



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

Research Fellow in Geosolutions Leeds: Unlocking the Hydrogen Storage Potential of the Central North Sea, Faculty of Environment



Salary: Grade 7 (£39,355 – £46,735 p.a. depending on experience)

Reporting to: Charlotte Botter

Reference: ENVEE1807

Fixed term for 24 months to complete specific time limited work

Location: University of Leeds (with scope for hybrid working)

We are open to discussing flexible working arrangements

Research Fellow in Geosolutions Leeds: Unlocking the Hydrogen Storage Potential of the Central North Sea, Faculty of Environment

Overview of the Role

[Geosolutions Leeds](#) is seeking a highly motivated and experience geoscientist to assess the subsurface for potential sites for hydrogen storage in Permian salt caverns on the UK Continental Shelf (UKCS).

The role is based at Geosolutions Leeds, an exciting new strategic investment by the University of Leeds as part of its Climate Plan, supporting the refocusing of research. Geosolutions Leeds brings together world-leading expertise in geology, engineering and social science to deliver an integrated systems approach to energy geoscience that will meet Net Zero goals.

The successful candidate will work with Dr Charlotte Botter and Dr Adam McArthur utilising a large 3D seismic dataset, well and core data from the Central and Southern North Sea offshore Yorkshire. In addition, they will test suitability of Permian salt samples to assess their rock mechanics and potential leakage risks.

The candidate will have a PhD in Earth Science (Geology or Geophysics), and have experience of subsurface data interpretation, and a strong commitment to publishing scientific results and science communication.

If you are looking for a role that will combine quantitative geoscience with finding solutions to the challenges of the Energy Transition, apply today.

Main duties and responsibilities

- Subsurface characterisation of Central North Sea data, i.e., using seismic, well and core data, to identify suitable salt geometries and related structures for hydrogen storage sites;
- Conducting experiments to assess the rock mechanics of selected UK Permian salt rocks, testing their strength and assessing their suitability and seal capacity for hydrogen storage;



- Developing a database of potential salt storage sites with identification of the strengths and weaknesses of each site, thus providing a ranked list of the most suitable sites;
- Generating and pursuing independent and original research ideas in the appropriate subject area;
- Developing research objectives and proposals and contributing to setting the direction of the research project and team including preparing proposals for funding in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work;
- Preparing papers for publication in leading international journals and disseminating research results through other recognised forms of output;
- Working both independently and also as part of a larger team of researchers, engaging in knowledge-transfer activities where appropriate and feasible;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- Contributing to the training of both undergraduate and postgraduate students, including assisting with the supervision of projects in areas relevant to the project.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

Qualifications and skills

Essential

- A PhD (which must be completed and awarded at the time of application) in Earth Science (Geology or Geophysics);
- A strong background in subsurface data interpretation: specifically, 3D seismic data interpretation, structural analysis and petrophysics;
- Good time management and planning skills, with the ability to meet tight deadlines, manage competing demands and work effectively under pressure without close support;
- A developing track record of peer reviewed publications in international journals;
- Excellent written and verbal communication skills including presentation skills;



- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.

Desirable

- Experience of pursuing external funding to support research;
- Experience of rock mechanics laboratory tests;
- Experience of evaluating seal capacity and risk;
- A strong interest in accelerating the Energy Transition through fundamental research.

Additional information

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information please visit: www.gov.uk/skilled-worker-visa

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: <https://www.gov.uk/global-talent>

Find out more about the [Faculty of Environment](#).

Find out more about our [School of Earth and Environment](#)

Find out more about our [Research and associated facilities](#)

Find out more about [Equality in the Faculty](#)

Working at Leeds

We are a campus-based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out



more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Our University

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the School of Earth and Environment, we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to Black, Asian, those who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

The Faculty of Environment has received a prestigious Athena SWAN silver award from Advance HE, the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study

Information for disabled candidates

Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found under the 'Accessibility' heading on our [How to Apply](#) information page or by getting in touch by [emailing HR via hr@leeds.ac.uk](mailto:hr@leeds.ac.uk).

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

