

Electromagnetic sensor for oil and gas

With oil and gas as an increasingly less available resource, efficient and cost-saving tools are in high demand in the offshore industry.

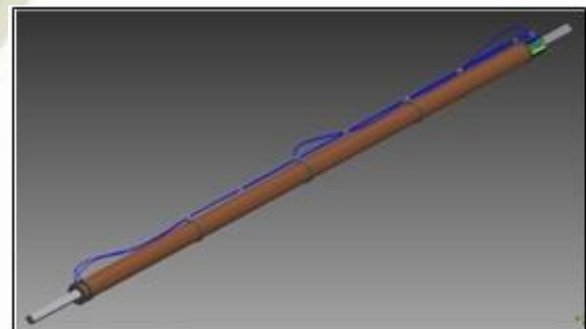
Traditional seismic techniques transmit physical shock-waves to the ground or seabed and the reflected sound waves are recorded using special microphones. Analyses show that these echoes are different depending on how the soil layers are built up.

Electromagnetic Geoservices (EMGS) has developed a more environmentally friendly technique for finding oil and gas reservoirs with an electromagnetic sensor. This measures the electrical and magnetic fields on the seabed which are generated using a powerful transmitter just below the sea surface. By using special sensors on the seabed, and comparing electromagnetic data with seismic and geological data, the accuracy of detecting reservoirs increases greatly.

An electromagnetic sensor measures and detects the different resistivity of hydrocarbon filled reservoirs compared with sand and rock, and provides good accuracy of a potential oilfield. This reduces the risk of costly “dry wells”.

The project EC Partner was involved with consisted of the development and manufacturing of special coils, coil forms, and assembly of these on our 2 meter long special cores into a finished sensor. After a complete test of each coil, as well as calibration – the composite sensor is ready for use. EMGS has used this design on their sensors since 2002 to locate oil discoveries worldwide.

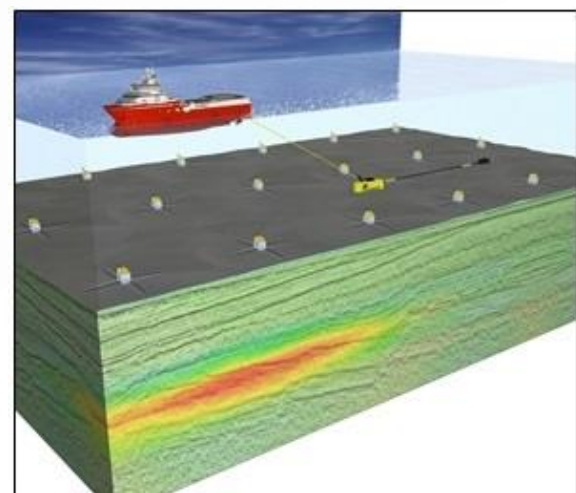
Plastic and silicone parts and coil forms are specially designed for EMGS and EC Partner now has all the tools necessary for future production of sensors for further hydrocarbon exploration!



Coil with core

Adjusted designs for your needs

EC Partner – we solve it for you



Identifying oilfields