

Qal Alluvium and some colluvium near valley margins. Bedrock may be exposed in streambeds

QTg Unconsolidated gravel, characterized by rounded quartz cobbles on upland surfaces

Md-X Diabase dike, individual outcrop shown

R s Red siltstone, and conglomerate

Pzps Medium grained, leucocratic, quartz-rich, metamorphosed plagiogranite: plagioclase, quartz, K-spar, and accessory biotite, chlorite, epidote, sphene, opaques, and rare garnet

Pzgd Medium grained, green and white metamorphosed tonalitic rocks: quartz, plagioclase, chlorite, sericite, epidote and accessory sphene and opaques. Quartz lumps up to 2 cm and mafic inclusions common in places.

Pzgr Medium to coarse grained metamorphosed granite: quartz, K-spar, plagioclase and accessory biotite, chlorite, epidote, sphene, and opaque. Outcrop and saprolite characterized by large weathered out quartz. Pluton contains outcrop sized inclusions of greenstone and schist particularly near the borders. Western margin consists of alternating greenstone or quartzose schist and granite bands a few meters to tens of meters thick. The granite in this zone is commonly sheared to give long quartz splinters. Patterned areas on map denote finer grained areas which may indicate separate intrusions within the pluton.

Pzc Chopawamsic Formation. Light grey, fine grained, meta-felsite porphyry with quartz and plagioclase phenocrysts in a groundmass of quartz, plagioclase, and accessory biotite, chlorite, muscovite, chlorite and opaque. Grey-green to green meta-mafites; actinolite, hornblende, saussuritized plagioclase, epidote, chlorite, accessory sphene and opaques, ± quartz. Grey-green fine grained intermediate metavolcanics or volcaniclastic rock: quartz, chlorite, plagioclase and accessory sphene and opaques.

Pz Pzq, fine grained, pale green to grey-green metasiltstone and micaceous quartzite: quartz, feldspar, chlorite, muscovite, epidote, accessory sphene, tourmaline, zircon, opaques; calcareous quartz schist: calcite, quartz, chlorite, epidote, accessory sphene; minor fine grained greenstone; actinolitic amphibole, chlorite, saussuritized plagioclase, quartz, accessory sphene, opaques.

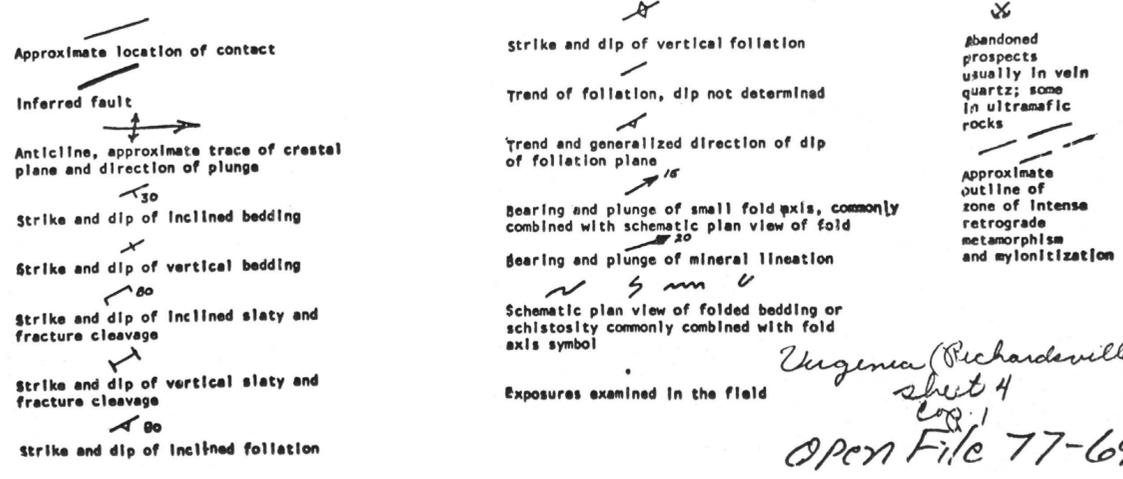
Pzsf Pzs, medium-fine grained, grey meta-arkose; pervasive cataclasis produces rough lamellae of large plagioclase and aggregates of feldspar, quartz, calcite separated by stringers of chlorite, muscovite, biotite, accessory sphene; opaques. Also some cataclastic chlorite-quartz schist.

Pzs Pzs, fine grained, dark grey metagreywacke: rounded to angular quartz and feldspar clasts in a fine matrix of sericite, quartz, feldspar, chlorite, epidote; dark grey to green phyllitic slate; buff weathering metasiltstone. A thin zone of graphitic phyllite. Pzsf, occurs near top of unit. Phyllites and metasiltstones show compositional bedding in places at an angle to the dominant cleavage.

Pzvu Mafic metavolcanic and meta-igneous rocks including fine grained greenstones, medium-fine grained, well foliated to massive amphibolites: actinolite, hornblende, saussuritized plagioclase, epidote, chlorite, quartz, sericite, accessory sphene, opaques. Fine grained grey to green mylonitized, probably intermediate metavolcanic rocks, quartz-chlorite-feldspar porphyry, accessory epidote, sericite. White to light grey sheared felsite porphyry: quartz, plagioclase, chlorite, sericite, epidote, biotite. Meta sediments become more abundant greywacke: quartz, plagioclase, chlorite, sericite, epidote, biotite. Meta pyroxene bodies of dark green to black ultramafic rocks, probably metapyroxenite eastward in the section. Pzvu, outcrop siliceous, sphene, (clinzoisite). possibly talc: occur near western border of the unit.

Pzm Finely laminated micaceous quartzites: quartz, saussuritized feldspar, chlorite, biotite, muscovite, epidote, accessory opaques, sphene, apatite, tourmaline, garnet; gnarled phyllitic schist: quartz, muscovite, chlorite, large sericitized staurolite porphyroblast; and late chloritoid; minor pea-sized quartz conglomerate; rare amphibolite. Thin quartz stringers, magnetite, extensive retrogression and abundant small scale folds are characteristic.

Reduce to approx this length



Virginia (Richmondville quad). Sheet 1: 24,000, 1977
 sheet 4
 log 1
 Open File 77-699