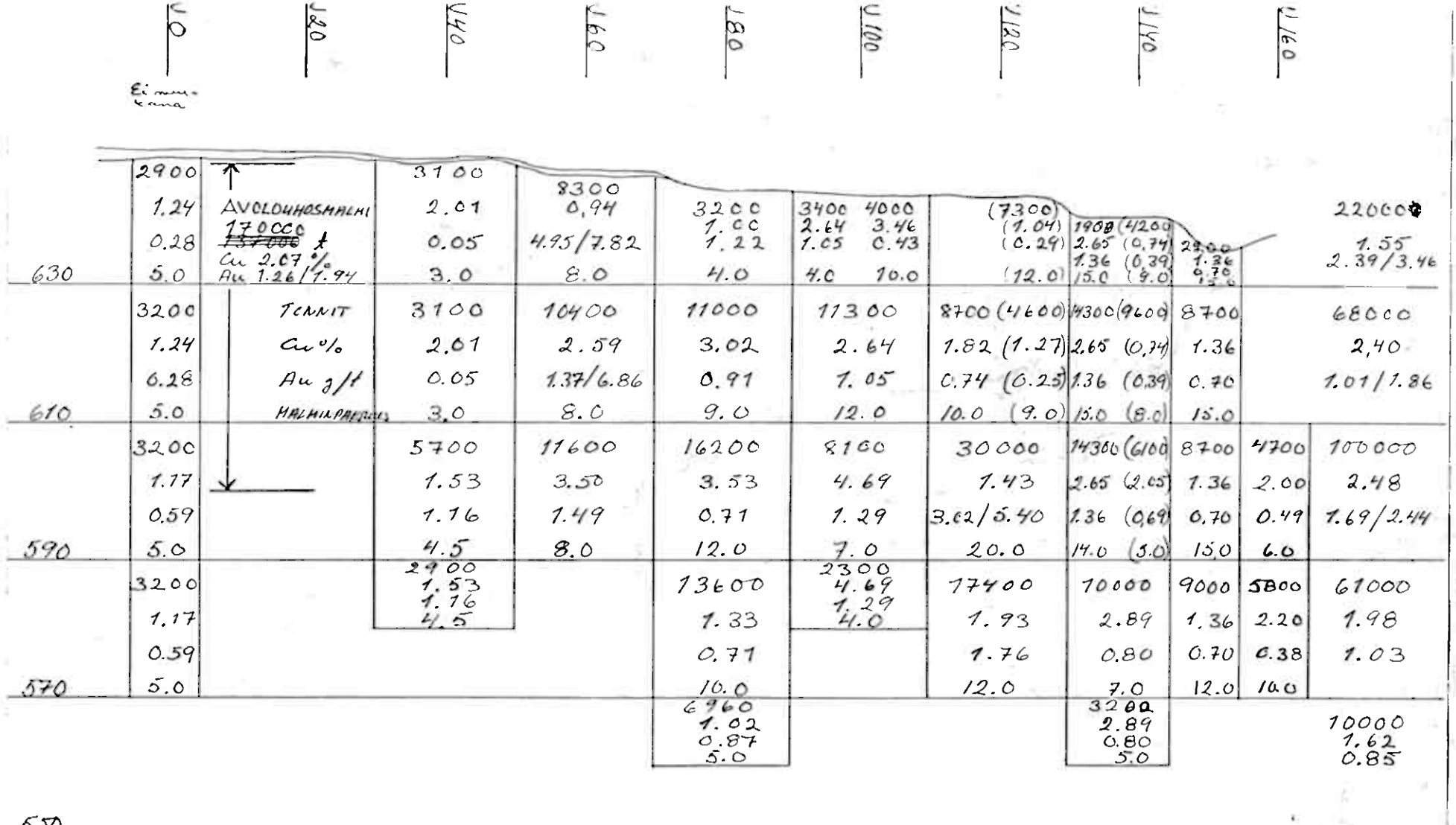

J0
J20
J40
J60
J80
J100
J120
J140
J160
Ei mm-kana
AVOLOUHOSMALMI
170000 t
Cu 2.07 %
Au 1.26/7.94
TONNIT
Cu %
Au g/t
MALMILAPPEUS
630
610
590
570
550
MALMITONNIT
Cu %
Au g/t
MALMI ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOITTAIN. AU:N OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS
BIOJOVAGGE
A-MALMI
PITUUSLEIKKAUS
1:500
TKORKALO

460E 480E 500E 520E 540E 560E 580E

N980 N960 N940 N920 N900 N880 N860 N840 N820 N800

N960 611.1 612.1 612.16 611.5 611.1 Kr.A 611.2 Kr.B 610.8

N940 612.9 612.54 611.7 611.6 Kr.C 611.0

614 Kr.A Kr.B 611.1

N920 612.8 613.42 612.7 612.4 Kr.F 611.2

Kr.A+B 612 614

N900 613.2 615.12 614.6 614.6 Kr.C 611.1 Kr.B

N880 613.1 614.8 614.37 615.3 614.5 Kr.C 611.4

Kr.A 616

N860 613.8 Kr.A 616.16 615.6 Kr.B 612.3 Kr.C 611.6

Kr.A

N840 616.1 N 840 Kr.D 616.93 615.7

613 615 617 613

N820

619

N800

N

S

N

Kairareiän paikka
Iskuporareiän paikka
Paalut linj. 500E ja 520E
Mittaus takymetrillä

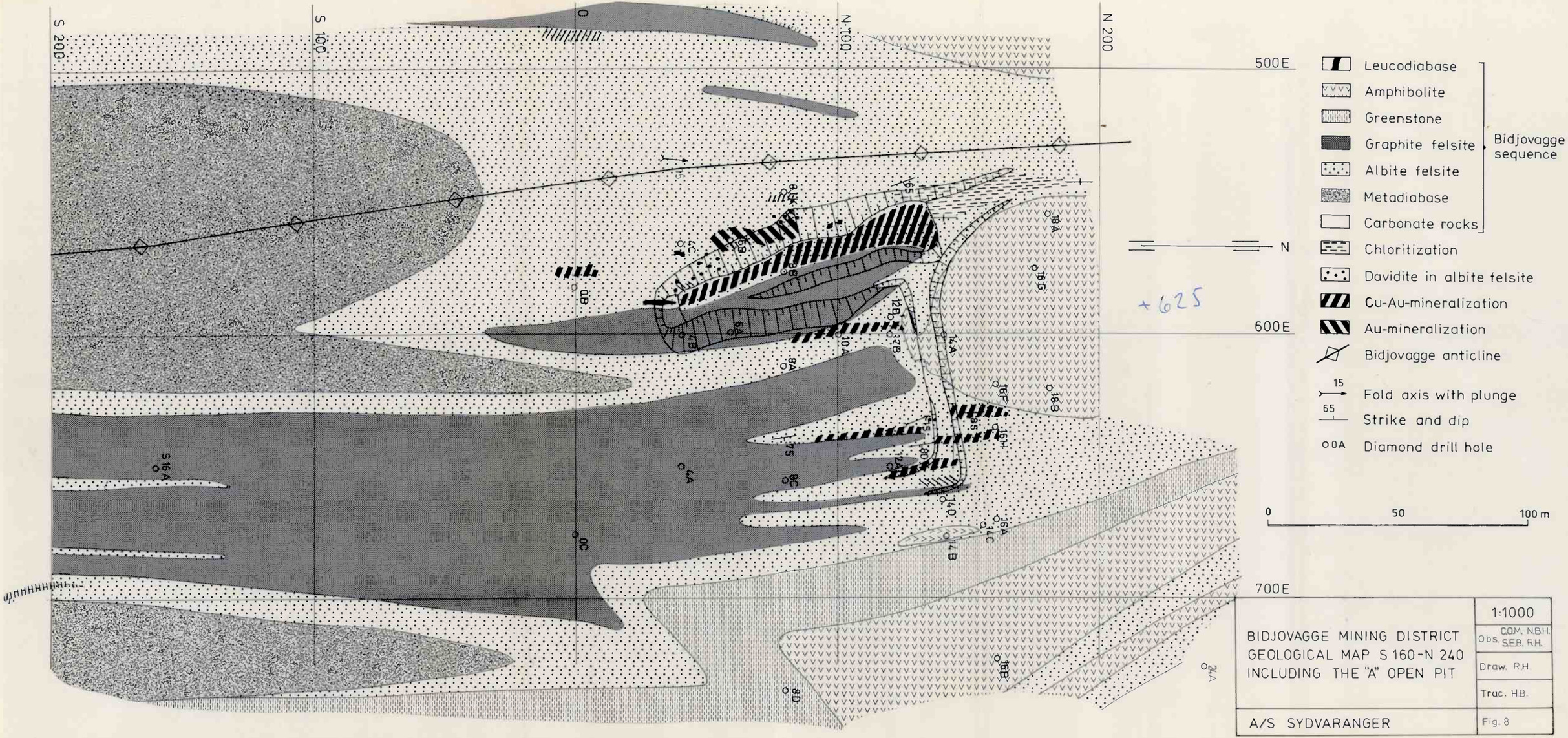
26.5-83 SL

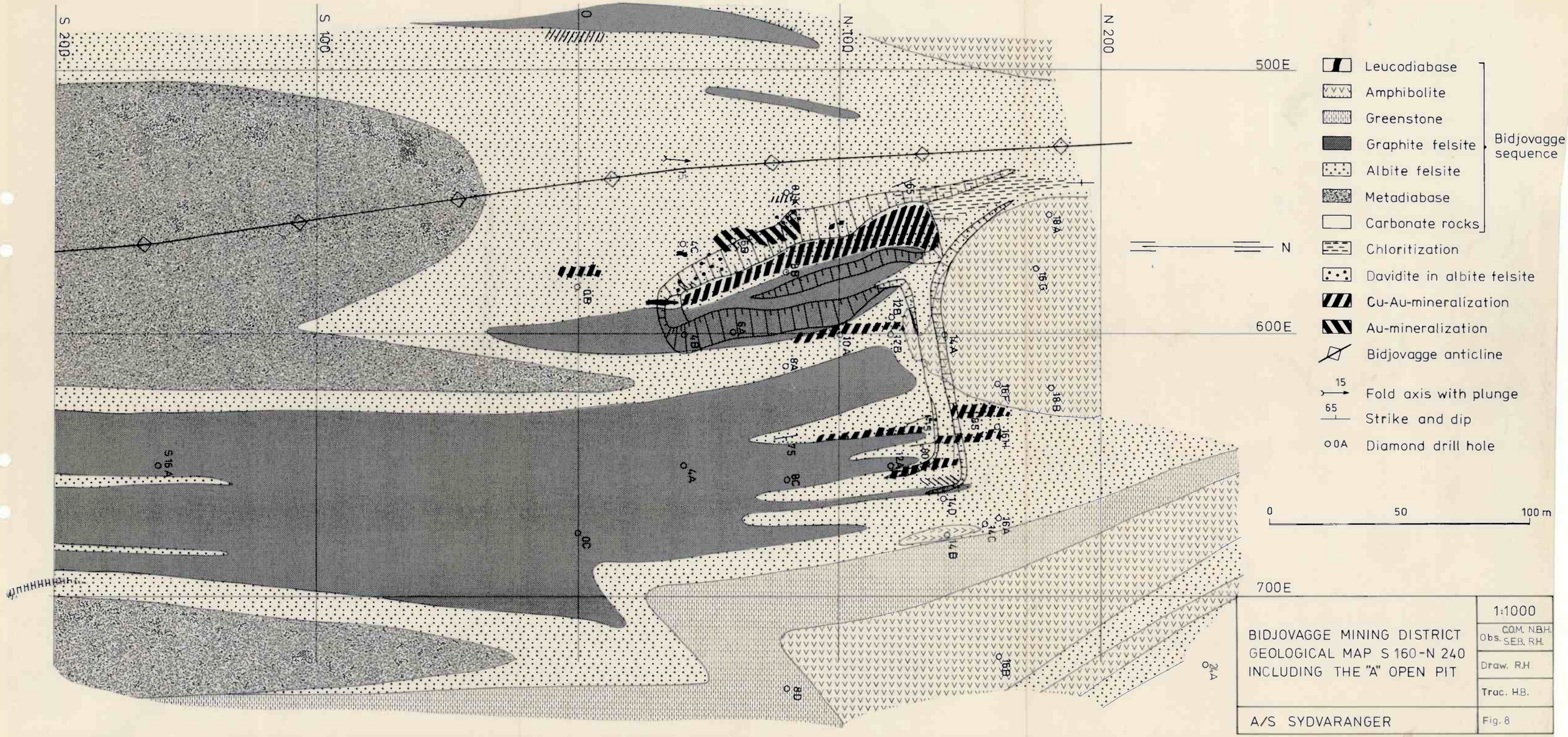
OUTOKUMPU OY KTR

BIDJOVAGGE

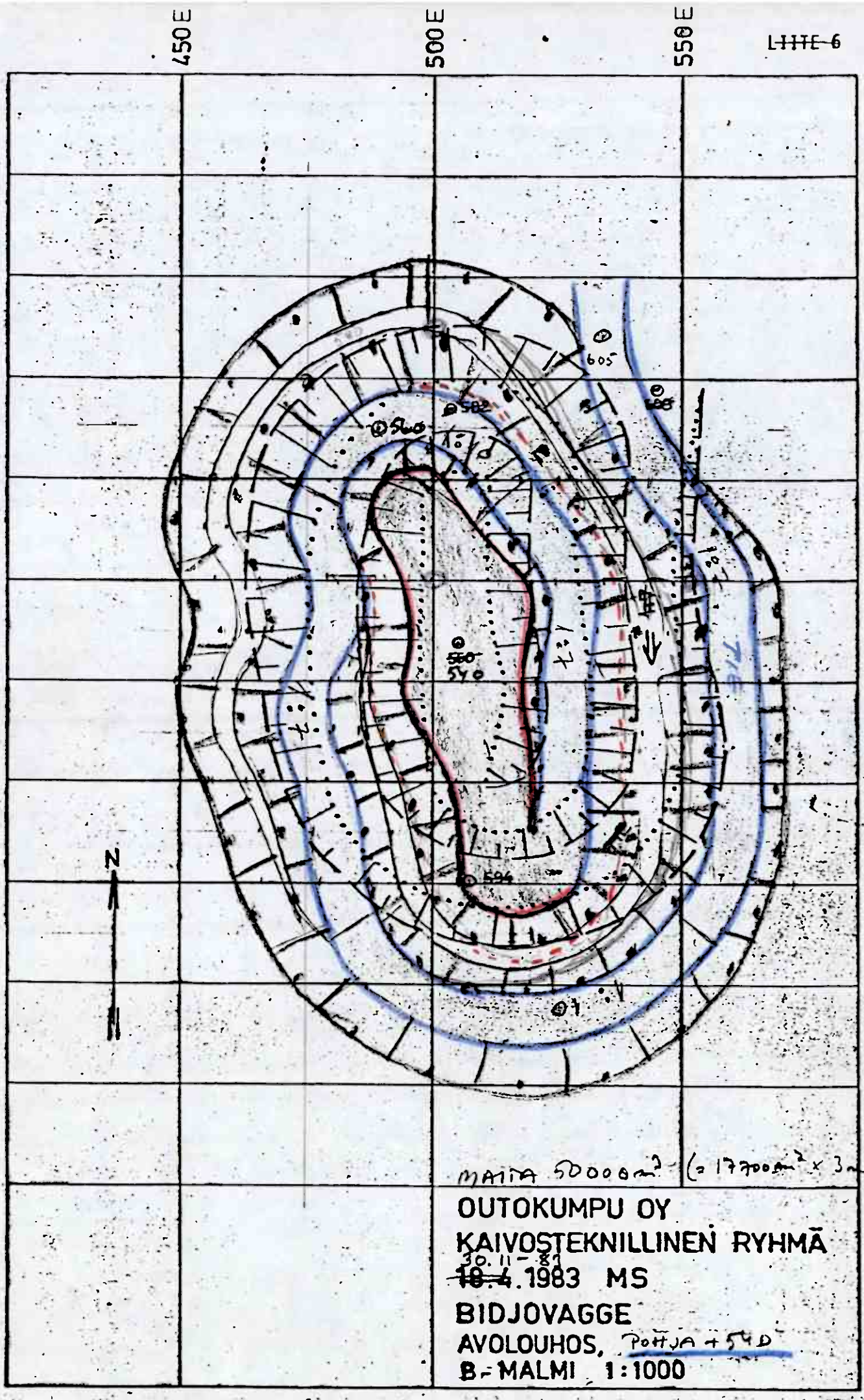
KAIRAUS-JA NÄYTTEENOTTOSUUNNITELMA

B-MALMI 1:500


S 200
S 100
0
N 100
N 200
500E
600E
700E
N
+625
Leucodiabase
Amphibolite
Greenstone
Graphite felsite
Albite felsite
Metadiabase
Carbonate rocks
Bidjovagge sequence
Chloritization
Davidite in albite felsite
Cu-Au-mineralization
Au-mineralization
Bidjovagge anticline
15
Fold axis with plunge
65
Strike and dip
Diamond drill hole
0
50
100 m
BIDJOVAGGE MINING DISTRICT
GEOLOGICAL MAP S 160-N 240
INCLUDING THE "A" OPEN PIT
1:1000
Obs. C.O.M. N.B.H. S.E.B. R.H.
Draw. R.H.
Trac. H.B.
A/S SYDVARANGER
Fig. 8


S 200
S 100
0
N 100
N 200
500E
600E
700E
N
Leucodiabase
Amphibolite
Greenstone
Graphite felsite
Albite felsite
Metadiabase
Carbonate rocks
Bidjovagge sequence
Chloritization
Davidite in albite felsite
Cu-Au-mineralization
Au-mineralization
Bidjovagge anticline
15
Fold axis with plunge
65
Strike and dip
Diamond drill hole
0
50
100 m
BIDJOVAGGE MINING DISTRICT
GEOLOGICAL MAP S 160 - N 240
INCLUDING THE "A" OPEN PIT
1:1000
Obs. COM. N.B.H. S.E.B. R.H.
Draw. R.H.
Trac. H.B.
A/S SYDVARANGER
Fig. 8

~~LIITE 6~~



OUTOKUMPU OY
KAIVOSTEKNILLINEN RYHMÄ
~~10.4~~ 30.11-83.1983 MS
BIDJOVAGGE
AVOLOUHOS, POHJA +540
B-MALMI 1:1000

N 720 N 740 N 760 N 780 N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000 N 1020 N 1040 N 1060 N 1080 N 1100

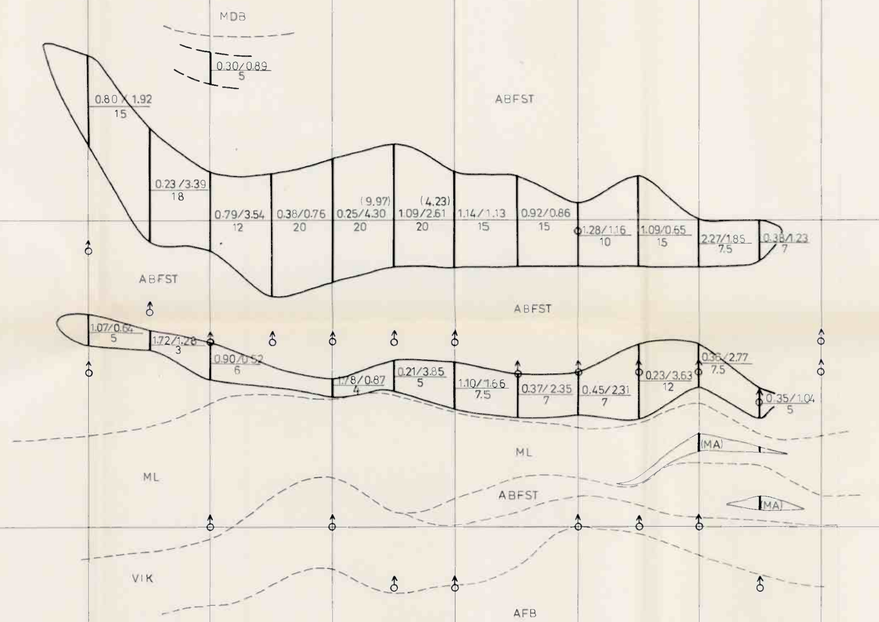
400 E

450 E

500 E

550 E

600 E



BIDJOVAGGE NORJA

MP-TASO B-MALMIO

1:500

$\frac{1.10/2.00}{15} = \frac{\text{Cu \% / Au g/t}}{\text{m}}$

15.11.83 TTK

N 720 N 740 N 760 N 780 N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000 N 1020 N 1040 N 1060 N 1080 N 1100

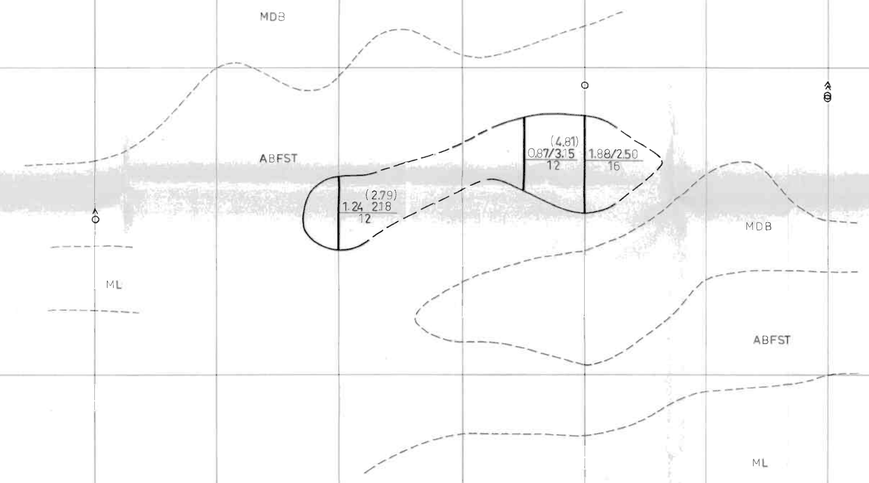
400 E

450 E

500 E

550 E

600 E



BIDJOVAGGE NORJA
TASO +520 B-MALMIO
1:500

1.10/2.00 / 15 = Cu % / Au g/t / m

15.11.83 TTK

N 720 N 740 N 760 N 780 N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000 N 1020 N 1040 N 1060 N 1080 N 1100

400 E

450 E

500 E

550 E

600 E

MDB

ABFST

ML

MDB

ABFST

ML

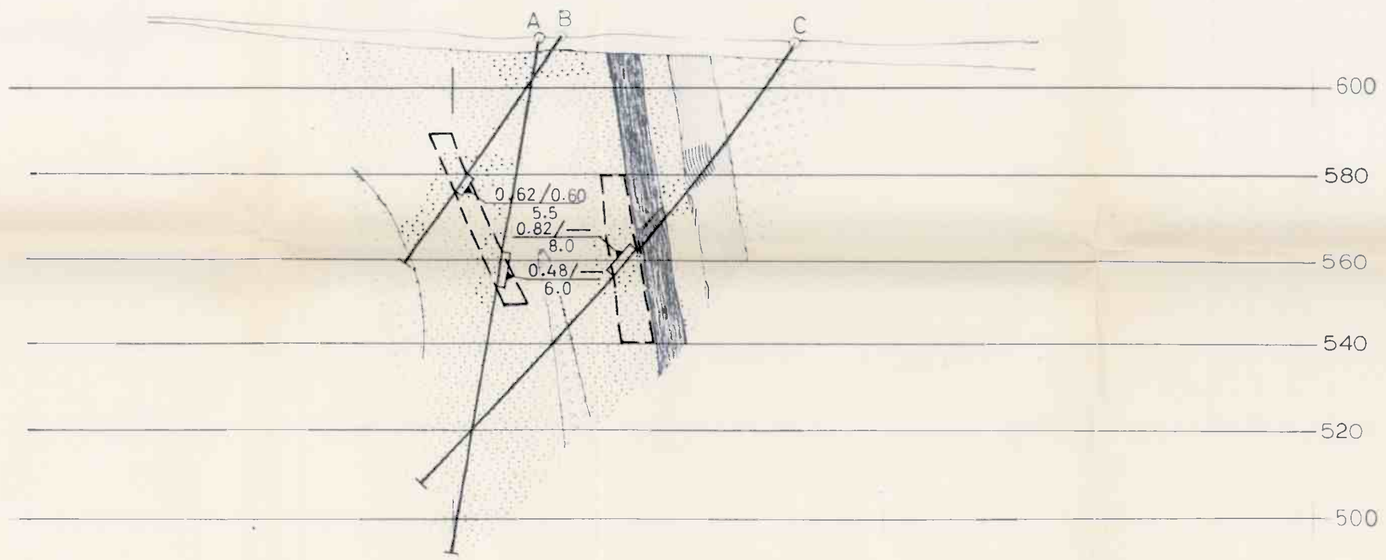
BIDJOVAGGE NORJA
TASO +500 B-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

15.11-83 TTK

300E 400E 500E 600E 700E

700



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A○— Drill hole

$\frac{1.20/0.89}{5} = \frac{Cu\%/Au\ g/t}{5\ m}$

ϟ Fracture zone

0 50m

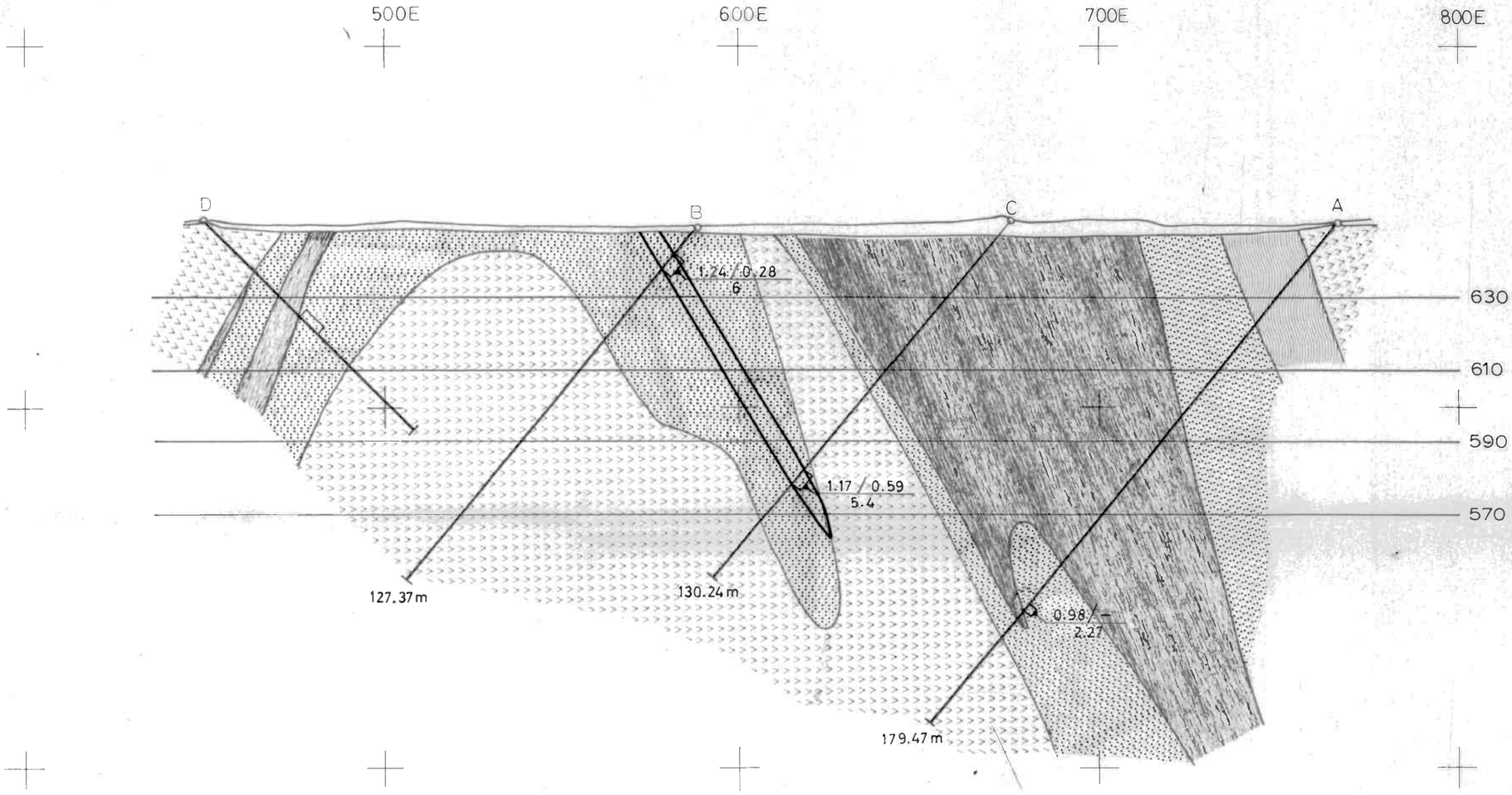
GEOLOGISK PROFIL N960
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R Hagen

Mål 1:1000

Fig



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A⊖ Drill hole

$\frac{1.20 / 0.89}{5} = \frac{\text{Cu \%} / \text{Au g/t}}{5\text{ m}}$

ϟ Fracture zone

0 · 50m

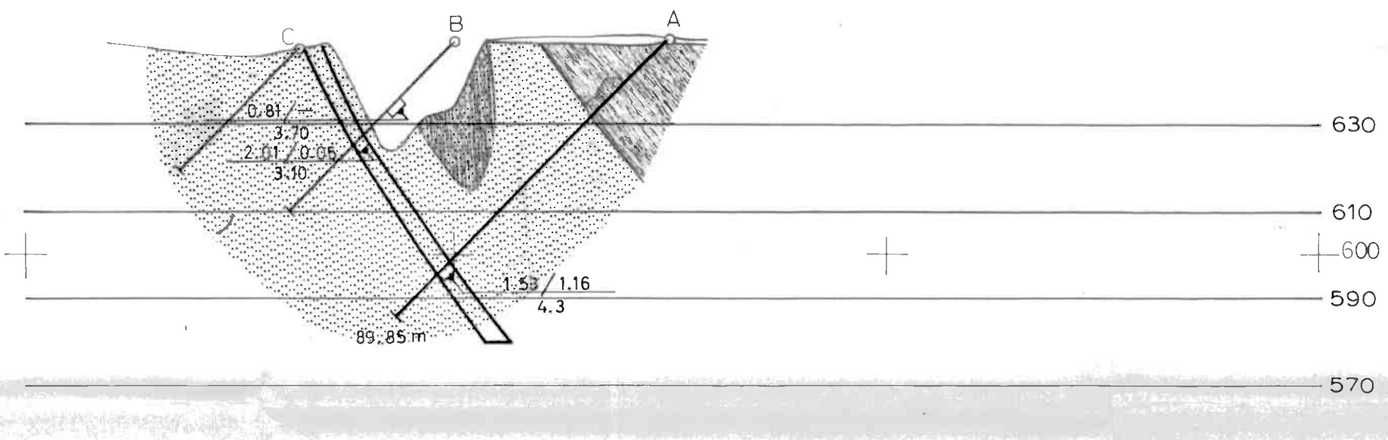
GEOLOGISK PROFIL 0
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R Hagen etter S.E. Bull

Mål 1:1000

Fig



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A o— Drill hole

$\frac{1.20 / 0.89}{5} = \frac{\text{Cu \%} / \text{Au g/t}}{5}$

ϟ Fracture zone

0 50m

GEOLOGISK PROFIL N 40
Bidjovagge grubefelt, Finnmark

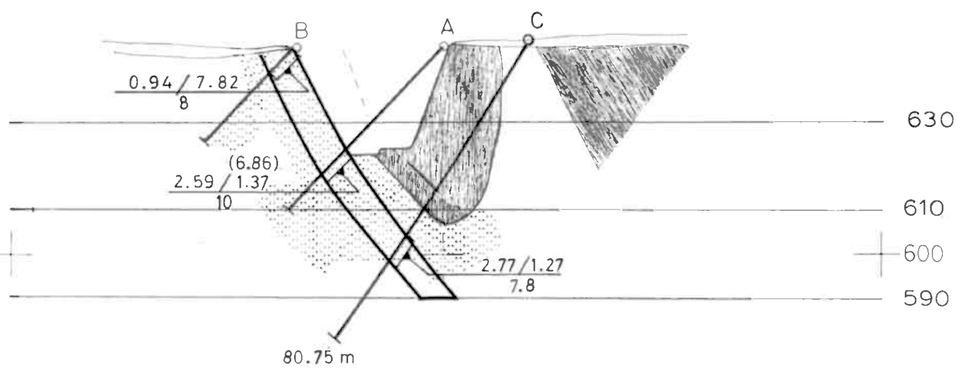
A/S SYDVARANGER

Geolog
R Hagen etter S E Bull

Mål 1 1000

Fig

500 600 700 700



500

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A6 — Drill hole

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\ g/t}{5\ m}$

Fracture zone

0 50m

GEOLOGISK PROFIL N 60
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R. Hagen, S. E. Bull

Mål 1:1000

Fig

300E 400E 500E 600E 700E 800E

700 600 500 400

H F E J B A C D I

630 610 590 570 550

2.41 / 0.30
1.7

1.53 / 0.62
3

1.21 / 0.30
9.6

1.00 / 1.22
4

3.20 / 1.07
5.25

4.34 / 0.71
10

1.33 / –
12.2

1.02 / 0.87
6

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A⊙ Drill hole

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\ g/t}{5\,m}$

Fracture zone

0 50m

GEOLOGISK PROFIL N 80
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R. Hagen

Mål 1:1000

Fig

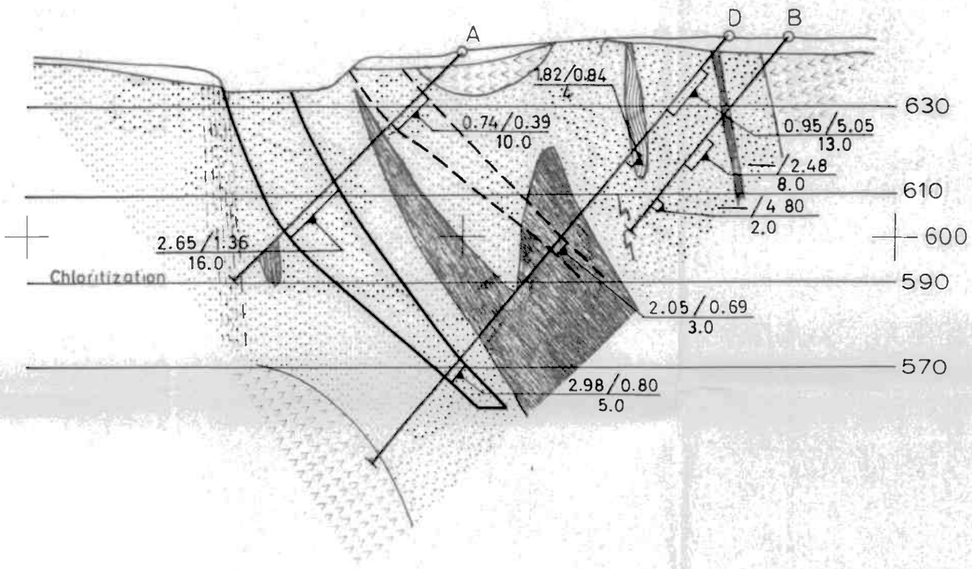
400E

500E

600E

700E

700



500

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A⊖ – Drill hole

$\frac{1.20 / 0.89}{5}$ = $\frac{\text{Cu \% / Au g/t}}{5}$

ϟ Fracture zone

0 50m

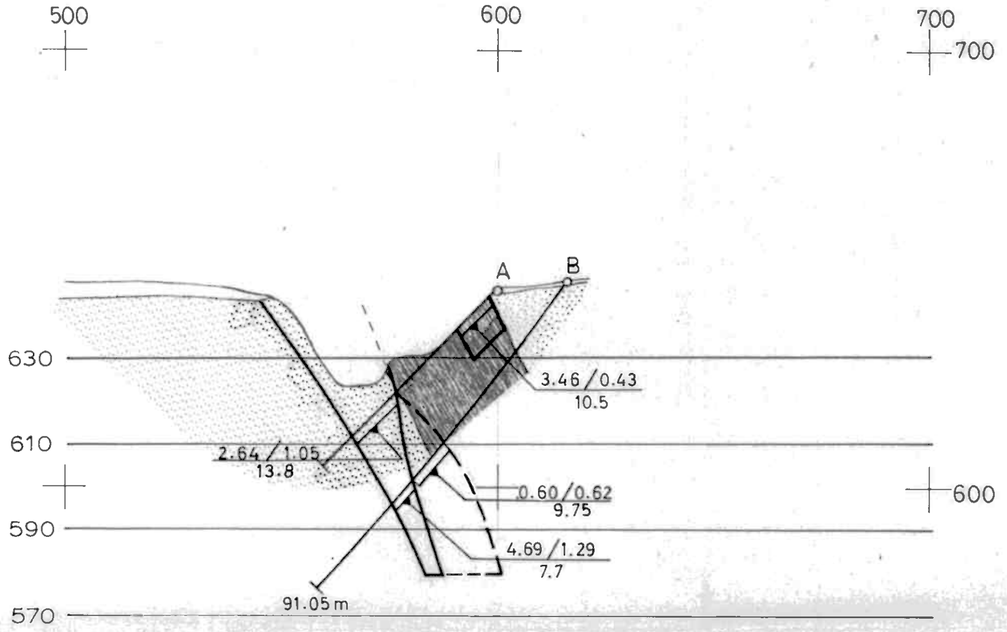
GEOLOGISK PROFIL N 140
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R Hagen

Mål 1 1000

Fig



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A6– Drill hole

Fracture zone

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\ g/t}{5\,m}$

0 50

GEOLOGISK PROFIL N 100
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R.Hagen

Mål 1:1000

Fig.

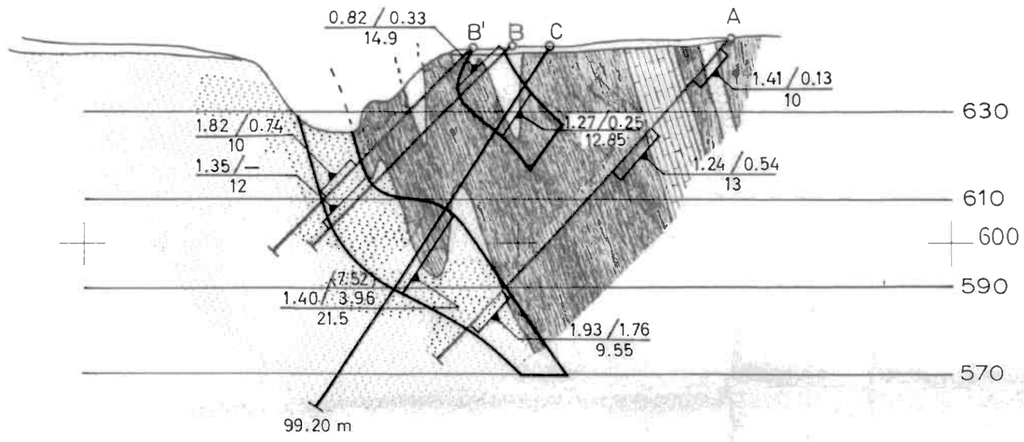
400E

500E

600E

700E

700



500

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A⊖ Drill hole

$\frac{1.20 / 0.89}{5} = \frac{\text{Cu \%} / \text{Au g/t}}{5\text{ m}}$

ϟ Fracture zone

0 50m

GEOLOGISK PROFIL N 120
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

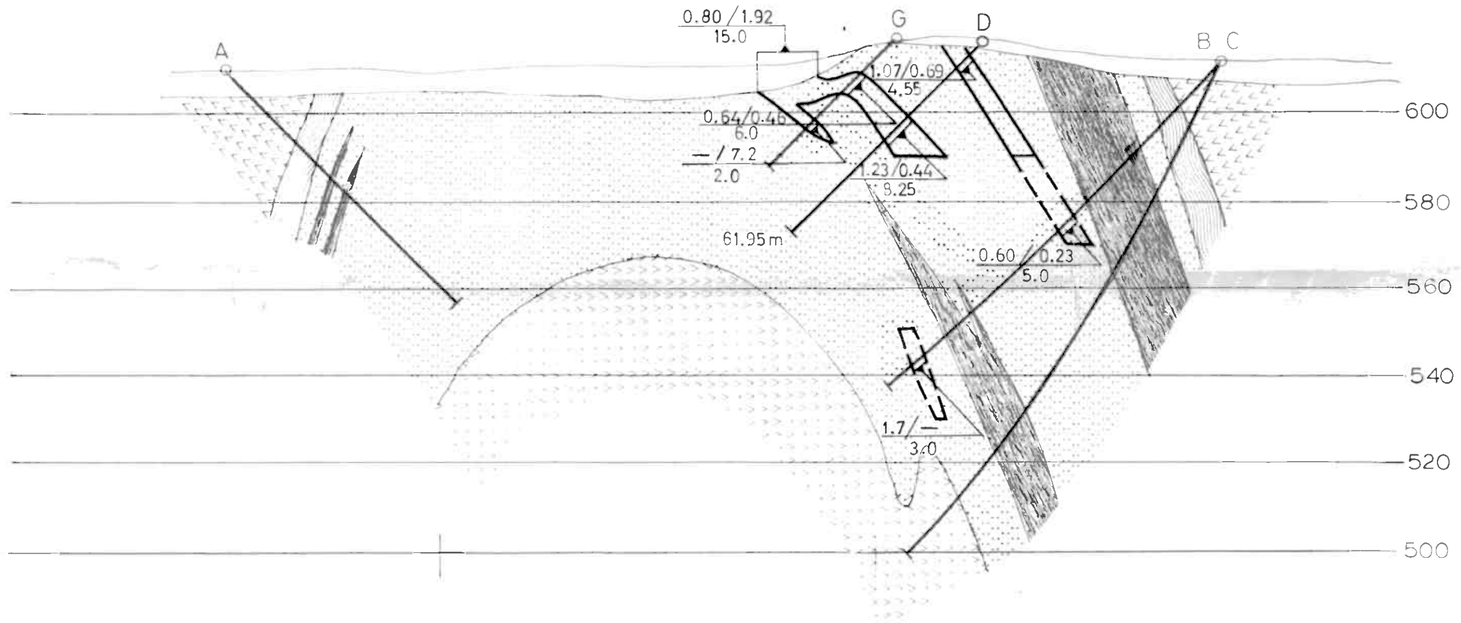
Geolog
R. Hagen

Mål 1: 1000

Fig

300E 400E 500E 600E 700E

700 600 500 400



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A — Drill hole

$\frac{1.20 / 0.89}{5} = \frac{Cu\% / Au\ g/t}{5\,m}$

Fracture zone

0 50m

GEOLOGISK PROFIL N 840
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R Hagen

Mål 1 1000

Fig

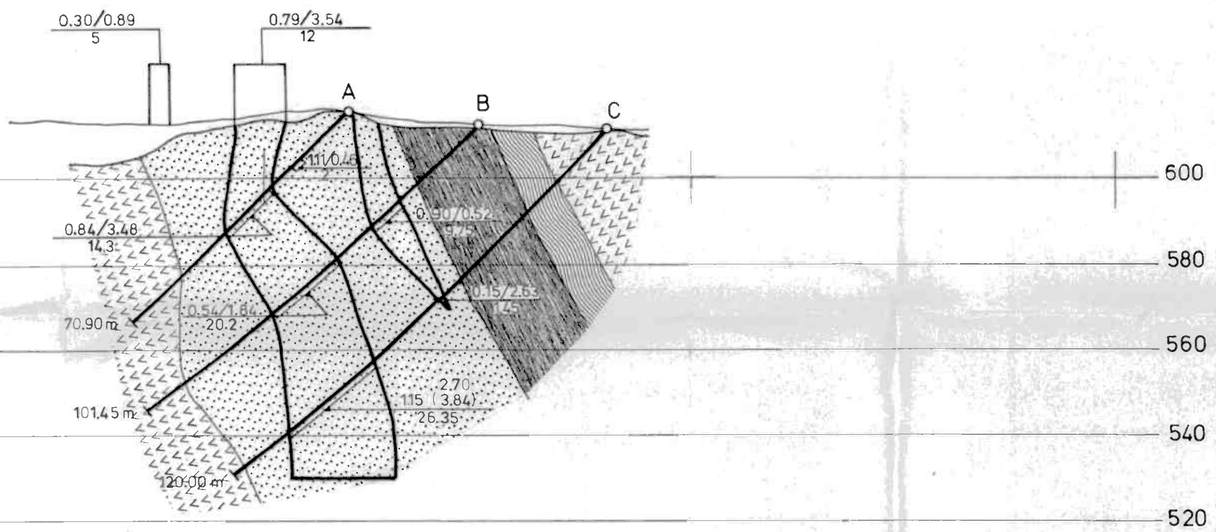
300 E

400 E

500 E

600 E

700 E



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

Ao---Drill hole

ϟ Fracture zone

$\frac{1.20}{5}\ \frac{0.89}{}$ = Cu% Au g/t / m

0 50 m

GEOLOGISK PROFIL N 860
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

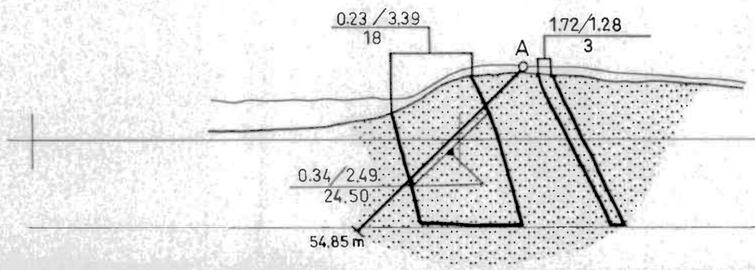
300 E

400 E

500 E

600 E

700E



600

580

560

540

520

500

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

Ao---Drill hole

ϟ Fracture zone

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\,g/t}{m}$

0 50 m

GEOLOGISK PROFIL N **850**
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

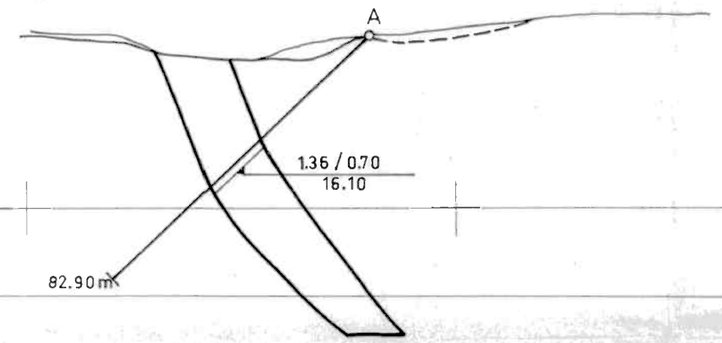
300 E

400 E

500 E

600 E

700 E



600

580

560

540

560

500

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

Ao---Drill hole

ϟ Fracture zone

0 50 m

GEOLOGISK PROFIL N 150
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

500E 600E 700E 800E 900E

C G F H A B D E

630 610 590 570

600 500 400

1.04 / 0.87
9.5

0.56 / 0.49
14

2.00 / 0.49
5

2.20 / 0.38
8.0

4.96 / 0.00
0.4

Legend

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A ○— Drill hole

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\ g/t}{5\,m}$

ϟ Fracture zone

0 50m

GEOLOGISK PROFIL N160
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R Hagen

Mål 1 1000

Fig

400E

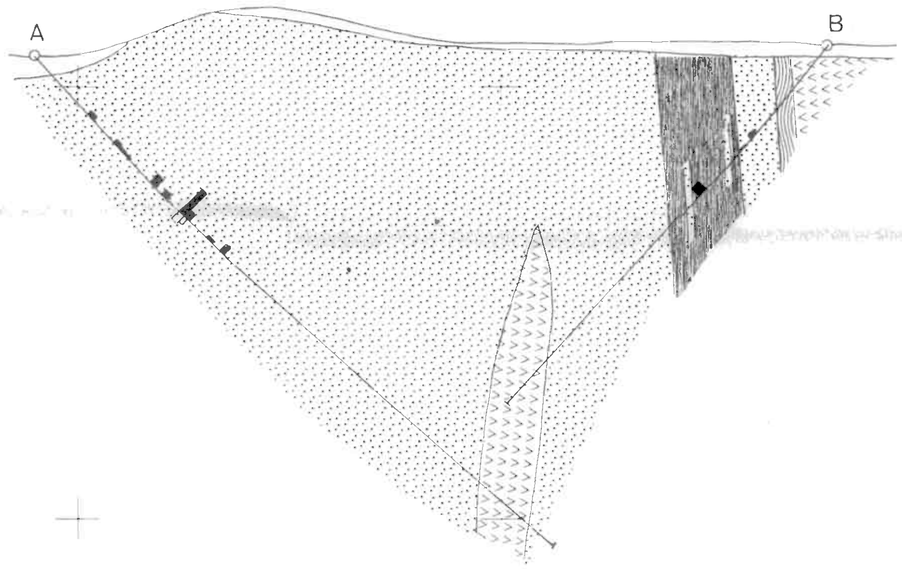
500E

600E

600E

A

B



600

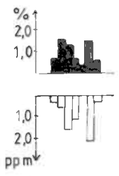
500

400

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A⊖ Drill hole



Fracture zone

0 50m

GEOLOGISK PROFIL N 1000
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R. Hagen

Mål 1:1000

Fig.

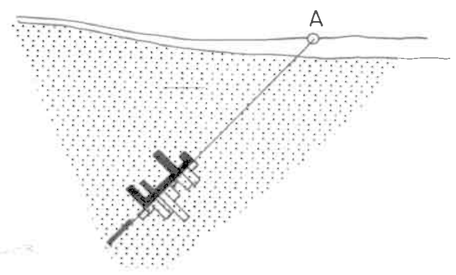
400 E

500 E

600 E

700 E

700



600

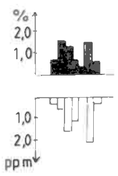
500

400

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A — Drill hole



Fracture zone

0 50m

GEOLOGISK PROFIL N1040
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R. Hagen

Mål 1:1000

Fig.

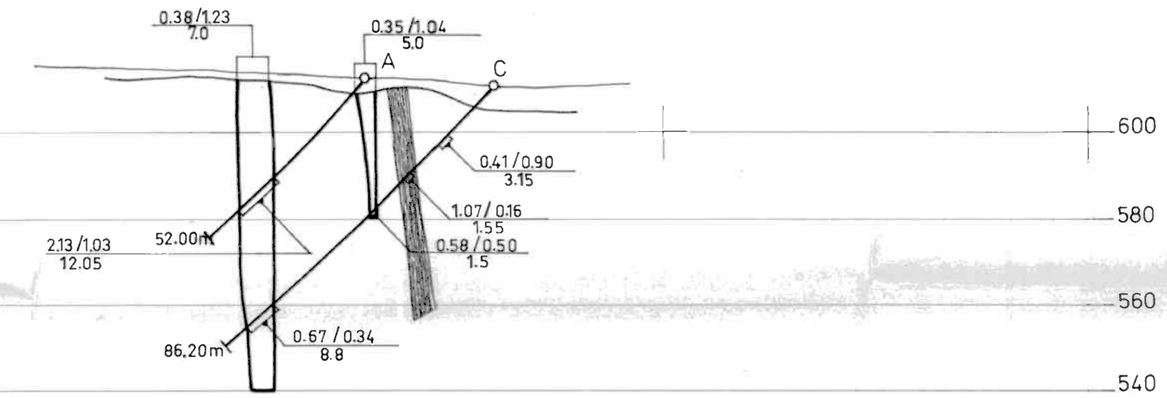
300 E

400 E

500 E

600 E

700 E



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

Ao---Drill hole

ϟ Fracture zone

0 50 m

GEOLOGISK PROFIL N 950
Bidjovagge grubefelt, Finnmark

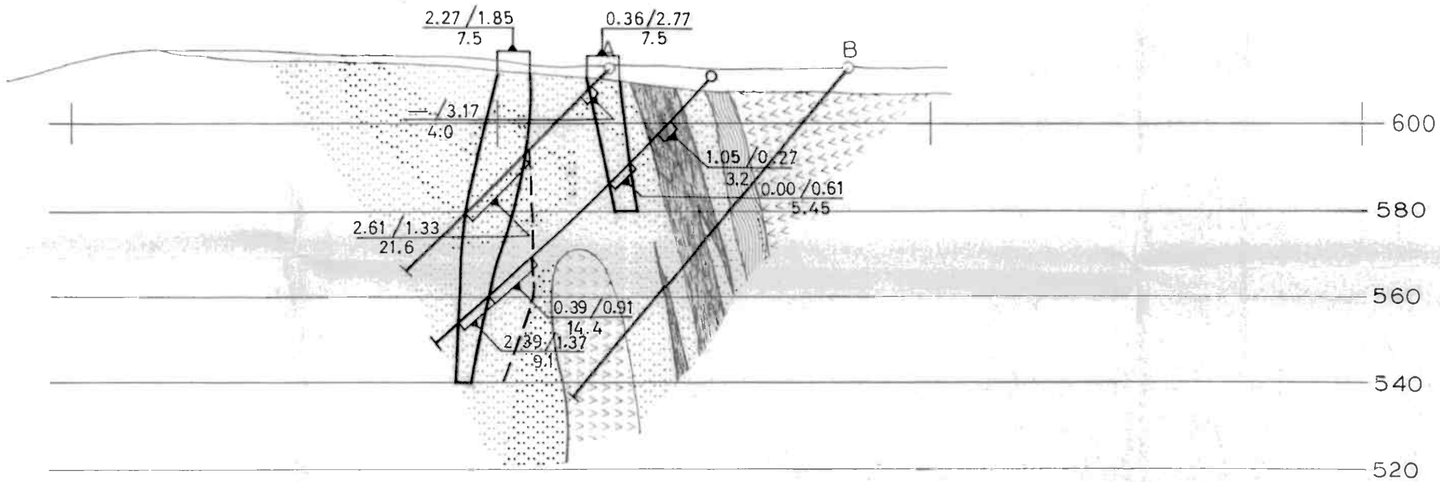
A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

300 E
400 E
500E
600E
700E
700
600
580
560
540
520
500
400



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A — Drill hole

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\ g/t}{5\,m}$

Fracture zone

0 — 50m

GEOLOGISK PROFIL N 940
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog	Mål 1:1000
R. Hagen	Fig.

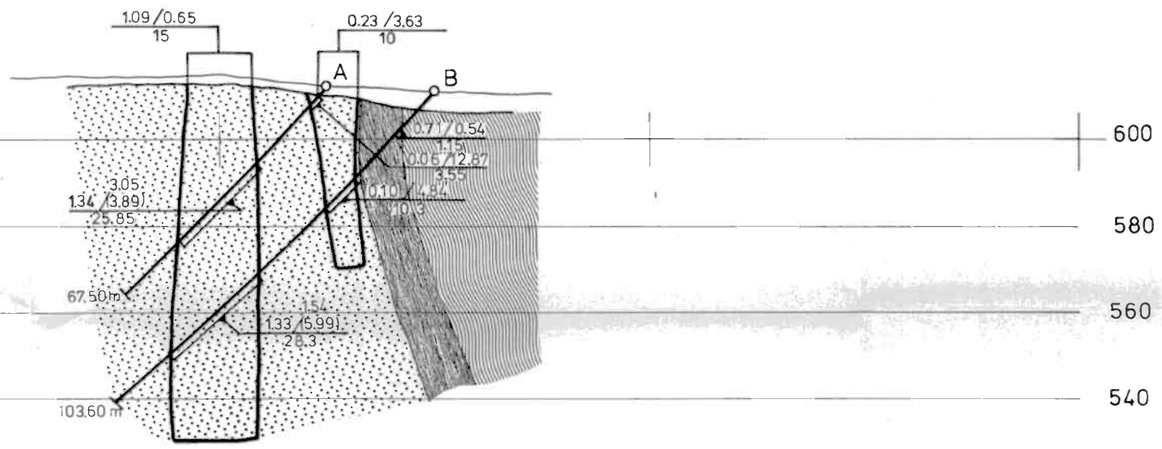
300 E

400 E

500 E

600 E

700 E



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

Ao---Drill hole

Fracture zone

$\frac{1.20/0.89}{5} = \frac{\text{Cu \%} / \text{Au g/t}}{\text{m}}$

0 50 m

GEOLOGISK PROFIL N 930
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

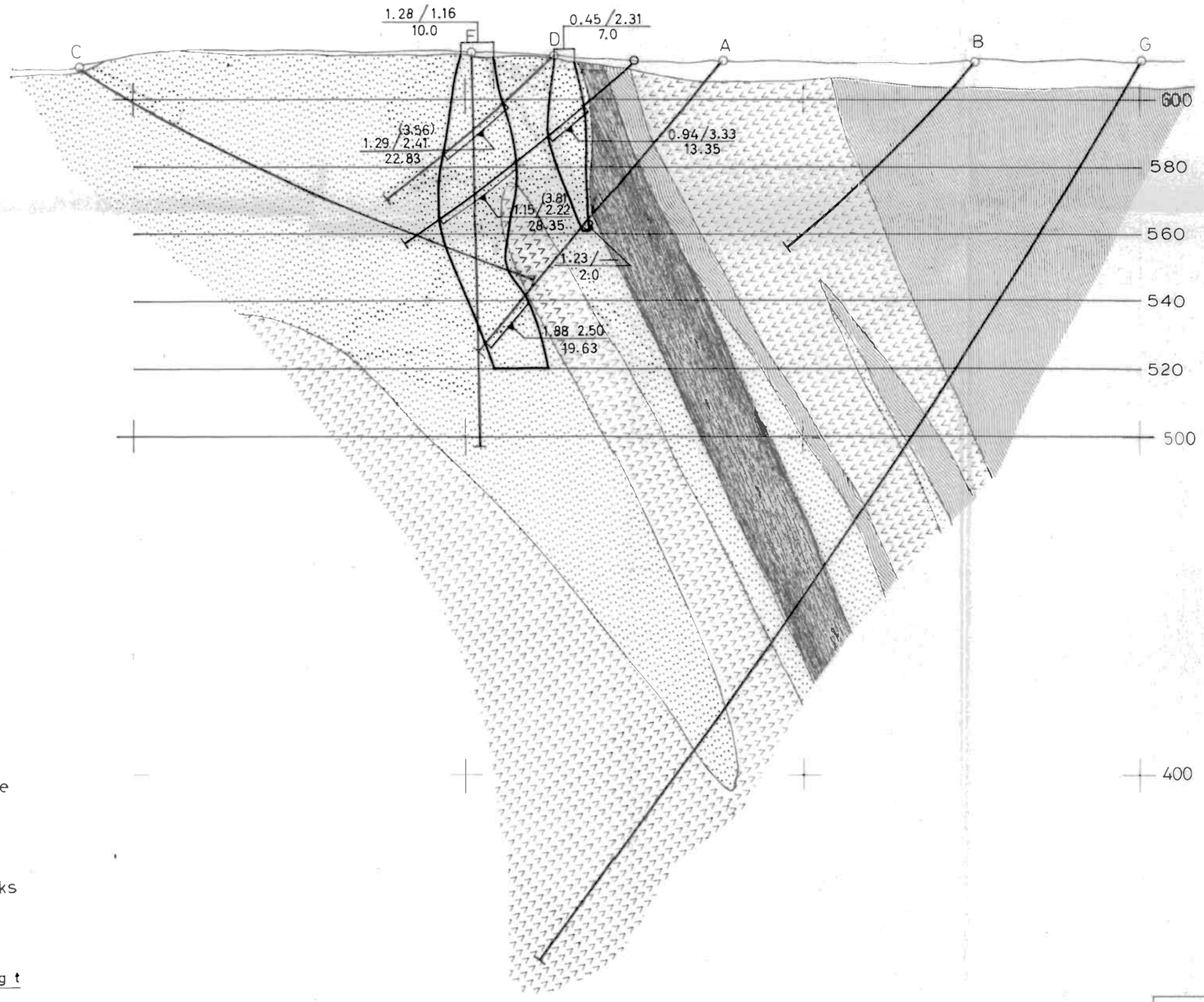
300E

400E

500E

600E

700E



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A⊖ Drill hole

$\frac{1.20}{5}\ \frac{0.89}{} = \frac{Cu\%}{5m}\ \frac{Au\ g\ t}{}$

ϟ Fracture zone

0 50m

GEOLOGISK PROFIL N920
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R. Hagen

Mål 1:1000

Fig

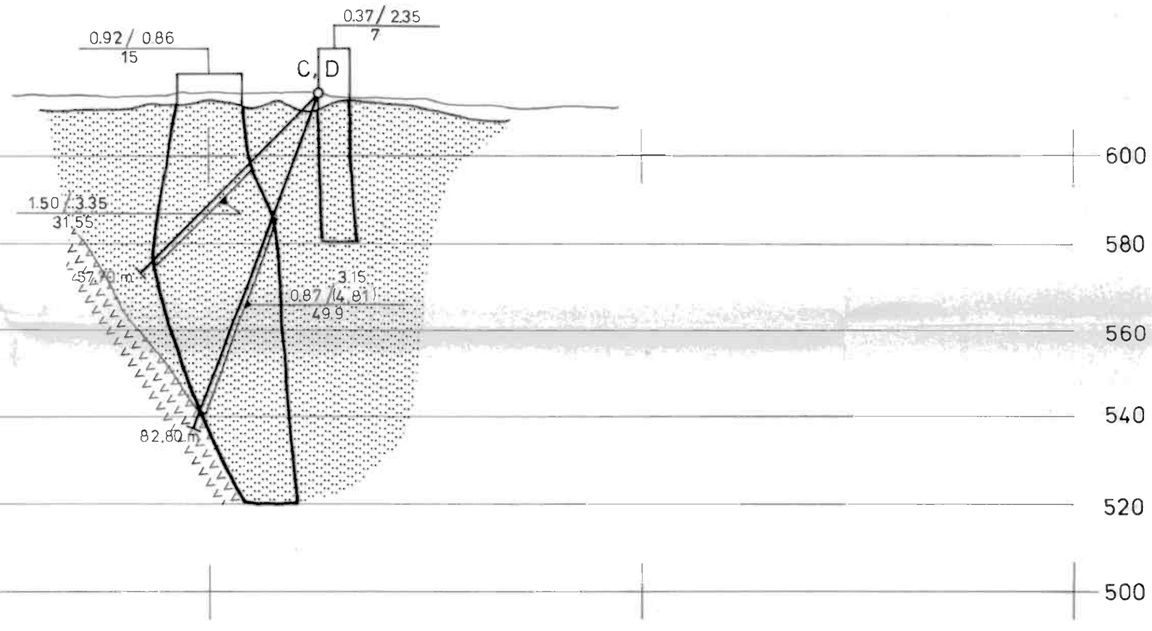
300 E

400 E

500 E

600 E

700 E



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A o---Drill hole

ϟ Fracture zone

$\frac{1.20 / 0.89}{5} = \frac{Cu\ \% / Au\ g/t}{m}$

0 50 m

GEOLOGISK PROFIL N 910
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

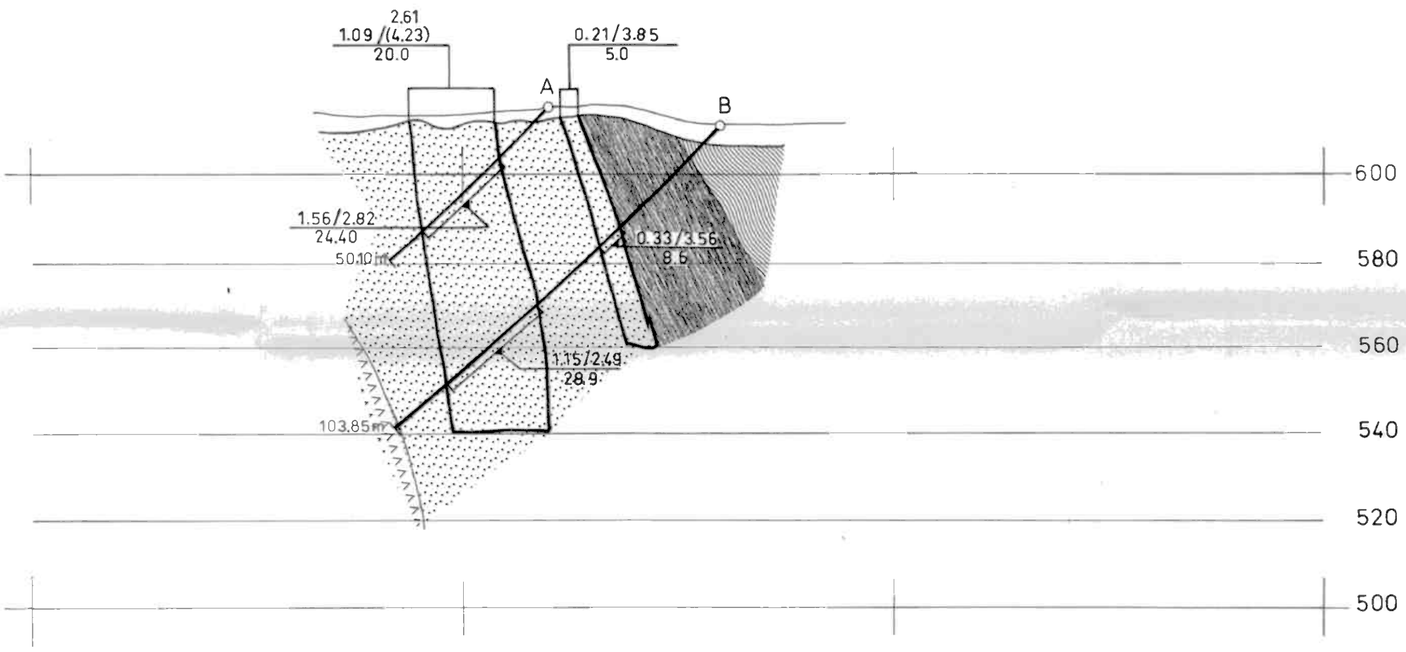
300 E

400 E

500 E

600 E

700 E



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

Ao---Drill hole

ϟ Fracture zone

$\frac{1.20}{5}\,\frac{0.89}{m} = \frac{Cu\,\%}{m}\,/\,\frac{Au\ g/t}{m}$

0 50 m

GEOLOGISK PROFIL N 890
Bidjovagge grubefelt, Finnmark

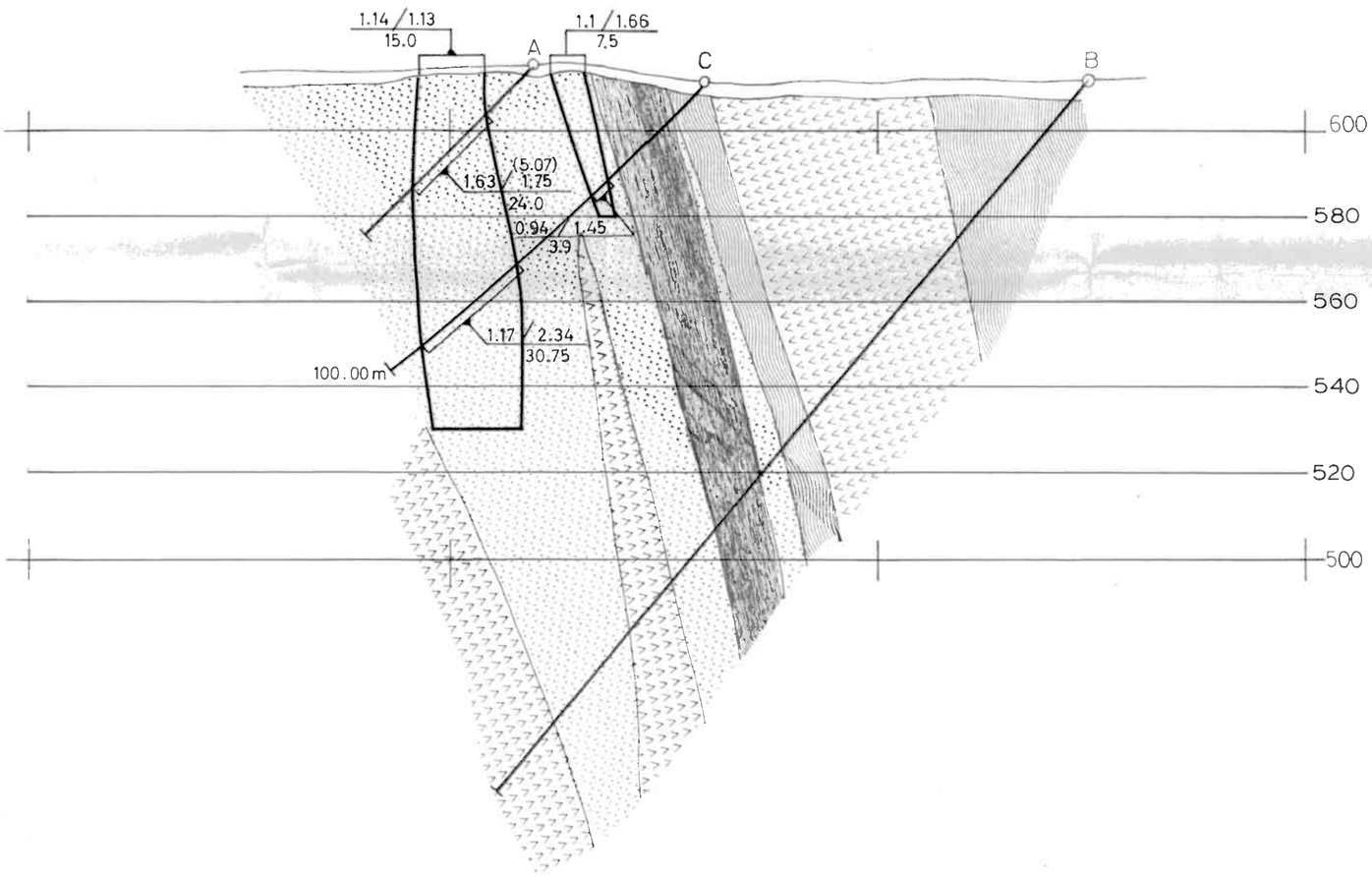
A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

400E 500E 600E 700E



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A Drill hole

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\ g/t}{5\,m}$

Fracture zone

0 50m

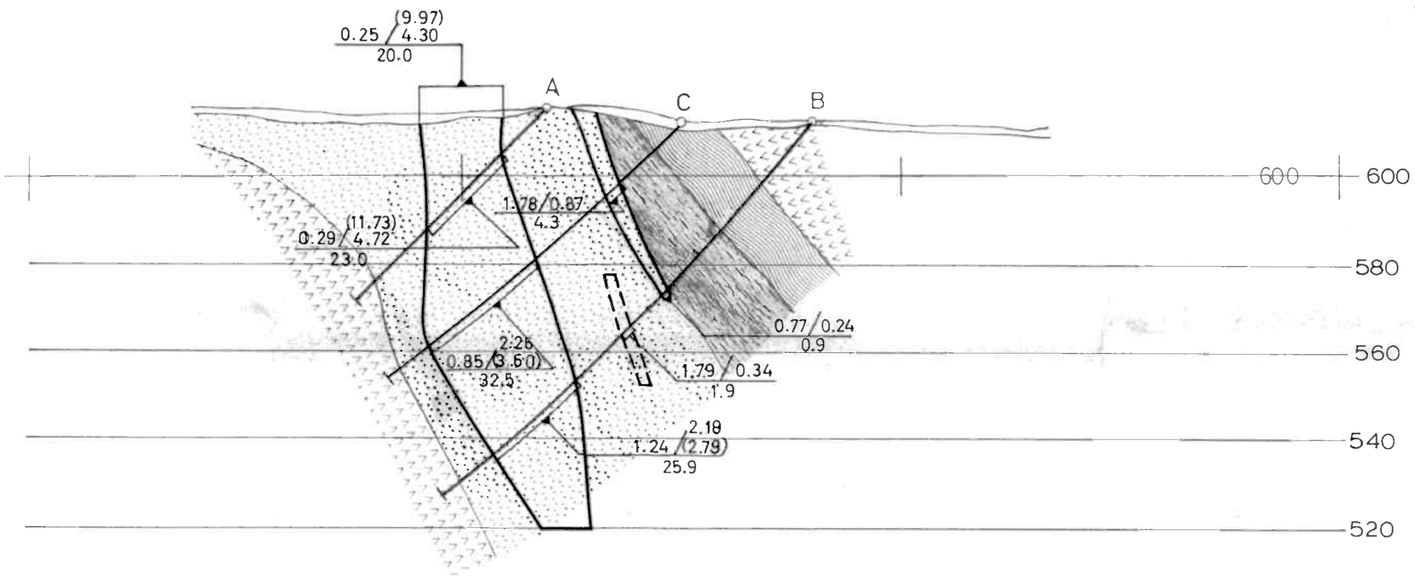
GEOLOGISK PROFIL N 900
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R. Hagen

Mål 1:1000

Fig.



Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

A — Drill hole

$\frac{1.20 / 0.89}{5} = \frac{Cu\,\% / Au\ g/t}{5\ m}$

Fracture zone

0 ——— 50m

GEOLOGISK PROFIL N 880
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
R. Hagen

Mål 1:1000

Fig.

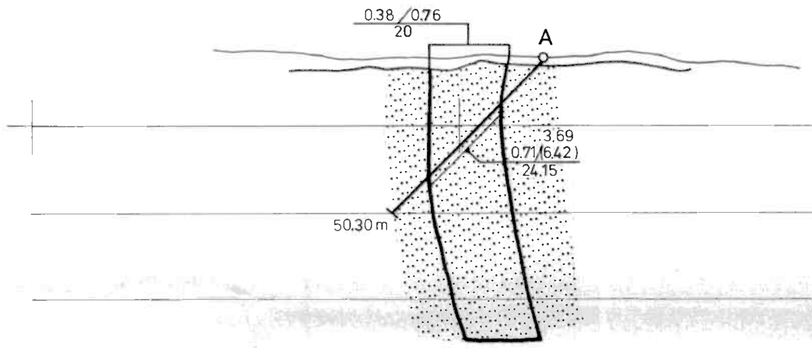
300 E

400 E

500 E

600 E

700 E



600

580

560

540

520

500

Legend:

- Amphibolite
- Greenstone
- Graphite felsite
- Albite felsite
- Metadiabase
- Carbonate rocks

Ao---Drill hole

Fracture zone

$\frac{120/0.89}{5} = \frac{Cu\,\% / Au\ g/t}{m}$

0 50 m

GEOLOGISK PROFIL N 870
Bidjovagge grubefelt, Finnmark

A/S SYDVARANGER

Geolog
T. Korkalo

Mål 1:1000

Fig.

N 0
N 20
N 40
N 60
N 80
N 100
N 120
N 140
N 160
N 180

550 E

600 E

650 E

MDB

ABFST

1.17/0.59
4

MDB

ABFST

1.02/0.87
9

MDB

ABFST

1.93/1.76
11

2.98/0.80
7

1.36/0.70
15

ABFST

2.20/0.38
8

ML

BIDJOVAGGE NORJA
TASO +570 A-MALMIC
1:500

$\frac{1.10/2.00}{15} = \frac{\text{Cu \% / Au g/t}}{\text{m}}$

SMOY 1983

reika

	kalt	maapuu
N 910 E 525 B	70"	6.30 m
N 910 E 525 A	45	5.50
N 890 E 520 A	45	5.50
→ N 870 E 520 A	45	5.50
N 850 E 515 A	45	2.85
N 860 A	45	5.50
N 840 E 525 D	45	2.00
N 910 E 525 D	70	4.30
G	45	7.10
N 880 E 550 C	45	2.30
N 950 E 560 C	45	6.75
N 940 E 550 C	45	3.70
N 930 E 525 A	45	2.75
N 930 E 550 B	45	525
N 920 E 550 F	45	3.90
N 900 E 560 G	45	3.80

N 890 E 560 B 45° 50?

N 860 E 550 45

N 860 E 580 45

N 860 E 580 ? 45

A

N 120 E 607 KR3 50° 2.20

N 100 E 616 KR2 50°

N 100 E 616 KR2 ? 50° 5.50

N 60 E 620 KR1 60° 3.00

N 860 E 550 B 45° 1.02

N 950 E 555 B 45 6.00

N 950 E 530 A 45 4.15

910 525 70 6.13

	H	E			
	910	525	D	70	4.3
B	910	525	C	45	7.1
	880	550	C	45	2.3
	950	560	C	45	6.75
→	940	550	C	45	3.7
	930	525	A	45	2.75
	930	550	B	45	3.25
	920	550	F	45	3.9
	900	560	G	45	3.8
	890	560	B	45	5.0
	860	550		45	
	860	540		45	
	860	580		45	8.6
A	120	607	KR3	50	2.2
A	100	616	KR2	50	
A	100	616	KR2	50	5.5
A	60	628	KR1	60	5.0
	860	550	B	45	1.0
	950	555	B	45	6.0
	950	530	A	45	4.25
	910	520	B	70	6.3

N 0 N 20 N 40 N 60 N 80 N 100 N 120 N 140 N 160 N 180

550 E

600 E

650 E

ABFST

ABFST

ML

ABFST

MDB

ABFST

MDB

ML

1.24/0.28
6

2.01/0.05
3.1

(7.82)
0.49/4.95
8

1.00/1.22
4

2.64/1.05
5

2.65/1.36
15

1.36/0.70
17

0.74/0.39
10

0.82/0.33
6

1.24/0.54
12

1.82/0.84
3

1.04/0.87
10

1.41/0.13
7

0.95/5.05
12

BIDJOVAGGE NORJA
MP-TASO A-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

N 0 N 20 N 40 N 60 N 80 N 100 N 120 N 140 N 160 N 180

550 E

600 E

650 E

MDB

ABFST

ML

1.24/0.28
6

2.01/0.05
4.5

(5.86)
2.59/1.37
9

1.00/1.22
5

2.64/1.05
4

1.36/0.70
16

2.65/1.36
15

0.74/0.39
13

1.27/0.25
18

1.24/0.54
12

1.82/0.84
3

1.04/0.87
8

1.41/0.13
9

0.95/5.05
10

BIDJOVAGGE NORJA
TASO + 630 A-MALMIO
1:500

1.10/2.00 = Cu% / Au g/t
1

N 0
N 20
N 40
N 60
N 80
N 100
N 120
N 140
N 160

550 E

MDB

ABFST

1.53/1.16
5

2.77/1.27
10

4.34/0.71
14

2.64/1.05
10

0.60/0.62
9

1.35/-
25

2.65/1.36
18

1.36/0.70
17

2.00/0.49
5

0.56/0.49
17

ABFST

600 E

1.24/0.28
7

ABFST

ML

MDB

2.05/0.69
9

MDB

ABFST

ABFST

1.24/0.54
10

-/4.80
3

ABFST

ML

650 E

1.41/0.13
7

-/2.48
5

BIDJOVAGGE NORJA
TASO + 610 A-MALMIO
1:500

1.10/2.00 / 15 = Cu % / Au g/t / m

BIDJOVAGGE NORJA
TASO +590 A-MALMIO
1:500

N 0 | N 20 | N 40 | N 60 | N 80 | N 100 | N 120 | N 140 | N 160

550 E

600 E

650 E

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\,g/t}{m}$

MDB

ABFST

1.17/0.59
7

1.53/1.16
5

2.77/1.27
6

1.33/–
15

4.69/1.29
6

0.60/0.62
13

1.67/2.86
26

1.36/0.70
17

2.20/0.38
12

ABFST

MDB

ABFST

MDB

ML

ABFST

ML

N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000

500
~~550~~ E

ABFST

- /7.2
5

1.23/0.44
11

0.34/2.49
23

0.84/3.48
10

(6.42)
0.71/3.69
17

(11.73)
0.29/4.72
19

1.45/2.31
20

(5.07)
1.63/1.75
17

1.50/3.35
17

(3.56)
1.29/2.41
14

(3.89)
1.34/3.05
17

2.61 1.33
10

2.13/1.03
8

ABFST

1.07/0.69
5

1.72/1.28
4

0.90/0.52
7

1.78/0.87
4

0.33/3.56
6

1.10/1.66
7

0.37/2.35
8

0.94/3.33
9

0.23/3.63
10

0.36/2.73
6

0.35/1.04
4

550
600 E

ML

ABFST

ABFST

VIK

BIDJOVAGGE NORJA
TASO +600 B-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980

BIDJOVAGGE NORJA
TASO +580 B-MALMI
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

MDB

ABFST

500 E

0.34/2.49 25 | 0.54/1.84 23 | (6.42) 0.71/3.69 20 | (3.60) 0.85/2.26 25 | 1.30/2.40 24 | (5.07) 1.63/1.75 23 | 1.50/3.35 28 | (3.69) 1.22/2.32 23 | (3.89) 1.34/3.05 19 | 2.51/1.33 12 | 2.13/1.03 9 | 0.67/0.60 5

ABFST

0.60/0.23 5 | 1.72/1.28 4 | 0.15/2.53 7 | 2.77/0.24 1 | 0.33/3.56 8 | 0.94/1.45 3 | 0.37/2.35 8 | 1.23/- 8 | 0.10/4.84 8 | 0.06/0.61 4 | 0.58/0.56 1 | 0.82/- 5

ML

550 E

ABFST

VIK

AFB

N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960

500 E

550 E

MDB

ABFST

ML

(3.84) 1.15/2.70 21

(6.42) 0.71/3.69 18

(3.60) 0.85/2.26 32

1.15/2.49 25

1.14/2.20 24

(4.81) 0.87/3.15 26

(3.81) 1.15/2.22 20

(5.99) 1.33/1.54 15

2.39/1.37 12

0.39/0.91 15

0.67/0.34 7

0.48/- 5

MDB

ABFST

1.79/0.34 2

0.33/3.56 6

1.23/ 2

0.82/- 6

ML

VIK

BIDJOVAGGE NORJA
TASO +560 B-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{\text{Cu \% / Au g/t}}{\text{m}}$

450 E

500 E

550 E

N 820

N 840

N 860

N 880

N 900

N 920

N 940

N 960

MDB

ML

ABFST

MDB

VIK

1.70/-
3

(3.84)
1.15/2.70
25

(2.79)
1.24/2.18
23

1.15/2.49
22

1.14/2.20
23

(4.81)
0.87/3.15
20

1.88/2.50
18

(5.99)
1.33/1.54
20

2.39/1.37
25

0.39/0.91
8

0.67/0.34
6

0.82/-
7

BIDJOVAGGE NORJA
TASO +540 B-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

N 800

N 820

N 840

N 860

N 880

N 900

N 920

N 940

N 960

500 E

MDB

ABFST

(4.81)
0.87/3.15
12

1.88/2.50
16

(2.79)
1.24 2.18
12

MDB

ML

ABFST

550 E

ML

BIDJOVAGGE NORJA
TASO +520 B-MALMIO
1:500

1.10/2.00 / 15 = Cu % / Au g/t / m

N 780
N 800
N 820
N 840
N 860
N 880
N 900
N 920
N 940
N 960

450 E

500 E

550 E

MDB

ABFST

ML

MDB

ABFST

ML

BIDJOVAGGE NORJA
TASO +500 B-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

N 720 N 740 N 760 N 780 N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000 N 1020 N 1040 N 1060 N 1080 N 1100

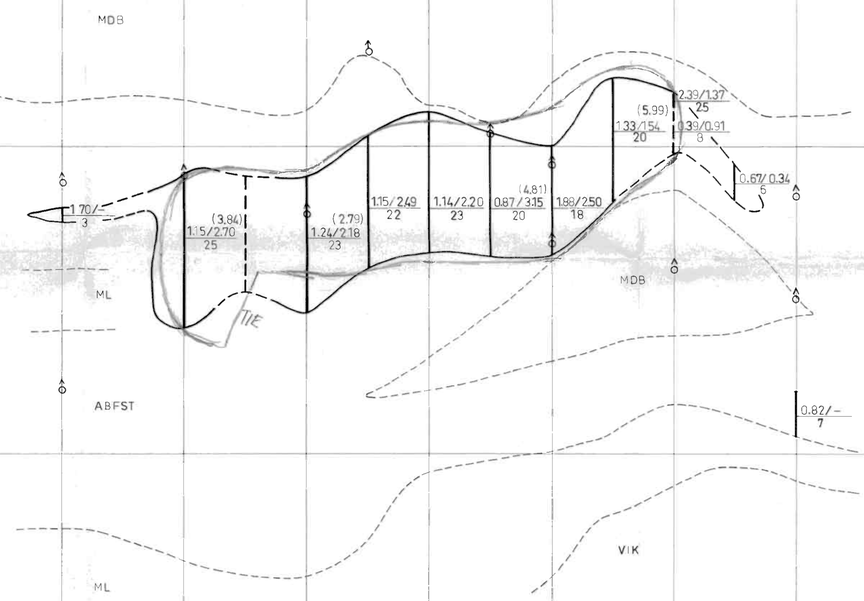
400 E

450 E

500 E

550 E

600 E



BIDJOVAGGE NORJA

TASO +540 B-MALMIO

1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

N 720 N 740 N 760 N 780 N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000 N 1020 N 1040 N 1060 N 1080 N 1100

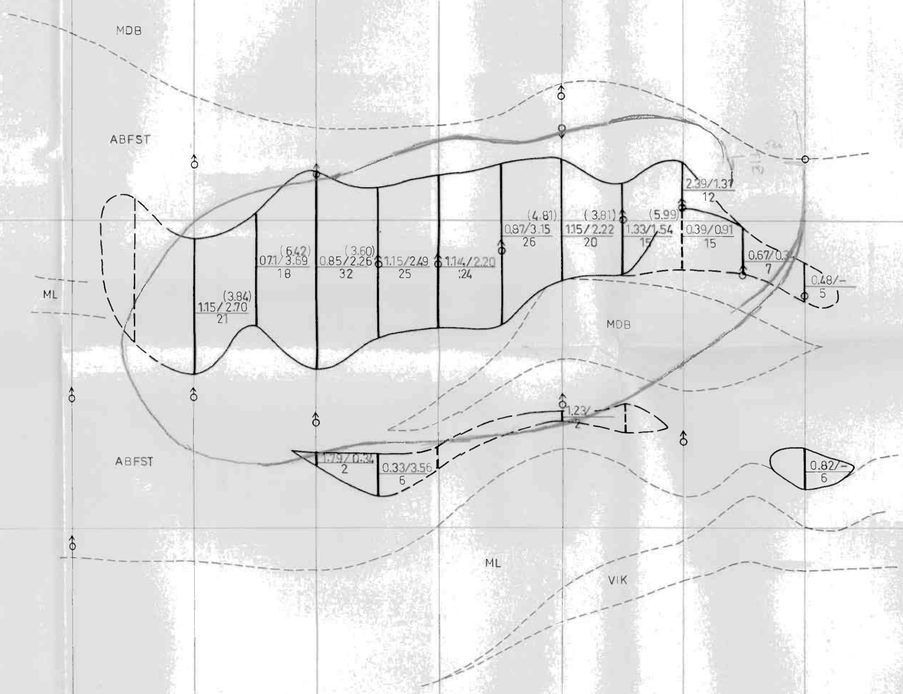
400 E

450 E

500 E

550 E

600 E



BIDJOVAGGE NORJA

TASO +560 B-MALMIO

1:500

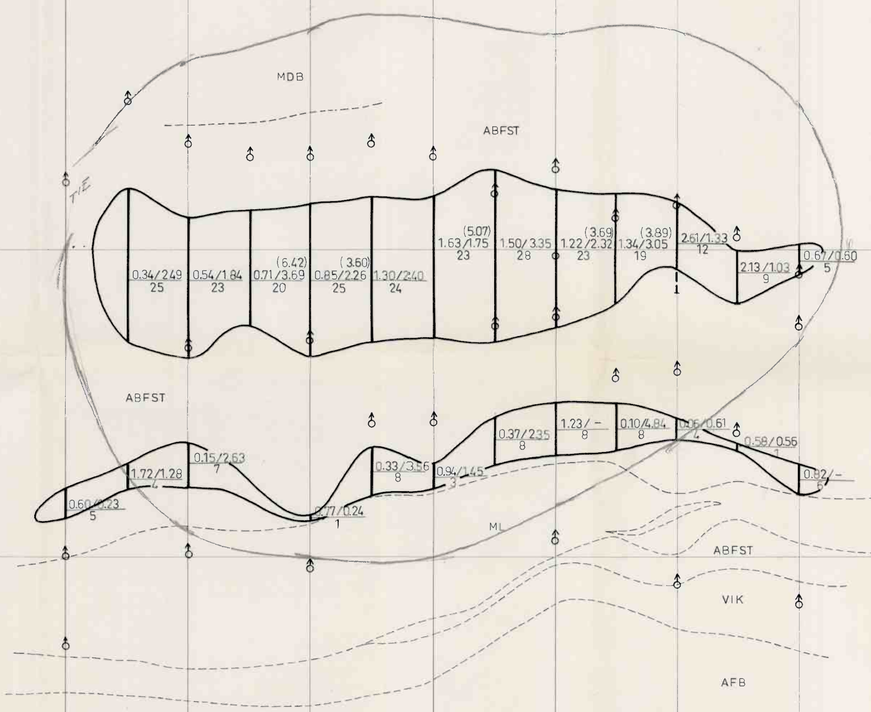
$\frac{1.10/2.00}{15} = \frac{\text{Cu \% / Au g/t}}{\text{m}}$

N 720 N 740 N 760 N 780 N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000 N 1020 N 1040 N 1060 N 1080 N 1100

400 E

450 E

500 E



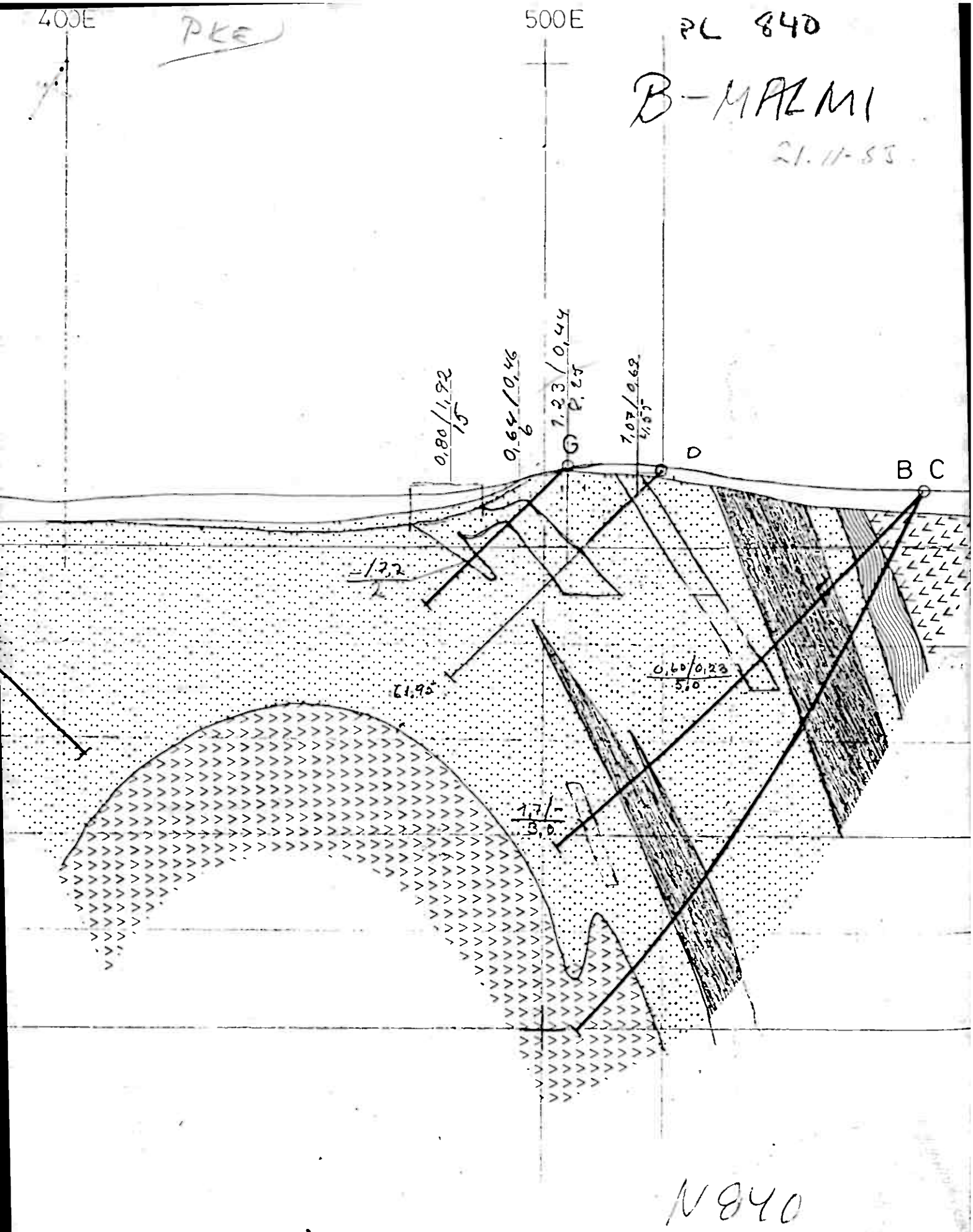
550 E

600 E

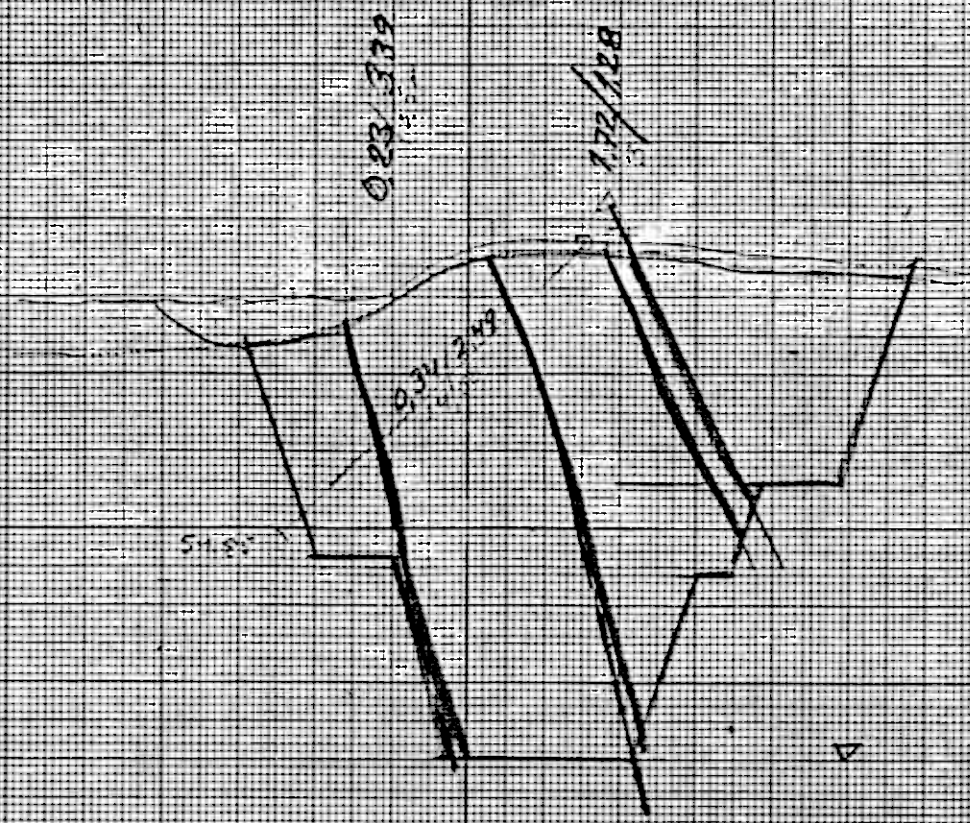
BIDJOVAGGE NORJA
TASO +580 B-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

15.11.83 TTK

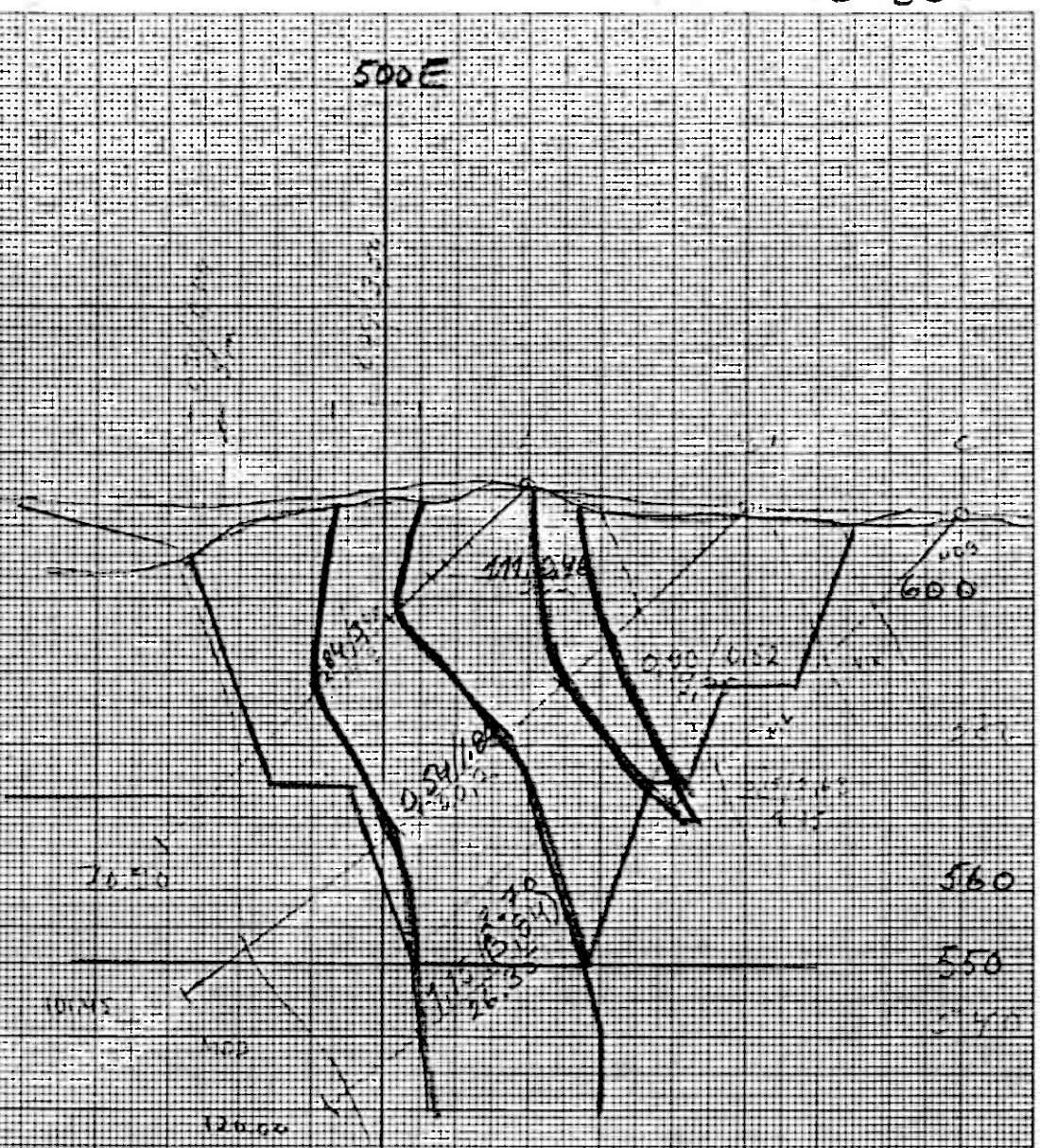

400E
500E
PKE
PL 840
B-MAZMI
21.11.55
0,80/1,92
15
0,64/0,46
6
7,23/0,44
2,25
7,07/0,62
4,55
G
D
B C
-/3,2
2
61,95
0,60/0,23
5,0
1,7/-
3,0
N840

PL 850



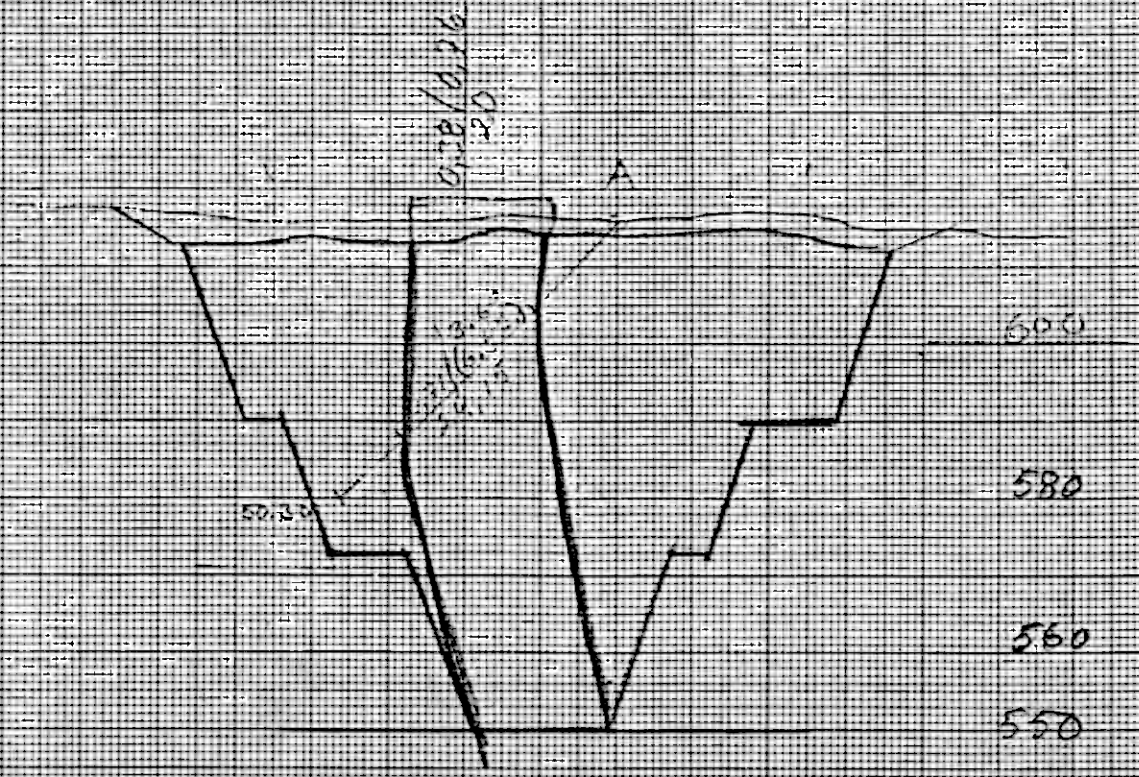
850

PL 860



860

870



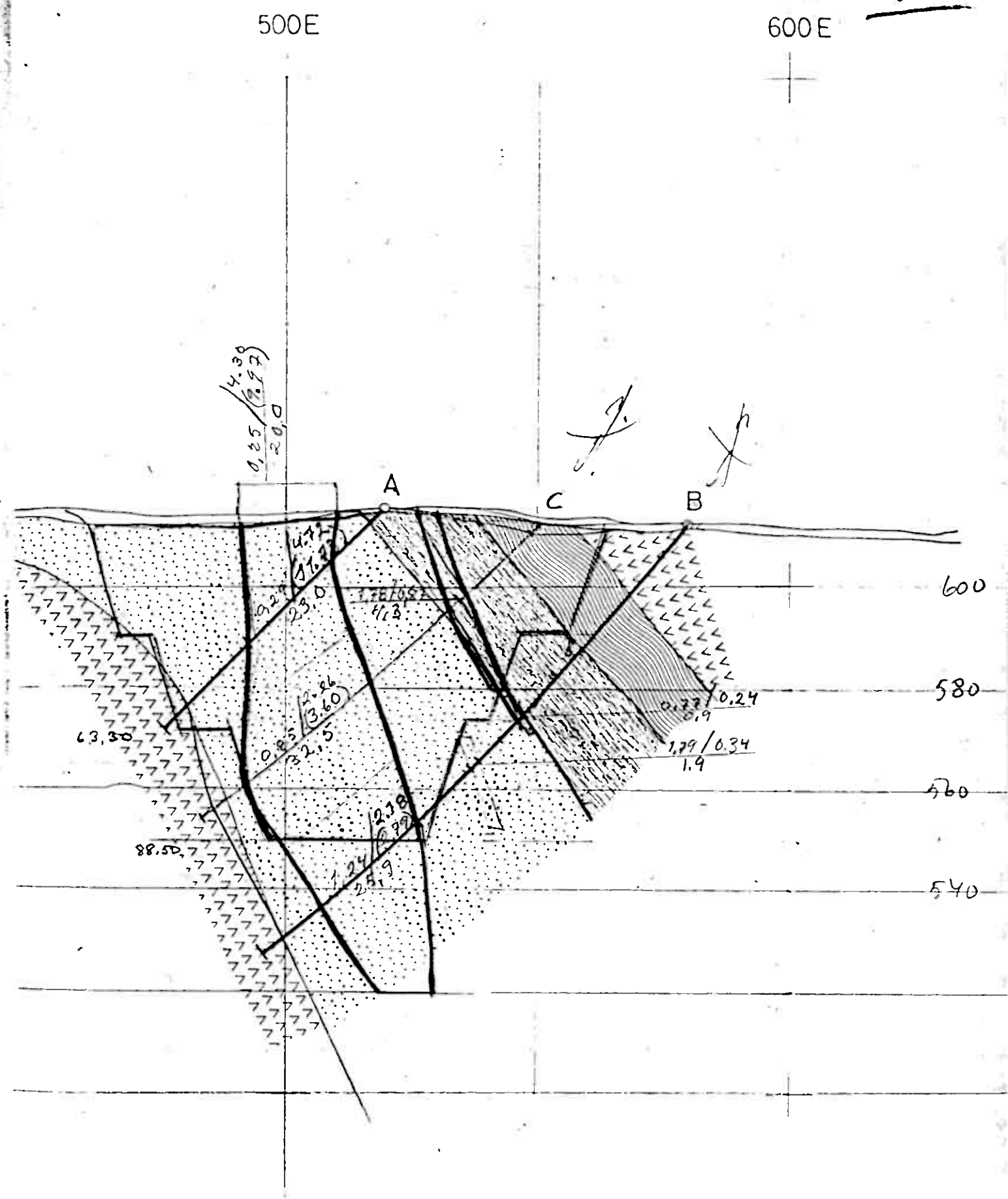
GEOLOGISCH DWARSPROFIEL 870

BIJLAGE BIJ RAPPORT

GEMEENTE ZUIDLAREN

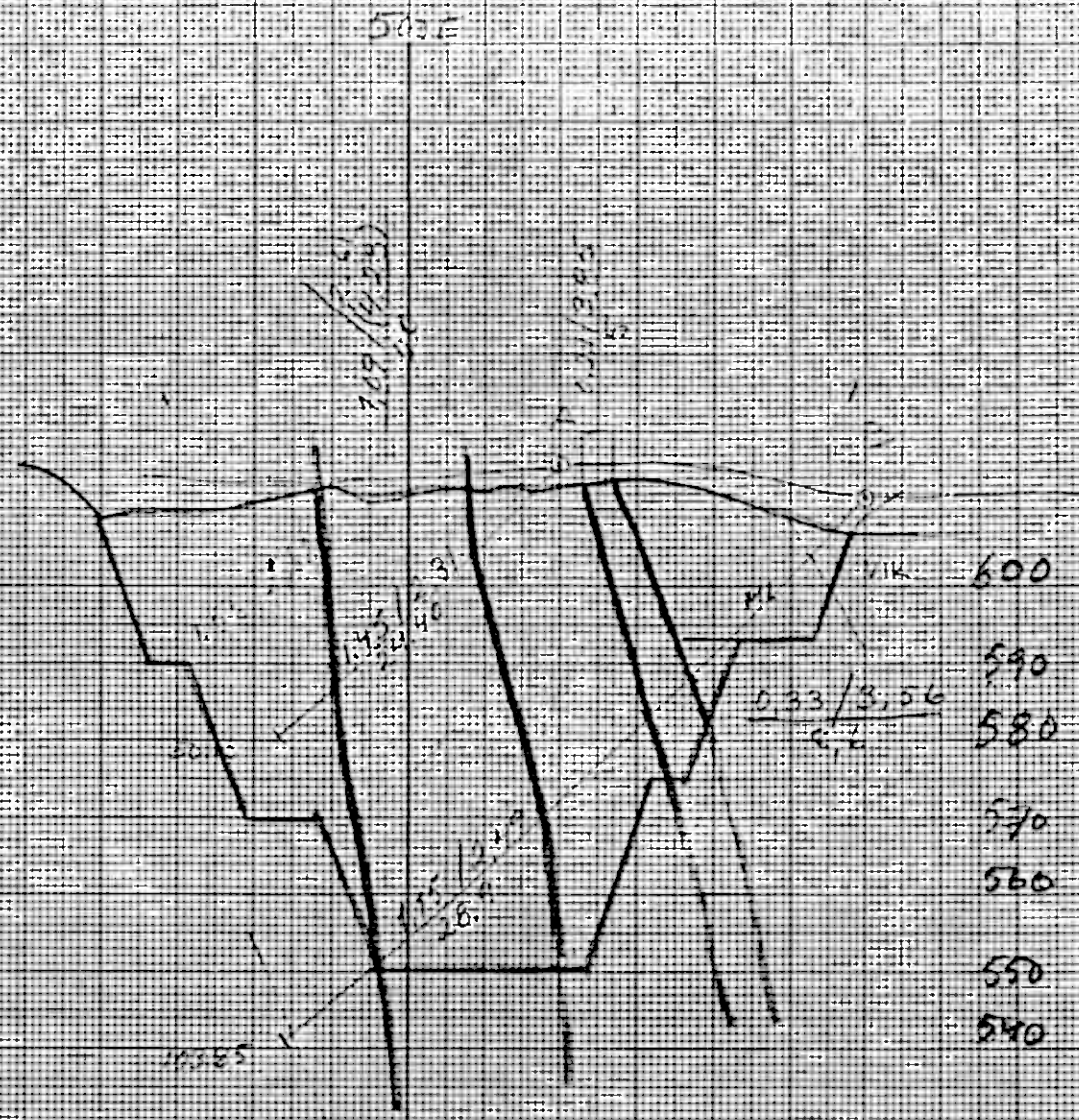
SCHAAL 1:1000

880

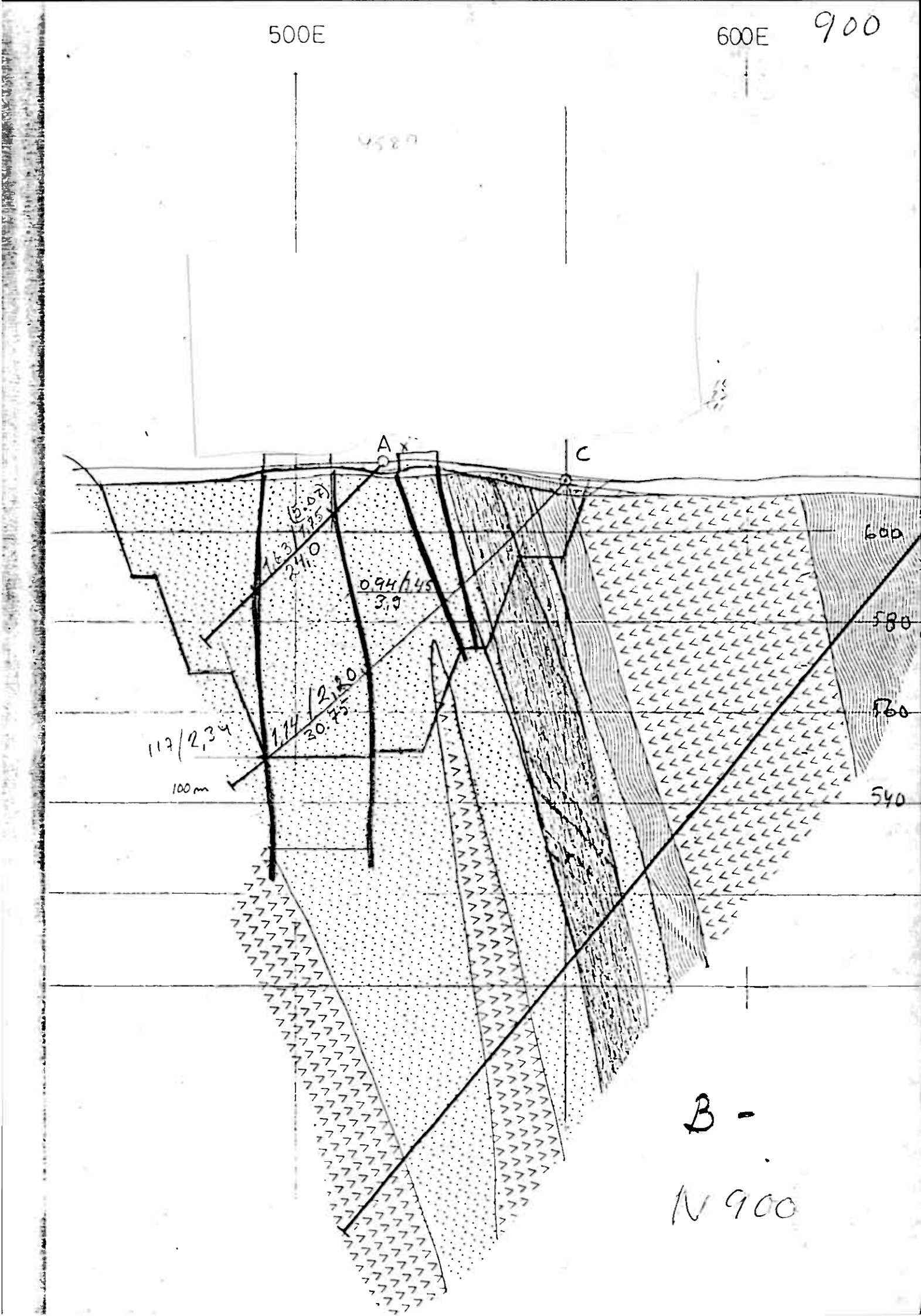


N 88°

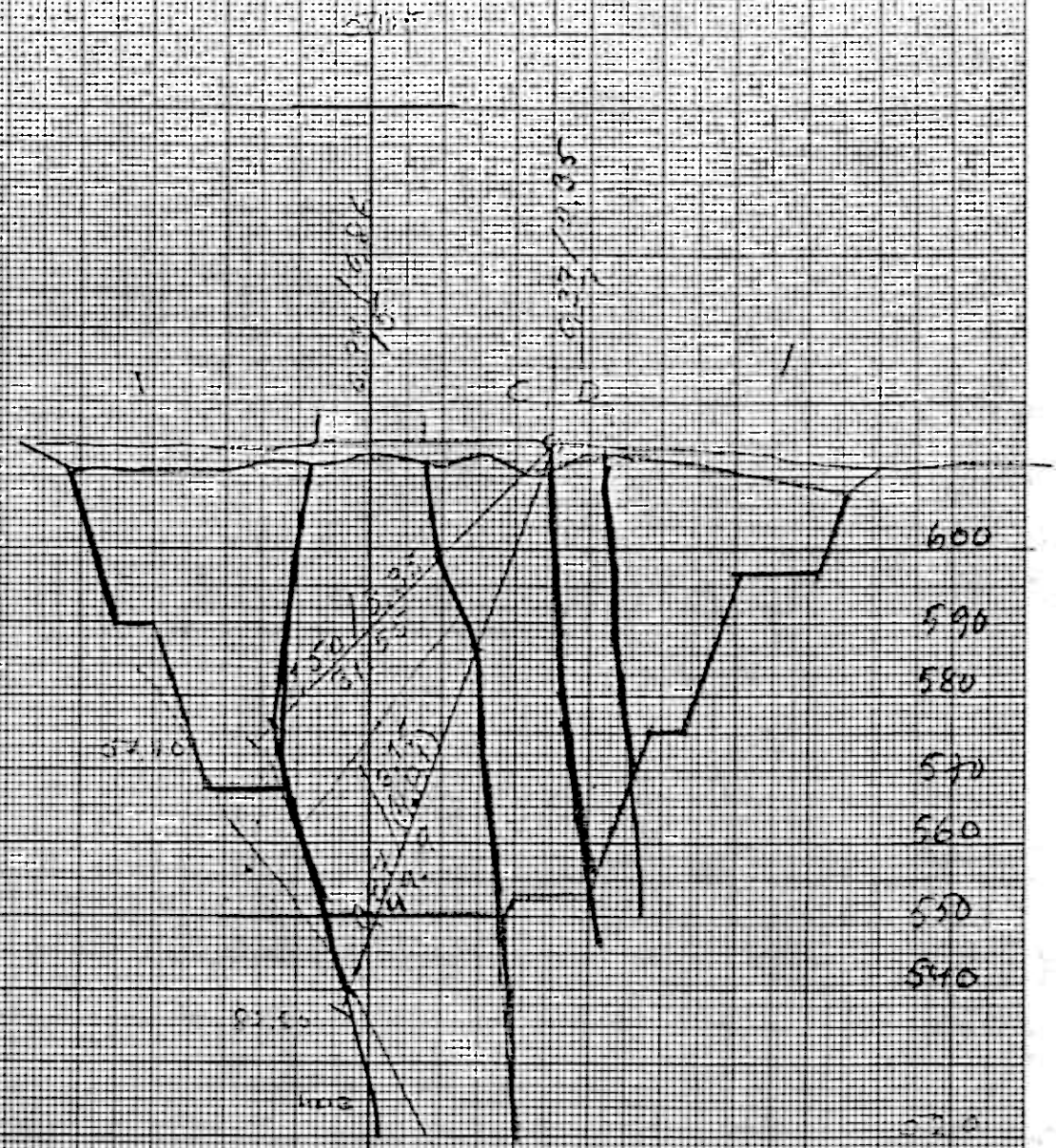
DL 890



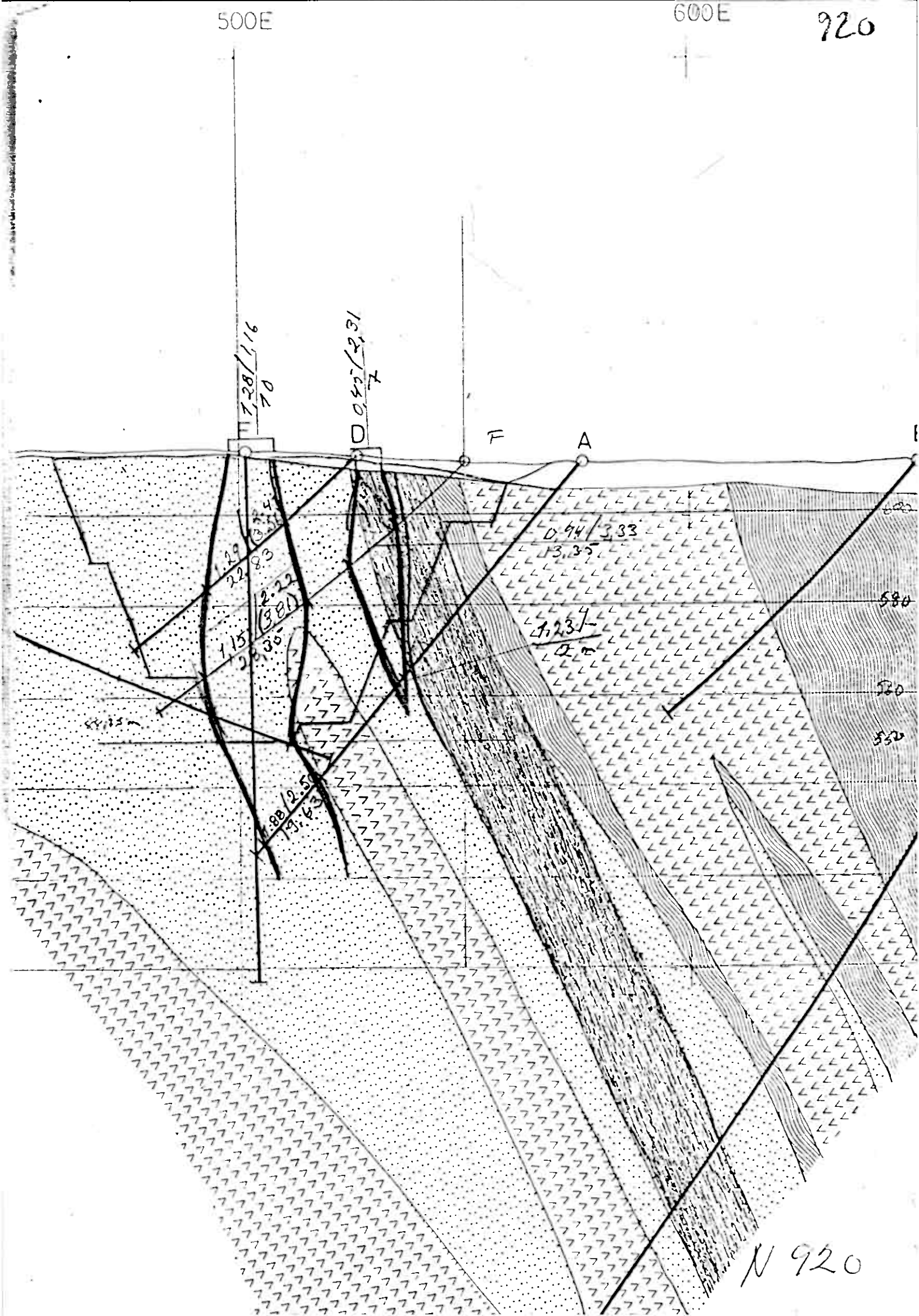
8 -

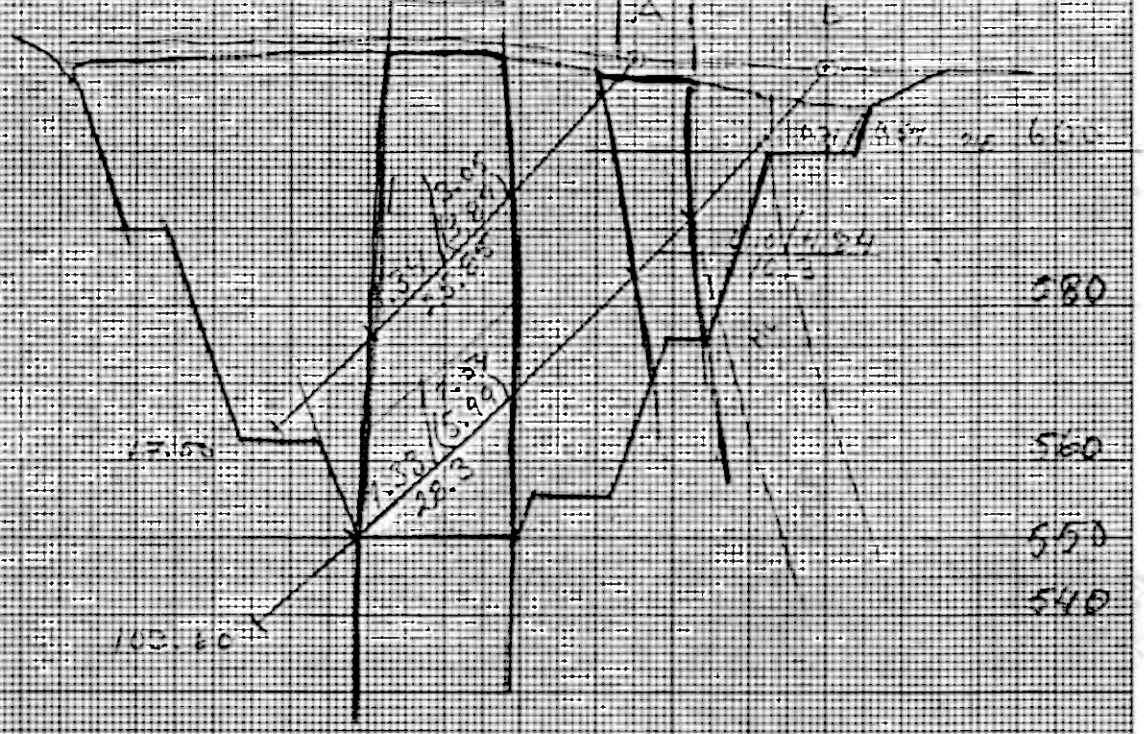

500E
600E
900
A
C
600
580
560
540
100 m
B -
N 900

910

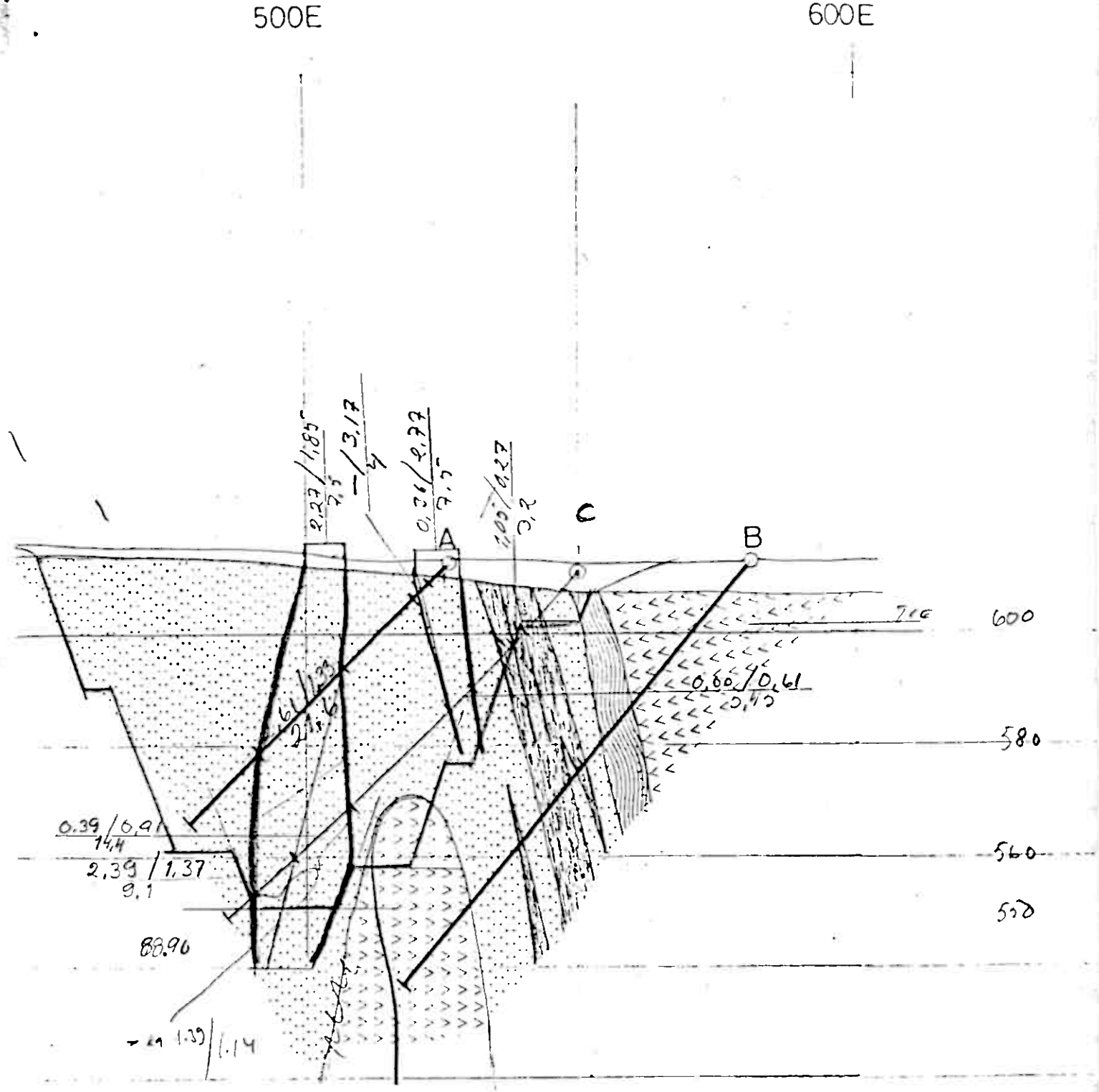


№ 910

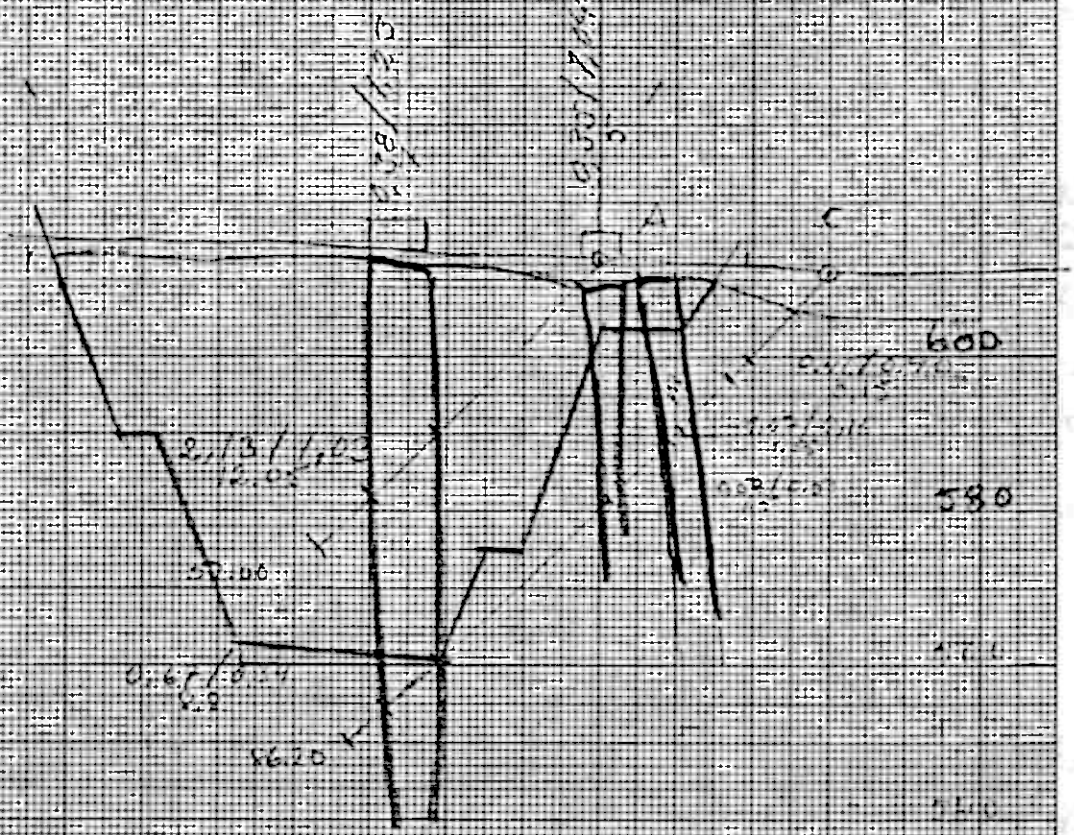

500E
600E
920
1.28/1.16
D
0.42/2.31
F
A
0.94/3.33
3.35
1.23
580
520
532
1.88/2.50
N 920


580
560
550
540

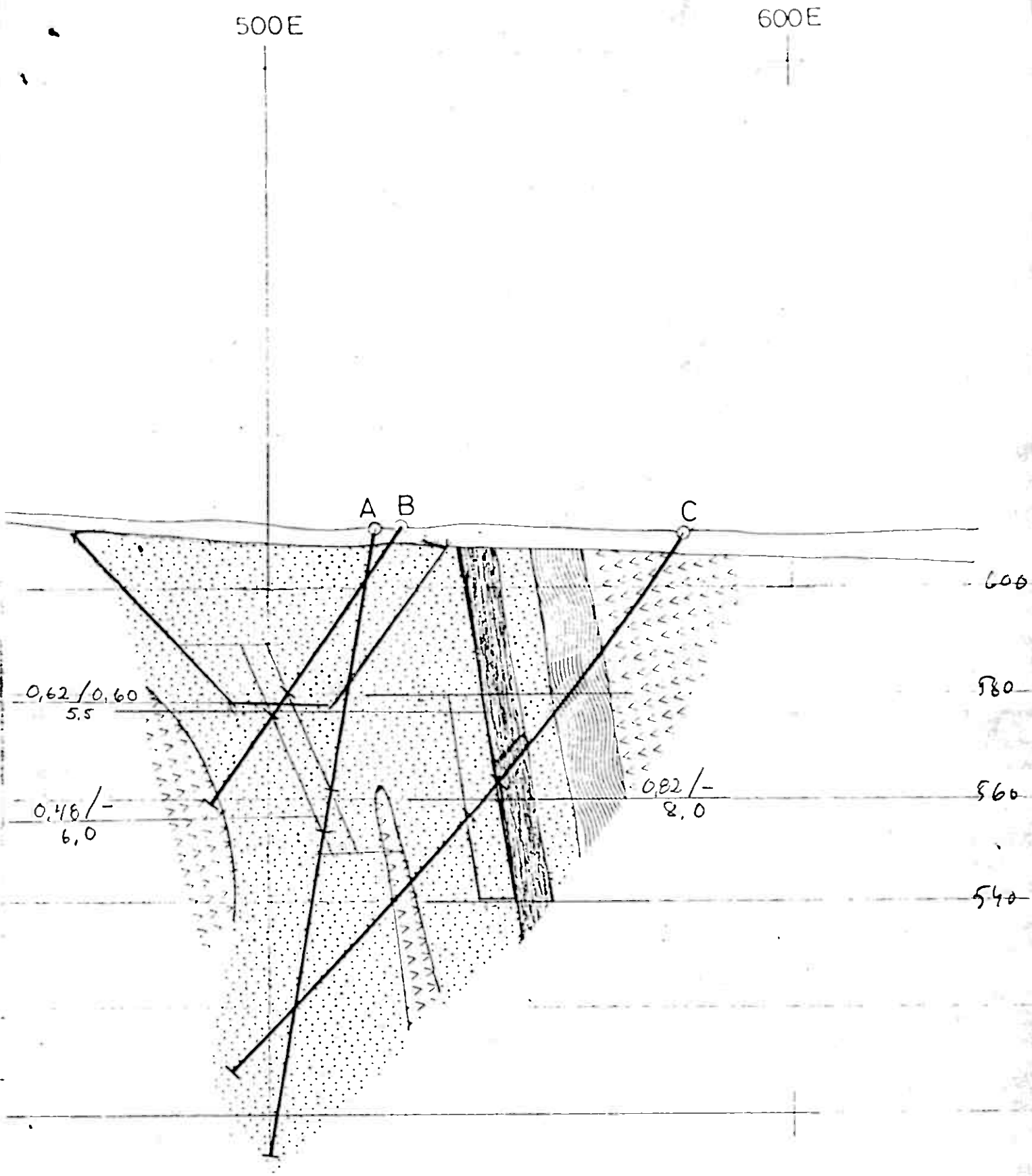
Bridgeview PL 940



K 940



950



N 960

N 720 N 740 N 760 N 780 N 800 N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000 N 1020 N 1040 N 1060 N 1080 N 1100

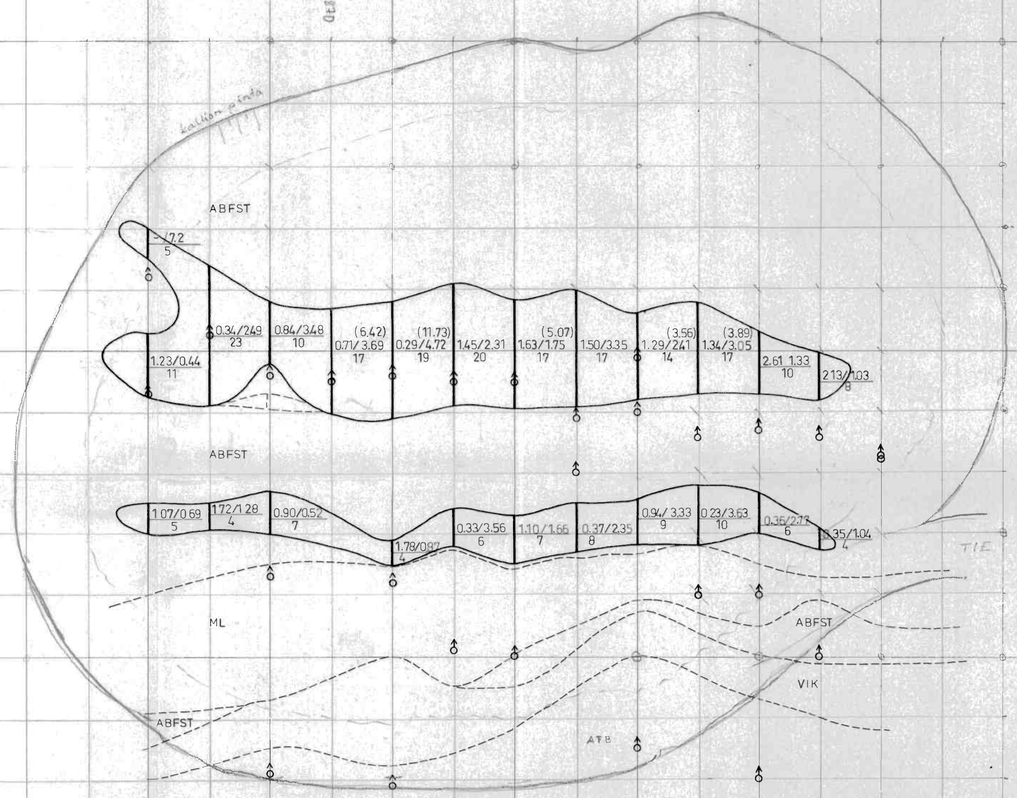
400 E

450 E

500 E

550 E

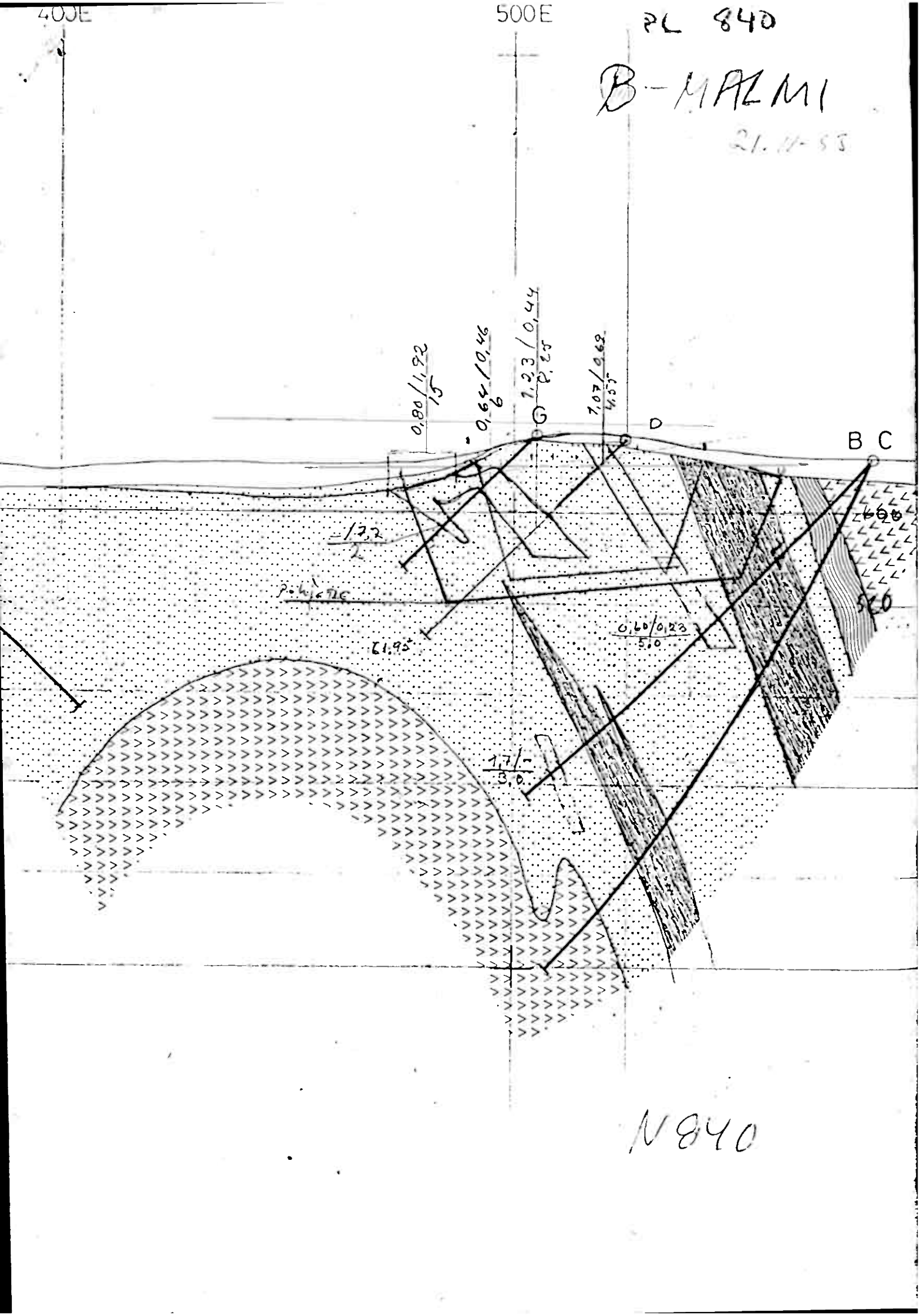
600 E



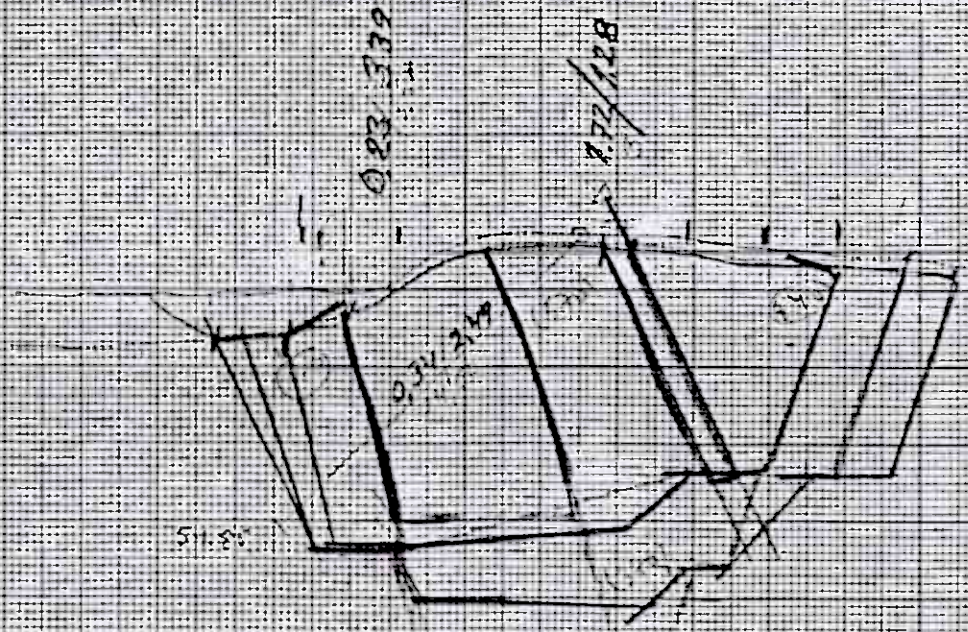
BIDJOVAGGE NORJA
TASO +600 B-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{\text{Cu\% / Au g/t}}{\text{m}}$

15.11.83 TTK


400E
500E
PL 840
B-MAZMI
21.11.55
0,80/1,22
1,5
0,64/0,46
1,23/0,44
2,25
1,07/0,68
4,5
D
B C
-17,2
2
0,60/0,23
5,0
1,7/-
3,0
N840

PL 850

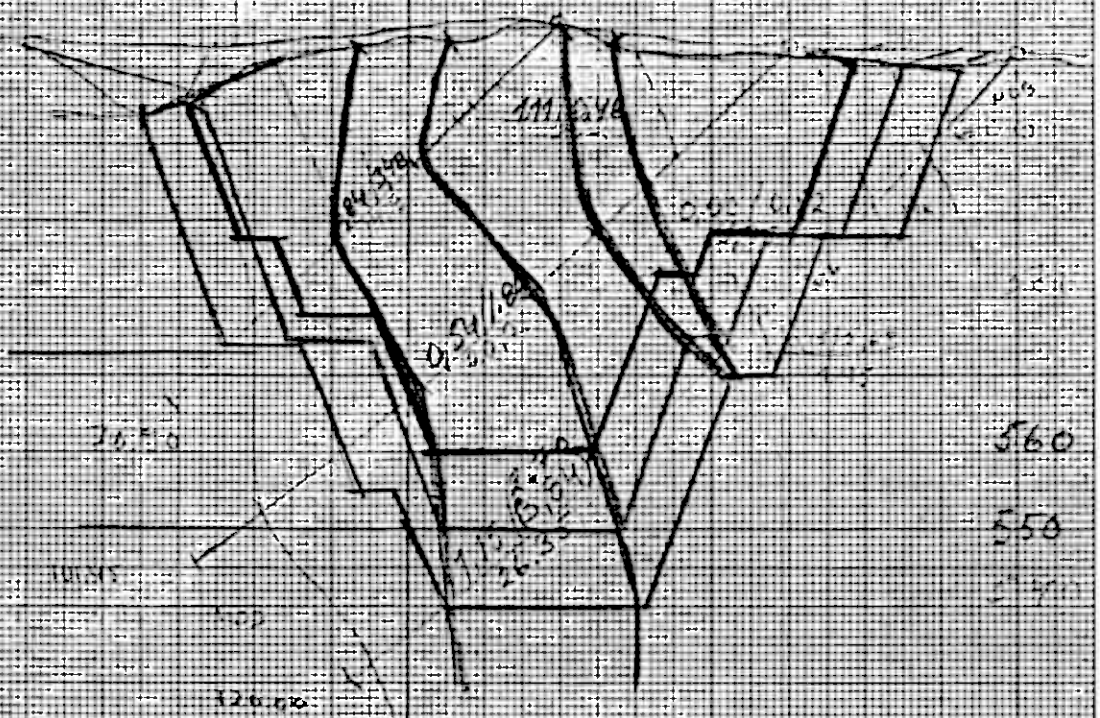


400
590
570
560
540
520

850

PL 860

500E

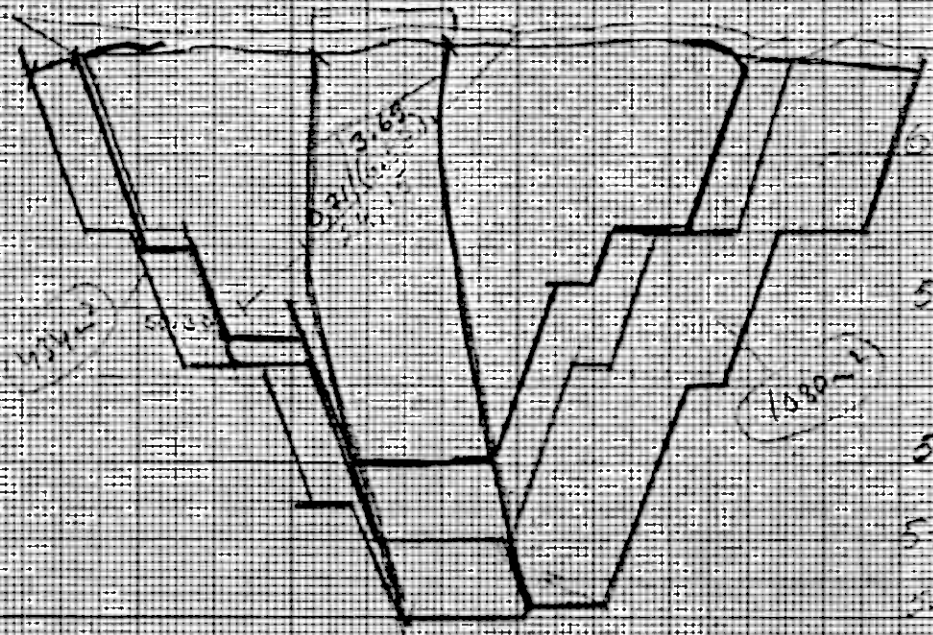


560

550

960

870



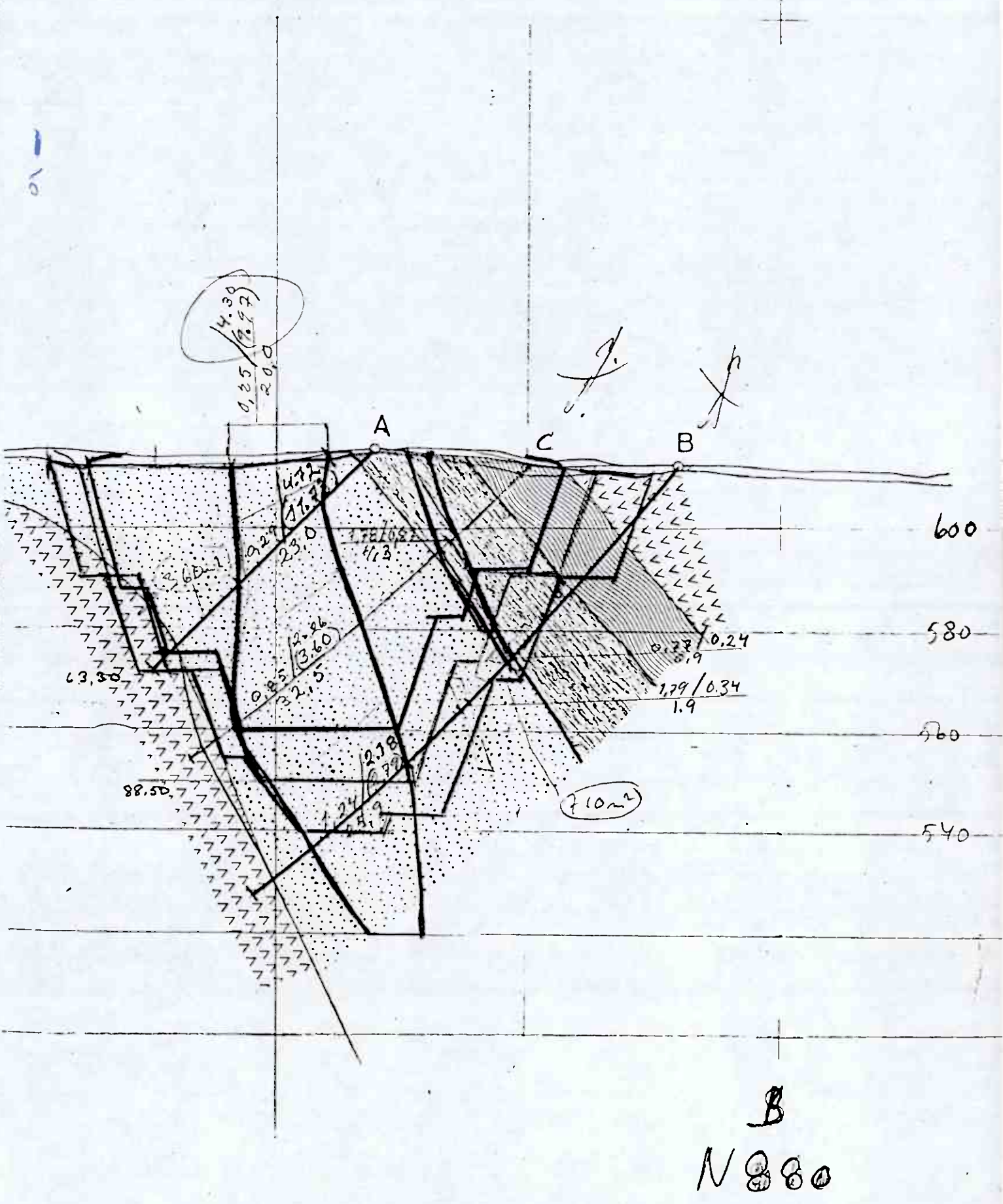
15

870

880

500E

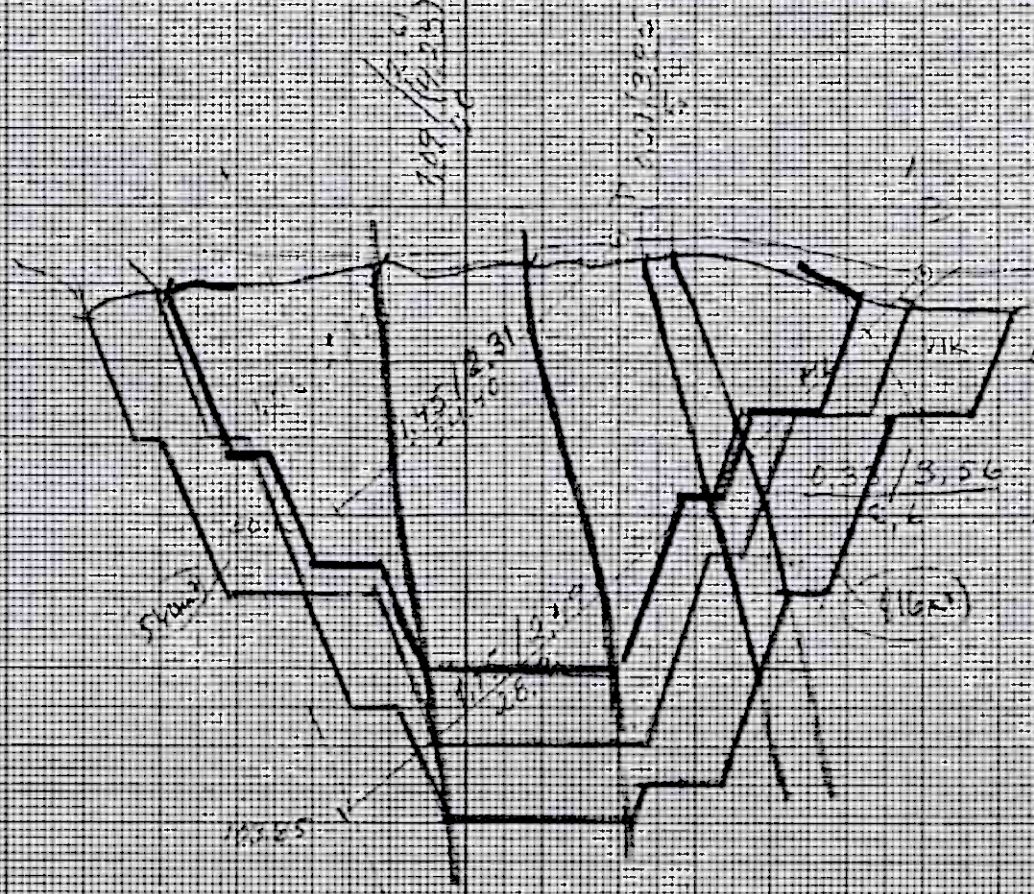
600E



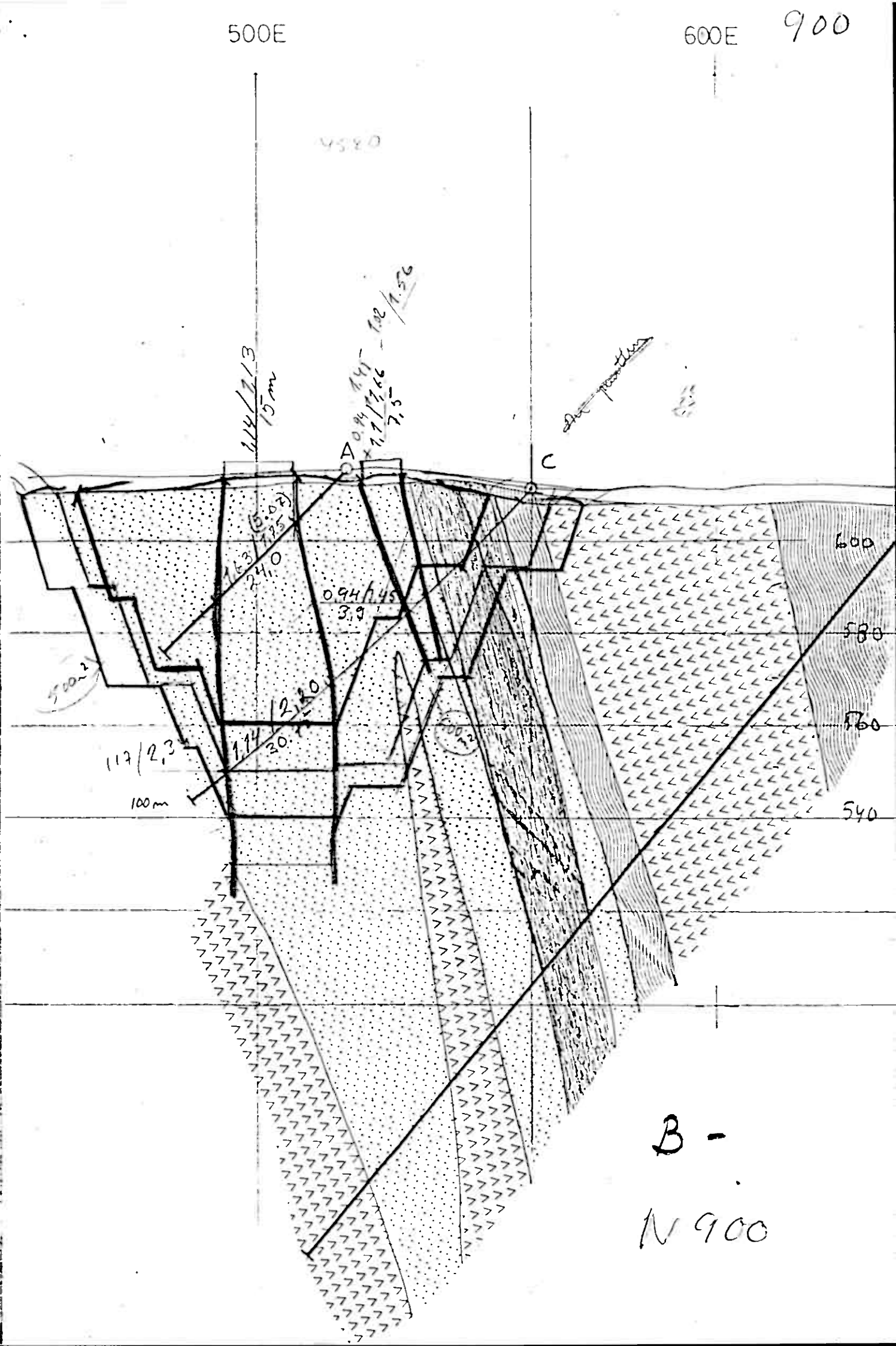
B

N 880

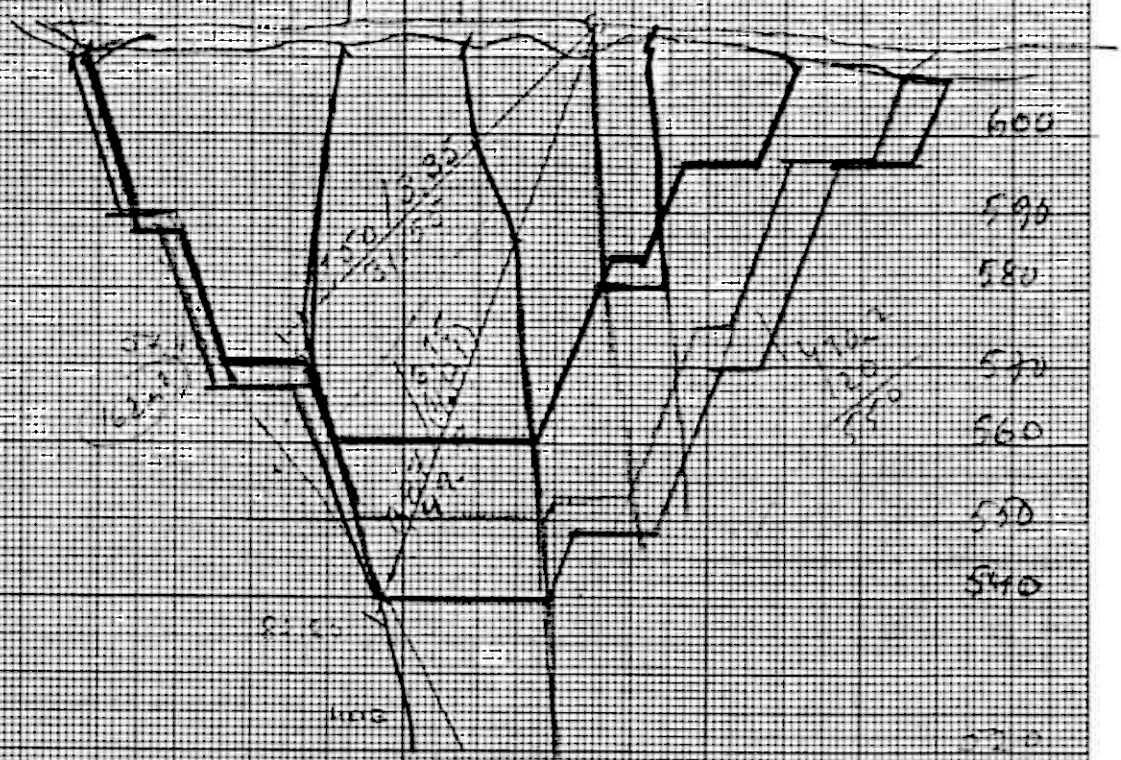
PL 690



8 -

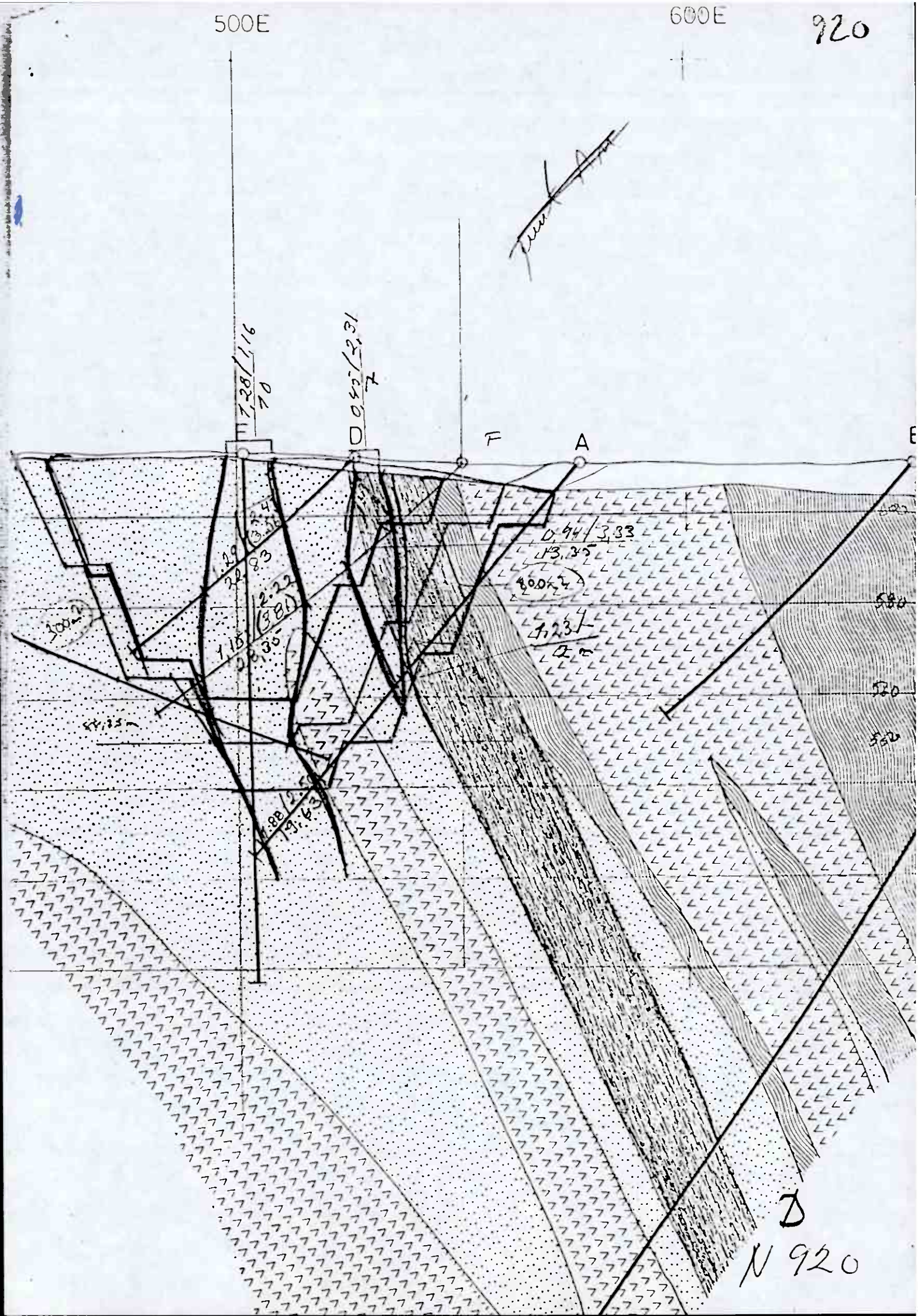

500E
600E
900
A
C
600
580
560
540
100 m
B -
N 900

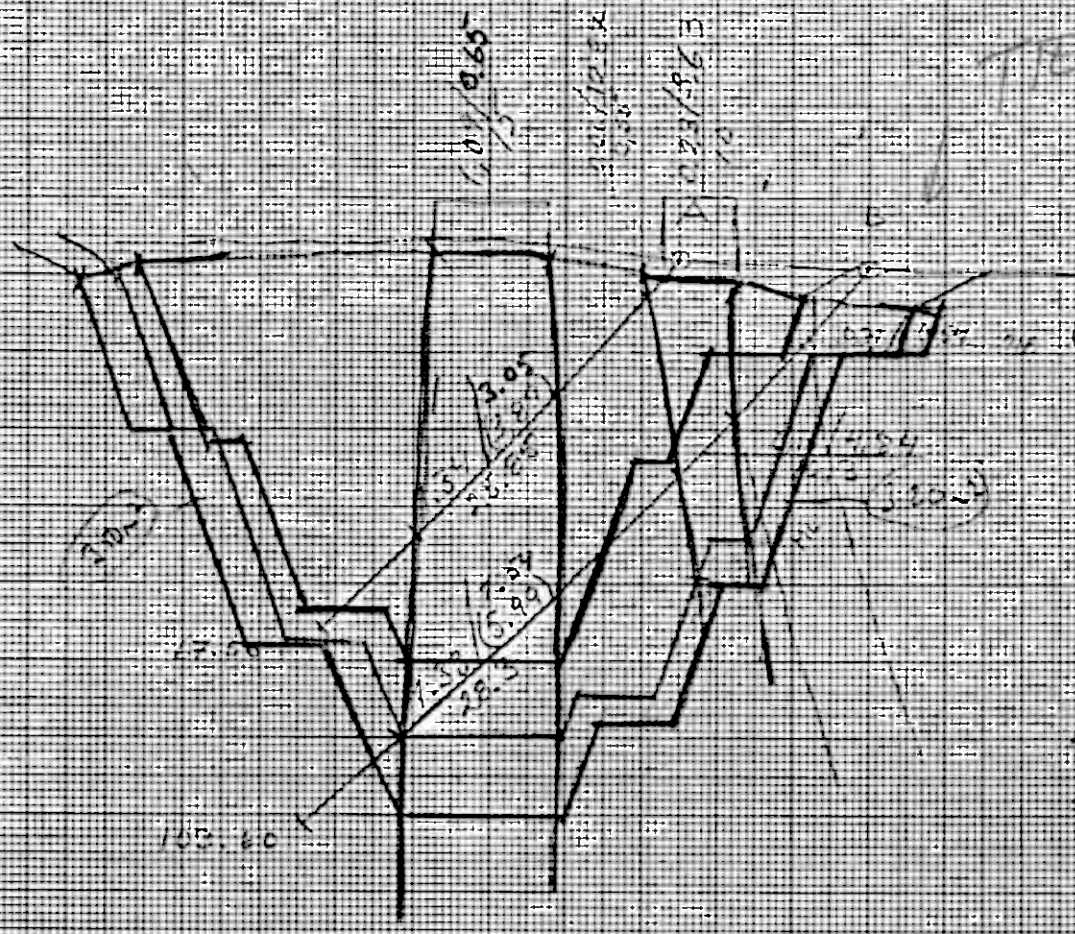
910



Д

N 910


500E
600E
920
F
A
B
D
N 920
580
520
520



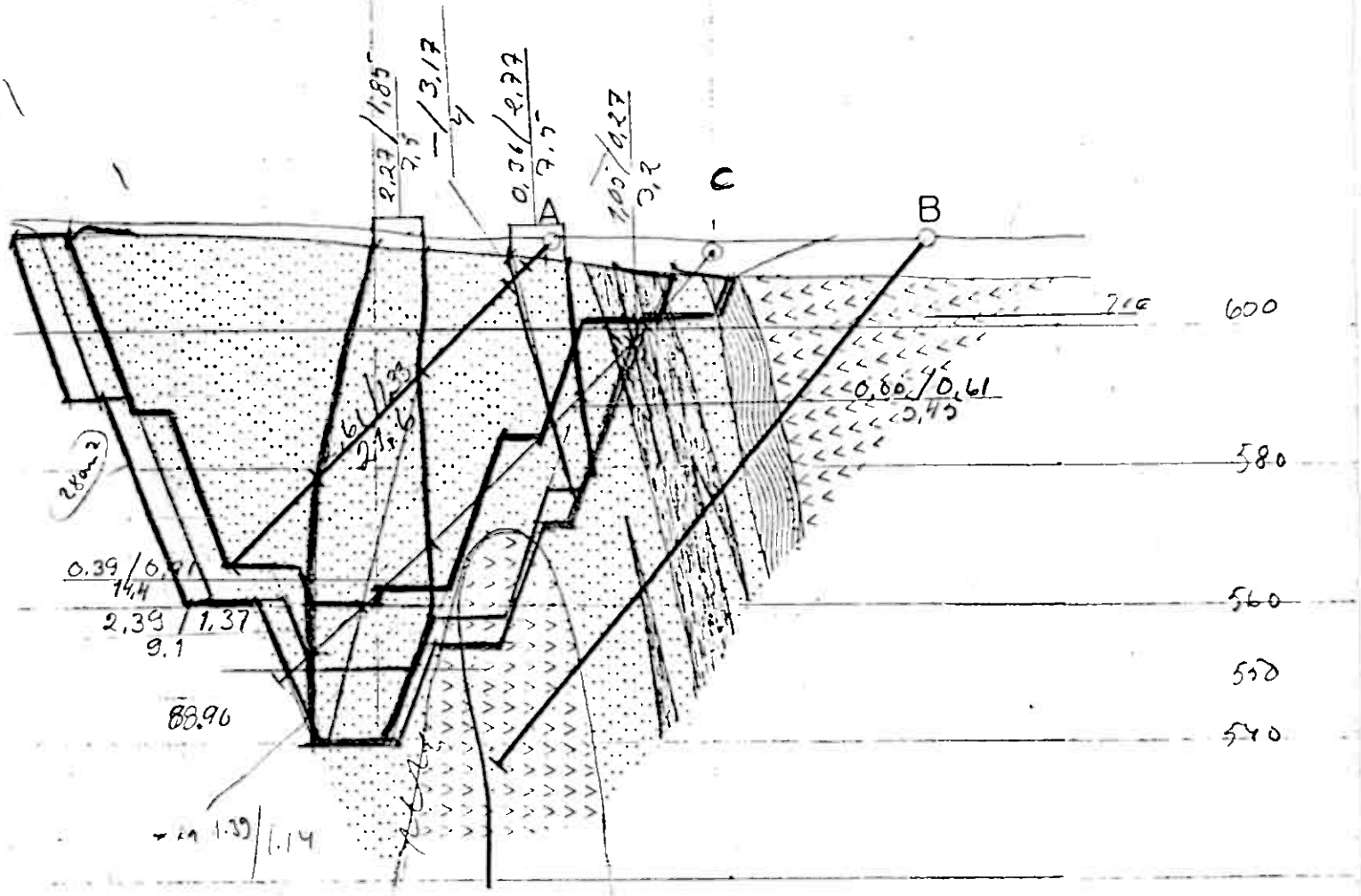
D

930

Bidjov. PL 940

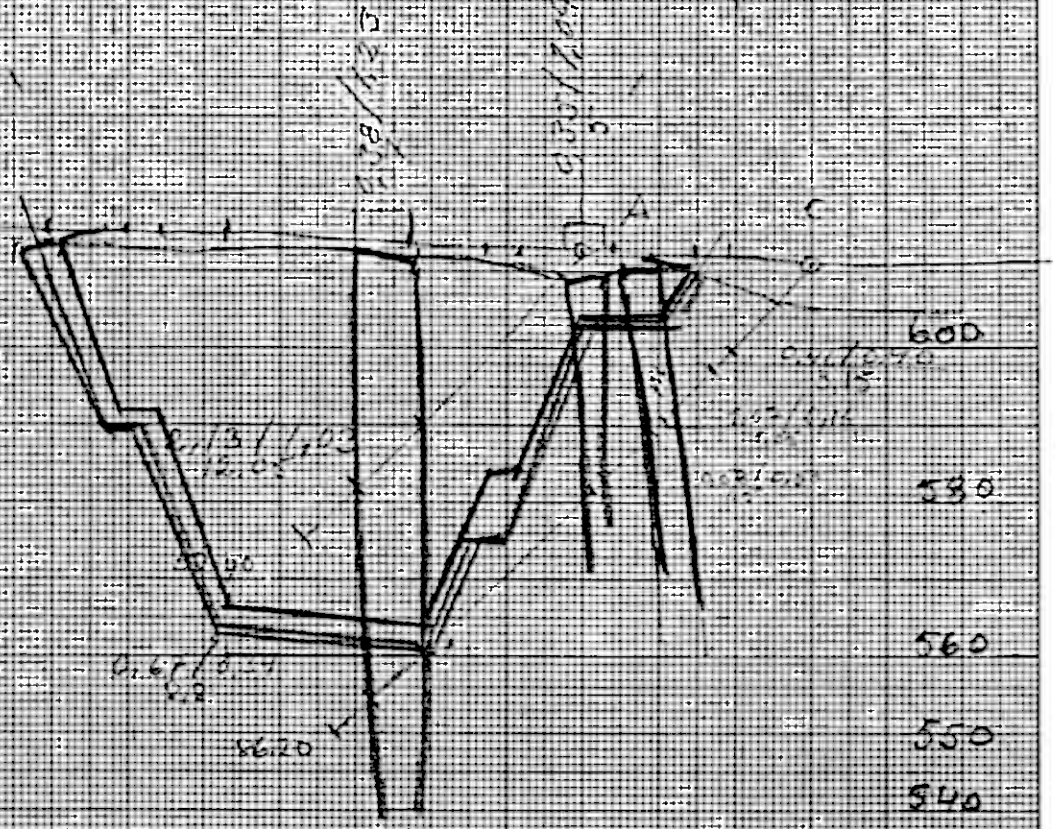
500E

600E



A

N 940



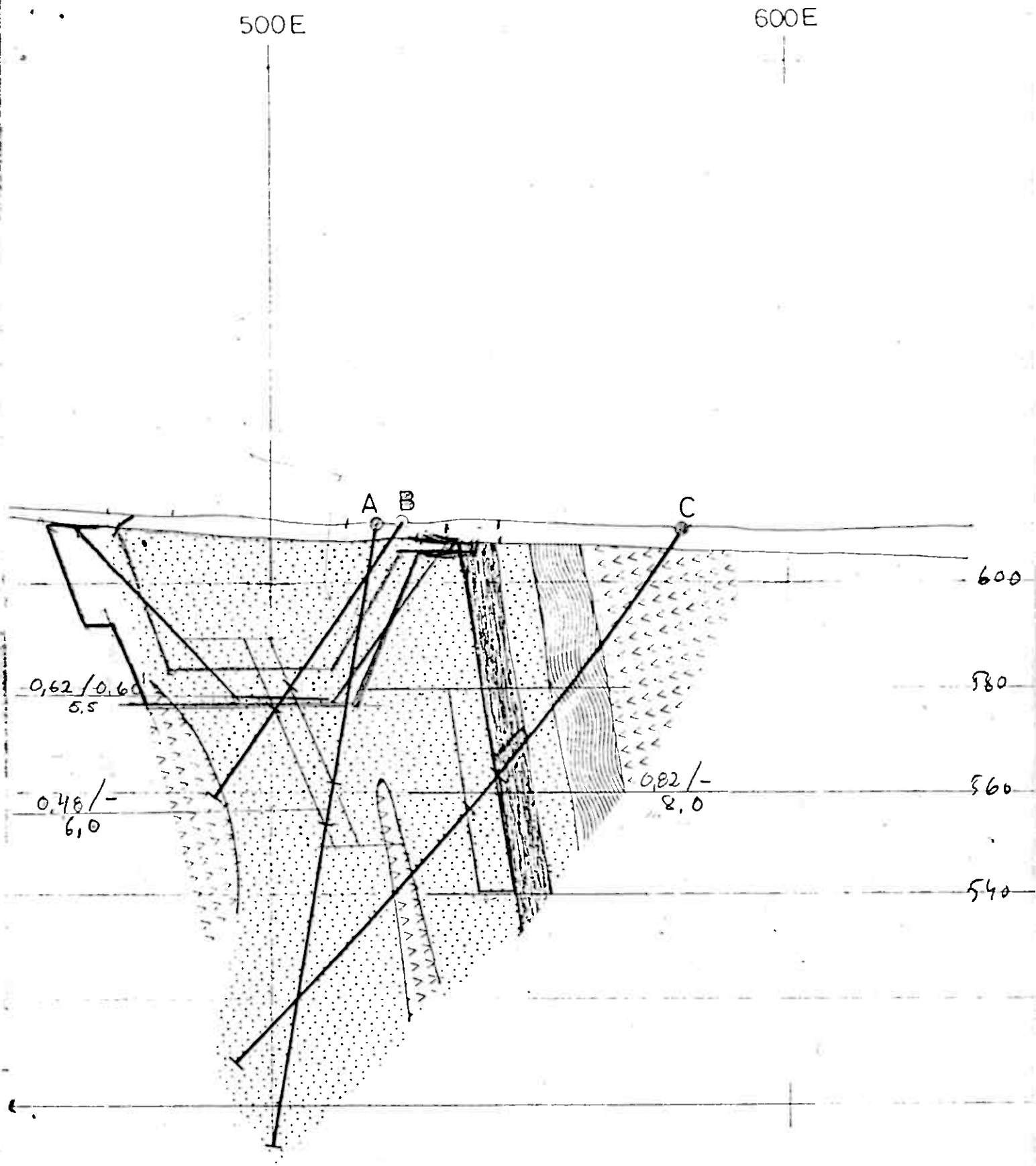
B

GEOLOGISCH PROFIEL N° 750

GEOTECHNISCH ONDERZOEK

OPDRACHTGEVER: [illegible]

GEMEENTE: [illegible]



N 9760

D

BIDJOVAGGE 10.11.83 / TTK

GEOLOGINEN MALMIARVIO

	MA-TONNIT	Cu %	REDUSOITU Au g/t	REDUSOIMATON Au g/t	
A-MALMI	261000	2,23	1.38	1.96	osa
	33000	1.34	0.38	0.38	heik.
yht	294000	2.13	1.26	1.77	
B-MALMI	440 000	1.11	2.42	3.56	osa
	76000	0.67	2.04	2.04	heik.
yht	516000	1.04	2.36	3.34	
A+B	701000	1.53	2.03	2.96	osa
	109000	0.87	1.54	1.54	heik.
yht	810000	1.44	1.96	2.77	

AVOLOUHOSMALMIARVIO (A +600 - tasolle, B +530 - tasolle)

A-MALMI	137000	2.28	1.47	2.32	osa
	33000	1.34	0.38	0.38	heik.
yht	170000	2.07	1.26	1.94	
B-MALMI	348000	1.08	2.47	3.60	osa
	76000	0.67	2.04	2.04	heik.
	424000	1.01	2.39	3.32	
A+B	485000	1.42	2.19	3.24	osa
	109000	0.87	1.54	1.54	heik.
yht	594000	1.32	2.10	2.93	

AVOLOUHOS-MALMIARVIO

LAIMENNETUT PITOISUUDET

MALMITAPPIO 2 %
DILUTIOLAIMENNUS 20 %

	Tonnit	Cu %	Reduusoitu Au g/t	Reduusoimaton Au g/t	
A-MALMI	161000	1,90	1,23	1,93	gar
	39000	1,11	0,32	0,32	kerk
mainé ol' ~~yht~~	200000	1,75	1,05	1,62	
ayt. 184 000 + 1.88 }	10% laimennet				
ja 1.11 }					
B-MALMI	409000	0,90	2,06	3,00	gar
	89000	0,56	1,77	1,71	kerk
yht	498000	0,84	2,00	2,77	
A+B	570000	1,18	1,86	2,70	gar
	128000	0,73	1,29	1,29	kerk
yht	698000	1,10	1,76	2,44	

Kupari maatto 7678 t (8359 t)
Kulta maatto 1228 kg (1438 kg)

N820 | 830 | N840 | 850 | N860 | 870 | N880 | 890 | N900 | 910 | N920 | 930 | N940 | 950 | N960 | 970 | N980 | 990

														MALMI-TONNIT	Cu %	Au g/t
	52500	6400	3800	6700	6300	6400	4900	5600	4300	5500	2900	2600		61000	0.81	1.44/2.70
	0.72	0.23	0.79	0.38	0.25	1.09	1.14	0.92	1.28	1.09	2.27	0.38				
	1.19	3.39	3.54	0.76	4.30/9.77	2.61/4.23	1.13	0.86	1.16	0.65	1.85	1.23				
	10.0	22.0	11.0	17.0	18.2	20.0	15.5	16.5	12.0	15.5	8.5	7.5				
TONNIT	2900	13300	9600	10400	12700	12700	11300	13600	10700	10100	6400	4600		120000	1.18	2.70/4.03
	1.23															
Cu %	0.44	0.34	0.74	0.71	0.43	1.56	1.63	1.50	1.29	1.34	2.61	2.13				
	8.0															
Au g/t		2.49	2.93	3.69/6.72	3.93/9.65	2.82	1.75/5.07	3.35	2.41/3.56	3.05/3.89	1.33	1.03	1400			
													0.62			
MALMINPALSMIS	22.0	16.5	17.0	22.0	22.0	19.5	23.5	18.5	17.5	10.5	8.0	0.60				
													4.5			
		12200	10700	16500	14000	13600	15600	12500	11200	5400	4600	2900		119000	1.08	2.37/3.39
		0.66	0.71	0.85	1.15	1.17	1.08	1.15	1.33	2.57	1.40	0.55				
		2.01/2.24	3.69/6.42	2.26/3.60	2.49	2.34	3.15/4.32	2.22/3.81	2.30/4.94	1.35	0.69	0.160				
		20.0	18.5	28.5	24.3	23.5	27.0	21.5	19.5	9.5	8.0	4.5				
		13300	5200	15900	13600	6100	13300	10700	11600	2600	3800	1400		98000	1.15	2.43/3.61
		1.15	0.77	1.14	1.15	1.17	0.87	1.52	1.33	2.39	0.67	0.48				
		2.70/3.84	3.69/6.42	2.20/2.99	2.49	2.34	3.15/4.81	3.16	1.54/5.94	1.37	0.34	0.34				
		23.0	5200	27.5	23.5	21.0	23.0	16.5	20.0	4.5	6.5	4.5				
			0.77			6100										
			3.69			1.17										
						2.34										
		6900		10100			9600	9600	5800					42000	1.30	2.47/3.80
		1.15		1.24			0.87	1.88	X 33							
		2.70/3.84		2.18/2.79			3.15/4.81	2.50	7.54/5.94							
		24.0		17.5			16.5	16.5	20.0							
		39000	38200	51600			47800	38200	35400		11800					
		- 6900	- 4700	- 10100			- 7600	- 9600	- 5800		- 3800					
MALMITONNIT	8100	19700	45900	33000	41700	46800	35900	57800	47800	41200	17300	15600	5800	440000	1.11	2.43/3.56
Cu %	0.90	0.30	0.90	0.64	0.84	1.25	1.31	1.08	1.42	1.30	2.49	1.27	0.55	1.11		
Au g/t	9.92	2.78	2.63/3.20	3.70/5.28	2.79/5.21	2.60/2.82	1.99/3.03	2.98/3.95	2.43/3.11	1.97/4.58	1.43	0.80	0.54	2.43/3.56		
Cu			0.85	0.65	0.76		Cu 1.29	1.12	1.31	1.30		1.46				
Au			2.62	3.19	2.65		Au 2.54	2.93	2.42	2.03		0.94				

AVOLOUHOSMALMI
348000 t + Poikanen
Cu 1.08 %
Au 2.47/3.60 g/t

AVOLOUHOS + POIKANEN
391200 t + 66900 t
Cu% 1.10 , 0.66
Au 2.48 , 2.25

Σ = 458100 t
1.04 % Cu
2.45 g/t Au

MALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN
Au:n OSALTA ON ILMOITETTU SEKÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
B-MALMI
PITUUSLEIKKAUS
1:500
T KORKALO

	J 840	U 860	U 880	U 900	U 920	U 940	U 960	U 980	MALMI-TONNIT	Cu %	Au g/t
600	1900 1.07 0.49 4.5	1200 1.72 1.28 2.8	2800 0.90 0.52 6.5	2100 1.20 0.63 5.0	1400 1.78 0.87 3.5	1500 0.21 3.85 4.5	2400 1.10 1.60 7.5	2400 0.37 2.35 7.5	2000 0.45 2.31 7.0	3200 0.25 3.63 11.0	1900 0.36 2.77 6.5	1700 0.35 1.04 3.5	24000	0.76	1.87
580	3100 0.84 0.46 4.5	2000 1.72 1.28 3.0	6900 0.90 0.52 6.0	4200 0.97 0.53 4.5	1500 1.28 0.56 2.6	3600 0.33 3.56 6.0	2900 0.94 1.45 5.0	4300 0.37 2.35 7.5	5500 0.94 3.33 9.5	5220 0.10 4.84 9.0	3000 0.00 0.61 5.5	1400 0.58 0.50 2.5	44000	0.69	1.92
570	1500 0.60 0.23 4.5		870 0.15 2.63 3.0			3800 0.33 3.56 6.5				2200 0.10 4.84 7.5			8000	0.30	3.17
560															
540															

(INSIN) LOUN TEKN. MALMIARVIO

MALMITONNIT	~~4600~~	3200	10600	6400	2900	8900	5300	6700	7500	10600	4900	~~2500~~	= 66900	0.66	2.25
Cu %	~~0.85~~	1.72	0.84	1.05	1.52	0.31	1.01	0.37	0.81	0.14	0.14	~~0.18~~	~~76600~~	0.67	2.04
Au g/t	~~0.47~~	1.28	0.69	0.56	0.71	3.61	1.52	2.35	3.06	4.48	1.46	~~0.73~~	~~0.67 0.66~~ ~~2.04~~		

BIDJOVAGGE
B-MALMIN AU-MALMI
PITUUSLEIKKAUS
1:500
T. KORKALO

S 100 S 80 S 60 S 40 S 20 N 0 N 20 N 40 N 60 N 80 N 100 N 120 N 140 N 160 N 180 N 200 N 220 N 240 N 260 N 280

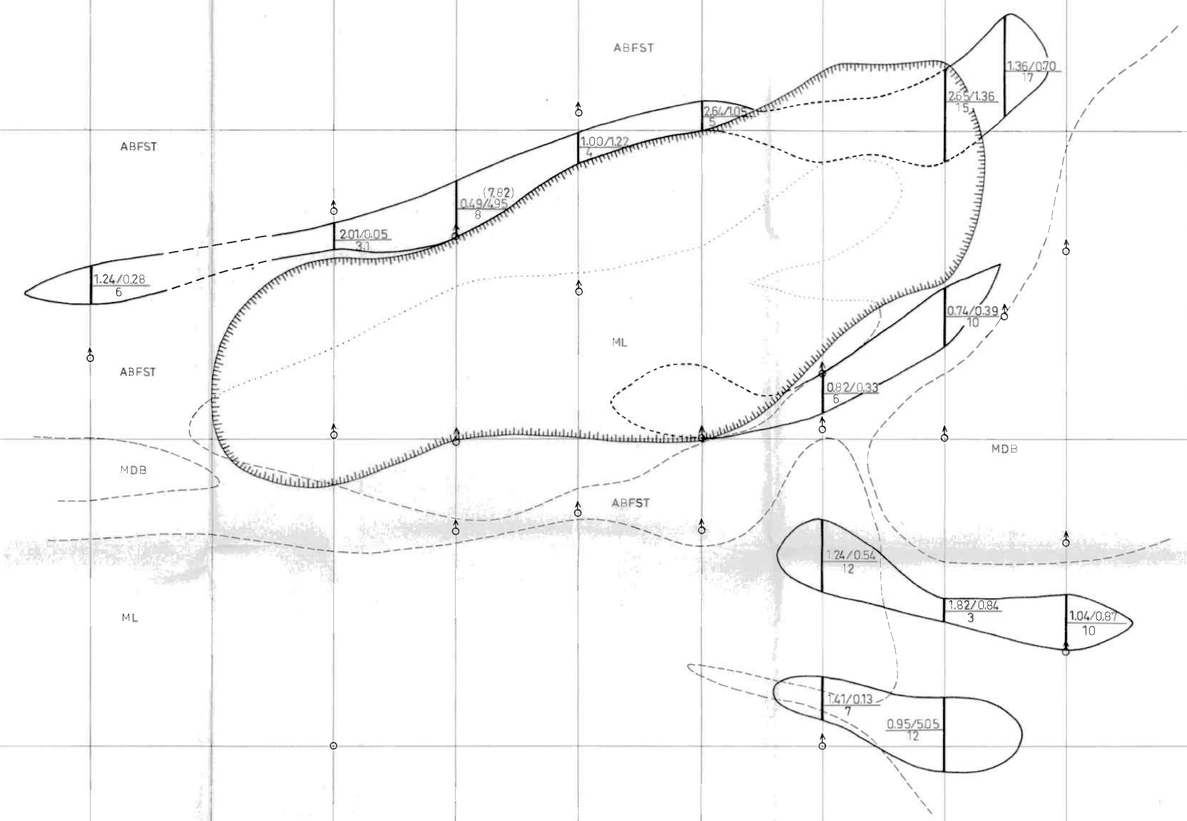
500 E

550 E

600 E

650 E

700 E



BIDJOVAGGE NORJA

MP-TASO A-MALMIO

1:500

$\frac{1.10/2.00}{15} = \frac{Cu\,\% / Au\ g/t}{m}$

25.11.83 TTK

S100 S80 S60 S40 S20 N 0 N 20 N 40 N 60 N 80 N 100 N 120 N 140 N 160 N 180 N 200 N 220 N 240 N 260 N 280

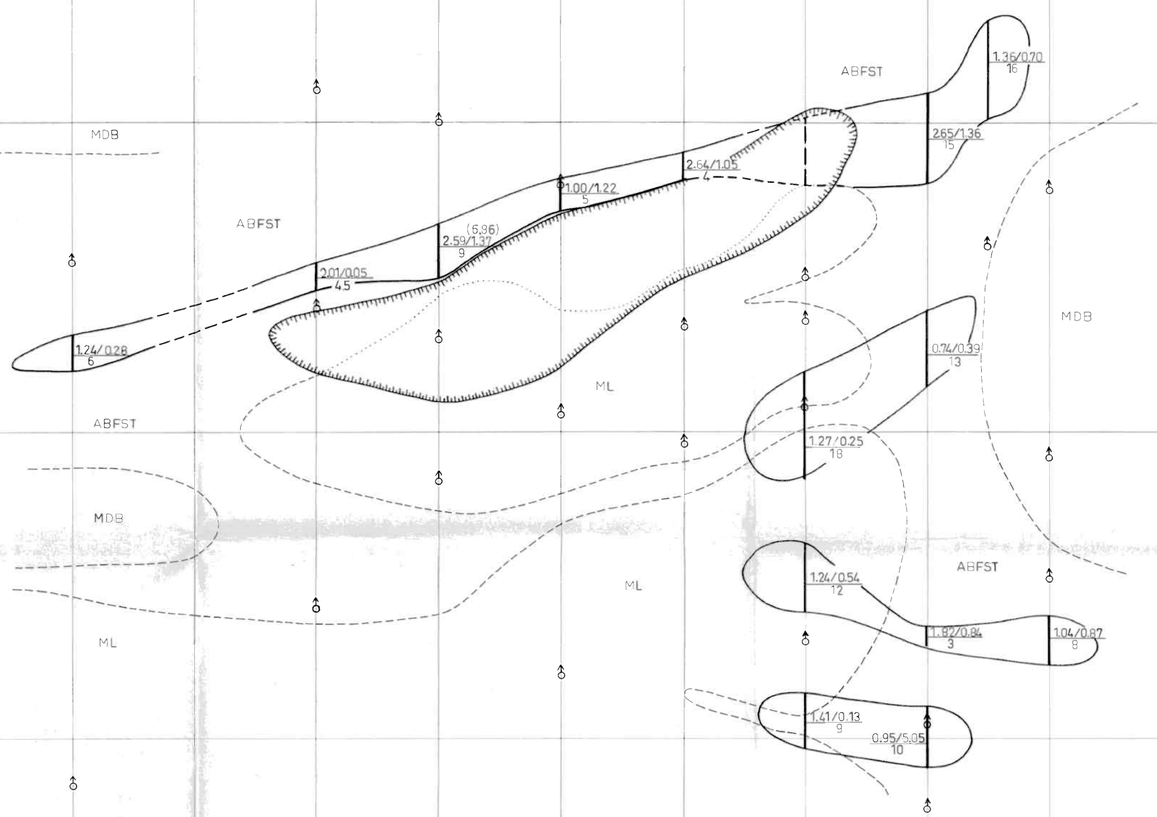
500 E

550 E

600 E

650 E

700 E



BIDJOVAGGE NORJA
TASO + 630 A-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{Cu\% / Au\ g/t}{m}$

25.11-83 TTK

S100 S80 S60 S40 S20 N 0 N 20 N 40 N 60 N 80 N 100 N 120 N 140 N 160 N 180 N 200 N 220 N 240 N 260 N 280

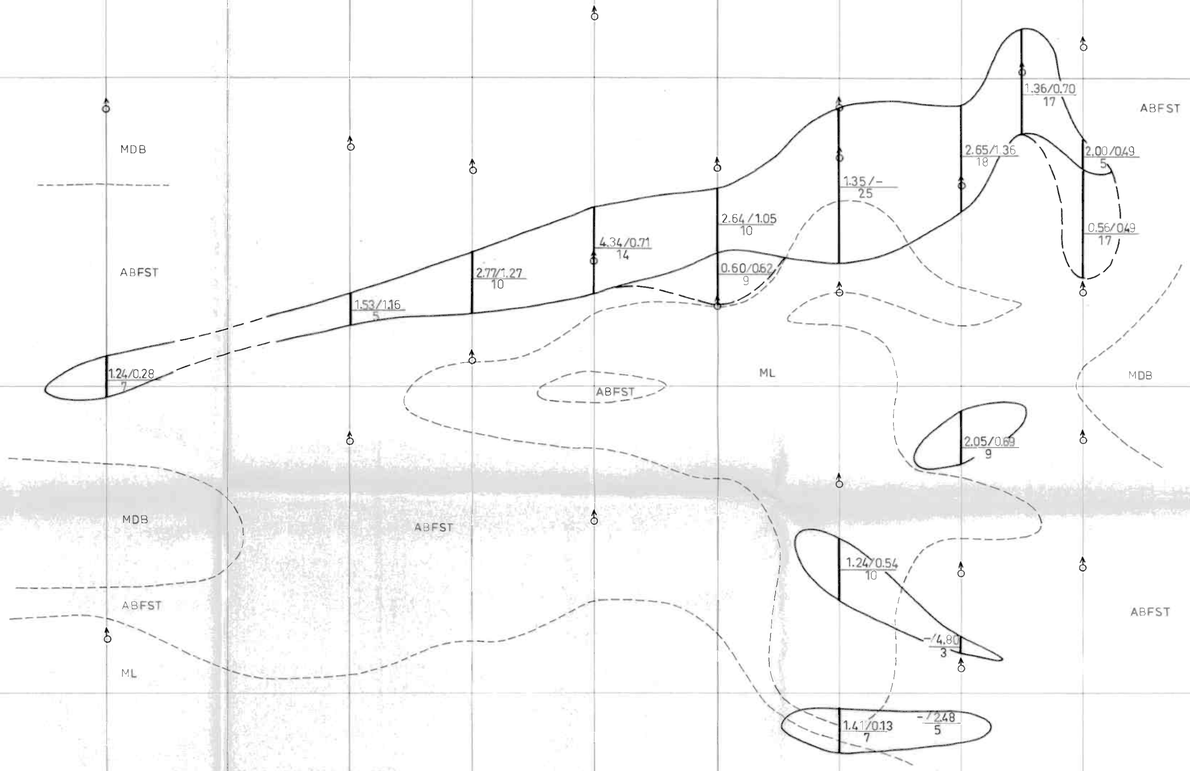
500 E

550 E

600 E

650 E

700 E



BIDJOVAGGE NORJA

TASO + 610 A-MALMIO

1 : 500

$\frac{1.10/2.00}{15} = \frac{\text{Cu \% / Au g/t}}{\text{m}}$

25.11-83 TTK

S 100 S 80 S 60 S 40 S 20 N 0 N 20 N 40 N 60 N 80 N 100 N 120 N 140 N 160 N 180 N 200 N 220 N 240 N 260 N 280

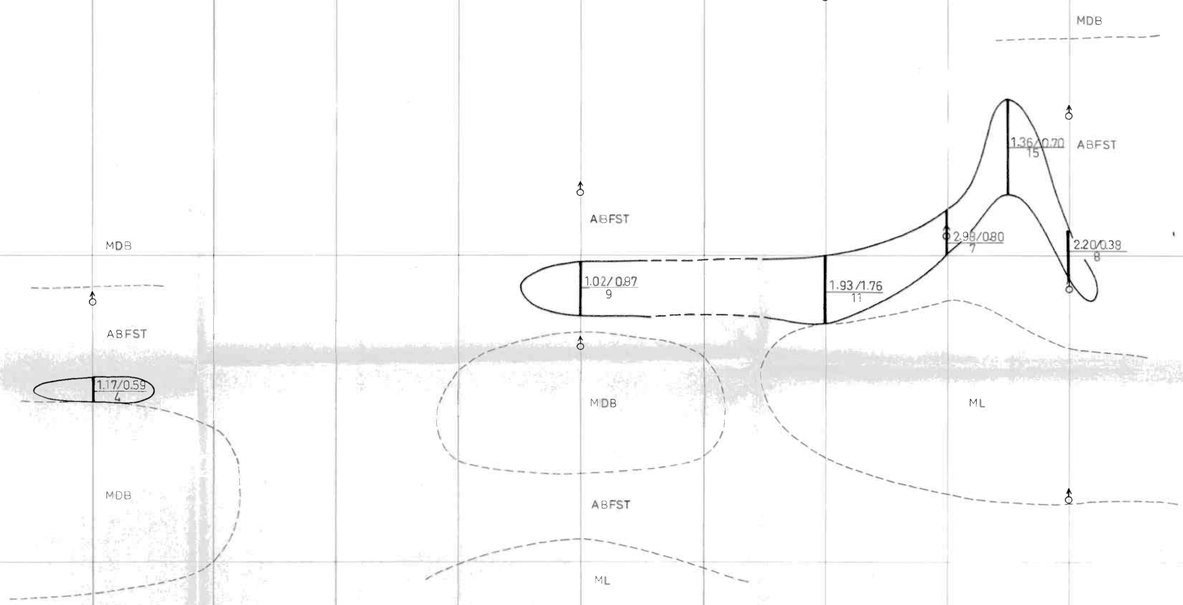
500 E

550 E

600 E

650 E

700 E



BIDJOVAGGE NORJA
TASO +570 A-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{\text{Cu \%} / \text{Au g/t}}{\text{m}}$

25.11-83 TTK

S 100 S 80 S 60 S 40 S 20 N 0 N 20 N 40 N 60 N 80 N 100 N 120 N 140 N 160 N 180 N 200 N 220 N 240 N 260 N 280

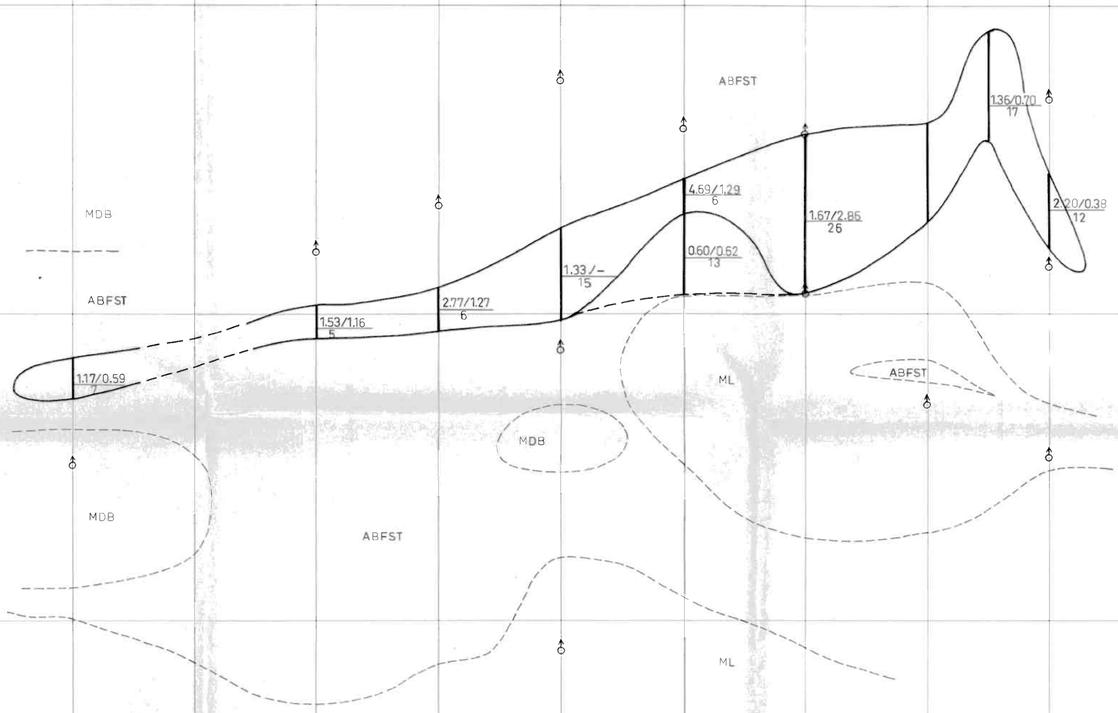
500 E

550 E

600 E

650 E

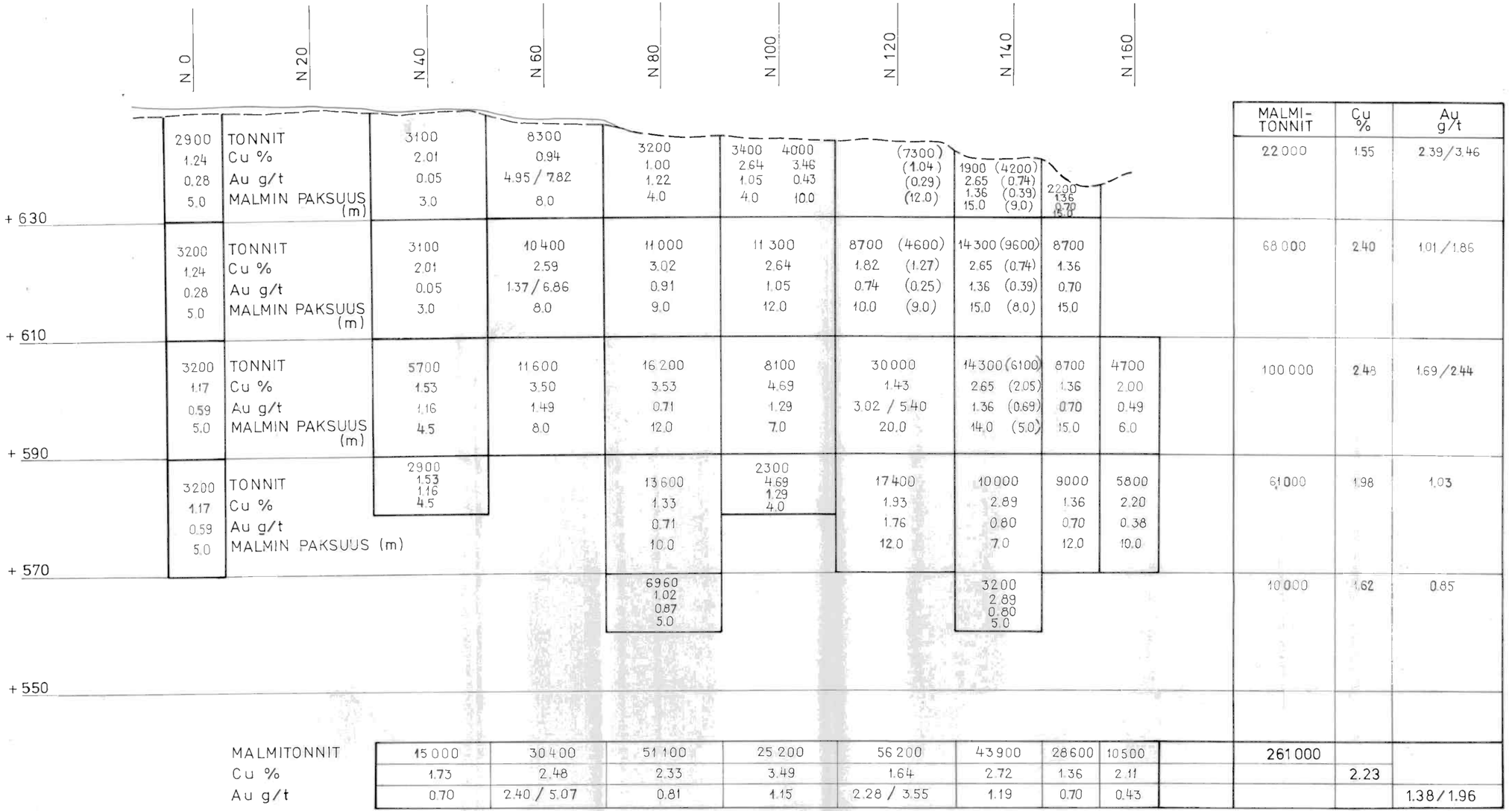
700 E



BIDJOVAGGE NORJA
TASO +590 A-MALMIO
1:500

$\frac{1.10/2.00}{15} = \frac{\text{Cu \%} / \text{Au g/t}}{\text{m}}$

25.11.83 TTK



	MALMI-TONNIT	Cu %	Au g/t
	22 000	1.55	2.39/3.46
	68 000	2.40	1.01/1.86
	100 000	2.48	1.69/2.44
	61 000	1.98	1.03
	10 000	1.62	0.85

MALMITONNIT	15 000	30 400	51 100	25 200	56 200	43 900	28 600	10 500		261 000	
Cu %	1.73	2.48	2.33	3.49	1.64	2.72	1.36	2.11			2.23
Au g/t	0.70	2.40 / 5.07	0.81	1.15	2.28 / 3.55	1.19	0.70	0.43			1.38/1.96

GEOLOGINEN MALMIARVIO

PAREMPI MALMI
261 000 t
Cu 2.23 %
Au 1.38/1.96 g/t

HEIKOMPI MALMI
33 000 t
Cu 1.34 %
Au 0.38 g/t

AVOLOUHOSMALMIA TASOLLE +600
170 000 t
Cu 2.07 %
Au 1.26/1.94 g/t

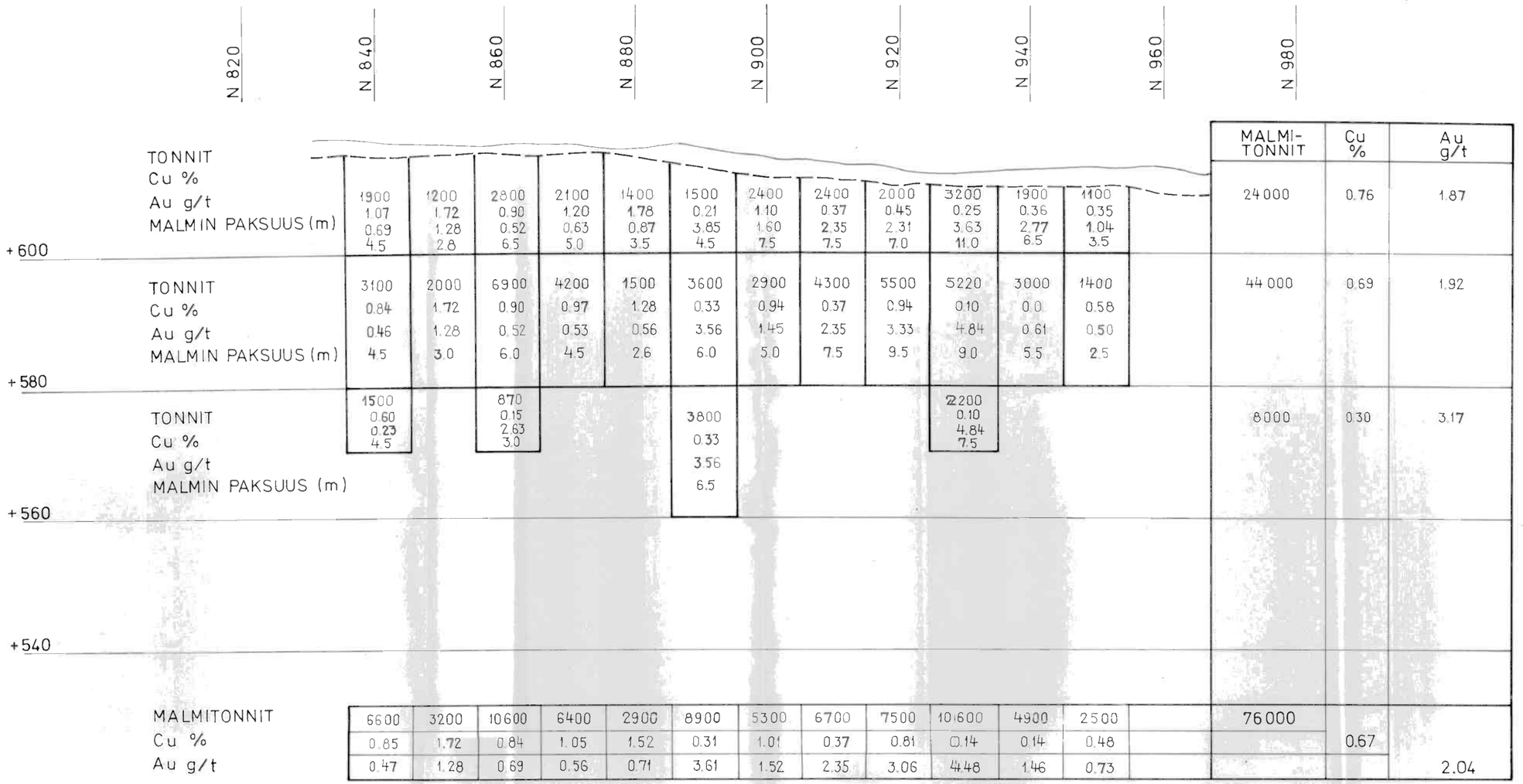
AVOLOUHOSMALMIN LAIMENNUS
2 % MALMITAPPIO
20 % RAAKKULAIMENNUS
200 000 t
Cu 1.75 %
Au 1.05/1.62 g/t

MALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOITTAIN
Au:N OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
A-MALMI
Pituusleikkaus

Malmiarvio
1:500

T. KORKALO 15.11.1983



GEOLOGINEN MALMIARVIO

76 000 t
Cu 0.67 %
Au 2.04 g/t

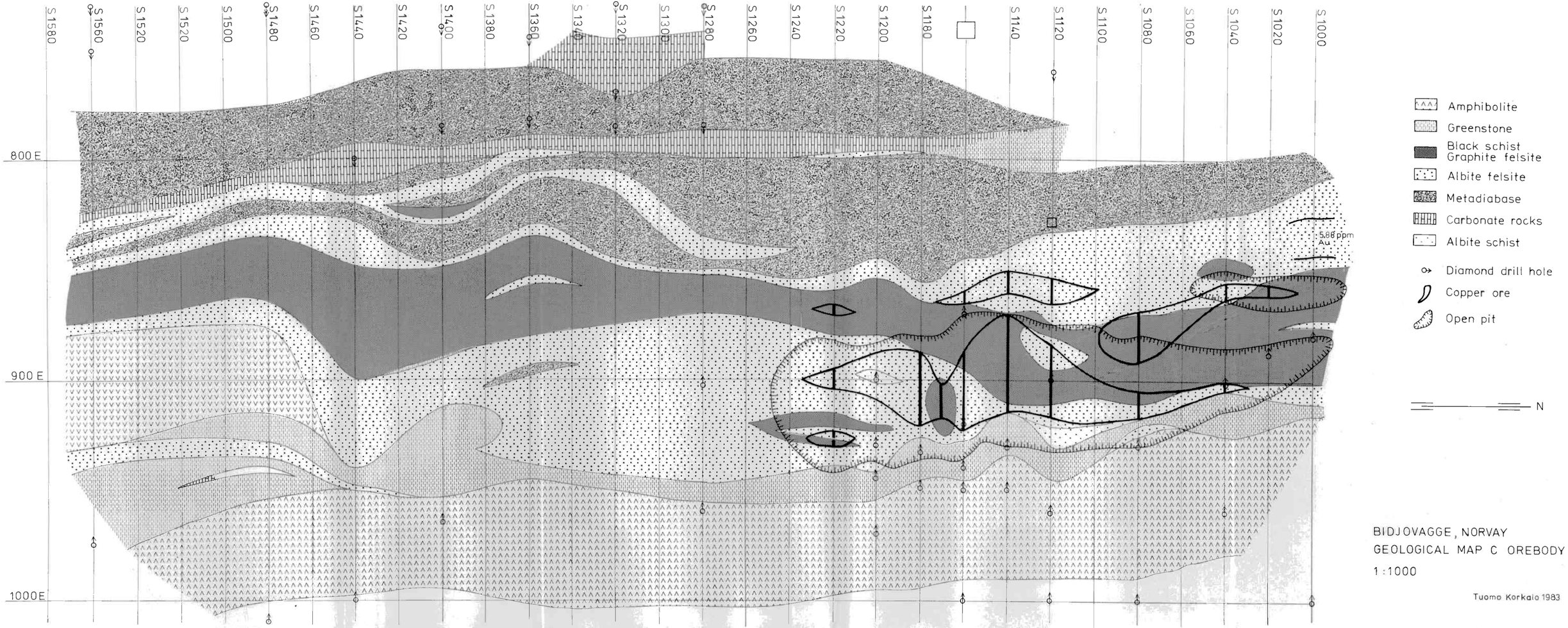
JOSTA LAIMENNETTUA AVOLOUHOSMALMIA
2 % MALMITAPPIO
20 % RAAKKULAIMENNUS

89 000 t
Cu 0.56 %
Au 1.71 g/t

BIDJOVAGGE
B-MALMIN Au-MALMI
Pituusleikkaus

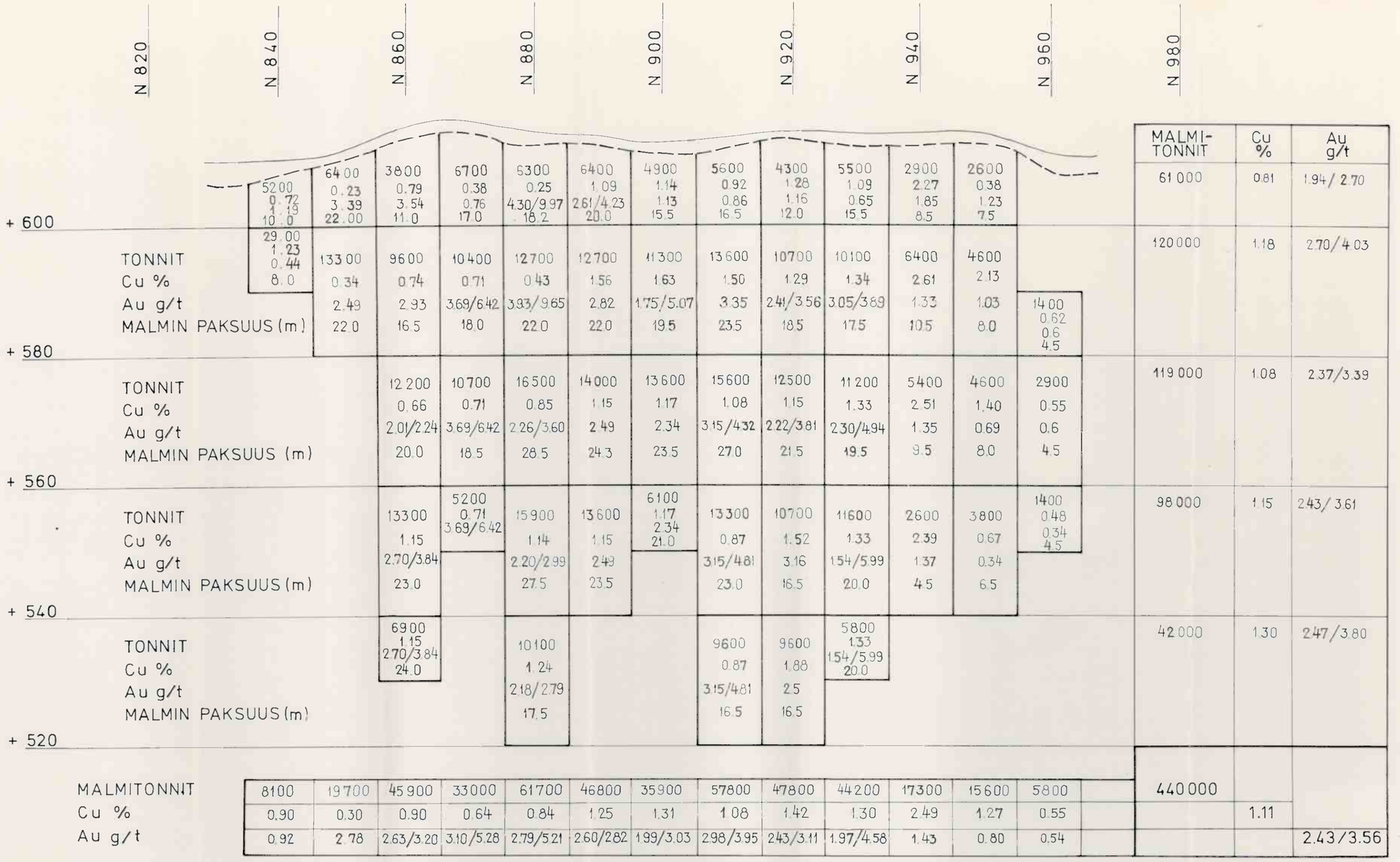
Malmiarvio
1:500

T. KORKALO 15.11.1983



BIDJOVAGGE, NORVAY
GEOLOGICAL MAP C OREBODY
1:1000

Tuomo Korkalo 1983



GEOLOGINEN MALMIARVIO

440 000 t
Cu 1.11 %
Au 2.43/3.56 g/t

AVOLOUHOSMALMIA TASOLLE +550

348 000 t
Cu 1.08 %
Au 2.47/3.60 g/t

AVOLOUHOSMALMIN LAIMENNUS
2 % MALMITAPPIO
20 % RAAKKULAIMENNUS

409 000 t
Cu 0.90 %
Au 2.06/3.00 g/t

MALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOITTAIN
Au:N OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
B-MALMI
Pituusleikkaus

Malmiarvio
1:500

T. KORKALO 15.11.1983

N 800

N 900

N 1000

N 1100

40

50

60

Amphibolite

Greenstone

Graphite felsite

Albite felsite

Cu-Au-mineraliz

Au-mineralizat

94A Diamond drill

BIDJOVAGGE MINING DISTRICT
GEOLOGICAL MAP B OREBODY
MINERALIZATIONS

1:1

R. HAG

A/S SYDVARANGER

T. KORK

460E 480E 500E 520E 540E 560E 580E

N980 N960 N940 N920 N900 N880 N860 N840 N820 N800

96 A N 960 96 B 96 C

Kr A Kr B

94 A N 940 94 B Kr C

92 E N 920 92 D 92 A Kr F Kr A-B

90 A N 900 Kr C Kr A Kr B

88 A N 880 88 B Kr C Kr A

N 860 Kr A Kr B Kr C

84 B 84 C N 840 Kr D Kr A

N

S

N

Kairareiän paikka
Iskuporareiän paikka
Paalut linj. 500E ja 520E
Mittaus takymetrillä

1.12 / 2.11 = Cu % / Au g/t

OUTOKUMPU OY KTR

BIDJOVAGGE

SOIJAPORAUS, KALLIONPINTA (1-5 m)

B-MALMI 1:500

26.5-83 SL

460E 480E 500E 520E 540E 560E 580E

N980 N960 N940 N920 N900 N880 N860 N840 N820 N800

96 A 96 B 96 C 94 A 94 B 92 E 92 D 92 A 90 A 88 A 88 B 84 G 84 B 84 C

Kr A Kr B Kr C Kr D Kr E Kr F Kr A+B

N

S

N

Kairareiän paikka
Iskuporareiän paikka
Paalut linj. 500E ja 520E
Mittaus takymetrillä

1.12 = Cu %
2.11 = Au g/t

OUTOKUMPU OY KTR

BIDJOVAGGE

SOIJAPORAUS, KALLIONPINTA (5-10m)

B-MALMI 1:500

26.5-83 SL

N 800

N 900

N 1000

N 1100

40

50

60

Amphibolite

Greenstone

Graphite felsit

Albite felsite

Cu-Au-minerali

Au-mineralizat

94A Diamond drill

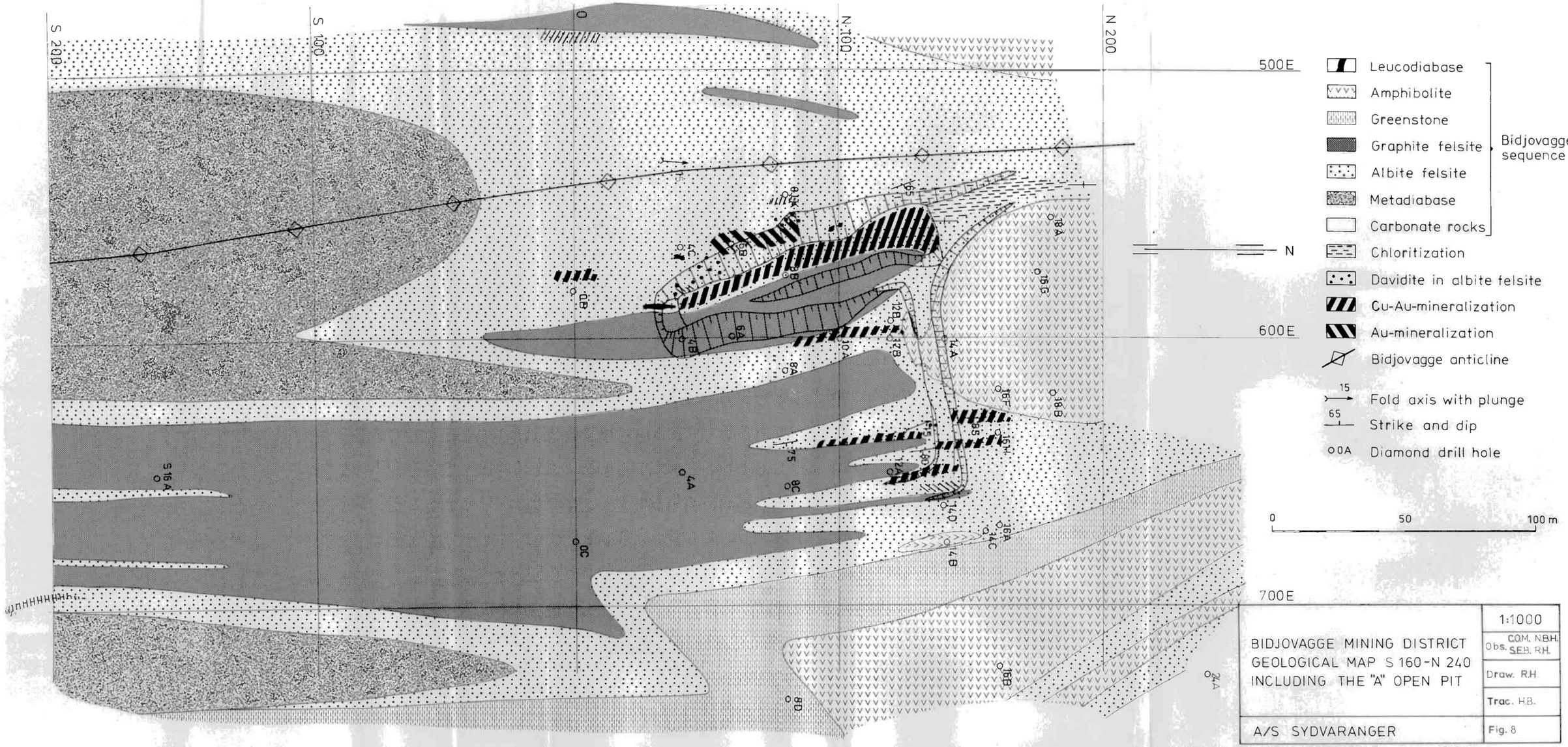
BIDJOVAGGE MINING DISTRICT
GEOLOGICAL MAP B OREBODY
MINERALIZATIONS

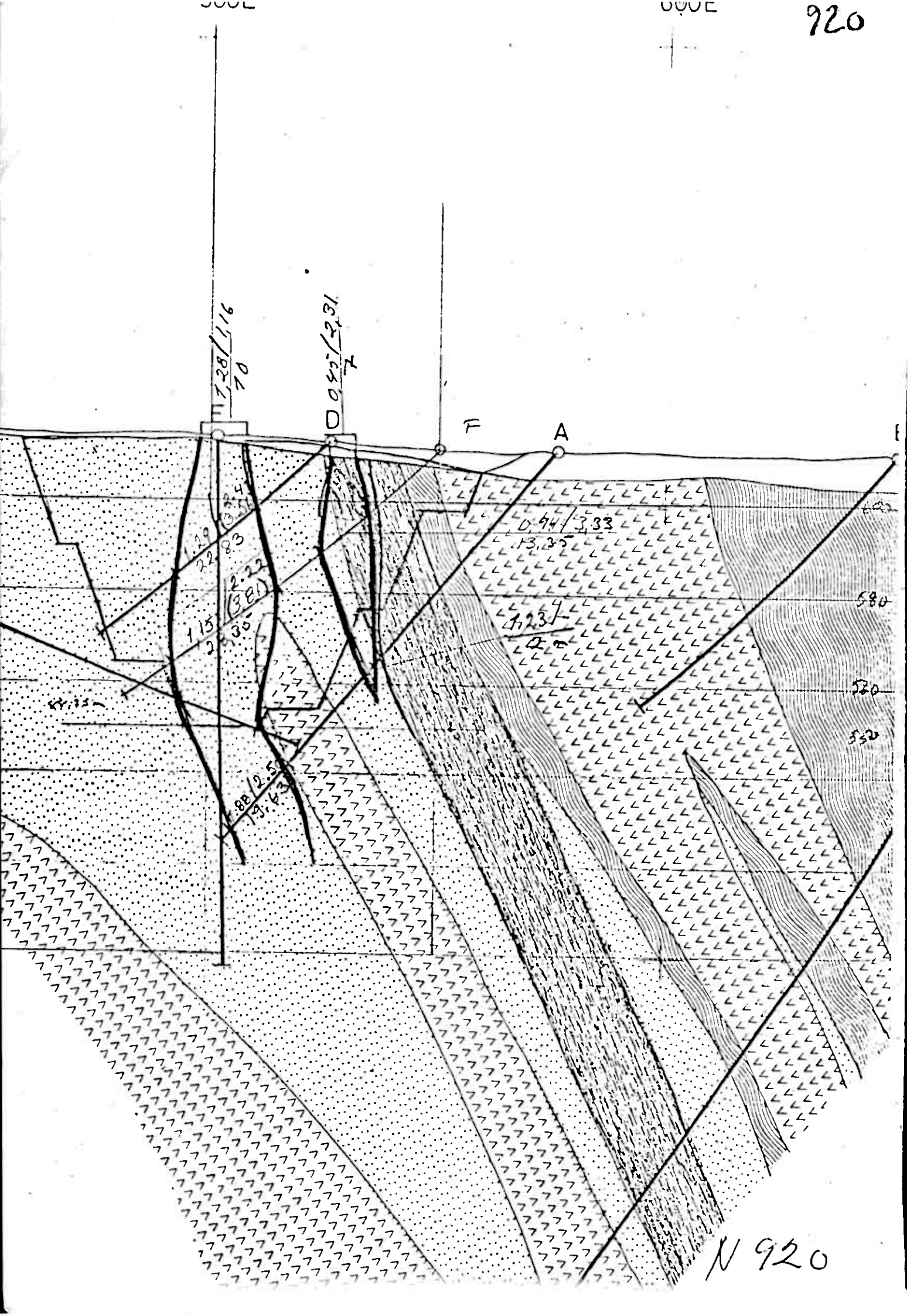
1:1

R. HA

A/S SYDVARANGER

T.KORK


S 200
S 100
0
N 100
N 200
500E
600E
700E
N
Leucodiabase
Amphibolite
Greenstone
Graphite felsite
Albite felsite
Metadiabase
Carbonate rocks
Bidjovagge sequence
Chloritization
Davidite in albite felsite
Cu-Au-mineralization
Au-mineralization
Bidjovagge anticline
15
Fold axis with plunge
65
Strike and dip
Diamond drill hole
0
50
100 m
BIDJOVAGGE MINING DISTRICT
GEOLOGICAL MAP S 160-N 240
INCLUDING THE "A" OPEN PIT
1:1000
Obs. C.O.M. N.B.H. S.E.B. R.H.
Draw. R.H.
Trac. H.B.
A/S SYDVARANGER
Fig. 8


600E
600E
920
F
A
580
530
532
N 920

OUTOKUMPU OY
Kaivosteknillinen ryhmä

Mikko Savolainen/IU 16.12.1983 1(1)

B I D J O V A G G E

KOLME LOUHINTAVAIHTOEHTOA A- JA B- LOUHOKSESTA

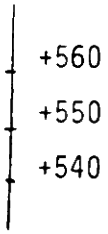
1. vaihtoehto A pohja +600-taso, B pohja +540-taso
2. vaihtoehto A pohja +600-taso, B pohja +550-taso
3. vaihtoehto A pohja +600-taso, B pohja +560-taso

	Louhos	Maanpoisto m^3	Malmi tonnia	% Cu	g/t Au	Raakku tonnia	R : M
1	A	7 000	184 000	1.88	1.15	179 000	0.97 : 1
	B	55 000	539 000	0.87	2.04	991 000	1.83 : 1
	A+B	62 000	723 000	1.13	1.81	1 170 000	1.62 : 1
2	A	7 000	184 000	1.88	1.15	179 000	0.97 : 1
	B	50 000	485 000	0.83	2.01	717 000	1.48 : 1
	A+B	57 000	669 000	1.12	1.77	896 000	1.34 : 1
3	A	7 000	184 000	1.88	1.15	179 000	0.97 : 1
	B	40 000	408 000	0.85	2.01	558 000	1.37 : 1
	A+B	47 000	592 000	1.17	1.74	737 000	1.24 : 1

KÄYTETTY LUKUJA :

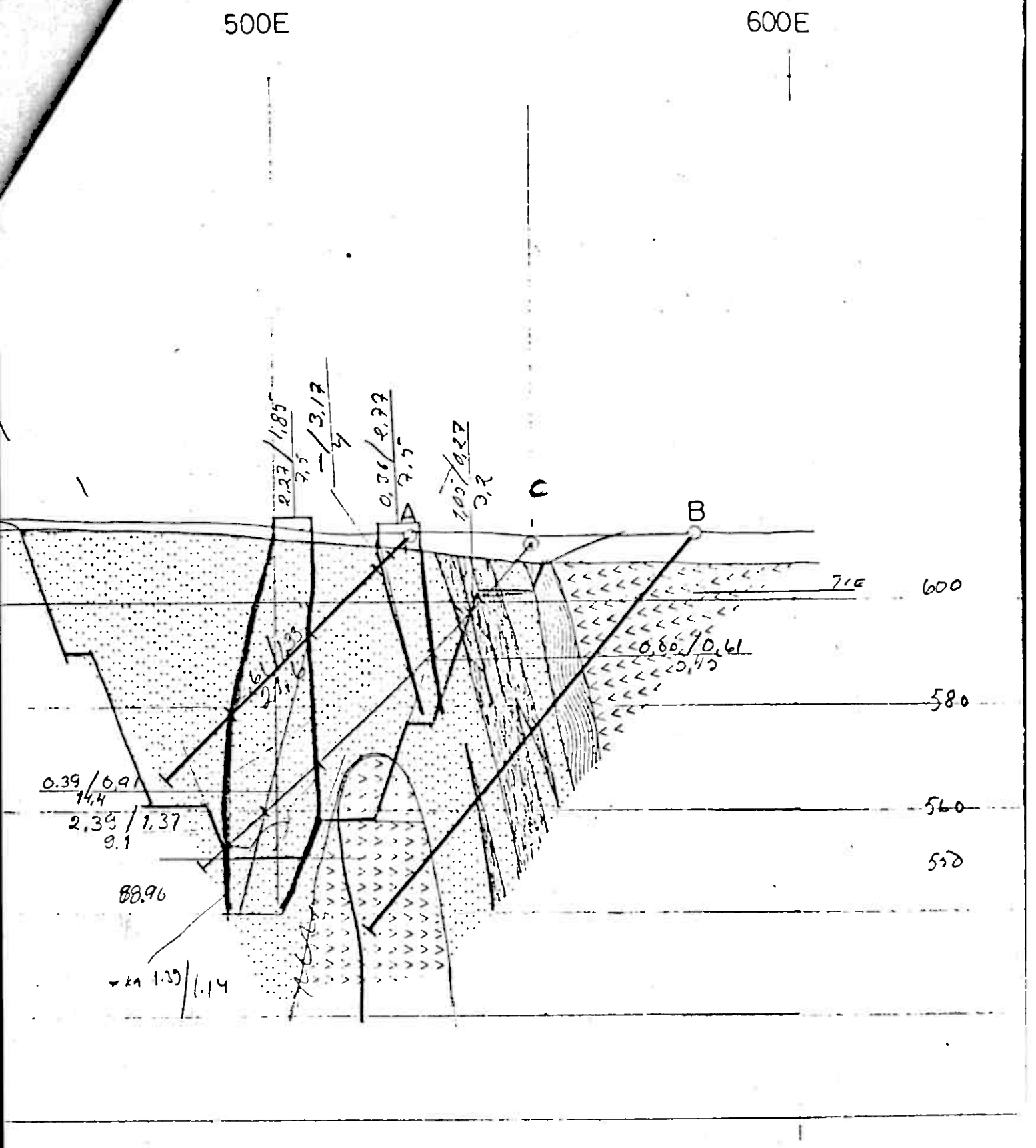
Raakkulaimennus	A	10 %
	B	20 %
Malmitappio	A-B	2 %
Avol. seinämäkaltevuus		70°
" yl. seinämäkaltevuus (suojapenger + tie huomioitu)		60-65°
Tien leveys		10 m
Suojapenekreen leveys		5 m
Tien kaltevuus, suorat		1:7
" , kurvit		1:10
Ominaispaino	M	2.9
	R	2.7

Tasot merenpinnasta

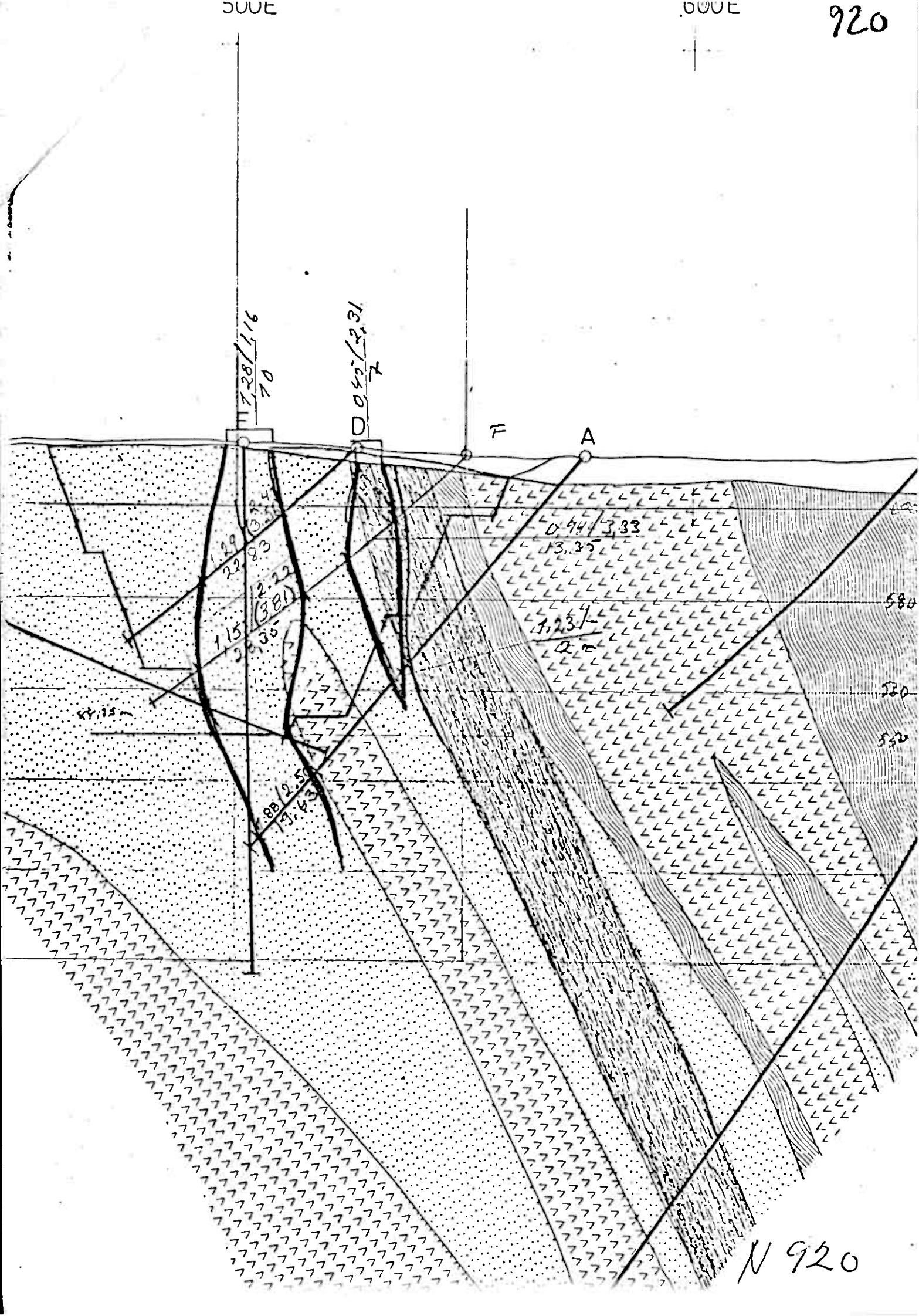


JAKELU PSV,PKe,JP,TRA,TTK,RF,MS

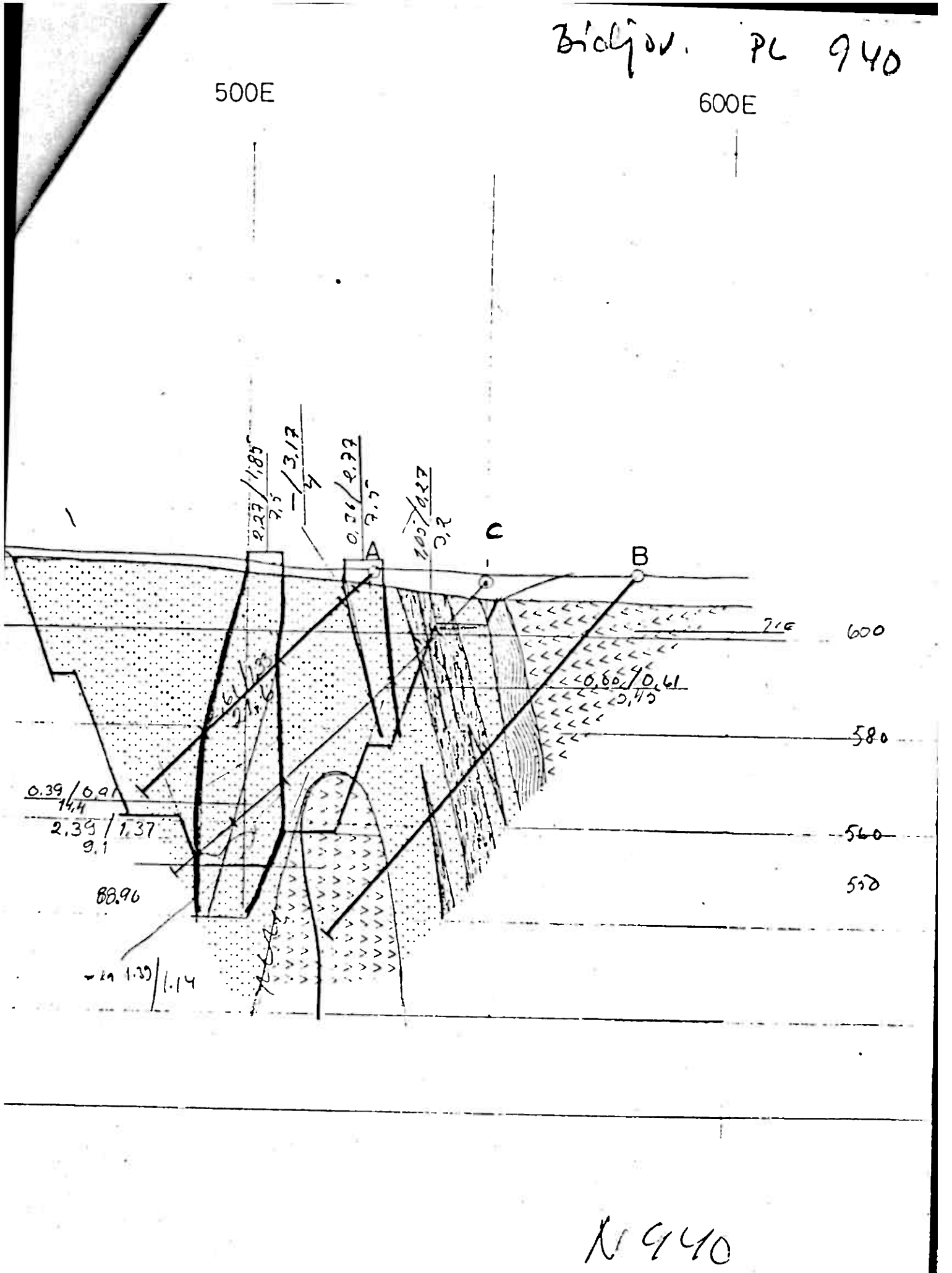
Bridge. PL 940



N 940


500E
600E
920
A
580
520
552
N 920

Bridge. PL 940



N 940

N 820 N 840 N 860 N 880 N 900 N 920 N 940 N 960 N 980 N 1000

500 E

550 E

MDB

0.30/0.89
5

0.80/1.92
15

ABFST

0.23/3.39
18

0.79/3.54
12

0.38/0.75
20

(9.97)
0.25/4.30
20

(4.23)
1.09/2.61
20

1.14/1.13
15

0.92/0.86
15

1.28/1.16
10

1.09/0.65
15

2.27/1.85
7.5

0.38/1.23
7

ABFST

ABFST

1.07/0.64
5

1.72/1.28
3

0.90/0.52
6

1.78/0.87
4

0.21/3.85
5

1.10/1.66
7.5

0.37/2.35
7

0.45/2.31
7

0.23/3.63
12

0.36/2.77
7.5

0.35/1.04
5

ML

(MA)

ML

ABFST

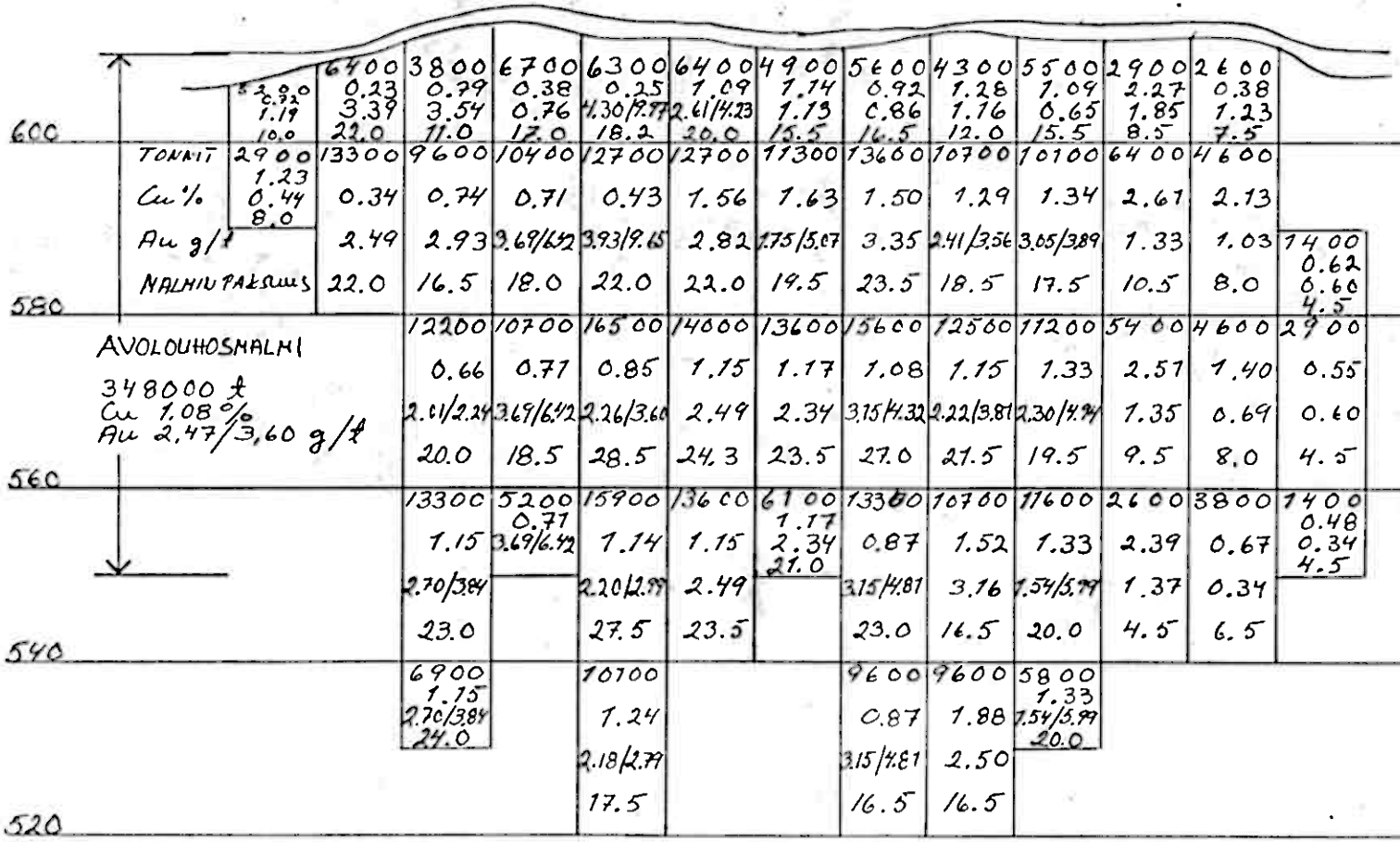
(MA)

VIK

AFB

BIDJOVAGGE NORJA
MP-TASO B-MALMIO
1:500

1.10/2.00 / 15 = Cu % / Au g/t / m



	N 820	N 840	N 860	N 880	N 900	N 920	N 940	N 960	N 980	MALMI-TONNIT	Cu %	Au g/t
	2900 0.92 1.19 10.0	6400 0.23 3.39 22.0	3800 0.79 3.54 11.0	6700 0.38 0.76 12.0	6300 0.25 4.30/7.77 18.2	6400 1.09 2.61/4.23 20.0	4900 1.14 1.13 15.5	5600 0.92 0.86 14.5	4300 1.28 1.16 12.0	5500 1.09 0.65 15.5	2900 2.27 1.85 8.5	2600 0.38 1.23 7.5		61000	0.81	1.94/2.70
TONNIT	2900	13300	9600	10400	12700	12700	11300	13600	10700	10100	6400	4600		120000	1.18	2.70/4.03
Cu %	1.23 0.44 8.0	0.34	0.74	0.71	0.43	1.56	1.63	1.50	1.29	1.34	2.61	2.13				
Au g/t		2.49	2.93	3.69/6.42	3.93/9.65	2.82	1.75/5.07	3.35	2.41/3.56	3.65/3.89	1.33	1.03	1400 0.62 0.60 4.5			
MALMIN PAKSUUS	22.0	22.0	16.5	18.0	22.0	22.0	19.5	23.5	18.5	17.5	10.5	8.0				
			12200	10700	16500	14000	13600	15600	12500	11200	5400	4600	2900	119000	1.08	2.37/3.39
			0.66	0.77	0.85	1.15	1.17	1.08	1.15	1.33	2.57	1.40	0.55			
			2.01/2.24	3.69/6.42	2.26/3.60	2.49	2.34	3.15/4.32	2.22/3.81	2.30/4.94	1.35	0.69	0.60			
			20.0	18.5	28.5	24.3	23.5	27.0	21.5	19.5	9.5	8.0	4.5			
			13300	5200 0.77	15900	13600	6100 1.17	13360	10700	11600	2600	3800	1400 0.48	98000	1.13	2.43/3.61
			1.15	3.69/6.42	1.14	1.15	2.34	0.87	1.52	1.33	2.39	0.67	0.34			
			2.70/3.84		2.20/2.99	2.49	21.0	3.15/4.81	3.16	1.54/5.99	1.37	0.34	4.5			
			23.0		27.5	23.5		23.0	16.5	20.0	4.5	6.5				
			6900 1.15 2.70/3.84 24.0		10700 1.24 2.18/2.79 17.5			9600 0.87 3.15/4.81 16.5	9600 1.88 2.50 16.5	5800 1.33 1.54/5.99 20.0				112000	1.30	2.47/3.80
MALMITONNIT	8100	19700	45900	33000	61700	46800	35900	57800	47800	41200	17300	15600	5800	414000	1.11	2.43/3.56
Cu %	0,90	0.30	0.90	0.64	0.84	1.25	1.31	1.08	1.42	1.30	2.49	1.27	0.55	1.11		
Au g/t	0,92	2.78	2.63/3.20	3.10/5.28	2.79/5.21	2.60/2.89	1.99/3.03	2.98/3.95	2.43/3.11	1.97/4.58	1.43	0.80	0.54	2.43/3.56		

MALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOITTAIN
Au:n OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
B-MALMI
PITUUSLEIKKAUS
1:500
T KORKALO

	N 1020	N 1000	N 980	N 960	N 940	N 920	N 900	N 880	N 860	N 840	N 820	N 800	N 780	N 760	N 740	N 720	N 700	N 680	N 660	N 640	N 620	N 600	N 580	N 560	N 540	N 520	MALMI-TONNIT	Cu %	Au g/t
600																					52.00 0.72 1.19 10.0	6400 0.23 3.39 22.0	3800 0.79 3.54 11.0	6700 0.38 0.76 12.0	6300 0.25 4.30/9.77 18.2	6400 1.09 2.61/4.23 20.0	4900 1.14 1.13 15.5	5600 0.92 0.86 16.5	4300 1.28 1.16 12.0	5500 1.09 0.65 15.5	2900 2.27 1.85 8.5	2600 0.38 1.23 7.5		61000	0.81	1.94/2.70
	TONNIT										2900 1.23 0.44 8.0	13300	9600	10400	12700	12700	11300	13600	10700	10100	6400	4600		120000	1.18	2.70/4.03
	Cu %											0.34	0.74	0.71	0.43	1.56	1.63	1.50	1.29	1.34	2.61	2.13					
	Au g/t											2.49	2.93	3.69/6.42	3.93/9.65	2.82	1.75/5.07	3.35	2.41/3.56	3.05/3.89	1.33	1.03	1400 0.62 0.60 4.5				
	MALMIN PAKSUUS											22.0	16.5	18.0	22.0	22.0	19.5	23.5	18.5	17.5	10.5	8.0					
580	AVOLOUHOSMALMI 348000 t Cu 1,08 % Au 2,47/3,60 g/t											12200	10700	16500	14000	13600	15600	12500	11200	5400	4600	2900		119000	1.08	2.37/3.39
												0.66	0.71	0.85	1.15	1.17	1.08	1.15	1.33	2.51	1.40	0.55				
												2.01/2.24	3.69/6.42	2.26/3.60	2.49	2.34	3.15/4.32	2.22/3.81	2.30/4.24	1.35	0.69	0.60				
												20.0	18.5	28.5	24.3	23.5	27.0	21.5	19.5	9.5	8.0	4.5				
560												13300	5200 0.71 3.69/6.42	15900	13600	6100 1.17 2.34 21.0	13300	10700	11600	2600	3800	1400 0.48 0.34 4.5		98000	1.15	2.43/3.61
												1.15		1.14	1.15		0.87	1.52	1.33	2.39	0.67					
												2.70/3.84		2.20/2.99	2.49		3.15/4.81	3.16	1.54/5.99	1.37	0.34					
												23.0		27.5	23.5		23.0	16.5	20.0	4.5	6.5					
540												6900 1.75 2.70/3.84 24.0		10700			9600	9600	5800 1.33 1.54/5.99 20.0					42000	1.30	2.47/3.80
														1.24			0.87	1.88								
														2.18/2.79			3.15/4.81	2.50								
														17.5			16.5	16.5								
520																										

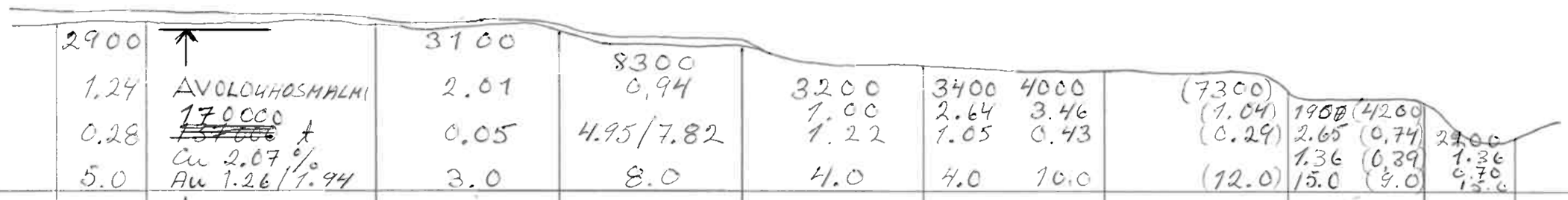
MALMITONNIT	8100	19700	45900	33000	61700	46800	35900	57800	47800	44200	17300	15600	5800														440000	1.11	2.43/3.56
Cu %	0,90	0.30	0.90	0.64	0.84	1.25	1.31	1.08	1.42	1.30	2.49	1.27	0.55														1.11		
Au g/t	0,92	2.78	2.63/3.20	3.10/5.28	2.79/5.21	2.60/2.82	1.99/3.03	2.98/3.95	2.43/3.11	1.97/4.58	1.43	0.80	0,54														2.43/3.56		

HALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN
Au :n OSALTA ON ILMOITETTU SEKÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
B-MALMI
PITUUSLEIKKAUS
1:500
T KORKALO

N 0 | N 20 | N 40 | N 60 | N 80 | N 100 | N 120 | N 140 | N 160

Ei mineralisoitunut



	2900		3100	8300								
	1.24	AVOLOUHOSMALMI	2.01	0,94	3200	3400	4000	(7300)	1900	(4200		22000
	0.28	170000 ~~157000~~ t	0.05	4.95/7.82	1.00 1.22	2.64 1.05	3.46 0.43	(1.04) (0.29)	2.65 1.36	(0,74) (0,39)	2900 1.36	1.55
630	5.0	Cu 2.07 % Au 1.26/1.94	3.0	8.0	4.0	4.0	10.0	(12.0)	15.0	(9.0)	0.70 15.0	2.39/3.46
	3200	TONNIT	3100	10400	11000	11300		8700 (4600)	14300	(9600)	8700	68000
	1.24	Cu %	2.01	2.59	3.02	2.64		1.82 (1.27)	2.65	(0,74)	1.36	2,40
	0.28	Au g/t	0.05	1.37/6.86	0.91	1.05		0.74 (0.25)	1.36	(0.39)	0.70	1.01/1.86
610	5.0	MALMINPAKSUUS	3.0	8.0	9.0	12.0		10.0 (9.0)	15.0	(8.0)	15.0	
	3200		5700	11600	16200	8100		30000	14300	(6100)	8700	4700	100000
	1.17		1.53	3.50	3.53	4.69		1.43	2.65	(2.05)	1.36	2.00	2.48
	0.59		1.16	1.49	0.71	1.29		3.02/5.40	1.36	(0,69)	0.70	0.49	1.69/2.44
590	5.0		4.5	8.0	12.0	7.0		20.0	14.0	(5.0)	15.0	6.0	
	3200		2900 1.53 1.16 4.5		13600 1.33 0.71 10.0	2300 4.69 1.29 4.0		17400 1.93 1.76 12.0	10000 2.89 0.80 7.0		9000 1.36 0.70 12.0	5800 2.20 0.38 10.0	61000 1.98 1.03
570	5.0				6960 1.02 0.87 5.0				3200 2.89 0.80 5.0				10000 1.62 0.85
550													

MALMITONNIT	15000	30400	51100	25200	56200	43900	28600	10500	261000
Cu %	1.73	2.48	2.33	3.49	1.64	2.72	1.36	2.11	2,23
Au g/t	0.70	2.40/5.07	0.81	1.15	2.28/3.55	1.19	0.70	0.43	1.38/1.96

MALMI ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN. AU:N OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
A-MALMI
PITUUSLEIKKAUS

1:500
TJÄRKALO

	J0	J20	J40	J60	J80	J100	J120	J140	J160	
	Ei mineralisoitunut kaivannaista									
	2900		3100	8300						
	1.24	AVOLOUHOSMALMI	2.01	0,94	3200	3400 4000	(7300)	1900 (4200)		220000
	0.28	~~170000~~ ~~157000~~ t	0.05	4.95/7.82	1.00 1.22	2.64 3.46 1.05 0.43	(1.04) (0.29)	2.65 (0,74) 1.36 (0,39)	2900 1.36	1.55
630	5.0	Cu 2.07 % Au 1.26/1.94	3.0	8.0	4.0	4.0 10.0	(12.0)	15.0 (9.0)	0.70 15.0	2.39/3.46
	3200	TONNIT	3100	10400	11000	11300	8700 (4600)	14300 (9600)	8700	68000
	1.24	Cu %	2.01	2.59	3.02	2.64	1.82 (1.27)	2.65 (0,74)	1.36	2,40
	0.28	Au g/t	0.05	1.37/6.86	0.91	1.05	0.74 (0.25)	1.36 (0,39)	0.70	1.01/1.86
610	5.0	MALMINPAKSUUS	3.0	8.0	9.0	12.0	10.0 (9.0)	15.0 (8.0)	15.0	
	3200		5700	11600	16200	8100	30000	14300 (6100)	8700	4700	100000
	1.17		1.53	3.50	3.53	4.69	1.43	2.65 (2.05)	1.36	2.00	2.48
	0.59		1.16	1.49	0.71	1.29	3.02/5.40	1.36 (0,69)	0.70	0.49	1.69/2.44
590	5.0		4.5	8.0	12.0	7.0	20.0	14.0 (5.0)	15.0	6.0	
	3200		2900 1.53 1.16 4.5		13600	2300 4.69 1.29 4.0	17400	10000	9000	5800	61000
	1.17				1.33		1.93	2.89	1.36	2.20	1.98
	0.59				0.71		1.76	0.80	0.70	0.38	1.03
570	5.0				10.0		12.0	7.0	12.0	10.0	
					6960 1.02 0.87 5.0			3200 2.89 0.80 5.0			10000 1.62 0.85
550											

MALMITONNIT	15000	30400	51100	25200	56200	43900	28600	10500	261000
Cu %	1.73	2.48	2.33	3.49	1.64	2.72	1.36	2.11	2,23
Au g/t	0.70	2.40/5.07	0.81	1.15	2.28/3.55	1.19	0.70	0.43	1.38/1.96

MALMI ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN. AU:N OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

BIOJOVAGGE
A-MALMI
PITUUSLEIKKAUS

1:500
TKARKALO

	N 820	N 840	N 860	N 880	N 900	N 920	N 940	N 960	N 980	MALMI-TONNIT	Cu %	Au g/t
	5200 0.72 1.19 10.0	6400 0.23 3.39 22.0	3800 0.79 3.54 11.0	6700 0.38 0.76 17.0	6300 0.25 4.30/9.97 18.2	6400 1.09 2.61/4.23 20.0	4900 1.14 1.13 15.5	5600 0.92 0.86 16.5	4300 1.28 1.16 12.0	5500 1.09 0.65 15.5	2900 2.27 1.85 8.5	2600 0.38 1.23 7.5		61000	0.81	1.44/2.70
600																
TONNIT	2900 1.23 0.44 8.0	13300	9600	10400	12700	12700	11300	13600	10700	10100	6400	4600		120000	1.18	2.70/4.03
Cu %		0.34	0.74	0.71	0.43	1.56	1.63	1.50	1.29	1.34	2.61	2.13				
Au g/t		2.49	2.93	3.69/6.42	3.93/9.65	2.82	1.75/5.07	3.35	2.41/3.56	3.65/3.89	1.33	1.03	1400 0.62 0.60 4.5			
MALMIN PAKSUUS		22.0	16.5	18.0	22.0	22.0	19.5	23.5	18.5	17.5	10.5	8.0				
580																
AVOLOUHOSMALMI 348000 t Cu 1.08 % Au 2.47/3.60 g/t			12200 0.66 2.01/2.24 20.0	10700 0.71 3.69/6.42 18.5	16500 0.85 2.26/3.60 28.5	14000 1.15 2.49 24.3	13600 1.17 2.34 23.5	15600 1.08 3.15/4.32 27.0	12500 1.15 2.22/3.81 21.5	11200 1.33 2.30/4.24 19.5	5400 2.51 1.35 9.5	4600 1.40 0.69 8.0	2900 0.55 0.60 4.5	119000	1.08	2.37/3.39
560																
			13300 1.15 2.70/3.84 23.0	5200 0.71 3.69/6.42	15900 1.14 2.20/2.99 27.5	13600 1.15 2.49 23.5	6100 1.17 2.34 21.0	13360 0.87 3.15/4.81 23.0	10700 1.52 3.16 16.5	11600 1.33 1.54/5.99 20.0	2600 2.39 1.37 4.5	3800 0.67 0.34 6.5	1400 0.48 0.34 4.5	98000	1.15	2.43/3.61
540																
			6900 1.15 2.70/3.84 24.0		10700 1.24 2.18/2.79 17.5			9600 0.87 3.15/4.81 16.5	9600 1.88 2.50 16.5	5800 1.33 1.54/5.99 20.0				42000	1.30	2.47/3.80
520																
MALMITONNIT	8100	19700	45900	33000	61700	46800	35900	57800	47800	44200	17300	15600	5800	440000	1.11	2.43/3.56
Cu %	0,90	0.30	0.90	0.64	0.84	1.25	1.31	1.08	1.42	1.30	2.49	1.27	0.55	1.11		
Au g/t	0,92	2.78	2.63/3.20	3.10/5.28	2.79/5.21	2.60/2.82	1.99/3.03	2.98/3.95	2.43/3.11	1.97/4.58	1.43	0.80	0,54	2.43/3.56		

MALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN
Au:n OSALTA ON ILMOITETTU SEKÄ REDUSOIDUSOITTU ETTÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
B-MALMI
PITUUSLEIKKAUS
1:500
T KORKALO

	N 840	N 860	N 880	N 900	N 920	N 940	N 960	N 980	MALMI-TONNIT	Cu %	Au g/t
TONNIT	1900	1200	2800	2100	1400	1500	2400	2400	2000	3200	1900	1700	24000	0,76	1.87
Cu %	1.07	1.72	0.90	1.20	1.78	0.21	1.10	0.37	0.45	0.25	6.36	6.35			
Au g/t	0.69	1.28	0.52	6.63	0.87	3.85	1.60	2.35	2.31	3.63	2.77	1.04			
600 MALMIN PAKSUUS	4.5	2.8	6.5	5.0	3.5	4.5	7.5	7.5	7.0	11.0	6.5	3,5			
	3100	2000	6900	4200	1500	3600	2900	4300	5500	5220	3000	1400	44000	0.69	1.92
	0.84	1.72	0.90	0.97	1.28	0.33	0.94	0.37	0.94	0.10	0.00	0,58			
	0.46	1.28	0.52	0.53	0.56	3.56	1.45	2.35	3.33	4.84	0.61	0.50			
580	4.5	3.0	6.0	4.5	2.6	6.0	5.0	7.5	9.5	9.0	5.5	2.5			
	1500		870			3800				2200			8000	0.30	3.17
	0.60		0.15			0.33				0.10					
	0.23		2.63			3.56				4.84					
	4.5		3.0			6.5				7.5					
560															
540															
MALMITONNIT	6600	3200	10600	6400	2900	8900	5300	6700	7500	10600	4900	2500	76000	0.67	2.04
Cu %	0.85	1.72	0.84	1.05	1.52	0.31	1.01	0.37	0.81	0.14	0.14	0.48	0.67		
Au g/t	0.47	1.28	0.69	0.56	0.71	3.61	1.52	2.35	3.06	4.48	1.46	0.73	2.04		

BIDJOVAGGE
B-MALMIN AU-MALMI
PITUUSLEIKKAUS
1:500
T. VAPKALA

OUTOKUMPU OY
Kaivosteknillinen ryhmä

Mikko Savolainen/IU 16.12.1983 1(1)

B I D J O V A G G E

KOLME LOUHINTAVAIHTOEHTOA A- JA B- LOUHOKSESTA

1. vaihtoehto A pohja +600-taso, B pohja +540-taso
2. vaihtoehto A pohja +600-taso, B pohja +550-taso
3. vaihtoehto A pohja +600-taso, B pohja +560-taso

	Louhos	Maanpoisto m^3	Malmi tonnia	% Cu	g/t Au	Raakku tonnia	R : M
1	A	7 000	184 000	1.88	1.15	179 000	0.97 : 1
	B	55 000	539 000	0.87	2.04	991 000	1.83 : 1
	A+B	62 000	723 000	1.13	1.81	1 170 000	1.62 : 1
2	A	7 000	184 000	1.88	1.15	179 000	0.97 : 1
	B	50 000	485 000	0.83	2.01	717 000	1.48 : 1
	A+B	57 000	669 000	1.12	1.77	896 000	1.34 : 1
3	A	7 000	184 000	1.88	1.15	179 000	0.97 : 1
	B	40 000	408 000	0.85	2.01	558 000	1.37 : 1
	A+B	47 000	592 000	1.17	1.74	737 000	1.24 : 1

KÄYTETTY LUKUJA :

Raakkulaimennus	A	10 %
	B	20 %
Malmitappio	A-B	2 %
Avol. seinämäkaltevuus		70°
" yl. seinämäkaltevuus (suojapenger + tie huomioitu)		60-65°
Tien leveys		10 m
Suojapenekreen leveys		5 m
Tien kaltevuus, suorat		1:7
" , kurvit		1:10
Ominaispaino	M	2.9
	R	2.7

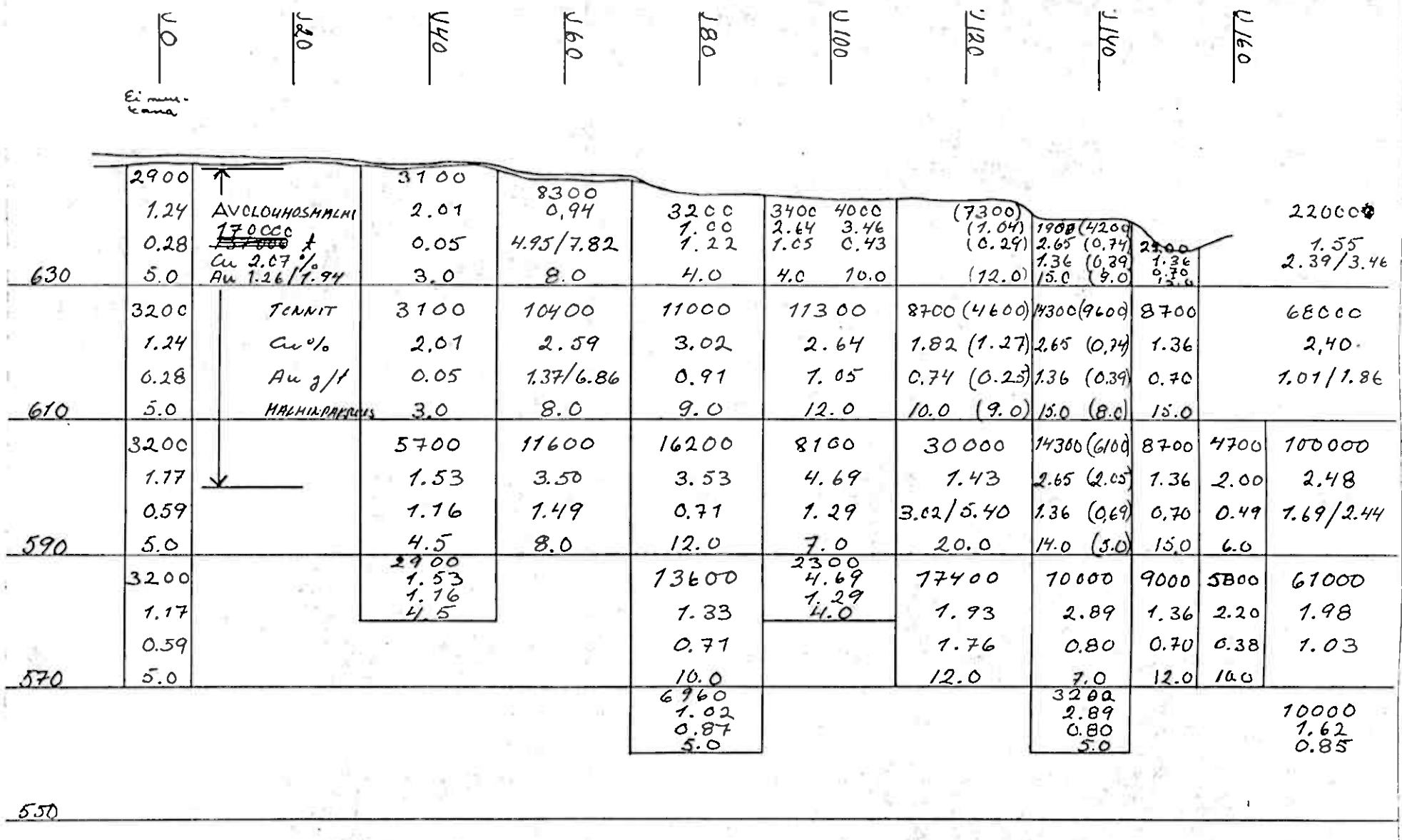
Tasot merenpinnasta

+560

+550

+540

JAKELU PSV, PKe, JP, TRA, TTK, RF, MS



	J0	J20	J40	J60	J80	J100	J120	J140	J160	
	2900		3100	8300	3200	3400 4000	(7300)	1900 (4200)	2900	220000
	1.24	AVOLOUHOSMALMI	2.01	0,94	1.00	2.64 3.46	(1.04)	2.65 (0,74)	1.36	1.55
	0.28	170000 t	0.05	4.95/7.82	1.22	1.05 0.43	(0.29)	1.36 (0,39)	0.70	2.39/3.46
630	5.0	Cu 2.07 % Au 1.26/1.94	3.0	8.0	4.0	4.0 10.0	(12.0)	15.0 (9.0)	1.5	
	3200	TONNIT	3100	10400	11000	11300	8700 (4600)	4300 (9600)	8700	68000
	1.24	Cu %	2,01	2.59	3,02	2.64	1.82 (1.27)	2.65 (0,74)	1.36	2,40
	0.28	Au g/t	0.05	1.37/6.86	0.91	1.05	0.74 (0.25)	1.36 (0.39)	0.70	1.01/1.86
610	5.0	MALMIN PAKSUUS	3.0	8.0	9.0	12.0	10.0 (9.0)	15.0 (8.0)	15.0	
	3200		5700	11600	16200	8100	30000	14300 (6100)	8700	4700 100000
	1.77		1.53	3.50	3.53	4.69	1.43	2.65 (2.05)	1.36	2.00 2,48
	0.59		1.16	1.49	0.71	1.29	3.02/5.40	1.36 (0,69)	0,70	0.49 1.69/2.44
590	5.0		4.5	8.0	12.0	7.0	20.0	14.0 (5.0)	15.0	6.0
	3200		2900 1.53 1.16 4.5		13600	2300 4.69 1.29 4.0	17400	10000	9000	5800 61000
	1.17				1.33		1.93	2.89	1.36	2.20 1.98
	0.59				0.71		1.76	0.80	0.70	0.38 1.03
570	5.0				10.0		12.0	7.0	12.0	10.0
					6960 1.02 0.87 5.0			3200 2.89 0.80 5.0		10000 1.62 0.85
550										

MALMITONNIT	15000	30400	57100	25200	56200	43900	28600	10500	261000
Cu %	1.73	2.48	2.33	3.49	1.64	2.72	1.36	2.11	2.23
Au g/t	0.70	2.40/5.07	0.87	1.75	2.28/3.55	1.79	0.70	0.43	1.38/1.96

MALMI ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN. AU:n OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

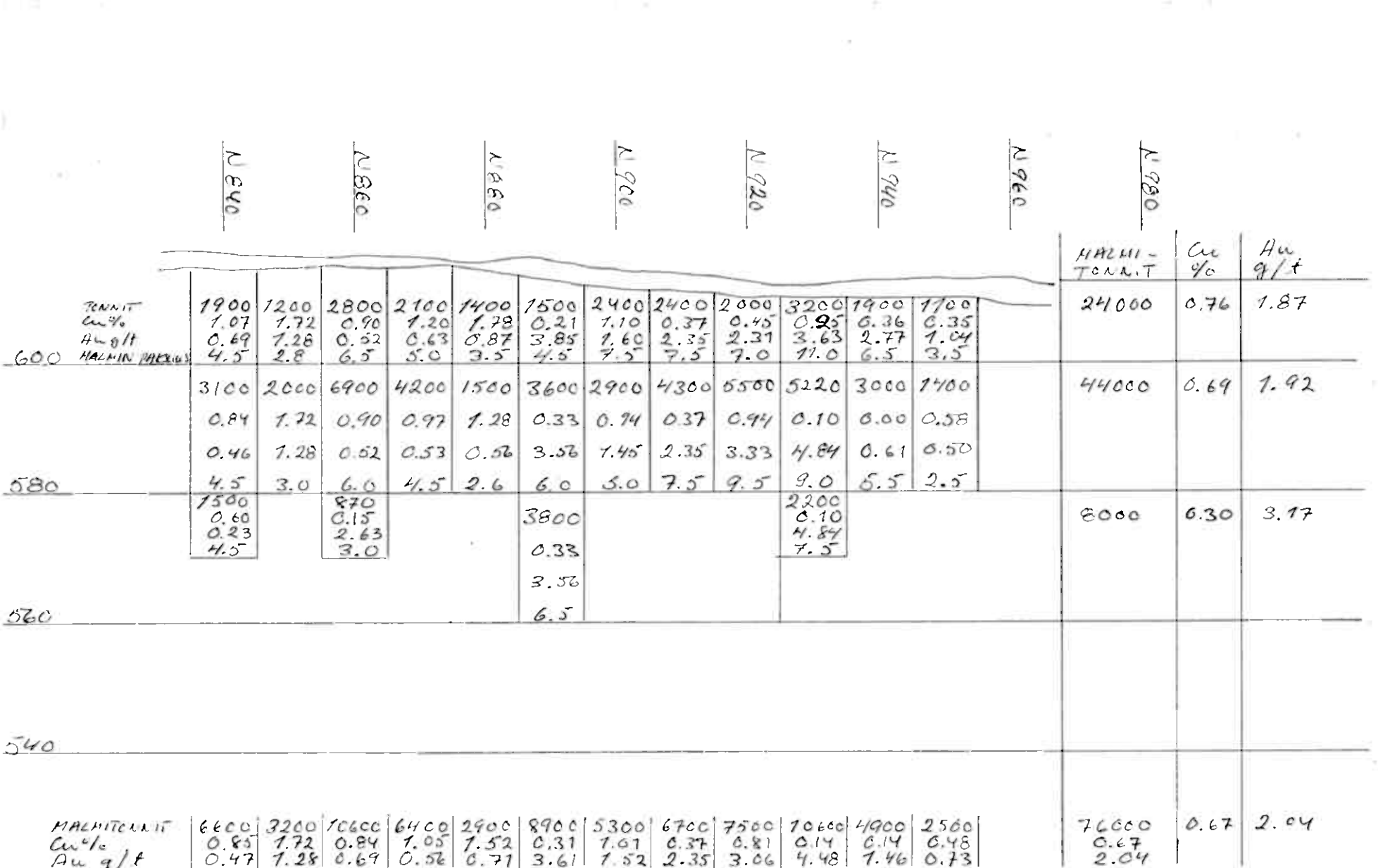
BIOJOVAGGE
A-MALMI
PITUUSLEIKKAUS

1:500
T KORKALO

	N 980	N 960	N 940	N 920	N 900	N 880	N 860	N 840	MALMI-TONNIT	Cu %	Au g/t
TONNIT	1900	1200	2800	2100	1400	1500	2400	2400	2000	3200	1900	1700	24000	0,76	1.87
Cu %	1.07	1.72	0.90	1.20	1.78	0.21	1.10	0.37	0.45	0.95	0.36	0.35			
Au g/t	0.69	1.28	0.52	0.63	0.87	3.85	1.60	2.35	2.31	3.63	2.77	1.04			
600 MALMIN PAKSUUS	4.5	2.8	6.5	5.0	3.5	4.5	7.5	7.5	7.0	11.0	6.5	3.5			
	3100	2000	6900	4200	1500	3600	2900	4300	5500	5220	3000	1400	44000	0.69	1.92
	0.84	1.72	0.90	0.97	1.28	0.33	0.94	0.37	0.94	0.10	0.00	0.58			
	0.46	1.28	0.52	0.53	0.56	3.56	1.45	2.35	3.33	4.84	0.61	0.50			
580	4.5	3.0	6.0	4.5	2.6	6.0	5.0	7.5	9.5	9.0	5.5	2.5			
	1500		870			3800				2200			8000	0.30	3.17
	0.60		0.15			0.33				0.10					
	0.23		2.63			3.56				4.84					
	4.5		3.0			6.5				7.5					
560															
540															

MALMITONNIT	6600	3200	10600	6400	2900	8900	5300	6700	7500	10600	4900	2500	76000	0.67	2.04
Cu %	0.85	1.72	0.84	1.05	1.52	0.31	1.01	0.37	0.81	0.14	0.14	0.48	0.67		
Au g/t	0.47	1.28	0.69	0.56	0.71	3.61	1.52	2.35	3.06	4.48	1.46	0.73	2.04		

BIDJOVAGGE
B-MALMIN AU-MALMI
PITUUSLEIKKAUS
1:500
T. KORKALO

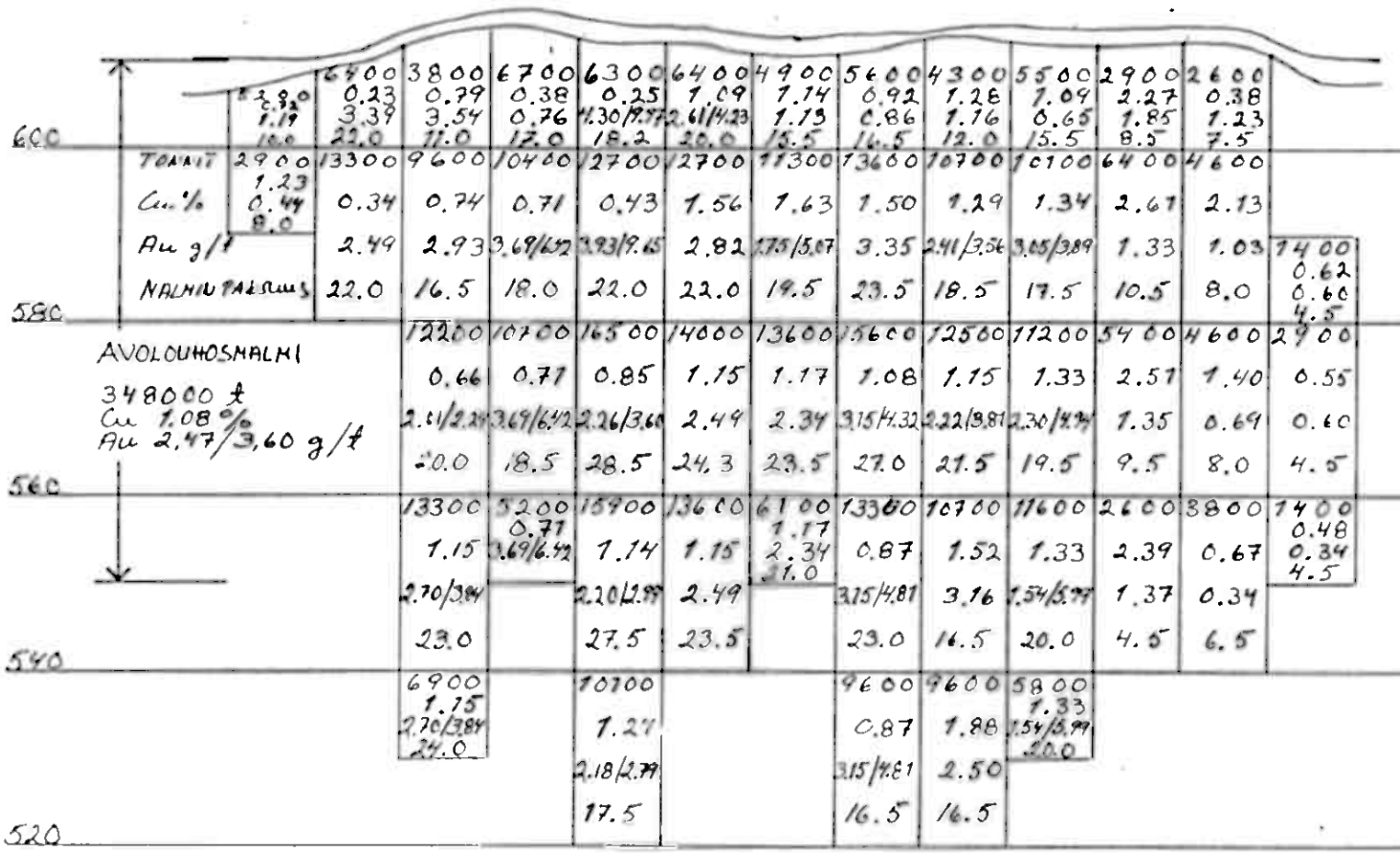


BINJOVAGGE
B-MALMIN Au-MALMI
PITUUSLEIKKAUS
1:500
T. KORKALO

	N820	N840	N860	N880	N900	N920	N940	N960	N980	MALMI-TONNIT	Cu %	Au g/t
										61000	0.81	1.94/2.70
600		5200 0.72 1.19 10.0	6400 0.23 3.39 22.0	3800 0.79 3.54 11.0	6700 0.38 0.76 17.0	6300 0.25 4.30/9.77 18.2	6400 1.09 2.61/4.23 20.0	4900 1.14 1.13 15.5	5600 0.92 0.86 16.5	4300 1.28 1.16 12.0	5500 1.09 0.65 15.5	2900 2.27 1.85 8.5	2600 0.38 1.23 7.5			
	TONNIT	2900 1.23	13300	9600	10400	12700	12700	11300	13600	10700	10100	6400	4600		120000	1.18	2.70/4.03
	Cu %	0.44 8.0	0.34	0.74	0.71	0.43	1.56	1.63	1.50	1.29	1.34	2.61	2.13				
	Au g/t		2.49	2.93	3.69/6.42	3.93/9.65	2.82	1.75/5.07	3.35	2.41/3.56	3.05/3.89	1.33	1.03	1400 0.62 0.60 4.5			
	MALMIN PAKSUUS	22.0	16.5	18.0	22.0	22.0	19.5	23.5	18.5	17.5	10.5	8.0					
580																	
	AVOLOUHOSMALMI 348000 t Cu 1.08 % Au 2.47/3.60 g/t		12200	10700	16500	14000	13600	15600	12500	11200	5400	4600	2900		119000	1.08	2.37/3.39
			0.66	0.71	0.85	1.15	1.17	1.08	1.15	1.33	2.51	1.40	0.55				
			2.01/2.24	3.69/6.42	2.26/3.60	2.49	2.34	3.15/4.32	2.22/3.81	2.30/4.24	1.35	0.69	0.60				
			20.0	18.5	28.5	24.3	23.5	27.0	21.5	19.5	9.5	8.0	4.5				
560																	
			13300	5200 0.71	15900	13600	6100 1.17	13360	10700	11600	2600	8800	1400 0.48		98000	1.15	2.43/3.61
			1.15	3.69/6.42	1.14	1.15	2.34	0.87	1.52	1.33	2.39	0.67	0.34				
			2.70/3.84		2.20/2.99	2.49	21.0	3.15/4.81	3.16	1.54/5.99	1.37	0.34	4.5				
			23.0		27.5	23.5		23.0	16.5	20.0	4.5	6.5					
540																	
			6900 1.75 2.70/3.84 24.0		10700 1.24 2.18/2.79 17.5			9600 0.87 3.15/4.81 16.5	9600 1.88 2.50 16.5	5800 1.33 7.54/5.99 20.0					42000	1.30	2.47/3.80
520																	
	MALMITONNIT	8100	19700	45900	33000	61700	46800	35900	57800	47800	44200	17300	15600	5800	440000	1.11	2.43/3.56
	Cu %	0,90	0.30	0.90	0.64	0.84	1.25	1.31	1.08	1.42	1.30	2.49	1.27	0.55	1.11		
	Au g/t	0,92	2.78	2.63/3.20	3.10/5.28	2.79/5.21	2.60/2.82	1.99/3.03	2.98/3.95	2.43/3.11	1.97/4.58	1.43	0.80	0,54	2.43/3.56		

MALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN
Au:n OSALTA ON ILMOITETTU SEKÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
B-MALMI
PITUUSLEIKKAUS
1:500
T KORKALO



															MALMI-TONNIT	Cu %	Au g/t
		2800 1.19 10.0	6400 0.23 3.39 22.0	3800 0.79 3.54 11.0	6700 0.38 0.76 12.0	6300 0.25 1.30/9.77 18.2	6400 1.09 2.61/4.23 20.0	4900 1.14 1.13 15.5	5600 0.92 0.86 16.5	4300 1.28 1.76 12.0	5500 1.09 0.65 15.5	2900 2.27 1.85 8.5	2600 0.38 1.23 7.5		61000	0.81	1.94/2.70
	TONNIT	2900	13300	9600	10400	12700	12700	11300	13600	10700	10100	6400	4600		120000	1.18	2.70/4.03
	Cu %	1.23 0.44 8.0	0.34	0.74	0.71	0.43	1.56	1.63	1.50	1.29	1.34	2.61	2.13				
	Au g/t		2.49	2.93	3.69/6.42	3.93/9.45	2.82	2.75/5.07	3.35	2.41/3.56	3.05/3.89	1.33	1.03	7400 0.62 0.60 4.5			
	MALMIN PAKSUUS	22.0	16.5	18.0	22.0	22.0	19.5	23.5	18.5	17.5	10.5	8.0					
			12200	10700	16500	14000	13600	15600	12500	11200	5400	4600	2900		119000	1.08	2.37/3.51
			0.66	0.71	0.85	1.15	1.17	1.08	1.15	1.33	2.51	1.40	0.55				
			2.41/2.24	3.69/6.42	2.26/3.60	2.49	2.34	3.15/4.32	2.22/3.81	2.30/3.34	1.35	0.69	0.60				
			20.0	18.5	28.5	24.3	23.5	27.0	21.5	19.5	9.5	8.0	4.5				
			13300	5200 0.71	15900	13600	6100 1.17	13360	10700	11600	2600	3800	1400 0.48		98000	1.15	2.43/3.61
			1.15	3.69/6.42	1.14	1.15	2.34	0.87	1.52	1.33	2.39	0.67	0.34				
			2.70/3.84		2.20/2.99	2.49	21.0	3.15/4.81	3.16	1.54/5.77	1.37	0.34	4.5				
			23.0		27.5	23.5		23.0	16.5	20.0	4.5	6.5					
			6900 1.15 2.70/3.84 24.0		10700 1.27 2.18/2.79 17.5			9600 0.87 3.15/4.81 16.5	9600 1.88 2.50 16.5	5800 1.33 1.54/5.99 20.0					42000	1.30	2.47/3.60
MALMITONNIT		8100	19700	45900	33000	61700	46800	35900	57800	47800	44200	17300	15600	5800	440000	1.11	2.43/3.56
Cu %		0.90	0.30	0.90	0.64	0.84	1.25	1.31	1.08	1.42	1.30	2.49	1.27	0.55	1.11		
Au g/t		0.92	2.78	2.63/3.20	3.10/5.28	2.79/5.21	2.60/2.89	1.99/3.05	2.98/3.95	2.43/3.11	1.97/4.58	1.43	0.80	0.54	2.43/3.56		

HALMIT ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN
AU:N OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

BIDJOVAGGE
B-MALMI
PITUUSLEIKKAUS
1:500
T KORKALO

	J0	J20	J40	J60	J80	J100	J120	J140	J160	
	Ei mineralisoitunut kaira									
	2900		3100	8300						
	1.24	AVOLOUHOSMALMI	2.01	0,94	3200	3400 4000	(7300)			22000
	0.28	~~170000~~ t	0.05	4.95/7.82	1.00	2.64 3.46	(1.04)	1900 (4200		1.55
		~~Cu 2.07~~ %			1.22	1.05 0.43	(0.29)	2.65 (0.74)	2900	
		~~Au 1.26/1.94~~						1.36 (0.39)	1.36	
630	5.0		3.0	8.0	4.0	4.0 10.0	(12.0)	15.0 (9.0)	0.70 15.0	2.39/3.46
	3200	TONNIT	3100	10400	11000	11300	8700 (4600)	14300 (9600)	8700	68000
	1.24	Cu %	2.01	2.59	3.02	2.64	1.82 (1.27)	2.65 (0,74)	1.36	2,40
	0.28	Au g/t	0.05	1.37/6.86	0.91	1.05	0.74 (0.25)	1.36 (0.39)	0.70	1.01/1.86
610	5.0	MALMINPAKSUUS	3.0	8.0	9.0	12.0	10.0 (9.0)	15.0 (8.0)	15.0	
	3200		5700	11600	16200	8100	30000	14300 (6100	8700	4700	100000
	1.17		1.53	3.50	3.53	4.69	1.43	2.65 (2.05)	1.36	2.00	2.48
	0.59		1.16	1.49	0.71	1.29	3.02/5.40	1.36 (0,69)	0,70	0.49	1.69/2.44
590	5.0		4.5	8.0	12.0	7.0	20.0	14.0 (5.0)	15,0	6.0	
	3200		2900		13600	2300	17400	10000	9000	5800	61000
	1.17		1.53		1.33	4.69	1.93	2.89	1.36	2.20	1.98
	0.59		1.16		0.71	1.29	1.76	0.80	0.70	0.38	1.03
570	5.0		4.5		10.0	4.0	12.0	7.0	12.0	10.0	
					6960			3200			10000
					1.02			2.89			1.62
					0.87			0.80			0.85
550					5.0			5.0			
	MALMITONNIT	15000	30400	51100	25200	56200	43900	28600	10500	261000
	Cu %	1.73	2.48	2.33	3.49	1.64	2.72	1.36	2.11	2,23
	Au g/t	0.70	2.40/5.07	0.81	1.15	2.28/3.55	1.19	0.70	0.43	1.38/1.96

MALMI ON LASKETTU SEKÄ LEIKKAUKSITTAIN ETTÄ TASOTTAIN. AU:n OSALTA ON ILMOITETTU SEKÄ REDUSOITU ETTÄ REDUSOIMATON PITOISUUS

BIOJOVAGGE
A-MALMI
PITUUSLEIKKAUS

1:500
T.KARKALO