

Submit a Copy To Appropriate District Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-025-24314	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name VACUUM GRAYBURG SAN ANDRES UNIT	
8. Well Number 031	
9. OGRID Number 330132	
10. Pool name or Wildcat VACUUM; GRAYBURG-SAN ANDRES	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☐ Gas Well ☐ Other INJECTION	
2. Name of Operator MORNINGSTAR OPERATING LLC	
3. Address of Operator 400 W 7TH ST, FORT WORTH, TX 76102	
4. Well Location Unit Letter _J_: ___2630___ feet from the ___S___ line and ___1330___ feet from the ___E___ line Section02 Township 18S Range 34E NMPM County LEA	
11. Elevation (Show whether DR, RKB, RT, GR, etc.)	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: EVALUATION LOG ☒	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

MorningStar Operating submits the attached Pipe Evaluation Log.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Connie Blaylock TITLE Regulatory Analyst DATE 04/23/2025

Type or print name Connie Blaylock E-mail address: cblaylock@txoenergy.com PHONE: 817-334-7882

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):



Multi Sensor 40 Arm Caliper Electro Magnetic Thickness Gamma Ray CCL Log

Company	Morningstar Operating, LLC	Company	Morningstar Operating, LLC
Well	Vacuum Grayburg San Andres Unit No. 31	Well	Vacuum Grayburg San Andres Unit No. 31
Field	Vacuum (Grayburg-San Andres)	Field	Vacuum (Grayburg-San Andres)
County	Lea	County	Lea
State	New Mexico	State	New Mexico
Location:	API # : 30-025-24314	Other Services	RBL
Permanent Datum	2630' FSL & 1330' FEL		
Log Measured From	J-02-18S-34E		
Drilling Measured From	SEC TWP RGE		
	Ground Level	Elevation	4000'
	APD 11' KB		
	Kelly Bushing		
		Elevation	K.B. 4011'
			D.F. 4010'
			G.L. 4000'

Date	04/02/2025
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Run Number	One
Depth Driller	4710'
Depth Logger	3750'
Bottom Logged Interval	3748'
Top Log Interval	Surface
Open Hole Size	7 7/8"
Type Fluid	Water
Density / Viscosity	-
Max. Recorded Temp.	-
Estimated Cement Top	See Log
Time Well Ready	On Arrival
Time Logger on Bottom	See Log
Equipment Number	WL-001
Location	Odessa, Texas
Recorded By	Casey Pearson
Witnessed By	John Ryza

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
One	12 1/4"	Surface	360'				
Two	7 7/8"	360'	4710'				

Caliper Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8"	20#	Surface	360'
Production String	4 1/2"	9.5#	Surface	4710'

<<< Fold Here >>>

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

Not Corrected

***** Thank You For Using RTX Wireline *****

PIPE TALLY SUMMARY

Company	Morningstar Operating, LLC
Well	Vacuum Grayburg San Andres Unit No. 31
Field	Vacuum (Grayburg-San Andres)
County	Lea
State	New Mexico



Not Corrected
*** Thank You For Using RTX Wireline ***

Joint number, Depth, Length, Maximum Penetration Percentage, and Symbol

1	-10.2	4.3		31	818.4	33.3	8%		61	1774.2	33.8	9%	
2	-5.9	2.3		32	851.7	30.0	7%		62	1808.0	31.1	4%	
3	-3.6	1.2		33	881.7	32.0	8%		63	1839.1	31.0	5%	
4	-2.3	7.5	8%	34	913.7	31.9	4%		64	1870.1	33.0	3%	
5	5.1	30.6	7%	35	945.6	32.5	6%		65	1903.0	33.5	7%	
6	35.7	30.1	9%	36	978.1	29.9	2%		66	1936.5	32.0	3%	
7	65.8	29.2	3%	37	1008.0	32.8	0%		67	1968.5	31.5	1%	
8	95.0	32.5	5%	38	1040.8	31.6	7%		68	2000.0	32.5	6%	
9	127.5	30.9	8%	39	1072.3	32.3	2%		69	2032.5	31.4	4%	
10	158.3	32.1	10%	40	1104.6	33.3	8%		70	2063.9	31.7	3%	
11	190.5	33.8	9%	41	1137.9	33.1	5%		71	2095.6	30.7	4%	
12	224.3	30.4	5%	42	1171.0	32.2	5%		72	2126.3	31.3	7%	
13	254.7	31.4	0%	43	1203.3	33.3	2%		73	2157.6	31.7	4%	
14	286.1	29.3	6%	44	1236.5	31.3	3%		74	2189.3	32.2	6%	
15	315.4	30.9	1%	45	1267.8	32.4	4%		75	2221.5	29.5	3%	
16	346.2	32.9	4%	46	1300.2	33.5	7%		76	2251.0	31.6	6%	
17	379.2	30.5	0%	47	1333.7	31.4	8%		77	2282.6	31.8	0%	
18	409.7	31.6	11%	48	1365.1	33.4	7%		78	2314.4	33.2	5%	
19	441.3	30.9	0%	49	1398.6	30.9	3%		79	2347.6	32.2	6%	
20	472.2	30.4	5%	50	1429.4	32.7	5%		80	2379.8	31.7	2%	
21	502.6	31.6	1%	51	1462.1	32.4	4%		81	2411.5	32.0	5%	
22	534.2	31.2	7%	52	1494.5	28.7	9%		82	2443.5	32.5	5%	
23	565.4	31.6	5%	53	1523.2	30.8	5%		83	2475.9	31.9	3%	
24	597.0	32.0	6%	54	1554.0	31.7	4%		84	2507.8	28.1	4%	
25	629.0	31.8	3%	55	1585.7	30.4	0%		85	2535.9	33.1	13%	
26	660.8	31.8	3%	56	1616.1	33.1	8%		86	2569.0	31.5	6%	
27	692.6	28.7	5%	57	1649.3	32.8	8%		87	2600.5	29.4	4%	
28	721.3	32.5	7%	58	1682.1	29.1	4%		88	2629.9	31.9	4%	
29	753.8	32.5	11%	59	1711.2	31.3	6%		89	2661.8	33.3	9%	
30	786.3	32.1	6%	60	1742.6	31.6	2%		90	2695.1	28.6	2%	

Sheet: 1 of 2

Log Date: 04/02/2025



PIPE TALLY SUMMARY

Company Morningstar Operating, LLC
Well Vacuum Grayburg San Andres Unit No. 31
Field Vacuum (Grayburg-San Andres)
County LeaState New Mexico

Comments

Not Corrected
*** Thank You For Using RTX Wireline ***

Joint number, Depth, Length, Maximum Penetration Percentage, and Symbol

91	2723.7	33.7	8%	121	3683.1	32.9	4%						
92	2757.4	32.9	4%	122	3716.0	0.0							
93	2790.3	33.4	8%										
94	2823.7	33.6	9%										
95	2857.3	32.9	10%										
96	2890.2	32.0	8%										
97	2922.2	32.1	3%										
98	2954.4	31.6	6%										
99	2985.9	32.4	5%										
100	3018.3	31.8	5%										
101	3050.1	32.7	12%										
102	3082.7	32.1	7%										

Log Date: 04/02/2025



Joint			Remaining Wall (Remaining)
No.	Depth	Length	
26	660.8	31.8	97%
27	692.6	28.7	95%
28	721.3	32.5	93%
29	753.8	32.5	89%
30	786.3	32.1	94%
31	818.4	33.3	92%
32	851.7	30.0	93%
33	881.7	32.0	92%
34	913.7	31.9	96%
35	945.6	32.5	94%
36	978.1	29.9	98%
37	1008.0	32.8	100%
38	1040.8	31.6	93%
39	1072.3	32.3	98%
40	1104.6	33.3	92%
41	1137.9	33.1	95%
42	1171.0	32.2	95%
43	1203.3	33.3	98%
44	1236.5	31.3	97%
45	1267.8	32.4	96%
46	1300.2	33.5	93%
47	1333.7	31.4	92%
48	1365.1	33.4	93%
49	1398.6	30.9	97%
50	1429.4	32.7	95%

Sheet: 1 of 3



Joint			Remaining Wall (Remaining)
No.	Depth	Length	
76	2251.0	31.6	94%
77	2282.6	31.8	100%
78	2314.4	33.2	95%

54	1554.0	31.7		96%
55	1605.4	32.3		100%
56	1616.1	33.1		92%
57	1649.3	32.8		92%
58	1682.1	29.1		96%
59	1711.2	31.3		94%
60	1742.6	31.6		98%
61	1774.2	33.8		91%
62	1808.0	31.1		96%
63	1839.1	31.0		95%
64	1870.1	33.0		97%
65	1903.0	33.5		93%
66	1936.5	32.0		97%
67	1968.5	31.5		99%
68	2000.0	32.5		94%
69	2032.5	31.4		96%
70	2063.9	31.7		97%
71	2095.6	30.7		96%
72	2126.3	31.3		93%
73	2157.6	31.7		96%
74	2189.3	32.2		94%
75	2221.5	29.5		97%

79	2347.6	32.2		94%
80	2379.8	31.7		94%
81	2411.5	32.0		95%
82	2443.5	32.5		95%
83	2475.9	31.9		97%
84	2507.8	28.1		96%
85	2535.9	33.1		87%
86	2569.0	31.5		94%
87	2600.5	29.4		96%
88	2629.9	31.9		96%
89	2661.8	33.3		91%
90	2695.1	28.6		98%
91	2723.7	33.7		92%
92	2757.4	32.9		96%
93	2790.3	33.4		92%
94	2823.7	33.6		91%
95	2857.3	32.9		90%
96	2890.2	32.0		92%
97	2922.2	32.1		97%
98	2954.4	31.6		94%
99	2985.9	32.4		95%
100	3018.3	31.8		95%

Log Date: 04/02/2025

Sheet: 2 of 3

Company: Morningstar Operating, LLC
Well: Vacuum Grayburg San Andres Unit No.



Joint			Remaining Wall (Remaining)	
No.	Depth	Length		
101	3050.1	32.7		88%
102	3082.7	32.1		93%
103	3114.9	32.5		94%
104	3147.3	32.5		94%
105	3179.8	32.5		96%
106	3212.2	31.9		95%
107	3244.1	31.2		96%
108	3275.3	32.0		96%
109	3307.3	31.9		96%
110	3339.2	28.2		94%
111	3367.5	32.0		96%
112	3399.4	32.7		93%
113	3432.1	31.5		98%
114	3463.6	31.1		97%
115	3494.7	32.8		93%
116	3527.5	30.9		95%
117	3558.4	31.5		96%
118	3589.9	32.1		95%
119	3622.0	31.2		97%
120	3653.2	29.9		99%
121	3683.1	32.9		96%
122	3716.0	0.0		

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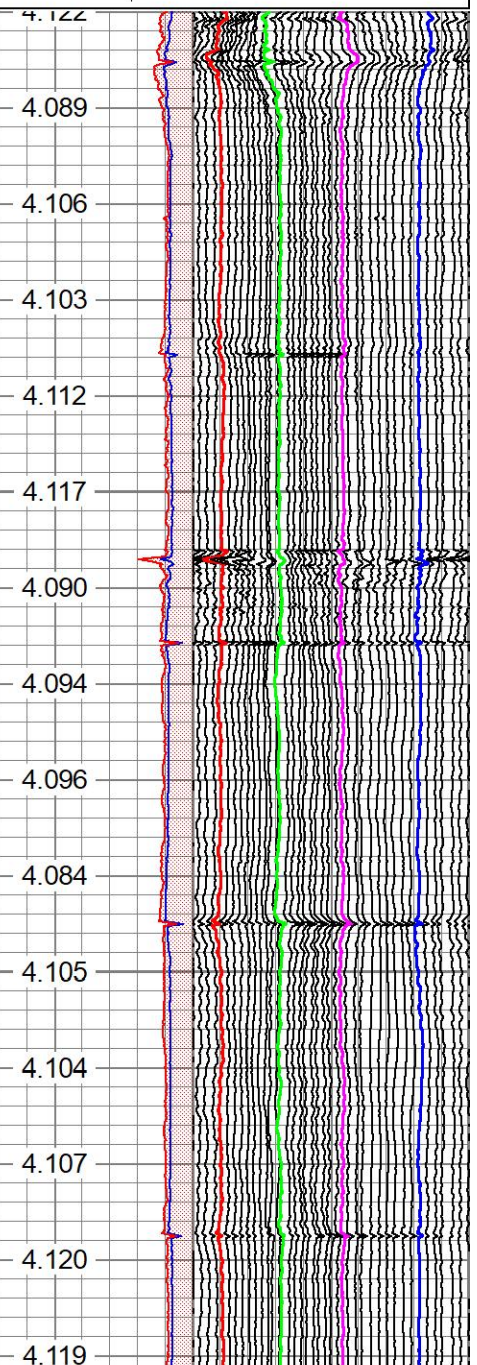
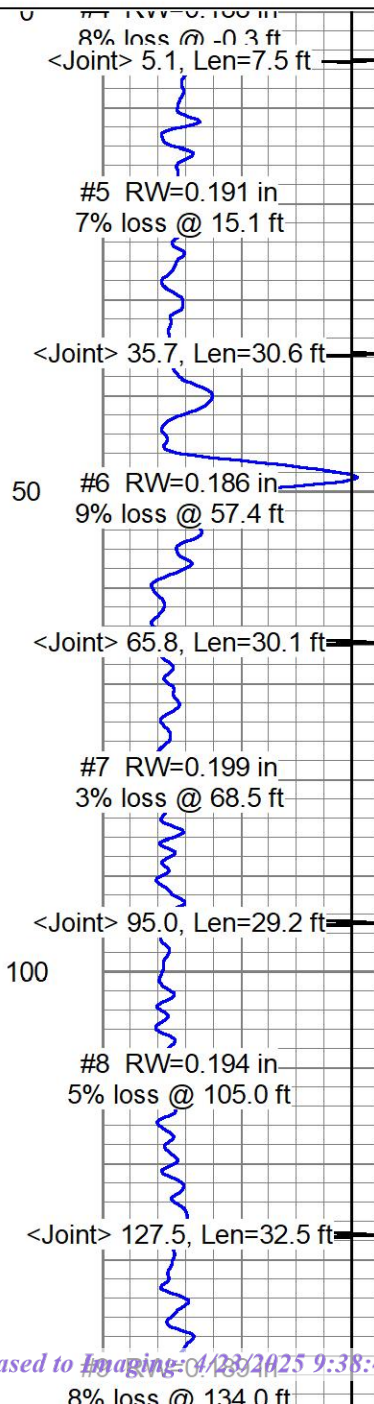
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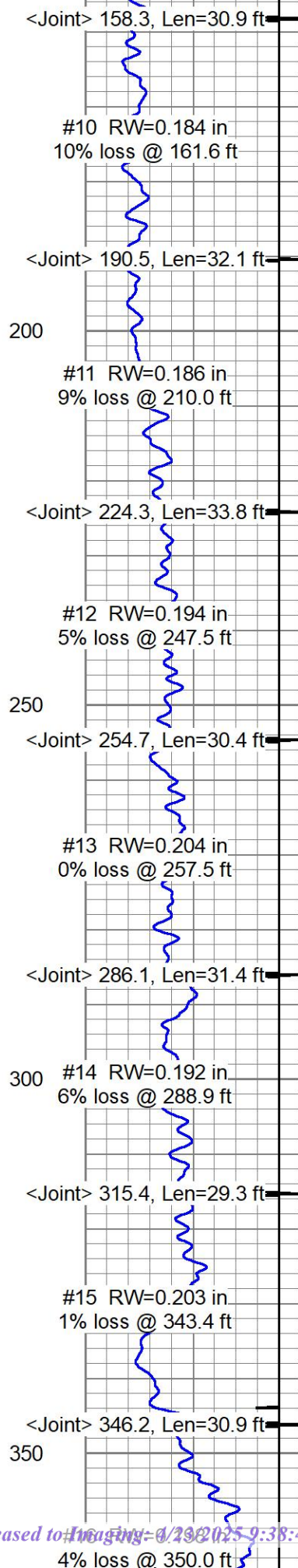
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Dataset Pathname merge2
Presentation Format 8msc45gr
Dataset Creation Wed Apr 02 18:55:22 2025
Charted by Depth in Feet scaled 1:240

Gamma Ray	0	IMGMAPC (in) 100
0 (GAPI) 150		
9 Casing Collar -1		
PTANN		

Average ID	1.875	R10 (in)	4.375
2.5 (in) 4.25	1.25	R20 (in)	3.75
Maximum ID	0.625	R30 (in)	3.125
4.25 (in) 2.5	0	R40 (in)	2.5
Minimum ID			
2.5 (in) 4.25			
Nominal ID			
4.25 (in) 2.5			
IDAV (in)			





4.110

4.125

4.128

4.123

4.108

4.119

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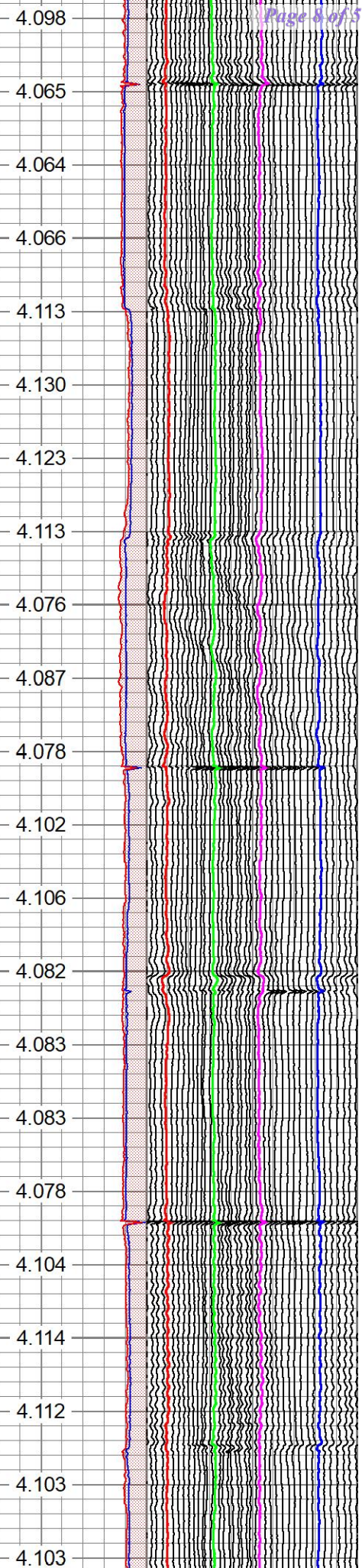
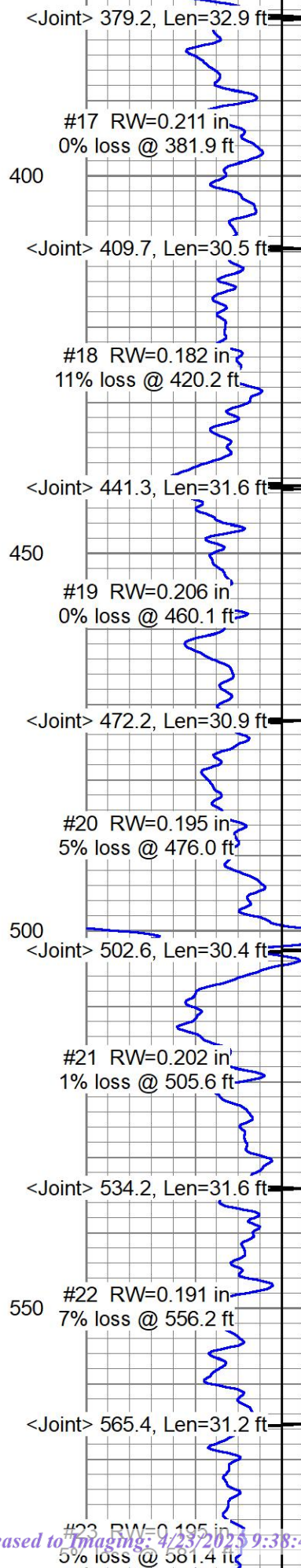
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4.096



<Joint> 597.0, Len=31.6 ft
600

#24 RW=0.194 in
6% loss @ 622.5 ft

<Joint> 629.0, Len=32.0 ft

#25 RW=0.198 in
3% loss @ 650.2 ft
650

<Joint> 660.8, Len=31.8 ft

#26 RW=0.198 in
3% loss @ 683.0 ft

<Joint> 692.6, Len=31.8 ft

#27 RW=0.194 in
5% loss @ 695.4 ft
700

<Joint> 721.3, Len=28.7 ft

#28 RW=0.191 in
7% loss @ 739.0 ft

#29 RW=0.183 in
11% loss @ 771.8 ft
750
<Joint> 753.8, Len=32.5 ft

#29 RW=0.183 in
11% loss @ 771.8 ft

<Joint> 786.3, Len=32.5 ft

#30 RW=0.183 in
6% loss @ 800.3 ft
800

4.099

4.102

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4.108

4.087

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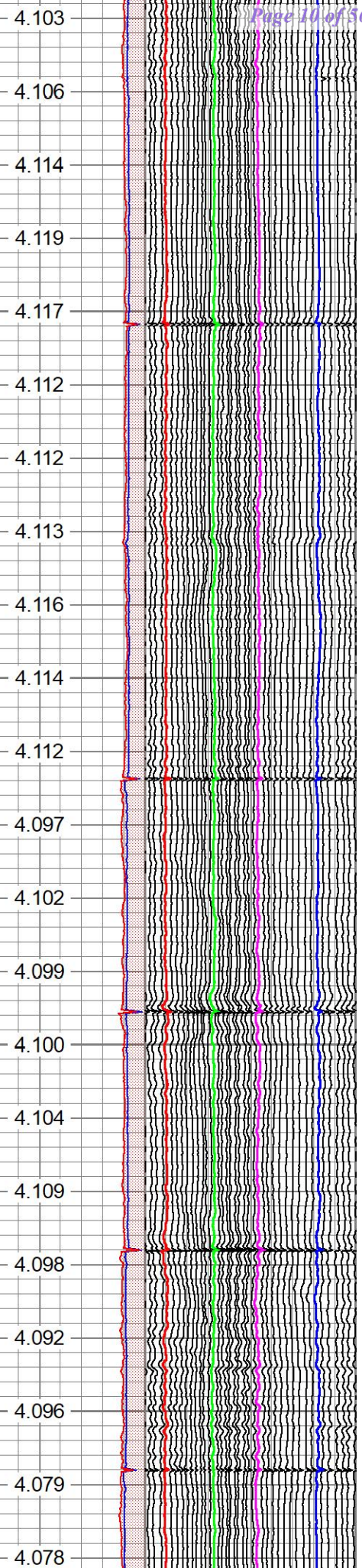
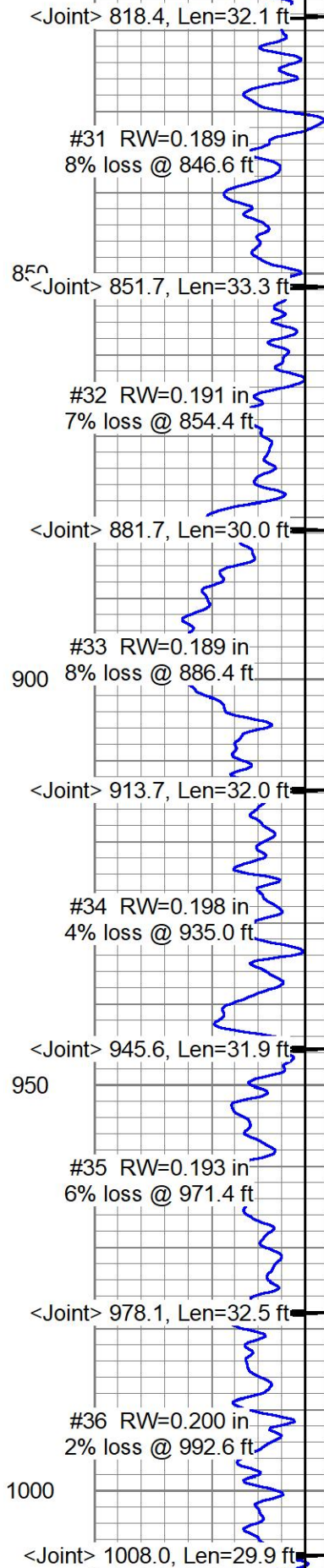
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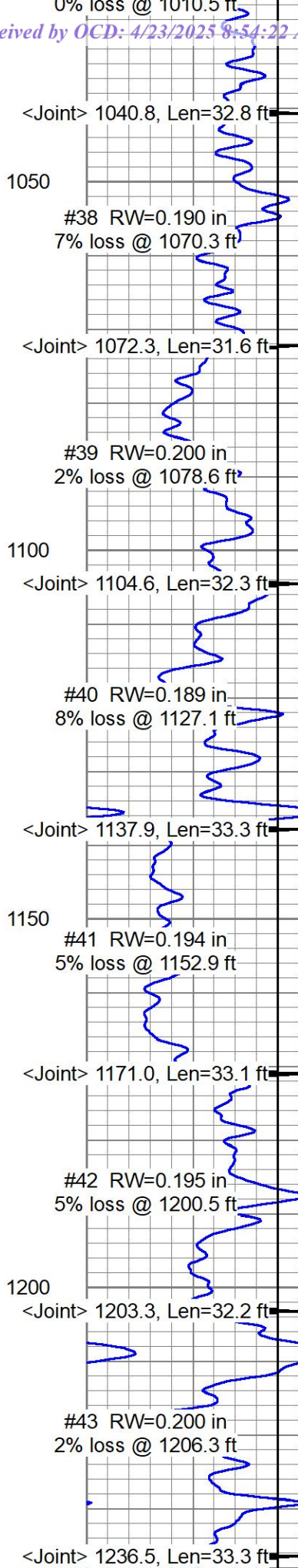
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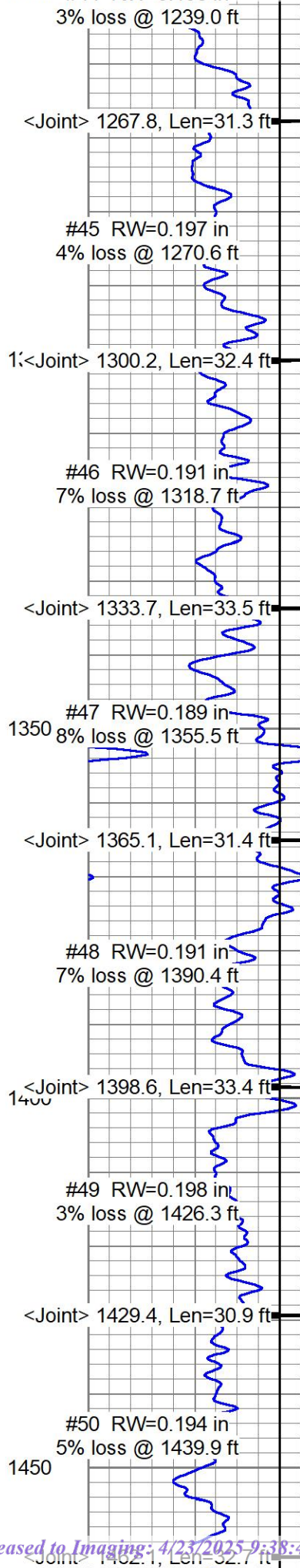
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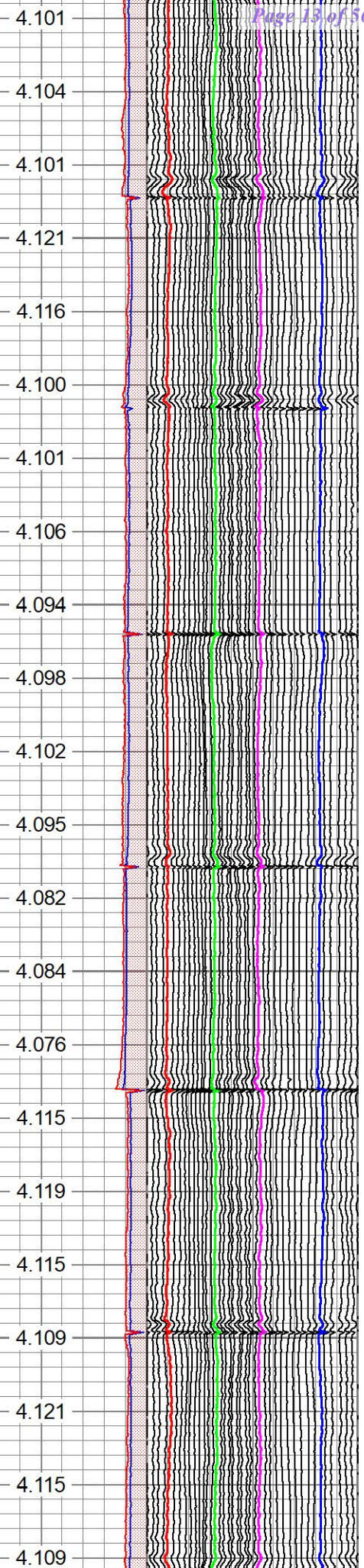
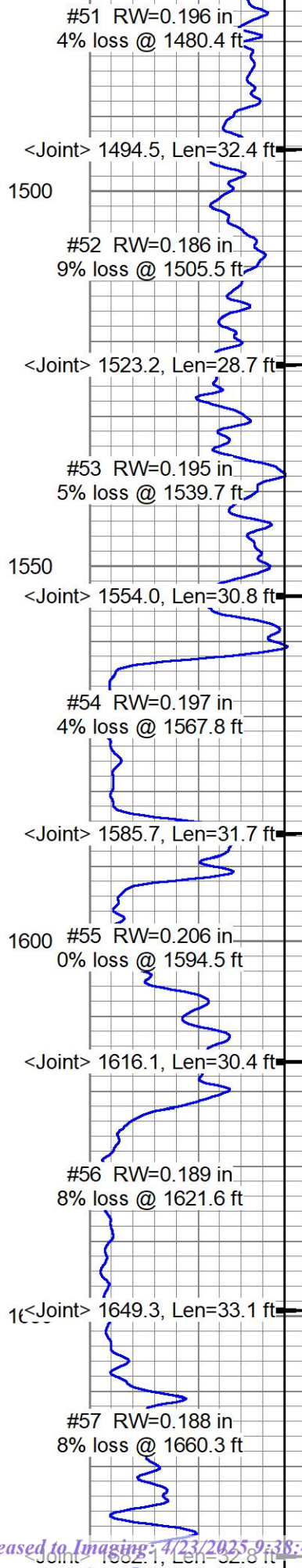
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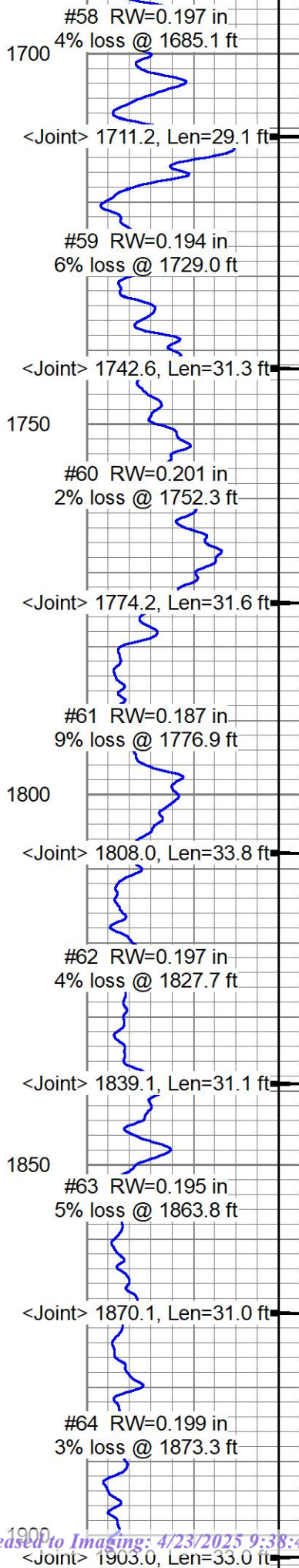
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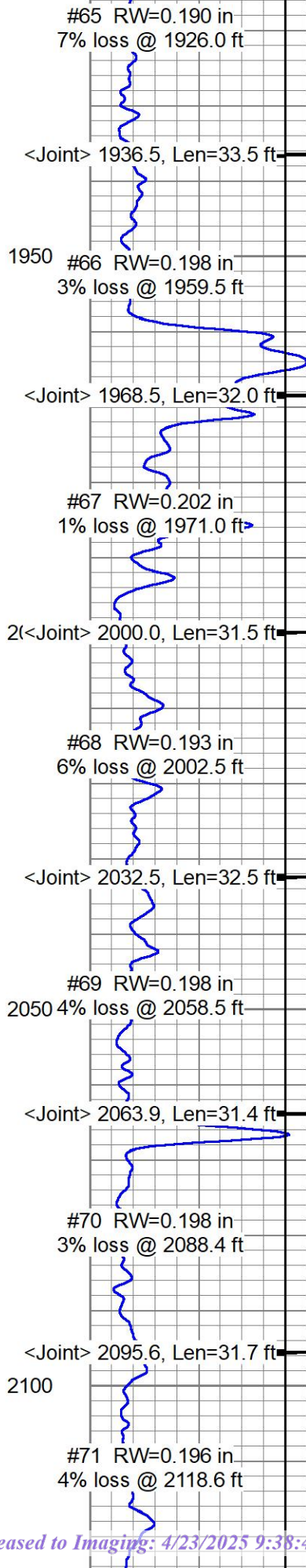
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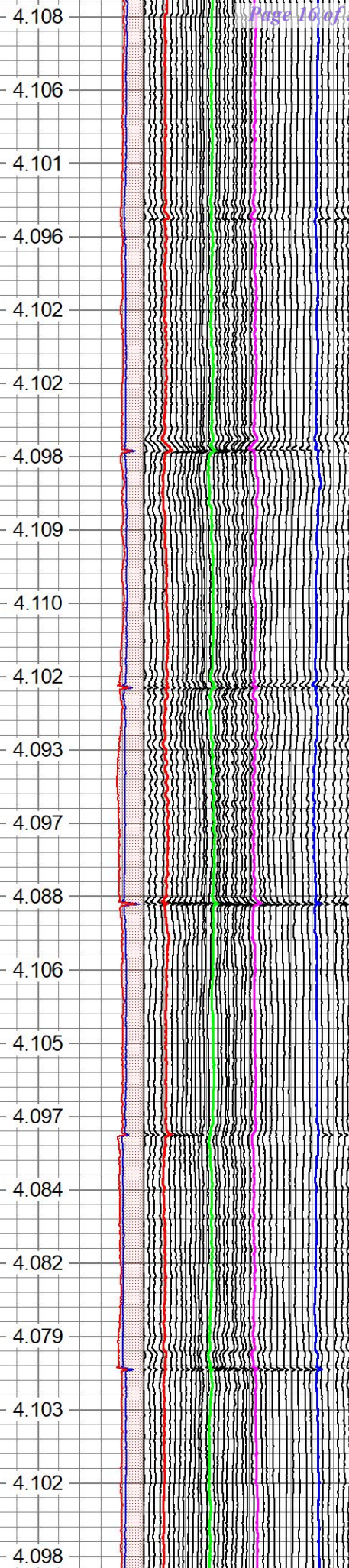
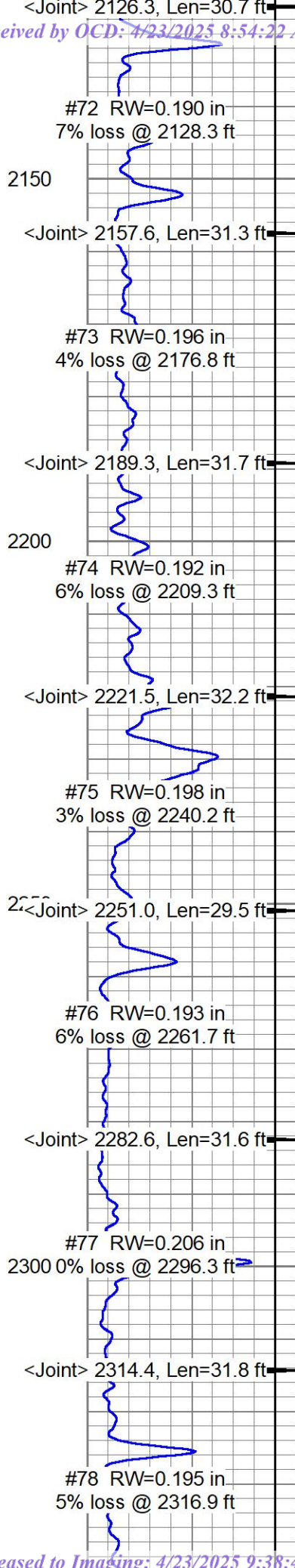
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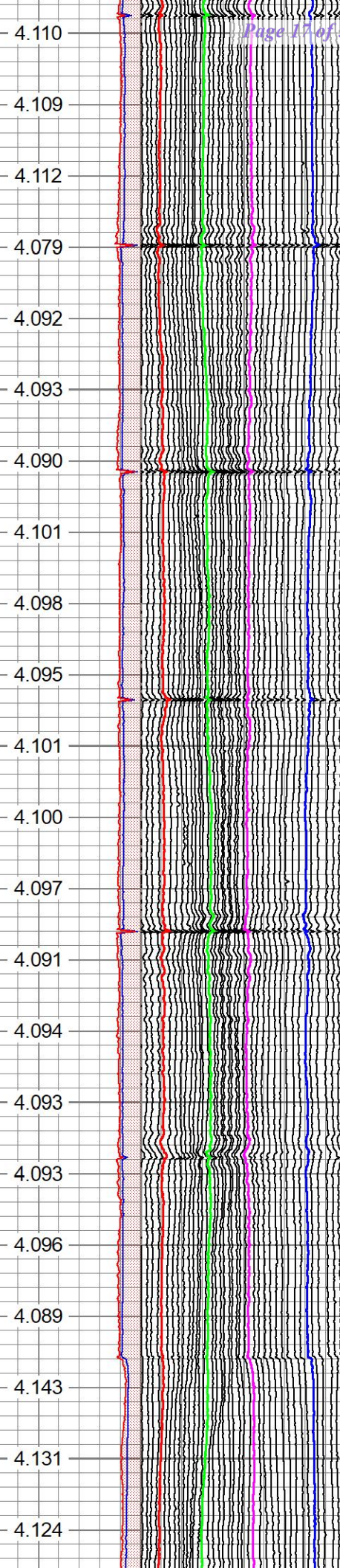
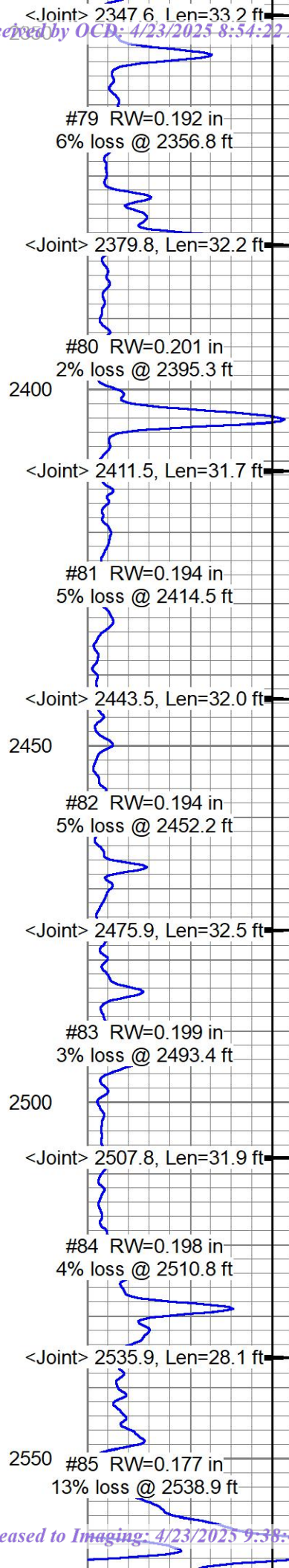
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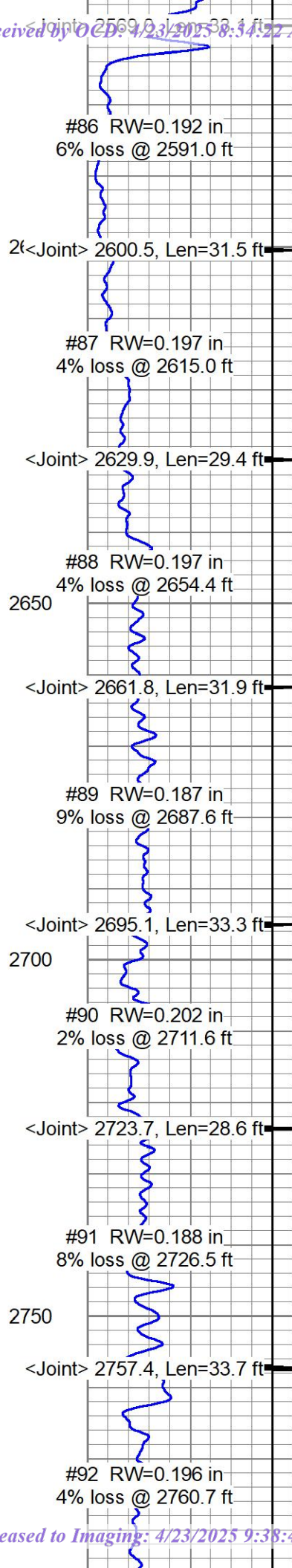
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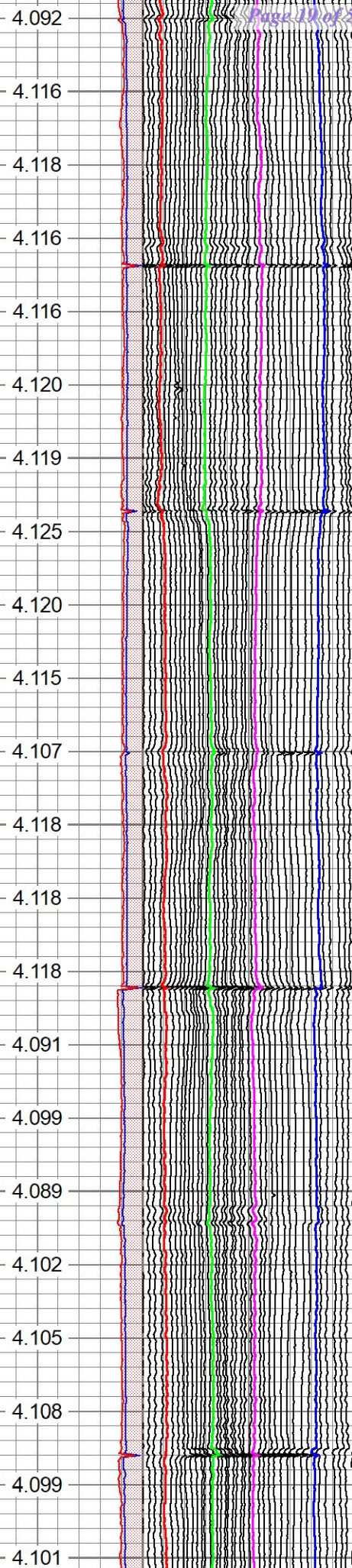
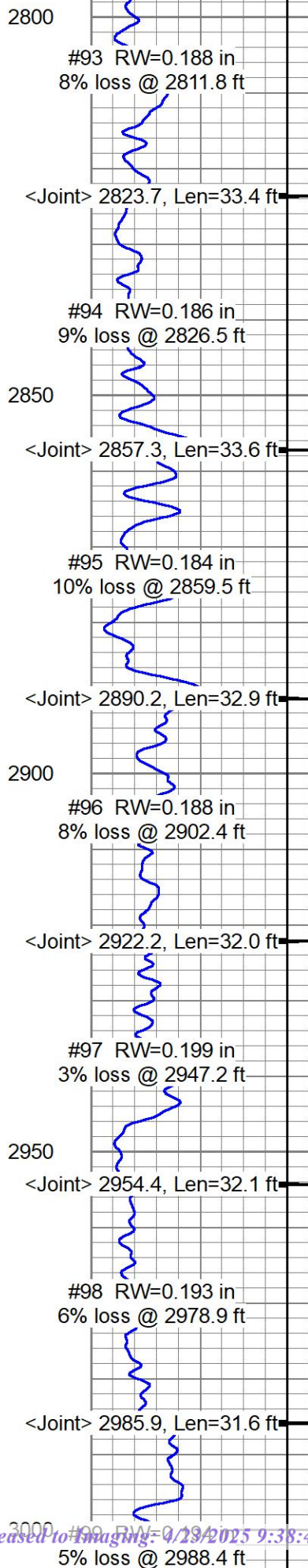
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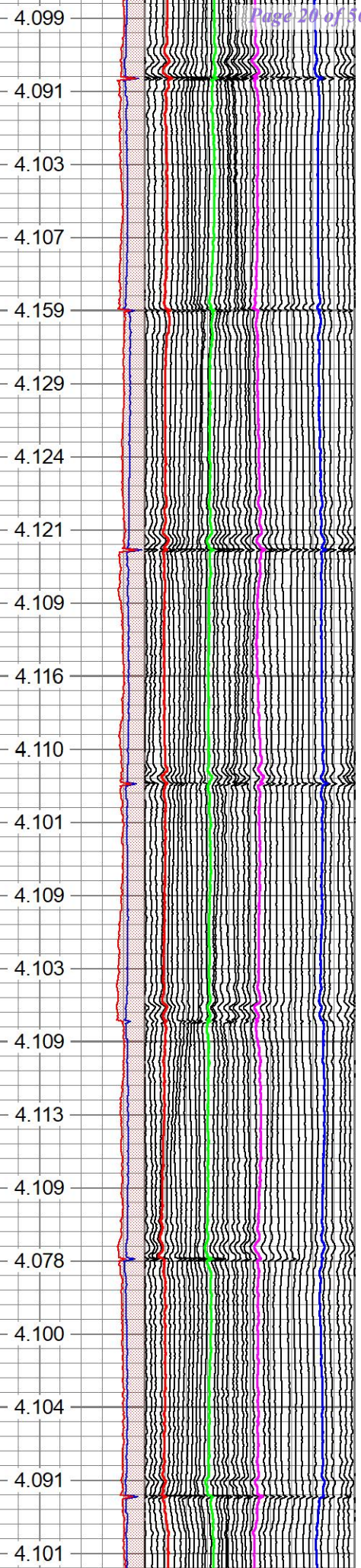
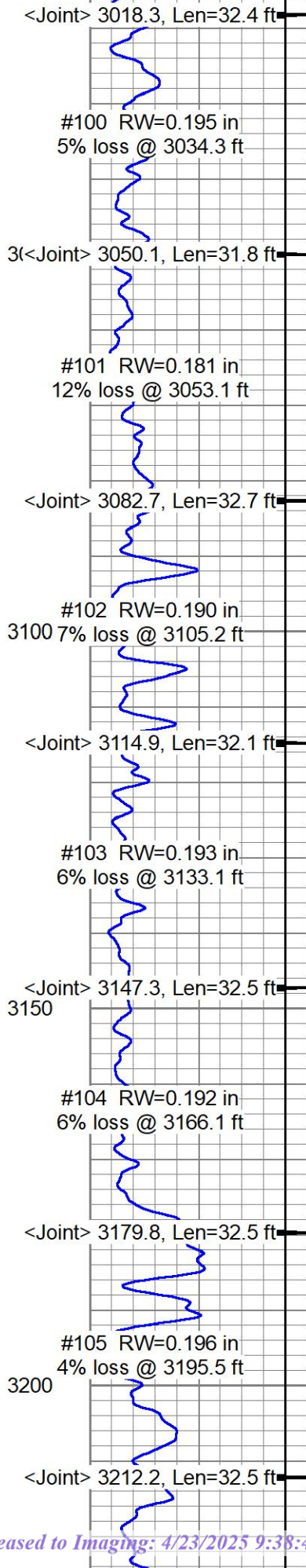
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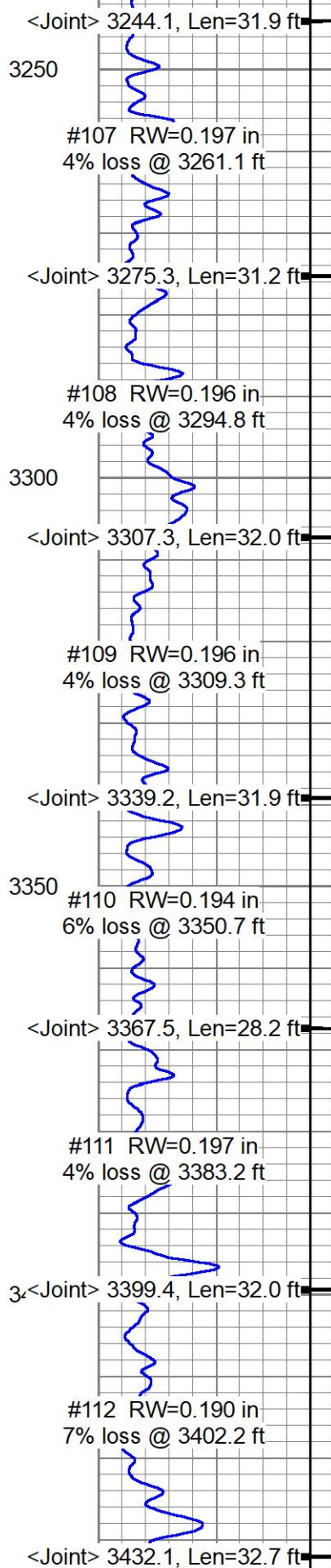
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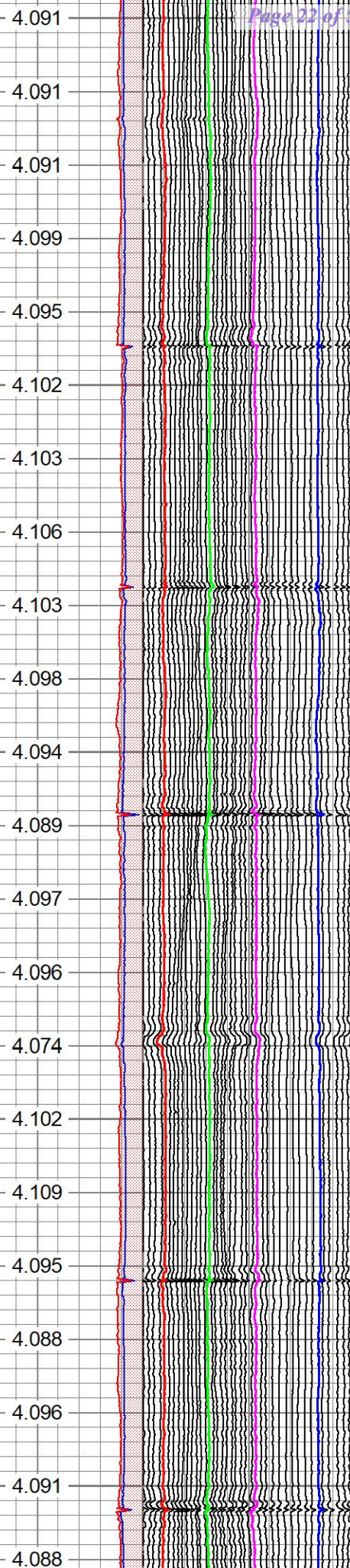
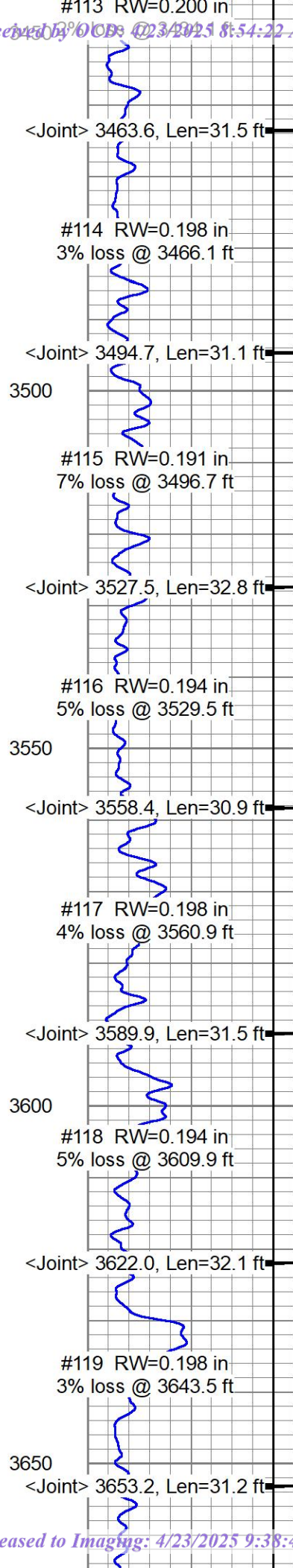
4.098

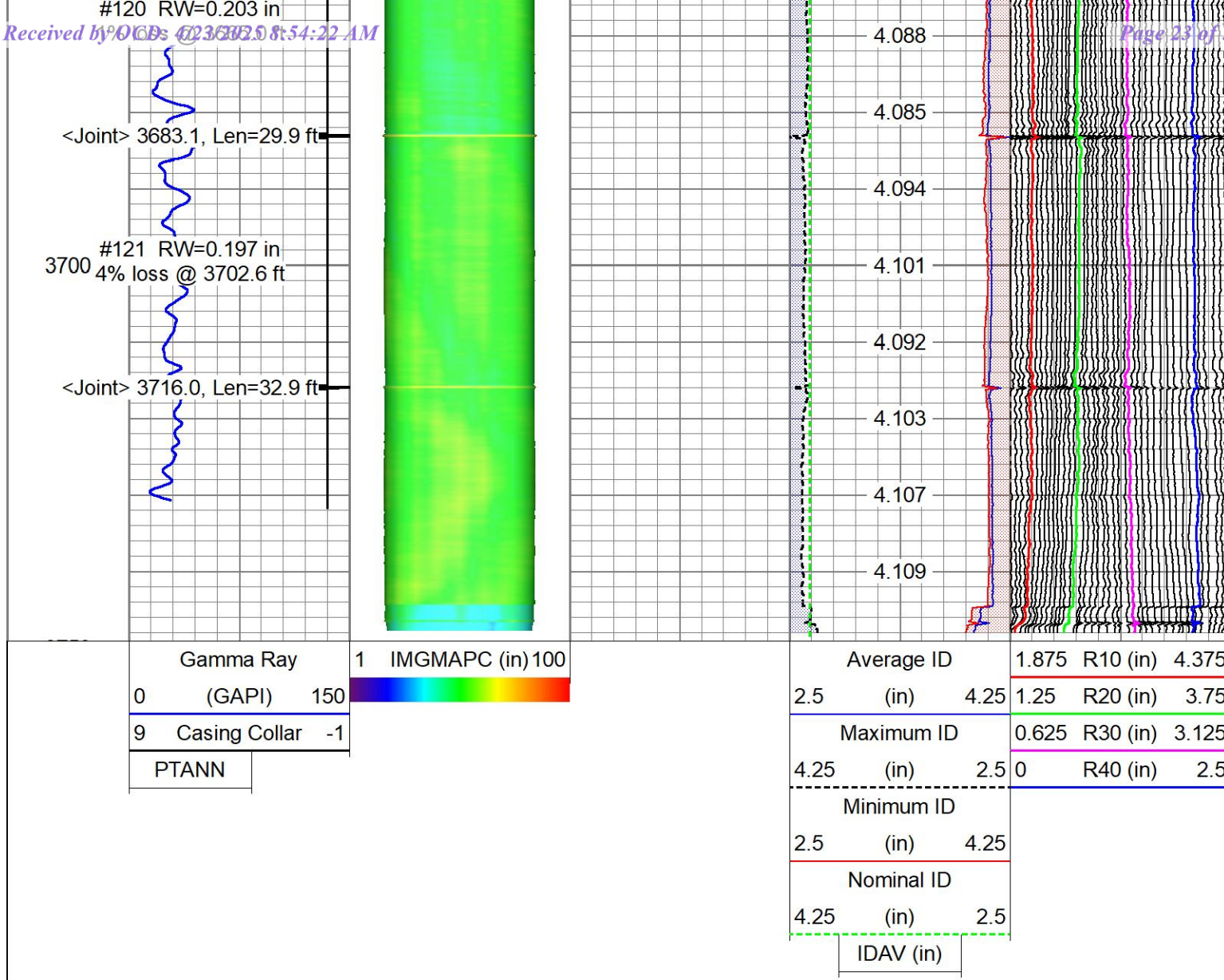






4.107
4.099
4.091
4.102
4.095
4.093
4.101
4.097
4.099
4.096
4.093
4.101
4.108
4.103
4.101
4.102
4.099
4.096
4.111
4.112
4.097
4.090

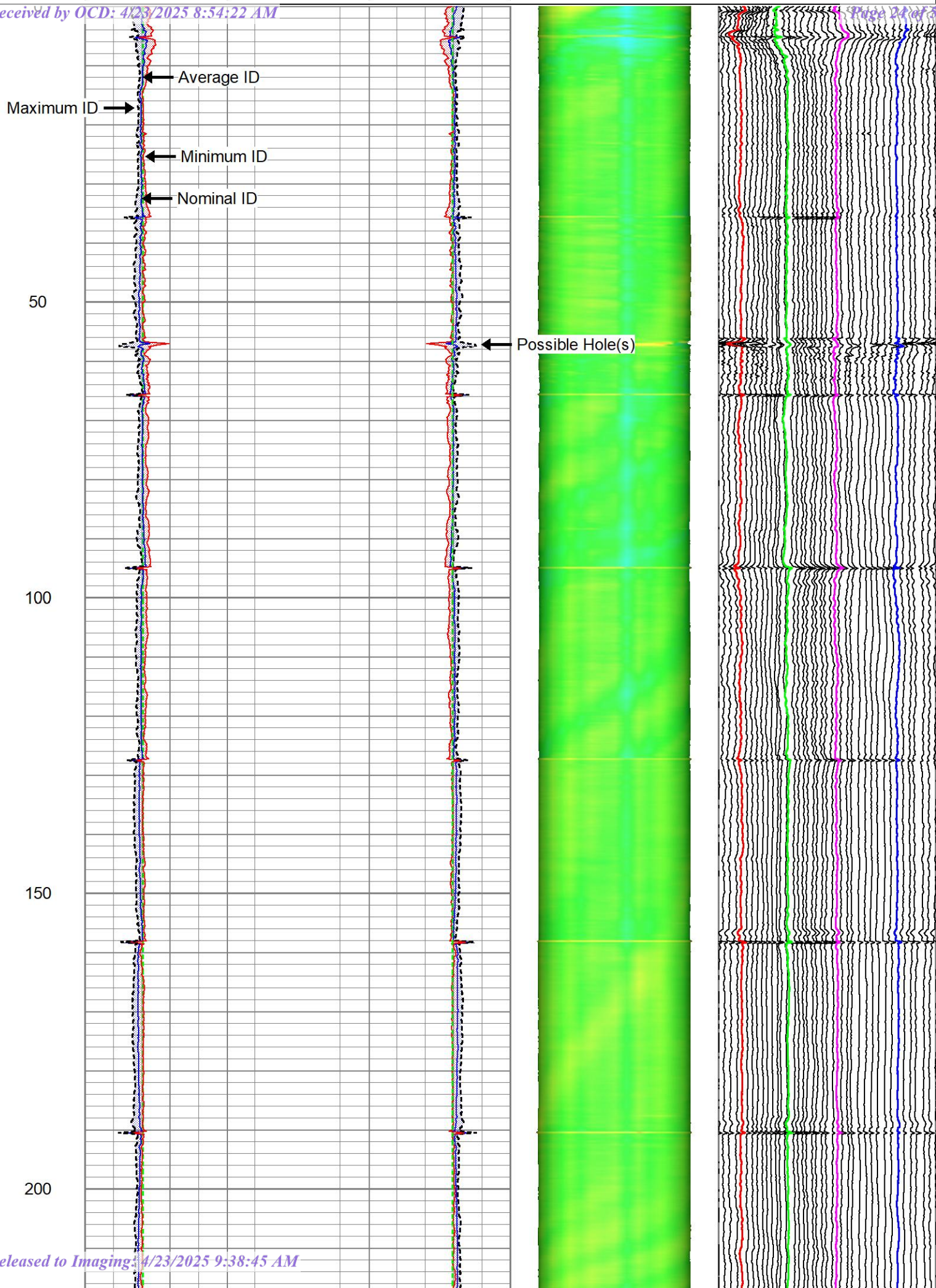




Main Pass 5" = 100'

Database File	morningstar_vgsau_31_rbl_mac40\morningstar_vgsau_31_rbl_mac40.db
Dataset Pathname	merge2
Presentation Format	8msc45
Dataset Creation	Wed Apr 02 18:55:22 2025
Charted by	Depth in Feet scaled 1:240

0	Thickness (in)	0.75	0.1	IMGMAPC (in)	0.6	1.875	R10 (in)	4.375
Nominal ID		Average ID				1.25	R20 (in)	3.75
4.5 (in) 3.5		3.5 (in) 4.5				0.625	R30 (in)	3.125
Average ID		Maximum ID				0	R40 (in)	2.5
4.5 (in) 3.5		3.5 (in) 4.5						
Minimum ID		Minimum ID						
4.5 (in) 3.5		3.5 (in) 4.5						
Maximum ID		Nominal ID						
4.5 (in) 3.5		3.5 (in) 4.5						



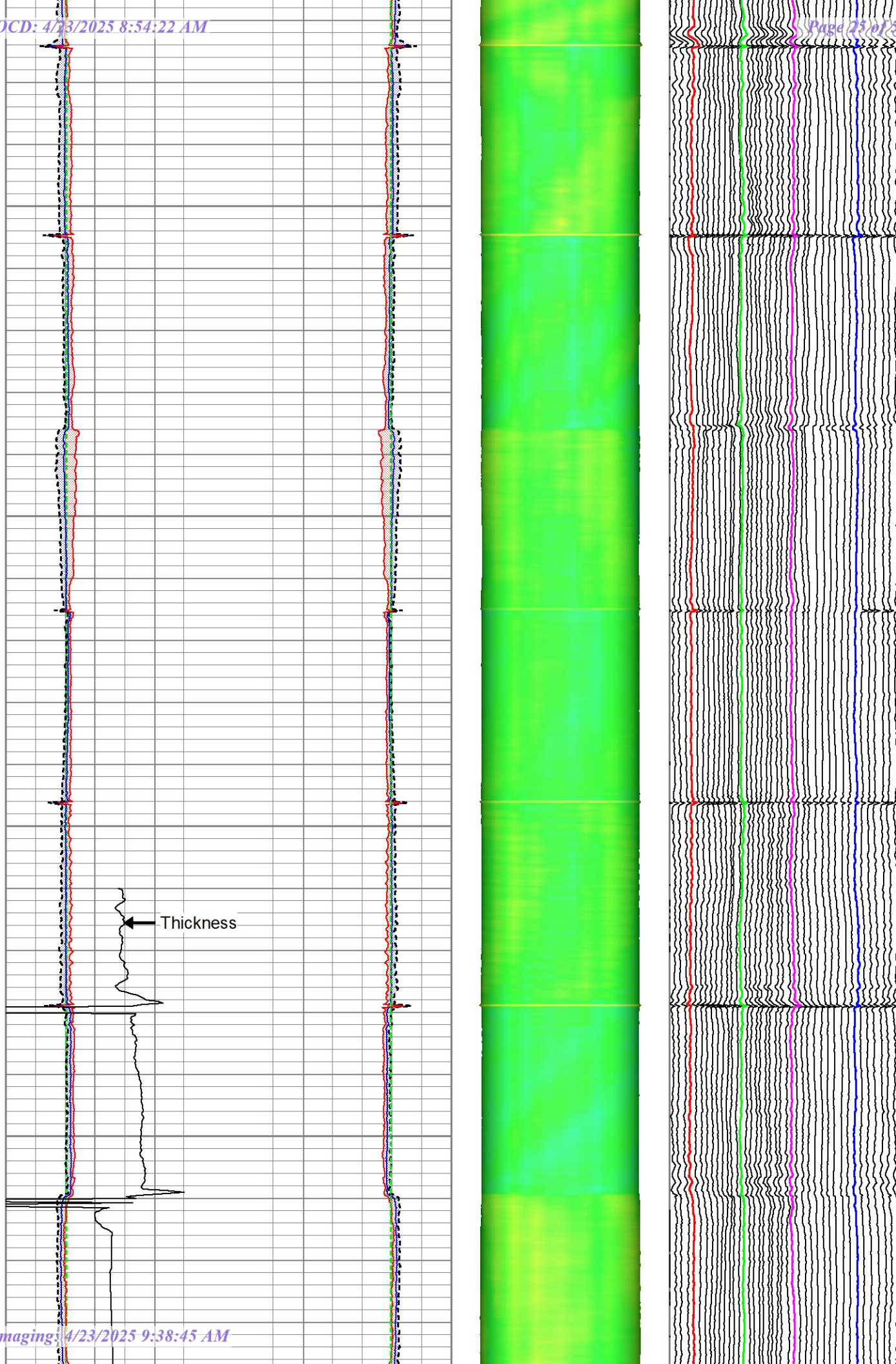
250

300

350

400

Thickness



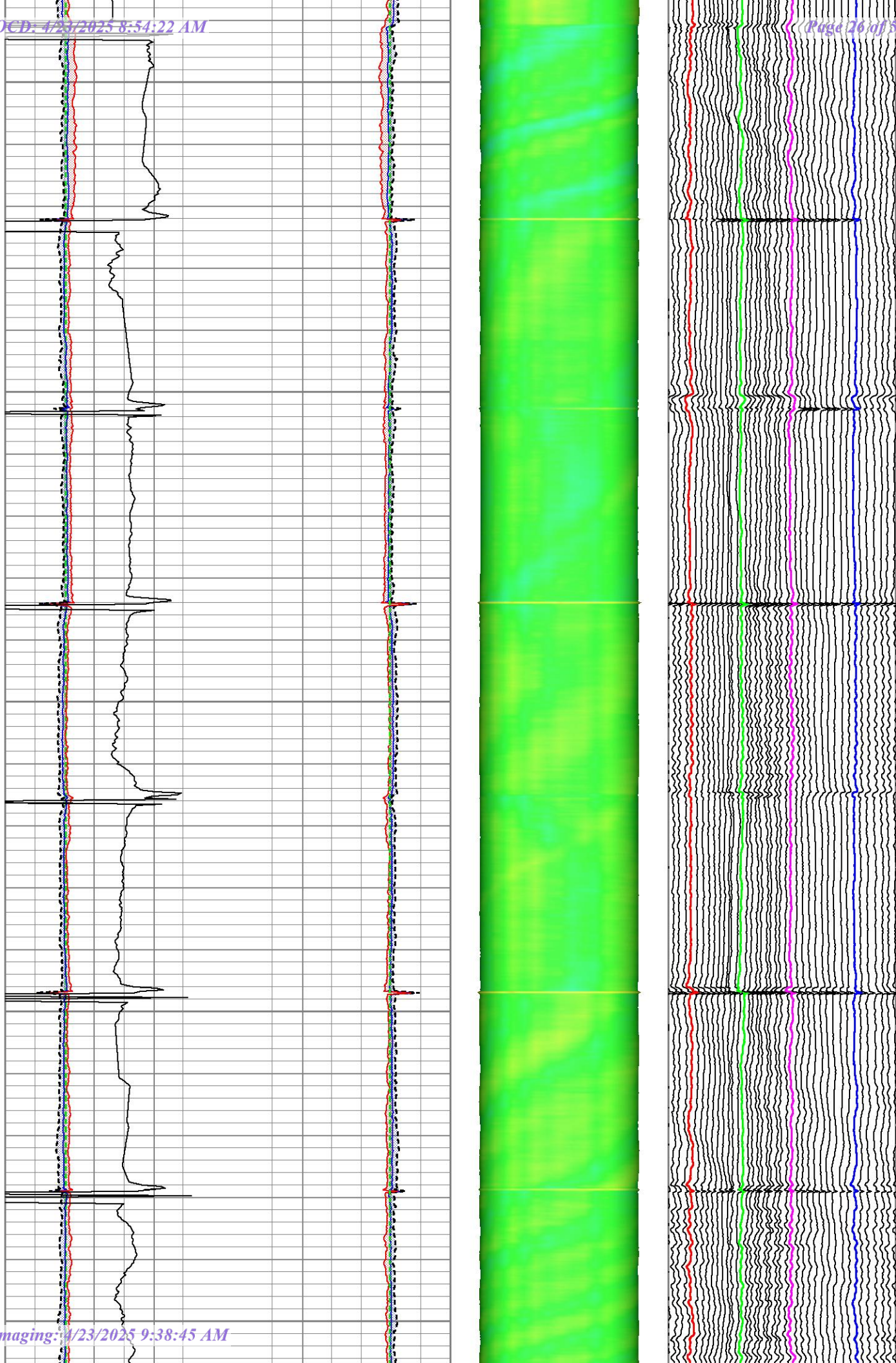
450

500

550

600

650

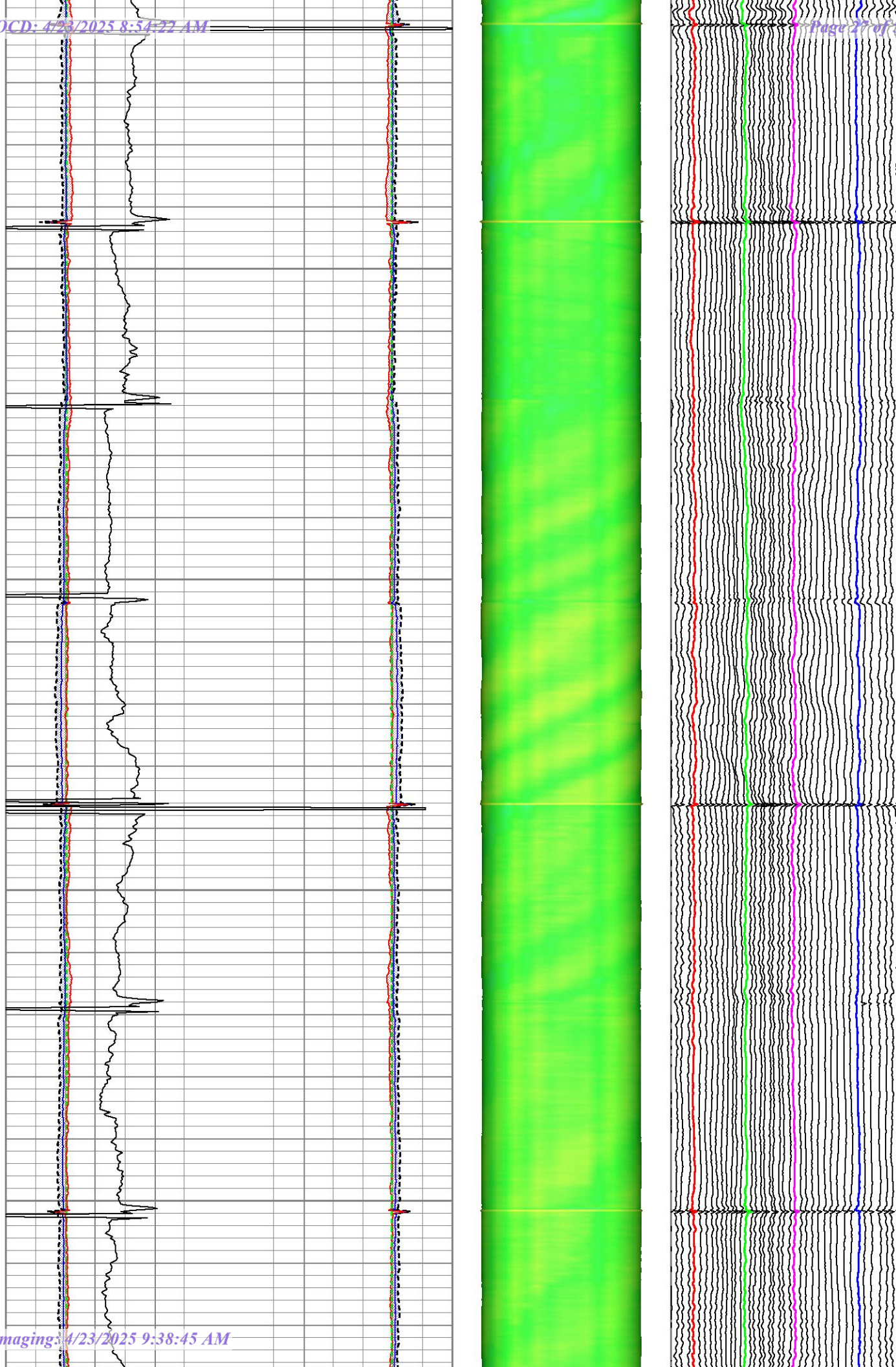


700

750

800

850

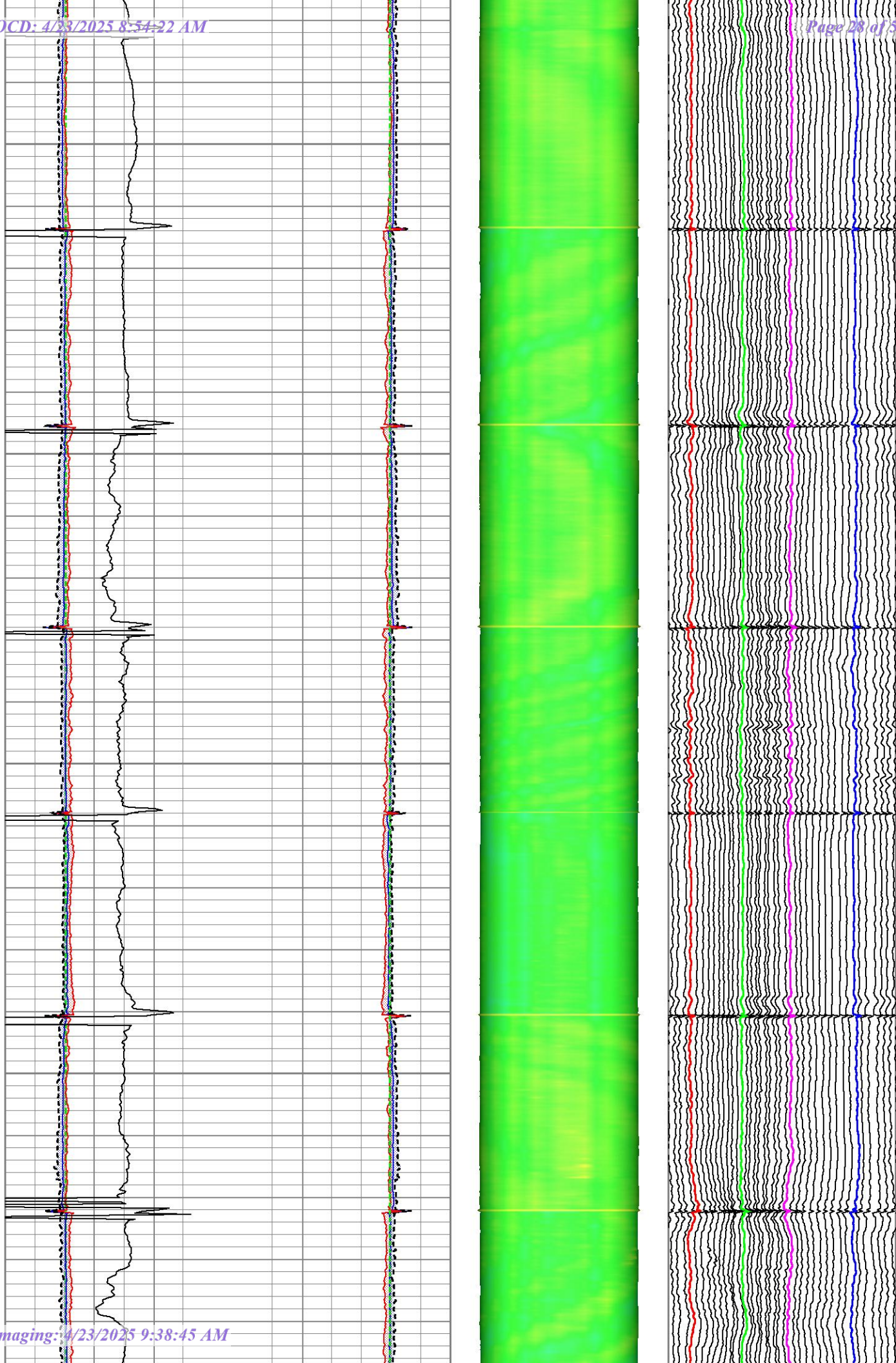


900

950

1000

1050



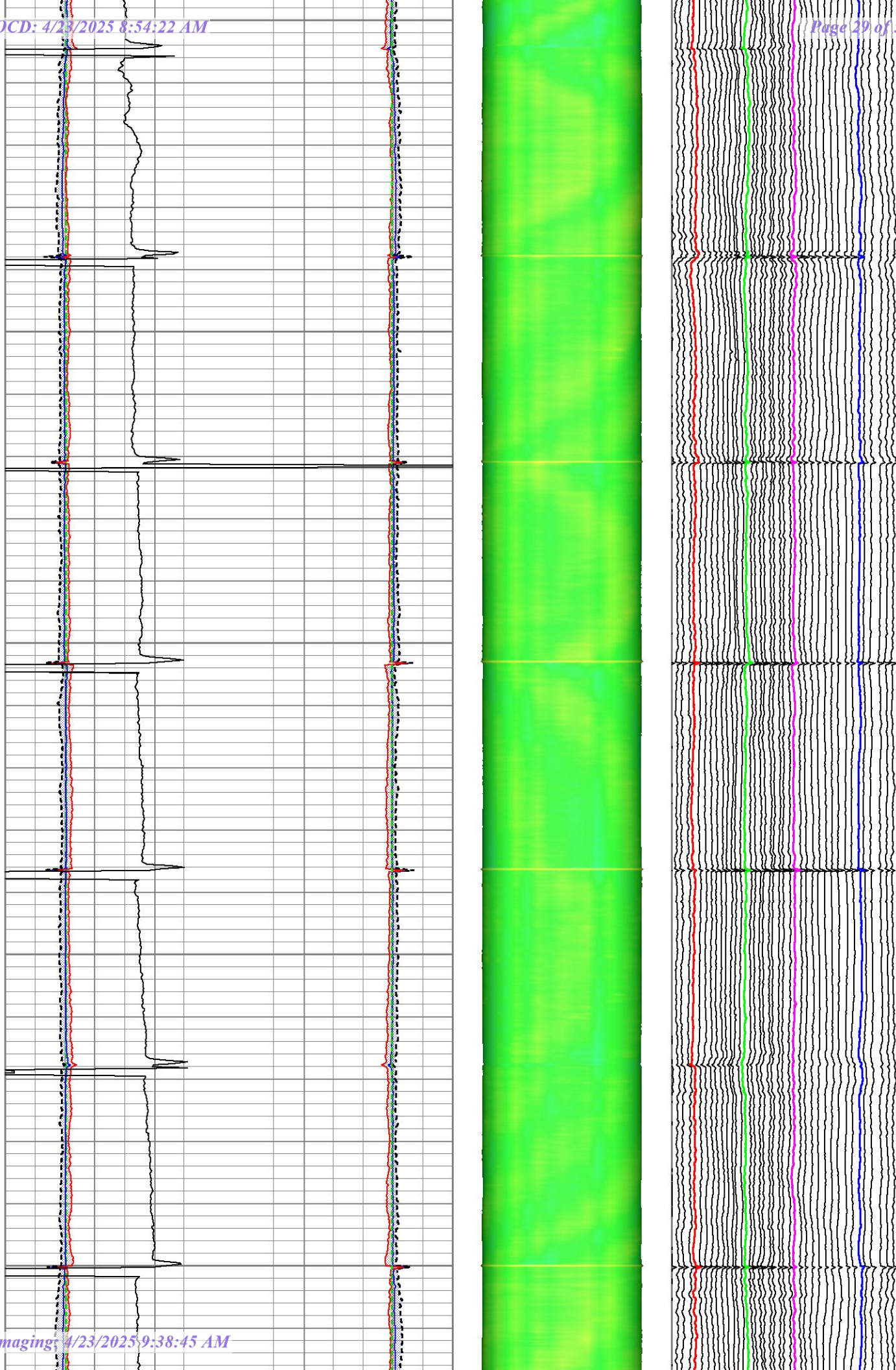
1100

1150

1200

1250

1300



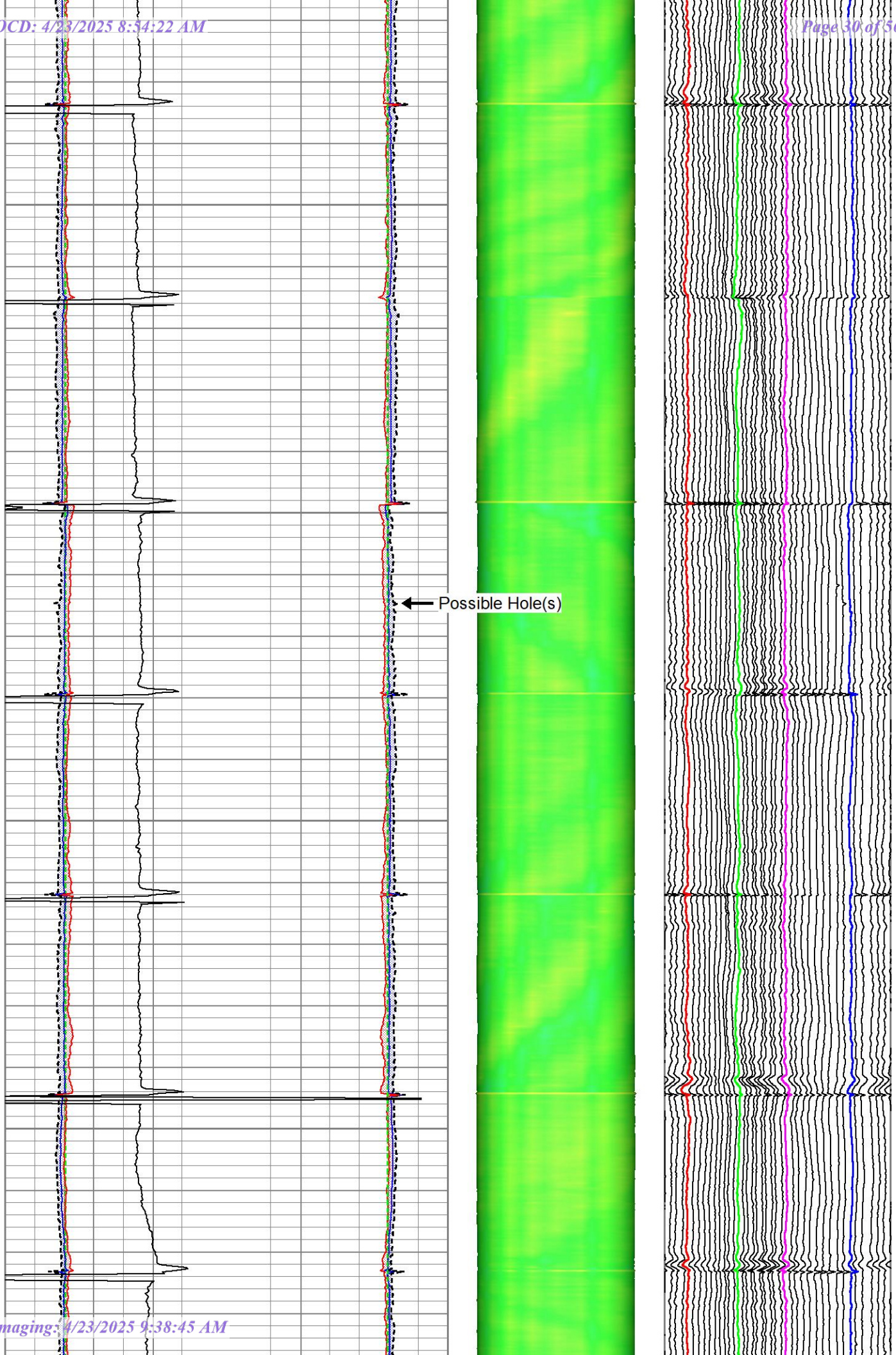
1350

1400

1450

1500

← Possible Hole(s)



1550

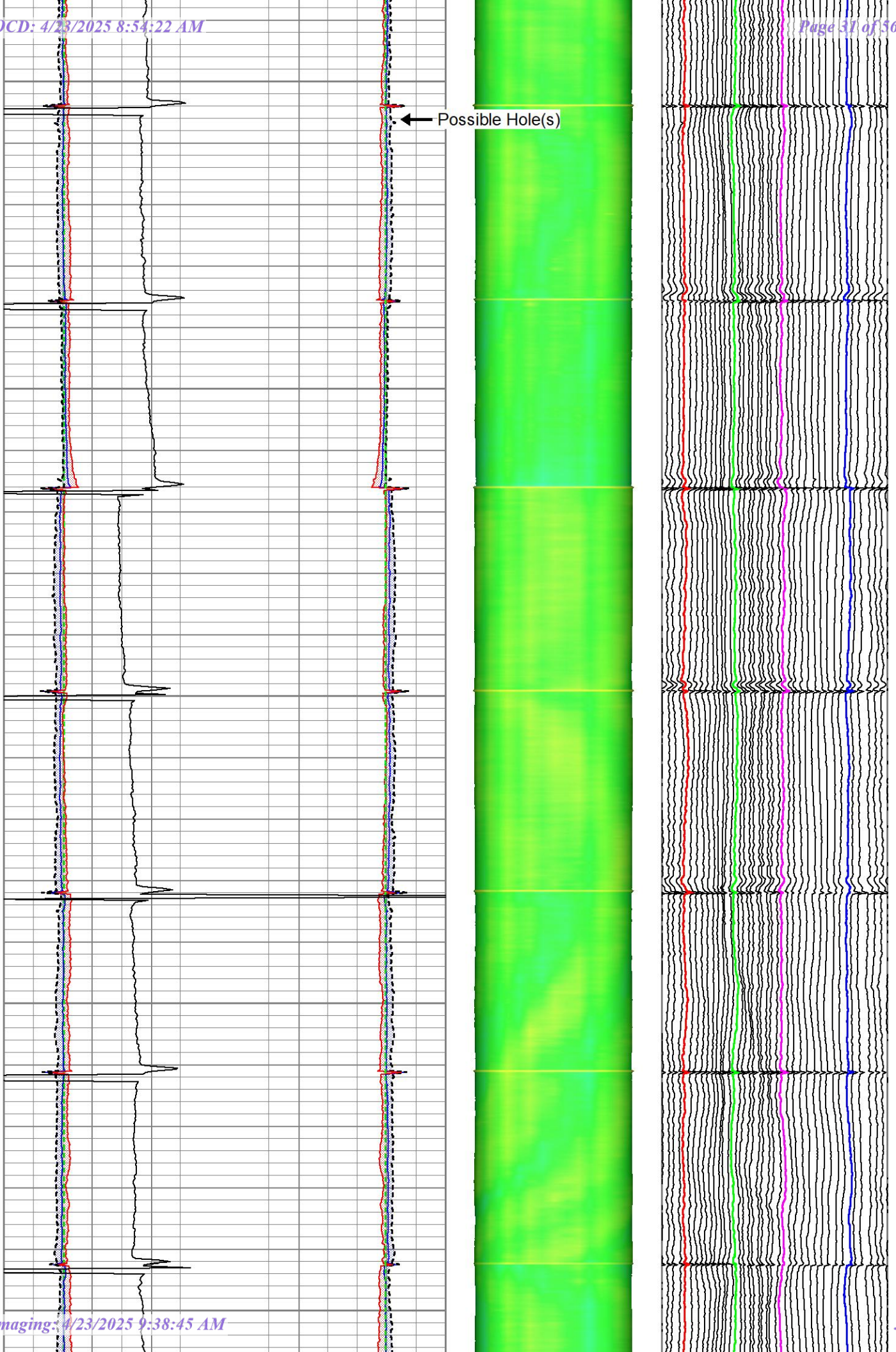
1600

1650

1700

1750

← Possible Hole(s)

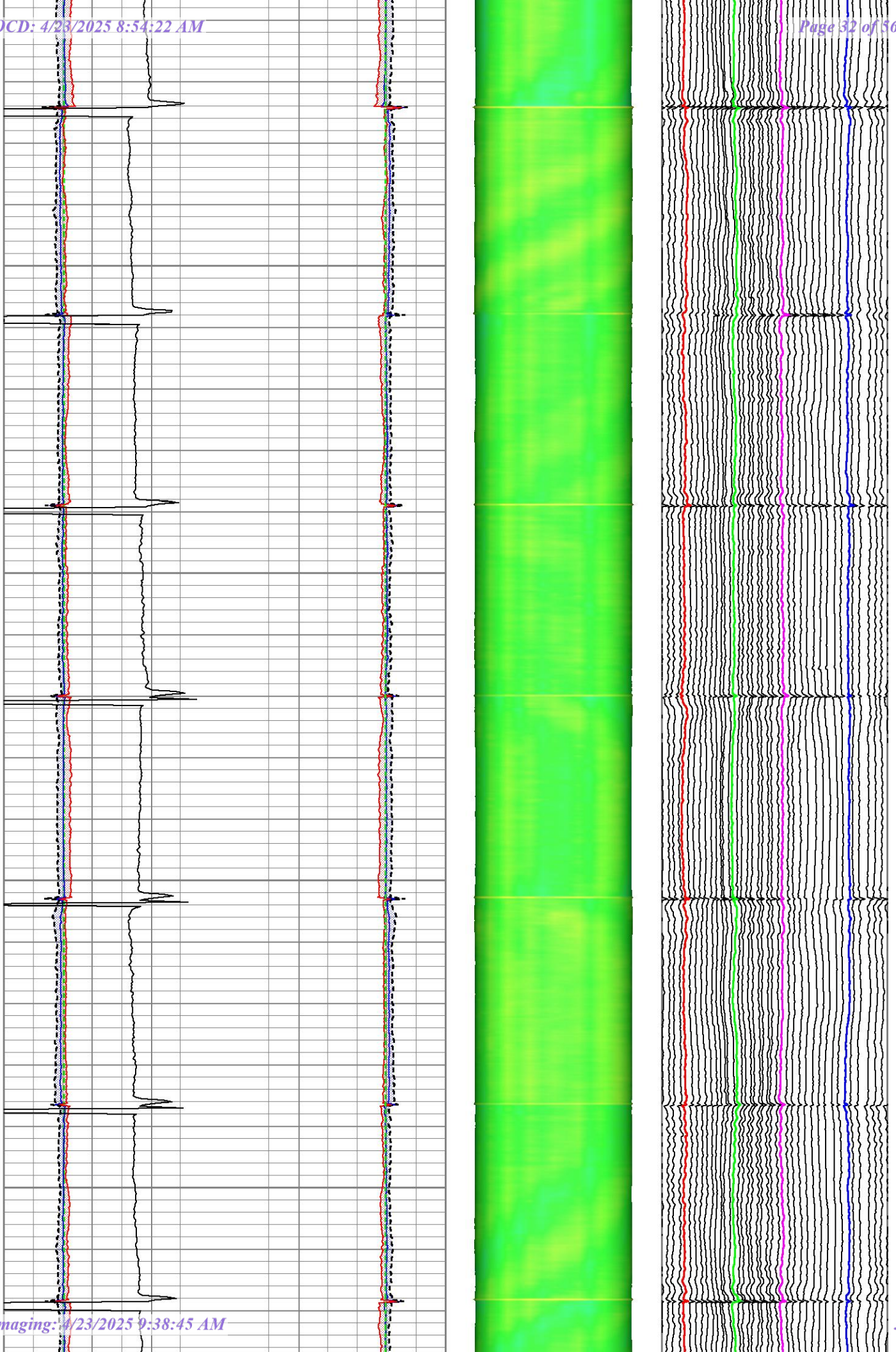


1800

1850

1900

1950

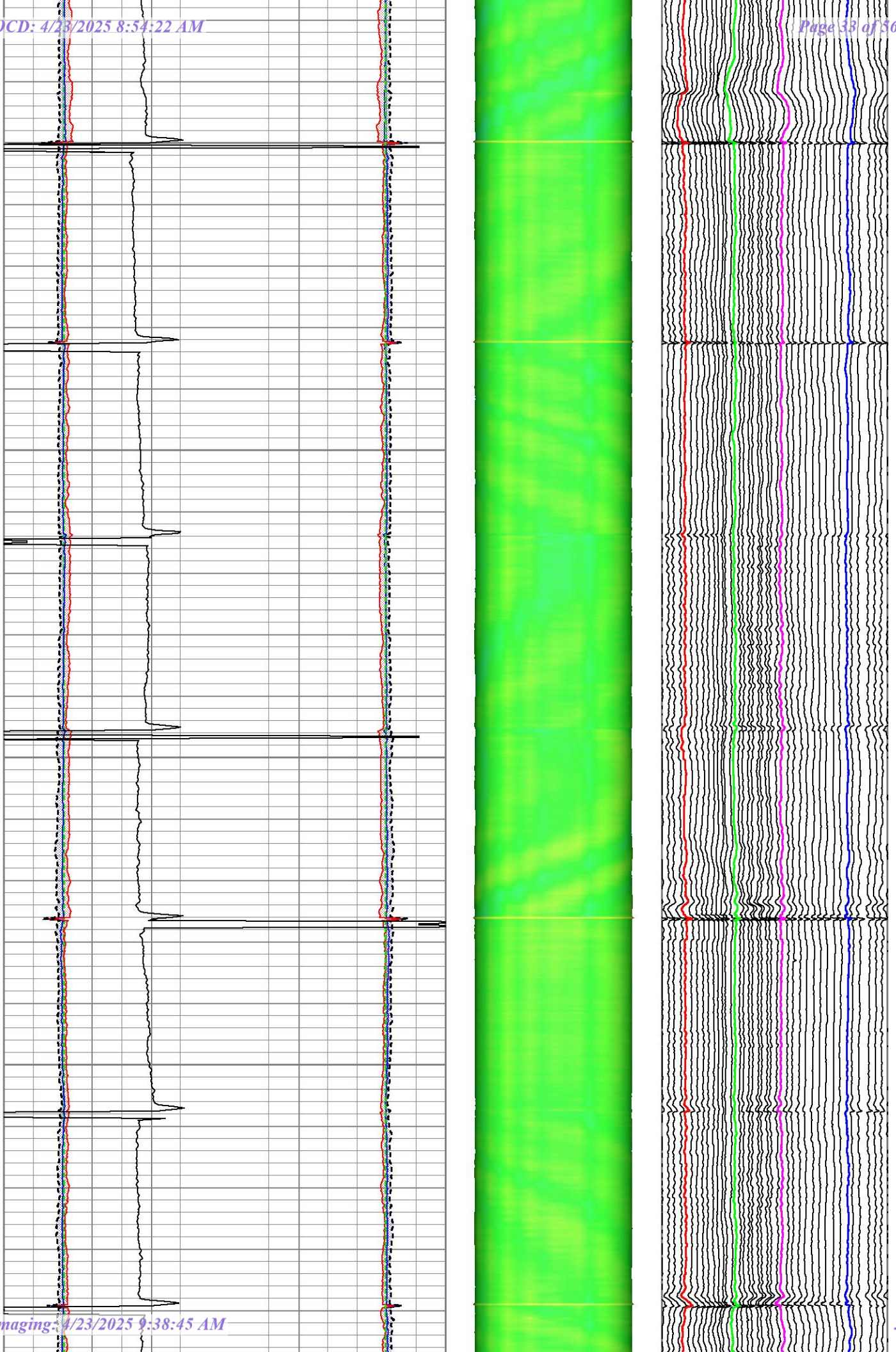


2000

2050

2100

2150



2250

2300

2350

2400

← Possible Hole(s)

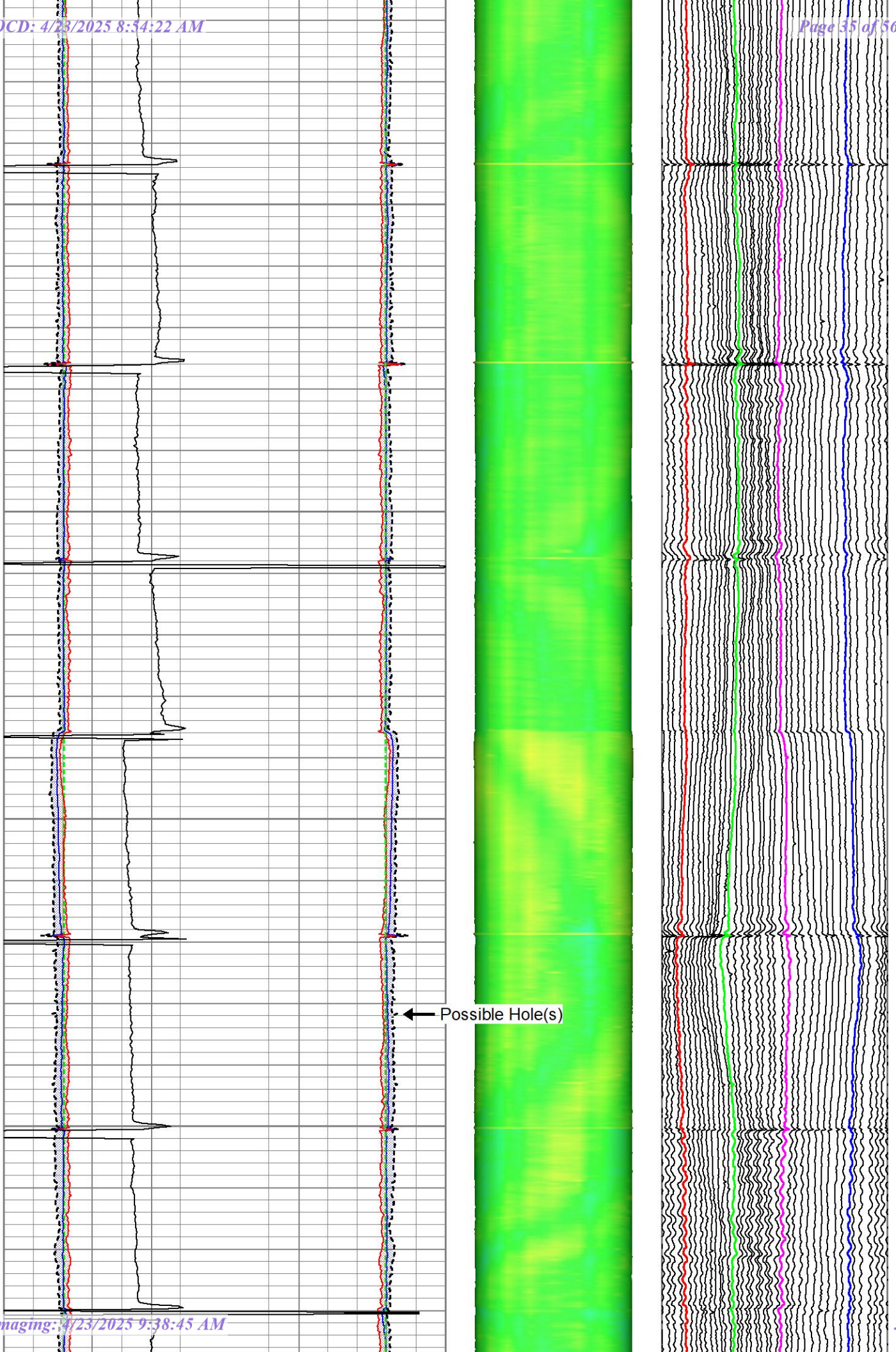
2450

2500

2550

2600

← Possible Hole(s)



2650

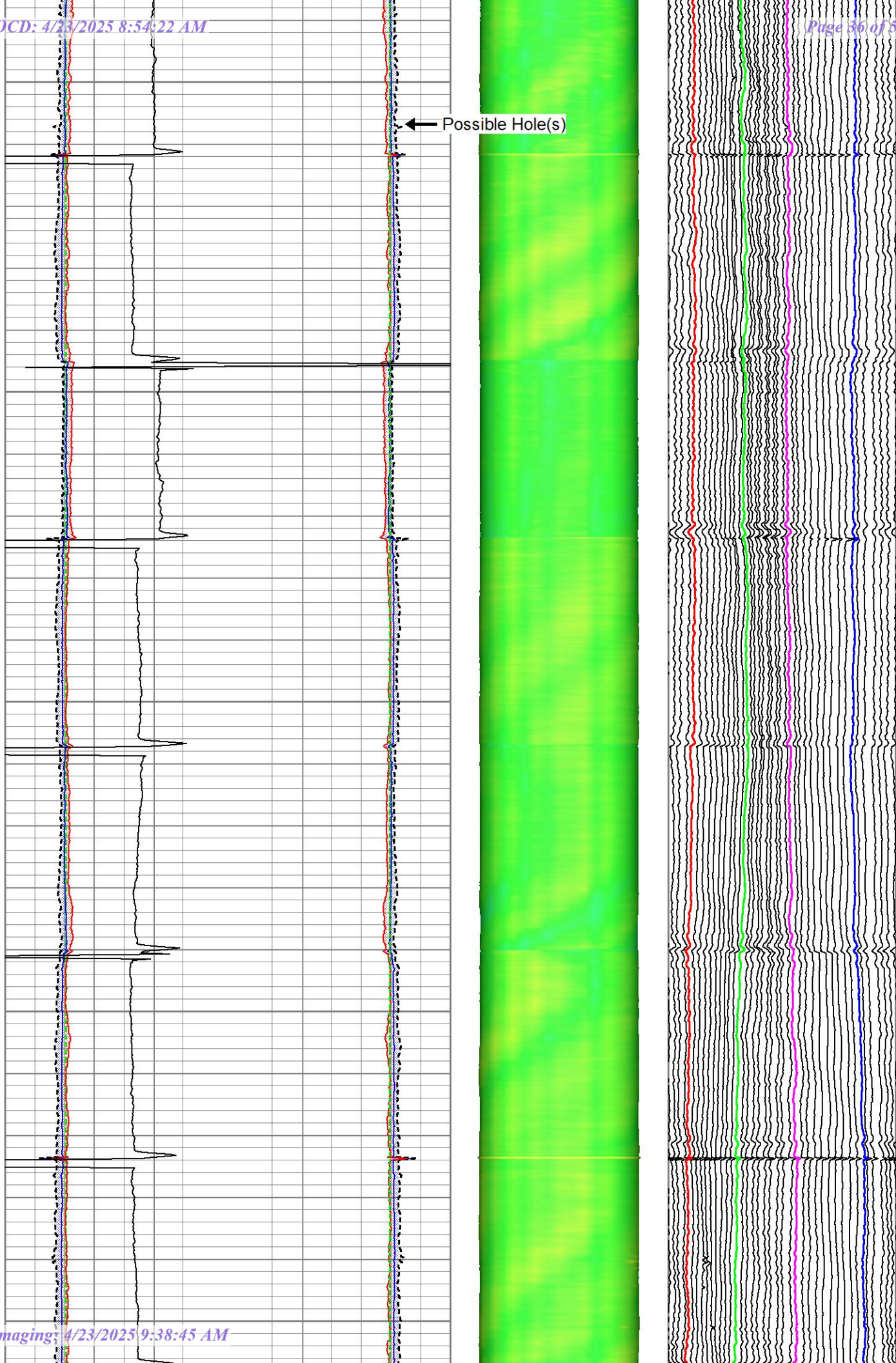
2700

2750

2800

2850

← Possible Hole(s)

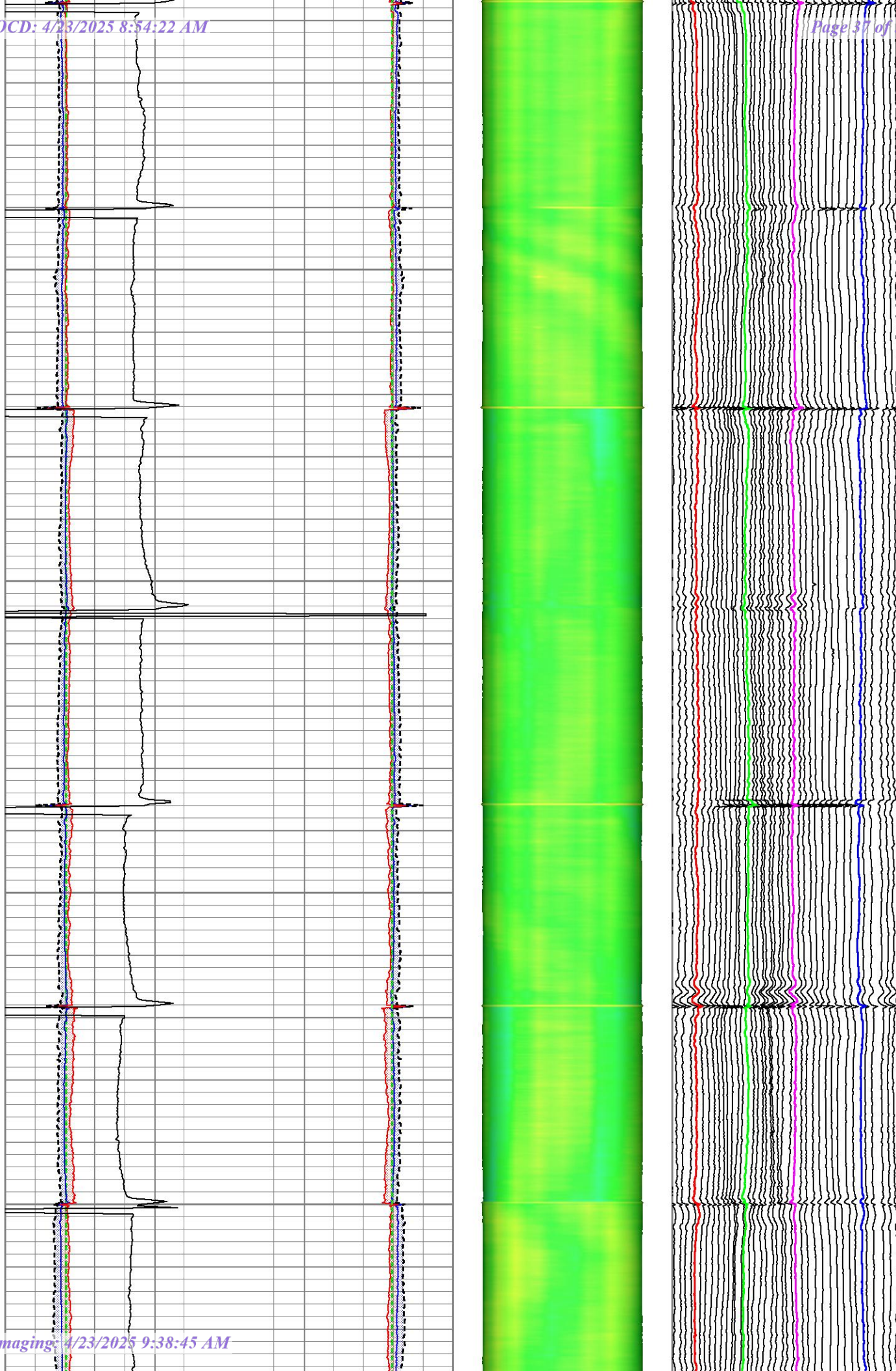


2900

2950

3000

3050



3100

3150

3200

3250

3350

3400

3450

3500

3550

3600

3650

3700

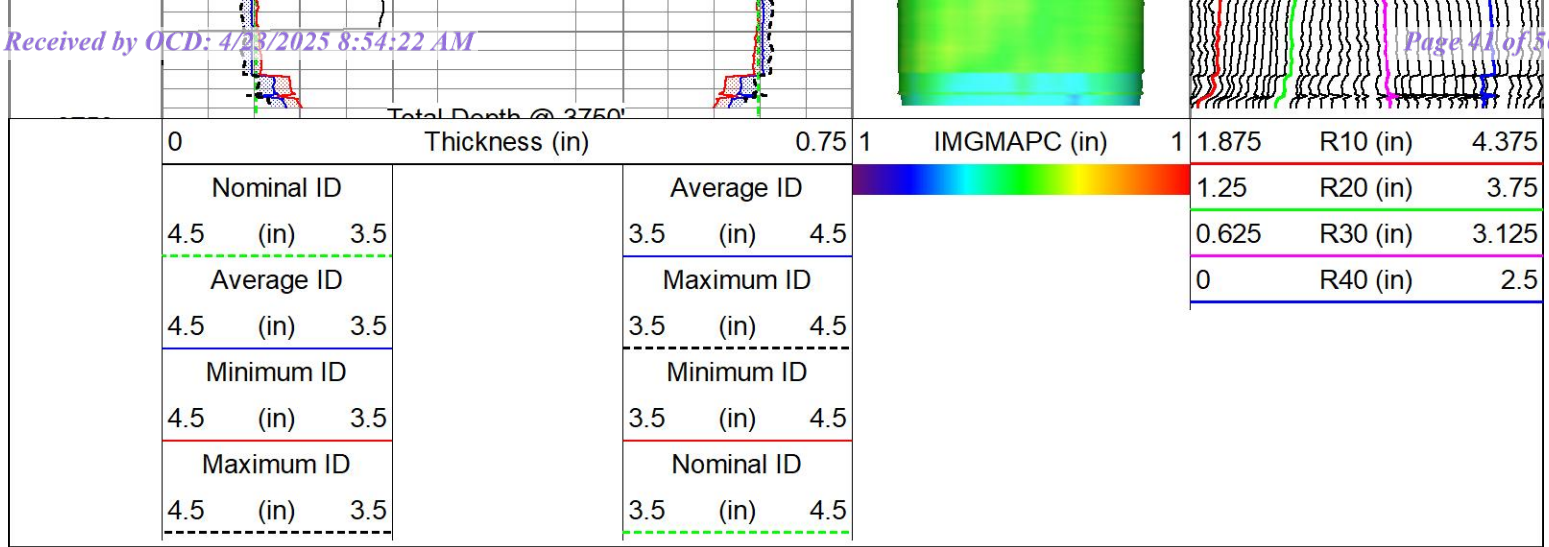
Maximum ID →

← Nominal ID

← Minimum ID

← Average ID

← Thickness



Log Variables

Database: c:\programdata\warrior\data\morningstar_vgsau_31_rbl_mac40\morningstar_vgsau_31_rbl
 Dataset field/well/run1/pass5.105/_vars_

Top - 360.00 ft

BHTEMP_Src	BOREID	BOTTEMP	CASEID	CASEOD	CASETHCK	CASEWGHT	IMGCCLCTH
TEMP	in 12.25	degF 100	in 4.09	in 4.5	in 0.205	lb/ft 9.5	
IMGRWCSRC	MAXAMPL	MINAMPL	MinAPIWall	MINATTN	PERFS	PPT	SRFTEMP
Ecc-Cor	mV 81.1961	mV 1	in 0.179	db/ft 0.8	No	usec 0	degF 0
TDEPTH							
ft 0							

360.00 ft - Bottom

BOREID
in
7.875

Variable Description

BHTEMP_Src : BHTEMP Input Source Selector
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEID : Casing I.D.
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 CASEWGHT : Casing Weight
 IMGCCLCTH : IMG Computed CCL threshold: fraction over nominal
 IMGRWCSRC : IMG Remaining Wall computation source
 MAXAMPL : Maximum Amplitude
 MINAMPL : Minimum Amplitude
 MinAPIWall : Minimum API Wall Thickness
 MINATTN : Minimum Attenuation
 PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth

40 Arm Multi Sensor Caliper Calibration Report

Serial Number: FW1503-01
Tool Model: ProbeMAC40
Performed: Wed Apr 2 12:38:16 2025

Ref Dia:	3.00	4.00	5.00	6.00	7.00	in
Arm1	1.15	1.64	2.23	2.83	3.35	
Arm2	1.17	1.73	2.31	2.90	3.43	
Arm3	1.21	1.77	2.34	2.91	3.44	
Arm4	1.06	1.60	2.16	2.74	3.30	
Arm5	1.21	1.76	2.33	2.91	3.44	
Arm6	1.37	1.93	2.50	3.07	3.60	
Arm7	1.39	1.93	2.48	3.04	3.57	
Arm8	1.20	1.75	2.31	2.88	3.46	
Arm9	1.29	1.82	2.37	2.95	3.52	
Arm10	1.19	1.73	2.29	2.87	3.46	
Arm11						*
Arm12	1.24	1.78	2.34	2.92	3.51	
Arm13	1.16	1.71	2.27	2.84	3.44	
Arm14	1.45	2.01	2.57	3.14	3.69	
Arm15	1.63	2.18	2.73	3.28	3.80	
Arm16	1.36	1.91	2.48	3.04	3.62	
Arm17	1.26	1.79	2.35	2.91	3.47	
Arm18	1.14	1.70	2.26	2.84	3.45	
Arm19	1.22	1.76	2.32	2.89	3.45	
Arm20	1.10	1.66	2.23	2.80	3.38	
Arm21	1.19	1.74	2.30	2.86	3.42	
Arm22	1.17	1.74	2.31	2.87	3.41	
Arm23	1.30	1.86	2.44	3.00	3.53	
Arm24	1.31	1.89	2.48	3.03	3.57	
Arm25	1.20	1.75	2.32	2.86	3.39	
Arm26	1.29	1.88	2.45	3.01	3.54	
Arm27	1.15	1.71	2.28	2.83	3.36	
Arm28	1.01	1.57	2.15	2.71	3.25	
Arm29	1.24	1.80	2.37	2.92	3.43	
Arm30	1.27	1.84	2.41	2.96	3.47	
Arm31	1.24	1.80	2.37	2.92	3.42	
Arm32	1.35	1.92	2.48	3.03	3.52	
Arm33	1.27	1.82	2.38	2.92	3.41	
Arm34	1.21	1.81	2.39	2.95	3.45	
Arm35	1.18	1.74	2.31	2.86	3.36	
Arm36	1.16	1.73	2.30	2.86	3.37	
Arm37	1.23	1.78	2.34	2.89	3.39	
Arm38	1.39	1.94	2.51	3.07	3.56	
Arm39	1.20	1.76	2.33	2.90	3.41	
Arm40	1.19	1.76	2.33	2.89	3.42	

* Bad

PROBE Verifications Calibration Report

	Pre Verification	Post Verification	Casing Check
Performed:			
Ref ID:	0.00	0.00	0.00
Min.	0.00	0.00	0.00
Max.	0.00	0.00	0.00
Avg.	0.00	0.00	0.00
Dia1	0.00	0.00	0.00
Dia2	0.00	0.00	0.00
Dia3	0.00	0.00	0.00
Dia4	0.00	0.00	0.00

Received by OCB: 4/23/2025 8:54:22 AM				Page 43 of 56
Dia4	0.00	0.00	0.00	
Dia5	0.00	0.00	0.00	
Dia6	0.00	0.00	0.00	
Dia7	0.00	0.00	0.00	
Dia8	0.00	0.00	0.00	
Dia9	0.00	0.00	0.00	
Dia10	0.00	0.00	0.00	
Dia11	0.00	0.00	0.00	
Dia12	0.00	0.00	0.00	
Dia13	0.00	0.00	0.00	
Dia14	0.00	0.00	0.00	
Dia15	0.00	0.00	0.00	
Dia16	0.00	0.00	0.00	
Dia17	0.00	0.00	0.00	
Dia18	0.00	0.00	0.00	
Dia19	0.00	0.00	0.00	
Dia20	0.00	0.00	0.00	

Inclinometer Calibration Report

Performed:	(Not Performed)				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	0.00	1.00	0.00	1.00	gee
Y Accelerometer	0.00	1.00	0.00	1.00	gee
Z Accelerometer	0.00	1.00	0.00	1.00	gee

EMIT Calibration Report

Serial Number:	FW1512-33
Tool Model:	CI275-0000
Performed:	

	Reference	Reading	
Thickness			
Reference 1:	0.277 in	10506.600	clock cycles
Reference 2:	0.373 in	10716.900	clock cycles
Reference 3:	0.320 in	11590.000	clock cycles
Reference 4:	in		clock cycles
Reference 5:	in		clock cycles
MAGCAL			
Reference 1:	in		clock cycles
Reference 2:	in		clock cycles
Reference 3:	in		clock cycles
Reference 4:	in		clock cycles
Reference 5:	in		clock cycles
Low Reference:			clock cycle difference
High Reference:			clock cycle difference
Released to Imaging: 4/23/2025 9:38:11 AM			A/D conversion
			A/D conversion

Gamma Ray Calibration Report

Serial Number: FW_1511-158COR
 Tool Model: GC275 rev.2
 Performed: Fri Mar 11 09:39:47 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.8500 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1712-002
 Tool Model: RBT-TEMP

Calibration Casing Diameter: 4.500 in
 Calibration Depth: 202.808 ft

Master Calibration, performed Wed Apr 2 12:12:08 2025:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.014	0.830	2.000	81.196	97.010	0.683
CAL	0.010	0.852				
5'	0.009	0.787	2.000	81.196	101.882	1.051
SUM						
S1	0.007	0.849	0.000	100.000	118.704	-0.780
S2	0.010	0.838	0.000	100.000	120.723	-1.197
S3	0.010	0.849	0.000	100.000	119.188	-1.228
S4	0.010	0.837	0.000	100.000	120.917	-1.261
S5	0.010	0.845	0.000	100.000	119.754	-1.245
S6	0.010	0.854	0.000	100.000	118.469	-1.219
S7	0.010	0.849	0.000	100.000	119.262	-1.226
S8	0.010	0.836	0.000	100.000	121.053	-1.241

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.010	0.852	1.000	0.000

Air Zero Calibration, performed Wed Apr 2 12:11:44 2025:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000

Temperature Calibration Report

Serial Number: FW1712-002
Tool Model: RBT-TEMP
Performed: (Not Performed)

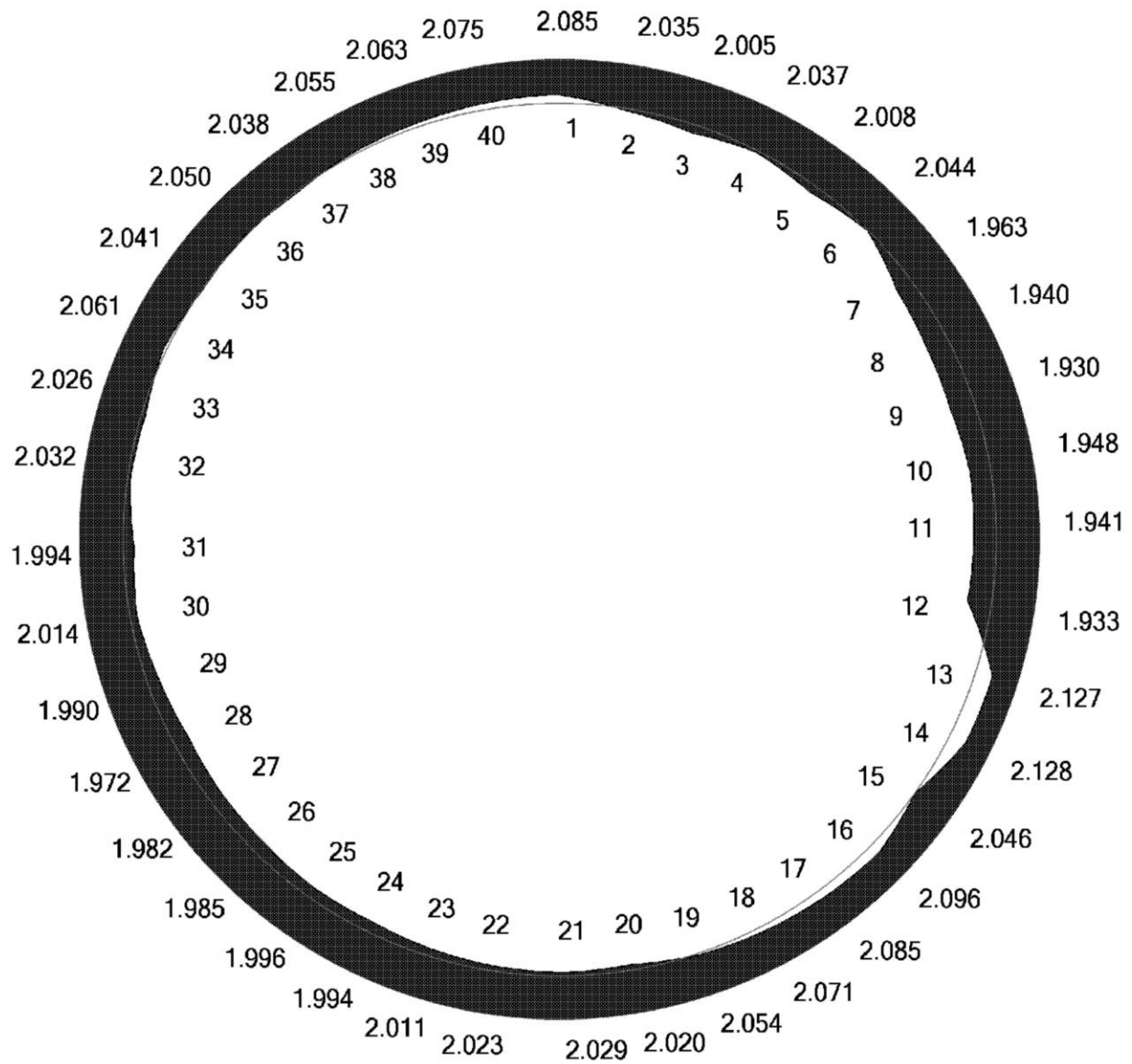
Reference		Reading	
0.00	degF	0.00	degF
1.00	degF	1.00	degF

Gain:	1.00
Offset:	0.00
Delta Spacing	5

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-1.4375CHD Titan Cable Head 1 7/16	1.00	1.44	10.00
			CENT-Probe Probe 2 3/4 Centralizer	2.88	2.75	20.00
TEMP	27.38					
WVFS8	25.23		RBT-RBT-TEMP (FW1712-002) Probe 2.75" Radii Bond w/Temp Tool	9.17	2.75	90.00
WVFS7	25.23					
WVFS6	25.23					
WVFS5	25.23					
WVFS4	25.23					
WVFS3	25.23					
WVFS2	25.23					
WVFS1	25.23					
WVFCAL	25.23		CENT-Probe Probe 2 3/4 Centralizer	2.88	2.75	20.00
WVF3FT	25.23					
WVF5FT	24.23					
CCL\$2	17.23					
CCL\$1	17.23					
GR	15.98		GR-GC275 rev.2 (FW_1511-158COR) Probe GC275-0000 rev.2	4.57	2.75	55.00
			EMIT-CI275-0000 (FW1512-33)	6.69	2.75	51.00
Thickness	9.00					
MAGCAL	0.00					
CAL	0.00					

Segment	8.98		MAC40-Probe MAC40 (FW1503-01) 40 arm Caliper	6.91	2.75	Page 46 of 5
ACCZ	5.00					
ACCY	5.00					
ACCX	5.00					
ETEMP	3.33					
Meas	1.04					
Dataset: morningstar_vgsau_31_rbl_mac40.db: field/well/run1/pass5 Total length: 34.08 ft Total weight: 246.00 lb O.D.: 2.75 in						

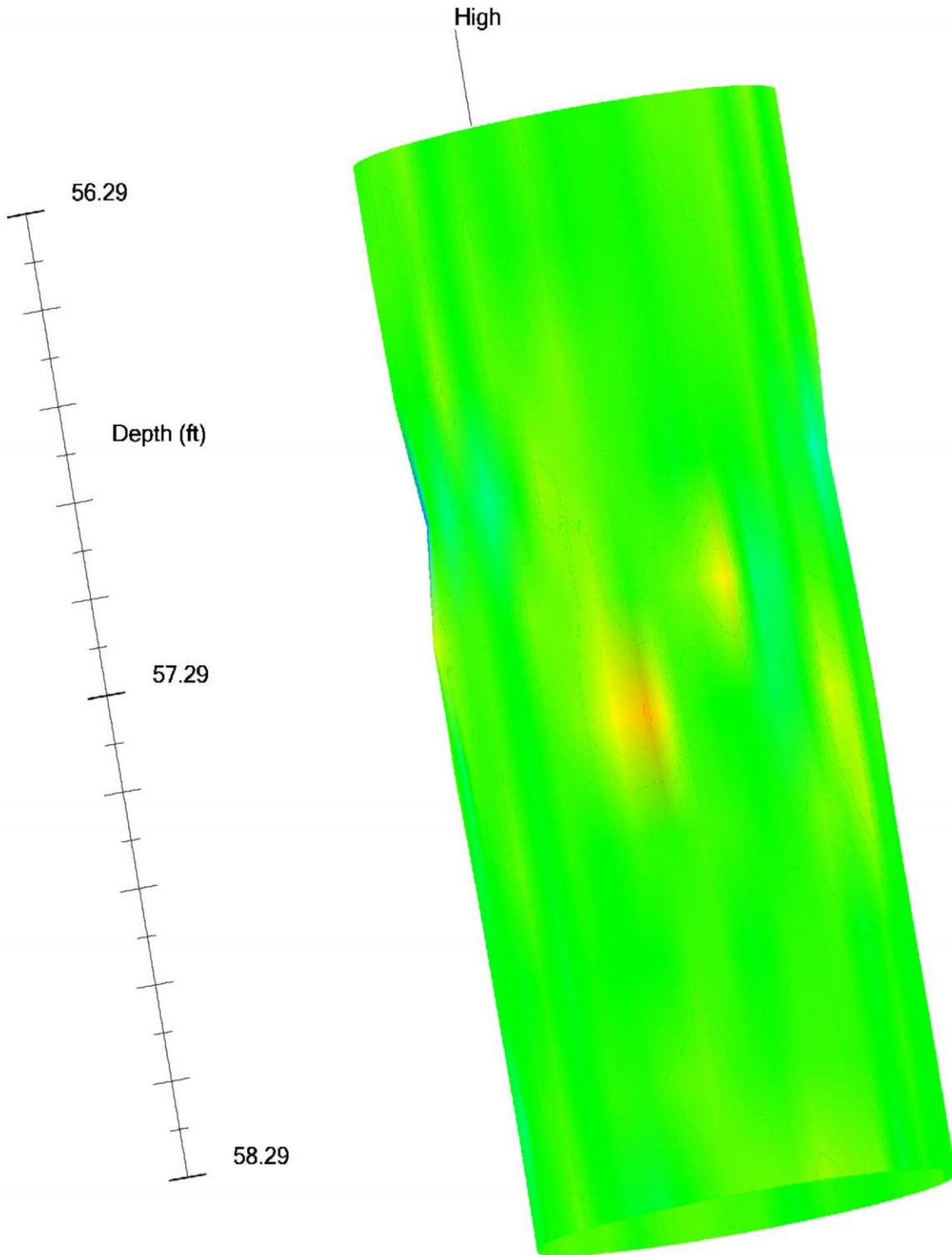
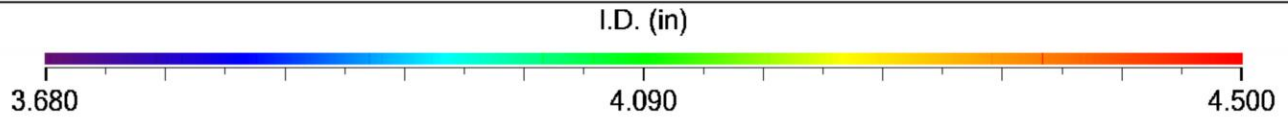
Borehole Image CROSS SECTION IMGMAPC



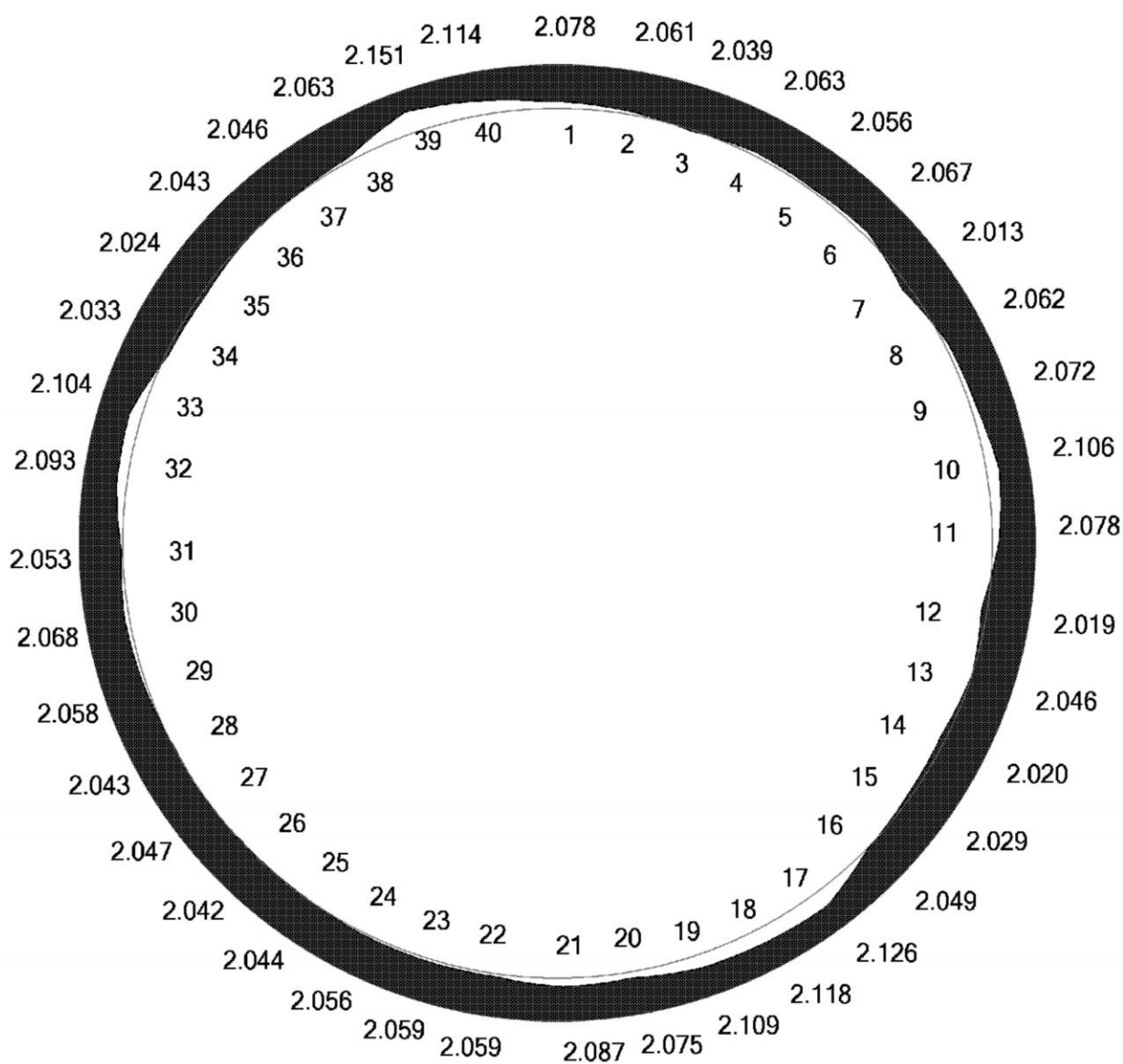
Depth: 57.08 ft

All caliper readings are radii (in)

IMGMAPC



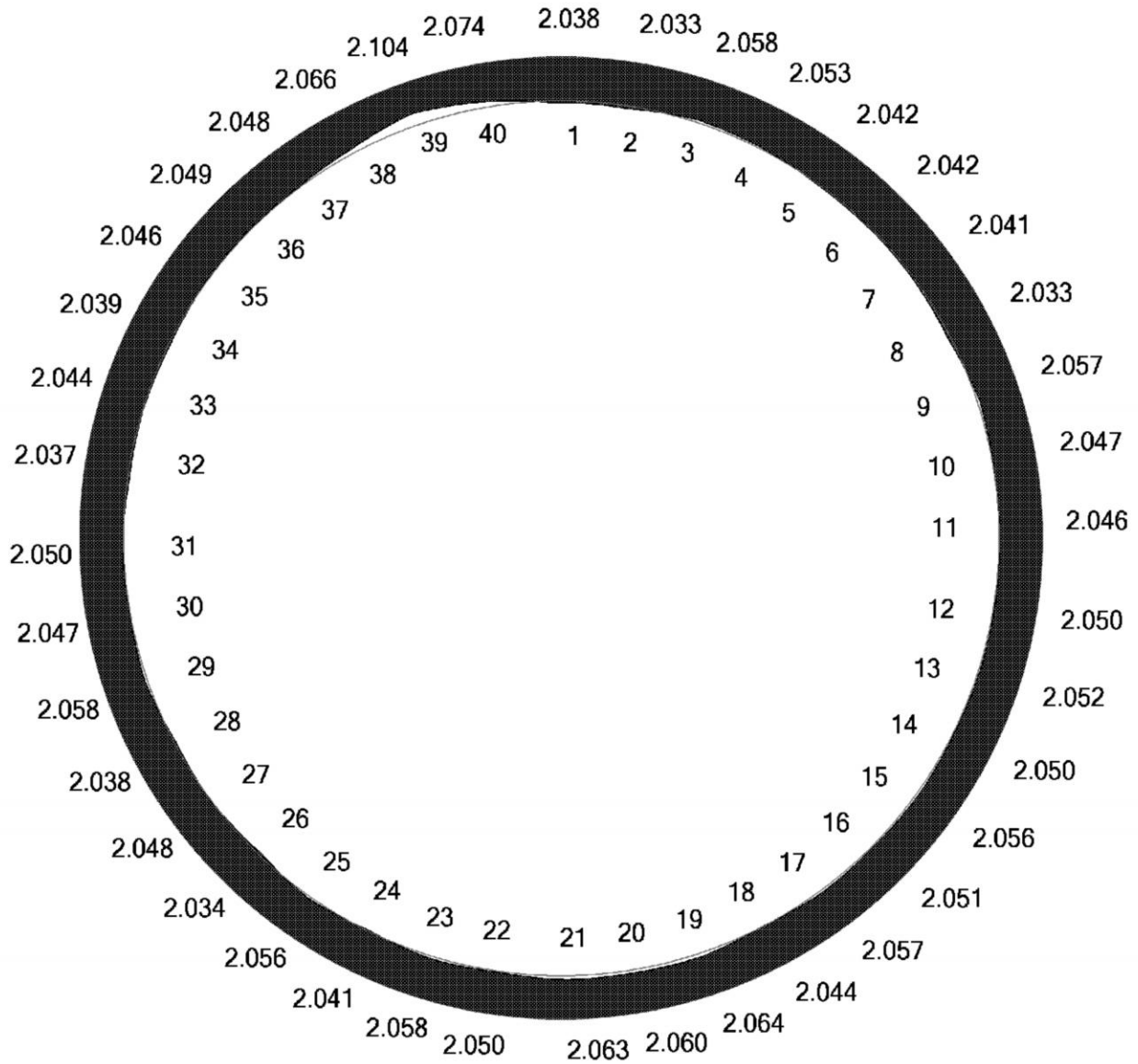
Borehole Image CROSS SECTION IMGMAPC



Depth: 57.50 ft

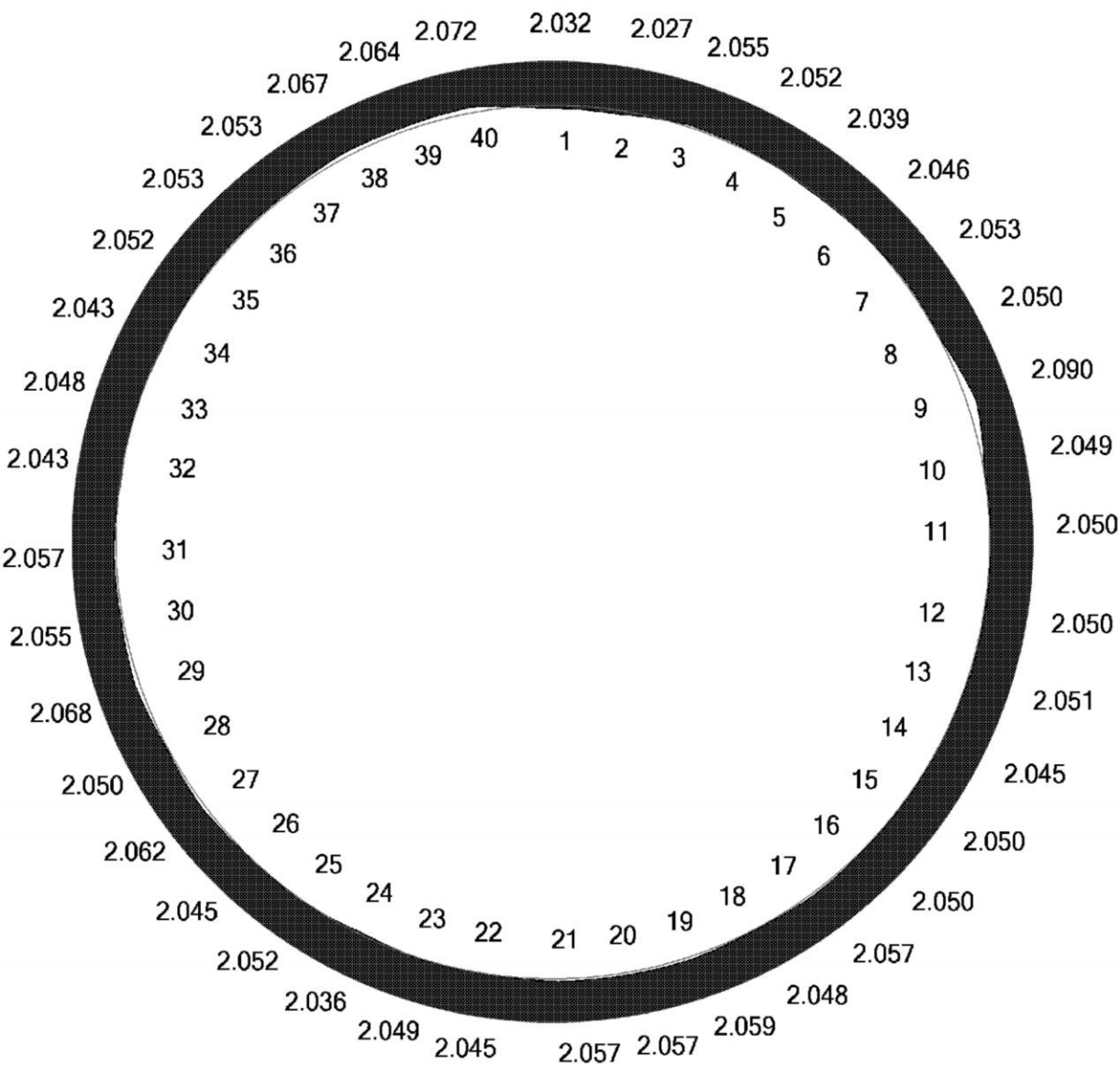
All caliper readings are radii (in)

Borehole Image CROSS SECTION IMGMAPC



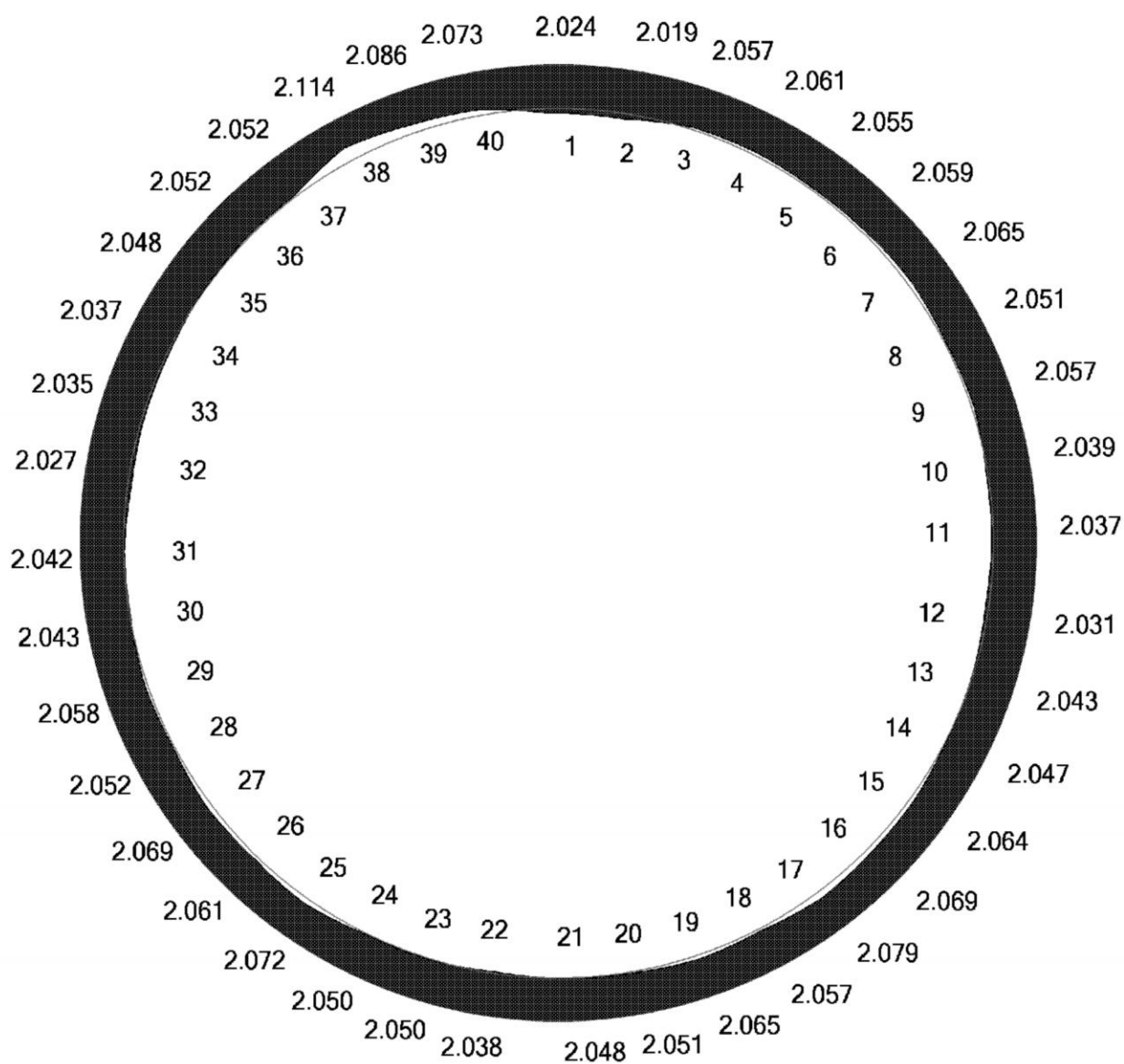
Depth: 1414.79 ft All caliper readings are radii (in)

Borehole Image CROSS SECTION
IMGMAPC



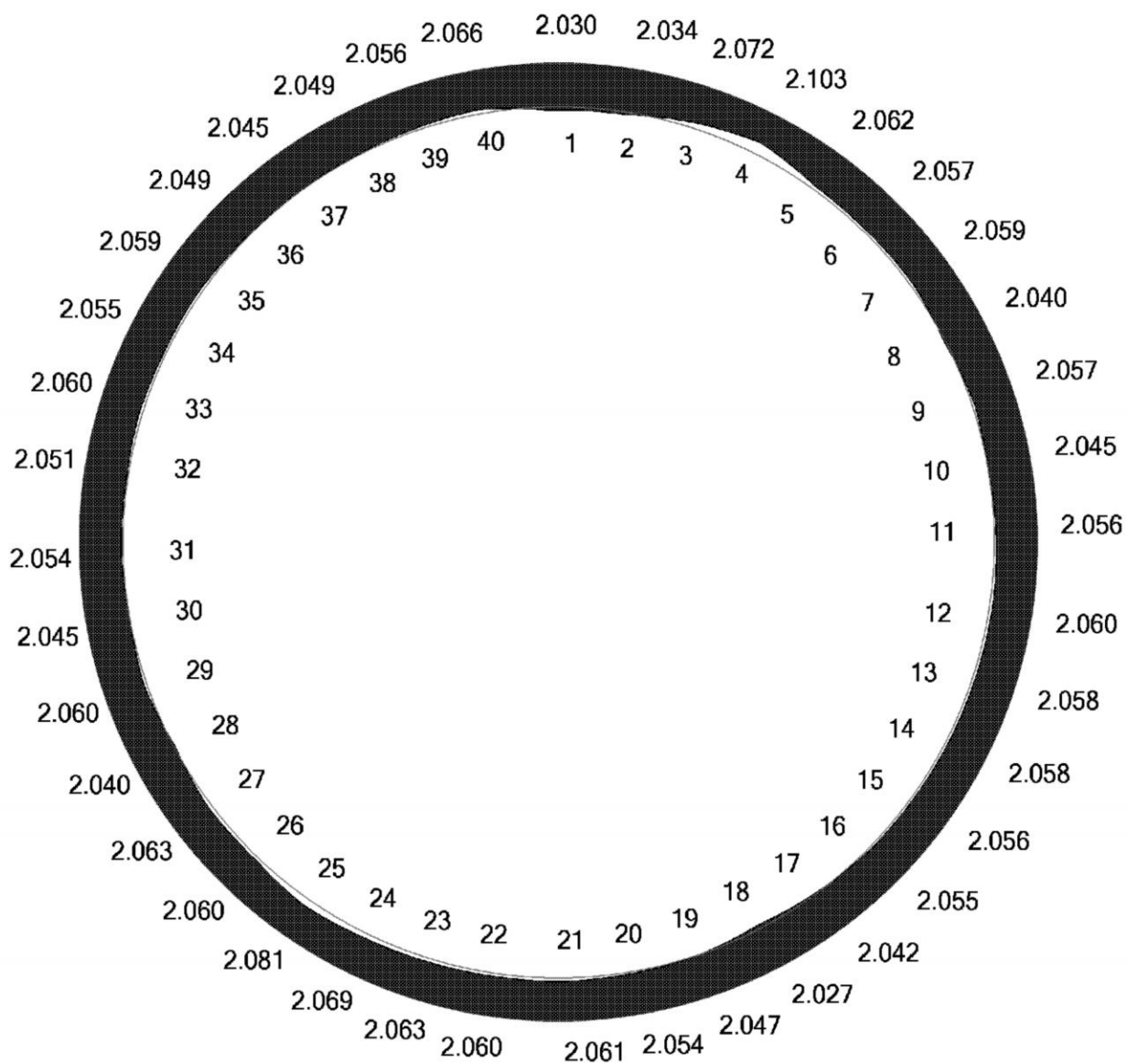
Depth: 1556.67 ft All caliper readings are radii (in)

Borehole Image CROSS SECTION IMGMAPC



Depth: 2377.71 ft All caliper readings are radii (in)

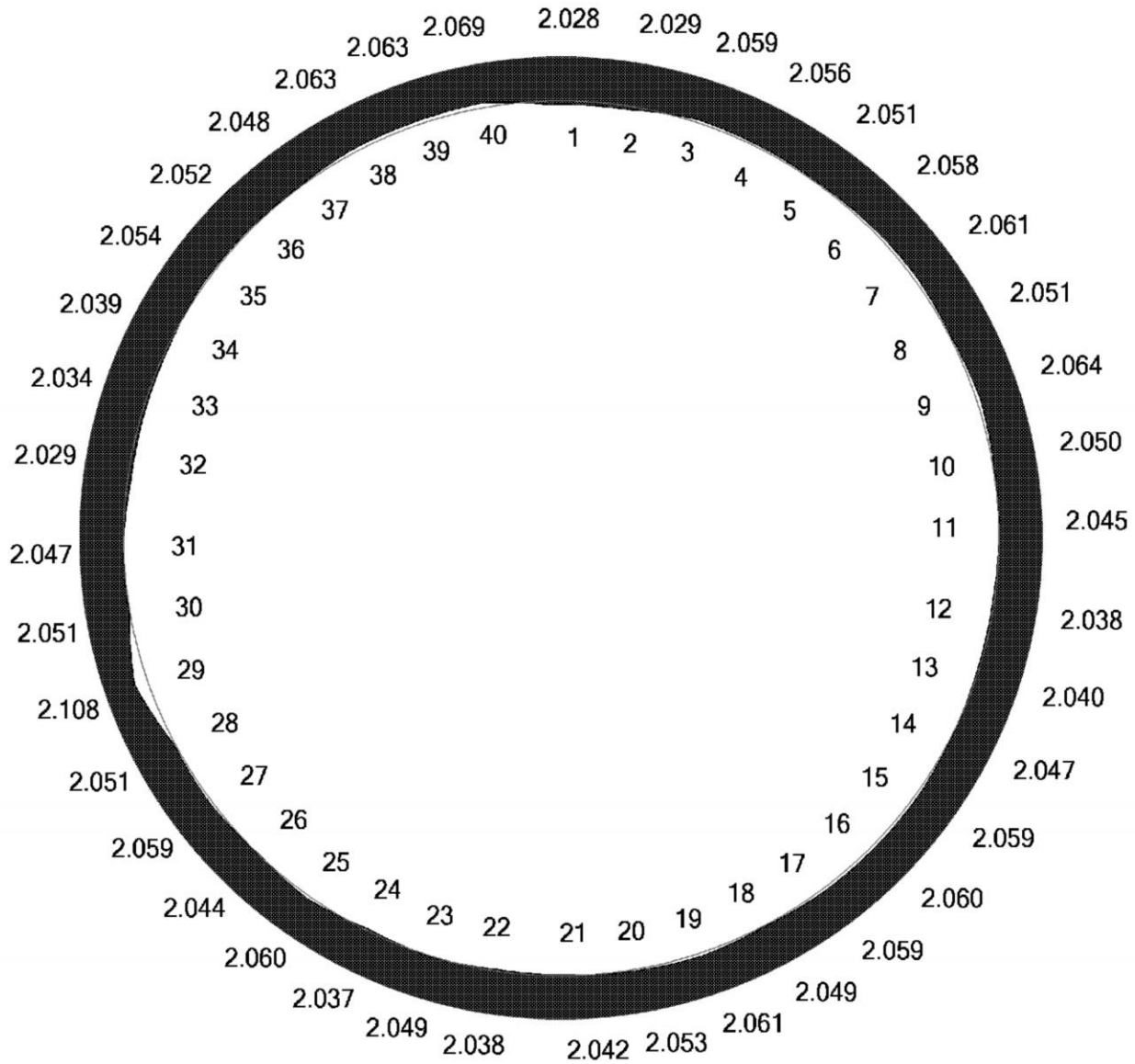
Borehole Image CROSS SECTION IMGMAPC



Depth: 2581.67 ft

All caliper readings are radii (in)

Borehole Image CROSS SECTION IMGMAPC



Depth: 2657.29 ft All caliper readings are radii (in)

Company Morningstar Operating, LLC
Well Vacuum Grayburg San Andres Unit No. 31
Field Vacuum (Grayburg-San Andres)



Multi Sensor 40 Arm Caliper
Electro Magnetic Thickness
Gamma Ray CCL

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 454634

CONDITIONS

Operator: MorningStar Operating LLC 400 W 7th St Fort Worth, TX 76102	OGRID: 330132
	Action Number: 454634
	Action Type: [C-103] Sub. General Sundry (C-103Z)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	4/23/2025