



A Black slate or argillite. Composed of fine-grained quartz clouded with tiny specks of carbonaceous material. Occasional biotite flecks are present.

L Black limestone. Medium and fine-grained with scattered fibrous tremolite crystals to 2 mm long.

Q Black quartzite. Rock is slightly schistose, and crops out as flagstone. Composed of quartz grains (0.1 mm) clouded with carbonaceous specks throughout and scattered light brown biotite.

G Dark gray calcareous graywacke. Hard, massive rocks with dark greenish to dark gray bands and calcite veinlets. Similar to Q but with the addition of about 20% carbonate and 20% chlorite. This unit was only mapped at Locality G, 4000 ft. north of Sample Site 44, but it is likely that other dense limy rocks interbedded with the black slates of the Caribou Creek syncline are the same rock type. G is probably gradational with A, L, and Q. With gradual increase of metamorphic grade it grades into MG.

UC Undifferentiated rocks of the Caribou Creek syncline, dark gray to black, only slightly transformed by metamorphism.

MG Metagraywacke. With interbedded schist. A slightly to moderately foliated quartzose rock with variable texture, color, and composition. Varies from fine-grained massive rock to schist with prominent biotite to gneiss. Has granoblastic texture, with minerals arranged in layers, but generally with little or no parallel orientation of mineral grains except in schist. Crystallization was probably synkinematic with the slight orientation of grains a result of the massive nature of the rock. Most specimens contain quartz, diopside, hornblende, labradorite and calcite with accessory sphene and apatite (almandine amphibolite facies). At E-1 about 2500 feet north of Sample Site 44 the rock appears megascopically less metamorphic than most metagraywacke, but more crystalline than G. It contains quartz, biotite, actinolite, and oligoclase and is intermediate in metamorphic grade between G and MG. The contact between G and MG, as observed in the field, is gradational across the saddle east of E-1. Just east of the Omilak shaft a mappable unit of pyrite-bearing black schist (SB) is present. At E-2, 0.6 mile ESE of site 74 the rock is of dioritic appearance and is composed of directionless granoblastic quartz, hornblende, diopside, and carbonate. Pebble sized patches have diabasic texture with plagioclase laths partly altered to clay minerals. This is a metamorphosed lithic wacke. One mile ESE of E-2 rock has the same minerals and directionless texture and shows good bedding.

S Quartz-biotite-garnet schist. Well developed foliation, and composition banding. The rock contains granoblastic quartz layers separated by undulating layers of parallel-oriented mica. Minerals are quartz, biotite, muscovite, plagioclase, garnet, chlorite, clinzoisite. Plagioclase is andesine or oligoclase west of Caribou Creek (almandine, amphibolite facies), while to the east of Caribou Creek it is albite (upper greenschist facies). Biotite has been altered to phlogopite in the vicinity of the granite intrusive on Caribou Creek. Schist in the vicinity of the Omilak mine shows evidence of contact metamorphism of hornblende hornfels facies. About 250 feet south of site 36 the schist contains quartz, biotite, cordierite, andesine, garnet, staurolite, muscovite, and chlorite. About 100 feet east of 37A it contains cordierite, anthophyllite, and minor quartz, muscovite, tremolite, chlorite, biotite, and zircon.

UM Undifferentiated metagraywacke and schist with no areas of white marble identifiable on air photos. The interbanding of the marble with the various other metamorphic rocks and vice versa is indication of originally conformable contacts between the various units.

M Marble, with minor interbedded schist. A rudely foliated rock, medium light gray where fine-grained and white where coarser-grained (1 mm). Often has impure bands of silicate minerals and/or quartz. Weathers medium gray. Rock is a slightly directional granoblastic mosaic of calcite; in darker bands also contains quartz, plagioclase, biotite, and muscovite. At 37A, in approximately the same horizon as the main Omilak shaft, the rock contains cordierite, and anthophyllite. West of the shaft on this horizon the rock contains large white crystals of diopside. Development of unoriented contact metamorphic minerals in the marble and adjacent schist indicates that the ore is associated with post-kinematic contact metamorphism. At M-1, 6000 feet west-northwest of site 80, the rock is impure marble and at M-2 the rock is impure contact-metamorphosed marble containing mainly calcite plus oligoclase, hornblende, diopside, biotite, and minor sphene and apatite.

D Diorite. A medium-grained dark intrusive similar in appearance to the diorite associated with the granite east of Caribou Creek.

Id Diorite. Exposures on Caribou Creek are mainly fine-grained granite but the outcrop contains rubble patches of diorite which may be intrusive into the granite. Rock contains albite, orthoclase, quartz and minor biotite. Dioritic portions have a diabasic texture with zoned oligoclase laths (sericitized cores) with interstitial hornblende, biotite and minor orthoclase, sphene and pyrite. The granite on Big Creek is composed mainly of coarse (up to 6 mm) perthitic orthoclase and quartz with about 10% interstitial albite, and a lesser amount of biotite.

MAP SYMBOLS

- Contact, defined, approximate, assumed
- Attitude of bedding or foliation, showing axis of minor folds or crenulations
- Attitude of axis of plunging anticline
- Fault
- Shaft where labeled
- Prospect
- Minor showing
- Geochemical sample
- Geochemical sample with metal anomaly
- Buildings on Omilak Creek