Bergvesenet

Postboks 3021, 7002 Trondheim

Rapportarkivet

Bergvesenet rapport nr	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
BV 512			Trondheim	**Åpen**
Kommer fra ..arkiv	**Ekstern rapport nr**	**Oversendt fra**	**Fortrolig pga**	**Fortrolig fra dato:**
Falconbridge	Sul 411-76-17	Sulfidmalm A/S		

Tittel

Ground surveys and prospect drilling on Ruvvacokka 1976, Masi.

Forfatter	Dato	Bedrift
E Kreivi	1976	Sulfidmalm A/S

Kommune	Fylke	Bergdistrikt	1: 50 000 kartblad	1: 250 000 kartblad
Kautokeino	Finnmark	Finnmark	19343	Nordreisa

Fagområde	Dokument type	Forekomster
Geofysikk Boring	Rapport	Ruvvacokka
Råstofftype	**Emneord**	
Malm/metall Industrimineral	Cu Ni Zn Pb kvarts	

Sammendrag

Shoot-back og magnetometermålinger sammen med geokjemiske anomalier (Sulfidmalmrapport 367-75-17) dannet grunnlaget for boring av 7 borhull på tilsammen 173m.
Boringen påviste basiske bergarter med underliggende sure vulkanitter som cherter eller kvartskeratofyrer med grafittførende lag, forvitrede (!) sedimenter som glimmerskifere og gråvakker. Karbonatbreksje var vanlig i gråvakken. I et av hullene ble det truffet på 5m med ren kvarts.
Høyeste analyseverdier for de enkelte elementene var 0,15 %Ni, 0,12% Cu, 2,90% Zn og 1,10% Pb. De to siste verdiene som antagelig er fra samme prøve, er tatt i en finkornet sur vulkanitt og ikke fra grafittskifer. Det ligner på forholdene i Muvracorro og Dabmutjavre områdene.

FOR FALCONBRIDGE NIKKELVERK A/S
A/S SULFIDMALM

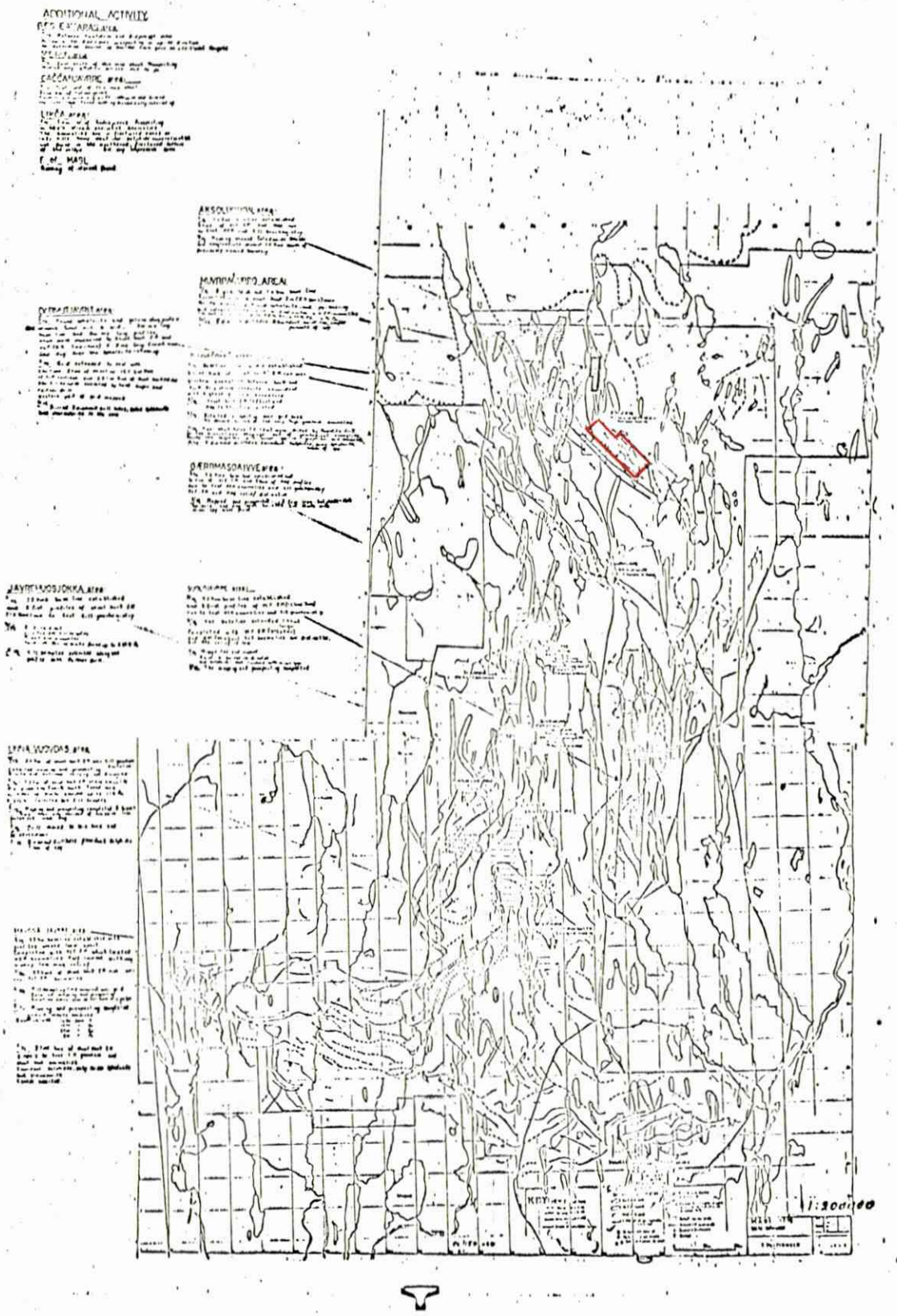
Project 905-17

Ground surveys and prospect drilling on Ruvvačokka in 1976, Masi.

By

E. Kreivi

Report No. 411/76/17


ADDITIONAL ACTIVITY
KEY
1:50000

Introduction (Fig.1)

The Ruvvačokka-grid is situated 4 kms north of Suolovuobme. It was sited in 1975 to follow up geochemical and airborne-EM-anomalies from the 1974 Masi reconnaissance programme (Rep. 341/74/17 and 335/74/17). Detailed mapping VLF-survey and till-sampling in 1975 (Rep. 367/75/17) revealed very strong till anomalies, with maximum values of 8500 ppm Zn, 3000 ppm Pb, 2870 ppm Cu and 600 ppm Ni, associated with VLF-indicated conductive zones and acid volcanics. In 1976 detailed Shoot-Back- and Magnetometer surveys were done on the anomalous areas to locate them for prospect drilling.

Geophysics (Fig.2)

Four very strong (max. amplitude 260) Shoot-Back-conductive zones associated with the strong till-anomalies were found in the grid area. According to the Shoot-Back-curves the conductors are dipping gently westwards.

Magnetic relief is very low in the whole area.

Geochemistry and Geology (Fig.3)

See Rep. 367/75/17.

Drilling Fig.4)

Seven diamond-drill-holes (totalling 250,6 m) were drilled by a contractor, called Terranor A/S, to find a source of the Shoot-Back-EM- and geochemical anomalies.

A/S SULFIDMALM

INTER-OFFICE MEMORANDUM

Date: 4th May, 1977

To: Falconbridge Nikkelverk A/S

cc: W. D. Harrison, H. T. Berry, R. Jahnsen, R. B. Band, E. Kreivi, Bergmester Vasshaug

From: J. B. Gammon

Subject:

Report No. 411/76/17. Ruvvačokka, Masi area.

Please find attached our report on activities in the Ruvvačokka area during 1976. Regional work in 1974 indicated the presence of interesting indications and a detailed grid was laid out in 1975. Work in that year outlined extremely high geochemical anomalies in association with good conductors. The drilling carried out in 1976 suggests that the conductors are the graphitic sulphide schists common in the area and that geochemical anomalies have become very high due to special weathering and topographic conditions. However the best mineralization (2.9% Zn/1 m) is associated with fine grained acid volcanic rocks rather than the graphite schists. It is thus similar to the Muvračorro and Dabmutjavrrit areas, which are nearby, and thus point to the widespread presence of mineralization of this type in the general area. It is possible that bedrock-till interface geochemistry on a semi-regional scale would be a viable exploration tool to outline economic concentrations of this type of mineralization.

J. B. Gammon

The drill-holes are collared:

1-R/1776	60°NE/29.40 m	at	1475N/10E
2-R/1776	60°NE/30.40 m	at	1350N/80E
3-R/1776	60°NE/60 m	at	950N/80E
4-R/1776	60°NE/30.90 m	at	950N/200E
5-R/1776	60°NE/28.60 m	at	700N/190E
6-R/1776	60°NE/32.40 m	at	700N/345E
7-R/1776	60°NE/38.90 m	at	1150N/335E
	Total 173 m		

In the core we found basic volcanics on the top and under it we found different types of acid volcanics-beds, quartz-keratophyre or chert with graphitic beds, layers of weathering sediments, which were called mica-schist or if carbonate-contain was higher and amphibole-or chlorite-fragments were abundant then the rock was called volcanic greywacke. This latter is often also strongly brecciated by carbonate. In the hole 4-R we found also about 5 ms of pure quartz and in the last 3 ms of the hole 7-R we found phyllite under acid volcanics.

The graphitic beds are always strongly mineralized, more than 50% sulphides, mainly pyrrhotite less pyrite, occasionally chalcopyrite ans sphalerite in joints (5-R/1776). Some weak po-py-mineralization was also found in chert and grewacke. The graphitic beds are usually up to 3 ms thick except in the hole 2-R we got a 23 ms thick bed right from the top.

The best analyzes were:

0.15% Ni	in	7-R/1776	at	16-17 m
0.12% Cu	in	5-R/1776	at	4-5 m
2.90% Zn	in	1-R/1776	at	18-19 m
1.10% Pb	in	1-R/1776	at	18-19 m

../3

Conclusions

It means that in till we got more copper (2870 ppm = 0.287% Cu) than in any of the drill-holes. Also Zn- and Pb-values are considerably low compared with the strong anomalies in till (8500 ppm Zn and 3000 ppm Pb). The rock in most of the area, especially in the anomalous-places, is very deeply weathered, and fresh exposures of the mineralized graphitic rock have not been found. Some of the till-samples are obviously taken from the residual weathered rock, where metals might have been enriched. The whole area is above the tree-limit and anomalies are mainly concentrated in the valleys filled by drift brought by melting water. Small streams are running southwards and the glacial striae is to the north. The source of the anomalies are apparently in these mineralized graphitic beds.

Uht nr. Masi 1776 | Dato 9/11 1976 | Innsendt av: E. Kvi...

Prøve-nr.	Lokalitet	Prøvetype	Beskr.	Ni	Cu	Zn	Pb	Bemerk:
1-R 18-19	Ruvaïoble	core		0,02	004	290	1,10	
19-20				0,10	0,06	0,205	0.05	
2-R 2-3				0.03	0,04	0,113	<0.02	
3-4				0,08	004	0,073	<0.02	
4-5				0,03	0.04	0,118	<0.02	
5-6				0,06	004	0,068	<0.02	
6-7				0.02	0,04	0.060	<0.02	
7-8				0.07	0.06	0.048	<0.02	
8-9				0,03	0.06	0.100	<0.02	
9-10				0,07	0.07	0100	<0.02	
10-11				0.03	0.05	0.110	<0.02	
11-12				0.07	0.06	0,108	<0.02	
12-13				0.03	0.03	0115	<0.02	
13-14				0,08	0.10	0,105	<0.02	
14-15				0,03	0,06	1,68	0.35	

erhinger:

Shipment No. 17/10

Rapport nr: Masi 1776 | Dato 9/11 1976 | Innsendt av: E. Kiel.

Nr.	Prøve-nr.	Lokalitet	Prøvetype	Beskr.	Ni	Cu	Zn	Pb	Ag	Bemerk:
70	2-R 15-16	Ruvarcobb	core		0,07	0.04	0115	<0,02		
71	16-17				002	0.04	0,070	<0,02		
72	17-18				007	0.06	0.072	<0,02		
573	18-19				0.02	004	<0.01	<0,02		
574	19-20				007	007	<0,01	<002		
75	3-R 13-13.5				0.03	005	0,01	<0.02		
76	14-15				0.08	005	<0,01	<0.02		
77	15-16				0.05	0,10	<0.01	<0,02		
78	39.5-40				010	0.03	0,070	<0,02		
579	40-41				0,02	0.02	0.017	<0.02		
80	4-R 125-13				0.11	0,05	0.020	<0.02	<0.6	
81	18-18.5				0.01	0.01	<0,01	<002	0.6	
82	5-R 4-5				0.11	0.12	0.01	<002		
83	5-6				0,03	0.04	0,019	<0.02		
84	6-7				0,10	0.04	0,025	<002		

merkninger:

Shipment No. 17/10

Felt m.: Masi 1776 | Dato 9/11 1976 | Innsendt av: E. Kvalvi

	Prøve-nr.	Lokalitet	Prøvetype	Bestn	Ni	Cu	Zn	Pb	Bemerk:
5	5-R 7-8	Ruvaöbba	Core		0,05	0,07	0,015	<0,02	
6	15-15.5				0,10	0,04	0,012	<0,02	
7	24-25				0,02	0,03	<0,01	<0,02	
38	6-R 7-8				0,09	0,02	<0,01	<0,02	
39	8-9				0,02	0,01	0,015	<0,02	
40	9-10				0,12	0,01	<0,01	<0,02	
41	7-R 15-16				0,04	0,06	0,070	<0,02	
42	16-17				0,15	0,07	0,040	<0,02	

Bemerkninger:

Shipment No. 17/10

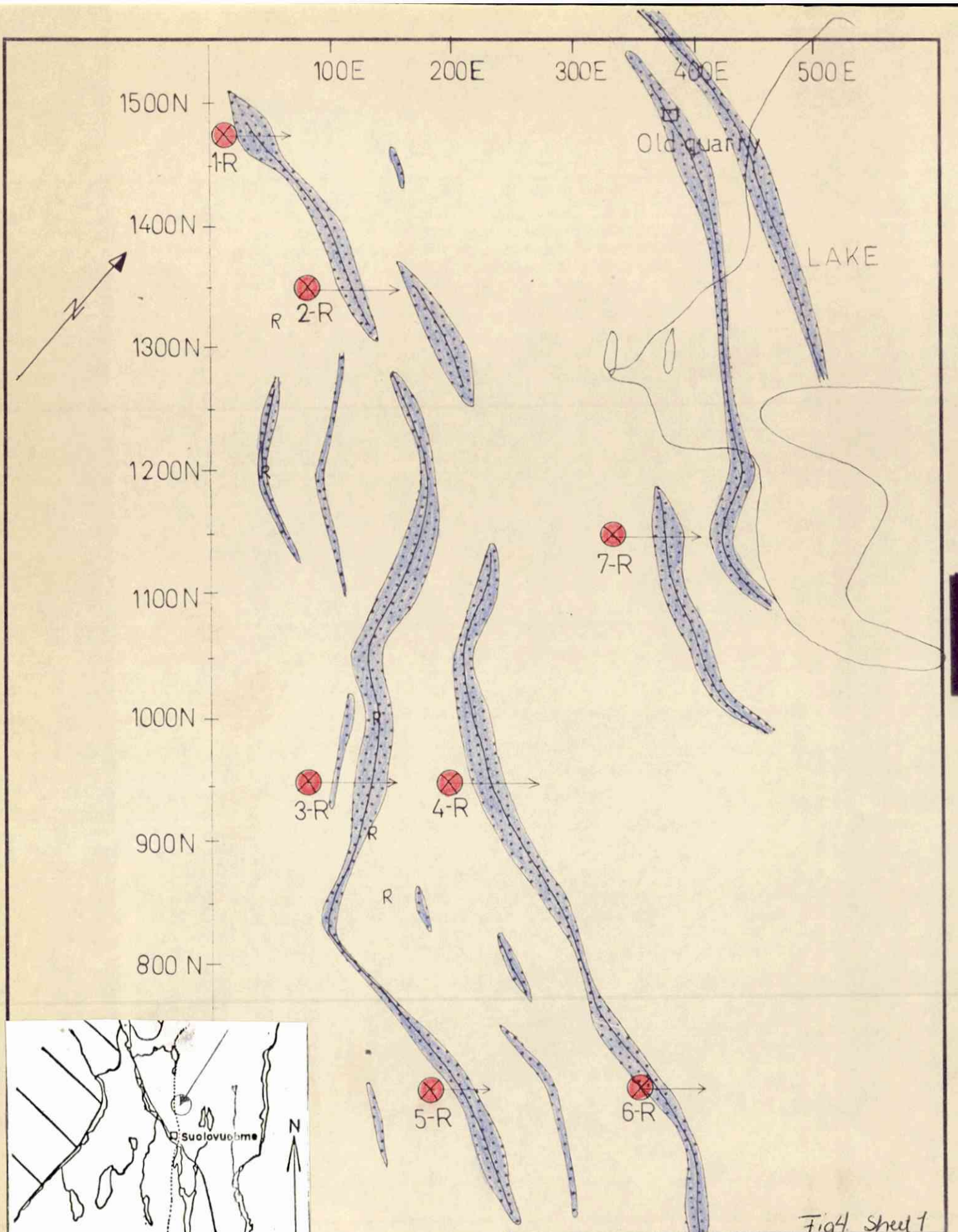


Fig4 Sheet 1

A/S SULFIDMALM

RUVVAČOKKA, Masi 1776.
Shoot-back-amplitudes
Drill hole locations.

SCALE	1:4000	DRAWN	EK
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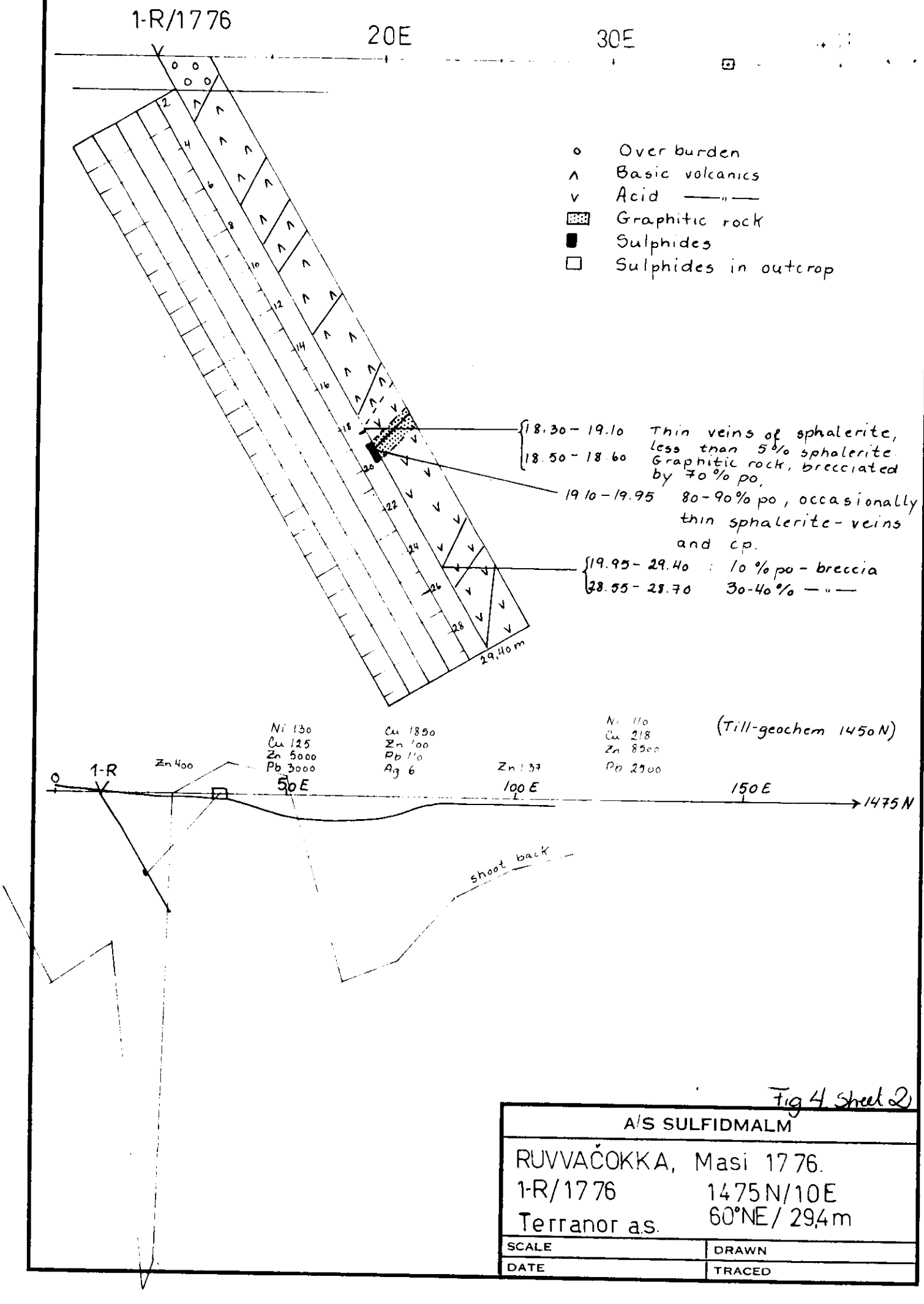
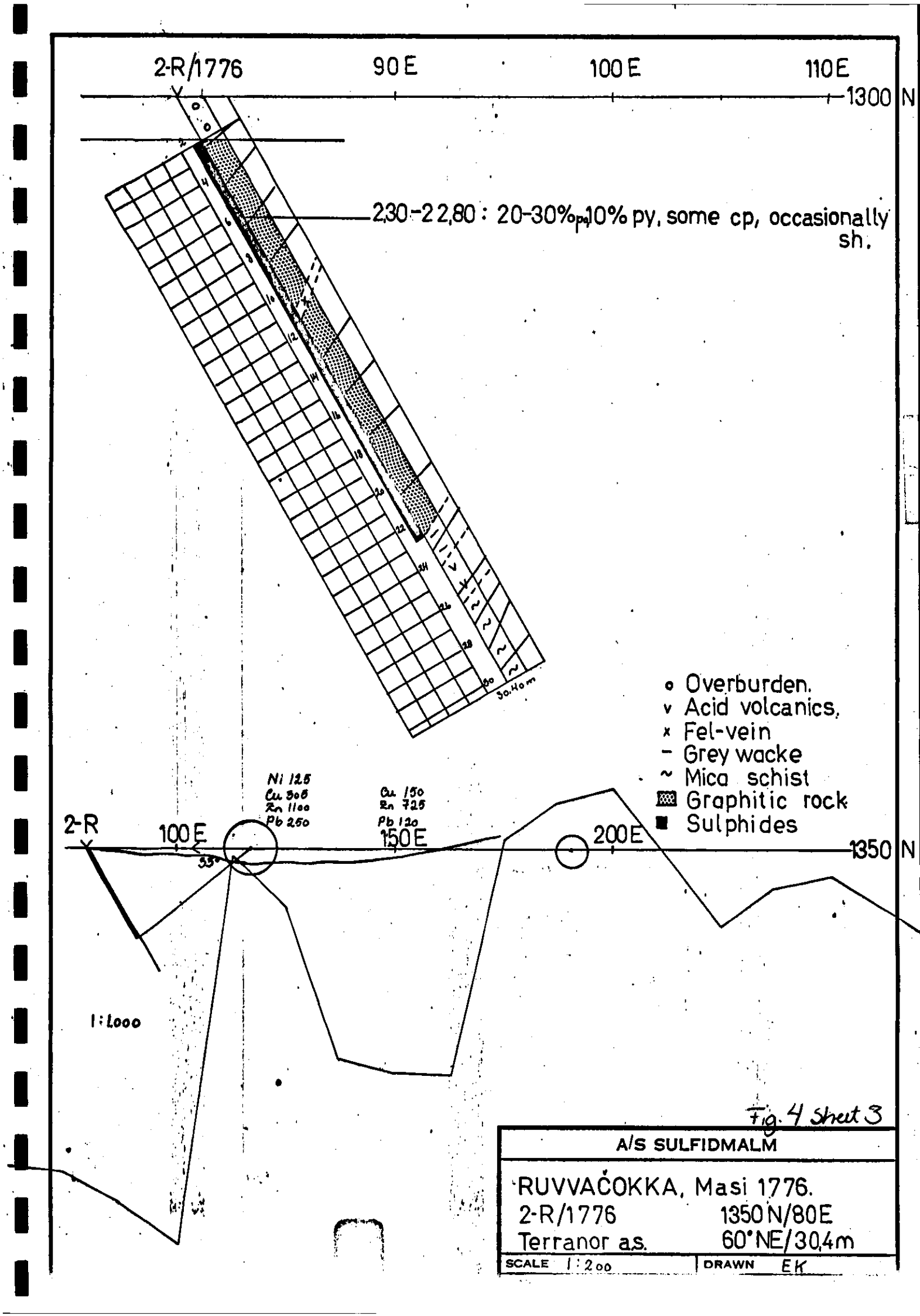
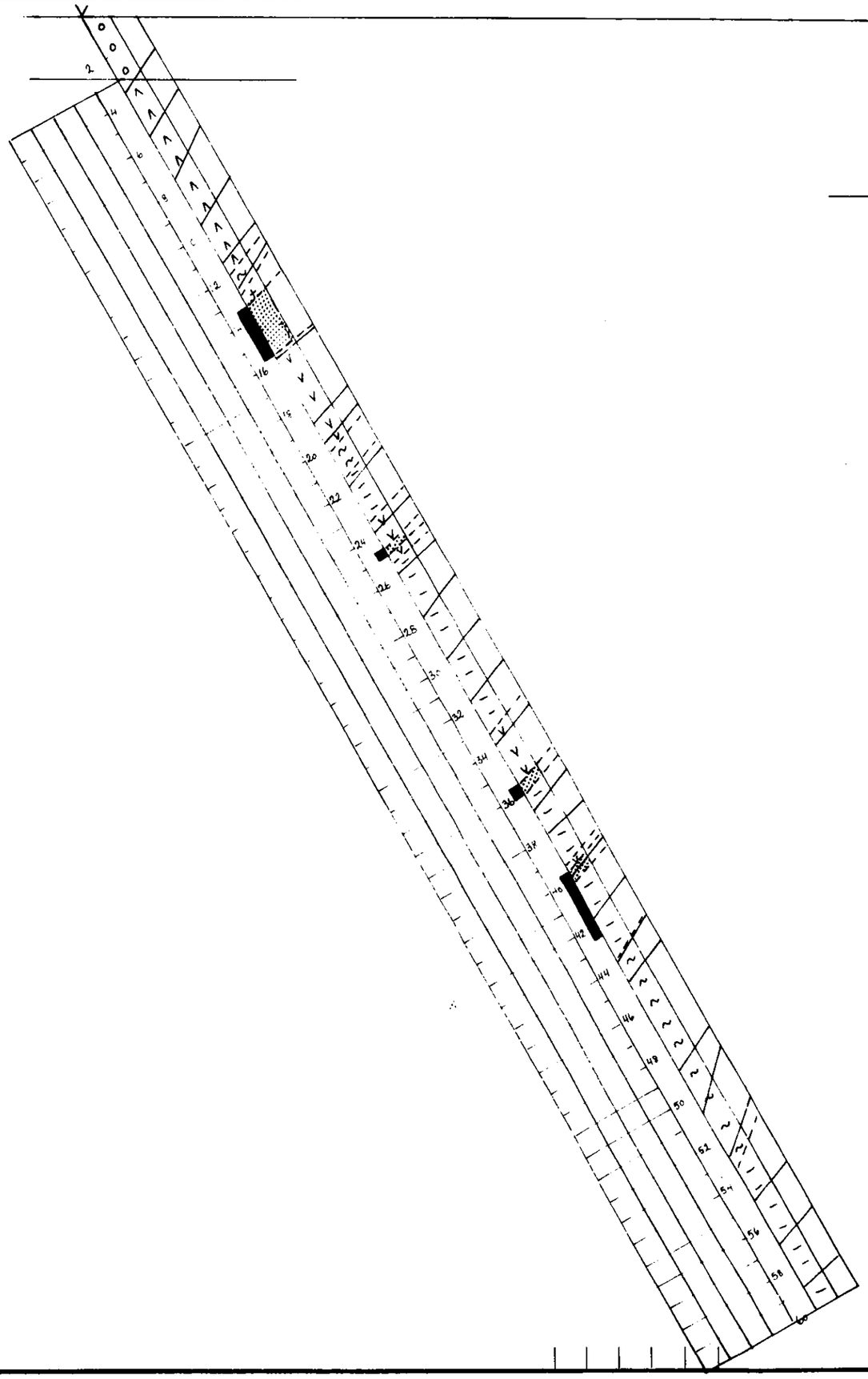


Fig 4 sheet 2)

A/S SULFIDMALM	
RUVVAČOKKA, Masi 1776.	
1-R/1776	1475N/10E
Terranor a.s.	60°NE/29,4m
SCALE	DRAWN
DATE	TRACED


2-R/1776
90 E
100 E
110 E
1300 N
230-232,80 : 20-30% po, 10% py, some cp, occasionally sh.
30,40 m
o Overburden.
v Acid volcanics.
x Fel-vein
– Grey wacke
~ Mica schist
Graphitic rock
Sulphides
Ni 125
Cu 306
Zn 1100
Pb 250
Cu 150
Zn 725
Pb 120
2-R
100 E
150 E
200 E
1350 N
55°
1:1000
Fig. 4 Sheet 3
A/S SULFIDMALM
RUVVAČOKKA, Masi 1776.
2-R/1776
1350 N/80 E
Terranor a.s.
60° NE/30,4m
SCALE 1:200
DRAWN EK



KEY:

- o Overburden
- ^ Basic volcanics
- v Acid —"—
- ~ Mica schist
- – Greywacke
- \+ Qtz-vein
- Graphitic rock
- ■ Sulphides

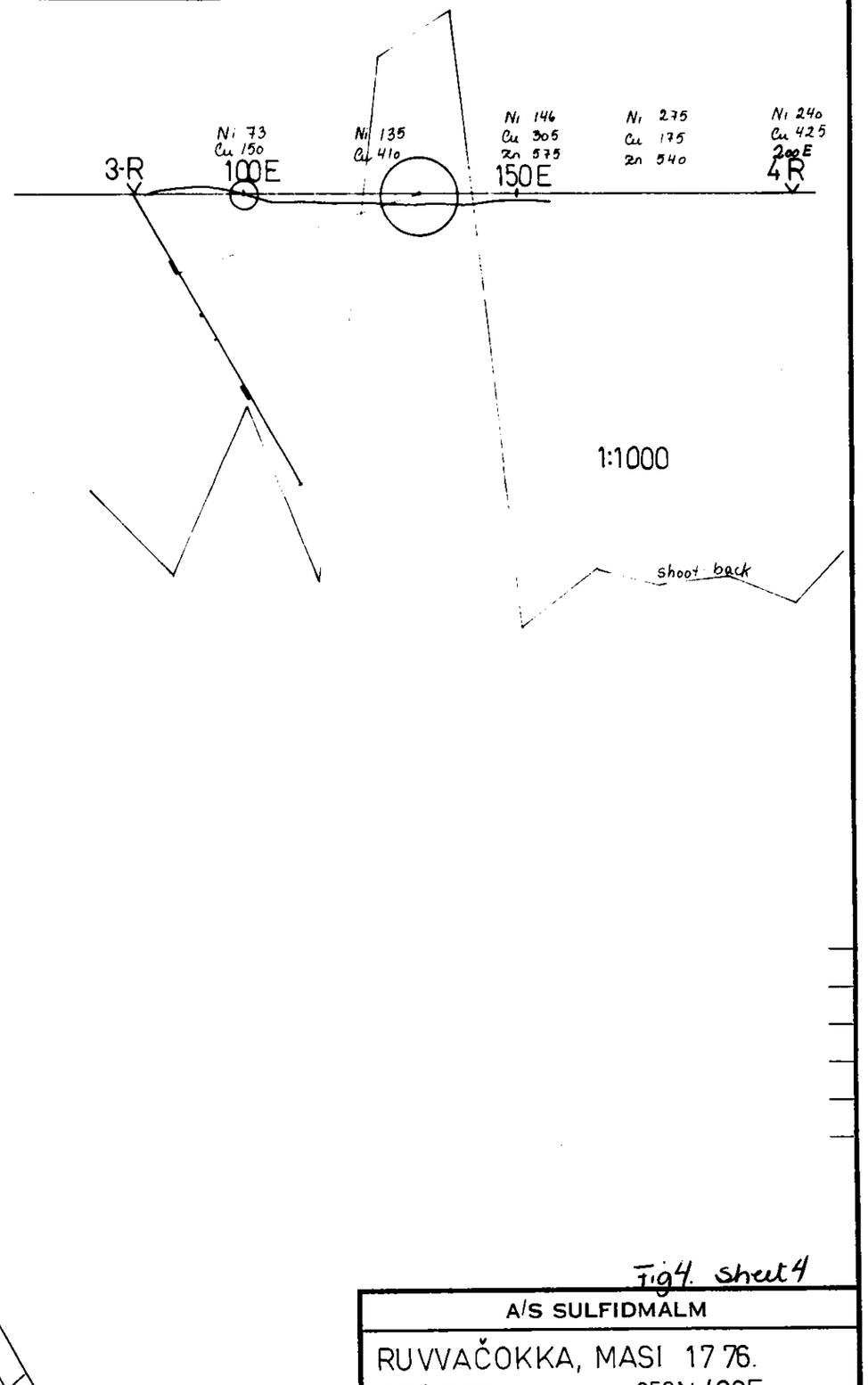


Fig 4. sheet 4

A/S SULFIDMALM	
RUVVAČOKKA, MASI 1776.	
3-R/1776	950N/80E 60°NE/60m
SCALE 1:200	DRAWN EK
DATE 10-76	TRACED BB

A.s Terrkopi. 1000. A 3. E 9 gl. 10-71. Sentrum Trykkeri.

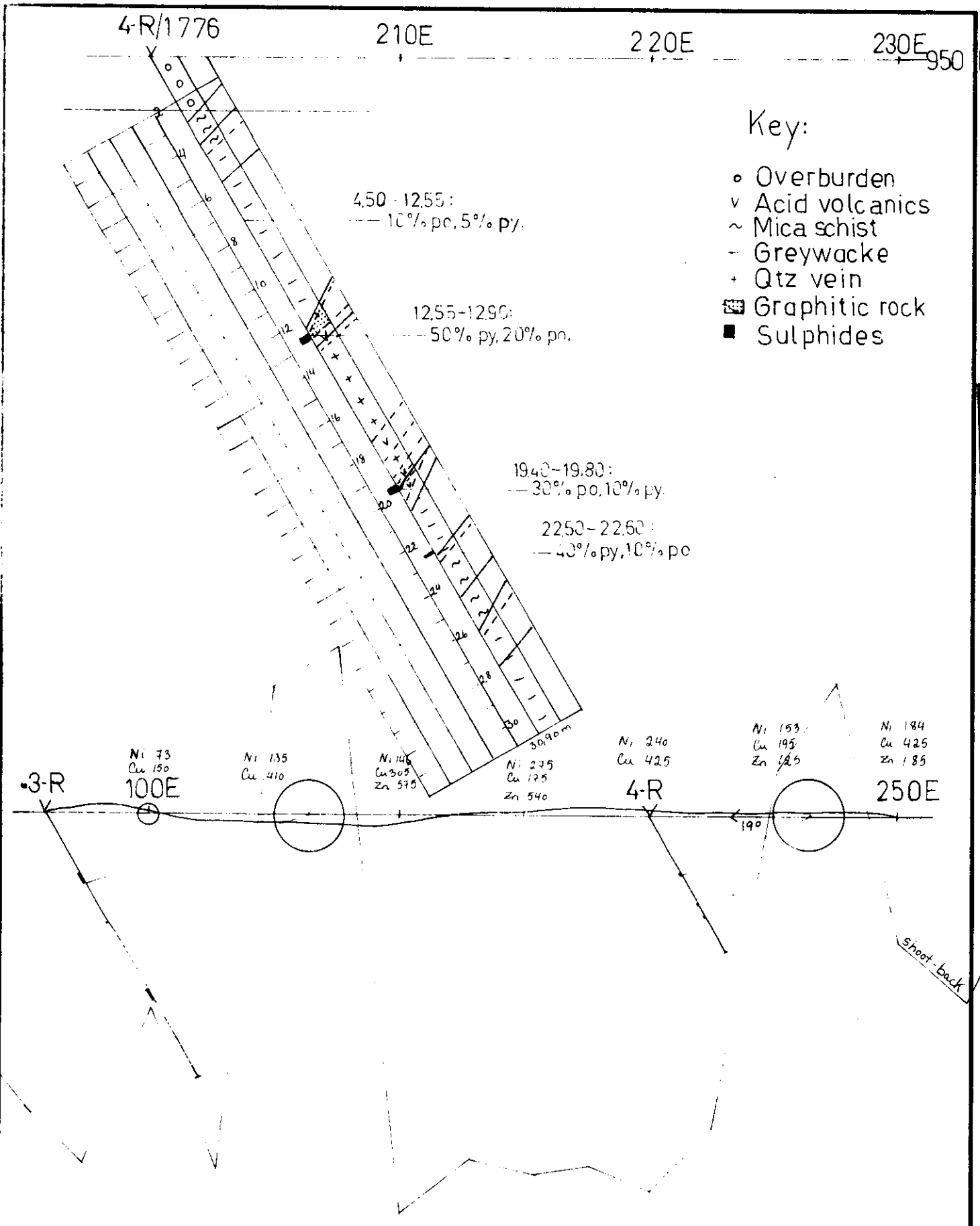


Fig 4. Sheet 5

A/S SULFIDMALM	
RUVVAČOKKA, Masi 1776.	
4-R/1776	950N/200E
Terranor a.s.	60°NE/30,9m
SCALE	DRAWN
DATE	TRACED

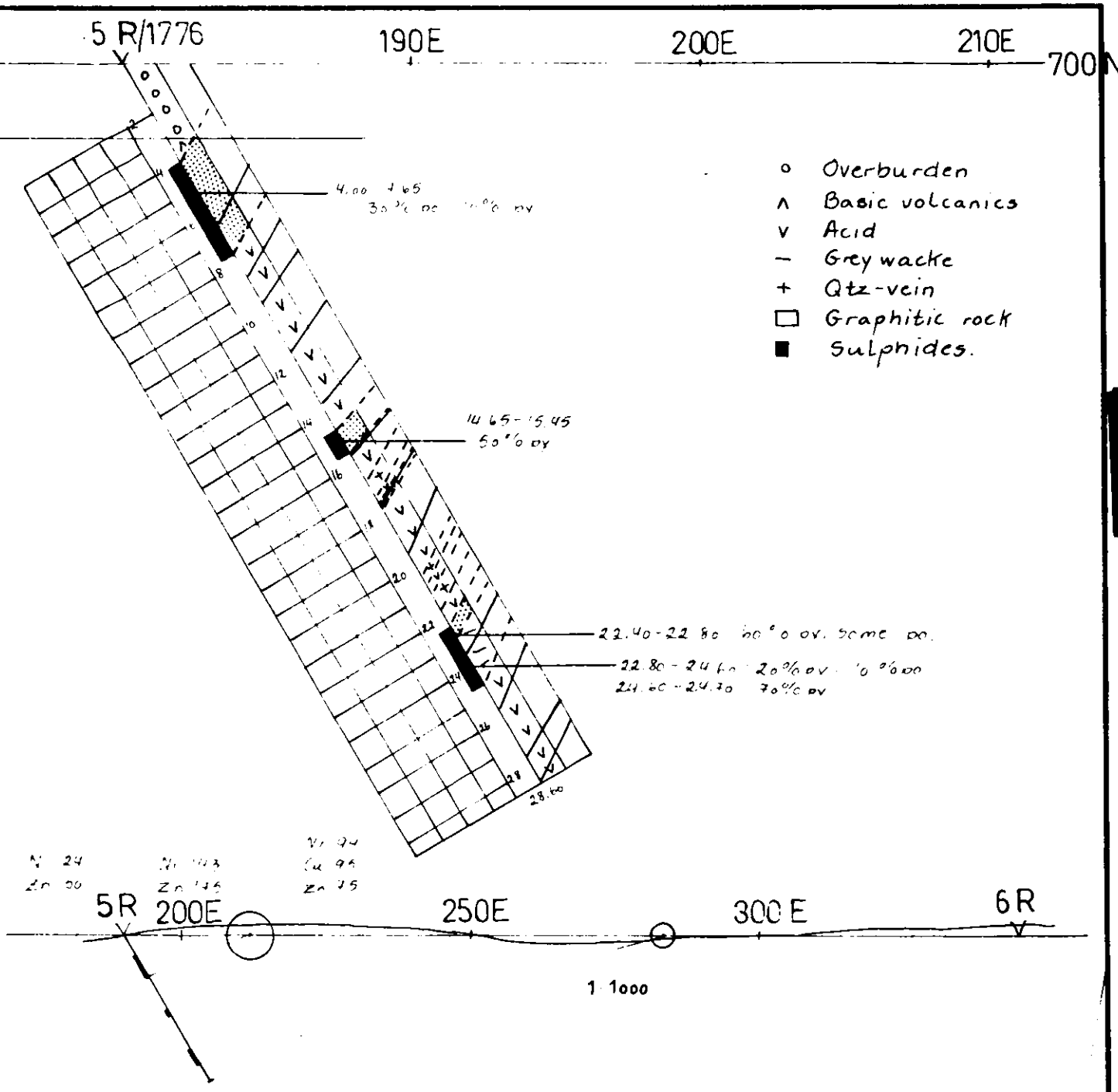
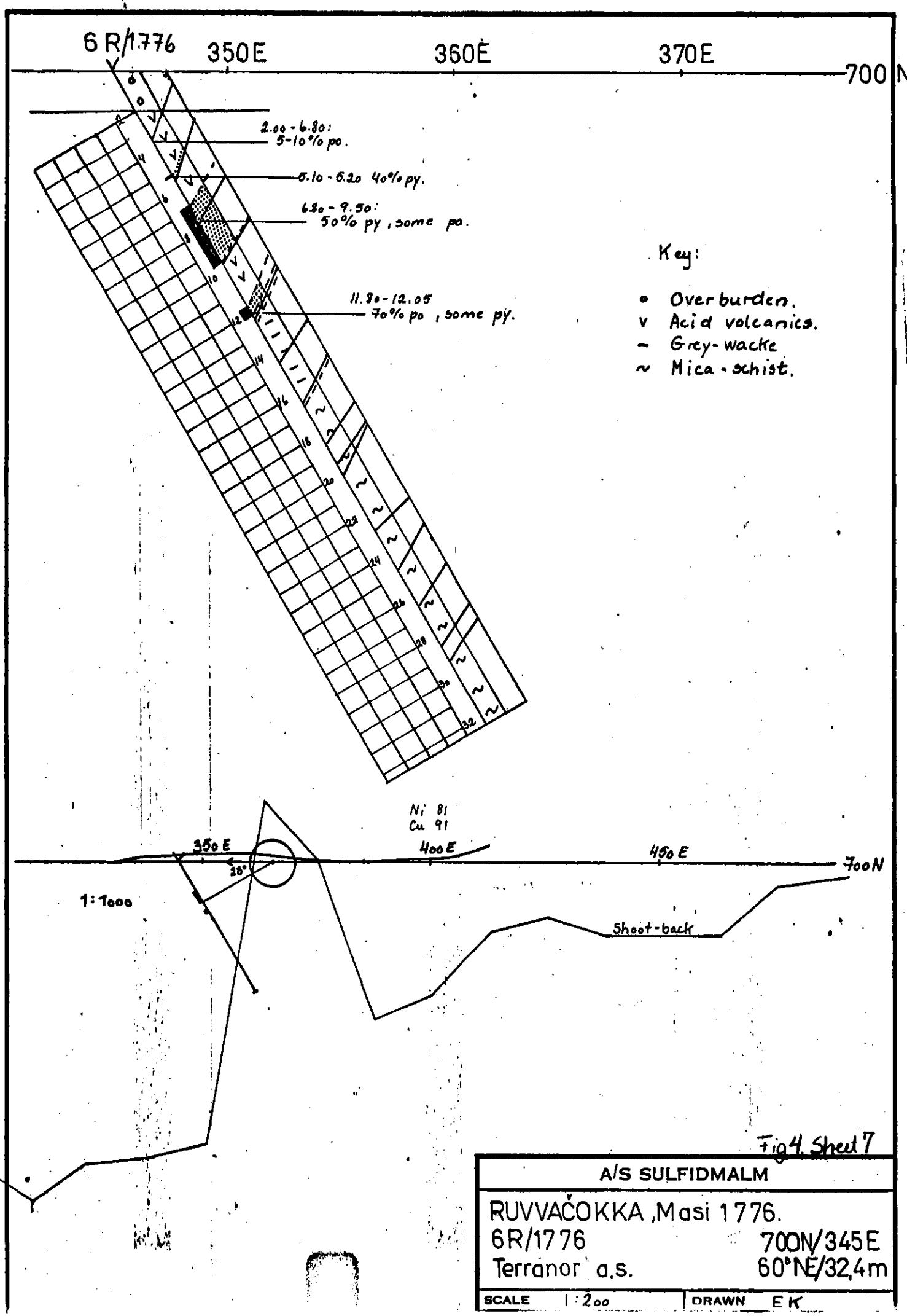


Fig 4. Sheet 6

A/S SULFIDMALM	
RUVVACOKKA, Masi 1776.	
5 R/1776	700N/180E
Terranor a.s.	60° NE/28,6 m
SCALE 1 : 200	DRAWN EK
DATE 10-76	TRACED BB


6 R/1776
350E
360E
370E
700 N
2.00 - 6.80:
5-10% po.
6.10 - 6.20 40% py.
6.80 - 9.50:
50% py, some po.
11.80 - 12.05
70% po, some py.
Key:
o Overburden.
v Acid volcanics.
– Grey-wacke
~ Mica-schist.
Ni 81
Cu 91
350 E
400 E
450 E
700N
28°
1:1000
Shoot-back
Fig 4. Sheet 7
A/S SULFIDMALM
RUVVAČOKKA, Masi 1776.
6R/1776
700N/345E
Terranor a.s.
60°NE/32,4m
SCALE 1:200
DRAWN EK

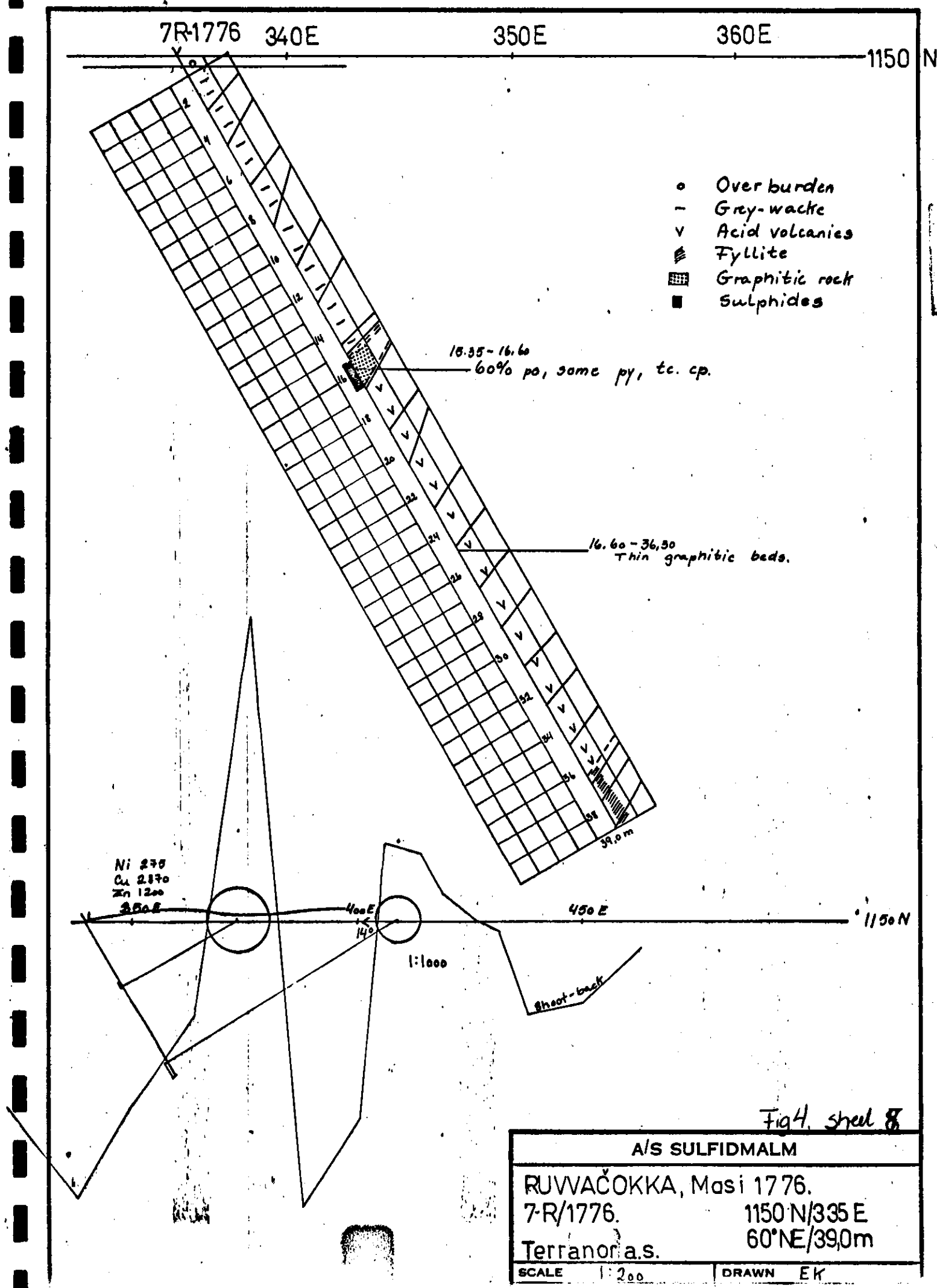


Fig 4. sheet 8

A/S SULFIDMALM	
RUVVAČOKKA, Masi 1776.	
7-R/1776.	1150 N/335 E
Terranor a.s.	60°NE/39,0m
SCALE 1:200	DRAWN EK

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 1-R SHEET NO: 1
LOGGED BY: E. Kreivi STARTED: 7/10 1976 PROPERTY Ruvvačokka
CASING: 0-5.00 FINISHED: 8/10 1976 1475N/10E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
0	1.70		Overburden
1.70	18.30		Greenschist
			- narrow carb- and qtz-veins
			- very broken down to 5.30
			- very chlorite-rich and schisted, the schistosity is mainly parallel to bedding
			17.80-18.30 mica-rich
			- sometimes some po-impregnation
18.30	19.10		Acid volcanics
			- some narrow, up to 2 mm thick veins of sphalerite and po-impregnation and some mica
		0.10m	18.50-18.60 Graphitic rock, brecciated by 70% po
19.10	19.95		Graphitic rock
		0.85m	- brecciated by 80-90% po, occasionally sh in narrow veins
			19.70-19.75 3 mm thick sh-vein
			- occasionally cp
19.95	29.40		Acid volcanics (chert)
			- 10% po-breccia
		0.15m	28.55-28.70 30-40% po
			28.35-29.40 very hard chert
29.40			End of hole
			B: 33°/ 3.20 33°/ 7.30 30°/ 9.30 25°/10.90 24°/13.90 36°/17.90 35°/25.30 25°/26.40 15°/19.40 55°/29.30
		1.10m	60-70% po, some sphalerite

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 2-R SHEET NO: 1
LOGGED BY: E. Kreivi STARTED: 9/10-76 PROPERTY Ruvvacokka
CASING: 0-3.30 FINISHED: 9/10-76 1350N/80E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
0	2.30		Overburden
2.30	22.80	20.50m	Graphitic rock
			- brecciated by albitic feldspar and 40% carbonate, 20-30% po and 10% py
			- po also as impregnation
			- some cp and occasionally sphalerite in thin carb- and Fel-veins
			- the rock is often folded
			11.00-11.40 90% Ab-Fel, some grains of sh
			- very fine grained
22.80	24.30		Greywacke, volcanic
			- 40% carb, 20% mica, 40% Fel, some chlorite
24.30	26.20		Acid volcanics (chert)
			24.30-24.80 some chlorite
26.20	30.40		Mica-schist
			- some chlorite and carbonate
			29.50-30.40 Chlorite-rich
			29.50-29.70 Folded
30.40			End of hole
			B: 40°/11.50 25°/13.50 19°/15.30 13°/17.50 17°/20.60 27°/23.60 23°/25.90 29°/27.30 36°/28.80 23°/29.80
		20.50m	30% po, traces of sphalerite

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 3-R SHEET NO: 1
LOGGED BY: E. Kreivi STARTED: 10/10 1976 PROPERTY Ruvvačokka
CASING: 0-3.00 FINISHED: 11/10 1976 950N/80E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
0	3.00		Overburden
3.00	11.90		Greenschist
			- some mica-rich beds
			10.30-11.00 Mica-rich
11.90	12.85		Mica-schist
			- some carbonate
12.85	13.30		Quartz-vein
13.30	15.75		Graphitic rock
			- brecciated by 50% po, 10% py, occasionally cp
			- some carb
			13.70-14.00 Qtz-vein
15.75	20.10		Acid volcanics
			- 10% po-breccia, some thin graphitic beds
20.10	21.35		Mica-schist
			- some po-impregnation
			- some carb and chlorite
21.35	23.40		Greywacke, volcanic
			- carbonate-rich, some graphite
			- 10% po
23.40	24.65		Acid volcanics
			- some po-, py-breccia
			- thin beds of graphite
24.65	24.90		Graphitic rock
			- 30% po-, 30% carb-breccia
24.90	25:20		Acid volcanics
			- some thin graphitic beds

A/s SOLFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 3-R SHEET NO: 1a

LOGGED BY: E. Kreivi STARTED: 10/10 1976 PROPERTY Ruvvačokka

CASING: 0-3.00 FINISHED: 11/10 1976 950N/80E

CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
0	3.00		Overburden
3.00	11.90		Greenschist
11.90	12.85		Mica-schist
12.85	13.30		Qtz-vein
13.30	15.75		Graphitic rock
		2.45m	-50% po, 10% py, occasionally cp
15.75	20.10		Acid volcanics
			-10% po, some graphite
20.10	21.35		Mica-schist
			- some po
21.35	23.40		Greywacke
			-10% po
23.40	24.65		Acid volcanics
			- some po, py, graph.
24.65	24.90		Graphitic rock
		0.25m	-30% po
24.90	25.20		Acid volcanics
			- some graph.
25.20	33.20		Greywacke
33.20	35.70		Acid volcanics
			-5% po

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 3-R SHEET NO: 1b
LOGGED BY: E. Kreivi STARTED: 10/10 1976 PROPERTY Ruvvačokka
CASING: 0-3.00 FINISHED: 11/10 1976 950N/80E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
35.70	36.05		Graphitic rock
		0.35m	-50% po, some py
36.05	39.30		Greywacke
			-5% po
39.30	39.55		Acid volcanics
			-10% po
39.55	40.05		Graphitic rock
		0.50m	-30% py, 30% po
40.05	43.80	2.45m	Greywacke - 40.05-42.50 30% py-, 10% po-breccia
43.80	53.30		Mica-schist
53.30	60.00		Greywacke
60.00			End of hole
		B:	25°/ 3.50 30°/ 5.50 35°/ 7.50 29°/ 9.60 21°/11.30 28°/12.70
			10°/15.95 18°/18.90 20°/19.80 20°/21.80 16°/23.95 12°/25.90
			23°/27.80 20°/29.80 22°/31.80 21°/33.80 21°/36.80 12°/37.90
			19°/39.30 22°/41.80 28°/43.80 23°/44.80 26°/48.90 46°/50.80
			40°/52.90 20°/54.90 17°/56.90 11°/58.90
		6.00m	40% po, 10% py, traces of cp

A/S SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 3-R SHEET NO: 2

LOGGED BY: E. Kreivi STARTED: 10/10 1976 PROPERTY Ruvvačokka

CASING: 0-3.00 FINISHED: 11/10 1976 950N/80E

CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
25.20	33.20		Greywacke, volcanic
			25.20-27.00 rich of carb, 5% po
			27.00-33.20 some carb-breccia, some chlorite and graphite
33.20	35.70		Acid volcanics
			- rich of carb, 5% po
35.70	36.05		Graphitic rock
			- brecciated by 50% po, some py
36.05	39.30		Greywacke, volcanic
			- carb-rich, some chlorite and mica
			- 5% po
39.30	39.55		Acid volcanics
			- 10% po
39.55	40.05		Graphitic rock
			- 30% py-, 30% po-breccia
40.05	43.80		Greywacke, volcanic
			- 40% carb-breccia
			40.05-42.50 30% py-, 10% po-breccia
			- some chlorite and mica
			43.40-43.55 some amphibole
43.80	53.30		Mica-schist
			45.60-45.80 Chert
			- some carb.
53.30	60.00		Greywacke, volcanic
			- carb-breccia, mica-rich
			59.50-60.00 graphite-bearing
60.00			End of hole

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 4-R SHEET NO: 1
LOGGED BY: E. Kreivi STARTED: 11/10 1976 PROPERTY Ruvvačokka
CASING: 0-3.30 FINISHED: 11/10 1976 950N/200E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
0	2.30		Overburden
2.30	4.50		Mica-schist
			- a little of po-impregnation
4.50	12.55		Greywacke, volcanic
			- very carb-rich
			- 10% py, 5% po
			4.50- 7.30 some graphite
			7.30-12.55 60% carb, 10% po, some py, tc. cp
12.55	12.90		Graphitic rock
			- brecciated by 50% py, 20% po
12.90	13.40		Acid volcanics
			- some carb-veins
13.40	17.70		Qtz-vein
			13.60-13.65
			14.30-14.60
			14.70-14.75
			15.50-15.55 Acid volcanics
			15.65-16.00
			16.10-16.15
			16.40-16.50
			17.45-17.55
17.70	18.50		Acid volcanics
			- some po-, py-breccia, some Qtz-veins
18.50	19.20		Qtz-vein
19.20	20.35		Acid volcanics
			19.40-19.45 graphitic beds
			19.60-19.65
			19.40-19.80 30% po, 10% py
			20.00-20.35 some Afb-crystals

A/s OUTOKUMPU

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 4-R SHEET NO: 1a

LOGGED BY: E. Kreivi STARTED: 11/10 1976 PROPERTY Ruvvačokka

CASING: 0-3.30 FINISHED: 11/10 1976 950N/200E

CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
0	2.30		Overburden
2.30	4.50		Mica-schist
			- po-impregnation
4.50	12.55		Greywacke
			- 10% py, 5-10% po
12.55	12.90		Graphitic rock
		0.35m	- brecciated by 50% py, 20% po
12.90	13.40		Acid volcanics
13.40	17.70		Qtz-vein
17.70	18.50		Acid volcanics
			- some po-, py-breccia
18.50	19.20		Qtz-vein
19.20	20.35		Acid volcanics
		0.40m	19.40-19.80 30% po, 10% py
20.35	23.00		Greywacke
			- 5% py, po
23.00	26.30		Mica-schist
26.30	30.90		Greywacke
			- some po- py-impregnation
30.90			End of hole
		0.75m	30% po, 30% py

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 4-R SHEET NO: 2
LOGGED BY: E. Kreivi STARTED: 11/10 1976 PROPERTY Ruvvačokka
CASING: 0-3.30 FINISHED: 11/10 1976 950N/200E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
20.35	23.00		Greywacke, volcanic
			20.35-20.90 Afb-bearing
			- graphite-bearing
			- 5% py, po
			20.90-21.30 40% carb
			22.50-22.60 40% py, 10% po
			22.60-23.00 40% carb
23.00	26.30		Mica-schist
26.30	30.90		Greywacke, volcanic
			- some po-, py-impregnation
30.90			End of hole
			Core-angles
			B: 17°/ 3.00 16°/ 4.00 12°/ 5.70 33°/12.30
			14°/13.10 22°/19.70 35°/20.80 21°/22.80
			22°/24.70 31°/26.10 20°/27.80

A/s SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 5-R SHEET NO: 1
LOGGED BY: E. Kreivi STARTED: 12/10 1976 PROPERTY Ruvvačokka
CASING: 0-5.00 FINISHED: 12/10 1976 700N/180E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description	
0	3.00		Overburden	
3.00	4.00		Greenschist	
			- very broken	
4.00	7.65		Graphitic rock	
		3.65m	- brecciated by 30% po, 10% py and some carb	
7.65	14.65		Acid volcanics	
			- some py-impregnation (5% py)	
			- some thin graphitic beds	
			- some mica	
14.65	15.45		Graphitic rock	
		0.80m	-50% py mainly parallel to bedding	
15.45	22.40		Acid volcanics	
			- graphite-bearing	
			- some py	
			16.55-17.20 Qtz-vein	
			17.40-17.60 "	
			20.40-20.65 "	
			21.05-21.70 "	
22.40	22.80		Graphitic rock	
		0.40m	- brecciated by 60% py, some po	
22.80	24.70		Greywacke, volcanic	
		1.90m	- 20% py, 10% po	
			- amphibole-crystals and some graphite	
			- 30% carb	
			24.60-24.70 70% py	
24.70	28.60		Acid volcanics	B: 32°/ 6.50 30°/ 8.60 25°/ 9.50 24°/11.50 19°/13.60 19°/15.60
28.60			End of hole	29°/17.70 36°/19.60 33°/23.50 37°/25.80 30°/27.70 35°/28.60
		6.75m	20% po, 30% py	

A/S SULFIDMALM

DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 6-R SHEET NO: 1
LOGGED BY: E. Kreivi STARTED: 13/10 1976 PROPERTY Ruvvačokka
CASING: 0-3.00 FINISHED: 13/10 1976 700N/345E
CORE SIZE: TT 46 TESTS (CORRECTED):

From	To		Description
0	2.00		Overburden
2.00	6.80		Acid volcanics
			- 5-10% po-impregnation
			- some carb and mica
		0.10m	5.10-5.20 Graphitic rock
			-40% py
			5.90-6.40 Chlorite-rich, mica-bearing
6.80	9.50		Graphitic rock
		2.70m	- brecciated by 50% py and some po
9.50	11.80		Acid volcanics
11.80	12.05		Graphitic rock
		0.25m	- 70% po-breccia, some cp
12.05	12.35		Acid volcanics
12.35	16.65		Greywacke, volcanic
			- carb-rich, mica-bearing, some Afb-crystals
16.65	32.40		Mica-schist
			B: 40°/ 3.40 43°/ 5.40 30°/ 7.40 27°/ 9.60 36°/12.40
			27°/14.40 32°/16.40 25°/18.50 26°/19.40 33°/20.10
			13°/22.80 31°/24.90 28°/26.60 26°/28.60 26°/29.20
32.40			End of hole
		3.05m	40% py, 10% po, traces of cp

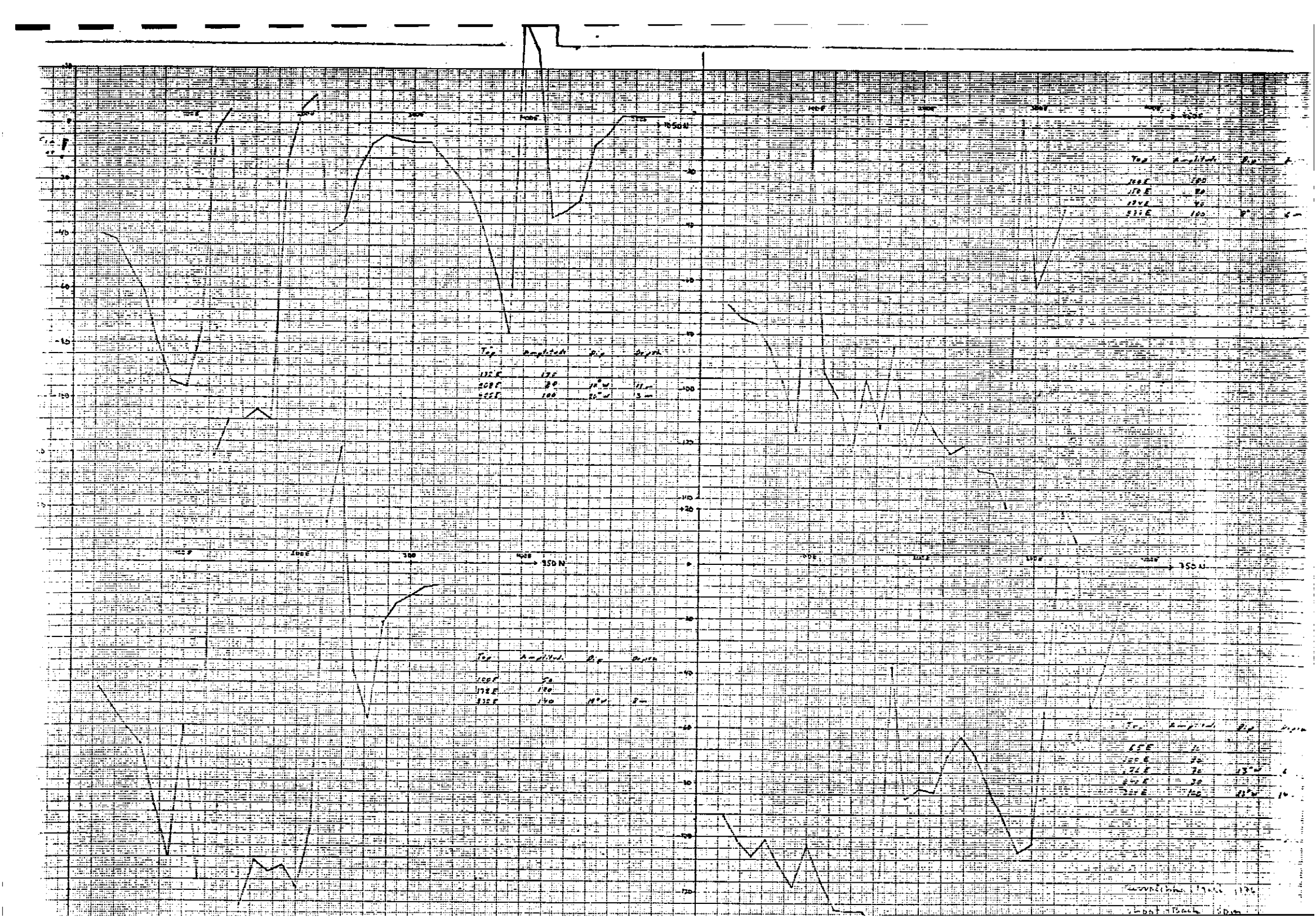
[illegible] OUTOKUMPU

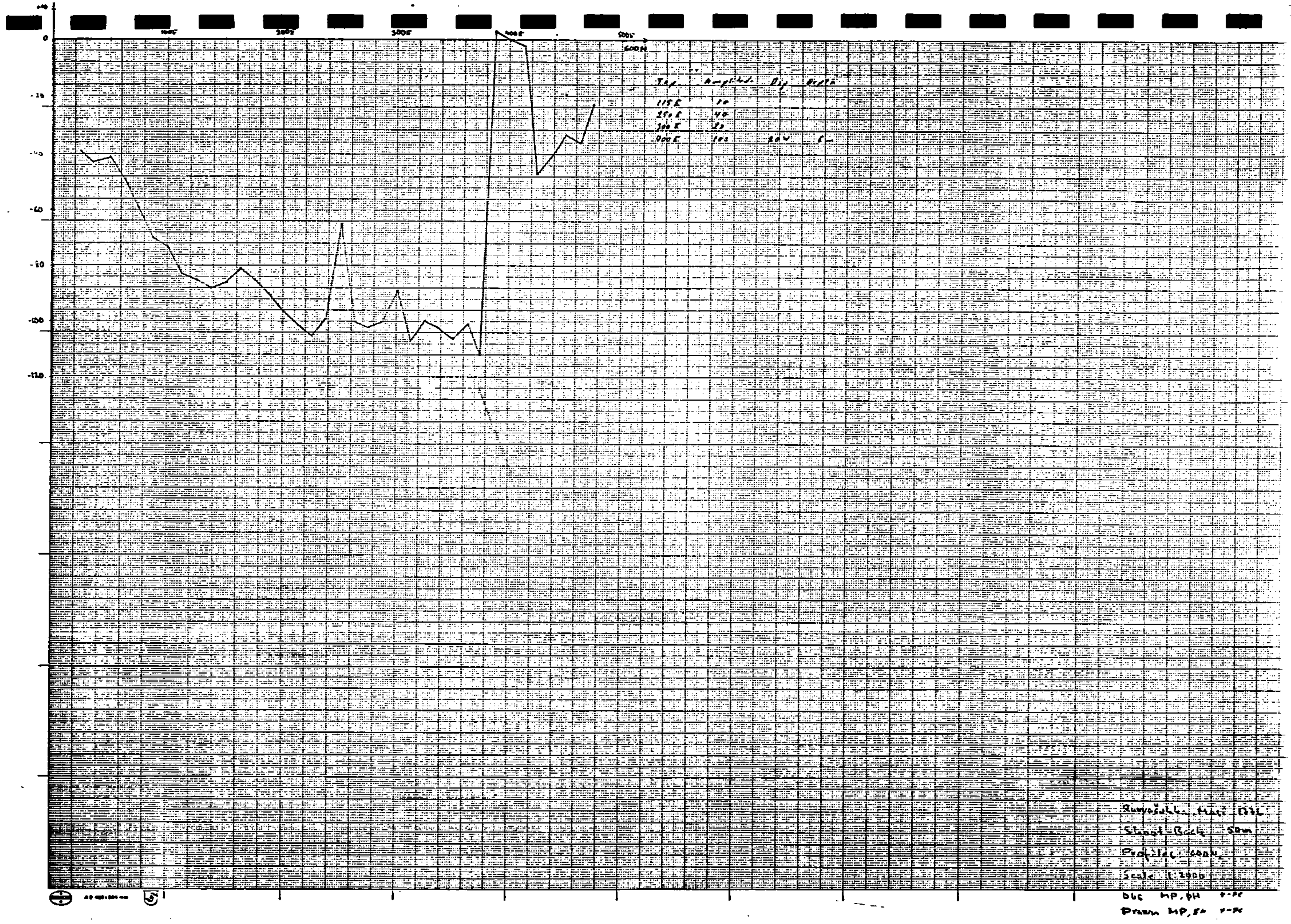
DIAMOND DRILL RECORD

LOCATION: Masi 1776 BEARING: NE DIP: 60° HOLE NO: 7-R SHEET NO: 1
LOGGED BY: E. Kreivi STARTED: 14/10 1976 PROPERTY Ruvvačokka
CASING: 0-2.40 FINISHED: 15/10 1976 1150N/335E
CORE SIZE: TT 46 TESTS (CORRECTED):

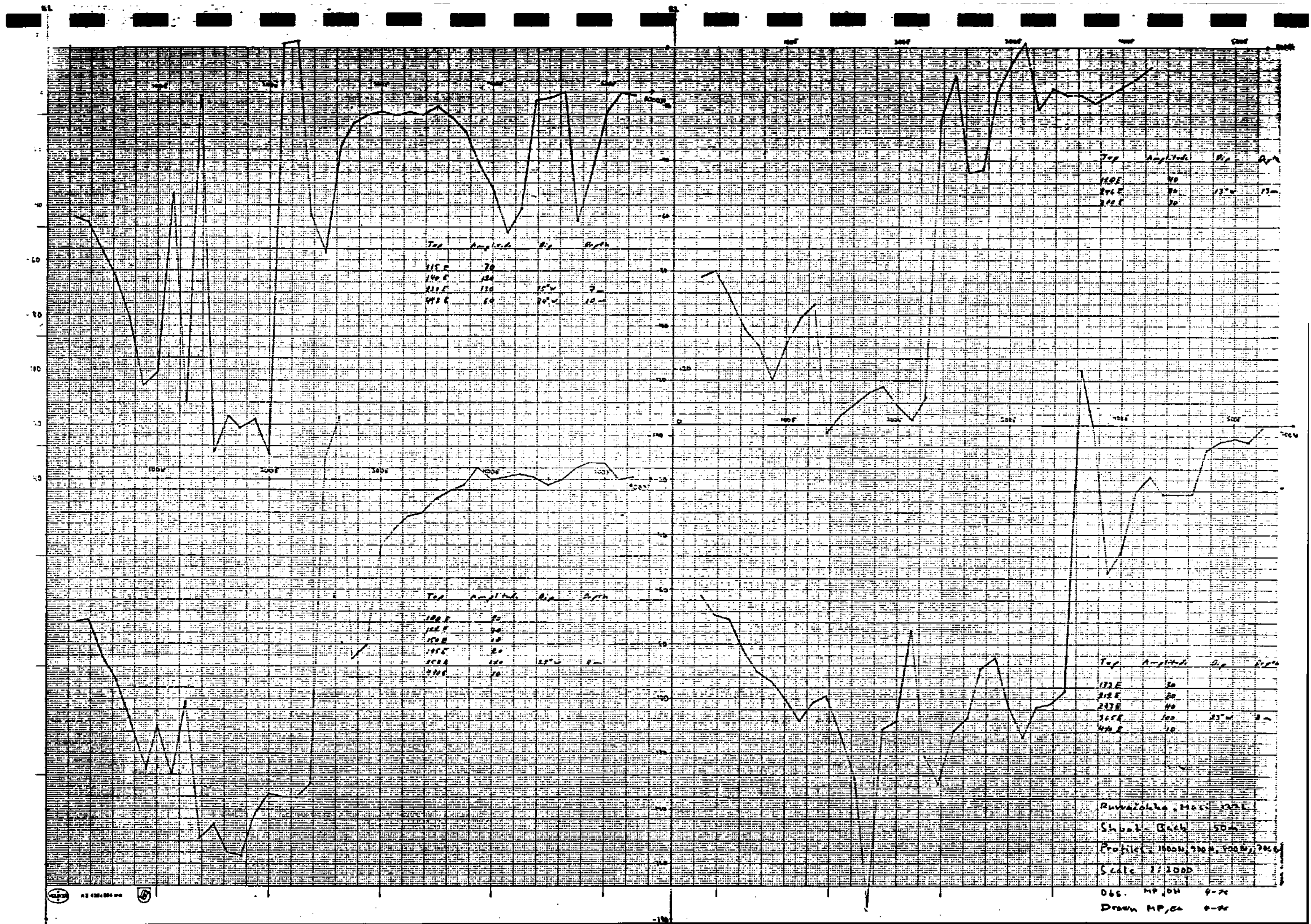
From	To		Description
0	0.50		Overburden
0.50	15.05		Greywacke, volcanic
			0.50-1.80 Chlorite-rich
			- carb-rich, some Afb-crystals
			- sometimes a little of graph.
			- 5% po
			- mica-bearing
			- some thin beds of acid volcanics
			9.30-10.00 5-10% Afb
15.05	15.35		Acid volcanics
15.35	16.60		Graphitic rock
		1.25m	- impregnated and brecciated by 60% po,
			some py and traces of cp
16.60	36.30		Acid volcanics (cherty beds)
			- thin graphitic beds
			- some po-impregnation
			27.90-27.95 Garnet-rich bed, 90% red garnets
			- very hard to drill
			35.30-36.30 Mica-rich
			36.05-36.30 Afb-crystals
36.30	39.00		Fyllitic rock
			- a little of po
39.00			End of hole
			B: 20°/ 2.80 30°/ 4.60 23°/ 6.60 43°/ 8.60 33°/10.70
			30°/12.40 12°/14.60 16°/15.10 30°/16.80 24°/18.90
			40°/20.50 26°/22.80 23°/24.80 22°/26.90 22°/28.80
			17°/30.80 20°/32.80 24°/34.90 26°/36.80 27°/37.70
			30°/38.90
		1.25m	60% po, some py, traces of cp

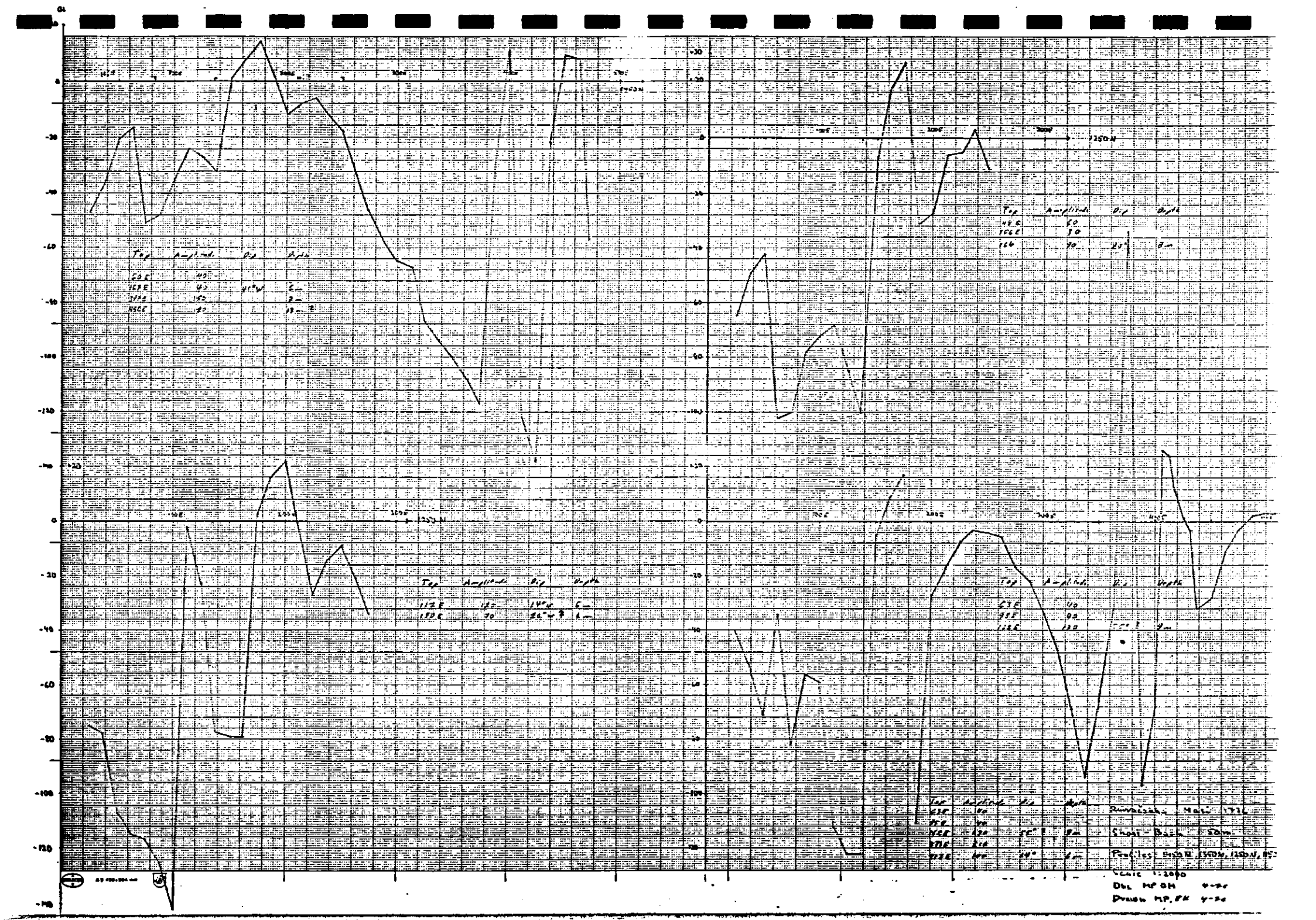
GEOPHYSICS





600N
115E 10
250E 40
300E 20
Shoot-Back 50m
Scale 1:2000


Shaft - Bach 50m
Scale 1:2000
Top
Amplitude
Dip
Depth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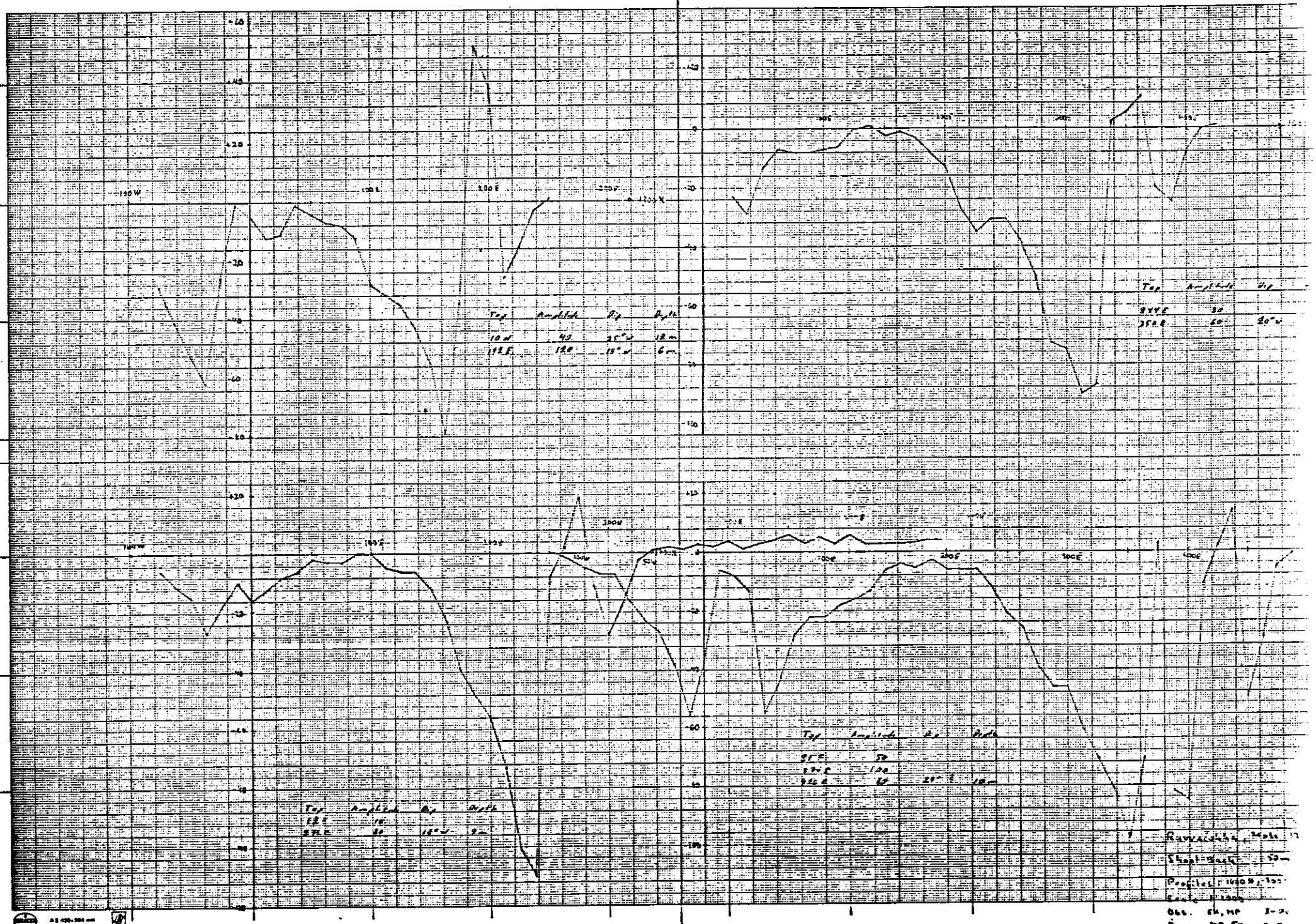
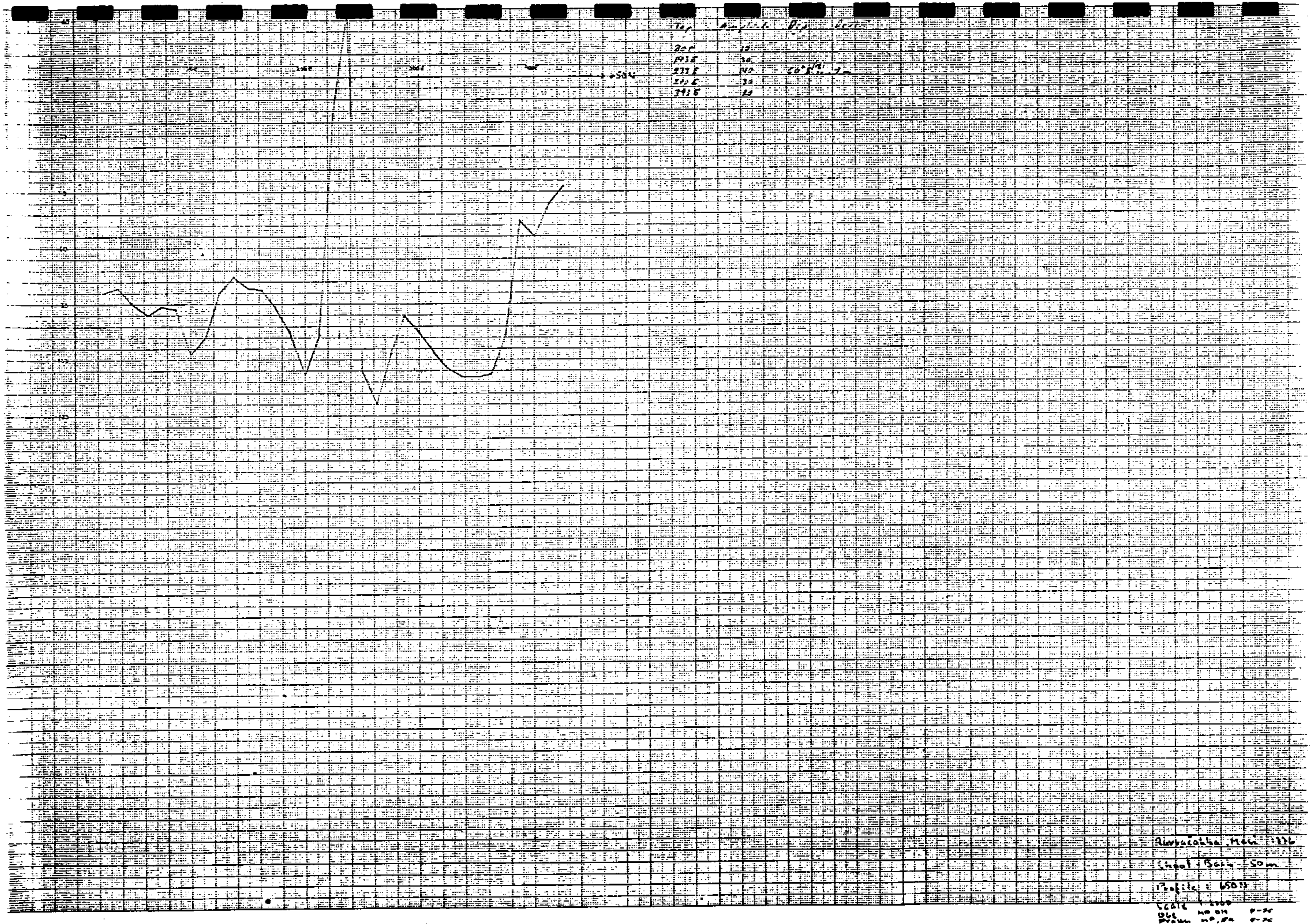
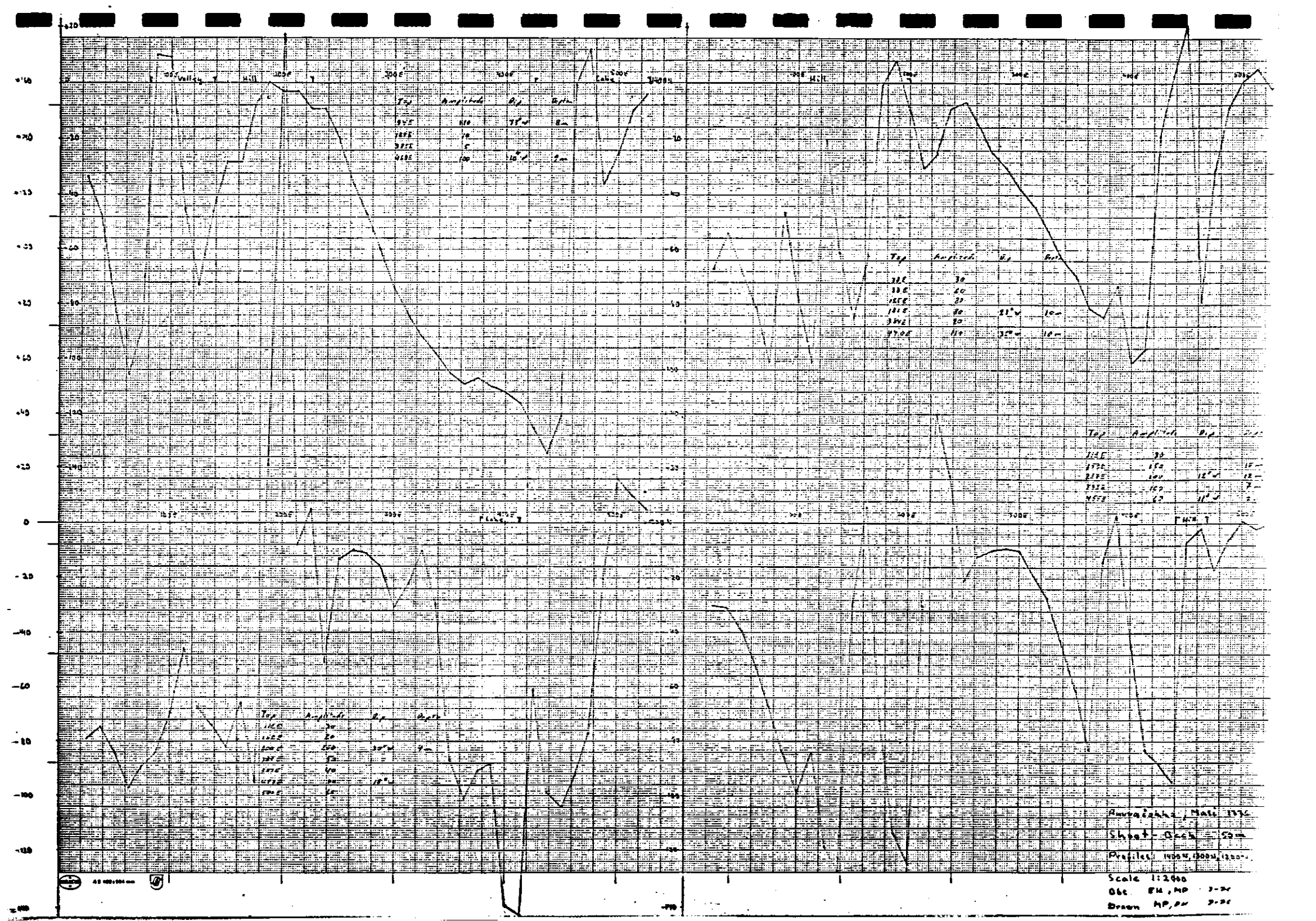
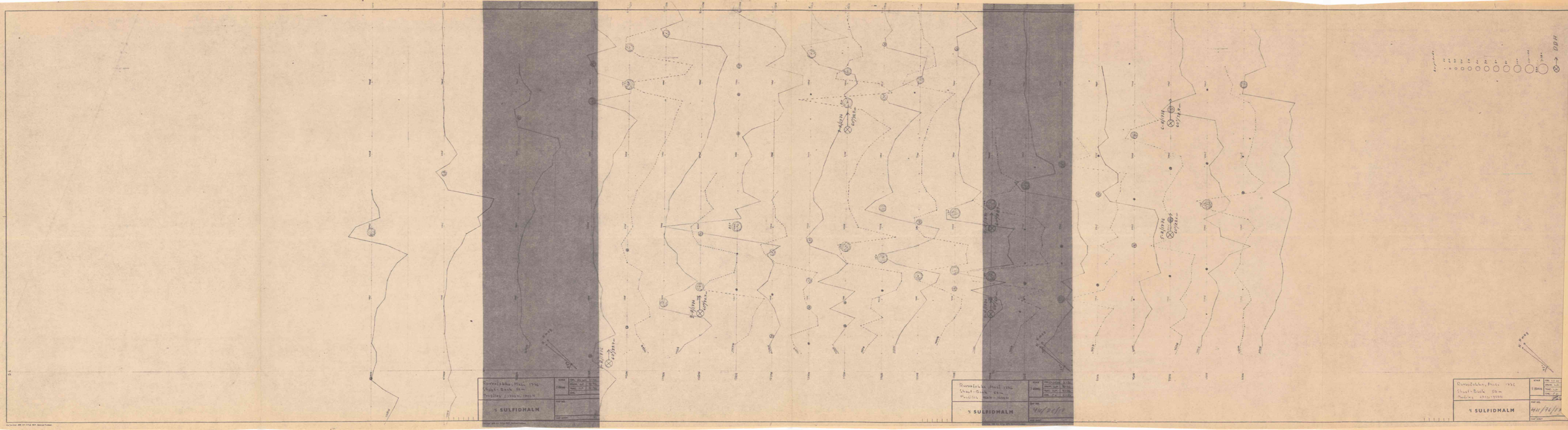
Datum MP GH 4-24
Drawn MP, FK 4-24





Sheet : Base : 50m
Profile : 650


Scale 1:2000
Obs RH, MP 7-21
Drawn MP, RH 7-21



RUVVAJOKKA Maj. 1976 Profile block 60m Profiles 900N Tjock sheet

100 W 100 E 200 E 300 E 400 E 500 E

1800 N 460 600 560 750 1380 410 1120 630 740 620 220 1120 760 310 480 680 760 730 730 700 750 740 750

1700 N 260 360 330 400 600 530 280 1520 70 280 240 170 -490 1530 570 310 1160 320 330 380 490 510 480

1600 N 920 530 920 590 600 640 550 710 960 660 860 1340 280 600 1170 200 230 260 420

1500 N 580 -550 400 20 600 930 100 -470 690 670 510 870 480 260 510 500 610 600 90

1400 N 870 580 660 130 130 100 950 120 330 450 530 590 820 430 610 930 290 -120 450 170 160

1300 N 700 880 810 -510 740 1000 740 20 170 490 170 340 550 760 640 1050 1100 650 140 720 680 320 300

1200 N 620 1000 490 1070 880 690 250 710 -1925 220 320 460 900

1100 N 780 790 650 380 480 120 400 670 770 230 1000 20 200 370 590 610 500 730 300 280 630 150 170

1000 N 490 760 880 910 1250 270 560 10 480 -600 250 770 450

900 N 480 490 970 520 620 260 670 80 580 330 460 410 100 610 180 440 -80 60 580 -50 120

800 N 520 500 460 690 860 640 340 1075 470 -3100 240

700 N 640 660 1860 670 730 940 480 720 300 570 -1470 230 570 4800 1020 1300 580 170 440 160 110 340 350 540 390

600 N 470 420 640 610 750 670 550 610 330 30 190 200 190

BL 530 640 710 -40 900 1100 950 480 -570 750 360 240 210 200 180 200 630 -1100 -5100 19000 23000 480 370

680 400 -300 390 560 40 450 2400 420 280 580 520 670 400 520 510 380 370 330 340 580 780

630 850 840 680 -640 210 590 220 430 660 610 410 530 480 520 600 360

650 530 540 500 570 520 550 580 750 410 230 230 590 500 550 360 290 480 560 320

540 1090 590 370 550 470 620 390 570 250 590 720 850 580 180 420 440

460 520 630 550 830 1800 610 410 60 270 630 660 530 850 980 90 410 530

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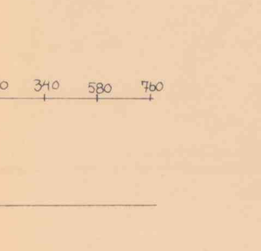
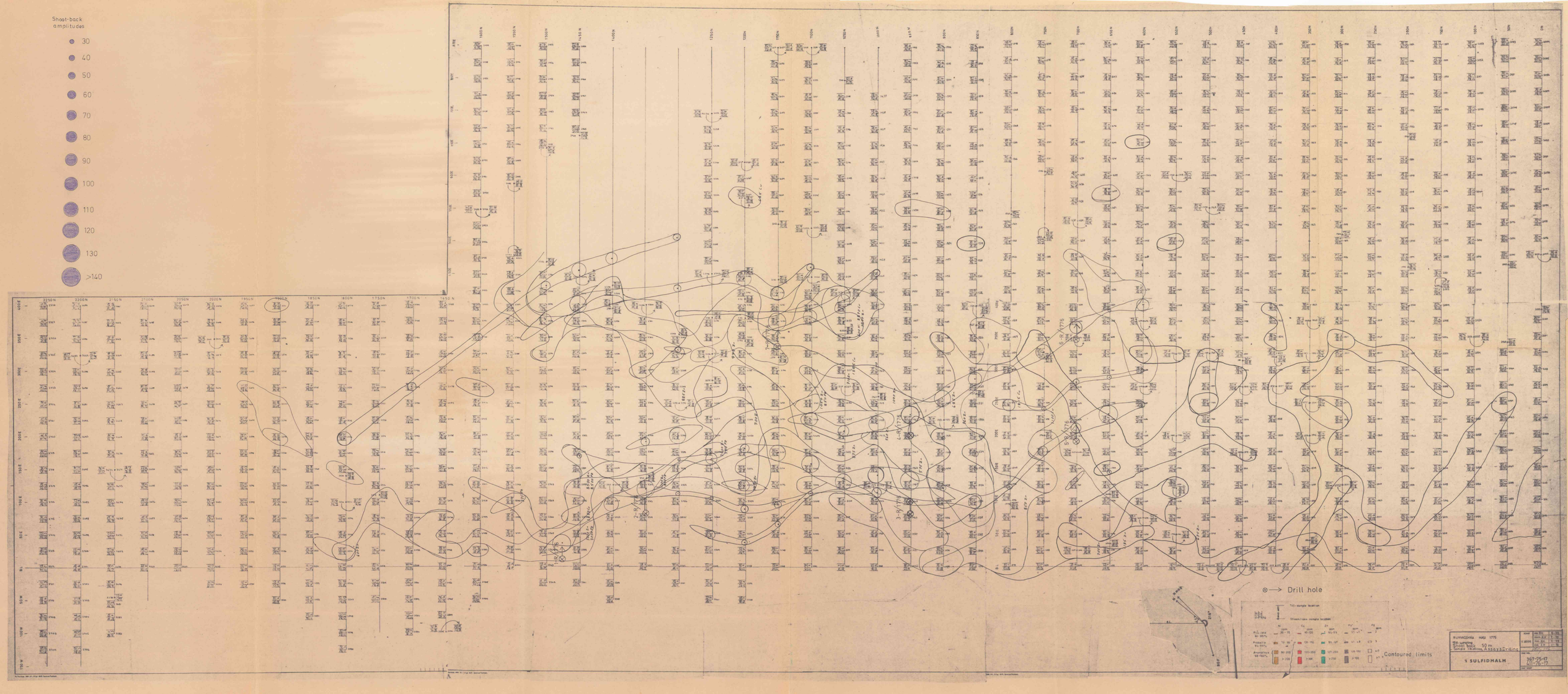


Ruvvačokka, Masi Magnetic data Mc Phar 700	SCALE 1: 2000	OBS. R.B.	3 – 76
		DRAW. O.H.	3 – 76
		TRAC. K.A.	2 – 77
		CHK.	
⅛ SULFIDMALM	MAP NO. 411/76/17		

RUVVAČOKKA, Masi Magnetic data McPhar 700 Fig2. sheet2.

GEOCHEMISTRY



Duvnäsheia MSi 1775 Till sampling Shoot back 50m Sample locations Assays Drilling