

LEGEND

This legend is common for maps 1847A to 1851A. *Some units or symbols may not appear on this map.

QUATERNARY HOLOCENE

NONGLACIAL ENVIRONMENT

- 14 ALLUVIUM: sand and gravel with detrital organic beds; commonly less than 5m thick; occurs as braided floodplains. MARINE SEDIMENTS: gravel, sand, silt and clay in coarsening upward sequences; 1-30m thick; deposited in littoral, deltaic and offshore environments during regression of the postglacial sea. 13 Littoral deposits: bouldery and flaggy gravel; 2-6m thick; occurs as flights of emerged beach ridges. West coast flights of boulder beaches developed on end moraines; some east coast flights of gravel and shingle beaches are derived from shattered limestone. *12 Deltaic deposits: planar and cross-bedded sand and silt locally containing organic detritus and silt mats; occurs as a coarsening upward sequence 5-30m thick; fossiliferous; forms terraces where debris from the glacier snout and glacial sediments emptied into the sea. 11a 11b Offshore and sub-littoral deposits: stratified sand and silt with few ice rafted boulders and dropstones, in some places gravely near the surface; sparsely fossiliferous; 11a, blanket deposits 1-10m thick, forming plains, extensively covered by mudballs; 11b, veneer deposits, less than 1m thick, mimicking the surface form of underlying rock.

PROGLACIAL AND GLACIAL ENVIRONMENT

- 10 GLACIOMARINE DEPOSITS and MARINE VENEER/TILL: stony sandy silt or stony clay with ice rafted boulders and dropstones; poorly sorted, locally massive; contains shell fragments; 1-5m thick; mantles and mimics underlying till surfaces. *9 GLACIOLACUSTRINE DEPOSITS: silt and fine sand; 1-3m thick; deposited in valleys occupied by temporary glacier- or moraine-dammed lakes; forms veneers over it. GLACIOFLUVIAL DEPOSITS: poorly stratified sand and gravel; 1-10m thick; deposited behind, at, and in front of the ice margin by glacial meltwater. 8 Outwash: cross-stratified sand and rounded gravel; 1-10m thick; occurs as knotted terraces and braided fans. 7 Kame and esker deposits: poorly sorted sand and gravel with rounded boulders; 5-15m thick; forms isolated hummocks and sinuous ridges. Below marine limit, eskers have been intensively modified by wave action.

EARLY HOLOCENE AND LATE PLEISTOCENE (WISCONSINAN) GLACIAL ENVIRONMENT

- TILL: chiefly unsorted glacial debris (diameter: 1-30m thick; deposited by basal meltout and lodgment. Bouldery till deposited by local ice caps covers much of the area, and merges with the sandy till of the Laurentide (Foxe) ice regime. Sandy Laurentide till: olive grey stony granitic till with a sandy matrix; up to 20m thick; occurs as veneers, blankets, and hummocky deposits. 6 Hummocky till: chiefly granitic till; 5-30m thick; forms a prominent hummocky ridge marking a major recessional ice margin, and diffuse zones marking boundaries between ice regimes. 5 Till blanket: 1-10m thick; forms gently rolling plains; some areas have large frost features. 4 Till veneer: less than 1m thick; occurs in patches over rock and is interspersed with rock outcrop; deposits are thin enough to reveal details of underlying rock structure. Bouldery local till: bouldery till consisting of blocky clasts in a sandy grass matrix, together with a small number of far-travelled erratics. 3 Till blanket: 1-5m thick; forms a nearly flat plain with zones of shallow, ephemeral ice-marginal channels. 2 Till veneer: less than 1m thick; overlies bedrock as a distinct unit, or grades laterally and vertically into outcrop and broken rock.

PERIGLACIAL AND GLACIAL ENVIRONMENT

- 1 BROKEN ROCK/ELSENMEER: blocky rubble derived from the disaggregation of bedrock by frost riving and by hydration or chemical weathering along microfractures; blocks are 0.5-2m across and have unweathered surfaces; unit grades downwards into coherent bedrock.

PRE-QUATERNARY

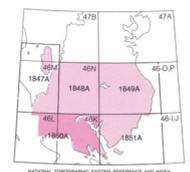
- ROCK: Precambrian: bare, coherent outcrop of various lithologies and ages; locally glacially polished and striated, sound into streamlined bedforms, and deeply eroded into U-shaped troughs in the western highlands. A Aphesian deformed and metamorphosed sedimentary rocks of the Parry Group, including marble, quartzite, and pelitic gneiss; forms glacially eroded valleys. A Archean granitoid and other rocks including tonalite, granite, gneiss, metavolcanics, and banded iron formations; forms rugged highlands and uplands.

- Geological boundary: --- Gossan: - - - Small outcrop: - - - Striation (ice flow direction known, unknown): - - - Crag and fall: - - - Till flute, drumlin: - - - Roche moutonnée: - - - Moraine (end, lateral, minor): - - - * Drift dispersal plume: - - - Outcrop scoured by meltwater: - - - Esker, (direction of flow known, unknown), washed esker: - - - Shallow, subglacial drainage: - - - Lateral meltwater channel: - - - Proglacial channel: - - - * Glacial lake terminus: - - - Beach ridge: - - - Marine limit: - - - Delta: - - - Scollification megalobes: - - - Large ice wedge polygons: - - - Frost-heaved joint lineation: - - - Sample site: - - - Fossil locality: - - - * Archaeological sites: - - - Radiocarbon date locality: - - -

Geology by L.A. Dredge, 1990, 1991. The author acknowledges the field assistance of M. Coyle, P. Mikylungiak, and D. Russell, and logistical support from Polar Continental Shelf Project. Geological cartography by E. Everett, Geological Survey of Canada. Colour separations were produced using digital methods. Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada. Base map assembled by the Geological Survey of Canada from maps 46L (1980), 46K (1979), at 1:250 000 scale by the Army Survey Establishment R.C.E. Copies of the topographical editions of this map may be obtained from the Canada Map Office, Department of Natural Resources Canada, Ottawa, Ontario, K1A 0E9. The proximity of the North Magnetic Pole causes the magnetic compass to be erratic in this area. Mean magnetic declination 1994, 29°37' W, decreasing 9.5' annually. Readings vary from 28°10' W in the SW corner to 34°31' W in the NE corner of the map. Elevations in feet above mean sea level.



MAP 1850A SURFICIAL GEOLOGY REPULSE BAY - HURD CHANNEL DISTRICTS OF FRANKLIN AND KEEWATIN NORTHWEST TERRITORIES Scale 1:200 000 - Échelle 1/200 000. Includes scale bar and projection information: Universal Transverse Mercator Projection / Projection transverse universelle de Mercator.



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