

Report Beaver River Uplands Preliminary Geological

General Rock Types

Sedimentary Rocks

The north and north-eastern part of the map area is underlain predominantly by quartzitic sediments ranging from quartz pebbles ^{with} conglomerate and quartzite to fine grained quartz sandstone. The Conglomerate is most commonly found near the intrusion contact to the south west. It is made up of well rounded whitish grey to clear grey pebbles and cobbles of quartz. The rock is thermally metamorphosed and may be a deep red color. It may be better ^{termed} a meta conglomerate.

Higher in the section the rock is a medium to fine grained quartzite pebbles in color ^{and coarse grained} near the conglomerate is, whitish and fine grained further up in the section.

Occasional beds of red to green shale or laminated argillite are found within this unit. At one locality ^{near the upper contact} a 3-5' thickness of laminated iron formation has been traced for over 200 feet along strike.

A ~~bed~~ ^{sequence} ~~is~~ of black argillaceous and siliceous limestone overlies the quartzite sediment to the north east and some beds of this unit are found within the upper ~~part~~ portion of the quartzite formation.

Further east another sequence of quartzite is found ~~with~~ ^{apparently} overlying the limestone.

The southern part of the region is also underlain for the most part by sedimentary rocks in varying degrees of metamorphism. The dominant rock is a green, grey or brown laminated argillite, usually siliceous and near intimate contacts and gneissic layers ~~is~~ metamorphosed to a fine grained hornfels.

Beds of quartzite up to a few hundred feet in thickness are common near the ~~gneissic~~ contact. ~~limestone~~ The quartzite ~~layers~~ members are generally white or light grey and are often found associated with greenish bands into which they seem to grade.

To the south the argillites are more silty sandy and ~~are~~ less metamorphosed.

Large thin members a few tens of feet in thickness ⁱⁿ and in one occasion near the ~~gneissic~~ contact over 100 feet thick are found ~~in the~~ ^{interbedded} with the argillite. The rock is variable in color from white to grey or brown. Near the ~~gneissic~~ contact masses of clean green serpentine with ~~some~~ ~~little~~ some slip fibers ~~are~~ are found in the limestone. The ~~beds~~ ^{beds} are usually a few inches across and may be 3 to 5 feet long.

Beds of ~~volcanic~~ ^{basaltic} volcanic material commonly breccia a few feet in thickness are found in a number of localities within the sedimentary rocks.

Intermediate rocks.

~~The central part of~~
Syenite.

Syenite is the commonest rock type in the central part of the map area. It is typically coarse grained ~~compositional~~ hypocrystalline composed of potash feldspar, hornblende or pyroxene and biotite. Partially near its southern contact bodies of pegmatite a few feet ^{to ten of feet} ~~in maximum thickness~~ composed of potash feldspar crystals up to a foot long are common. Potash feldspar crystals up to a foot across have been found. Purple fluorite is ~~found~~ occur along joint planes associated with some of the pegmatite zones. There appears to be some relation between the distribution of pegmatite bodies and strong joint sets.

Within the syenite reddish trachyte? dykes ^{most} usually only a few inches wide ~~are~~ occur along the strong joint trends.

Along the southwest contact of the syenite with argillite porphyroblasts, ~~feldspar~~ potash feldspar crystals up to 6" across have been developed in the schists within a few feet of the contact.

Structure.

The quartzite and limestone formations in the northern part of the map area dip concentrically away from the syenite intrusion body. Fold observations indicate that the beds are right way up which suggests a northerly plunging anticline or alternatively a doming due to intrusion of the syenite. Steeper dips on the west limb indicate an easterly dipping axial plane.

The sedimentary and metamorphic ~~beds~~ ^{rocks} south of the syenite ~~to~~ appear to be part of a gently folded easterly plunging ~~anticline~~ ^{synform} the northern limb of which has been ~~been~~ strongly metamorphosed. Bedding attitudes are ~~roughly~~ ^{generally} consistent near the syenite contact.

Mineralization

The most interesting mineral occurrence in the area is molybdenite ^{disseminated in} associated with greisens rocks south of the syenite contact. One ~~specimen~~ ^{specimen} analysed ran 0.13% MoS₂ with a trace of gold and silver. Traces of chalcopyrite are found in the volcanic rocks to the south. Fluorite mineralization is widespread in pegmatite ~~occur~~ ^{occur} ~~in~~ ⁱⁿ ~~the~~ ⁱⁿ ~~the~~ ⁱⁿ ~~south~~ ⁱⁿ ~~part~~ ⁱⁿ ~~of~~ ⁱⁿ the syenite body. Fluorite has also been found associated with actinolite ~~in~~ ⁱⁿ ~~the~~ ⁱⁿ ~~south~~ ⁱⁿ ~~of~~ ⁱⁿ the syenite intrusion.