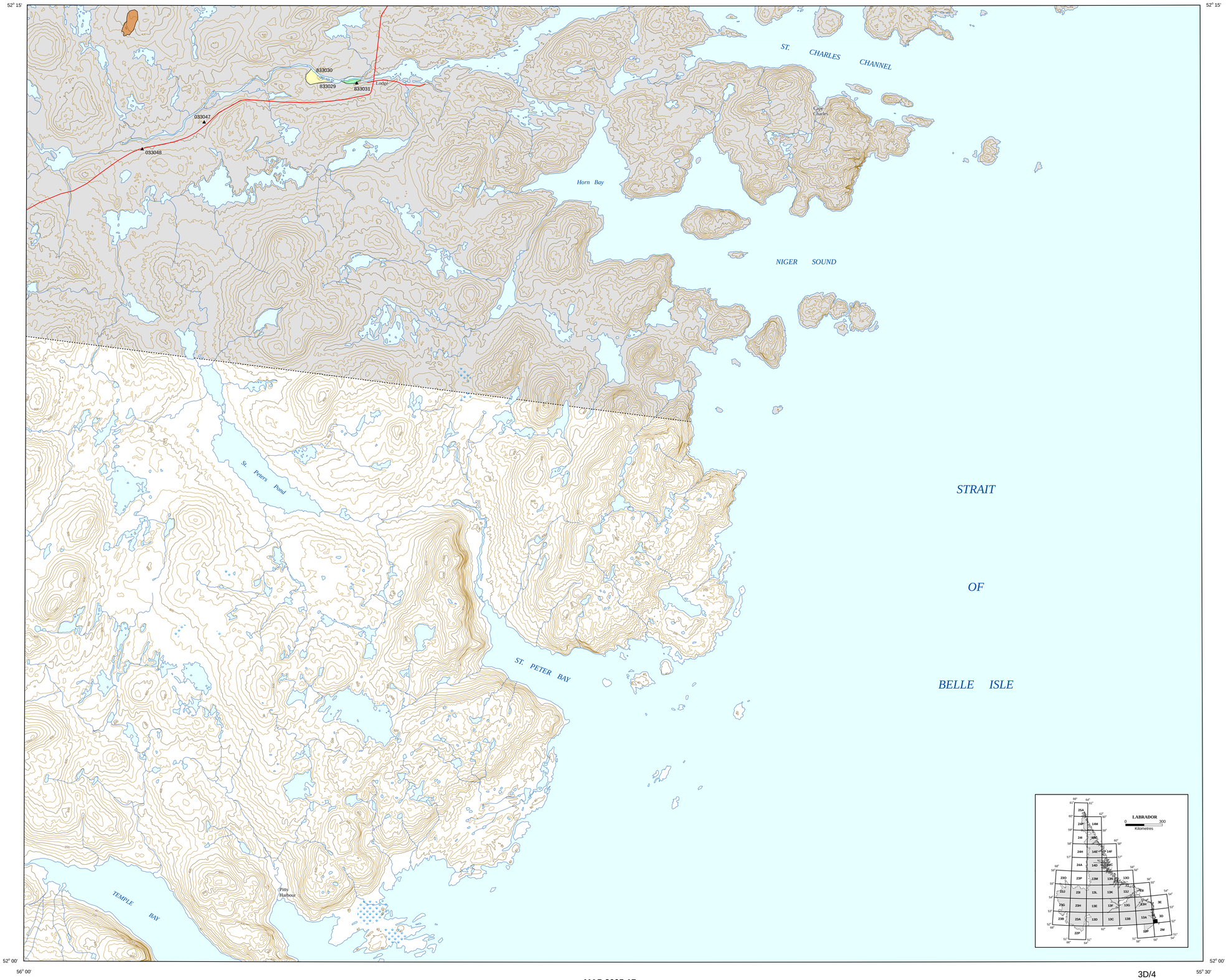

MAP 2005-17

ST. PETER BAY

LABRADOR

Scale 1:50 000

0 1 2 3 4

Kilometres

GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Department of Natural Resources
Geological Survey

GRANULAR-AGGREGATE RESOURCES OF THE ST. PETER BAY AREA (NTS 3D/04)

OPEN FILE 003D/04/0028
MAP 2005-17

LEGEND

Sample types (based on laboratory sieve analysis - see Table 1)

Sample Symbol	Definition
○	Commonly gravel or sand, having silt-clay content <5 percent. Deposits are commonly graded and stratified. Example: 833029 - Location of sample 3029 taken in 1983, containing 2.7 percent silt-clay
▲	Commonly till, poorly graded and of variable grain size, having a silt-clay content (≥ 5 and ≤ 15 percent) and stone size exceeding allowable limits for most geotechnical purposes (except subgrade uses) without processing (i.e., washing, screening or crushing); Example: 033047 - Location of sample 3047 taken in 2003, containing 9.7 percent silt-clay.
+	Commonly silty till, silt or clay samples, having silt-clay content > 15 percent. There were no samples collected in this map area showing more than 15 percent silt-clay.

Multiple samples taken from the same site in different years are listed in order from oldest to youngest. Multiple samples taken at the same site in the same year are listed in order, from the top of the exposure to bottom.

NOTE: This is a composite legend for all aggregate-resource maps. All aggregate zones and sample types shown in the legend may not appear on this map. Aggregate zone classification is based on airphoto interpretation, field investigation and sieve analyses. Areas outside the numbered zones have no known potential for granular materials; however silty tills, rock rubble suitable for fill, and bedrock suitable for aggregate may be present. Classification criteria used on this map do not consider current or conflicting land uses, nor do they guarantee either access to, or the quality of, the material located within these zones.

ZONES OF AGGREGATE POTENTIAL

- Contains granular materials; probability of locating economic deposits is moderate to high
- Contain thin (less than 2 m) or discontinuous granular materials; also includes areas where extent of thicker deposits could not be determined by field investigation; probability of locating economic deposits is moderate to low
- May contain granular materials but deposits are not substantiated by field investigation; probability of locating economic deposits is moderate to low
- Material of granular composition (e.g., sandy tills and colluvium) that generally contains up to 8 percent silt-clay content, but could be improved for higher grade uses by washing or screening
- Contains sand-size granular materials; high potential for economic exploitation of sand; low to moderate potential for coarser granular materials
- >>>>>>>> Eskers: sinuous ridges of granular materials; moderate to high potential for economic exploitation
- Study Area

In addition to this map data, an aggregate database is accessible in the Geosciences Resource Atlas of Newfoundland and Labrador **(http://gis.geosurv.gov.nf.ca)** for all granular-aggregate maps and sample data. The database provides information on more than 13 000 samples collected from 230, 1:50 000-scale map areas in Newfoundland and Labrador. An aggregate-resource report (Ricketts, 2004) and surficial maps (Fulton and Hodgson, 1970; Fulton, Minning, and Hodgson, 1979) are also available for this map area.

This map was produced from airphoto interpretation and field work conducted in 2003 (Ricketts, 2004).

The location of roads added to the topographic map base are approximate.

Elevation in feet above mean sea level. Contour interval 40 feet.

Geology by M.J. Ricketts, Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador.

Digital Cartography by T. Paltanavage, Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador.

Copies of this map may be obtained from the Geoscience Publications and Information Section, Geological Survey, Department of Natural Resources, P.O. Box 8700, St. John's, Newfoundland, Canada, A1B 4J6.

This map is subject to review and revision. Comments to the author concerning errors or omissions are invited.

Base from maps published by Surveys and Mapping Branch, Department of Natural Resources, Ottawa, Canada.

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This map supercedes Map 83-034, Open File Lab/0642

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GRAIN-SIZE ANALYSES

Grain-size results from the 63, 32, 16 and 8 mm mesh sieves were obtained at the sample site location by sieving between 10 and 15 kg of material. A 500 to 1000 g split of the <8 mm material (sand-silt-clay) was retained for laboratory sieve analysis. Laboratory sieve analyses included the use of seven sieves with mesh openings of 4, 2, 1, 0.5, 0.25, 0.125, 0.062 and -0.062 mm. Samples were wet and/or dry sieved (Kirby et al., 1983; Ricketts, 1987) depending on silt-clay content and consolidation of particles.

Table 1: Exposure thickness (Exp), estimated deposit thickness (Dep), petrographic numbers (PN), grain-size percentages (based on percent retained on the 63 mm down to the -0.062 mm mesh sieves) and gravel (Grv), sand and silt-clay (SL-CL) content of sample material collected in NTS area 03D/04.

Sample	Exp	Dep	PN	63	32	16	8	4	2	1	0.5	0.25	0.125	0.062	-0.062	Grv	Sand	SL-CL
833029	1.5	1.5		0.0	0.0	0.0	0.0	0.0	2.1	3.9	15.2	49.9	22.5	5.0	1.4	0.0	97.3	2.7
833030	1.0	1.0	300	3.2	13.0	9.7	13.0	3.2	4.7	6.4	15.8	23.2	6.4	1.0	0.3	41.4	58.0	0.6
833031	1.0	6.0	203	4.9	20.3	14.0	9.8	5.8	6.8	7.0	7.7	8.0	6.1	4.7	4.8	53.4	40.6	6.0
033047	1.5	1.5	135	13.2	7.9	10.6	11.6	8.7	6.3	7.0	8.3	8.5	5.4	3.7	8.7	49.8	40.6	9.7
033048	1.5	1.5	330	5.4	7.8	13.2	15.5	10.0	8.8	8.1	7.9	7.1	4.6	2.7	8.9	49.4	41.0	9.6