

ANT/SHE/06

0045

ANTHONY
DAVIS
ARBER

INDEX

Page

Subject



9 Dec

Nella to Iceberg, and return
15 mins

11 Dec

Nella Ran to Davis
5 mins

14 Dec

Flight over S. Vestfold Hill
40 mins.

Note

All hearings are true

Sample 81285100 -

	Pick-up	drop
Davis	0915	0940
Rover Is	1115	1125
	1220	1230
	1450	1500
	1610	1620
	1715	1725
	1820	1840

Tues 16 Dec 1980

0930--0955

RAUER ISLANDS

① S.W. Filla Island 75/K320/706SL

Metamorphosed dyke - sl discordant
locally, but quite biotite-rich, and
with pegmatite veins and segregations
Strike 290° (true)

Country rocks - rather migmatitic,
strongly layered and deformed.

Some pink X-cutting biotite pegmatites
much v massive granitic gneiss (sl foliated),
with rare garnet

Layered sl more melanocratic gneiss -
biotite + ? pyroxene (brown, charnockitic
appearance.

Dip $020^\circ \sim 85^\circ$

5100 meta dolerite

5101 thinner metadolomite

5102 'Charnokitic' gneiss

5103 Charnokitic gneiss

5104 massive garnet granitic gneiss

5105 massive garnet granitic gneiss

(2)

W end of Island N of Fella Is
75 R 320 / 7067L

- 5106 meta dolerite
- 5107 meta dolerite
- 5108 gt-rich gneiss
- 5109 Biotite gneiss

V. st banded gneiss
Some prob. meta dolerite dykes, but
little evidence of discordant contact
v. st folded, but general ~~strike~~
dip 070/75.

Much deformed pegmatite - st (crystals
(qtz rods etc). Garnet-rich gneiss
and biotite gneiss - many minor
folds - in mafic layers.

Some mafic - weathering layers.
Some pods of mafic granitoid
with large feldspar xls.

(3)

Island SE of Fella Island
75 R 320 / 8066V

St deformed st b gneiss
Dip 170 / 80

Many mafic layers, & pods probably
represent - meta dykes:

Many minor folds and small

maple schlieren. Much pegmatitic
material, some gt-bi rich selvages
Pegmatitic segregations and veins
also present in mafic granulites.
mostly gt-bi-qtz feld gneiss
with pegmatitic segregations (discontinuous,
few X-cutting veins)

5110-2 gt-bi-qtz feld gneiss

5113 ?metadiorite.

(4) Small outcrop on coast of Pauer Sp
75R320/9063R

Massif of korn-weathering charnockite
with thin mafic granulite dykes -
little deformed, except locally,
but some kinking. X cut by
thin qtz-feld pegmatite veins

5114-5 mafic charnockite

5116 mafic granulite dyke

⑤ L-shaped island - SE Rauer Sp

75R320/9063R

1 st migmatitic gneisses - almost
amphibolitic. Mafic pods and lenses

v. common - fairly even-grained
granulites - some garnets locally
felsic component - st layered and
foliated. Many minor folds

X Cut-thru biotite kyanite; also
st deformed qtz - feld kyanite, strongly
clinical.

Some gr-red qtz - feld (\pm kyan) gneiss
and charnockitic gneiss

5117 st-bearing mafic

5118 Bi st qtz feld gneiss

5119 massive felsic gneiss

⑥ Coastal outcrop about $\frac{1}{2}$ down
Rauer Sp. 75R320/9065R

massive felsic gneiss, with
some mafic granulite layers
(poro m/m dykes).

Dip 070/85

(Russian "granite" outcrop)

5120-1 massive charnockitic
felsic gneiss

17 Dec 1980

RAUER ISLANDS

⑦ SW end of Hop I Island 75R320/7561L

Banded gt-rich gneisses and some
more massive charnockitic gneiss

Dip 045/85

To E, rocks look rather more massive
than on SW tip. Some layers are
probably of intrusive (charnockitic) origin.
Some light ^{grey} coloured felsic gneiss with
minor gt &/or kyanite. Not much
mafic material in evidence.

- 5122 Gt Rich gneiss
- 5123 Gt bndd gneiss (finer grained)
- 5124 Green grained charnockitic gneiss
- 5125 Coarser charnockitic gneiss

⑧ Island E. of Hop Is.

75R32a/7063L

Exp 190/75

Quite st layered and deformed gneisses
much v massive felsic gneiss part
represents deformed pegmatites - some
areas are still pegmatitic (unfoliated)
with large biotites. No obvious dolerite
dykes, but much mafic material in pods
and discontinuous layers - locally
garnet rich

massive chamoctite gneiss (with biot
and some garnet) has inclusions of
mafic granulate

Some v st banded gt rich but gt
feld gneiss

5126 gt bearing mafic granulate

5127 massive chamoctite biotite gneiss

5128 massive gt-biotite gneiss

5129 massive gt-biotite gneiss

⑨ Island S of Hop Is

(S end)

75R32a/7061L

Mostly v massive but + gt gneiss.
(chamoctite appearance) - some v quartz
cryst - fractured

Exp 190/80

Some more of layered rocks, including
pt & biot rich gneiss. Some mafic
granulite was represented in the dykes
much of this island is rather massive
gneiss, but no granite observed.

5130 massive charnockitic biotite gneiss

5131 " " " "

5132 Fine grained gneiss with garnet & biot
(brown st. banded)

(10) Torchler Is - 300m W of Caun
75R320/8060V
mostly charnockitic gneiss
(some garnet) with numerous inclusions
and schlieren of mafic granulite, quartz
gneiss etc. Some areas of st. folded
layered gneiss - pt-rich, mafic weathering
etc etc. Schlieren in granite are also
folded, banded. Some pegmatite
segregation.

5133 massive charnockite

5134 massive pt charnockite

5135 grey st-biot gneiss

5136 mafic granulite

(11) L-shaped island, SE of Hope Is
75 R320/8064V

Exp 060/85

Rather massive, but banded garnet-rich
gneiss.

Rather irregularly numerous thin
pegmatite veins, a few cm thick, foliated
and commonly discontinuous. Some layers
(≈ 20 cm) X-cutting biotite pegmatites.
Some layers of very garnet-rich
gneiss with coarse-grained *egregiorhynchus*
(foliate) with a green ~~matrix~~ mineral.

5137 gl. knot gneiss

5138 gl. knot gneiss

5139 garnet-rich gneiss

(12) Small Island NE end of Raven Sp
75 R320/8068V

Exp 020/90

Mostly massive charnockitic ~~gneiss~~
gneiss. Many, foliated but discordant
dykes (equivalent to vertical dolerites).
Most are foliated and look
thoroughly metamorphosed. There
are several orientations of dykes
(but most are subparallel to gneiss
foliation). Pink biotite pegmatites
cut gneiss and dykes. Many
light to red chert fold

5140-2 metamorphosed dykes

5143 massive felsic gneiss

5144 massive ~~felsic~~ gneiss

Thurs 18 Dec Amanda Gleason

① SW Brattstrand bluffs 91R3B/8116V

Dip 160/40

Banded garnet / biotite matrix
Some massive light grey garnet
gneiss, some more silty layered, more
mass rich. Pegmatite separations
etc (some deformed) are quite common.
Massive more to mesoscopic light
to nodular folds.

5145 White garnet gneiss

5146 Rusty - weathering gneiss

② Hovde Island 91R3B/8113V

Dip 160/85

V. massive felsic gneiss - little mafic

material, except small 10^{1/2} cm pods
and ~~small~~ schlieren in massive
felsic gneiss

Some more layered gneiss contains
abundant garnet, but massive gneiss is
also commonly garnetiferous.
Quartz veins include also minor

shear folds

Minor (1-5 cm) pegmatite veins
in garnet gneiss or corundum and
commonly folded.

- 5147 Garnet gneiss
- 5148 Garnet gneiss
- 5149 massive felsic gneiss

③ E Side of Amanda Prospect - N outcrop
91R3B/8112V

Strike ~ 040

Porphyroblastic granite
mostly pink felsic porphyroblasts in
biotite-rich groundmass
Some grey granite (white porphyroblasts)
contains garnet, in addition to

biotite.

Some pegmatite and inclusions
of more mafic gneiss, st-kt gneiss
etc.

Porphyroblasts and inclusions
have a distinct preferred
orientation.

5150, 1 Pink porphyroblastic
biotite granite

5152 White porphyroblastic
st-biotite granite

④ Cowell Is (N) 91R3B/8110V

V. cl. sheared garnet gneiss (lawsonite)

Mud complex folding

Range from v. felsic to st+biot-rich
gneisses

5153 massive, leucocratic garnet gneiss

⑤ Cowell L (S) ^{Run} 913R/8110V

Rather massive, but layers
garnet gneiss, similar to last
outcrop, but less strongly
deformed.

Quite leucocratic, but some more
mafic (qtz-bi-rch) layers

Exp. 225/85

Many mesoscopic X-cutting
shears, & shear-folds.

Not much mafic granulite in evidence

5154-5 massive, leucocratic
qtz-bi gneiss

⑥ Chaos gl. Outcrop 75R32/9059R

Migmatitic garnet gneiss with much garnet
granite. Restite is more mafic garnet-rich
gneiss. Much folded, no consistent strike

Pods and lenses of darker, brownish
qtz-bi gneiss in white garnet

leucogneiss (partly foliated)

little mafic granulite evident.

5156-7 garnet leucogneiss

5158 darker garnet gneiss

5159 garnet quartzite

Fri 19 Dec

Verfald Hills

- ① S side of Long Fjord - opposite
Tryne Fjord (Sun 11/9)

Massive charnockite and felsic gneiss
Many dolerites - mostly NS trending

5160-2 Mafic dykes (NS trending)

5163 Coarse grained charnockite

5164 Even, finer-grained charnockite

~ 1 mile N of Ace Lake (13/2)

- ② massive charnockite gneiss

Inclusions and schlieren of mafic
material

Black dolerites

5165 NS trending dolerite

5166 055° - trending dolerite

5167 massive charnockite

- ③ 1/2 mile NE of Rybnaya Bay (15/3)

massive charnockite - several
orientations of dyke.

NS trending (2 spec, 1 coarse grained)
cut NE trending (~60°) (1 spec)

2 ~140° trending dykes may be
magmatic type

5168, 9 NS trending dolerite
5170 060° (large, coarse-gr)
5171, 2 140° trend (1st polemic?)
5173 massive chamoelite

20th Dec 1980

Vertford Hills

(4) N shore of Long Fjord, NE of Topografjor IS
(11/5)

massive orthogneiss with many
inclusions of and schlieren of
mafic (biotite-rich) material.
Abundant dolerite dykes - several
orientations, but most are NS.

5174, 5 massive orthogneiss (chamoelite)
5176 Dolerite 168° trend
5177 Dolerite 206° "
5178 Dolerite 146° "

(R12/110)

(5) Midway between Trynes Pioneer crossings

Layered gneiss - charnockitic gneiss
gneiss, also layered paragneiss
Dolerite dykes abundant

5179 140° dolerite

5180 150° dolerite (paleomag?)

5181 180° dolerite (pos Mg-rich) ^{paleomag} c

5182 180° dolerite (pos Mg-rich) ^{paleomag} c

5183-4 grey charnockitic gneiss

5185 " "

(6) E end Luncke Ridge (R13/1109)

Layered paragneiss & low
charnockitic gneiss. Pyroxenes
° gts veins also quite abundant
Paragneisses are garnet-rich

5186 050° dolerite

5187 340° dolerite

5188-9 Pyroxene gneiss

(7) 1/2 mi N of Lake Vereteno (R12/7)

massive charnockite - locally foliated - some inclusions
Some more mafic, dioritic material
Numerous dolerites

- 5190 025° dolerite
- 5191 white granite (charnockite)
- 5192 diorite.
- 5193 Charnockite
- 5194 charnockite - st checked

(8) W side Zvezda Lake (R11/13)

Layered massive ^{grey} & charnockitic gneiss
Rather impure - some pegmatitic
Layers and segregations; some mafic
granulite layers

- 5195-6 felsic charnockite gneiss
 - 5197 Fine grained felsic
charnockite
 - 5198 More mafic ~~granulite~~
charnockitic gneiss
- Glacial striae - 286°

(9) 1/2 mi S of Club Lake (R8/11)

Well layered pyroxene gneiss

Rather migmatitic, pegmatitic.
segregations and veins
mostly pyroxene gneiss - felsic,
- coarse-grained to fairly mafic,
but some garnet locally

5199 Dolente -170° trend

5200 Pyroxene gneiss (minor gls)

5201 Garnet-pyroxene gneiss

(10) NE tip of Partizan' Island (R11/5)

massive charnockitic gneiss - some
ultra coarse-grained charnockite
thinly bedded, more deformed areas
of st. sheared gneiss.

5202 massive charnockitic gneiss

5203 " " "

5204 " " "

5205 Interm. charnockite

22 Dec 1980 Laremann Hills area

① Stearnes 91 Rm 3B / V8105

North of layered gneiss -
much white. Calc. calc. much more
strongly layered with biotite / or pyroxene
Pink granite (med. even fract to
E of smaller lake on ~~the~~ main
outcrop. (includes thin epidote veins)
Dip 105 / 75

Many minor folds

Some pegmatites

Some biotite granulite (v. weathered)

glacial striae - 313° trend

213007°

5206 Pink biotite granite R01579

5207 Feluc. garnet gneiss R01579

5208 Garnet gneiss

5209 Dark grey biotite / pyrox gneiss
(at layered)

next outcrop to SW ($\frac{1}{2}$ way
to Laremann Hill looks v. dark
grey and massive (int. charoite?)

② NE Island of Laremann Group
91 R3B / V8096

Dip 155 / ~ 70 (variable)

A layered migmatitic garnet gneiss,
much pegmatite (some what deformed),
with kyanite and garnet (irregularly
distributed).

White felsic garnet gneiss to relatively
mafic grt - kyanite gneiss

Some mafic layers contain
abundant pyroxene.

Gneisses are irregularly folded on a
mesoscopic ^{to minor} scale.

5210, 1 felsic grt - kyanite gneiss

5212 more mafic grt kyanite gneiss

5213 mafic kyanite granulite layer

③ Island W of above 91835/V8096

Massive, leucocratic bi granitic gneiss

and grt - kyanite gneiss

Much pink kyanite - grt pegmatite

Some lenses of grt - kyanite - calc = all

gneiss, interlayered with leucogneiss

Dip 350/80

- 5214, ~~55~~ 55 granitic gneiss (bi ± st)
 5215 st - knt gneiss
 52187 Sheared st - knt gneiss
 5218 Cd - Bi - st gneiss
 5219-20 Cd - bi - Bi - st gneiss

(4) Dip 140/30 91R3B/V8096
 Central outcrop of Laremann Hills
 migmatitic st - knt gneisses w/ld
 many pink bi/st pegmatite
 and granitic gneiss veins & bands
 latter contain irregular layers &
 schlieren of more mafic st/bi - rich
 gneiss
 Some rusty weathering pelitic
 layers w/ld coarse-grained blue
 cordierite, garnet, knt, ? and
 etc. little mafic material here

- 5221-2 felsic kntite gneiss
 5223 felsic st - knt gneiss
 5224 Cd bearing metapelite

(5) Main E outcrop of Laremann
 Hills 91R3B/V8096

Migmatitic st - kntite gneiss,
 much pegmatitic and granitic
 material. X outcrop white

biotite pegmatites

Some more mafic, st + biot - rich
layers and lenses, but
generally leucocratic

Dip, highly variable, but
generally to S - many mesoscopic
folds. 160/45° at one place
Intrusives generally light in
colour, but some rusty-weathering
layers.

5225 st - biotite gneiss

5226 st granite

⑥ SE end of Lasseman Hills

91R38/V8096

35R8/7107L

Microplitic garnet-biotite gneiss -
much is very massive

Some schlieren and bands of more
st + biotite rich gneiss

many pegmatitic segregations and
layers

Orange mineral (X-ray) = 5406

5227 massive st gneiss

5228 sl foliated st biot gneiss

5229 layered st biot gneiss

⑦ Fuel depot

Exp 210/70

Layered to maximum of about 1000
+ pink granite

5230 pink granite

23 Dec 1980

Verdell Hills

R10/6

(11) 1/2 mi SW of S tip of Lake Zvezde

Paragneiss - garnet - biotite - pyroxene
gneisses, quite well layered - blue
quartz, some pegmatite coarse layers
and lenses

Lighter grey dolerite (? high-Mg type)
has orientation of $\sim 170^\circ$, intruded

by typical dolerite (orientation $\sim 180^\circ$)

5231 2 ? high-Mg dolerite (170°) ^{releaves} A

5233 dolerite (180°) ^{releaves} B

5234 light gneiss

5235 felsic gneiss

(12) N side of ²~~Drum~~by Lake R8/6

Banded grey gneiss - some gt gneiss,
but mostly charnockitic and lenses -

gneiss; some mafic layers (granulite)

Dolerite dykes - main trend is NS

5236-7 charnockitic gneiss

5238 leucogneiss (granite gneiss) ¹³

5239 180° dolerite

(13) S side of Crooked Lake R6/4

Banded st gneiss etc (paragneiss)

Some st-rich layers, some more
felsic (pegmatitic lenses & layers)

Dolerite dykes trend ~ N-S mostly

Silliments occur locally
in paragneisses

Glacial striae ~ 310° (true)

5240 Dolerite dyke (pos Mg-rich?)

trend 200°

5241-5 St paragneiss

(14) NW tip of Crooked Lake R7/17

felsic
massive pyroxene gneiss - some
more mafic pyx-rich layers, mostly
granitic gneiss - v. massive, little
layers.

5246 210° dolerite

5247-8 massive felsic gneiss

5249 Pyroxene gneiss

(15) W side of Lake Lebed RS/15
massive pyroxene gneiss

(ortho gneiss)

Some ~~to~~ mafic layers and schlieren
(mafic granulite), X-cutting shear
zones and pyroxene lenses and
layers

massive gneiss similar to
last locality, but rather more
homogeneous (on a large scale)

5250-1 massive charnockitic

ortho gneiss

5252 Biotite - rich mafic layer

5253 mafic granulite

(16) N side of Ellis Fjord (S. of L. Tangle)
RS/10

Grey gneiss (charnockitic) - some
dark leucogneiss Dolerite dykes -
mostly N-S trend

5254 ~155° dolerite dyke

5255-6 Charnockitic gneiss

(17)

N side of Crooked Flood R3/8

Good quality gneiss (paragneiss)

is layered abundant garnet

cut by metamorphosed mafic
dykes (with garnet) - trend 170°

no chloritoid intrusions (cf.
Russey map)

Pyrite have wavy-grained
margin (? pyx pheno crystals),
but forming porphyroblast
(w h/s)

5257-8 metamorphosed dykes
(with garnet)

5259-60 garnet biotite gneiss

(18)

Brooks Hut

R9/9

Massive orthogneiss (only cl
foliated), cut by dyke-like
dykes

5261 massive, chloritoid
orthogneiss

(19) W of Weddel Arm K8/16

massive orthogneiss, with big
dolomite dykes

Some more mafic schlieren and
layers

5262-3 Felitic orthogneiss

5264 175° dolomite

~~5265~~

24th Dec 1980

① Sjöströme Islands (main outcrop)
93R3C/L76170

lt. layered gneisses, including
gt leucogneiss, felsic pyroxene gneiss
etc.

In centre of outcrop - much mafic
to ~~ultramafic~~ ultramafic material
(pyroxenite mafic granulite)

Dip $175^{\circ}/90^{\circ}$ (trend 265°)
To S and N, have narrow, felsic
gneiss

5265 pyroxenite

5266 mafic granulite

5267 pyroxene gneiss (pyroxene)

5268-9 Garnet leucogneiss

② Bolingen Is. SW main island

91R3B/V8083

lt. layered gneisses - gt-sill gneiss,
gt leucogneiss, felsic (granite gneiss),
Some mafic granulite, and mafic gt-rich
layers. Some pegmatitic layers
and segregations

Quite X-cutting pegmatite (biotite)
are little deformed - quite

abundant, some are semi-conformable
Dip $170^\circ/75$

- 5270 Gt-sill green
- 5271 Gt-knt (? sill) green
- 5272 Gt leucogneiss

③ NW Bolingen Islands
91R3B/V8081

Gt layers, rather migmatitic
gneisses

Gt Cd Si green, and a range
of Gt biotite species. Massive
Gt leucogneiss locally intrusive
Some dark grey pyroxene gneiss
(restite), commonly rather
st foliated, with much biotite
Cross-cutting biotite pegmatites
to quite abundant.

- 5273 Gt Cd Sill knt green
 - 5274 Gt knt green
 - 5275 Biotite ? pyroxene green
- Dip v. variable ~~to~~ $\sim 145^\circ$ steep

(4) Large island S of above
91R3B/V8081

It layered garnet gneisses -
much garnet leucogneiss, gts-biot gneiss, etc
some pyroxene gneiss
X-acting biotite pegmatites
Pods & lenses of mafic granulite
(1 cut by calcite vein)
Gneiss quite strongly gilded
here

5276 gts leucogneiss
5277 Gts-biot gneiss
5278 mafic granulite
5279 ? pyroxene gneiss

(5) W Bologan islands
91R3B/V8083

Rather homogeneous (? gts - rich)
Bilimante-bearing gneiss
cut by biotite pegmatites (large veins
- several metres across)
not much garnet in evidence.
Dips steep, v. variable
minor & mesoscopic folding

5280-1 Bilimante gneiss
5282 Felicit gneiss

⑥ SE islands of Bolingen group
91R3B / V8081

Interlayered ① garnet leucogneiss
(± kvt) - rather migmatitic, cl more
notic (st-kvt) gneiss; much -
even grained & granitic.

② pelitic (sill) gneiss to
quartzite - darker in colour
layering not very conspicuous,
(massive)

St-kvt-sill gneiss - interlayered
with qtz-rich gneiss

Dip - variable; folding on both
small and large scales.

5283 st leucogneiss

5284 pelitic st kvt gneiss

5285 sill qtzite

5286 sill st. cd gneiss

27 Dec 1980

W Larsemann Hills

① SW outcrop on coast (S part)
93 km 3C/V8179

S part is massive, but layered; mostly
felsic, chloritic gneiss (biot + ? pyx)
some mafic granulite layers (conformable)
Dip 180°/80 minor tight folds.
X-cutting pink biotite pegmatites

5287 mafic granulite
5288 pyroxene gneiss
5289 felsic gneiss

② N part of same outcrop
93, 3C/V8179

Layered felsic garnet gneiss
relatively migmatitic. Some pods and
layers of massive gneiss.

Gt gneiss ranges from st foliated
(+ abundant biotite) to massive
and granitic (little garnet)

Rare pods of black pyroxenite
Dip 165/80
5290 Gt biotite gneiss
5291 massive gt gneiss
5292 felsic pod in gt gneiss

5293 pyroxene

(3) Outcrop between above and W Lorenham
93 Run 3E / N#8184

Exp 170/70

Magmatic gneiss intruded
by foliated gneiss (much
is pink and coarse-grained -
pegmatitic)

Pods and lenses of more
mafic gneiss - biotite gneiss (with
sillimanite); minor mafic pyroxene
gneiss. Centre of outcrop is
more layered gneiss with X-cutting
coarse-grained, deformed pink
pegmatite veins

Intensive relations clear, but
gneiss is quite strongly foliated

5295 - 6 fl - biotite gneiss

5294 Foliated fl - biotite gneiss

5297 fl - biot - sill gneiss

(4) W Larzemann Hills 93 R3C/V812X

pegmatitic pt-biot gneiss + pt-biot
granite (foliated commonly) - like
last outcrop.

gneissic granite has pegmatitic layers and
segregations. Schlieren of more mafic
biot-pt gneiss have feldspar megacrysts
locally.

Dip highly variable - contorted,
minor, irregular folds.

5298 (2 spec.) Gt-biot granite

5299 Gt-biot granite

5300 feldsp. gneiss (pt-biot)

5301 bi-gt gneiss (inclusion)

(5) W. Larzemann Hills - main outcrop
91 R3B/V8091

Massive pt-biot granite (foliated)
overlain by banded paragneiss -
gt-biot ± cord. -

Dip 15°/40°

latter are intruded by granite
and pegmatite veins.

5302 Massive pt-biot granite
gneiss.

5303 massive pt gneiss (granite)
biot? cordite.

5304 Bi-Cord gneiss

⑥ Island N central Lassemanns
91R3B/V8094

Generally similar to last locality — but mostly
pt-biot gneiss intruded by minor
garnet granite (part foliated)
and biotite pegmatite (several
metres thick)

Dip 150/70

5305 massive garnet gneiss (? stambs)

5306 pt-biot gneiss

⑦ S end of W Lassemann Hills

93Rer 3C/V8184

Dip 166/60°

massive migmatitic pt-biot gneiss
with pegmatitic layers and segregations —
containing v large (~ cms) zircon

X's Some layers are quite

quartz-rich. Rare orange

mineral in aggregates up to 5 cm

across (~~22~~) — optically

5307 Best - pt ± all green
5308 massive best - pt green
5309 Gt - best - Card green

$$16 \times 283^{\circ}$$

$$273$$

$$16.00 \sim 0^{\circ}\text{C}$$

$$16.06 \sim 10^{\circ}\text{C}$$

29 Dec 1980

Westfold Hills

- (20) N. Trynne Islands no photo
massive charnockitic orthogneiss
with numerous mafic schlieren
and lenses (almost agmatitic
locally) low pink, conformable
pegmatites

Dolerite dykes - NS and 135°

5310 - 1 Orthogneiss

5312 135° dolerite

- (21) S. Wyatt Earp Is. no photo

Like last locality - dolerite
dykes cut pinkish pegmatite (and
granite) veins cutting across
Vein's trend $\sim 195^\circ$

5313 Orthogneiss

Walkabout rocks look much the same
orthogneiss - numerous pink pegmatite,

(22)

S. side of Lake Grace R15/6

mostly massive orthogneiss,
although more strongly foliated
than last locality

numerous dolerite dykes
Some of the orthogneiss is
quite mafic (? dioritic), and
felsic gneiss has inclusions
of them.

Plagioclase (pre-dyke)
and pegmatitic segregations
common — less foliated ~~is~~
gneiss has appearance of a
ret-veined complex locally.

- 5314 Massive orthogneiss
5315 more mafic orthogneiss
5316 Grey (alt?) orthogneiss

Some grey areas of gneiss may be
altered (pyx → biotite?)

(23)

Laternula Lake R2/2

St layered paragneiss — sh - but, etc
cut by metamorphosed
dolerite dykes (orientation

~ 175°)

latter contain st in ~~one~~
fairly regular aggregates ~1 cm across,
but not in all parts of each
dyke.

- 5317-8 st-bearing gneiss
5319 st-bearing metabasite (175°)
5320 metabasite (175°)

(24) Zolotov Island R1/4

Mainly garnet gneisses - well
largest with some chloritoid
? pyroxene gneiss

Dykes are metamorphosed, many
contain patches of garnet

- 5321 Garnetiferous dolerite ~ 180°
5322 " " " 150°
5323 Dolerite (m/m) ~ 180°
5324 Garnet gneiss

(25) Hawker Island R2A/5

Partly charnockitic gneiss -
rather migmatitic + some garnet
gneiss. Pegmatite, quite abundant
(some possibly post-dyke)
garnet locally developed
in dykes and charnockitic
gneiss (patches)

- 5325 Felsic gneiss
- 5326 Charnockitic gneiss with garnet
- 5327 Metamorphosed dyke

5326 looks like high Mg tholeiite
in T/S

30 Dec 1980

Sverner Islands 75 Run 321/7108L

① SW main island

It's layered gneiss, including
gt-sill-cord gneiss

V. little mafic granulite or
pyroxene gneiss evident.

Most gneiss is fairly leucocratic,
but some more gt + kfs rich
layers.

Dip $120^\circ / 85^\circ$

5328-9 Gneiss

② Layered gneiss
+ gt granite dyke -
orientation 135°

5330 Gneiss

③ Small island ~ 3km NE of above

Layered gtl sill cord knob gneiss
with massive garnet granitic
gneiss layers Dip $120^\circ/60^\circ$

Graphite in pegmatites (+ garnet)

5331 Garnet granitic

5332 Gt Cd Sill Best gneiss

④ Flat-topped island SW end of
main group

Various cordierite-rich and
garnet gneisses; some mafic
granulite

Dip rather variable - much
folding

Some layers contain ~ 20-50%
cordierite

5333 Cd gneiss

5334 mafic granulite

⑤ Large Island about 2km E of
above

Layered, steeply dipping gneiss

much Cd-rich gneiss -
quite st. layered & foliated,
some coarse grained pegmatite
segregations. Garnet mod.
abundant in some layers -
others gt free

Dip 125/90

5335-6 Cd-rich gneiss

5337 Gt-Cd gneiss

(6a) E end of Fella Is.
75em 720 / 7065L

V. contorted migmatitic gneisses
much quite mafic with felsic
veins (some pegmatite) - also larger
masses of granite (gt spr. biotite)
Some gt-rich gneiss, gt-biot gneiss
and non-mafic granulite.

Any metachertites are not apparent
(bank could be too deformed to be
recognizable).

5338 St granite (massive)

5339 Biotite rich gneiss.

31st Dec 1980

Svenner Islands 75R321 / 7108L

⑥ main island at NE end of group

Rather massive g^t leucogranites -
quite migmatitic, pegmatitic and
granitic layers; g^t quartzite

Dip 100/85°

5340 g^t gneiss (reddish)

5341 massive g^t leucogranites (grey)

⑦ Island ~ 5 km SW of above

It layered, steeply dipping gneiss
much cordierite, similar to last
locality in Svenner yesterday
Some massive leucogranites, mafic
gneiss and garnetiferous gneiss

5342 Cord gneiss

5343 pelitic gneiss

(2) N Island at SW end of
Brattstrand Bluffs 91R3B/V8116

Layered garnet gneiss - much
white leucogneiss and more mafic
gt + white gneiss (large gts up to several cms)

Conformable granite gneiss
layers - pink, quite strongly
foliated, but partly porphyroblastic

Dip $120/30^\circ$ (rather variable)

5344 Granite gneiss

5345 Granite gneiss (minor gt.)

5346 Garnet leucogneiss

(3) 2nd island (near Brattstrand Bluffs)
91R3R/V8116

Mostly foliated porphyroblastic
granite (similar to Amanda Rookery)

Some conformable gt bed gneiss
layers

Dip $170/30^\circ$

Some st in granite gneiss

5347 Porphyroblastic gt - knot
granite

④ Brattstrand Bluffs - E. end of
western bluff - 91R3B/V8116

Some gneiss - quite or layered
Some st leucogneiss, magmatic
with gt + knot rich layers, lenses
and schlieren.

Some layers contain sill s/or
cord

Dip ~ 185/25° knot rather
variable - contorted granitic
veins etc; minor folds.

5348 Some gneiss (with sillimanite)

5349 more magic gt - knot gneiss

⑤ Bluffs about 2 mi E of above.
91R3B/V8116

St. Layered gneiss +
some porphyroblastic gt + knot
granite gneiss.

Cut by gt + kwt bearing
dyke (trend 235°) - with
feldspar porphyroblasts; quite
felsic in composition, but not
granitic.

Dip 210/30

5350 gt + kwt bearing dyke

5351 Porphyroblastic gt granite

gneiss

5352 St. layered st-kwt gneiss

⑥ W side of E Brattleford Bluff
91R3B/V8119

Layered garnet gneiss with
white X-cutting st leucogranite
veins Dip of gneiss 150/20

All cut by white to pink st bi
pegmatite veins

5353 White st leucogranite

5354 st gneiss (with graphite)

⑦ E of East Group of Brubaker
Bluff 91R3B / V8122

Layered panel pieces,
like East locality

Dip 215 / 20

Much of leucogneiss (some with
Sillimanite), minor more mafic gr
gneiss, and some layered gneiss

5355 ft leucogneiss
5356 ft - all gneiss

magnetite float with copper
mineral staining (green); also
radiating xls in magnetite-rock
(Sillimanite)

Cu mineral is atacamite
[$Cu_2(OH)_3Cl$]

3rd Jan 1981 Vostok Hills

(26)

Outcrop on N side of
Sorsdal Glacier, 3 mi E of
Jaternuda Lake R3/10

Pyroxenes - st- rich green
cut by pink pegmatite
and mafic dykes - trend 175°
latter contain abundant
garnet

5357 st bearing metachertite

(27) Island W of Redfern Island R3/2

Pyroxenes + many dolerite dykes - mostly
N-S orientation.

5358 black dolerite (looks quite
fresh) - orientation 200°

5359 lighter grey dolerite (pos w/m,
but no garnet visible - 180°)

(28) E side of Harber Island R2A/5

Mostly good - rich perovskite + large body of pyroxenite (2 pyx + biotite). Dolerite dykes are m/m, garnet commonly developed in patches

- 5360 Black dolerite (looks good) 180°
- 5361 Lighter grey metadolerite 185°
- 5362 " " " +gt 185°

Dykes are cut by biotite pegmatites

(29) Island E of Pintado Island R1/5

Garnet-rich perovskites - st. layered cut by metamorphosed dolerite dykes (patchy garnet development)

Grasses quite magnesian - washing, also some biotite pegmatites, (~30-50 cm thick)

- 5363-4 gt quartz
- 5365-6 metadolerite (~160° trend)

(30) Kazak Island

R1/3

Some pegmatites - rather
migmatitic with pegmatitic
segregation and lenses

2 metamorphosed dykes

5367 - 150° trend (larger)

cut by

5368 100° trend (darker colour)

Some X-cutting pegmatites

(31) Headland S side of Heidebreven
Bay

5369 Isolated - trend ~ N-S

Jan
10 ~~1981~~ 1981

Vertford Hills area

no photo

- (32) N group of "PA" islands - S island of pair (? McAlhe Rocks)

Dark coloured mafic granulite -
Very massive - some pegmatitic
segregations and layer (~ 30 cm)
X-cutting pegmatites (with silver-black
mineral - ? magnetite - spec for XRD)

Mafic granulite has some gross
inclusions, and is ~~the~~ foliated
near contact with grey felsic gneiss

5370 mafic granulite (^{prob} ~~intrusion~~).

no dikes here

- (33) S group of "PA" islands - S island of pair (Murphy Rocks?) no photo

Similar rather mafic charnockite -
locally rather aegiritic (pegmatitic
veins and segregations)

Cut by X-cutting pink to grey
pegmatites, and grey biotite

granite dyke - trend 195°

5371 mafic charnockite

5372 granite dyke (~ 20 cm across)

(34)

N Wyatt East Island no photo

(highest outcrop)

Mafic dark charnockite, cut by
dolerite dykes

5373 mafic charnockite

18 Jan 1981

Verdelt Hills

Loc ~~(2A)~~ 1/2 mi NE of Rykmaza Bay

(3A)

5374 Post-magmatic dolerite (coarse
grained; $T_{\text{ent}} 150^{\circ}$)

cut by N-S trending dolerite (F1, 2)
(xaleomag samples F1, 2)

21 Jan 1981

83/R318, 9087R

① Landing Bluffs

Porphyritic granite
large pink K-feldspar, biotite, qtz
some white fine grained, aplitic
white granite veins

5375, 6 Porphyritic granite

5377 Fine grained white
biotite granite

② Sanson Island 83/R318, 9082R

Similar to last outcrop

5378 Porphyritic granite

③ Bozom Island 83/R318/9090V

Porphyritic granite
some white aplitic veins > more
wide xenoliths

large pink feld phenocrysts
5379-80 Porphyritic granite

④ N outcrop d E side of
Sandefford Bay 83/38/90191R
Some porphyritic granite
5381

⑤ Stover Peak 83/318/8095V

Banded garnet-gneiss, some
mafic granulite
~~Stover~~ Dip 350/80

Quite well foliated, some garnet
gneiss is mod. st deformed
Some coarse-grained Kephvalke
gneiss 5382-3 garnet gneiss
5384 mafic gneiss

⑥ Coastal outcrop 8km 83/318/8099V
NW of Caroline Mikkelsen

Similar to East locality, as
are intermediate coastal outcrops

Garnet gneiss, some quite leucocratic
mafic granulite layers.

Dip 355/85

5385-6 Garnet gneiss

71R 38/8060V

- ⑦ Leeward outcrop 5 km ENE
of Caroline Mikkelsen

Layered gneiss, similar to last
locality and to outcrops in between

Dp 010/80

Garnet gneiss, garnet leucogneiss,
more mafic granulate and more
mafic pt/biot gneiss

5387-8 Garnet gneiss

- ⑧ Svart Hansen HKK 83/218/9106R

massive charnockitic gneiss -
brown weathering

Somewhat layered, but not strongly
~~is~~ some sand-bearing layers
and minor quartzite

5389 Charnockitic gneiss

5390 More mafic gneiss

5391 Charnockitic gneiss

Dp 000 / vertical

⑨ Mr. Caroline Mikkelsen
91R35/8060V

Massive character
like last locality

Dep 000/80°

5392-3 massive character
green

⑩ Boyd Nite 83R318/9109R

Massive character green
similar to last locality

Some garnet locally; some

leucophrase, like 97, pyroclastic
signature

5394 Leucophrase

5395 Characteristic green

5396

- more mafic

Dep 190/85

⑪ Meknatten 100 5396/0111V

Porphyritic granite, var.
similar to Landy Bluff type -
large (up to 7cm) feldspar
phenocrysts, biotite

5397 Porphyritic granite
Cut by white aplite veins

⑫ Meknatten 100 5398/0111V

Similar porphyritic biotite granite
intruding biotite gneiss (Xenoliths)
Most of contact aureole are
gneiss. to 5 ^{or more} ~~of~~ gneiss

5398, 9 Porphyritic granite

5400 Biotite gneiss

(13) Radd Island - small outcrop
at N side 93R3C/R9161

Garnet gneiss - rather irregular
cut by white veins (rare)

Gneiss dip is $\approx 155/70$, but
is rather variable, somewhat contorted
Much of leucogneiss is massive
and poorly layered, but has quite
a strong foliation (qtz lenses, elongated
biotite aggregates, etc)

Diffuse mafic layers - schliered or
cut across by this foliation

5401 Garnet leucogneiss
5402 St. leuc. gneiss

(14) Stein Island 93R3C/R9168

Layered garnet gneiss - much
leucogneiss, st. leuc. gneiss
and v. massive part intrusive,
(st. leuc. augen gneiss).
Much of rock to S may be of this.

5403 St. augen gneiss (intrusive)
5404 St. gneiss
5405 St. leucogneiss

Dip 160/60-

XRD specimens

- 5406 Orange mineral in garnet
gross from SE Lawrence Hills (apatite)
- 5407 Black mineral from pegmatite^(ilmenite)
- 5408 Greenish mineral from felsic
st gross (feldspar)
- 5409 20 Cu mineral in magnetite-rich
rock, + ^(sulfide) radiating mineral [atacamite]
- 5410 Black mineral - pos magnetite
(not the dark feldspar) (magnetite)
- 5411 Blue quartz
- 5412 Garnet from Rauer Is

25 Rock Drums

QA/D/33-43

11 Geophysics

QA/D/44-57

14 Geophysics

18

CTZ1

5

Kodachrome 25

1

Ektachrome

Flying Hours

Date	9-14 Dec	1.15	1.15
	16 Dec	3.37	
	17	1.45	
	18	2.49	
	19	1.02	
	20	2.13	
	22	3.00	
	23	2.12	
	24	3.20	
	26	0.10	
	27	3.07	
	29	1.58	
	30	1.55	
	31	2.17	
Jan	3	1.45	
	5	0.22	
	6	1.03	1.03
	9	2.19	
	10	1.25	
	14	1.23	1.23
	18	1.01	
	21	1.45	
	22	3.20	
	23	1.00	
		<u>46.03</u>	



