

### Bedrock aggregate potential of Newfoundland

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A reconnaissance study of bedrock quarries, road cuts and natural outcrops for aggregate potential was carried out on the Avalon and Burin peninsulas. This assessment was initiated as a result of declining unconsolidated (sand and gravel) aggregate deposits, due to their constant depletion by industry for road construction. Sporadic occurrences of high quality sand and gravel deposits were also a major factor in the initiation of this project. This assessment is ongoing and at present all areas east of Grand Falls are completed.

A total of 1200 sites were visited and 856 samples were taken, of these 486 samples show potential for high-quality bedrock aggregate, 210 samples are considered to be potentially

marginal and 160 samples are considered to be of low or poor quality.

Good quality bedrock aggregate should be fresh, hard, dense and free from deleterious substances. The sandstones, granites and volcanic rocks in the field areas meet these requirements, when they are not highly weathered, altered or metamorphosed.

Geotechnical properties of the bedrock, such as geological features, deleterious substances, petrographic number and petrographic analyses were performed on all samples. Los Angeles Abrasion, Magnesium Sulfate Soundness, Alkali-reactivity and chemical analyses were performed on selected samples.