# **Archer Materials Limited** Appendix 4E



# Preliminary Final Report for the year ended 30 June 2023

#### 1. **Company Details**

Name of entity:	Archer Materials Limited
ABN:	64 123 993 233
Reporting period:	For the year ended 30 June 2023
Previous period:	For the year ended 30 June 2022

#### 2. Results for announcement to the market

	30 June 2023 \$	30 June 2022 \$	Variance \$	Variance %
Revenue from ordinary activities	-	-	-	-
Profit/(loss) from ordinary activities after tax attributable to members	(9,049,457)	(14,115,728)	5,066,271	(36%)
Net profit/(loss) for the period attributable to members	(9,049,457)	(14,115,728)	5,066,271	(36%)

# Dividends

No dividends have been paid or proposed during the current reporting period.

## Key notes

The net loss of the Group for the year ended 30 June 2023 was \$9,049,457 (2022: \$14,115,728) and includes:

- Share based payments expense of \$5,554,843 representing the fair value of unlisted share options granted during the year ended 30 June 2023 (2022: \$9,945,024) net of forfeitures.
- Direct expenditure on quantum and biochip technology research activities (including allocation of direct personnel costs) of \$2,965,560 (2022: \$2,259,068).
- Unreaslised loss associated with the fair value adjustment of Archer's share and option investments in:
  - o Volatus Capital Corp (shares) as at 30 June 2023 of \$128,088 (2022: \$695,939); and
  - o ChemX Materials Limited (shares and options) as at 30 June 2023 of \$720,303 (2022: \$752,123)

The above expense items are offset by:

- Interest income of \$677,248 (2022: \$86,248); and
- An income amount of \$1,450,000, being the estimated research and development tax incentive receivable based on associated expenditure for the year ended 30 June 2023.



# Preliminary Final Report for the year ended 30 June 2023

#### 3. Net tangible assets

	30 June 2023 (cents)	30 June 2022 (cents)	Variance (cents)	Variance
Net tangible assets per share	10.06 cents	11.73 cents	(1.67) cents	14%

The net tangible assets calculation does not include rights-of-use assets of \$9,097 (30 June 2022: \$19,750) or intangible assets of \$353,694 (30 June 2022: \$248,340) but includes the lease liabilities of \$9,097 (30 June 2022: \$19,749).

# **Control gained over entities**

Not applicable.

## Loss of control over entities

Not applicable.

### **Dividends**

No dividends have been paid or proposed during the current or prior reporting period.

# **Dividend reinvestment plans**

Not applicable.

# Details of associates and joint venture entities

Not applicable.

# Foreign entities

Details of origin of accounting standards used in compiling the report:

Not applicable.

#### 10. Audit qualification or review

Details of audit/review dispute or qualification (if any):

The Financial Statements and accompanying notes for the Group for the year ended 30 June 2023, contained in the attached Annual Report, upon which this Appendix 4E is based, have been audited by Grant Thornton Audit Pty Ltd. An unmodified audit report has been provided.

For personal use only

# Signed Greg English Executive Chairman Adelaide

# **Archer Materials Limited** Appendix 4E



# Preliminary Final Report for the year ended 30 June 2023

#### 11. **Attachments**

Details of attachments (if any):

The Annual Report, which includes Financial Statements and accompanying notes for the Group for the year ended 30 June 2023 is attached.

#### 12. **Signed**

As authorised by the Board of Directors

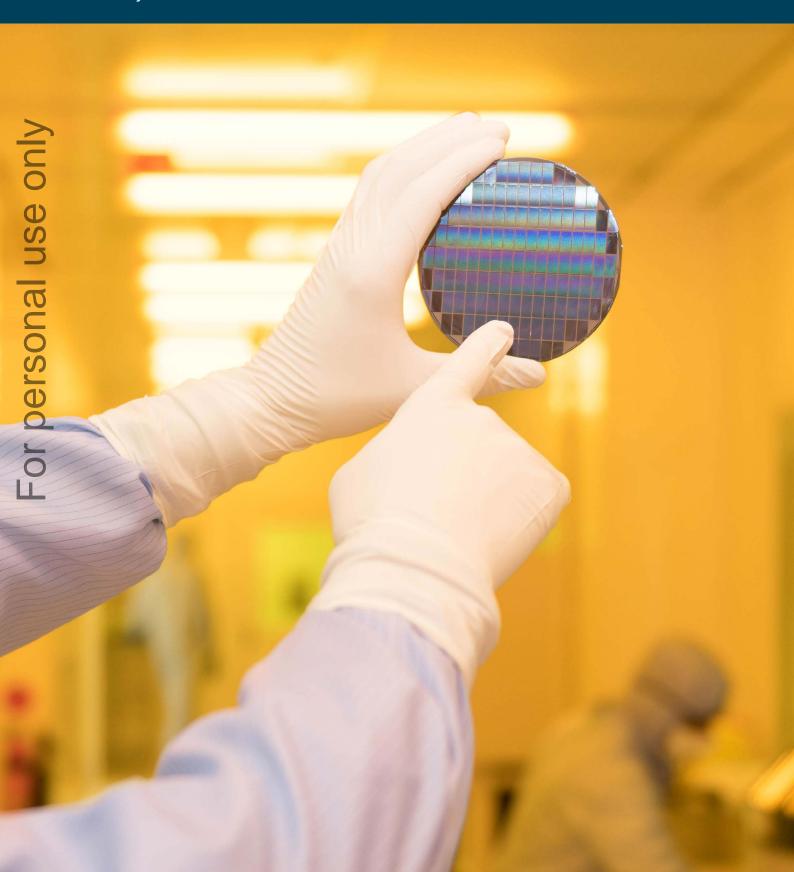
Signed	Date	24 August 2023	
		_	

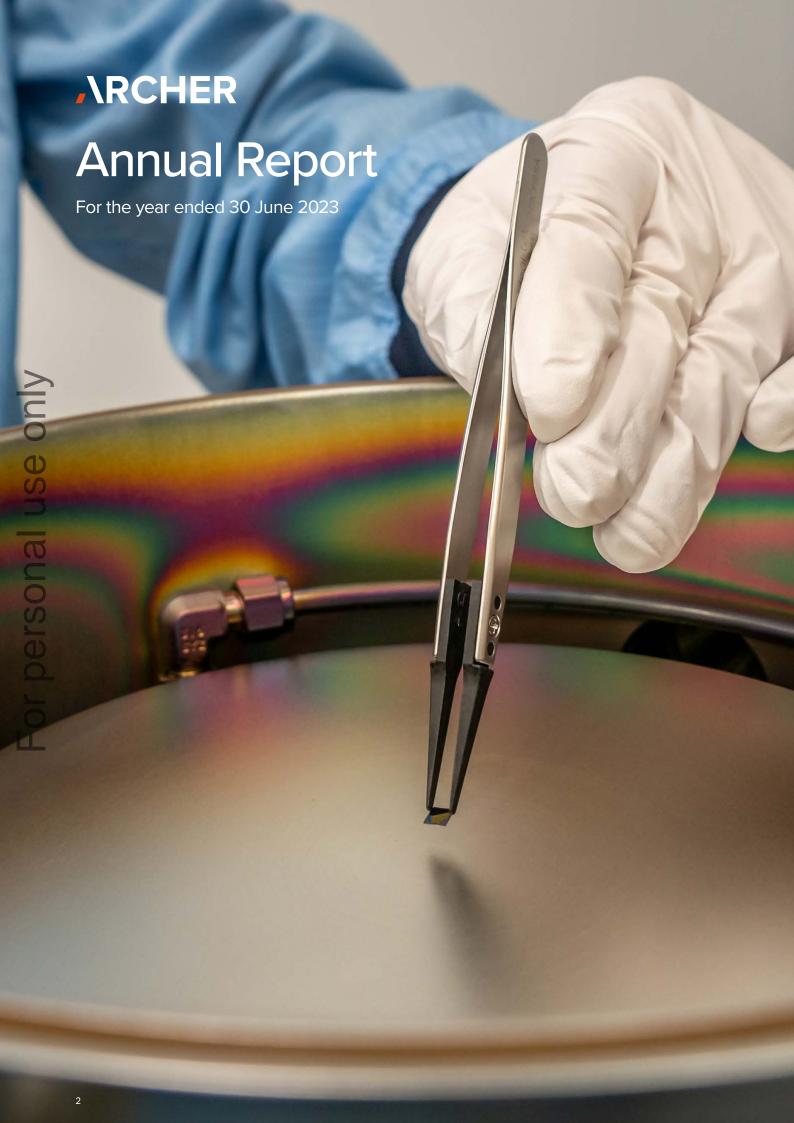
# **\**RCHER



# **Annual Report**

For the year ended 30 June 2023





# Table of Contents





**Chairmans Letter** Operating and Financial Review > Strategy > Summary of Financial Performance 8 > Changes in Equity > Factors and Risks Affecting Future Performance 9 > Advanced Semiconductors **Quantum Technology** 20 **Bioelectronics** Directors' Report 30 Remuneration Report (audited) 40 Auditor's Independence Declaration **Financial Information** > Statement of Profit or Loss and Other Comprehensive Income 42 > Statement of Financial Position 43 44 > Statement of Changes in Equity > Statement of Cash Flows 45 > Notes to the Financial Statements 46 Directors' Declaration Independent Auditor's Report **Additional Information** 

Archer Materials Limited (ABN 64 123 993 233)

The laboratory plant and equipment shown in the photos and images in this report are not assets of the Company.

Corporate directory

# Chairman's Letter

Greg English
Executive Chairman



Over the past year, we continued our efforts in driving innovation in the quantum computer sector by optimising and validating the performance of the <sup>12</sup>CQ qubit material and its incorporation with CMOS technology.

As a result of this work, we have achieved electron spin coherence times that push the boundaries of room temperature qubit materials.

In addition to the gains made in optimising the <sup>12</sup>CQ qubit material and related devices, our ongoing commitment to research and development meant that the Archer team was able to gain electronic control of the sensitivity of graphene transistors to be incorporated into our "lab-on-a-chip" biochip. This important development enables us to target specific biomolecules with greater precision, opening new possibilities in the field of biosensing.

With our <sup>12</sup>CQ and biochip projects, we are developing technologies that could spur transformational solutions to complex global challenges. Over the course of FY23, we made several significant steps towards achieving our mission to put the power of quantum computing in the palm of users' hands, and improve the ability of medical diagnostics to better detect multiple diseases in a much more timely manner.

Over the past few years, Archer has been building the foundations to advance its semiconductor development for potential commercialisation in global markets. We have formed a world-class team of innovators and technologists, working with tier-one international tech institutes and companies, and we have established a portfolio of patents to protect our intellectual property (IP).

Whilst wide-scale adoption of quantum computing may be some years off, we can rest assured that it is coming. Major global companies are investing billions of dollars to introduce quantum computing into daily life.

Quantum computing's potential to revolutionise various industries has become increasingly evident. From finance and healthcare to logistics and scientific research, the power of quantum computing to solve complex problems and optimise processes is unparalleled.

Quantum algorithms and applications are evolving rapidly, promising practical and impactful solutions for real-world challenges.

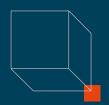
Unlocking the power of quantum computing through quantum bits, or qubits, will change society's relationship with technology and exponentially increase the power of the next generation of computing, providing the ability to solve much more complex problems that current computers can't do.

We still have some work to do to show that the 12CQ qubit material can be used to make a commercially viable quantum computer chip. However, if successful, then the <sup>12</sup>CQ chip has the potential to provide quantum computing power to users in everyday environments through their mobile electronic devices such as laptops, tablets, smartphones and wearable tech.

By achieving this, Archer's <sup>12</sup>CQ technology would enhance how humans interact with the world and reshape multiple industries.

Others in the industry are working with quantum computers and working towards quantum semiconductors. Rather than competing directly with quantum computers that are under production from some of the world's most well-known computing companies, Archer's planned <sup>12</sup>CQ chip would be the only quantum chip made from carbon nanospheres operating at room temperature and pressure.

Others use different materials such as silicon, quantum dots, and diamonds, that operate at temperatures around minus 200 degrees centigrade or are difficult to integrate into modern electronics (or both).



If a quantum chip can function properly in normal environments and integrate with foundry manufactured electronics, then it could have the potential for widespread use in everyday modern devices – that is the goal of Archer.

The COVID-19 pandemic showed the clear need to contain the spread of disease more effectively. This can be done through more timely and better detection and analysis of samples with improved medical diagnostics technologies. Archer's biochip development integrates graphene with miniaturised lab-on-a-chip platforms, which aims to detect and analyse disease samples to improve patient outcomes through better diagnosis.

While Archer's quantum and medical diagnostics solutions are still in development phases, both made significant steps towards potential commercialisation over the past 12 months. Archer optimised the <sup>12</sup>CQ qubit material's coherence times and functionality at room temperature at nano sizes. In parallel, advanced designs of the biochip's graphene field effect transistor (gFET) were developed and sent to commercial foundries for validation ahead of test runs for manufacture scalability before the end of the 2023 calendar year.

We are developing two products: a qubit processor chip (¹²CQ) for use in mobile devices; and a biochip that essentially creates a 'lab-on-a-chip' for advanced medical diagnostics. The technological advancements Archer made over the past year for both chips further de-risks the technology and forms part of Archer's IP.

Archer's business model is to focus on developing IP for the designs of the <sup>12</sup>CQ chip and biochip, and to use foundry partners in Europe, Asia, and the US, to run testing, scalability, and manufacture of our chips. Archer also has R&D partnerships with institutions such as the University of Sydney and University of New South Wales in Australia, and EPFL in Switzerland, to help test and develop our chip designs.

We are plugged into a wider ecosystem of the semiconductor industry through not just our foundry and R&D partnerships, but our World Economic Forum Centre for the Fourth Industrial Revolution (C4IR) partnership, where Archer works with other organisations looking to utilise its technology, public and private sector collaborators, strategic partnerships for product development, and paths to capital streams.

Archer is operating at the cutting-edge of the semiconductor industry, which is an industry that continues to play an ever-increasing role in our everyday lives. Huge amounts of capital are being invested across the globe, which is further aided by the current geopolitical landscape.

The IP portfolio that Archer has built, and continued progress towards potential commercialisation, is creating value in Archer. We continue to de-risk the technology and we enter FY24 with a very strong cash balance to fund continued technological and commercial developments.

As we move into the next financial year, our focus remains on opportunities to commercialise our technologies and expand our partnerships with commercial foundries and manufacturers. We are excited about the prospect of scaling up our <sup>12</sup>CQ and biochip technologies, making them more accessible for widespread integration into a broad array of applications.

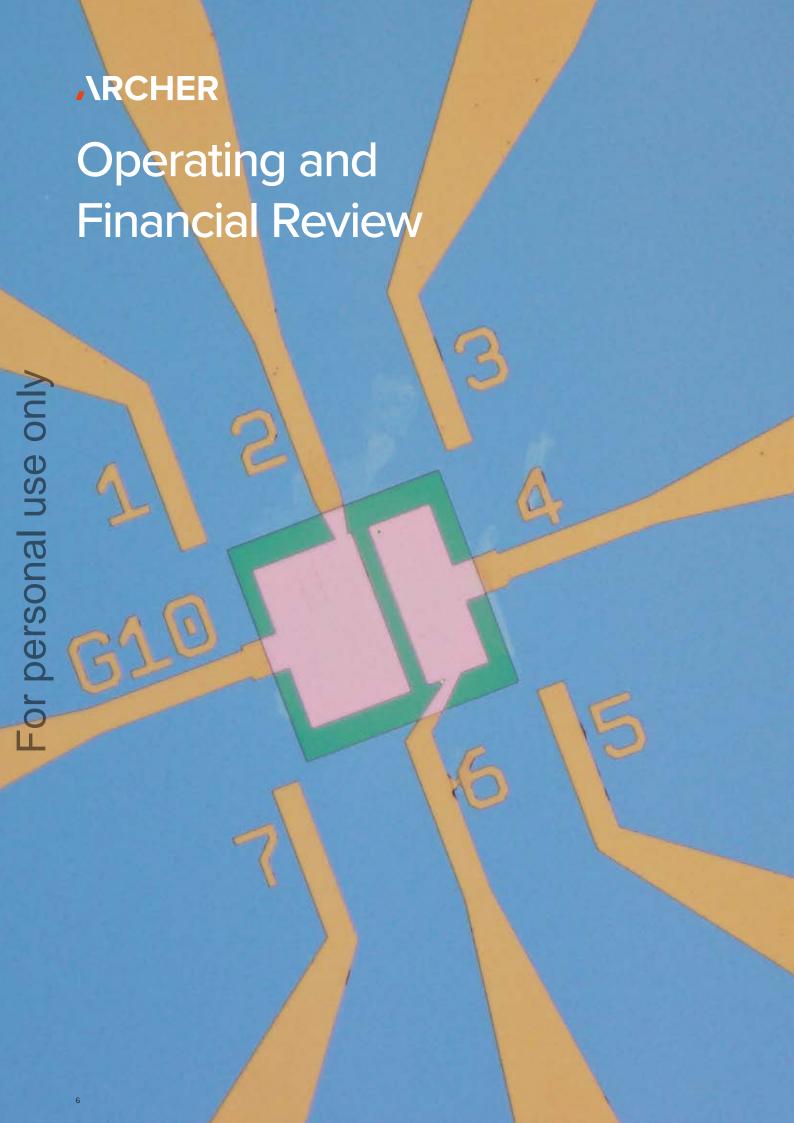
Additionally, our research and development efforts will continue to explore approaches to further enhance the capabilities of our quantum computing technology. We firmly believe that our expertise and dedication will contribute to the advancement and growth of quantum computing worldwide. We are determined to play a pivotal role in shaping the future of quantum computing. Our commitment to excellence and innovation will continue as we aim to push the boundaries of quantum technologies.

I want to thank the exceptional Archer team for getting the company where it is today. Our accelerating pathway to the potential commercialisation of technologies that will really make a difference in the world is due to their tireless commitment and expertise. I also want to thank our shareholders for your commitment to our mission of building devices that will shape future economies.

Yours sincerely,

**Greg English**Executive Chairman

Adelaide 24 August 2023



# **Strategy**





Archer is a technology company that operates within the semiconductor industry.

## In 2022/2023 the Company:

- Commenced working with world-leading and tier-one semiconductor manufacturers towards industry fabrication of Archer's technology.
- Progressed international patent applications and patent grants in relation to the <sup>12</sup>CQ chip and biochip technologies.
- Partnered with the World Economic Forum's Centre for the Fourth Industrial Revolution as Australia's first industry representative alongside other advanced technology centres.
- Detected quantum information in the <sup>12</sup>CQ qubit material on-chip and at room temperature for the first time using CMOS technology.
- Advanced the room temperature capabilities and functionality of the <sup>12</sup>CQ qubit material while achieving unprecedented quantum coherence times.
- ► Validated the key tech-enabling quantum phenomena observed in the <sup>12</sup>CQ qubit material using some of the most powerful supercomputers in the world.
- Developed an early-stage prototype of an integrated biochip system platform for biosensing with automated liquid sample handling and readout.
- Gained commercial access to world class semiconductor fabrication infrastructure and facilities, and technical experts in Australia and internationally to develop Archer's technology.

# In 2023/24, Archer's growth involves:

- Progressing its world-first technology development, including its <sup>12</sup>CQ quantum computing chip and graphene-based lab-on-a-chip biochip.
- Establishing and strengthening strategic commercial partnerships, including securing future semiconductor manufacturing capabilities advancing the Company's technology.
- Utilising world-class technology development infrastructure and facilities, R&D, people, and IP, to support pre-market development.
- Protecting intellectual property (e.g., patents and international patent applications) with global competitive advantages underpinning the Company's technology.
- Hiring new staff to expedite developing and potentially commercialising the Company's technology.

Factors and Risks affecting future performance are included on page 11.

# Summary of Financial Performance

# Changes in Equity

# The net loss of the Group for the year ended 30 June 2023 was \$9,049,457 (2022: \$14,115,728) and includes:

- Share based payments expense of \$5,554,843 representing the fair value of unlisted share options granted during the year ended 30 June 2023 (2022: \$9,945,024) net of forfeitures.
- Direct expenditure on quantum and biochip technology research activities (including allocation of direct personnel costs) of \$2,965,560 (2022: \$2,259,068).
- Unreaslised loss associated with the fair value adjustment Archer's share and option investments in:
  - Volatus Capital Corp (shares) as at 30 June 2023 of \$128,088 (2022: \$695,939); and
  - ChemX Materials Limited (shares and options) as at 30 June 2023 of \$720,303 (2022: \$752,123)

#### The above expense items are offset by:

- An income amount of \$1,450,000, being the estimated research and development tax incentive receivable based on associated expenditure for the year ended 30 June 2023; and
- ► Interest income of \$677,248 (2022: \$86,248).

During the year ended 30 June 2023 the Group's net cash position (defined as cash and short term deposits) decreased by \$3,146,225 from \$26,463,687 (1 July 2022) to \$23,317,462 (30 June 2023) and the Group has no corporate debt.

# This net decrease in cash and short term deposits was predominantly influenced by the following cash outflows:

- direct expenditure on quantum and biochip technology research activities (\$2,965,560); and
- intellectual property assets and plant and equipment (\$185,100); and
- corporate, administration and wages (net of allocations to quantum and biochip technology research activities) expenditure (\$1,334,837); and

#### These cash outflows were offset by inflows associated with:

- research and development tax incentive in respect of the claim for the year ended 30 June 2022 (\$1,021,471); and
- interest receipts (\$227,903); and
- exercise of unlisted options (\$75,550); and
- receipt of Commonwealth innovation grant (\$25,000).

#### **Shares**

The number of Archer ordinary shares ("Shares") on issue increased from 248,467,207 (1 July 2022) to 254,847,013 (30 June 2023) during the year as a result of the exercise of unlisted share options (6,379,806 shares issued).

# **Unlisted Options**

The number of unlisted share options on issue decreased from 34,850,000 (1 July 2022) to 24,950,000 (30 June 2023) during the year as a result of the following events:

- ➤ 500,000 share options (exercise price of \$0.1511 and expiry date of 31 March 2023) were exercised into an equivalent number of Shares.
- Cashless exercise of 8,800,000 share options (exercise price of \$0.1511 and expiry date of 31 March 2023) into 5,879,806 Shares.
- ▶ 1,500,000 share options exercisable at \$1.79 each and expiring on 31 May 2025 were issued to employees.
- 2,100,000 share options with an exercise price of \$1.79 and expiring on 31 May 2025, lapsed or were forfeited in accordance with the terms of which they were issued.

## **Performance Rights**

There were no performance rights issued during the year or on issue as at the date of this report.

#### **Dividends**

There were no dividends paid, recommended or declared during the current or previous reporting period, or as at the date of this report.

# Factors and risks affecting future performance





The following describes some of the external factors and business risks that could have a material impact on the Company's ability to deliver its strategy:

# **Access to Funding**

The Company does not receive any income from its operating business, and the Company is reliant on capital raisings, Commonwealth Government research and development tax incentives and the sale of non-core assets to fund its future operations.

Therefore, the Company's ability to continue to develop its technology is contingent upon the Company's ability to source timely access to additional funding as it is required.

#### **Key Agreements**

Development and potential commercialisation of the 12CQ quantum computing qubit processor chip intellectual property and associated patents and patent applications are dependent on the Licence Agreement with the University of Sydney remaining in-place.

Termination of the Licence Agreement would mean that Archer would be unable to access the intellectual property required to commercialise the associated quantum technology.

As at the date of this document, the Company is not aware of any grounds that the University of Sydney may have to terminate the Licence Agreement.

## **Intellectual Property**

Commercially exploiting and legally protecting the intellectual property underlying the Company's technology, including its graphene-based lab-on-a-chip biochip technology development, is dependent on the Company progressing its associated patent applications.

The protection of intellectual property, including patents and patent applications, has the potential for third-party claims against the Company's owned or licensed intellectual property. There is a risk that all reasonable efforts by the Company to protect proprietary rights may not be sufficient or effective, including risks that intellectual property may

not have adequate patent or copyright protection for certain innovations, that the scope of available protections is insufficient, or that an issued patent may be deemed invalid or unenforceable in certain jurisdictions.

As at the date of this document, the Company is not aware of third-party claims against the Company's owned or licensed intellectual property or any patent or patent application lapsing, being refused, or expiring

#### **Access to Facilities**

The development of the Company's technologies requires access to institutional scale infrastructure and facilities which if shutdown would restrict Company access during the periods of closure. The Company currently has access to facilities and collaborators in numerous locations in Australia, Europe, Asia, and North America to help limit the impact of any closures.

# **Key Personnel**

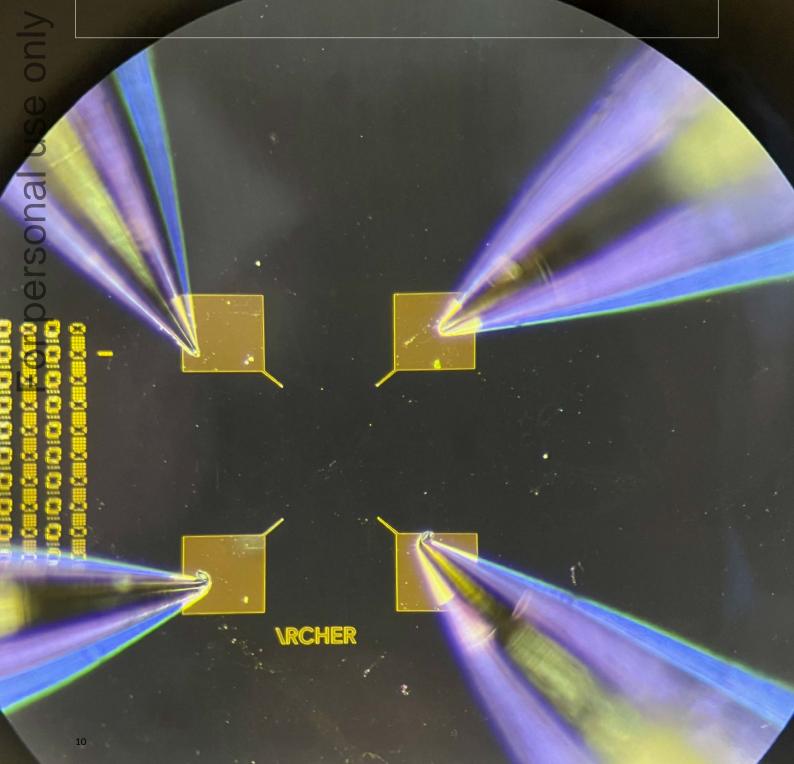
The Company's technology is unique, with very few people available globally with the required knowledge, skills, relationships, and experience to develop the technologies towards future potential commercialisation. The Company's projects may be delayed if key personnel are not available to work on the projects.

# Potential commercial viability of products

The Company's ability to commercialise the intellectual property and sell products to customers may be affected by many factors, including the commercial viability of, and potential delays in, the delivery of products and technology and the ability to find customers for the Company's products. There is no certainty that the Company will be able to make and sell commercially viable products.

# Advanced Semiconductors

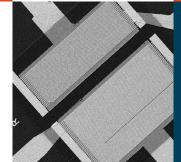
Archer is developing and working towards commercialising advanced semiconductor devices, including chips relevant to quantum computing and medical diagnostics. Archer is progressing the development of its <sup>12</sup>CQ qubit processor chip and graphene-based 'lab-on-a-chip' biochip technology.



# Quantum **Technology**

<sup>12</sup>CQ Chip





Archer's <sup>12</sup>CQ chip is a world-first qubit processor technology the Company is developing.

To scale the fabrication of Archer's 12CQ chip devices and components, the Company must partner with industrial-scale manufacturers in the global semiconductor supply chain.

During the Year, Archer commenced working with GlobalFoundries towards industry fabrication of its <sup>12</sup>CQ chip technology. Archer will access the technology facilities and manufacturing processes of GlobalFoundries to explore pathways for potential high-volume manufacturing of <sup>12</sup>CQ chip devices and components.

Taiwan Semiconductor Manufacturing Company ("TSMC") also accepted Archer as their customer after due diligence and screening. This permits Archer to access TSMC semiconductor fabrication process technologies, which include the most advanced technologies and also more mature process technologies (e.g. 180 nm and 130 nm processes).

This will allow Archer to perform cost-effective multiproject wafer runs, and potential tape out and industrial production of future devices. Contractual relationships with TSMC will be on a case by case basis. TSMC is the largest semiconductor foundry in the world.

Archer become the first Australian company to partner with the World Economic Forum's Centre for the Fourth Industrial Revolution ("C4IR"). Archer joined as an Australian industry representative at C4IR alongside other advanced technology centres.

The C4IR partnership complements Archer's work at a macro level through its other strategic cooperation with GlobalFoundries, TSMC, the Australian Institute for Machine Learning, and EPFL, to secure future semiconductor product manufacturing capability and to support technology development.

During the Year, the Company made significant steps in the development of its 12CQ chip technology, and expanded on its patent protection to now extend across the US, Asia, Europe, and Australia.

Technology development included the nanofabrication of devices that electrically integrate the <sup>12</sup>CQ qubit material. Integrating qubit materials with complex control and readout electronics compatible with existing industrial-scale foundries is a significant challenge in developing quantum processors.

The devices integrating gubit material were fabricated on a silicon wafer using foundry-compatible lithography processes. Archer used the devices to demonstrate that a controlled electric current can be passed through the qubit material at room-temperature.

The on-chip electronic transport characteristics of the qubit material were in agreement with previous state-of-the-art electronic transport measurements performed on isolated gubit material that qualitatively and quantitatively validated the advantageous conductance properties of the qubit material in the context of quantum technology applications.

Archer also performed state-of-the-art 3D Electrostatic Finite Element Modelling with in-house software development relevant to the Company's qubit material. The modelling simulated quantum electronic device ("QED") architectures related to qubit control and readout to obtain a precise estimate for the lower-bound on QED critical feature size.

The complex simulations resulted in a minimum requirement for QED feature sizes that would be specifically compatible with existing standard industrial-foundry processes, including Extreme Ultra Violet Photolithography.

# Quantum Technology

<sup>12</sup>CQ Chip

During the Year, Archer for the first time detected quantum information in its qubit material at room temperature using CMOS technology.

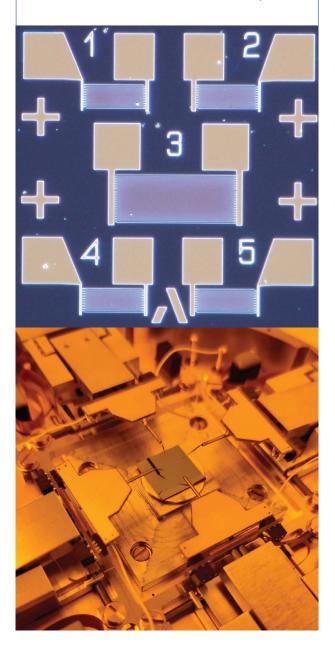
CMOS is the predominant technology used in designing chips in the semiconductor industry and it is broadly used today to form integrated circuits in numerous and varied applications. Processors, memory, and sensors are among many electronic devices that make use of this technology.

The CMOS single-chip detectors were developed by Archer collaborators at École Polytechnique Fédérale de Lausanne, Switzerland ("EPFL"), are potentially industrially scalable, and were manufactured by TSMC. The use of CMOS technology in the semiconductor industry is expected to continue in the long-term therefore, it was important to demonstrate the functional incorporation of the 12CQ chip qubit material with CMOS devices.

The work is a major technological feat, as Archer used a single-chip integrated electron spin resonance detector based on CMOS technology to detect the quantum spin states in the as-prepared 12CQ chip qubit material in a controlled atmosphere at room temperature. The quantum states were found to be sufficiently well preserved when operating in the on-chip environment. The outcome of the work paves the way for implementing complex qubit control required in quantum circuits.

Archer continues to collaborate with researchers at EPFL. The Company and EPFL have been developing second-generation, unique integrated chip designs for the potential complex spin manipulation of Archer's qubit material. The new chip designs significantly advance on CMOS chip designs and functionality. The new chips are being manufactured in a semiconductor foundry in Europe, with ongoing testing, optimisation, and potential operation anticipated throughout 2023/24.

On-chip electronic transport in Archer's qubit components and state-of-the-art instrumentation used in the electronic transport measurements, housed in an Australian semiconductor foundry.

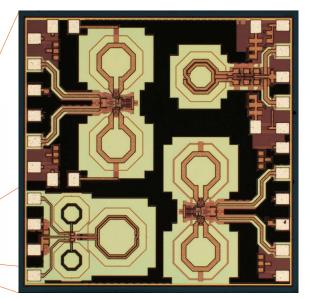




# CMOS single-chip detectors

The integrated single-chip electron spin resonance detector based on CMOS technology.





The CMOS single-chip detector is in a small region of approximately  $0.5 \text{ mm} \times 0.5 \text{ mm}$  on the printed circuit board (main image). The inset (right) shows a microscope image magnifying the spin-sensitive region in the CMOS device where the quantum spin states in Archer's 12CQ qubit material are detected at room temperature by the miniaturised on-chip componentry.

# Swiss supercomputing cluster

Representative of the Swiss supercomputing cluster used by Archer and EPFL. Reproduced from the Swiss National Supercomputing Centre website.



# Quantum Technology

# <sup>12</sup>CQ Chip

During the Year, Archer in a joint effort with collaborators at EPFL, the Swiss National Supercomputing Centre ("CSCS") and the facilities of the Scientific IT and Application Support Center ("SCITAS") of EPFL, used powerful supercomputers to provide the most accurate simulations of Archer's <sup>12</sup>CQ chip qubit material and validate its uniqueness.

The complex atom-structure of the <sup>12</sup>CQ chip qubit material requires the enormous power of supercomputers for predictive modelling and realistic simulations of the qubit material properties. The results of such computation often take the form of material behaviour and can be used to validate (or refute) the material properties of interest for technological applications.

For the computations performed by Archer and EPFL, one of Europe's most powerful supercomputers<sup>1</sup>, the Piz Daint<sup>2</sup>, was utilised. The quantum chemistry simulation work employed a Density-Functional Tight-Binding ("DFTB") methodology, i.e., a combined density functional theory and tight binding model of the 12CQ chip qubit material at the atom-scale.

The results of the work validate Archer's unique qubit material properties, including confirming an intrinsic metallic-like character of the qubit material. This directly translates to supporting the material structure-property paradigm that gives way to the quantum properties described in Archer's internationally patented qubit technology architecture.

The outcomes of the supercomputing simulations will be used to fast-track and support the development of Archer's more advanced QEDs required for <sup>12</sup>CQ chip operation. The detailed scientific results of the work have undergone the peer-review process and during the Year were accepted for publication.

During the Year, Archer developed a multi-scale wafer fabrication process for its QEDs. Wafer-based functional devices are a fundamental requirement to the development of the <sup>12</sup>CQ chip technology, as Archer's innovation aims to realise mobile-compatible quantum processing that can easily be integrated into modern electronic devices.

The Company devised and applied methods that combine both UV optical lithography and electron-beam (E-beam) lithography to facilitate the fabrication of potentially hundreds of advanced QEDs on a single silicon wafer.

This has greatly increased the yield of QEDs that are being developed and optimised to address Archer's technological goals of quantum control and readout in the 12CQ chipbased qubit system.

Archer continued to address the sector scarcity of available and accessible world-class facilities to perform the sophisticated quantum measurements required for 12CQ chip development by securing access to local state-of-the-art cryogenic quantum device measurement laboratories.

Archer also advanced its methods for patterning nanometre-scale qubit material into QEDs. The QEDs integrating qubit material have allowed for ongoing testing and measurements that aim to validate quantum electronic properties that could potentially be exploited towards qubit readout approaches.

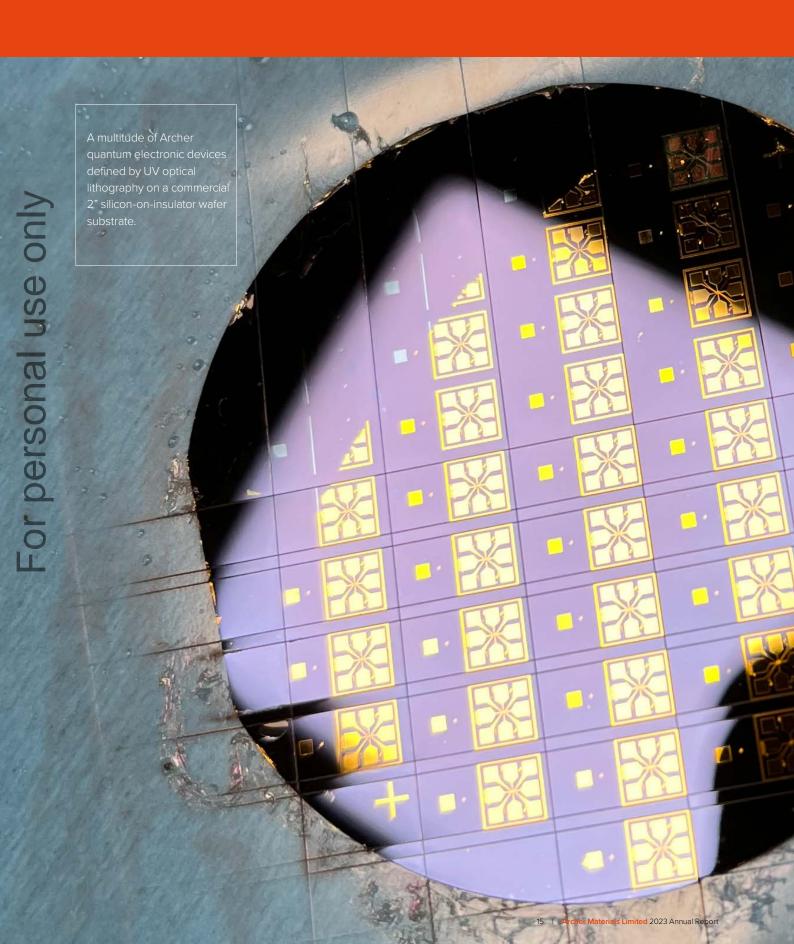
The improved device designs include an increased number of electronic leads and gate electrodes to control the electronic states within the devices.

The Archer team has been establishing its own, customised laboratory facility, with the core of the facility now operational and located in Sydney, Australia. The laboratory includes specialty instruments assembled by Archer for the electronic characterisation of its QEDs.

 $<sup>^{1} \ \, \</sup>text{The Piz Daint recently ranked 28 out of the top 500 of the most powerful supercomputers in the world: www.top500.org/system/177824}$ 

<sup>&</sup>lt;sup>2</sup> www.cscs.ch/computers/piz-daint | www.cscs.ch/computers/overview | www.epfl.ch/about

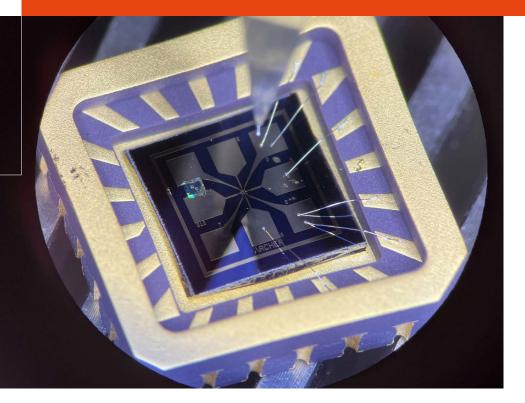




# Quantum Technology

# <sup>12</sup>CQ Chip

An Archer 4 x 4 mm single-chip quantum electronic device after installing and bonding into a commercial chip carrier.



During the Year, the Archer team reached significant milestones in the room temperature functionality of its cutting-edge qubit material.

This included unprecedented electron spin coherence times exceeding 230 ns at room temperature<sup>3</sup> while maintaining the intrinsic metallic-like character of the qubit material. This was achieved by making the qubit material using a different precursor and applying post-synthesis treatments.

Archer believes that no other similar nanomaterial has been shown to achieve such long-lived electron spin coherence at room temperature<sup>4</sup>. The long room temperature quantum coherence times had previously<sup>5</sup> only been achieved for the qubit material at extremely low temperatures of approximately -173°C. In the context of qubit processor development, the increase in quantum coherence time at room temperature is significant.

Archer increased its qubit material room temperature capabilities by over 30%, meaning it can now routinely prepare qubit material maintaining quantum superposition states for over 30% longer than previously achieved at room temperature. Extending quantum coherence times links to executing more sophisticated quantum algorithms and reliable quantum computations.

Despite the long quantum coherence times reached, there was a need for a vacuum or inert atmosphere when operating the qubit material to preserve viable quantum coherence times. To advance the Company's <sup>12</sup>CQ chip development, there is a requirement for simple and practical solutions to address quantum decoherence caused by air on the qubit material.

<sup>&</sup>lt;sup>3</sup> At 21.85°C. The quantum coherence measurement was performed with the qubit material sample under vacuum.

Origin of metallic-like behavior in disordered carbon nano-onions. Carbon, Vol 208, May 2023, Pages 303-310 www.sciencedirect.com/science/article/pii/S0008622323002166

<sup>5</sup> Room temperature manipulation of long lifetime spins in metallic-like carbon nanospheres. Nature Communications, Vol 7, July 2016, Article 12232 www.nature.com/articles/ncomms12232



During the Year, the Archer team for the first time also preserved the qubit materials' quantum coherence times and properties at room temperature in air while maintaining the intrinsic metallic-like character of the qubit material.

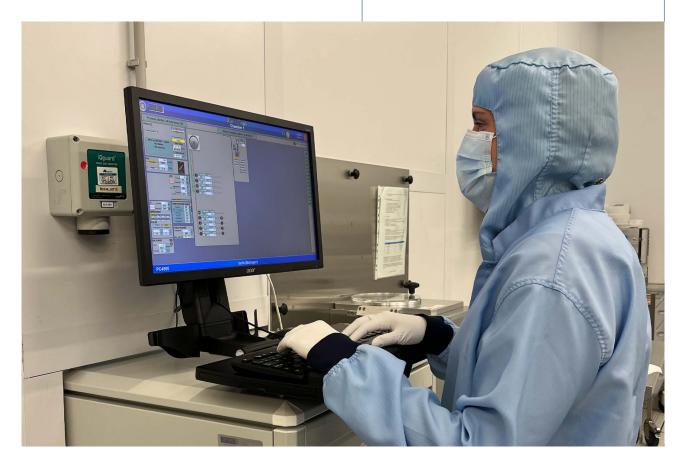
Importantly, the quantum coherence times meet the lower-bound requirements to perform gate operations for quantum information processing. In the context of qubit processor development, applying foundry-compatible processes to readily handle and process a qubit material while preserving quantum coherence is significant.

The Archer team achieved this pivotal development by applying methods of atomic layer deposition and also plasma enhanced chemical vapour deposition, to encapsulate the qubit material with atom-layer control over nanometre and micrometre thin films of metal oxides and other semiconductors.

The encapsulation processes are performed in a semiconductor foundry. A typical example of encapsulation included approximately 20-25 atomistic layers on the nanometer sized qubit material that was processed in conformations relevant to planar device architectures.

The technological milestones reached during the Year link to the future operation of Archer's <sup>12</sup>CQ chip, and in particular, potentially broaden the application space for Archer's qubit material that would be suited to more normal operating environments.

Archer staff in a research and prototyping semiconductor foundry in Sydney, Australia, operating some of the instruments used to encapsulate the qubit material.



# Quantum Technology

<sup>12</sup>CQ Chip



Exhibit 1. Description of Archer's technology patents and patent applications

# Filing date Technology summary

3 Dec 2015

A QUANTUM ELECTRONIC DEVICE.

Stage & Coverage	Patent/Application Number			
Granted				
Japan	6809670			
South Korea	10-2288974			
China	4606612			
United States of America	11126925			
Europe	3383792			
Australia	2016363118			
Hong Kong	1256636			

9 Jun 2023

ELECTRON SPIN CONTAINING MATERIALS AND METHODS FOR PRODUCING SAID MATERIALS.

Stage & Coverage Patent/Application Number

Provisional Patent

Australia 2023901839

15 Feb 2019

GRAPHENE COMPLEXES AND COMPOSITIONS THEREOF.

 Stage & Coverage
 Patent/Application Number

 Pending
 Australia

 PCT/AU2020/050128

 United States of America
 17429442

1 Dec 2021

DETECTION AND QUANTIFICATION OF NUCLEIC ACIDS.

 Stage & Coverage
 Patent/Application Number

 Pending
 PCT/AU2022/051434



# Filing date Technology summary

31 Mar 2022

FABRICATION AND PROCESSING OF GRAPHENE ELECTRONIC DEVICES ON SILICON WITH A SIO2 PASSIVATION LAYER.

Stage & Coverage Patent/Application Number

Pending

Australia PCT/AU2023/050251

17 Oct 2022 NANOFABRICATION OF ELECTRONIC DEVICE COMPONENTS.

Stage & Coverage Patent/Application Number

Provisional patent

Australia 2022903045

11 Nov 2022 A DEVICE, SYSTEM, AND METHOD FOR SENSING AN ELECTRONIC PROPERTY OF FLUID SAMPLE.

Stage & Coverage Patent/Application Number

**Provisional Patent** 

Australia 2022903393

23 Dec 2022 METHODS FOR FABRICATION OF GRAPHENE FIELD-EFFECT TRANSISTORS WITH A LIQUID TOPGATE AND ASSOCIATED COMPONENTRY.

Stage & Coverage Patent/Application Number

**Provisional Patent** 

Australia 2022904006

# **Patent Family**

▶ ¹²CQ chip

Biochip



# **Bioelectronics**

# **Biochip**



Archer's biochip innovation aims to integrate graphene field effect transistors ("gFETs") into advanced fluidic systems to create miniaturised lab-on-a-chip device platforms for medical diagnostics.

Integration of gFETs with on-chip fluidics could potentially enable multiplexing, i.e., the ability to parallelise the detection of multiple biologically relevant target fluids, on a chip. Archer owns 100% of the biochip technology intellectual property.

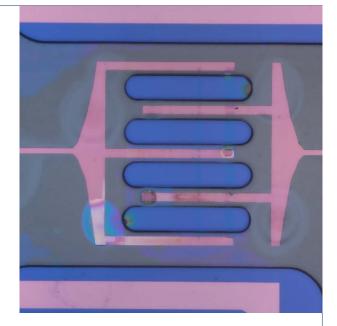
During the Year, the Company advanced its in-house nanofabrication processes with the aim of developing sub-10 nm size biochip features representing the current 'best-in-class' in the semiconductor industry.

Archer reached this goal, and fabricated sub-10 nm features reproducibly and reliably by developing several advanced lithographic processes on a silicon wafer in a clean-room environment.

Archer's sub-10 nm feature fabrication is in line with the current semiconductor industry best-in-class for chip feature sizes and provides the Company with a significant competitive advantage. The work is a significant technical achievement and represents a technology development breakthrough for the Company.

# Schematic of the liquid-gated gFET





The transistor is specially fabricated to prevent liquids from shorting the integrated circuit. Several advanced lithographic processes are required to fabricate the device 'layers', while solving for complex fluid dynamics. The inset (right) shows an actual microscope image magnifying the gFET sensing region with 'open wells' where analytes in fluids would be detected by the miniaturised integrated graphene components.



The advanced lithographic processes required precision engineering and state-of-the-art fabrication instruments to reach lateral control over feature sizes below 10 nm, corresponding in the work to covering a width of approximately 50 silicon atoms on the wafer surface.

The extreme miniaturisation would give Archer greater flexibility, capability, and higher integration density in its lithographic processes for the design and fabrication of its technologies. For example, sub-10 nm fabrication could allow for biochip device development to span a magnitude of feature sizes for a broad range of potential sensing applications.

Archer has made significant technological progress during the Year that fundamentally link to development of a prototype biochip technology system platform, including designing and fabricating an operational liquid-gated gFET, i.e., a wettable transistor.

The Company also developed, built, and configured a method, device, and prototype operational system platform for lab-on-a-chip sensing of the electronic properties of biologically relevant fluid samples. This is a major milestone towards the potential commercialisation of Archer's biochip technology.

The end-to-end prototype system platform enables high throughput testing that incorporates gFET chips integrated with multiple fluidic channels, an automated sample handling robot, readout electronics, and software and user interface on a laptop.

The software and user interface was custom built by Archer and is designed to be used in development, e.g. providing an easy way to run tests on Archer's biochips with different designs. The software is built on several packages in Python. The automated testing uses a programmable robot which directly communicates with the biochip hardware.

The system platform setup is a powerful tool in advancing Archer's biochip development, enabling the improvement of the gFET sensing device active sites, and automating liquid delivery to the chip using feedback from the sensor itself to allow complete hands-off and remotely controllable testing of prototype devices.

Archer will be able to quickly assess the impact of design changes within the biochip and the effectiveness of detection mechanisms. This is anticipated to lead to accelerated development of the Company's proposed sensing pathways to detect biologically relevant information.

The current hardware and software in the system platform is designed to run using a chip with single isolated gFETs as sensors, as gFETs offer an ultrasensitive approach to analyte detection over conventional electronic sensors used in current lab-on-a-chip devices. The early system platform paves the way for the possibility of single-device multiplexing in future designs.



# **Bioelectronics**

# **Biochip**

During the Year, the Company progressed the development of its biochip technology by electronically controlling the sensitivity of incorporated gFET devices. This involved the Archer team undertaking development capable of overcoming conventional limitations of gFET sensing.

The Company addressed the fundamental challenge of disrupting electronic charge screening that attenuates biosensing signals in gFETs. The development paves the way for the specific binding of biomolecules to contribute to usable gFET sensor responses, and is a significant technological milestone towards Archer's biochip function and operation.

The electronic charge screening layer is less than 1 nm in biologically relevant liquids, and generally, electronic sensing beyond this distance is impossible. For sensing to work in Archer's biochip, the analyte charge must not be screened, as most biological analytes are around 2-30 nm in size, i.e., most of their charge is out of gFET sensitivity range in liquids.

Overcoming this technological challenge is a significant step in progressing towards a functional and operational biosensing device as part of Archer's biochip technology, as it is critical for the selective detection of target molecules.

Archer employed a sensor design strategy which involves the use of a range of dynamic electric fields to rid the gFET sensor of signal interference caused by the screening layer and introduce practical device operation sensitivities. Archer developed the software and incorporated the hardware with the biochip system platform that allows the Company to achieve electronic modulation and tuning of gFET sensitivity.

Measurements were performed by Archer staff in the low frequency range (1–10 Hz), which are relevant to penetrating biological fluids. Results showed a 3x increase in the sensitivity of the gFET to target analytes when compared to the static case with no oscillating voltage. In the context of overcoming charge screening in gFET devices, the 3x increase in sensitivity is significant.

During Year, the Company advanced its technology development to complete a proof of concept biosensing graphene transistor for use in its biochip, and submitted the technology design to a commercial foundry to verify scalability.

The gFET design transfer to a foundry partner follows the completion of Archer's optical lithography-compatible chip layout, which is designed to scale more easily to produce complete wafers in collaboration with commercial foundries.

The Archer-designed gFET sensing chips will be produced by a commercial foundry, with the aim of Archer validating its design to ensure appropriate scalability for the manufacturing process. The chips will be evaluated to test which foundry and process are best suited to Archer's technology.

Archer's design and process can then be scaled to manufacture complete wafers containing the graphene-based sensors for biochip integration in collaboration with a range of different commercial foundries.

Archer, in parallel, started discussions with potential global foundry partners for initial small production runs of its graphene chip designs to evaluate the reliability of the product.

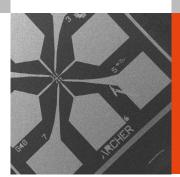






# Directors' Report





The Operating and Financial Review (which includes the Chairman's Letter) of this Annual Report is incorporated by reference into, and can be found on pages 4 to 39 of this Annual Report.

Your Directors present this report on Archer Materials Limited and its consolidated entities ('Company', 'Group' or 'Archer'), for the year ended 30 June 2023.

# **Directors**

The following Directors were in office at any time during or since the end of the financial year:

- Greg English (Executive Chairman)
- Kenneth Williams (Independent Non-Executive Director)
- ▶ Bernadette Harkin (Independent Non-Executive Director

# Chief Executive Officer

Dr Mohammad Choucair Held the position of Chief Executive Officer during the financial year and as at the date of this report.

# **Company Secretary**

Damien Connor Held the position of Company Secretary during the financial year and as at the date of this report.



# Information on continuing Directors

# **Greg English**

(Executive Chairman)

LLB, BE (Mining)

Greg English is the co-founder and Executive Chairman of Archer. He has been Chairman of the board since 2008 and has overseen Archer's transition from a South Australian focused minerals exploration company to a technology company that operates within the semiconductor industry.

He has more than 25 years of engineering and legal experience and has held senior roles for Australian and multinational companies. Greg has received recognition for his work as a lawyer.

Greg is an experienced company director and has also served on the boards of other ASX listed companies. He holds a bachelor's degree in engineering and a law degree (LLB).

#### Directorships of other ASX Listed entities in the last 3 years:

Core Lithium Limited (ASX: CXO) (current), Neurizer Ltd (ASX: NRZ) [formerly Leigh Creek Energy Limited (ASX: LCK)] (resigned 22 June 2021).

#### Interest in Shares and Options:

11,509,852 ordinary shares. 5,000,000 unlisted options, exercisable at \$1.79 and expiring on 31 May 2025.

# Special Responsibilities:

Executive Chairman. Member, Audit & Risk Management Committee. Member, Remuneration & Nomination Committee.

# **Kenneth Williams**

(Non-Executive Director)

B.Econ (HONS), MAppFin, FAICD

Ken was appointed as a Director of the Company on 28 September 2020. Ken has over 30 years' experience in corporate finance and has held senior executive, director, and Chair positions with leading ASX companies.

His extensive experience in corporate finance includes diverse experience in mergers, acquisitions, divestments and corporate reconstructions. Ken was the Independent Chairman of Statewide Superannuation Trust (Statewide Super), a South Australian based industry super fund with over \$12 billion in funds under management.

Ken was a member of Statewide Super's Investment Committee, and Remuneration & Nomination Committee. In April 2022 Statewide Super merged with Hostplus. Ken is also a Director of Lifetime Support Authority of South Australia.

Ken holds the role as Deputy Chancellor of the University of Adelaide and was also recently appointed to the Board of SA Water, effective 3 August 2023.

Prior roles include Chair of AWE Limited, Chair of Havilah Resources Limited, and Senior Finance Executive roles with Newmont Corporation, Normandy Mining, and Qantas.

#### Directorships of other ASX Listed entities in the last 3 years:

Barton Gold Holdings Limited (ASX: BGD) (current), Lanyon Investment Company Limited (ASX: LAN formerly 8IP Emerging Companies Limited (ASX: 8EC)] (resigned 10 May 2022).

#### Interest in Shares and Options:

Nil Shares. 1,500,000 unlisted options, exercisable at \$0.7277 and expiring on 31 March 2024. 1,500,000 unlisted options, exercisable at \$1.79 and expiring on 31 May 2025.

#### Special Responsibilities:

Chair, Audit & Risk Management Committee. Member, Remuneration & Nomination Committee.



### **Bernadette Harkin**

(Non-Executive Director)

MBA, GAICD

Bernadette was appointed as a Director of the Company on 6 October 2021. Bernadette has over 30 years of experience working as a business technologist across strategy, sales, marketing, operations, and delivery for multinational Information Technology companies including IBM, Avanade, and CGI.

This includes 3 years at IBM where Bernadette served as a board member for IBM Philippines. Bernadette's experience covers technology areas of Cloud, Analytics, Mobility, Al and Security. Bernadette's international experience spans leadership within large corporate governance structures and the start-up of new businesses.

Bernadette has led and held senior advisory roles involving business transformations for businesses in the US, Europe, and Asia, including those within the STEM sector, which have been underpinned by corporate growth strategies leveraging innovative technologies.

Directorships of other ASX Listed entities in the last 3 years: Nil.

#### Interest in Shares and Options:

Nil Shares. 1,500,000 unlisted options, exercisable at \$1.79 and expiring on 31 May 2025.

#### Special Responsibilities:

Chair, Remuneration & Nomination Committee. Member, Audit & Risk Management Committee.

# **Meetings of Directors**

The number of meetings of the Company's Board of Directors and each Board committee held during the year ended 30 June 2023, and the numbers of meetings attended by each Director were as follows:

Director	Board of Directors		Manag	& Risk gement mittee	Remuneration & Nomination Committee	
	А	В	А	В	А	В
Greg English	13	13	2	2	2	2
Kenneth Williams	13	13	2	2	2	2
Bernadette Harkin	13	13	2	2	2	2

#### Where:

 ${f Column\ A}$  is the number of meetings the Director was entitled to attend.

Column B is the number of meetings the Director attended.

During the reporting period the Company established a Remuneration & Nomination Committee.

As at the date of this report, the Group has not formed separate Governance Committee, as these matters are handled by the Board as a whole. The Board considers this appropriate given the size and nature of the Company at this time.



# Information on continuing Management

# Dr Mohammad Choucair

(Chief Executive Officer)

FRSN FRACI GAICD BSc Nanotechnology (Hon. 1), PhD (Chemistry)

Dr Mohammad Choucair was appointed CEO of Archer in December 2017 and is leading the company to develop disruptive deep tech that address complex global challenges.

Mohammad served a 2-year mandate at the World Economic Forum on the Global Council for Advanced Materials and is internationally recognised for his forward-thinking breakthroughs in Nanotechnology.

Mohammad is Alumni of the World Economic Forum, Alumni of the Australian Graduate School of Management, Graduate Member of the Australian Institute of Company Directors, and is an Honorary Fellow of the University of Sydney.

He received the Royal Australian Chemical Institute Cornforth Medal for the most outstanding Chemistry PhD in Australia and is a Fellow of The Royal Society of New South Wales and The Royal Australian Chemical Institute.

# **Damien Connor**

(Chief Financial Officer / Company Secretary)

CA GAICD AGIA B.Com

Damien Connor was appointed Company Secretary and Chief Financial Officer on 1 August 2014.

Damien is an experienced Company Secretary and CFO, with over 20 years finance and accounting experience including over 15 years in the mining and mineral exploration industry.

Damien has been providing Company Secretary and CFO services to a number of ASX listed and unlisted entities since 2011.

Damien is a member of the Chartered Accountants of Australia and New Zealand (Chartered Accountant), an associate member of the Governance Institute of Australia (Chartered Secretary) and a Graduate of the Australian Institute of Company Directors.

# Principal activities





Archer is a technology company with a focus on developing innovative deep tech in the semiconductor industry.

The Company is developing and working towards commercialising semiconductor devices including processor chips and sensors relevant to quantum computing and lab-on-a-chip medical diagnostics.

# During the year, the principal activities of the Group were:

- Technology research and development of a quantum computing qubit processor chip ("12CQ chip") and graphene-based lab-on-a-chip biosensing chip ("biochip").
- Utilising semiconductor development infrastructure and facilities, R&D, people, and IP, to support pre-market technology development.
- Internationally protecting and prosecuting intellectual property (e.g. patents and patent applications).
- Collaborating and partnering with organisations in computing, deep tech, technology research and development, and manufacturing as part of global networks in the semiconductor industry.

# Significant changes to the state of affairs

The Directors are not aware of any significant changes in the state of affairs of the Group occurring during the year ended 30 June 2023, other than as disclosed in this report.

# Events arising since the end of the reporting period:

The Directors are not aware of any other matter or circumstance that has arisen since the end of the year that has significantly affected, or may significantly affect the Group's operations, the results of those operations, or the Group's state of affairs in future financial years.



# Remuneration Report (audited)

The Directors of Archer
Materials Limited (the Group)
present the Remuneration Report
for Non-Executive Directors,
Executive Directors and other
Key Management Personnel,
prepared in accordance with the
Corporations Act 2001 and the
Corporations Regulations 2001.



# The names and roles of the Company's key management personnel during the year are:

- Greg English Executive Chairman
- Kenneth Williams
  Independent Non-Executive Director
- Bernadette Harkin
  Independent Non-Executive Director
- Mohammad Choucair
  Chief Executive Officer
- Damien Connor Chief Financial Officer & Company Secretary

# The Remuneration Report is set out under the following main headings:

- A. Principles used to determine the nature and amounts of remuneration
- B. Details of remuneration
- Employment Contracts of Directors and other Key Management Personnel
- D. Share based remuneration
- E. Bonuses included in remuneration
- F. Other information





# A. Principles used to determine the nature and amounts of remuneration

The Board established a Remuneration and Nomination Committee effective 16 February 2023, comprising Bernadette Harkin (Chair), Kenneth Williams and Greg English.

The Remuneration and Nomination Committee assists the Board in discharging its responsibilities in relation to people and remuneration activities, including oversight of risks related to people performance management, Company culture, succession planning, capacity and capability, and inclusion and diversity.

Archer's remuneration philosophy is to seek, attract and retain high performing staff and incentivise executives to lead our Company in an inspiring way and to outperform. We focus on demonstrating clear links between business performance and remuneration outcomes while continuing to build value for all stakeholders.

The Board believes that individual salary negotiation is more appropriate than formal remuneration policies and external advice and market comparisons are sought where necessary.

The Group discloses the fees and remuneration paid to all Directors as required by the Corporations Act 2001. The Board recognises that the attraction of high calibre executives is critical to generating shareholder value.

The directors and executives receive a superannuation guarantee contribution required by the government of 10.5 % per annum (11 % from 1 July 2023) and do not receive any other retirement benefits. Some individuals, however, may choose to sacrifice part of their salary to increase payments towards superannuation and/or elected to increase superannuation contributions a part of their salary package.

All remuneration paid to Directors and executives is valued at the cost to the Group. The Group has established a Performance Rights Plan and Share Option Plan (Plan) for the benefit of Directors, officers, senior executives and consultants.

The Board's policy is to remunerate non-executive directors at the market rates for time, commitment and responsibilities. The Board determines payments to executives and reviews their remuneration annually, based on market price, duties and accountability. Independent external advice is sought when required.

The maximum aggregate amount of fees that can be paid to non-executive directors, in aggregate, is \$500,000 per annum which has not changed since Archer listed on the ASX in August 2007. These amounts are not linked to the financial performance of the consolidated Group. However, to align director's interests with shareholder interests, the directors are encouraged to hold shares in Archer.

Each member of the executive team has signed a formal contract at the time of their appointment covering a range of matters including their duties, rights, responsibilities and any entitlements on terminations. The standard contract sets out the specific formal job description.

## **Remuneration changes for FY24**

In June 2023, the Remuneration and Nomination
Committee undertook a review of staff, executive and board
fees and wages. The review was conducted to ensure that
wages are keeping up with recent CPI and interest rate
increases and that wages are not declining in real terms.
Consequently, the Board approved a 10% increase in wages
and fees for all Archer staff, KMP and directors with effect
on and from 1 July 2023. This represents the first increase
in Non-Executive Director fees and Executive Chairman
wages since 1 July 2020.

#### Use of remuneration consultants

The Company has not engaged the services of a remuneration consultant during the year.

# Voting and comments made at the Company's 2022 Annual General Meeting

The Company received 94.5 % 'for' votes on its Remuneration Report for the financial year ending 30 June 2022. The Company received no specific feedback on its Remuneration Report at the 2022 Annual General Meeting.

# Consequences of performance on shareholder wealth

In considering the Group's performance and benefits for shareholder wealth, the Board has regard to the Company's share price in respect of the current financial year and the previous four (4) financial years:

Item	30 June				
	2023	2022	2021	2020	2019
Share price	\$0.595	\$0.55	\$0.95	\$0.60	\$0.11

# **B.** Details of Remuneration

Details of the nature and amount of each element of the remuneration of each Key Management Personnel (KMP) of the Group are shown in the table below:

#### **DIRECTORS AND OTHER KEY MANAGEMENT PERSONNEL**

		Employ	Short-term ee Benefits	Post employment Benefits	Termination Benefits	Share Based Payments		
		Cash						
		Salary &	Cash	Super-	Termination	Unlisted		Performance
Employee	Year	Fees \$	Bonus \$	annuation \$	Benefits \$	Options <sup>1</sup> \$	Total \$	based %
Executive Directors	Tear	Ψ	Ψ	Ψ	Ψ	Ψ	Ψ	
Mr English <sup>2</sup>	2023	315,374	25,343³	35,903	-	1,271,087	1,647,707	1.7%
Executive Chairman		004440	<b>50.005</b> 3	05.700		0.007.570	0.450.400	0.00/
Not independent	2022	304,110	50,685³	35,732	-	2,067,573	2,458,100	2.3%
Non-Executive Director	s							
Mr Williams	2023	63,348	-	6,652	-	381,326	451,326	-%
Independent	2022	63,636	-	6,364	-	620,272	690,272	-%
Ms Harkin	2023	63,348	-	6,652	-	381,326	451,326	-%
Independent	2022	46,993	-	4,699	-	620,272	671,964	-%
Ms McCleary <sup>4</sup>	2023	-	-	-	-	-	-	-%
Independent	2022	25,551	-	2,555	-	-	28,106	-%
Other Key Management	t Personi	nel		-	-			
Dr Choucair	2023	298,654	51,0005	36,969	-	1,525,305	1,911,928	3.0%
Chief Executive Officer	2022	230,000	46,0005	27,830	-	2,481,087	2,784,917	1.8%
Mr Connor	2023	170,550	-	-	-	381,326	551,876	-%
Company Secretary								
& CFO	2022	174,243	-	-	-	620,272	794,515	-%
2023 Total	2023	911,274	76,343	86,176	-	3,940,370	5,014,163	
2022 Total	2022	844,533	96,685	77,180	-	6,409,476	7,427,874	

<sup>1</sup> In accordance with Accounting Standards, remuneration includes a portion of the notional value of the options granted during the year. The notional value of options are determined as at the grant date and is progressively allocated over the vesting period. The amount included as remuneration is not indicative of the benefit (if any) that the employee may ultimately realise should the option vest and become exercisable. The notional value of the options as at the grant date has been determined in accordance with the accounting policy detailed at Note 1 and calculation details in Note 17.

<sup>2</sup> Mr English agreed to temporarily reduce his salary by 40% for the period from 1 April 2022 to 31 August 2022 while attending to other commitments.

<sup>3</sup> Short-term incentive cash bonus, approved by the non-executive directors, related to KPI achievement, pursuant to Mr English's employment contract.

<sup>4</sup> Ms McCleary resigned as a director on 24 November 2021.

<sup>5</sup> Short-term incentive cash bonus, approved by the Board, related to KPI achievement, pursuant to Dr Choucair's employment contract.



# C. Employment Contracts of Directors and Other Key Management Personnel

Remuneration and other terms of employment for the Directors and other Key Management Personnel are formalised in either contracts of employment or service agreements. The main provisions of the agreements relating to remuneration are set out below:

Name	Remuneration	Unit of Measure	Term of agreement	Notice Period
Greg English (Executive Chairman)	Base remuneration: \$337,900 per annum plus superannuation. 1, 2 Effective 1 July 2023 3 \$371,690 per annum plus superannuation. 2 Short-term incentive: Discretionary up to 15% of salary each year, is determined with reference to KPIs as set by the Board annually.	Salaried employee	Permanent employee, no fixed term.	Between 1 month and 6 months' notice depending on the circumstances. Any applicable termination payment is calculated based
	Long-term incentive: Entitled to receive Options or Performance Rights equal to the maximum number of Options or Performance Rights granted to a director of the Company in the same financial year, subject to shareholder approval and KPIs including the Company's share price movement compared with the ASX Small Ordinaries Resources Index.			on reasons for termination from 1 month salary plus leave entitlements up to 12 months' salary plus leave entitlements.
Kenneth Williams	Base remuneration: \$70,000 per annum inclusive of superannuation. <sup>2</sup>	Director fees	No fixed term.	None
Non-Executive Director	Effective 1 July 2023 <sup>3</sup> \$70,000 per annum plus superannuation. <sup>2</sup>	1663	term.	
Bernadette Harkin	Base remuneration: \$70,000 per annum inclusive of superannuation. <sup>2</sup>	Director fees	No fixed term.	None
Non-Executive Director	Effective 1 July 2023 <sup>3</sup> \$70,000 per annum plus superannuation. <sup>2</sup>			
Key Management	Personnel			
Dr Mohammad Choucair	Base Remuneration: \$300,000 per annum plus superannuation. <sup>2</sup>	Director fees	Permanent employee,	Either party may terminate
Chief Executive Officer	Effective 1 July 2023 <sup>3</sup> \$330,000 per annum plus superannuation. <sup>2</sup>		no fixed term.	by providing 6 months' notice.
	Short-term incentive: Discretionary up to 25% of salary each year, is determined with reference to KPIs as set by the Board annually.			
	Long-term incentive: Entitled to receive Options or Performance Rights equal to the maximum number of Options or Performance Rights granted to a director of the Company in the same financial year, subject to shareholder approval and KPIs including the Company's share price movement compared with the ASX Small Ordinaries Resources Index.			
Damien Connor <sup>4</sup> Company Secretary /CFO	Variable Services as required	Hourly rate contract	No fixed term.	Either party may terminate by providing 3 months' notice.

<sup>1</sup> Mr English agreed to temporarily reduce his salary by 40% for the period from 1 April 2022 to 31 August 2022 while attending to other commitments.

 $<sup>2\ \, \</sup>text{Superannuation rate appliable to the year ended 30 June 2023 was 10.5\% per annum.}\ \, \text{The superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% per annum from 1 July 2023.}\ \, \text{Superannuation rate will increase to 11\% pe$ 

<sup>3</sup> In June 2023, the Remuneration and Nomination Committee undertook a review of staff, executive and board fees and wages. The review was conducted to ensure that wages are keeping up with recent CPI and interest rate increases and that wages are not declining in real terms. Consequently, the Board approved a 10% increase in wages and fees for all Archer staff, KMP and directors with effect on and from 1 July 2023.

<sup>4</sup> Contract payments are made to Damien Connor Consulting Pty Ltd – an entity associated with Damien Connor.

#### D. Share-based Remuneration

#### **UNLISTED OPTIONS (OPTIONS)**

All Options refer to Options over ordinary shares of the Company, which are exercisable on a one-for-one basis under the terms of the agreements.

The Group has established a Performance Rights and Share Option Plan for the benefit of Directors, officers, senior executives and consultants. Under the Performance Rights and Share Option Plan, the Company, through the Board, may offer Options to eligible persons on such terms that the Board considers appropriate, including any performance or other vesting hurdles that may apply.

#### Options granted to KMP during the reporting period

No Options were granted as remuneration to KMP during the year ended 30 June 2023.

Details of Options convertible to ordinary shares in the Company that were granted as remuneration to each KMP during the prior year ended 30 June 2022 are set out below:

2022 Options	Number Granted	Grant Date	Exercise Price		Value at nt Date <sup>1</sup>	Vesting Criteria	Expiry Date
Granted to				\$/option	Full value (\$) <sup>2</sup>		
Mr English	5,000,000	24/11/2021	\$1.79	\$0.7604	\$3,802,018	Vest over 2 years commencing 31 May 2022. <sup>3</sup>	31/05/2025
Mr Williams	1,500,000	24/11/2021	\$1.79	\$0.7604	\$1,140,605	Vest over 2 years commencing 31 May 2022. <sup>3</sup>	31/05/2025
Ms Harkin	1,500,000	24/11/2021	\$1.79	\$0.7604	\$1,140,605	Vest over 2 years commencing 31 May 2022. <sup>3</sup>	31/05/2025
Dr Choucair	6,000,000	24/11/2021	\$1.79	\$0.7604	\$4,562,421	Vest over 2 years commencing 31 May 2022. <sup>3</sup>	31/05/2025
Mr Connor	1,500,000	24/11/2021	\$1.79	\$0.7604	\$1,140,605	Vest over 2 years commencing 31 May 2022. <sup>3</sup>	31/05/2025
	15,500,000				\$11,786,254		

<sup>1</sup> The fair value of Options at grant date is determined using a Black Scholes option pricing model as disclosed in the notes to the financial statements.

The above 15,500,000 Options were issued following shareholder approval at the Company's Annual General Meeting held on 24 November 2021.

<sup>2</sup> The fair value of the Options at the date of grant was \$11,786,254 and is being expensed to the Statement of Profit or Loss and Other Comprehensive Income over the vesting periods applicable to the Options. Accordingly, an amount of \$6,409,476 has been expensed to the Statement of Profit or Loss and Other Comprehensive Income under share based payments expense for the year ended 30 June 2022.

<sup>3</sup> Options vest 1/3rd on 31 May 2022, 1/3rd on 31 May 2023, 1/3rd on 31 May 2024, provided that the recipient is an employee of the Company at the relevant vesting date (service condition only).



#### Options to KMP exercised during the reporting period

During the reporting period 9,300,000 Options, with an exercise price of \$0.1511 each and expiring on 31 March 2023, were exercised by KMP.

#### Options to KMP forfeited, cancelled or lapsed during the reporting period

No Options granted to KMP were forfeited, cancelled or lapsed during the reporting period.

#### **PERFORMANCE RIGHTS (RIGHTS)**

The Company's Performance Rights and Share Option Plan provides for the issue of Rights to Directors, employees and contractors of the Company and its associated body corporates.

All Rights issued under the Plan refer to Rights over ordinary shares of the Company, which are exercisable on a one-for-one basis under the terms of the agreements. Vesting of Rights is generally subject to the achievement of particular performance conditions as determined by the Board.

There were no Rights issued during the reporting period and none are on issue at the reporting date.

#### **SHARES**

There were no Shares issued as remuneration during year ended 30 June 2023 (30 June 2022: Nil) other than through the exercise of Options previously accounted for.

#### E. Bonuses included in Remuneration

Details of the short-term incentive cash bonuses awarded as remuneration to each key management personnel, the percentage of the available bonus that was paid in the financial year, and the percentage that was forfeited because the person did not meet the performance criteria is set out below.

Employee	Included in remuneration (\$)	Percentage vested during the year	Percentage forfeited during the year
Greg English <sup>1</sup> Executive Chairman	\$28,131 (inclusive of superannuation)	50%	50%
Dr Mohammad Choucair <sup>2</sup> Chief Executive Officer	\$56,610 (inclusive of superannuation)	68%	32%

<sup>1</sup> Mr English's contract of employment provides for a discretionary cash bonus of up to 15% of his salary each year, determined with reference to KPIs set by the Board annually. The KPI's subject of the bonus payable for the financial year were determined with reference to satisfaction of performance targets relating to corporate strategy objectives, funding and stakeholder management.

No other key management personnel were awarded short-term incentive cash bonuses as remuneration during the year ended 30 June 2023.

<sup>2</sup> Dr Choucair's contract of employment provides for a discretionary cash bonus of up to 25% of his salary each year, determined with reference to KPIs set by the Board annually. The KPI's subject of the bonus payable for the financial year were determined with reference to satisfaction of performance targets relating to key technical and corporate strategy objectives.

#### F. Other Information

#### Option Holdings of Key Management Personnel as at 30 June 2023

The number of Options over ordinary shares in the Company held, directly, indirectly, or beneficially, by each specified Director and and other key management personnel, including their personally related entities as at reporting date, is as follows:

2023 Key Management Personnel	Held at 1 July 2022	Granted as Remuneration	Exercised <sup>1</sup>	Forfeited/ Lapsed/ Cancelled	Held at 30 June 2023	Vested and Exercisable at 30 June 2023
Mr English	10,000,000	-	(5,000,000)	-	5,000,000	3,333,334
Mr Williams	3,000,000	-	-	-	3,000,000	2,500,000
Ms Harkin	1,500,000	-	-		1,500,000	1,000,000
Dr Choucair	9,300,000	-	(3,300,000)	-	6,000,000	4,000,000
Mr Connor	2,500,000	-	(1,000,000)	-	1,500,000	1,000,000
Total	26,300,000	-	(9,300,000)	-	17,000,000	11,833,334

<sup>1</sup> A total of 6,379,806 Shares were issued from the exercise of 9,300,000 Options, including 5,879,806 Shares issued following the cashless exercise of 8,800,000 Options. Refer to Note 14 for details of the formula used for cashless exercise of Options.

#### Performance Rights Holdings of Key Management Personnel as at 30 June 2023

There were no Rights to acquire shares in the Company held by KMP during the current or prior reporting period.

#### Share Holdings of Key Management Personnel as at 30 June 2023

The number of ordinary shares of Archer Materials Limited held, directly, indirectly, or beneficially, by each Director and and other key management personnel, including their personally related entities as at reporting date:

2023 Key Management Personnel	Held at 1 July 2022	Granted as Compensation	Options Exercised	Other Changes <sup>1</sup>	Held at 30 June 2023
Mr English	8,997,618	-	3,506,719	(994,485)	11,509,852
Mr Williams	-	-	-	-	-
Ms Harkin	-	-	-	-	-
Dr Choucair	2,600,000	-	2,204,927	(950,000)	3,854,927
Mr Connor	467,500	-	668,160	(191,829)	943,831
Total	12,065,118	-	6,379,806	(2,136,314)	16,308,610

<sup>1</sup> Shares sold on market during the year.



#### **Transactions with Key Management Personnel**

Transactions with key management personnel and related parties as disclosed below are made on normal commercial terms and conditions. Outstanding balances are unsecured and are repayable in cash.

Amounts paid or payable to key management personnel and related parties/entities:

Related Party	Relationship to Key Management Personnel/Director	Services Provided	2023 \$	2022 \$
Piper Alderman Lawyers	A business of which Greg English is a Consultant.	Legal advice	\$14,172	\$32,725
Damien Connor Consulting Pty Ltd	A business of which Damien Connor is a Director.	Finance/ Co. Secretary consulting fees.	\$170,550	\$174,243

Dr Choucair is a co-inventor of the 12CQ intellectual property licenced to Archer under a Licence Agreement with The University of Sydney. During the year Dr Choucair was not paid by The University of Sydney (2022: \$4,710).

#### **END OF AUDITED REMUNERATION REPORT**

#### **Unissued Shares Under Option**

Unissued ordinary shares of Archer Materials Limited under option at the date of this report are:

Issued to	Issue Date	Grant Date	Number of Options Granted	Option Exercise Price	Expiry Date
Director <sup>1</sup>	30/11/2020	30/11/2020	1,500,000	\$0.7277	31/03/2024
Directors <sup>1</sup>	2/12/2021	24/11/2021	8,000,000	\$1.79	31/05/2025
CEO <sup>1</sup>	2/12/2021	24/11/2021	6,000,000	\$1.79	31/05/2025
Company Secretary <sup>1</sup>	2/12/2021	24/11/2021	1,500,000	\$1.79	31/05/2025
Other Employees	2/12/2021	24/11/2021	6,450,000	\$1.79	31/05/2025
Other Employee	29/8/2022	17/8/2022	1,500,000	\$1.79	31/05/2025
			24,950,000		

<sup>1</sup> Previously issued to members of key management personnel as remuneration.

All Options are unlisted and exercisable into fully paid ordinary shares in the Company on a one for one basis. These Options do not entitle the holders to participate in any share issue of the Company.

Refer Note 17 for details of movement in Options during the reporting period. No Options over ordinary shares have been issued, forfeited, cancelled or lapsed since the end of the reporting period.

#### Performance Rights (Rights)

There were no Rights on issue during the reporting period or as at the date of this report.

#### **Environmental Issues**

The Group's operations are subject to significant environmental regulations under the laws of the Commonwealth and/ or State. No notice of any breach has been received and to the best of the Directors' knowledge no breach of any environmental regulations has occurred during the financial year or up to the date of this Annual Report.

#### Indemnity and insurance of officers

The Company's Constitution provides that the Company indemnifies, on a full indemnity basis and to the full extent permitted by law, officers of the Company for all losses or liabilities incurred by the person as an officer of the Company or a related body corporate. In conformity with the Constitution, the Company is party to Deeds of Indemnity in favour of each of the Directors referred to in this report who held office during the year.

The Company has paid premiums to insure each of the Directors, Officers and Consultants against liabilities for costs and expenses incurred by them in defending any legal proceedings arising out of their conduct while acting in the capacity of Director or Executive of the Company, other than conduct involving wilful breach of duty or a lack of good faith in relation to the Company. The policy does not specify the individual premium for each officer covered and the amount paid is confidential. Since the end of the year the Company has paid, or agreed to pay, premiums in respect of such contracts for the year ending 30 June 2023.



#### Indemnity and insurance of auditor

The Company has not, during or since the end of the financial period, indemnified or agreed to indemnify the auditor of the Company or any related entity against a liability incurred by the auditor.

During the financial period, the Company has not paid a premium in respect of a contract to insure the auditor of the Company or any related entity.

#### Non-audit services

Details of the amounts paid or payable to the auditor (Grant Thornton) for services provided by them during the financial year are outlined in Note 6 to the financial statements. No non-audit services were provided by the auditor during the year.

#### Proceedings on behalf of the company

As far as the Directors' are aware, no person has applied to the Court for leave to bring proceedings on behalf of the Company or to intervene in any proceedings to which the Company is a party for the purpose of taking responsibility on behalf of the Company for all or any part of those proceedings. The Company was not a party to any such proceedings during the year.

#### **Corporate Governance**

The Board has adopted the ASX Corporate Governance Council's "Corporate Governance Principles and Recommendations – 4th Edition" (ASX Recommendations). The Board continually monitors and reviews its existing and required policies, charters and procedures with a view to ensuring its compliance with the ASX Recommendations to the extent deemed appropriate for the size of the Company and the status of its projects and activities. Good corporate governance practices are also supported by the ongoing activities of the Audit & Risk Management Committee and the Remuneration and Nomination Committee.

The Company's Corporate Governance Statement for the financial year ending 30 June 2023 is dated 30 June 2023 and was approved by the Board on 24 August 2023.

The Corporate Governance Statement provides a summary of the Company's ongoing corporate governance practices in accordance with the ASX Recommendations. The Corporate Governance Statement is supported by a number of policies, procedures, code of conduct and formal charters, all of which are located in the Corporate Governance section of the Company's website: www.archerx.com.au.

#### Auditor's Declaration

The auditor's independence declaration as required under section 307C of the Corporations Act 2001 is set out on page 40 and forms part of the director's report for the financial year ended 30 June 2023.

This report is signed in accordance with a resolution of the Board of Directors.

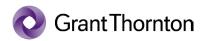
**Gregory English** 

Jughal

Chairman

Adelaide

Dated this 24th day of August 2023



Grant Thornton Audit Pty Ltd Grant Thornton House Level 3 170 Frome Street Adelaide SA 5000 GPO Box 1270 Adelaide SA 5001 T +61 8 8372 6666

#### Auditor's Independence Declaration

#### To the Directors of Archer Materials Limited

In accordance with the requirements of section 307C of the *Corporations Act 2001*, as lead auditor for the audit of Archer Materials Limited for the year ended 30 June 2023, I declare that, to the best of my knowledge and belief, there have been:

- a no contraventions of the auditor independence requirements of the Corporations Act 2001 in relation to the audit; and
- b no contraventions of any applicable code of professional conduct in relation to the audit.

Grant Thornton Audit Pty Ltd Chartered Accountants

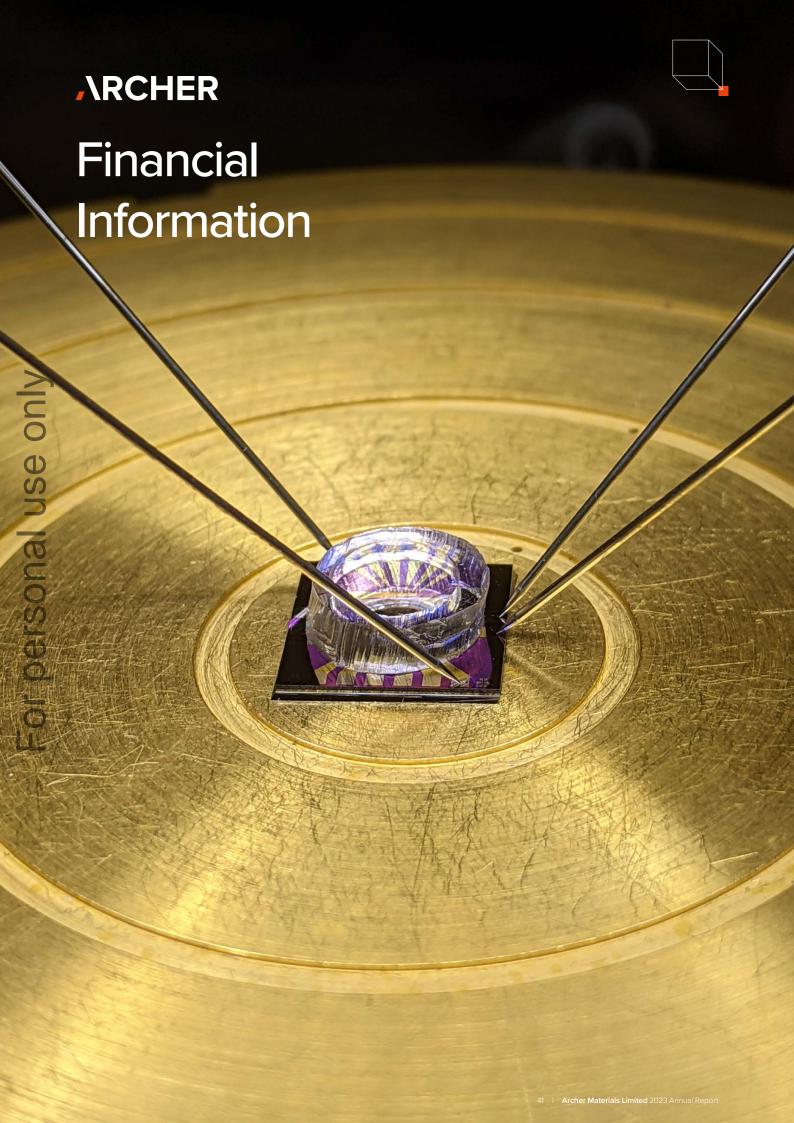
Partner - Audit & Assurance

Adelaide, 24 August 2023

J L Humphrey

www.grantthornton.com.au ACN-130 913 594

Grant Thornton Audit Pty Ltd ACN 130 913 594 a subsidiary or related entity of Grant Thornton Australia Limited ABN 41 127 556 389 ACN 127 556 389. 'Grant Thornton' refers to the brand under which the Grant Thornton member firms provide assurance, tax and advisory services to their clients and/or refers to one or more member firms, as the context requires. Grant Thornton Australia Limited is a member firm of Grant Thornton International Ltd (GTIL). GTIL and the member firms are not a worldwide partnership. GTIL and each member firms is a separate legal entity. Services are delivered by the member firms. GTIL does not provide services to clients. GTIL and its member firms are not agents of, and do not obligate one another and are not liable for one another's acts or omissions. In the Australian context only, the use of the term 'Grant Thornton' may refer to Grant Thornton Australia Limited ABN 41 127 556 389 ACN 127 556 389 and its Australian subsidiaries and related entities. Liability limited by a scheme approved under Professional Standards Legislation.



#### STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 30 JUNE

		CONSOLIDATED GROUP		
	Notes	2023 \$	2022 \$	
REVENUE				
Revenue from ordinary activities		-	-	
Research and development tax concession		1,498,471	973,000	
Other income	3	702,248	650,472	
		2,200,719	1,623,472	
EXPENSES				
Depreciation expense		(34,395)	(37,829)	
Amortisation of intangibles	11	(19,344)	(12,577)	
Quantum and biochip technology research expenditure		(2,965,560)	(2,259,068)	
Employee benefits expense		(1,098,392)	(1,081,234)	
Share based payments expense	17	(5,554,843)	(9,945,024)	
Fair value loss on financial assets	9	(848,391)	(1,448,062)	
Corporate consultants/public relations expense		(216,325)	(131,026)	
ASX listing and share registry expense		(163,923)	(345,000)	
Other expenses		(349,003)	(412,157)	
LOSS BEFORE INCOME TAX EXPENSE		(9,049,457)	(14,048,505)	
Income tax expense		-	-	
LOSS FOR THE PERIOD FROM CONTINUING OPERATIONS		(9,049,457)	(14,048,505)	
DISCONTINUED OPERATIONS				
Loss after income tax for the period from discontinued operations	18	-	(67,223)	
LOSS ATTRIBUTED TO MEMBERS OF THE PARENT ENTITY		(9,049,457)	(14,115,728)	
Other comprehensive income		-	-	
TOTAL COMPREHENSIVE LOSS ATTRIBUTABLE TO MEMBERS				
OF THE PARENT ENTITY		(9,049,457)	(14,115,728)	
		Cents	Cents	
Loss per share Basic and diluted loss for the year per share	15	(3.62)	(5.84)	
Loss per share for continuing operations Basic and diluted loss for the year per share	15	(3.62)	(5.81)	



#### **STATEMENT OF FINANCIAL POSITION AS AT 30 JUNE**

	CONSOLIDATED GROUP		
	_	2023	2022
	Notes	\$	\$
ASSETS			
CURRENT ASSETS			
Cash and cash equivalents	7	772,317	1,418,542
Term deposits – short term	7	22,545,145	25,045,145
Trade and other receivables	8	2,032,765	1,094,018
Other financial assets	9	874,879	1,708,806
Other current assets		537,127	583,713
TOTAL CURRENT ASSETS		26,762,233	29,850,224
NON-CURRENT ASSETS			
Intangible assets	11	353,694	248,340
Property, plant and equipment		83,880	47,220
Right of use asset – office lease		9,097	19,750
TOTAL NON- CURRENT ASSETS		446,671	315,310
TOTAL ASSETS		27,208,904	30,165,534
CURRENT LIABILITIES			
Trade and other payables	12	785,719	348,759
Lease liability		9,097	10,652
Employee entitlements	13	378,868	336,403
TOTAL CURRENT LIABILITIES		1,173,684	695,814
NON-CURRENT LIABILITIES			
Lease liability			9,097
Employee entitlements	13	34,983	41,322
TOTAL NON-CURRENT LIABILITIES		34,983	50,419
		2 1,000	
TOTAL LIABILITIES		1,208,667	746,233
NET ASSETS		26,000,237	29,419,301
FOLUTY			
EQUITY	4.4	47700440	47722 500
Issued capital	14	47,799,119	47,723,569
Reserves	16	15,371,834	10,893,334
Accumulated losses		(37,170,716)	(29,197,602)
TOTAL EQUITY		26,000,237	29,419,301

#### STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED 30 JUNE

	Issued Capital \$	Retained Earnings \$	Share Based Payments Reserve \$	Acquisition Reserve \$	Total \$
BALANCE AT 1 JULY 2021	33,093,217	(15,522,377)	1,148,813	240,000	18,959,653
Expense associated with unlisted option vesting during the period (refer Note 17)	-	-	9,945,024	-	9,945,024
Shares issued during the year - net of costs (refer Note 14)	24,630,352	-	-	-	24,630,352
Return of capital - by way of a pro- rata in-specie distribution of iTech shares to Archer shareholders (refer Note 18)	(10,000,000)	-	-	-	(10,000,000)
Transfer of lapsed or exercised share- based payments to retained earnings	-	200,503	(200,503)	-	<u>-</u>
Transactions with owners	47,723,569	(15,321,874)	10,893,334	240,000	43,535,029
Transfer of acquisition reserve from prior periods to retained earnings	-	240,000	-	(240,000)	-
Total loss for the year	-	(14,115,728)	-	-	(14,115,728)
Other comprehensive income			-	-	
BALANCE AT 30 JUNE 2022	47,723,569	(29,197,602)	10,893,334		29,419,301

	Issued Capital \$	Retained Earnings \$	Share Based Payments Reserve \$	Acquisition Reserve \$	Total \$
BALANCE AT 1 JULY 2022	47,723,569	(29,197,602)	10,893,334	-	29,419,301
Expense associated with unlisted option vesting during the period (refer Note 17)	-	-	5,554,843	-	5,554,843
Shares issued during the year - net of costs (refer Note 14)	75,550	-	-	-	75,550
Transfer of lapsed or exercised share- based payments to retained earnings.	-	1,076,343	(1,076,343)	-	-
Transactions with owners	47,799,119	(28,121,259)	15,371,834	-	35,049,694
Total loss for the year	-	(9,049,457)	-	-	(9,049,457)
Other comprehensive income	-	-	-	-	-
BALANCE AT 30 JUNE 2023	47,799,119	(37,170,716)	15,371,834	-	26,000,237



#### **STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 30 JUNE**

		CONSOLIDA	TED GROUP
	Notes	2023	2022
CASH FLOW FROM OPERATING ACTIVITIES	110103	<u> </u>	•
Payments to suppliers and employees		(1,334,837)	(2,438,381)
Payments for quantum and biochip technology research activities		(2,965,560)	(2,259,068)
Interest received		227,903	12,915
Research and development tax concession received		1,021,471	464,051
Innovation grant received		25,000	25,000
Services Income		-	30,000
NET CASH USED IN OPERATING ACTIVITIES	19	(3,026,023)	(4,165,483)
CASH FLOWS FROM INVESTING ACTIVITIES			
Payments for short term deposits		-	(25,045,145)
Proceeds from short term deposits		2,500,000	-
Payments for intellectual property		(124,698)	(120,709)
Payments for property, plant and equipment		(60,402)	(19,120)
Proceeds from the sale of property, plant and equipment		-	45,000
NET CASH PROVIDED (USED IN) / BY IN INVESTING ACTIVITIES		2,314,900	(25,139,974)
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from issue of shares	14	75,550	25,620,352
Payments for costs of capital raised		-	(990,000)
Payment of lease liability		(10,652)	(10,341)
NET CASH PROVIDED BY FINANCING ACTIVITIES		64,898	24,620,011
CASH FLOWS (USED) / PROVIDED BY DISCONTINUED OPERATIONS	19	-	(135,111)
Net (decrease) / increase in cash held		(646,225)	(4,820,557)
Cash at the beginning of the year		1,418,542	6,239,099
CASH AT THE END OF THE FINANCIAL YEAR	7	772,317	1,418,542

#### NOTE 1 - STATEMENT OF SIGNIFICANT ACCOUNTING POLICIES

#### Basis of preparation

The financial report is a general purpose financial report that has been prepared in accordance with Australian Accounting Standards, Australian Accounting Interpretations, other authoritative pronouncements of the Australian Accounting Standards Board (AASB) and the Corporations Act 2001.

Archer Materials Limited is a for profit entity for the purposes of preparing the financial statements. The financial report has been presented in Australian dollars.

Australian Accounting Standards set out accounting policies that the AASB has concluded would result in a financial report containing relevant and reliable information about transactions, events and conditions to which they apply. Compliance with Australian Accounting Standards ensures that the financial statements and notes also comply with International Financial Reporting Standards. Material accounting policies adopted in the preparation of this financial report are presented below. They have been consistently applied unless otherwise stated.

The financial report has been prepared on an accruals basis and is based on historical costs modified, where applicable, by the measurement at fair value of selected non-current assets, financial assets and financial liabilities.

The principal accounting policies adopted in the preparation of the financial statements are set out below.

#### **Principles of Consolidation**

The parent entity controls a subsidiary if it is exposed, or has rights, to variable returns from its involvement with the subsidiary and has the ability to affect those returns through its power over the subsidiary. A list of controlled entities is contained in Note 10 to the financial statements.

As at reporting date, the assets and liabilities of all controlled entities have been incorporated into the consolidated financial statements as well as their results for the year then ended. Where controlled entities have entered (left) the consolidated group during the year, their operating results have been included/(excluded) from the date control was obtained/(ceased).

All inter-group balances and transactions between entities in the consolidated group, including any recognised profits or losses, have been eliminated on consolidation. Accounting policies of subsidiaries have been changed, where necessary, to ensure consistency with those adopted by the parent entity.

#### Non-current assets held for sale and discontinued operations

The Group classifies non-current assets and disposal groups as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. Non-current assets and disposal groups classified as held for are measured at the lower of their carrying amount and fair value less costs to sell. Costs to sell are the incremental costs directly attributable to the disposal of an asset (disposal group), excluding finance costs and income tax expense.

The criteria for held for sale classification is regarded as met only when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition. Actions required to complete the sale should indicate that it is unlikely that significant changes to the sale will be made or that the decision to sell will be withdrawn. Management must be committed to the plan to sell the asset and the sale expected to be completed within one year from the date of the classification.

Property, plant and equipment and intangible assets are not depreciated or amortised once classified as held for sale.

Assets and liabilities classified as held for sale are presented separately as current items in the statement of financial position.

A disposal group qualifies as discontinued operation if it is a component of an entity that either has been disposed of, or is classified as held for sale, and:

- Represents a separate major line of business or geographical area of operations;
- Is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations; or
- > Is a subsidiary acquired exclusively with a view to resale.

Discontinued operations are excluded from the results of continuing operations and are presented as a single amount as profit or loss after tax from discontinued operations in the statement of profit or loss.

Additional disclosures are provided in Note 18. All other notes to the financial statements include amounts for continuing operations, unless indicated otherwise.



#### **Current and non-current classification**

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in the consolidated entity's normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

#### Cash and cash equivalents

Cash and cash equivalents includes cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. For the statement of cash flows presentation purposes, cash and cash equivalents also includes bank overdrafts, which if applicable, will be shown within borrowings in current liabilities on the Statement of Financial Position.

#### Property, plant and equipment

Property, plant and equipment is carried at cost less where applicable, any accumulated depreciation and impairment losses.

The carrying amount of property, plant and equipment is reviewed annually by Directors to ensure it is not in excess of the recoverable amount from these assets. The recoverable amount is assessed on the basis of the expected net cash flows that will be received from the assets employment and subsequent disposal. The expected net cash flows have been discounted to their present values in determining recoverable amounts.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the Statement of Profit or Loss during the financial period in which are they are incurred.

#### Depreciation

The depreciable amount of all fixed assets is depreciated on a straight-line basis over their useful lives to the consolidated entity commencing from the time the asset is held ready for use. Leasehold improvements are depreciated over the shorter of either the unexpired period of the lease or the estimated useful lives of the improvements.

The depreciation rates used for each class of depreciable assets are:

Class of	Depreciation	Basis of	
Non-Current Asset	Rate	Depreciation	
Plant and Equipment	10 – 33%	Straight Line	

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each reporting date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on disposals are determined by comparing proceeds with the carrying amount. These gains and losses are included in the Statement of Profit or Loss.

#### Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair value at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and accumulated impairment losses. Internally generated intangibles, excluding capitalised development costs, are not capitalised and the related expenditure is reflected in profit or loss in the period in which the expenditure is incurred.

The useful lives of intangible assets are assessed as either finite or indefinite.

Intangible assets with infinite lives are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at the end of each reporting period. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are considered to modify the amortisation period or method, as appropriate, and are treated as changes in accounting estimates. The amortisation expense on intangible assets with finite lives is recognised in the statement of profit or loss in the expense category that is consistent with the function of the intangible assets.

Intangible assets with indefinite useful lives are not amortised, but are tested for impairment annually, either individually or at the cash-generating unit level. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in useful life from indefinite to finite is made on a prospective basis.

An intangible asset is derecognised upon disposal (i.e., at the date the recipient obtains control) or when no future economic benefits are expected from its use or disposal. Any gain or loss arising upon derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of profit or loss.

#### Research and development costs

Research costs are expensed as incurred and included in the statement of profit or loss as research and development costs. Development expenditures on an individual project are recognised as an intangible asset when the Group can demonstrate:

- > The technical feasibility of completing the intangible asset so that the asset will be available for use or sale
- > Its intention to complete and its ability and intention to use or sell the asset
- > How the asset will generate future economic benefits
- > The availability of resources to complete the asset
- The ability to measure reliably the expenditure during development

Following initial recognition of the development expenditure as an asset, the asset is carried at cost less any accumulated amortisation and accumulated impairment losses. Amortisation of the asset begins when development is complete and the asset is available for use. It is amortised over the period of expected future benefit. Amortisation is recorded in cost of sales. During the period of development, the asset is tested for impairment annually.

#### Patents and licences

The Group has made payments in respect of patents and licences and also pays for on-going patent prosecution costs. The Licences have been granted for patents which are undergoing prosecution by the relevant government agencies and the Company also owns a patent undergoing prosecution.

Patents have a life of up to 20 years and are assessed on a case by case basis. Licences for the use of intellectual property are granted for periods ranging between three and five years depending on the specific licences. The licences require an annual fee to be paid to continue to access the licenses. As a result, those licences are assessed as having a finite useful life.

A summary of the policies applied to the Group's intangible assets is, as follows:

	Licences	Patents
Useful lives	Finite (5 years)	Finite (20 years)
Amortisation method used	Amortised on a straight-line basis over the period of the licence	Amortised on a straight-line basis over the period of the patent
Internally generated or acquired	Acquired	Acquired

#### Trade and other payables

These amounts represent liabilities for goods and services provided to the consolidated entity prior to the end of the financial year/period and which are unpaid. Due to their short-term nature they are measured at amortised cost and are not discounted. The amounts are unsecured and are usually paid within 30 days of recognition.

#### **Provisions**

Provisions are recognised when the Group has a legal or constructive obligation, as a result of past events, for which it is probable that an outflow of economic benefits will result and that outflow can be reliably measured.

#### **Employee Benefits**

Provision is made for the Company's liability for employee benefits arising from services rendered by employees to reporting date. Employee benefits that are expected to be settled wholly within one year have been measured at the amounts expected to be paid when the liability is settled, plus related on-costs. Employee benefits payable later than one year have been measured at the present value of the estimated future cash outflows to be made for these benefits. Those cashflows are discounted using market yields on high quality corporation bonds with terms to maturity that match the expected timing of cashflows.



#### **Share-based Payments**

#### Equity-settled transactions

The Company provides benefits to employees (including directors) in the form of share-based payment transactions, whereby employees render services in exchange for shares or rights over shares ('equity-settled transactions').

The Company currently provides benefits under a Performance Rights and Share Option Plan.

The cost of these equity-settled transactions with employees and directors is measured by reference to the fair value at the date at which they are granted.

In valuing equity-settled transactions, no account is taken of any performance conditions, other than conditions linked to the price of the shares of the Company ('market conditions'). The cost of equity-settled transactions is recognised, together with a corresponding increase in equity, over the period in which the performance conditions are fulfilled, ending on the date on which the relevant employees become fully entitled to the award ('vesting date').

The cumulative expense recognised for equity-settled transactions at each reporting date until vesting date reflects:

- i) the extent to which the vesting period has expired;
   and
- ii) the number of awards that, in the opinion of the directors, will ultimately vest. This opinion is formed based on the best available information at reporting date. No adjustment is made for the likelihood of market performance conditions being met as the effect of these conditions is included in the determination of fair value at grant date.

No expense is recognised for awards that do not ultimately vest, except for awards where vesting is conditional upon a market condition.

Where the terms of an equity-settled award are modified, as a minimum an expense is recognised as if the terms had not been modified. In addition, an expense is recognised for any increase in the value of the transaction as a result of the modification, as measured at the date of modification. Where an equity-settled award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new award are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect, if any, of outstanding Options and Rights is reflected as additional share dilution in the computation of earnings per share.

#### **Issued capital**

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or Options are shown in equity as a deduction, net of tax, from the proceeds.

#### Leases

The Group assesses at contract inception whether a contract is, or contains, a lease. That is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration

#### Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognises lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

#### i) Right-of-use assets

The Group recognises right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the asset

#### ii) Lease Liabilities

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made.

In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

#### Financial Instruments - initial recognition and subsequent measurement

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

#### i) Financial assets

#### Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income (OCI), and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under AASB 15.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

#### Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in four categories:

- > Financial assets at amortised cost (debt instruments)
- > Financial assets at fair value through OCI with recycling of cumulative gains and losses (debt instruments)
- Financial assets designated at fair value through OCI with no recycling of cumulative gains and losses upon derecognition (equity instruments)
- > Financial assets at fair value through profit or loss

#### Financial assets at amortised cost (debt instruments)

This category is the most relevant to the Group. The Group measures financial assets at amortised cost if both of the following conditions are met:

- > The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

#### Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated statement of financial position) when:

- The rights to receive cash flows from the asset have expired; or
- > The Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.



When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of its continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

#### Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss.

This category includes listed equity investments which the Group had not irrevocably elected to classify at fair value through OCI. Dividends on listed equity investments are recognised as other income in the statement of profit or loss when the right of payment has been established.

#### Impairment of financial assets

The Group recognises an allowance for expected credit losses (ECLs) for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

#### ii) Financial liabilities

#### Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts, and derivative financial instruments.

#### Subsequent measurement

The measurement of financial liabilities depends on their classification, as described below:

#### Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit or loss.

#### Impairment of non-financial assets

At each reporting date, the Group reviews the carrying values of its tangible and intangible assets to determine whether there is any indication that those assets have been impaired. If such an indication exists, the recoverable amount of the asset, being the higher of the asset's fair value less costs to dispose and value in use, is compared to the asset's carrying value. Any excess of the asset's carrying value over its recoverable amount is expensed to the Statement of Profit or Loss.

Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

#### **Income Tax**

The income tax expense/(revenue) for the year comprises current income tax expense/(income) and deferred tax expense/(income).

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at reporting date. Current tax liabilities/ (assets) are therefore measured at the amounts expected to be paid to/(recovered from) the relevant taxation authority.

Deferred income tax expense reflects movements in deferred tax asset and deferred tax liability balances during the year as well as unused tax losses. Current and deferred income tax expense/(income) is charged or credited directly to equity instead of the profit or loss when the tax relates to items that are credited or charged directly to equity.

Deferred tax assets and liabilities are ascertained based on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets also result where amounts have been fully expensed but future tax deductions are available. No deferred income tax will be recognised from the initial recognition of an asset or liability, excluding a business combination, where there is no effect on accounting or taxable profit or loss.

Deferred tax assets and liabilities are calculated at the tax rates that are expected to apply to the period when the asset recognised or the liability is settled, based on tax rates enacted or substantively enacted at reporting date. Their measurement also reflects the manner in which management expects to recover or settle the carrying amount of the related asset or liability.

Deferred tax assets relating to temporary differences and unused tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the benefits of the deferred tax asset can be utilised.

Where temporary differences exist in relation to investments in subsidiaries, branches, associates, and joint ventures, deferred tax assets and liabilities are not recognised where the timing of the reversal of the temporary difference can be controlled and it is not probable that the reversal will occur in the foreseeable future.

Current tax assets and liabilities are offset where a legally enforceable right of set-off exists and it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur. Deferred tax assets and liabilities are offset where a legally enforceable right of set-off exists, the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where it is intended that net settlement or simultaneous realisation and settlement of the respective asset and liability will occur in future periods in which significant amounts of deferred tax assets or liabilities are expected to be recovered or settled.

#### Tax Consolidation

Archer Materials Limited and its wholly-owned Australian subsidiaries have formed an income tax consolidated group under tax consolidation legislation. The Group notified the Australian Tax Office that it had formed an income tax consolidated group to apply from 1 July 2007.

#### Research and Development Tax Concession

To the extent that research and development costs are eligible activities under the "Research and development tax incentive" programme, a refundable tax offset is available for companies with annual turnover of less than \$20 million. The Group recognises refundable tax offsets received in the financial year as R&D tax concession income in statement of profit or loss, resulting from the monetisation of available tax losses that otherwise would have been carried forward. These amounts are recognised at their fair value only to the extent that where there is reasonable assurance that the incentive will be received.



#### Revenue

Interest revenue is recognised on a proportional basis taking into account the interest rates applicable to the financial assets.

Revenue from the rendering of a service is recognised upon the delivery of the service to the customers. All revenue is stated net of the amount of goods and services tax (GST).

#### Goods and Services Tax ('GST') and other similar taxes

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Tax Office. In these circumstances, the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the statement of financial position are shown inclusive of GST. The net amount of GST recoverable from, or payable to, the Australian Tax Office is included in other receivables or other payables in the statement of financial position.

Cash flows are presented in the Statement of Cash Flows on a gross basis, except for the GST component of investing and financing activities, which are disclosed as operating cash flows.

Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the Australian Tax Office.

#### **Critical Accounting Estimates and Judgements**

The Directors evaluate estimates and judgments incorporated into the financial report based on historical knowledge and best available current information. Estimates assume a reasonable expectation of future events and are based on current trends and economic data obtained both externally and within the Group.

#### Key estimates

#### (i) Impairment

The Company assesses impairment at the end of each reporting period by evaluating conditions and events specific to the Company that may be indicative of impairment triggers. Recoverable amounts of relevant assets are reassessed using fair value less cost of disposal calculations which incorporate various key assumptions.

#### (ii) Research and development (R&D) tax concession

The Group is entitled to claim R&D tax incentives in Australia. The R&D tax incentive is calculated using the estimated expenditures multiplied by a 48.5% non-refundable tax offset (as a non base rate entity) or otherwise 43.5% (as a base rate entity). It has been established that the conditions of the R&D incentive have been met and that the expected amount of the incentive can be reliably measured. Estimated amounts receivable are recognised as research and development tax concession income.

#### **Comparative Figures**

When required by accounting standards, comparative figures have been adjusted to conform to changes in presentation of the current financial year.

#### **Adoption of New and Revised Accounting Standards**

At the date of authorisation of these financial statements, several new Standards and amendments to existing Standards, and Interpretations have been published by the AASB.

Management have adopted all relevant pronouncements, as applicable, for the first period beginning on or after the effective date of the pronouncement. New Standards, amendments and Interpretations not adopted in the current year have not been disclosed as they are not expected to have a material impact on the Group's financial statements.

The financial report was authorised for issue on 24 August 2023 by the Board of Directors.

# For personal use only

The Directors have considered the requirements of AASB 8 - Operating segments and the internal reports that are reviewed by the chief operating decision maker (the Board) in allocating resources have concluded at this time there are no separately identifiable segments. The Group operates in one segment being materials technology research.

Notes to the Financial Statements for the year ended 30 June 2023

NOTE 3 – OTHER INCOME CONSOL		LIDATED GROUP	
	30 JUNE 2023 \$	30 JUNE 2022 \$	
Interest income	677,248	86,248	
Commonwealth innovation grant	25,000	25,000	
Gain on sale of plant and equipment	-	45,000	
Consulting services income	-	30,000	
Gain on sale of non-current assets – sale to ChemX Materials Ltd	-	464,224	
Total income	702,248	650,472	

NOTE 4 – INCOME TAX	30 JUNE 2023 \$	30 JUNE 2022 \$
a) The components of income tax benefit comprise:		
Current tax	-	-
b) The prima facie tax on loss from before income tax is reconciled to the income tax as follows:		
30% (2022: 25%):		
Net loss from continuing operations	(9,049,457)	(14,048,505)
Net loss from discontinued operations	-	(67,223)
Total loss from continued and discontinued operations	(9,049,457)	(14,115,728)
Income tax rate	30%	25%
Prima facie tax benefit on loss before income tax	(2,714,837)	(3,528,932)
Non-deductible expenses / (non-assessable income)	968,198	2,486,256
Tax effect of temporary differences not brought to account as they do not meet the recognition criteria	1,746,639	1,042,676
Income tax attributable to loss from continued and discontinued operations	-	-
c) Unused tax losses where no deferred tax asset has been recognised at 30% (2022: 25%)	7,663,471	5,524,165
d) Timing difference for which no deferred tax (liability) / asset has been recognised	(36,595)	68,071



#### NOTE 5 - KEY MANAGEMENT PERSONNEL COMPENSATION

#### a) Names and positions held of consolidated entity key management personnel in office at any time during the financial year are:

Mr Greg English	Chairman – Executive
Mr Kenneth Williams	Director – Non-executive
Ms Bernadette Harkin	Director – Non-executive
Dr Mohammad Choucair	Chief Executive Officer
Mr Damien Connor	Chief Financial Officer & Company Secretary

Other than the directors and officers of the company listed above, there are no additional key management personnel.

#### b) Key Management Personnel Compensation

Refer to the Remuneration Report for details of the remuneration paid or payable to each member of the Group's Key Management Personnel (KMP). Detailed disclosures regarding remuneration are found in the Remuneration report contained in the Directors report.

The aggregate remuneration of KMP of the Group during the year is as follows:

	30 JUNE 2023 \$	30 JUNE 2022 \$
Short term benefits	987,617	941,218
Post-employment benefit	86,176	77,180
Share - based payments	3,940,370	6,409,476
	5,014,163	7,427,874

NOTE 6 – AUDITOR REMUNERATION	30 JUNE 2023 \$	30 JUNE 2022 \$

Total fees paid or payable for services provided by Grant Thornton Audit Pty Ltd and its related practices were as follows:

Audit Services		
Audit and review of Financial Reports	59,600	53,000

No non audit services were provided.

NOTE 7 – CASH AND CASH EQUIVALENTS AND TERM DEPOSITS	30 JUNE 2023 \$	30 JUNE 2022 \$
Cash at bank and on hand	772,317	1,418,542
Short term deposits	22,545,145	25,045,145

For the year ended 30 June 2023, the group has deposited any funds surplus to immediate requirements in higher yielding short term deposits. Maturity dates for short term deposits vary between 30 and 457 days at 30 June 2023. The weighted average interest rate on the short term deposits is 4.44%. Short term deposits are able to be converted to available cash with 30 days' notice. The Group's exposure to interest rate risk is summarised at Note 22.

NOTE 8 – TRADE AND OTHER RECEIVABLES	30 JUNE 2023 \$	30 JUNE 2022 \$
Research and development tax incentive receivable	1,450,000	973,000
Accrued interest	530,252	80,906
Other receivables	52,513	40,112
	2,032,765	1,094,018

NOTE 9 - OTHER FINANCIAL ASSETS	30 JUNE 2023 \$	30 JUNE 2022 \$
Financial assets at fair value through profit or loss		
- Listed Investment in Volatus Capital Corp ("Volatus") - shares	18,617	146,705
- Listed Investment in ChemX Materials Ltd ("ChemX") – shares	821,549	1,562,101
- Listed Investment in ChemX Materials Ltd ("ChemX") - options	34,713	-
	874,879	1,708,806
Reconciliation		
Reconciliation of the fair values at the beginning and end of the current and previous financial year are set out below:		
Opening fair value	1,708,806	2,692,644
Additions – listed options in ChemX (at cost)	14,464	-
Additions – consideration received ChemX	-	464,224
Revaluation decrements	(848,391)	(1,448,062)
Closing fair value	874,879	1,708,806

All financial assets designated at fair value through profit or loss utilise level 1.

#### Financial assets at fair value through profit or loss

Financial assets not measured at amortised cost or at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. Typically, such financial assets will be either: (i) held for trading, where they are acquired for the purpose of selling in the short-term with an intention of making a profit, or a derivative; or (ii) designated as such upon initial recognition where permitted. Fair value movements are recognised in profit or loss.

The fair value of listed investments (publicly traded equity securities) is based on quoted market prices at the end of the reporting period (Level 1).



NOTE 10 - INVESTMENT IN CONTROLLED ENTITIES		PERCENTAGE OWNED	
	Country of Incorporation	30 JUNE 2023 %	30 JUNE 2022 %
Parent Entity			
- Archer Materials Limited	Australia		
Subsidiaries of Archer Materials Limited:			
- Carbon Allotropes Pty Limited	Australia	100	100
- Archer Energy and Resources Pty Ltd	Australia	100	100
- Archer Metals Pty Ltd	Australia	100	100
- Archer IOCG Pty Ltd	Australia	100	100

NOTE 11 - INTANGIBLE ASSETS	30 JUNE 2023 \$	30 JUNE 2022 \$
Patents, licences and trademarks - at cost	397,973	273,275
Accumulated amortisation	(44,279)	(24,935)
	353,694	248,340
Movements in carrying amounts:		
Balance at the beginning of the period	248,340	140,208
Additions	124,698	120,709
Amortisation	(19,344)	(12,577)
Balance at the end of the period	353,694	248,340

NOTE 12 - TRADE AND OTHER PAYABLES	30 JUNE 2023 \$	30 JUNE 2022 \$
Trade payables	388,621	104,894
Other creditors and accruals	397,098	243,865
	785,719	348,759

NOTE 13 – EMPLOYEE ENTITLEMENTS	30 JUNE 2023 \$	30 JUNE 2022 \$
Current – annual leave, long service leave and other employee provisions	378,868	336,403
Non-current - long service leave provision	34,983	41,322
	413,851	377,725

NOTE 14 - ISSUED CAPITAL	CONSOLIDATE	D GROUP
	30 JUNE 2023 \$	30 JUNE 2022 \$
254,847,013 (2022: 248,467,207) fully paid ordinary shares	47,799,119	47,723,569
a) Shares on issue 30 June 2023	Number	\$
Movements in fully paid shares		
Balance as at 1 July 2022	248,467,207	47,723,569
Shares issued - exercise of Options (31 October 2022)	500,000	75,550
Shares issued - exercise of Options (27 March 2023) <sup>1</sup>	5,879,806	-
Balance as at 30 June 2023	254,847,013	47,799,119

<sup>1 5,879,806</sup> Shares issued following the cashless exercise of 8,800,000 Options (exercisable at \$0.1511 each and expiring or before 31 March 2023). On 9 March 2023, the Board (with Mr English abstaining) approved an amendment to the Archer Performance Rights and Share Option Plan (the 'Plan'), to include a Cashless Exercise Mechanism. The formula for calculating the number of Shares to be issued on cashless exercise pursuant to the Plan, as amended, is as follows as:

 $A = O - ((O \times E)/SP)$ 

#### Where:

A = the number of Shares required to be issued by the Company;

O = the number of Share Options for which the Cash-less Exercise Mechanism has been exercised;

E = the Exercise Price for the Share Options for which the Cash-less Exercise Mechanism has been exercised;

SP = the volume weighted average market price (as defined in the ASX Listing Rules) of Shares over the five (5) trading days on which trades in Shares are actually recorded immediately preceding (but excluding) the date of the Notice of Exercise.

Shares on issue 30 June 2022	Number	\$
	Number	•
Movements in fully paid shares		
Balance as at 1 July 2021	227,506,546	33,093,217
Shares issued - exercise of Options (16 July 2021)	200,000	38,580
Shares issued – placement (net of costs) (8 October 2021)	10,344,828	15,000,000
Shares issued - exercise of Options (8 October 2021)	1,200,000	231,480
Return of Capital - in-specie distribution <sup>1</sup>	N/A	(10,000,000)
Shares issued – share purchase plan (27 October 2021)	6,897,556	10,000,000
Shares issued - exercise of Options (2 November 2021) <sup>2</sup>	1,318,277	199,192
Shares issued - exercise of Options (29 November 2021) <sup>2</sup>	100,000	15,110
Shares issued - exercise of Options (20 April 2022) <sup>2</sup>	300,000	45,330
Shares issued - exercise of Options (27 May 2022) <sup>2</sup>	600,000	90,660
Transaction costs of shares issued	n/a	(990,000)
Balance as at 30 June 2022	248,467,207	47,723,569

<sup>1</sup> The value of the capital reduction effected by way of in-specie distribution of 50,000,000 shares in iTech Minerals Ltd ('iTech') to Archer shareholders on 15 October 2021. The 50,000,000 shares in iTech were issued at \$0.20 per share as consideration for the sale of the Company's remaining mineral exploration business to iTech. Refer to Note 18 for further details regarding the sale to iTech and pro-rata in-specie distribution of iTech shares to Archer shareholders.

<sup>2</sup> Following the return of capital by way of pro-rata in-specie distribution of 50,000,000 iTech shares (refer Note 18), on 15 October 2021 the exercise price of outstanding Options were adjusted in accordance with the ASX Listing rules. Options previously exercisable at \$0.1929 were adjusted to be exercisable at \$0.1511 each, and Options previously exercisable at \$0.7695 were adjusted to be exercisable at \$0.7277 each.



#### NOTE 14 - ISSUED CAPITAL (CONTINUED)

#### (b) Options on issue

All options on issue are unlisted options (Options). Details of the Options outstanding as at the end of the year are set out below:

Issued to	Issue Date	Grant Date	Number of Options Granted	Option Exercise Price	Expiry Date	Balance at 30 June 2023	Balance at 30 June 2022
Directors & CEO	12/11/2019	30/10/2019	11,500,000	\$0.1511	31/03/2023	-	8,300,000
Other Employees	12/11/2019	12/11/2019	6,000,000	\$0.1511	31/03/2023	-	1,000,000
Director	30/11/2020	30/11/2020	1,500,000	\$0.7277	31/03/2024	1,500,000	1,500,000
Directors, CEO & Other Employees	2/12/2021	24/11/2021	24,050,000	\$1.79	31/05/2025	21,950,000	24,050,000
Other Employees	29/8/2022	28/8/2022	1,500,000	\$1.79	31/03/2025	1,500,000	-
			44,550,000			24,950,000	34,850,000

All Options are unlisted and are exercisable into fully paid ordinary shares in the Company on a one for one basis.

#### Options granted during the year

On 29 August 2022, 1,500,000 Options were issued to an employee of the Company. The Options were granted at no cost to the recipient and 50% vest on 31 May 2023 and 50% vest on 31 May 2024 provided that the recipient is an employee of the Company at the date of vesting.

#### Options exercised during the year

During the year 9,300,000 Options (with an exercise price of \$0.1511 each and expiry by 31 March 2023) were exercised into Shares. A total of 6,379,806 Shares were issued during the year from the exercise of those 9,300,000 Options, including 5,879,806 Shares issued following the cashless exercise of 8,800,000 Options. Refer to Note 14 for details of the formula used for cashless exercise of Options.

#### Options lapsed/forfeited during the year

During the year 2,100,000 Options with an exercise price of \$1.79 and expiring on 31 May 2025, lapsed or forfeited in accordance with the terms of which they were issued.

See Note 17 for further details regarding movements in Options during the year.

#### c) Performance Rights (Rights) on issue

There were no Rights on issue during the reporting period or as at the date of this report.

#### d) Capital Management

Management effectively manages the Group's capital and capital structure by assessing the Group's financial risks through regular monitoring of budgets and forecast cashflows. The Board's policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business, including through the issue of shares. The Group's capital is shown as issued capital in the statement of financial position. The Group is not subject to any external capital restrictions.

NOTE 15 – LOSS PER SHARE	30 JUNE 2023 \$	30 JUNE 2022 \$
Reconciliation of earnings to Statement of Profit or Loss and other Comprehensive Income		
Loss for year used to calculate basic EPS	(9,049,457)	(14,115,728)
	Number	Number
Weighted average number of shares outstanding during the year used in calculation of basic EPS	250,329,074	241,767,819
b) In accordance with AASB 133 "Earnings per Share" as potential ordinary shares may only result in a situation where their conversion results in a decrease on profit per share or increase in loss per share, no dilutive effect has been taken into account.		

NOTE 16 – RESERVES	30 JUNE 2023 \$	30 JUNE 2022 \$
a) Share-based payments reserve		
Share based payment reserve	15,371,834	10,893,334
Movement associated with Options during the year:		
Opening Balance	10,893,334	1,148,813
Granted – expense associated with vesting during the year	5,890,941	9,945,024
Exercised	(544,060)	(200,503)
Forfeited	(336,098)	-
Lapsed	(532,283)	-
Closing Balance	15,371,834	10,893,334

The share-based payments reserve records items recognised as an expense on the valuation of Options or Rights.

Refer Note 17 for further details regarding the movement in Options issued during the reporting period.



#### **NOTE 17 - SHARE BASED PAYMENTS**

#### UNLISTED OPTIONS 30 JUNE 2023

The number of Options and weighted average exercise prices are as follows for the reporting period presented:

	Number of Options	\$	Weighted Average Exercise Price Per Option \$
Opening Balance (1 July 2022)	34,850,000	10,893,334	\$1.30
Granted	1,500,000	5,890,941	\$1.79
Exercised	(9,300,000)	(544,060)	\$0.1511
Forfeited	(2.400.000)	(336,098)	\$1.79
Lapsed	(2,100,000)	(532,283)	\$1.79
Closing Balance (30 June 2022)	24,950,000	15,371,834	\$1.73

The weighted average remaining contractual life of Options at 30 June 2023 is 1.85 years.

During the year, an amount of \$1,076,343 was transferred to retained losses, relating to prior period share-based payments associated with:

- > Options that were exercised into shares during the year (\$544,060); and
- > Write-back to retained earnings of share-based payments expense associated with previously issued Options that had not yet vested and were lapsed during the year (\$532,283).

During the year an amount of \$5,554,843 was recorded to the Statement of Profit or Loss and Other Comprehensive Income under 'share based payments expense' (30 June 2022: \$9,945,024), associated with:

- > vesting of Options granted during the year (\$310,867); and
- > vesting of Options granted during the year (\$5,580,074); and
- > write back to profit and loss, associated with previously issued Options that had vested and were forfeited during the current year \$336,098.

#### Options granted during the year

On 29 August 2022, 1,500,000 Options were issued to an Archer employee. The Options were granted at no cost to the recipient and 50% vest on 31 May 2023 and 50% vest on 31 May 2024 provided that the recipient is an employee of the Company at the date of vesting. The Options have an exercise price of \$1.79 each and expiry date of 31 May 2025.

The total fair value at the grant date for the 1,500,000 options was \$421,047, and this amount is being expensed to the Statement of Profit or Loss and Other Comprehensive Income under 'share based payments expense' over the vesting periods applicable to the Options. Accordingly, an amount of \$310,866 has been included in the Statement of Profit or Loss and Other Comprehensive Income under 'share based payments expense' for the year ended 30 June 2023.

The Options were granted pursuant to the Company's Performance Rights and Share Option Plan ("Plan"), which was initially approved by shareholders at the Annual General Meeting ("AGM") held on 30 October 2019 and subsequently re-approved by shareholders at the AGM held on 23 November 2022. The Plan was amended by resolution of the Board 9 March 2023, to include a Cashless Exercise Mechanism. Refer Note 14 for further details of the formula for calculating the number of Shares to be issued on cashless exercise of Share Options.

#### NOTE 17 - SHARE BASED PAYMENTS (CONTINUED)

Details of the Options granted during the year ended 30 June 2023 are set out below:

Issued to	Grant Date	Issue Date	Number of Options Granted	Option Exercise Price	1st Vesting Date	2nd Vesting Date	Expiry Date
Employee	28/08/2022	29/08/2022	1,500,000	\$1.79	31/05/2023	31/05/2024	31/05/2025

All Options are unlisted and are exercisable into fully paid ordinary shares in the Company on a one for one basis.

The fair value of the Options issued during the year was calculated by using a Black-Scholes option pricing model and was estimated on the date of the grant using the following assumptions:

	Employee Options
Share price at date of grant (\$)	0.75
Historic volatility (%)	91.4
Risk free interest rate (%)	3.24
Expected life of Options (days)	1007

Historical volatility has been the basis for determining expected share price volatility as it is assumed that this is indicative of future tender, which may not eventuate.

The life of the Options is based on the historical exercise patterns, which may not eventuate in the future.

#### Options exercised during the year

During the year 9,300,000 Options (with an exercise price of \$0.1511 each and expiry by 31 March 2023) were exercised into Shares. A total of 6,379,806 Shares were issued during the year from the exercise of those 9,300,000 Options, including 5,879,806 Shares issued following the cashless exercise of 8,800,000 Options. Refer to Note 14 for details of the formula used for cashless exercise of Options.

An amount of \$544,060 was written-back to retained losses for the year ended 30 June 2023, relating to prior period share-based payments expense associated with the Options that were exercised into shares during the reporting period.

#### Options forfeited or lapsed during the year

During the year 2,100,000 Options with an exercise price of \$1.79 and expiring on 31 May 2025, were lapsed or forfeited in accordance with the terms of which they were issued.

An amount of \$532,283 was written-back to retained losses for the year ended 30 June 2023, relating to prior period share-based payments expense associated with the 700,000 vested Options that lapsed during the year.

An amount of \$336,098 was written-back to the 'share-based payments expense' on the Statement of Profit or Loss and Other Comprehensive Income' for the year ended 30 June 2023, relating to prior period share-based payments expense associated with the 1,400,000 unvested Options that were forfeited during the year.

#### **PERFORMANCE RIGHTS**

There were no performance rights on issue at any time during the current or prior reporting periods.



#### NOTE 18 - DISPOSAL GROUPS CLASSIFIED AS HELD FOR SALE AND DISCONTINUED OPERATIONS

#### SALE OF SUBSIDIARIES TO ITECH MINERALS LTD

On 12 April 2021, the Company announced that it had signed a legally binding share sale agreement with iTech Minerals Pty Ltd ("iTech") for the sale of all of the three subsidiary companies that held Archer's remaining mineral tenements (the "Transaction").

At the Company's General Meeting held on 30 August 2021, Archer shareholders approved the sale of the Company's remaining mineral exploration projects to iTech in return for 50 million iTech shares (Resolution 1) and the reduction of capital by way of pro-rata in-specie distribution of the 50 million iTech shares to eligible Archer shareholders (Resolution 2).

The Transaction completed on 14 October 2021, with the Company receiving received 50 million iTech shares (with a value of \$0.20 per iTech share), which were disbursed to Archer shareholders by way of a pro-rata in-specie distribution on 15 October 2021. The Company did not hold any iTech shares following completion of the Transaction.

The following table represents the carrying amounts of net assets over which control was lost at the date of completion.

#### Carrying amounts of net assets over which control was lost

Assets	Total \$
Non-current exploration assets held for sale	10,000,000
	10,000,000
Liabilities	-
Net assets disposed	10,000,000
Consideration received:	
Fair value of equity received in iTech Minerals Ltd – 50,000,000 shares	10,000,000
Total consideration received	10,000,000
Gain / (loss) on disposal group classified as held for sale assets	-
Equity	
Return of capital by way of pro-rata in-specie distribution of iTech shares	(10,000,000)

The combined net operating loss of the three companies sold to iTech namely SA Exploration Pty Ltd, Pirie Resources Pty Ltd and Archer Pastoral Company Pty Ltd are shown below:

	30 JUNE 2023 \$	30 JUNE 2022 \$
Interest income	-	89
Impairment of exploration assets	-	-
Exploration expenditure expensed	-	(56,799)
Depreciation	-	(9,682)
Other expenses	-	(831)
Loss for year from discontinued operations before tax	-	(67,223)

Given the Transaction completed prior to 30 June 2022, no Statement of Financial Position has been provided for the combined assets and liabilities of SA Exploration Pty Ltd, Pirie Resources Pty Ltd and Archer Pastoral Company Pty Ltd.

NOTE 19 - CASH FLOW INFORMATION		
CONTINUING OPERATIONS		
a) Reconciliation of cash flows from continuing operations with loss after income tax	30 JUNE 2023 \$	30 JUNE 2022 \$
Loss after income tax	(9,049,457)	(14,048,505)
Depreciation (net of capitalised depreciation)	34,395	37,829
Amortisation of intangibles	19,344	12,577
Fair value loss on financial assets (Note 9)	848,391	1,448,062
Share based payments	5,554,843	9,945,024
Gain on sale of non-current assets – sale to ChemX	-	(464,224)
Gain on sale non-current assets - plant and equipment	-	(45,000)
Changes in assets and liabilities:		
- Increase in trade and other receivables	(906,624)	(1,161,007)
- Increase in trade and other payables	436,959	99,288
- Increase in employee entitlements	36,126	10,473
Net cash used in operating activities from continuing operations	(3,026,023)	(4,165,483)

#### b) Non-Cash Financing and Investing Activities

There were no non-cash investing or financing activities undertaken during reporting period.

B. DISCONTINUED OPERATIONS		
a) Reconciliation of cash flows from discontinued operations	30 JUNE 2023 \$	30 JUNE 2022 \$
Loss after income tax (Note 18)	_	(67,223)
Depreciation	<del>-</del>	9,682
Impairment of exploration assets	-	
Changes in liabilities:		
- Decrease in trade and other receivables		8,324
- Decrease in trade and other payables		(85,894)
Net cash used in discontinued operating activities		(135,111)
Net cash used in discontinued investing activities		-
Total cash used in discontinued operations	-	(135,111)



#### NOTE 20 - CONTINGENT ASSETS, LIABILITIES & COMMITMENTS

#### Sugarloaf Land Option

In November 2018 Archer announced the sale of its Sugarloaf farmland for \$1.35 million. The transaction settled on 1 July 2019 with Archer receiving the \$1.35 million sale proceeds in July 2019. The purchaser of the farmland has granted Archer an option to buy back approximately 30% of the Sugarloaf farm land, which may be required for the construction of the Sugarloaf Graphite Processing Facility ("Land Option"). The Land Option may be exercised by Archer any time before 31 December 2023. The Land Option was not assigned to iTech Minerals Ltd.

#### ChemX Materials Limited - royalty

In June 2021 Archer announced the completion of the sale of tenements to ChemX Materials Limited. In addition to the consideration already received, Archer is also entitled to a 2% Net Smelter Return royalty on the value of all minerals (excluding graphite) extracted from the tenements sold to ChemX.

#### Leigh Creek Project bonus payment

In August 2020, the Company sold the Leigh Creek Magnesite Project ("Project") to Magmetal Tech Pty and Witchimag Pty Ltd ("Witchimag"). Under the terms of the Project sale agreement, Archer is entitled to a bonus payment if Witchimag lists on a stock exchange after completion. The bonus payment is equal to 5% of the value of the consideration paid to the owners of Witchimag under the listing ("bonus payment"). In June 2022, Canadian Stock Exchange listed Crest Resources Inc ("Crest") announced that it had entered into a Letter of Intent to acquire a 69.5% interest in Witchimag. If Crests acquisition of Witchimag proceeds, then the Company may become entitled to the bonus payment.

The Group did not have any further contingent assets or liabilities as at 30 June 2023.

#### **NOTE 21 - RELATED PARTY TRANSACTIONS**

#### a) Subsidiaries

Interests in subsidiaries are disclosed in Note 10.

#### b) Key Management Personnel

Disclosures relating to Key Management personnel are set out in Note 5 and the Remuneration Report contained within the Directors' Report.

#### c) Other transactions with related parties

Piper Alderman lawyers were paid a total of \$14,172 (2022: \$32,725) for legal services rendered to the Group. Mr English is a Consultant at Piper Alderman lawyers.

Damien Connor Consulting Pty Ltd were paid a total of \$170,550 (2022: \$174,243) for Financial and Company Secretarial consulting services to the Group. Mr Connor is a director of Damien Connor Consulting Pty Ltd.

Dr Choucair is a co-inventor of the 12CQ intellectual property licenced to Archer under a Licence Agreement with The University of Sydney. During the year Dr Choucair was not paid by The University of Sydney (2022: \$4,710).



#### **NOTE 22 - FINANCIAL INSTRUMENTS**

#### a) Financial Risk Management Policies

The Group's financial instruments consist mainly of deposits with banks, short-term investments, accounts receivable and payables.

#### b) Interest Rate Risk

Interest rate risk is managed with a mixture of fixed and floating rate cash deposits. It is the policy of the group to keep surplus cash in high yielding deposits.

#### i) Treasury Risk Management

The Board meets on a regular basis to analyse financial risk exposure and to evaluate treasury management strategies in the context of the most recent economic conditions and forecasts. The Board's overall risk management strategy seeks to assist the Group in meeting its financial targets, whilst minimising potential adverse effects on financial performance.

#### ii) Financial Risk Exposure and Management

The main risk the group is exposed to through its financial instruments is interest rate risk.

#### c) Sensitivity Analysis

#### Interest Rate Sensitivity Analysis

At 30 June 2023, the effect on loss and equity as a result of changes in the interest rate, with all other variables remaining constant would be as follows:

	2023 \$	2022 \$
Change in loss		
- Increase in interest rates by 2%	450,903	500,903
- Decrease in interest rates by 2%	(450,903)	(500,903)
Change in equity		
- Increase in interest rates by 2%	450,903	500,903
- Decrease in interest rates by 2%	(450,903)	(500,903)

#### d) Net Fair Value of Financial Assets and Liabilities

The net fair value of cash and cash equivalent and noninterest bearing monetary financial assets and financial liabilities of the consolidated entity approximate their carrying value. The net fair value of other monetary financial assets and financial liabilities is based on discounting future cash flows by the current interest rates for assets and liabilities with similar risk profiles. The balances are not materially different from those disclosed in the balance sheet of the consolidated entity.

#### e) Credit risk

The maximum exposure to credit risk, excluding the value of any collateral or other security, at reporting date to recognised financial assets, is the carrying amount, net of any provisions for doubtful debts of those assets, as disclosed in the balance sheet and notes to the financial statements. The consolidated entity does not have any material credit risk exposure to any single debtor or group of debtors under financial instruments entered into by the consolidated entity.

#### f) Liquidity risk

Vigilant liquidity risk management requires the Group to maintain sufficient liquid assets (mainly cash and cash equivalents) to be able to pay debts as and when they become due and payable. The Group manages liquidity risk by maintaining adequate cash reserves by continuously monitoring actual and forecast cash flows and matching the maturity profiles of financial assets and liabilities. Trade payables are generally payable on 30-day terms.

#### NOTE 22 - FINANCIAL INSTRUMENTS (CONTINUED)

#### Remaining contractual maturities

The following tables detail the Group's remaining contractual maturity for its financial instrument liabilities. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the financial liabilities are required to be paid. The tables include both interest and principal cash flows disclosed as remaining contractual maturities and therefore these totals may differ from their carrying amount in the statement of financial position.

	Weighted average interest rate	1 year or less	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Consolidated - 30 June 2023	%	\$	\$	\$	\$
Non-interest bearing					
Trade and other payables		785,719	-	-	-
Interest-bearing - variable					
Lease liability	4.1%	9,097	-	-	-
Total		794,816	-	_	-

	Weighted average interest rate	1 year or less	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Consolidated - 30 June 2022	%	\$	\$	\$	\$
Non-interest bearing					
Trade and other payables		348,759	-	-	-
Interest-bearing - variable					
Lease liability	4.1%	10,652	9,097	-	-
Total		359,411	9,097	-	-

The cash flows in the maturity analysis above are not expected to occur significantly earlier than contractually disclosed above.

#### g) Market risk

#### Foreign currency risk

Foreign exchange risk arises when future commercial transactions and recognised assets and liabilities are denominated in a currency that is not the Company's functional currency. The Company operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the United States Dollar (USD).

#### Price risk

The Group is exposed to price risk associated with the investments in listed company shares and options.



#### NOTE 23 - ARCHER MATERIALS LIMITED PARENT COMPANY INFORMATION

	30 JUNE 2023 \$	30 JUNE 2022 \$
PARENT ENTITY		
ASSETS		
Current assets	25,885,383	28,138,988
Other financial assets	874,879	1,708,806
Investments in subsidiaries	1,971	1,802
Other Non-current assets	446,671	315,310
TOTAL ASSETS	27,208,904	30,164,906
LIABILITIES		
Current liabilities	1,173,684	695,186
Non-current liabilities	34,983	50,419
Loans to subsidiaries	-	-
TOTAL LIABILITIES	1,208,667	745,605
EQUITY		
Issued capital	47,799,119	47,723,569
Share based payment reserve	15,371,834	10,893,334
Retained losses	(37,170,716)	(29,197,602)
TOTAL EQUITY	26,000,237	29,419,301
FINANCIAL PERFORMANCE		
(Loss) / Profit for the year	(9,048,997)	(4,396,521)
Other comprehensive income	<u> </u>	-
TOTAL (LOSS) / PROFIT	(9,048,997)	(4,396,521)

#### Guarantees in relation to relation to the debts of subsidiaries

Archer Materials Limited has not entered into a deed of cross guarantee with its wholly-owned subsidiaries Archer Energy & Resources Pty Ltd, Carbon Allotropes Pty Limited, Archer IOCG Pty Ltd and Archer Metals Pty Ltd.

#### Contingent assets, liabilities and commitments

Refer Note 20 for details of contingent assets, liabilities and commitments as at 30 June 2023.

#### NOTE 24 - EVENTS SUBSEQUENT TO REPORTING DATE

The Directors are not aware of any other matter or circumstance that has arisen since the end of the year that has significantly affected, or may significantly affect the Group's operations, the results of those operations, or the Group's state of affairs in future financial years.



## Directors Declaration





The Directors of the Company declare that:

- 1. the Financial Statements and Notes as set out on pages 42 to 69 are in accordance with the Corporations Act 2001 and:
  - a) comply with Australian Accounting Standards and International Financial Reporting Standards as disclosed in Note 1; and
  - b) give a true and fair view of the financial position as at 30 June 2023 and of the performance for the period ended on that date.
- 2. the Executive Chairman and the Chief Financial Officer have each declared that:
  - a) the financial records of the Company for the year ended have been properly maintained in accordance with section 286 of the Corporations Act 2001
  - b) the financial statements and notes for the financial year comply with the Accounting Standards; and
  - c) the financial statements and notes give a true and fair view;
- 3. in the Directors' opinion there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Board of Directors.

**Greg English** 

Executive Chairman

Jughal

ADELAIDE

Dated this 24th day of August 2023







Grant Thornton Audit Pty Ltd Grant Thornton House Level 3 170 Frome Street Adelaide SA 5000 GPO Box 1270 Adelaide SA 5001

T +61 8 8372 6666

#### Independent Auditor's Report

#### To the Members of Archer Materials Limited

#### Report on the audit of the financial report

#### **Opinion**

We have audited the financial report of Archer Materials Limited (the Company) and its subsidiaries (the Group), which comprises the consolidated statement of financial position as at 30 June 2023, the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies, and the Directors' declaration

In our opinion, the accompanying financial report of the Group is in accordance with the *Corporations Act* 2001, including:

- a giving a true and fair view of the Group's financial position as at 30 June 2023 and of its performance for the year ended on that date; and
- b complying with Australian Accounting Standards and the Corporations Regulations 2001.

#### **Basis for opinion**

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Report* section of our report. We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional and Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### www.grantthornton.com.au ACN-130 913 594

Grant Thornton Audit Pty Ltd ACN 130 913 594 a subsidiary or related entity of Grant Thornton Australia Limited ABN 41 127 556 389 ACN 127 556 389. Grant Thornton' refers to the brand under which the Grant Thornton member firms provide assurance, tax and advisory services to their clients and/or refers to one or more member firms, as the context requires. Grant Thornton Australia Limited is a member firm of Grant Thornton International Ltd (GTIL). GTIL and the member firms are not a worldwide partnership. GTIL and each member firm is a separate legal entity. Services are delivered by the member firms. GTIL does not provide services to clients. GTIL and its member firms are not agents of, and do not obligate one another and are not liable for one another's acts or omissions. In the Australian context only, the use of the term 'Grant Thornton' may refer to Grant Thornton Australia Limited ABN 41 127 556 389 ACN 127 556 389 and its Australian subsidiaries and related entities. Liability limited by a scheme approved under Professional Standards Legislation.

#### Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report of the current period. These matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

#### Key audit matter

How our audit addressed the key audit matter

#### Recognition of research and development tax incentive – Notes 1 & 8

The Group receives a research and development (R&D) refundable tax offset from the Australian government, which represents 48.5 cents in each dollar of eligible annual R&D expenditure if its turnover is less than \$20 million per annum. Registration of R&D Activities Application is filed with AusIndustry in the following financial year and, based on this filing, the Group receives the incentive in cash.

Management reviewed the Group's total R&D expenditure to estimate the refundable tax offset receivable under the R&D tax incentive legislation.

This area is a key audit matter due to the size of the accrual and the degree of judgment and interpretation of the R&D tax legislation required by management to assess the eligibility of the R&D expenditure under the scheme.

Our procedures included, amongst others:

- obtaining through discussions with management and understanding of the process to estimate the claim;
- utilising an internal R&D tax specialist to;
  - review the expenditure methodology employed by management for consistency with the R&D tax offset rules; and
  - consider the nature of the expenses against the eligibility criteria of the R&D tax incentive scheme to form a view about whether the expenses included in the estimate were likely to meet the eligibility criteria;
- comparing the nature of the R&D expenditure included in the current year estimate to the prior year's claim;
- testing a sample of R&D expenditure and agreeing to supporting documentation to ensure appropriate classification, the validity of the claimed amount and eligibility against the R&D tax incentive scheme criteria;
- assessing the appropriateness of the financial statement disclosures.

#### Information other than the financial report and auditor's report thereon

The Directors are responsible for the other information. The other information comprises the information included in the Group's annual report for the year ended 30 June 2023, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

#### Responsibilities of the Directors for the financial report

The Directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the Corporations Act 2001 and for such internal control as the Directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

Grant Thornton Audit Pty Ltd



In preparing the financial report, the Directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the 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 this financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: <a href="http://www.auasb.gov.au/auditors">http://www.auasb.gov.au/auditors</a> responsibilities/ar1 2020.pdf. This description forms part of our auditor's report.

#### Report on the remuneration report

#### Opinion on the remuneration report

We have audited the Remuneration Report included in the Directors' report for the year ended 30 June 2023.

In our opinion, the Remuneration Report of Archer Materials Limited, for the year ended 30 June 2023 complies with section 300A of the *Corporations Act 2001*.

#### Responsibilities

The Directors of the Company are responsible for the preparation and presentation of the Remuneration Report in accordance with section 300A of the *Corporations Act 2001*. Our responsibility is to express an opinion on the Remuneration Report, based on our audit conducted in accordance with Australian Auditing Standards.

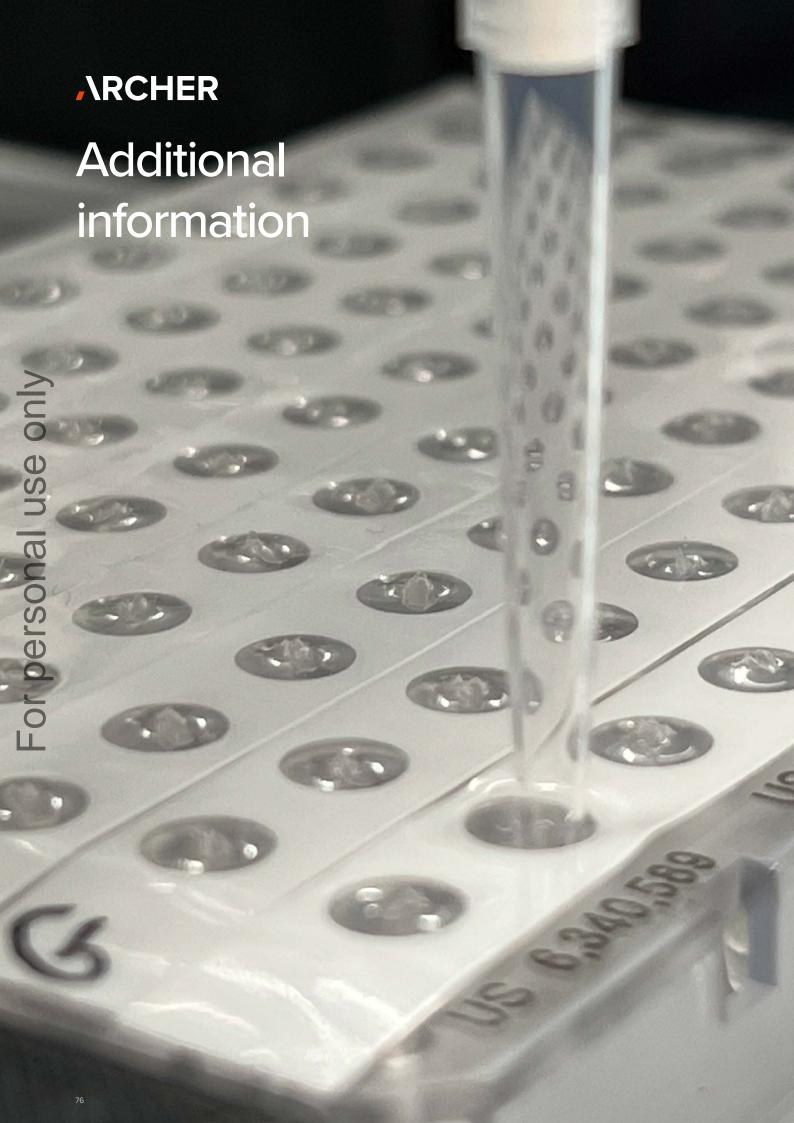
Grant Thornton Audit Pty Ltd Chartered Accountants

grant Thomston

JL Humphrey
Partner – Audit & Assurance

Adelaide, 24 August 2023

Grant Thornton Audit Pty Ltd



# Compiled as at 16 August 2023



Additional information required by the ASX Listing Rules and not disclosed elsewhere in this report is set out below.

#### Shareholder information

#### **Substantial Shareholders**

There are no substantial shareholders in the Company with 5% or greater relevant interest in securities of the Company.

#### **Distribution of equity securities**

Number of security holders by size of holding:

Range	Ordinary Shares	Unlisted Options
1 - 1,000	2,615	-
1,001 - 5,000	4,186	-
5,001 - 10,000	1,747	-
10,001 - 100,000	2,593	-
100,001 and over	379	11
Total	11,520	11

Unmarketable	Minimum	Holders	Ordinary
Parcels	parcel size		Shares
Minimum \$500.00 parcel at \$0.5150 per share	971 shares	2,126	1,080,865

#### **Voting Rights**

The voting rights attaching to each class of equity securities is set out below:

- (a) Ordinary Shares: On a show of hands, every person present who is a member or proxy, attorney or representative of a member has one vote and upon a poll each share shall have one vote.
- (b) Unlisted Options: No voting rights.



# Additional Information

#### Twenty largest holders of each class of quoted equity security

Ordin	ary Shares		
Rank	Name	Shares	% Issued capital
1	BNP PARIBAS NOMS PTY LTD <drp></drp>	9,074,665	3.56
2	GDE EXPLORATION (SA) PTY LTD < DRAGON MINING INV A/C>	7,471,798	2.93
3	CITICORP NOMINEES PTY LIMITED	5,407,817	2.12
4	DR MOHAMMAD CHOUCAIR	3,854,927	1.51
5	INVERTON PTY LTD <alice a="" c="" mccleary="" super=""></alice>	3,791,072	1.49
6	GDE EXPLORATION (SA) PTY LTD <a1 a="" c="" english="" family=""></a1>	3,006,719	1.18
7	BNP PARIBAS NOMINEES PTY LTD ACF CLEARSTREAM	2,705,838	1.06
8	MR FORBES VALE SPRAWSON + MRS MARGARET MARY SPRAWSON	2,300,000	0.90
9	MR ROGER EDWARD KOCH	2,150,000	0.84
10	MR BASIL CATSIPORDAS	2,000,000	0.78
11	KOOYAP PTY LTD <yap &="" a="" c="" f="" foo="" s=""></yap>	1,896,534	0.74
12	BNP PARIBAS NOMINEES PTY LTD <ib au="" drp="" noms="" retailclient=""></ib>	1,796,060	0.70
13	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	1,795,853	0.70
14	NETWEALTH INVESTMENTS LIMITED <wrap a="" c="" services=""></wrap>	1,626,230	0.64
15	MR ALISTAIR CHARLES JACKSON	1,547,347	0.61
16	MRS DEBORAH ANNETTE ROSSITER	1,463,679	0.57
17	MR STEPHEN MAHNKEN + MS DIOR MAHNKEN <three a="" c="" fish=""></three>	1,428,571	0.56
18	MRS KAREN DRISCOLL + MR RAYMOND DRISCOLL <edwin a="" c="" holdings="" super=""></edwin>	1,316,970	0.52
19	WADE BOLLENHAGEN	1,218,300	0.48
20	MR JARROD DRISCOLL <driscoll a="" brothers="" c="" f="" s=""></driscoll>	1,132,957	0.44
Total		56,985,337	22.36

#### Corporate Governance Statement

#### For the Year Ended 30 June 2023

The Corporate Governance Statement for the Group has been released as a separate document and is located in the Corporate Governance section of the Company's website at: www.archerx.com.au

# Corporate directory



#### **Directors**

Greg English

(Executive Chairman)

Kenneth Williams

(Independent Non-Executive Director)

Bernadette Harkin

(Independent Non-Executive Director

#### Chief Executive Officer

Dr Mohammad Choucair

Held the position of Chief Executive Officer during the financial year and as at the date of this report.

#### **Company Secretary**

Damien Connor

Held the position of Company Secretary during the financial year and as at the date of this report.

and ASX released, please visit the following:

#### Registered Office

Lot Fourteen, Frome Road ADELAIDE SA 5000

Telephone: +61 8 8272 3288 Email: hello@archerx.com.au

#### **Share Registry**

Computershare Investor Services Pty Ltd

Level 5, 115 Grenfell Street ADELAIDE SA 5000

#### **Auditors**

**Grant Thornton Audit Pty Ltd** 

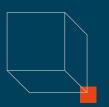
Level 3, 170 Frome Street ADELAIDE SA 5000

#### Australian Securities Exchange

The Company is listed on the Australian Securities Exchange

**ASX CODE: AXE** 

#### Stay in touch Sign up to Website: our Newsletter: Latest news, reports and presentations via email archerx.com.au eepurl.com/dKosXI Shareholders are encouraged to take advantage of the benefits of electronic communications by electing to receive communication from the Company and its share registry electronically. Shareholders can change their communication preferences through the registry website: Twitter: YouTube: www.investorcentre.com twitter.com/ bit.ly/2UKBBmG archerxau For more information about Archer's activities, and sign up to receive the latest news, reports, presentations



### **\**RCHER

#### **Archer Materials Limited**

(ABN 64 123 993 233)

- Lot Fourteen, Frome Road ADELAIDE SA 5000
- Contact:
  - P: +61 8 8272 3288
  - E: hello@archerx.com.au

archerx.com.au