

Esso advocates a pipeline system on the grounds that it is a known technology. Certainly, considerable permafrost-associated research has been conducted in connection with previous proposals by Canadian Arctic Gas Pipeline Limited and Foothills Pipe Lines Limited to extend a pipeline along the Mackenzie Valley. In the 1970s, these two contestants addressed the engineering and geotechnical problems associated with construction in a permafrost environment in their applications to the National Energy Board.

These earlier proposals related to natural gas, however, not to a hot oil line. Experience with the latter is based mainly on the Trans-Alaska oil pipeline from Prudhoe Bay to Valdez in Alaska where there are differences in climate and terrain in comparison with the route along the Mackenzie Valley.

Climate and terrain are important factors in the construction of a pipeline. The Mackenzie Valley pipeline would cross areas of rolling hills and some steep slopes especially at river crossings. Erosion, slope stability, permafrost degradation and drainage problems would all require special design considerations. At the six major river crossings, the pipe would need to be buried deep below the riverbed to prevent ice scour and be weighted to counteract buoyancy. Special arctic construction techniques would be required to protect the line and minimize environmental disturbance.

*We cannot make a request [to proceed] until we have gone through the Environmental Impact Statement to determine what the overall impact and socio-economic impacts are of major development up there. That process is now underway. Public hearings will be held . . . and a report is expected some time in the spring or summer of 1983. Before anything can happen up there in terms of specific proposals, that process must take place. We are hoping that what will come out of that overall process will be a government policy that development can proceed up there if the impacts are managed.*  
(Mr. G. Haight, Esso, Issue 17:17, 16-2-1982)

Although the *Report of the Mackenzie Valley Pipeline Inquiry*, published in 1977, concluded that a pipeline along the Mackenzie Valley was environmentally acceptable, it pointed to the need to carefully plan and regulate construction and operation in order to minimize environmental impact. The pipeline route runs through traditional harvesting areas around Travaillant Lake, an important winter range for Bluenose caribou, and some critical waterfowl staging habitats.

The 1977 report highlighted the importance of the Mackenzie River as a natural transportation route for industrial activity. It stated the need for comprehensive land-use planning to help resolve land-use conflicts already apparent in the region. One of the most contentious issues in the Mackenzie Valley is the settlement of native land claims. The Committee has already expressed its opinion on the need for comprehensive land-use planning whichever mode of transport is chosen.

A Mackenzie Valley pipeline would definitely have an impact on the Delta and Mackenzie Valley communities, particularly those situated along the pipeline route. There would be regional benefits in the form of employment and training. At peak construction during the third year, 13,000 people could be employed. Once completed, about 200 employees would