DENISON TROUGH GAS DEVELOPMENT PROJECT
P.A. Roles, Senior Pipeline Engineer,
AAR Ltd (CSR Oil & Gas Division)

The Denison Trough gas fields are located approximately 530 km north-west of Brisbane and 300 km west of Gladstone. Four gas fields (Gentulloch, Westgrove, Rolleston, Arcturus) were discovered by AAR Limited in this region in the early 1960s. However, remoteness from other gas fields with suitable infrastructure and remoteness from east coast consumers precluded the development of these fields at the time, and exploration activities ceased in 1970.

A resurgence of exploration began in 1979 when Oil Company of Australia NL farmed into AAR Limited’s Denison Trough permits, Authority to Prospect (ATP) 119P North and ATP 256P. Through the application of modern seismic technology and the revision of a number of concepts relating to the geology of the area, the coventurers have discovered seven new gas fields and increased total reserves five-fold over those estimated in the 1960s to in excess of 6 billion cubic metres.

Encouraged by these discoveries, the joint venturers entered into discussions with Queensland Alumina Limited (QAL), Gladstone, with a view to providing gas for use in the calcination process. The current proposal is to transport, by pipeline, approximately 30 TJ/day from these fields to centralized processing plants in the north and south, and finally to a gas sales facility adjacent to the Gladstone Alumina Refinery.

This proposal would involve the laying of over 600 km of pipeline and construction of two gas processing plants. The pipeline, complying with Australian Standard 1697, will be designed to transport 1.1 million cubic metres of gas per day to Gladstone, with capability to increase capacity to around twice this figure by compression. If a sales agreement is finalized by October 1984, gas could be delivered to QAL Gladstone in January 1986.

At present the Joint Venturers are involved in marketing discussions with QAL. Production testing and pipeline design are also being finalized. A pipeline route has been selected and surveyed after consultation with relevant authorities and landowners. An environmental impact study has been presented to the Queensland Department of Mines. The pipeline, upon commitment, would represent a significant new development for Queensland. The pipeline network would make natural gas available at the major industrial port of Gladstone.