m)	Well Schematic	(m)	(in)		Casing String
	OD	ID				MD	MD	
					0.0	36.000	Borehole Segment	
					0.0	30.000	Casing String, 310 lb/ft	
					142.6	30.000	Casing Shoe	
					142.6	26.000	Borehole Segment	
					0.0	20.000	Casing String, 133 lb/ft	
					214.6	20.000	Casing Shoe	
					214.6	16.000	Borehole Segment	
					0.0	13.375	Casing String, 54.5 lb/ft	
					659.6	13.375	Casing Shoe	
					659.6	12.250	Borehole Segment	
			0.0	9.625	Casing String, 43.5 lb/ft			

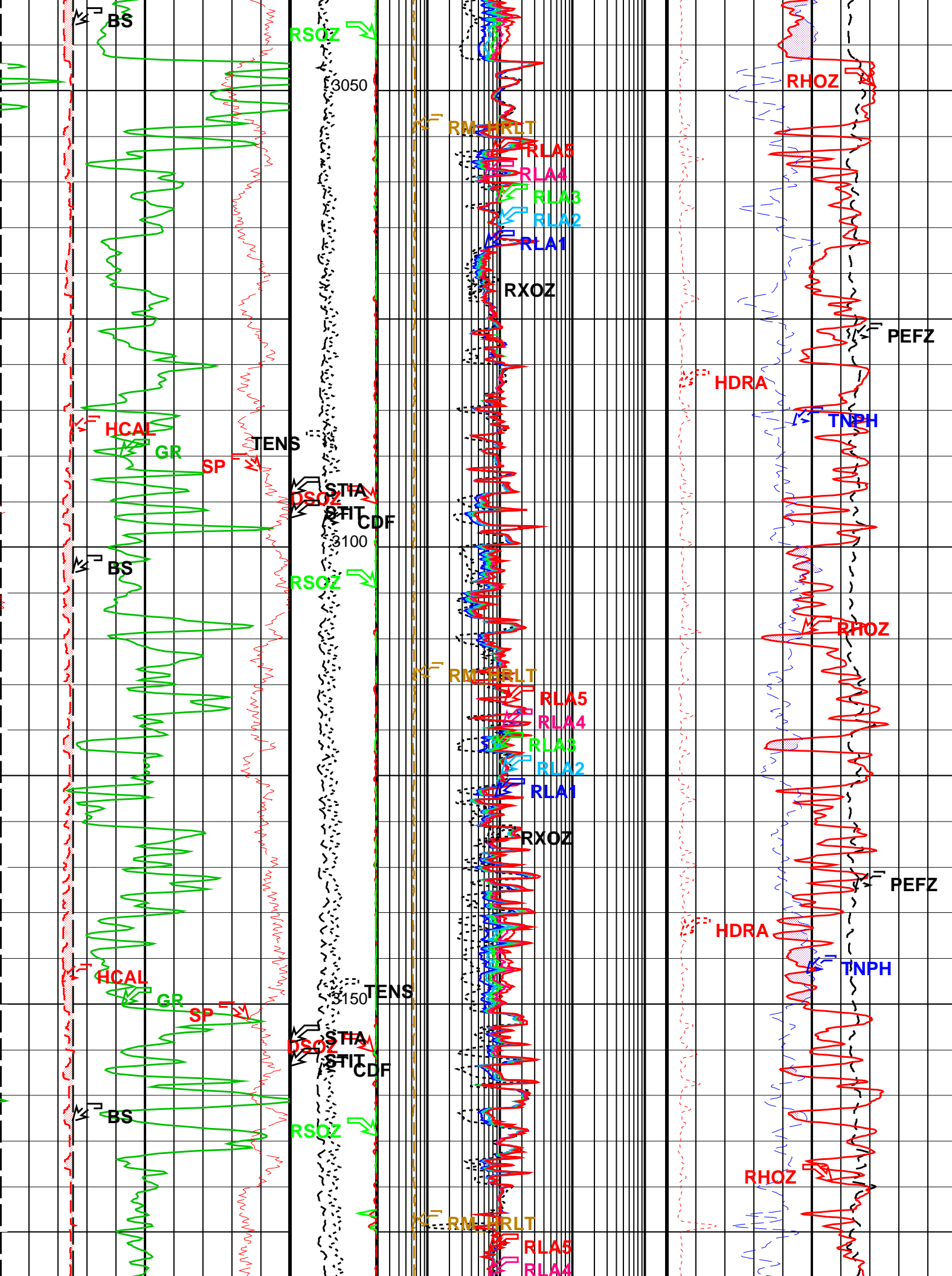


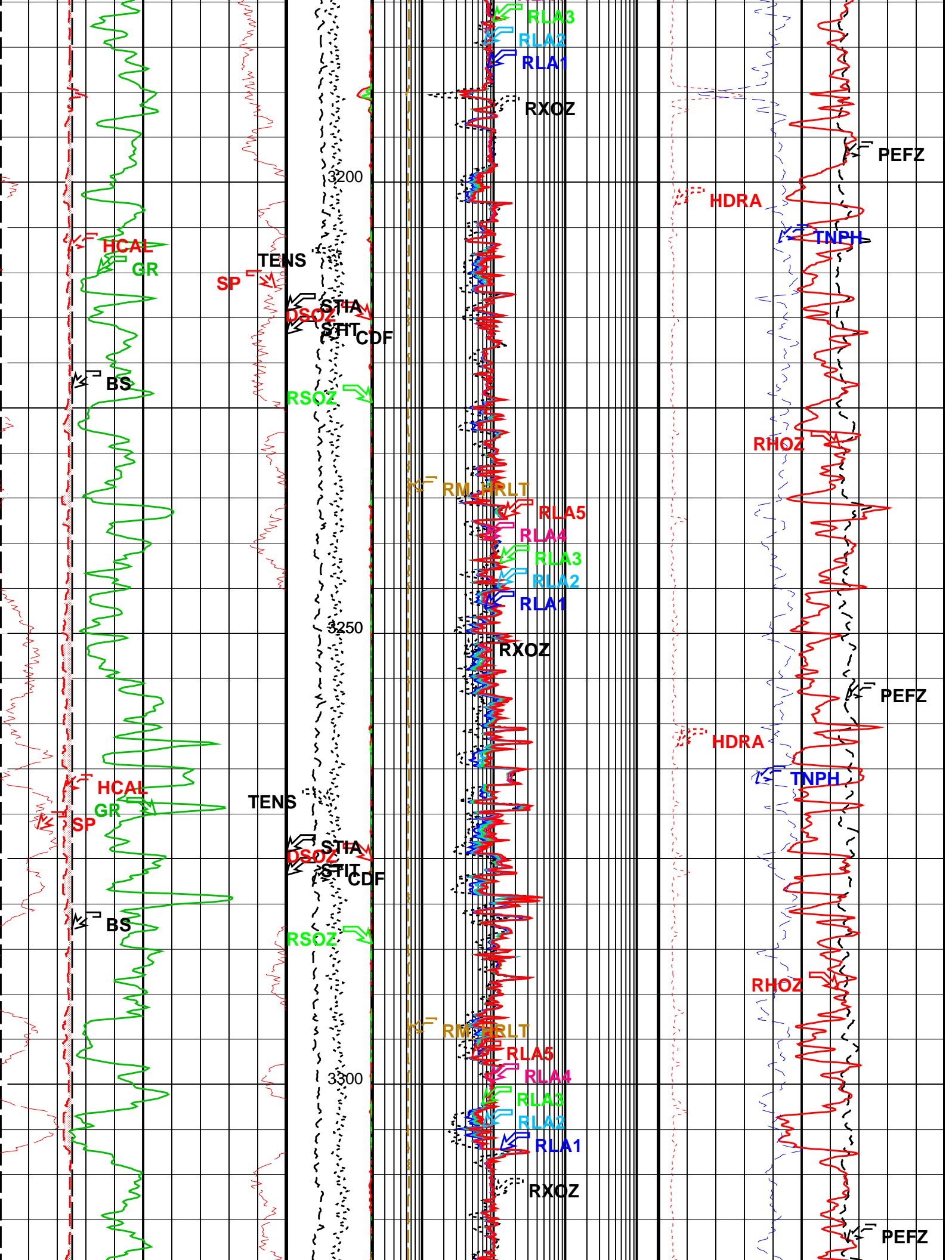


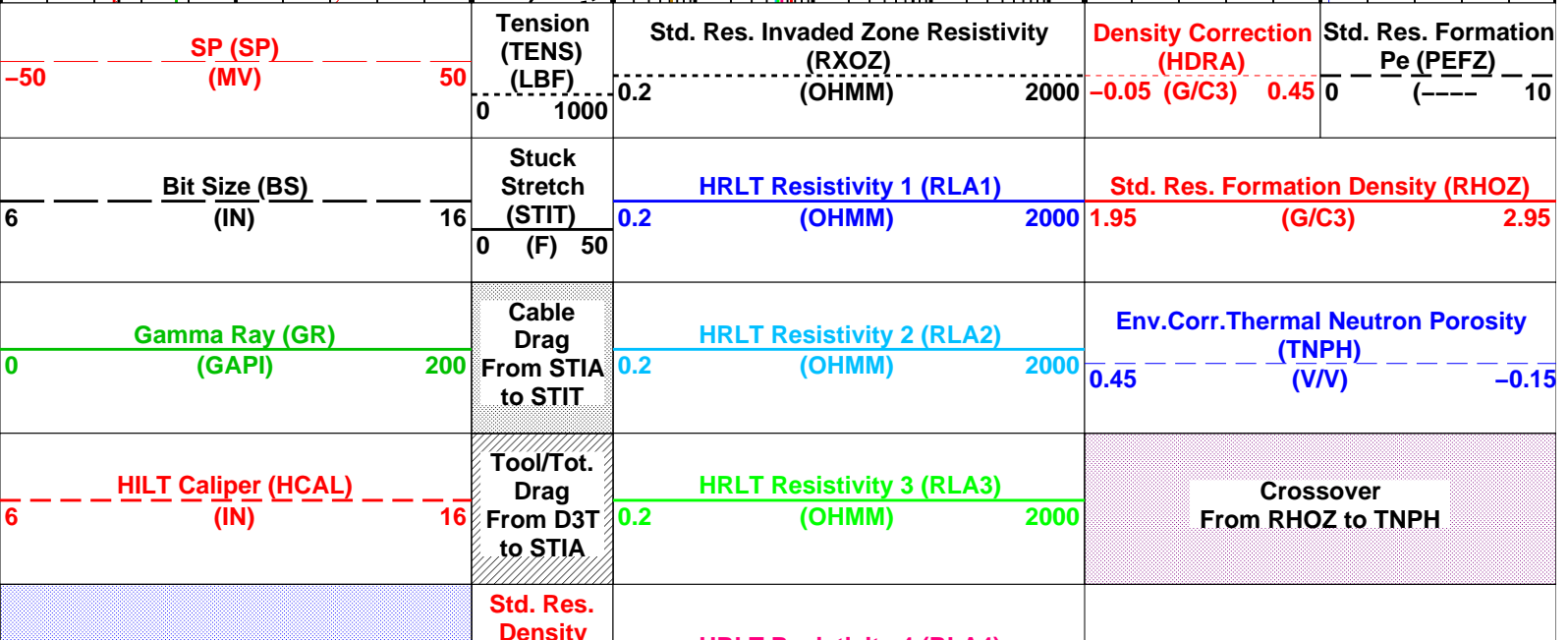
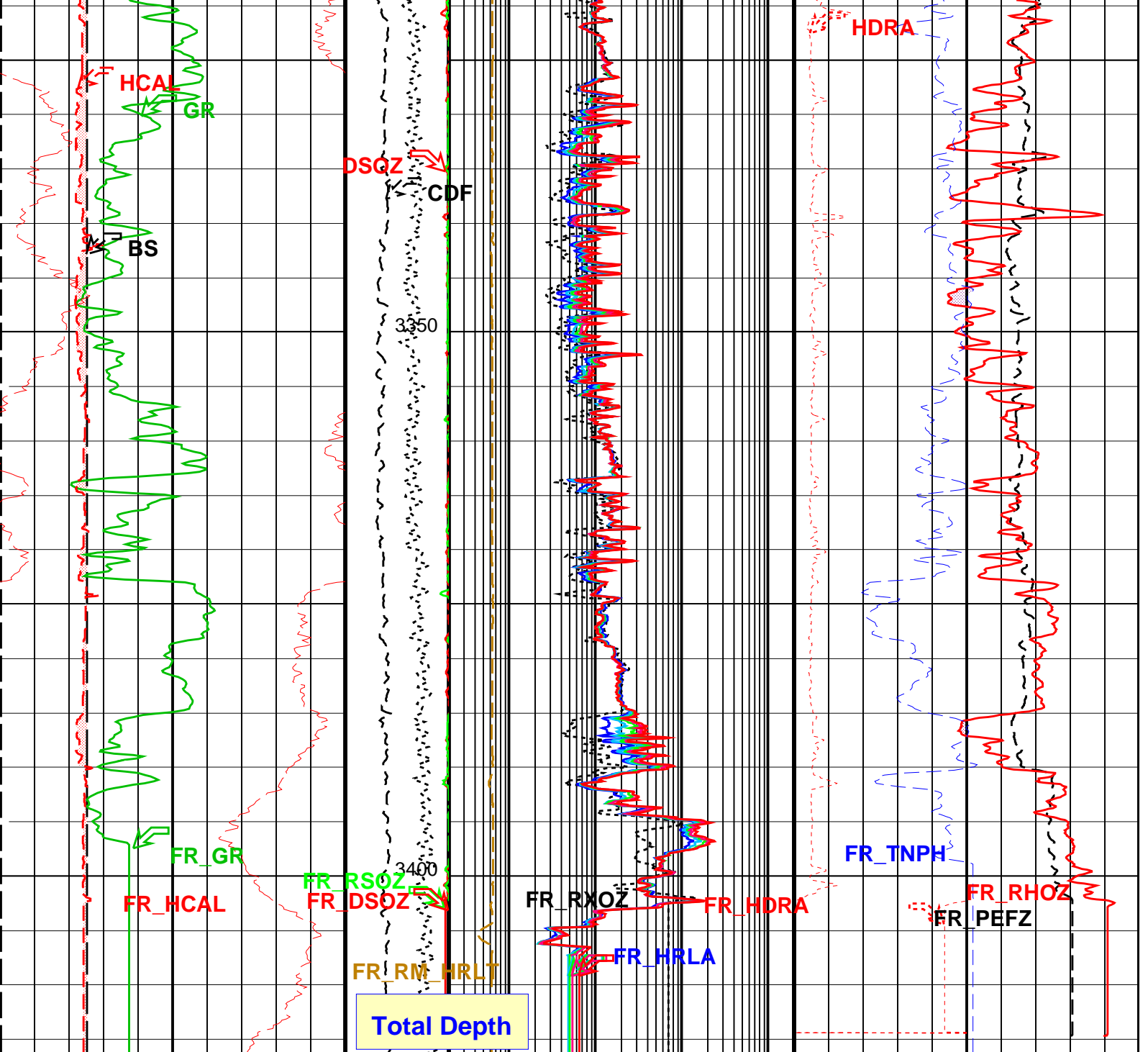












Washout From BS to HCAL	Standoff (DSOZ)	0.2	HRLT Resistivity 4 (RLA4) (OHMM)	2000
	2.5 (IN) 0			
Undergauge From HCAL to BS	Std. Res. Resistivity Standoff (RSOZ)	0.2	HRLT Resistivity 5 (RLA5) (OHMM)	2000
	2.5 (IN) 0			
	Calibrated Downhole Force (CDF) (LBF)	0.02	HRLT Mud Resistivity (RM_HRLT) (OHMM)	200
	0 1000			

PIP SUMMARY

Time Mark Every 60 S

Parameters				
DLIS Name	Description	Value		
SPNV	SPE-A: Extended Spontaneous Potential – A			
	SP Next Value	0	MV	
	HRLT-B: High Resolution Laterolog Array – E			
	Borehole Status	OPEN		
BHS	Bottom Hole Temperature (used in calculations)	117	DEGC	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.018227	DC/M	
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
KFAC_HRLT	HRLT K Factor Option	SONDE		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
PROCINV	Inversion Selection	ON		
PROCMFL	Inversion Micro-Resistivity Selection	RX08		
PROCMSO	Mechanical Standoff Fin Size	2	IN	
PROCRM	Processing Mud Resistivity Select	HRLT_Compute		
PROCSP0	Sonde Position	Eccentered		
SHT	Surface Hole Temperature	20	DEGC	
	HILTH-FTB: High resolution Integrated Logging Tool-DTS			
	Borehole Fluid Type	WATER		
BHFL	Borehole Status	OPEN		
BHS	Bottom Hole Temperature (used in calculations)	117	DEGC	
BSCO	Borehole Salinity Correction Option	YES		
CCCO	Casing & Cement Thickness Correction Option	NO		
DHC	Density Hole Correction	BS		
FSAL	Formation Salinity	-50000	PPM	
FSCO	Formation Salinity Correction Option	YES		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.018227	DC/M	
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
HSCO	Hole Size Correction Option	YES		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
MCCO	Mud Cake Correction Option	NO		
MCOR	Mud Correction	NATU		
MPOF	MCFL Processing Operation Mode	ON		
MWCO	Mud Weight Correction Option	YES		
NAAC	HRDD APS Activation Correction	OFF		
NMT	HILT Nuclear Mud Type	NOBARITE		
NPRM	HRDD Processing Mode	HiRes		
NSAR	HRDD Depth Sampling Rate	1	IN	
PTCO	Pressure/Temperature Correction Option	YES		
SDAT	Standoff Data Source	SOCN		
SHT	Surface Hole Temperature	20	DEGC	
SOCN	Standoff Distance	0.125	IN	
SOCO	Standoff Correction Option	NO		
	CMRT-B: Combinable Magnetic Resonance Tool – B			
	Borehole Status	OPEN		
BHS	Bottom Hole Temperature (used in calculations)	117	DEGC	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.018227	DC/M	
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		

SHI	HOLEV: Integrated Hole/Cement Volume	Surface Hole Temperature	20	DEGC
BHS		Borehole Status	OPEN	
BHT		Bottom Hole Temperature (used in calculations)	117	DEGC
GCSE		Generalized Caliper Selection	HCAL	
GDEV		Average Angular Deviation of Borehole from Normal	0	DEG
GGRD		Geothermal Gradient	0.018227	DC/M
GRSE		Generalized Mud Resistivity Selection	CHART_GEN 9	
GTSE		Generalized Temperature Selection	HSTS_HTEM	
MATR		Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT		Surface Hole Temperature	20	DEGC
	STI: Stuck Tool Indicator			
LBFR		Trigger for MAXIS First Reading Label	TDL	
STKT		STI Stuck Threshold	0.762	M
TDD		Total Depth – Driller	3545.10	M
TDL		Total Depth – Logger	3418.30	M
	System and Miscellaneous			
BS		Bit Size	8.500	IN
BSAL		Borehole Salinity	26300.00	PPM
CSIZ		Current Casing Size	9.625	IN
CWEI		Casing Weight	43.50	LB/F
DFD		Drilling Fluid Density	9.40	LB/G
DO		Depth Offset for Playback	0.0	M
MST		Mud Sample Temperature	24.60	DEGC
PP		Playback Processing	RECOMPUTE	
RMFS		Resistivity of Mud Filtrate Sample	0.1738	OHMM
TD		Total Depth	3418.3	M

Format: Combo_500 Vertical Scale: 1:500 Graphics File Created: 02-Dec-2004 15:15

OP System Version: 12C0-301

MCM

SPE-A	12C0-301	HRLT-B	12C0-301
HILTH-FTB	12C0-301	CMRT-B	12C0-301
DTC-H	12C0-301		

Input DLIS Files

02-Dec-2004 12:10

Output DLIS Files

DEFAULT HRLA_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 02-Dec-2004 15:14

Schlumberger

High Resolution Log (1:500)

MAXIS Field Log

Company: Origin Energy Resources Ltd.

Well: Trefoil-1

Input DLIS Files

02-Dec-2004 12:10

Output DLIS Files

DEFAULT HRLA_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 02-Dec-2004 15:14 3416.4 M 2414.3 M

Integrated Hole/Cement Volume Summary

Hole Volume = 35.69 M3

Cement Volume = 13.53 M3 (assuming 6.63 IN casing O.D.)

Computed from 3416.4 M to 2420.1 M using data channel(s) HCAL

OP System Version: 12C0-301

MCM

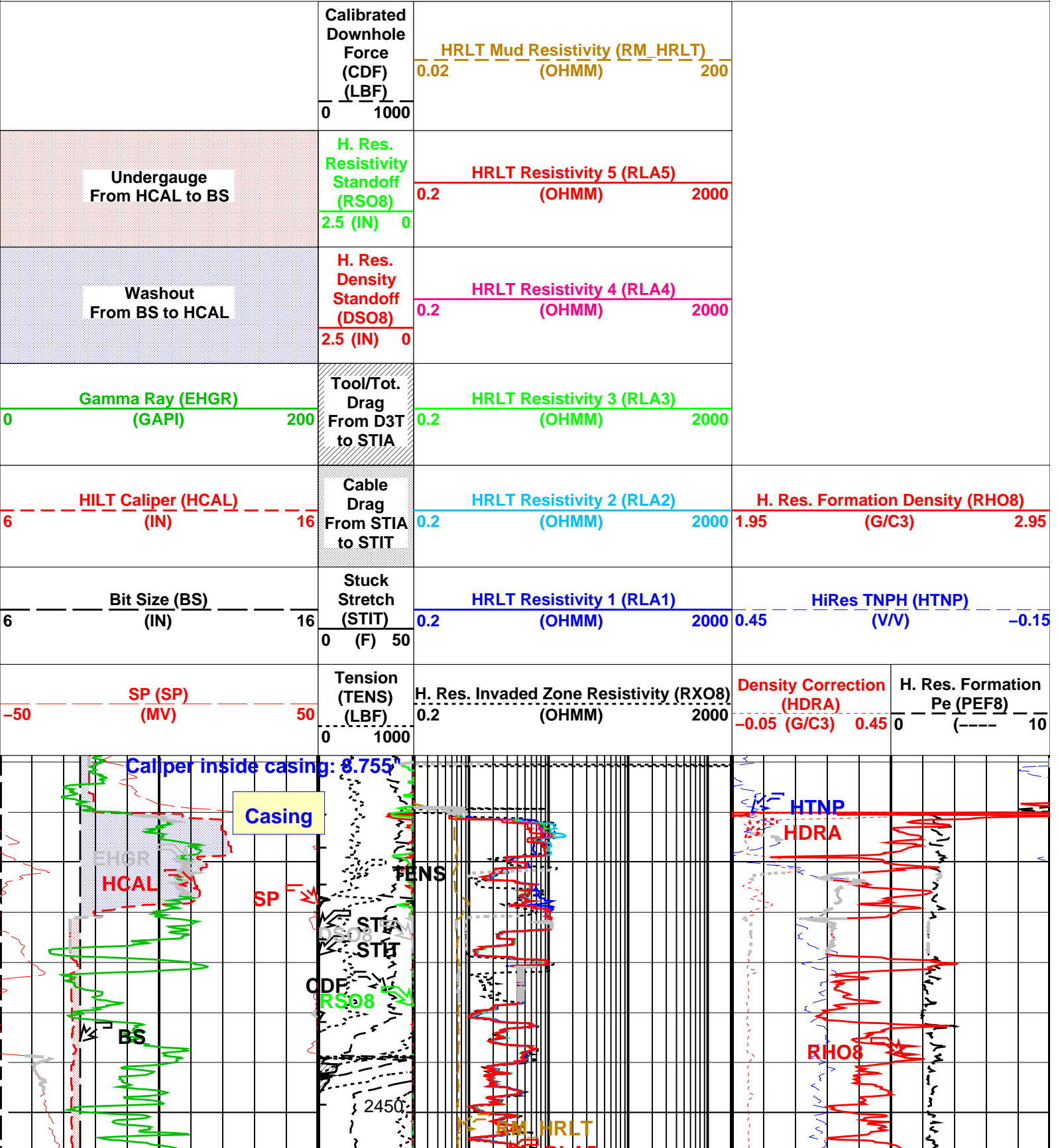
SPE-A 12C0-301
HILTH-FTB 12C0-301
DTC-H 12C0-301

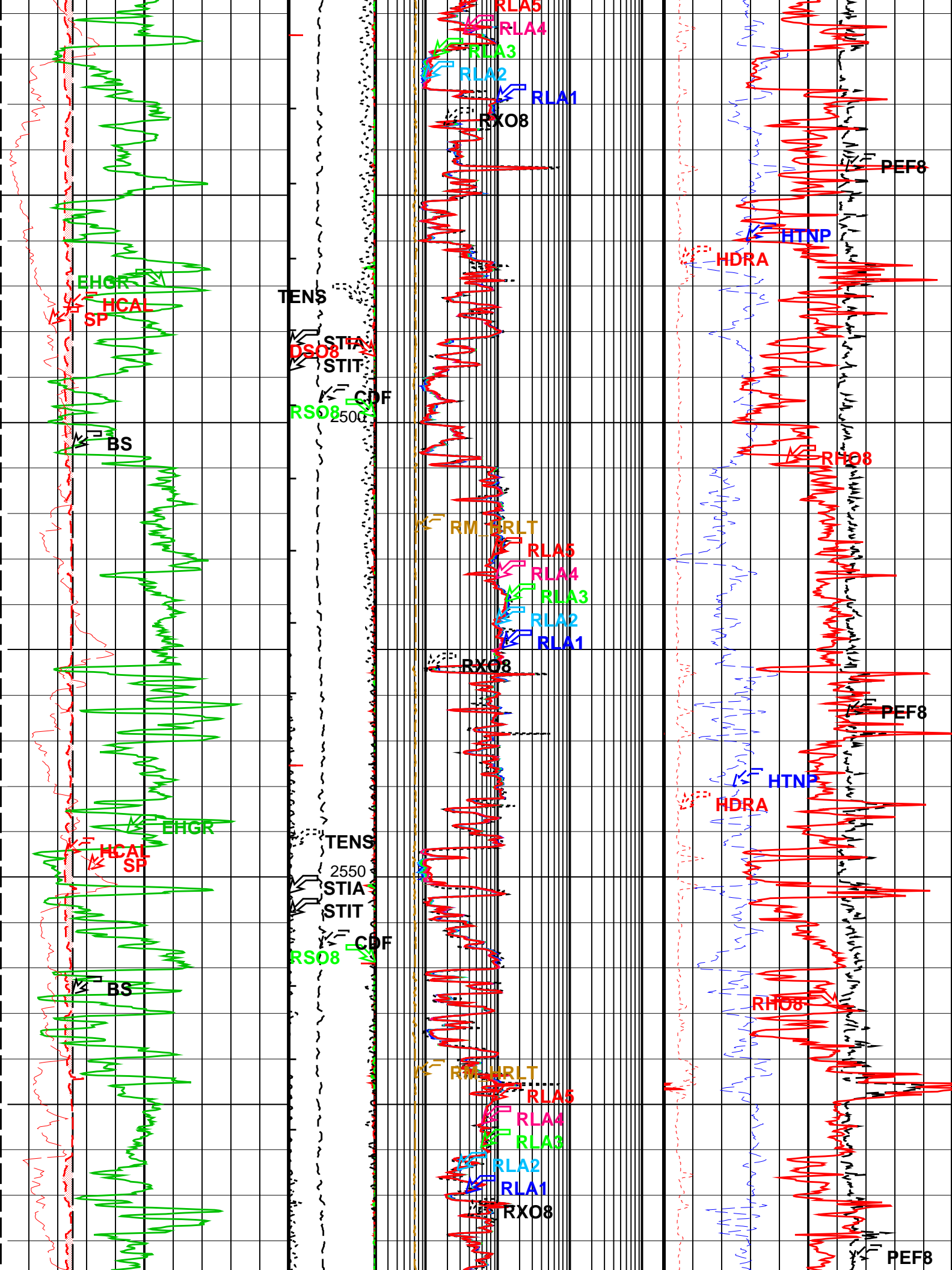
HRLT-B 12C0-301
CMRT-B 12C0-301

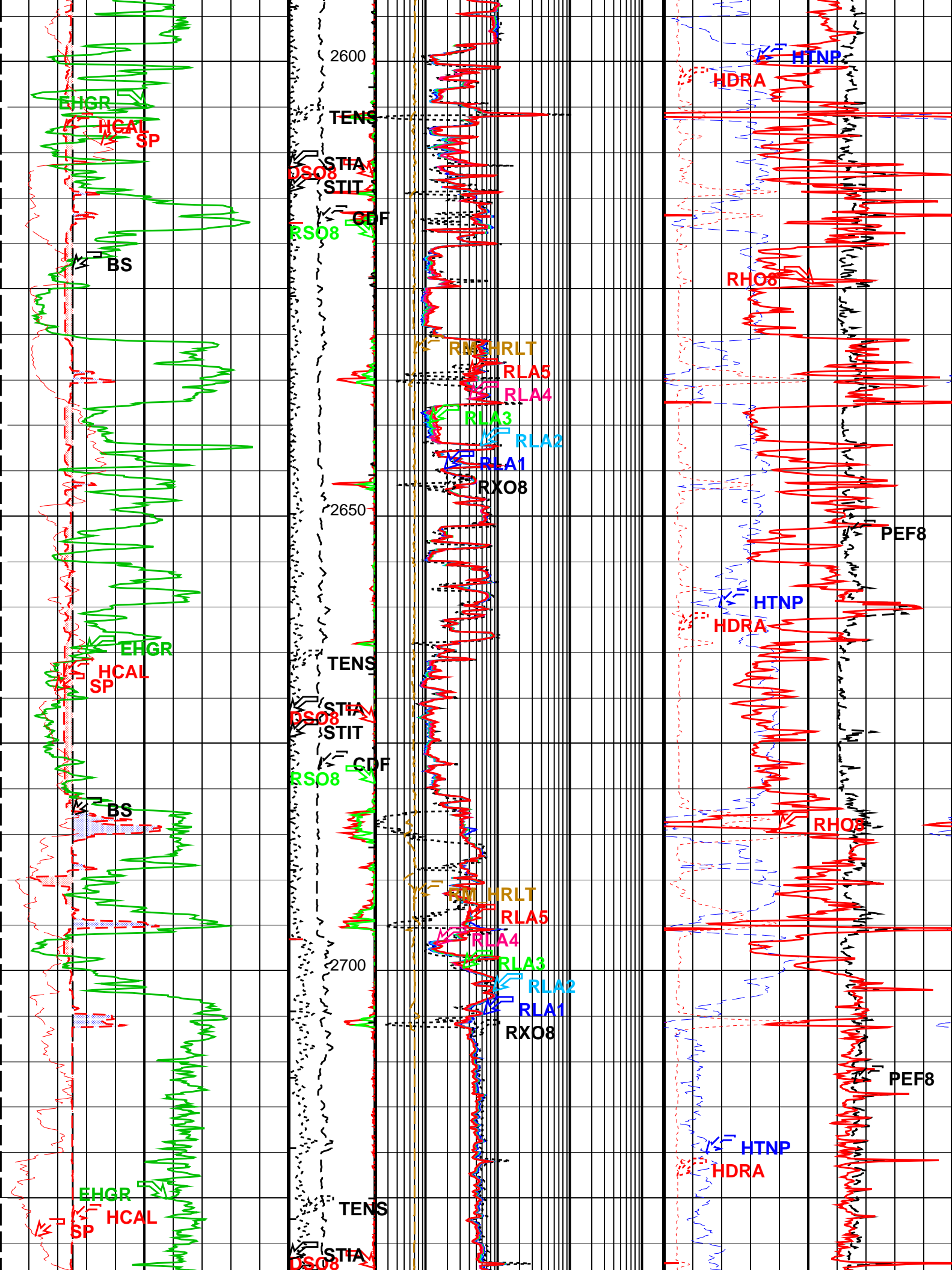
PIP SUMMARY

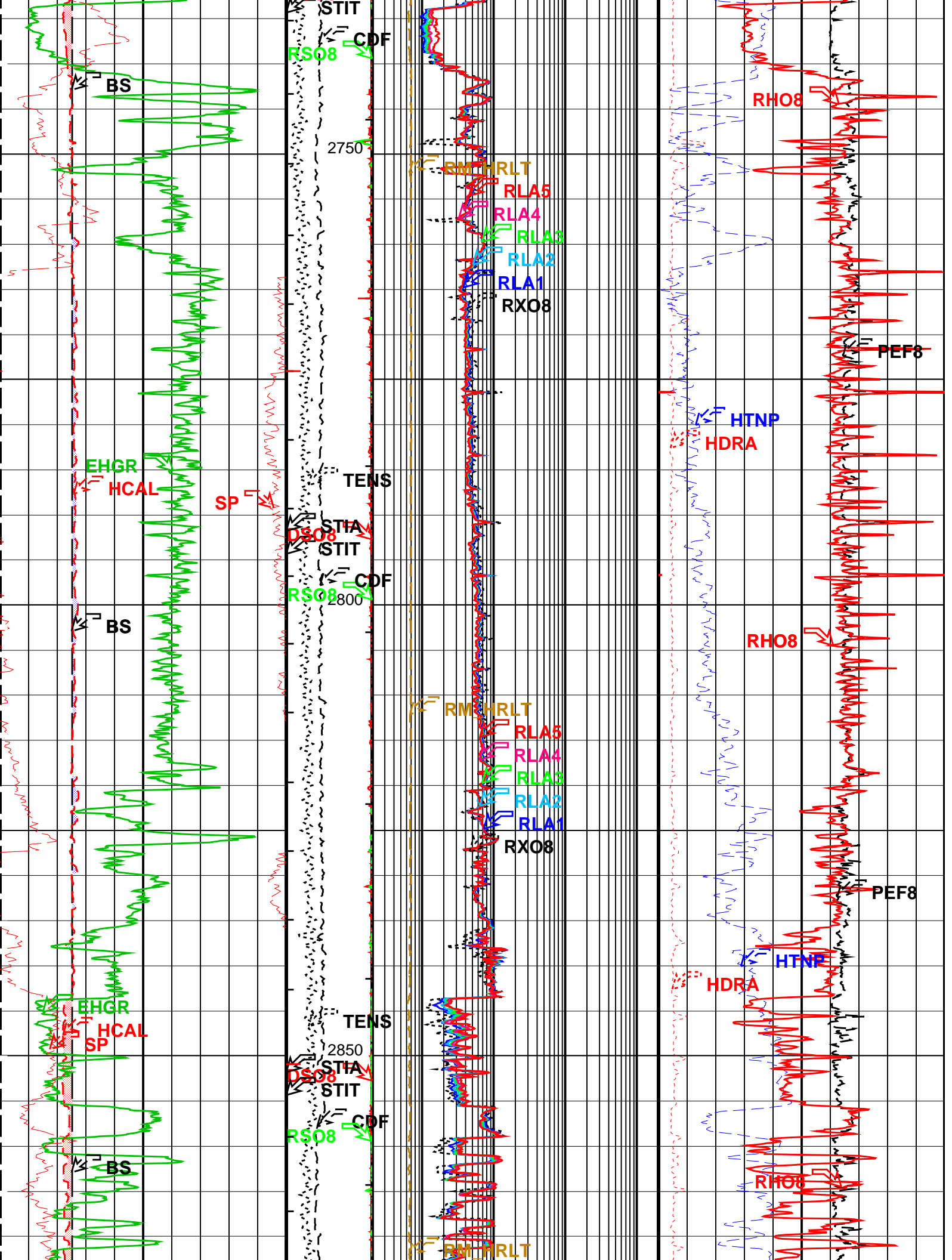
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

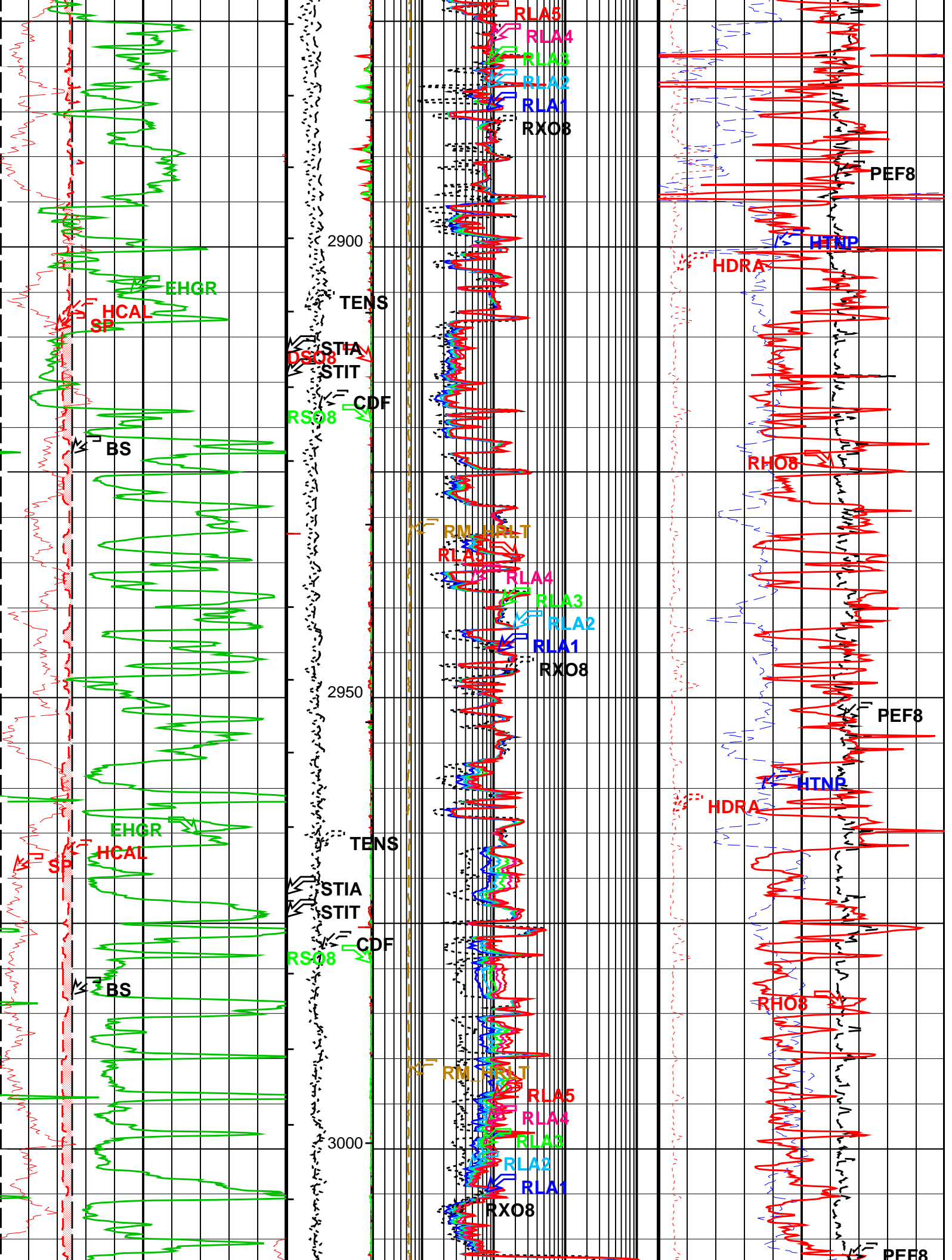
Time Mark Every 60 S

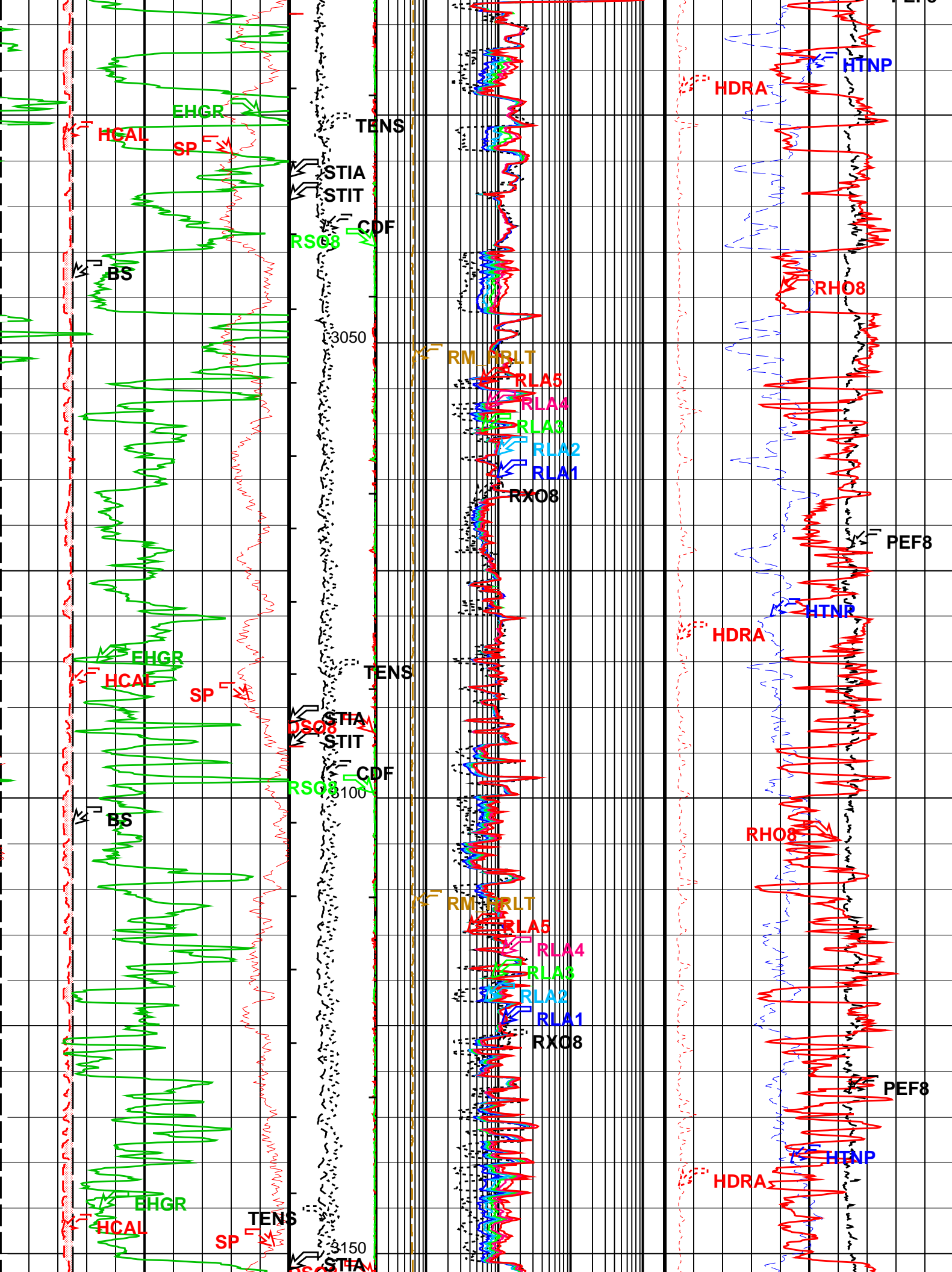


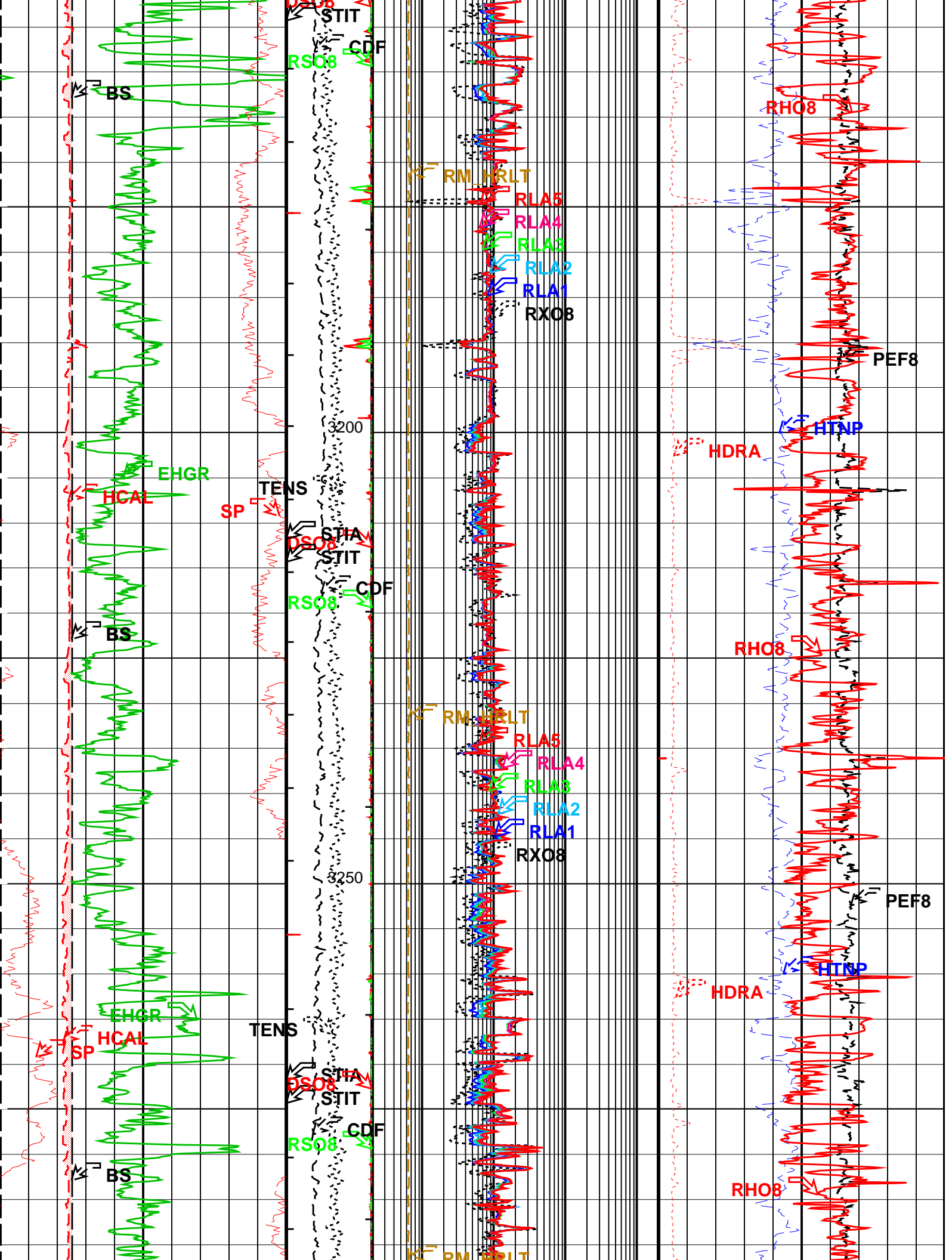


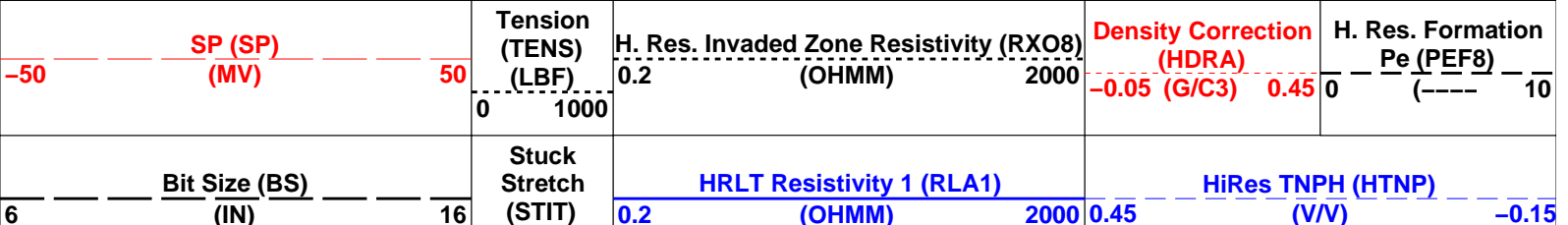
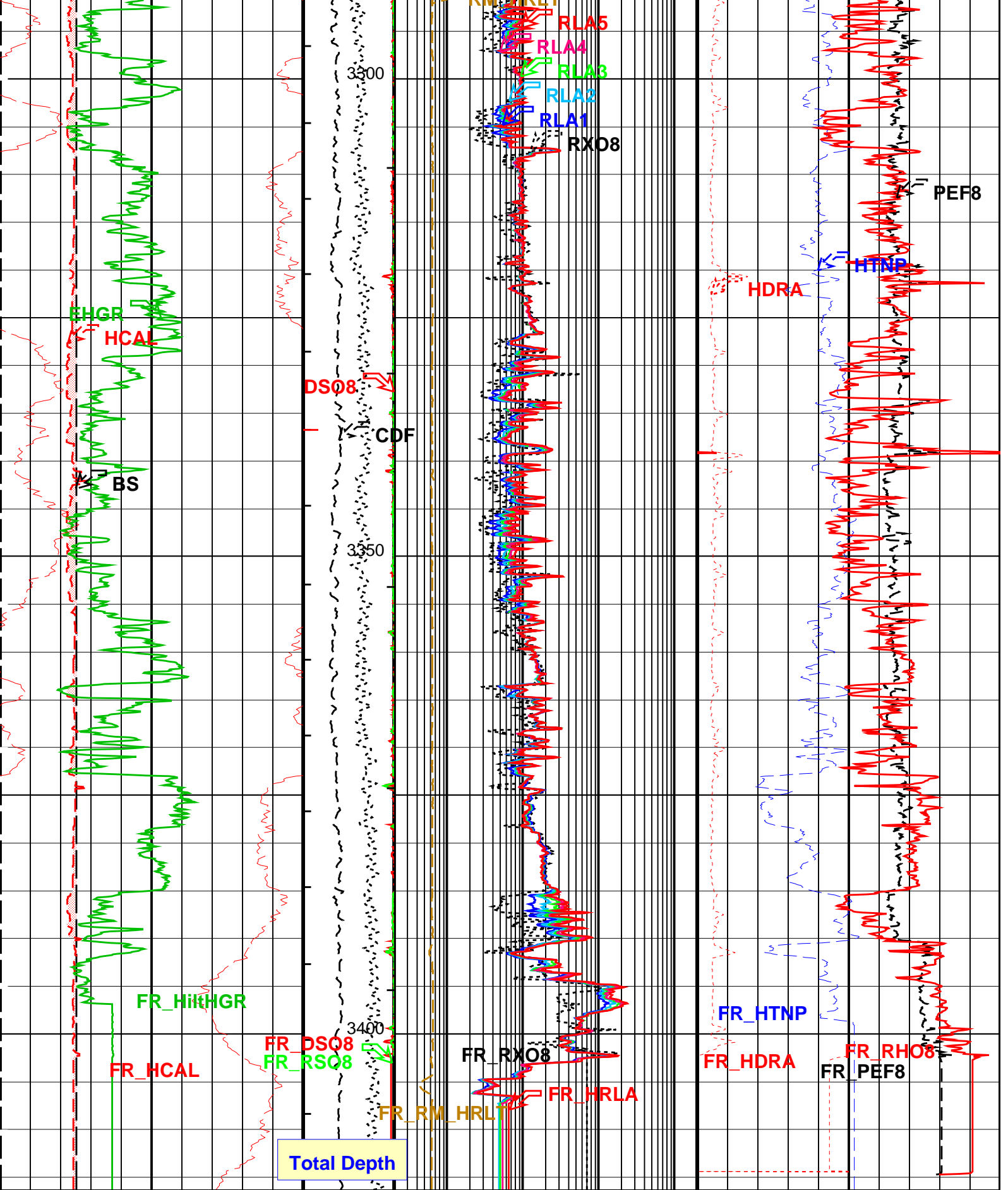












	0 (F) 50		
<div> <div>HILT Caliper (HCAL)</div> <div>(IN)</div> </div> <div>616</div>	<div>Cable Drag</div> <div>From STIA to STIT</div>	<div>HRLT Resistivity 2 (RLA2)</div> <div>(OHMM)</div> <div>0.22000</div>	<div>H. Res. Formation Density (RHO8)</div> <div>(G/C3)</div> <div>1.952.95</div>
<div>Gamma Ray (EHGR)</div> <div>(GAPI)</div> <div>0200</div>	<div>Tool/Tot. Drag</div> <div>From D3T to STIA</div>	<div>HRLT Resistivity 3 (RLA3)</div> <div>(OHMM)</div> <div>0.22000</div>	
<div>Washout</div> <div>From BS to HCAL</div>	<div>H. Res. Density Standoff (DSO8)</div> <div>(IN)</div> <div>2.50</div>	<div>HRLT Resistivity 4 (RLA4)</div> <div>(OHMM)</div> <div>0.22000</div>	
<div>Undergauge</div> <div>From HCAL to BS</div>	<div>H. Res. Resistivity Standoff (RSO8)</div> <div>(IN)</div> <div>2.50</div>	<div>HRLT Resistivity 5 (RLA5)</div> <div>(OHMM)</div> <div>0.22000</div>	
	<div>Calibrated Downhole Force (CDF) (LBF)</div> <div>01000</div>	<div>HRLT Mud Resistivity (RM_HRLT)</div> <div>(OHMM)</div> <div>0.02200</div>	

PIP SUMMARY

- └

Integrated Hole Volume Minor Pip Every 10 F3
- └

Integrated Hole Volume Major Pip Every 100 F3
- └

Integrated Cement Volume Minor Pip Every 10 F3
- └

Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
SPE-A: Extended Spontaneous Potential – A		
SPNV	SP Next Value	0 MV
HRLT-B: High Resolution Laterolog Array – E		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	117 DEGC
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.018227 DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9
GTSE	Generalized Temperature Selection	HSTS_HTEM
KFAC_HRLT	HRLT K Factor Option	SONDE
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE
PROGINV	Inversion Selection	ON
PROCMFL	Inversion Micro-Resistivity Selection	RXO8
PROCMO	Mechanical Standoff Fin Size	2 IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute
PROCSPO	Sonde Position	Eccentered
SHT	Surface Hole Temperature	20 DEGC
HILTH-FTB: High resolution Integrated Logging Tool-DTS		
BHFL	Borehole Fluid Type	WATER
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	117 DEGC
BSCO	Borehole Salinity Correction Option	YES
CCCO	Casing & Cement Thickness Correction Option	NO
DHC	Density Hole Correction	BS
FSAL	Formation Salinity	-50000 PPM
FSCO	Formation Salinity Correction Option	YES
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.018227 DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9
GTSE	Generalized Temperature Selection	HSTS_HTEM
HSCO	Hole Size Correction Option	YES
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE
MCCO	Mud Cake Correction Option	NO

MCOR	Mud Correction	NATU	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	YES	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
CMRT-B: Combinable Magnetic Resonance Tool – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	117	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	20	DEGC
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	117	DEGC
FCD	Future Casing (Outer) Diameter	6.625	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	20	DEGC
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth – Driller	3545.10	M
TDL	Total Depth – Logger	3418.30	M
System and Miscellaneous			
BS	Bit Size	8.500	IN
BSAL	Borehole Salinity	26300.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	43.50	LB/F
DFD	Drilling Fluid Density	9.40	LB/G
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	24.60	DEGC
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	0.1738	OHMM
TD	Total Depth	3418.3	M

Format: Combo_500_HiRes Vertical Scale: 1:500 Graphics File Created: 02-Dec-2004 15:15

OP System Version: 12C0-301

MCM

SPE-A	12C0-301	HRLT-B	12C0-301
HILTH-FTB	12C0-301	CMRT-B	12C0-301
DTC-H	12C0-301		

Input DLIS Files

02-Dec-2004 12:10

Output DLIS Files

DEFAULT HRLA_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 02-Dec-2004 15:14

Schlumberger

**Repeat Analysis
(1:500)**

Input DLIS Files

02-Dec-2004 12:09

DEFAULT HRLA_TLD_MCFL_CNL_020PUP FN:19 PRODUCER 02-Dec-2004 15:14 3416.4 M 2414.3 M

Output DLIS Files

DEFAULT HRLA_TLD_MCFL_CNL_027PUP FN:26 PRODUCER 02-Dec-2004 16:33 3010.1 M 2909.0 M

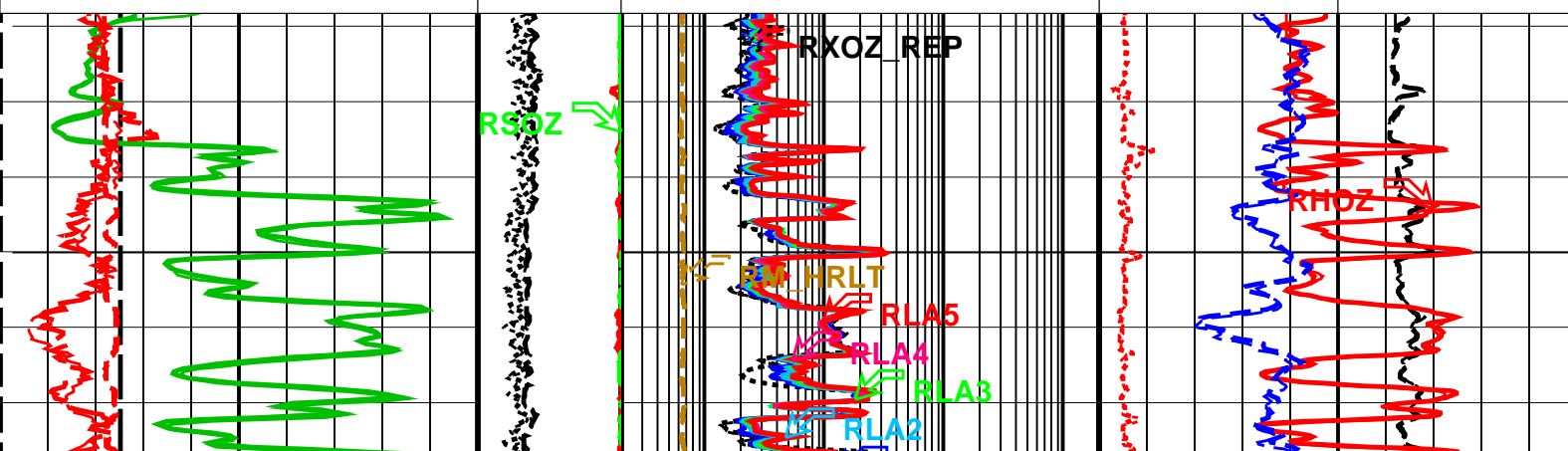
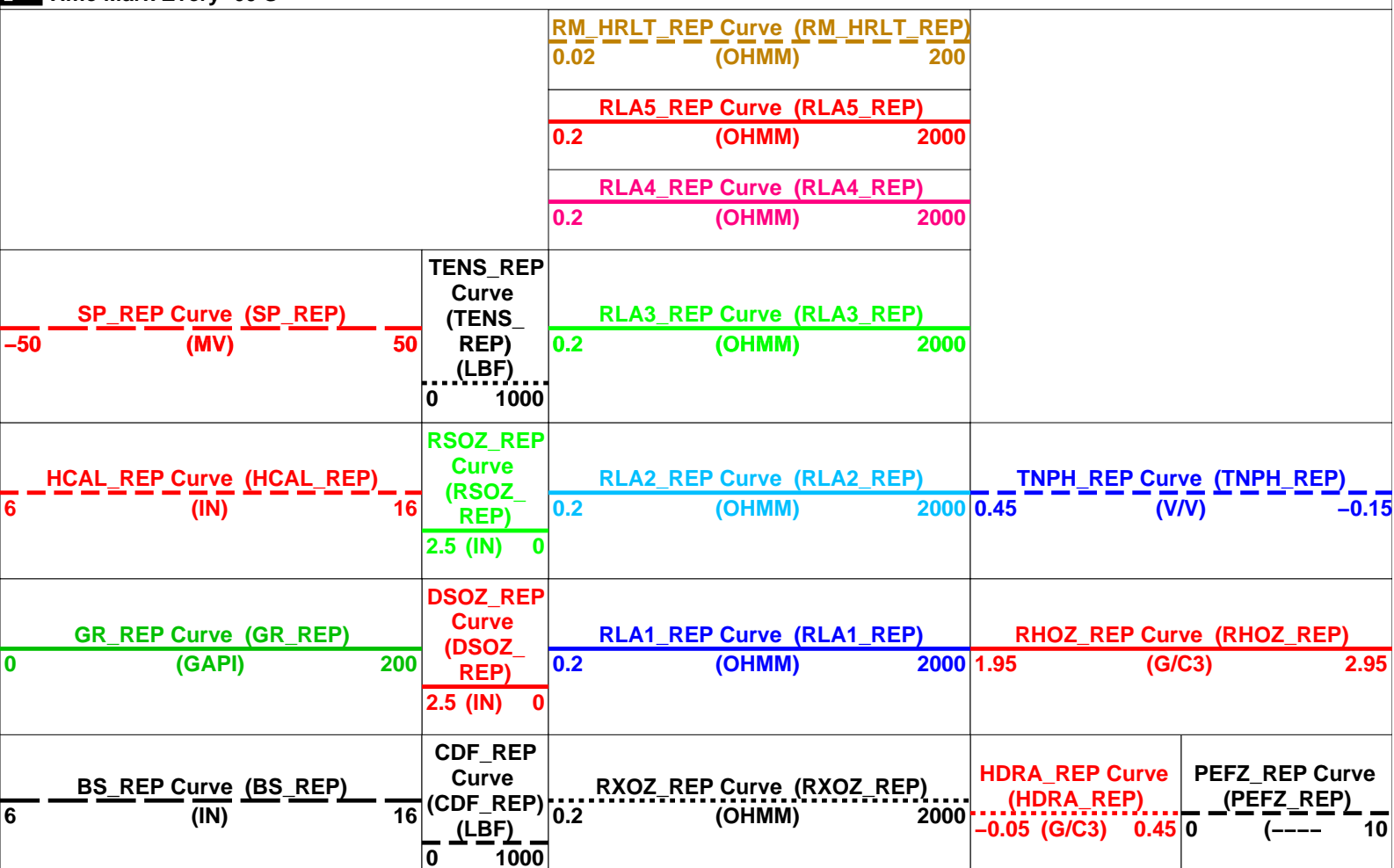
OP System Version: 12C0-301

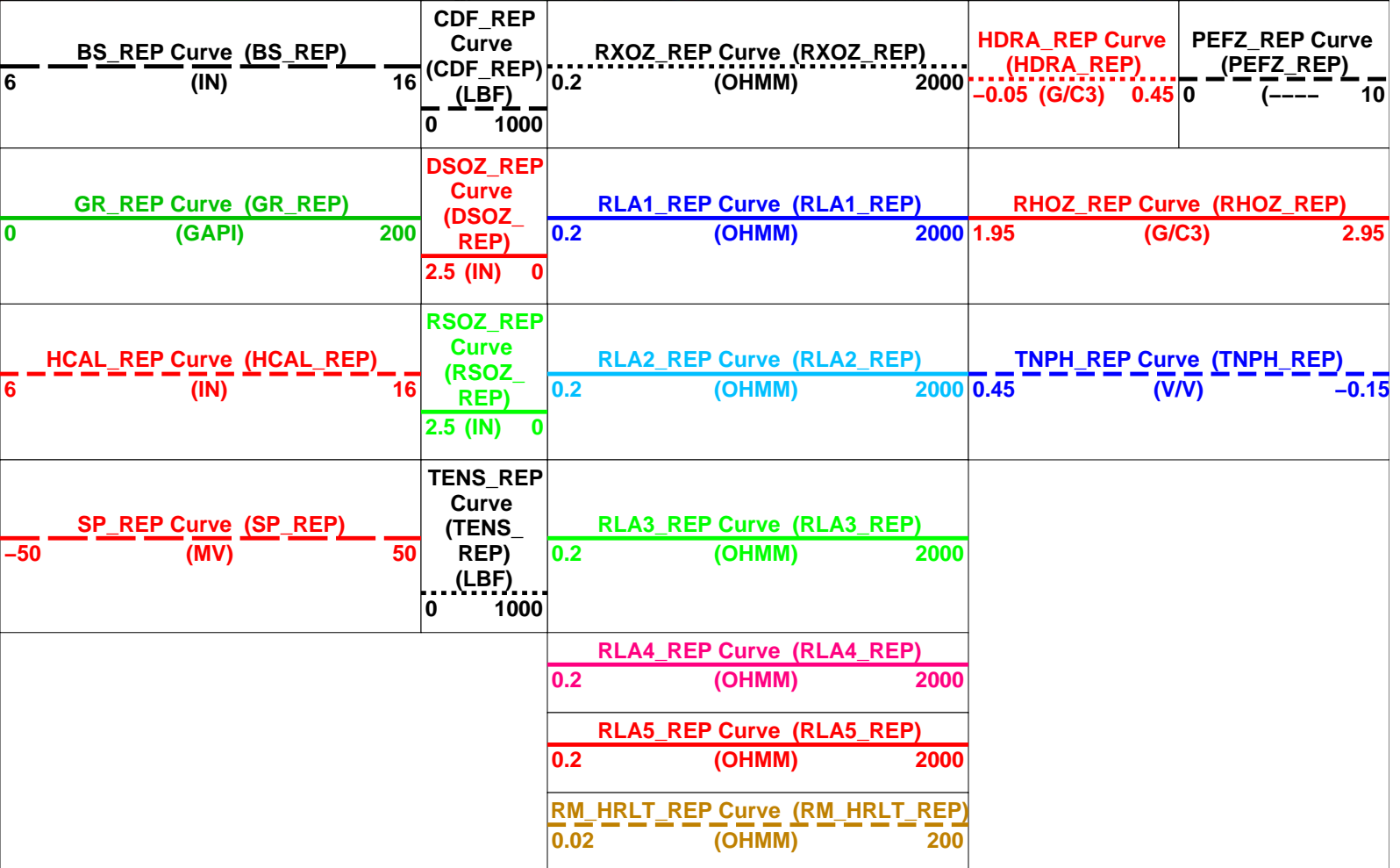
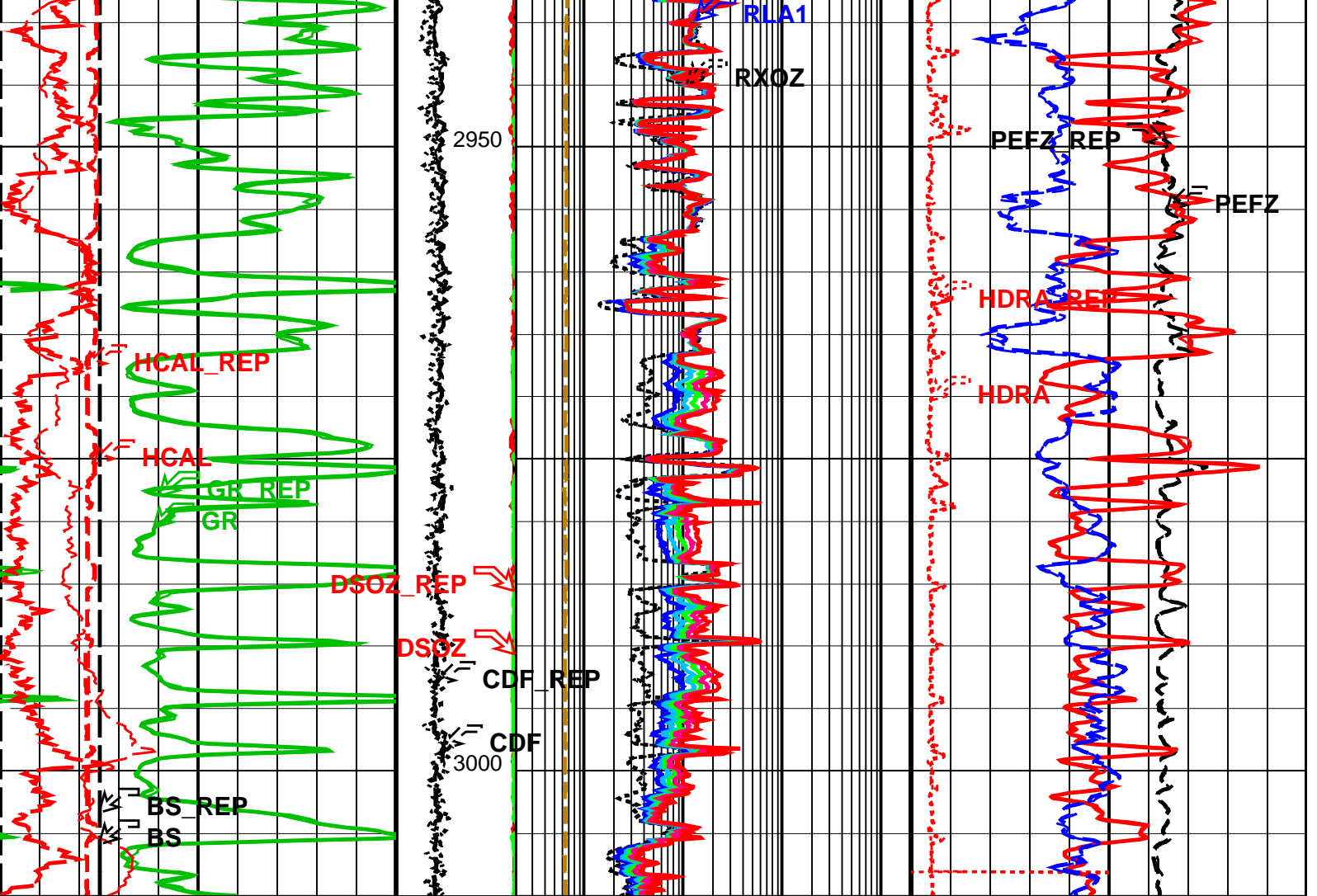
MCM

SPE-A	12C0-301	HRLT-B	12C0-301
HILTH-FTB	12C0-301	CMRT-B	12C0-301
DTC-H	12C0-301		

PIP SUMMARY

Time Mark Every 60 S





PIP SUMMARY

Parameters

DLIS Name	Description	Value	
SPE-A: Extended Spontaneous Potential – A			
SPNV	SP Next Value	0	MV
HRLT-B: High Resolution Laterolog Array – E			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
KFAC_HRLT	HRLT K Factor Option	SONDE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCVN	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	RX08	
PROCMSO	Mechanical Standoff Fin Size	2	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	YES	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	YES	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	20	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
CMRT-B: Combinable Magnetic Resonance Tool – B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	20	DEGC
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	100	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	20	DEGC
STI: Stuck Tool Indicator			
TDL	Total Depth – Logger	3418.30	M
System and Miscellaneous			
BS	Bit Size	8.500	IN
BSAL	Borehole Salinity	26300.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	43.50	LB/F
DFD	Drilling Fluid Density	9.40	LB/G
DO	Depth Offset for Playback	2.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M

MST	Mud Sample Temperature	24.60	DEGC
PP	Playback Processing		
RMFS	Resistivity of Mud Filtrate Sample	RECOMPUTE	0.1738
TD	Total Depth	3418.3	OHMM
			M

Format: Combo_500_REP	Vertical Scale: 1:500	Graphics File Created: 02-Dec-2004 16:33
-----------------------	-----------------------	--

OP System Version: 12C0-301			
MCM			
SPE-A	12C0-301	HRLT-B	12C0-301
HILTH-FTB	12C0-301	CMRT-B	12C0-301
DTC-H	12C0-301		

Input DLIS Files					
				02-Dec-2004 12:09	
DEFAULT	HRLA_TLD_MCFL_CNL_020PUP	FN:19	PRODUCER	02-Dec-2004 15:14	3416.4 M 2414.3 M
Output DLIS Files					
DEFAULT	HRLA_TLD_MCFL_CNL_027PUP	FN:26	PRODUCER	02-Dec-2004 16:33	



Gamma Ray Casing Log (1:500)

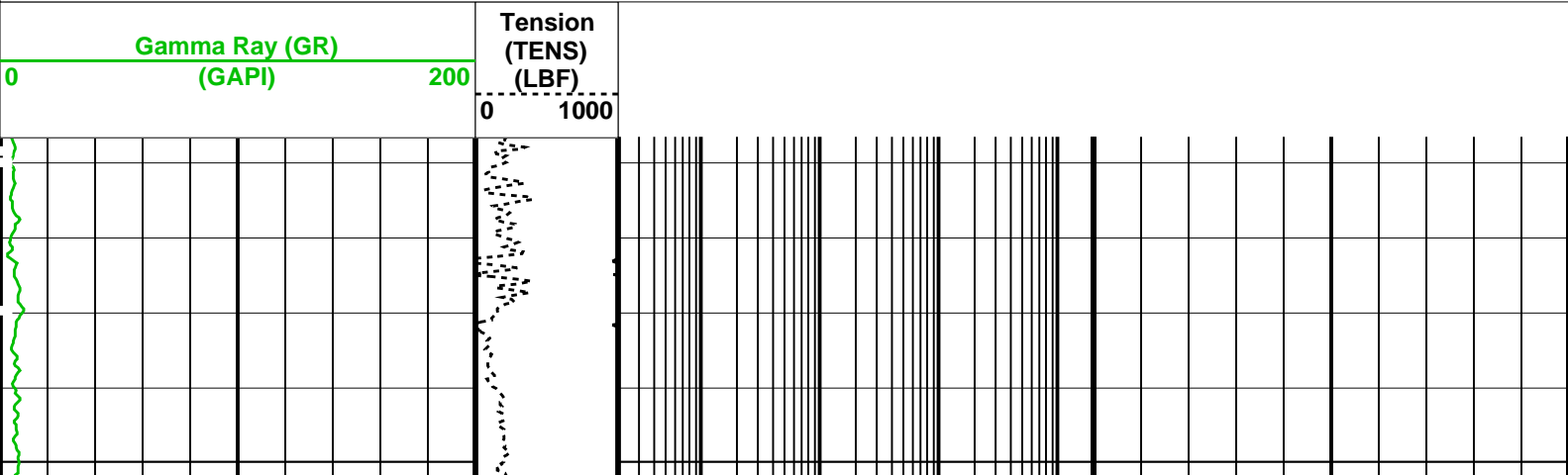
MAXIS Field Log

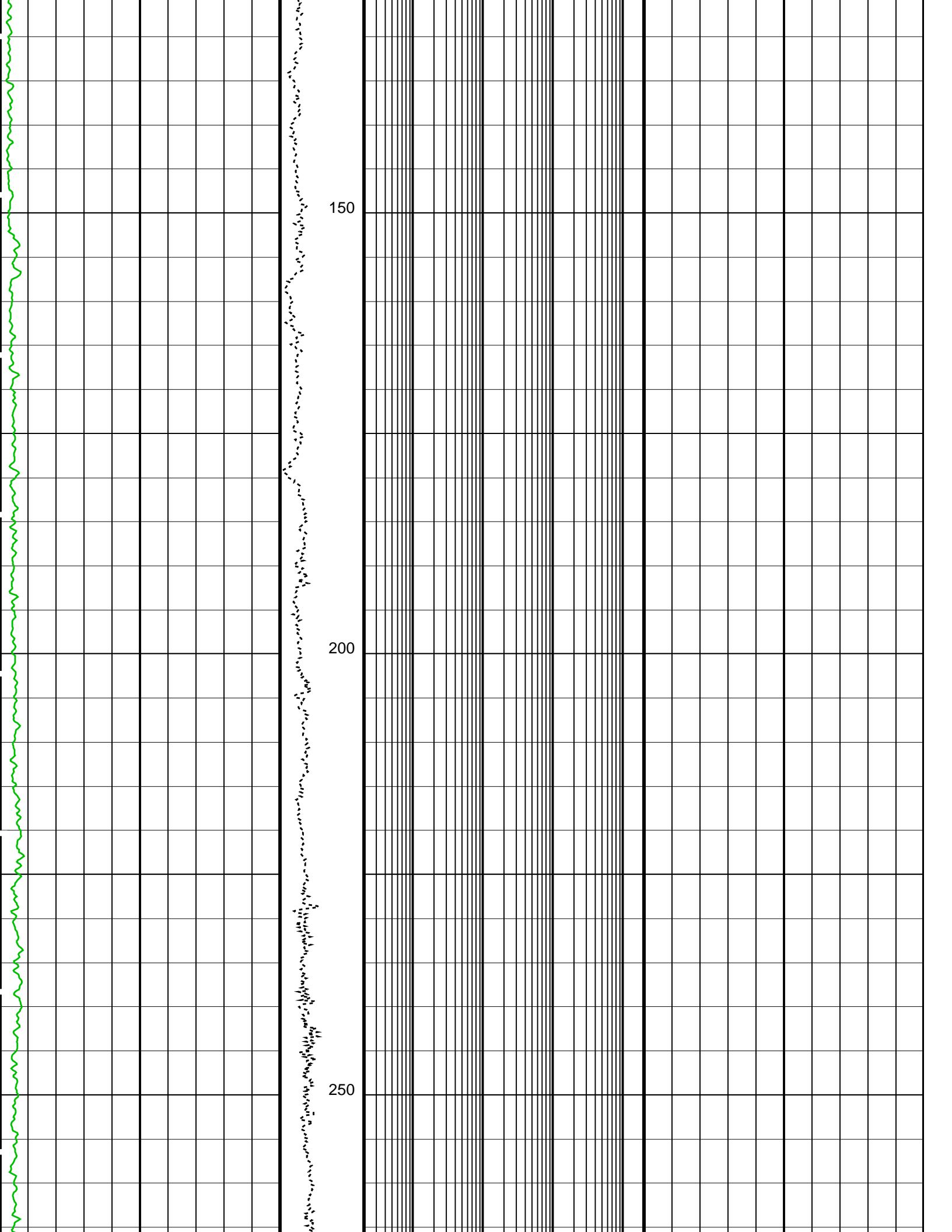
Company: Origin Energy Resources Ltd.	Well: Trefoil-1
---------------------------------------	-----------------

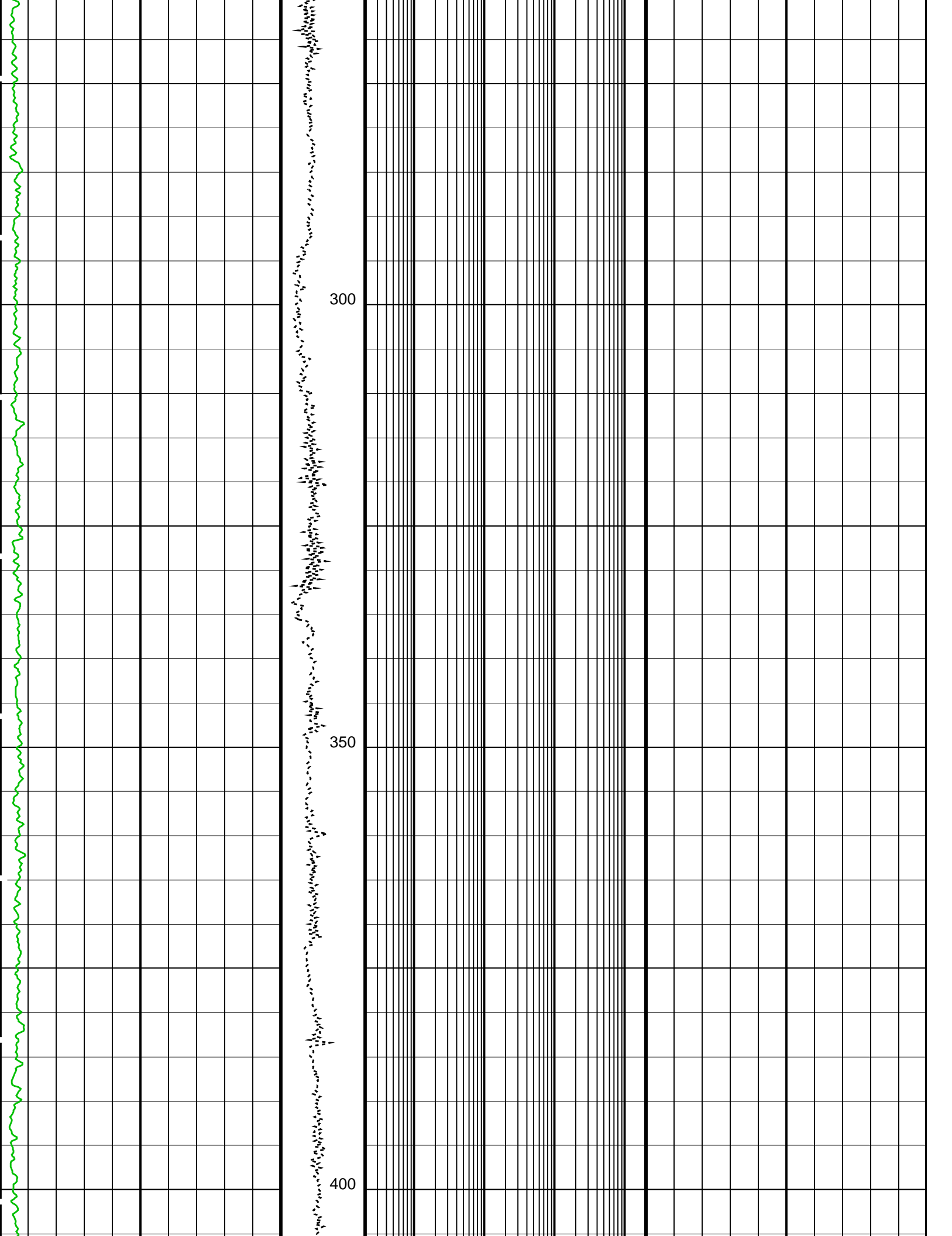
Input DLIS Files					
DEFAULT	HRLA_TLD_MCFL_CNL_021LUP	FN:33	PRODUCER	02-Dec-2004 11:23	2439.4 M 18.3 M
Output DLIS Files					
DEFAULT	HRLA_TLD_MCFL_CNL_032PUP	FN:31	PRODUCER	02-Dec-2004 18:10	2435.0 M 103.3 M

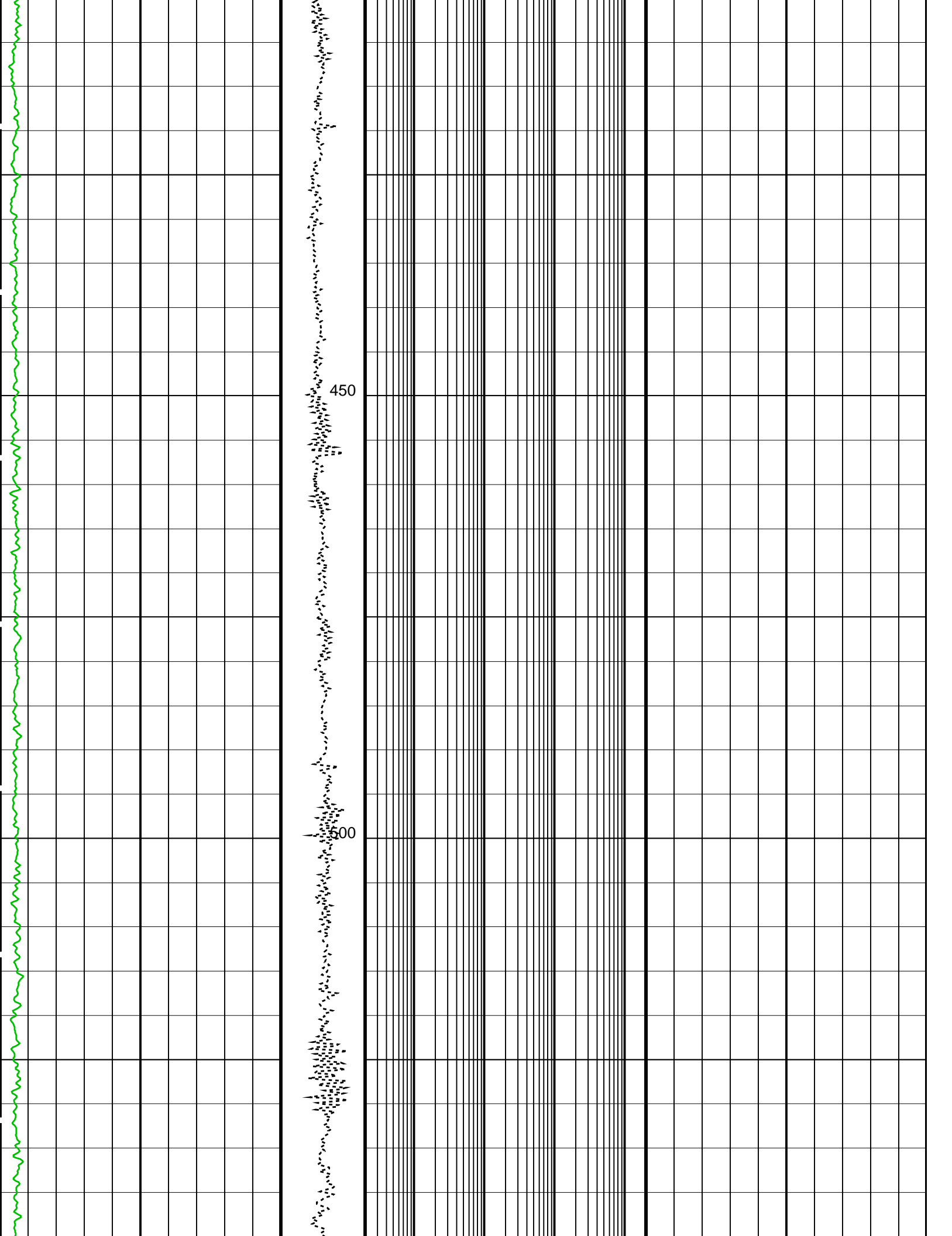
OP System Version: 12C0-301			
MCM			
SPE-A	12C0-301	HRLT-B	12C0-301
HILTH-FTB	12C0-301	CMRT-B	12C0-301
DTC-H	12C0-301		

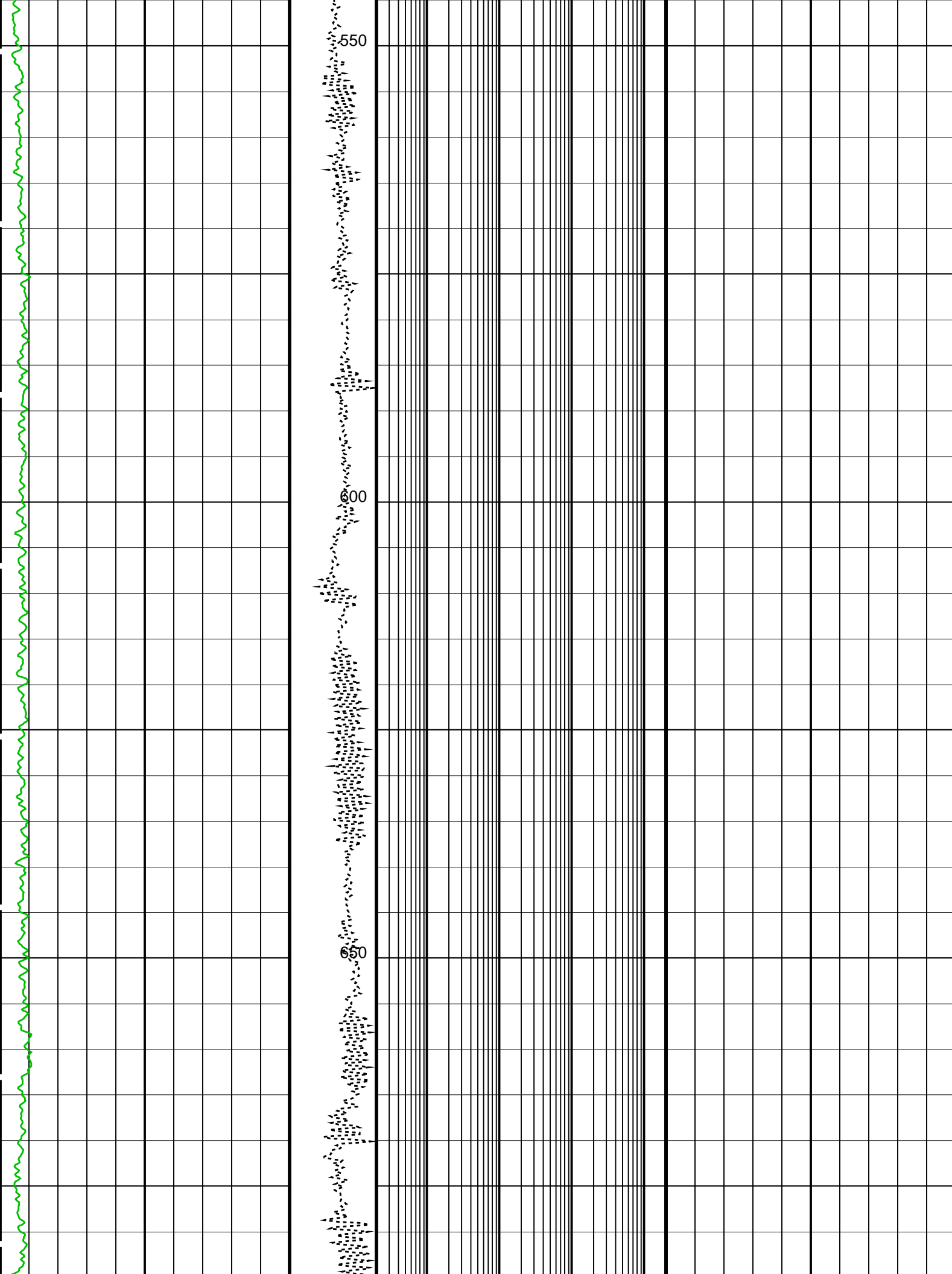
PIP SUMMARY	
Time Mark Every 60 S	

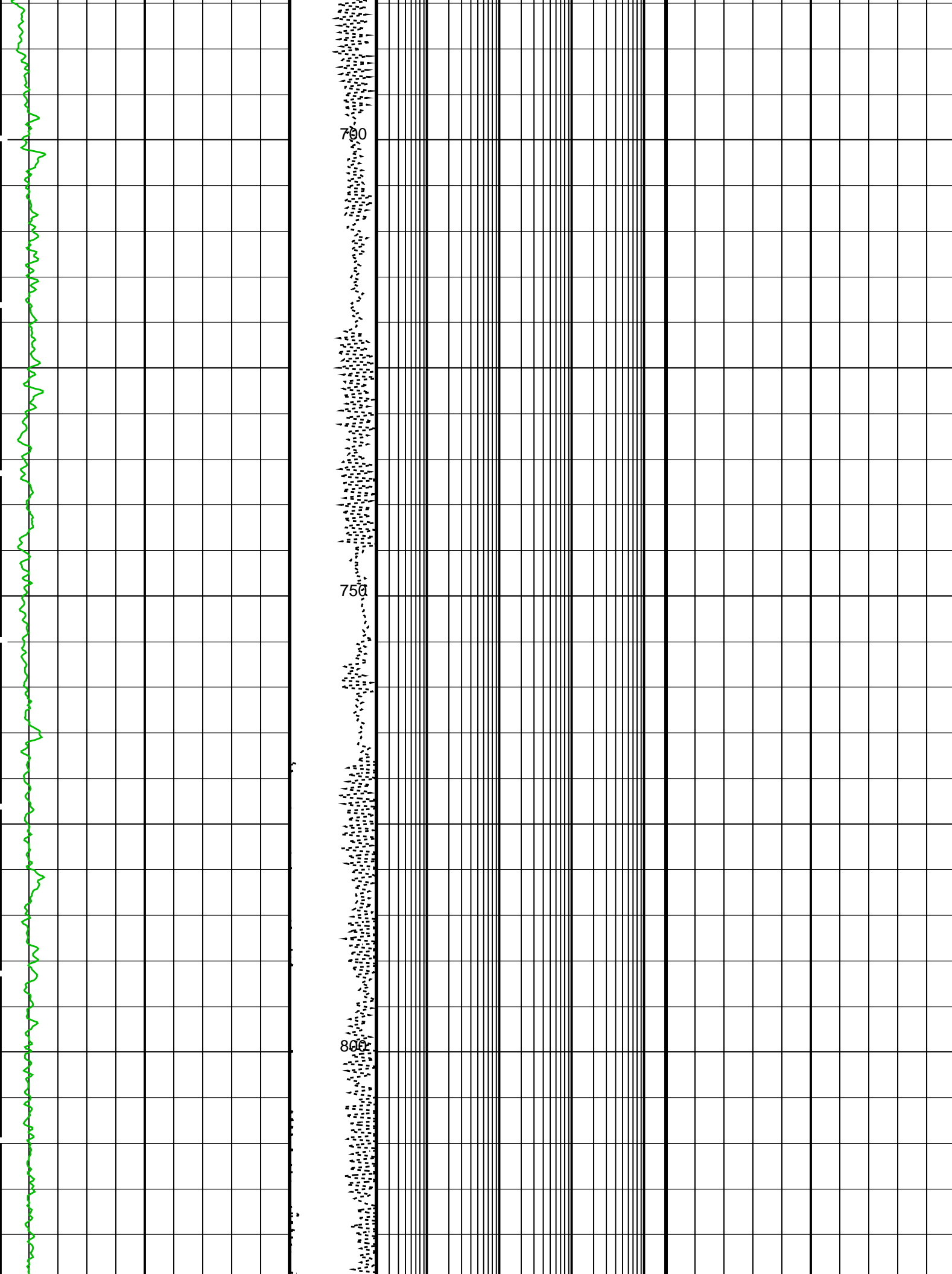


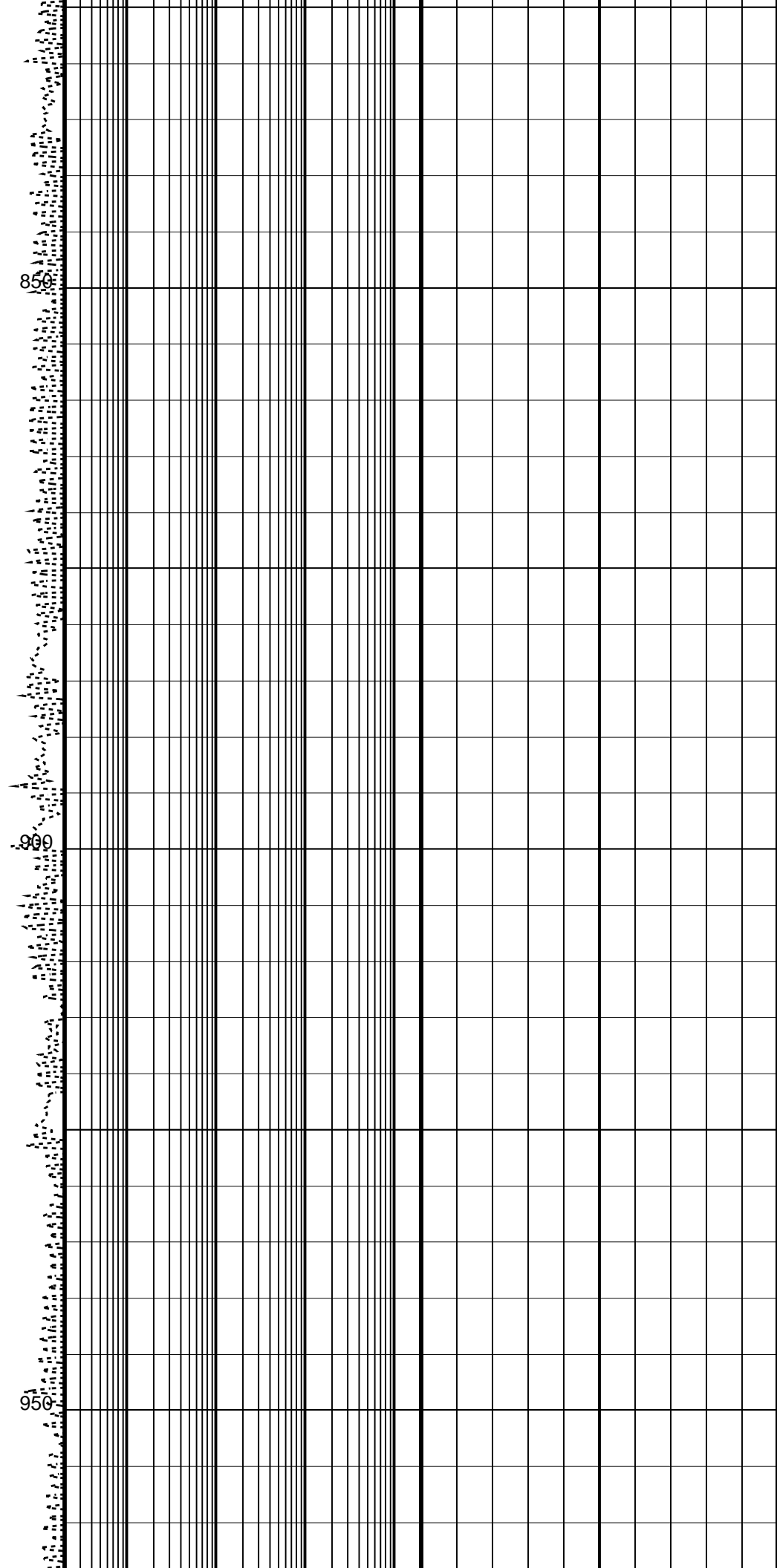
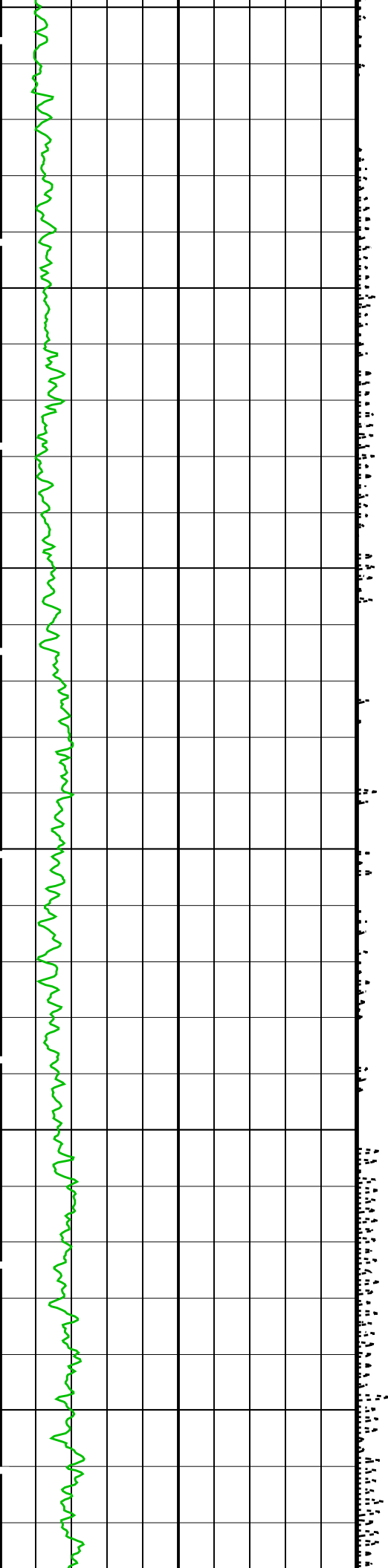


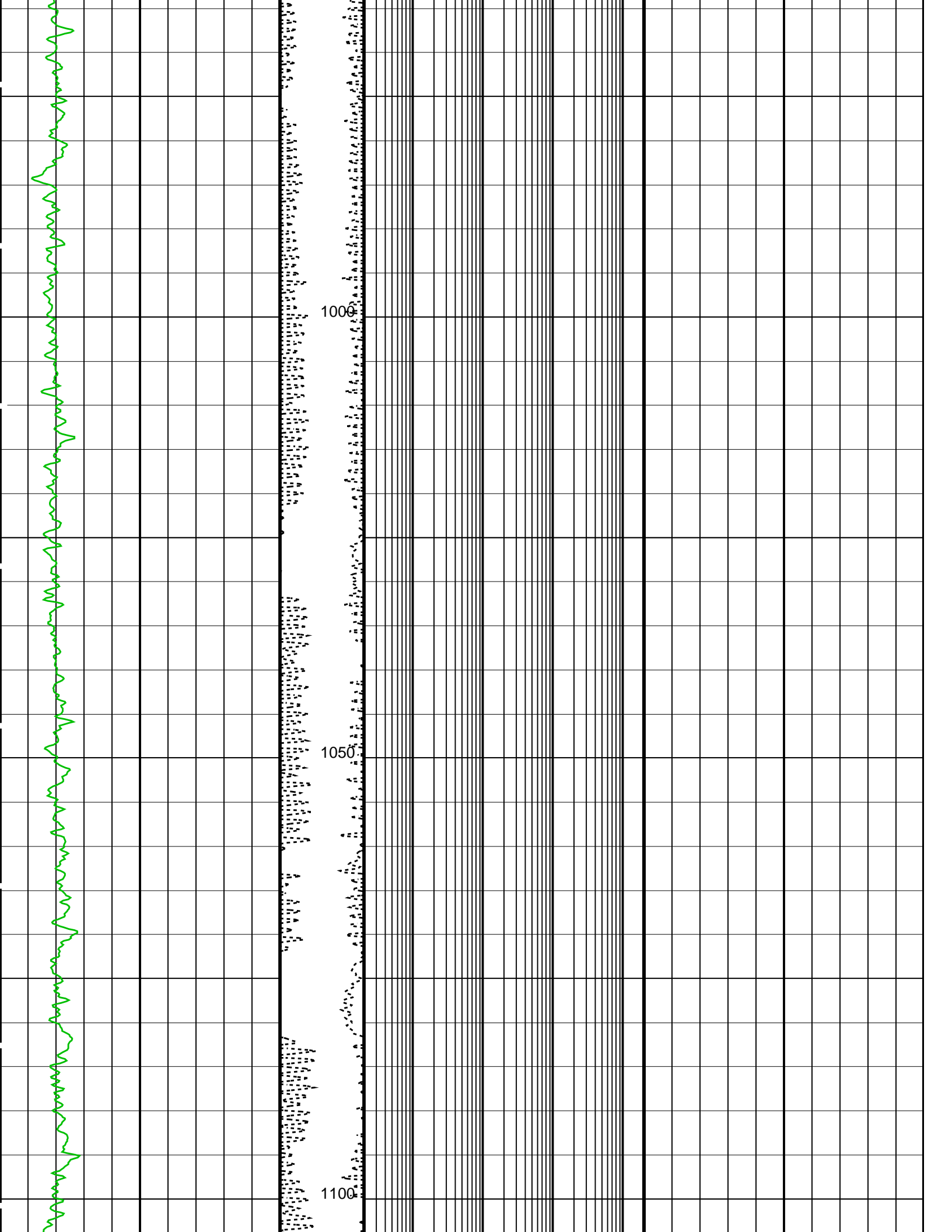


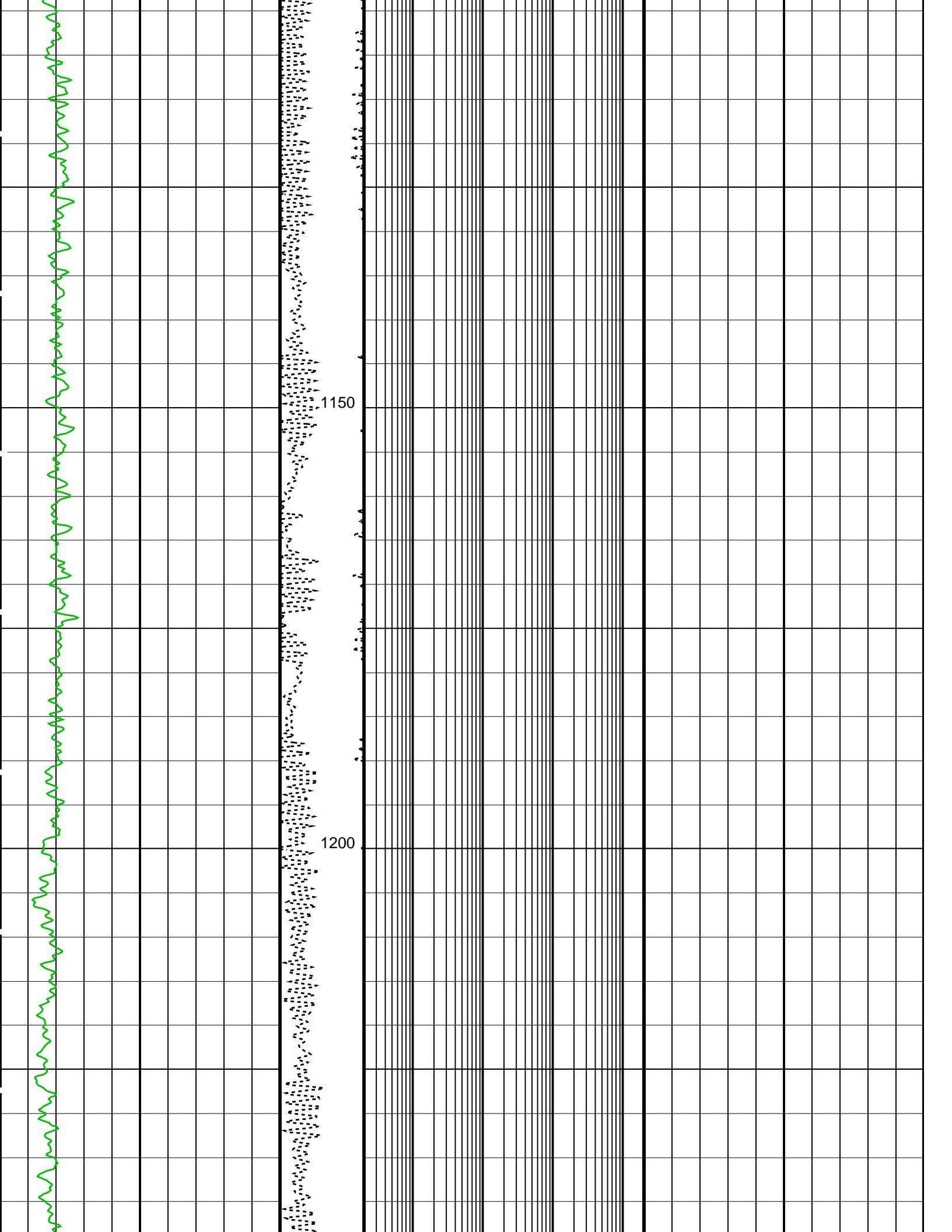


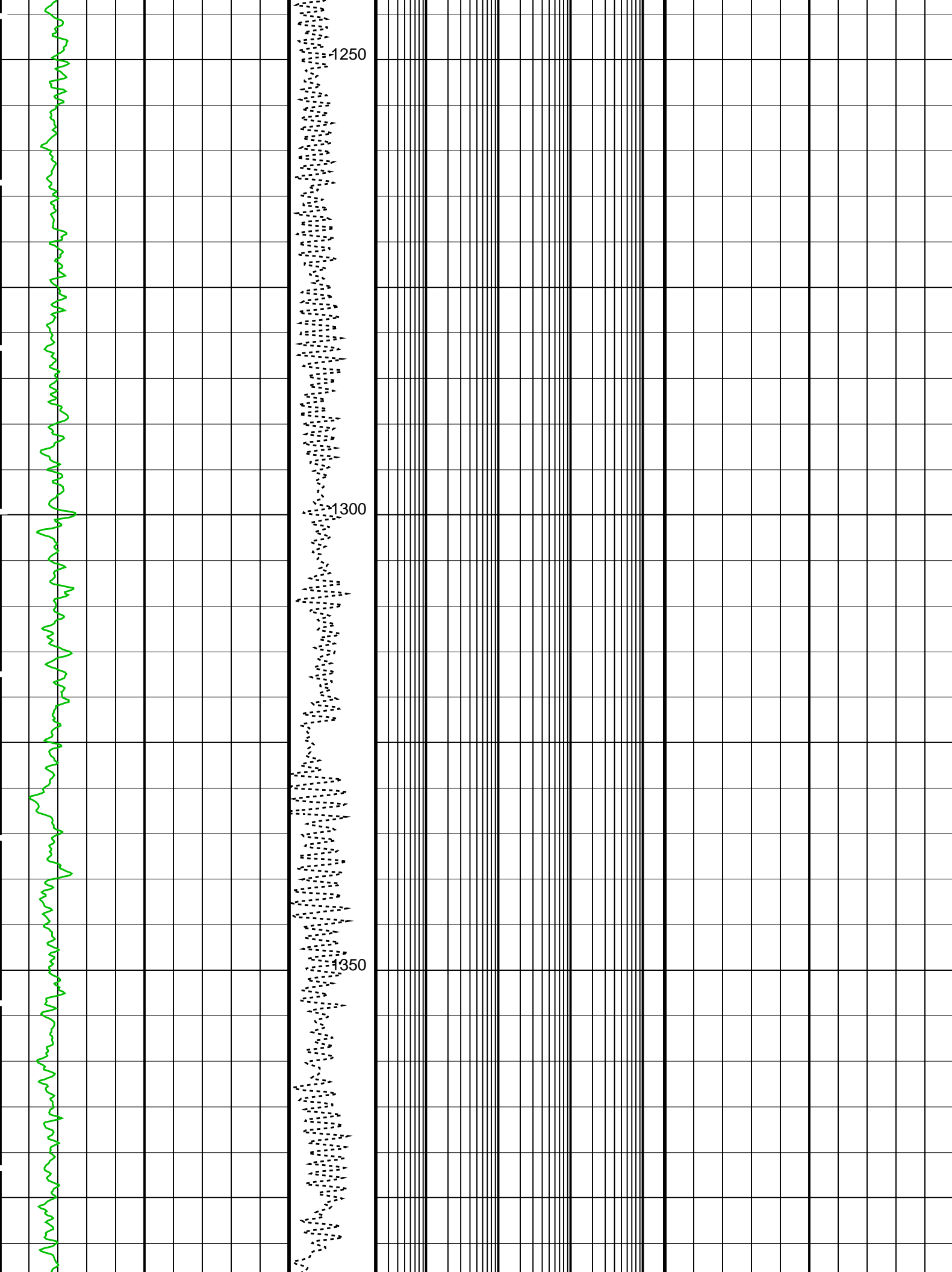


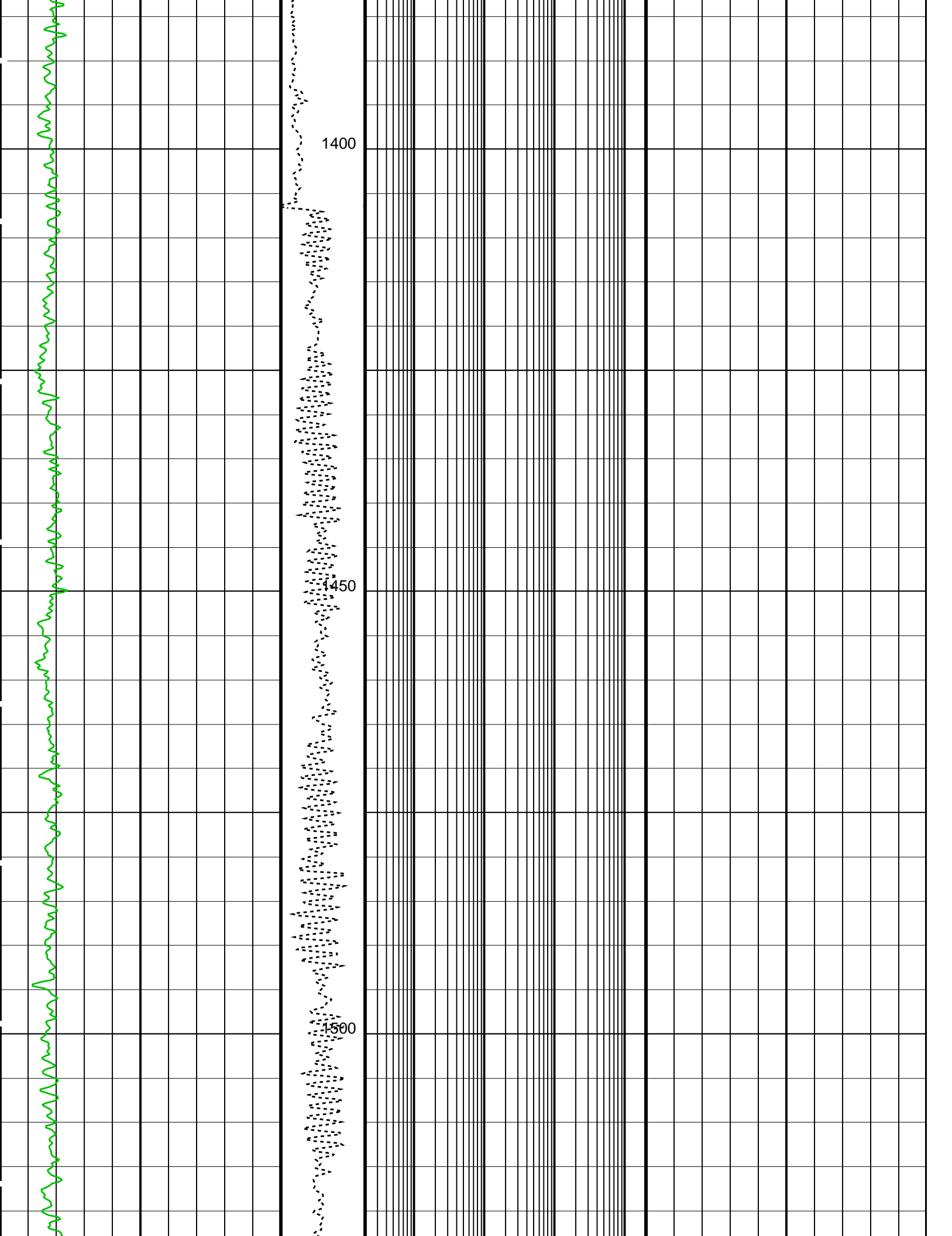


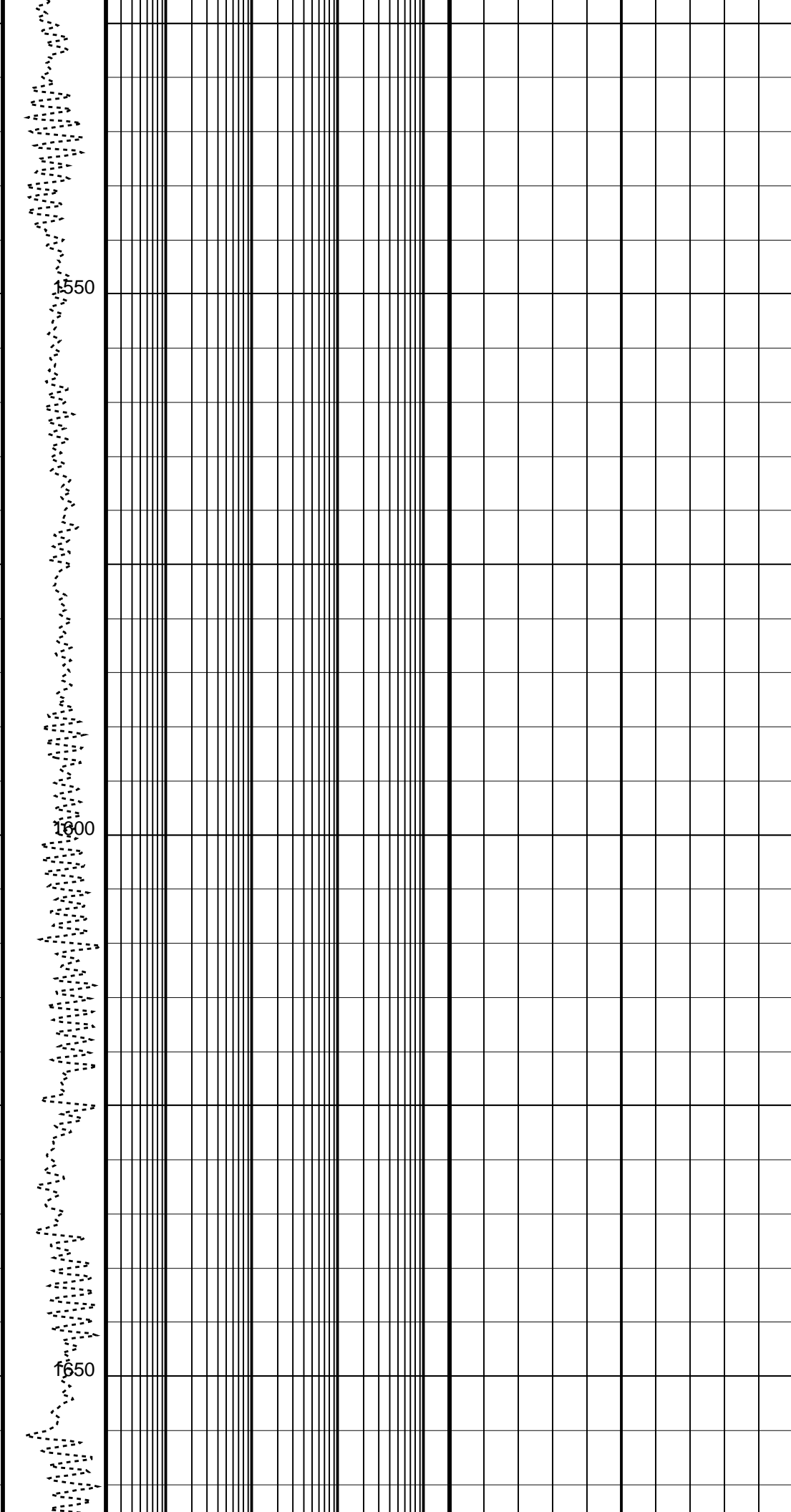
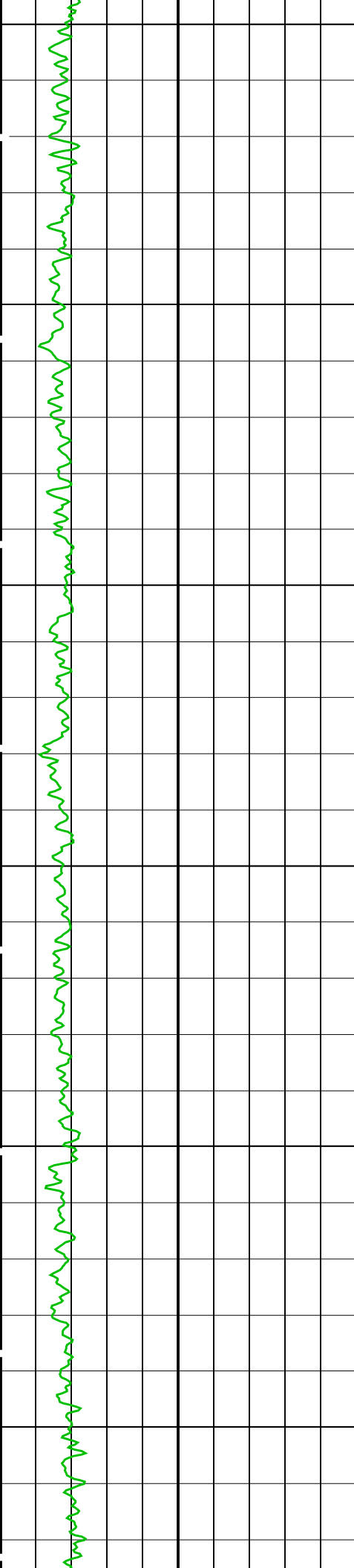


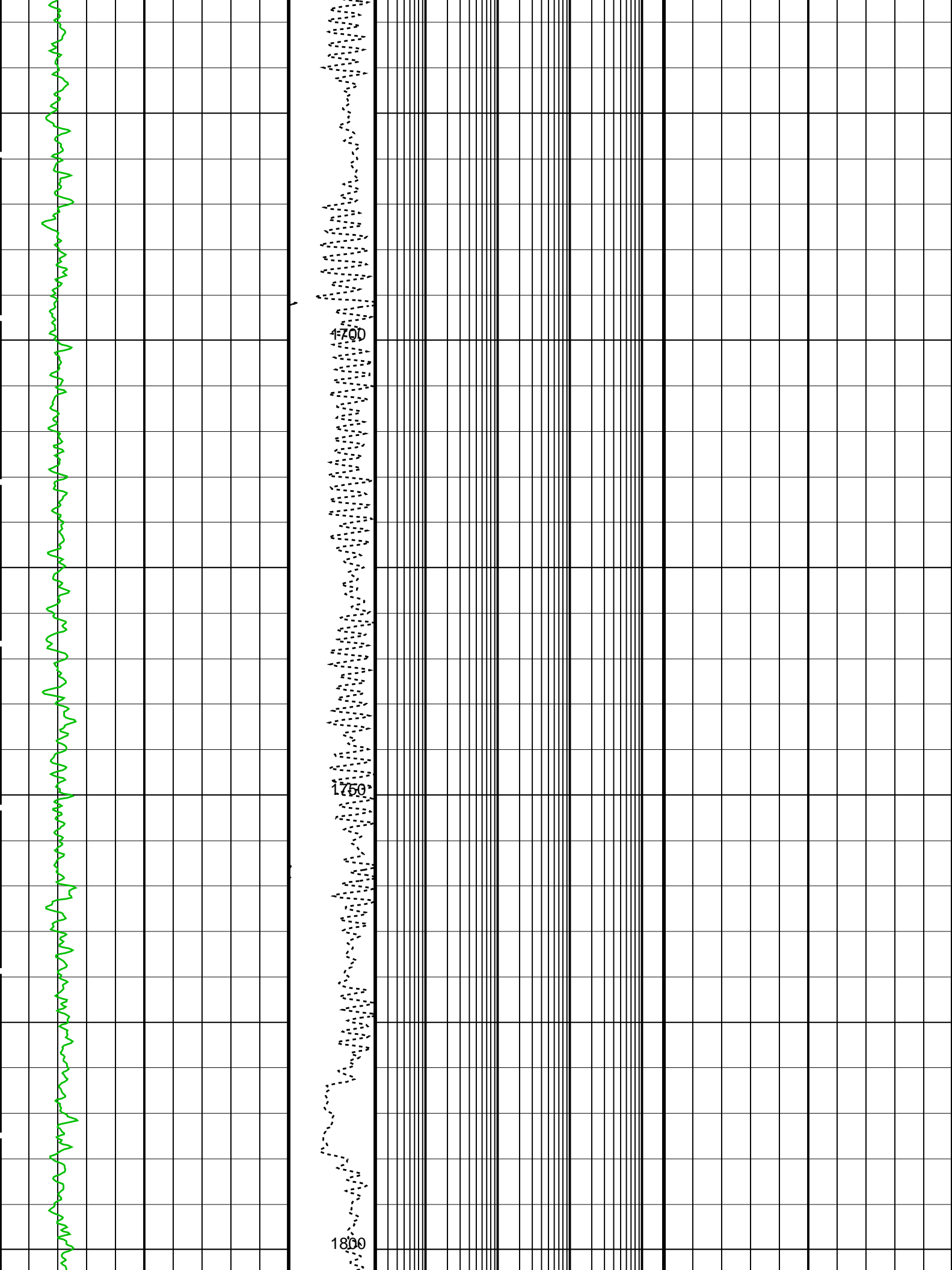


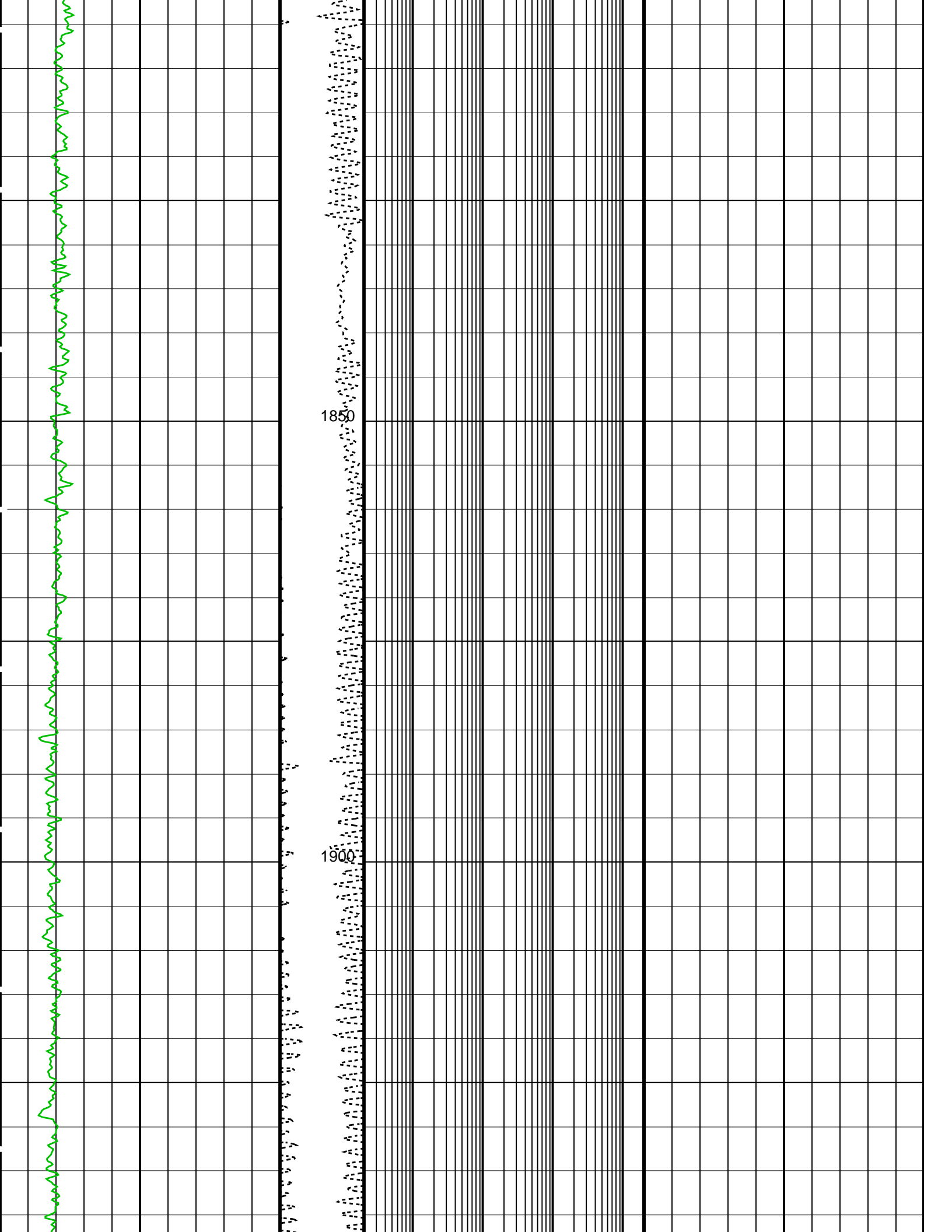


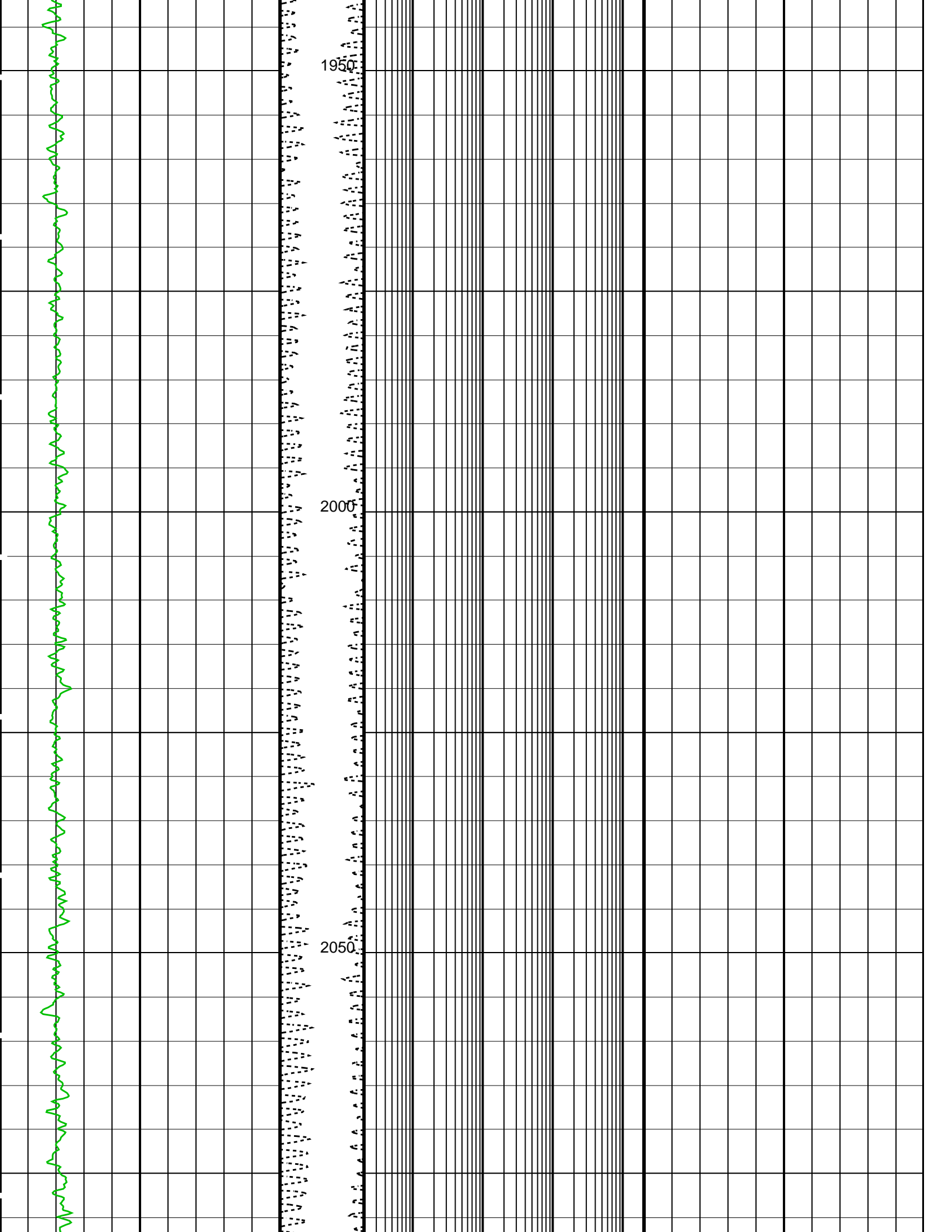


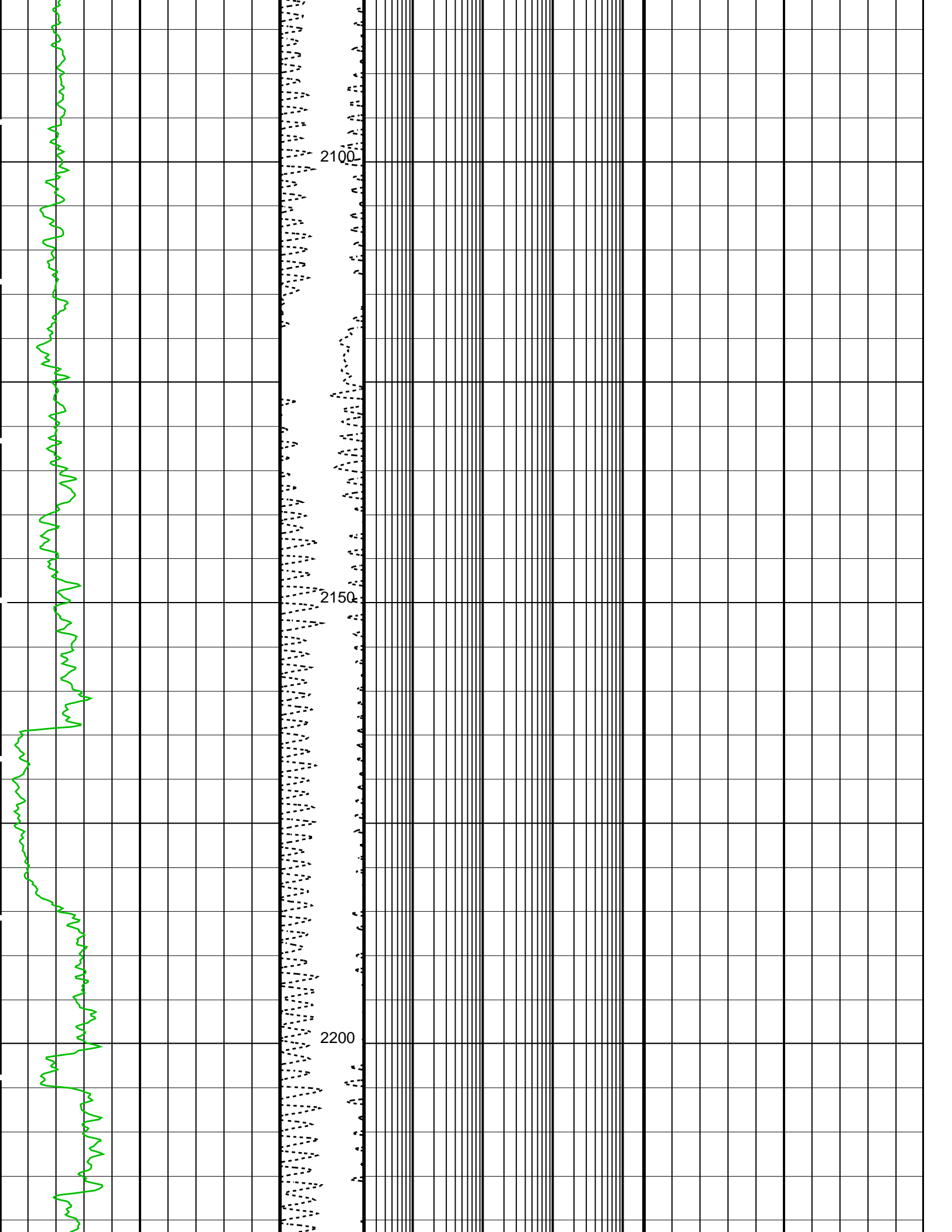


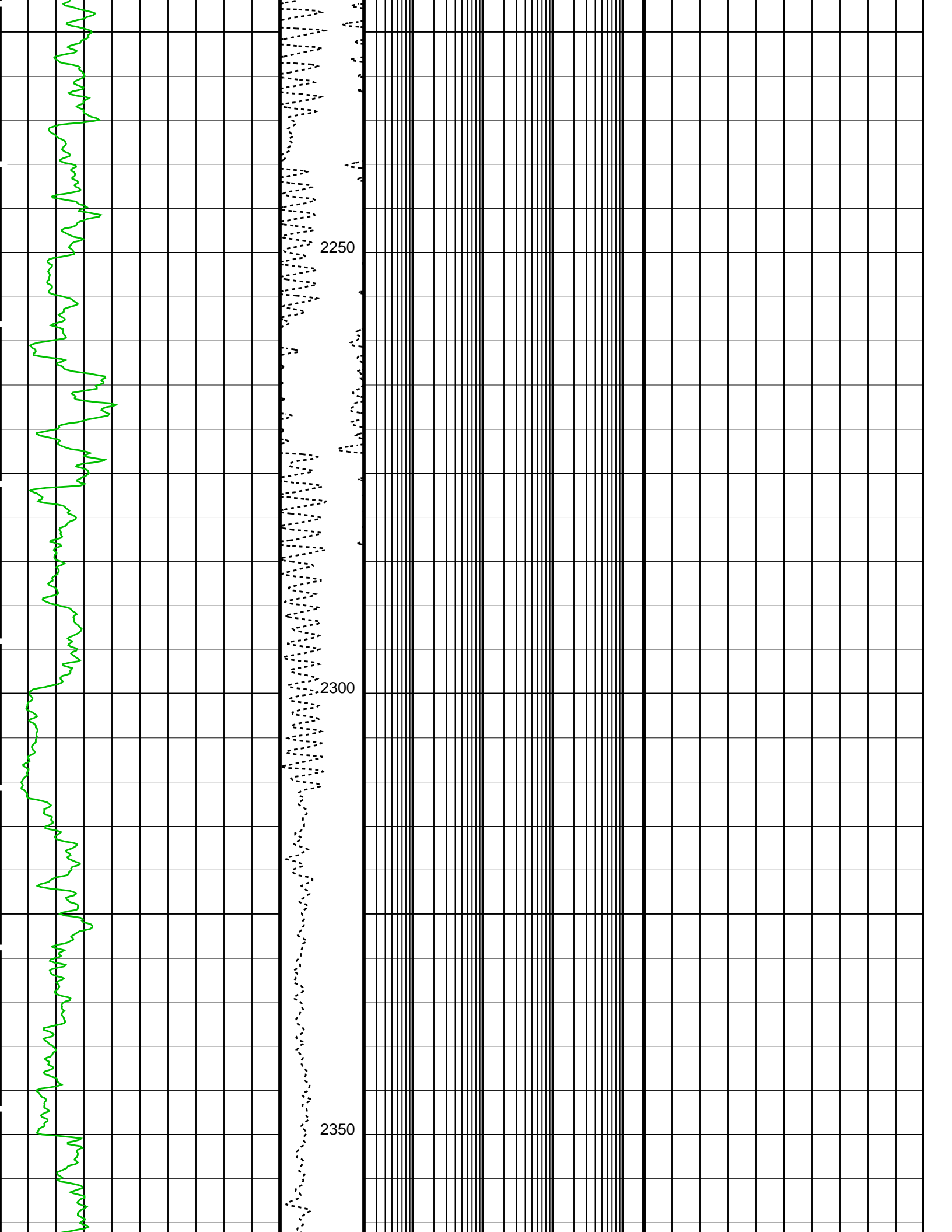


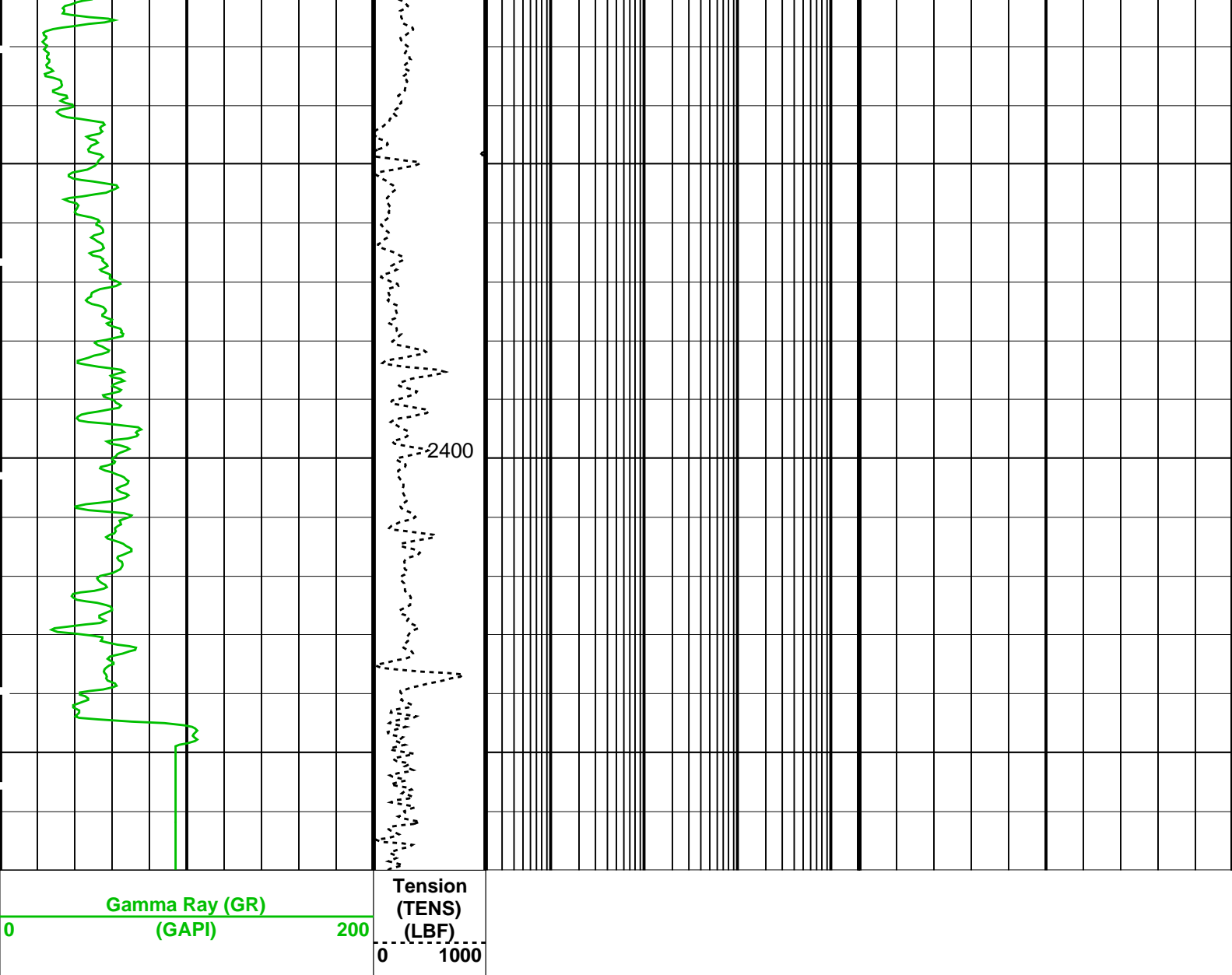












PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback	4.4 M
	Playback Processing	NORMAL

Format: GR_Casing_500 Vertical Scale: 1:500 Graphics File Created: 02-Dec-2004 18:10

OP System Version: 12C0-301
MCM

SPE-A	12C0-301	HRLT-B	12C0-301
HILTH-FTB	12C0-301	CMRT-B	12C0-301
DTC-H	12C0-301		

Input DLIS Files

DEFAULT	HRLA_TLD_MCFL_CNL_021LUP	FN:33	PRODUCER	02-Dec-2004 11:23	2439.4 M	18.3 M
---------	--------------------------	-------	----------	-------------------	----------	--------

Output DLIS Files

DEFAULT	HRLA_TLD_MCFL_CNL_032PUP	FN:31	PRODUCER	02-Dec-2004 18:10
---------	--------------------------	-------	----------	-------------------

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
-------------	---------	--------	--------	-------	--------	-------	-------

High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01

Before: 24–Nov–2004 13:13

HRLT M0–M1 Voltage Plus – 0	0	N/A	–318.7	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 1	0	N/A	–328.4	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 2	0	N/A	–329.7	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 3	0	N/A	–327.3	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 4	0	N/A	–319.2	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 5	0	N/A	–322.8	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 6	0	N/A	331.1	N/A	N/A	9.681	UV
HRLT M0–M1 Voltage Plus – 7	0	N/A	–322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT M12

Before: 24–Nov–2004 13:13

HRLT M1–M2 Voltage Plus – 0	0	N/A	1751	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 1	0	N/A	1809	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 2	0	N/A	1809	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 3	0	N/A	1795	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 4	0	N/A	1750	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 5	0	N/A	1771	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 6	0	N/A	–1833	N/A	N/A	53.42	UV
HRLT M1–M2 Voltage Plus – 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT M23

Before: 24–Nov–2004 13:13

HRLT M2–M3 Voltage Plus – 0	0	N/A	1738	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 1	0	N/A	1804	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 2	0	N/A	1807	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 3	0	N/A	1797	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 4	0	N/A	1747	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 5	0	N/A	1769	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 6	0	N/A	–1816	N/A	N/A	53.42	UV
HRLT M2–M3 Voltage Plus – 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V34

Before: 24–Nov–2004 13:13

HRLT A3–A4 Voltage Plus – 0	0	N/A	68600	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 1	0	N/A	70910	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 2	0	N/A	71350	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 3	0	N/A	71220	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 4	0	N/A	69230	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 5	0	N/A	70130	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 6	0	N/A	–70340	N/A	N/A	2100	UV
HRLT A3–A4 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V45

Before: 24–Nov–2004 13:13

HRLT A4–A5 Voltage Plus – 0	0	N/A	68710	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 1	0	N/A	71110	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 2	0	N/A	71500	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 3	0	N/A	71390	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 4	0	N/A	69350	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 5	0	N/A	70240	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 6	0	N/A	–70530	N/A	N/A	2100	UV
HRLT A4–A5 Voltage Plus – 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array – B Wellsite Calibration – HRLT V56

Before: 24–Nov–2004 13:13

HRLT A5–A6 Voltage Plus – 0	0	N/A	68840	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 1	0	N/A	71190	N/A	N/A	2100	UV
HRLT A5–A6 Voltage Plus – 2	0	N/A	71600	N/A	N/A	2100	UV

HRLT A5-A6 Voltage Plus - 2	0	N/A	71600	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	71500	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	69480	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	70380	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-70600	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP

Before: 24-Nov-2004 13:13

HRLT Torpedo-M0 Voltage - 0	0	N/A	-68200	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-71260	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-71620	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-71470	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-69350	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-70200	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	70650	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD

Before: 24-Nov-2004 13:13

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68200	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-71210	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-71570	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-71440	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-69330	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-70190	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	70600	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

Before: 24-Nov-2004 13:13

HRLT Source Current Plus - 0	0	N/A	284.4	N/A	N/A	8.520	UA
HRLT Source Current Plus - 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 7	0	N/A	281.1	N/A	N/A	8.520	UA

High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV

Before: 24-Nov-2004 13:13

HRLT Vertical Voltage PI - 0	0	N/A	-320.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-324.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-324.3	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-319.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-308.6	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-327.0	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	340.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	N/A	N/A	9.681	UV

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Stab Measurement Summary

Before: 22-Nov-2004 17:28

BS Window Ratio	0.7324	N/A	0.7368	N/A	N/A	N/A	
BS Window Sum	27590	N/A	27610	N/A	N/A	N/A	CPS
SS Window Ratio	0.4840	N/A	0.4865	N/A	N/A	N/A	
SS Window Sum	12010	N/A	11930	N/A	N/A	N/A	CPS
LS Window Ratio	0.2932	N/A	0.2995	N/A	N/A	N/A	
LS Window Sum	1398	N/A	1385	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Photo-multiplier High Voltages Calibrations

Before: 22-Nov-2004 17:28

BS PM High Voltage (Command)	1347	N/A	1296	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1422	N/A	1424	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1328	N/A	1320	N/A	N/A	N/A	V

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Crystal Quality Resolutions Calibration

Before: 22-Nov-2004 17:28

BS Crystal Resolution	11.70	N/A	11.22	N/A	N/A	N/A	%
SS Crystal Resolution	9.918	N/A	10.37	N/A	N/A	N/A	%
LS Crystal Resolution	8.926	N/A	8.872	N/A	N/A	N/A	%

High resolution Integrated Logging Tool-DTS Wellsite Calibration - MCFL Calibration

Before: 22-Nov-2004 17:45

Raw B0 Resistivity	3875	N/A	3882	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3828	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3827	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool-DTS Wellsite Calibration - HILT Caliper Calibration

Before: 22-Nov-2004 17:45

HILT Caliper Zero Measurement	8.000	N/A	7.870	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	11.87	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 22–Nov–2004 17:22							
Gamma Ray Background	30.00	N/A	4.018	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	178.4	N/A	178.4	N/A	N/A	16.22	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement							
Master: 15–Nov–2004 23:24 Before: 22–Nov–2004 17:24							
CNTC Background	25.96	25.96	26.73	N/A	N/A	3.894	CPS
CFTC Background	27.87	27.87	25.37	N/A	N/A	4.181	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 24–Nov–2004 11:42							
Z–Axis Acceleration	9.810	N/A	9.775	N/A	N/A	N/A	M/S2
High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results							
Master: 15–Nov–2004 21:30							
Rho Aluminum	2.596	2.603	--	--	--	--	G/C3
Rho Magnesium	1.686	1.684	--	--	--	--	G/C3
Pe Aluminum	2.570	2.558	--	--	--	--	
Pe Magnesium	2.650	2.630	--	--	--	--	
High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary							
Master: 15–Nov–2004 21:30							
BS Average Deviation	0	0.5370	--	--	--	--	%
BS Max Deviation	0	1.364	--	--	--	--	%
SS Average Deviation	0	0.4926	--	--	--	--	%
SS Max Deviation	0	1.007	--	--	--	--	%
LS Average Deviation	0	0.8351	--	--	--	--	%
LS Max Deviation	0	1.655	--	--	--	--	%
Combinable Magnetic Resonance Tool – B Master Calibration – Calibration Fixture Measurement							
Master: 24–Nov–2004 12:52							
Tool Temperature MCAL	27.00	25.23	--	--	--	--	DEGC
LOOP Measurement MCAL	2300	1685	--	--	--	--	
Hall Probe B0 MCAL	52.00	52.67	--	--	--	--	MTES
Cal. Fixture Amplitude MCAL	37.50	28.84	--	--	--	--	

The GLS–VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :









NCT–B Water Temperature 15.6 DEGC.









Thermal Housing Size 3.378 IN.









High Resolution Laterolog Array – B / Equipment Identification		
Primary Equipment:		
HRLT Sonde	HRLS – B	782
Auxiliary Equipment:		
HRLT lower Housing	HRLH – B	705
HRLT Lower Cartridge	HRLC – B	705
HRLT upper Housing	HRUH – B	705
HRLT Upper Cartridge	HRUC – B	705




High Resolution Laterolog Array – B Wellsite Calibration							
HRLT M01							
Idx	Phase	HRLT M0–M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		–318.7	–322.7	–274.3	–371.1	
1	Before		–328.4	–322.7	–274.3	–371.1	
2	Before		–329.7	–322.7	–274.3	–371.1	
3	Before		–327.3	–322.7	–274.3	–371.1	
4	Before		–319.2	–322.7	–274.3	–371.1	
5	Before		–322.8	–322.7	–274.3	–371.1	
6	Before		331.1	322.7	371.1	274.3	
7	Before		–322.7	–322.7	–274.3	–371.1	

(Minimum)	(Nominal)	(Maximum)
Before: 24–Nov–2004 13:13		

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M12						
Idx	Phase	HRLT M1–M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1751	1781	2048	1514
1	Before		1809	1781	2048	1514
2	Before		1809	1781	2048	1514
3	Before		1795	1781	2048	1514
4	Before		1750	1781	2048	1514
5	Before		1771	1781	2048	1514
6	Before		–1833	–1781	–1514	–2048
7	Before		1781	1781	2048	1514
		(Minimum) (Nominal) (Maximum)				
Before: 24–Nov–2004 13:13						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2–M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1738	1781	2048	1514
1	Before		1804	1781	2048	1514
2	Before		1807	1781	2048	1514
3	Before		1797	1781	2048	1514
4	Before		1747	1781	2048	1514
5	Before		1769	1781	2048	1514
6	Before		–1816	–1781	–1514	–2048
7	Before		1781	1781	2048	1514
		(Minimum) (Nominal) (Maximum)				
Before: 24–Nov–2004 13:13						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3–A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68600	70000	80500	59500
1	Before		70910	70000	80500	59500
2	Before		71350	70000	80500	59500
3	Before		71220	70000	80500	59500
4	Before		69230	70000	80500	59500
5	Before		70130	70000	80500	59500
6	Before		–70340	–70000	–59500	–80500
7	Before		70000	70000	80500	59500
		(Minimum) (Nominal) (Maximum)				
Before: 24–Nov–2004 13:13						

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4–A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68710	70000	80500	59500
1	Before		71110	70000	80500	59500
2	Before		71500	70000	80500	59500

Before: 24-Nov-2004 13:13

Before: 24-Nov-2004 13:13




Primary Equipment:




HRMS – H	3736
HRGD – H	3737
HILT – H	
HILT – H	
HILT – H	
MCFL – H	
GLS – VJ	2957
HRCC – H	3724




Auxiliary Equipment:



Before: 22-Nov-2004 17:28




Photo-multiplier High Voltages Calibrations





Phase	BS PM High Voltage (Command) V		Value	Phase	SS PM High Voltage (Command) V		Value	Phase	LS PM High Voltage (Command) V		Value
Before			1296	Before			1424	Before			1320
	1247 (Minimum)	1347 (Nominal)	1447 (Maximum)		1322 (Minimum)	1422 (Nominal)	1522 (Maximum)		1228 (Minimum)	1328 (Nominal)	1428 (Maximum)
Before: 22–Nov–2004 17:28											


High resolution Integrated Logging Tool–DTS Wellsite Calibration											
Crystal Quality Resolutions Calibration											
Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			11.22	Before			10.37	Before			8.872
	10.70 (Minimum)	11.70 (Nominal)	12.70 (Maximum)		8.918 (Minimum)	9.918 (Nominal)	10.92 (Maximum)		7.926 (Minimum)	8.926 (Nominal)	9.926 (Maximum)
Before: 22–Nov–2004 17:28											





High resolution Integrated Logging Tool–DTS Wellsite Calibration											
MCFL Calibration											
Phase	Raw B0 Resistivity OHMM		Value	Phase	Raw B1 Resistivity OHMM		Value	Phase	Raw B2 Resistivity OHMM		Value
Before			3882	Before			3828	Before			3827
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)
Before: 22–Nov–2004 17:45											

High resolution Integrated Logging Tool–DTS Wellsite Calibration							
HILT Caliper Calibration							
Phase	HILT Caliper Zero Measurement IN		Value	Phase	HILT Caliper Plus Measurement IN		Value
Before			7.870	Before			11.87
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 22–Nov–2004 17:45							

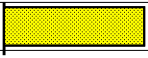


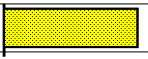


High resolution Integrated Logging Tool–DTS Wellsite Calibration											
Detector Calibration											
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig – Bkg) GAPI		Value	Phase	Gamma Ray (Calibrated) GAPI		Value
Before			4.018	Before			178.4	Before			165.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		162.2 (Minimum)	178.4 (Nominal)	194.7 (Maximum)		150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 22–Nov–2004 17:22											

High resolution Integrated Logging Tool–DTS Wellsite Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			25.96	Master			27.87
Before			26.73	Before			25.37
5.000 (Minimum)			25.96 (Nominal)	40.00 (Maximum)			
5.000 (Minimum)			27.87 (Nominal)	40.00 (Maximum)			
Master: 15–Nov–2004 23:24				Before: 22–Nov–2004 17:24			

High resolution Integrated Logging Tool–DTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z–Axis Acceleration M/S2	Value	
Before		9.775	
	9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)
Before: 24–Nov–2004 11:42			

High resolution Integrated Logging Tool–DTS Master Calibration									
Inversion results									
Phase	Rho Aluminum G/C3			Value	Phase	Rho Magnesium G/C3			Value
Master				2.603	Master				1.684
2.586 (Minimum)		2.596 (Nominal)		2.606 (Maximum)	1.676 (Minimum)		1.686 (Nominal)		1.696 (Maximum)
Phase	Pe Aluminum			Value	Phase	Pe Magnesium			Value
Master				2.558	Master				2.630

2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)
Master: 15–Nov–2004 21:30					

High resolution Integrated Logging Tool–DTS Master Calibration														
Deviation Summary														
Phase	BS Average Deviation %			Value	Phase	SS Average Deviation %			Value	Phase	LS Average Deviation %			Value
Master				0.5370	Master				0.4926	Master				0.8351
	–0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)		–1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)			–1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)		
Phase	BS Max Deviation %			Value	Phase	SS Max Deviation %			Value	Phase	LS Max Deviation %			Value
Master				1.364	Master				1.007	Master				1.655
	–1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)		–2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)			–3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)		
Master: 15–Nov–2004 21:30														

Combinable Magnetic Resonance Tool – B / Equipment Identification		
Primary Equipment:		
CMR–B Sonde	CMRS – BA	92
CMR Cartridge	CMRC – BA	87
Auxiliary Equipment:		

Combinable Magnetic Resonance Tool – B Master Calibration														
Calibration Fixture Measurement														
Phase	Tool Temperature MCAL DEGC			Value	Phase	LOOP Measurement MCAL			Value	Phase	Hall Probe B0 MCAL MTES			Value
Master	<div><div></div></div>			25.23	Master	<div><div></div></div>			1685	Master	<div><div></div></div>			52.67
	10.00 (Minimum)	27.00 (Nominal)	44.00 (Maximum)		1500 (Minimum)	2300 (Nominal)	2900 (Maximum)			50.00 (Minimum)	52.00 (Nominal)	55.00 (Maximum)		
Phase	Cal. Fixture Amplitude MCAL			Value										
Master	<div><div></div></div>			28.84										
	25.00 (Minimum)	37.50 (Nominal)	50.00 (Maximum)											
Master: 24–Nov–2004 12:52														

Company: **Origin Energy Resources Ltd.**

Schlumberger

Well: **Trefoil–1**
Field: **Trefoil**
Rig: **ENSCO 102**
Country: **Australia**

SP–HRLA–PEX–CMR–C
Nuclear–Resistivity Print
1:500 Scale