

GRANULAR-AGGREGATE RESOURCES OF THE BOTWOOD MAP SHEET (NTS 2E/03)

OPEN FILE 002E/03/1493
MAP 2007 - 21

LEGEND

- Sample types (based on laboratory sieve analysis - see Table 1)**
- Symbol**
- Definition**
- Commonly gravel or sand, having silt-clay content < 5 percent. Deposits are commonly graded and stratified. Example: 791245 - Location of sample 1245 taken in 1979, containing 13 percent clay.
- ▲ Commonly a poorly graded to medium grad sand, having a silt-clay content 5 to 15 percent and stone size exceeding allowable limits for most production purposes (except subgrade uses) without processing (i.e., washing, screening or crushing). Example: 791245 - Location of sample 1245 taken in 1979, containing 12.6 percent silt-clay.
- + Commonly silt, silt or clay samples, having silt-clay content > 15 percent. Example: 821075 - Location of sample 1075 taken in 1982 containing 13.3 percent silt-clay.

- ZONES OF AGGREGATE POTENTIAL**
- Red: Contains granular materials; probability of locating economic deposits is moderate to high.
- Orange: Contains 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.
- Yellow: May contain granular materials but deposits are not substantiated by field investigation; probability of locating economic deposits is moderate to low.
- Green: Material of granular composition (e.g., sandy silts and colloforms) that generally contains up to 5 percent silt-clay content, but could be improved for higher grade uses by washing or screening.
- Pink: Contains sand-size granular materials; high potential for economic exploitation of sand; low to moderate potential for coarser granular materials.
- Blue: Eskers; sinuous ridges of granular materials; moderate to high potential for economic exploitation.

In addition to this map data from an aggregate database is accessible in the Geoscience Resource Atlas of Newfoundland and Labrador (<http://geology.gov.nl.ca/geol/geol-atlas/>) 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.

This map was originally produced in a series of blue maps from airborne interpretation and field work. M.J. Rickets, 1992. In this map areas around additional sample data were collected after the publication.

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

Elevation on feet above mean sea level. Contour interval 50 feet.

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

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This map may be obtained from the Geoscience Publication and Information Section, Geological Survey, Department of Natural Resources, P.O. Box 8700, St. John's, Newfoundland, Canada, A1B 4X6.

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

Based on maps published by Surveys and Mapping Branch, Department of Natural Resources, Ottawa, Canada.

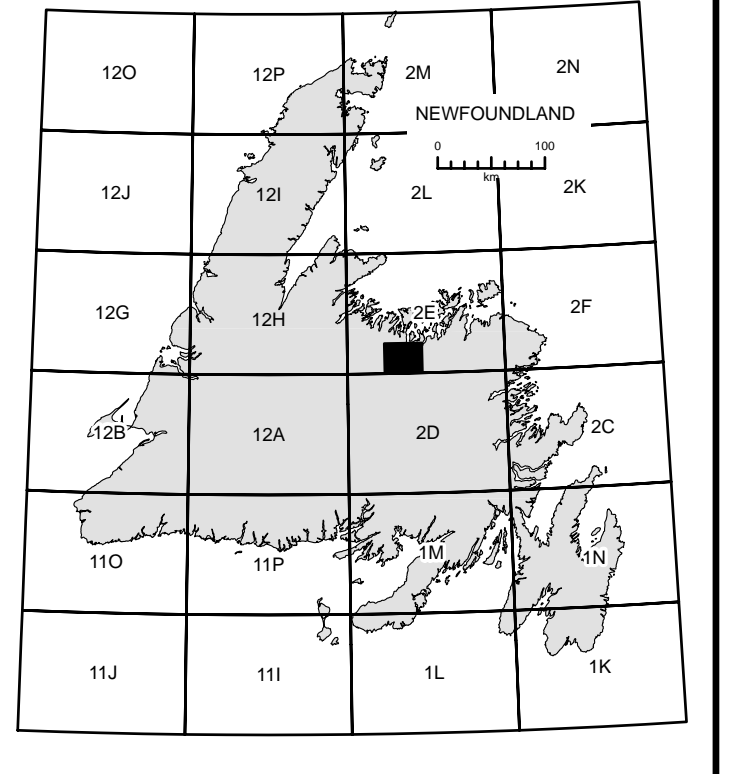
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This map supersedes Map 92-18, Open File 002E/03/0824

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- REFERENCES**
- 1983: 1:50 000 scale aggregate resource maps outlining zones of aggregate potential within a 6-km-wide corridor in Newfoundland. Newfoundland Department of Mines and Energy, Mineral Development Division, Open File NFD10/300.
- Kirby, F.T., Rickets, R.J. and Vandorpe, D.G. 1983: Inventory of aggregate resources in Newfoundland and Labrador; information report and index maps. Newfoundland Department of Mines and Energy, Mineral Development Division, Report 63-2, 36 pages.
- Rickets, M.J. 1992: Botwood granular aggregate resource map, Newfoundland Department of Mines and Energy, Geological Survey, Map 92-18, Open File 002E/03/0824.
- Rickets, M.J. 2007: Granular-aggregate resources of the Botwood map sheet (NTS 2E/03), Government of Newfoundland and Labrador, Department of Natural Resources, Geological Survey, Map 2007-21, Open File 002E/03/1493.

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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 gpm of the 48 mm material (sand-silt) was retained by laboratory sieve analysis. Laboratory sieve analyses included the use of seven sieves with mesh openings of 1, 0.85, 0.75, 0.63, 0.5, 0.425 and 0.3 mm. Samples were wet and/or dry sieved (Kirby et al., 1983) depending on silt-clay content and consolidation of particles.

Table 1: Exposure, estimated deposit thickness (Tm), permeability numbers (Pn), grain-size percentages (based on percent retained on the 63 mm sieve) and gravel (Gv), sand and silt-clay (S-LCL) content of sample locations collected in NTS area 2E/03.

Sample	Exp (m)	Pn	Tm	Gv	S-LCL	Sample	Exp (m)	Pn	Tm	Gv	S-LCL
791238	4.0	6.37	2.9	12.2	12.2	0.0	821111	2.0	0.0	0.0	0.0
791239	8.5	10.0	3.8	21.2	31.8	0.3	821112	2.2	0.0	0.0	0.0
791240	1.8	10.0	7.8	22.1	26.2	7.4	821113	1.8	1.4	3.8	2.0
791241	1.2	10.0	4.0	10.6	11.3	27.1	821114	0.4	0.0	0.0	0.0
791242	2.7	10.0	0.0	7.1	11.3	14.3	821115	0.8	5.0	0.0	0.0
791243	1.4	10.0	4.0	2.0	22.7	36.0	821116	2.1	10.0	3.4	0.0
791244	2.0	10.0	0.0	0.0	11.6	10.3	821117	1.7	1.4	2.1	0.0
791245	2.2	15.0	0.0	0.0	0.0	0.1	821118	2.1	10.0	3.4	0.0
791246	8.8	10.0	3.3	11.3	19.3	21.3	821119	2.1	10.0	3.4	0.0
791247	0.3	10.0	0.0	7.1	17.5	15.5	821120	1.5	1.0	0.0	0.0
791248	2.1	10.0	3.8	12.5	10.0	10.1	821121	1.1	14.2	9.1	0.0
791249	2.0	10.0	0.0	0.0	0.0	0.0	821122	2.3	7.0	2.5	0.0
791250	4.8	20.0	3.0	2.2	13.4	12.3	821123	2.1	10.0	3.4	0.0
791251	1.0	20.0	0.0	0.0	0.0	0.0	821124	2.0	10.0	3.4	0.0
791252	1.1	15.0	0.0	0.0	0.0	2.5	821125	1.5	10.0	3.4	0.0
791253	1.4	20.0	2.8	7.7	10.0	8.5	821126	1.5	10.0	3.4	0.0
791254	1.8	20.0	2.8	11.2	9.3	10.6	821127	1.7	10.0	3.4	0.0
791255	1.3	18.0	3.0	11.9	18.5	30.4	821128	1.5	10.0	3.4	0.0
791256	2.0	20.0	0.0	0.0	0.0	0.0	821129	3.5	7.0	1.6	0.0
791257	2.0	20.0	0.0	0.0	0.0	24.3	821130	3.5	7.0	1.6	0.0
791258	2.0	20.0	0.0	0.0	0.0	16.2	821131	2.6	10.0	3.4	0.0
791259	2.8	10.0	15.4	11.5	16.2	17.7	821132	2.6	10.0	3.4	0.0
791260	3.1	6.0	16.2	9.3	16.2	7.5	821133	2.6	10.0	3.4	0.0
791261	2.1	6.0	3.6	11.5	11.1	8.5	821134	2.6	10.0	3.4	0.0
791262	0.4	6.0	0.0	0.0	18.3	36.1	821135	2.6	10.0	3.4	0.0
791263	0.0	6.0	0.0	0.0	0.0	0.0	821136	2.6	10.0	3.4	0.0
791264	0.0	6.0	0.0	0.0	0.0	0.0	821137	2.6	10.0	3.4	0.0
791265	0.0	6.0	0.0	0.0	0.0	0.0	821138	2.6	10.0	3.4	0.0
791266	0.0	6.0	0.0	0.0	0.0	0.0	821139	2.6	10.0	3.4	0.0
791267	0.0	6.0	0.0	0.0	0.0	0.0	821140	2.6	10.0	3.4	0.0
791268	0.0	6.0	0.0	0.0	0.0	0.0	821141	2.6	10.0	3.4	0.0
791269	0.0	6.0	0.0	0.0	0.0	0.0	821142	2.6	10.0	3.4	0.0
791270	0.0	6.0	0.0	0.0	0.0	0.0	821143	2.6	10.0	3.4	0.0
791271	0.0	6.0	0.0	0.0	0.0	0.0	821144	2.6	10.0	3.4	0.0
791272	0.0	6.0	0.0	0.0	0.0	0.0	821145	2.6	10.0	3.4	0.0
791273	0.0	6.0	0.0	0.0	0.0	0.0	821146	2.6	10.0	3.4	0.0
791274	0.0	6.0	0.0	0.0	0.0	0.0	821147	2.6	10.0	3.4	0.0
791275	0.0	6.0	0.0	0.0	0.0	0.0	821148	2.6	10.0	3.4	0.0
791276	0.0	6.0	0.0	0.0	0.0	0.0	821149	2.6	10.0	3.4	0.0
791277	0.0	6.0	0.0	0.0	0.0	0.0	821150	2.6	10.0	3.4	0.0
791278	0.0	6.0	0.0	0.0	0.0	0.0	821151	2.6	10.0	3.4	0.0
791279	0.0	6.0	0.0	0.0	0.0	0.0	821152	2.6	10.0	3.4	0.0
791280	0.0	6.0	0.0	0.0	0.0	0.0	821153	2.6	10.0	3.4	0.0
791281	0.0	6.0	0.0	0.0	0.0	0.0	821154	2.6	10.0	3.4	0.0
791282	0.0	6.0	0.0	0.0	0.0	0.0	821155	2.6	10.0	3.4	0.0
791283	0.0	6.0	0.0	0.0	0.0	0.0	821156	2.6	10.0	3.4	0.0
791284	0.0	6.0	0.0	0.0	0.0	0.0	821157	2.6	10.0	3.4	0.0
791285	0.0	6.0	0.0	0.0	0.0	0.0	821158	2.6	10.0	3.4	0.0
791286	0.0	6.0	0.0	0.0	0.0	0.0	821159	2.6	10.0	3.4	0.0
791287	0.0	6.0	0.0	0.0	0.0	0.0	821160	2.6	10.0	3.4	0.0
791288	0.0	6.0	0.0	0.0	0.0	0.0	821161	2.6	10.0	3.4	0.0
791289	0.0	6.0	0.0	0.0	0.0	0.0	821162	2.6	10.0	3.4	0.0
791290	0.0	6.0	0.0	0.0	0.0	0.0	821163	2.6	10.0	3.4	0.0
791291	0.0	6.0	0.0	0.0	0.0	0.0	821164	2.6	10.0	3.4	0.0
791292	0.0	6.0	0.0	0.0	0.0	0.0	821165	2.6	10.0	3.4	0.0
791293	0.0	6.0	0.0	0.0	0.0	0.0	821166	2.6	10.0	3.4	0.0
791294	0.0	6.0	0.0	0.0	0.0	0.0	821167	2.6	10.0	3.4	0.0
791295	0.0	6.0	0.0	0.0	0.0	0.0	821168	2.6	10.0	3.4	0.0
791296	0.0	6.0	0.0	0.0	0.0	0.0	821169	2.6	10.0	3.4	0.0
791297	0.0	6.0	0.0	0.0	0.0	0.0	821170	2.6	10.0	3.4	0.0
791298	0.0	6.0	0.0	0.0	0.0	0.0	821171	2.6	10.0	3.4	0.0
791299	0.0	6.0	0.0	0.0	0.0	0.0	821172	2.6	10.0	3.4	0.0
791300	0.0	6.0	0.0	0.0	0.0	0.0	821173	2.6	10.0	3.4	0.0
791301	0.0	6.0	0.0	0.0	0.0	0.0	821174	2.6	10.0	3.4	0.0
791302	0.0	6.0	0.0	0.0	0.0	0.0	821175	2.6	10.0	3.4	0.0
791303	0.0	6.0	0.0	0.0	0.0	0.0	821176	2.6	10.0	3.4	0.0
791304	0.0	6.0	0.0	0.0	0.0	0.0	821177	2.6	10.0	3.4	0.0
791305	0.0	6.0	0.0	0.0	0.0	0.0	821178	2.6	10.0	3.4	0.0
791306	0.0	6.0	0.0	0.0	0.0	0.0	821179	2.6	10.0	3.4	0.0
791307	0.0	6.0	0.0	0.0	0.0	0.0	821180	2.6	10.0	3.4	0.0
791308	0.0	6.0	0.0	0.0	0.0	0.0	821181	2.6	10.0	3.4	0.0
791309	0.0	6.0	0.0	0.0	0.0	0.0	821182	2.6	10.0	3.4	0.0
791310	0.0	6.0	0.0	0.0	0.0	0.0	821183	2.6	10.0	3.4	0.0
791311	0.0	6.0	0.0	0.0	0.0	0.0	821184	2.6	10.0	3.4	0.0
791312	0.0	6.0	0.0	0.0	0.0	0.0	821185	2.6	10.0	3.4	0.0
791313	0.0	6.0	0.0	0.0	0.0	0.0	821186	2.6	10.0	3.4	0.0
791314	0.0	6.0	0.0	0.0	0.0	0.0	821187	2.6	10.0	3.4	0.0
791315	0.0	6.0	0.0	0.0	0.0	0.0	821188	2.6	10.0	3.4	0.0
791316	0.0	6.0	0.0	0.0	0.0	0.0	821189	2.6	10.0	3.4	0.0
791317	0.0	6.0	0.0	0.0	0.0	0.0	821190	2.6	10.0	3.4	0.0
791318	0.0	6.0	0.0	0.0	0.0	0.0	821191	2.6	10.0	3.4	0.0
791319	0.0	6.0	0.0	0.0	0.0	0.0	821192	2.6	10.0	3.4	0.0
791320	0.0	6.0	0.0	0.0	0.0	0.0	821193	2.6	10.0	3.4	0.0
791321	0.0	6.0	0.0	0.0	0.0	0.0	821194	2.6	10.0	3.4	0.0
791322	0.0	6.0	0.0	0.0	0.0	0.0	821195	2.6	10.0	3.4	0.0
791323	0.0	6.0	0.0	0.0	0.0	0.0	821196	2.6	10.0	3.4	0.0
791324	0.0	6.0	0.0	0.0	0.0	0.0	821197	2.6	10.0	3.4	0.0
791325	0.0	6.0	0.0	0.0	0.0	0.0	821198	2.6	10.0	3.4	0.0
791326	0.0	6.0	0.0	0.0	0.0	0.0	821199	2.6	10.0	3.4	0.0
791327	0.0	6.0	0.0	0.0	0.0	0.0	821200	2.6	10.0	3.4	0.0
791328	0.0	6.0	0.0	0.0	0.0	0.0	821201	2.6	10.0	3.4	0.0
791329	0.0	6.0	0.0	0.0							