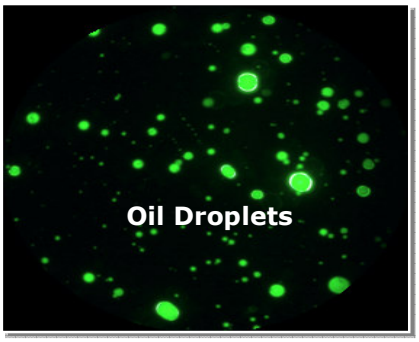
LUX MONITOR™

A NOVEL TECHNOLOGY PLATFORM FOR MONITORING OF OIL-IN-WATER AND WATER-IN-OIL

With decreasing global hydrocarbon reserves and increasing recovery technologies, huge volumes of water are produced as part of the oil extraction process. On average 3 barrels of water are produced for every barrel of oil. After the oil and water are separated, the oil can be transported to the refinery for processing and the water is either discharged or re-injected. The amount of residual oil-in-water or water-in-oil must be measured for environmental compliance, quality control and fiscal metering. However, it can be very difficult to discriminate between the different fluids in oilfield environments and existing techniques are prone to error.

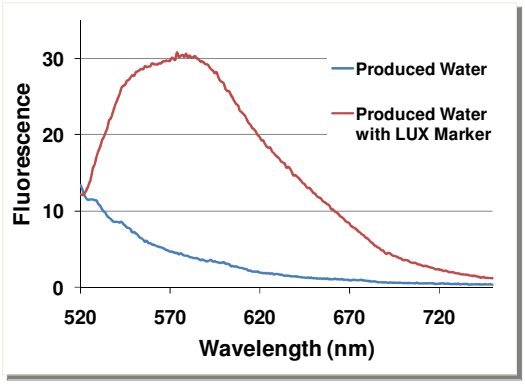
LUX Assure, in collaboration with a major Operator, has developed LUX Monitor™, a unique method for monitoring oil-in-water or water-in-oil concentrations; it has potential application throughout the production, transportation, processing and refining chain.

Principle of LUX Monitor™

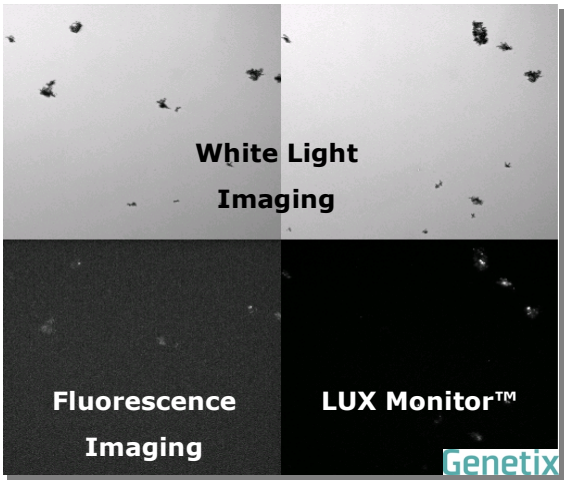


The technical principle of LUX Monitor™ involves the use of LUX Markers™ which produce a fluorescent signal in the presence of hydrocarbons. This monitoring approach can be applied to fluorescence spectroscopy or as an imaging system.

LUX Monitor™ has been developed and optimised in the lab for use with real fluids and interferences.



The technology has several advantages over existing oil in water monitors and can be used in simple intensity mode for regulatory reporting or droplet size analysis mode for process optimisation. LUX Monitor™



Key Features of LUX Monitor™:

- Proven in real fluids
- No complex, hazardous extraction steps
- Independent of oil composition
- Sensitive to aromatics **and** non-aromatics
- Works with emulsions
- Increased contrast from background and easier discrimination between oil and other particles

LUX Assure

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