



SECTOR BOND
GAMMA RAY / CCL LOG

COMPANY URSA OPERATING
COMPANY
WELLBAT 34D-24-07-96

FIELD BATTLEMENT MESA
CNTY GARFIELD STATE CO

COMPANY	URSA OPERATING COMPANY
WELL	BAT 34D-24-07-96
FIELD	BATTLEMENT MESA
COUNTY	GARFIELD

STATE COLORADO

LOCATION:

SEC.24	TWP.7S	RGE.
SHL: 1830'	FSL & 2031'	FWL
BHL: 0428'	FSL & 1943'	FEL

OTHER SERVICES:

PERM. DATUM GROUND LEVEL	ELEV. 5182.5'
LOG MEASURED FROM K.B. 17 FT. ABOVE PERMANENT DATUM	
DRILLING MEASURED FROM K.B.	

ELEV.:K.B.	5199.5
D.F.	5199.5
G.L.	5182.5

DATE	08-MAR-2015
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RUN NO.	CON
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DEPTH DRILLER

DEPTH LOGGER

BTM. LOG INTERVAL	61.92'
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10P LOG INTERVAL	SURFAC
ADDFN WOLF CTZF	7 07EIII

TYPE	FLUID	OPEN HOLE SIZE
1	Water	10 1/2"
2	Oil	10 1/2"
3	Gas	10 1/2"
4	Water	10 1/2"
5	Oil	10 1/2"
6	Gas	10 1/2"
7	Water	10 1/2"
8	Oil	10 1/2"
9	Gas	10 1/2"
10	Water	10 1/2"
11	Oil	10 1/2"
12	Gas	10 1/2"
13	Water	10 1/2"
14	Oil	10 1/2"
15	Gas	10 1/2"
16	Water	10 1/2"
17	Oil	10 1/2"
18	Gas	10 1/2"
19	Water	10 1/2"
20	Oil	10 1/2"
21	Gas	10 1/2"
22	Water	10 1/2"
23	Oil	10 1/2"
24	Gas	10 1/2"
25	Water	10 1/2"
26	Oil	10 1/2"
27	Gas	10 1/2"
28	Water	10 1/2"
29	Oil	10 1/2"
30	Gas	10 1/2"
31	Water	10 1/2"
32	Oil	10 1/2"
33	Gas	10 1/2"
34	Water	10 1/2"
35	Oil	10 1/2"
36	Gas	10 1/2"
37	Water	10 1/2"
38	Oil	10 1/2"
39	Gas	10 1/2"
40	Water	10 1/2"
41	Oil	10 1/2"
42	Gas	10 1/2"
43	Water	10 1/2"
44	Oil	10 1/2"
45	Gas	10 1/2"
46	Water	10 1/2"
47	Oil	10 1/2"
48	Gas	10 1/2"
49	Water	10 1/2"
50	Oil	10 1/2"
51	Gas	10 1/2"
52	Water	10 1/2"
53	Oil	10 1/2"
54	Gas	10 1/2"
55	Water	10 1/2"
56	Oil	10 1/2"
57	Gas	10 1/2"
58	Water	10 1/2"
59	Oil	10 1/2"
60	Gas	10 1/2"
61	Water	10 1/2"
62	Oil	10 1/2"
63	Gas	10 1/2"
64	Water	10 1/2"
65	Oil	10 1/2"
66	Gas	10 1/2"
67	Water	10 1/2"
68	Oil	10 1/2"
69	Gas	10 1/2"
70	Water	10 1/2"
71	Oil	10 1/2"
72	Gas	10 1/2"
73	Water	10 1/2"
74	Oil	10 1/2"
75	Gas	10 1/2"
76	Water	10 1/2"
77	Oil	10 1/2"
78	Gas	10 1/2"
79	Water	10 1/2"
80	Oil	10 1/2"
81	Gas	10 1/2"
82	Water	10 1/2"
83	Oil	10 1/2"
84	Gas	10 1/2"
85	Water	10 1/2"
86	Oil	10 1/2"
87	Gas	10 1/2"
88	Water	10 1/2"
89	Oil	10 1/2"
90	Gas	10 1/2"
91	Water	10 1/2"
92	Oil	10 1/2"
93	Gas	10 1/2"
94	Water	10 1/2"
95	Oil	10 1/2"
96	Gas	10 1/2"
97	Water	10 1/2"
98	Oil	10 1/2"
99	Gas	10 1/2"
100	Water	10 1/2"

WATER	3	8	N/A
WASTE FLUID	VTSC	8	N/A
DENS			

DENS:	WACC:	0.3
MAX REC	TEMP	1786 DEG

EST. CEMENT TOP	SEE LOG
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TIME WELL READY	R.O.A.
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TIME	LOGGER ON BTM.	SEE LOG
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EQUIP. NO.	14247
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LOCATION	CASPER
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RECORDED BY	P. MAZUR
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WITNESSED BY L. GREGGER
 POSITION: RECORDS

BOREHOLE RECORD	
BOH NO	FROM

BIT	FROM
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ST.	FROM
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To

[illegible][illegible]

CASING RECORD	SIZE	W
CIPFACE STDINC	9 G3E"	

SURFACE SIKING	8.023	
DPOT STPTNG		

PRD	STBNG	4.5"	1
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MOD. CIVILINO	F.C.C	...
INTER		

1100

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	4
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AT

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

REMARKS	Rig: WFT CRANE #15045	Service Order # 113056099
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LOG WAS CORRELATED TO WEATHERFORD PULSED NEUTRON DECAY LOG DATED BHT 186 °F

ALL LOGGED INTERVALS PER CUSTOMER REQUEST

Prints: 2

THANK YOU FOR CHOOSING WEATHERFORD WIRELINE SERVICES

EQUIPMENT DATA

[illegible]

DEPTH SCALE: 5":100'

PROCESSED VERSION: 2012.07.18.162"

MAIN PASS

113056099 SBTMAIN

FINISH DEPTH: 39.5 Feet DIRECTION: UP DATE: 03/08/2015 TIME: 22:32 MODE: ORIGINAL

CCL

-3600 Millivolts 400

GAMMA RAY

0 API 150

TRAVEL TIME 3FT

312 Microseconds 212

MAX ENERGY

0 mv 100

AVG ENERGY

0 mv 100

Tension

0 2000

3' AMP X 5

0 mv 20

AMPLITUDE 3FT

0 mv 100

MIN ENERGY

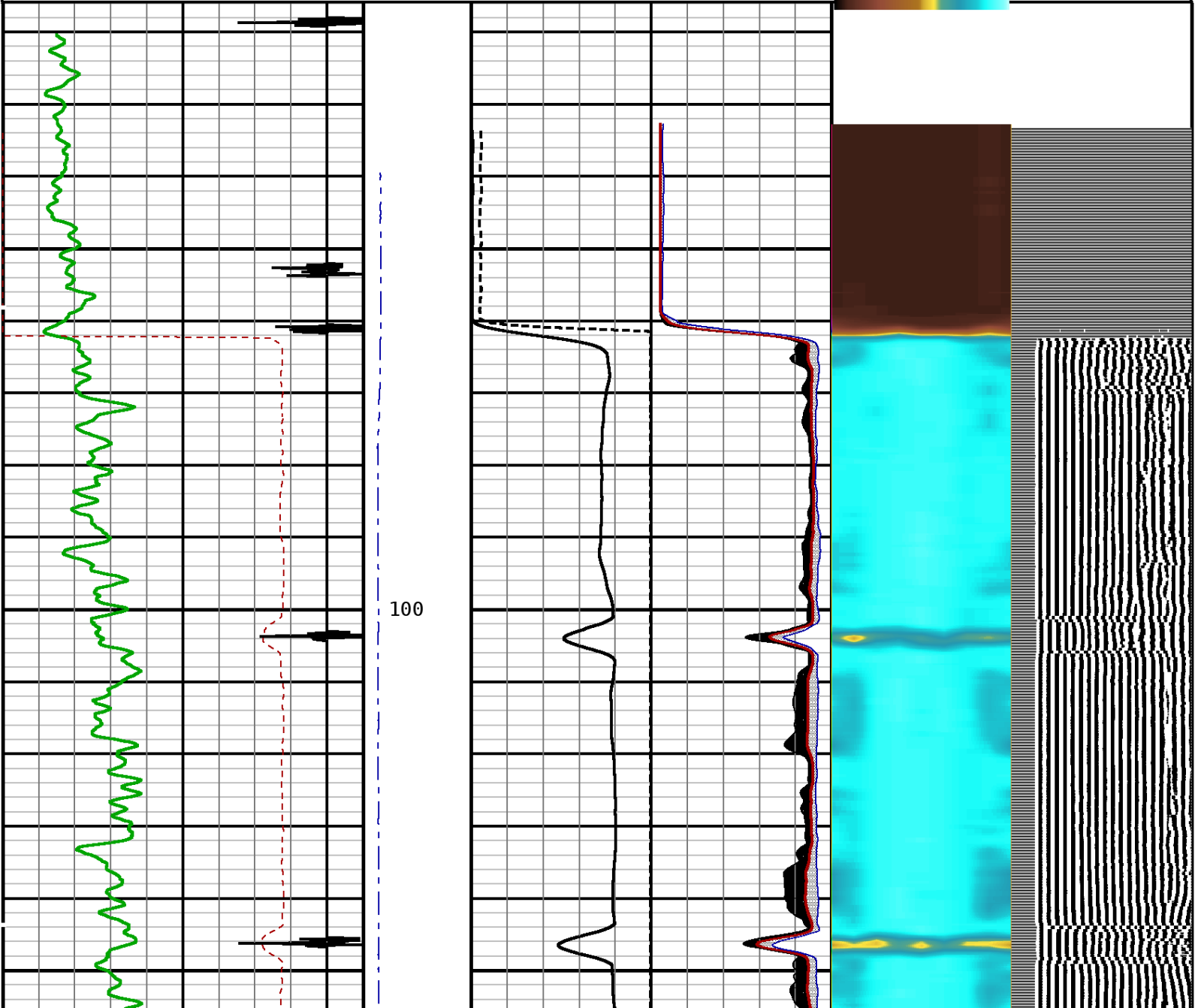
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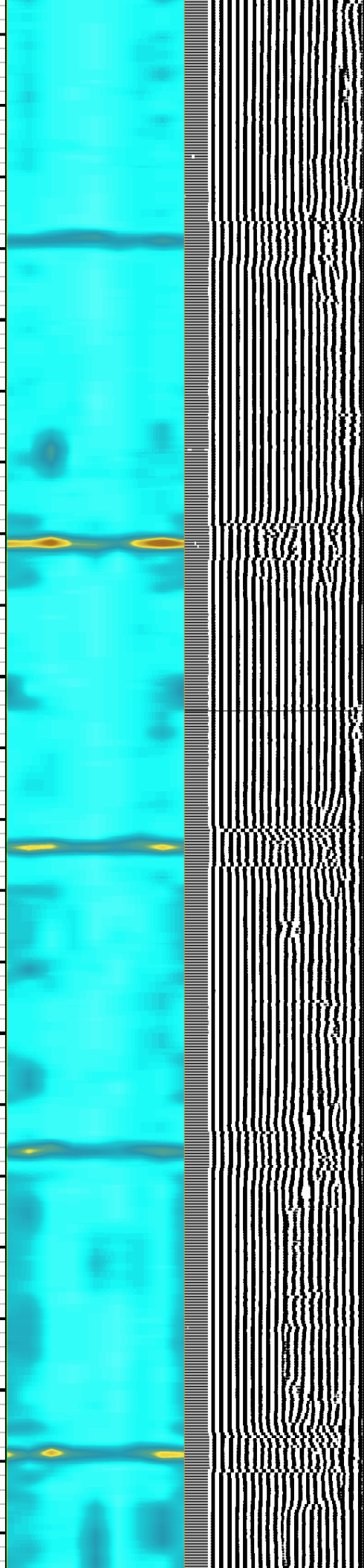
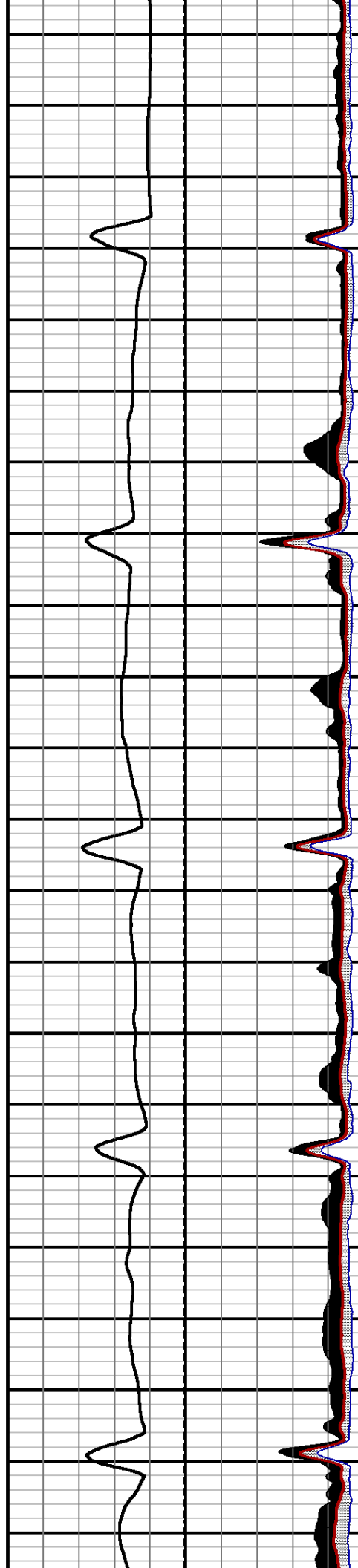
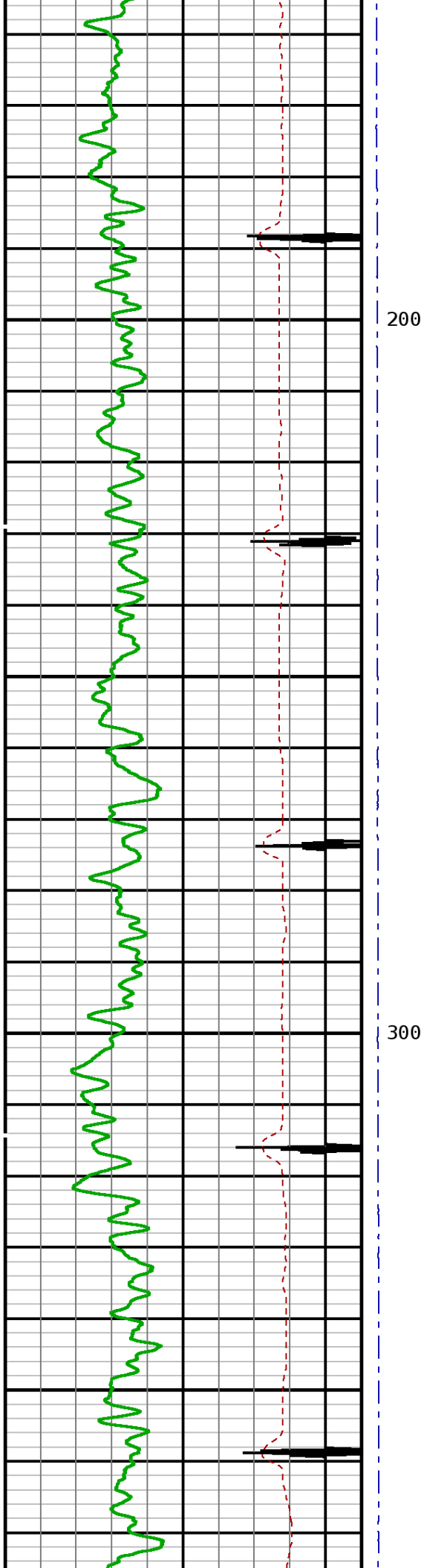
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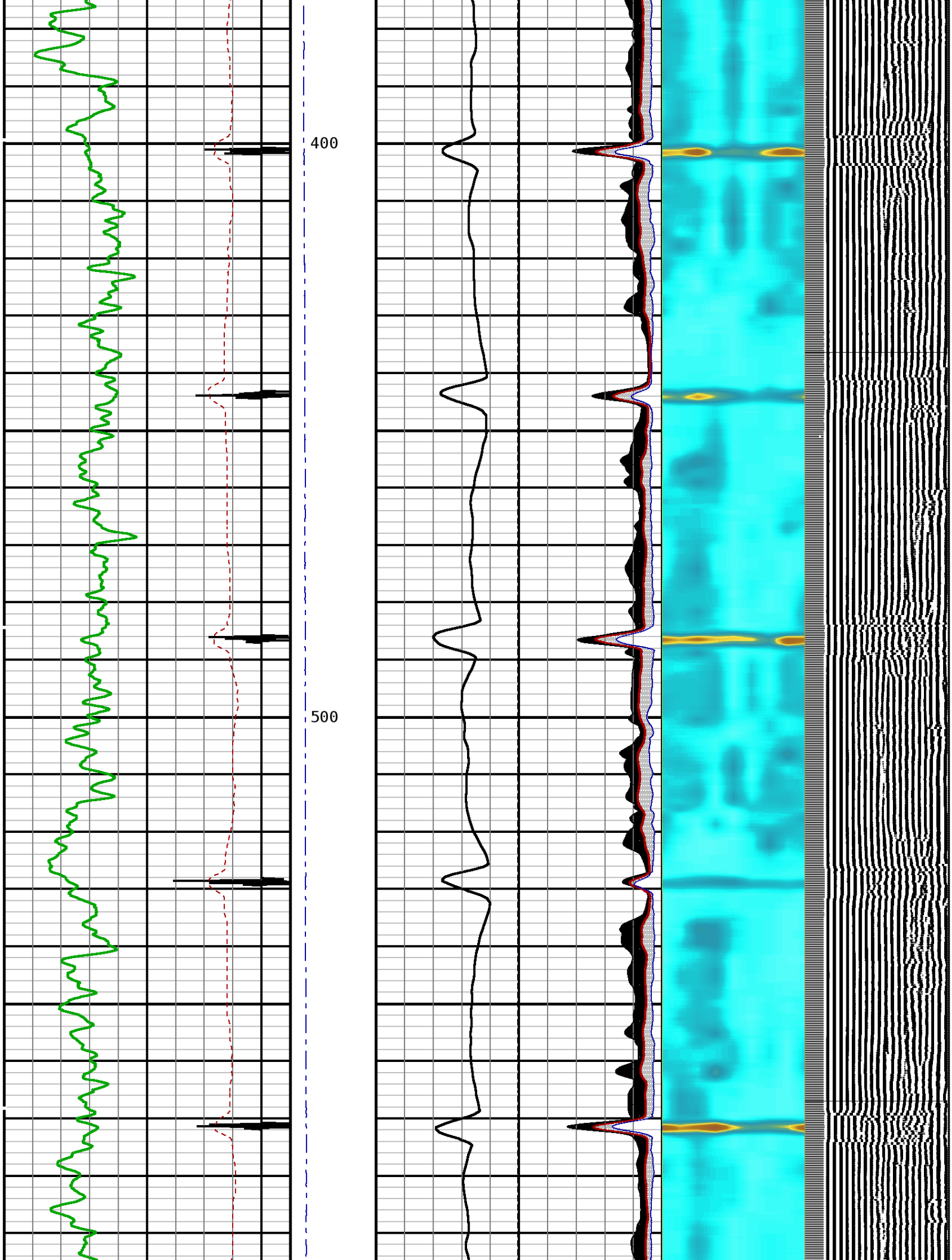
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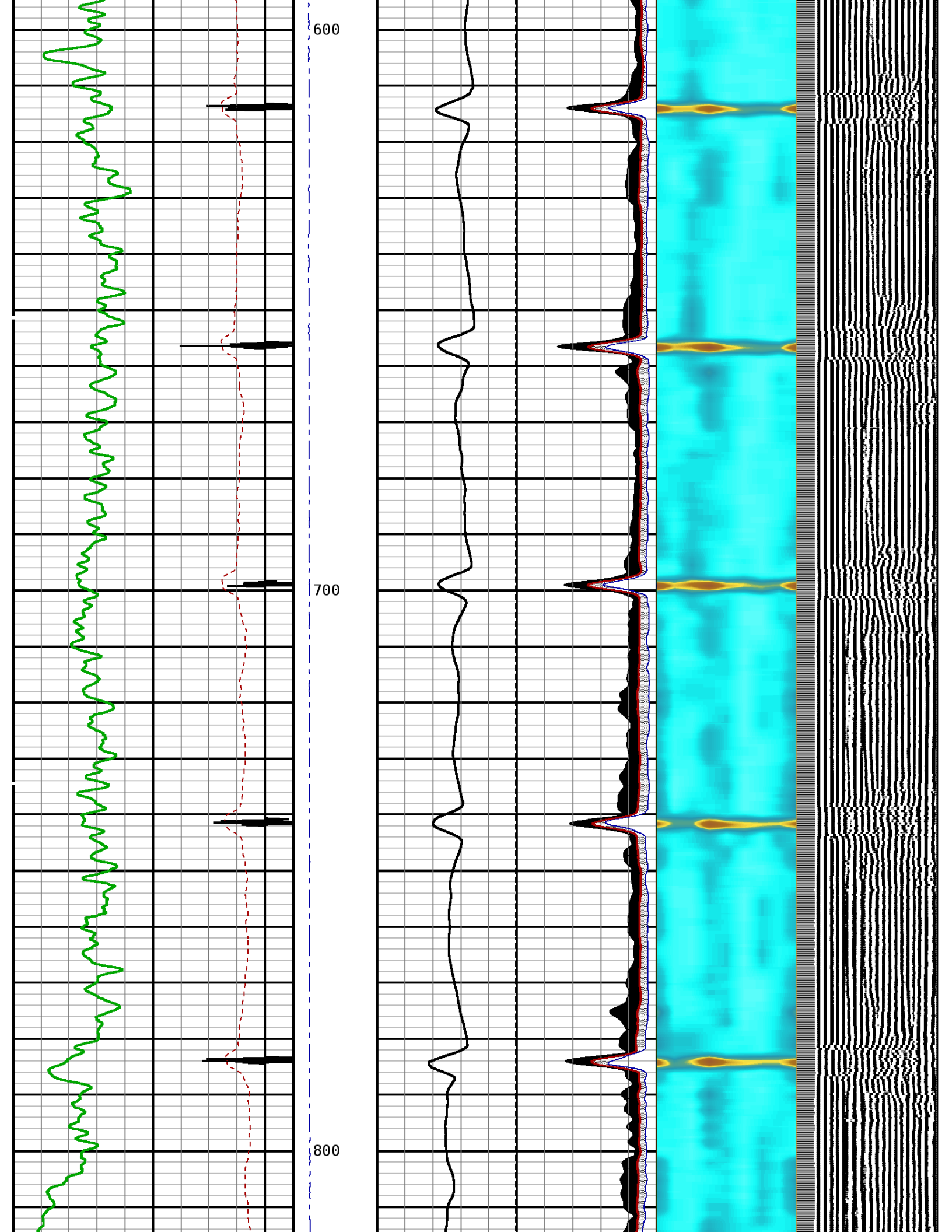
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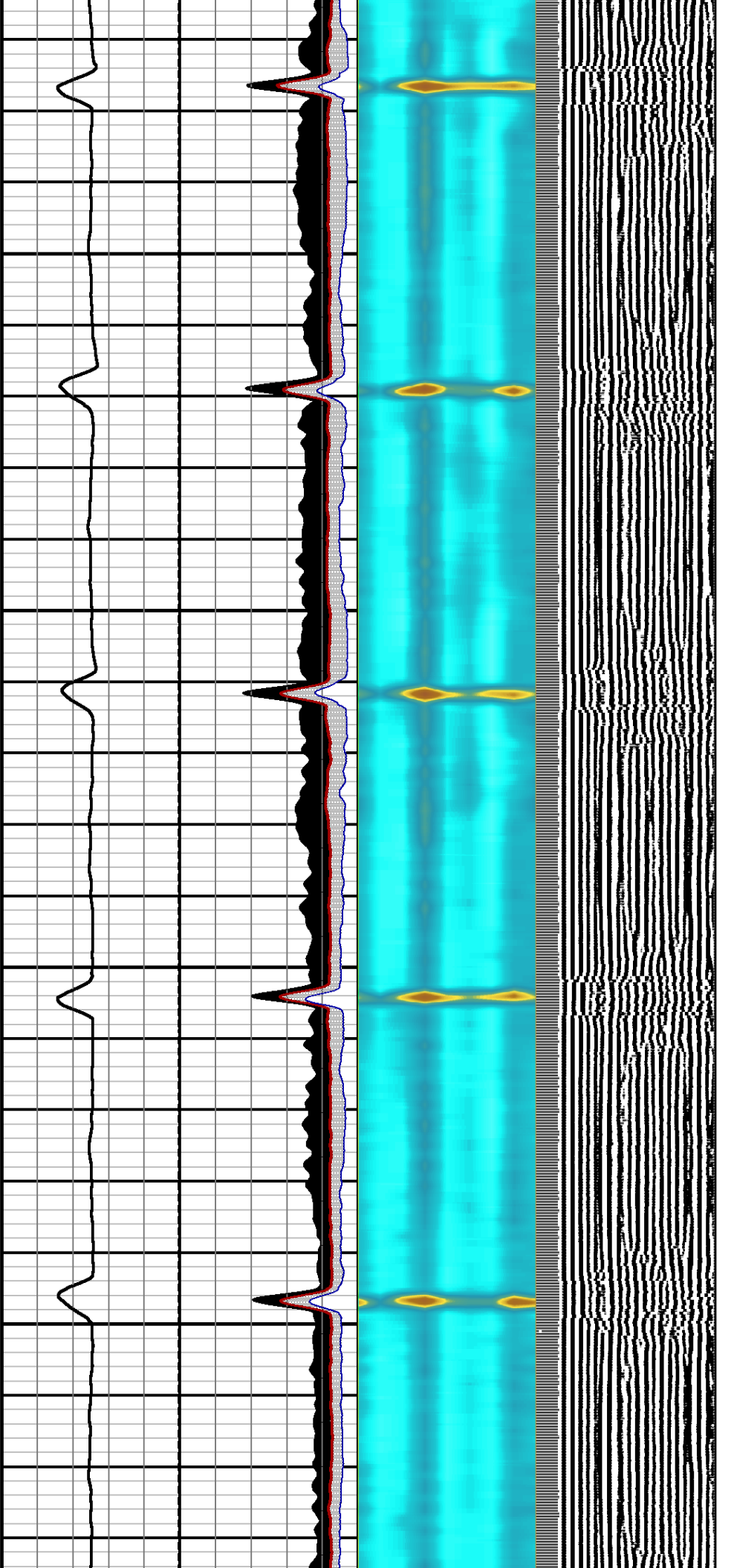
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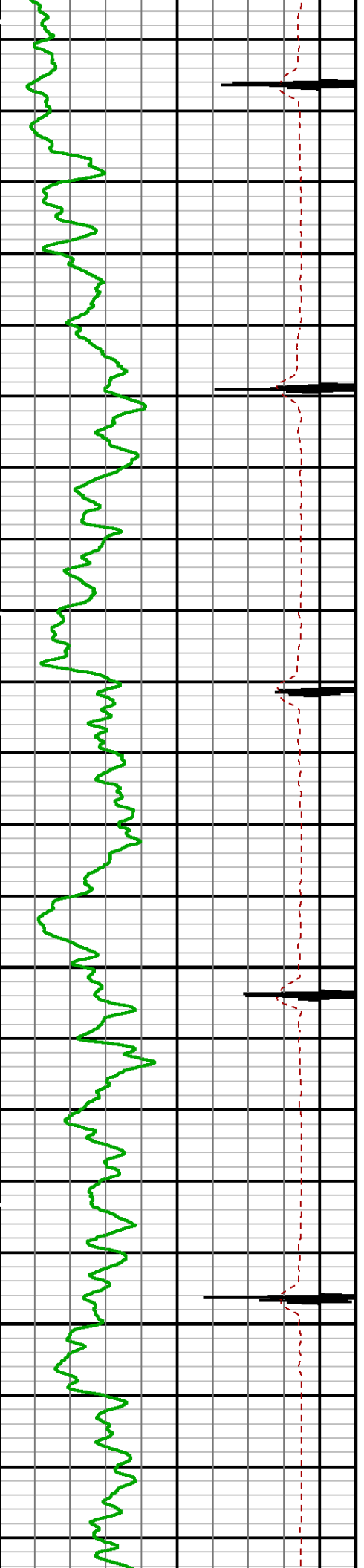


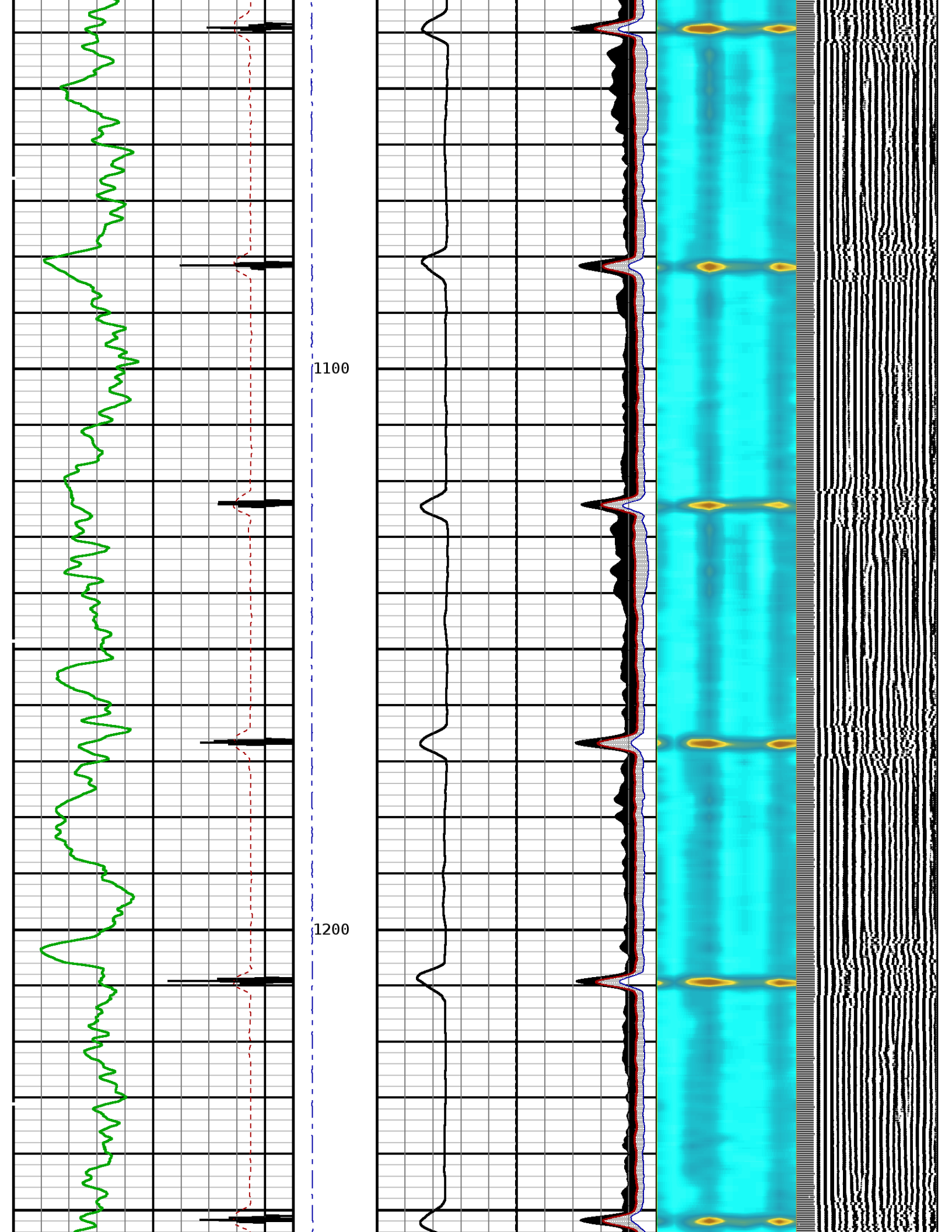


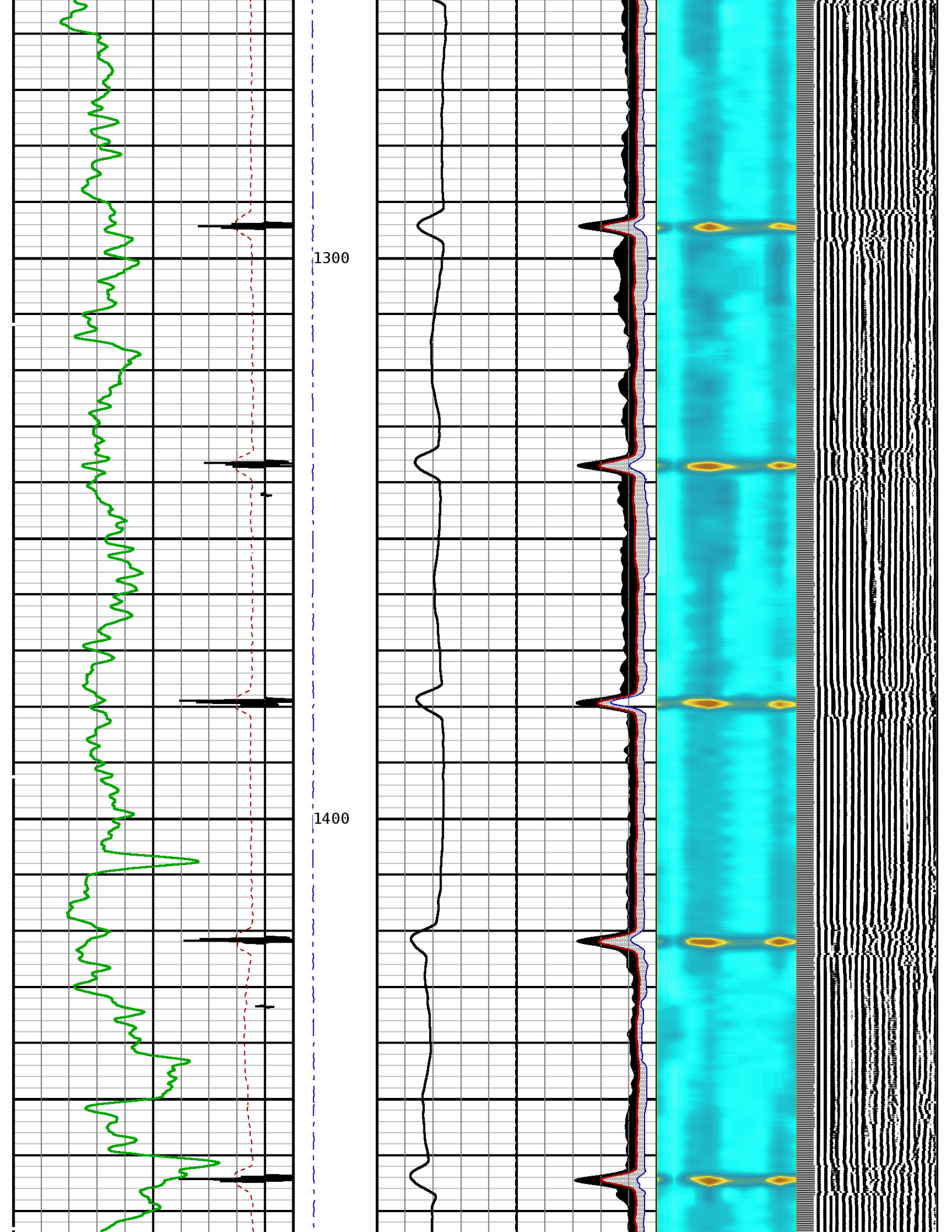


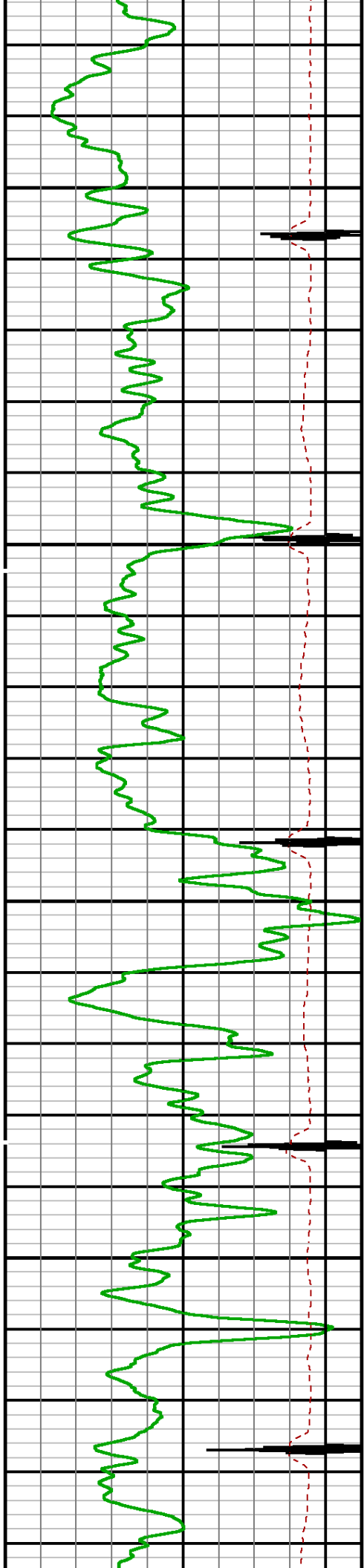
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1000



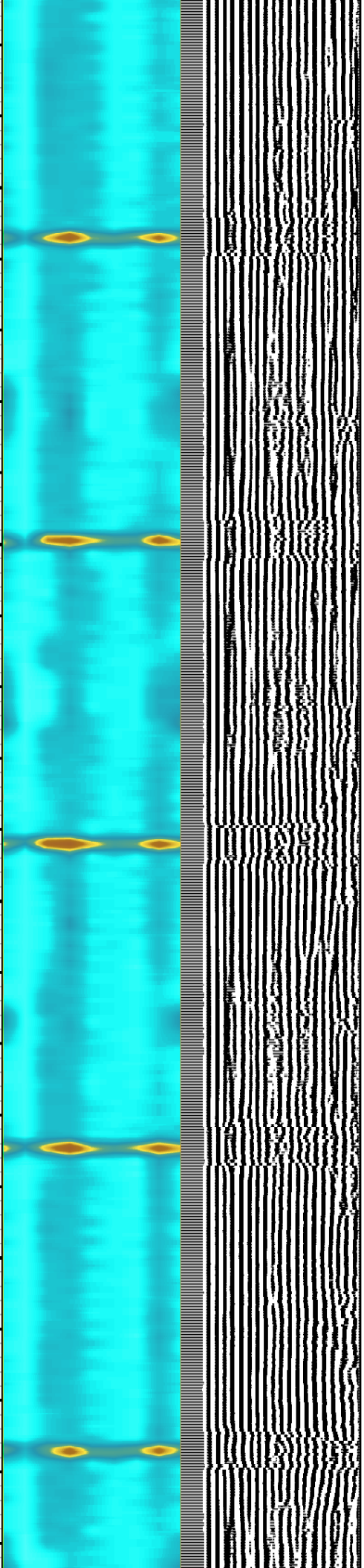
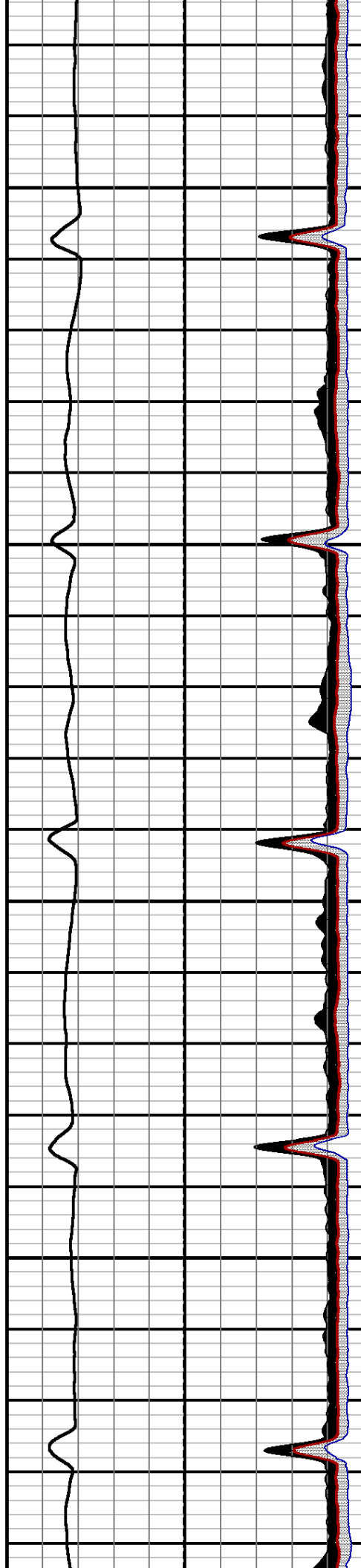


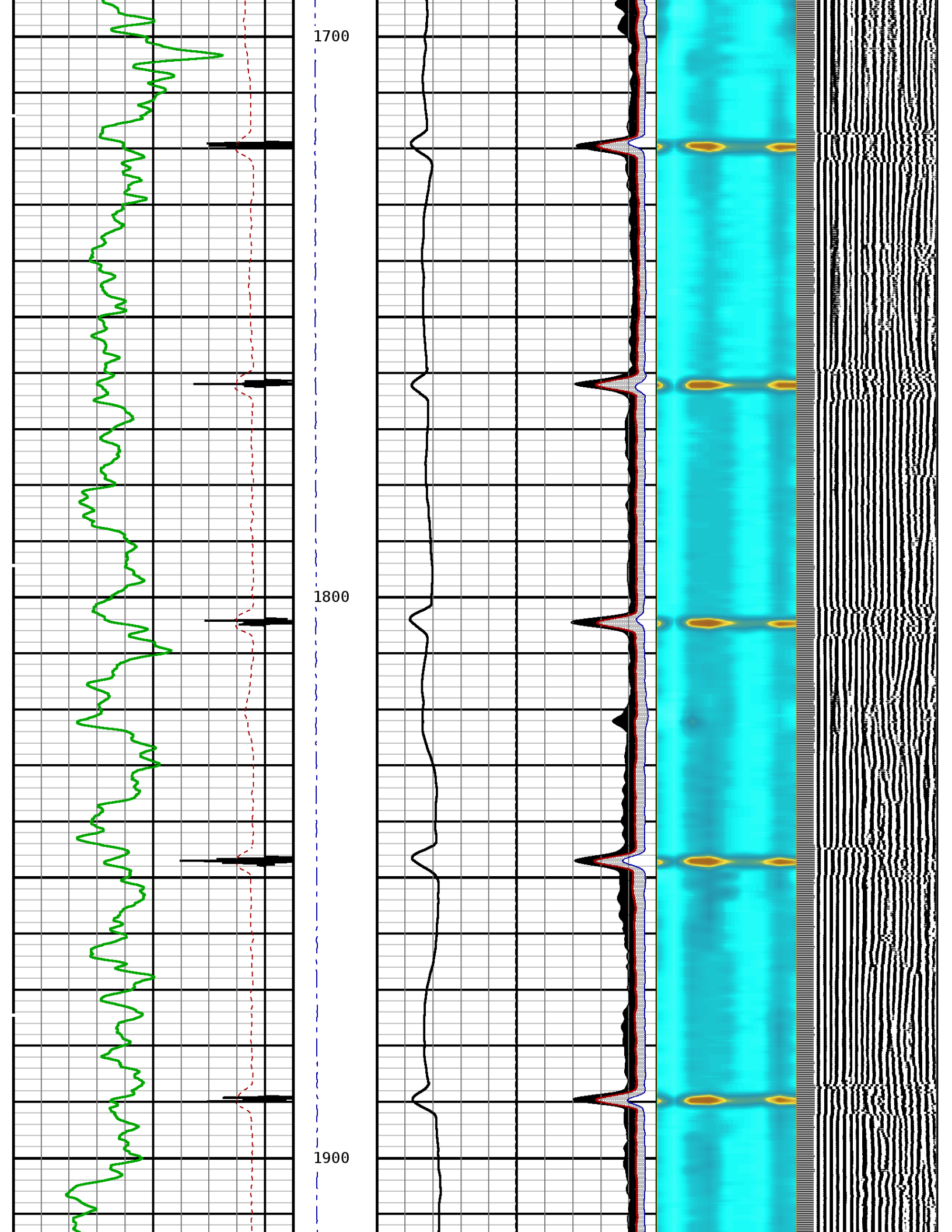


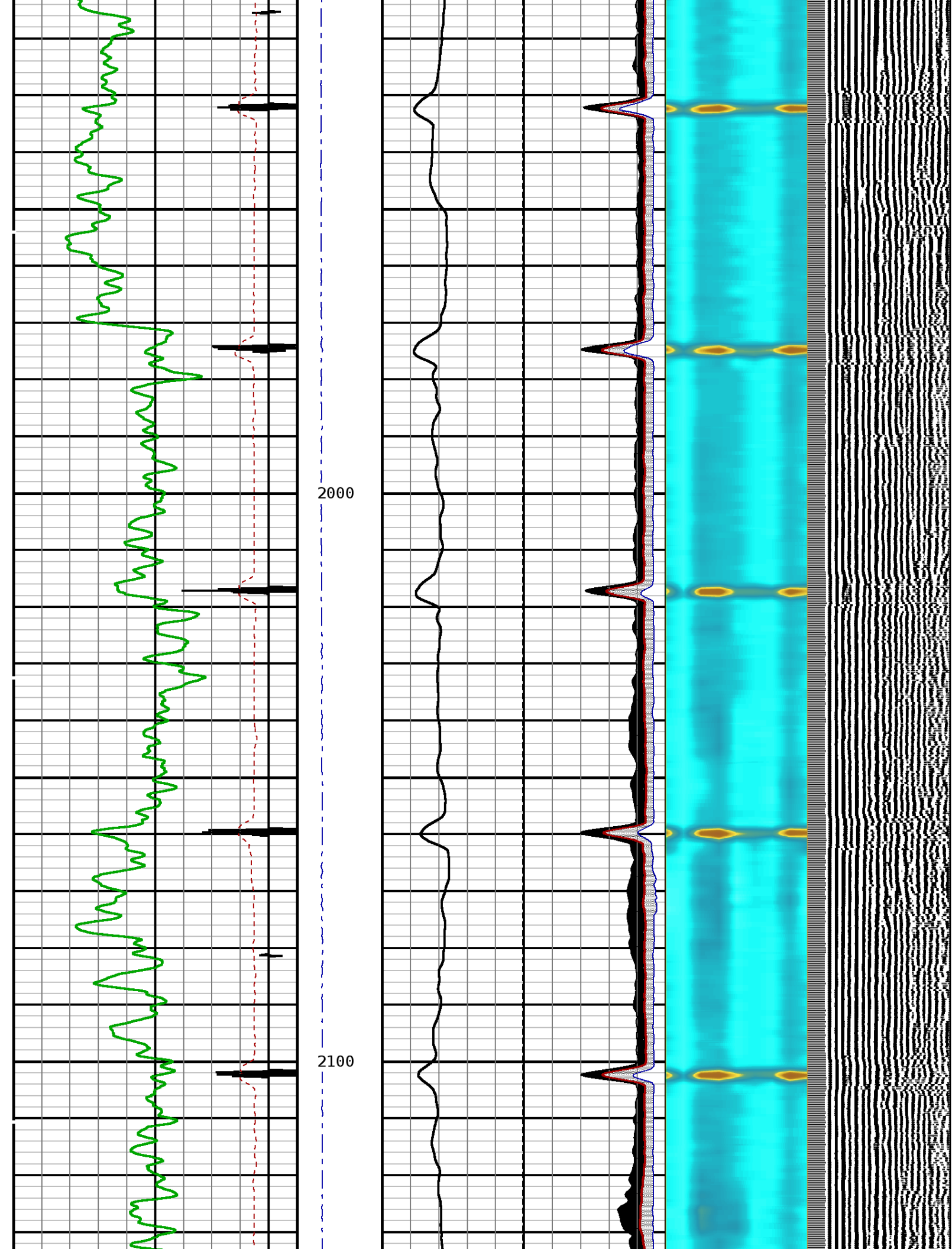


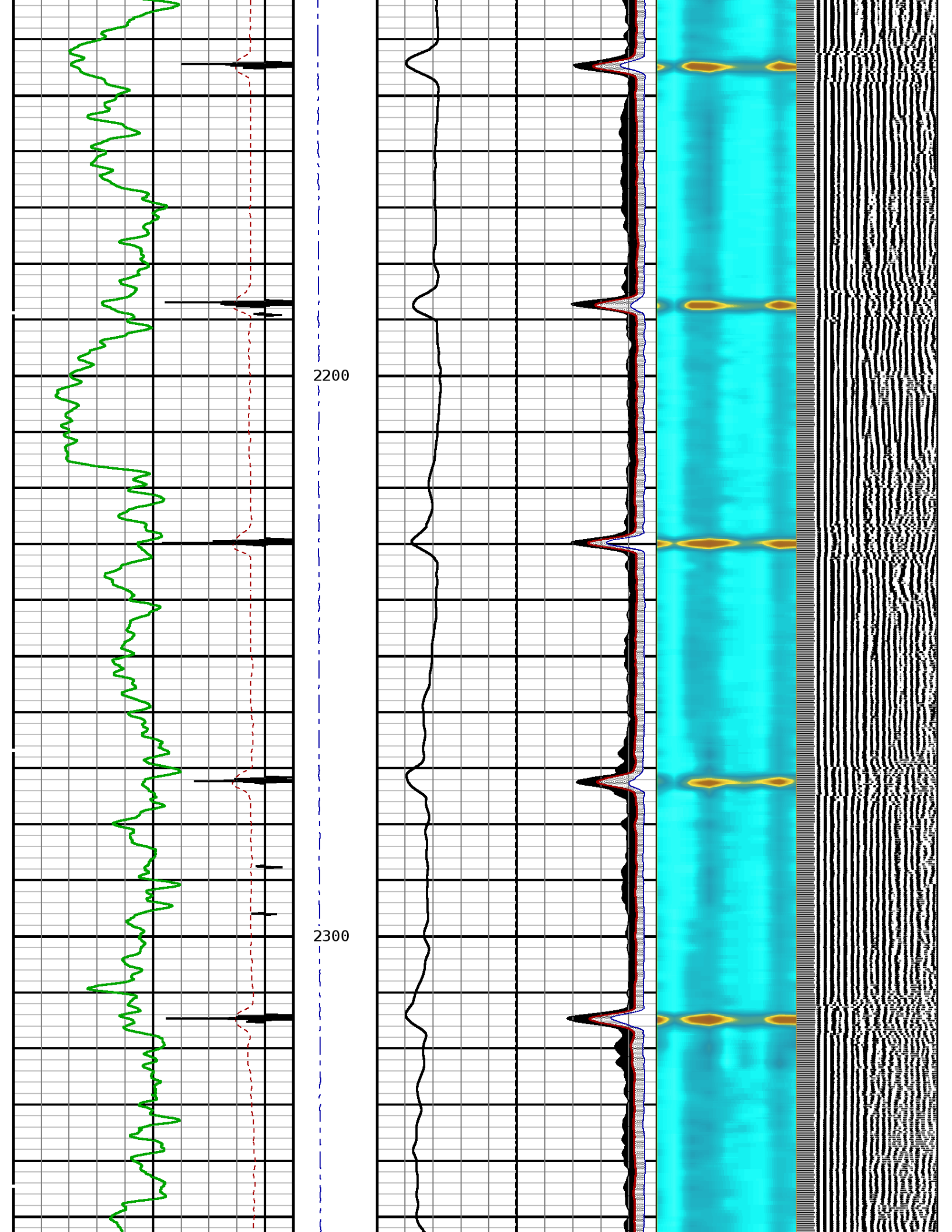
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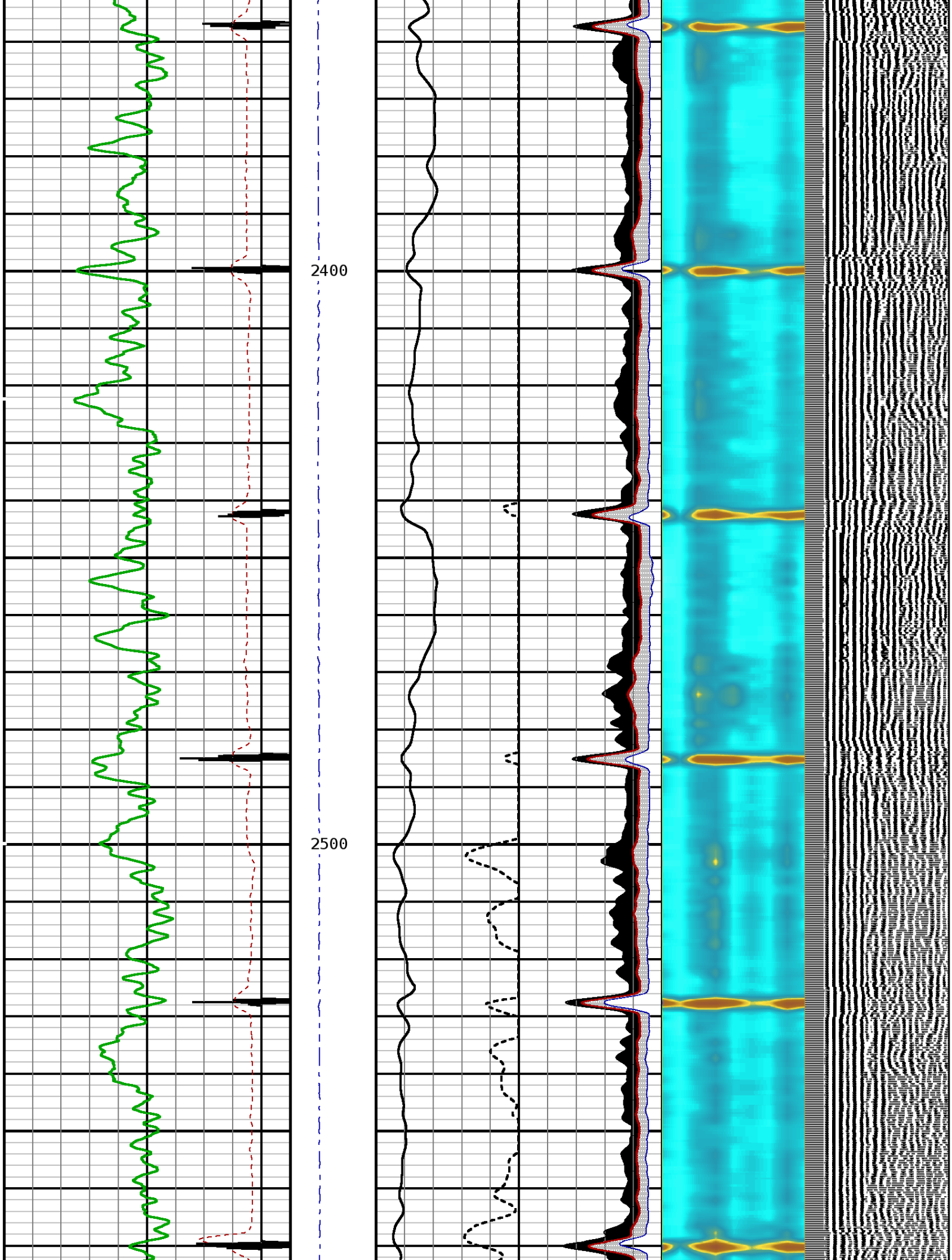
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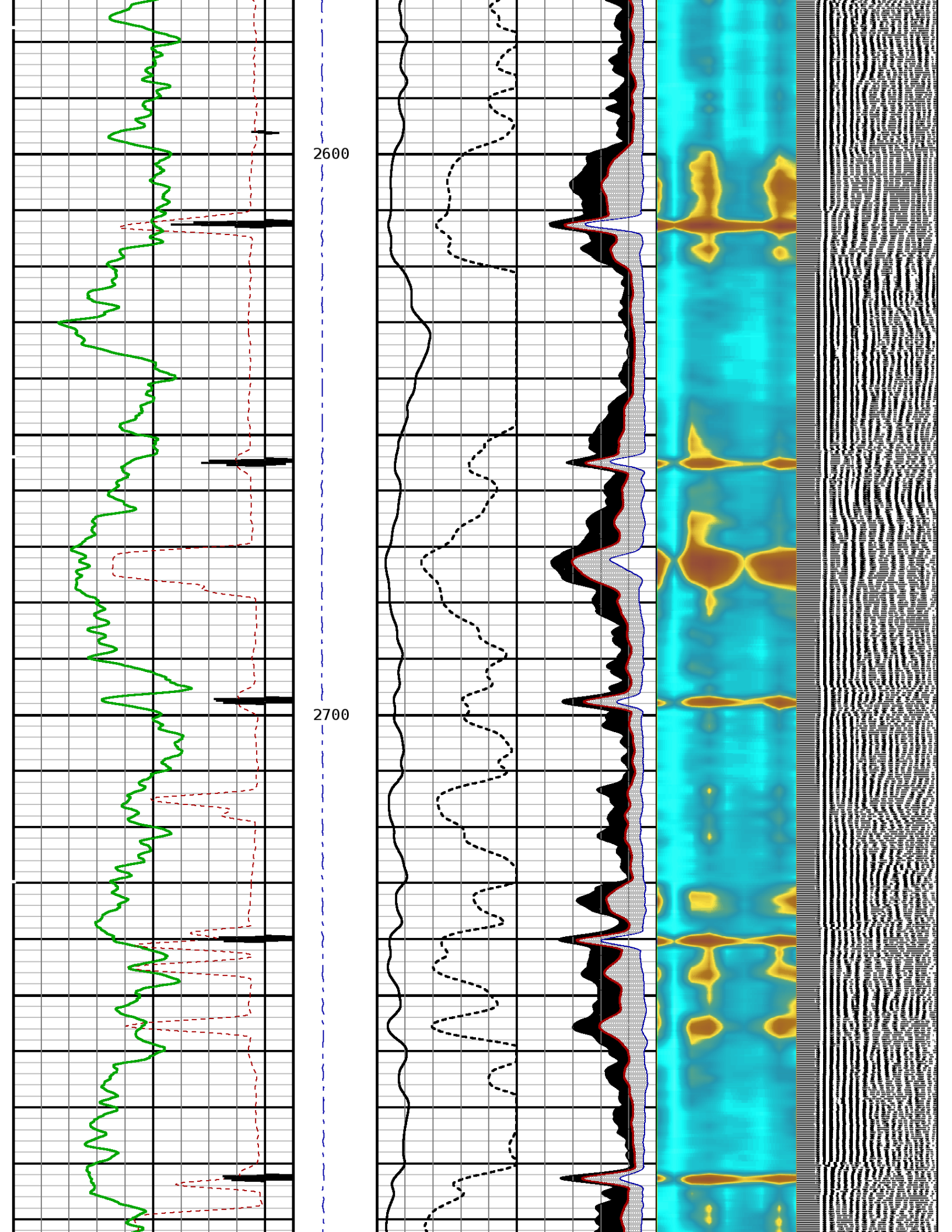


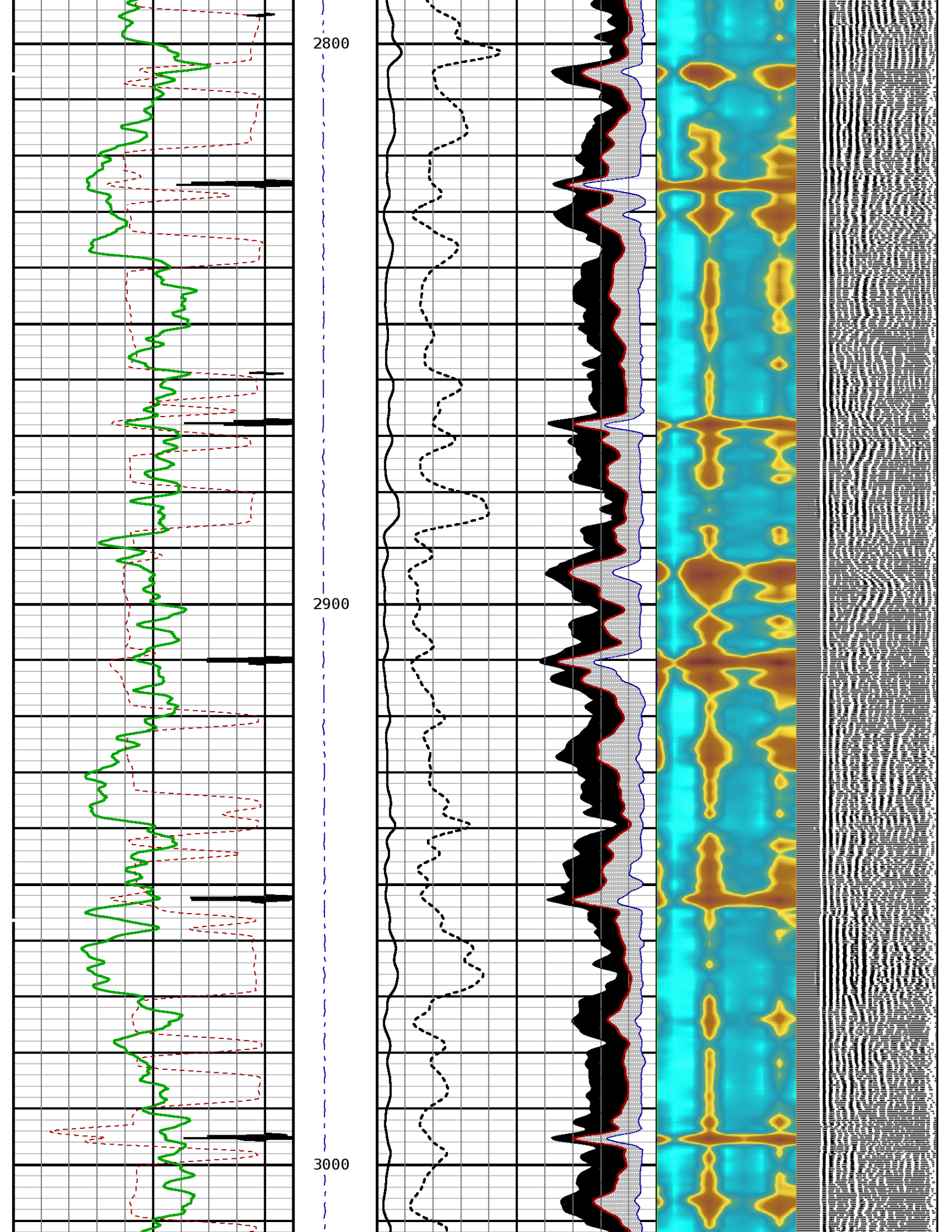


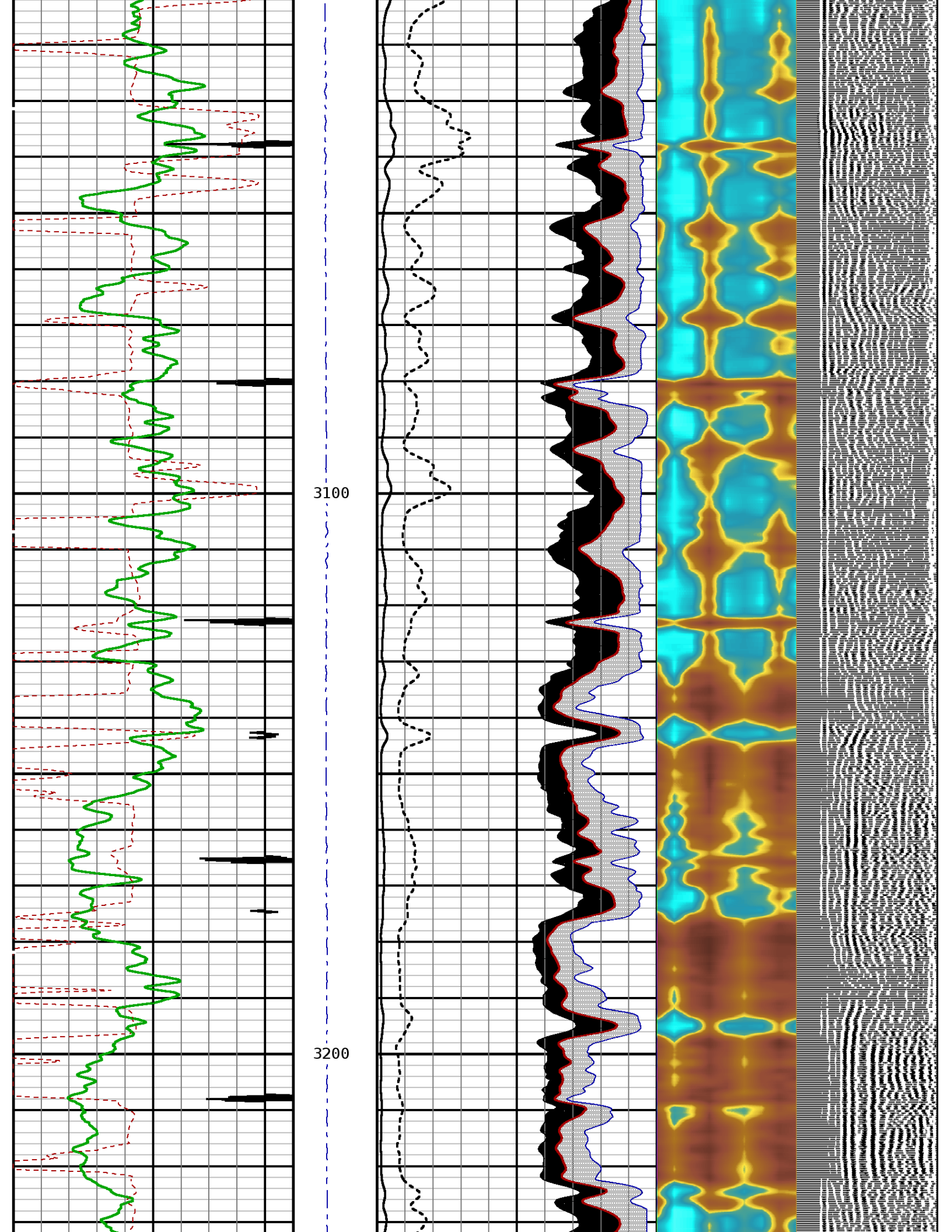


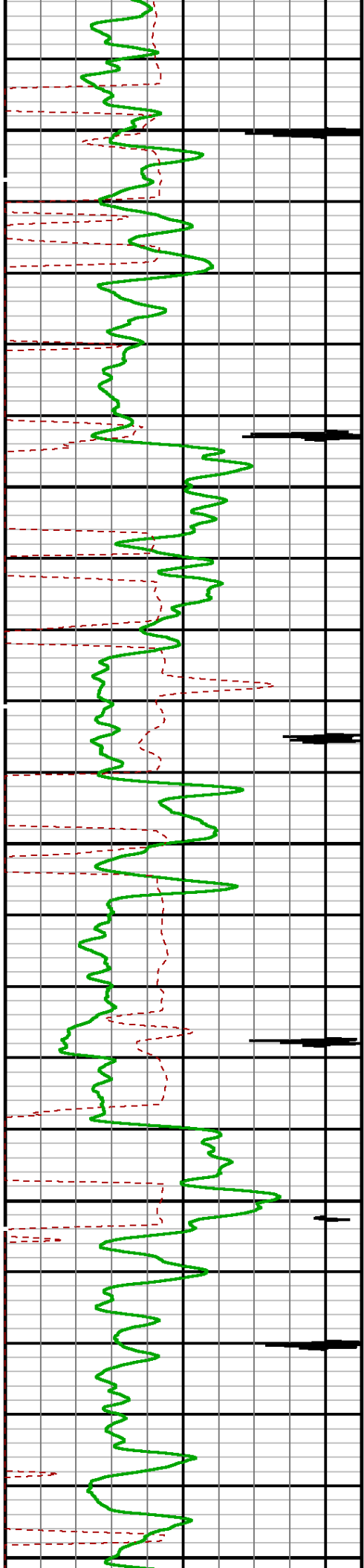






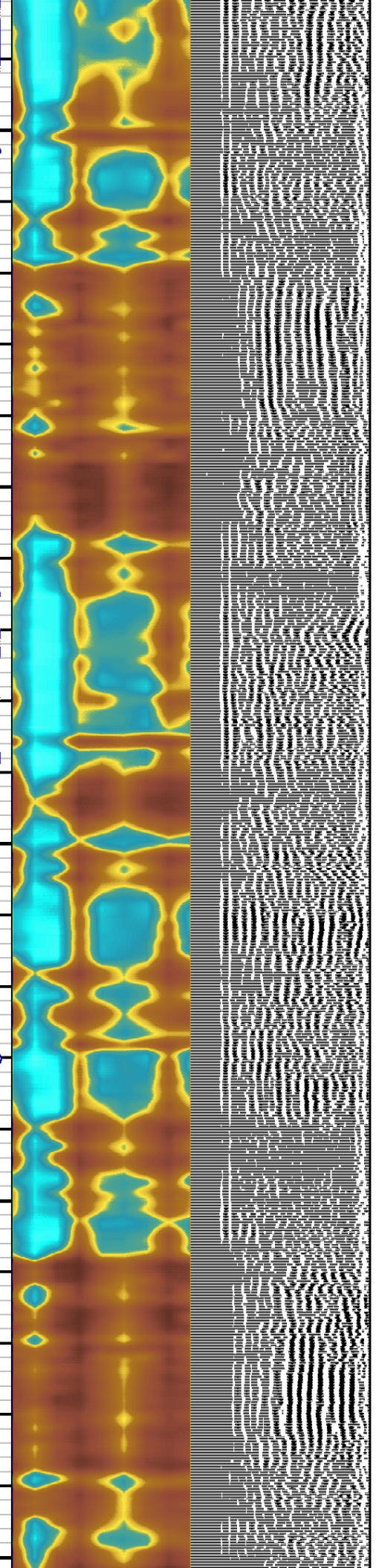
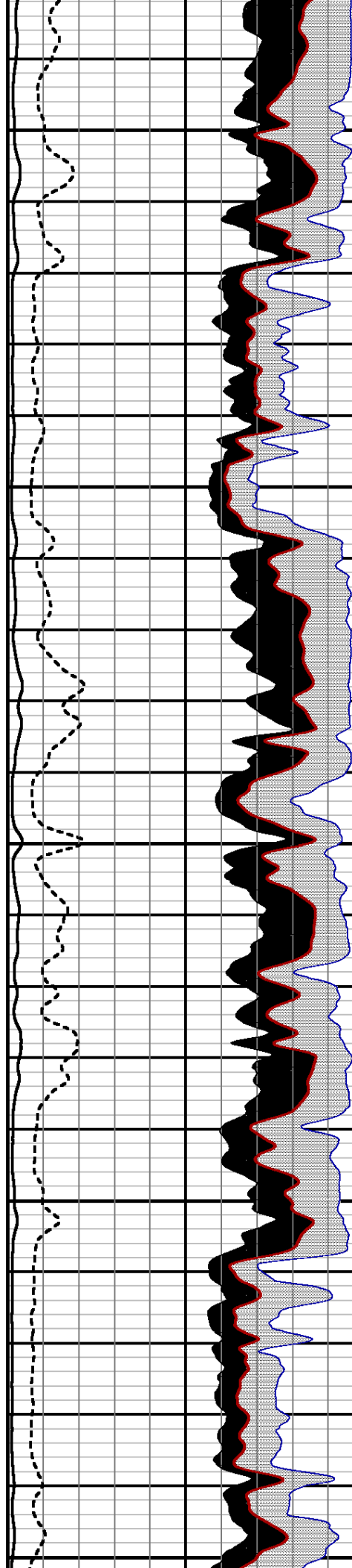


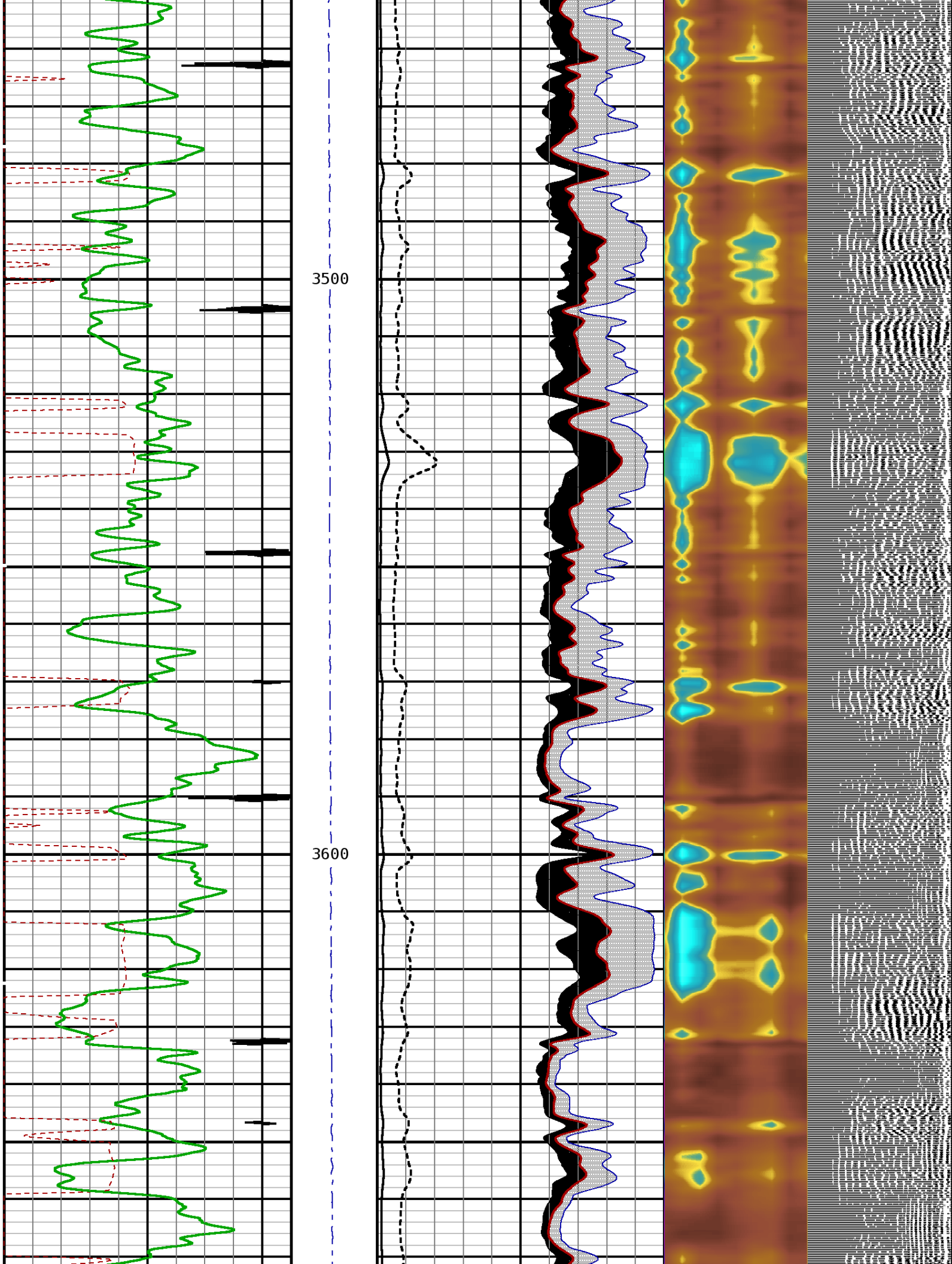


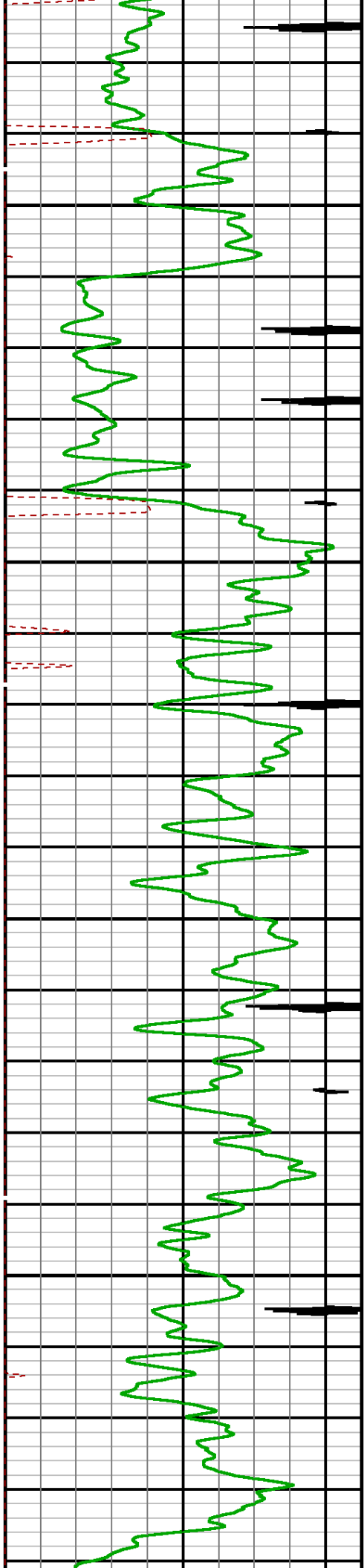


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3400

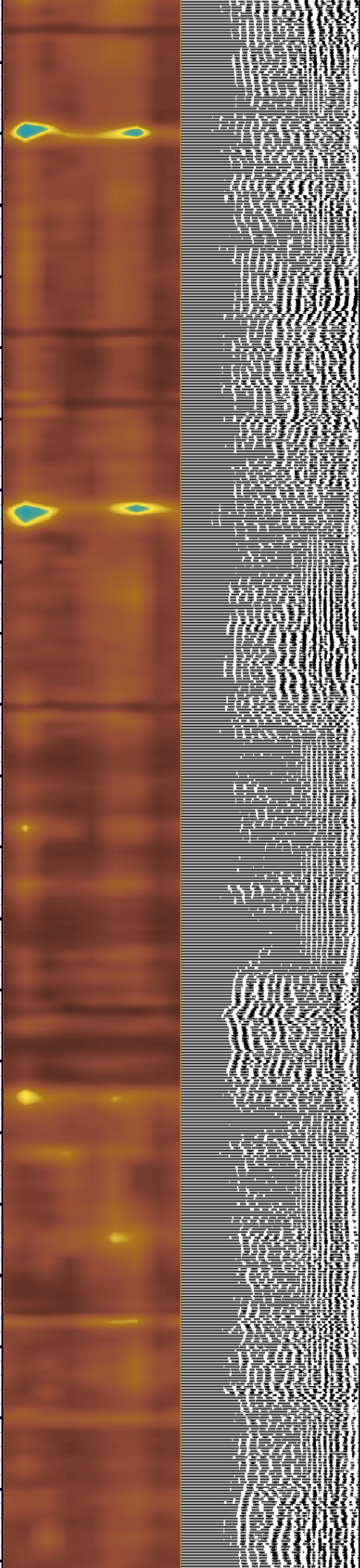
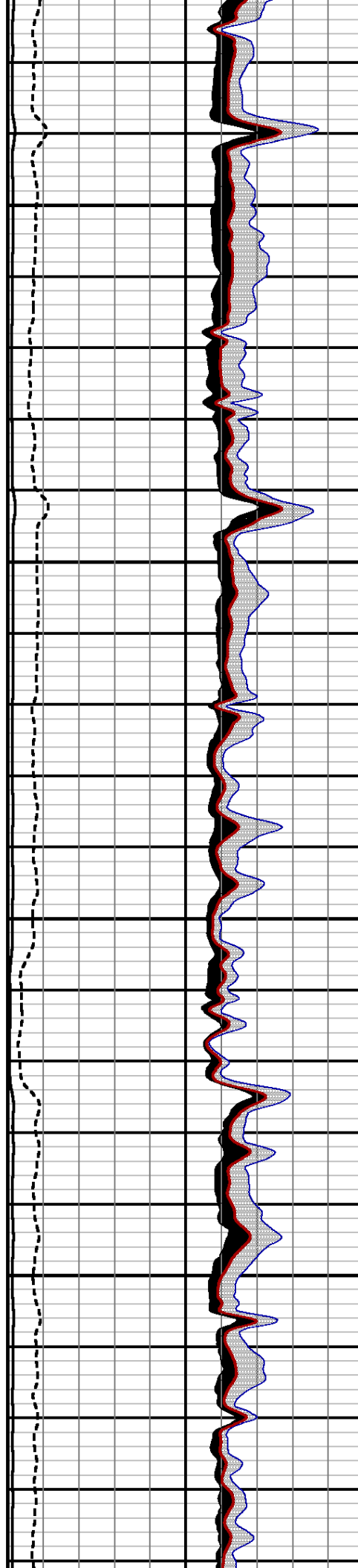


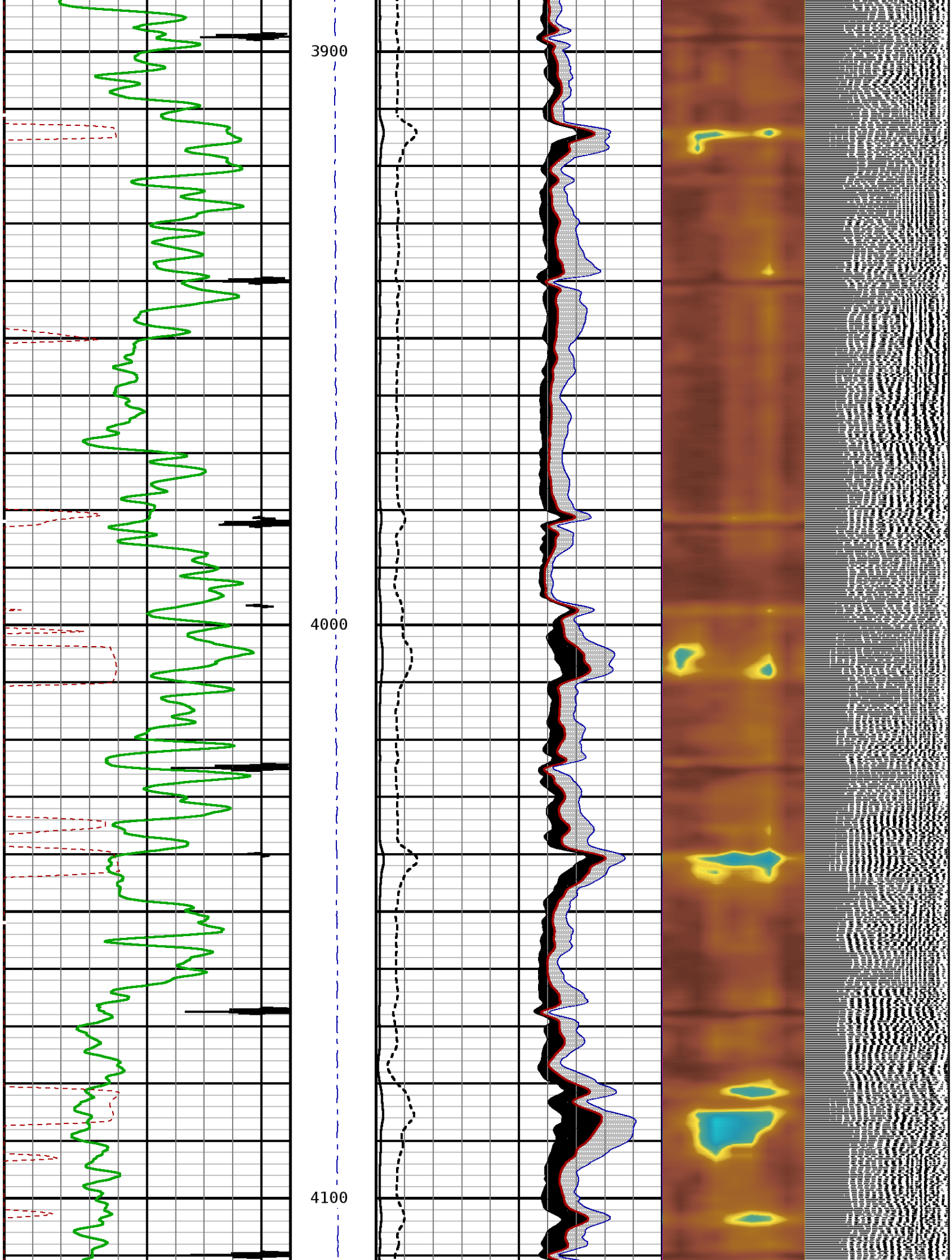


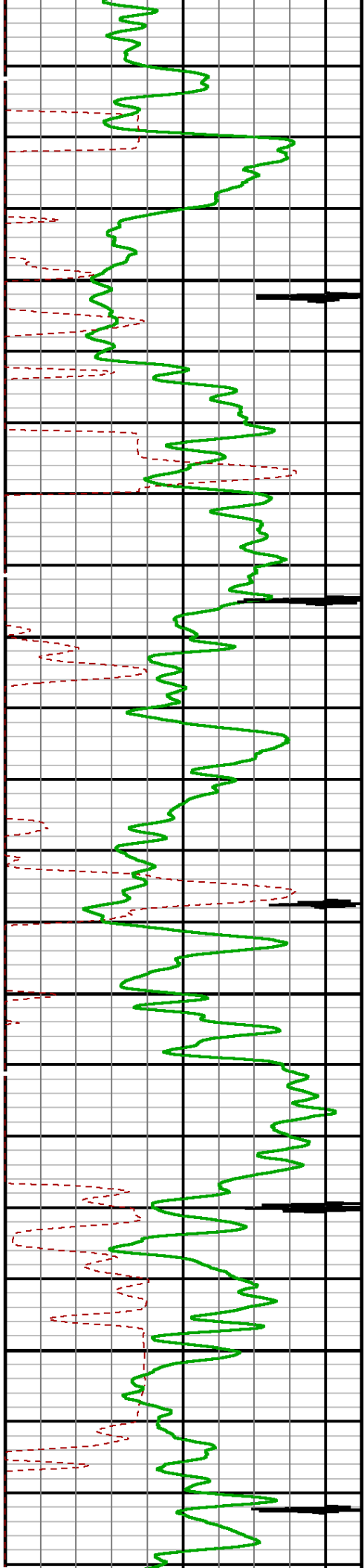


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3800

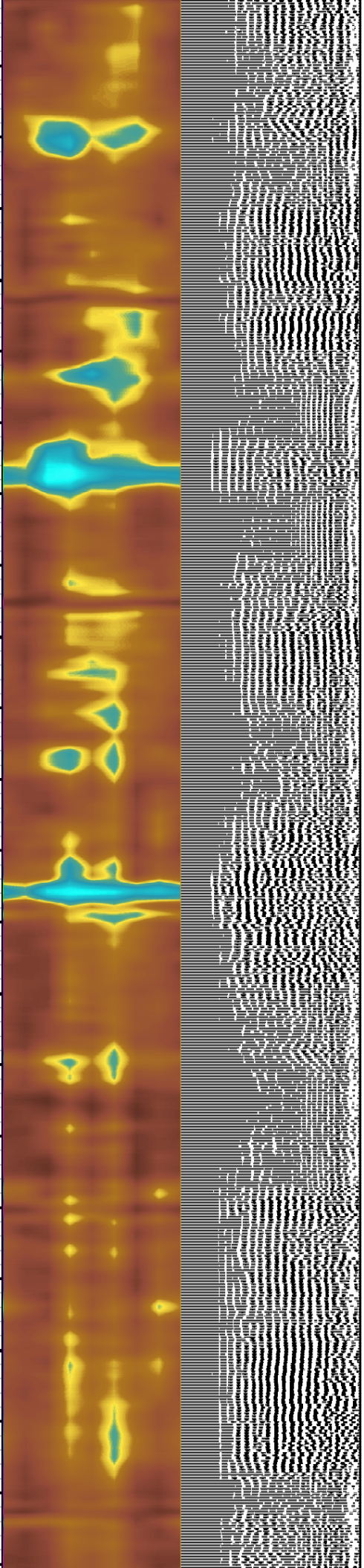
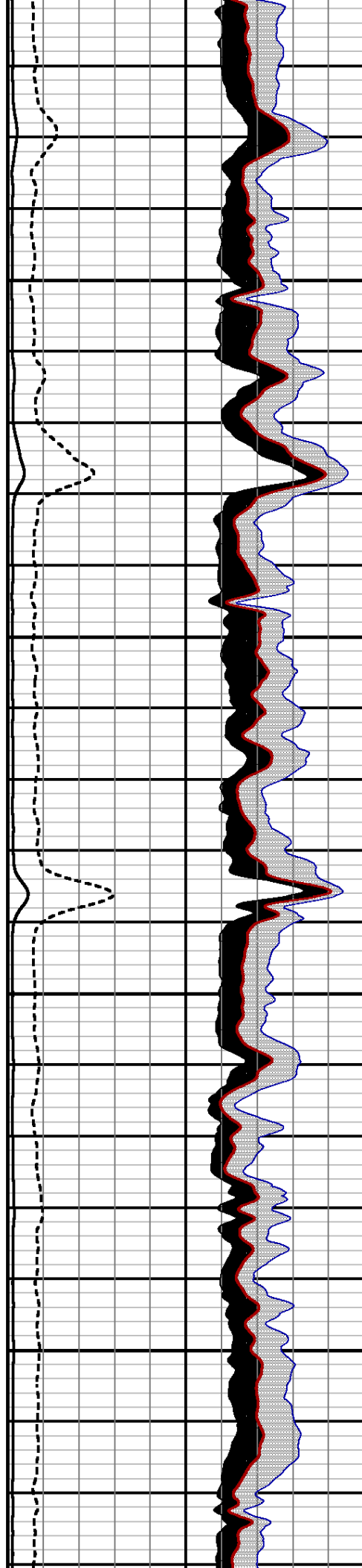


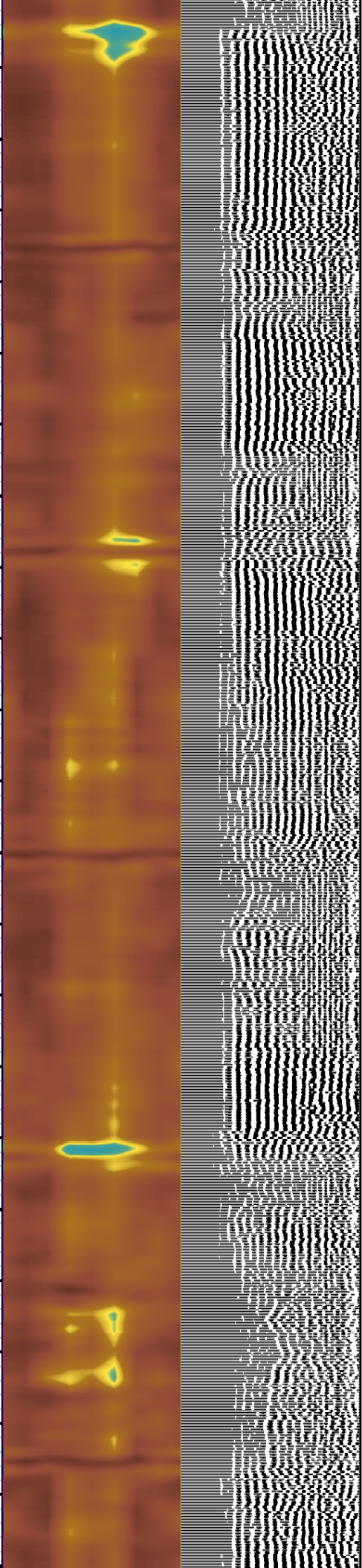
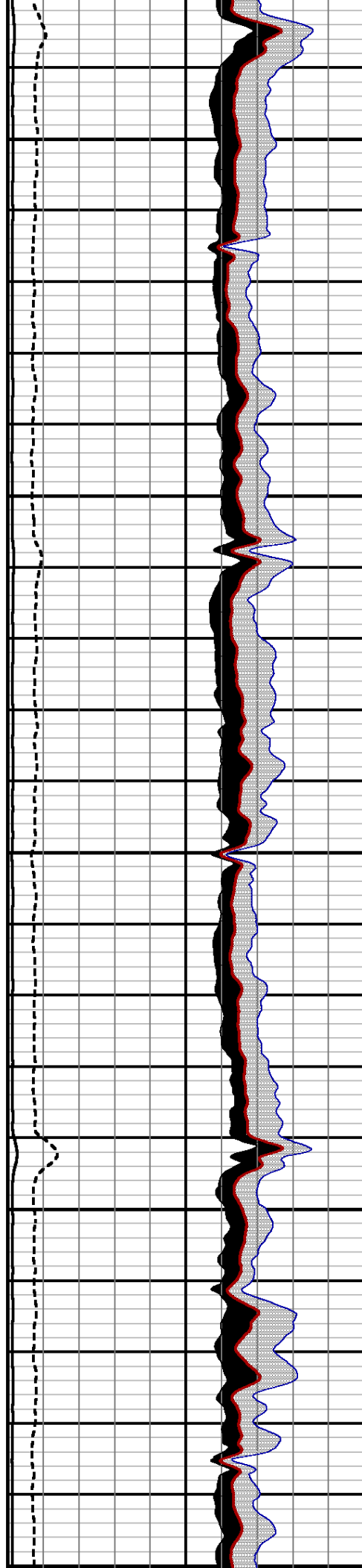
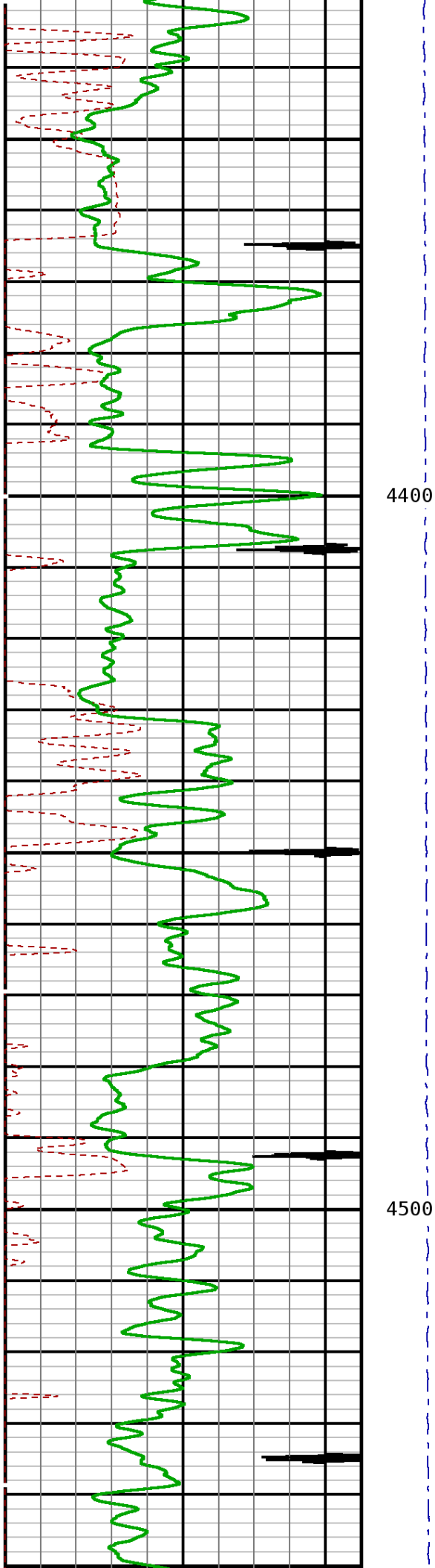


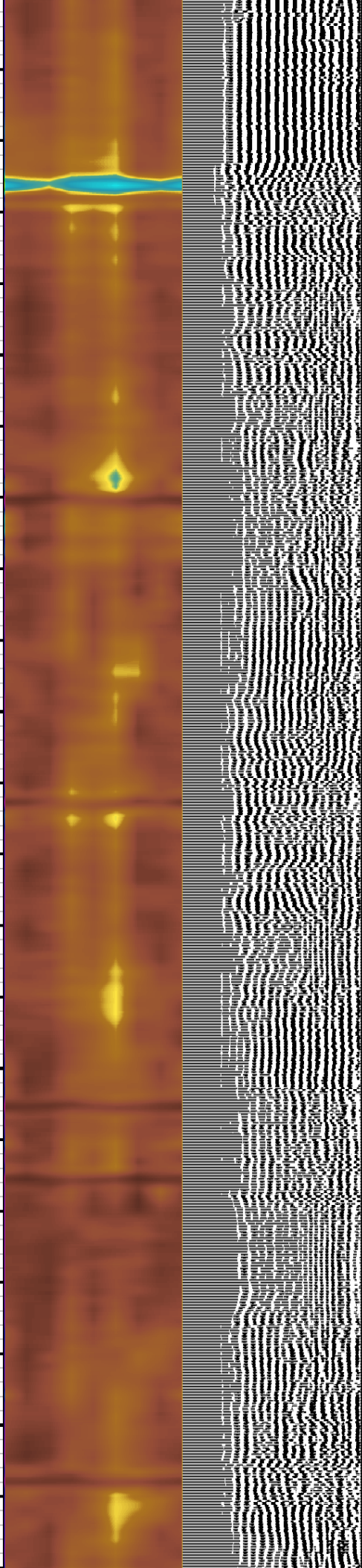
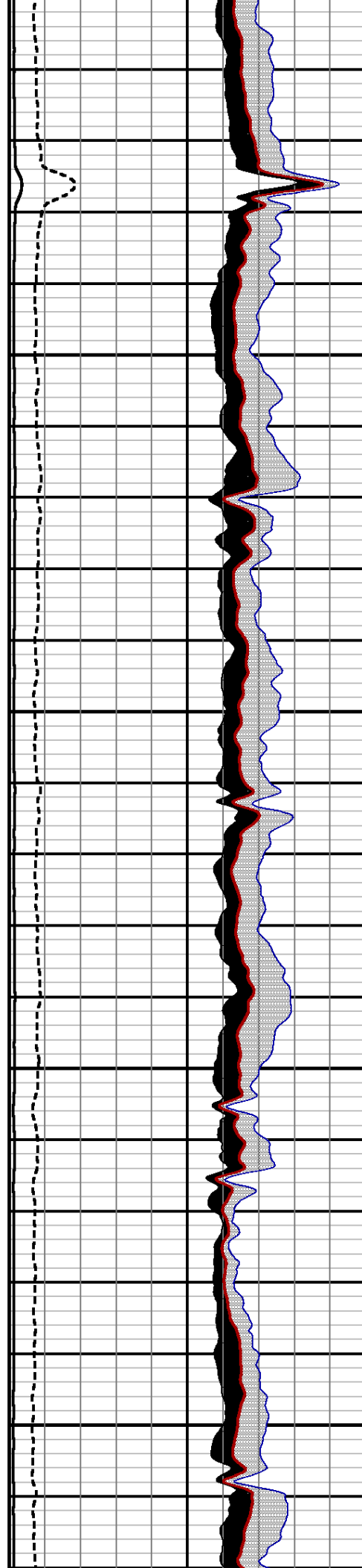
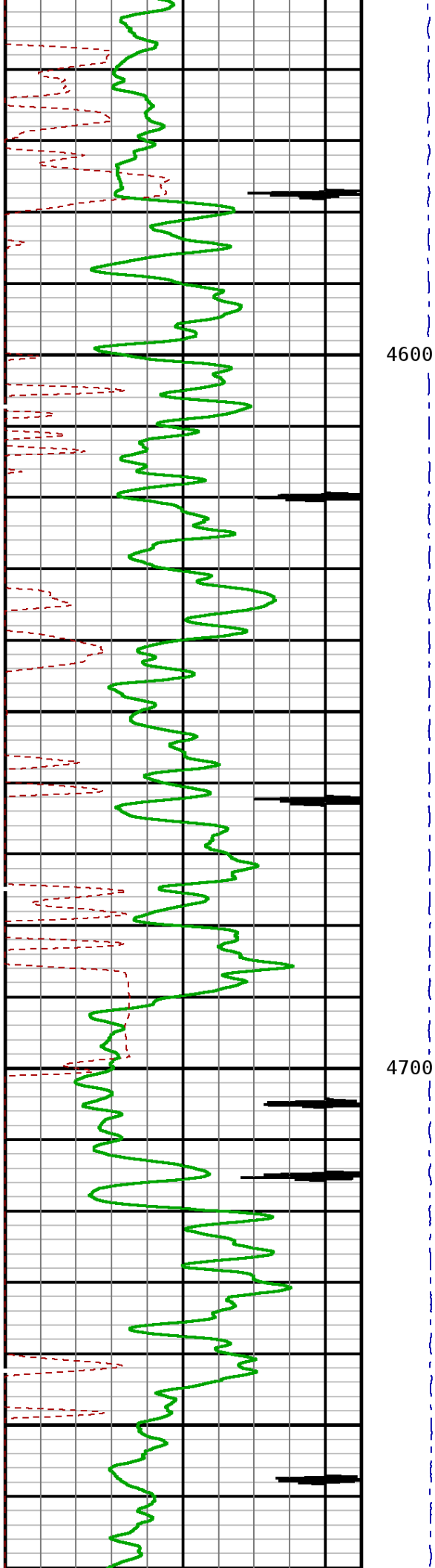


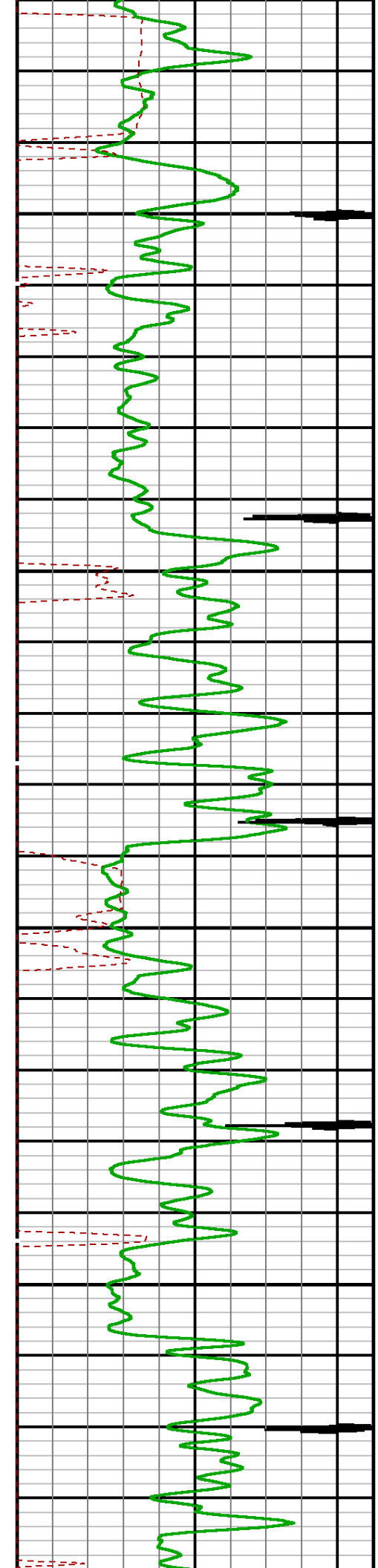
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4300



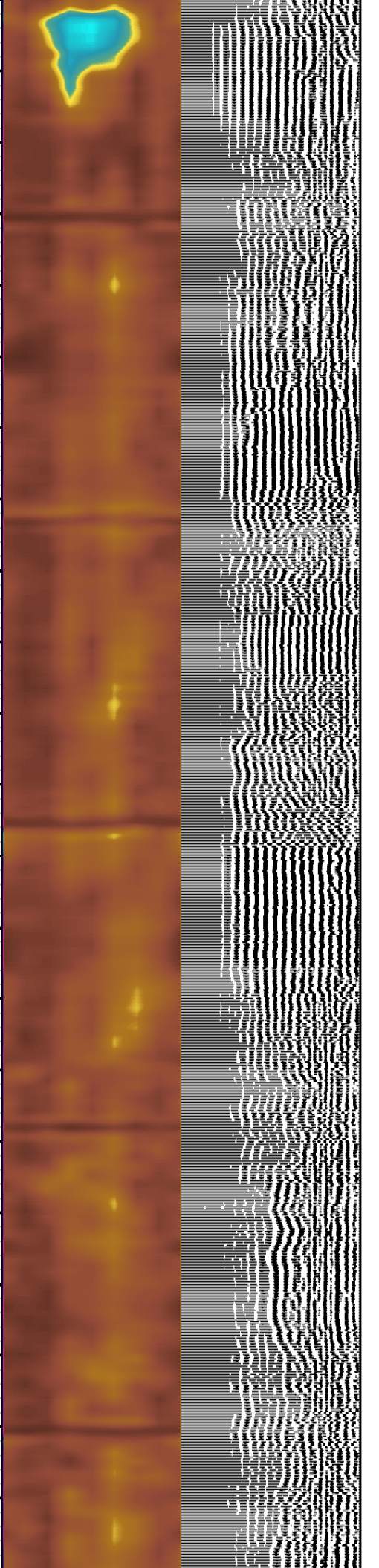
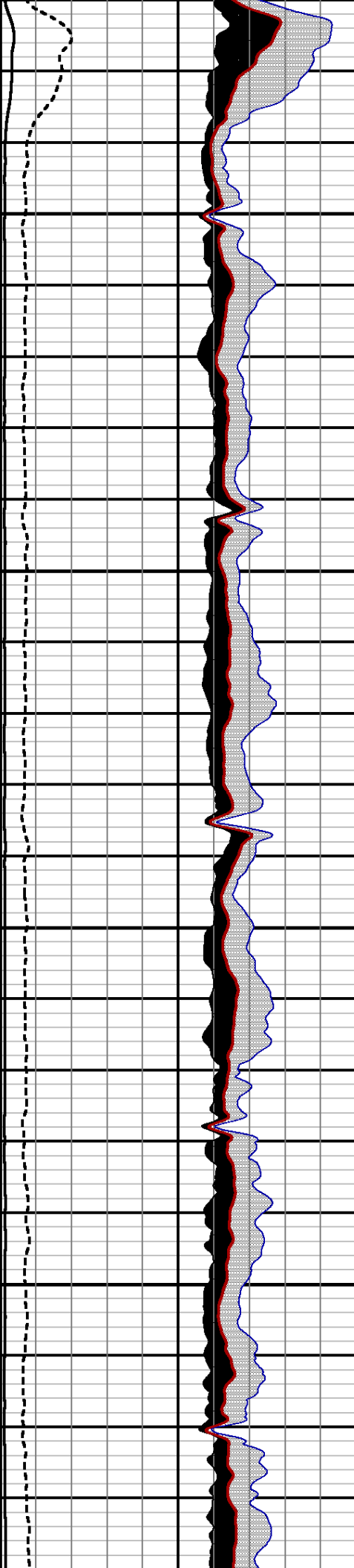


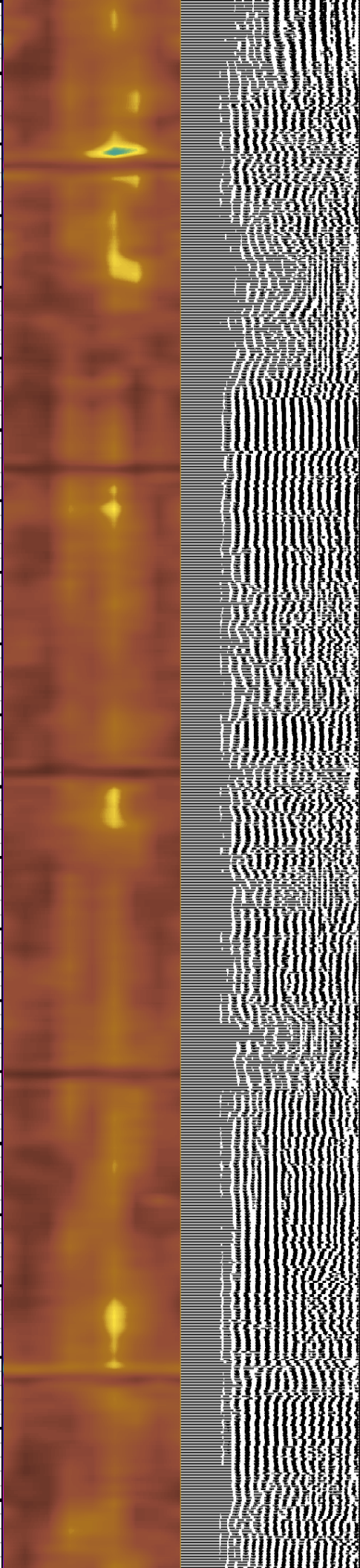
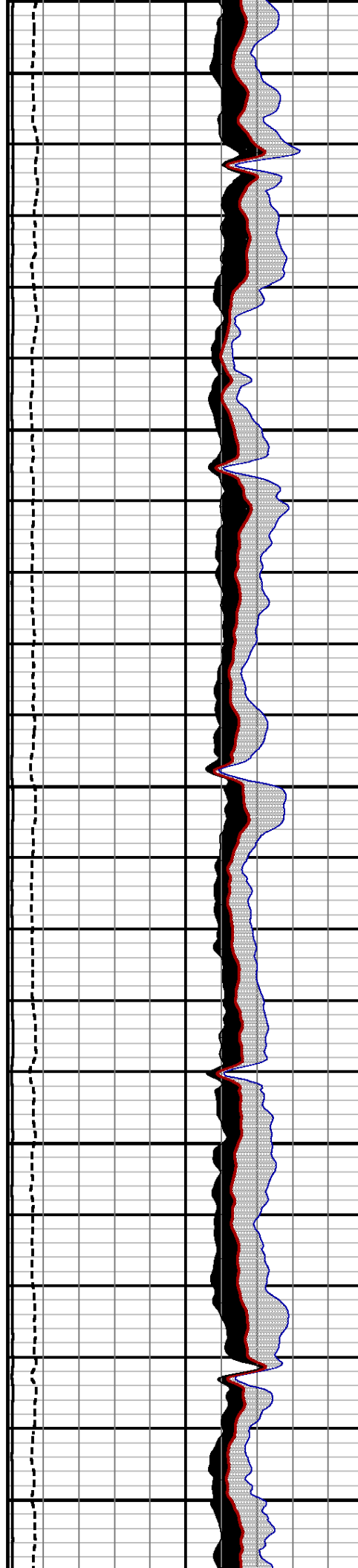
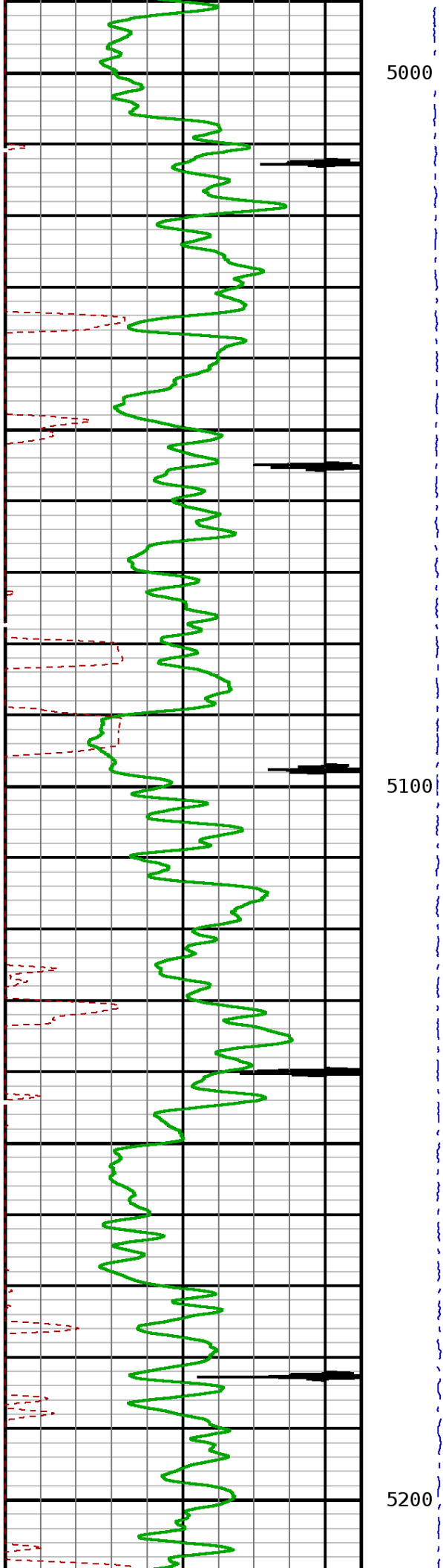


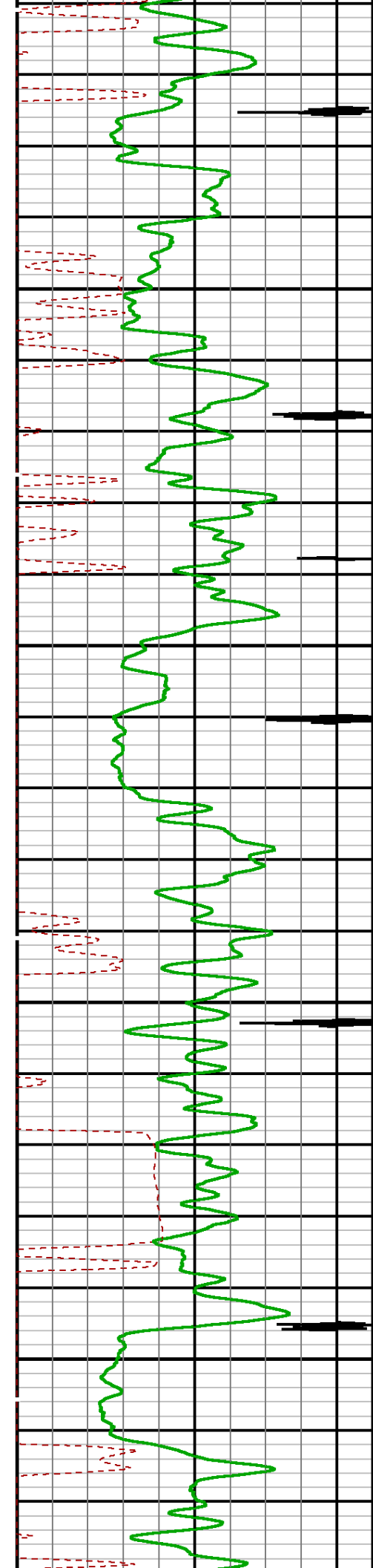


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4900

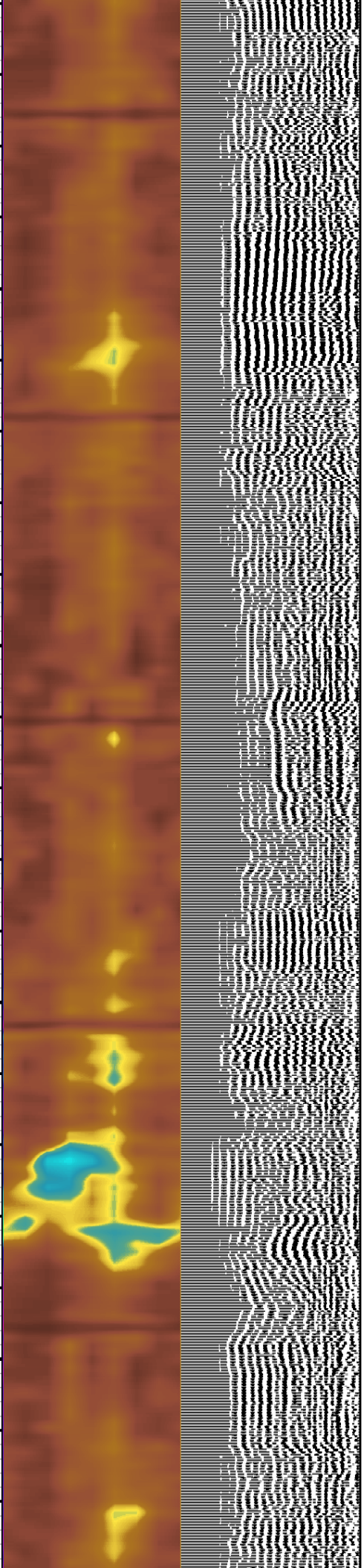
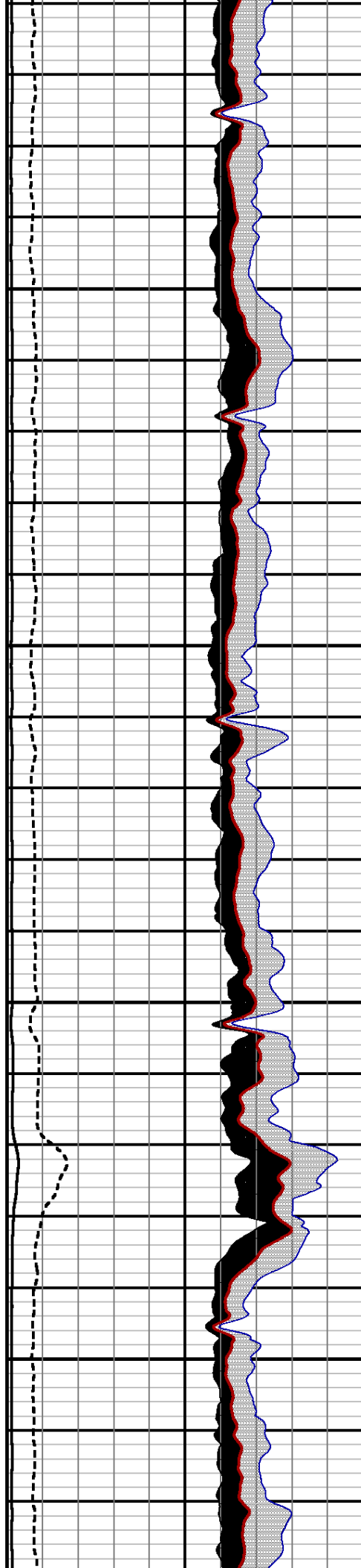


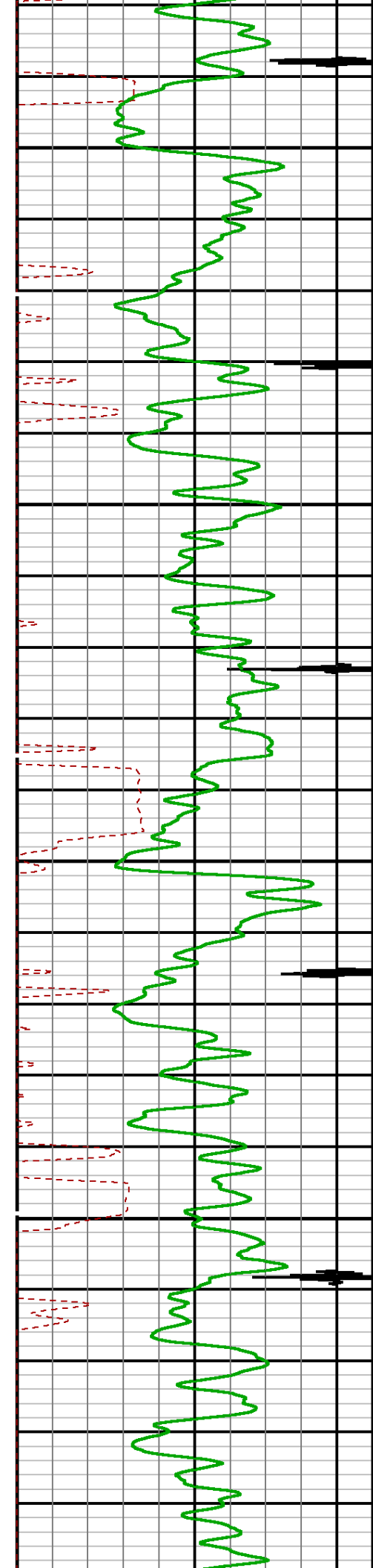




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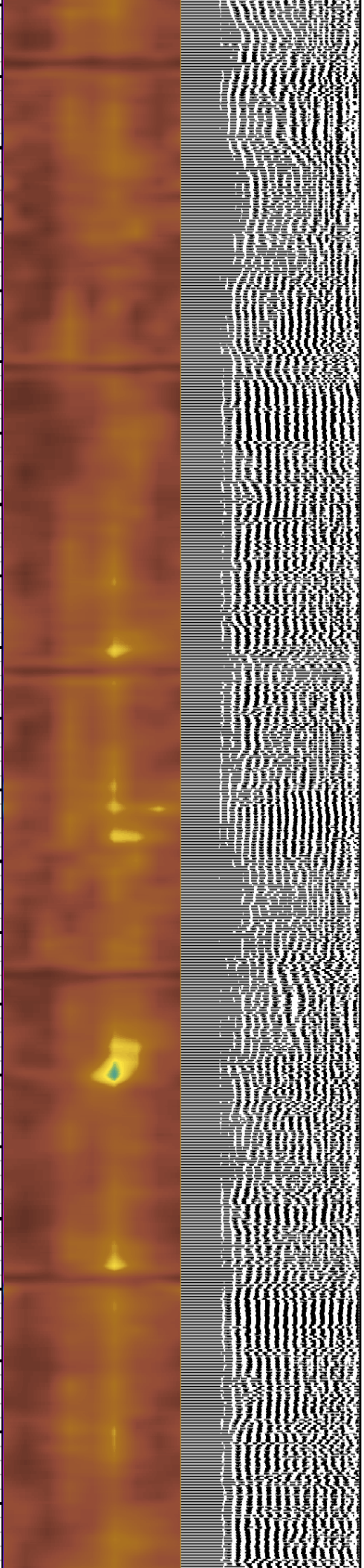
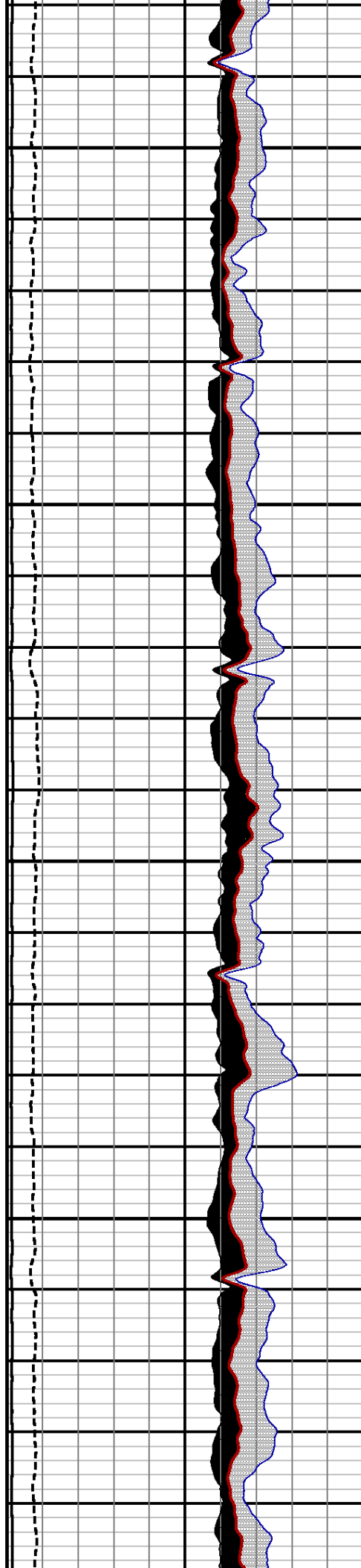
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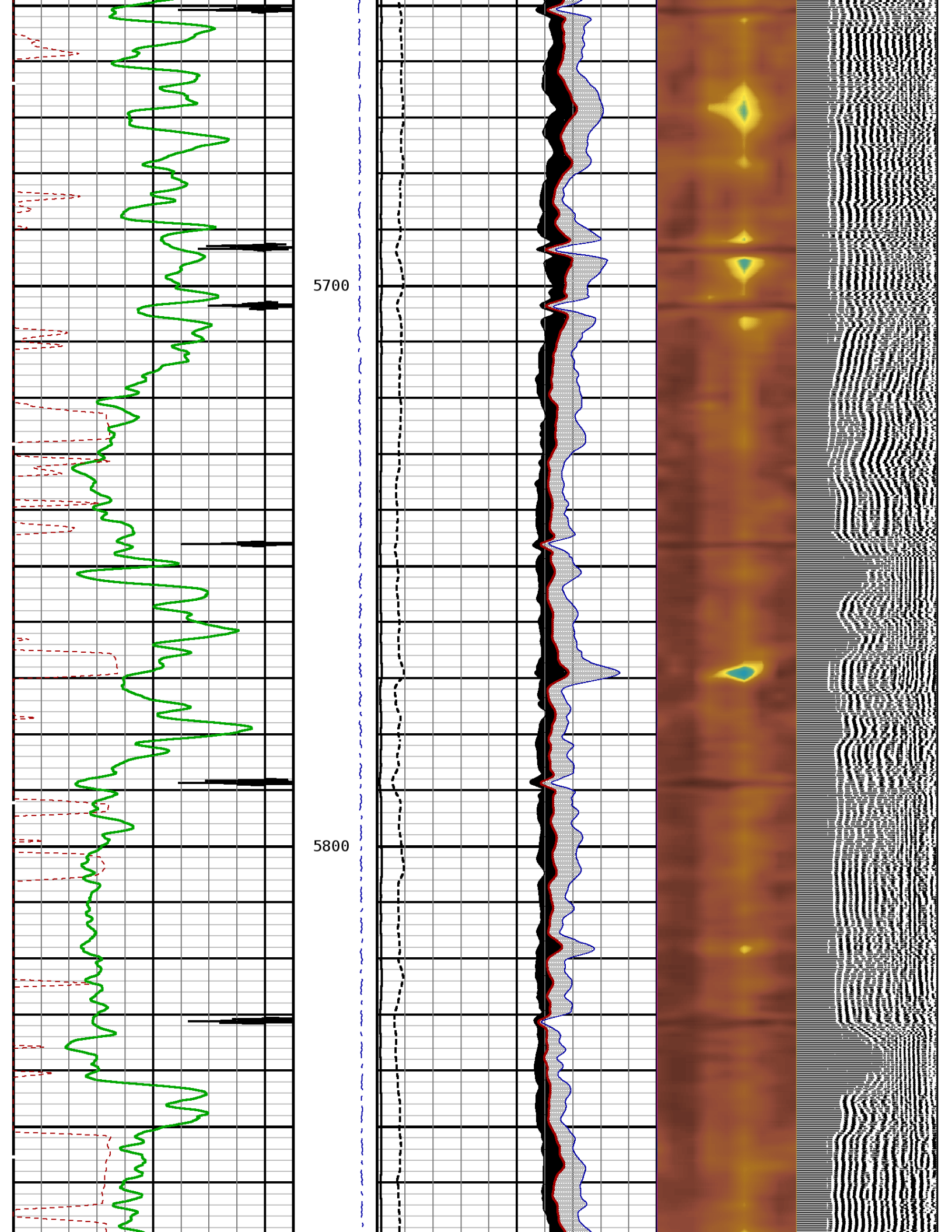


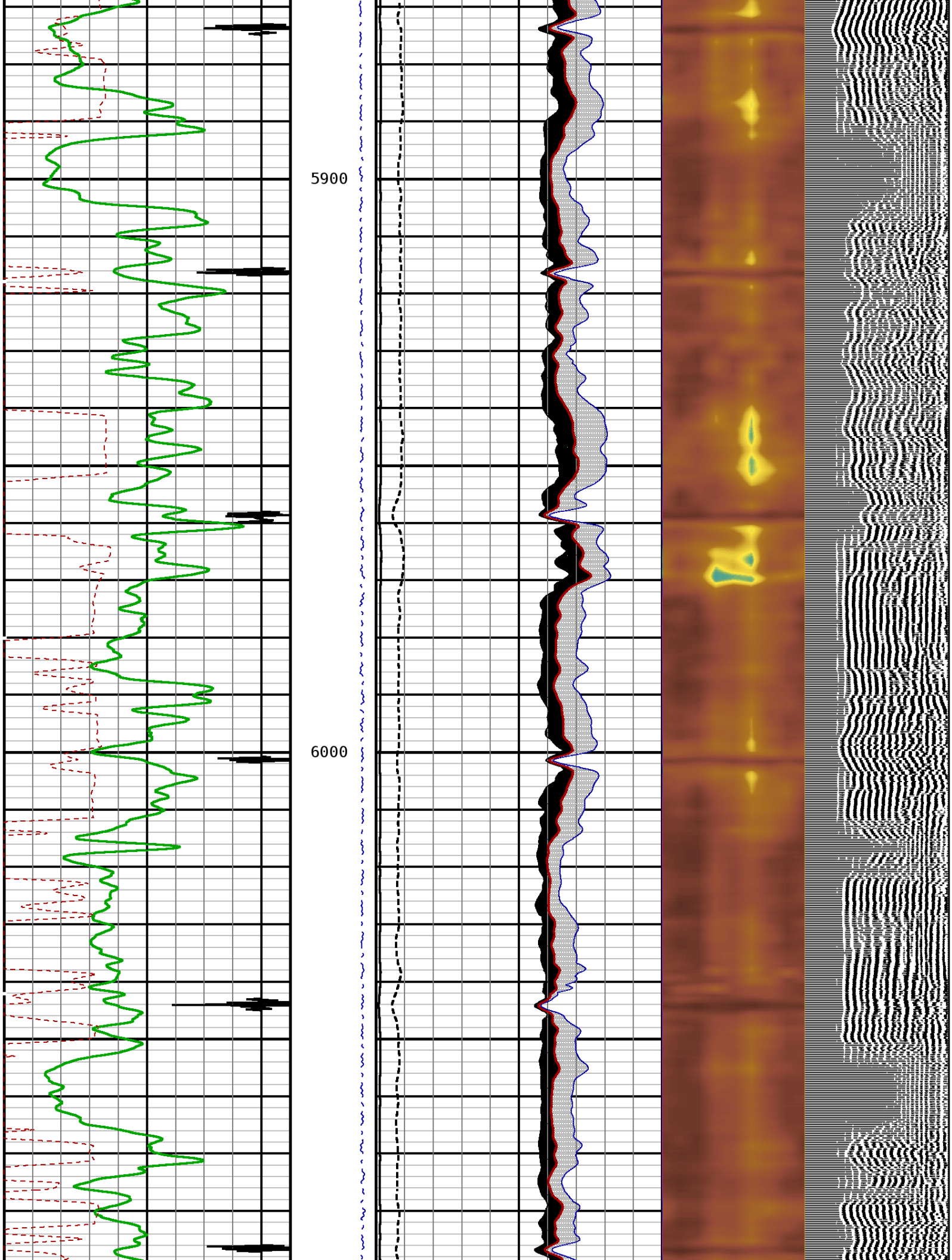


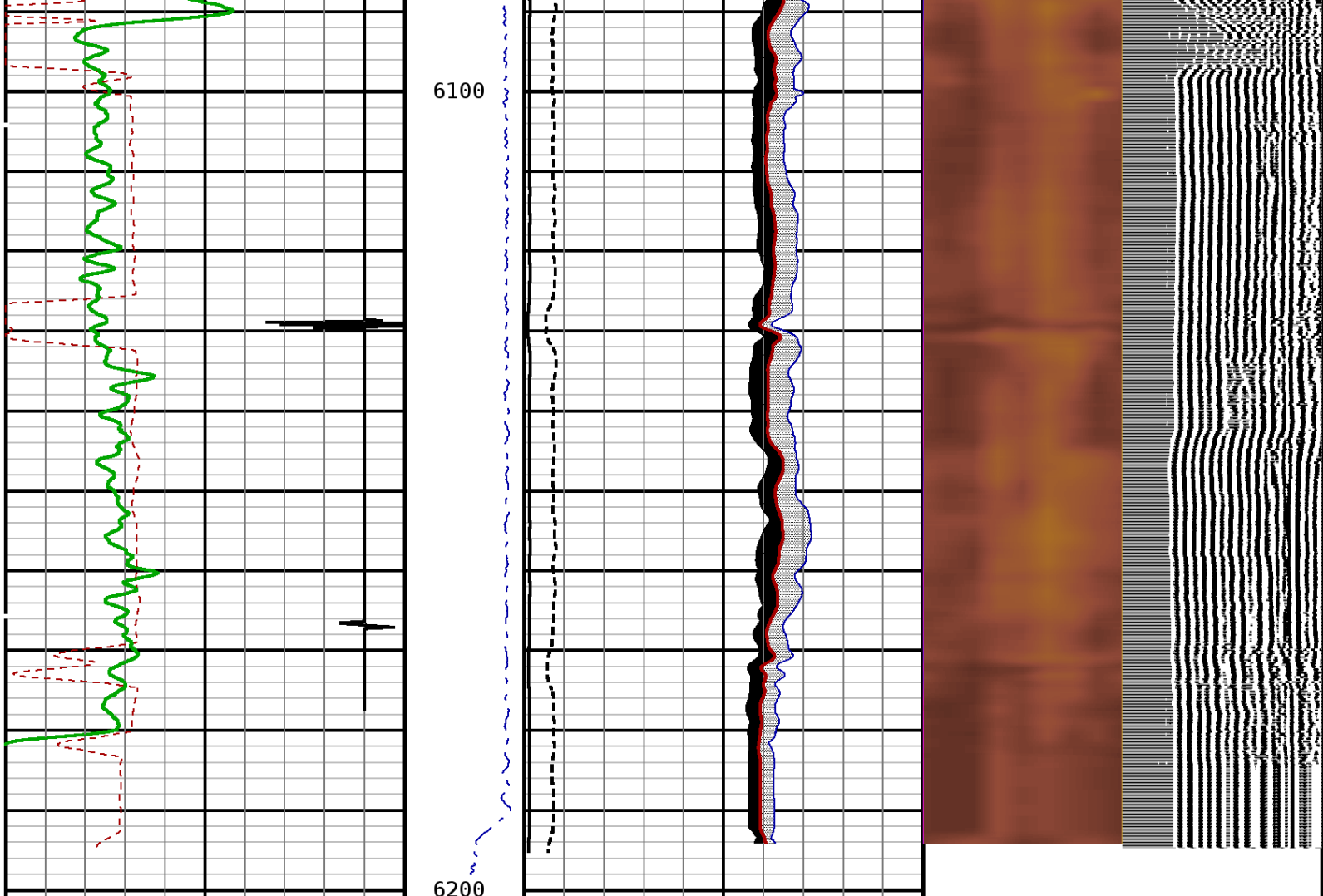
5500

5600









TRAVEL TIME 3FT	Tension	AMPLITUDE 3FT	MIN ENERGY	VARIABLE ENERGY	VARIABLE DENSI
312 Microseconds 212	0 2000	0 mv 100	0 mv 100	0 mv 80	200 us 1200
GAMMA RAY		3' AMP X 5	AVG ENERGY		
0 API 150		0 mv 20	0 mv 100		
CCL			MAX ENERGY		
-3600 Millivolts 400			0 mv 100		

START DEPTH: 6201.0	DIRECTION: UP	DATE: 03/08/2015	TIME: 22:29	MODE: ORIGINAL
113056099 SBTMAIN				
MAIN PASS				
DEPTH SCALE: 5":100'	LOGGED VERSION: 2012.07.18.162"			

DEPTH SCALE: 5":100'	PROCESSED VERSION: 2012.07.18.162"
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REPEAT PASS

113056099 SBTREPEAT

FINISH DEPTH: **5987.1** Feet DIRECTION: **UP** DATE: **03/08/2015** TIME: **22:36** MODE: **ORIGINAL**

CCL

-3600 Millivolts 400

GAMMA RAY

0 API 150

TRAVEL TIME 3FT

312 Microseconds 212

MAX ENERGY

0 mv 100

AVG ENERGY

0 mv 100

MIN ENERGY

0 mv 100

Tension

0 2000

3' AMP X 5

0 mv 20

AMPLITUDE 3FT

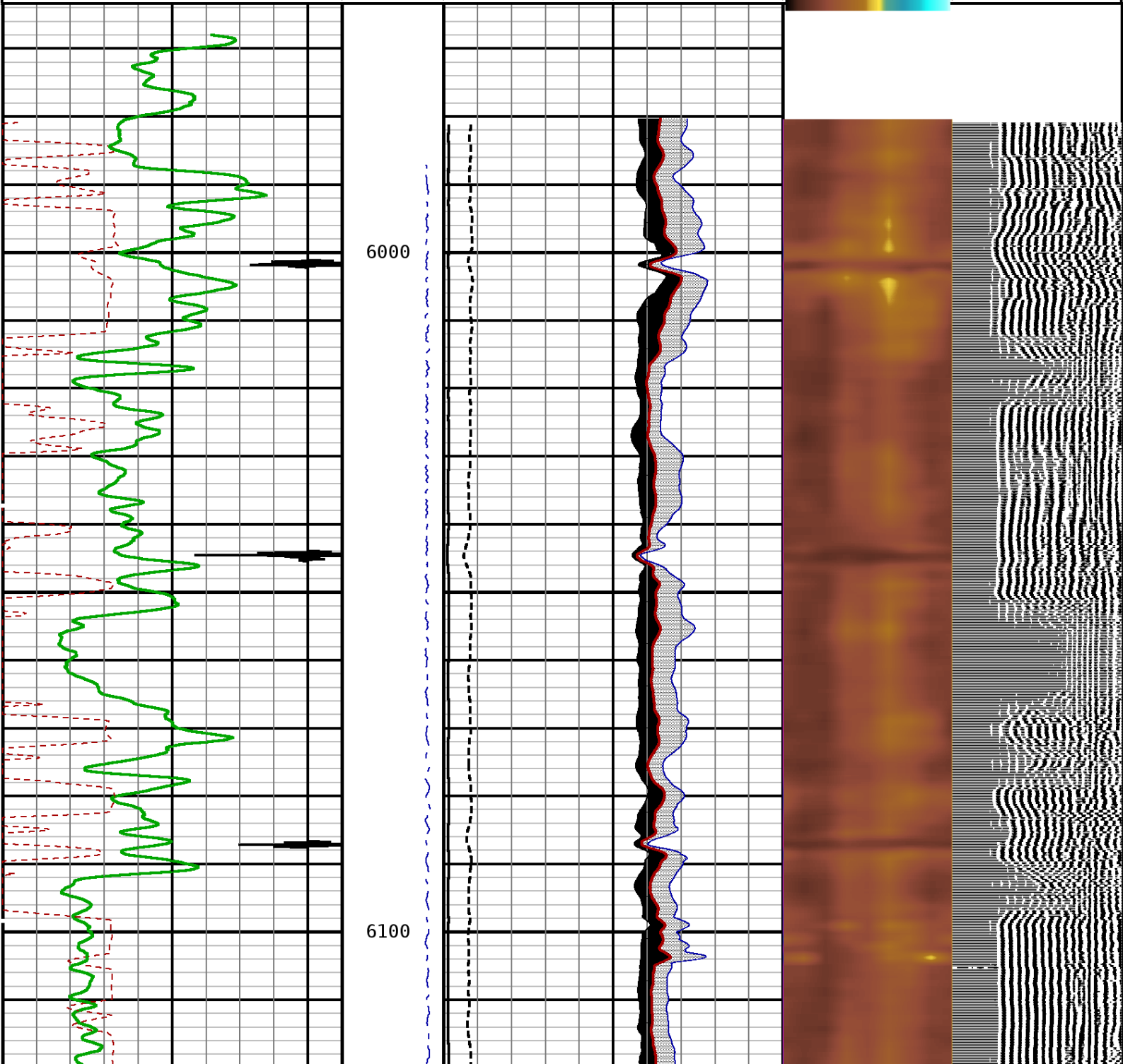
0 mv 100

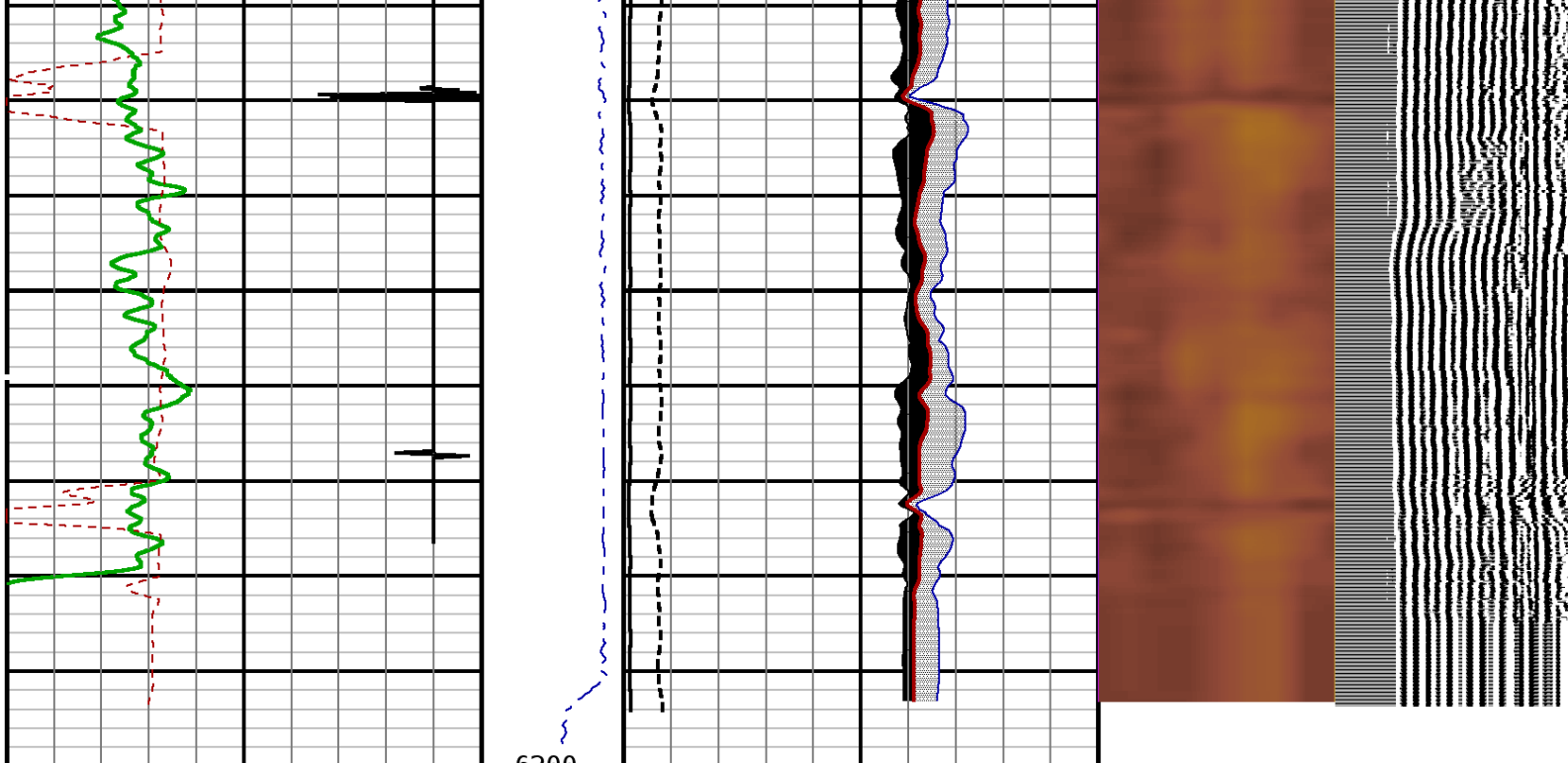
VARIABLE ENERGY

0 mv 80

VARIABLE DENSI

200 us 1200





TRAVEL TIME 3FT			Tension		AMPLITUDE 3FT		MIN ENERGY		VARIABLE ENERGY		VARIABLE DENSI						
312	Microseconds	212	0	2000	0	mv	100	0	mv	100	0	mv	80	200	us	1200	
GAMMA RAY					3' AMP X 5		AVG ENERGY										
0	API	150			0	mv	20	0	mv	100							
CCL							MAX ENERGY										
-3600	Millivolts	400							0	mv	100						

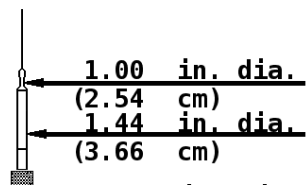
START DEPTH: 6200.0 DIRECTION: UP DATE: 03/08/2015 TIME: 22:36 MODE: ORIGINAL															
113056099 SBTREPEAT															

REPEAT PASS															
DEPTH SCALE: 5":100'										LOGGED VERSION: 2012.07.18.162"					

1 7/16 Adapter Head

Weight 2.2 LB.
Length 2.54
Max. Diameter 1.44 IN.

Total Stack Weight 223.0 LBS. in air
Total Stack Length 27.83 FT.



Slim Hole Centralizer

Weight 15 lbs
Length 2.49 FT.
Max. Diameter 2.750 IN.

Collar Locator

Weight 39.8 LBS.
Length 3.40 FT.
Max. Diameter 2.75 IN.

Slim Hole Gamma Ray

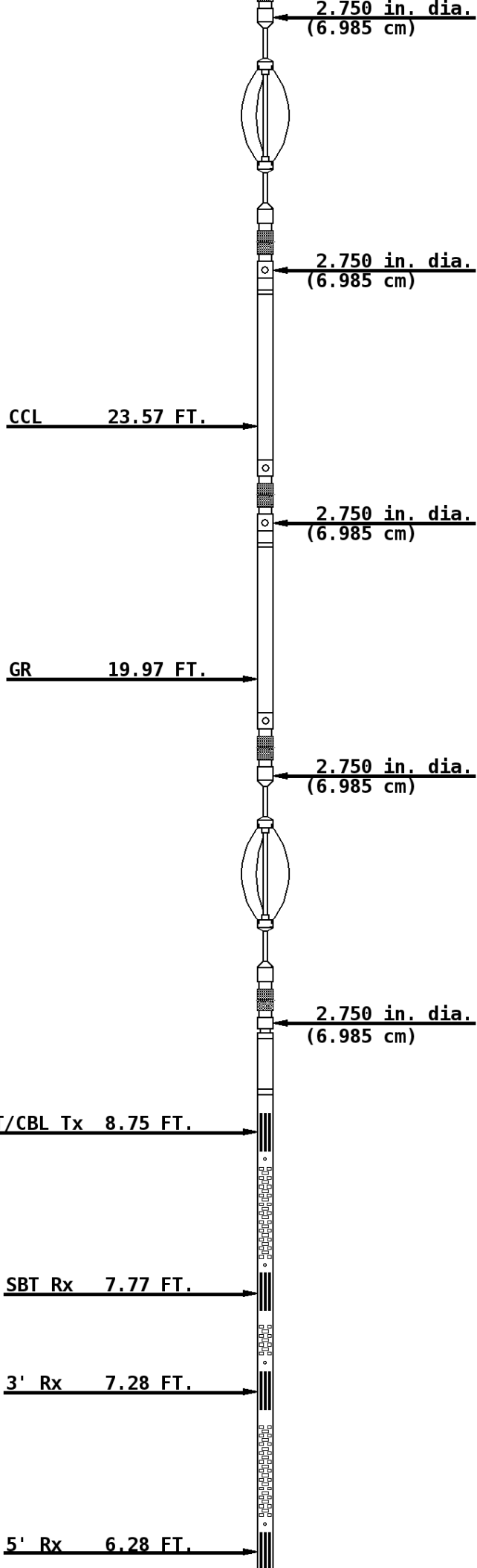
Weight 39.8 LBS.
Length 4.71 FT.
Max. Diameter 2.750 IN.

Slim Hole Centralizer

Weight 22 LBS.
Length 3.08 FT.
Max. Diameter 2.750 IN.

Sector Bond

Weight 89.2 LBS.
Length 10.32 FT.
Max. Diameter 2.750 IN.



Slim Hole Centralizer

Weight 15.0 LBS.
Length 2.82 FT.
Max. Diameter 2.750 IN.

Tool Zero

2.750 in. dia.
(6.985 cm)

COMPANY URSA OPERATING COMPANY

WELL BAT 34D-24-07-96

FIELD BATTLEMENT MESA

COUNTY GARFIELD

STATE COLORADO



Weatherford®