

Geological and Natural History Survey of Canada.

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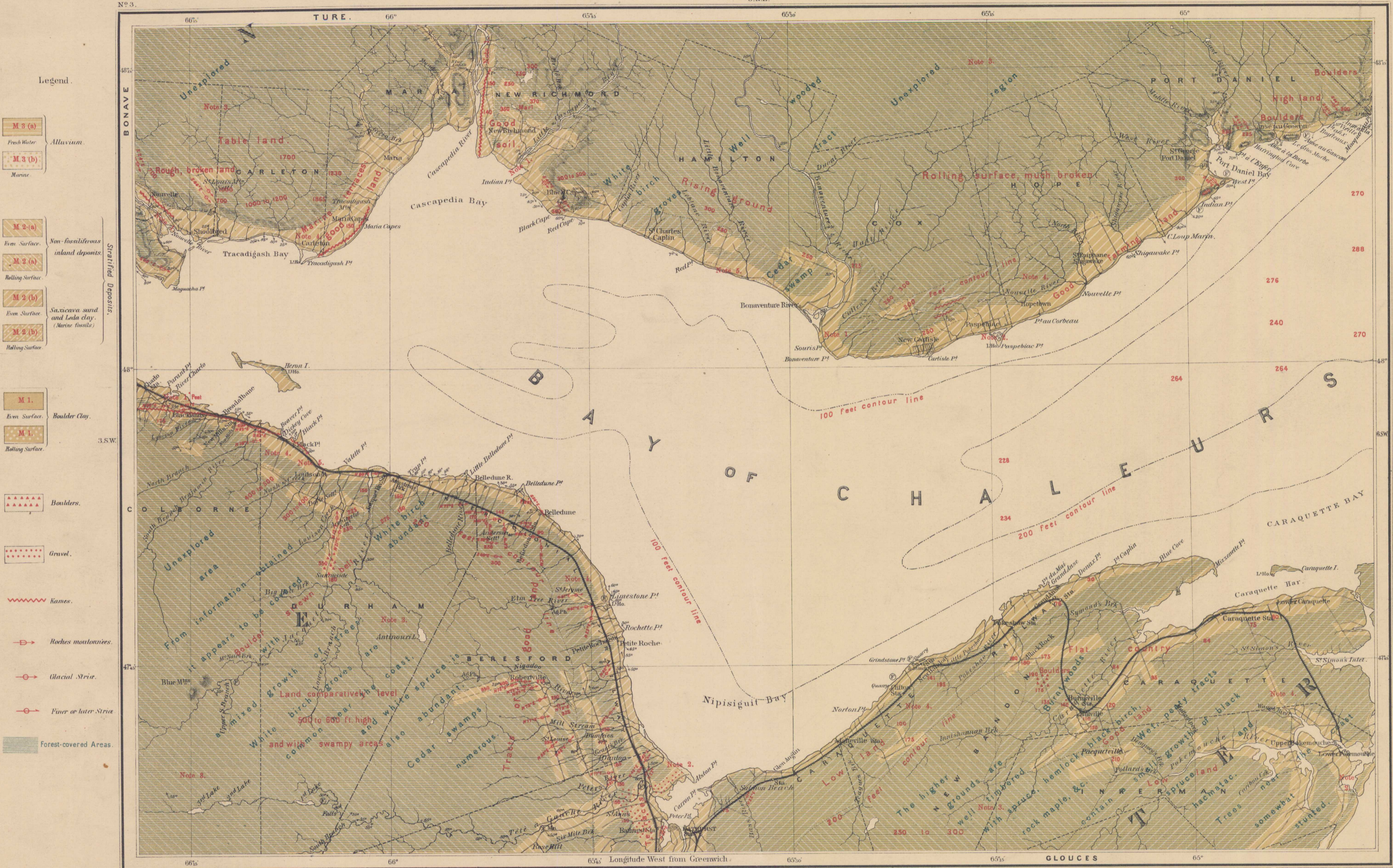
1887.

SURFACE GEOLOGY

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- Legend
- M 3 (a) Fresh Water Alluvium.
 - M 3 (b) Marine.
 - M 2 (a) Even Surface. Non-fossiliferous inland deposits.
 - M 2 (a) Rolling Surface.
 - M 2 (b) Even Surface. Saxicava sand and Leda clay. (Marine fossils).
 - M 2 (b) Rolling Surface.
 - M 1. Even Surface. Boulder Clay.
 - M 1. Rolling Surface.
 - Boulders.
 - Gravel.
 - Rames.
 - Roches moutonnées.
 - Glacial Striae.
 - Finer or later Striae.
 - Forest-covered Areas.

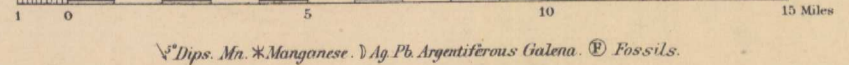
- Note 1. M 3 (a)**
These deposits, which comprise peat bogs, lacustrine and fluvial marshes and river-flats (intervals) occupy only limited areas in the district included in this map. They are fully described in the accompanying report. Intervals of moderate width, with excellent soil, occur along the larger rivers, more especially at the mouths of affluents, usually consisting of a deep loam. Such intervals are met with along the Nouvelle, Grand and Little Gaspe and Bonaventure Rivers. In their natural condition they are heavily wooded with a mixed growth of elm, (*Ulmus americana*), balsam poplar (*Populus balsamica*), cedar (*Thuja occidentalis*), two or three species of birch, (*Betula lenta*, *B. papyrifera*, and *B. ulmifolia*), white spruce, (*Picea canadensis*), fir, (*Abies balsamea*), ash, (*Fraxinus americana*), &c. The peat bogs occurring in the district are small, and peat is not utilized yet. The marshes are likewise insignificant. Shell marl is found under or associated with peat at Bellefleur, Charlo River and New Richmond.
- Note 2. M 3 (b)**
Under this group are included beds of recent marine formations such as estuarine flats, salt marshes, sand dunes, &c., which, in this locality, occupy estuaries and strips along the coast line. In the eastern part of Gloucester county, some of the salt marshes yield hay in sufficient quantities to be cut. The dunes sometimes jut into the bay as "points," enclosing lagoons, and forming natural breakwaters, in the shelter of which the small fishing craft usually find safe anchorage. At Paspébiac a village has been built on one of these dunes.
- Note 3. M 2 (a)**
Deposits of this class occupy by far the larger part of the region comprised in the map, and are described in detail in the report. The area covered by them being almost wholly forest-clad, and unoccupied, except by a few lumbermen, it was found extremely difficult to ascertain the character of the surface beds in it, more especially of those portions lying away from river valleys, and much of it is therefore unexplored, and is, for the present, mapped and described provisionally. As stated in the report, the beds consist, so far as examined, especially on the uplands, of materials largely, and in many places wholly, derived from the underlying rocks with a greater or less admixture of boulders transported from limited distances. The general succession of the deposits (descending) is—(1) a layer of decayed vegetable matter of variable thickness; (2) stratified sand, gravel or clay, or all three together sometimes, of considerable depth in the hollows or on the slopes; (3) boulder clay, or in some places merely decomposed rock in situ. On the area occupied by Silurian limestones, there is, generally speaking, a deep rich soil, comparatively free from stones, and supporting a vigorous growth of trees, the principal species of which are enumerated in the report. The area covered by Carboniferous sediments is, for the greater part, flat, and the soil in some parts clayey, in others sandy. Nevertheless it contains tracts of excellent farming land, more particularly near the river banks and coast, where the natural drainage is good. Considerable quantities of transported boulders lie on the surface in certain localities, and portions of the interior are swampy.
- The terraces of greater or less breadth occurring along the rivers, are marked features, and together with the intervals referred to, comprise beds of good land. Limestone is abundant on the Silurian uplands.
- Note 4. M 2 (b)**
The Saxicava sand and Leda clay which cover the larger part of the district below the 200 feet contour, and often form terraces at the mouths of rivers and along the coast, are, for the most part, thin, occurring as irregular, lenticular sheets. Water worn boulders are common in many places. The surface is comparatively even with a gentle slope towards the Bay of Chaleurs. The soil, although scanty in some places, is, in others, deep and rich. Nearly all the settlements around the Bay of Chaleurs are located on or near the coast. Fine tracts of farming land are met with at Bathurst, Jacquet River, Charlo, Nouvelle, Carleton, New Richmond, Bonaventure, New Carleton and Paspébiac, Shigawake, Fort Daniel, &c. The agricultural character of this marginal tract in Bonaventure county is superior to that on the southern side of the Bay, taken as a whole, from the fact that it is underlain chiefly by Lower Carboniferous rocks, the debris of which forms probably the best soil in the region. Natural fertilizers such as lime, marl, &c., are abundant.
- Note 5. M 1.**
Till or boulder clay is found in the upper part of the surface beds only in a few localities, two of the larger of which, at Cabot's Creek, Restigouche county, and on the coast at Little Bonaventure River, are mapped. It occurs abundantly elsewhere, however, underlying the stratified beds in lenticular sheets.
- The hills and contours of the surface in the interior are not shown, except along the larger river valleys. Owing to the wooded and inaccessible condition of the country, observations could not be made in detail, unless a great deal of time was taken. The elevations are given in feet above high tide level, and the courses of striae are referred to the true meridian.

Topography Compiled and drawn by R.W.B.L. from Plans made by the Admiralty Crown Lands and Geological Surveys. Surface geology by R.Chalmers.

2. N.E. The Burland Lithographic Company, Montreal.

PROVINCE OF NEW-BRUNSWICK AND PART OF QUEBEC.

Nat. Scale: 253/440. Scale 4 miles to one inch.



∇ Dips. M. * Manganese. √ Ag. P. Argentiferous Galena. ⊕ Fossils.

Bathurst sheet

This sheet accompanies Part M, Annual Report 1886

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