

PROTEROZOIC

ARCHAEO OR PROTEROZOIC (?)

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- 27 Gabro, diabasic gabro, basalt; 27a, assemblage of several narrow dykes and country rocks; 27b, altered; 27c, amygdaloidal and porphyritic
- MARTIN FORMATION (20-26)**
- 26 Siltstone; minor arkose, conglomerate; 26a, some arkose; 26b, some conglomerate; 26c, brecciated
- 25 Conglomerate in interbeds; minor arkose, siltstone; 25a, some arkose; 25b, some siltstone; 25c, brecciated
- 24 Upper arkose; minor conglomerate, siltstone; 24a, some siltstone; 24b, some conglomerate; 24c, brecciated
- 23a, amygdaloidal, porphyritic andesite and basalt; 23b, fine-grained porphyritic basalt, possibly intrusive; 23c, gabro sill; 23d, pillow lava
- 22 Lower arkose; minor conglomerate, siltstone; 22a, some siltstone; 22b, some conglomerate; 22c, calcareous; 22d, brecciated; 22e, abundant veinlets of silica
- 21 Siltstone, minor arkose, conglomerate; 21a, some conglomerate; 21b, some arkose; 21c, some green shales; 21d, brecciated
- 20 Basal conglomerate, breccia; minor arkose, siltstone; 20a, abundant fragments of granitic rocks; 20b, abundant fragments of grey quartzite, greywacke, and white glassy quartzite; 20c, abundant fragments of rocks rich in mafic minerals or with a chlorite-rich matrix; 20d, some beds of sandstone and siltstone; 20e, brecciated
- TAZIN GROUP (1-19)**
- 19 Metasedimentary granite, red, massive, locally faintly gneissic and in part cataclastic; minor granite and pegmatite dykes; 19a, gneissic and layered, in part with more dark minerals; 19b, cataclastic, brecciated, and mylonitized, dense, in part gneissic and layered; 19c, hybrid, high dark mineral content and many dark remnants; 19d, carbonate-rich; 19e, amphibolite, hornblende schist and gneiss, in part altered to chlorite rock; 19f, quartzite, white, feldspathic and layered; minor quartzite; 19g, resembling granitic layered gneiss, red; minor granite; 19h, grading into chlorite schist and impure quartzite
- AREA EAST OF MARTIN FORMATION**
- AREA SOUTH OF ST. LOUIS FAULT (6-9)**
- MURMAC BAY FORMATION (6-9)**
- 9 Limestone, dolomitic, in part silicate-bearing; 9a, includes a few quartzite interbeds
- 8 Quartz-biotite schist, greywacke, impure quartzite, garnetiferous; 8a, in part hornblende; 8b, in part chlorite; 8c, mainly quartzite; 8d, includes carbonate rocks; 8e, contorted; 8f, argillite-like and slaty, resembling 4
- 7 Amphibolite, hornblende schist, in part granitized; minor granite masses; 7a, chlorite schist, chlorite-biotite schist, in part hornblende; 7b, granitized chlorite and/or hornblende and/or biotite schist, includes small granite masses; 7c, mainly chlorite schist, in part granitized, includes a few quartzite interbeds; 7d, in part carbonate rocks; 7e, interbedded mixture of hornblende and/or chlorite schist, quartzite (6), and red granitic material; 7f, in large patches or blocks in granite; 7g, rusty
- 6 Quartzite, mainly massive and white; 6a, diopside-bearing; 6b, with red hematite or ferruginous; 6c, schistose or altered to chlorite-sericite schist, in part impure quartzite or greywacke; 6d, brecciated; 6e, in part red granite; 6f, mottled black and white; 6g, minor carbonate rock; 6h, minor biotite-chlorite schist and hornblende schist; 6i, resembling Donaldson Lake gneiss (2)
- AREA NORTH OF ST. LOUIS FAULT (1-5)**
- 5 buff quartzite, massive and bedded; 5a, brecciated; 5b, in part red granite; 5c, in part hornblende schist; 5d, massive, glassy, white quartzite; 5e, in part argillite and chlorite schist
- 4a, argillite, slate, chlorite-epidote rock; 4b, hornblende schist; minor amphibolite; 4c, brecciated; 4d, in part quartzite; 4e, in part red granite; 4f, incipient hornblende schist and chlorite schist; 4g, hornblende schist (4b), unconformable over argillite (4a)
- 3, quartzite-chlorite schist unit; chlorite-sericite schist; 3a, in part argillite and biotite-chlorite schist; 3b, in part red granite; 3c, brecciated; 3d, in part hornblende schist; 3e, in part dolomitic; 3f, mainly quartzite; 3g, resembles Donaldson Lake gneiss (2)
- 2 **DONALDSON LAKE GNEISS:** white, granitoid and crudely layered quartz monzonite gneiss, less mafic than 1; 2a, in part massive, glassy, white quartzite; 2b, in part red granite; 2c, brecciated; 2d, amphibolite and hornblende or chlorite schist; 2e, schistose; 2f, minor Foot Bay gneiss (1)
- 1 **FOOT BAY GNEISS:** red, well layered, more dark minerals than 2, quartz monzonite to granodiorite gneiss; 1a, more mafic minerals than general, amphibolite; 1b, in part red granite; 1c, brecciated; 1d, amphibolite and hornblende or chlorite schist; 1e, contorted; 1f, minor quartzite

NOTE: The age of units 10 to 18 relative to units 1 to 9 is uncertain but possibly as suggested. Unit 27 may be older than units 24 to 26

**AREA WEST OF MARTIN FORMATION**

**AREA BETWEEN BLACK BAY AND BOOM LAKE FAULTS (14-18)**

- 18 **URANIUM CITY AMPHIBOLITE:** amphibolite, hornblende-feldspar gneiss and schist, in part granitized and chloritized; minor granite masses, dykes, and sills; 18a, quartzite rocks; 18b, minor granite
- 17 **CAYZOR UNIT:** 17a, impure feldspathic quartzite and chlorite schist, interbedded; in general highly granitized with augen structure; minor granite bodies, dykes, and sills; 17b, amphibolite and hornblende feldspar gneiss and schist, in part altered to chlorite-feldspar schist and gneiss; 17c, amphibole-dioctite-carbonate rocks; 17d, thinly layered granitic gneiss, minor granite; 17e, thinly layered quartzite gneiss and quartzite; minor granitic gneiss and granite; 17f, brecciated and mylonitized; 17g, similar to Donaldson Lake gneiss; 17h, mainly impure quartzite; 17i, contorted and drag folded; 17j, age uncertain, in part schistose; 17k, massive to foliated red granite
- 16 **JEAN LAKE AMPHIBOLITE:** amphibolite, hornblende-feldspar gneiss and schist, in part granitized and chloritized; minor granite masses, dykes, and sills; 16a, quartzite rocks; 16b, minor granite
- 15 **RIX UNIT:** 15a, quartzitic layered gneiss, feldspathic, quartzitic and granodioritic layers interbedded with minor amounts of darker mafic-rich layers; minor quartzite layers; 15b, granite layered gneiss; granodiorite and quartz monzonite layers, interbedded with darker mafic-rich layers; minor granite and pegmatite dykes and sills; 15c, amphibolite, hornblende-feldspar gneiss and schist, locally altered to chlorite schist; 15d, quartz-biotite schist, rusty brown, locally hornblende; 15e, brecciated and mylonitized; 15f, contorted and drag-folded; 15g, minor granite bodies or dykes and sills; 15h, diopside-carbonate rock; 15i, similar to 17
- 14 **CHANCE LAKE UNIT:** 14a, brecciated and mylonitized granodiorite and quartz-monzonite, layered gneiss, in part granitized; 14b, quartzite rocks, in general feldspathic and layered; 14c, amphibolite, hornblende-feldspar gneiss and schist, minor granite and pegmatite dykes and sills; 14d, quartz-feldspar-chlorite augen gneiss and impure quartzite, in part granitized

**AREA NORTH OF BOOM LAKE FAULT (10-13)**

- 13 **GRANITIC LAYERED GNEISS (UPPER BELT):** 13a, granodiorite and quartz-monzonite layered gneiss, in part granitized; minor granite areas and pegmatite dykes and sills; 13b, quartzite rocks, in general feldspathic and layered, locally granitoid; 13c, amphibolite and hornblende gneiss, minor granite and pegmatite dykes and sills; 13d, granitized or minor granite bodies; 13e, brecciated; 13f, porphyroblastic; 13g, contorted and drag folded; 13h, fine-grained granoblastic gneiss, in part biotite-rich; 13i, very finely layered; 13j, thinly bedded and schistose, a few beds high in dark minerals; 13k, locally rich in carbonate; 13l, chloritized
- 12 **POWERLINE CREEK BELT (11, 12):** 11, quartzite rocks; feldspathic, garnetiferous, and in part layered; 11a, mainly quartzite, in part thinly bedded and schistose; 11b, minor amphibolite or pyroxenite; 11c, minor granitic layered gneiss resembling 10; 11d, brecciated
- 12, amphibolite, hornblende-feldspar gneiss, minor granite dykes and sills; 12a, minor quartzite rocks resembling 11; 12b, garnetiferous; 12c, granitized and include small granite masses; 12d, serpenitized and locally rich in carbonate; 12e, chloritized
- 10 **GRANITIC LAYERED GNEISS (LOWER BELT):** granodiorite and quartz-monzonite layered gneiss, in part granitized; minor granite areas and pegmatite dykes and sills; 10a, amphibolite or hornblende schist; 10b, pyrite rich fine-grained granoblastic rock; 10c, low in dark minerals, quartzite; 10d, fine-grained granoblastic rock, rich in dark minerals; 10e, minor granite areas, including dykes and sills; 10f, brecciated; 10g, finely layered

- MINERALS**
- Fluorite . . . . . fl Magnette . . . . . mag
  - Galena . . . . . ga Pyrite . . . . . py
  - Garnet . . . . . gt Serpentine . . . . . serp
  - Graphite . . . . . gf Umangite . . . . . um
  - Hematite . . . . . hem Pitchblende . . . . . U

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Approximate magnetic declination 1968,  
24° 31' East, decreasing 4.3' annually

