

## PC03

### HEAVY OIL IN THE CARIBBEAN AND THE AMERICAS

L E Sobers, R A Dawe, Petroleum Engineering Unit, Department of Chemical Engineering, The University of West Indies

It is estimated that the resources of heavy oil and tar sand are much larger, on a worldwide basis, than light oil resources. Heavy crude oil and tar deposits are playing an increasing role in meeting current and anticipated worldwide energy requirements. Trinidad and Tobago has substantial heavy oil (API < °15 and viscosity >10 cp).

Heavy crude oil is difficult to extract because the lower concentration of lighter hydrocarbons means that it is highly viscous and therefore difficult to extrude out of the well and transport in pipelines. High oxygen and sulphur content also present additional problems with processing. Albeit, heavy oil exploration and processing is a worthwhile venture because there are a number of products, which can easily be obtained from heavy oil processing and not from the lighter crudes. The large producers of heavy crude in the Western Hemisphere include Venezuela, Mexico, the United States of America and Canada. Other Latin America countries such as Ecuador and Peru could also produce more heavy crude in the future.

This poster will give an overview of the reserves and their locations, particularly the Americas, the technical advances in heavy oil crude production and the use via Orimulsion, developed by PDVSA. The general processes and relevant challenges will be presented and discussed.

#### **Key words**

Heavy oil, viscosity, transport, economics, Trinidad and Venezuela