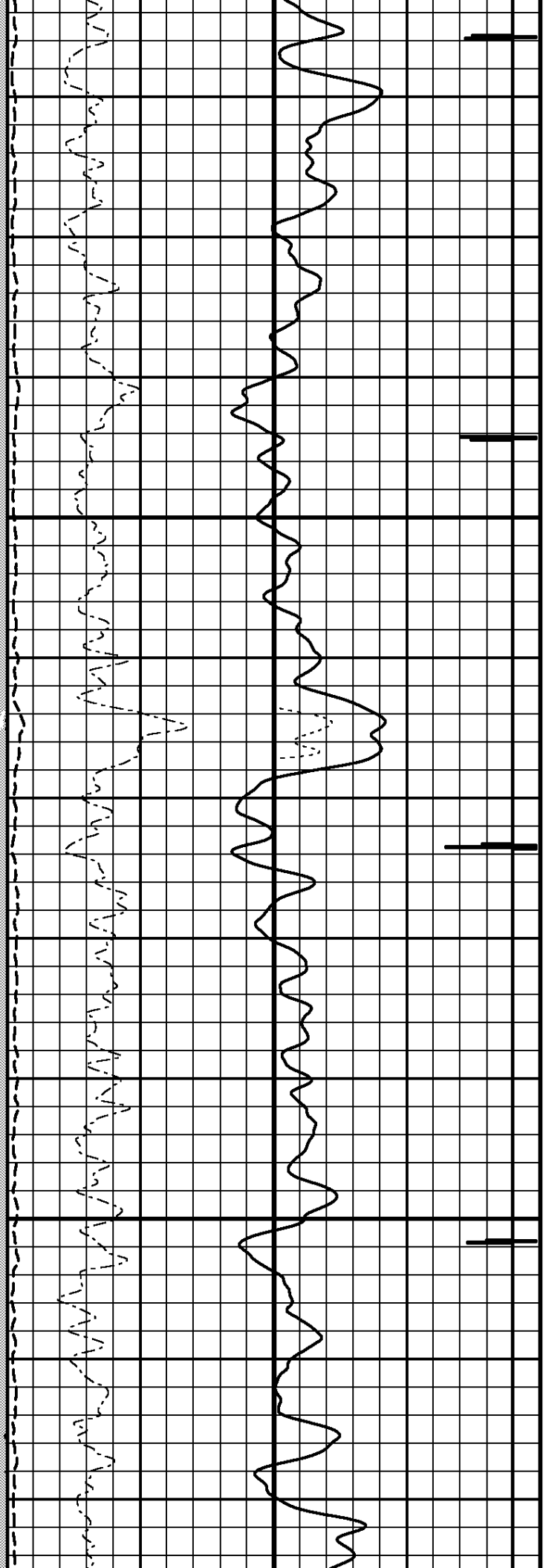


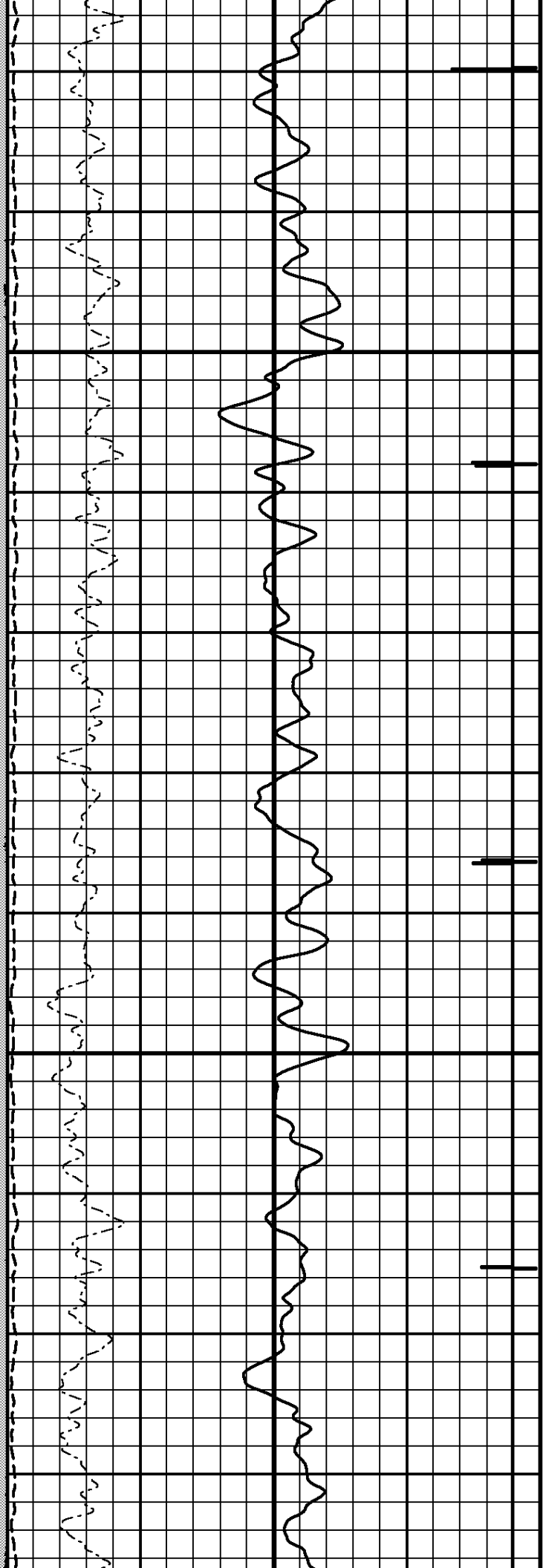
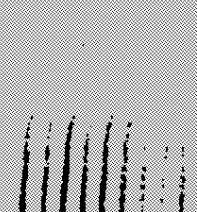
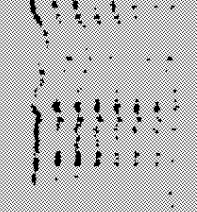
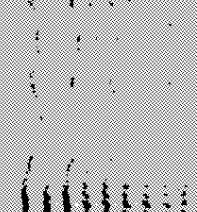
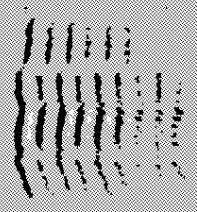
1625

1650



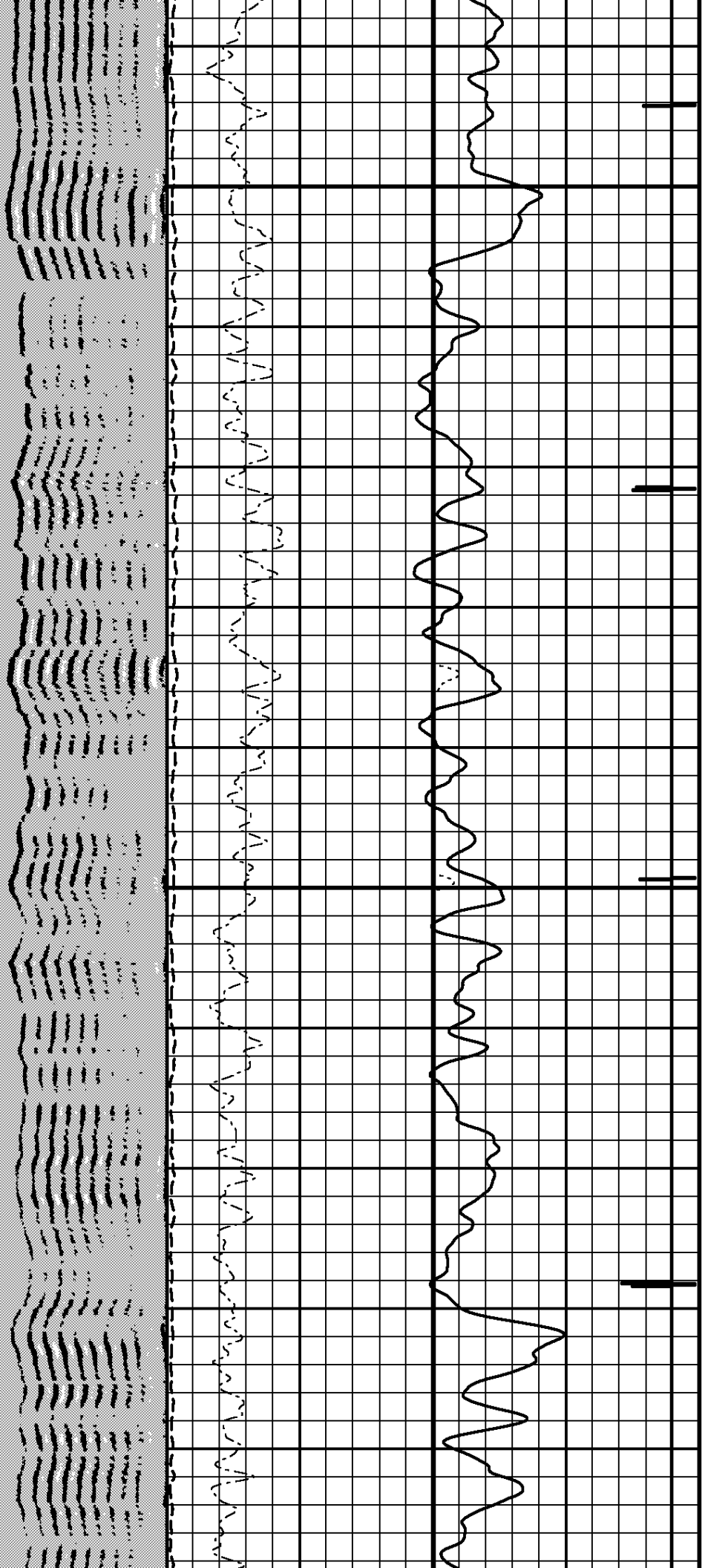
1675

1700



1725

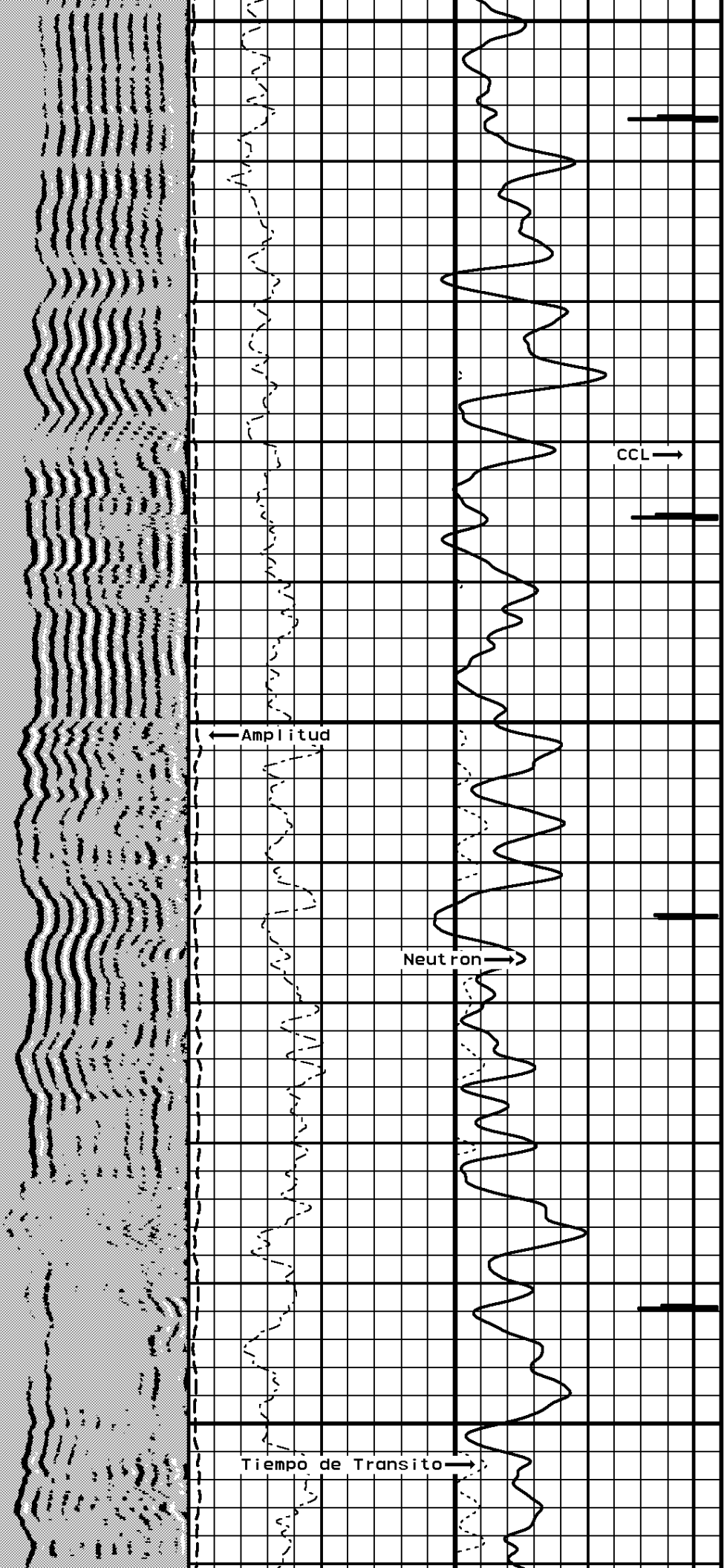
1750



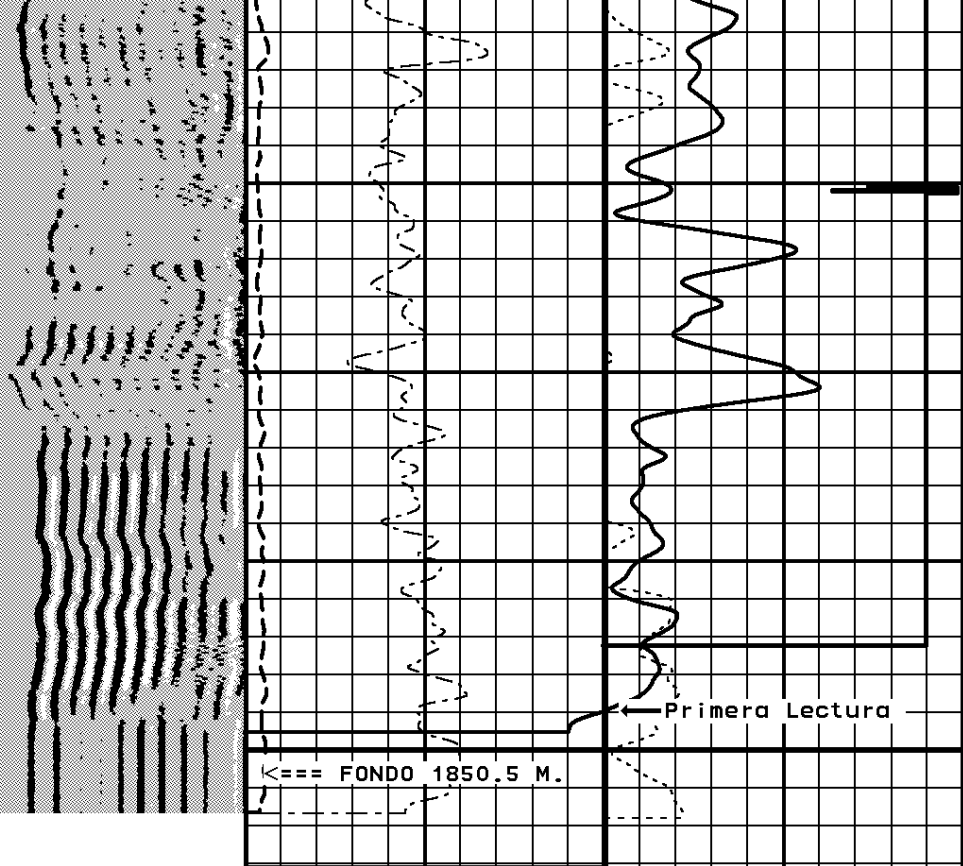
1775

1800

1825



1850



<=== FONDO 1850.5 M.

Primera Lectura

TENSION

0 1000

ENERGIA VARIABLE

0 85

VDL 5'

200 uSeg. 1200

ARRIBO CAN. LIBRE

200 uSeg. 1200

ARRIBO CAN. LIBRE

200 uSeg. 1200

CBL 3'

0 100

CBL 3' AMP

0 10

TIEMPO DE TRANSITO

400 uSeg. 200

CCL

-7200 mV. 800

NEUTRON

0 300

Unid. API

START DEPTH: 1853.1 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 16:47 MODE: ORIGINAL

EA774TP

TRAMO PRINCIPAL

v.09.07.2000

VERSION: 1.64

v.09.07.2000

VERSION: 1.64

TRAMO REPETIDO

EA774TR

FINISH DEPTH: 1776.0 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 12:56 MODE: ORIGINAL

NEUTRON

0 300

Unid. API

ARRIBO CAN. LIBRE

200 uSeg. 1200

CBL 3' AMP

0 10

CCL

-7200 mV. 800

%CAN.LIBRE

ENERGIA VARIABLE

VDL 5'

CBL 3'

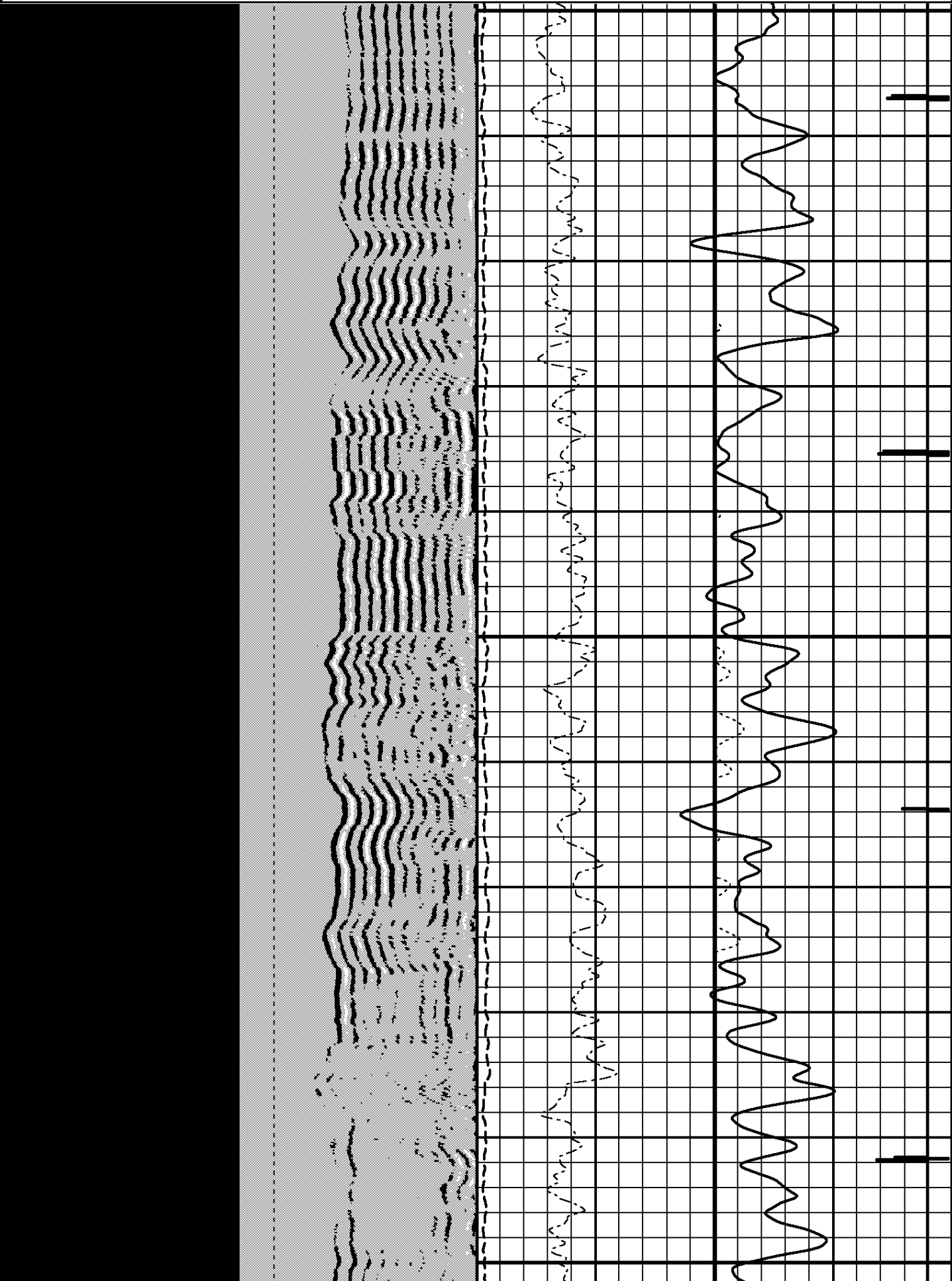
TIEMPO DE TRANSITO

0 85 200 uSeg. 1200 0 100 400 uSeg. 200

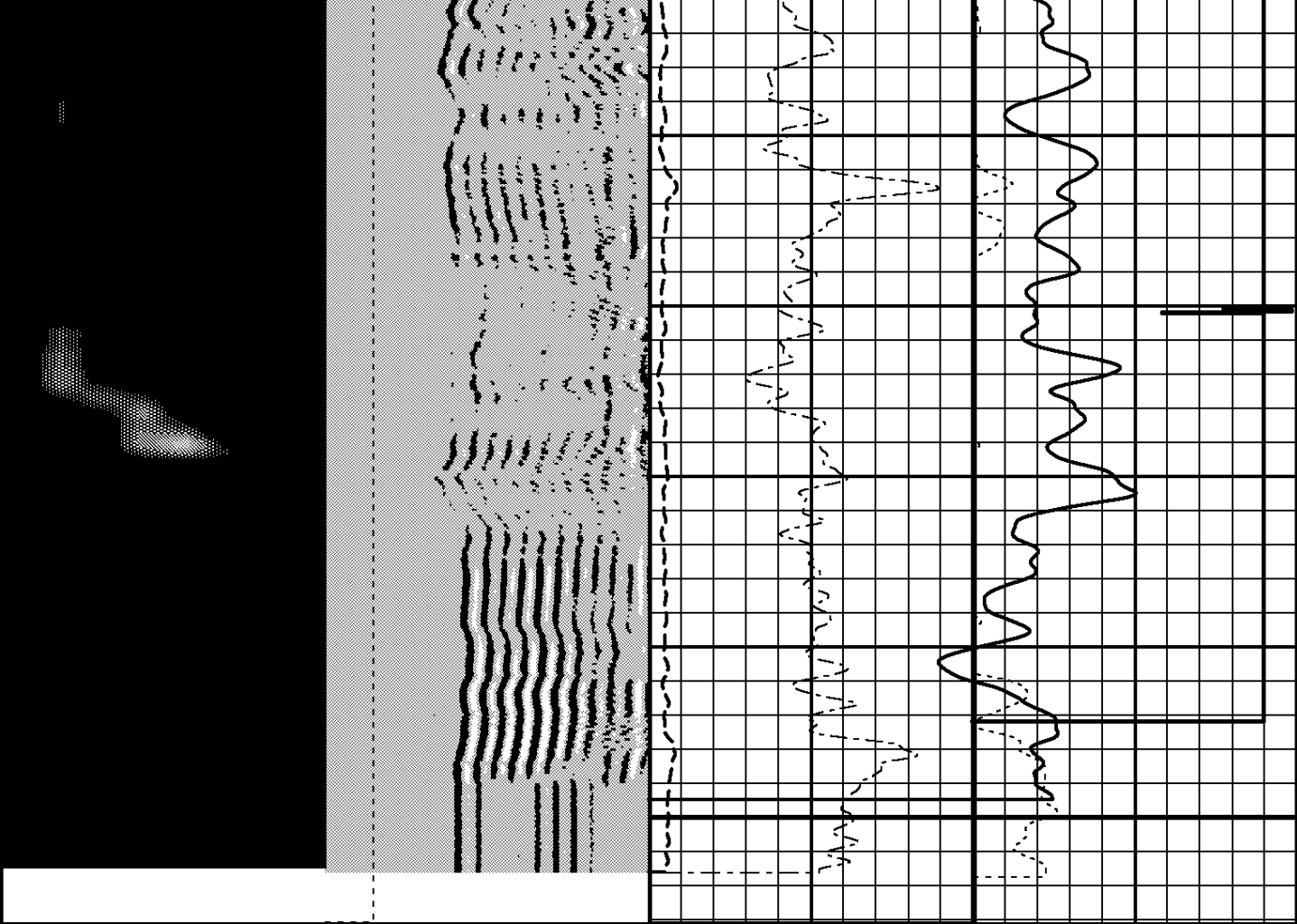
TENSION
0 1000

1800

1825



1850



TENSION

0 1000

ENERGIA VARIABLE

0 85

VDL 5'

200 uSeg. 1200

CBL 3'

0 %CAN. LIBRE 100

TIEMPO DE TRANSITO

400 uSeg. 200

ARRIBO CAN. LIBRE

200 uSeg. 1200

CBL 3' AMP

0 %CAN. LIBRE 10

CCL

-7200 mV. 800

NEUTRON

0 Unid. API 300

START DEPTH: 1853.1 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 12:55 MODE: ORIGINAL

EA774TR

TRAMO REPETIDO

v.09.07.2000

VERSION: 1.64

VERSION: 1.64

REPETIDO CBL

EA774RCBL

FINISH DEPTH: 816.3 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 16:42 MODE: ORIGINAL

ARRIBO CAN. LIBRE

CBL 3' AMP

CCL

200 uSeg. 1200 0

0 %CAN. LIBRE 100

-7200 mV. 800

ENERGIA VARIABLE

VDL 5'

CBL 3'

TIEMPO DE TRANSITO

0 85

200 uSeg. 1200

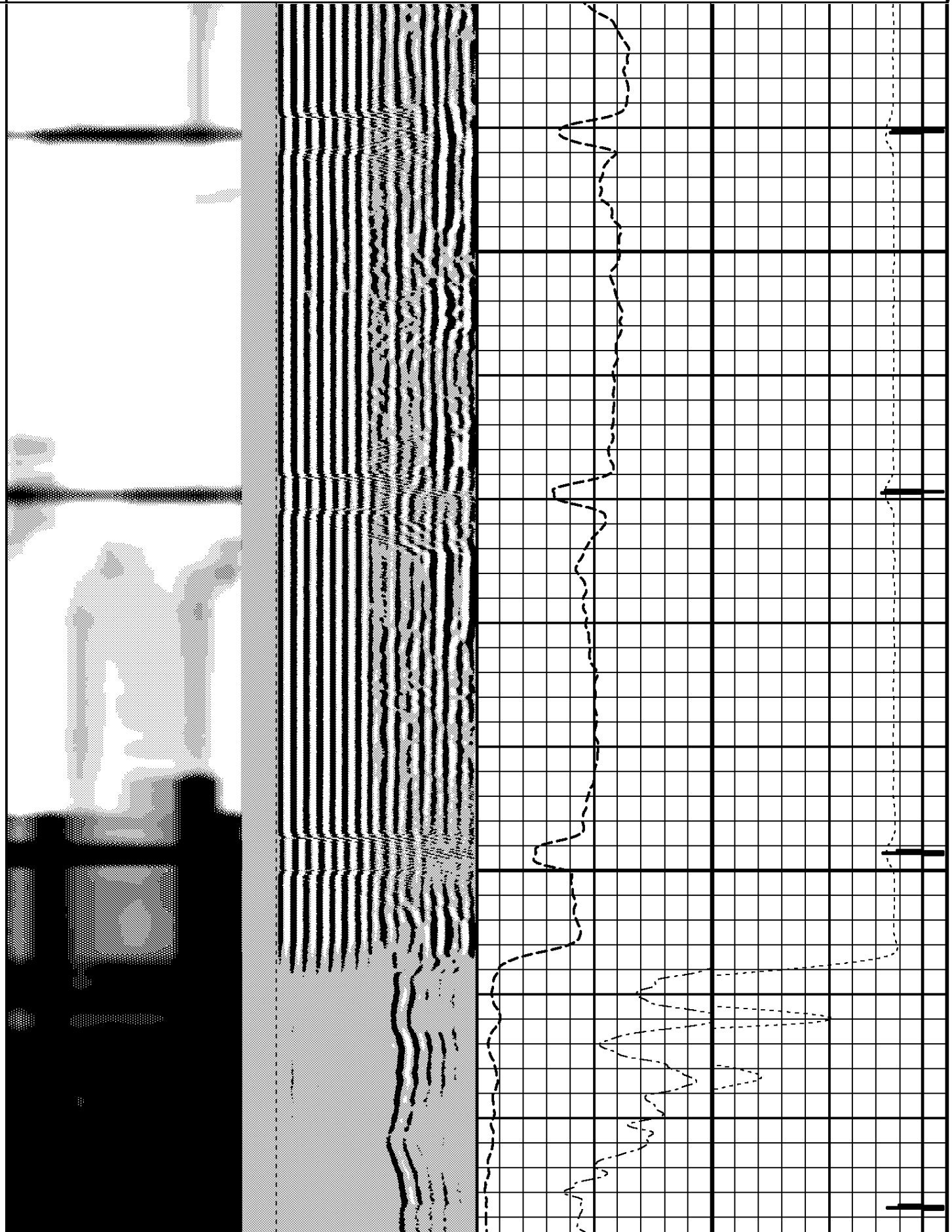
0 %CAN. LIBRE 100

400 uSeg. 200

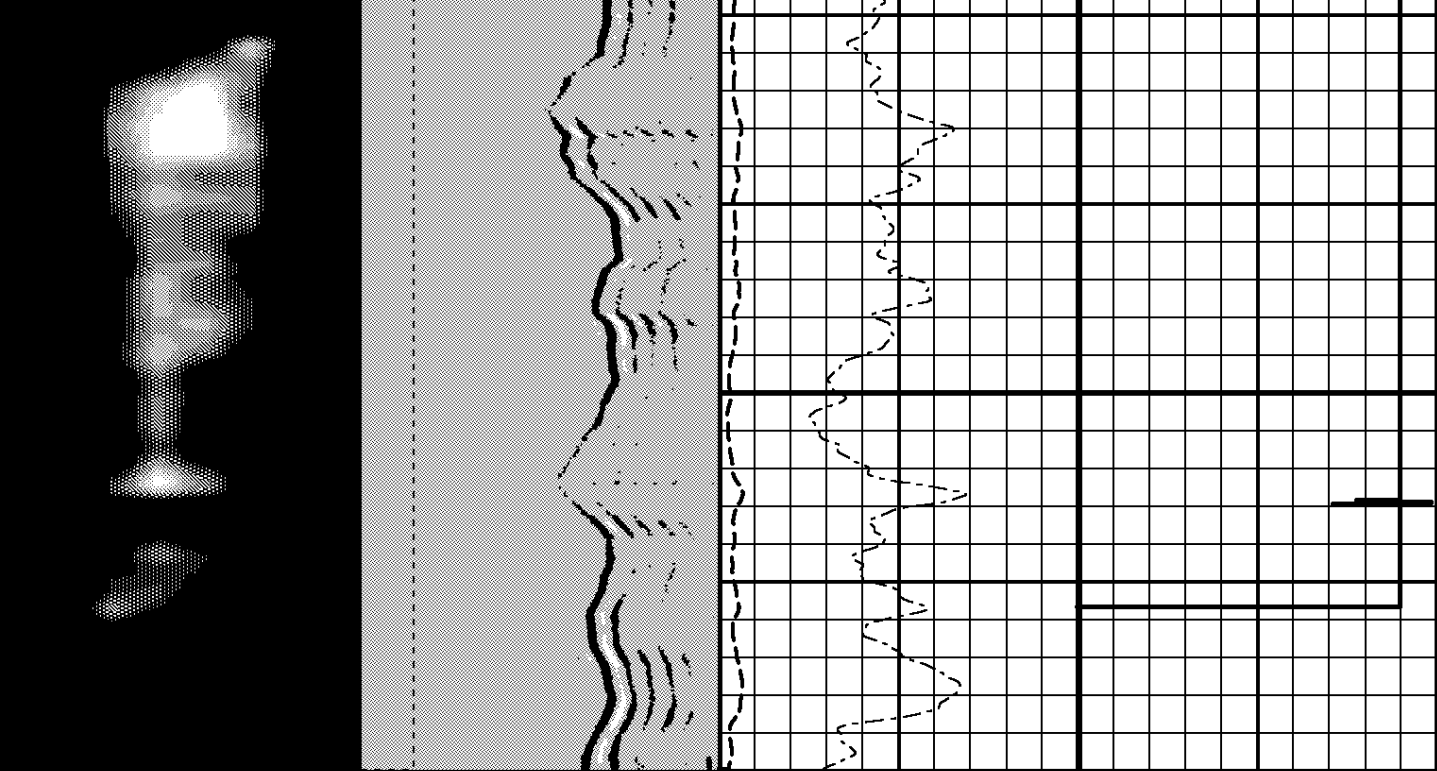
TENSION
0 1000

825

850



875



TENSION

0 1000

ENERGIA VARIABLE

0 85

VDL 5'

200 uSeg. 1200

CBL 3'

0 %CAN.LIBRE 100

TIEMPO DE TRANSITO

400 uSeg. 200

ARRIBO CAN. LIBRE

200 uSeg. 1200

CBL 3' AMP

0 %CAN.LIBRE 10

CCL

-7200 mV. 800

START DEPTH: 885.0 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 16:41 MODE: ORIGINAL

EA774RCBL

REPETIDO CBL

VERSION: 1.64

REMARKS

ANALISIS DE REPETIBILIDAD

VERSION: 1.64

TRAMO COMPARADO

EA774CN

FINISH DEPTH: 1791.3 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 15:46 MODE: ORIGINAL

NEUTRON

0 Unid. API 300

NEUTRON REP.

0 Unid. API 300

CBL 3' AMP

0 %CAN.LIBRE 10

CBL 3' CCL
 0 %CAN. LIBRE 100 -7200 mV. 800
 CBL 3' AMP. REP. TIEMPO DE TRANSITO
 0 %CAN. LIBRE 10 400 uSeg. 200
 CBL 3' REP. T. DE TRANS. REP.
 0 %CAN. LIBRE 100 400 uSeg. 200

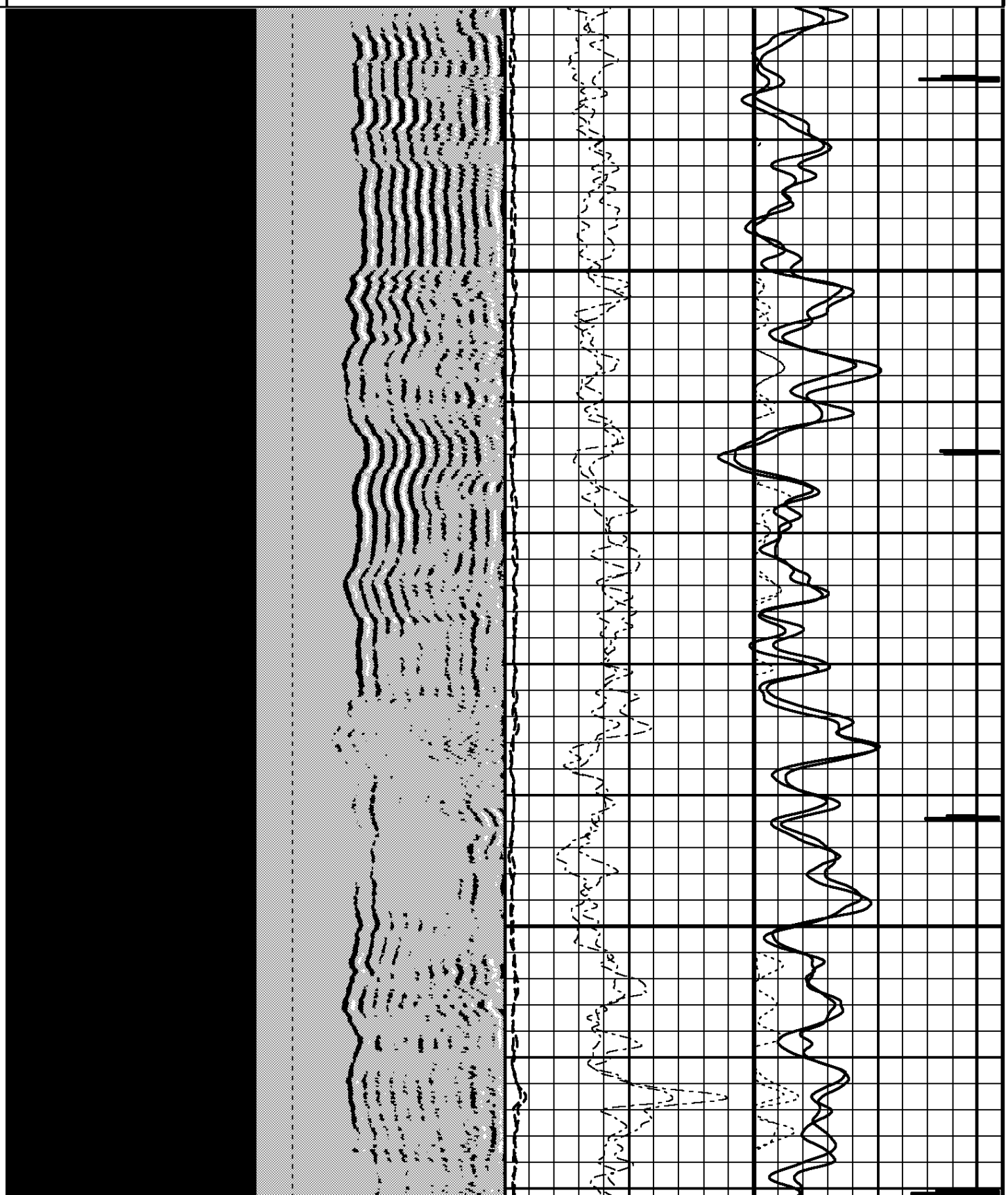
ARRIBO CAN. LIBRE
 200 uSeg. 1200
 VDL 5'
 200 uSeg. 1200

ENERGIA VARIABLE
 0 85 200

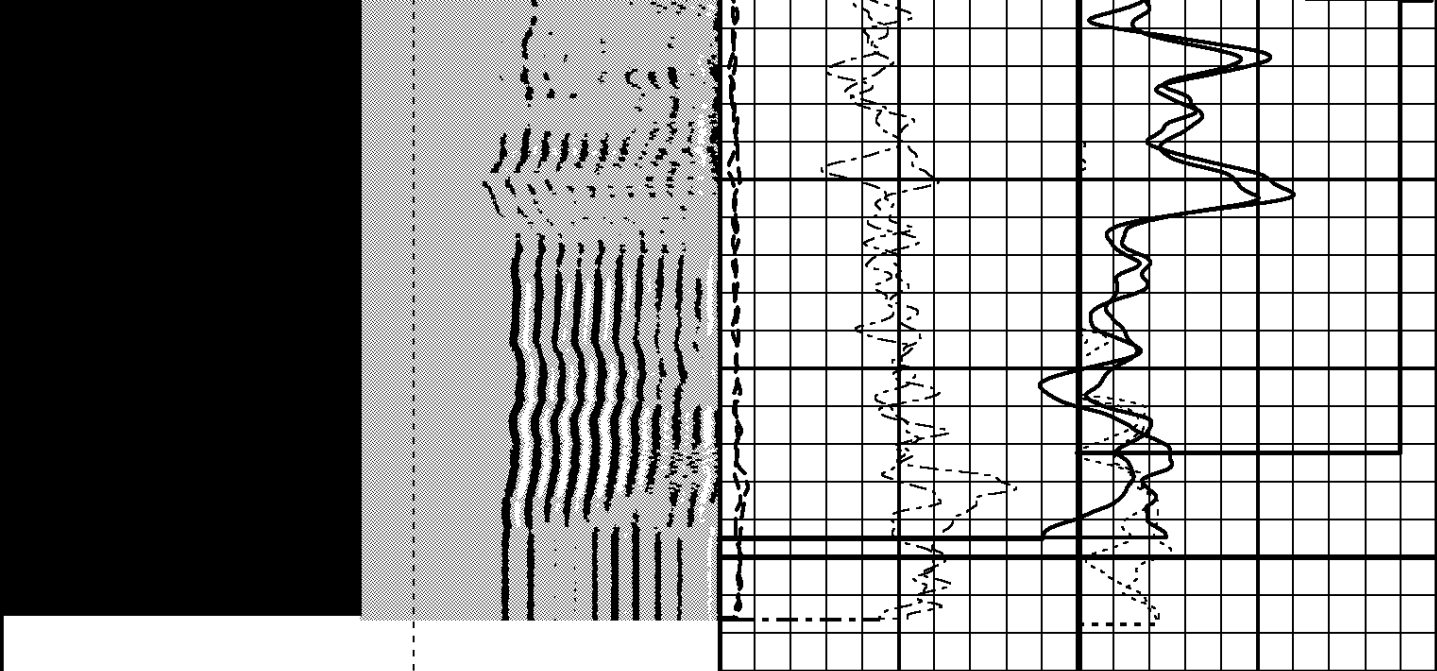
TENSION
 0 1000

1800

1825



1850



TENSION

0 1000

<u>ENERGIA VARIABLE</u>	<u>VDL 5'</u>	<u>CBL 3' REP.</u>	<u>T. DE TRANS. REP.</u>
0 85 200 uSeg. 1200	0 200 uSeg. 1200	0 %CAN.LIBRE 100	0 400 uSeg. 200
<u>ARRIBO CAN. LIBRE</u>	<u>CBL 3' AMP. REP.</u>	<u>CBL 3' AMP. REP.</u>	<u>TIEMPO DE TRANSITO</u>
200 uSeg. 1200	0 %CAN.LIBRE 10	0 %CAN.LIBRE 10	0 400 uSeg. 200
	<u>CBL 3'</u>	<u>CCL</u>	
	0 %CAN.LIBRE 100	0 7200 mV. 800	
	<u>CBL 3' AMP</u>		
	0 %CAN.LIBRE 10		
	<u>NEUTRON REP.</u>		
	0 Unid. API 300		
	<u>NEUTRON</u>		
	0 Unid. API 300		

START DEPTH: 1853.1 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 15:44 MODE: ORIGINAL

EA774CN

TRAMO COMPARADO

VERSION: 1.64

REMARKS

ANALISIS DE REPETIBILIDAD

VERSION: 1.64

COMPARADO CBL

EA774CCBL

FINISH DEPTH: 811.3 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 15:56 MODE: ORIGINAL

CBL 3' AMP. REP.

0 %CAN. LIBRE 10

CBL 3' REP.

0 %CAN. LIBRE 100

T. DE TRANS. REP.

400 uSeg. 200

ARRIBO CAN. LIBRE

200 uSeg. 1200

CBL 3' AMP

0 %CAN. LIBRE 10

CCL

-7200 mV. 800

ENERGIA VARIABLE

0 85

VDL 5'

200 uSeg. 1200

CBL 3'

0 %CAN. LIBRE 100

TIEMPO DE TRANSITO

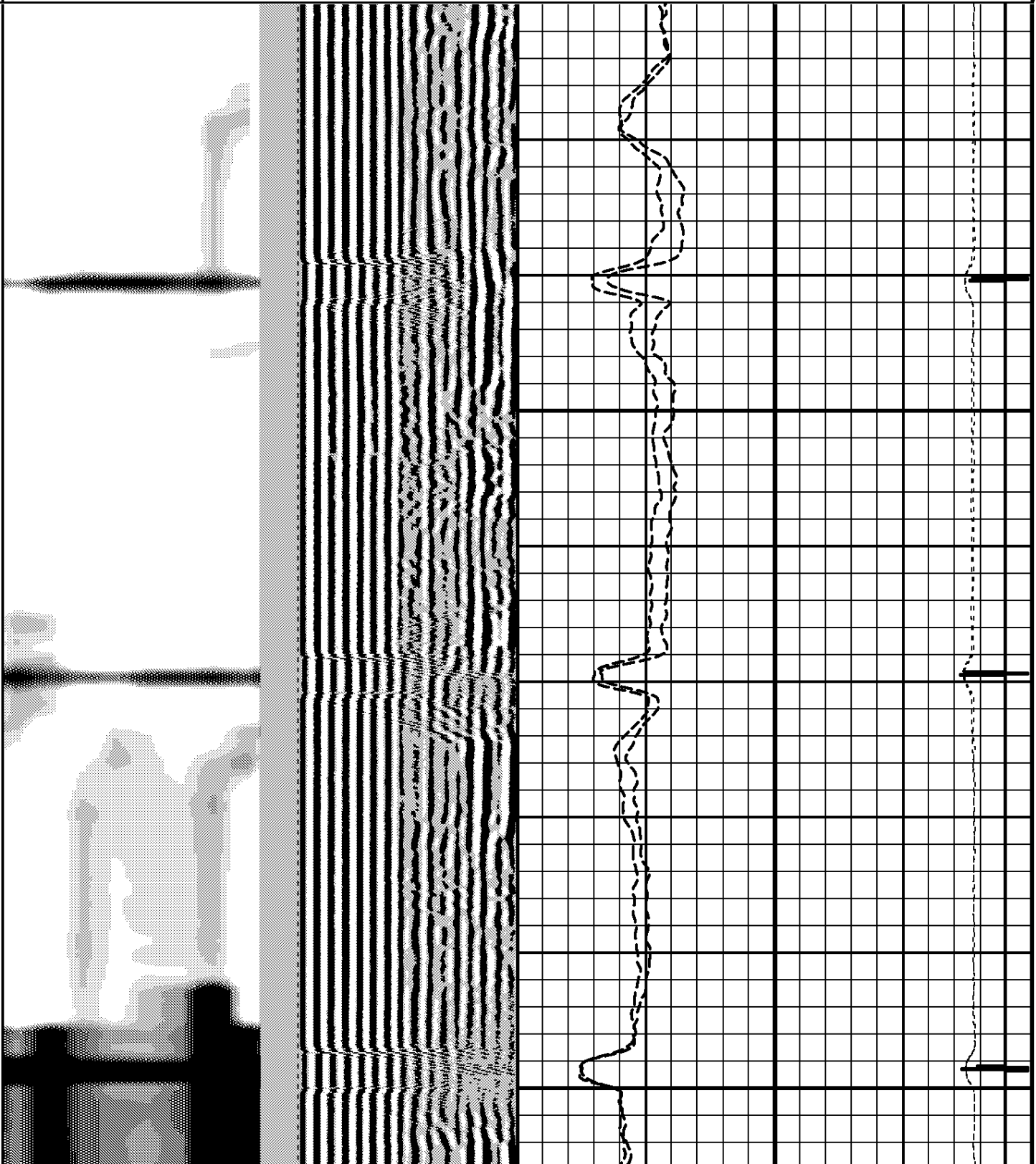
400 uSeg. 200

TENSION

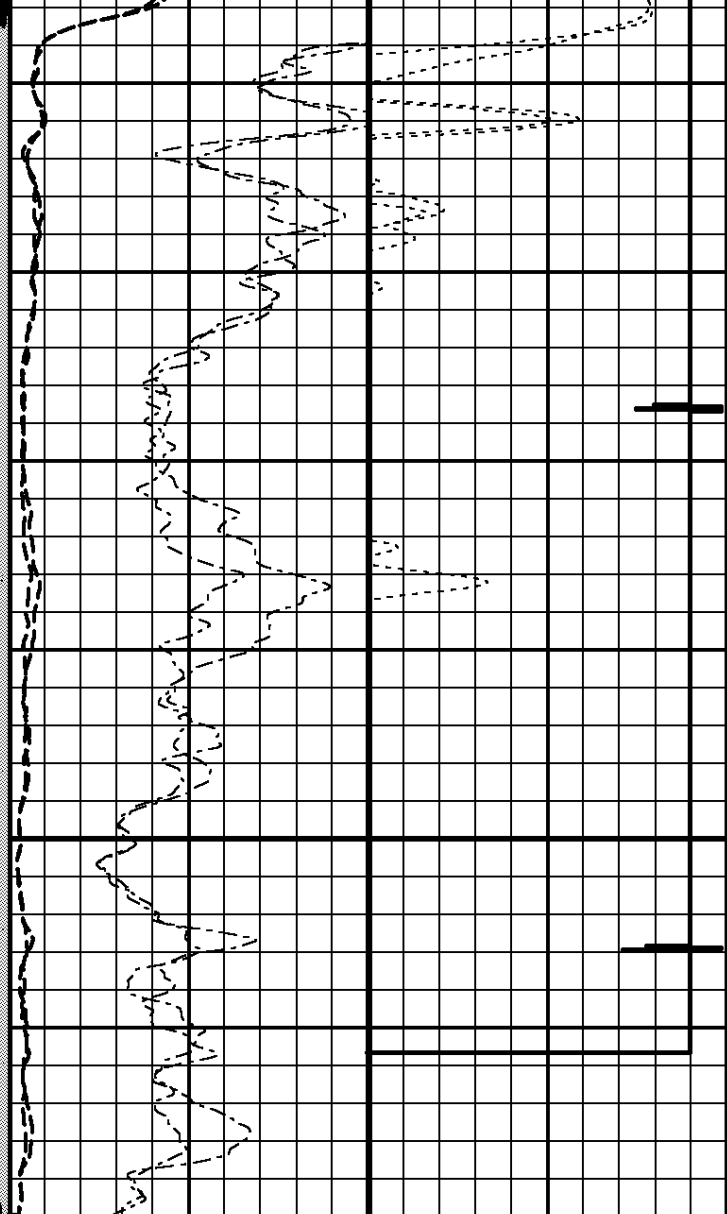
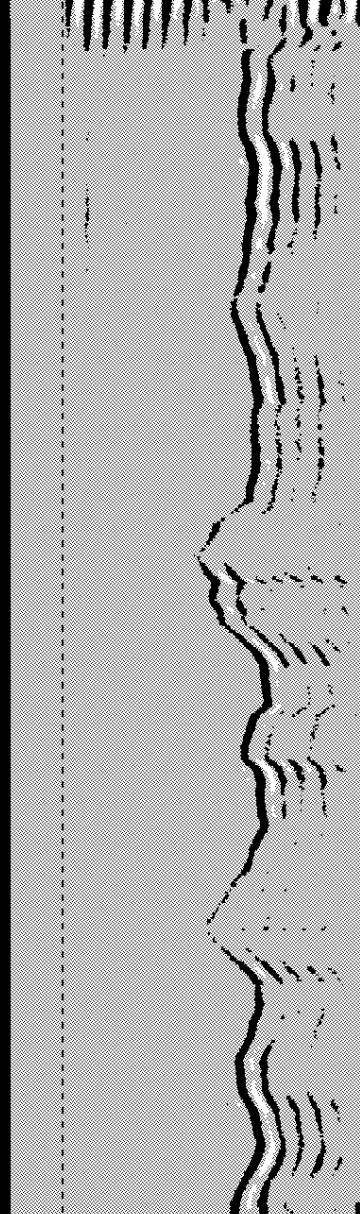
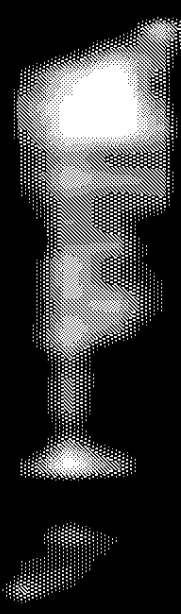
0 1000

825

850



875



TENSION
0 1000

<u>ENERGIA VARIABLE</u> 0 85 200 uSeg. 1200	<u>VDL 5'</u> 200 uSeg. 1200	<u>CBL 3'</u> 0 %CAN.LIBRE 100	<u>TIEMPO DE TRANSITO</u> 400 uSeg. 200
<u>ARRIBO CAN. LIBRE</u> 200 uSeg. 1200	<u>CBL 3' AMP</u> 0 %CAN.LIBRE 10	<u>CCL</u> -7200 mV. 800	<u>T. DE TRANS. REP.</u> 400 uSeg. 200
	<u>CBL 3' REP.</u> 0 %CAN.LIBRE 100		
	<u>CBL 3' AMP. REP.</u> 0 %CAN.LIBRE 10		

START DEPTH: 885.0 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 15:55 MODE: ORIGINAL

EA774CCBL

COMPARADO CBL

VERSION: 1.64

Single Conductor Adaptor Head

Weight 1.0 Kgr.
 Length 0.3 mts.
 Max. Diameter 36.5 mm.

Total Stack Weight 103.8 Kgr. in air
 Total Stack Length 8.46 mts.

Slim Hole Centralizer

Weight 8.5 Kgr.
 Length 0.85 mts.
 Max. Diameter 70.0 mm.

Collar Locator

Weight 18.14 Kgr.
 Length 1.03 mts.
 Max. Diameter 70.0 mm.

Single Detector Neutron

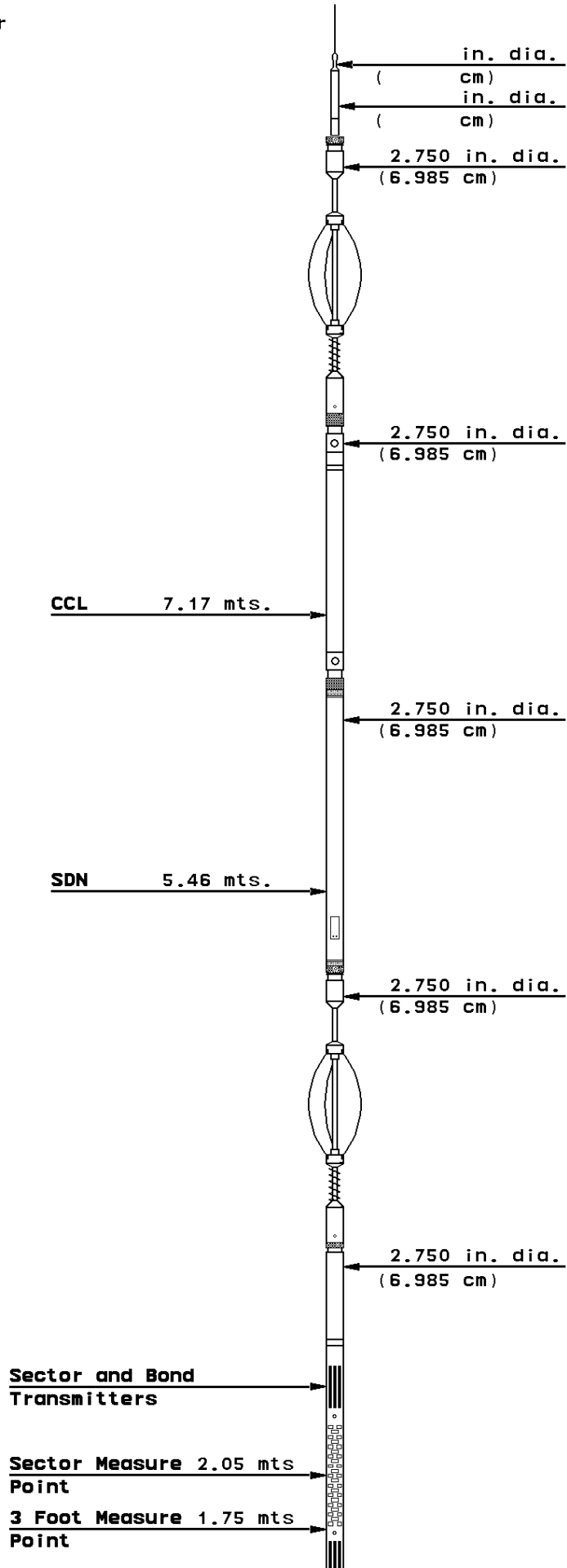
Weight 27.3 Kgr.
 Length 1.50 mts.
 Max. Diameter 70.0 mm.

Slim Hole Centralizer

Weight 8.5 Kgr.
 Length 0.85 mts.
 Max. Diameter 70.0 mm.

Sector Bond

Weight 41.0 Kgr.
 Length 3.14 mts.
 Max. Diameter 70.0 mm.



5 Foot Measure 1.14 mts
Point



2.750 in. dia.
(6.985 cm)

Slim Hole Centralizer

Weight 8.5 Kgr.
Length 0.85 mts.
Max. Diameter 70.0 mm.

Tool Zero

COMPANIA YPF S.A.

POZO YPF.CH.EA-774

CAMPO EL ALBA PAIS ARG.



v.09.07.2000

VERSION: 1.64

PROF. MEDIDA

EA774PM

FINISH DEPTH: 1777.5 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 13:17 MODE: ORIGINAL

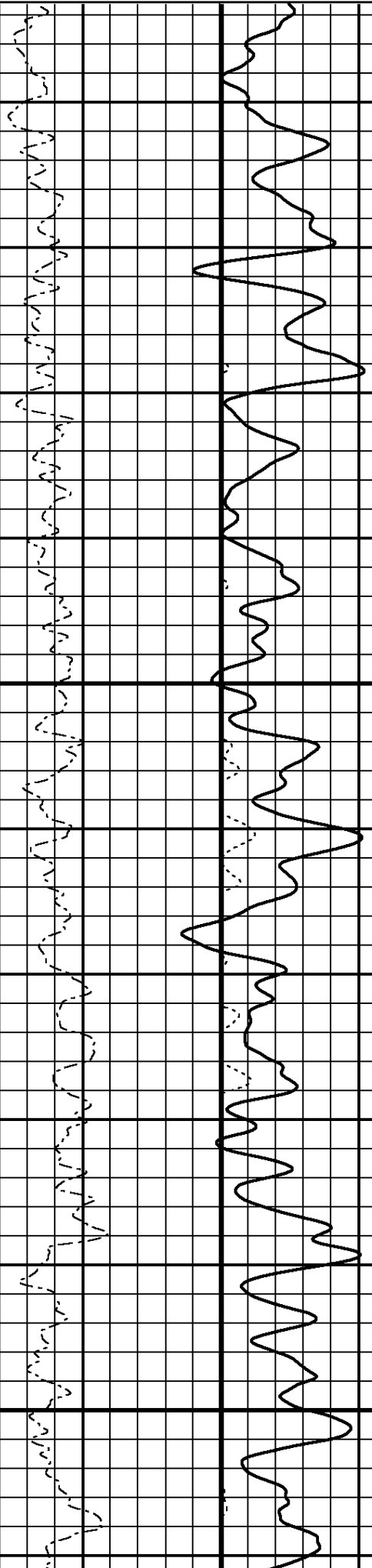
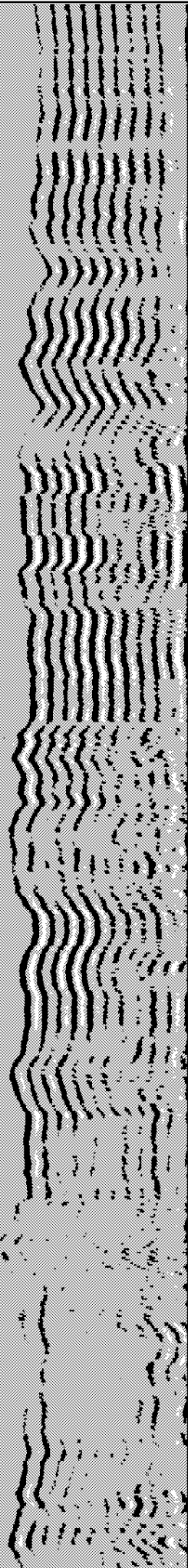
ENERGIA VARIABLE		ARRIBO CAN. LIBRE		NEUTRON		TIEMPO DE TRANSITO	
0	85	200	1200	0	10	400	200
uSeg.		uSeg.		Unid. API		uSeg.	
VDL 5'		CBL 3' AMP		%CAN. LIBRE		CCL	
VDL 5'		CBL 3'		%CAN. LIBRE		mV.	

TENSION

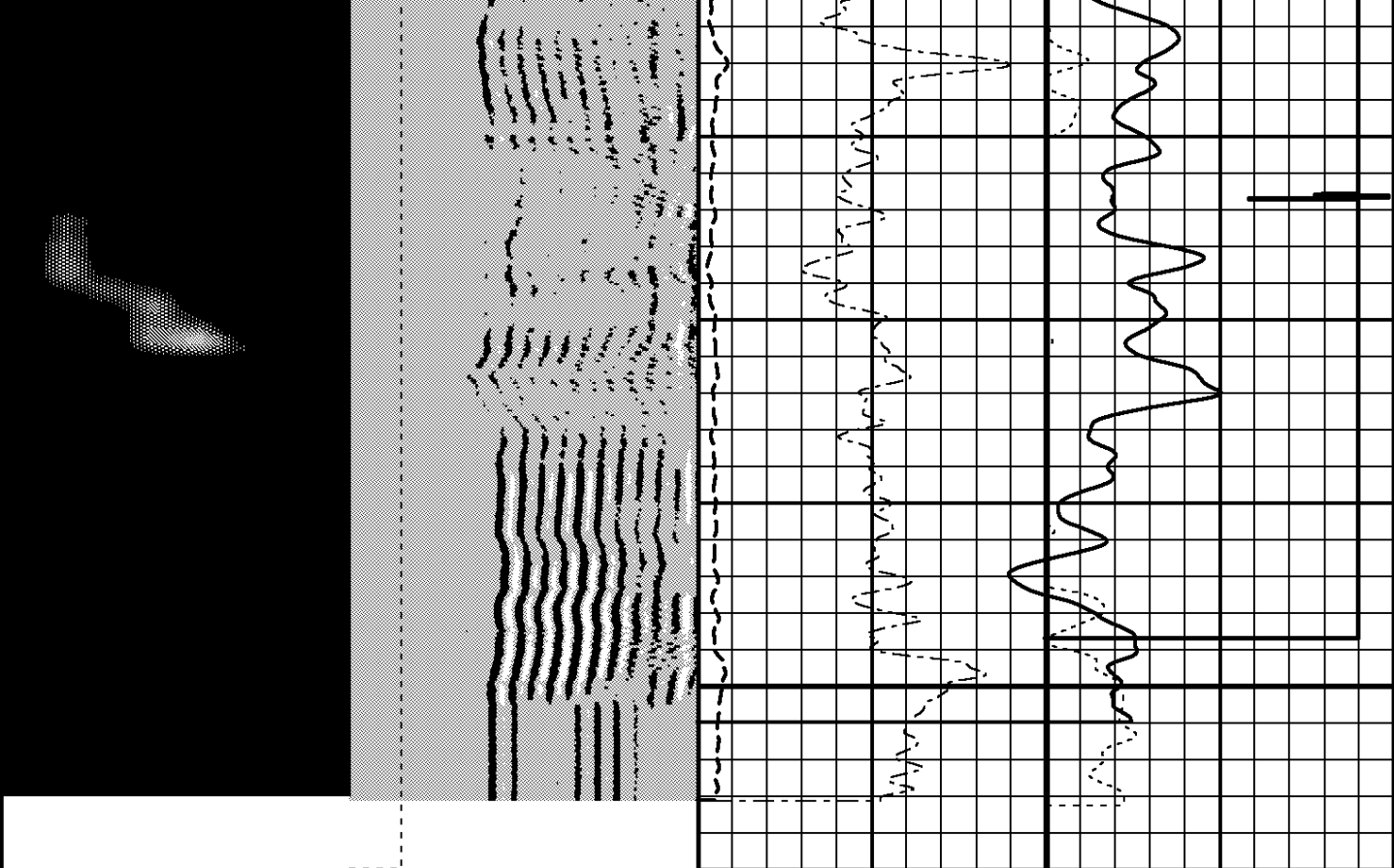
1000

1800

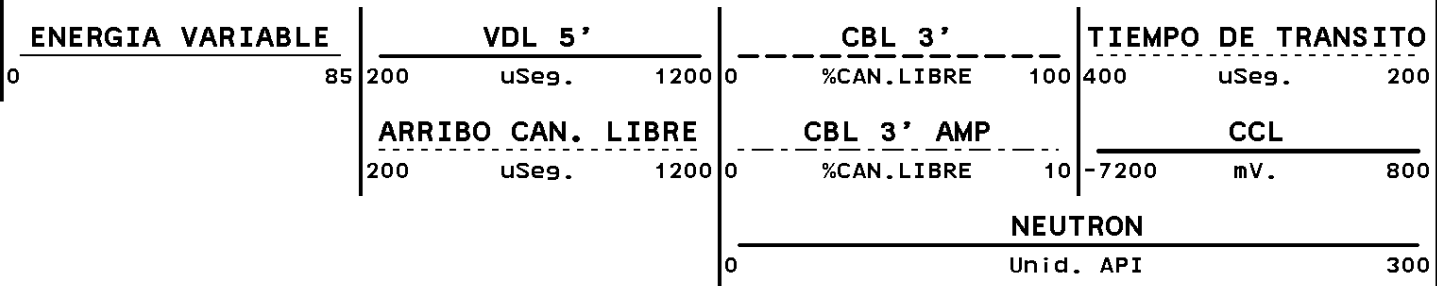
1825



1850



TENSION
0 1000



START DEPTH: 1854.6 METERS DIRECTION: UP DATE: 05/08/2010 TIME: 13:16 MODE: ORIGINAL

EA774PM

PROF. MEDIDA

DATOS A LLENAR			
			CARGAR DATOS
POZO	EA-774		
BATERIA			
EQUIPO	SAI-222		
FECHA			
RUBRO	Terminación		
COSTO DRILLING	70.081,84 USD	6,5 días	
NOMBRE DEL PROYECTO	PA-2010 Oficial		
N°DE GRAFO			
PEP:	RS1EC.09K0.53.P0003		
ZONA	El Alba		
FLUIDO DE TRABAJO	AGUA DULCE CON MARCAT 0,4% (MARBAR)		
FINALIZO PERFORACION	5 de mayo de 2010		
ULTIMA INTERVENCION			
COORDENADAS			
X	4.949.455,00		
Y	2.581.535,00		
Z	664,00		
COMPAÑIAS DE SERVICIO			
TORRE	SAI		
CEMENTACION	SAI		
ESTIMULACION	BJ		
MOTOR DE FONDO	CHRISTENSEN		
COILED TUBING	-		
CABLE	GEOLOG		
CASING			
FABRICANTE CSG	TUBHIER		Ejemplos
EN BOCA DE POZO Ø Y mts.	5 1/2"		7" a 23
DIAMETRO Y LIBRAJE	5 1/2" 14-15,5#		5-1/2" 15,5
5 1/2"	12,42	15,5	1.876,90
6 5/8"	18,54	0,0	
7"	20,60	0,0	
9 5/8"	39,40	13,8	351,5
Total de m³+5	← NO TOCAR "PARA USO DEL BACTERICIDA"		
COLLAR DIFERENCIAL:	1.864,10		
ZAPATO:	1.876,90		
PROFUNDIDAD FINAL:	1.880,00		
INSTALACION FINAL			
	NO		
MATERIAL DE BOMBEO			
	NO		
AISLACIÓN			
Lechada Superior:	900	Densidad	1619
Lechada Inferior:			



ZONA M. BEHR #
 UNIDAD DE NEGOCIOS ARGENTINA SUR
 UNIDAD ECONOMICA CHUBUT
 AREA MANANTIALES BEHR

PROGRAMA OPERATIVO del POZO :

EA-774

SUBREGION : **CH**

ZONA : **El Alba**

BAT:

RUBRO:

PROYECTO: **PA-2010 Oficial**

COSTO OBJETIVO: **U\$S 70.082**

COSTO ESTIMADO: **U\$S 73.143**

DIAS ESTIMADOS: **6,31**

FLUIDO DE REPARACION:

AGUA DULCE CON MARCAT 0,4% (MARBAR)

EQUIPO : **SAI-222**

CANTIDAD: **29,4 m³**

PEP: RS1EC.09K0.53.P0003

COMPAÑIAS ASIGNADAS:

CABLE:	GEOLOG
TORRE:	SAI
CEMENTACION:	SAI
ESTIMULACION:	BJ
MOTOR DE FONDO:	CHRISTENSEN
COILED TUBING:	-

FINALIZO PERFORACION : **5 de mayo de 2010**

ULTIMA INTERVENCION:

OBSERVACIONES:

COORDENADAS:

X: 4.949.455,00

Y: 2.581.535,00

COTA: **Z: 664,00**

Altura mesa Rotary: 3,5 m

Elevación mesa Rotary: - m

DIVISION SUR
 DISTRITO: CHUBUT

PROGRAMA OPERATIVO : **Terminación**

PROYECTO:

POZO : **EA-774**

ZONA :

SUBREGION : **Chubut** BAT.

FLUIDO DE REPARACION: **AGUA DULCE CON MARCAT 0,4% (MARBAR)**

CANTIDAD: m³

EQUIPO: **SAI-222** WIRELINE: **GEOLOG**

N° CAPA: 5 1/2" 14-15,5# 1.877
 Ø b/p Ø: 9 5/8" a 352,88 m.

PROGRAMA OPERATIVO EA-774

- 1º) Monta equipo. Coloca BOP prueba funcionamiento hidráulico, conjunto de boca de pozo y líneas c/500 y 2500 psi. Completar Check List
- 2º) Perfilar N-CBL-VDL desde fondo hasta registrar tope de cemento y cañería libre.
- 3º) Con buena aislación, Punzar con cañón de 4" las siguientes capas (profundidad inducción):

Zona	Nombre	Espesor	Carga	Ensayos
1831,0 / 1834,0	Complejo IV	3,00	4TPP - 32 gr- 0-90°	A
1661,0 / 1662,5	Complejo IV	1,50	4TPP - 32 gr- 0-90°	B
1155,0 / 1157,0	Complejo III	2,00	4TPP - 32 gr- 0-90°	C
1151,5 / 1153,5	Complejo III	2,00	4TPP - 32 gr- 0-90°	
1122,0 / 1126,0	Complejo III	4,00	4TPP - 32 gr- 0-90°	D
1118,0 / 1120,0	Complejo III	2,00	4TPP - 32 gr- 0-90°	
1115,5 / 1117,0	Complejo III	1,50	4TPP - 32 gr- 0-90°	
Total de mts punzados		16,00 m		

TOPE DE CEMENTO TEÓRICO

> < 1115,5 / 1117,0

> < 1118,0 / 1120,0

> < 1122,0 / 1126,0

> < 1151,5 / 1153,5

> < 1155,0 / 1157,0

> < 1661,0 / 1662,5

> < 1831,0 / 1834,0

Collar 1864,10
 Zap. 1876,90
 P.F. 1880,00

- 4º) Bajar TPN y PKR, circular con agua + Marcat. Ensayar por pistoneo, desde : A,B,C hasta D, recuperar el vertido y ensayar hasta estabilizar porcentajes de impurezas, nivel y salinidad. Cortar ensayo a las 8hs (comunicar a guardia de Reservorio últimos parámetros del ensayo, antes de finalizar el test)
 Si resultara SE probar admisión y reensayar
 En caso de ser gas medir presión estática, tiempo de estabilización y tomar muestra
- 6º) Bajar instalación de producción
- 7º) Desmontar equipo y acondicionar locación

EN CAPAS QUE APORTEN UN CAUDAL IMPORTANTE (Mayor de 500l/h) DE AGUA Y/O HIDROCARBUROS, TOMAR UNA MUESTRA Y ENVIARLA A EPSILON PARA EFECTUARLE UN ANÁLISIS COMPLETO Y RESISTIVIDAD.

SECTOR	RESPONSABLE	TELÉFONO
Operaciones	Ordoñez, Ricardo	154745422
Reservorio		155927406
Producción		

NO USAR EN NINGUNA CIRCUNSTANCIA LLAVES STILSON PARA ENROSQUE Y DESENROSQUE DE CAÑERÍAS DE MANIOBRA EN EL POZO.

NOTA: TOMAR PRECAUCIONES PARA EVITAR DERRAMES DE FLUIDOS. AVISAR URGENTE A LA INSPECCIÓN. ADEMÁS SE INDICA QUE SE DEBE COMUNICAR A LA MAYOR BREVEDAD POSIBLE TODAS LAS NOVEDADES QUE REVISTAN EL CARÁCTER DE ACCIDENTES DE PERSONAL.-

ORDEN: DE TODOS LOS ENSAYOS CON INSTALACION FINAL SE DEBERA TOMAR UNA MUESTRA, DE LA ÚLTIMA HORA DE ENSAYO, DE TRES LITROS Y ENVIARLA DEBIDAMENTE IDENTIFICADA AL LABORATORIO EPSILON Km3, A EFECTOS DE REALIZAR EL ENSAYO DE VISCOSIDAD A TRES TEMPERATURAS, PUNTO DE ESCURRIMIENTO Y TENOR PARAFINICO.-

TRANSCRIPCIÓN DE: **MEMORANDUM**

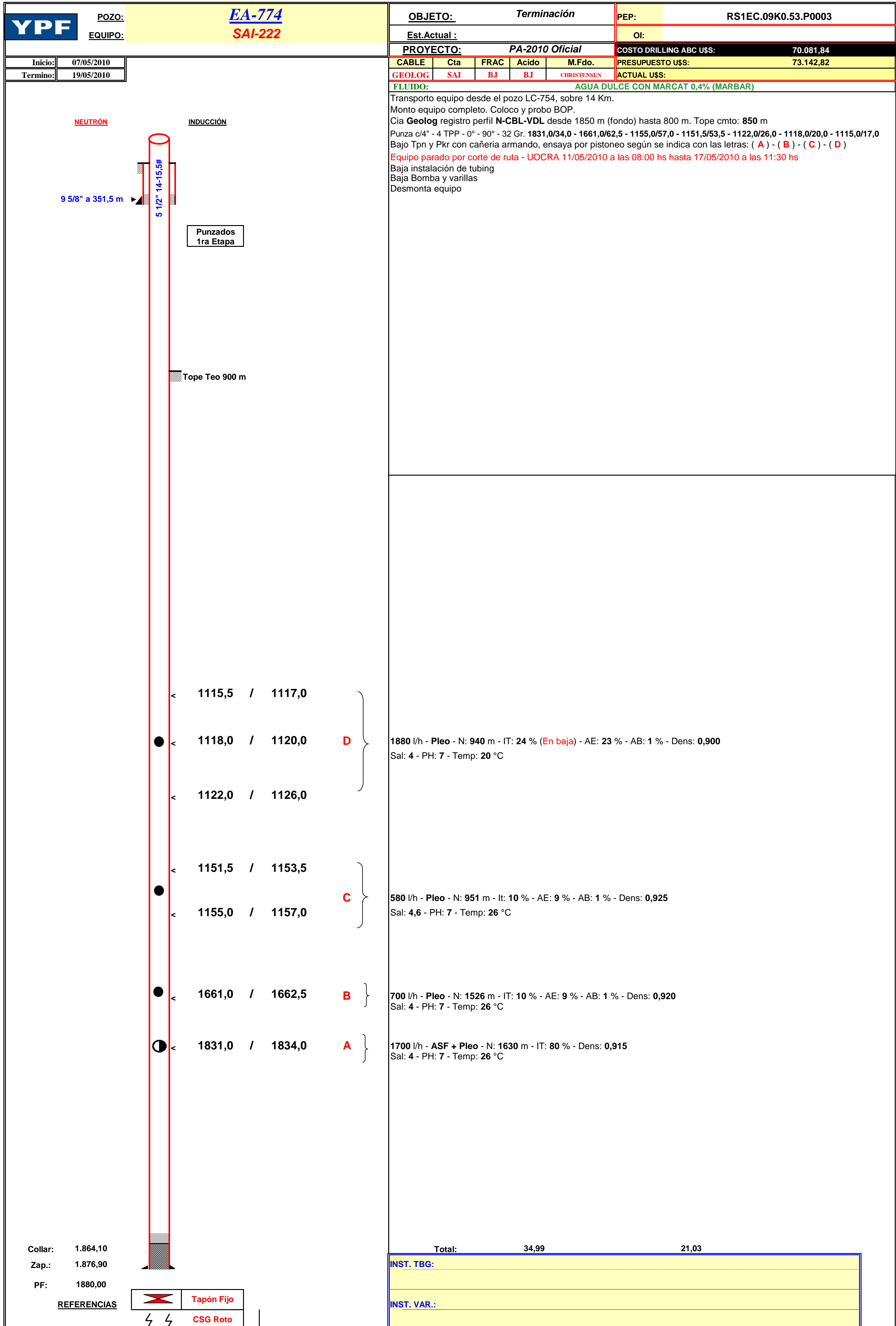
A: COMPAÑÍAS DE SERVICIOS

DE: JEFE DE AREA DE OPERACIONES DE PRODUCCION REG. CDRO. RVDA.

SE RECUERDA A ESA COMPAÑÍA QUE EN VIRTUD DE LO DISPUESTO POR LAS RESOLUCIONES S.E N° 105/92 Y 252/93 QUEDA EXPRESAMENTE PROHIBIDO DESCARGAR CRUDO O DERIVADOS DE HIDROCARBUROS A LAS PILETAS NATURALES DE LOS POZOS. CUANDO UNA EMERGENCIA OPERATIVA GENERE LA CONTAMINACION DE UNA PILETA, ESA COMPAÑÍA DEBERA SUBSANAR EL PROBLEMA A LA BREVEDAD.-

LA NO OBSERVANCIA DE ESTAS NORMAS, GENERARA LA INTERVENCION DE YPF S.A. PARA REPARAR LA CONTAMINACION CON CARGO ESA CIA. Y LA APLICACION DE LAS MULTAS CORRESPONDIENTES.-

RESPONSABLE



TERMINACIÓN / REPARACIÓN DE POZOS

Gerencia Manantiales Behr

Tipo de intervención Terminación

POZO EA-774

9-5/8"
14 #

5 1/2" 14#

ESQUEMA

PROGNOSIS DE Terminación	
Cementar patagoniano	no
Reparar Casing	no
Recuperar pesca	no
Rotar tapón	no
Reentubado	no
Csg suplementario	no
Profundidad pozo	1880 m
CBL - VDL metros a registrar	1000 m
Intervalos punzados	7
Metros Punzados	16 m
Etapas de punzado	1
Cantidad de Ensayos	4
Horas de ensayo por intervalo	9 Hs
Cantidad de Cementaciones Normales	0
Cantidad de Cementaciones Correctivas	0
Cantidad de Estim. Matriciales	0
Horas de cierre acouhumectante	0 Hs
Horas Ensayo Estimulación Matricial	0 Hs
Cantidad de Fracturas	0
Control de arena	no
Gravel pack	no
Hs. De Frágüe arena recinada	0 Hs
Horas ensayo de fractura	0 Hs
Ensayo TST	0
Muestra PVT	0

PROGRAMA DE Terminación	
DTM y Montar equipo	18,0 hs
Acondicionar el Pozo	13,1 hs
Perfilar a pozo entubado	15,6 hs
Cemento normal	0,0 hs
Cemento correctivo	0,0 hs
Punzar formación	16,0 hs
Estimular	0,0 hs
Fracturar	0,0 hs
Controlar Arena	0,0 hs
Ensayar	48,7 hs
Bajar instalación final	31,1 hs
NPT	9,1 hs
151,6 hs	

RESUMEN DEL PRESUPUESTO	
TIEMPO DE TERMINACIÓN	6,3 días
COSTO DE TERMINACIÓN	\$ 73.143
TIEMPO DRILLING ABC	6,5 días
COSTO DRILLING ABC	\$ 70.082

COSTO DE LAS ETAPAS	
DTM y Montar equipo	\$ 12.460
Acondicionar el Pozo	\$ 4.088
Perfilar pozo	\$ 7.631
Cemento normal	\$ -
Cemento correctivo	\$ -
Punzar formación	\$ 12.587
Estimular	\$ -
Fracturar	\$ -
Controlar Arena	\$ -
Ensayar	\$ 16.256
Bajar instalación final	\$ 9.727
NPT	\$ 1.863
Transp. Cargas	\$ 7.027
Cargas sociales	\$ -
Inspección	\$ 1.165
Trailer y piletas	\$ 339

DESGLOSE DE COSTOS DE Terminación			
DTM y Montar equipo	18,0 hs	0,8 días	\$ 12.460
Acondicionar el Pozo	13,1 hs	0,5 días	\$ 4.088
Perfilar a pozo	8,9 hs	0,4 días	\$ 2.509
Cemento normal	0,0 hs	0,0 días	\$ -
Cemento correctivo	0,0 hs	0,0 días	\$ -
Punzar formación	11,0 hs	0,5 días	\$ 3.101
Estimular	0,0 hs	0,0 días	\$ -
Fracturar	0,0 hs	0,0 días	\$ -
Controlar Arena	0,0 hs	0,0 días	\$ -
Ensayos individuales	48,7 hs	2,0 días	\$ 15.256
Ensayar fractura / estimulación	0,0 hs	0,0 días	\$ -
Ensayo TST	0,0 hs	0,0 días	\$ -
Tomar Muestra PVT	0,0 hs	0,0 días	\$ -
Bajar instalación final	31,1 hs	1,3 días	\$ 9.727
Espera condiciones necesarias	9,1 hs	0,4 días	\$ 1.863
Remunerativos SUMEX+PEET	139,9 hs	5,8 días	\$ -
COSTO DE EQUIPO DE TORRE		5,8 días	\$ 49.003
Camión chupa [usd/día]	1.200	1,0 días	\$ 1.200
Supervisor asesor [usd/mes]	0	5,8 días	\$ -
Insp. Terminación [usd/mes]	6000	5,8 días	\$ 1.165
Pick UP 4x4 [usd/mes]	0	5,8 días	\$ -
Transporte cargas sólidas [usd/mes]	15000	5,8 días	\$ 2.914
Transporte cargas Líquidas [usd/mes]	15000	5,8 días	\$ 2.914
Perfilar pozo	5.122		\$ 5.122
Cementar	5.425		\$ -
Punzar formación	9.486		\$ 9.486
Fracturar con Sinterlite	33.203		\$ -
Controlar Arena	9.961		\$ -
Fluido de Terminación	1.000		\$ 1.000
Estimular	10.000		\$ -
Fresa	600		\$ -
Alquiler de Motor de Fondo	3.000		\$ -
Adicional alquiler de trailer	3490	5,8 días	\$ 339
Scio pileta ecológica	0	5,8 días	\$ -
COSTO DE SERVICIOS			\$ 24.140
COSTO DE LA Terminación			\$ 73.143

\$ 12.460
\$ 29.070
\$ 7.473

7

6

5

4

3

2

1

Collar: 1865 m

Zapato: 1875 m

P. Final: 1880 m

SAI-222

TARIFARIO DE EQUIPO	
Hora Operativa normal	313
Hs. Stand by con personal	282
Hs. Stand by sin personal	188
Hs. Stand by con personal Clima/mantenim	204
Desmontaje Transporte y Montaje	12460
3a. Exceso de transporte (Km)	90
Tprte de pileta ecológica	0
Servicio de alquiler de trailer	3490
Servicio de pileta ecológica	0
Pago Mensual PEET	0
Pago Mensual SUMEX	0
Equipo de referencia	SAI-222

Tipo de Cambio U\$\$/\$ 0,25641

Selección de PUNZADOS: 1ra Etapa

Ensayos	Zona (Prof. Inducción)		Complejo	Espesor	Carga (Cañón 4")
D	1115.5	/ 1117.0	III	1.50	4TPP - 32 gr- 0-90°
D	1118.0	/ 1120.0	III	2.00	4TPP - 32 gr- 0-90°
D	1122.0	/ 1126.0	III	4.00	4TPP - 32 gr- 0-90°
C	1151.5	/ 1153.5	III	2.00	4TPP - 32 gr- 0-90°
C	1155.0	/ 1157.0	III	2.00	4TPP - 32 gr- 0-90°
B	1661.0	/ 1662.5	IV	1.50	4TPP - 32 gr- 0-90°
A	1831.0	/ 1834.0	IV	3.00	4TPP - 32 gr- 0-90°
Total de mts punzados				8.50	
7 punzados y 4 ensayos.					

Minuta Terminación EA-774

Dirección UE Chubut- Proyecto Manantiales Behr-07 de Mayo 2010

Temas a Tratar:

- Selección de niveles con mayor interés a punzar / Análisis de Perfiles e Interpretación Petrofísica. Hta. MREX
- Toma de Presiones (FMT).
- Profundización del pozo
- Etapas, ensayos en conjunto e individuales.
- Punzado en balance.
- Posibilidad de Estimulaciones.
- Etapa 30 Presupuesto aprobado: **64787.76 U\$S**
- PEP: RS1EC.09K0.53.P0003

Participantes:

CIAPPARELLI OLIVERA, HELENA (Geología de Desarrollo)

HUDECEK ROSSEL, RENE ERNESTO (Geología Proyecto MB)

BARREIRA BAYNJAM, RODOLFO LUIS (Geología Proyecto MB)

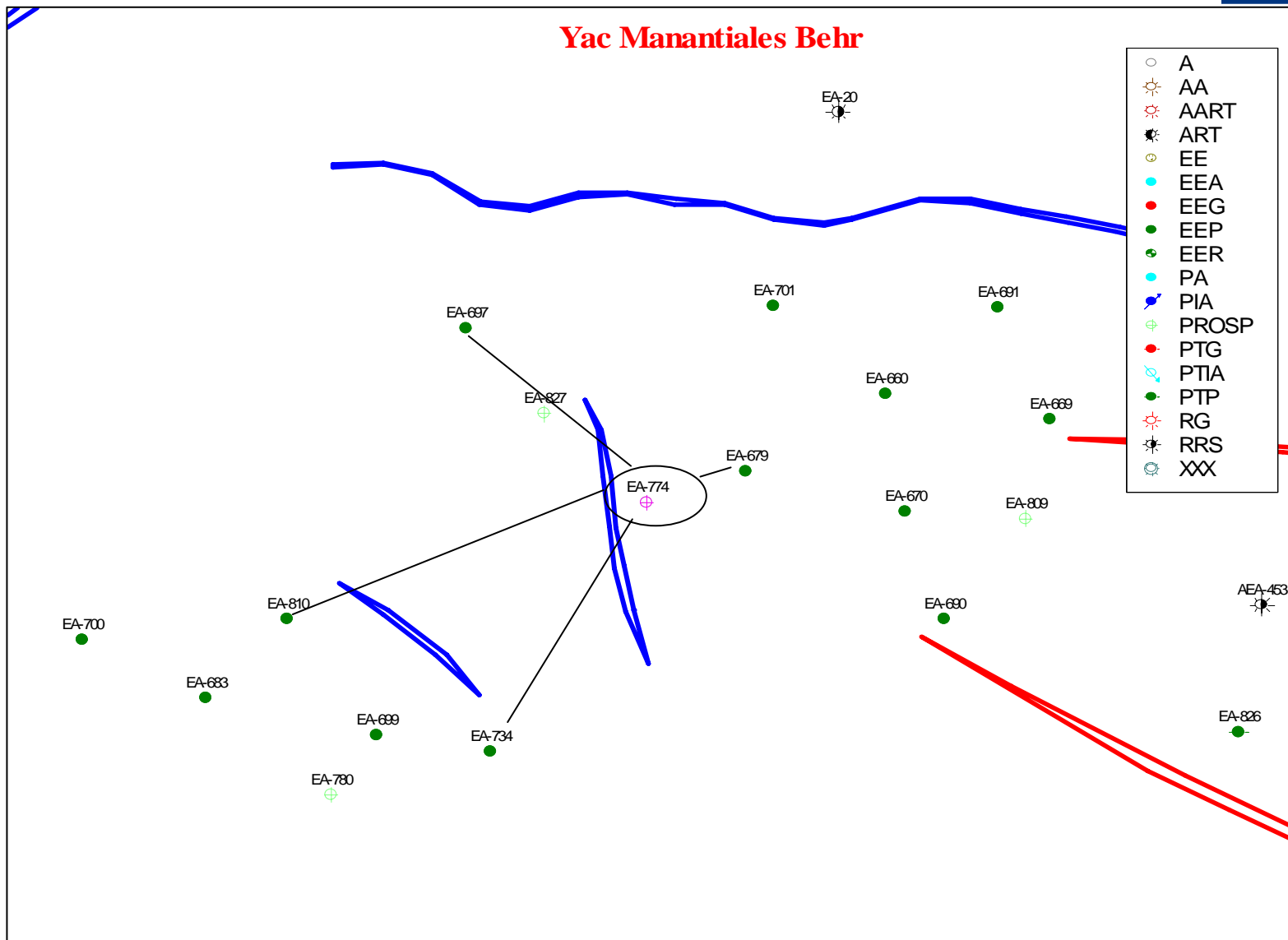
ACOSTA, NESTOR (Geología de Desarrollo)

ORDOÑEZ DANTE (Ing. Work-Over)

MENCONI LAFORCADA, FEDERICO (Ing. de reservorios Proyecto MB)

Ubicación EA-774

Fallas al CIII



Pases Formacionales				
COTA (mbbp):	669.08			
EA-774	CI	CII	CIII	CIV
mbbp		885	1081	1560
mbnm		-215.92	-411.92	-890.92
P.F (mbbp):	1850.8			

- Se correlacionó con los pozos: EA-679, EA697, EA-734 y EA-810.
- Tope Cto. requerido: 875 mbbp sin exceso.
- Collar: 1864.6 mbbp.
- Zapato: 1877.2 m mbbp.
- Prof. Final: 1850.8 mbbp. (por perfil)
- Prof. Final: 1880 mbbp. (con profundización)
- Vincula cañería 05/05/2010 a las 20:30 pm.
- Vence fragüe Cto. 08/05/2010 a las 20:30 pm (c/72hs).

Registro MREX de BHughes en modo PoroPerm+Oil (Fast).

En función de encontrar soluciones a los problemas de productividad de los pozos de El Alba, se propuso desde desarrollo correr en tres pozos el perfil RMN. Este es el 2do.pozo.

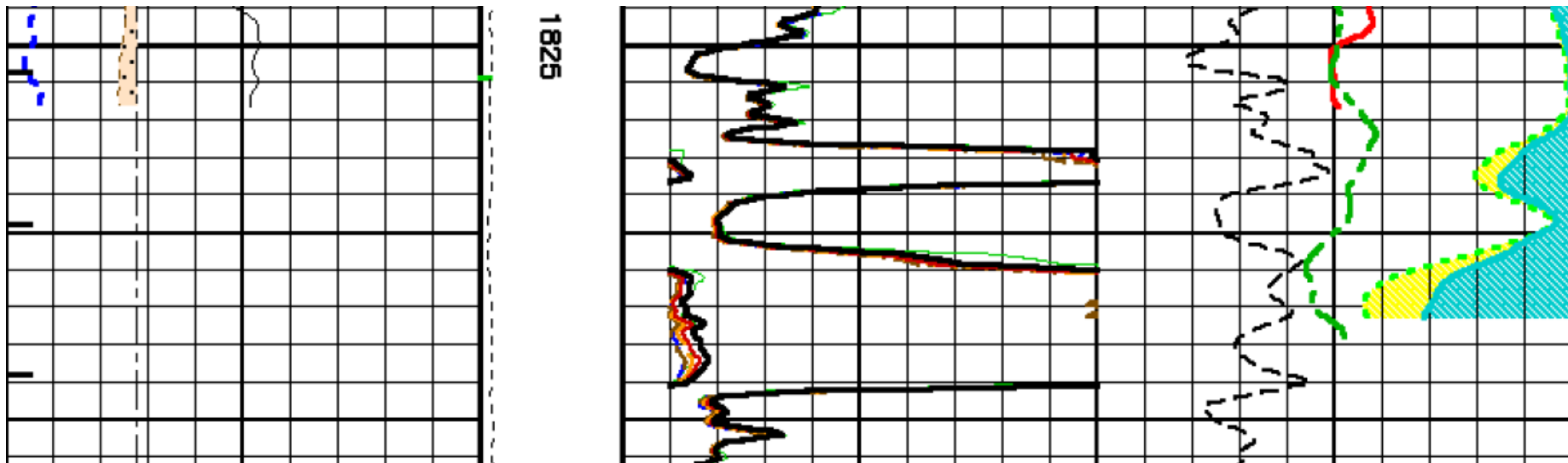
En este pozo se registro en zona de interés la hta. de RMN de BHughes MREX en modo PoroPerm+Oil (Fast). El objetivo de la misma es obtener si es posible mas datos sobre calidad de los reservorios que estamos evaluando y de esa manera minimizar incertidumbre a la hora de seleccionar los intervalos a punzar.

Se debe evaluar las mejoras que logremos con este perfil, corroborando con los resultados de fluidos de terminación.

Capas seleccionadas 1ra. Etapa

Capa 1: Complejo IV

• Prof: 1831.0 / 1834.0



Pozo profundizado para evaluar este intervalo.

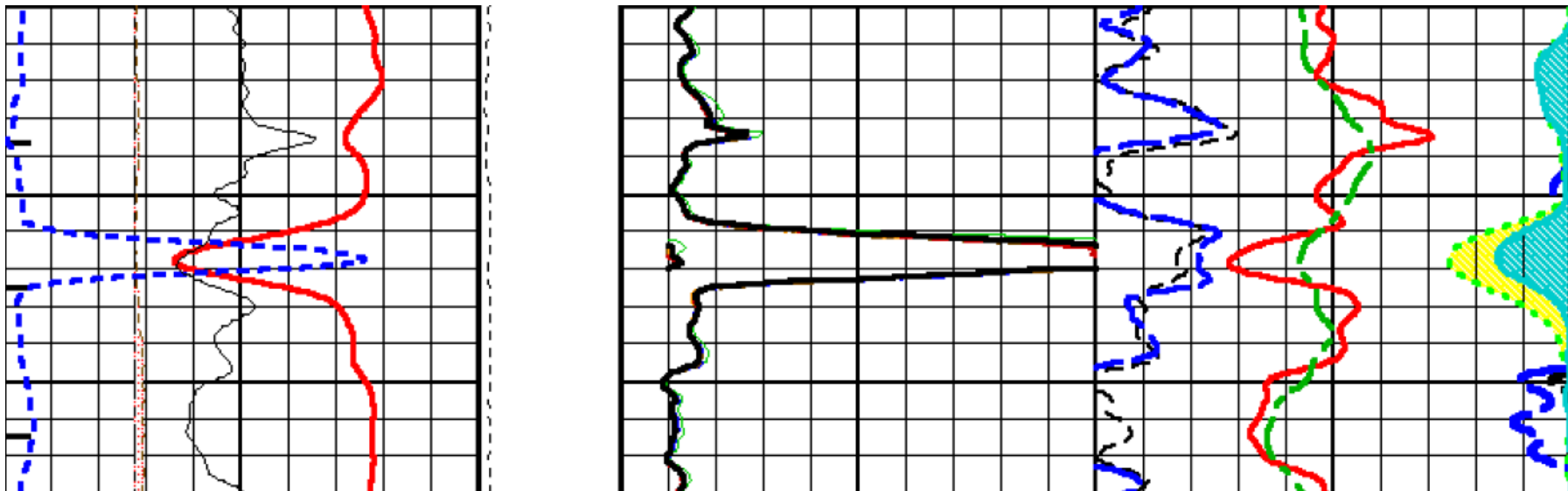
Correlativa de 500 l/h AgCRPet en EA-734 (+27m)

Capas seleccionadas 1ra. Etapa

Capa 2: Complejo IV

• Prof:

1661.0	/	1662.5
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Sin Correlativa. Prob. SE por RMN ???. Se probará admisión antes de ensayar.

Capas seleccionadas 1ra. Etapa

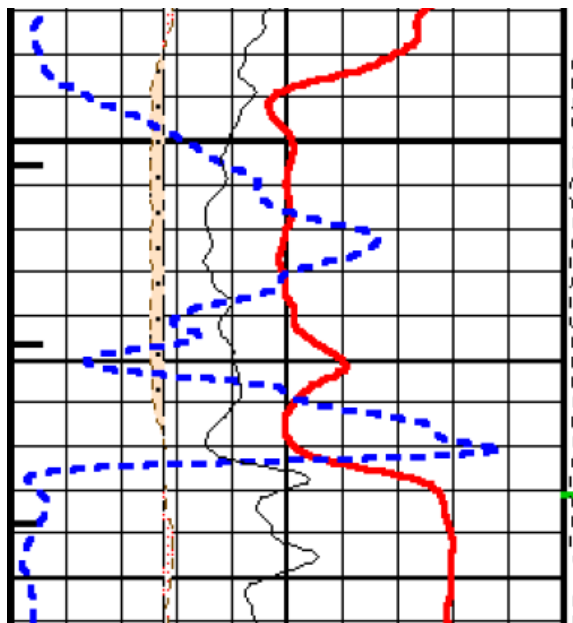
Capas 3 y 4: Complejo III

- Prof:

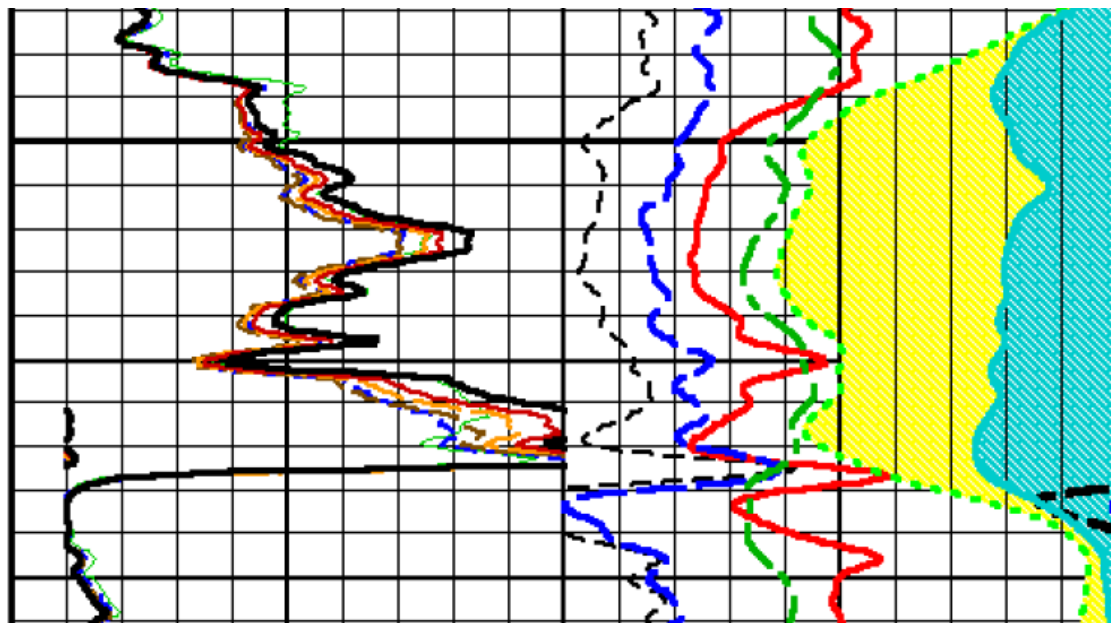
1151.5	/	1153.5
--------	---	--------

 y

1155.0	/	1157.0
--------	---	--------



1150



Correlativa de Pet 1200 l/h 12% en EA-679 (+7m)

Correlativa de Pet 800 l/h 10% en EA-810 (+13m)

Capas seleccionadas 1ra. Etapa

Capas 5, 6 y 7: Complejo III

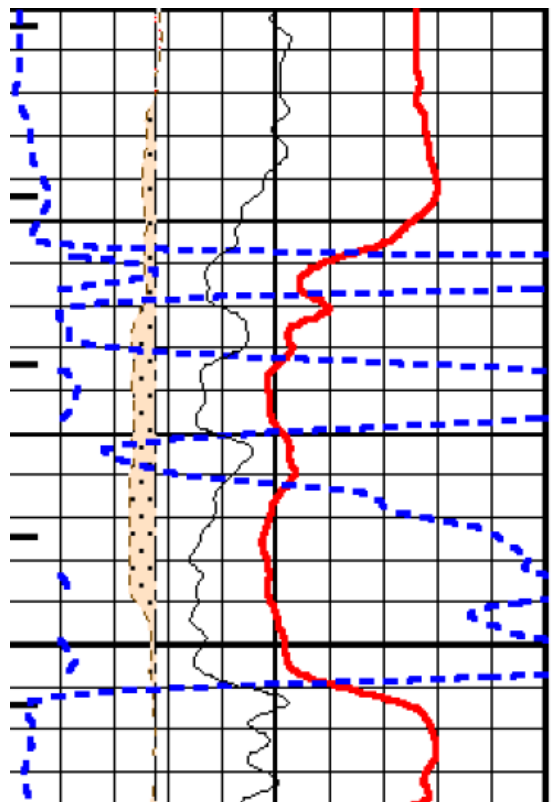
- Prof:

1115.5	/	1117.0
--------	---	--------

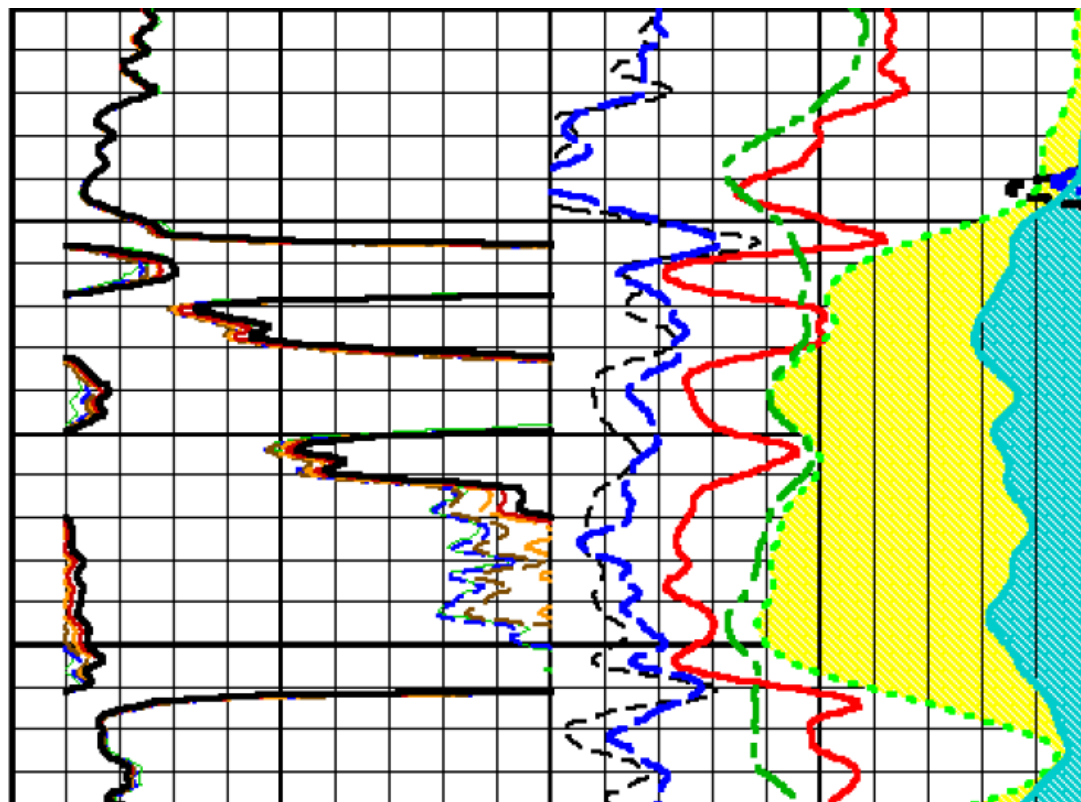
1118.0	/	1120.0
--------	---	--------

 y

1122.0	/	1126.0
--------	---	--------



1125



Correlativa de Pet en EA

Resumen Punzados: 1ra ETAPA

Selección de PUNZADOS: 1ra Etapa						
Ensayos	Zona (Prof. Inducción)		Complejo	Espesor	Carga (Cañón 4")	
D	1115.5	/	1117.0	III	1.50	4TPP - 32 gr- 0-90°
D	1118.0	/	1120.0	III	2.00	4TPP - 32 gr- 0-90°
D	1122.0	/	1126.0	III	4.00	4TPP - 32 gr- 0-90°
C	1151.5	/	1153.5	III	2.00	4TPP - 32 gr- 0-90°
C	1155.0	/	1157.0	III	2.00	4TPP - 32 gr- 0-90°
B	1661.0	/	1662.5	IV	1.50	4TPP - 32 gr- 0-90°
A	1831.0	/	1834.0	IV	3.00	4TPP - 32 gr- 0-90°
Total de mts punzados					16.00	
7 punzados y 4 ensayos.						

Se realizarán 7 punzados y 4 ensayos.

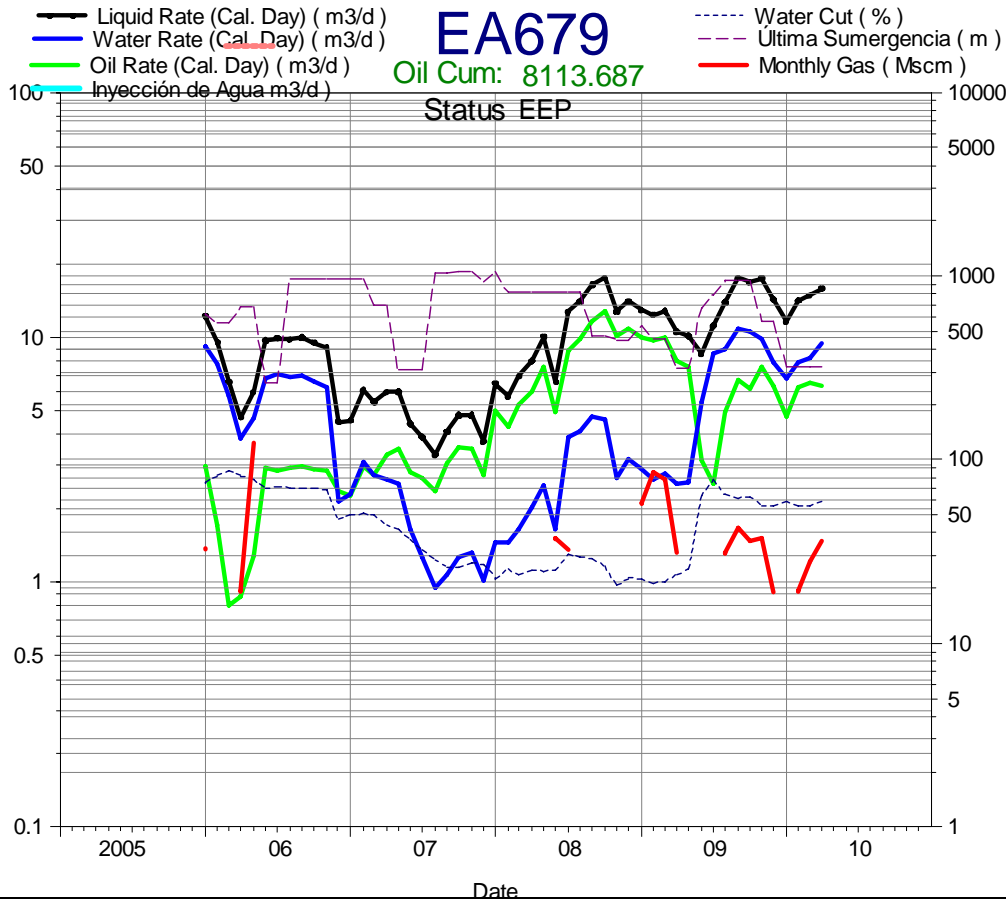
Se evaluaron las posibilidades de fracturas hidráulicas y se descartaron por cercanías con capas de pronostico de Agua.

No se prevé ejecutar una 2da Etapa.

Presiones EA-774

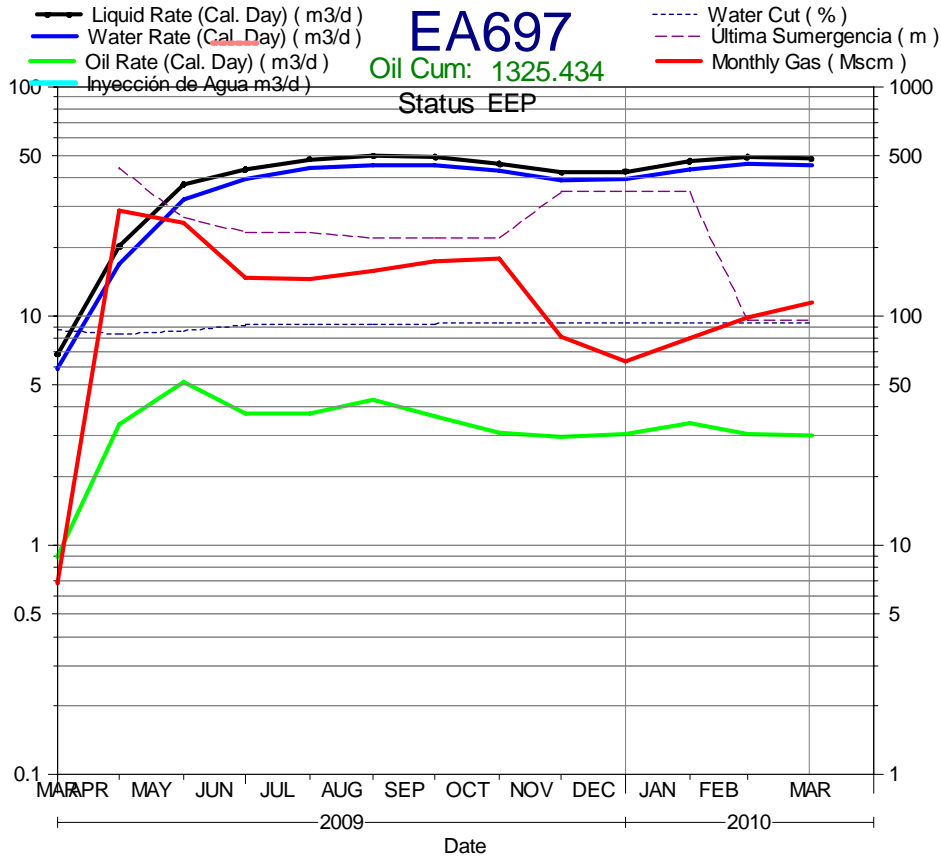
Cota		669.08			N° Gage :									
EA-774	File	Prof.	Fill Time	Flowing	Profundidad	Correlación	Correlación	Pres	Mud Pres	%	Movilidad	Perm.		Observ.
04/05/2010	No.	(mbbp)	(Seg)	Pressure	(mbnm)	Psia	kg/cm2	Psig	Psig		md/cp	Zimmerman		
												[md]		
5	6	1833.5	5.0	1632.3	1164.4	1778	125	1764.3	3067.3	99%	37.20	85.76		Volumetric Limited draw-down
6	7	1831.5	4.5	1600.3	1162.4	1775	125	1763.3	3133.3	99%	33.50	77.16		Volumetric Limited draw-down
8	10	1228.5	6.5	864.3	559.4	970	68	919.3	2051.3	95%	68.80	158.32		Volumetric Limited draw-down
10	12	1152.0	5.0	630.3	482.9	868	61	819.3	1927.3	94%	26.00	0.00		Volumetric Limited draw-down
14	16	1144.1	0.0	0.0	475.0	857	60	0	1907.3	0%	0.00	#jDIV/0!		Dry Test
15	17	1119.0	5.0	743.3	449.9	823	58	817.3	1866.3	99%	66.40	152.97		Volumetric Limited draw-down
16	18	1119.0	5.0	743.3	449.9	823	58	814.3	1866.3	99%	69.20	159.44		Volumetric Limited draw-down
17	19	1116.5	5.0	756.3	447.4	820	58	809.3	1860.3	99%	92.80	213.58		Volumetric Limited draw-down
20	22	1095.4	0.0	0.0	426.3	792	56	0	1829.3	0%	0.00	#jDIV/0!		Dry Test
22	24	1054.5	5.0	636.3	385.4	737	52	726.3	1757.3	99%	54.60	125.78		Volumetric Limited draw-down
26	28	1033.5	9.5	255.3	364.4	709	50	619.3	1717.3	87%	7.10	16.37		Volumetric Limited draw-down
27	29	1004.8	5.5	493.3	335.7	671	47	640.3	1673.3	95%	30.40	70.01		Volumetric Limited draw-down
28	30	963.5	18.0	270.3	294.4	616	43	616.3	1605.3	100%	3.90	9.09		Volumetric Limited draw-down
34	37	924.5	6.0	279.3	255.4	564	40	478.3	1531.3	85%	20.60	0.00		Volumetric Limited draw-down

Producciones pozos vecinos



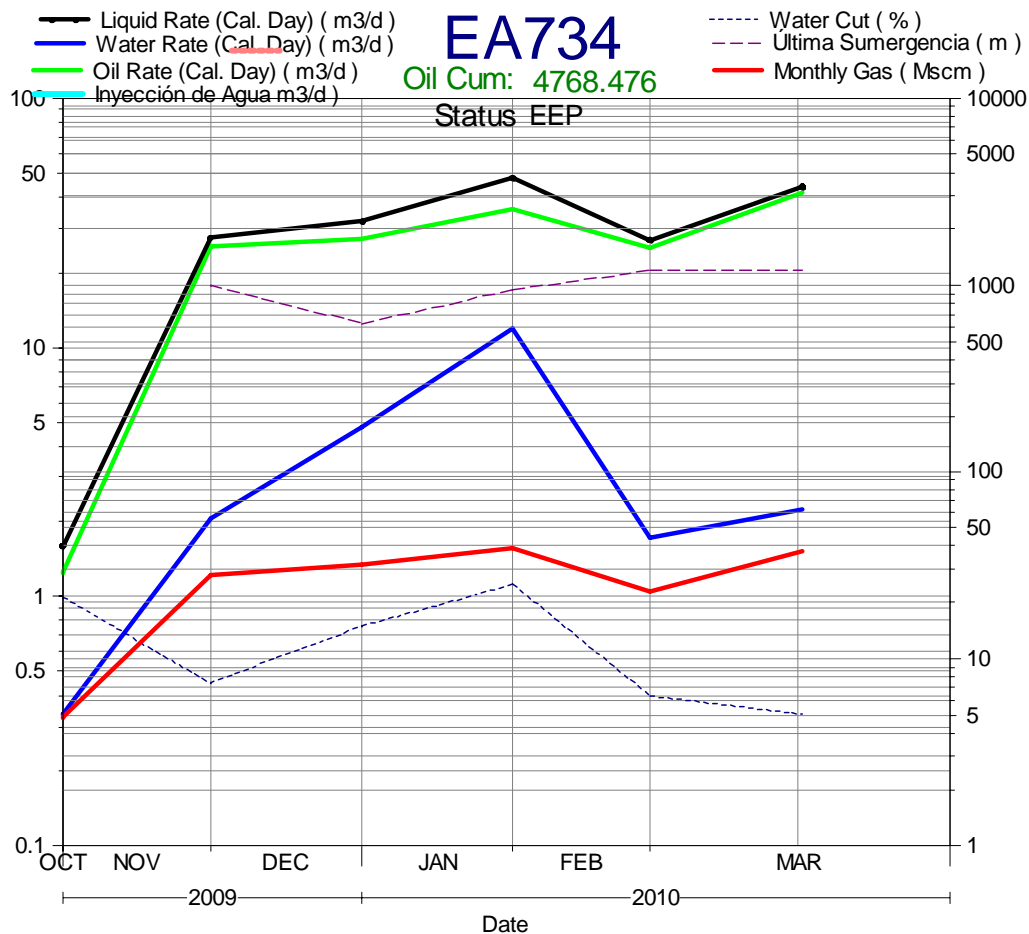
Date	Oil Rate (Cal. Day) m3/d	Water Rate (Cal. Day) m3/d	Gas Rate (Cal. Day) Mscm/d	Cumulative Oil Production Km3	Cumulative Water Production Km3	Cumulative Gas Production Mscm	Water Cut %
31/12/2005	2.95	9	1.07	0.1	0.3	33	75.7
31/03/2010	6.36	9	1.16	8.1	7.2	748.5	59.8

Producciones pozos vecinos



Date	Oil Rate (Cal. Day) m3/d	Water Rate (Cal. Day) m3/d	Gas Rate (Cal. Day) Mscm/d	Cumulative Oil Production Km3	Cumulative Water Production Km3	Cumulative Gas Production Mscm	Water Cut %
31/03/2009	0.9	6	0.22	0	0.2	6.9	86.8
31/03/2010	3	45	3.67	1.3	14.8	1789.8	93.8

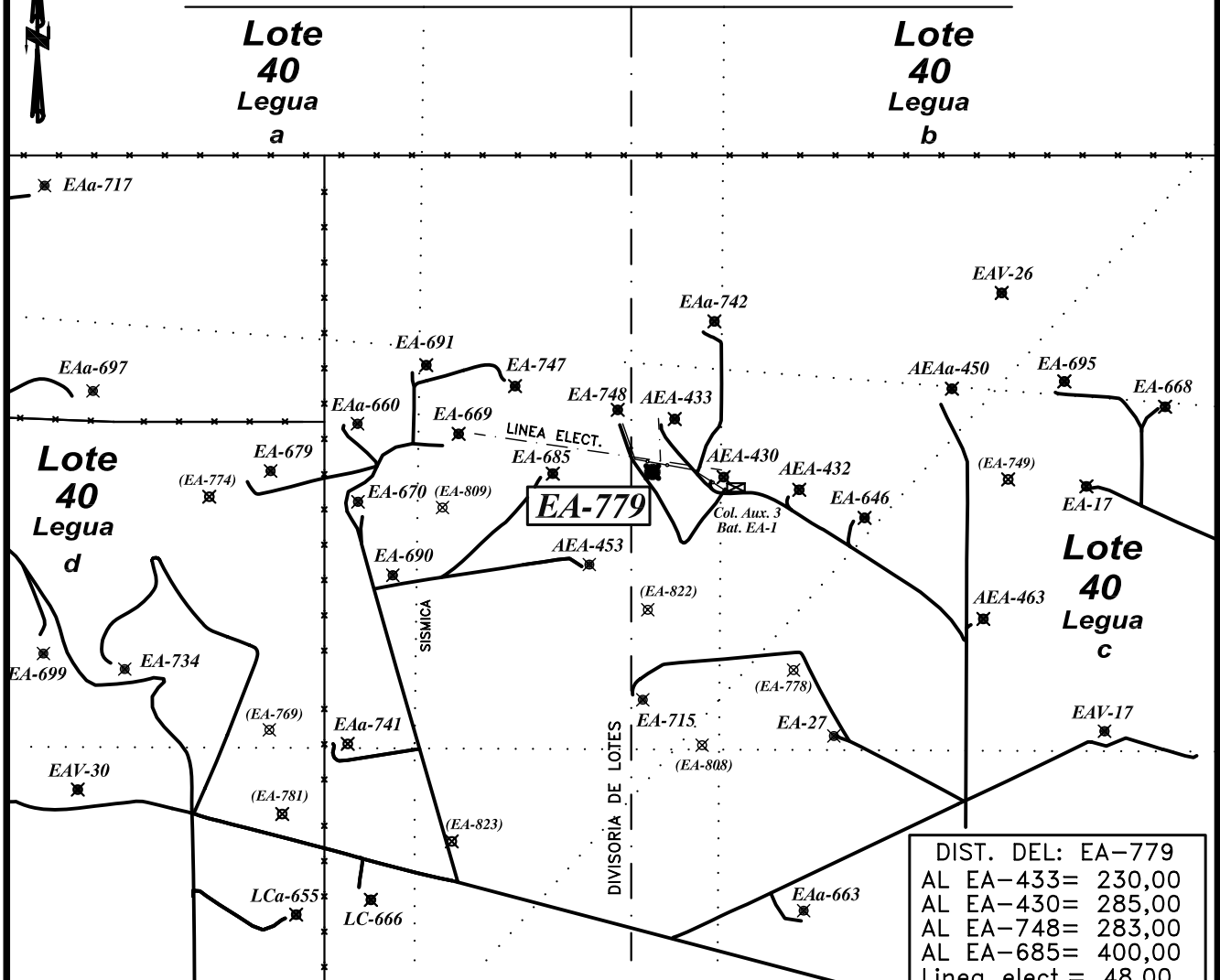
Producciones pozos vecinos



Date	Oil Rate (Cal. Day) m3/d	Water Rate (Cal. Day) m3/d	Gas Rate (Cal. Day) Mscm/d	Cumulative Oil Production Km3	Cumulative Water Production Km3	Cumulative Gas Production Mscm	Water Cut %
31/10/2009	1.25	0	0.16	0	0	4.9	21.2
31/03/2010	41.89	2	1.22	4.8	0.7	164.3	5

FIN

CROQUIS DE UBICACION: EA-779



DIST. DEL: EA-779
AL EA-433= 230,00
AL EA-430= 285,00
AL EA-748= 283,00
AL EA-685= 400,00
Linea elect.= 48,00
Linea cond.= 40,00

UBICADO EN EL LOTE: 40 ,LEGUA: c ,PROPIEDAD DE *María CAMARDA*.
 UBICADO EN TERRENO CON PENDIENTE, CORTE APROX. ENTRE 8,00 y 10,00 m.
 LAS MEDIDAS LINEALES ESTAN EXPRESADAS EN METROS.-

HOJA: 1/2

<p>Servicios profesionales en topografía e hidrografía</p> <p>Posicionamiento satelital GPS - RTK</p> <p>Guillermo Silvestre AGRIMENSOR</p> <p>0297 444 1220 / 155 924744 gdsilvestre@speedy.com.ar 9000 Comodoro Rivadavia Chubut / Patagonia Argentina</p>	PROVINCIA: CHUBUT	SIGLA: EA-779
	YACIMIENTO: MANANTIALES BEHR	BATERIA: EA-1
	FECHA: 10/11/09	ZONA: EL ALBA
	COORDENADAS TEORICAS	
DATUM:	PAMPA DEL CASTILLO	
COORDENADA "X":	4.949.553,00	
COORDENADA "Y":	2.583.298,00	
COTA (s/n/t):	661,00 +/- 3,00 m.	
DATUM:	WGS-84	
LATITUD:	45°36'10,04662"S	
LONGITUD:	67°56'06,33969"O	
ALTURA (a/s/e):	676,00 m.	

IMAGENES DE UBICACION: EA-779



LAS MEDIDAS LINEALES ESTAN EXPRESADAS EN METROS.-

HOJA: 2/2

Servicios profesionales
en topografía e hidrografía
Posicionamiento satelital
GPS - RTK



Guillermo Silvestre
AGRIMENSOR

0297 444 1220 / 155 924744
gdsilvestre@speedy.com.ar
9000 Comodoro Rivadavia
Chubut / Patagonia Argentina

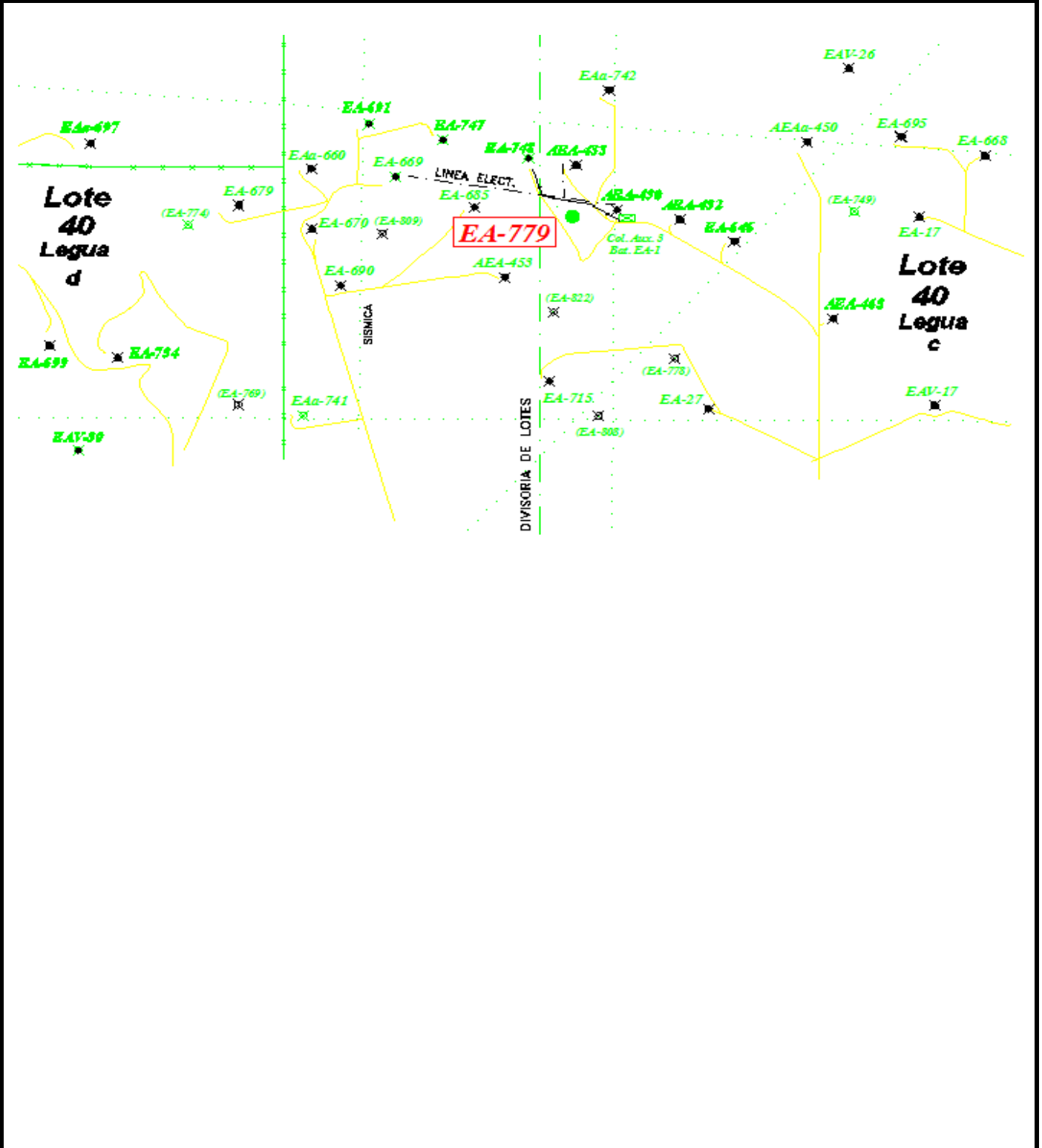
PROVINCIA: CHUBUT	SIGLA: EA-779
YACIMIENTO: MANANTIALES BEHR	BATERIA: EA-1
FECHA: 10/11/09	ZONA: EL ALBA

COORDENADAS TEORICAS

DATUM:	PAMPA DEL CASTILLO
COORDENADA "X":	4.949.553,00
COORDENADA "Y":	2.583.298,00
COTA (s/n/t):	661,00 +/- 3,00 m.
DATUM:	WGS-84
LATITUD:	45°36'10,04662"S
LONGITUD:	67°56'06,33969"O
ALTURA (a/s/e):	676,00 m.

	Provisorias	X	Definitivas
Datos del Pozo			
Nombre :	EA-779		
Coordenadas originales de proyecto			
x (Norte):	4949553	y (Este):	2583298
Sistema de Referencia :	Pampa del Castillo	Provincia :	Chubut
Determinación de coordenadas			
Solicitado por : U.E. Chubut	Fecha:		05/10/2010
Coordenadas por Sistema de Referencia			
POSGAR 94 (en grados: GGG.ddddddd, S: - , W: -)			
Latitud:	-45,60324578	Longitud:	-67,93392856
POSGAR 94 (Proyección Gauss Krüger, Faja 2)			
x (Norte):	4949423,73	y (Este):	2583171,05
Cota :	665,8		
Campo Inchauspe (Proyección Gauss Krüger, Faja 2)			
x (Norte):	4949627,07	y (Este):	2583259,17
Pampa del Castillo (Proyección Gauss Krüger, Faja 2)			
x (Norte):	4949502,59	y (Este):	2583386,66
Descripción de tareas topogeodésicas			
Puntos de Red homologada utilizado :	YPF E-106		
Red a la que pertenecen :	ENERGICON YPF		
Coordenadas de los Puntos :	Z=678,84	X= 4922106,14	Y= 2587379,60
Sistema de Referencia :	POSGAR 94		
Método de Medición :	CINEMÁTICO		
Método de obtención de cota :	EGM(96) Global		
Instrumento :	Trimble 5700 Doble Frec,		
Observaciones :			

Croquis de Ubicación General

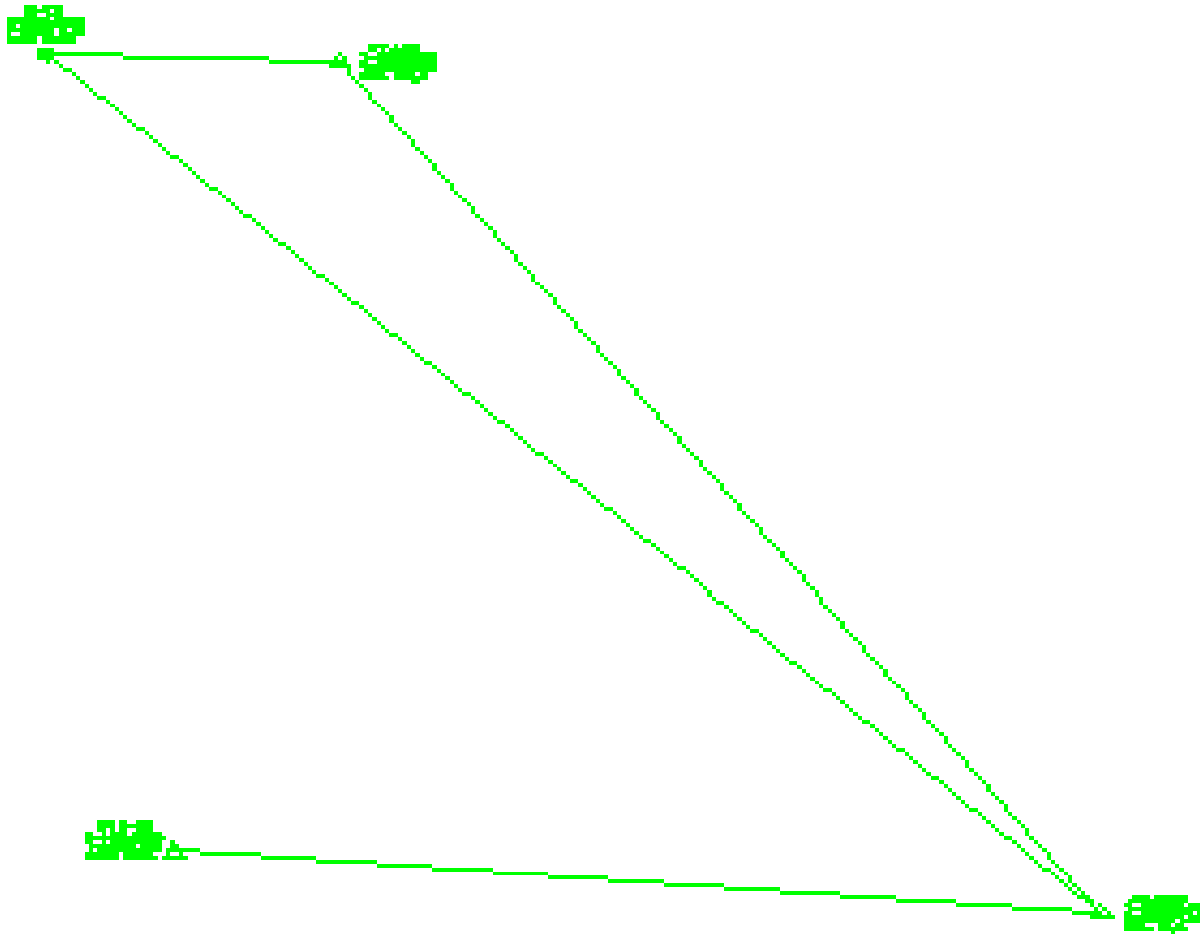


Anexos



Diagrama de Mediciones

Sistema Posgar 94



ESQUEMA DE POZO

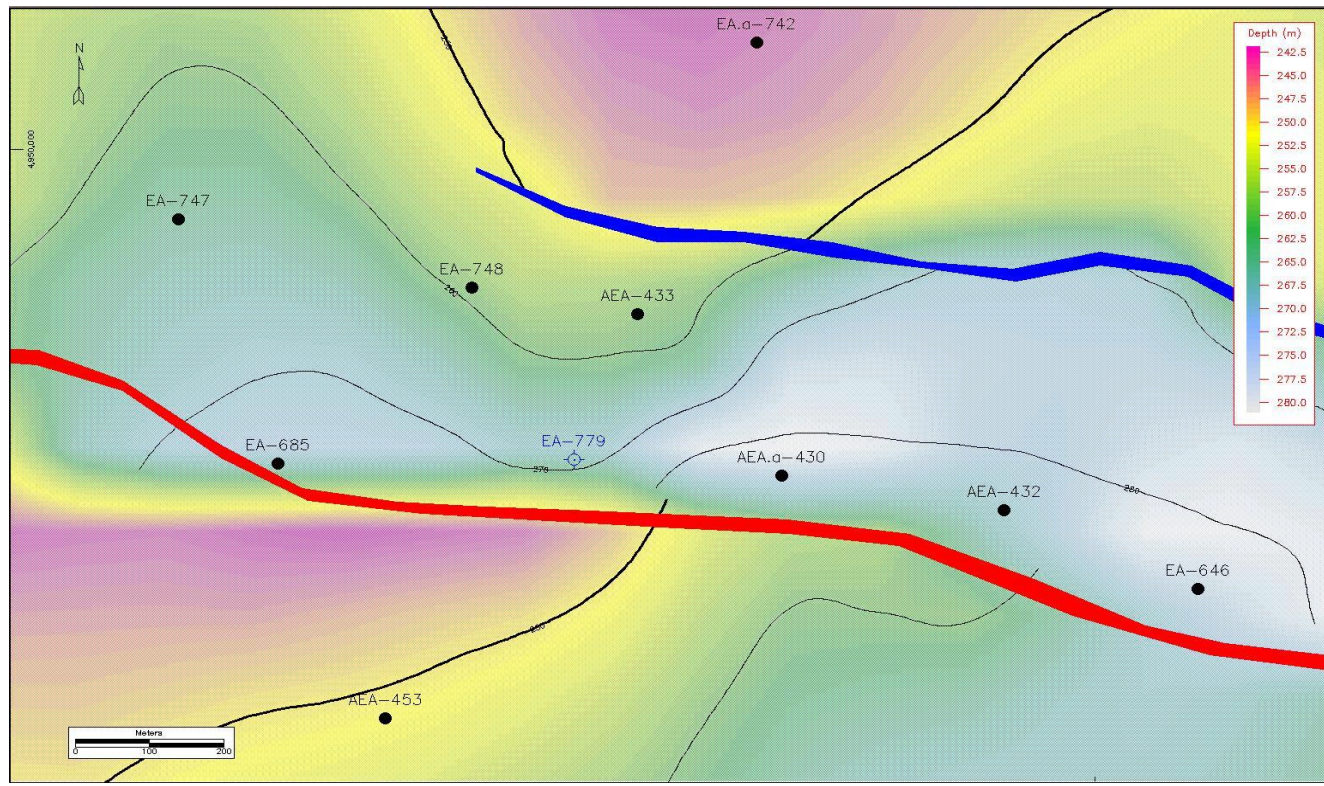
POZO: EA-779 vertical	COORDENADAS (provisorias)	X:	4949553
		Y:	2583298
UWI: AR0100008533 PEP: RS1EC.09P4.53.P0002	COTA (msnm)	Z:	643

PROF.FINAL: 1850 mbbp(-1207 mbnm)

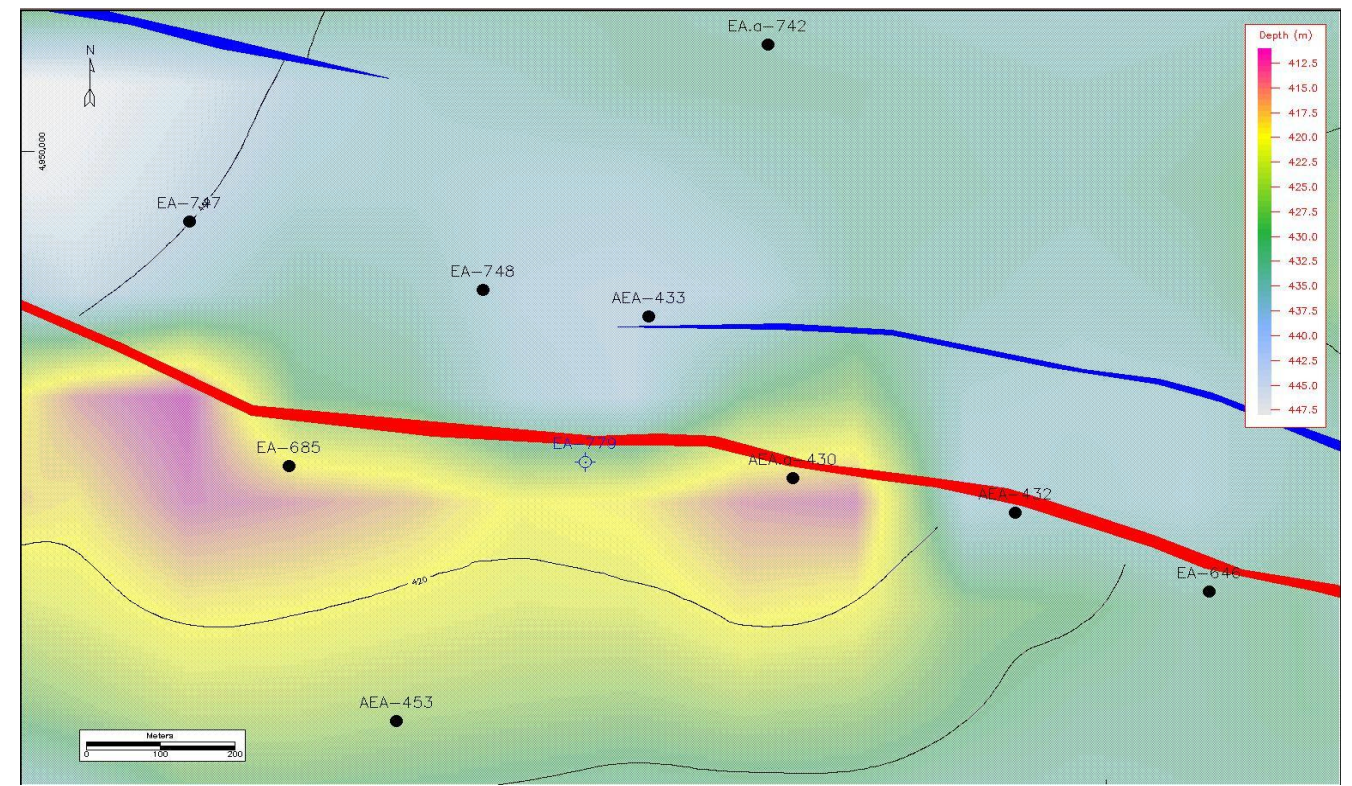
Cañería Guía 9 5/8": 385 mbbp

				Registros a Cable
T E R R I A R I O	FM PATAGONIA + SANTA CRUZ	Alternancia de arcillas y arenisca grano fino a medio.	Zona sin interés	
	FM SARMIENTO	TOPE Sarm +/- : Tobas finas poco consolidadas.		
	FM SALAMANCA + RIO CHICO	TOPE RCh +/- :350(+310) Arcilla consolidada y fragmentada, arenisca cuarzosa glauconítica.		
		Probable Intrusivo en 723.6 mbbp	907 mts	Correr perfil de cemento a pozo entubado: CBL-VDL-Neutrón de correlación
G R U P O P U B L I C O	FM EL TREBOL	TOPE CII +/- : 907 (-264) Areniscas de grano fino a medio, cemento arcilloso o calcareo +	ZONA de interés petrolero	Resistividad/Densidad/Neutrón/ Sonico/RFT
	FM Cdro. RIVADAVIA	TOPE CIII +/- : 1056(-413) Areniscas de grano medio a grueso, hasta conglomerádicas, cuarzosas, matriz arcillo-tobácea, intercalaciones de arcilitas y tobas arenosas.		
	FM MINA EL CARMEN	TOPE CIV +/-: 1516(-873) Tobas arenosas, arcillosas y limosas, a veces calcareas, con intercalaciones de areniscas cuarzosas lenticulares - tobas líticas y ceolizadas		

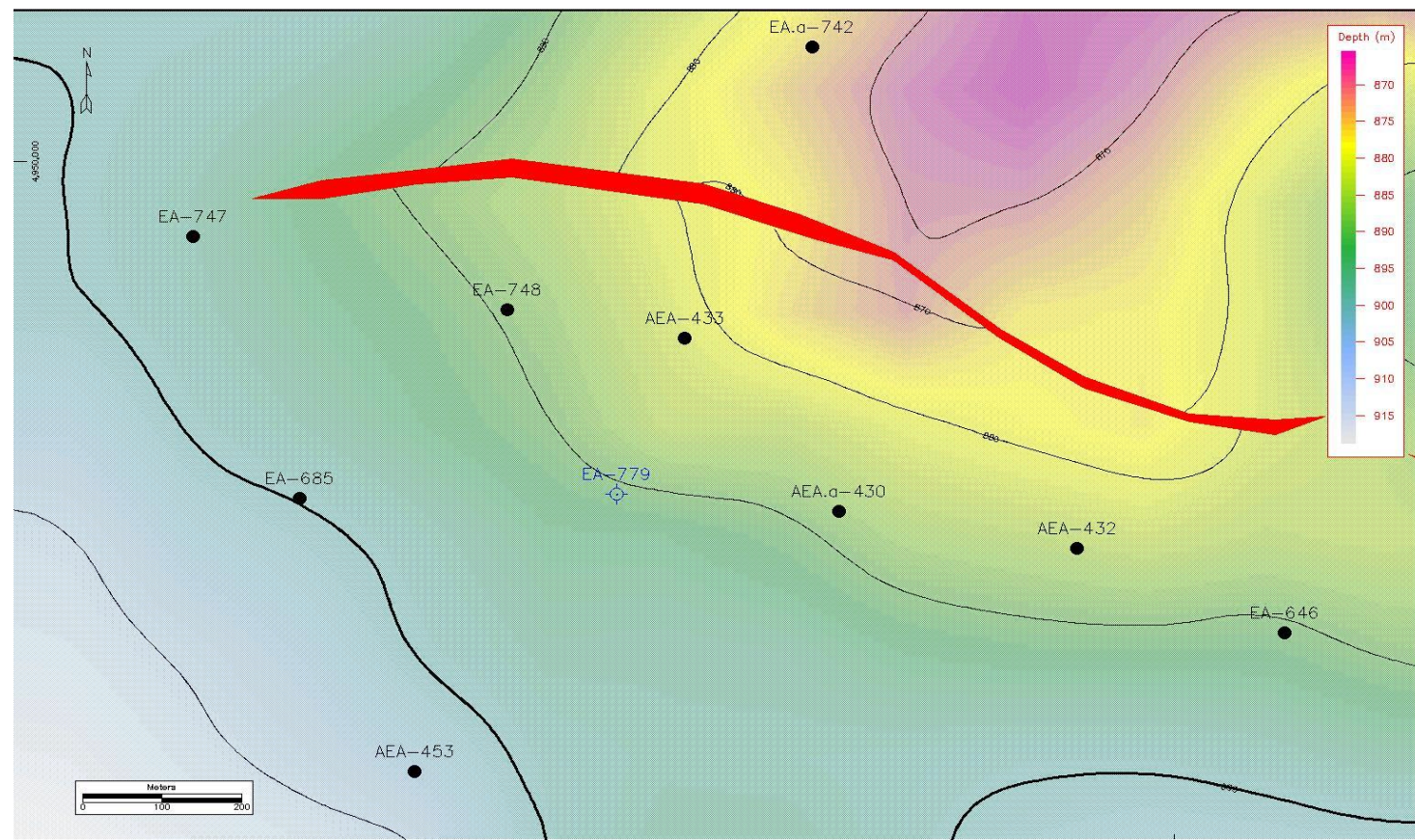
Referente Ciapparelli H.	Observación:	Probable Falla 1032.3 mbbp Probable Intrusivo en 723.6 mbbp Pozos de referencia EA-747, EA-748, EA-691, EA-669, EA-685
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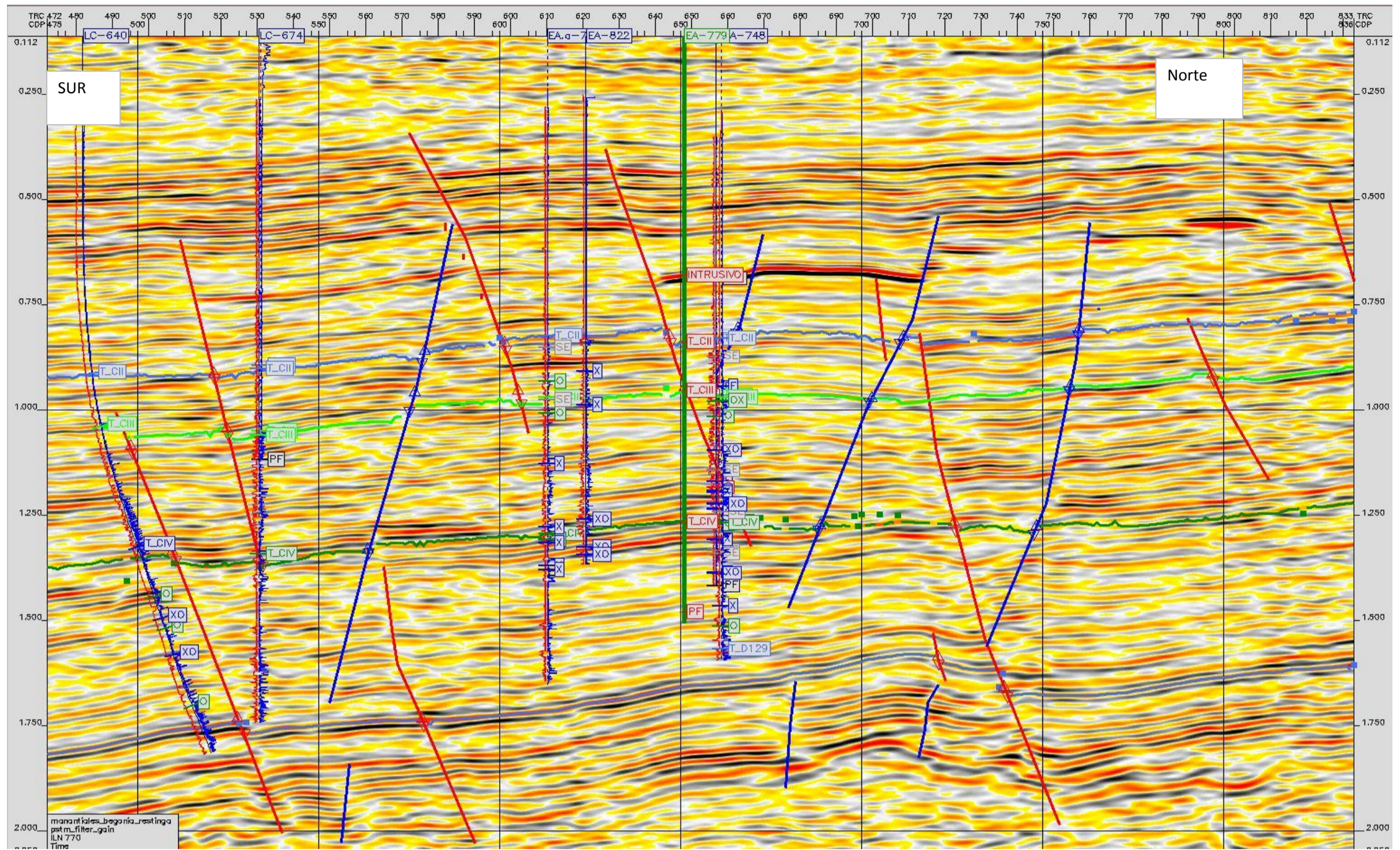
Tope Complejo II



Tope Complejo III

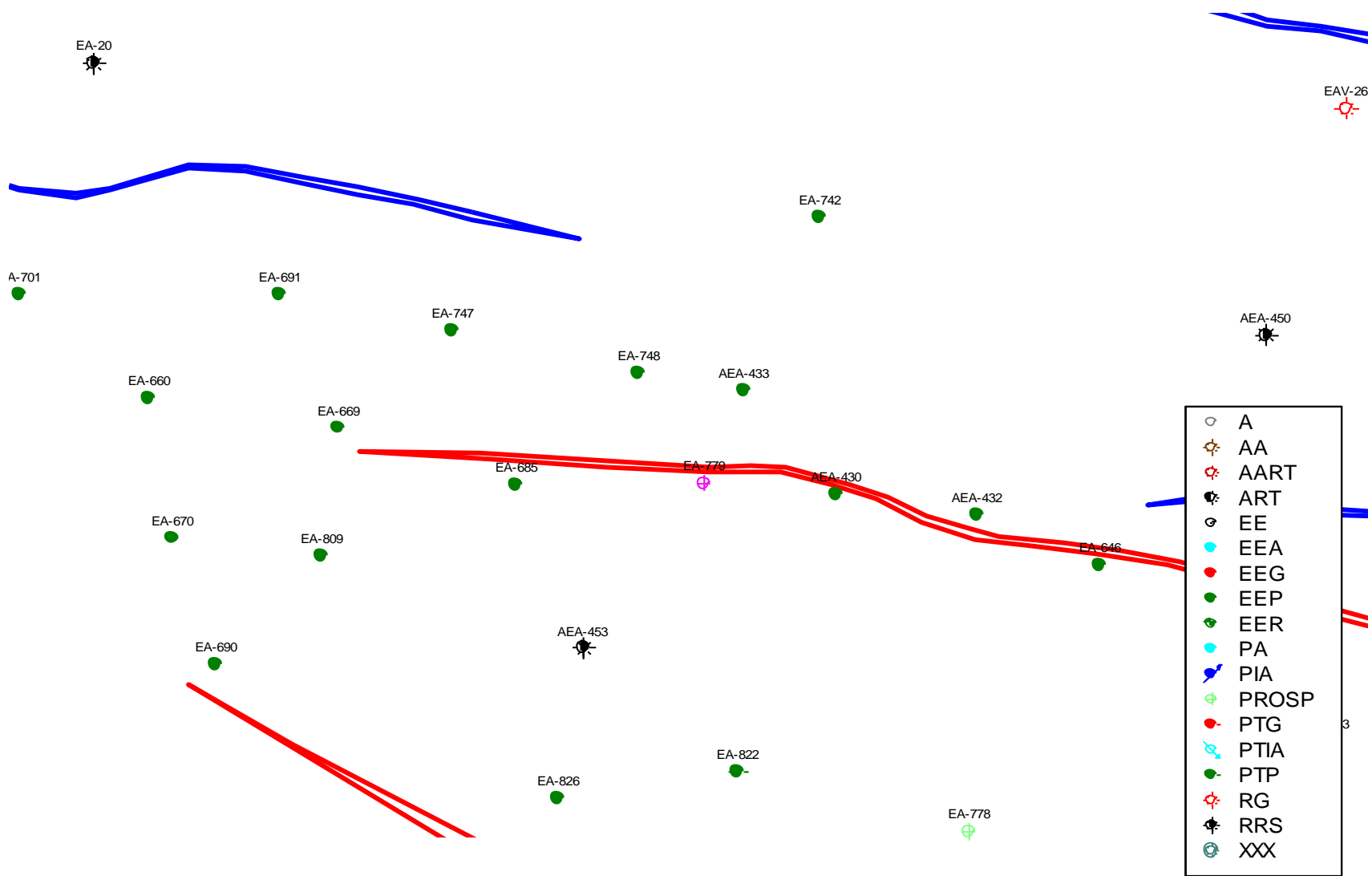


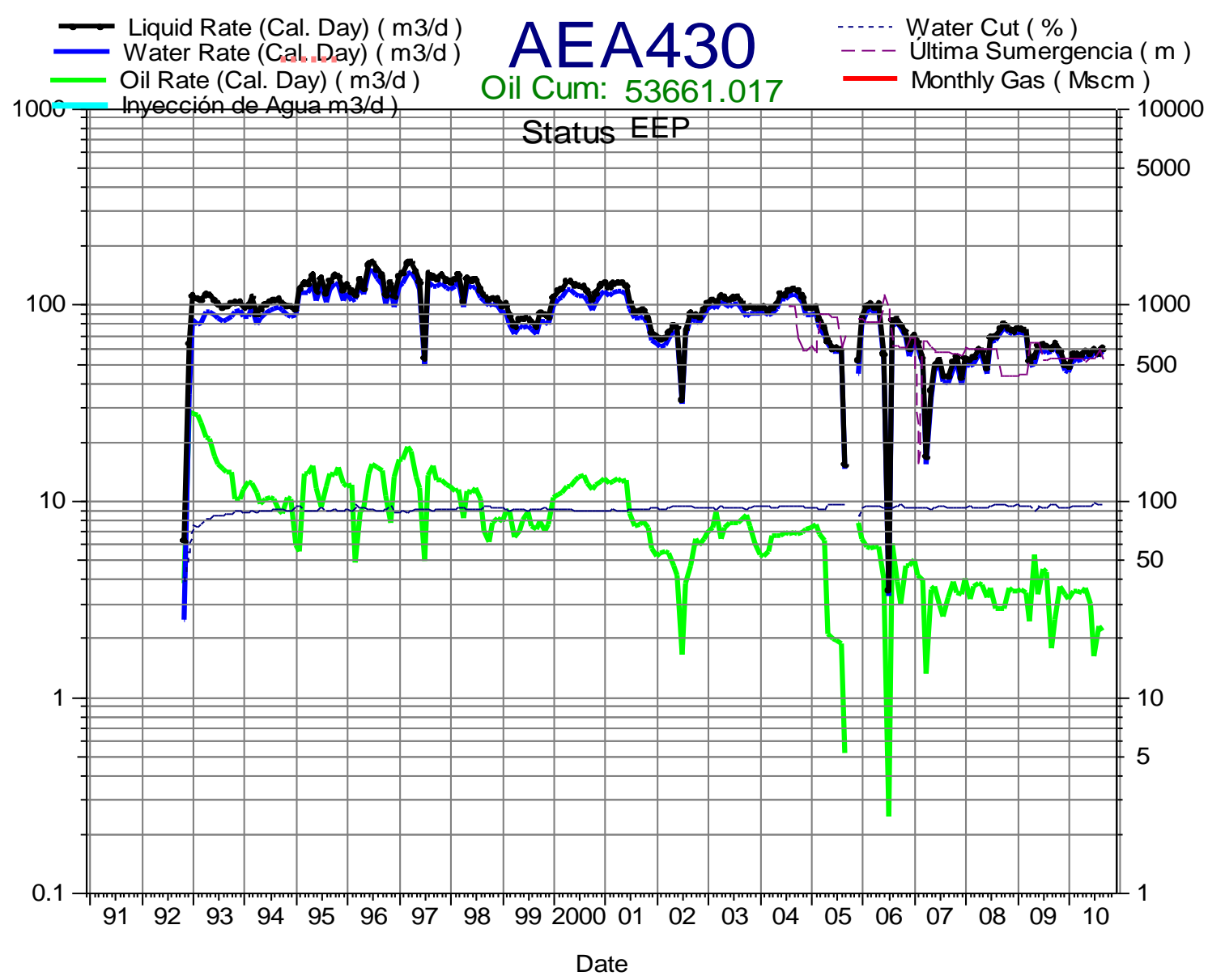
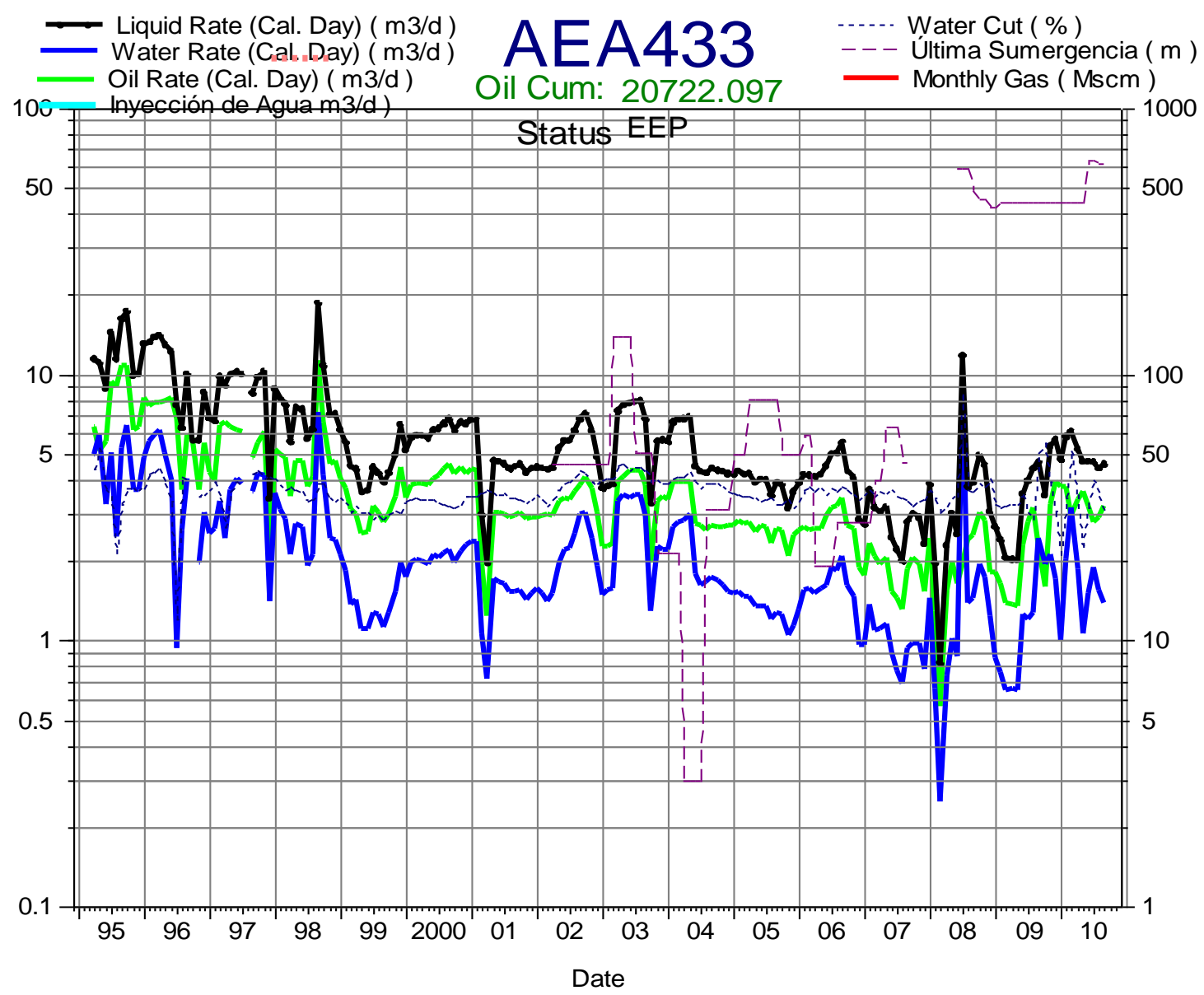
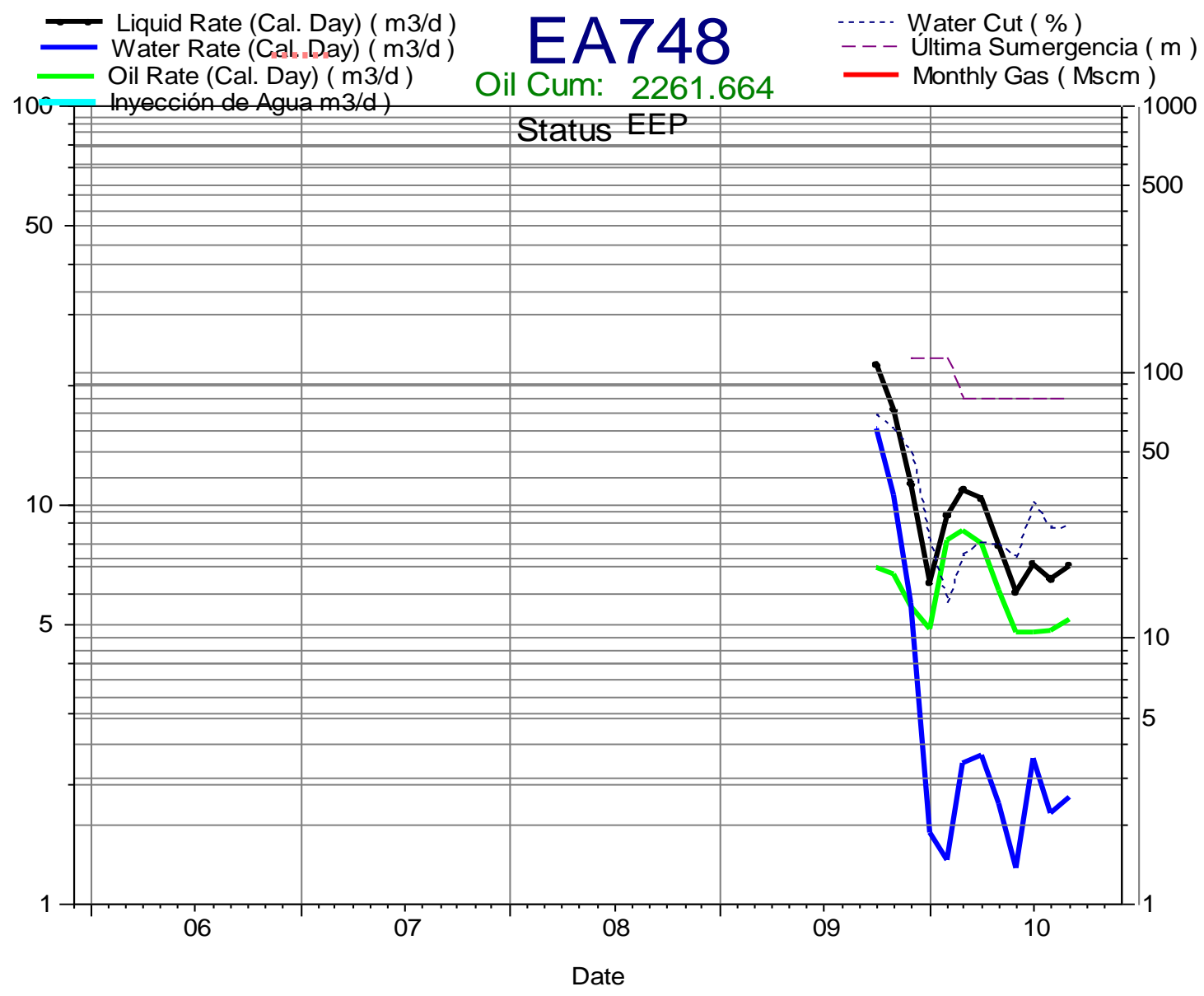
Tope Complejo IV

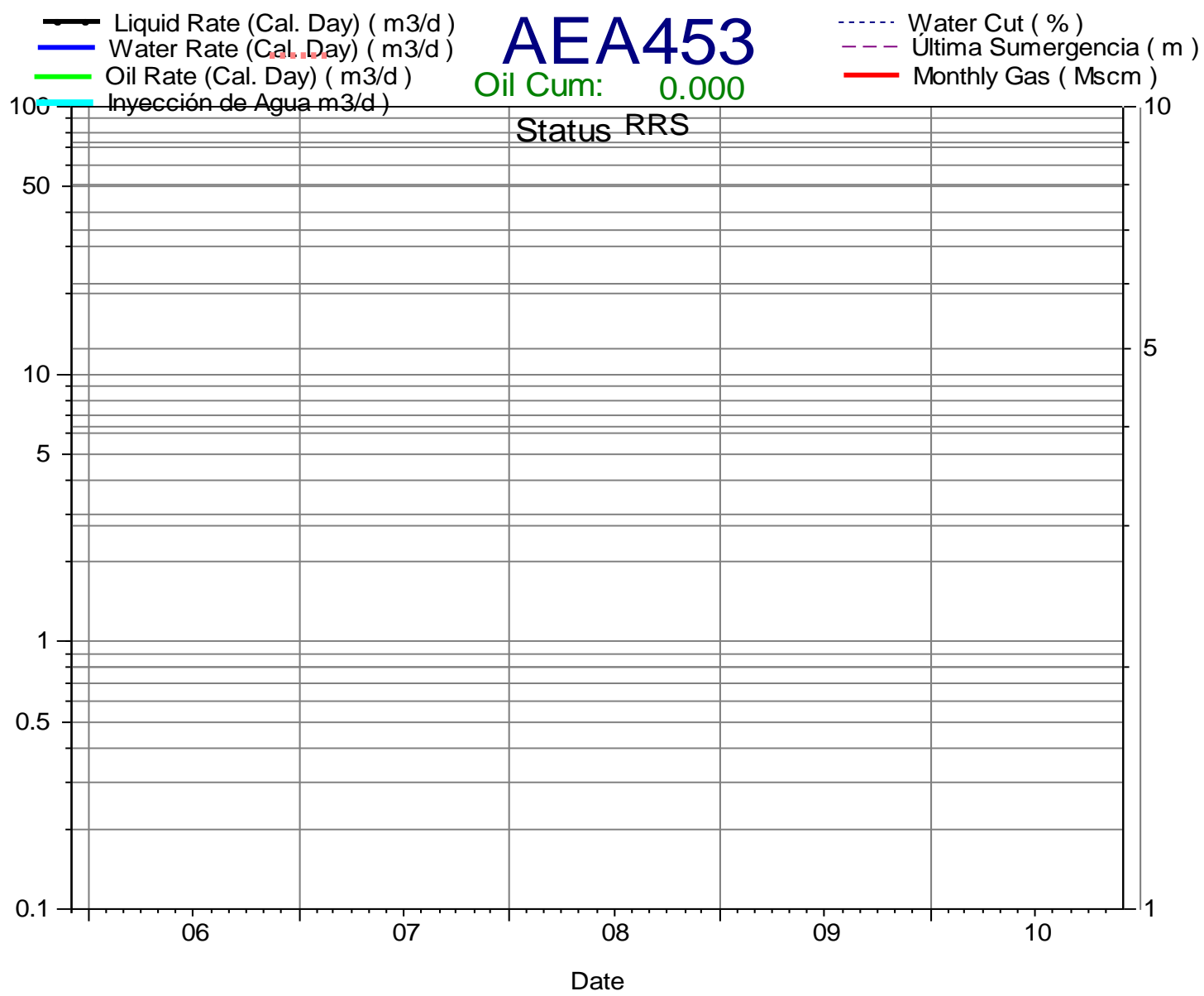
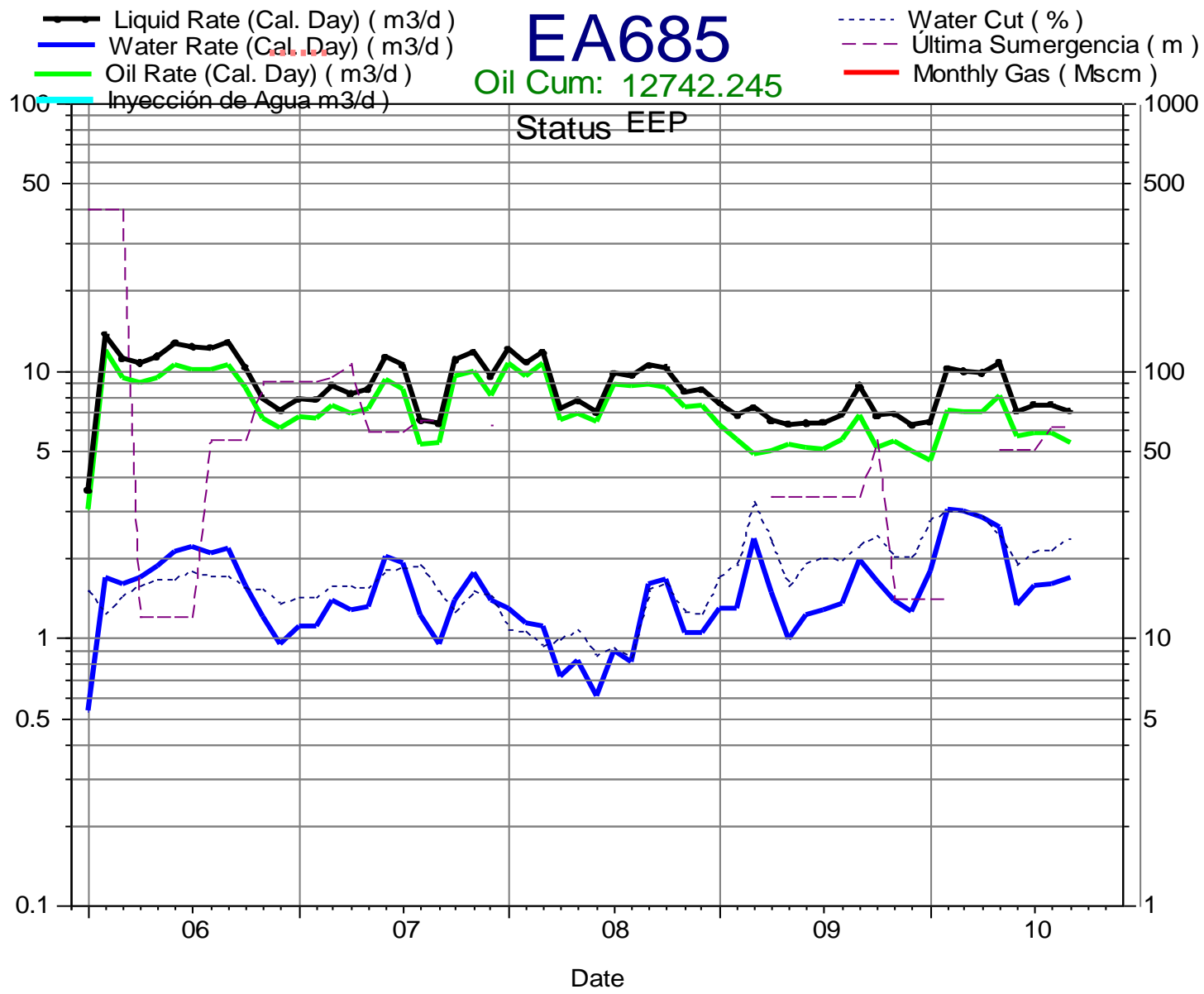


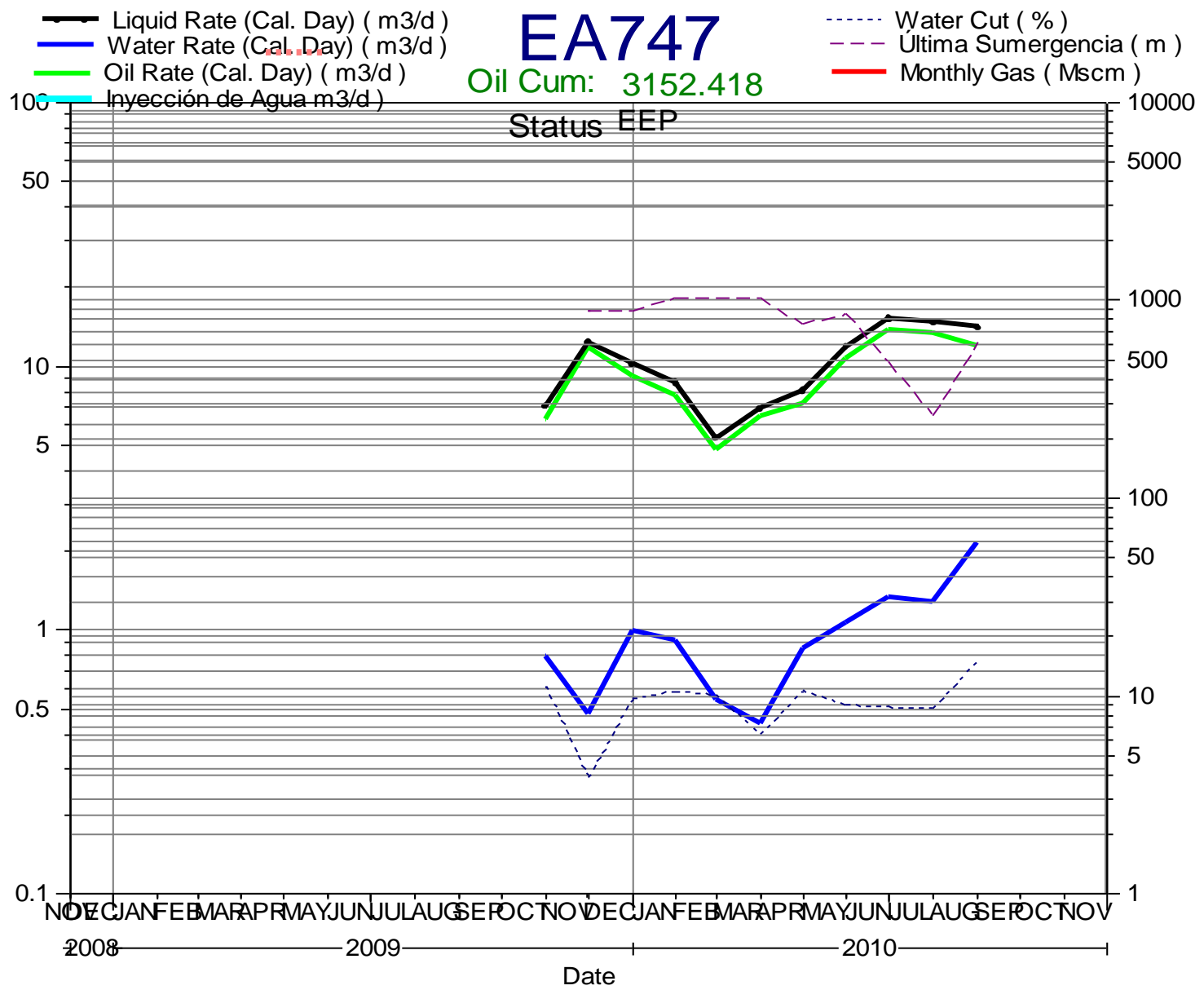
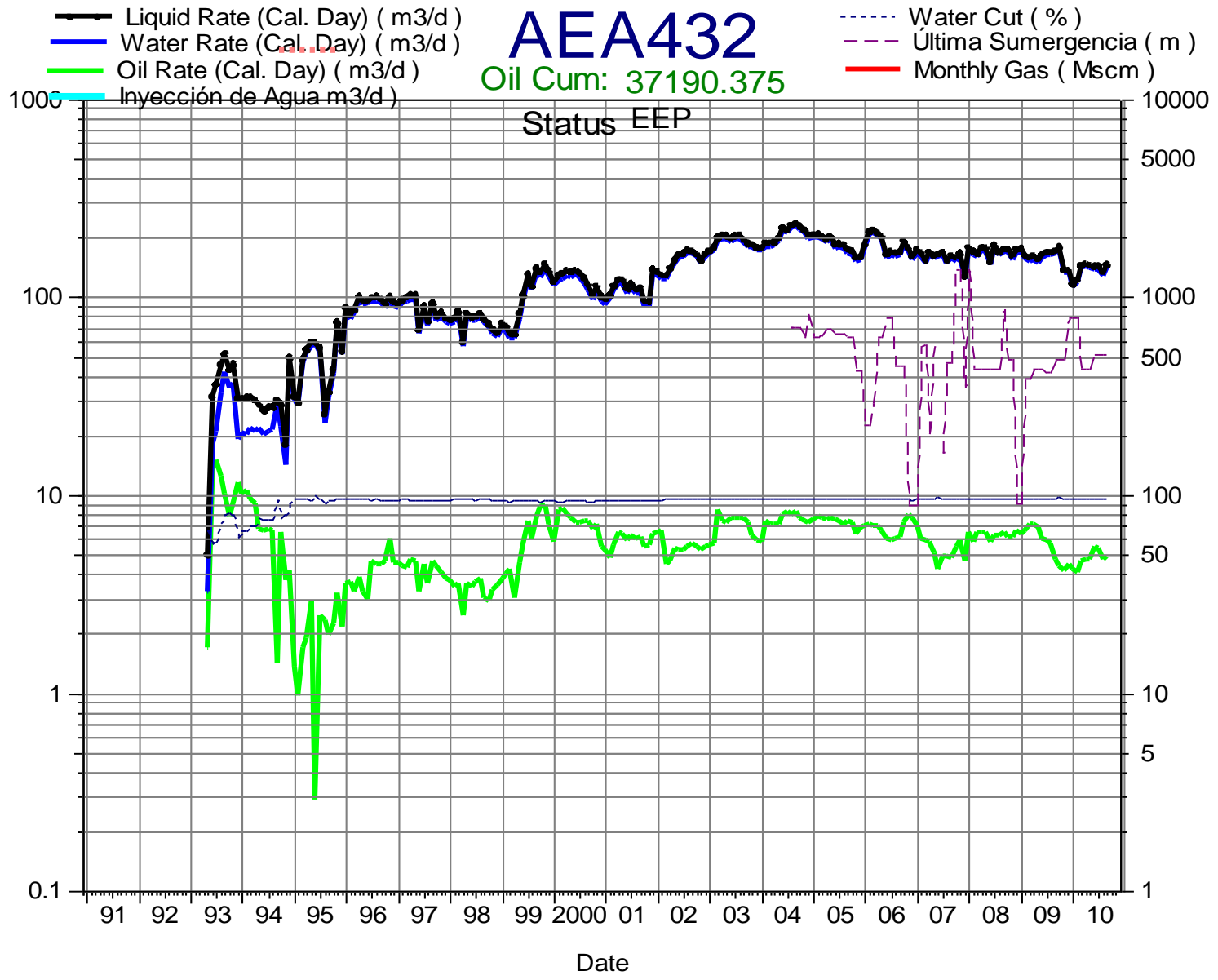
Corte sísmico S-N

Yac Manantiales Behr





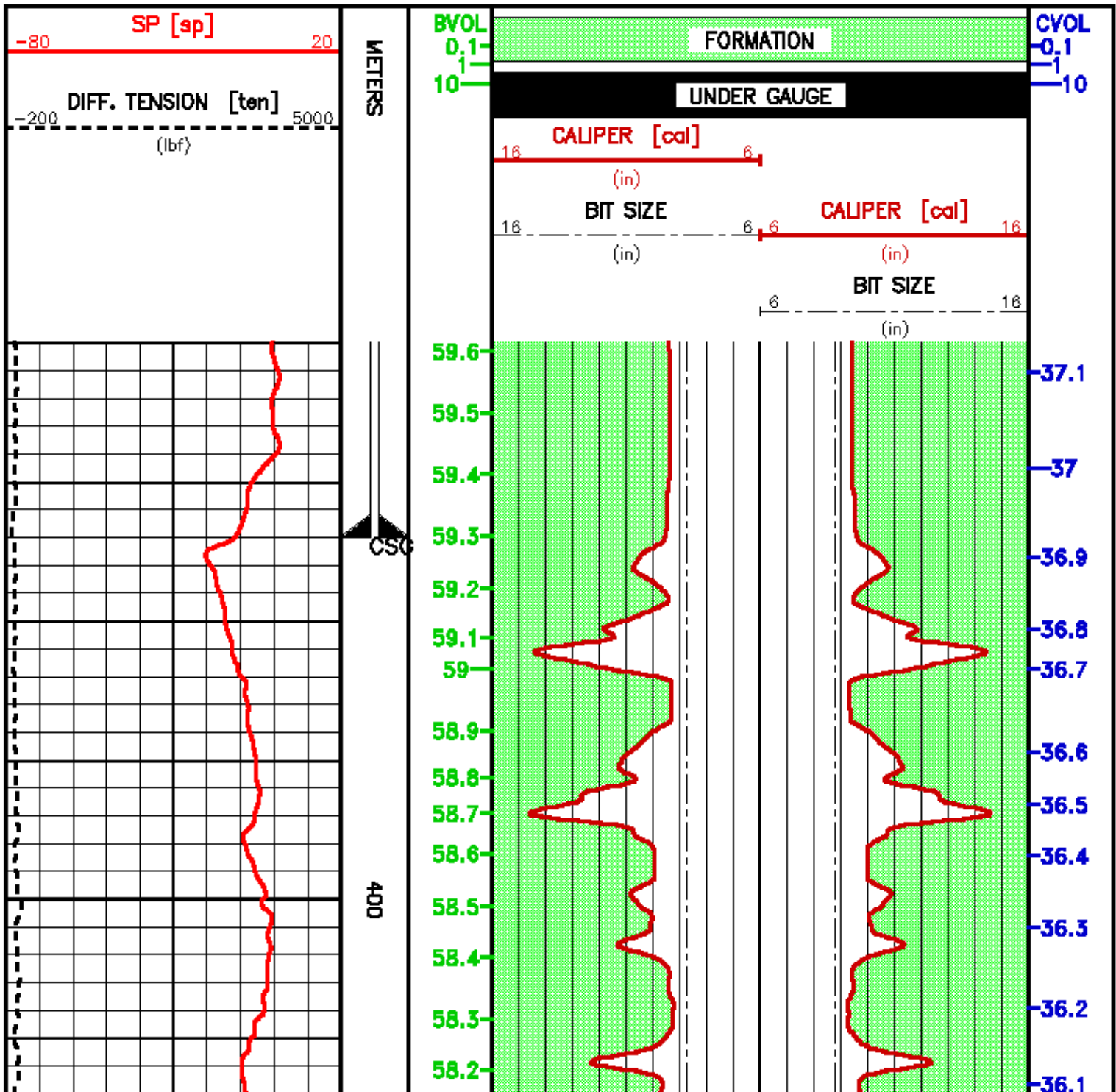


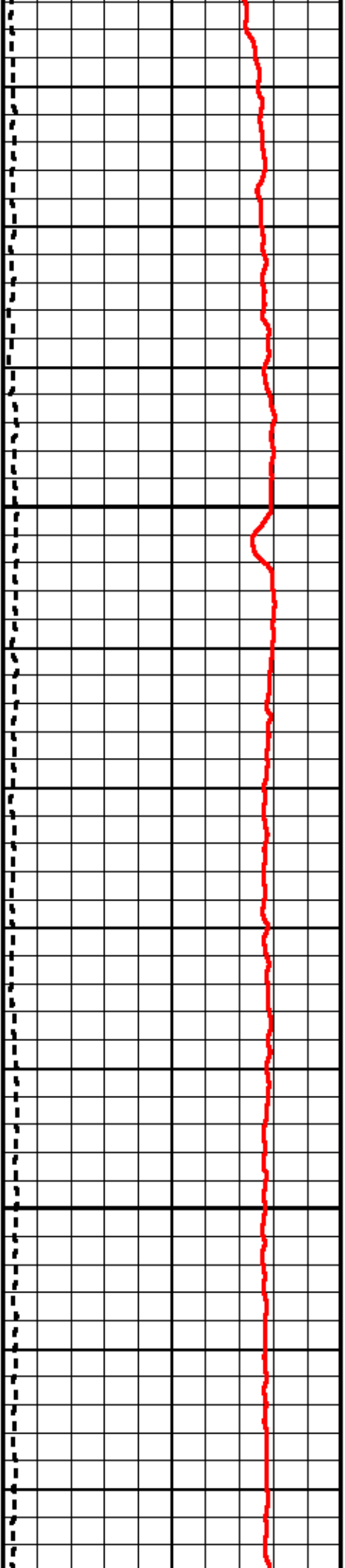


CALIPER

Presentation : HL5708:/dat1a/ea779/cal.pdf [1:200 Scale]
 Plot Interval : 380.000 - 1861.11 Meters

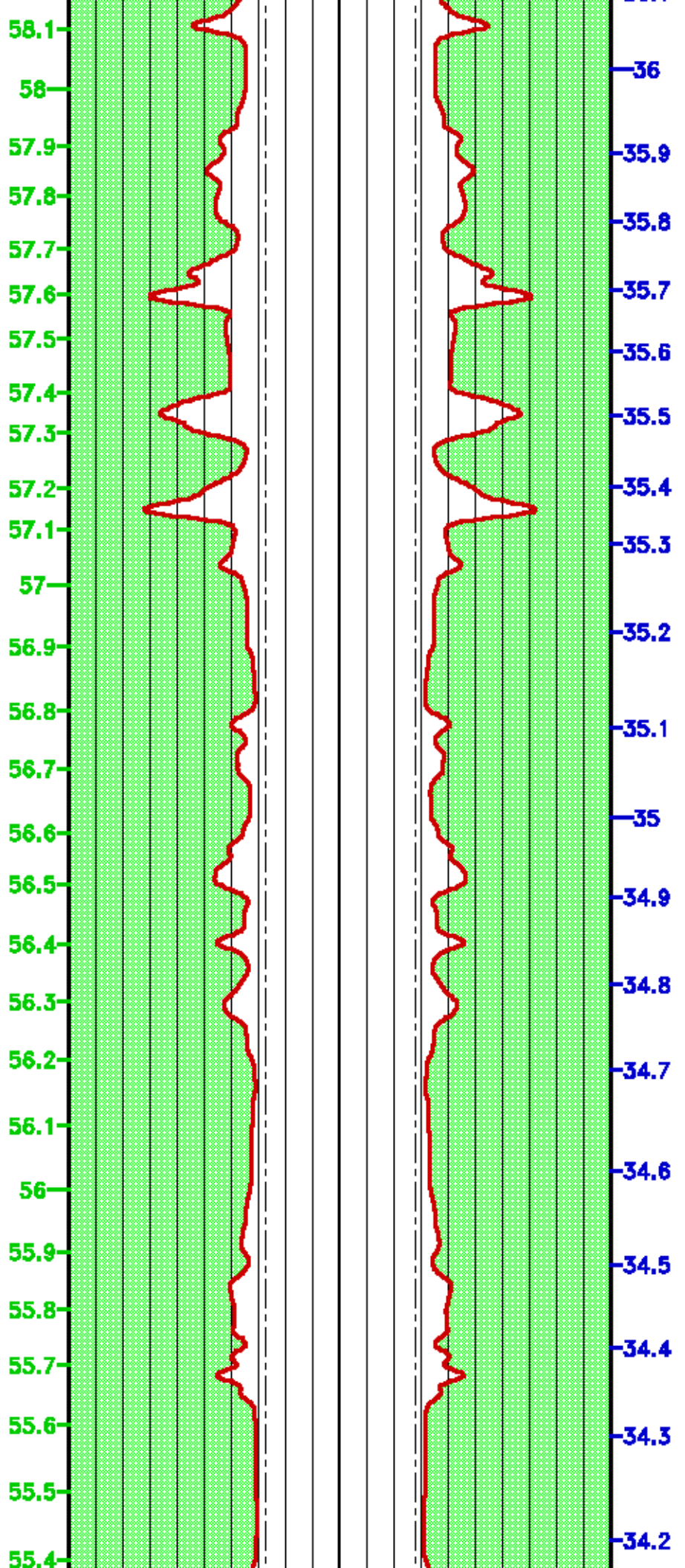
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 Created On : Oct 8 16:05:05 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 380.000 - 1861.11 Meters
 Out : k970a

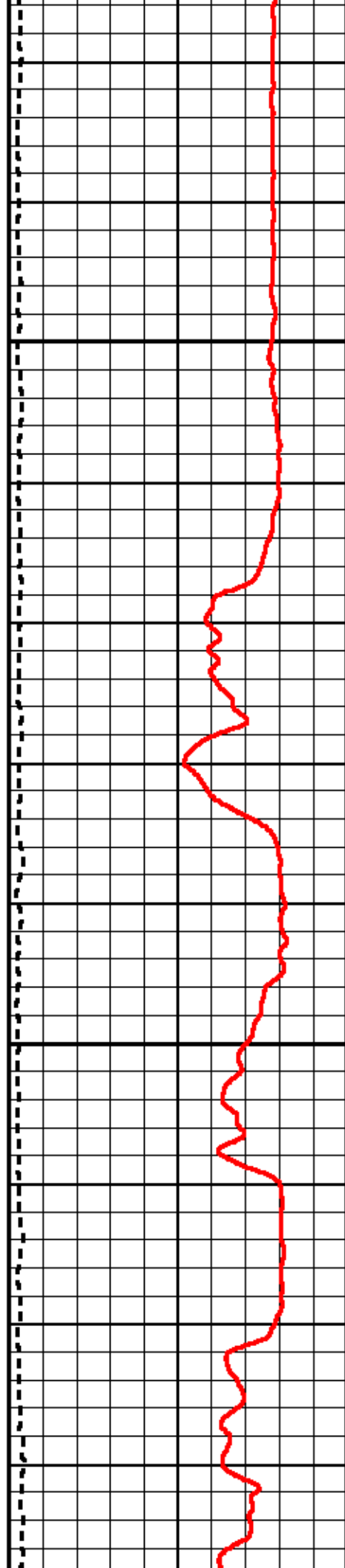




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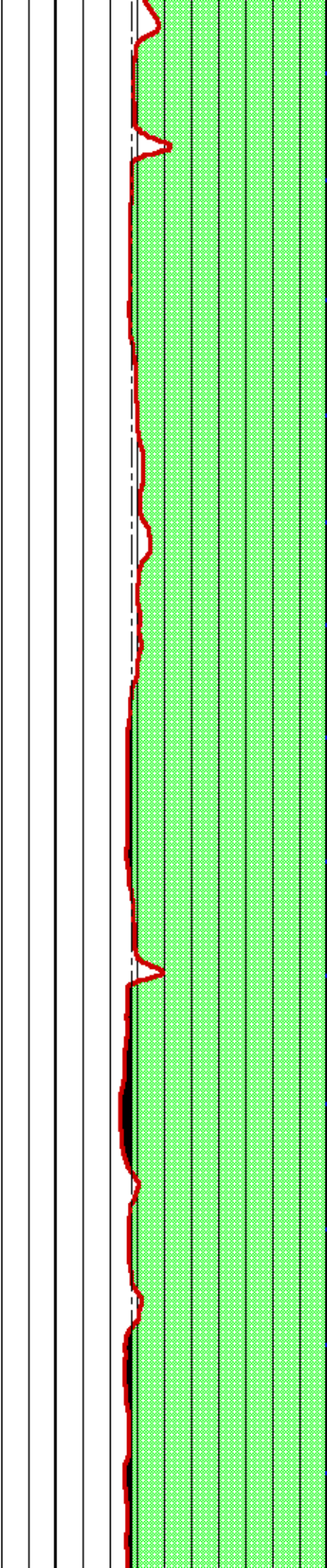
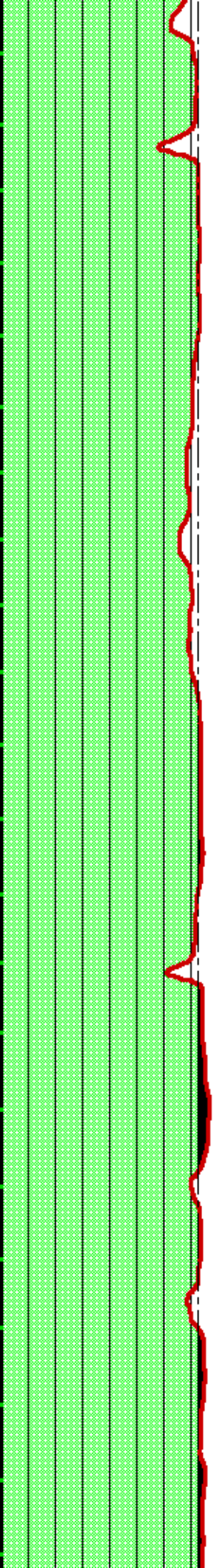
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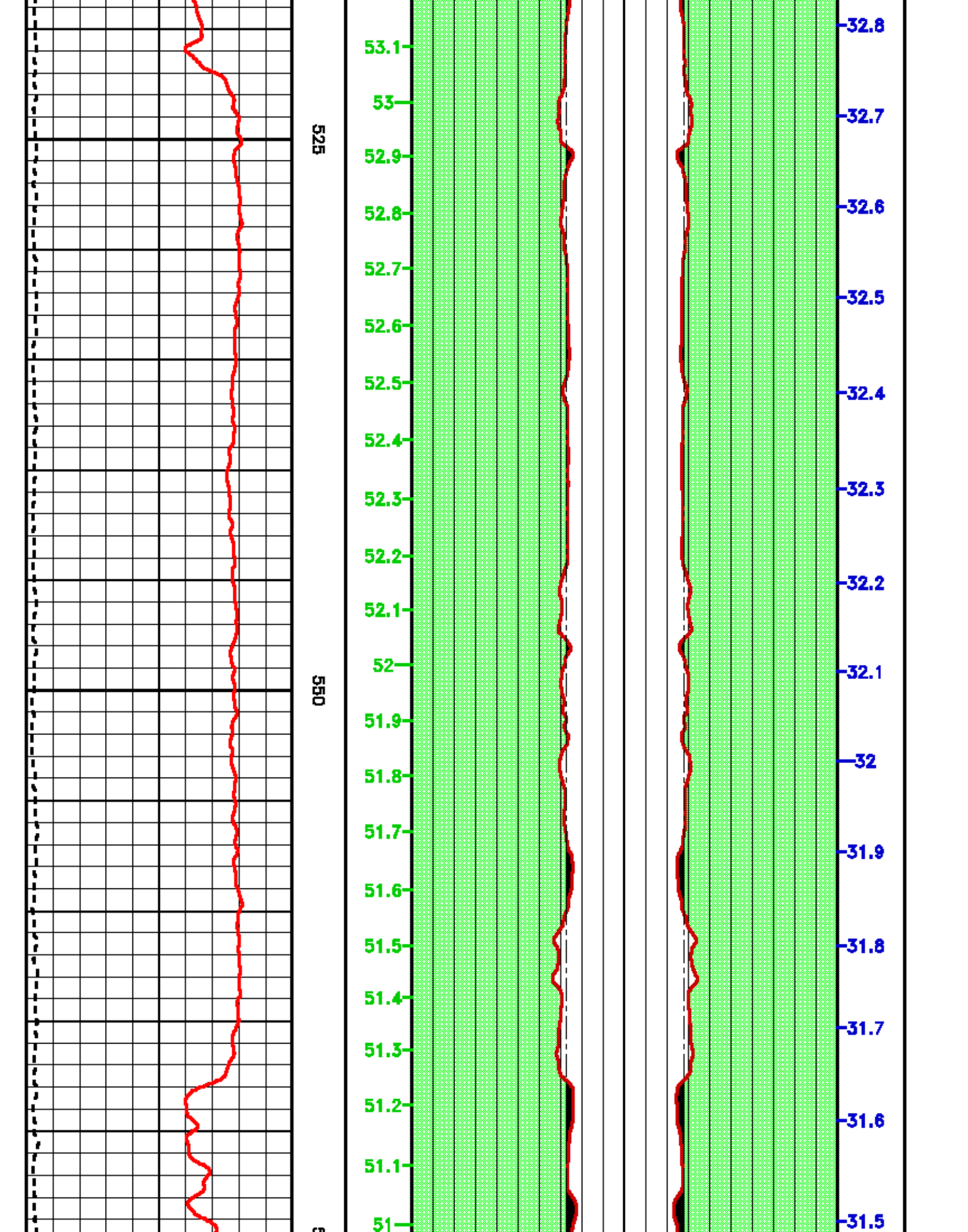


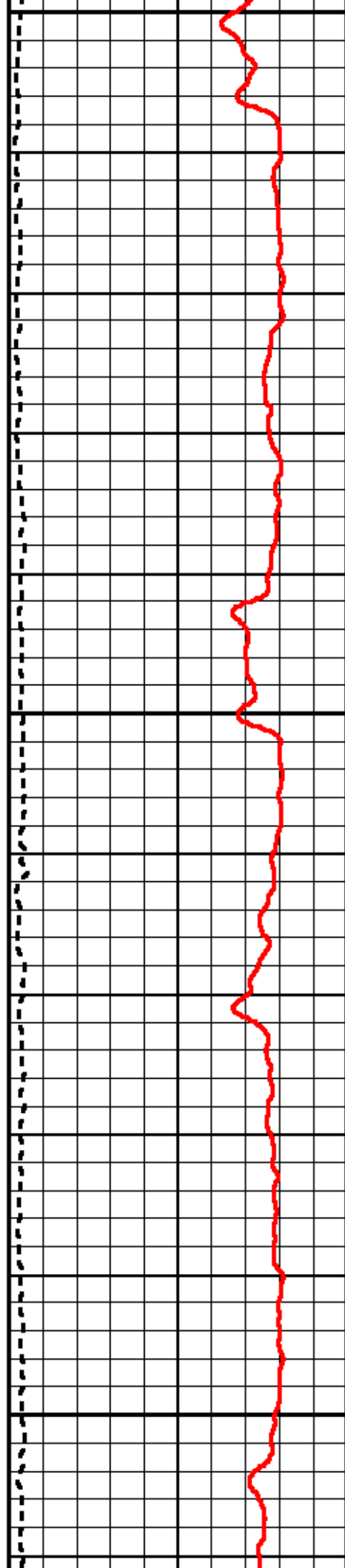


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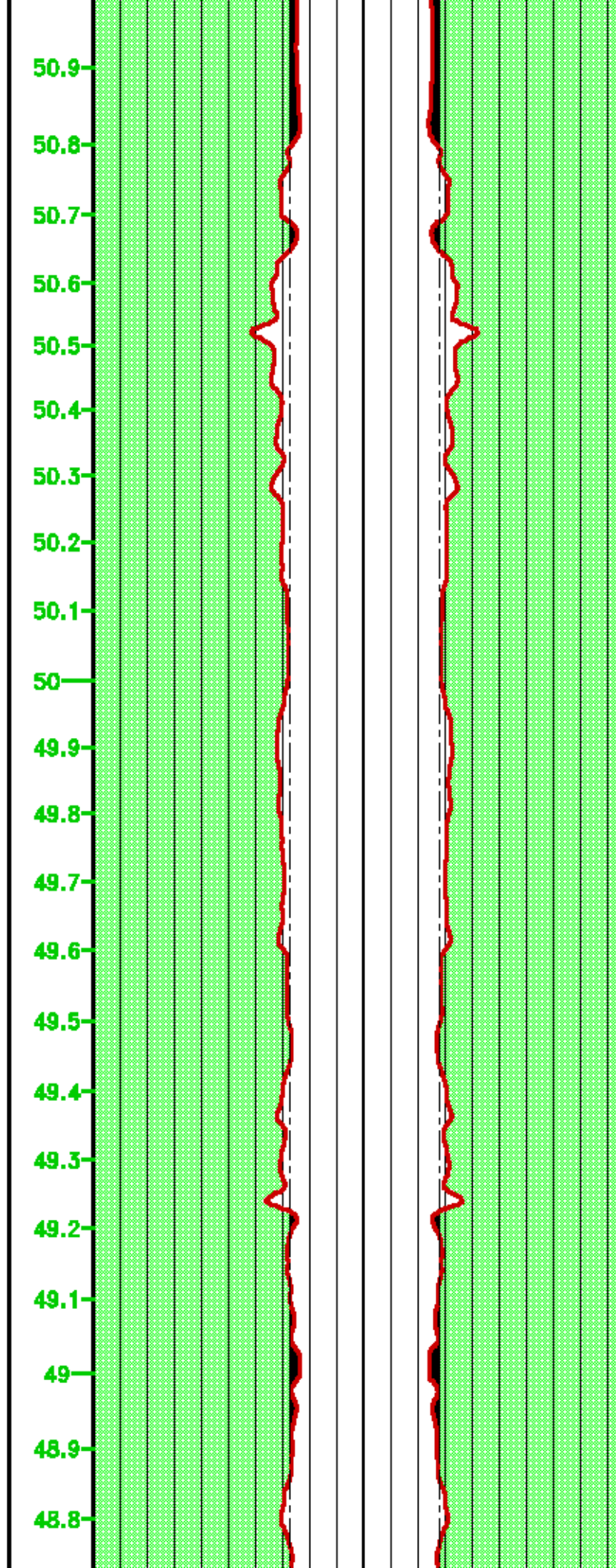
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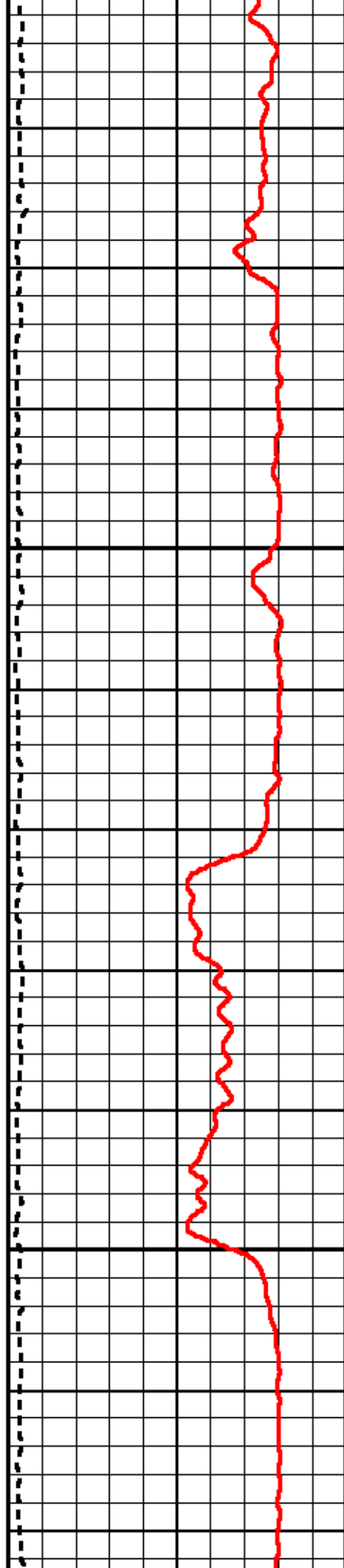
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625

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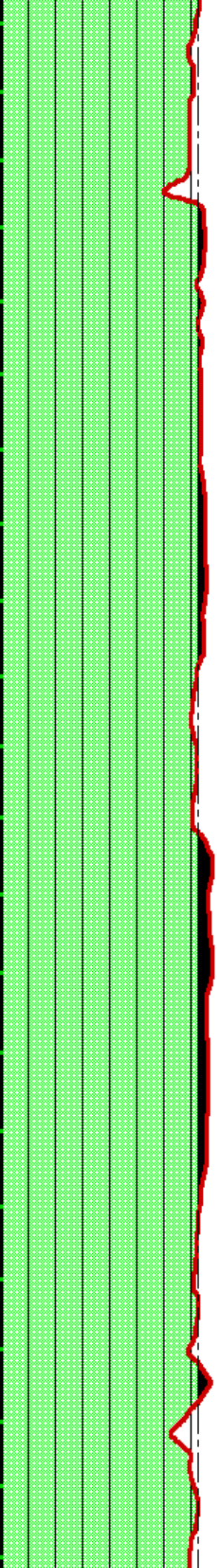




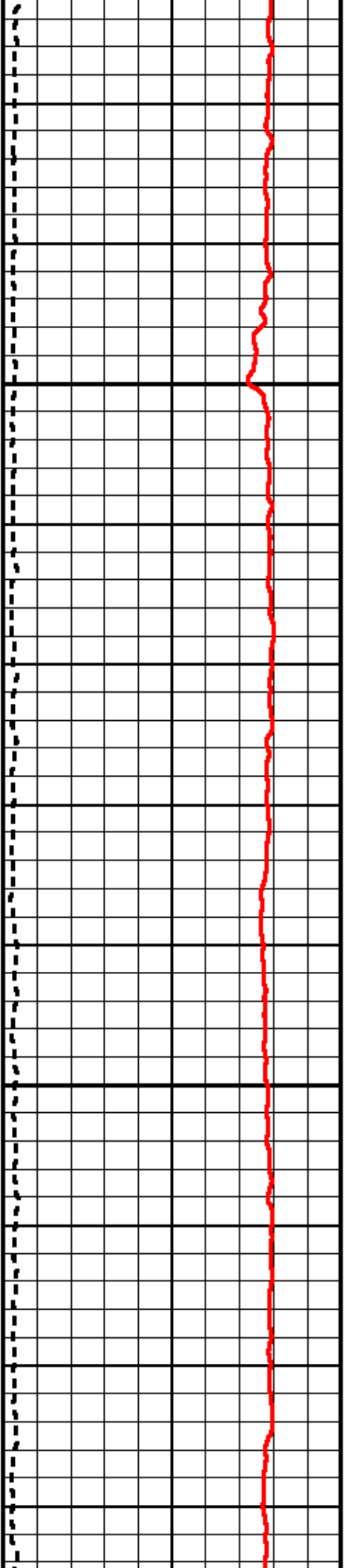
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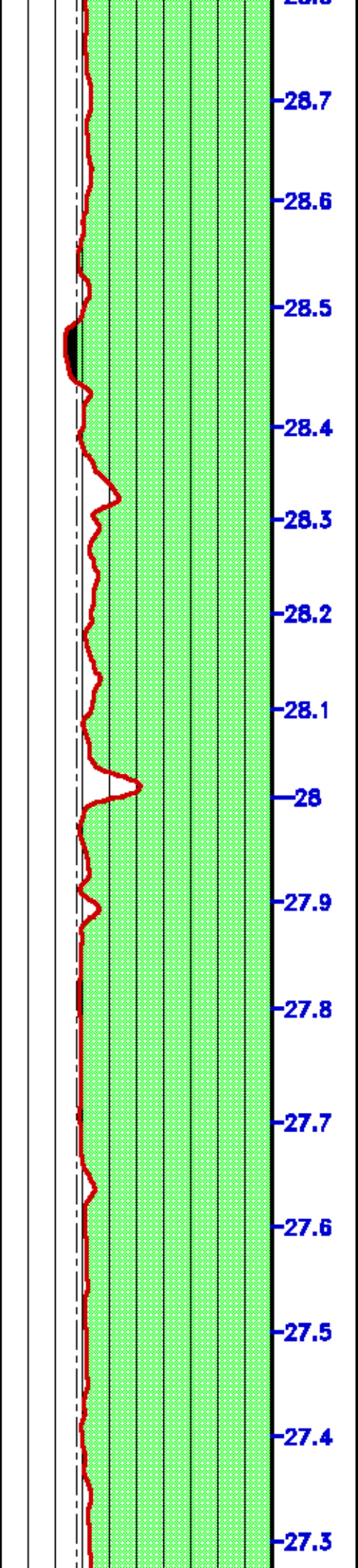
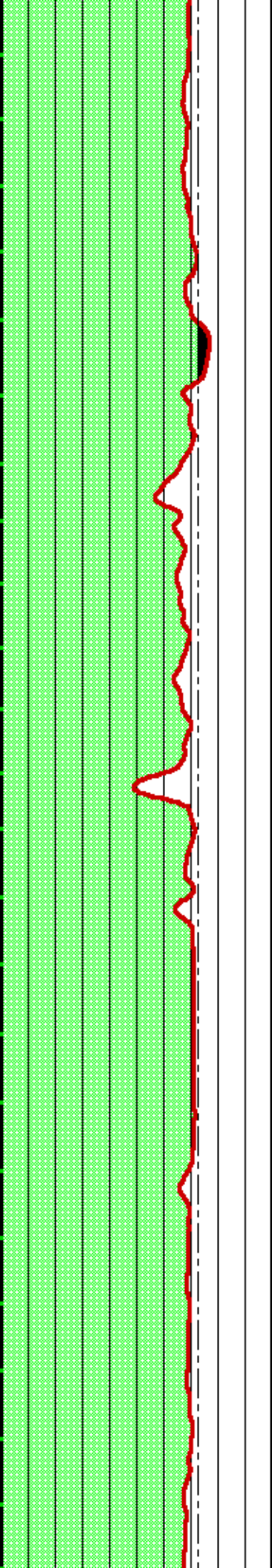


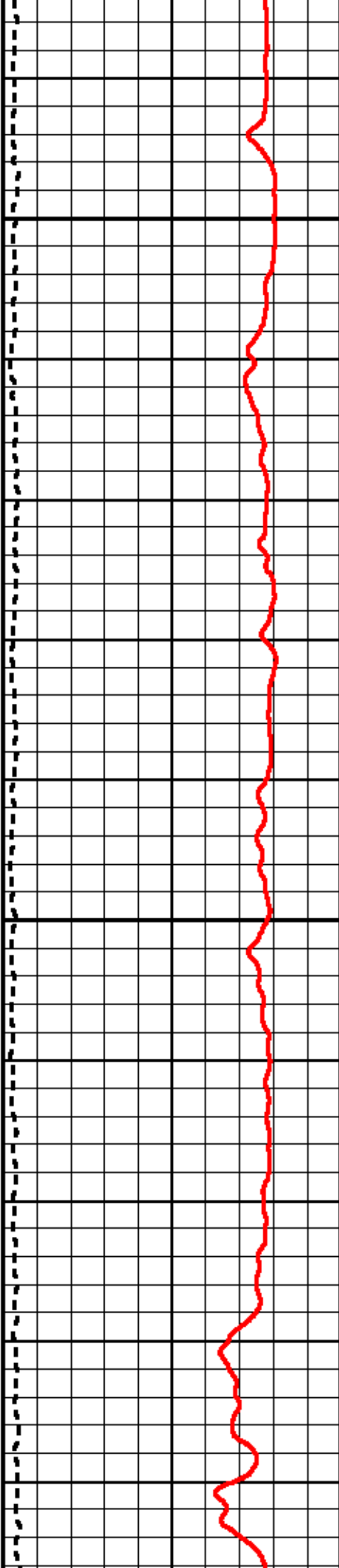
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700

725

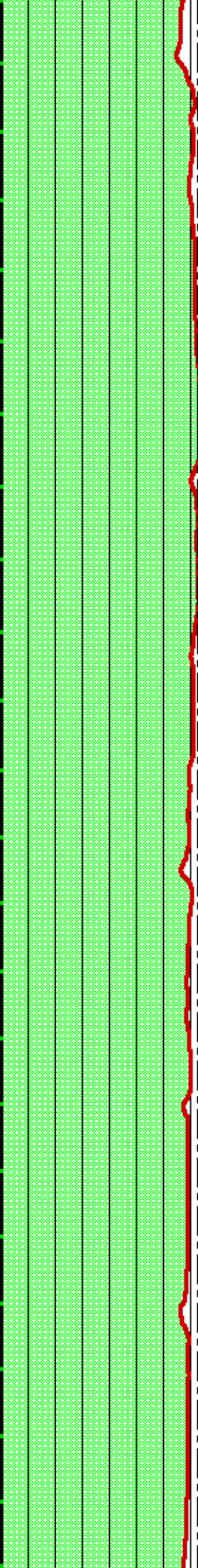




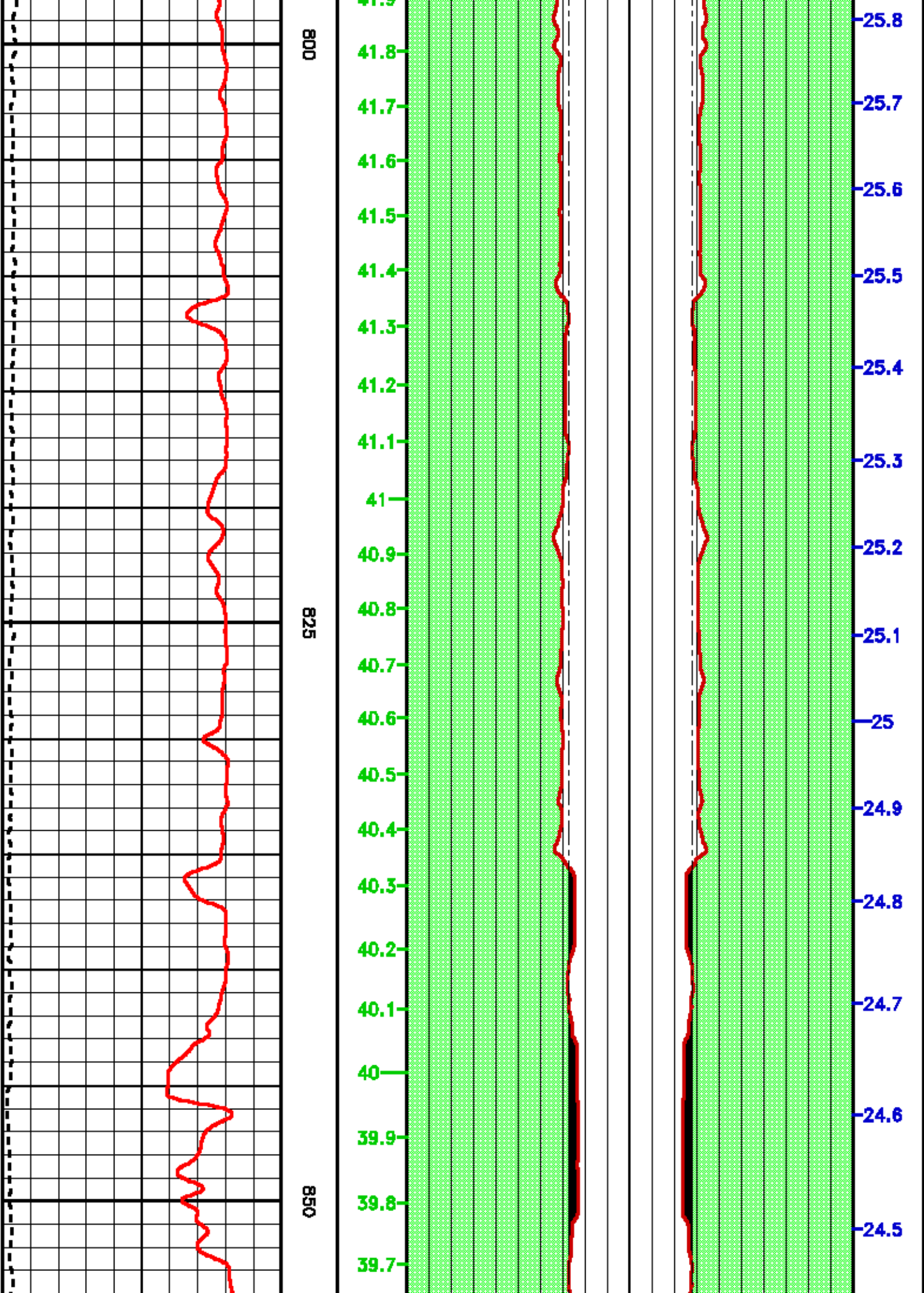
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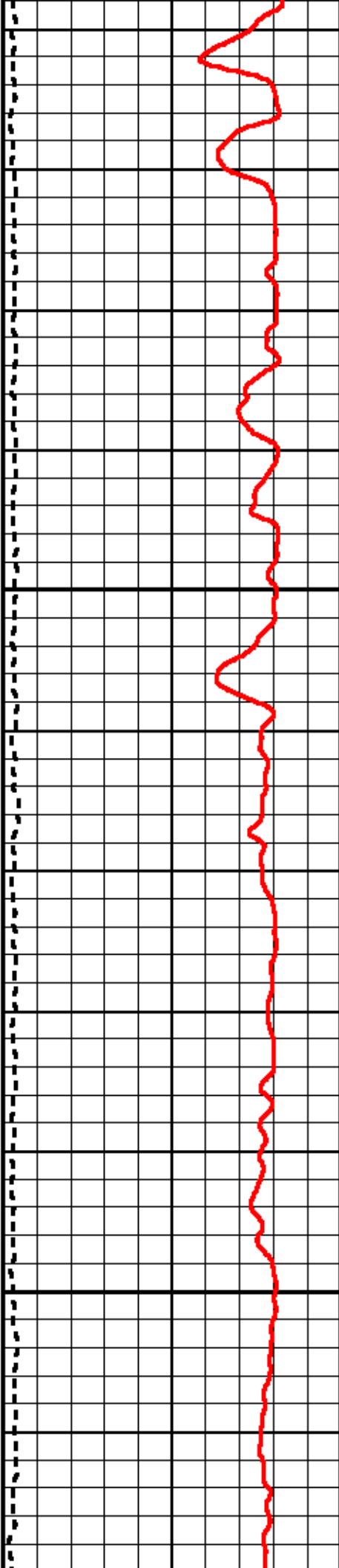
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41.9



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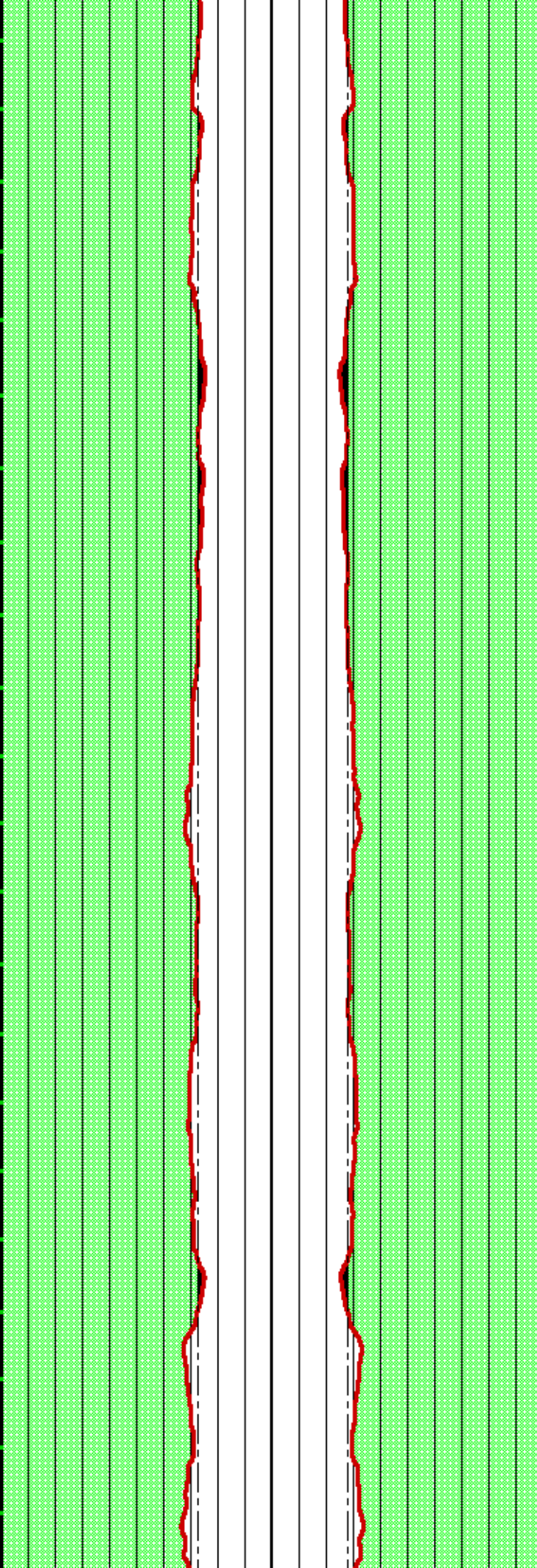


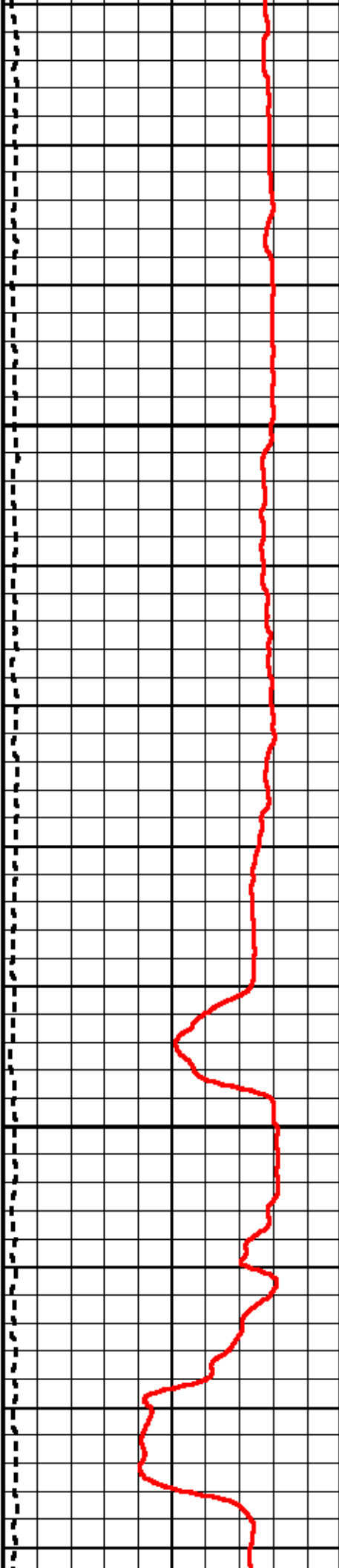
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006

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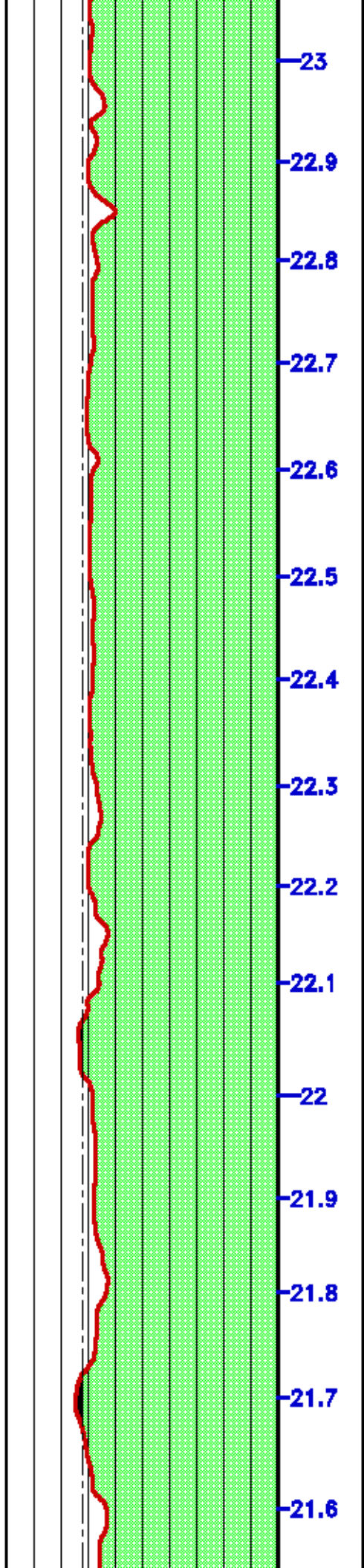
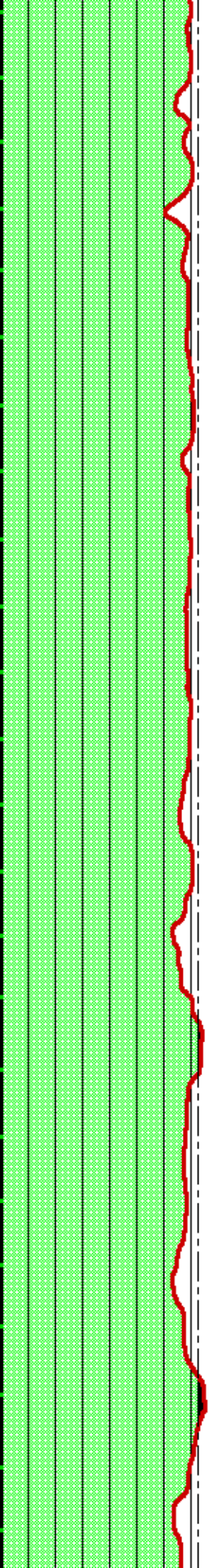
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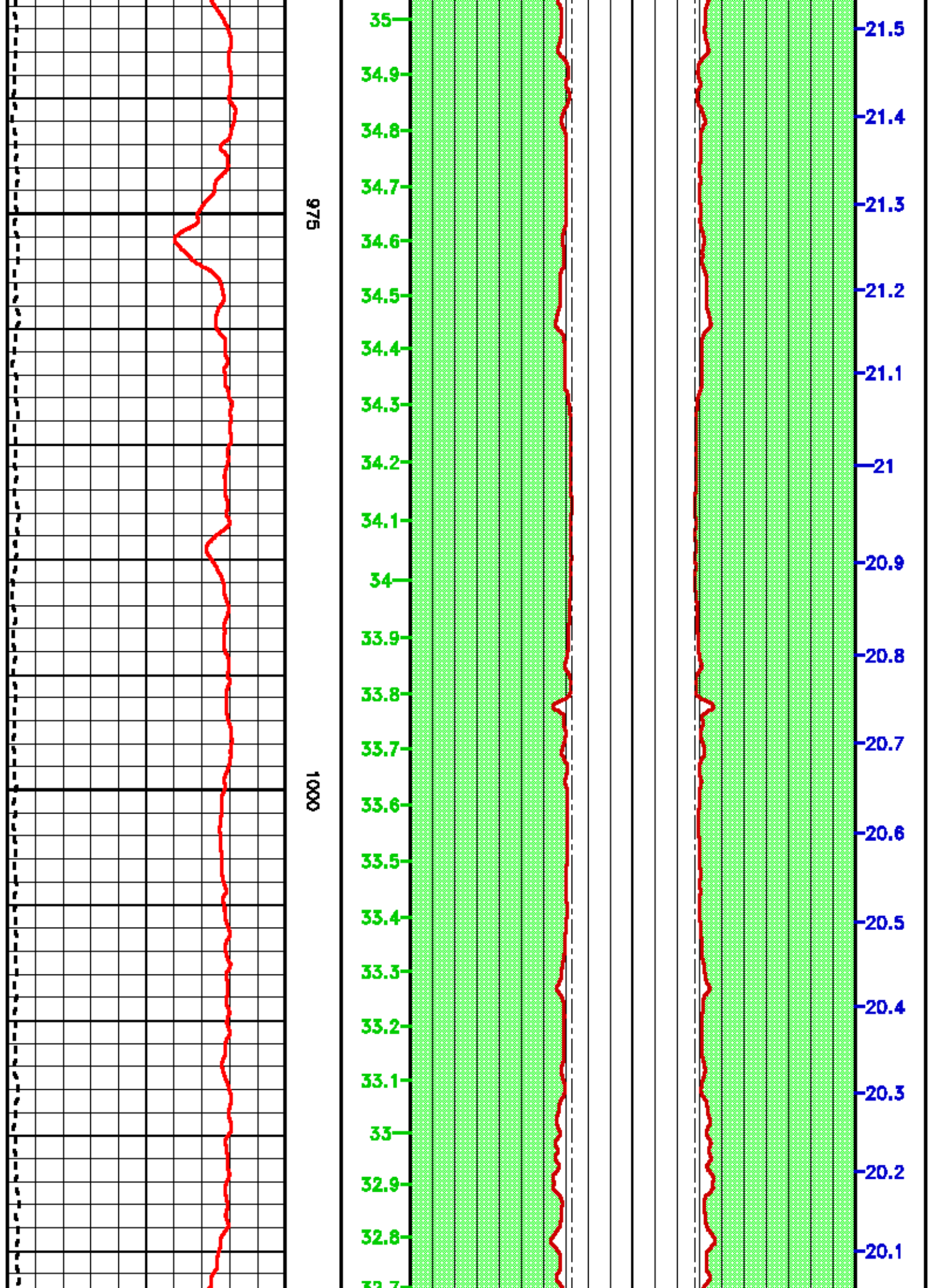


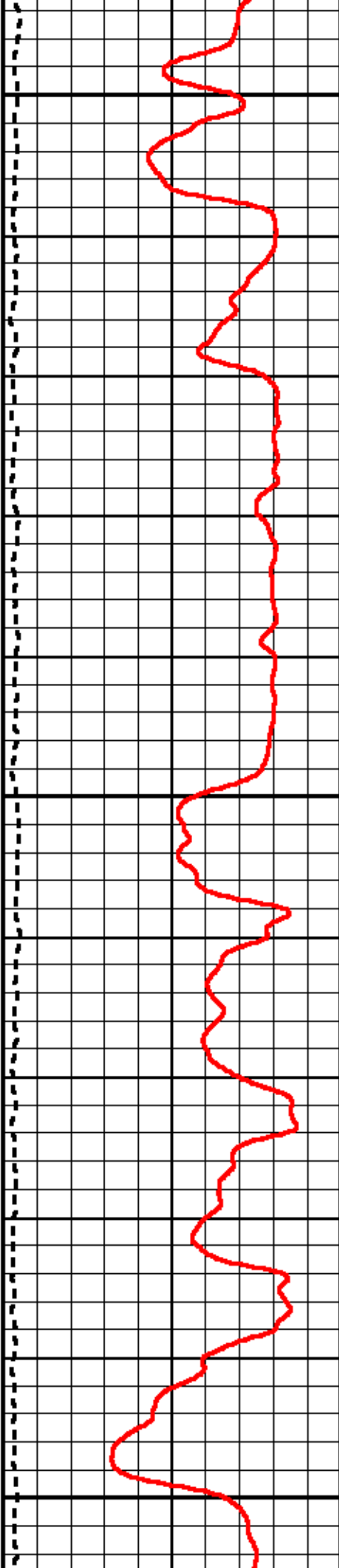


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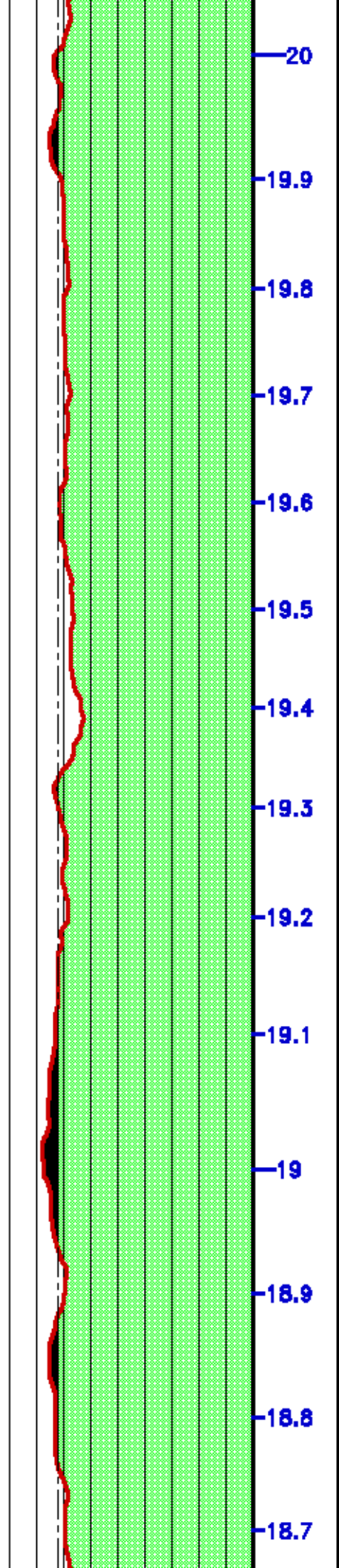
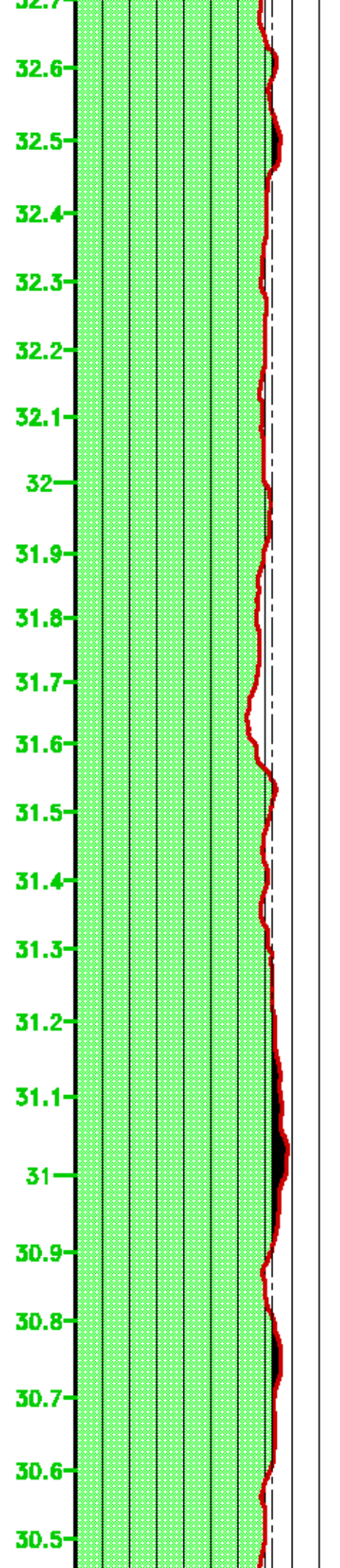


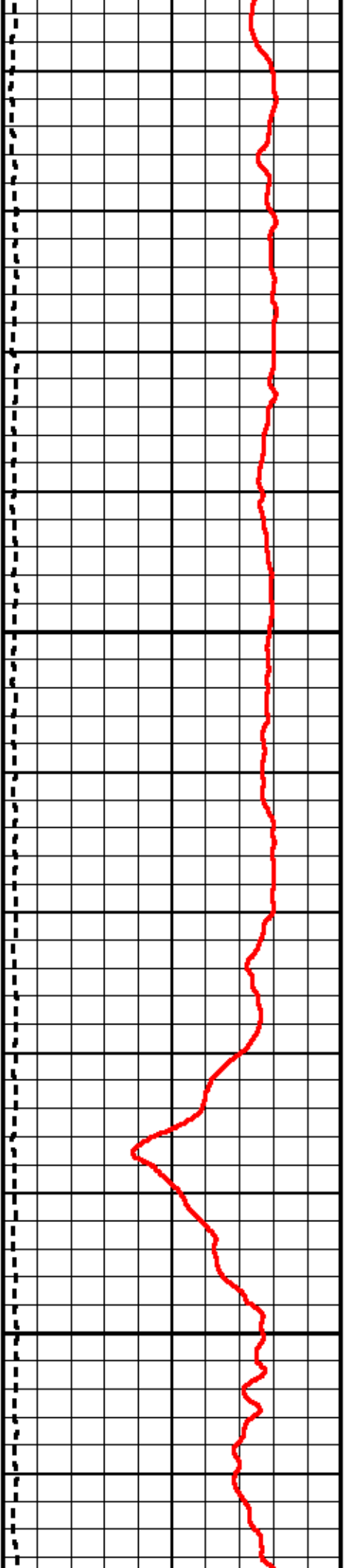


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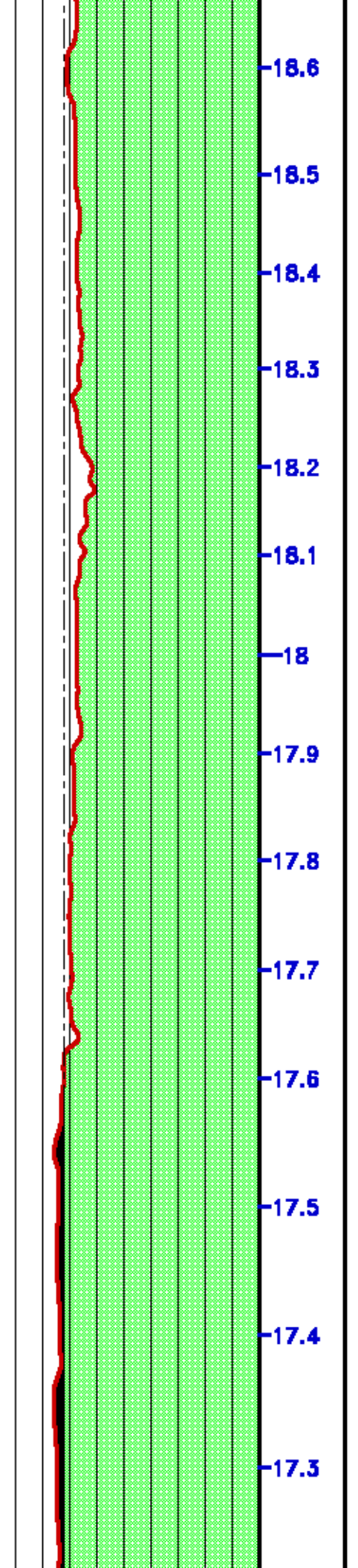
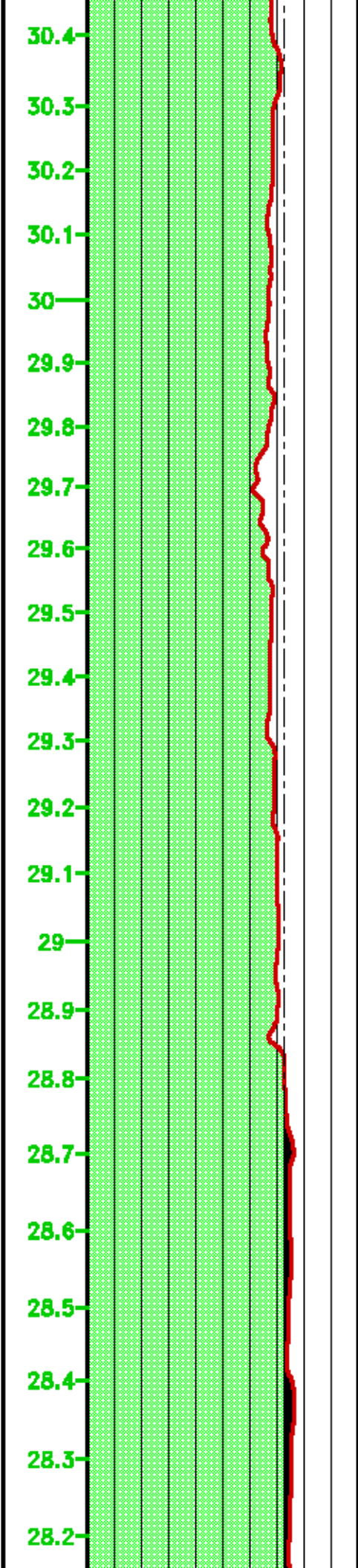
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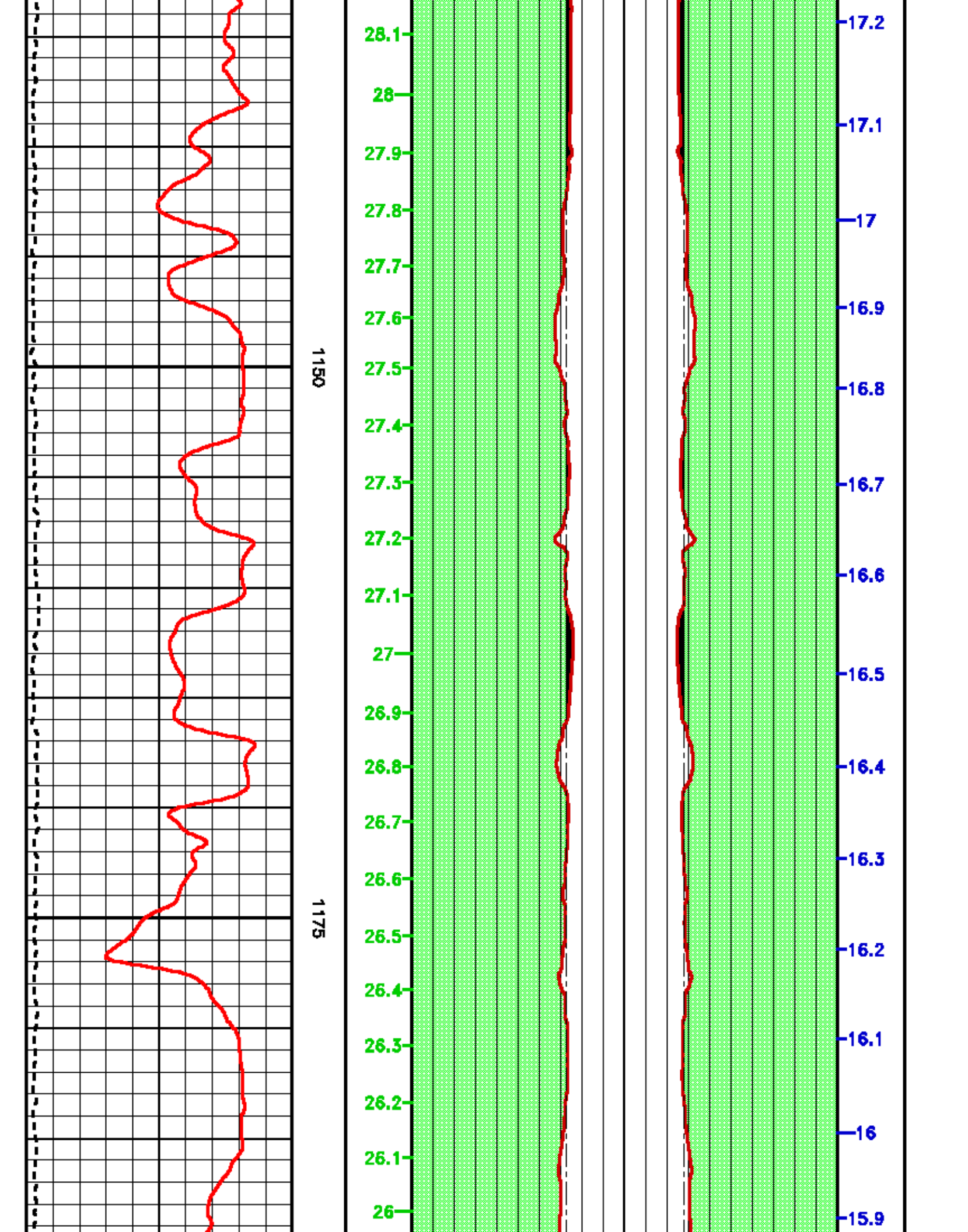


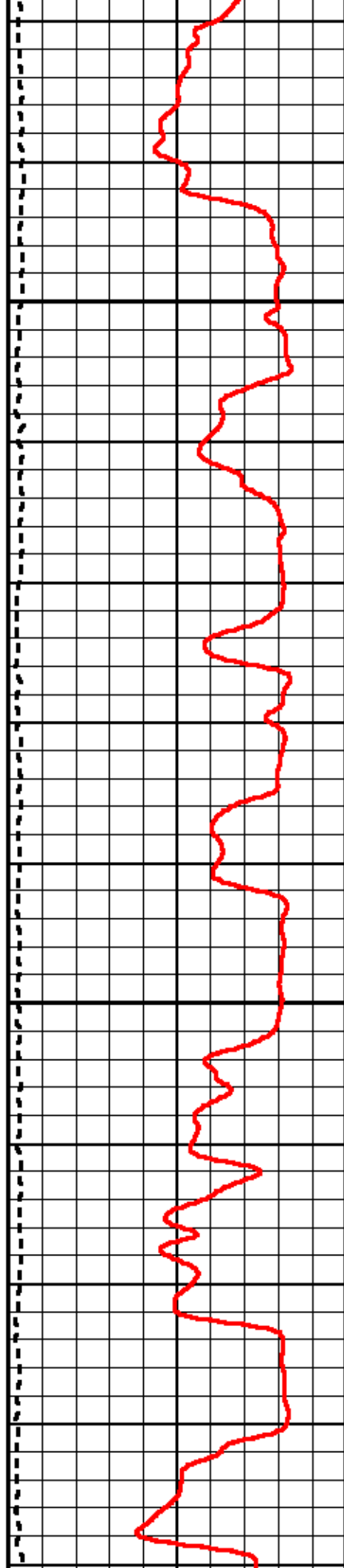


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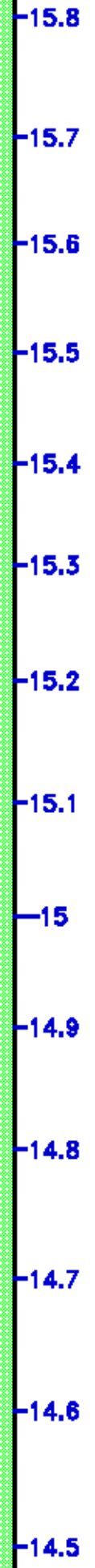


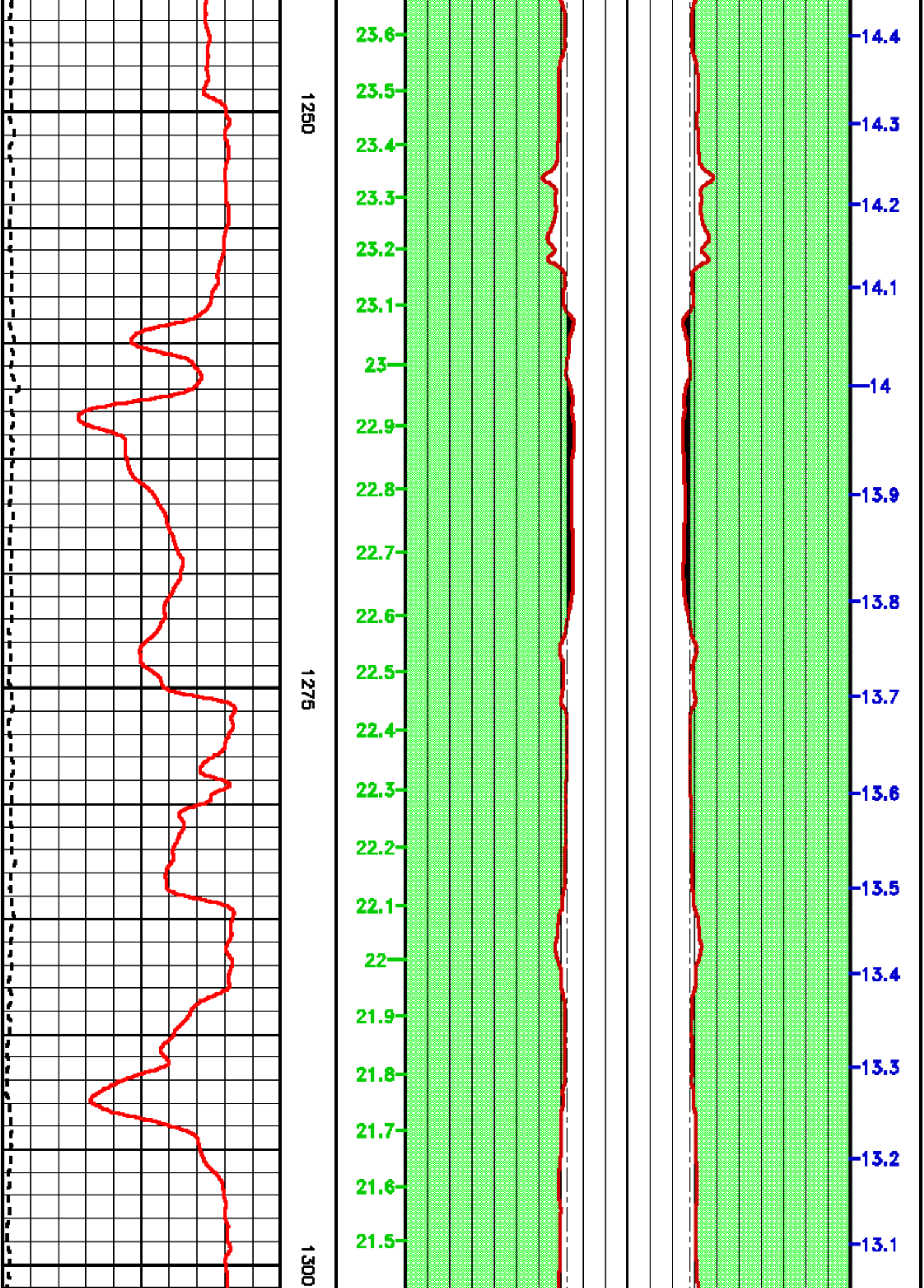


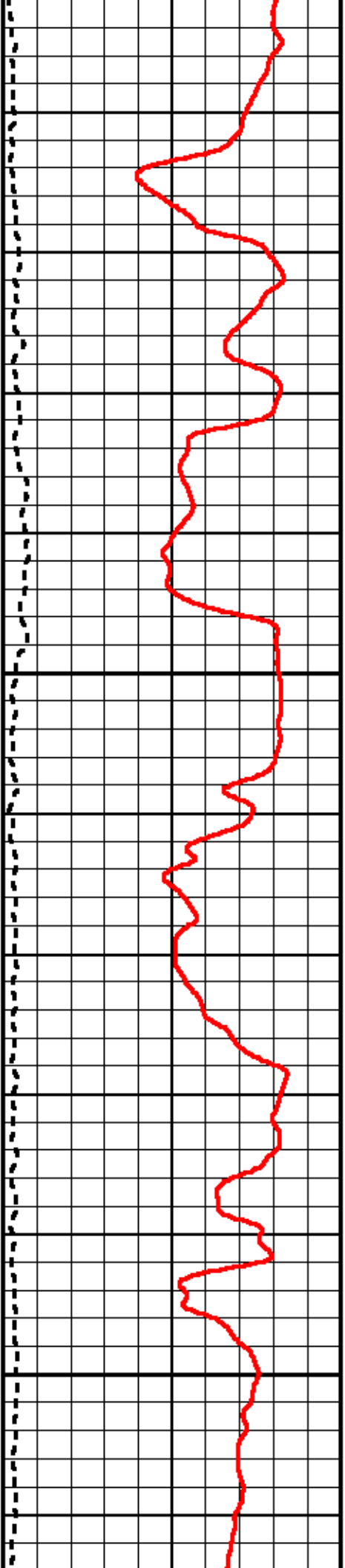


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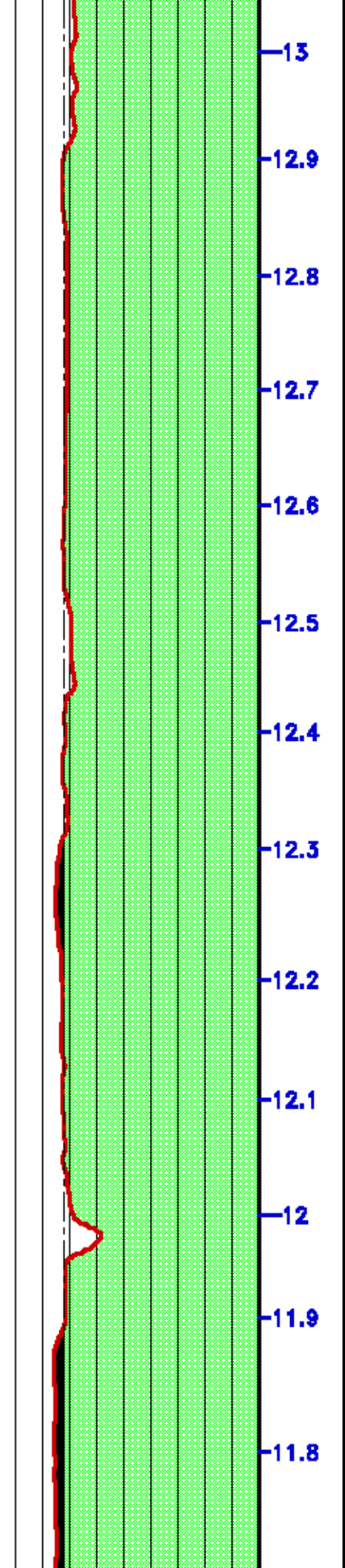
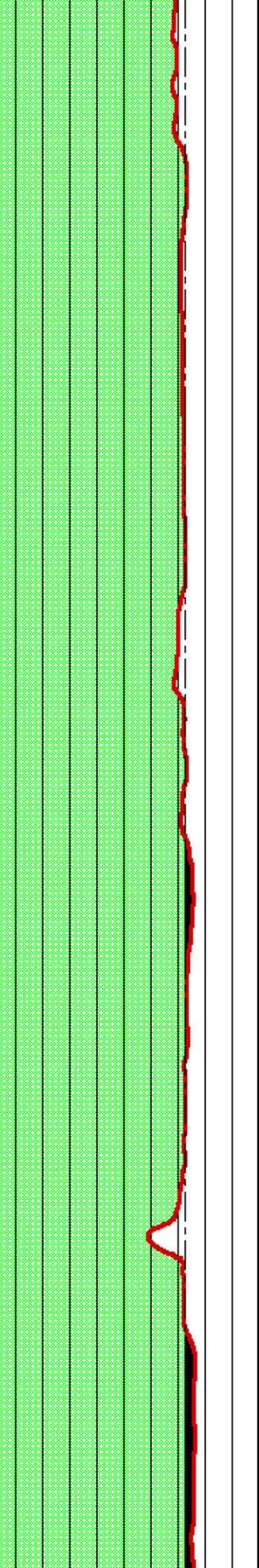




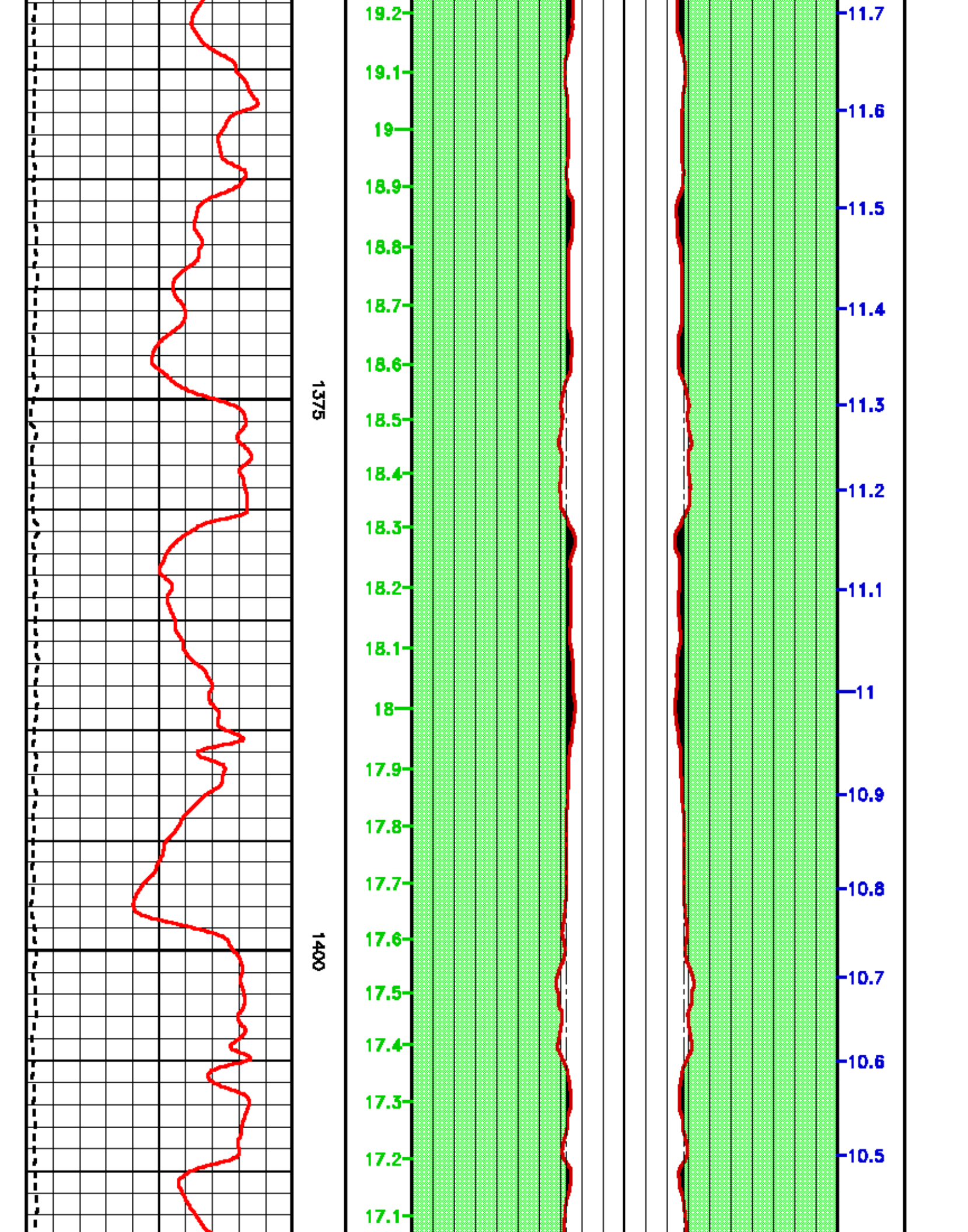
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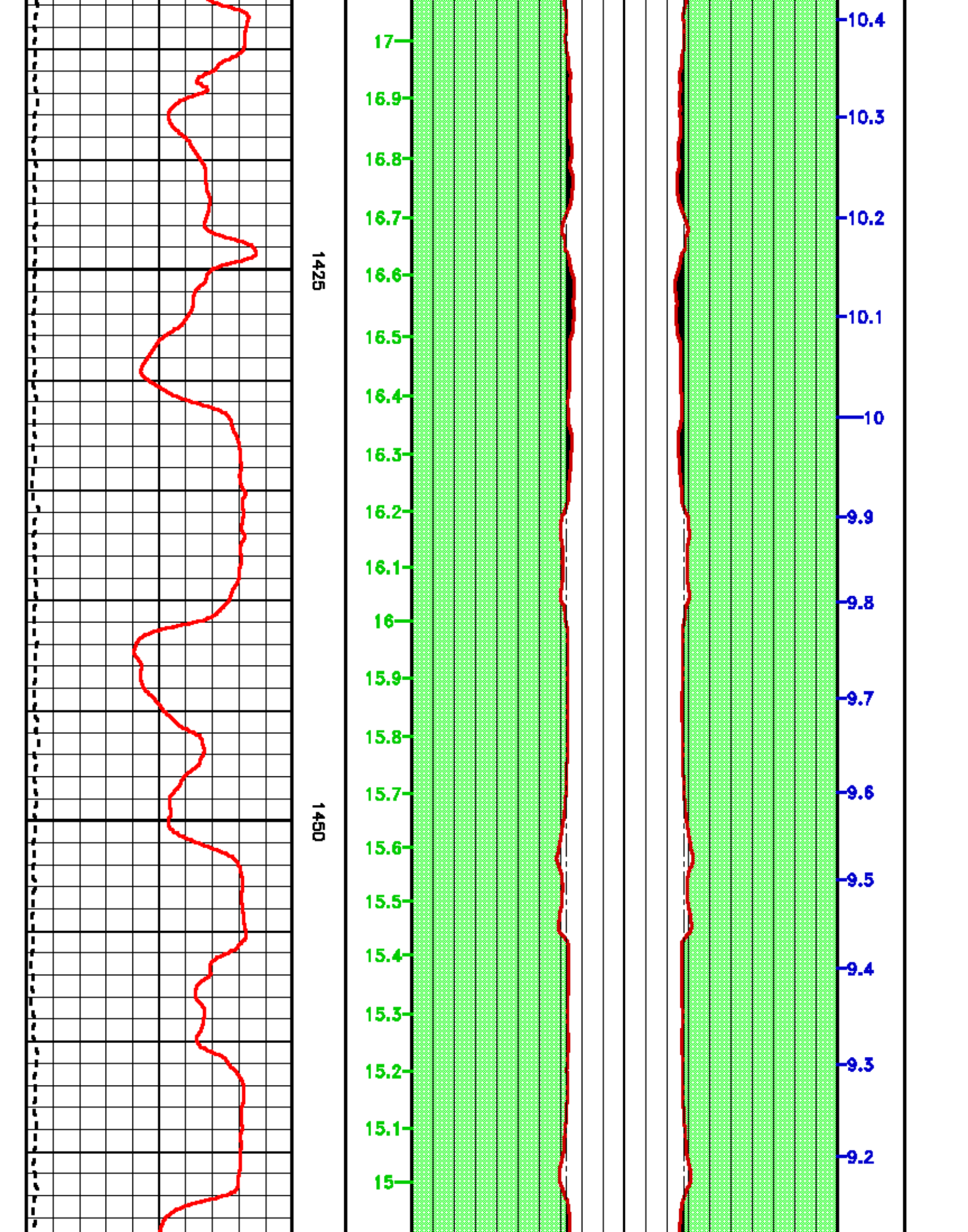
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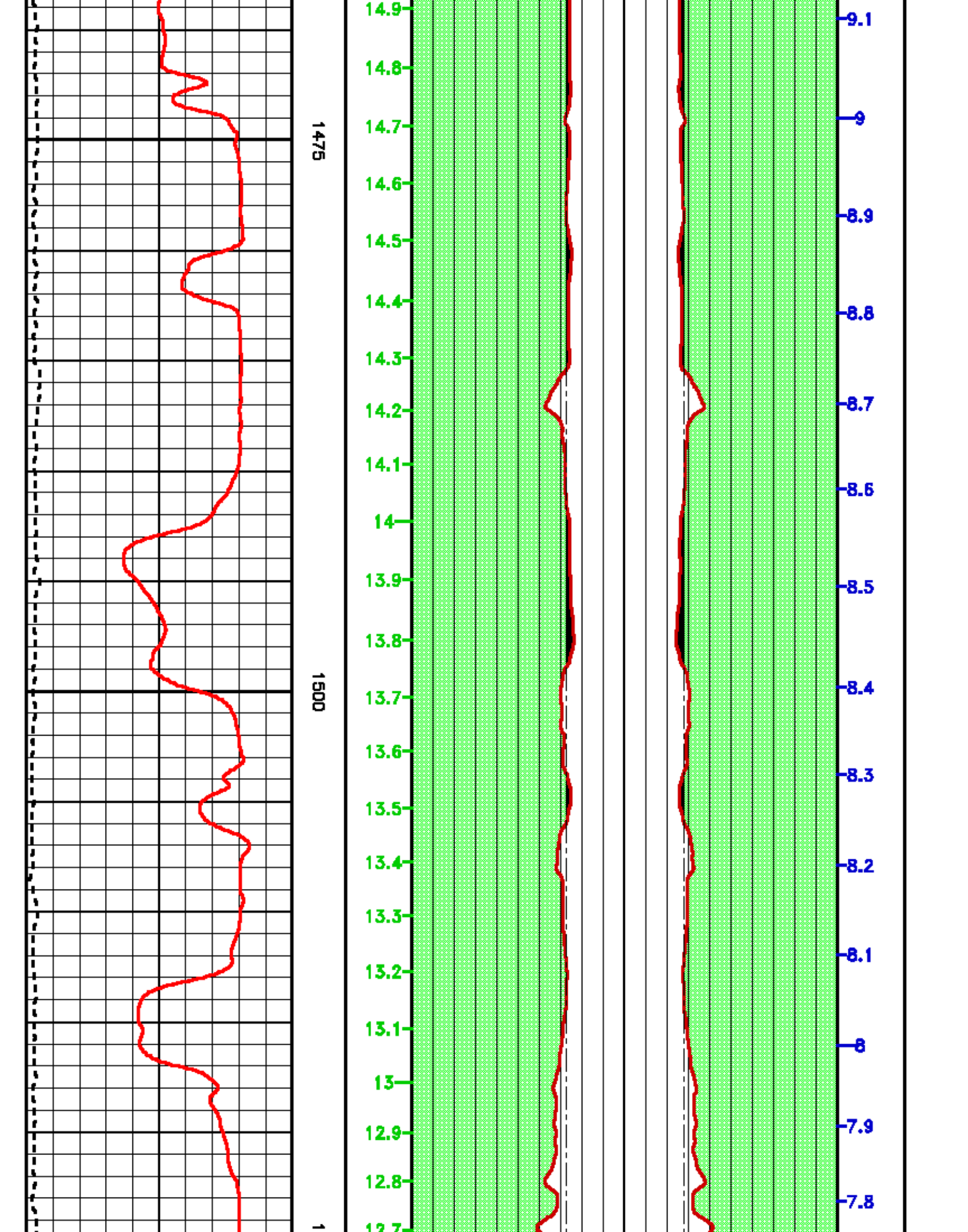
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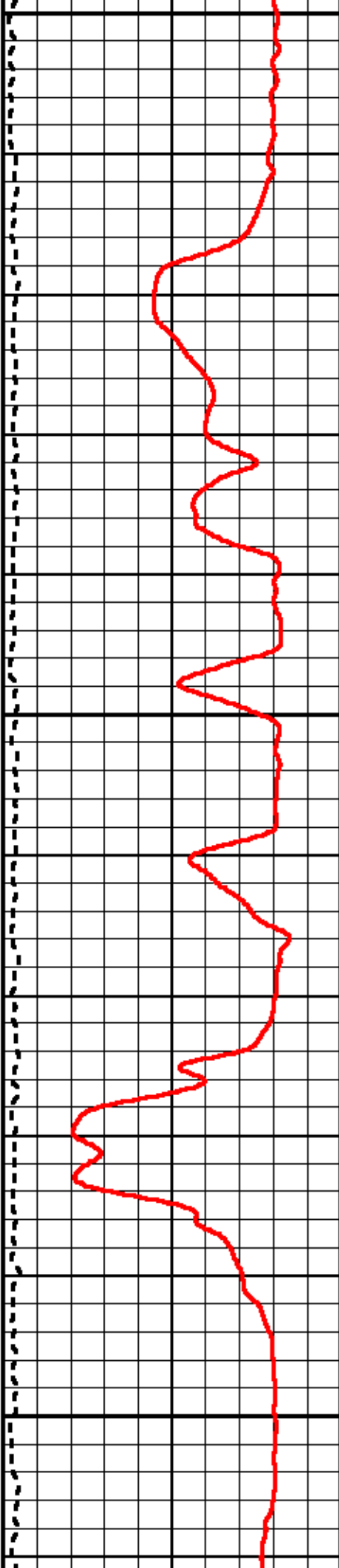


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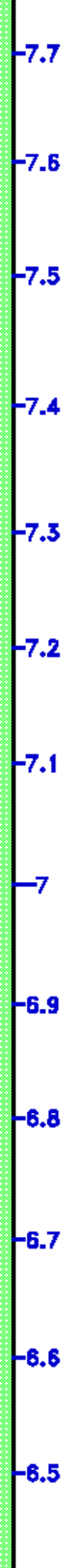


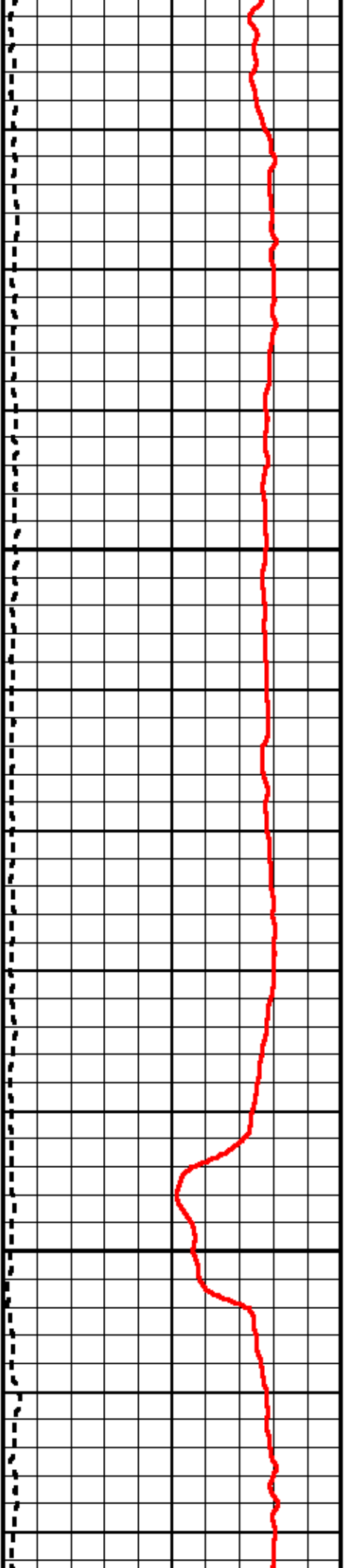


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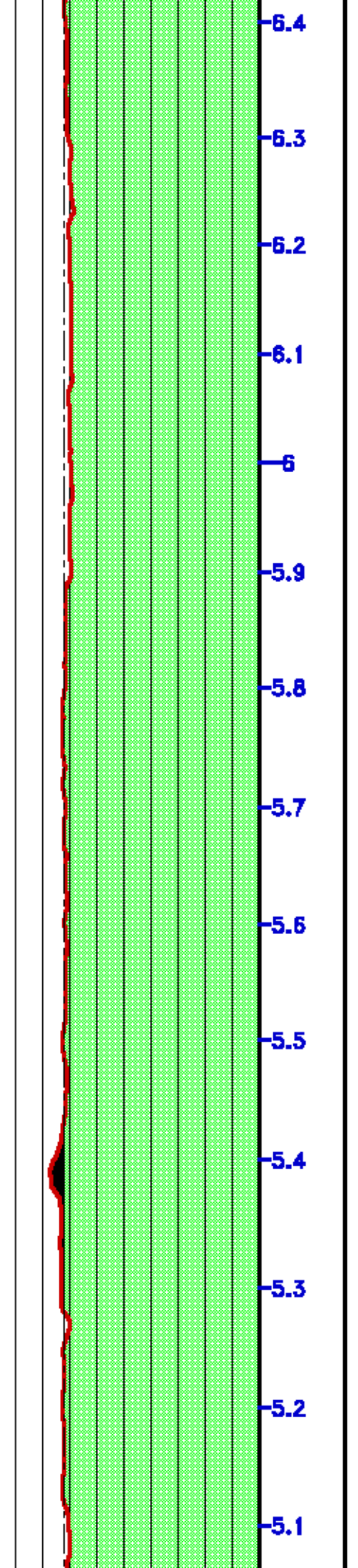
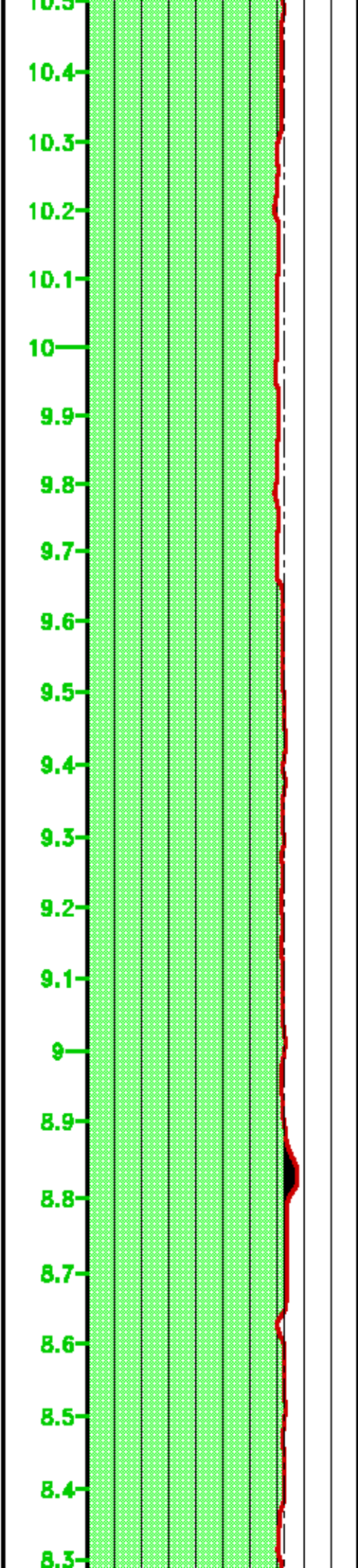
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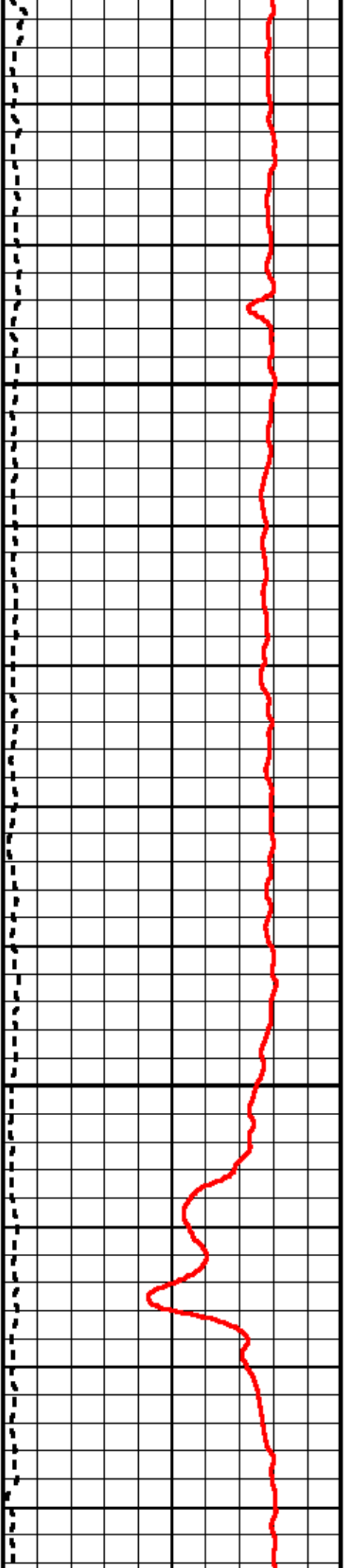




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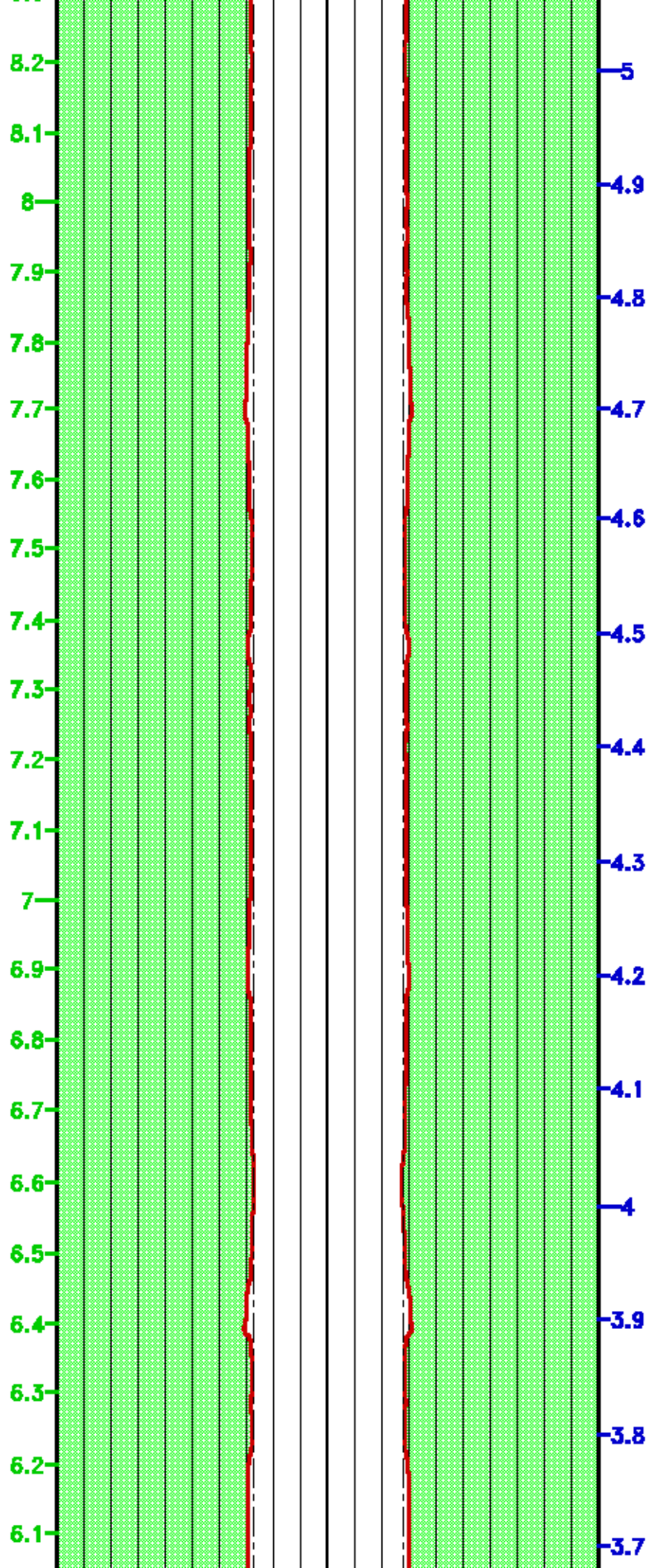
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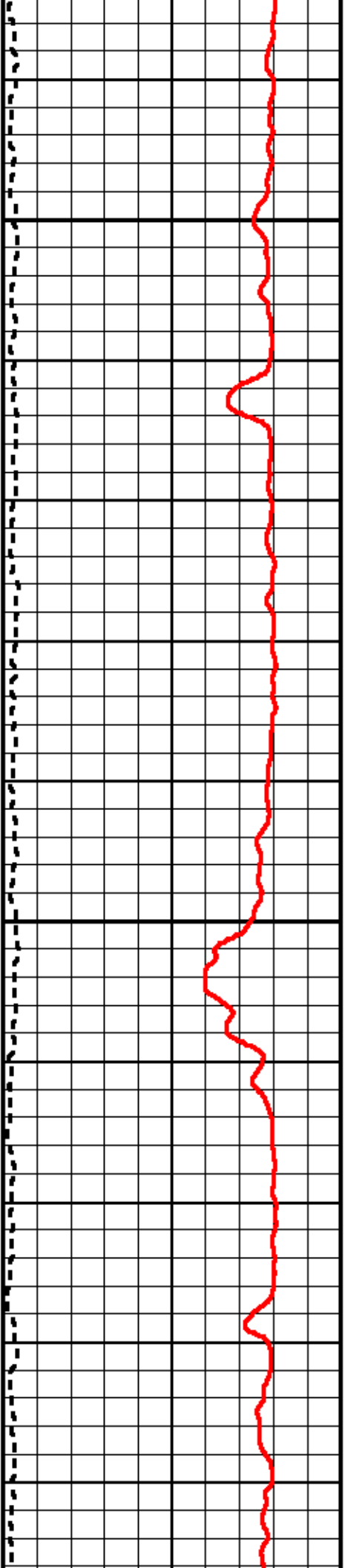




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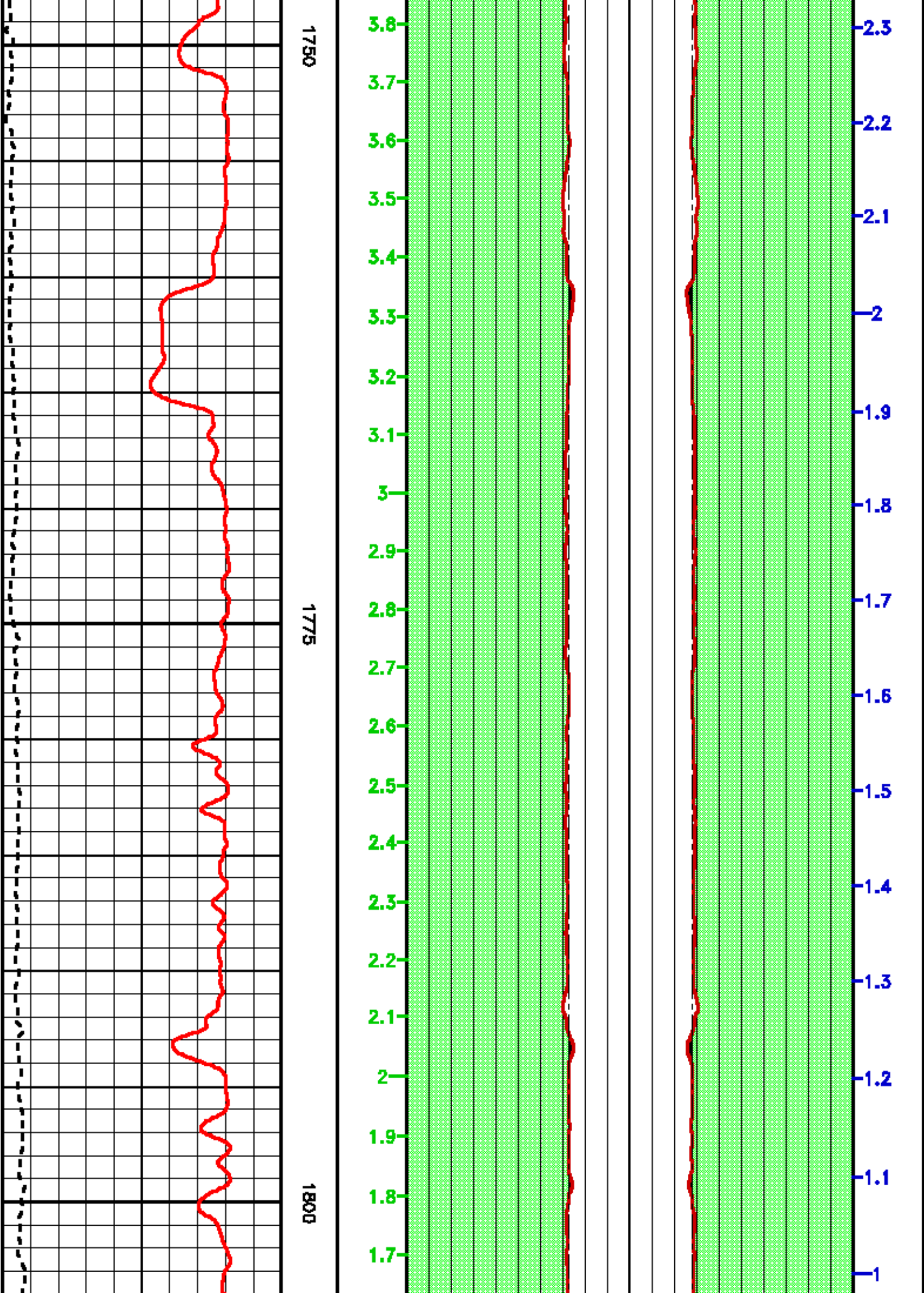


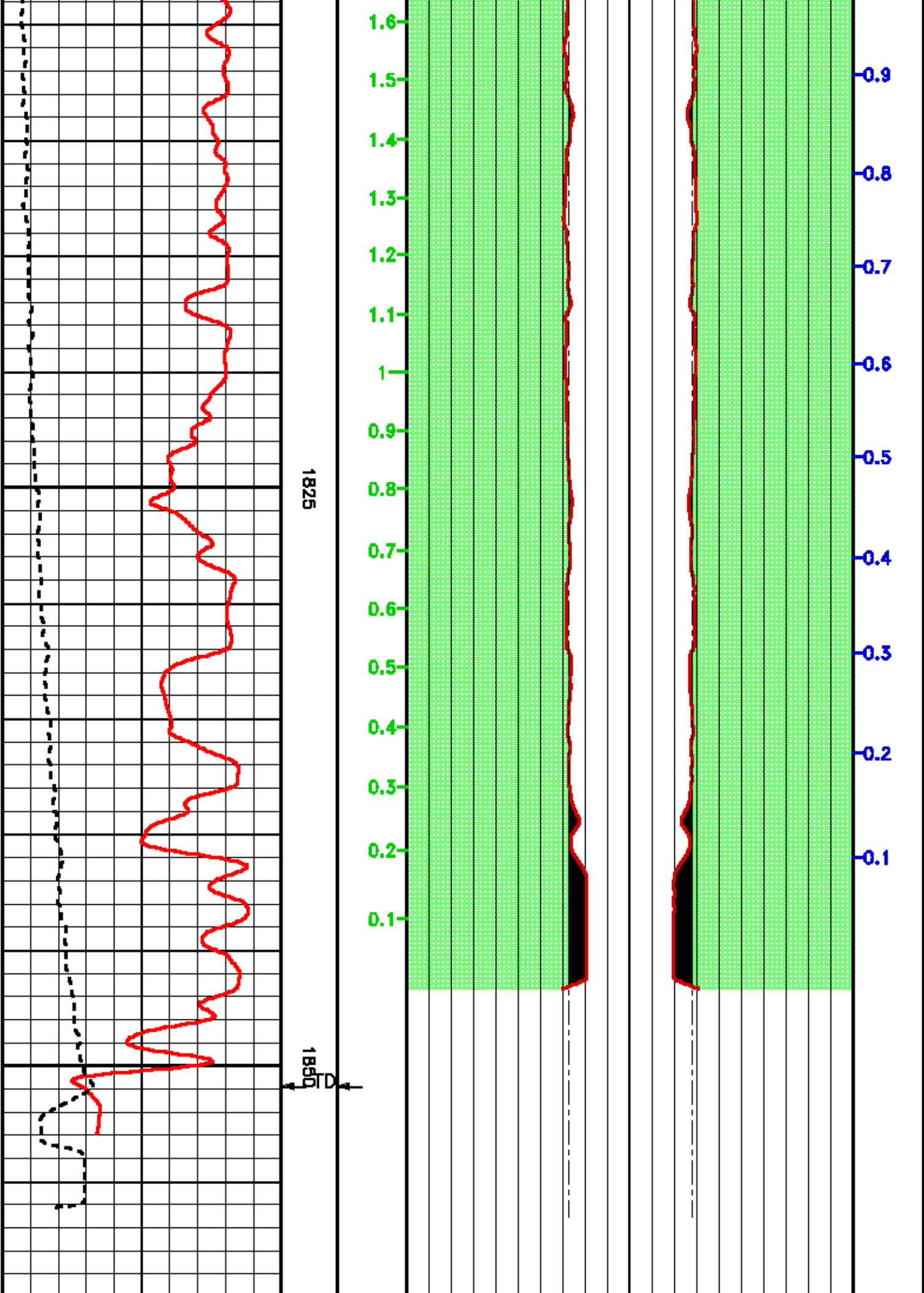


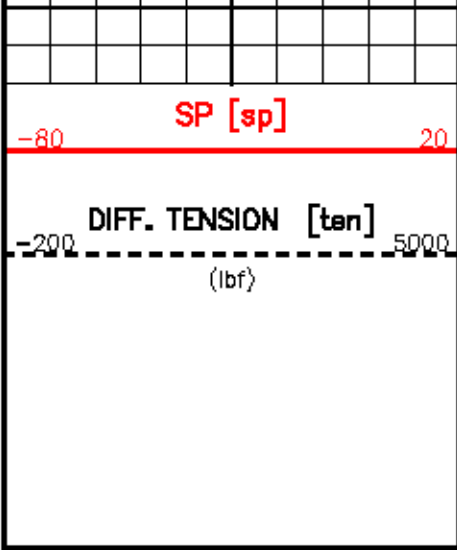
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1725



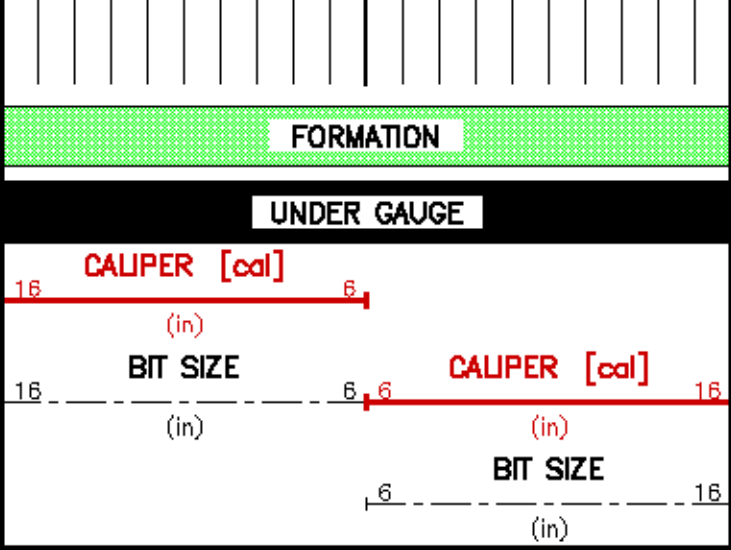






METERS

BVOL
 0,1
 1
 10



CVOL
 0,1
 1
 10

Baker Atlas

ARCHIVO NO.	COMPANIA	YPF SA.
API NO.	POZO	YPF.CH.EA-779
UNI.FAR0100008533	YAC.	EL ALBA
	PROVINCIA	CHUBUT

Ver. 3.87	COORDENADAS:	SERVICIOS HDI/DAL/ZDI/CH GR/CAL/FMT
ESCALA 1:200	X: 4,949,502.59	
	Y: 2,583,386.86	
	Z: 685.80	

BASE DE MED	N. T.	ALTURA	685.80 M
PERFIL MED DESDE	N. T.	0.00 M	SOBRE LA BASE
PERFOR MED DESDE	N. T.		

FECHA	09-Oct-2010	
CRA.	BUDA,	1
ORDEN DE SERVICIO	JOSI.ARI11032	
PROFUNDIDAD PERFORADOR	1851.0 M	
PROFUNDIDAD PERFIL	1851.0 M	
PRIMERA LECTURA (FONDO)	1850.1 M	
ULTIMA LECTURA	387.0 M	
CAMERIA PERFORADOR	9.625 IN ϕ 386.5 M	
CAMERIA PERFIL	387.0 M	
DIAMETRO DEL POZO	8.75 IN	
TIPO DE INYECCION	POLIMERICO	
DENSIDAD	1170 G/L	58.0 S
PH	9.0	5.6 G3
ORIGEN DE LA MUESTRA	ULTIMA CIRCULADA	
RM A TEMP. MEDIDA	2.38 OHM ϕ 68.8 DEGR ϕ	
RMF A TEMP. MEDIDA	2.00 OHM ϕ 83.1 DEGR ϕ	
RMG A TEMP. MEDIDA	2.88 OHM ϕ 83.8 DEGR ϕ	
ORIGEN DE RMF	MEDICION MEDICION	
RM A TEMP. FONDO	1.16 OHM ϕ 158.0 DEGR ϕ	
TIEMPO DESDE FIN CIRG.	12:00 HS	
TEMPERATURA DE FONDO	158.0 DEGR	
NO. DE EQUIPO	BASE	C.RIVADAVIA
REGISTRADO POR	A. PABLO	
PRESENCIADO POR	C. CEVASCO	

AL HACER INTERPRETACIONES DE REGISTROS, NUESTROS EMPLEADOS BRINDAN AL CLIENTE EL BENEFICIO DE SU MEJOR JUICIO. PERO DADO QUE TODAS LAS INTERPRETACIONES SON OPINIONES BASADAS EN INFERENCIAS SOBRE MEDICIONES ELECTRICAS O DE OTRO TIPO, NO PODEMOS Y NO GARANTIZAMOS LO CORRECTO O PRECISO DE CUALQUIER INTERPRETACION. NO SEREMOS LEGALMENTE RESPONSABLES POR CUALQUIER PERDIDA, COSTO, DAÑOS, O GASTOS EN LOS QUE INCURRA EL CLIENTE BASADO EN ALGUNA INTERPRETACION HECHA POR NUESTROS EMPLEADOS.

DATOS DE POZO

DIAMETRO	DESDE	HASTA
13.50 IN	0.0 M	388.0 M
8.75 IN	388.0 M	1851.0 M

DATOS DE ENTUBACION

TAMANO	PESO	GRADO	DESDE	HASTA
8.625 IN	32.3 LB/F	N/A	0.0 M	388.5 M
N/A	N/A	N/A	N/A	N/A

OBSERVACIONES

CRA. 1 BUDA. 1: ÚLTIMA CIRCULADA A LAS 05:00 HS DEL 09-OCT-10

EQUIPO DE PERFORACIÓN: SAI-380

CL-: 1100 PPM
CA: 120 PPM

CADA MARCA BVOL = 1 M³ DEL VOLUMEN TOTAL DEL POZO
CADA MARCA CVOL = 1 M³ DEL VOLUMEN ANULAR PARA CASING DE 5.5 IN

LECTURAS DE POROSIDADES COMPUTADAS CON LOS SIGUIENTES PARAMETROS:

ACOUSTIC POROSITY MATRIX: 54.0 US/FT FORMULA: R+G

DENSITY POROSITY MATRIX: 2.85 GR/CM³

DENSITY POROSITY MATRIX: 2100 GY/GAL
 NEUTRON POROSITY MATRIX: SANDSTONE

RMAZC COMPUTADA A PARTIR DE MTR9 Y PORZC, SEGUN LA ECUACION DE ARCHIE
 CON LOS SIGUIENTES PARAMETROS: A=0.81, M=2

MAXIMA DESVIACION REGISTRADA POR EL EQUIPO PERFORADOR:
 0.6 GRADOS EN EL FONDO

ZDL UTILIZADA: 2223XA (FOCUS)
 CN UTILIZADO: 2436XA (FOCUS)

DOTACION:
 PABLO,ALEJANDRO DANIEL
 VASQUEZ,ROBINSON ANDRES
 MANSILLA,MANUEL OLEGARIO
 VARAS,HECTOR DEMETRIO

ADVANCING RESERVOIR PERFORMANCE

DATOS DE EQUIPO					
CRA.	BJDA.	HERRAMIENTA	SERIAL	NO. DE SERIE	POSICION
1	1	FOCUS SWIVE	3850XA	10118848	LIBRE
1	1	TMA SUB	3880XA	10403226	LIBRE
1	1	COMM/POWER	3518FB	10141038	LIBRE
1	1	FOCUS TEL	3518FB	10144083	LIBRE
1	1	FOCUS CN	2436XA	10120332	DESCENTRALIZADO
1	1	FOCUS ZDL	2223XA	10134127	PSTM
1	1	DEL KWT	3831XA	10318288	LIBRE
1	1	DAL EA	1830FA	10115886	CENTRALIZADO
1	1	DAL MANDREL	1830MA	10114245	CENTRALIZADO
1	1	FOCUS HDL	1530XA	10378888	STANDOFF

ACUSTICO EN CASING

PARAMETER AND FILTER SUMMARY REPORT

File: /data/ea779/c870ca801.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 312.191 m BOTTOM DEPTH: 599.999 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DT24	FILTER ()	medium (1)		TOP	BOTTOM

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	FAST		TOP	BOTTOM
	CORRELATION METHOD	MTH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	40	us/ft	"	"
	TAPER - RIGHT END	140	us/ft	"	"
	FLOOR (UNIV. OPTION)	0.200		"	"

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER	DELTA T	ON		TOP	BOTTOM

WAVEFORM FILTER - DELTA T	LOW	4000	Hz	TOP	..
	LOW FREQ CUTOFF	30000	Hz	..	..
	HIGH FREQ CUTOFF				

ACOUSTIC TCC CONTROL PARAMETERS

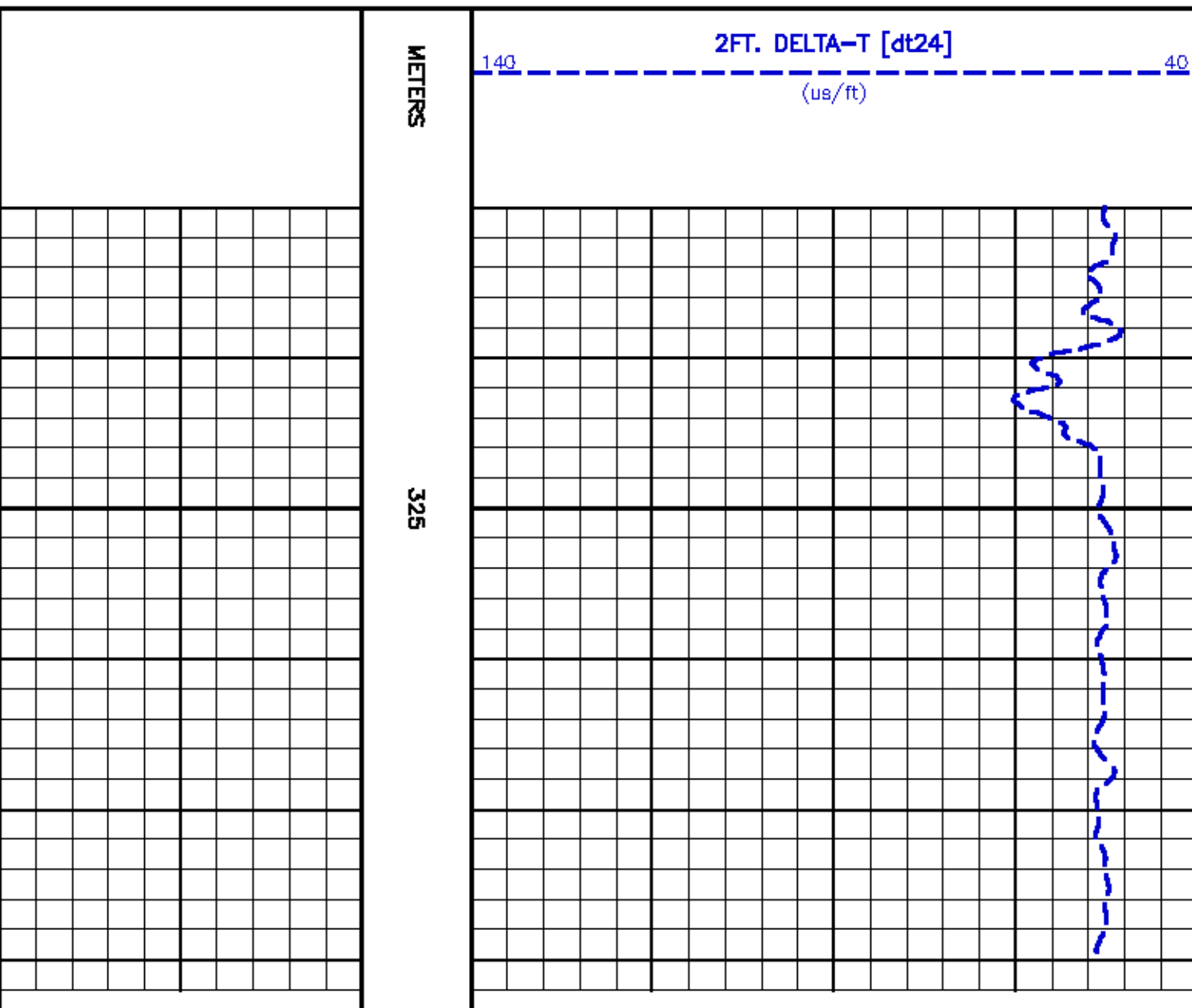
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	STACK LEVEL			TOP	BOTTOM
	SUBSET	0		..	..
DELTA T TCC PARAMETERS	ACG WINDOW	1200	US	..	..
	SAMPLE PERIOD	8		..	..
	RK DELAY	160	US	..	..

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
DT24	4.57						

Presentation : HL5708:/dat1a/ea779/caglibru.pdf [1:200 Scale]
 Plot Interval : 315.011 - 340.004 Meters

Data File 1 : F1 : HL5708:/dat1a/ea779/accos.xdf
 Created On : Oct 8 17:50:28 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 315.011 - 340.004 Meters
 Oct : k970a



140

2FT. DELTA-T [dt24]

40

METERS

(us/ft)

TRAMO PRINCIPAL - ESCALA 1:200

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/ea778/1870a04.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 310.896 m BOTTOM DEPTH: 1856.748 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
OR MED RES	FILTER ()	medium (1)		TOP	BOTTOM
CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
CN MED RES	FILTER ()	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (sof1*)	medium		"	"
DT24	FILTER ()	medium (1)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	5.500	1n	TOP	BOTTOM
	CASING THICKNESS	0.000	1n	"	"
	BIT SIZE	8.750	1n	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	1n	"	"
	FIXED DIAMETER (mbh*)	8.750	1n	"	"
MUD DENSITY	MUD DENSITY	1.17	g/cm3	"	"
BH MUD RESISTIVITY SOURCE	RMD SOURCE (NDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	m	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN MATRIX	2456 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1100	ppm	"	"
	BOREHOLE CORRECTION	CN		"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND C/SMS	8.750	1n	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOmatrix	2.650	g/cm ³	TOP	BOTTOM
	RHOfluid	1.000	g/cm ³	"	"

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	MTH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	30	us/ft	TOP	369.722
		45	us/ft	369.722	BOTTOM
	TAPER - RIGHT END	85	us/ft	TOP	336.852
		100	us/ft	336.852	348.088
		145	us/ft	348.088	363.856
		150	us/ft	363.856	368.503
		175	us/ft	368.503	BOTTOM
FLOOR (UNIV. OPTION)	0.200		TOP	BOTTOM	

ACOUSTIC POROSITY

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACOUSTIC POROSITY	POROSITY TYPE	R-H-G		TOP	BOTTOM
	DTmatrix	54.00	us/ft	"	"
	DTfluid	190.00	us/ft	"	"
	DTshale	100.00	us/ft	"	"
	MOD. BYLLIE PARM	2.25		"	"
	MOD. R-H-G PARM	2.00		"	"

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	4000	Hz	"	"
	HIGH FREQ CUTOFF	30000	Hz	"	"

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	STACK LEVEL			TOP	BOTTOM
	SUBSET	0		"	"
DELTA T TCC PARAMETERS	ACG WINDOW	1200	us	"	"
	SAMPLE PERIOD	8		"	"
	RK DELAY	180	us	"	"

HDIL PROCESSING

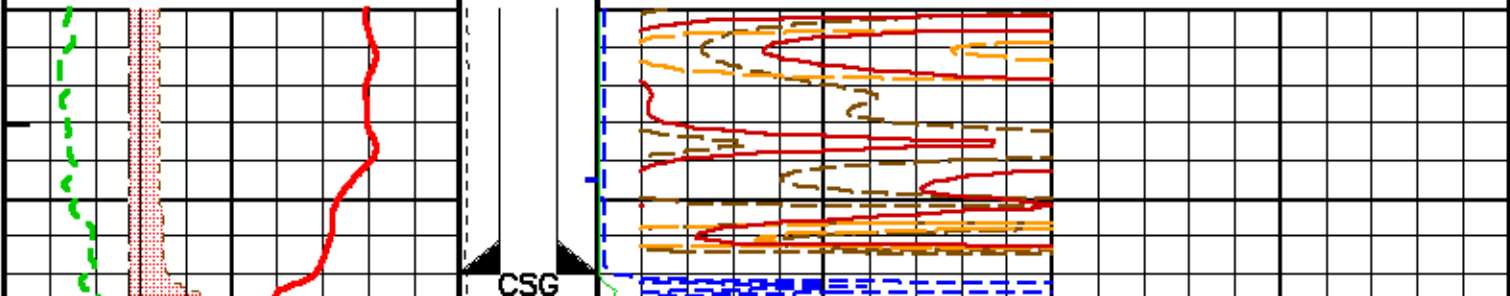
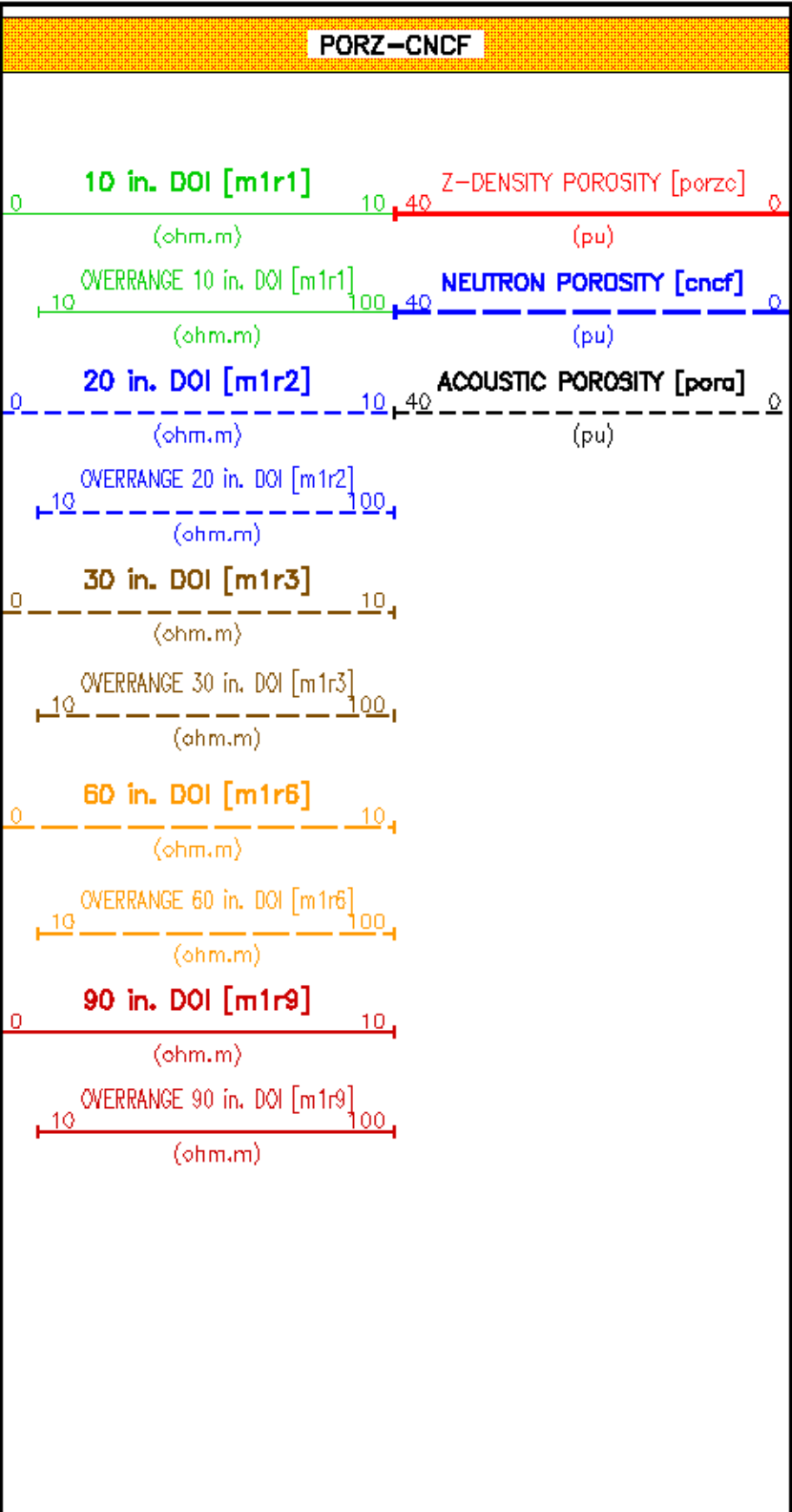
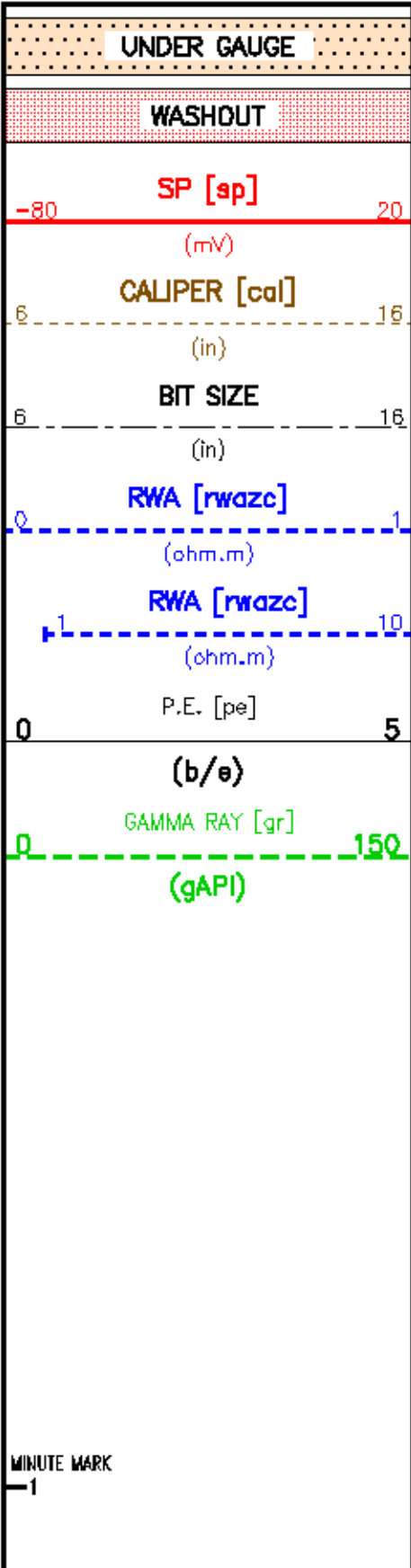
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmad MULTIPLIER	1.000		"	"

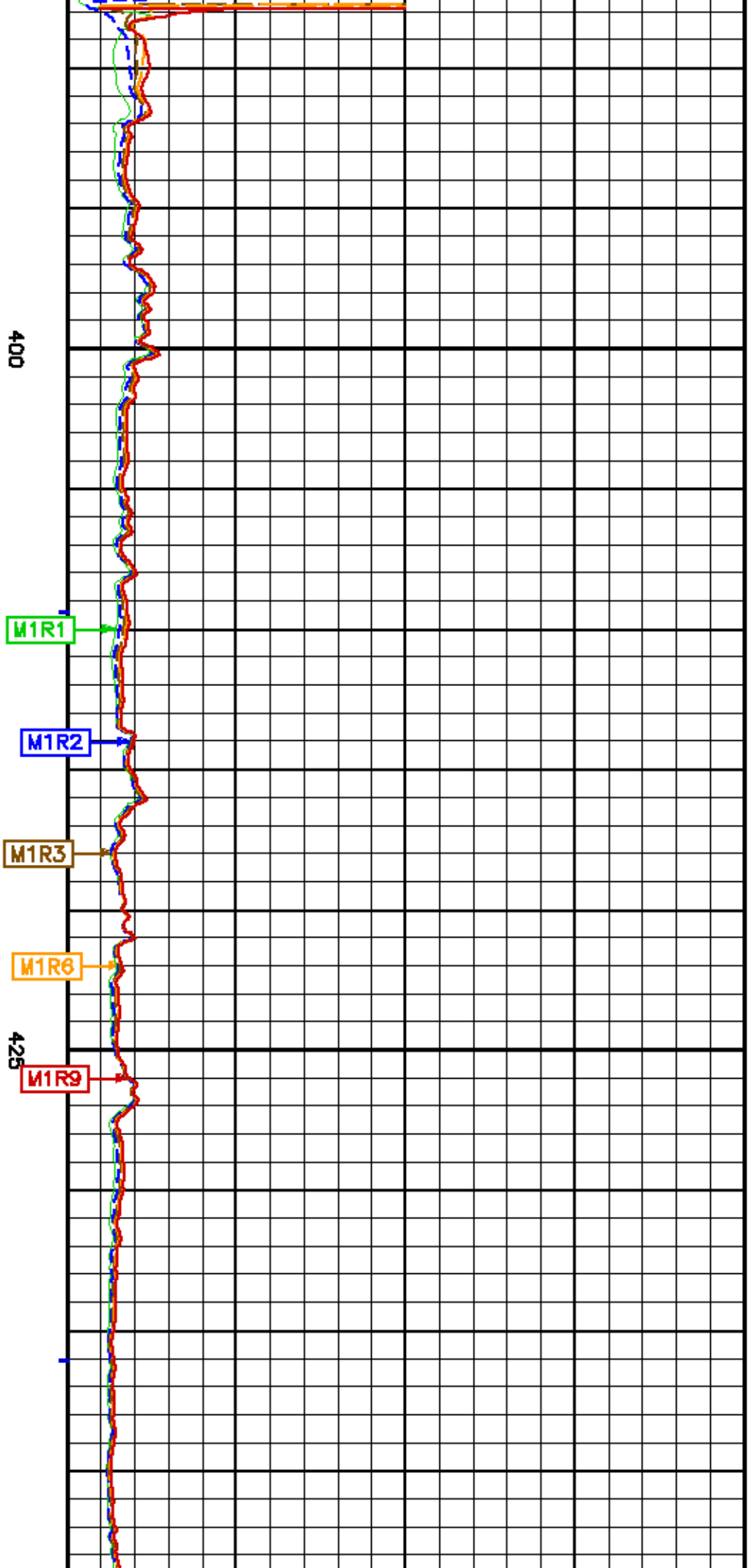
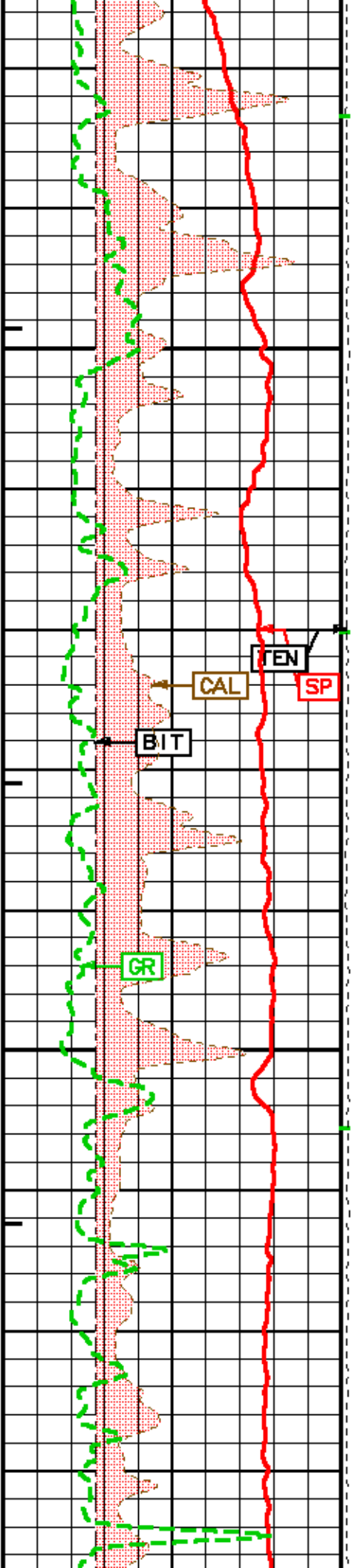
CURVE MEASURE POINT OFFSET

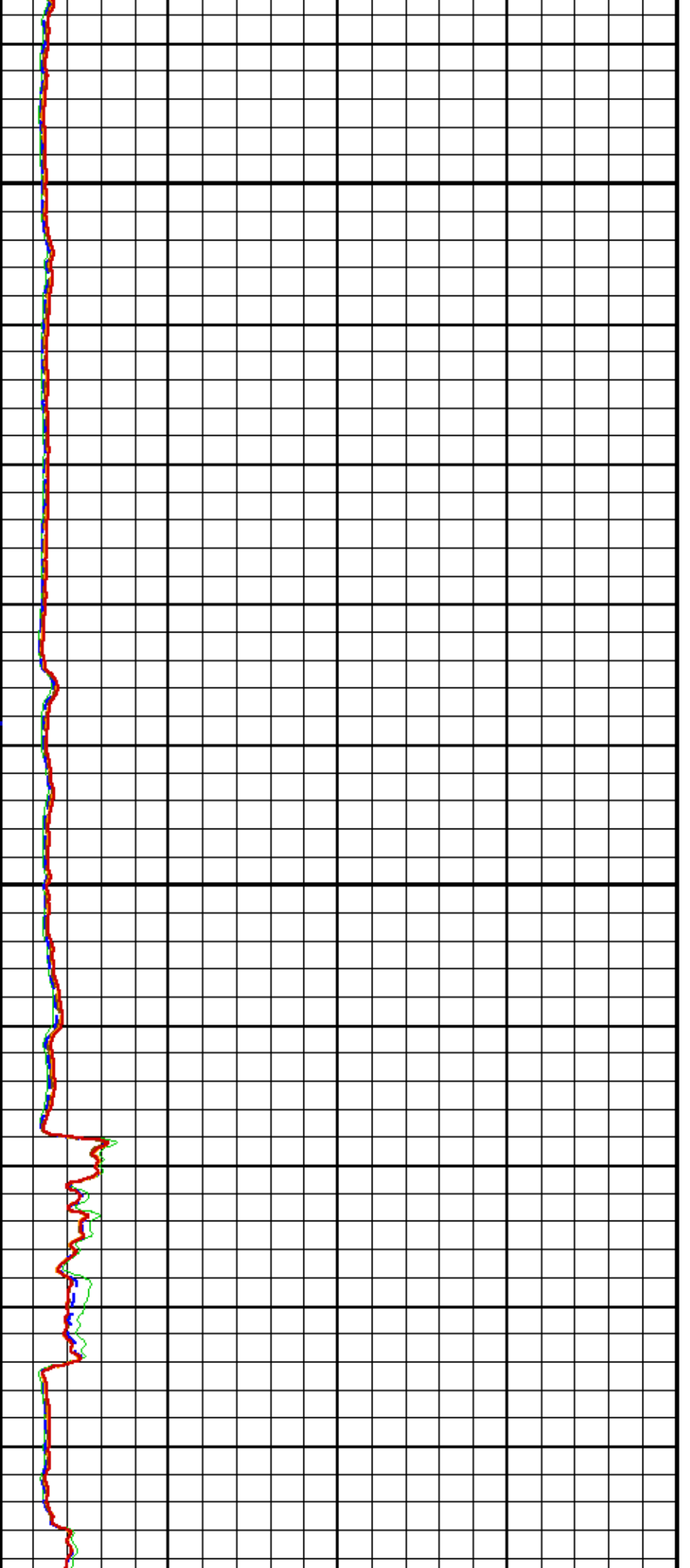
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	M1R1	0.84	M1R9	0.84	RMAZC	0.00
GAL	8.88	M1R2	0.84	PE	8.88	SP	0.38
CACF	11.73	M1R3	0.84	PDRA	4.57	TEN	0.00
GR	14.02	M1R8	0.84	PDZCC	8.88		

Presentation : HL8708/dwt1a/ea779/camba_tp.pdf [1:200 Scale]
 Plot Interval : 380.000 - 1881.11 Meters

Data File 1 : F1 : HL8708/dwt1a/ea779/EA779.dft
 Created On : Oct 9 18:05:05 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 Plot Interval : 380.000 - 1881.11 Meters

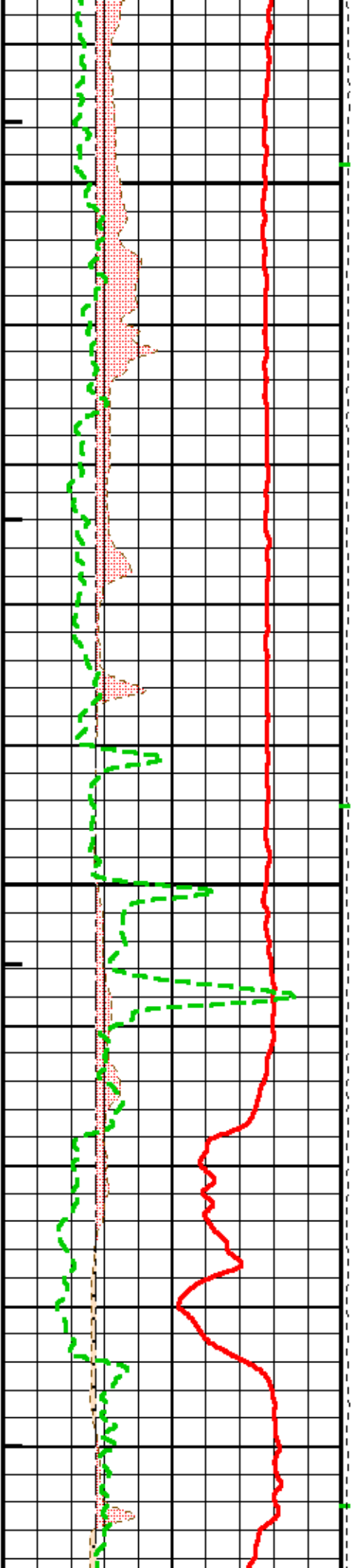






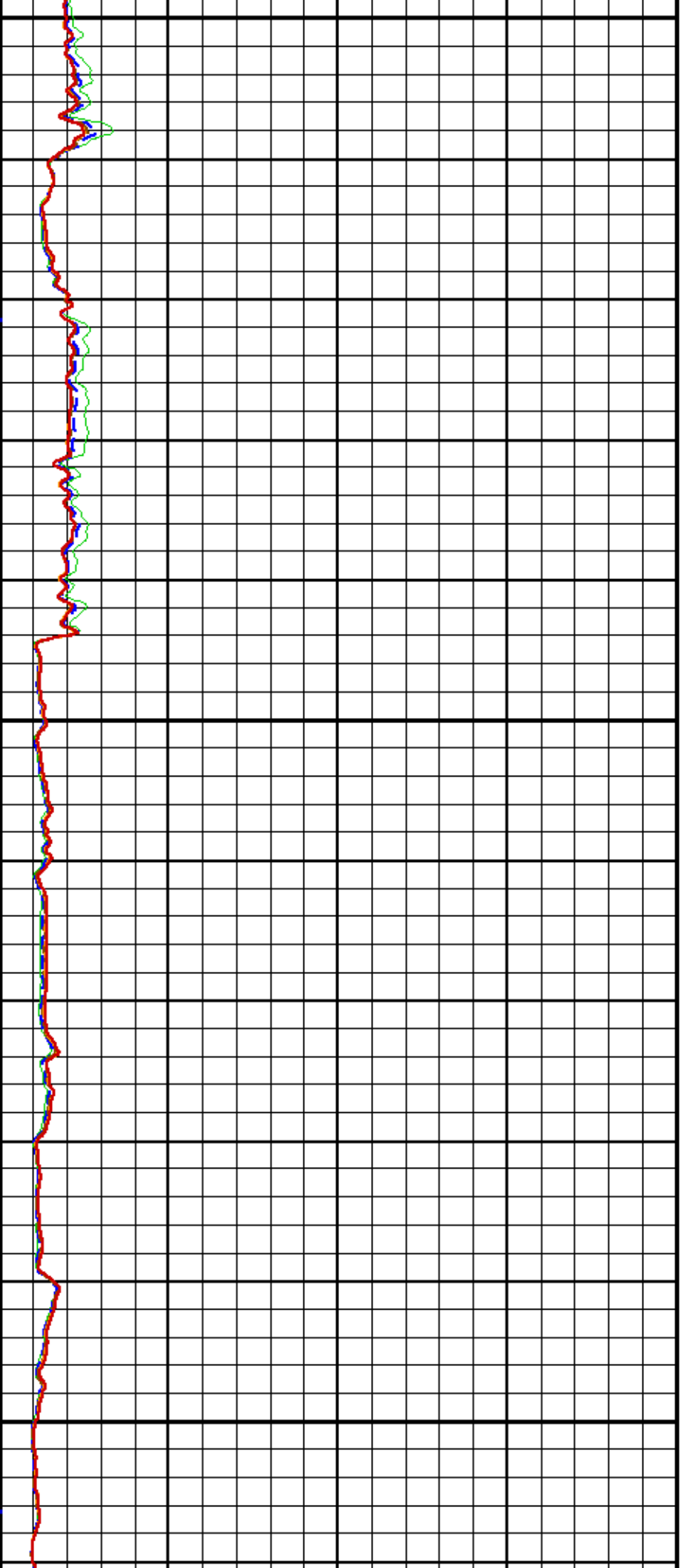
450

475



1

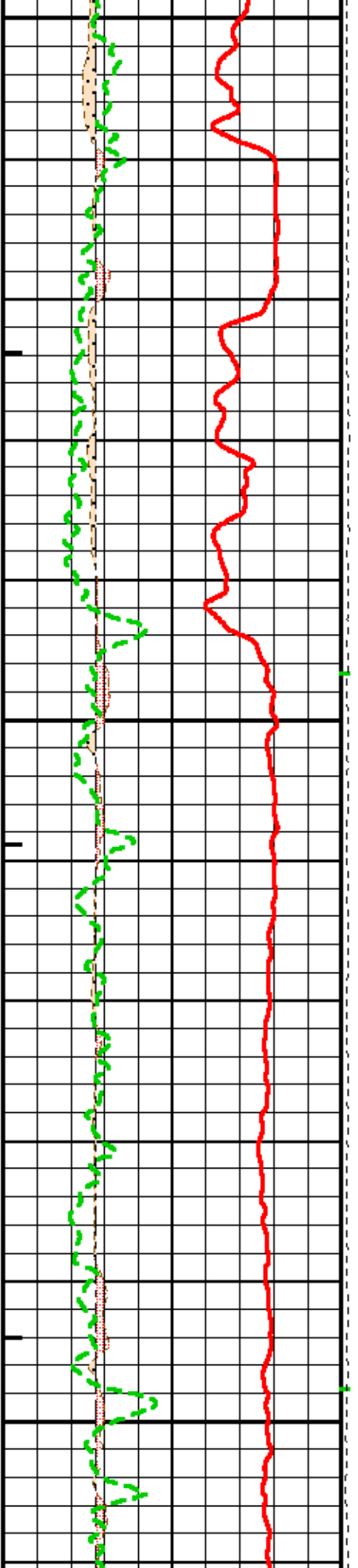
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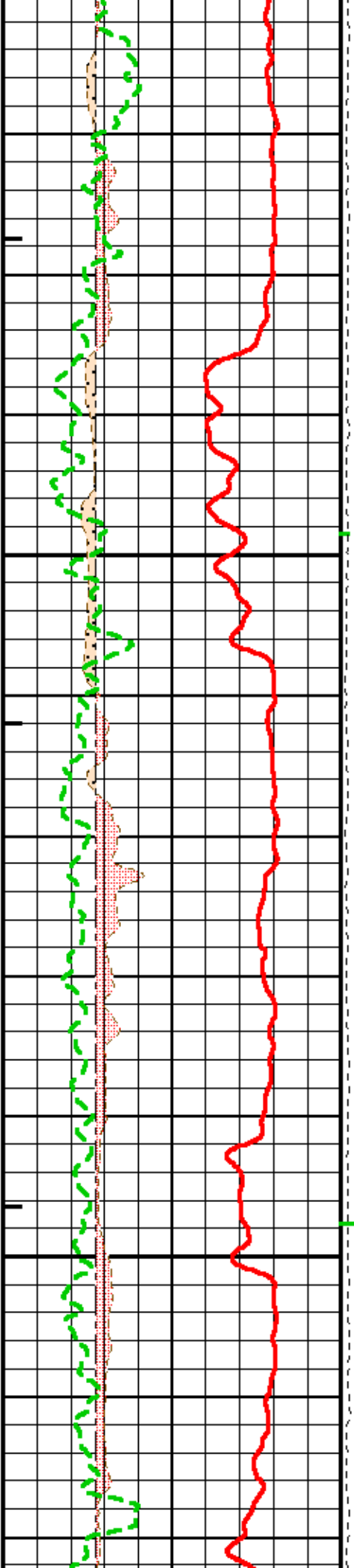


500

525

550

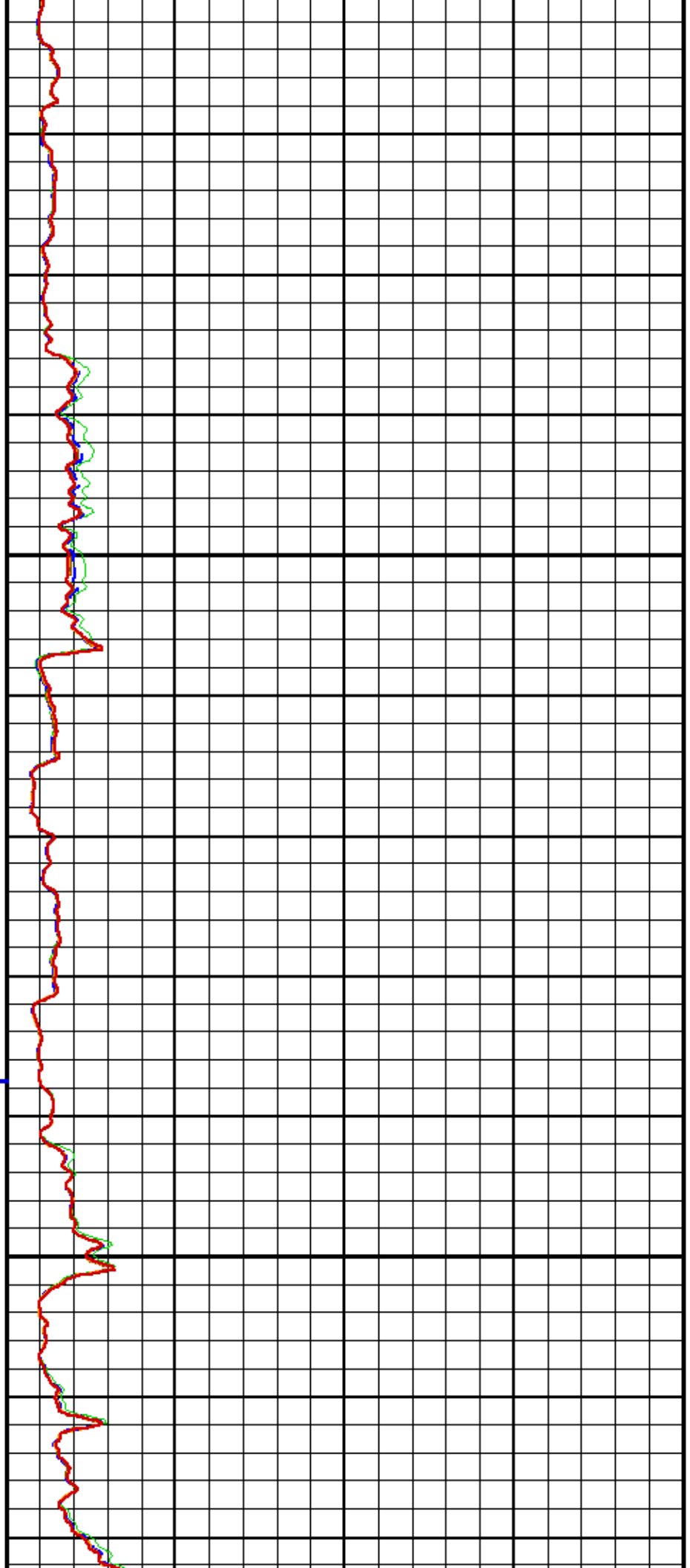


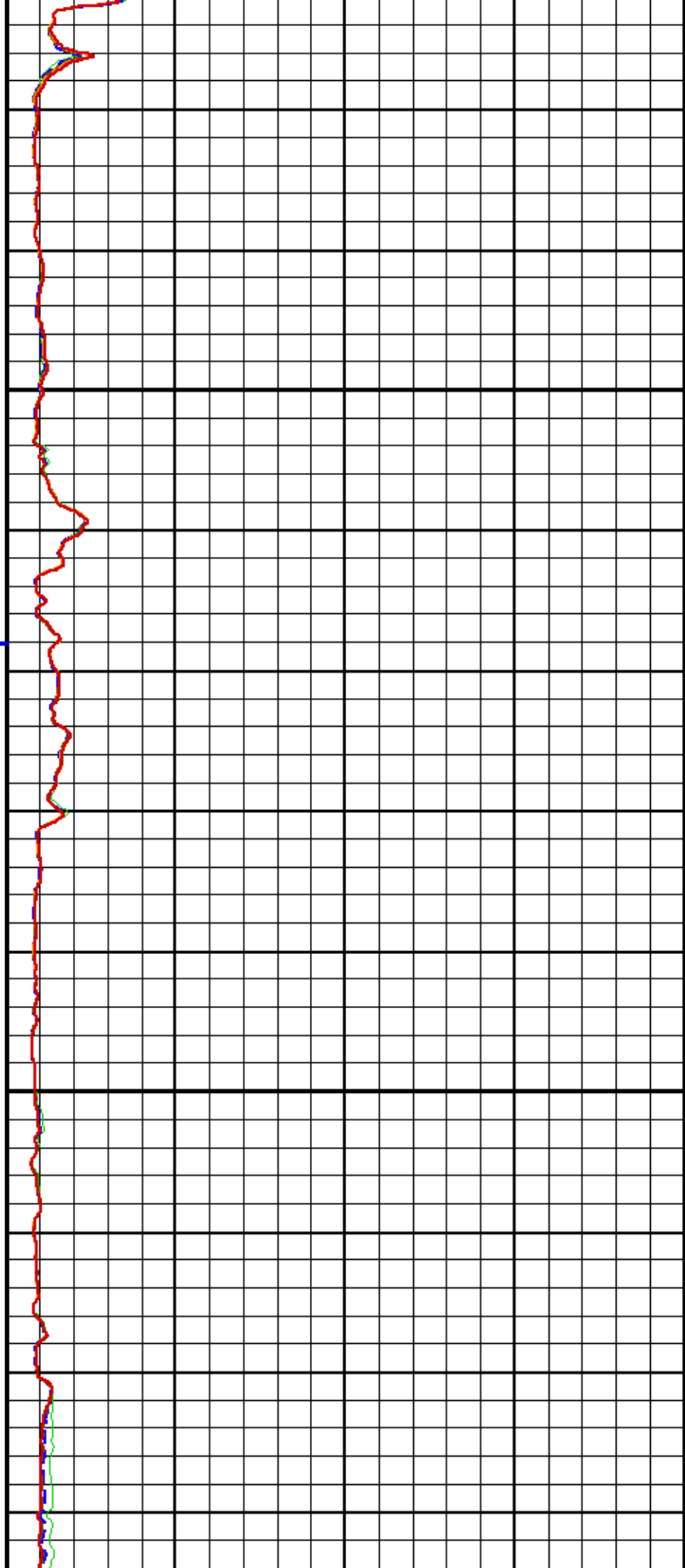


575

600

50

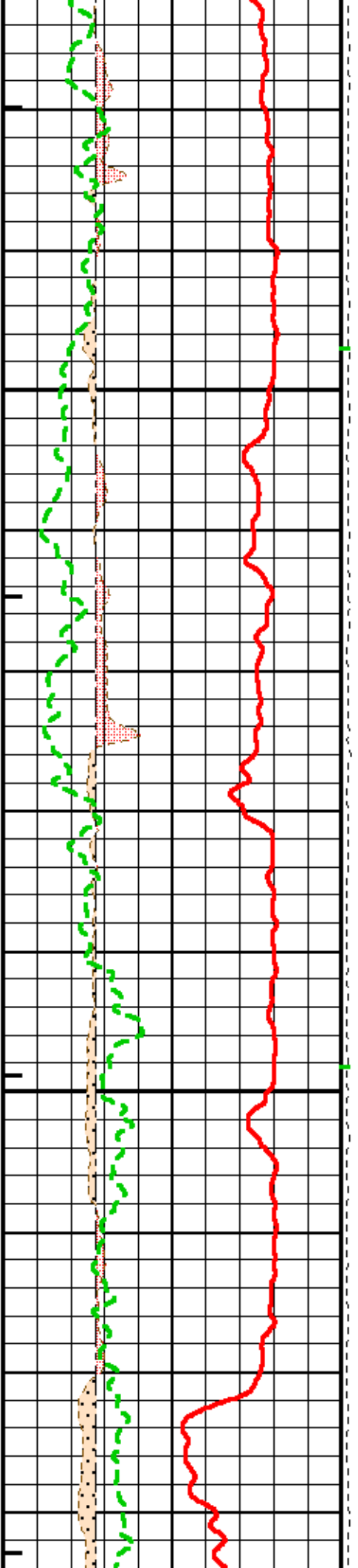


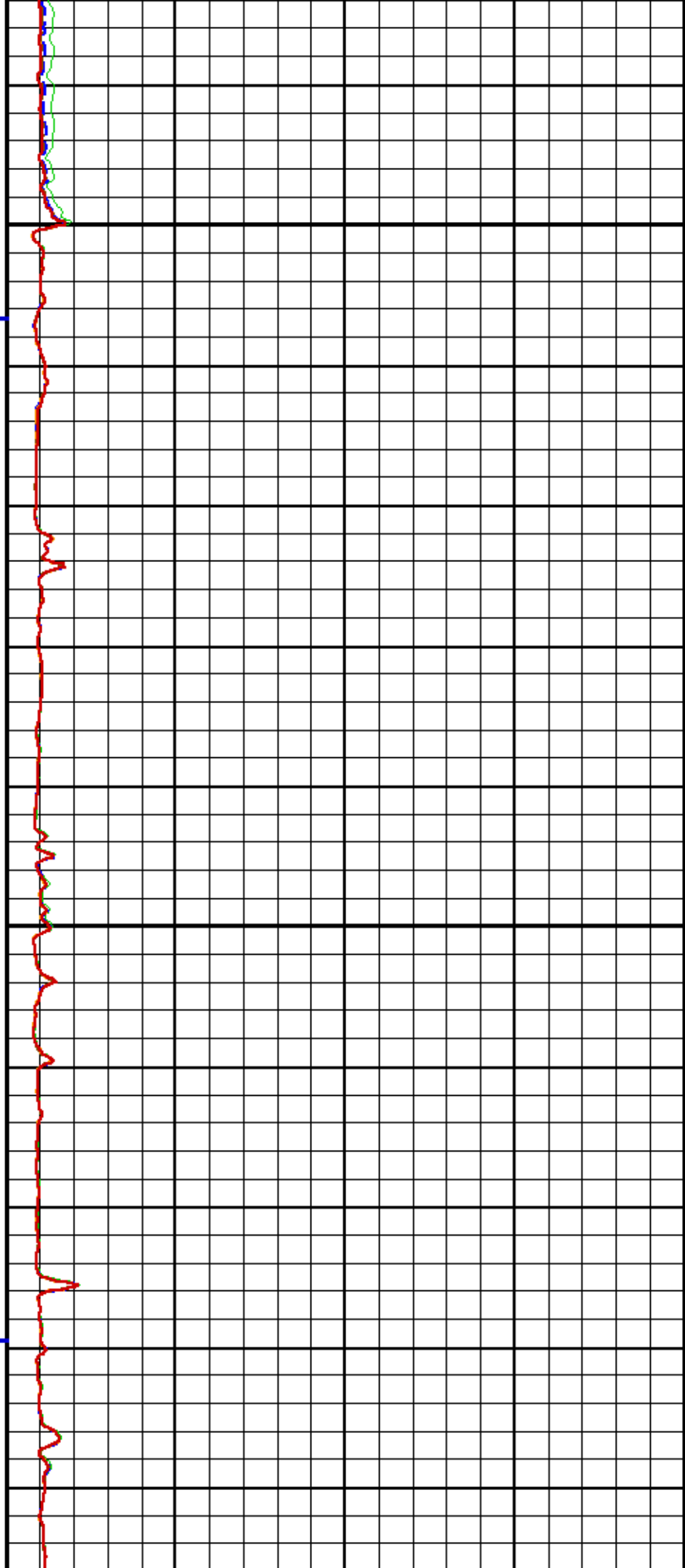


625

50

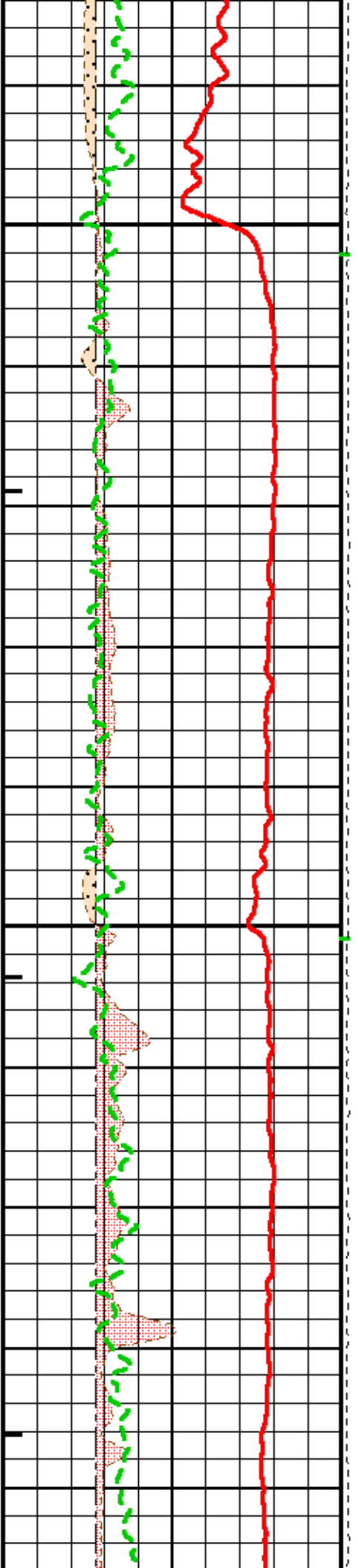
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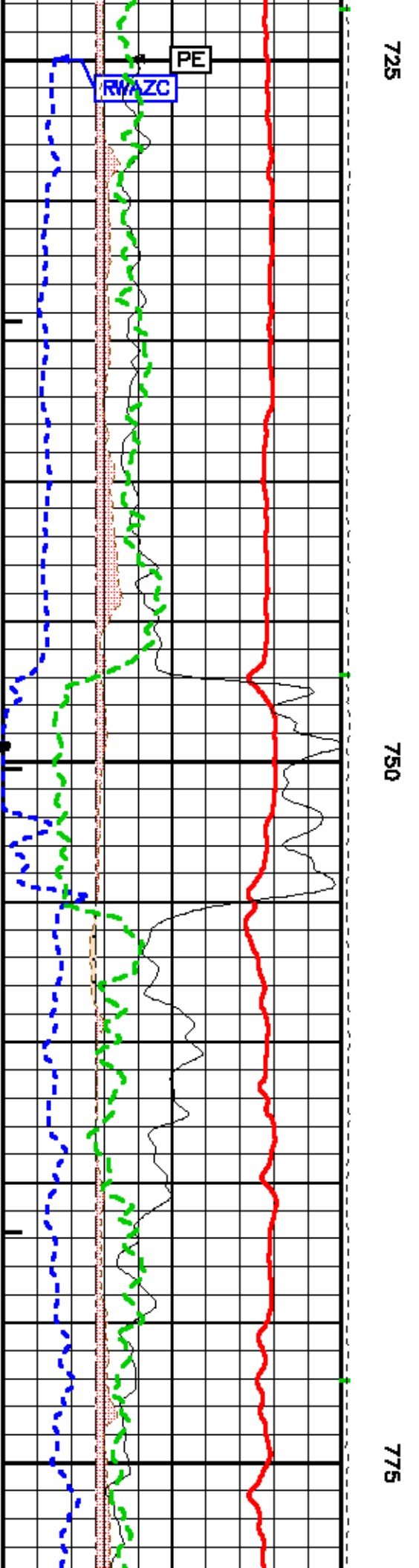
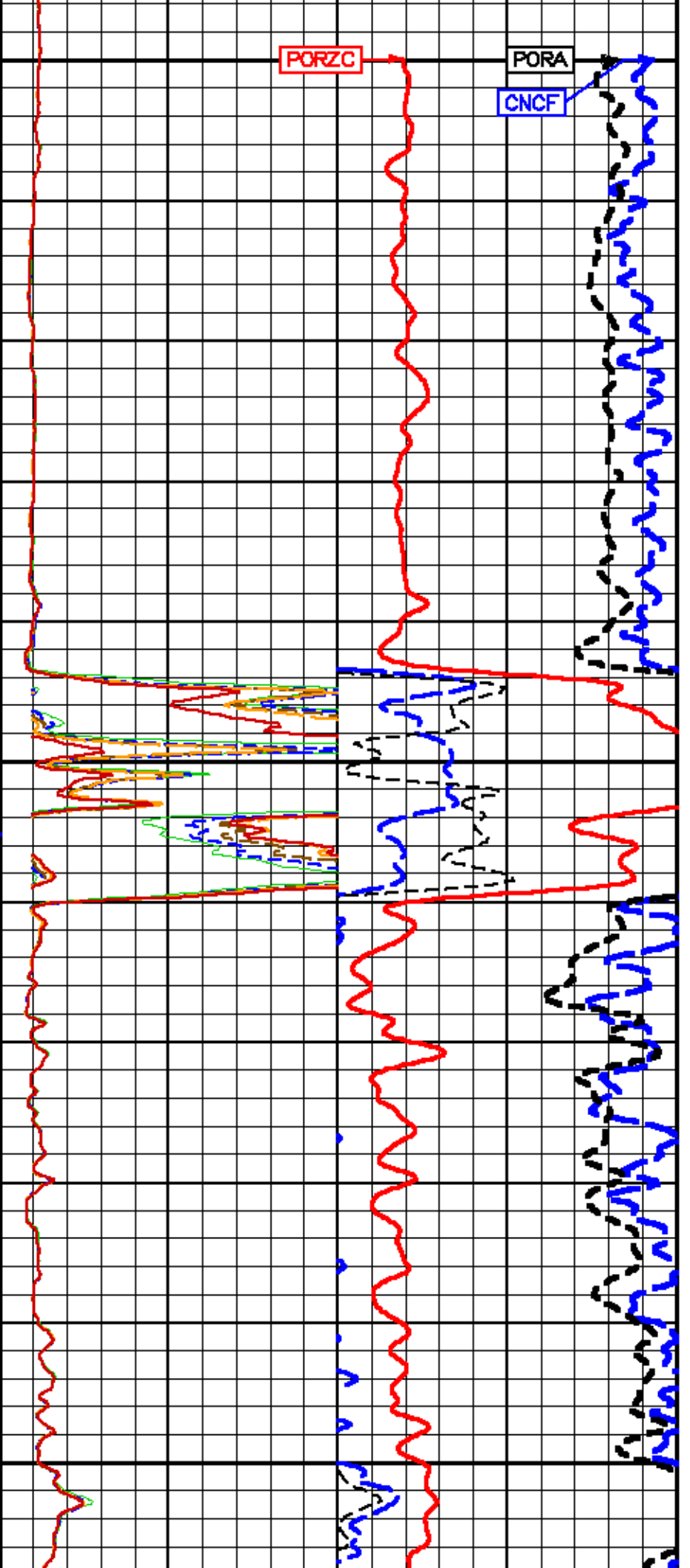


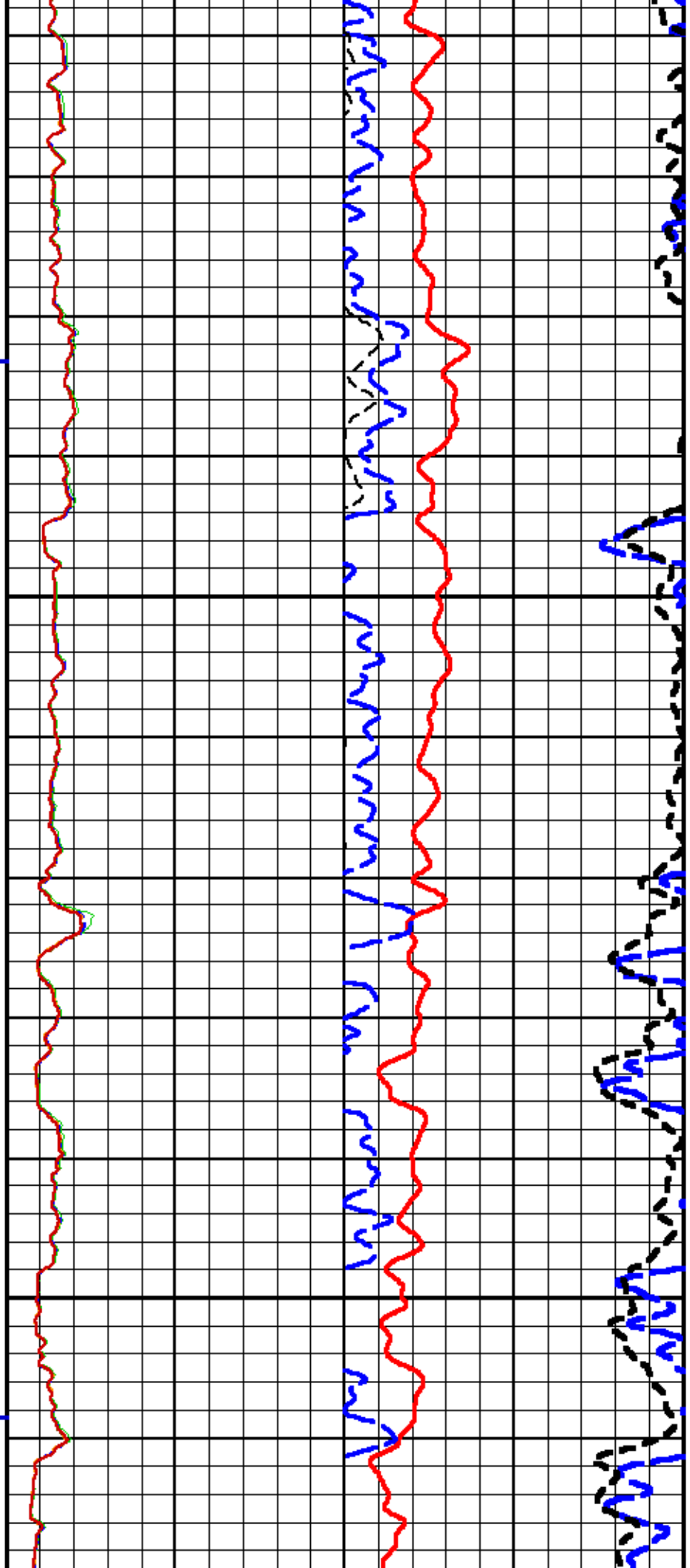


675

700

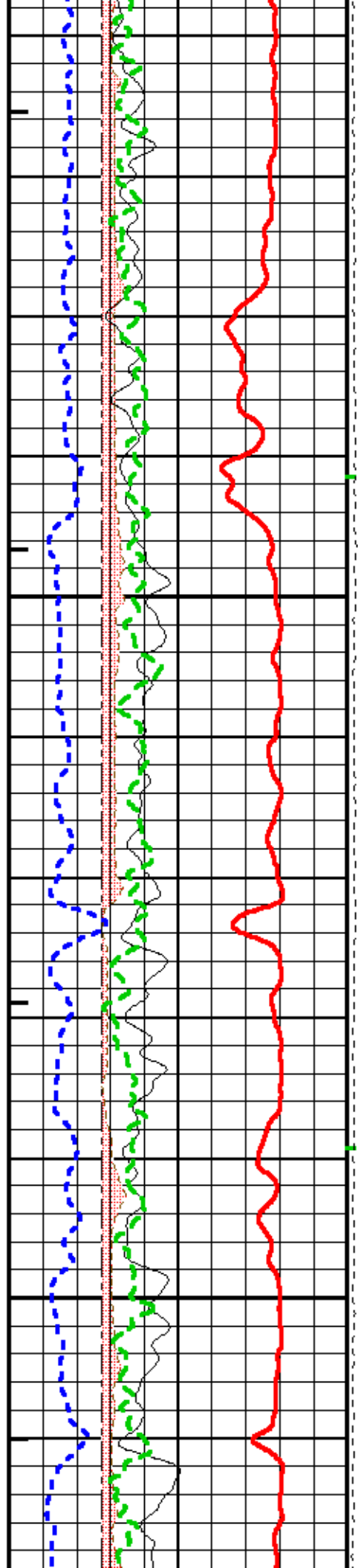


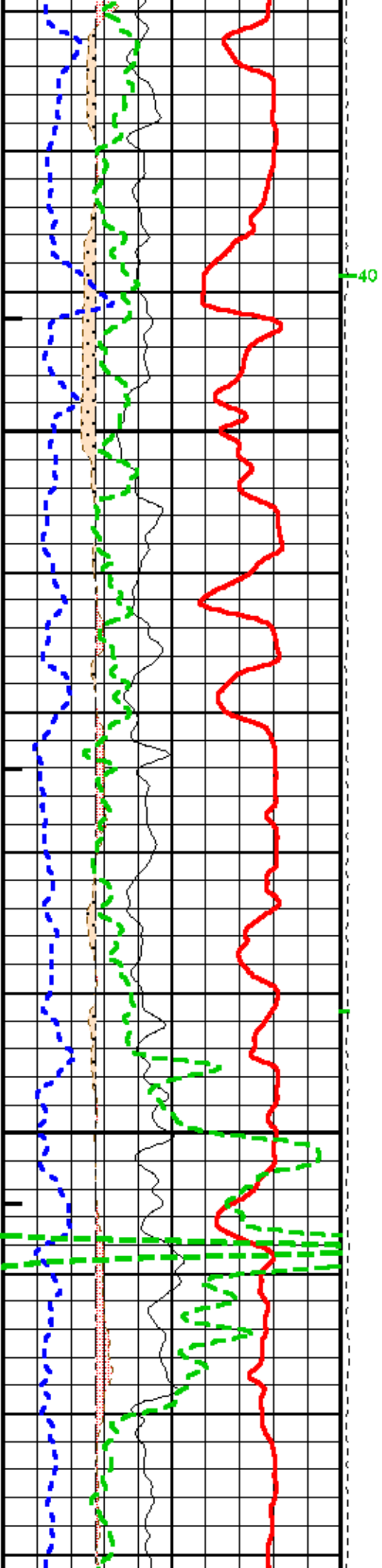




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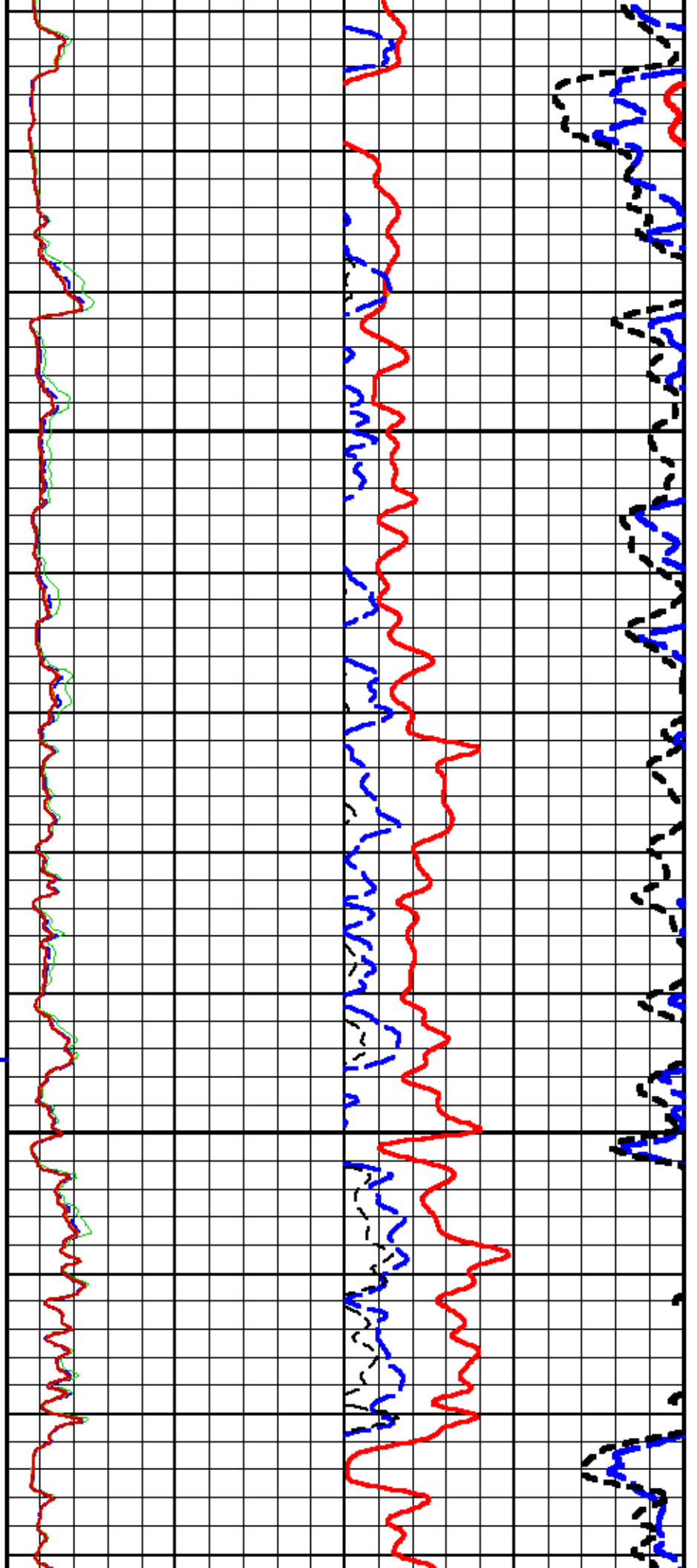
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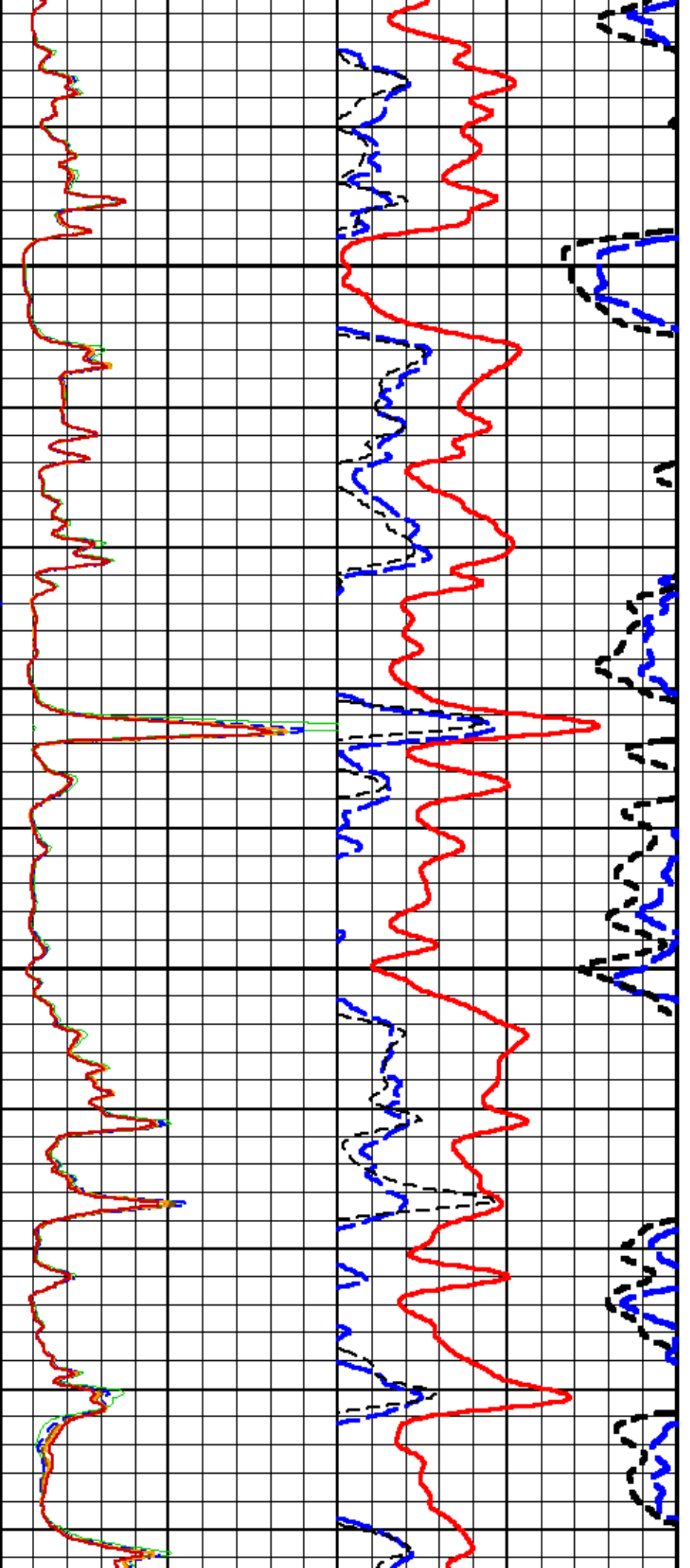




850

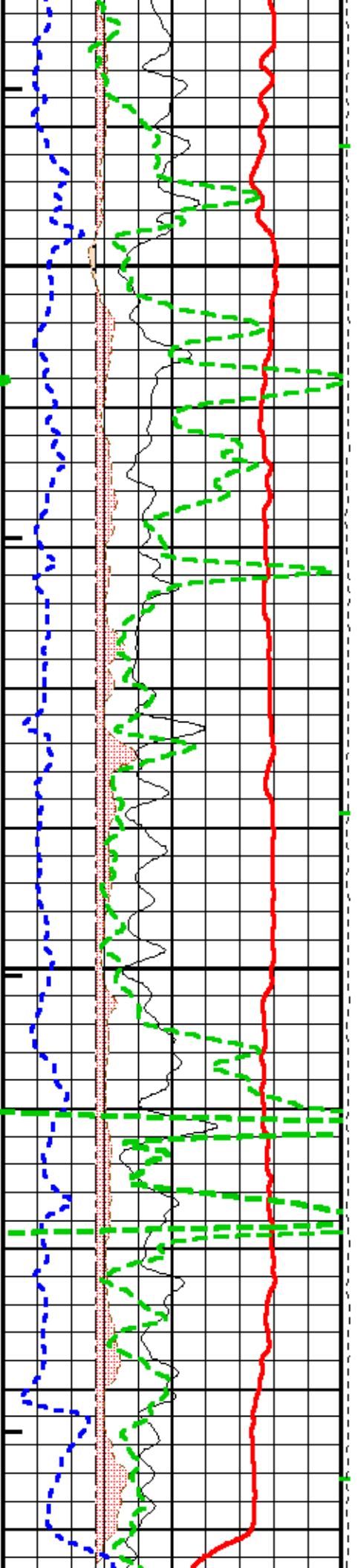
875

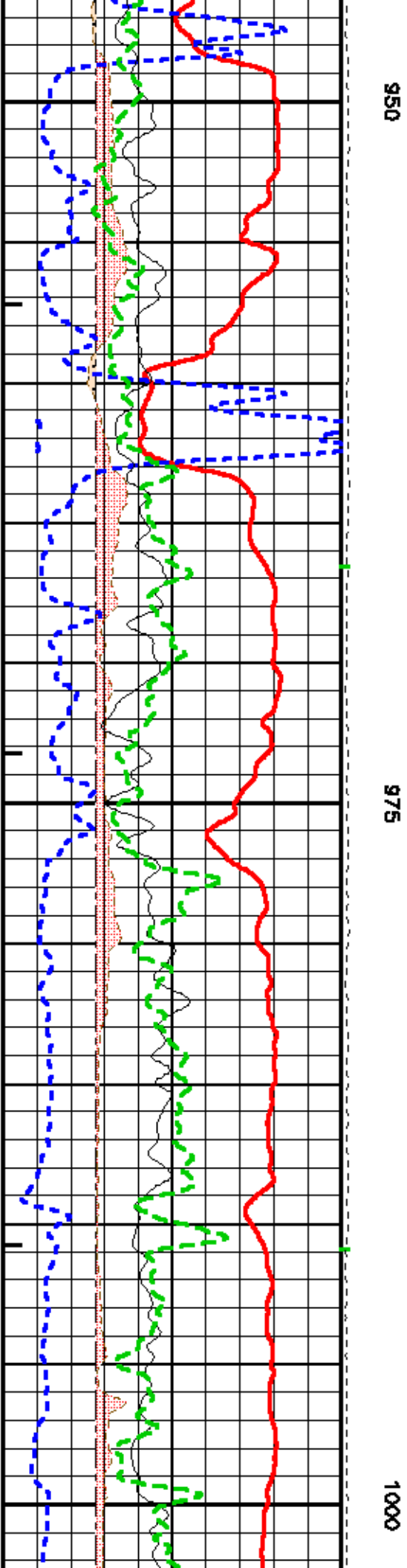
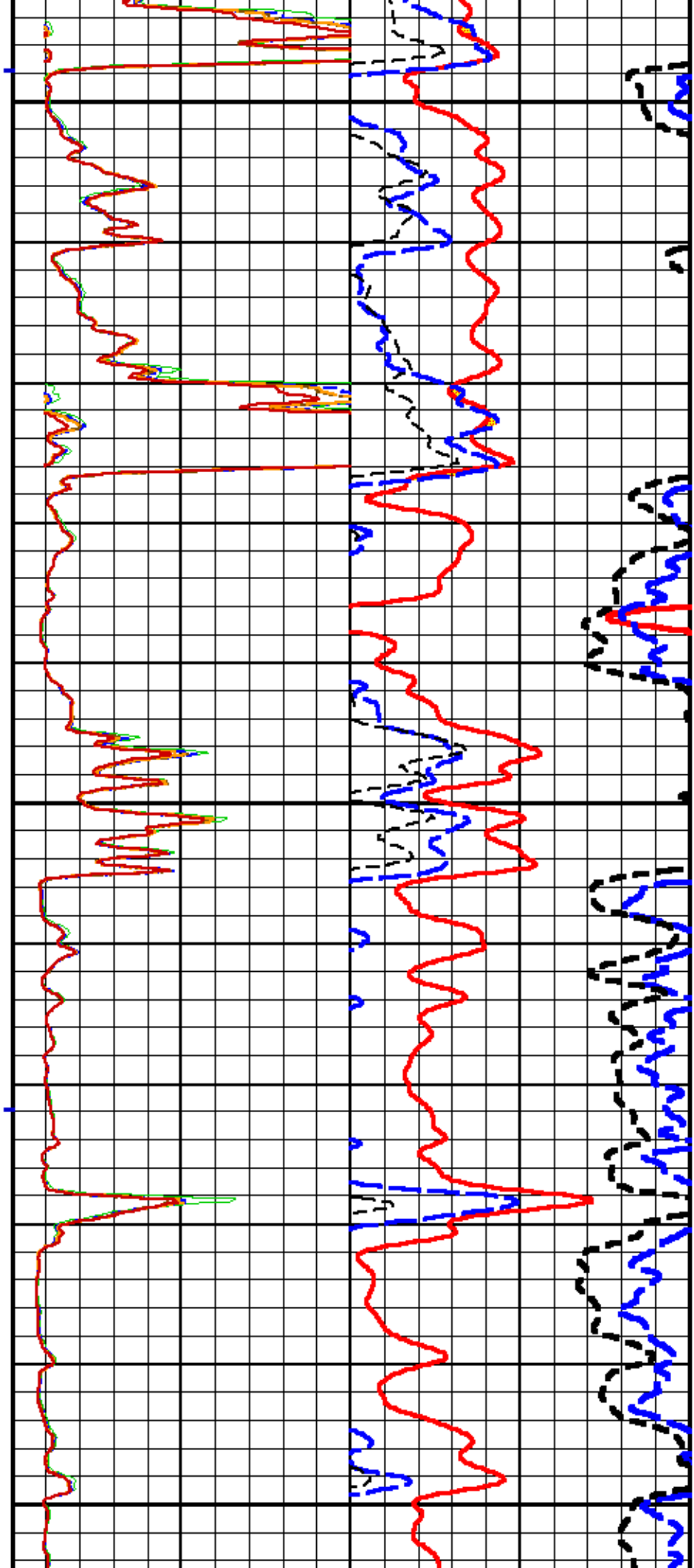


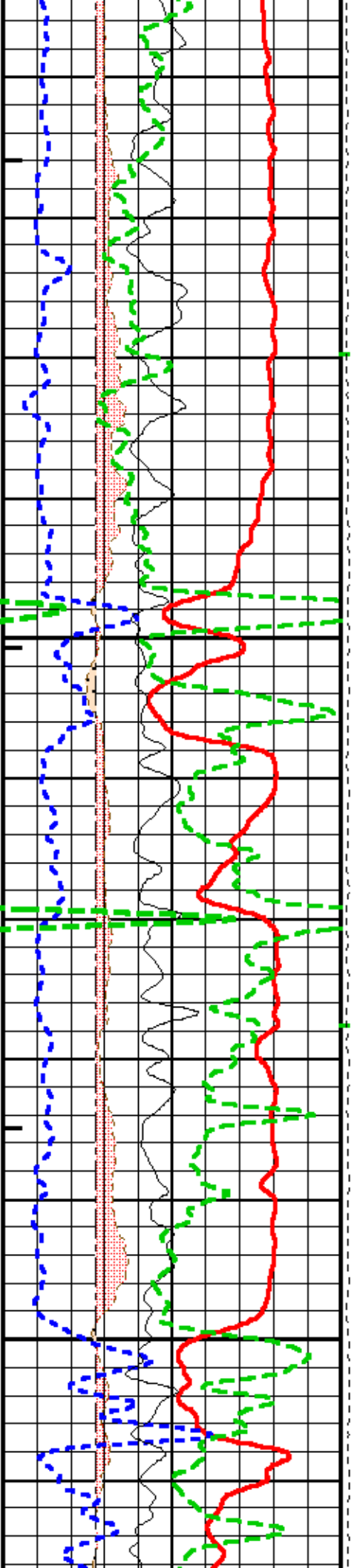


900

925



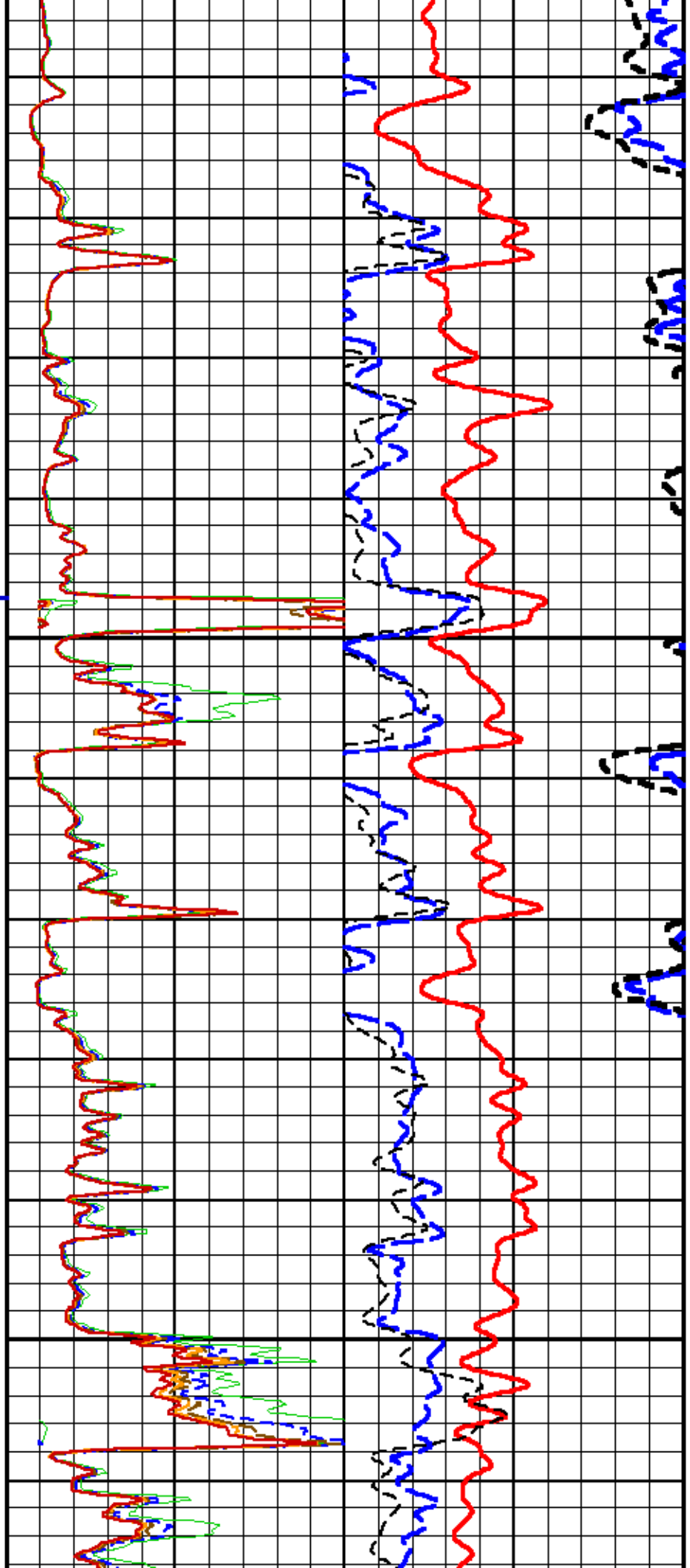


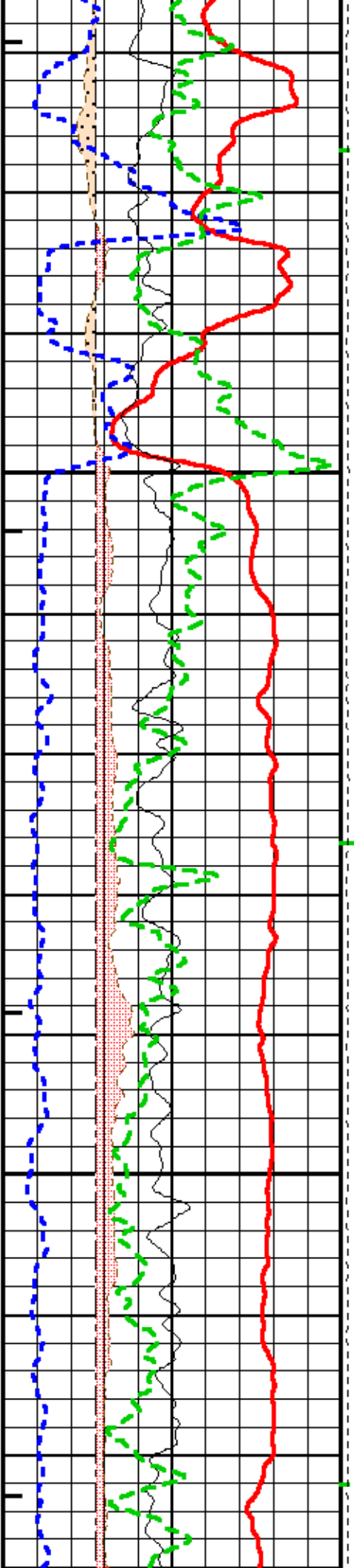


1025

1050

20

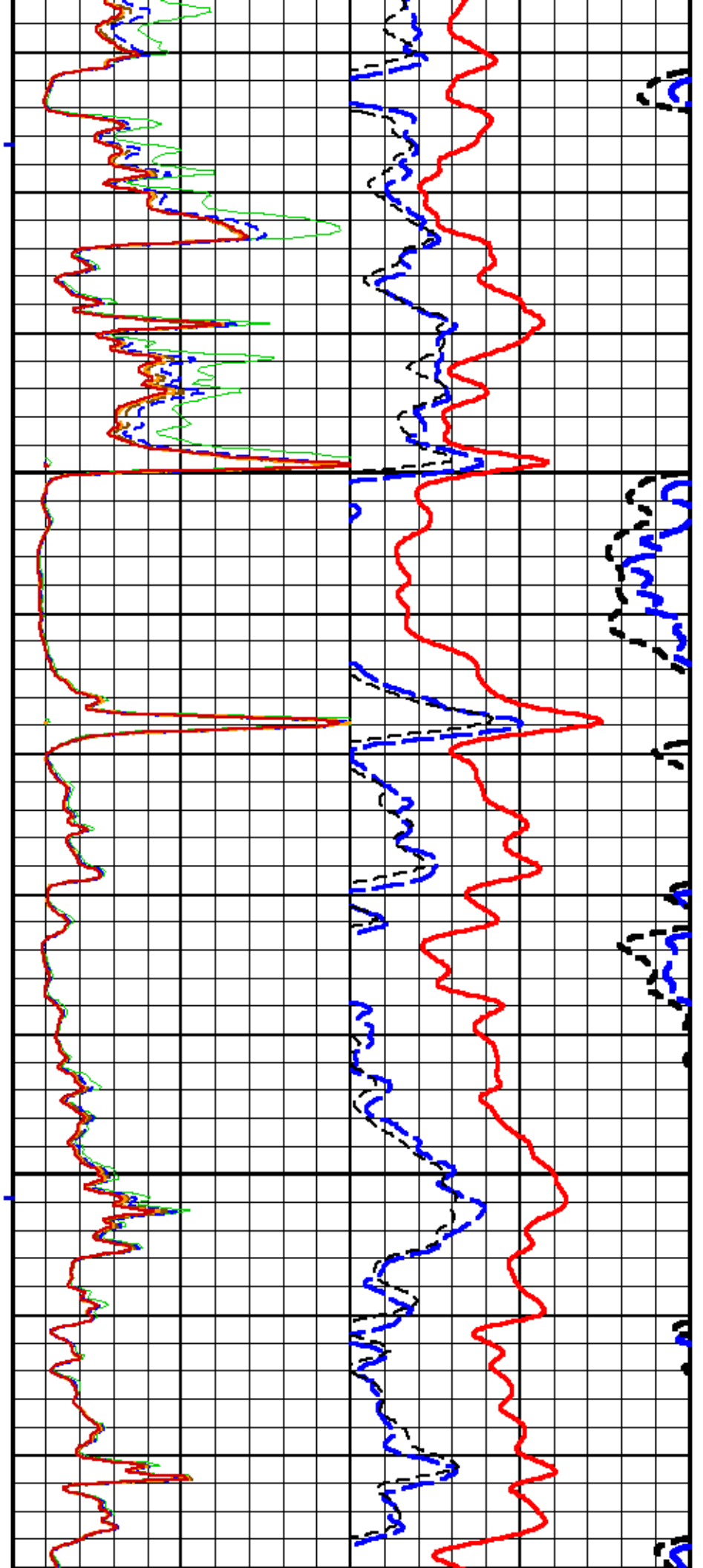


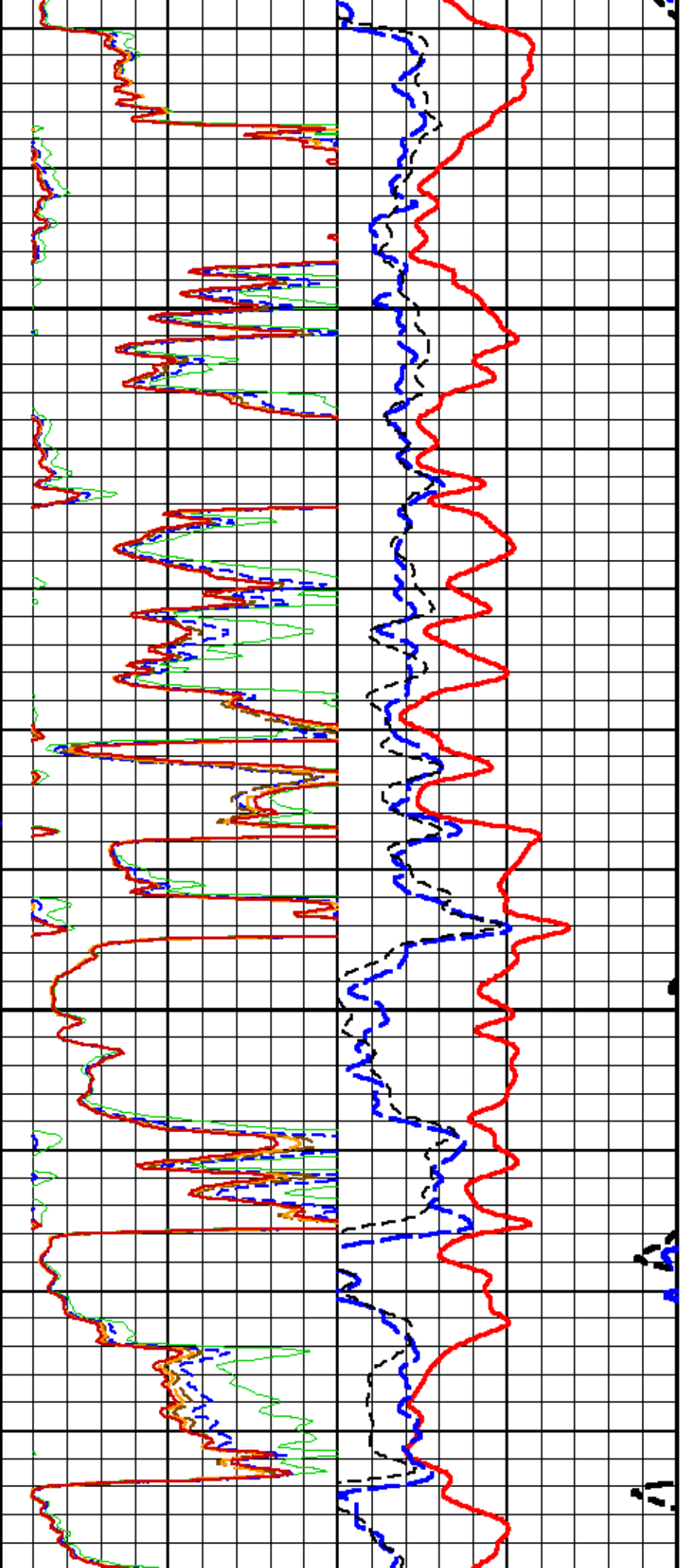


1075

1100

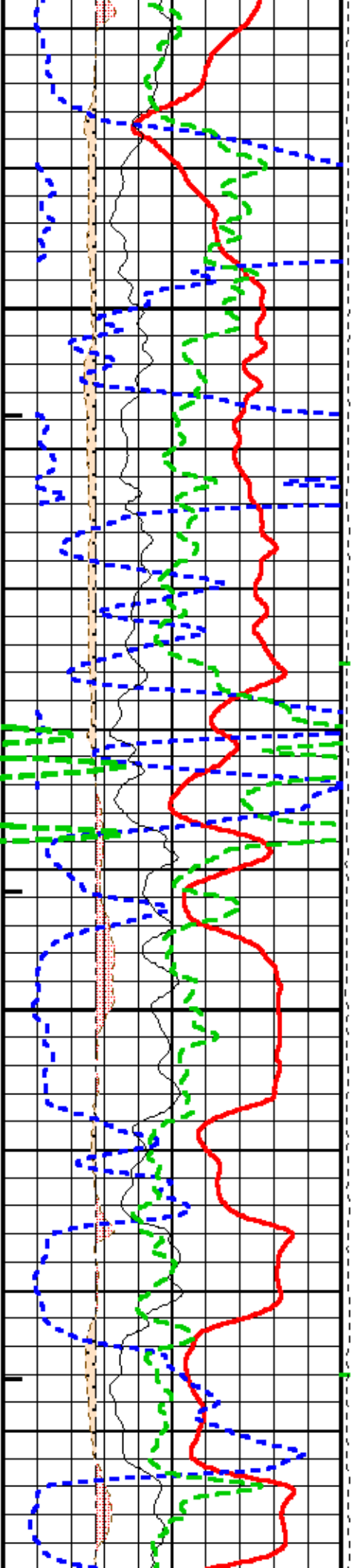
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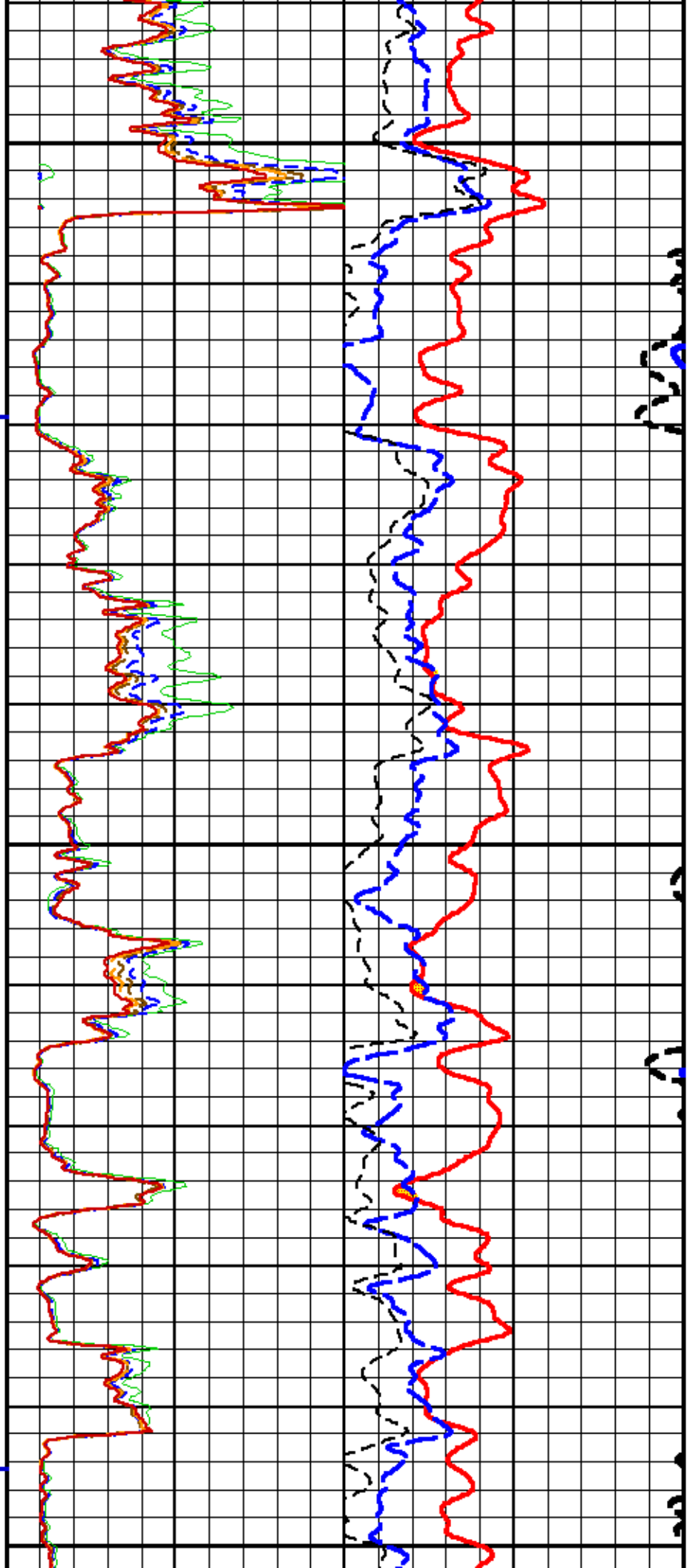




1125

1150

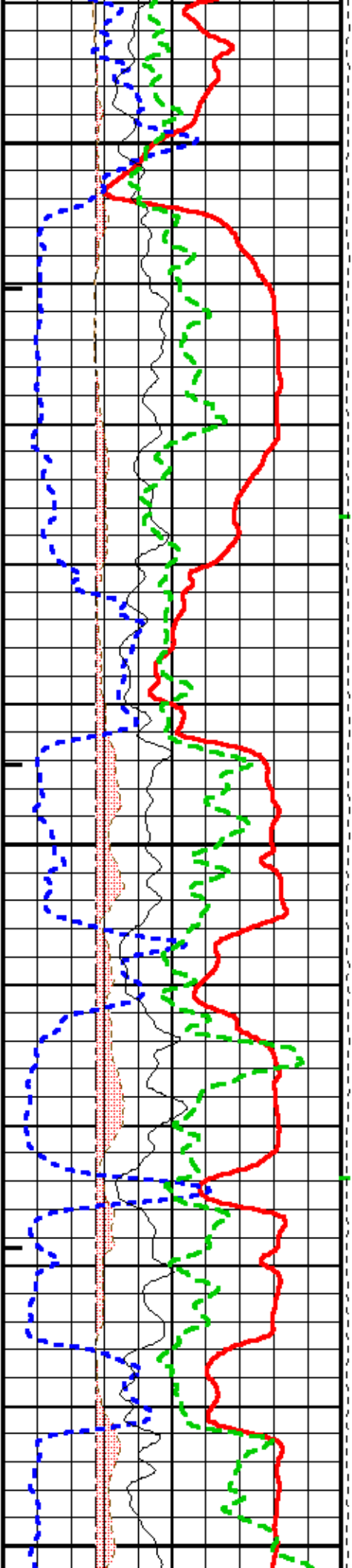




1175

1200

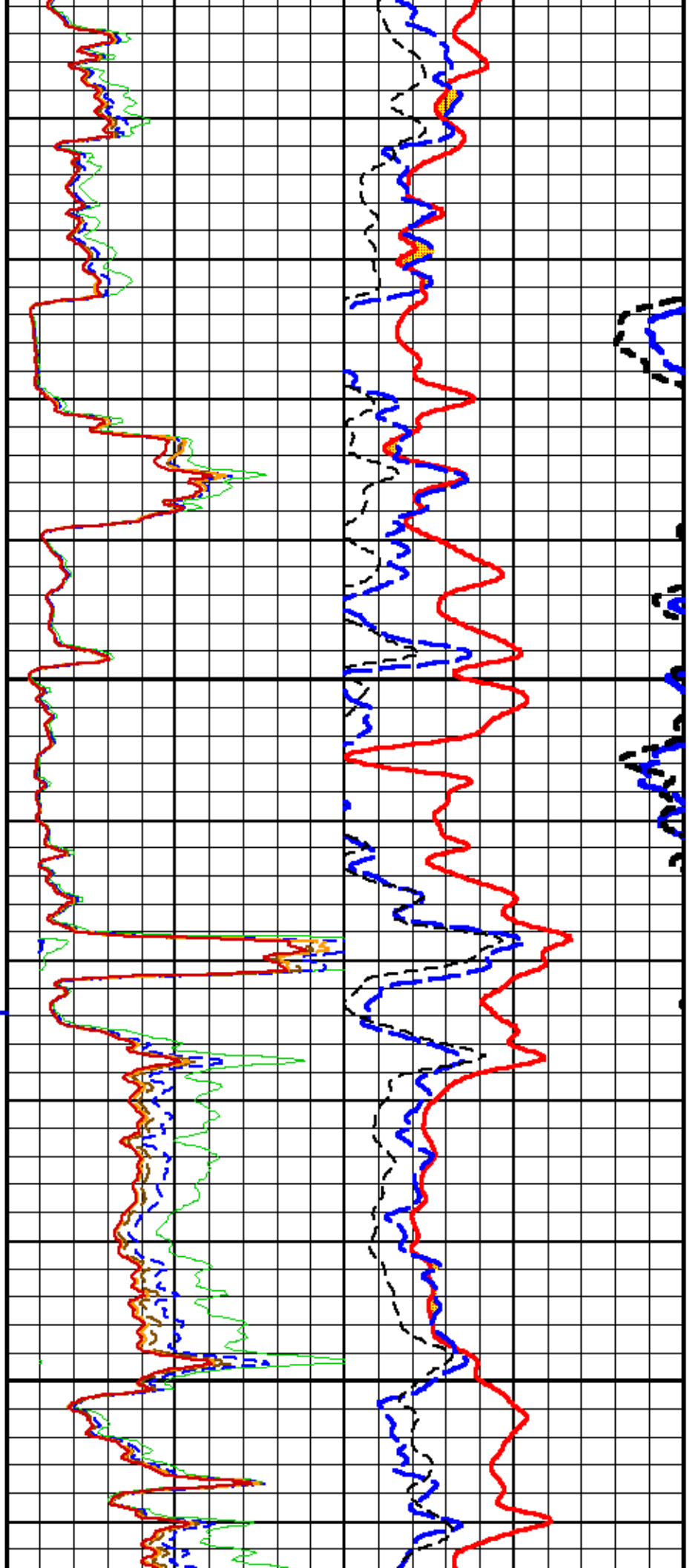
1225



1175

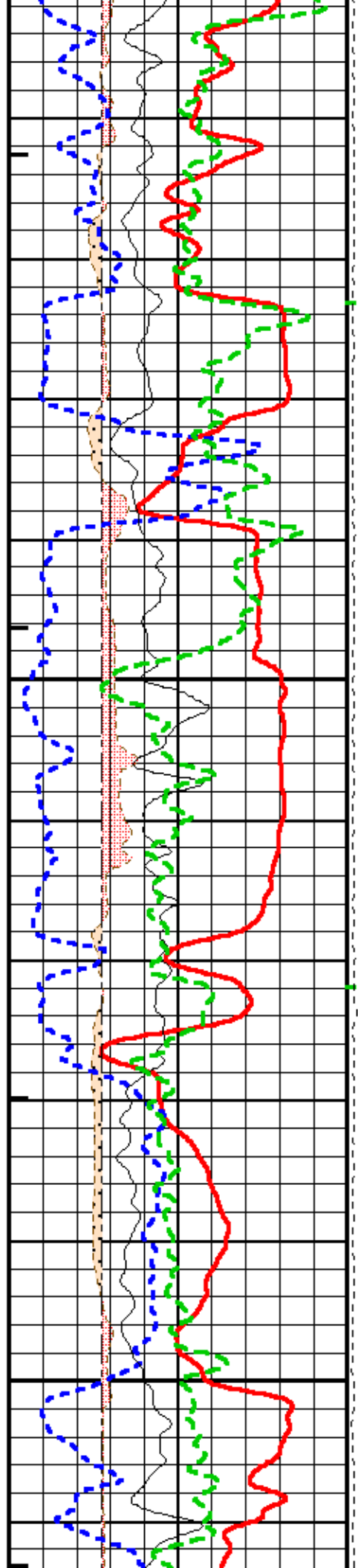
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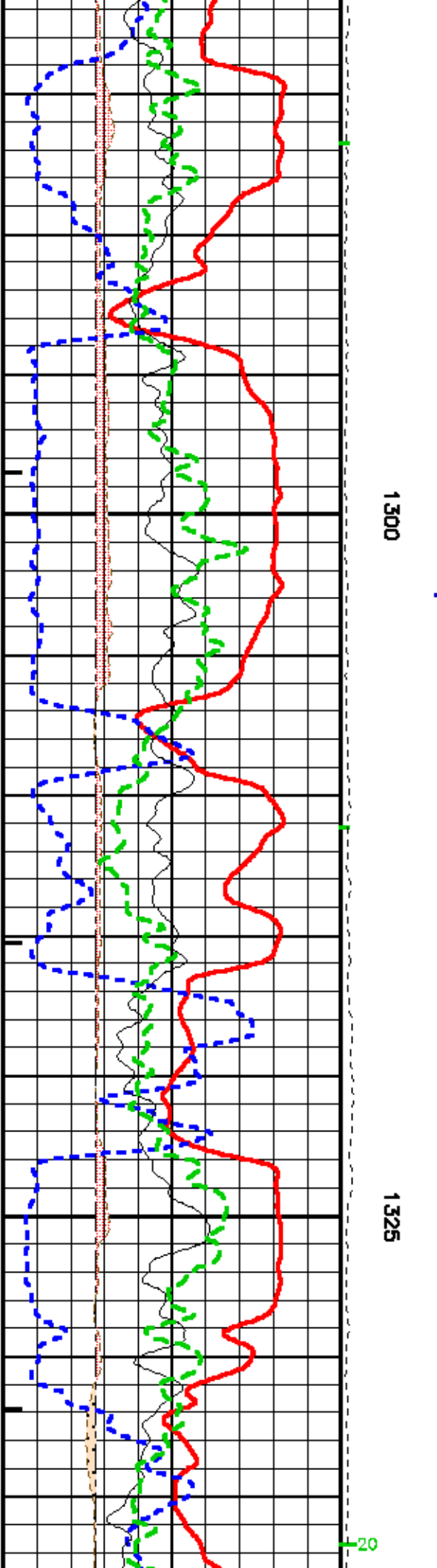
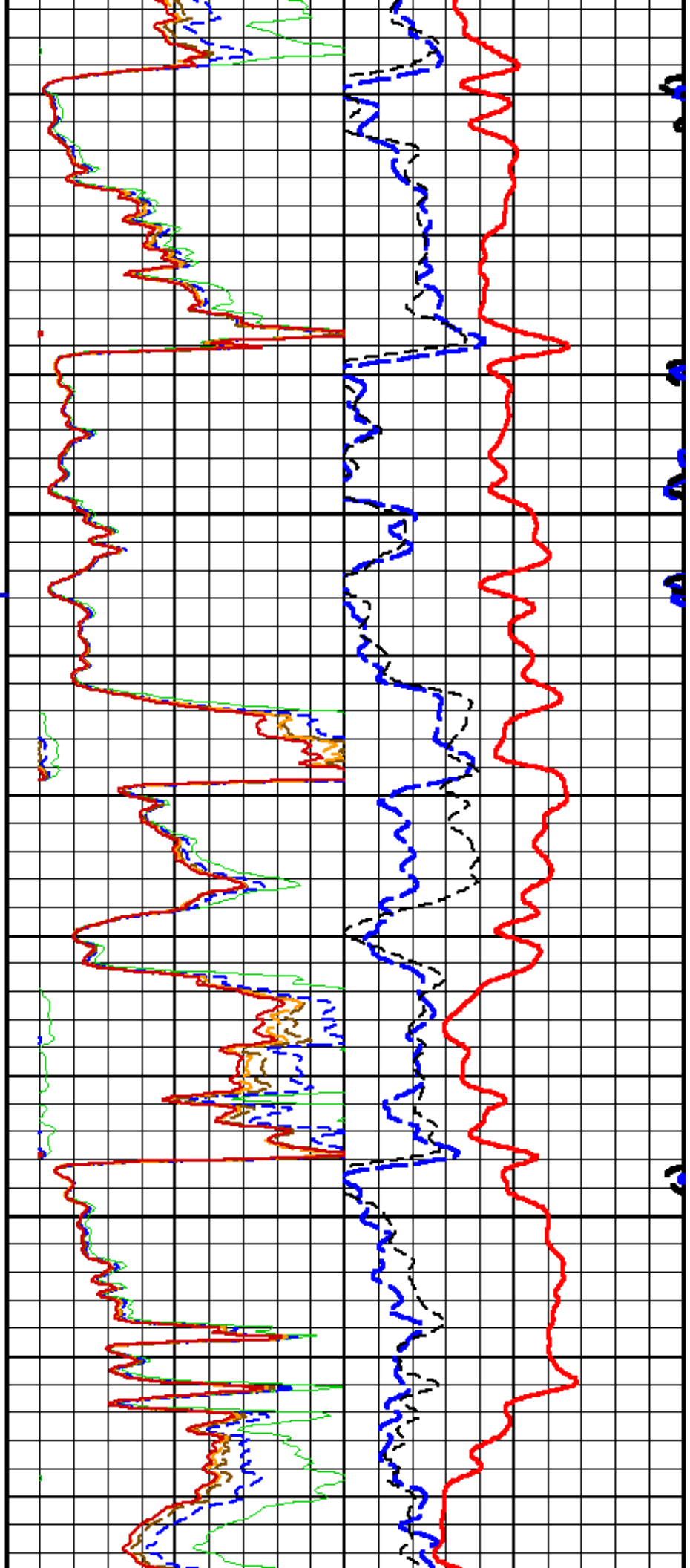
1225

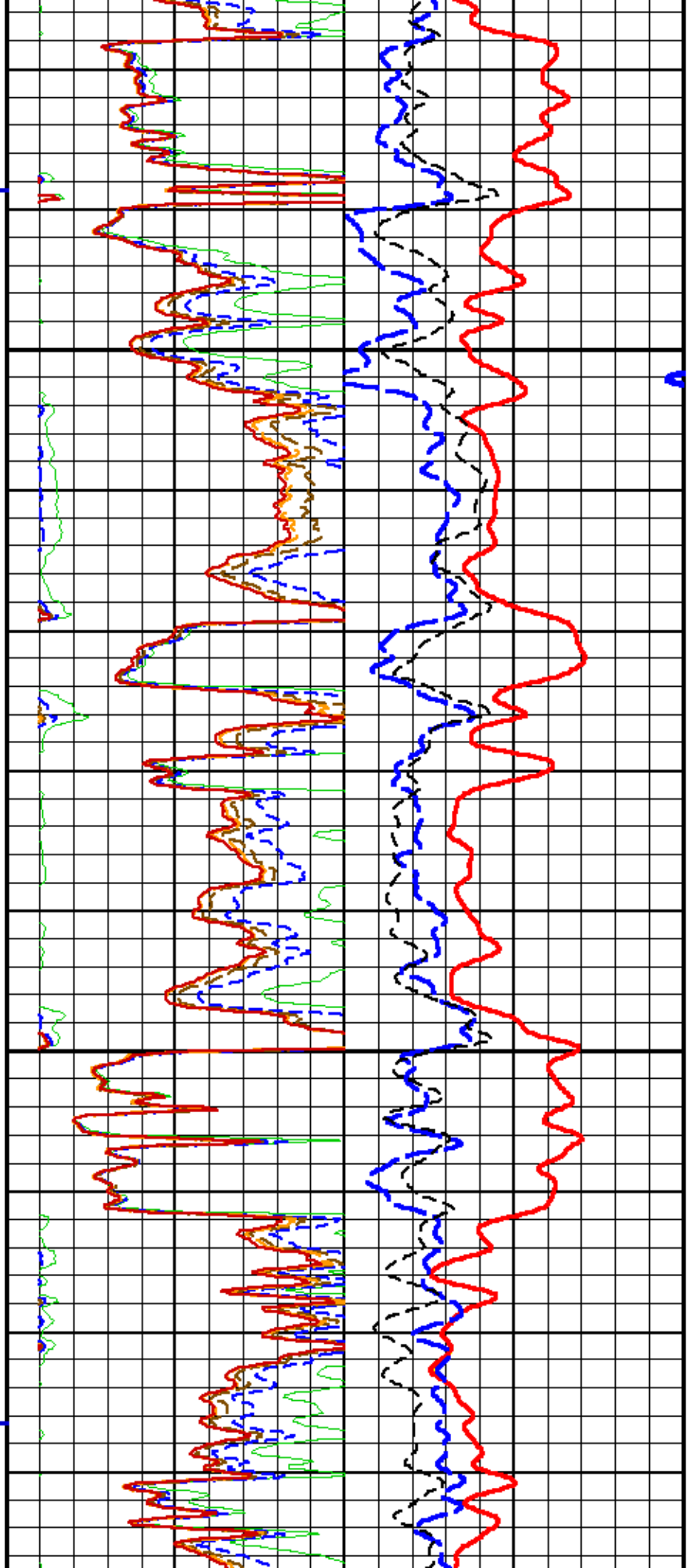


1250

1275

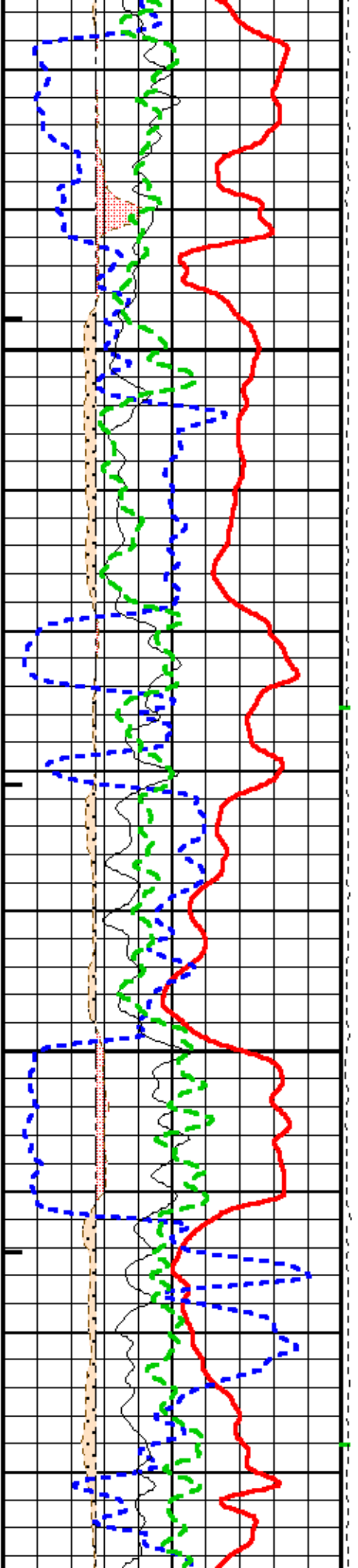


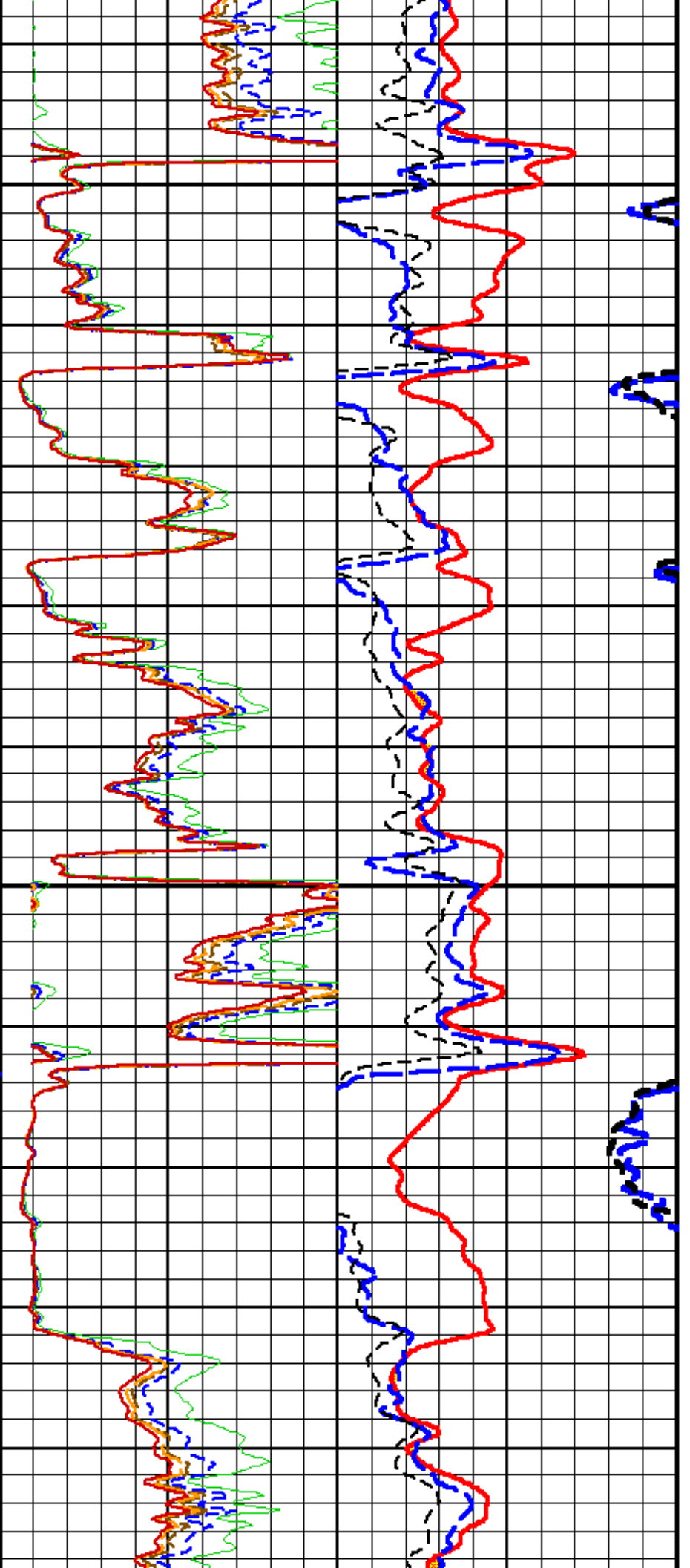




1350

1375

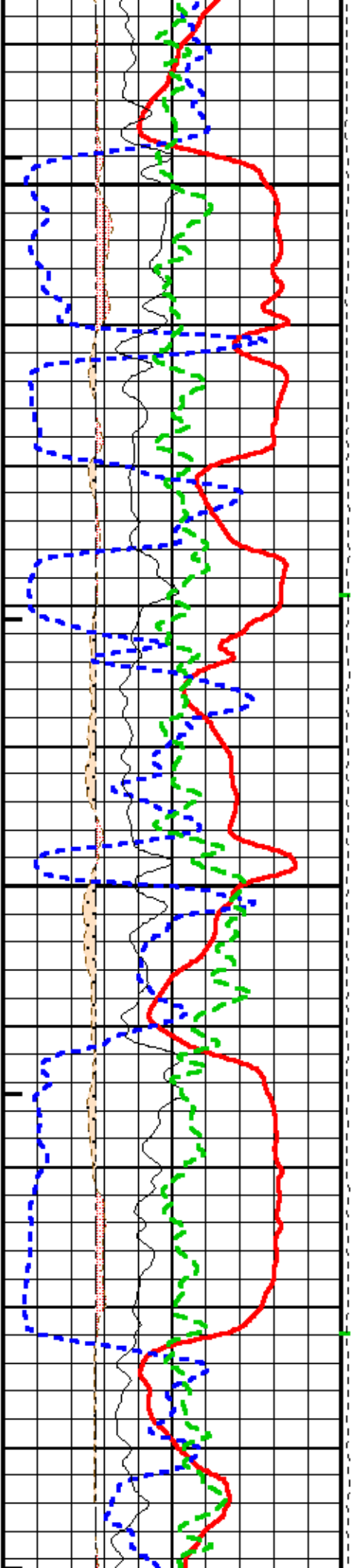


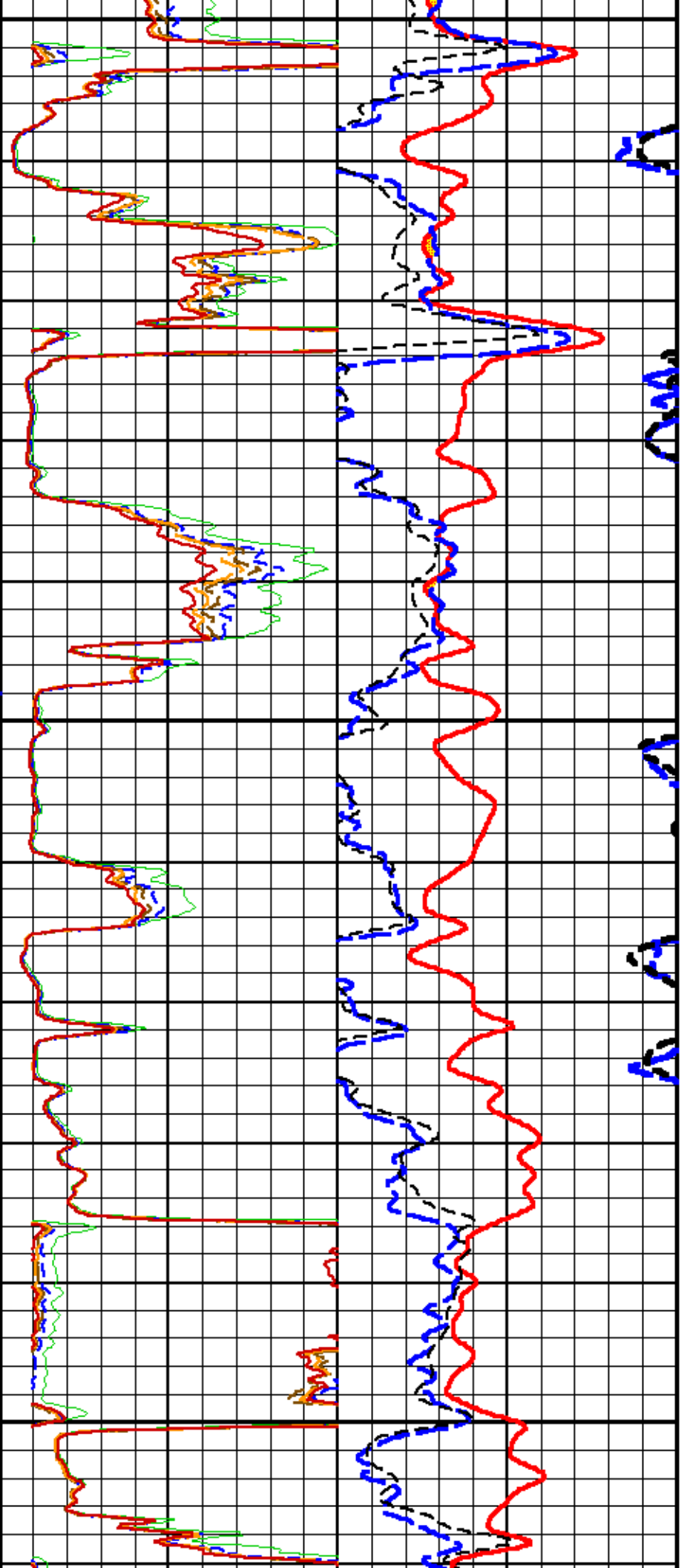


1400

1425

10

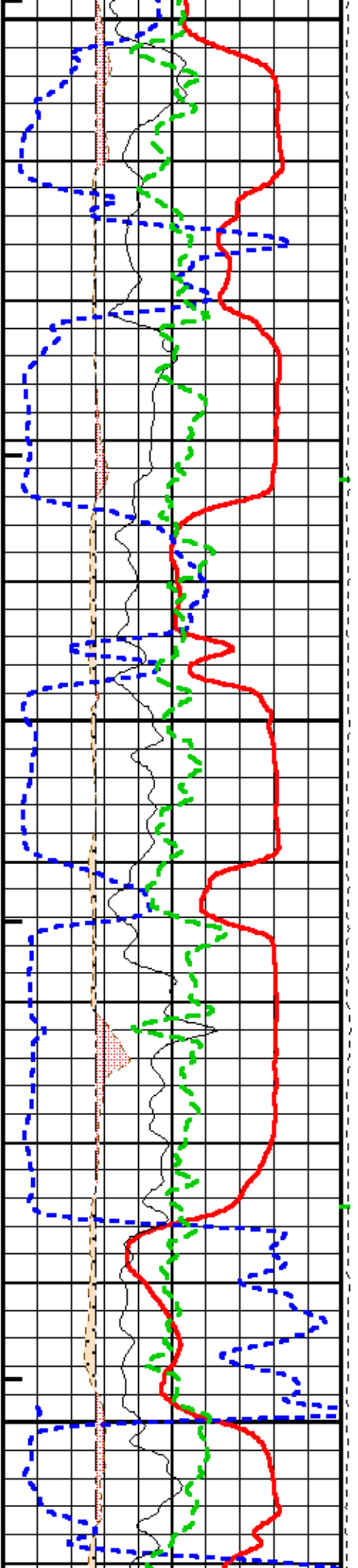


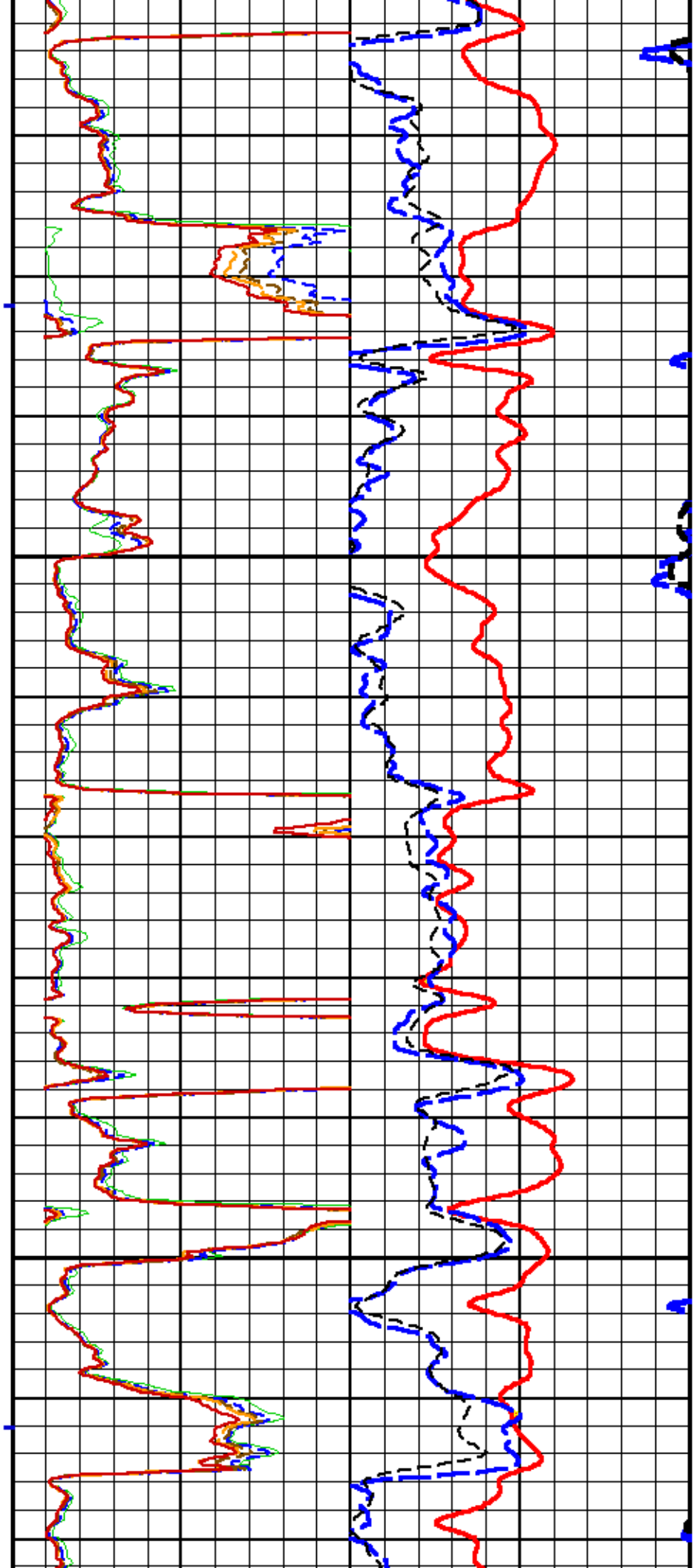


450

1475

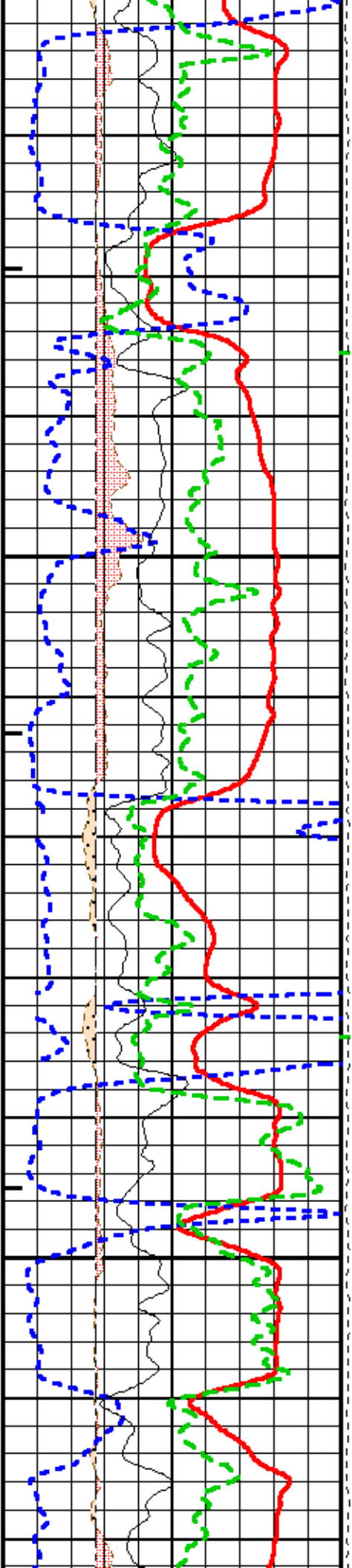
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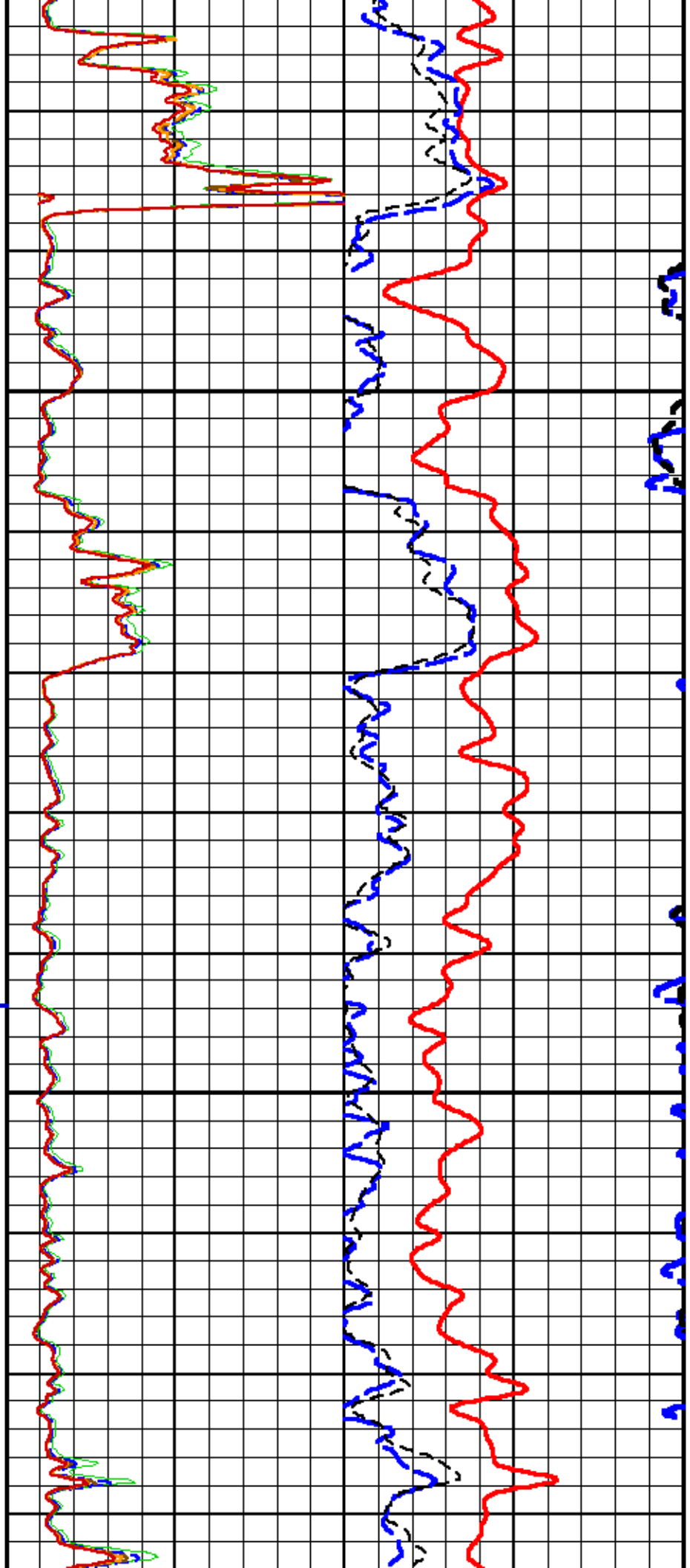




1525

1550

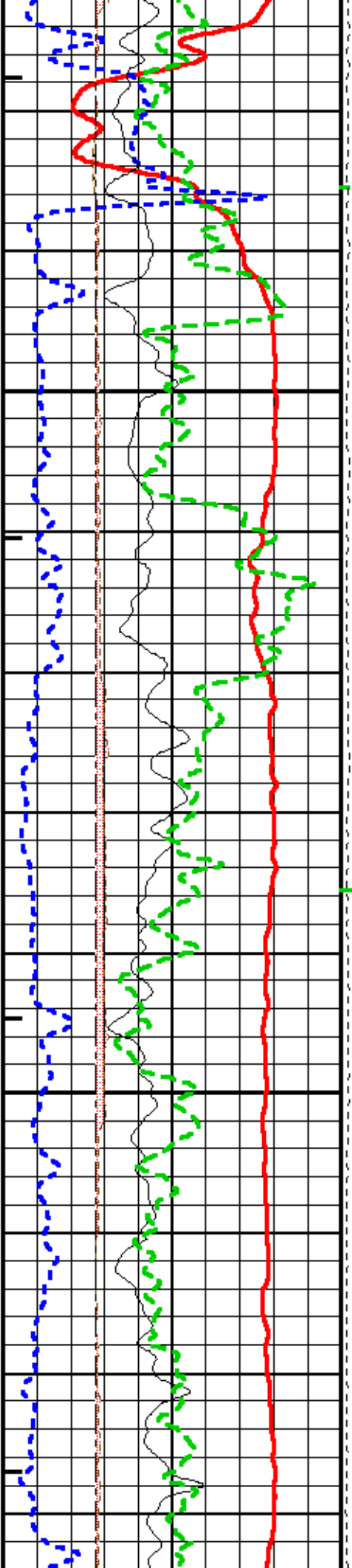


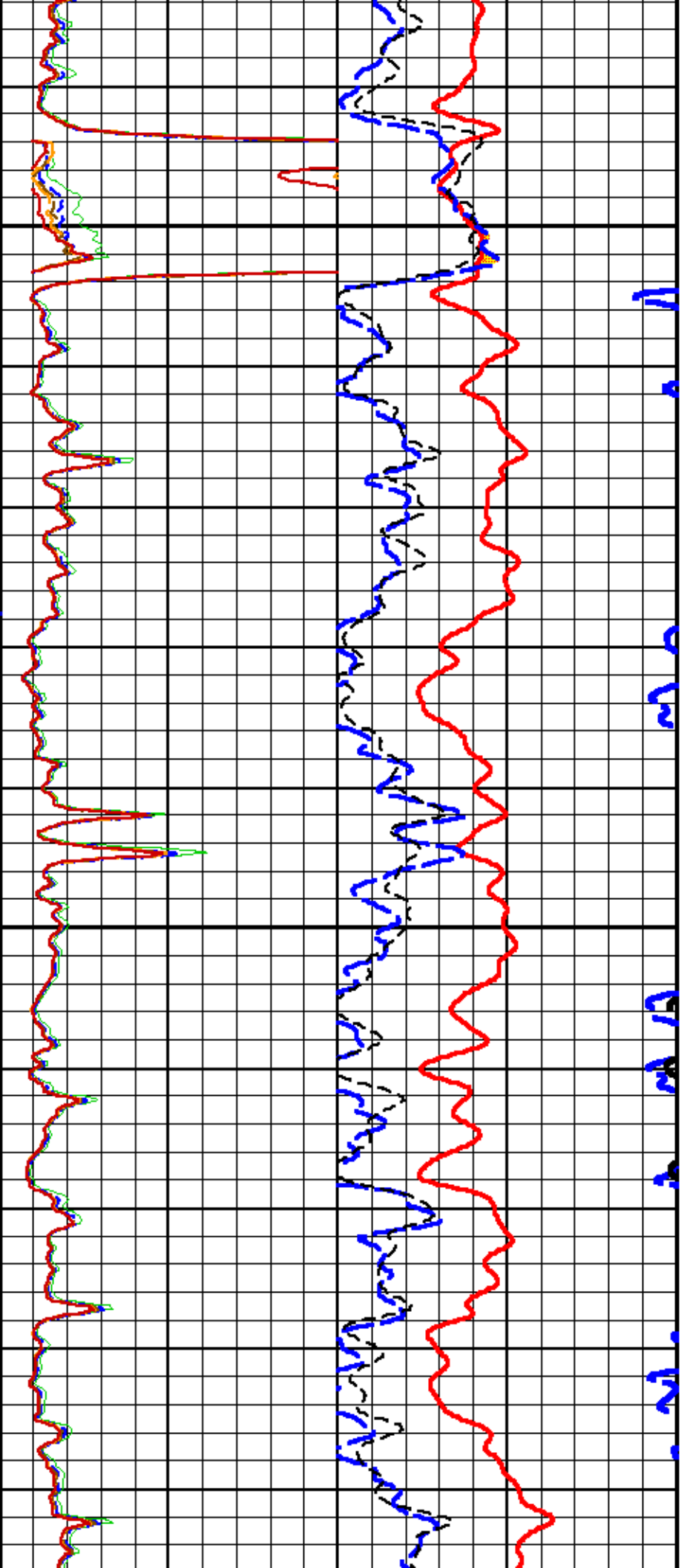


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1600

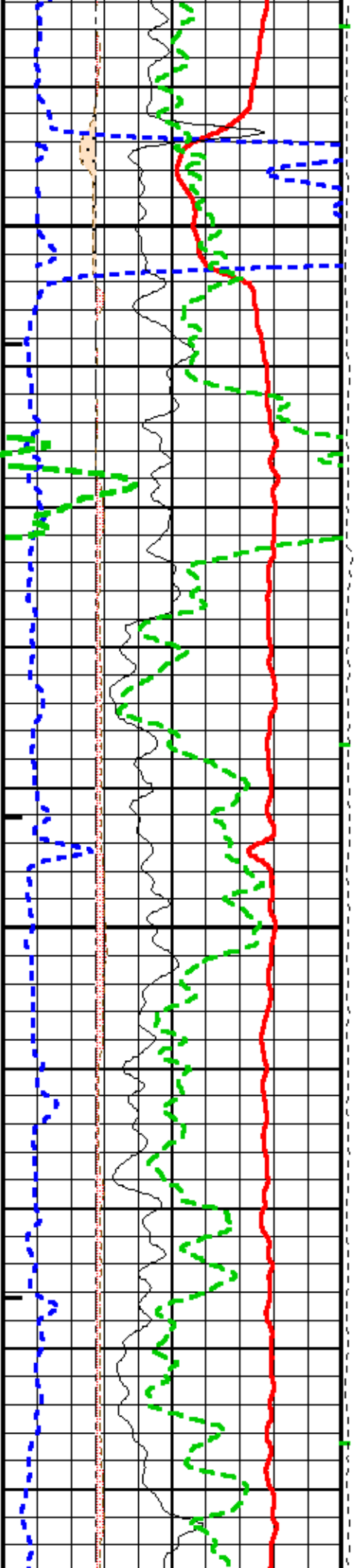
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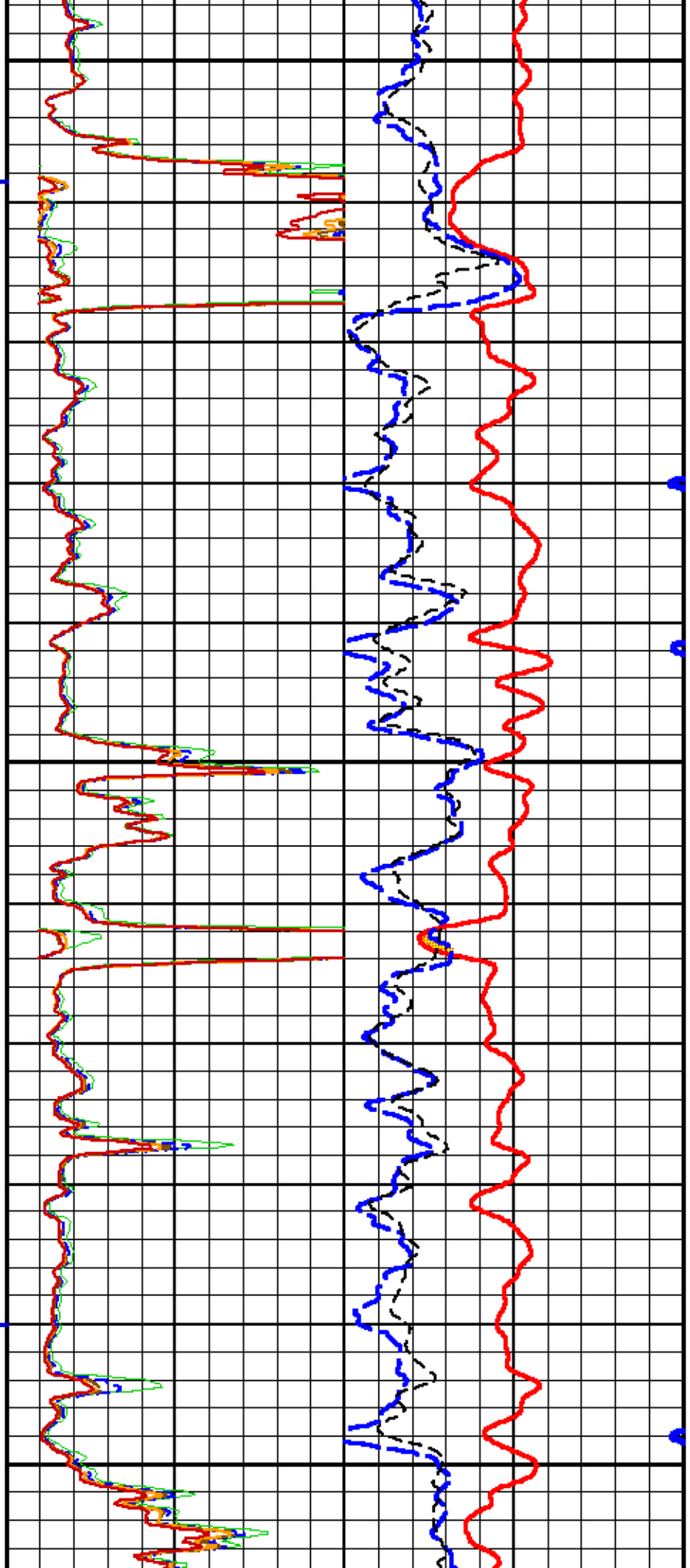




1625

1650

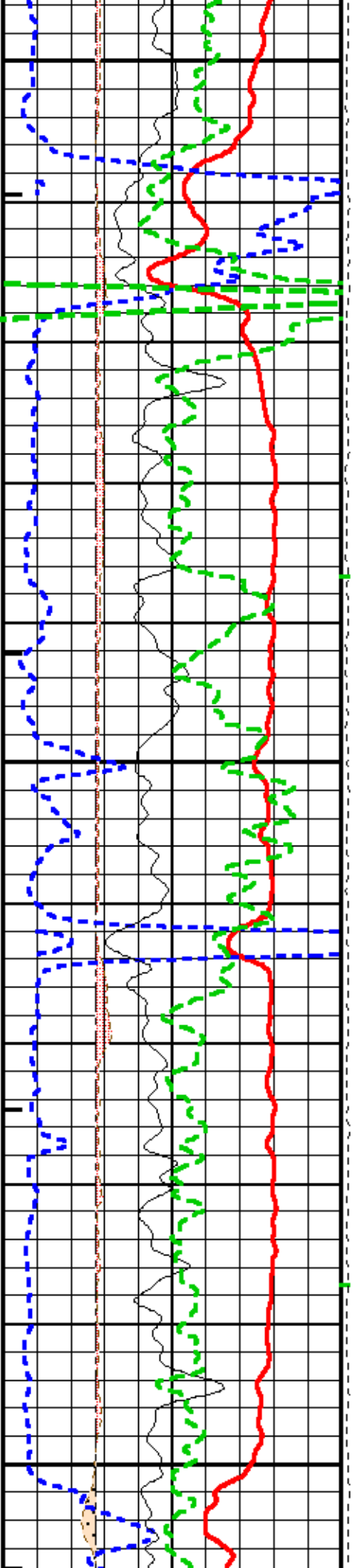


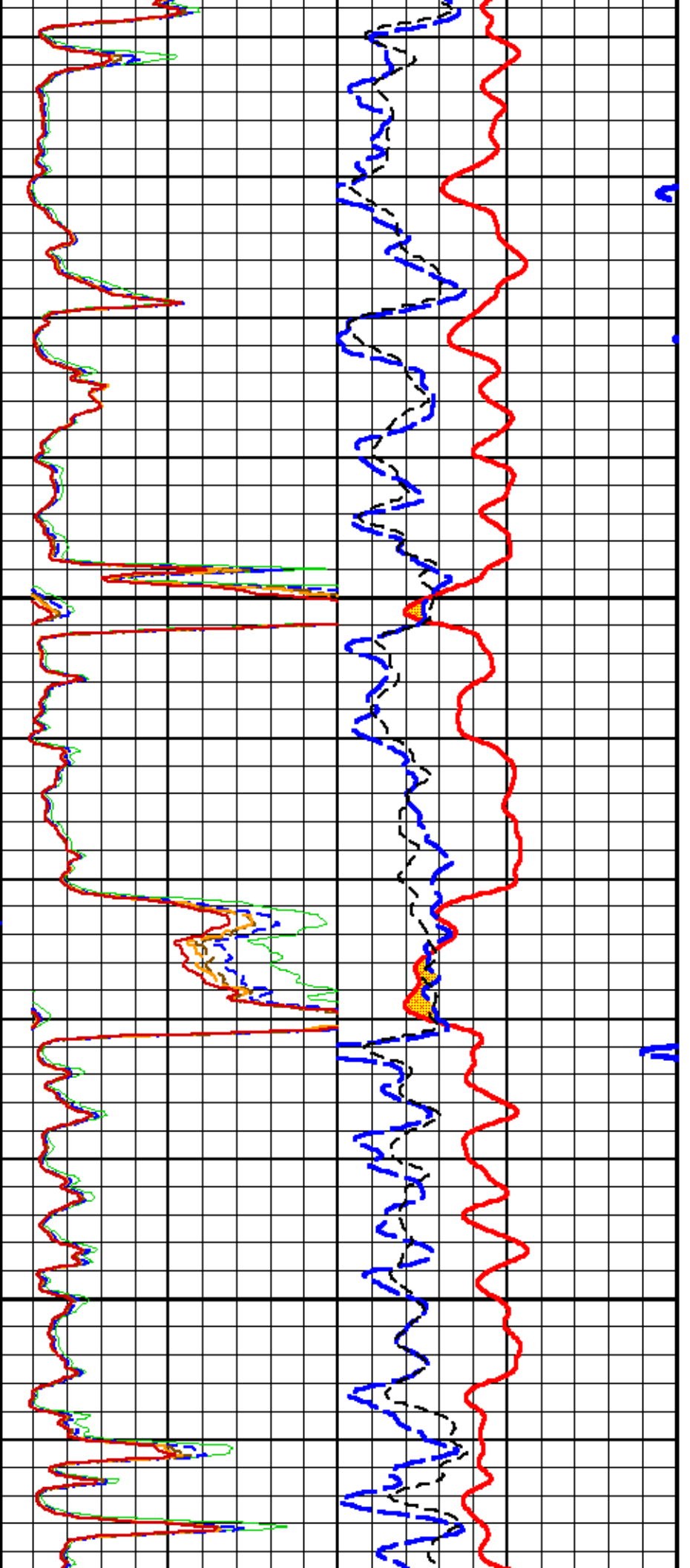


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1700

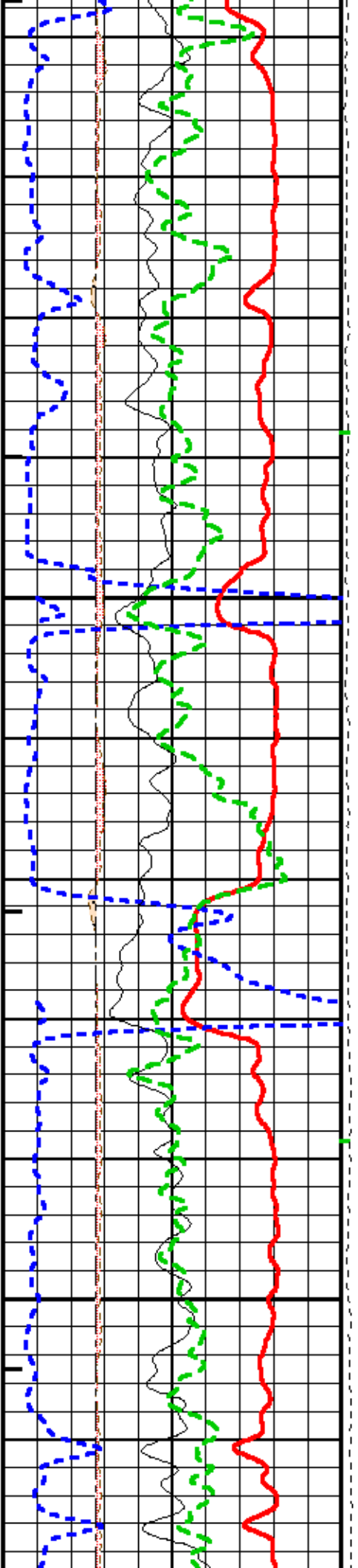
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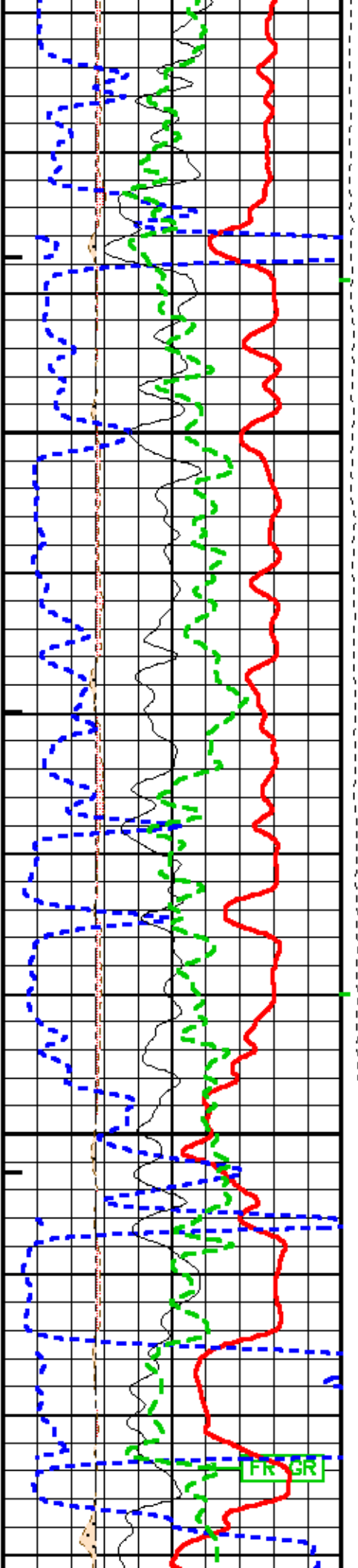




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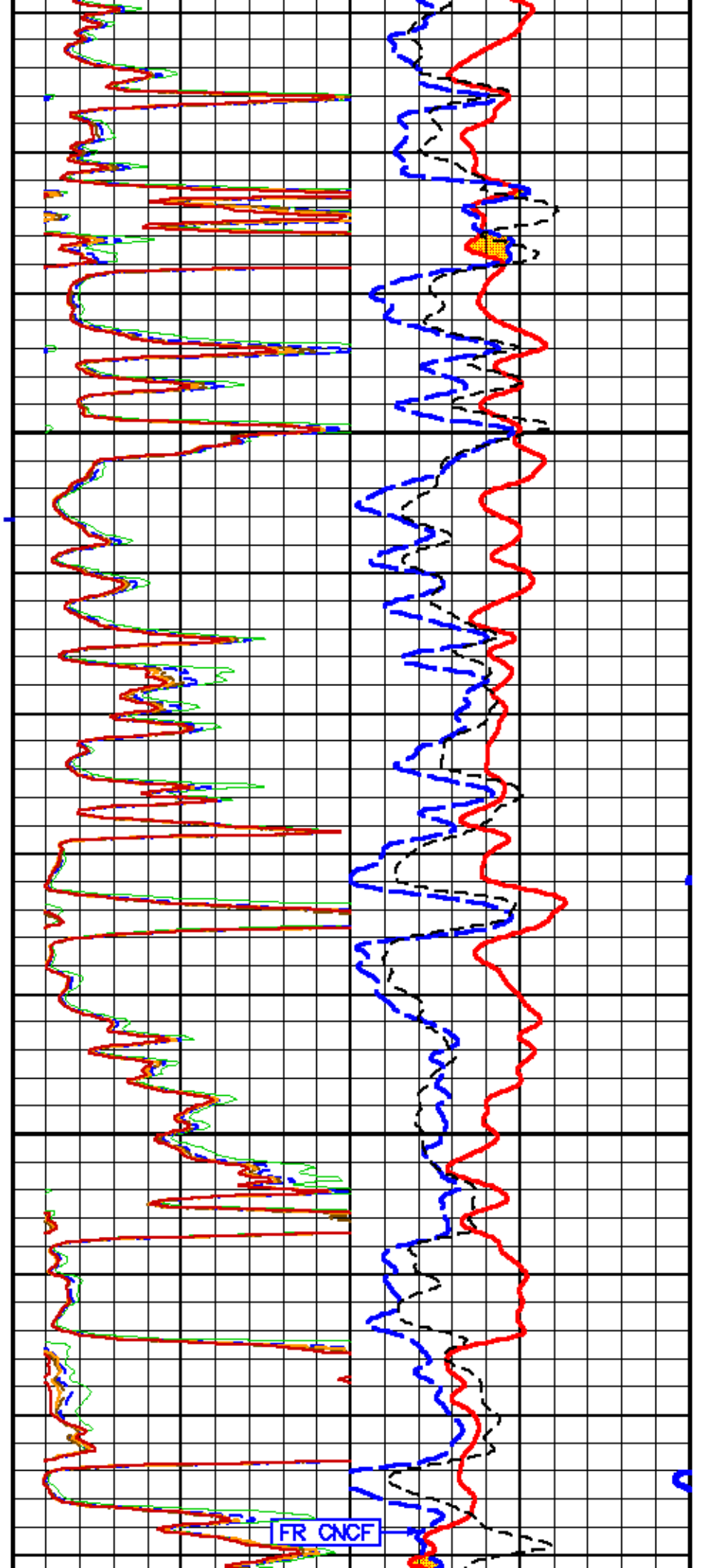
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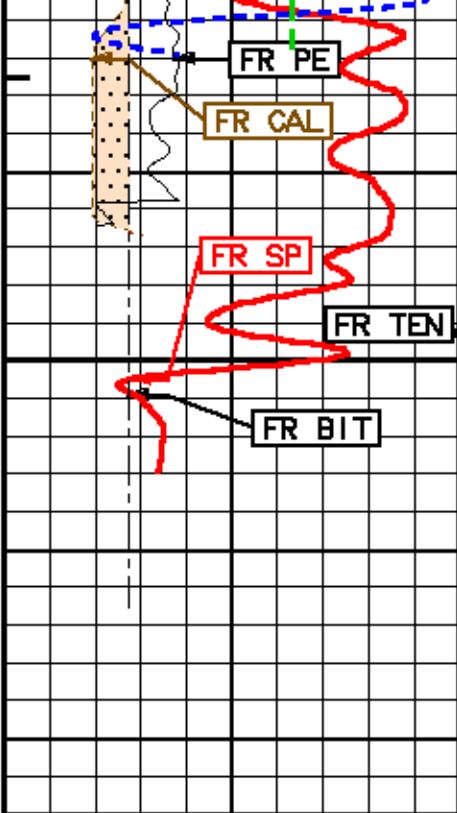




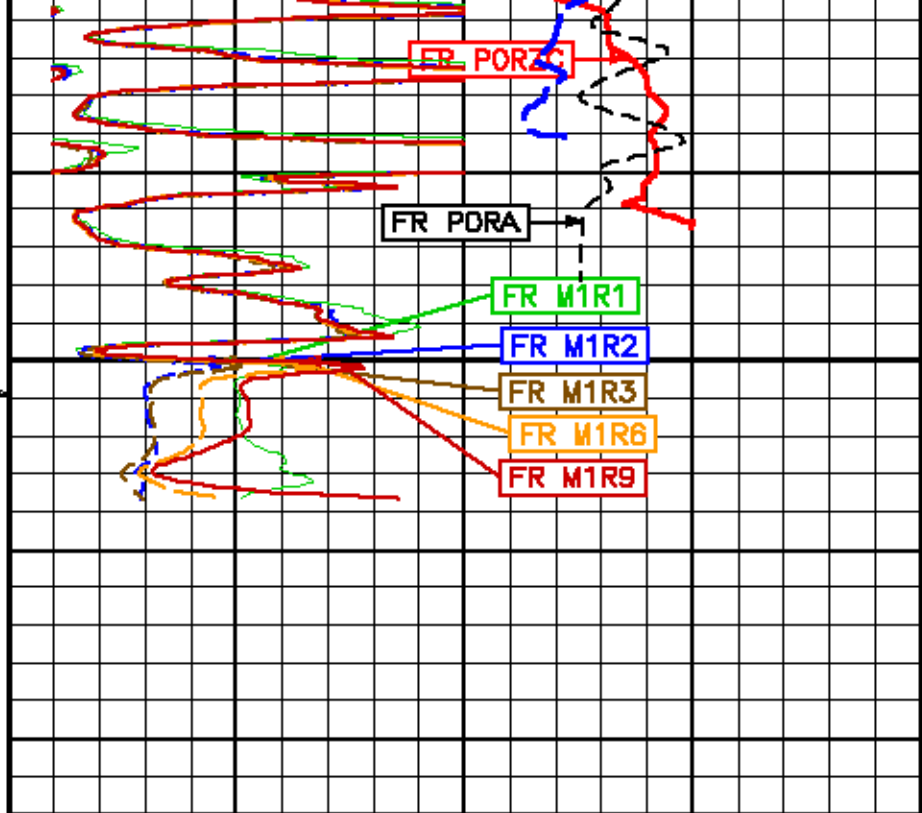
1800

1825



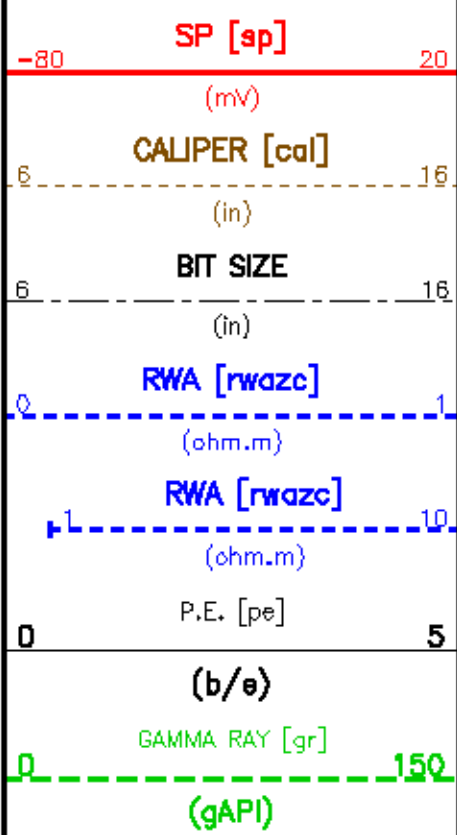


1850



UNDER GAUGE

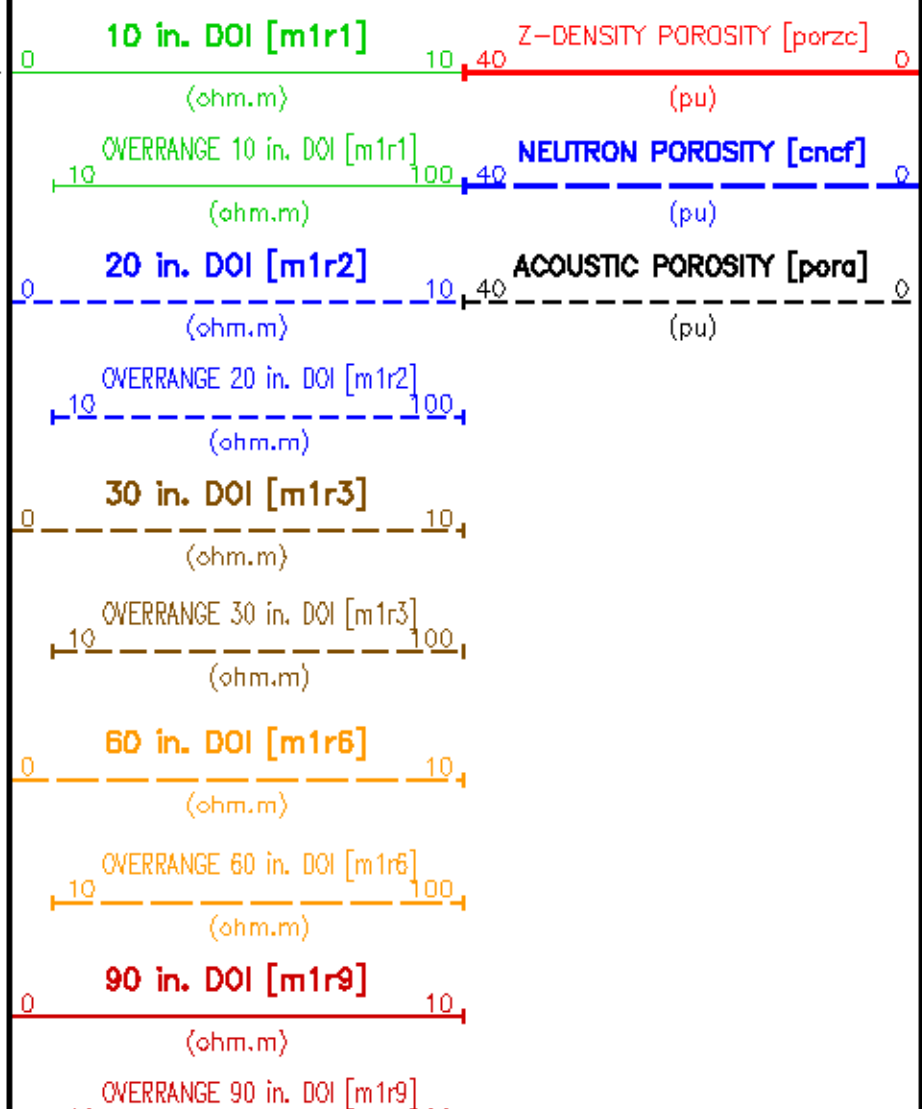
WASHOUT

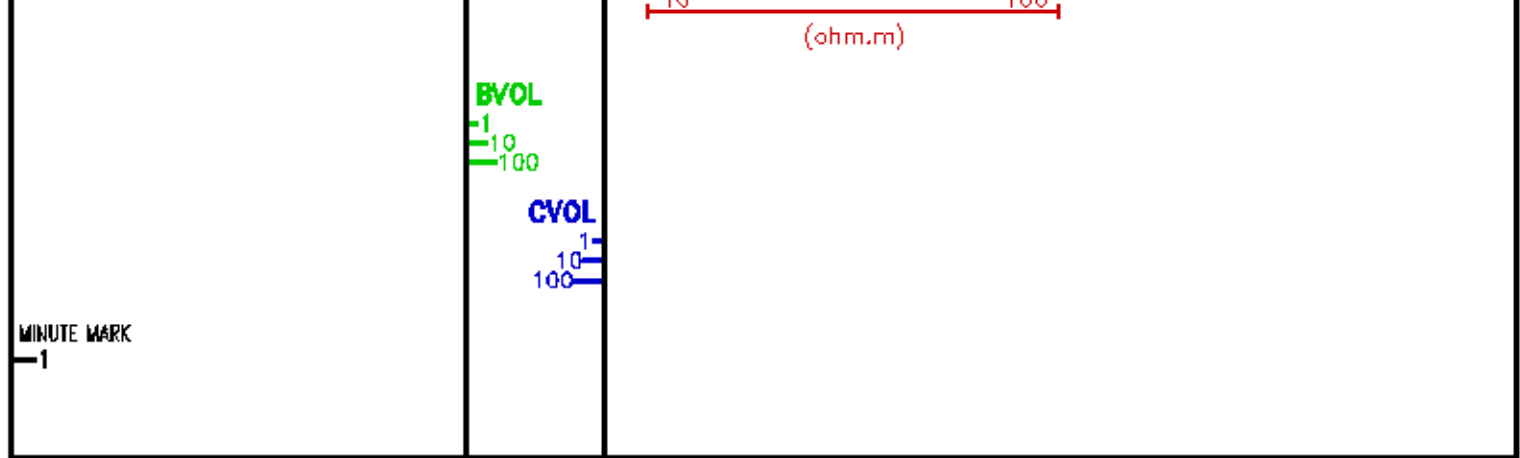


TENSION [ten] (lbf)

METERS

PORZ-CNCF





TRAMO REPETIDO - ESCALA 1:200

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/ea779/k970a03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1682.554 m BOTTOM DEPTH: 1840.971 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GR MED RES	FILTER ()	medium (1)		TOP	BOTTOM
CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
CN MED RES	FILTER ()	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soff*)	medium		"	"
DT24	FILTER ()	medium (1)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	5.500	1m	TOP	BOTTOM
	CASING THICKNESS	0.000	1m	"	"
BIT SIZE	BIT SIZE	8.750	1m	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	1m	"	"
	FIXED DIAMETER (mbh*)	8.750	1m	"	"
MUD DENSITY	MUD DENSITY	1.17	g/cm3	"	"
BH MUD RESISTIVITY SOURCE	RMD SOURCE (NDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	m	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1100	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	8.750	1in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOmatrix	2.650	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	"	"

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	MTH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	45	us/ft	"	"
	TAPER - RIGHT END	175	us/ft	"	"
	FLOOR (UNIV. OPTION)	0.200		"	"

ACOUSTIC POROSITY

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACOUSTIC POROSITY	POROSITY TYPE	R-H-G		TOP	BOTTOM
	DTmatrix	54.00	us/ft	"	"
	DTfluid	180.00	us/ft	"	"
	DTshale	100.00	us/ft	"	"
	MOD. WYLLIE PARM	2.25		"	"
	MOD. R-H-G PARM	2.00		"	"

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	4000	Hz	"	"
	HIGH FREQ CUTOFF	30000	Hz	"	"

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	STACK LEVEL			TOP	BOTTOM
	SUBSET	0		"	"
DELTA T TCC PARAMETERS	ACG WINDOW	1200	us	"	"
	SAMPLE PERIOD	8		"	"
	RK DELAY	160	us	"	"

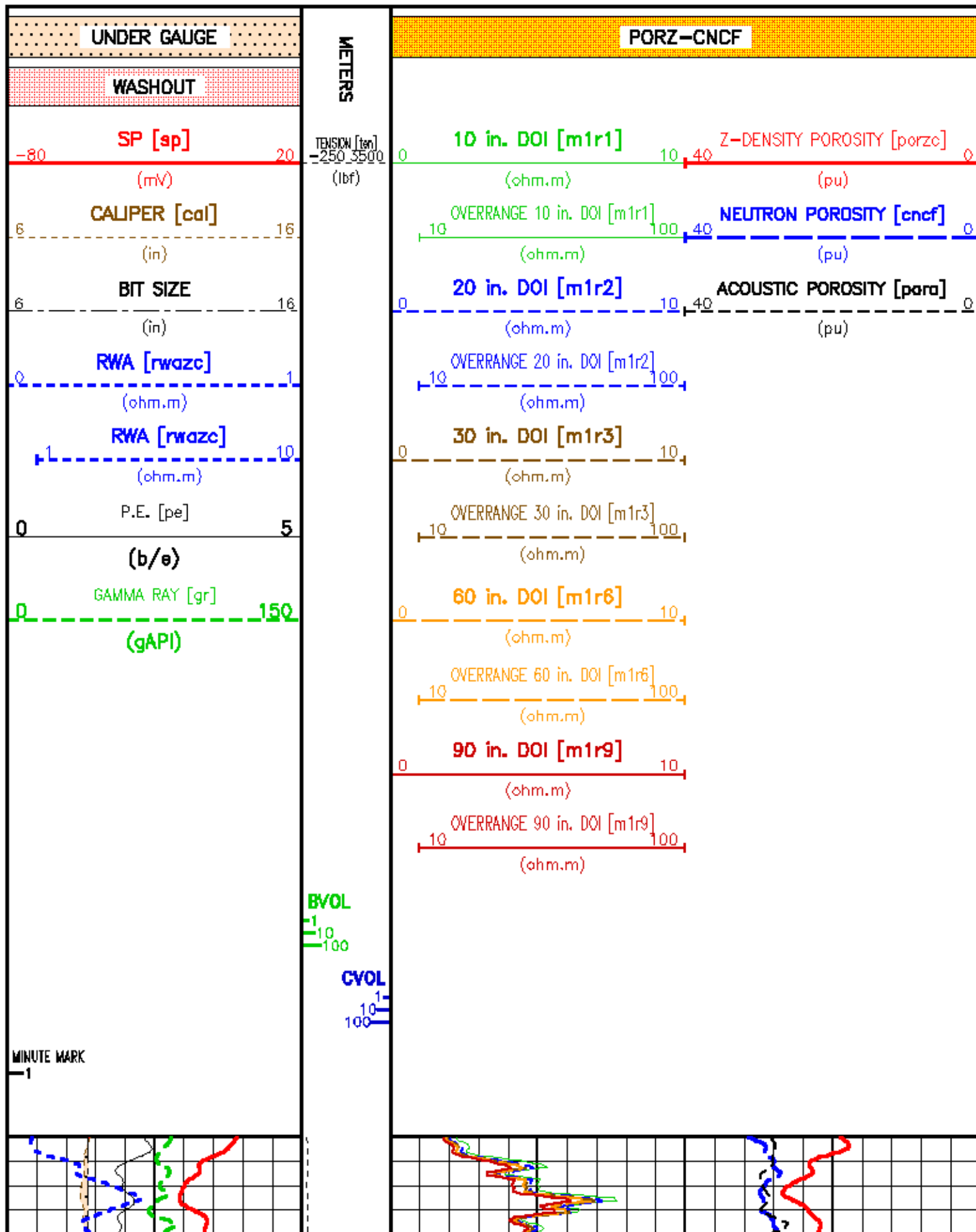
HDIL PROCESSING

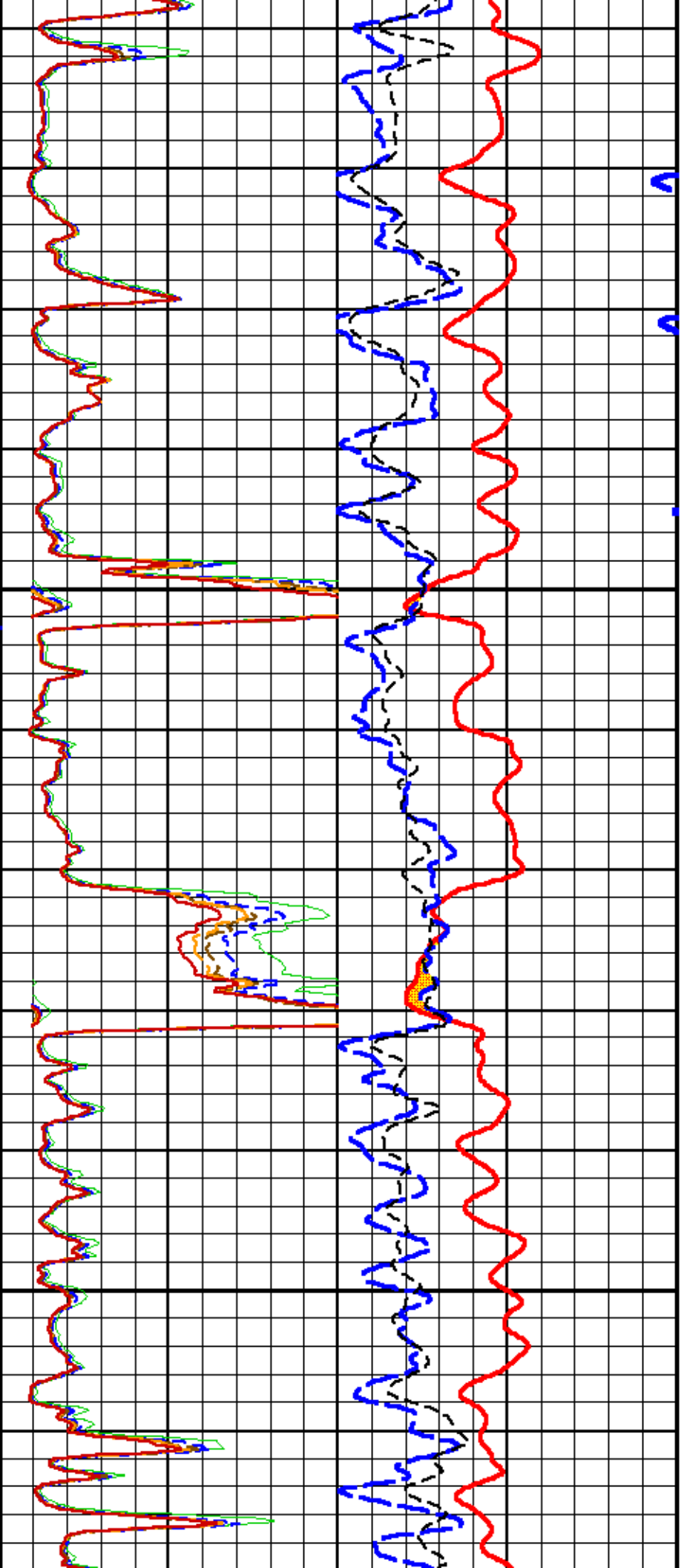
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	1in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmsd MULTIPLIER	1.000		"	"

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	M1R1	0.84	M1R8	0.84	RMZC	0.00
GAL	8.88	M1R2	0.84	PE	8.88	SP	0.38
CNCF	11.73	M1R3	0.84	PORA	4.57	TEN	0.00
GR	14.02	M1R8	0.84	PORZC	8.88		

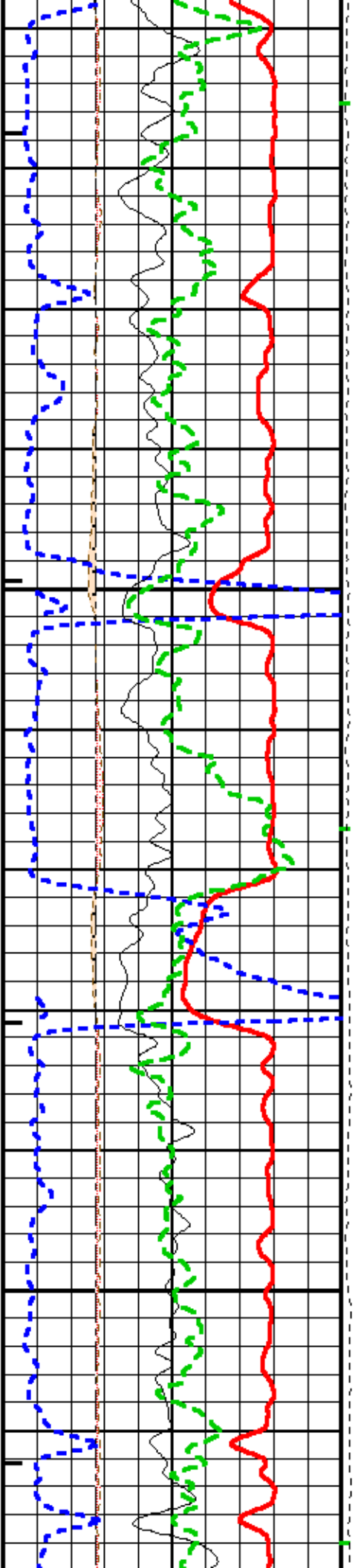
Data File 1 : F1 : HCU/Use/0010/00170/1004321
 Created On : Oct 8 15:47:58 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-778
 Field : EL ALBA
 File Interval : 1444.98 - 1858.54 Meters
 Oct : 1970a

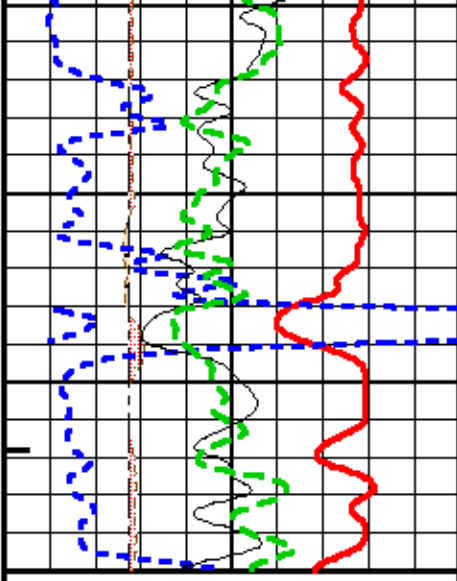




1750

1775





1800
METERS

UNDER GAUGE

WASHOUT

SP [sp] -80 20

(mV)

CALIPER [cal] 6 16

(in)

BIT SIZE 6 16

(in)

RWA [rwazc] 0 1

(ohm.m)

RWA [rwazc] 1 10

(ohm.m)

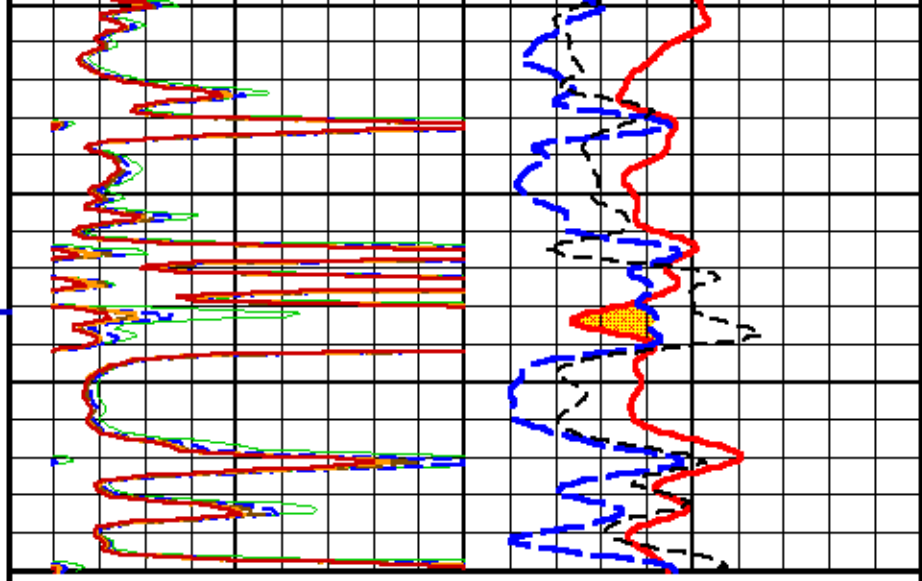
P.E. [pe] 0 5

(b/e)

GAMMA RAY [gr] 0 150

(gAPI)

TENSION [ten] -250 3500
(lbf)



PORZ-CNCF

10 in. DOI [m1r1] Z-DENSITY POROSITY [porzc]

(ohm.m) (pu)

OVERRANGE 10 in. DOI [m1r1] NEUTRON POROSITY [cnrf]

(ohm.m) (pu)

20 in. DOI [m1r2] ACOUSTIC POROSITY [para]

(ohm.m) (pu)

OVERRANGE 20 in. DOI [m1r2]

(ohm.m)

30 in. DOI [m1r3]

(ohm.m)

OVERRANGE 30 in. DOI [m1r3]

(ohm.m)

60 in. DOI [m1r6]

(ohm.m)

OVERRANGE 60 in. DOI [m1r6]

(ohm.m)

90 in. DOI [m1r9]

(ohm.m)

OVERRANGE 90 in. DOI [m1r9]

(ohm.m)

BVOL
1
10
100

CVOL
1

MINUTE MARK

10
100

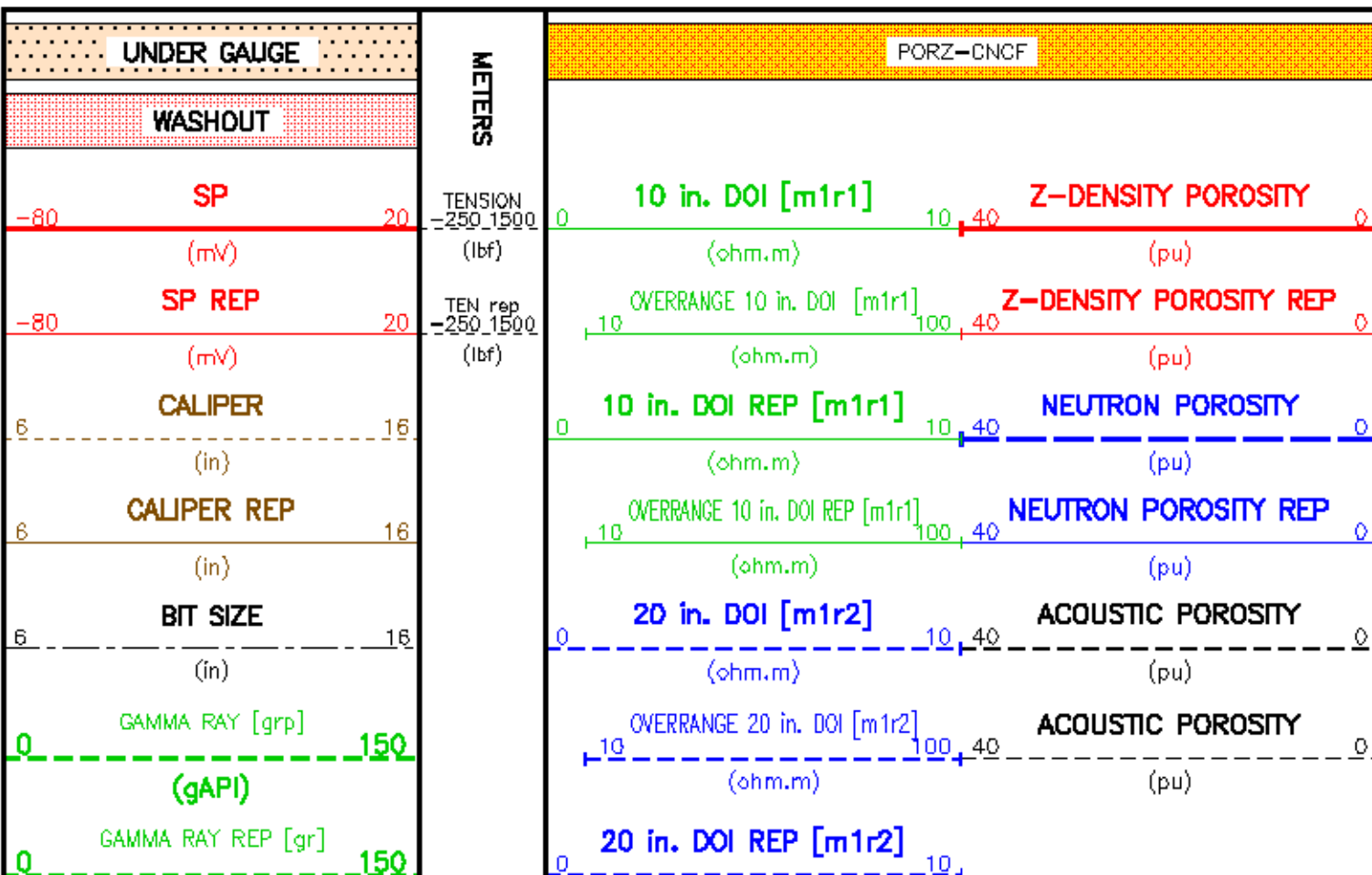
ANALISIS DE REPETIBILIDAD

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	GR	14.02	M1R6P	0.84	PORZCP	8.88
CAL	8.88	GRP	14.02	M1R9P	0.84	SP	0.38
CALP	8.88	M1R1P	0.84	PORA	4.57	SPP	0.38
CNCF	11.73	M1R2P	0.84	PORAP	4.57	TEM	0.00
CNCFP	11.73	M1R3P	0.84	PORZC	8.88	TEMP	0.00

Presentation : HL8708:/dat1a/ea779/camba_ar.pdf [1:200 Scale]
 Plot Interval : 1725 - 1800 Meters

Data File 1 : F1 : HL8708:/dat1a/ea779/TR04.xif
 Created On : Oct 9 15:47:58 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 1444.98 - 1858.54 Meters
 Out : k970a



(gAPI)

(ohm.m)

OVERRANGE 20 in. DOI REP [m1r2]

10 100

(ohm.m)

30 in. DOI [m1r3]

0 10

(ohm.m)

OVERRANGE 30 in. DOI [m1r3]

10 100

(ohm.m)

30 in. DOI REP [m1r3]

0 10

(ohm.m)

OVERRANGE 30 in. DOI REP [m1r3]

10 100

(ohm.m)

60 in. DOI [m1r6]

0 10

(ohm.m)

OVERRANGE 60 in. DOI [m1r6]

10 100

(ohm.m)

60 in. DOI REP [m1r6]

0 10

(ohm.m)

OVERRANGE 60 in. DOI REP [m1r6]

10 100

(ohm.m)

90 in. DOI [m1r9]

0 10

(ohm.m)

OVERRANGE 90 in. DOI [m1r9]

10 100

(ohm.m)

90 in. DOI REP [m1r9]

0 10

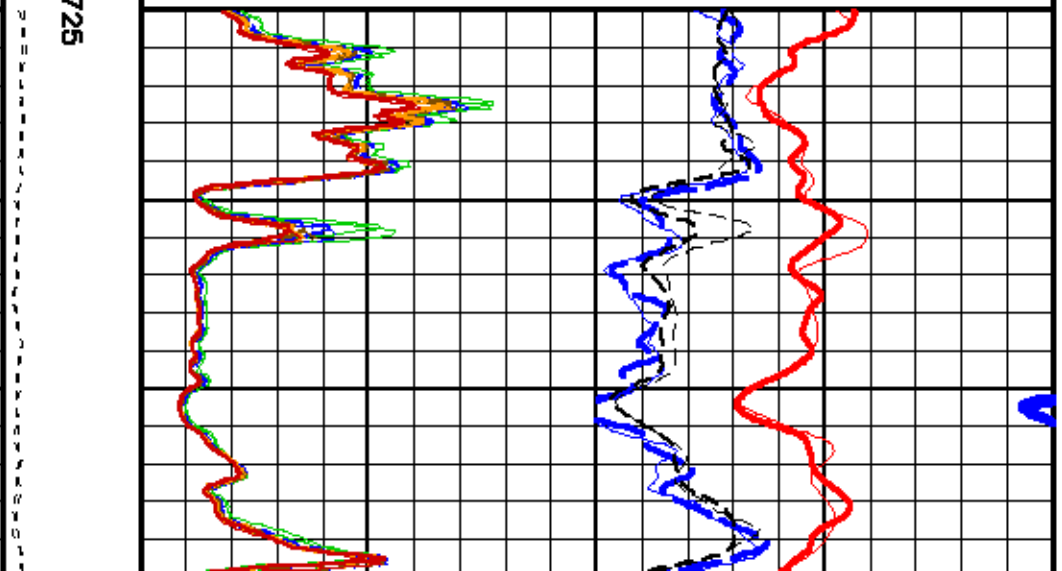
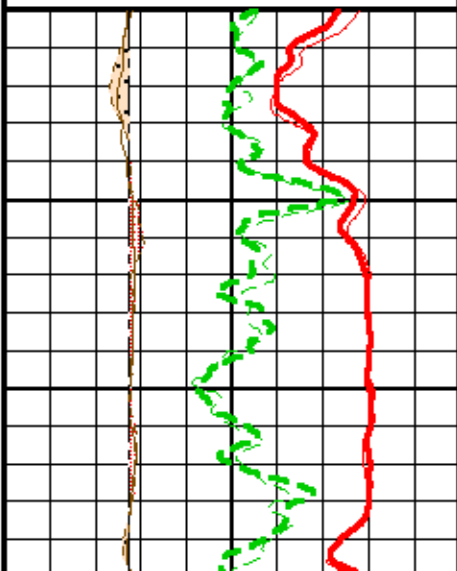
(ohm.m)

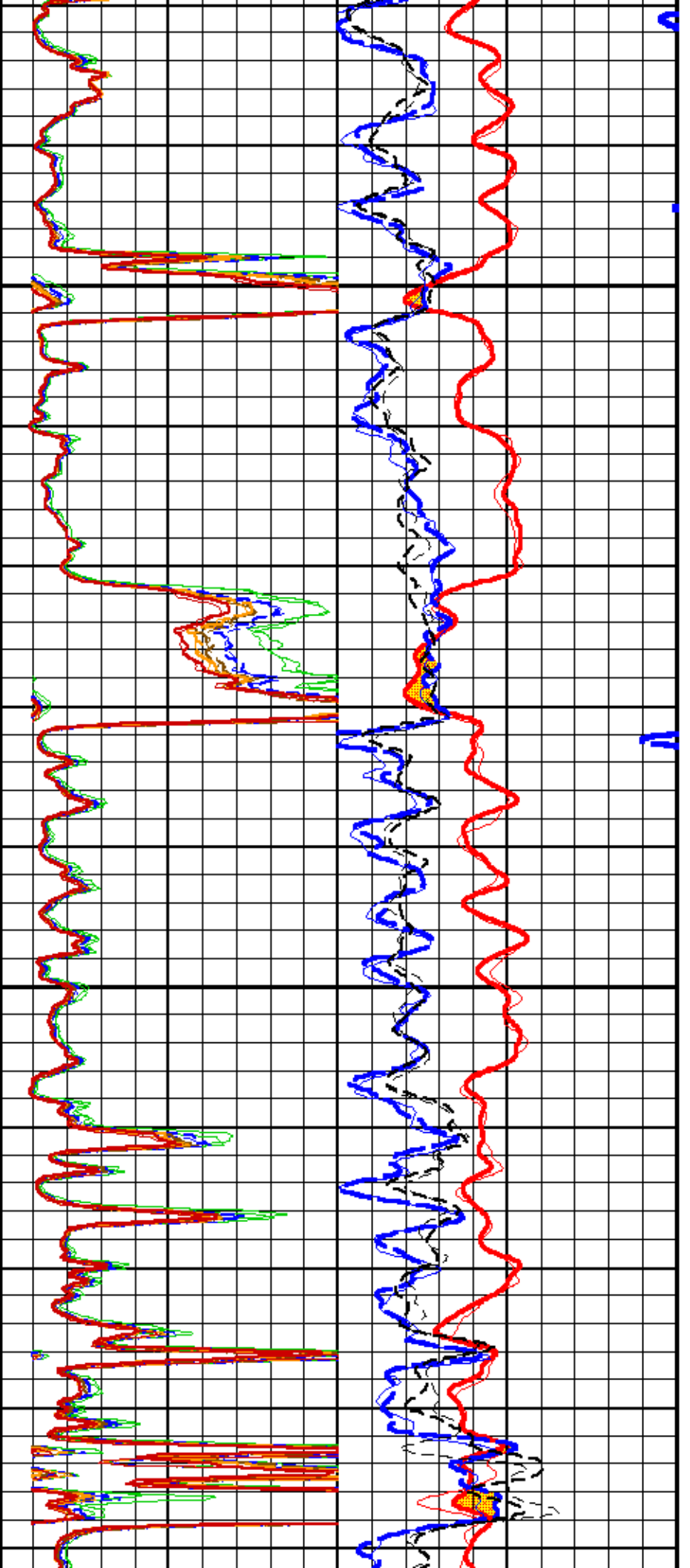
OVERRANGE 90 in. DOI REP [m1r9]

10 100

(ohm.m)

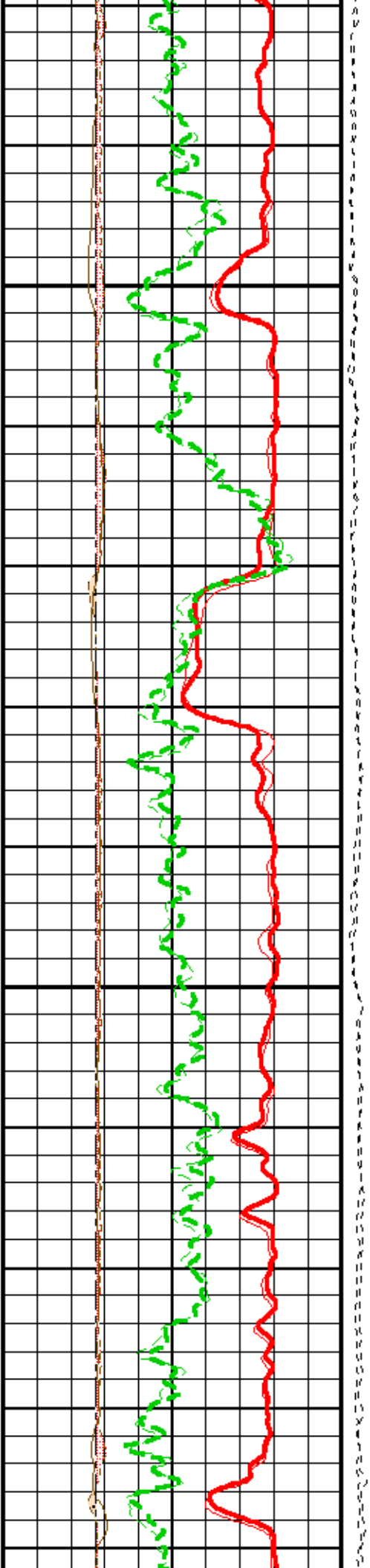
1725

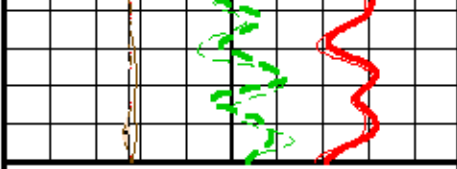




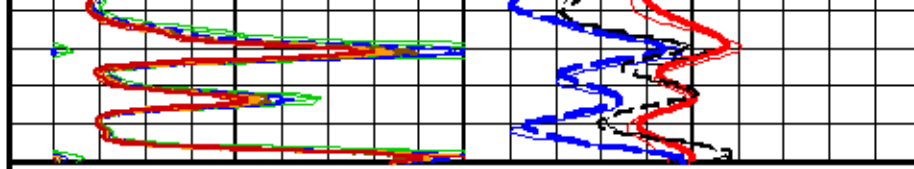
1750

1775





1800
METERS



UNDER GAUGE

PORZ-CNCF

WASHOUT

SP
-80 20
(mV)

TENSION
-250 1500
(lbf)

10 in. DOI [m1r1]
0 10 40
(ohm.m)

Z-DENSITY POROSITY
0 40
(pu)

SP REP
-80 20
(mV)

TEN rep
-250 1500
(lbf)

OVERRANGE 10 in. DOI [m1r1]
10 100 40
(ohm.m)

Z-DENSITY POROSITY REP
0 40
(pu)

CALIPER
6 16
(in)

10 in. DOI REP [m1r1]
0 10 40
(ohm.m)

NEUTRON POROSITY
0 40
(pu)

CALIPER REP
6 16
(in)

OVERRANGE 10 in. DOI REP [m1r1]
10 100 40
(ohm.m)

NEUTRON POROSITY REP
0 40
(pu)

BIT SIZE
6 16
(in)

20 in. DOI [m1r2]
0 10 40
(ohm.m)

ACOUSTIC POROSITY
0 40
(pu)

GAMMA RAY [grp]
0 150
(gAPI)

OVERRANGE 20 in. DOI [m1r2]
10 100 40
(ohm.m)

ACOUSTIC POROSITY
0 40
(pu)

GAMMA RAY REP [gr]
0 150
(gAPI)

20 in. DOI REP [m1r2]
0 10 40
(ohm.m)

OVERRANGE 20 in. DOI REP [m1r2]
10 100 40
(ohm.m)

30 in. DOI [m1r3]
0 10 40
(ohm.m)

OVERRANGE 30 in. DOI [m1r3]
10 100 40
(ohm.m)

30 in. DOI REP [m1r3]
0 10 40
(ohm.m)

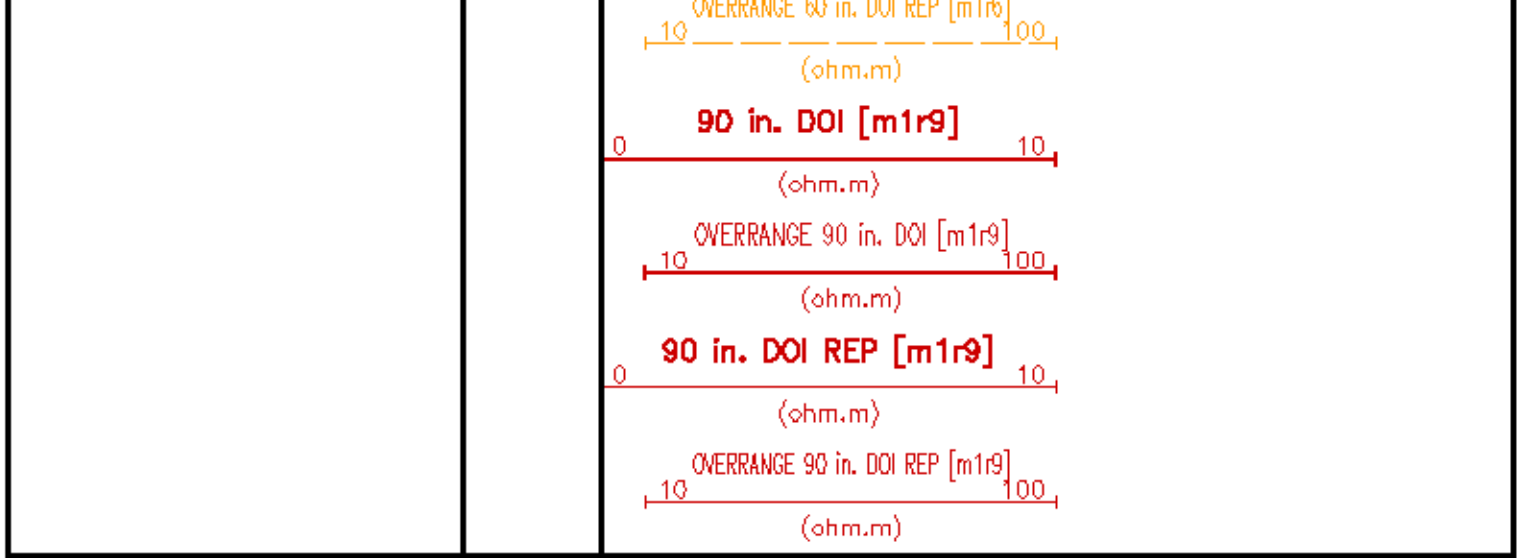
OVERRANGE 30 in. DOI REP [m1r3]
10 100 40
(ohm.m)

60 in. DOI [m1r6]
0 10 40
(ohm.m)

OVERRANGE 60 in. DOI [m1r6]
10 100 40
(ohm.m)

60 in. DOI REP [m1r6]
0 10 40
(ohm.m)

OVERRANGE 60 in. DOI REP [m1r6]
10 100 40
(ohm.m)



CALIBRACIONES Y VERIFICACIONES

GR PRIMARY CALIBRATION SUMMARY

Tool #: 3518EG 10144083 DATE/TIME PERFORMED: Fri Sep 24 06:17:44 2010
 Unit #: 3882TE HL6708 Jig Series: 4702NK BA-871

Background	Calibrator ON	Jig Value (gAPI)	Mult	Background	Calibrator ON (gAPI)
183.36	892.88	185	0.261	47.81	232.81
			0.250 0.280		

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10144083 DATE/TIME PERFORMED: Sat Oct 9 14:40:11 2010 DAYS SINCE CAL: 15
 UNIT #: 3882TE HL6708 Jig: INTRNL N/A

Counts		TEMP (degF)	HV (V)
976.67	929.00 1027.00	76.87	1361.74
		538.00	1237.00 1512.00

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10144083 DATE/TIME PERFORMED: Sat Oct 9 17:45:36 2010 DAYS SINCE CAL: 15

UNIT #: 3882TE HL6708 Jig: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	115.32	1364.70
929.00 1027.00	539.00	1237.00 1512.00

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2436XA 10120332 DATE/TIME PERFORMED: Tue Aug 24 13:30:28 2010

UNIT #: 3882TE HL6708 CALIBRATOR #: 2437XB 118243 SOURCE #: 4718XA 042202

SSN DT CPS	LSN DT CPS	SSN/LSN	MCF	CNRATIO	CN PU
4748.50	850.98	5.58002	1.02813	5.73700	25.241
			0.95000 1.05000		

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10120332 DATE/TIME PERFORMED: Sat Oct 9 14:39:18 2010 DAYS SINCE CAL: 46

UNIT #: 3882TE HL6708 CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.07	994.44	0.99762	82.6	1364.4	4.599
		0.95000 1.05000	260.4	1290.0 1450.0	4.300 5.000

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10120332 DATE/TIME PERFORMED: Sat Oct 9 17:45:24 2010 DAYS SINCE CAL: 46

UNIT #: 3882TE HL6708 CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.07	994.44	0.99762	116.1	1367.4	4.612
		0.95000 1.05000	260.4	1290.0 1450.0	4.300 5.000

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 10134127 DATE/TIME PERFORMED: Wed Oct 6 15:44:36 2010

UNIT #: 3882TE HL6708

	SIZE (in)	VALUE	MULTIPLIER	ADD
SMALL RING (Arm)	8.000	1525.2		
LARGE RING (Arm)	12.000	2756.0	0.00325	3.04322
PAD CLOSED		1704.0	0.00250	-4.26000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10134127 DATE/TIME PERFORMED: Sat Oct 9 15:00:15 2010 DAYS SINCE CAL: 2

UNIT #: 3882TE HL6708

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1824.0	0.00325	3.04322	9.0
PAD	1884.0	0.00250	-4.26000	0.5

	ACTUAL (in)	MEASURED (in)
DIAMETER (arm+pad)	9.001	9.2
		8.8 9.4

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10134127 DATE/TIME PERFORMED: Sat Oct 9 17:39:25 2010 DAYS SINCE CAL: 3

UNIT #: 3882TE HL6708

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1868.0	0.00325	3.04322	9.1
PAD	1912.0	0.00250	-4.26000	0.5

	ACTUAL (in)	MEASURED (in)
DIAMETER (arm+pad)	9.001	9.3
		8.8 9.4

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2223XA 10134127

DATE/TIME PERFORMED: Wed Aug 25 10:44:23 2010

UNIT: LABSYS LR223 CALB BLKS: 2235XA 119086 CS SRC: 4705XA 277645 PAD TYPE: PADTYR 7.5" PAD

SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)
224.3	224.2	1210.8	1595.1
220.0 230.0	220.0 230.0		

	SS (cps)	LS (cps)	SHR	DEN (g/cm ³)	CORR (g/cm ³)	PE (b/e)
MG (LO PE)	38387.8	13519.4	0.813 0.720 0.990	1.684	0.002	1.910
AL	24070.8	1545.7		2.656	-0.017	
AL + SHIM	31867.5	2658.1		2.552	0.098	
MG + SHIM (HI PE)	19279.3	6614.0	0.322 0.280 0.360			8.350
RATIO AL + SHIM/AL	1.32 1.30 1.40	1.72 1.80 1.80				
RATIO MG/AL	1.59 1.58 1.70	8.75 8.55 9.55				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10134127 DATE/TIME PERFORMED: Sat Oct 9 14:39:38 2010 DAYS SINCE CAL: 45

UNIT #: 3882TE HL6708

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1 3332.1 3352.1	224.9 220.0 230.0	1348.0 1250.0 1550.0
SS	22354.8 22344.8 22364.5	224.2 220.0 230.0	1385.3 1250.0 1550.0

LV (V)	PAD CURRENT (mA)
5.0 4.8 5.2	80.0 80.0 120.0

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10134127 DATE/TIME PERFORMED: Sat Oct 9 17:45:09 2010 DAYS SINCE CAL: 45

UNIT #: 3882TE HL6708

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1 3332.1 3352.1	224.9 220.0 230.0	1349.0 1250.0 1550.0
SS	22354.8 22344.8 22364.5	224.2 220.0 230.0	1392.3 1250.0 1550.0

(V)		(mA)	
5.0	84.8		
4.8	5.2	80.0	120.0

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1530XA 10379898

DATE/TIME PERFORMED: Tue Aug 24 14:13:53 2010

UNIT #: LABSYS IP223

GRCOND ID & DATE: 65 101801

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.0034 -0.2000 0.2000	0.0008 -0.1000 0.1000	-0.0009 -0.1000 0.1000	0.0014 -0.1000 0.1000	-0.0014 -0.1000 0.1000	0.0008 -0.1000 0.1000	0.0004 -0.1000 0.1000	0.0009 -0.1000 0.1000
Coil 0 Q	-0.0015 -0.5000 0.5000	-0.0017 -0.2000 0.2000	0.0014 -0.1000 0.1000	0.0002 -0.1000 0.1000	-0.0007 -0.1000 0.1000	-0.0003 -0.1000 0.1000	0.0005 -0.1000 0.1000	0.0005 -0.1000 0.1000
Coil 1 R	0.0050 -0.2000 0.2000	0.0007 -0.1000 0.1000	-0.0023 -0.1000 0.1000	-0.0006 -0.1000 0.1000	-0.0009 -0.1000 0.1000	-0.0001 -0.1000 0.1000	-0.0008 -0.1000 0.1000	-0.0000 -0.1000 0.1000
Coil 1 Q	-0.0049 -0.5000 0.5000	-0.0034 -0.2000 0.2000	0.0016 -0.1000 0.1000	-0.0013 -0.1000 0.1000	-0.0016 -0.1000 0.1000	0.0001 -0.1000 0.1000	-0.0007 -0.1000 0.1000	-0.0007 -0.1000 0.1000
Coil 2 R	0.0040 -0.2000 0.2000	-0.0027 -0.1000 0.1000	-0.0016 -0.1000 0.1000	0.0003 -0.1000 0.1000	0.0018 -0.1000 0.1000	-0.0013 -0.1000 0.1000	-0.0005 -0.1000 0.1000	0.0017 -0.1000 0.1000
Coil 2 Q	-0.0032 -0.5000 0.5000	-0.0040 -0.2000 0.2000	-0.0028 -0.1000 0.1000	-0.0020 -0.1000 0.1000	-0.0050 -0.1000 0.1000	-0.0008 -0.1000 0.1000	0.0009 -0.1000 0.1000	-0.0007 -0.1000 0.1000
Coil 3 R	0.0300 -0.3000 0.3000	-0.0067 -0.1000 0.1000	-0.0012 -0.1000 0.1000	-0.0024 -0.1000 0.1000	-0.0049 -0.1000 0.1000	0.0038 -0.1000 0.1000	0.0010 -0.1000 0.1000	-0.0041 -0.1000 0.1000
Coil 3 Q	0.0009 -0.5000 0.5000	0.0017 -0.2000 0.2000	0.0017 -0.1000 0.1000	-0.0047 -0.1000 0.1000	0.0084 -0.1000 0.1000	0.0026 -0.1000 0.1000	-0.0052 -0.1000 0.1000	-0.0010 -0.1000 0.1000
Coil 4 R	0.0490 -0.5000 0.5000	-0.0111 -0.2000 0.2000	-0.0089 -0.2000 0.2000	0.0138 -0.2000 0.2000	0.0008 -0.2000 0.2000	-0.0057 -0.2000 0.2000	-0.0027 -0.2000 0.2000	0.0046 -0.2000 0.2000
Coil 4 Q	0.0120 -1.0000 1.0000	-0.0095 -0.4000 0.4000	0.0054 -0.2000 0.2000	0.0053 -0.2000 0.2000	0.0001 -0.2000 0.2000	0.0028 -0.2000 0.2000	-0.0018 -0.2000 0.2000	0.0041 -0.2000 0.2000
Coil 5 R	0.0703 -1.2000 1.2000	-0.0064 -0.4000 0.4000	-0.0091 -0.4000 0.4000	0.0196 -0.4000 0.4000	-0.0052 -0.4000 0.4000	-0.0012 -0.4000 0.4000	-0.0004 -0.4000 0.4000	-0.0063 -0.4000 0.4000
Coil 5 Q	0.0631 -1.5000 1.5000	-0.0325 -0.5000 0.5000	0.0185 -0.4000 0.4000	-0.0015 -0.4000 0.4000	0.0094 -0.4000 0.4000	-0.0064 -0.4000 0.4000	0.0164 -0.4000 0.4000	0.0125 -0.4000 0.4000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	165.56 138.00 186.00	163.98 134.00 184.00	160.79 131.00 181.00	156.10 126.00 176.00	149.97 122.00 170.00	142.52 116.00 181.00	133.80 112.00 150.00	123.98 105.00 139.00
Coil 0 P	7.936 8.000 9.000	25.933 21.000 30.000	43.498 35.000 50.000	61.006 49.000 71.000	78.497 63.000 91.000	95.960 77.000 109.000	113.426 92.000 130.000	130.828 108.000 151.000
Coil 1 M	287.60 238.00 326.00	285.02 235.00 325.00	279.81 230.00 320.00	272.08 225.00 312.00	261.88 218.00 302.00	249.41 206.00 288.00	234.61 196.00 260.00	217.85 184.00 244.00
Coil 1 P	7.864 8.000 9.000	25.661 21.000 30.000	43.056 35.000 51.000	60.414 49.000 71.000	77.783 63.000 92.000	95.149 78.000 112.000	112.528 93.000 130.000	129.914 107.000 151.000
Coil 2 M	581.33 479.00 659.00	576.27 474.00 654.00	565.92 463.00 643.00	550.59 450.00 622.00	530.36 432.00 602.00	505.56 412.00 572.00	476.11 390.00 540.00	442.70 359.00 499.00
Coil 2 P	7.871 8.000 9.000	25.677 21.000 31.000	43.082 35.000 51.000	60.450 49.000 71.000	77.832 63.000 92.000	95.224 78.000 115.000	112.635 92.000 135.000	130.042 105.000 155.000
Coil 3 M	939.65 772.00 1080.00	932.01 784.00 1050.00	916.30 752.00 1030.00	892.74 728.00 1010.00	861.41 700.00 970.00	822.44 685.00 925.00	775.62 628.00 868.00	721.96 589.00 799.00

Coil 3 P	7.878 8,000 10,000	25.722 21,000 30,000	43.189 35,000 51,000	60.632 49,000 72,000	78.124 63,000 93,000	95.671 78,000 114,000	113.234 90,000 135,000	130.857 104,000 158,000
Coil 4 M	1498.5 1210.0 1700.0	1484.7 1206.0 1890.0	1456.8 1180.0 1850.0	1415.6 1140.0 1590.0	1362.1 1120.0 1530.0	1296.9 1070.0 1450.0	1220.1 1000.0 1360.0	1133.8 942.0 1240.0
Coil 4 P	7.954 8,000 10,000	25.936 21,000 31,000	43.514 35,000 52,000	61.025 49,000 73,000	78.523 63,000 93,000	96.017 77,000 114,000	113.490 91,000 135,000	130.951 105,000 158,000
Coil 5 M	3019.3 2450.0 3450.0	2993.7 2420.0 3400.0	2939.0 2410.0 3320.0	2858.1 2350.0 3200.0	2749.9 2280.0 3050.0	2617.8 2150.0 2950.0	2461.1 2020.0 2750.0	2285.1 1870.0 2570.0
Coil 5 P	8.012 8,000 10,000	26.159 20,000 31,000	43.899 35,000 52,000	61.608 49,000 73,000	79.304 63,000 94,000	96.995 79,000 113,000	114.735 93,000 134,000	132.391 108,000 158,000

AM Factor 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 R	-1209 -3200 940	-681 -1400 -20	-522 -930 -150	-439 -780 -180	-385 -680 -130	-348 -600 -120	-321 -550 -110	-299 -520 -92
Coil 0 Q	-1392 -15000 11000	-820 -5800 3600	-637 -3700 2100	-548 -2700 1400	-498 -2200 1000	-467 -1800 790	-448 -1600 620	-436 -1500 490
Coil 1 R	-211 -750 480	-150 -380 83	-135 -280 9	-124 -230 -10	-115 -200 -28	-107 -180 -35	-99 -160 -48	-93 -150 -48
Coil 1 Q	230 -3300 3300	24 -1100 980	-9 -630 530	-25 -470 380	-36 -380 280	-43 -320 190	-47 -290 150	-51 -280 120
Coil 2 R	-4.7 -85.0 78.0	-34.2 -84.0 -0.4	-36.3 -67.0 -12.0	-34.0 -61.0 -18.0	-31.7 -48.0 -17.0	-29.3 -42.0 -18.0	-26.5 -39.0 -15.0	-24.8 -37.0 -13.0
Coil 2 Q	430.9 -1500.0 1900.0	144.1 -500.0 610.0	83.0 -290.0 350.0	57.1 -220.0 280.0	43.0 -180.0 190.0	34.7 -140.0 180.0	29.7 -110.0 130.0	26.7 -99.0 120.0
Coil 3 R	-1.7 -23.0 21.0	-10.7 -22.0 1.6	-11.5 -21.0 -1.3	-10.8 -20.0 -1.8	-9.7 -19.0 -2.0	-9.1 -19.0 -1.3	-8.4 -19.0 -0.8	-7.9 -19.0 -0.0
Coil 3 Q	104.7 -640.0 630.0	38.2 -180.0 180.0	25.4 -100.0 110.0	21.0 -71.0 81.0	19.8 -51.0 86.0	20.0 -37.0 68.0	21.2 -28.0 53.0	22.8 -21.0 51.0
Coil 4 R	0.22 -18.00 13.00	-4.38 -12.00 2.70	-4.47 -11.00 1.50	-4.43 -8.80 0.52	-3.93 -9.90 0.86	-3.89 -10.00 1.50	-3.23 -11.00 2.30	-3.33 -11.00 2.80
Coil 4 Q	40.78 -250.00 280.00	18.14 -79.00 98.00	14.45 -43.00 84.00	14.30 -27.00 51.00	15.29 -18.00 48.00	16.90 -11.00 42.00	18.59 -6.50 42.00	20.77 -1.00 42.00
Coil 5 R	-3.93 -68.00 61.00	-2.96 -8.40 3.80	-3.06 -6.90 1.10	-3.04 -6.90 1.20	-2.67 -9.30 2.90	-2.45 -14.00 6.30	-2.36 -19.00 9.80	-2.36 -24.00 13.00
Coil 5 Q	10.83 -86.00 89.00	5.70 -28.00 27.00	7.97 -14.00 22.00	10.60 -7.00 22.00	13.37 -2.50 24.00	16.32 1.10 28.00	19.22 4.10 29.00	22.68 7.10 32.00

MM Factor 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 M	0.964 0.860 1.100	0.972 0.880 1.100	0.977 0.870 1.100	0.978 0.880 1.100	0.979 0.880 1.100	0.979 0.880 1.100	0.979 0.880 1.100	0.979 0.880 1.100
Coil 0 P	-0.293 -1.500 1.500	-0.449 -1.500 1.500	-0.351 -1.500 1.500	-0.238 -1.500 1.500	-0.164 -1.500 1.500	-0.105 -1.500 1.500	-0.070 -1.500 1.500	-0.041 -1.500 1.500
Coil 1 M	0.959 0.860 1.100	0.967 0.880 1.100	0.971 0.870 1.100	0.973 0.880 1.100	0.973 0.880 1.100	0.973 0.880 1.100	0.973 0.880 1.100	0.972 0.880 1.100
Coil 1 P	-0.271 -1.500 1.500	-0.430 -1.500 1.500	-0.325 -1.500 1.500	-0.214 -1.500 1.500	-0.126 -1.500 1.500	-0.084 -1.500 1.500	-0.064 -1.500 1.500	-0.007 -1.500 1.500
Coil 2 M	0.992 0.890 1.100	0.992 0.890 1.100	0.992 0.890 1.100	0.991 0.890 1.100	0.991 0.890 1.100	0.990 0.890 1.100	0.989 0.890 1.100	0.989 0.890 1.100
Coil 2 P	0.048 -1.500 1.500	0.059 -1.500 1.500	0.095 -1.500 1.500	0.125 -1.500 1.500	0.159 -1.500 1.500	0.165 -1.500 1.500	0.179 -1.500 1.500	0.173 -1.500 1.500
Coil 3 M	0.994 0.900 1.100	0.994 0.900 1.100	0.994 0.900 1.100	0.993 0.900 1.100	0.993 0.900 1.100	0.992 0.900 1.100	0.991 0.900 1.100	0.990 0.900 1.100
Coil 3 P	0.057 -1.500 1.500	0.082 -1.500 1.500	0.127 -1.500 1.500	0.162 -1.500 1.500	0.208 -1.500 1.500	0.249 -1.500 1.500	0.268 -1.500 1.500	0.284 -1.500 1.500

Coil 4 M	1.004 0.900 1.100	1.004 0.900 1.100	1.004 0.900 1.100	1.004 0.900 1.100	1.004 0.900 1.100	1.003 0.900 1.100	1.002 0.900 1.100	1.001 0.900 1.100
Coil 4 P	0.170 -1.500 1.500	0.094 -1.500 1.500	0.115 -1.500 1.500	0.131 -1.500 1.500	0.182 -1.500 1.500	0.207 -1.500 1.500	0.223 -1.500 1.500	0.218 -1.500 1.500
Coil 5 M	1.000 0.900 1.100	1.000 0.900 1.100	1.000 0.900 1.100	0.999 0.900 1.100	0.999 0.900 1.100	0.998 0.900 1.100	0.998 0.900 1.100	0.995 0.900 1.100
Coil 5 P	-0.008 -1.500 1.500	0.015 -1.500 1.500	0.023 -1.500 1.500	0.017 -1.500 1.500	0.037 -1.500 1.500	0.076 -1.500 1.500	0.073 -1.500 1.500	0.023 -1.500 1.500

PARMS TCID 0 TCID 1 Cal Temp T Factor
(degF)
IDs 2.827 0.782 66.1 1.00

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10379898 DATE/TIME PERFORMED: Sat Oct 9 15:47:42 2010 DAYS SINCE CAL: 48
UNIT #: 3882TE HL6708

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.004 -0.200 0.200	-0.000 -0.100 0.100	-0.001 -0.100 0.100	0.001 -0.100 0.100	-0.000 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100
Coil 0 Q	-0.002 -0.500 0.500	-0.000 -0.200 0.200	0.000 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100	0.000 -0.100 0.100
Coil 1 R	0.006 -0.200 0.200	0.001 -0.100 0.100	-0.002 -0.100 0.100	0.003 -0.100 0.100	0.000 -0.100 0.100	-0.002 -0.100 0.100	-0.001 -0.100 0.100	-0.000 -0.100 0.100
Coil 1 Q	-0.003 -0.500 0.500	-0.001 -0.200 0.200	-0.001 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100
Coil 2 R	0.012 -0.200 0.200	-0.009 -0.100 0.100	-0.000 -0.100 0.100	0.003 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	0.001 -0.100 0.100
Coil 2 Q	-0.001 -0.500 0.500	-0.002 -0.200 0.200	0.001 -0.100 0.100	-0.002 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	0.001 -0.100 0.100	0.004 -0.100 0.100
Coil 3 R	0.020 -0.300 0.300	-0.014 -0.100 0.100	0.007 -0.100 0.100	0.003 -0.100 0.100	0.003 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100	-0.004 -0.100 0.100
Coil 3 Q	0.007 -0.500 0.500	-0.001 -0.200 0.200	0.003 -0.100 0.100	0.002 -0.100 0.100	-0.006 -0.100 0.100	0.002 -0.100 0.100	0.002 -0.100 0.100	0.002 -0.100 0.100
Coil 4 R	0.045 -0.500 0.500	-0.002 -0.200 0.200	0.004 -0.200 0.200	-0.005 -0.200 0.200	-0.009 -0.200 0.200	0.003 -0.200 0.200	-0.009 -0.200 0.200	0.009 -0.200 0.200
Coil 4 Q	0.009 -1.000 1.000	0.002 -0.400 0.400	0.010 -0.200 0.200	0.001 -0.200 0.200	-0.005 -0.200 0.200	0.002 -0.200 0.200	-0.002 -0.200 0.200	-0.007 -0.200 0.200
Coil 5 R	0.060 -1.200 1.200	0.003 -0.400 0.400	-0.018 -0.400 0.400	0.000 -0.400 0.400	0.005 -0.400 0.400	0.016 -0.400 0.400	0.004 -0.400 0.400	-0.006 -0.400 0.400
Coil 5 Q	-0.004 -1.500 1.500	-0.004 -0.500 0.500	0.009 -0.400 0.400	-0.025 -0.400 0.400	-0.002 -0.400 0.400	-0.001 -0.400 0.400	-0.009 -0.400 0.400	-0.013 -0.400 0.400

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	165.33 136.00 186.00	163.77 134.00 184.00	160.61 131.00 181.00	155.94 126.00 176.00	149.82 122.00 170.00	142.42 118.00 161.00	133.74 112.00 150.00	123.91 106.00 139.00
Coil 0 P	7.080 -1.000 12.000	25.750 19.000 30.000	43.523 35.000 50.000	61.152 49.000 71.000	78.760 63.000 91.000	96.342 77.000 110.000	113.904 92.000 130.000	131.422 106.000 151.000
Coil 1 M	287.81 237.00 327.00	285.25 235.00 325.00	280.04 230.00 320.00	272.34 225.00 312.00	262.13 218.00 302.00	249.63 208.00 286.00	234.93 196.00 266.00	218.12 184.00 244.00

Coil 1 P	7.053 -1.000 12.000	25.502 19.000 30.000	43.099 35.000 51.000	60.584 49.000 71.000	78.066 63.000 92.000	95.543 77.000 112.000	113.034 92.000 132.000	130.508 106.000 153.000
Coil 2 M	579.17 479.00 659.00	574.11 474.00 654.00	563.79 463.00 643.00	548.54 450.00 622.00	528.30 432.00 602.00	503.54 412.00 572.00	474.27 380.00 540.00	440.95 359.00 499.00
Coil 2 P	7.018 -1.000 12.000	25.526 19.000 31.000	43.158 35.000 51.000	60.670 49.000 71.000	78.187 63.000 92.000	95.701 77.000 114.000	113.228 92.000 135.000	130.749 106.000 156.000
Coil 3 M	938.89 772.00 1080.00	931.31 784.00 1050.00	915.65 752.00 1030.00	892.32 726.00 1010.00	860.97 700.00 970.00	822.12 685.00 925.00	775.39 628.00 888.00	721.71 599.00 799.00
Coil 3 P	7.033 -2.000 13.000	25.557 19.000 31.000	43.230 35.000 52.000	60.816 49.000 72.000	78.431 63.000 93.000	96.090 77.000 114.000	113.787 92.000 135.000	131.498 106.000 156.000
Coil 4 M	1498.0 1210.0 1700.0	1484.4 1205.0 1690.0	1456.6 1180.0 1690.0	1415.6 1140.0 1590.0	1362.0 1120.0 1530.0	1296.6 1070.0 1450.0	1219.8 1000.0 1360.0	1133.1 942.0 1240.0
Coil 4 P	7.134 -2.000 13.000	25.802 19.000 31.000	43.592 35.000 52.000	61.247 49.000 73.000	78.886 63.000 93.000	96.497 78.000 114.000	114.094 92.000 135.000	131.718 106.000 156.000
Coil 5 M	2998.5 2450.0 3450.0	2972.9 2420.0 3400.0	2918.6 2410.0 3320.0	2838.0 2350.0 3200.0	2730.6 2280.0 3080.0	2599.9 2150.0 2950.0	2446.4 2020.0 2750.0	2268.8 1670.0 2570.0
Coil 5 P	7.232 -2.000 13.000	26.041 19.000 31.000	44.016 35.000 52.000	61.849 49.000 73.000	79.713 63.000 94.000	97.542 79.000 114.000	115.394 93.000 135.000	133.220 108.000 156.000

DIAGRAMA DE HERRAMIENTAS

COILS CHOLENAR

Series : 048318
 Diameter : 3.15"
 Weight : 18 lbs
 Length : 3.17'

COILS SHILO

Series : 30800A
 Diameter : 3.15"
 Weight : 20 lbs
 Length : 3.20'

COILS TUN/TMC/MSD MS/ASDL

Series : 30800A
 Diameter : 3.15"
 Weight : 21 lbs
 Length : 4.31'

COILS TELEMETRY (POWER SECTION)

Series : 30800A
 Diameter : 3.15"
 Weight : 20 lbs
 Length : 3.71'

COILS IN/TO TELEMETRY GAMMA RAY

Series : 30800A
 Diameter : 3.15"
 Weight : 20 lbs
 Length : 3.20'
 Measure Points : 4.24' : ON MP

COILS TRANSDUCED MATHSON

Series : 30800A
 Diameter : 3.15"
 Weight : 20 lbs
 Length : 4.21'
 Source Type : AMS-100C
 Measure Point : 1.23' : ON MP
 Measure Points : 1.48' : ON MP



61.00'

ON MP : 46.00'

ON MP : 36.48'

ON MP : 36.08'

FOCUS Z-DEBRILLOR

Series : 10020A
 Diameter : 2.75"
 Weight : 800 lbs
 Length : 8.25'
 Source Type : 00137
 Measure P1: 7.25' : CR1 MP
 Measure P2: 1.00' : CR1 MP
 Measure P3: 1.00' : CR1 MP

FOCUS JOINT JOINT

Series : 10020A
 Diameter : 2.75"

FOCUS JOINT JOINT

Series : 10020A
 Diameter : 2.75"

FOCUS ACQUATIC ELECTRONIC

Series : 10020A
 Diameter : 2.75"
 Weight : 800 lbs
 Length : 8.25'

FOCUS ACQUATIC MANDREL

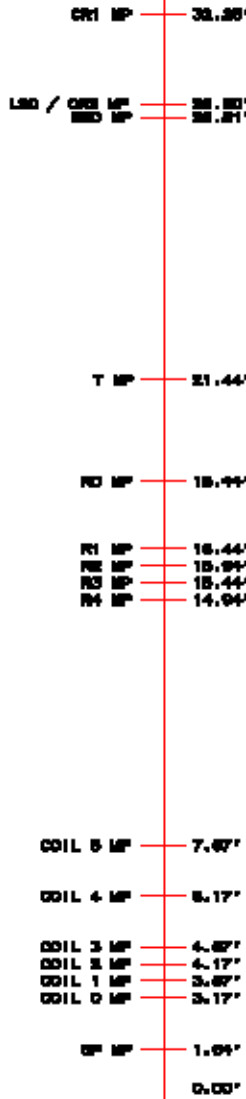
Series : 10020A
 Diameter : 2.75"
 Weight : 800 lbs
 Length : 8.25'
 Measure P1: 7.25' : T MP
 Measure P2: 1.00' : T MP
 Measure P3: 1.00' : T MP
 Measure P4: 1.00' : T MP

FOCUS HIGH DEFINITION IMMOBILIZATION TOOL

Series : 10020A
 Diameter : 2.75"
 Weight : 800 lbs
 Length : 8.25'
 Measure P1: 7.25' : CR1 MP
 Measure P2: 1.00' : CR1 MP
 Measure P3: 1.00' : CR1 MP
 Measure P4: 1.00' : CR1 MP

FOCUS PINNACLE / GABAGE

TOTAL LENGTH: 81.88'
 TOTAL WEIGHT: 800 lbs
 MAX DIAMETER: 2.75"



COMPANIA YPF S.A.
 POZO YPF.Ch.EA-779
 YAC. EL ALBA
 PROVINCIA CHUBUT

ARCHIVO NO. _____
 API NO. _____
 UNI: ARD100008533

COORDENADAS:
 X: 4,949,502.59
 Y: 2,583,386.66
 Z: 685.80

ALTURAS:
 KB 5/0
 MR 670.55 M
 NT 685.80 M
 FECHA 09-Oct-2010

ESCALA 1:200



Baker Atlas

ARCHIVO NO.	COMPANIA	YPF SA.
API NO.	POZO	YPF.CH.EA-779
UNI.FAR0100008533	YAC.	EL ALBA
	PROVINCIA	CHUBUT

Ver. 3.87	COORDENADAS:	SERVICIOS HD/L/DAL/ZDI/CH GR/CAL/FMT
ESCALA 1:200	X: 4,949,502.59	
	Y: 2,583,386.86	
	Z: 685.80	

BASE DE MED	N. T.	ALTURA	685.80 M
PERFIL MED DESDE	N. T.	SOBRE LA BASE	
PERFOR MED DESDE	N. T.		

FECHA	09-Oct-2010	
CRA.	BUDA,	1
ORDEN DE SERVICIO	JOSE ARI11032	
PROFUNDIDAD PERFORADOR	1851.0 M	
PROFUNDIDAD PERFIL	1851.0 M	
PRIMERA LECTURA (FONDO)	1848.3 M	
ULTIMA LECTURA	725.0 M	
CAMERIA PERFORADOR	9.625 IN \varnothing 386.5 M	
CAMERIA PERFIL	387.0 M	
DIAMETRO DEL POZO	8.75 IN	
TIPO DE INYECCION	POLIMERICO	
DENSIDAD	1170 G/L	58.0 S
PH	9.0	5.6 G3
ORIGEN DE LA MUESTRA	ULTIMA CIRCULADA	
RM A TEMP. MEDIDA	2.38 OHM	\varnothing 68.8 DEGR
RMF A TEMP. MEDIDA	2.00 OHM	\varnothing 83.1 DEGR
RMG A TEMP. MEDIDA	2.89 OHM	\varnothing 83.8 DEGR
ORIGEN DE RMF	MEDICION	MEDICION
RM A TEMP. FONDO	1.16 OHM	\varnothing 158.0 DEGR
TEMPO DESDE FIN CIRG.	12:00 HS	
TEMPERATURA DE FONDO	158.0 DEGR	
NO. DE EQUIPO	BASE	
REGISTRADO POR	A. PABLO	C.RIVADAVIA
PRESENCIADO POR	C. CEVASCO	

AL HACER INTERPRETACIONES DE REGISTROS, NUESTROS EMPLEADOS BRINDAN AL CLIENTE EL BENEFICIO DE SU MEJOR JUICIO. PERO DADO QUE TODAS LAS INTERPRETACIONES SON OPINIONES BASADAS EN INFERENCIAS SOBRE MEDICIONES ELECTRICAS O DE OTRO TIPO, NO PODEMOS Y NO GARANTIZAMOS LO CORRECTO OPRECISO DE CUALQUIER INTERPRETACION. NO SEREMOS LEGALMENTE RESPONSABLES POR CUALQUIER PERDIDA, COSTO, DAÑOS, O GASTOS EN LOS QUE INCURRA EL CLIENTE BASADO EN ALGUNA INTERPRETACION HECHA POR NUESTROS EMPLEADOS.

DIAMETRO	DESDE	HASTA
13.50 IN	0.0 M	388.0 M
8.75 IN	388.0 M	1851.0 M

TAMANO	PESO	GRADO	DESDE	HASTA
8.625 IN	32.3 LB/F	N/A	0.0 M	386.5 M
N/A	N/A	N/A	N/A	N/A

OBSERVACIONES

CRA. 1 BUDA. 1: ÚLTIMA CIRCULADA A LAS 05:00 HS DEL 09-OCT-10

EQUIPO DE PERFORACIÓN: SAI-380

CL-: 1100 PPM
CA: 120 PPM

CADA MARCA TT = 1 MSEG

MAXIMA DESVIACIÓN REGISTRADA POR EL EQUIPO PERFORADOR:
0.8 GRADOS EN EL FONDO

DOTACIÓN:

CONTRACTOR:
 PABLO, ALEJANDRO DANIEL
 VASQUEZ, ROBINSON ANDRES
 MANSILLA, MANUEL OLEGARIO
 VARAS, HECTOR DEMETRIO

ADVANCING RESERVOIR PERFORMANCE

DATOS DE EQUIPO

CRA.	B/D.A.	HERRAMENTA	SERIAL	NO. DE SERIE	POSICION
1	1	FOCUS SWIVE	3650YA	10118848	LIBRE
1	1	TWA SUR	3660YA	10403226	LIBRE
1	1	COMM/POWER	3518FB	10141038	LIBRE
1	1	FOCUS TEL	3518FB	10144083	LIBRE
1	1	FOCUS CN	2436YA	10120332	DESCENTRALIZADO
1	1	FOCUS ZDL	2223YA	10134127	PATN
1	1	DEL KWT	3631YA	10318288	LIBRE
1	1	DAL EA	1830EA	10115886	CENTRALIZADO
1	1	DAL WANDREL	1830MA	10114245	CENTRALIZADO
1	1	FOCUS HDL	1530YA	10378868	STANDEOFF

ACUSTICO EN CASING

PARAMETER AND FILTER SUMMARY REPORT

File: /data/ea778/k970aRD1.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 312.191 m BOTTOM DEPTH: 599.999 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DT24	FILTER ()	medium (1)		TOP	BOTTOM

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	FAST		TOP	BOTTOM
	CORRELATION METHOD	WTH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	40	us/ft	"	"
	TAPER - RIGHT END	140	us/ft	"	"
	FLOOR (UNIV. OPTION)	0.200		"	"

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	4000	Hz	"	"
	HIGH FREQ CUTOFF	30000	Hz	"	"

ACOUSTIC TCC CONTROL PARAMETERS

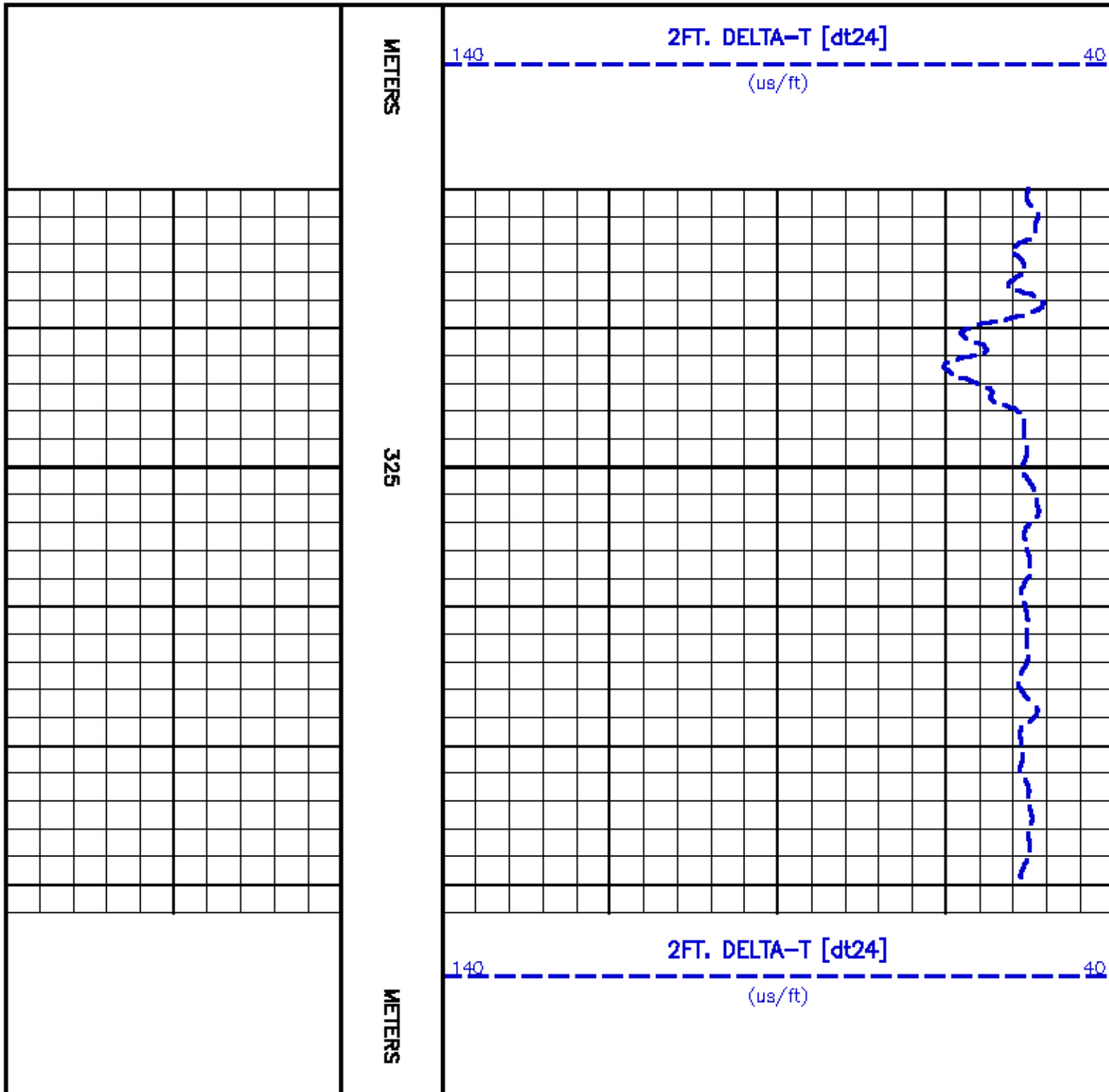
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	STACK LEVEL			TOP	BOTTOM
	SUBSET	0		"	"
DELTA T TCC PARAMETERS	ACG WINDOW	1200	us	"	"
	SAMPLE PERIOD	8		"	"
	TC DELAY	150		"	"

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
DT24	4.57						

Presentation : HL5708:/data/ea779/csg/lbrs.pdf [1:200 Scale]
 Plot Interval : 315.011 - 340.004 Meters

Data File 1 : F1 : HL5708:/data/ea779/accos.dif
 Created On : Oct 8 17:50:28 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-778
 Field : EL ALBA
 File Interval : 315.011 - 340.004 Meters
 Oct : k970a



TRAMO PRINCIPAL - ESCALA 1:200

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/ea779/k670a04.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 310.898 m BOTTOM DEPTH: 1856.748 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
DT24	FILTER ()	medium (1)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	5.500	1m	TOP	BOTTOM
BIT SIZE	BIT SIZE	8.750	1m	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	WITH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	30	us/ft	TOP	368.722
		45	us/ft	368.722	BOTTOM
	TAPER - RIGHT END	85	us/ft	TOP	336.652
		100	us/ft	336.652	346.068
		145	us/ft	346.068	363.656
		150	us/ft	363.656	368.503
		175	us/ft	368.503	BOTTOM
	FLOOR (UNIV. OPTION)	0.200		TOP	BOTTOM

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	4000	Hz	"	"
	HIGH FREQ CUTOFF	30000	Hz	"	"

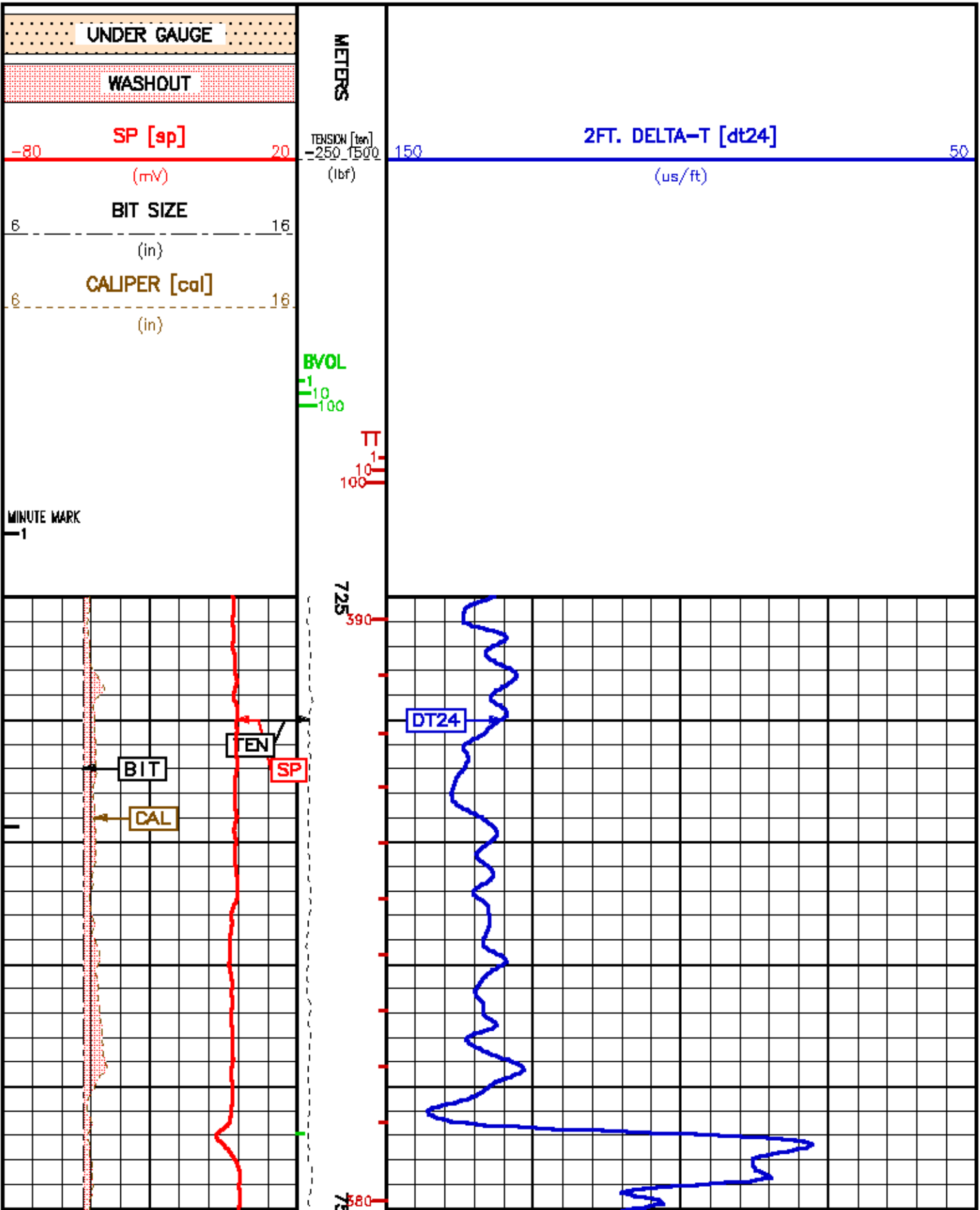
ACOUSTIC TCC CONTROL PARAMETERS

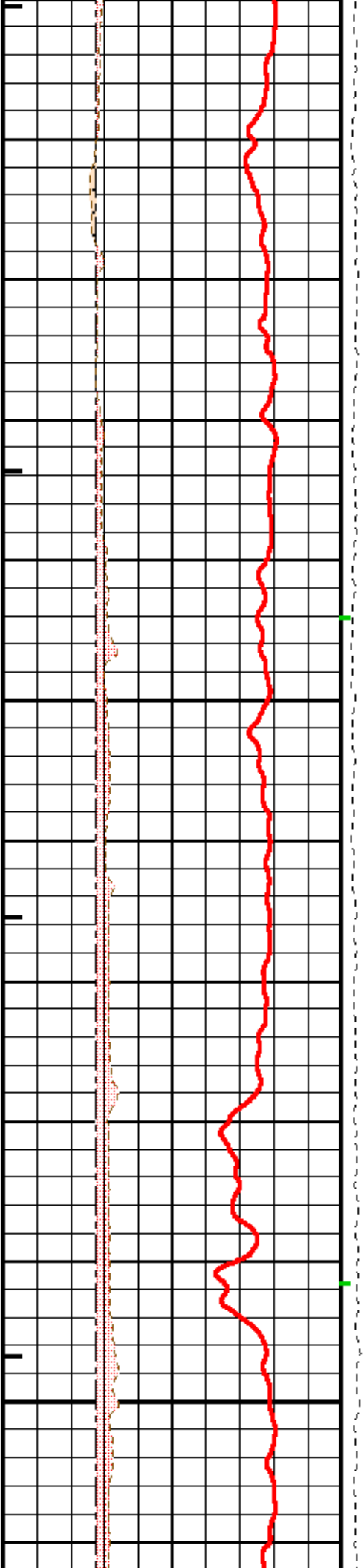
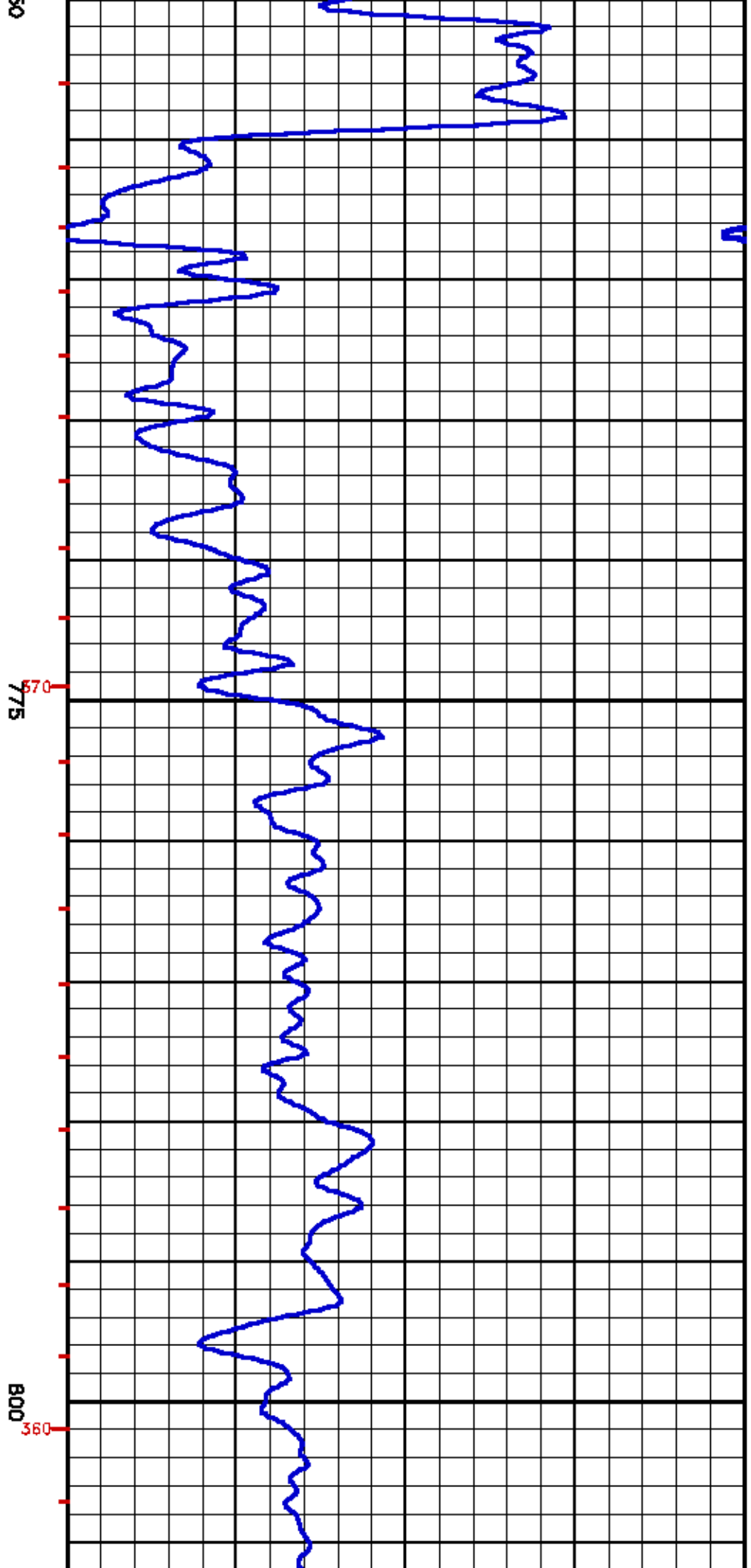
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	STACK LEVEL			TOP	BOTTOM
	SUBSET	0		"	"
DELTA T TCC PARAMETERS	ACQ WINDOW	1200	us	"	"
	SAMPLE PERIOD	8		"	"
	RK DELAY	160	us	"	"

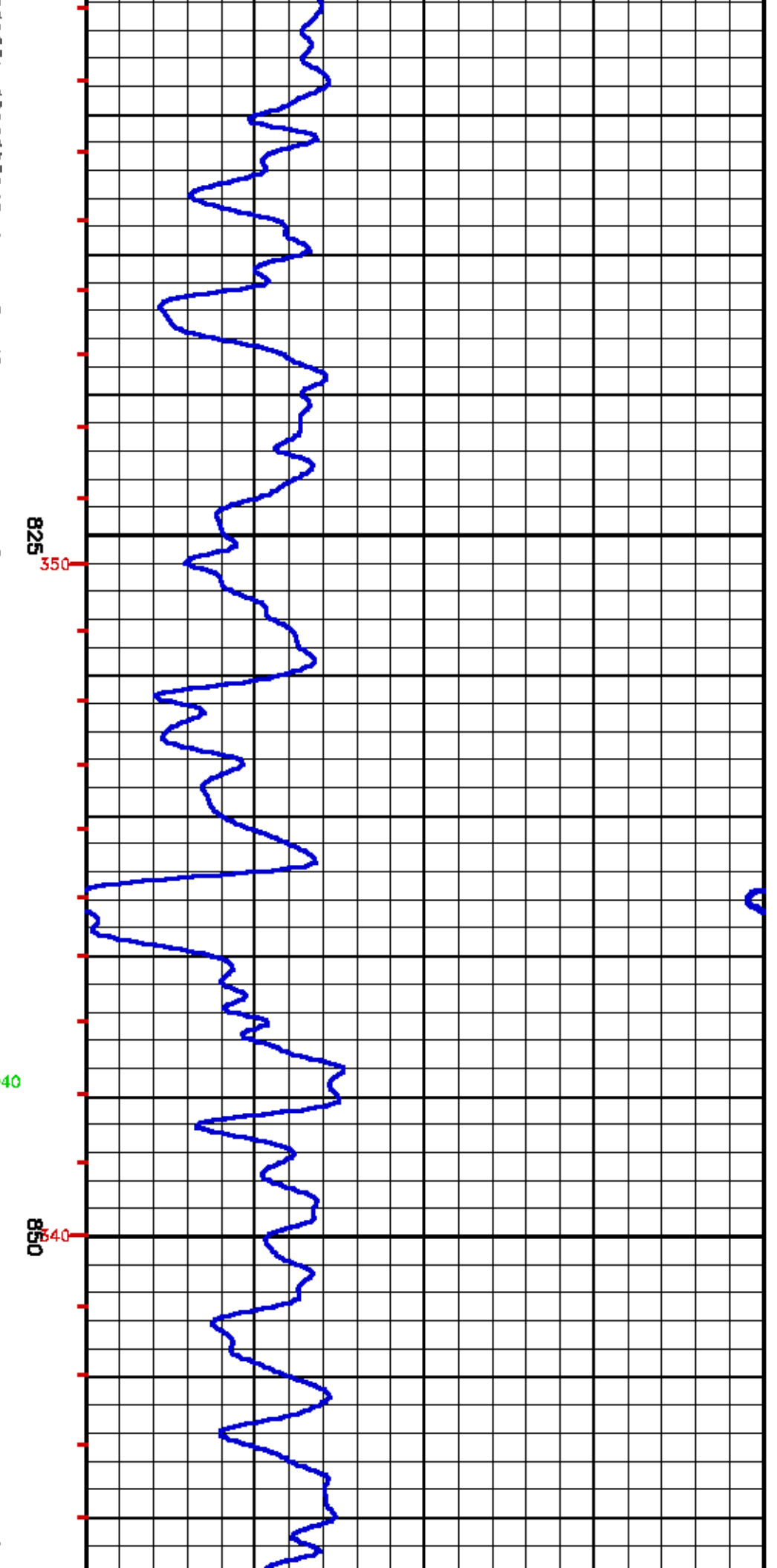
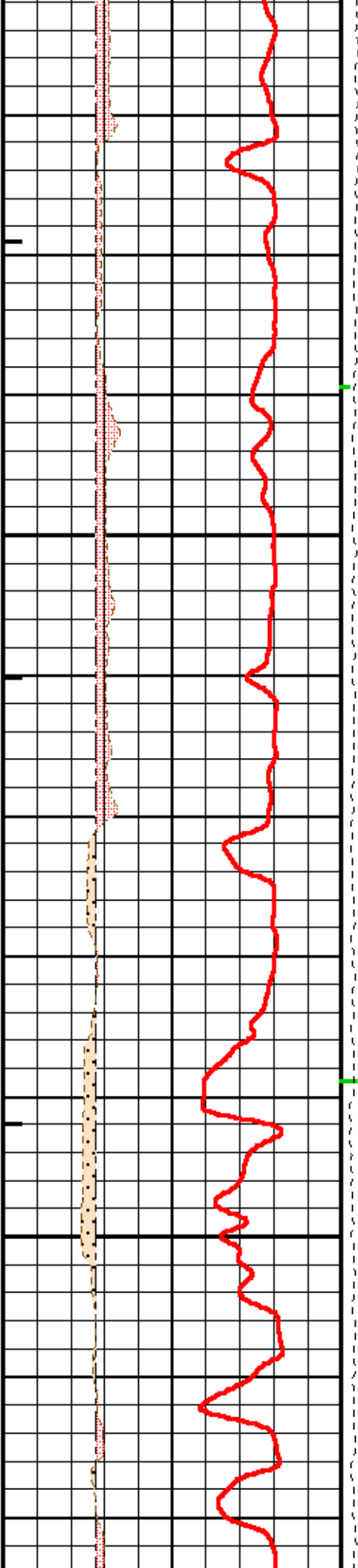
CURVE MEASURE POINT OFFSET

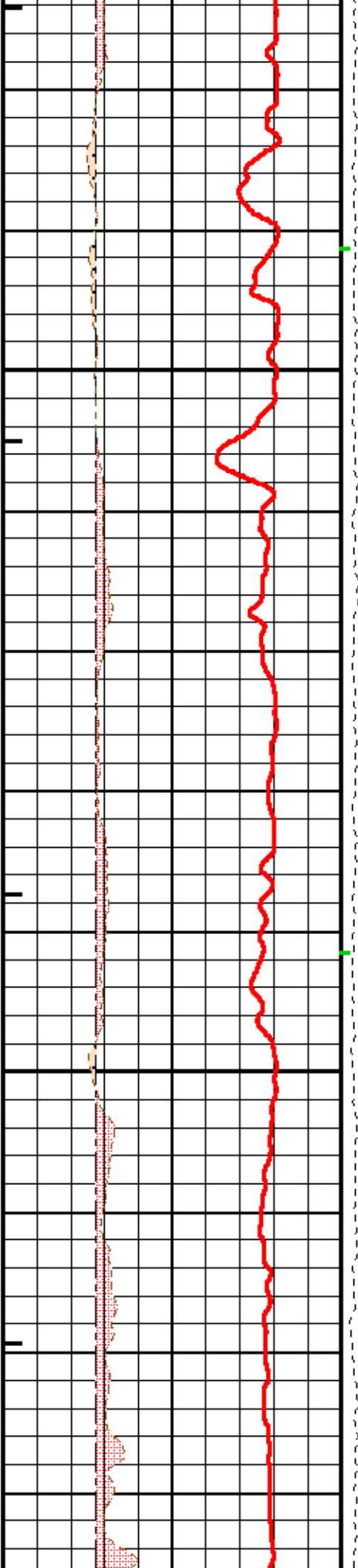
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	DT24	4.57	TEN	0.00		
CAL	8.88	SP	0.38				

Data File 1 : F1 : HL6706:/data/ea779/EA779.dft
 Created On : Oct 9 16:05:05 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 380.009 - 1861.11 Meters
 Oct : k970a



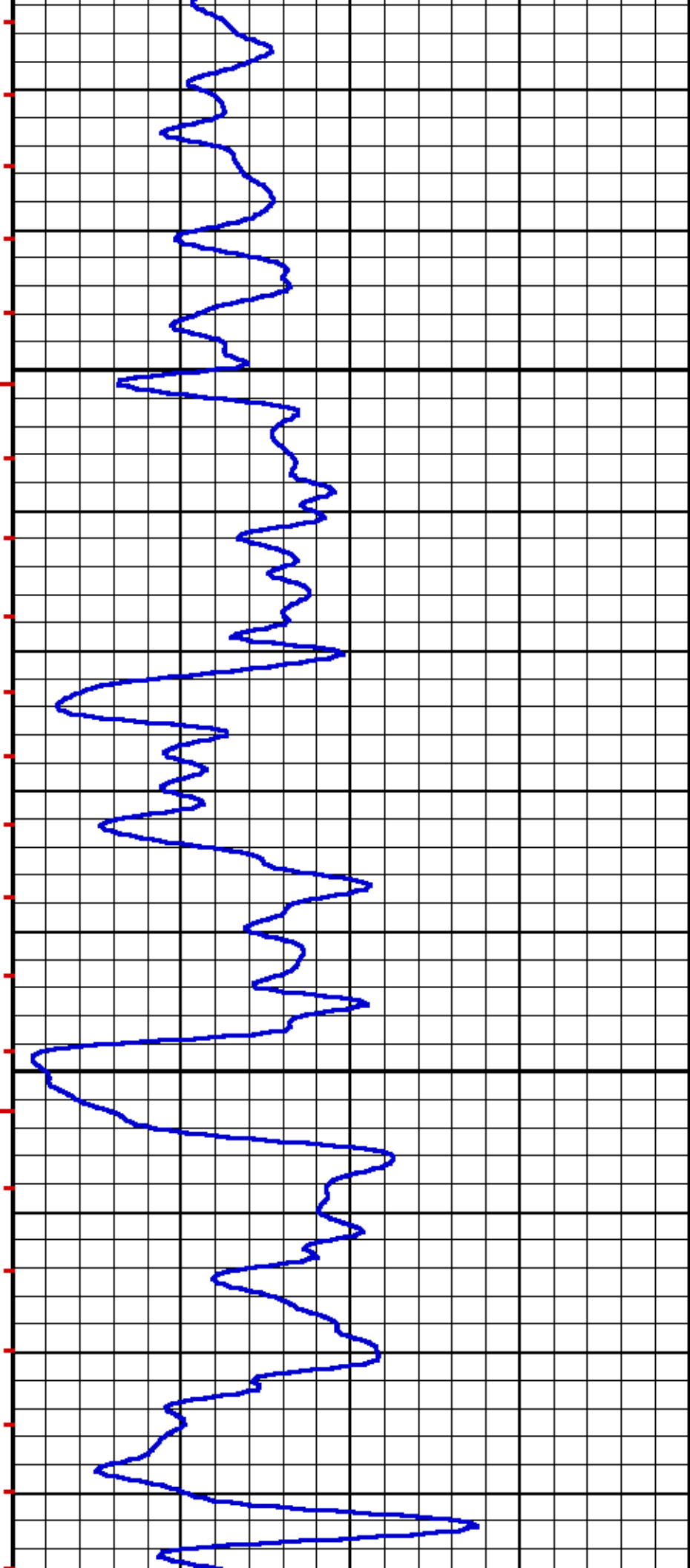


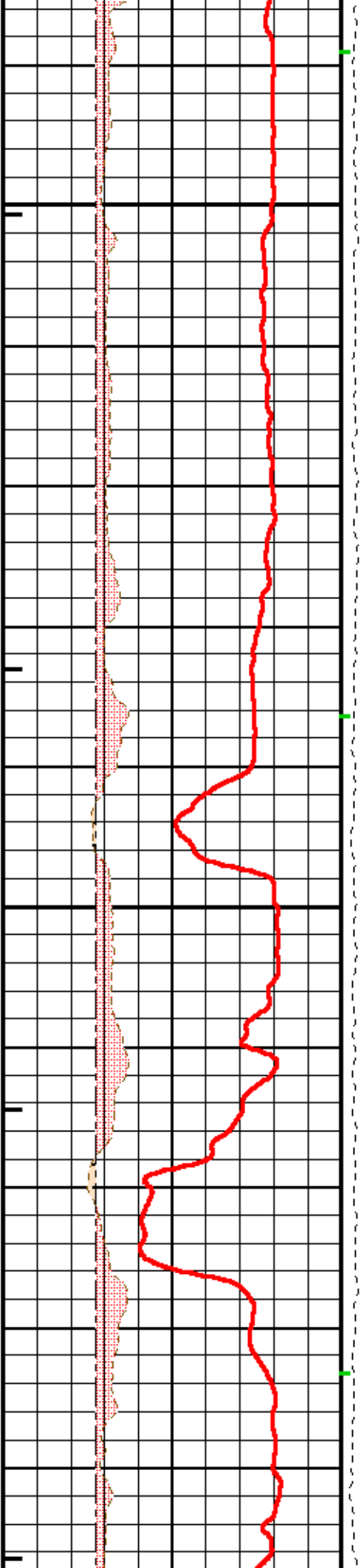




875
630

900
320



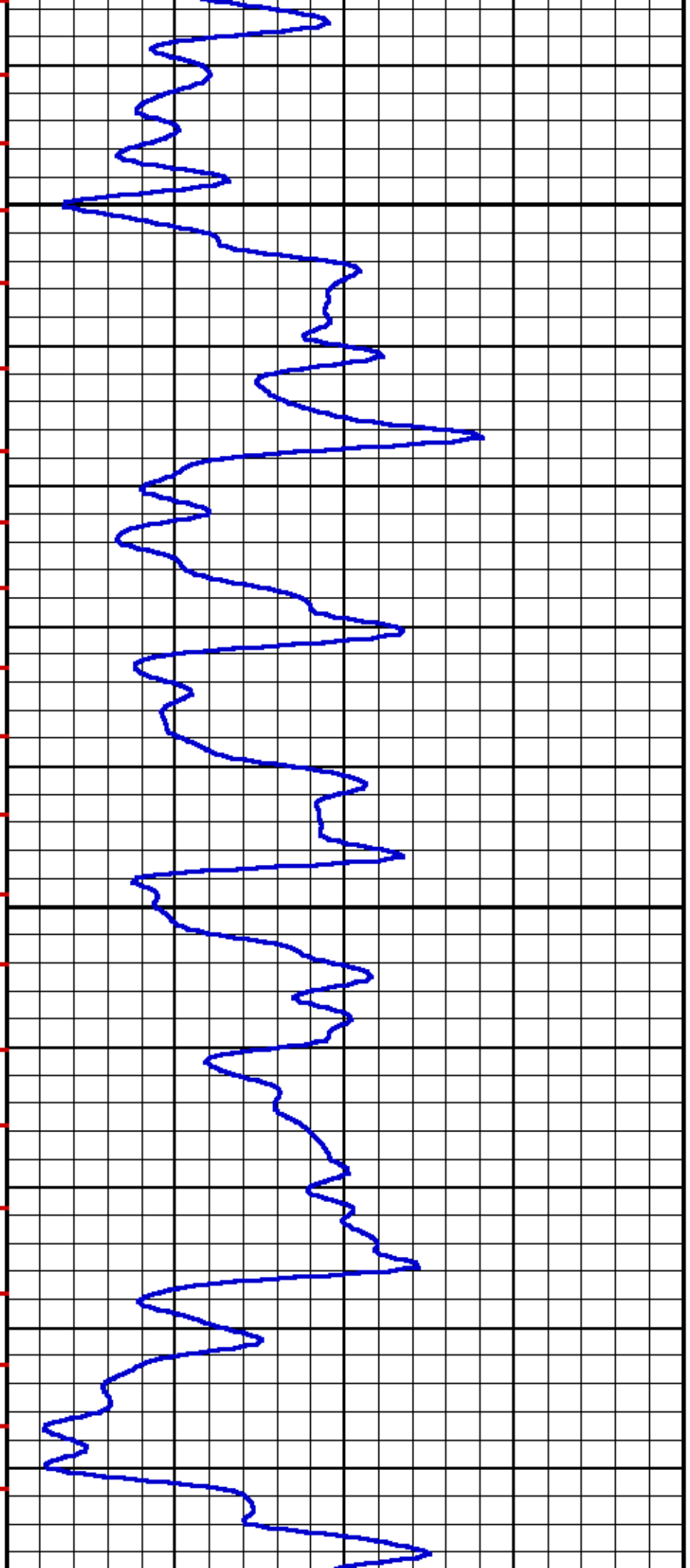


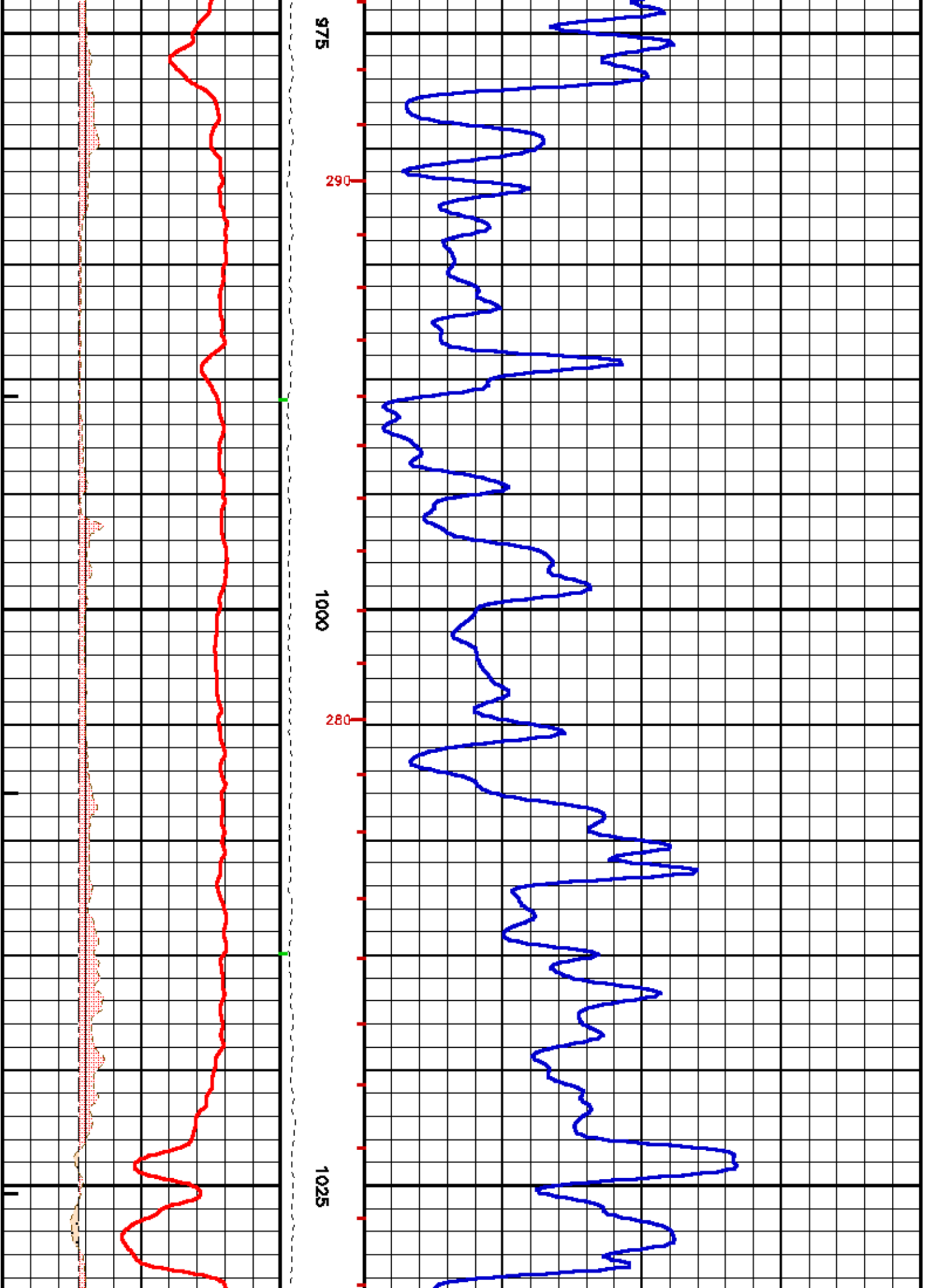
925

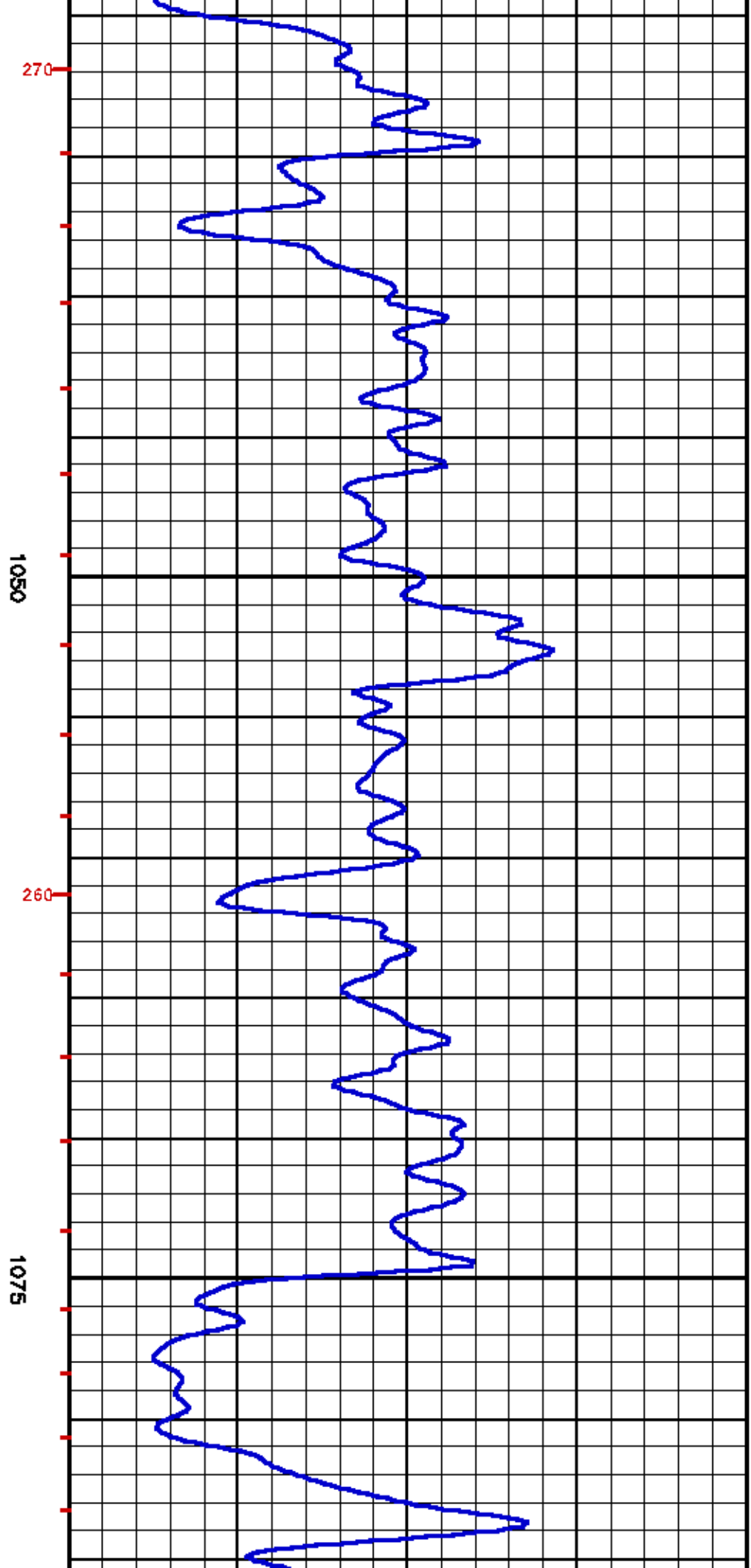
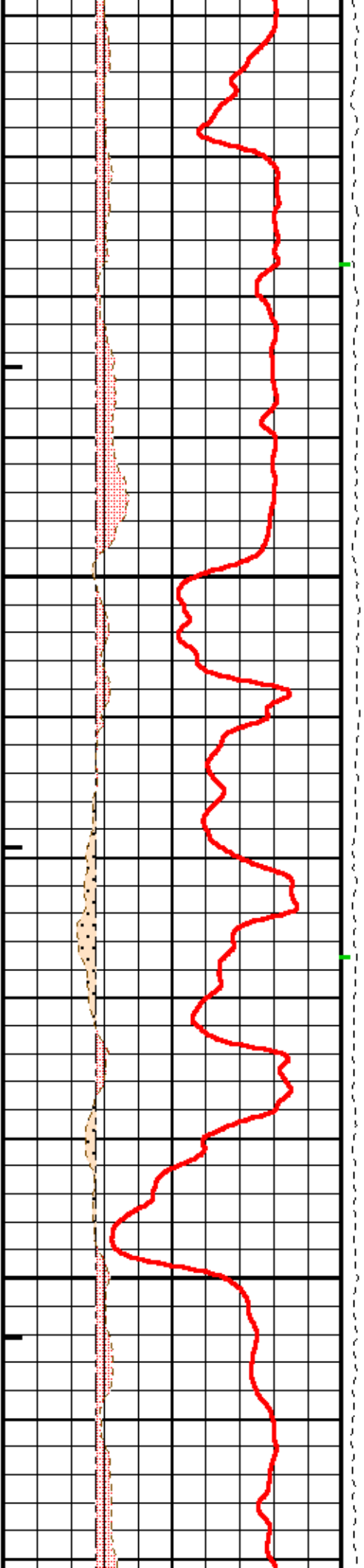
310

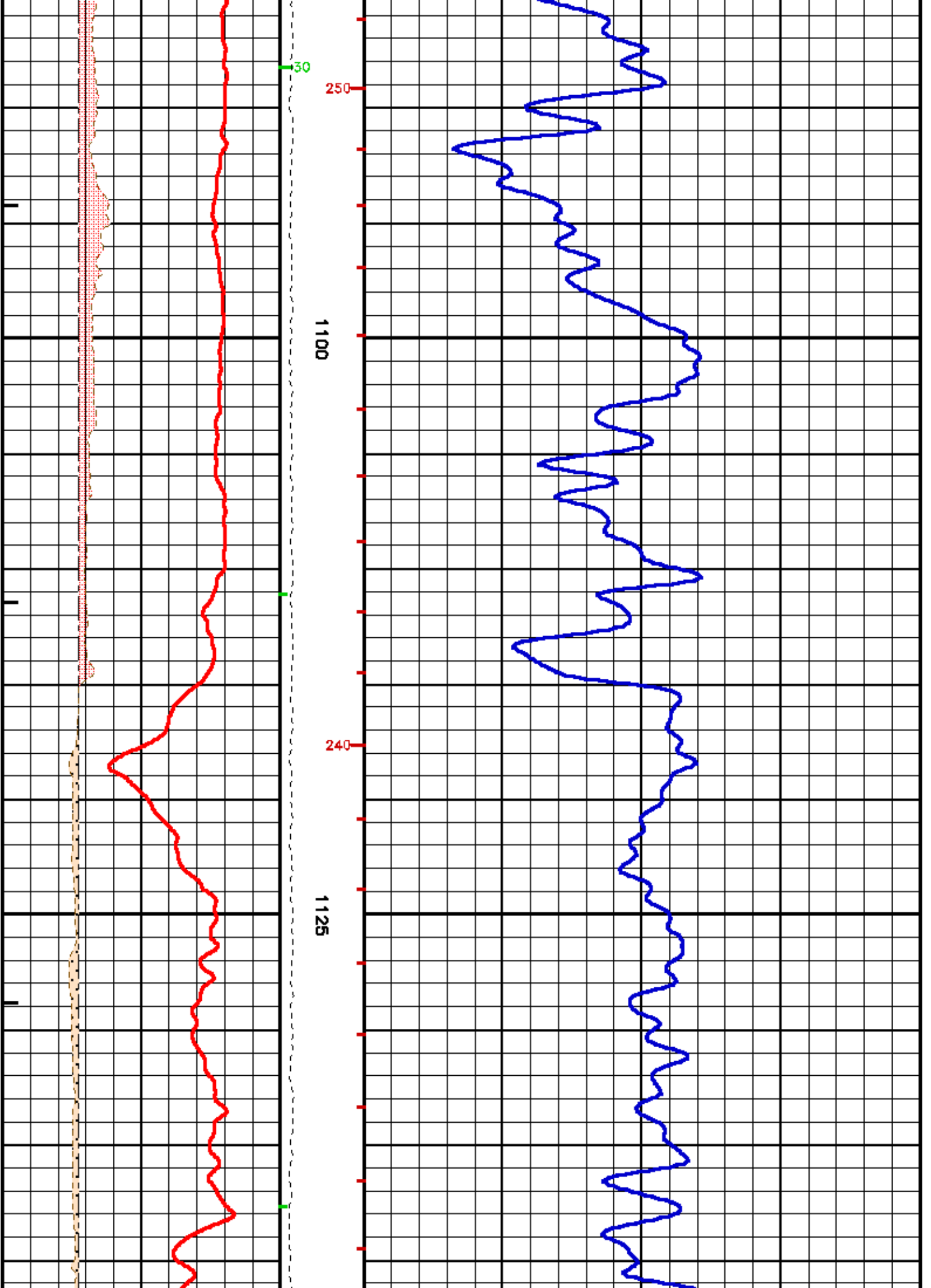
950

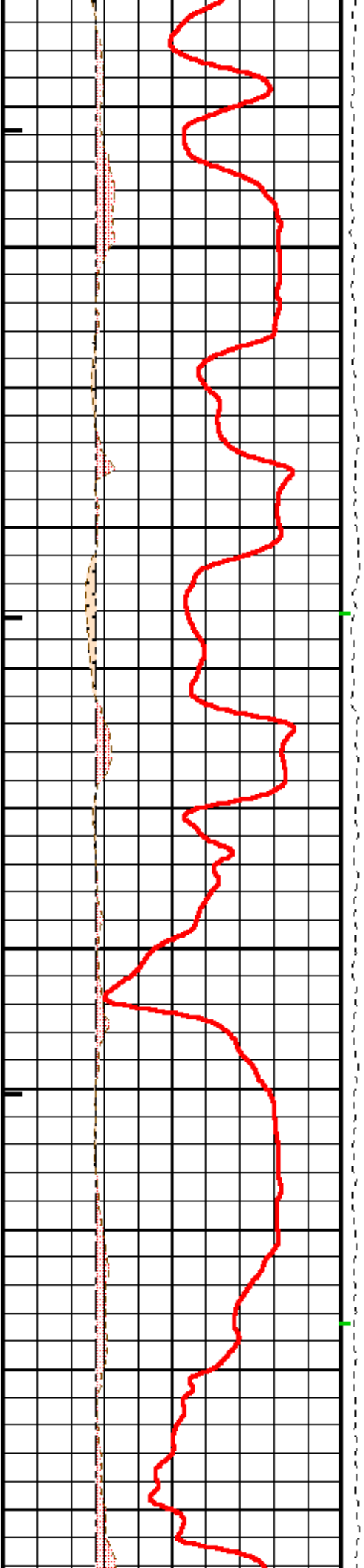
300







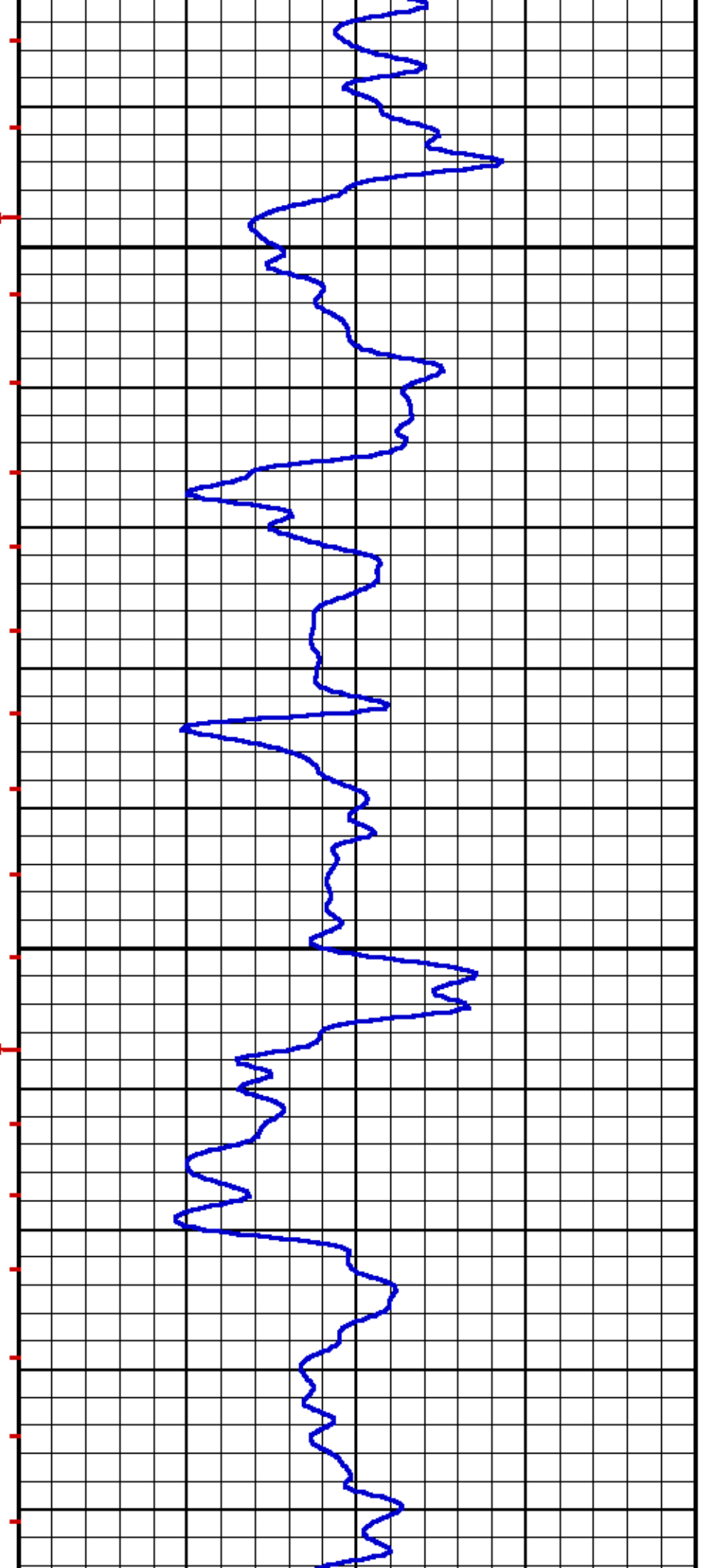




250
1150

1175

220



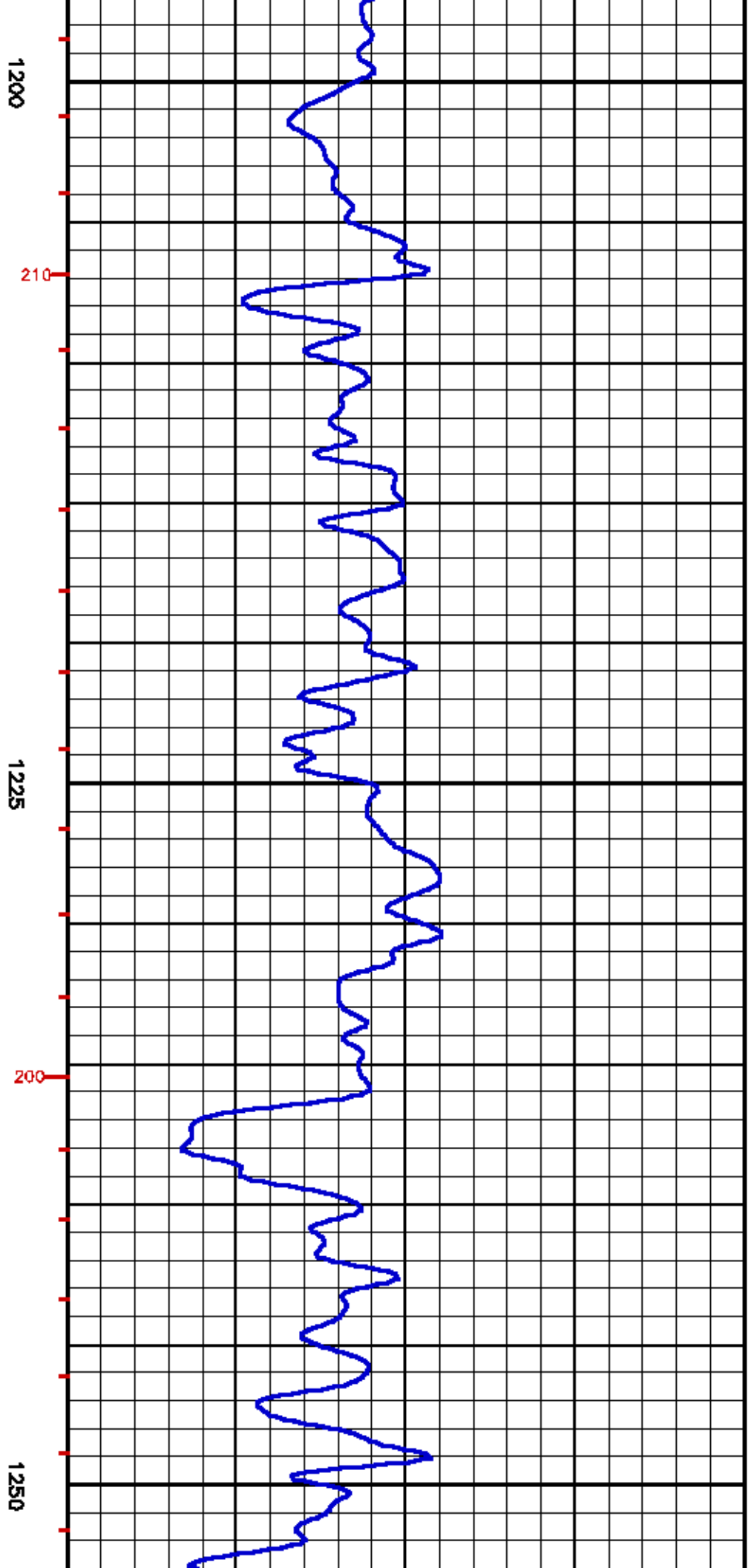
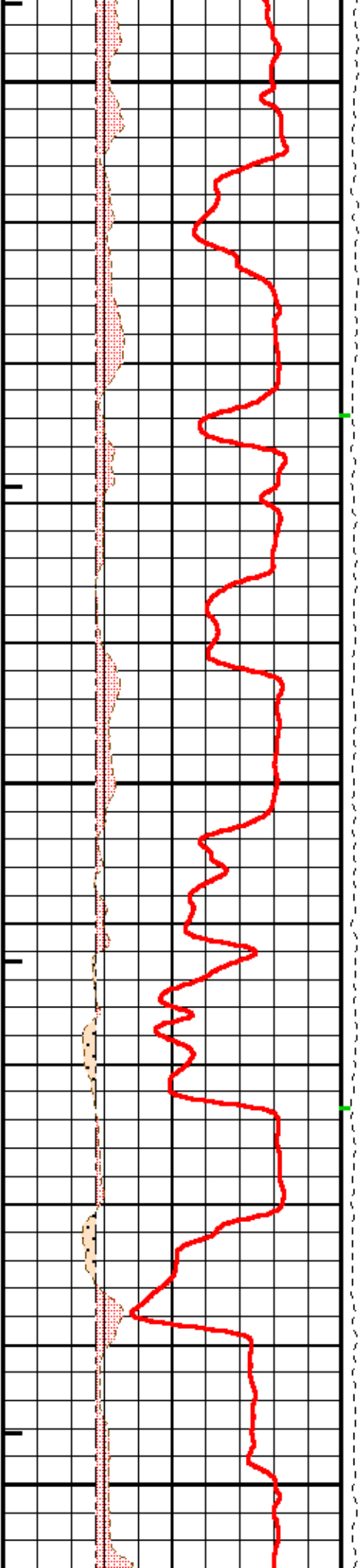
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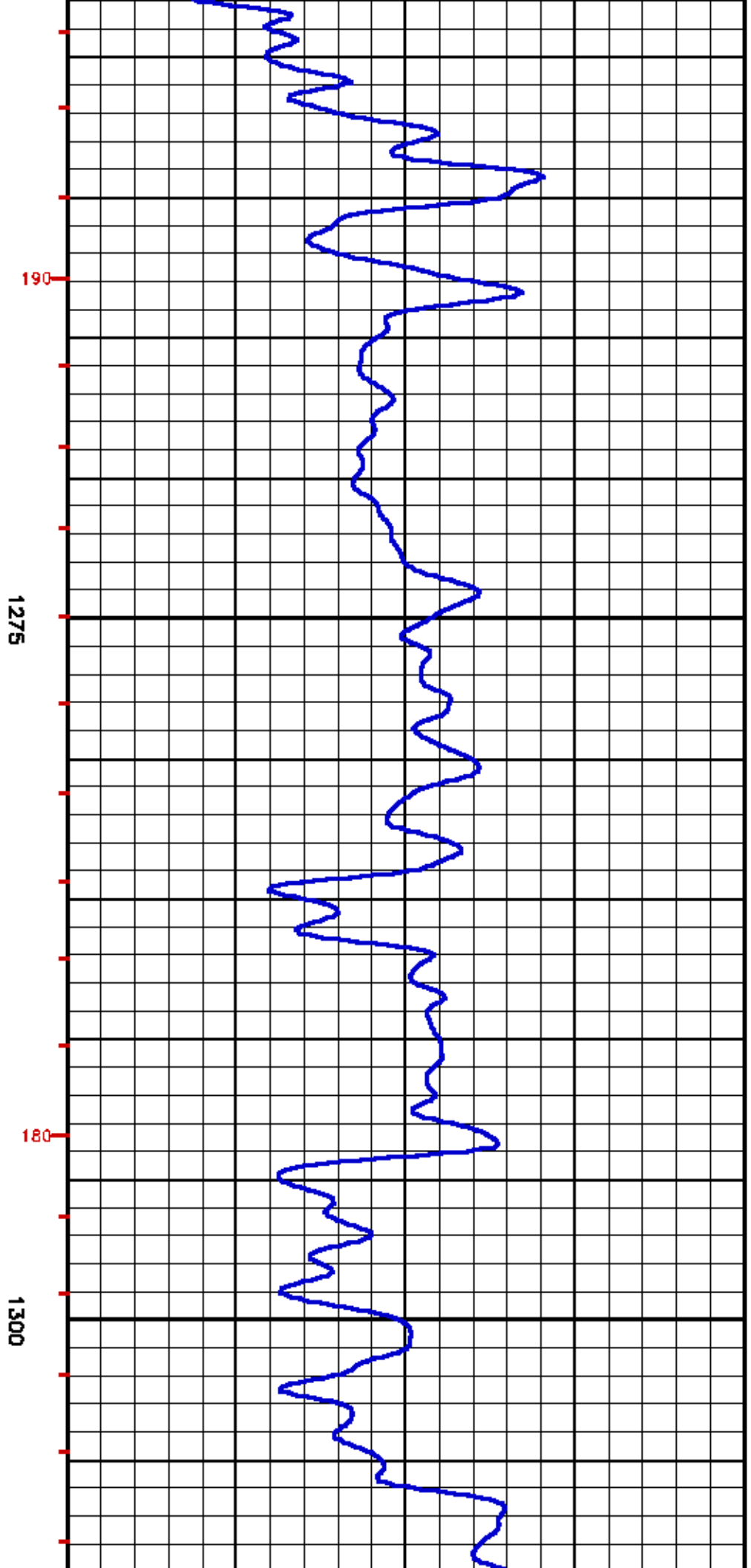
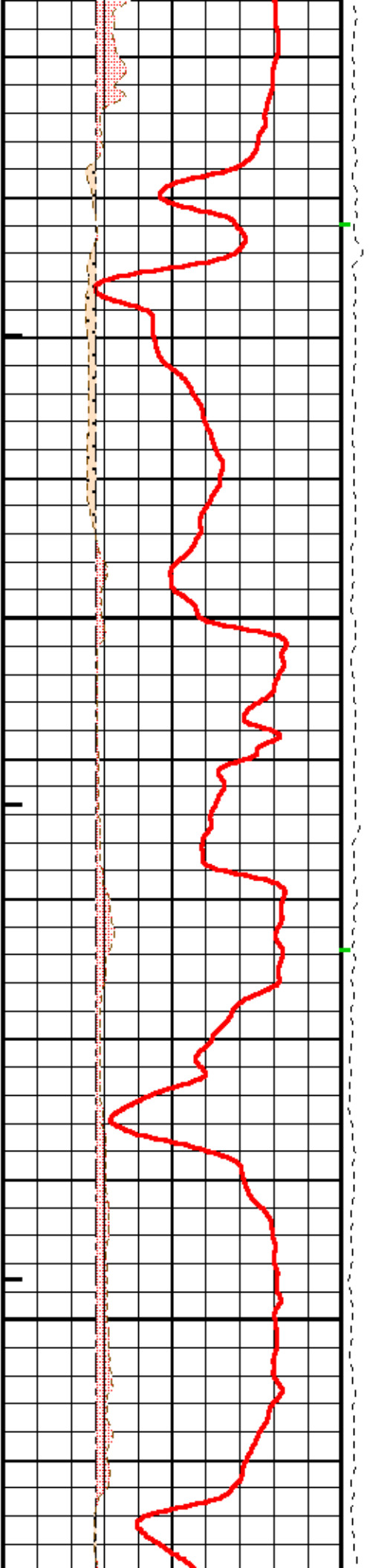
210

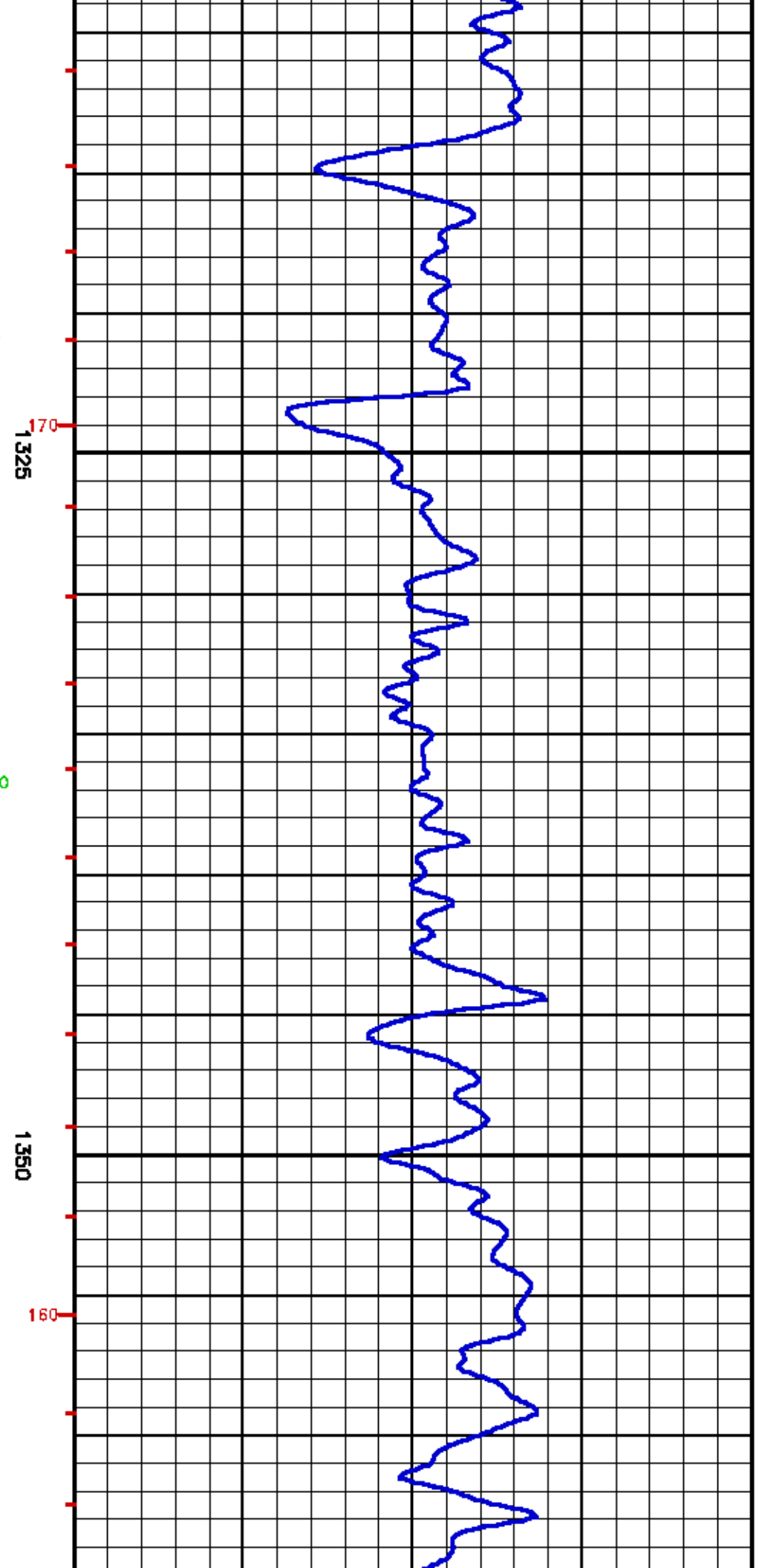
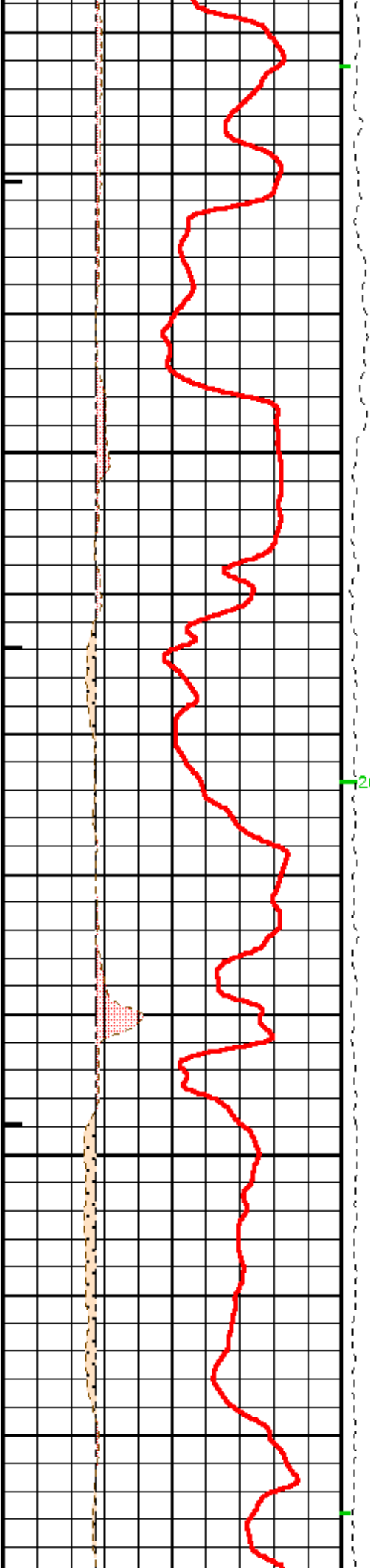
1225

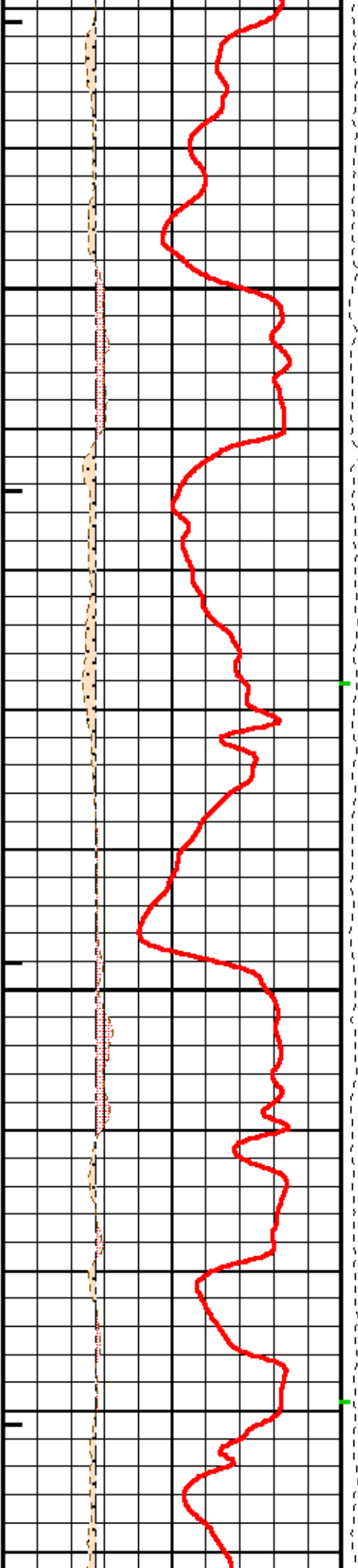
200

1250







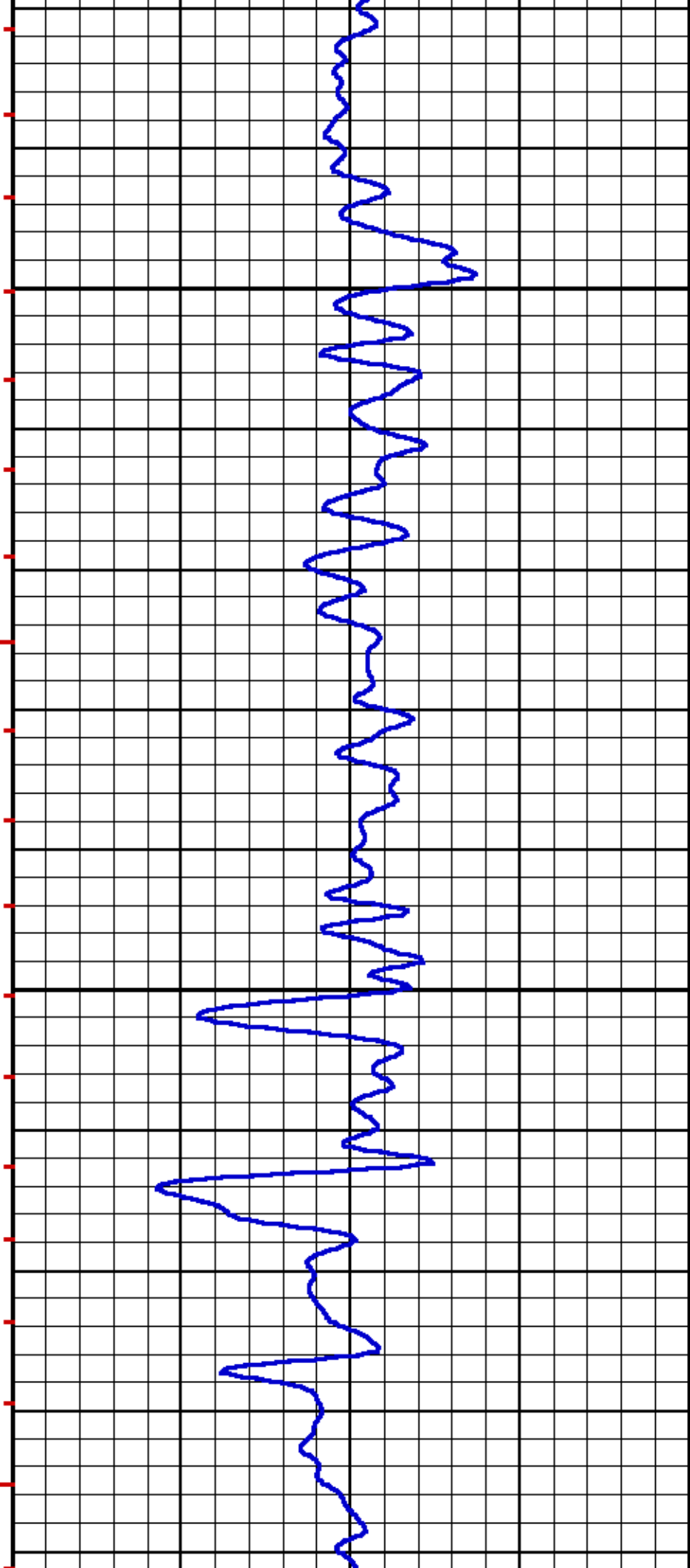


1375

150

1400

140

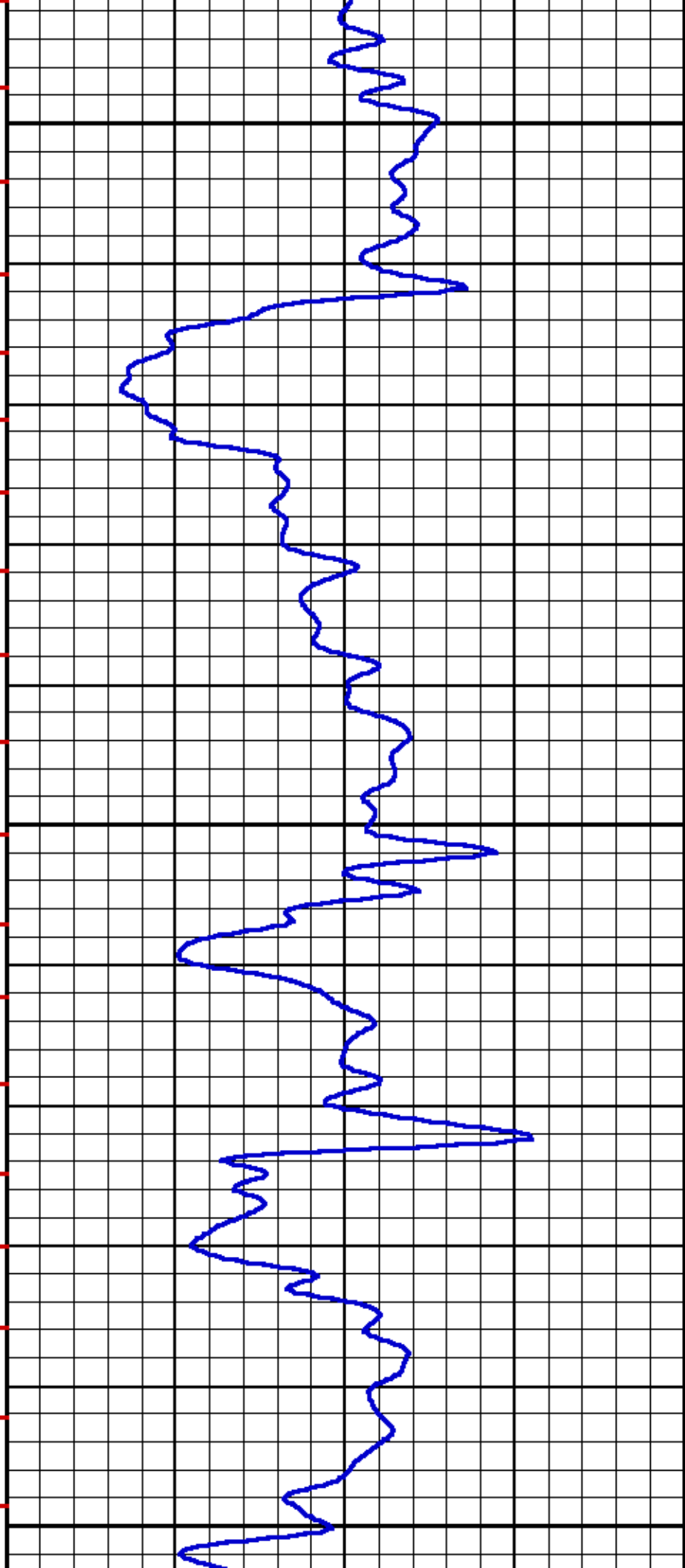
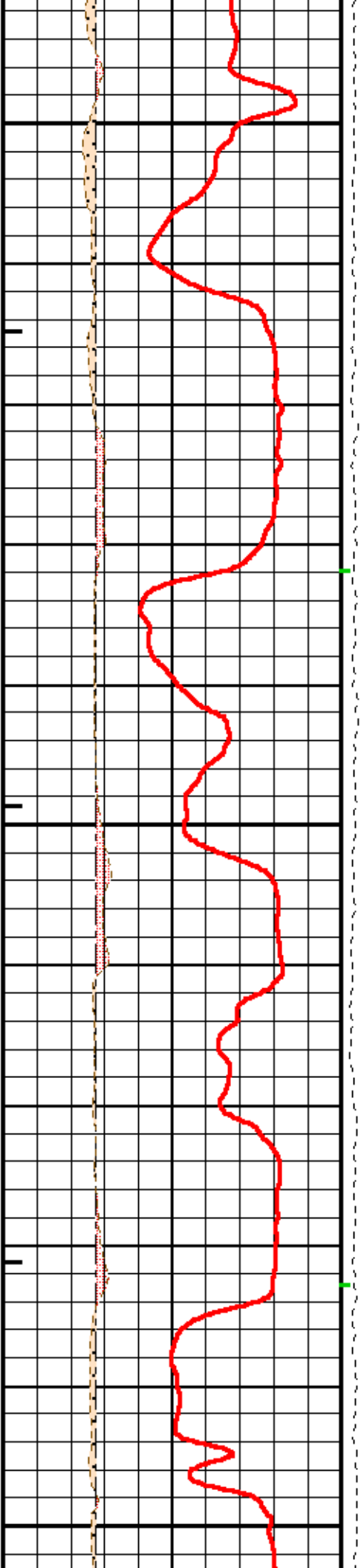


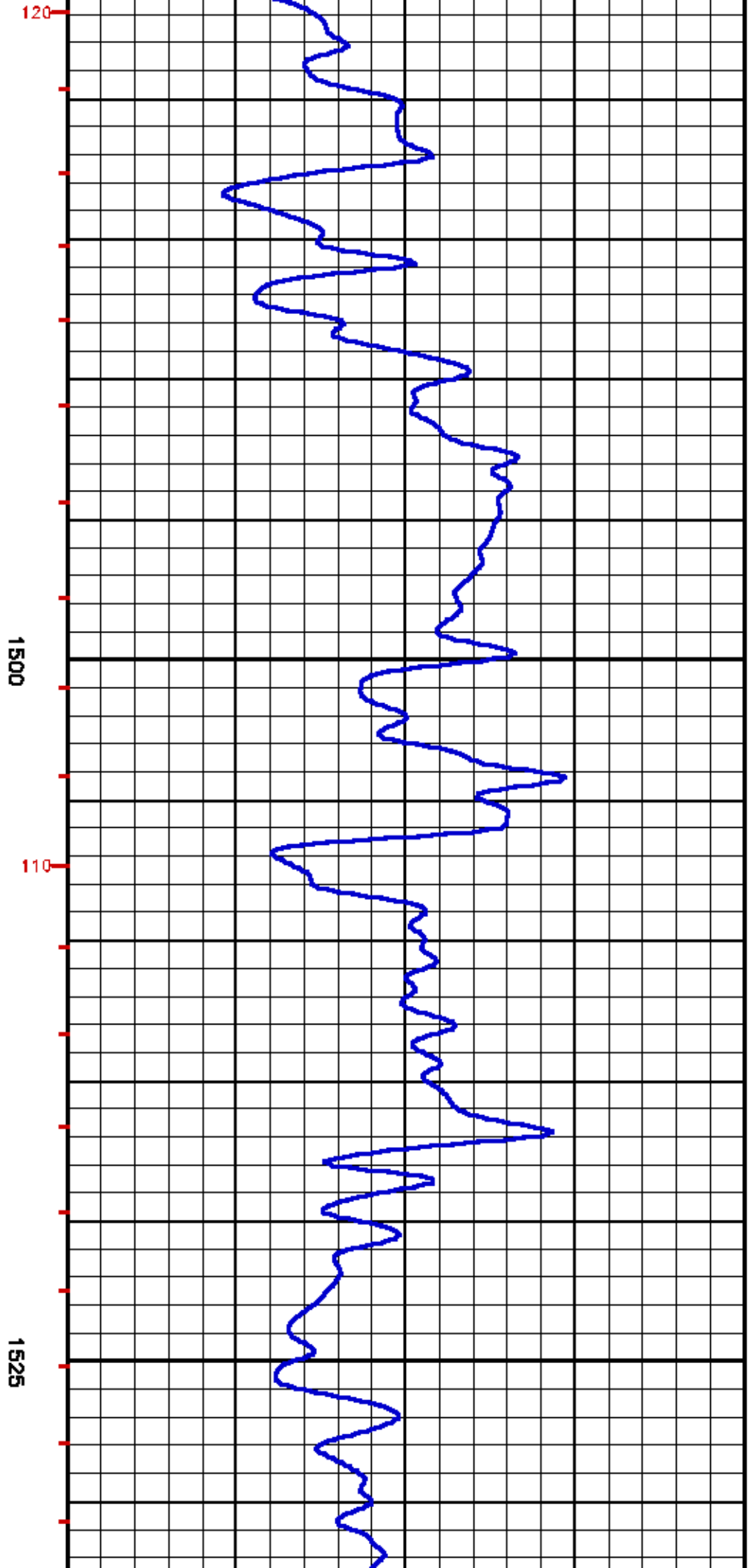
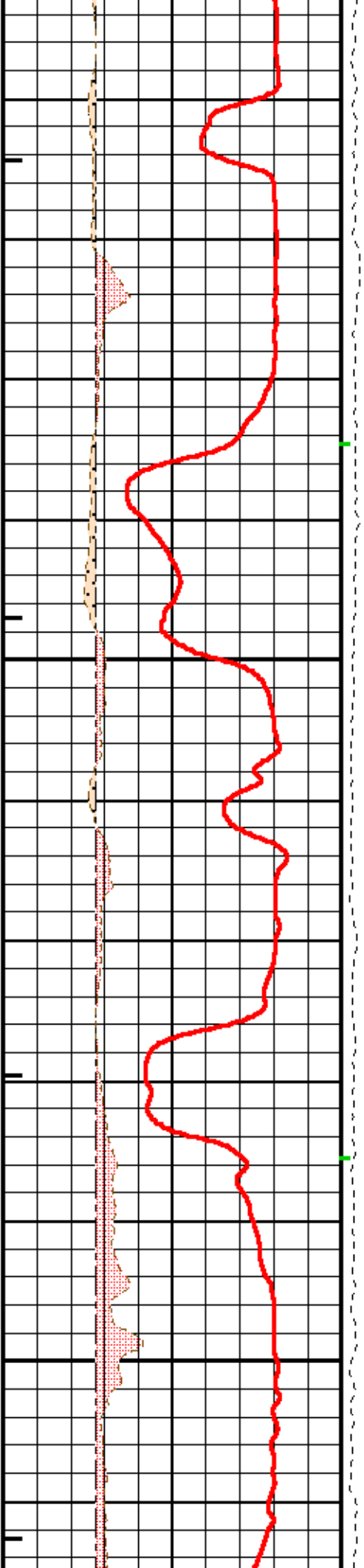
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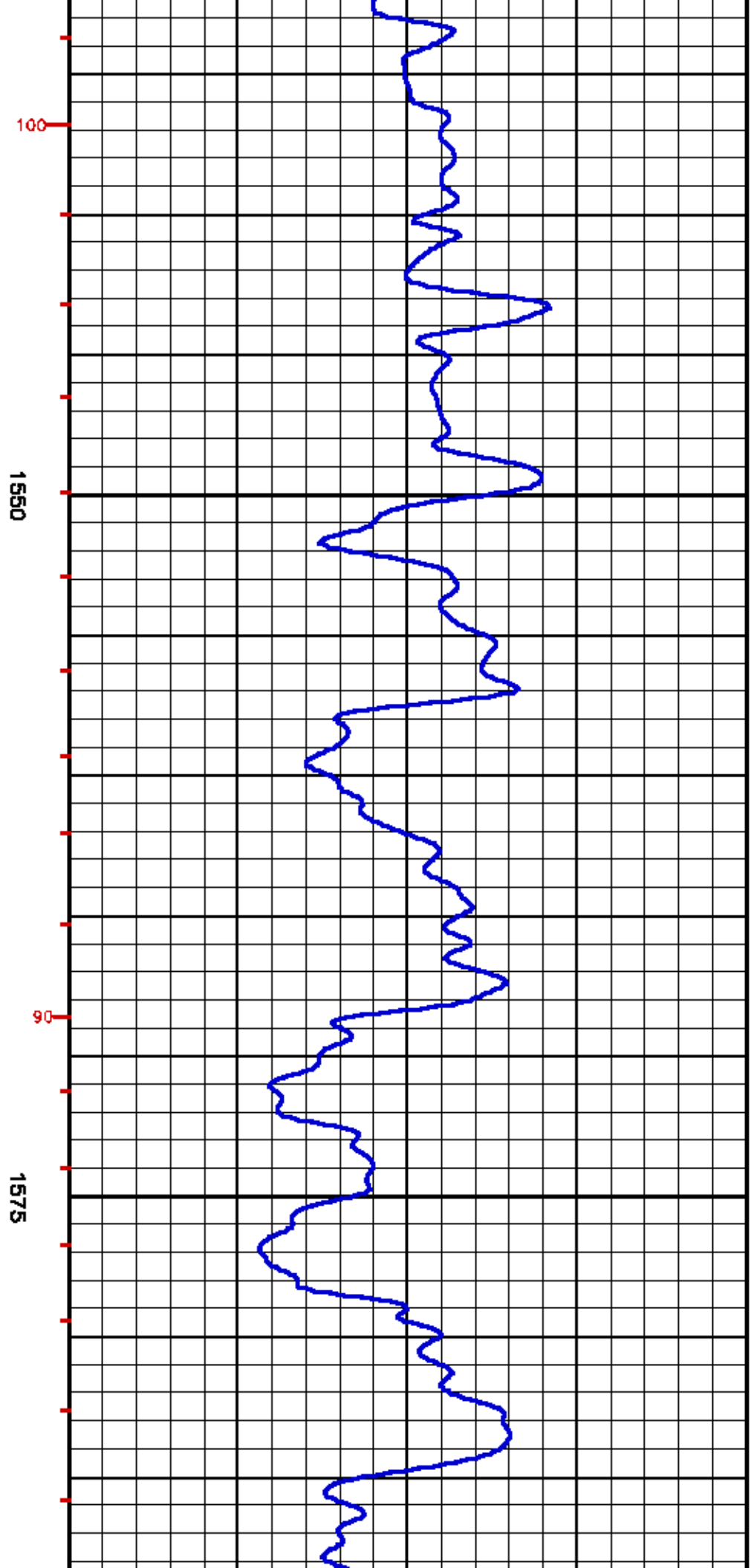
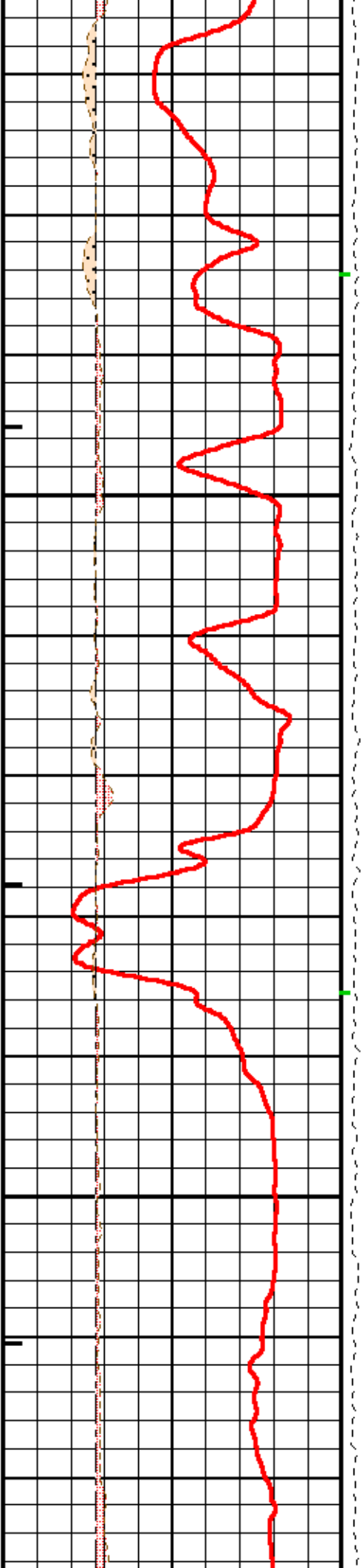
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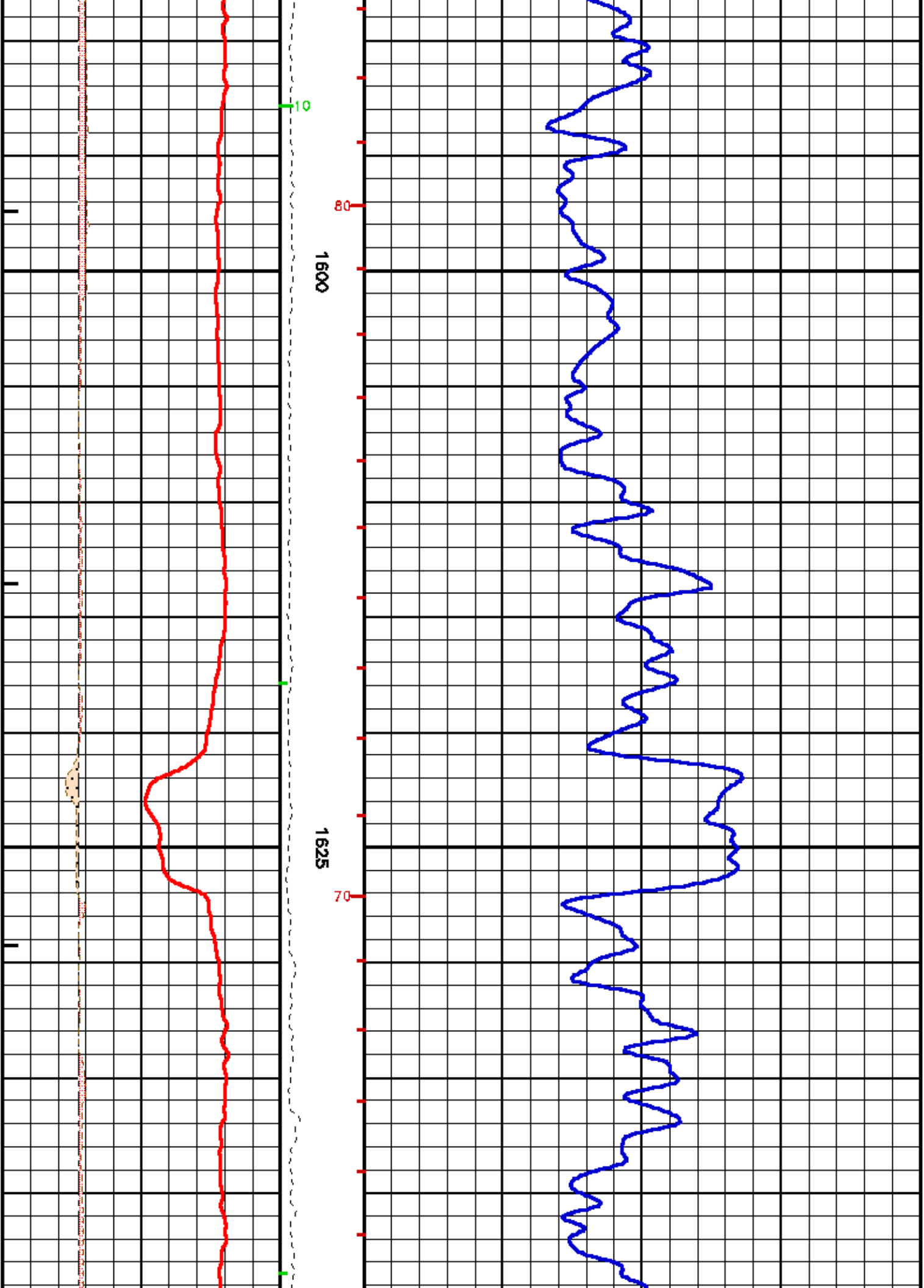
1450

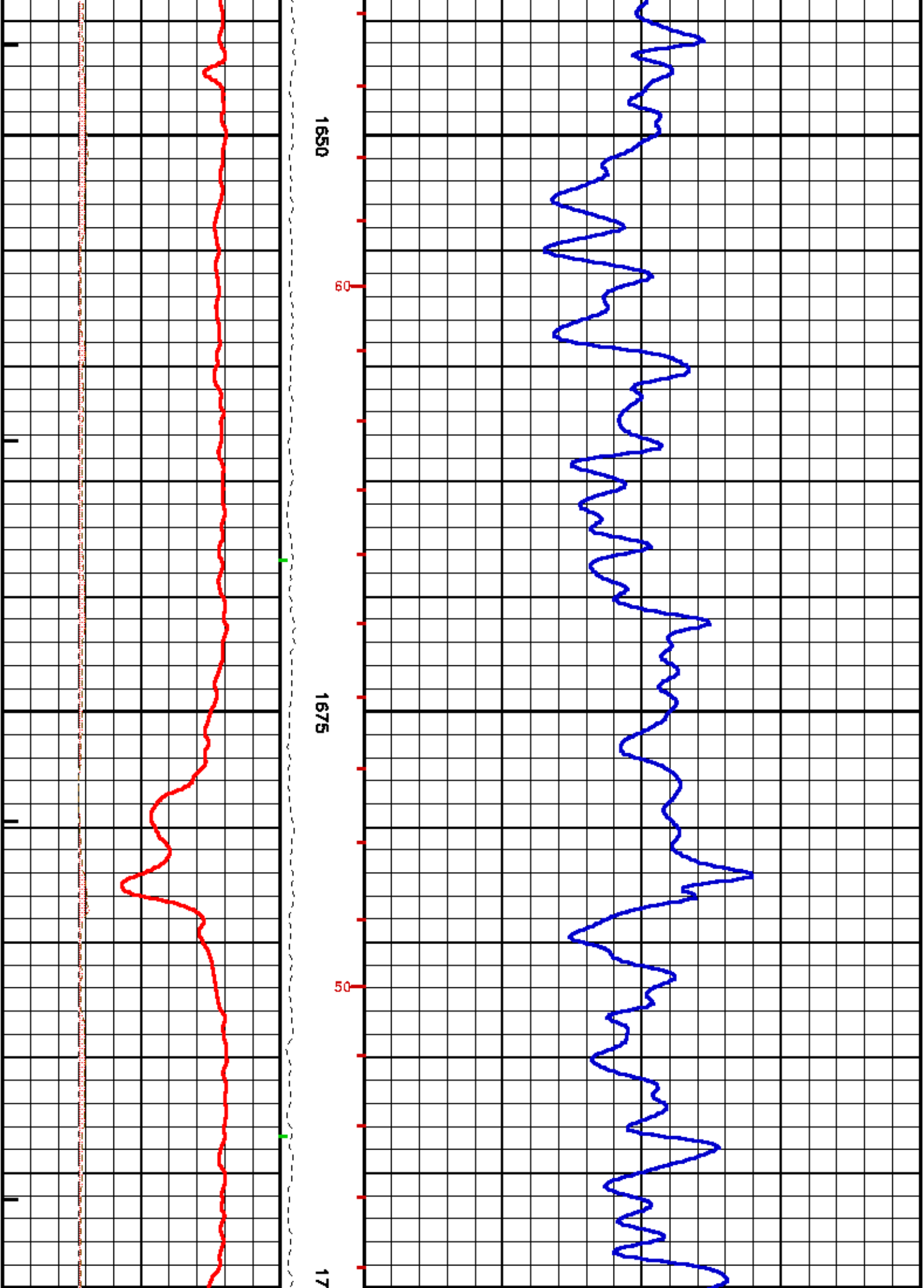
1475

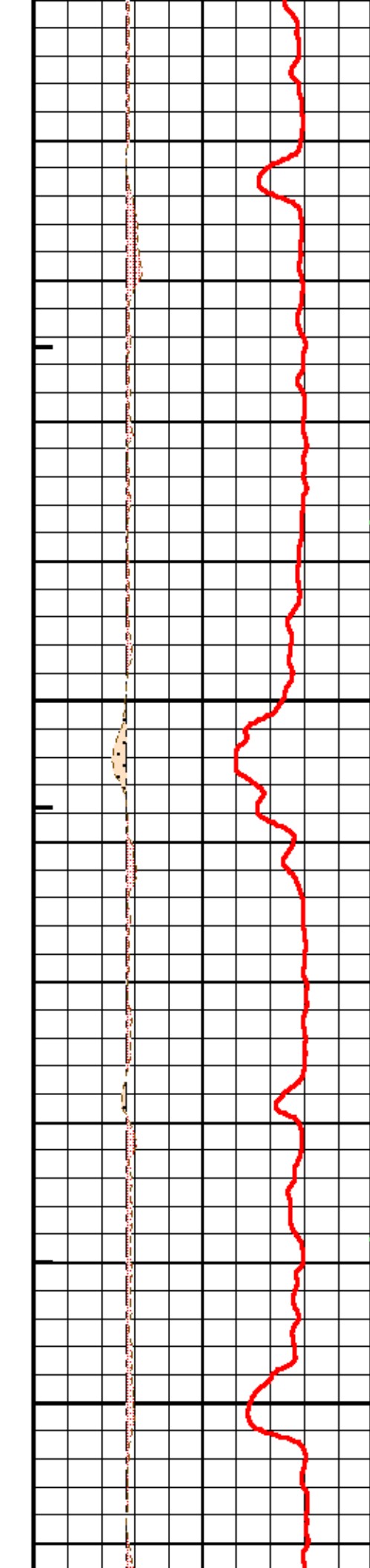
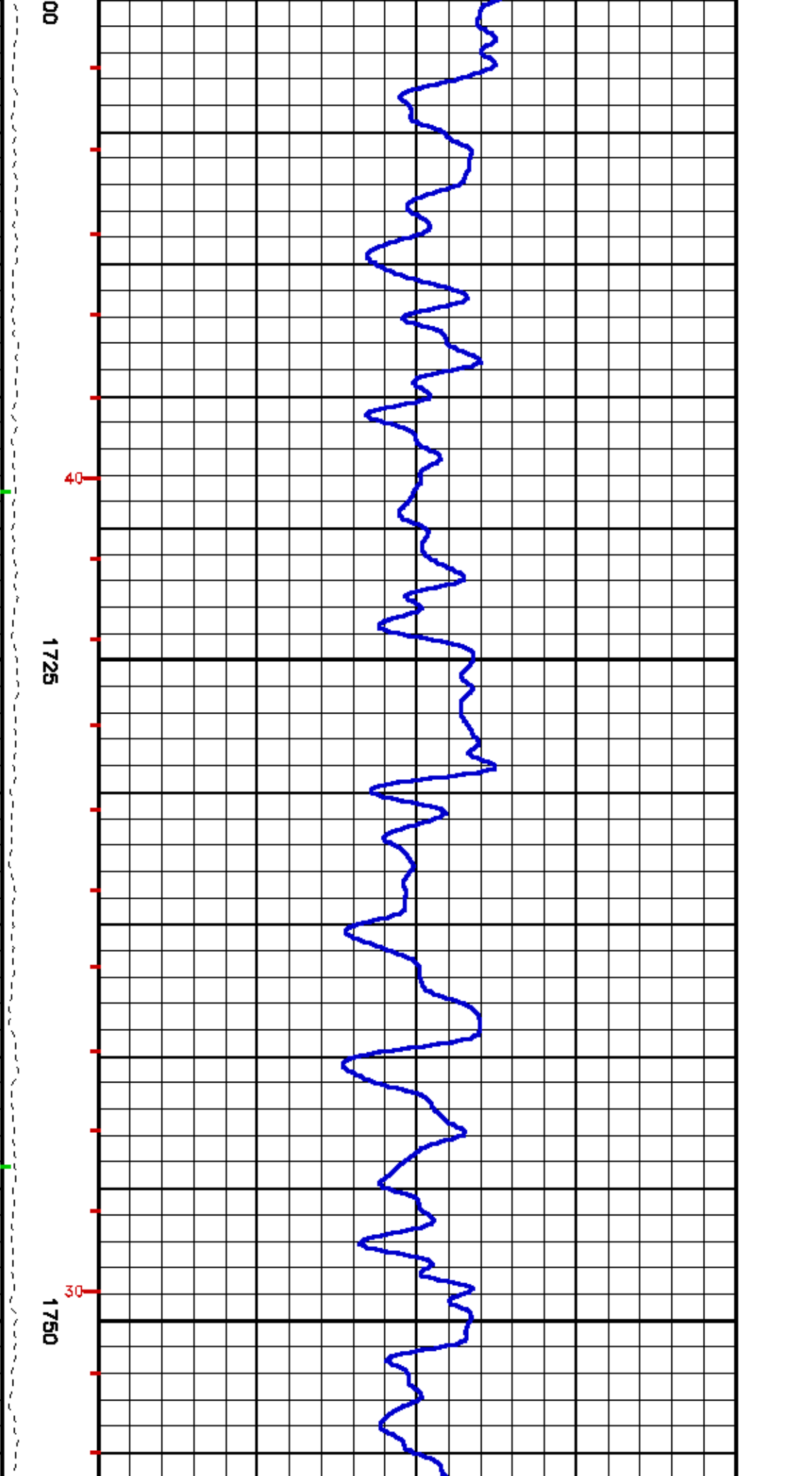


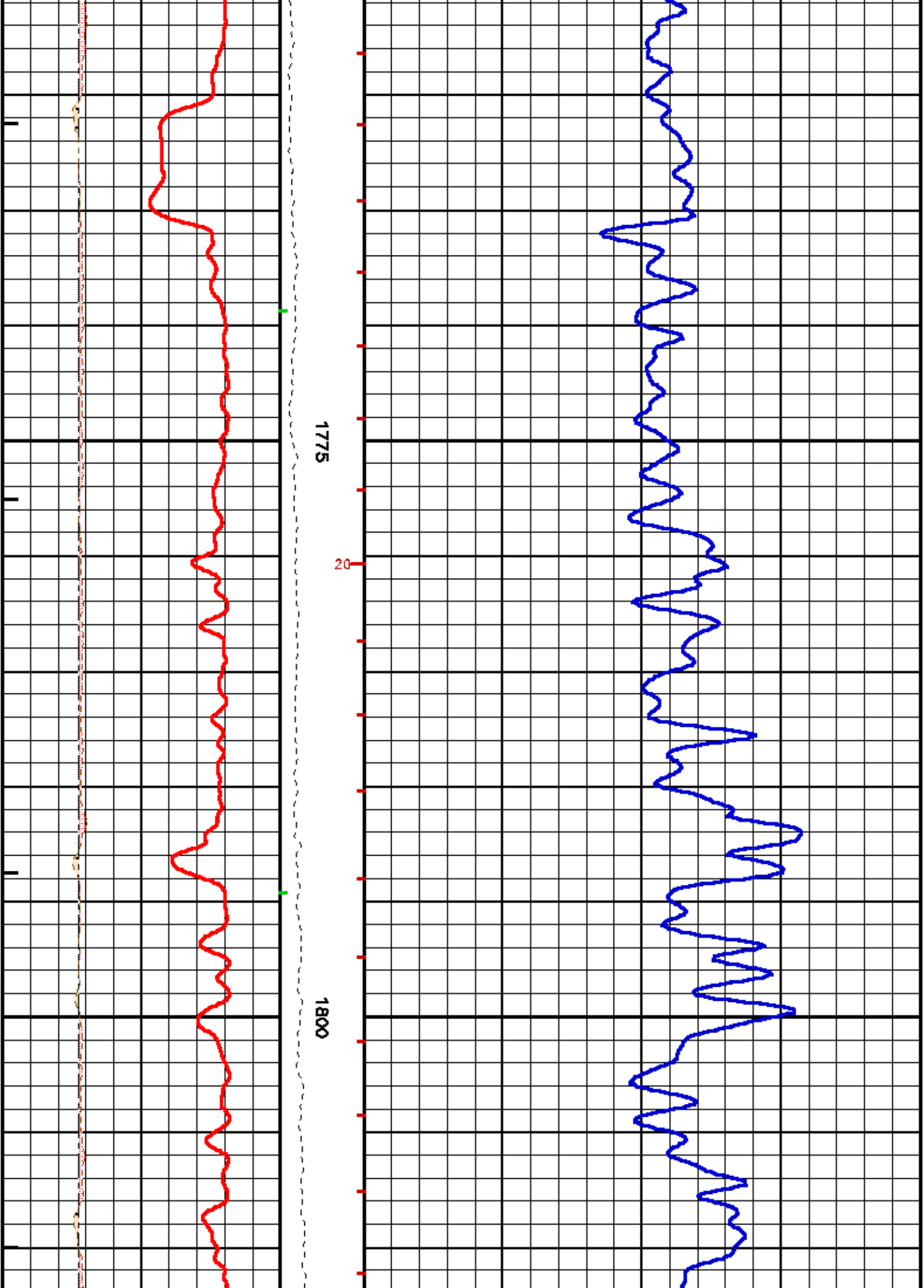


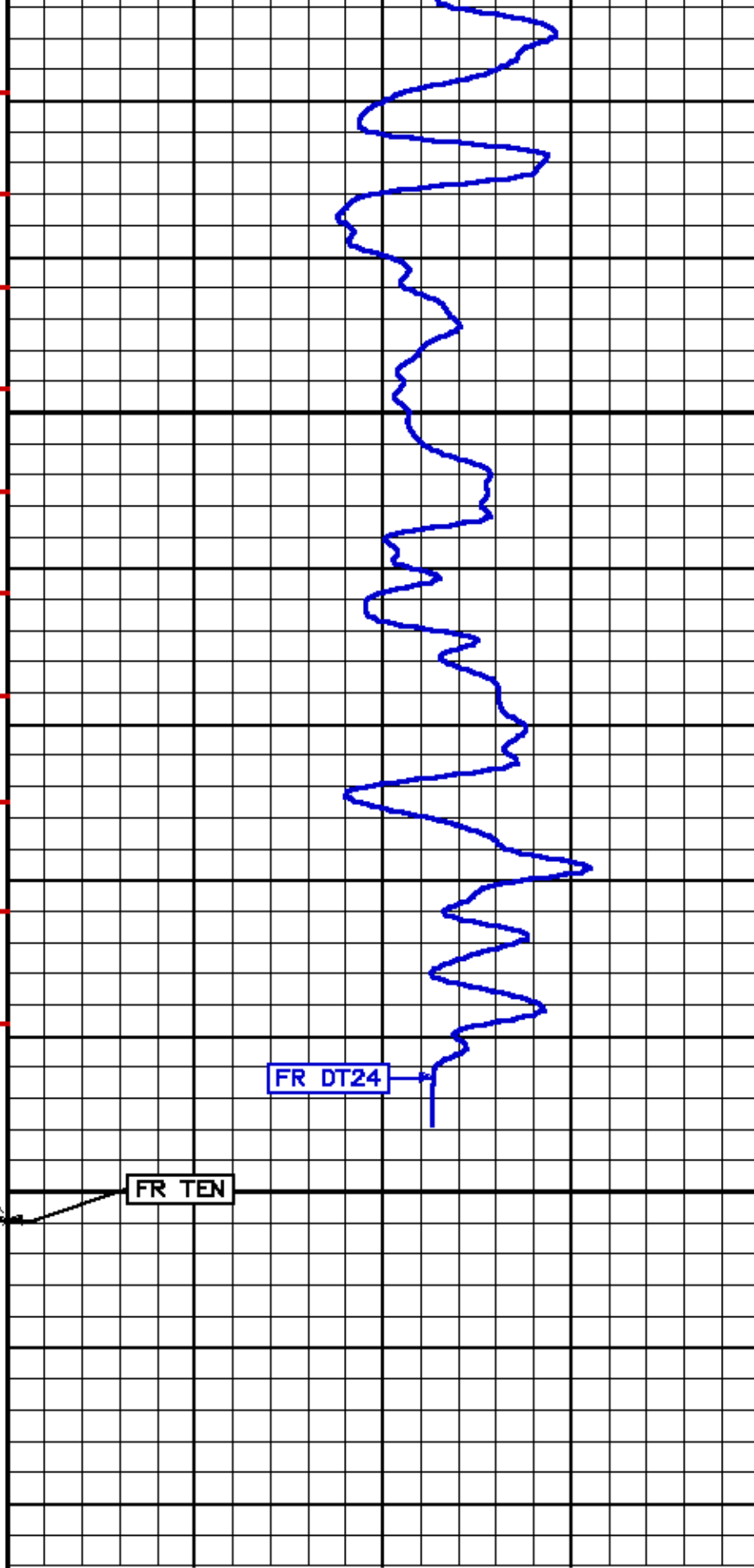
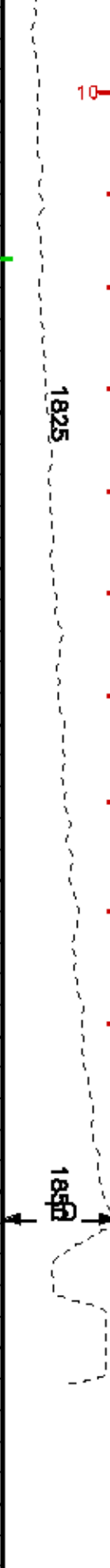
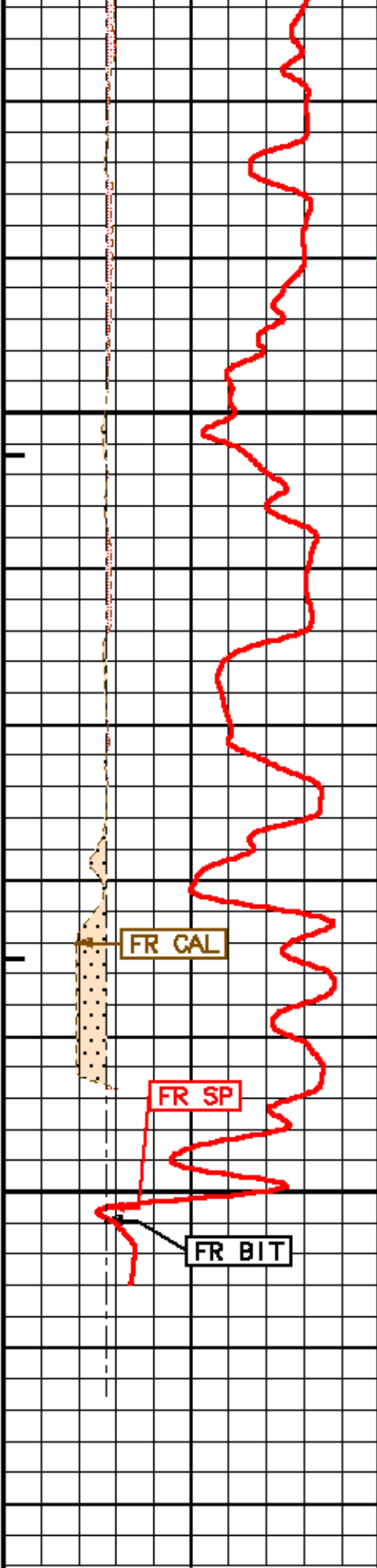












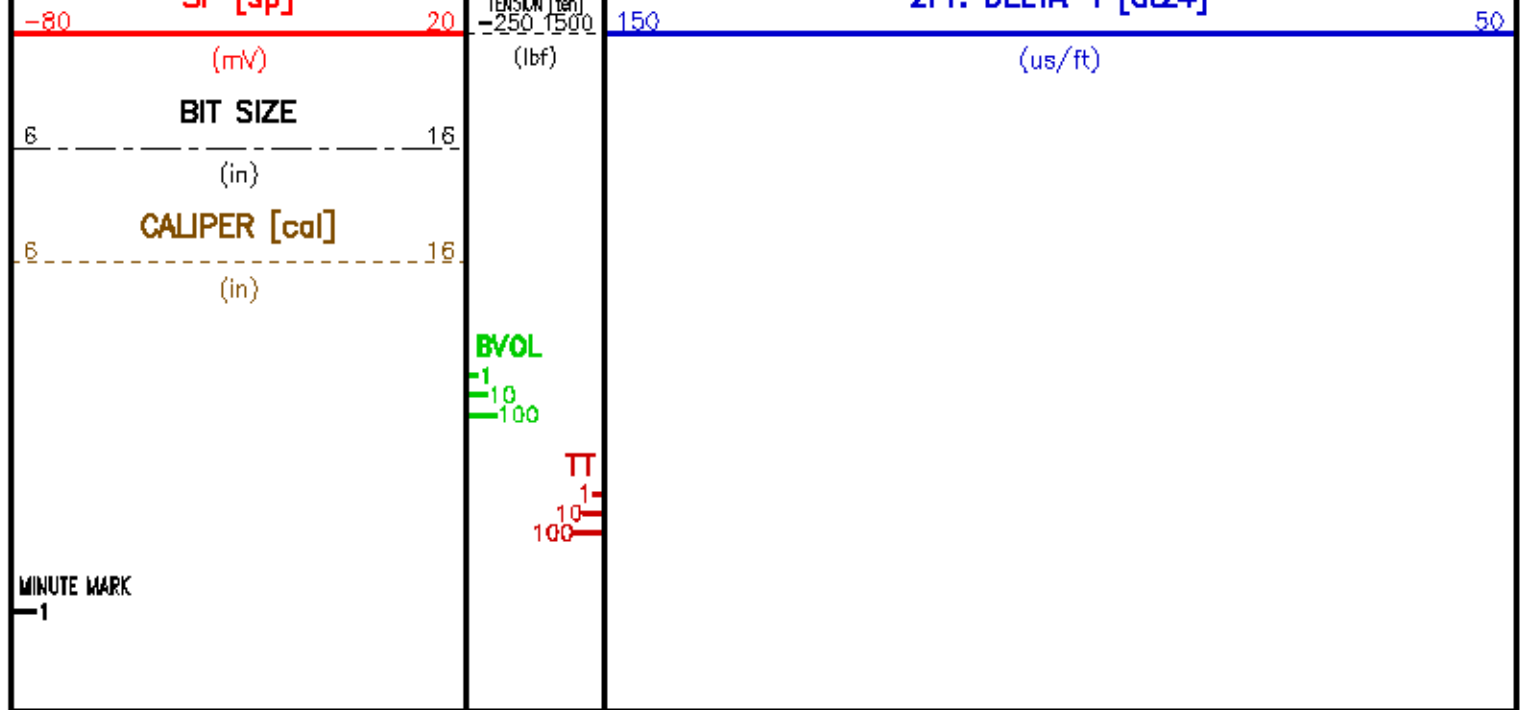
UNDER GAUGE

WASHOUT

SP [en]

METERS

2ET DELTA-T [4t24]



TRAMO REPETIDO

PARAMETER AND FILTER SUMMARY REPORT					
File: /data/ea778/k970a03.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 1892.554 BOTTOM DEPTH: 1840.971					
SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
DT24	FILTER ()	medium (1)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"
BOREHOLE & CEMENT					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	5.500	1n	TOP	BOTTOM
BIT SIZE	BIT SIZE	8.750	1n	"	"
ACCELERATION PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM
ACOUSTIC AVAN CORRELATION					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	WITH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	45	us/ft	"	"
	TAPER - RIGHT END	175	us/ft	"	"
FLOOR (UNIV. OPTION)	0.200			"	"

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	4000	Hz	"	"
	HIGH FREQ CUTOFF	30000	Hz	"	"

ACOUSTIC TCC CONTROL PARAMETERS

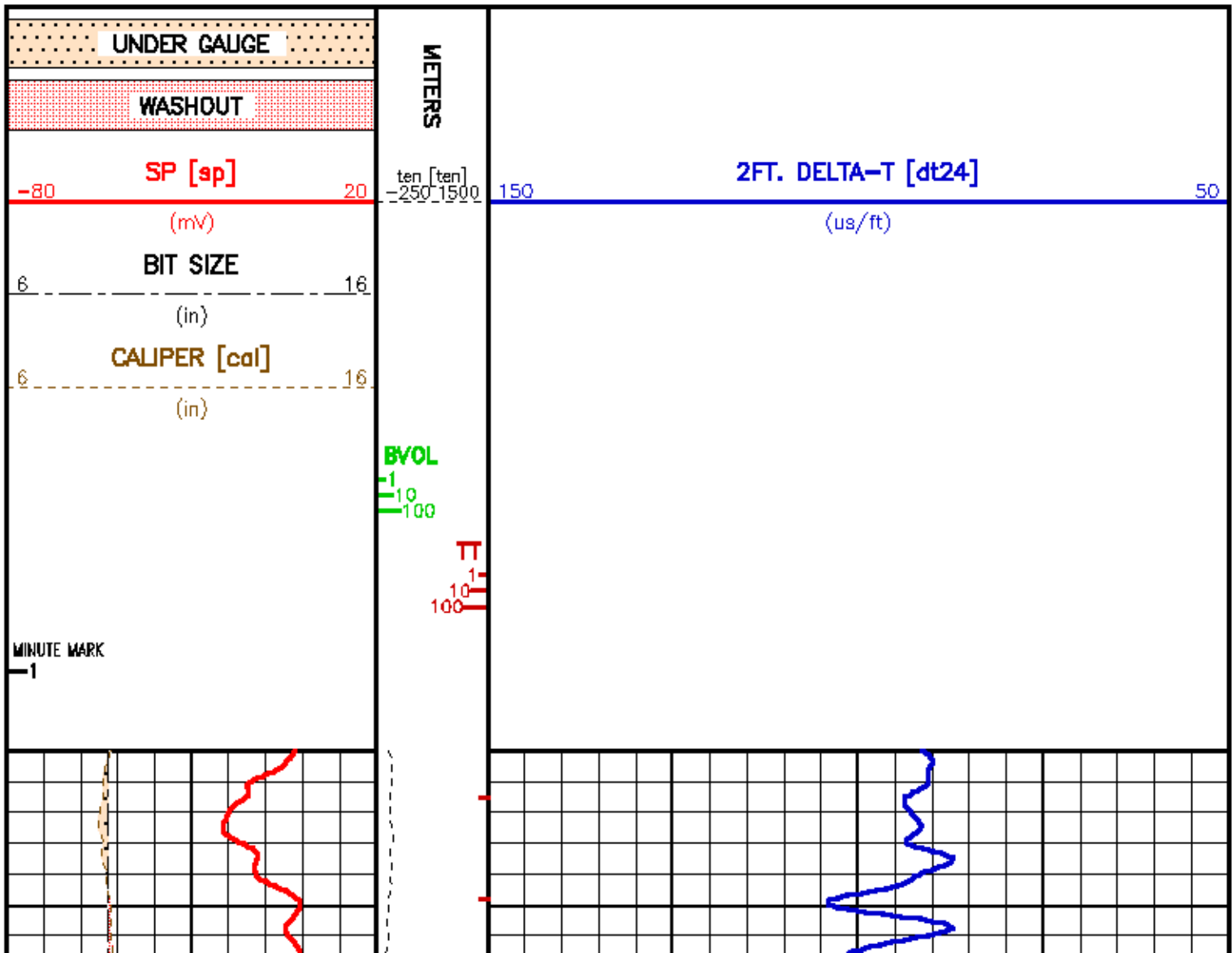
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	STACK LEVEL			TOP	BOTTOM
	SUBSET	0		"	"
DELTA T TCC PARAMETERS	ACG WINDOW	1200	us	"	"
	SAMPLE PERIOD	8		"	"
	RK DELAY	160	us	"	"

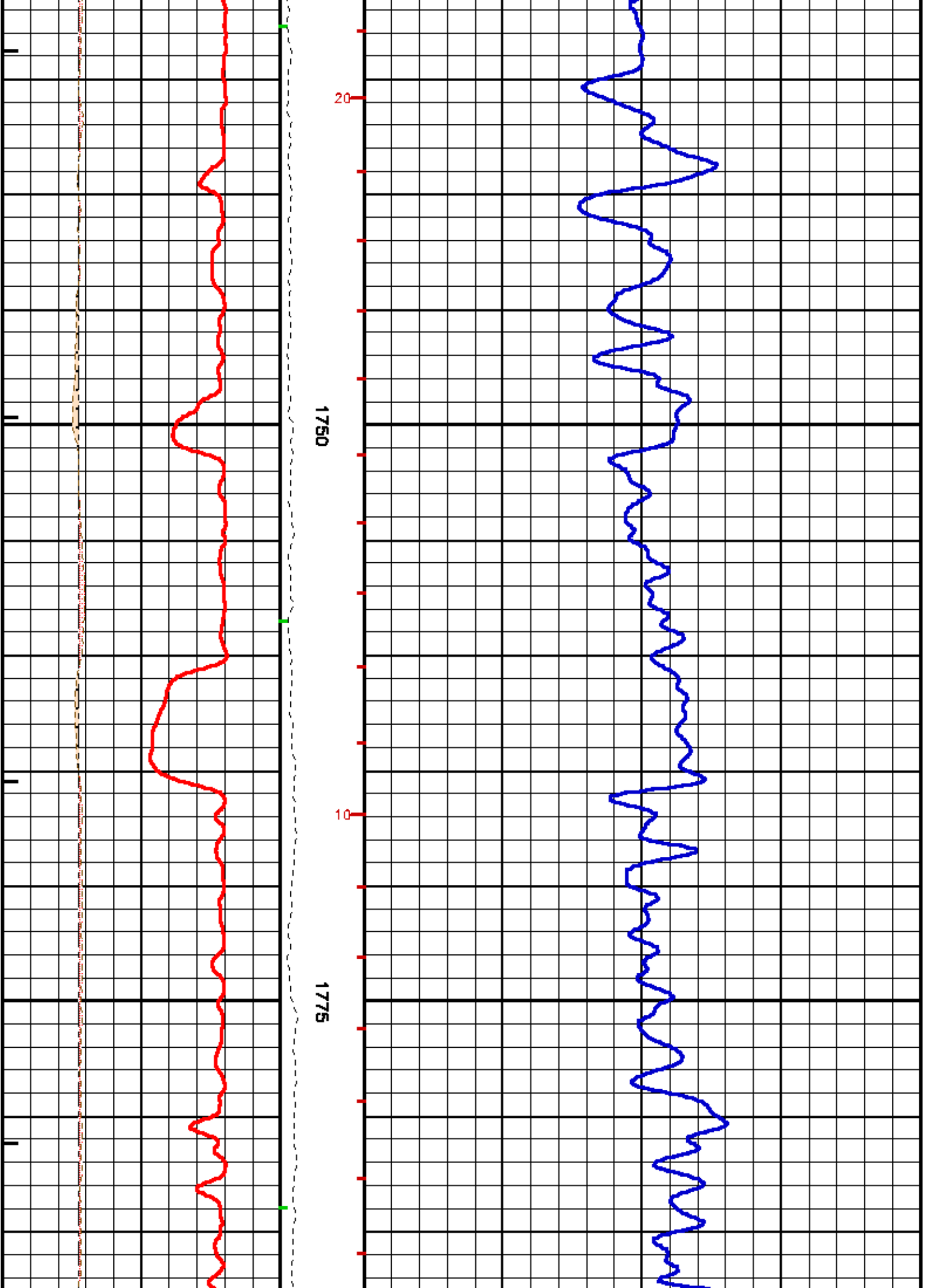
CURVE MEASURE POINT OFFSET

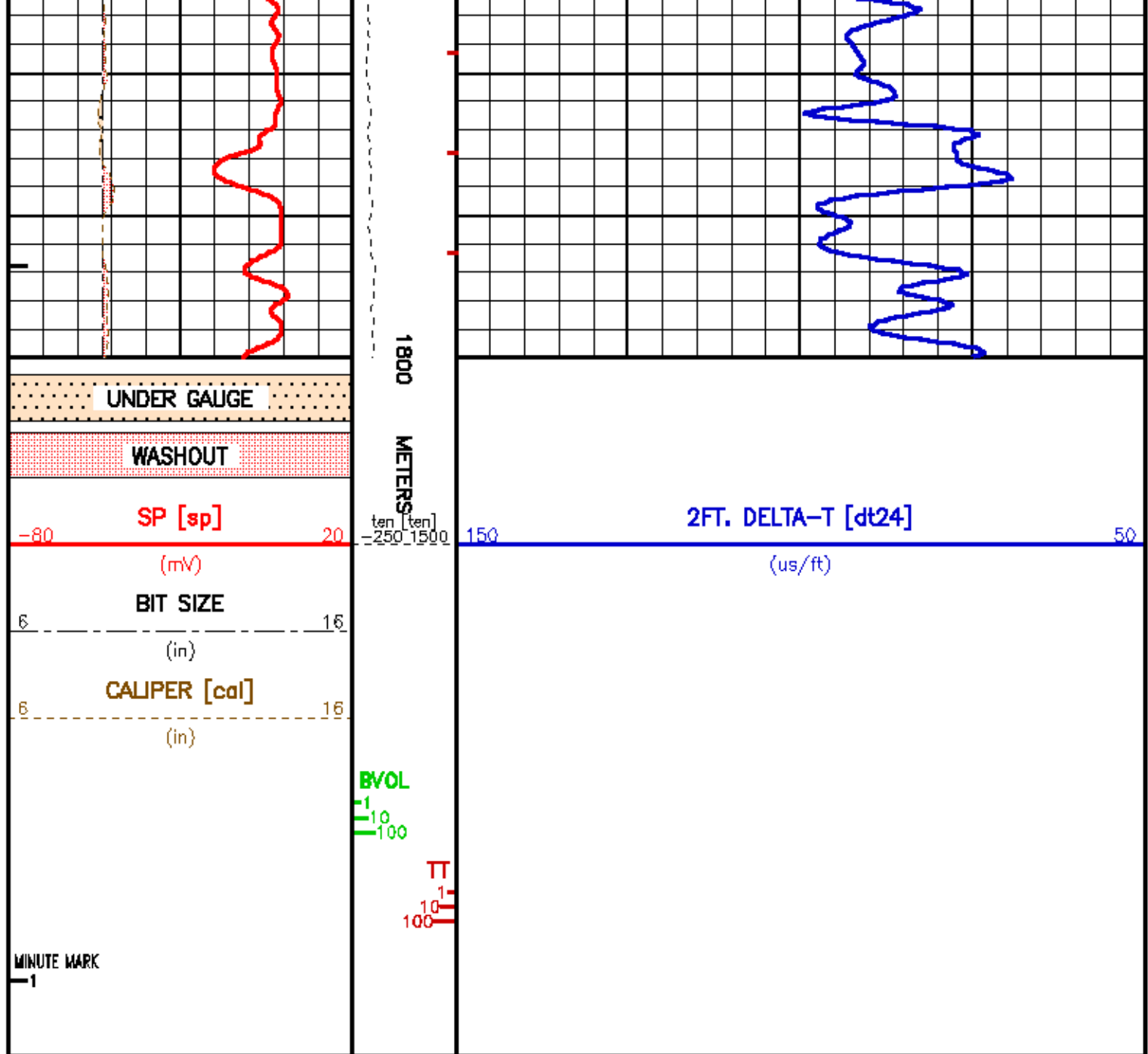
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT CAL	0.00 8.88	DT24 SP	4.57 0.38	TEN	0.00		

Presentation : HL6708:/dat1a/ea779/daLir.pdf [1:200 Scale]
 Plot Interval : 1725.02 - 1800 Meters

Data File 1 : F1 : HL6708:/dat1a/ea779/TR04.cif
 Created On : Oct 8 15:47:56 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 1444.98 - 1856.54 Meters
 Oct : t97Da







ANALISIS DE REPETIBILIDAD

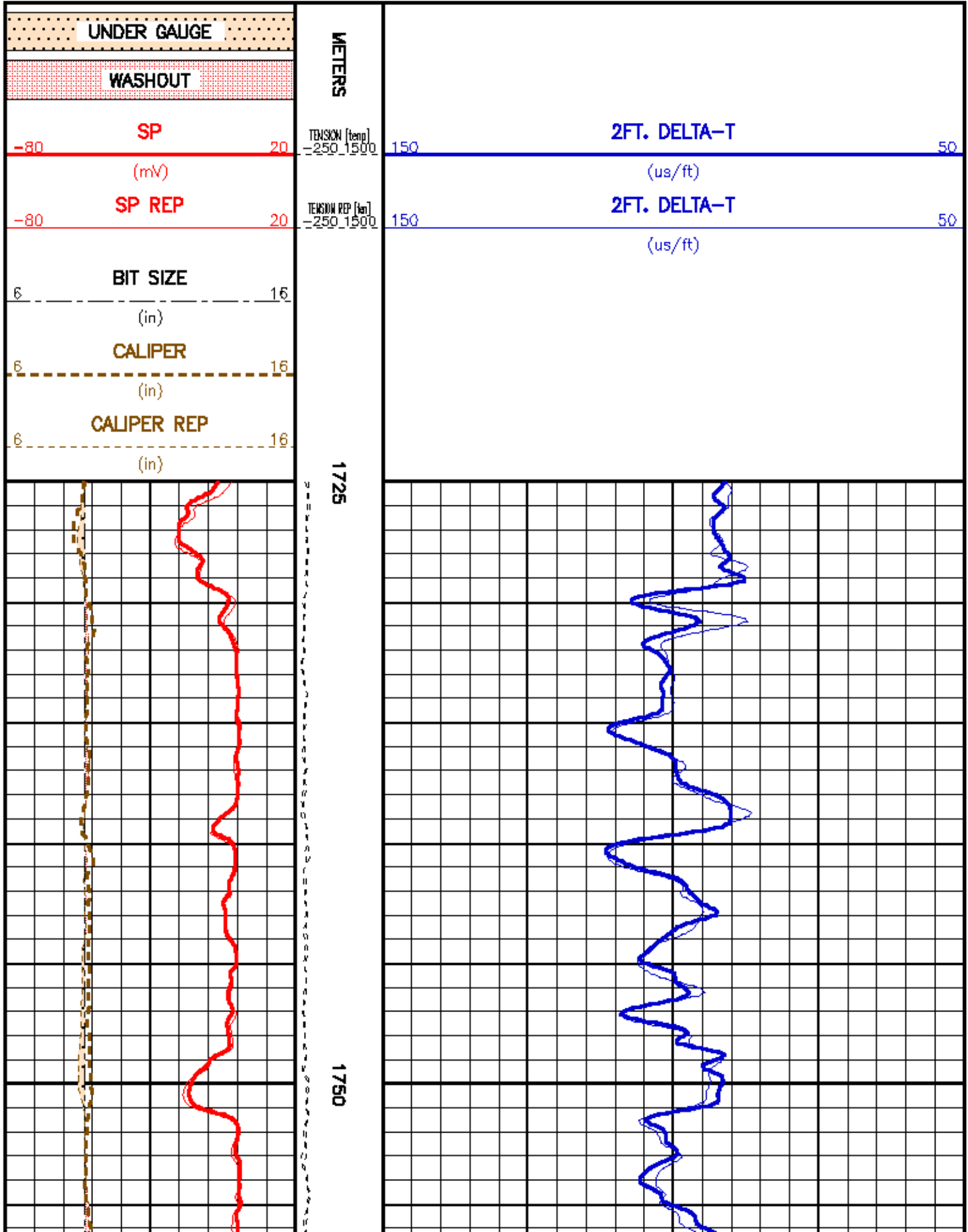
CURVE MEASURE POINT OFFSET

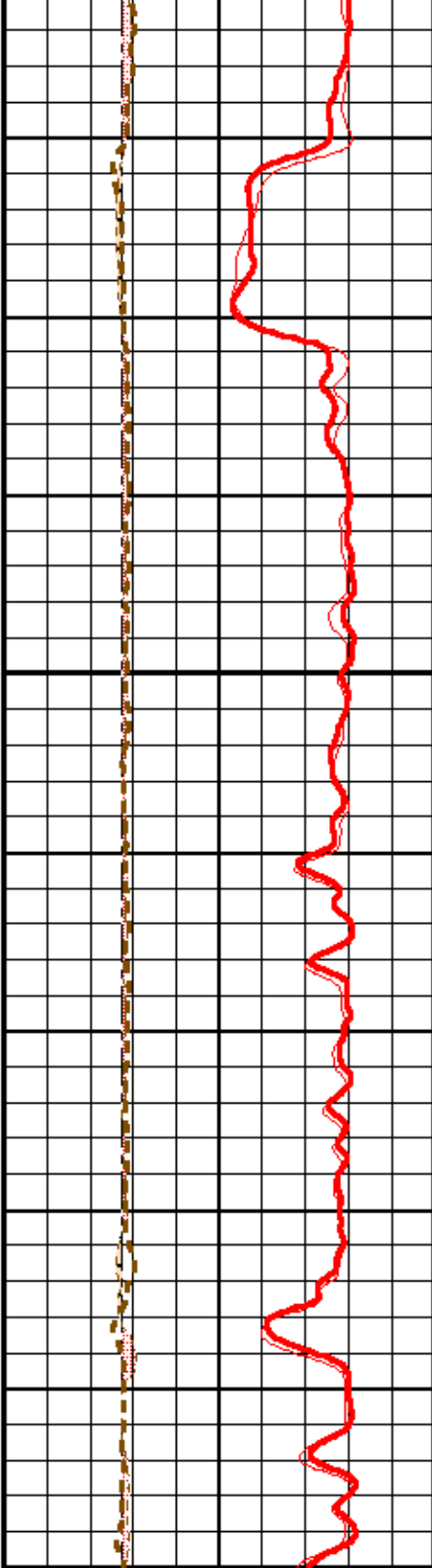
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	DT24	4.57	SPP	0.38		
CAL	8.88	DT24P	4.57	TEN	0.00		
CALP	8.88	SP	0.38	TEMP	0.00		

Presentation : HLB708:/dat1a/ea779/daLor.pdf [1:200 Scale]
 Plot Interval : 1725 - 1800 Meters

Data File 1 : F1 : HLB708:/dat1a/ea779/TR04.cif

Created on : Oct 8 15:47:56 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-778
 Field : EL ALBA
 File Interval : 1444.98 - 1858.54 Meters
 Oct : t8970a





1775
1800
METERS

UNDER GAUGE

WASHOUT

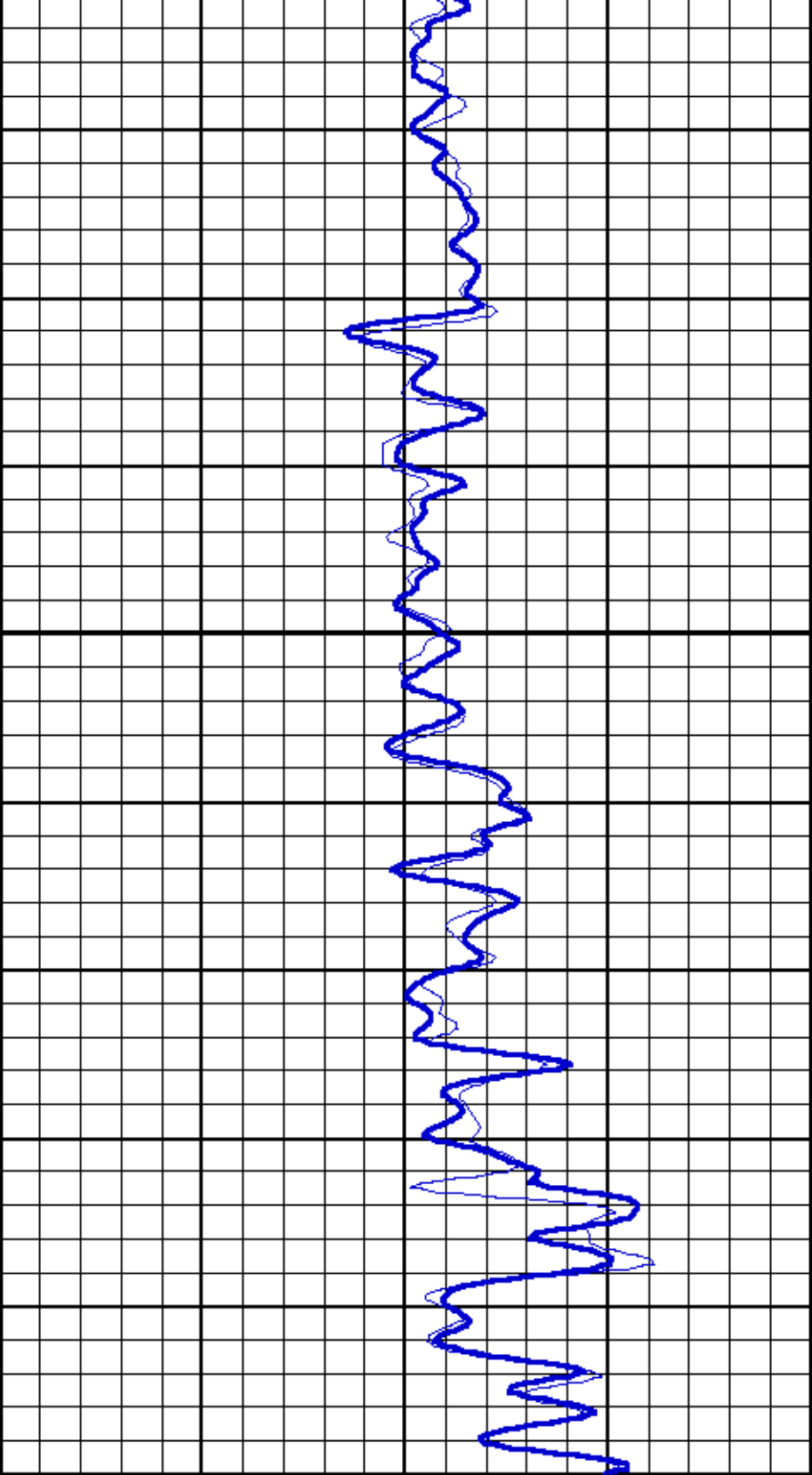
SP
(mV)
-80 20

SP REP
-80 20

BIT SIZE

TENSION [teng]
-250 1500



TENSION REP [ten]
-250 1500



2FT. DELTA-T
(us/ft)
150 50

2FT. DELTA-T
(us/ft)
150 50

6	(in)	16
CALIPER		
6	(in)	16
CALIPER REP		
6	(in)	16

 Baker Atlas 	COMPANIA <u>YPF S.A.</u> POZO <u>YPF.Ch.EA-779</u> YAC. <u>EL ALBA</u> PROVINCIA <u>CHUBUT</u>	ARCHIVO NO. <hr/> API NO. <u>UNI:AR0100008533</u>
	COORDENADAS: X: 4,949,502.59 Y: 2,583,386.66 Z: 665.80	ALTURAS: KB S/D MR 670.55 M NT 665.80 M FECHA 09-Oct-2010	ESCALA 1:200



Baker Atlas

ARCHIVO NO.	COMPANIA	YPF SA.
API NO.	POZO	YPF.CH.EA-779
UNI.FAR0100008533	YAC.	EL ALBA
	PROVINCIA	CHUBUT
Ver. 3.87	COORDENADAS:	
ESCALA 1:1000	X: 4,949,502.59	
	Y: 2,583,386.86	
	Z: 695.80	
BASE DE MED	N. T. _____	ALTURA 695.80 M
PERFIL MED DESDE	N. T. _____	0.00 M
PERFOR MED DESDE	N. T. _____	SOBRE LA BASE
		ALTURAS: KB S/D MR 670.55 M NT 695.80 M
		SERVICIOS HDI/DAL/ZDI/CI GR/CAL/FMT

FECHA	09-Oct-2010	
CRA.	BUDA,	1
ORDEN DE SERVICIO	JOSI.ARI11032	
PROFUNDIDAD PERFORADOR	1851.0 M	
PROFUNDIDAD PERFIL	1851.0 M	
PRIMERA LECTURA (FONDO)	1850.1 M	
ULTIMA LECTURA	387.0 M	
CAMERIA PERFORADOR	9.625 IN @ 386.5 M	
CAMERIA PERFIL	387.0 M	
DIAMETRO DEL POZO	8.75 IN	
TIPO DE INYECCION	POLIMERICO	
DENSIDAD	1170 G/L	58.0 S
PH	9.0	5.6 G3
ORIGEN DE LA MUESTRA	ULTIMA CIRCULADA	
RM A TEMP. MEDIDA	2.38 OHM	@ 66.8 DEGR
RMF A TEMP. MEDIDA	2.00 OHM	@ 83.1 DEGR
RMG A TEMP. MEDIDA	2.89 OHM	@ 63.8 DEGR
ORIGEN DE RMF	MEDICION	MEDICION
RM A TEMP. FONDO	1.16 OHM	@ 158.0 DEGR
TEMPO DESDE FIN CIRG.	12:00 HS	
TEMPERATURA DE FONDO	158.0 DEGR	
NO. DE EQUIPO	BASE	C.RIVADAVIA
REGISTRADO POR	A. PABLO	
PRESENCIADO POR	C. CEVASCO	

AL HACER INTERPRETACIONES DE REGISTROS, NUESTROS EMPLEADOS BRINDAN AL CLIENTE EL BENEFICIO DE SU MEJOR JUICIO. PERO DADO QUE TODAS LAS INTERPRETACIONES SON OPINIONES BASADAS EN INFERENCIAS SOBRE MEDICIONES ELECTRICAS O DE OTRO TIPO, NO PODEMOS Y NO GARANTIZAMOS LO CORRECTO OPRECISO DE CUALQUIER INTERPRETACION. NO SEREMOS LEGALMENTE RESPONSABLES POR CUALQUIER PERDIDA, COSTO, DAÑOS, O GASTOS EN LOS QUE INCURRA EL CLIENTE BASADO EN ALGUNA INTERPRETACION HECHA POR NUESTROS EMPLEADOS.

DIAMETRO	DESDE	HASTA
13.50 IN	0.0 M	386.0 M
8.75 IN	386.0 M	1851.0 M

TAMANO	PESO	GRADO	DESDE	HASTA
9.625 IN	32.3 LB/F	N/A	0.0 M	386.5 M
N/A	N/A	N/A	N/A	N/A

OBSERVACIONES

CRA. 1 BUDA. 1: ÚLTIMA CIRCULADA A LAS 05:00 HS DEL 09-OCT-10

EQUIPO DE PERFORACIÓN: SAI-380

CL-: 1100 PPM
CA: 120 PPM

MAXIMA DESVIACIÓN REGISTRADA POR EL EQUIPO PERFORADOR:
0.8 GRADOS EN EL FONDO

DOTACIÓN:
PABLO,ALEJANDRO DANIEL
VASQUEZ ROBINSON ANDRES

DATOS DE EQUIPO

CRA.	BIDA.	HERRAMIENTA	SERIAL	NO. DE SERIE	POSICION
1	1	FOCUS SWIVE	36502A	10118848	LIBRE
1	1	TIMA SUB	36802A	10403226	LIBRE
1	1	COMM/POWER	3518FB	10141038	LIBRE
1	1	FOCUS TEL	3518FB	10144083	LIBRE
1	1	FOCUS CN	24362A	10120332	DESCENTRALIZADO
1	1	FOCUS ZDL	22232A	10134127	PATN
1	1	DEL KWT	36312A	10318288	LIBRE
1	1	DAL FA	1630FA	10115886	CENTRALIZADO
1	1	DAL MANDREL	1630MA	10114245	CENTRALIZADO
1	1	FOCUS HDI	15302A	10378988	STANDOFF

TRAMO PRINCIPAL - ESCALA 1:1000

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/ea778/k670a04.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 310.896 m BOTTOM DEPTH: 1856.748 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
BIT SIZE	BIT SIZE	8.750	1in	TOP	BOTTOM
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mth°)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mth°)	8.750	1in	"	"
BH MUD RESISTIVITY SOURCE	RMD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	m	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM

HDIL PROCESSING

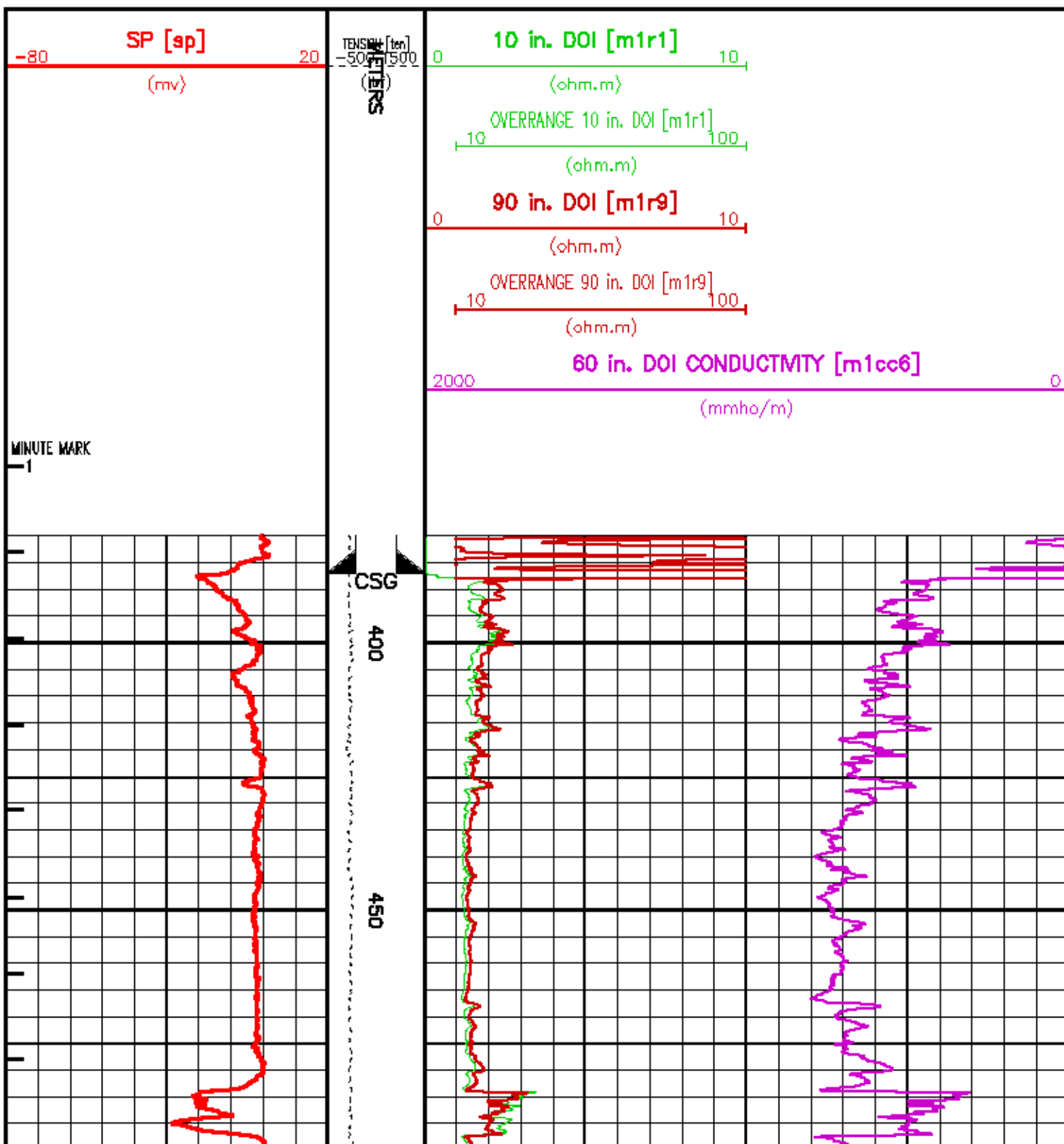
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	1in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmsd MULTIPLIER	1.000		"	"

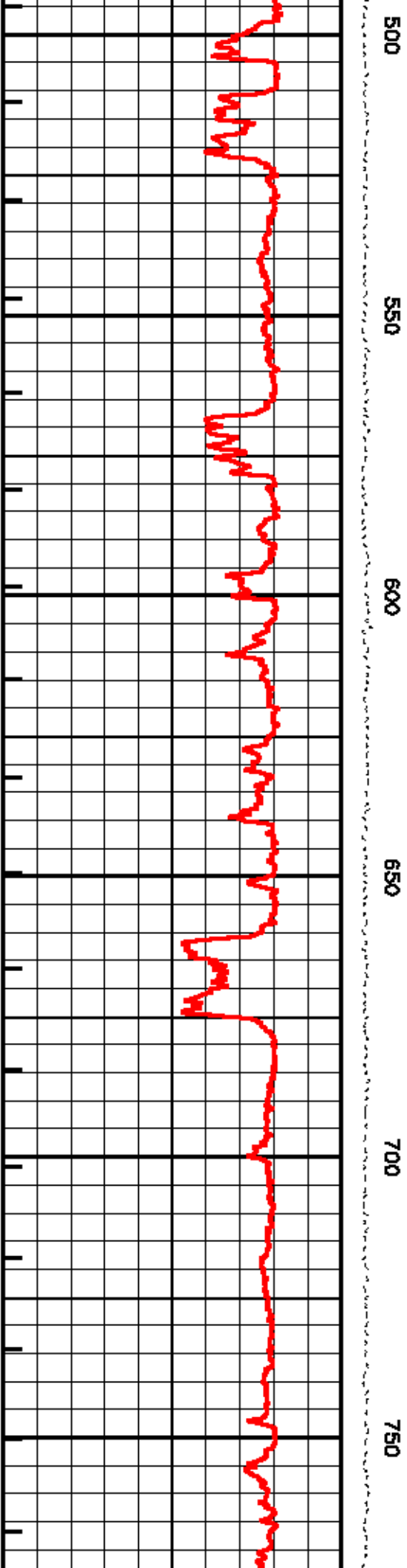
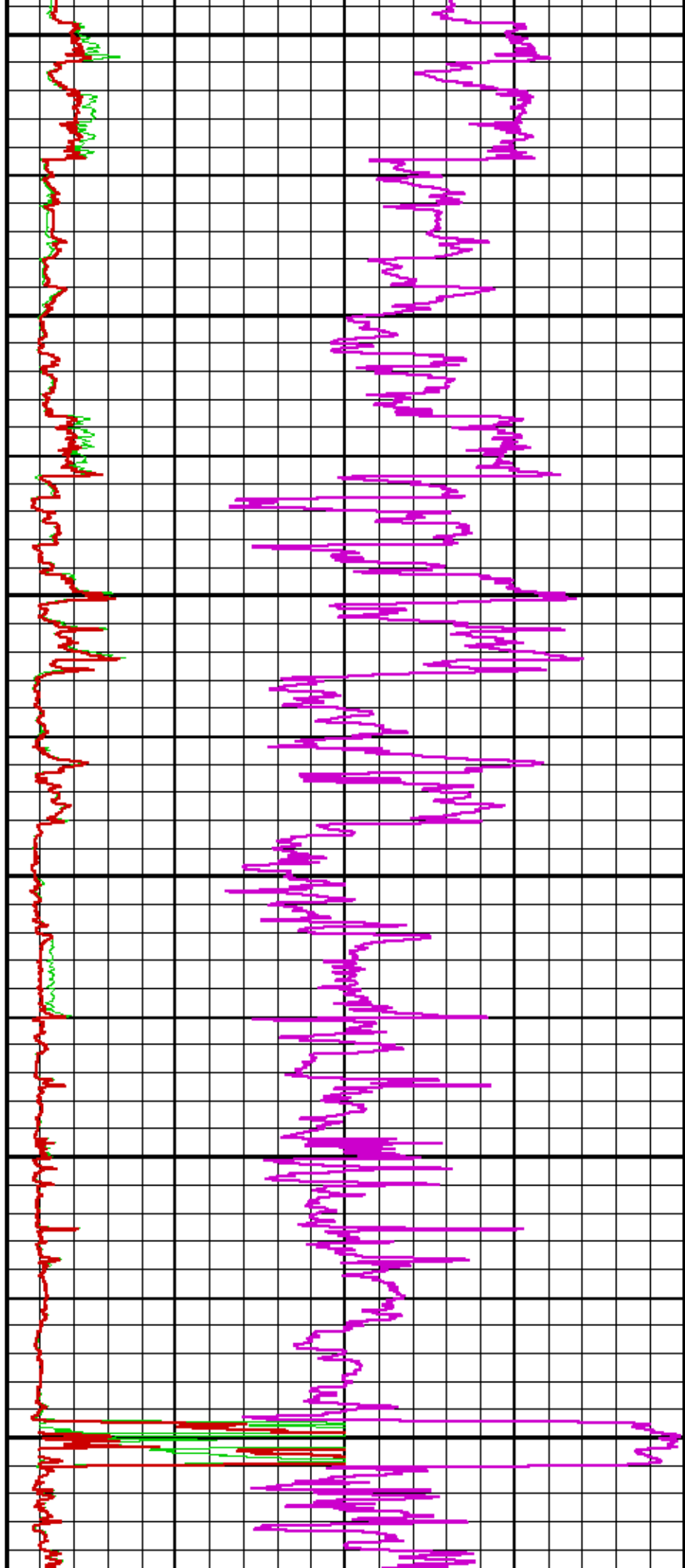
CURVE MEASURE POINT OFFSET

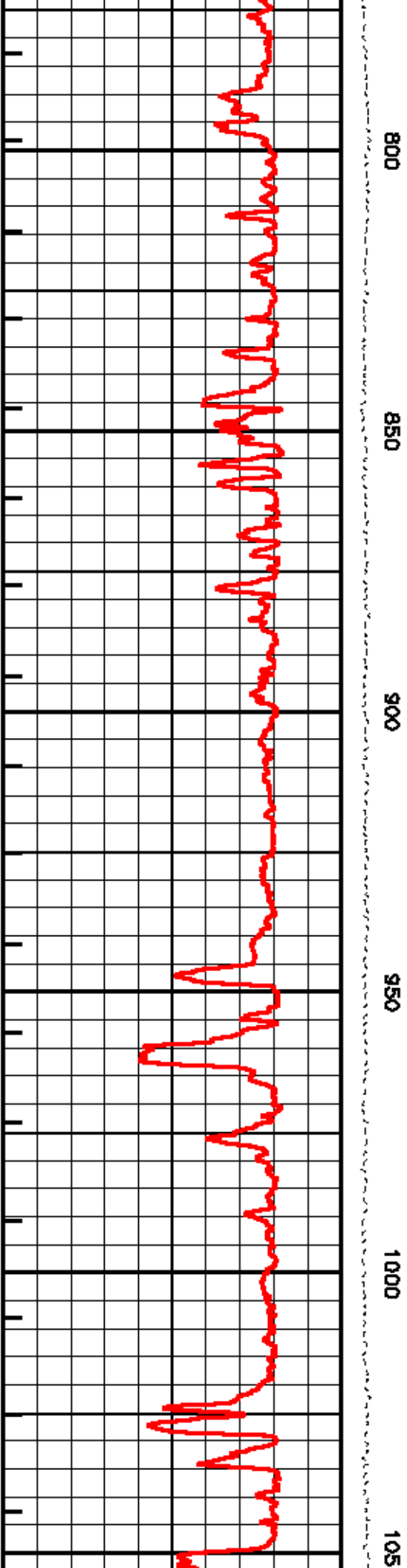
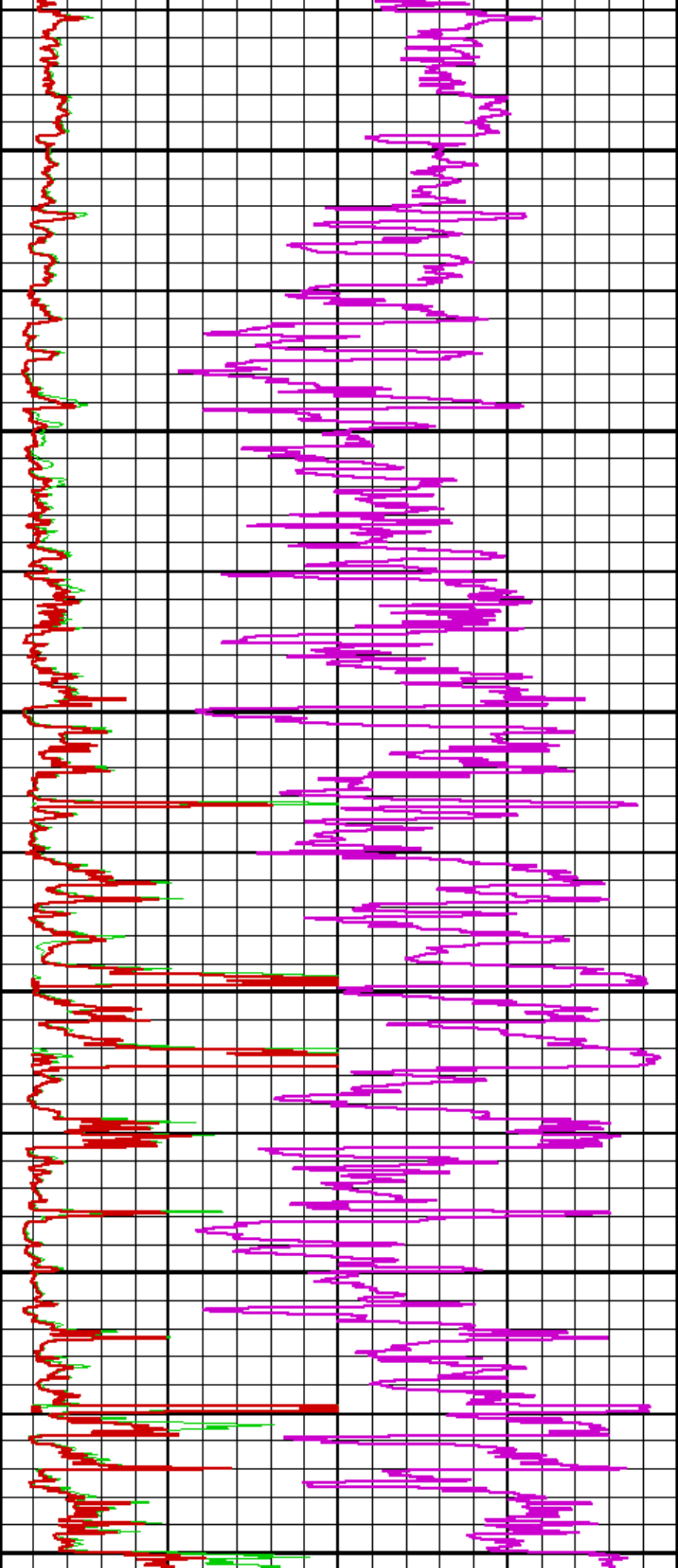
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
M1CC6	0.84	M1R9	0.84	TEN	0.00		
M1R1	0.84	SP	0.38				

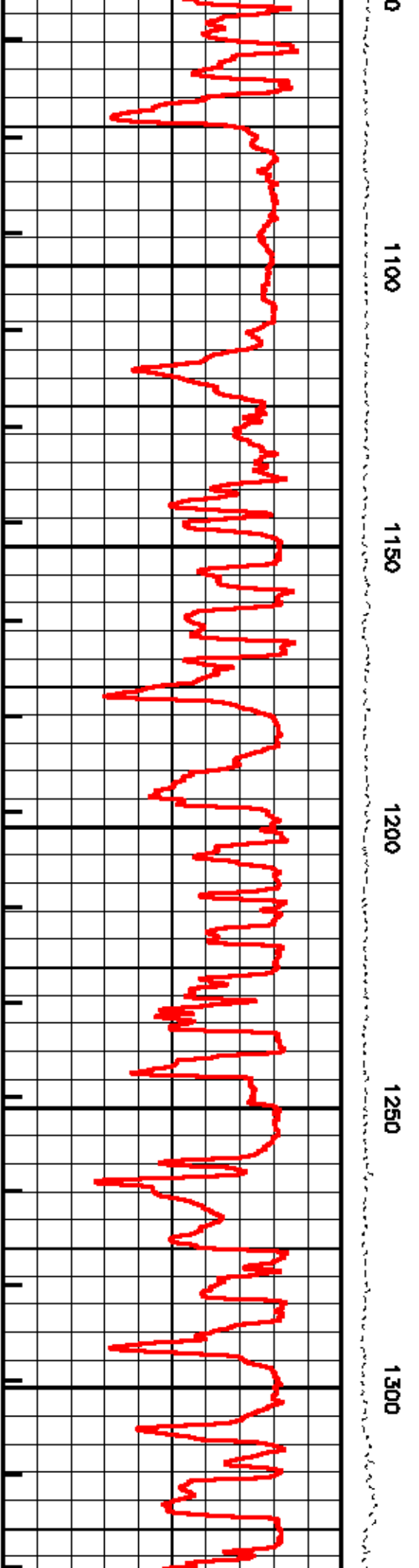
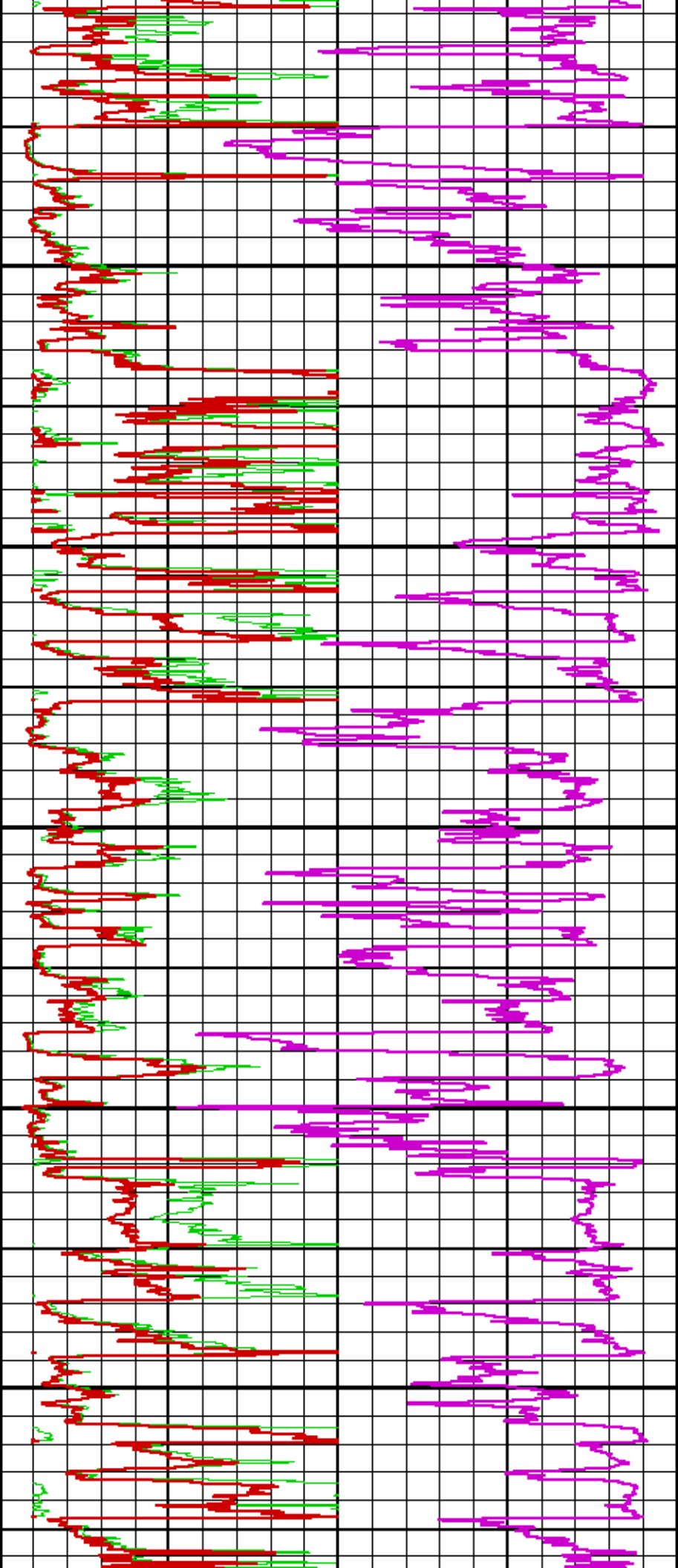
Presentation : HL5708:/dat1a/ea779/RES1000.pdf [1:1000 Scale]
 Plot Interval : 380.009 - 1861.11 Meters

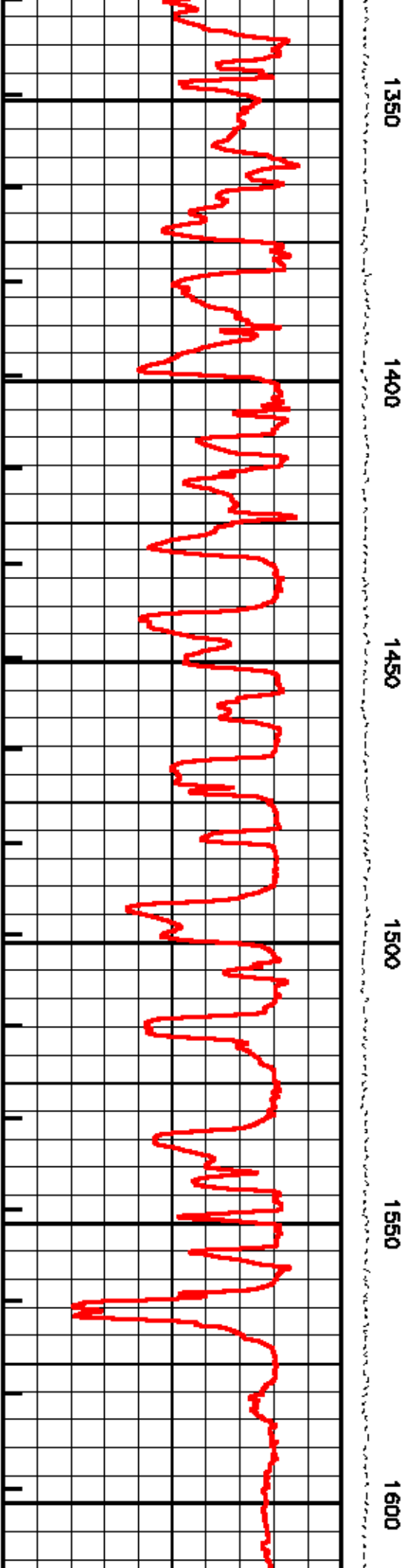
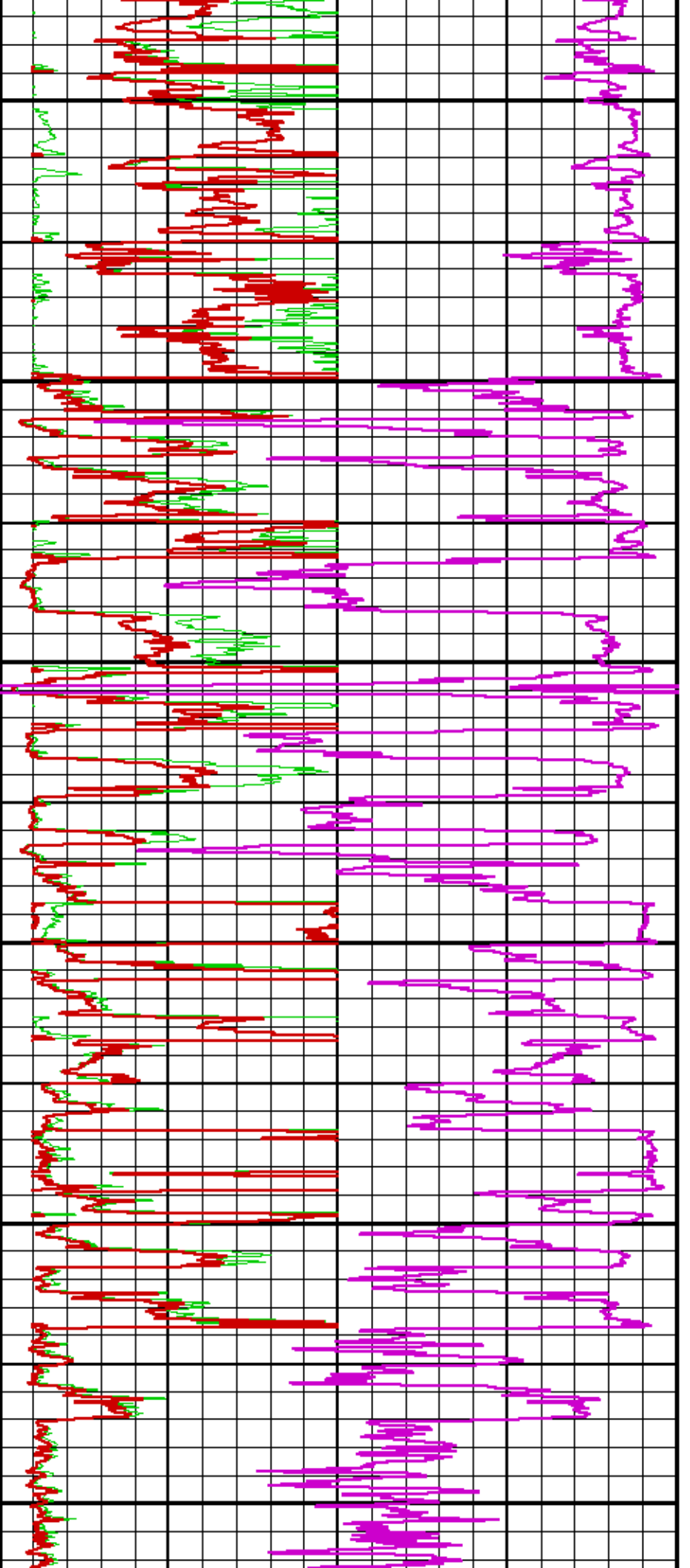
Data File 1 : F1 : HL5708:/dat1a/ea779/EJ779.aif
 Created On : Oct 8 16:05:05 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 380.009 - 1861.11 Meters
 Oct : k970a

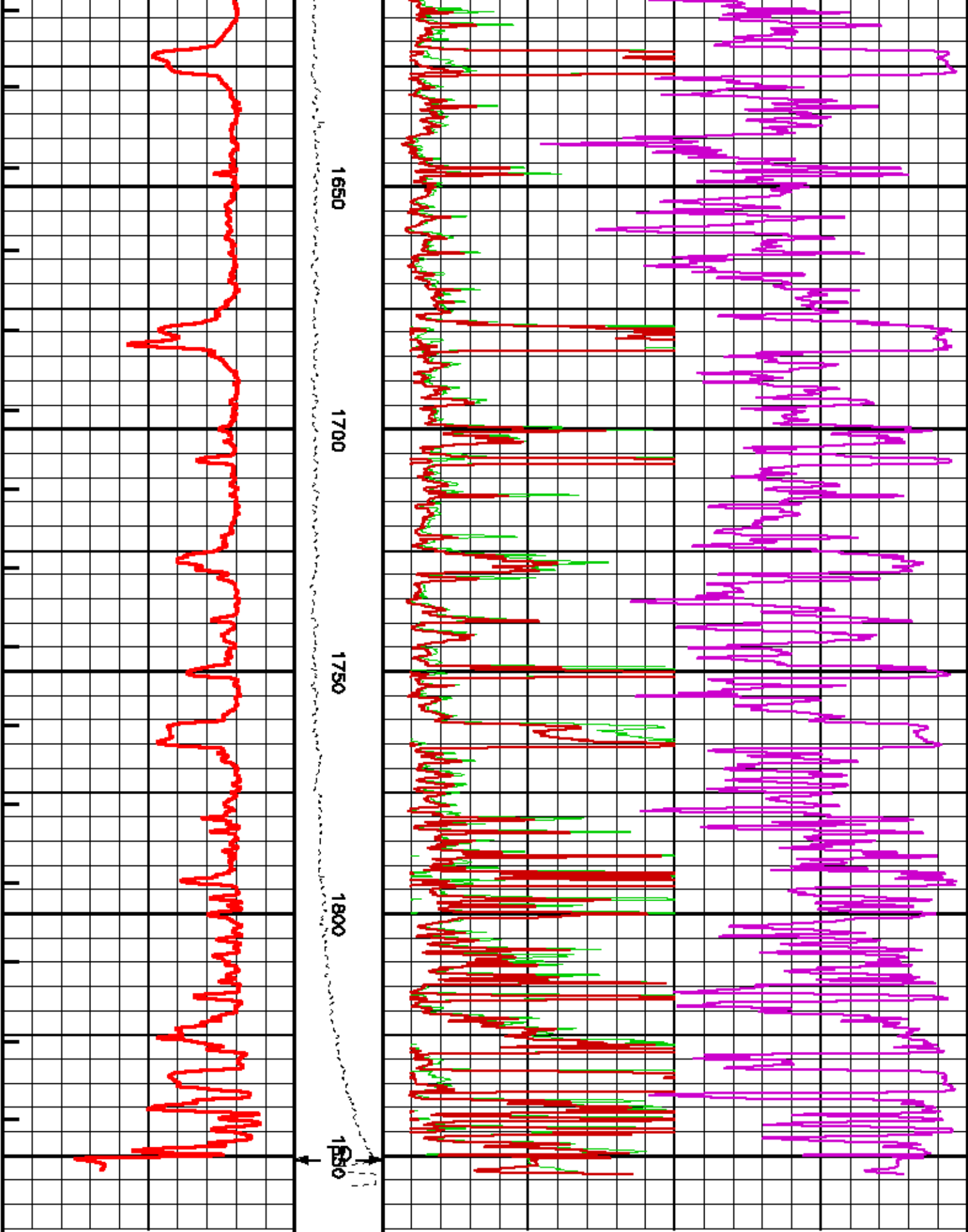








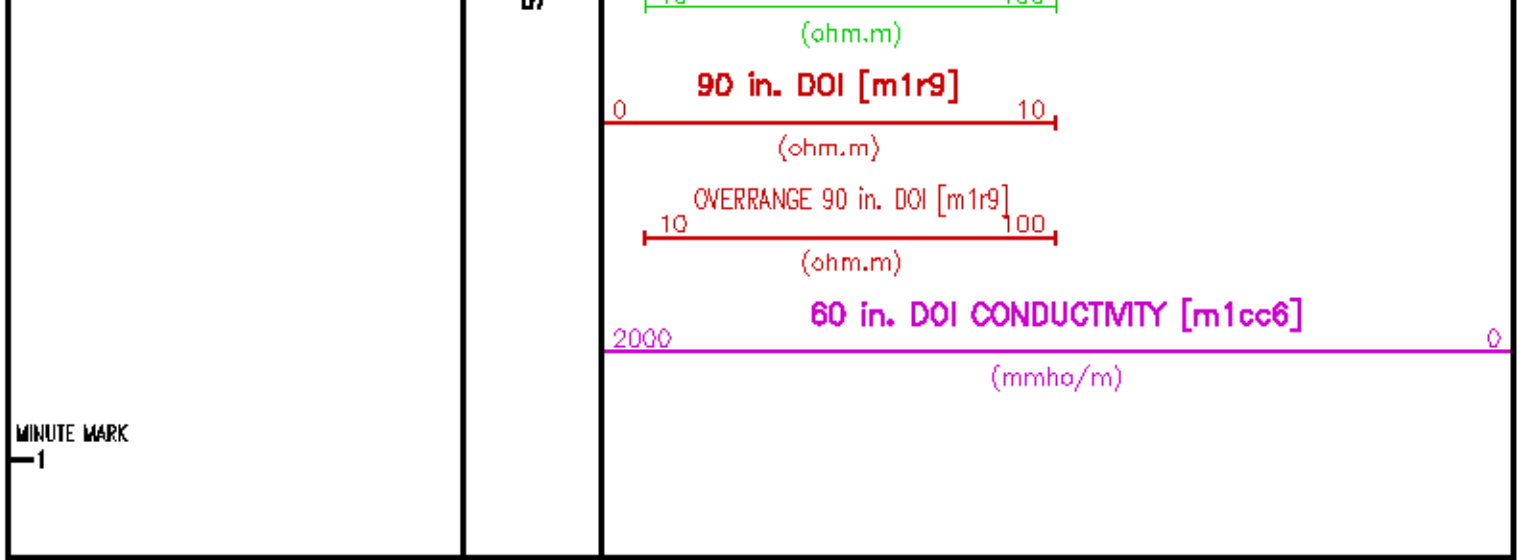






-80 **SP [sp]** 20
 (mv)

TENSION [ten]
 -500 1500
 (METERS)

0 **10 in. DOI [m1r1]** 10
 (ohm.m)
 OVERRANGE 10 in. DOI [m1r1]
 10 100



	COMPANIA <u>YPF S.A.</u> POZO <u>YPF.Ch.EA-779</u> YAC. <u>EL ALBA</u> PROVINCIA <u>CHUBUT</u>	ARCHIVO NO. <hr/> API NO. <u>UNI:ARO100008533</u>
	Baker Atlas 	COORDENADAS: X: 4,949,502.59 Y: 2,583,386.66 Z: 665.80	ALTURAS: KB S/D MR 670.55 M NT 665.80 M ESCALA 1:1000
		FECHA <u>09-Oct-2010</u>

Baker Atlas

ARCHIVO NO.	COMPANIA	YPF SA.
API NO.	POZO	YPF.CH.EA-779
UNI.FAR010008533	YAC.	EL ALBA
	PROVINCIA	CHUBUT
Ver: 3.87	COORDENADAS:	
ESCALA 1:200	X: 4,949,502.59	
	Y: 2,583,386.86	
	Z: 695.80	
BASE DE MED	N. T.	ALTURA 695.80 M
PERFIL MED DESDE	N. T.	0.00 M
PERFOR MED DESDE	N. T.	SOBRE LA BASE
		ALTURAS: KB S/D MR 670.55 M NT 695.80 M
FECHA	09-Oct-2010	
CRA.	BUDA.	1
ORDEN DE SERVICIO	JOSI.ARI11032	
PROFUNDIDAD PERFORADOR	1851.0 M	
PROFUNDIDAD PERFIL	1851.0 M	
PRIMERA LECTURA (FONDO)	1850.1 M	
ULTIMA LECTURA	725.0 M	
CAMERIA PERFORADOR	9.625 IN	Ø 386.5 M
CAMERIA PERFIL	387.0 M	
DIAMETRO DEL POZO	8.75 IN	
TIPO DE INYECCION	POLIMERICO	
DENSIDAD	1170 G/L	58.0 S
PH	9.0	5.6 G3
ORIGEN DE LA MUESTRA	ULTIMA CIRCULADA	
RM A TEMP. MEDIDA	2.38 OHM	Ø 66.8 DEGR
RMF A TEMP. MEDIDA	2.00 OHM	Ø 83.1 DEGR
RMG A TEMP. MEDIDA	2.89 OHM	Ø 83.8 DEGR
ORIGEN DE RMF	MEDICION	MEDICION
RM A TEMP. FONDO	1.16 OHM	Ø 158.0 DEGR
TEMPO DESDE FIN CIRG.	12:00 HS	
TEMPERATURA DE FONDO	158.0 DEGR	
NO. DE EQUIPO	H-6708	C.RIVADAVIA
REGISTRADO POR	A. PABLO	
PRESENCIADO POR	C. CEVASCO	

AL HACER INTERPRETACIONES DE REGISTROS, NUESTROS EMPLEADOS BRINDAN AL CLIENTE EL BENEFICIO DE SU MEJOR JUICIO. PERO DADO QUE TODAS LAS INTERPRETACIONES SON OPINIONES BASADAS EN INFERENCIAS SOBRE MEDICIONES ELECTRICAS O DE OTRO TIPO, NO PODEMOS Y NO GARANTIZAMOS LO CORRECTO O PRECISO DE CUALQUIER INTERPRETACION. NO SEREMOS LEGALMENTE RESPONSABLES POR CUALQUIER PERDIDA, COSTO, DAÑOS, O GASTOS EN LOS QUE INCURRA EL CLIENTE BASADO EN ALGUNA INTERPRETACION HECHA POR NUESTROS EMPLEADOS.

DATOS DE POZO

DIAMETRO	DESDE	HASTA
13.50 IN	0.0 M	386.0 M
8.75 IN	386.0 M	1851.0 M

DATOS DE ENTUBACION

TAMANO	PESO	GRADO	DESDE	HASTA
8.625 IN	32.3 LB/F	N/A	0.0 M	386.5 M
N/A	N/A	N/A	N/A	N/A

OBSERVACIONES

CRA. 1 BUDA. 1: ÚLTIMA CIRCULADA A LAS 05:00 HS DEL 09-OCT-10

EQUIPO DE PERFORACIÓN: SAI-380

CL-: 1100 PPM
CA: 120 PPM

DOTACIÓN:
PABLO, ALEJANDRO DANIEL
VASQUEZ, ROBINSON ANDRES
MANSILLA, MANUEL OLEGARIO
VARRAS, HECTOR DEMETRIO

DATOS DE EQUIPO

CRA.	BIDA.	HERRAMIENTA	SERIAL	NO. DE SERIE	POSICION
1	1	FOCUS SWIVE	3650YA	10118948	LIBRE
1	1	TIMA SUB	3680YA	10403228	LIBRE
1	1	COMM/POWER	3518FB	10141038	LIBRE
1	1	FOCUS TEL	3518FB	10144083	LIBRE
1	1	FOCUS CN	2436YA	10120332	DESCENTRALIZADO
1	1	FOCUS ZDL	2223YA	10134127	PSTM
1	1	DEL KWT	3631YA	10318286	LIBRE
1	1	DAL EA	1630EA	10115888	CENTRALIZADO
1	1	DAL WANDREL	1630MA	10114245	CENTRALIZADO
1	1	FOCUS HDL	1330YA	10378868	STANDEEF

TRAMO PRINCIPAL - ESCALA 1:200

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/ea779/k970a04.pm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 310.806 m BOTTOM DEPTH: 1856.748 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CALIPER	FILTER ()	medium (1)		TOP	BOTTOM
TENSION	FILTER ()	medium (1)		"	"
CN MED RES	FILTER ()	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soft*)	medium		"	"
DT24	FILTER ()	medium (1)		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASINO - BOREHOLE & CEMENT VOLUME	CASINO O.D.	5.500	In	TOP	BOTTOM
	CASINO THICKNESS	0.000	In	"	"
BIT SIZE	BIT SIZE	8.750	In	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (onbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdlbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (onbh*)	8.750	In	"	"
	FIXED DIAMETER (mbh*)	8.750	In	"	"
MUD DENSITY	MUD DENSITY	1.17	g/cm3	"	"
BH MUD RESISTIVITY SOURCE	RMD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	77.0	degF	"	"
	MUD SAMPLE RES	1.000	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	degF	"	"
	at BH REF DEPTH	0.0	m	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1100	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSMB	8.750	In	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
DENSITY POROSITY	RHOmatrix	2.650	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	"	"

ACOUSTIC AVAN CORRELATION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
MONOPOLE DELTA T	FORMATION TYPE	GENERIC (MEDIUM)		TOP	BOTTOM
	CORRELATION METHOD	WITH ROOT		"	"
	RESET TAPERS			"	"
	TAPER - LEFT END	30	us/ft	TOP	368.722
		45	us/ft	368.722	BOTTOM
	TAPER - RIGHT END	85	us/ft	TOP	336.852
		100	us/ft	336.852	346.068
		145	us/ft	346.068	363.656
		150	us/ft	363.656	368.503
		175	us/ft	368.503	BOTTOM
	FLOOR (UNIV. OPTION)	0.200		TOP	BOTTOM

ACOUSTIC POROSITY

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
ACOUSTIC POROSITY	POROSITY TYPE	R-H-B		TOP	BOTTOM
	DTmatrix	54.00	us/ft	"	"
	DTfluid	190.00	us/ft	"	"
	DTshale	100.00	us/ft	"	"
	MOD. WYLLIE PARM	2.25		"	"
	MOD. R-H-B PARM	2.00		"	"

ACOUSTIC WAVEFORM FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
WAVEFORM FILTER - DELTA T	SURFACE WAVE FILTER	ON		TOP	BOTTOM
	LOW FREQ CUTOFF	4000	Hz	"	"
	HIGH FREQ CUTOFF	30000	Hz	"	"

ACOUSTIC TCC CONTROL PARAMETERS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GENERAL TCC PARAMETERS	STACK LEVEL			TOP	BOTTOM
	SUBSET	0		"	"
DELTA T TCC PARAMETERS	AGG WINDOW	1200	us	"	"
	SAMPLE PERIOD	8		"	"
	RK DELAY	180	us	"	"

HDIL PROCESSING

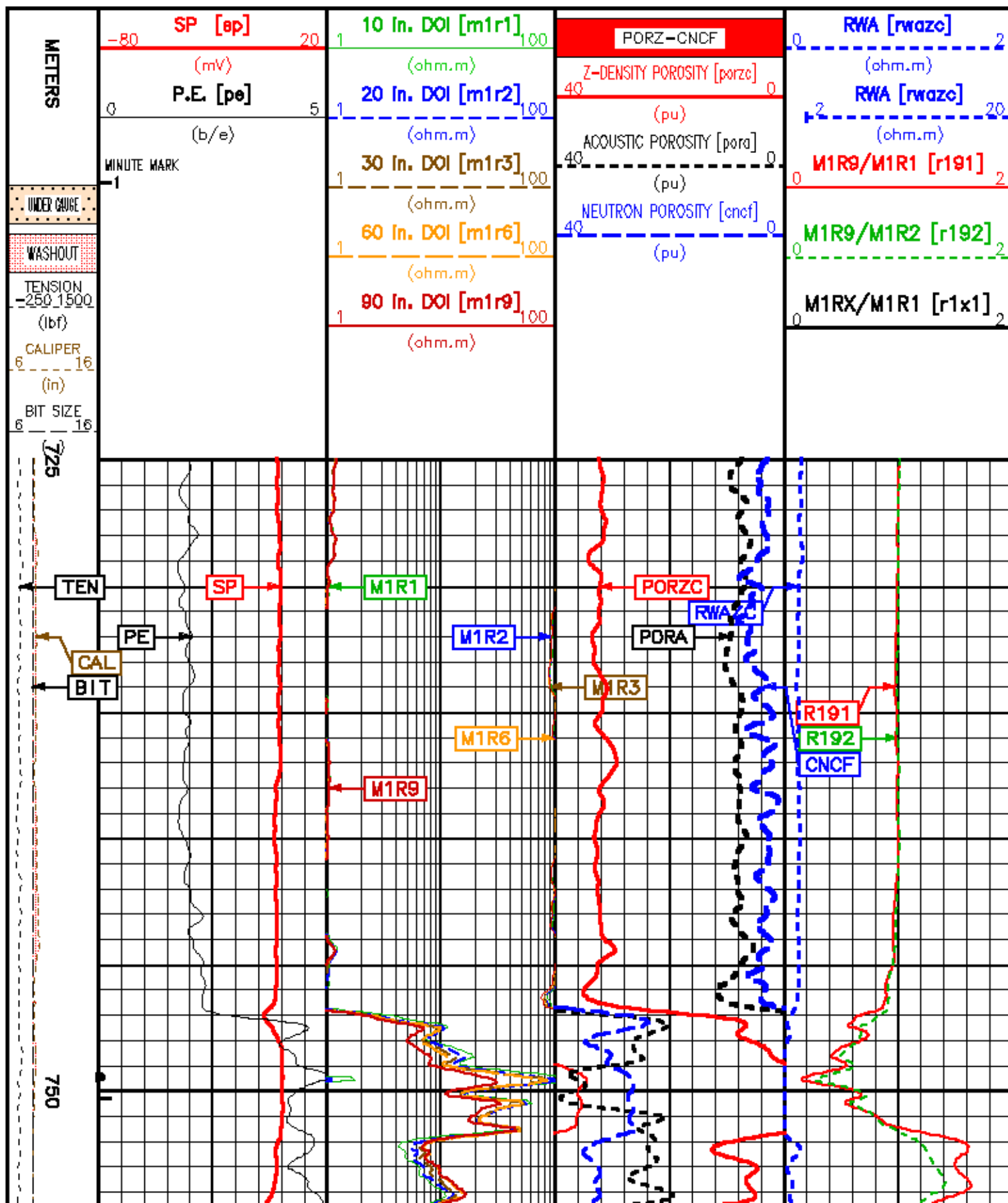
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	In	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmsd MULTIPLIER	1.000		"	"

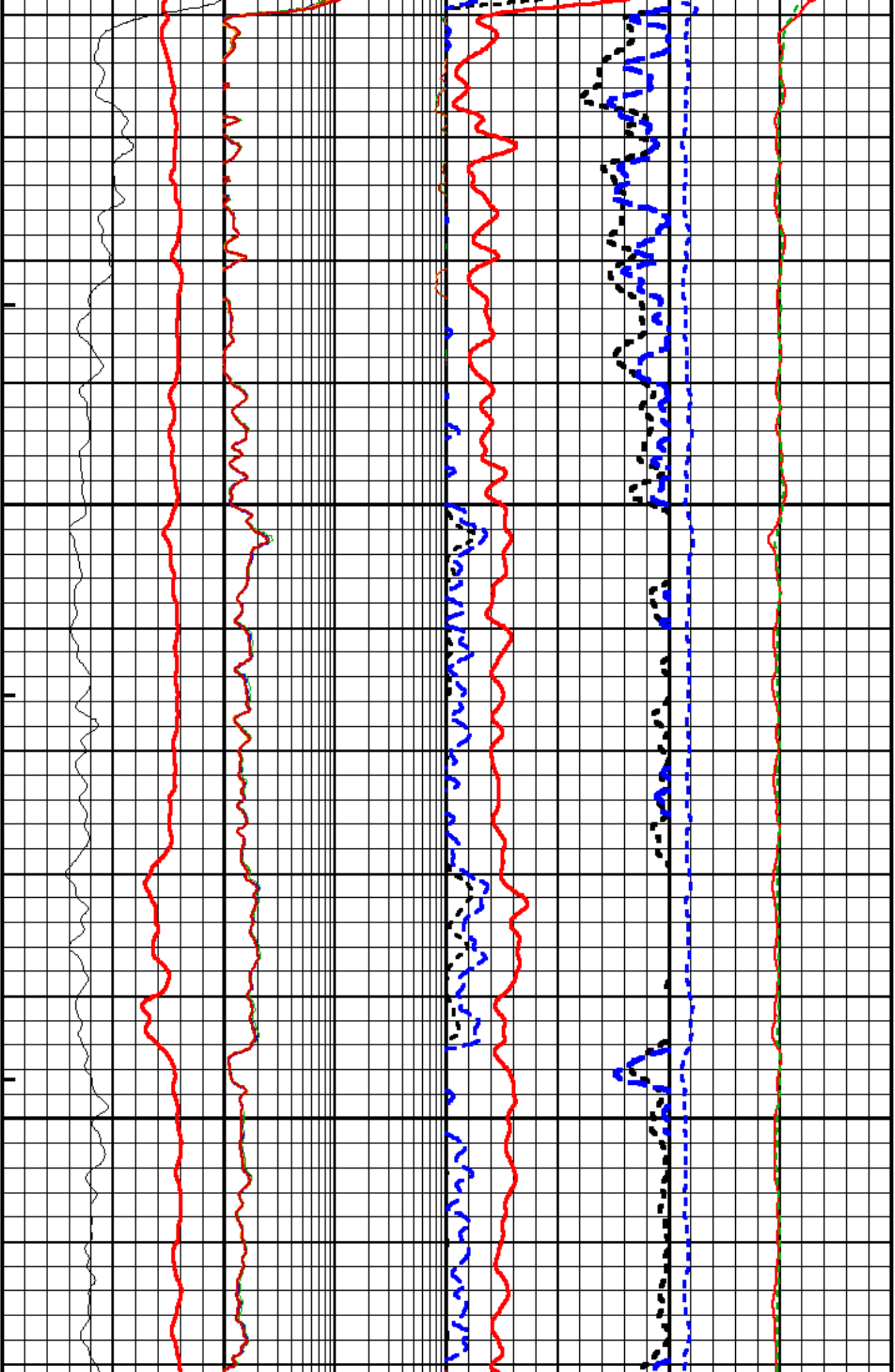
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	M1R3	0.84	PORZC	8.88	SP	0.38
CAL	8.88	M1R6	0.84	R191	0.00	TEN	0.00
CNCF	11.73	M1R9	0.84	R192	0.00		
M1R1	0.84	PE	8.88	R1X1	0.00		
M1R2	0.84	PORA	4.57	RMAZC	0.00		

Presentation : HL8708:/dat1a/ea779/qlook_fp.pdf [1:200 Scale]
 Plot Interval : 725 - 1861.11 Meters

Data File 1 : F1 : HL8708:/dat1a/ea779/EA779.zH
 Created On : Oct 9 18:05:05 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 300.000 - 1861.11 Meters
 Oct : k970a



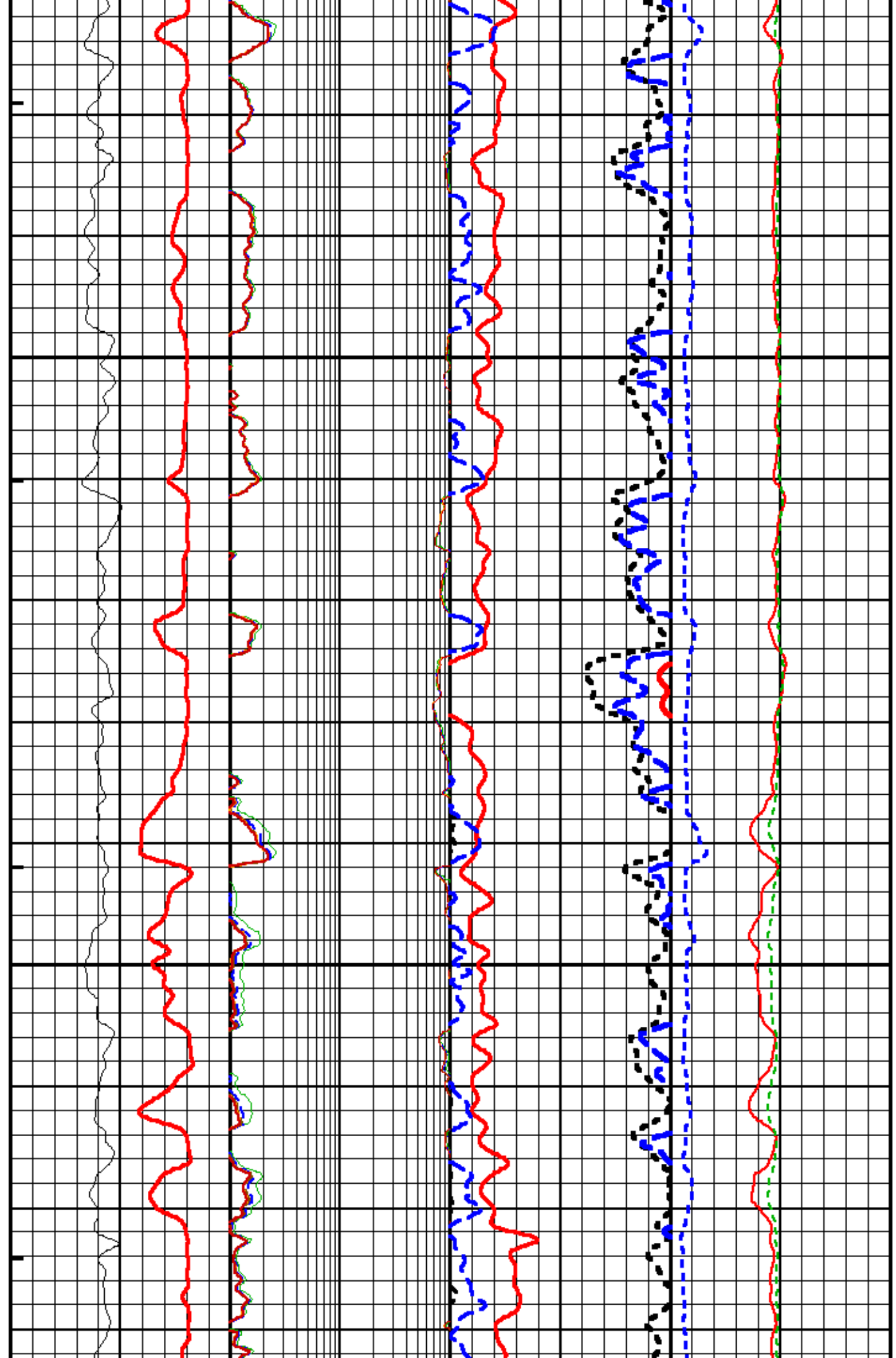


775

800

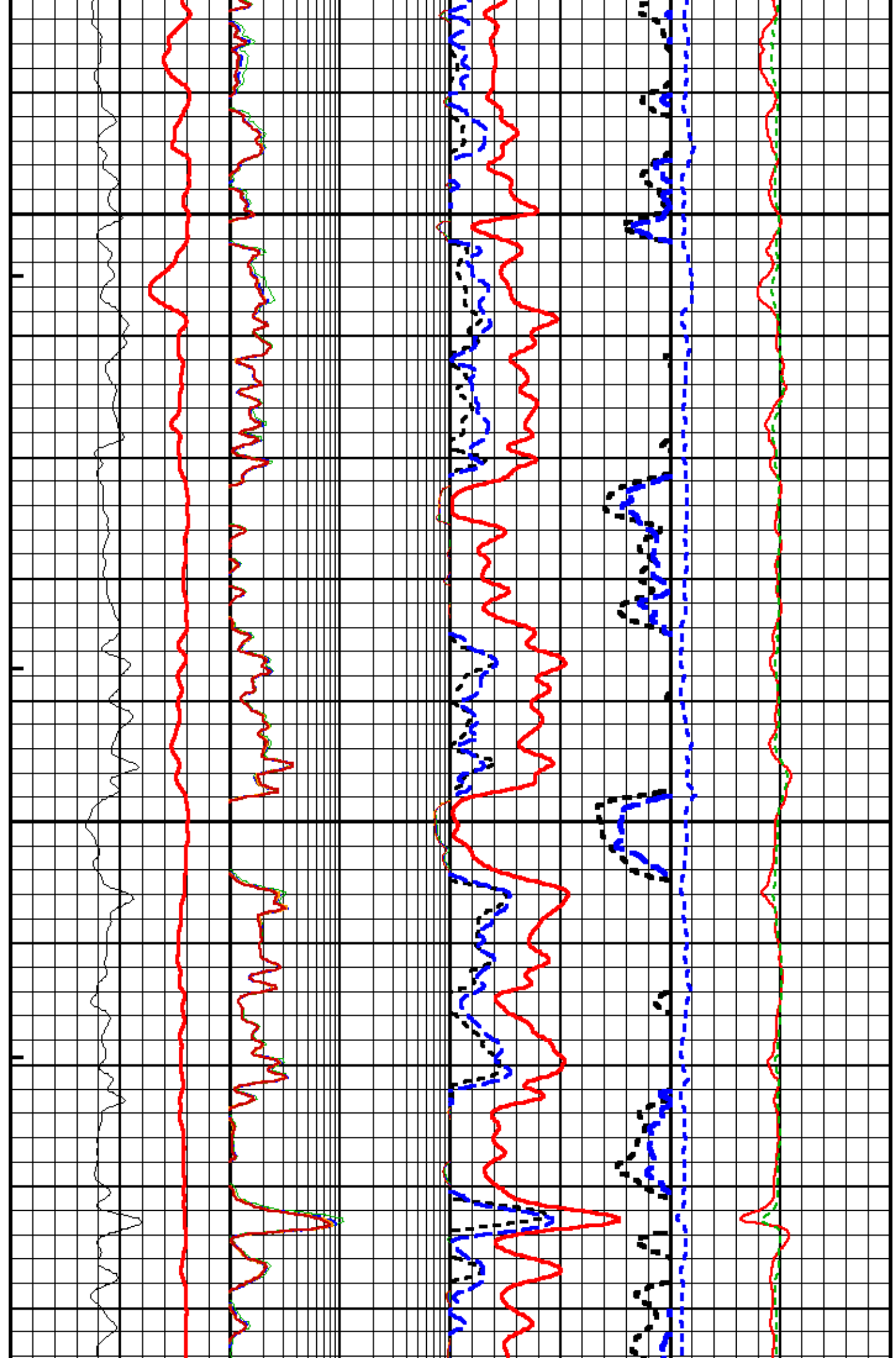
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850



875

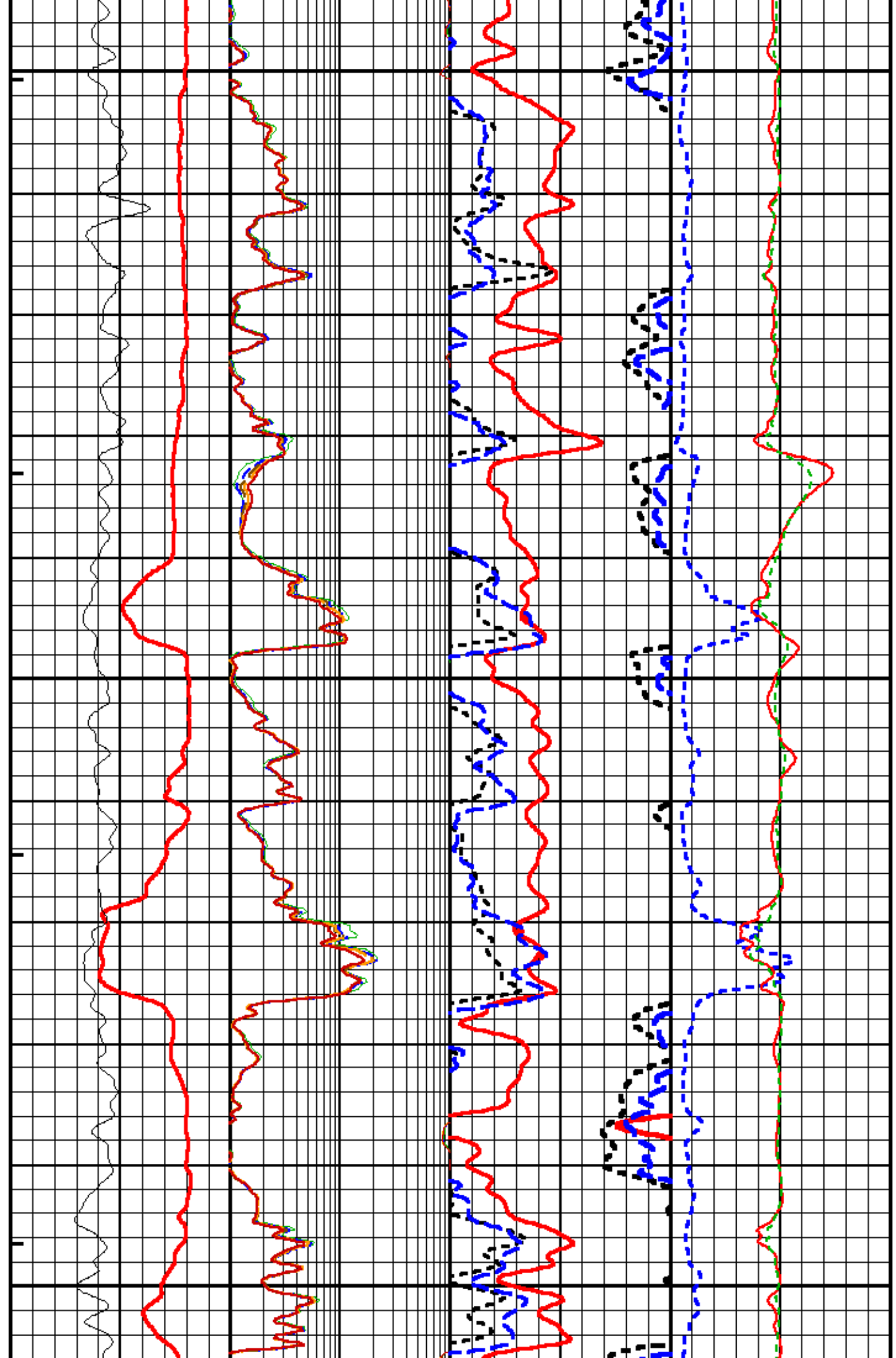
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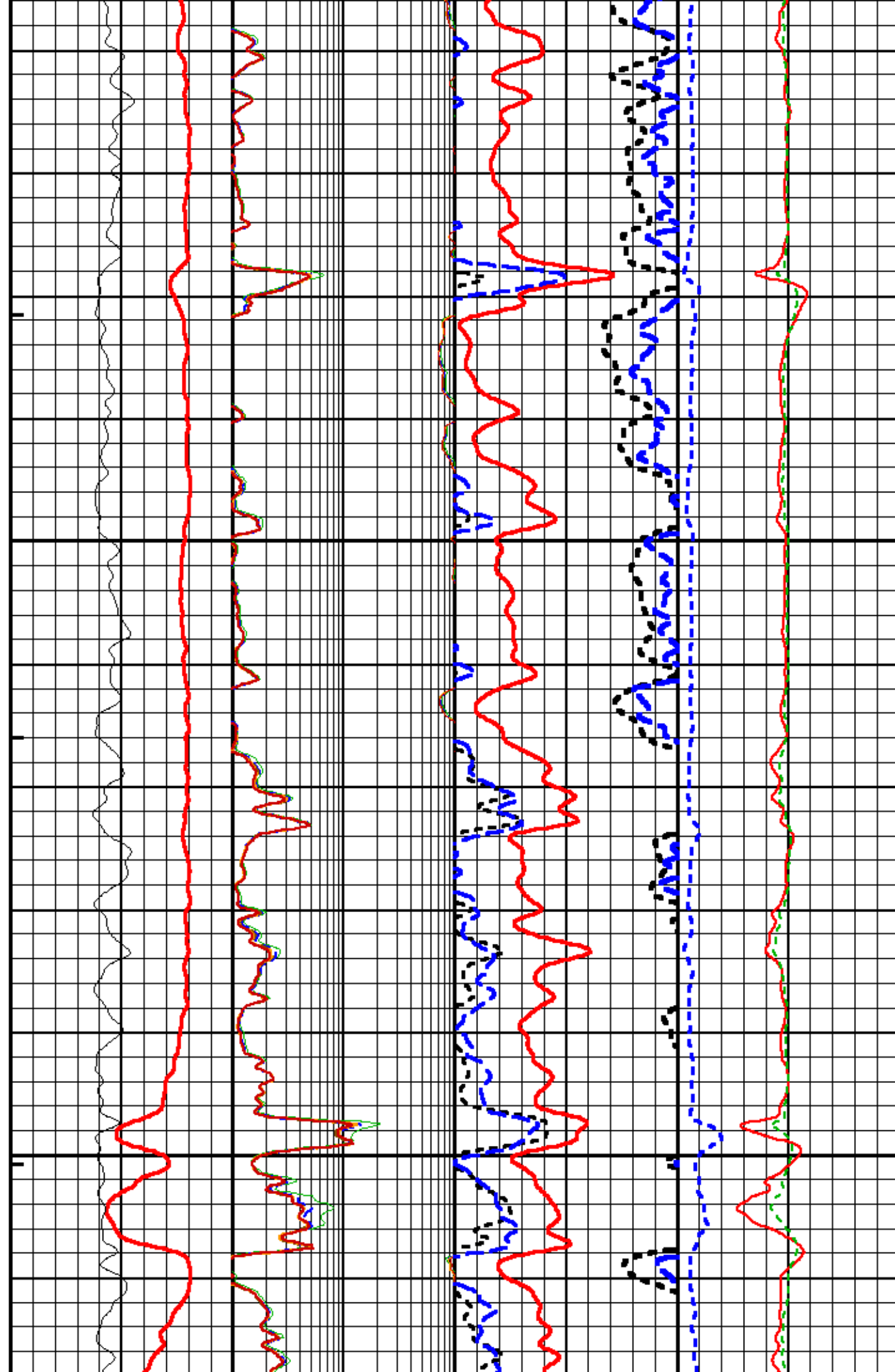


925

950

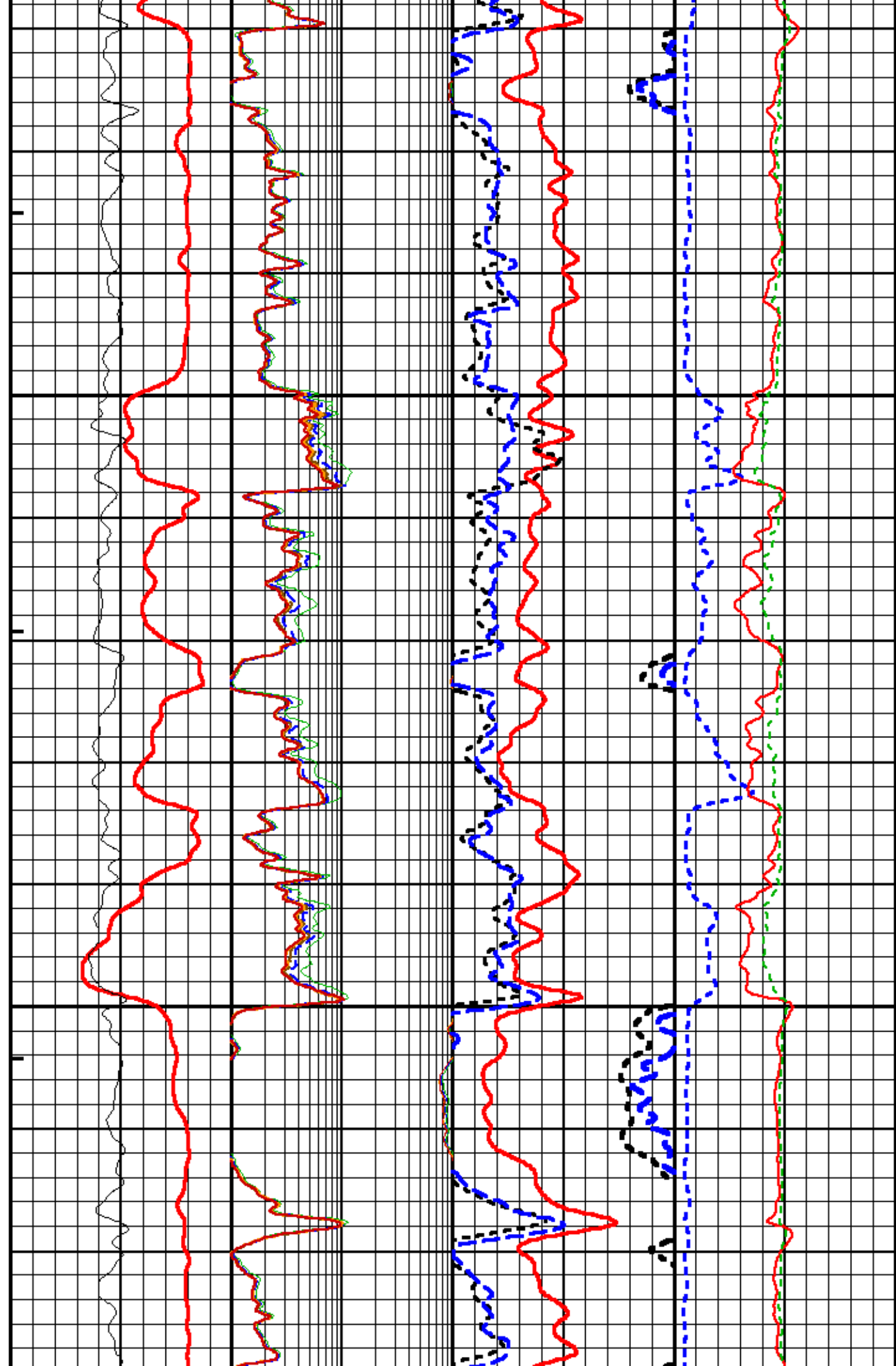
975





1000

1025

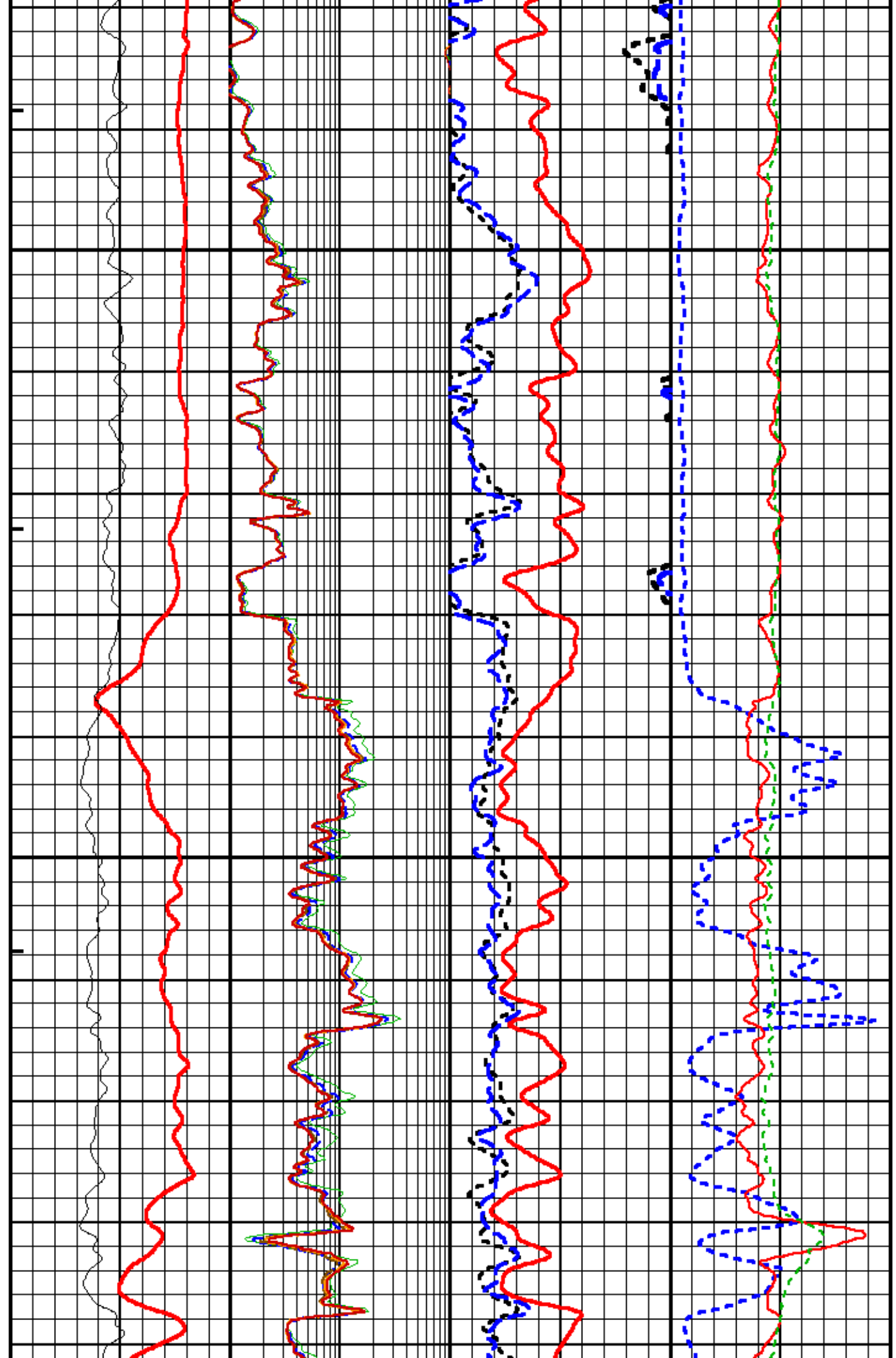


1050

1075

1100

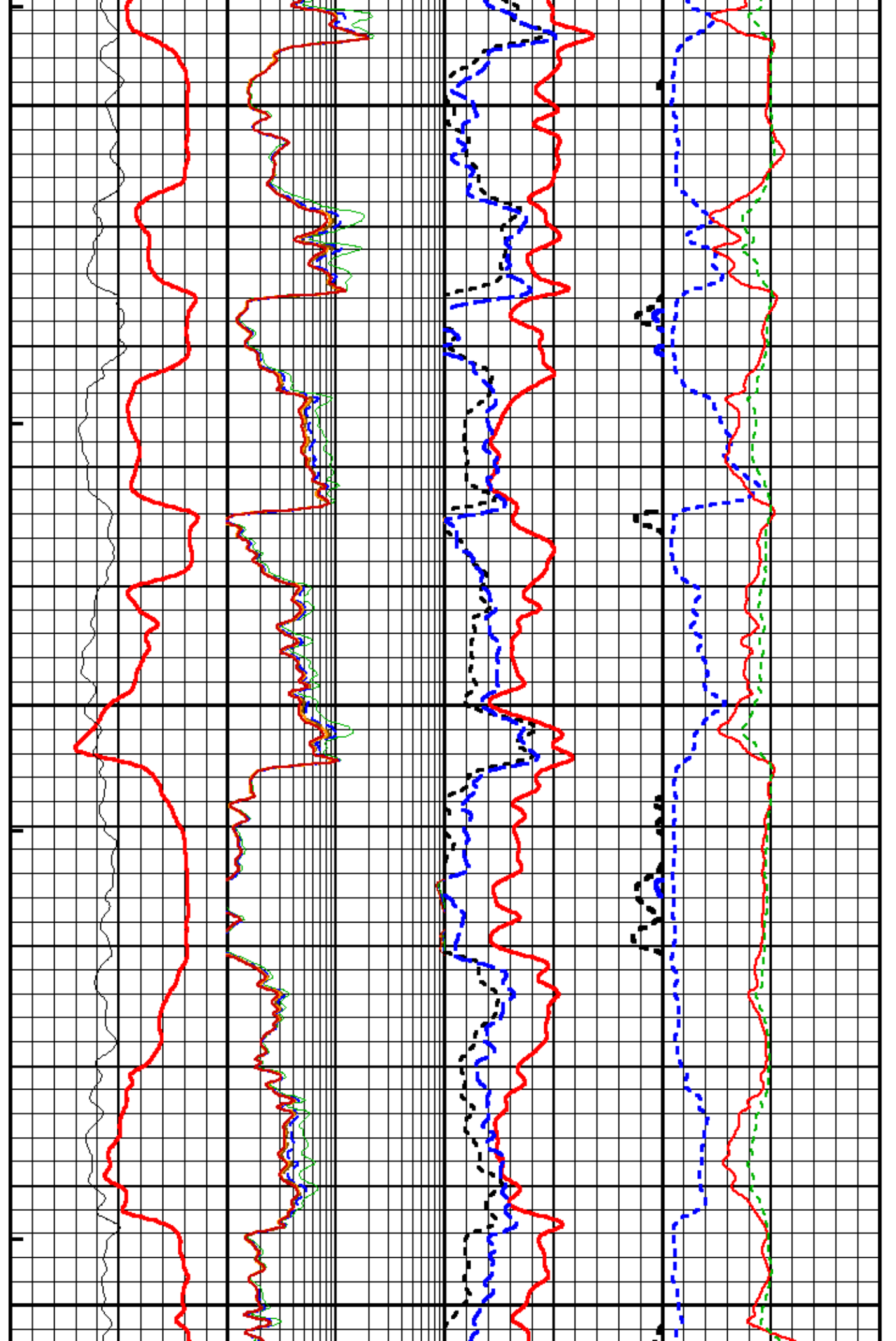
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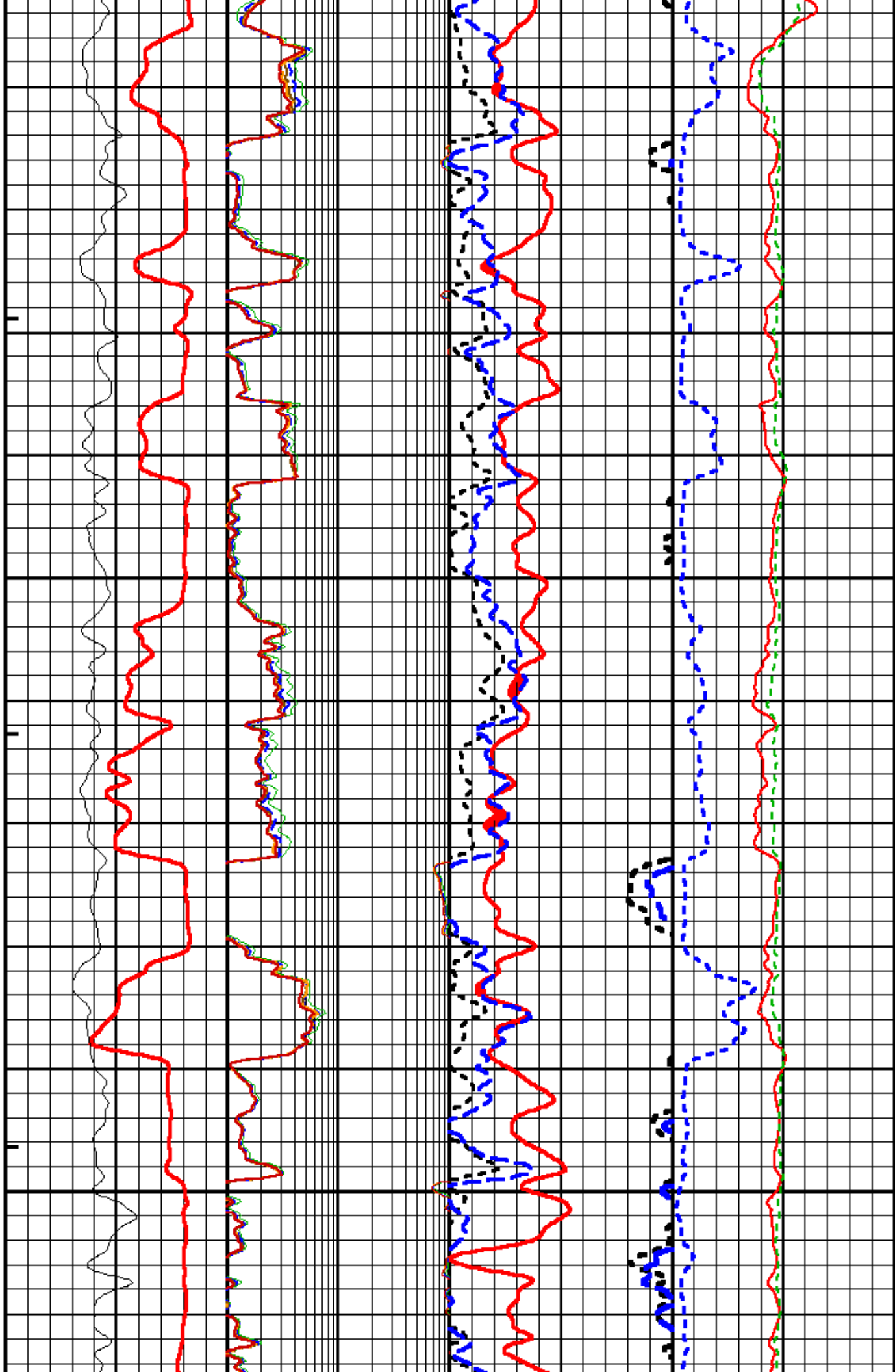


1150

1175

1200



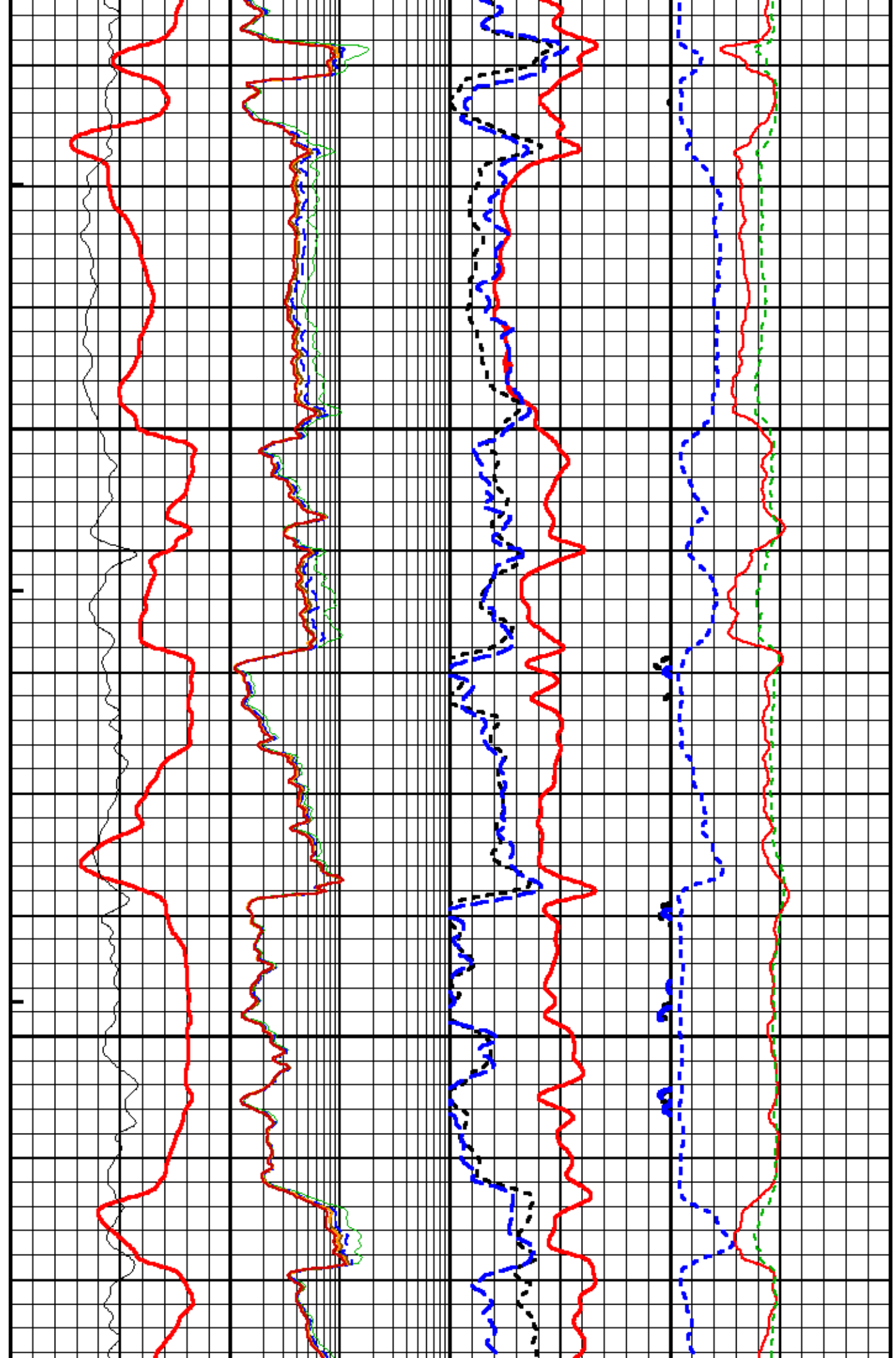


1225

1250

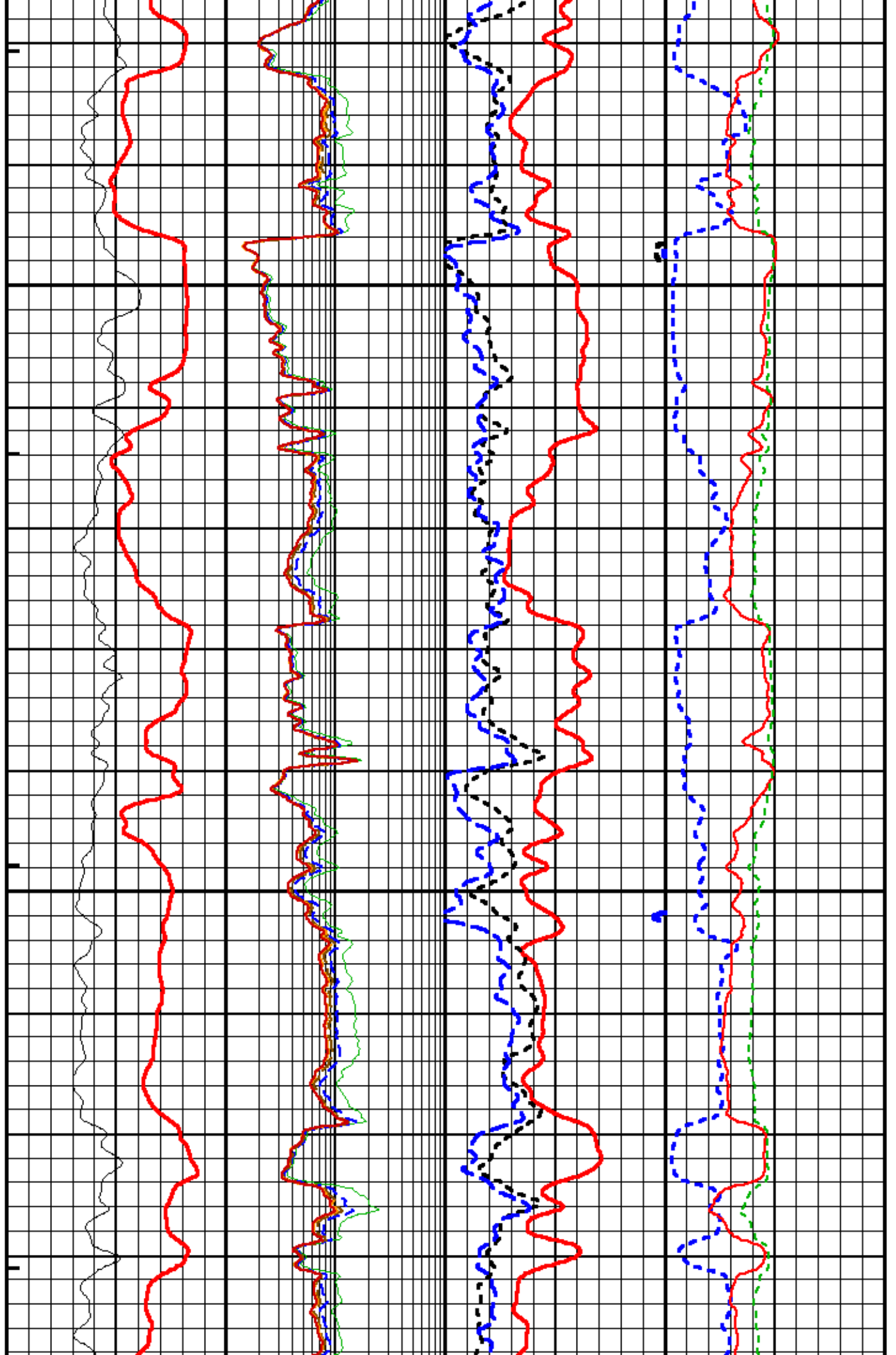
1275

1300



1325

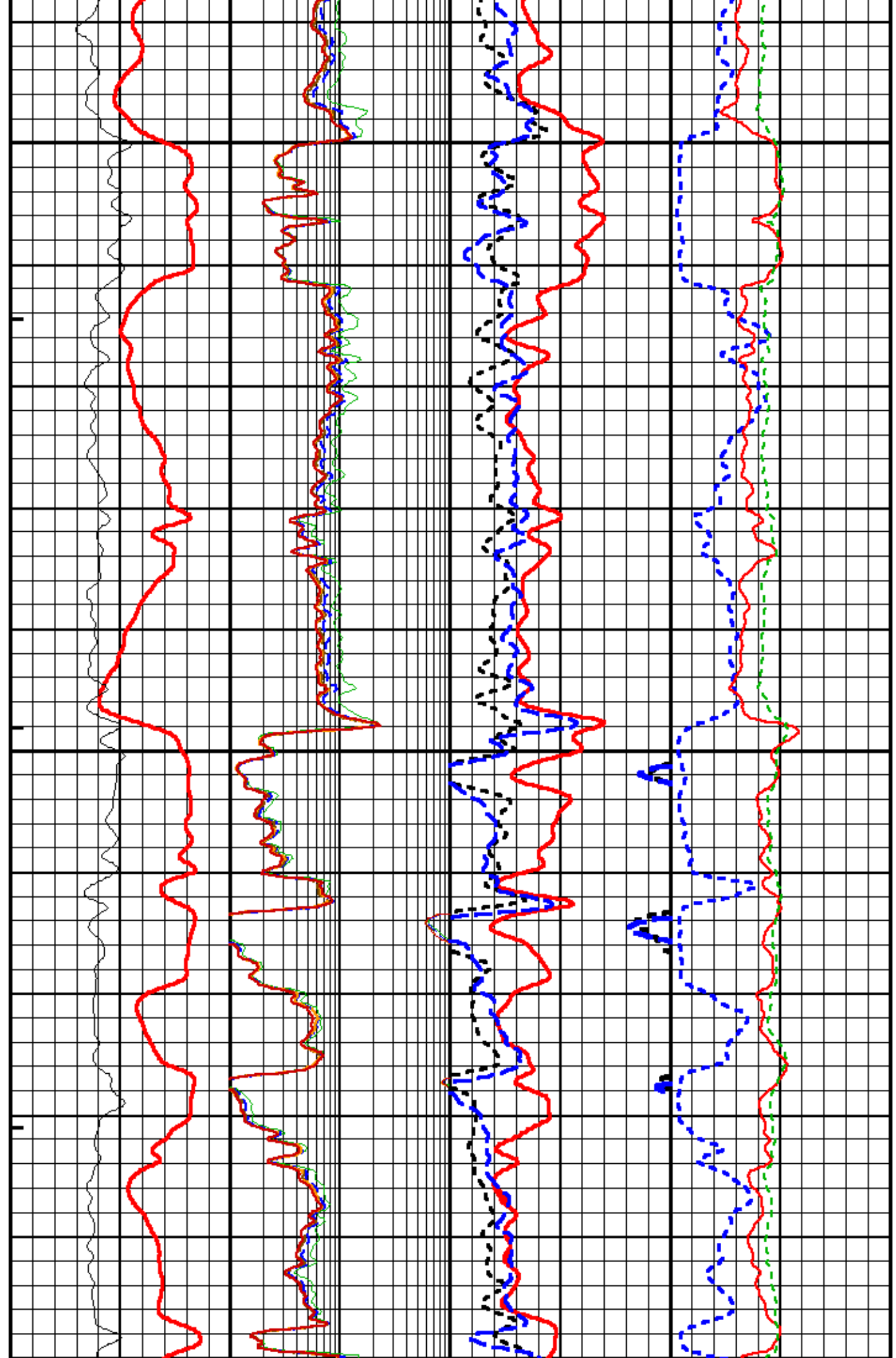
1350

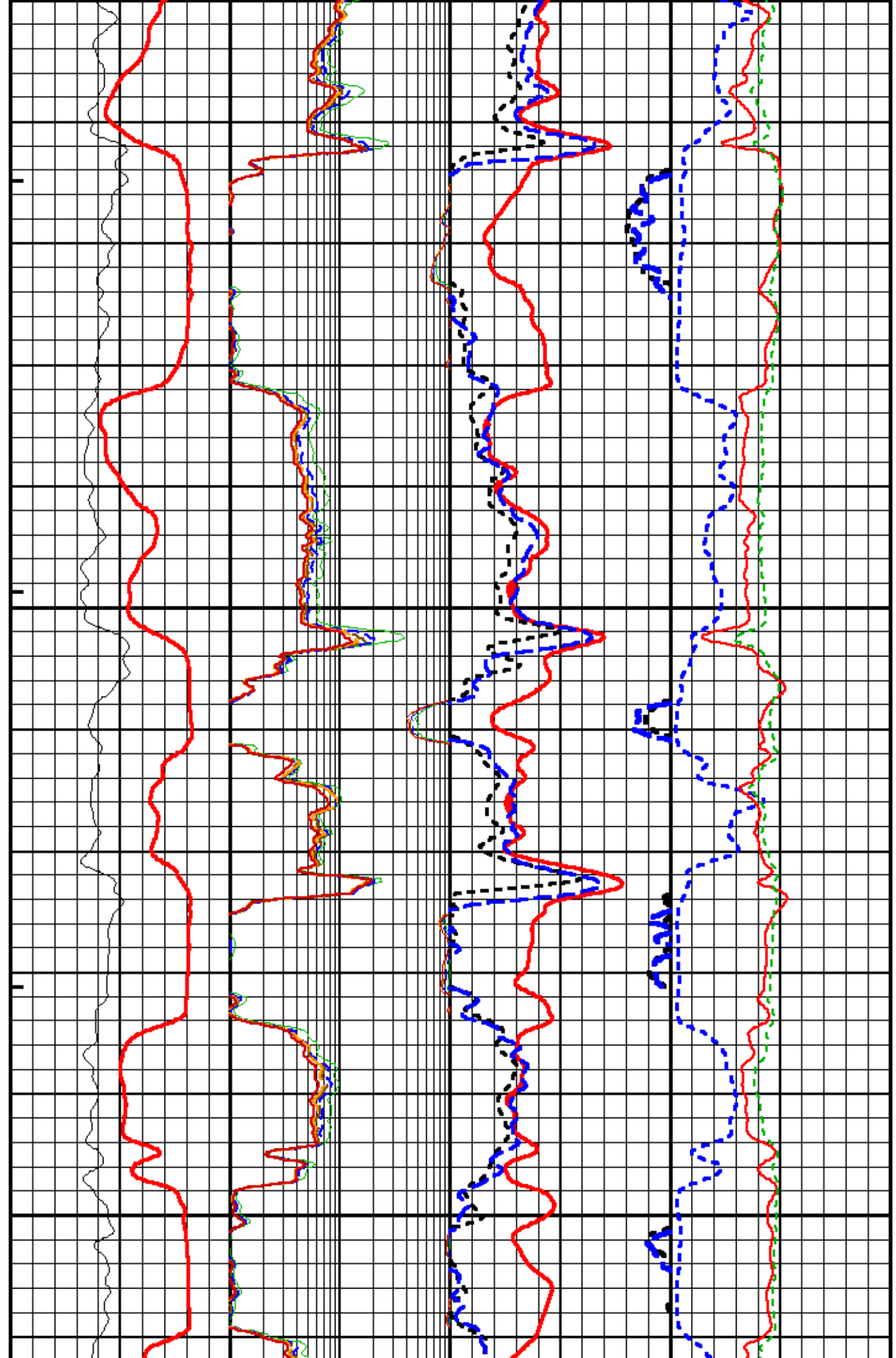


1375

1400

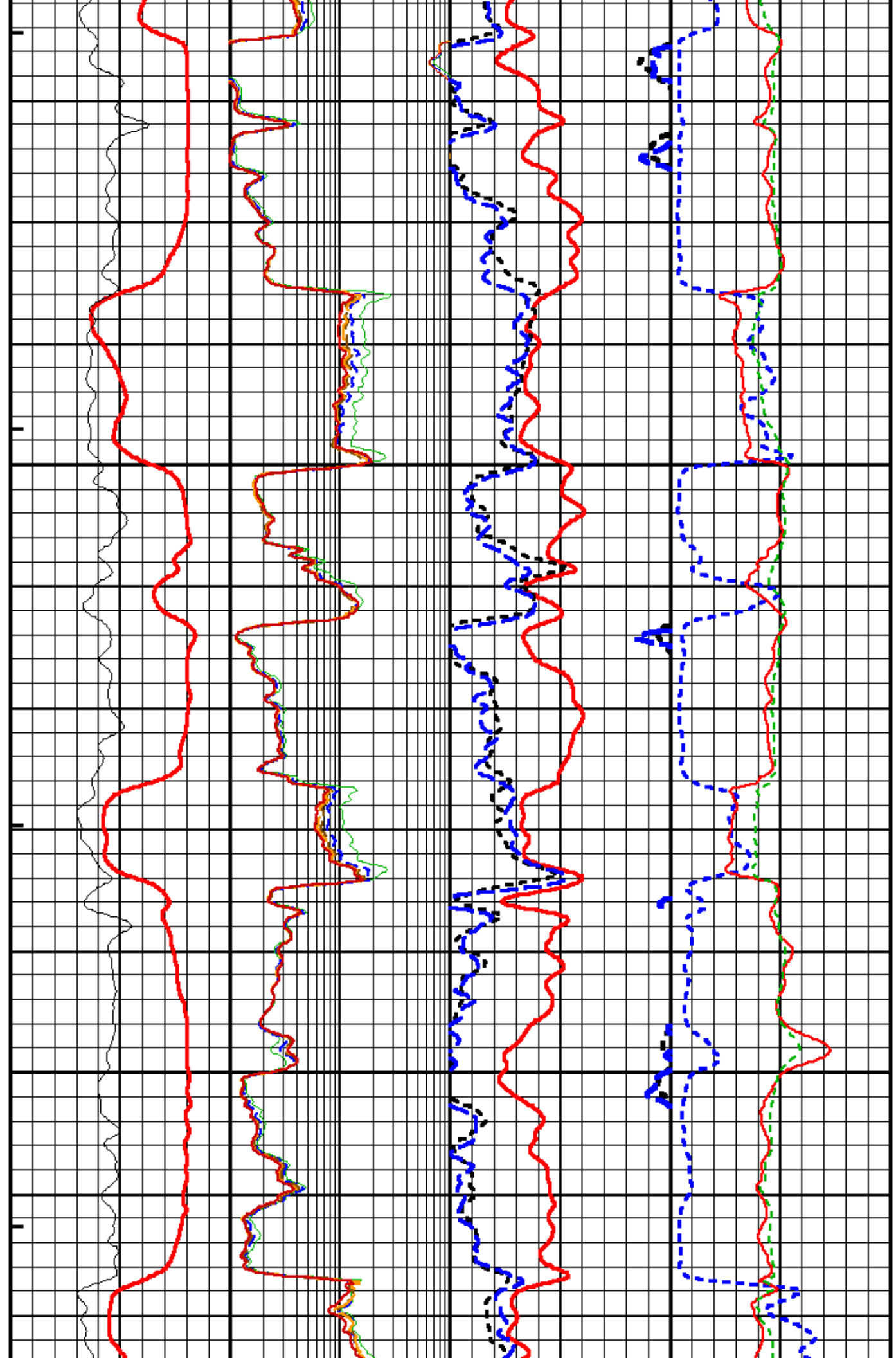
14





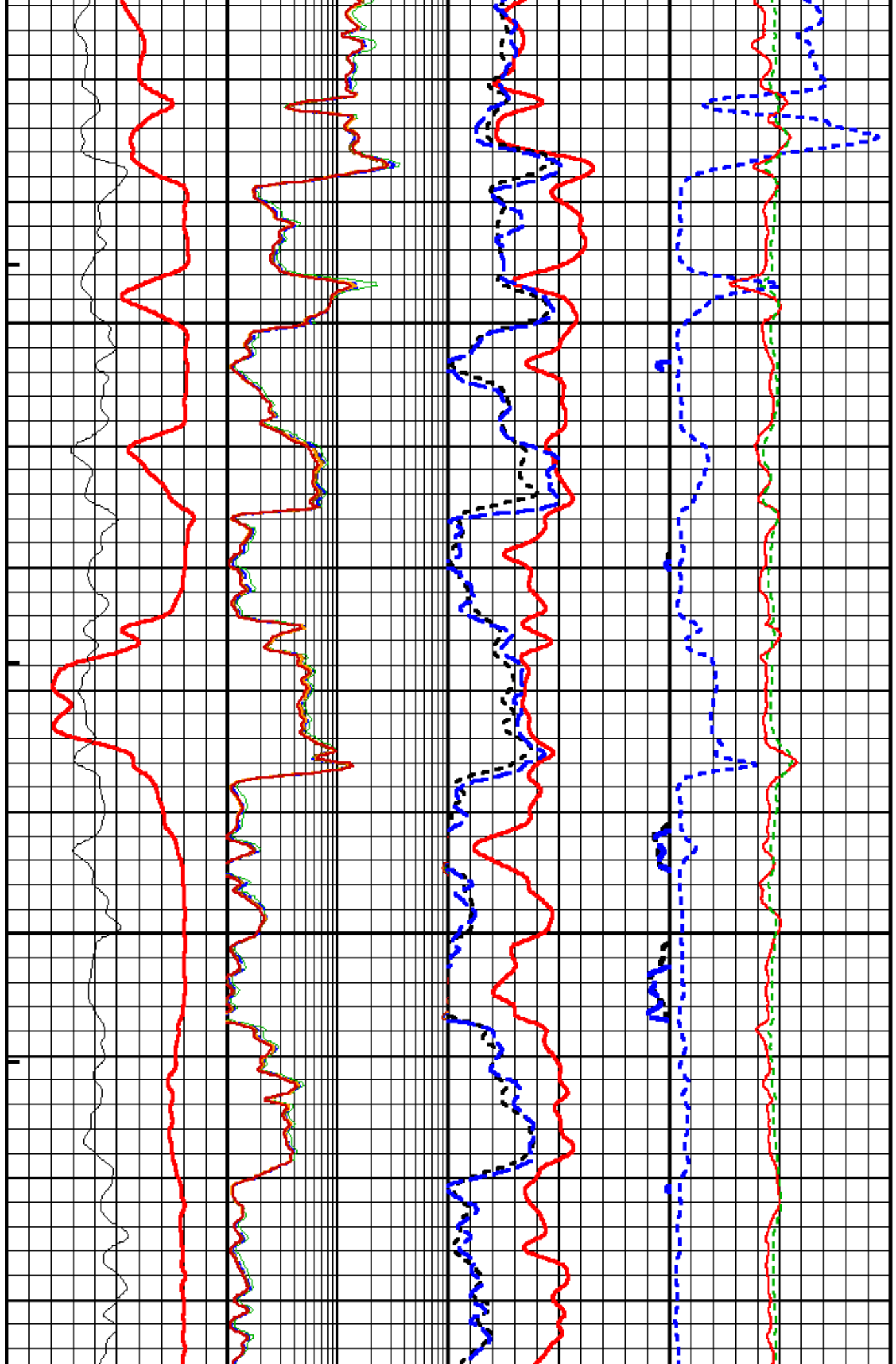
1500

1525



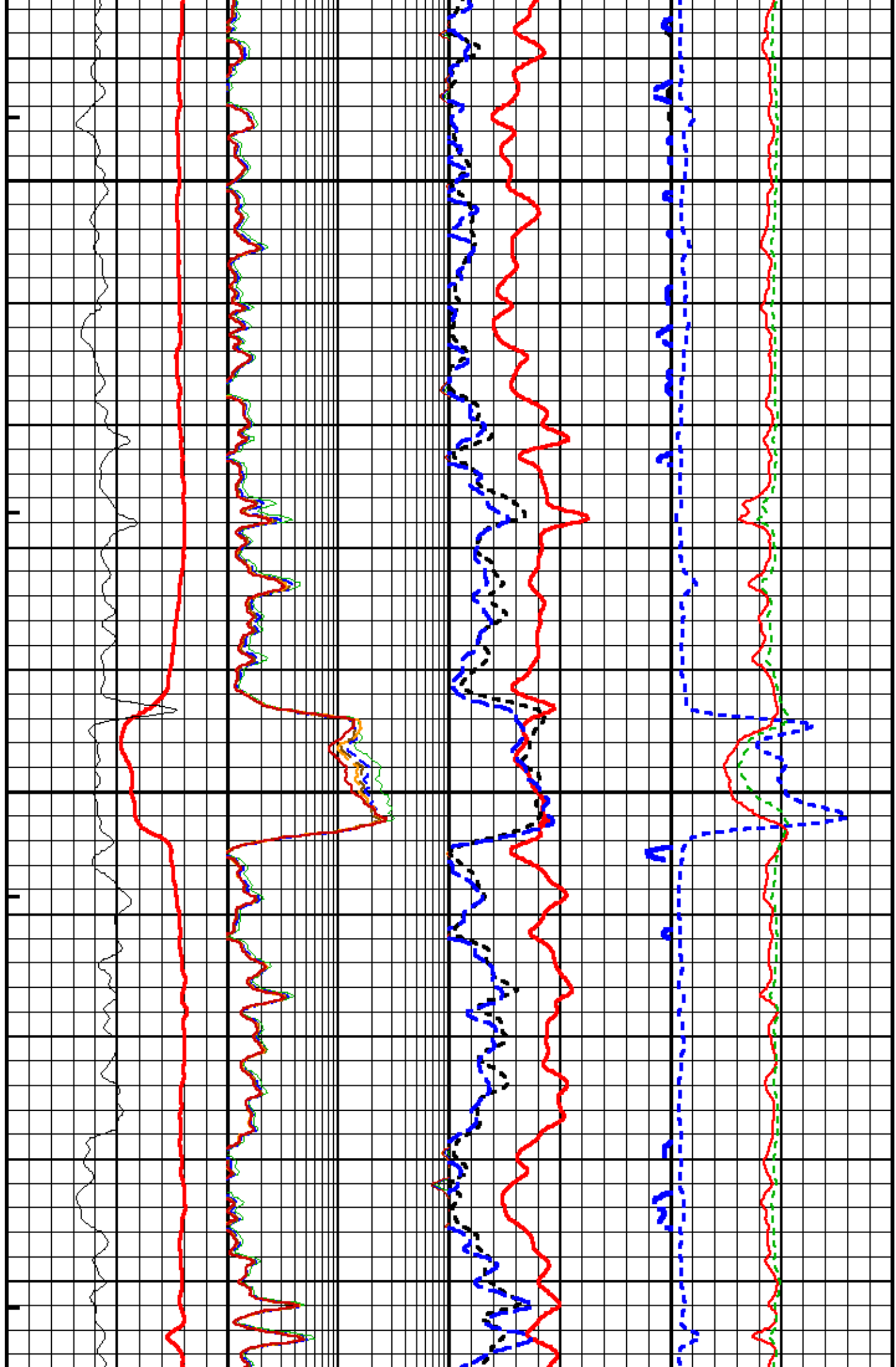
1550

1575



1600

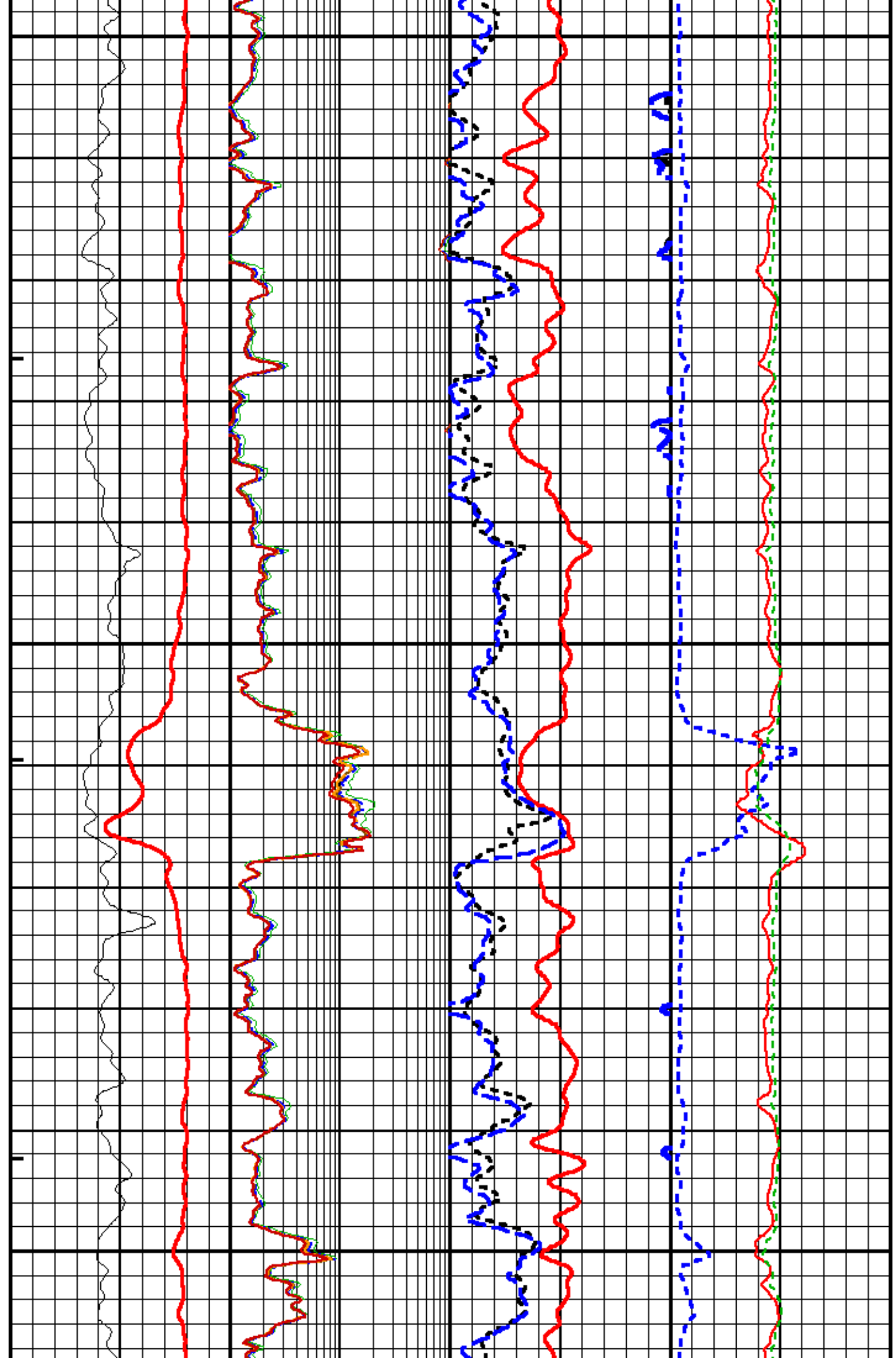
1625



1650

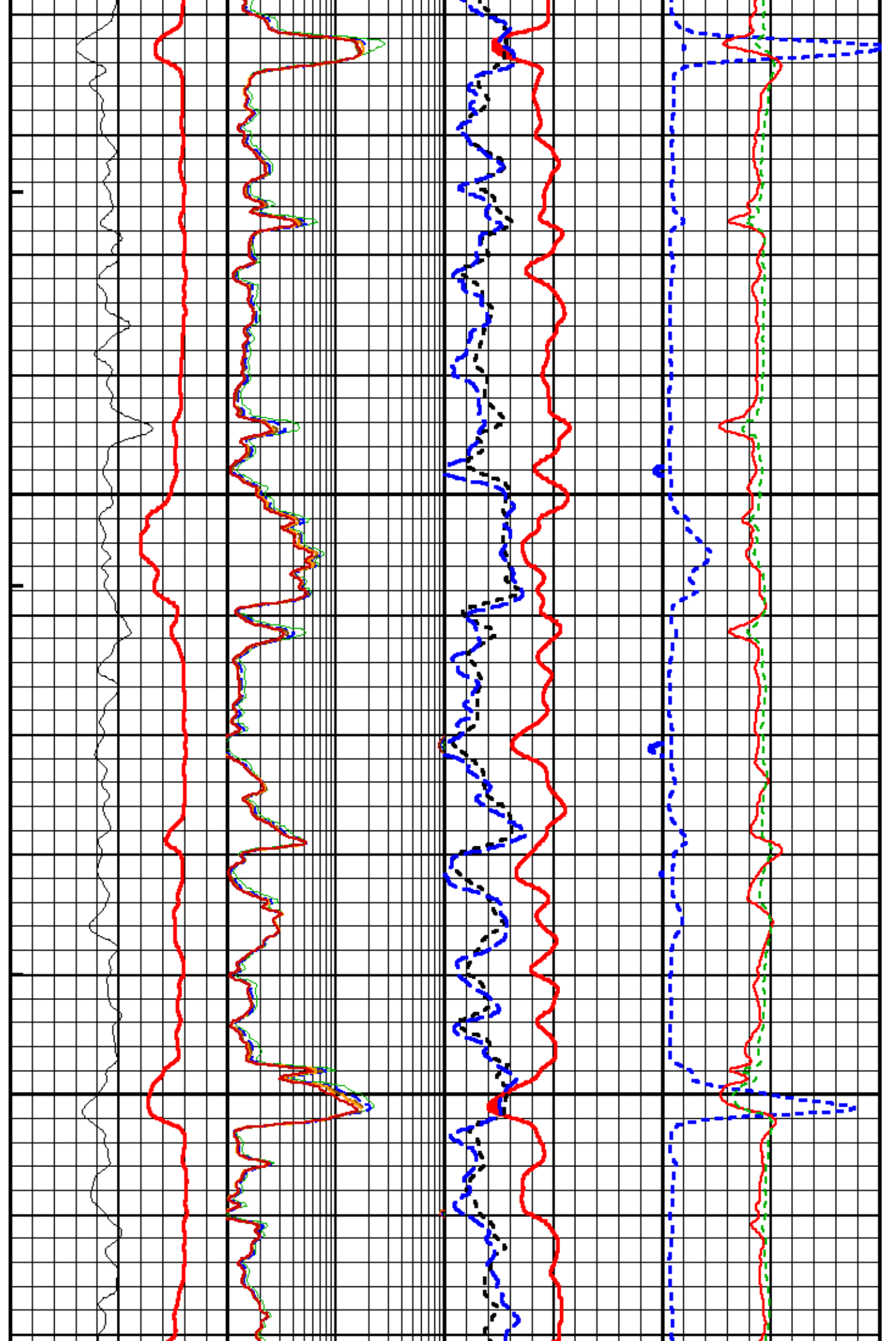
1675

1700



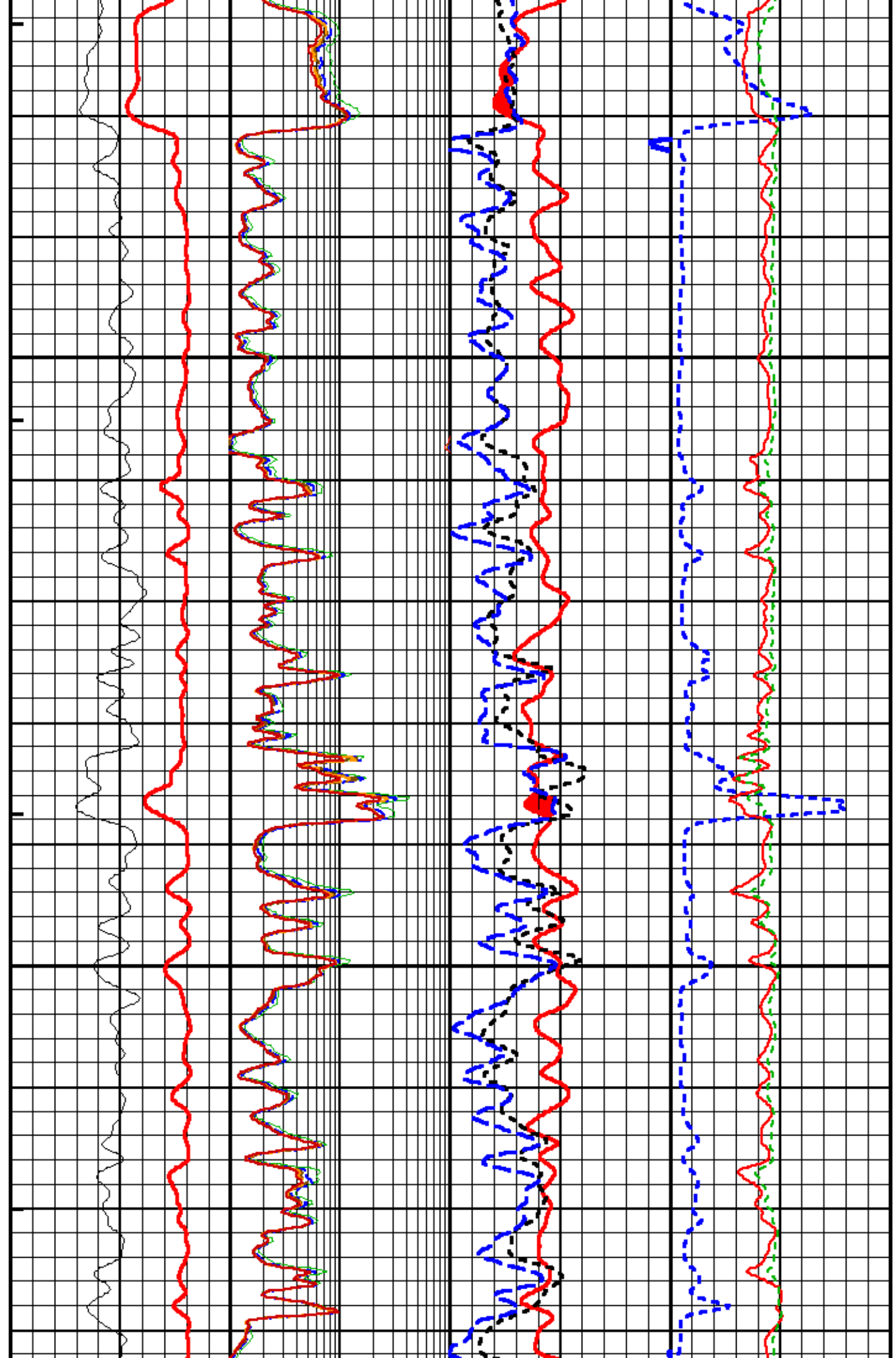
1725

1750





1775

1800



<p>TENSION -250-1500 (lbf)</p> <p>CALIPER 6 --- 16 (in)</p> <p>BIT SIZE 6 --- 16 (in)</p>		<p>(ohm.m)</p> <p>1 90 in. DOI [m1r9] 100</p> <p>(ohm.m)</p>		<p>M1RX/M1R1 [r1x1] 2</p>
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	<p>COMPANIA <u>YPF S.A.</u></p> <p>POZO <u>YPF.Ch.EA-779</u></p> <p>YAC. <u>EL ALBA</u></p> <p>PROVINCIA <u>CHUBUT</u></p>		<p>ARCHIVO NO.</p> <hr/> <p>API NO.</p> <p><u>UNI:ARD100008533</u></p>
<p>Baker Atlas</p> 	<p>COORDENADAS:</p> <p>X: <u>4,849,502.59</u></p> <p>Y: <u>2,583,388.66</u></p> <p>Z: <u>865.80</u></p>	<p>ALTURAS:</p> <p>KB <u>5/0</u></p> <p>MR <u>670.55 M</u></p> <p>MT <u>685.80 M</u></p> <p>FECHA <u>09-Oct-2010</u></p>	<p>ESCALA 1:200</p>



Baker Atlas

ARCHIVO NO.	COMPANIA	YPF SA.
API NO.	POZO	YPF.CH.EA-779
UNI.FAR0100008533	YAC.	EL ALBA
	PROVINCIA	CHUBUT

Ver. 3.87	COORDENADAS:	SERVICIOS
ESCALA 1:200	X: 4,949,502.59	HD/L/DAL/ZDI/CH
	Y: 2,583,386.86	GR/CAL/FMT
	Z: 685.80	

BASE DE MED	N. T.	ALTURA	685.80 M	ALTURAS:
PERFIL MED DESDE	N. T.	0.00 M		KB 670.55 M
PERFOR MED DESDE	N. T.			MR 685.80 M
				NT

FECHA	09-Oct-2010	
CRA.	BUDA.	1
ORDEN DE SERVICIO	JOSI.AR111032	
PROFUNDIDAD PERFORADOR	1851.0 M	
PROFUNDIDAD PERFIL	1851.0 M	
PRIMERA LECTURA (FONDO)	1842.0 M	
ULTIMA LECTURA	725.0 M	
CAMERIA PERFORADOR	9.625 IN ① 386.5 M	
CAMERIA PERFIL	387.0 M	
DIAMETRO DEL POZO	8.75 IN	
TIPO DE INYECCION	POLIMERICO	
DENSIDAD	1170 G/L	58.0 S
PH	9.0	5.6 G3
ORIGEN DE LA MUESTRA	ULTIMA CIRCULADA	
RM A TEMP. MEDIDA	2.38 OHM ① 66.8 DEGR	
RMF A TEMP. MEDIDA	2.00 OHM ① 83.1 DEGR	
RMG A TEMP. MEDIDA	2.88 OHM ① 83.8 DEGR	
ORIGEN DE RMF	MEDICION	
RM A TEMP. FONDO	1.16 OHM ① 158.0 DEGR	
TEMPO DESDE FIN CIRG.	12:00 HS	
TEMPERATURA DE FONDO	158.0 DEGR	
NO. DE EQUIPO	BASE	C.RIVADAVIA
REGISTRADO POR	A. PABLO	
PRESENCIADO POR	C. CEVASCO	

AL HACER INTERPRETACIONES DE REGISTROS, NUESTROS EMPLEADOS BRINDAN AL CLIENTE EL BENEFICIO DE SU MEJOR JUICIO. PERO DADO QUE TODAS LAS INTERPRETACIONES SON OPINIONES BASADAS EN INFERENCIAS SOBRE MEDICIONES ELECTRICAS O DE OTRO TIPO, NO PODEMOS Y NO GARANTIZAMOS LO CORRECTO O PRECISO DE CUALQUIER INTERPRETACION. NO SEREMOS LEGALMENTE RESPONSABLES POR CUALQUIER PERDIDA, COSTO, DAÑOS, O GASTOS EN LOS QUE INCURRA EL CLIENTE BASADO EN ALGUNA INTERPRETACION HECHA POR NUESTROS EMPLEADOS.

DIAMETRO	DESDE	HASTA
13.50 IN	0.0 M	388.0 M
8.75 IN	388.0 M	1851.0 M

TAMANO	PESO	GRADO	DESDE	HASTA
8.625 IN	32.3 LB/F	N/A	0.0 M	386.5 M
N/A	N/A	N/A	N/A	N/A

OBSERVACIONES

CRA. 1 BUDA. 1: ÚLTIMA CIRCULADA A LAS 05:00 HS DEL 09-OCT-10

EQUIPO DE PERFORACIÓN: SAI-380

CL-: 1100 PPM
CA: 120 PPM

CADA MARCA BVOL = 1 M³ DEL VOLUMEN TOTAL DEL POZO
CADA MARCA CVOL = 1 M³ DEL VOLUMEN ANULAR PARA CASING DE 5.5 IN

LECTURAS DE POROSIDADES COMPUTADAS CON LOS SIGUIENTES PARAMETROS:
ACOUSTIC POROSITY MATRIX: 54.0 US/FT FORMULA: R+G
DENSITY POROSITY MATRIX: 2.85 GR/CM³

DENSITY POROSITY MATRIX: 2100 g/cc
NEUTRON POROSITY MATRIX: SANDSTONE

RMZC COMPUTADA A PARTIR DE MTR9 Y PORZC, SEGUN LA ECUACION DE ARCHIE
CON LOS SIGUIENTES PARAMETROS: A=0.81, M=2

MAXIMA DESVIACION REGISTRADA POR EL EQUIPO PERFORADOR:
0.6 GRADOS EN EL FONDO

ZDL UTILIZADA: 2223XA (FOCUS)
CN UTILIZADO: 2436XA (FOCUS)

DOTACION:
PABLO, ALEJANDRO DANIEL
VASQUEZ, ROBINSON ANDRES
MANSILLA, MANUEL OLEGARIO
VARAS, HECTOR DEMETRIO

ADVANCING RESERVOIR PERFORMANCE

DATOS DE EQUIPO					
CRA.	BJDA.	HERRAMIENTA	SERIAL	NO. DE SERIE	POSICION
1	1	FOCUS SNWE	3850XA	10118848	LIBRE
1	1	TMA SUB	3880XA	10403226	LIBRE
1	1	COMM/POWER	3518FB	10141038	LIBRE
1	1	FOCUS TEL	3518FB	10144083	LIBRE
1	1	FOCUS CN	2436XA	10120332	DESCENTRALIZADO
1	1	FOCUS ZDL	2223XA	10134127	PSTM
1	1	DEL KWT	3831XA	10318288	LIBRE
1	1	DAL EA	1830FA	10115886	CENTRALIZADO
1	1	DAL MANDREL	1830MA	10114245	CENTRALIZADO
1	1	FOCUS HDL	1530XA	10378888	STANDOFF

TRAMO PRINCIPAL - ESCALA 1:200

PARAMETER AND FILTER SUMMARY REPORT

File: /data/ea779/c870a04.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 310.898 m BOTTOM DEPTH: 1856.748 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GR MED RES	FILTER ()	medium (1)		TOP	BOTTOM
CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
CN MED RES	FILTER ()	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	5.500	1n	TOP	BOTTOM
	CASING THICKNESS	0.000	1n	"	"
BIT SIZE	BIT SIZE	8.750	1n	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (zdlbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	1n	"	"

MUD DENSITY MUD DENSITY 1.17 g/cm3 " "

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION OFF		TOP BOTTOM

CN PROCESSING

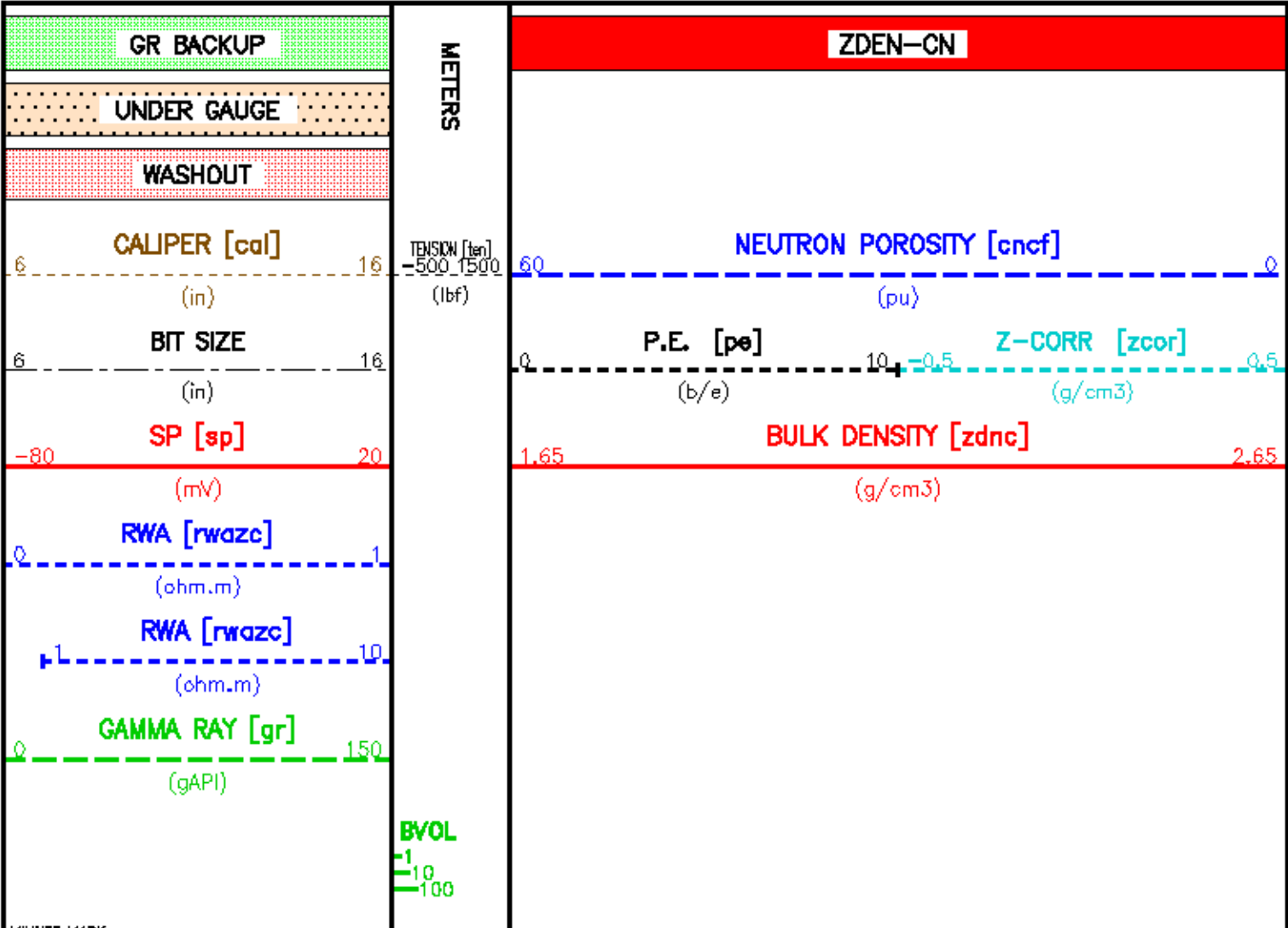
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)
CN MATRIX	2436 MATRIX	SANDSTONE		TOP BOTTOM
CN BOREHOLE CORRECTION	SALINITY	1100	ppm	" "
	BOREHOLE CORRECTION	CN		" "
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		" "
	BIT SIZE BEHIND CSNG	8.750	in	" "

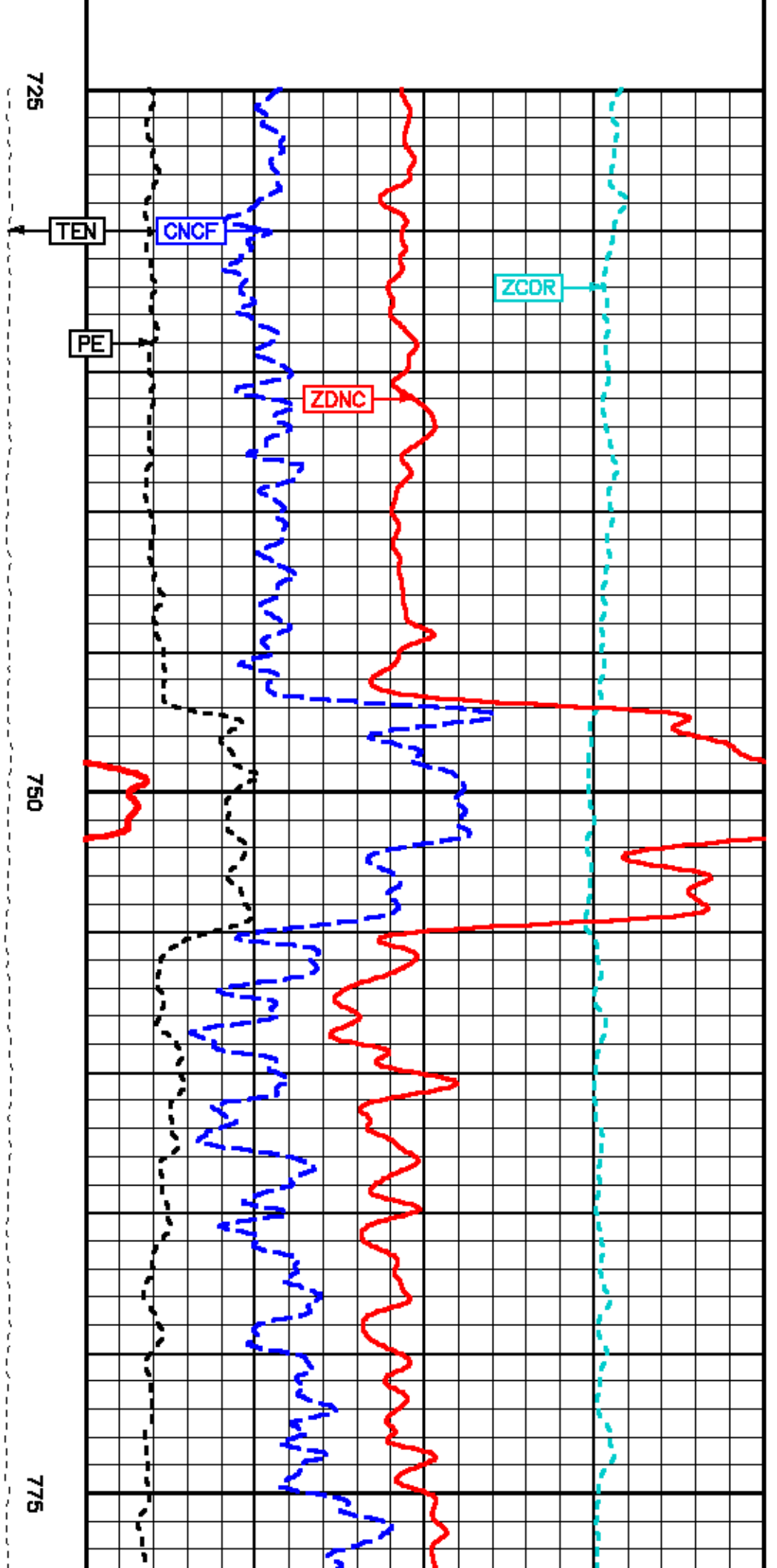
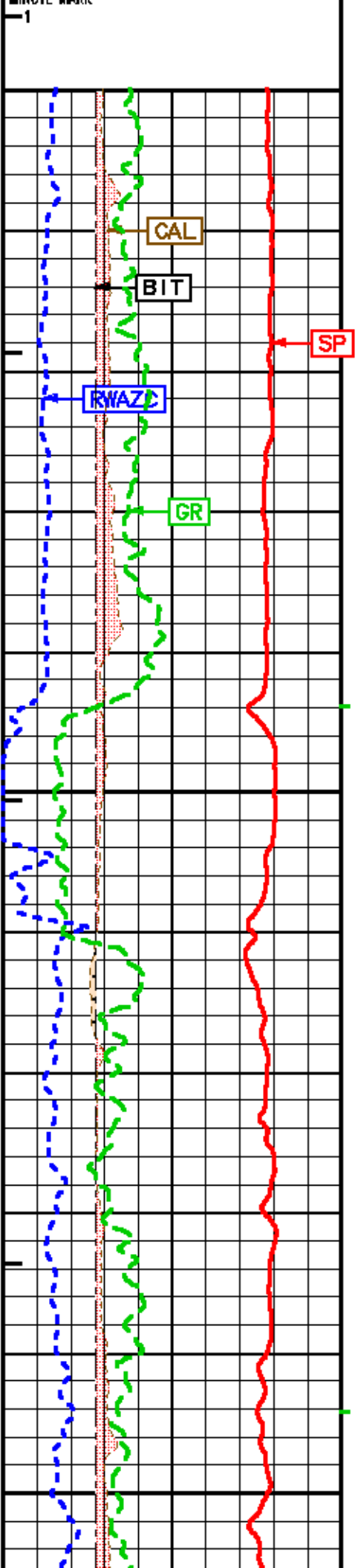
CURVE MEASURE POINT OFFSET

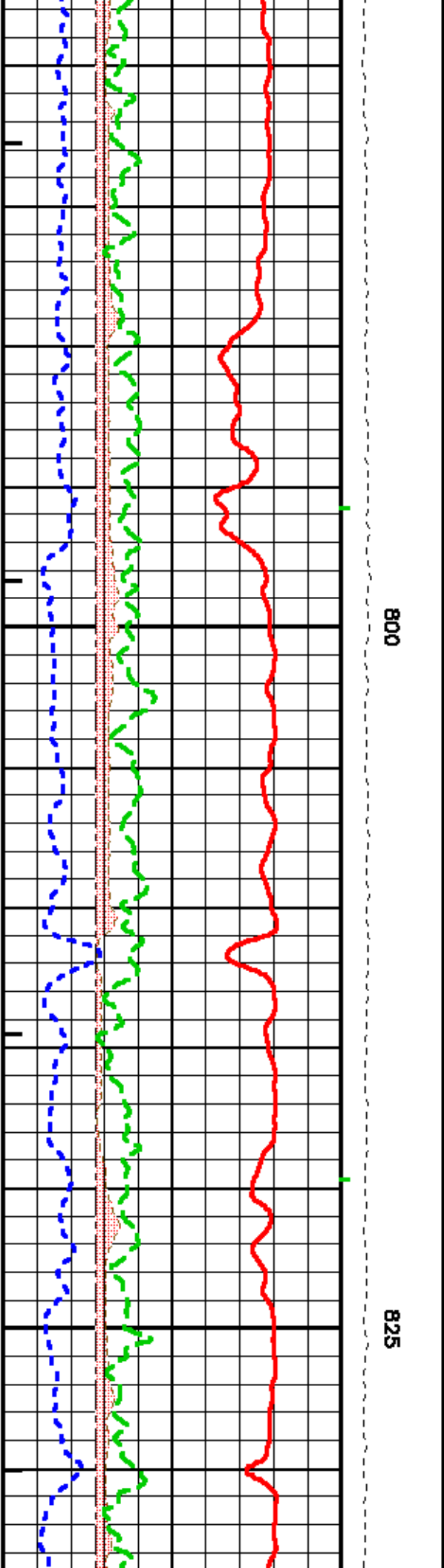
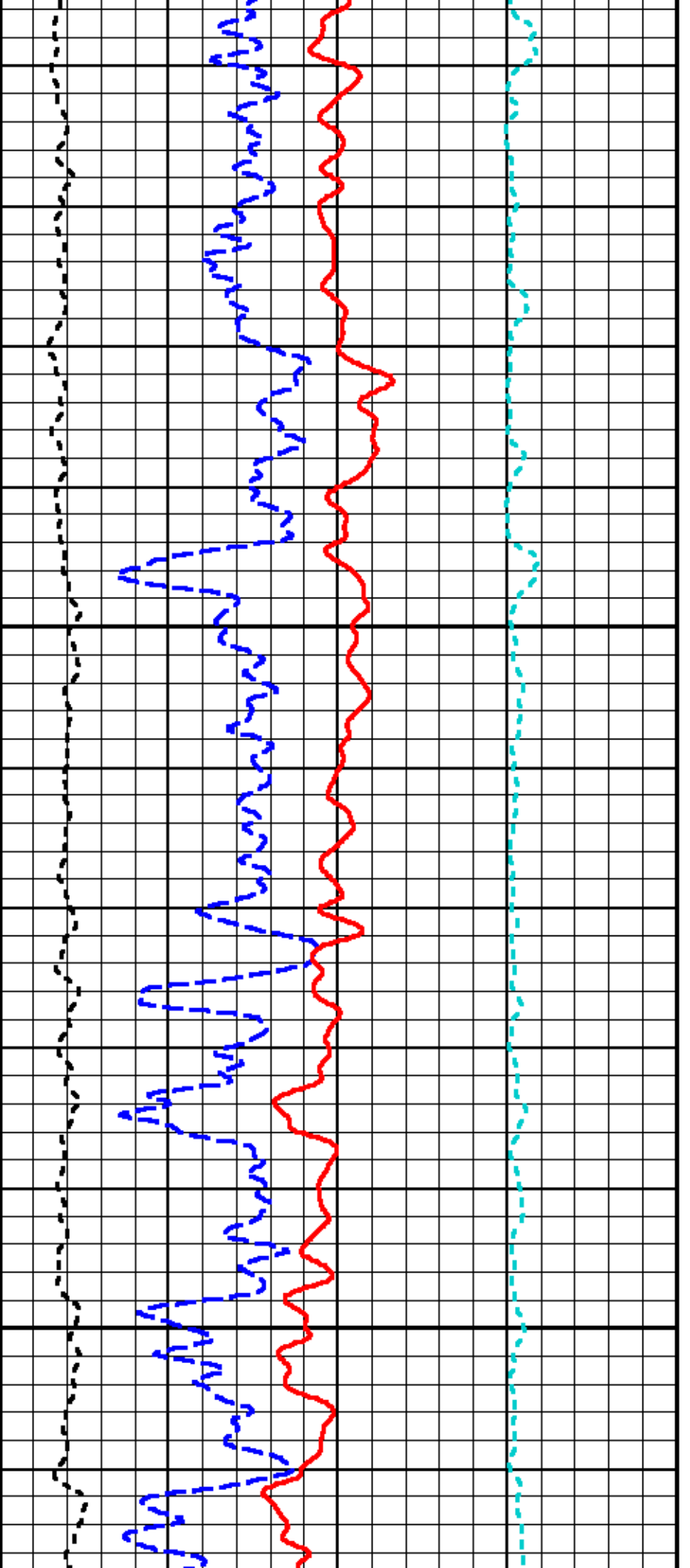
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
BIT	0.00	GR	14.02	SP	0.38	ZDNC	8.88
CAL	8.88	PE	8.88	TEN	0.00		
CNCF	11.73	RWAZC	0.00	ZCOR	8.88		

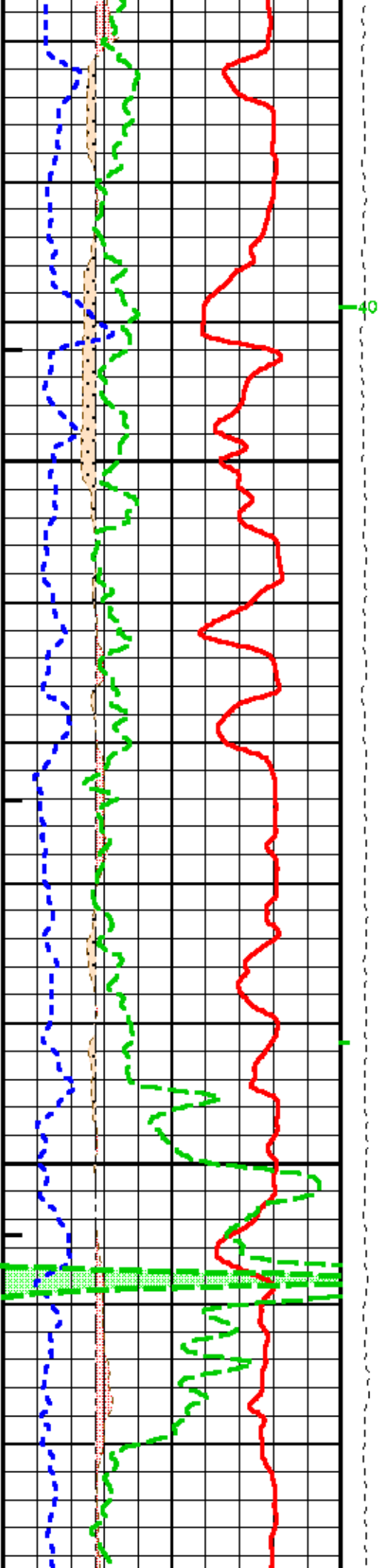
Presentation : HL8708:/data/ea779/zd_lp.pdf [1:200 Scale]
 Plot Interval : 725 - 1861.11 Meters

 Data File 1 : F1 : HL8708:/data/ea779/EA779.zdt
 Created On : Oct 9 18:05:05 2010
 Company : YPF S.A.
 Well : YPF.Ch.EA-779
 Field : EL ALBA
 File Interval : 380.009 - 1861.11 Meters
 Oct : k970a



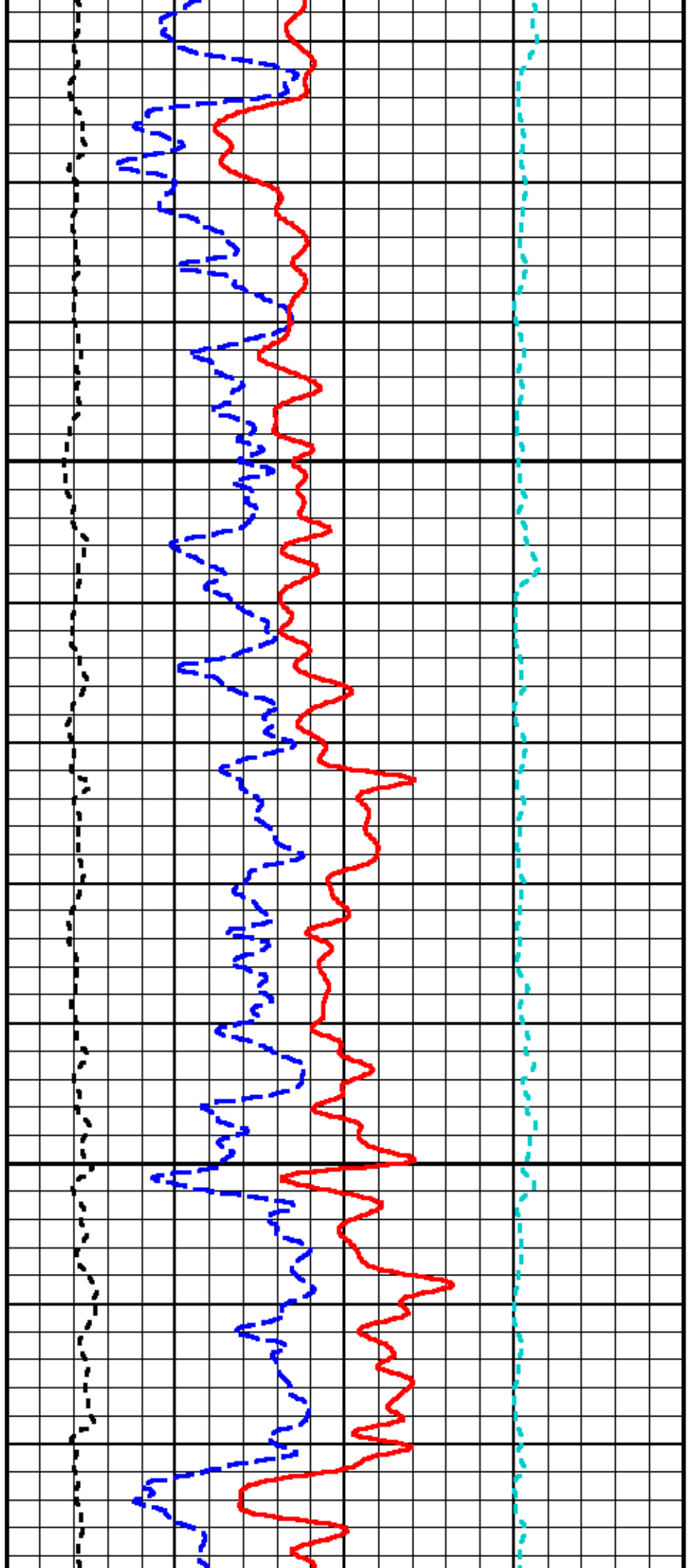


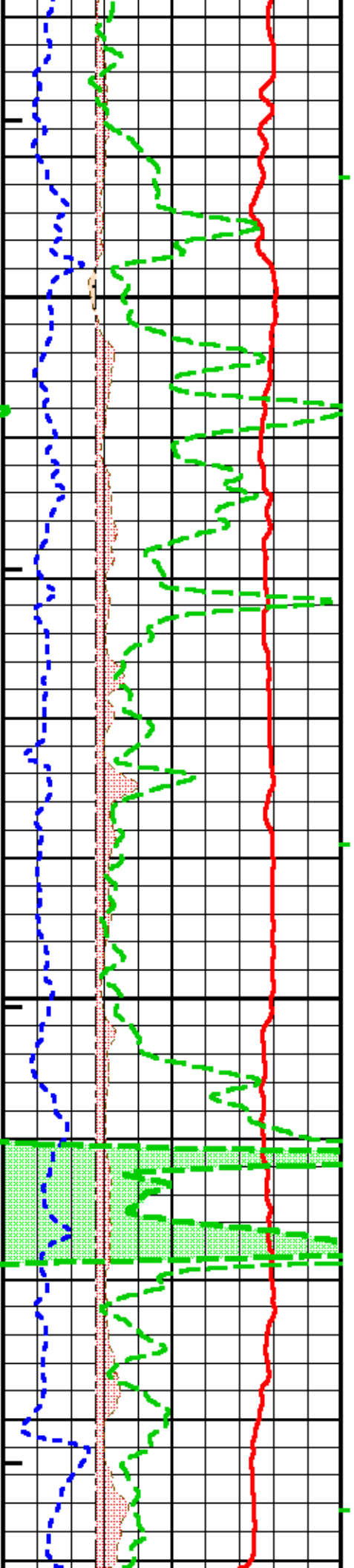




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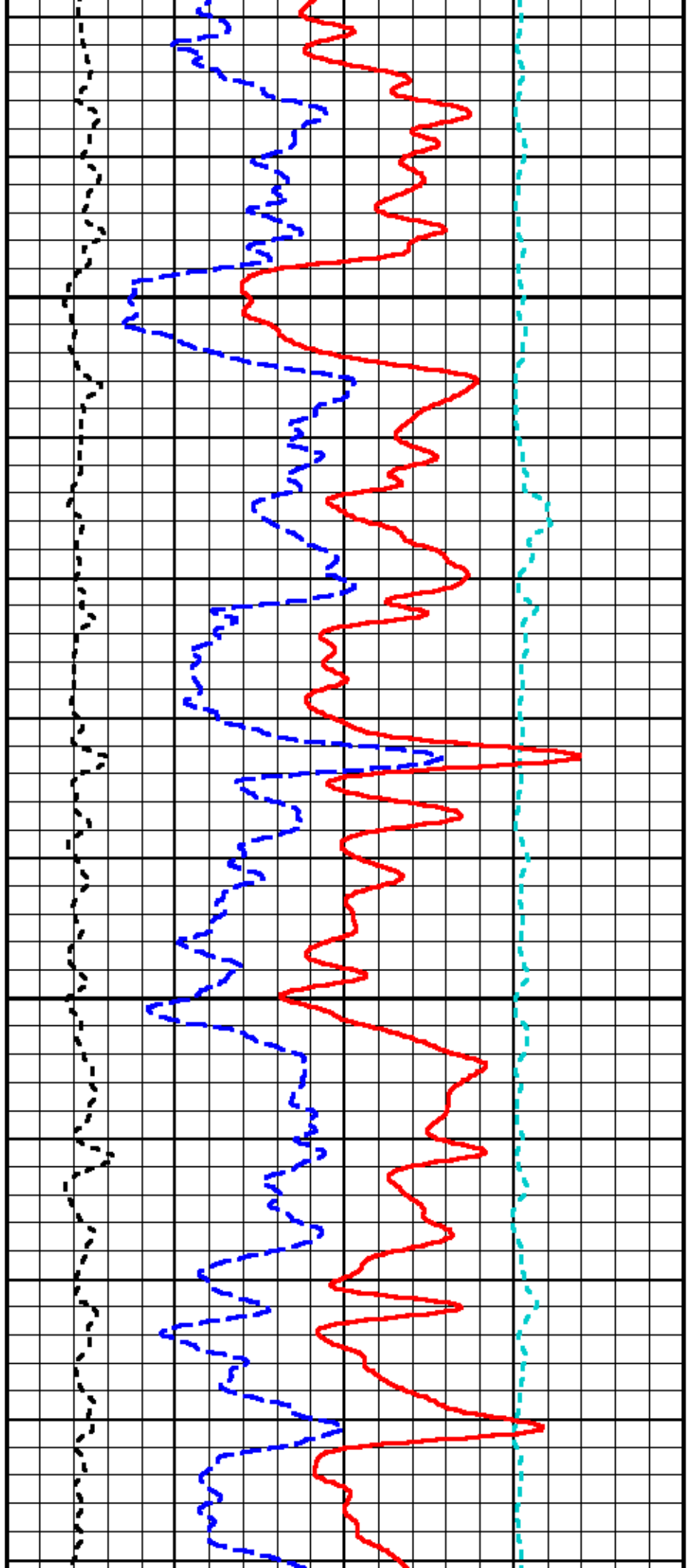
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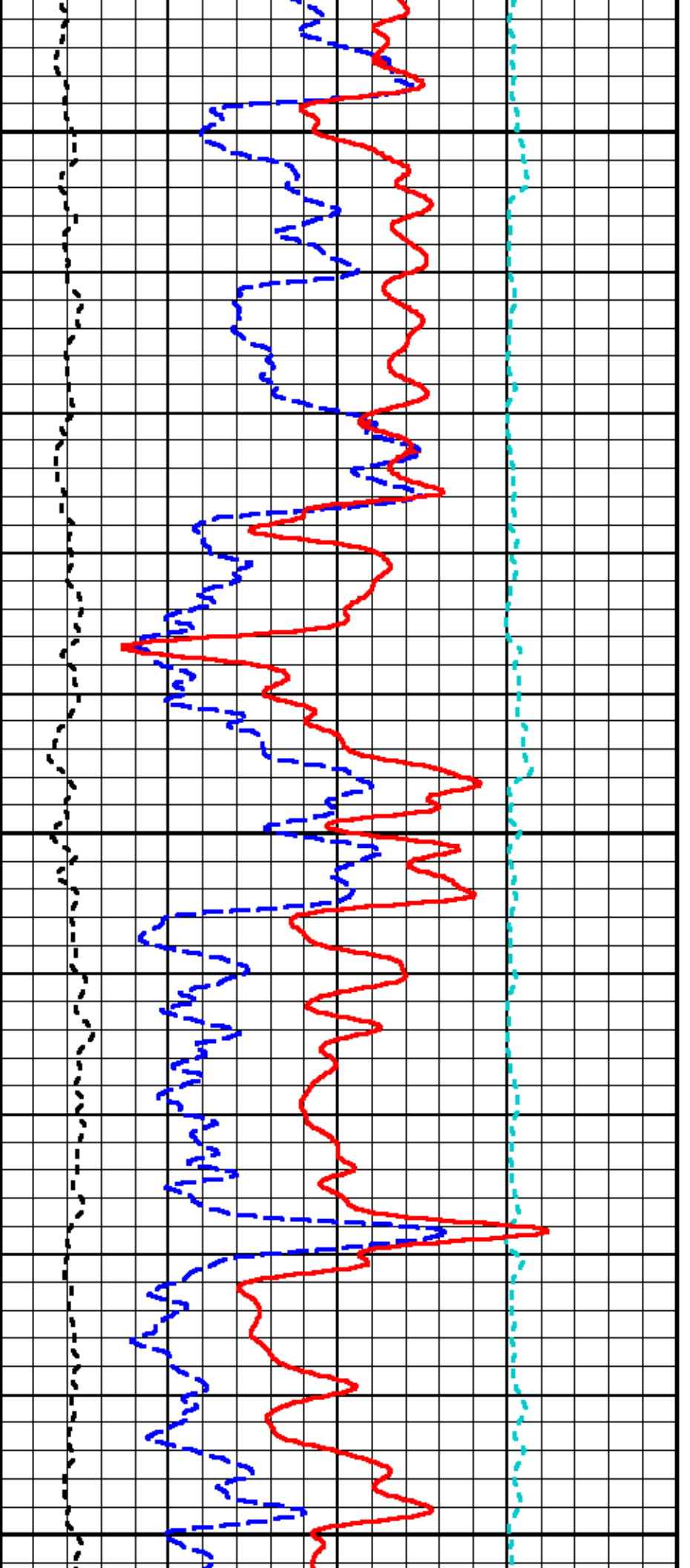




500

925

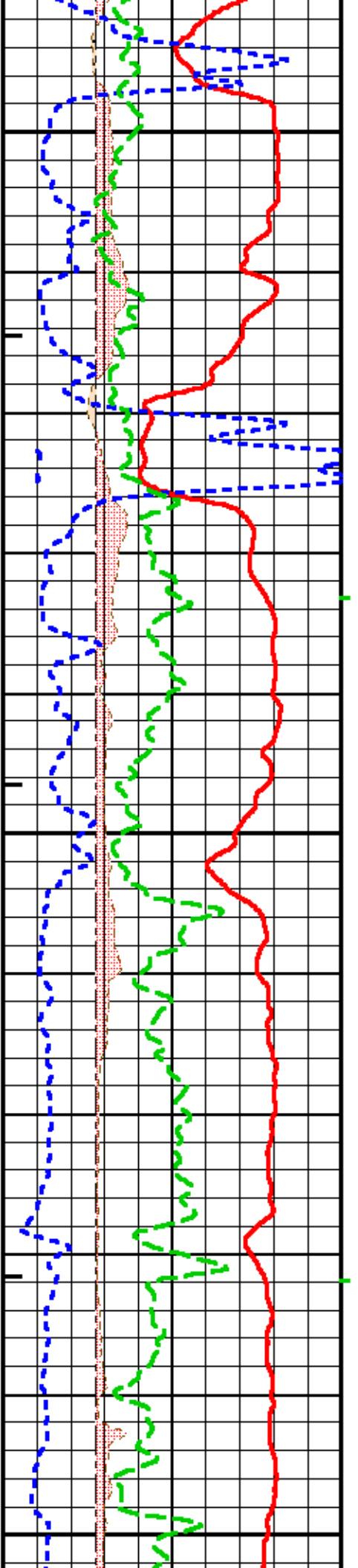


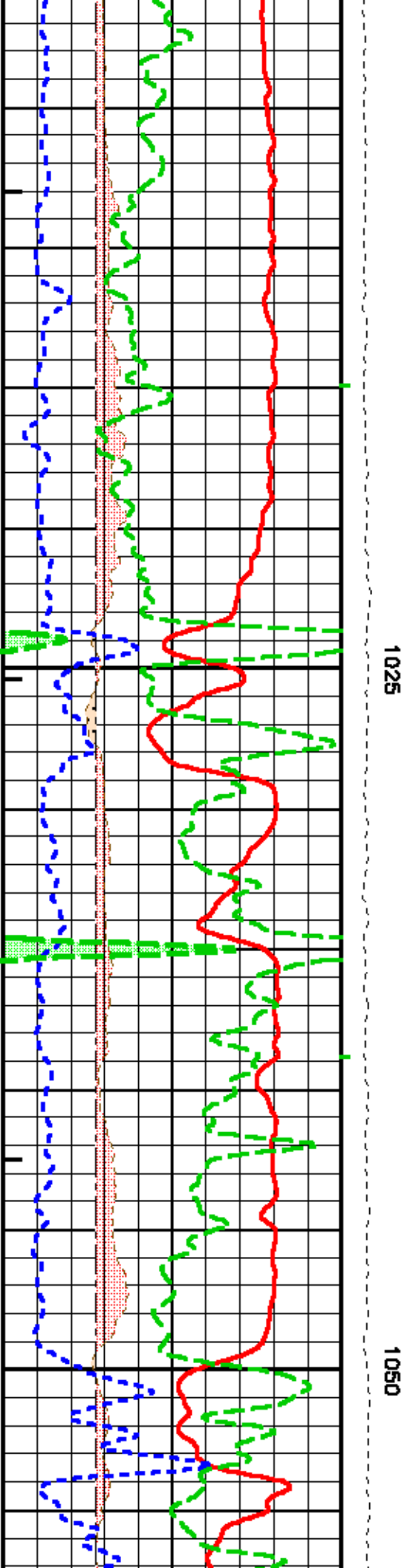
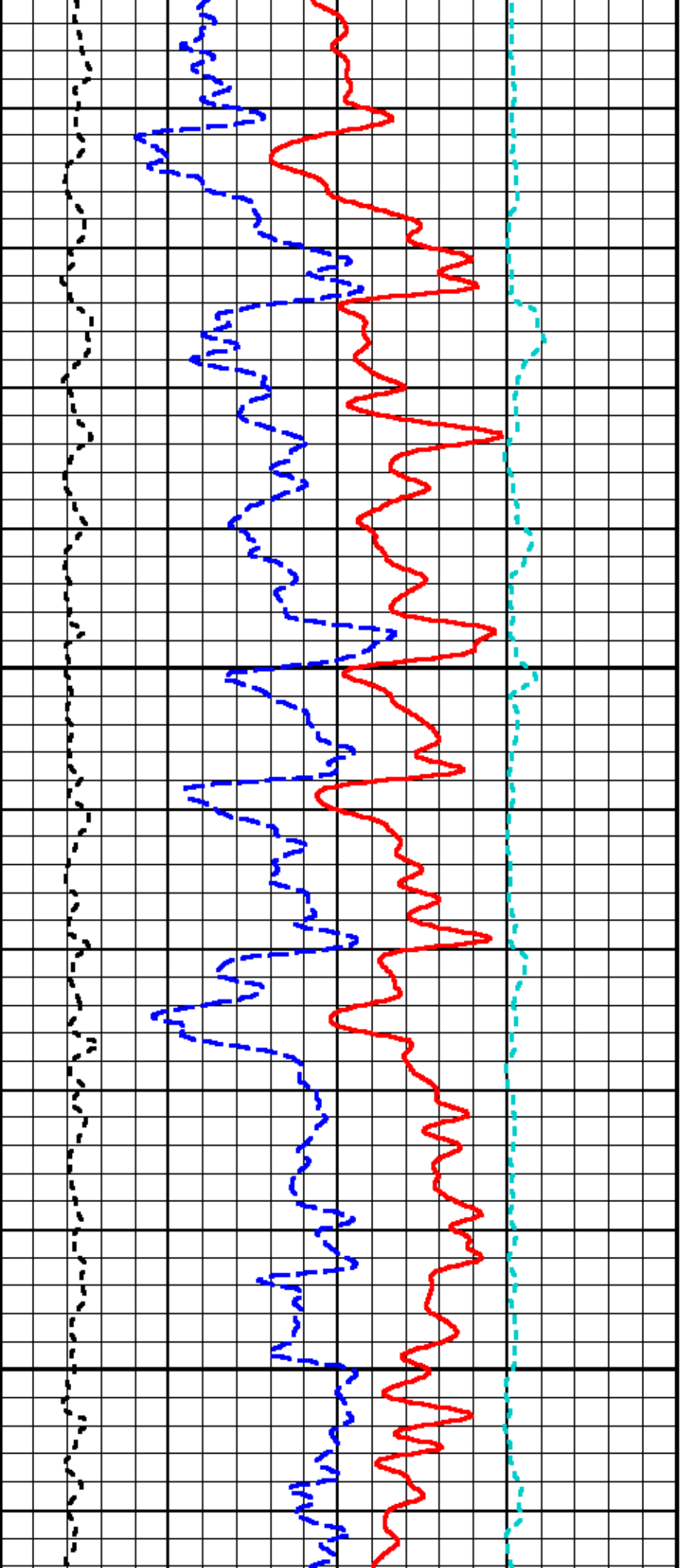


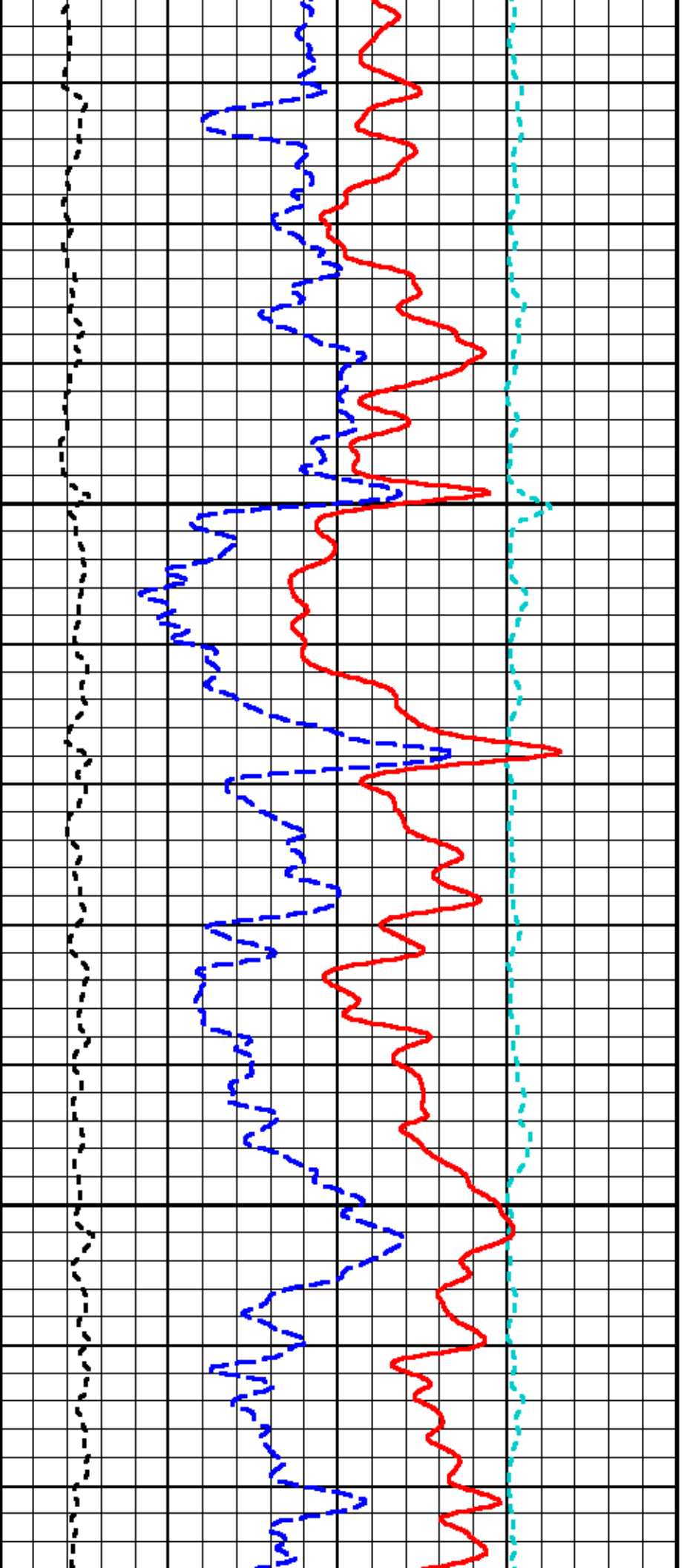
950

975

1000

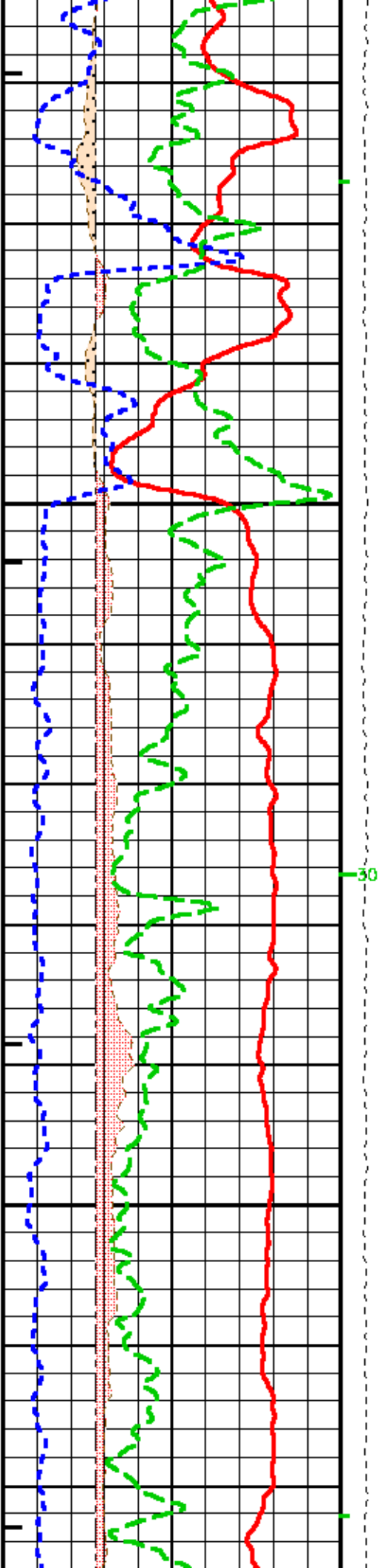






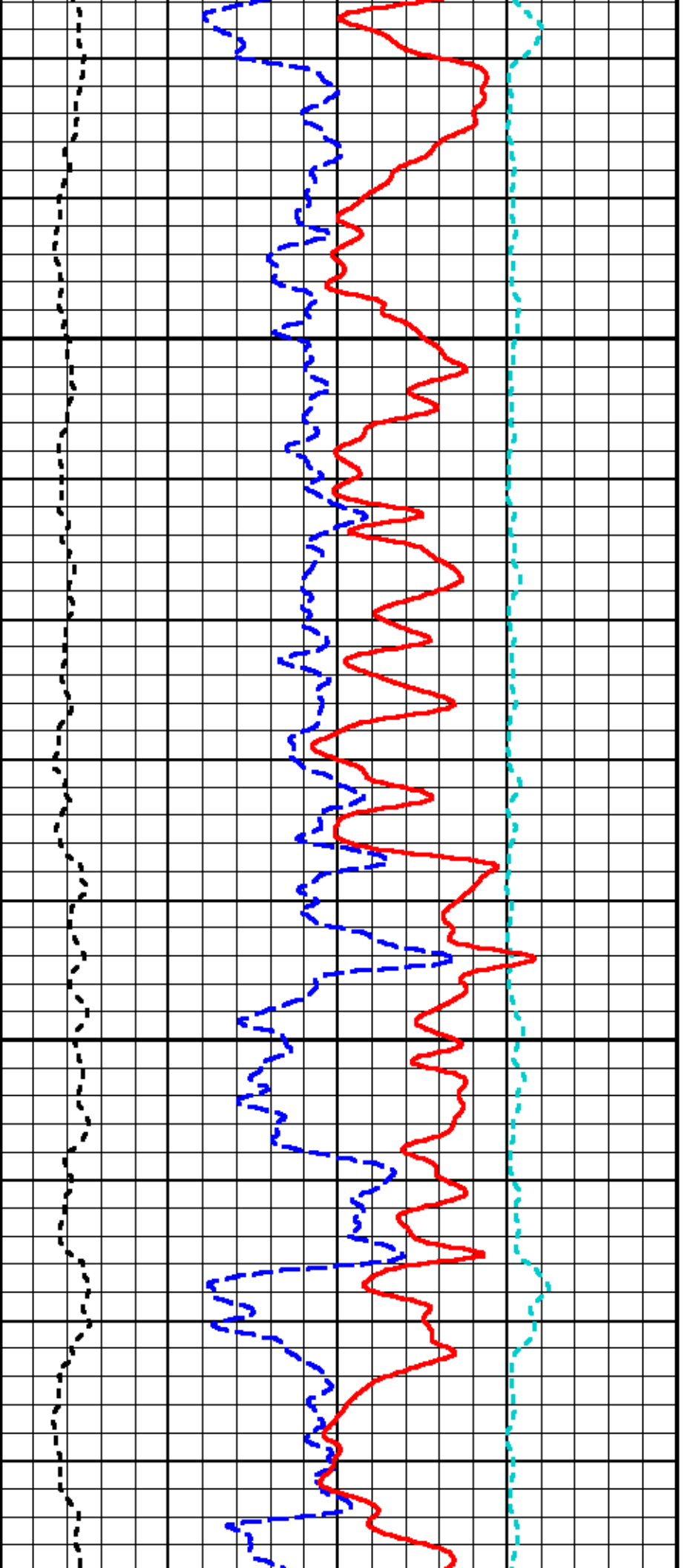
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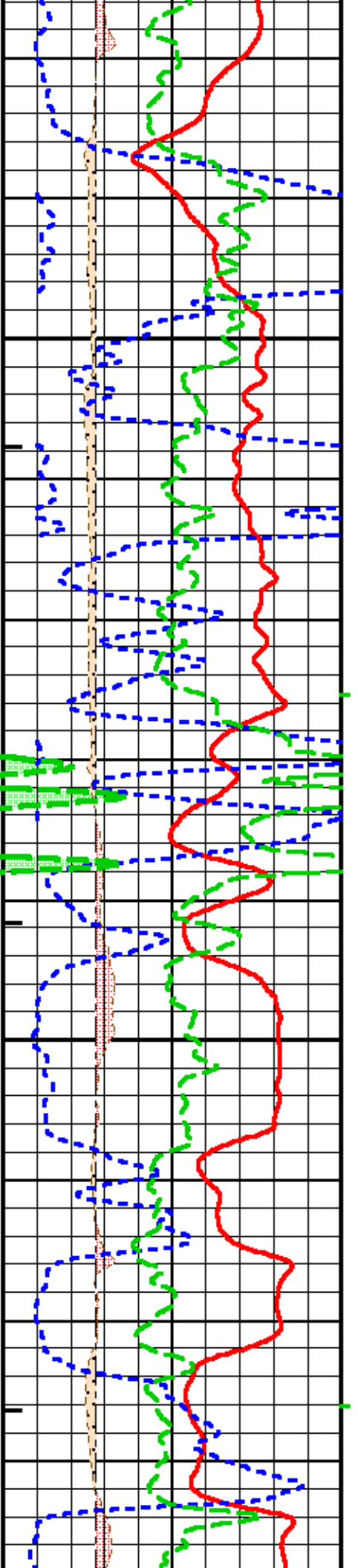
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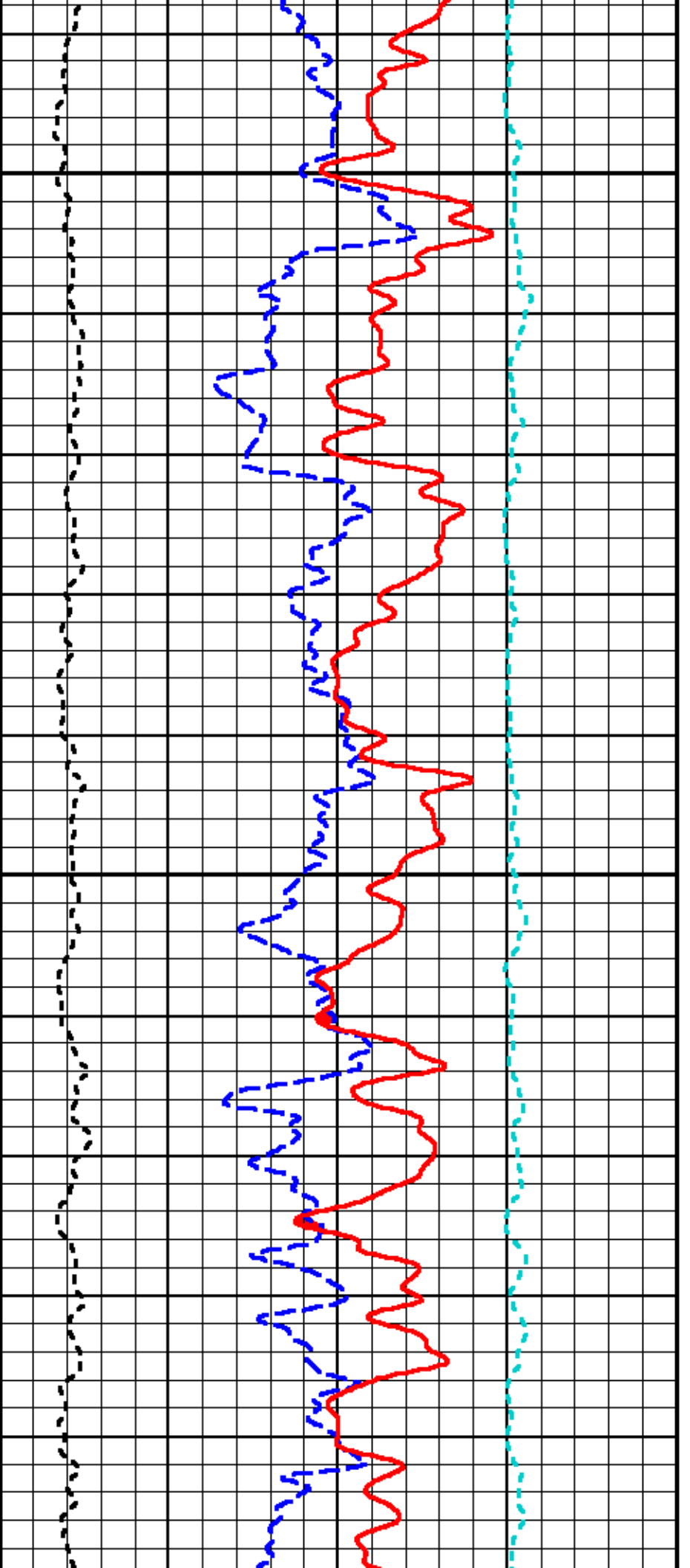
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1125

1150

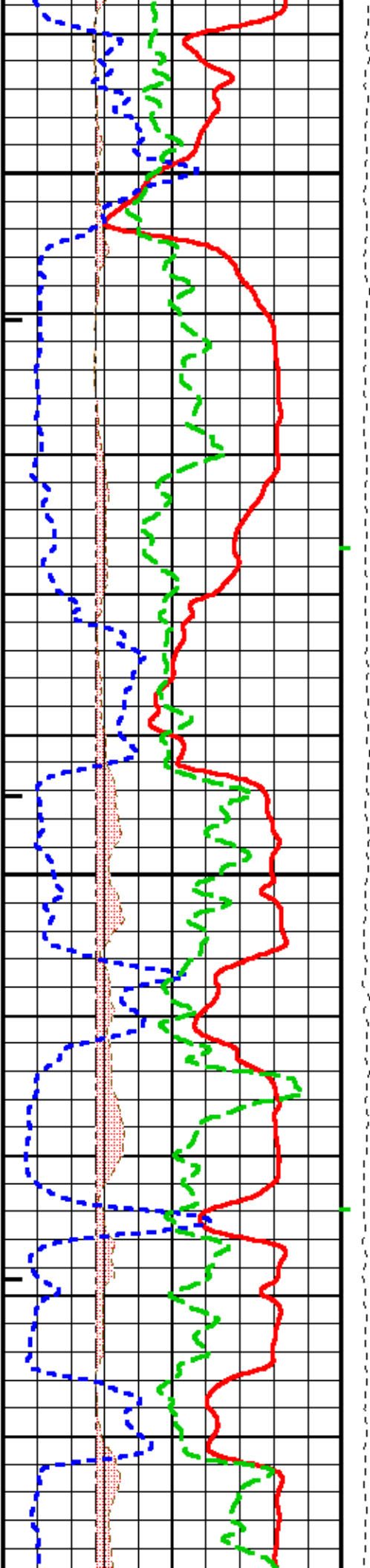


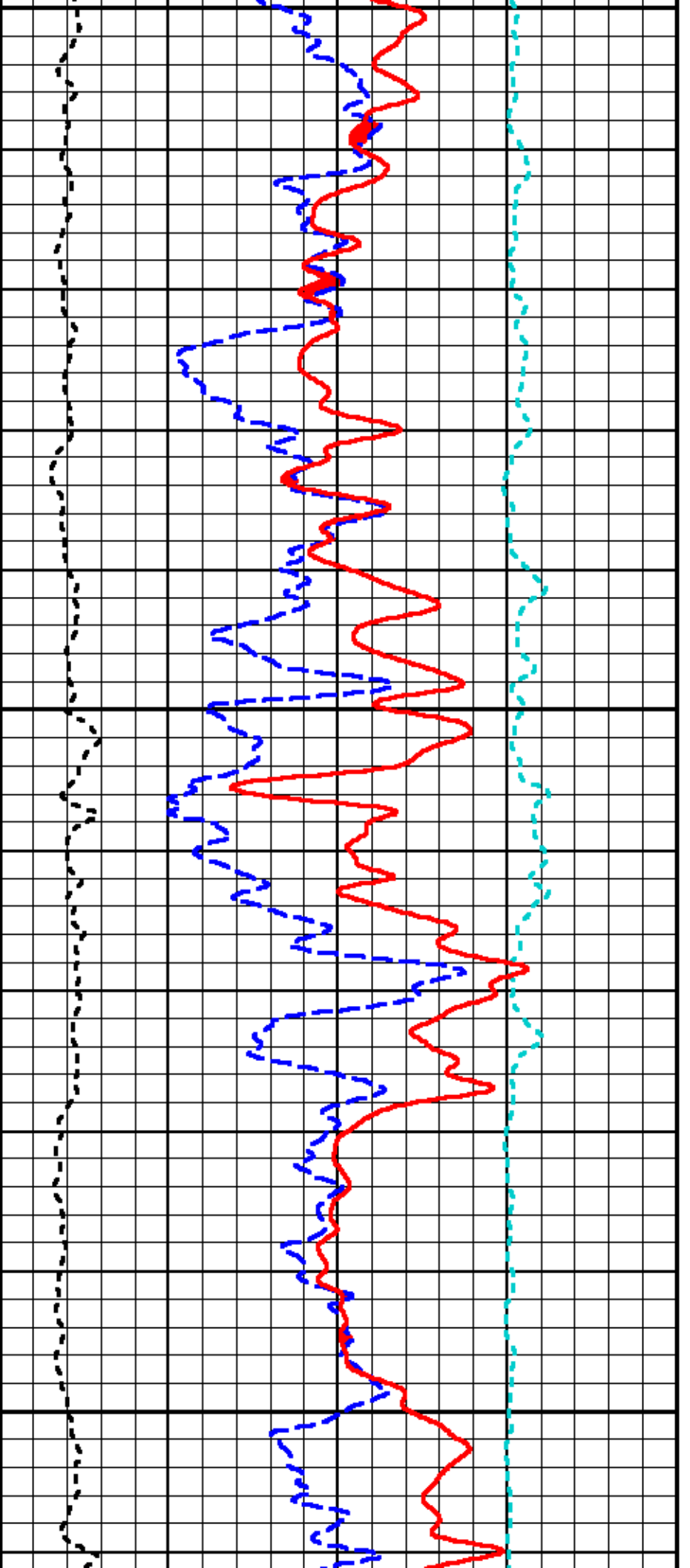


1175

1200

13





1225

1250

1275

