

Oil and gas deposits could be located with help of DNA soil analysis

While a lot of sciences are involved in finding oil and gas, biology might not be the first science that leaps to mind. But researchers at Repsol are working on changing that mindset.

The team is focusing on the concept of “bioprospection,” studying how the presence of certain microorganisms on the surface can be an indication of hydrocarbons beneath...[T]his concept, while not new, has been challenging in the past because of the extreme conditions in which the microorganisms live. But metagenomics and massive sequencing are making this a reality.

Screen Shot at AM

Soil samples are tested in the laboratory to extract DNA from microorganisms that might help identify subsurface resources. (Source: Repsol)

“For many decades the approach was limited because when you studied the biology on the surface, the number of microorganisms is very high, but few of them can be grown in the lab,” said Enrique Espí Guzman, senior researcher of biotechnology at the Repsol Technology Center (RTC). “But recently the biology has evolved. The use of DNA sequencing in medicine and health has provided new tools to apply to other sectors.”

Biology alone will probably never be the perfect exploration tool, but in combination with other geology and geophysics methods, it adds a new layer of information to improve the success rate.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [The DNA Of Exploration: Oil, Gas Research Turns To Biology](#)