Broadband Solutions
Polarcus Geophysical Toolbox : RightBAND™

Purpose

To optimize the imaging of target geologic horizons, by tuning the seismic source and receivers to the appropriate frequency band, utilizing a source to streamer depth relationship that best avoids ghost notch coincidence and delivers an optimized de-ghosted broadband volume. This is described as Polarcus’ RightBAND™ technique for broadband data acquisition. For each survey the towing configuration is designed to enhance the expected bandwidth at the targets and to maximize signal-to-noise at the receiver ghost notch frequencies in preparation for pre-stack de-ghosting.

Benefits

- Frequency bandwidth is optimized, especially at the low frequencies, with an ultra-quiet recording environment using X-BOW® vessels and 2 Hz true solid streamer cables
- Methodology is appropriate for either fixed or slanted streamer depth profiles
- Deep towed streamers reduce ambient noise, therefore enabling extended weathers windows
- A broadband solution that produces a high signal-to-noise dataset compatible with all broadband processing solutions on offer in the industry

Field Example

The following RightBAND™ example shows a non-migrated 2D sail line (A) stack before and (B) after DownUnder GeoSolutions DUG Broad, and a comparison amplitude spectra (C), illustrating the optimized frequency bandwidth.

(A) 2D stack before DUGBroad
(B) 2D stack after DUGBroad
(C) Amplitude spectra

Impact on EHSQ

Polarcus’ geophysical initiatives contribute to our Green Agenda by minimizing the time our vessels must spend on location to acquire high quality surveys in a safe and efficient manner. This optimization of survey time reduces the global environmental footprint of our operations and minimizes the exposure of our crews in the remote regions of the world where our vessels are designed to operate.