

Integrated interpretation

Integrated interpretation is key to maximising your understanding, whether it is a regional assessment, seismic acquisition planning, or well and field development. Our interpreters have extensive potential field experience including integration with seismic, well, geochemical, and structural data.

Guiding you to the Data You Need

For frontier areas, freely available public domain data is an important first step in evaluating areas of interest, especially where little or no other data exists. Any existing 2D potential field data will offer along-line constraint and uplift. With our extensive knowledge of the historic global potential field database, and experience with regional datasets, Bridgeporth can help you source and evaluate the data you need to start the exploration programme.

Because when you are serious about getting the information you need, gravity and magnetic data can be used to fill the gaps and inform your decision-making process.

Even with 3D seismic data available, gravity and magnetics can assist in unravelling complex geological issues—for example in areas of salt and volcanics.

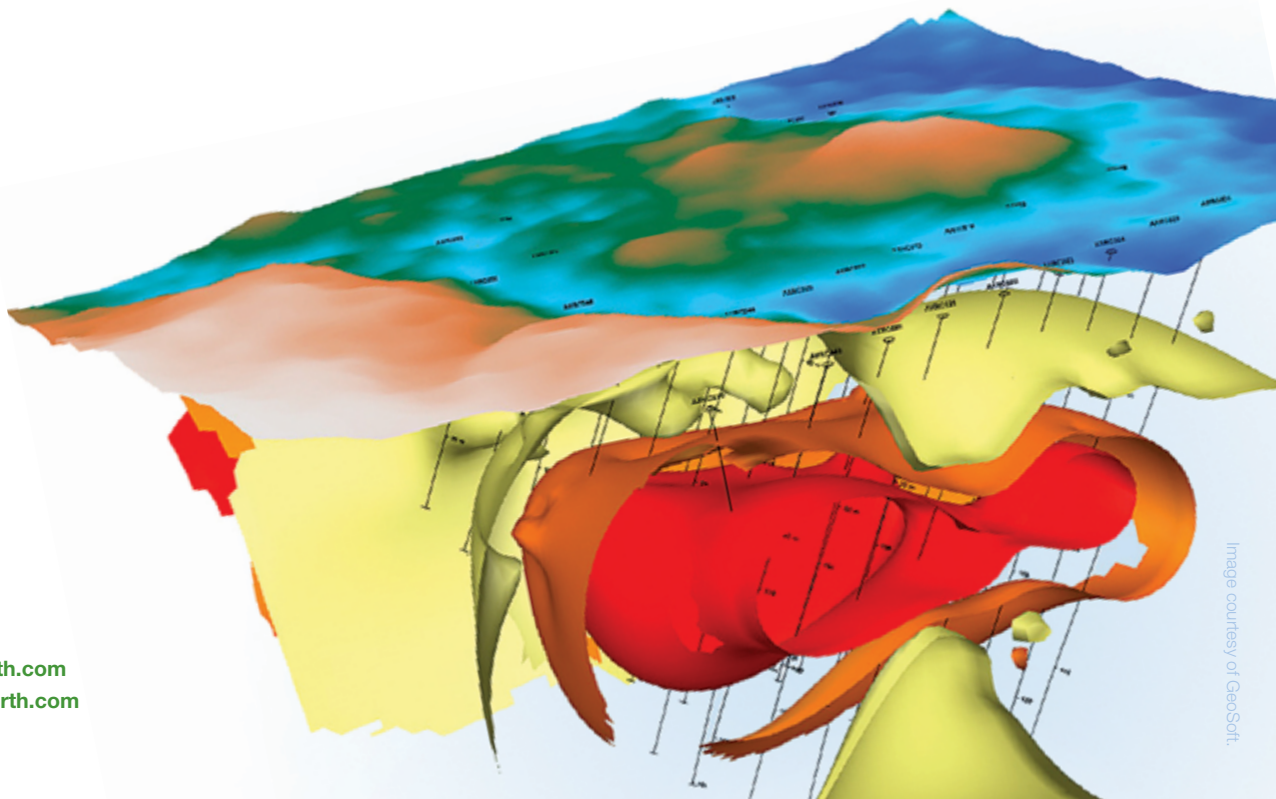
Qualitative Interpretation

Seismic, well, structural, geochemical and potential field data individually offer important insights, but their true impact is only realised when considered collectively.

At Bridgeporth, we believe in taking a holistic view of the dataset. Once we've gathered all of the necessary data, the qualitative stage begins. This involves:

- A review of data provenance to establish the ability of the data to assist in your exploration objectives
- The production of a suite of data “transforms,” which enhance the response of the gravity and magnetic data
- An assessment of the correlation between the gravity, magnetics, and other datasets
- The creation of an updated structural map, offering an improved level of detail

Our qualitative approach is always tailored to our clients needs, whether it be a fast regional overview or a more detailed investigation that combines a number of data sources.



Quantitative Interpretation

The goal of a quantitative interpretation is to delve deeper into the data, producing a set of integrated geological horizons to push forward the exploration programme. It means we:

- Establish the rock properties, in particular the relationship between velocity and density
- Use depth estimation techniques to produce depth to sources over key anomalies
- Create 2D models to derive balanced cross-sections, satisfying the seismic and potential field interpretations
- Incorporate all the above into a 3D model to focus on a constrained depth surface

Feasibility Studies: What's Right For You?

Every region presents its own geological and geophysical challenges. Taking the time to choose the right tools before acquiring a potential field survey will help you identify your targets in the most efficient and cost-effective way possible. We'll complete a feasibility study to assess which techniques, which platform, and which parameters will be most applicable for what you're trying to target.

Data sheets: Looking Deeper

Bridgeporth has built a library of data sheets that focus on key geographical and geological regions.

Our data sheets take two forms. Either a detailed, multi-page report combining all available data to produce a summary exploration overview, or a one page flyer focusing on individual areas.

Deliverables

Data package

Gravity

- Raw
- Processed
- Filtered derivatives

Magnetics

- TMI
- RTE
- 1st vertical derivative

Radiometric

- Isotope plots
- Binary and ternary plots

LiDAR

- Digital terrain model
- Slope analysis

Hyperspectral

- Spectral analysis
- Spectral maps

Interpretation

Qualitative mapping

- Structural fabric
- Intrusive/zonation

Quantitative modelling

- 2D profiles
- 3D structural models
- 3D density volume
- 3D susceptibility volume
- Unconstrained inversion modelling
- Constrained inversion modelling
- Basement mapping

Updated potential terrain areas

Compilation of synoptic data package

- Reports on acquisition
- Reports on interpretation
- GIS compilation

To learn more about Bridgeporth, please visit us at www.bridgeporth.com or contact us at sales@bridgeporth.com

