Q. Provide all available information relative to soil conditions at the site of the Hardwoods and Stephenville Gas Turbines as requested in IC-13. With reference to Hydro's response to IC-13, page 1, lines 15-18, is the condition of above ground steel structures predictive of below ground corrosion?

A. There is no historic data indicating the soil types at either location, however from work done at the sites, the following are the soil type descriptions:

Hardwoods: A sandy gravel consisting of a mixture of silt, sand, and cobbles with a low silt content. Permeability is considered low to medium. Depths are typically 2 – 4 metres to bedrock.

Stephenville: A dense medium sand of moderate permeability. Depth to bedrock has not been determined but is considered greater than 10 metres.

The corrosion of the above ground steel structures, particularly in Stephenville is primarily due to salt in the air and precipitation as the site is close to the ocean. This salt will become mobilized into the ground water by rainfall and subsequently will contact any underground steel causing corrosion. Additionally salt in ground water has the added effect of staying in contact with the steel for extended periods of time, increasing the rate of corrosion.