FOR THE PROACTIVE MANAGEMENT OF PIPELINE CORROSION

CoMic™ detects micelles and so provides information on optimal corrosion inhibitor dosage; it provides increased risk assurance.

CoMic™ helps to optimise corrosion inhibitor use by measuring for the presence and amount of corrosion inhibitor micelles*. There is a strong link between the optimum functional dose for organic film-forming corrosion inhibitors and the concentration at which micelles form in a system i.e. its critical micelle concentration (CMC).

* Patent pending
Details on use

- For onsite use; so avoiding sample degradation associated with transit time to central lab and subsequent inaccurate results
- Samples are tested (i.e. it is not an online instrument)
- Simple to perform (mix sample and marker, place in instrument, read signal)
- Quick to perform (minutes)
- Data analysis (micelle interpretation) conducted by LUX personnel for robustness
- All chemicals and consumables are provided

Typical data

- Fluids from an inter-platform pipeline were tested for the presence of corrosion inhibitor micelles
- CoMic™ materials were taken to the asset and fresh samples were provided by asset staff
- Testing of samples in the offshore laboratory with CoMic™ only took a few minutes
- Data from testing the ‘input’ fluid indicated the presence of micelles but these were not apparent in the fluid reaching the destination platform (‘output’)
- The analysis provided information to the operator, beyond that already available from probes and residual monitoring, to better understand the corrosion risks that existed in the pipeline

“The CMC should be used as the treatment rate in the field since maximum inhibition is achieved at this concentration.”

K. Tsui, J. E. Wong and N. Park, Corrosion 2010 Paper 10326

CoMic™ current status
- trialled, deployed and commercially available
CoMic™ is unique. No other company can provide our corrosion inhibitor micelle detection tool.

LUX Assure:

By applying Life Science concepts LUX aims to become the world leader in providing new technology to monitor difficult to detect chemicals used by the oil industry. LUX’s other analysis technologies cover areas such as Methanol and MEG, Chemical Tracers and Oil in Water.

CoMic™ provides information not offered by other monitoring approaches; it is a complementary tool.