56-ARM CALIPER LOG

Company SOUTHERN CALIFORNIA GAS COMPANY
Well PORTER 69E
Field ALISO CANYON
County LOS ANGELES
State CALIFORNIA

Company SOUTHERN CALIFORNIA GAS COMPANY

Well PORTER 69E

Field ALISO CANYON

County LOS ANGELES **State** CALIFORNIA

Location: API # : 04-037-24138

SEC 28 TWP 3N RGE 16W

Permanent Datum	GROUND LEVEL	Elevation	2366'
Log Measured From	KELLY BUSHING - 23.5 FT AGL		
Drilling Measured From	KELLY BUSHING		

Other Services
HRVRT

Elevation
K.B. 2389.5'
D.F.
G.L. 2366'

Date	1 SEPT 2016		
Run Number	1		
Depth Driller	7848'		
Depth Logger	7830'		
Bottom Logged Interval	7210'		
Top Log Interval	0'		
Open Hole Size	N/A		
Type Fluid	KCL		
Density / Viscosity	N/A		
Max. Recorded Temp.	158°F		
Estimated Cement Top	N/A		
Time Well Ready	07:00		
Time Logger on Bottom	N/A		
Equipment Number	4256		
Location	SHAFTER, CA		
Recorded By	SID GORNTO		
Witnessed By	JASON FIKE		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
	13 3/8"	54.5#	0'	843'
	9 5/8"	47#	0'	7289'
	5 1/2"	17#	7205'	7836'

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

LOG CORRELATED TO USIT LOG DATED31 JUL 2009
MAIN PASS RUN WITH GYRODATA GYRO CENTRALIZED ON BOTTOM
IT WAS REMOVED FOR REPEAT PASSES

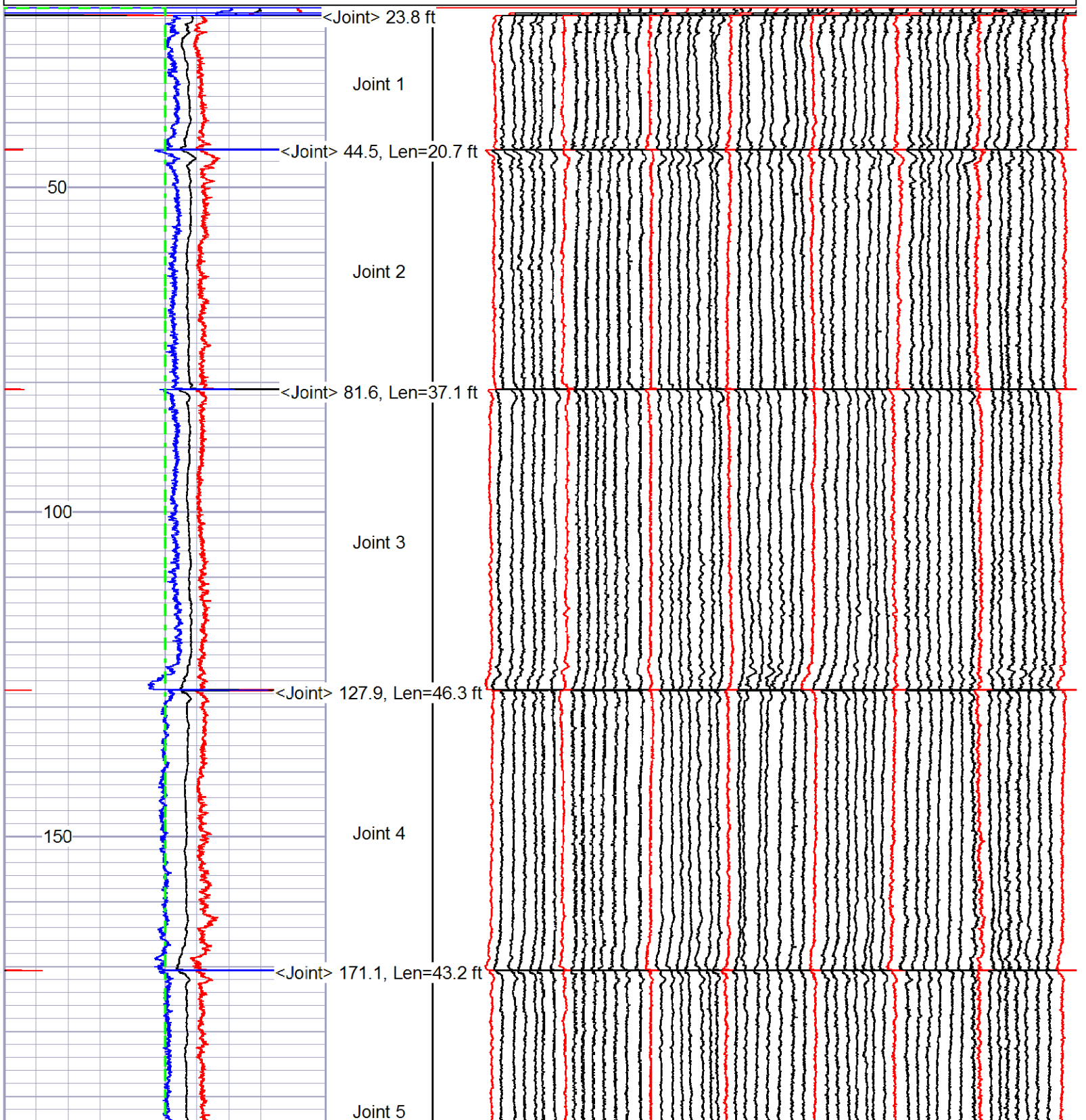
MARKER JOINT: 6904
N/A = NOT AVAILABLE AT TIME OF LOGGING

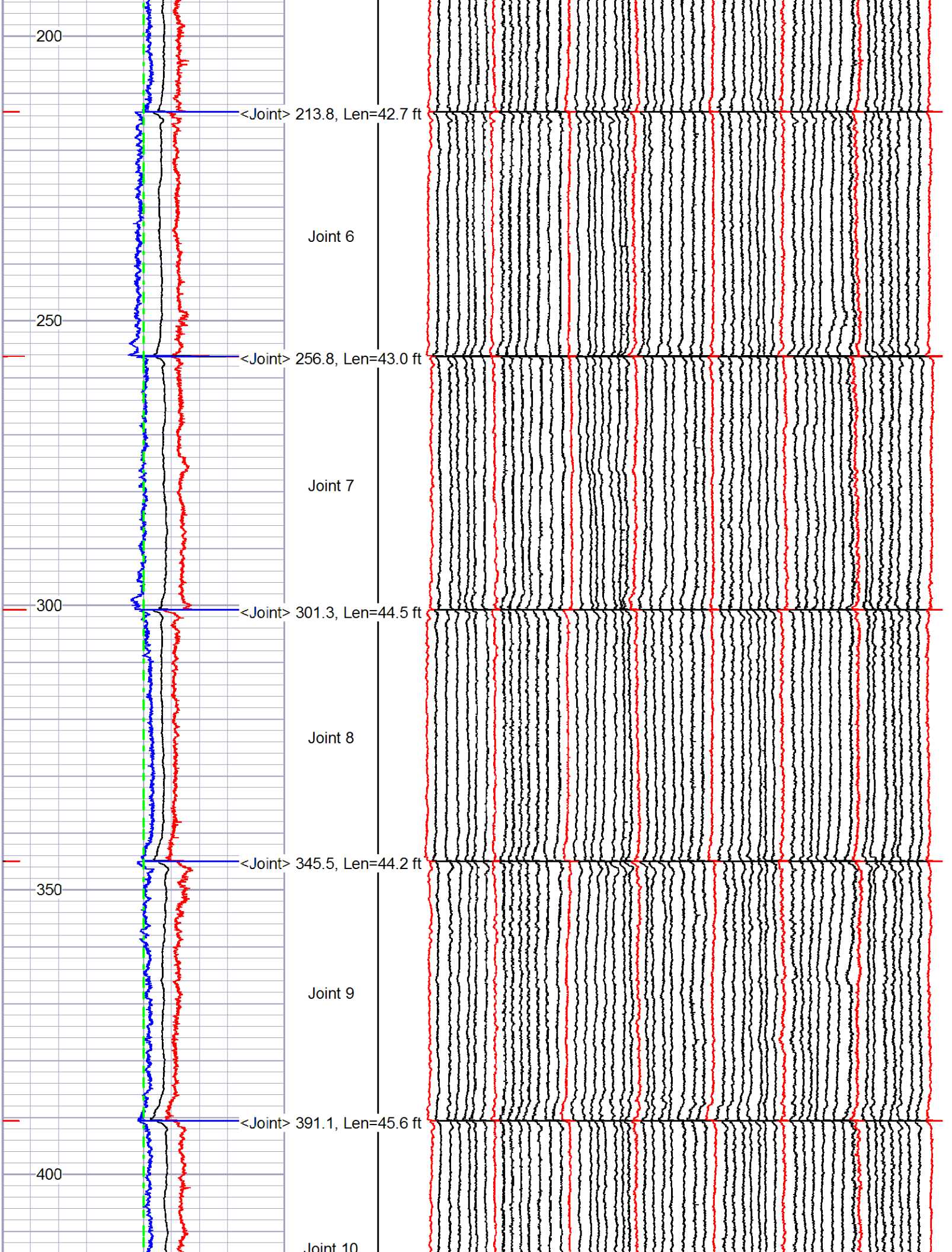
MAIN PASS (5" / 100')

Database File	c:\users\waakjanl\desktop\incoming\hcal_socal_porter_69e\hcal\project\processing\main_proc.db
Dataset Pathname	main_stat
Presentation Format	56f_hw
Dataset Creation	Fri Sep 02 14:48:35 2016
Charted by	Depth in Feet scaled 1:240

8.181	MAXIMUM ID (in)	9.181	PTANN	4.0905	56 FINGER TRACE (in)	7.1905
8.181	AVERAGE ID (in)	9.181				
8.181	MINIMUM ID (in)	9.181				
8.181	NOMINAL ID (in)	9.181				

Note: Expanded scale for amplification

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Joint 8
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Joint 9
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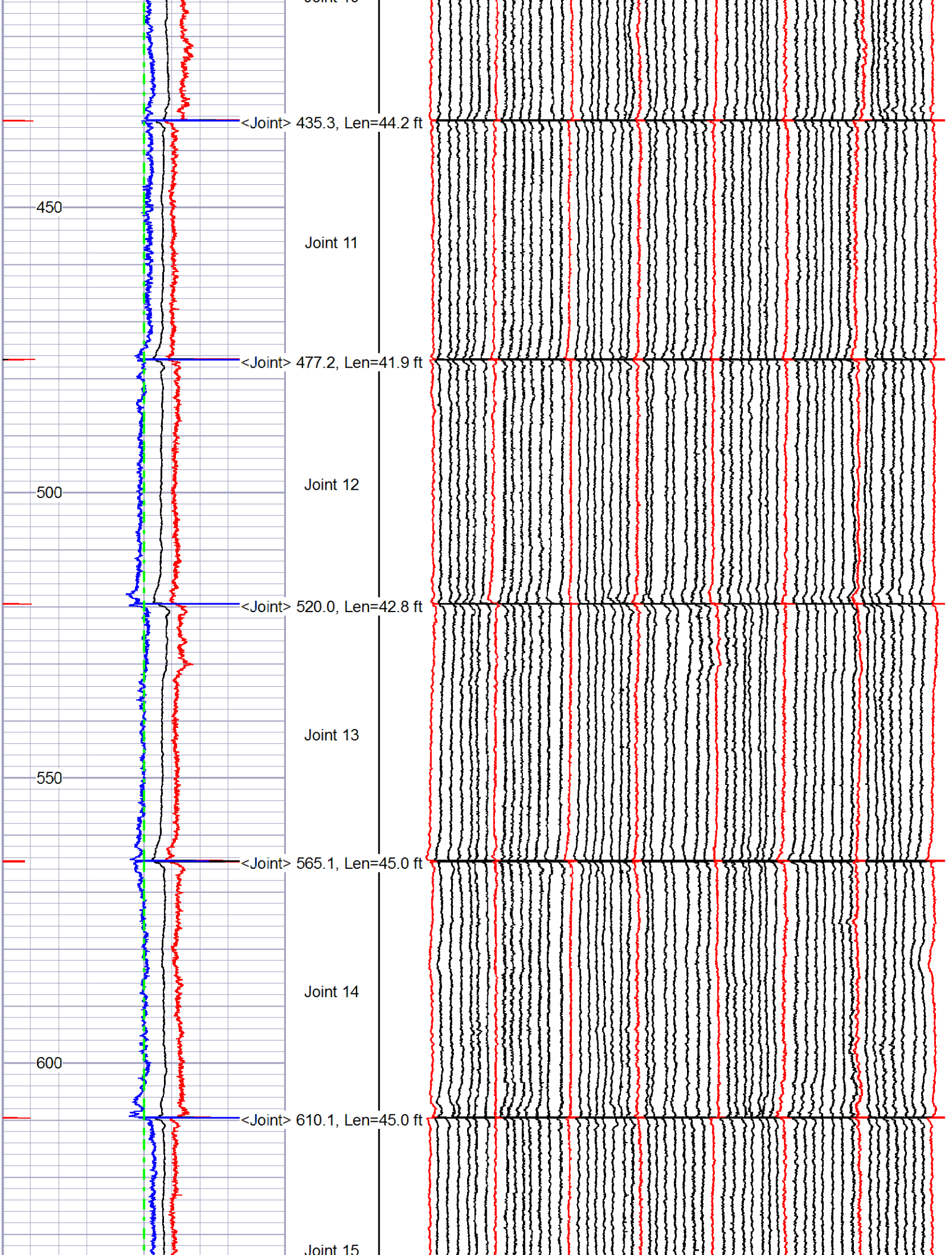
400
Joint 10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Joint 11
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Joint 12
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Joint 13
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Joint 14
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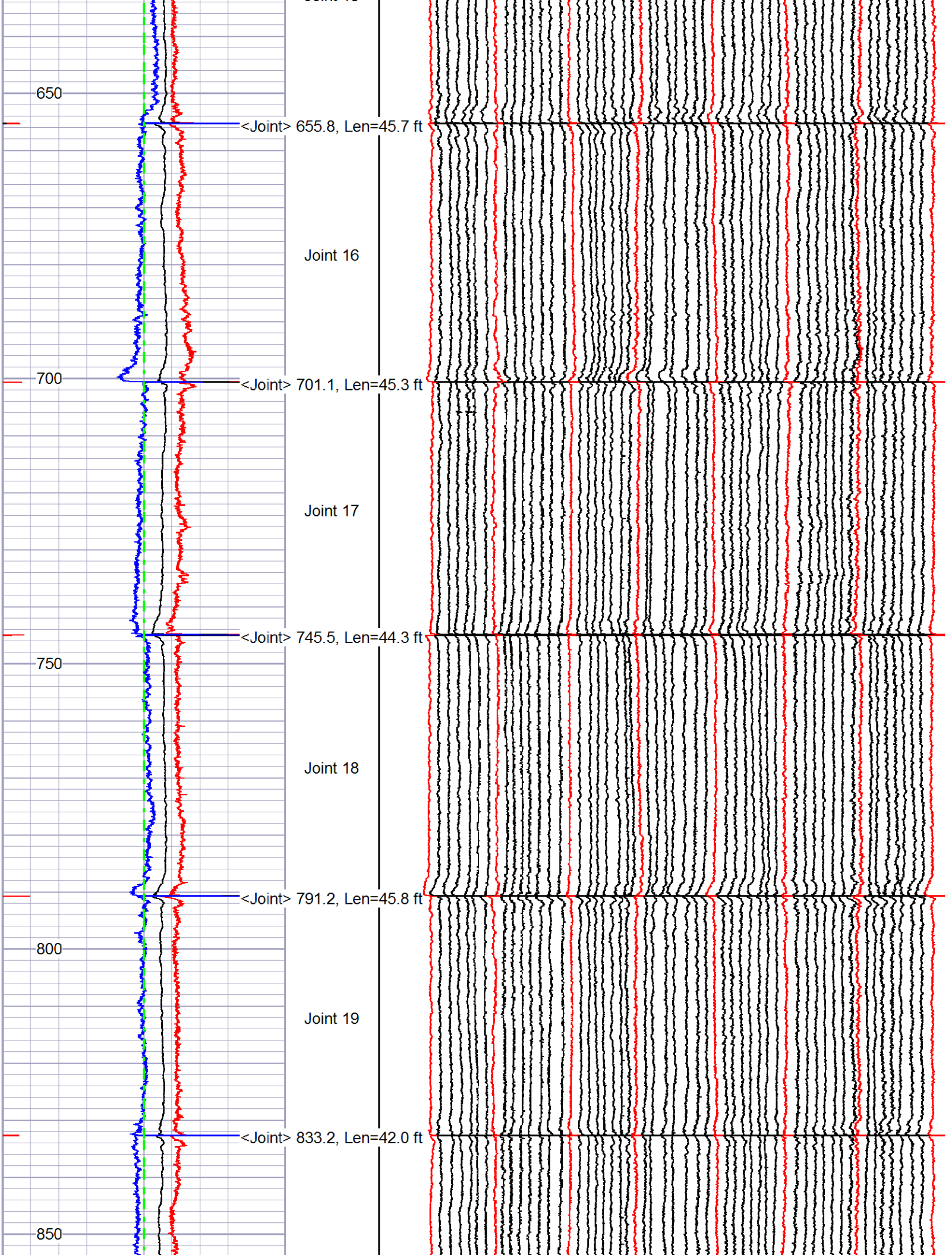
Joint 15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700
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750
Joint 18
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800
Joint 19
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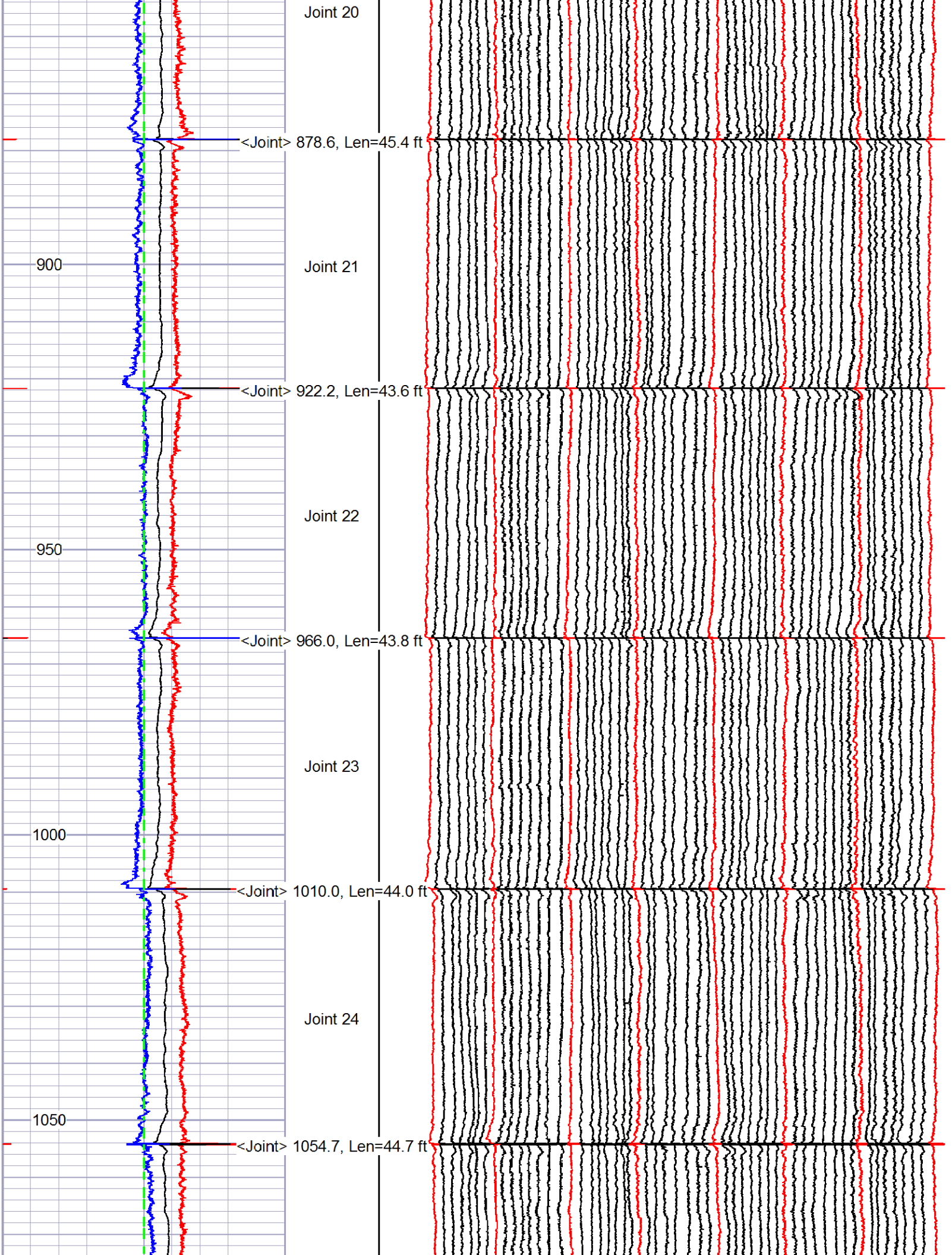
850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Joint 21
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Joint 22
950
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Joint 23
1000
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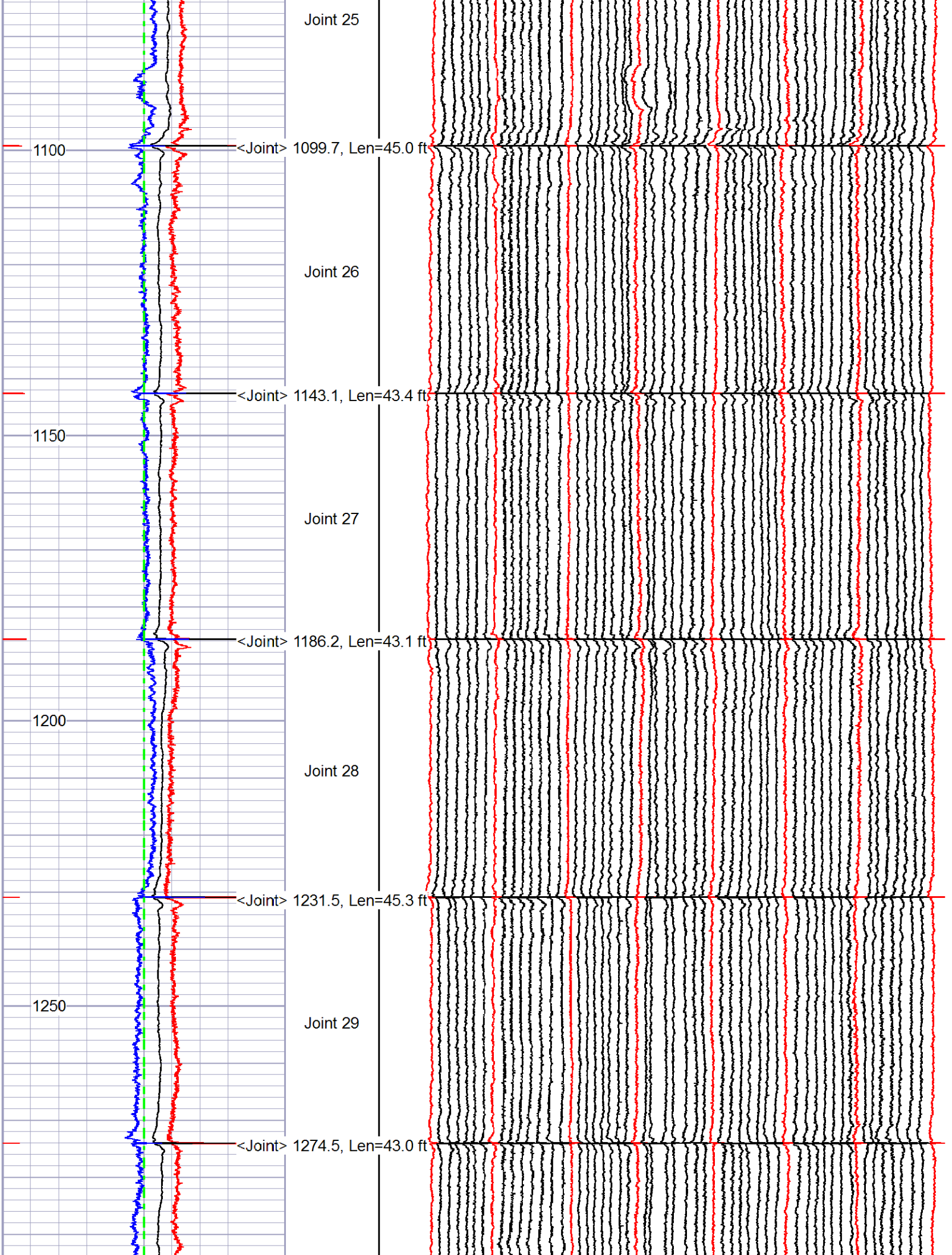
Joint 24
1050
<Joint> 1054.7, Len=44.7 ft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1150
Joint 27
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Joint 28
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Joint 29
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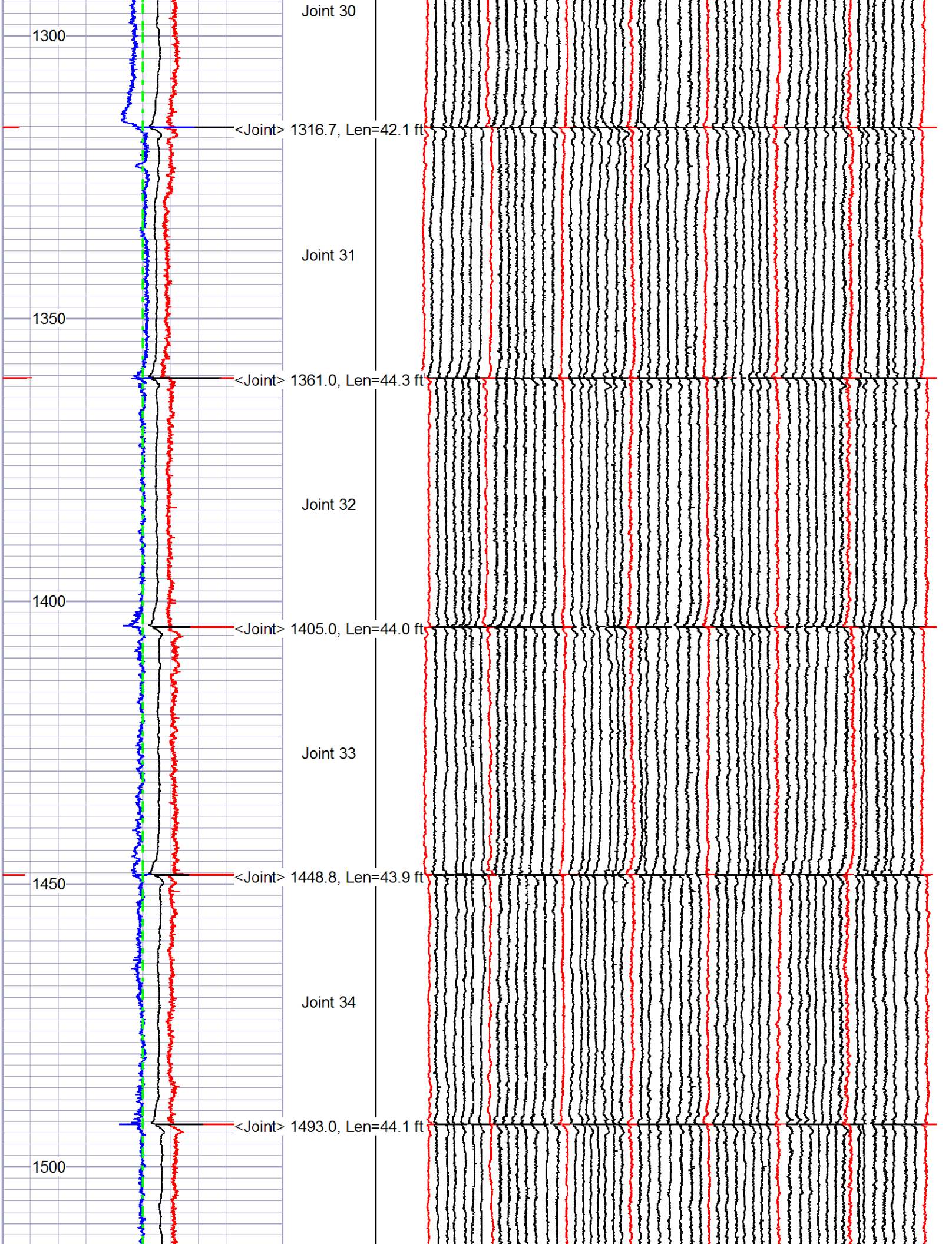
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Joint 32
1400
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Joint 33
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Joint 34
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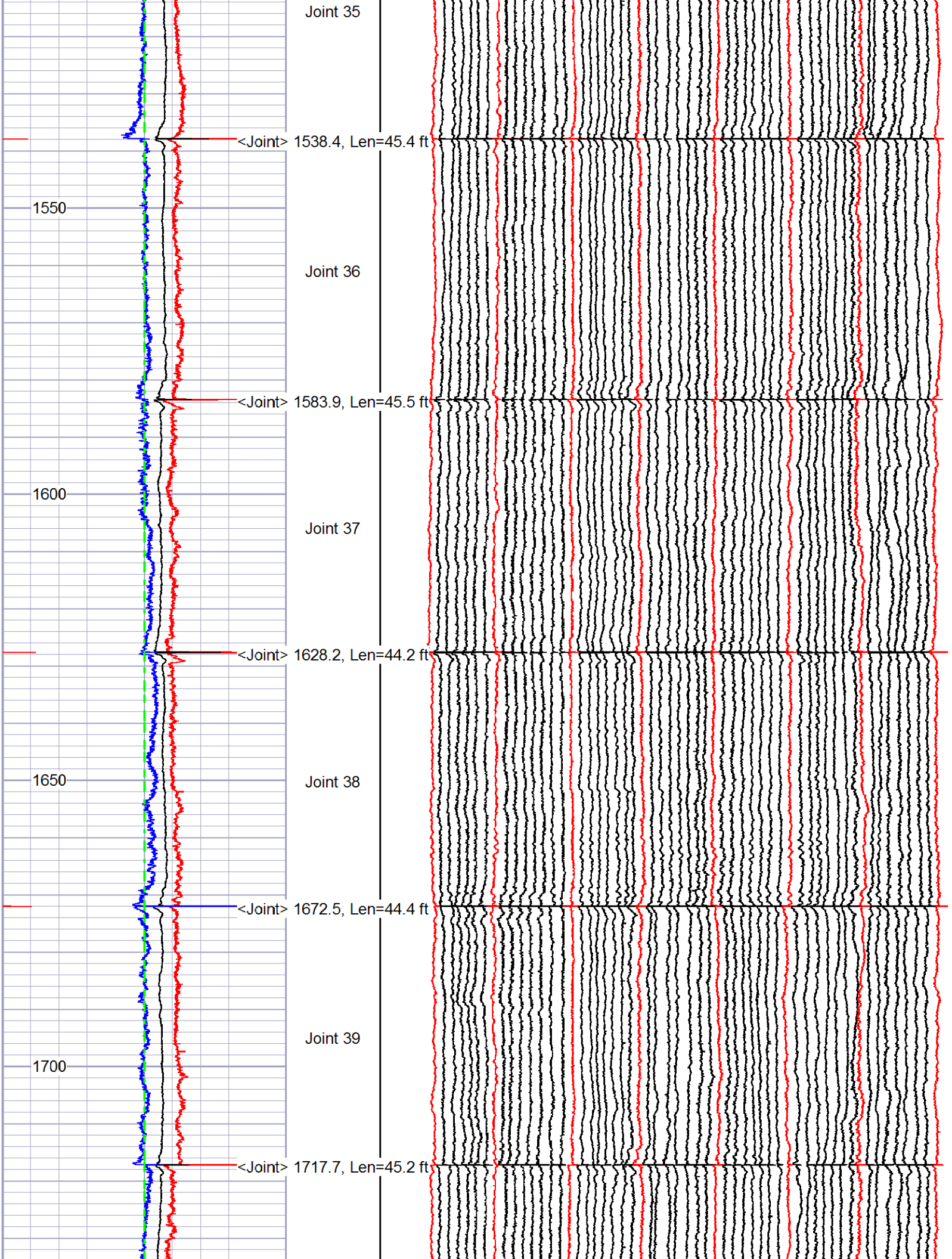
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Joint 36
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Joint 37
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Joint 38
<Joint> 1672.5, Len=44.4 ft
Joint 39
1700
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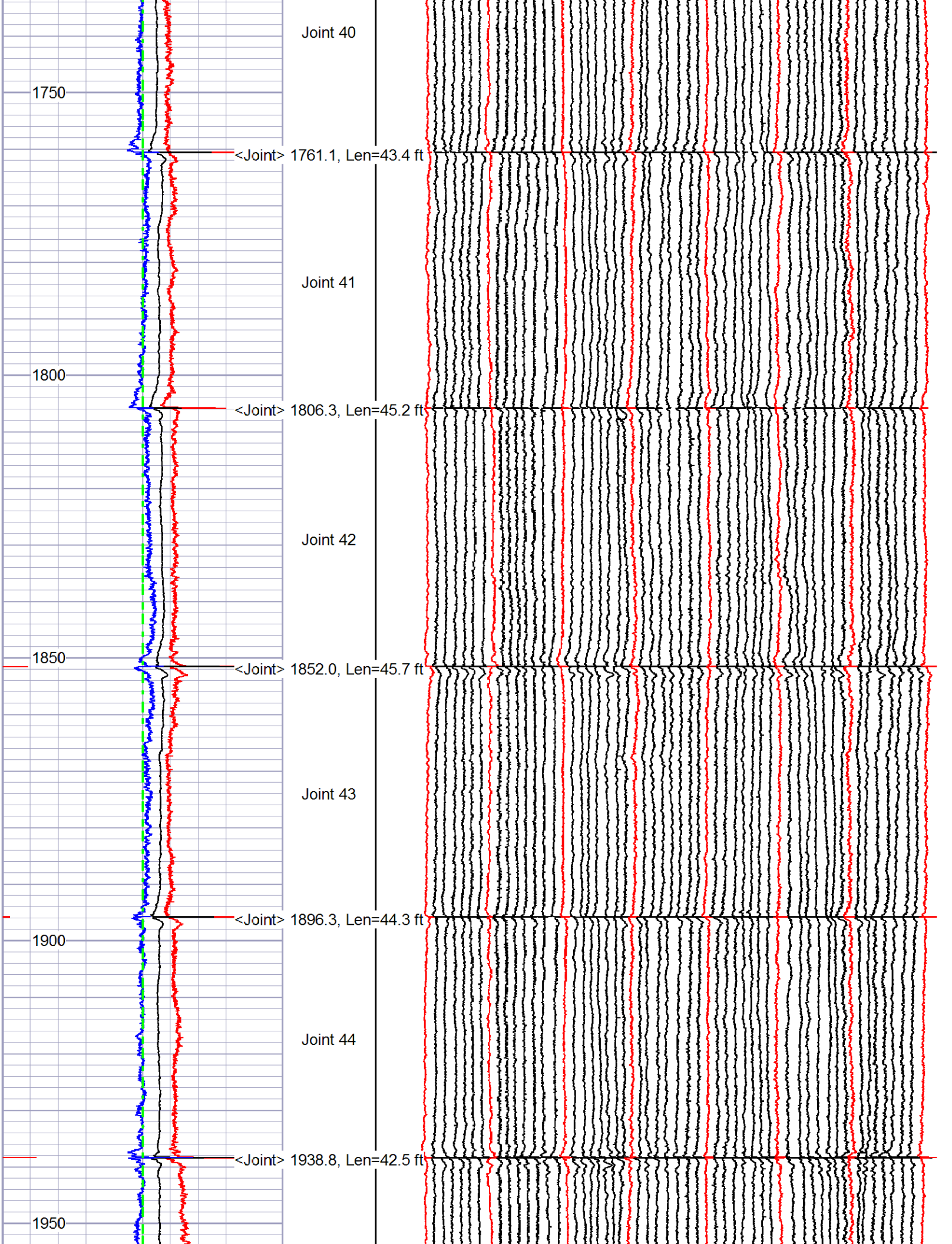
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Joint 42
1850
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Joint 44
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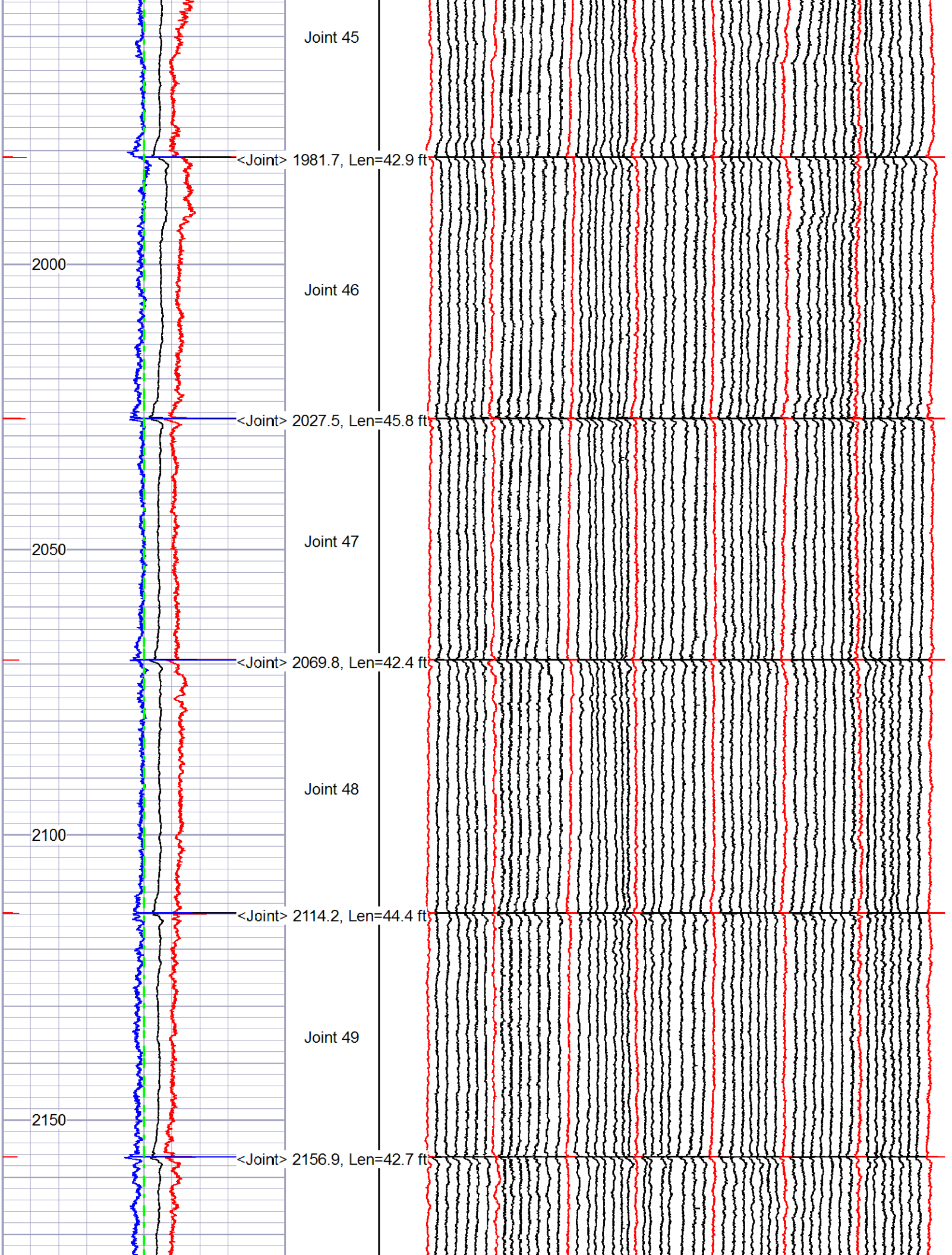
1950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Joint 47
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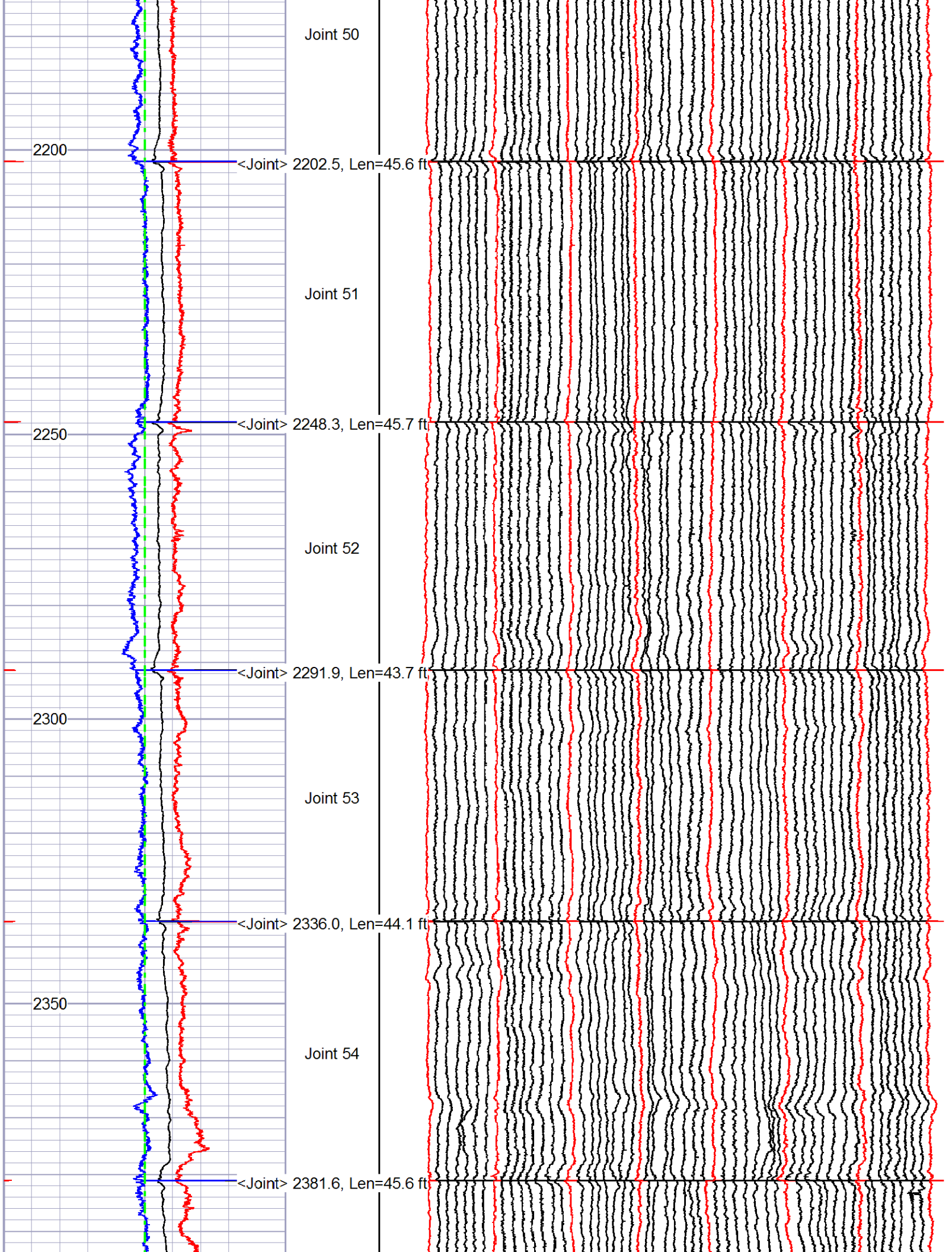
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2200
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Joint 52
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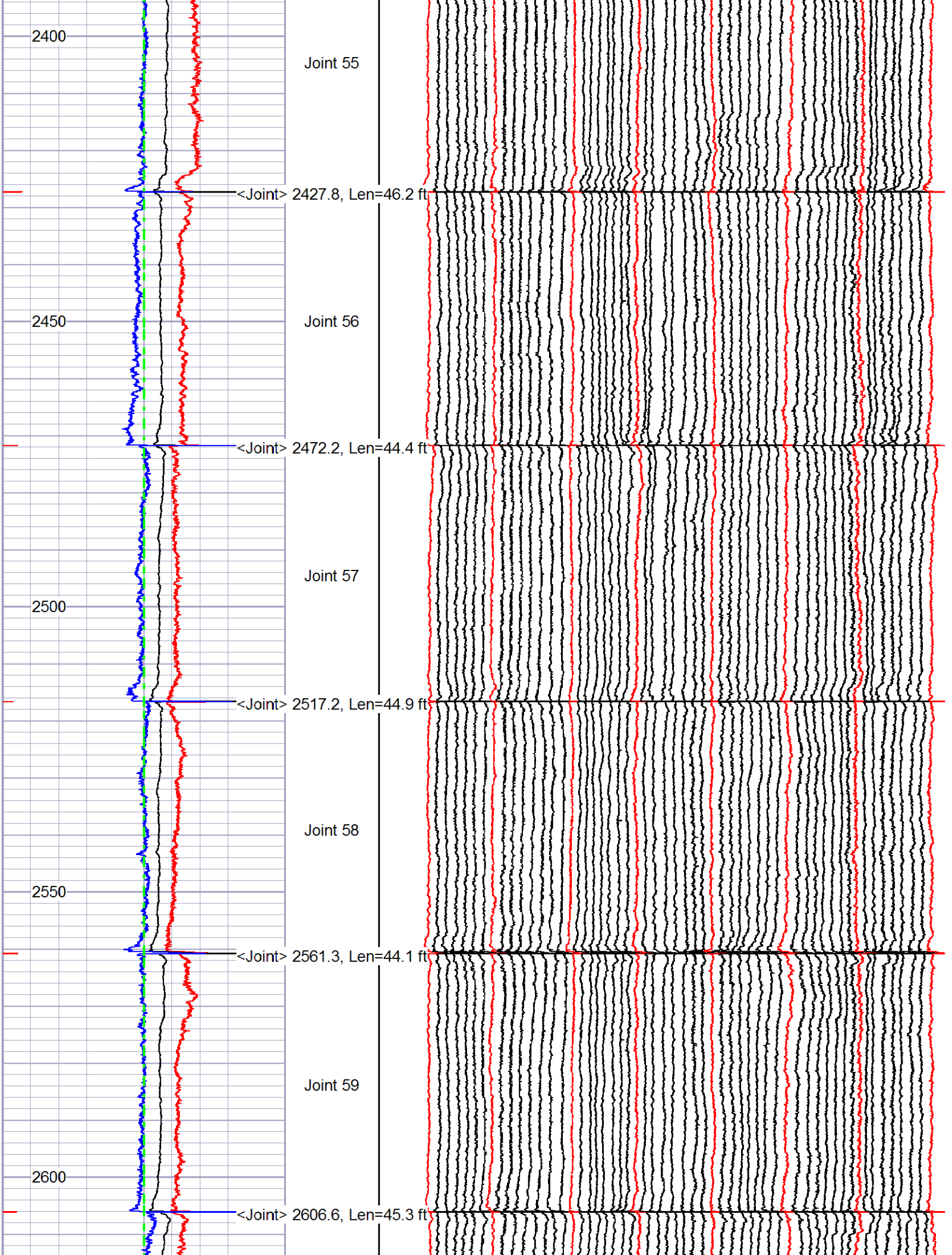
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Joint 56
<Joint> 2472.2, Len=44.4 ft
Joint 57
2500
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Joint 58
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2600
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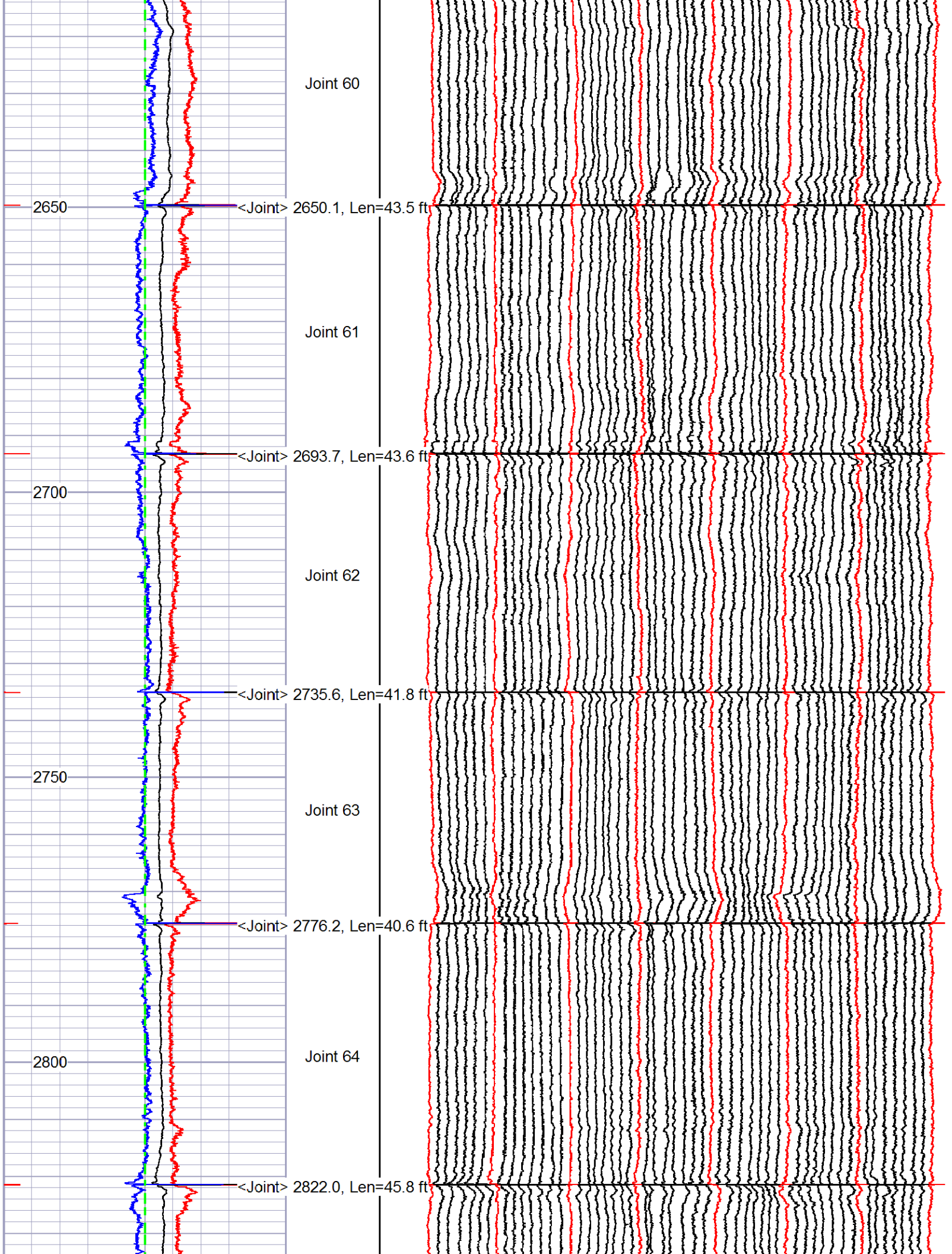
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2700
Joint 62
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Joint 63
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Joint 64
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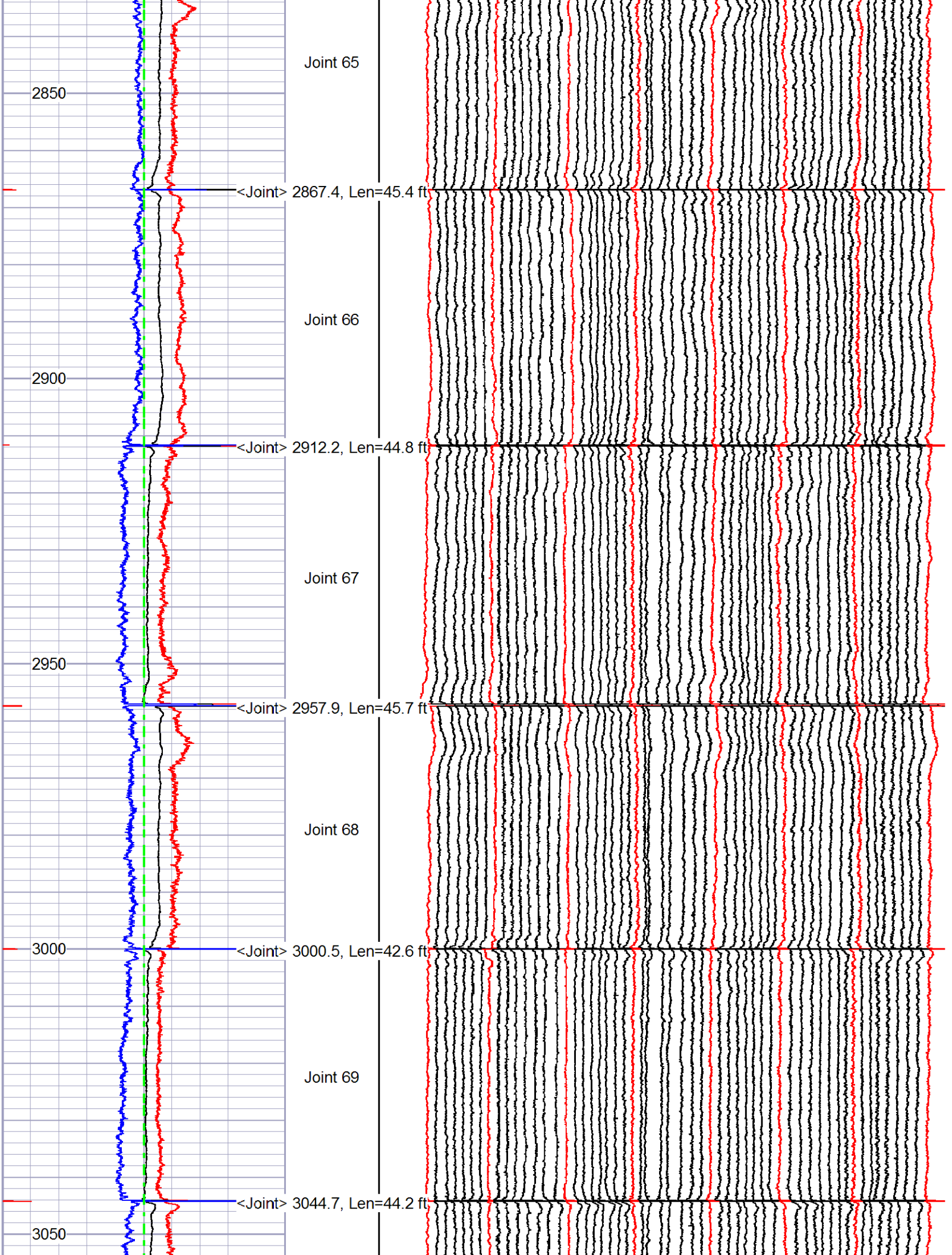
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Joint 67
2950
<Joint> 2957.9, Len=45.7 ft
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Joint 69
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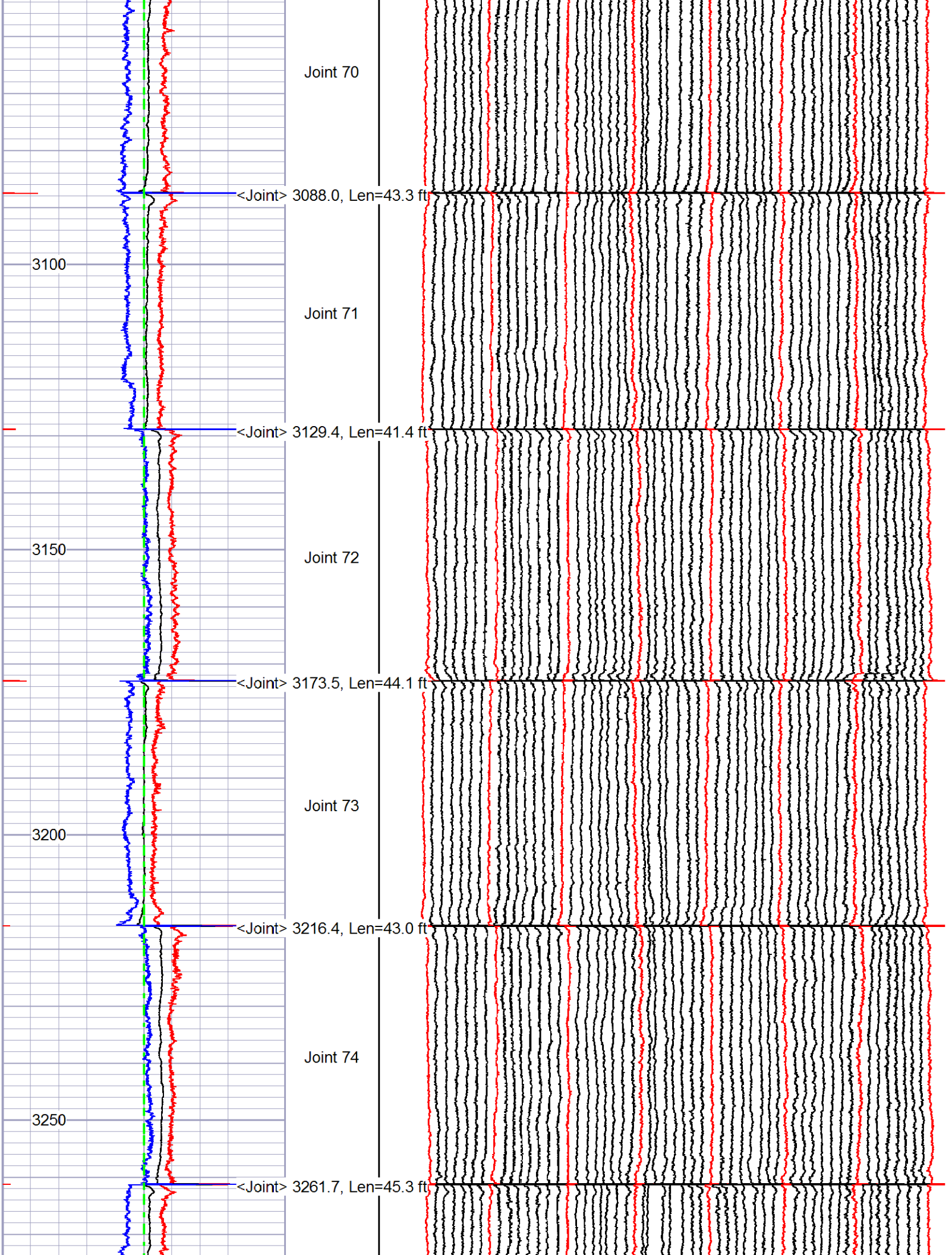
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Joint 71
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Joint 72
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Joint 73
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Joint 74
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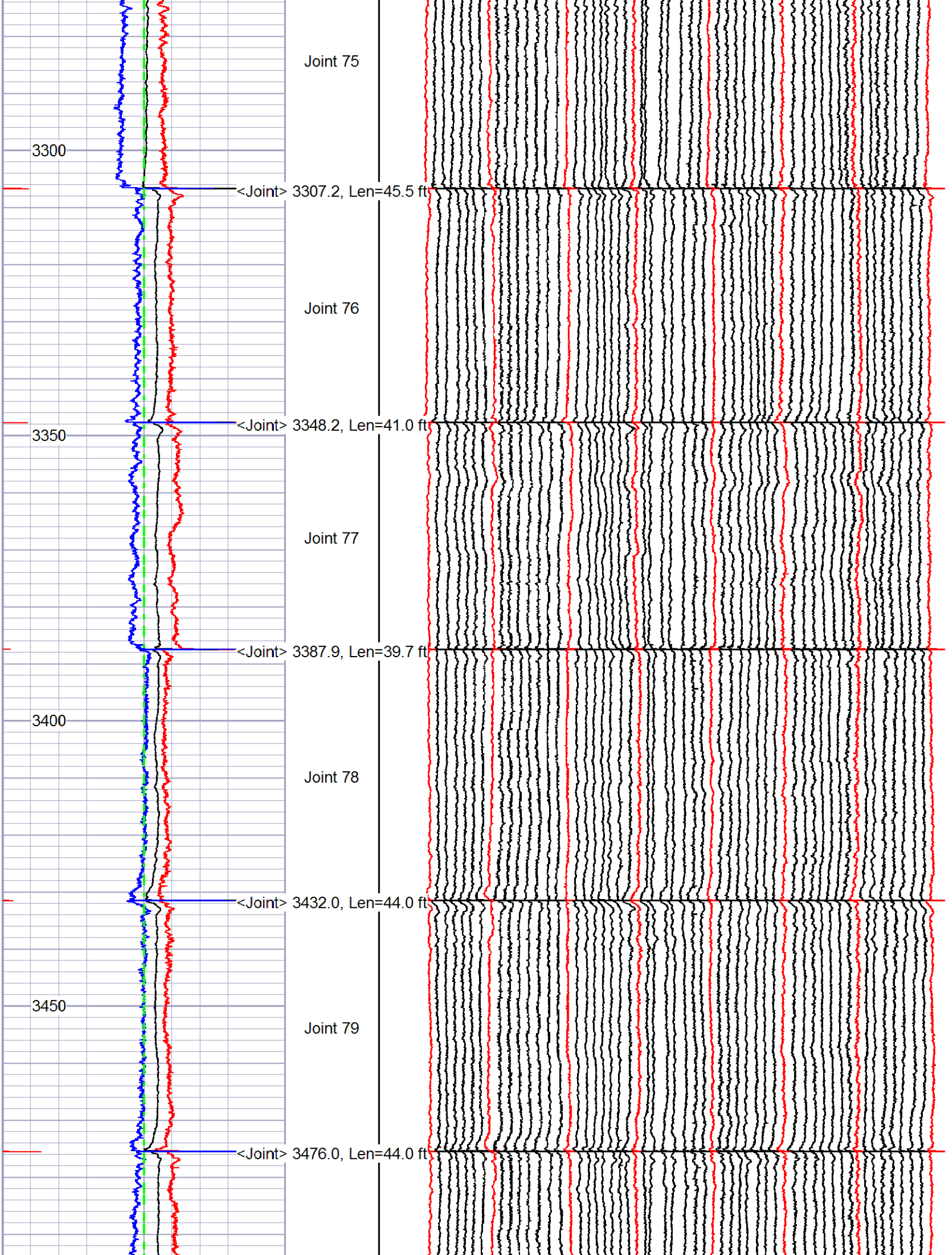
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Joint 76
3350
<Joint> 3348.2, Len=41.0 ft
Joint 77
<Joint> 3387.9, Len=39.7 ft
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Joint 78
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Joint 79
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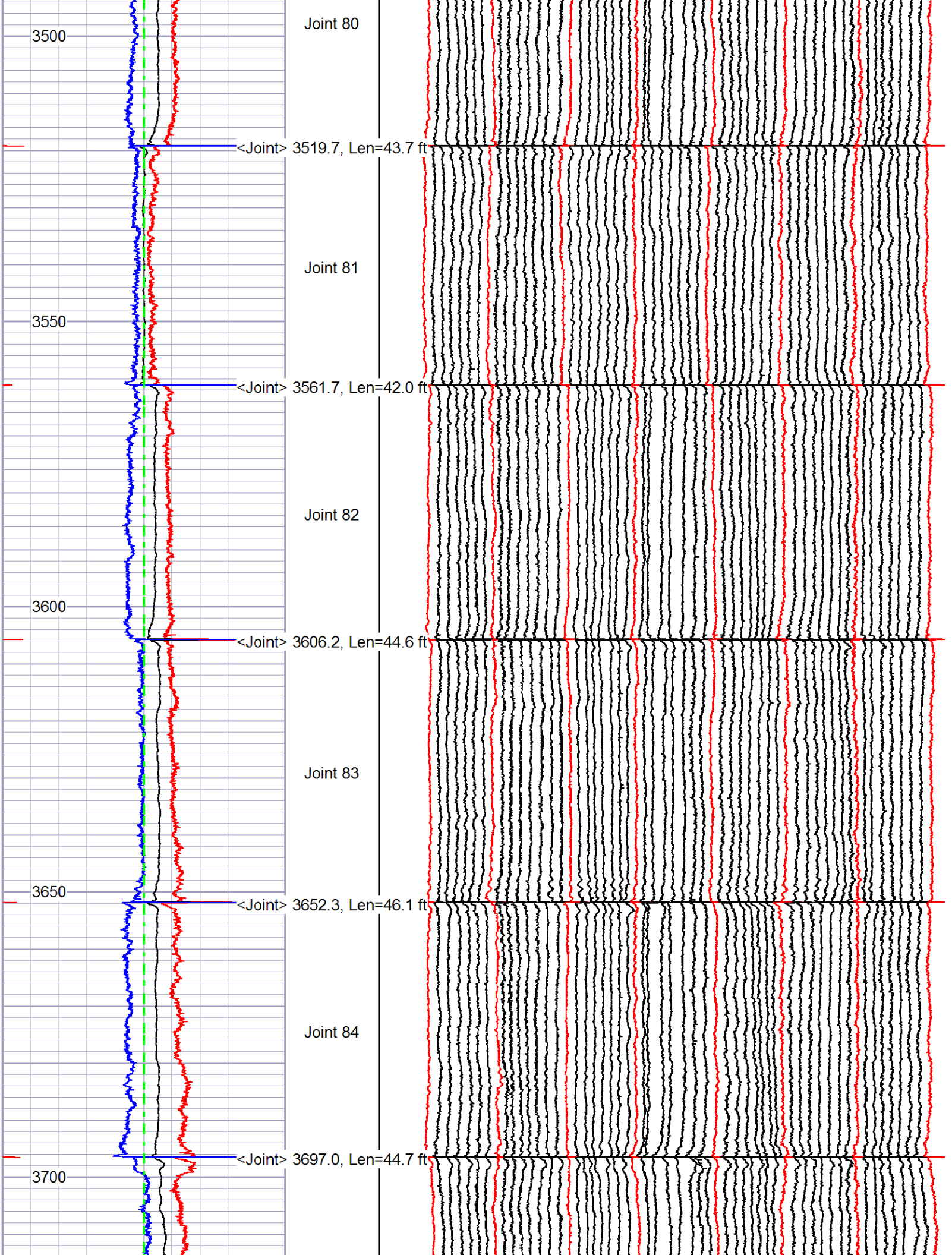
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Joint 80
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Joint 81
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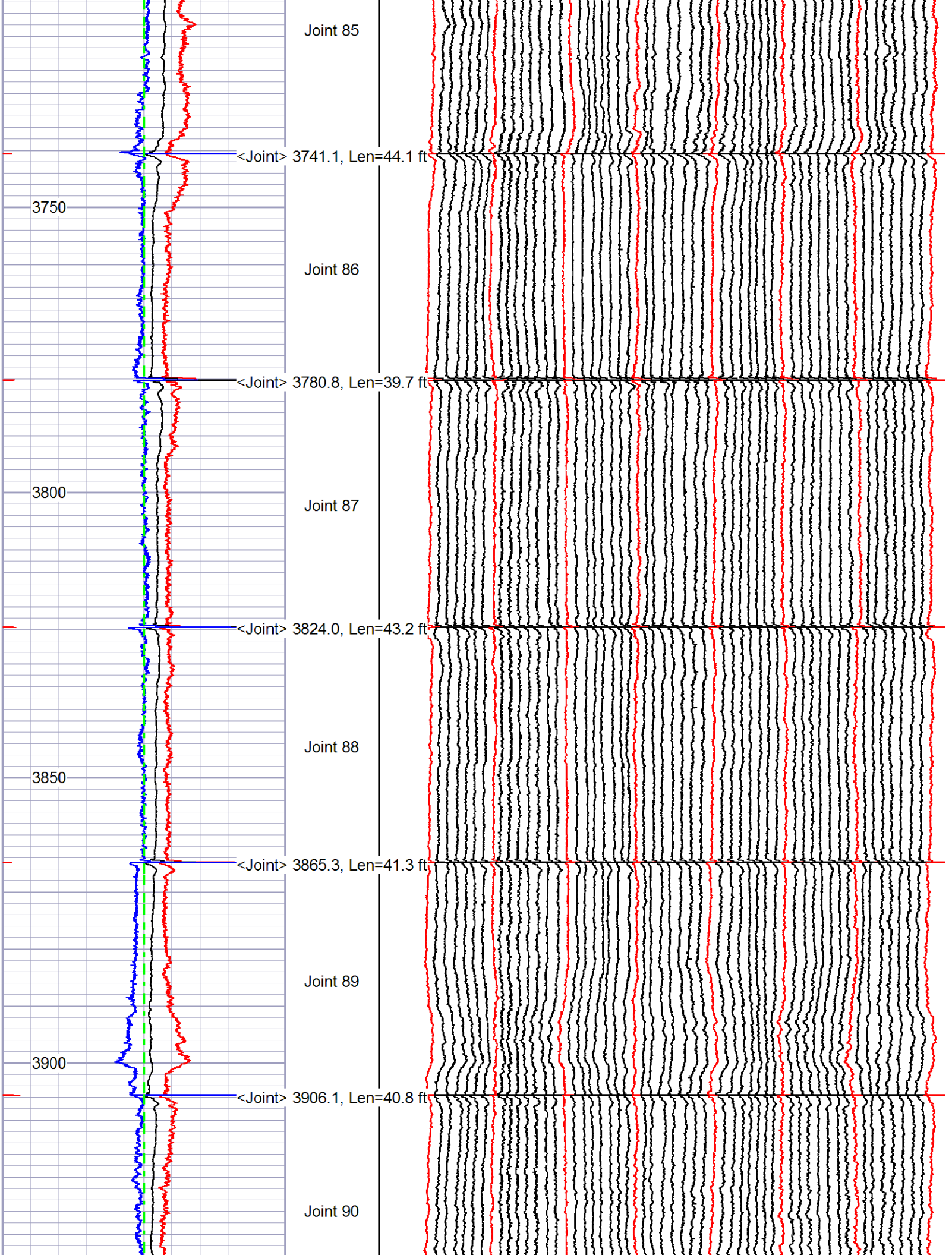
<Joint> 3561.7, Len=42.0 ft
Joint 82
3600
<Joint> 3606.2, Len=44.6 ft
Joint 83
3650
<Joint> 3652.3, Len=46.1 ft
Joint 84
<Joint> 3697.0, Len=44.7 ft
3700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Joint 86
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3800
Joint 87
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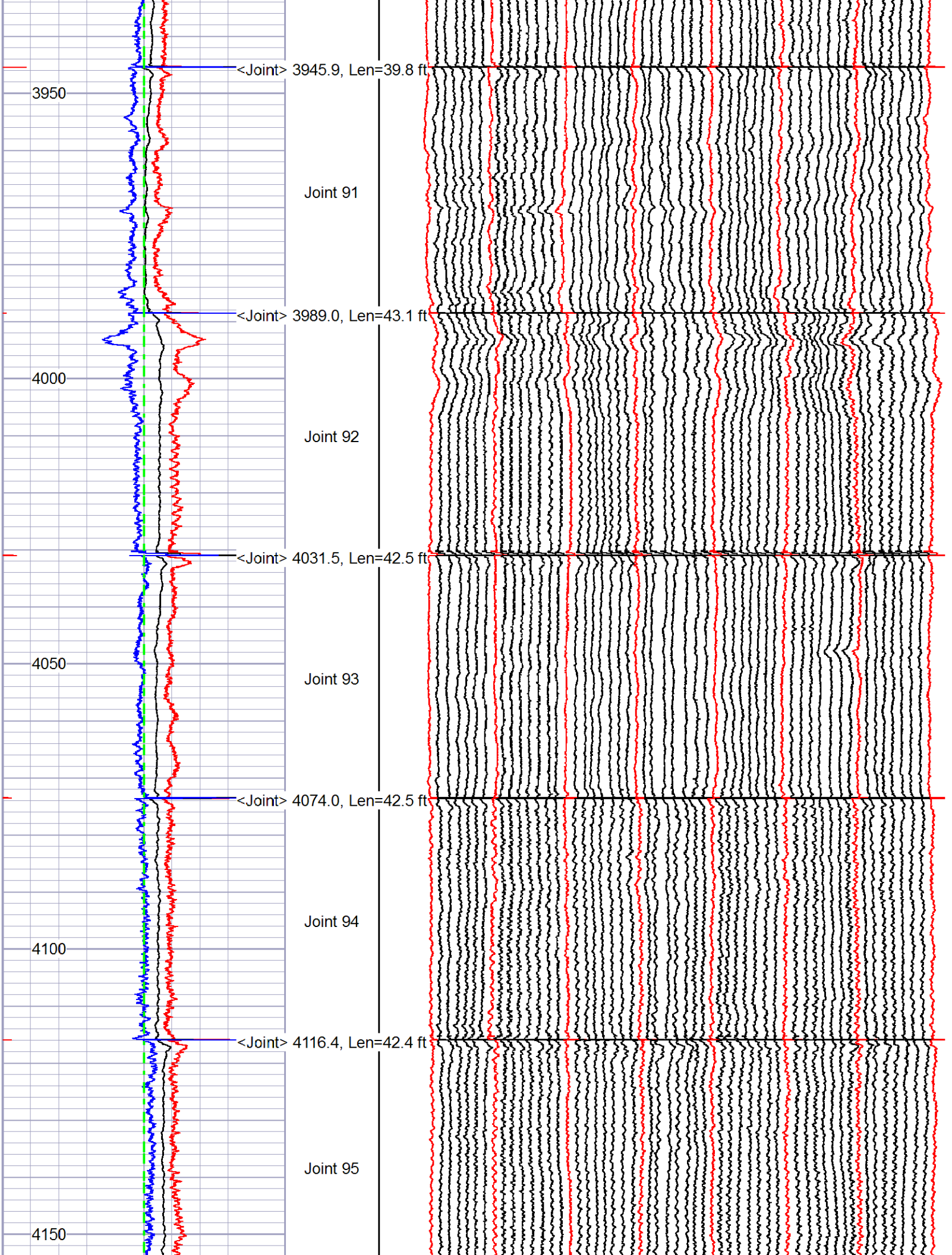
Joint 88
3850
<Joint> 3865.3, Len=41.3 ft
Joint 89
3900
<Joint> 3906.1, Len=40.8 ft
Joint 90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Joint 91
<Joint> 3989.0, Len=43.1 ft
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Joint 92
<Joint> 4031.5, Len=42.5 ft
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Joint 93
<Joint> 4074.0, Len=42.5 ft
Joint 94
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Joint 95
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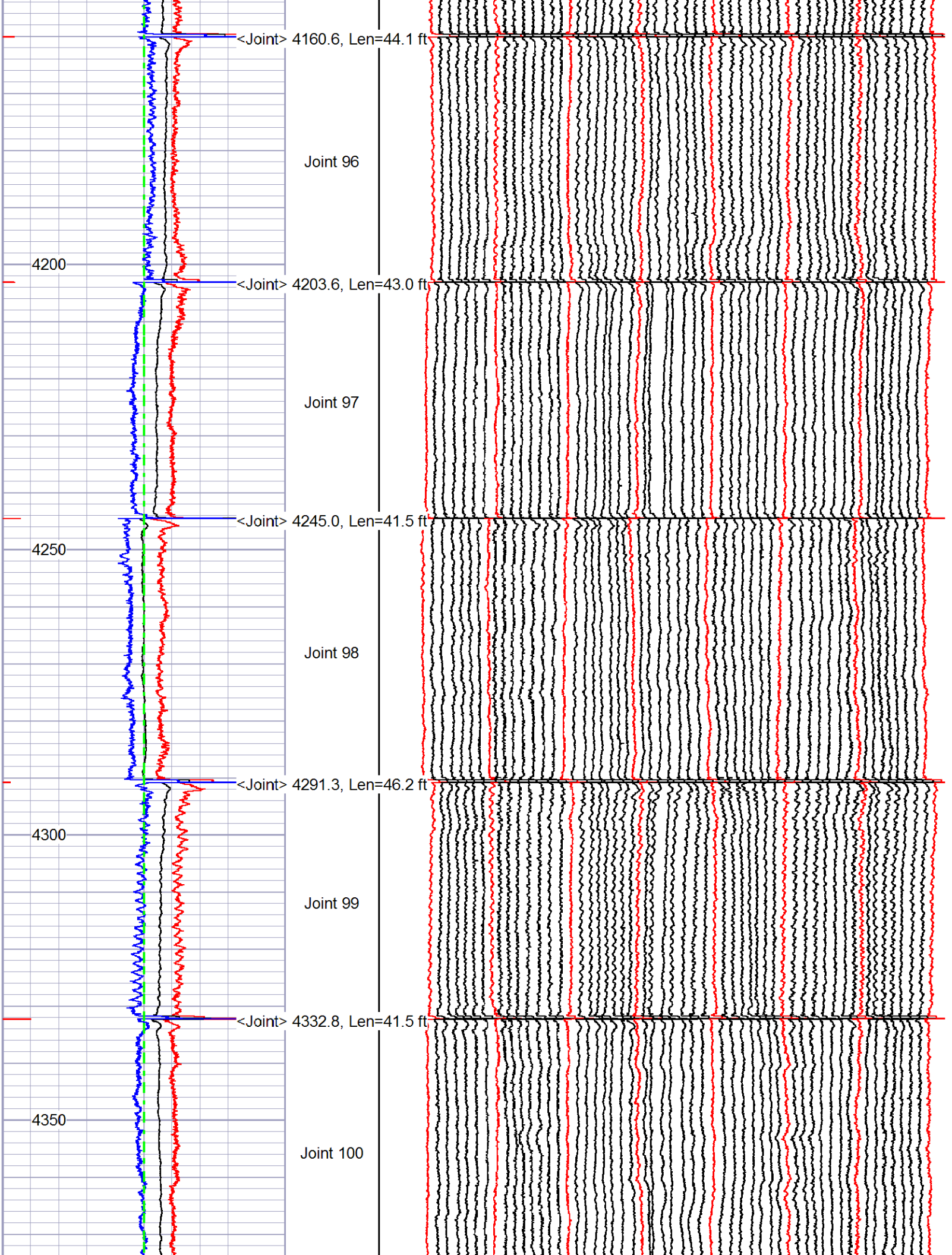
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4200
<Joint> 4203.6, Len=43.0 ft
Joint 97
<Joint> 4245.0, Len=41.5 ft
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Joint 98
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4300
Joint 99
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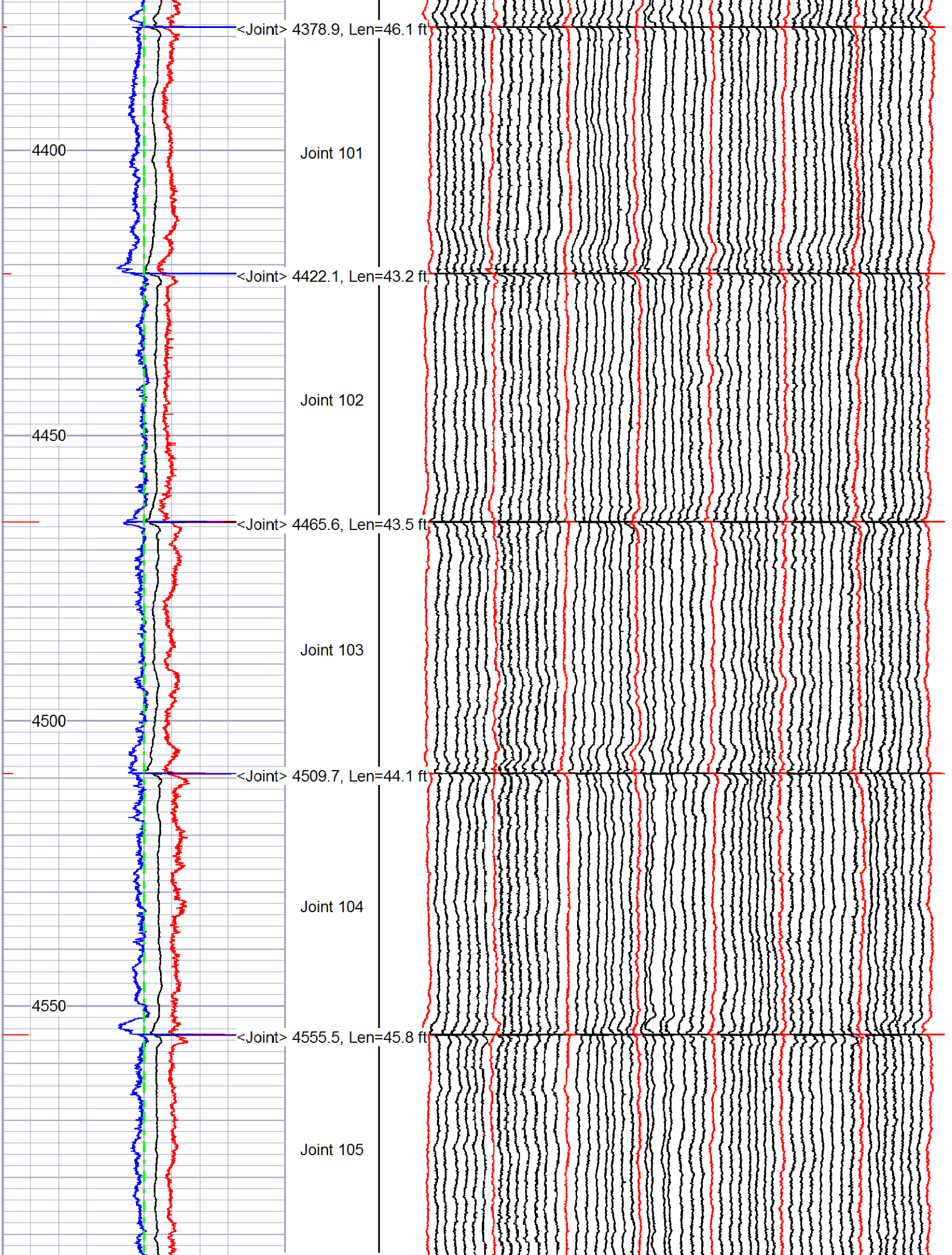
4350
Joint 100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Joint 101
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Joint 102
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<Joint> 4465.6, Len=43.5 ft
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4500
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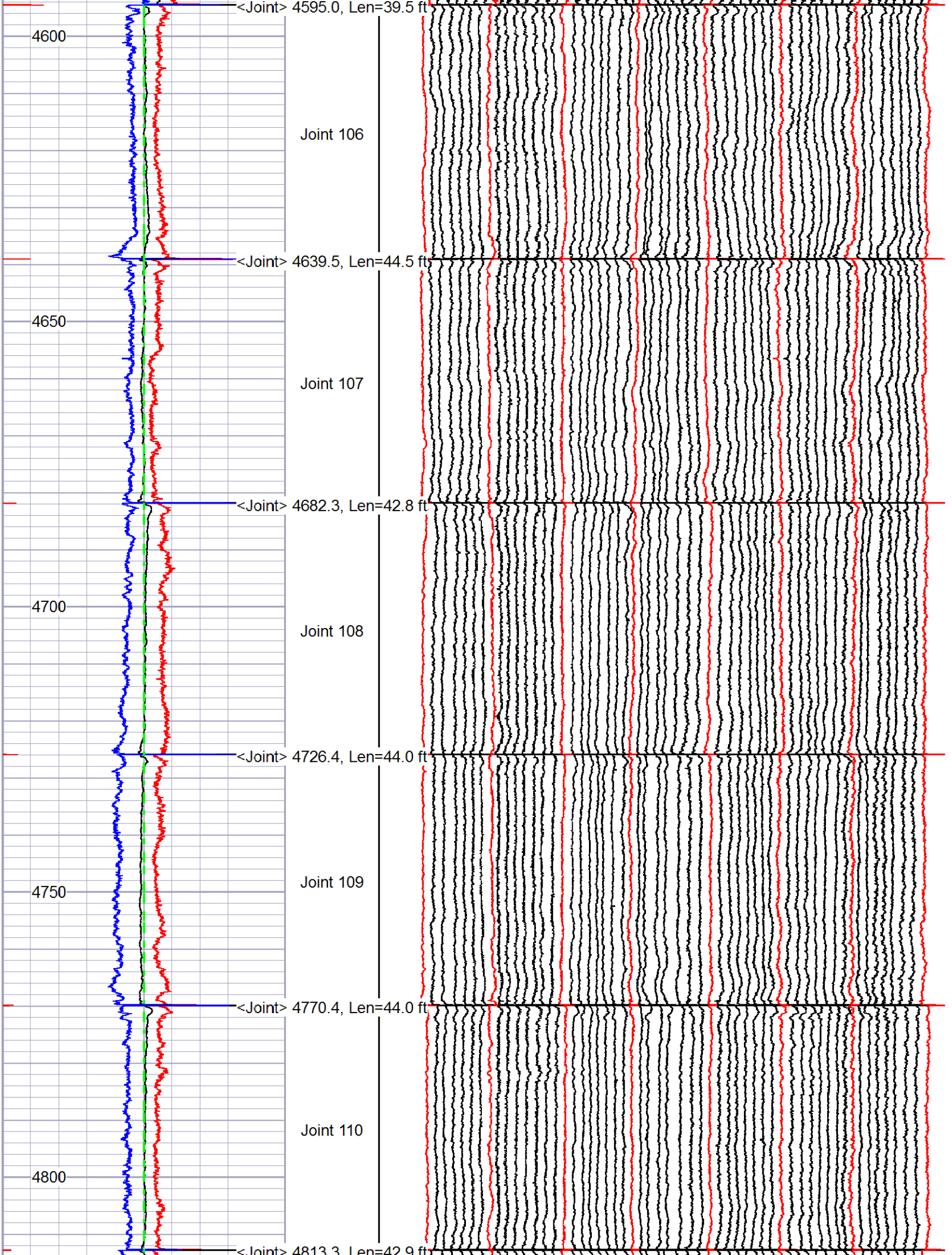
4550
<Joint> 4555.5, Len=45.8 ft
Joint 105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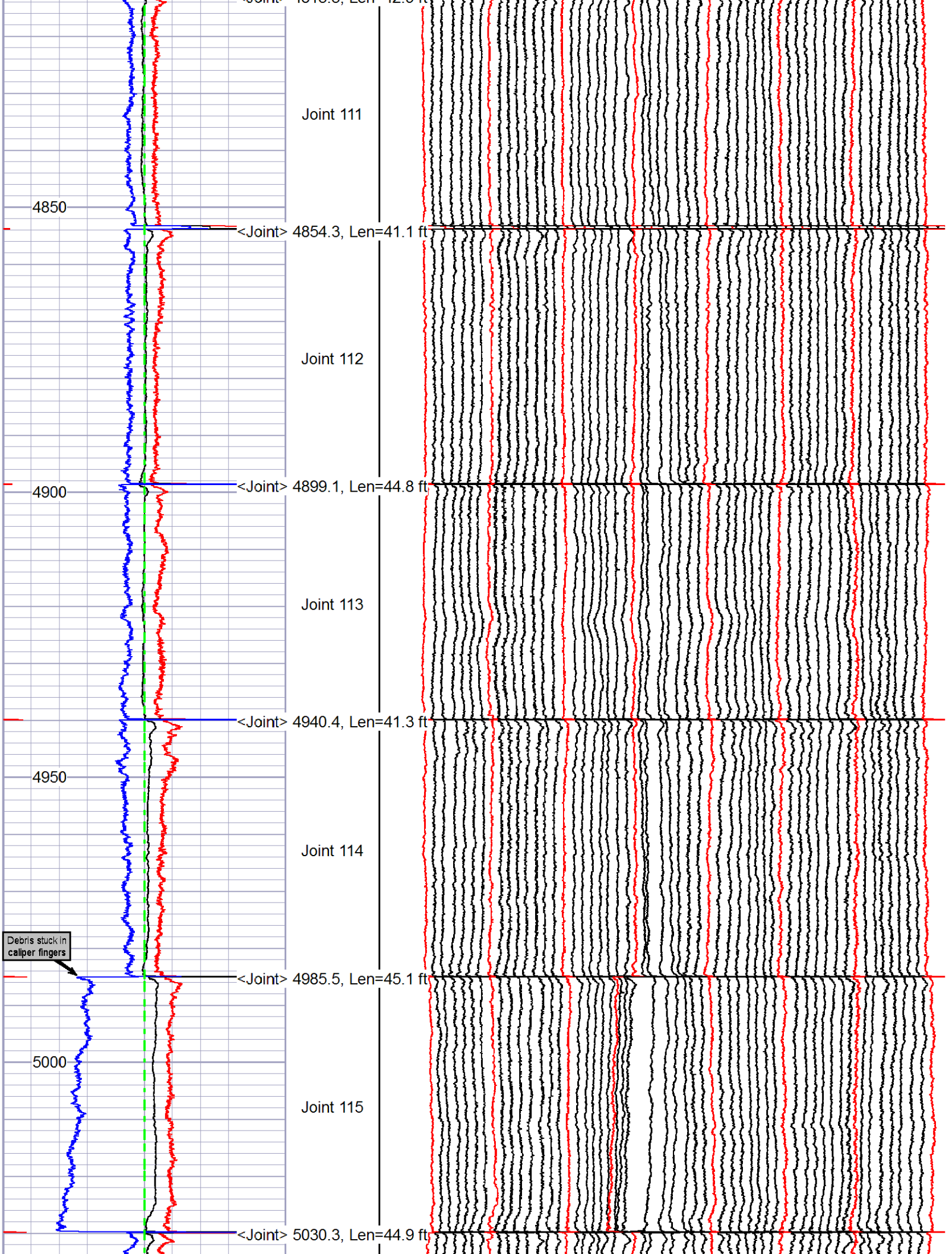
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Joint 112
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<Joint> 4899.1, Len=44.8 ft
Joint 113
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Joint 114
Debris stuck in caliper fingers
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Joint 115
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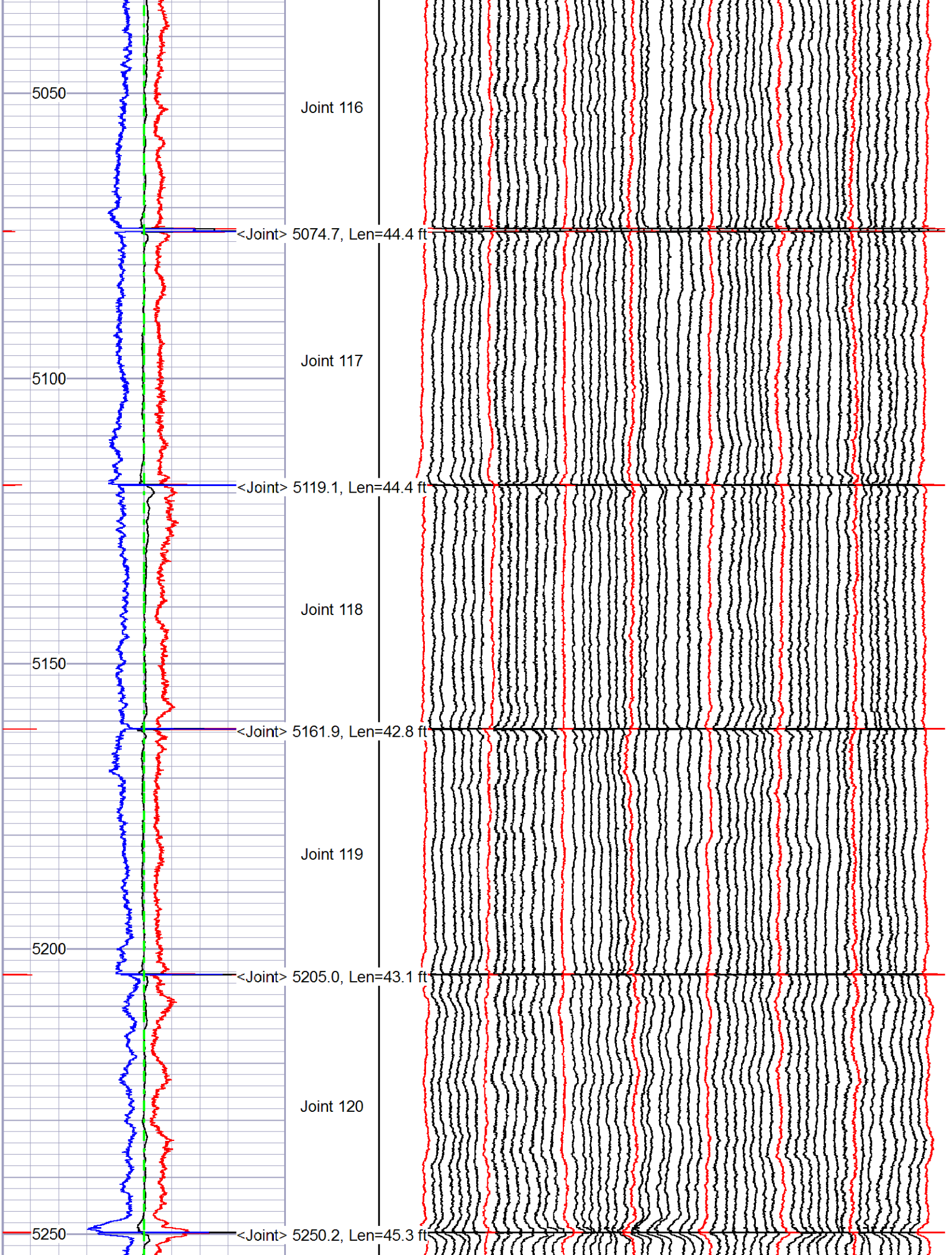
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Joint 117
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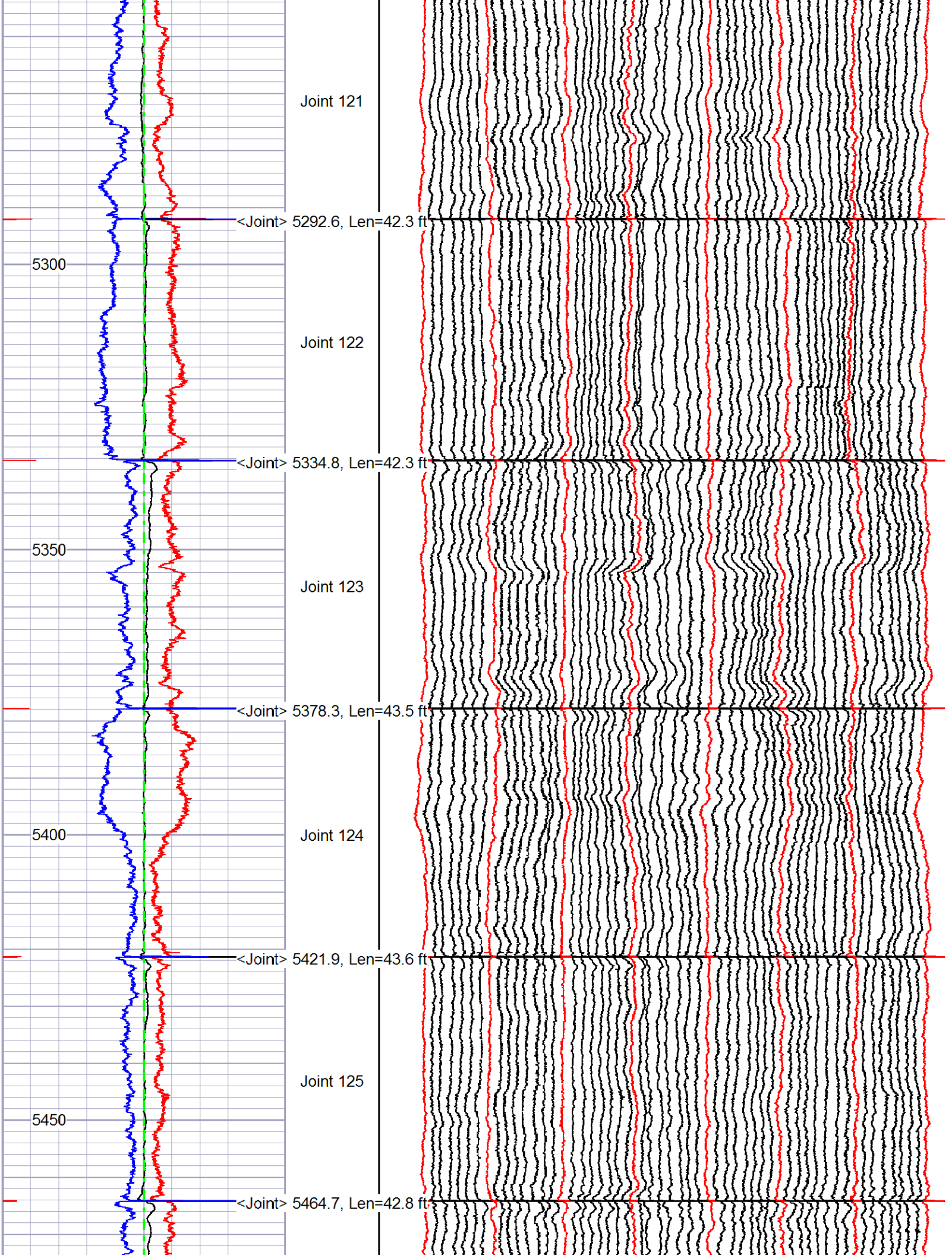
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Joint 122
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Joint 123
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Joint 125
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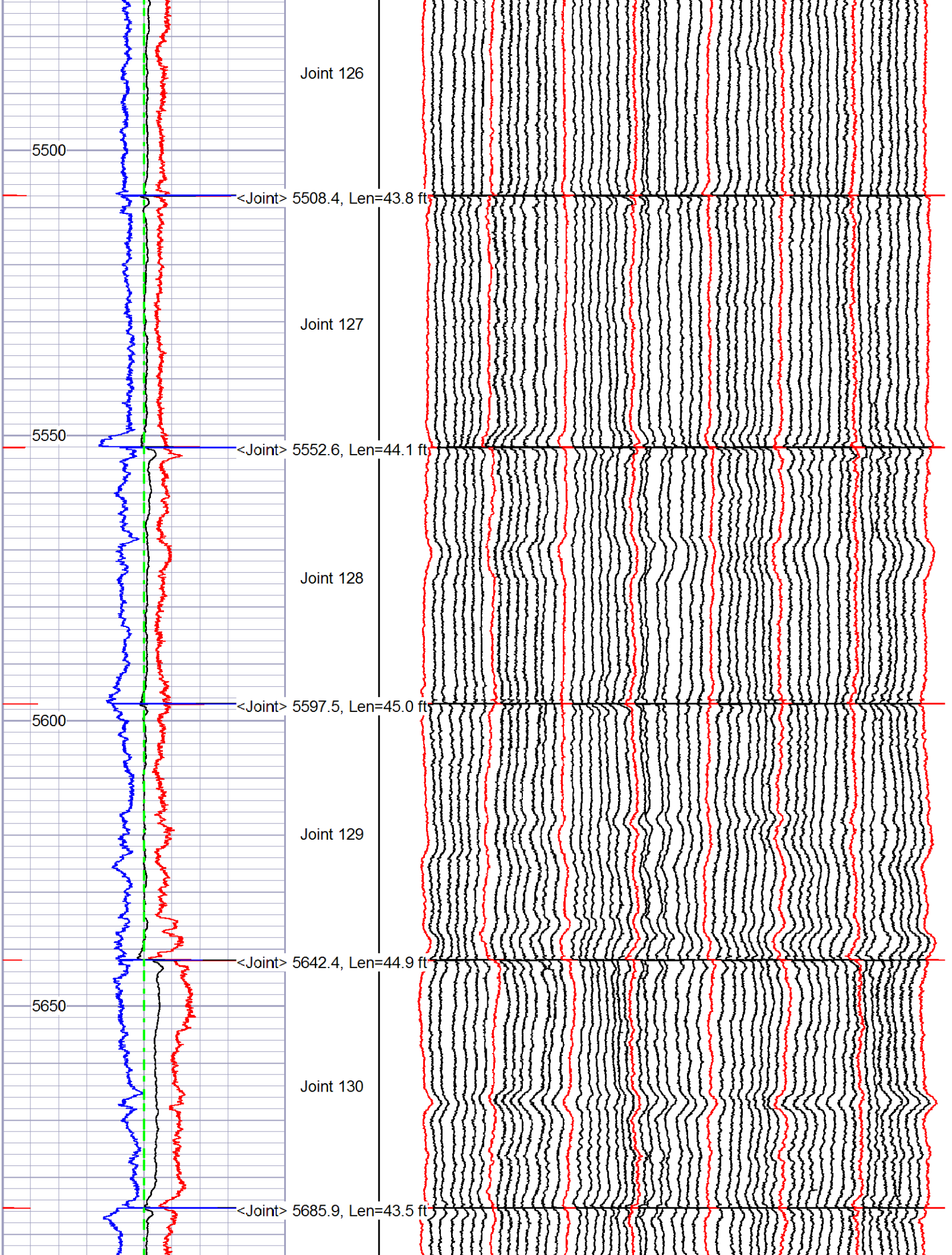
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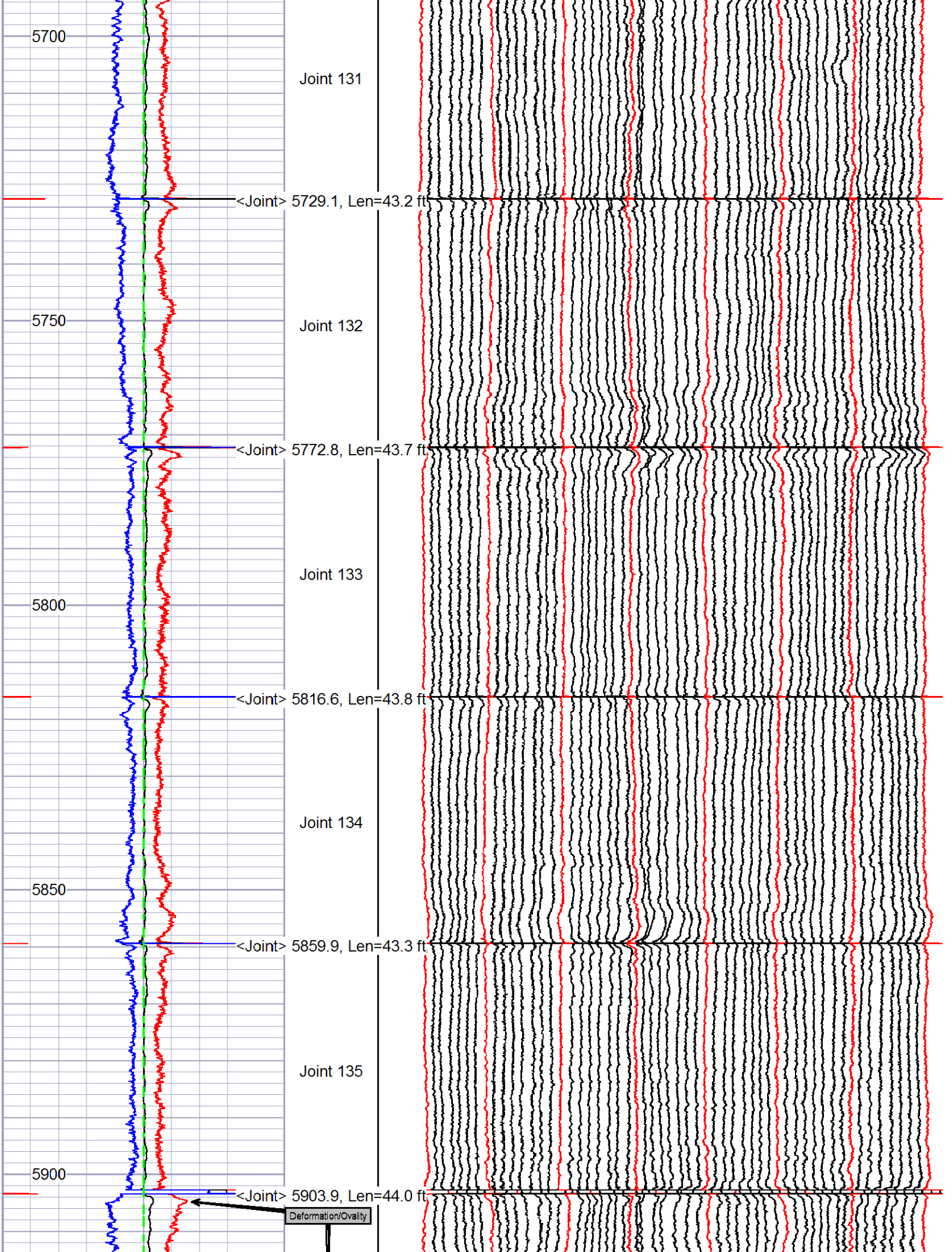
5700
Joint 131
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Joint 132
<Joint> 5772.8, Len=43.7 ft
Joint 133
5800
<Joint> 5816.6, Len=43.8 ft
Joint 134
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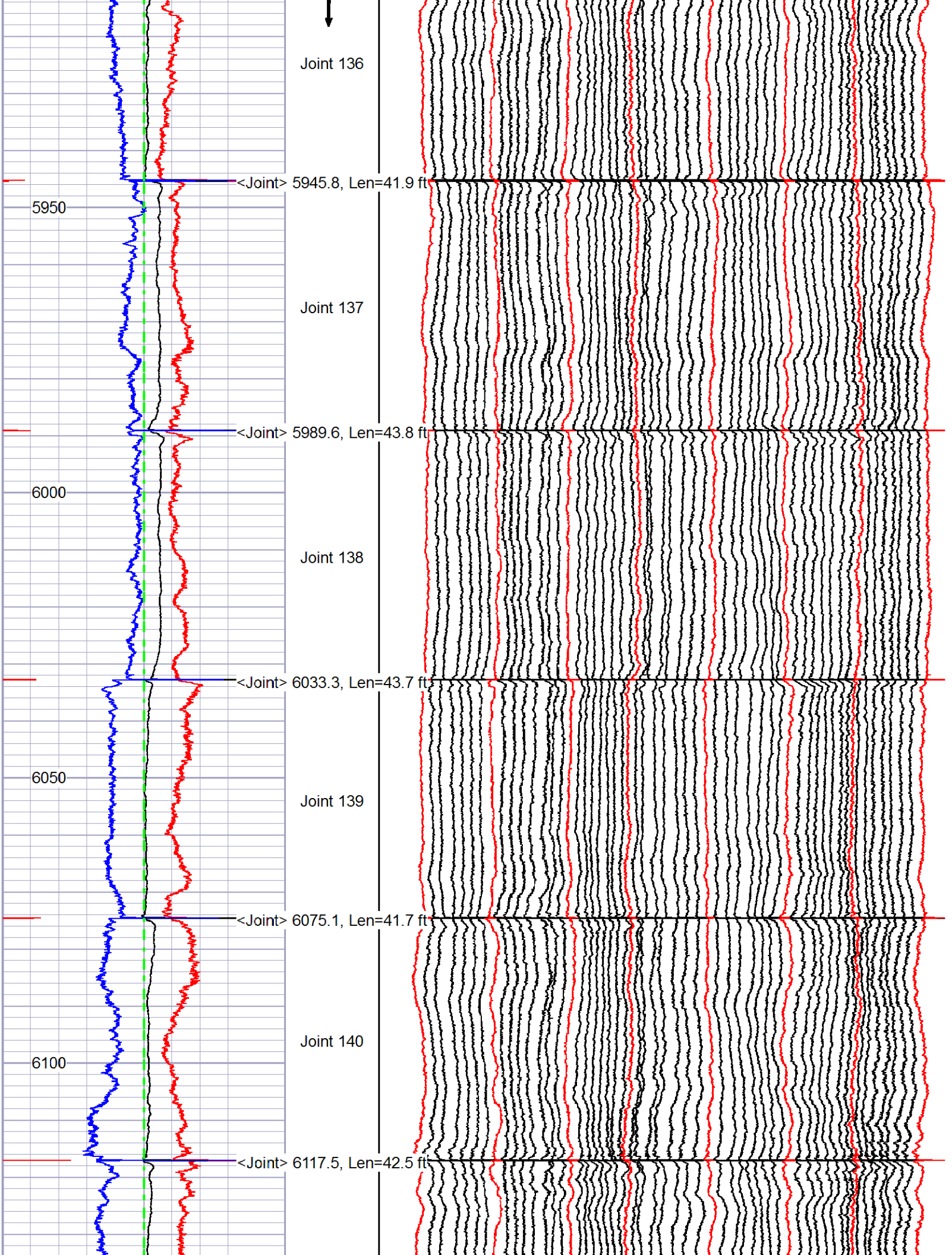
<Joint> 5859.9, Len=43.3 ft
Joint 135
5900
<Joint> 5903.9, Len=44.0 ft
Deformation/Ovality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Joint 137
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Joint 138
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Joint 139
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Joint 140
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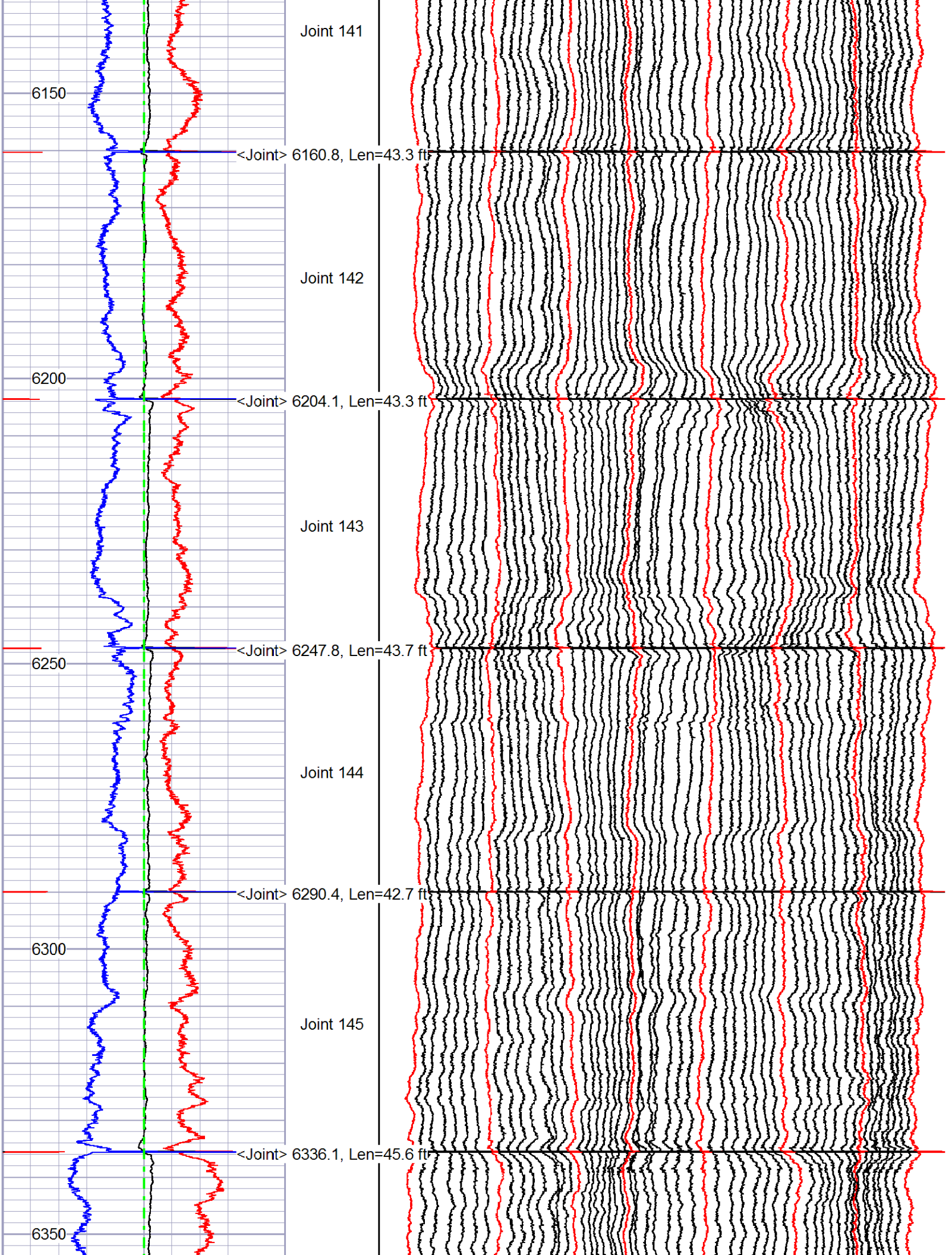
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Joint 143
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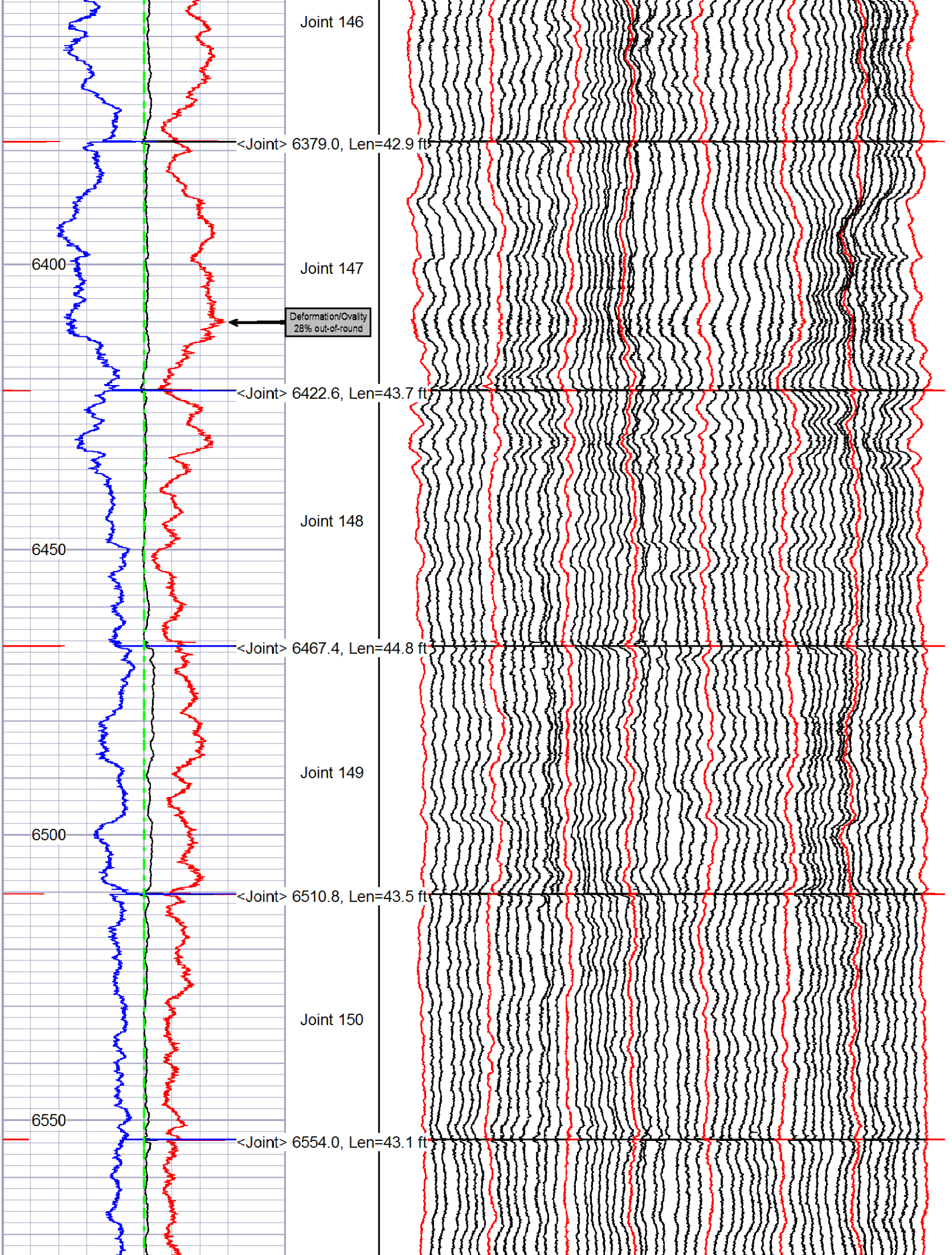
Joint 146
<Joint> 6379.0, Len=42.9 ft
6400
Joint 147
Deformation/Ovality
28% out-of-round
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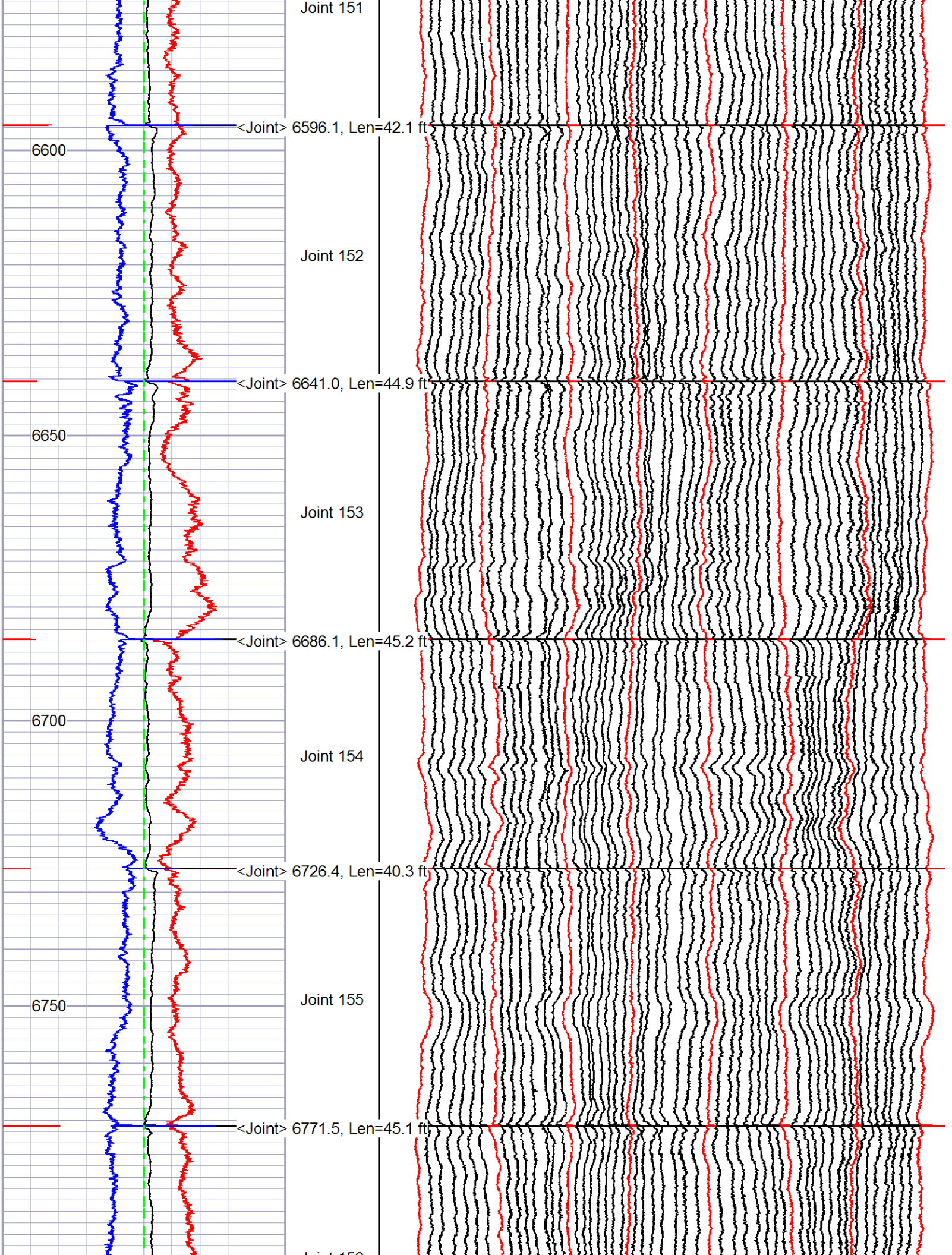
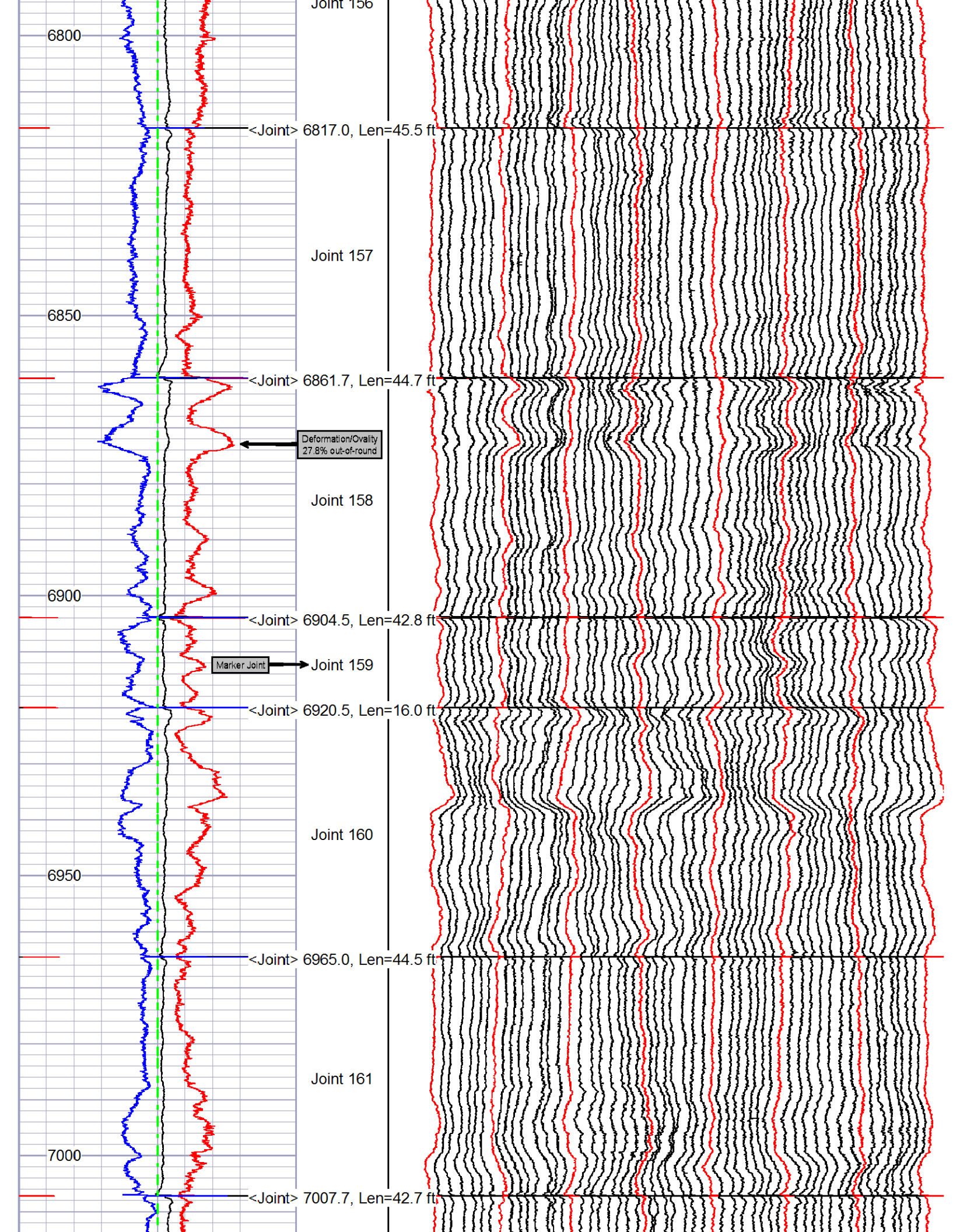
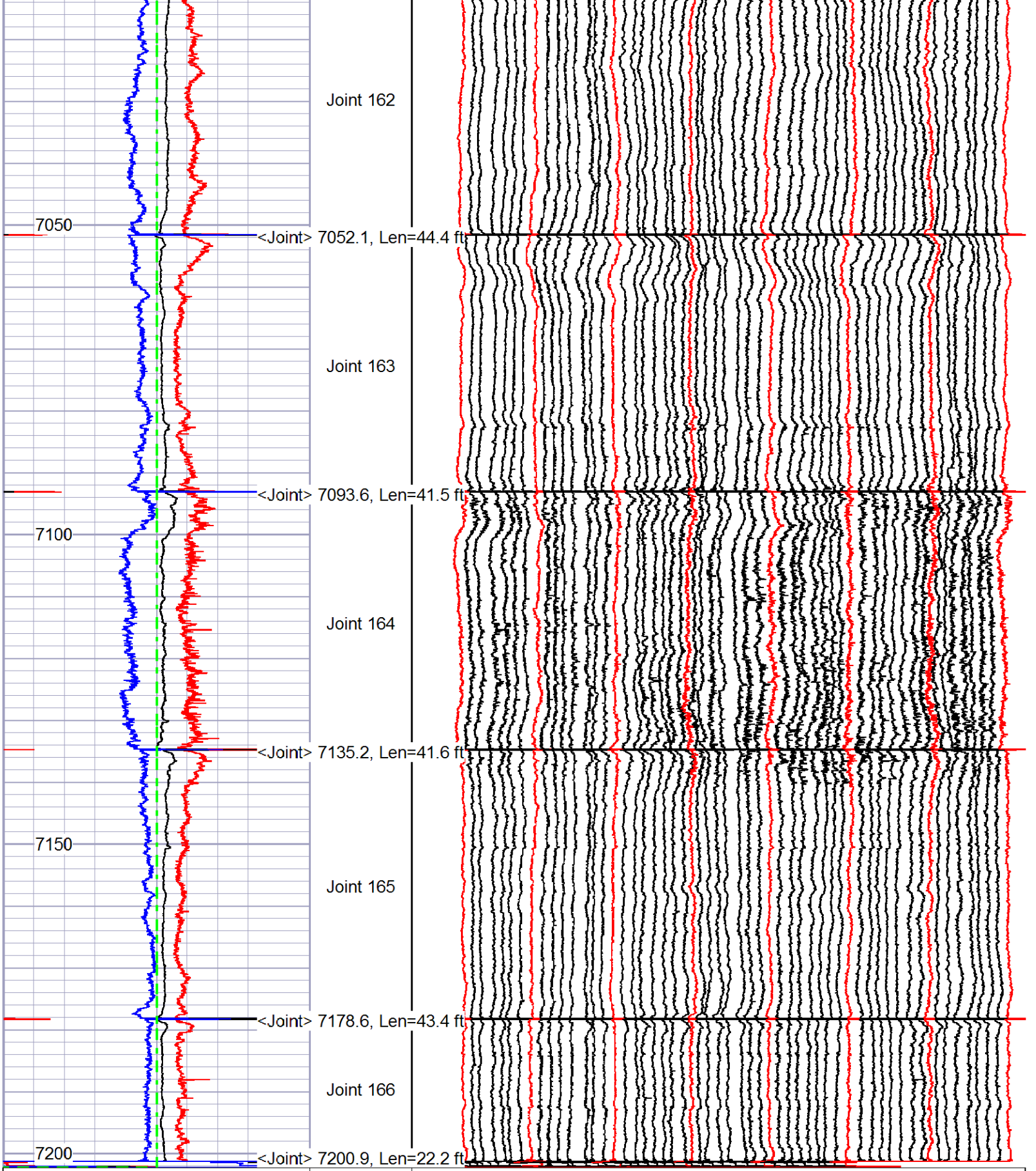
Joint 148
6450
<Joint> 6467.4, Len=44.8 ft
Joint 149
6500
<Joint> 6510.8, Len=43.5 ft
Joint 150
6550
<Joint> 6554.0, Len=43.1 ft


Joint 151
<Joint> 6596.1, Len=42.1 ft
6600
Joint 152
<Joint> 6641.0, Len=44.9 ft
6650
Joint 153
<Joint> 6686.1, Len=45.2 ft
6700
Joint 154
<Joint> 6726.4, Len=40.3 ft
6750
Joint 155
<Joint> 6771.5, Len=45.1 ft


Joint 156
6800
<Joint> 6817.0, Len=45.5 ft
Joint 157
6850
<Joint> 6861.7, Len=44.7 ft
Deformation/Ovality
27.8% out-of-round
Joint 158
6900
<Joint> 6904.5, Len=42.8 ft
Marker Joint
Joint 159
<Joint> 6920.5, Len=16.0 ft
Joint 160
6950
<Joint> 6965.0, Len=44.5 ft
Joint 161
7000
<Joint> 7007.7, Len=42.7 ft



8.181	MAXIMUM ID (in)	9.181	PTANN	4.0905	56 FINGER TRACE (in)	7.1905
8.181	AVERAGE ID (in)	9.181				
8.181	MINIMUM ID (in)	9.181				
8.181	NOMINAL ID (in)	9.181				

Calibration Report

Calibration Report

Database File	c:\users\waakjanl\desktop\incoming\hcal_socal_porter_69e\hcal\project\field\porter_69e_ical.db
Dataset Pathname	ALISO_CANYON/well/run1/pass4
Dataset Creation	Thu Sep 01 12:08:44 2016

GOWell 56 Arm Calibration Report

Serial Number: 10065
Tool Model: 56
Performed: Thu Sep 01 07:24:38 2016

Ref ID:	6.00	7.00	8.00	9.00	9.63	Offset	in
Arm1	6.03	7.11	8.12	9.12	9.78	0.00	in
Arm2	6.02	7.04	8.03	8.99	9.67	0.00	in
Arm3	6.07	7.14	8.17	9.15	9.84	0.00	in
Arm4	5.92	6.99	8.05	8.98	9.69	0.00	in
Arm5	6.07	7.14	8.16	9.12	9.84	0.00	in
Arm6	6.10	7.12	8.12	9.05	9.76	0.00	in
Arm7	6.03	7.09	8.14	9.08	9.83	0.00	in
Arm8	6.08	7.12	8.15	9.04	9.78	0.00	in
Arm9	6.03	7.11	8.13	9.07	9.82	0.00	in
Arm10	6.25	7.29	8.28	9.18	9.90	0.00	in
Arm11	6.14	7.23	8.25	9.16	9.91	0.00	in
Arm12	6.10	7.11	8.12	9.01	9.75	0.00	in
Arm13	6.13	7.20	8.22	9.15	9.89	0.00	in
Arm14	6.22	7.25	8.24	9.14	9.87	0.00	in
Arm15	6.42	7.47	8.48	9.39	10.09	0.00	in
Arm16	6.45	7.50	8.49	9.37	10.08	0.00	in
Arm17	6.09	7.13	8.14	9.09	9.82	0.00	in
Arm18	6.26	7.31	8.29	9.19	9.88	0.00	in
Arm19	5.97	7.05	8.05	8.99	9.73	0.00	in
Arm20	6.21	7.25	8.20	9.11	9.81	0.00	in
Arm21	6.13	7.21	8.20	9.10	9.83	0.00	in
Arm22	6.29	7.32	8.27	9.18	9.85	0.00	in
Arm23	6.26	7.28	8.25	9.21	9.86	0.00	in
Arm24	6.20	7.21	8.17	9.14	9.78	0.00	in
Arm25	5.95	6.99	7.95	8.91	9.55	0.00	in
Arm26	6.15	7.14	8.10	9.10	9.72	0.00	in
Arm27	6.13	7.13	8.08	9.10	9.69	0.00	in
Arm28	6.21	7.25	8.20	9.16	9.78	0.00	in
Arm29	6.09	7.15	8.12	9.09	9.69	0.00	in
Arm30	6.22	7.21	8.15	9.17	9.72	0.00	in

* Bad

GOWell 56 Arm Calibration Report

Serial Number:
Tool Model:
Performed:

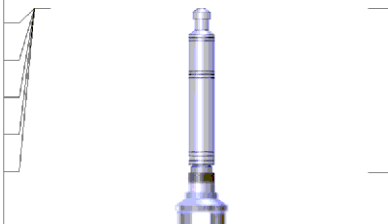
Ref ID:	6.00	7.00	8.00	9.00	9.63	Offset	in
Arm31	6.14	7.20	8.17	9.13	9.70	0.00	in
Arm32	6.03	7.03	7.96	8.99	9.55	0.00	in
Arm33	6.36	7.34	8.28	9.32	9.84	0.00	in
Arm34	6.31	7.28	8.19	9.21	9.74	0.00	in
Arm35	6.12	7.23	8.17	9.15	9.72	0.00	in
Arm36	6.25	7.28	8.21	9.21	9.74	0.00	in
Arm37	6.08	7.12	8.04	9.12	9.64	0.00	in
Arm38	6.07	7.05	7.94	9.01	9.58	0.00	in
Arm39	5.88	6.92	7.88	8.90	9.44	0.00	in
Arm40	6.11	7.13	8.06	9.12	9.64	0.00	in
Arm41	5.98	7.00	7.96	9.03	9.57	0.00	in
Arm42	6.03	7.04	7.95	9.02	9.56	0.00	in
Arm43	6.01	7.09	8.04	9.08	9.62	0.00	in
Arm44	6.70	7.61	8.55	9.58	10.09	0.00	in
Arm45	5.88	6.90	7.89	8.99	9.55	0.00	in

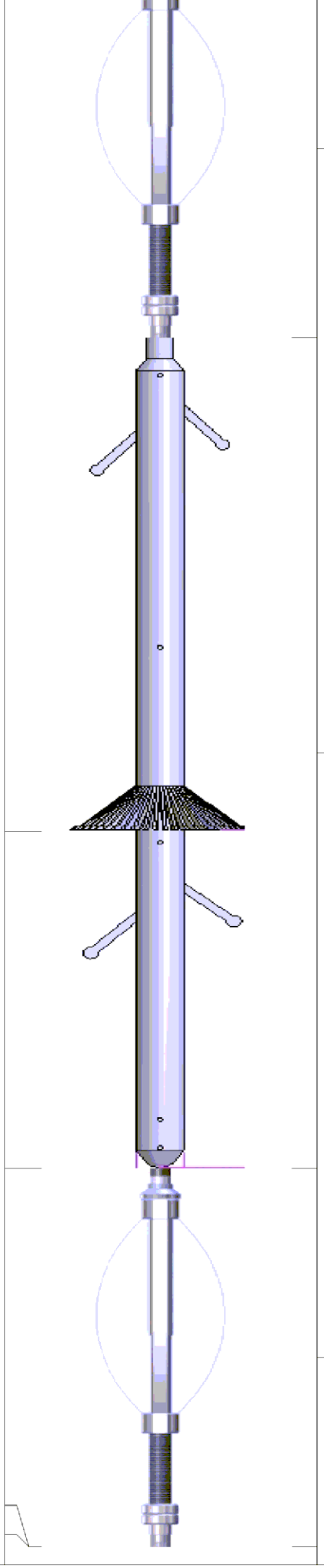
Arm46	6.00	7.02	7.99	9.07	9.63	0.00	in
Arm47	5.95	6.96	7.94	9.02	9.59	0.00	in
Arm48	5.90	6.92	7.90	8.95	9.54	0.00	in
Arm49	5.95	7.00	8.03	9.06	9.66	0.00	in
Arm50	6.09	7.09	8.06	9.08	9.66	0.00	in
Arm51	5.98	7.01	7.99	9.05	9.65	0.00	in
Arm52	6.06	7.09	8.07	9.11	9.71	0.00	in
Arm53	5.92	6.96	7.97	9.00	9.64	0.00	in
Arm54	6.09	7.11	8.07	9.06	9.69	0.00	in
Arm55	6.14	7.18	8.17	9.18	9.83	0.00	in
Arm56	6.02	7.04	8.03	9.03	9.67	0.00	in
Arm57							in
Arm58							in
Arm59							in
Arm60							in

* Bad

GOWell 56 Arm Verification Report

	Pre Verification	Post Verification	Casing Check	
Performed:	Thu Sep 01 07:26:54 2016	Wed Aug 17 14:34:47 2016	Wed Aug 17 14:01:35 2016	
Ref ID:	8.00	8.00	8.68	in
Min.	7.93	7.90	8.71	in
Max.	8.01	7.99	8.80	in
Avg.	7.98	7.95	8.75	in
Dia1	7.98	7.95	8.72	in
Dia2	8.00	7.96	8.73	in
Dia3	7.95	7.96	8.73	in
Dia4	7.99	7.95	8.72	in
Dia5	7.99	7.96	8.74	in
Dia6	8.00	7.94	8.75	in
Dia7	7.95	7.90	8.71	in
Dia8	7.97	7.92	8.76	in
Dia9	7.99	7.96	8.76	in
Dia10	7.98	7.94	8.75	in
Dia11	7.99	7.96	8.78	in
Dia12	7.97	7.94	8.79	in
Dia13	7.98	7.96	8.77	in
Dia14	7.97	7.97	8.77	in
Dia15	7.96	7.97	8.80	in
Dia16	7.99	7.94	8.78	in
Dia17	7.95	7.98	8.74	in
Dia18	7.98	7.95	8.74	in
Dia19	7.98	7.95	8.72	in
Dia20	7.98	7.94	8.72	in
Dia21	7.95	7.94	8.76	in
Dia22	7.98	7.94	8.75	in
Dia23	7.93	7.99	8.78	in
Dia24	8.01	7.94	8.75	in
Dia25	7.96	7.96	8.77	in
Dia26	8.00	7.95	8.77	in
Dia27	8.00	7.97	8.77	in
Dia28	7.98	7.94	8.76	in

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
BPRES PPRES TOTBBL PRATE LTENUSR	13.61 13.61 13.61 13.61 13.61		CHD-STNDRD Standard Cable Head	1.03	1.45	10.00

			CENT-3' In-Line 2. 3/4" Probe In-Line Standard GOI Centralizer	3.00	2.75	30.00
			XIPEMAC-56 (10065) Hotwell 56 Arm caliper	6.58	3.50	100.00
Meas	5.67					
Aux1	3.00					
			CENT-3' In-Line 2. 3/4" Probe In-Line Standard GOI Centralizer	3.00	2.75	30.00
LOCTIM	0.00					
UTCTIM	0.00					

Dataset: porter_69e_ical.db: ALISO_CANYON/well/run1/pass7
Total length: 13.61 ft
Total weight: 170.00 lb
O.D.: 3.50 in

Company	SOUTHERN CALIFORNIA GAS COMPANY
Well	PORTER 69E
Field	ALISO CANYON
County	LOS ANGELES
State	CALIFORNIA