



Project Title: Geotechnical Investigation Cocagne River Bridge No. 2

Client: New Brunswick Department of Transportation (NBDOT)

Project Description:

GEMTEC Limited was retained by NBDOT to undertake a geotechnical investigation and provide recommendations with respect to:

1. approach embankments, and
2. foundation design for a new bridge crossing the Cocagne River.

This new bridge will replace the existing multi span timber bridge constructed in the 1960s.

The soil conditions along the proposed alignment consist of a 10 to 15 metre thick layer of soft marine silt, typical along coastal New Brunswick. The soft silt layer is underlain by 5 – 10-metre-thick layer of dense glacial till, which in turn is underlain by sandstone bedrock. We understand that the existing approach embankments will be raised and widened several meters.

Conventional boreholes were put down along the bridge alignment to determine the thickness of the soft marine deposits and to prove bedrock. Our seismic CPT was used to determine the strength characteristic of the soft marine silts and to obtain the site classification for seismic site response. We determined that the soft silt layer would consolidate quickly from the pore pressure response of our CPT soundings. Therefore long term settlement and slope stability will not be a major issue at the site.

