# Position Details

## Research Projects- CSOF4

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| The following information is for applicants |
| Advertised Job Title | Experimental Scientist - Soil Carbon |
| Job Reference | 70445 |
| Tenure | Term of 36 months, Full-time hours |
| Salary Range | AU$83,687 to AU$94,679 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Waite Campus, Adelaide |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents Only |
| Position reports to the | Team Leader - Soil Organic Matter Function |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Lynne Macdonald via email at lynne.macdonald@csiro.au |
| How to apply | Apply online at <https://jobs.csiro.au/> Internal applicants please apply via **Jobs Central**If you experience difficulties when applying, please email careers.online@csiro.au or call 1300 984 220. |

### Role Overview

As an Experimental Scientist within CSIRO Agriculture and Food, you will have interests and expertise in soil carbon and its role in mitigating climate change. Based at the Waite Campus Adelaide, you will work closely with research teams locally and across Australia to support the efficient delivery of data and findings to support high impact research in national soil carbon accounting.

The role will be responsible for the analytical pipeline associated with measuring and predicting soil carbon and its associated fractions. This will include coordinating laboratory staff and workflows across multiple projects, integrating data across multiple measurements, managing databases, and using and developing chemometric data analysis approaches.

This role crosses the boundaries between research technician and research scientist, where you will contribute to statistical analysis and interpretation, drafting report components for clients, and preparing communication materials for presentation. The successful candidate will play a key role within the Soil Research Team and in advancing our research impacts in soil carbon.

### Duties and Key Result Areas:

* Work collaboratively with research scientists and technical staff to coordinate the planning and scheduling of analytical pipelines associated with measuring soil carbon and its component fractions. This role includes the use of hydrofluoric acid and appropriate HSE training will be provided.
* Under limited supervision effectively manage data resources, conduct chemometric predictions, and statistically analyse and interpret soil carbon data using a range of data tools.
* Use initiative and sound judgement to adapt experimental methods and data analysis/management approaches to improve workflows and operating efficiencies.
* Provide significant input to the interpretation and communication of research results, through contributing technical details and data summaries to client reports, scientific manuscripts, and conference presentations.
* Contribute to efficient and safe operations in a shared laboratory space including instrument maintenance, safe handling of hydrofluoric acid, risk assessments, laboratory housekeeping, and purchasing consumables.
* Provide coaching, on-the-job training and instruction to colleagues, collaborators, and students on analytical activities pertaining to the immediate work area.
* Support the research direction of the team through representation of CSIRO externally at scientific, industry, and Government events, and at public forums.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

## **Required Competencies:**

* **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.
* **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.
* **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.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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**

#### Essential

*Under CSIRO policy only those who meet all essential criteria can be appointed. Applications will be evaluated based on your demonstrated ability to meet the selection criteria below. In applying for this role please include a written summary demonstrating how you meet the selection criteria below.*

1. **Qualifications:** a relevant tertiary qualification in analytical or environmental chemistry, or equivalent experience.
2. **Scientific knowledge:** a fundamentalunderstanding of soil carbon cycling, its role in mitigating climate change, and principles of carbon accounting within the current policy framework.
3. **Laboratory Experience:** working experience in an applied science or research environment demonstrating sound understanding of laboratory best practice, preparation of environmental samples, sample tracking, and laboratory risk assessment.
4. **Analytical expertise:** demonstrated skills in the analysis of samples for carbon and nitrogen analysis through spectroscopic methods (e.g. MIR, NMR), including instrument maintenance and troubleshooting.
5. **Data management & analysis**: a sound understanding of FAIR data principles, database management and version control, and statistical and chemometric data analysis through R programming will be required.
6. **Time management:** ability to manage competing project deadlines, including scheduling, monitoring, and completing tasks under minimal supervision, and an ability to work on a number of projects at the same time.
7. **Communication skills:** well developed written and spoken communication skills.
8. A current Australian driver’s licence.

## **Desirable:**

1. Experience in designing and implementing field sampling protocols across spatially variable soil and sediment landscapes.
2. Hands on experience with analytical instrumentation (e.g. LECO, mass spectrometry, gas chromatography), troubleshooting, and data quality control.
3. Knowledge of WHS regulations, managing the risks associated with hazardous chemicals, and preparing and adhering to safe work instructions for laboratory procedures.
4. Demonstrated experience in line managing and coaching other staff and students.

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