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Press Release

Techenomics' research is striding towards real-time data

Techenomics is taking the emerging digital data age and opportunities to incorporate real-time digital data capture into its fluid analysis business seriously. This ground-breaking work will enable clients to better structure maintenance programs to reduce real costs per unit operating hour.

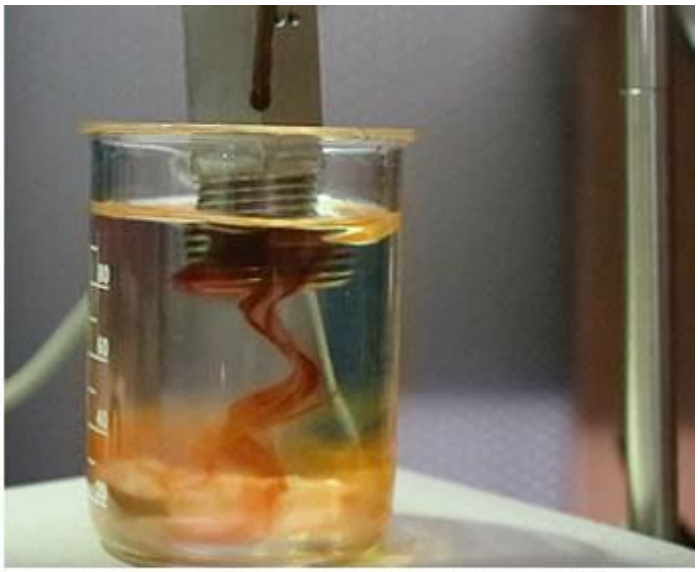
Chris Adsett, CEO of Techenomics International

The company's new Research and Development Division is tackling initiatives to apply innovation to existing procedures and services as well as implement new technology.

Techenomics CEO Chris Adsett says, "We are looking at innovative ways to capture real-time data on operating lubricants from first principals.
"The R&D division is advancing our progress along this path by being active in the digital data capture space so that we can enhance our core fluid analysis credentials."

The work includes multiple studies to acquire deeper insights from advanced data analytics of Techenomics' historical database; instrumentation and computer systems which can collect real-time data on assets; and a cloud-based computing platform for customers to interact better with the results from the company's analysis.

The test rig is designed such that we can replicate scenarios likely to cause significant risk of failure in a time spectrum of minutes to hours



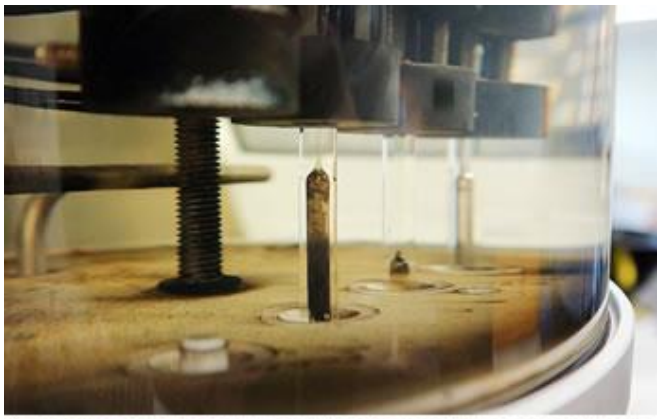
Adding oil to the standard set up to change the viscosity to track whether the remote sensor is reliable

A key member of the R&D team is Brice Gower, a recent Murdoch University engineering graduate, who is developing live sensor capability to facilitate the capture of real-time data.
He says the instrumentation required for real-time analytics is being custom-designed for the environment customers must endure, and there is a focus on a unique instrument which suites our application.

"From the wider scope of assets we manage at Techenomics there is a deeper potential for new trends to arise from the data analytics of combined real-time and historical information and we hope to collaborate with OEMs to further improve the operation of industrial equipment.

"The main advantage of a real time oil analysis service is to prevent catastrophic failure and significant damage to the asset from any causes which are able to be inferred from the condition of the lubricant oils."

Brice Gower says, "Although this service provides a significant cost benefit to the owner of the asset, further optimisation can be utilised to minimise the volume of lubricant oil changed in a sweetening procedure by providing accurate calculations of how much oil is needed to be dropped in order to maintain a healthy viscosity.


A viscometer is being used in Techenomics' research work

"To have this innovation applied in the field, Techenomics will design and manufacture new digital products such as ruggedised instrumentation, a purpose-built industrial computer system, a human machine interface for the asset operator, and the cloud-based network which will load and store the large volume of data captured."

Of this work, Chris Adsett says "We are innovative and are walking the walk in the digital data capture space to enhance our core fluid analysis credentials.
"Ongoing testing will produce large datasets which we will use to build an algorithm that can monitor oil condition live, and advise an operator of risks to the asset in real time.
"Accomplishing these innovations will create proprietary techniques and designs that will ensure Techenomics stays at the front of industry performance."

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