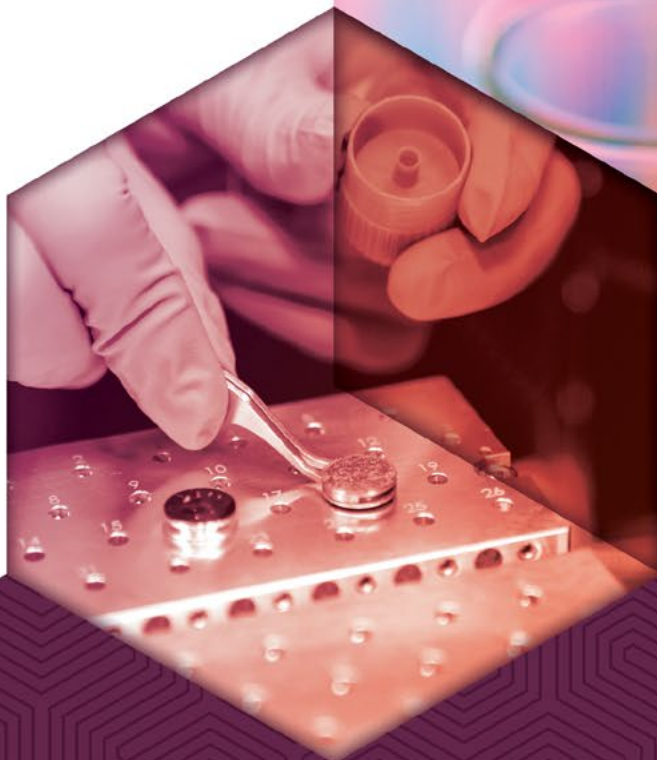




ANNUAL REPORT

2022-23





ACKNOWLEDGEMENT OF COUNTRY

ChemCentre acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters, and community. We pay our respects to all members of the Aboriginal communities and their cultures, and to Elders past, present, and future.

Contents

EXECUTIVE SUMMARY

5

Strategic Direction	6
Our Vision	7
Our Purpose	7
Our Mission	7
Our Values	7
From the Chair	8
From the CEO	10

OPERATIONS

12

Who We Are	12
Organisational Structure	13
What We Do	14
At a Glance – the year in review	15

PERFORMANCE MANAGEMENT FRAMEWORK

24

AGENCY PERFORMANCE

26

Auditor's Opinion	27
Financial Statements	33
Key Performance Indicators	62

OTHER DISCLOSURES AND LEGAL COMPLIANCE

69

APPENDICES

76

2022-23 Publications and Presentations	77
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STATEMENT OF COMPLIANCE

Hon Stephen Dawson MLC

Minister for Emergency Services; Innovation and the Digital Economy; Science; Medical Research;
Minister Assisting the Minister for State and Industry Development, Jobs and Trade.

In accordance with Section 63 of the *Financial Management Act 2006* we hereby submit for your information and presentation to Parliament, the annual report of ChemCentre for the financial year ended 30 June 2023.

The annual report has been prepared in accordance with the provisions of the *Financial Management Act 2006*.

David Blyth

Chair
ChemCentre Board
22 August 2023

Tresslyn Walmsley

Deputy Chair
ChemCentre Board
22 August 2023



EXECUTIVE SUMMARY

Strategic Direction

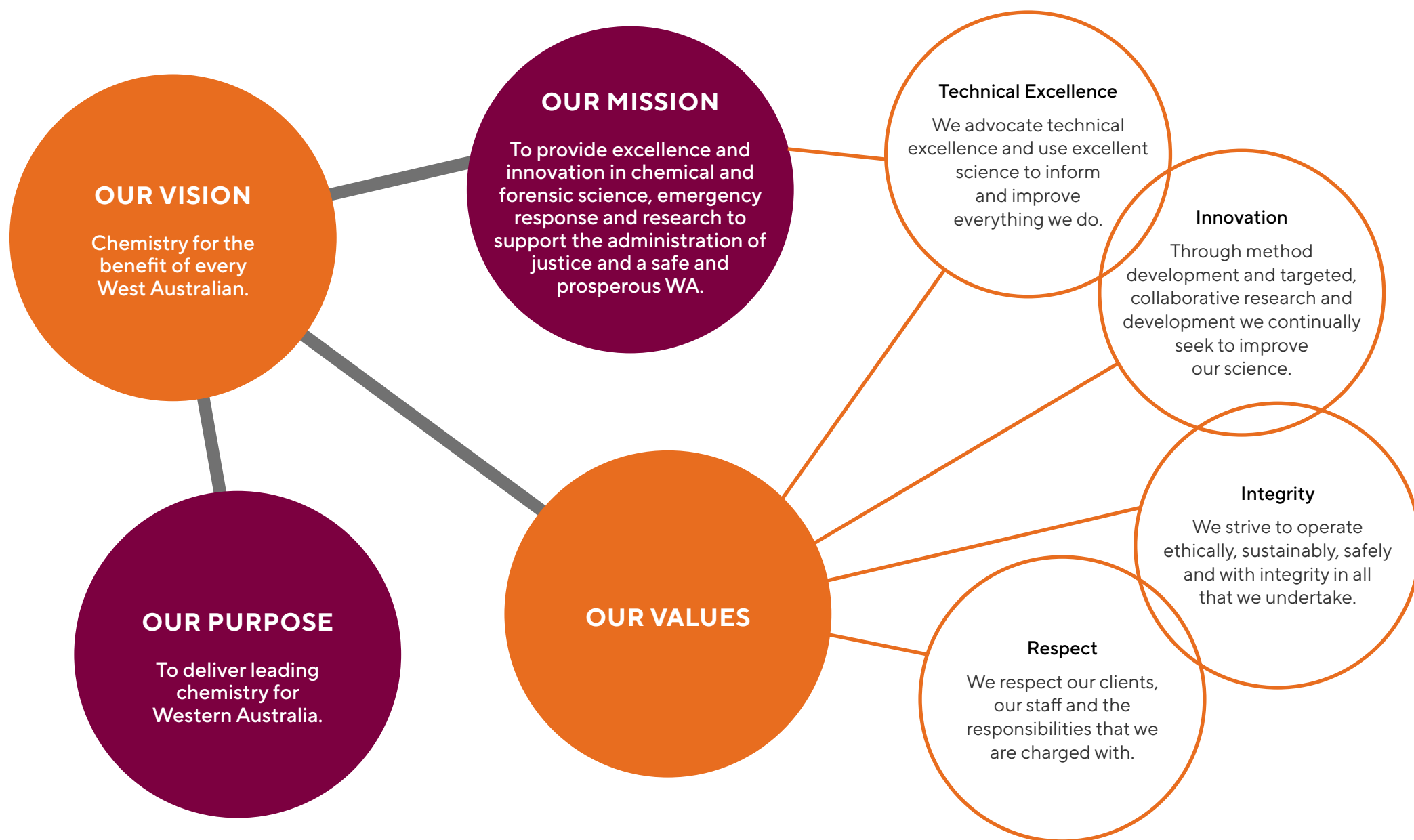


The community of Western Australia is the primary beneficiary of ChemCentre's services. Our major clients include the Government of Western Australia (directly and through client Departments), Government Trading Enterprises (GTEs), the public, research funding bodies, universities and industry.

ChemCentre strives to fulfill its mission to provide excellence and innovation in chemical and forensic science, emergency response and applied research to government, industry and other stakeholders. This is done in a context where a benefit to the Western Australian taxpayer is clearly demonstrated.

Our overarching strategic objectives are to:

- Mitigate risks to government associated with public health, public safety and the environment;
- Keep the State safe during times of emergency and crisis;
- Support the State justice and policing systems;
- Support the State's thoroughbred, harness and greyhound racing industries;
- Support the sustainable economic development of the State;
- Support science capability and engagement in the State;
- Develop our people, maintain and enhance organisational capability and strive for financial sustainability; and
- To earn revenue by engaging in commercial activities that are not inconsistent with the performance of its other functions.



From the Chair



This Annual Report marks my ninth year at ChemCentre and my first as Chair. In the early years the Board's focus was on establishing a more robust, sustainable operating model for the agency. Whilst this will always remain a work in progress, the Board and executive are now investing time and energy toward building a more forward-looking organisation.

ChemCentre focuses on delivering our statutory obligations: providing chemical information, advice and analytical services to the State and others. The core service areas of justice, safety and environment, economic development, education and training, and research and innovation remain unchanged.

Much of our work is in areas where public confidence in the quality, integrity and independence of the chemical analysis, advice, and information is critical. We retain an ongoing focus on ensuring we deliver the quality outcomes our clients and the public expect.

Western Australia Police Force, the Office of the State Coroner, Racing and Wagering WA and the Department of Fire and Emergency Services (DFES) continue to be major users of our services.

We are working closely with the WA Police to better support them in the pursuit of enhanced policing. Our goal is not just incremental gains, but to also challenge ourselves to think more broadly about the services we deliver.

The State Coroner's office was a guest at our annual strategic review this year as we sought to better understand the changing demands of their work. This collaborative approach will be essential to ensure we deliver the optimum value for the State.

To many, ChemCentre's most visible contribution is our Emergency Response services. We remain committed to maintaining this essential capability in this critical service area for the State. Our operational relationship with DFES is very strong, with our team able to support DFES whenever it is required. We continue to value this working relationship. Together we provide outstanding emergency response coverage for the State.

Research and Innovation remain a valuable part of our *raison d'être*. The organisation has restructured to bring this work into direct line of sight to the Chief Executive Officer.

ChemCentre is leading the establishment of proteomics-based forensics in Australia, currently used to detect horse doping and in certain coronial cases. With State Government approval of \$4.6M funding over the next 4 years we will further develop this capability to enable identification using human hair in the criminal justice system. ChemCentre has a demonstrated history of investing early to bring future value to the State, as evidenced by our world-leading fibre database and expertise, and our first-in-market investment in the detection of synthetic cannabinoids.

Whilst the critical role of ChemCentre is recognised across Government and among our key stakeholders, we can never take that support for granted. With our sustained commitment to our corporate values – technical excellence; innovation; integrity; respect – we remain confident the organisation will continue to flourish.

I would like to acknowledge the continuing contribution of the staff at ChemCentre. ChemCentre is fundamentally a knowledge driven organisation. The commitment of the staff to the agency and its role within the State is something they should be proud of.

The Board would like to specifically acknowledge the contribution of Colin Priddis who retired during the year after more than 40 years of dedicated service and an exemplary career. He played a vital role in bringing the proteomics program to fruition. We would also take this opportunity to welcome Bianca Douglas as his successor. The Board has every confidence she will make a significant contribution as the newest member of our executive team.

And finally, I would like to express my thanks to the Chief Executive Officer, Peter McCafferty for his ongoing leadership, and to my fellow Board members for their ongoing commitment to the future of ChemCentre.



David Blyth

Chair
ChemCentre Board

From the CEO



ChemCentre continues to demonstrate its value to the State through consistent delivery of robust and purposeful science across a wide range of platforms. We excel in forensic science, environmental chemistry, agronomics, emergency response, and occupational health. Our expertise is widely recognised, as evidenced by the demand for our staff to provide audit and accreditation services and expertise to clients both in Australia and overseas.

This year marked an important transition as Bianca Douglas assumed the role of Director of our Forensic Science Laboratory, following Colin Priddis's retirement. We are pleased to announce that Colin will maintain his connection with ChemCentre in our first Honorary Associate appointment.

Our collaboration with Collaborative Research Centres (CRCs) continues to thrive with the revitalised Research and Innovation Group. Presently, we are engaged with CRC Future Battery Industries, CRC Fight Food Waste, and CRC Transition in Mining Economies. These partnerships extend to esteemed institutions such as CSIRO, various mining and silviculture companies, as well as food producers and the Minerals Research Institute of Western Australia (MRIWA).

Securing State Government funding for our largest Forensic Science research project to date, the 4-year 'Creating a New Forensic Capability in Western Australia by Using the Human Hair Shaft Proteome for Protein-Based Human Identification,' project was a significant achievement this year. As the project lead, ChemCentre collaborates with PathWest Forensic Biology, WA Police, Edith Cowan University and the University of California (Davis). The analysis of hair peptides is anticipated to provide an active forensic technique that will complement and enhance existing DNA techniques.

I am thrilled to announce that our commitment to reconciliation in the workplace and beyond has been further strengthened. We successfully transitioned our Reconciliation Action Plan (RAP) to the Innovate level, thanks to the invaluable expertise provided by David Collard and Grant Burns.

Our unwavering dedication to maintaining high levels of quality has yielded exceptional results, with our quality KPI even surpassing our own ambitious target. Recent auditors commended ChemCentre's culture of scientific rigor is evident in every task we undertake. This culture extends across all aspects of our operations, including our unwavering commitment to workplace safety and community engagement.

In 2022, we reinstated the landmark ChemCentre Open Day, attracting over 2,000 community members on Saturday, 5 November. This event received strong support from our clients and collaborators, including WA Police Force, DFES, Australian Border Force, and numerous tertiary institutions.

ChemCentre's promotion of science extended to participation in STEM festivals in Kalgoorlie and Albany, The Innovators Tea Party, the launch of National Science Week, Women in STEM initiatives, multiple student visits and careers events for aspiring scientists. Our staff actively participated in corporate-endorsed charitable events, such as the 16 Days in WA 'The Red Shoes' Campaign to end Violence Against Women, Movember for Men's Health, and the Cancer Council's World's Biggest Morning Tea.

We provided expertise in several notable areas, including 'Shake it out for Science', a citizen-science-led investigation into glass fragments, a drink spiking initiative and associated methodology that enables the detection of nearly 600 drugs in a single sample, an international investigation into an oil spill's source, participation in studies on vaping, and residues in foods.

This year, Dr. David Blyth assumed the role of Chair of our Board, succeeding Denise Goldsworthy upon completing her maximum tenure. We express our gratitude to Denise for her many years of dedicated work. Additionally, we welcomed Miriam Stanborough to our Board.

Undoubtedly, an organisation like ours heavily relies on its staff. At ChemCentre, we are incredibly fortunate to have a highly capable and motivated workforce. This is exemplified through initiatives like 'People at Work', a staff-led program focusing on workplace health and well-being, as well as our active participation in Public Sector Leadership Training and OneLIMS focus groups.

Lastly, we have initiated the scheduled Minister's Act Review of ChemCentre, led by Dr Simon Carrol. This review aims to evaluate the relevance of our Act and ensure alignment with its intended objectives. I am confident that this review will showcase our exceptional performance and commitment to delivering outstanding outcomes for all stakeholders well into the future.



Peter McCafferty

Chief Executive Officer
ChemCentre



Who We Are

ChemCentre is a statutory authority within the Western Australian Government operating under the *Chemistry Centre (WA) Act 2007*. ChemCentre has a long and proud heritage protecting the State, tracing its origins back to the gold rush in the 1890s.

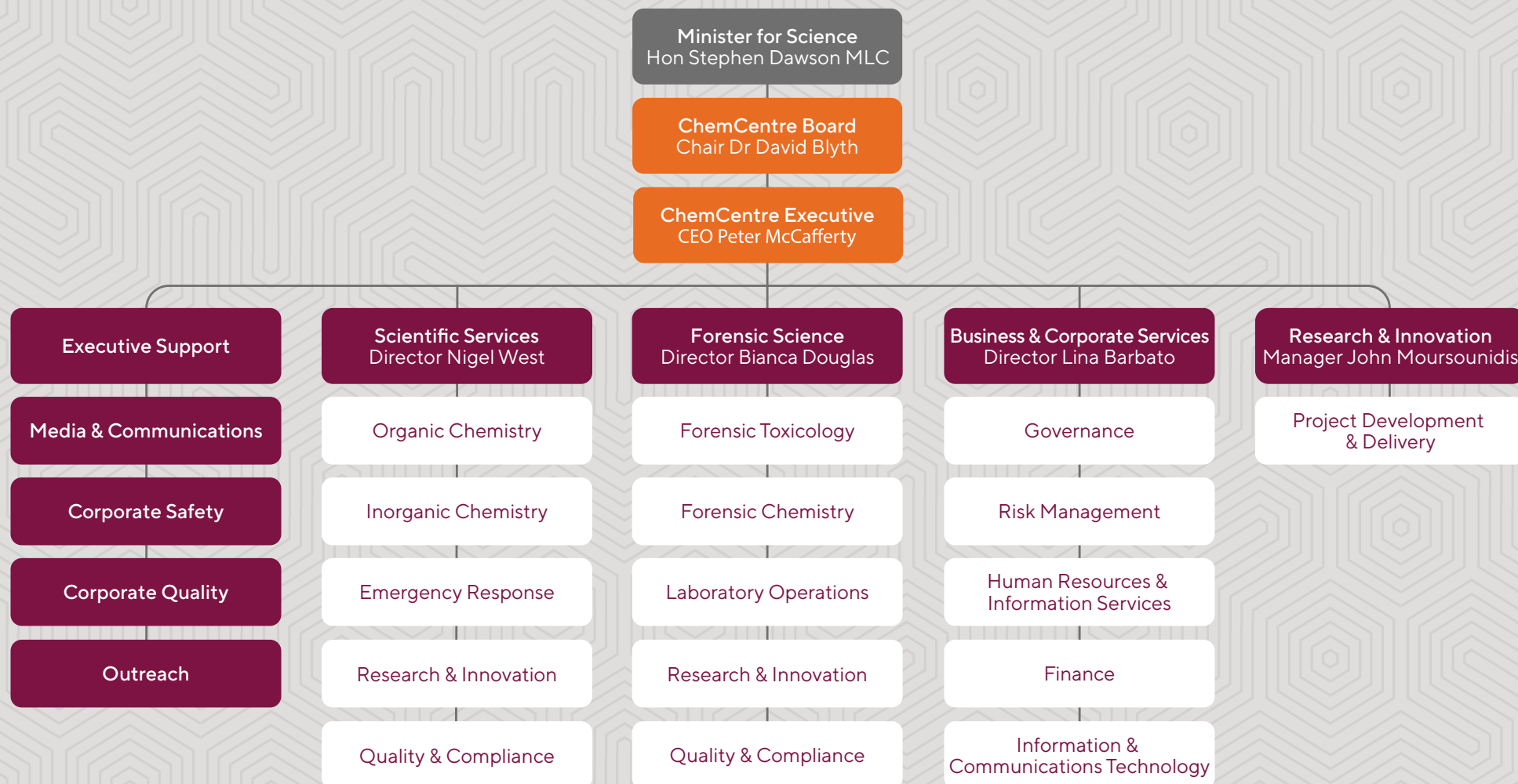
We work from analytical laboratories on Whadjuk Noongar country within the Resources and Chemistry Precinct at Curtin University, Bentley. Our staff proudly include many internationally recognised scientists.

ChemCentre offers a unique combination of scientific excellence and applied scientific expertise:

- Internationally recognised expertise and experience in our specialist fields;
- State-of-the-art analytical equipment and methods;
- National Association of Testing Authorities (NATA), Therapeutic Goods Administration (TGA) accreditation and Good Manufacturing Practice (GMP) certification across key specialist areas;
- Applied research and innovation to identify and develop new science to assess and manage emerging risks and opportunities;
- Collaborative scientific networks at state, national and international levels; and
- Assisting Western Australian businesses to maintain a market advantage through targeted chemistry-based science.

OPERATIONS

Organisational Structure



What We Do

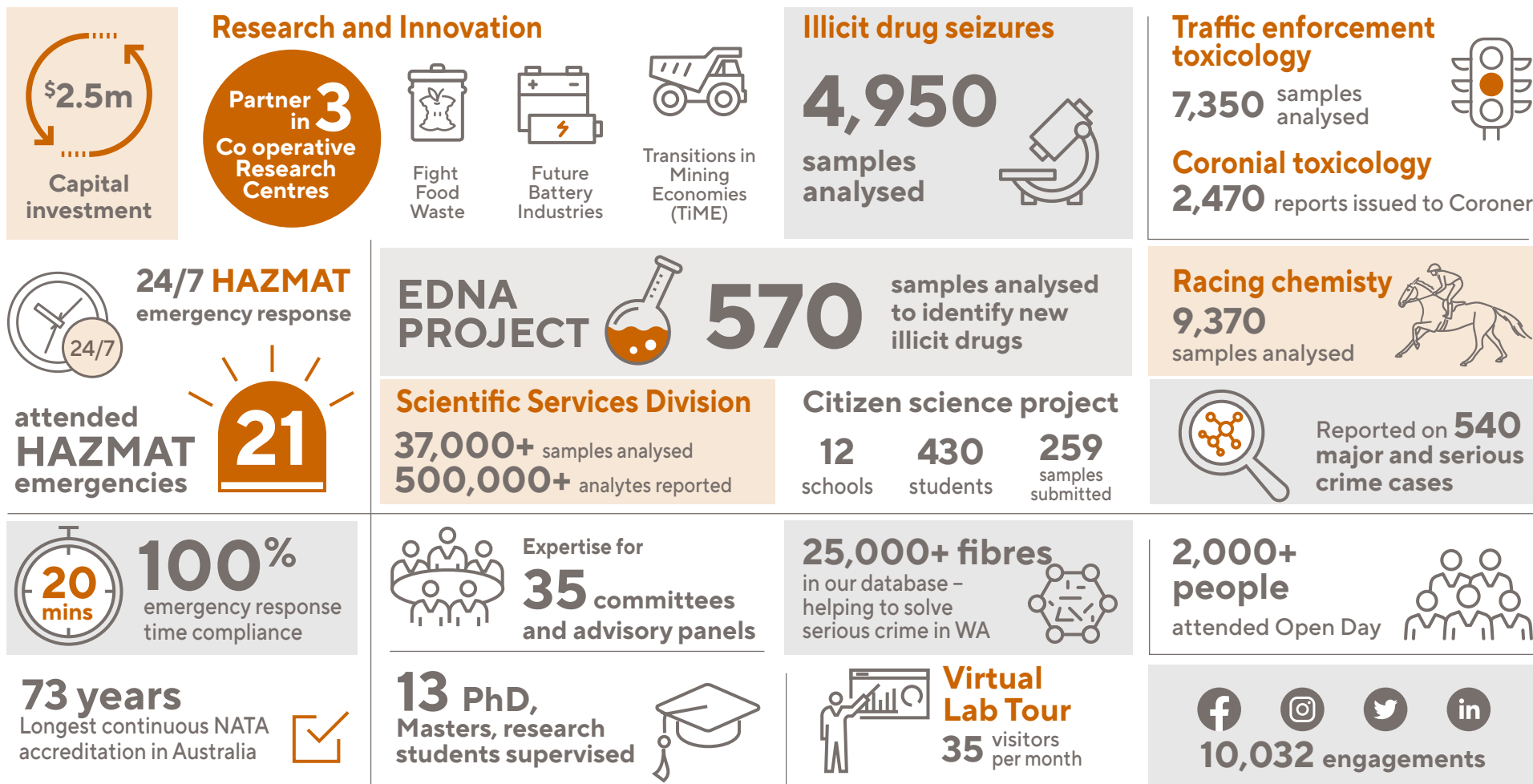


ChemCentre delivers services and advice to support the broad, high level State Government goals of:

- **WA Jobs Plan:**
Diversifying the WA economy, creating local jobs for the future.
- **Safe, strong and fair communities:**
Supporting our local and regional communities to thrive.

In this context, our work involves scientific services, emergency response, forensic science, research and innovation, business and corporate services, and education and outreach.

At a Glance- the year in review





Scientific Services Division has reported data on more than 500,000 analytes in 2022/23, from a variety of matrices including, dusts, sediments, biota, water, soils, filters, mining samples, food, waste and concrete.

Scientific Services

ChemCentre's specialised scientific services underpin its role in safeguarding the state from chemical threats, providing high quality data and expertise to inform government and industry decision-makers in managing chemical risk and opportunity. Our scientific analysis and consultancy services across key sectors including mining, industry, health, agriculture and environment support Western Australia's sustainable economic development.

Scientific Services Division has reported data on more than 500,000 analytes in 2022/23, from a variety of matrices including, dusts, sediments, biota, water, soils, filters, mining samples, food, waste and concrete. We continue to look forward and have been building on our existing capabilities as we push into new markets and improve our capacity to support the growth and diversification of WA industry.

As one of only a few laboratories in Australia to be accredited by the Therapeutics Goods Administration (TGA) to undertake certification testing of medicinal cannabis we continue to support this emerging industry, by providing a range of testing services for medicinal cannabis oil for local, national and international producers. ChemCentre developed and validated the analysis of psilocybin and psilocin (the active components in medicinal mushrooms) ahead of the TGA announcement in Feb 2023, that enabled psychiatrists to prescribe psilocybin for a range of conditions. This analysis was developed using state-of-the-art technology and is designed to provide accurate and reliable results that help businesses make informed decisions about prescribing in this emerging field. Our work here has attracted a wide array of local and national companies in this area.

ChemCentre has well established expertise in tracer gas technology which has been applied successfully within WA, nationally and internationally to inform ventilation and air movement investigations in relation to security and occupational health studies. More recently tracer gas studies of ventilation and air movement were carried out to inform potential SARS-CoV-2 airborne transmission threats.

Our scientists are working with the Murujuga Aboriginal Corporation, Department of Water and Environmental Regulation (DWER) and Curtin University on the Murujuga Rock Art Monitoring Program. Our work includes an investigation of airborne contaminants, in dust and rainfall, that will assist in our understanding the potential impact of industry and any changes to the highly significant rock art in the Murujuga area.

We continue to develop and improve methods to complement our research scientists to determine the authenticity of products subject to potential adulteration and fraud. Method development and analysis has been undertaken to help determine the provenance of tea tree oil products. This work will provide assurance to consumers that the tea tree oil they purchase is as claimed on the label. This builds on the provenance tools we have in other areas.

In response to the State's commitment to a circular economy ChemCentre has been investigating the potential for productive uses for mining by-products with a range of government and industrial clients. ChemCentre provides a suite of analyses that can help understand how materials will behave if repurposed for other uses.

ChemCentre developed a capability to screen for a range of chemicals in a selection of Western Australian plant species using liquid chromatography coupled with a quadrupole time-of-flight high resolution mass spectrometer (LC/Q-TOF). This data is being used to demonstrate ChemCentre's capabilities in unknown compound identification in targeted WA flora and fauna as we continue to support the development of the WA Biodiscovery Legislation.

We continue to participate in and provide specialist expertise to a range of working groups including the Lithium-ion Working Group, where we work with the DFES, DWER and the Department of Mines, Industry Regulation and Safety (DMIRS) to understand and manage the hazards and risks associated with lithium-ion batteries and examine issues related to the safe use, emergency management, recycling and disposal of these in the community.

ChemCentre prides itself on maintaining the highest level of quality, and has recently completed a three-day NATA audit, receiving high praise from the technical and lead assessors.



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During 2022-23 ChemCentre analysed approximately 4,950 illicit drug exhibits, 40 clandestine drug and drug profiling cases, 540 criminal cases, 7,350 traffic enforcement toxicology cases, 9,370 racing chemistry samples and issued approximately 2,470 reports to the Coroner, which included approximately 1,100 rapid toxicology case requests.

Emergency Response

ChemCentre works with DFES to provide a 24/7 HAZMAT emergency response service. Over the past year we have contributed significantly to the resolution of a variety of significant HAZMAT incidents and contributed to the safety of the Western Australian community as mandated under the *Chemistry Centre Act 2007* and the State Hazard Plan (HAZMAT).

In addition to attending incidents, we have attended interagency training exercises, provided interagency training and collaborated with the Chemical Warfare Agent Laboratory Network (CWALN) to ensure the widest coverage of potential hazards. We have successfully participated in proficiency trials administered through CWALN and the Royal College of Pathologists of Australasia.

Our emergency response capability has progressed at a dynamic pace and accompanied by a busy series of dedicated in-house training programs to ensure that all staff on the 24/7 emergency response roster are appropriately trained and fully competent in their roles. Maintaining an around the clock Emergency Response service every day of the year, is a dynamic process and it is deserving of acknowledgement of the dedication and enthusiasm of all staff on the roster.

Forensic Science Laboratory

ChemCentre's forensic science laboratory plays a key role in supporting the administration of justice in Western Australia and it provides a range of forensic science services to Western Australia Police Force, the State Coroner and the State's racing industry. We are relied upon to deliver scientifically robust, legally defensible analysis relating to forensic toxicology, chemical criminalistics, physical evidence, drug analysis and racing chemistry. During 2022-23 ChemCentre analysed approximately 4,950 illicit drug exhibits, 40 clandestine drug and drug profiling cases, 540 criminal cases, 7,350 traffic enforcement toxicology cases, 9,370 racing chemistry samples and issued approximately 2,470 reports to the Coroner, which included approximately 1,100 rapid toxicology case requests.

We continued to support WA Police to improve road safety through the provision of forensic toxicology services, including testing of drivers who may be affected by alcohol and/or drugs, as well as ongoing expansion of drug testing of those involved in traffic accidents.

Additionally, ChemCentre works closely with WA Police in efforts targeting the illicit drug trade and to reduce drug-related harm by conducting forensic analysis of illicit drug samples, clandestine drug laboratories and drug profiling. Our work on drug profiling provides highly valuable criminal intelligence to track the source of drug seizures.

Our expertise in the analysis of novel psychoactive substances and our ongoing research on the toxicology of illicit drugs is internationally recognised. For several years we have been working with the Royal Perth Hospital Emergency Department to compare observed symptoms with drugs identified through toxicological analysis. This involvement has expanded into a national, collaboratively funded program, the Emerging Drugs Network of Australia (EDNA) project. Through this project our toxicology services are assisting medical specialists to better understand the role of illicit drugs in emergency department presentations. It has also led to an early warning system to facilitate rapid and targeted harm reduction responses to help save lives and reduce the health impacts of illicit drug use in our community.

In collaboration with WA Police, Royal Perth Hospital Emergency Department and the Sexual Assault Resource Centre, ChemCentre is participating in a world-first initiative addressing community safety concerns related to drink spiking. Our forensic toxicologists have developed an analytical strategy for testing that covers more than 600 substances in a single sample. This replaces traditional toxicology testing that typically screens for a small number of drugs which limits the potential to identify substances that may have been used in drink spiking incidences.

Public health concerns surround the issue of vaping in the community and the illegal importation and distribution of e-cigarettes, especially those containing nicotine. Our forensic experts are assisting efforts by police and health authorities to target illegal e-cigarette products through the analysis of seized products.

We continue to deliver extensive toxicology services to support coronial investigations in Western Australia. During the past 12 months, there has been an increase in requests for coronial toxicology services corresponding to a rise in the number of reportable deaths. The introduction of CT scanning into the coronial system enables forensic pathologists to determine cause of death, without having to perform an invasive post-mortem examination. Since its introduction in 2019, we have seen a corresponding increase in the number of coronial cases requiring urgent analysis by our toxicology experts.

Our expertise, particularly in the analysis of physical trace evidence, such as fibres and glass, is internationally recognised and we have developed a world-leading fibres database to assist police in criminal investigations and cold case reviews. Different types of trace evidence, which previously may not have been considered as having evidential value, are now being reviewed as being potentially relevant, with enhanced expertise, technological advances and innovative forensic science methodologies now available. This has been the catalyst for our pioneering forensic proteomic methodology to detect and identify specific proteins within biological systems.

We now use proteomic methodology to routinely, simultaneously screen for a range of peptides in analyses for the racing industry; and to provide greater insight for the Coroner in determining the role of insulin in the cause of death. ChemCentre is the only laboratory in Australia to have proteomic methodology capable of identifying the venom of many different species of poisonous Australian snakes. Over the next four years, ChemCentre will lead research to develop a world-first forensic proteomics technique utilising protein-based procedures for human

identification. This capability will complement DNA analyses and could be used to assist in identifying victims and offenders through analysis of hair strands recovered from crime scenes. The technique also has potential applications for coronial investigations, crisis and emergency response management and disaster victim identification.

Our physical evidence scientists, in partnership with the Australian Federal Police and Curtin University, commenced a pilot citizen science project, 'Shake it out for Science', which aims to gain an understanding about the background levels of glass in the community. This project will contribute to the empirical knowledge of the prevalence of glass in clothing and will enhance the value of glass as evidence in criminal investigations.

The laboratory saw a change of leadership in January 2023, with the retirement of long-serving director Colin Priddis and the appointment of new director, Bianca Douglas. Bianca previously held the role of Manager of Forensic Toxicology.

Research and Innovation

Our research and innovation program applies technical and specialist knowledge to solve complex problems for government and the State's industrial, mining, agricultural, environmental and forensic science sectors with a focus on law and order, emergency response, sustainable industry development, public health and safety.

ChemCentre is leading world first proteomics research which aims to enhance the value of forensic evidence and its significance in criminal investigations and cold case reviews. This work will develop a new technique with the potential to determine human identity through the analysis of specific proteins in hair strands. A single human hair comprises a combination of protein variants which are unique to an individual, much like DNA. This work will address a current gap in forensic science. It will be complementary to DNA evidence and be particularly useful in cases where DNA has not been recovered from a crime scene, or has degraded, to assist in the identification of a victim or an offender and help solve crime.

As part of the research, a proteomics dataset will be created that is representative of the genetic diversity of the Australian population. This research has the potential to transform the process of human identification- not just for criminal investigations but potentially in coronial investigations, crisis and emergency response management and disaster victim identification.

We continue to pursue high-quality research and innovation to support the growth of established and emerging industries and job creation. Currently ChemCentre is partnering with several Cooperative Research Centres (CRCs), including the CRC for Transformation in Mining Economies (CRC-TiME) and the CRC for Future Battery Industries (CRC-FBI). Working with these CRCs ChemCentre continues to explore opportunities for transformation beyond the life of mine operations, and innovative approaches to support the growth of battery industries to power Western Australia's future. We extended our mine pit lake study nationally to include water in mine pit lakes from several different mineral commodities across the country. The study will provide a deeper understanding of the quality of water in mine pit lakes across Australia and their potential uses after mine closure.

We are supporting the transition to a circular economy with predictive tools and protocols to inform environmental impact, waste management and mine site closure planning and approval, and reduce tailings storage. ChemCentre is using the Leaching Environmental Assessment Framework (LEAF) to assess the long-term environmental impact of mining by-products for a variety of applications, such as potential use in construction and landfill. We are working with the Sustainability Waste Alliance in their drive to improve waste derived materials and by-product recovery and reuse into major road and rail infrastructure projects in Western Australia. We have developed a trademarked process AccSeL which can assist mining companies in environmental impact assessments by providing preliminary data rapidly, within weeks, to complement and give focus to traditional kinetic leaching data which takes longer, sometimes years, to obtain.

As a partner in the Fight Food Waste CRC, ChemCentre is undertaking research to reduce food waste throughout the supply chain and transform waste into innovative high-value co-products. We are working with the Australian Sandalwood industry to divert the waste of thousands of tonnes of sandalwood nuts by investigating opportunities to add value to the nut which has potential as a nutritious food product or for therapeutic purposes.

ChemCentre is providing expertise to collaborative projects with the University of Western Australia and Curtin University addressing chemical contamination issues relating to microplastics.

A project is also underway aimed at assisting remote Aboriginal communities in Western Australia to manage nitrate levels in their water supply by providing a rapid, preliminary test to accurately assess the quality of drinking water, specifically nitrate concentration, which has been linked to adverse health outcomes.

Business and Corporate Services

The Business and Corporate Services (BCS) Division continues to provide critical services and high-level strategic advice to ChemCentre's Executive and Scientific Divisions. BCS leads key initiatives delivering value to the agency and its stakeholders such as digital transformation, future of work strategies and maturing risk management and cyber security measures.

A key initiative to modernise and integrate ChemCentre's Laboratory Information Management System (LIMS) is planned for roll-out in early 2024. Leveraging a modern technology stack system will enable digital information sharing, opportunities for future enhanced databases and data interpretation, continued automation and operational efficiencies.

Focused efforts have been committed to evolving cyber security and data protection capabilities, along with resiliency to support business continuity and disaster recovery. Independent self-commissioned audits support the direction being progressed and measures implemented.



The Business and Corporate Services Division focussed efforts on building organisational resiliency, adopting new technologies and maturing data protection capabilities.



ChemCentre is committed to community engagement and the promotion of chemistry and Science, Technology, Engineering and Maths (STEM) in helping prepare the workforce to meet the challenges faced today and in the future.

A project was undertaken to review career pathways for the scientific workforce that will elevate the employee value proposition and provide further development opportunities for a significant section of the workforce. In addition, ChemCentre continued to deliver programs to build on the leadership capabilities of middle management, recognising the critical role performed by this tier of management in strategy execution, team performance and maintaining an inclusive culture.

The People at Work program which focuses on promoting and maintaining a psychologically safe workplace, has now been in place for three years. The program is overseen by a staff nominated steering committee and is supported by the Division with data from climate surveys which assist the organisation to prioritise actions. The Human Resources team is also progressing implementation of the Public Sector Commission Building Leadership Impact initiative designed to increase the leadership capability of staff across all levels.

The Division has also implemented a new version of the financial management system, featuring a cloud-based solution, and a new version of the records management system which will support our information classification strategy during the year.

Education and Outreach

ChemCentre is committed to community engagement and the promotion of chemistry and Science, Technology, Engineering and Maths (STEM) in helping prepare the workforce to meet the challenges faced today and in the future. In addition to the supervision of tertiary students completing their studies at Master and Doctorate degrees across a range of chemistry fields, including forensic science and environmental science, we run a busy and diverse education and outreach program. Our enthusiastic staff participate in laboratory tours, school visits, career events for aspiring scientists, webinars, guest lecturing and a range of science-related community events, to share their passion for chemistry with students and the wider community. Launched in 2022, our virtual tour of the organics

laboratory which can be accessed from our website, has logged an average of 35 visitors per month over the past year, with a steady increase in the number of visitors over this time.


There were a number of highlights over the past 12 months including a successful collaboration with Edith Cowan University's SuperLab, where secondary students from years 8-11, engaged in hands-on science activities exploring spectrophotometry. We were excited to again take science to the regions when we travelled to the Goldfields in November 2022, and to Albany in the Great Southern in May 2023 to participate in Scitech's STEM festivals. These were both well attended by local students and community members. Forensic scientist, Dr Kari Pitts, played a prominent role in the August 2022 launch of National Science Week in WA, with a keynote address on the theme of glass in forensic science. Several of our staff regularly participate as mentors in 'The Innovators' Tea Party' programs to inspire students to take up pathways to careers in science.

We commenced a pilot citizen science project in late 2022 in collaboration with the Australian Federal Police and Curtin University, aimed at investigating the level of glass fragments in the community. Students from 12 secondary schools across the State took part in the project, which involved them being trained to collect glass and other debris from clothing and use a technique employed by forensic experts across Australia. The prevalence of glass debris in the community has expanded significantly in recent years, with the advent of laptops and mobile phones. More than 250 'shakings' samples were submitted to ChemCentre's Forensic Science Laboratory for examination.

Our popular community event, ChemCentre Open Day returned in November 2022, following a hiatus due to COVID-19 restrictions, and attracted more than 2000 visitors. This event is always a great demonstration to the community of the diverse work we do with a range of collaborators including WA Police, Department of Fire and Emergency Services and the Australian Border Force.



Our popular community event, ChemCentre Open Day returned in November 2022, following a hiatus due to COVID-19 restrictions, and attracted more than 2000 visitors.



PERFORMANCE MANAGEMENT FRAMEWORK

Outcome Based Management Framework

Broad high level government goals are supported at agency level by more specific desired outcomes. Agencies deliver services to achieve these desired outcomes, contributing to the achievement of the higher level government goals. The relationship between the government goals, agency level desired outcomes and associated services is tabulated below.

ChemCentre's effort is divided approximately 27% to the delivery of statutory services for government and 73% to fee-for-services activities delivered to government and private sectors.

Government Goal	Desired Outcome	Services
WA Jobs Plan: Diversifying the WA economy, creating local jobs for the future.	Quality research and innovation <u>Key Effectiveness Indicator:</u> Contributions to scientific forums	Service 1: Research and Innovation <u>Key Efficiency Indicator:</u> Publications per R&I FTE
Safe, strong and fair communities: Supporting our local and regional communities to thrive.	Quality Scientific advice <u>Key Effectiveness Indicator:</u> Proficiency rating for the accredited services	Service 2: Commercial and Scientific information and advice <u>Key Efficiency Indicator:</u> Average cost of providing commercial scientific information and advice per applicable FTE
	Quality emergency response <u>Key Effectiveness Indicators:</u> Average Mobilisation Time for emergency response incidents Availability of Emergency Response workforce to meet agreed inter-agency requirements	Service 3: Emergency Response Management <u>Key Efficiency Indicator:</u> Average cost to maintain an emergency response capability per Western Australian

Shared responsibilities with Other Agencies

ChemCentre's Emergency Response Service is largely delivered in support of the Department of Fire and Emergency Services.

ChemCentre also provides an extensive forensic science service to the Western Australia Police Force and the Office of the State Coroner.



AGENCY PERFORMANCE

AUDITOR'S OPINION



Auditor General

INDEPENDENT AUDITOR'S REPORT

2023

Chemistry Centre (WA)

To the Parliament of Western Australia

Report on the audit of the financial statements

Opinion

I have audited the financial statements of the Chemistry Centre (WA) (Centre) which comprise:

- the Statement of Financial Position at 30 June 2023, and the Statement of Comprehensive Income, Statement of Changes in Equity and Statement of Cash Flows for the year then ended
- Notes comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the financial statements are:

- based on proper accounts and present fairly, in all material respects, the operating results and cash flows of the Chemistry Centre (WA) for the year ended 30 June 2023 and the financial position at the end of that period
- in accordance with Australian Accounting Standards (applicable to Tier 2 Entities), the *Financial Management Act 2006* and the Treasurer's Instructions.

Basis for opinion

I conducted my audit in accordance with the Australian Auditing Standards. My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of my report.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibilities of the Board for the financial statements

The Board is responsible for:

- keeping proper accounts
- preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards (applicable to Tier 2 Entities), the *Financial Management Act 2006* and the Treasurer's Instructions
- such internal control as it determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board is responsible for:

- assessing the entity's ability to continue as a going concern
- disclosing, as applicable, matters related to going concern
- using the going concern basis of accounting unless the Western Australian Government has made policy or funding decisions affecting the continued existence of the Centre.

Auditor's responsibilities for the audit of the financial statements

As required by the *Auditor General Act 2006*, my responsibility is to express an opinion on the financial statements. The objectives of my audit are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatements, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.

A further description of my responsibilities for the audit of the financial statements is located on the Auditing and Assurance Standards Board website. This description forms part of my auditor's report and can be found at https://www.auasb.gov.au/auditors_responsibilities/ar4.pdf.

Report on the audit of controls

Opinion

I have undertaken a reasonable assurance engagement on the design and implementation of controls exercised by the Chemistry Centre (WA). The controls exercised by the Board are those policies and procedures established to ensure that the receipt, expenditure and investment of money, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with the State's financial reporting framework (the overall control objectives).

In my opinion, in all material respects, the controls exercised by the Chemistry Centre (WA) are sufficiently adequate to provide reasonable assurance that the receipt, expenditure and investment of money, the acquisition and disposal of property and the incurring of liabilities have been in accordance with the State's financial reporting framework during the year ended 30 June 2023.

The Board's responsibilities

The Board is responsible for designing, implementing and maintaining controls to ensure that the receipt, expenditure and investment of money, the acquisition and disposal of property and the incurring of liabilities are in accordance with the *Financial Management Act 2006*, the Treasurer's Instructions and other relevant written law.

Auditor General's responsibility

As required by the *Auditor General Act 2006*, my responsibility as an assurance practitioner is to express an opinion on the suitability of the design of the controls to achieve the overall control objectives and the implementation of the controls as designed. I conducted my engagement in accordance with Standard on Assurance Engagement ASAE 3150 *Assurance Engagements on Controls* issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements and plan and perform my procedures to obtain reasonable assurance about whether, in all material respects, the controls are suitably designed to achieve the overall control objectives and were implemented as designed.

An assurance engagement involves performing procedures to obtain evidence about the suitability of the controls design to achieve the overall control objectives and the implementation of those controls. The procedures selected depend on my judgement, including an assessment of the risks that controls are not suitably designed or implemented as designed. My procedures included testing the implementation of those controls that I consider necessary to achieve the overall control objectives.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Limitations of controls

Because of the inherent limitations of any internal control structure, it is possible that, even if the controls are suitably designed and implemented as designed, once in operation, the overall control objectives may not be achieved so that fraud, error or non-compliance with laws and regulations may occur and not be detected. Any projection of the outcome of the evaluation of the suitability of the design of controls to future periods is subject to the risk that the controls may become unsuitable because of changes in conditions.

Report on the audit of the key performance indicators

Opinion

I have undertaken a reasonable assurance engagement on the key performance indicators of the Chemistry Centre (WA) for the year ended 30 June 2023. The key performance indicators are the Under Treasurer-approved key effectiveness indicators and key efficiency indicators that provide performance information about achieving outcomes and delivering services.

In my opinion, in all material respects, the key performance indicators of the Chemistry Centre (WA) are relevant and appropriate to assist users to assess the Centre's performance and fairly represent indicated performance for the year ended 30 June 2023.

The Board's responsibilities for the key performance indicators

The Board is responsible for the preparation and fair presentation of the key performance indicators in accordance with the *Financial Management Act 2006* and the Treasurer's Instructions and for such internal controls as the Board determines necessary to enable the preparation of key performance indicators that are free from material misstatement, whether due to fraud or error.

In preparing the key performance indicators, the Board is responsible for identifying key performance indicators that are relevant and appropriate, having regard to their purpose in accordance with Treasurer's Instructions 904 *Key Performance Indicators*.

Auditor General's responsibilities

As required by the *Auditor General Act 2006*, my responsibility as an assurance practitioner is to express an opinion on the key performance indicators. The objectives of my engagement are to obtain reasonable assurance about whether the key performance indicators are relevant and appropriate to assist users to assess the entity's performance and whether the key performance indicators are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. I conducted my engagement in accordance with Standard on Assurance Engagements ASAE 3000 *Assurance Engagements Other than Audits or Reviews of Historical Financial Information* issued by the Australian Auditing and Assurance Standards Board. That standard requires that I comply with relevant ethical requirements relating to assurance engagements.

An assurance engagement involves performing procedures to obtain evidence about the amounts and disclosures in the key performance indicators. It also involves evaluating the relevance and appropriateness of the key performance indicators against the criteria and guidance in Treasurer's Instruction 904 for measuring the extent of outcome achievement and the efficiency of service delivery. The procedures selected depend on my judgement, including the assessment of the risks of material misstatement of the key performance indicators. In making these risk assessments, I obtain an understanding of internal control relevant to the engagement in order to design procedures that are appropriate in the circumstances.

I believe that the evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

My independence and quality management relating to the report on financial statements, controls and key performance indicators

I have complied with the independence requirements of the *Auditor General Act 2006* and the relevant ethical requirements relating to assurance engagements. In accordance with ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*, the Office of the Auditor General maintains a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Other information

The Board is responsible for the other information. The other information is the information in the entity's annual report for the year ended 30 June 2023, but not the financial statements, key performance indicators and my auditor's report.

My opinions on the financial statements, controls and key performance indicators does not cover the other information and accordingly I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, controls and key performance indicators my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements and key performance indicators or my knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I did not receive the other information prior to the date of this auditor's report. When I do receive it, I will read it and if I conclude that there is a material misstatement in this information, I am required to communicate the matter to those charged with governance and request them to correct the misstated information. If the misstated information is not corrected, I may need to retract this auditor's report and re-issue an amended report.

Matters relating to the electronic publication of the audited financial statements and key performance indicators

The auditor's report relates to the financial statements and key performance indicators of the Chemistry Centre (WA) for the year ended 30 June 2023 included in the annual report on the Centre's website. The Centre's management is responsible for the integrity of the Centre's website. This audit does not provide assurance on the integrity of the Centre's website. The auditor's report refers only to the financial statements, controls and key performance indicators described above. It does not provide an opinion on any other information which may have been hyperlinked to/from the annual report. If users of the financial statements and key performance indicators are concerned with the inherent risks arising from publication on a website, they are advised to contact the entity to confirm the information contained in the website version.



Tim Sanya
Senior Director Financial Audit
Delegate of the Auditor General for Western Australia
Perth, Western Australia
23 August 2023

Financial Statements

CERTIFICATION OF FINANCIAL STATEMENTS FOR THE REPORTING PERIOD ENDED 30 JUNE 2023

The accompanying financial statements of ChemCentre have been prepared in compliance with the provisions of the *Financial Management Act 2006* from proper accounts and records to present fairly the financial transactions for the reporting period ended 30 June 2023 and the financial position as at 30 June 2023.

At the date of signing, we are not aware of any circumstances which would render the particulars included in the financial statements misleading or inaccurate.



Stefan Anicic

Chief Financial Officer
22 August 2023



Peter McCafferty

Chief Executive Officer
ChemCentre
22 August 2023



David Blyth

Chair
ChemCentre Board
22 August 2023



Colin Murphy

Chair
Finance, Audit & Risk
Management Committee
Member, ChemCentre Board
22 August 2023

STATEMENT OF COMPREHENSIVE INCOME

For the year ended 30 June 2023

COST OF SERVICES

Expenses

Employee benefits expense
Supplies and services
Depreciation and amortisation expense
Finance cost
Accommodation expenses
Other expenses

Total cost of services

Income

Provision of services
Interest income
Other income

Total income

NET COST OF SERVICES

Income from State Government

Service appropriation
Resources received
Income from other public sector entities

Total Income from State Government

DEFICIT BEFORE INCOME TAX EQUIVALENT EXPENSE

Income tax expense

DEFICIT FOR THE PERIOD

TOTAL COMPREHENSIVE INCOME/(LOSS) FOR THE PERIOD

The Statement of Comprehensive Income should be read in conjunction with the accompanying notes.

Notes	2023	2022
	\$000	\$000
2.1(a)	17,247	15,692
2.2	1,894	1,795
4.1, 4.2 & 4.3	2,482	2,100
6.2	8	2
2.2	5,762	5,660
2.2	5,455	4,720
	32,848	29,969
3.2	5,944	6,059
3.3	51	6
3.4	17	15
	6,012	6,080
	26,836	23,889
3.1	8,616	7,023
3.1	13	15
3.1	16,876	16,059
	25,505	23,097
	(1,331)	(792)
8.11	-	(1,141)
	(1,331)	(1,933)
	(1,331)	(1,933)

STATEMENT OF FINANCIAL POSITION

As at 30 June 2023

ASSETS

Current Assets

Cash and cash equivalents

Receivables

Prepayments

Total Current Assets

Non-Current Assets

Property, plant and equipment

Right-of-use assets

Intangible assets

Sinking fund

Total Non-Current Assets

TOTAL ASSETS

LIABILITIES

Current Liabilities

Payables

Lease liabilities

Provisions

Contract liability

Total Current Liabilities

Non-Current Liabilities

Lease liabilities

Provisions

Total Non-Current Liabilities

TOTAL LIABILITIES

NET ASSETS

EQUITY

Contributed equity

Accumulated deficit

TOTAL EQUITY

Notes	2023	2022
	\$000	\$000
6.3	7,259	6,734
5.1	1,762	1,808
5.2	938	843
	9,959	9,385
4.1	6,614	6,633
4.2	191	47
4.3	1,422	1,325
5.2	2,715	2,550
	10,942	10,555
	20,901	19,940
5.3	1,072	1,156
6.1	53	17
2.1(b)	3,096	2,909
5.4	364	666
	4,585	4,748
6.1	132	21
2.1(b)	1,279	1,435
	1,411	1,456
	5,996	6,204
	14,905	13,736
8.9	23,526	21,026
	(8,621)	(7,290)
	14,905	13,736

The Statement of Financial Position should be read in conjunction with the accompanying notes.

STATEMENT OF CHANGES IN EQUITY

For the year ended 30 June 2023

Balance at 1 July 2021

Deficit

Income tax expense

Total Comprehensive Income for the year

Transactions with owners in their capacity as owners:

Capital appropriation

Total

Balance at 30 June 2022

Balance at 1 July 2022

Deficit

Total Comprehensive Income for the year

Transactions with owners in their capacity as owners:

Capital appropriation

Total

Balance at 30 June 2023

The Statement of Changes in Equity should be read in conjunction with the accompanying notes.

Notes	Contributed equity	Accumulated deficit	Total Equity
	\$000	\$000	\$000
	18,526	(5,357)	13,169
	-	(792)	(792)
8.11	-	(1,141)	(1,141)
	-	(1,933)	(1,933)
	2,500	-	2,500
8.9	2,500	-	2,500
	21,026	(7,290)	13,736
	21,026	(7,290)	13,736
	-	(1,331)	(1,331)
	-	(1,331)	(1,331)
	2,500	-	2,500
8.9	2,500	-	2,500
	23,526	(8,621)	14,905

STATEMENT OF CASH FLOWS

For the year ended 30 June 2023

Cash flows from State Government

Service appropriation
Capital appropriation
Funds from other public sector entities for services provided

Net cash provided by State Government

Utilised as follows:

Cash flows from operating activities

Payments

Employee benefits
Accommodation
Finance costs
GST payments on purchases
GST payments to taxation authority
Other payments

Receipts

Provision of services
GST receipts on services

Net cash provided by/(used in) operating activities

Cash flows from investing activities

Payments

Purchase of non-current assets

Net cash provided by/(used in) investing activities

Cash flows from financing activities

Payments

Principal elements of lease

Net cash provided by/(used in) financing activities

Net increase/(decrease) in cash and cash equivalents
Cash and cash equivalents at the beginning of period

Cash and cash equivalents at the end of the period

Notes	2023	2022
	\$000	\$000
	8,616	7,023
	2,500	2,500
	16,806	16,006
	27,922	25,529
	(17,138)	(15,567)
	(5,861)	(5,898)
	(8)	(2)
	(1,448)	(1,244)
	(879)	(898)
	(7,841)	(6,661)
	6,056	6,675
	2,286	2,268
	(24,833)	(21,327)
	(2,501)	(2,525)
	(2,501)	(2,525)
	(63)	(55)
	(63)	(55)
	525	1,622
	6,734	5,112
	7,259	6,734

6.3

The Statement of Cash Flows should be read in conjunction with the accompanying notes.

NOTES TO THE FINANCIAL STATEMENTS

For the year ended 30 June 2023

1. Basis of preparation

Chemistry Centre WA (ChemCentre) is a WA Government entity and is controlled by the State of Western Australia, which is the ultimate parent. ChemCentre is a not-for-profit entity (as profit is not its principal objective).

A description of the nature of its operations and its principal activities have been included in the 'Overview' which does not form part of these financial statements.

These annual financial statements were authorised for issue by the ChemCentre Board on 22 August 2023.

Statement of compliance

These general-purpose financial statements have been prepared in accordance with:

1. the *Financial Management Act 2006* (FMA);
2. the Treasurer's Instructions (TIs);
3. Australian Accounting Standards – Simplified Disclosures; and
4. where appropriate, those Australian Accounting Standards paragraphs applicable for not-for-profit entities have been applied.

The FMA and the TIs take precedence over Australian Accounting Standards. Several Australian Accounting Standards are modified by the TIs to vary application, disclosure format and wording. Where modification is required and has had a material or significant financial effect upon the reported results, details of that modification and the resulting financial effect area disclosed in the notes to the financial statements.

Basis of preparation

These financial statements are presented in Australian dollars applying the accrual basis of accounting and using the historical cost convention. Certain balances will apply a different measurement basis (such as the fair value basis). Where this is the case the different measurement basis is disclosed in the associated note. All values are rounded to the nearest thousand dollars (\$000).

Accounting for Goods and Services Tax (GST)

Income, expenses and assets are recognised net of the amount of goods and services tax (GST), except that the:

- a. Amount of GST incurred by ChemCentre as a purchaser that is not recoverable from the Australian Taxation Office (ATO) is recognised as part of an asset's cost of acquisition or as part of an item of expense; and
- b. Receivables and payables are stated with the amount of GST included.

Cash flows are included in the Statement of cash flows on a gross basis. However, the GST components of cash flows arising from investing and financing activities which are recoverable from, or payable to, the ATO are classified as operating cash flows.

Contributed equity

Interpretation 1038 *Contribution by Owners Made to Wholly-Owned Public Sector Entities* requires transfers in the nature of equity contributions, other than as a result of a restructure of administrative arrangements, as designated as contributions by owners (at the time of, or prior to, transfer) be recognised as equity contributions. Capital contributions (appropriations) have been designated as contributions by owners by Treasury Instruction TI 955 *Contributions by Owners made to Wholly-Owned Public Sector Entities* and have been credited directly to Contributed Equity.

Comparative information

Except when an Australian Accounting Standard permits or requires otherwise, comparative information is presented in respect of the previous period for all amounts reported in the financial statements. AASB 1060 provides relief from presenting comparatives for:

- Property, Plant and Equipment reconciliations;
- Intangible Asset reconciliations; and
- Right-of-use Asset reconciliation.

Judgements and estimates

Judgements, estimates and assumptions are required to be made about financial information being presented. The significant judgements and estimates made in the preparation of these financial statements are disclosed in the notes where amounts affected by those judgements and/or estimates are disclosed. Estimates and associated assumptions are based on professional judgements derived from historical experience and various other factors that are believed to be reasonable under the circumstances.

2. Use of our funding

Expenses incurred in the delivery of services

This section provides additional information about how ChemCentre's funding is applied and the accounting policies that are relevant for an understanding of the items recognised in the financial statements. The primary expenses incurred by the agency in achieving its objectives and the relevant notes are:

	Notes	2023	2022
		\$000	\$000
Employee benefits expense	2.1(a)	17,247	15,692
Employee benefits provision	2.1(b)	4,375	4,344
Other expenditure	2.2	13,111	12,175

2.1 (a) Employee benefits expenses

	2023	2022
	\$000	\$000
Employee benefits	15,485	14,212
Termination benefits	116	-
Superannuation – defined contribution plans	1,646	1,480
Employee benefits expense	17,247	15,692
Add: AASB 16 non-monetary benefits (not included in employee benefits expense)	23	15
Less: Employee contributions (per note 3.4 Other revenue)	(12)	(12)
Total employee benefits provided	17,258	15,695

Employee benefits include wages, salaries, accrued and paid leave entitlements and paid sick leave, and non-monetary benefits recognised under accounting standards other than AASB 16 (such as uniform and prescription eyewear allowances) for employees.

Termination benefits are payable when employment is terminated before normal retirement date, or when an employee accepts an offer of benefits in exchange for the termination of employment. Termination benefits are recognised when ChemCentre is demonstrably committed to terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or providing termination benefits as a result of an offer made to encourage voluntary redundancy. Benefits falling due more than 12 months after the end of the reporting period are discounted to present value.

Superannuation: The amount recognised in profit or loss of the Statement of Comprehensive Income comprises employer contributions paid to the GSS (concurrent contributions), the WSS, the GESBs, or other superannuation funds.

AASB 16 non-monetary benefits are non-monetary employee benefits, relating to the provision of vehicle benefits that are recognised under AASB 16 and are excluded from the employee benefits expense.

Employee contributions are contributions made to the Centre by employees towards employee benefits that have been provided by the Centre.

2.1 (b) Employee benefits provisions

	2023 \$000	2022 \$000
Current		
<u>Employee benefits provisions</u>		
Annual leave	1,492	1,439
Long service leave	1,443	1,319
	2,935	2,758
<u>Other provisions</u>		
Employment on-costs	161	151
Total current employee related provisions	3,096	2,909
Non-current		
<u>Employee benefit provisions</u>		
Long service leave	1,212	1,361
<u>Other provisions</u>		
Employment on-costs	67	74
Total non-current employee related provisions	1,279	1,435
Total employee related provisions	4,375	4,344

Provision is made for benefits accruing to employees in respect of annual leave and long service leave for services rendered up to the reporting date and recorded as an expense during the period the services are delivered.

Annual leave liabilities are classified as current as there is no unconditional right to defer settlement for at least 12 months after the end of the reporting period. The provision for annual leave is calculated at the present value of expected payments to be made in relation to services provided by employees up to the reporting date.

Long service leave liabilities are classified as current liabilities where the Centre does not have an unconditional right to defer settlement of the liability for at least 12 months after the end of reporting period.

Pre-conditional and conditional long service leave provisions are classified as non-current liabilities because the Centre has an unconditional right to defer the settlement of liability until the employee has completed the requisite years of service.

The provision for long service leave is calculated at present value as the Centre does not expect to wholly settle the amount within 12 months. The present value is measured taking into account the present value of expected future payments to be made in relation to services provided by employees up to the reporting date. These payments are estimated using the remuneration rate expected to apply at the time of settlement and discounted using market yields at the end of the reporting period on national government bonds with terms to maturity that match, as closely as possible, the estimated future cash outflows.

Employment on-costs involve settlements of annual and long service leave liabilities which give rise to the payment of employment on-costs including workers' compensation insurance and payroll tax. The provision is measured at the present value of expected future payments. Employment on-costs, including worker's compensation insurance, are not employee benefits and are recognised separately as liabilities and expenses when the employment to which they related has occurred. Employment on-costs are included as part of 'Other expenditures, note 2.2 and are not included as part the Centre's 'employee benefits expense'. The related liability is included in 'Employment on-costs provision'.

2.2 Other expenditures

Supplies and Services

Communications
Consumables
Materials
Travel

Accommodation expenses

Property rent
Property outgoing
Building repairs and maintenance
Utilities

Other expenses

Equipment repairs and maintenance
IT & network maintenance
External laboratory services
Postage, printing and stationery
Motor vehicle
Expected credit losses expense
Payroll tax
Professional services and research costs
Staff training and miscellaneous staff expenses
Insurance risk premium
Other minor expenses

Total other expenditure

2023	2022
\$000	\$000
6	6
1,805	1,753
20	12
63	24
1,894	1,795
4,375	4,371
603	637
267	134
517	518
5,762	5,660
1,229	1,354
438	209
868	866
152	148
24	19
1	-
950	855
901	458
239	206
145	127
508	478
5,455	4,720
13,111	12,175

Supplies and services: Supplies and services are recognised as an expense in the reporting period in which they are incurred.

Accommodation expenses: Lease payments for the lease of ChemCentre's main facility at Curtin University to Government Office Accommodation are not within scope of *AASB 16 Leases* and are expensed as incurred. Utility, property outgoing, repairs and maintenance costs are recognised as an expense as incurred.

Other expenses: Other expenditures generally represent the day-to-day running costs incurred in normal operations.

Expected credit losses is an allowance of trade receivables and is measured at the lifetime expected credit losses at each reporting date, based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

3. Other funding sources

This section provides additional information about how ChemCentre obtains its funding and the relevant accounting policy notes that govern the recognition and measurement of this funding. The primary income received by ChemCentre and the relevant notes are:

	Notes	2023	2022
		\$000	\$000
Income from State Government	3.1	25,505	23,097
Provision of services	3.2	5,944	6,059
Interest revenue	3.3	51	6
Other revenue	3.4	17	15

3.1 Income from State Government

Appropriations received during the period:

- Salaries and Allowance Act 1975
- Service Appropriation

Total appropriation received

Resources received from other public sector entities during the period:

- Service received free of charge

Total resources received

Income for services provided to other public sector entities

Total income for services provided to other public sector entities

Total income from State Government

2023	2022
\$000	\$000
253	252
8,363	6,771
8,616	7,023
13	15
13	15
16,876	16,059
16,876	16,059
25,505	23,097

Service Appropriations are recognised as income at fair value of consideration received in the period in which ChemCentre gains control of the appropriated funds at the time those funds are deposited in the bank account.

Resources received from other public sector entities are recognised as income (and assets or expenses) equivalent to the fair value of the assets or services that can be reliably determined and which would have been purchased if not donated.

Income for services provided to other public sector entities represents a range of services provided including chemical analyses, research and advice on a fee for service basis. Revenue for services and funding agreed to on an annual MOU basis is recognised over time, representing the series of services provided over the financial year and the agreed performance obligations met over time. Routine chemical analyses provided is recognised at a point-in-time, with the performance obligation satisfied when the reporting of testing results is provided to the entity.

Summary of Consolidated Account Appropriations

For the year ended 30 June 2023

Delivery of Services

Item 68 Net amount appropriated to deliver services

Section 25 Transfer of service appropriation

Amount Authorised by Other Statutes

Salaries and Allowances Act 1975

Total appropriations provided to deliver services

Capital

Item 140 Capital Appropriations

GRAND TOTAL

2023 Budget \$000	2023 Supplementary Funding \$000	2023 Revised Budget \$000	2023 Actual \$000	2023 Variance \$000
6,938	-	-	8,363	1,425
-	-	-	-	-
253	-	-	253	-
7,191	-	-	8,616	1,425
2,500	-	-	2,500	-
9,691	-	-	11,116	1,425

3.2 Provision of service

	2023	2022
	\$000	\$000
Income for service provided to non-public sector entities	5,944	6,059
	5,944	6,059

Revenue is recognised at the transaction price when ChemCentre transfers control of the services to customers. Revenue is recognised for the major activities as follows:

- Routine chemical analyses revenue is recognised at a point-in-time. Performance obligations for these fees and charges are satisfied when the reporting of testing results is provided to the client.
- Research activity revenue recognition is assessed on a case by case basis and is dependent on the terms of the project agreement, funding arrangements including rights to receive payment for research performance to date and the nature of services being performed. For each obligation, ChemCentre determines whether the obligation would be satisfied over time or at a point in time. For an obligation that is satisfied over time ChemCentre recognises revenue in line with its measurement of progress towards complete satisfaction of the obligation. This measurement may be based on observable output methods such as milestones achieved or on input methods such as labour hours expended or resources consumed.

3.3 Interest income

	2023	2022
	\$000	\$000
Interest income	51	6
	51	6

3.4 Other income

	2023	2022
	\$000	\$000
<u>Net proceeds from disposal of non-current assets</u>		
Property, plant and equipment	-	25
<u>Carrying amount of non-current assets disposed</u>		
Property, plant and equipment	-	(22)
Net gains/(losses) on disposal of non-current assets	-	3
Employee contributions ^(a)	12	12
Resources received free of charge – Open Day volunteers ^(b)	5	-
Total Other Income	17	15

(a) Income received by ChemCentre relates to the senior Executives' contribution towards the motor vehicle leased from Department of Finance.

(b) Recognises the receipt of volunteer services during ChemCentre Open Day, a biennial education and outreach event held to promote science and chemistry through laboratory tours, displays, 'hands on' activities, presentations, and a science show.

4. Key Assets

Assets ChemCentre utilised for economic benefit or service potential

This section includes information regarding the key assets ChemCentre utilises to gain economic benefits or provide service potential. The section sets out both the key accounting policies and financial information about the performance of these assets:

	Notes	2023 \$000	2022 \$000
Property, plant and equipment	4.1	6,614	6,633
Right-of-use assets	4.2	191	47
Intangibles	4.3	1,422	1,325

4.1 Property, plant and equipment

1 July 2022

Gross carrying amount

Accumulated depreciation

Carrying amount at start of period

Additions

Transfers from Work in Progress

Transfer between asset classes

Depreciation

Carrying amount at 30 June 2023

Gross carrying amount

Accumulated depreciation

Initial recognition and measurement

Items of property, plant and equipment costing \$5,000 or more are initially recognised at cost. Where an asset is acquired for no cost or significantly less than fair value, the cost is valued at its fair value at the date of acquisition. Items of property, plant and equipment costing less than \$5,000 are immediately expensed except for specified items that are capitalised as grouped assets direct to the Statement of Comprehensive Income other than where they form part of a group of similar items which are significant in total.

Plant & scientific equipment \$000	Office equipment \$000	Work in progress \$000	Total \$000
18,856	1,690	302	20,848
(12,788)	(1,427)	-	(14,215)
6,068	263	302	6,633
1,304	205	197	1,706
295	-	(295)	-
(2)	2	-	-
(1,556)	(169)	-	(1,725)
6,109	301	204	6,614
19,266	1,895	204	21,365
(13,157)	(1,594)	-	(14,751)

Subsequent measurement

After recognition as an asset, ChemCentre uses the cost model for all property, plant and equipment. All items of property, plant and equipment are carried at cost less accumulated depreciation and accumulated impairment losses, if any.

4.1.1 Depreciation charge for the period

	2023	2022
	\$000	\$000
Plant and scientific equipment	1,556	1,411
Office equipment	169	182
Total depreciation for the period	1,725	1,593

Useful lives

All non-current assets that have a limited useful life are systematically depreciated over their estimated useful lives in a manner that reflects the consumption of their future economic benefits.

Depreciation on assets is calculated using the straight-line method, using rates which are reviewed annually. Estimated useful lives for each class of depreciable asset are:

Plant & Scientific equipment	7-10 years
Office equipment	4-5 years

Impairment of assets

Plant and equipment and intangible assets are tested for any indication of impairment at the end of each reporting year. Where there is an indication of impairment, the recoverable amount is estimated. Where the recoverable amount is less than the carrying amount, the asset is considered impaired and is written down to the recoverable amount and an impairment loss is recognised in profit or loss.

If there is an indication that there has been a reversal in impairment, the carrying amount shall be increased to its recoverable amount. However, this reversal should not increase the asset's carrying amount above what would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised in prior years.

4.2 Right-of-use assets (ROU)

	Buildings	Motor Vehicles	Total
	\$000	\$000	\$000
Carrying amount at beginning of period	10	37	47
Additions	109	93	202
Depreciation	(28)	(30)	(58)
Net Carrying amount as at end of period	91	100	191

Initial recognition

Right-of-use assets are measured at cost including the followings:

- The amount of the initial measurement of lease liability;
- Any lease payments made at or before the commencement date less any lease incentives received;
- Any initial direct costs; and
- Restoration costs including dismantling and removing the underlying assets.

Subsequent Measurement

The cost model is applied for subsequent measurement of right-of-use assets, requiring the asset to be carried at cost less any accumulated depreciation and accumulated impairment losses and adjusted for any re-measurement of lease liability.

Depreciation and impairment of right-of-use assets

Right-of-use assets are depreciated on a straight-line basis over the shorter of the asset's useful life and the lease term. If ownership of the leased asset transfer to ChemCentre at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

Right-of-use assets are tested for impairment when an indication of impairment is identified. The policy in connection with testing for impairment is outlined in note 4.1.1.

4.2.1 Depreciation charge of ROU

	2023	2022
	\$000	\$000
Accommodation	28	29
Motor Vehicles	30	25
Total right-of-use-asset depreciation	58	54
Lease interest expense	8	2
Total amount recognised in the statement of comprehensive income	66	56

The total cash outflow for leases in 2023 was \$62,806 (2022: \$56,289).

The agency's leasing activities and how these are accounted for:

- Leases for vehicles with State Fleet and for accommodation with Department of Mines, Industry Regulation and Safety. These leases are recognised as right-of-use assets and associated lease liabilities in the Statement of Financial Position. The corresponding lease liabilities in relation to these right-of-use assets have been disclosed in note 6.1.
- Memorandum of Understanding Agreements with the Department of Finance for the leasing of office accommodation. These are not recognised under AASB 16 because of substitution rights held by the Department of Finance and are accounted for as an expense as incurred.

4.3 Intangible assets

1 July 2022

Gross carrying amount

Accumulated amortisation

Carrying amount at start of period

Additions

Amortisation expense

Carrying amount at 30 June 2023

Gross carrying amount

Accumulated amortisation expense

Initial recognition

Intangible assets are initially recognised at cost. For assets acquired at significantly less than fair value, the cost is their fair value at date of acquisition.

An internally generated intangible asset arising from development (or from the development phase of an internal project) is recognised if, and only if, all of the following are demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- an intention to complete the intangible asset, and use or sell it;
- the ability to use or sell the intangible asset;
- the intangible asset will generate probably future economic benefit;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Software \$000

5,428

(4,103)

1,325

796

(699)

1,422

6,224

(4,802)

Acquisition of intangible assets costing \$5,000 or more and internally generated intangible assets costing \$50,000 or more that comply with the recognition criteria as per AASB 138.57 (as noted above) are capitalised. Costs incurred of less than these amounts are immediately expensed directly to the Statement of Comprehensive Income.

Subsequent Measurement

The cost model is applied for subsequent measurement requiring the asset to be carried at cost less any accumulated amortisation and accumulated impairment losses.

Computer software

Software that is an integral part of the related hardware is treated as property, plant and equipment. Software that is not an integral part of the related hardware is treated as an intangible asset. Software costing less than \$5,000 is expensed in the year of acquisition.

4.3.1. Amortisation charge for the period

	2023	2022
	\$000	\$000
Software	699	453
Total amortisation for the period	699	453

As of 30 June 2023, there were no indications of impairment to intangible assets.

ChemCentre held no goodwill or intangible assets with an indefinite useful life during the reporting period. At the end of the reporting period there were no intangible assets not yet available for use.

Amortisation for intangible assets with finite useful lives is calculated for the period of the expected benefit (estimated useful life) on the straight-line basis using rates which are reviewed annually. All intangible assets controlled by ChemCentre have a finite useful life and zero residual value.

The expected useful lives for each class of intangible asset are:

Software^(a) 5 years

(a) Software that is not integral to the operation of any related hardware.

5. Other assets and liabilities

This section sets out those assets and liabilities that arose from ChemCentre's controlled operations and includes other assets utilised for economic benefits and liabilities incurred during normal operations:

	Notes	2023	2022
		\$000	\$000
Receivables	5.1	1,762	1,808
Other assets	5.2	3,653	3,393
Payables	5.3	1,072	1,156
Other liabilities	5.4	364	666

5.1 Receivables

	2023	2022
	\$000	\$000
Trade receivables	1,358	1,407
Allowance for impairment of trade receivables	(11)	(12)
Contract assets	173	229
GST receivable	242	184
Total current receivables	1,762	1,808

ChemCentre does not hold any collateral or other credit enhancements as security for receivables.

Receivables are recognised at original invoice amount less any allowances for uncollectible amounts (i.e. impairment). The carrying amount of net trade receivables is equivalent to fair value as it is due for settlement within 30 days. The collectability of receivables is reviewed on an ongoing basis and any receivables identified as uncollectable are write-off against the allowance account. The allowance for impairment of trade receivables is raised when there is objective evidence that ChemCentre will not be able to fully collect a debt and is otherwise based on historical credit loss experience for trade receivables used to estimate the lifetime expected credit losses.

5.2 Other assets

Current

Prepayment

Non-current

Sinking fund

Total other assets

The **Sinking Fund** balance represents the accumulation of a \$0.26m annual bond paid to the landlord i.e. Curtin to provide for required building maintenance as set out in the lease contract. It is refundable upon ChemCentre vacating the premises after offsetting the cost of any remediation to the premises required.

2023	2022
\$000	\$000
938	843
938	843
2,715	2,550
2,715	2,550
3,653	3,393

5.3 Payables

Trade payables

GST payable

Accrued expenses

Accrued employee benefits expense

Total current payables

2023	2022
\$000	\$000
71	141
185	267
292	302
524	446
1,072	1,156

Payables are recognised at the amounts payable when ChemCentre becomes obliged to make future payments as a result of a purchase of assets or services. The carrying amount is equivalent to fair value as settlement is generally within 20 days.

Accrued employee benefits expense represents the amount due to staff but unpaid at the end of the reporting period. Accrued salaries are settled within a fortnight after the reporting period. ChemCentre considers the carrying amount of accrued salaries to be equivalent to its fair value.

5.4 Contract Liability

Reconciliation of changes in contract liabilities

Opening balance

Additions

Revenue recognised in the reporting period

Balance at end of period

Current

Non-Current

2023	2022
\$000	\$000
666	346
945	939
(1,247)	(619)
364	666
364	666
-	-

ChemCentre's contract liabilities relate to payments received for research activities and contracted analytical work yet to be performed at the end of the reporting period.

6. Financing

6.1 Lease liabilities

No later than one year
Later than one year and not later than five years

2023	2022
\$000	\$000
53	17
132	21
185	38

Initial measurement

ChemCentre measures a lease liability, at the commencement date, at the present value of the lease payments that are not paid at the date. The lease payments were discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, ChemCentre uses the incremental borrowing rate provided by Western Australian Treasury Corporation.

Lease payments included by ChemCentre as part of the present value calculation of lease liability include:

- Fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- Payments for penalties for terminating a lease, where the lease term reflects the agency exercising an option to terminate the lease.

The interest on the lease liability is recognised in profit or loss over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

Lease liabilities do not include any future changes in variable lease payments (that depend on an index or rate) until they take effect, in which case the lease liability will be reassessed and adjusted against the right-of-use asset. Periods covered by extension or termination options are only included in the lease term by ChemCentre if the lease is reasonably certain to be extended (or not terminated).

This section should be read in conjunction with note 4.2 Right of Use Assets.

Subsequent Measurement

Lease liabilities are measured by increasing the carrying amount to reflect interest on the lease liabilities; reducing the carrying amount to reflect the lease payments made; and remeasuring the carrying amount at amortised cost, subject to adjustments to reflect any reassessment or lease modifications.

6.2 Finance costs

Lease interest expense

Finance costs expensed

Finance cost expensed relates to the interest component of lease liability repayments.

2023	2022
\$000	\$000
8	2
8	2

6.3 Cash and cash equivalents

Cash and cash equivalents

Restricted cash and cash equivalents^(a)

2023	2022
\$000	\$000
6,552	6,068
707	666
7,259	6,734

(a) Payments received in advance of work being completed. Composed of \$0.343m relating to the appropriation funded Forensic Proteomics Project and \$0.364m relating to other research project and fees for service work.

6.4 Capital commitments

Within 1 year

2023	2022
\$000	\$000
154	565
154	565

Capital expenditure commitments, being contracted capital expenditure additional to the amounts reported in the financial statements.

7. Financial Instruments and Contingencies

7.1 Financial instruments

The carrying amounts of each of the following categories of financial assets and financial liabilities at the end of the reporting period are:

	2023	2022
	\$000	\$000
Financial Assets		
Cash and cash equivalents	7,259	6,734
Sinking fund and receivables ^(a)	4,235	4,174
Total financial assets	11,494	10,908
Financial Liabilities		
Financial liabilities measured at amortised cost ^(b)	1,072	927
Total financial liabilities	1,072	927

(a) Total amount of receivables excludes GST recoverable from the ATO.

(b) Total amount of financial liabilities excludes GST payable to the ATO.

7.2 Contingent assets and liabilities

Contingent assets and contingent liabilities are not recognised in the statement of financial position but are disclosed and, if quantifiable, are measured at nominal value.

7.2.1 Contingent assets

ChemCentre does not have any contingent assets.

7.2.2 Contingent liabilities

A supplier has made a claim for \$8,750 in relation to alleged completion of work. Liability has been denied and the legal claim will be defended in Magistrates Court in September.

8. Other disclosures

This section includes additional material disclosures required by accounting standards or other pronouncements, for the understanding of this financial report.

	Notes
Events occurring after the end of the reporting period	8.1
Changes in accounting policy	8.2
Key management personnel	8.3
Related party transactions	8.4
Related bodies	8.5
Affiliated bodies	8.6
Special purpose accounts	8.7
Remuneration of auditors	8.8
Equity	8.9
Supplementary financial information	8.10
Tax equivalent	8.11
Explanatory statement	8.12

8.1 Events occurring after the end of the reporting period

There were no known events occurring after the end of the reporting period and up to the date of this report.

8.2 Changes in accounting policy

On 28 June 2022, the Centre formally exited the National Tax Equivalent Regime. This resulted in the following internal policy changes:

- An increase in the asset capitalisation threshold from \$400 to \$5,000. Any existing assets below this threshold, and not part of a specified grouped asset (\$0.04m written down value) were expensed off in 2021-22.
- In recognition of no longer being eligible for income tax, the deferred tax asset (\$1.17m) and deferred tax liability (\$0.03m) were written off in 2021-22, as reflected in the Statement of Comprehensive Income and Note 8.11 – Tax equivalent.

There were no changes in accounting policy impacting the statements in 2022-23.

8.3 Key Management Personnel

ChemCentre has determined key management personnel to include cabinet ministers, board members, and senior officers of the agency. ChemCentre does not incur expenditures to compensate Ministers and those disclosures may be found in the *Annual Report on State Finances*.

The total fees, salaries, superannuation, non-monetary benefits and other benefits for Board of Directors of the agency for the reporting period are presented within the following bands:

Compensation band (\$)	2023	2022
0 - 10,000 ^(a)	1	1
10,001 - 20,000	4	4
20,001 - 30,000	1	1
30,001 - 40,000	1	1
Total compensation of members of the accountable authority	135	133

The total fees, salaries, superannuation, non-monetary benefits and other benefits for senior officers of the agency for the reporting period are presented within the following bands:

Compensation band (\$)	2023	2022
0 - 50,000	-	-
50,001 - 100,000	-	-
100,001 - 150,000 ^(a)	2	-
150,001 - 200,000	-	1
200,001 - 250,000	2	2
250,001 - 300,000	1	1
Total compensation of senior officers	959	894

(a) One director retired and was replaced in 2022-23 financial year.

8.4 Related party transactions

ChemCentre is a wholly owned public-sector entity that is controlled by of the State of Western Australia.

Related parties of ChemCentre include:

- all Cabinet ministers and their close family members, and their controlled or jointly controlled entities;
- all senior officers and their close family members, and their controlled or jointly controlled entities;
- other departments and statutory authorities, including related bodies, that are included in the whole of government consolidated financial statements (i.e. wholly-owned public sector entities); and
- the Government Employees Superannuation Board (GESB).

Significant Transactions with Government-related entities

In conducting its activities, ChemCentre is required to transact with the State and entities related to the State. These transactions are generally based on the standard terms and conditions that apply to all agencies. Such transactions include:

- income from State Government (Note 3.1);
- equity contributions (Note 8.9);
- superannuation payments to GESB (Note 2.1(a));
- lease rentals payments to the Department of Finance (Government Office Accommodation and State Fleet) (Note 2.2);
- insurance payments to the Insurance Commission and Risk Cover fund (Note 2.2);
- payment for payroll services provided by Department of Mines, Industry Regulation and Safety (Note 2.2);
- payment for financial and commercial advisory services to WA Treasury Corp (Note 2.2);
- payment for professional services to the Public Sector Commission (Note 2.2);
- payment for legal services to the State Solicitor's Office (Note 2.2);
- remuneration for services provided by the Auditor General (Note 8.8).

Material transactions with other related parties

Outside of normal citizen type transactions with the agency, there were no other related party transactions that involved key management personnel and/or their close family members and/or their controlled (or jointly controlled) entities.

8.5 Related bodies

ChemCentre does not have any related bodies.

8.6 Affiliated bodies

ChemCentre does not have any affiliated bodies.

8.7 Special purpose accounts

ChemCentre does not operate any special purpose accounts.

8.8 Remuneration of auditors

Remuneration paid or payable to the Auditor General in respect of the audit for the current financial year is as follows:

	2023	2022
	\$000	\$000
Auditing the accounts, financial statements, controls, and key performance indicators	53	52

8.9 Equity

The Western Australian Government holds the equity interest in ChemCentre on behalf the community. Equity represents the residual interest in the net assets of ChemCentre.

	2023	2022
	\$000	\$000
Contributed equity		
Balance at the start of the year	21,026	18,526
<i>Contributions by owners</i>		
Equity Contribution	2,500	2,500
Total contributions by owners	23,526	21,026
Retained earnings		
Balance at start of year	(7,290)	(5,357)
Result for the year	(1,331)	(1,933)
Balance at end of period	(8,621)	(7,290)
Total equity at end of year	14,905	13,736

8.10 Supplementary financial information

a) Write-offs

During the financial year, the following bad debts and property was written off under the authority of:

	2023	2022
	\$000	\$000
The Accountable Authority	2	1
The Minister	-	-
	2	1

b) Losses through theft, defaults and other causes

	2023	2022
	\$000	\$000
Losses of public money and public and other property through theft or default	-	-
	-	-

c) Gifts of public property

	2023	2022
	\$000	\$000
Gifts of public property provided by the Agency	-	-
	-	-

8.11 Taxation Equivalent

The removal of the Centre as a listed entity under NTER was gazetted as at 3 June 2022. Profit for 2021-22 in the tax note reflects the gazetted date.

	2023	2022
	\$000	\$000
(a) Income tax expense		
Current income tax	-	-
Deferred tax	-	(43)
Change in tax rates from 26% to 25%	-	44
Impact of ceasing to be subject to National Tax Equivalent Regime	-	1,140
Net current and deferred tax transferred to Income Statement	-	1,141
(b) Reconciliation of income tax expense for the period		
Profit from continuing operations before income tax expense	-	(277)
Tax equivalent at the Australian tax rate of 25% (2022:26%)	-	(69)
Tax effect of amounts which are not deductible / (taxable) in calculating taxable income:		
Tax Loss not to be recognised	-	26
Re-recognition of tax loss	-	-
Change in tax rates from 26% to 25%	-	44
Impact of ceasing to be subject to National Tax Equivalent Regime	-	1,140
	-	1,141

(c) Deferred tax assets

Provision for doubtful debts
 Accrued expenses
 Provision for employee entitlements
 Right-of-Use leasing liabilities
 Impact of ceasing to be subject to
 National Tax Equivalent Regime

Deferred tax liabilities

Prepayments
 Right-of-Use leasing assets
 Impact of ceasing to be subject to National Tax Equivalent Regime

Net deferred tax balance

30 June 2023	CY Income tax (expense) / benefit	30 June 2022
\$000	\$000	\$000
-	-	3
-	-	57
-	-	1,085
-	-	10
-	-	(1,155)
-	-	-
-	-	(1)
-	-	(13)
-	-	14
-	-	-
-	-	-

8.12 Explanatory statement

This explanatory section explains variations in the financial performance of ChemCentre undertaking transactions under its own control, as represented by the primary financial statements.

All variances between annual estimates (original budget) and actual results for 2023, and between the actual results for 2023 and 2022 are shown below. Narratives are provided for key major variances which vary more than 10% from their comparative and that the variation is more than 1% of the following variance analyses for the:

- Estimate and actual results for the current year:
 - Total Cost of Services of the estimate for the Statements of Comprehensive Income & Cash Flows (\$311,000), and
 - Total Assets of the estimate for the Statement of Financial Position (\$214,000)
- Actual results for the current year and the prior year actual:
 - Total Cost of Services for the previous year for the Statements of Comprehensive Income & Cash Flows (\$300,000)
 - Total Assets for the previous year for the Statement of Financial Position (\$199,000)

8.12.1 Statement of Comprehensive Income Variances

COST OF SERVICES

Expenses

Employee benefits expense	
Supplies and services	
Depreciation and amortisation expense	1
Accommodation expenses	
Finance costs	4
Other expenses	2

Total cost of services

Income

Provision of Services	
Interest Revenue	
Other Revenue	

Total Income

NET COST OF SERVICES

Income from State Government

Service appropriation	3
Resources received	
Income from other public sector entities	

Total Income from State Government

DEFICIT BEFORE INCOME TAX EQUIVALENT EXPENSE

Income tax benefit/(expense)	4
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DEFICIT FOR THE PERIOD

TOTAL COMPREHENSIVE INCOME FOR THE PERIOD

Notes	Original Budget 2023	Actual 2023	Actual 2022	Variance between budget and actual	Variance between actual results for 2023 and 2022
	\$000	\$000	\$000	\$000	\$000
	16,157	17,247	15,692	1,090	1,555
	2,090	1,894	1,795	(196)	99
1	2,270	2,482	2,100	212	382
	5,763	5,762	5,660	(1)	102
	4	8	2	4	6
2	4,800	5,455	4,720	655	735
	31,084	32,848	29,969	1,764	2,879
	5,931	5,944	6,059	13	(115)
	62	51	6	(11)	45
	11	17	15	6	2
	6,004	6,012	6,080	8	(68)
	25,080	26,836	23,889	1,756	2,947
	7,191	8,616	7,023	1,425	1,593
3	-	13	15	13	(2)
	16,305	16,876	16,059	571	817
	23,496	25,505	23,097	2,009	2,408
	(1,584)	(1,331)	(792)	253	(539)
4	82	-	(1,141)	(82)	1,141
	(1,502)	(1,331)	(1,933)	171	602
	(1,502)	(1,331)	(1,933)	171	602

8.12.2 Statement of Financial Position Variances

	Notes	Original Budget 2023	Actual 2023	Actual 2022	Variance between budget and actual	Variance between actual results for 2023 and 2022
		\$000	\$000	\$000	\$000	\$000
ASSETS						
Current Assets						
Cash and cash equivalents		5,007	7,259	6,734	2,252	525
Prepayments		733	938	843	205	95
Receivables		2,997	1,762	1,808	(1,235)	(46)
Total Current Assets		8,737	9,959	9,385	1,222	574
Non-Current Assets						
Property, plant and equipment	5	7,411	6,614	6,633	(797)	(19)
Right-of-use assets		45	191	47	146	144
Intangible assets	6	893	1,422	1,325	529	97
Sinking Fund		2,985	2,715	2,550	(270)	165
Deferred Tax Asset	7	1,330	-	-	(1,330)	-
Total Non-Current Assets		12,664	10,942	10,555	(1,722)	387
TOTAL ASSETS		21,401	20,901	19,940	(500)	961
LIABILITIES						
Current Liabilities						
Payables		459	1,072	1,156	613	(84)
Provisions		3,150	3,096	2,909	(54)	187
Lease liabilities		24	53	17	29	36
Contract liability	8	903	364	666	(539)	(302)
Total Current Liabilities		4,536	4,585	4,748	49	(163)

	Notes	Original Budget 2023	Actual 2023	Actual 2022	Variance between budget and actual	Variance between actual results for 2023 and 2022
		\$000	\$000	\$000	\$000	\$000
Non-Current Liabilities						
Provisions		1,440	1,279	1,435	(161)	(156)
Lease liabilities		24	132	21	108	111
Deferred Tax Liability		26	-	-	(26)	-
Total Non-Current Liabilities		1,490	1,411	1,456	(79)	(45)
TOTAL LIABILITIES		6,026	5,996	6,204	(30)	(208)
NET ASSETS		15,375	14,905	13,736	(470)	1,169
EQUITY						
Contributed equity		23,526	23,526	21,026	-	2,500
Retained earnings		(8,151)	(8,621)	(7,290)	(470)	(1,331)
TOTAL EQUITY		15,375	14,905	13,736	(470)	1,169

8.12.3 Statement of Cash Flows Variances

		Original Budget 2023	Actual 2023	Actual 2022	Variance between budget and actual	Variance between actual results for 2023 and 2022
Notes		\$000	\$000	\$000	\$000	\$000
CASH FLOWS FROM STATE GOVERNMENT						
Service appropriation		7,191	8,616	7,023	1,425	1,593
Capital appropriation		2,500	2,500	2,500	-	-
Funds from other public sector entities		16,074	16,806	16,006	732	800
Net cash provided by State Government		25,765	27,922	25,529	2,157	2,393
CASH FLOWS FROM OPERATING ACTIVITIES						
Payments						
Employee benefits	9	(16,134)	(17,138)	(15,567)	(1,004)	(1,571)
Accommodation		(5,972)	(5,861)	(5,898)	111	37
GST payments on purchases	10	(1,097)	(1,448)	(1,244)	(351)	(204)
GST payments to taxation authority		(918)	(879)	(898)	39	19
Finance costs		(2)	(8)	(2)	(6)	(6)
Other payments		(7,050)	(7,841)	(6,661)	(791)	(1,180)
Receipts						
Provision of services		5,866	6,056	6,675	190	(619)
GST receipts on services		2,014	2,286	2,268	272	18
Net cash provided by/(used in) operating activities		(23,293)	(24,833)	(21,327)	(1,540)	(3,506)

CASH FLOWS FROM INVESTING ACTIVITIES

Payments

Purchase of non-current assets

Net cash provided by/(used in) investing activities

Notes	Original Budget 2023	Actual 2023	Actual 2022	Variance between budget and actual	Variance between actual results for 2023 and 2022
	\$000	\$000	\$000	\$000	\$000
	(2,500)	(2,501)	(2,525)	(1)	24
	(2,500)	(2,501)	(2,525)	(1)	24

CASH FLOWS FROM FINANCING ACTIVITIES

Payments

Principal elements of lease

Net cash provided by/(used in) financing activities

	(39)	(63)	(55)	(24)	(8)
	(39)	(63)	(55)	(24)	(8)
Net increase/(decrease) in cash and cash equivalents	(67)	525	1,622	592	(1,097)
Cash and cash equivalents at the beginning of period	5,074	6,734	5,112	1,660	1,622
CASH AND CASH EQUIVALENTS AT THE END OF PERIOD	5,007	7,259	6,734	2,252	525

Significant variances commentary

1. The \$0.38m increase in Depreciation and Amortisation expense as compared to the prior year reflects the replacement of older, fully depreciated assets through the asset replacement program. This includes the modernisation of ChemCentre's current essential laboratory information management systems which further contributes to an overall higher amortisation rate.
2. The \$0.66m increase in Other Expenses as compared to the budget and \$0.74m increase as compared to prior year reflects professional services for the forensic proteomics research project commenced during the year, the payroll tax component of the increase in employee benefits expense, and costs relating to the improvements in cybersecurity controls and secondary support software.
3. The \$1.43m increase in Service Appropriation as compared to the budget and \$1.59m increase as compared to the prior year reflects funding provided for the forensic proteomics research project and the increase in employee benefits expenditure under the new salary agreement.
4. The \$1.14m decrease in Income Tax Expense as compared to the previous year reflects the write-off of deferred tax assets and liabilities following ChemCentre's exit from the National Tax Equivalent Regime in 2021-22, making the agency exempt from income tax.
5. The \$0.80m decrease in Property, Plant and Equipment as compared to the budget primarily reflects a greater prioritisation of capital funding towards the modernisation of ChemCentre's essential laboratory information management systems (intangible assets).
6. The \$0.53m increase in Intangibles assets as compared to the budget reflects the greater priority on the modernisation of ChemCentre's essential laboratory information management systems.
7. The \$1.33m decrease in the Deferred Tax Asset as compared to the budget reflects the Centre's exit from National Tax Equivalent Regime in 2021-22 which was not yet confirmed at time of setting the budget.
8. The \$0.54m decrease in Contract Liability as compared to the budget and \$0.30m decrease as compared to the prior year reflects the completion of research project milestones during the year and a lower proportion of projects being funded in advance of research being performed.
9. The \$1.57m increase in Employee Benefits Payments as compared to the previous year is attributable to (in order of significance): the impact of the new salary agreement, additional staff resources to meet increased service requirements for WA Police and Office of the State Coroner, and a one-off staff redundancy payment.
10. The \$0.35m increase in GST payments on purchases as compared to the budget reflects differences in the timing of payments for supplier invoices and the overall increase in GST applicable expenses.

Key Performance Indicators

CERTIFICATION OF KEY PERFORMANCE INDICATORS

We hereby certify that the performance indicators are based on proper records, are relevant and appropriate for assisting users to assess ChemCentre's performance, and fairly represent the performance of ChemCentre for the financial year ended 30 June 2023.



David Blyth

Chair
ChemCentre Board
22 August 2023



Colin Murphy

Chair
Finance, Audit & Risk Management Committee
Member, ChemCentre Board
22 August 2023



Peter McCafferty

Chief Executive Officer
ChemCentre
22 August 2023

Government Goal	Desired Outcome	Services
WA Jobs Plan: Diversifying the WA economy, creating local jobs for the future.	Quality research and innovation	Service 1: Research and Innovation
Safe, Strong and Fair communities: Supporting our local and regional communities to thrive.	Quality scientific advice	Service 2: Commercial and Scientific Information and advice
	Quality emergency response	Service 3: Emergency Response Management

Key Effectiveness Indicators by Desired Outcome

Desired Outcome: Quality Research and Innovation

Delivery of quality project-based developed knowledge, know-how and/or intellectual property relevant to state development, public health and safety, or delivery of ChemCentre's other services.

	2019-20	2020-21	2021-22	2022-23	2022-23
	Actual	Actual	Actual	Actual	Target
Contribution to Scientific Forums: <i>as determined by the number of recognised contributions from ChemCentre staff to presentations, publications, or technical forums.</i>	45	60	89	74	60

This indicator is relevant in measuring ChemCentre's contribution to knowledge, know-how and and/or Intellectual Property relevant to State development, public health and safety.

Desired Outcome: Quality Scientific Advice

Development and delivery of quality scientific information and advice, including commercial services, to government, industry and the community.

	2019-20	2020-21	2021-22	2022-23	2022-23
	Actual	Actual	Actual	Actual	Target
Proficiency Rating for the Accredited Services: <i>this includes performance in qualitative and quantitative trials undertaken during the relevant year and is determined by the percentage of samples satisfactorily meeting the evaluation criteria of the proficiency trial provider.</i>	94%	88%	96%	98%	95%

The proficiency rating is a relevant measure as it demonstrates the quality of testing undertaken by ChemCentre. A range of external parties are engaged to supply proficiency trials, primarily being ISO 17043 accredited suppliers and professional bodies from within Australia and to a lesser extent overseas.

Desired Outcome: Quality Emergency Response

Specialist technical advice and support to government and industry in managing the risks arising from unmanaged chemical-biological-radiological releases.

	2019-20	2020-21	2021-22	2022-23	2022-23
Average Mobilisation Time for all Emergency Response Incidents Attended:	Actual	Actual	Actual	Actual	Target
<i>as extracted from the response team logbook.</i>	14 minutes	16 minutes	14 minutes	15 minutes	20 minutes

The average mobilisation time is relevant because the quicker ChemCentre is able to mobilise to respond to a chemical-biological-radiological emergency, the lower the risk to the community.

	2019-20	2020-21	2021-22	2022-23	2022-23
Availability of Emergency Response Workforce to Meet Agreed Inter-Agency Requirements:	Actual	Actual	Actual	Actual	Target
<i>as determined by the proportion of weekly staff rosters, which provide the required number of staff with the technical capability to meet all agreed inter-agency requirements.</i>	100%	100%	100%	100%	100%

The indicator reflects ChemCentre's performance in maintaining the required capacity to respond to Emergency Response (ER) incidents. ChemCentre's 24/7 365-day coverage is met through rosters prepared on a weekly basis, instructed by an existing workforce management plan to accommodate technical capability requirements.

Notes

Desired Outcome 1: Quality Research and Innovation

Contribution to Scientific Forums: The 74 contributions in 2022-23 is 15 less than the prior year and 14 more than the target. The above target result reflects an upwards trend in the KPI over the longer-term, in line with a strategic focus on expanding the level of research undertaken with industry and regulatory bodies. The decrease compared to the previous year is primarily due to the prior year's exceptional circumstances, with a number of research conferences and activities held after being postponed by COVID-19

Desired Outcome 2: Quality Scientific Advice

Proficiency Rating for the Accredited Services: The proficiency rating of 98% is up 2% from the previous year and is 3% above the target. The increase reflects ChemCentre's continuing focus on technical excellence and high-quality analysis.

Desired Outcome 3: Quality Emergency Response

Average Mobilisation Time for all Emergency Response Incidents

Attended: The average mobilisation time of 15 minutes is 1 minute slower than previous year and 5 minutes faster than the target. The result reflects maintenance of high level of capability and readiness of ChemCentre's emergency responders in minimising harm to the community through rapid mobilisation to HAZMAT incidents.

Availability of Emergency Response Workforce to Meet Agreed Inter-

Agency Requirements: The result of 100% is in line with the prior year and target reflecting ChemCentre's commitment to the 24/7, 365-day provision of an appropriately staffed emergency response team.

Key Efficiency Indicators by Service

Service 1: Research and Innovation

Delivery of quality project-based developed knowledge, know-how and/or intellectual property relevant to state development, public health and safety, or delivery of ChemCentre's other services.

Publications per R&I FTE: as determined by the total number of publications during the financial year, divided by the average number of full-time equivalent employees allocated to R&I projects and internal research activity within the financial year.

2019-20	2020-21	2021-22	2022-23	2022-23
Actual	Actual	Actual	Actual	Target
3.0	3.3	2.6	5.0	2.9

Service 2: Commercial and Scientific Information and Advice

Development and delivery of quality scientific information and advice, including commercial services, to government, industry and the community.

Average Cost of Providing Commercial Scientific Information and Advice per Applicable FTE: calculated by dividing the total cost of the service by the number of FTEs

2019-20	2020-21	2021-22	2022-23	2022-23
Actual	Actual	Actual	Actual	Target
\$242,000	\$240,000	\$245,000	\$258,000	\$243,000

Service 3: Emergency Response Management

Specialist technical advice and support to government and industry in managing the risks arising from unmanaged chemical-biological-radiological releases.

Average Cost to Maintain an Emergency Response Capability per Western Australian: as determined by the total cost of maintaining the minimum Emergency Response capability required by Government, divided by the Western Australian population.

2019-20	2020-21	2021-22	2022-23	2022-23
Actual	Actual	Actual	Actual	Target
\$0.75	\$0.75	\$0.72	\$0.72	\$0.82

Notes

Service 1: Research and Innovation

Publications per R&I FTE: The number of publications per R&I FTE has increased by 2.4 as compared to the previous year and is 2.1 higher than the target. The increase reflects a strategic focus on expanding the level of research undertaken in collaboration with industry and regulatory bodies, as well as publications from several major multi-year research projects finalised during the period.

Service 2: Commercial and Scientific Information and Advice

Average Cost of Providing Commercial Scientific Information and Advice per Applicable FTE: The 2022-23 result is \$13,000 (5.3%) higher than the previous year and is \$15,000 (6.2%) above the target. The increase mainly reflects the impact of the Public Sector Wages Policy, with the final salary agreement (the higher of \$60 per week or 3% and a one-off \$3,000 payment) exceeding the \$1,000 per FTE previously assumed. A secondary, though less significant factor was cost increases passed on by some suppliers due to broader inflationary pressures.

Service 3: Emergency Response Management

Average Cost to Maintain an Emergency Response Capability per Western Australian: The cost of service per Western Australian is unchanged from the previous year, and \$0.10 below the target. The lower cost is attributable to a delay in replacement and refurbishment of an emergency response vehicle and facilities to 2023-24, equipment repair and servicing required during the year being less than anticipated and continued effective cost management and use of existing resources.



OTHER DISCLOSURES AND LEGAL COMPLIANCE

MINISTERIAL DIRECTIVES

No ministerial directives were received during the financial year.

PRICING POLICIES FOR SERVICES PROVIDED

ChemCentre charges for goods and services rendered on a full or partial cost recovery basis. These fees and charges were determined in accordance with *Costing and Pricing Government Services: Guidelines for Use by Agencies in the Western Australian Public Sector* published by Treasury.

WORKFORCE ATTRACTION, DEVELOPMENT AND RETENTION

The resilience and adaptability shown by ChemCentre's workforce during the intense period of the COVID-19 pandemic to maintain our operations and culture has continued to strengthen. Staff have remained innovative and embraced inclusivity to advance the organisation's strategic objectives and maintain high-level skills and expert capability. This is supported by a strong focus on key categories of workforce development opportunities and talent retention including leadership development to build high-performing teams; investment in digital transformation to deliver modern tailored systems that are reliable and protect data; and include training to uplift digital literacy. This was also supported by programs that contribute to a positive culture, value diversity of thought and support employee engagement through flexible work arrangements and promoting wellness.

Our *Workforce and Diversity Plan 2022-2025* provides a roadmap to further develop the workforce to be equipped to thrive in a constantly changing economic and social environment. During the year, an initiative was progressed that enables science and technical knowledge experts to continue to develop within their respective fields while strengthening access to career development opportunities. This builds on development

programs that deliver tailored learning and interactive sessions with coaching opportunities. In addition, the organisation has begun implementation of the Public Sector Commission's Building Leadership Impact initiative and has mapped each leadership context to our organisational structure and embedded it in performance development processes.

The organisational values and culture are periodically reinforced through multiple approaches including themed internal communication that spotlight areas such as fostering integrity, outlining appropriate behaviours and workplace safety obligations (including prevention of sexual and other harassment) and promoting inclusivity and diversity. In addition, a three year People at Work Program is entering its final year, targeting the identification and management of psychosocial hazards and has underpinned a psychosocial policy to assist prevention, reporting and responding to complaints.

ChemCentre has continued to invest in modernising its critical systems to ensure that its employees have appropriate tools and to provide a technological platform for future advancement, innovation and improved performance. During the year, an on-line learning platform was adopted that enhances accessibility and convenience for employees, provides online on-boarding, mandatory training courses and future agency-specific on the job learning.

Flexible work options also continue to be promoted and embedded in job design to increase access for employees. A new hybrid work policy was developed and implemented to assist managers and employees.

EMPLOYMENT AND INDUSTRIAL RELATIONS

All staff are employed under the *Public Sector Management Act 1994* and the *Public Sector CSA Agreement 2022*.

During the year there were no industrial relations issues and no disruption to delivery of services.

EMPLOYMENT PROFILE

Employment Type	2021/22	2022/23
Permanent Full-time	102	100
Fixed-term Full-time	23	25
Permanent Part-time	24	27
Fixed-Term Part-time	5	5
Total Head Count	154	157
Total FTEs	143	145

WA MULTICULTURAL POLICY FRAMEWORK AND RECONCILIATION ACTION PLAN

ChemCentre has a proud, long history of attracting culturally and linguistically diverse scientists.

We recognise the value of diversity and our Multicultural Plan 2021-25 supports our commitment to the principles of substantive equality, diversity and inclusion. Our plan outlines our commitment to:

- Harmonious and inclusive communities,
- Culturally responsive policies, programs and services, and
- Economic, social, cultural, civic and political participation.

All new employees to ChemCentre completed Diversity WA cultural competency training to promote an inclusive workplace culture. Refresher training was provided for existing employees.

We have applied *Commissioner Instructions 39 - Interim Arrangements to Fill Public Sector Vacancies* to increase the representation of culturally and linguistically diverse people in our workforce. In the 2022-23 financial year, ChemCentre's representation of culturally and linguistically diverse employees was 28%. This figure exceeds the government target of 15.5%. During the year this diversity was celebrated by staff with a range of informal events to recognise and acknowledge culturally significant occasions such as Diwali, the Hindu festival of lights and the Chinese Lunar New Year.

The Reconciliation Action Plan was progressed during the year with various activities designed to enhance understanding and appreciation of indigenous culture and foster respectful relationships. Key activities included a visit during National Reconciliation Week by Alice Kearing, who shared with staff the story of her late mother, Louise K. Hansen author of *Smashing Serendipity - the Story of a Moorditj Yorga*. Staff were also invited to tour the Carrolup Artworks *Kalyagool Karni-Wangkiny [Telling Truth Always]* exhibition at the John Curtin Gallery.

ChemCentre remains committed to promoting STEM to diverse groups as part of its outreach program and continues to offer student placements to support young emerging scientists from all cultures.

BOARD AND COMMITTEE REMUNERATION

The Board is appointed under s6 of the *Chemistry Centre Act (WA) 2007* (the Act) and is responsible for the performance of the functions under the Act. Board members are remunerated under s8 of the Act, as determined by the Minister on the recommendation of the Public Sector Commissioner, as such public sector employees do not receive a fee. In addition, the Premier's Circular 2022/02 - State Government Board and Committees set the eligibility criteria for remuneration.

The Board has approved three Board sub-committees that support the Board discharge its obligations. As members of the Committees are also members of the Board no additional remuneration was paid to members of Committees.

The table below reports the fee paid to each eligible Board members during 2022-23 including those not receiving a fee.

Position	Name	Type of remuneration	Period of membership for the year	Expiry of term	Gross/actual remuneration 2022-23
Chair	David Blyth	Annual fee	12 months	31 July 2024	\$35,551
Deputy Chair	Tresslyn Walmsley	Annual fee	12 months	30 September 2024	\$26,622
Member	Colin Murphy	Annual fee	12 months	30 June 2025	\$17,928
Member	Jane Cutler	Annual fee	12 months	31 July 2026	\$17,928
Member	Ian Harrison	Annual fee	12 months	30 September 2024	\$17,928
Member	Miriam Stanborough	Annual fee	11 months	30 June 2025	\$17,582
Member	Kylie Whiteley	Annual fee	12 months	30 June 2025	\$0

MANAGEMENT OF BOARD INTERESTS

Under s16 of the Act, the Board follows a disclosure of interest process. Board has a standing item for members to declare actual and potential conflicts of interest on appointment, and as matters arise and conflicts of interest are managed.

DIRECTORS AND OFFICER'S LIABILITY INSURANCE

An insurance policy has been taken out to indemnify Board members against liabilities under sections 13 or 14 of the *Statutory Corporations (Liability of Directors) Act 1996*. This policy is placed through the State Government insurer and is renewed annually with a limit of \$10 million dollars at a cost of \$6,080.25 (inc GST).

COMPLIANCE WITH PUBLIC SECTOR STANDARDS AND ETHICAL CODES

In accordance with s31(1) of the *Public Sector Management Act 1994*, ChemCentre complies with provisions governing conduct in the public sector that includes Public Sector Instructions, Public Sector Standards in Human Resource Management, WA Public Sector Code of Ethics and the ChemCentre Code of Conduct.

The ChemCentre Fraud and Corruption Control and Plan also provides guidance on appropriate expected behaviours, integrity and conduct.

The financial management general controls were also audited during 2022-23 and were found to be appropriate. ChemCentre monitors and assesses its compliance with these standards and codes.

As at 30 June 2023, 143 employees have been trained in Accountable and Ethical Decision Making, representing 91% of the workforce, and regular refreshers are provided through spotlight feature articles to reinforce the organisational values, expected behaviours and training.

ChemCentre also maintains a complaints process and continuous improvement process with multiple modes to lodge a complaint and a process in accordance with internal policies.

No breaches of employment standard claims were received during 2022-23 and no formal disciplinary process was undertaken. However, three formal grievances were received during the year and investigated.

INFORMATION MANAGEMENT AND RECORDKEEPING PLAN

In accordance with section 19 of the *State Records Act 2000*, the ChemCentre Recordkeeping Plan was approved in 2019 by the State Records Commission with a scheduled review date in 2024.

A comprehensive interim review, conducted in 2022, examined each of the required principles set out in the Recordkeeping Plan against best practices recognising records, data and information as valuable assets.

Initiatives are underway to enhance and refine systems and processes with respect to each of the principles as outlined in the Plan.

ChemCentre implemented a new version of our electronic Records Management System in 2022-23. Regular ongoing collaboration with the software application developer provides the opportunity for continuous improvement in all core areas of records management compliance.

As part of the roll-out of this system, the training program was reviewed, and training sessions provided to staff to introduce and study the upgraded system. The opportunity was also taken to provide a refresher on the importance of applying sound recordkeeping principles and practices.

The Records Awareness Training resource, used during induction training to ensure all new staff are aware of and understand their recordkeeping compliance responsibilities, has been revised and revamped.

Collaboration with ICT has seen the introduction of a dedicated Records Management help desk. With improved reporting capabilities, this new ticket system provides the opportunity for better analysis of system and user issues that supports continuous improvement and targeted training.

ChemCentre provides an induction for new employees followed by an ongoing training program, and one on one training as required to ensure all staff understand their responsibilities and accountabilities.

DISABILITY ACCESS AND INCLUSION PLAN OUTCOMES

ChemCentre is committed to ensuring clients and staff with disability are able to access our information, services and facilities.

Following a public consultation process in 2022-23, ChemCentre developed a new Disability Access and Inclusion Plan (DAIP) for 2023-28, with a renewed commitment to achieving the seven desired outcomes stated in Schedule 3 of the Disability Services Regulations 2004.

ChemCentre promotes the DAIP principles and outcomes to staff and these are reflected in the agency's inclusive culture and practices. Recruitment and work design is flexible to accommodate people with disability and DAIP is included in the induction program.

Accessibility to events organised by ChemCentre, consultation and services is designed to allow equal access for all. Staff are aware of the need to mitigate risks for people with disability, to meet their needs and ensure appropriate access to our events and services. We continue to work closely with Curtin University to ensure that the building and facilities continue to main accessibility for people with disability. Planning for events as demonstrated by ChemCentre Open Day, ensures the needs for people with disability are met in order to access facilities and event activities. The agency's website has been designed to meet web content accessibility guidelines and content is available in alternative formats.

FREEDOM OF INFORMATION

In the reporting period, ChemCentre received four requests to access documents under the *Freedom of Information Act 1992*. Two applications were seeking access to personal information regarding themselves, and two applications were seeking information on behalf of a client. ChemCentre was also contacted for third-party consultation for one Freedom of Information request during this period. Procedures and resources are provided on the ChemCentre website which are in accordance with the legislation.

WORK HEALTH AND SAFETY AND INJURY MANAGEMENT

ChemCentre has a strong, disciplined and committed approach to providing a safe and healthy workplace and environment promoting safety and wellbeing of all employees, contractors and visitors from physical and psychological harm.

ChemCentre proactively implemented a plan in readiness to comply with the new *Work Health and Safety Act 2020* that included a gap analysis and action plan overseen by the Safety Committee and management.

Extensive staff and manager training continues to be provided and information sessions delivered to senior management and the Board will be periodically refreshed. Compliance with the Act is monitored throughout the organisation and assessed by the Safety Committee with regular reporting to senior management and the Board.

A Committee comprising nominated employees supports management to steer the health and wellbeing programs for staff, which are underpinned by feedback received from comprehensive staff surveys.

ChemCentre has maintained its JAS-ANZ work health and safety management system that is accredited via an annual third-party inspection body independently auditing against ISO 45001:2018.

INJURY MANAGEMENT

Through a strong culture of promoting safety and reporting we maintain a commitment to continuous improvement and aim for zero lost-time-injury rate. During 2022-23 there was one incident that resulted in a few days of lost time due to injury and a return-to-work program was activated.

WORK, HEALTH AND SAFETY PERFORMANCE

ChemCentre's performance against key indicators for Work Health and Safety and injury management in 2022-23 is outlined in the table below:

Measures	Base year*	2021/22	2022/23	Targets	Comments about targets
Number of fatalities	0.00	0.00	0.00	0	Target Achieved
Lost time injury and disease incidence rate	0.00	0.00	0.00%	0 or 10% reduction in incidence rate	Target Achieved **
Lost time injury and severity rate	0.00	0.00	0.00	0 or 10% reduction in severity rate	Target Achieved **
Percentage of injured workers returned to work (i) within 13 weeks	100%	100%	100%	Greater than or equal to 80%	Target Achieved
Percentage of injured workers returned to work (ii) within 26 weeks	100%	100%	100%	Greater than or equal to 80%	Target Achieved
Percentage of managers trained in work, health and safety and injury management responsibilities, including refresher training within 3 years	84%	81%	87.5%	Greater than or equal to 80%	Target Achieved

* The performance reporting examines a three-year trend and, as such, the comparison base year is to be two years prior to the current reporting year.

** Comment on agency performance over the three-year period.

CREDIT CARD – UNAUTHORISED USE

In accordance with the requirements of Treasurer’s Instruction 321 staff who hold credit cards are reminded of their obligations and requested to acknowledge the policy and conditions of credit card use. However, two employees inadvertently used the corporate credit card on personal expenditure, they reported the incidents immediately and promptly settled the amounts. It was noted that the nature of the expenditure was immaterial and characteristic of an honest mistake.

Number of instances Western Australian Government Purchasing Cards have been used for personal purposes -	2
Aggregate amount of personal use expenditure for the reporting period	\$174
Aggregate amount of personal use expenditure settled by the due date (within 5 working days)	\$174
Aggregate amount of personal use expenditure settled after the period (after 5 working days)	-
Aggregate amount of personal use expenditure remaining unpaid at the end of the reporting period	-
Number of referrals for disciplinary action instigated by the notifiable authority during the reporting period	-

EXPENDITURE ON ADVERTISING, MARKET RESEARCH, POLLING AND DIRECT MAIL

In accordance with section 175ZE of the *Electoral Act 1907*, ChemCentre is required to report its expenditure in relation to advertising, market research, polling, direct mail and media advertising.

Expenditure during 2022-23 included advertising for job vacancies and conducting surveys as summarised in the table below:

Type	Organisation	2022/23 Expenditure Inc of GST
Advertising agencies	LinkedIn	\$3,300
	Initiative Media Australia Pty Ltd	\$2,395
	Thomson Reuters	\$575
Polling	N/A	-
Direct mail Organisations	N/A	-
Market research organisations	Survey Monkey	\$725
Media advertising organisations	N/A	-
Polling Organisations	N/A	-

*Note: Amounts are shown in whole dollars



APPENDICES

2022-23 Publications and Presentations

CONFERENCE AND WORKSHOP PRESENTATIONS

Davies, M., Burnier, C., Kelly, M., **DeTata, D.** and **Pitts, K.** 2022. "Condom evidence trends in Western Australia". 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

Donovan, R., Shepherd, K. and **Crisp, H.** 2022. "A Systematic Study of the Presence of Dimethyltryptamine and Related Psychoactive Substances in Western Australian Acacia". 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

D'Uva, J., Fillingham, R., Lewis, S. W., **DeTata, D.** and **Dunsmore, R.** 2022. Characterisation and identification of homemade explosives and their precursors. 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

Fillingham, R. 2022. "Explosives at ChemCentre - an overview of case studies and explosives research in Western Australia". Forensic International Network for Explosives Investigation (FINEX) 14th Annual Meeting. The Hague, The Netherlands.

Keane, R., Tidy, R., Gummer, J. and **Priddis, C.** 2022. "Forensic Proteomics". ANZPAA NIFS Workshop. Held online, ChemCentre, Bentley, Western Australia.

Linge, K. L., Black, S. and Allen, D. A. 2022. "Mine pit voids turning into pit lakes: investigating the effect of water quality on the leaching potential of representative pit rock lithologies". Proceedings of the 12th International Conference on Acid Rock Drainage. Online Conference: The University of Queensland, Brisbane, Australia.

Bornt, K., How, J., de Lestang, S., **Linge, K.,** Hovey, R. and Langlois, T. 2022. "Plastic gear loss estimates from a major Australian pot fishery". AMSA 2022. Cairns, Queensland, Australia.

May, C., Tai, Z. X., Blake, B., Krebs, G., Stevens, S. and Dods, K. 2023. "Determination of cannabinoids and metabolites in feed and biological matrices". ASTM Workshop on the Analytical Methods for Hemp Products as Animal Feed: How to overcome gaps in matrices, detectors and quantifiable limits for regulators and laboratories. Held online.

McCabe, S. 2022. "Confirmatory analysis of snake venoms utilising HR-LCMS through bottom-up proteomics – application to coronial toxicology". 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

Morey, B. 2022. "Magic mushrooms in Western Australia: A look into psilocin trends and detections over a ten-year period". 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

Morey, B. 2022. "The Growth of Magic Mushrooms in Western Australia". Clandestine Laboratory Conference 2023. Sydney, New South Wales, Australia.

Pitts, K., Davies, M., Burnier, C., Kelly, M., Farrington, K., Smith, D., Dimanlig, E. and **DeTata, D.** 2023. "Condom evidence in sexual assaults". PathUpdate2023, Melbourne, Victoria, Australia.

Sakrajda, P. 2023. "NPS - A Laboratory Challenge". TAPNA Scientific Meeting 2023. Perth, Western Australia, Australia.

CONFERENCE POSTERS

Dimanlig, E., **Davies, M.**, Rye, M., **DeTata, D.** and **Pitts, K.** 2022. "Lubricant analysis following DNA extraction for silicone and water based condom lubricants". 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

D'Uva, J. A., Fillingham, R., Lewis, S. W., **DeTata, D.** and **Dunsmore, R.** 2022. "Source attribution of homemade nitrate-based explosives; Part I: Party Sparklers". Forensic International Network for Explosives Investigation (FINEX) 14th Annual Meeting. The Hague, The Netherlands.

D'Uva, J. A., Fillingham, R., Lewis, S. W., **DeTata, D.** and **Dunsmore, R.** 2022. "Source attribution of homemade nitrate-based explosives; Part II: Ammonium Nitrate (AN)". Forensic International Network for Explosives Investigation (FINEX) 14th Annual Meeting. The Hague, The Netherlands.

D'Uva, J. A., Fillingham, R., Lewis, S. W., **DeTata, D.** and **Dunsmore, R.** 2022. "Source attribution of homemade nitrate-based explosives; Part III: Urea Nitrate (UN)". Forensic International Network for Explosives Investigation (FINEX) 14th Annual Meeting. The Hague, The Netherlands.

Mead, M. K., Claus, M., Litton, E., Smart, L., Rasis, A., Rossi, G. and **Gummer, J. P. A.** 2023. "Quantitation of the Iron Regulatory Hormone Hepcidin in Mammals". 28th Annual Lorne Proteomics Symposium, Lorne, Victoria, Australia.

McCabe, S., Harrison, S., Brown, D. and Kueppers, V. 2022. "Acute Beta-U10 Fatality - A Case Report with Postmortem Concentrations". 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

Trigg, S., Wells, J., McGann, J., Bock, S., Holman, A., Harrison, S., Goh, C. Y., Moggach, S. and Brown, D. 2022. "New Designer Benzodiazepine Found In Illicit Seizure In WA. Alprazolam analogue, 4'-chloro-deschloroalprazolam, potential for misidentification". 25th International Symposium ANZFSS. Brisbane, Queensland, Australia.

LECTURES

Dunsmore, R. P. 2022. "Characteristics & Sensitivities of Homemade Explosives". Western Australia Police Force Homemade Explosives Skills Enhancement Course, 26 October 2022. Bentley, Western Australia.

Dunsmore, R. P. 2022. "Chlorates". Western Australia Police Force Homemade Explosives Skills Enhancement Course, 26 October 2022. Bentley, Western Australia.

Dunsmore, R. P. 2022. "Explosive Laboratory Recognition". Western Australia Police Force Homemade Explosives Skills Enhancement Course, 26 October 2022. Bentley, Western Australia.

Dunsmore, R. P. 2022. "Forensic Chemistry". Lecture to Murdoch University Undergraduate Students, 22 August 2022. Murdoch University, Murdoch, Western Australia.

Dunsmore, R. P. 2022. "Homemade Explosives". Western Australia Police Force Homemade Explosives Skills Enhancement Course, 26 October 2022. Bentley, Western Australia.

Dunsmore, R. P. 2022. "Introduction to Homemade Explosives". Western Australia Police Force - Introduction to Explosion Investigation Course, 19 July 2022. Midland, Western Australia.

Dunsmore, R. P. 2022. "Nitrates". Western Australia Police Force Homemade Explosives Skills Enhancement Course, 26 October 2022. Bentley, Western Australia.

Dunsmore, R. P. 2022. "Peroxides". Western Australia Police Force Homemade Explosives Skills Enhancement Course, 26 October 2022. Bentley, Western Australia.

Keane, R. 2023. "Characterisation of genetically variant proteins using high-resolution mass spectrometry for taxonomic assignment of biological evidence in the forensic setting". Confirmation of Candidature presentation to ECU School of Science, 31 March 2023. Edith Cowan University, Joondalup, Western Australia.

Oosthuizen, F. 2022. "EMERGING DRUGS - A Laboratory Perspective". Annual Scientific Meeting of the WA Faculty of the Australasian College for Emergency Medicine, 22 October 2022. The Westin, Perth, Western Australia.

Palmer, J. 2022. "MultiRAE (alarm levels STEL & TWA)". DFES Special Equipment Tender (SET) training course, 23 August 2022. Whitfords Marine Rescue facility, Western Australia.

Palmer, J. 2022. "Integrated Approach - TIC / Altair / camera". DFES Special Equipment Tender (SET) training course, 23 August 2022. Whitfords Marine Rescue facility, Western Australia.

Tidy, R. 2023. "Development of a Routine Forensic Process for Individual Identification using Genetically Variant Peptides in Human Hair Evidence". Confirmation of Candidature presentation to ECU School of Science, 17 March 2023. Edith Cowan University, Joondalup, Western Australia.

Walker, M. H. 2022. "Electrochemical Sensors". DFES Special Equipment Tender (SET) training course, 23 August 2022. Whitfords Marine Rescue facility, Western Australia.

Walker, M. H. 2022. "Photo Ionisation Detection". DFES Special Equipment Tender (SET) training course, 23 August 2022. Whitfords Marine Rescue facility, Western Australia.

RESEARCH PAPERS AND REPORTS

Koli, P., **Agarwal, M.**, Kessell, D., Mahawar, S., Du, X., Ren, Y. and McKirdy, S.J. 2023. "Metabolite Variation between Nematode and Bacterial Seed Galls in Comparison to Healthy Seeds of Ryegrass Using Direct Immersion Solid-Phase Microextraction (DI-SPME) Coupled with GC-MS". *Molecules* 2023, 28(2), 828. <https://doi.org/10.3390/molecules28020828>.

Alnajim, I., Aldosary, N., **Agarwal, M.**, Liu, T., Du, X. and Ren, Y. 2022. "Role of Lipids in Phosphine Resistant Stored-Grain Insect Pests *Tribolium castaneum* and *Rhyzopertha dominica*". *Insects* 2022, 13, 798. <https://doi.org/10.3390/insects13090798>.

Koli, P., Singh, S., Bhadoria B. K., **Agarwal, M.**, Lata, S. and Ren, Y. 2022. "Sequential Extraction of Proanthocyanidin Fractions from *Ficus* Species and Their Effects on Rumen Enzyme Activities In Vitro". *Molecules* 2022, 27, 5153. <https://doi.org/10.3390/molecules27165153>.

Singh, S., Koli, P., Bhadoria, B.K., **Agarwal, M.**, Lata, S., Ren, Y. and Du, X. 2022. "Proanthocyanidins Modulate Rumen Enzyme Activities and Protein Utilization In Vitro". *Molecules* 2022, 27, 5870. <https://doi.org/10.3390/molecules27185870>.

He, Y., Wang, R., Zhao, H., Ren, Y., **Agarwal, M.**, Zhang, D., Gao, S., McKirdy, S. J. and Dong, C. 2022. "Predicting potential global distribution and risk regions for potato cyst nematodes (*Globodera rostochiensis* and *Globodera pallida*)". *Scientific Reports* 12, 21843 (2022). <https://doi.org/10.1038/s41598-022-26443-0>.

Sun, L., Dong, X., Wang, Y., Maker, G., **Agarwal, M.** and Ding, Z. 2022. "Tea-Soybean Intercropping Improves Tea Quality and Nutrition Uptake by Inducing Changes of Rhizosphere Bacterial Communities". *Microorganisms* 2022, 10, 2149. <https://doi.org/10.3390/microorganisms10112149>

An X, Feng Y, Hao Y, Zhong R, Jiang Y, Tang X, Lu D, Fang H, **Agarwal M.**, Chen L, Zhao Y, Zhang H. 2022. "Gut-Testis Axis: Microbiota Prime Metabolome To Increase Sperm Quality in Young Type 2 Diabetes". *Microbiol Spectr.* 2022 Oct 26;10(5):e0142322. <https://pubmed.ncbi.nlm.nih.gov/36214691/>

Cailes, J., Dunsmore, R. and Linge, K. L. 2023. "Assessment of portable FTIR and Raman spectroscopy for the detection of 2,3-dimethyl-2,3-dinitrobutane (DMDNB) in plastic explosives". *Defence Technology.* <https://doi.org/10.1016/j.dt.2023.06.008>.

Cailes, J., Dunsmore, R. and Linge, K. 2022. "Chemical Markers in Plastic Explosives. Determining Limits of Detection for 2,3-dimethyl-2,3-dinitrobutane". Report for Defence Science and Technology Group. ChemCentre, Western Australia.

Claus, M. A., Smart, L., Rasis, A. L., Sharp, C. R., Abraham, S., **Gummer, J. P. A.**, Mead, M. K., Bradley, D. L., Van Swelm, R., Wiegerinck, E. T. G. and Litton, E. 2023. "Effect of deferoxamine on post-transfusion iron, inflammation, and In Vitro microbial growth in a canine hemorrhagic shock model: A randomised controlled blinded pilot study". *Veterinary Sciences* 2023;10 121. <https://doi.org/10.3390/vetsci10020121>.

Linge, K., Martin, A., Allen, D. and Black, S. 2022. Confidential Industry Report Investigating Total Suspended Particulate (TSP) Source Apportionment. 20S0002, ChemCentre, Western Australia.

Rao, N. R. H., **Linge, K. L.**, Li, X., Joll, C. A., Khan, S. J. and Henderson, R. K. 2023. "Relating algal-derived extracellular and intracellular dissolved organic nitrogen with nitrogenous disinfection by-product formation". *Water Research*, Vol. 233, 119695. <https://doi.org/10.1016/j.watres.2023.119695>.

Restrepo-Vieira, L. H., Buseti, F., **Linge, K. L.** and Joll, C. A. 2022. "Development and validation of a direct injection liquid chromatography-tandem mass spectrometry method for the analysis of illicit drugs and psychopharmaceuticals in wastewater". *Journal of Chromatography A*, 1685, 463562. <https://doi.org/10.1016/j.chroma.2022.463562>.

Bornt, K., How, J., de Lestang, S., **Linge, K.**, Hovey, R. and Langlois, T. 2023. "Plastic gear loss estimates from a major Australian pot fishery". *ICES Journal of Marine Science*, 80, pp.158-172. <https://doi.org/10.1093/icesjms/fsac222>.

Willans, M., Szczecinski, E., Roocke, C., Williams, S., Timalisina, S., Vongsvivut, J., McIlwain, J., Naderi, G., **Linge, K. L.** and Hackett, M. J. 2023. "Development of a rapid detection protocol for microplastics using reflectance-FTIR spectroscopic imaging and multivariate classification". *Environmental Science: Advances*, Issue 4, 2023. <https://doi.org/10.1039/D2VA00313A>.

Stevens, S. A., Krebs, G. L., Scrivener, C. J., Noble, G. K., Blake, B. L., Dods, K. C., **May, C. D., Tai, Z. X.**, Clayton, E. H., Lynch, E. E. and Johnson, K. N. 2022. "Nutrient digestibility, rumen parameters and (cannabinoid) residues in sheep fed a pelleted diet containing green hemp (*Cannabis sativa* L.) biomass". *Translational Animal Science*, Volume 6, Issue 4, October 2022, txac141. <https://doi.org/10.1093/tas/txac141>.

Newland, T.G., **Pitts, K.** and Lewis, S. W. 2023. "Multimodal spectroscopy with chemometrics: Application to simulated forensic soil casework", *Forensic Chemistry*, Vol. 33, 2023, 100481, ISSN 2468-1709, <https://doi.org/10.1016/j.forc.2023.100481>.

Houston, T. F., Dods, K., Milne, L. A., **Stephens, R.** and Scaccabarozzi, D. 2023. "New insights into the unusual nesting biology of the bee *Trichocolletes orientalis* (Hymenoptera: Colletidae, Neopasiphaeinae), particularly its larval 'oil bath'". *Apidologie* 54, 11 (2023). <https://doi.org/10.1007/s13592-022-00981-y>.

BOOK CHAPTERS AND TECHNICAL REPORTS

Crisp, H., Soukos, K. and Swinny, E. 2023. "Chemical Terrorism". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 1 pp. 510-520. Oxford: Elsevier.

DeTata D. A., Fillingham R. M. and Dunsmore, R. P. 2023. "Commercial and Military Explosives". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 1, pp. 605-621. Oxford: Elsevier.

DeTata D. A., Fillingham R. M. and D'Uva J. 2023. "Explosives: Overview". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 2, pp. 356-390. Oxford: Elsevier.

Donovan, A. R., Collins-Brown, L. and Crisp, H. 2023. "Analysis of illicit drugs" Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 1 pp. 133-142. Oxford: Elsevier.

D'Uva, J. and DeTata, D. A. 2023. "Improvised Explosive Devices". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 3, pp. 224-231. Oxford: Elsevier.

Fillingham R. M., Dunsmore, R. P. and DeTata D. A. 2023. "Mechanisms of Explosions". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 3, pp. 521-533. Oxford: Elsevier.

Hewitt, A. 2023. "Controls in Forensic Examinations and Analysis" Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 1 pp. 656-663. Oxford: Elsevier.

Pitts, K. and Aspandiar, M. 2023. "Forensic Geology" Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 2, pp. 586-593. Oxford: Elsevier.

Pitts, K. and Bonnar, C. 2023. "Gunshot Residue". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 3, pp. 63-74. Oxford: Elsevier.

Pitts, K. and Evans, B. 2023. "Adhesive Tapes" Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 1, pp. 38-44. Oxford: Elsevier.

Pitts, K. and May, C. 2023. "Glass: Trace Elemental Analysis". Encyclopedia

of Forensic Sciences, 3rd Edition, Vol. 3, pp. 53-62. Oxford: Elsevier.

Powell, R. A. 2023. "Forensic Examination of Fibres: Other Techniques". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 2, pp. 534-541. Oxford: Elsevier.

Powell, R. A. 2023. "Recovery of Fibres". Encyclopedia of Forensic Sciences, 3rd Edition, Vol. 4, pp. 344-351. Oxford: Elsevier.

Sharma, R. 2023. "Subsoil Acidity and Aluminium Toxicity". Soil Constraints and Productivity, 1st Edition, pp. 365-380. CRC Press.

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