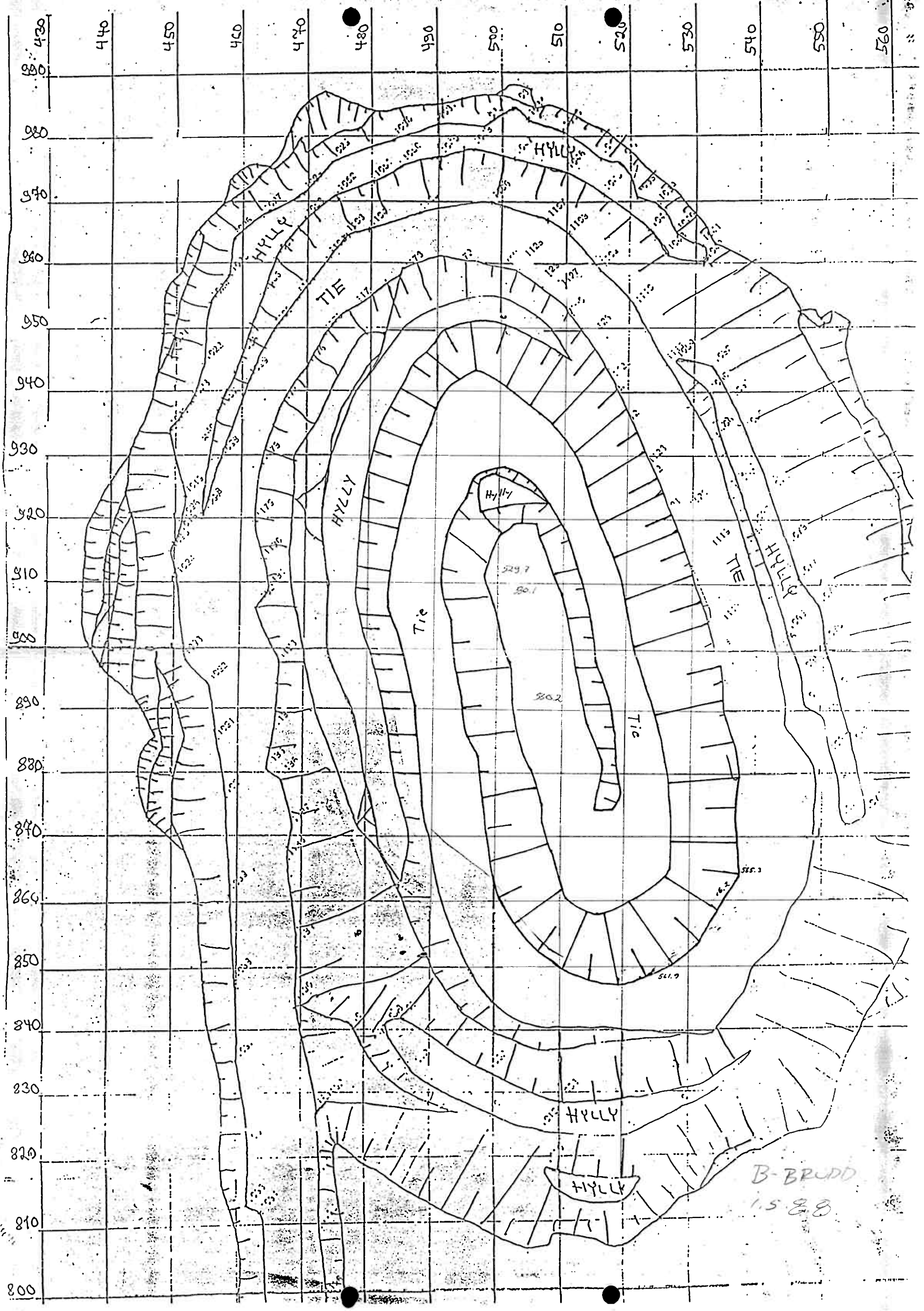
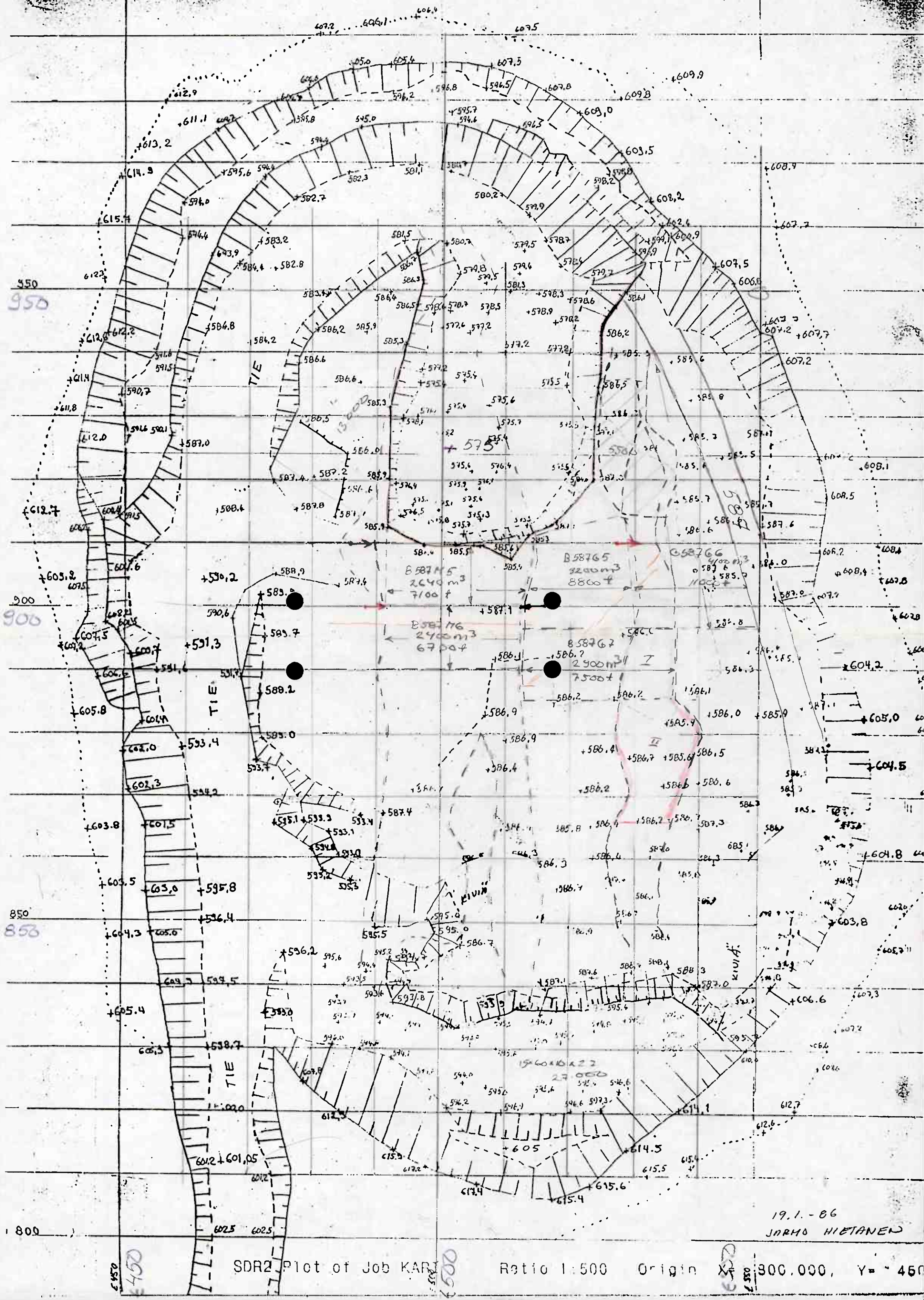
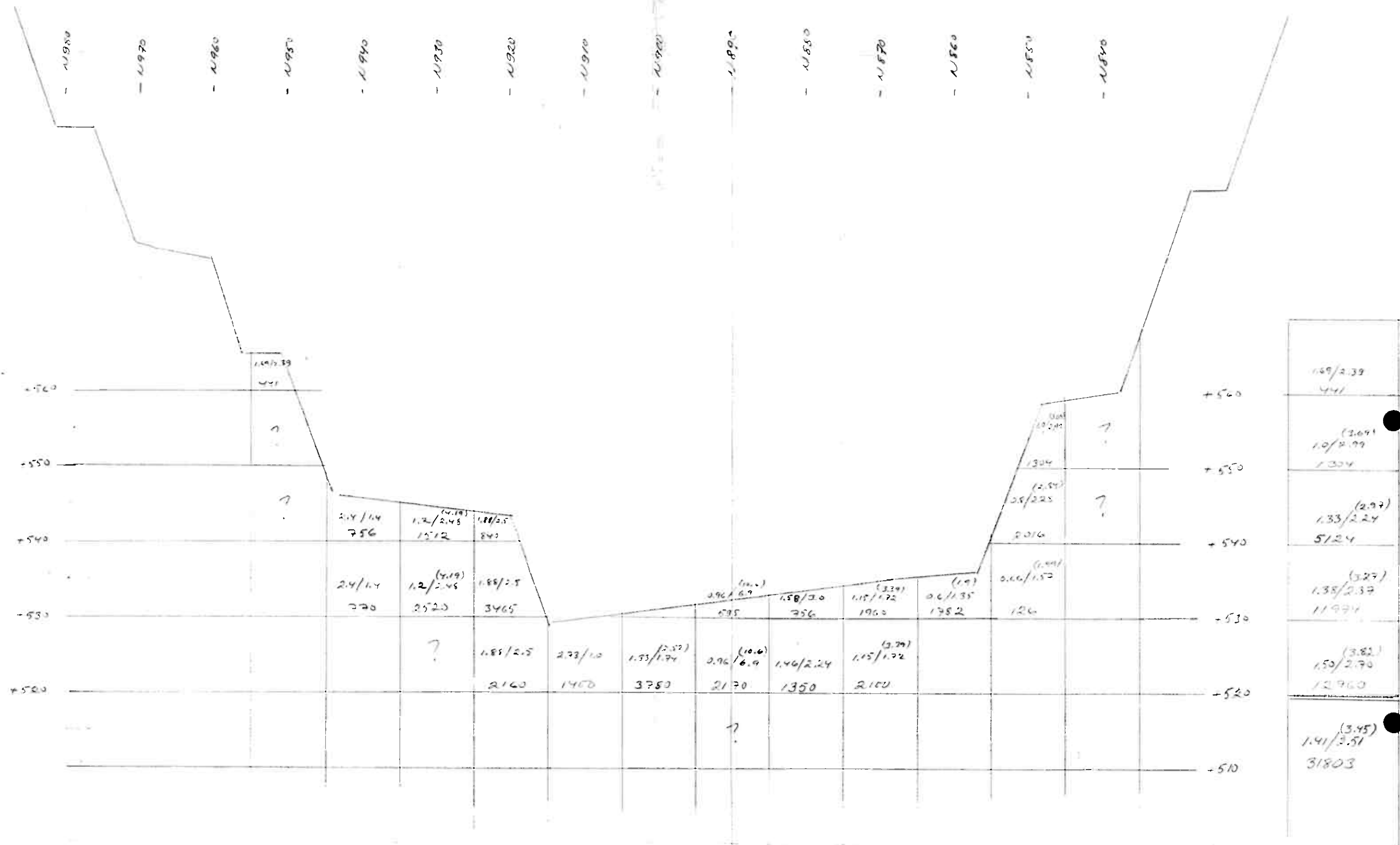


B



B-BRUDD
1.5.88





B-LOUKUS

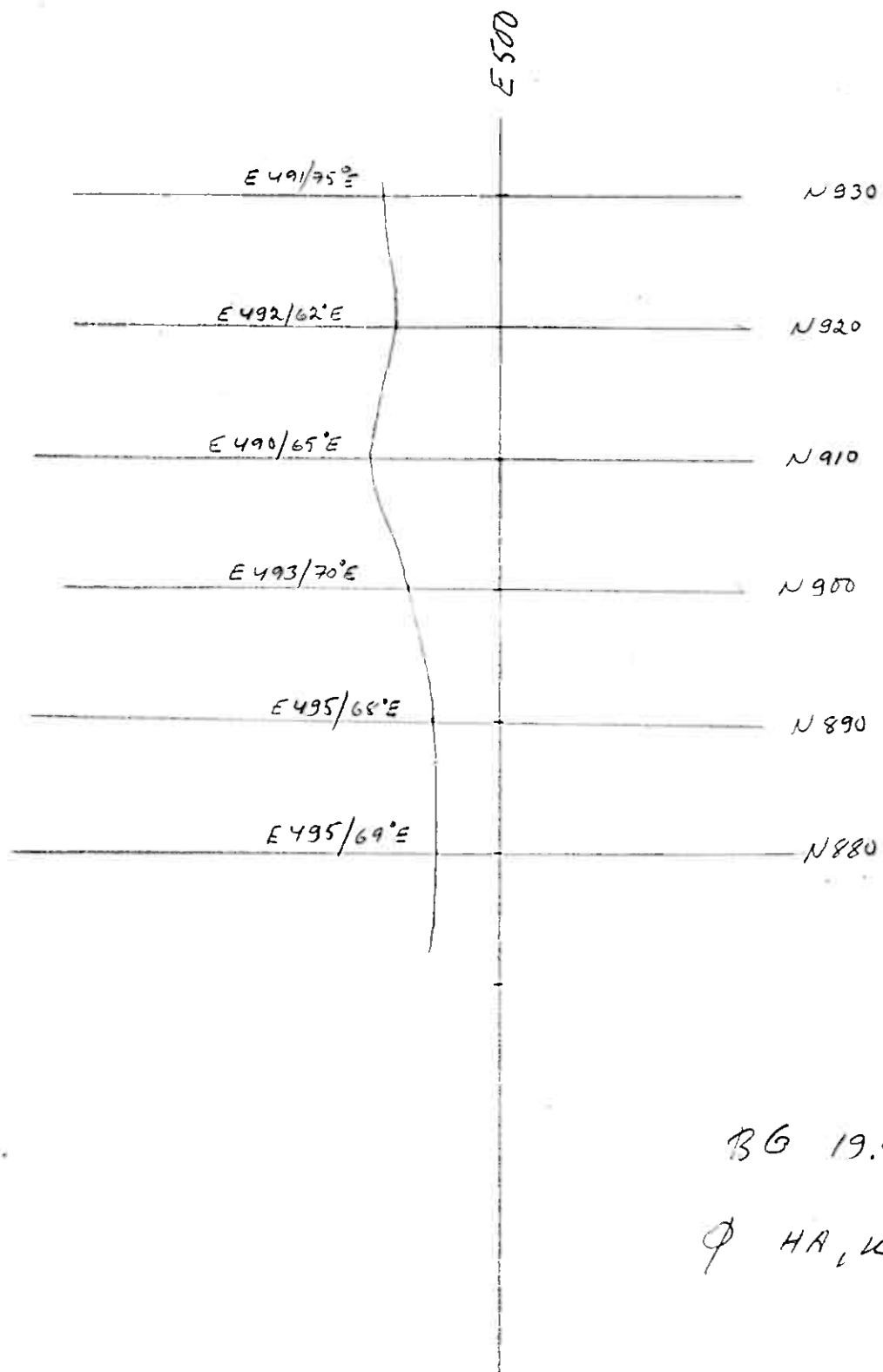
PITUUSLEIKKAUS 1:500

MALMIN MÄÄRÄ (IN SITU) LOUKHUKSEN
POHJAN NEARUSKELLA

27.4.-58 E.K.

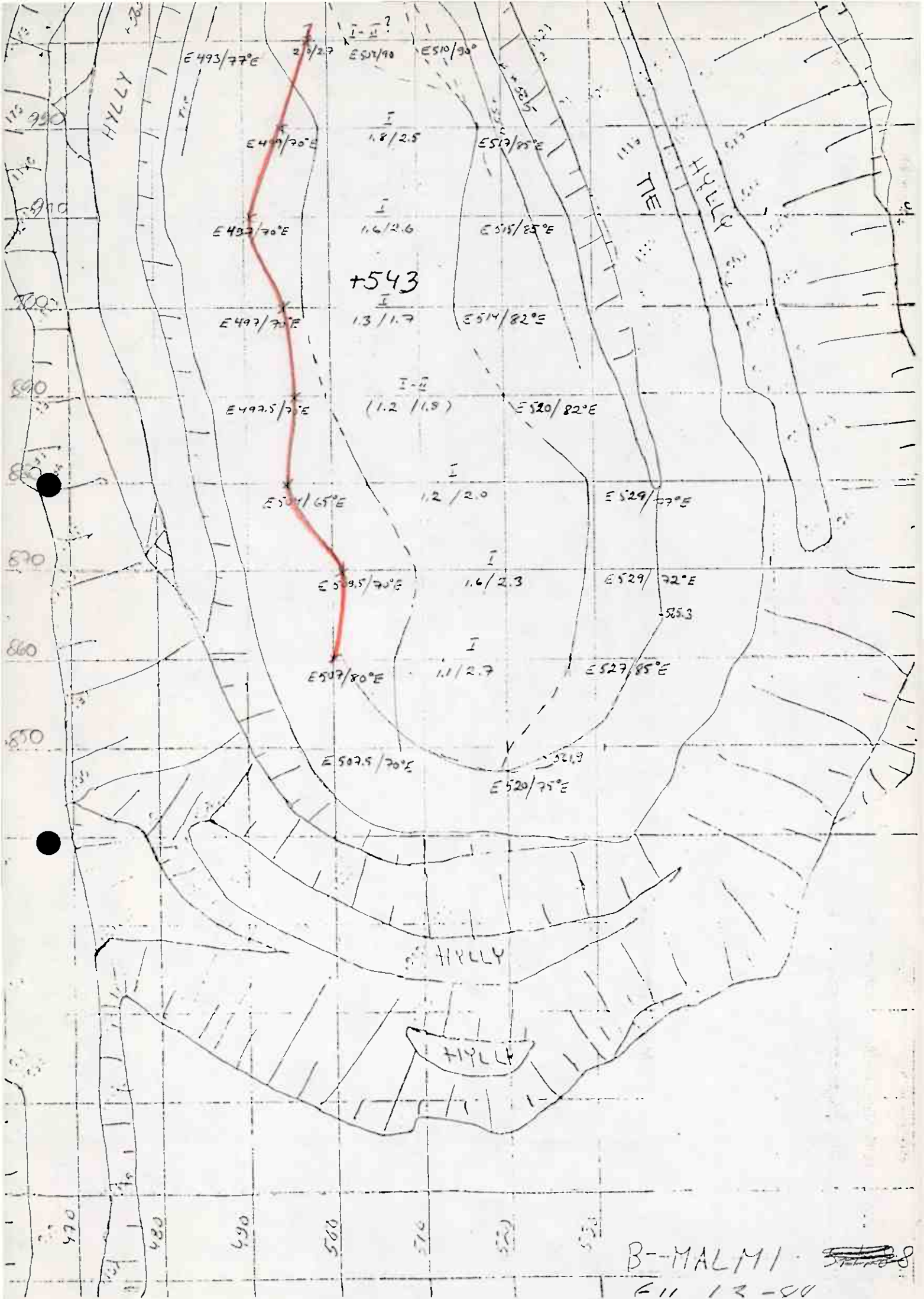
B-louhos

Malmin länsiraja tien kohdalla



BG 19.4.-88 EK

Φ HA, KRä, EK



B-MALMIN LÄNSIRANTA TIEN KORKEUDELCA

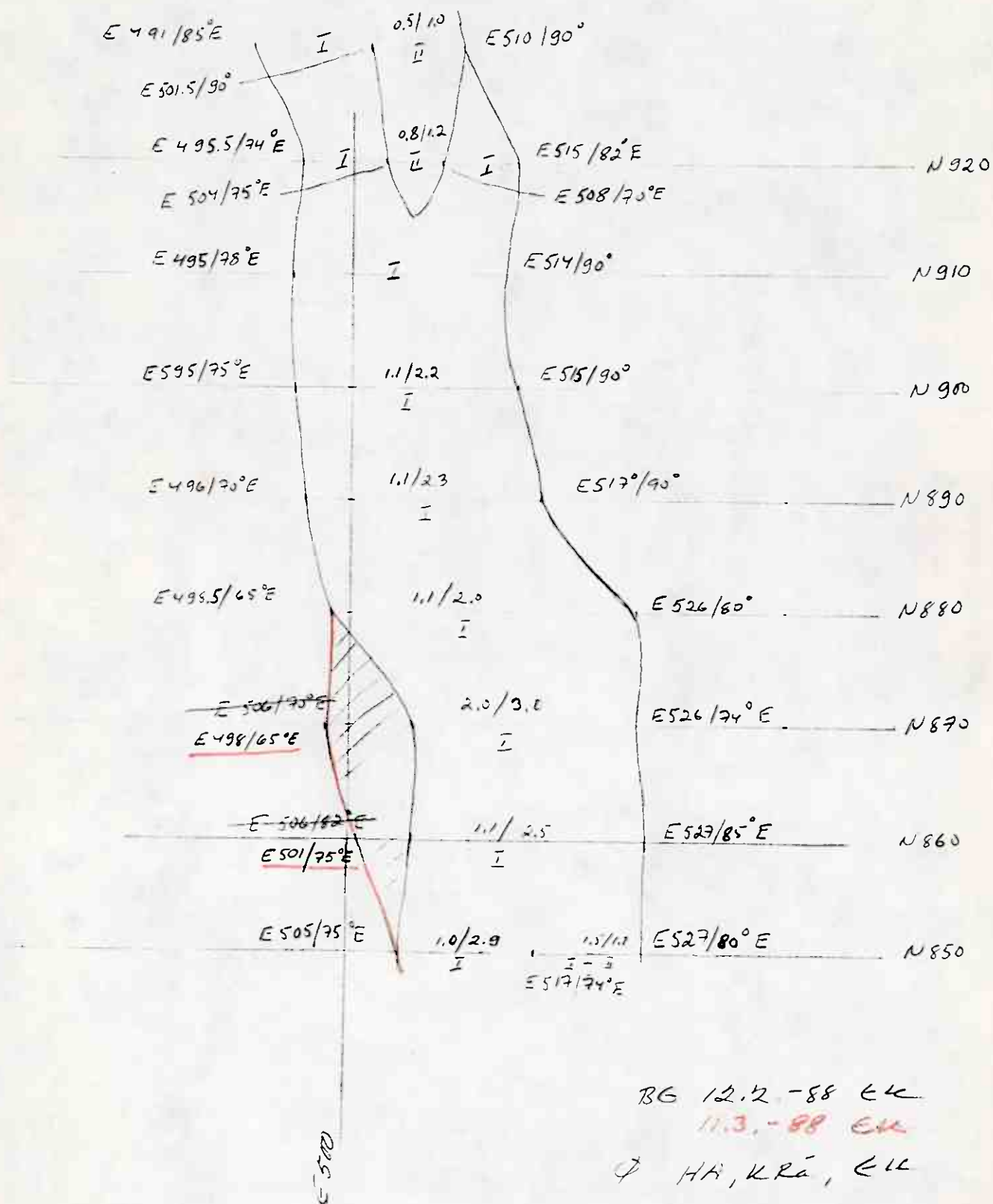
TIEN KORK.

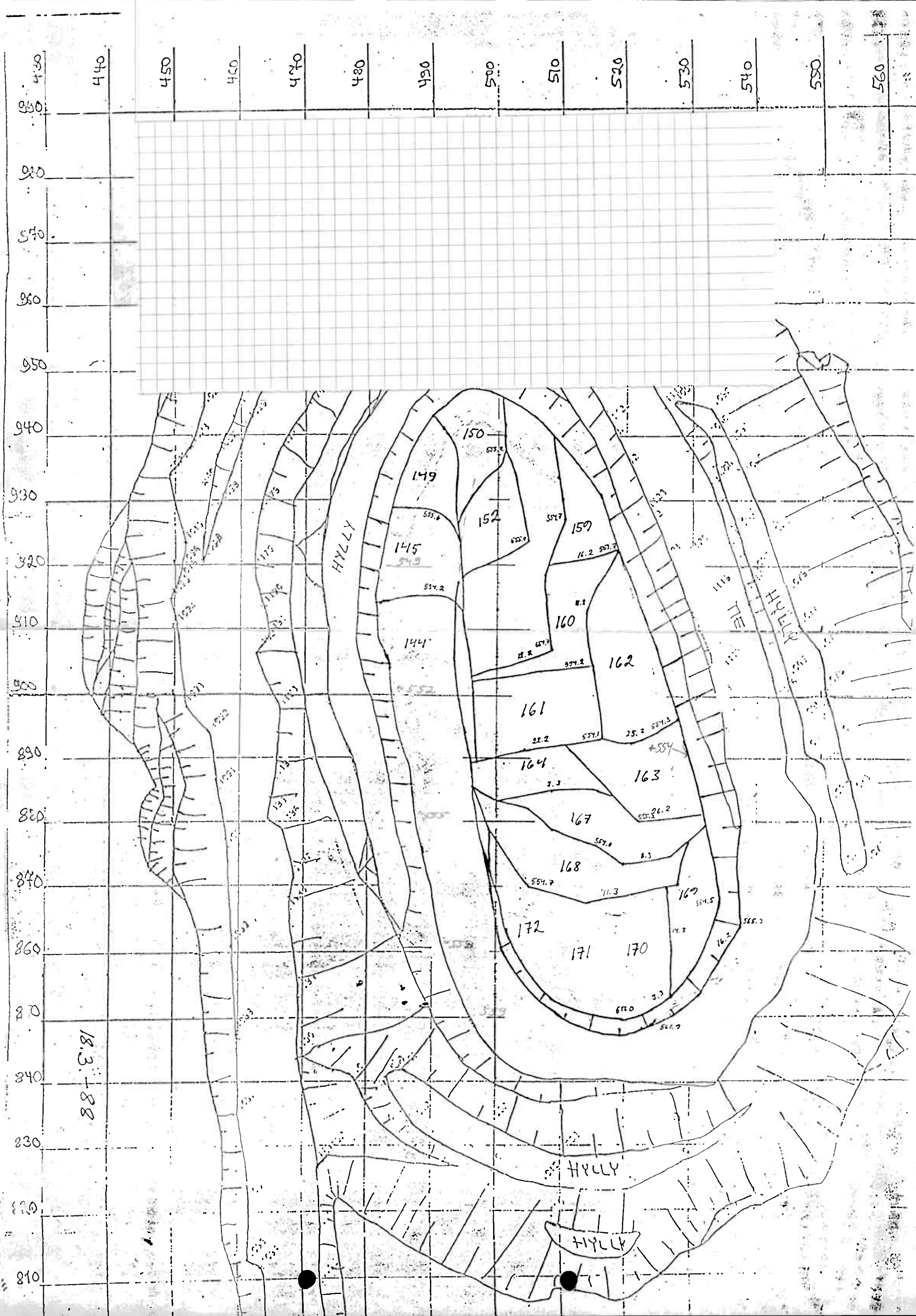
N 870	+ 555	E 501	$\Lambda 68^{\circ}$
N 880	+ 554	494,5	$\Lambda 65^{\circ}$
N 890	553	495,5	$\Lambda 71^{\circ}$
N 900	552	494,5	$\Lambda 73^{\circ}$
N 910	551	490,5	$\Lambda 72^{\circ}$
N 920	549	494,5	$\Lambda 70^{\circ}$
N 930	547,5	551,0	$\Lambda 72^{\circ}$
- N 860	556	500	$\Lambda 71^{\circ}$

KS 14,4,88

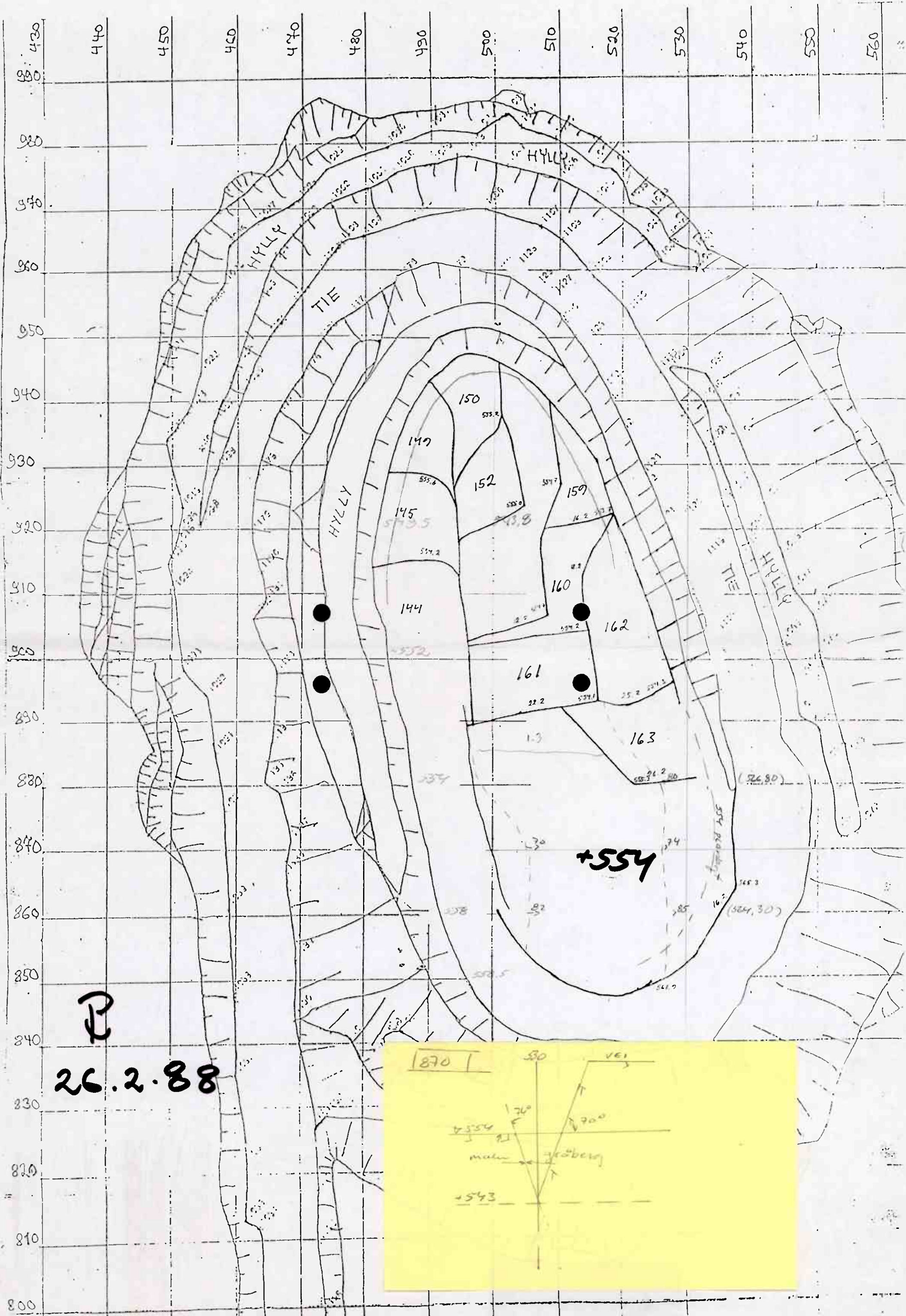
+ 554 - TAsO

MALMIN KESKIOSA

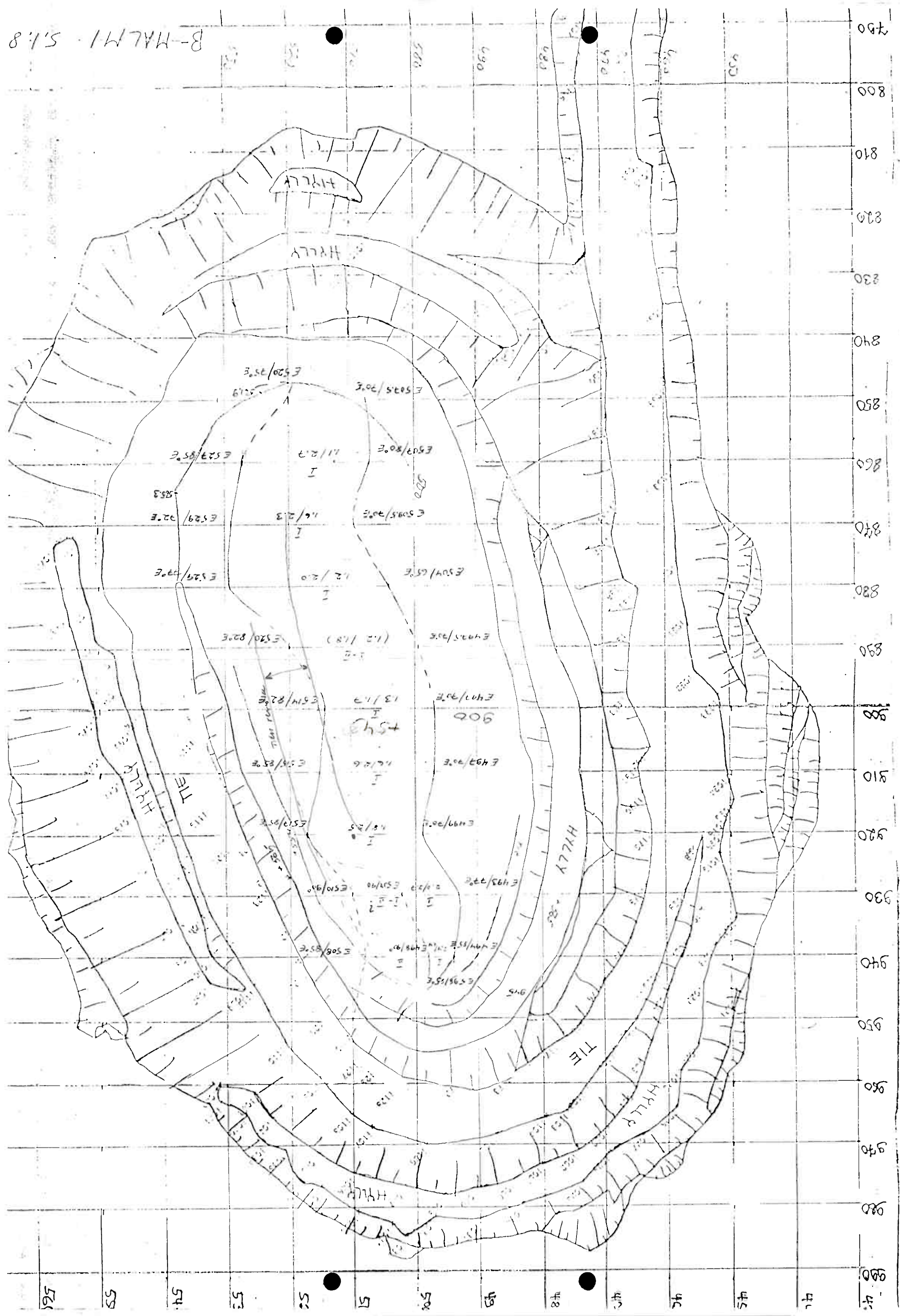




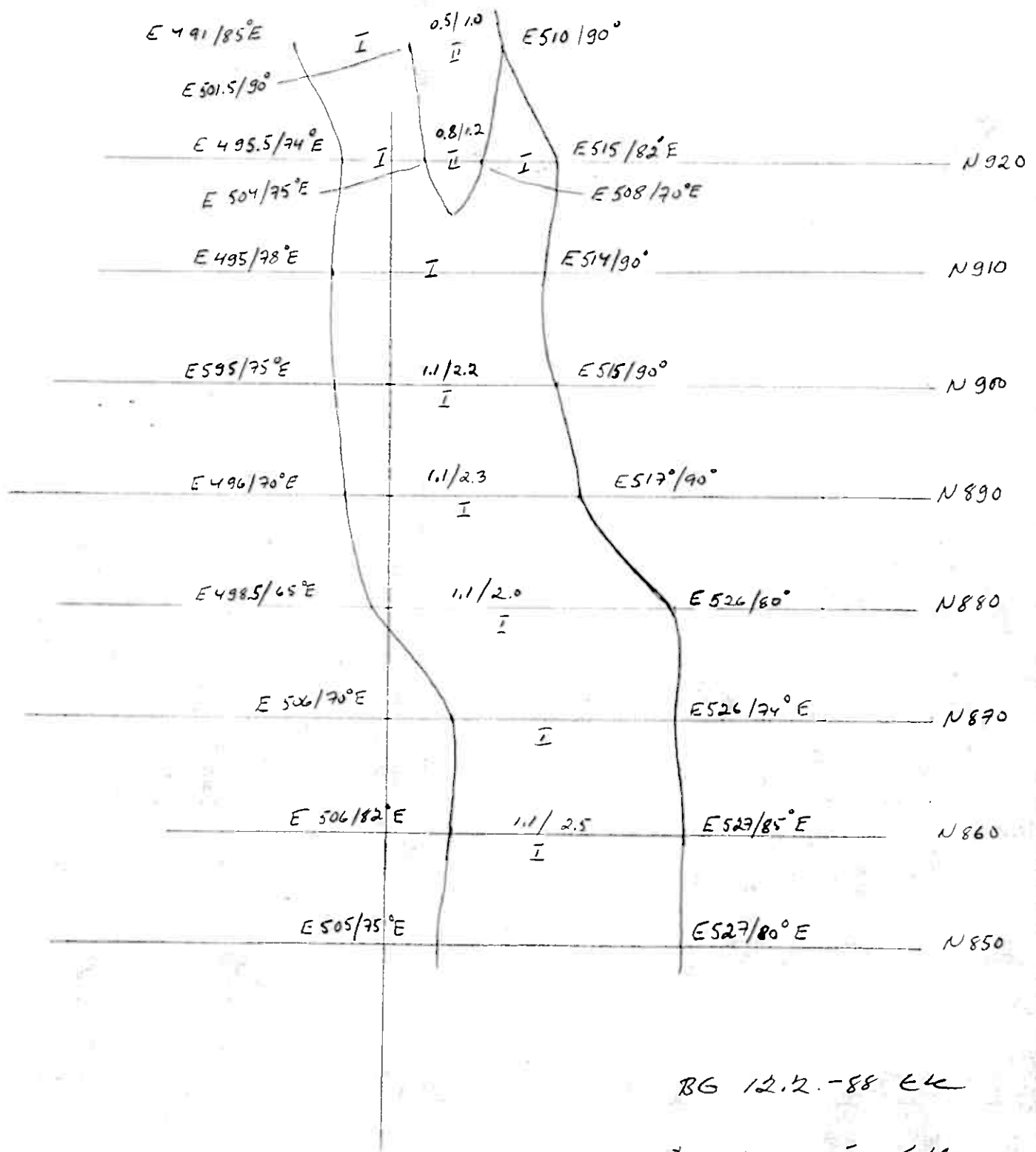
18.3.88



B-HALM1 S.1.8

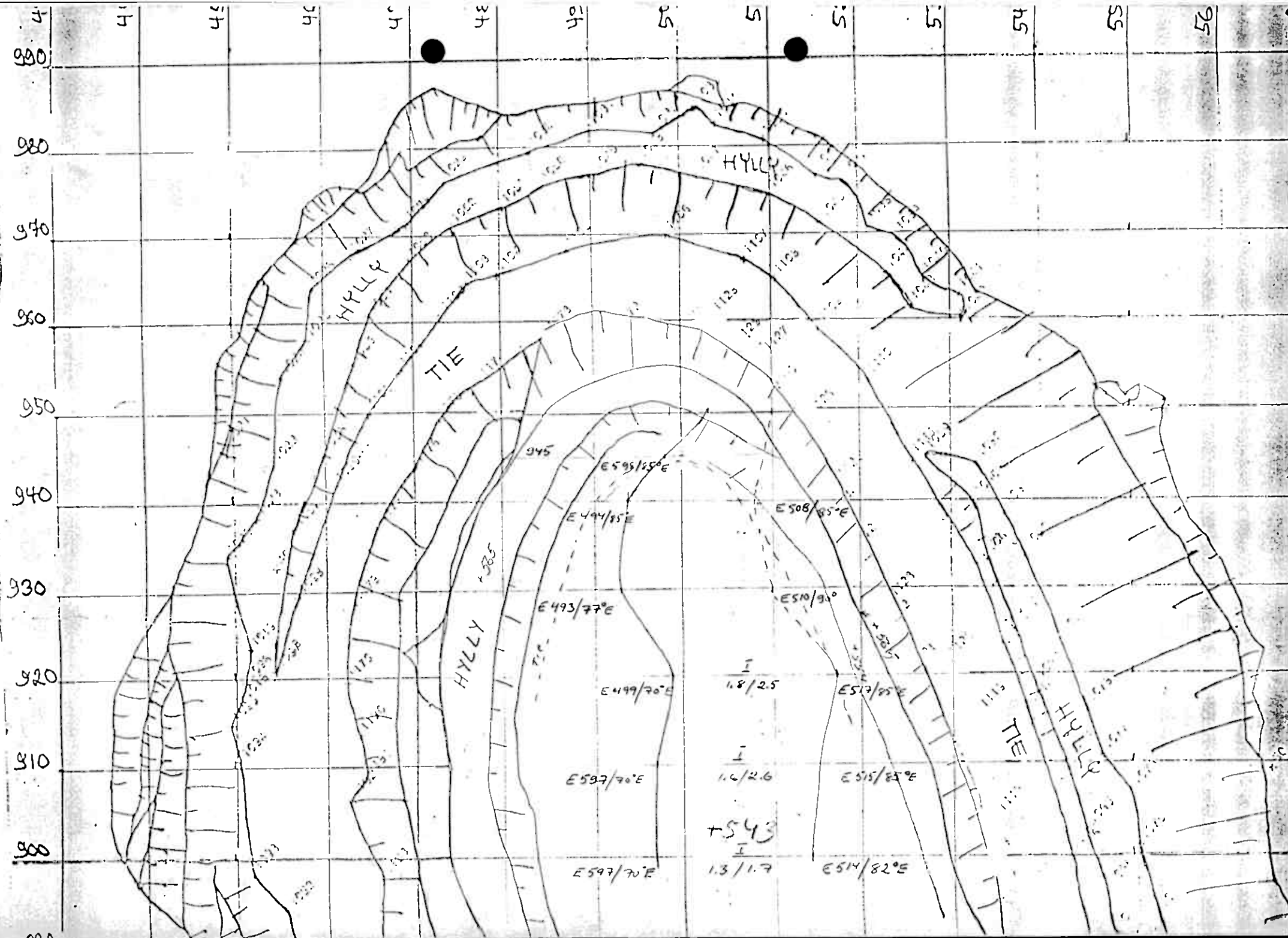


B-LUOHOS
 + 554 - TASO MALMIN KESKIOSA

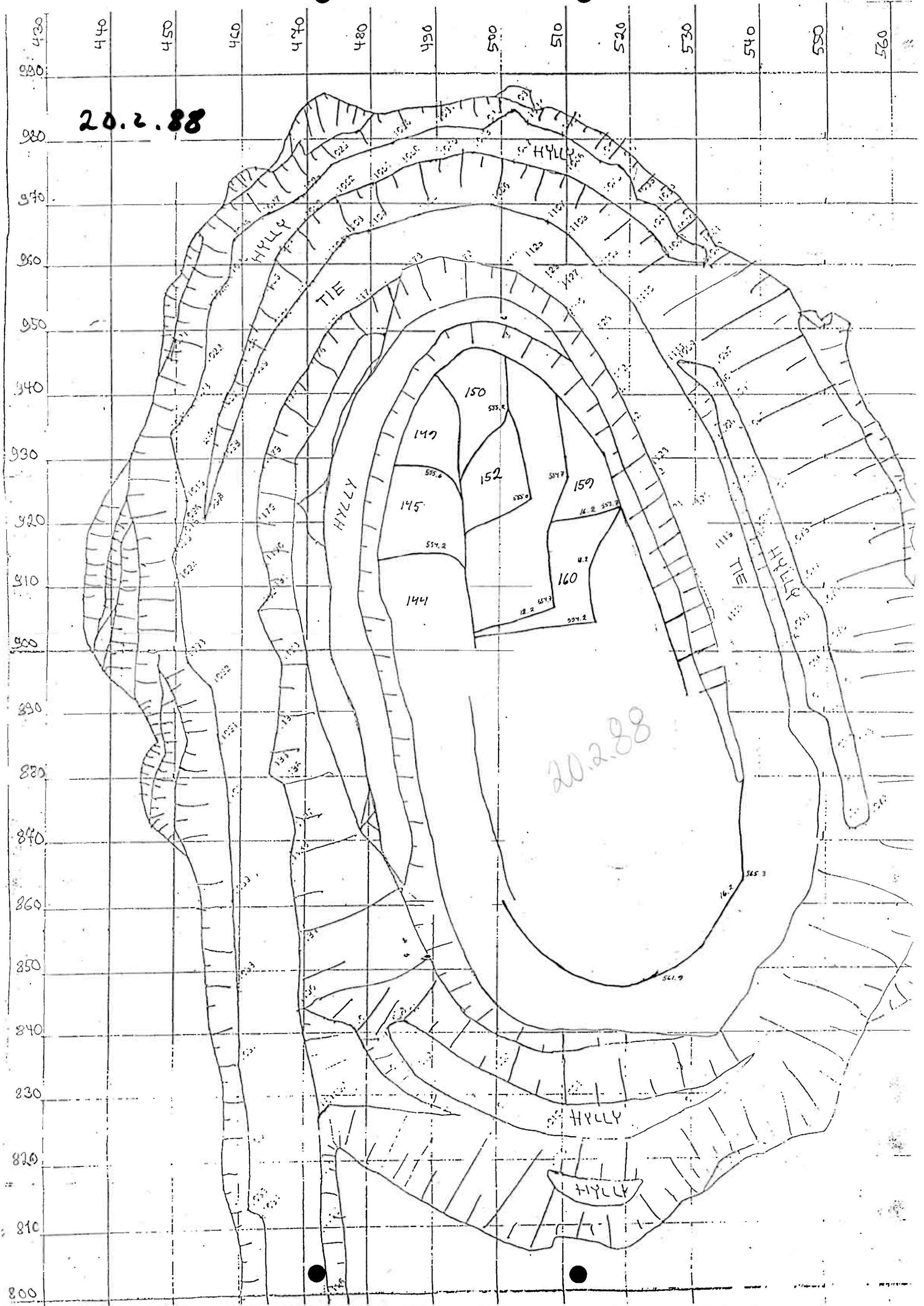


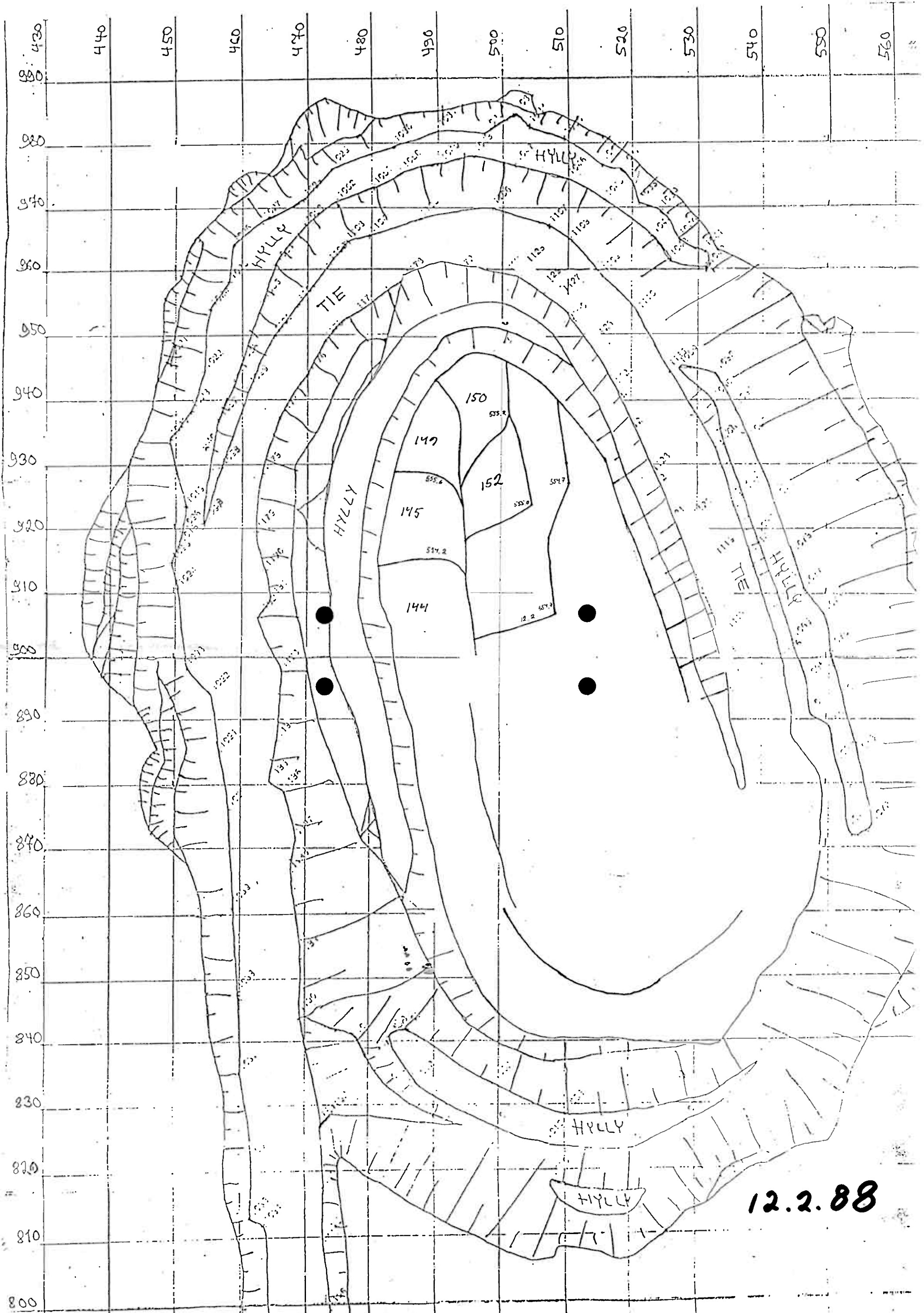
BG 12.12.-88 EK

HA, KRÄ, EK



20.2.88



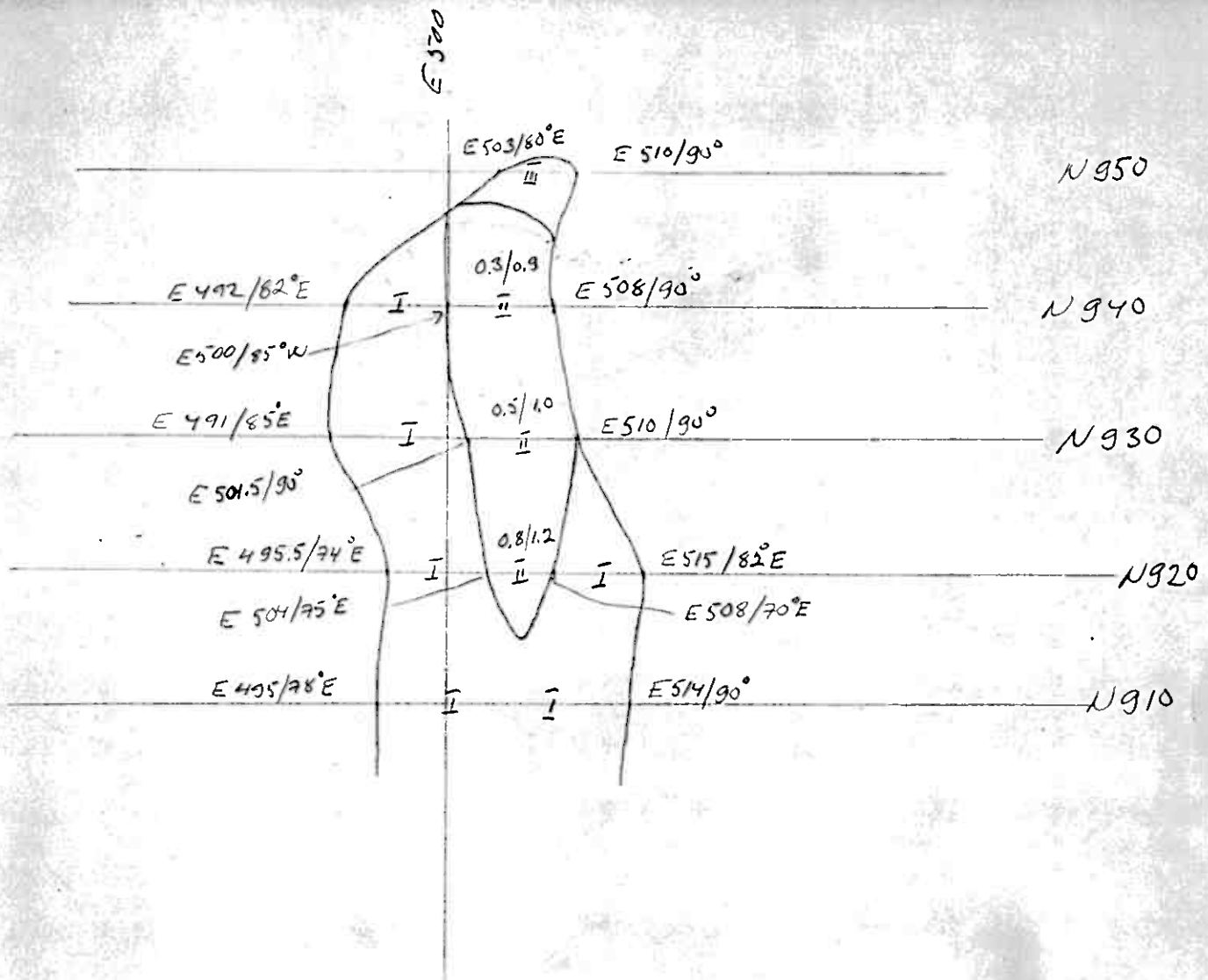


12.2.88

B - LOUHO

+554 - TASO

MALMIN POHJOISPÄÄ

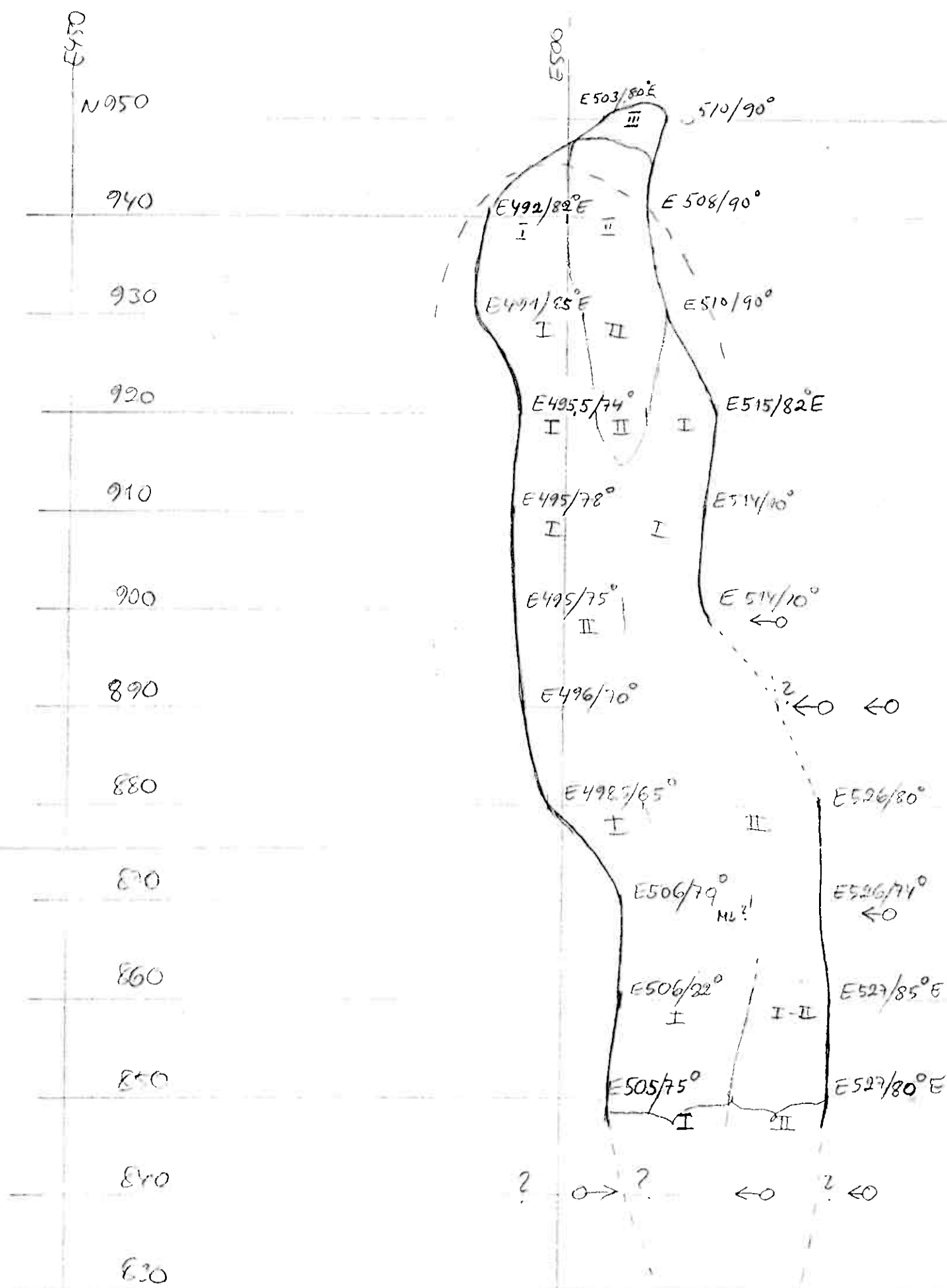


II - MALMIN PITOISUUSENNUSTE VOI OLLA
PAHASTI VÄÄRIN KOSKA SOINAUSTA EI VOITU
TEHDÄ. TARVISTETTAVA KARTONÄYTTEN

4.2. - 88 EU

Ø HA, KRÄ, EU

B● BRUDDET
+554 -TASO



EIK 3.2.1988

HA, KRA, KS-EK

450E

500E

550E

N100

SUOJATERASSIN MUUTOS 587-575 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

NOVEMBER 1987

PL B

MALM	20	27
GRAB.	32	25
	52	52

N98

N96

N94

N92

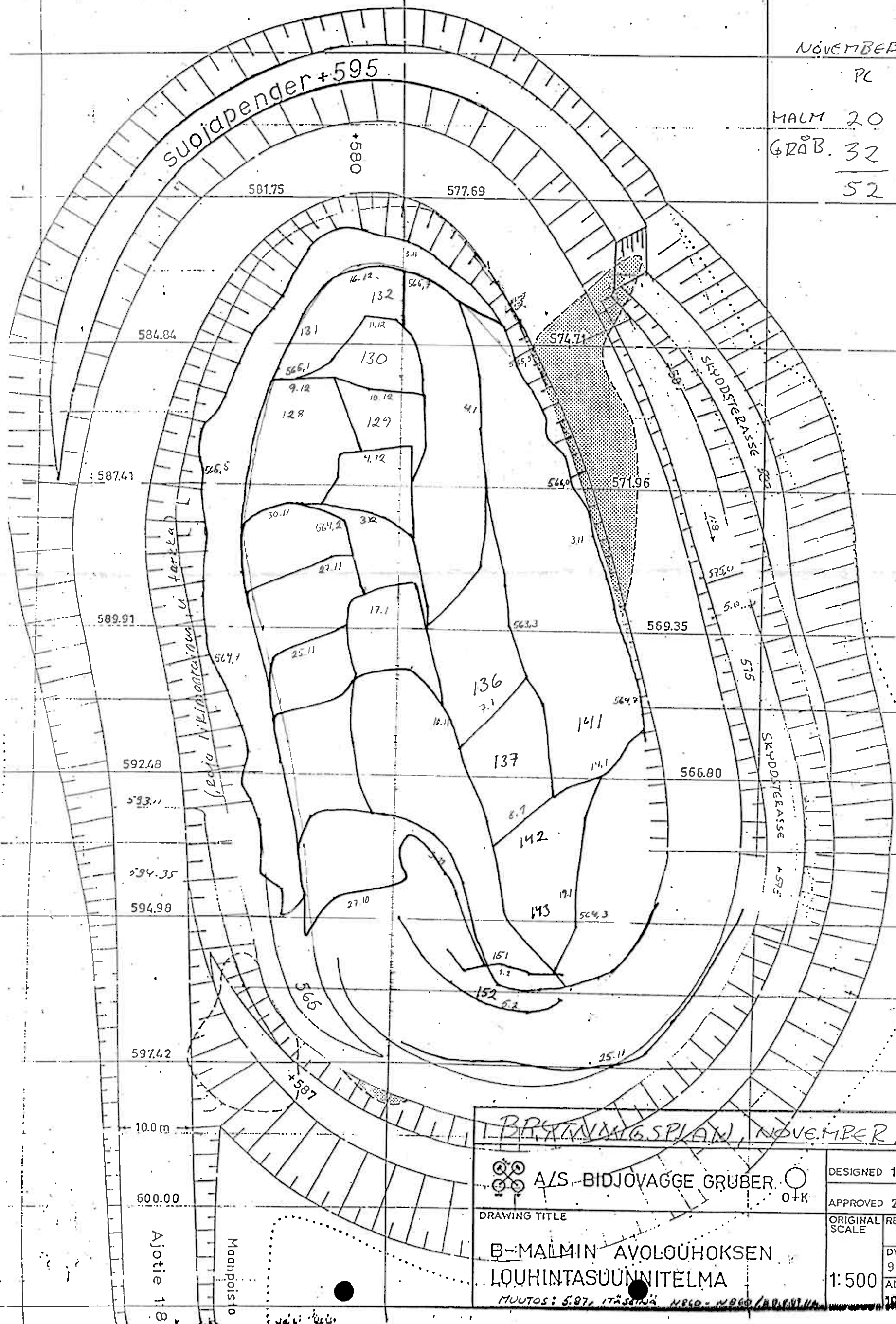
N90

N88

N86

N84

N82



BRÄNNINGSPLAN, NOVEMBER 1987

A/S-BIDJOVAGGE GRUBER

DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 5.87, 17.5.87, N860-N960 (A/S-BIDJOVAGGE GRUBER)

DESIGNED 12.1984 MS

APPROVED 20.12.84 TRA

ORIGINAL SCALE

DWG NO
900925-1

1:500

ALTERED

10.12.1984

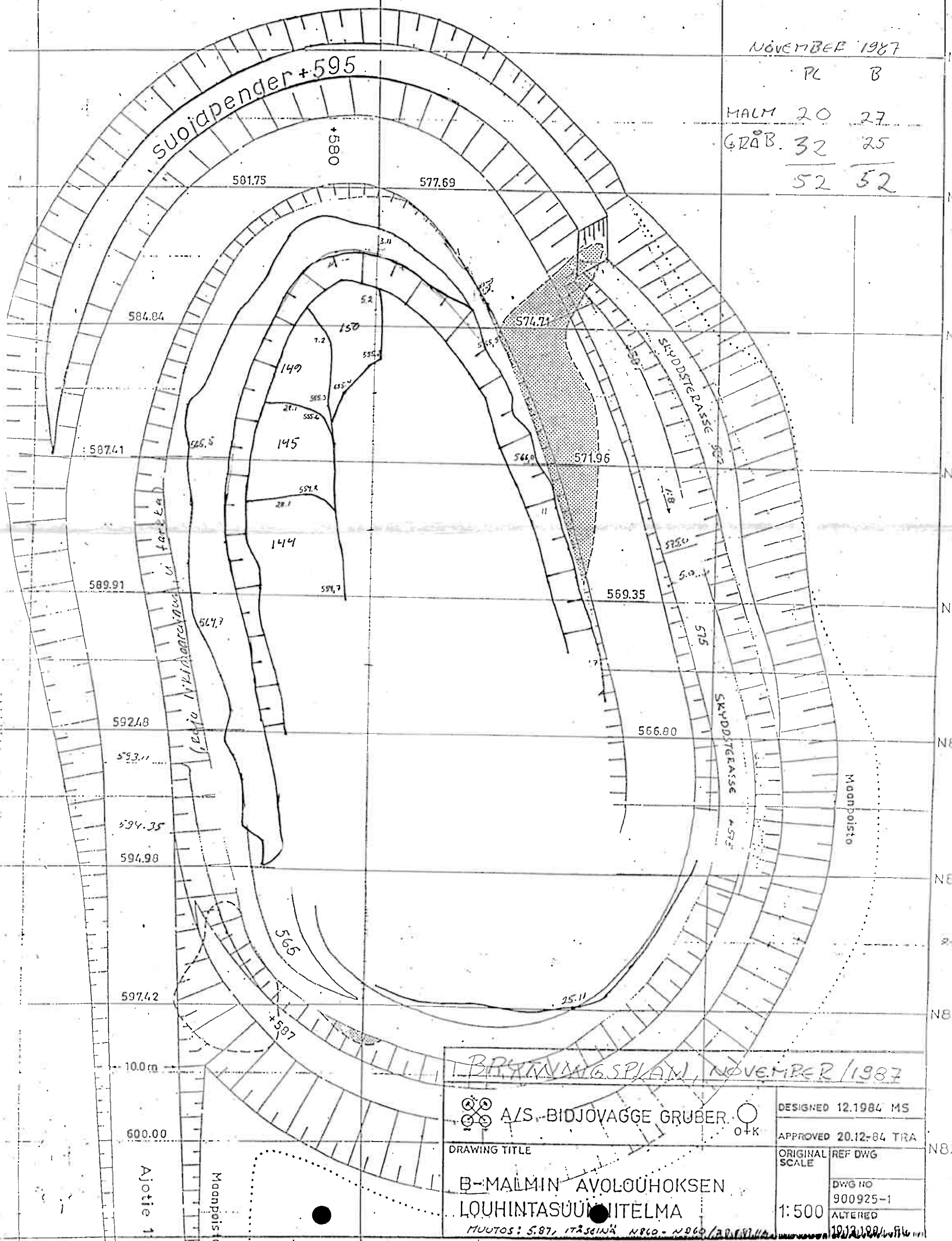
N82C

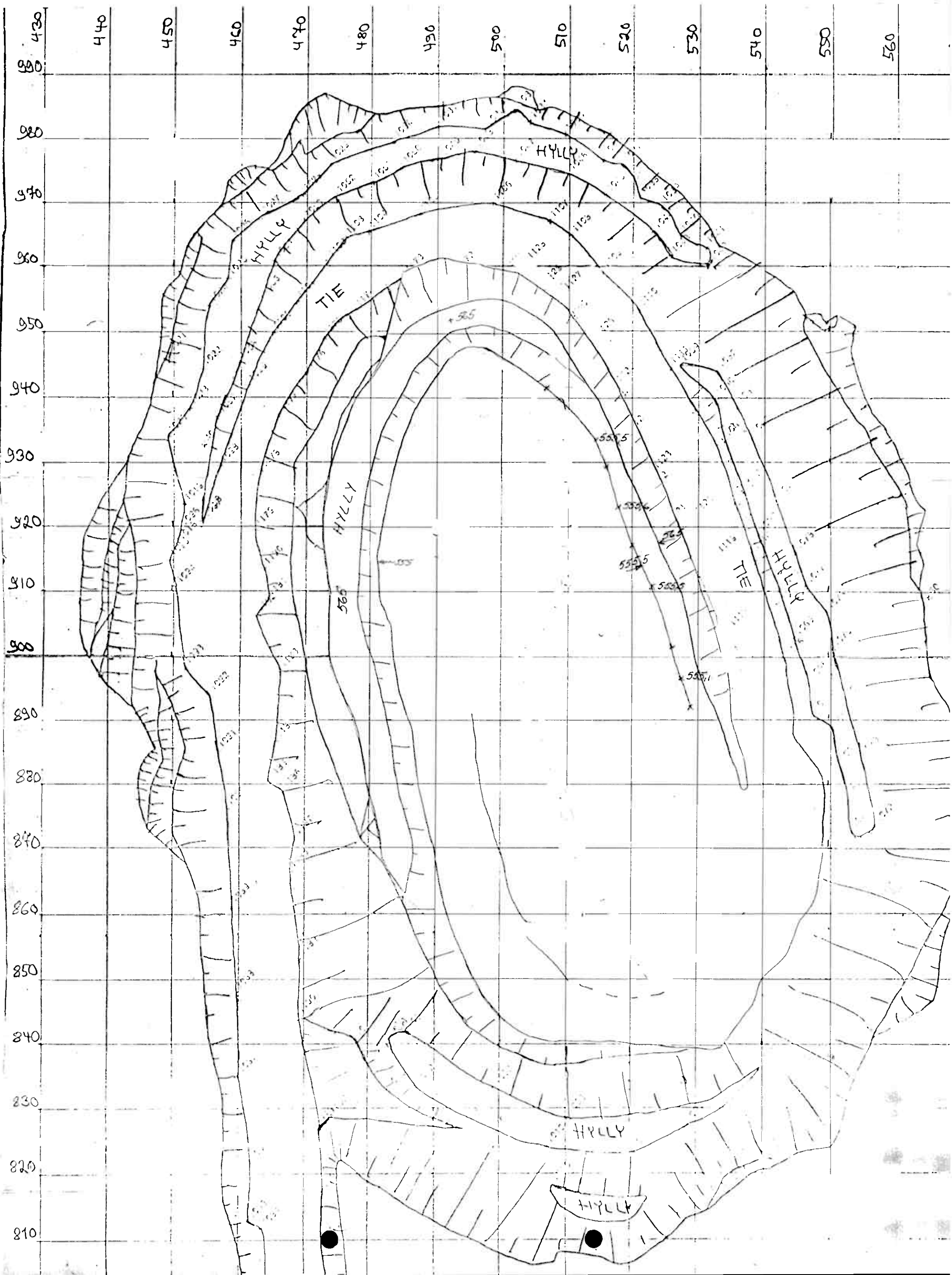
U
U
O
M

PL B

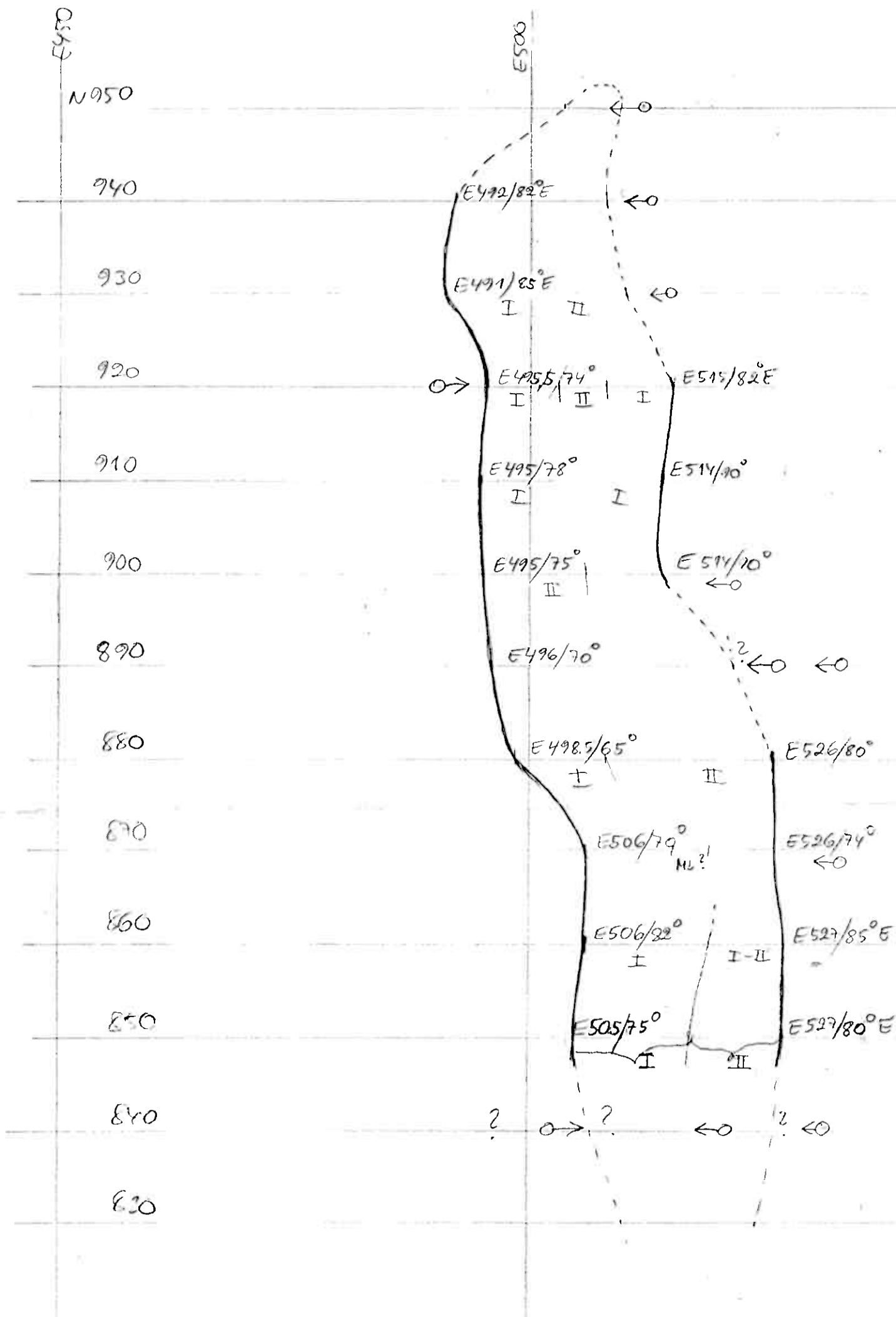
GRAB. 37 25

52 52



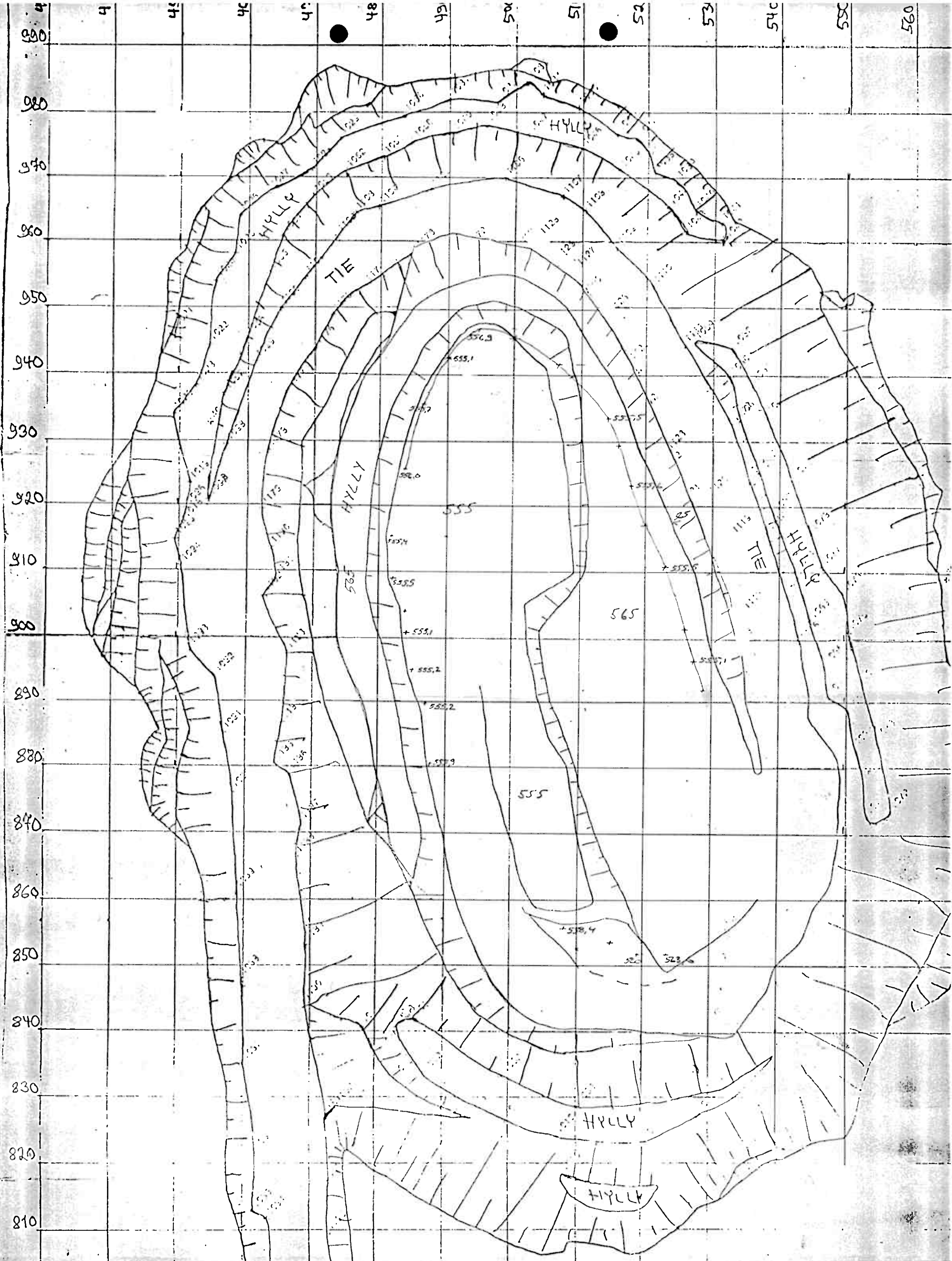


BRUDDET
+554 -TASO



KS 8.1.1988

HA, KRA, KS-EK



B
NIVO+554

B-M

Lauhinnonrajon

KARTOITUS

21.1. 1988

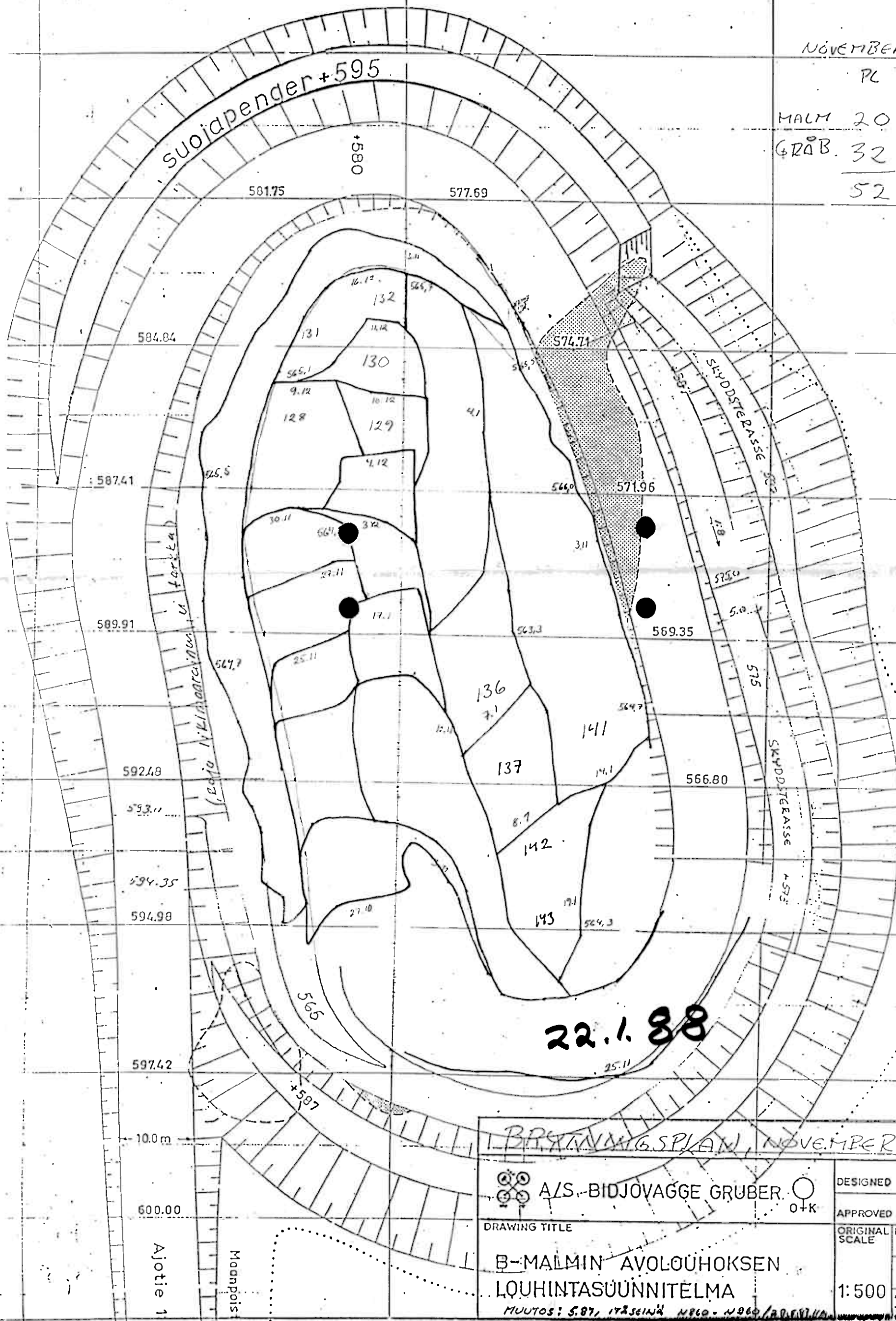
taso +554 vuono

ASEMAP.	SUUNTAP.	PISTE No.	KOORDINAATIT		KORKEUS Z	HUOM
			N	E		
		✓	877.88	487.87	555.87	4.1.-88
		✓	889.48	486.68	555.19	"
		✓	895.30	484.80	555.22	"
		✓	901.23	483.97	555.13	"
		✓	904.28	483.73	555.23	"
		✓	908.73	482.06	555.48	"
		✓	910.38	481.84	555.40	21.1.-88
		✓	916.50	481.75	555.42	
		✓	926.67	483.58	556.01	
		✓	935.83	486.54	555.75	
		✓	942.47	489.71	556.06	
		✓	947.02	494.85	556.93	
		✓	945.55	500.05	556.53	
		✓	941.80	506.57	557.47	
		✓	933.58	513.87	555.50	
		✓	929.41	516.24	555.44	
		✓	923.06	518.07	555.58	
		✓	916.77	520.81	555.77	
		✓	911.67	523.22	555.55	
		✓	902.60	525.87	555.47	
		✓	896.82	527.42	555.12	
		✓	892.43	528.86	554.87	

U
U
O
M

PL B

MALM	20	27
GRAB.	32	25
	<u>52</u>	<u>52</u>



22.1.88

~~1. BRYAN G. SPAN, NOVEMBER 1987~~

A/S. BIDJOVAGGE GRUBER

○
○+K

DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUOTOS: 5.87, 1725EINÄ N860 - N960 / 20.5.87/110

DESIGNED 12.1984 MS

APPROVED 20.12.84 TRA

ORIGINAL SCALE	REF DWG
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DWG NO	900925-1
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1:500
ALTERED
10/18/1984

450E

500E

550E

SUOJATERASSIN MUUTOS 587-575 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

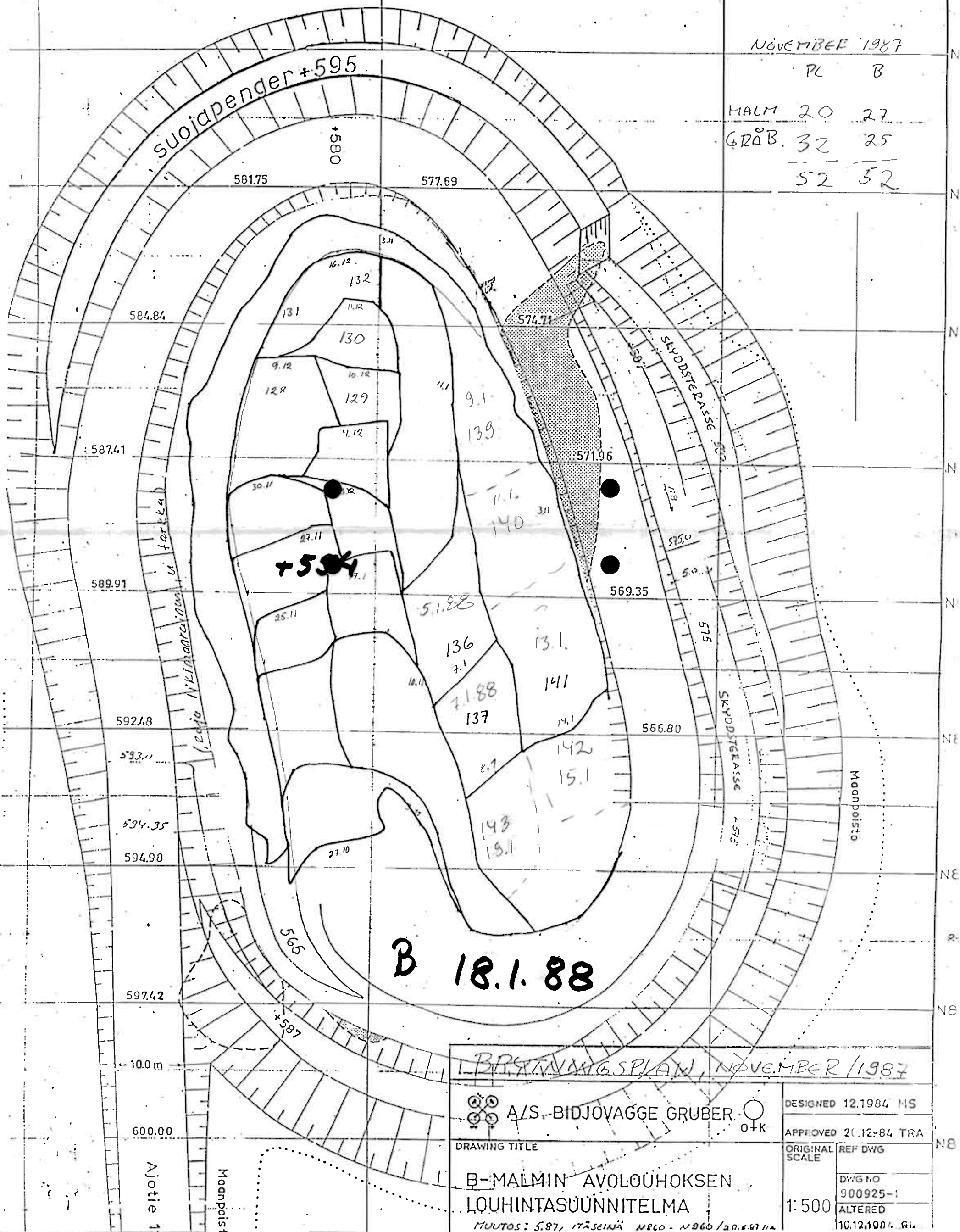
NOVEMBER 1987

PL B

MALM 20 27

GRAB 32 25

52 52



B 18.1.88



A/S BIDJOVAGGE GRUBER



DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 5.87, ITÄSEINÄ N860 - N960 / 20.12.84

DESIGNED 12.1984 MS

APPROVED 20.12.84 TRA

ORIGINAL SCALE

DWG NO
900925-1

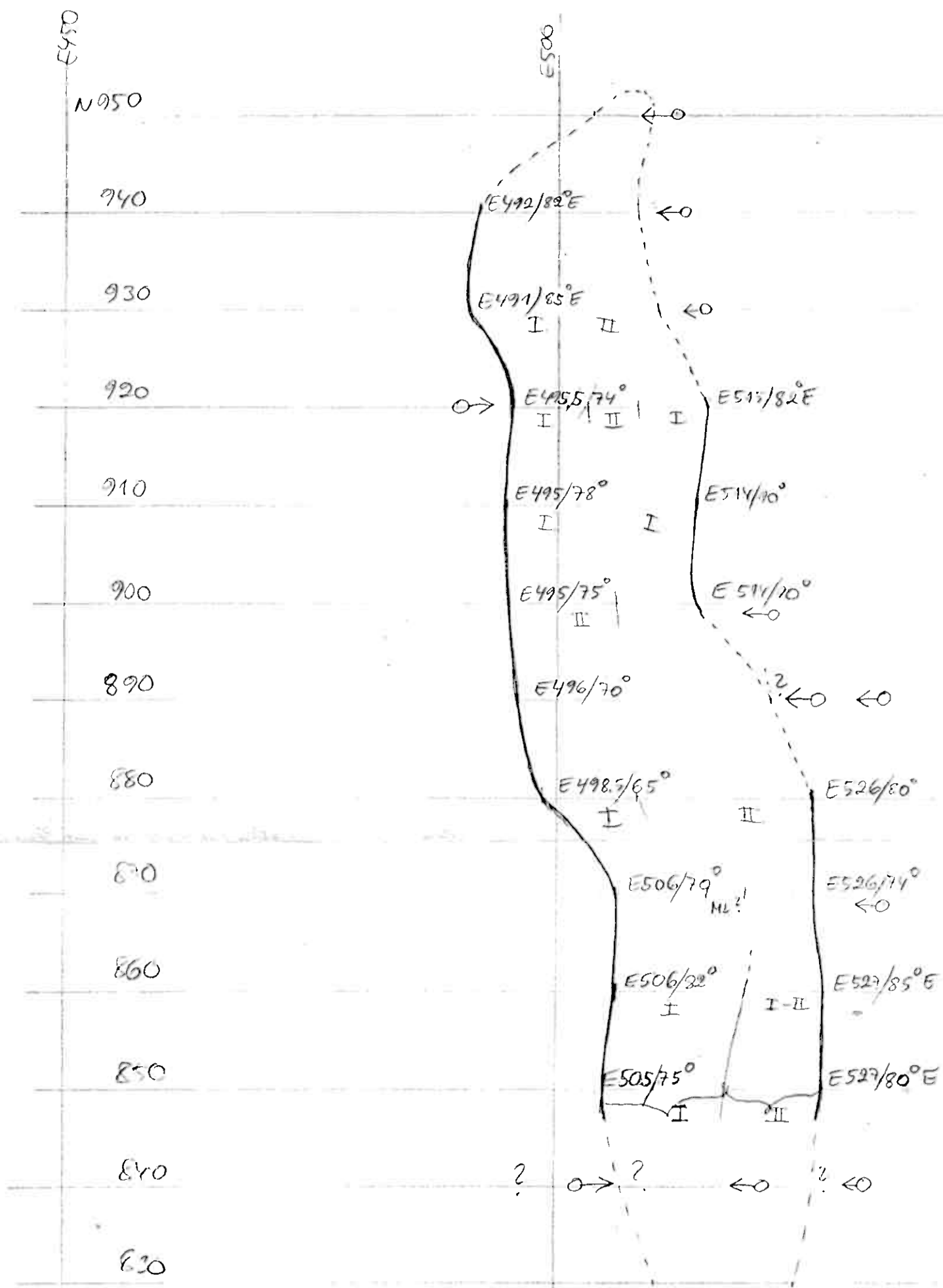
ALTERED

10.12.1984. RL

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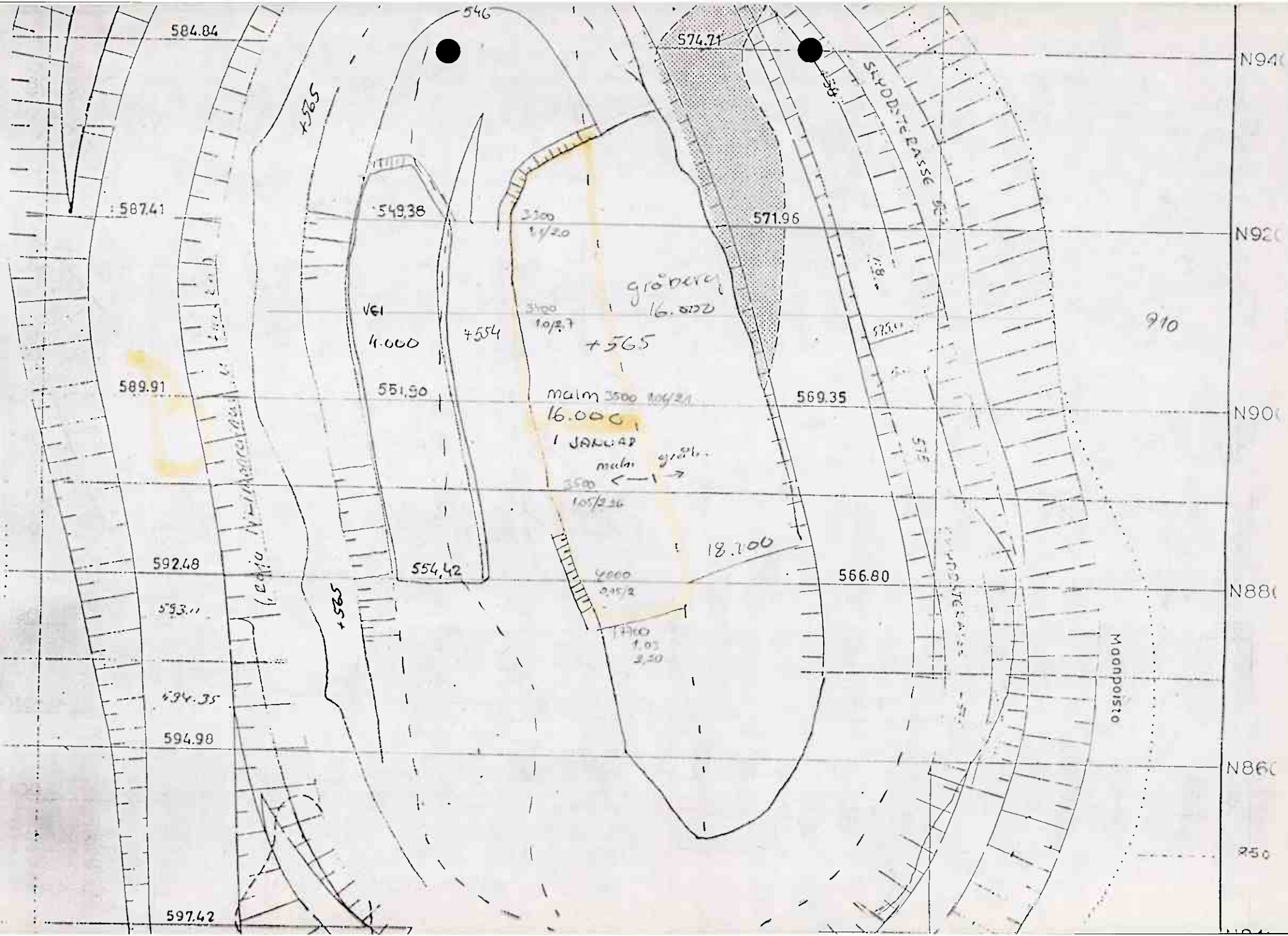
B - BRUDDET

+554 -TASO



KS 8.1.1988

HA, KRA, KS-EK



450E

500E

550E

SUOJATERASSIN MUUTOS 587-575 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

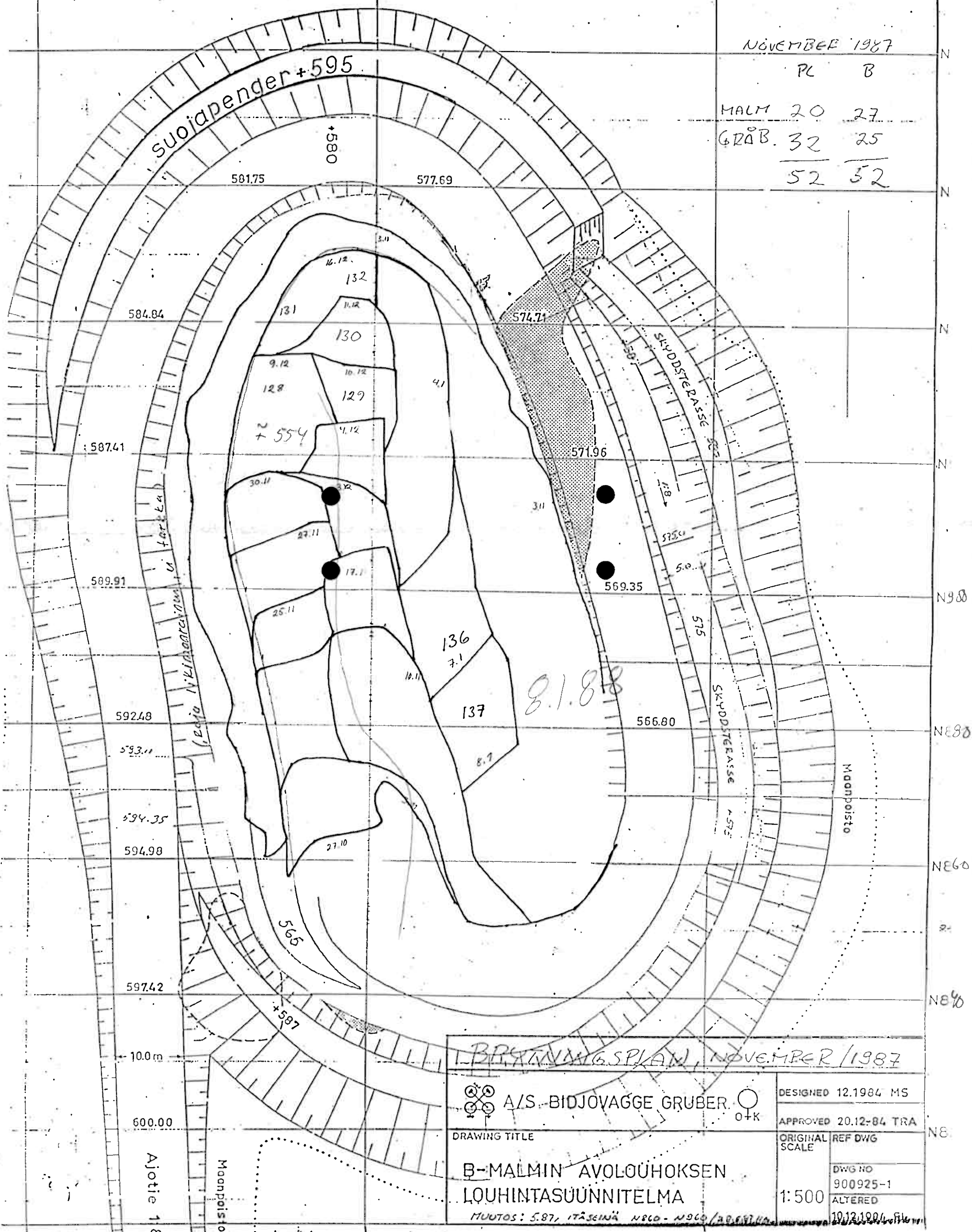
NOVEMBER 1987

PL B

MALM 20 27

GRAB. 32 25

52 52



A/S BIDJOVAGGE GRUBER



DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 5.87, ITÄSEINÄ N860-N960 / 20.12.84

DESIGNED 12.1984 MS

APPROVED 20.12.84 TRA

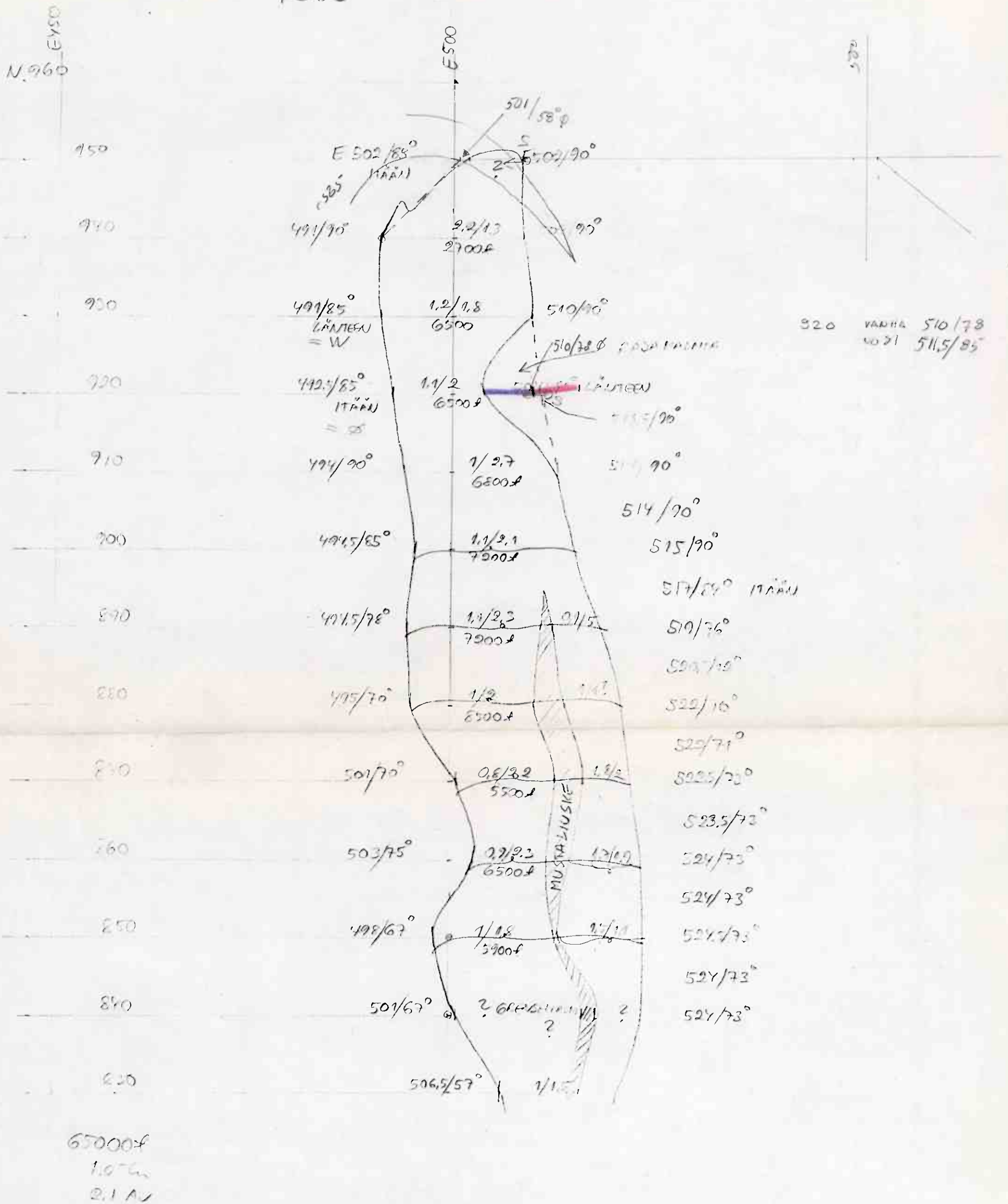
ORIGINAL SCALE

DWG NO
900925-1

ALTERED

10.12.1984

B - RUDDET
+565



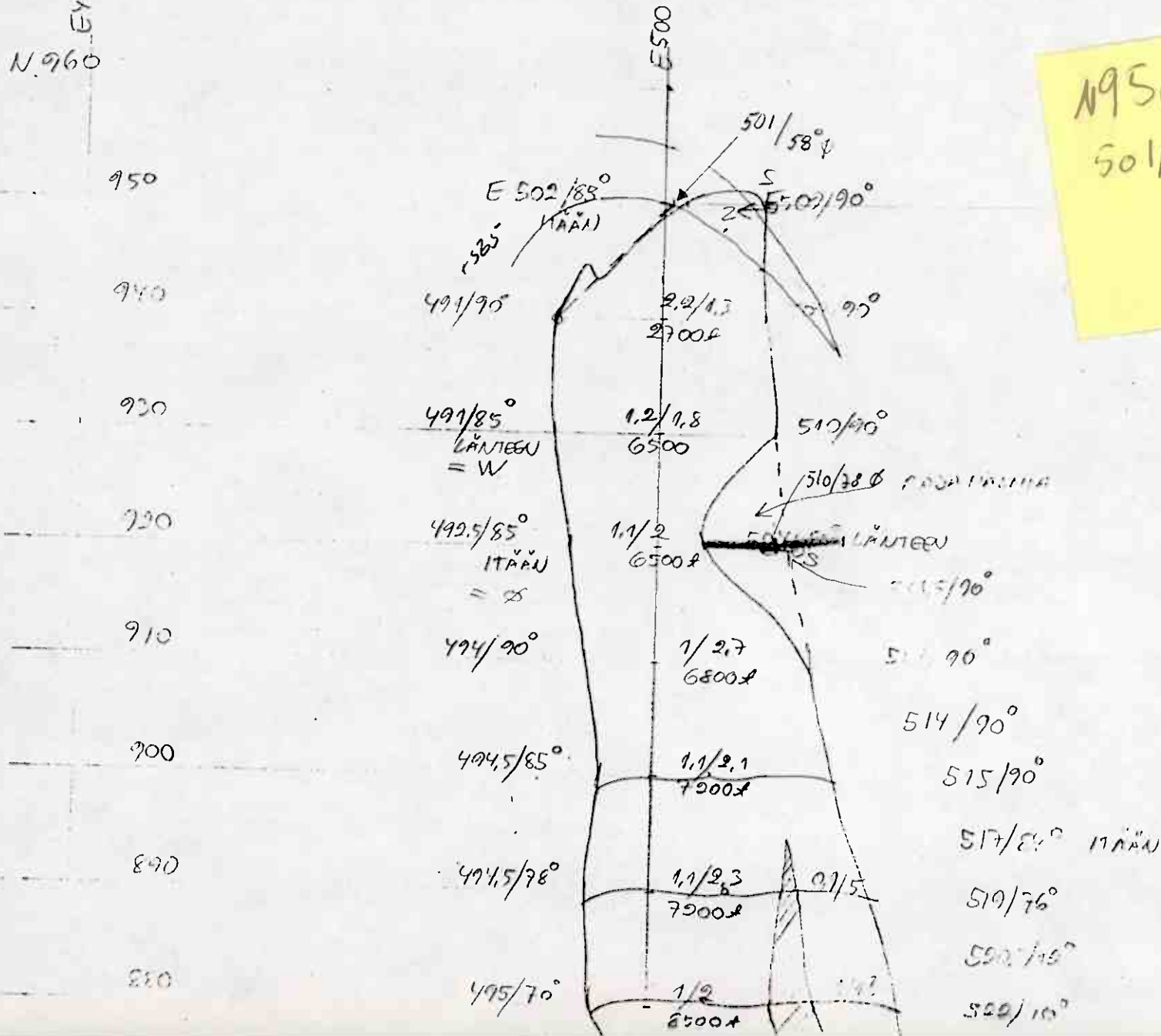
19.10.1987

B - RUDDET
+565

N 960
E 500

N 950
501/58°

N 950
501/58°



E 500

N 950

B

KR₀

Egil teki pari vuotta
soijareijan paikalla
B:hen

HA

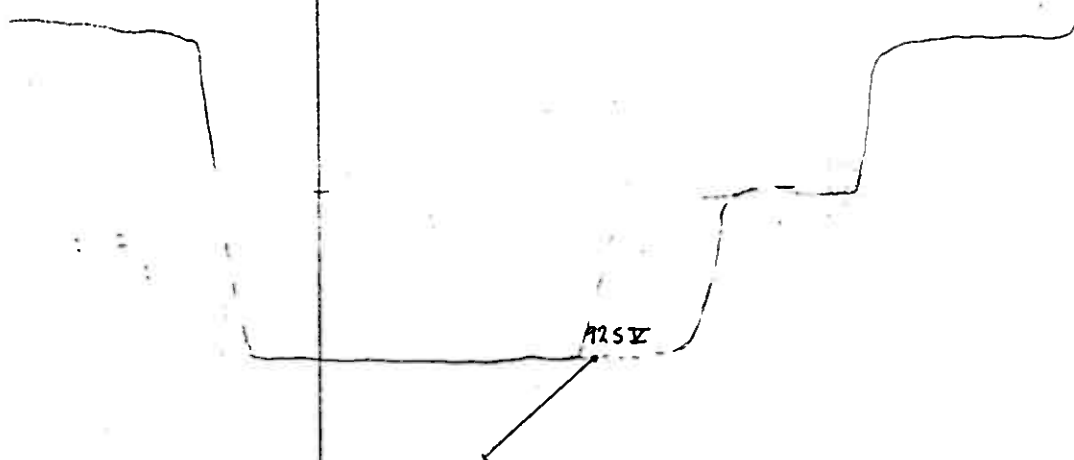
95 VIII 95 VII

SOIJAREIKA	E-KOORD	SUUNTA	KALT	NAYTEVALI	PITUUS
95 <u>VII</u>	499,0	90°	40°	1 m	73 m.
95 <u>VIII</u>	497,0	90°	40°	1 m	73 m.

E 600

N 920

B



SOJAREIKÄ	E-KOORD	SUUNTA	KALT	NÄYTEVALI	PITUUS
925 V	508	270°	40°	1 m	10 m.

ER - 4/12 - 87

i

R 500

B

N 950

R 650

955V

SOIJAREIKA

E-KORD

SVUNTA

KALT

NAYTEVALI

PITOUS

955V

501

90°

40°

1 m

10 m

PR 4/12-87

450E

500E

550E

SUOJATERASSIN MUUTOS 587-575 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

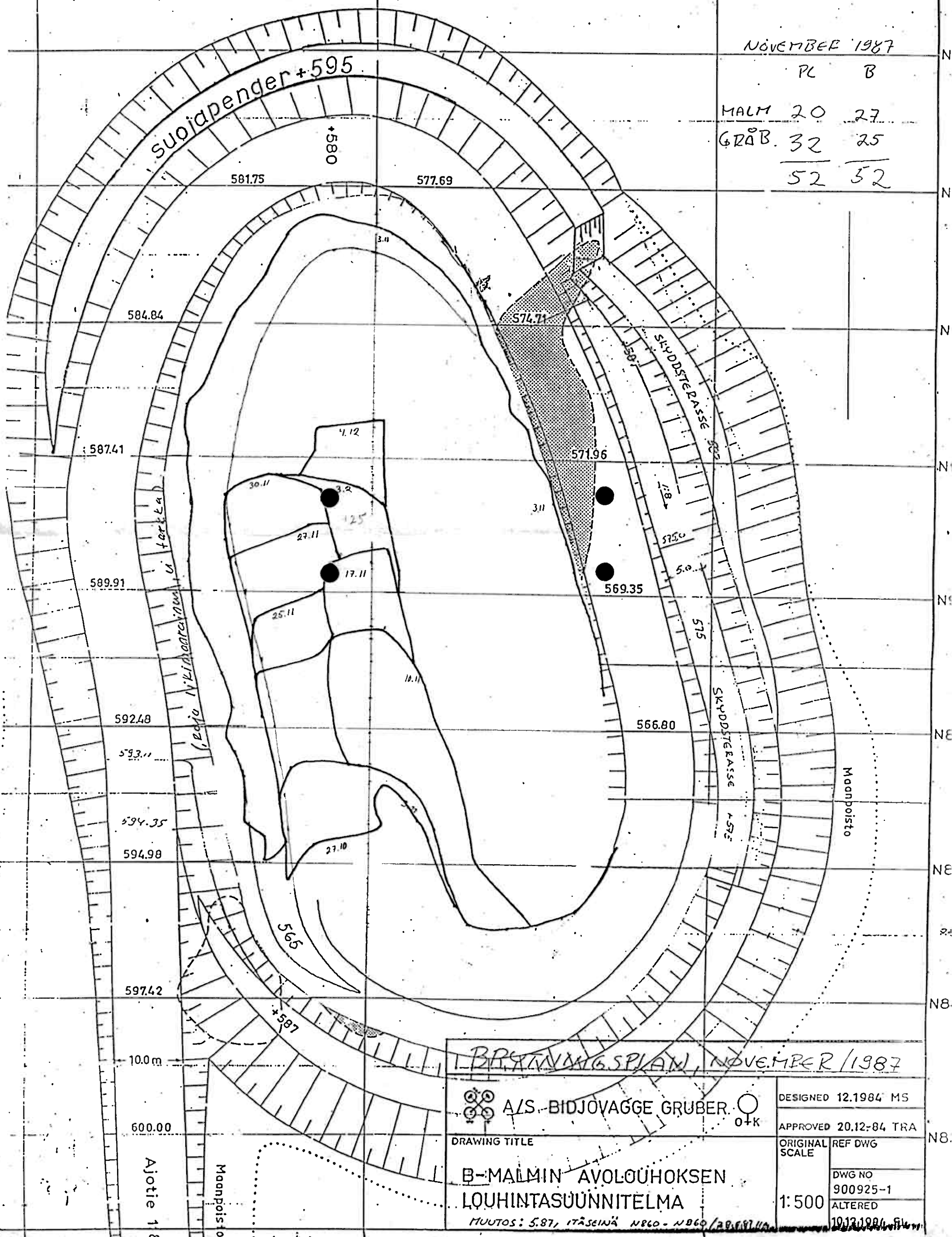
NOVEMBER 1987

PL B

MALM 20 27

GRAB. 32 25

52 52



B-MALMIN AVOLOUHOKSEN LOUHINTASUUNNITELMA, NOVEMBER 1987



A/S. BIDJOVAGGE GRUBER.

DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 5.87, ITÄSEINÄ N860-N960/29.6.87/11

DESIGNED 12.1984 MS

APPROVED 20.12.84 TRA

ORIGINAL SCALE

DWG NO
900925-1

ALTERED

1:500 1012/1984/511

450E

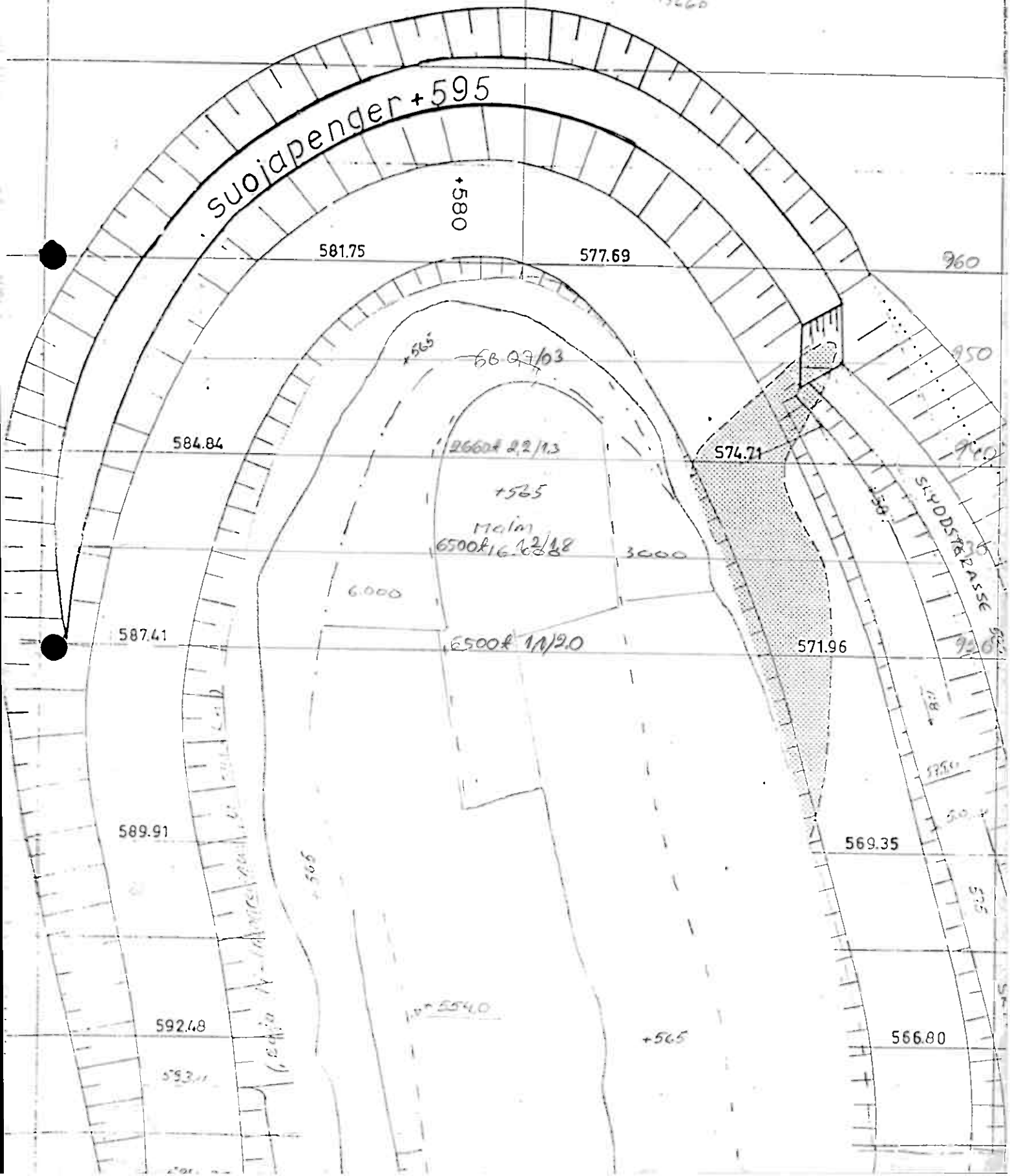
500E

u 1,33 An 1,80

SUOJATERASSIN MUUTOS 587-575 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

5852	3458
7200	11700
7153	13000
1.33	28158

15660



KAIRAUS B:

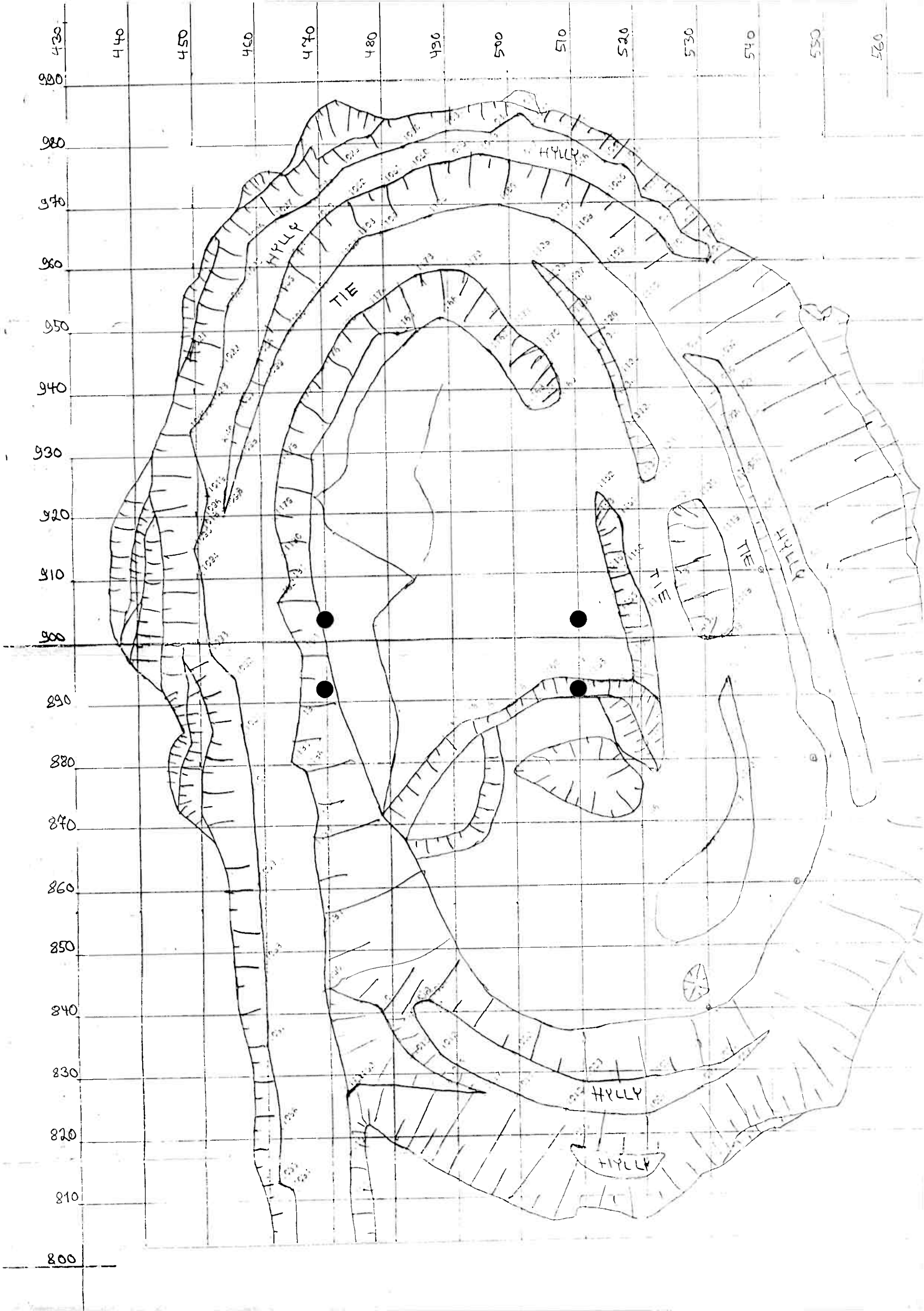
- ✓ N 860 +565 E 550 157° $\angle 75m$
✓ N 880 +568 E 550 159° $\angle 75m$
I N 896 +570 E 550 158° $\angle 75-80m$
± N 910 +591 E 545 160° $\angle 75m$
± N 930 +573 E 538 156° $\angle 75-80m$
✓ I N 850 +562 E 543 155° $\angle 50m$

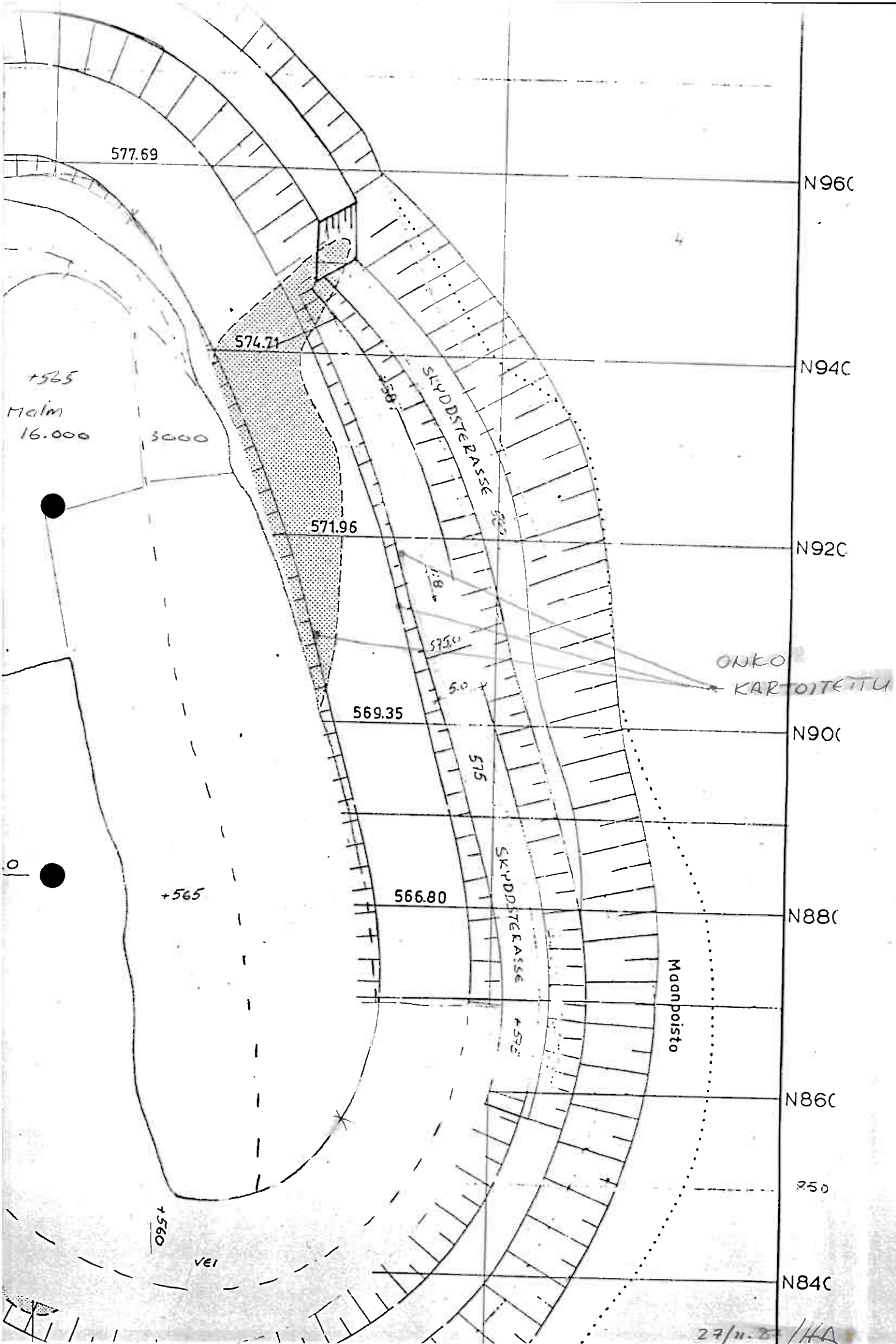
MIN 4 50-80m

TOT 280m $\times$ 500 = 140 000 NOK

+ PAAL. = $\approx$ 150 000 NOK

N 840	E 530
N 860	E 544
N 880	E 547
910	E 539





450E

500E

550E

SUOJATERASSIN MUUTOS 587-575 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

NOVEMBER 1987

PL B

MALM 20 27

GRAB. 32 25

52 52

suojapender +595

+580

581.75

577.69

584.84

587.41

589.91

592.48

593.11

594.35

594.98

597.42

10.0 m

600.00

Aiotie 13

Maanpöisto

17.11

10.11

27.10

565

+587

574.71

571.96

569.35

566.80

572.0

SKYDDSTERASSE

SKYDDSTERASSE

+575

Maanpöisto



A/S BIDJOVAGGE GRUBER



DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 5.87, ITÄSEINÄ N860 - N960 / 20.12.84

DESIGNED 12.1984 MS

APPROVED 20.12.84 TRA

ORIGINAL SCALE

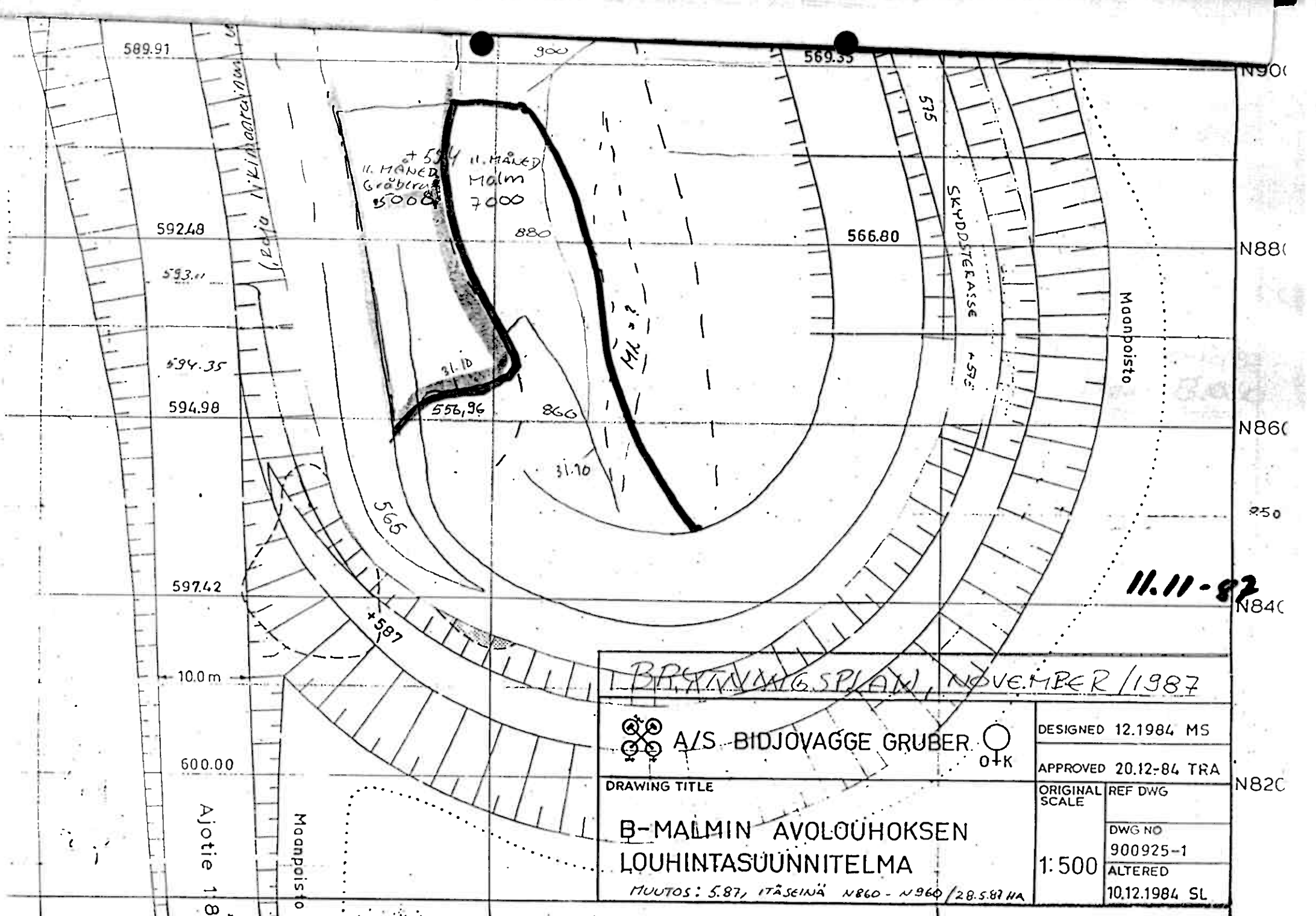
DWG NO
900925-1

ALTERED

10.12.1984

1:500

N8



BRÄTNINGSPLAN, NOVEMBER 1987

DRAWING TITLE	DESIGNED 12.1984 MS	
	APPROVED 20.12-84 TRA	
	ORIGINAL SCALE	REF DWG
	1:500	DWG NO 900925-1 ALTERED 10.12.1984 SL



A/S BIDJOVAGGE GRUBER



B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 5.87, ITÄSEINÄ N860 - N960 / 28.5.87 HA

TARKISTUSKIRJAUS B:n ALLA
OLISI MAHDOLLINEN MM
880 LEIKKAUKSSA

II. MAHED
Gräber
5000
II. MAHED
Malm
7000

4 TNA-
PAINEN →
TIEU LEUTYS

18.11.87/
HA

BIDJOVAGGEPLAN, NOVEMBER 1987



A/S BIDJOVAGGE GRUBER



DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

DESIGNED 12.1984 MS

APPROVED 20.12-84 TRA

ORIGINAL
SCALE

REF DWG

DWG NO

900925-1

1:500

ALTERED

N90

N880

N860

N840

N820

592.48

593.11

594.35

594.98

597.42

10.0m

600.00

Ajotie

Maanpöytä

Maanpöytä

SKYDSTEGASSE

566.80

880

860

31.10

556.96

31.10

566

587

+565

575.0

569.35

575

20.10 N. KIRKONKATU

B-M tien reunan korkeus

N= 880
E= 499.5
Z= 556.95

PAALUSTA 5.5 m LÄNTEEN, 65° ITÄÄN.
ELI 494.0, $\wedge 65^{\circ}$

N= 870

E= 501
Z= 558.38

PAALUSTA 2.5 ITÄÄN, 70° ITÄÄN
ELI E 503.5, $\wedge 70^{\circ}$

N= 860

E= 502
Z= 558.35

← PAALU OIKEASSA PAIKASSA, 73° ITÄÄN
ELI E 502.0, $\wedge 73^{\circ}$

N= 854.5

E= 504
Z= 559.38

← PAALUSTA 2.5 m LÄNTEEN, 71° ITÄÄN
ELI E 501.5, $\wedge 71^{\circ}$

N= 850

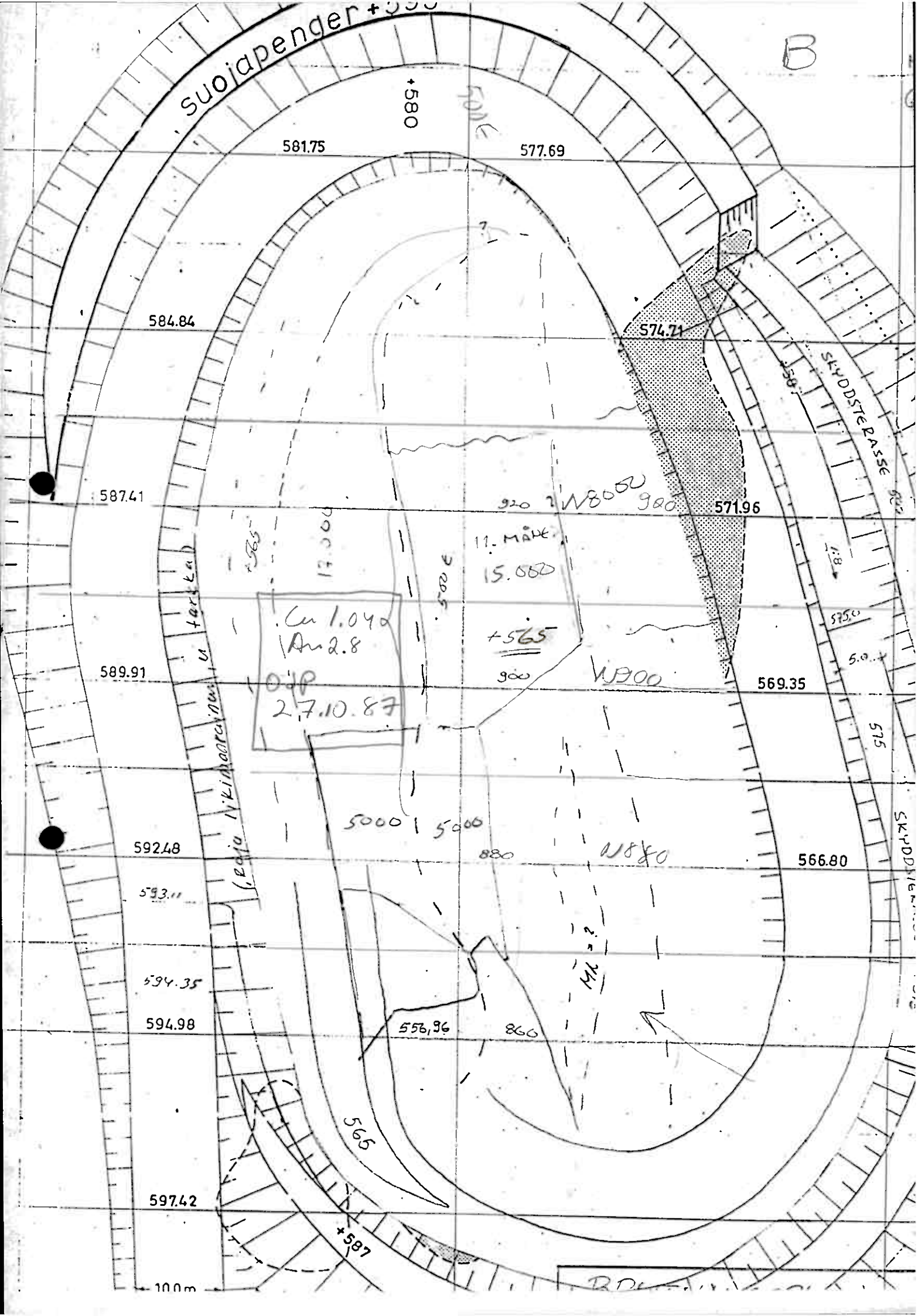
E= 510
Z= 560.30

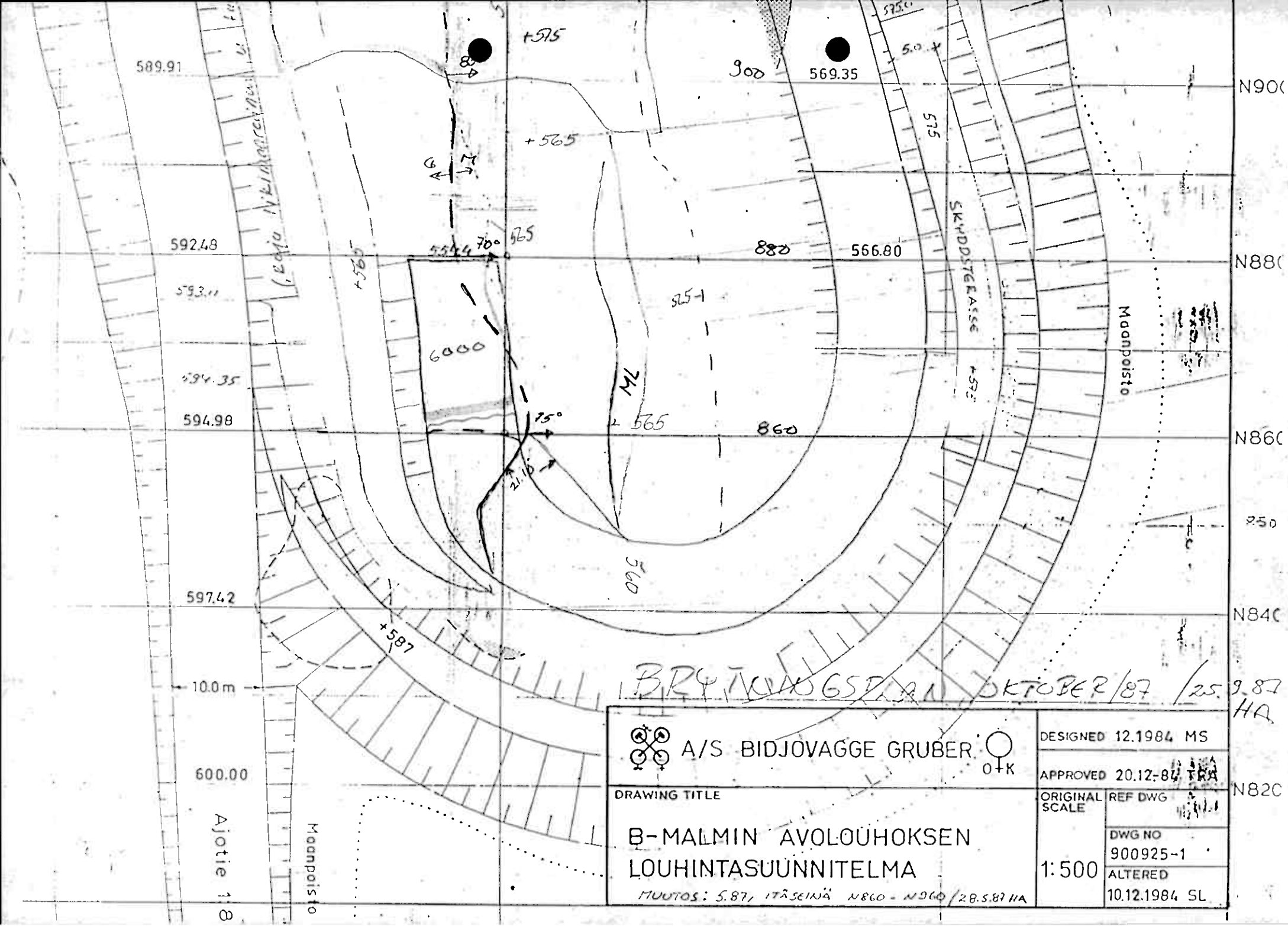
← PAALUSTA 9.0 LÄNTEEN, 70° ITÄÄN
ELI E 501.0, $\wedge 70^{\circ}$ ITÄÄN



KS 16, 11, 87

Ø LIIR
KPS, KS





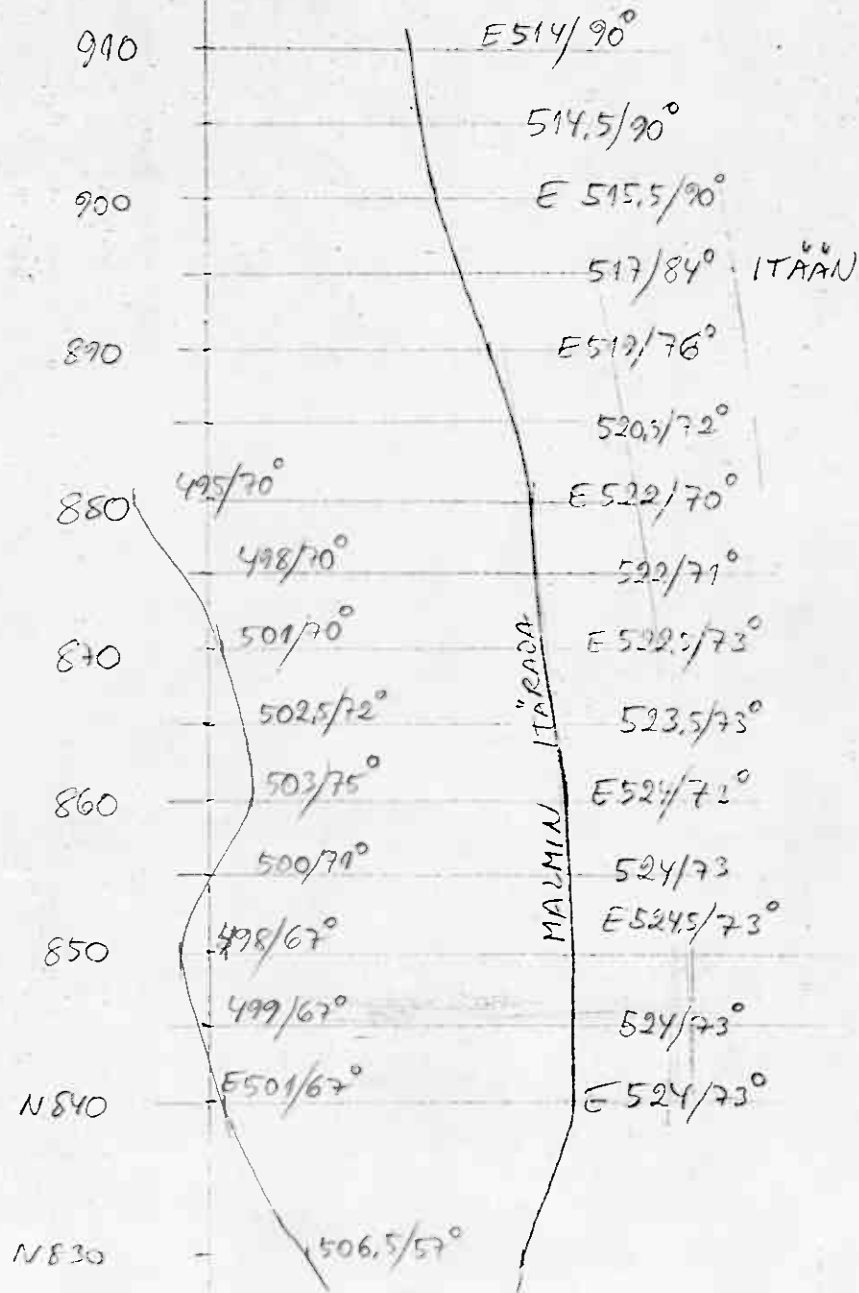
 A/S BIDJOVAGGE GRUBER 		DESIGNED 12.1984 MS	
DRAWING TITLE		APPROVED 20.12.84 TRA	
B-MALMIN AVOLOUHOKSEN LOUHINTASUUNNITELMA		ORIGINAL SCALE	
MUUTOS: 5.87, ITÄSEINÄ N860 - N960 / 28.5.87 HA		REF DWG	
1:500		DWG NO 900925-1	
10.12.1984 SL		ALTERED	

BTG A/S BIDJOVAGGE GRUBER

B-LOUKOS

+ 565

ITÄRAJA



BG 3,10,87

KS

Ø LMK 2 KPL

HA, KPL, KS

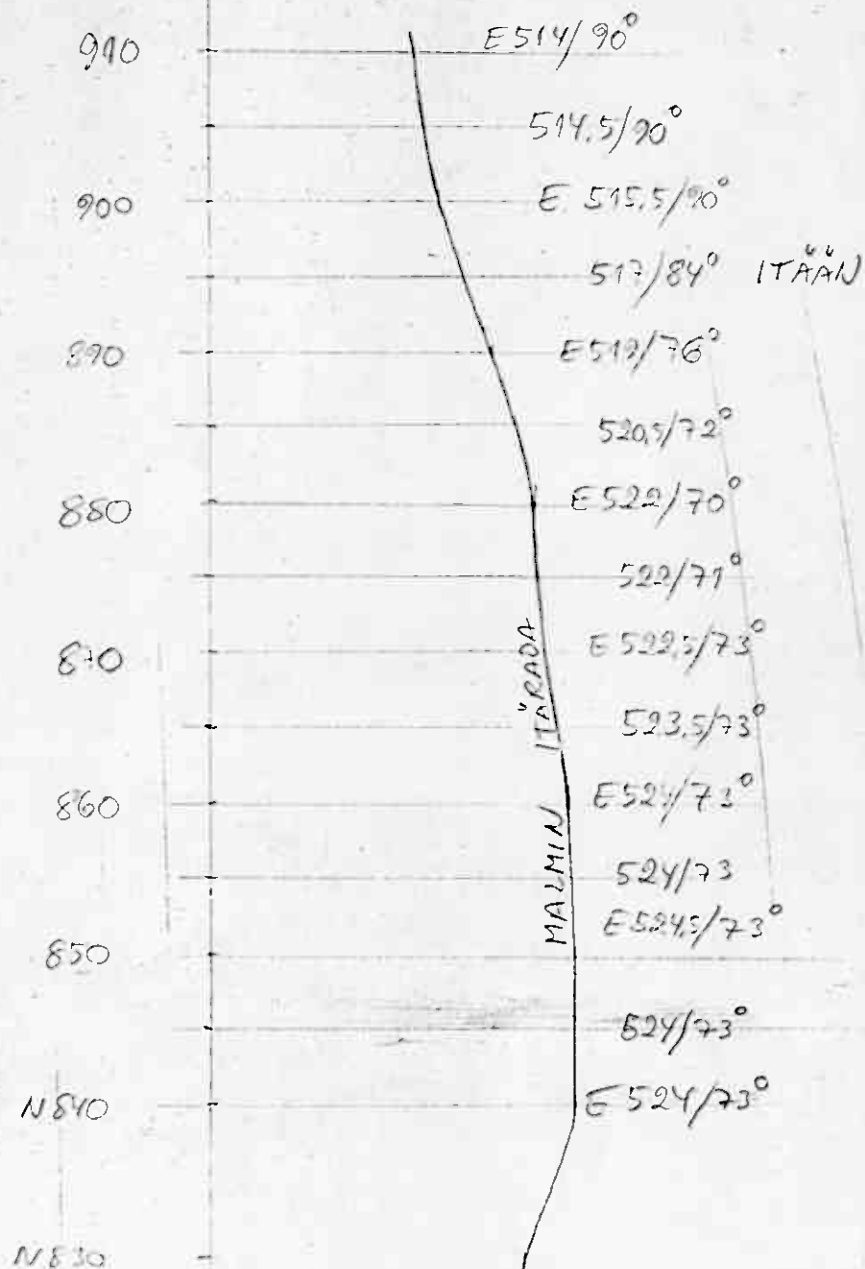


B+G A/S BIDJOVAGGE GRUBER

B-LOUKOS

+ 565

ITÄRAJA



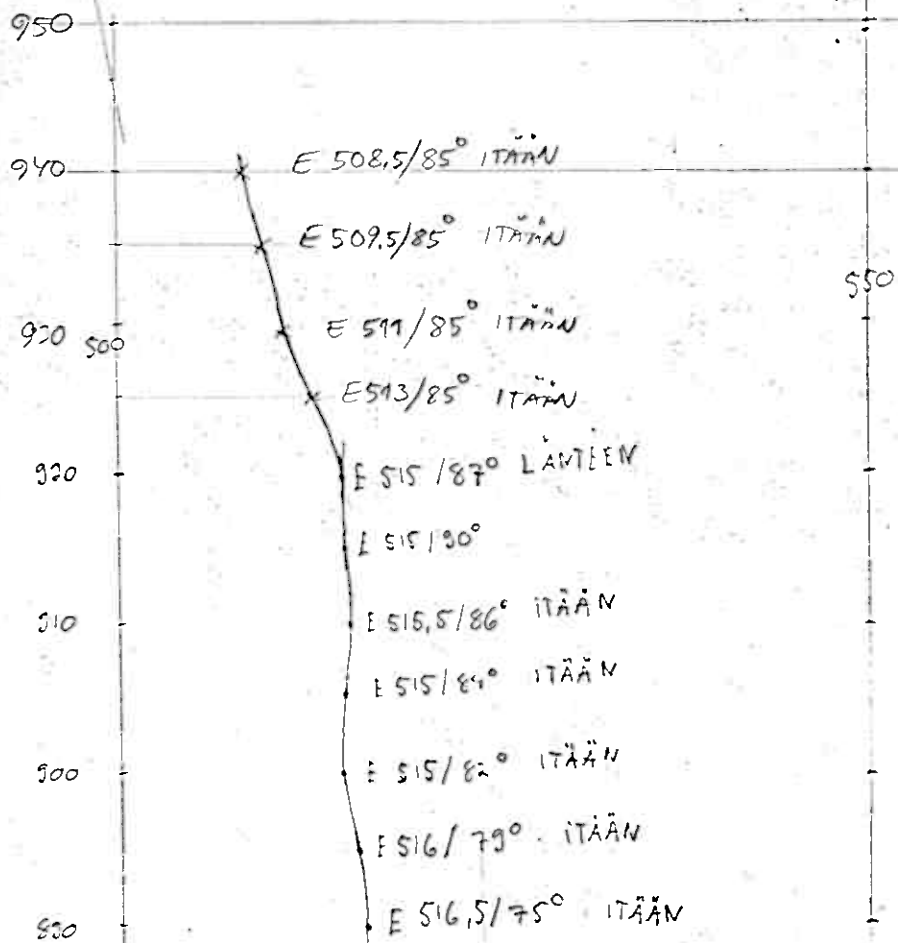
BG 3,10,87

KS

Ø LMK 2 KPL

HA, KRA, KS

MALMIRAJA B-LOUHO 576 TÄSO



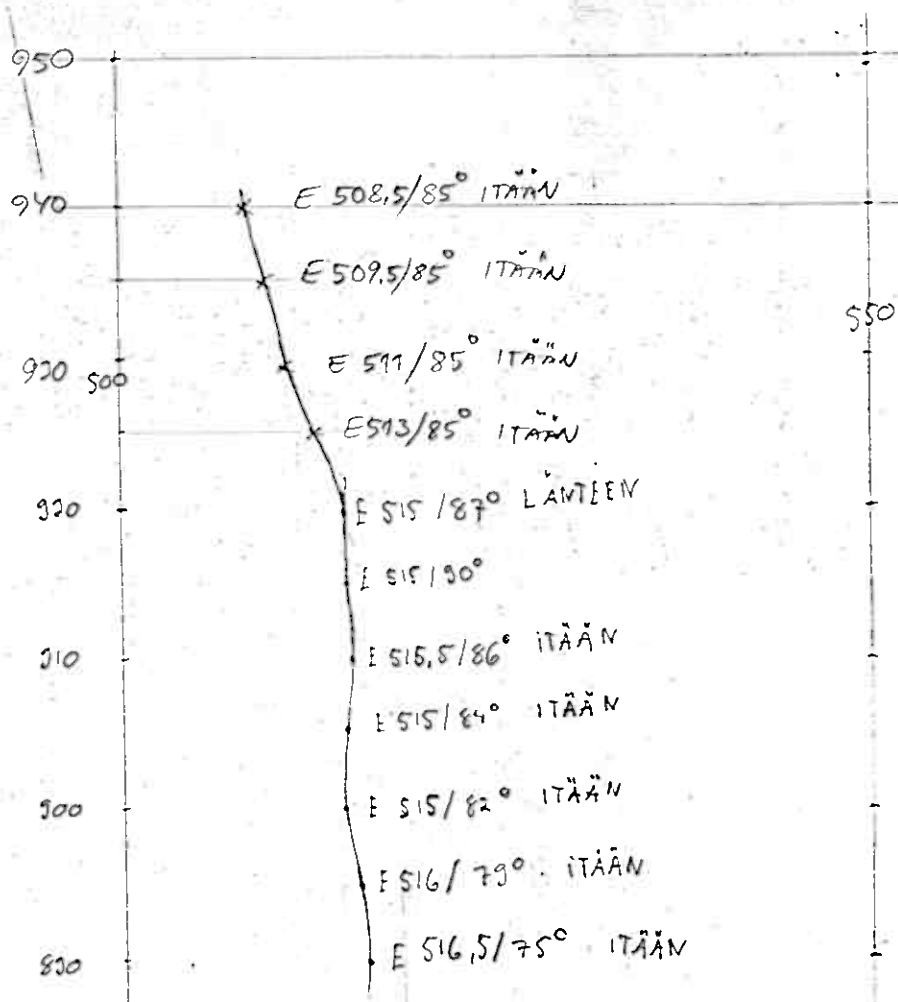
BL.

26.8-87

Ø LMK

H.A. KS. SA-BL.

MALMIRAJA B-LOUHOS 576 TÄSO



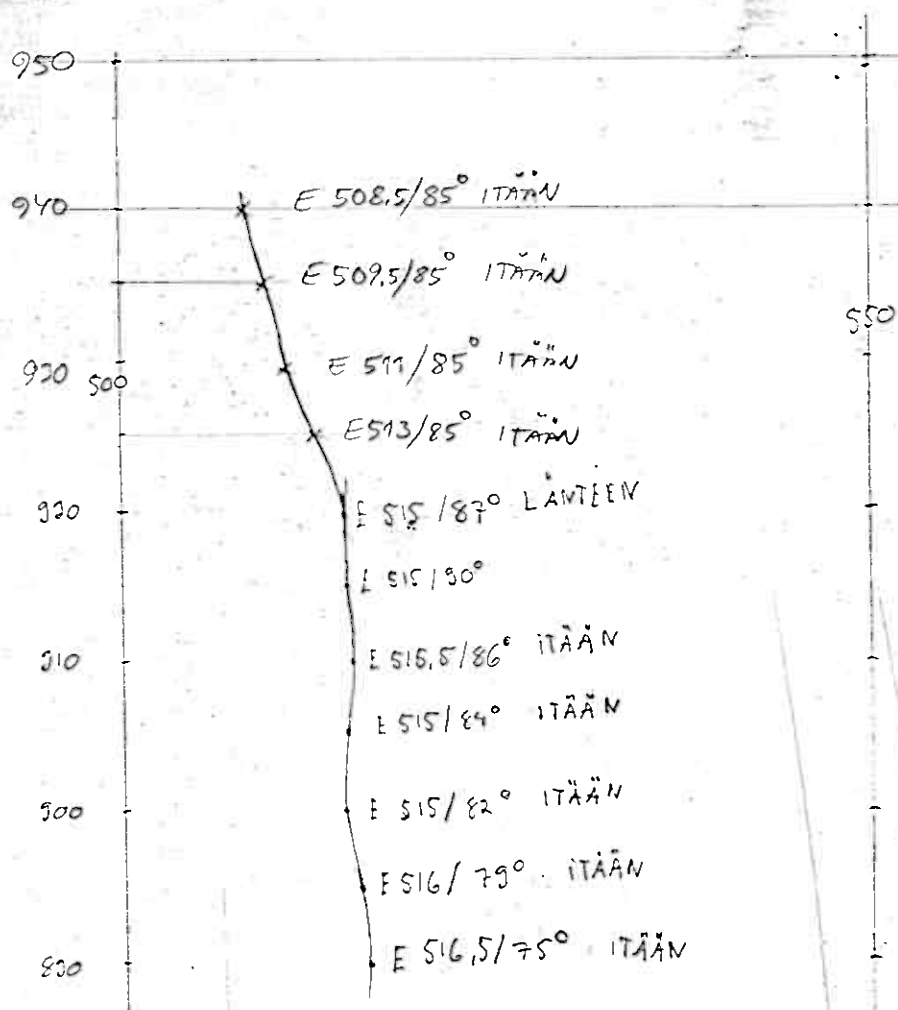
BL.

26.8-87

Ø LMK

H.A. KS SA-BL.

MALMIRAJA B-LOUHOS 576 TÄSO



BL.

26.8-87

Ø LMK

H.A. KS. SA-BL.

450E

500E

550E

N100

SUOJATERASSIN MUUTOS 587-575 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

N980

N960

N940

N920

N900

N880

N860

N840

N820

suojapenger +595

+580

581.75

577.69

584.84

587.41

589.91

592.48

593.11

594.35

594.98

597.42

100.00

600.00

Ajoite 18

Maanpöytä

19/12

13/12

+575

24.500

1600 1.5/2.2

20.000

7900 1.2/2.2

+575

4200 1.3/2.2

+565

565

554.4

2000

+565

560

574.71

571.96

56

OKTOBER/87

PLAN.

BUDSL.

Malm 24.500

23.000

Gräv 31.000

29.000

55.500

52.000

900 2871 1.95/1.25

930 5957 1.35/2.85

920 7524 1.15/2.2

910 7838 1.2/2.2

900 4131 1.3/2.2

28328 1.3/2.24

29000 1.2/2.2

BRYTUNGSPLAN OKTOBER/87 /25.9.87 HA



A/S BIDJOVAGGE GRUBER



DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 5.87, ITÄSEINÄ N860 - N960 /28.5.87 HA

DESIGNED 12.1984 MS

APPROVED 20.12-84 TRA

ORIGINAL SCALE

1:500

REF DWG

DWG NO
900925-1

ALTERED
10.12.1984 SL

MALMIRASA.

B-LOUKOS

-576

-TASO

LANSIRASA

450
390
330
310
30
300

E 501 85° ITÄÄN

E 495 90°

E 491,5 80° länteen

E 491 88° länteen

E 491 88° länteen

E 491 85° itään

E 491 78° itään

E 491 78° itään

E 491 70° itään

E 491,5 72° itään

E 492 86° itään

BL. 10.9 -87

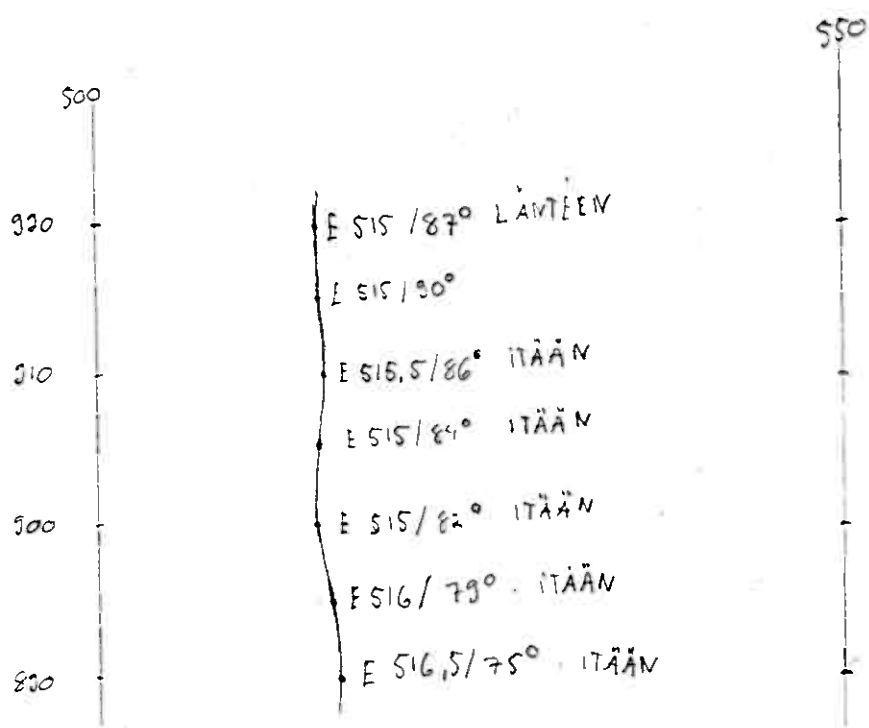
LMK

KRä, HA, KS SA-BL

MUUTT 1CS 28.7.87

Ø LMK 2KR
HA, KRä, KS

MALMIRAJA B-LOUKOS 576 TÄSO



BL.

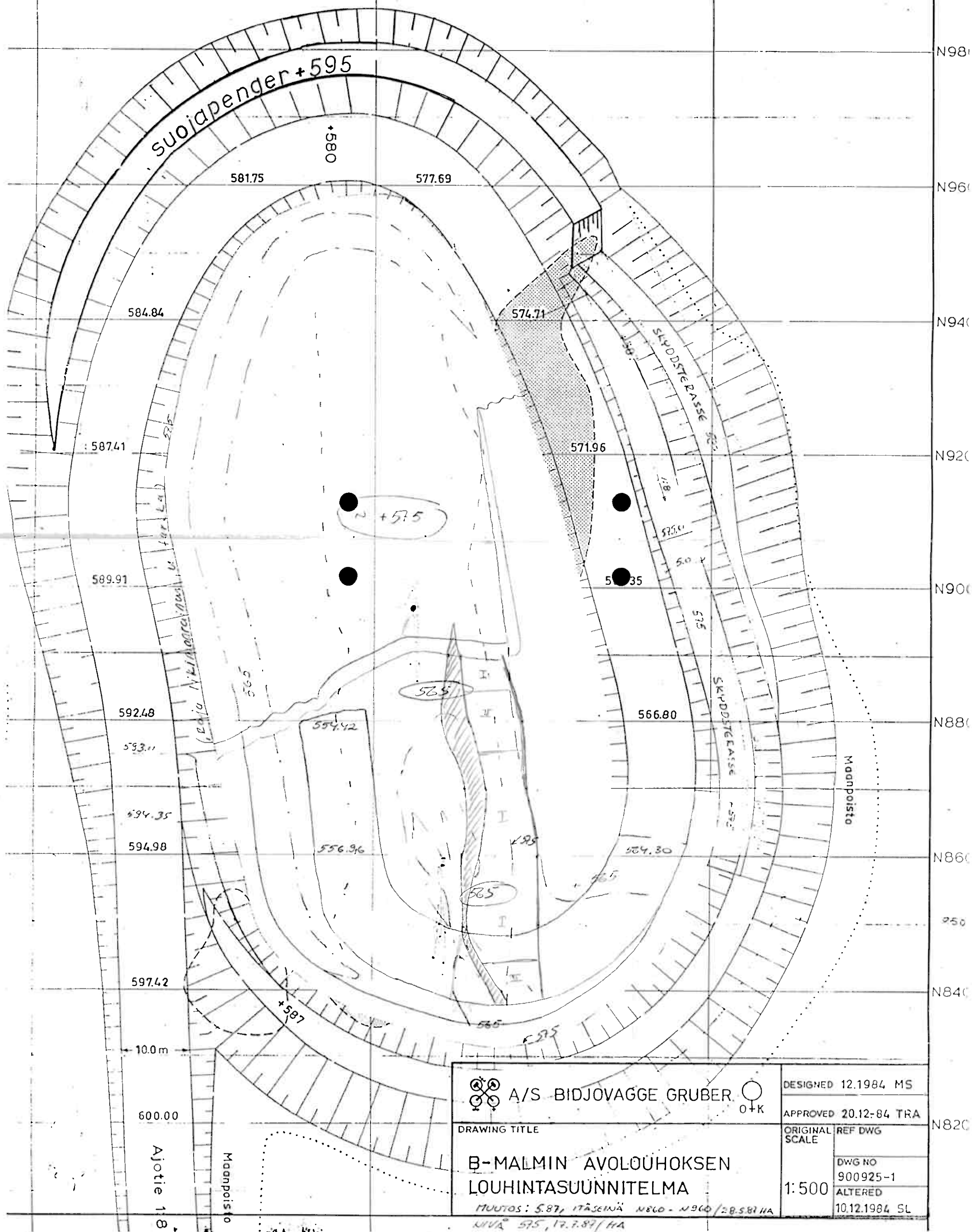
26.8-87

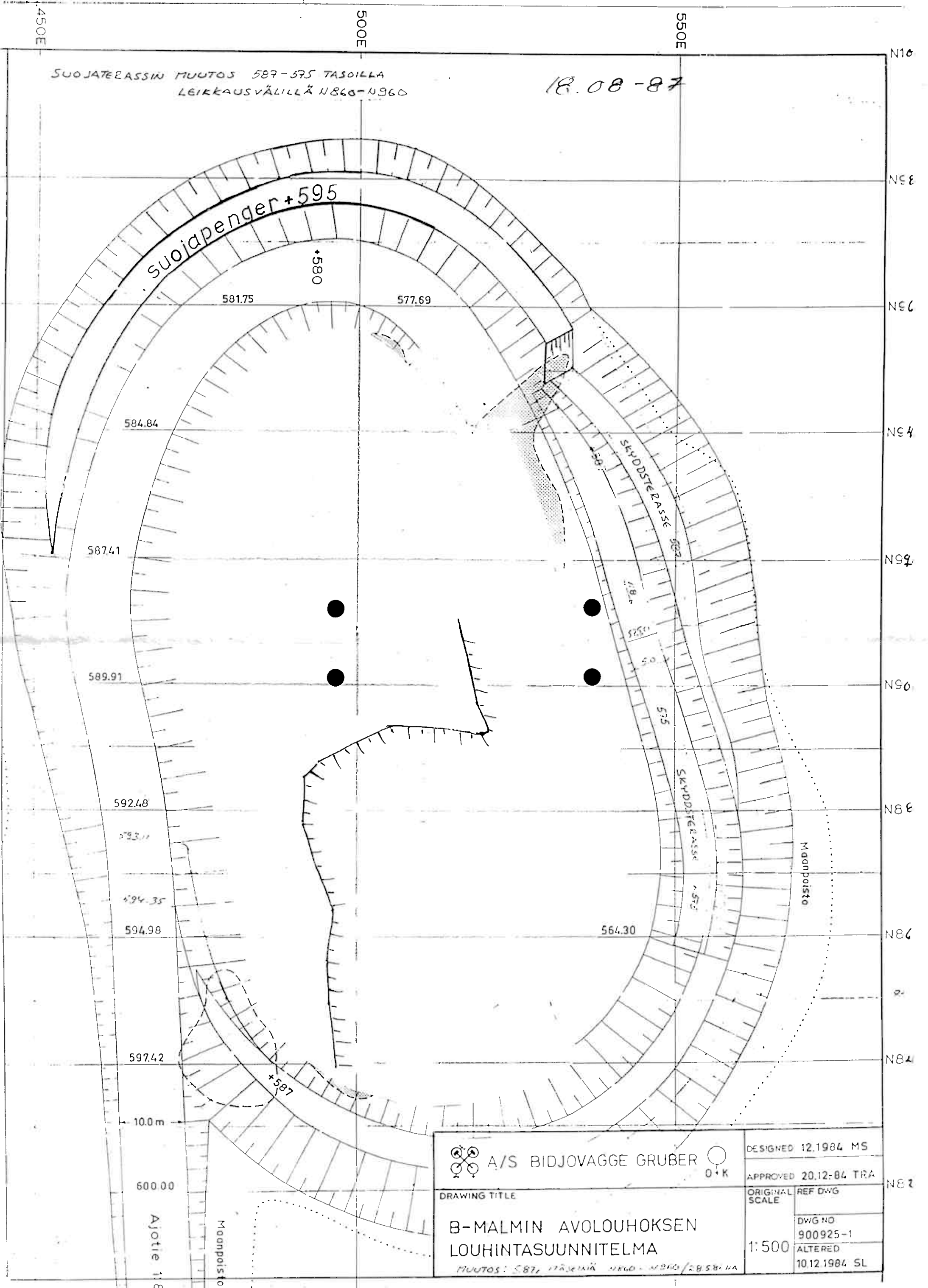
Ø LMK

H.A. KS SA-BL.

500

N10C





SUOJATERASSIN MUUTOS 587-595 TASOILLA
LEIKKAUSVÄLILLÄ N860-N960

18.08-87

suojapenger +595

+580

581.75

577.69

584.84

587.41

589.91

592.48

593.11

594.35

594.98

597.42

+587

10.0m

600.00

Ajotie 18

Maanpöytä

SKYDDSTERASSE

587.41

589.91

592.48

594.35

594.98

597.42

599.91

602.48

604.98

607.42

609.91

612.48

614.98

617.42

619.91

622.48

624.98

627.42

Maanpöytä



A/S BIDJOVAGGE GRUBER



DRAWING TITLE

B-MALMIN AVOLOUHOKSEN
LOUHINTASUUNNITELMA

MUUTOS: 587, 17.12.1984 N860-N960/28.58.11A

DESIGNED 12.1984 MS

APPROVED 20.12-84 TRA

ORIGINAL REF DWG
SCALE

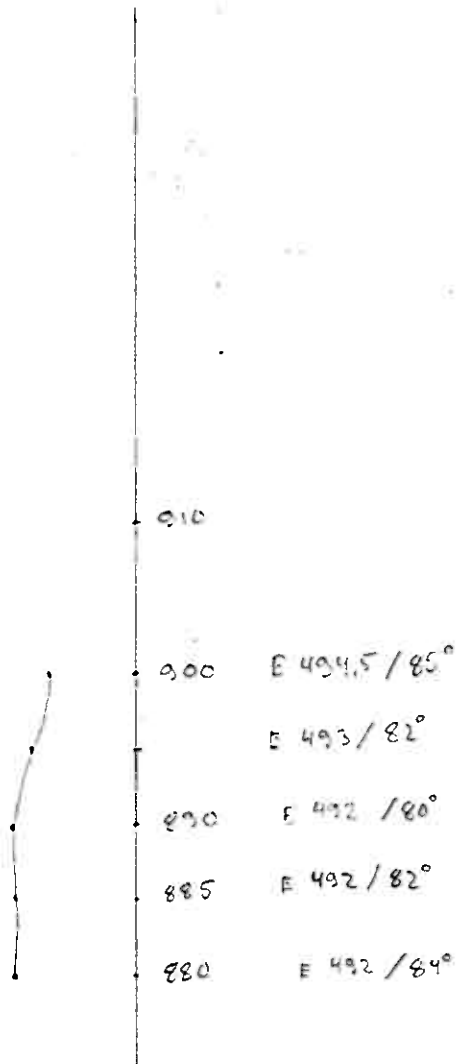
DWG NO
900925-1

1:500
ALTERED
10.12.1984 SL

B-LOUHOS + 576 - TASSO

MALIN LÄNSIRAJA

E 500



SA 17/8-87

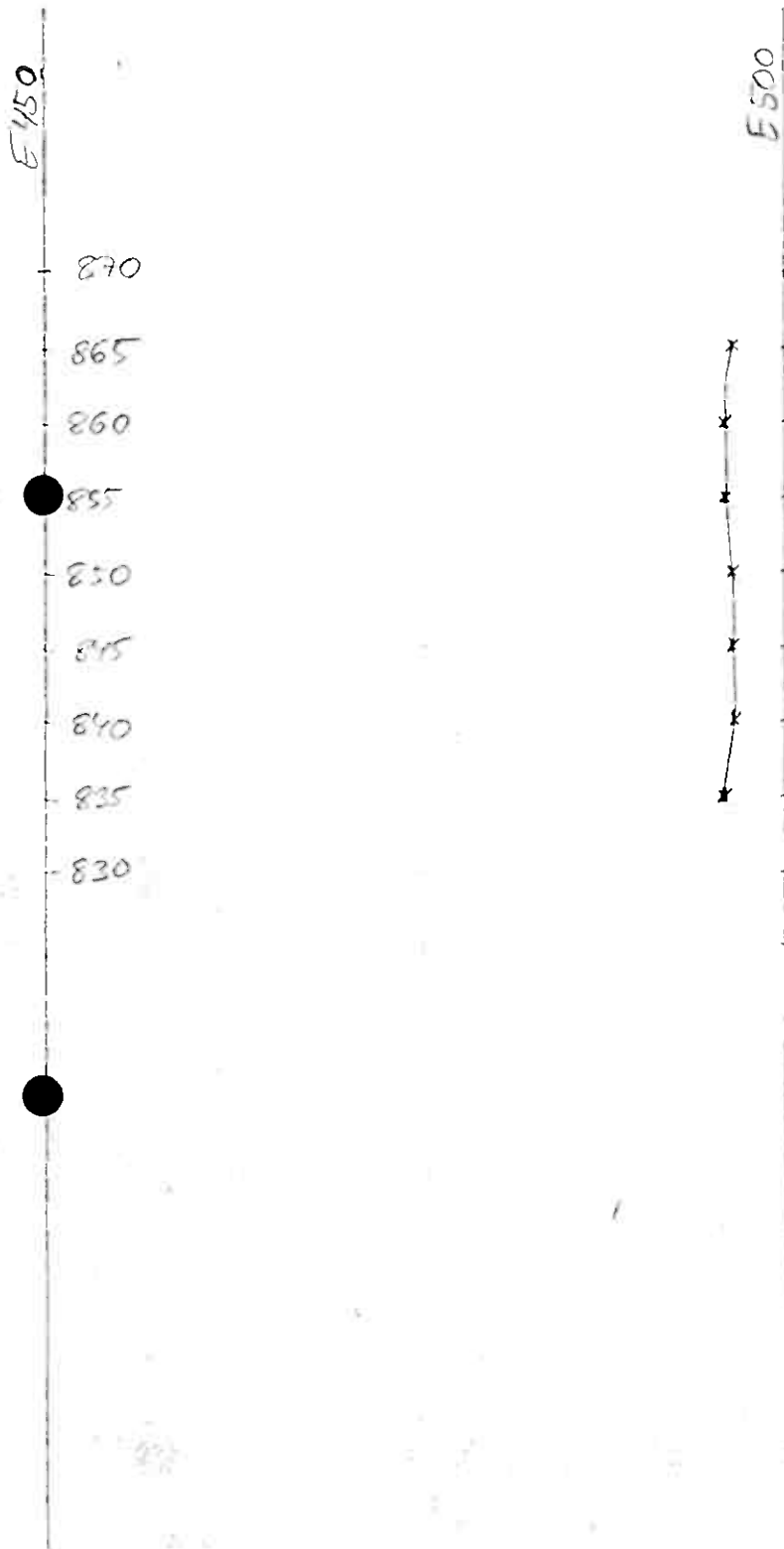
LMK 2 KPL
KRA, HA, KS, SA



B+G A/S BIDJOVAGGE GRUBER

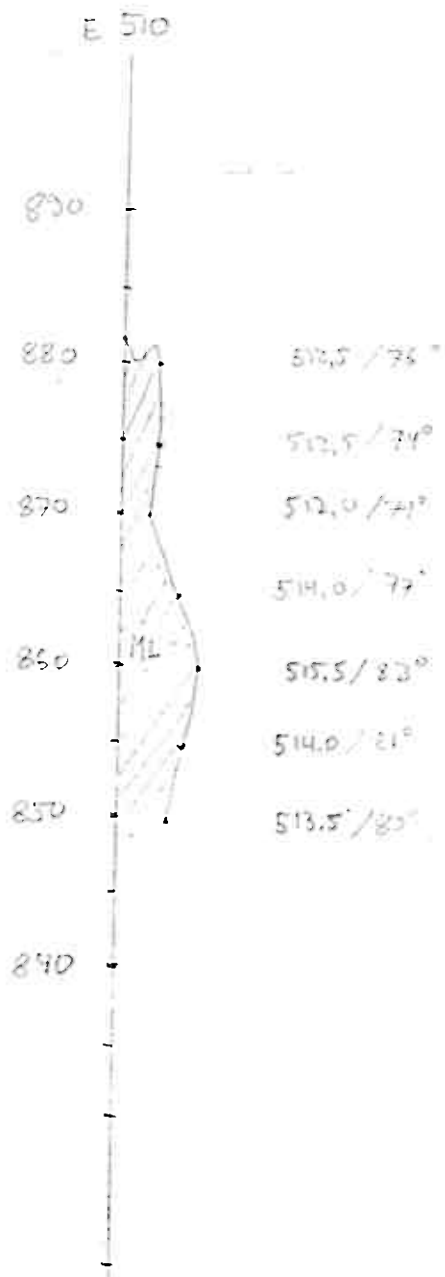
B-LOUHOSS +576 -TASO

MAALIN LÄNSI RAJA



ML - 11752013

B + 576



SA 18/7

MALMIRASA (ITA)

B-LOUROS

+576

830

880

870

860

850

840

516,5/75°

517/71°

518/68°

518,5/71°

519/74°

520/71°

520,5/68°

520,5/68°

520,5/70°

520/68°

519,5/65°

B L 11.7 - 87

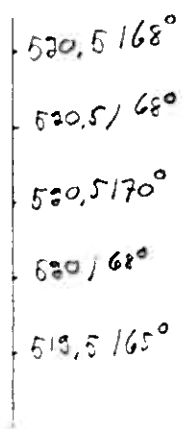
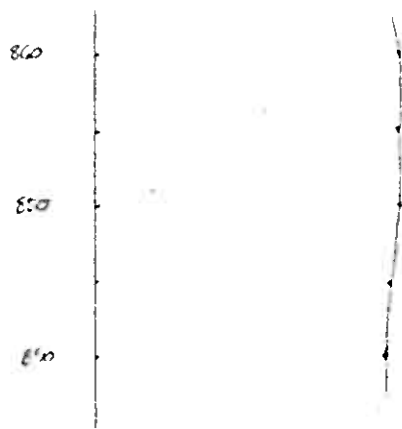
SA 16.7 - 87

SA 17.7 - 87

MALMIRASA (ITA)

B-LOUROS

+576



B2 11.7 -87

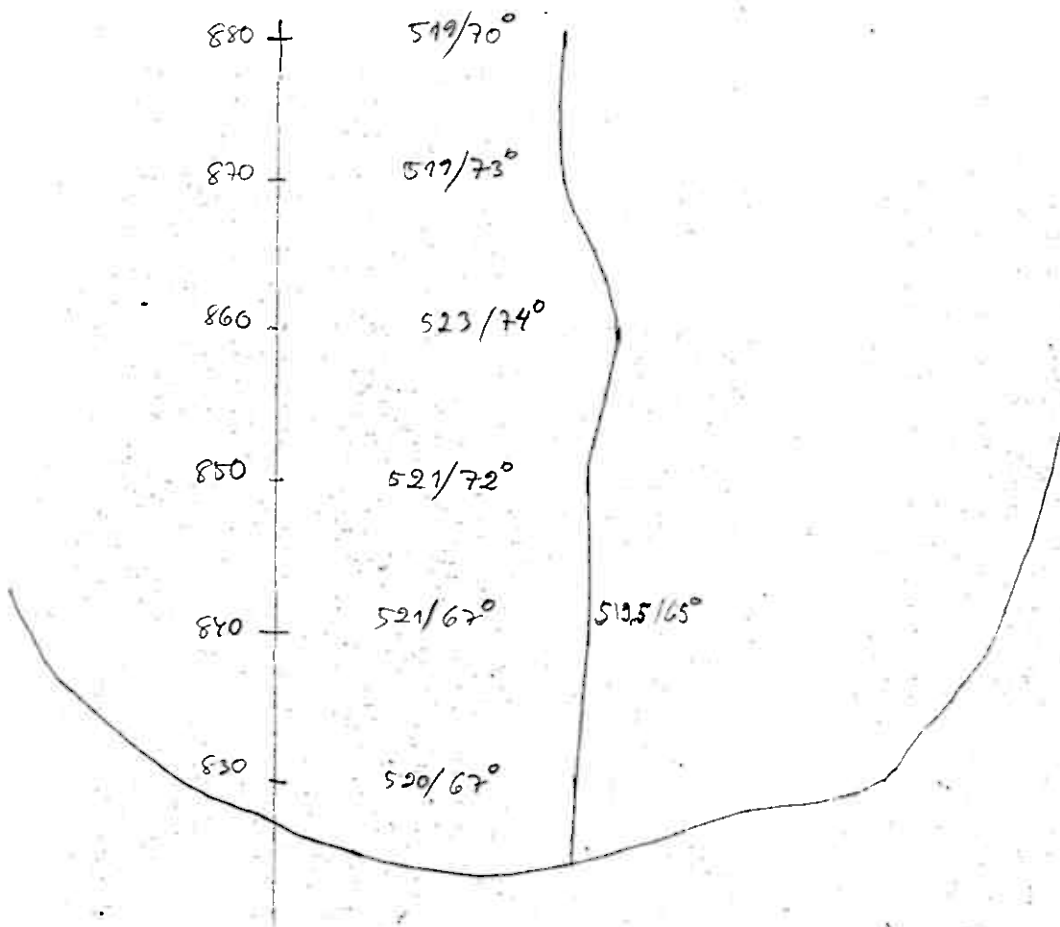


B+G A/S BIDJOVAGGE GRUBER

B-LOUHO5 +576

MALMIRAJA (ITIRAJA)

ENAFU SOIJAUSTA



BG 26,6.57

KS

Ø LMK 2KPL

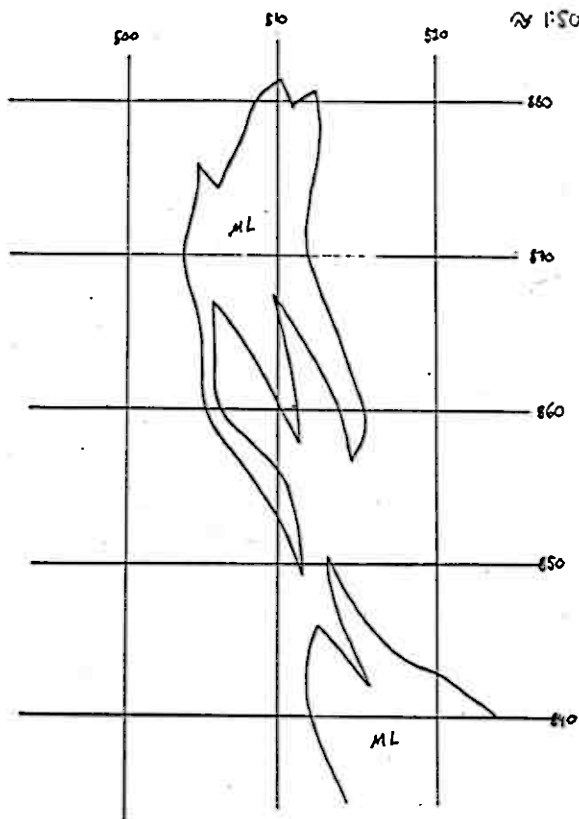
KR², SA-BL, KS

B-Louhos

ML-RASAT

576-7150

~ 1:500



8L 9.7-87



A/S BIDJOVAGGE GRUBER

ML-RAJAT
B-LOUHOS
587-TASO

Bedriftskontor:
Bidjovagge
Postboks 160
9520 Kautokeino
Bankgiro: 4740 05. 05957
Telefon: 084 56 202/56 245
Telefax: 084 56 202/56 245

Deres ref.:

Vår ref.:

Dato:

1:100

430

350

240

ML

ABFST

ML

ML

ABFST

ML

ML

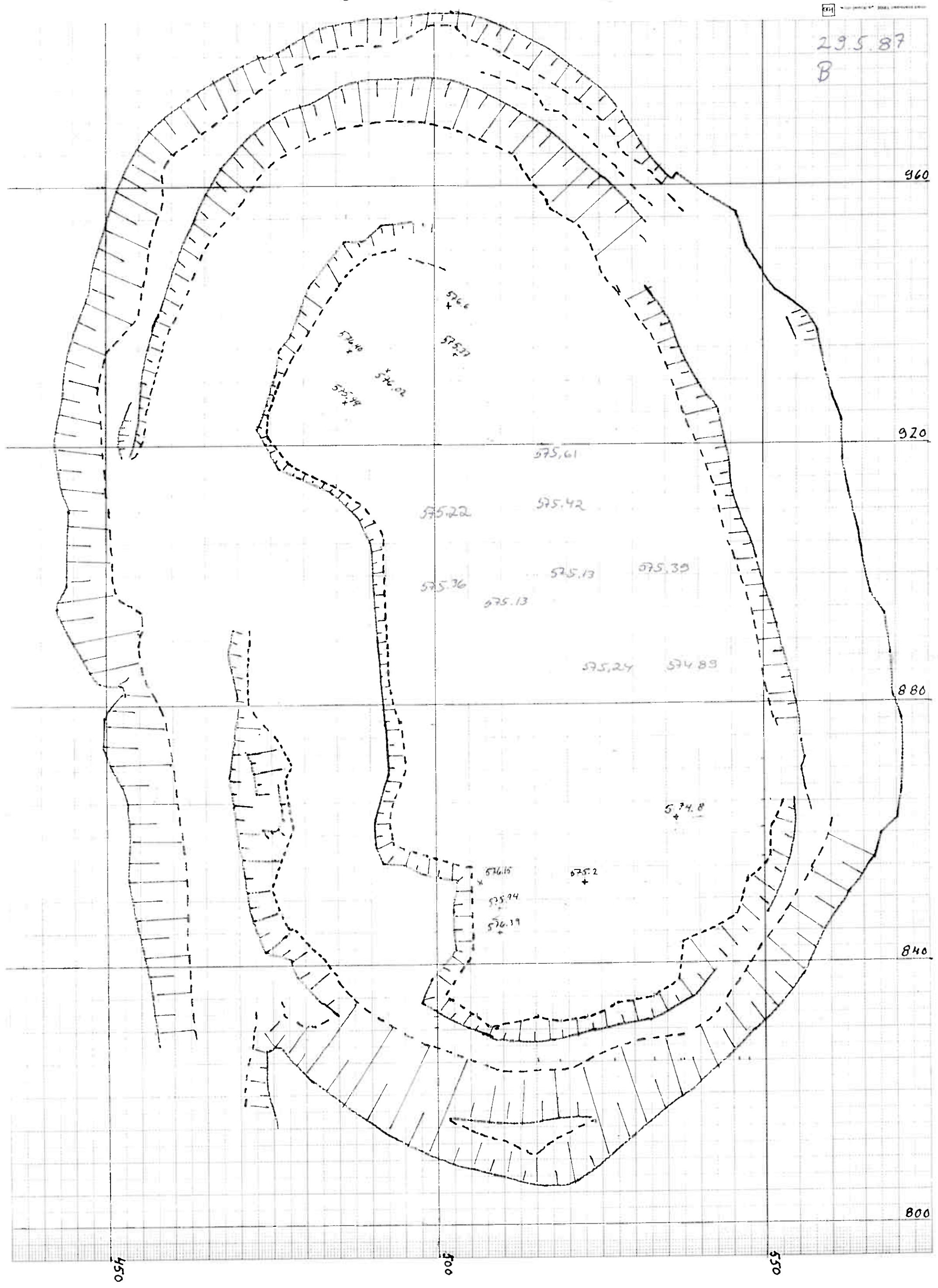
ABFST

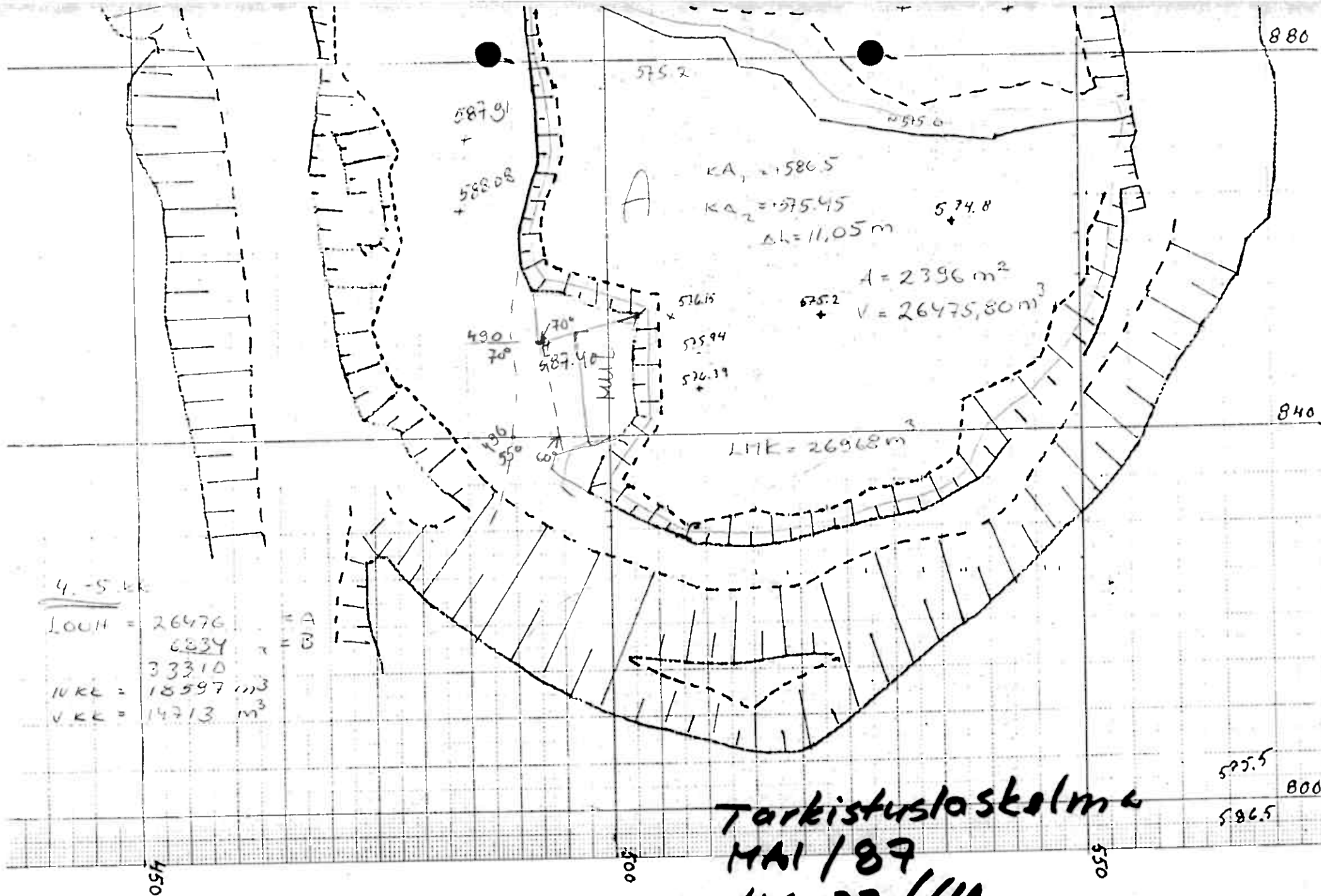
SITA/BOL

28/5

29.5.87

B



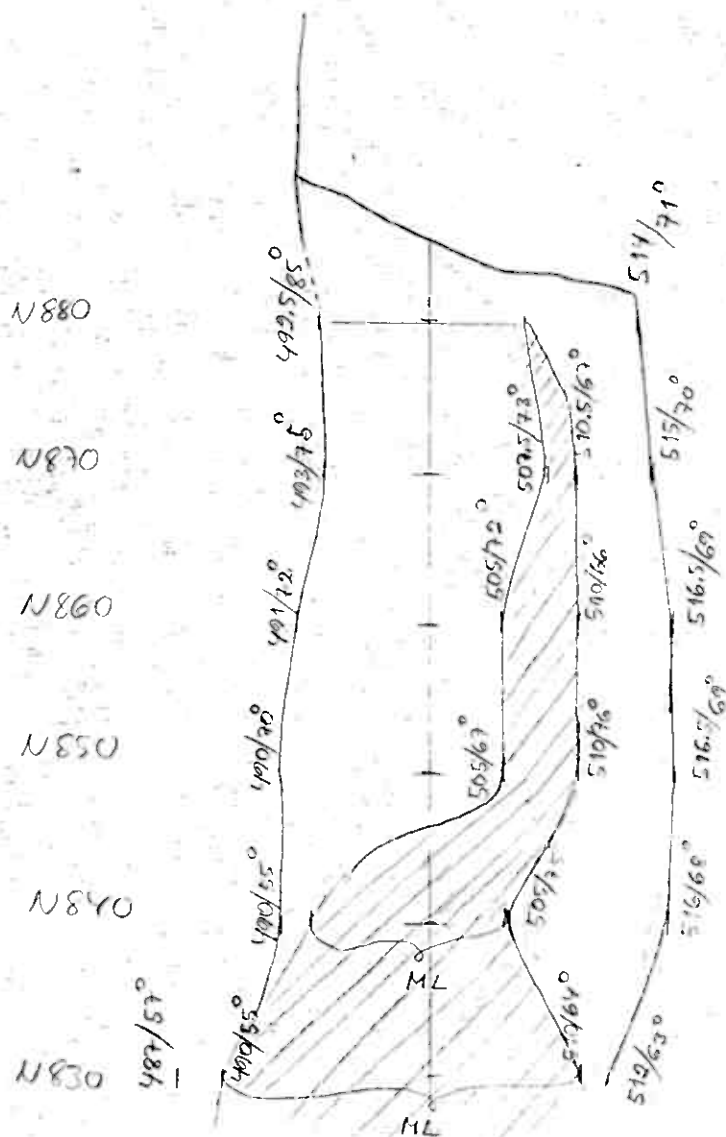


Tarkistuslaskelma
MAI/87
4.6.87/HA



BTG A/S BIDJOVAGGE GRUBER

B-20CHOS, MALMIRASAT
+587



ICS 9,3.82

Ø LMK 2nd
BG: HA-1025, JH, KS

GEOLOG:

29/4-87

490-500

Cu % : 0.33

Au g/t : 0.31

830 rocks

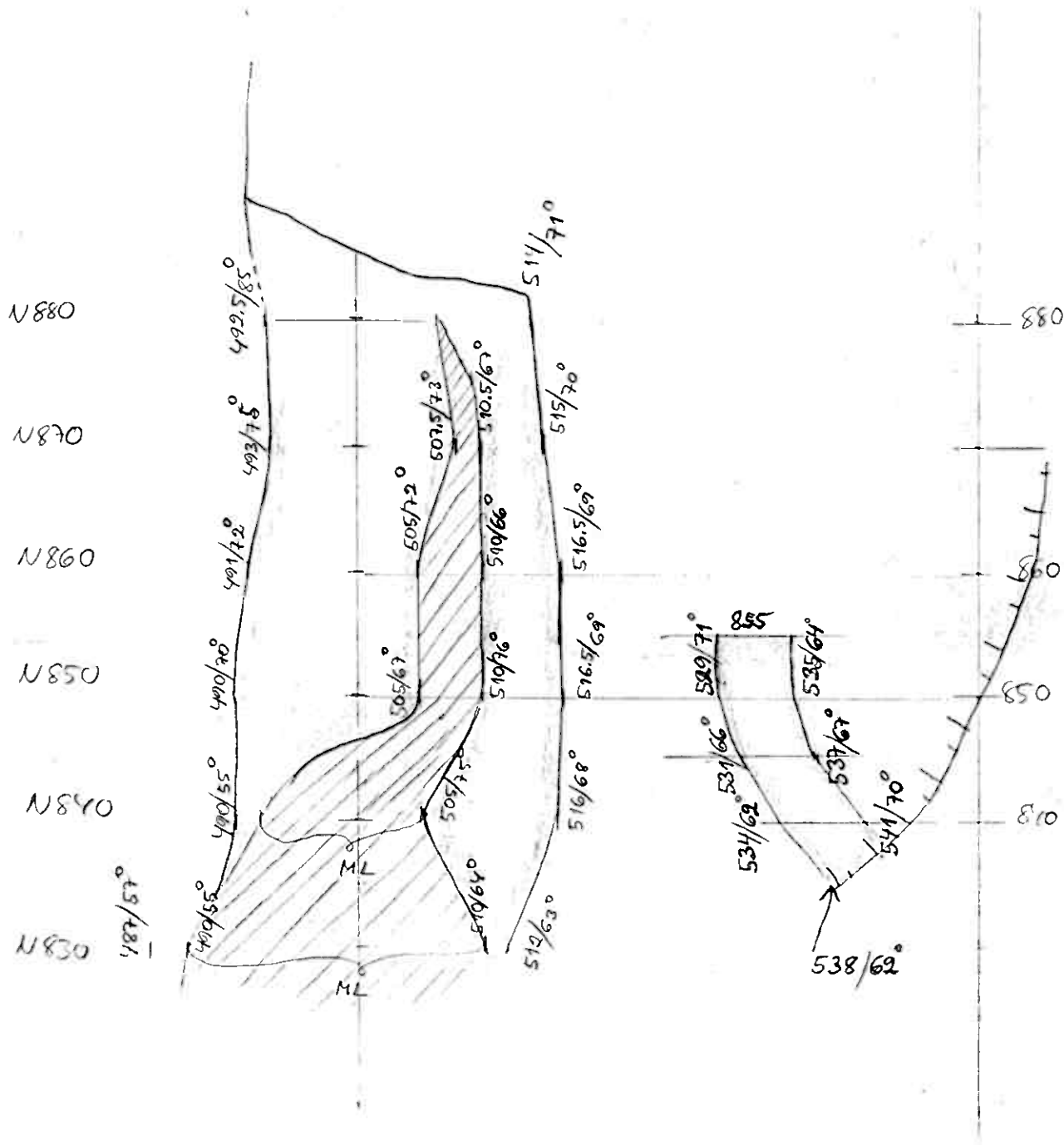
Cu % : 0.30

Au g/t : 4.3



B+G A/S BIDJOVAGGE GRUBER

B-200HOS, MALMIRADAT
+587



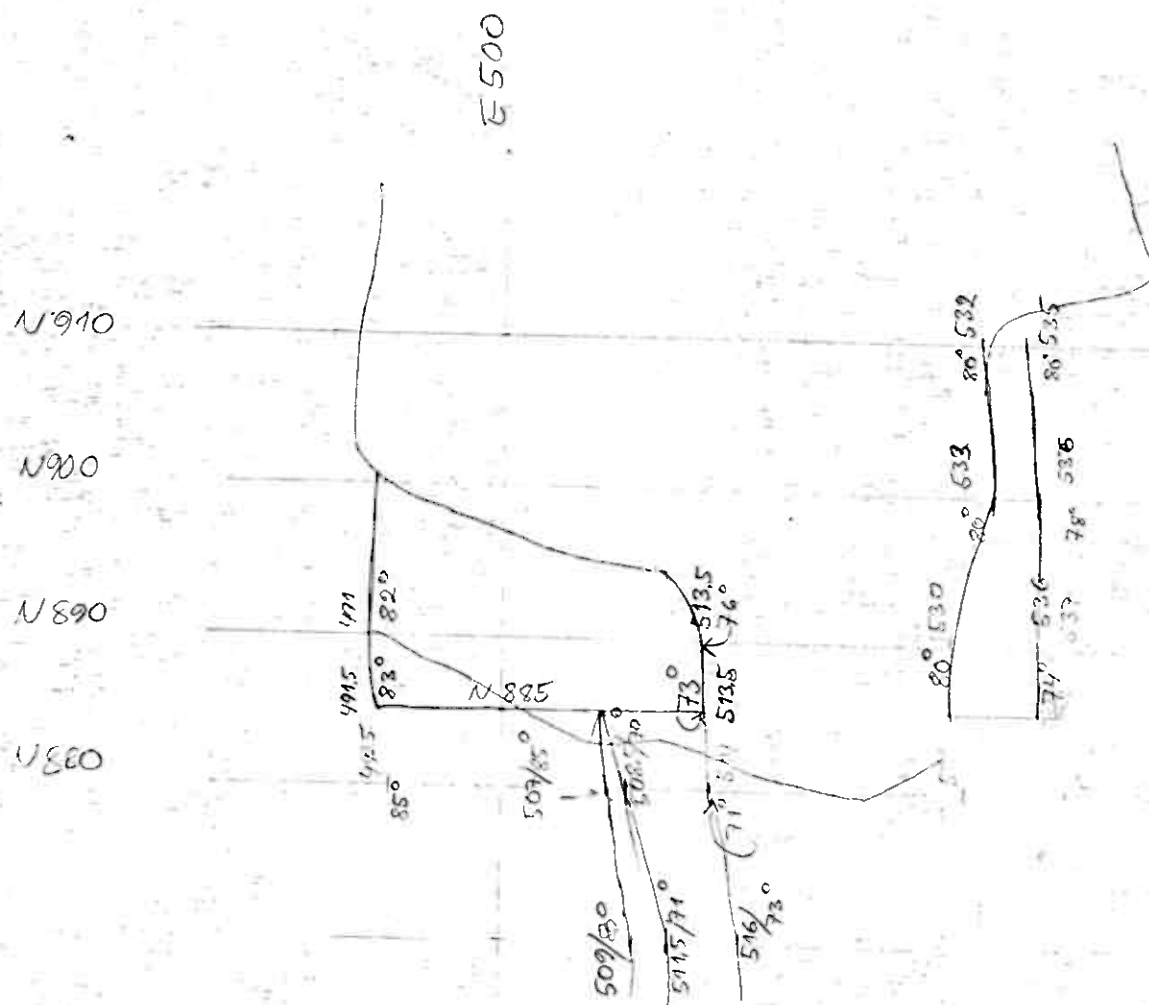
KS 9,3,82

Ø LMK 2nd
BG: HA-102, JH, KS

B+G A/S BIDJOVAGGE GRUBER

B-200HOS

+587



HUOM! MUSTALINSEEN RAJAT

KAIVOSTEKNISET RAJAT,
ELI RYÖSTÖT HUOMIOITAV.

BG 4,3,84

KS

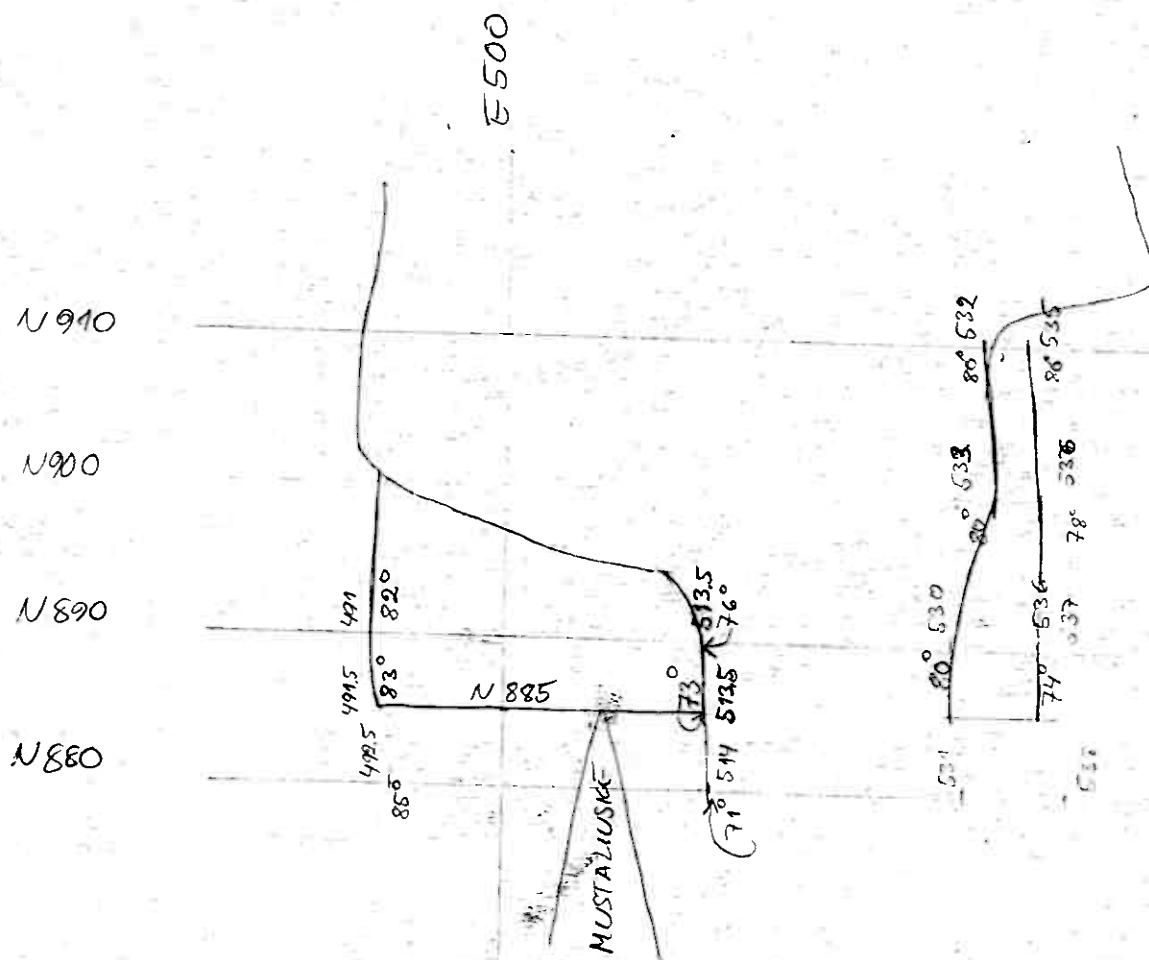
Ø IMIC: 28

BG: HA-KA, SH, KS

B+G A/S BIDJOVAGGE GRUBER

B-200HOS

+587



BG 4,3,82

KS

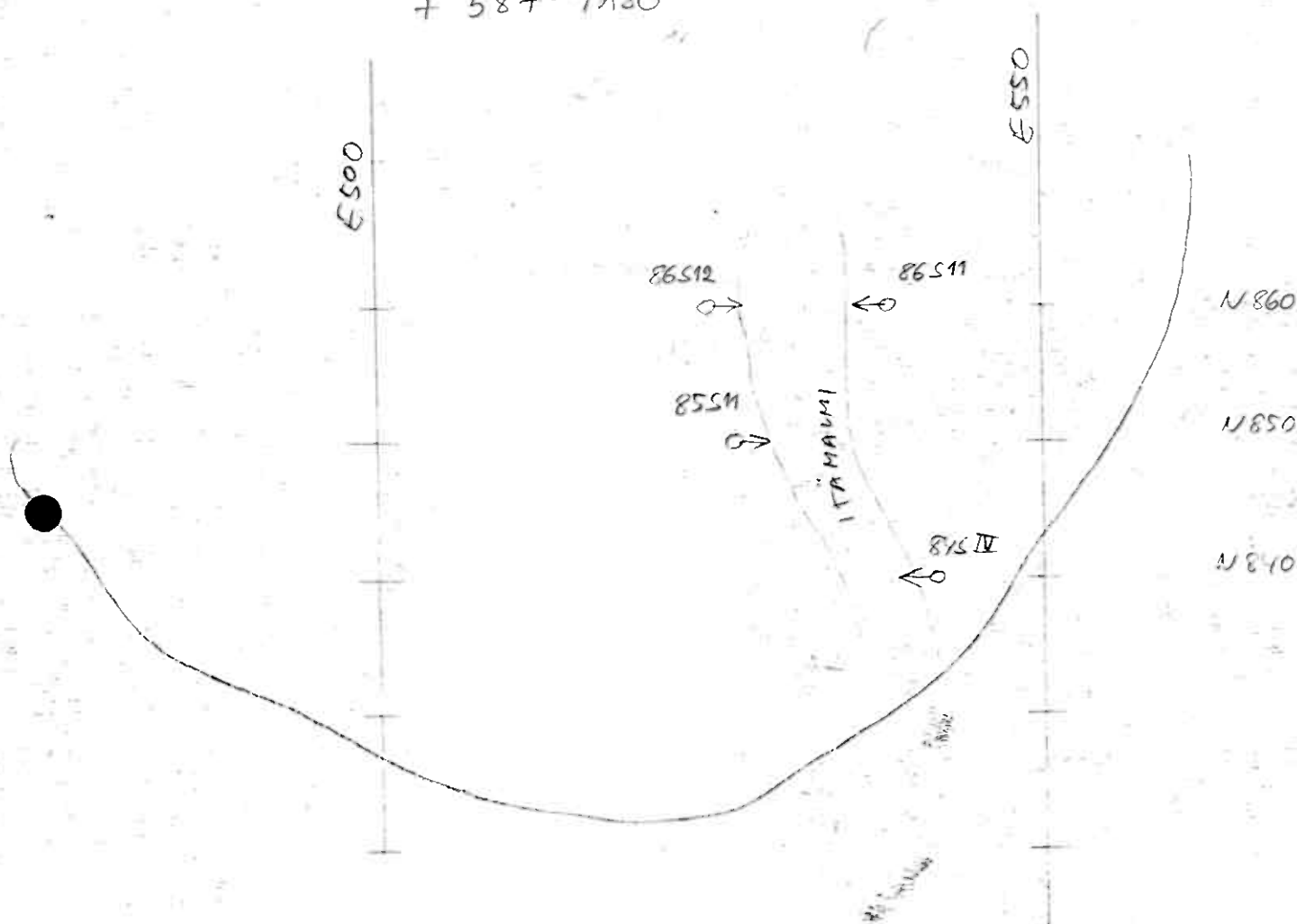
Ø LMK: 28*

BG: HA-KR, SH, KS



B+G A/S BIDJOVAGGE GRUBER

SOIJAUUS, B-200HOS
+ 587-TASO



PROFILI	SOIJAREIKKÄ	SUUNTA	KALTEVUUS	NÄYTEVÄLI	PITUUS	E-KOORD
N860	N86511	270°	42°	1m	10m	538
- II -	86512	90°	40°	1m	12m	525
N850	85511	90°	40°	1m	10m	527
N840	84511	270°	42°	1m	10m	541

BG 14.3.87

KS

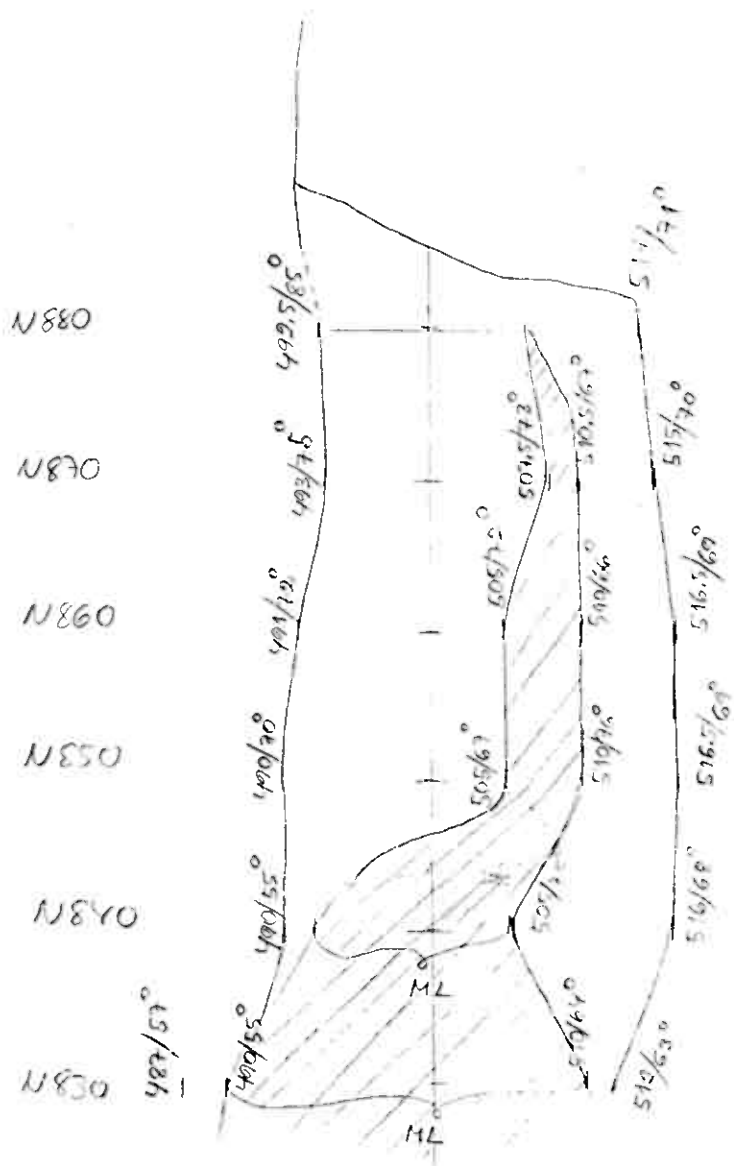
Ø LMK : 2x

BG : HA-KM, OH, KS

B + G

A/S BIDJOVAGGE GRUBER

B-20405, MALMIRAJAT

$$+ 587$$


ICS 9,382

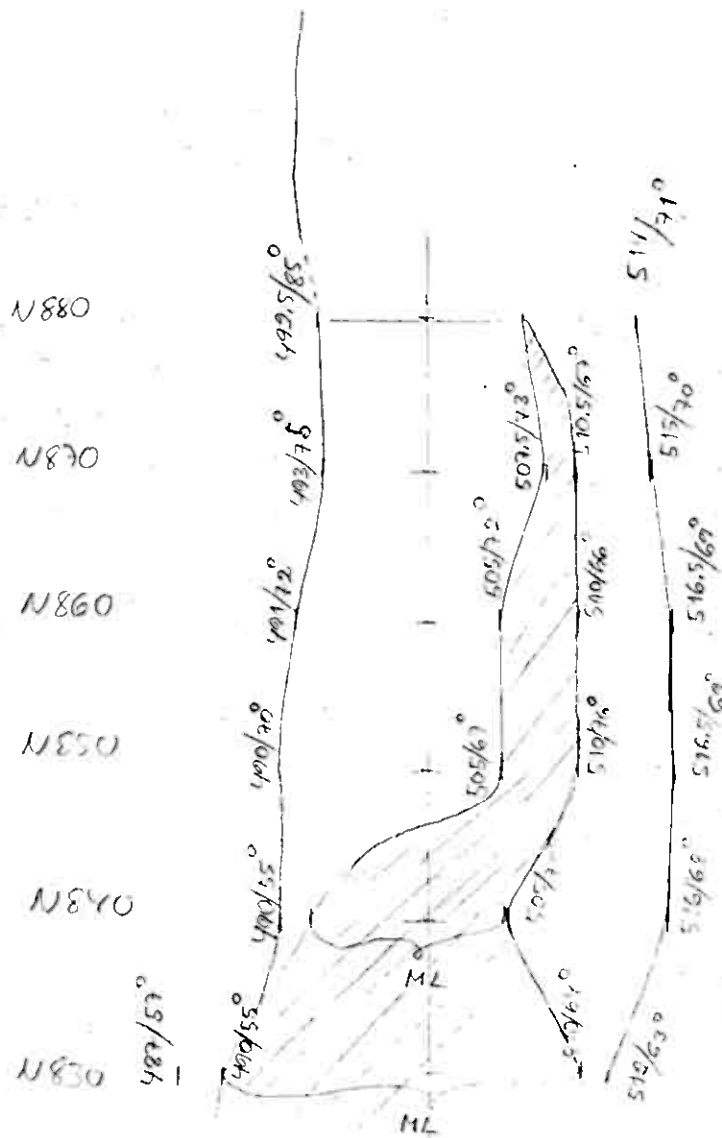
① LMK 2 $\frac{1}{2}$

BL: HA-1025, JH, KS



B+G A/S BIDJOVAGGE GRUBER

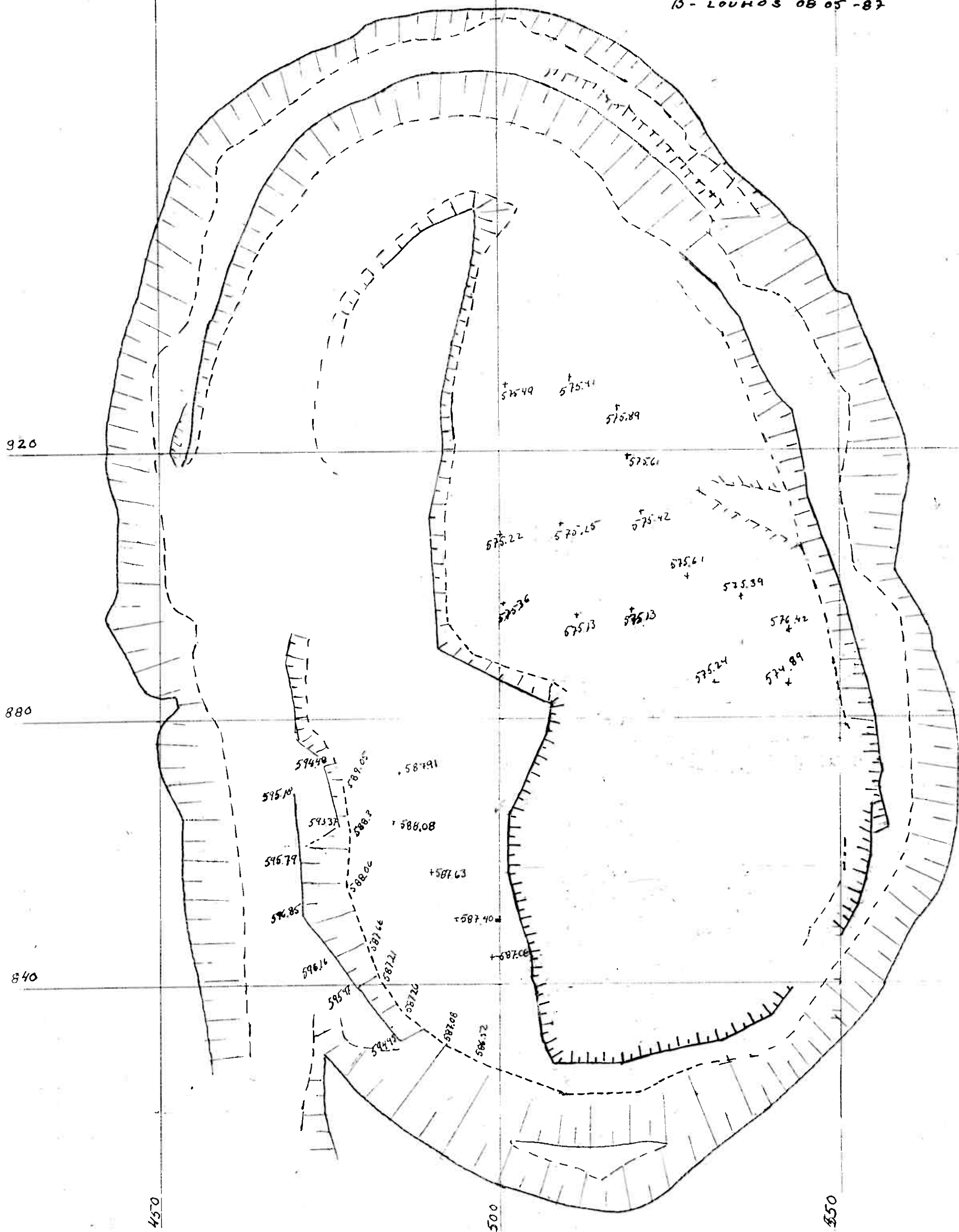
B-LOCHOS, MALMIRAJAT
+587

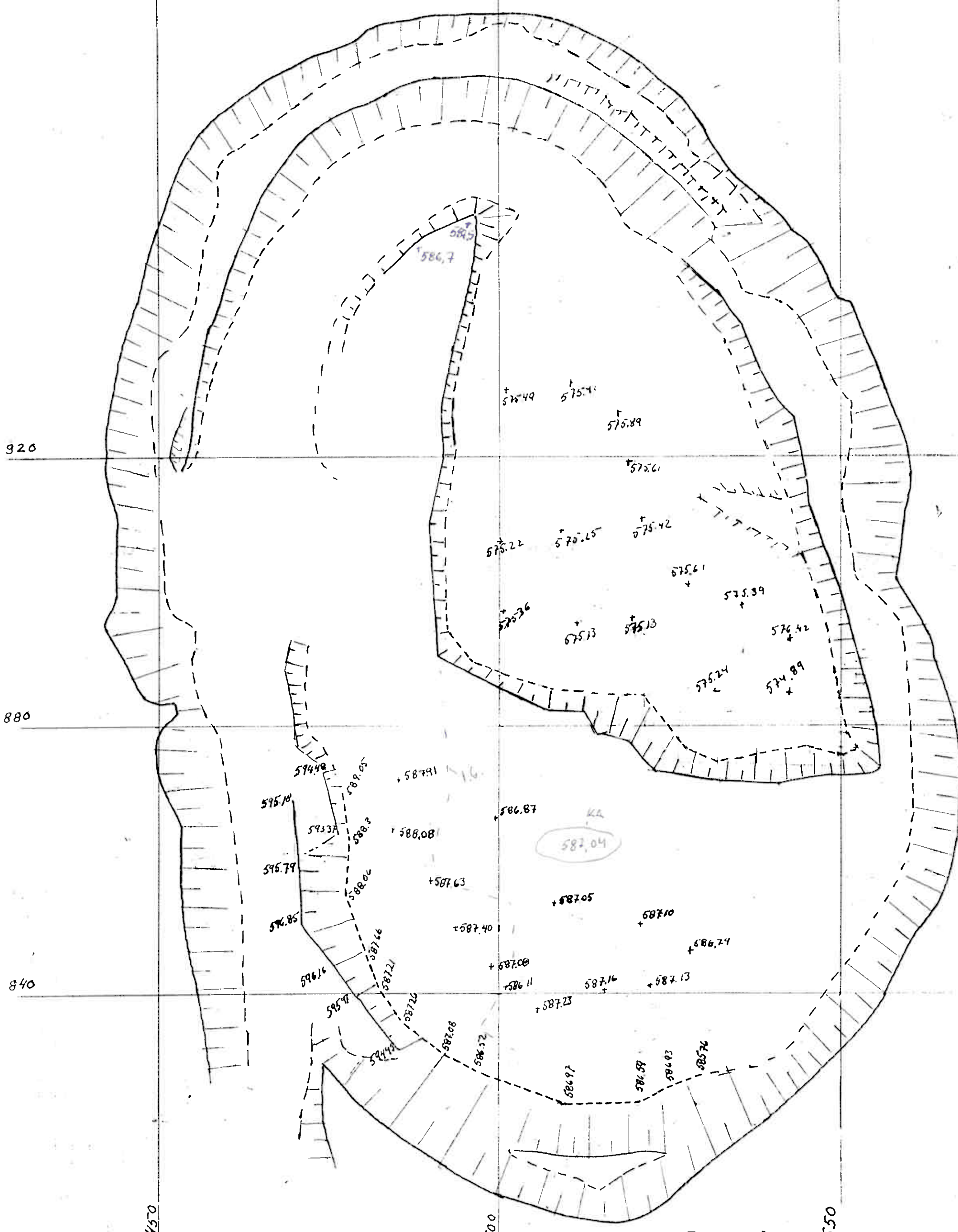


ICS 9.3.82

Ø LMK 2nd
BG: HA-KAR, JH, KS

B - LOUROS 08 05 - 87





920

880

840

450

500

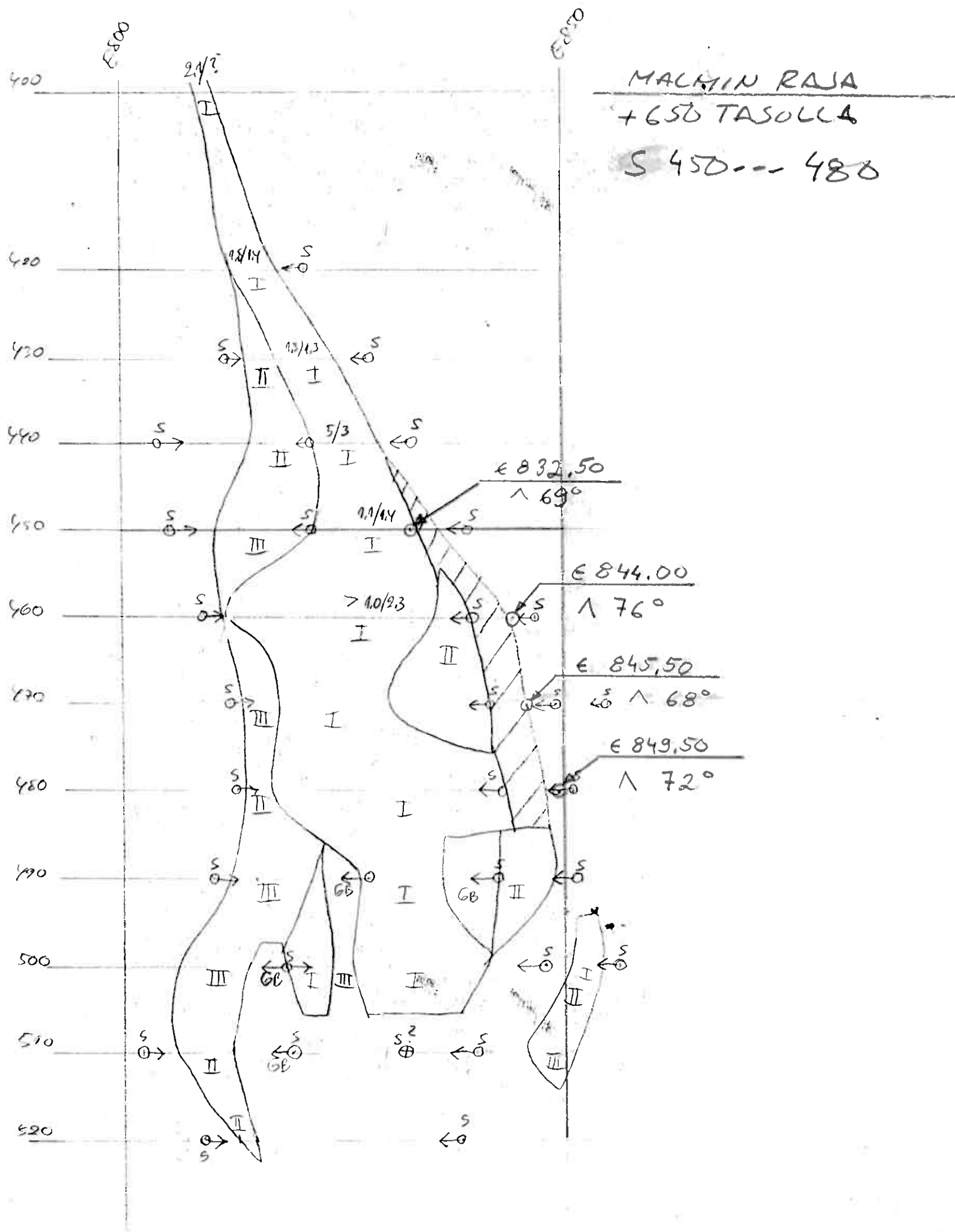
550

30 03 - 87

594.40
595.10
593.37
596.79
596.85
589.05
588.3
588.06
587.66
587.2
587.26
587.08
586.32
586.97
586.59
586.93
585.76
587.91
588.08
587.63
587.40
587.09
586.11
587.23
587.16
587.13
586.24
587.10
587.05
586.87
587.04
585.22
575.41
575.89
575.61
575.42
575.61
575.39
576.42
574.89
575.24
575.13
575.13
586.7
589.5

D - BRUDET

+650



26.2.87/HA

Kalteu

510

814

90°

500

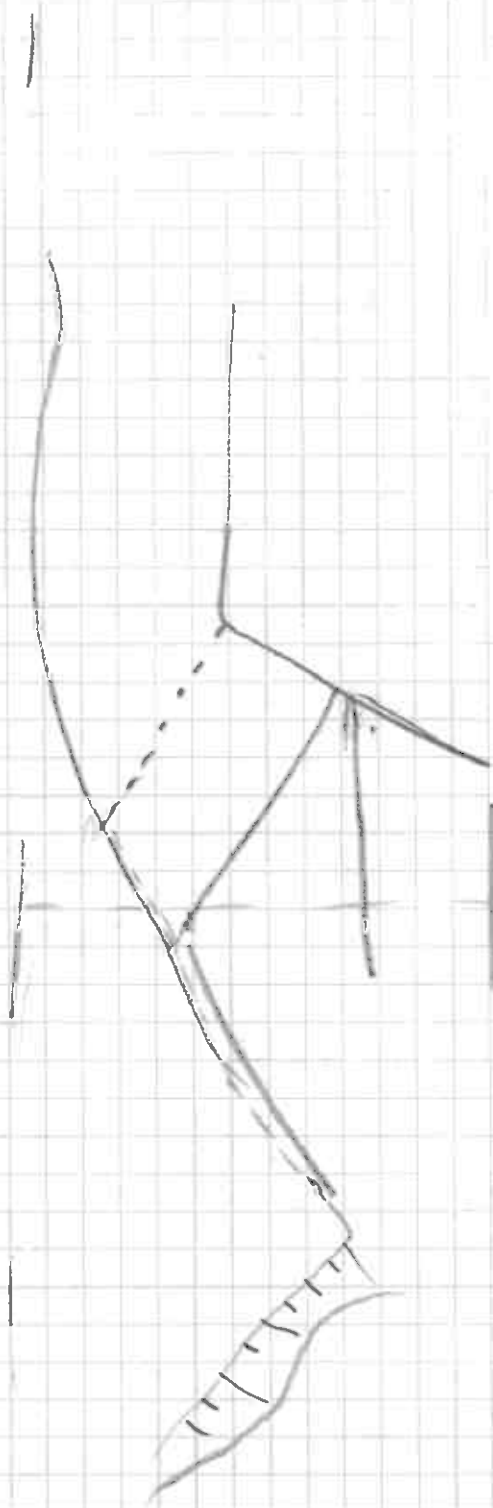
811

73°

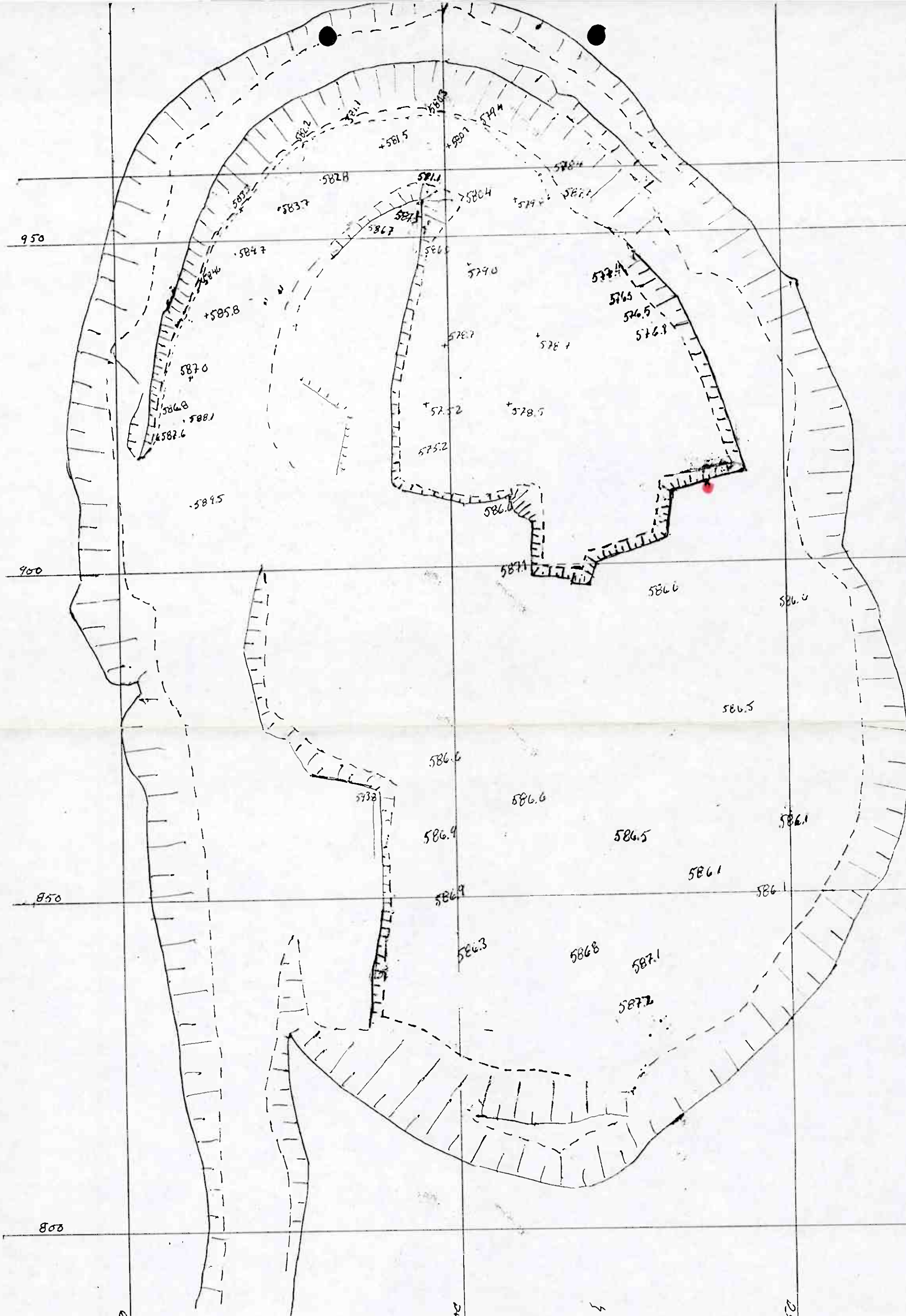
490

818

68°

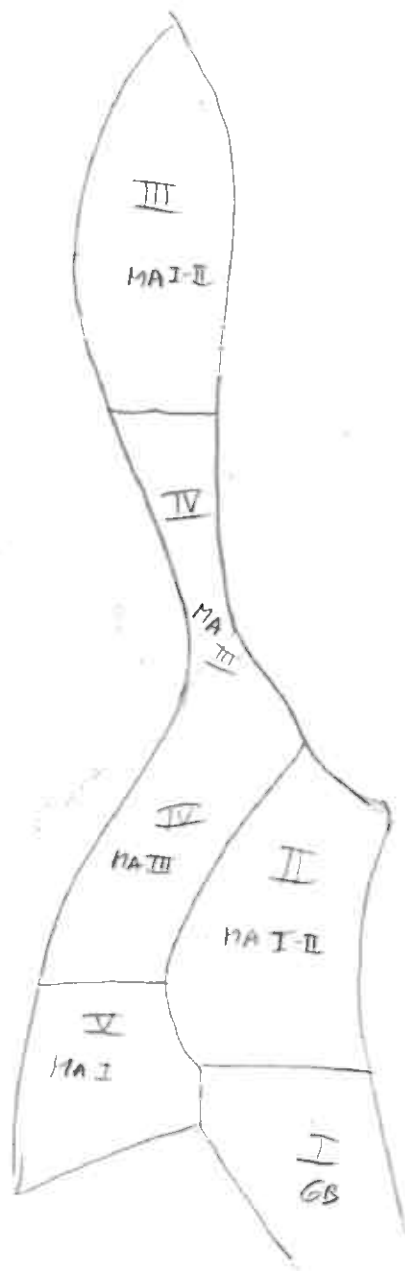


4.2-82



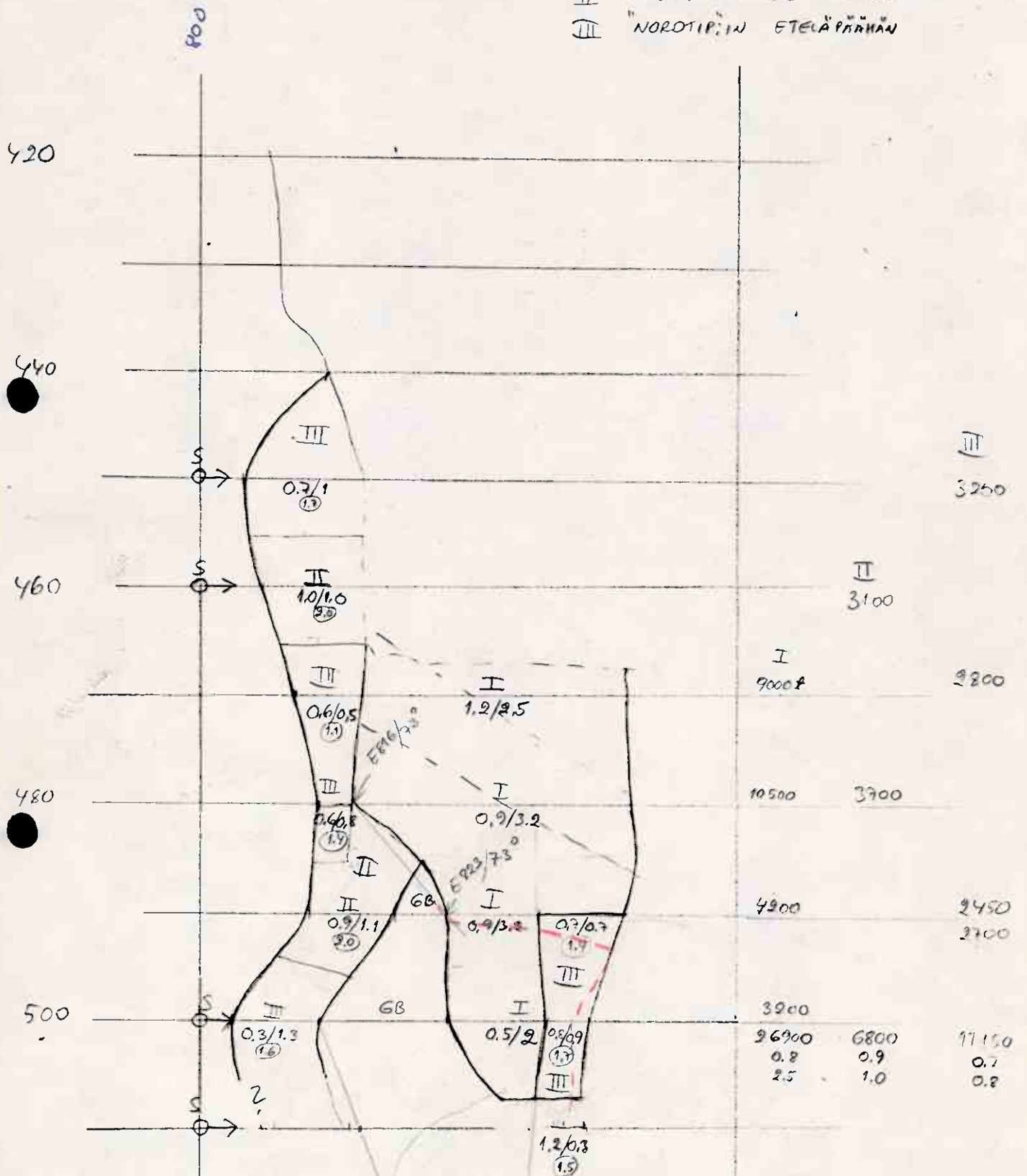
B-LOUNOS 17 02.87

EHOOTUS



D - BRUDET
YTAN

Cut-off I SUORAN TUTUIN, TUTUIN ETEEN
II RAJAHALMI DIN SW-PUOLELLE
III "NOROTIPIN" ETELÄPÄÄN



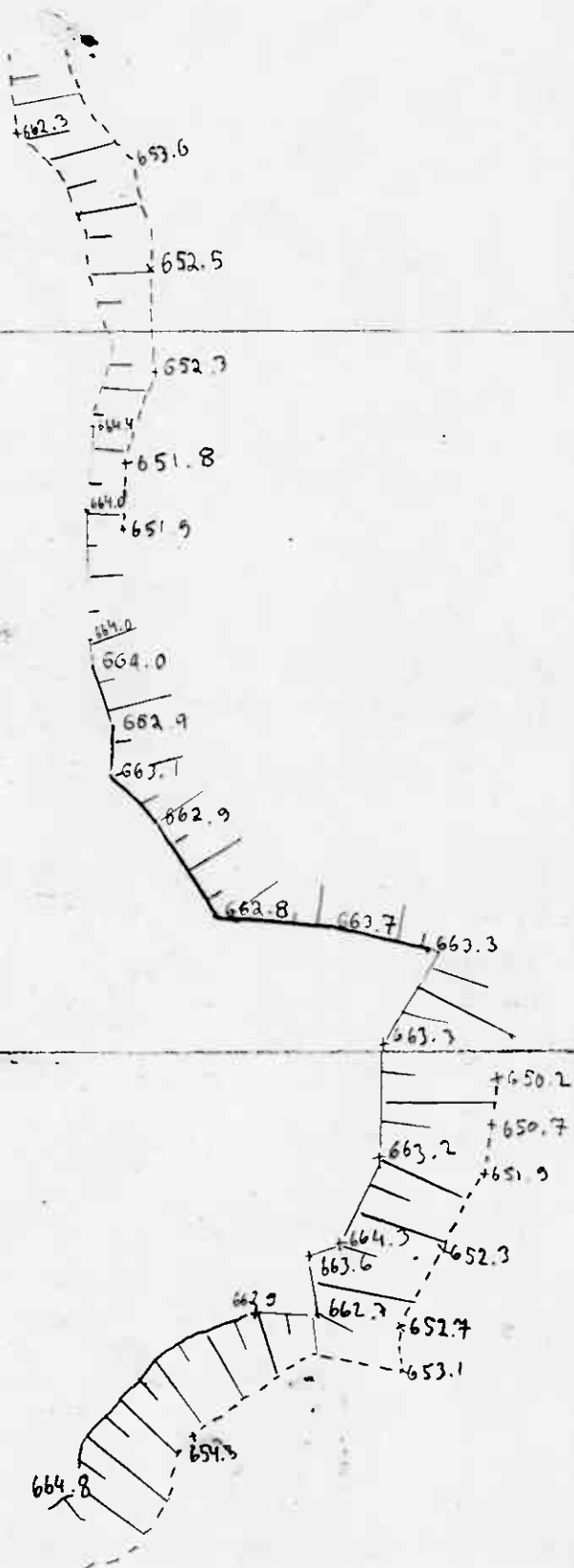
KS 15.1.87

$$\emptyset RA, HA-KR\bar{a}-MS, JH, KS$$

S - 450

S - 500

D-brudd 25.1



SDR2 Plot of Job D MALMI 8010 18300 Origin N

25.1.-87

K. Mäkinen
K. Salmela

SOIJAUUS, D-LOUHO

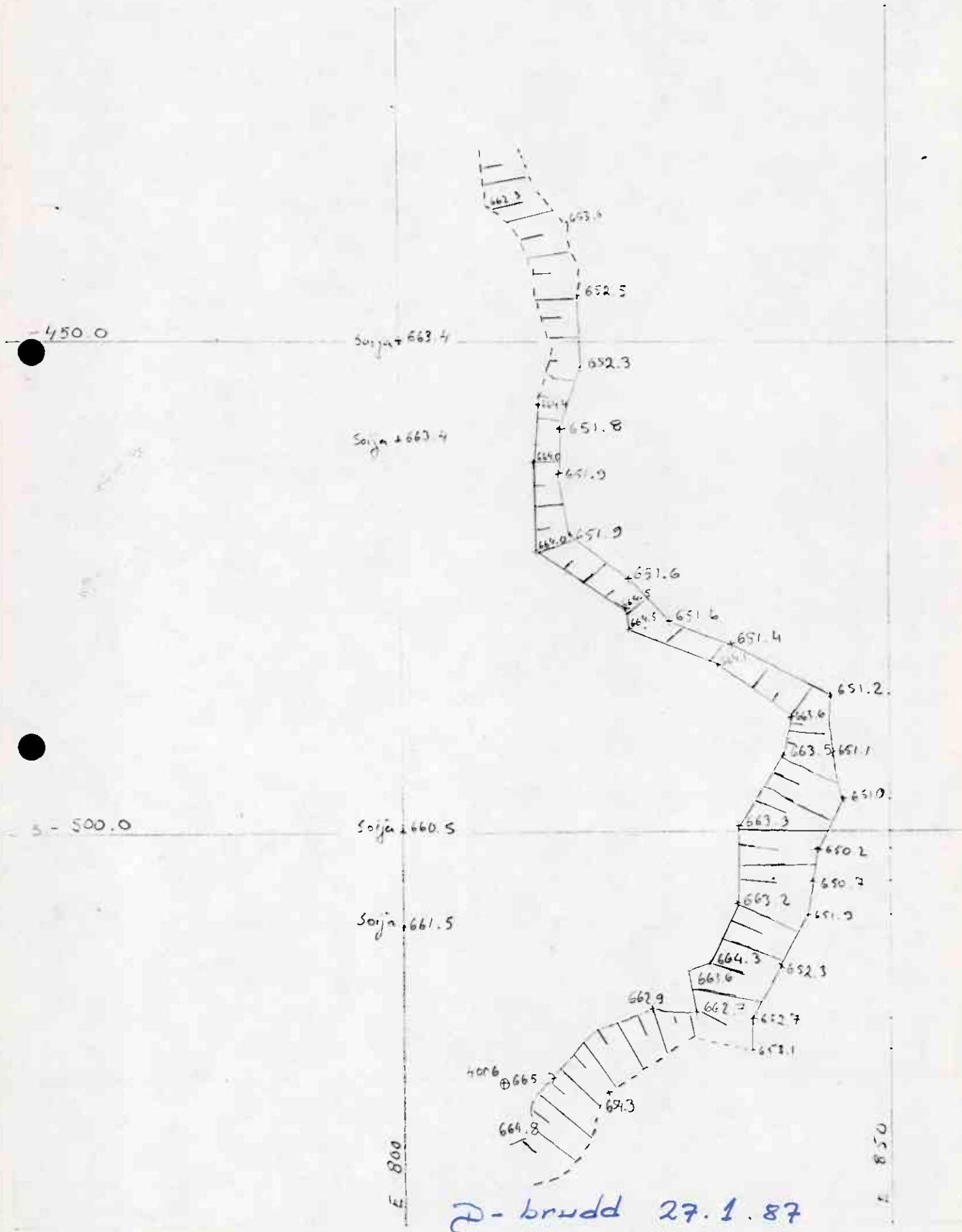
MAAN PINNALLA

LEIKKAUS	S. REIKÄ	E-KOORD	SUUNTA	KALT.	PITUUS
✓ S 450	45 S II	800	ITÄÄN	40°	12 m
✓ S 460	46 S I	800	-"-	-"-	-"-
✓ S 500	50 S III	800	-"-	-"-	-"-
✓ S 510	51 S IV	800	-"-	-"-	-"-

Suhte.

BG 22.7.87 KS

Ø BG: HA, KRA, OH, KS
LMK: 2*



MALMIRAJAT

LOUKOS: B

MAIMI: ITÄMAIMI

TASO: +587 - +576

LÄNSIRAJA:
LEIKKAUS

E-KOORD

KALT, ASTEET

SUUNTA

HUOM.

N 935

526.0

80°

ITÄN

NEG. KALT

N 930

525.5

80°

ITÄN

NEG. KALT

N 925.

~~525.5~~ 526

~~77°~~ 79°

ITÄN

- " -

N 920

~~525.5~~ 526.5

~~74°~~ 78°

ITÄN

- " -

N 915

~~528.0~~ 529

~~72°~~ 78°

ITÄN

- " -

ITÄRAJA:

LEIKKAUS

E-KOORD

KALT, ASTEET

SUUNTA

HUOM.

N 935

531.5

88°

ITÄN

MUSTA -

N 930

531.5

88°

ITÄN

LIUSKEA

N 925

533.0

88°

ITÄN

KONTAKTI

N 920

536.0

88°

ITÄN

N 915

535.0

84°

ITÄN

KS 19.1.87

Ø HA, KRA, OH, KS

Geologiaa ja
karttoja

A/D



"Feasibility study", bryting av malmen under D-dagbrudd

I bunnen av D-bruddet ligger en del malm med høy gull gehalt. Iflg. H.Alaniskas brytingsplaner finnes det følgende muligheter for å bryte denne malmen:

Alt. A "Utvidet" dagbrudd

- malm 11 700 t
 - 0,84 % Cu
 - 6,92 g/t Au
- gråbergsbryting 212 000 t
- jordavdekking 7 000 m³

Iflg. grov vurdering gir dette alternativ ikke dekningsbidrag.

Alt. B "Stor" dagbrudd

- malm 18 200 t
 - 1,13 % Cu
 - 5,52 g/t Au
- gårbergsbryting 291 000 t
- jordavdekking 7 000 m³

Resultatet er negativt dekningsbidrag.

Alt. C Underjordisk bryting

- malm 22 000 t
- 1,19 % Cu
- 5,06 g/t Au
- tunnel drift 380 m
- gråbergsbryting 37 000 t

Dette alternativ gir positivt dekningsbidrag og er sjekket nærmere.

Cash flow fra produksjonen er 715 000 kr, men p.g.a. lang investeringsperiode før inntekter fra konsentratsalg, blir rentene 800 000 kr (se vedlegg 3).



BFG A/S BIDJOVAGGE GRUBER

Sammendrag

Bryting av malmen som ligger i bunnen av D-bruddet er ikke lønnsomt.

D-bruddet tas i bruk som avgangsområde. Man sparer investeringer med ca 1,0 - 2,0 MNOK, fordi man har plass for et års avgangsmengde i bruddet. Avslutningskostnadene kommer også til å være mindre enn med avgangsdeponering i terrenget.

Kautokeino 18.5.1988

Reijo Anttonen
prod.sjef

Ø BG : 10, RA, KB, KS, HA
Norsulfid: P. Kerola

B+G A/S DIDJOVAGGE GRUBER

1. Investeringer

Tunneldrift 380 m á 9 000 kr/m	=	3 420
Bryting av boringsnivå 10 000 t á 25 kr/t	=	250
Bryting av østvegg 27 000 t á 25 kr/t	=	675
		4 345
Usikkerhet 10 %		435
		4 780

2. DriftskostnaderGruve

- malmbryting 22 000 t á 56 kr/t	=	1 232
- grovknusing 22 000 t á 17 kr/t	=	373
- felles 22 000 t á 8 kr/t	=	176
		1 782

Verket

22 000 t á 49,20	=	1 082
------------------	---	-------

felles

22 000 t á 20,-	=	440
-----------------	---	-----

TOTALT = 3 304 tNOK

Lev.kost. 2 145 t x 1,085 x 330 kr/t = 768 tNOK

 B+G A/S BIDJOVAGGE GRUBER

3. Oppredning

		% Cu	g/t Au	Cu-utv.	Au-utv.
Malm	22 300	1,19	5,06		
Konsentrat	2 145	12,0	46,3	97	88

Verdi av kons.

Cu (11,23 kr/kg)	=	1 229,12
Au (92,31 kr/kg)	=	3 914,94
- smeltelønn	=	-490,00
- raff.lønn	=	-173,8
- våt bot	=	-20,0
		4 460,26

Verdi av prod. 2 145 t á 4 460,26 = 9 567 tMNOK

D-BRODD

23.2887

ALTERNATIV



TUEER SMITTE	HALV TODD	Aul	GRÄBERG		
			A	V	G
400					
410			592	5920	15500
420			1413	14130	38200
430			1504	15040	40600
440			1348	13480	36400
450			605	6050	16400
460			466	4660	12600
470			495	4950	13400
480			525	5250	14200
490			543	5430	14700
500					10.000
510					
520					

RAJCHMANN 18.300 0,78 4,92
cut off 2,5 11.700 0,84 6,92

212 000

$$\left. \begin{array}{l} 11.700 \text{ cu} \\ \text{Aul } 6,92 \end{array} \right\} \text{NOK/TON} =$$

$$\text{GRÄBERG } 212.000 \text{ TON} \times 25 \text{ NOK/TON} = 5.300.000$$

$$\text{JORDAUDEKLING } 10 \times 100 \times 7 = 7000 \text{ m}^3 \times 30 \text{ NOK/m}^3 = 210.000$$

GRIFT

100.000

5 % annu

5.830.000 NOK

$$\text{OPREDNING } 11.700 \text{ TON} \times 80 \text{ NOK/TON} =$$

0.936.000

6.826.000 NOK

VERST AV PRODUKTION
Omsetning

6.2 NOK

D = BUDD

24.2.88

ALTERNATIV

6

1aim 10%

TUER SUTTER	MALM		GRÄBERG		
	TOP	UW	FW	A/m ²	V/m ³ · G' (TON)
400					
410					
420					
430				1000	10.000 27.000
440	2400	0,11	19,71	1875	18752 50.600
450	3500	0,11	7,46	1760	17600 47.500
460	2000	1,65	2,10	1360	13600 36.700
470	2300	1,93	2,61	1275	12750 34.500
480	1300	0,81	2,97	1500	15000 40.500
490	2700	2,18	1,35	1190	11900 32.100
500	4000	1,44	2,36	432	4320 11.700
					10.000
	18.200	1,13	5,52		290.600
			NOK/TON =		

GRÖFT
TORDANDEKLING
GRÄBERG

291.000 + 25 NOK

+ 5% and

100.000
= 300.000
7.275.000
267.5000
8.058.750

OPREDIKTION

18.200

80 NOK/MTON

= 1.456.000

9.514.600

VERDI AV PRODUKTION =

Omsettning

= 7.8 MNOK

DEBRUDD

ALTERNATIV (5)

(UNDERJORDISEA)

JORDAUECKING

TUNNEL 380 m $\times$ 10.500 NOK = 3,8 MNOK

BORINGEN 10.000 TONN $\times$ 30. NOK/T = 0,3 MNOK

OSTVEGG 22.000 TONN $\times$ 30 NOK/T = 0,8 MNOK

MALM 22.000 TONN $\times$ 50 NOK/T = 1,1

6,2 MNOK

ANDET +10%

6,8 MNOK

OPREDNING 22.000 TONN $\times$ 80 NOK/T = 1,8 MNOK

8,6 MNOK

MALM 22.300 TONN $\left. \begin{array}{l} u = 1,19 \\ E = 5,06 \end{array} \right\} \text{NOK/TONN} =$

Om utvinning

VERDI AV PRODUKTEN 8,8 MNOK

MALMBEREGNING

1 GEOLOGISK, IN SITU 1

MALM: D

PROFIL: S 435 - S 505 (70 m)

CUT OFF 2.5

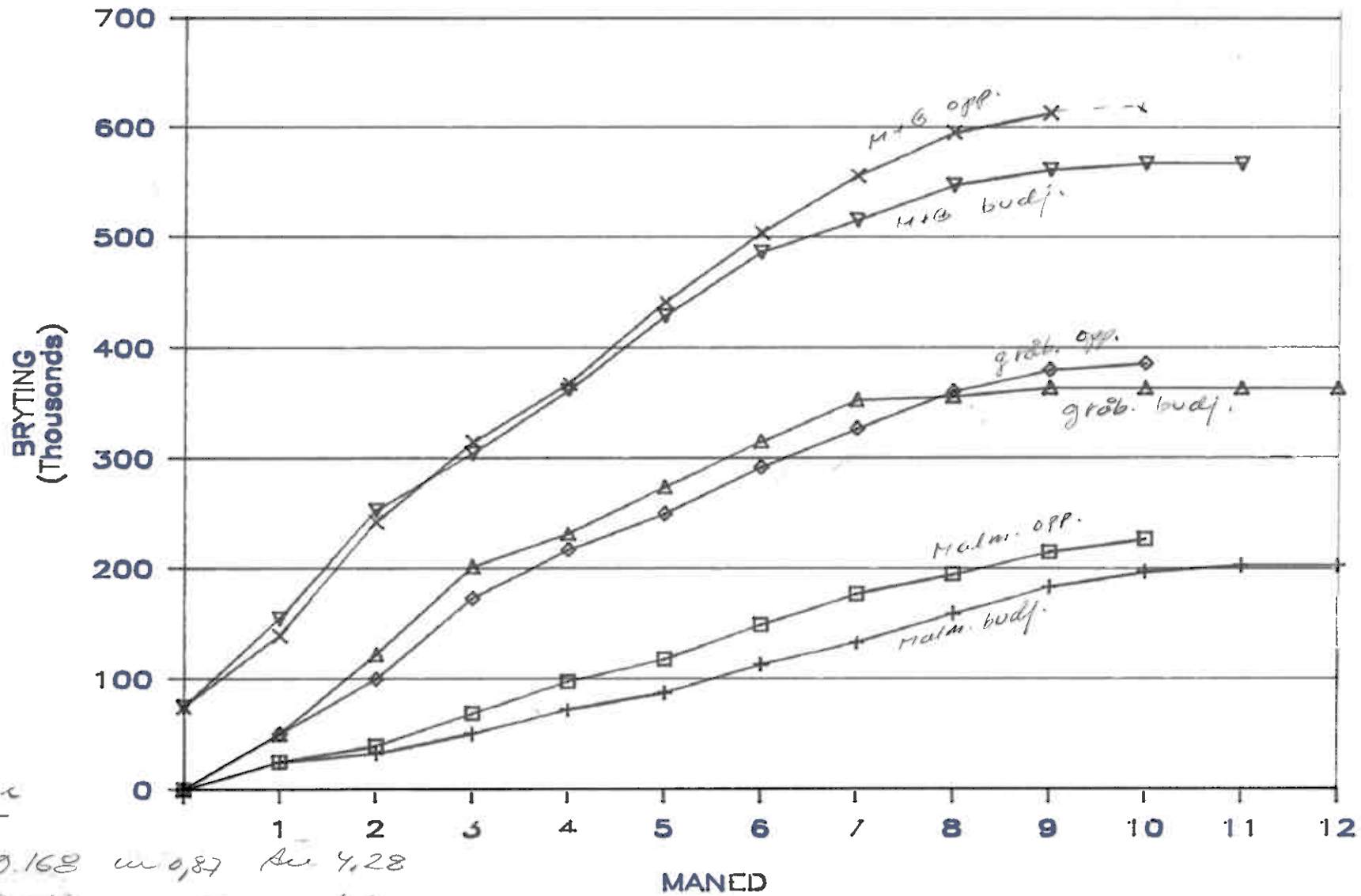
IN SITU

GRUVTEKN. (-5%, +10% (= +4,5%))

NIVÅ	BREDD	HØYDE	LENGDE	M ³	SPEC.V.	t	Cu %	Au g/t	Au g/t _{RED}	^{1/1.4} Cu-EKV	t	Cu %	Au g/t	Au g/t _{RED}	^{1/1.4} Cu-EKV
						5798	0.12	18.72	13.86		6059	0.11	17.0	12.6	
						15595	1.75	3.58	2.49		16297	1.59	3.25	2.26	
						21573	1.31	7.68	5.57		22356	1.19	7.27	5.06	

Udvalg 3

D-BRUDD ,1987



Fra begynnelse

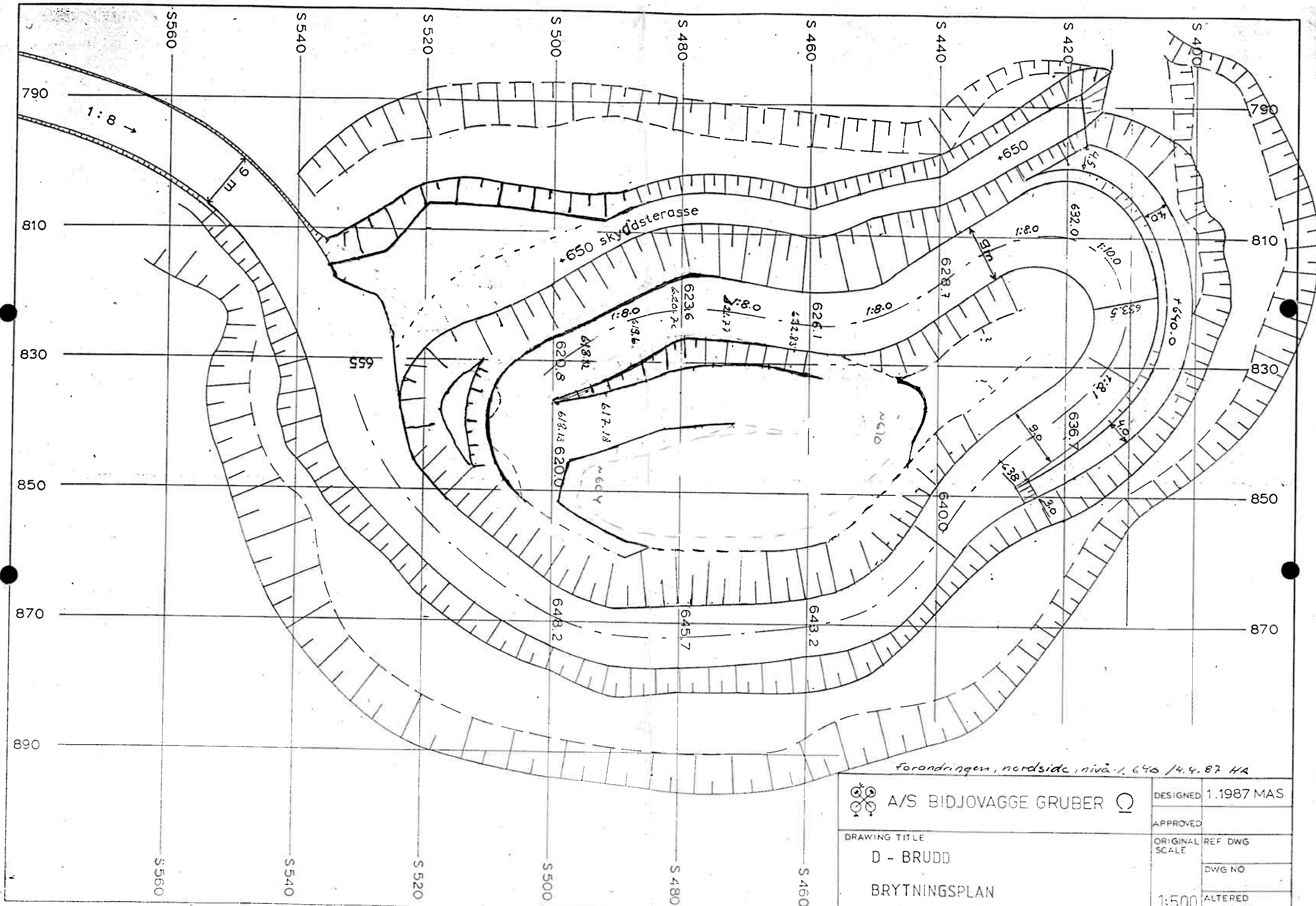
Malm 249.168 m 0,87 år 4,28

g-malm 38.011 ~ 0,68 " 1,5

grøbudy 465.105

752.284

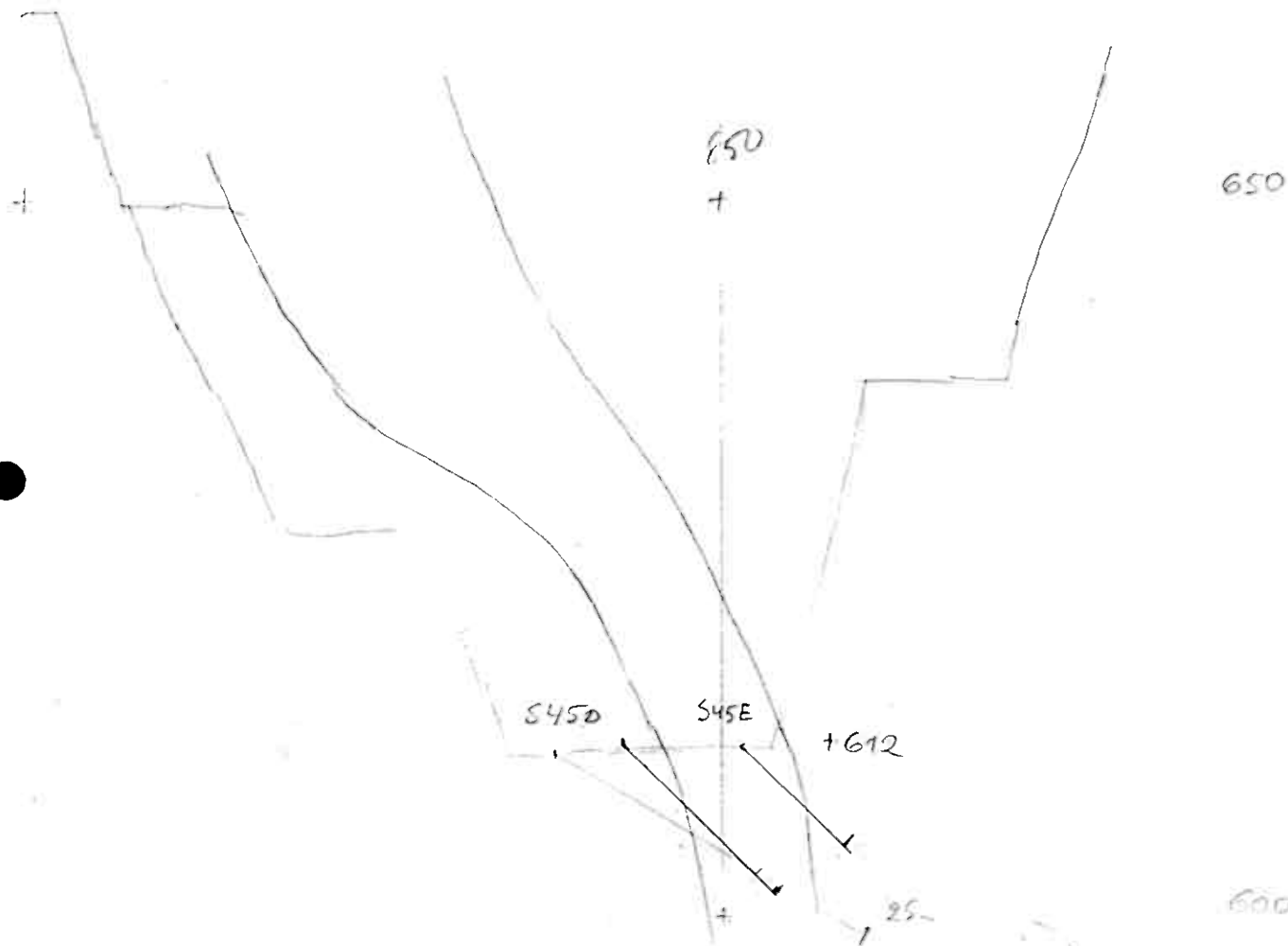
3.11.87/H4



 A/S BIDJOVAGGE GRUBER 	DESIGNED	1.1987 MAS
	APPROVED	
	ORIGINAL REF DWG SCALE	
	DWG NO	
DRAWING TITLE	1:500	
D - BRUDD	ALTERED	
BRYTNINGSPLAN	1.1987 IL	

D

S450



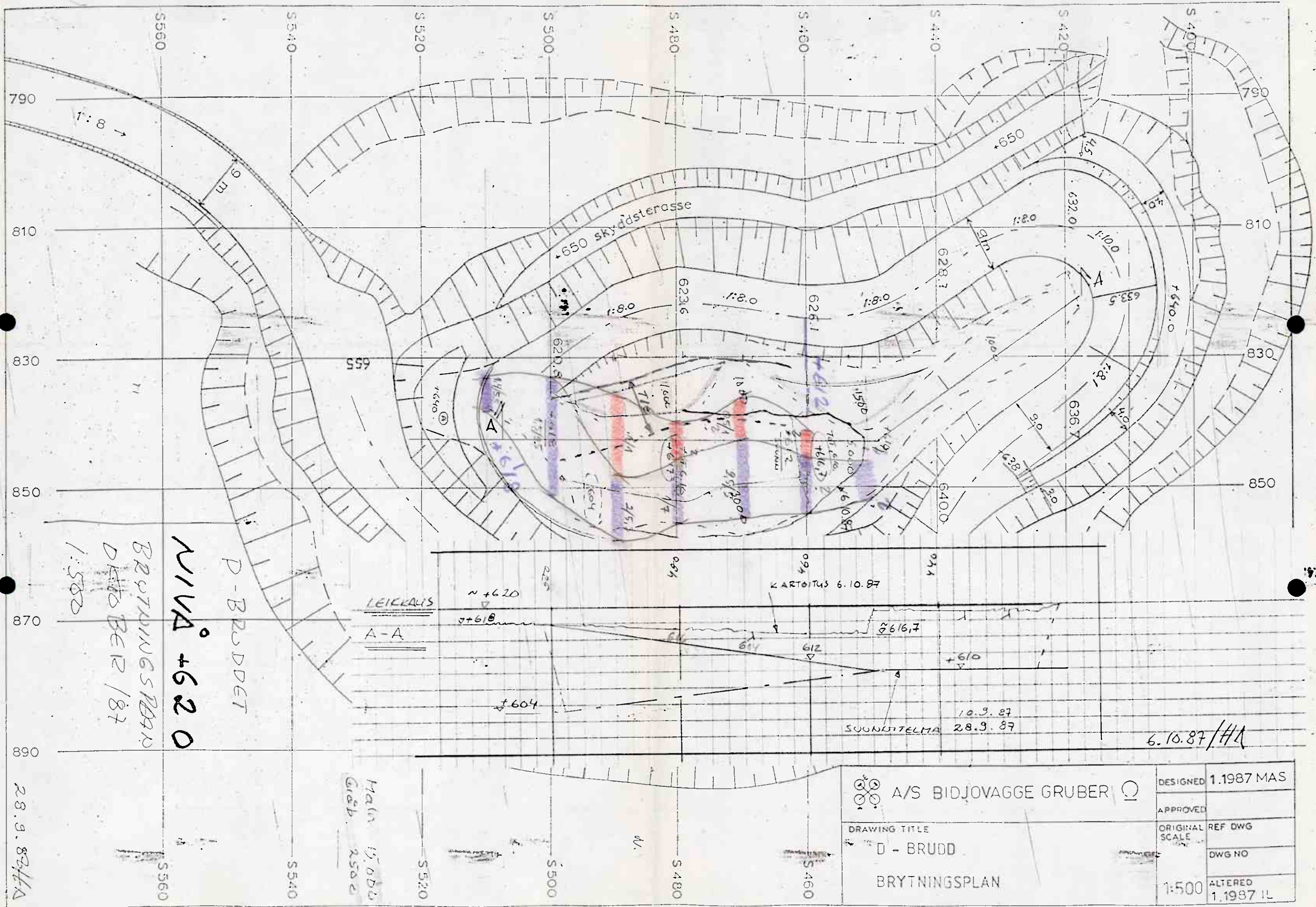
SOIJANAUTTEET / D

KREIKÄ	PROFILI	E-KOORD.	SUUNTA	KALT.	PIKUU
S45D	S450	843	90° = 17° 11'	45°	15 m
S45E	S450	852	90°	45°	10 m

2.11.87

OJF

KS 9.10.87
 ZMR
 HA, KRI, JP, KS

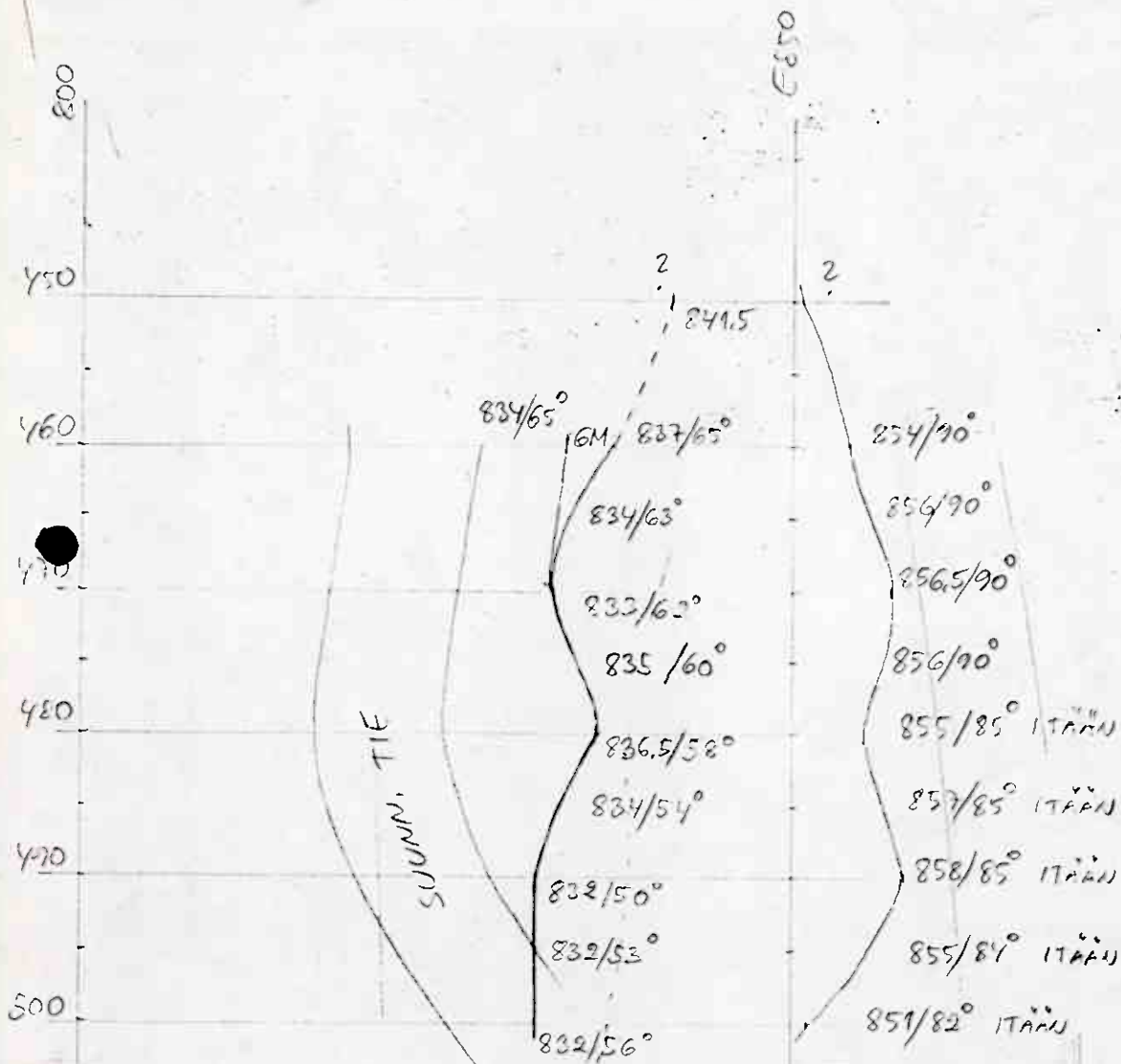


A/S BIDJOVAGGE GRUBER D - BRUDD BRYTNINGSPLAN	DESIGNED	1.1987 MAS
	APPROVED	
	ORIGINAL SCALE	REF DWG
	DWG NO	
	1:500	ALTERED 1.1987 IL

TILGJØRTE LMK 11/87

D-200405 +620

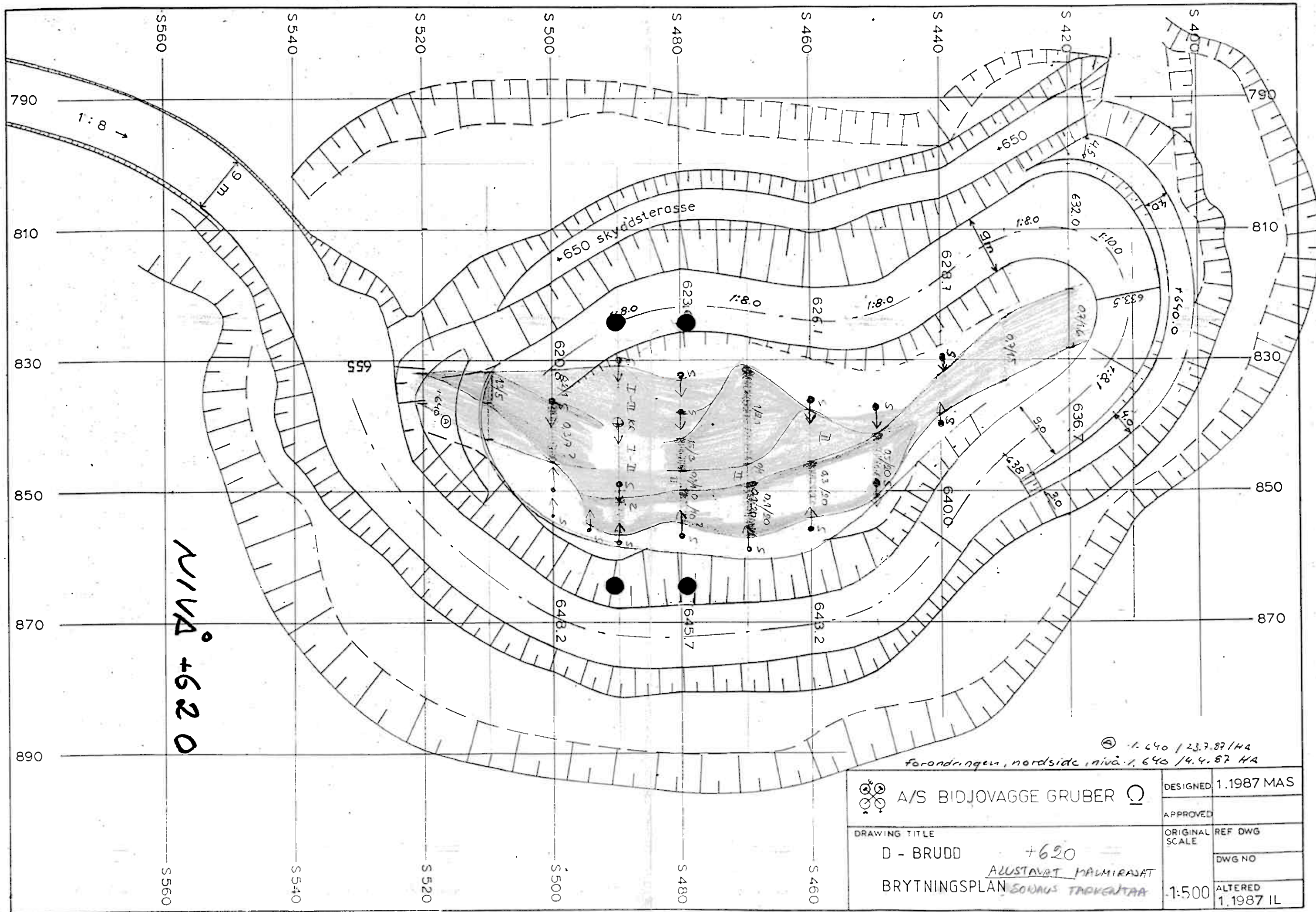
MAALIMIRAJAT



R6 6,10,87
KS

Ø LMK 2 KPL

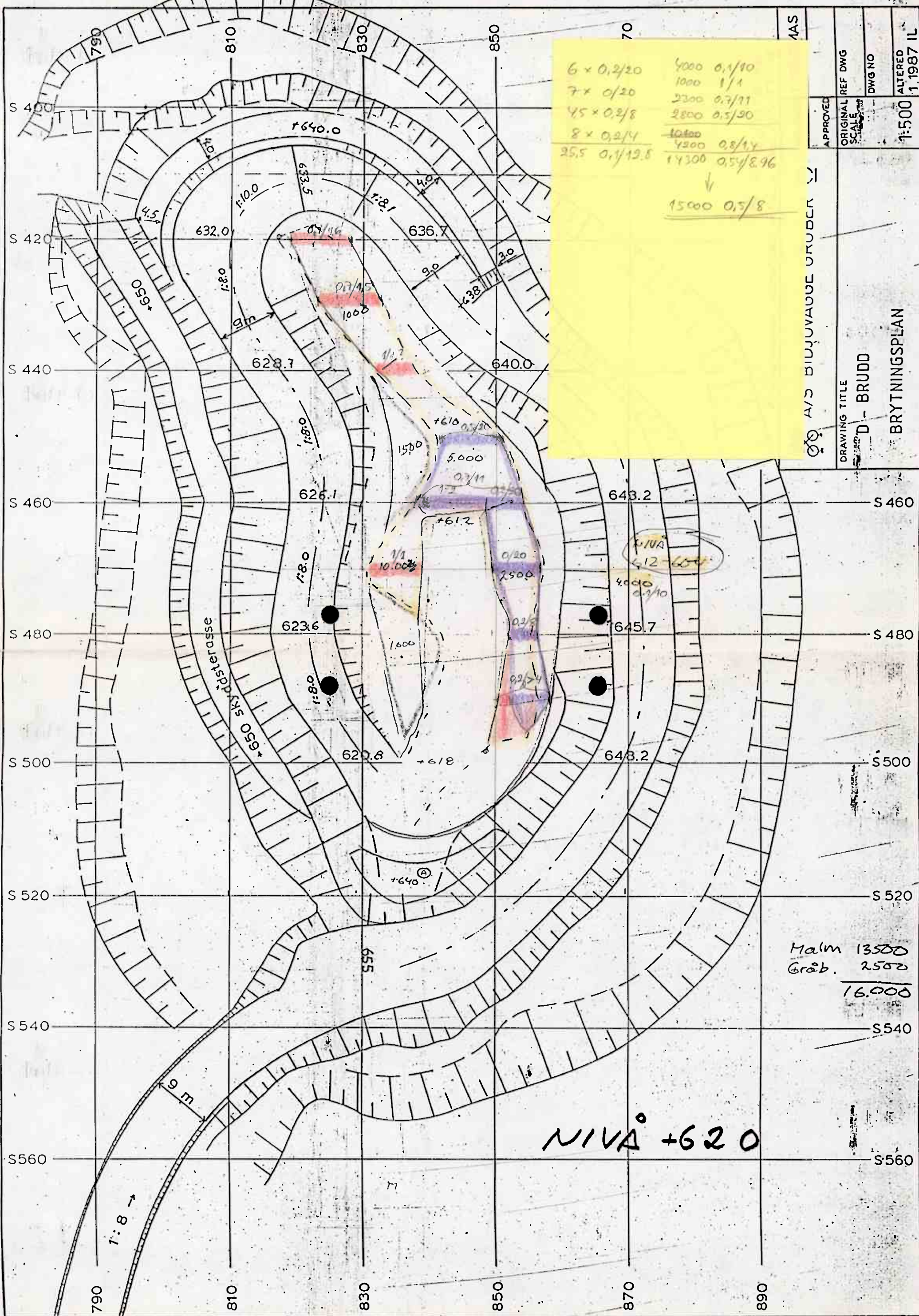
HA, KPA, KS



forordningen, nordside, nivå 1.640 / 4.4.87 HA

 A/S BIDJOVAGGE GRUBER	DESIGNED	1.1987 MAS
	APPROVED	
DRAWING TITLE D - BRUDD +620 BRYTNINGSPLAN	ORIGINAL SCALE	REF DWG
		DWG NO
	1:500	ALTERED 1.1987 IL

TIEDOKSI LMK:llc 7.4.87



Malm 13500
Gräv. 2500
16.000

NIVA +620

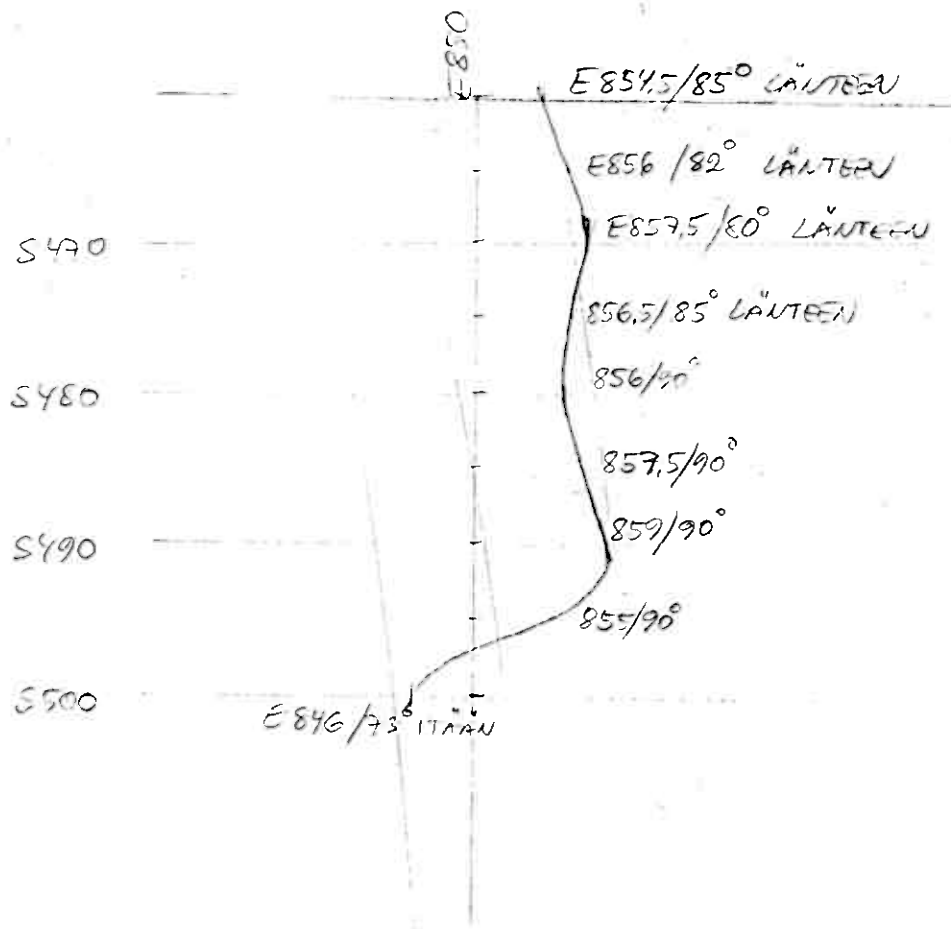
APPROVED	ORIGINAL SCALE	REF DWG	DWG NO	ALTERED
				1:500
A/S BIJUVÅGGE GRØDER				
D - BRUDD				
BRYTNINGSPLAN				
TILGJØRSLI 14.11.16 14.11.16				



B+G A/S BIDJOVAGGE GRUBER

D-LOUKOS + 620 - TASSO

MALMIN ITÄRAJA



BG 27.9.87

KS

Ø LHM. 2 KPL

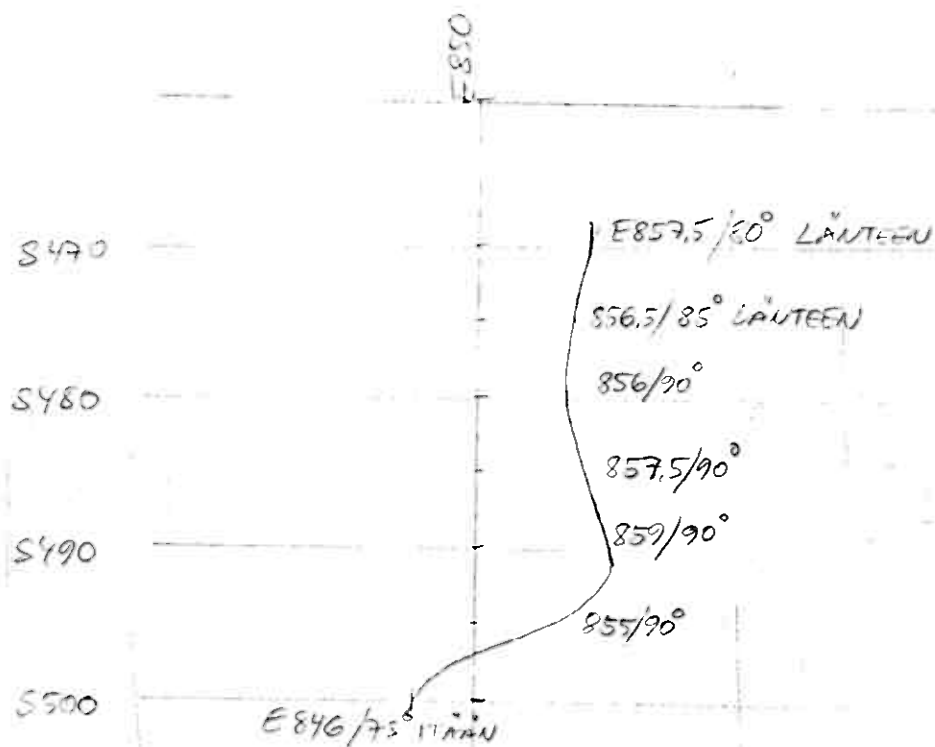
HA, KKS, KS



B+G A/S BIDJOVAGGE GRUBER

D-200003 + 620 - TASSO

MALMIN ITÄPÄÄ

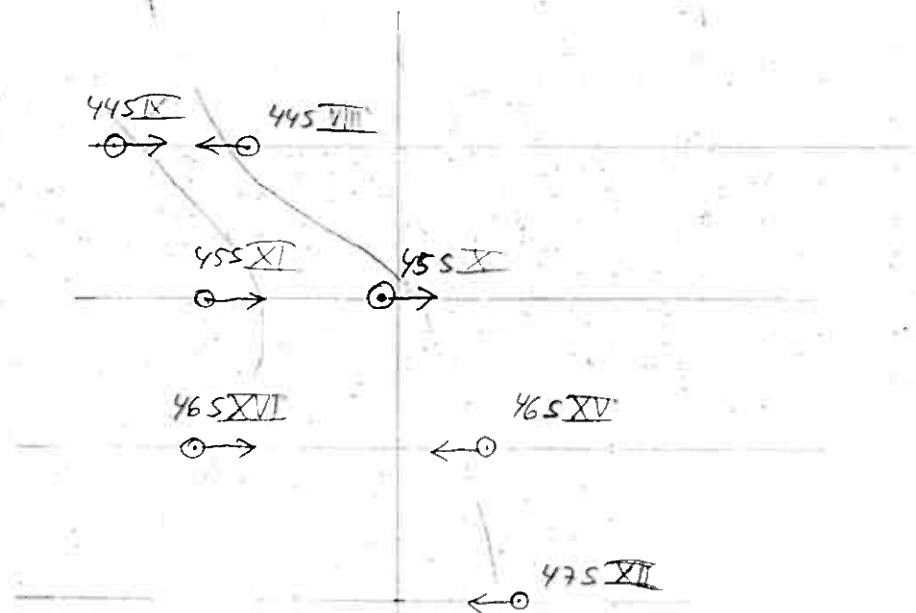


BG 29,9,87
KS

Ø LMK 2KPL
HA, KRS, KS

SOINAUS, O-LOUHOS

+620-TASO



SOIJAREIKA	PROFILI	E-KOORD.	SUUNTA	KALTEV.	NÄTEVALI	PITUUS
47 S <u>XII</u>	5470	858	270°	40°	7 m	8 m
46 S <u>XVI</u>	5460	856	270°	"	"	"
46 S <u>XVII</u>	- " -	837	90°	"	"	"
45 S <u>X</u>	5450	849	90°	"	"	"
45 S <u>XI</u>	- " -	837	90°	"	"	"
44 S <u>VIII</u>	5440	840	270°	"	"	"
44 S <u>IX</u>	- " -	831	90°	"	"	"

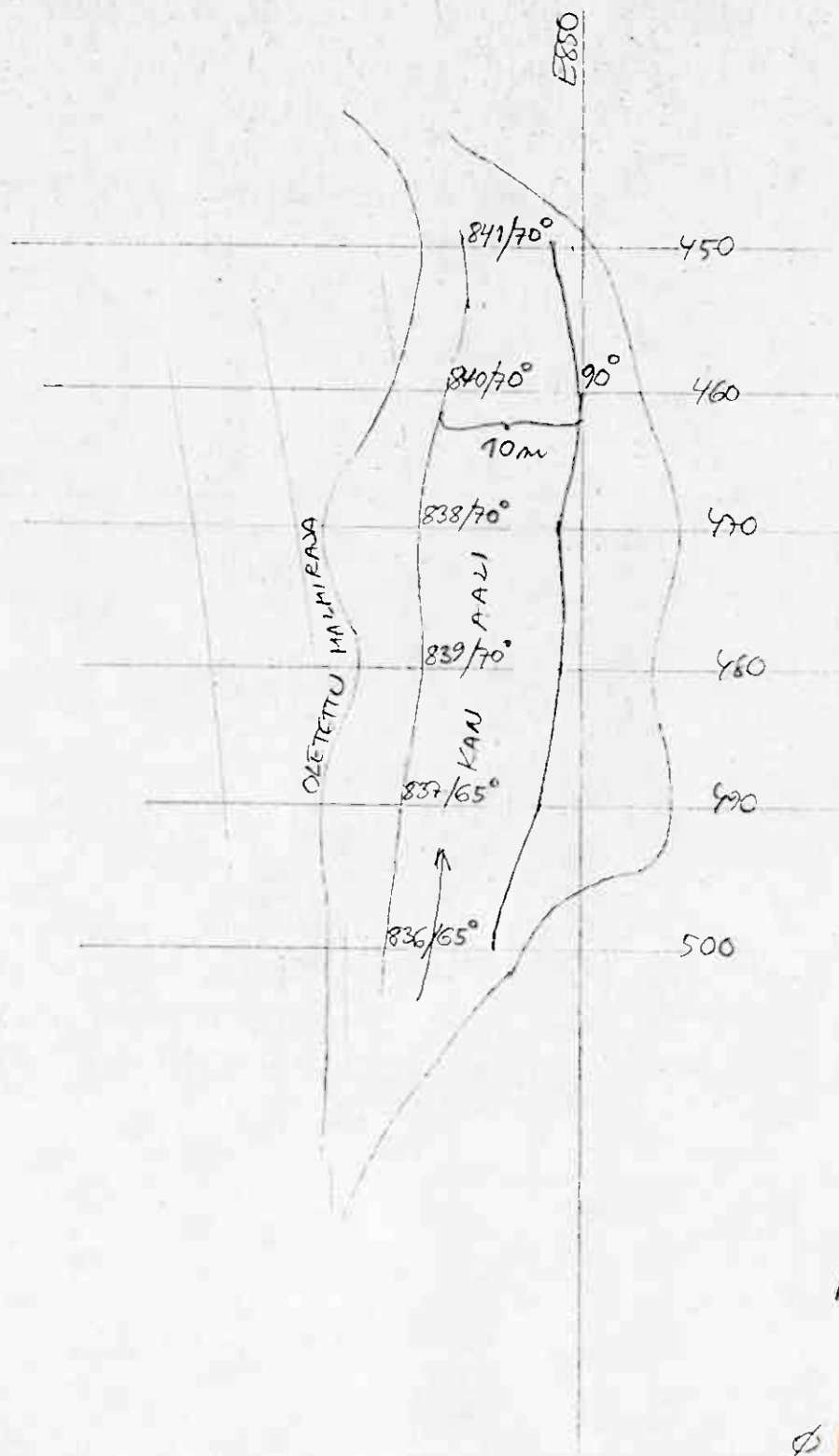
BG 23.9.87

KS

Ø 2 MK 2 KPL

HA, KAT, SA-CL, KS


D-LOUHOS, +620
B+G A/S BIDJOVAGGE GRUBER
 KANAALIZOUMINTA



BG 22.9.87
 KS

Ø HA, KES, KS
 LMK 3 KPL

O K T O B E R

PAINED

28.9.87

DATO

46

21.7.87/H1

MALMIRASAT

D-LOUROS

TIENTASO

627-620

GM/M

G/GM

S 450 E 833 67°

S 450 E 831,5 53°

S 460 E 829,5 40°

S 460 E 829,5 40°

S 470 E 827,5 56°

S 470 E 827,5 56°

S 480 E 833,5 53°

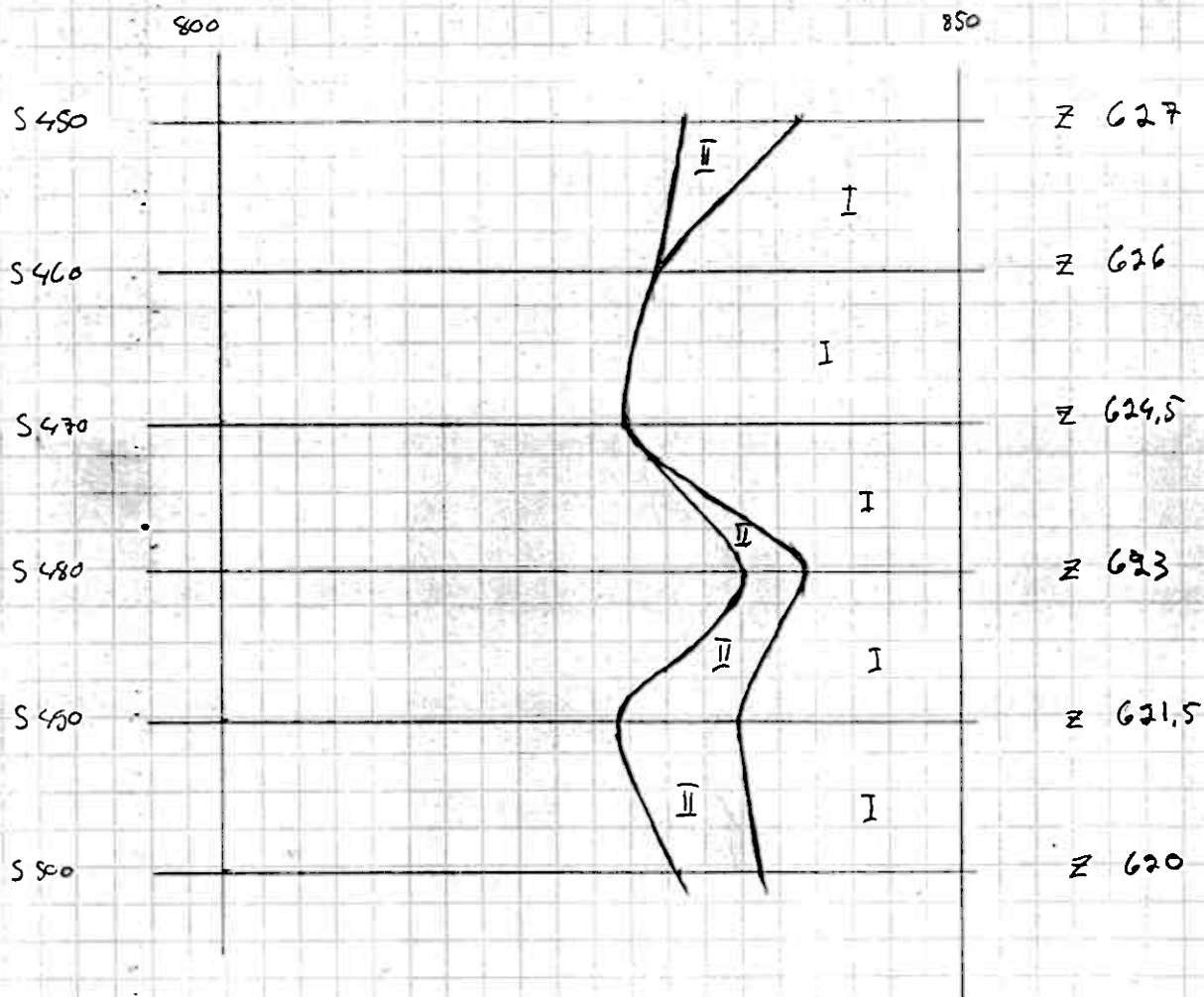
S 480 E 835,5 50°

S 490 E 835 38°

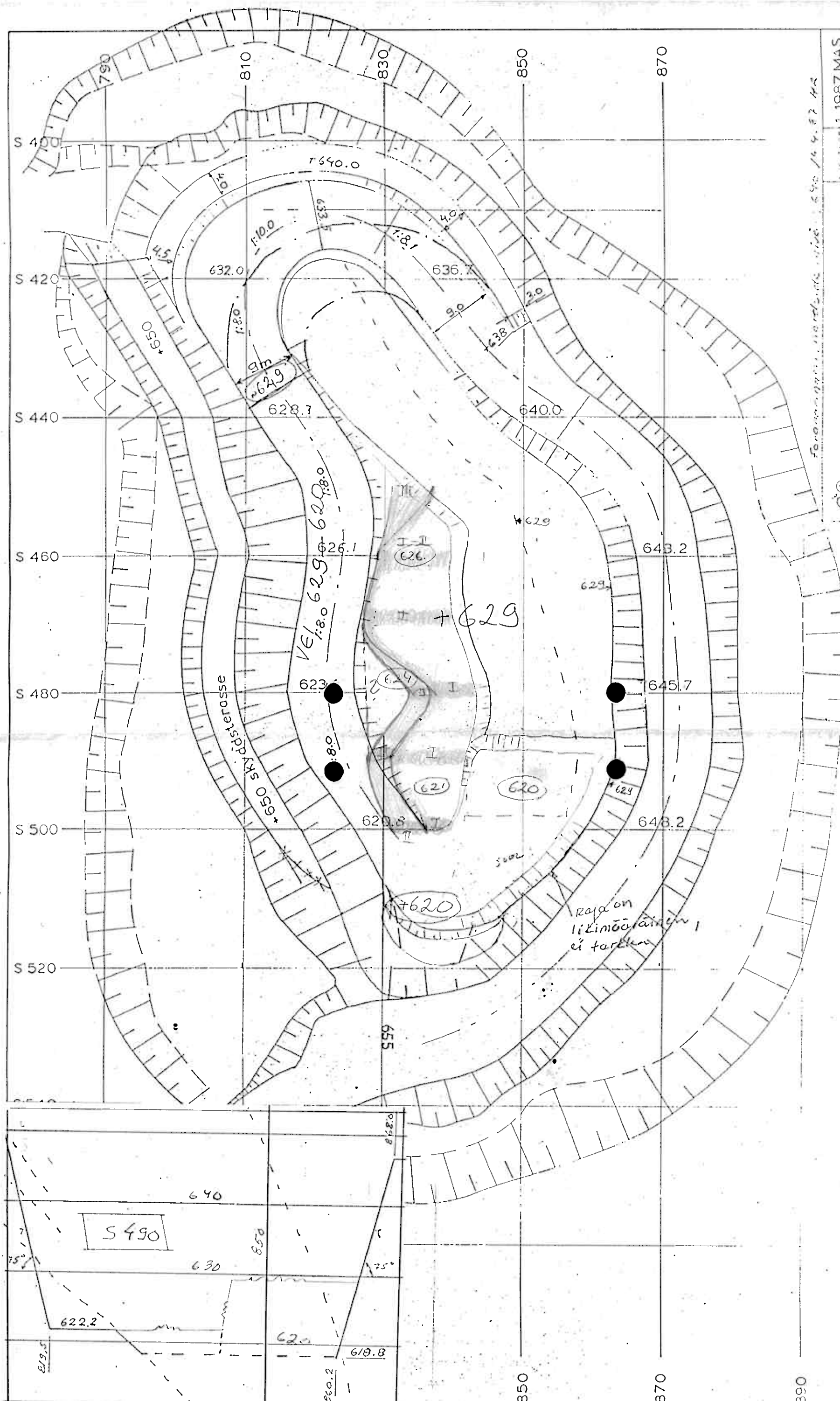
S 490 E 827 40°

S 500 E 836,5 48°

S 500 E 831 58°



BL 8.9 -87

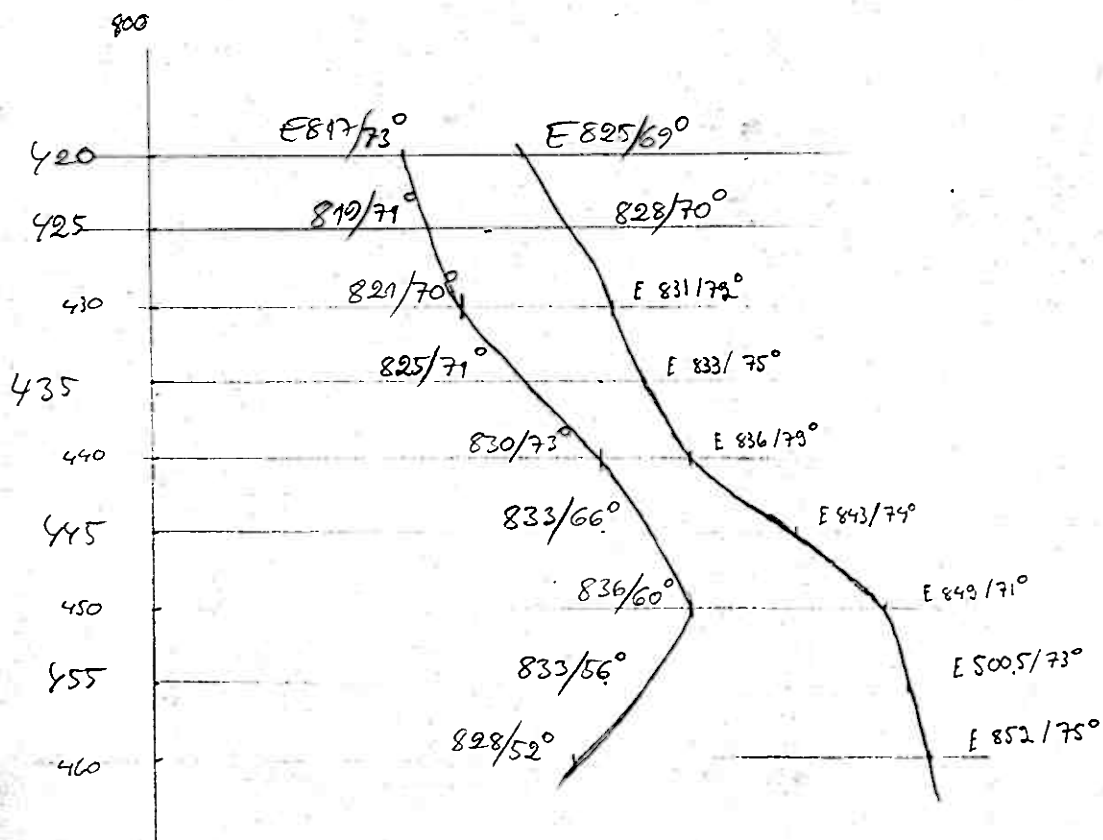


1:500
 1987 IL
 D - BRUDD
 BRYTNINGSPLAN
 NIVA 629
 4/5 800.000 00 000 0
 1987 MAS
 1987 MAS

2000 TONN

Raja on
 liikimääräinen,
 ei tarkkuus

MALMI RAJA D-Louhos 628-TASO

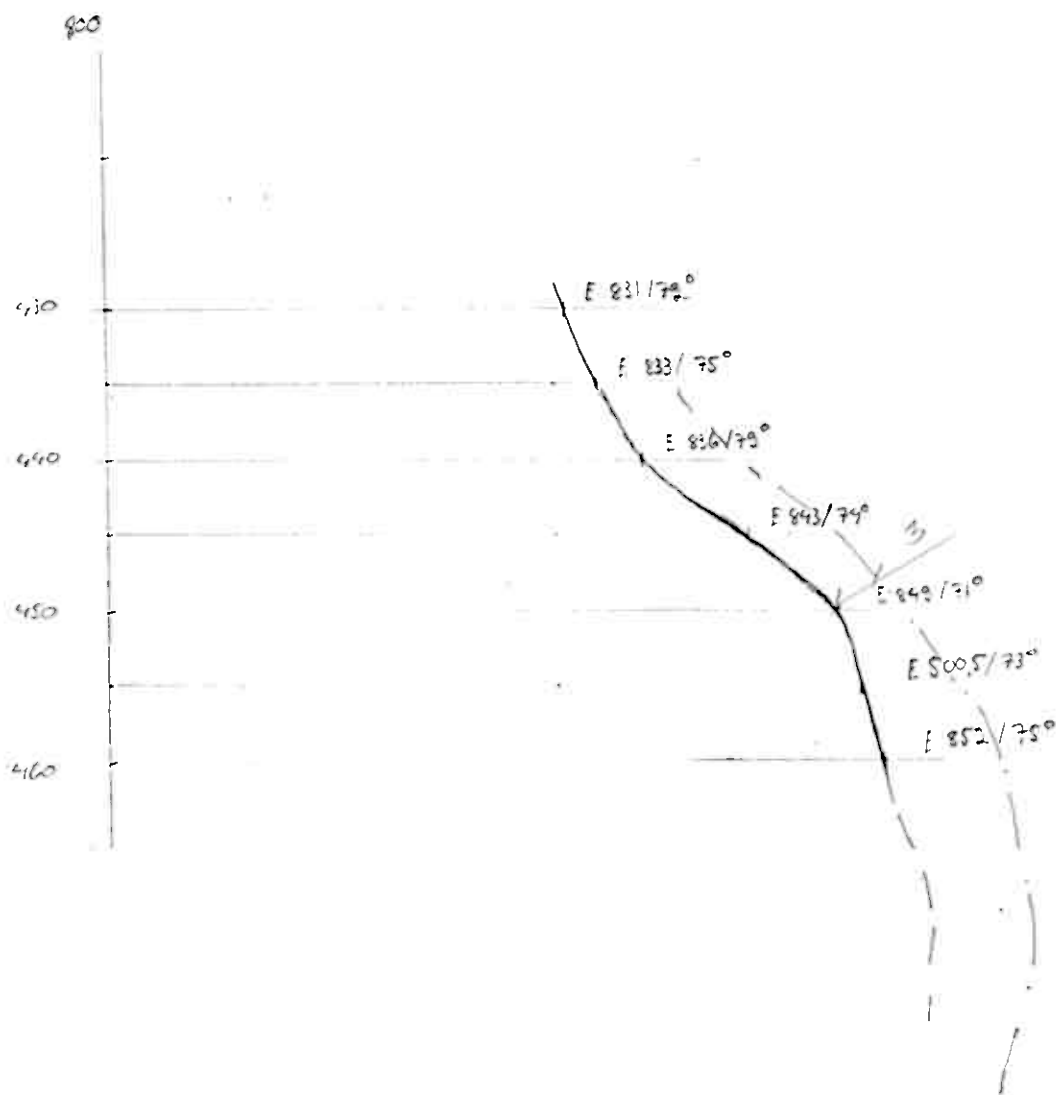


BL 31.8-87

Ø Lmk

KS. H.A. SA-BL

MALMI RASA D-Low Hos 628-TASO

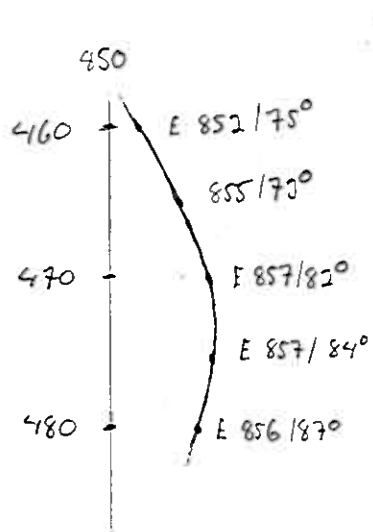


BL. 31.8-87

Φ L 114

KS. H.A. SA-BL.

MALMI RAJA D-LOU HOS 699-TASO



900



BL.

26.8-87

Ø LMK

HA. KS. SA-BL

5480

6230

620

629

630

87.6

77.5

6830

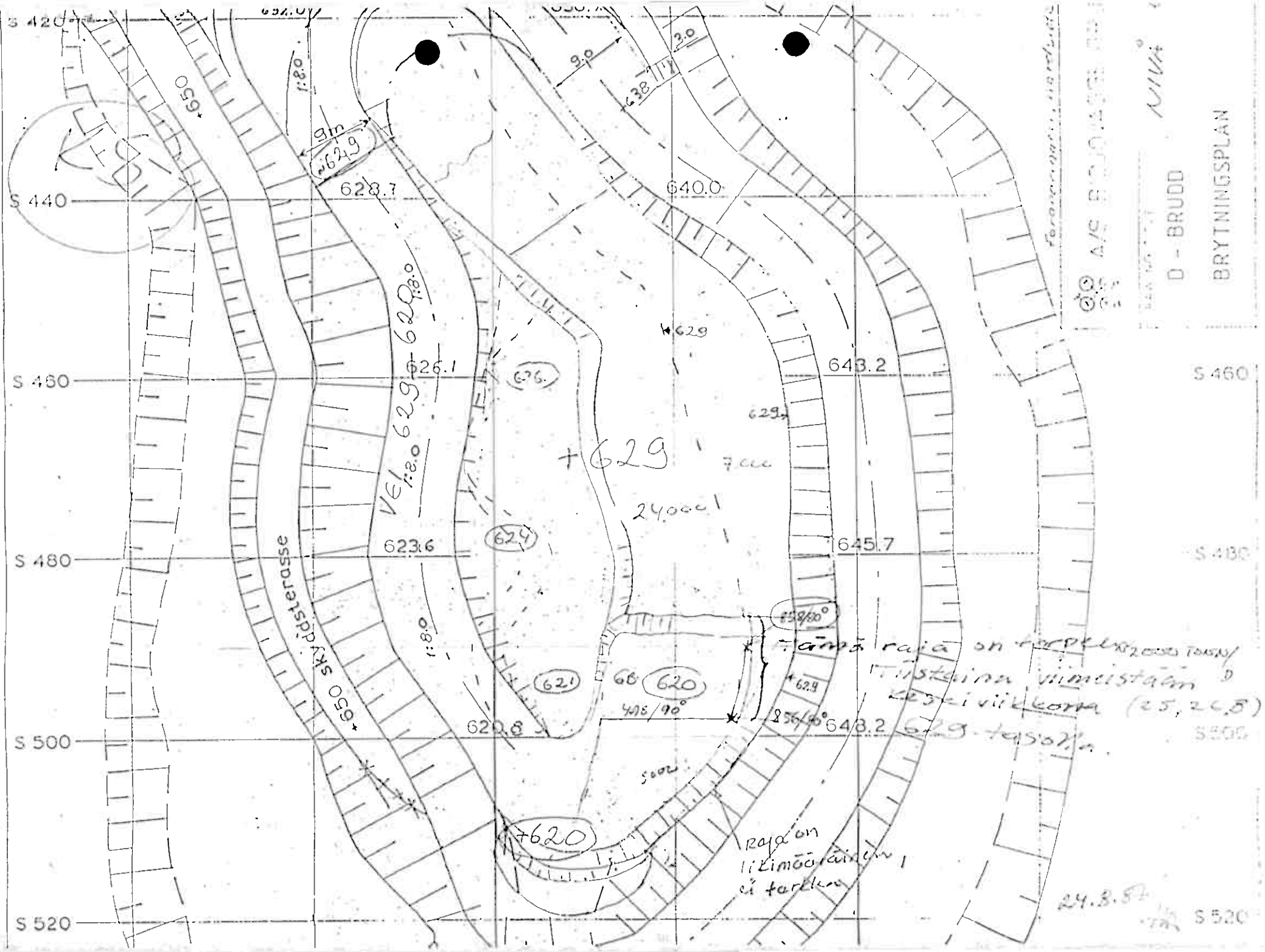
M

G

A hand-drawn cross-section diagram of a road profile on grid paper. The diagram shows a road with a 175-degree slope on the right and a 620-degree slope on the left. Key elevation points are marked: 640, 630, 625, 629, and 644.5. A vertical line is labeled '258'.

Hand-drawn sketch of a terrain profile on grid paper. The profile shows a path with several points labeled with elevations: 640, 630, 629, 620, 625.8, and 643.2. The path is marked with arrows indicating direction. A vertical line is drawn through the profile, and a horizontal line is drawn at the bottom. The sketch is labeled "258" at the bottom left.

① LMK, KS, KR5

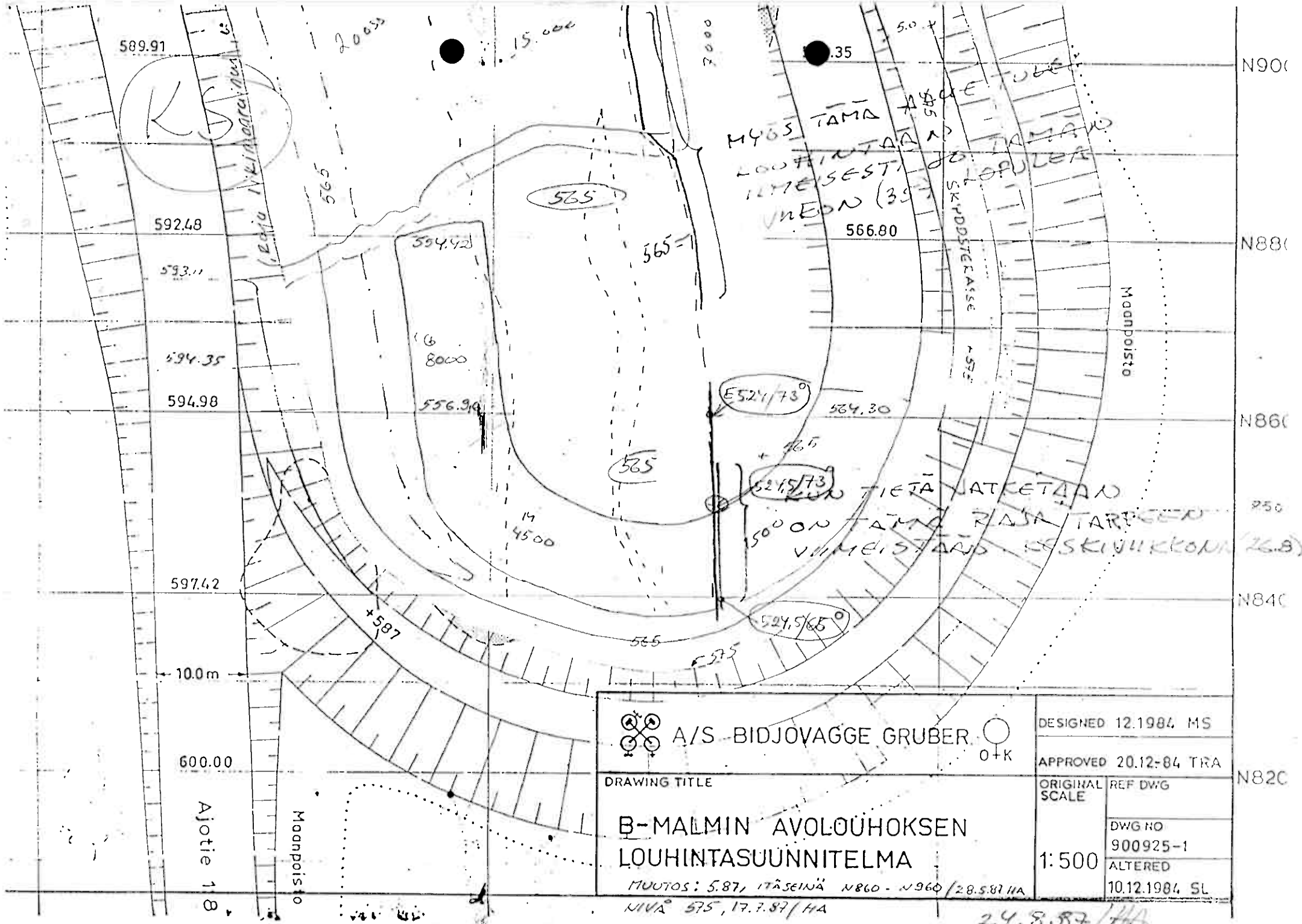


D - BRUDD

BRYTNINGSPLAN

24.8.87

S 520

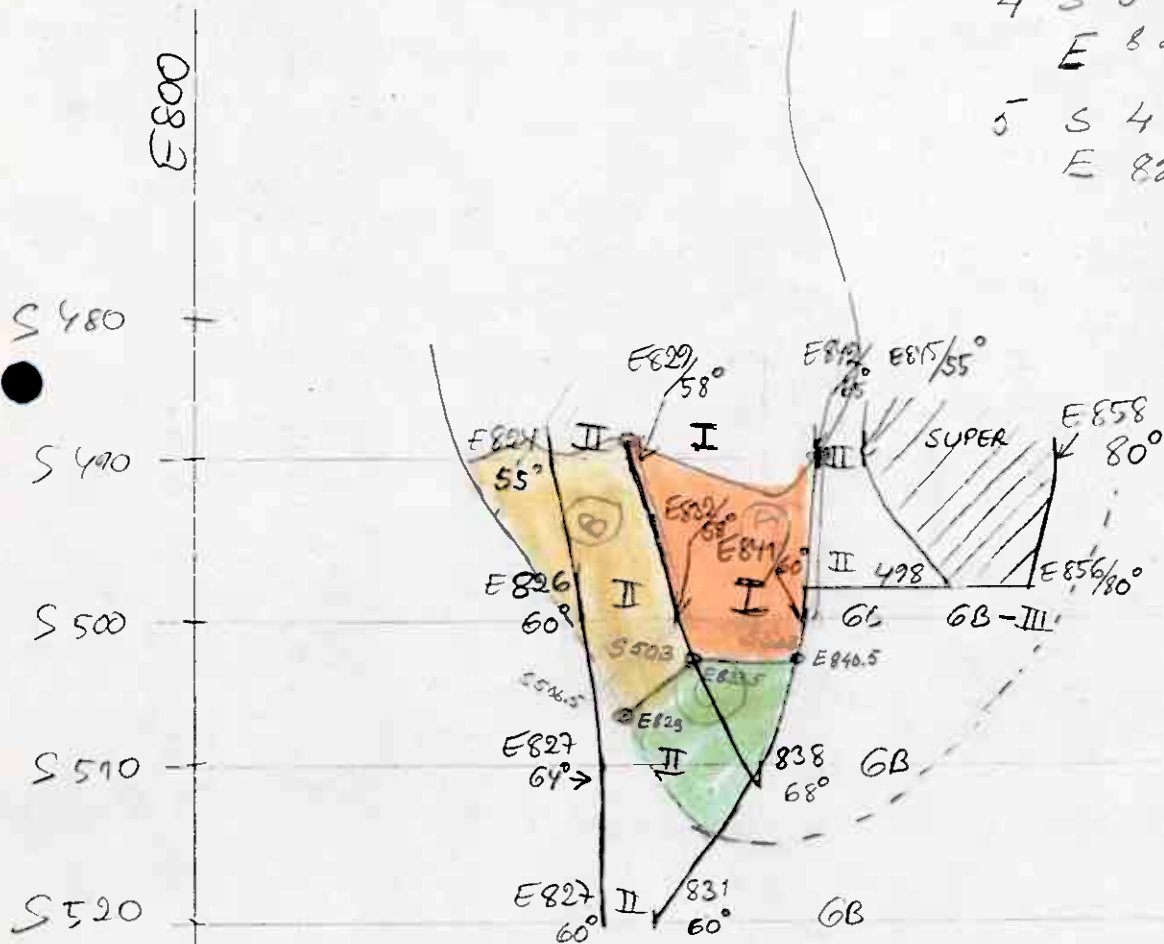


 A/S BIDJOVAGGE GRUBER		DESIGNED 12.1984 MS	
DRAWING TITLE		APPROVED 20.12-84 TRA	
B-MALMIN AVOLOUHOKSEN LOUHINTASUUNNITELMA MUUTOS: 5.87, ITÄSEINÄ N860 - N960 / 28.5.87 HA NIVA 575, 17.7.87 / HA		ORIGINAL SCALE	REF DWG
		1:500	DWG NO 900925-1
			ALTERED 10.12.1984 SL

24.8.87 / HA

D + 628
MALMIRADAT

1. S 490
E 842
2. S 503
E 840.5
3. S 503
E 833.5
4. S 506.5
E 829
5. S 490
E 829



Ø EG 18.8.87
KS

Ø LMK 2 KIL

HA, KRA, SA-BL, KS

LOUHINTAJÄRJESTYS! A, B, C...

480

643.5
VEI
D+640

A

629

480

490

639.92

Malm

DE 640.07

8300

D38

6403

A 2400

B 3200

490

D+644.2
VEI

B

640

629

Arvio 15.7.

640-taso on louhittu
loppuun 25.7.

500

510

520

640

A.M.

5000

grub

650.87

650.72

D-BRUDD

640-NIVÅ

1:500

11.7.87/HA

D

JULI

810

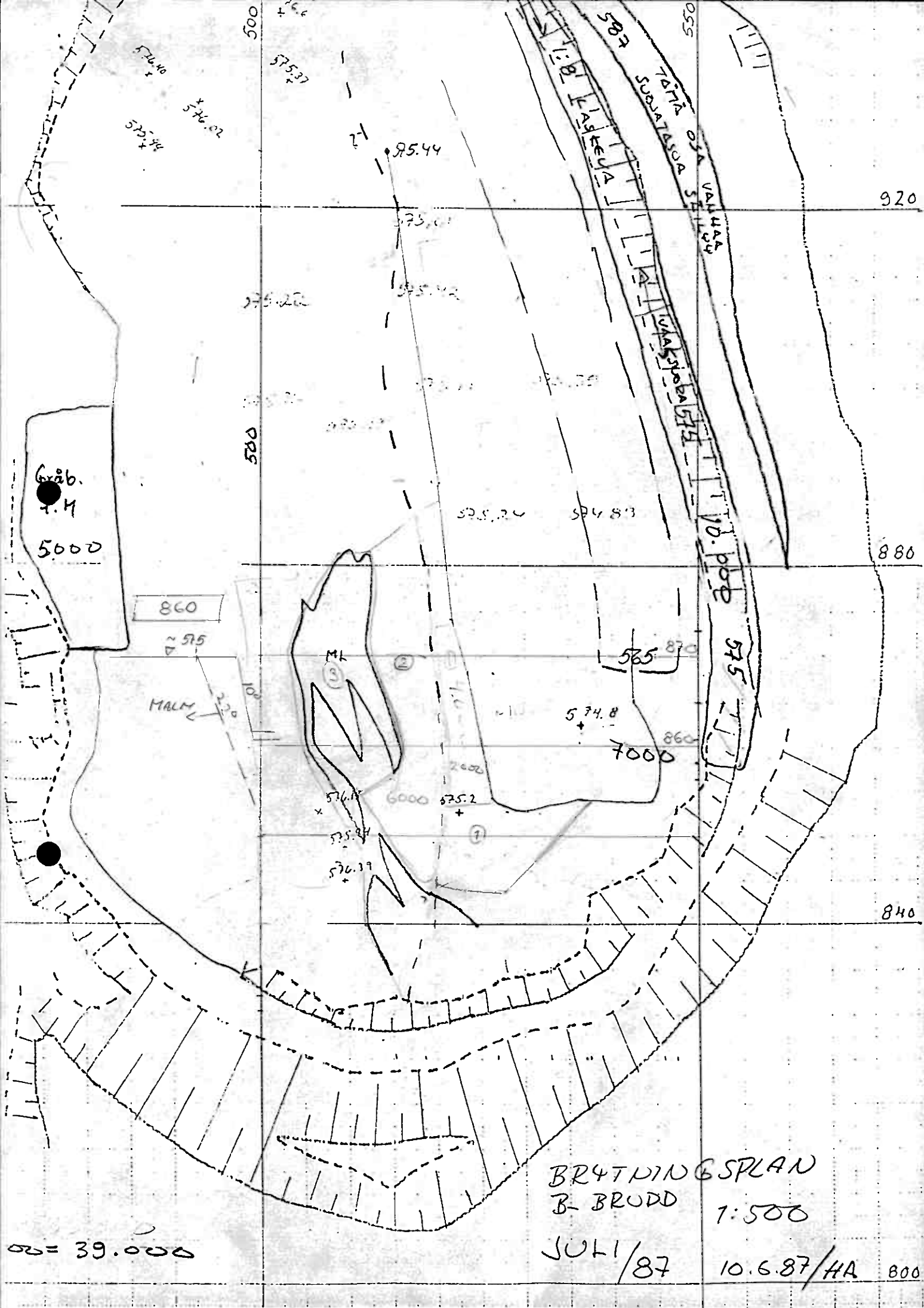
830

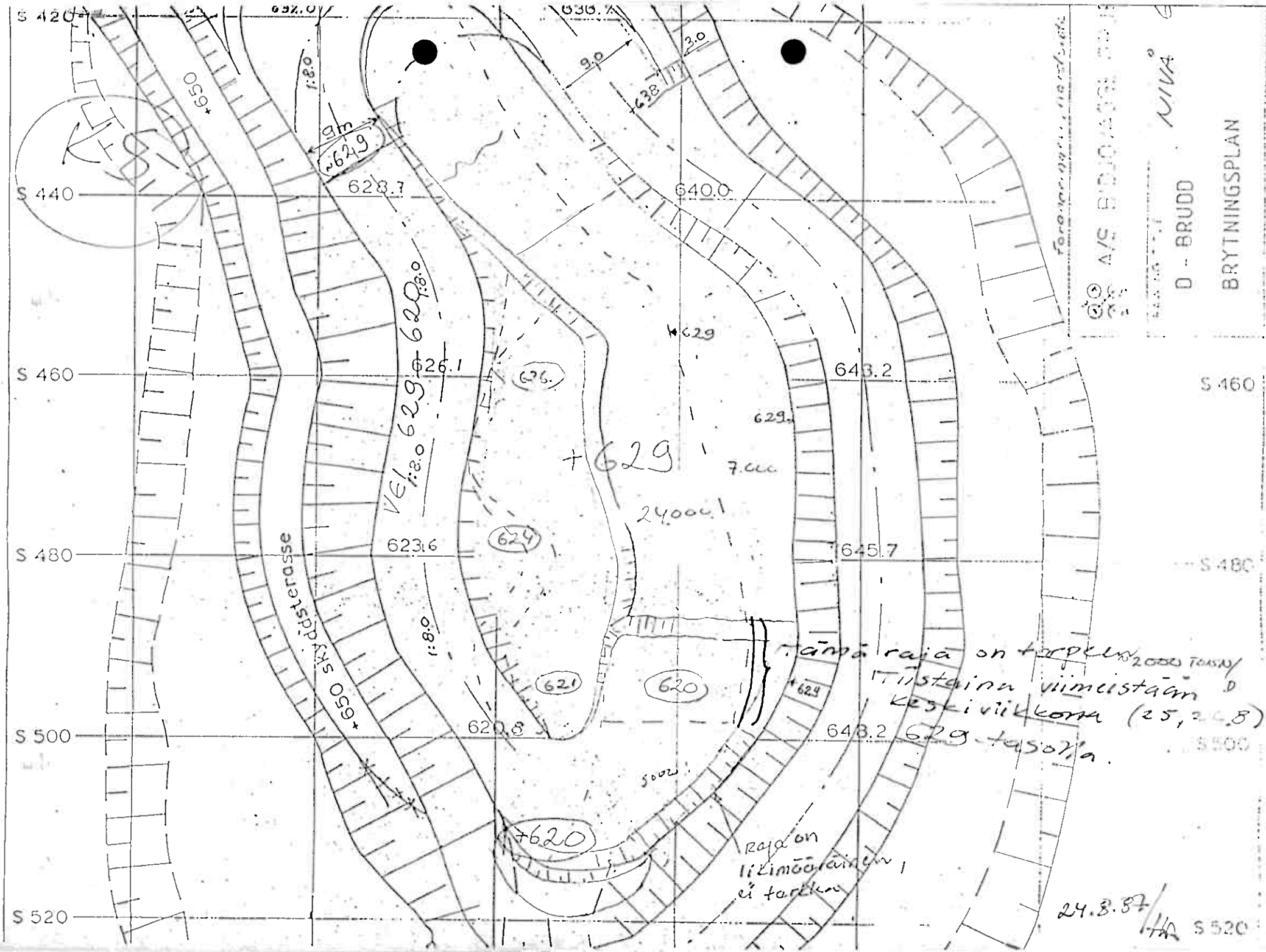
850

870

BUD.

MAIH 640 21





Foro...

A/S BUDJ...

NIVA

D - BRUDD

BRYTNINGSPLAN

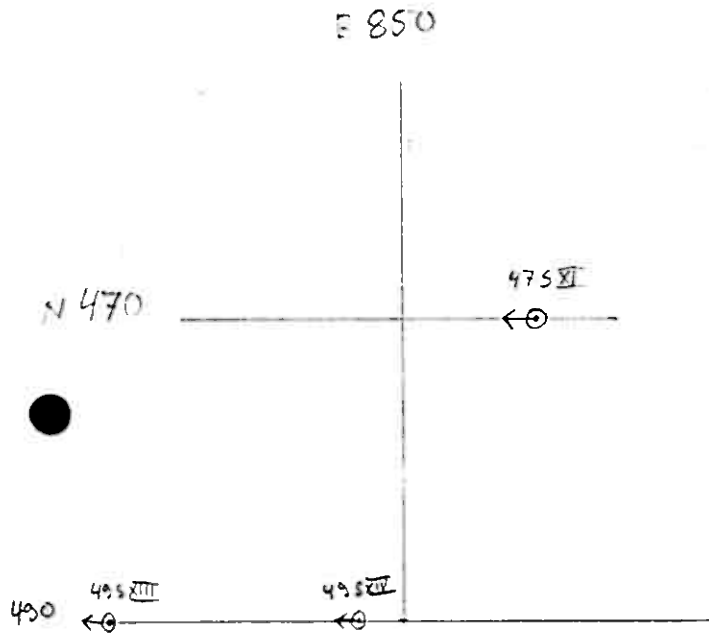
S 460

S 480

S 500

S 520

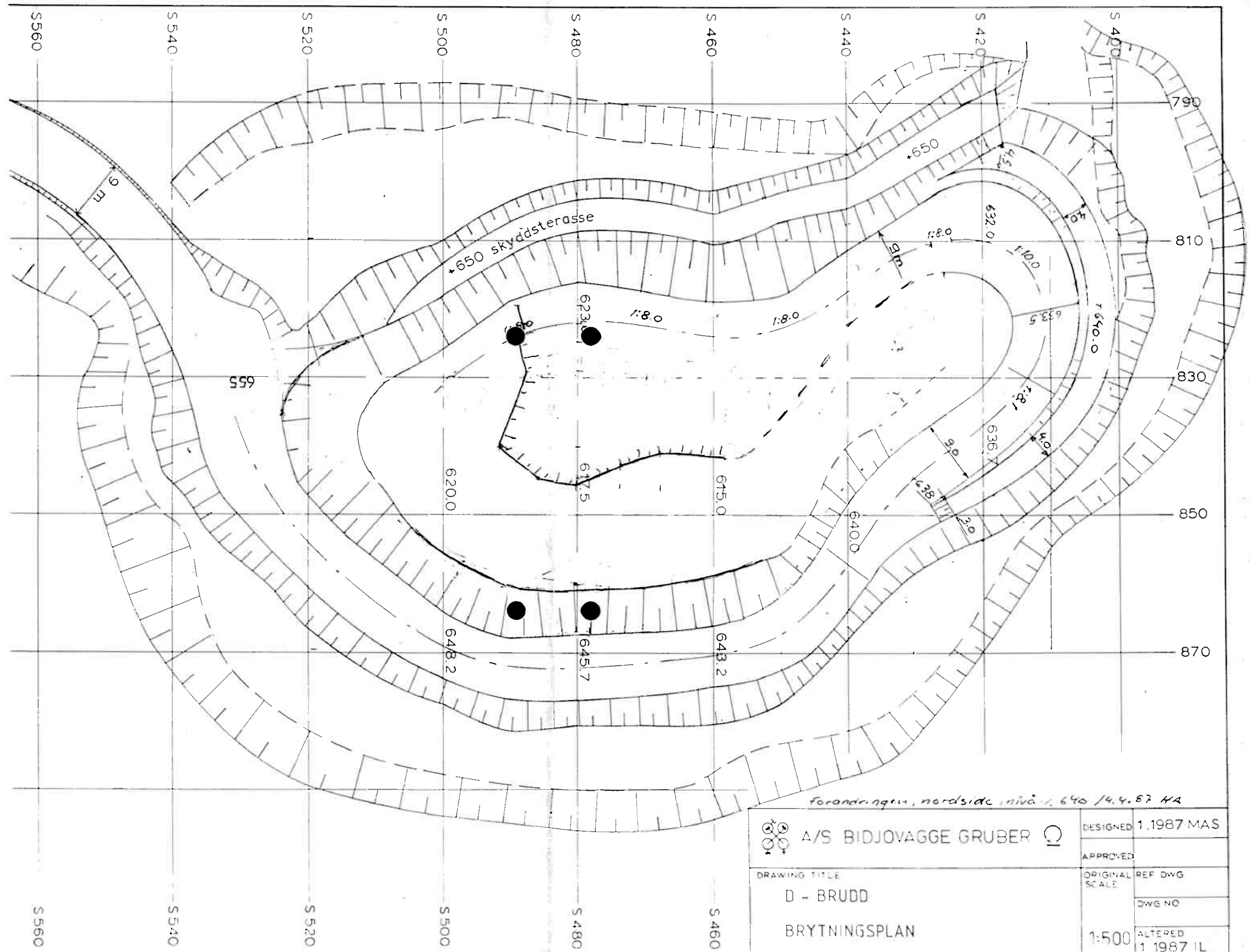
SOIJAUS D-LOUHOS + 629 - TASSO



	S	E	X	PIT.	SUMTO
47 S XI	470	859	42°	10 n	270°
49 S XIII	490	830	42°	10 n	270°
49 S XIV	490	847	42°	10 n	270°

SA 15/8-87

LTK 2 KFL
KAL, HA, KS, SA



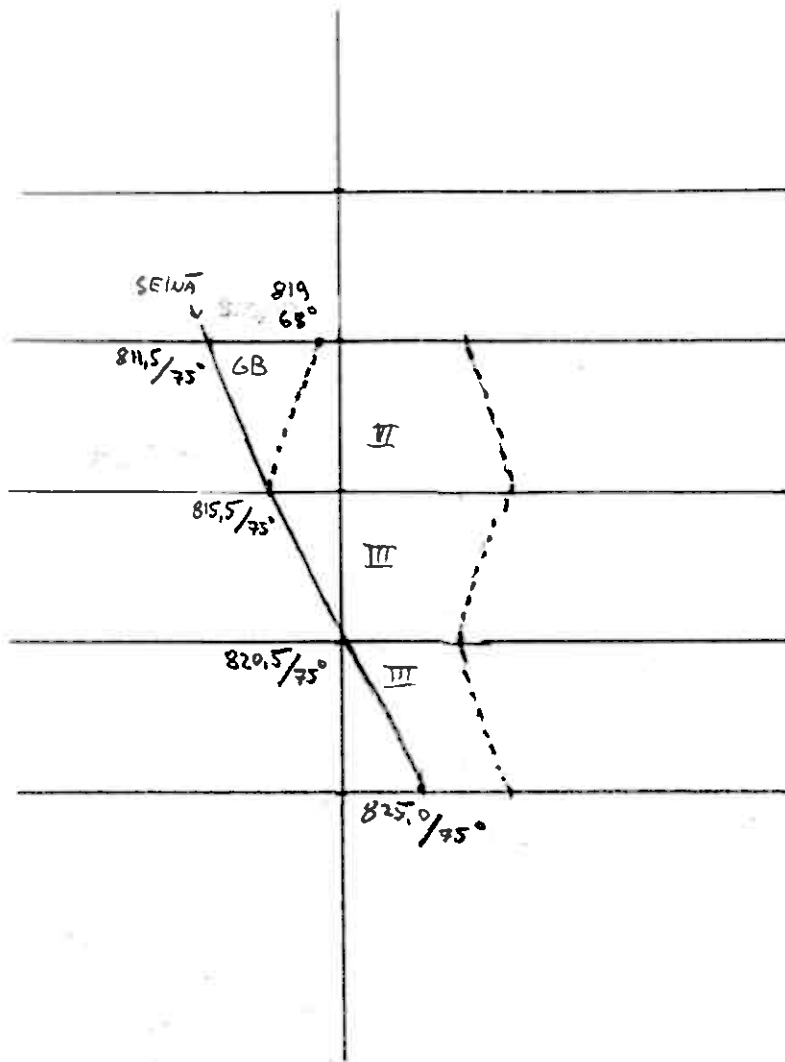
E 820

480

490

500

510

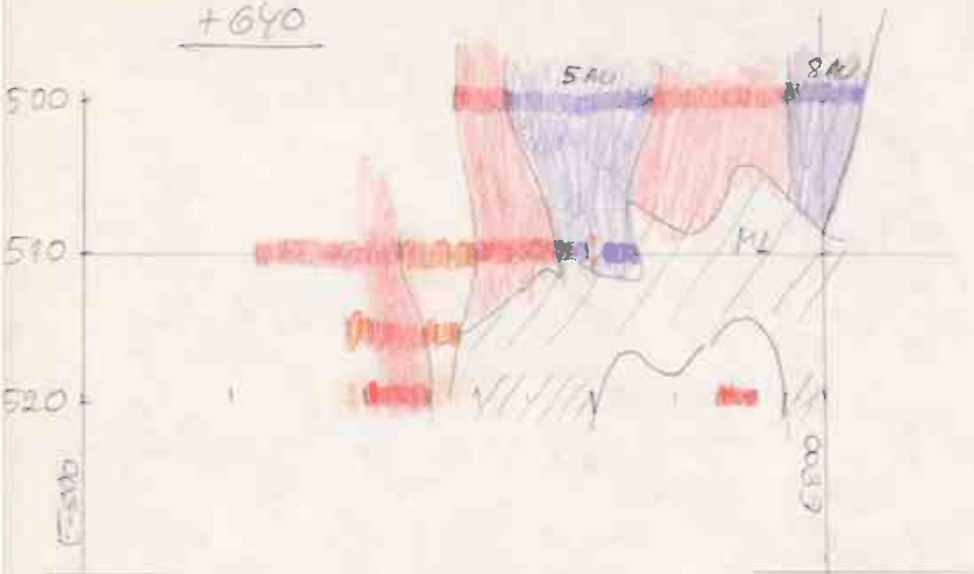


LMK 2 KPL, HA, MS,
KS, SA-BL

SA 23/7

D-LOCHOS, TASOT 640, 630, 620

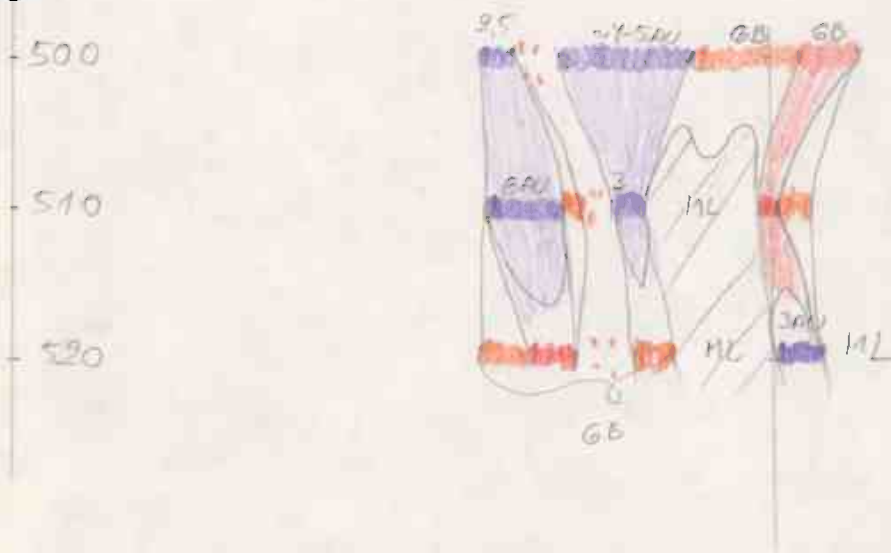
+640



+630

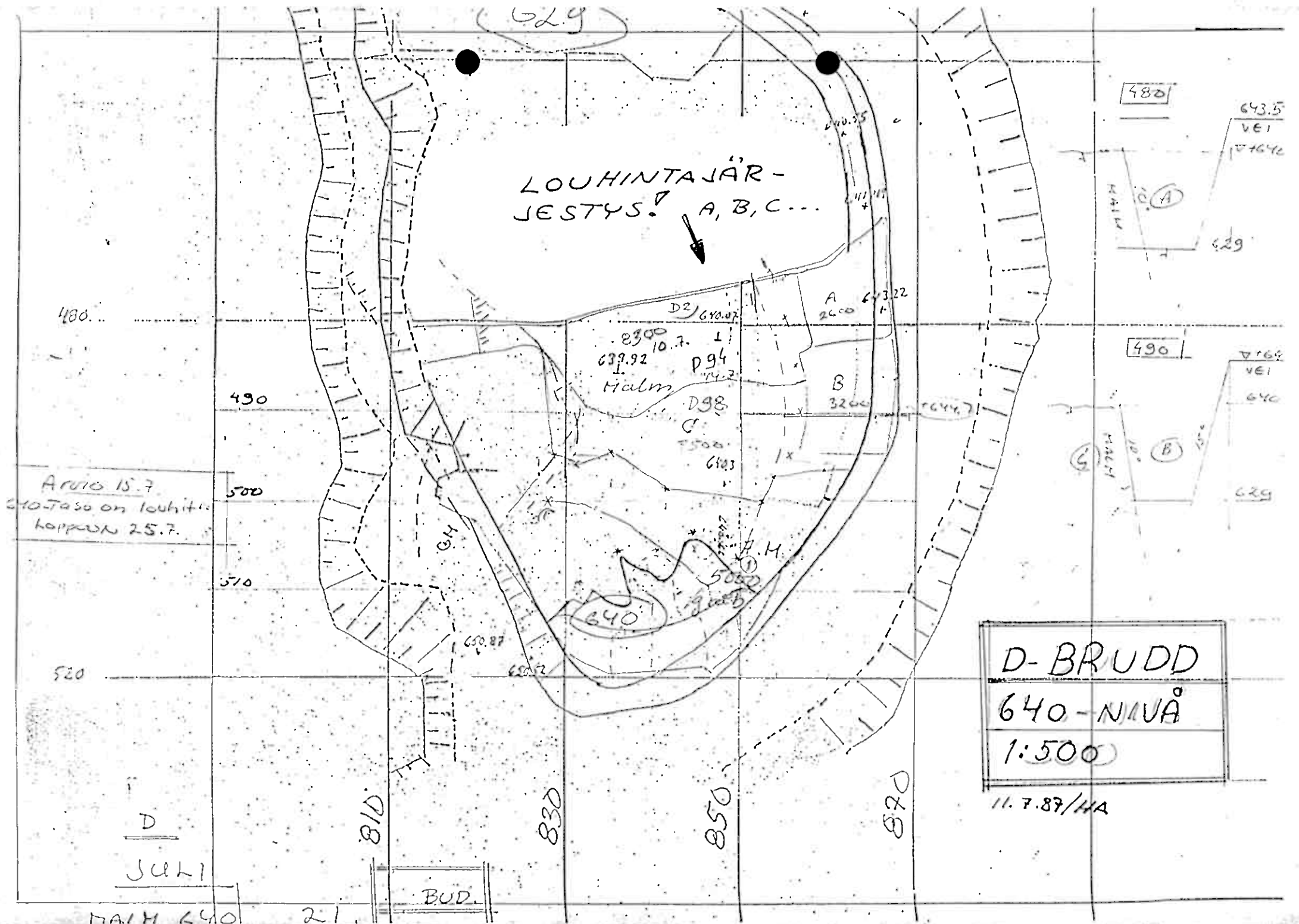


+620



21.3.83
KS

LOUHINTAJÄRJESTYS! A, B, C...



D-BRUDD
640-NIVÅ
1:500
11.7.89/HA

D
JULI

MAI 240 21.

BUD.

D-brudd

Malmgrense:

N:O

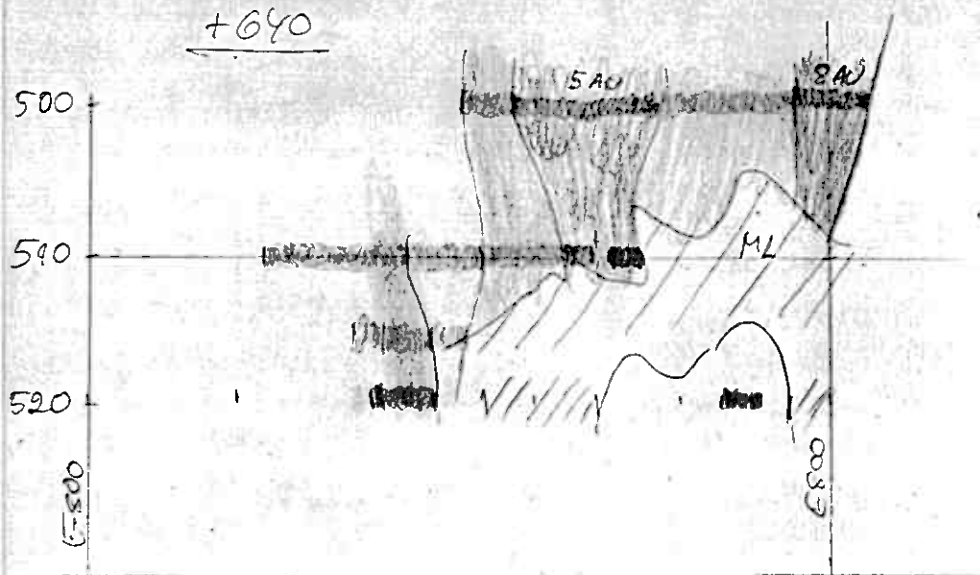
①	850,00	506,50	X 85°N
②	844,00	503,50	-H-
③	840,00	505,50	-H-
④	835,50	506,00	-H-
⑤	831,50	509,00	-H-
⑥	828,00	508,00	-H-
⑦	828,50	495,00	-H-

21.7

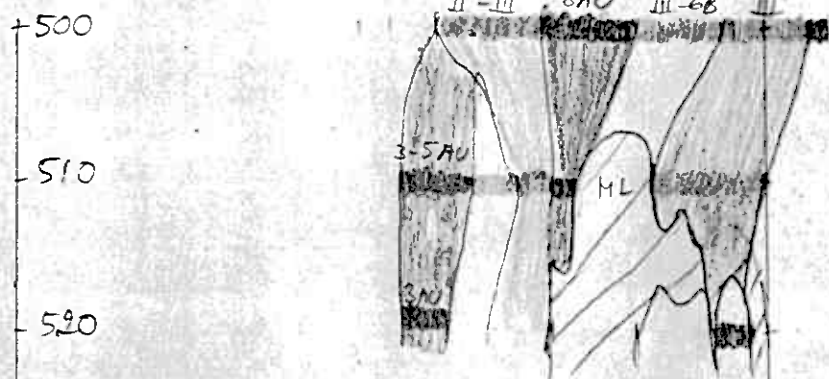
φ HA, MAZ, SA

D-LOCUS, TASOT 640, 630, 620

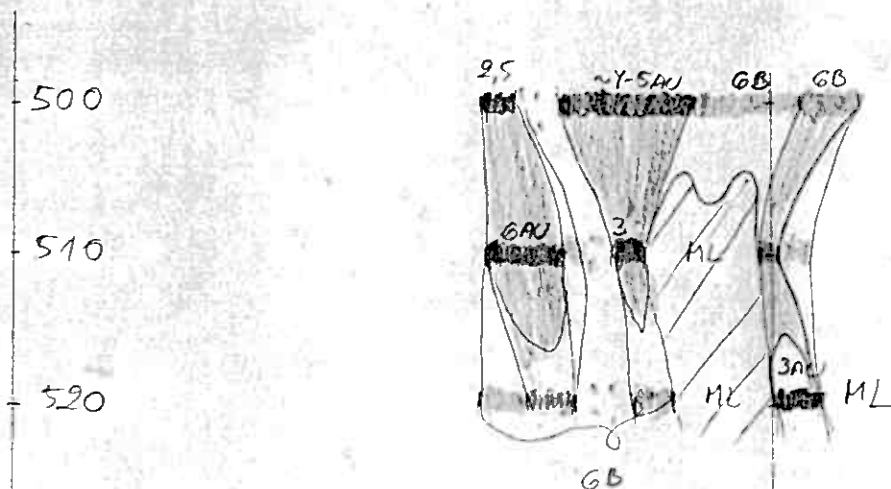
+640



+630



+620

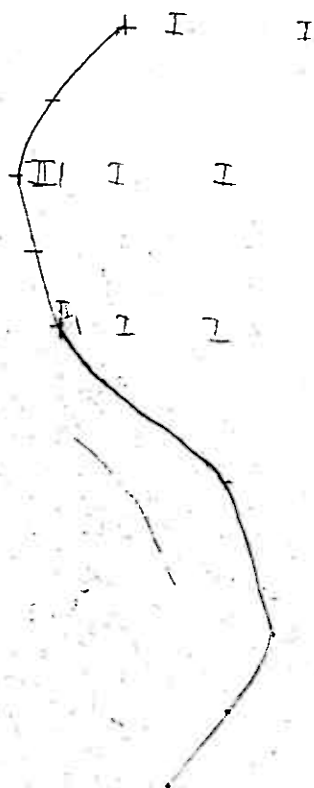


21.87
KS

D - LOUKOS

MALMI RAJAT +640-TASOLLA, LÄNSIRAJA

S450
S455
S460
S465
S470
S475
S480
S485
S490
S495
S500



E821 / 55°

816 / 54°

814 / 53°

815 / 58°

817 / 64°

821 / 62°

828,5 / 59°

829,5 / 60°

831,5 / 60°

828,5 / 58°

829,5 / 54°

BLODDVÄGGE 11.6.87
KS

Ø LMK 2 KPL
BG: HA, KRÄ, SA-BL, KS

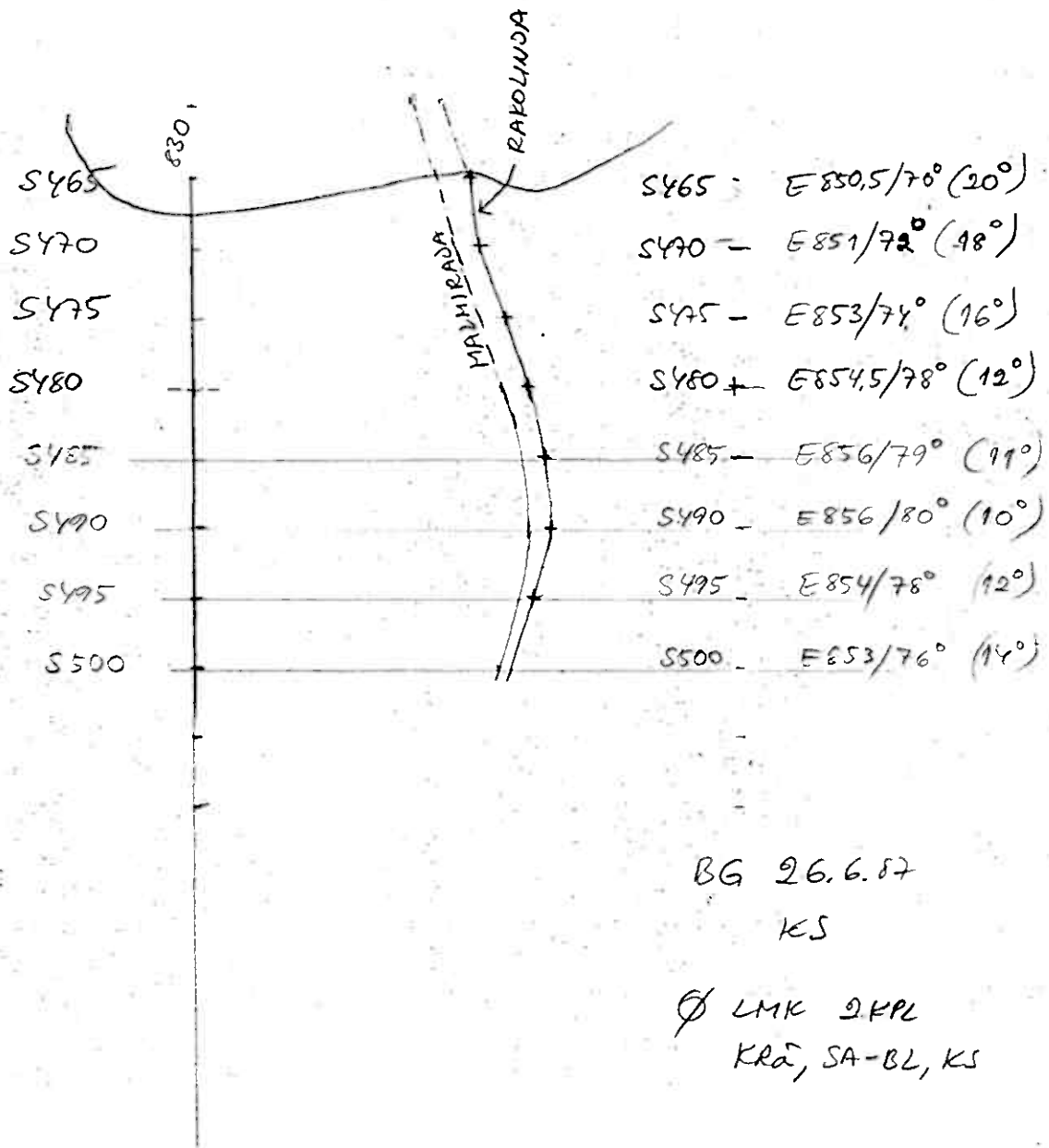
6/7.87

SA

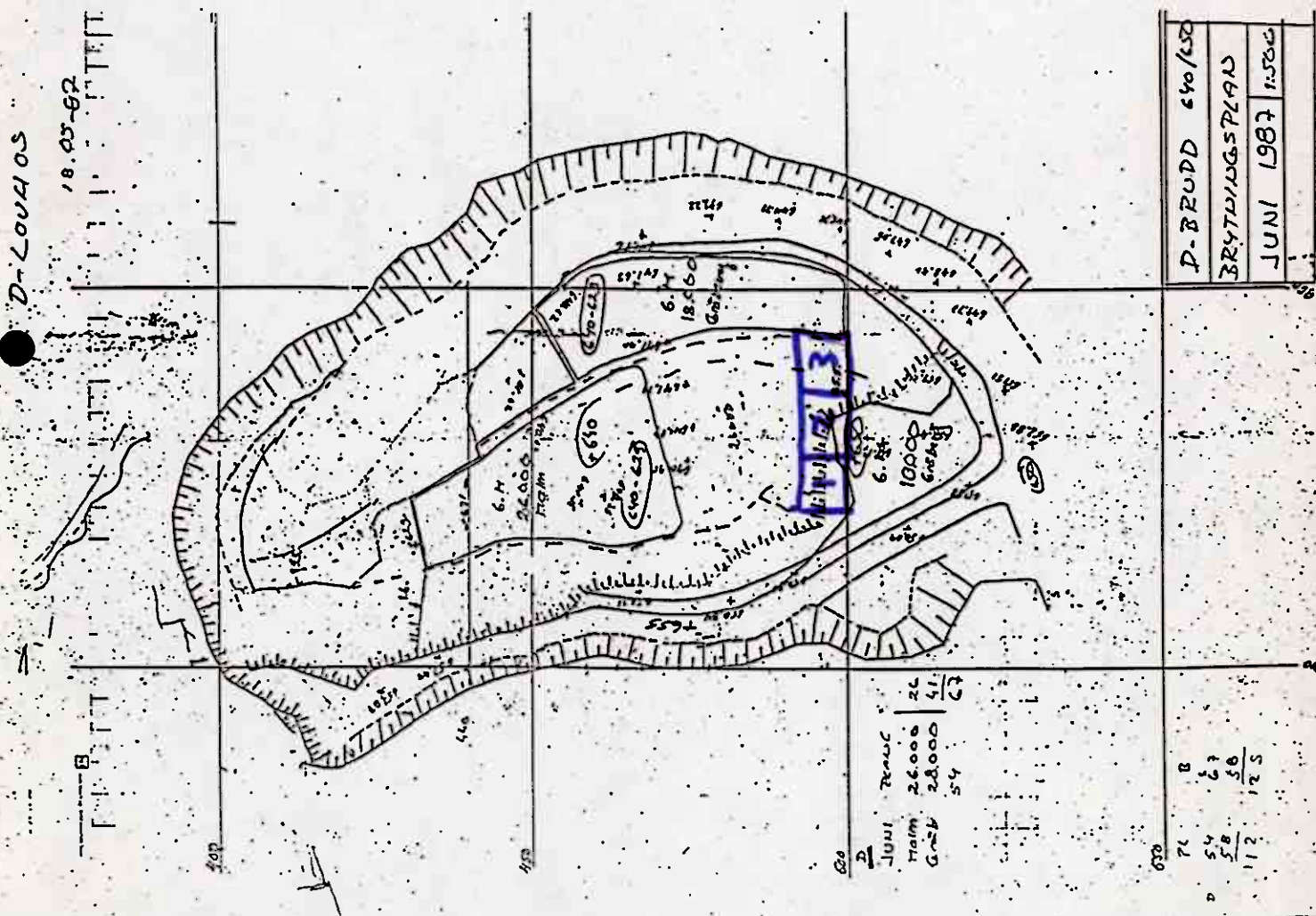
11/7 - 87

BL

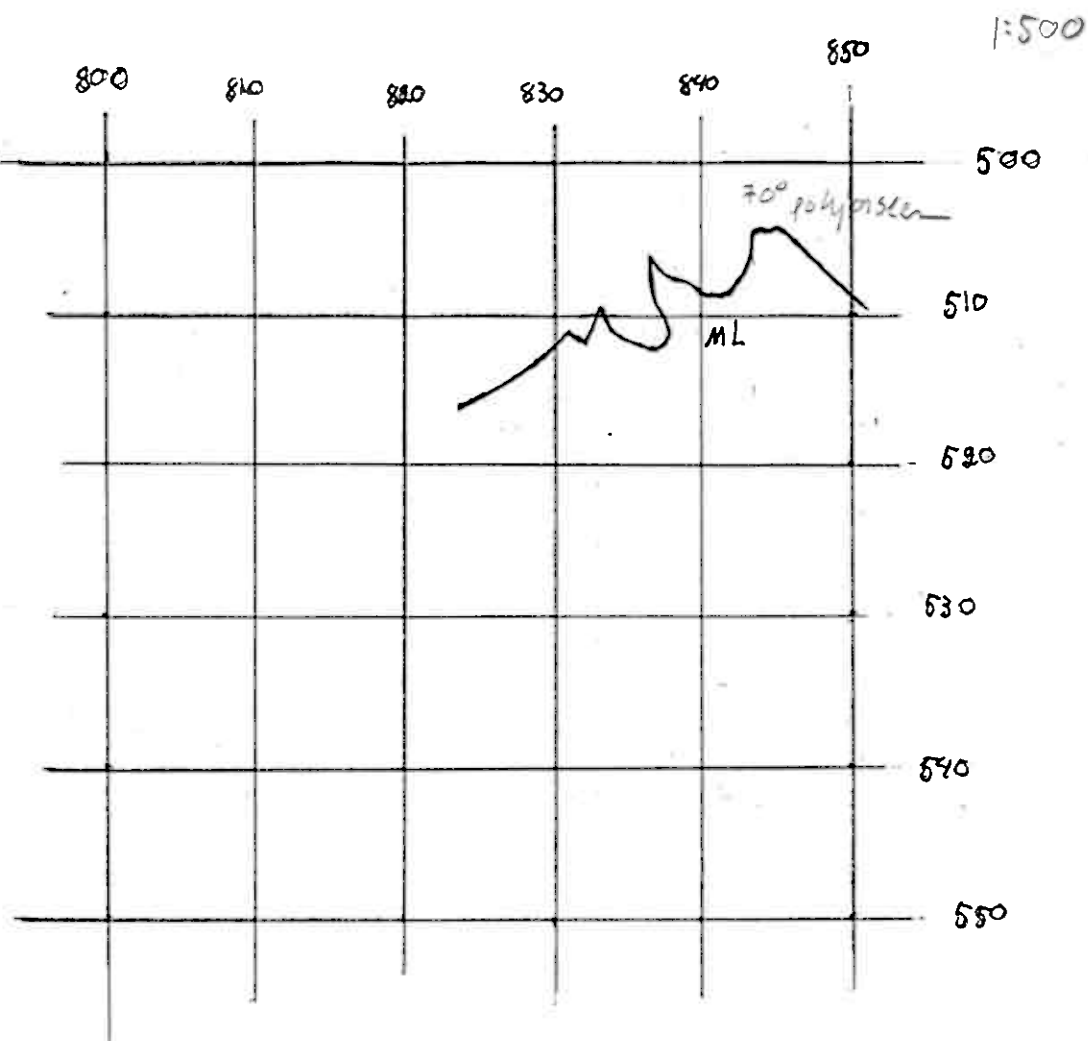
D-LOHOS
RAKOLINDA SY65-SY80



LOUHOS	AMMUTAAN/ AMMUTTIN	Cu %	Au g/t	Huomautuksia
D1	18/7	0,82	5,76	Cu Au KOKO KENTTÄ X 0,51 / 6,37
D2	18/7	0,58	0,74	
D3	18/7	0,13	12,6	
				SA 19/7

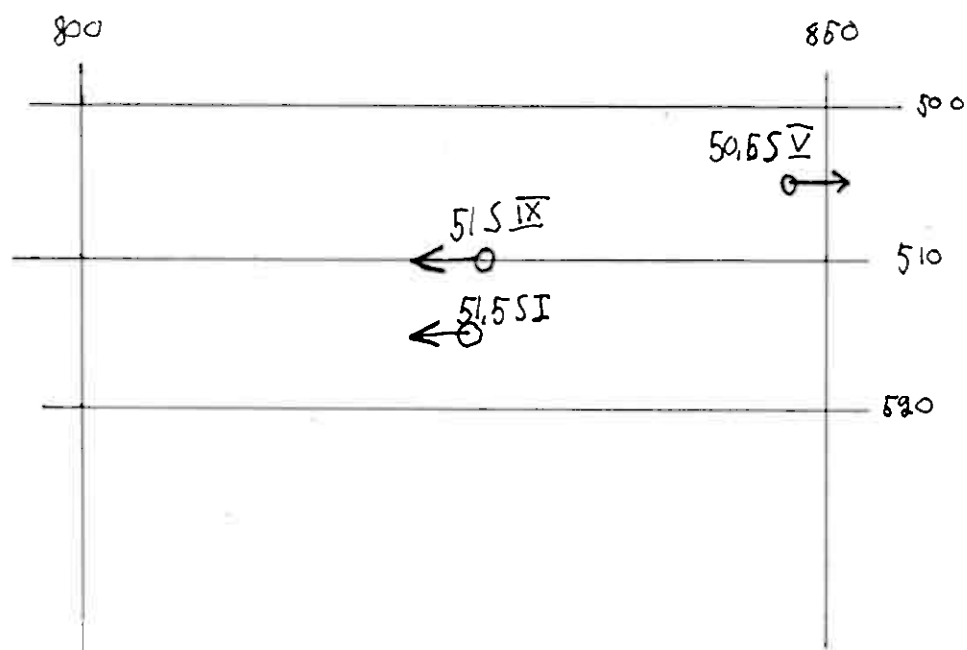


ML-RASAT D-LOUKOS ETELÄPÄÄ 690-TASO



BL- 13.7 -87

SOIGI AUS D-LOU HOS 640-TASO



S-KORD.		E-KORD.	suunta	kallennus	pituus
505	50,5 S V	847.5	90°	40°	10 m
510	51 S IX	827	170°	42°	10 m
515	51,5 SI	826	170	42°	8 m

BL 13.7-87

629

480

639.92
Malm

640.07

640.3

640.6

7.4

5000

grab

640

650.87

650.2

643.22

640.35

641.17

520

D

JULI

MAIM 640

21

BUD.

810

830

850

870

D-BRUDD

640-NIVA

1:500

SOINAUS D-LOUKOS

S510

S520

← 52SI

ML

TIG

+640

49.5SI

→

50SII

→

S490

S495

S500

530

LEIKKAUS

SIRAKA

SUNTA

KALT.

PITUUS

S520

52SI

270°

42°

10m

+640 - TASOLLA

S500

50SII

90°

40°

10m E846

S495

49.5SI

90°

40°

10m E847

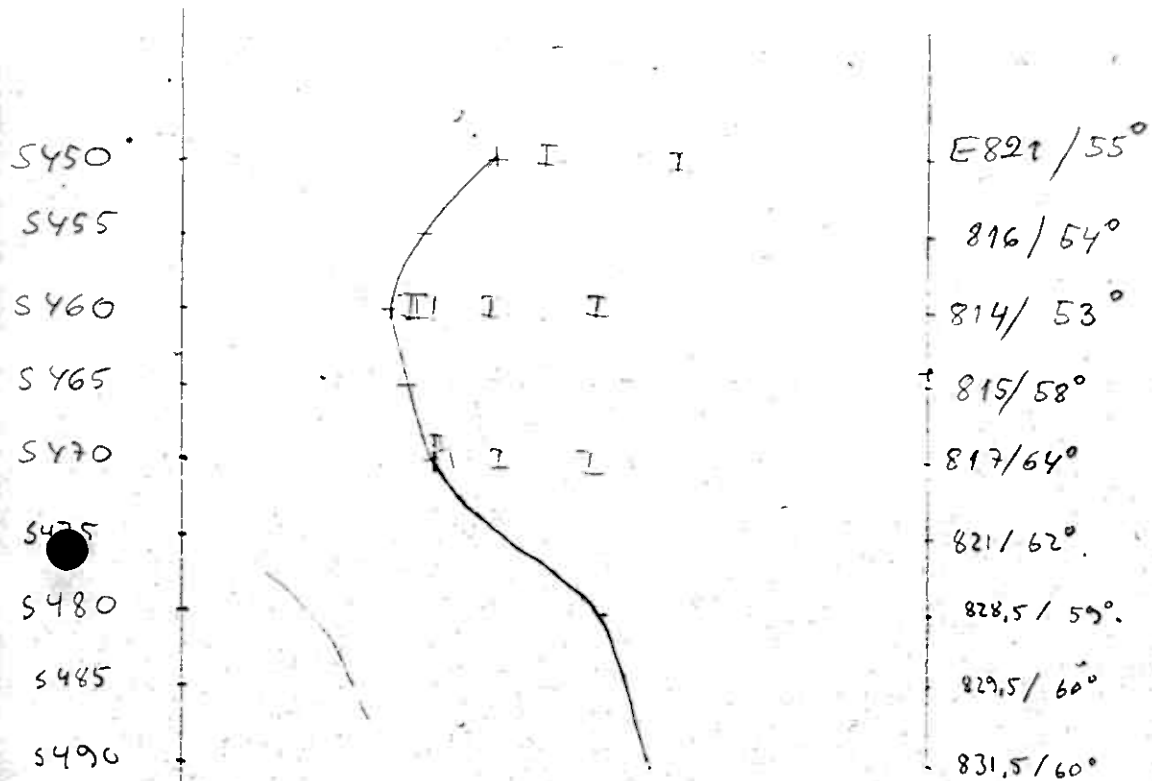
BIDJONAGGE 2.7.86
KS

Ø LMK 2KPL

BG : HA, KRE, SA-BL, KS

D - LOCHOS

MALMI RASAT +640-TASOLLA, LÄNSIRAJA

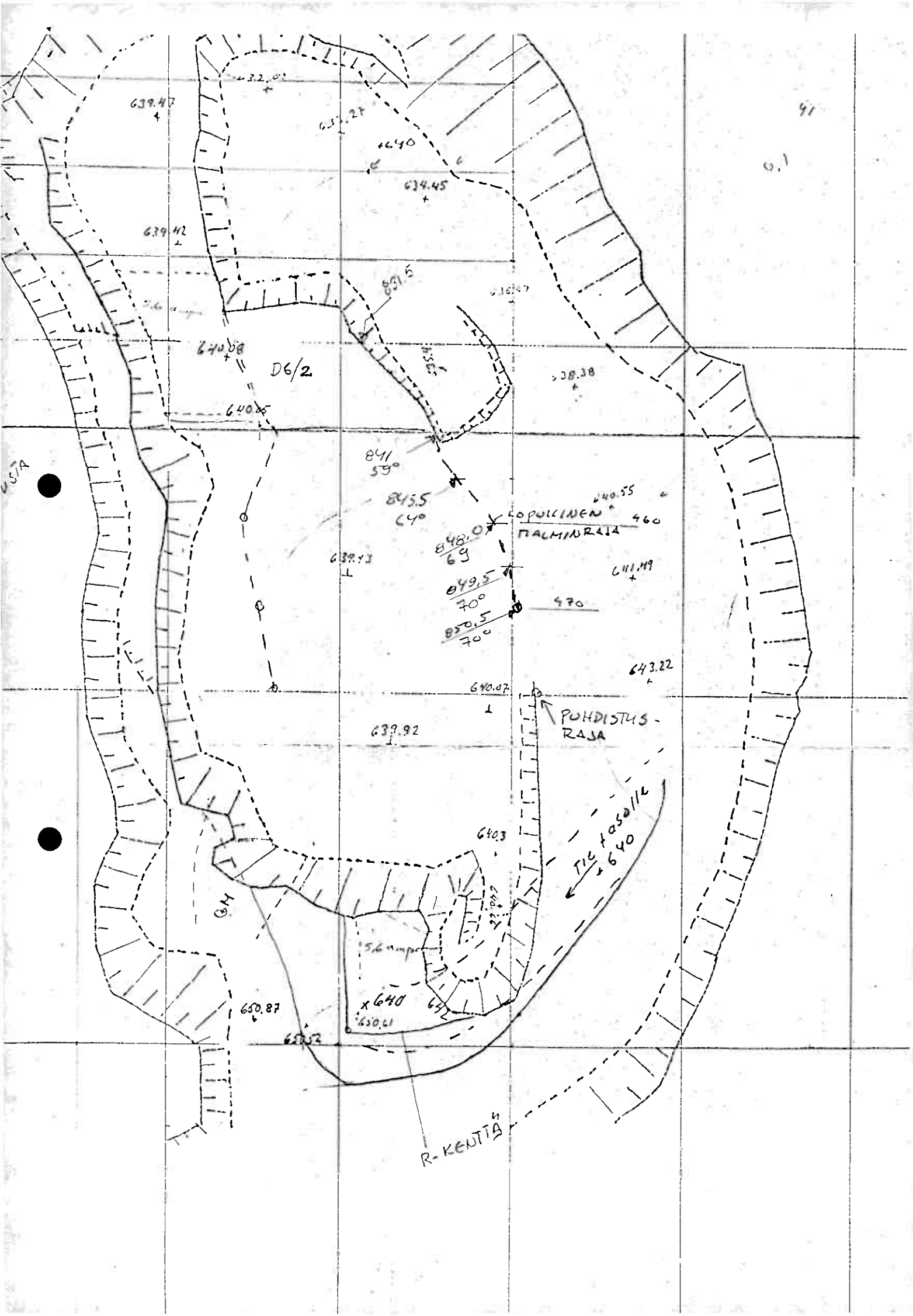


BLODDVÄGGE 11,6.87
KS

Ø LMK 2 KPL
BG: HA, KRA, SA-BL, KS

6/7.87

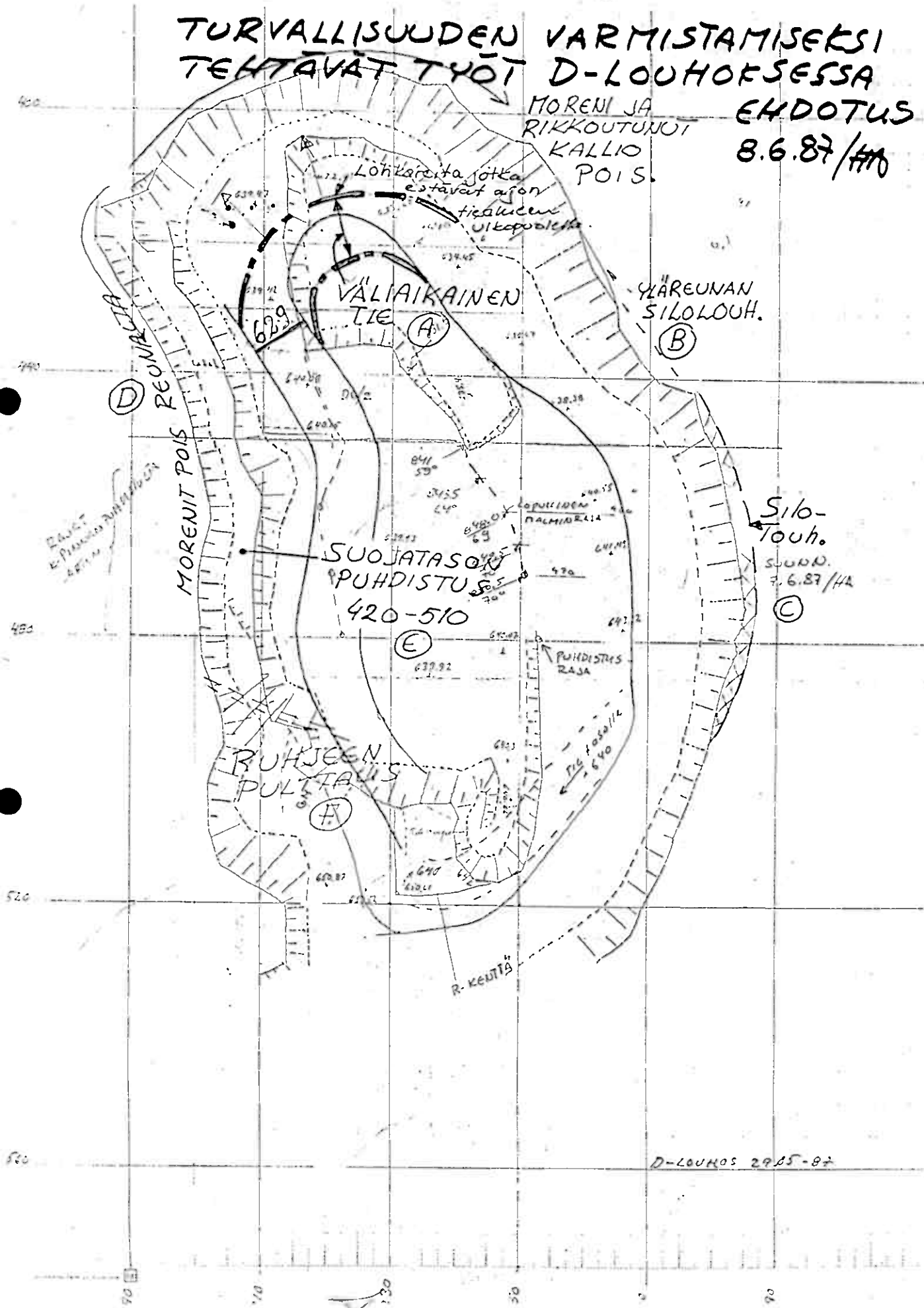
SA



ENDOTUS
8.6.87/H10

MORENI JA
RIKKOUTUNOI
KALLIO
POIS.

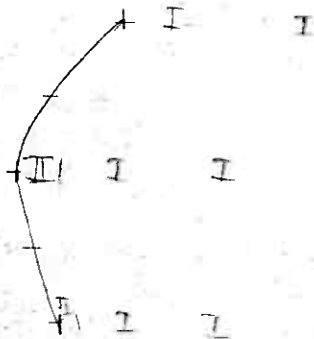
8.6.87 / #10



D - LOCHOS

MALMI RAJAT +640-TASOLLA, LÄNSIRAJA

S450
S455
S460
S465
S470



E821 / 55°

816 / 54°

814 / 53°

815 / 58°

817 / 64°

BLOXVAGGE 11.6.87
KS

Ø LMK 2 KPL
BG: HA, KRA, SA-BL, KS

Soija reiāt D-louhos + 640-tes

S- 460.34

E 825.13

Z 639.98

S- 469.98

E 821.05

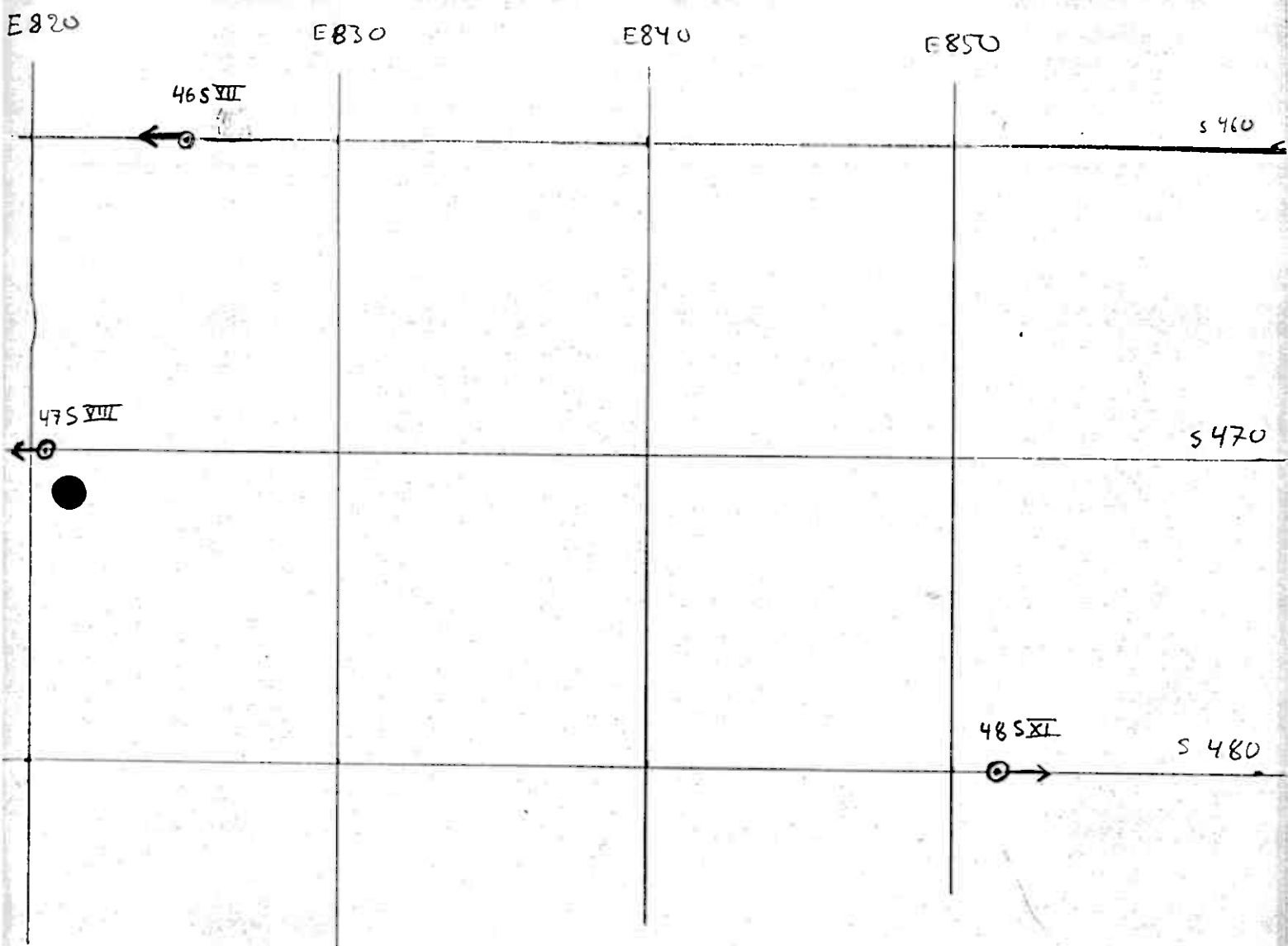
Z 640.06

S- 480.08

E 851.25

Z 640.20

SOIJA-REIKIÄ D-LOUHO



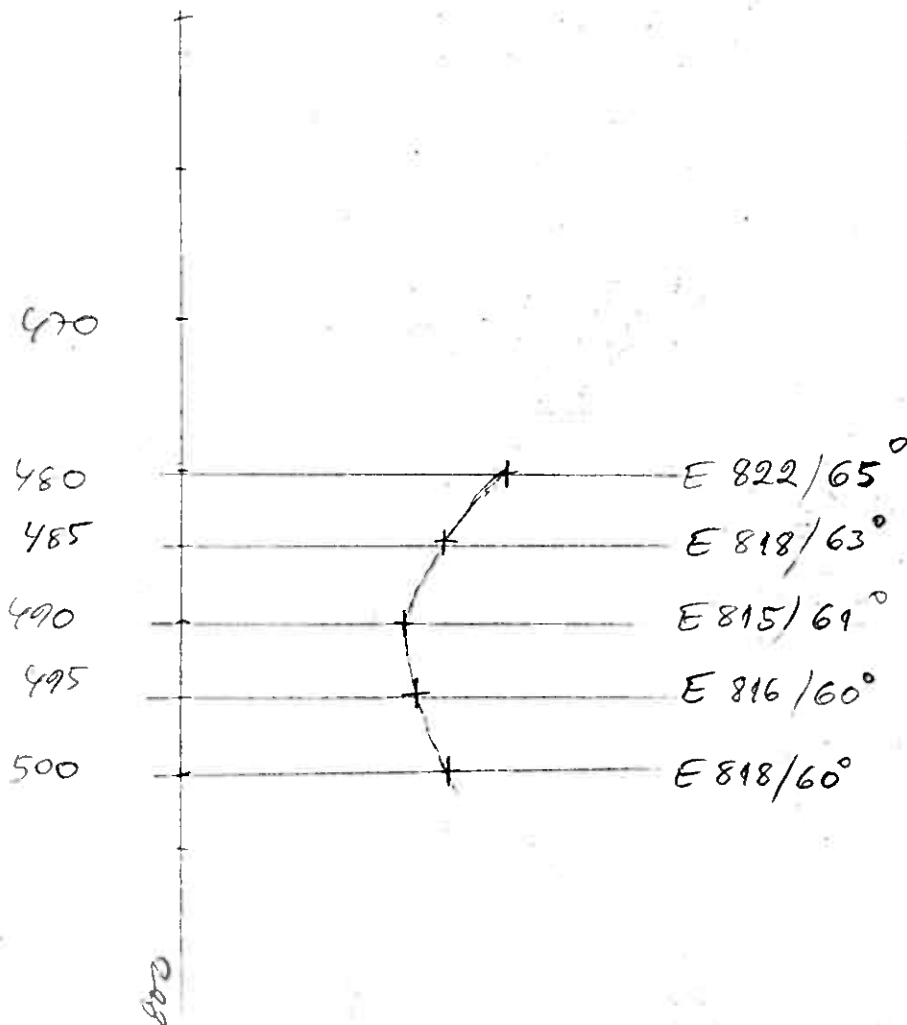
	E-KORO	KAAOE	SUUNTA	PITUUS	NÄYTEVÄLI
46 S VII	825	42°	270°	10 m	1 m
47 S VIII	820,5	42°	270°	8 m	1 m
48 S XI	851,5	42°	90°	10 m	1 m



A/S BIDJOVAGGE GRUBER

U - LOUHO
MALMIRADAT

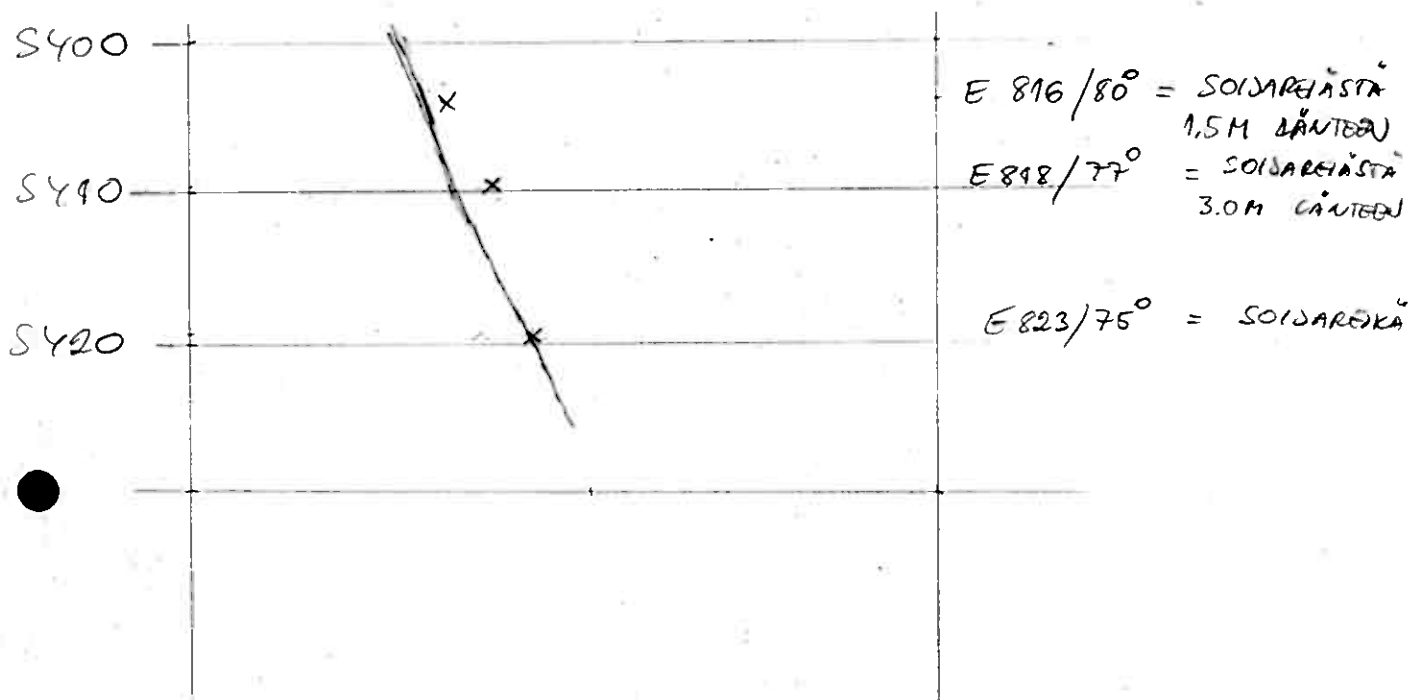
+651



KS 6.5.87

Ø LMK 2 KRC
HA, KRC, KS

D-LOCHOS
MAUKURAJAT +640



HUOM! RADAT ALUSTAVAT, TARKISTAN LOUNNAN

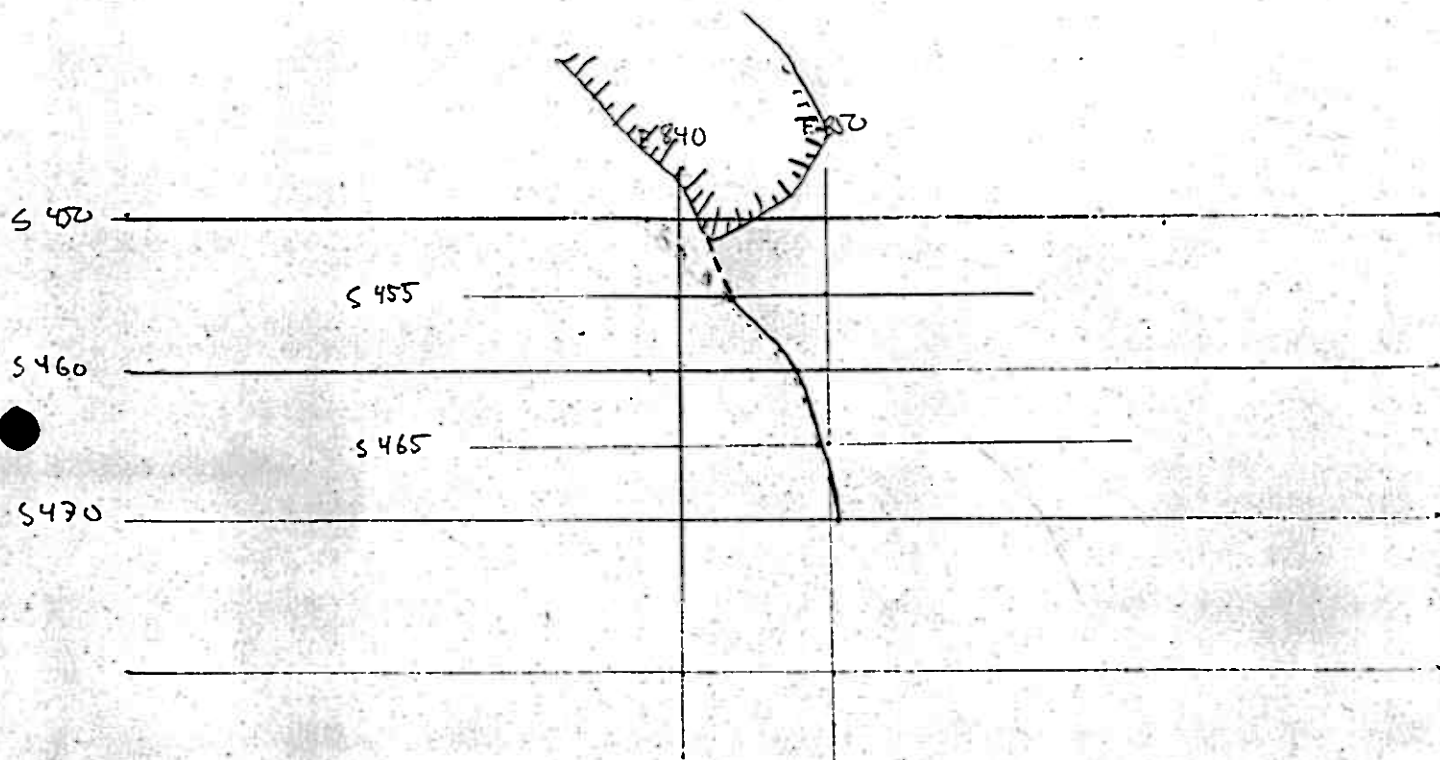
BIOLOGI 11.5.87

KS

Ø LMK

HA, KRA, KS

D-LOUHUS MALMIRAJA



S 451	E 841	59°
S 455	E 843,5	64°
S 460	E 848	69°
S 465	E 849,5	70°
S 470	E 850,5	70°

LHK 2 KPL
HA, KRA, SA-BL, KS

D- LOXHOS, MALINI RAJAT
+ 640

S430 E814.5 / 67°
S435 E816 / 71°
S440 E817 / 75°
S445 E819.5 / 70°
S450 E823 / 65°

E828/

E831.5

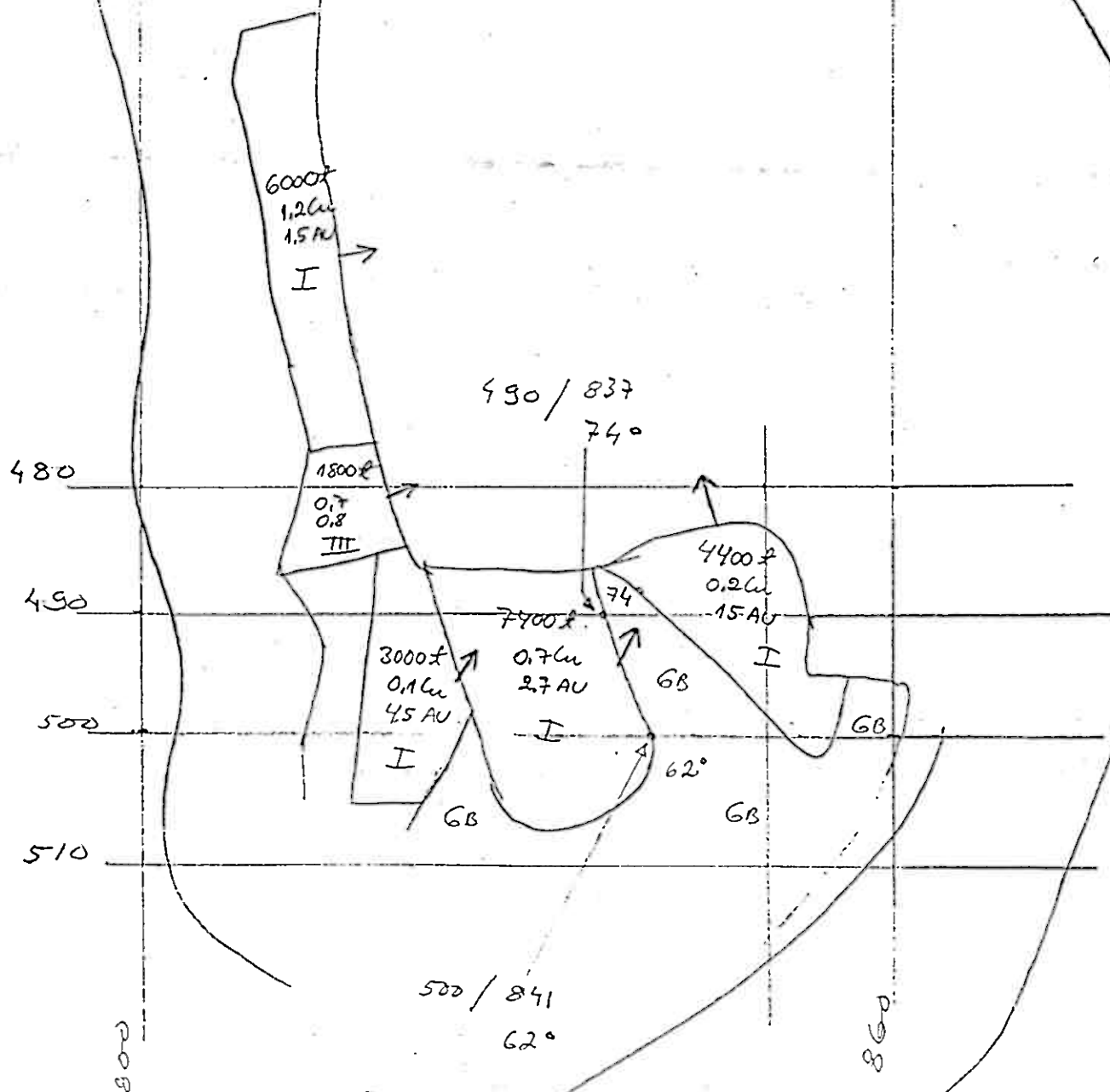
E838

KS 29.5.87

Ø LMK 2 KPL
HA, KRA-JH,
SA-BL, KS

BTG A/S BIDJOVAGGE GRUBER

D - BRUDD
+ 651 - NIVÅN



D-LOUHOS
LÖUNAISEULMA
TASOLLA 650

14.5.87 / JHA

450

RAAKKU
LOUHITAN
SUOJATERASSIN
REUNAA
SEURATEN !

SUOJAPENKEREEN
REUNAA

RAAKKU TAI
RAJA MALMI
MALMI

490-500
MALMIN LÄNSIRAJA =
SUOJATERASSIN REUNAA

500

SUOJAPENKEREEN
REUNAA

TÄMÄ RAJA MÄÄRÄYTYY GEOLOGIAN
MUKAAN.

550

1:500

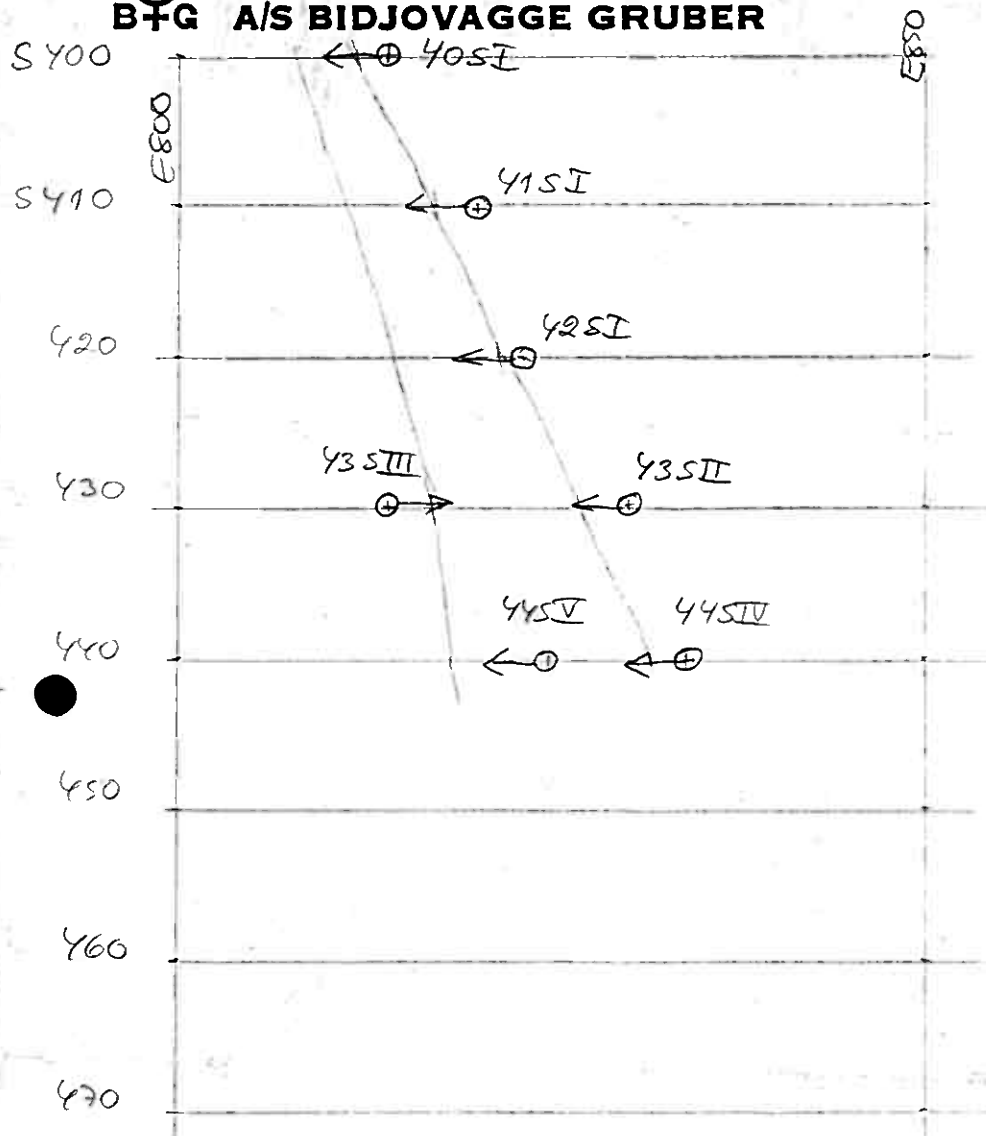
880

Ø KS, LMK/JP

860

SOIDAUS 2-LOUHOJ
+640-TASO

B+G A/S BIDJOVAGGE GRUBER



LEIKKAUS	SREIKÄ	E-KOORD	SUUNTA	KALTEV.	NÄYTEVÄLI	PITUUS
● S 400	40SI	814	270°	40°	1m	10m.
S 410	41SI	819	270°	40°	1m	12m.
S 420	42SI	823	270°	40°	1m	12m.
S 430	43SII	830	270°	40°	1m	10m.
- " -	43SIII	814	90°	40°	1m	10m.
S 440	44SIV	834	270°	40°	1m	10m.
- " -	44SV	825	270°	40°	1m	10m.
7 REIKÄ						~74m

BIDJOVAGGE 5,5.87
KS

Ø LMK 2 KPL
BG: HA, KRA -JA, KS

B+G A/S BIDJOVAGGE GRUBER

D - BRUDD
+659 - NIVÅN

480

490

500

510

800

500 / 841
62°

860

6000t
1.2 Cu
1.5 Au

I

990 / 837
74°

1800t

0.7
0.8
III

4400t
0.2 Cu
1.5 Au

I

2000t
0.1 Cu
4.5 Au

I

7400t
0.7 Cu
2.7 Au

I

74

6B

62°

6B

6B

3.4 Surja Vera 7

AD $\longrightarrow$ DP 20

X = ~~470.19~~

~~471.00~~

Ruler's
Knaparra

470.84

Y 810.59

810.78

Z = ~~649.43~~

~~649.23~~ 649.18

X - 450.37

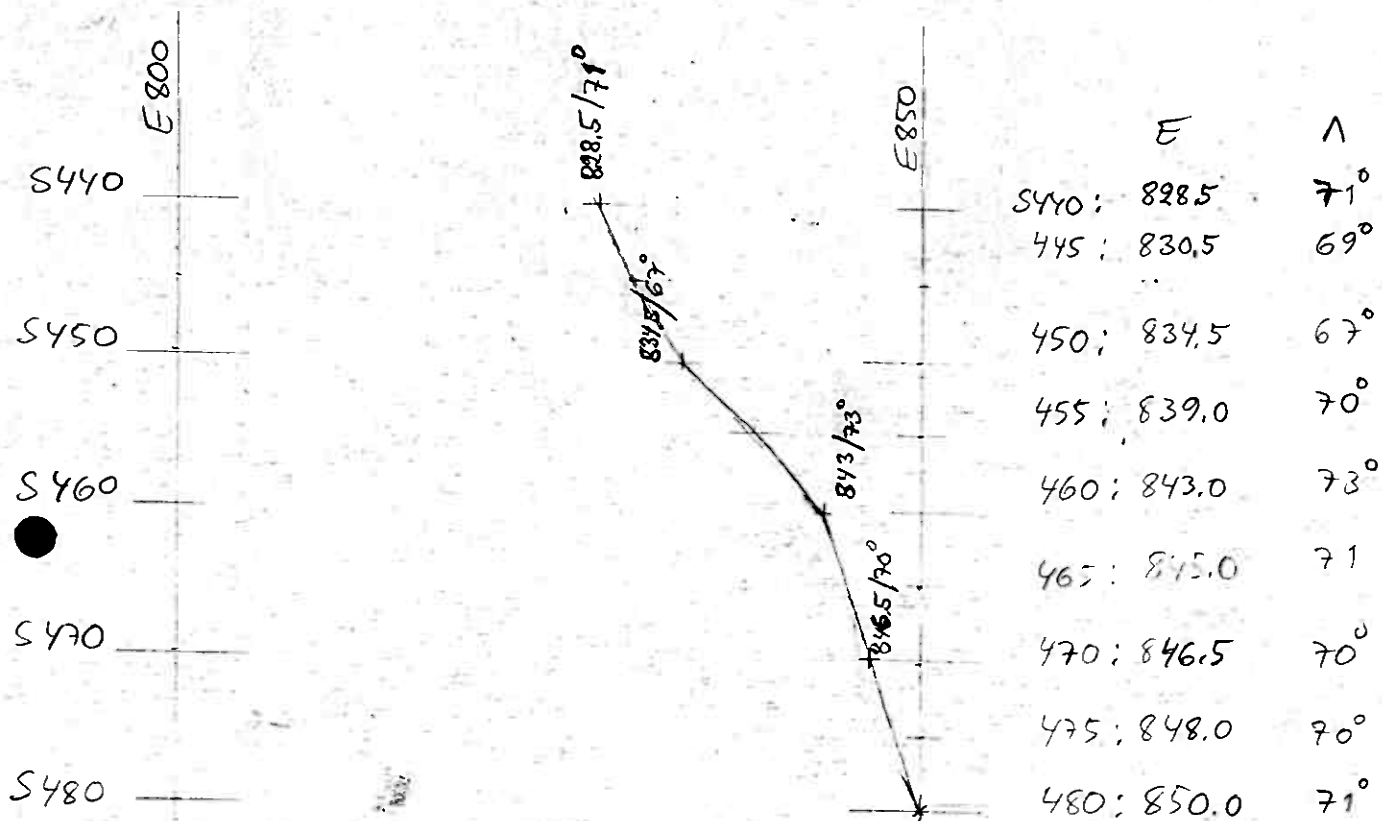
Y 807.62

Z ~~650.72~~ = 649.75

B+G A/S BIDJOVAGGE GRUBER

D-LOUHO S

+651- TASSO



BG 3.2.87

KS

Ø LMK: 2nd

BG: HA-KRÅ, OH, KS

D-BRUDD

K₂S

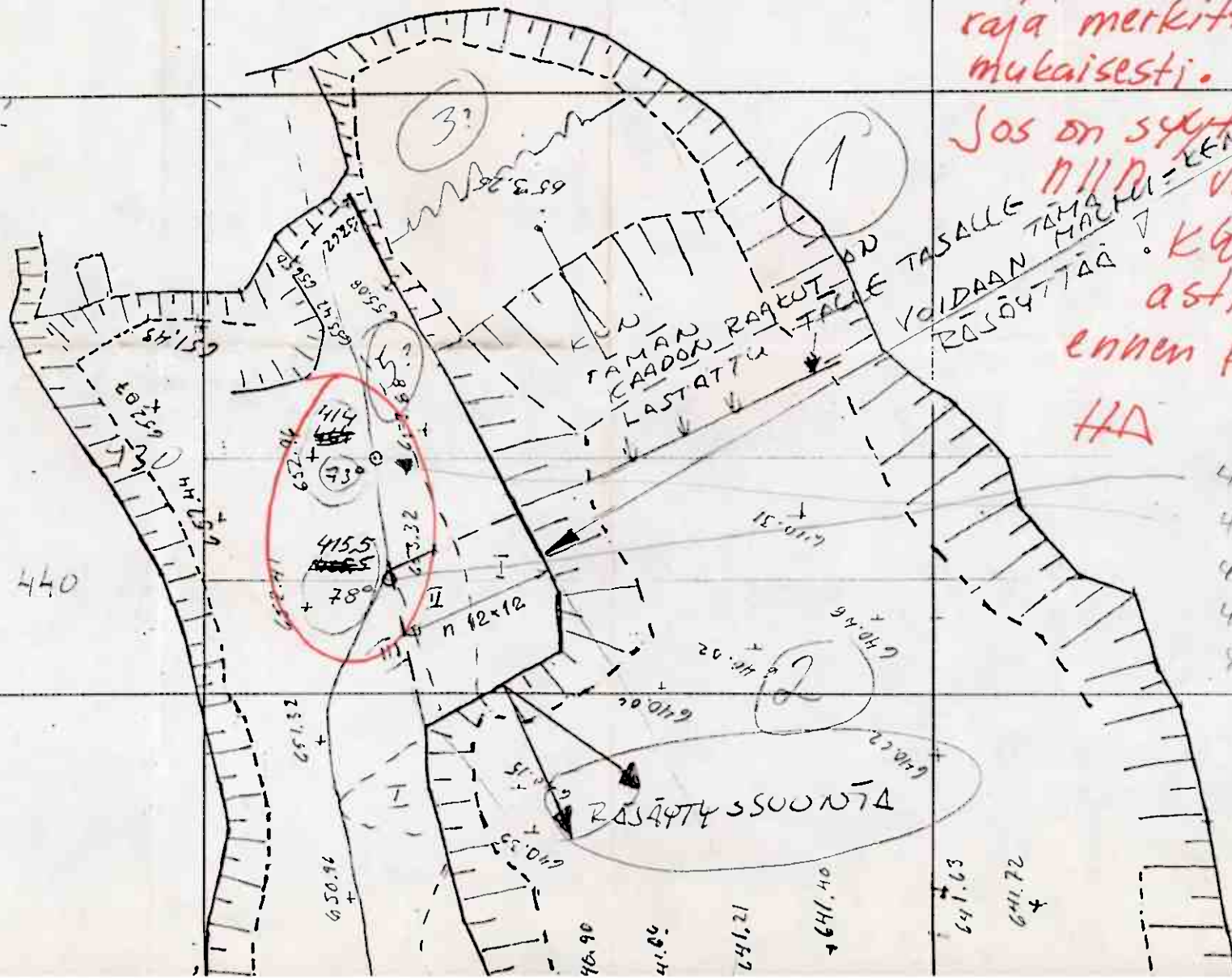
440 ja 430 malmin
raja merkitty ohjeen
mukaisesti.

Jos on syytä muuttaa
niiden vielä ehkä
K₆ 10:een
asti etä
ennen porausta!

HA

400

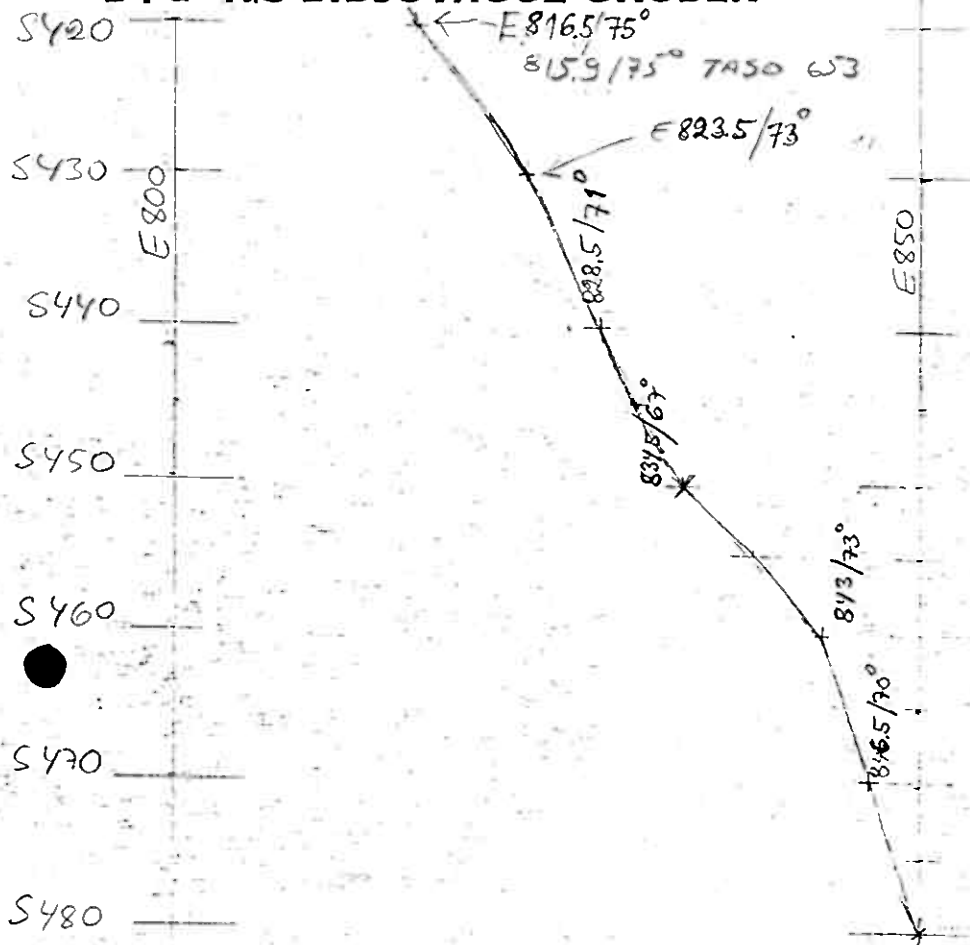
450



440 : E815/72
430 : E814/20°
420 : E810.5/79°
410 : E808.5/80°
400 : E806.5/82°

+651

⊙
B+G A/S BIDJOVAGGE GRUBER



	E	Λ
S440:	828.5	71°
445:	830.5	69°
450:	834.5	67°
455:	839.0	70°
460:	843.0	73°
465:	845.0	71°
470:	846.5	70°
475:	848.0	70°
480:	850.0	71°
420:	816.5	75°
430:	823.5	73°

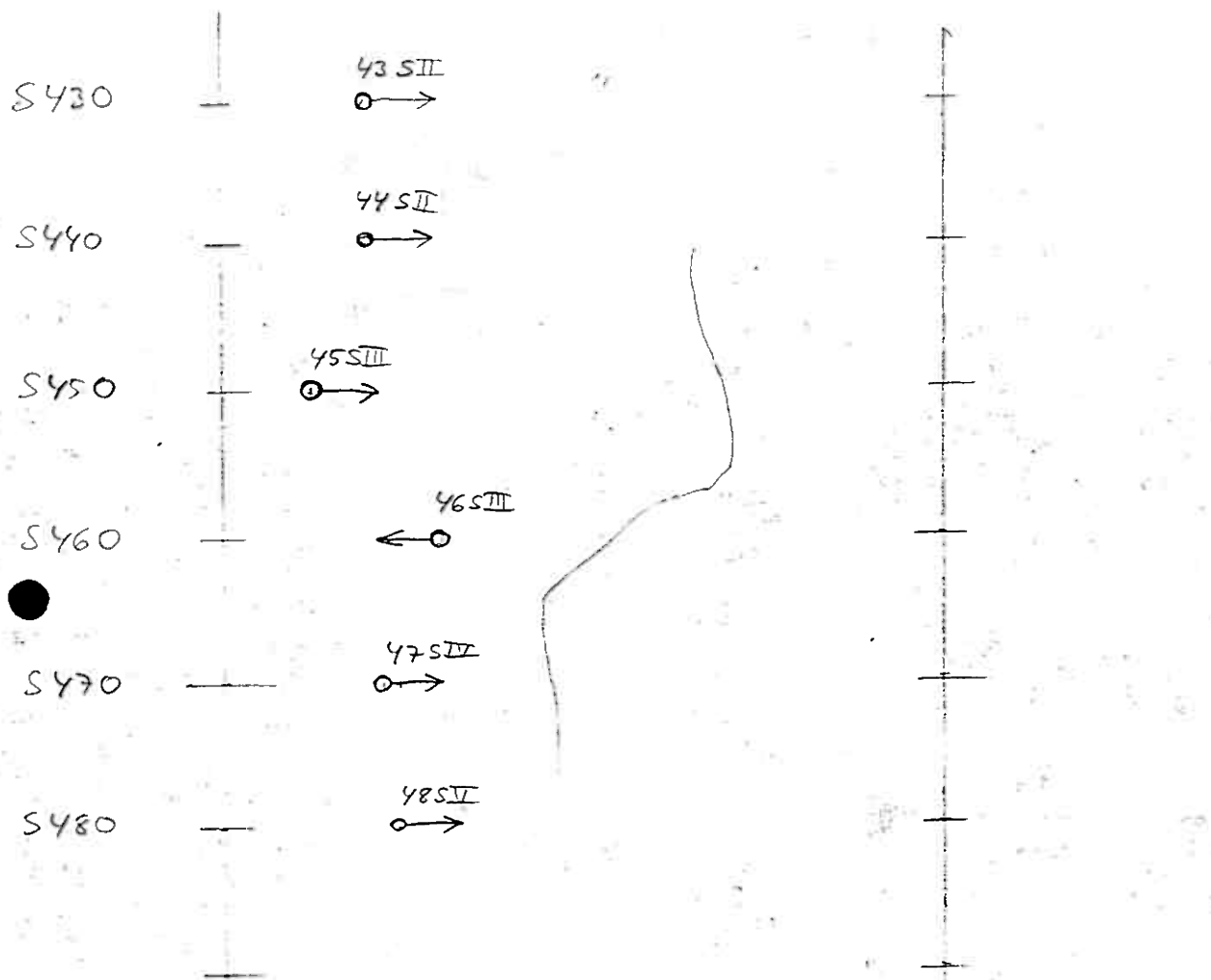
BG 3.2.87

KS

LMK: 2st

BG: HA-KRA, 5H, KS

SOINAUS, D. LOUHIOS
+ 651 - TÄSÖ



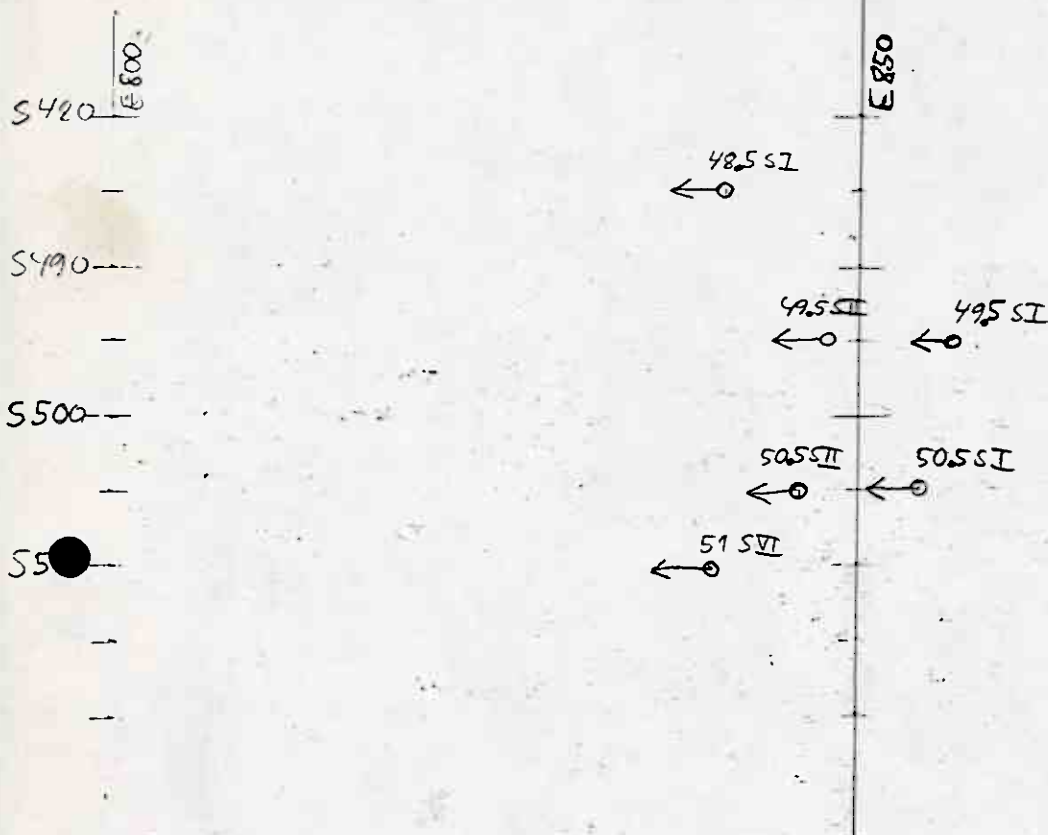
LEIKKAUS	SREIKÄ	E-KOORD.	SUUNTA	KALTEV.	NÄYTEVÄLI	PITKUS
S430	43SII	810	90°	40°	1m	10m
S440	44SII	810	90°	40°	1m	10m
S450	45SIII	806	90°	40°	1m	12m
S460	46SIII	815	270°	42°	1m	10m
S470	47SIV	811	90°	40°	1m	12m
S480	48SVI	812	90°	40°	1m	12m

BG 31.3.1987
KS

Ø LMK: 2 KPL

BG: HA-KRÄ, JH, KS

SOIJAUUS, D-LOUKOS
+ 657-TASO



LEIKKAUS	S. REIKÄ	E-KOORD	SUUNTA	KALTEV.	NÄYTEVÄLI	PITUUS
S485	48.5 SI	841	270°	42°	1m	12m
S495	49.5 SI	856	270°	42°	1m	10m
- II -	49.5 SII	848	270°	42°	1m	10m
S505	50.5 SI	854	270°	42°	1m	10m
- II -	50.5 SII	846	270°	42°	1m	10m
S510	51 S VI	840	270°	45°	1m	10m

BG 31.3. E7
KS

Ø LUK: 2st
BG: HA-KRA, JH, KS



A/S BIDJOVAGGE GRUBER

SOLDAUS, D-LOCHS
+657-TASO

LEIKKAUS ~ S 430

SOLAREIKA 43 SI

SUUNTA 270°, KALTEVUUS 45°

NÄYTEPITUUS 1 TANKO

PITUUS 3 TANKOA

NUMEROT 43 SI -1
2
3

BG, 19.3.87

KS

Ø LMK: 2 st

BG: HA-KRA-JH, KS

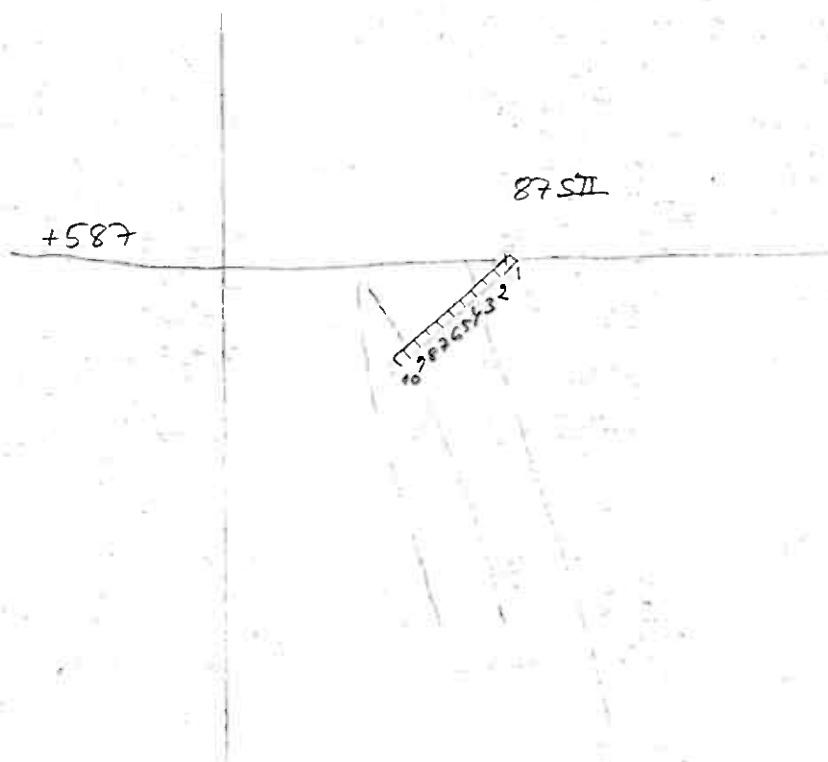


B+G A/S BIDJOVAGGE GRUBER

SOINAKS, B-LOUKOS

+587

PROFILI N 870



SONAREIKA 87SII

E= 599

SUUNTA 270°

KALTEVUUS 42°

NÄYTEVÄLI 1m

PITUUS 10m

HUOM! ILMOITAKAA MISSÄ SYVYYDESSÄ
SOIDA MUUTTUU MUSTAKSI ELI
MISSÄ MUSTALINSE ALKAA.

BG 18.3.87

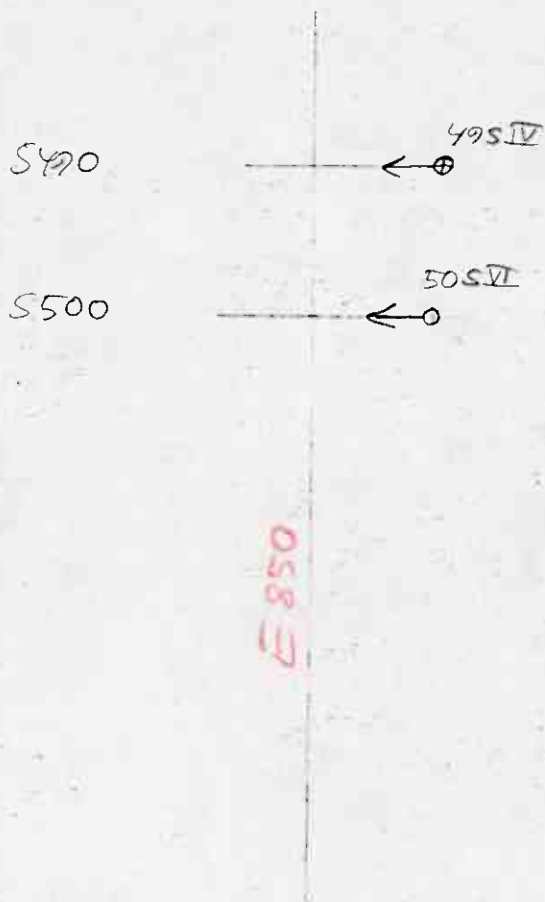
KS

Ø LMK: 20

BG: HA-KR, JA, KS

B+G A/S BIDJOVAGGE GRUBER

SOIJAGS, D-LOCHOS
+651

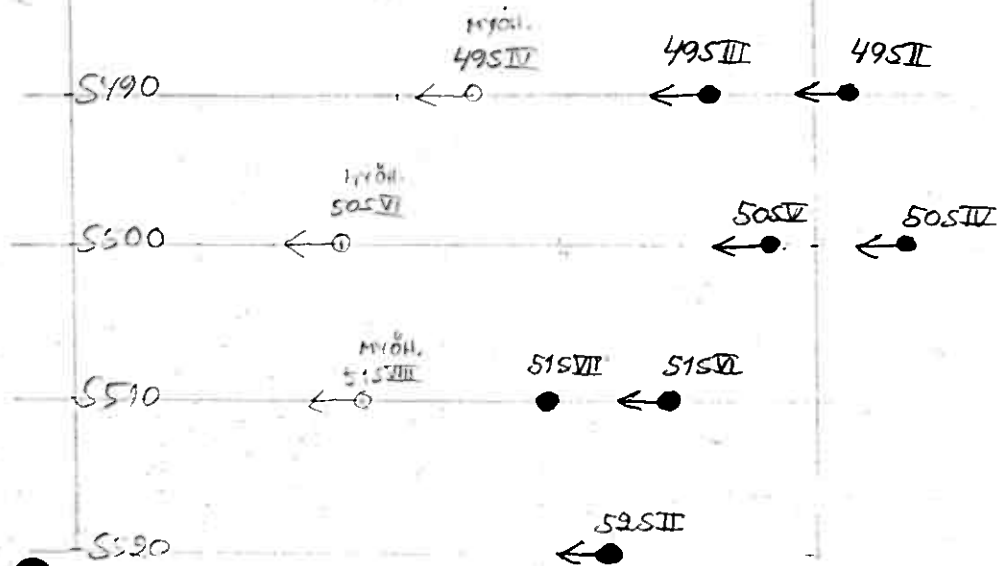


SOIJAREIKÄ	SUUNTA	KALTEVUUS	NÄYTEVÄLI	PITUUS
49SIV	270°	45°	1m	15m
50SIV	270°	45°	1m	15m

BG 17.3.87
KS

Ø LMK: 28
BG: HA-KRÄ, JH, KS

SOIJAUUS, D-LOUKOS TASO +650



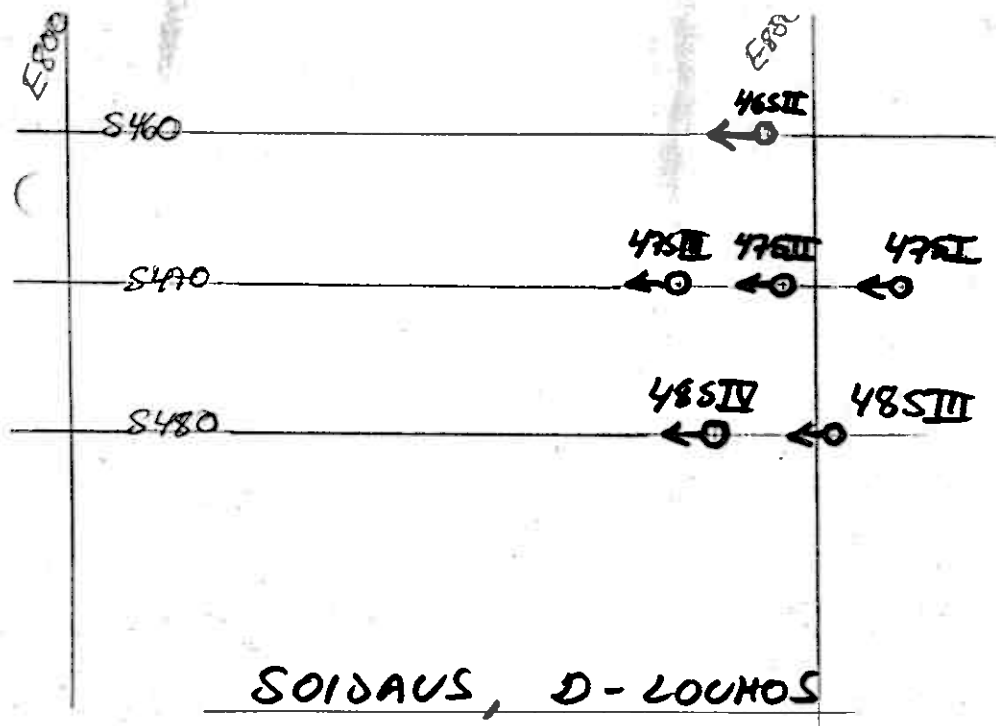
LEIKKAUS	S. RAKA	E-KOORD.	SUUNTA	KALTEV.	PITUUS	NÄYTEALAI
S 490	49 S II	852	270° LÄNTÄÄN	42°	10 m	1 m
- " -	49 S III	843	- " -	42°	10 m	1 m
S 500	50 S IV	856	- " -	42°	10 m	1 m
- " -	50 S V	847	- " -	42°	10 m	1 m
S 510	51 S VI	840	- " -	42°	10 m	1 m
- " -	51 S VII	832	PYSTY	90°	VETÄEN ABTI	1 m
S 520	52 S II	836	- " -	42°	12 m	1 m

BG 20.2.87

KS

Ø LMK: 2x

BG: HA-KRÄ, JH, KS

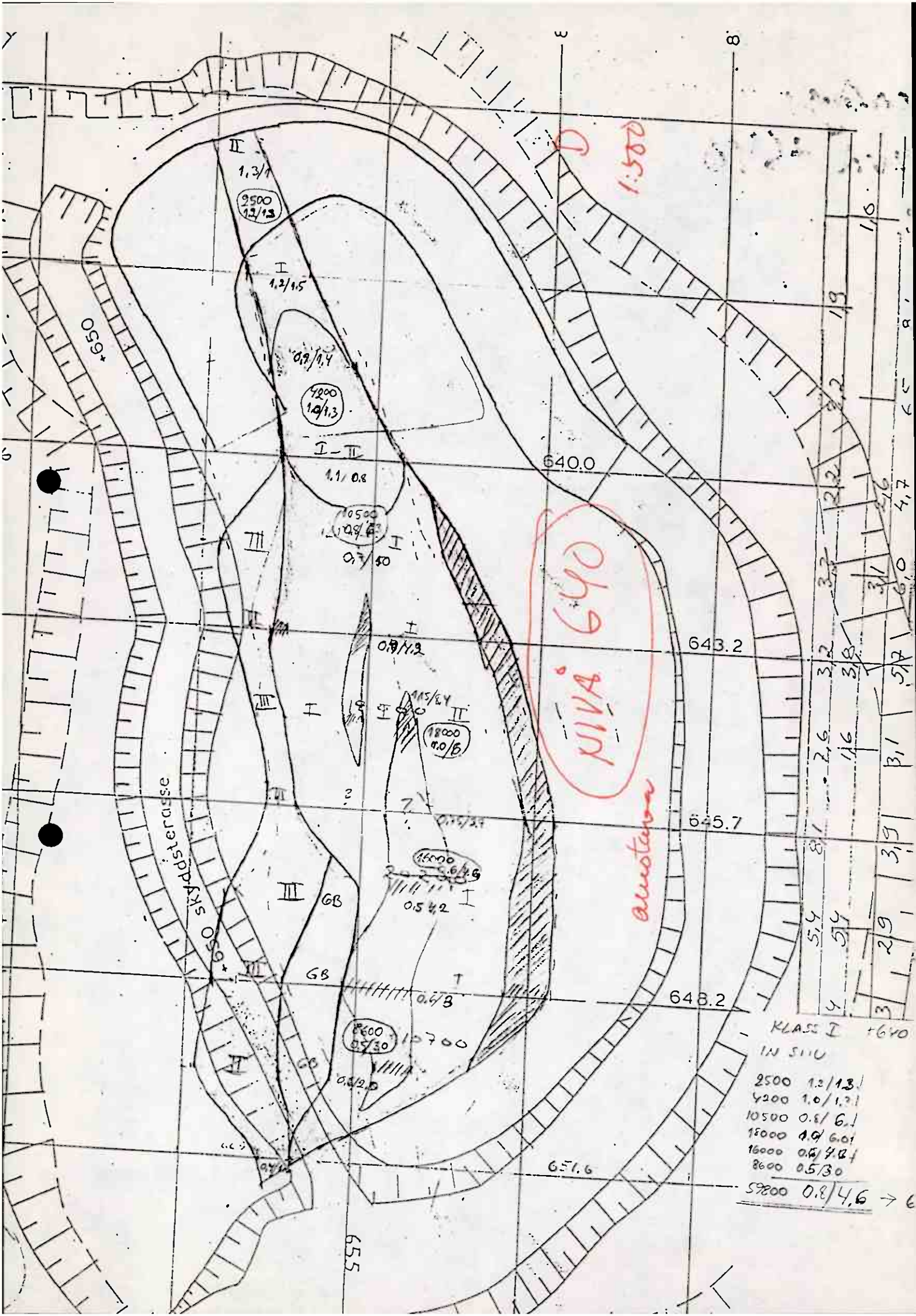


TASO + 650

LEIKKAUS	S.REIKÄ	E-KOORD.	SUUNTA	KALTEV.	PITUUS	NÄYTELÄLI
S 460	46SII	846	LÄNTÄEN	45°	12 m	1 m
S 470	47SI	856	- " -	"	"	"
- " -	47SII	848	- " -	"	"	"
- " -	47SIII	841	- " -	"	"	"
S 480	48SIII	851	- " -	"	10	"
- " -	48SIV	843	- " -	"	"	"

HUOM! SOIDAUUS LOPETETAAN AIKAISEMMIN JOS TULLEE VETTA VASTAAN.

KS 13.2.87

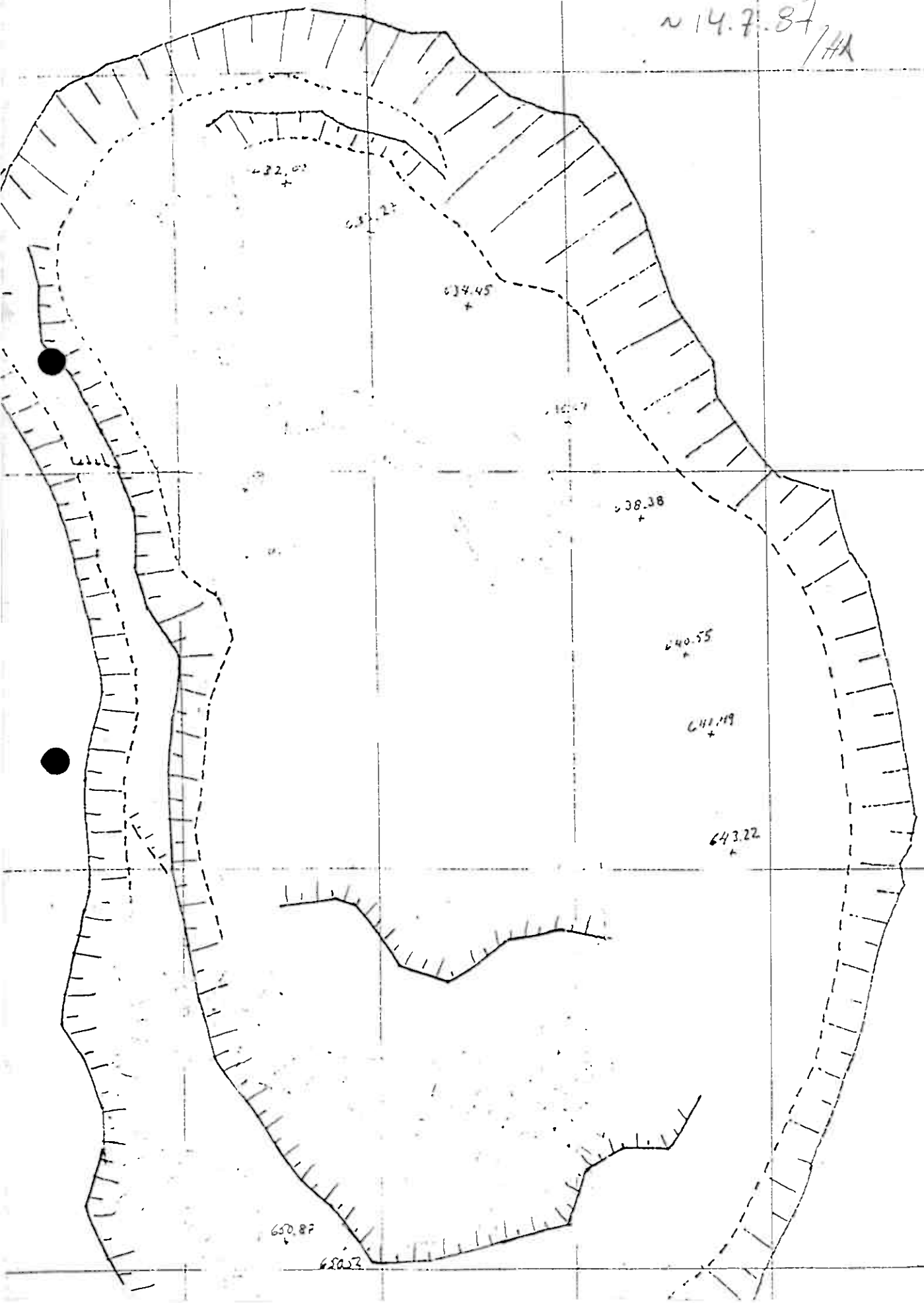


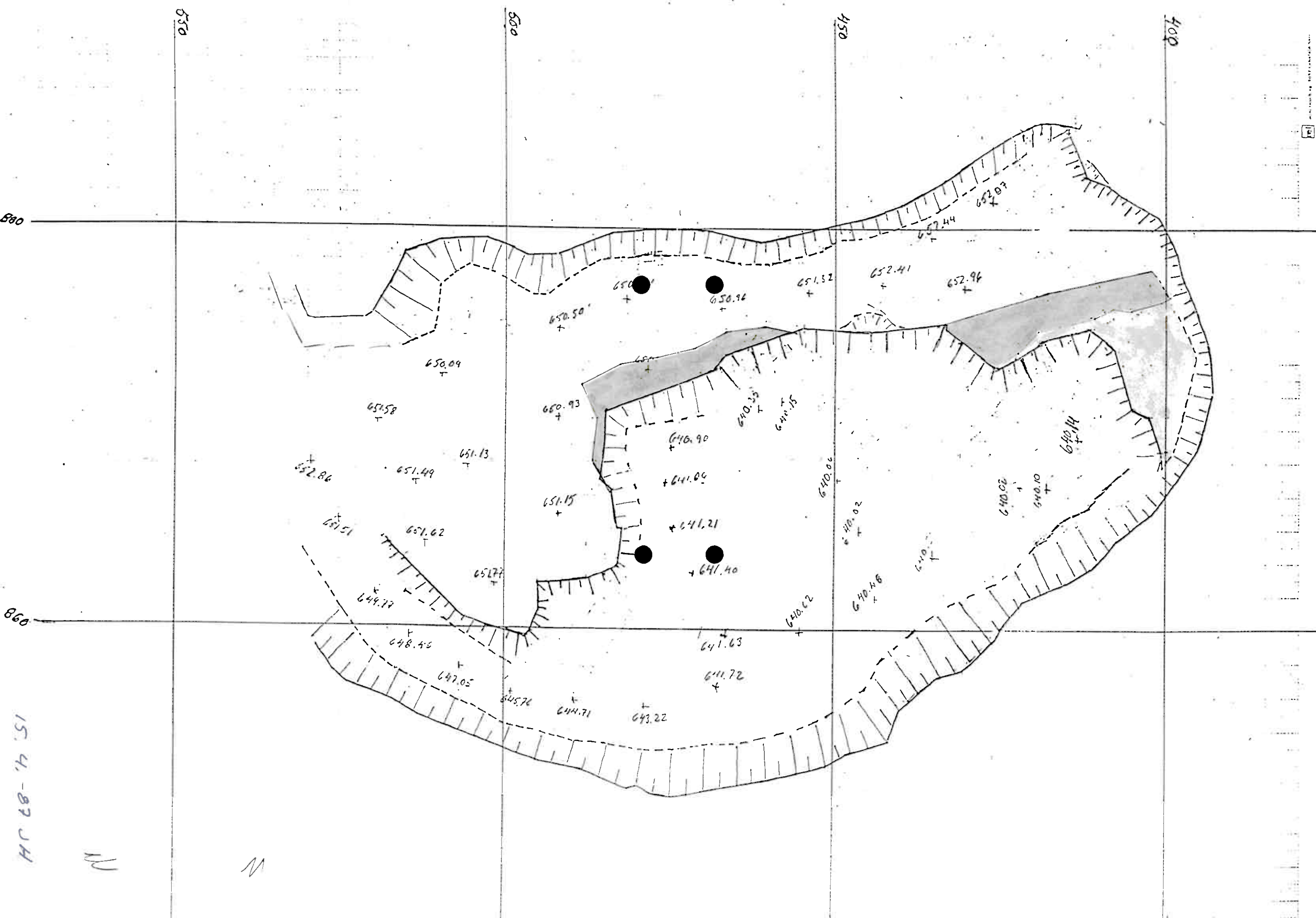
KLASS I +640
IN SITU

2500	1.2/1.3
4200	1.0/1.3
10500	0.8/6.1
18000	1.0/6.0
16000	0.8/4.8
8600	0.5/3.0
5200	0.8/4.6 → 6

D

~14.7.87/HA



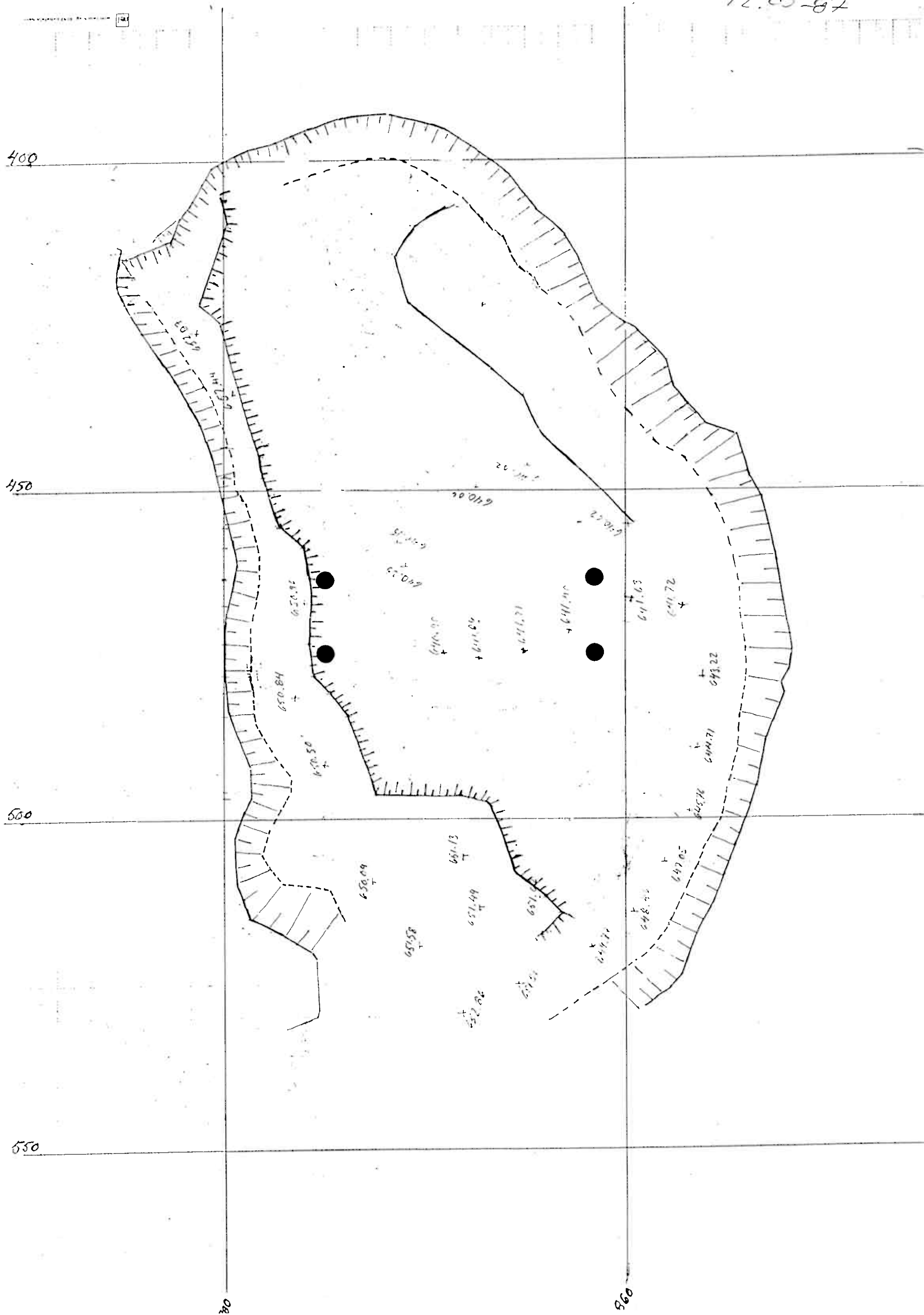


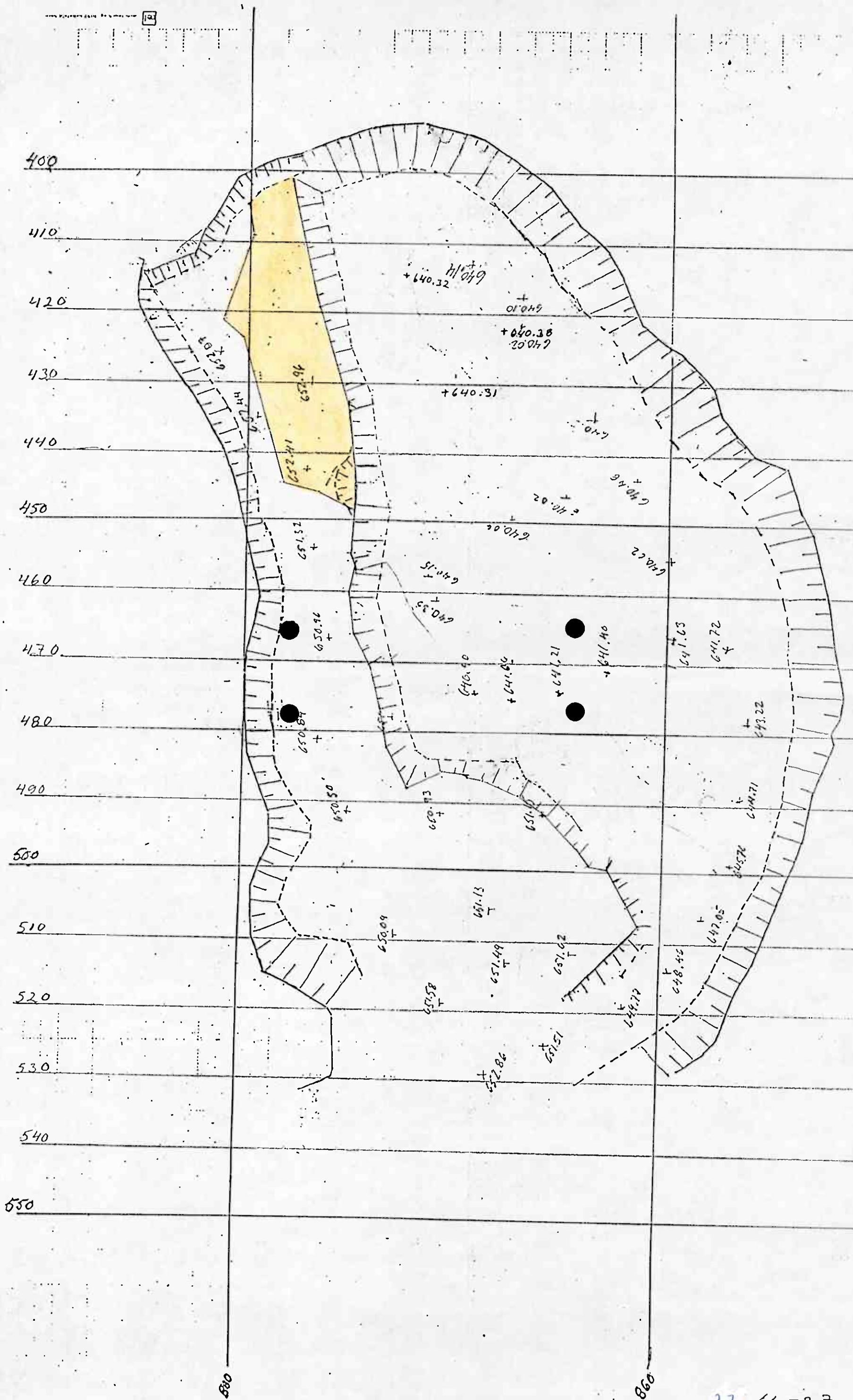
15.4, -87 JH

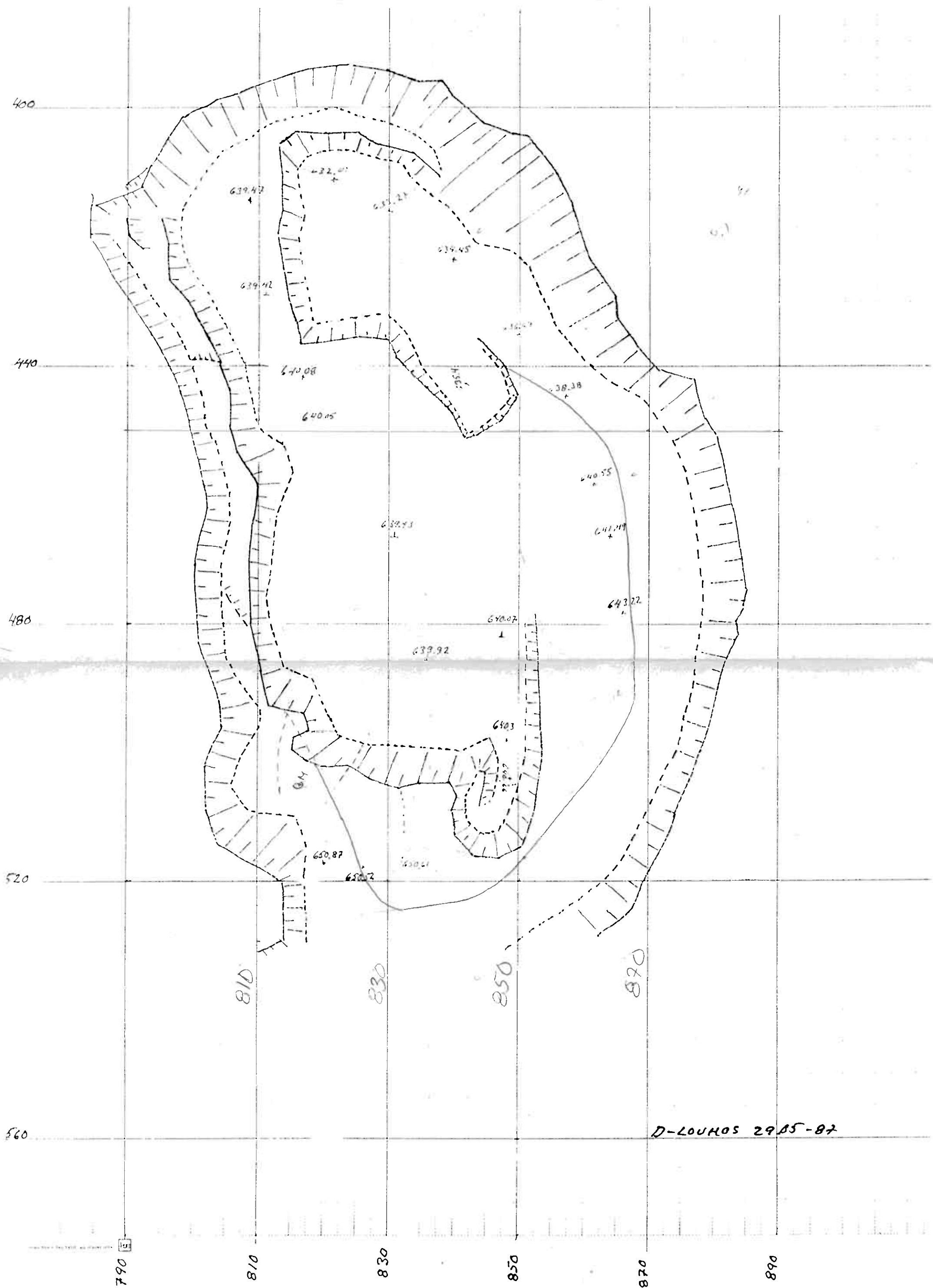
M

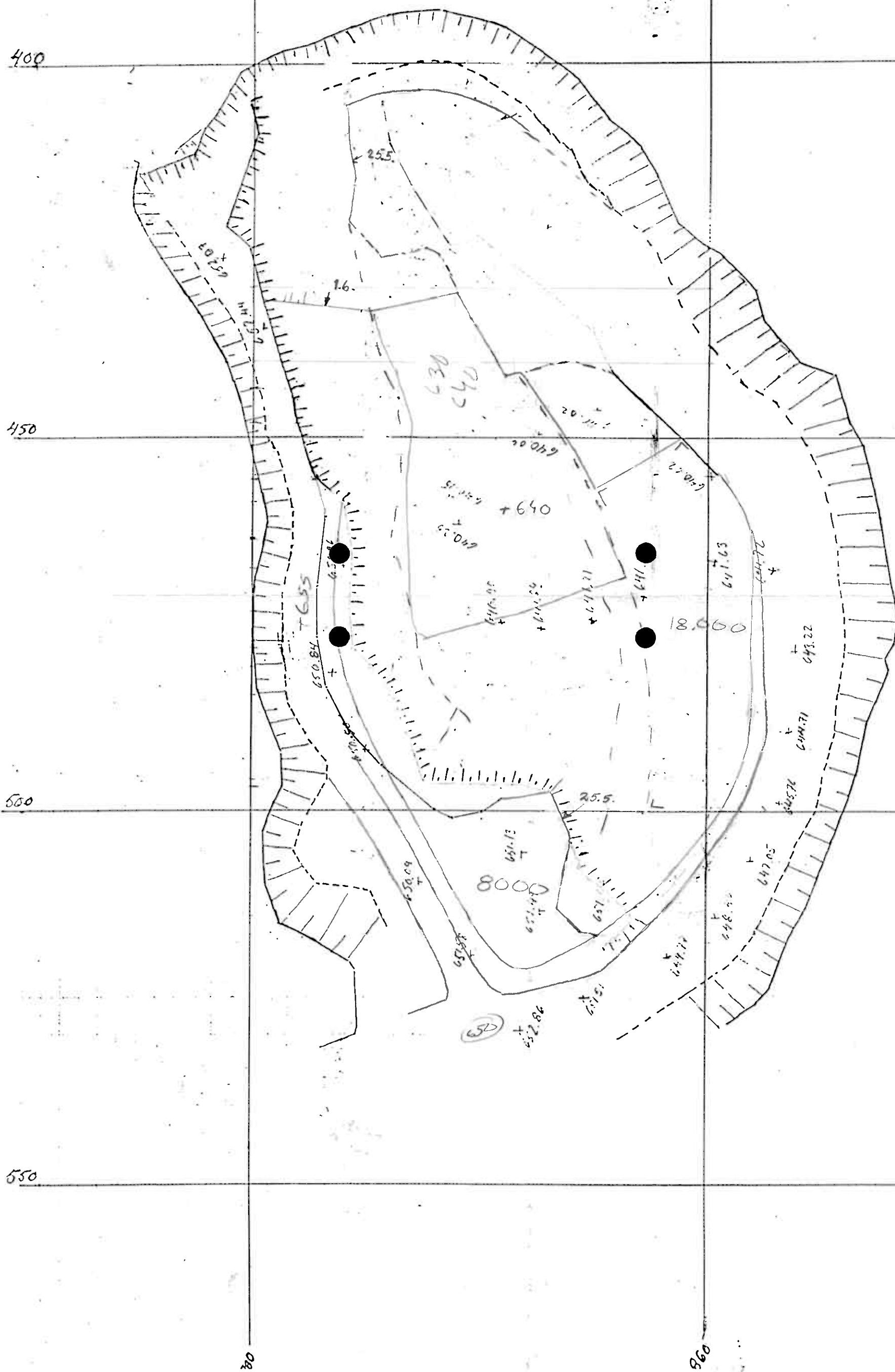
M

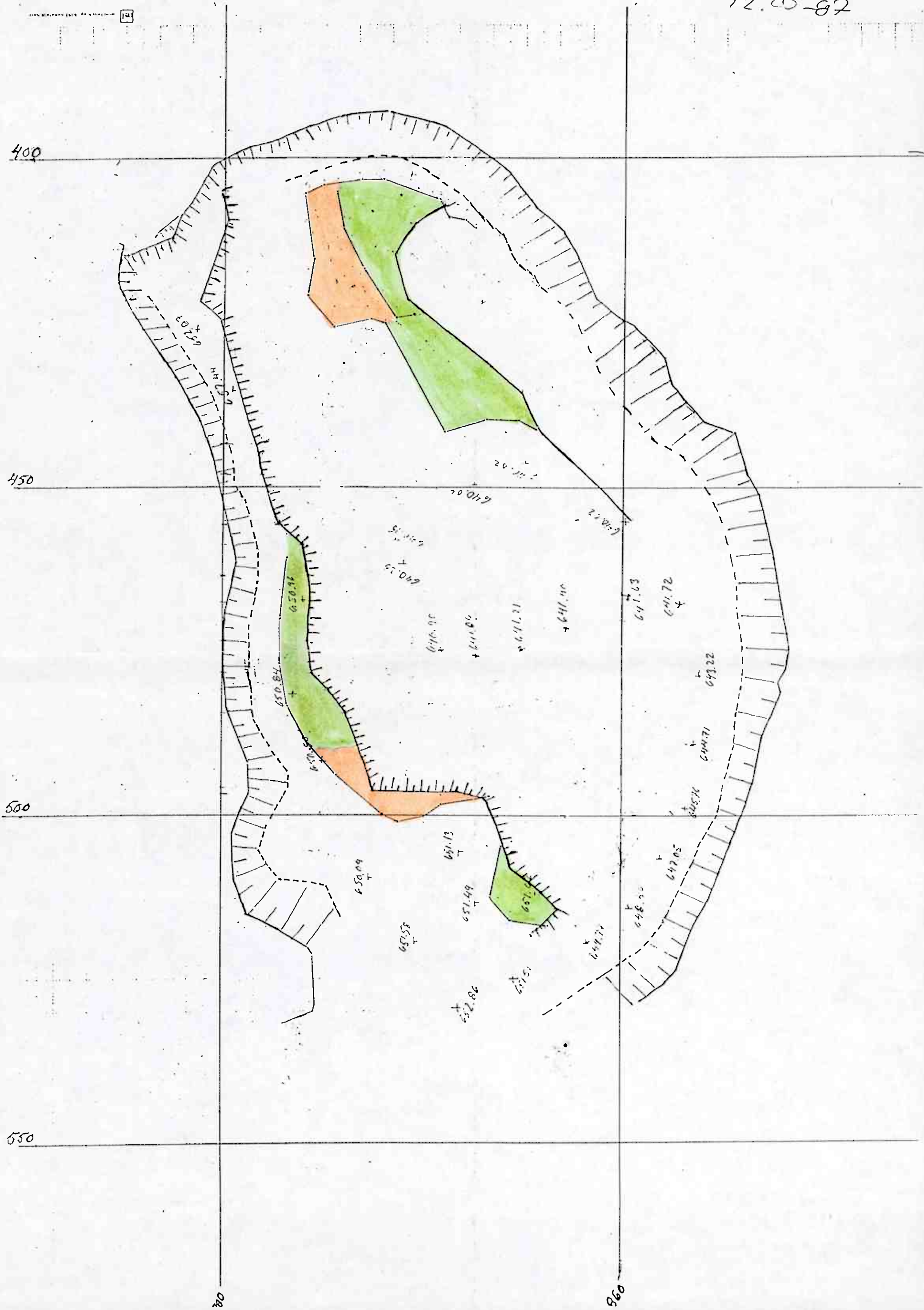
12.05-87

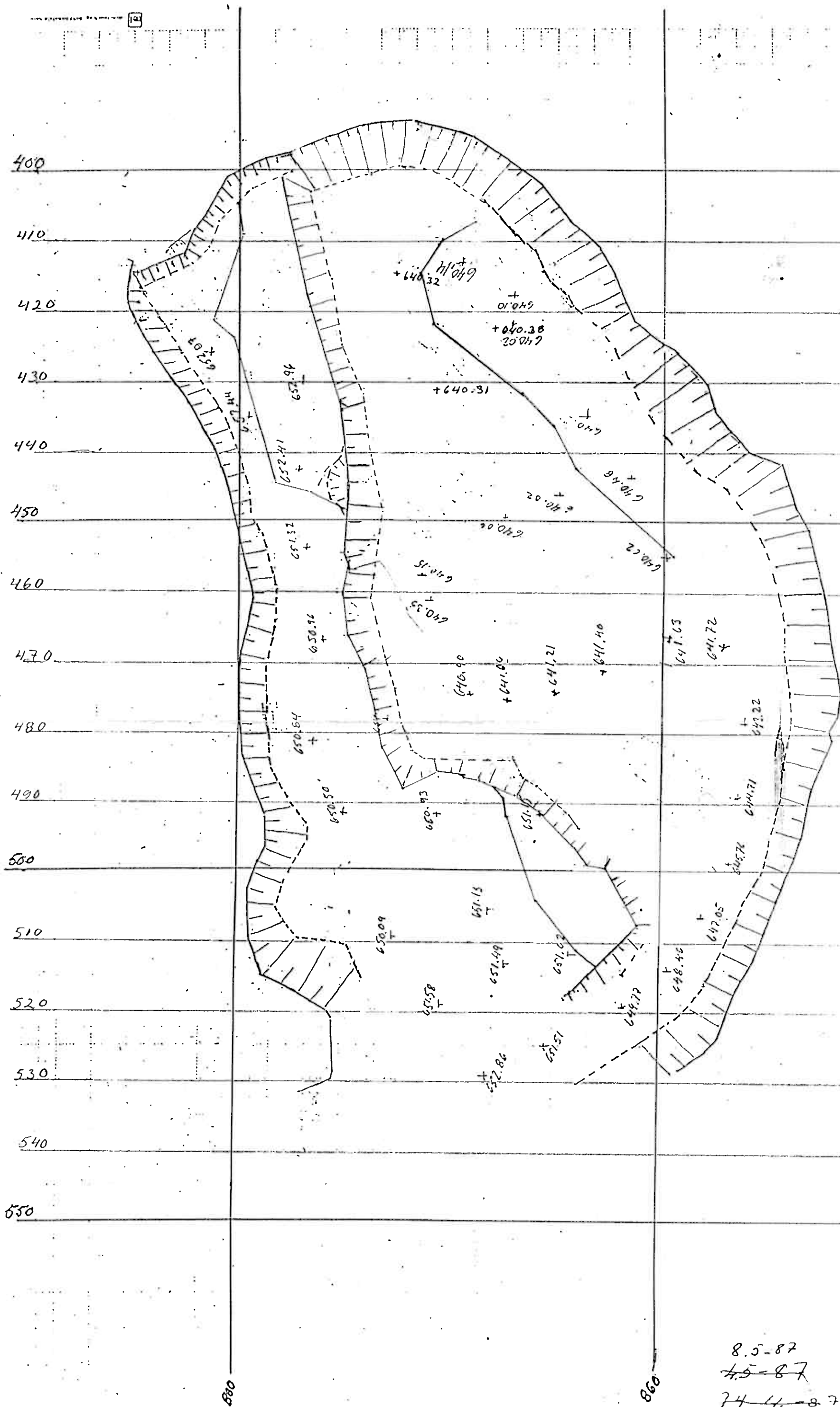




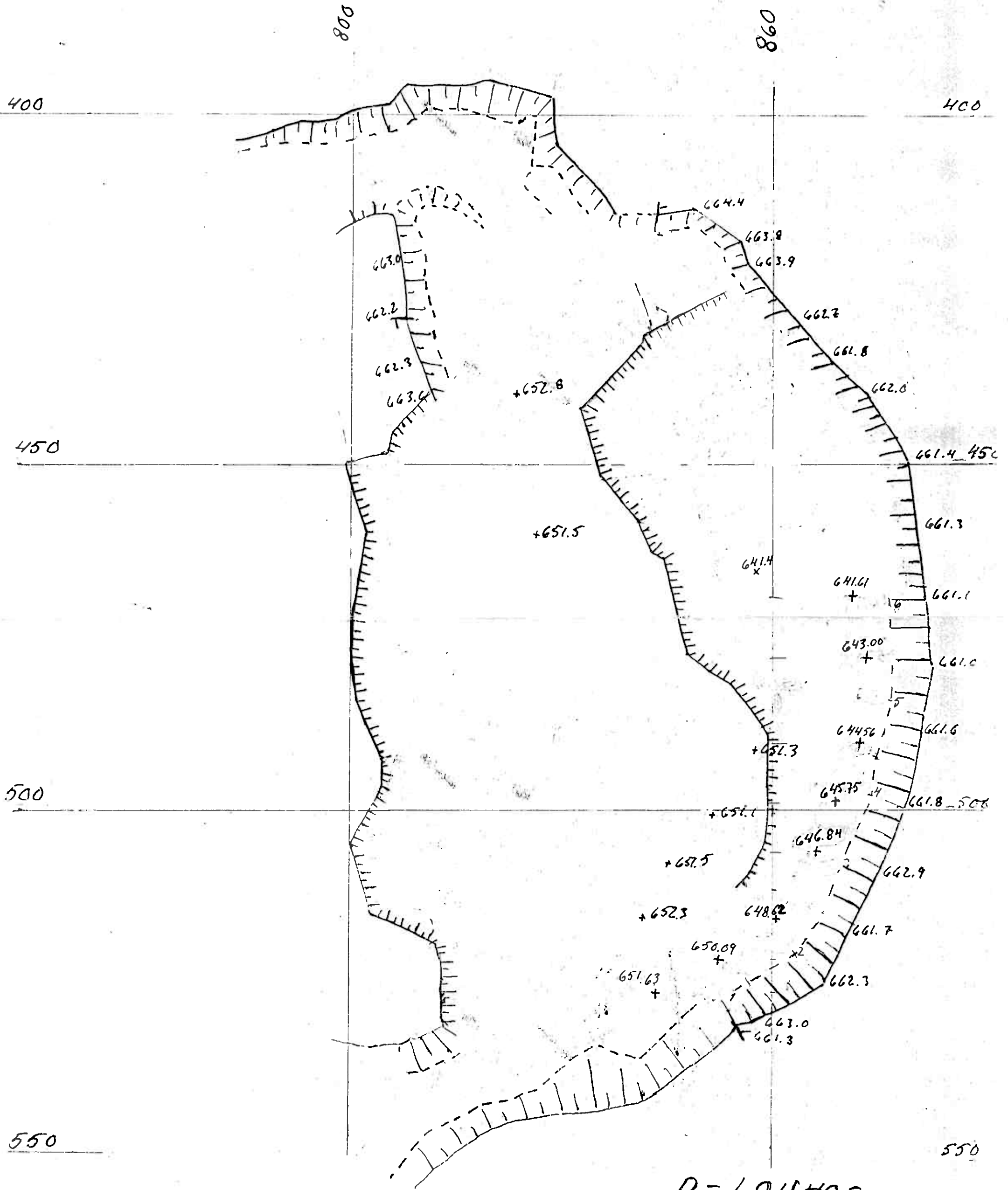








8.5-87
4.5-87
24.4-87

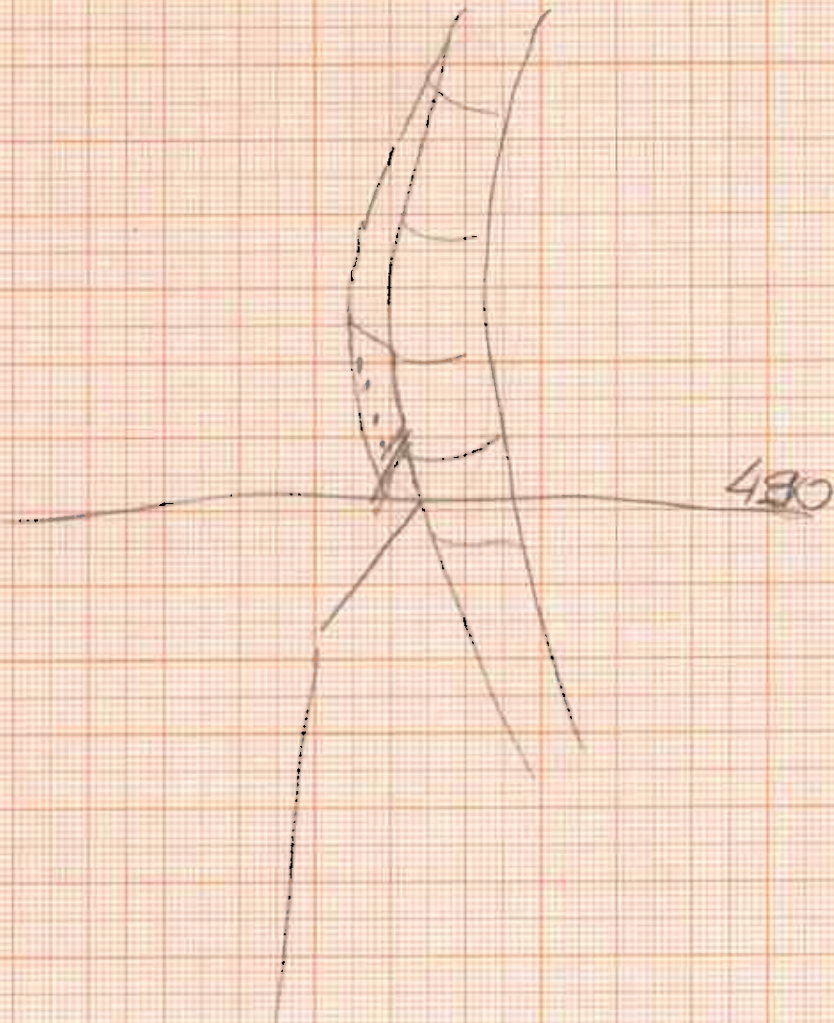


D-LOUROS

11.3 - 87

25

STUBBORING.



SOIDAUS
STØVBORING

SOIDAREIAN NRO HULL NR.	LÄHTÖ START	MÄLT VINKEL MITATUT KULMAT		HUOM ANM.
			LOPPU SLUTT	
50,5 S <u>IX</u>	40°			10 m.
51 S <u>IX</u>	42°			10 m.
51,5 S <u>I</u>	42°			10 m.
ML <u>I</u>	45°			13,55 m.
ML <u>II</u>	38°			2,60 m.

HUOMAUTUKSIA
KOMMENTAR: M12 I ja ML II ovat mustaliuske-
reikiä (on katsottu mustaliuskeen raja)

REIKIÄ YHT. 5 kpl.
ANTALL HULL
POR. METRIT 46,15 m.
ANTALL METER
ANTALL TIMER _____

DATO 15.07.-87
PÄIVÄYS

[Signature]

UNDERSKRIFT *[Signature]*
SOIDAAN
ALLEKIRJOITUS

SOIDAUS
STØVBORING

SOIDAREIAN NRO HULL NR.	LÄHTÖ START	MÄLT VINKEL MITATUT KULMAT	HUOM ANM.
		LOPPU SLUTT	
89 S IV	40°		10m
88 S VIII	40°		10m
87 S III	40°		10m (riimeinen reikä vesi vastassa)

HUOMAUTUKSIA
KOMMENTAR:

REIKIÄ YHT. 3 kpl.
ANTALL HULL
POR. METRIT 30 m.
ANTALL METER
ANTALL TIMER

DATO 14.7.-87
PÄIVÄYS

Hei Alenik

UNDERSKRIFT *Heikki Järvi*
SOIDAAN
ALLERKIDOTUS

MITTAMIEHET OY
ROVANIEMEN ALUETOIMISTO
960-10410

HAVAINTOPISTEEN
BP 7
KONEKORKEUS :
SAUVAKORKEUS :

$E = 474.36$
 $N = 868.91$
 $Z = 595.22$

13.2.-07

[illegible]

SOIDAUS
STØVBORING

SOIDAREIÄN NRO HULL NR.	MÄLT VINKEL MITATUT KULMAT		HUOM ANM.
	LÄHTÖ START	LOPPU SLUTT	
45 S II	45°		12m
46 S I	45°		12m
50 S III	45°		12m
51 S V	45°		12m

HUOMAUTUKSIA
KOMMENTAR:

REIKIÄ YHT.
ANTALL HULL
POR. METRIT
ANTALL METER

4 kpl
48m

ANTALL TIMER

DATA 5.2.87
PÄIVÄYS

UNDERSKRIFT
SOIDAAN
ALLEKIRJOITUS

Matti Uimonen

SOIDAUUS
STØVBORING

SOIDAREIÄN NRO HULL NR.	LÄHTÖ START	MÄLT VINKEL MITATUT KULMAT LOPPU SLUTT	HUOM ANM.
45 S II	450		12m
46 S I	450		12m
50 S III	450		12m
51 S V	450		12m

HUOMAUTUKSIA
KOMMENTAR:

REIKIÄ YHT.
ANTALL HULL
POR. METRIT
ANTALL METER
ANTALL TIMER

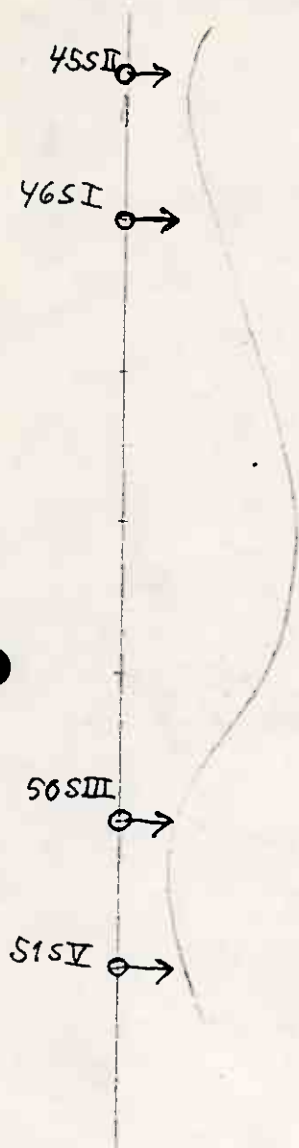
4 kpl
48m

DATO 5.2.87
PÄIVÄYS

UNDERSKRIFT
SOIDAJAN
ALLEKIRJOITUS

Matti Uusimäki

SOIVAUSS OHJELMA , D-LOUHOSS



TEHTY 24.1

LEIKKAUS	SOINAREIKÄ	SUUNTA	KALTEIUS	PITUS	NÄYTEVÄLI
S 450	45 S II	90° = ITÄÄN	40°	12 m	1 METRI
S 460	46 S I	- " -	"	"	- " -
S 500	50 S III	- " -	"	"	- " -
S 510	51 S V	- " -	"	"	- " -

NUMEROINTI 45 S II - 1
45 S II - 2 ONE

22.1.87
KES

Ø LMK 2x
BG: HA, KRÄ, JH, KS

SOIJAUS D-LOUHOS

MAAN PINNALLA

LEIKKAUS	S. REIKÄ	E-KOORD	SUUNTA	KALT.	PITUUS
S 450	45 S II	800	ITÄÄN	40°	12 m
S 460	46 S I	800	- " -	- " -	- " -
S 500	50 S III	800	- " -	- " -	- " -
S 590	51 S V	800	- " -	- " -	- " -

BG 22.7.87 KS

Ø BG: HA, KRS, DH, KS
LMK: 2x

A PUISTE D - LOUITOS

$$\begin{aligned}x &= -461,704 \\y &= 811,059 \\z &= 664,497 \\s &= 63,949 \\t &= 0,7158 \\u &= 101,2102\end{aligned}$$

SOIJAREIKIÄ D - LOUITOS

$$\begin{aligned}s &= -450,13 & 45 \text{ S } \underline{\text{II}} \\E &= 800,25 \\Z &= 663,44\end{aligned}$$

$$\begin{aligned}s &= 460,06 & 46 \text{ S } \text{I} \\E &= 800,00 \\Z &= 662,49\end{aligned}$$

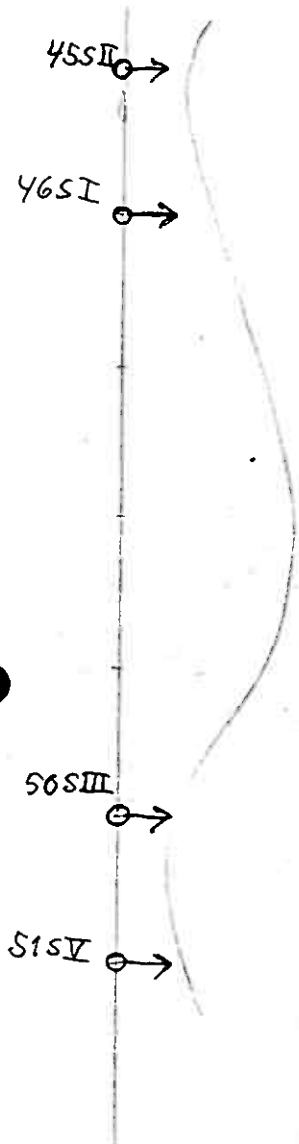
$$\begin{aligned}s &= 499,97 & 50 \text{ S } \underline{\text{III}} \\E &= 800,14 \\Z &= 660,76\end{aligned}$$

$$\begin{aligned}s &= 509,61 & 51 \text{ S } \underline{\text{IV}} \\E &= 800,19 \\Z &= 660,98\end{aligned}$$

Mittari mittasi 24.1.87

HA

SOIVAUUS OHJELMA, D-LOUKOS



LEIKKAUS	SOIVAREIKÄ	SUUNTA	KALTEILUS	PITUUS	NÄYTEVÄLI
S 450	45 S II	90° = ITÄÄN	40°	12 m	1 METRI
S 460	46 S I	- " -	"	"	- " -
S 500	50 S III	- " -	"	"	- " -
S 510	51 S V	- " -	"	"	- " -

NUMEROINTI 45 S II - 1
45 S II - 2 ONE

22.1.87
KES

Ø LMK 2x
BG: HA, KRA, JH, KS

SOLAUS
STØVBORING

SOLAAREIAN NRO HULL NR.	LÄHTÖ START	MÄLT VINKEL MITATUT KULMAT	HUOM REIKÄ P.T. ANM.
		LOPPU SLUTT	
435 I	45°		10 m
445 I	45°		10 m
455 I	45°		10 m

HUOMAUTUKSIA
KOMMENTAR:

REIKÄ YHT.
ANTALL HULL
POR. METRIT
ANTALL METER

3 kpl

30 m

ANTALL TIMER

DATO 20 07 -87
PÄIVÄYS

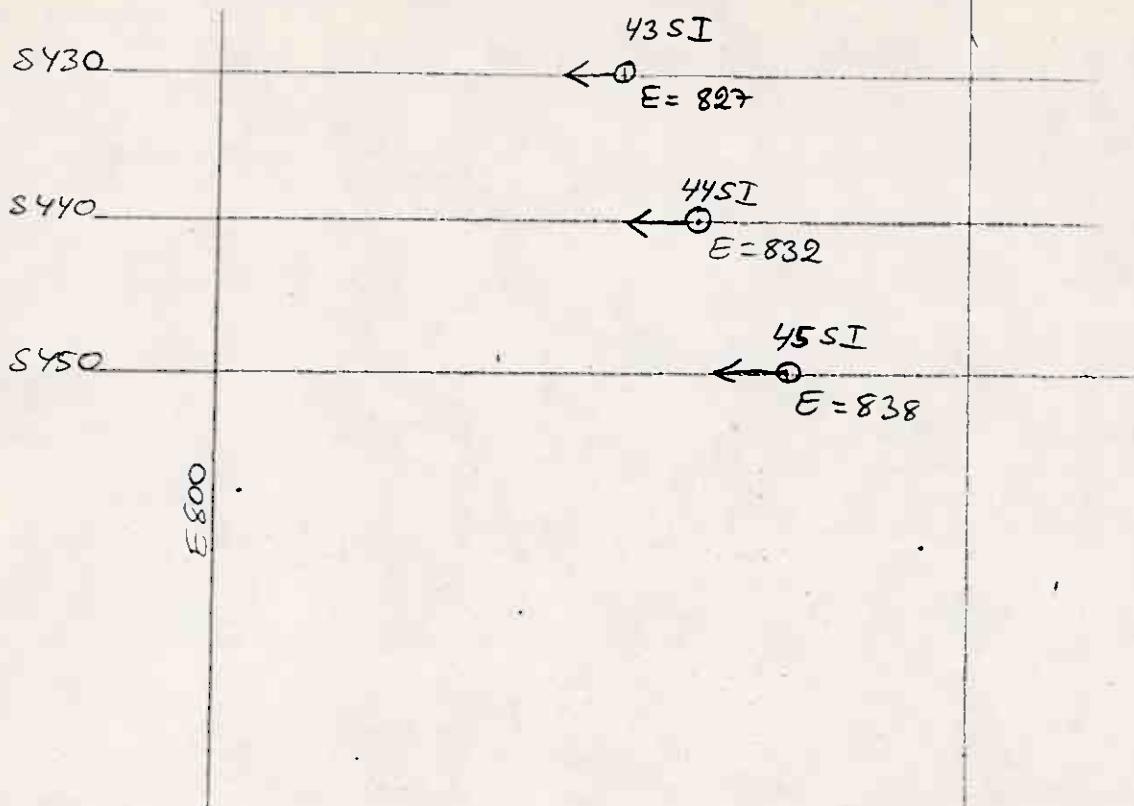
UNDERSKRIFT

SOLAAJAN

ALLEKIRJOITUS

Lari Selin

SOIDAUSSOHJELMA, D-LOUKHOS



LEIKKAUS	SOIDAREIKÄ	SUUNTA	KALTEVUUS	PITUUS	NÄYTEVÄLI
S 430	S 43 I	270° = LÄNTEEN	45°	10,5	1/2 TANKOA = 1,5 M
S 440	S 44 I	270° = LÄNTEEN	45°	10,5	— " —
S 450	S 45 I	270° = LÄNTEEN	45°	10,5	— " —

NUMEROINTI SYSTEMI

ESIM. SOIDAREIKÄ 43 SI

	PITUUS	NÄYTTEEN NUMERO	RUUSUN
NÄYTE 1	0-1,5 m	43 SI - 1	
NÄYTE 2	1,5-3,0 m	43 SI - 2	
NÄYTE 3	3,0-4,5 m	43 SI - 3	

JNE

19.1.1987

Ø LMK 9.8

BG: HA, KKA, JH, KS

KS

Soijaus
STØVBORING

Soijareian №	Mitatut kulmat		Huom.
	Lähtö	Loppu	

Huomautuksia

Reikiä yht.
pon metriä

päiväys

Soijajaan
allekirjoitus