

Infill Management

Polarcus Geophysical Toolbox : Managing efficient infill acquisition

Purpose

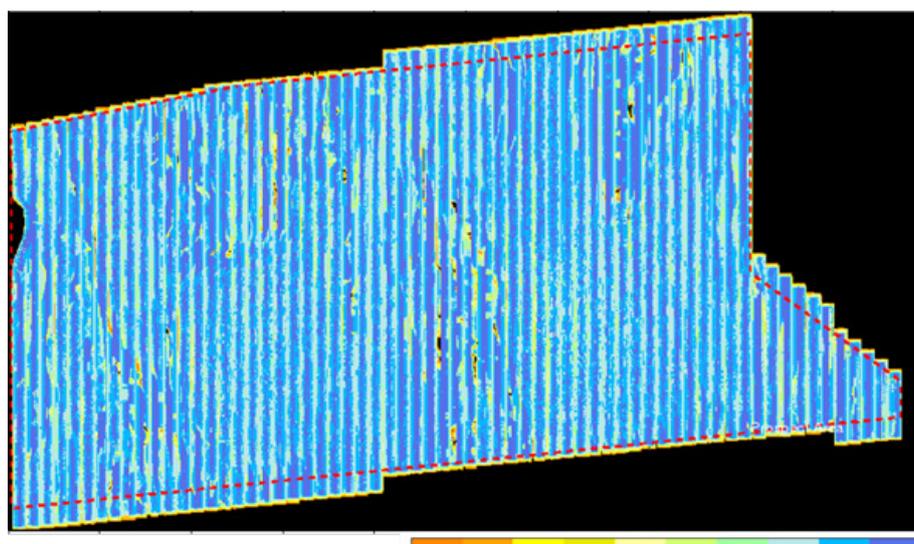
To calculate required infill based on pre-stack migration requirements, rather than on surface-derived CMP coverage plots, so that only relevant data is acquired according to the client's geophysical objectives. Polarcus' survey design team calculates the Fresnel zones of target horizons, determined by depth, frequency and offset. The survey is acquired by steering on pre-plotted shot lines and fanning steerable streamers. Working closely with our clients, we ensure that any areas of reduced CMP coverage due to environmental effects are analyzed before infill, to determine the required input to the migration.

Benefits

- Significantly reducing infill, resulting in survey cost savings
- Reduced survey times, so that surveys in remote areas with limited acquisition windows of opportunity can be acquired in one season
- Easier replication for future 4D monitor surveys, by acquiring the survey with a regular base grid of shot locations
- Excellent near trace coverage achieved by steering sources on preplots
- Minimizing holes caused by streamer feathering; fan mode expands the streamer separation linearly from head to tail
- Flexibility to prioritize potential infill based on time and budget, since prime lines in a swath are acquired first and infill is analyzed as coverage builds up

Field Example

Below is an example of a near offset fixed sample coverage plot from a Polarcus survey where Polarcus Infill Management was utilised. The resulting infill was 0%.



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.