

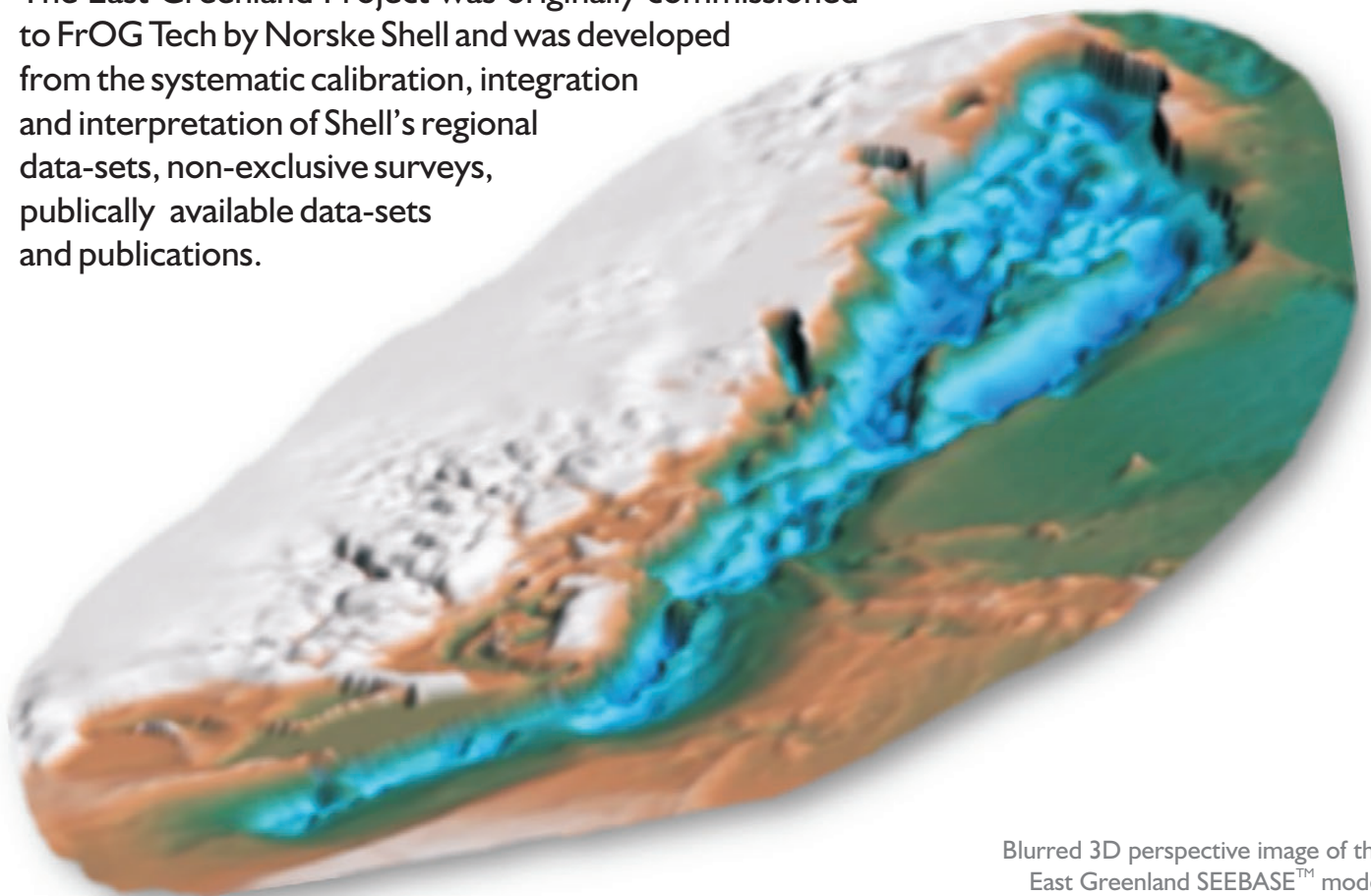
# East Greenland Regional SEEBASE™ Project

## Reduce Exploration Risks Offshore Greenland

FrOG Tech has recently released an updated version of its East Greenland Regional Study. The study includes a structural GIS project and a SEEBASE™ depth-to-basement model and provides an up-to-date interpretation in which basement and basin evolution has been analysed in its regional context. The East Greenland Regional Study delivers significant new insights into the evolution and architecture of several basins offshore Greenland. This study can be combined with FrOG Tech's Norwegian products to obtain a complete picture of the evolution and structure of the North Atlantic conjugate margins.

FrOG Tech's studies present a regional exploration template and cost-effective prospecting tool that provide an independent framework for focusing exploration and data acquisition strategies, reducing potential exploration risks and understanding petroleum systems.

The East Greenland Project was originally commissioned to FrOG Tech by Norske Shell and was developed from the systematic calibration, integration and interpretation of Shell's regional data-sets, non-exclusive surveys, publically available data-sets and publications.



Blurred 3D perspective image of the East Greenland SEEBASE™ model



## FrOG Tech SEEBASE™ Studies

Understand the regional and basin-scale processes that  
affect your permit

# East Greenland Regional SEEBASE™ Project

FrOG Tech's East Greenland Regional SEEBASE™ Study is based on similar tested methodologies as other FrOG Tech SEEBASE™ projects, currently covering ~75% of the globe's prospective areas.

**SEEBASE™** Studies provide a unique cost-effective regional and basin-wide understanding of the tectonostratigraphic framework of an area. They facilitate the understanding of the evolution of a basin's architecture and its fill history, and of the processes that impact on the occurrence and distribution of play elements.

**SEEBASE™** Studies are based on the integration of numerous data-sets, including but not limited to potential field data (gravity/magnetics), modelling of potential field data, seismic data and well data. Interpretation of potential field data provides control away from the seismic coverage and well intersections.

**SEEBASE™** Studies benefit from state-of-the-art geophysical processing of gravity and magnetic data, including several FrOG Tech proprietary enhancements in addition to a suite of standard filters. Depth modelling from gravity and magnetic data is routinely undertaken in SEEBASE™ Studies.

**SEEBASE™** Studies provide an accurate regional depth to basement map (SEEBASE™). Basement morphology and structural trends are derived from potential field data and combined with depth information from seismic profiles, modelling and well-data.

**SEEBASE™** Studies include a GIS Project and contain detailed reports outlining the structural interpretation, basin formation mechanisms, basin evolution, discussions on petroleum systems, and more.

**SEEBASE™** Studies provide essential constraints for understanding petroleum systems and play elements in basins.

**Key Deliverables** of the East Greenland Regional SEEBASE™ Study include:

- ⇒ **Structural Framework:** for project-scale structures and plumbing (i.e. predict likely secondary faulting driven by known deformation mechanisms in the basement - structural underpinning)
- ⇒ **Tectonostratigraphic history:** description of tectonic events and response maps showing associated fault movements
- ⇒ **Depth to basement (SEEBASE™):** detailed mapping of basin architecture, highlighting the morphology of basin depocentres and basin highs
- ⇒ Regional identification of **sediment provenance and sand-prone fairways**
- ⇒ **Basement Geology:** Basement terranes and regional composition
- ⇒ **Plate reconstruction models**
- ⇒ Maps of **sediment thickness, crustal stretching** and **Moho depth**
- ⇒ Distribution of offshore **volcanics**

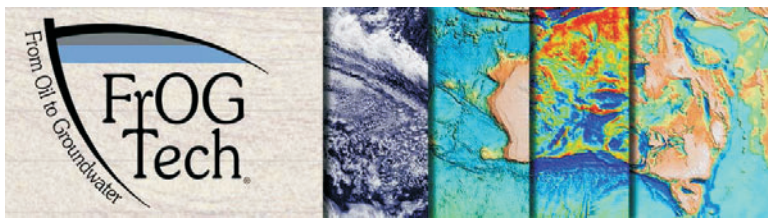
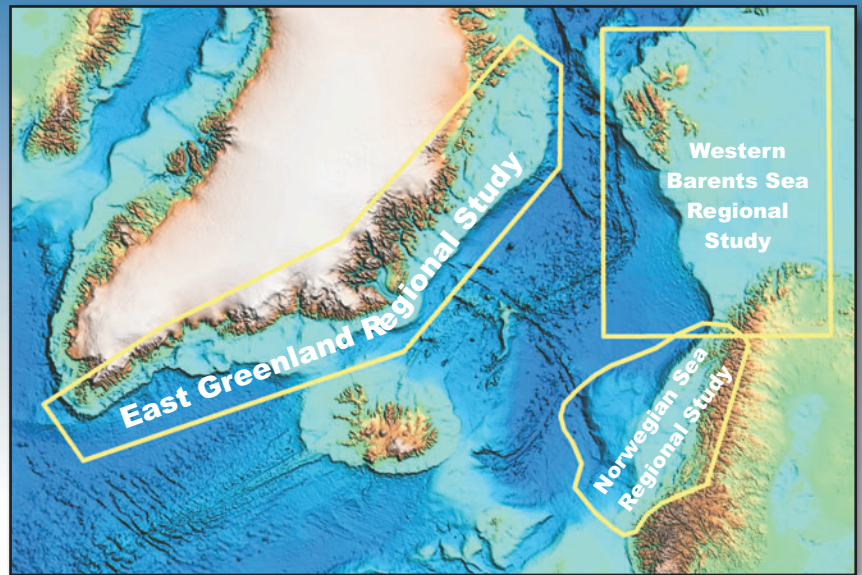


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# East Greenland Regional SEEBASE™ Project

The project area outlines for FrOG Tech's East Greenland Study and Norwegian studies are highlighted on the adjacent map. Detailed information about the Norwegian studies is available on our website: [www.frogtech.com.au](http://www.frogtech.com.au), or can be obtained via email: [info@frogtech.com.au](mailto:info@frogtech.com.au)

 FrOG Tech project areas



## Who We Are

**FrOG Tech (From Oil to Groundwater)** is a natural resources consultancy that provides geological, geophysical and information management services for a wide range of clients in the petroleum, groundwater, geothermal, CCS, coal, coal seam gas and mineral sectors. FrOG Tech has an extensive geological experience with studies covering most of the globe at variable scales, from regional to very detailed concession-scale.

**FrOG Tech** is a world-leader in the delivery of structural and tectonic interpretations, basin analysis and other resource-related geological services.

**FrOG Tech** offers **geological interpretations** that are based on the integration of seismic and non-seismic datasets. The constant interaction between FrOG Tech geologists and geophysicists makes our services and products unique in the range and scope offered, their cost-effectiveness, and the methods used.

**FrOG Tech** geologists are highly trained and experienced structural geologists and stratigraphers with a wide range of skills and backgrounds in the petroleum and mineral industries. The combination of strong technical skills in geology, GIS, and visualization ensures that our workflow is effective and efficient.



## FrOG Tech SEEBASE™ Studies

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# Product List Norwegian and East Greenland **SEEBASE™ Projects**

The East Greenland Regional SEEBASE™ Study can be purchased separately or in combination with any of the Norwegian studies (Barents Sea and Norwegian Sea SEEBASE™ Projects). Results for each study are presented in A3 atlas-style reports accompanied by ArcGIS projects containing interpretation layers as well as a selection of the processed and enhanced potential field data-sets.

The projects include:

## Overview

- Executive Summary
- Key Geological Conclusions
- Tectonic Summary
- Project Introduction & Aims

## FrOG Tech Approach

- FrOG Tech Methodology
- SABRE™
- SEEBASE™ Introduction & Methodology
- SEEBASE™ Workflow

## Data Compilation and Processing

- Gravity Data
- Magnetic Data
- Digital Elevation Model
- Surface Geology
- 2D Seismic
- Cross Sections
- Wells
- Global Heat Flow
- Earthquake Data
- Geophysical Depth Modelling
  - Magnetic Models
  - Gravity Models (Norwegian Sea)
- Confidence Reliability Accuracy and Precision Map

## INTERPRETATION

### Basement

- Basement Terranes, maps and descriptions

### Tectonic Evolution

- Tectonic Events Overview
- Interpreted Structures
- Plate Tectonic Reconstructions

## Event Response Maps

- Paleozoic Events
- Mesozoic Events
- Cenozoic Events

## SEEBASE™

- SEEBASE™
- SEEBASE™ 3D
- SEEBASE™ Confidence and Accuracy (Data-driven)

## SEEBASE™ Derivatives

- Depth to Moho
- Crustal Thickness
- Basement Thickness
- Sediment Thickness
- Crustal Extension

## Petroleum Systems and Risks

- Continent - Ocean Boundary (COB)
- Interpreted Distribution of Volcanic Features
- Basement Controlled Fluid Focus
- Possible Maximum Present-Day Maturity (Barents Sea)
- Possible Pre-Tertiary Maturity (Barents Sea)

## Conclusions

## References

## Appendices

Appendices outlining the stitching and processing of the geophysical data, detailed description of the depth modelling results and the GIS meta-data.

## DVD

Digital version of the report  
ArcGIS Project with all interpretations, geophysical images and processed public domain gravity data.

## Cost of the East Greenland and Norwegian SEEBASE™ Products

Studies can be purchased together or individually. Prices are:

**US\$ 60,000 for one study**

**US\$ 50,000 per study when 2 or more studies are purchased.**

Purchasers of the product(s) will need to have purchased any data licenses used in the study or demonstrate that they already have a license. Details of the transactions are in the product licensing agreement that will be sent to each company interested in purchasing the product(s).

For further information about the East Greenland or Norwegian studies or for enquiries about how FrOG Tech can help you in your permit or in different areas, please contact us ([info@frogtech.com.au](mailto:info@frogtech.com.au) / tel: +61 (0)2 6283 4800).



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