# Position Description

## Research Scientist/Engineer – CSOF5

The following information is for applicants

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| Advertised Job Title**:** | Reservoir Simulation Research Scientist/Engineer |
| Job Reference: | 59029 |
| Relocation Assistance**:** | Will be provided to the successful candidate if required. |
| Applications Are Open To: | * All Candidates |
| Reports to the: | Research Team Leader |
| Number of Direct Reports: | 0 |
| Name and Contact Details For Applicant Enquiries | Jonathan Ennis-King via email [jonathan.ennis-king@csiro.au](mailto:jonathan.ennis-king@csiro.au) |
| Contact Details For Applying | Call 1300 984 220 or email [careers.online@csiro.au](mailto:careers.online@csiro.au). |
| How to Apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon |

## Role Overview:

The Research Scientist will work within CSIRO’s Oil, Gas and Fuels Program to contribute to fundamental and applied research focused on carbon capture, storage and utilisation (CCUS).

CSIRO is an exciting and stimulating workplace with challenging projects, excellent career development, a high level of autonomy, and access to the latest research and state-of-the-art technology.

The Scientist will be expected to do mathematical and numerical modelling of the behaviour of carbon dioxide and other gases injected into the subsurface. The primary role is to support ongoing projects in the area of CCUS, and the development of new opportunities in emerging areas.

## Duties and Key Result Areas:

* Develop a good working knowledge of reservoir simulation software and how to apply it usefully and correctly.
* Perform simulations of potential and actual storage sites.
* Recognise opportunities for innovation and generate new theoretical perspectives by pursuing new ideas and approaches and networking with scientific colleagues across a range of disciplines.
* Establish and maintain effective relationships with scientists in other institutions to ensure effective delivery of scientific results.
* Communicate results through report-writing, conference presentations and first-author publications in highly respected journals.
* Present proposals and results to sponsors and clients.
* Apply for research grants; lead and manage projects.
* Contribute to the professional development and mentoring of staff and other colleagues, including the supervision of students.
* Help build CSIRO’s research reputation for integrated and multi-disciplinary science related to CCUS.
* Contribute to the effective functioning of a research team and help deliver upon CSIRO’s organisational objectives
* Other duties as directed.

## Competencies:

1. **Teamwork and Collaboration: Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.**
2. **Influence and Communication: Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.**
3. **Resource Management/Leadership: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence: Plans, sets and works to meet challenging standards and goals for self and/or others. Recognises where endeavours will make the most impact or difference, decides on desired outcome and sets realistic goals to reach this target.**
6. **Adaptability:** Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## Selection Criteria:

*Under CSIRO policy only those who meet all selection criteria can be appointed.*

* A PhD in mathematics, physics, computer science or engineering, or qualification and research experience, which taken together, are equivalent to this educational standard.
* 2+ years demonstrated experience in reservoir engineering or flow in porous media, and significant fundamental research skills.
* Demonstrated ability to solve applied problems, with the use of numerical modelling or simulation, and to develop innovative approaches.
* Strong interpersonal, written and oral communication skills including the ability to publish the results of scientific research in journals, and to present to clients and external sponsors.
* Demonstrated ability to work flexibly, independently as well as part of a team, and to form and maintain effective relationships with a range of colleagues and collaborators.
* In-depth knowledge of flow in porous media.

## Desirable Criteria:

* Experience with numerical simulation of flow in porous media.
* Experience in scientific programming e.g. Fortran, C/C++, Java, Python.

## About CSIRO:

We imagine. We collaborate. We innovate. To find out more visit us [online](http://www.csiro.au/)!

Find out more about CSIRO [Energy](https://www.csiro.au/en/Research/EF)