# Simon Higgins, PhD

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### **Career Outline**

**Employment:** Sept 2016 – present: Cambridge Carbonates Ltd., UK. Current position: Principal

Structural Geologist.

Jan 2008 – Aug 2016: Statoil ASA, Norway. Position: Principal Research Geologist.

Project leader and team geologist in the Statoil Basin & Petroleum Systems Research Group.

**Core skills:** - Regional geology and basin analysis

- Structural geology expertise: Established competence in diverse settings such as gravity-driven fold and thrust belts, rifted margins, intra-cratonic basins and with salt-related

deformation.

- Seismic interpretation

- Integration of multi-disciplinary datasets

Education: Jan 2005 – Dec 2007: Ph.D.: 3D Seismic Analysis Of The Geometry And Development Of A

Deep Water Fold And Thrust Belt (Cardiff University).

**2003 – 2004:** M.Sc.: Structural Geology with Exploration Geophysics (*University of Leeds*).

1999 – 2002: B.Sc. (Hons.) Geological Sciences (University of Leeds).

## **Professional Experience**

## Sept 2016 - present: Principal Geologist, Cambridge Carbonates Ltd.

- Consultant geologist working on industry research projects
  - Basin analysis in Rift-to-drift Conjugate Margins project: investigating the tectonostratigraphic evolution of the North Atlantic Conjugate Margins (East Coast Canada, UK/Ireland, Iberia)
  - lithospheric- to prospect-scale processes and interactions.
  - Research into rift-to-drift margin evolution theory and developing regional exploration workflows. Focus on basin analysis integration in conjugate margin studies.
  - -Incorporating varied disciplines such as plate tectonics, dynamic topography, subsidence analysis, source-to-sink, palaeo-drainage and heatflow modeling.

#### 2008 – 2016: Principal Research Geologist, Statoil ASA, Norway.

- Project leader and team geologist in Statoil's Basin & Petroleum Systems Research Group:
  - Technical project lead for regional South Atlantic basin analysis study. Coordination of multidisciplinary group investigating conjugate margin evolution and pre-salt play variability.
  - Key role in developing new regional geology evaluation technologies and workflows for exploration business units. Revision of company Best Practice for regional basin analysis.

- Prospect to plate-scale seismic interpretation to define and build extensive structural domain maps that underpin prospectivity mapping. Study areas include South Atlantic salt basins, East Coast Canada including Nova Scotia and the Grand Banks regions, Irish and UK basins, and the Iberian margin.
- Geology lead on gravity and magnetic modeling and interpretation focusing on salt structures, magmatic intrusions and crustal properties.
- Collation of project results into Petrel and ArcGIS-based conjugate margin maps.
- Structural geologist for onshore basin analysis project in Kufra Basin, Libya investigating Silurian "hot-shale" distribution.
- Integrating reflection seismic, refraction surveys, gravity & magnetics, remote sensing data, outcrop studies, well data and more.
- Interpretation experience on cutting-edge datasets with numerous visualisation packages including Petrel, SeisWorks and Kingdom Suite.

#### 2005 – 2007: PhD Geologist, Cardiff University, UK.

- High resolution, 3D seismic analysis of the distribution of strain in a deep water fold belt.
  - Description of three-dimensional geometries of the lateral tip regions of thrust fault surfaces within the fault linkages and transfer zones.
  - Investigated the degree of down-dip stratal connectivity through a fold and thrust belt.
  - Quantified the spatial variability and distribution of fault heave and bulk shortening.
  - Determined the sequence of fault and fold initiation and propagation within a fold belt.
  - Assessed the degree of overlap in the duration of growth of individual structures.

# **Professional Affiliations**

#### Active member of:

- PESGB
- AAPG
- Geological Society London

# Other relevant skills

Working knowledge of Norwegian.