

## PARTICLE COUNTER IS USED FOR SUBSEA INJECTION CONTROL

by Dr. Jonathan J. Wylde, Clariant Oil Services, Aberdeen, Scotland

"Production chemicals used in subsea applications have to be produced to a high specification of cleanliness, typically to better than NAS 8 (or the equivalent SAE AS4059 specification). This is because subsea injection systems typically terminate in narrow bore control valves that are prone to blockage by even the smallest particulates. Measurement of these production chemicals is challenging due to the components often being highly acidic, alkaline or aromatic hydrocarbon based and therefore typical devices are limited in application due to the elastomeric or metallurgical components. The Spectrex device has proved to be very robust and almost ubiquitous in being able to measure the cleanliness of a wide range of production chemicals. This has enabled Clariant Oil Services to adhere robustly to the BASICS standard of subsea injection chemical specification, due to be released as a new ASTM standard in the near future."