

## Monitoring the nearshore marine environment in Vleesbaai

The Petroleum Oil and Gas Corporation of South Africa (Pty) Ltd, (PetroSA), operates a Gas-to-Liquids refinery in Mossel Bay producing petroleum products. Since 1991/1992, effluent from this refinery has been discharged into the coastal zone through a subtidal pipeline extending 1276 m offshore to a depth of 22m. In 2011, PetroSA commissioned SAEON Egagasini to develop a comprehensive monitoring program for a period of at least 3 years to assess for potential impacts of effluent discharge on the marine environment. SAEON, in collaboration with the CSIR, developed and implemented an annual environmental monitoring program that aims to assess the potential impacts of effluent released from the PetroSA pipeline on benthic marine communities and habitats. Annual sampling efforts include the water column properties, sediment properties and benthic meiofauna and macrofauna. To date, the surveyed marine environment does not show evidence of heavy pollution effects resulting from the PetroSA effluent. A final report detailing the findings of three annual surveys and recommendations for a long-term monitoring program for the area will be submitted in 2014.



Fig. 6. Sieving benthic macrofauna samples collected near the effluent pipeline outlet from the stern of the vessel.



Fig. 7. Benthic grab sampling in the vicinity of the effluent pipeline outlet.