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Sammendrag / innholdsfortegnelse The Gallujavri ultrabasic body is known to contain disseminated mineralization with chalcopyrite, pentlandite, pyrrhotite and pyrite. Turam measurements in the spring 1982 reveal the presence of two EM-anomalies trending across the long axis of the ultrabasic meta-intrusive. Diamond drilling was carried out on these anomalies from two drillsites by the lake Gallujavri. The drilling did not show the presence of any economic mineralizations. A crush-zone with clay and pyrrhotite-impregnated zones are the probable causes of the EM-anomalies.				

BV 4244



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INTERN RAPPORT.

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RAPPORT VEDRØRENDE:

DIAMOND DRILLING AT TARGET AREA 6 (GALLUJAVRI),
KARASJOK.

RESYMÉ:

The Gallujavri ultrabasic body is known to contain disseminated mineralizations with chalcopyrite, pentlandite, pyrrhotite and pyrite.

Turam measurements in the spring 1982 revealed the presence of two EM-anomalies trending across the long axis of the ultrabasic meta-intrusive. Diamond drilling was carried out on these anomalies from two drill-sites by the lake Gallujavri. The drilling did not show the presence of any economic mineralizations. A crush-zone with clay and pyrrhotite-impregnated zones are the probable causes of the EM-anomalies.

FORDELING

OSLO:

<input type="checkbox"/>	PK
<input type="checkbox"/>	Røsholt
<input type="checkbox"/>	Henriksen
<input type="checkbox"/>	

KIRKENES:

<input type="checkbox"/>

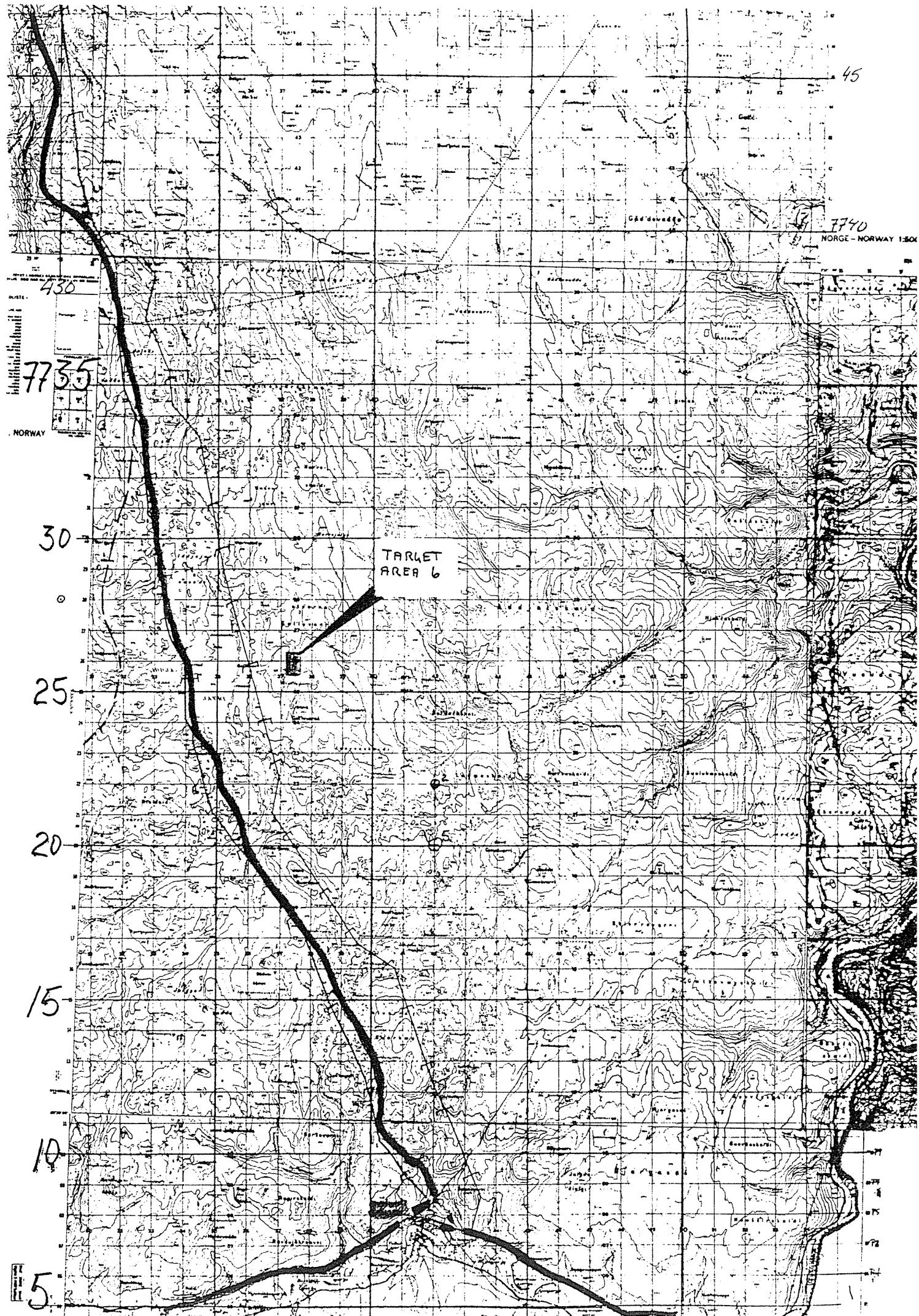
ANDRE:

<input type="checkbox"/>	Bergmester
<input type="checkbox"/>	Union Minerals
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KOMMENTAR:

C O N T E N T S

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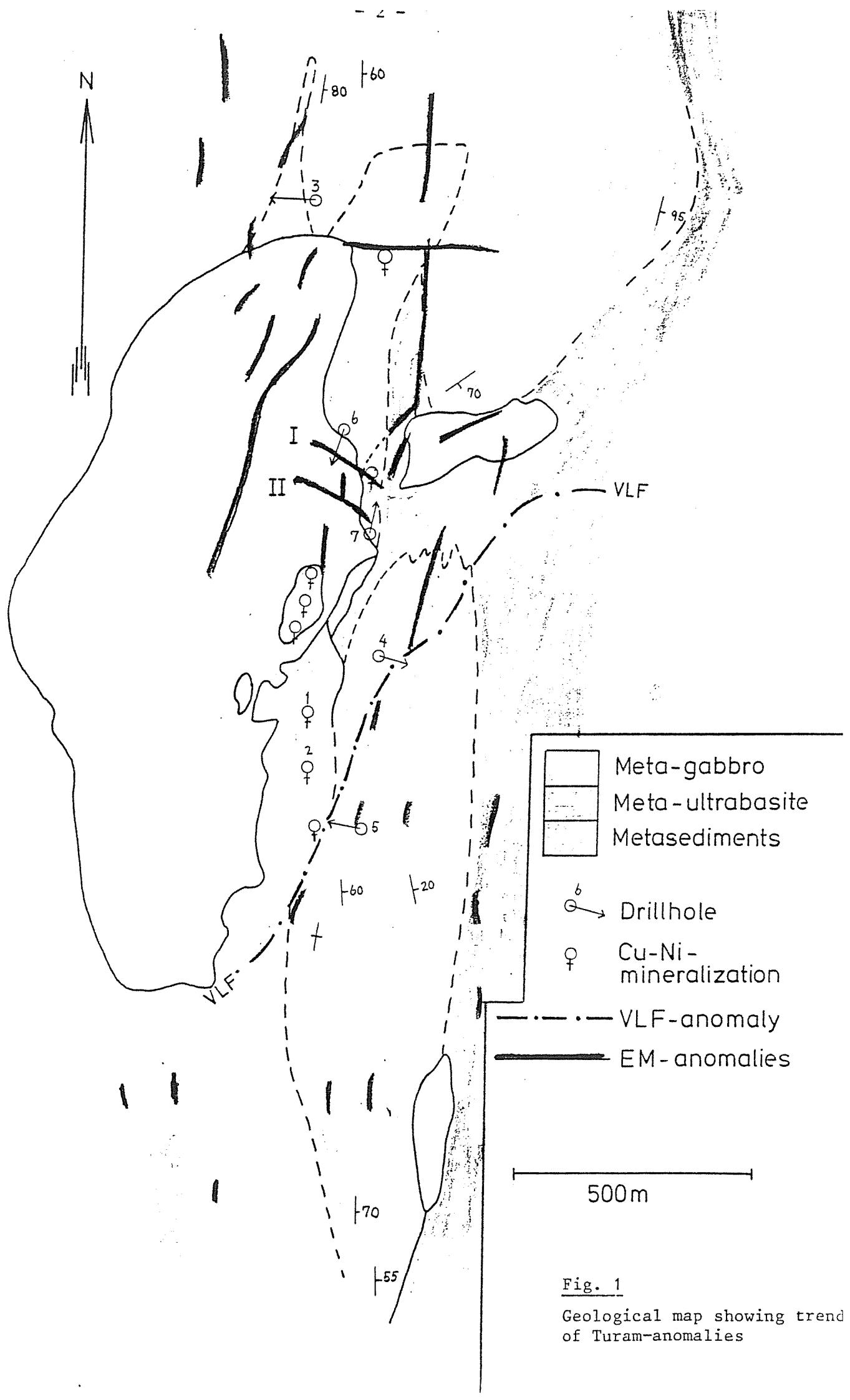


Fig. 1

Geological map showing trend of Turam-anomalies

GENERAL GEOLOGY/EARLIER WORKS.

The general geology of the Gallujavri area is shown on Fig. 1. The Gallujavri ultrabasic body is known to contain disseminated mineralizations with chalcopyrite, pentlandite, pyrrhotite and pyrite - and diamond drilling has been carried out at several sites in 1978 and 1979. The results of earlier works have been presented in reports no. 1071 (Røsholt), no. 1090 (Grammeltvedt, Hagen & Røsholt) and no. 1057 (Logn).

All drillholes and known outcropping mineralizations in the area are shown on Fig. 1.

DIAMOND DRILLING 1982.

Turam measurements were carried out by the Norwegian Geological Survey during the spring 1982. The simplified EM-anomlay map (Fig. 1) shows the presence of two anomaly-trends. The most common trend is parallel to the regional strike-direction, and coincides frequently with geological boundaries. The other trend is east-west, across the long axis of the ultrabasic body. There are three anomalies with this trend (Fig. 1), the two anomalies (I & II) extending on land by the eastern shore of Gallujavri being the strongest.

Surface observations near the anomaly-areas showed the ultrabasic rock to be rather homogeneous. At one place (372/261.5), layering was seen with an orientation of 100/80N. The layering was indicated by alternating rusty- and less rusty layers of 10-30 cm thickness, probably reflecting variable amounts of olivine and/or pyrrhotite within the individual layers.

There was also observed a pronounced, widely spaced, fracture cleavage in the ultrabasic rock. It had a mean orientation of N150-160 with an easterly dip of 45-60°; which coincides fairly well with the orientation of the regional tectonic foliation in the adjacent country rocks.

Vertical joints, orientated approximately east-west are also common. Some of these have smooth surfaces with slickensides, which indicate vertical movements along the joint surfaces.

A mineralized outcrop was found near the northermost Turam-anomaly (I). The specimen was an ultrabasic rock mineralized with pyrrhotite, chalcopyrite and pentlandite. The mineralization occurred along the contact with quartzitic meta sediments striking N160E and dipping 60° towards the east. Analyses of the mineralized rock gave Cu and Ni contents of 0.23 and 0.19 % respectively.

The surface observations thus suggest the presence of :

- a) N-S trending structures (fracture cleavage, foliation, mineralized zone).
- b) E-W trending structures (layering, joints (faults)).

The east-west trending Turam anomalies could thus either reflect the orientation of a primary feature (layering), an offshot ore, or a tectonic feature (fault).

Drillhole 7.

It was suggested by N.G.U. that the strongest EM-anomaly (I) was caused by a conducting zone dipping 50-70° towards the south.

It was consequently decided to drill towards the indicated conductor from a position to the south of the anomaly (25.860, 37.300).

The drillhole was started in quartzitic metasediments (Fig. 2) and drilled with an inclination of 45° towards NE (030°). The drillhole showed a section through quartzitic metasediments (0-87.25 m), a fine to medium grained gabbroic rock (87.25-107.25), metasediments (107.25-141.3) and ultrabasic rocks (141.3-160). The drillhole was stopped at 160 m. The only possible conductive zone encountered was a crush-zone with clay between 63.9 and 64.5 m.

The quartz-rich metasediments had a weak pyrite dissemination (3-7 %) between 57.85 and 58.1 m. Weak disseminations of pyrite and some chalcopyrite were also observed in the gabbroic rocks. The ultrabasic rock had a weak impregnation with pyrrhotite, pentlandite and some chalcopyrite near the contact with the quartzitic metasediment (141.5-143 m). This impregnation was of the same type as the outcropping mineralization described near the northernmost Turam anomaly. Analyses from the impregnated zone are shown in Table 1 a.

Drillhole 6.

As drillhole 7 gave no clear answer to the reason for the Turam anomaly; it was decided to drill towards the indicated conductor from the north.

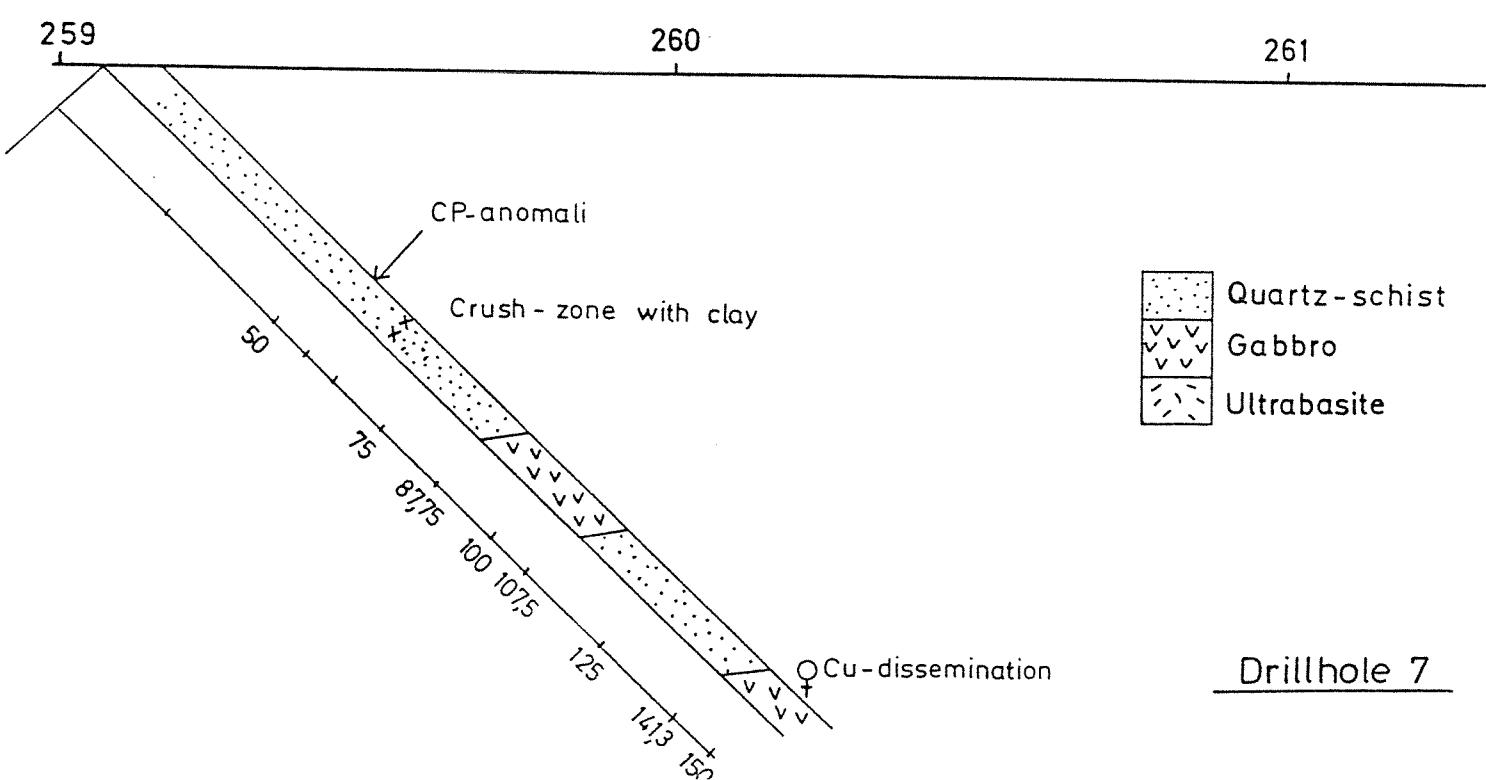
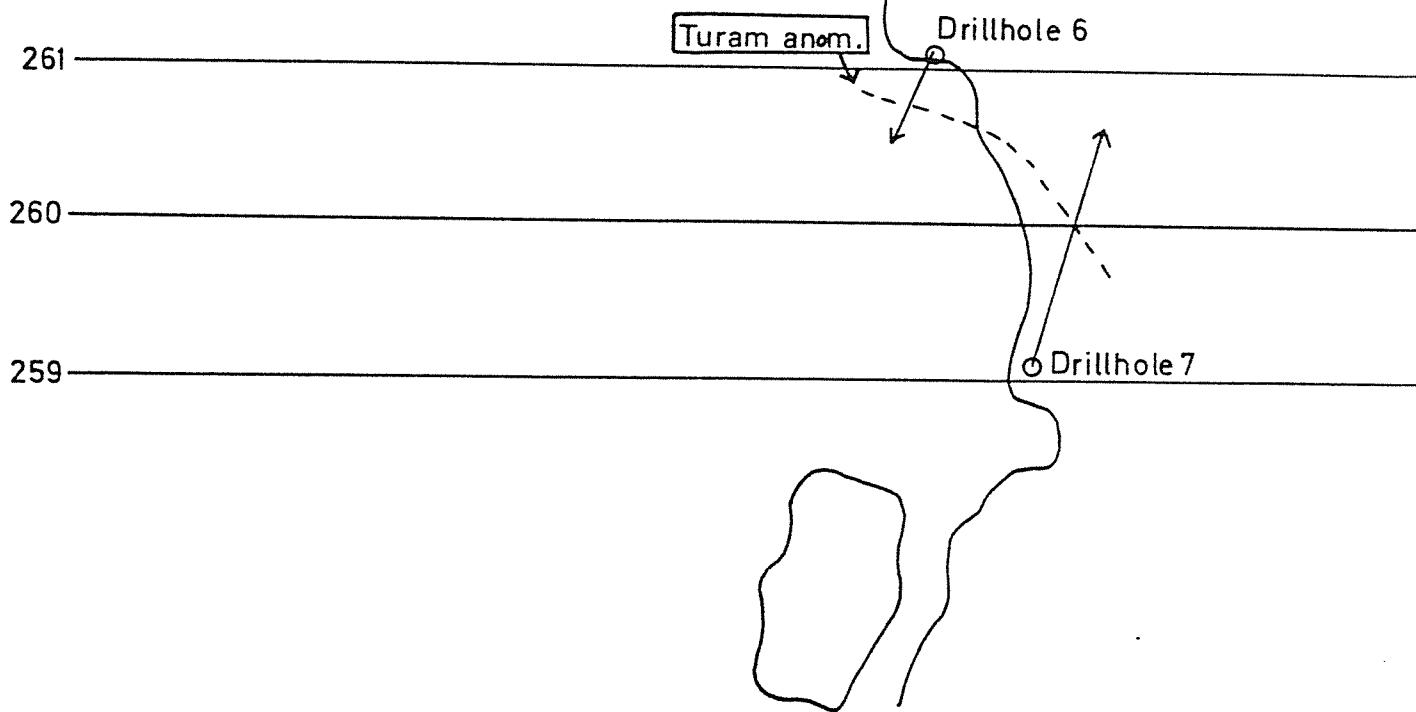
Drillhole 6 (Fig. 3) was started from (26.110, 37.200) and drilled with a dip of 45° towards 200°. The drillhole (160.9 m) showed a section through a variably serpentinized and retrogressively altered ultrabasic rock (see petrological description and core-log).

The drillhole did not give any unequivocal answer to the cause of the Turam anomaly. SP-drillhole measurements (Fig. 3, see also report 1387 by Logn) show anomalies at about 35 m, 54.5-55.5 m and at 70 m. It is possible that

Fig. 2.

N

100m



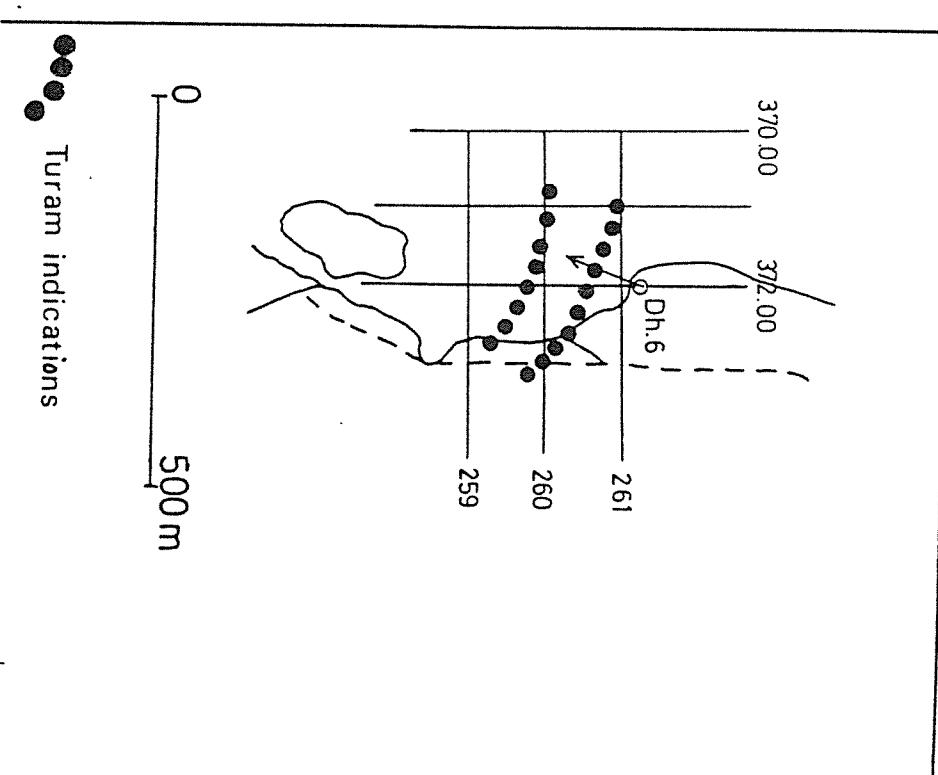
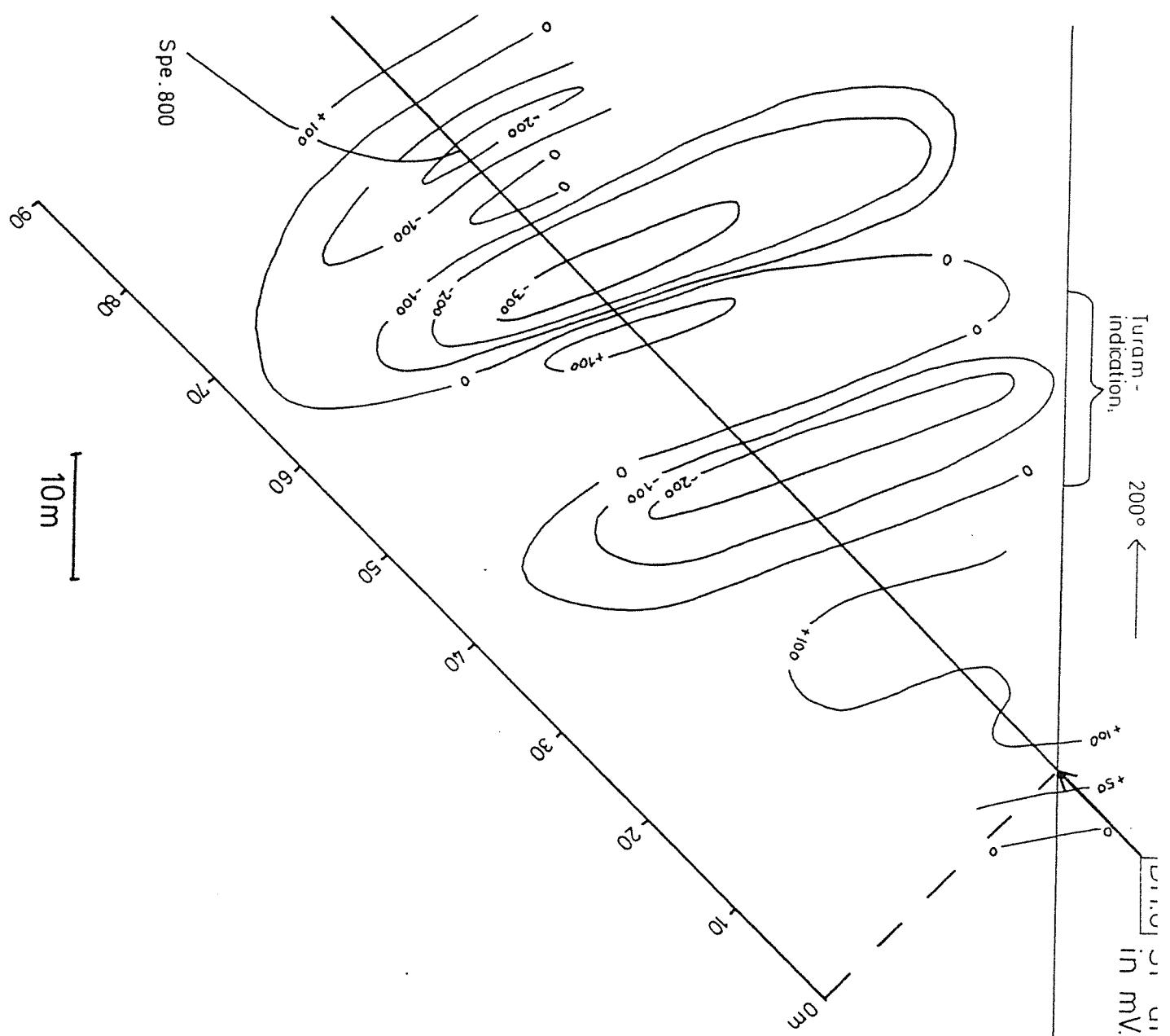


Fig. 3

these anomalies are caused by local and strongly pyrrhotite-dominated disseminations. The pyrrhotite often occurs as large, but very thin flakes, giving rise to conducting zones.

Magnetite and Fe-sulfides expelled from olivine during retrogressive alteration may in places form a continuous network in the ultrabasic rock (e.g. Fig. 4). Such a network of semiconducting minerals may also give rise to SP-effects.

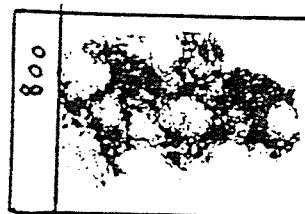


Fig. 4

Ultrabasic rock with a continuous network of mainly retrogressively formed Fe-sulfides and magnetite. Thin section from depth 69.7-70 at SP-anomaly.

Conclusions.

The drillhole at Galluvajavri gave no unequivocal answer to the reason for the Turam anomaly. Possible conducting zones are : a) strong, pyrrhotite-dominate disseminations, b) zones with retrograde alteration and c) crush-zones with cl. The Turam anomalies are not associated with any economic mineralizations.

A P P E N D I X

Core-logs

Petrological description

Analytical results

DIAMANTBORING

1982

Kjerneobservasjoner.

Borhull nr. 6

Profil area no. 6

Koordinator: Y 26110 Ø

x 37200 ♂

Påsatt i høyde m

« i retning

"med helling 45° dip towards 200° (222g)

(M) Microscope

(A) Analyze

Borhullets lengde 160,9 m

(A) Analyze

Angle core/folia

Boret meter	Bergart	Kjernemangel	Skiftrighet	Bergart prove
0 - 0.3	Overburden.			
0.3 - 30.	Coarse grained homogeneous spotted ultramafic rock with serpentine.			
30. - 60.	Coarse grained homogeneous spotted ultramafic rock with serpentine. A clear "layering", (zoning), can be seen in the whole section. The zoning can be tectonic origin.	40-60°		
60. - 70.	Coarse grained homogeneous spotted ultramafic rock with serpentine.			
62.8 - 63.7	Dense finegrained diabase like rock with possible chilled contact.			
70. - 90.	Coarse grained homogeneous spotted ultramafic rock with serpentine. Crushed zones 79.0-80.0 (clay 79.6-79.8), 83.6-83.8 and 84.3-84.4.			
90. - 130.	Coarse grained homogeneous spotted ultramafic rock with serpentine.			
130. - 140.	Coarse grained homogeneous spotted ultramafic rock with serpentine.			
134.5 - 135.7 138.9 - 139.15	Finegrained intrusive rock 134.5-135.7 and 138.9-139.15 (like 62.8-63.7) with chilled contact.			
140. - 160.9	Coarse grained homogeneous spotted ultramafic rock with serpentine. From 140-150 m a weak "layering" as from 30-60 m can be seen.	45-60°		
	0.3-10 : 6,8 joints/m			
	10 - 20 : 10,0 " " 13,15-13,3 (M)			
	20 - 30 : 6,0 " "			
	weakly magnetic: 34,6 -35,0 (A)			
	35,0 -35,4 (A)			
	SP-anomaly 35 m 35,0 -35,1 (M)			
	34,9 34,47 (M)			
	30 - 45 : 7,0 joints/m weakly magnetic			
	35,55-35,7 (M)			
	40 - 50 : 4,0 " "			
	50 - 60 : 4,2 " "			

Boret meter	Bergart	Kjerne-mangel	Skifrighet	Bergar-prove
	<p>but more magnetite from 50-60 m.</p> <p>54 -55 (A) 54,4 -54,5 (M) 54,5 -54,6 (M)</p> <p>Traces of sulphides 30-40 m, but negative Nitest.</p> <p>55,5 -55,6 (M) 56,3 -56,4 (M)</p> <p>SP-anomaly 54-57 m.</p> <p>60- 70 : 7,7 joints/m At 60,5 m some with asbestos minerals. Weakly magnetic.</p> <p>62,8 - (M) 69,9 -70. (M)</p> <p>70. - 80 : 6,6 joints/m 80. - 90 : 6,0 " "</p> <p>Moderately magnetic from 70-80 and rather strong magnetic from 80-90 m.</p> <p>84,4 -84,6 (M)</p> <p>Pyrite on glide surfaces 70-80 m.</p> <p>40. -100 : 6,6 joints/m 100. -110 : 4,8 " " 110. -120 : 4,5 " " 120. -130 : 6,6 " "</p> <p>This section is weakly magnetic with a little pyrite on glide surfaces.</p> <p>126,4 -126,6 (M)</p> <p>130. -140 : 6,6 joints/m</p> <p>Weakly magnetic. Some dessiminated pyrrhotite.</p> <p>136.0-136.1: 136,0 -136,1 (M)</p> <p>140. -150 : 5,7 joints/m 150. -160,9: 4,1 " " 156,6 -156,7 (M) 160,8 -160,9 (M)</p> <p>Moderately magnetic.</p>			

DIAMANTBORING

19 82

Kjerneobservasjoner.

Borhull nr. 7 Profil area no. 6
 Koordinator: Y 25860 N X 37300 Ø

Påsatt i høyde m.

“ i retning

“ med helning 45° dip towards 30° (33°)

(M) Microscope

(A) Analyze

Borhullets lengde 160 m

Angle core/
foliation

Boret meter	Bergart	Kjerne- mangel	Skiffrighet	Bergart prøve
0 - 5.25	Overburden.			
5.25- 60.	Light grey quartzitic finegrained mica schist - mica gneiss with a few red spots of feldspar and a very few garnets.		0-30°	
60. - 87.25	Light grey more gneisiic rock.		30-45°	
87.25-107.5	Green fine to medium grained intrusive rock (diabase ?) with chilled contact (contact angle 60°, both at 87.25 and 107.5). The chilled contact is 1-2 m thick. In the center the intrusive rock is medium grained and calcite veined.			
107.5 -141.3	Grey gneiss with a little red feldspar and a few garnets. Rich in muscovite 120-130 m.		45-60°	
141.3 -160.	Green gabbroic (to ultramafic) rock with some quartz to 156 and grey spotted (ultramafic) 156-160. A few pyrite crystals 1 mm in size. 5.25-10: 7.4 joints/m. 10 -60: A small crush zone 15.45-15.50, brecciated and recemented(38.8 -38.9) crush zones from 44.15 -44.20, 54.5 54.55 56.3 -56.4 and 57.0- Pyrite in veinlets 1 mm in thickness 57.3. (42.3, 49.3.)			
CP-anom.	57.85-58.0 (M) 58.0 -58.1 (M)			
60-70 :	7.6 joints/m			
79-80 :	8.1 " "			
80-90 :	6.3 " "			
Crush zone with a little clay				
	63.8 -64.3			
	63.2 -63.4			
90-100:	5.7 joints/m			
100-110:	9.6 " "			

Boret meter	Bergart	Kjerner- mangel	Skifrighet	Bergart prøve
	<p>89.25 (M) 89.7 (M)</p> <p>The diabase has a weak pyrite dissemination. Py and calcite (1 cm) at 97.15 with some traces of chalcopyrite</p> <p>97.25 (M) 106.0 (M) 101.5 (M)</p> <p>110-120 : 7.0 joints/m 120-130 : 5.7 " " 130-140 : 7.9 " " 140-150 : 13.0 " "</p> <p>Quartz veining 125.4 - 125.5, 129.35- 129.4, 150-160 : 7.9 joints/m</p> <p>Weakly disseminated pyrrhotite and chalcopyrite with gradually decreasing quartz content from 141.3 - 142.7. Possible contact 141.7.</p> <p>141.3 (M) 141.8 (M) 142.55 (M) 144.4 (M) 148.9 - 149 (M) 154.8 - 154.5 (M) 159.9 - 160 (M)</p> <p>141.3 - 142 (A) 142 - 143 (A)</p>			

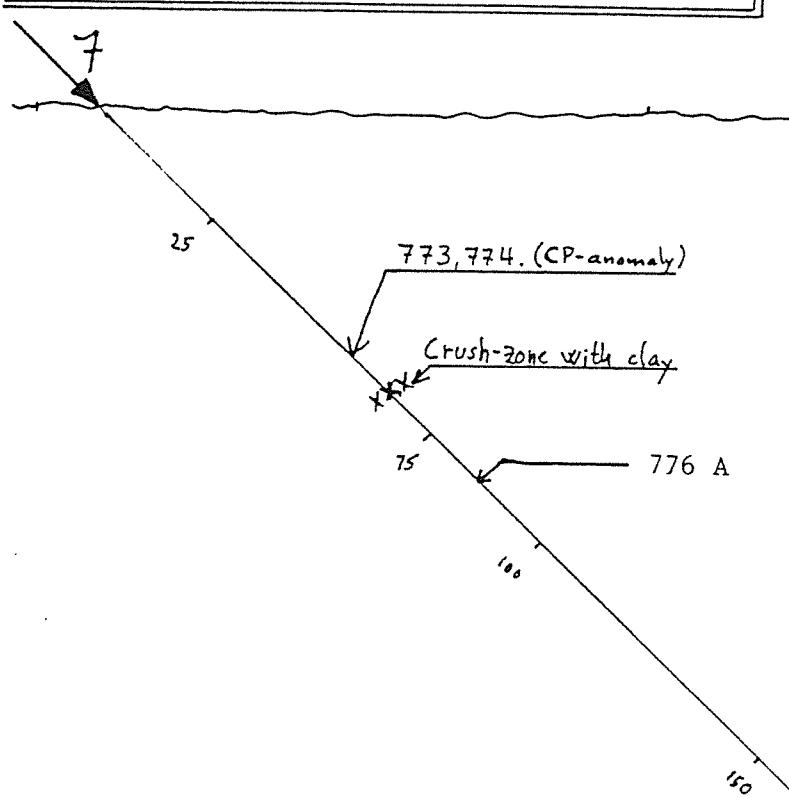
DRILLHOLE NO: 7 DEPTH: 0-160 m

DEPTH: 0-160 m

SPECIMEN NO: 773, 774, 776 A, 776 B,
775, 777, 781

Drillhole 6 & 7

Drilled on geo-
physical
indications
(Em-anomalies
with indicated
50-70° southerly
dips).



DRILLHOLE NO: 7 DEPTH: 57.85-58.0

SPECIMEN NO.:

773

Quartz-schist

MINERALS:

Quartz- muscovite- biotite-
plagioclase- epidote.

Pyrite.

TEXTURAL FEATURES:

Recrystallized quartz-rich metasedimentary rock

Fine-grained with pyrite-impregnations (0.3 %)

COMMENTS:

DRILLHOLE NO: 7 DEPTH: 58.0-58.1

MINERALS:

SPECIMEN NO:

774

Quartz-schist

Same as 773, but more porphyroblasts of epidote. Pyrite.

TEXTURAL FEATURES:

Same as 773, but more pyrite (5-7%).

COMMENTS:

No explanation of CP-anomaly.

DRILLHOLE NO: 7 DEPTH: 87.25

MINERALS:

SPECIMEN NO:

776 A

Quartz-schist/finegrained meta-gabbro

Quartz- muscovite- biotite
hornblende - plagioclase
Pyrite

TEXTURAL FEATURES:

Thin section shows contact between the quartz-rich metasediment and gabbro. The contact is sharp and finegrained, and appear to be little deformed by tectonic movements. No foliation is developed parallel to the contact.

The gabbroic rock is very finegrained (about 0.2 mm) and consists of a recrystallized mosaic of plagioclase and hornblende.

Pyrite impregnations 2-3%.

COMMENTS:

DRILLHOLE NO: 7 DEPTH: 87.25

MINERALS:

SPECIMEN NO:

776 B

Meta-gabbro

Hornblende - plagioclase

Pyrite

TEXTURAL FEATURES:

Fine grained (0.2 - 0.5 mm) recrystallized mosaic of hornblende and plagioclase.

Pyrite disseminations ~ 3 %.

DRILLHOLE NO: 7 DEPTH: 87.25

MINERALS:

SPECIMEN NO:

775

Meta-gabbro

Hornblende- sausuritized plagioclase- sphene

TEXTURAL FEATURES:

Typical texture and mineral assemblage of recrystallized gabbro in middle/upper greenschist facies.

Plagioclase is saussuritized and sometimes recrystallized to a mosaic of smaller grains. Hornblende contains small quartz inclusions; related to the release of quartz from pyroxene during retrograde alteration.

Coarser grained than 776 B, with grain size of 1-2 mm.

COMMENTS:

DRILLHOLE NO: 7

DEPTH: 89.7

SPECIMEN NO:

777

Meta-gabbro

MINERALS:

Hornblende- plagioclase- sphene-
carbonate.

TEXTURAL FEATURES:

Some relic igneous plagioclase occur as lath-like grains, but the plagioclase is in general recrystallized.

The rock is penetrated by shear zones and fracture-zones (0.2-0.5 mm thick) where secondary quartz and carbonate have crystallized.

COMMENTS:

DRILLHOLE NO: 7

DEPTH: 141.8

SPECIMEN NO:

781

Meta-gabbro

MINERALS:

Hornblende- biotite- plagioclase.
sphene/leucoxene.
(quartz, carbonate)

TEXTURAL FEATURES:

Essentially the same as 775, but more coarser grained (2-3 mm)

Plagioclase-grains are recrystallized to aggregates of small sutured grains with "dust" and epidote inclusions.

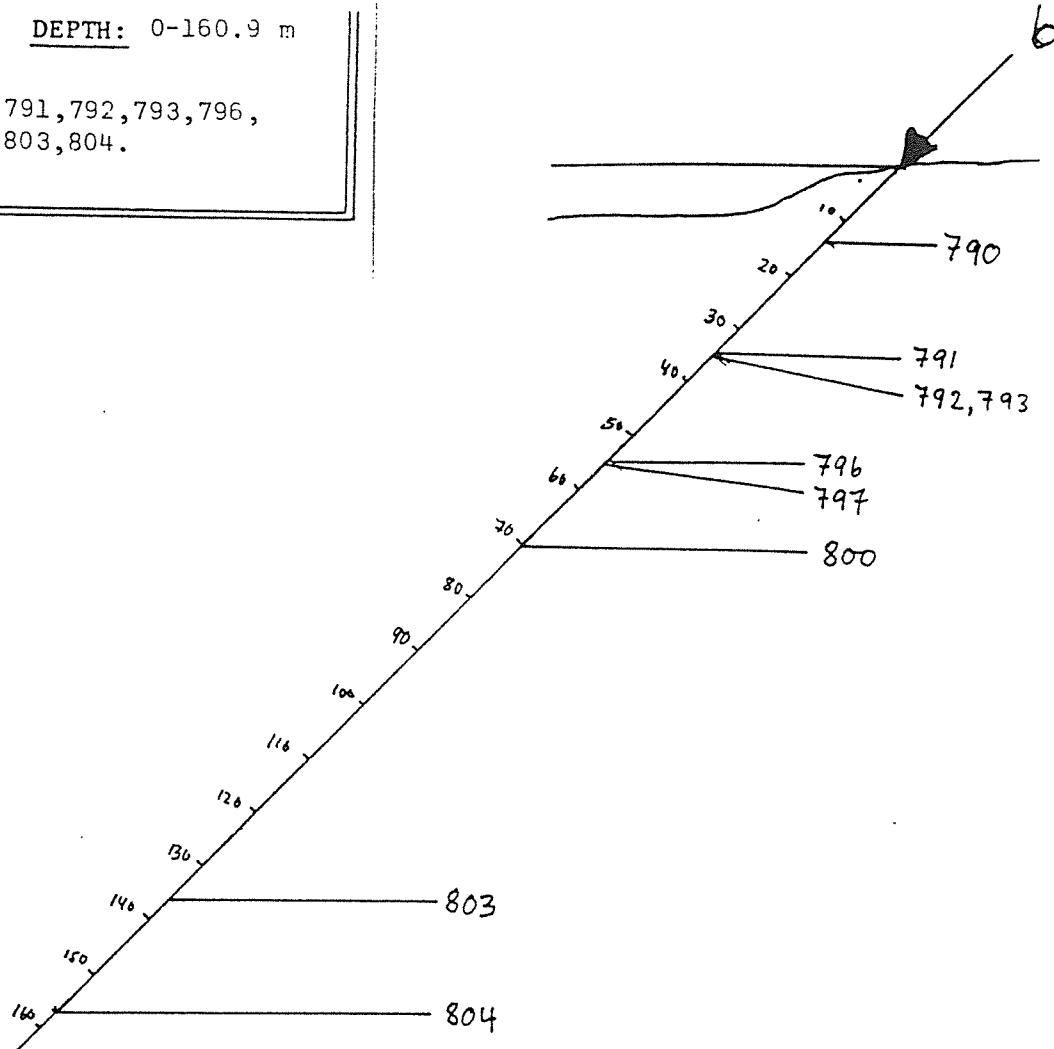
Quartz and carbonate are secondary in origin related to breakdown of former pyroxene and plagioclase.

COMMENTS:

More mafic minerals than 775, 776 and 777, possible alteration product after olivine are present.

DRILLHOLE NO: 6. DEPTH: 0-160.9 m

SPECIMEN NO: 790, 791, 792, 793, 796,
800, 803, 804.



DRILLHOLE NO: 6 DEPTH: 13.15-13.30

SPECIMEN NO:

790 ULTRABASITE(META-IGNEOUS)

MINERALS:

Relict primary: olivine, opx., cpx.
Chromite.

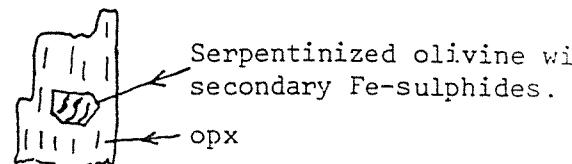
Secondary: Serpentine, uralite, chlorite.

TEXTURAL FEATURES:

Primary igneous mineralogy largely preserved. Grain size 3-4 mm. Olivine is frequently found as inclusions in pyroxenes, showing that olivine was the first phase to crystallize. Chromite occurs as small (< 0.1 mm) euhedral to subhedral crystals with octahedral shapes. It occurs as inclusions in ol/oxp/cpx. or at grain boundaries.

Serpentinization of olivine is associated with the formation of opaques(Fe-sulfide in the serpentinizing veins / and magnetite dust) from the FeO component in the olivine. The process is none-penetrative and restricted to single olivine grains.

Pyroxenes show alteration to uralite.
(see 791).



COMMENTS:

SiO ₂	..39.41	MgO	...25.24
Al ₂ O ₃	1.66	CaO	... 4.75
TiO ₂	...0.12	Na ₂ O	... 0.40
Fe ₂ O ₃	...3.05	K ₂ O	... 0.15
FeO	...4.46	MnO	... 0.22

P ₂ O ₅	...0.05	Cr (ppm)	3641
H ₂ O	19.70	Ni	... 1341
CO ₂		Co	... 102
		Cu	... 260
		V	... 79

DRILLHOLE NO: 6. DEPTH: 34.9-34.97

SPECIMEN NO:

791

ULTRABASITE
(META-IGNEOUS)

MINERALS:

Relic primary: Olivine, (cpx.), chromite
Alteration assemblages: Uralite/brown hornblende, chlorite, serpentine.

TEXTURAL FEATURES:

More advanced stage of alteration than 790.

Cpx./Opx. is almost totally replaced by uralite-pseudomorphs (i.e. fine, fibrous amphiboles) and brown hornblendes.

All alteration products are crowded with turbid inclusions of opaque dust (mainly magnetite).

Olivine → serpentine - talc - chlorite

Cpx. → uralite

Opx. → uralite / brown hornblende

COMMENTS:

Sulfide impregnations (mainly pyrrhotite and pyrite).

DRILLHOLE NO: 6. DEPTH: 35.0-35.1

SPECIMEN NO:

792

ULTRABASITE
(META-IGNEOUS)

MINERALS:

Relic primary: Olivine, chromite.

Alteration assemblages: Serpentine, chlorite, uralite, brown hornblende

TEXTURAL FEATURES:

Relic olivines are preserved, pyroxenes extensively altered to hydrous pseudomorphs. Alteration is static - i.e. not associated with the formation of any tectonic fabrics, and primary igneous texture is still visible.

Pyrrhotite and pyrite impregnations (1-2 %).

COMMENTS:

DRILLHOLE NO: 6.

DEPTH: 35.55-35.7

MINERALS:

SPECIMEN NO:

793

ULTRABASITE
(META-IGNEOUS)

TEXTURAL-FEATURES:

No thin section from this specimen.

COMMENTS:

Whole rock analysis:

SiO ₂	... 43.06	CaO	... 3.90	Cr...	3738 (ppm)
Al ₂ O ₃	... 1.97	Na ₂ O	... 0.05	Ni...	1103 "
TiO ₂	... 0.14	K ₂ O	... 0.11	Cu...	182 "
Fe ₂ O ₃	... 3.35	MnO	... 0.23	Co...	105 "
FeO	... 8.60	P ₂ O ₅	... 0.01	V ...	81 "
MgO	... 31.26	H ₂ O	... 6.40		
		CO ₂			

DRILLHOLE NO: 6.

DEPTH: 54.4-54.60

MINERALS: olivine - (opx.) chromite

SPECIMEN NO:

796

ULTRABASITE
(META IGNEOUS).

Alteration
ass.

serp./chlorite/talc, uralite
brown hornblende.

TEXTURAL FEATURES:

Much the same as 792. Original olivine is partly preserved while opx/cpx is replaced by a variety of secondary assemblages (fibrous amphibole, brown hornblende Mg-chlorite, talc), many of which are difficult to determine due to their fine grained felty character and dusted inclusions.

New, needle-like anthophyllites start to form from within some of the alteration-areas.

COMMENTS:

DRILLHOLE NO: 6. DEPTH: 55.5-55.6

SPECIMEN NO:

797

ULTRABASITE
(META-IGNEOUS)

MINERALS:

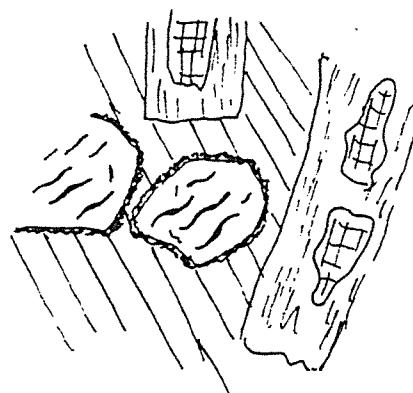
Olivine - cpx. - (opx.)

Secondary

Serpentine / talc / chlorite
uralite, brown hornblende.

TEXTURAL FEATURES:

Primary minerals variably altered - nice retrograde-coronas are developed.



-  serp. olivine with secondary sulfides.
-  chlorite
-  Talc
-  uralite / brown hbl.
-  pyroxene

COMMENTS:

DRILLHOLE NO: 6. DEPTH: 69.9-70.0

SPECIMEN NO:

800

ULTRABASITE
(META-IGNEOUS)

MINERALS:

Olivine - cpx - (opx) -
chromite.

Secondary:

Serpentine

TEXTURAL FEATURES:

Relatively fresh sample; comparable with 790.

Olivine and cpx. in about equal amounts, only a few opx. crystals.

Magnetite and Fe-sulfides formed during retrogressive alteration of olivine.

COMMENTS:

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Analytical results, drillholes 6 & 7.

Specimen list, drillhole 6.

787 Ultrabasite w/traces of sulfides (pyrite-pyrrhotite), Neg. Ni.
788 " " " " " " " "
791 Ultrabasite w/sulfide impregnations (pyrrhotite).
792 " " " " " " " "
789 Ultrabasite.
796 "
797 "
800 Ultrabasite w/magnetite and Fe-sulfides.

Specimen list, drillhole 7.

773 Quartz-rich metasediment.
774 " " "
771 Ultrabasic/gabbroic rock w/weak disseminations at pyrrhotite/chalcopyrite
781 " " " " " " " "
782 " " " " " " " "
772 " " " " " " " "
783 " " " " " " " "
784 " " " " " " " "

K : Analysed by A/S Sydvaranger laboratory, Kirkenes.

M : " Mercury Analytical, Limerick.

x : Silver values incorrect.

All values in ppm except S (%).

DRILLHOLE 7, TARGET AREA 6

TABLE 1 a

SAMPLE	DEPTH	Cu	Pb	Zn	Mn	Mo	Ni	Co	Cr	Ag	W	Au	As	S %	V
773 _M	57.85- 58.0	52	490	96	1150	<1	124	32	224	0.3			<1	0.74	156
774 _M	58.0 -58.1	32	450	76	480	<1	116	26	248	<0.1			<1	0.50	176
771 _K	141.3 -142	1080	110	70			2270	290		7 ^X					
781 _M	141.8	1020	230	72	1710	<1	2516	86	764	<0.1			<1	0.75	200
782 _M	142.55	1412	200	72	3130	<1	1968	280	916	0.4			<1	2.59	252
772 _K	142 -143	1450	100	70			1280	300		5 ^X					
783 _M	144.4	13080	240	76	1360	<1	4460	289	2136	1.0			<1	2.64	284
784 _M	148.9 -149	172	310	140	2540	<1	1472	104	5056	0.3			<1	0.64	292

DRILLHOLE 6, TARGET AREA 7

TABLE 1 b

SAMPLE	DEPTH	Cu	Pb	Zn	Mn	Mo	Ni	Co	Cr	Ag	W	Au	As	S %	V
787 _K	34.6-35.0	90	100	70			1350	250		2					
791 _M	34.9-34.97	84	320	80	1380	<1	1288	126	3960	<0.1			<1	0.61	164
792 _M	35.0-35.1	168	140	84	1410		2348	126	4995	<0.1			<1	0.57	180
788 _K	35.0-35.4	110	70	70			1350	250		2					
789 _K	54.0-55.0	60	60	70			1360	280		2					
796 _M	54.4-54.6	52	170	100	1750	<1	1508	138	2344	<1			<1	0.29	136
797 _M	55.5-55.6	80	140	80	1570		2300	127	3576	<1			<1	0.27	132
800 _M	69.9-70.0	104	330	76	1450		1408	123	3776	0.4			<1	0.11	144