# Position Details

## Research Projects- CSOF3

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| The following information is for applicants | |
| Advertised Job Title | Graduate Scientist/Engineer – Minerals Processing |
| Job Reference | 78351 |
| Tenure | Indefinite  Full-time |
| Salary Range | AU$66,163 to AU$84,207 pa plus up to 15.4% superannuation |
| Location(s) | Waterford, Western Australia (Whadjuk Noongar Country) |
| 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 – Precious Metals |
| Client Focus – Internal | 50% |
| Client Focus – External | 50% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Xianwen Dai via email at [Xianwen.Dai@csiro.au](mailto:Xianwen.Dai@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](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Acknowledgment of Country

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the area that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

### Role Overview

The role of Research Projects staff in CSIRO is to collaborate in scientific and technological activities with other research staff usually by assisting with detailed planning, undertaking or assisting with experimental, observational or technology development work, and in carrying out the more practical aspects of the work. We thrive on innovation harnessed by the diversity of the minds and lived experiences of our team and apply our expert knowledge to solve Australia’s greatest challenges.

The Graduate will provide experimental and technical support to project leaders and project teams working across a wide variety of mineral processing projects and associated activities within the Hydrometallurgy Group. A focus of the role is research and development of new approaches to help unlock Australian mineral deposits and enable the production of battery-grade materials at commercial scale. The Graduate will exhibit great flexibility and willingness to engage and learn skills across a variety of areas to support the team achieve this goal whilst leveraging from their own experiences and identity to build a career a CSIRO. The position may require occasional on-site shift work on pilot projects.

The team recognises that Aboriginal and Torres Strait Islander peoples have made and will continue to make extraordinary contributions to Australian culture, economy and science and we aim to promote and embed the vision of ‘A science landscape in respectful partnership with Indigenous Australia delivering innovative, sustainable, holistic solutions to meet our greatest national challenges’. CSIRO’s ‘Precious Metals’ Team is a group focussed on commercial outcomes for our partners, with examples including R&D and piloting work with BHP Nickel West (battery grade nickel sulphate production) and Mineral Commodities (environmentally-friendly graphite purification). CSIRO is also investing internally to develop exciting new processes to unlock greater value from mineral deposits in a more environmentally sustainable manner.

### Duties and Key Result Areas:

* Under technical direction, safely undertake experiments, laboratory analysis or technology development activities (some non-routine) using a range of techniques, often working on several parallel tasks, both independently and as part of a team.
* Activity areas can include mineral leaching (atmospheric, pressure), roasting, solution purification (e.g., solvent extraction), filtration, settling, flocculation, analyses, etc.
* Results interpretation and assisting with preparation of reports.
* Co-ordinate, produce and maintain systems documentation and technical specifications as appropriate.
* 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.
* Work collaboratively as part of a multi-disciplinary, often regionally dispersed research team, and business unit to carry out tasks in support of CSIRO’s scientific purpose.
* 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.
* Respond courteously and efficiently to client requests, maintaining clear communication regarding mutual expectations and monitoring client satisfaction.
* Partake in pilot plant activities including shift-work as required.
* Maintain confidentiality in relation to commercially sensitive information (including intellectual property) of CSIRO and/or research or commercial partners.
* Other duties as directed.

## **Required Competencies:**

* **Teamwork and Collaboration:** Proactively seeks and considers the ideas and opinions of others from within and outside the team to help form decisions, plans or actions.
* **Influence and Communication:** Puts forward ideas by presenting factual information supported by data, definitions, examples, illustrations or other aids, which will assist in conveying meaning.
* **Resource Management/Leadership:** Provides instruction and assists other staff to complete allocated tasks and activities.
* **Judgement and Problem Solving:** Identifies and considers the implications of a range of available alternatives in order to select the most appropriate response to problems of a familiar or recurring nature.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **Adaptability:**Willingness to change ideas or perceptions based on new information, contrary evidence or other people's points of view. Prepared to try out different approaches.

## **Selection Criteria**

#### Essential

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

1. Relevant tertiary qualifications or equivalent work experience in Chemistry, Metallurgy, Mineral Processing, Metallurgy or Engineering.
2. Demonstrated history of maintaining health and safety requirements while working safely in a hazardous environment.
3. Experimental proficiency in hydrometallurgical or related processing activities, e.g., leaching kinetic tests.
4. Ability to work both collaboratively and unsupervised with a high level of organisational and time management skills.
5. Competency in MS Office programs including Word, Excel, PowerPoint.

## **Desirable:**

1. Practical experience in the application of hydrometallurgical solvent extraction.
2. Practical experience with laboratory instruments, e.g., automatic titrators, UV-Visible spectroscopy, AAS, HPLC.
3. Practical experience with mineralogical sample preparation equipment, e.g., rotary splitting, crushing, pulverising, screening.
4. Data processing and data manipulation experience.
5. Familiarity with AI and digital systems.

Special Requirements

Appointment to this role may be subject to conditions including provision of a national police check as well as other security/medical/character clearance requirements.

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. Visit [CSIRO Online](http://www.csiro.au/) and CSIRO [Mineral Resources](https://www.csiro.au/en/Research/MRF) for more information.

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* People First
* Further Together
* Making it Real
* Trusted