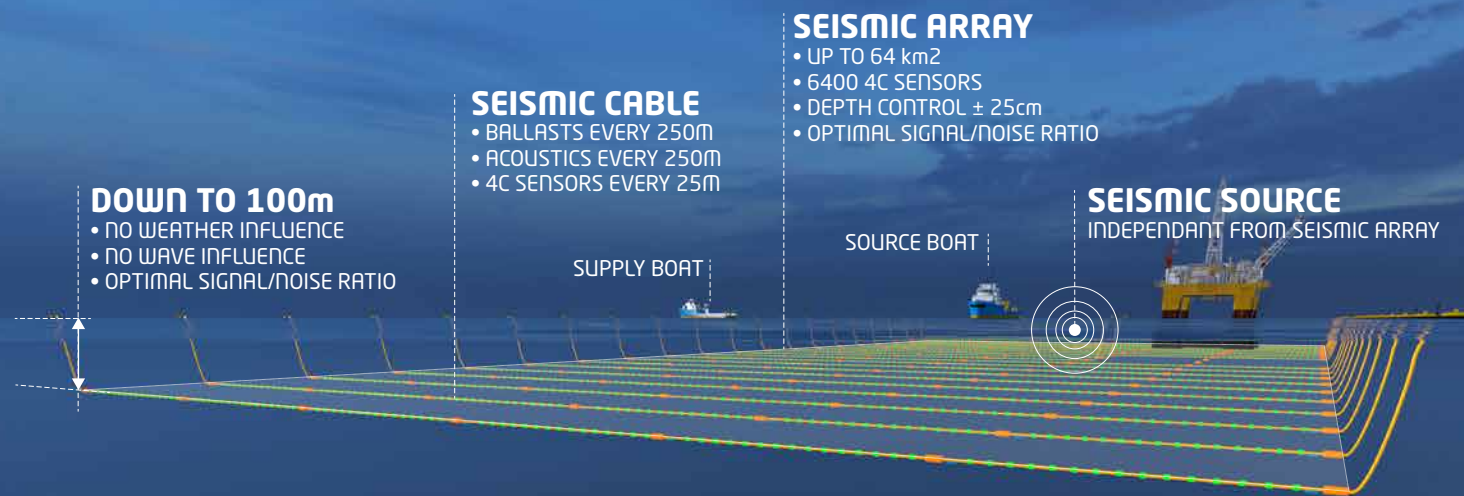


THE MIDWATER STATIONARY CABLE CONCEPT

A Midwater Stationary Cable or MSC, consists of a neutrally buoyant cable comprising 4C sensors, depth sensors and automatic ballast units, positioned

by two Recording Autonomous Vehicles (RAVs) at each extremity that also provide power to the cable and depth control system, and host the recording equipment.

The RAV transmits the data to the control vessel, where real-time QC ensures the integrity of the data recording process.



FreeCable is simple and elegant, with a wealth of new technologies developed specifically to position a stationary receiver array at water depths that avoid wave and weather noise, and independently of the source vessels. This allows total freedom to design the offset and spacing that best addresses the proper illumination of the target formations. Full azimuth, a full range of offsets, a broadband frequency range, a high signal-to-noise ratio, all

delivered at remarkable daily production rates.

FULL INDUSTRY STANDARD PROCEDURES

The company is committed to superior standards of preventive safety policies, safety monitoring and training. With a smaller at-sea crew and intensive use of remote-controlled systems, there is less exposure to risky work conditions.

THE BENEFITS OF A SMALLER FOOTPRINT

Environmental issues are central to the overall operation from planning to completion. The small RAVs and their minimal fuel consumption and mostly stationary positioning result in a low-carbon operation. The high signal-to-noise of the receivers allows shooting with smaller sources, reducing impact on marine mammals and fisheries.



The superior data quality and azimuth richness you expect from sea-bottom systems, with the productivity of towed streamers.

CONTACT

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FreeCable is protected by US patents 2011283797, 2012120759, 2013201790, 2013160381 and numerous patents in other countries. Further patents are pending.

www.freecableseis.com

REDEFINING MARINE SEISMIC DATA QUALITY

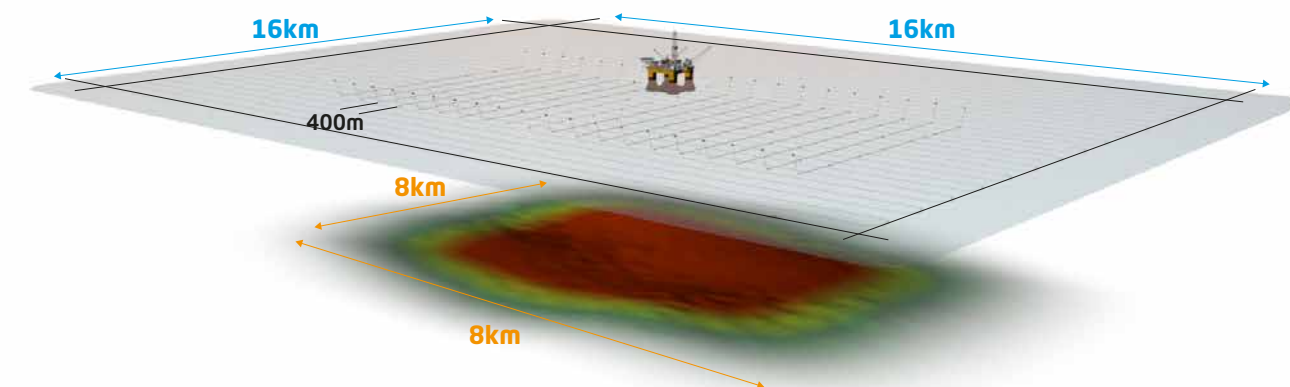
Think different: the midwater stationary cable (msc)



Delivering superior marine seismic data and high productivity

This totally new concept delivers the broadband data you need, with full and well-distributed offsets and full azimuth coverage. And the productivity is truly amazing, with a typical production of 15km² per day and upwards depending on survey parameters.

The receiver array consisting of 10 to 20 MSC units is placed in mid-water, at a depth well below sea swell, and it is kept stationary or near-stationary to reduce noise to a minimum. 4C sensors eliminate notches and record valuable additional information. The shot lines are perpendicular to the receiver cables, with long offsets.



Leveraging the power of autonomous robotics to maintain 10 to 20 independent cables stationary at depths from 10 to 100 meters, the FreeCable system is the answer to the E&P industry's quest for the best data quality delivered within tight time-frames.

The data you need

Full azimuth coverage, with near and far offsets (up to 16km) that are evenly distributed, and with fold in the 100s for 12.5m x 12.5m bin sizes.

The frequency content goes from 2-3Hz to 150Hz and above, without ghost or notch to worry about.

Environmentally friendly

Marine mammals and other environmental concerns can be handled using lower energy sources; with a 23dB signal-to-noise advantage compared to towed streamers, FreeCable can operate using smaller airgun arrays.

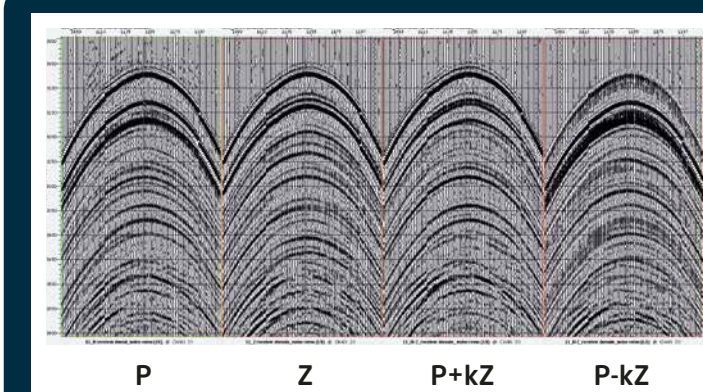
Field proven

The FreeCable system has been deployed for full-scale acquisition projects, and delivered on its promise of round-the-clock production, realtime monitoring of data, accurate cable depth and position control, highest standards for HSE and outstanding data quality.

Unique flexibility

Go where you need to acquire data, FreeCable can operate in shallow water as well as in the high seas, and even in closed water bodies such as lakes. The system is fully operable in congested areas around production platforms, facilities and natural obstacles. The receiver geometry (cable length and spacing) can be adapted to operational and geological requirements.

Full 4C recording



Straightforward and easy deghosting through simple PZ sum

Separation of downgoing and upgoing waves