



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Horsetail 08D-1704
Well Id:
Location: NWNW 08-T10N-R57W
License Number: 05-123-41024-00
Spud Date: 4/10/2015
Surface Coordinates: Lat.: 40.859761 Long.: -103.783281
Region: Redtail Field
Drilling Completed:

Bottom Hole
Coordinates:
Ground Elevation (ft): 4962 K.B. Elevation (ft): 4983
Logged Interval (ft): To: Total Depth (ft):
Formation: Pierre, Sharon Springs, Niobrara
Type of Drilling Fluid: Water Based Mud

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Whiting Oil & Gas Corp.
Address: 1700 Broadway Suite 2300
Denver, CO 80290

GEOLOGIST

Name: Todd Nakata, Camille Warren
Company: Acme Geologic Consulting
Address: 108 Berry Street
Little Rock, AR 72205

Drilling Company

Unit Drilling Company
Rig 406

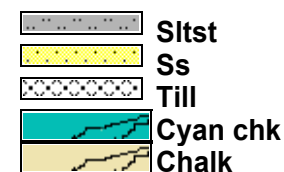
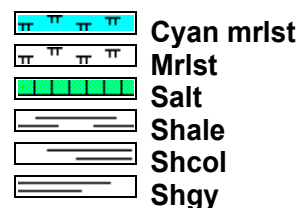
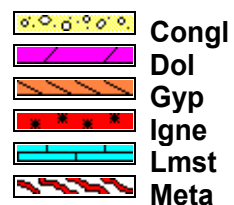
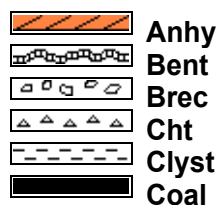
Gas Detection

Mudlogging Systems, Inc., M Logger, Model TGC, Total Gas and Chromatograph

Comments

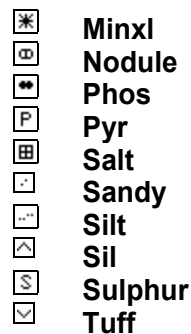
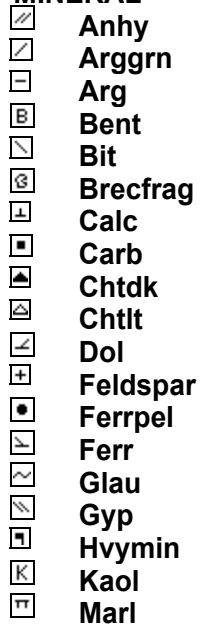
Lithologies and tops at drilled depths, not corrected to elogs. Where the well bore gas is 100% methane, the C1 line is moved to 85% for graphical purposes only.

ROCK TYPES

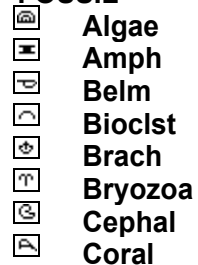


ACCESSORIES

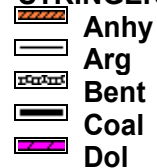
MINERAL



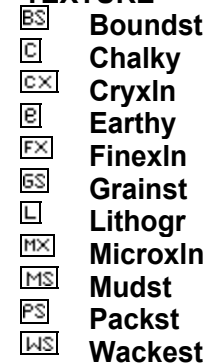
FOSSIL



STRINGER











TEXTURE



OTHER SYMBOLS




POROSITY

-  Earthy
-  Fenest
-  Fracture
-  Inter
-  Moldic
-  Organic
-  Pinpoint
-  Vuggy

SORTING





-  Well
-  Moderate
-  Poor

ROUNDING

-  Rounded
-  Subrnd
-  Subang

-  Angular

OIL SHOW

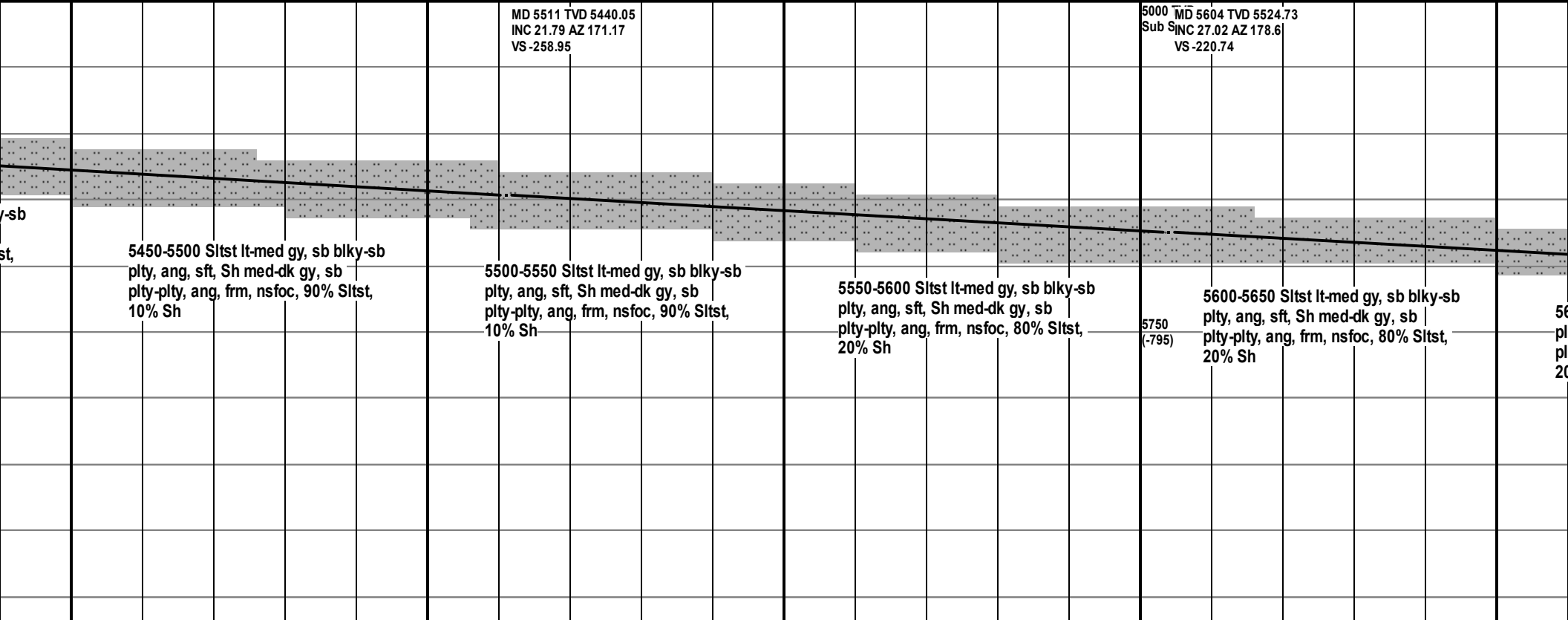
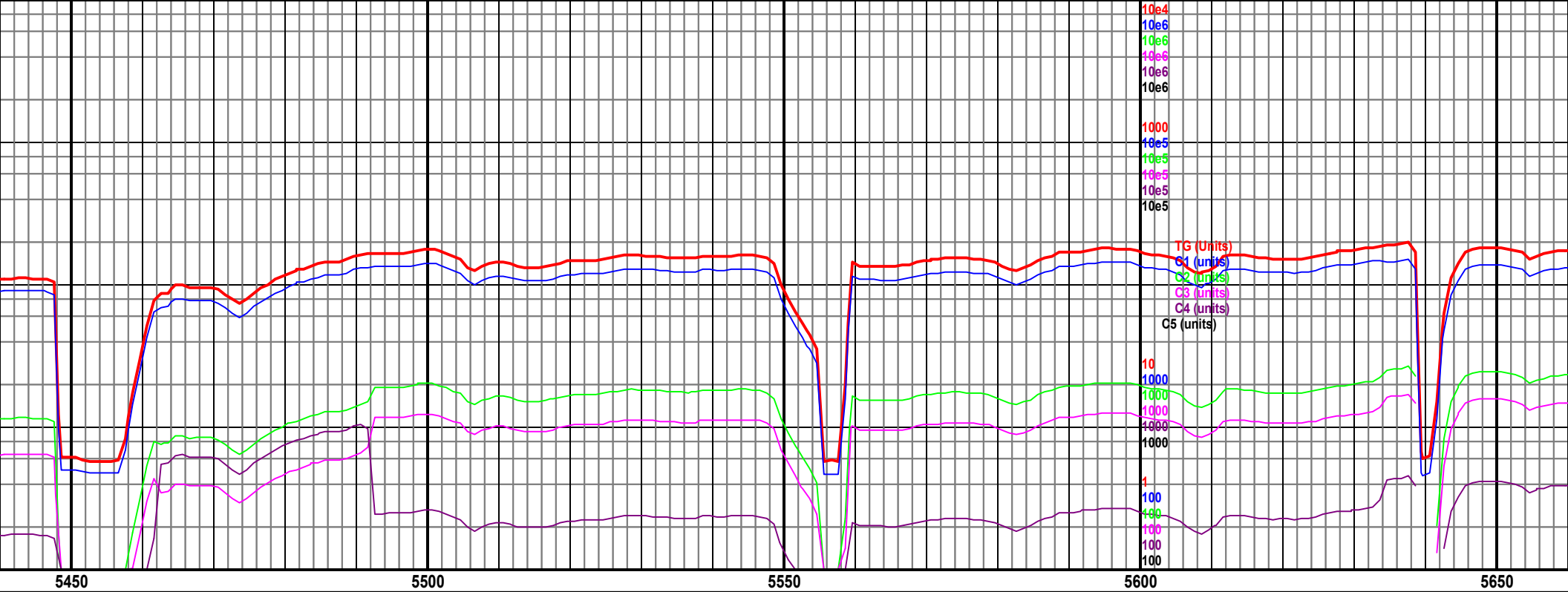
-  Even
-  Spotted
-  Ques
-  Dead

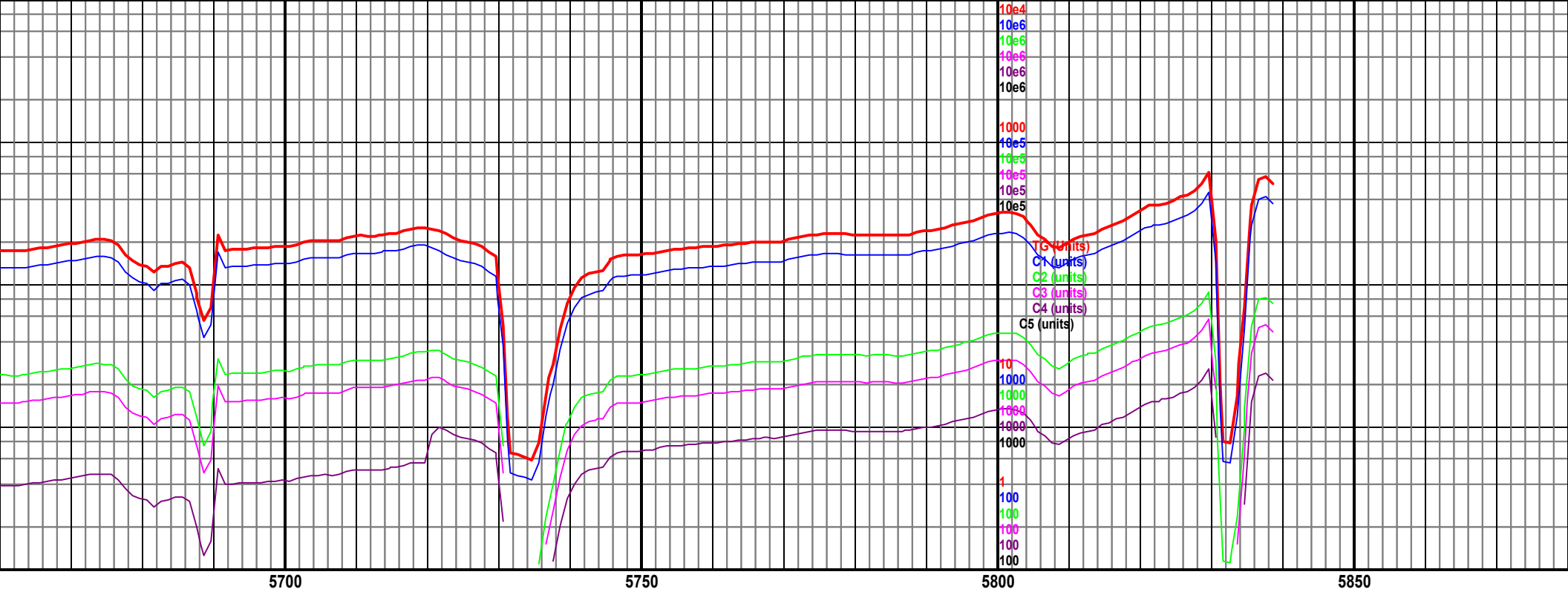
INTERVAL

-  Core
-  Dst

EVENT

-  Rft
-  Sidewall





5700

5750

5800

5850

MD 5698 TVD 5606.17
INC 32.92 AZ 169.75
VS -174.2

MD 5792 TVD 5686.83
INC 28.89 AZ 175.88⁽⁴⁾
VS -126.38

P200 5715' MD,
5621' TVD

P300 5750' MD,
5651' TVD

P350 5786' MD,
5681' TVD

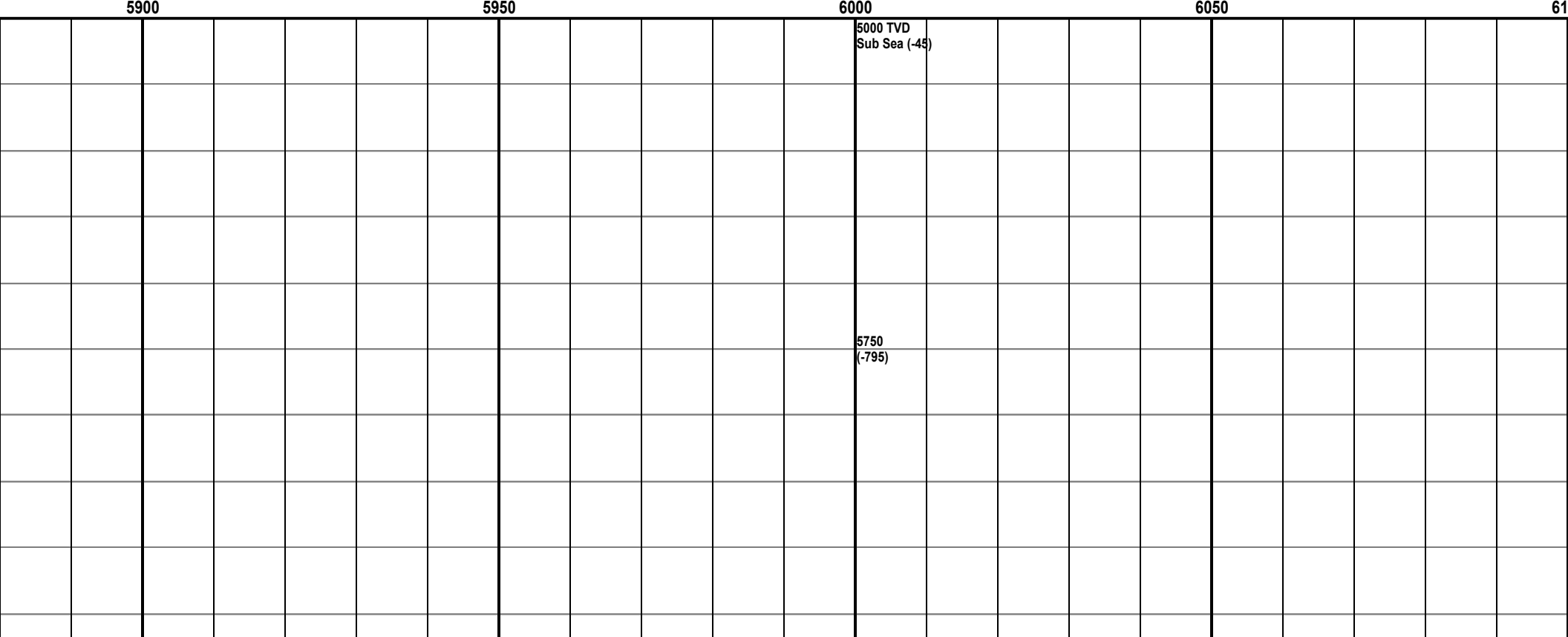
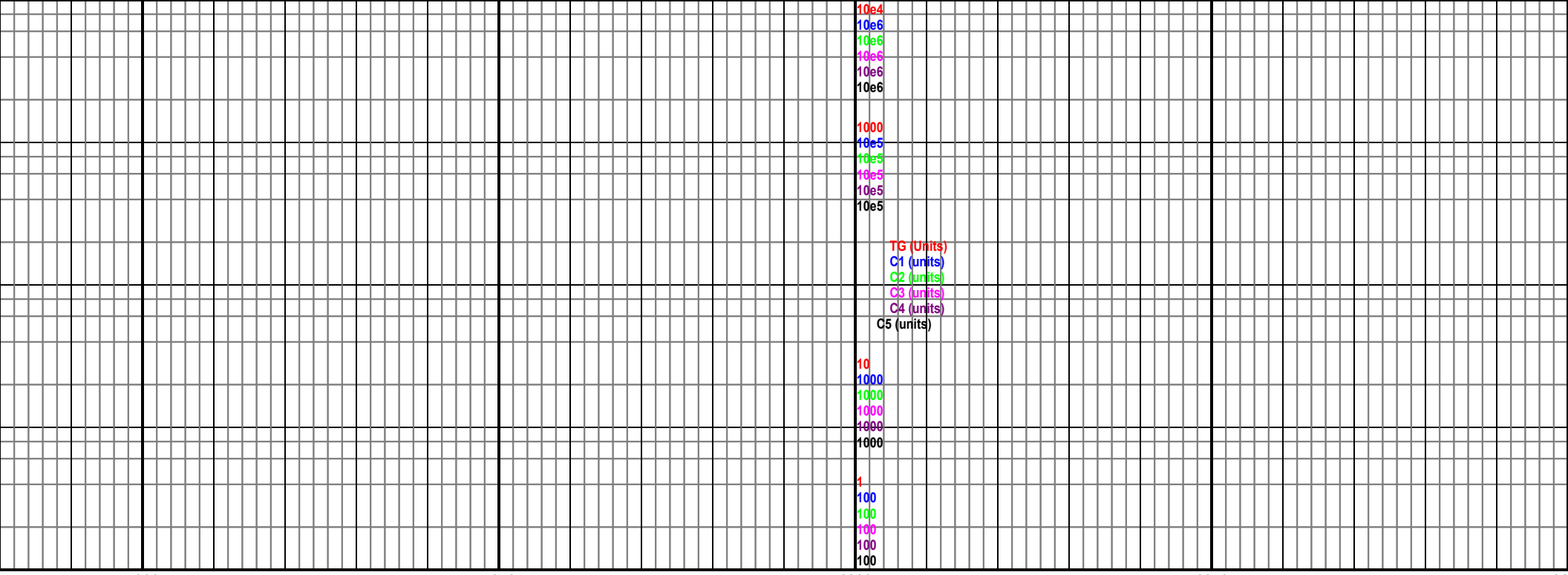
TOH 5839' for Side track of
well.

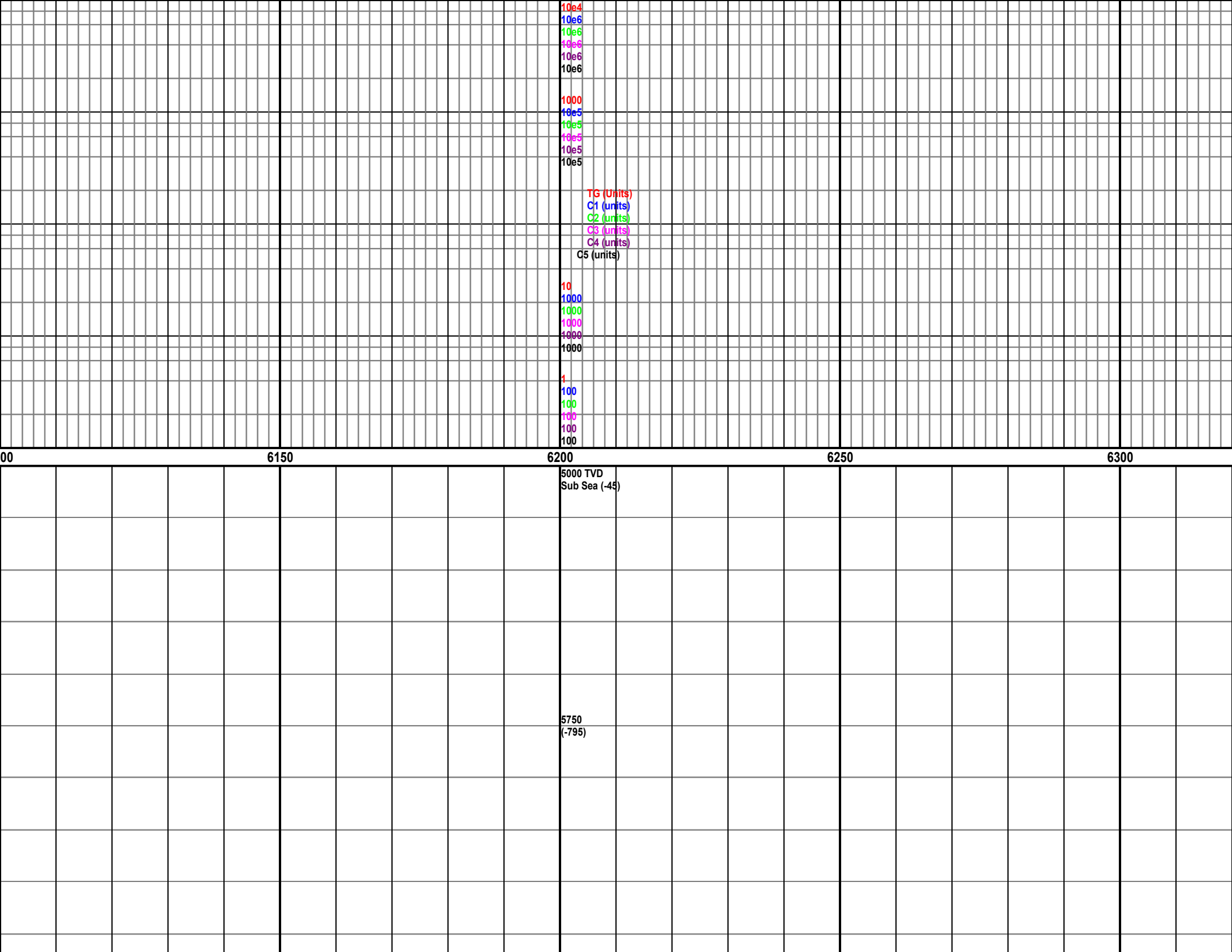
550-5700 Slstst lt-med gy, sb blkly-sb
pty, ang, sft, Sh med-dk gy, sb
pty-pty, ang, frm, nsfoc, 80% Slstst,
10% Sh

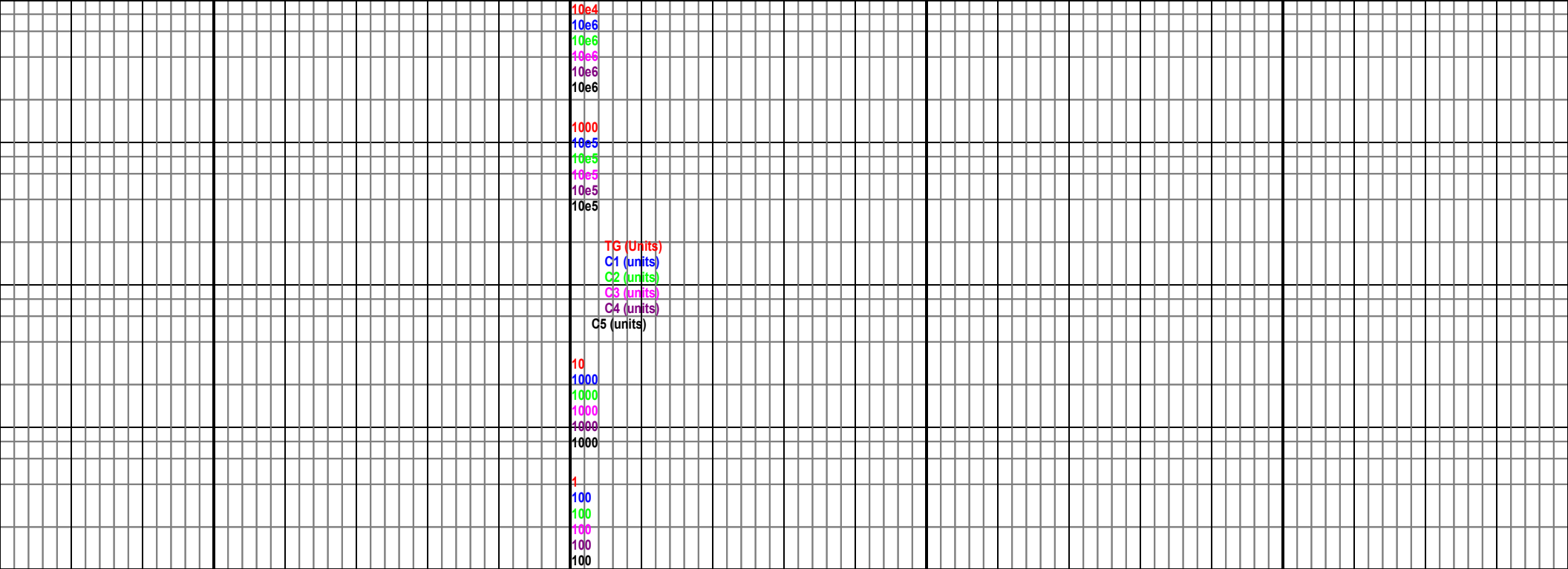
5700-5750 Slstst lt-med gy, sb blkly-sb
pty, ang, sft, Sh med-dk gy, sb
pty-pty, ang, frm, nsfoc, 90% Slstst,
10% Sh

5750-5800 Slstst lt-med gy, sb blkly-sb
pty, ang, sft, Sh med-dk gy, sb
pty-pty, ang, frm, nsfoc, 90% Slstst,
10% Sh

5800-5839 Slstst lt-med gy, sb blkly-sb
pty, sft, calc cmt, tr Sh med-dk gy, sb
pty-pty, ang, frm, non calc, tr bent lt
brn, nsfoc, 80% Slstst, 10% Sh, 10%
bent







6350

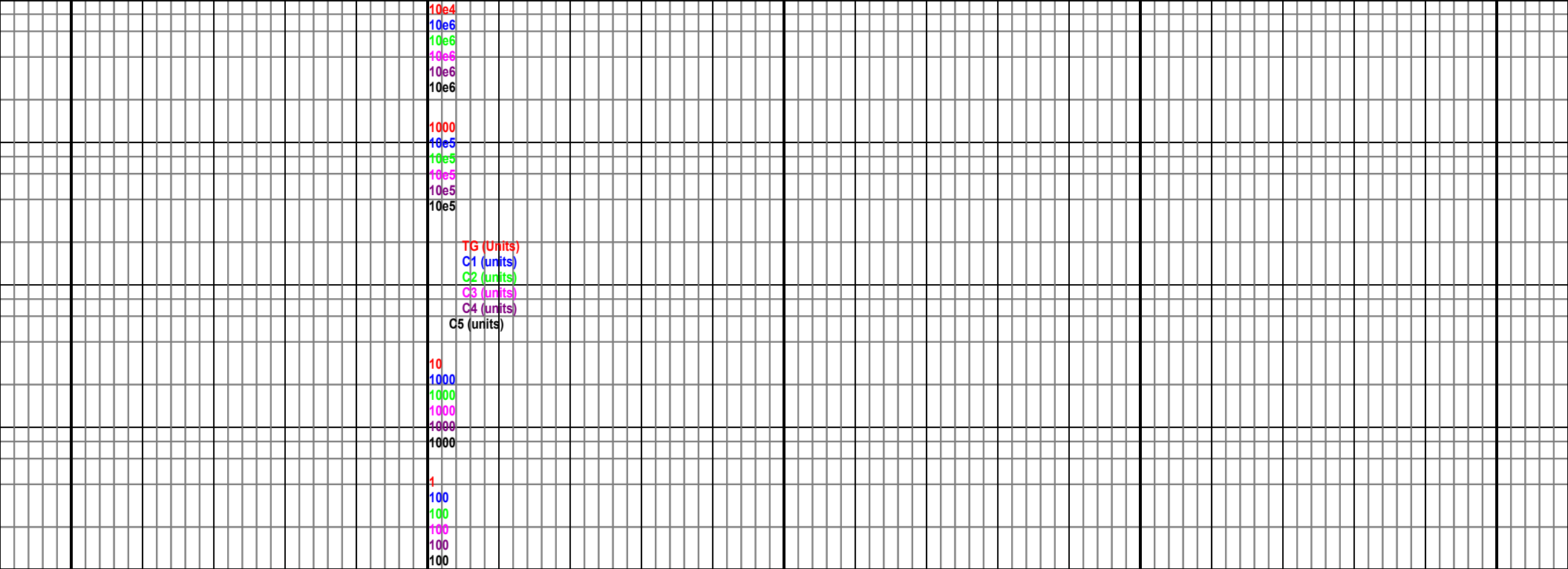
6400

6450

6500

5000 TVD
Sub Sea (-45)

5750
(-795)



6550

6600

6650

6700

6750

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e3
10e3
10e5
10e5
10e5

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100

6800 6850 6900 6950

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e5
10e5
10e5
10e5
10e5

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

7000

7050

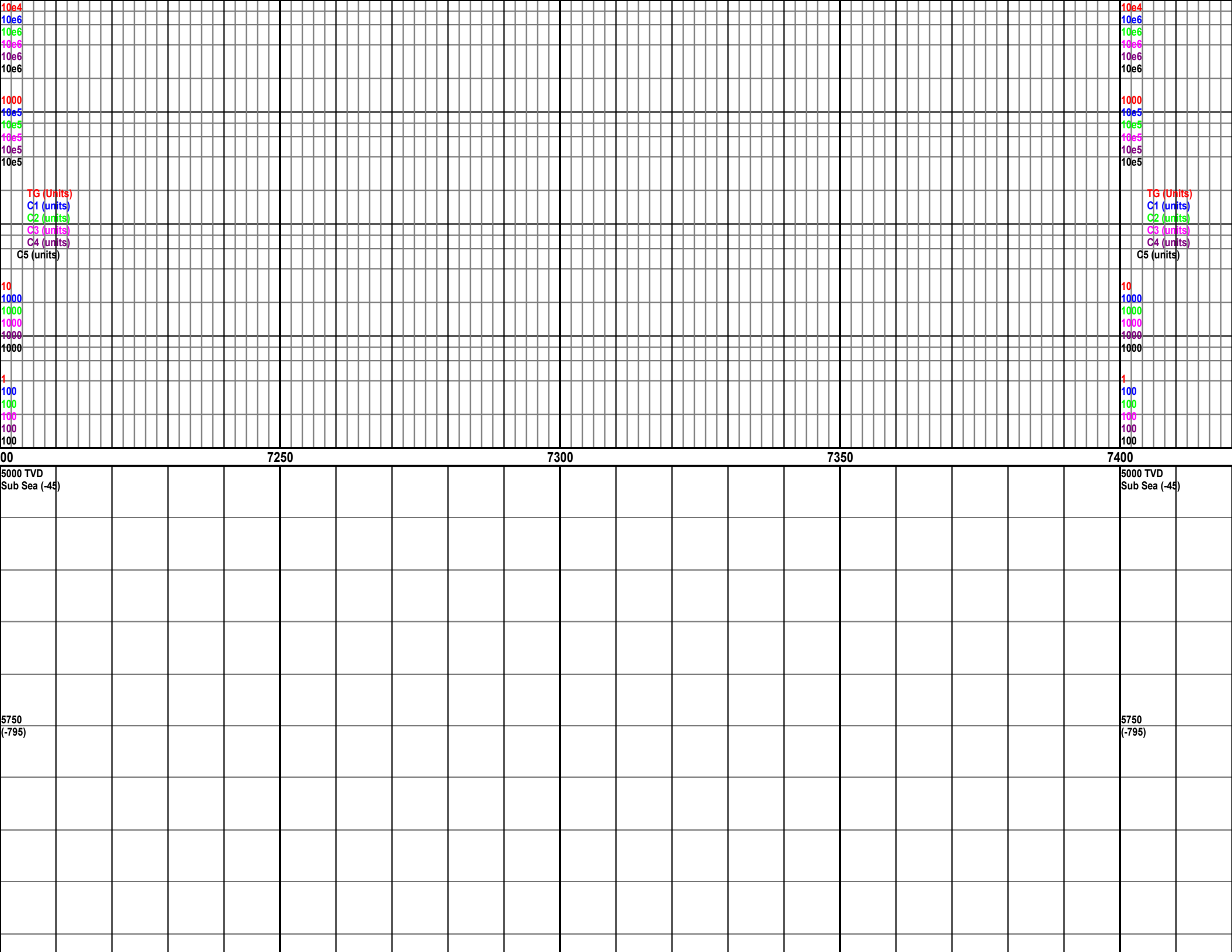
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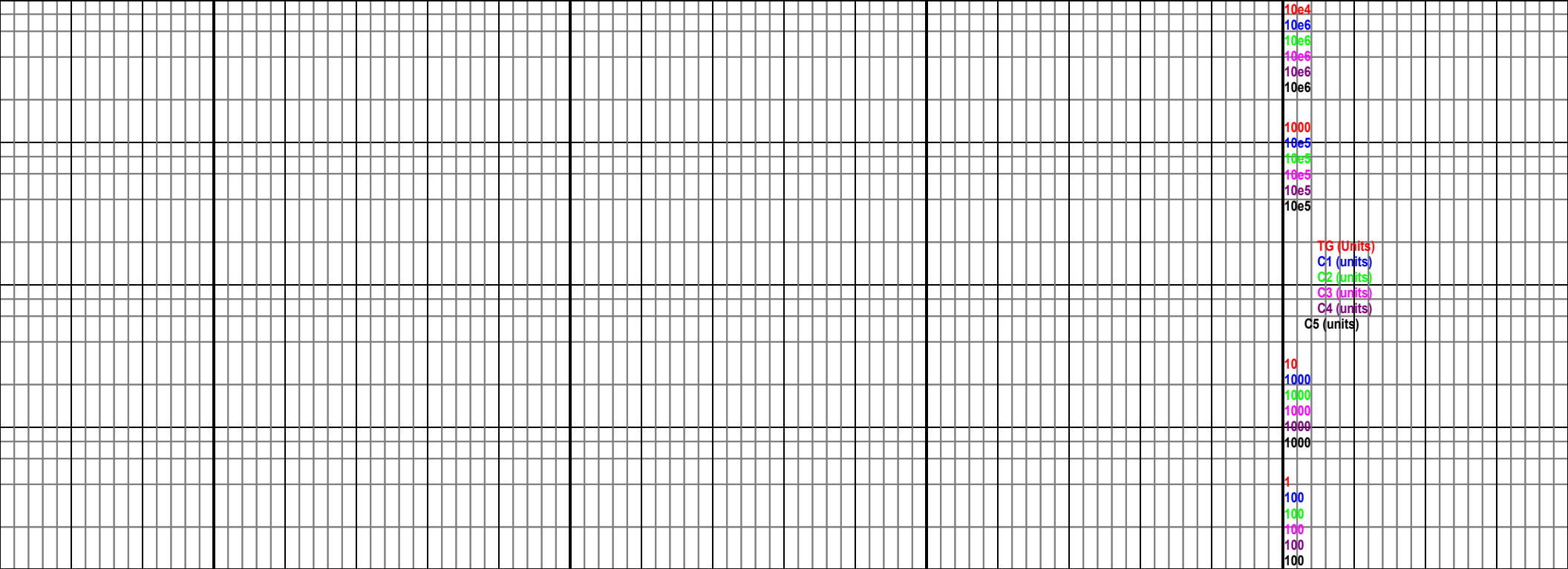
7150

7200

5000 TVD
Sub Sea (-45)

5750
(-795)





7450

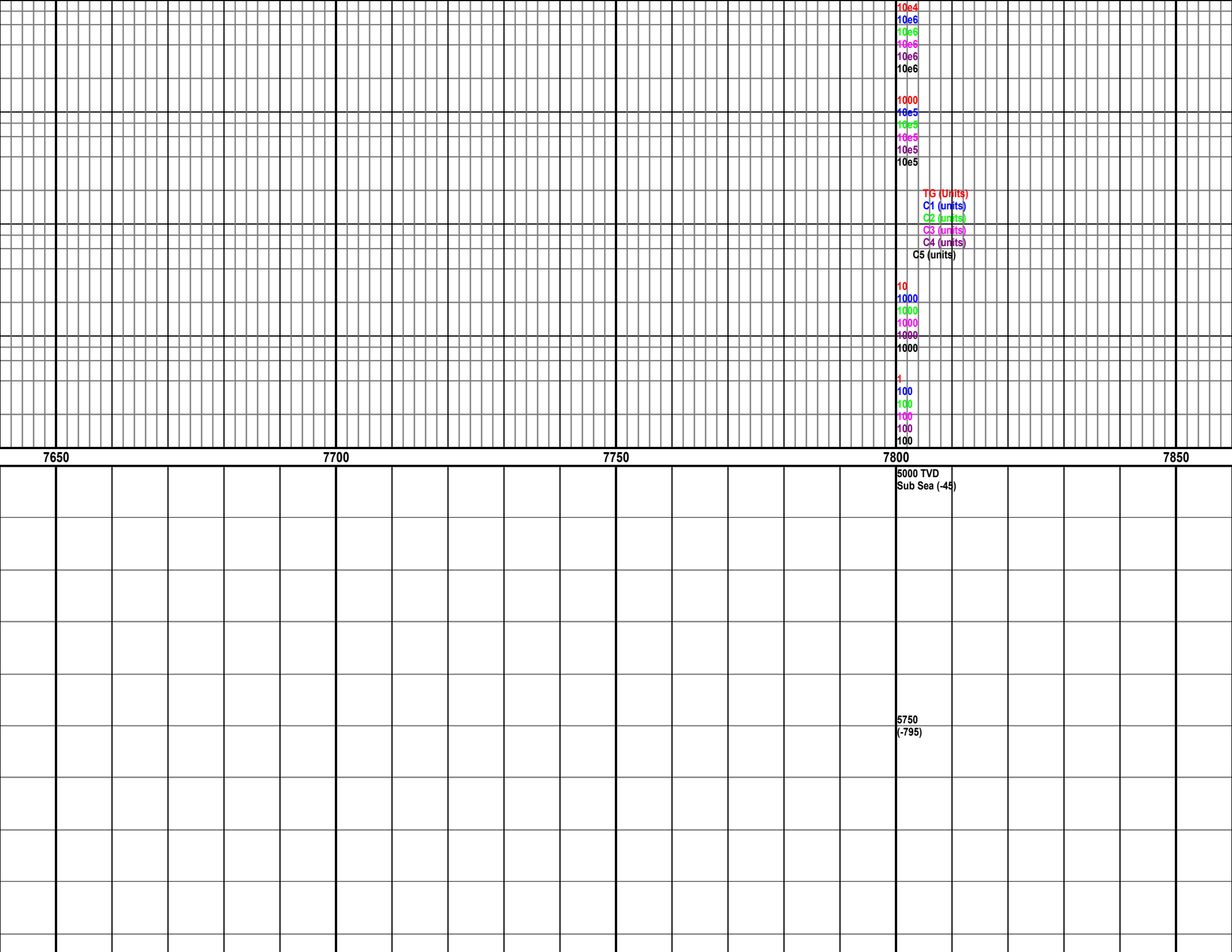
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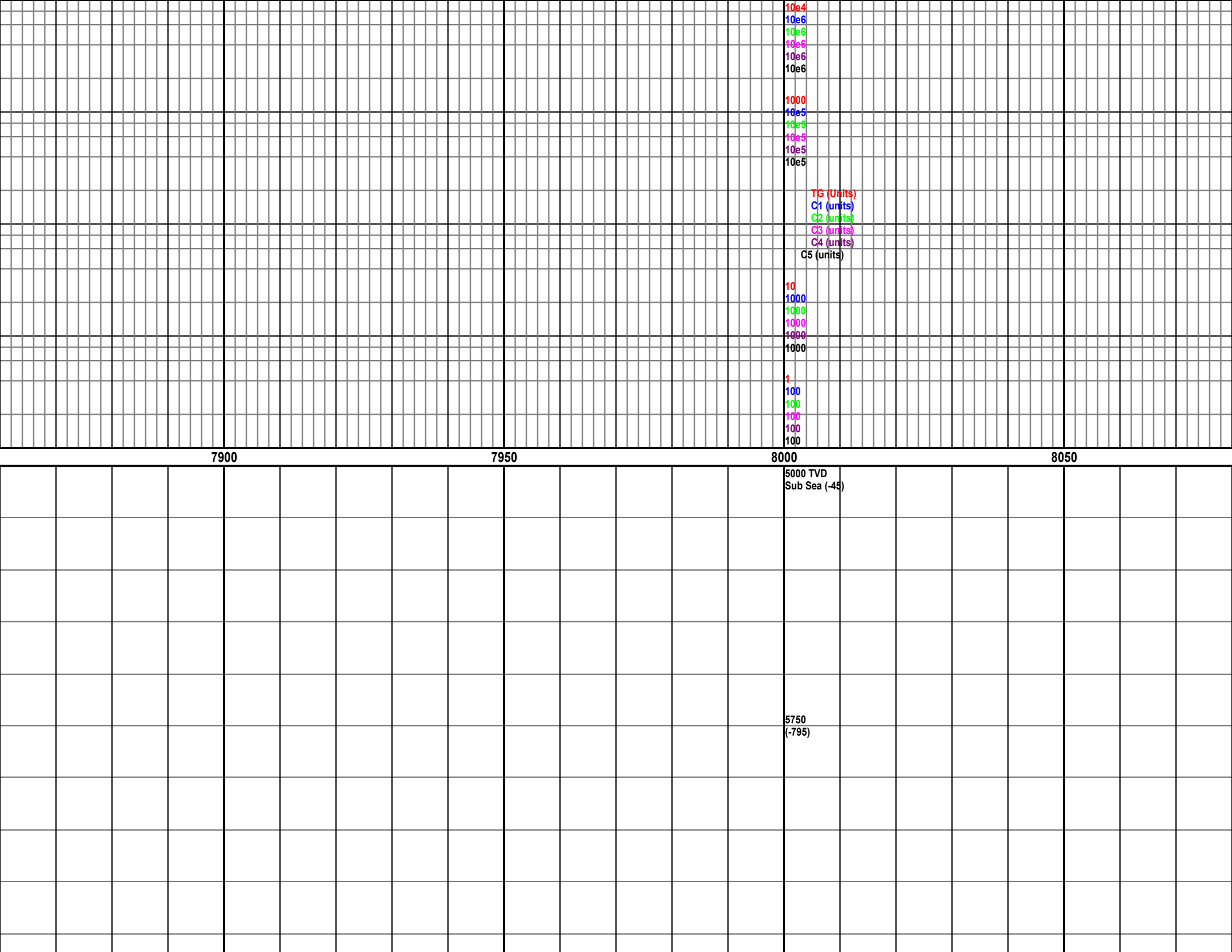
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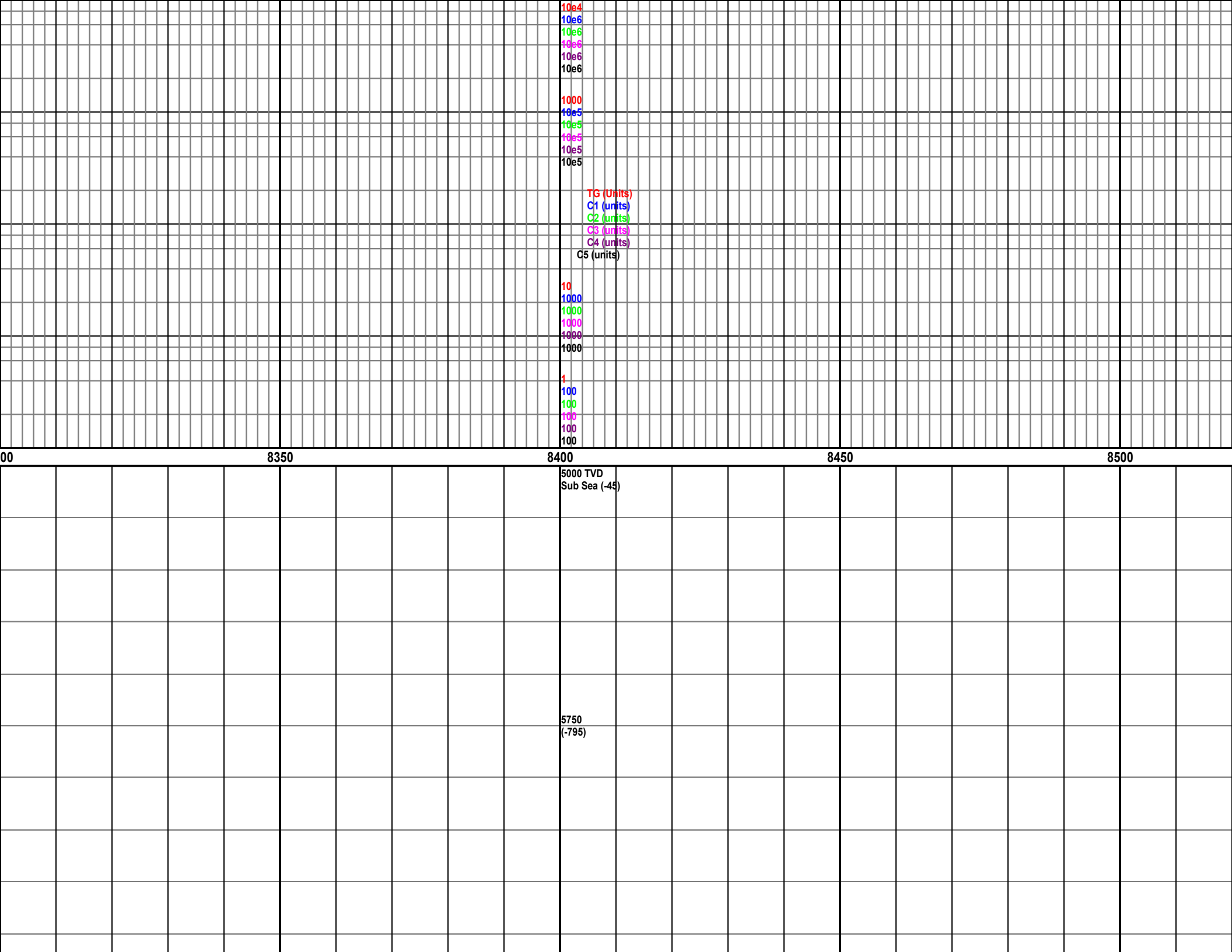
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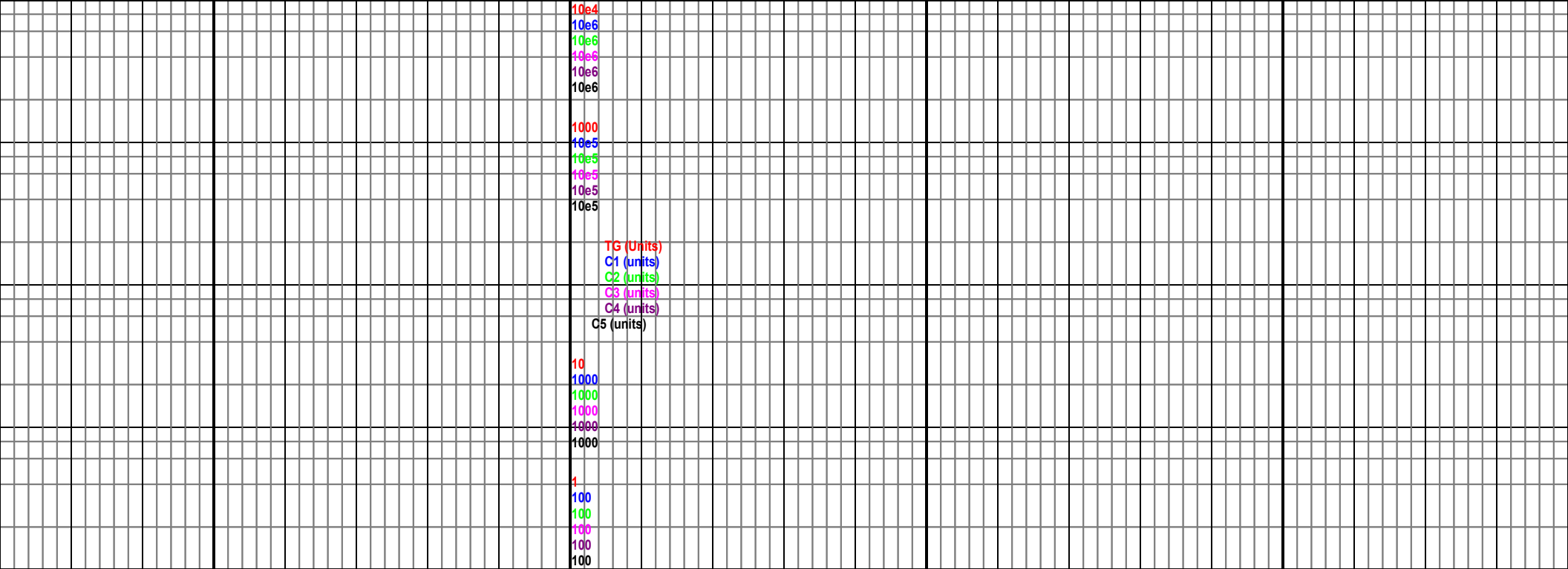
5000 TVD
Sub Sea (-45)

5750
(-795)









8550

8600

8650

8700

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e3
10e3
10e5
10e5
10e5

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

9000 9050 9100 9150

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e5
10e5
10e5
10e5
10e5

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

9200

9250

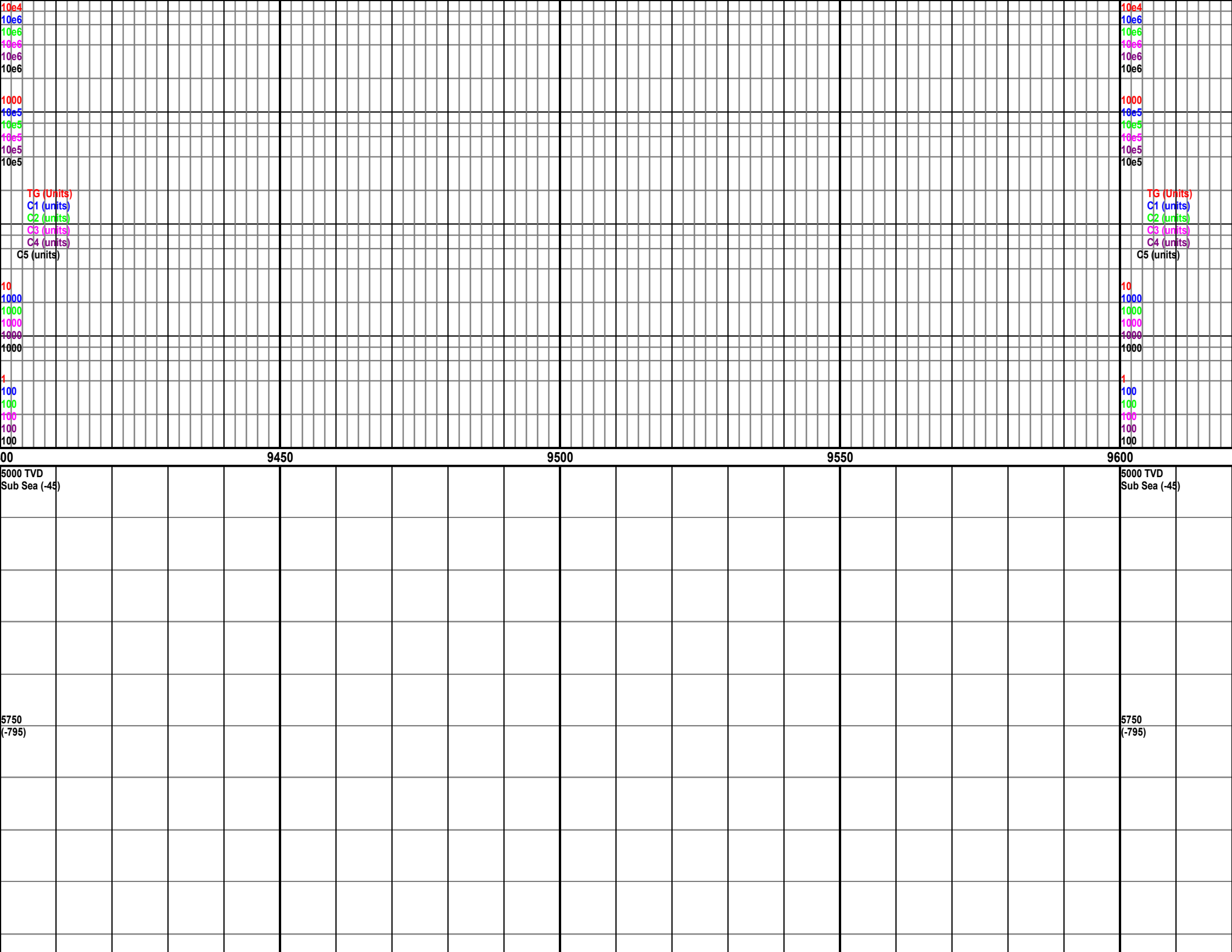
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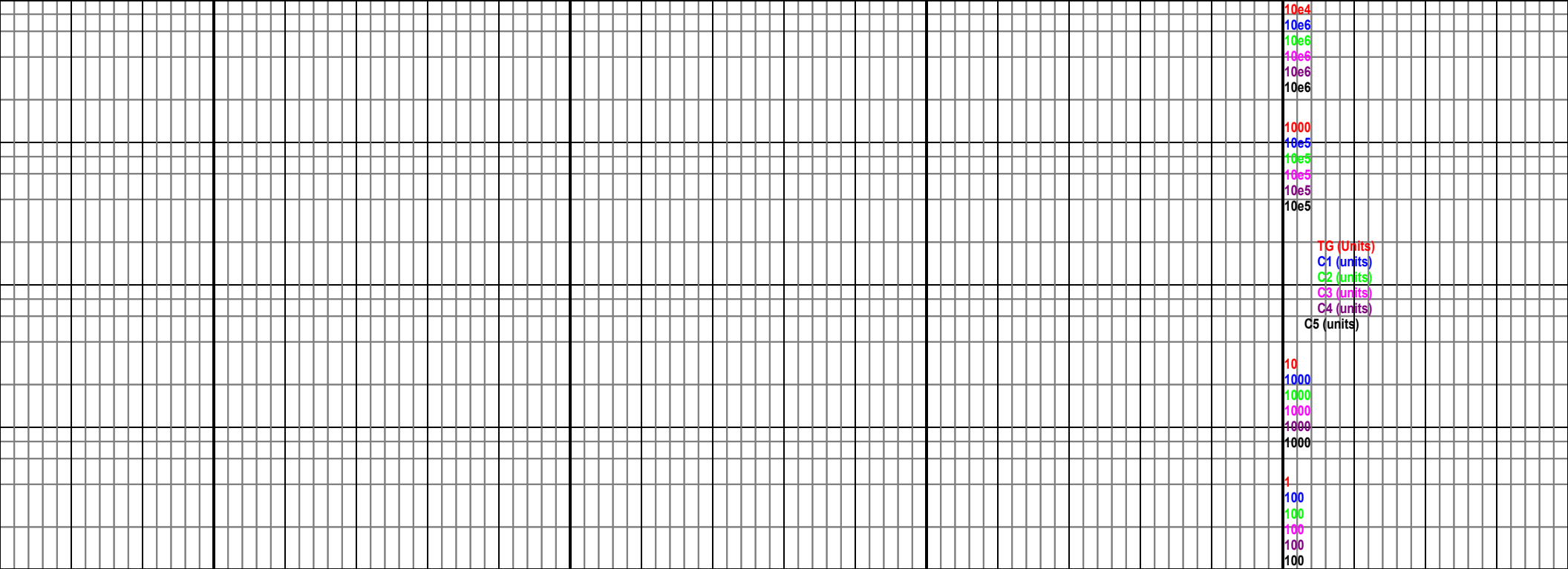
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9400

5000 TVD
Sub Sea (-45)

5750
(-795)





9650

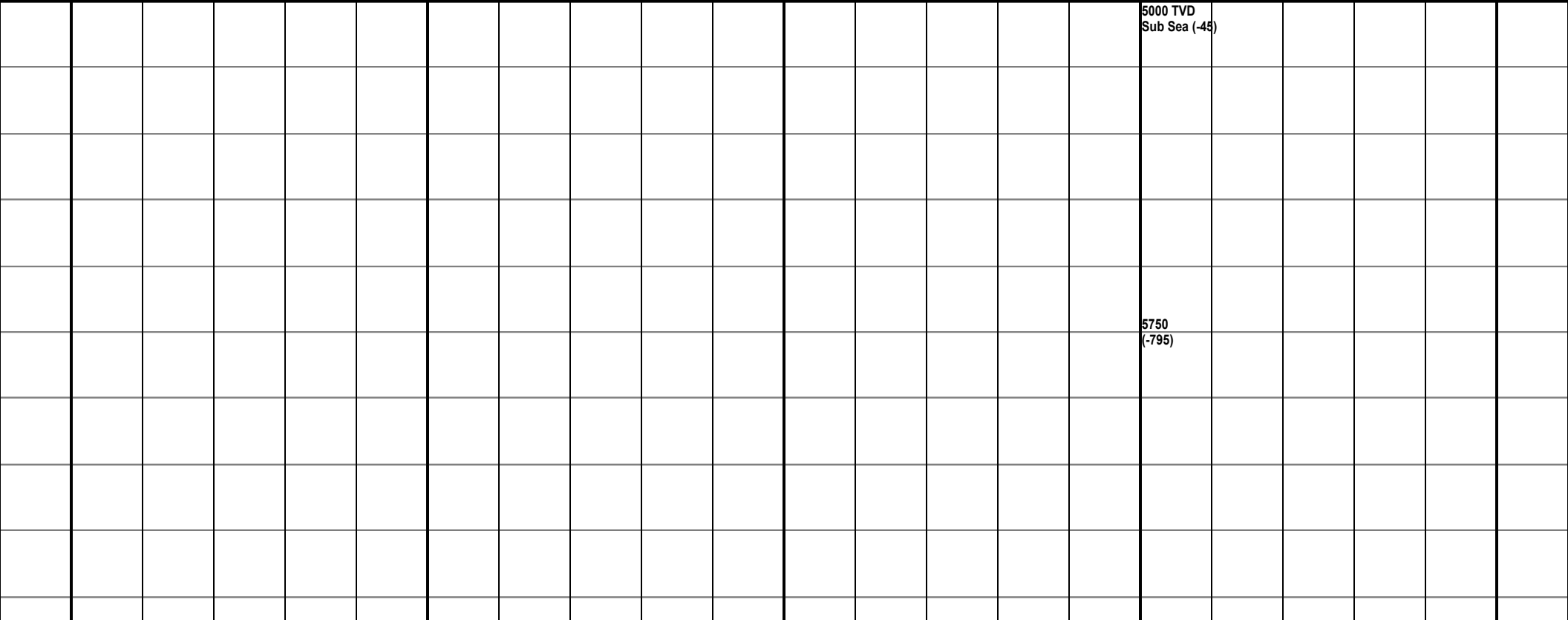
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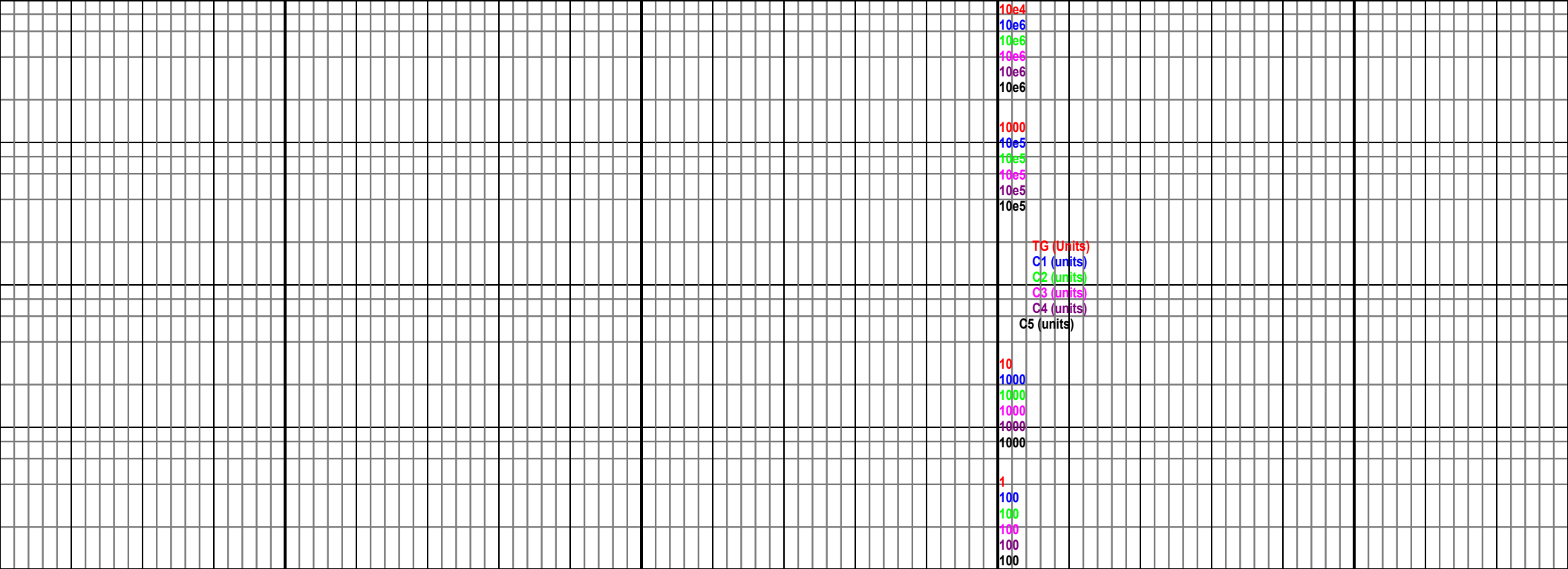
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9800

5000 TVD
Sub Sea (-45)

5750
(-795)





10100

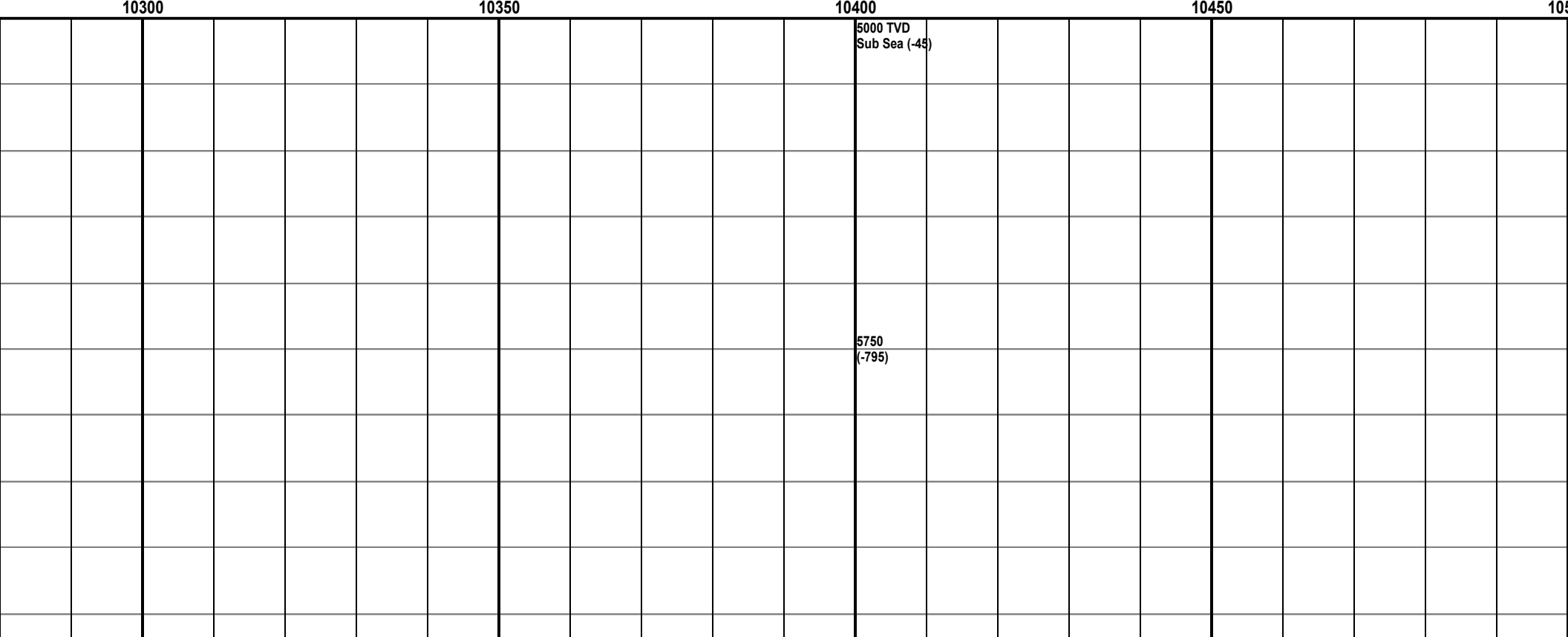
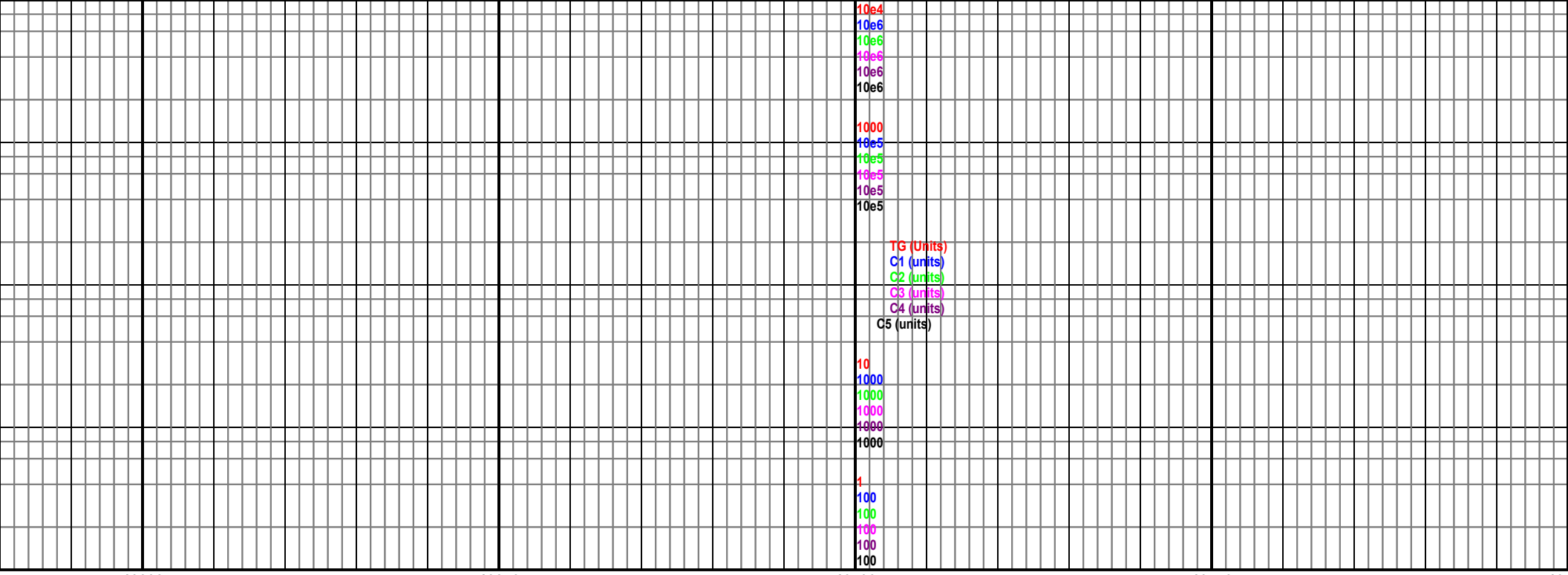
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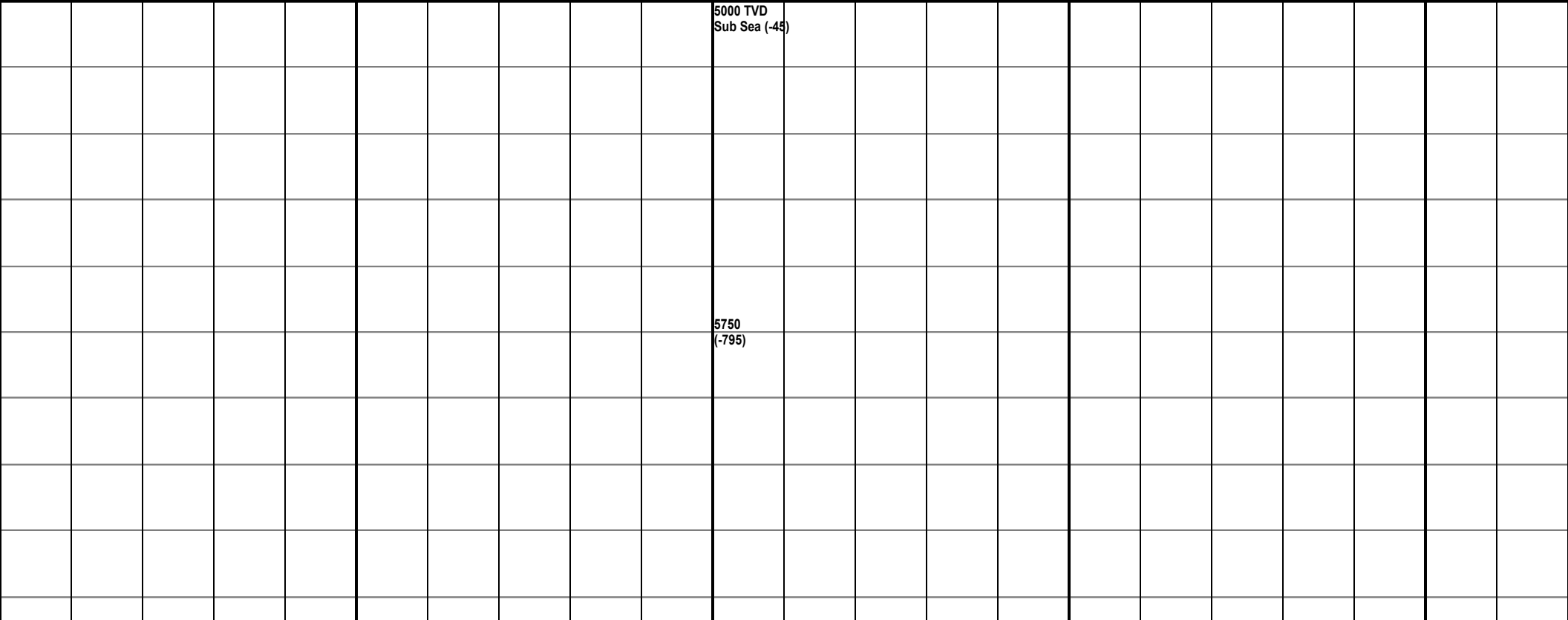
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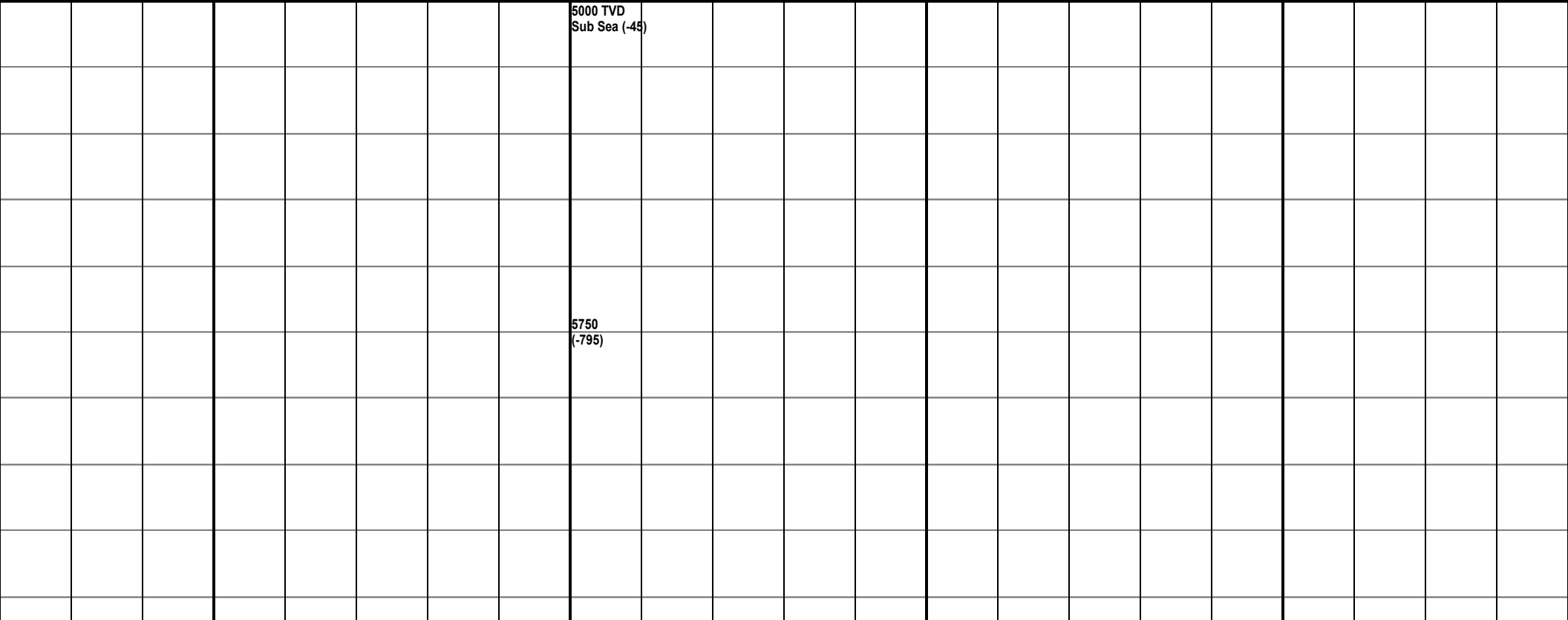
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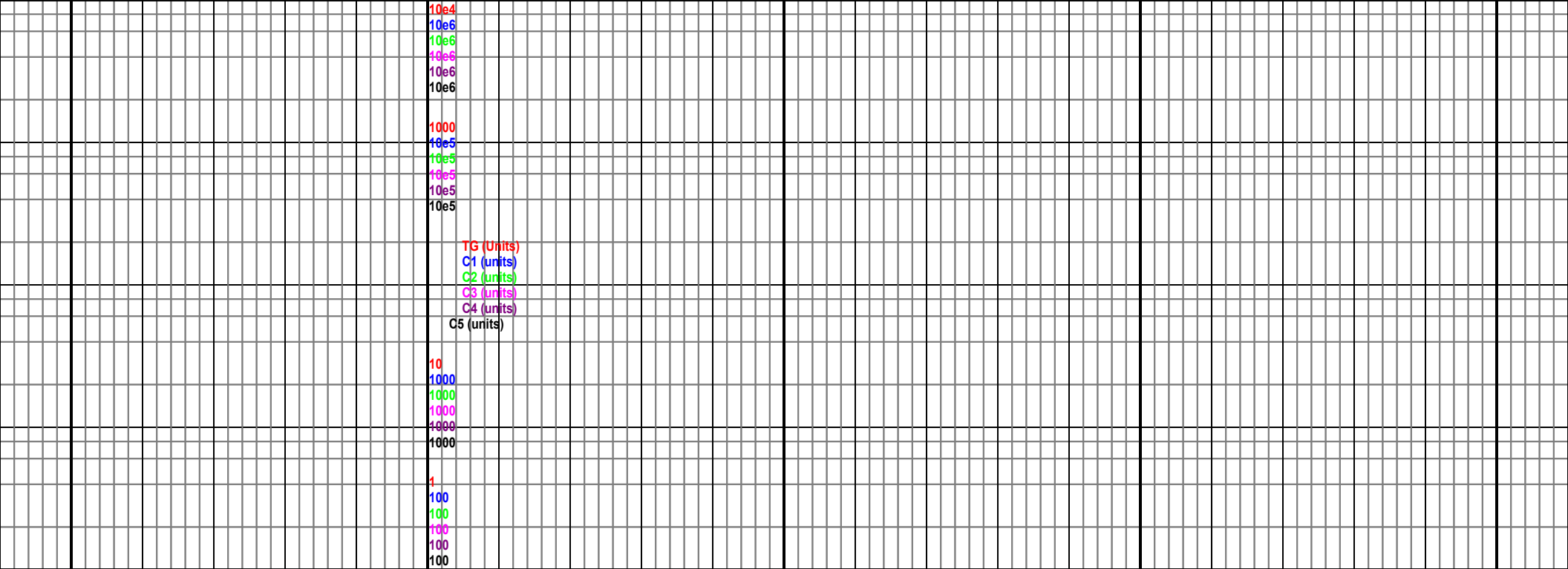
5000 TVD
Sub Sea (-45)

5750
(-795)









10950

11000

11050

11100

11150

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e3
10e3
10e5
10e5
10e5

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

11200 11250 11300 11350

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e5
10e5
10e5
10e5
10e5

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

11400

11450

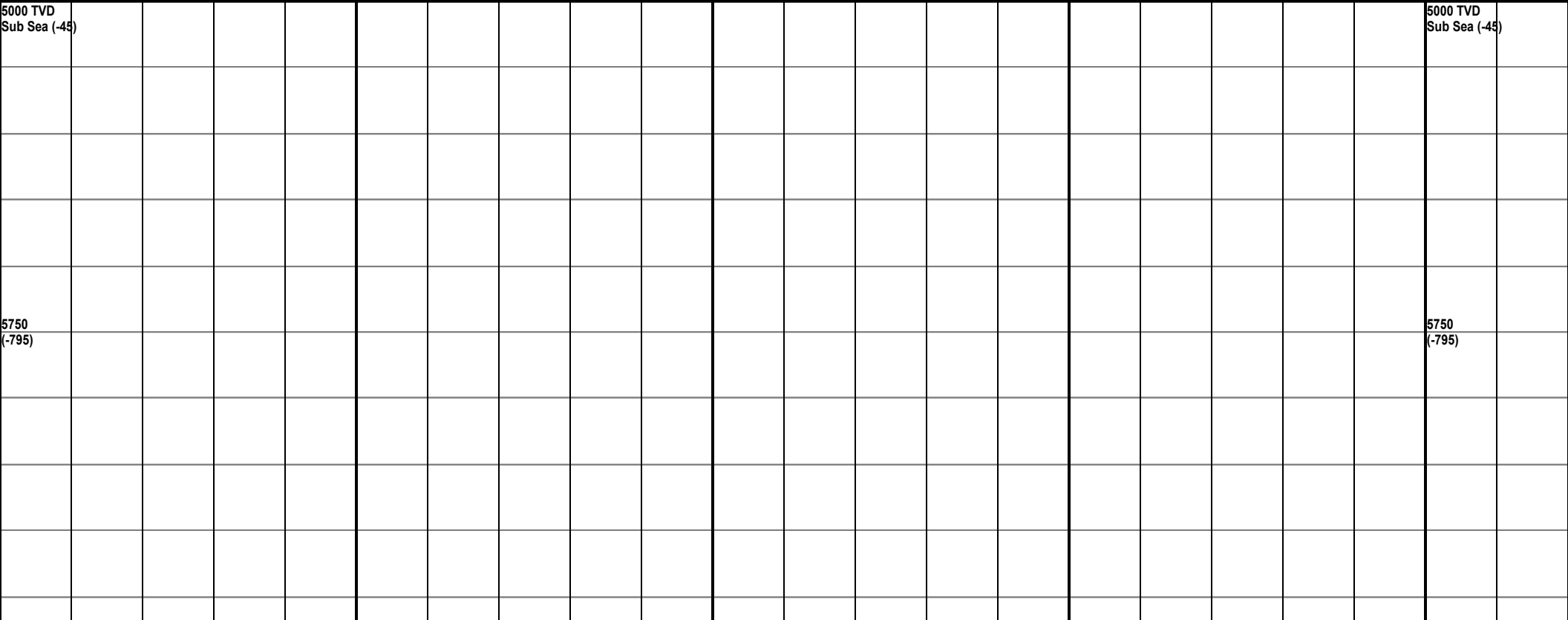
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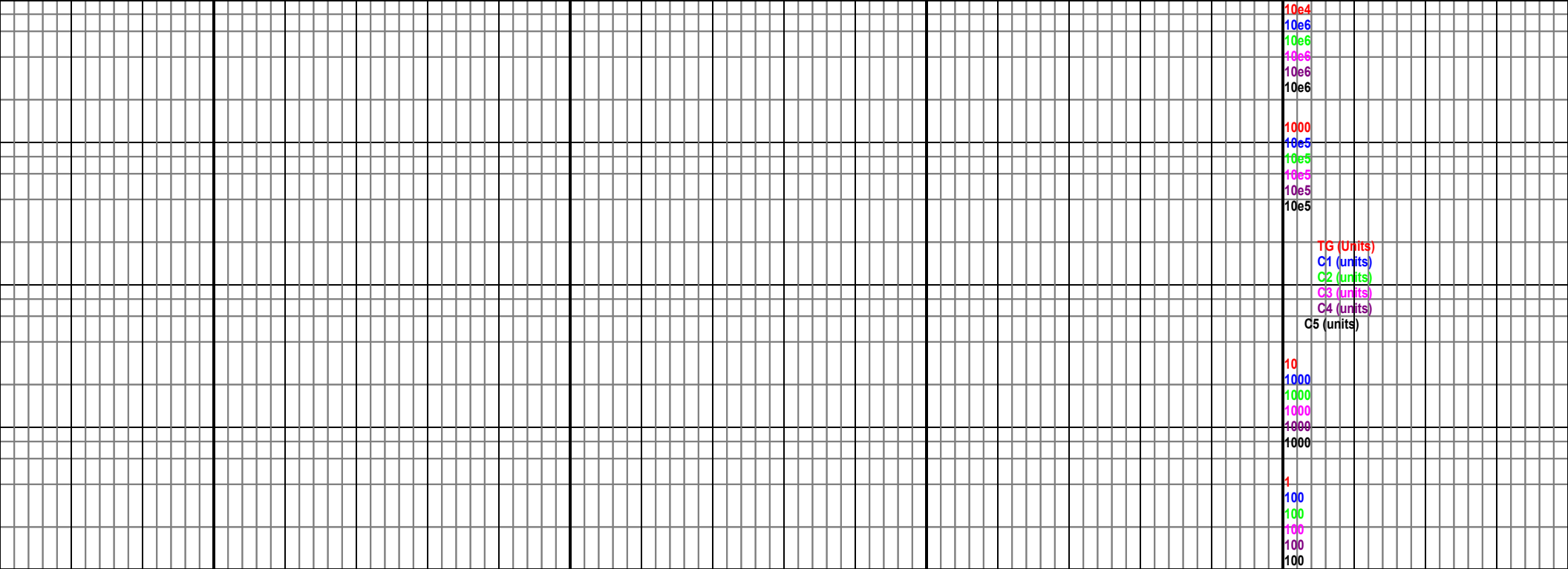
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11600

5000 TVD
Sub Sea (-45)

5750
(-795)





11850

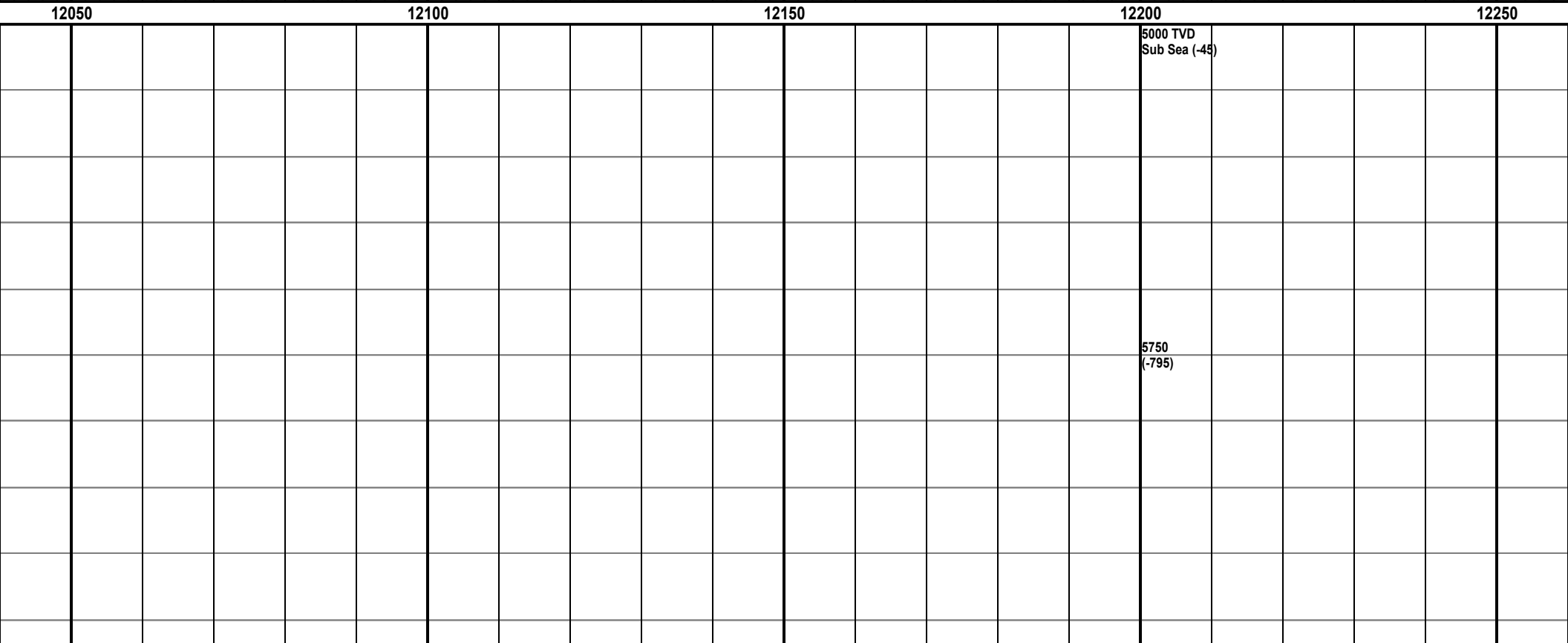
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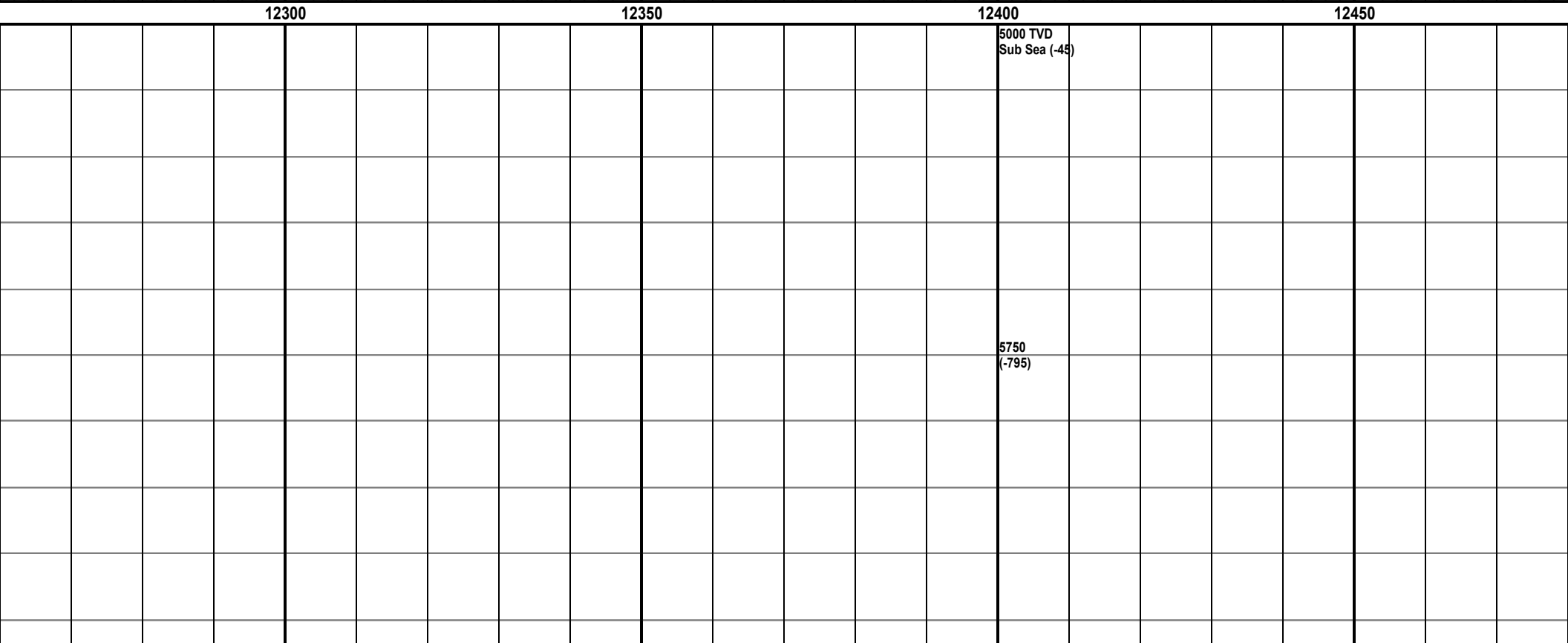
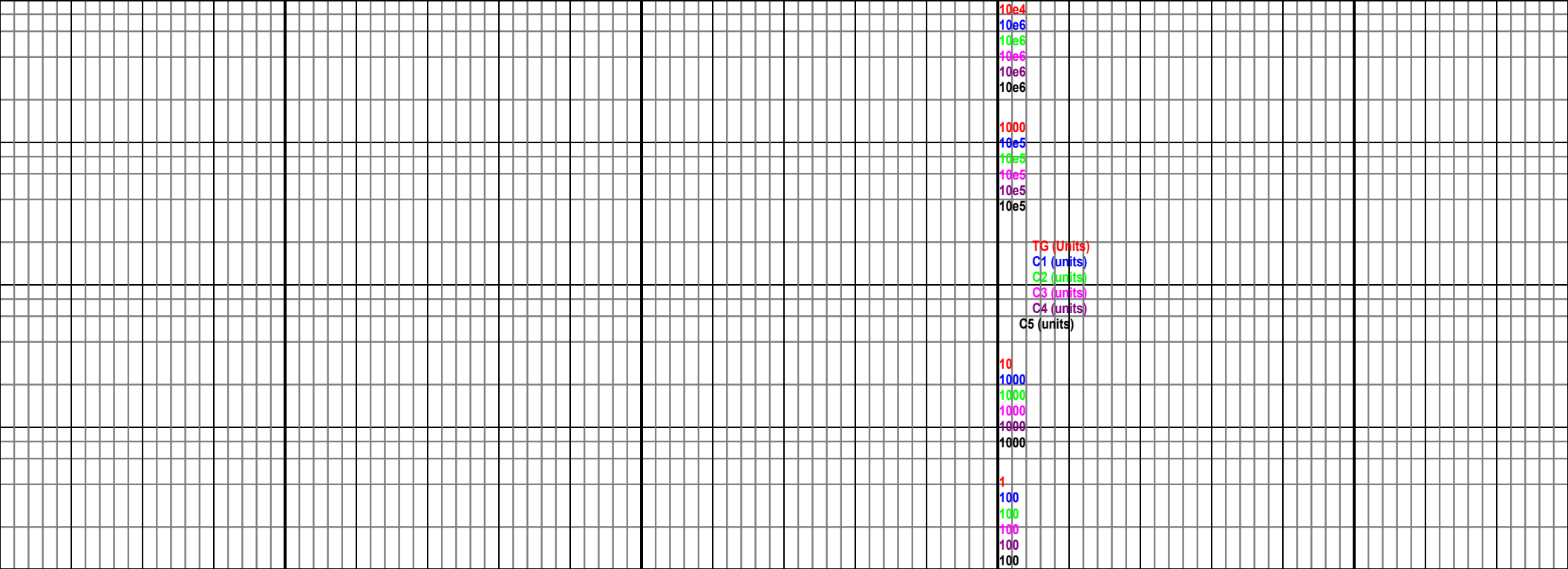
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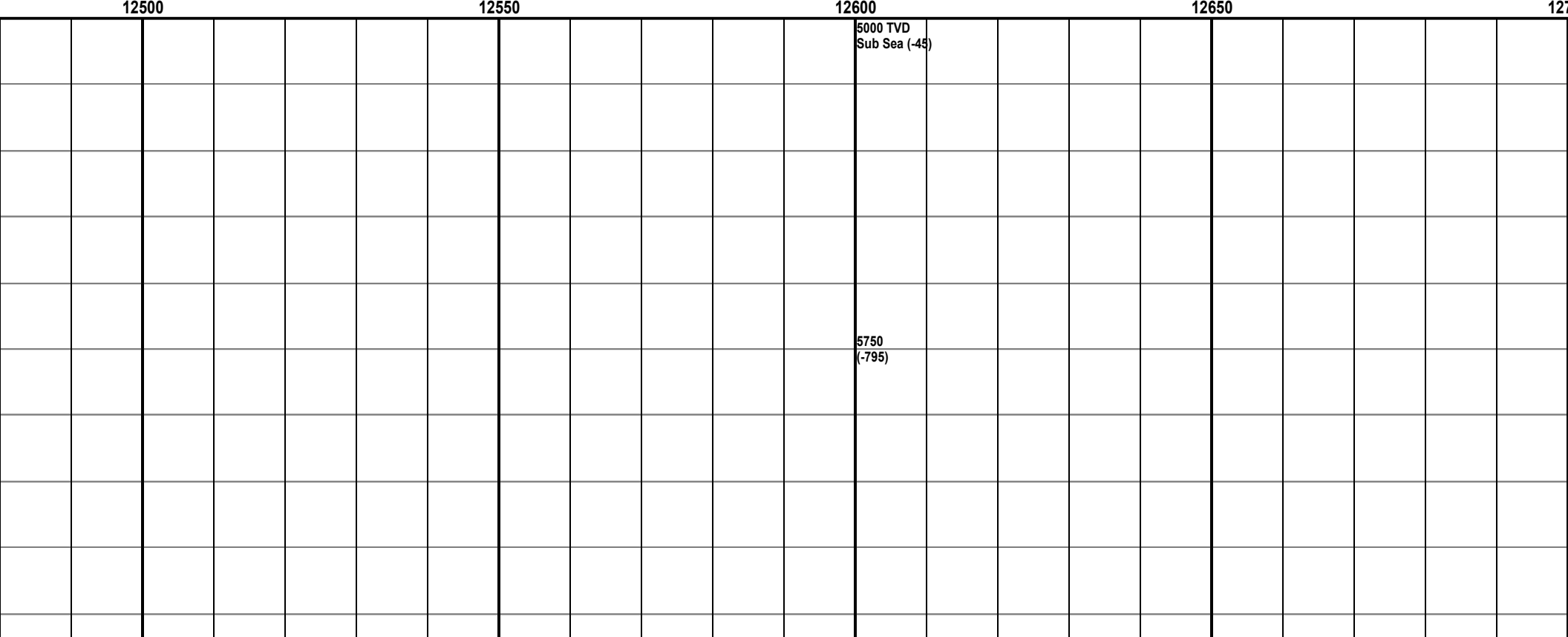
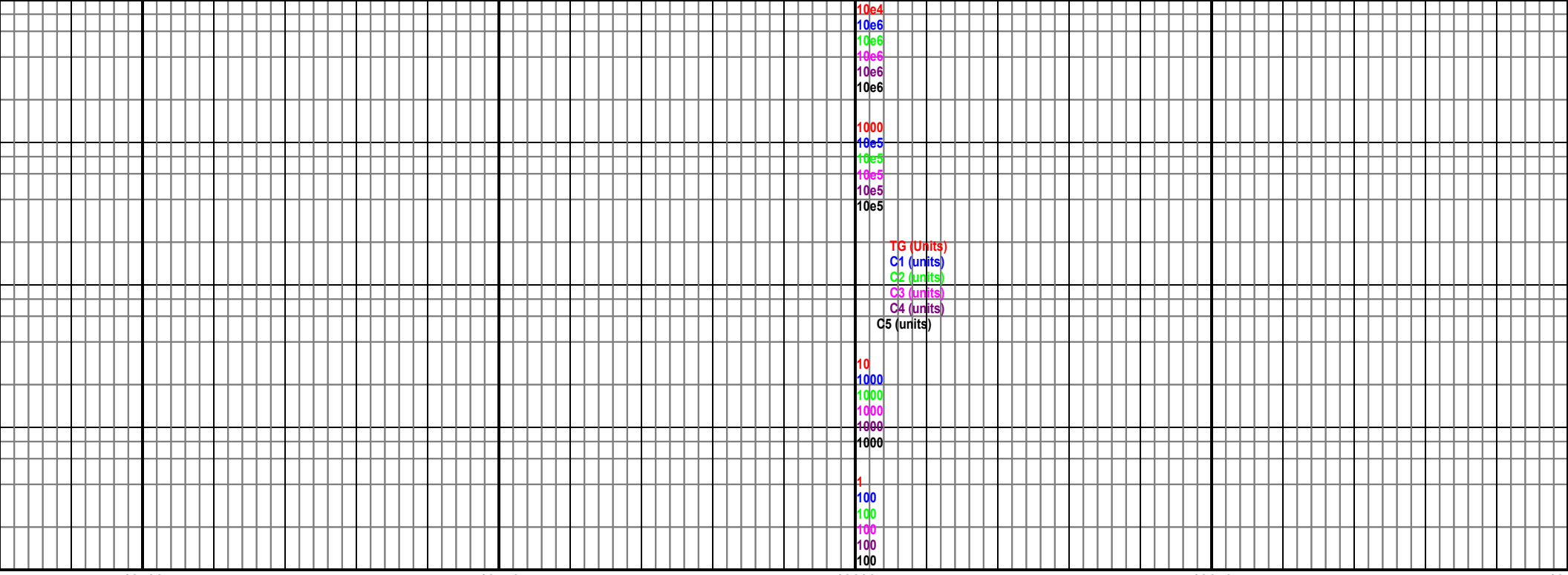
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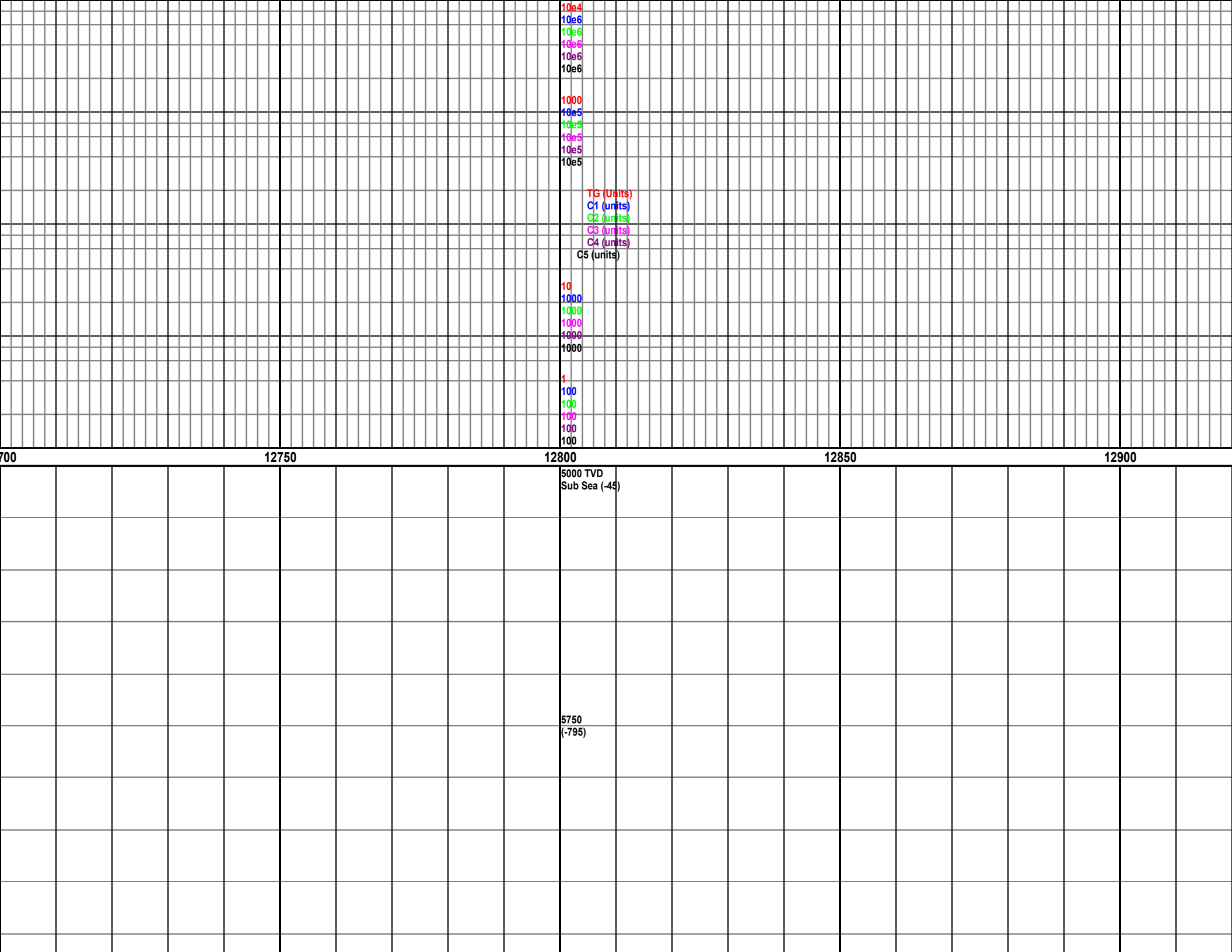
5000 TVD
Sub Sea (-45)

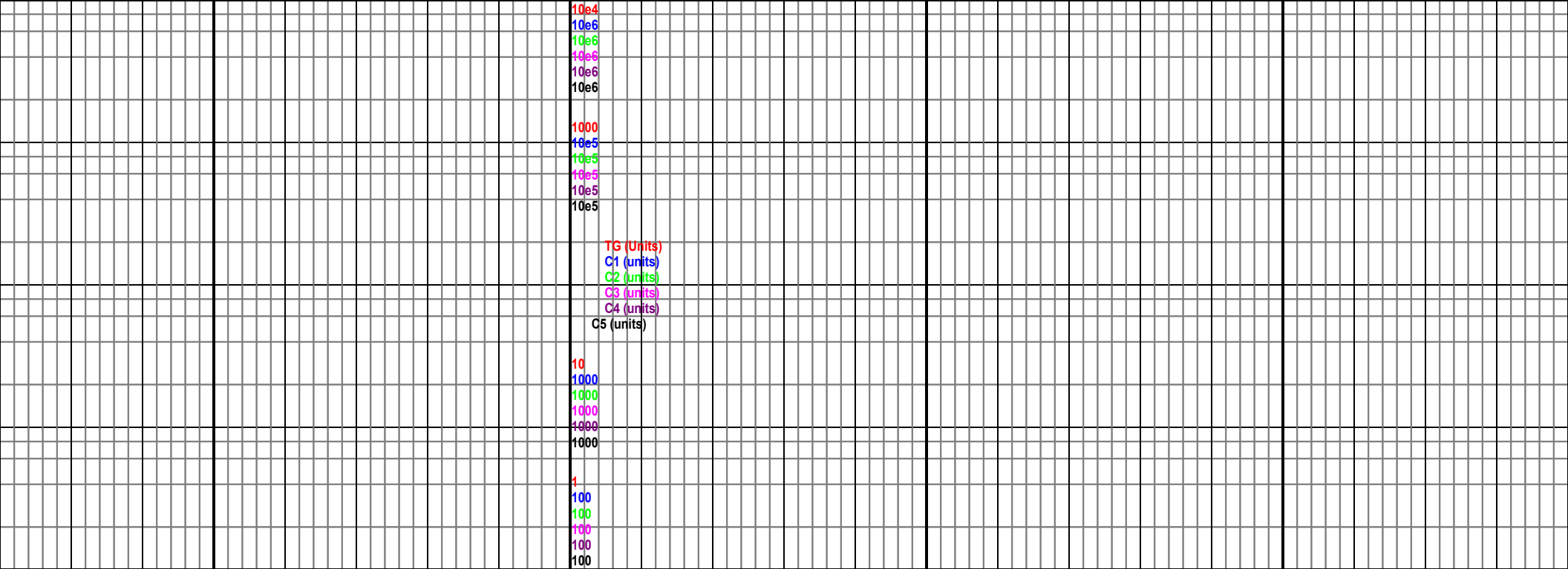
5750
(-795)











12950

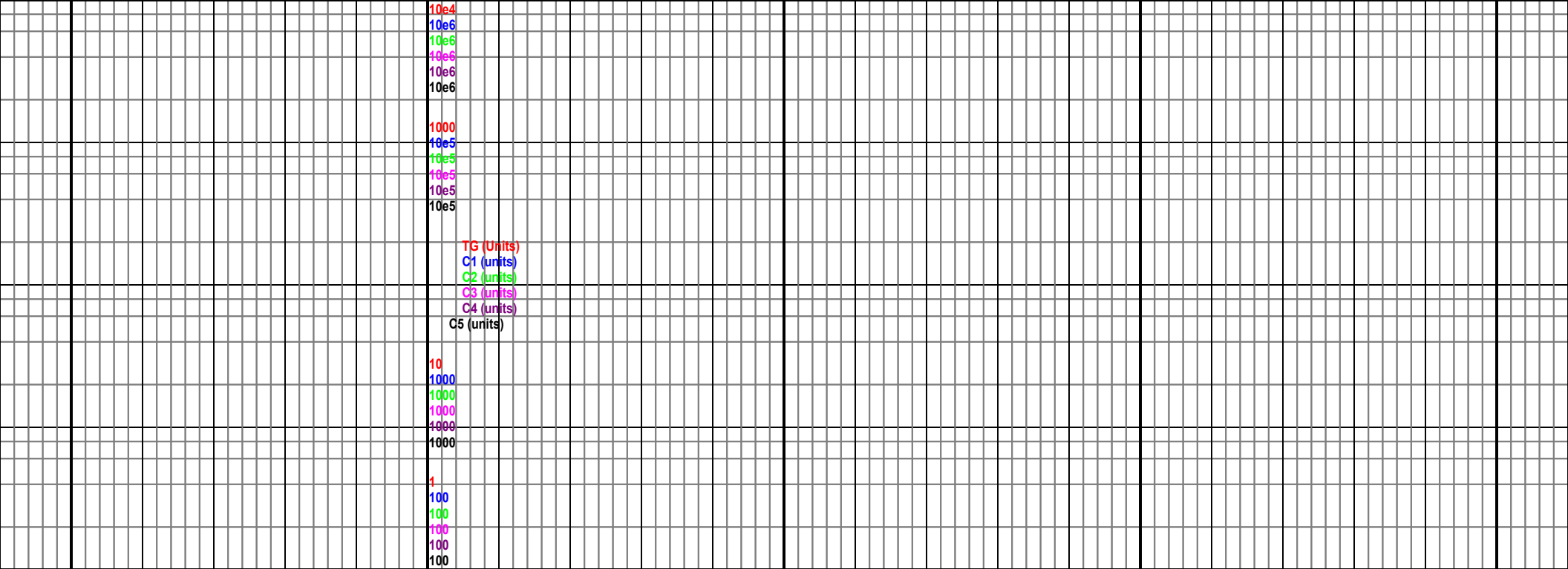
13000

13050

13100

5000 TVD
Sub Sea (-45)

5750
(-795)



13150

13200

13250

13300

13350

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e3
10e5
10e5
10e5
10e5

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100
100

13400

13450

13500

13550

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e5
10e5
10e5
10e5
10e5

10
1000
1000
1000
1000
1000
1000

1
100
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100
100
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TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

13600

13650

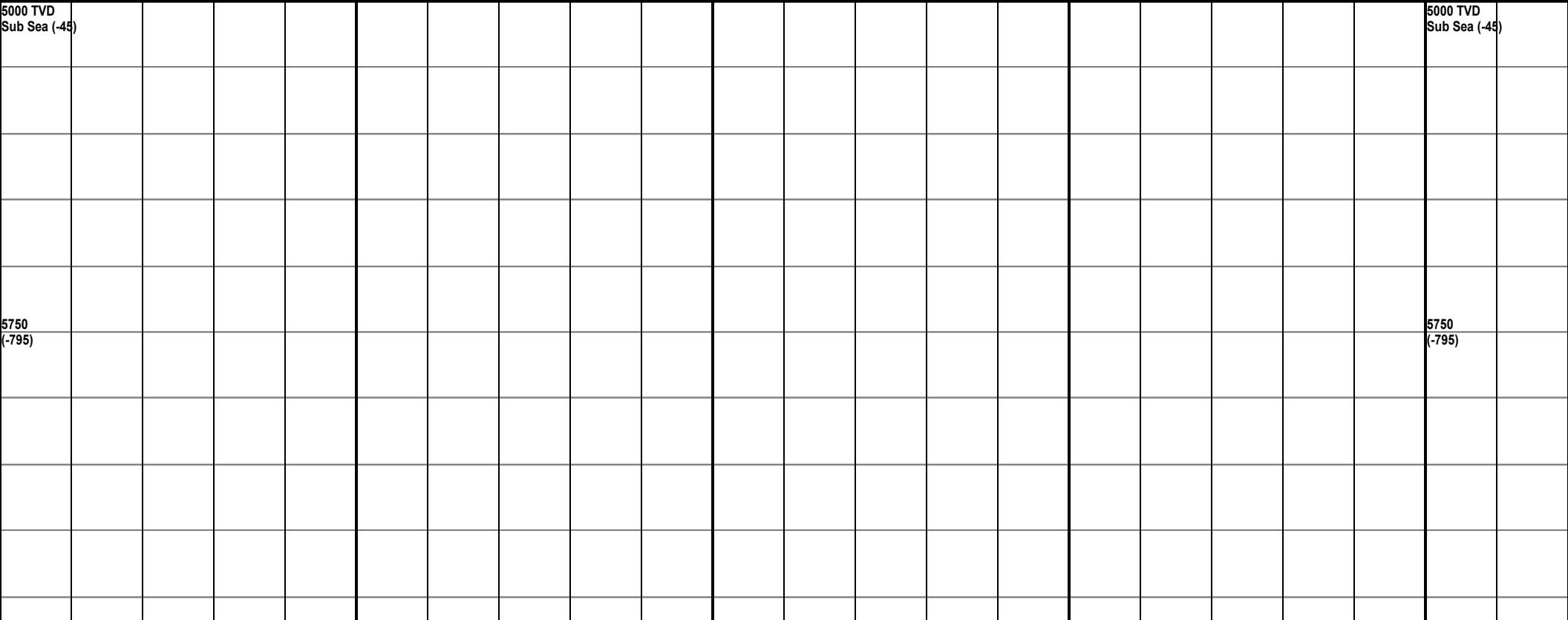
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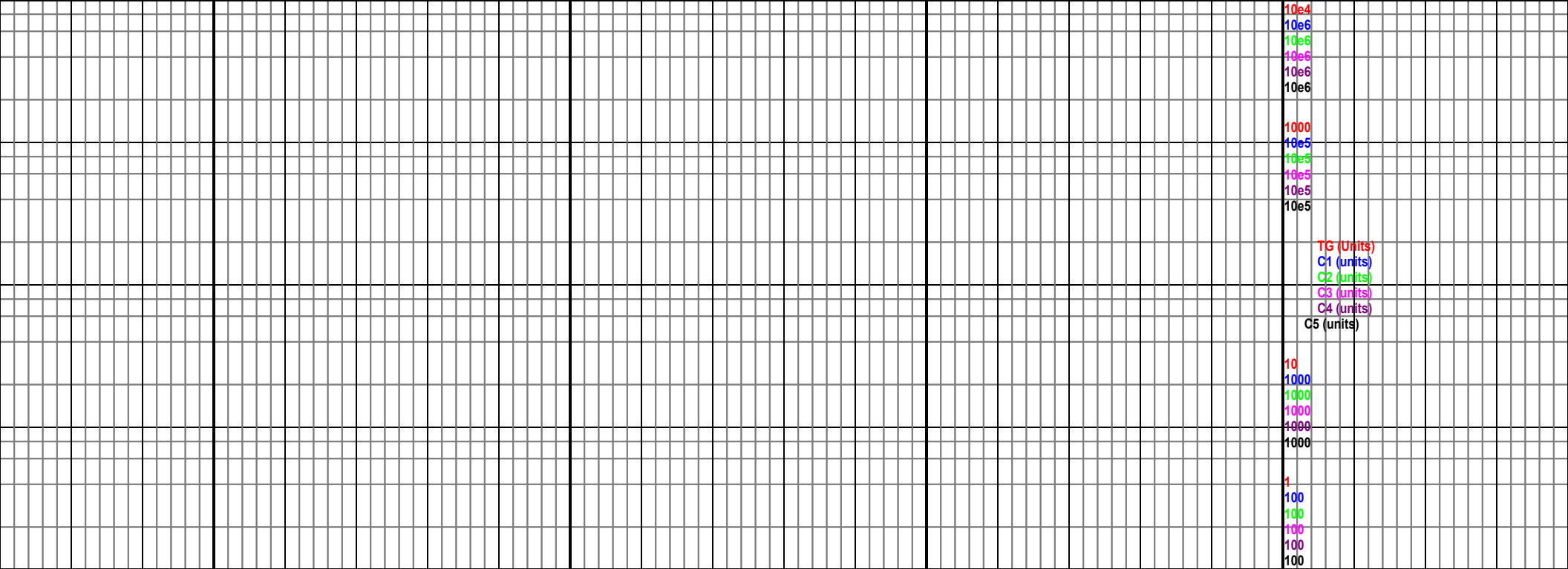
13750

13800

5000 TVD
Sub Sea (-45)

5750
(-795)





14050

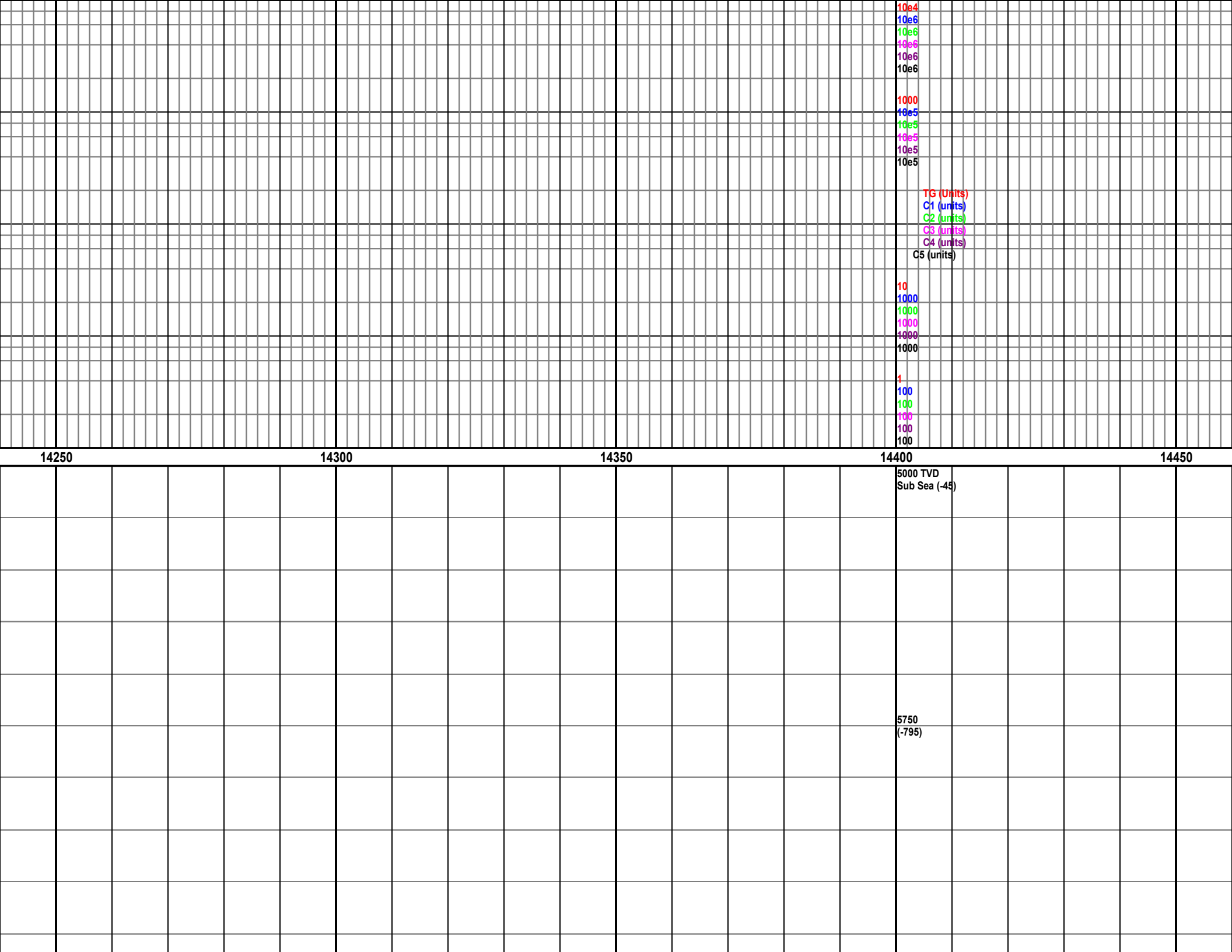
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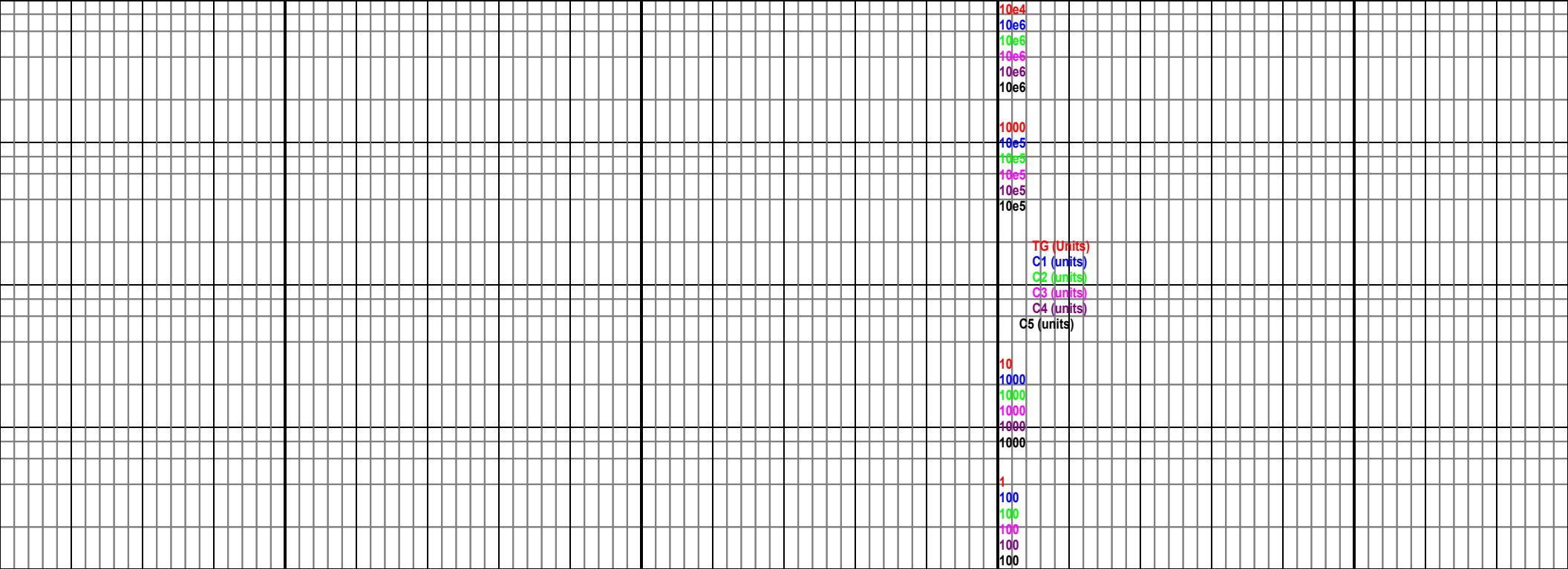
14150

14200

5000 TVD
Sub Sea (-45)

5750
(-795)





14500

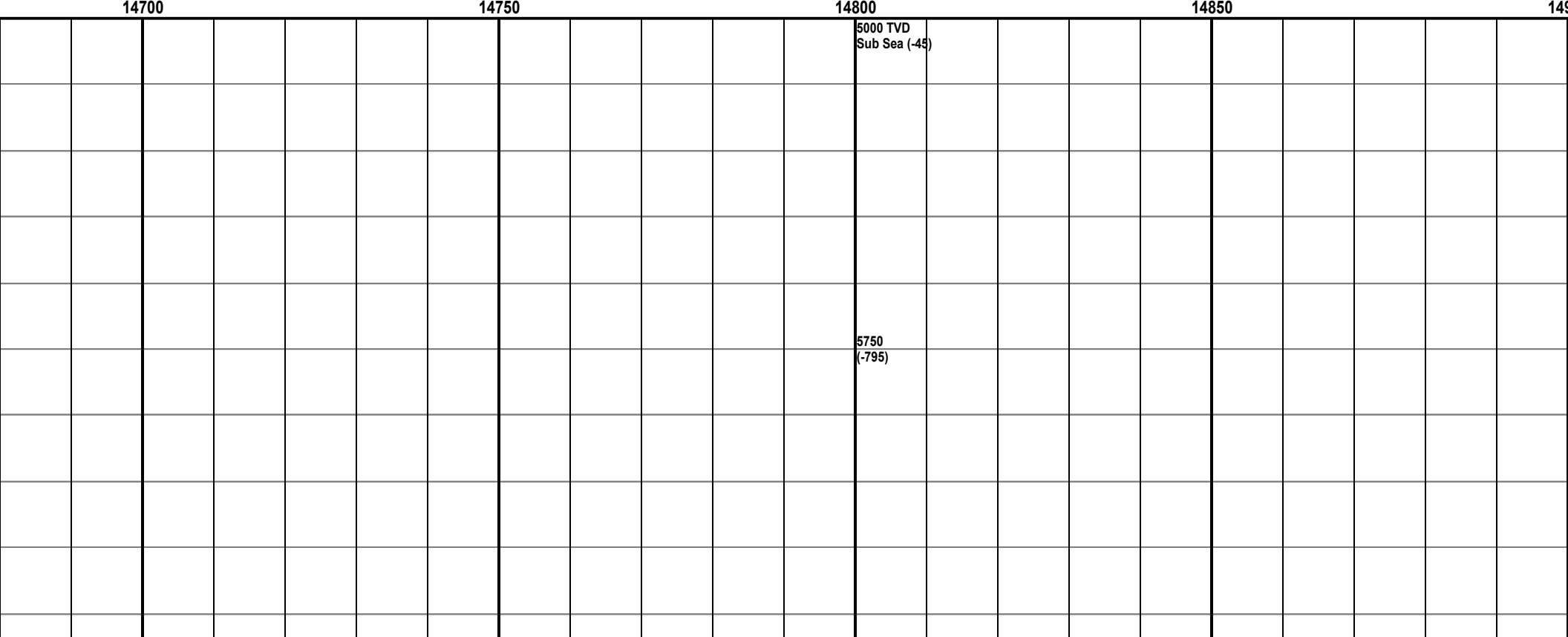
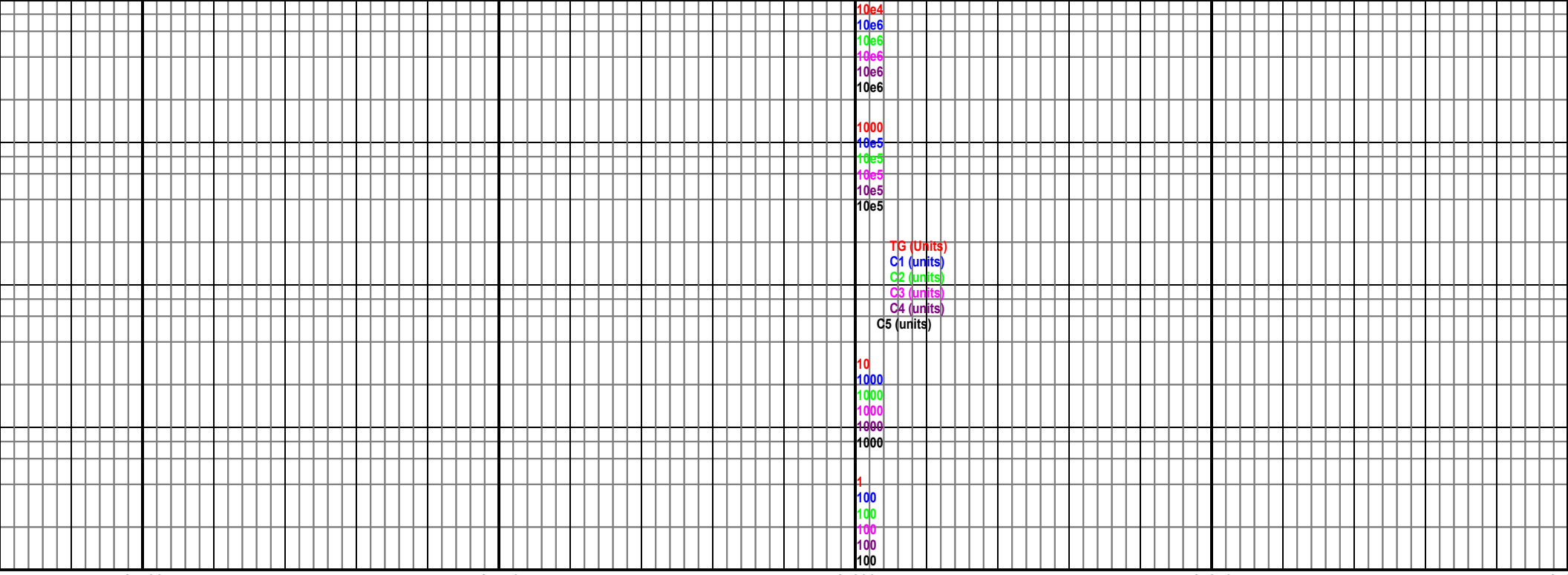
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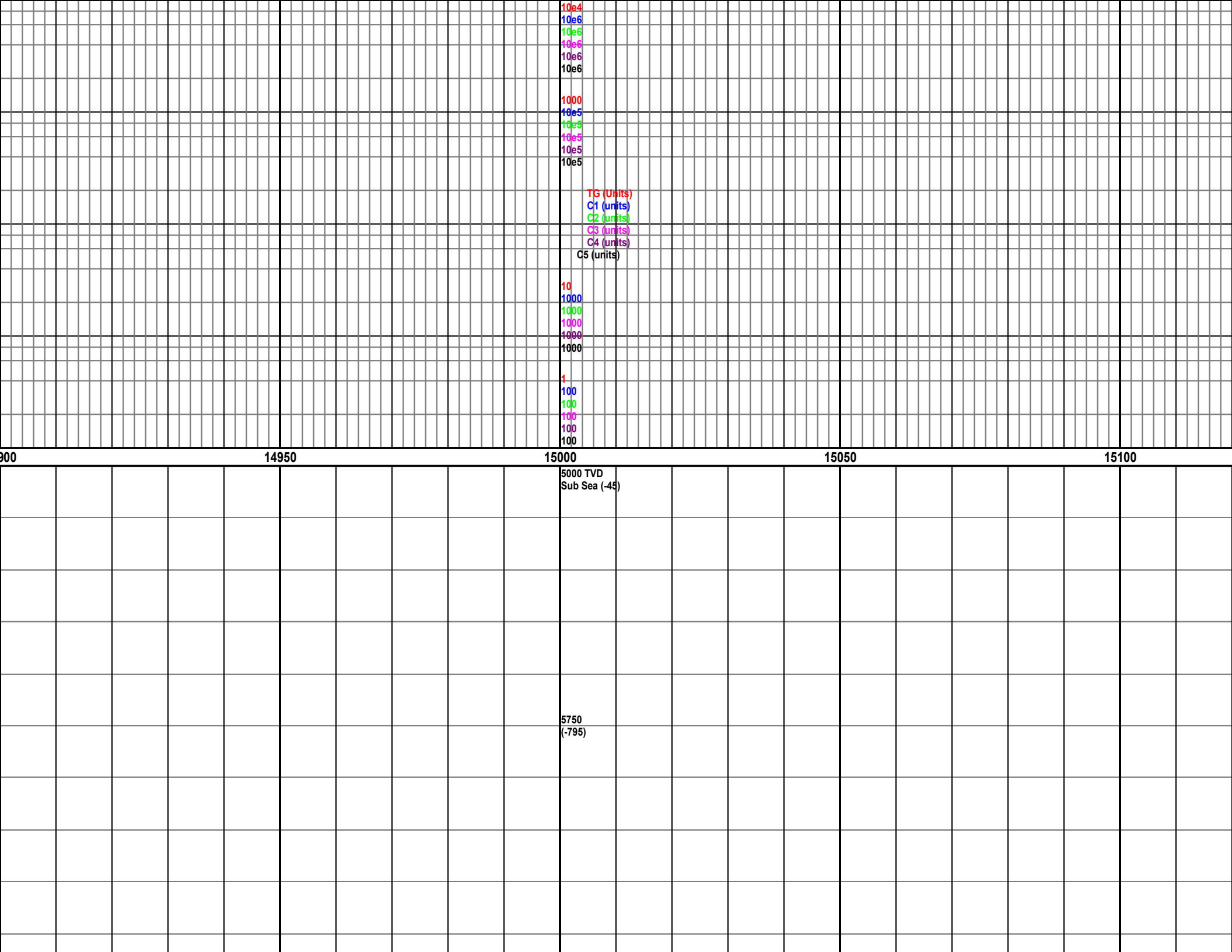
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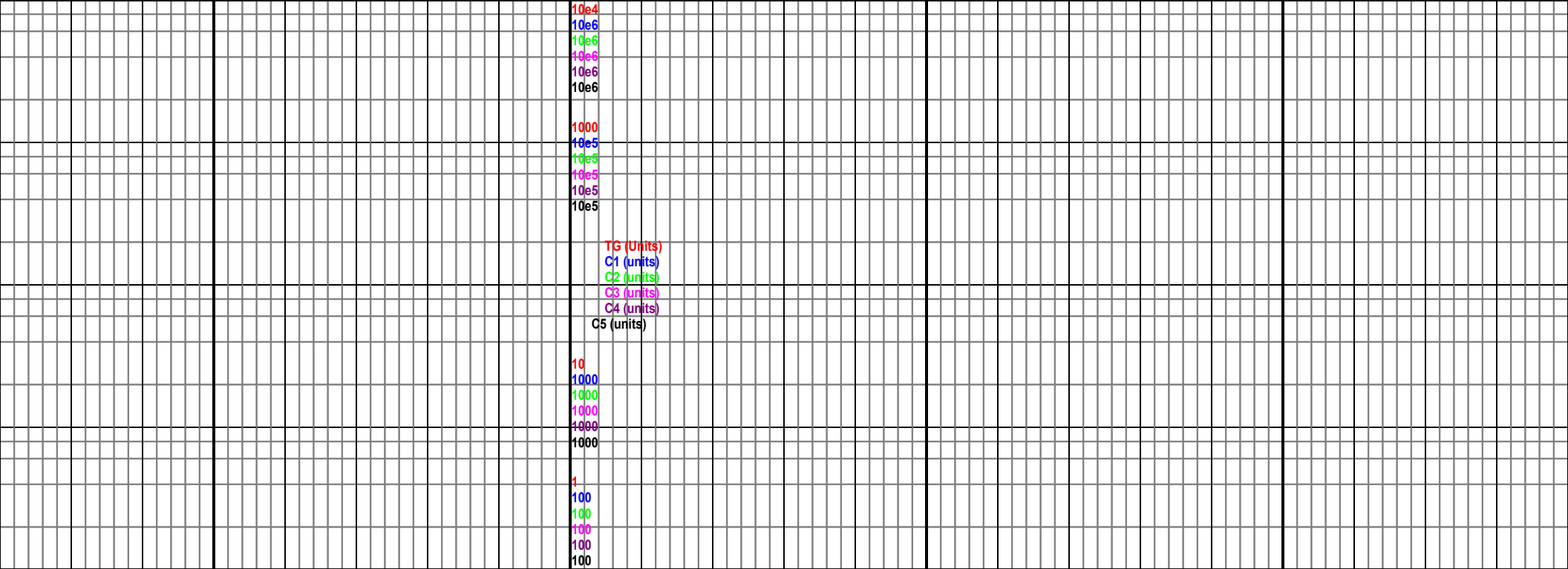
14650

5000 TVD
Sub Sea (-45)

5750
(-795)







15150

15200

15250

15300

5000 TVD
Sub Sea (-45)

5750
(-795)



5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e3
10e3
10e5
10e5
10e5

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

10
1000
10000
10000
10000
10000
10000

1
100
100
100
100
100

15600

15650

15700

15750

5000 TVD
Sub Sea (-45)

5750
(-795)

10e4
10e6
10e6
10e6
10e6
10e6
10e6

1000
10e5
10e5
10e5
10e5
10e5
10e5

10
1000
1000
1000
1000
1000
1000

1
100
100
100
100
100

TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)

15800

15850

15900

15950

16000

5000 TVD
Sub Sea (-45)

5750
(-795)