COMPANIA: YPF S.A.

POZO: YPF.Ch.EA−605

CAMPO: El Alba

PROVINCIA: CHUBUT **PAIS:** ARGENTINA

Schlumberger

COMBINADA + CMR

ESCALA: 1/200

Multiple: 1 | Campo: El Alba | Locacion: CAS | Pozo: YPF.Ch.EA−605 | Compania: YPF S.A.

LOCACION

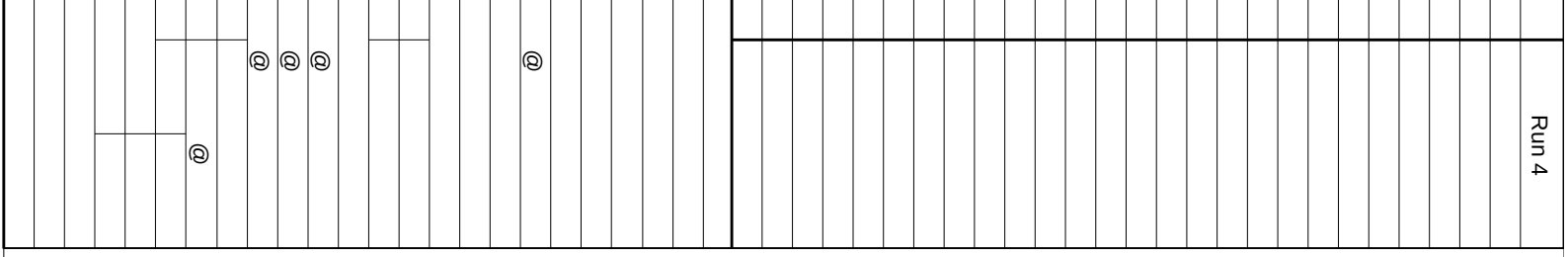
AIT−LDL−CALI
CMR
RFT / CST

Elev.: B.V. 669.93 m
N. T. 664.23 m
M. R. 669.63 m

Ref. Permanente: NIVEL DEL TERRENO Elev.: 664.23 m
Reg. Medido Desde: NIVEL DEL TERRENO 0.0 m sobre nivel ref.
Perforacion Medida Desde: NIVEL DEL TERRENO

UWI: AR0100006194	Equipo PI−354	Longitud X: 4.947.834,12	Latitud 2.586.371,62

			Run 1	Run 2	Run 3
Fecha	15−Dec−2004	15−Dec−2004			Logging Date
Corrida No.	1	2			Run Number
Prof. Perforador	1900 m	1900 m			Depth Driller
Prof. Registro	1902 m	1902 m			Logger Depth
Primera Lectura	1899.6 m	1899 m			Bottom Log Interval
Ultima Lectura	356 m	960 m			Top Log Interval
Fondo Tuberia Perforador	9.625 in @ 355.72 m	9.625 in @ 355.72 m		@	Casing Driller Size @ Depth
Fondo Tuberia Registro	356 m	356 m			Casing Logger
Diametro Trepano	8.750 in	8.750 in			Bit Size
Tipo De Lodo	PHPA	PHPA			Type Fluid In Hole
Densidad / Viscosidad	1.18 g/cm3 / 59 s	1.18 g/cm3 / 59 s			MUD: Density / Viscosity
Perdidas / PH	5.7 cm3 / 8.5	5.7 cm3 / 8.5			MUD: Fluid Loss / PH
Fuente Muestra De Lodo	PILETA	PILETA			Source Of Sample
RM @ Temp.	3.050 ohm.m @ 9 degC	3.050 ohm.m @ 9 degC		@	RM @ Measured Temperature
RMF @ Temp.	3.030 ohm.m @ 9 degC	3.030 ohm.m @ 9 degC		@	RMF @ Measured Temperature
RMC @ Temp.	3.080 ohm.m @ 9 degC	3.080 ohm.m @ 9 degC		@	RMC @ Measured Temperature
Fuente: RMF / RMC	PRENSA / PRENSA	PRENSA / PRENSA			Source RMF / RMC
RM @ T. Fdo. / RMF @ T. Fdo.	1.001 @ 70 / 0.994 @ 70	1.001 @ 70 / 0.994 @ 70	@	@	@ RM @ MRT / RMF @ MRT
Temp. Maxima Medida	70 degC	70 degC			Maximum Recorded Temperatures
Circulacion Final / Hora	14−Dec−2004 23:00	14−Dec−2004 23:00			Circulation Stopped / Time
Registro Fondo / Hora	15−Dec−2004 6:00	15−Dec−2004 6:00			Logger On Bottom / Time
Unidad No. / Locacion	3064 CAS	3064 CAS			Unit Number / Location
Registrado por:	Luis Curetti	Luis Curetti			Recorded By
Testigo	Anibal Silveira	Anibal Silveira			Witnessed By



DEPTH SUMMARY LISTING

Date Created: 15−DEC−2004 4:06:55

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−42P−XS
Serial Number:	4858	Serial Number:	1686	Serial Number:	71141
Calibration Date:	06−Jun−2003	Calibration Date:	21−Ago−2004	Length:	2409.14 M
Calibrator Serial Number:	5969	Calibrator Serial Number:	1028	Conveyance Method:	Wireline
Calibration Cable Type:	7−42P−XS	Calibration Gain:	0.99	Rig Type:	LAND
Wheel Correction 1:	−2	Calibration Offset:	519.00		
Wheel Correction 2:	−2				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	67.00 M
Rig Up Length At Bottom:	67.00 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	1.90 M
Tool Zero Check At Surface:	0.10 M

Depth Control Remarks

1. Primera carrera en el pozo y perfil de referencia de profundidad
2. Procedimientos estandard de profundidad de Schlumberger aplicados en esta carrera.
3.
4.
5.
6.

OTROS SERVICIOS # 1		OTROS SERVICIOS # 2	
OS1:	AIT−LDL−CALI	OS1:	AIT−LDL−CALI
OS2:	CMR	OS2:	CMR
OS3:	RFT / CST	OS3:	RFT / CST
OS4:		OS4:	
OS5:	PI−354	OS5:	PI−354

OBSERVACIONES: CORRIDA # 1	OBSERVACIONES: CORRIDA # 2
1. Primera carrera en el pozo y perfil de referencia de profundidad.	1. Perfil correlacionado con AIT−LDL−CALI del 15−Dic−2004
2. Esquema del pozo segun datos del perforador.	2. Esquema del pozo segun datos del perforador.
3. AIT corrida descentralizada utilizando stanoff de 1,5".	3. Herramienta corrida segun diagrama.
4. Coordenadas definitivas.	4. Coordenadas definitivas.
5. Datos adicionales del lodo: Cl = 500 ppm, Ca = 80 ppm.	5. Datos adicionales del lodo: Cl = 500 ppm, Ca = 80 ppm.
6. Herramienta corrida segun diagrama.	6.Maxima desviasion del pozo segun dato del perforador.
7. Ultima circulada termino el dia 14−Dic−2004 a las 23:00 hs, duro 2 hs.	7. Ultima circulada termino el dia 14−Dic−2004 a las 23:00 hs, duro 2 hs.
8. Maxima desviasion del pozo segun dato del perforador.	8. Maxima temp. registrada 70 degC, tomada en punta de herramienta.

9. Maxima temp. registrada 70 degC, tomada en punta de herramienta.

10. FPHI = DPHI, FNUM = 0.81 y FEXP = 2 para calculo de RWA.

11. LDL y CALI corridos hasta 775 m a pedido del cliente.

9. Repetibilidad del caliper afectada por posicionamiento de la sonda y zonas de mal caliper o cavernas.

10. Tramos solicitados por el cliente: 1899m − 1865m, 1850m − 1830m, 1805m − 1760m, 1740m − 1725m, 1705m − 1690m, 1645m − 1620m, 1570m − 960m

CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:	12C0−301		VERSION DEL PROGRAMA:	12C0−301	
NIVEL DEL LODO:			NIVEL DEL LODO:		
INTERVALO REGISTRADO	COMIENZO	FINAL	INTERVALO REGISTRADO	COMIENZO	FINAL

DESCRIPCION DEL EQUIPO

CORRIDA # 1

SURFACE I

GSR·
WITM (

DOWNHOLE

LEH-
LEH·
13.6

TCC-
ECH·
TCC
12.7

TelSta
11.8

SGT
SGH
SGC
SGD-
Gamma
11.8
11.8

LDT·
GSR−
PGD−
NSC−E
ECH−MI
DRS−(
PDH−
10.1

Calip
LS
SS
5.6
5.6
5.5

CORRIDA # 2

SURFACE I

GSR·
WITM (

DOWNHOLE

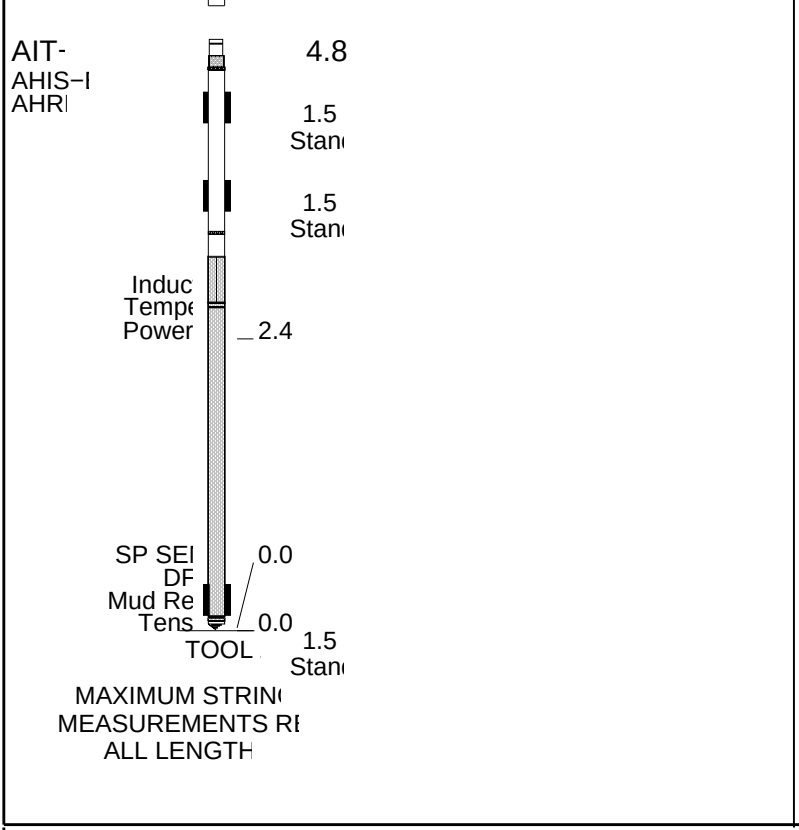
LEH-
LEH·
10.1

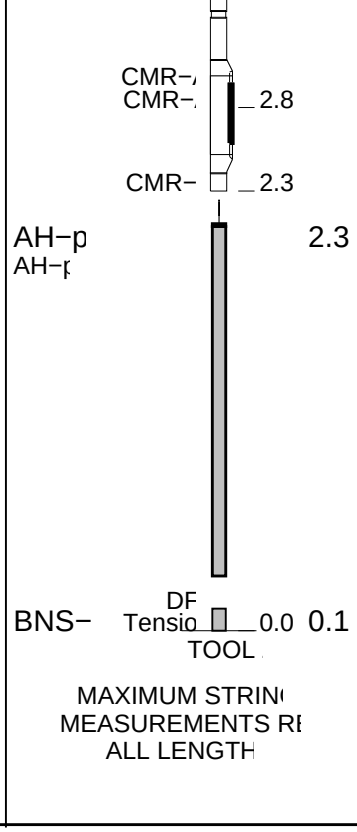
DTC
ECH·
DTCH
DTCH
CTE
8.9
9.2

TelSta
ToolS
8.3

SGT
SGH
SGC
SGD-
Gamma
8.0
8.3

CMR
CMRC·
CMRS·
EME
6.6





YPF.Ch.EA

Schlumbe

PI-35

Altura Mesa: 5

Nivel Terr

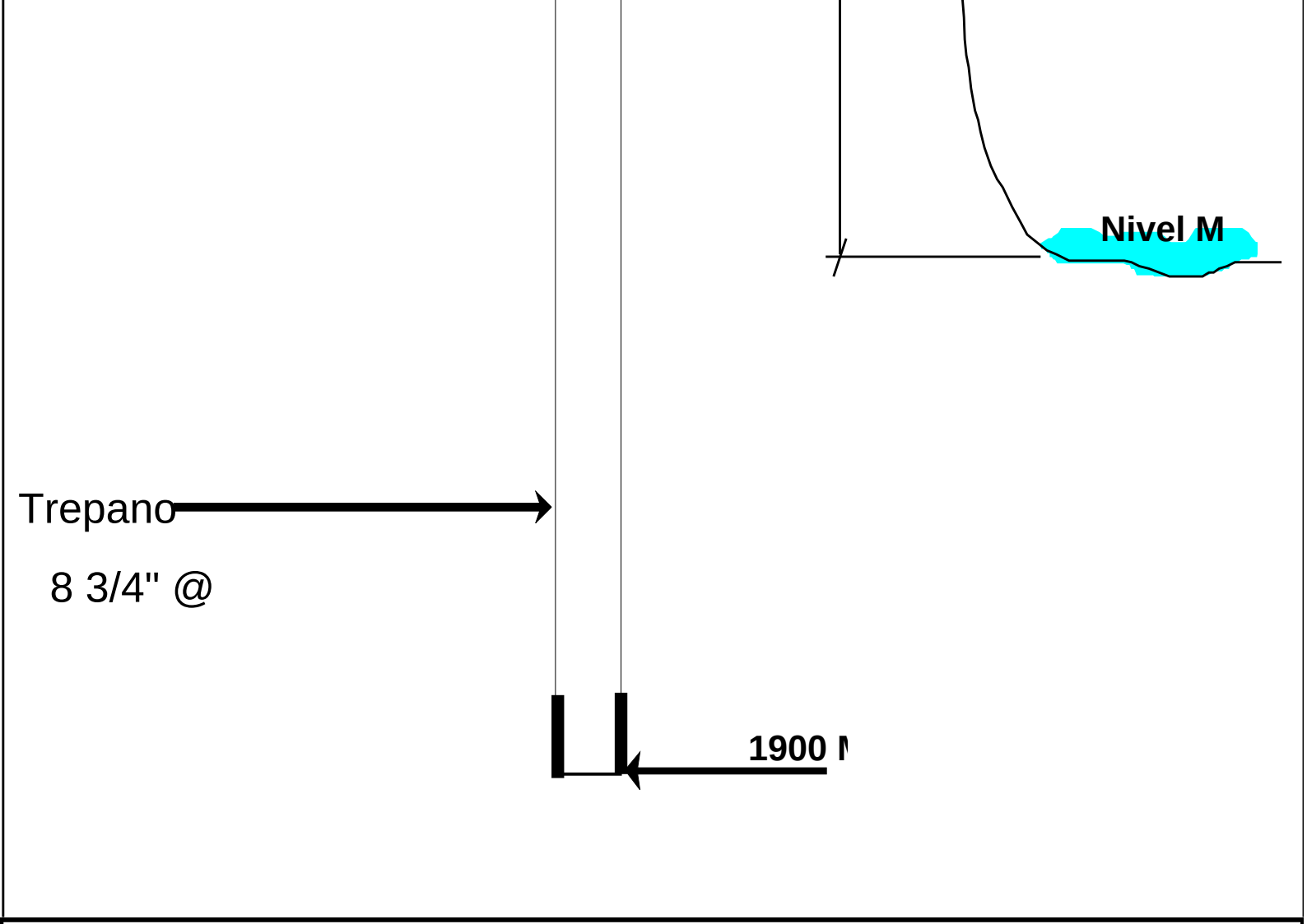
Nivel Refere

Casing 9 5

32,3 Lb/p

Zapato @ 355

Cota: 664,2



Schlumberger

TRAMO PRINCIPAL

MAXIS Field Log

Input DLIS Files

17−Dec−2004 15:24

Output DLIS Files

DEFAULT	AIT_LDL_CMR_165PUP	FN:50	PRODUCER	22−Dec−2004 09:04	1907.4 M	346.0 M

OP System Version: 12C0−301

MCM

AIT−H	12C0−301	LDT−D	12C0−301
SGT−L	12C0−301	TCC−BF	12C0−301
CMRT−A	12C0−301		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time

SPDR	0	MV/M	0	MV/M	1907.4 09:04:57
	0.044	MV/M	0	MV/M	1774.9 09:05:08
	0	MV/M	0.044	MV/M	1549.9 09:05:25
	0	MV/M	0	MV/M	1474.9 09:05:31
	0	MV/M	0	MV/M	1469.9 09:05:31
	0	MV/M	0	MV/M	1399.9 09:05:37
	0	MV/M	0	MV/M	1375.0 09:05:38
	−0.005	MV/M	0	MV/M	1099.9 09:05:59
	0	MV/M	−0.005	MV/M	999.9 09:06:06

PIP SUMMARY

Time Mark Every 60 S

BHF

REVOQUE From CALI to BS

AIT−H 90 Inch Investigation (AHT90)
1 (OHMM) 100

Bound Fluid

Tension (TENS) (LBF)
0 1000

SP (SP)
−80 (MV) 20

AIT−H 60 Inch Investigation (AHT60)
1 (OHMM) 100

Free Fluid

CAVERNA From BS to CALI

RWA (RWA)
0 (OHMM) 2

AIT−H 30 Inch Investigation (AHT30)
1 (OHMM) 100

Total CMR Porosity (TCMR)
0.4 (V/V) 0

Caliper (CALI)
6 (IN) 16

PhotoElectric Factor (PEF)
0 (−−−− 5

AIT−H 20 Inch Investigation (AHT20)
1 (OHMM) 100

CMR 3ms Porosity (CMRP_3MS)
0.4 (V/V) 0

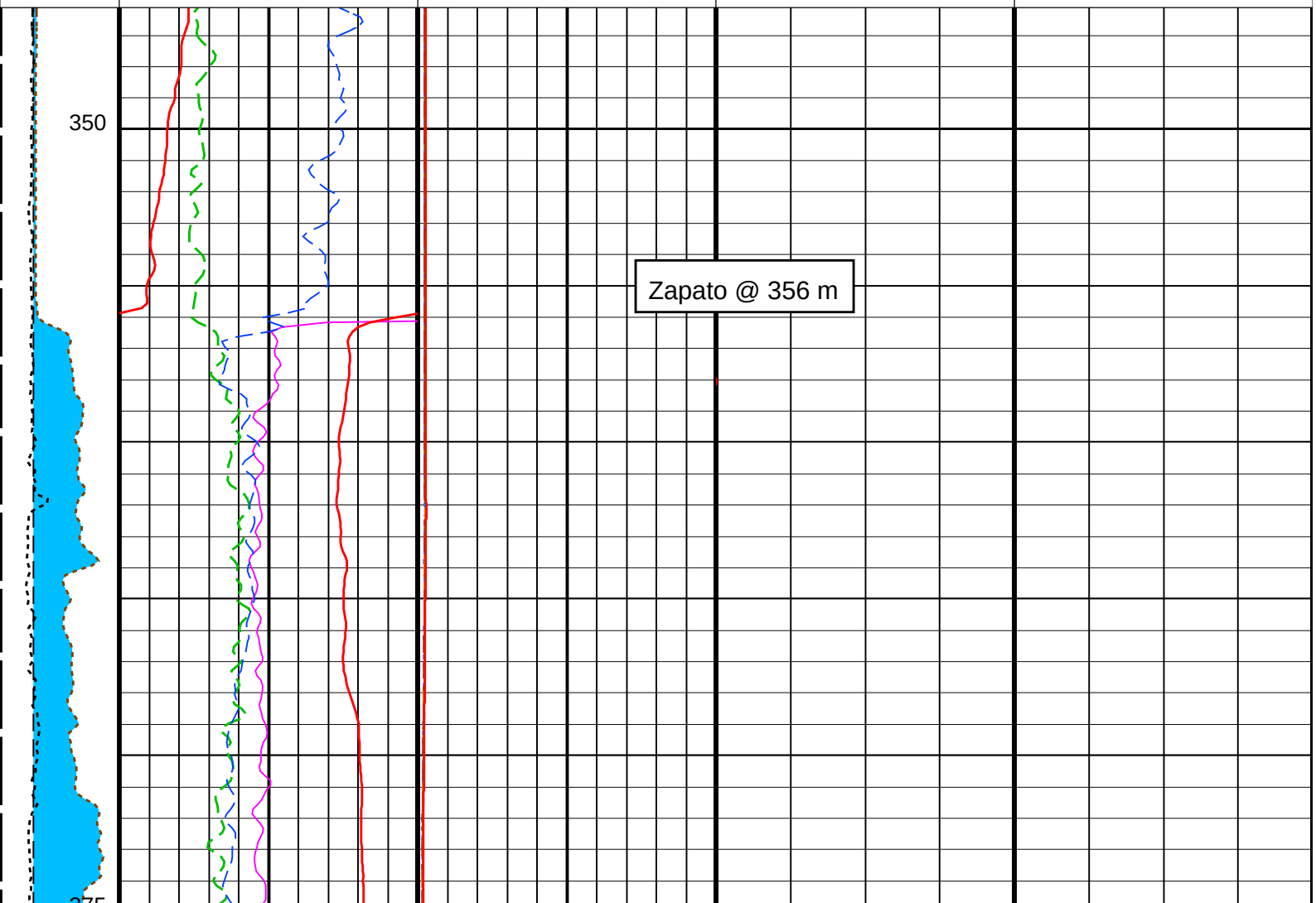
Bit Size (BS)
6 (IN) 16

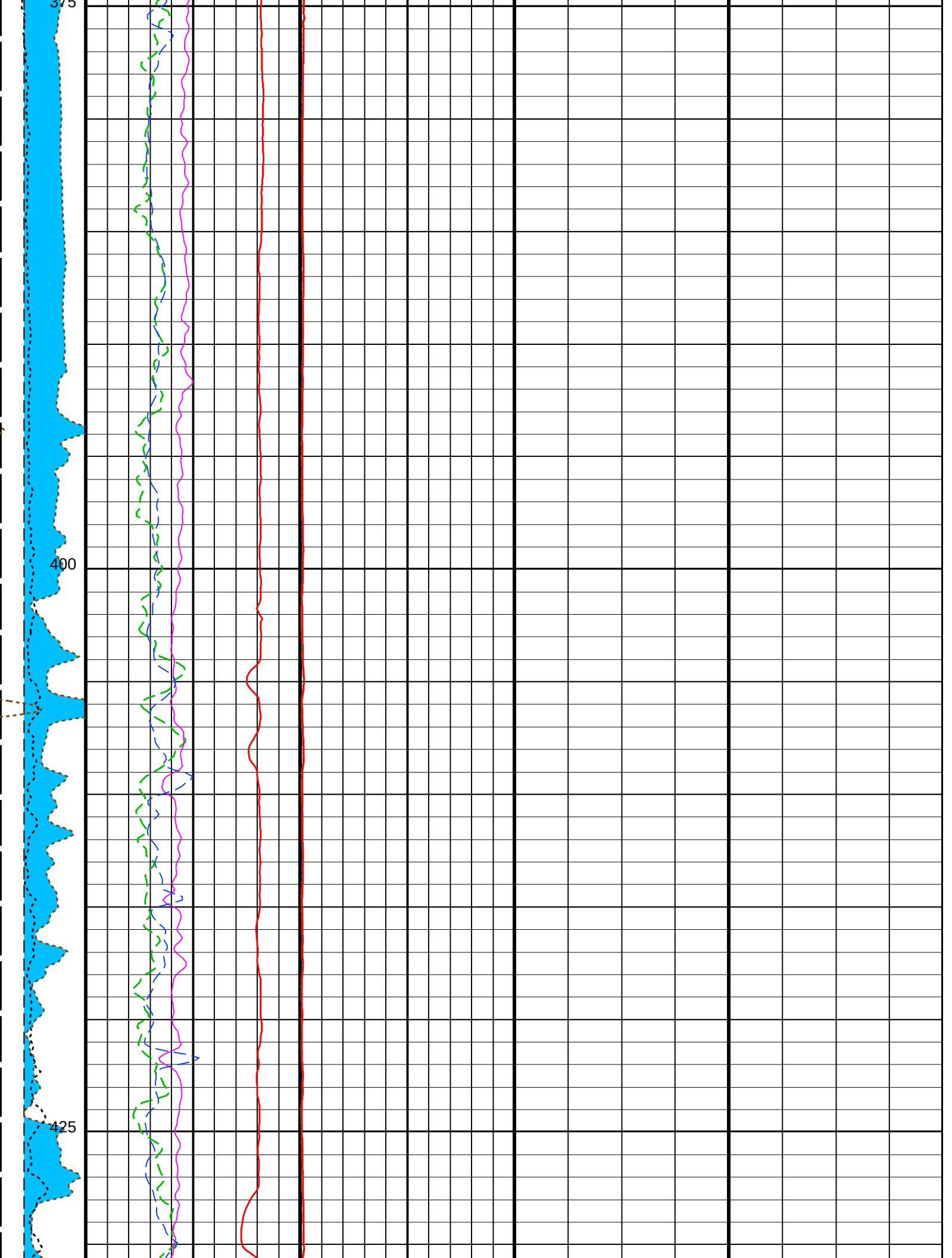
Gamma Ray (GR)
0 (GAPI) 150

AIT−H 10 Inch Investigation (AHT10)
1 (OHMM) 100

Density Porosity (DPHI)
0.4 (V/V) 0

CMR Free Fluid Porosity (CMFF)
0.4 (V/V) 0

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400
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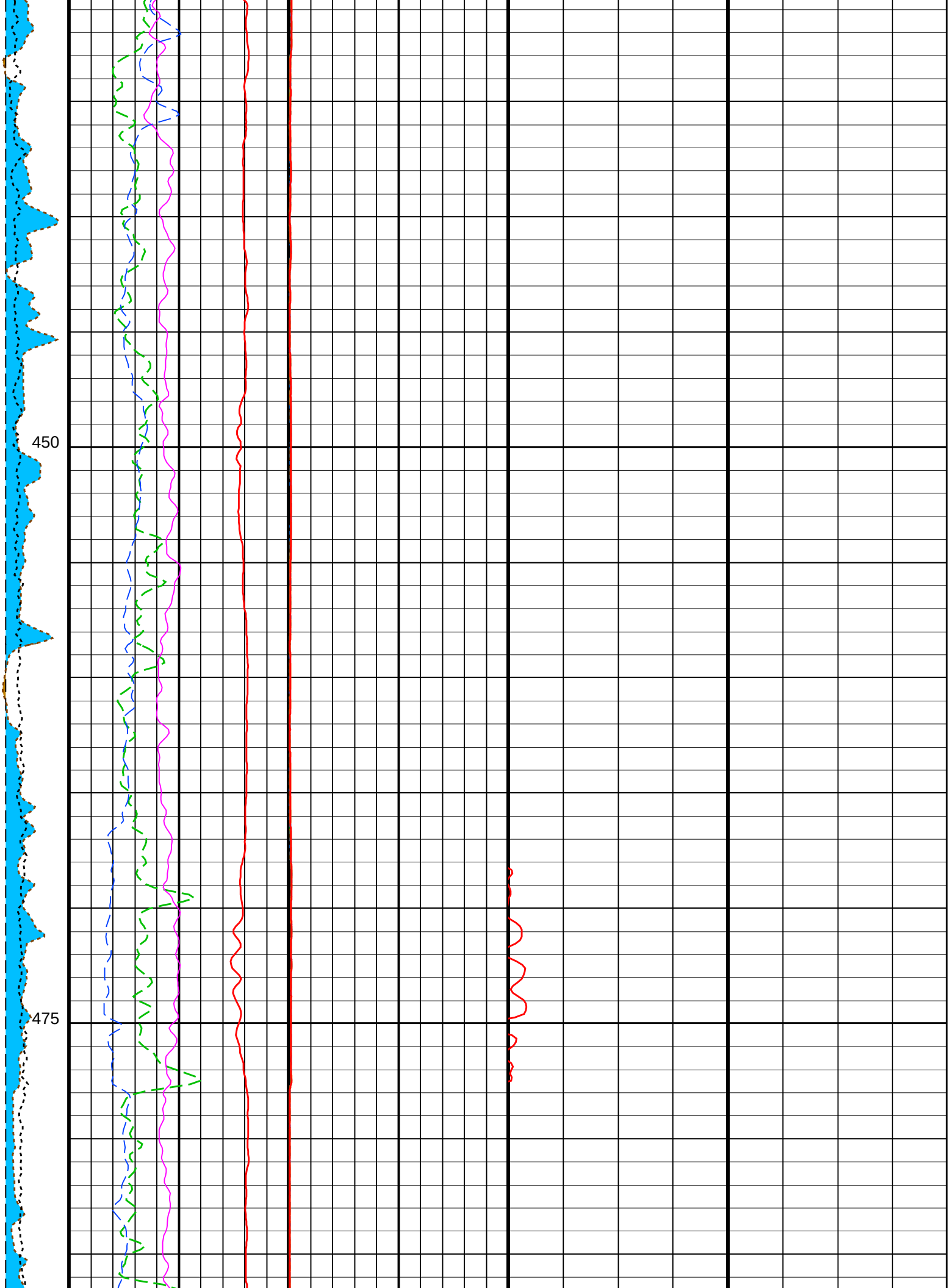
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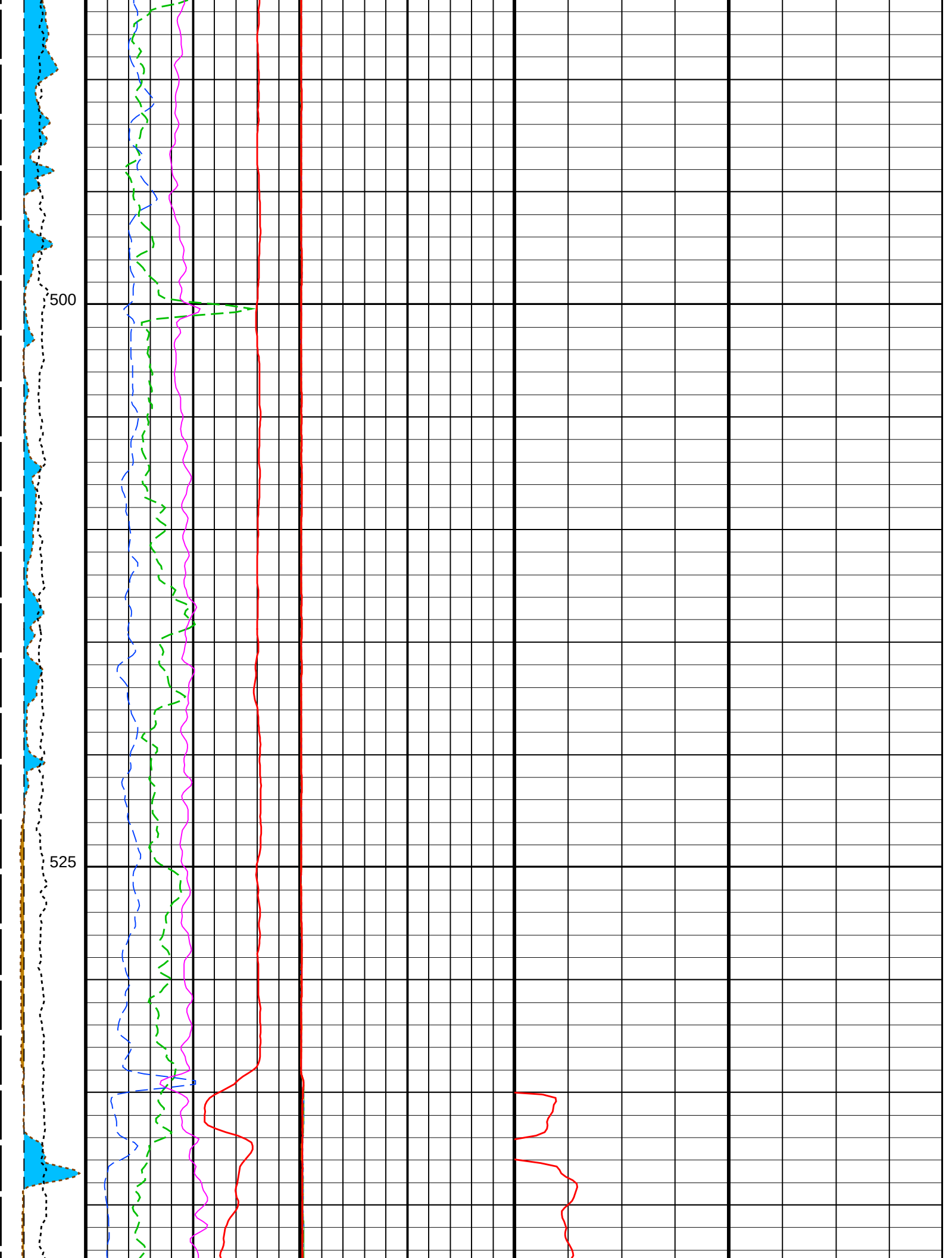
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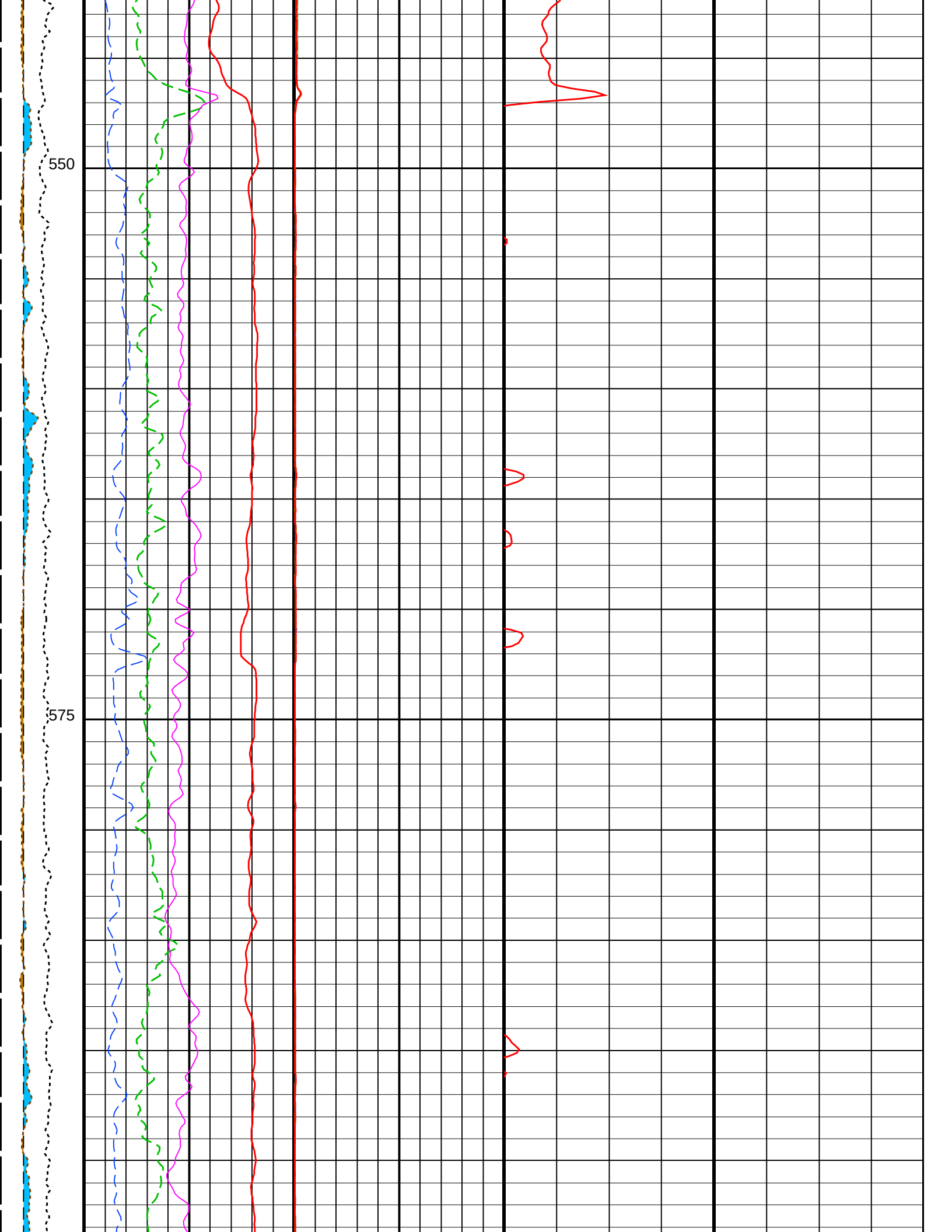
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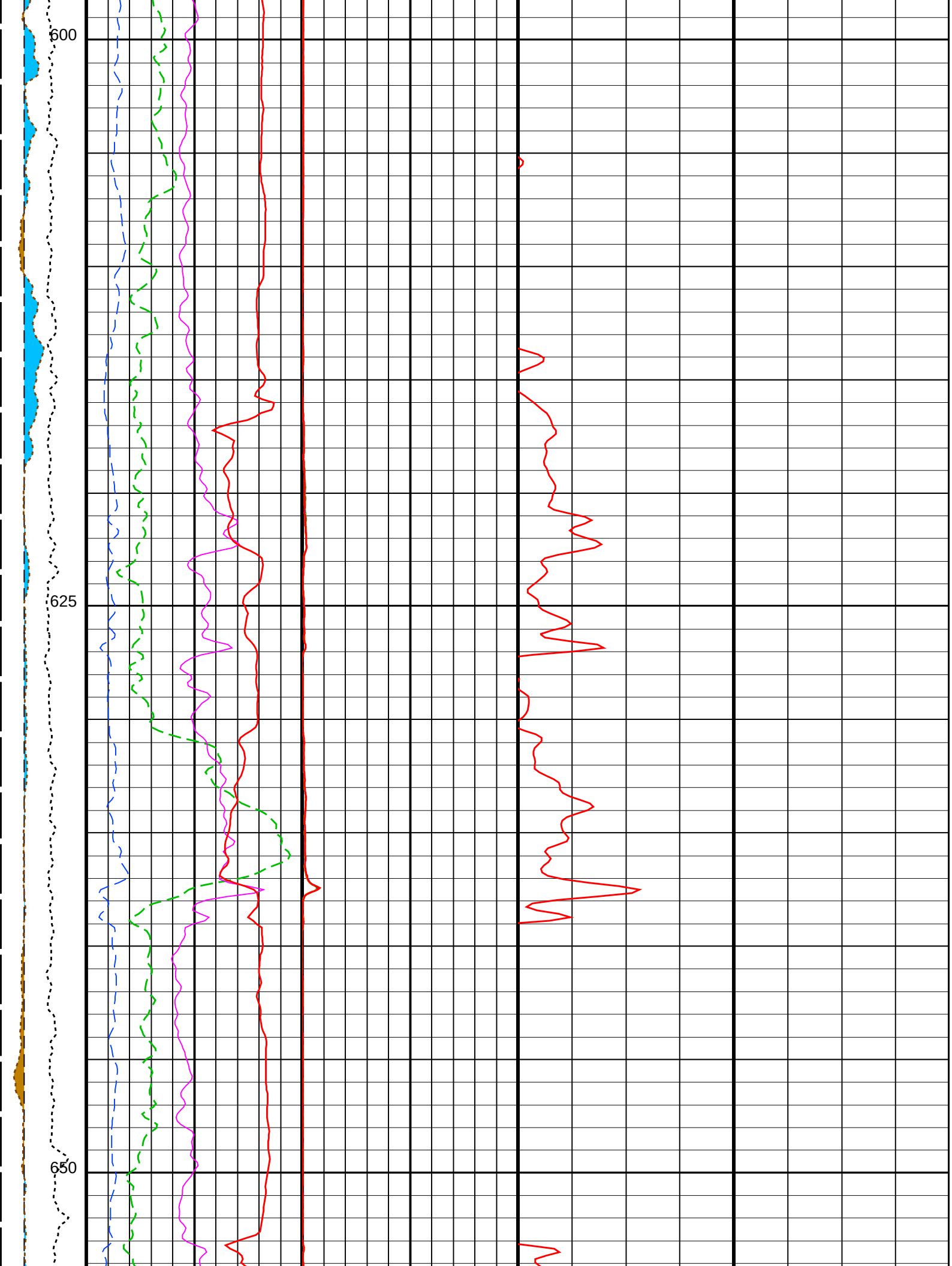
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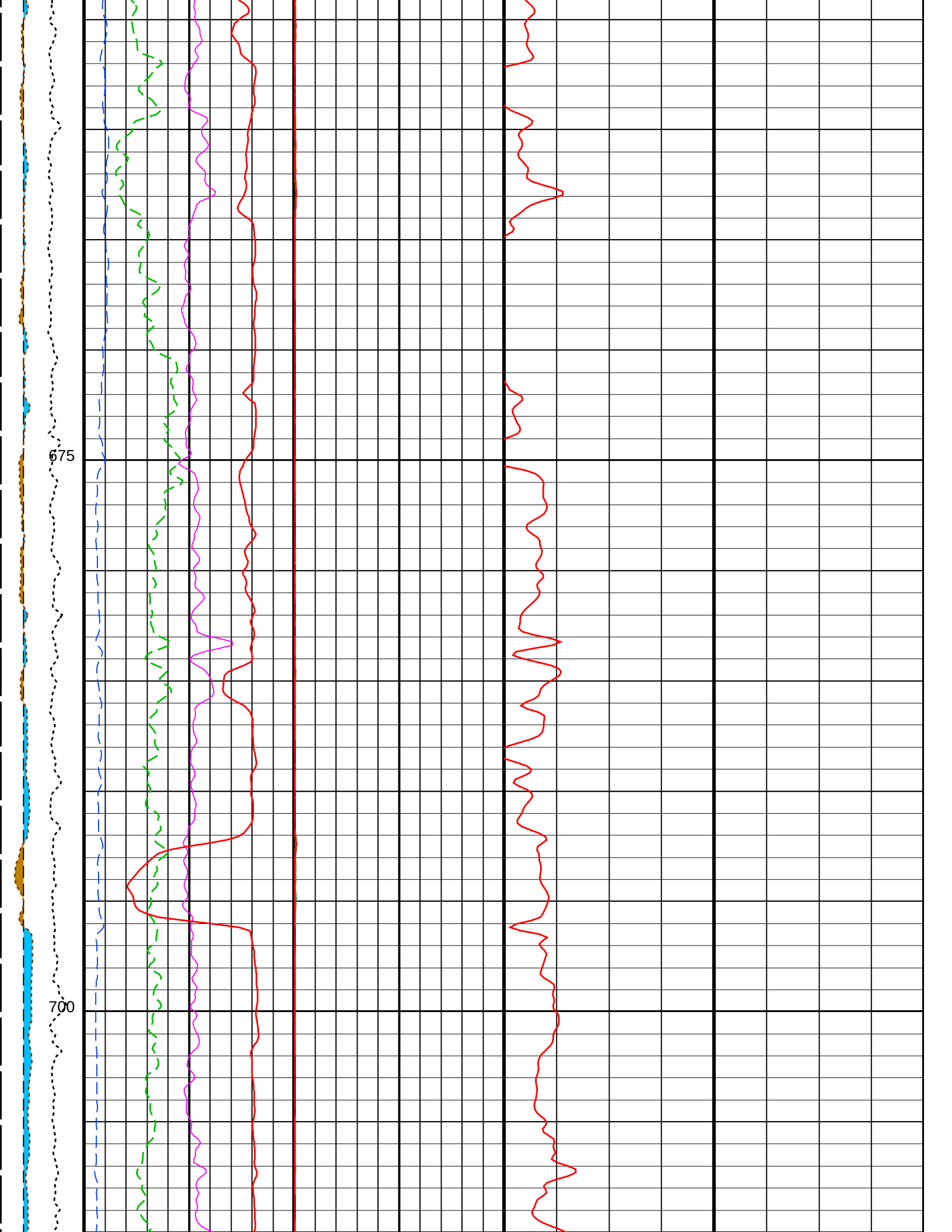
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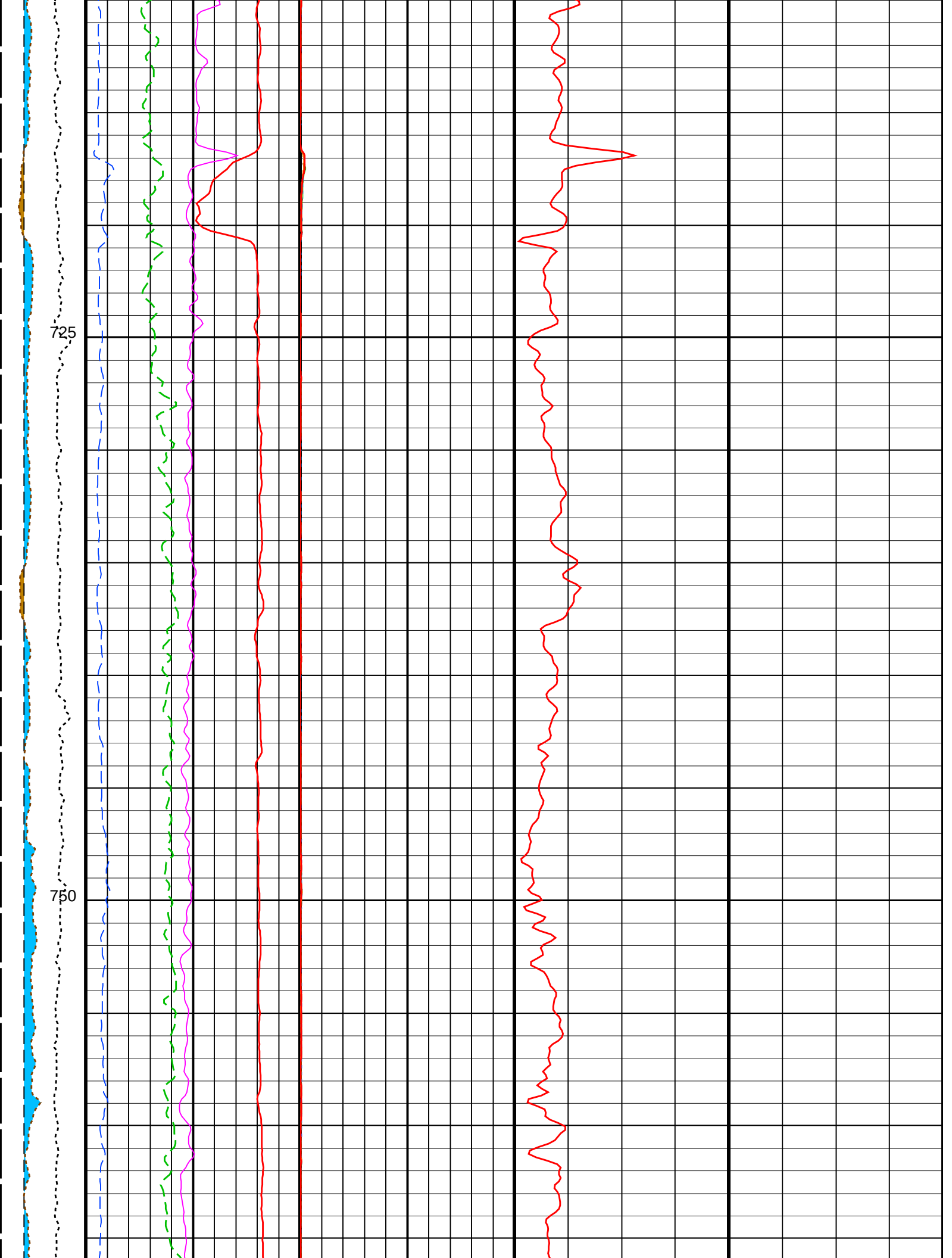
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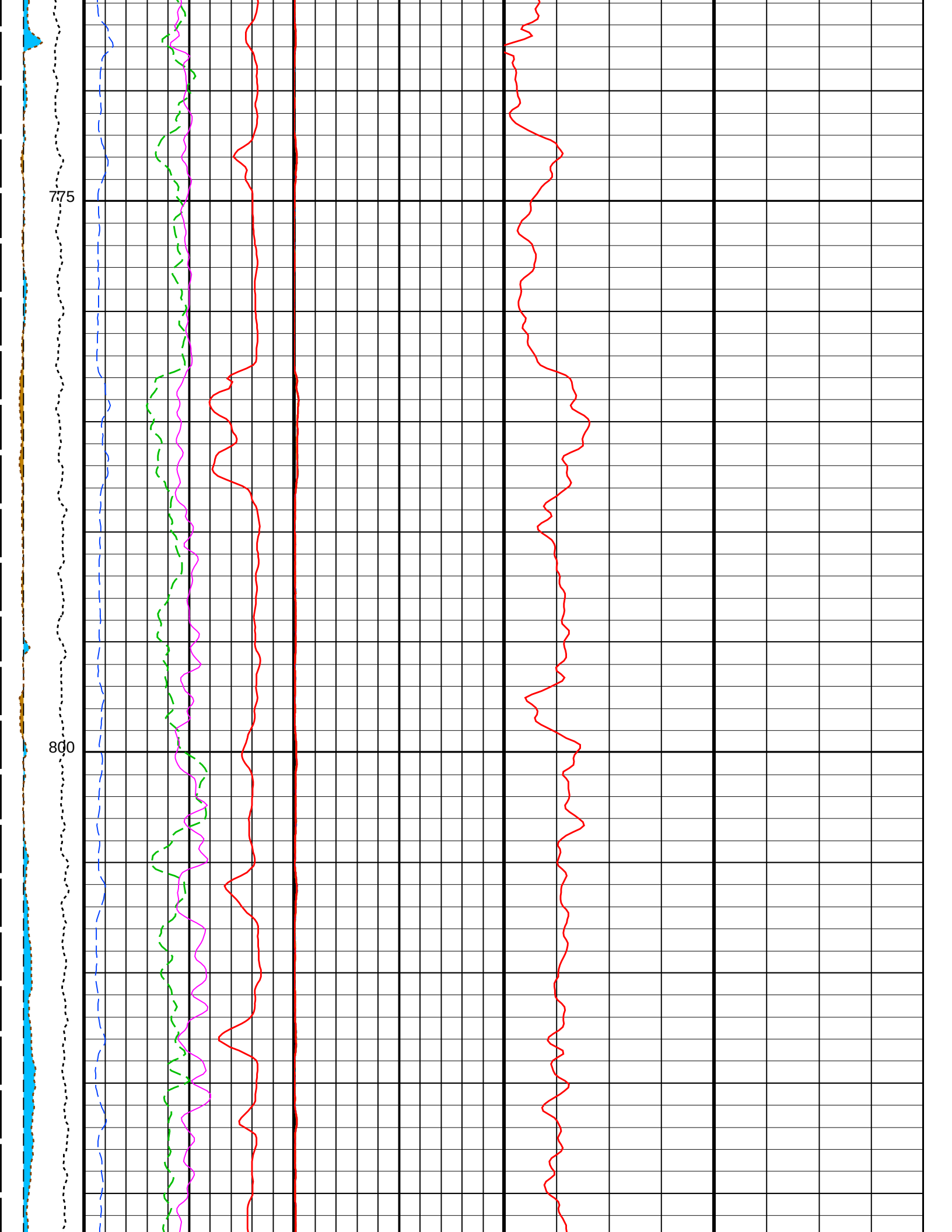
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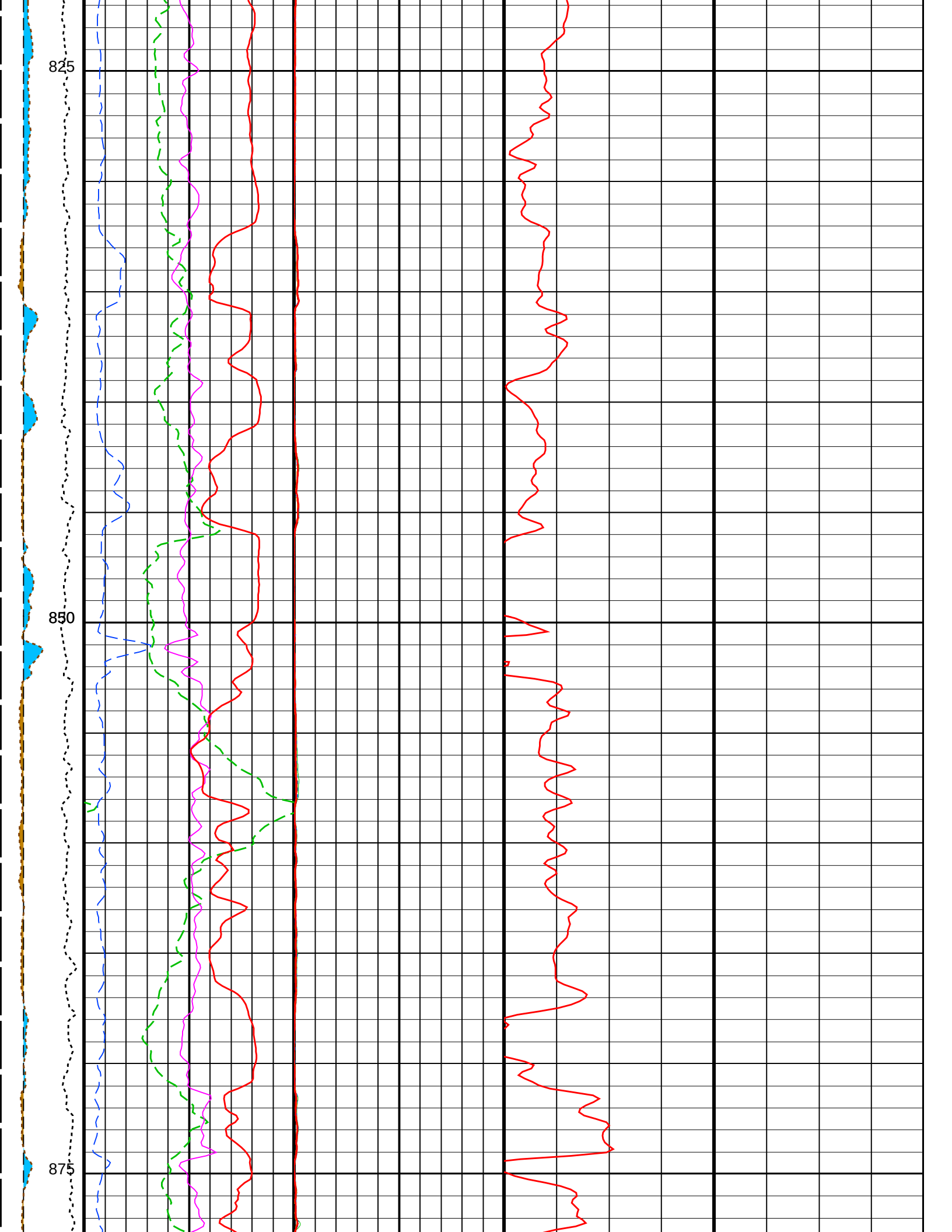
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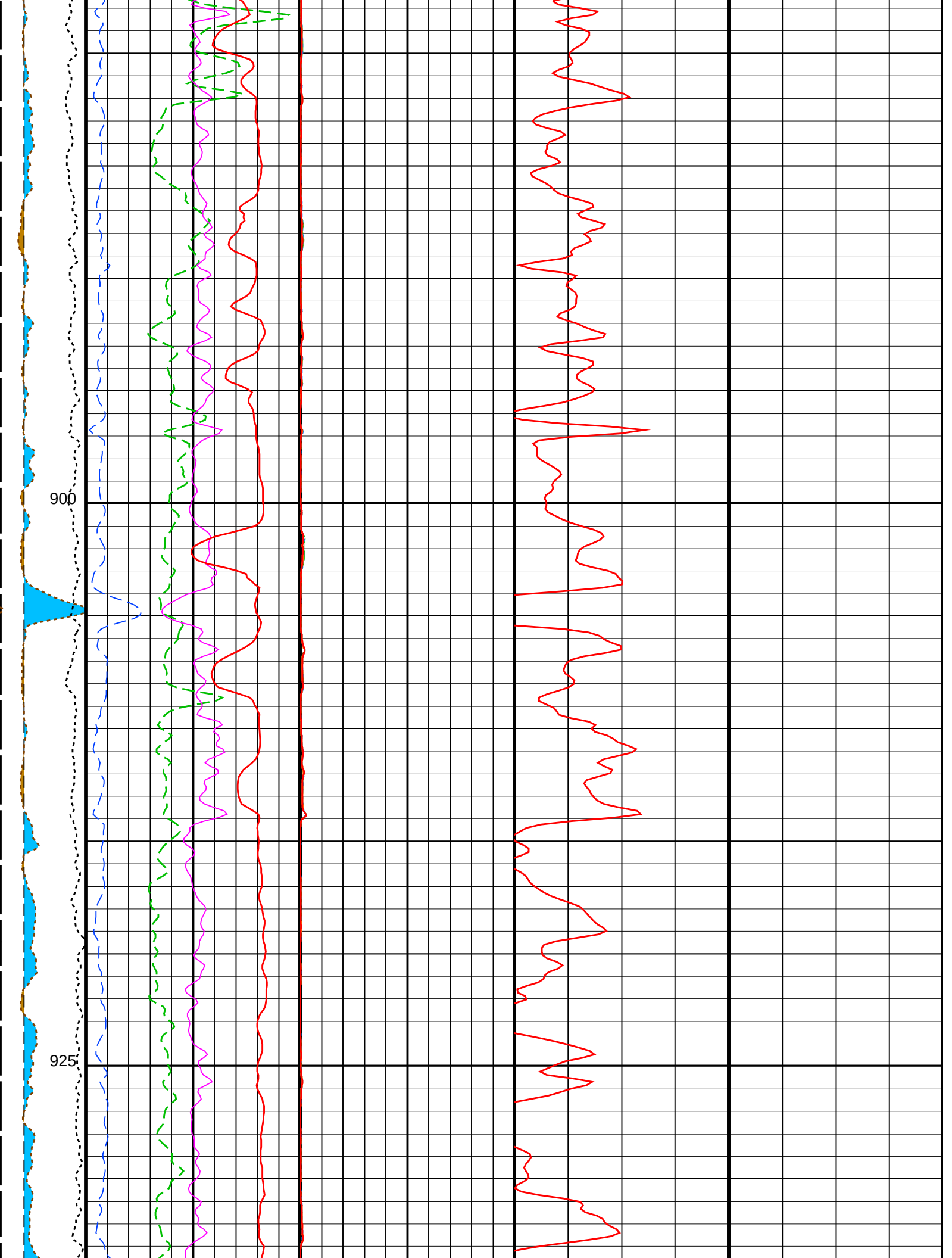
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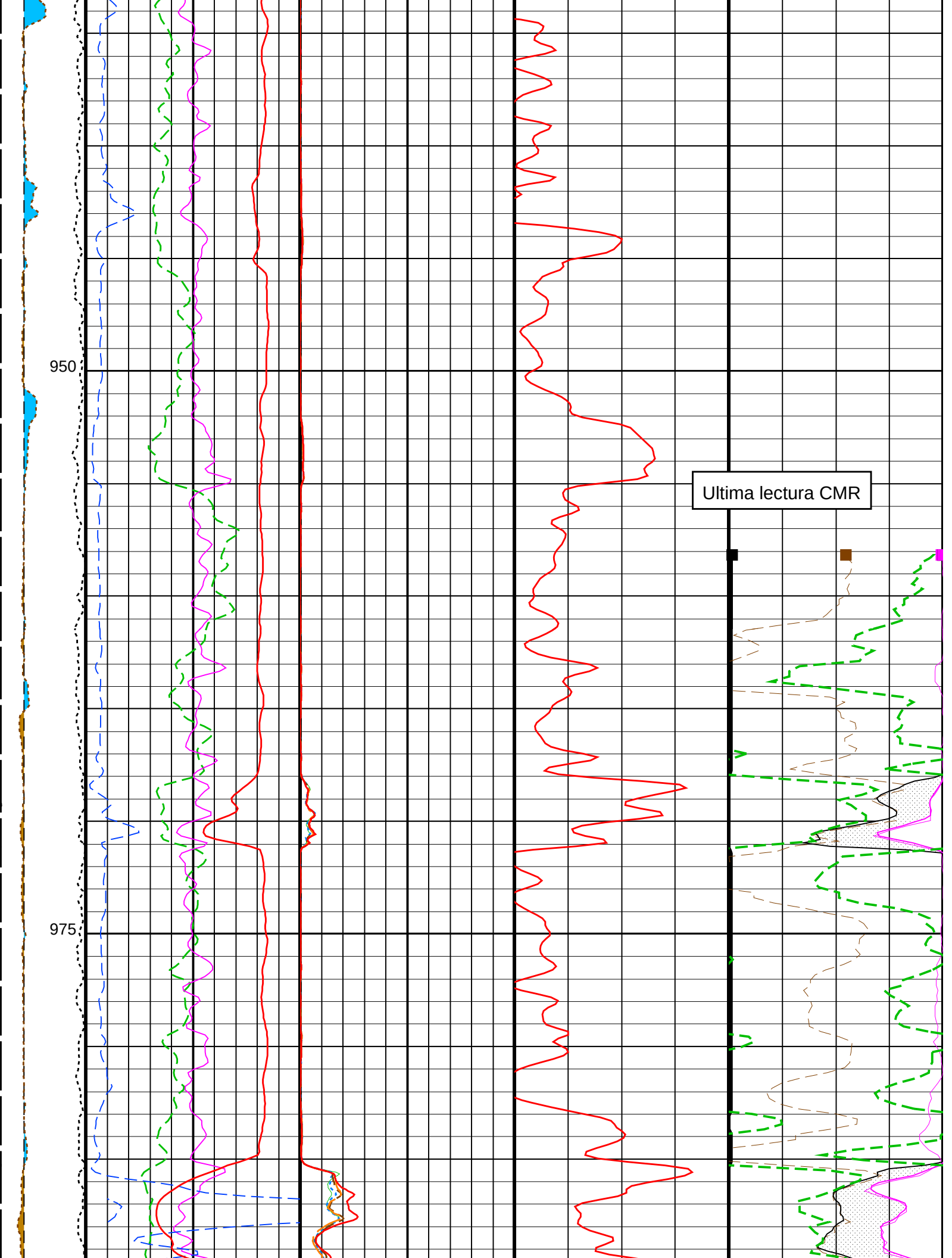
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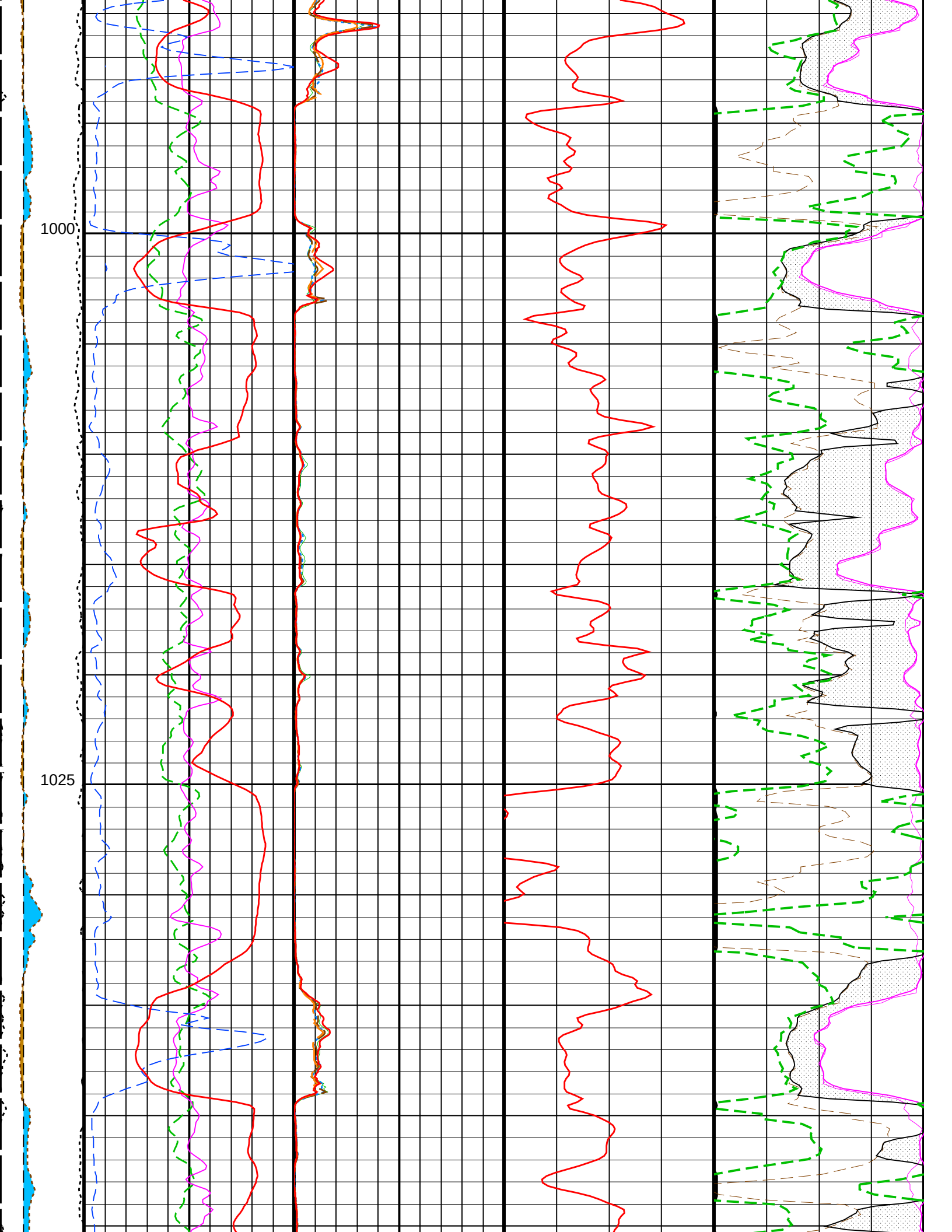
Ultima lectura CMR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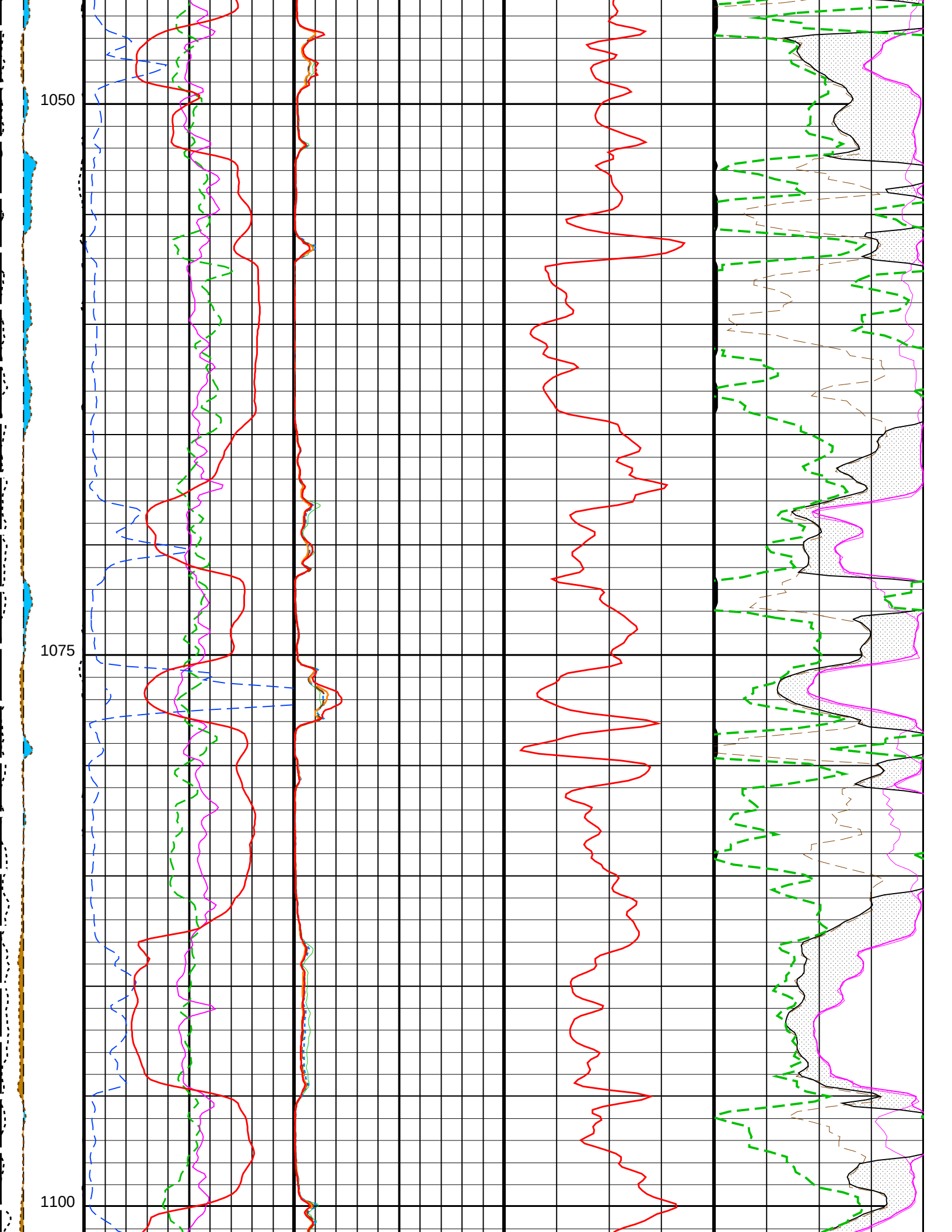
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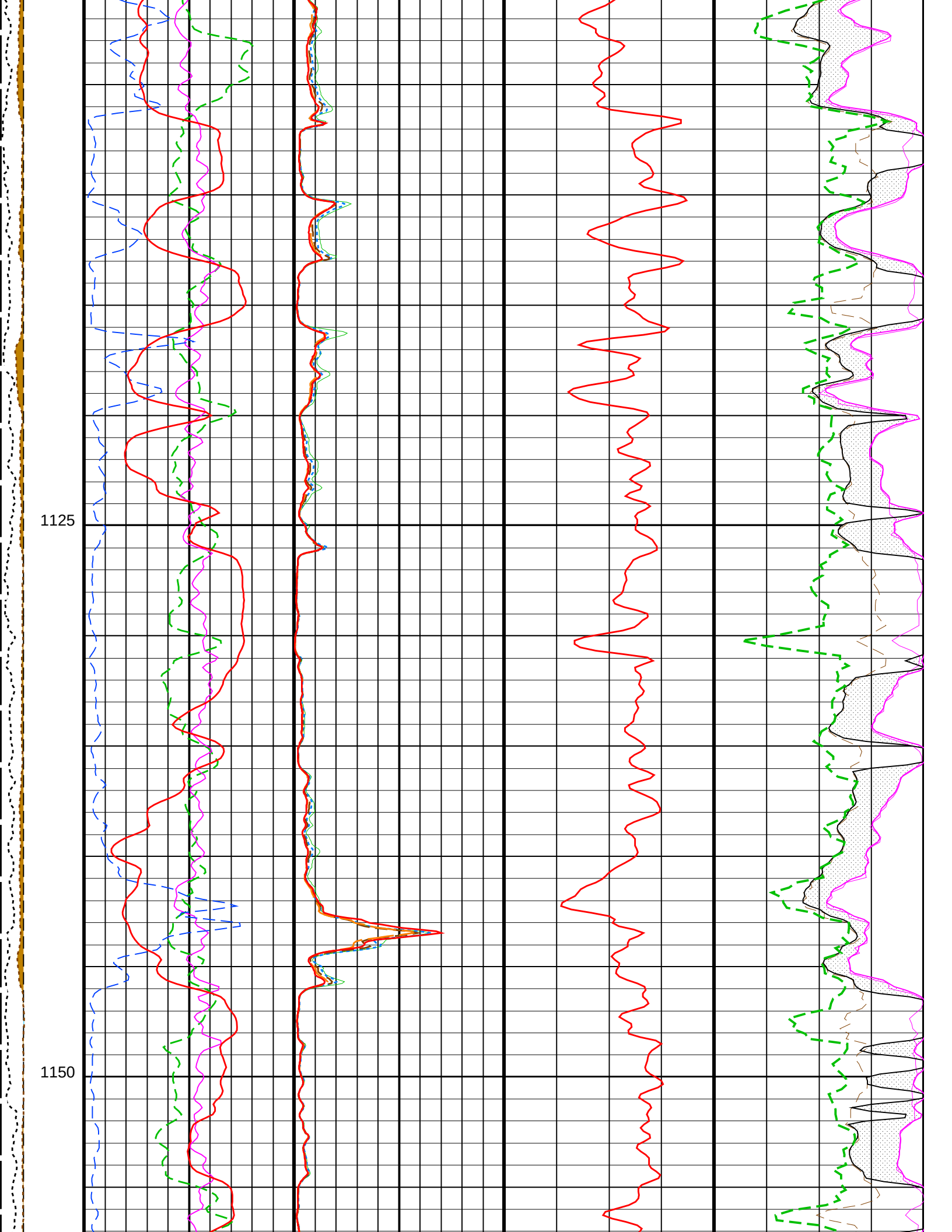
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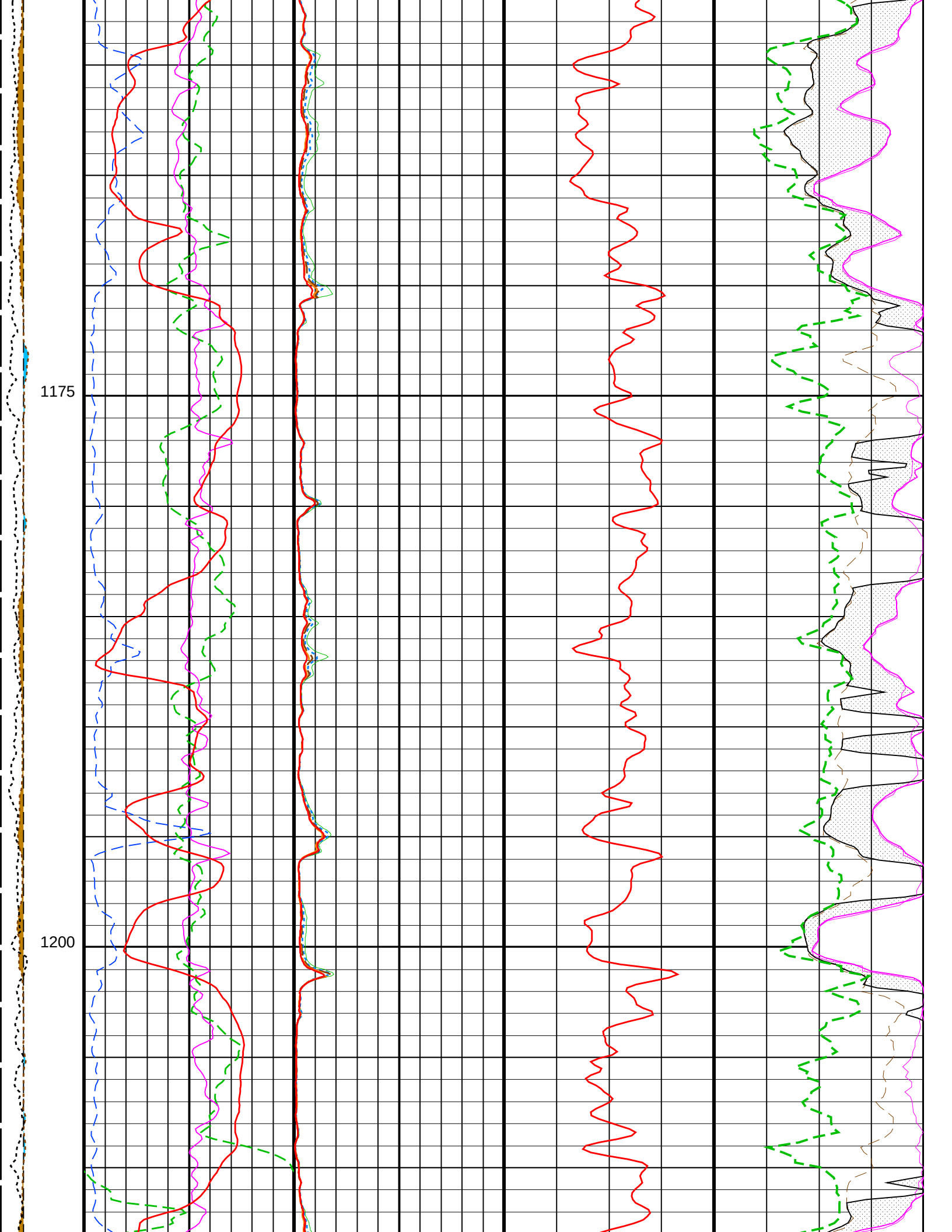
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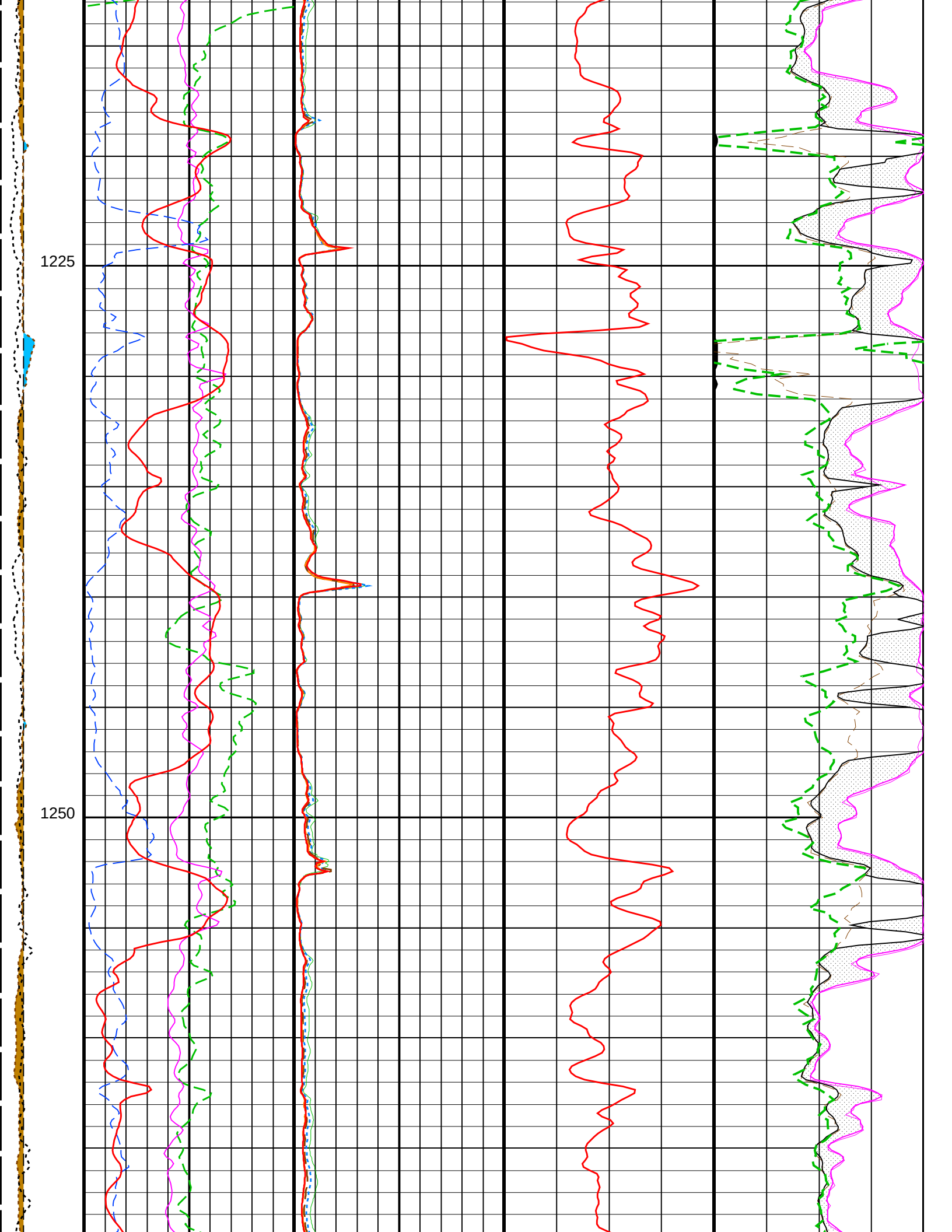
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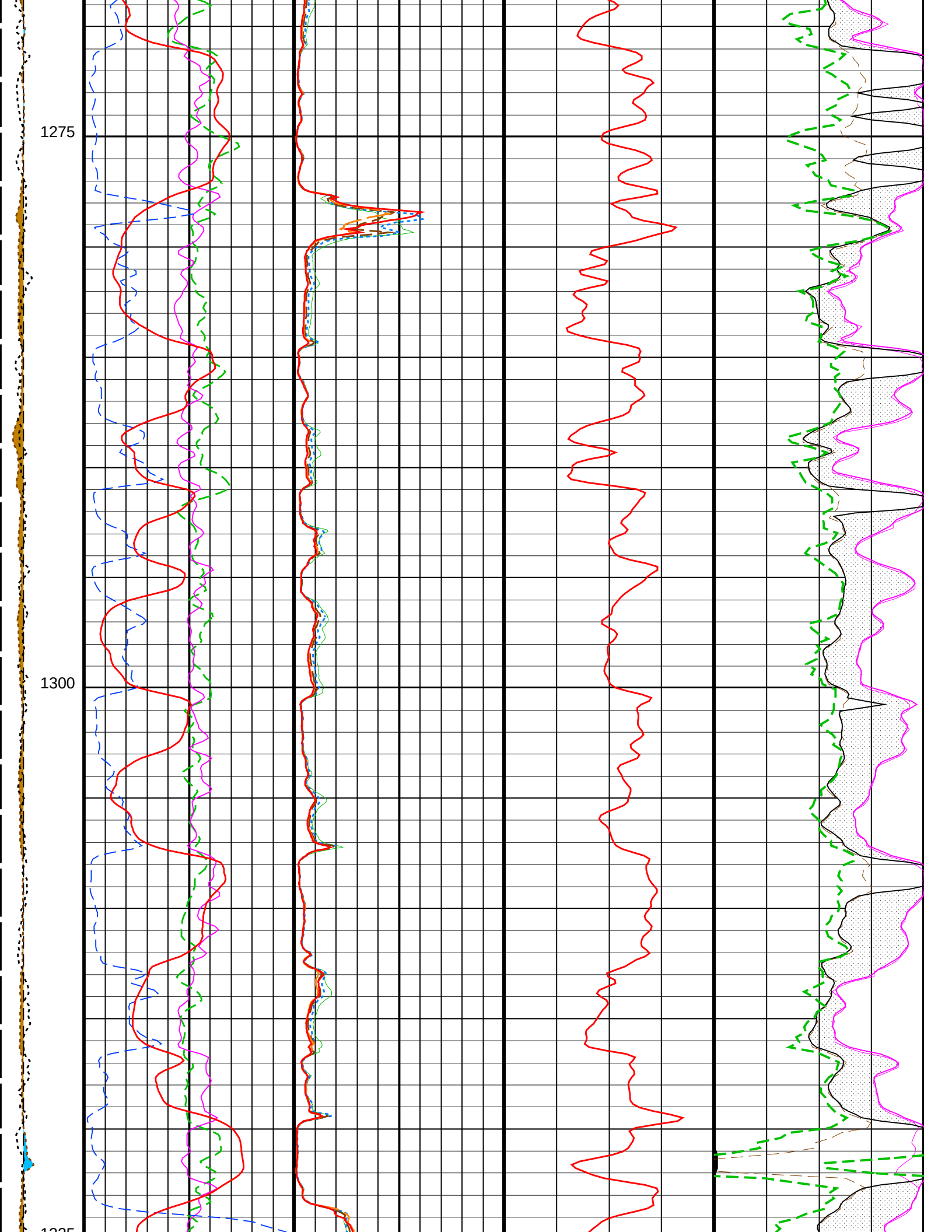
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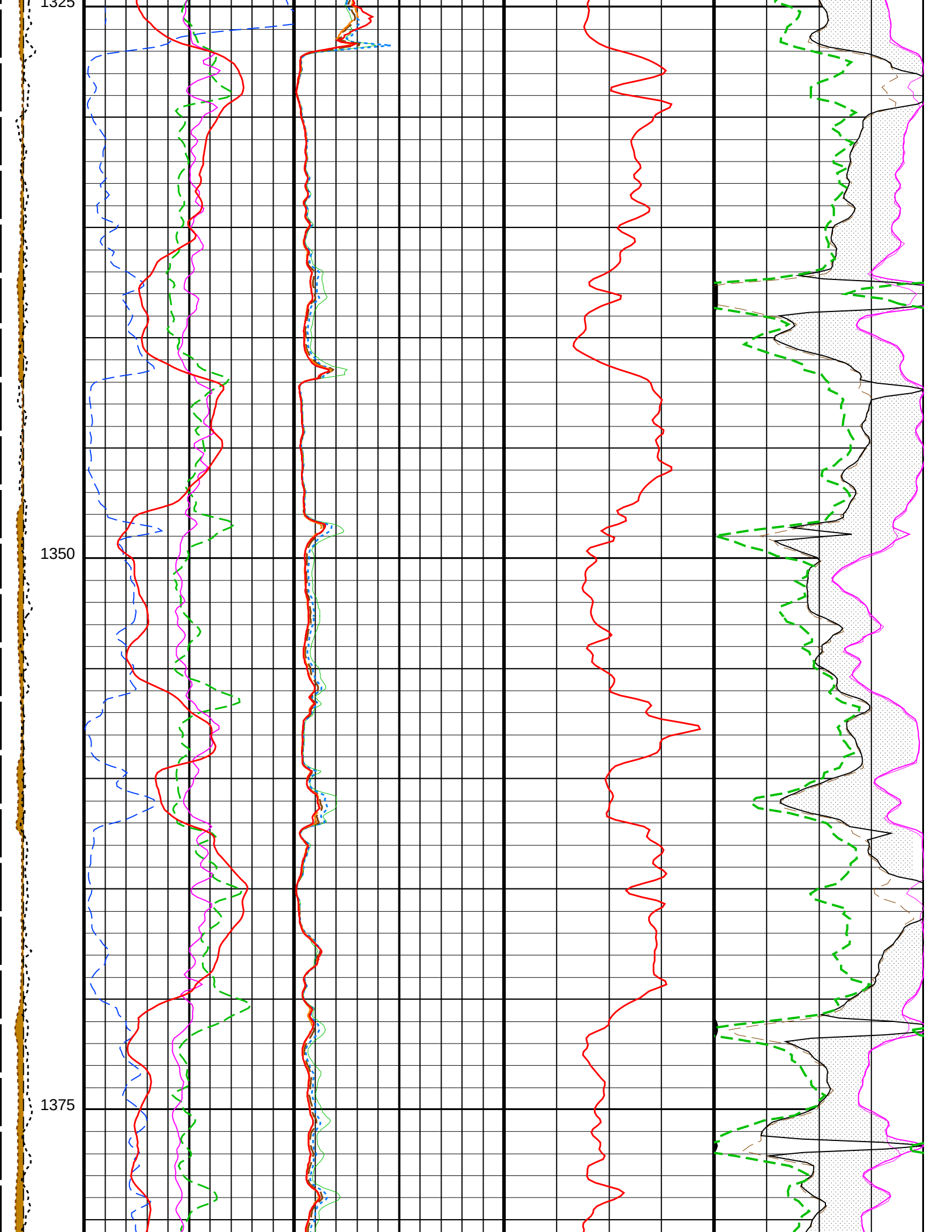
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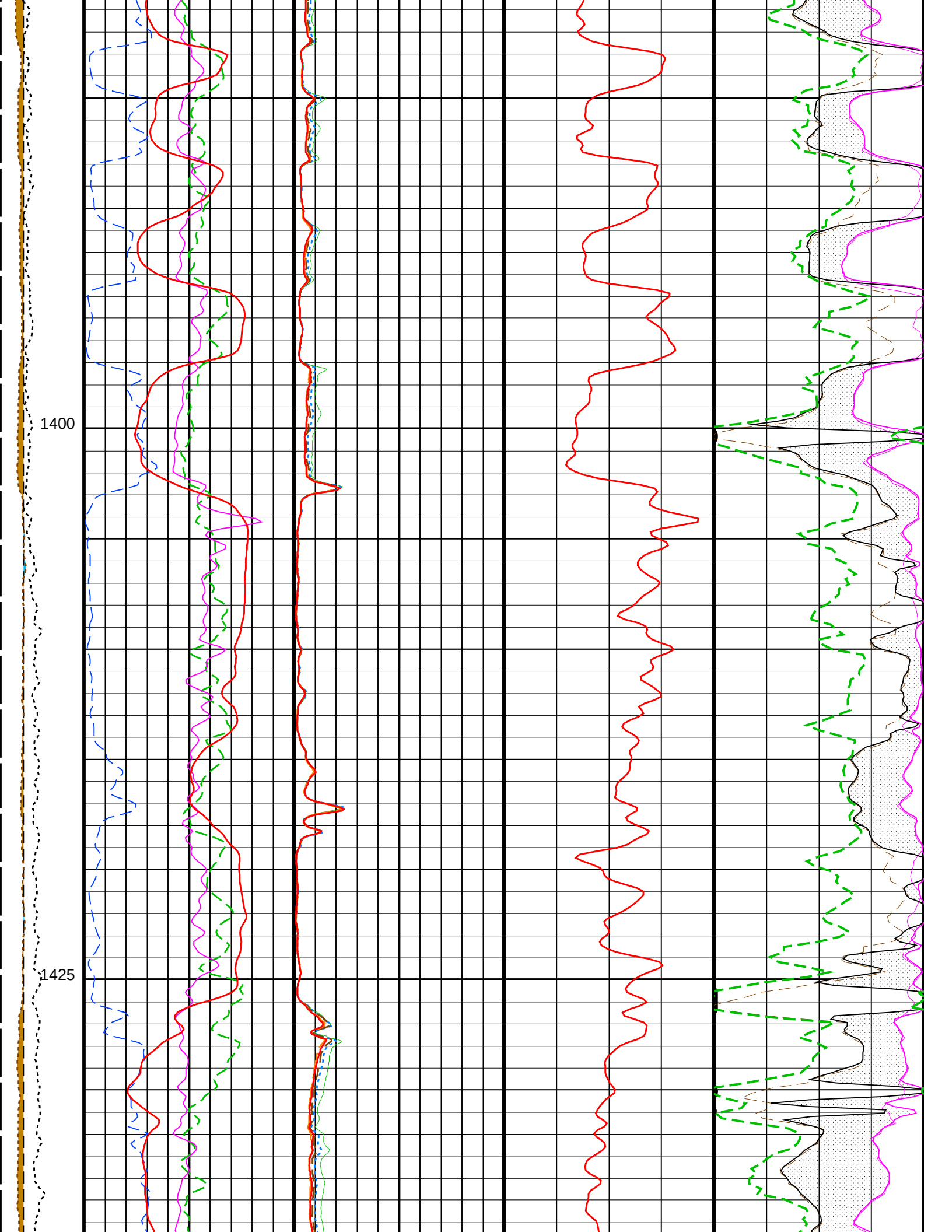
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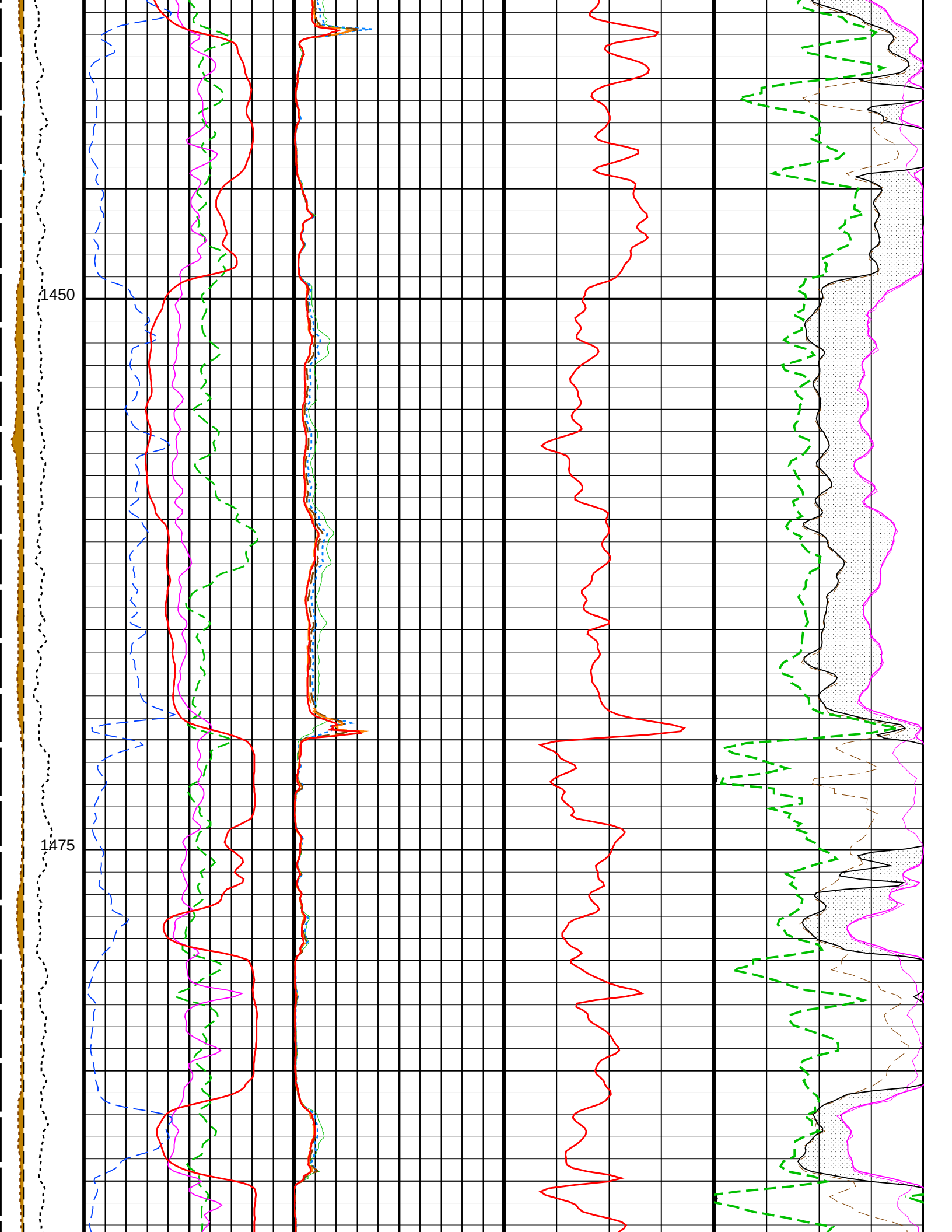
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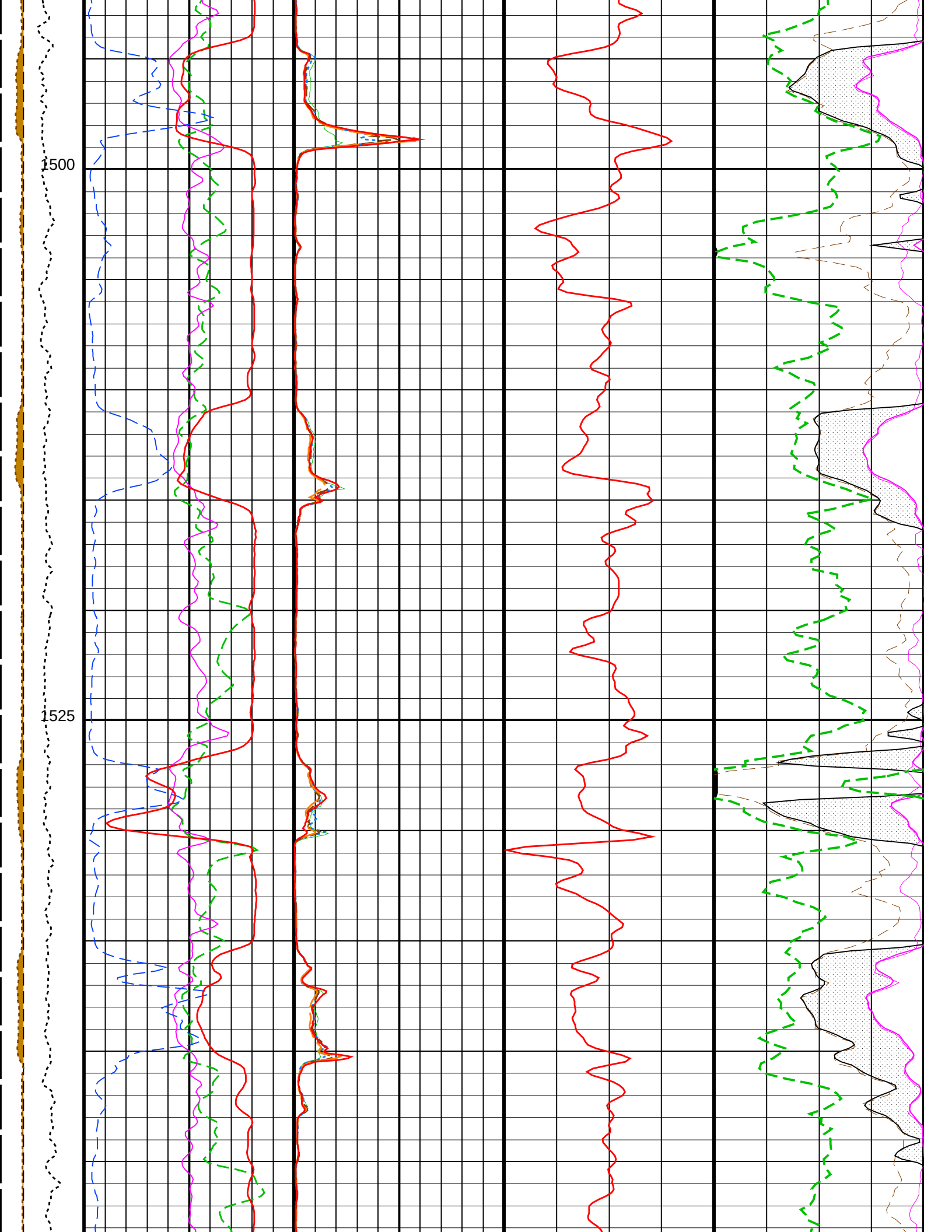
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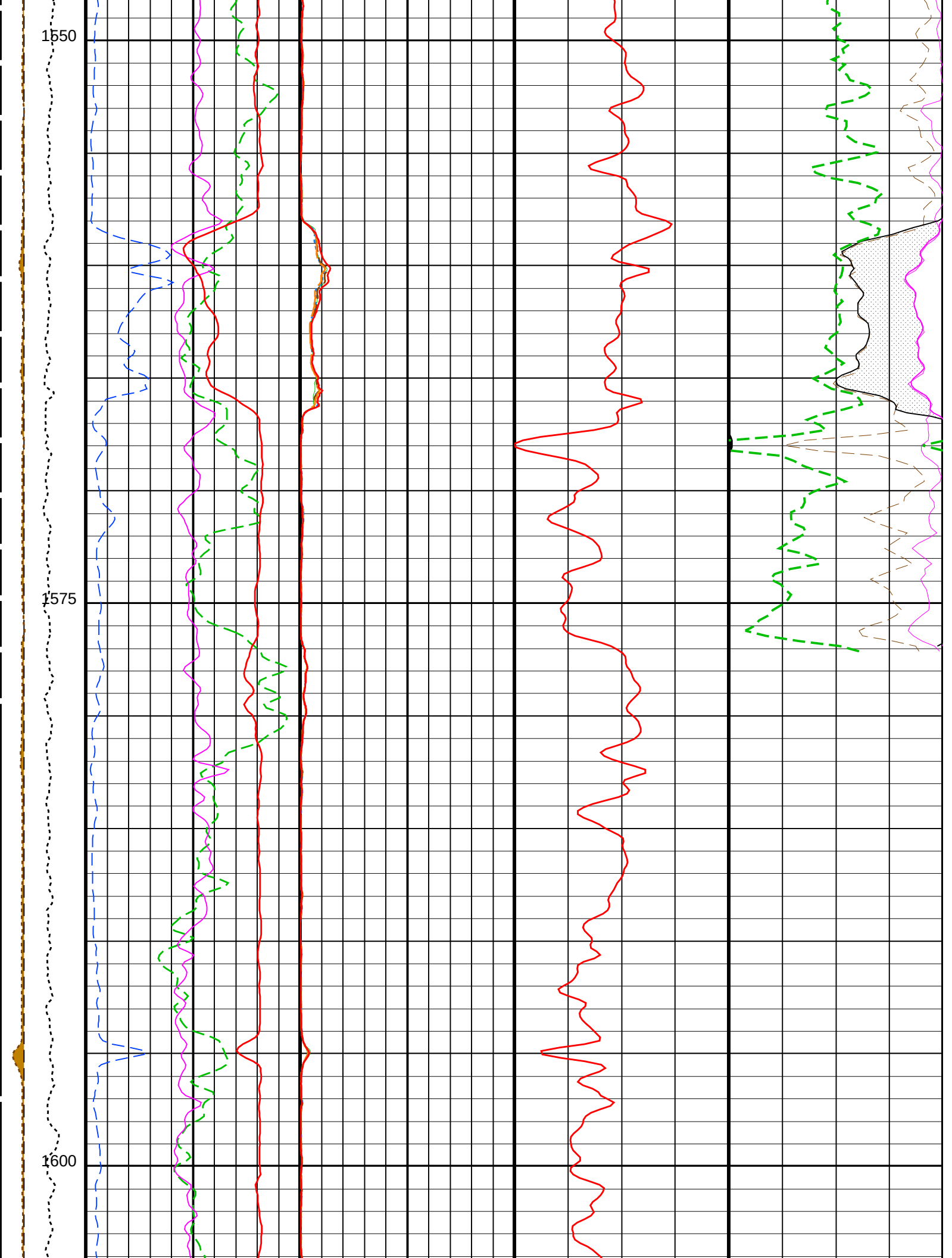
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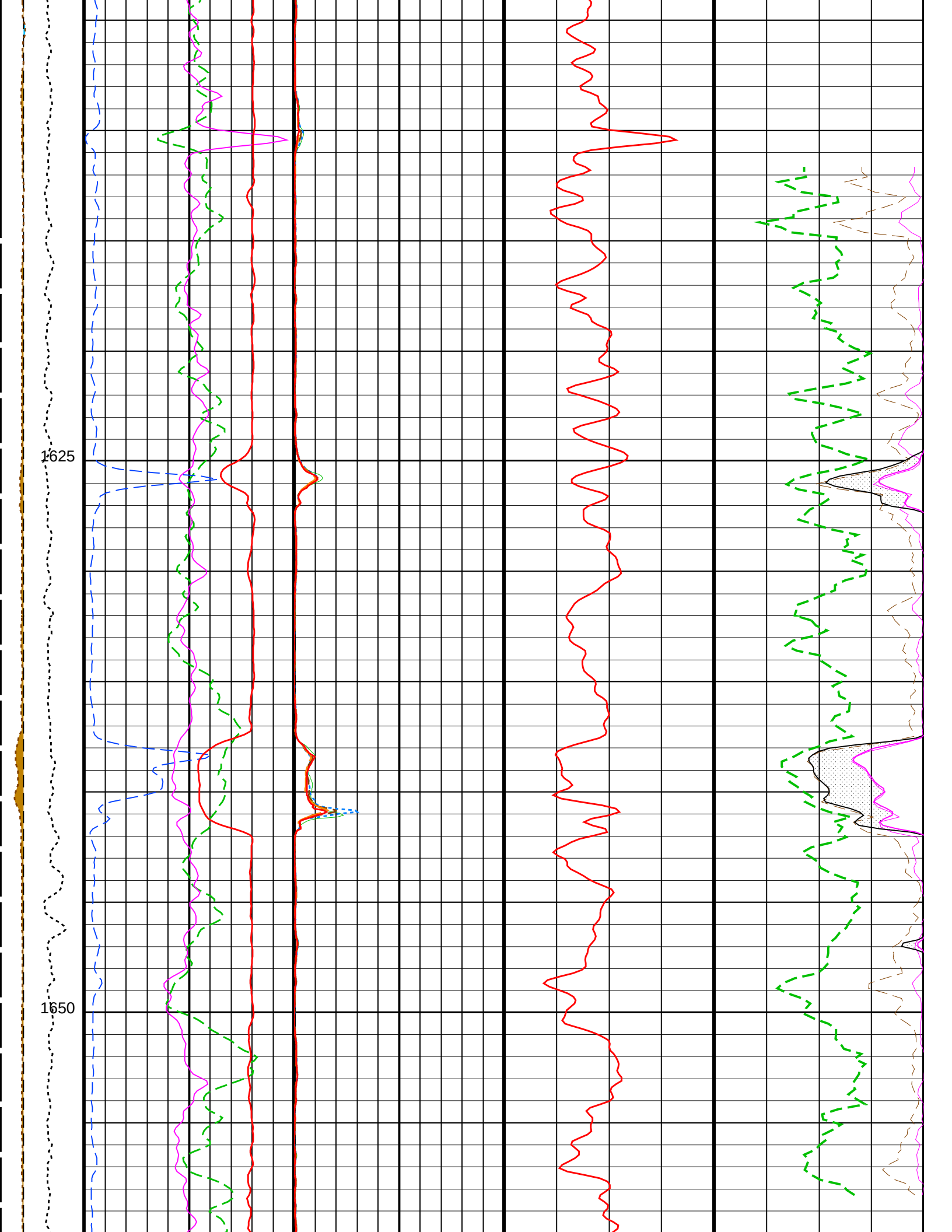
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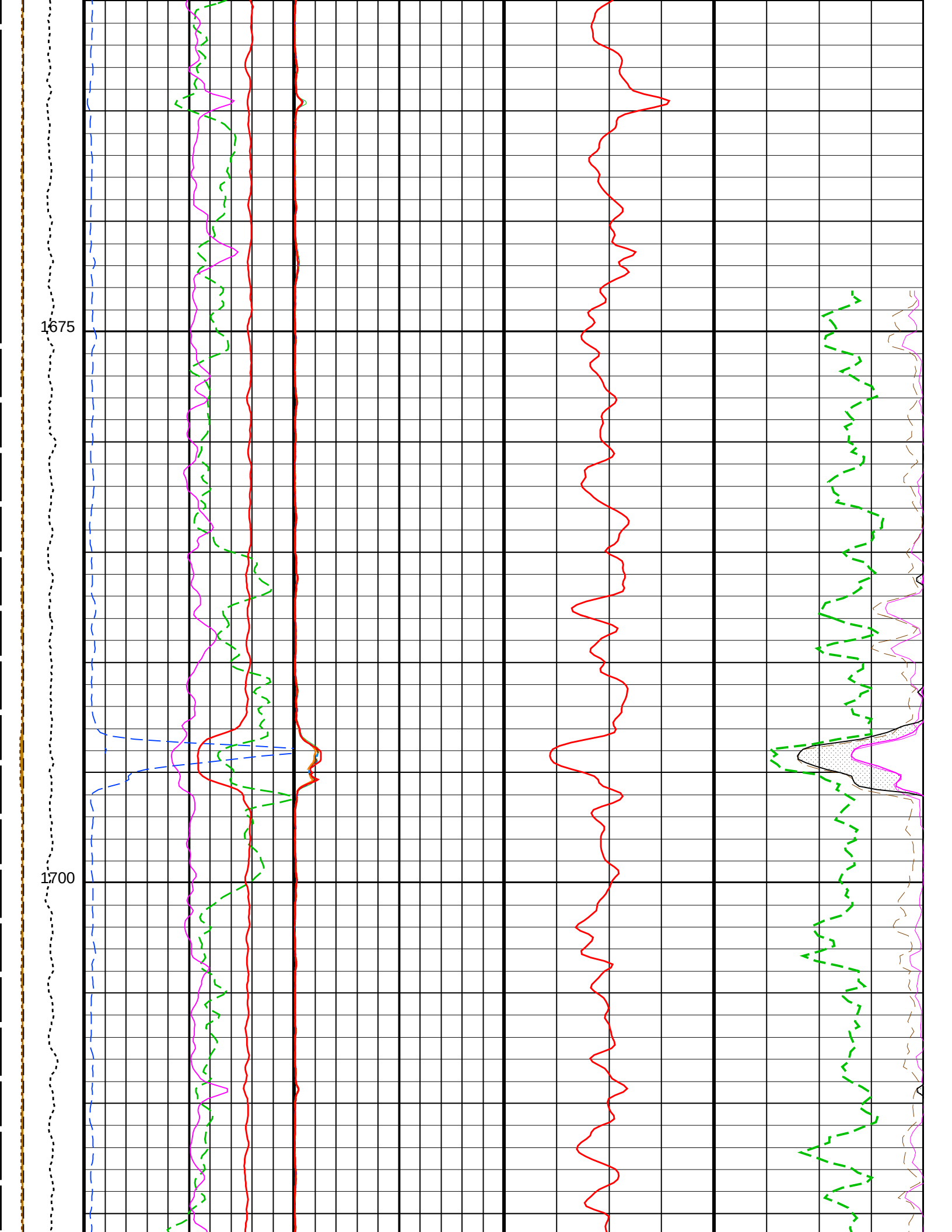
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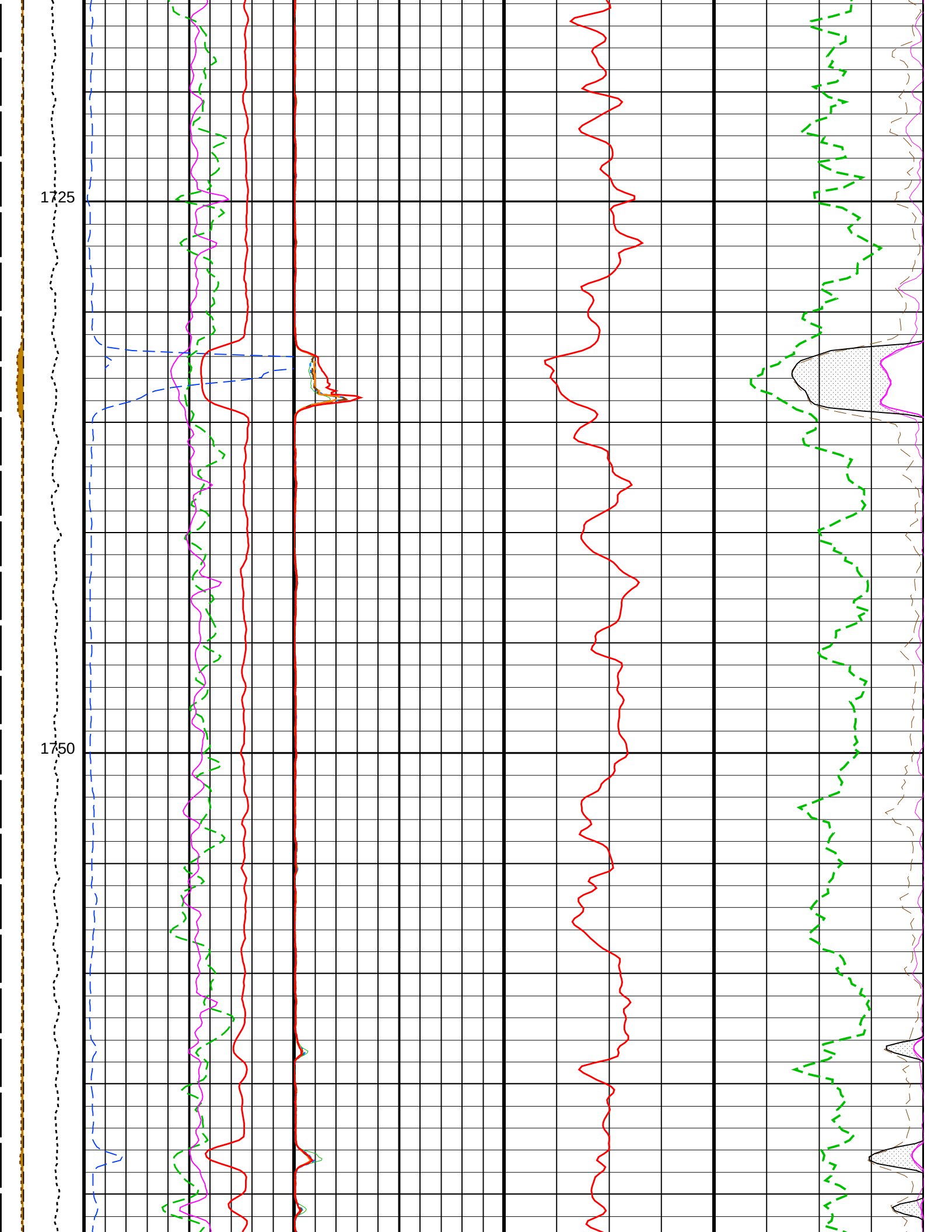
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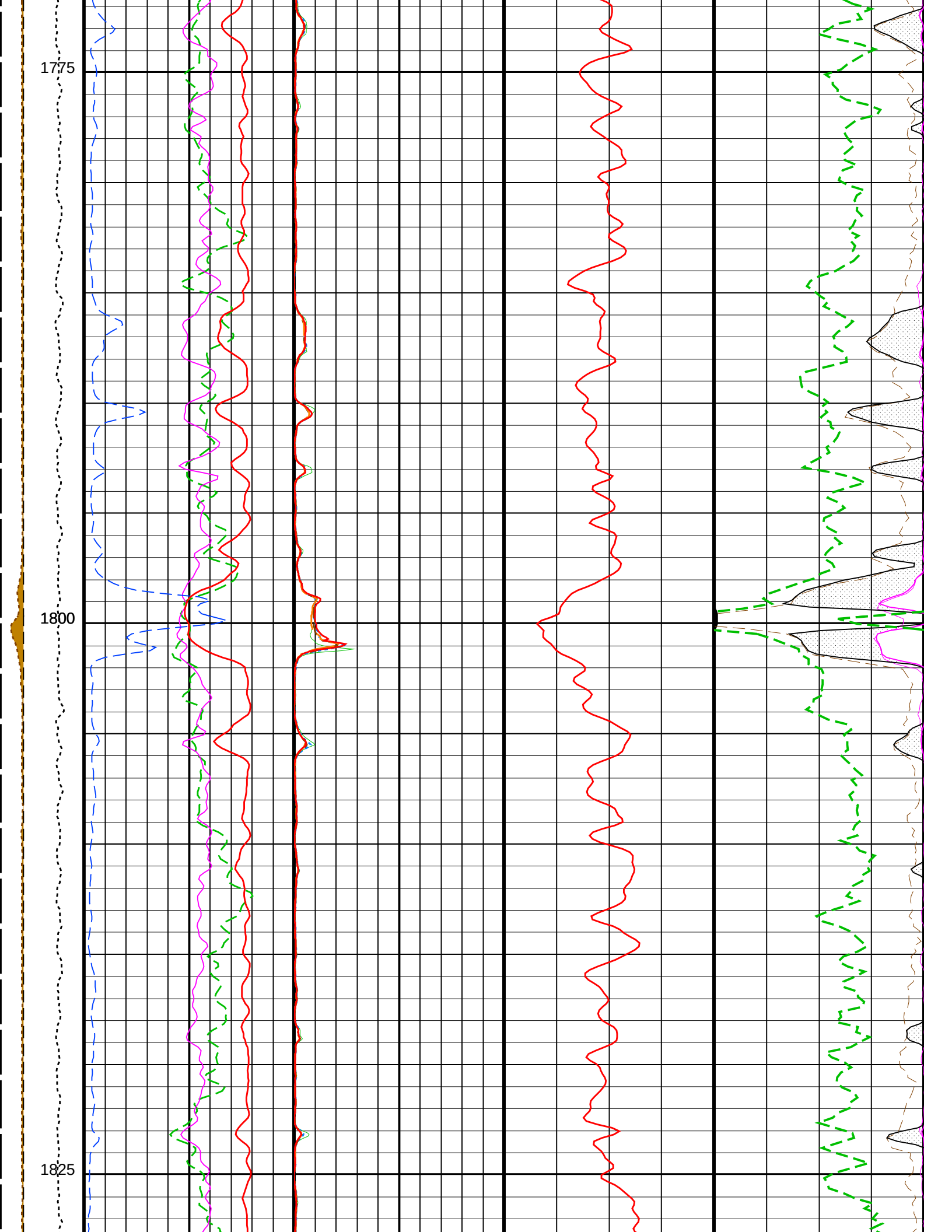
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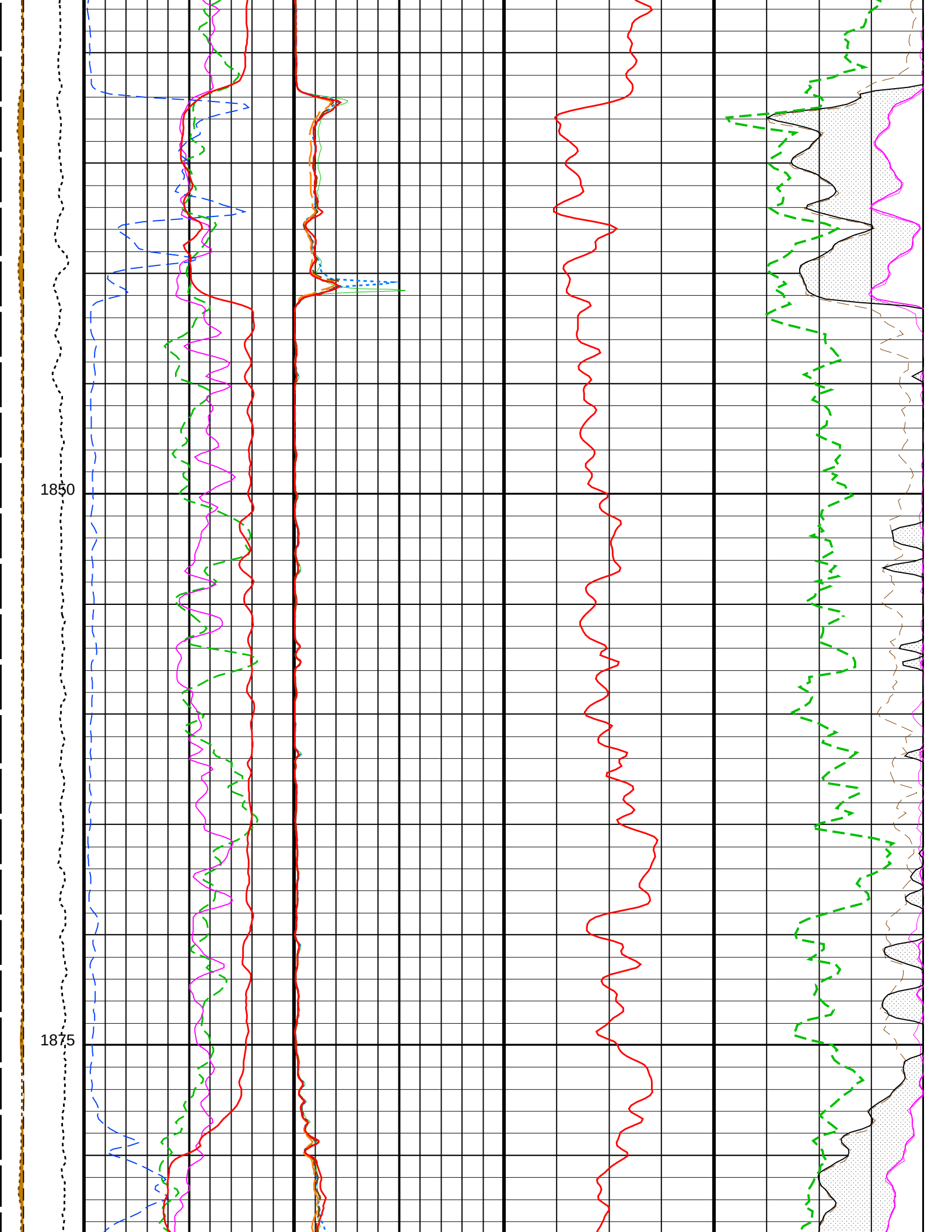
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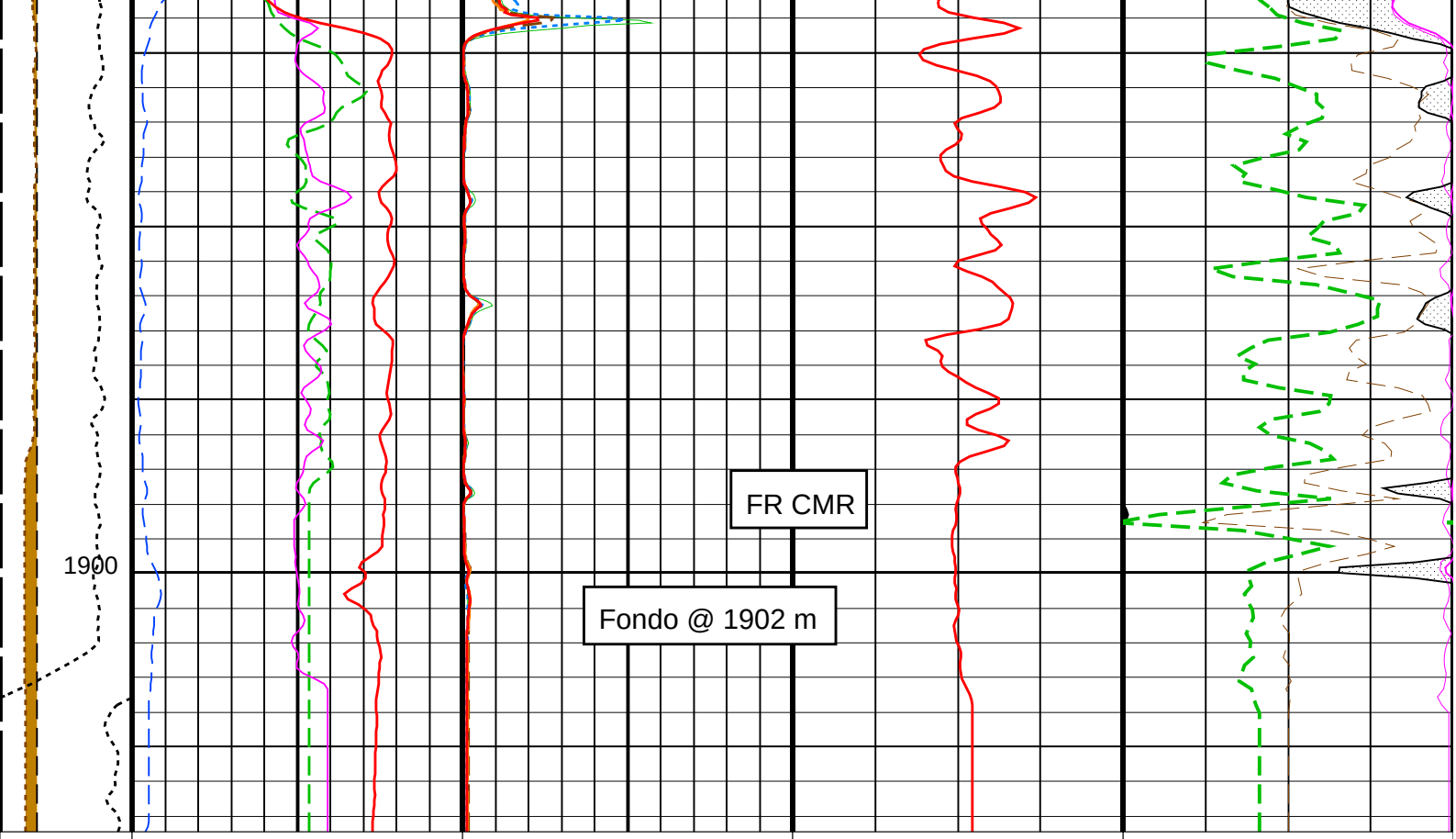


Bit Size (BS) 6 (IN) 16	Gamma Ray (GR) 0 (GAPI) 150	AIT−H 10 Inch Investigation (AHT10) 1 (OHMM) 100	Density Porosity (DPHI) 0.4 (V/V) 0	CMR Free Fluid Porosity (CMFF) 0.4 (V/V) 0
Caliper (CALI) 6 (IN) 16	PhotoElectric Factor (PEF) 0 (----- 5	AIT−H 20 Inch Investigation (AHT20) 1 (OHMM) 100		CMR 3ms Porosity (CMRP_3MS) 0.4 (V/V) 0
CAVERNA From BS to CALI	RWA (RWA) 0 (OHMM) 2	AIT−H 30 Inch Investigation (AHT30) 1 (OHMM) 100		Total CMR Porosity (TCMR) 0.4 (V/V) 0
Tension (TENS) (LBF) 0 1000	SP (SP) −80 (MV) 20	AIT−H 60 Inch Investigation (AHT60) 1 (OHMM) 100		Free Fluid
REVOQUE From CALI to BS		AIT−H 90 Inch Investigation (AHT90) 1 (OHMM) 100		Bound Fluid
				BHF

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
	AIT−H: Array Induction Tool − H	
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	880
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	108
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered
AHFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.21
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.21
AHREV	Array Induction Radial Profiling Code Version Number	700

AHRPV	Array Induction Radial Parametrization Code Version Number	223	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.21	
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_OneResTrueDeep	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
RTCO	RTCO − Rt Invasion Correction	YES	
SHT	Surface Hole Temperature	10	DEGC
SPDR	SP Drift	0	MV/M
SPNV	SP Next Value	−5	MV
	LDT−D: Litho Density − D		
BFM	Borehole Fluid Medium	LIQUID	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	STAN	
FD	Fluid Density	1	G/C3
MDEN	Matrix Density	2.65	G/C3
WMUD	Mud Weight	1.18	G/C3
	SGT−L: Scintillation Gamma−Ray − I		
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
DPPM	Density Porosity Processing Mode	STAN	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
	CMRT−A: Combinable Magnetic Resonance Tool − A		
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
	RWA: Apparent Water Resistivity		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_OneResTrueDeep	
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
FPHI	Form Factor Porosity Source	DPHI	
RTCO	RTCO − Rt Invasion Correction	YES	
	ALLRES: Basic Resistivity Transforms		
ARTS	AIT Rt Selection (for ALLRES computation)	AITH_OneResTrueDeep	
RTCO	RTCO − Rt Invasion Correction	YES	
	HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	1.18	G/C3
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	8.50	DEGC
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	3.0300	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	1902	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: COMBO−CMR−PORO Vertical Scale: 1:200 Graphics File Created: 22−Dec−2004 09:04

OP System Version: 12C0−301

MCM

AIT−H	12C0−301	LDT−D	12C0−301
SGT−L	12C0−301	TCC−BF	12C0−301
CMRT−A	12C0−301		

Input DLIS Files

17−Dec−2004 15:24

Output DLIS Files

Output DLIS Files

DEFAULT AIT_LDL_CMR_165PUP FN:50 PRODUCER 22−Dec−2004 09:04

COMPANIA:	YPF S.A.
POZO:	YPF.Ch.EA−605
CAMPO:	El Alba
PROVINCIA:	CHUBUT
PAIS:	ARGENTINA

PRIMERA LECTURA	1899.6 m
PROFUNDIDAD PERFIL	1902 m
PROF. PERFORADOR	1900 m
BUJE DE VASTAGO	669.93 m
MESA ROTATIVA	669.63 m
NIVEL TERRENO	664.23 m

Schlumberger

COMBINADA + CMR

ESCALA: 1/200

COMPANIA: YPF S.A.

POZO: YPF.Ch.EA−605

CAMPO: El Alba

PROVINCIA: CHUBUT **PAIS:** ARGENTINA

Municipio: CHUBUT
Campo: El Alba
Locacion: CAS
Pozo: YPF.Ch.EA−605
Compania: YPF S.A.

Schlumberger

ARREGLO INDUCTIVO

ESCALA: 1/1000

LOCACION

AIT−LDL−CALI
CMR
RFT / CST

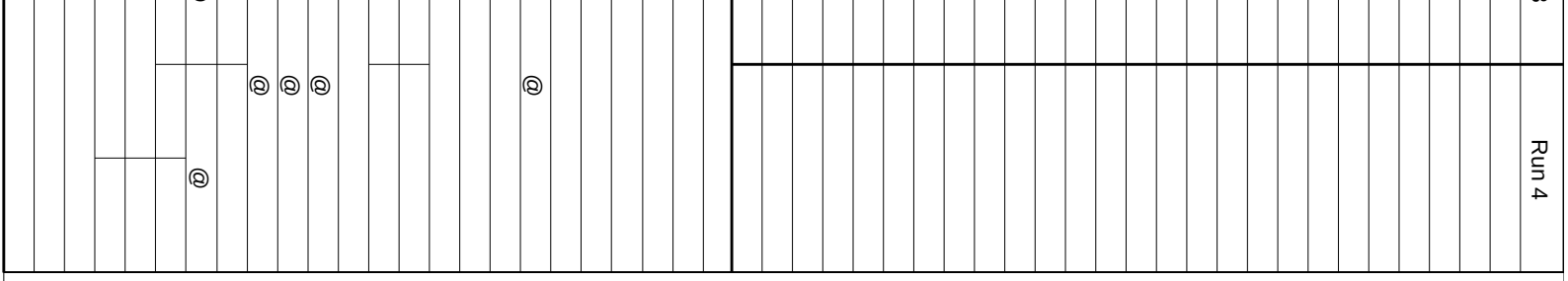
Elev.: B.V. 669.93 m
N. T. 664.23 m
M. R. 669.63 m

Ref. Permanente: NIVEL DEL TERRENO Elev.: 664.23 m
Reg. Medido Desde: NIVEL DEL TERRENO 0.0 m sobre nivel ref.
Perforacion Medida Desde: NIVEL DEL TERRENO

UWI: AR0100006194	Equipo PI−354	Longitud X: 4.947.834,12	Latitud 2.586.371,62

	Run 1	Run 2	Run 3

Fecha			15−Dec−2004				Logging Date	
Corrida No.			1				Run Number	
Prof. Perforador			1900 m				Depth Driller	
Prof. Registro			1902 m				Logger Depth	
Primera Lectura			1899.6 m				Bottom Log Interval	
Ultima Lectura			356 m				Top Log Interval	
Fondo Tuberia Perforador			9.625 in @ 355.72 m		@		Casing Driller Size @ Depth	@
Fondo Tuberia Registro			356 m				Casing Logger	
Diametro Trepano			8.750 in				Bit Size	
Tipo De Lodo			PHPA				Type Fluid In Hole	
LODO Densidad	Viscosidad		1.18 g/cm3	59 s			MUD Density	Viscosity
Perdidas	PH		5.7 cm3	8.5			Fluid Loss	PH
Fuente Muestra De Lodo			PILETA				Source Of Sample	
RM @ Temp.			3.050 ohm.m @ 9 degC		@		RM @ Measured Temperature	@
RMF @ Temp.			3.030 ohm.m @ 9 degC		@		RMF @ Measured Temperature	@
RMC @ Temp.			3.080 ohm.m @ 9 degC		@		RMC @ Measured Temperature	@
Fuente: RMF	RMC		PRENSA	PRENSA			Source RMF	RMC
RM @ T. Fdo.	RMF @ T. Fdo.		1.001 @ 70	0.994 @ 70	@	@	RM @ MRT	RMF @ MRT @ @ @
Temp. Maxima Medida			70 degC				Maximum Recorded Temperatures	
Circulacion Final	Hora		14−Dec−2004	23:00			Circulation Stopped	Time
Registro Fondo	Hora		15−Dec−2004	6:00			Logger On Bottom	Time
Unidad No.	Locacion		3064	CAS			Unit Number	Location
Registrado por:			Luis Curetti				Recorded By	
Testigo			Anibal Silveira				Witnessed By	



DEPTH SUMMARY LISTING

Date Created: 15−DEC−2004 4:06:55

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−42P−XS
Serial Number:	4858	Serial Number:	1686	Serial Number:	71141
Calibration Date:	06−Jun−2003	Calibration Date:	21−Ago−2004	Length:	2409.14 M
Calibrator Serial Number:	5969	Calibrator Serial Number:	1028	Conveyance Method:	Wireline
Calibration Cable Type:	7−42P−XS	Calibration Gain:	0.99	Rig Type:	LAND
Wheel Correction 1:	−2	Calibration Offset:	519.00		
Wheel Correction 2:	−2				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	67.00 M
Rig Up Length At Bottom:	67.00 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	1.90 M
Tool Zero Check At Surface:	0.10 M

Depth Control Remarks

1. Primera carrera en el pozo y perfil de referencia de profundidad
2. Procedimientos estandard de profundidad de Schlumberger aplicados en esta carrera.
3.
4.
5.
6.

OTROS SERVICIOS # 1		OTROS SERVICIOS # 2
OS1:	AIT−LDL−CALI	OS1:
OS2:	CMR	OS2:
OS3:	RFT / CST	OS3:
OS4:		OS4:
OS5:	PI−354	OS5:

OBSERVACIONES: CORRIDA # 1	OBSERVACIONES: CORRIDA # 2
1. Primera carrera en el pozo y perfil de referencia de profundidad.	
2. Esquema del pozo segun datos del perforador.	
3. AIT corrida descentralizada utilizando stanoff de 1,5".	
4. Coordenadas definitivas.	
5. Datos adicionales del lodo: Cl = 500 ppm, Ca = 80 ppm.	
6. Herramienta corrida segun diagrama.	
7. Ultima circulada termino el dia 14−Dic−2004 a las 23:00 hs, duro 2 hs.	
8. Maxima desviacion del pozo segun data del perforador.	

8. Maxima desviasion del pozo segun dato del perforador.

9. Maxima temperatura registrada 70 degC, tomada en la punta de la herramienta.

10. FPHI = DPHI, FNUM = 0.81 y FEXP = 2 utilizadados para calculo de RWA.

11. LDL y CALI corridos hasta 775 m a pedido del cliente.

CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:	12C0−301		VERSION DEL PROGRAMA:		
NIVEL DEL LODO:			NIVEL DEL LODO:		
INTERVALO REGISTRADO	COMIENZO	FINAL	INTERVALO REGISTRADO	COMIENZO	FINAL

DESCRIPCION DEL EQUIPO

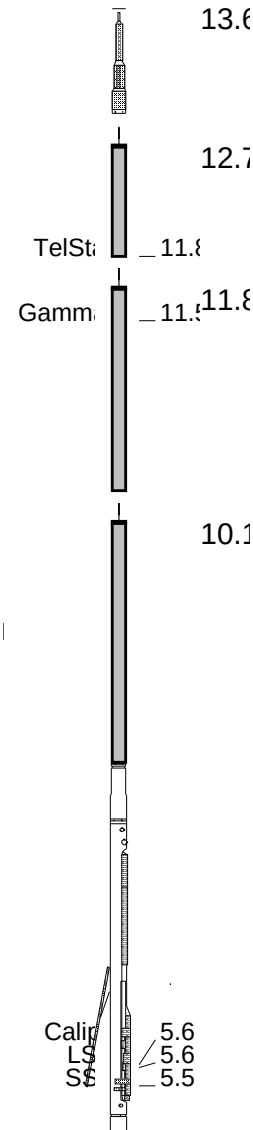
CORRIDA # 1

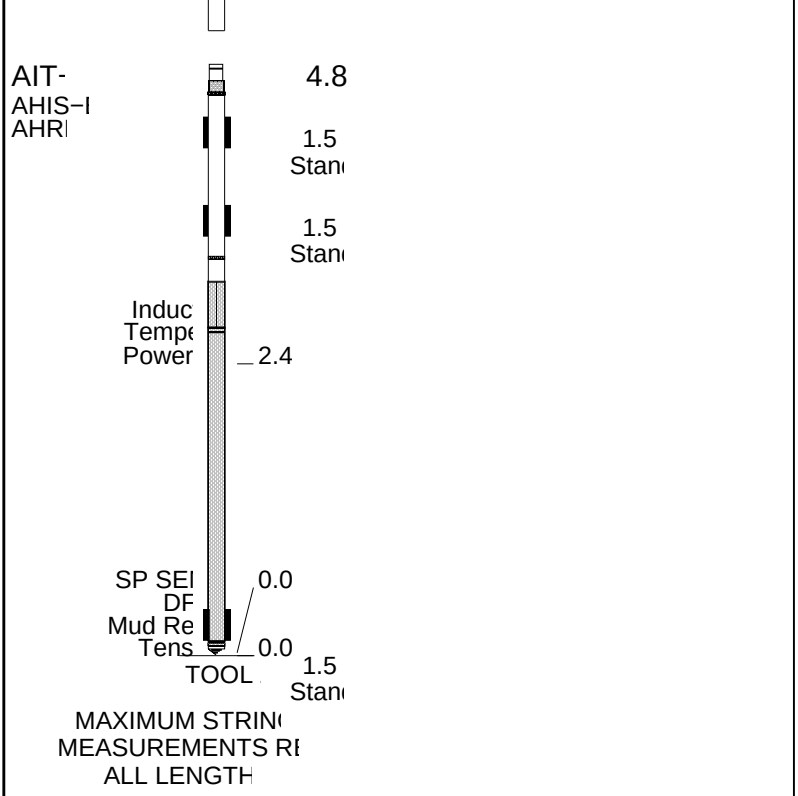
CORRIDA # 2

SURFACE I

GSR·
WITM (

DOWNHOLE





YPF.Ch.EA

Schlumbe

PI-35

Altura Mesa: 5

Nivel Terr

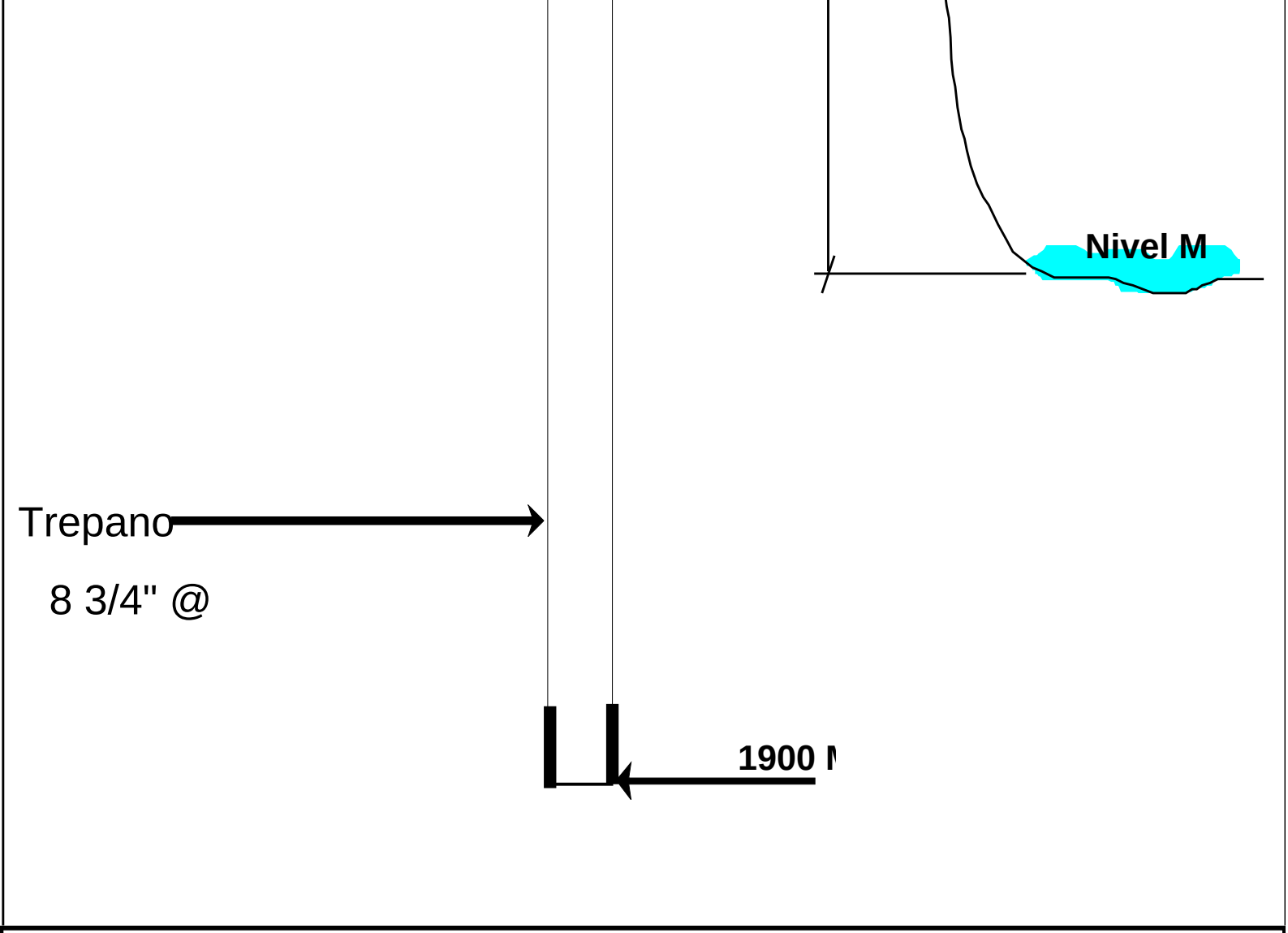
Nivel Refere

Casing 9 5

32,3 Lb/p

Zapato @ 355

Cota: 664,2



Schlumberger

TRAMO PRINCIPAL

MAXIS Field Log

Input DLIS Files

DEFAULT	Principal_117PUP	FN:20	PRODUCER	17−Dec−2004 13:06	1907.4 M	335.3 M

Output DLIS Files

DEFAULT	Principal_124PUP	FN:27	PRODUCER	17−Dec−2004 14:16	1907.4 M	346.1 M

OP System Version: 12C0−301

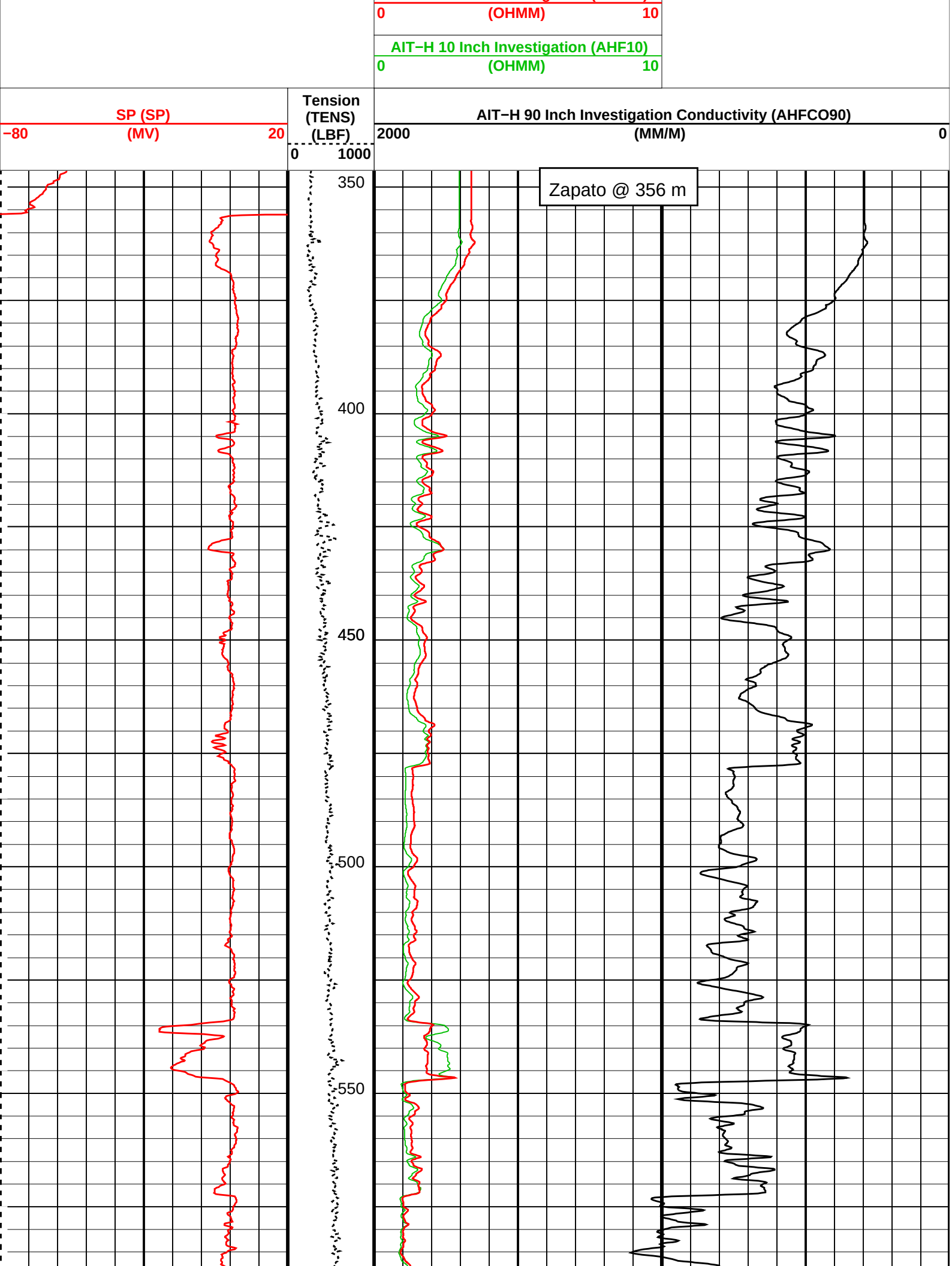
MCM

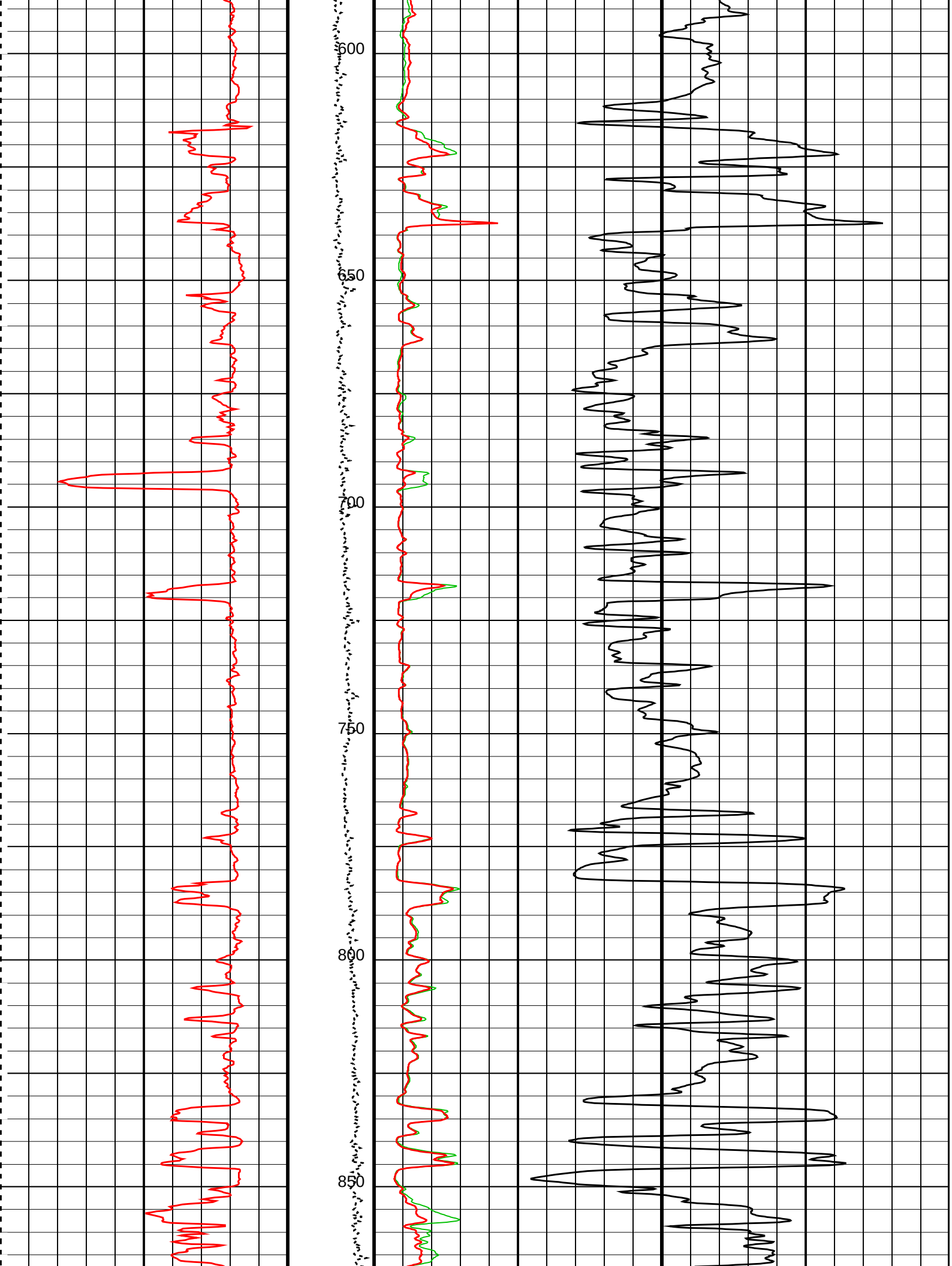
AIT−H	12C0−301	LDT−D	12C0−301
SGT−L	12C0−301	TCC−BF	12C0−301
CMRT−A	12C0−301		

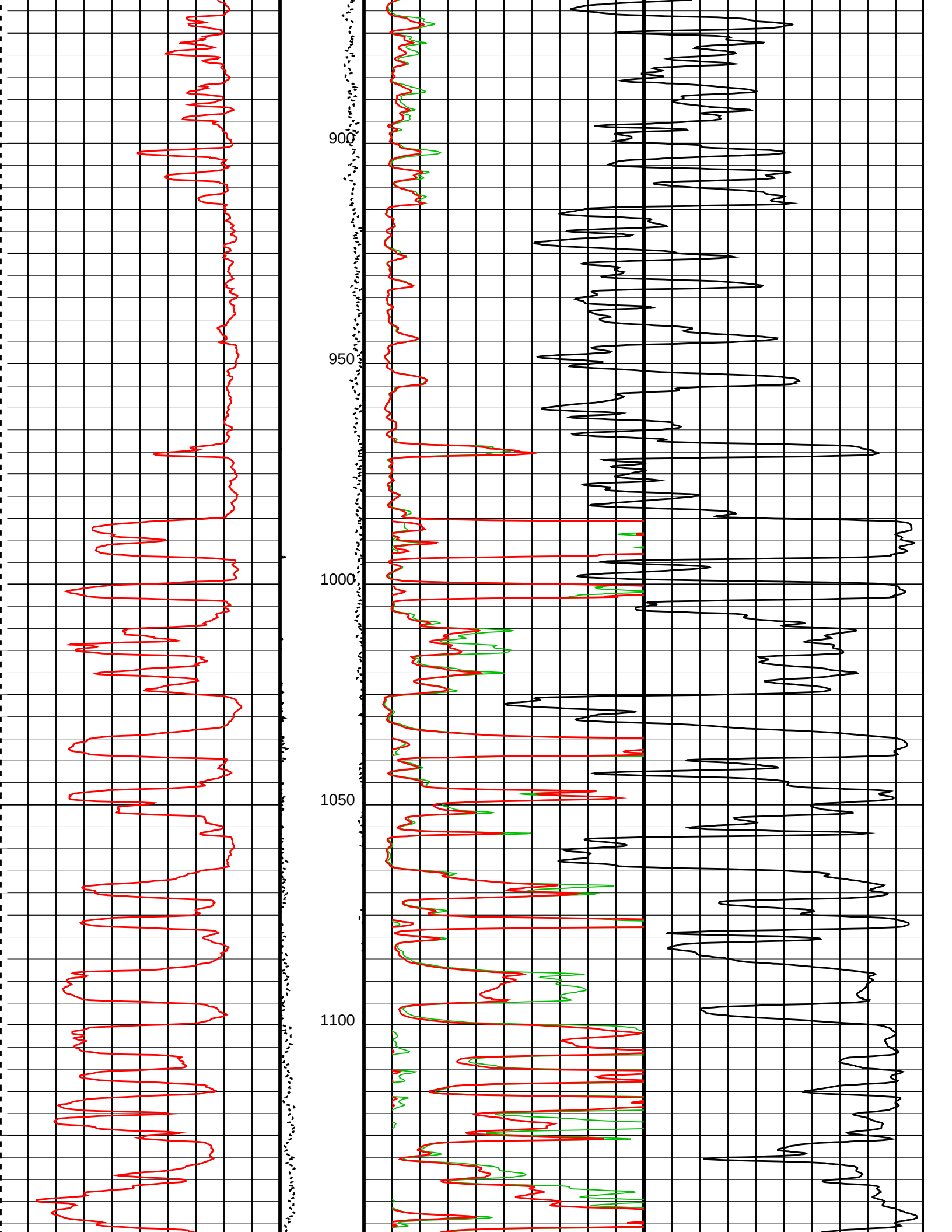
PIP SUMMARY

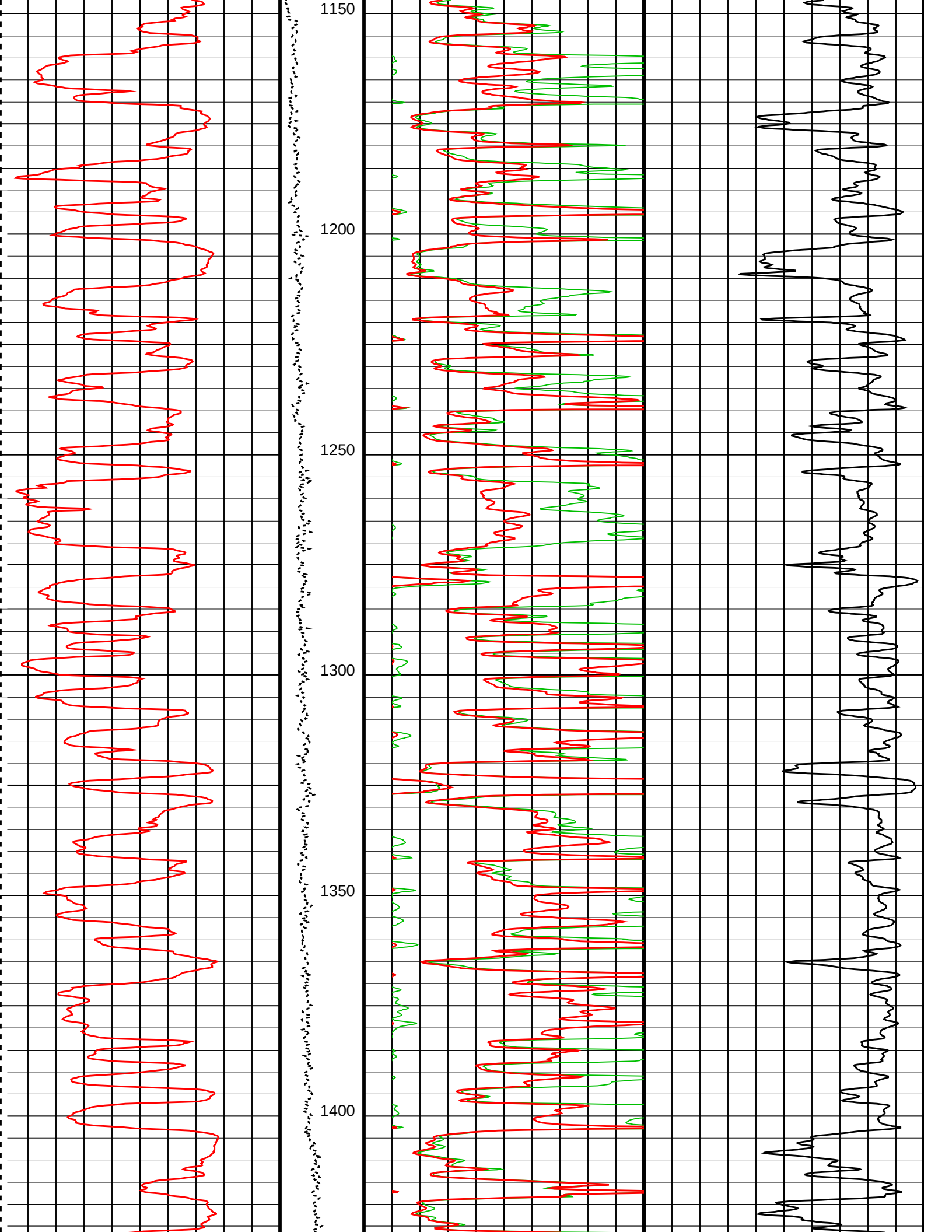
Time Mark Every 60 S

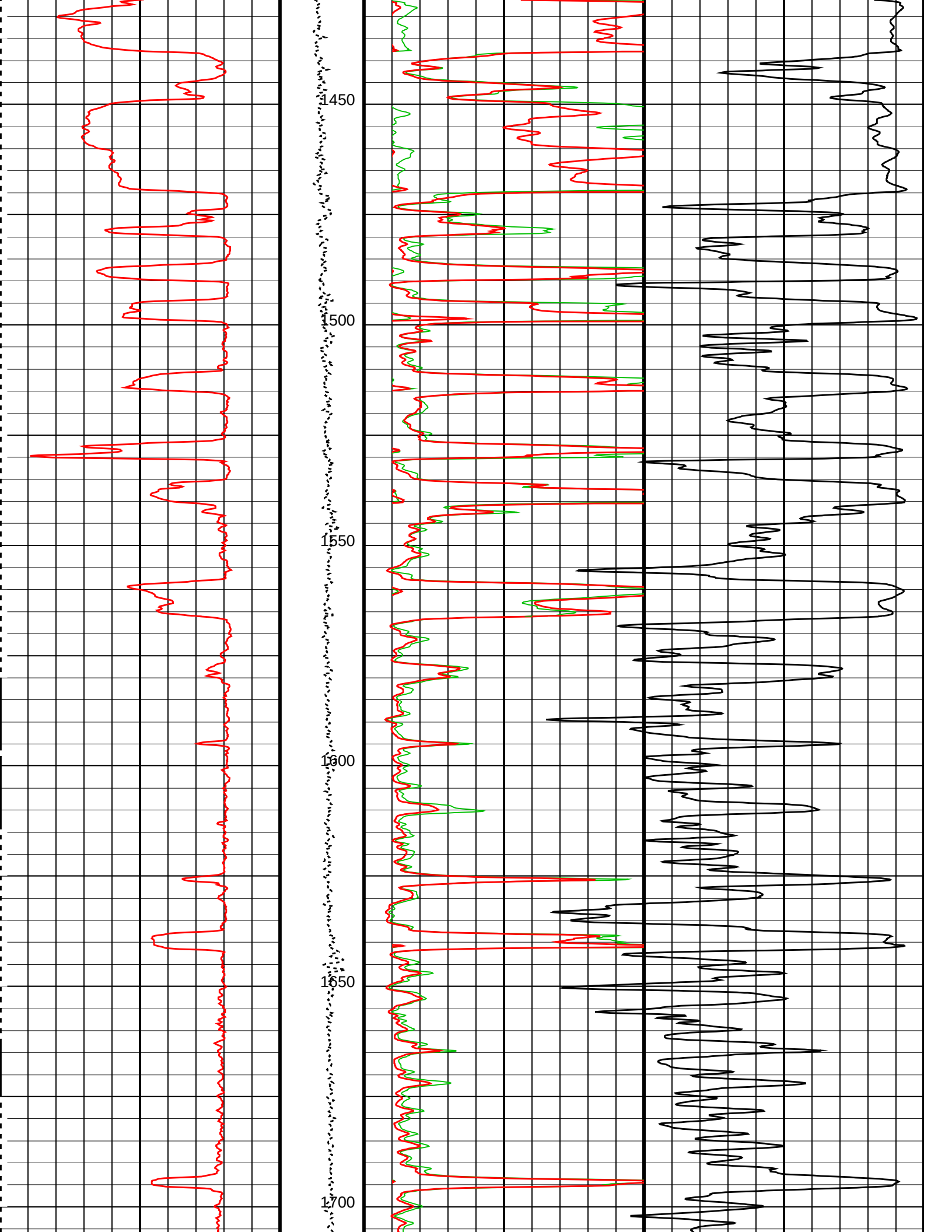
AIT−H 90 Inch Investigation (AHF90)

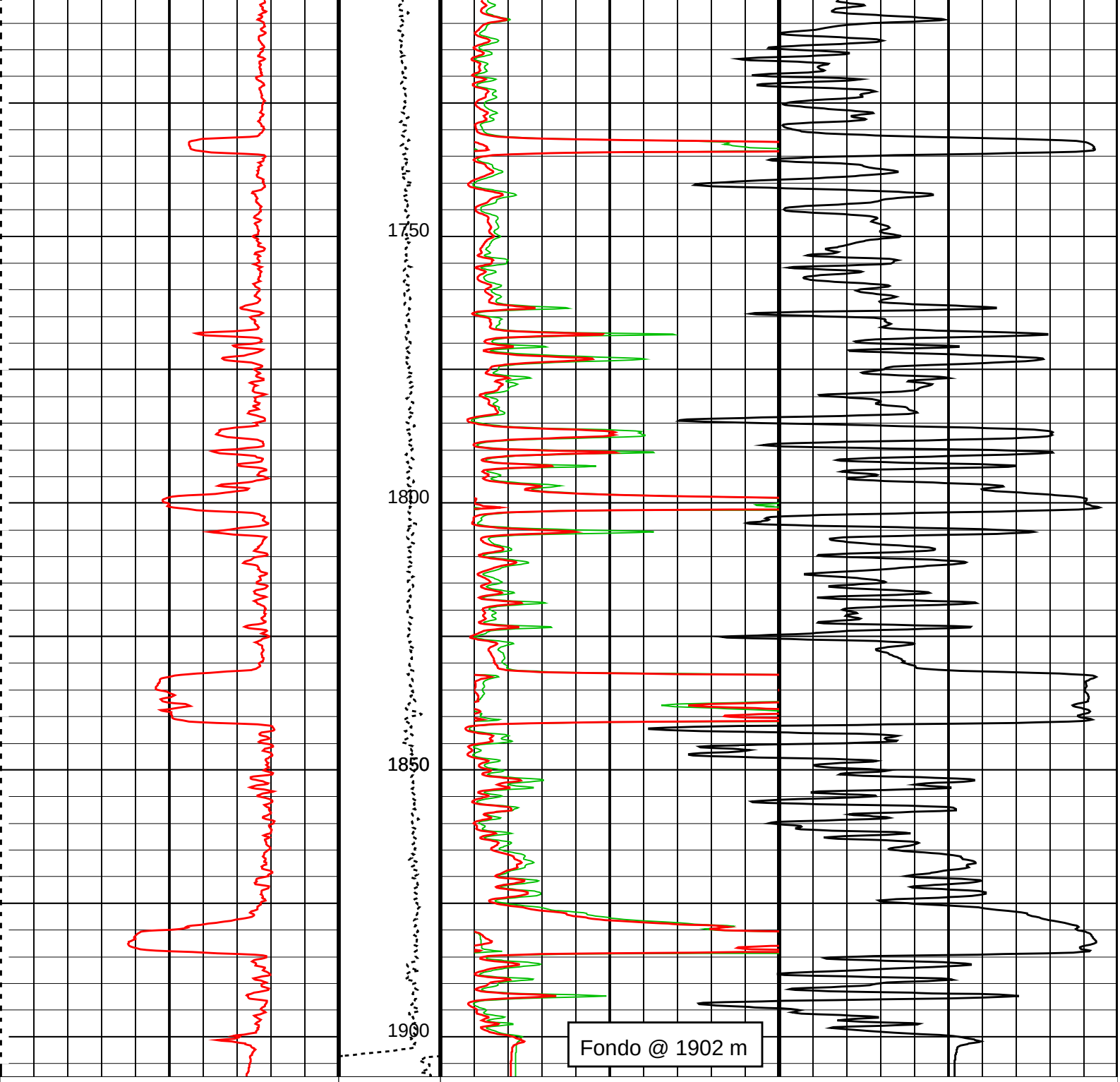

0
(OHMM)
10
AIT−H 10 Inch Investigation (AHF10)
0
(OHMM)
10
SP (SP)
−80
(MV)
20
Tension
(TENS)
(LBF)
0
1000
AIT−H 90 Inch Investigation Conductivity (AHFCO90)
2000
(MM/M)
0
Zapato @ 356 m
350
400
450
500
550


600
650
700
750
800
850


900
950
1000
1050
1100


1150
1200
1250
1300
1350
1400


1450
1500
1550
1600
1650
1700



SP (SP)
−80 (MV) 20

Tension (TENS) (LBF)
0 1000

AIT−H 90 Inch Investigation Conductivity (AHFCO90)
2000 (MM/M) 0

AIT−H 10 Inch Investigation (AHF10)
0 (OHMM) 10

AIT−H 90 Inch Investigation (AHF90)
0 (OHMM) 10

PIP SUMMARY

Time Mark Every 60 S

AIT−H Answer Product Processing Summary. Data taken with Tool # 265 (AHTNO)

***** Borehole Correction *****

Effective Tool Standoff computed. Borehole diameter and mud res. taken as input (see GCSE and GRSE parameters)

Tool is run in ECCENTERED mode with a tool stand−off of 1.50 IN. Bit Size is 8.75 IN.

***** Input Selections to AIT−H Answer Product Processing *****

Caliper (GCSE): CALI Mud Resistivity (GRSE): AHMF Temperature (GTSE): LINEAR_ESTIMATE Porosity (FPHI): DPHI

***** Other Parameters used by AIT−H Answer Product Processing *****

Surface Hole Temperature (SHT)	10.000 DEGC	Bottom Temperature (BHT)	70.000 DEGC
Total Depth (TD)	1902.000 M		
Form Factor Exponent (FEXP)	2.000	Form Factor Numerator (FNUM)	0.810
Mud Filtrate Sample Resistivity (RMFS)	3.030 OHMM	Mud Filtrate Sample Temperature (MFST)	8.500 DEGC
Resitivity Connate Water (RW)	1.000 OHMM		

***** AIT−H Answer Product Processing Control Parameters *****

Playback Mode: OFF

Parameters

DLIS Name	Description	Value	
	AIT−H: Array Induction Tool − H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
AHBHV	Array Induction Borehole Correction Code Version Number	880	
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	108	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	40.70.24.21	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	40.70.24.21	
AHRFV	Array Induction Radial Profiling Code Version Number	700	
AHRPV	Array Induction Radial Parametrization Code Version Number	223	
AHSTA	Array Induction Tool Standoff	1.5	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	40.70.24.21	
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
SPDR	SP Drift	0.044	MV/M
SPNV	SP Next Value	−5	MV
	SGT−L: Scintillation Gamma−Ray − I		
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
	CMRT−A: Combinable Magnetic Resonance Tool − A		
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
	RWA: Apparent Water Resistivity		
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	0.81	
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
	HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	70	DEGC
GCSE	Generalized Caliper Selection	CALI	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	10	DEGC
	System and Miscellaneous		
BS	Bit Size	8.750	IN
DFD	Drilling Fluid Density	1.18	G/C3

DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	8.50	DEGC
PP	Playback Processing	OFF	
TD	Total Depth	1902	M

Format: AITMIL **Vertical Scale: 1:1000** **Graphics File Created: 17−Dec−2004 14:16**

OP System Version: 12C0−301

MCM

AIT−H	12C0−301	LDT−D	12C0−301
SGT−L	12C0−301	TCC−BF	12C0−301
CMRT−A	12C0−301		

Input DLIS Files

DEFAULT	Principal_117PUP	FN:20	PRODUCER	17−Dec−2004 13:06	1907.4 M	335.3 M

Output DLIS Files

DEFAULT	Principal_124PUP	FN:27	PRODUCER	17−Dec−2004 14:16

COMPANIA:	**YPF S.A.**
POZO:	**YPF.Ch.EA−605**
CAMPO:	**El Alba**
PROVINCIA:	**CHUBUT**
PAIS:	**ARGENTINA**

PRIMERA LECTURA	1899.6 m
PROFUNDIDAD PERFIL	1902 m
PROF. PERFORADOR	1900 m
BUJE DE VASTAGO	669.93 m
MESA ROTATIVA	669.63 m
NIVEL TERRENO	664.23 m

Schlumberger

ARREGLO INDUCTIVO

ESCALA: 1/1000

Schlumberger

Compania: **YPF S.A.**

Pozo: **YPF.Ch.EA−605**
Campo: **EL ALBA**
Provincia: **CHUBUT** Pais: **ARGENTINA**

CONTROL DE CEMENTO−NEUTRON COMPENSADO
CBL−VDL−CNL−CC
1:200

Campo: EL ALBA
Locacion: CAS
Pozo: YPF.Ch.EA−605
Compania: YPF S.A.

LOCACION

CAS
X:4.947.834,12
Y:2.586.371,62

Elev.: B.V. 669.93 m
N.T. 664.23 m
M.R. 669.63 m

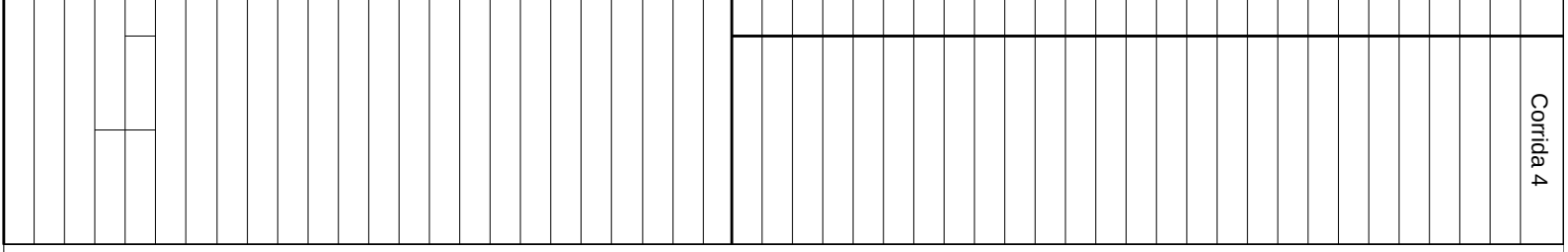
Ref. Permanente: NIVEL DEL TERRENO Elev.: 0 m
Reg. Medido Desde: NIVEL DEL TERRENO 664.2 m sobre Ref. Permanente
Perforacion Medida Desde: NIVEL DEL TERRENO

Equipo MASTIL	Desviacion Maxima del Hoyo	Longitud X:4.947.834,12	Latitud Y:2.586.371,62

Fecha de Registro	22−Dec−2004		
Corrida Numero	1		
Prof. Perforador	1900 m		
Prof. Schlumberger	1865.5 m		
Primera Lectura	1863 m		
Ultima Lectura	915 m		
Tipo de Fluido en la Caneria	AGUA		
Salinidad			
Densidad	1 g/cm3		
Nivel del Fluido	0 m		
BROCA/CANERIA/TUBERIA			
Broca	8.750 in		
Desde	355.7 m		
Hasta	1900 m		
Caneria / Tuberia	5.500 in		
Peso	14 lbm/ft		
Grado			
Desde	0 m		
Hasta	1897.2 m		
Temperaturas Maximas Medidas	79 degC		
Registro en Fondo / Hora	22−Dec−2004 / 19:15		
Unidad Numero / Locacion	8116 / CAS		
Registrado por	PABLO BARRIONUEVO		
Testigo	SIN TESTIGO		

		Corrida 1	Corrida 2	Corrida 3
DATOS PVT	Densidad del Crudo			
	Salinidad del Agua			
	Gravedad del Gas			
	Bo			
	Bw			
	1/Bg			
	Presion del Punto de Burbuja			
	Temperatura del Punto de Burbuja			
GOR en Solucion				
Desviacion Maxima				
DATOS DE CEMENTACION				
Primaria/Reparacion		Primary		
Sarta de la Caneria No.				
Tipo de Cemento Primario				
Volumen				
Densidad				
Perdida de Agua				
Aditivos				
Tipo de Cemento Cola				
Volumen				
Densidad				
Perdidad de Agua				
Aditivos				
Tope de Cemento Esperado				

Fecha de Registro			
Corrida Numero			
Prof. Perforador			
Prof. Schlumberger			
Primera Lectura			
Ultima Lectura			
Tipo de Fluido en la Caneria			
Salinidad			
Densidad			
Nivel del Fluido			
BROCA/CANERIA/TUBERIA			
Broca			
Desde			
Hasta			
Caneria / Tuberia			
Peso			
Grado			
Desde			
Hasta			
Temperaturas Maximas Medidas			
Registro en Fondo / Hora			
Unidad Numero / Locacion			
Registrado por			
Testigo			



DEPTH SUMMARY LISTING

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−B	Type:	CMTD−B/A	Type:	7−46P
Serial Number:	824	Serial Number:	1689	Serial Number:	77353
Calibration Date:		Calibration Date:	21−Aug−2004	Length:	7315.20 M
Calibrator Serial Number:		Calibrator Serial Number:	1077		
Calibration Cable Type:	7−46P	Calibration Gain:	1.06	Conveyance Method:	Wireline
Wheel Correction 1:	−2	Calibration Offset:	212.00	Rig Type:	LAND
Wheel Correction 2:	−2				

Depth Control Parameters

Log Sequence: Subsequent Log In the Well

Reference Log Name: Combinada
Reference Log Run Number: 1
Reference Log Date:

Depth Control Remarks

1. IDW usado como sistema de profundidad primario.
2.
3.
4.
5.
6.

OTROS SERVICIOS #1	OTROS SERVICIOS #2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

OBSERVACIONES: CORRIDA #1	OBSERVACIONES: CORRIDA #2
1.Correlacionado segun Combinada Schlumberger del dia 15−Dec−2004.	
2.Herramienta segun diagrama y centralizada con tres gemcos de 5.5".	
3.Tope de cemento en aproximadamente 915m.	
4.Velocidad de registro 1800pies/hora.	
5.Fondo constatado en aproximadamente 1865.5m.	
6.Neutron compensado para ver cruces de gas. Matriz de registro: Sandstone.	
7.Se presenta tramo sin correccion de profundidad a pedido del cliente.	
8.Lecturas en Tuberia Libre 71mV (+/−7mV).	

CORRIDA #1			CORRIDA #2		
ORDEN DE SERVICIO:			ORDEN DE SERVICIO:		
VERSION DEL PROGRAMA:		11C0−305	VERSION DEL PROGRAMA:		
NIVEL DEL FLUIDO:		0 m	NIVEL DEL FLUIDO:		
INTERVALO REGISTRADO	COMIENZO	FINAL	INTERVALO REGISTRADO	COMIENZO	FINAL

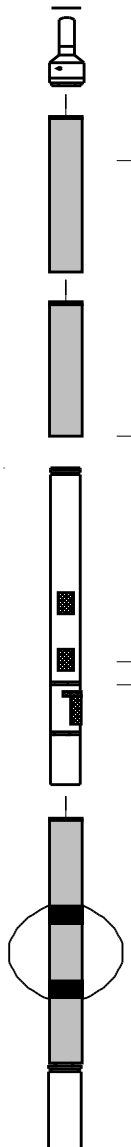
DESCRIPCION DEL EQUIPO

CORRIDA #1 CORRIDA #2

SURFACE EQUIPMENT

CNB−AB
NCT−B
NCS−VB
TCM−AB

DOWNHOLE EQUIPMENT



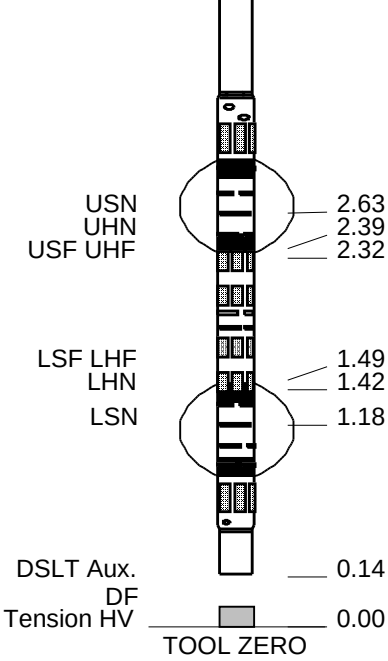
PEH−A 11.17
PEH−A

CAL−Y 10.62
CAL−Y 1074

TCC−BF 9.55
ECH−KC 3000
TCC−BF 1000

CNT−H 8.64
CND−NA
NLS−KL
NSR−F
CNC−HA 212
CNH−A 2021
NPV−N

DSLT−TCC 6.43
DSLC−B 8168
ECH−KH 8168
SLS−W 1208



MAXIMUM STRING DIAMETER 7.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Schlumberger

Tramo Principal

MAXIS Field Log

Company: YPF S.A. **Well: YPF.Ch.EA−605**

Input DLIS Files

DEFAULT	SONIC_CNL_009PUP	FN:8	PRODUCER	22−Dec−2004 21:08	1869.0 M	854.4 M

Output DLIS Files

DEFAULT	SONIC_CNL_012PUP	FN:11	PRODUCER	22−Dec−2004 21:24	1869.0 M	860.3 M

OP System Version: 11C0−305

MCM

DSLT−TCC	OP11−KP1	CNT−H	OP11−KP1
TCC−BF	OP11−KP1	CAL−Y	11C0−305

PIP SUMMARY

Time Mark Every 60 S

Env.Corr.Thermal Neutron Porosity (TNPH)
0.4 (V/V) 0

Fluid Compensated CBL Amplitude (CBLF)
0 (MV) 10

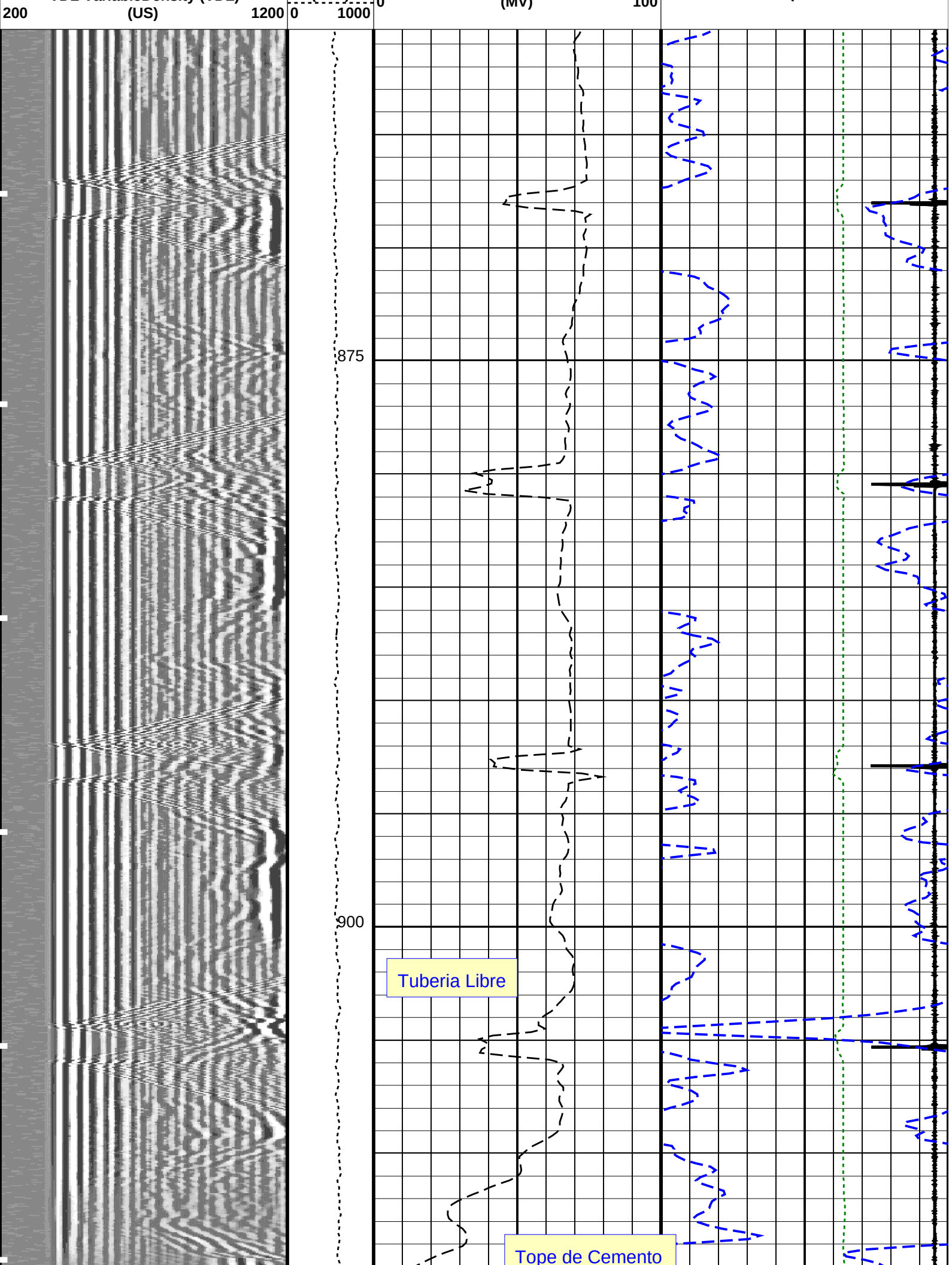
Transit Time (TT)
400 (US) 200

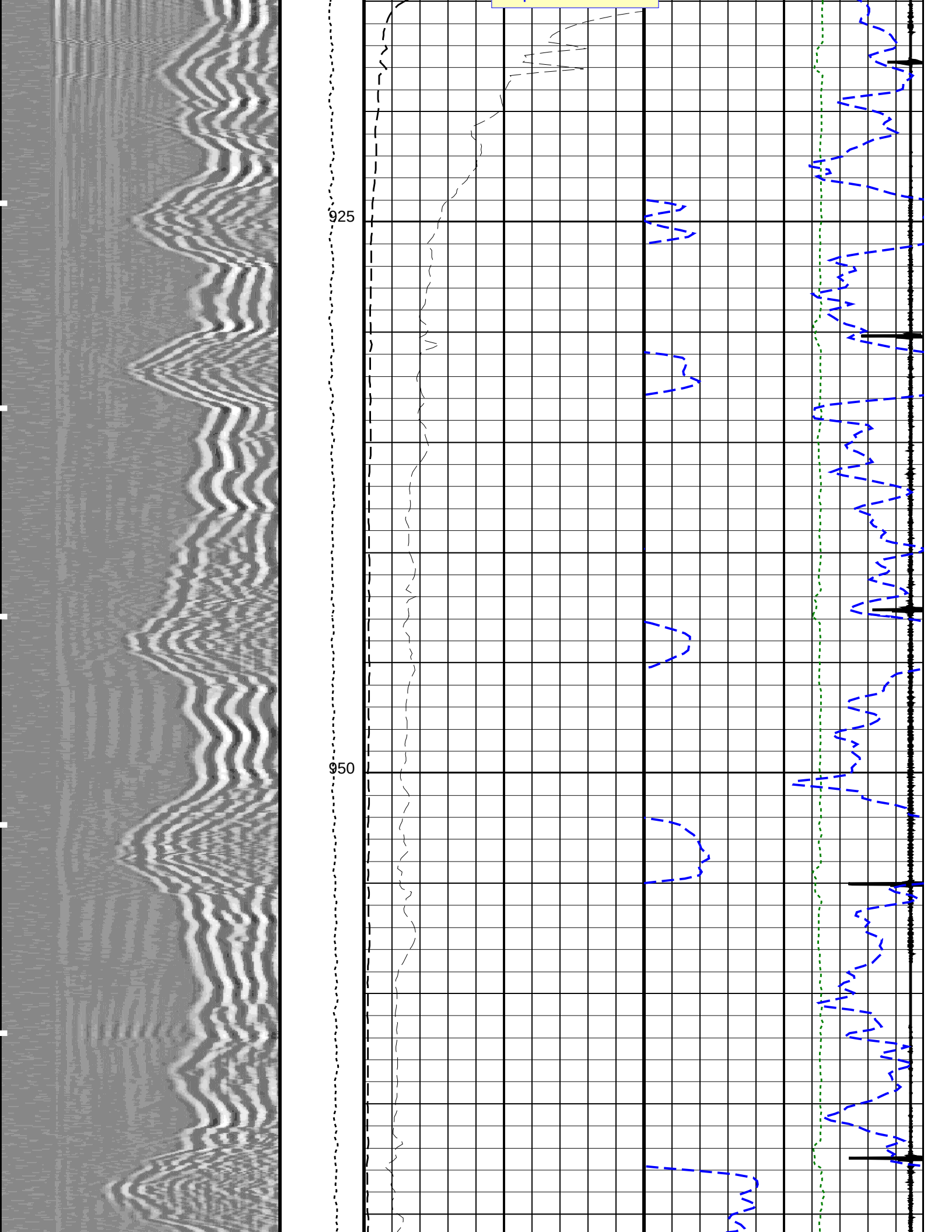
Min Amplitude Max
VDL VariableDensity (VDL)

Tension (TENS) (LBF)

Fluid Compensated CBL Amplitude (CBLF)
0 (MV) 100

Casing Collar Locator (CCL)
−19 (−−−− 1


200
(US)
1200
0
1000
(MV)
100
875
900
Tuberia Libre
Tope de Cemento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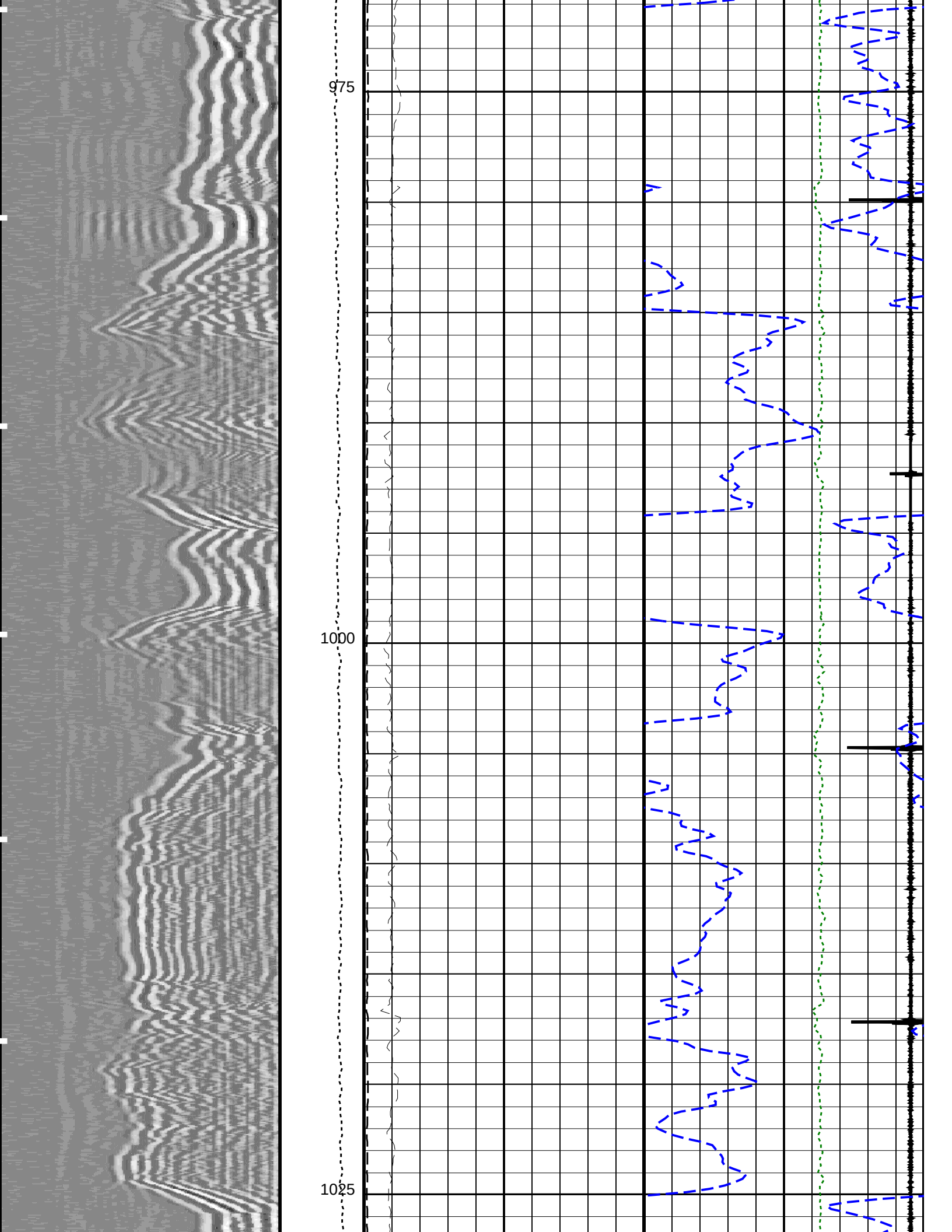
950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1000
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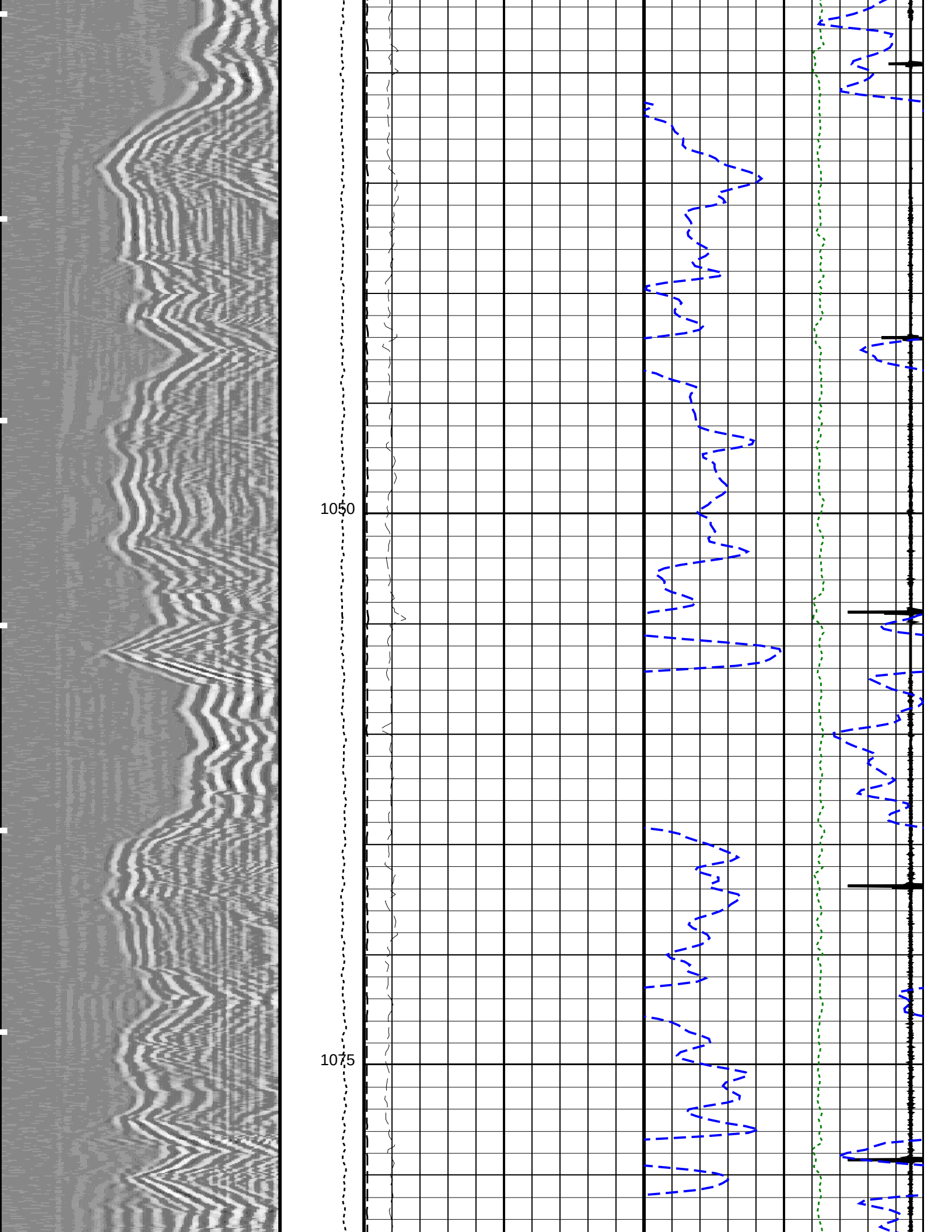
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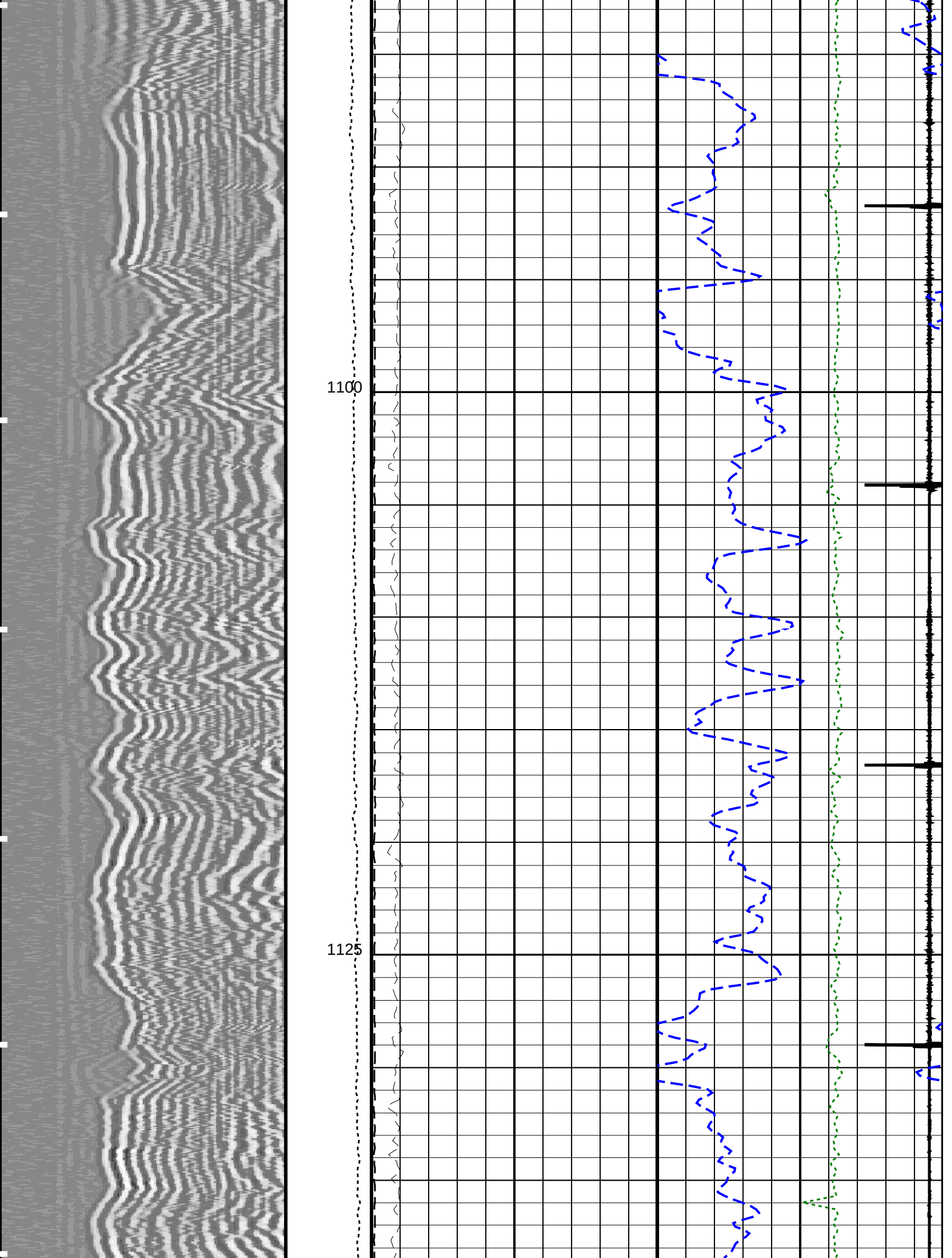
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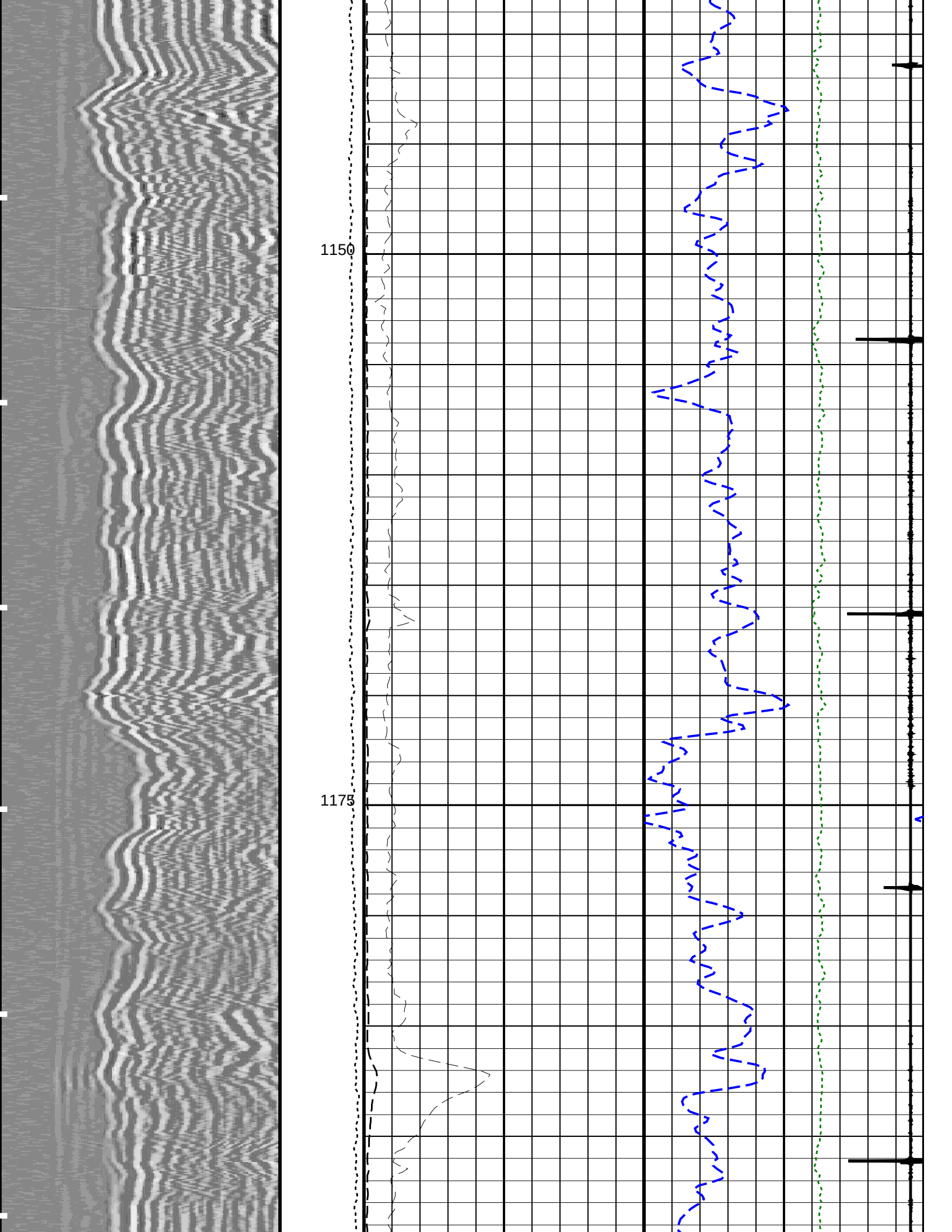
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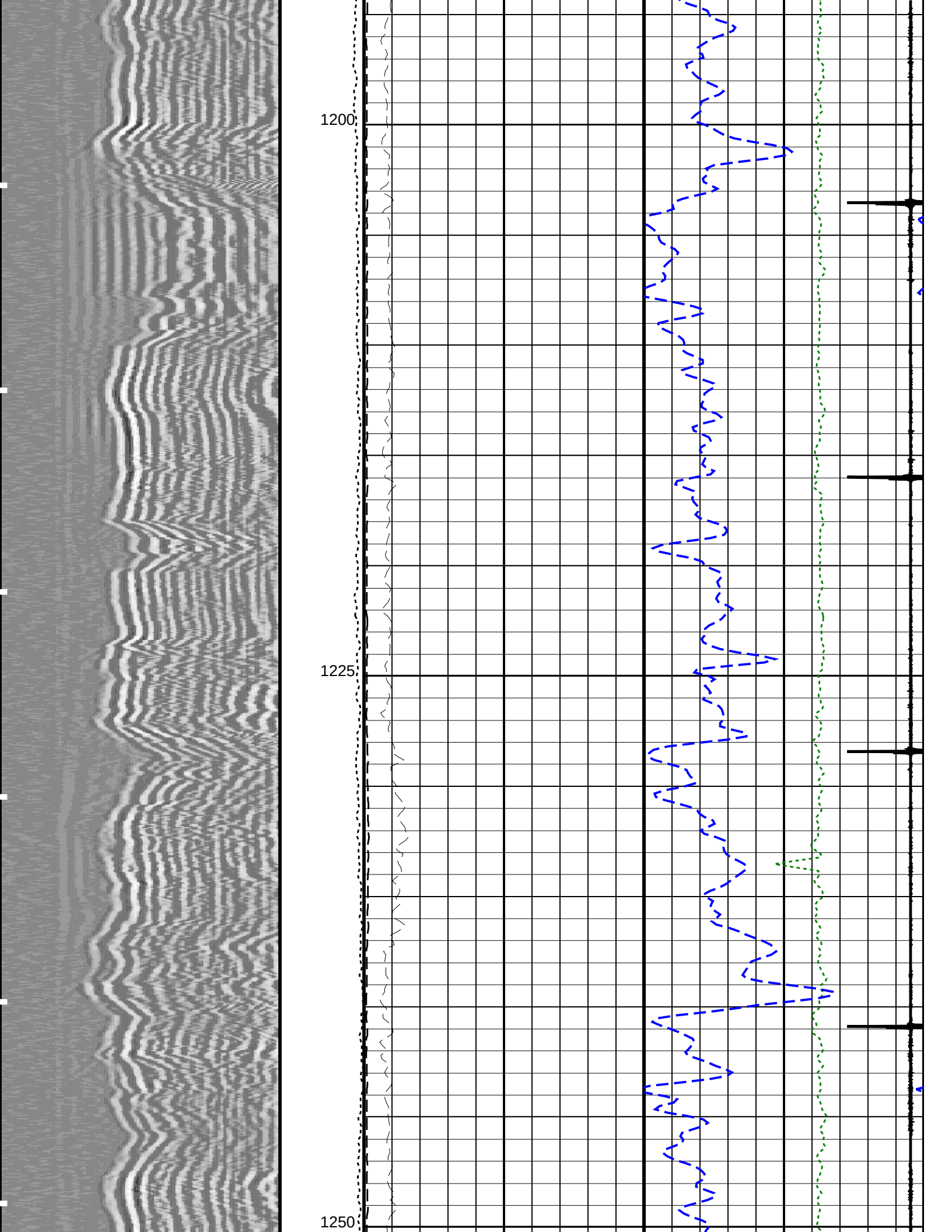
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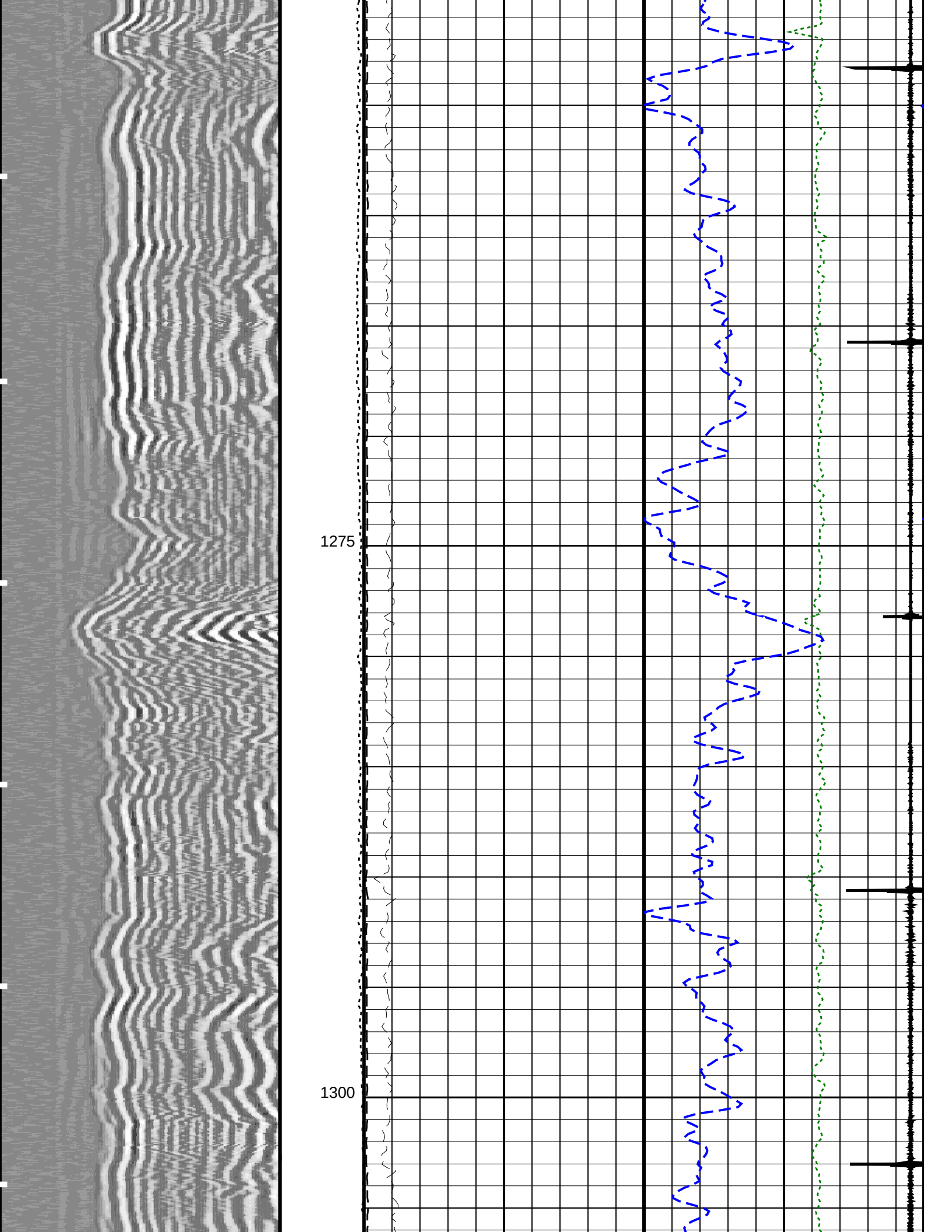
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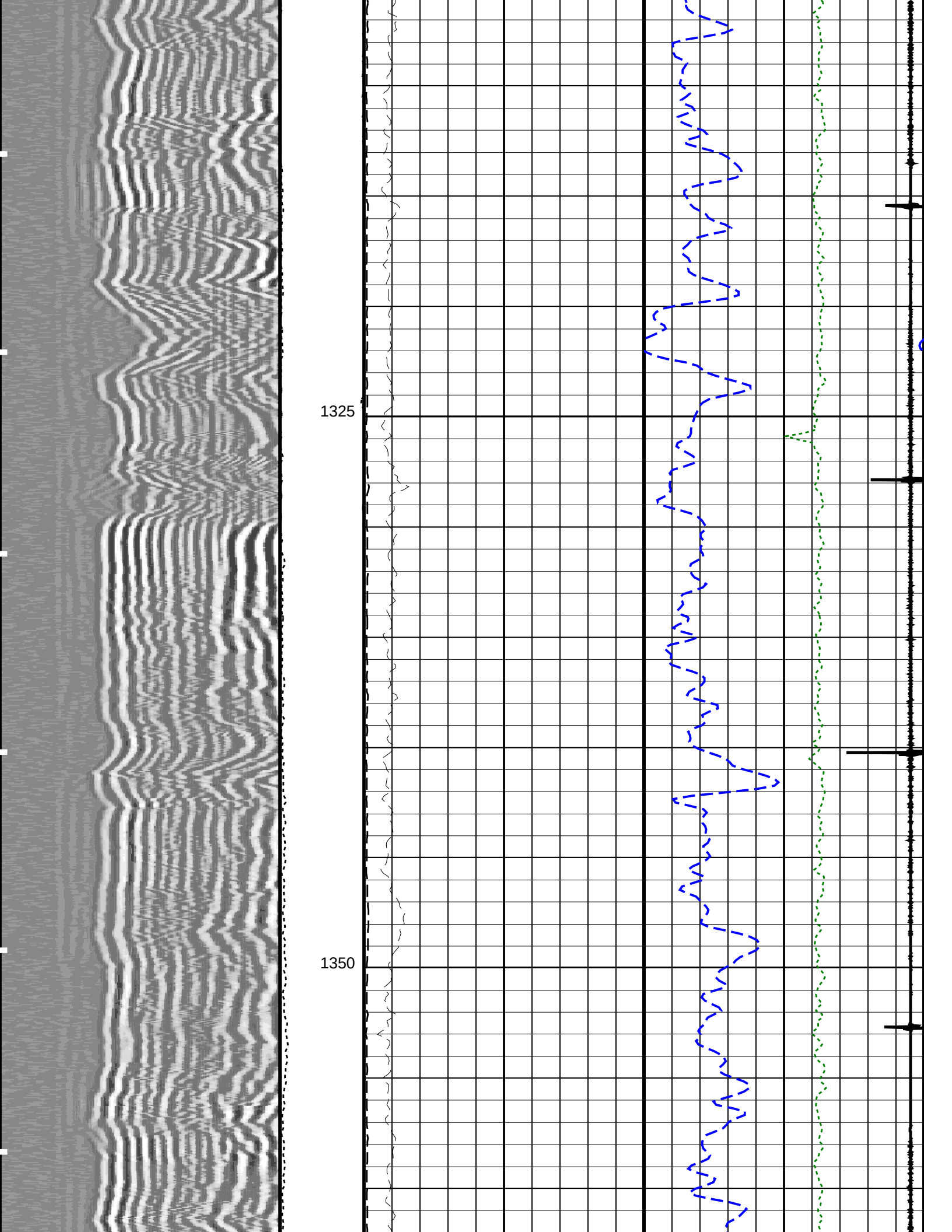
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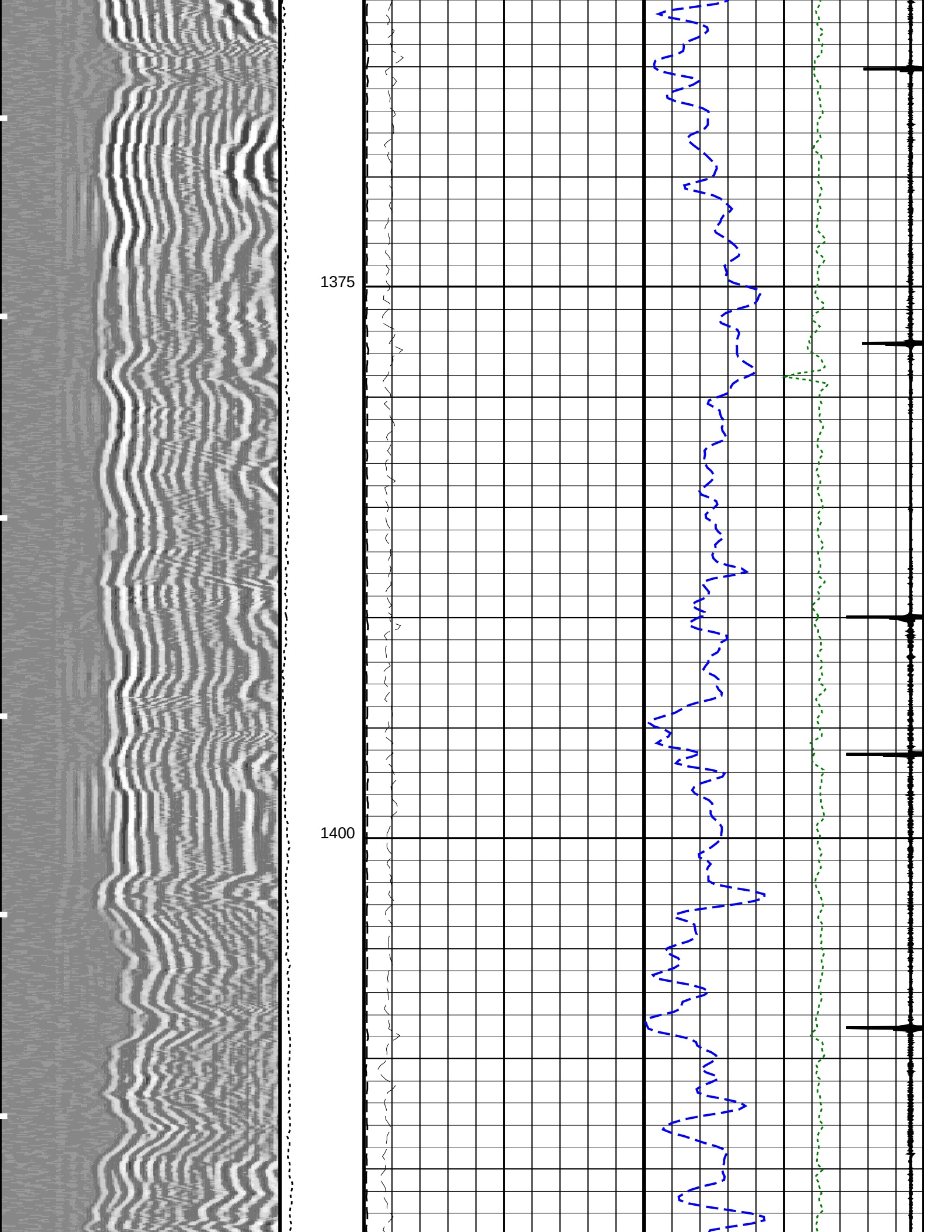
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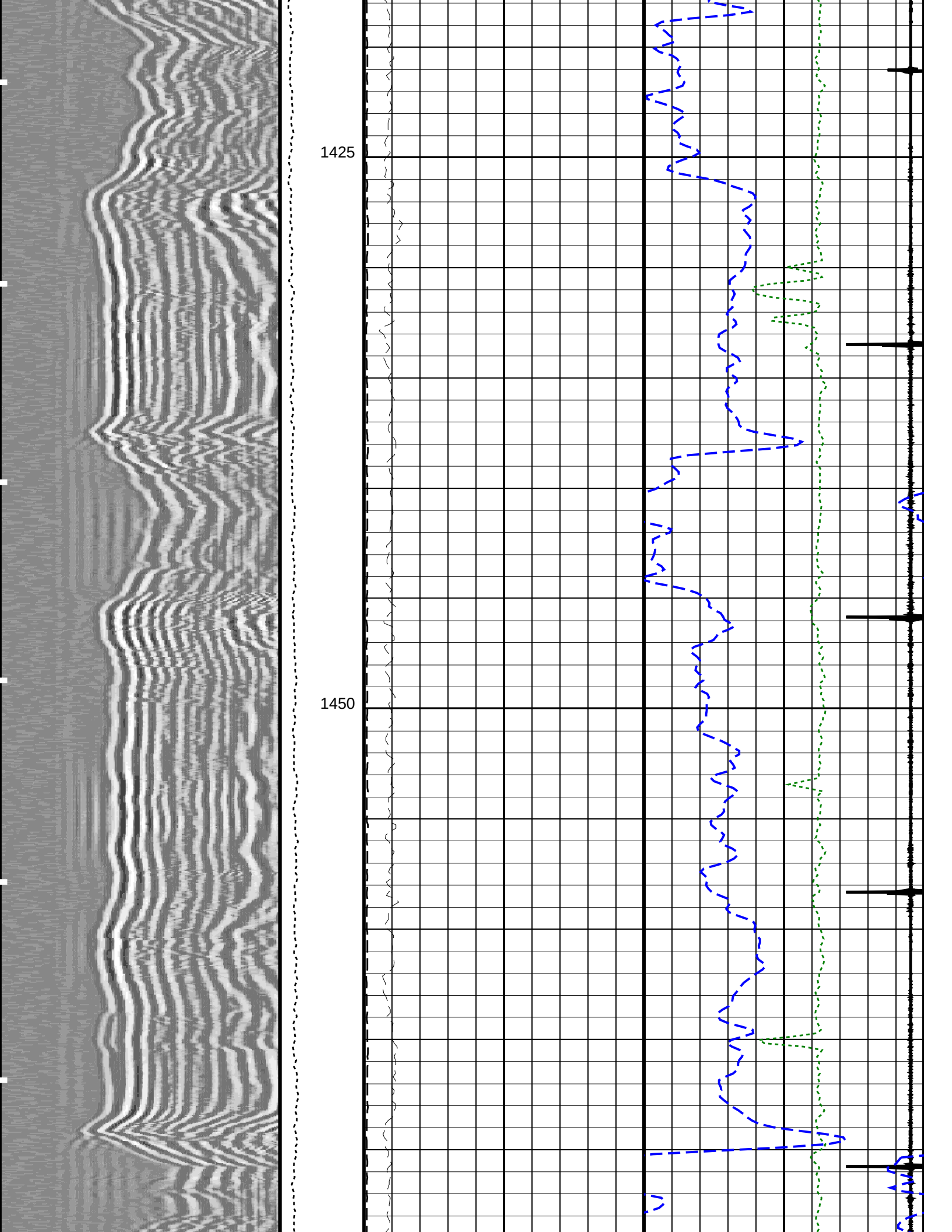
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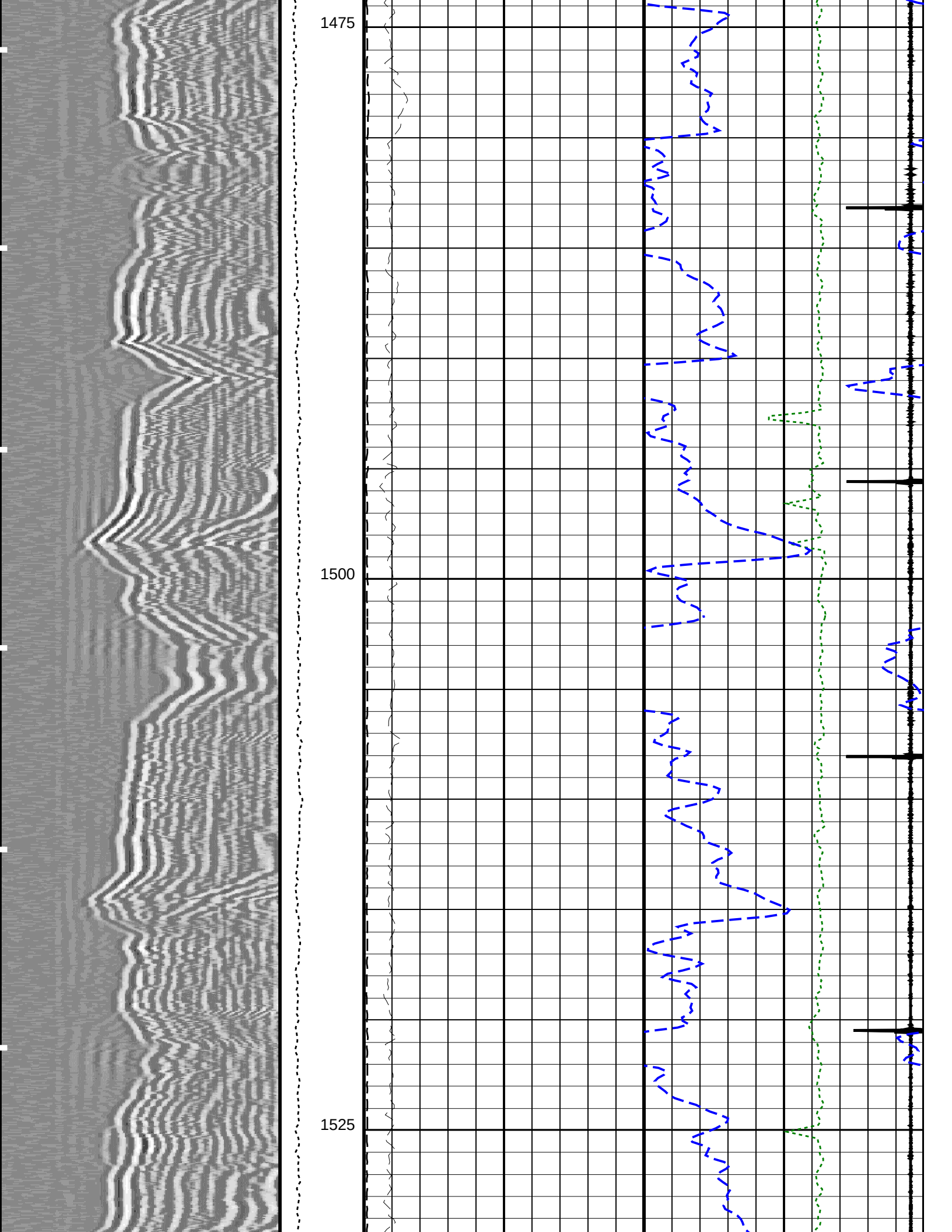
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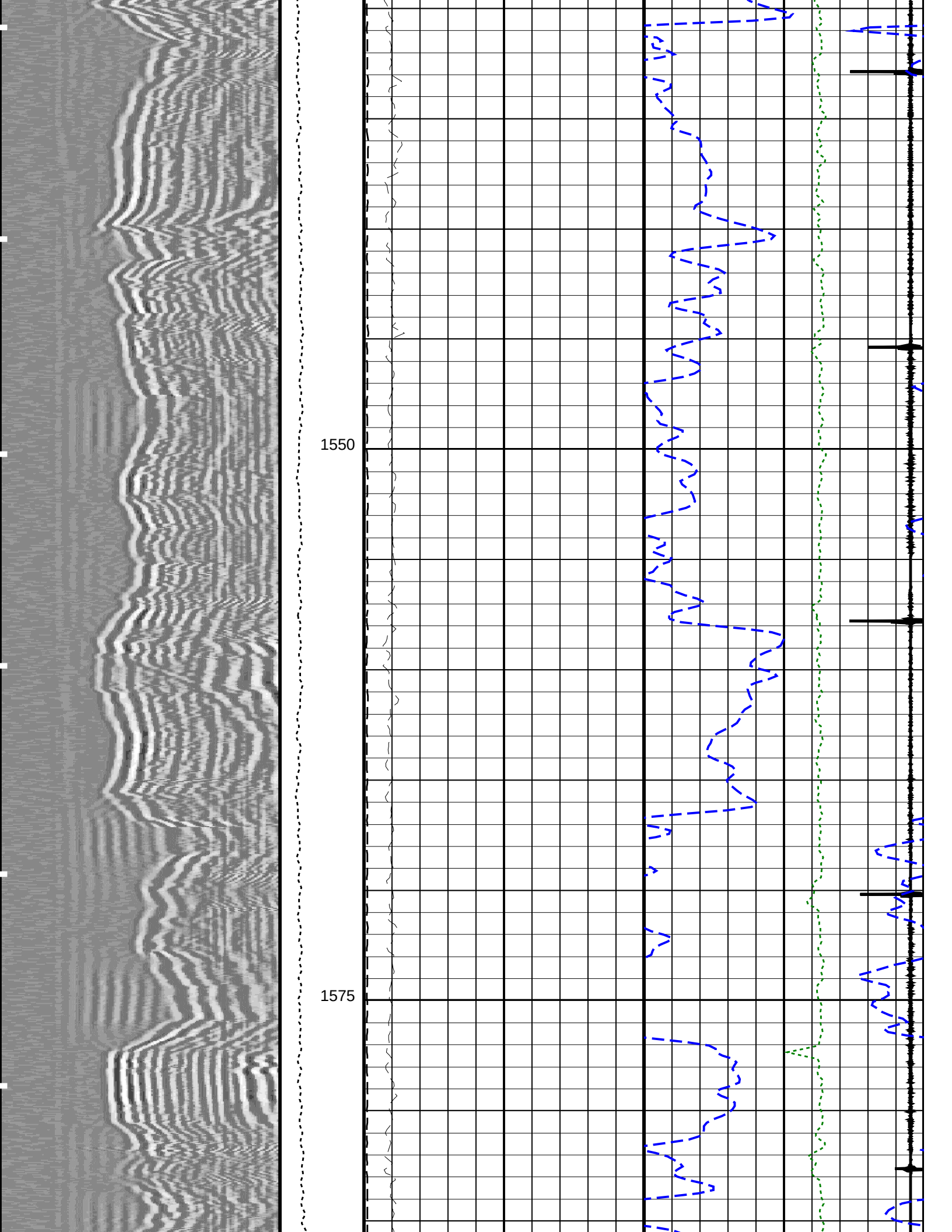
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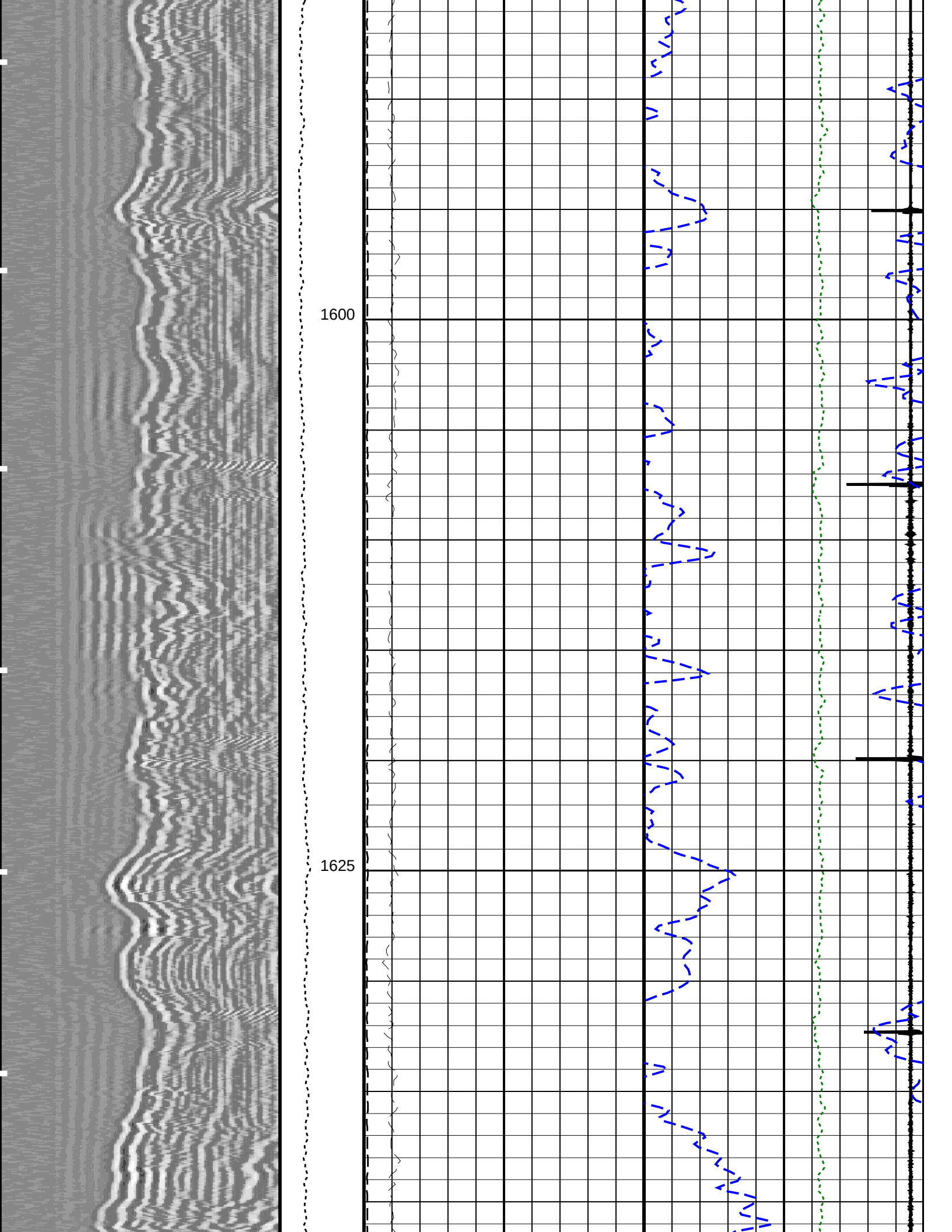
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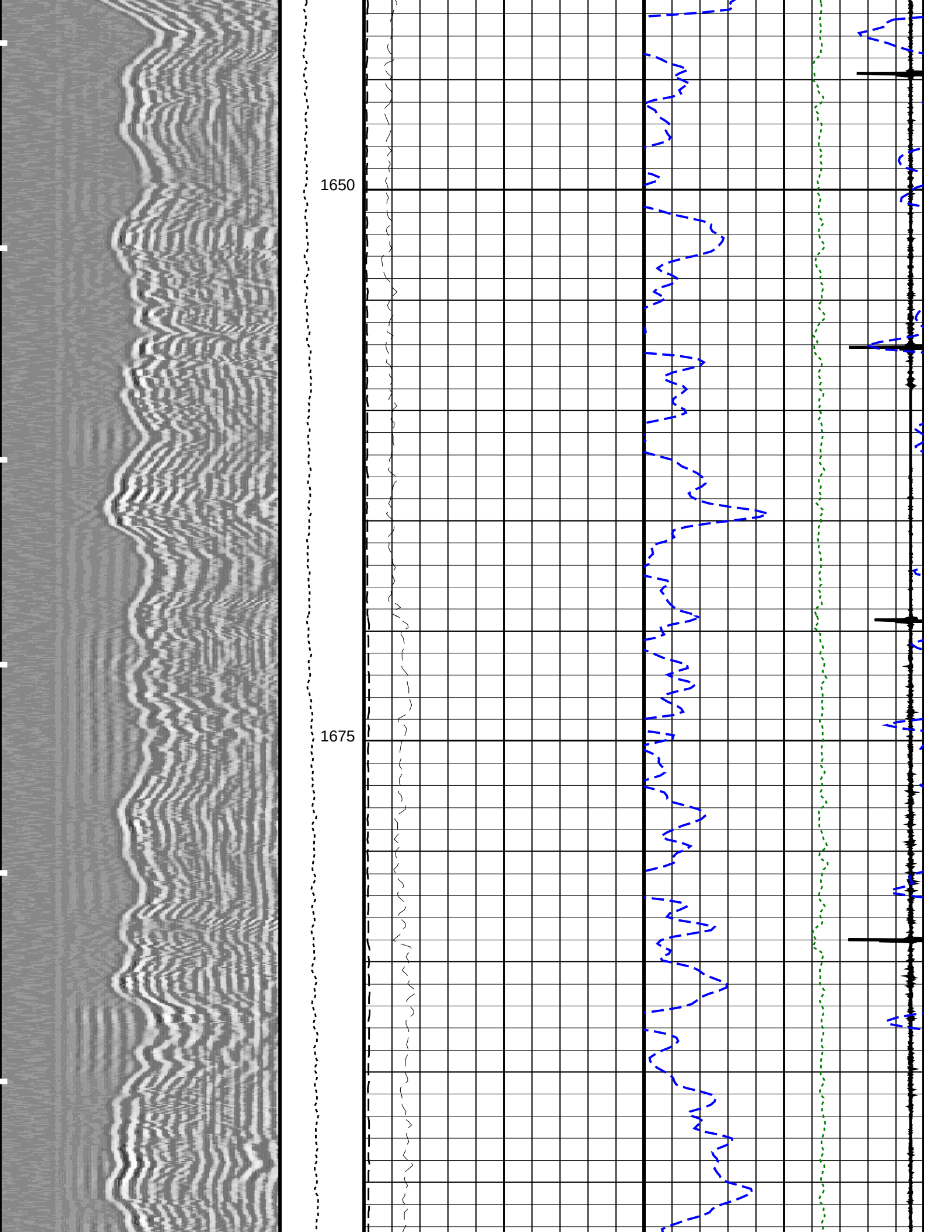
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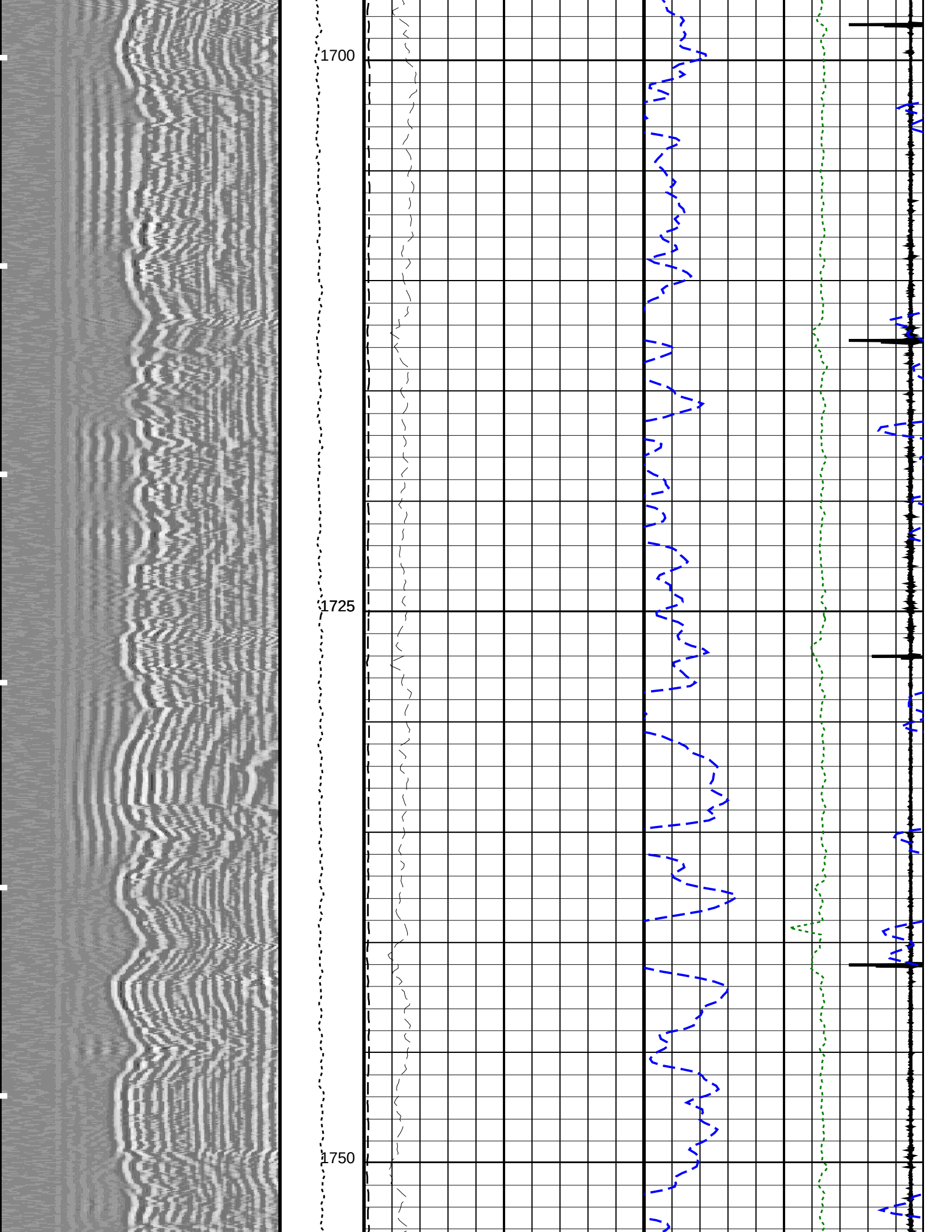
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