

DETAILED AGGREGATE ASSESSMENT PROJECT - INSULAR NEWFOUNDLAND

by

F.T. Kirby

INTRODUCTION

This year marked the beginning of the first detailed aggregate resource assessment project in Newfoundland and Labrador. In previous years, some detailed work was carried out in selected areas (*viz.*, Butts Pond, Sandy Brook - Grand Falls, Gros Morne National Park) and a start was made on the St. John's Urban Region Plan area. The studies were initiated under the Inventory of Aggregate Resources program.

OBJECTIVES OF PROGRAM

The main aim of the project is to identify areas of quality aggregate resources within municipal or other planning areas (*e.g.* agricultural) where the implementation of land use zoning might sterilize (remove from future production) areas of aggregate resources. The process involves locating and sampling in detail any aggregate reserves located within the proposed development areas. In areas lacking quality grade aggregates (*i.e.* gravels and sands), alternative sources such as silt/clay-free till and/or suitable bedrock are assessed in regards to current and future local needs. The designation of the aggregate resources as extraction areas within specific planning proposals (*i.e.* municipal plans) shall ensure that the aggregates can be preserved to meet present and future aggregate demand in the area. This likewise ensures the local domestic and commercial aggregate consumer has access to material at a reasonable cost. After the aggregate resource reserves are depleted, quarry areas are to be rehabilitated to a state suitable for other proposed uses and the area removed from the extractive designation.

FIELD PROGRAM

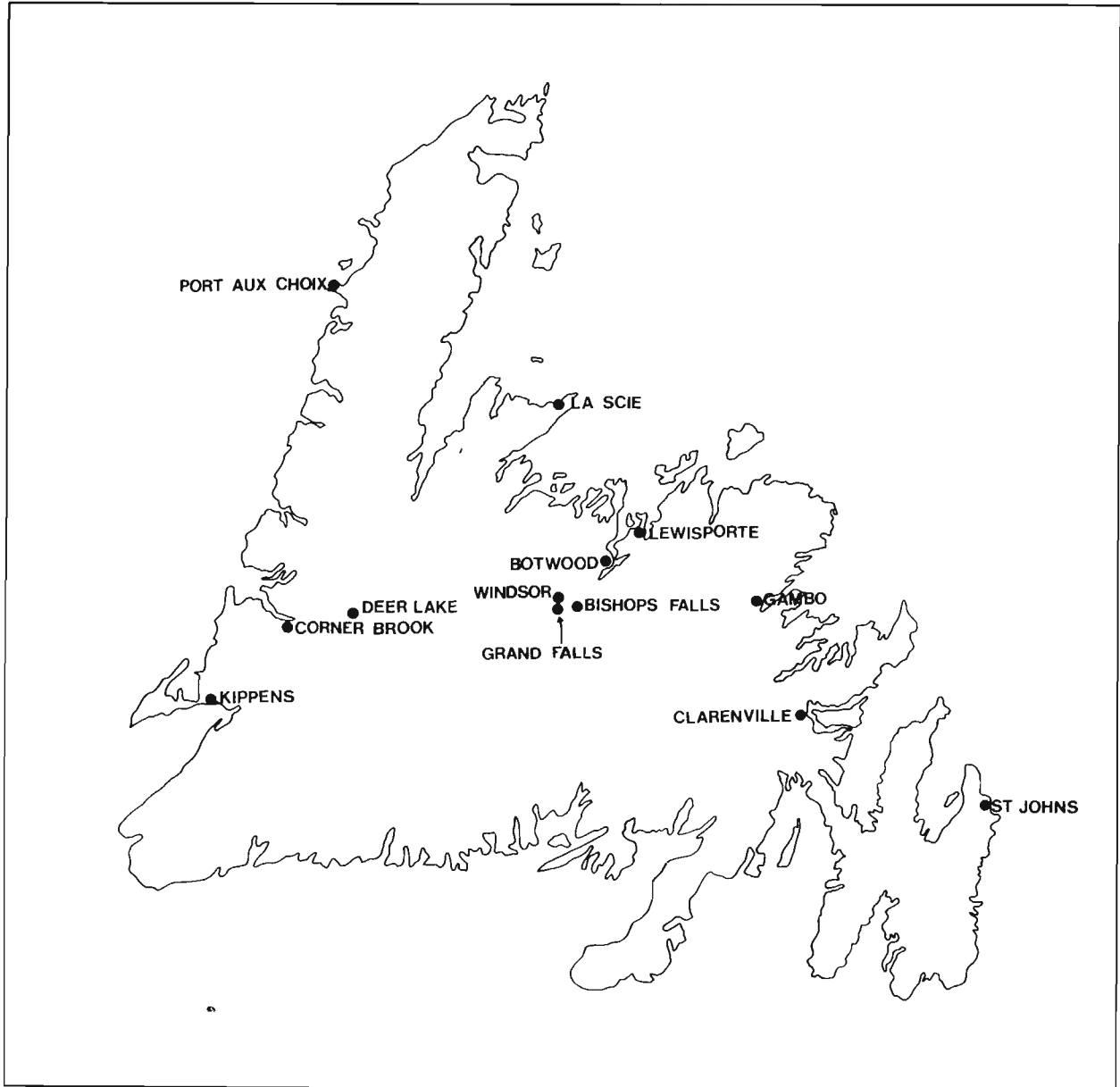
Field work was concentrated in a number of municipal planning areas currently under either review or development; some preliminary work was conducted in the Wooddale agricultural development area and the Deer Lake agricultural area. Municipal planning areas covered were Kippens, Corner Brook, Deer Lake, Port aux Choix, La Scie, Botwood, Grand Falls/Windsor, Bishop's Falls, Lewisporte, Appleton, Gambo and Clarenville. Field work started last year in the St. John's urban area will be completed this fall.

The field work involved extensive use of backhoe (117 hours) to delineate more accurately and to sample the aggregates previously located by field traverses and air photo interpretation under the Reconnaissance Aggregate Resources Program (Kirby *et al.*, 1982). A total of 350 samples were collected in 1982 for particle size analysis and lithological investigation.

Mapping was normally conducted at a scale of 1:12,500 on an orthophoto base, but in areas such as the west coast, where these maps are unavailable, mapping was done on larger scale municipal plans supplied by the Newfoundland Department of Municipal Affairs.

OFFICE PROGRAM

During the winter of 1982-83, maps and sample analyses with accompanying reports will be compiled. They will be forwarded to the Department of Municipal Affairs for inclusion in the proposed municipal plans and to the respective town councils for comment and/or for final approval. In this regard, the town



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council of Kippens recently accepted a plan that recognized the existing aggregate resource areas and a gypsum deposit, and shall protect these from conflicting land use developments.

FUTURE PLANS

Sampling within all municipal planning areas will continue until all areas have been covered. Any proposed agricultural, forestry or other major development that occurs in areas of aggregate resources will be assessed as required.

There are about 310 municipalities in Newfoundland and Labrador. Approximately 50 of these have municipal plans (many of which are due for review) and the Department of Municipal Affairs would like to have municipal plans completed for many of the remaining 260 areas. Funding for this current project is provincial. In 1983 a survey

(Detailed Aggregate Assessments - Coastal Labrador) will be conducted in selected coastal communities of Labrador. Funding for the latter project will be cost-shared 50/50 under the Canada/Newfoundland Coastal Labrador Agreement.

ACKNOWLEDGEMENTS

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REFERENCES

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1982: Inventory of Aggregate Resources. *In* Current Research. *Edited by* C.F. O'Driscoll and R.V. Gibbons, Newfoundland Department of Mines and Energy, Mineral Development Division, Report 82-1, pages 224-227.