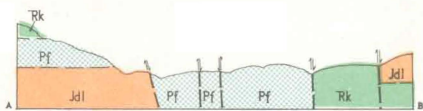
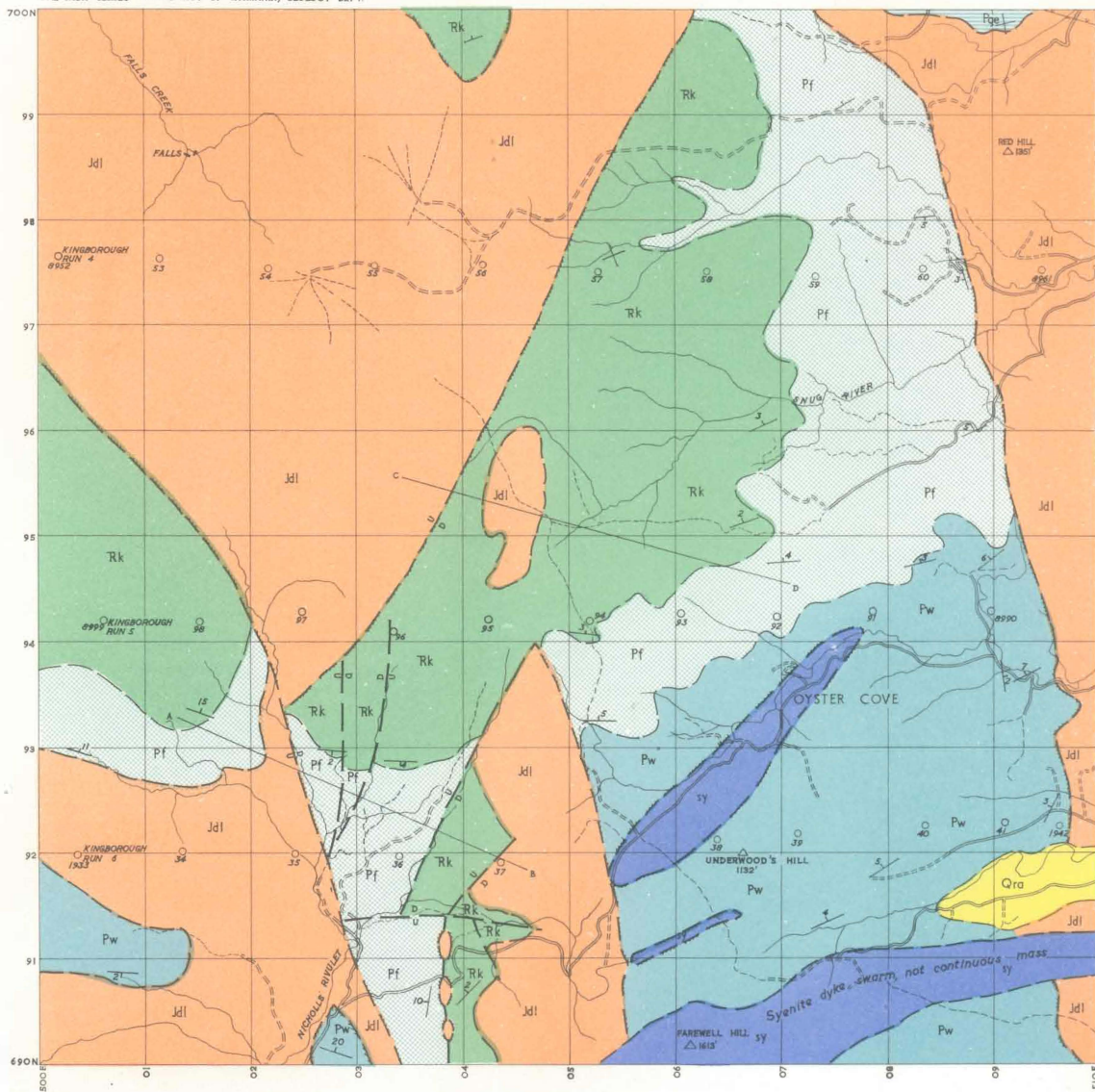
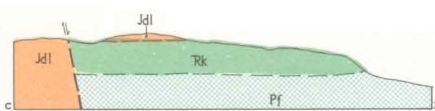


ONE INCH SERIES — UNIVERSITY OF TASMANIA, GEOLOGY DEPT.

 $\frac{V}{H} = \text{APPROX. } 3$ 

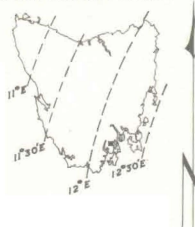
LEGEND

- D — FAULT WITH DOWNTOWN SIDE INDICATED
 — — — FAULT — POSITION APPROX.
 — — — FORMATION BOUNDARY — POSITION APPROX.
 Dolerite Boundaries
 — — — CONCORDANT SILL
 — — — DISCORDANT INTRUSIVE BOUNDARY
 + — STRIKE AND DIP
 + — HORIZONTAL BEDS
 — — — ROADS
 — — — VEHICULAR TRACK
 — — — TRACK
 Δ — TRIGONOMETRICAL STATION
 ○ — PHOTO CENTRE
 — — — TRANSMISSION LINE

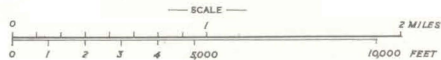
- Quaternary System
- RECENT SERIES
- Qra ALLUVIUM
- Triassic System
- Rf FELDSPATHIC SANDSTONE
- Rk KNOCKLOFTY SANDSTONE AND SHALE
- Permian System
- Pf PERNTREE MUDESTONE
- Pw WOODBRIDGE GLACIAL FORMATION
- Pge GRANGE MUDESTONE
- IGNEOUS ROCKS
- sy SYENITE PORPHYRY
- Jdl JURASSIC (?) SYSTEM

Compilation from Aerial Photographs.
 Trigonometric Station Control by
 courtesy Lands and Surveys Department.
 Origin of coordinates 400,000 yds.
 West and 100,000 yds. South of
 True Origin of Zone 7 of the
 International Grid.

KEY MAP SHOWING MAGNETIC DECLINATIONS
 SECULAR VARIATION 7 MINS. P.A.



MAPPED AND COMPILED BY
 T.H. RODGER 1952



GEOLOGY OF OYSTER COVE AREA:

SHEET 5069

PHYSIOGRAPHY.

This area has a relief of somewhat less than 2,000 feet with an early mature topography. The most prominent feature is Snug Plains, drained to the south by Nicholls Rivulet and to the east by the Snug River and other streams. The streams are all in mountain tract with falls and rapids a common feature. Snug Falls and falls on Falls Creek are the most spectacular. There is an overall control of stream courses by local structure or rock type, e.g. Nicholls Rivulet is partially fault controlled, but superimposition of streams is suggested by the transgressive relationship of the stream course to the structure.

STRATIGRAPHY.

The oldest formation is the Grange Mudstone which occurs in the north-eastern part of the area. This formation consists of creamy siliceous banded mudstone which is richly fossiliferous, the main fossils being fenestellids and *Strophalosia* spp. The next formation is the Woodbridge Glacial Formation of sandstones and siltstones with erratics and fossils such as *Spirifer vespertilio* and *Warthia*. It is 470 feet thick at Oyster Cove. Near Oyster Cove the Woodbridge Formation is overlain by Risdon Sandstone and this by the Ferntree Mudstone which is about 650 feet thick. This last formation consists of grey mudstone and yellow sandy mudstone. No trace of the overlying Cygnet Coal Measures was seen.

Of the Triassic System only the Knocklofty Formation occurs. A pebbly conglomerate occurs about 20 feet above the base to the north west of Oyster Cove. The formation is dominantly quartz sandstone with some quartz siltstone.

The Permian and Triassic sediments are intruded by sills and dykes of dolerite many of the contacts in this area being very steep. The dolerite and the Permian sediments up to the Woodbridge Formation are intruded by dykes of syenite porphyry which trend somewhat east of north. The age of the syenite is not known.

Small areas of alluvium occupy some of the river valley.

PETROLOGY.

Of particular interest is the occurrence of a mass of coarse granophyric dolerite at Red Hill, which contains quartz, orthoclase, plagioclase, pyroxene and iron oxide in granophyric intergrowth. The syenite porphyry has been described by Edwards. The most prominent feature is the occurrence of large sanidine phenocrysts.

STRUCTURAL GEOLOGY.

The main structural features are the faults associated with the dolerite intrusions. In the eastern part of the area part of a horst is occupied by dolerite with a steep contact against the Ferntree Mudstone downthrow to the west. The fault initially trends south-east but swings progressively to the south. Further west the main mass of dolerite forming Snug Plains is downfaulted by a north-easterly trending fault against Triassic sediments. The Snug Plains block is cut off to the south-west by a south easterly trending fault which downthrows to the north-east so that the Snug Plains block is part of a graben. Another smaller graben occupies the central southern part of the area.

ECONOMIC GEOLOGY.

Very small amounts of gold are found in the stream flowing just north of Oyster Cove. This is presumably associated with quartz veins associated with the syenite porphyry.

POINTS OF SPECIAL INTEREST.

Granophyric dolerite: Red Hill (509.2E.698.7N)

Snug Falls (507.4E.698.4N)

Syenite porphyry (Oyster Cove Road, Oyster Cove).

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