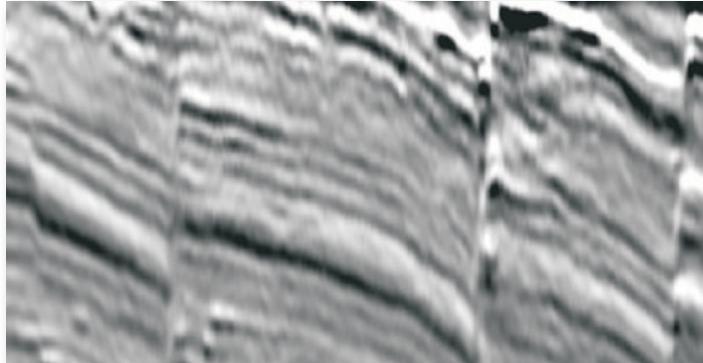
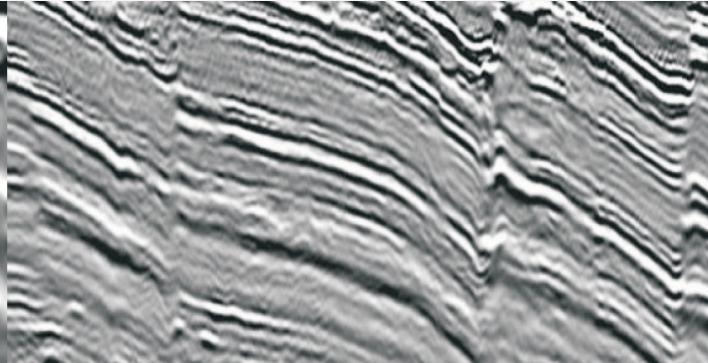


P-Cable

UHR3D Seismic Streamer System



Conventional data



P-Cable data

As the world's thirst for energy continues unabated, the risks we are taking to find and produce our finite supply of fossil fuels will only intensify. Not just monetary risks, but safety and environmental risks as well. We are producing oil in more and more difficult conditions all the time; most of the low-hanging fruit has been picked. Continuing innovation in sub-ocean bottom imaging is crucial to minimizing risk as we continue our search for new sources of energy. Assessing potential energy resources (and hazards) such as gas hydrates requires new methods of high-resolution imaging.

Paleoseismology is difficult on land, even with the advantage of trenching and direct observation. In marine environments, charting the recent earthquake history of an area, central to assessing future risk, is exceedingly difficult. Most of the world's ocean-side nuclear plants were constructed prior to the existence of high-resolution seismic technology capable of imaging the near-surface features that tell us much about earthquake risk. Hence the recent controversy over the Diablo Canyon Nuclear Power plant in California, where micro-earthquake activity acquired over the last few decades has illuminated the so-called "Shoreline Fault", a previously-unknown fault just offshore of the facility that has at least the potential of changing the seismic risk assessment.

In short, we need new ways to image smaller targets. The last 30 years have witnessed amazing progress in 3D imaging for deep exploration, but relatively little has been done at the other end of the spectrum. Geometrics is leading and transforming the future of marine HR3D with the revolutionary P-Cable system. Based on our tried-and-true GeoEel technology, the P-Cable is an innovative platform for towing

up to 24 short streamers from small vessels of opportunity with minimal crew. For marginally more cost than a conventional 2D high-resolution seismic survey, you can have true 3D data with all the attendant advantages — better imaging of more complex structures, less directional bias, full 3D migration and better preservation of high frequencies. The resulting data are simply amazing and the resolution unprecedented.

FEATURES & BENEFITS

- **Small and light; 5-ton bollard pull*** - Deployable from small vessels of opportunity.
- **Simple; minimal in-water assets** - Highly robust, easily and rapidly deployed with minimal crew.
- **True 3D coverage, full 3D migration** - Better resolution of more complicated geometries.
- **Bin size as small as 3.125m** - Higher resolution than previously possible.
- **Array width up to 300m** - Rapid production, up to 25 km²/day at 5 knots (6.125m bins).
- **Allows overlap between sail lines** - Minimal infill required.
- **Based on true solid streamer technology** - No cable-borne noise; environmentally friendly.
- **Convertible to full-featured 2D system** - Allows large-offset 2D survey for velocity determination if necessary.

*For typical 190m wide array with 25m sections.



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Active sections: GeoEel Solid*.

Number of streamers: up to 24.

Streamer length: 25 – 100m.

Channels per streamer: 8 – 64.

Streamer separation: 3.125, 6.25, or 12.5m.

A/D conversion: GeoEel 24-bit A/D module.

Data recording: PC-based Geometrics CNT-2 marine controller.

Navigation and positioning: NavPoint Trawler™ by NCS Subsea, Inc.

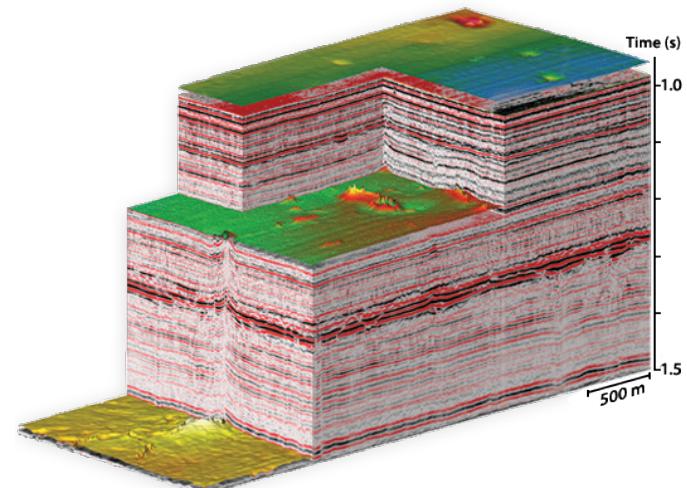
Streamer system handling: 5-6 dedicated crew.



Major areas of application include:

- Shallow hazard investigations (wind farms, oil fields, construction sites).
- Gas hydrate exploration.
- 3D and 4D fluid migration monitoring.
- Geotechnical and fault investigations.
- Deep water exploration.

The P-Cable is a joint venture between P-Cable 3D Seismic AS (Norway) and Geometrics, Inc. (USA). Geometrics is the exclusive manufacturing and sales company for the P-Cable.



*See www.geometrics.com/geometrics-products/seismographs/geoeel-solid-digital-streamer for detailed specifications.

Specifications subject to change without notice. P-Cable_v1 (0821)



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