



- SEDIMENTARY DEPOSITS**
- Qd**
Unconsolidated deposits
Mainly glacial, glaciofluvial, and alluvial deposits, but locally includes eluvium
- IGNEOUS ROCKS**
- TgTKg**
Granitic intrusives
Dikes and sills
 - TkmTKm**
Mafic intrusives
Dikes and sills
 - Tkp**
Pegmatite
Dikes and sills
- METAIgneous ROCKS**
- mgr mgr**
Metagranitic sills
 - mgd**
Metagranodioritic sills
 - gt gt**
Greenstone sills
- METASedimentary ROCKS**

The following lithologic units were previously included in the Nome Group (Brooks, A. H., Richardson, G. B., and Collier, A. J., 1931, Reconnaissance in the Cape Nome and Norton Bay regions, Alaska: U. S. Geol. Survey Spec. Pub., p. 29, also Moffit, F. H., 1913, Geology of the Nome and Grand Central Quadrangles: U. S. Geol. Survey Bull. 533, p. 17-19)

Interbedded marble and schist
Well-stratified sequence comprised principally of the following rocks: non-graphitic to slightly graphitic, quartz-chlorite-muscovite schist and chlorite-muscovite schist, non-graphitic to slightly graphitic calcareous and quartz-calcareous-chlorite-muscovite schist, blue-gray and gray marble and buff-weathering and gray schistose marble, garnetiferous and non-garnetiferous amphibolite, and impure calcareous and non-calcareous quartzite. Garnet and feldspar are constituents of some chlorite-muscovite schist. Units consisting mainly of marble are shown with cross-hatched pattern. Contact with underlying calcareous schist gradational

Calcareous schist
Composed almost entirely of calcareous-rich rocks, including non-graphitic to slightly graphitic chlorite-muscovite schist and quartz-chlorite-muscovite schist, buff-weathering calcareous chlorite-muscovite schist, buff-weathering and gray schistose marble, and sparse blue-gray marble. Contact with underlying quartzite and schist gradational

Interbedded quartzite and schist
Predominantly green to gray-green chlorite-muscovite schist and quartz-chlorite-muscovite schist and spotted, feldspathic variants of them with intimately interbedded lenticles and beds of buff- to brown-weathering calcareous quartzite and yellow-green argillaceous quartzite; lenticles range in size from a fraction of an inch in thickness and a few inches long to several feet in thickness and several tens to hundreds of feet long; minor units include calcareous chlorite-muscovite schist and gray and buff-weathering schistose marble. Variants of all units with amphibole and garnet are sparingly present in the northern outcrop belt extending from upper Nome River to upper Eldorado River. Contact with underlying schist gradational

Marble
Pemu consists mainly of calcareous, quartz-calcareous, and quartz-chlorite-muscovite schist but includes blue-gray and gray marble, buff-weathering and gray schistose marble, and black quartzite. Gradational with underlying rock
Pm, principally platy, slabby and massive blue-gray and gray marble, and buff-weathering and gray schistose marble; minor units include calcareous chlorite-muscovite schist and graphitic and non-graphitic chlorite-muscovite schist and quartz-chlorite-muscovite schist. Contact with underlying graphitic, calcareous schist gradational

- EXPLANATION**
- Graphitic, calcareous schist**
Pgu, uppermost part of this unit is markedly more graphitic than the rest; includes gray to dark-gray, moderately to highly graphitic, calcareous quartz-chlorite-muscovite schist; graphitic quartz-chlorite-muscovite schist; gray, dark-gray, and black marble; and black quartz schist and black quartzite. Gradational with underlying rock
 - Pg**
Pg, predominantly gray, slightly graphitic, calcareous quartz schist; minor units include blue-gray, gray, and black marble, graphitic chlorite-muscovite schist, quartz-chlorite-muscovite schist, and black quartz schist and black quartzite. Non-graphitic to slightly graphitic quartz-chlorite-muscovite schist, and black graphitic quartz schist and black graphitic quartzite predominate in units shown by vertical line pattern. This unit in fault contact with what is considered to be next underlying rock
 - Interbedded biotite schist and quartzite**
Composed mainly of interbedded gray and black graphitic quartzite and red-brown-weathering biotite schist. Garnet, sillimanite, and staurolite are constituents of some schist. Minor units include calc-silicate rocks and diopside-bearing quartz-feldspar biotite schist. Contact with underlying marble gradational
 - Dolomitic and calcitic marble**
Predominantly, white dolomitic marble and grayish-white to gray, impure biotite- and diopside-bearing calcitic marble; minor units include pale green, calc-silicate rocks, grayish-green to greenish-gray, diopside-bearing quartz-feldspar-biotite schist, and orange-, red-, and brown-weathering quartz-feldspar schist and quartz-biotite schist. Parts of the unit in which schist predominates are shown by inclined line pattern
- Contact**
Short dashes where approximately located; short dashes alternating with dots where inferred, extrapolated, or semi-obscured. All contacts queried where doubtful
- Contact of unconsolidated deposit, approximately located**
- Fault, showing dip**
Dashed where approximately located or inferred; dotted where concealed; queried where doubtful. U, upthrown side; D, downthrown side
- Lineament or fault from aerial photographs**
- Anticline, approximately located**
Showing trace of axial plane and direction of plunge of axis
- Syncline**
Showing trace of axial plane and direction of plunge of axis. Dashed where approximately located; queried where doubtful
- Bearing and plunge of minor fold axis**
- Bearing of horizontal minor fold axis**
- Strike and dip of bedding foliation from aerial photographs**
- Strike and direction of dip of beds from aerial photographs**
- Horizontal bedding foliation**
- Strike and dip of bedding foliation**
- Strike of vertical bedding foliation**
- Strike and dip of bedding foliation**
Open arrow shows bearing and plunge of lineation
- Strike and dip of bedding foliation**
Solid arrow shows bearing and plunge of minor fold axis lying in plane of foliation
- Strike and dip of bedding foliation**
Open arrows indicate bearing of horizontal lineation

LOWER TO MIDDLE PALEOZOIC

LOWER PALEOZOIC

BEARING AND PLUNGE OF LINEATION

BEARING OF HORIZONTAL LINEATION

BEARING AND PLUNGE OF PENCIL STRUCTURE

STRIKE AND DIP OF JOINT

STRIKE OF VERTICAL JOINT

MINE OR PROSPECT

Numbers refer to mines and prospects listed below

1. Breen (East); Sb	11. MacDuffee (West); Au, FeS
2. Breen (West); Sb	12. Moffit; graphite
3. California (Jensen); Au	13. Nelson (Steep Creek); Pb, Zn
4. Charley Creek; Bi	14. Nelson Gulch; Sch
5. Copper Creek; Cu	15. Slisovitch; Sb
6. Copper King; Cu, Pb	16. Slisovitch (South); Sb
7. Copper Mountain; Cu	17. Spring; Sb
8. Hed and Strand; Sb	18. Tanner; Sb
9. Lindfors; Sb	19. Thompson; Sb, Zn
10. MacDuffee (East); Au	20. Wyoming; FeS

The names of the mines and prospects above are those by which they are referred in previous geologic literature of the area.

21. 53AHu 123; FeS	32. 54AHu 522; FeS
22. 53AHu 131; FeS	33. 57AHu 132; Cu
23. 53AHu 169; Sch	34. 57AHu 135; FeS
24. 53AHu 174; Sch	35. 57AHu 216; Sch
25. 53AHu 254; Cu	36. 57AHu 244; graphite
26. 53AHu 294; Sch	37. 57AHu 278; Zn, Sch
27. 54AHu 280; FeS	38. 57AHu 278; graphite
28. 54AHu 465 (Float); Cu	39. 57AHu 291; FeS
29. 54AHu 510; Sb	40. 57AHu 300; Sch
30. 54AHu 518; Sb	41. 57AHu 341; FeS
31. 54AHu 519; Sb	

Prospects 21 through 41 were found or relocated during the current geologic investigation and no names could be found for them; they are here listed according to the field station designations. The principal constituents of the mines and prospects are indicated as follows: Au, native gold; Cu, copper; FeS, iron sulfides, mainly pyrite and arsenopyrite but rarely pyrrhotite; Pb, lead; Sb, antimony; Sch, scheelite.

TRUE NORTH
APPROXIMATE MEAN DECLINATION, 1962

INDEX MAP SHOWING AREA OF THIS REPORT

0 100 200 MILES

PRELIMINARY GEOLOGIC MAP OF THE NOME D-1 QUADRANGLE, SEWARD PENINSULA, ALASKA

By
C. H. Hummel

