



Petrel Sub-basin CO₂ Storage Data Package

Between 3 May 2012 and 24 June 2012 Geoscience Australia undertook two major surveys off the coast of the Northern Territory in the Petrel Sub-basin. The data acquisition was funded through the National Low Emissions Coal Initiative (NLECI) and the Petrel Sub-basin was selected in particular as it has been identified as a prospective area for CO₂ storage.

These surveys collected a range of data, including industry standard high resolution seismic reflection data, multibeam data and sub-bottom profiler data. These data are available for purchase as raw or final products.

Petrel Sub-basin CO₂ data release contents:

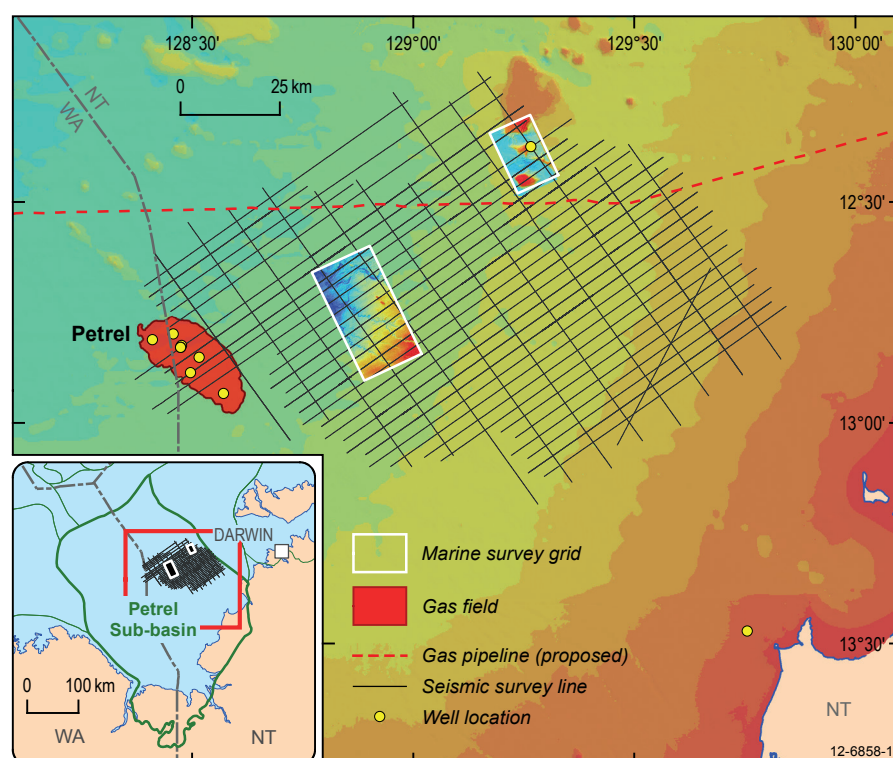
- GA336 2D seismic reflection data – 4091 line kilometres
- GA336 Velocities, navigation, processing and acquisition reports
- GA336 Multibeam data – 8000 line kilometres
- GA335 2D 24 channel sub-bottom profiler data – 655 line kilometres
- GA335 Velocities, navigation and processing report
- GA335 Multibeam and backscatter data – 5300 line kilometres
- GA335 Underwater video and photographs for 11 stations
- GA335 Biological, sedimentological and geochemistry analyses for 15 stations
- GA335 Post survey report.

Seismic survey GA336 – acquisition parameters

- 4091 kilometres of seismic data
- 4 second record length
- 2 millisecond sample rate, 408 traces
- 5100 metres solid streamer
- 12.5 metre shotpoint and 12.5 metre group interval
- Source depth: 4 metres; streamer depth: 5 metres
- 2080 cubic inch gun array at 2000 psi.

Seismic survey GA336 – processing sequence

- Designature outputting to zero phase
- Time frequency de-noise
- Tau-P linear noise attenuation and deconvolution
- Surface related multiple attenuation (SRME)
- Radon multiple attenuation
- Inverse Q (phase only)
- Amplitude median smoothing in AVO sensitive manner
- Curved ray pre-stack Kirchhoff time migration (PSTM)
- Amplitude only Inverse Q
- Residual radon demultiple
- GFLAT correlation to flatten NMO corrected CDP gathers
- Tidal statics
- Full stacks with filter and scaling
- True relative amplitude gathers and angle stacks available for AVO studies.



Petrel Sub-basin seismic and marine survey grids with background bathymetry.

Order Form for Pre-packaged Petrel Sub-basin CO₂ Data Package

Option A

One External Hard Drive \$550 (+gst)

- GA336 SEGY – various PSTM stacks, including scaled and unscaled Final Stacks, Near, Mid, Far and Ultra Far Angle Stacks
- GA336 Velocities, navigation, acquisition and processing reports and other ancillary data associated with the processed SEGY
- GA336 Observer logs
- GA336 Gridded multibeam bathymetry
- GA335 SEGY – 24 channel sub-bottom profiler – Final Migrated Stacks
- GA335 Gridded multibeam bathymetry and backscatter in ESRI grid and ASCII format
- GA335 Underwater video and photographs for 11 stations
- GA335 Post-cruise report

Note: Some of the above contents are also available for free download on the Geoscience Australia website.

Option B

Two External Hard Drives \$1750 (+gst)

- GA336 GFLAT and Scalar Gathers with and without NMO

Option C

3592 Tapes \$150 handling fee + \$600 per 3592 tape (+gst)

- GA336 Field SEG-D Data – 3592 tape
- Observers logs
- Navigation

Contact: Phone:

Company:

Email:

Delivery Address:

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☐ Option A \$550 (+gst)

☐ Option B \$1750 (+gst)

☐ Option C \$150 + \$600/tape (+gst)

GST NIL for overseas orders

For orders – return form to ausgeodata@ga.gov.au

For Further Information:

GA Data Repository

Email: ausgeodata@ga.gov.au

Ph: +61 2 6249 3222

Fax: +61 2 6249 9903



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