

# **Argonaut Resources NL**

**ABN 97 008 084 848**

**Interim Financial Report - 31 December 2021**

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Directors	P J D Elliott L J Owler A W Bursill M R Richmond – <i>retired 2 February 2022</i> M R Billing
Company secretary	J E Morbey
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Auditor	Ernst & Young 200 George Street Sydney NSW 2000
Bankers	National Australia Bank Level 36, 100 Miller Street North Sydney NSW 2060
Stock exchange listing	Argonaut Resources NL shares are listed on the Australian Securities Exchange (ASX code: ARE)
Website	<a href="http://www.argonautresources.com">www.argonautresources.com</a>

The directors present their report, together with the financial statements, on the consolidated entity (referred to hereafter as the 'consolidated entity') consisting of Argonaut Resources NL (referred to hereafter as the 'company' or 'parent entity') and the entities it controlled at the end of, or during, the half-year ended 31 December 2021.

### **Directors**

The following persons were directors of Argonaut Resources NL during the whole of the financial half-year and up to the date of this report, unless otherwise stated:

Patrick Elliott  
Lindsay Owler  
Andrew Bursill  
Malcolm Richmond – Retired 2 February 2022  
Mick Billing

### **Principal activities**

Argonaut Resources NL is a mineral exploration and development company with operations in Australia and Zambia. The consolidated entity's prime commodity focus is copper and cobalt and to a lesser extent gold, lithium and nickel. In addition, the consolidated entity holds a 100% interest in a zinc-copper resource in Queensland, Australia.

During the period the principal activities of the consolidated entity were the identification and development of mineral resource opportunities with an emphasis on projects that were amenable to value-adding via exploration and rapid development into production.

### **Review of operations**

The loss for the consolidated entity after providing for income tax amounted to \$2,941,592 (31 December 2021: \$864,572).

## Review of Operations

### Copper

#### Lumwana West, Zambia

(Argonaut 90%)

##### Purported cancellation of exploration licence 22399-HQ-LEL

On 24 January 2022, Argonaut announced to the ASX, that the Company had become aware that Large-scale Exploration Licence 22399-HQ-LEL, Lumwana West, was not renewed by the Zambian Government on 28 December 2021 as expected. This licence area contains the Nyungu deposit.

At the time of the purported cancellation, the Company's 90% held subsidiary, Mwombezhi Resources Ltd, was operating in full compliance with all licence conditions and other regulatory requirements. However, Argonaut's Zambian lawyers have discovered that key compliance documents provided by the Company to its Zambian Directors and shareholders for filing were not submitted as required by the joint venture agreement, and this appears to have led to the cancellation of the licence.

Argonaut had a history of raising and investing significant amounts of money in the rigorous technical investigation of the Lumwana West licence area, particularly the Nyungu deposit. The Company had commenced the fast-tracking of a feasibility study into a commercial mining operation at the site via a team of internationally known experts. It would appear to be against the national interests of Zambia to stop this process.

##### Recovery action by Argonaut

The Company is currently working to having Large-scale Exploration Licence 22399-HQ-LEL, Lumwana West restored to Mwombezhi Resources Ltd.

Until such time when there is a clear decision on the status of the licence all exploration expenditure on the Lumwana West tenement has been impaired.

##### Exploration

Argonaut undertook exploration works at Lumwana West during the reporting period. Works and rehabilitation were completed in line with previous announcements.

#### Kamapanda, Zambia

(Argonaut 90%)

The Kamapanda project is located in the Central African Copperbelt, North-Western Province, Zambia. The area is prospective for large tonnage, low to medium grade copper-cobalt deposits and alluvial gold.

Argonaut via its 90% held subsidiary, Sunrise Exploration and Mining Limited has been successful in acquiring the licence and has now received operational approvals and consent from Zambian authorities to commence exploration activities.

The large-scale exploration licence covers an area of 225 km<sup>2</sup> and extends to the Angolan border (Figure 1). The area is remote, with limited access and is largely underexplored.

A program of regional stream sediment sampling is planned to outline both gold and copper potential. Regional interpretations are underway and on-ground activities are expected to commence in 2022.

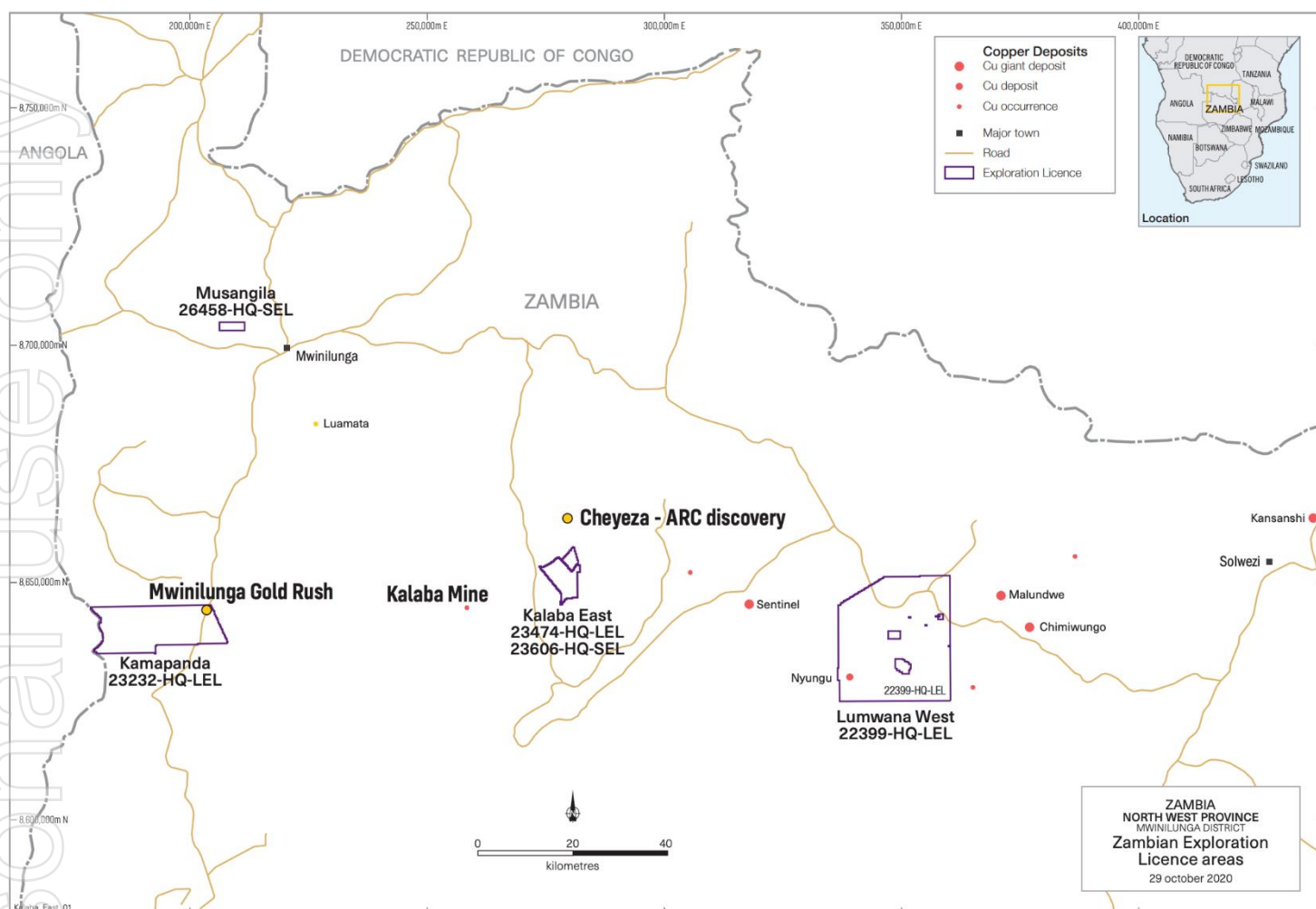


Figure 1. Lumwana West, Kamapanda, Kalaba East and Musangila project location, Zambia

### Kalaba East, Zambia

(Argonaut 90%)

The Kalaba East project is located in the Central African Copperbelt, North-Western Province, Zambia. The area is prospective for large tonnage, low to medium grade copper-cobalt deposits.

Argonaut via its 90% held subsidiary, Sunrise Exploration and Mining Limited has been successful in acquiring two contiguous licences and has now received operational approvals and consent from Zambian authorities to commence exploration activities.

The Kalaba East project lies adjacent to ARC Minerals' recent Cheyeza East prospect (Figure 2) and Muswema North prospect discovery and west of the world-class copper mine Sentinel, operated by First Quantum Minerals. At Cheyeza East ARC Minerals intercepted 18m at 2.35% copper and 39m at 1.47% copper.

Argonaut plans to conduct a regional geochemical sampling program at Kalaba East. Regional interpretations are underway and on-ground activities are expected to commence in 2022.

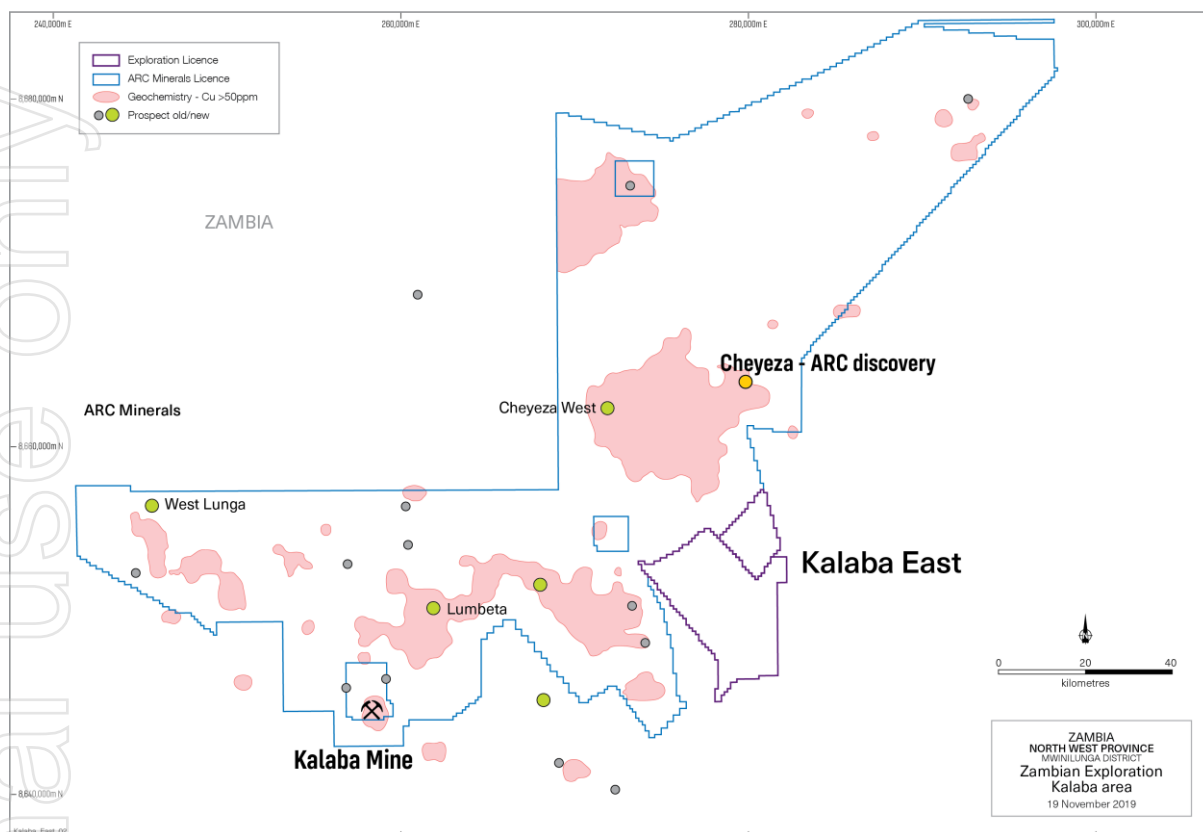


Figure 2. Kalaba East project location, Zambia

## Musangila, Zambia

(Argonaut 90%)

The Musangila project is located in the Central African Copperbelt, North-western Province, Zambia (Figure 1). The area is prospective for large tonnage, low to medium grade copper-cobalt deposits and alluvial gold.

Argonaut via its 90% held subsidiary, Sunrise Exploration and Mining Limited has been successful in acquiring the licence and is waiting for operational approvals and consent from Zambian authorities to commence exploration activities.

Argonaut plans to conduct a geochemical sampling program followed by RC drilling.

## Murdie, South Australia

(Argonaut 100%)

Argonaut Resources holds a 100% interest in two highly prospective South Australian exploration licences, EL5937 and EL5945 via its subsidiary, Kellaray Pty Ltd. The Murdie licences cover an area of 1,015 square kilometres and are contiguous with the Company's Torrens joint venture licence EL6407 and are located within 10 kilometres of OZ Minerals' Carrapateena copper-gold deposit and 45 kilometres of BHP's Oak Dam West high-grade copper discovery, along the western margin of Lake Torrens (Figure 3).

BHP's recent discovery (November 2018) at Oak Dam West has confirmed the validity of the Murdie targets and the copper endowment of the Stuart Shelf.

Drilling is targeting IOCG mineralisation defined by large gravity anomalies within the Olympic Copper-Gold Province of South Australia. Critical prerequisites to the discovery of an IOCG deposit have been confirmed from recent drilling conducted in 2021:

- the same brecciated, hematite alteration system as Olympic Dam, Carrapateena and Oak Dam;
- preservation, rather than erosion, of the IOCG system; and
- intersection at approximately the correct level within the system.

#### WLTD001

The first drill hole, WLTD001, intercepted an IOCG alteration system which confirms the prospectivity of the West Lake Torrens gravity anomaly (Photo 1).

- The intensity of alteration indicates that WLTD001 is 300 to 1,000 m from possible copper mineralisation.
- WLTD001 intercepted basement at 730m and was drilled to a depth of 924m.
- Analytical results have been received and these confirmed that no significant mineralisation was intersected.

#### WLTD002

Drilling of the second drill hole, WLTD002, intercepted further IOCG alteration including breccia zones with moderate to strong hematite and potassic alteration (Photo 2).

- WLTD002 intercepted basement at 645m and was drilled to a depth of 853m.
- Analytical results have been received and these confirmed that no significant mineralisation was intersected.

#### WLTD003

Argonaut relocated drilling equipment and protective matting from the West Lake Torrens target area to the southern end of Andamooka Island to drill test the 'bullseye' Trimmer anomaly (Figure 3).

- Argonaut laid ground protection matting to access the WLTD003 collar site from the shoreline of Lake Torrens, similar to the accessway which was successful for WLTD002 (Photo 3), however access to the collar site was hampered by:
  - several rain events which have affected access tracks to southern Andamooka Island,
  - related wetness of the surface and subsurface of Lake Torrens, and
  - impaired availability of earthmoving equipment and mechanics due to the South Australia COVID lockdown.

#### Rain Events

Rain events during 2021 caused lake surface wetness and pooling of water in certain areas of Lake Torrens. Near-surface geotechnical conditions were unsuitable for accessing drilling areas on the surface of Lake Torrens using protective matting.

A protective matting roadway was used successfully for access to drill hole WLTD002 (Photo 3).

The lake surface in the vicinity of Argonaut's fourth planned drill hole was subject to flooding. In Argonaut's experience, standing water on the surface of the lake evaporates slowly during winter months and very quickly during summer. The fourth drilling target area was not accessible at the time drilling contractors were demobilised.

#### Alternative Access Methods

Argonaut's drilling authorisations for the Murdie project contain alternative provisions for accessing drill sites on Lake Torrens. Argonaut has commenced discussions with relevant contractors regarding the continuation of drilling using a heli-supported drilling rig.

#### Targeting

It is appropriate for Argonaut to review its targeting priorities during this suspension of operations. Targeting to date has been by geophysical modelling of ground gravity survey data. Argonaut is applying artificial intelligence (AI) and machine learning via SenseOre Ltd's proprietary technology to generate a prioritisation of its various IOCG gravity targets at the Murdie project.

#### Drilling Targets

The Murdie exploration licences covers two largescale, regional gravity anomalies, West Lake Torrens and Murdie (Figure 4). These anomalies represent locations with significant volumes of high-density rock that could contain economic IOCG deposits. Efforts have been focused on the West Lake Torrens anomaly and the newly defined Trimmer anomaly which is located northwest of the Murdie anomaly, near the south-eastern corner of Andamooka Island.

#### Gravity Anomalies

A volume of high-density rock causes a measurably higher gravitational pull at surface and this manifests as a gravity anomaly. Therefore, mineral explorers can use gravity surveys as a means to define gravity anomalies and potentially discover dense orebodies. IOCG orebodies contain high concentrations of iron and copper minerals making them particularly dense.

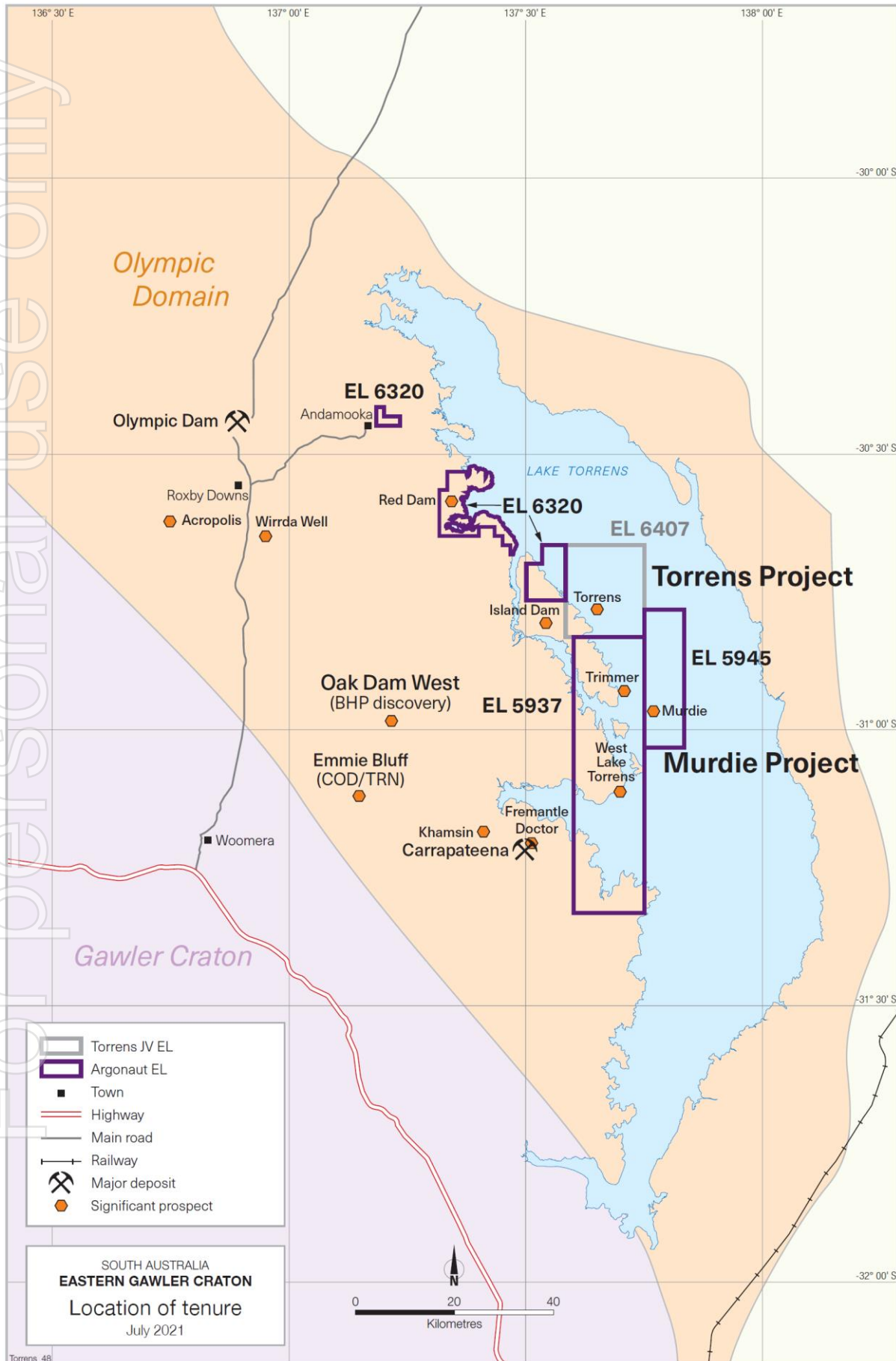




Figure 3. Lake Torrens exploration licences.

Drilling

WLTD001 and WLTD002 targeted residual gravity anomalies referred to on Figure 5 as Smith Dam 1 and Smith Dam 2 respectively. Drill core has been cut and sampled, results were received during the reporting period.

Table 1: Drill hole collar details

Drill Hole	Easting*	Northing*	Dip	Azimuth	Total Depth
WLTD001	757,090mE	6,554,800mN	-90 degrees	N/A	924m
WLTD002	754,770mE	6,551,950mN	-90 degrees	N/A	853m
WLTD003	759,030mE	6,575,830mN	-90 degrees	N/A	N/A



Photo 1. WLTD001, 897 to 899m, Murdie project: IOCG-style hematite alteration and brecciation.



Photo 2. WLTD002, 770.5m to 772.7m, Murdie project: IOCG-style hematite alteration and brecciation.

Confirmation of IOCG Geology

The presence of further IOCG alteration in the basement rocks of the West Lake Torrens gravity anomaly continues to provide encouragement to the Argonaut team. The 2021 Murdie drilling program has confirmed the presence of the critical prerequisites to the discovery of an IOCG deposit:

- the same brecciated, hematite alteration system as Olympic Dam, Carrapateena and Oak Dam;
- preservation, rather than erosion, of the IOCG system; and
- intersection at approximately the correct level within the system.

Basement rocks intercepted in drill hole WLTD002 feature breccia zones with moderate to strong hematite and potassic alteration. These observations are supported by portable XRF analysis.

Brecciation is the breaking of rock into fragments that are then re-cemented by a matrix, this case an iron-rich matrix (evident in drill core, Photo 1 and Photo 2). This process is generally considered to be a prerequisite to IOCG mineralisation.

The system appears not to have been subject to destructive, paleo-erosion. The upper, prospective portion of the IOCG system appears to have been preserved.

Drill holes WLTD001 and WLTD002 intercepted IOCG alteration at approximately the level within a system that possible economic IOCG mineralisation would be expected to occur.

The host rock of the system is interpreted to be units of the Wallaroo Group. No significant copper mineralisation is visible in WLTD002 drill core although chalcopyrite was noted in the lower part of the cover geology.

The density of this hematite-altered rock intercepted in both drill holes accounts for the residual gravity anomalies.

#### *Residual Gravity Targets*

Initial 2021, drilling by Argonaut at the Murdie project targeted “residual” gravity anomalies within the wider West Lake Torrens anomaly (Figures 4 and 5). The residual gravity targets shown in Figure 5 are 0.85 to 1.15 milligals above the regional gravity anomaly.

#### *West Lake Torrens Bouguer Anomaly*

The West Lake Torrens anomaly is a regional gravity anomaly (Figure 4). This type of anomaly is typically displayed as a “bouguer” gravity anomaly. The peak of the West Lake Torrens bouguer anomaly is 7 milligals above background levels. Argonaut has identified seven excellent drilling targets at the West Lake Torrens anomaly. Drilling targets located near the shoreline of Lake Torrens are shown on Figures 4 and 5 as Smith Dam 1 to 4. Offshore targets are labelled Crystal Dam 1 to 3.

Argonaut has drilled Smith Dam 1 and Smith Dam 2 first. Other targets will be prioritised on the basis of analytical results, further consideration of geophysical models and access requirements.

#### *Trimmer Bouguer Anomaly*

The Trimmer anomaly is a bullseye (single point) gravity target that sits between the south-eastern corner of Andamooka Island and the Murdie gravity anomaly (Figure 3). The gravity anomaly is nearby to an intense, linear magnetic anomaly which is coincident with a regional fault, but the Trimmer anomaly itself does not have a discernible magnetic anomaly.

#### *Highly Compelling Targets*

Many of the targets at the Murdie project have two important and sought-after qualities:

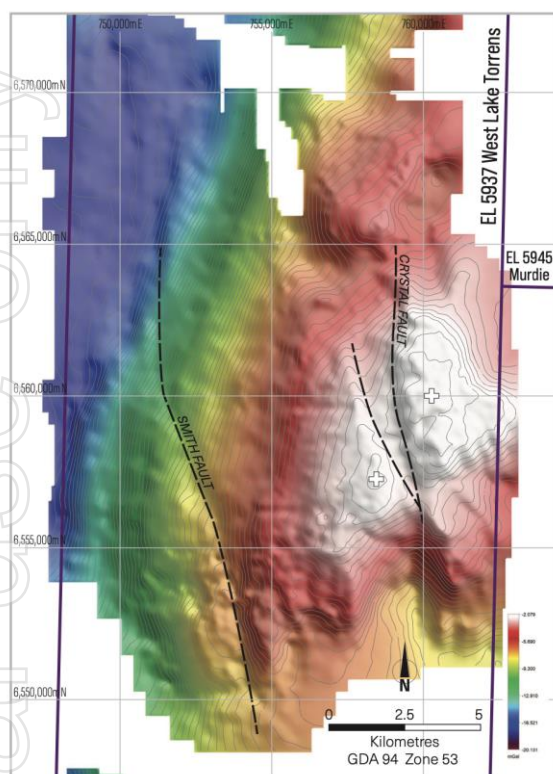
- they are within or at the margin of the same **Donington Suite granite** body that hosts both the Oak Dam and Carrapateena IOCG deposits; and
- the Oak Dam deposit and Argonaut’s targets are defined by ‘**gravity only**’ geophysical anomalies.

Gravity-only anomalies do not have a significant associated magnetic anomaly and can be indicative of IOCG deposits that have been entirely altered from magnetite-dominant, low-grade systems to *high-grade, hematite-dominant IOCG systems*. Large, gravity-only anomalies within Donington Suite granite are the most compelling copper exploration targets in the country.

#### *Accelerated Discovery Initiative*

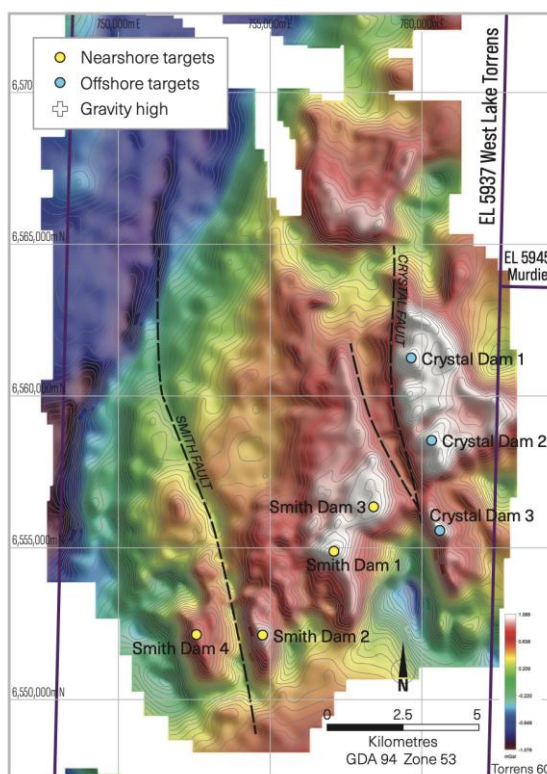
Funding in the amount of \$320,000 was awarded to Argonaut through the ADI program, which forms part of the South Australian Government’s Growth State Agenda. The ADI aims to accelerate mineral discovery through innovative exploration and research projects in regional and frontier terrains throughout South Australia.

A report on ADI funded activities was submitted by Argonaut and the ADI funds were received from the South Australian Government.



WEST LAKE TORRENS  
**Bouguer gravity anomaly**

*Figure 4: West Lake Torrens bouguer (regional) gravity anomaly.*



WEST LAKE TORRENS  
**Residual gravity anomalies and drilling targets**

*Figure 5: West Lake Torrens residual gravity anomalies and drilling targets.*

## Authorisations

### *Authority under the Aboriginal Heritage Act*

On 24 February 2020, Kelaray lodged an application under section 23 of the *Aboriginal Heritage Act 1988* for areas of exploration licences 5937 and 5945.

On 29 December 2020, the South Australian Government granted an authorisation. The authorisation allows for exploration-phase drilling plus potential resource and reserve definition drilling. The approval covers the parts of exploration licences 5937 and 5945 that overlap with Lake Torrens or are onshore and within 500m of the Lake Torrens shoreline.

### *Judicial Review Application*

On 16 March 2021, the Barngarla Determination Aboriginal Corporation RNTBC (BDAC) filed an application in the South Australian Supreme Court for a review of the authorisation announced to the ASX by Argonaut on 4 January 2021.

On 19-20 July 2021, the South Australian Supreme Court part-heard this application. The hearing was adjourned on the morning of Tuesday, 20 July 2021 due to the South Australian COVID lockdown. The remaining submissions were filed during July and August 2021. Argonaut is currently awaiting judgement.

The Company notes that there are no registered Barngarla heritage sites at Lake Torrens.

Exploration works undertaken at the Murdie project are duly authorised. The Company is confident that the State's authorisation process was robust.

#### *Operational Approval*

The 'Exploration Program for Environment Protection and Rehabilitation' for ongoing exploration activities including ground gravity surveys and diamond drilling at exploration licences 5937 and 5945 was approved under the South Australian Mining Act in January 2020.

The approval allows for up to 200 deep diamond drill holes into a string of large and prospective IOCG anomalies from nearshore and offshore locations on the salt crust of Lake Torrens.

#### *Native Title Access*

In 2018, the South Australian ERD Court granted native title authority to enter and undertake mining operations (exploration) within the area of EL5937 and EL5945.



*Photo 3. Drilling at WLTD002, Murdie project (Photo courtesy of SA Dept for Energy and Mines).*

### **Torrens, South Australia**

(Argonaut 30%)

The Torrens anomaly is a particularly attractive set of exploration targets hosted in a geological domain that has persistently rewarded explorers with large, high-grade copper discoveries. The discovery of an IOCG deposit by a listed junior exploration company creates a once-in-a-lifetime opportunity for shareholders. Argonaut continues to work towards this goal.

Exploration in the Olympic Domain has historically been hindered by two factors: the thickness of cover formations, and difficulties securing access. These factors, although frustrating, have preserved exploration targets that would have otherwise been tested.

Statistically, the drill testing of gravity targets in the Olympic Domain has delivered a higher than average discovery rate. It makes commercial sense to invest copper exploration budgets into drilling well defined gravity targets in the Eastern Gawler Craton.

Major, diversified miners and mid-cap copper miners are specifically seeking to increase copper production due to forecast copper supply shortages. There was an underinvestment in copper exploration between 2012 and 2017, consequentially

there are relatively few copper deposits available to acquire. Copper discoveries are necessary and copper deposits are in-demand.

The combination of geological prospectivity, access rights and a global appetite for new copper deposits make the Torrens Joint Venture project a compelling investment opportunity.

### Torrens Project

The Torrens Joint Venture project is located within the globally recognised Olympic Domain, at the eastern margin of South Australia's Gawler Craton, within 40 kilometres of BHP Group's Oak Dam copper discovery, 50 kilometres of OZ Minerals' Carrapateena copper-gold deposit and 75 kilometres from BHP's Olympic Dam mine. BHP's recent discovery at Oak Dam has confirmed the validity of the Torrens target and the copper endowment of the Eastern Gawler Craton.

### Torrens Anomaly

The Torrens anomaly is a coincident magnetic and gravity anomaly with a footprint larger than that of Olympic Dam. The anomaly is located at the Torrens Hinge Zone, a continent-scale zone of crustal weakness that appears to have been a conduit for mineralising fluids from the Earth's mantle.

Drilling at Torrens to date has confirmed the existence of a major IOCG mineralising system beneath several hundred metres of sedimentary cover. Further drilling is required to intercept the modelled copper-gold mineralisation. In the event of a discovery, the Torrens anomaly has the scale to host a world-class copper-gold deposit.

### Torrens Joint Venture

The Torrens Joint Venture is between Argonaut Resources NL (30%) and Aeris Resources Limited (ASX: AIS) (70%) and relates to the Torrens project, EL6407. Aeris' subsidiary, Straits Exploration (Australia) Pty Ltd, is the manager of the project.

### Red Dam, South Australia

(Argonaut 100%)

Argonaut holds exploration licence EL6320 located adjacent to the Torrens project (Figure 3). The 198 square kilometre licence area is in three parts and encompasses the Red Dam IOCG target that was previously identified by WMC. The licence areas were relinquished by BHP prior to the announcement of the Oak Dam West discovery (November 2018).

Argonaut has assessed the relevant, historical drill core and conducted a ground gravity survey in 2020 to improve resolution for geophysical modelling and target generation.

### Uranium Assets, South Australia and Northern Territory

(Argonaut – 66.7%)

Argonaut has acquired a substantial package of prospective uranium exploration licences in South Australia and the Northern Territory (Figure 6). Argonaut holds these assets via an unlisted public company called Orpheus Minerals Ltd (Orpheus).

### Initial Public Offering

Argonaut plans to list Orpheus on the Australian Securities Exchange in early 2022.

- Prospectus preparations are well advanced.
- The Argonaut board is considering:
  - an entitlement offer of Orpheus shares to Argonaut shareholders as part of the IPO process; and
  - a potential in-specie distribution of Orpheus shares to Argonaut shareholders (subject to statutory escrow provisions).

In preparation for the IPO \$370,000 was raised through the issue of ordinary shares by Orpheus in October 2021 to fund the IPO.

Projects were chosen following a systematic review of uranium deposit-styles and available projects over the past two years. The review covered uranium opportunities available for application in South Australia or Northern Territory where

the majority of permitted Australian mines are located. Three of the five projects selected were on open ground and were secured via application to the relevant department. The Mount Douglas project was purchased via a two-stage payment.



Figure 6: Location map of Orpheus Minerals' uranium assets

Highlights

Uranium Exploration Assets

- Orpheus has 100% ownership or a clear pathway to 100% ownership of all related mineral titles.
  - Orpheus has recently applied for a further three exploration licences in the Northern Territory:
    - ELA33075, Mount Douglas (Ban Ban) – 103.63km<sup>2</sup> (100%);
    - ELA33088, Woolner – 473.23km<sup>2</sup> (100%); and
    - ELA33089, Marrakai – 458.81km<sup>2</sup> (100%).
  - Additionally, Orpheus holds a 100% interest in three granted exploration licences and three exploration licence applications.
  - Orpheus has executed option agreements to acquire 100% of one granted exploration licence and one exploration licence application.
  - All of Orpheus' exploration assets are strategically located in South Australia and the Northern Territory. South Australia hosts four out of six approved Australian uranium mines: Olympic Dam, Beverley, Four Mile and Honeymoon.

Frome Project, SA

In South Australia, the Frome project involves three highly prospective exploration licences in the Frome Embayment area of South Australia which is arguably the most prospective region in Australia for sandstone-hosted uranium deposits. The area hosts the Beverley deposit and the Four Mile in the northwest and the Honeymoon, Goulds Dam and Oban deposits in the southeast (Figure 7).

The Frome project comprises:

- Substantial landholding of 2,894 square kilometres covering:
  - a network of sandstone paleochannels containing groundwater that drains from uranium-bearing granite source rocks (Figure 7);
  - existing drilling with downhole gamma logs that defines 12 line-kilometres of "redox fronts" within thick sandstone units; and

- two walk-up, high priority drilling targets plus at least 6 early-stage drilling targets.
- The Frome project is nearby to the Honeymoon, Four Mile and Beverley uranium mines and is immediately adjacent to the Goulds Dam uranium deposit (Figure 7).
- Argonaut will base exploration works on the “two fluids” model for uranium roll front deposits (Figure 8).

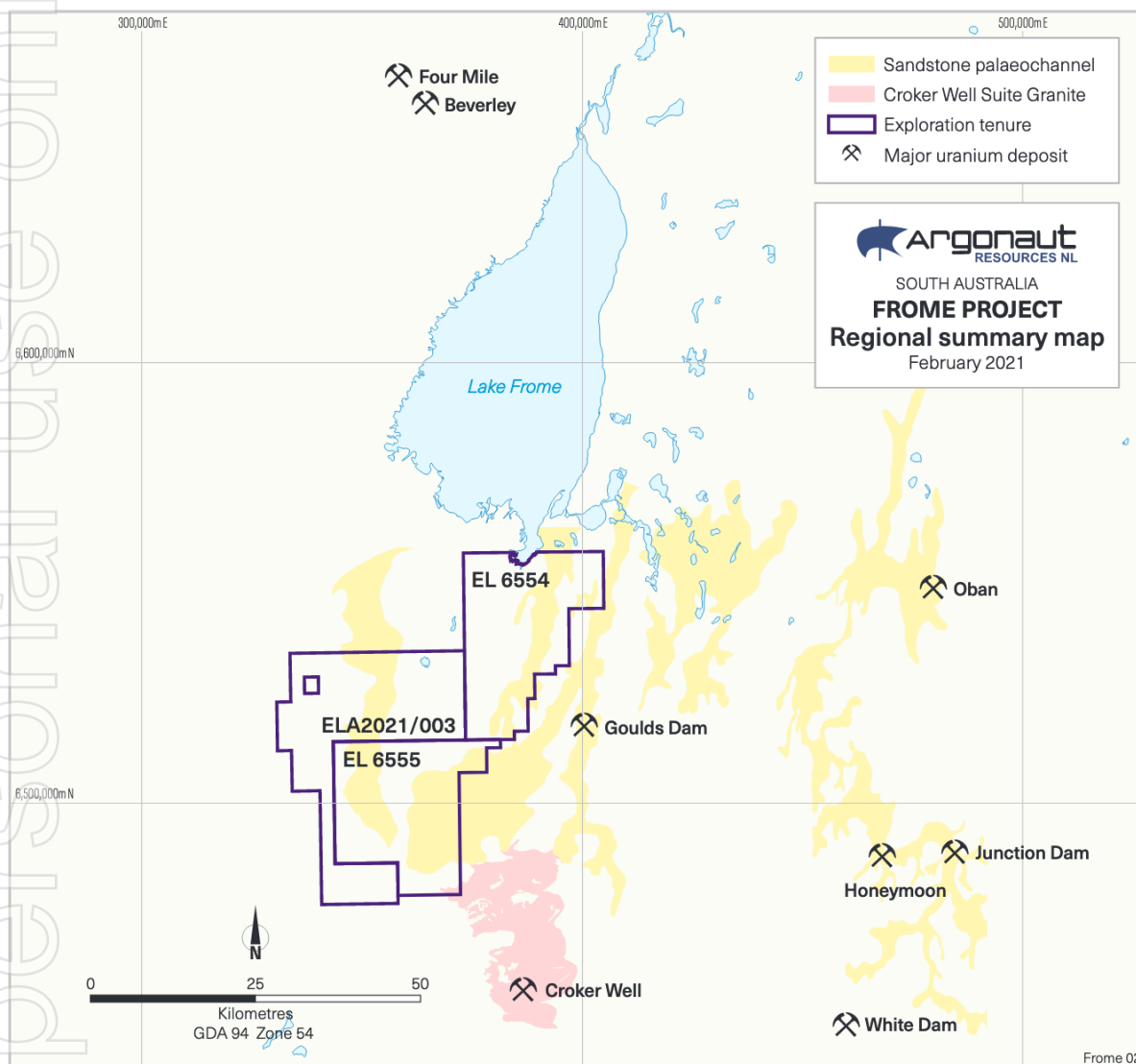


Figure 7 - Frome project tenement locations and major uranium deposits.

The recently acquired landholding of 2,894 square kilometres covers:

- a network of sandstone palaeochannels containing groundwater that drains from uranium-bearing granite source rocks;
- existing drilling with downhole gamma logs that defines 12 line-kilometres of redox fronts within thick sandstone units; and
- two walk-up, high priority drilling targets plus at least size early-stage drilling targets.

### Prospectivity

These licences cover sandstone-bearing palaeochannels that contain groundwater that drains from uranium-bearing granite. Previous drilling of these palaeochannels confirms the presence of excellent sandstone aquifers at or near the base of the channels. These sandstone aquifers are 4m to 20m thick (typically 10-12m) and contain the necessary permeable coarse sands.

These basal sandstones have been shown to contain both oxidised, uranium-bearing zones and reduced zones. Work by Argonaut has confirmed 12 kilometres of redox front within palaeochannels along which high priority exploration is necessary.

Argonaut is applying the “two fluids” model for uranium roll front deposits (Figure 8) which involves oxidised, uranium bearing groundwater (Fluid 1) flowing along the permeable sandstone units until it encounters reducing groundwaters which have leaked upwards through faults from deeper, hydrocarbon-bearing aquifers (Fluid 2). The interface of these fluids creates a redox front that can trap and concentrate uranium.

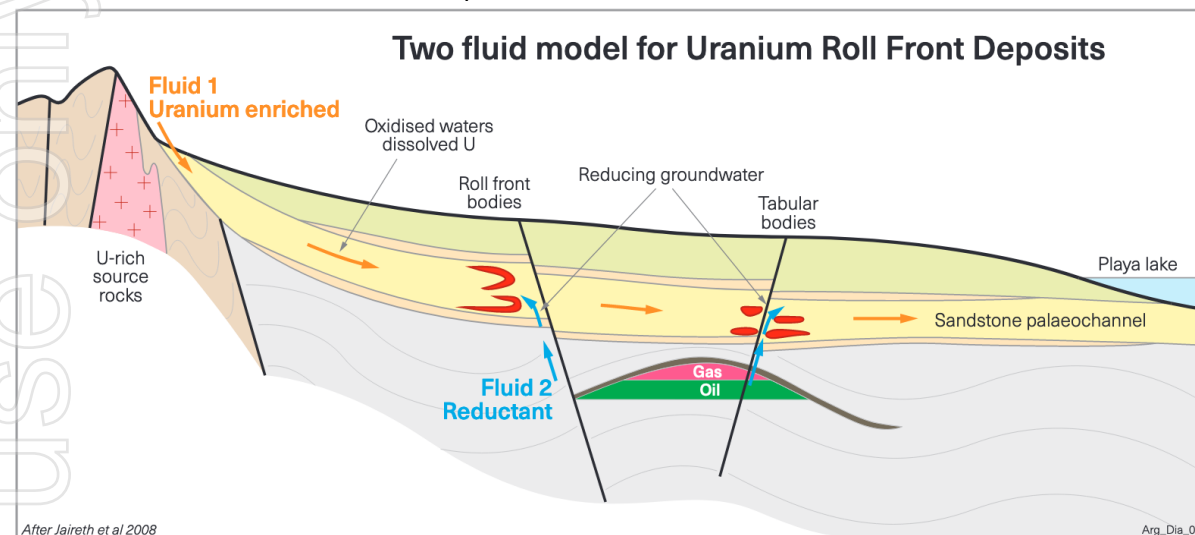


Figure 8 - Diagram showing two fluid model. Uranium is carried in oxidised groundwaters and reduced by hydrocarbons and/or H<sub>2</sub>S released from the underlying hydrocarbons. Both roll-front and tabular ore bodies can result from the process. After Jaireth et al 2008.

### Geology

As stated above, uranium accumulation as a consequence of the two fluids model requires three principal elements: uranium rich source rocks, a permeable sandstone aquifer to carry the oxidised, uranium bearing groundwater, and the introduction of a reductant up faults from a lower, hydrocarbon-bearing aquifer.

At the Frome project area, we see the following geological units:

1. The Eyre Formation (Honeymoon and Goulds Dam deposits) and Namba Formation (Beverley deposit) palaeochannels. These units are contained in the Callabonna Sub-basin of the Lake Eyre Basin.
2. The underlying Arrowie Basin, which includes the hydrocarbon-bearing Wilkawillina Limestone unit.
3. The Crocker Well Suite granite (Figure 9) which is an excellent uranium source rock and displays a strong radiometric anomaly where it outcrops.
4. Faults that cut both the Arrowie basin sediments and the overlying Eyre or Namba formations.

### Exploration

Argonaut has compiled and interpreted all existing data. The data is encouraging in that it points towards numerous opportunities for the discovery of sandstone-hosted uranium. Work will proceed in several phases:

1. Palaeochannel and fault interpretation via existing aeromagnetic and airborne EM data.
2. Acquisition and interpretation of new, detailed airborne EM data.
3. Drilling of high priority targets (Figure 9).
4. Drilling of regional, early-stage targets (Figure 9).

Argonaut is currently commencing the permitting process required for drilling.



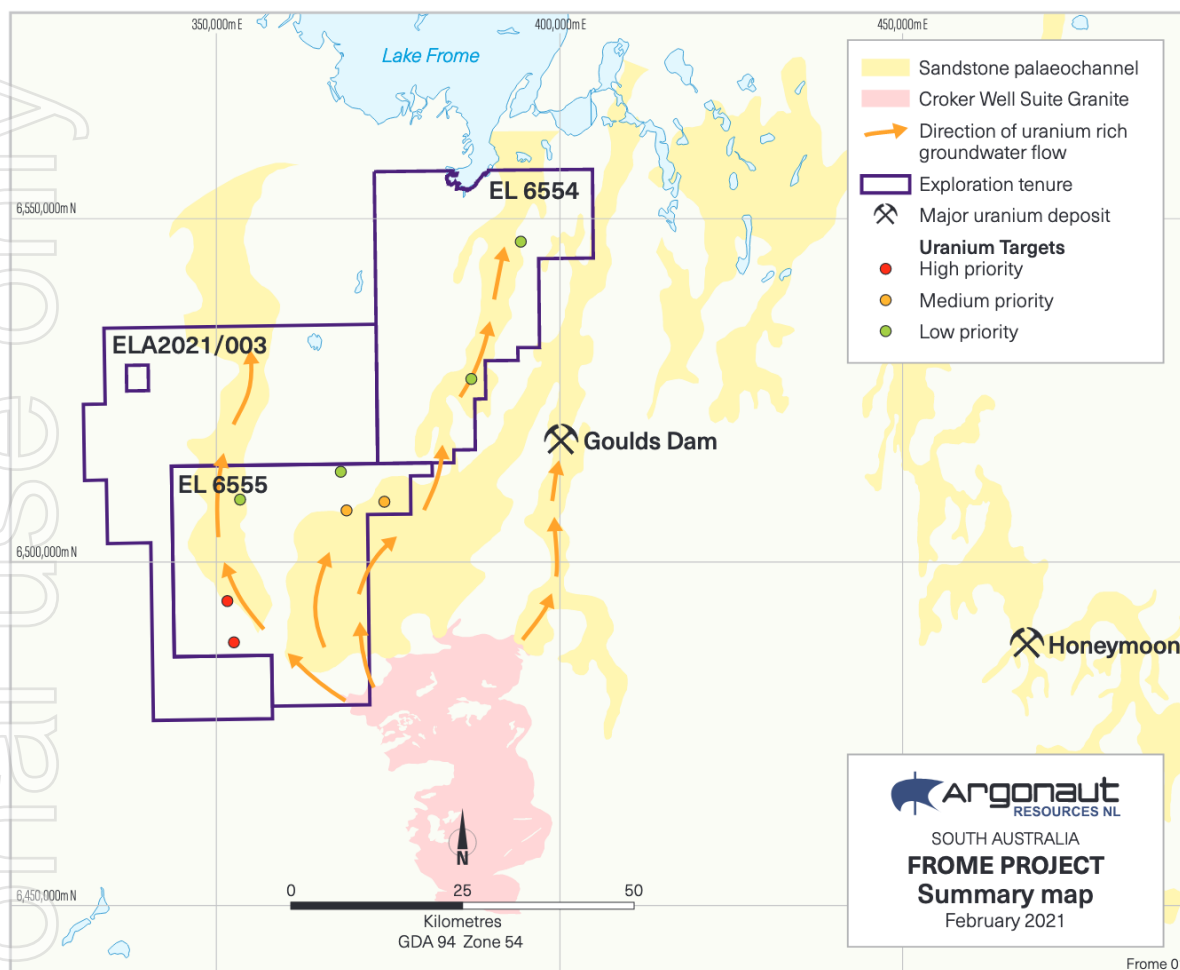


Figure 9 - Frome Project licences with Eyre Formation sandstone palaeochannels – which have been shown to host uranium deposits – and the Croker Well Suite granite which is a uranium-bearing source rock from which oxidised groundwater can flow through the palaeochannels until it encounters a reducing environment where it can form concentrated deposits.

#### Frome Tenure

Argonaut holds a 100% interest in two large exploration licences - both greater than 950 square kilometres and a third exploration licence via an option, sale and milestone agreement. This agreement provides for the acquisition by Argonaut of a 100% interest of a third similarly large exploration licence, currently in the application stage. Frome project exploration licences are described in detail below.

Frome project exploration licences:

- EL6554, Frome Downs – 960km<sup>2</sup> (100%);
- EL6555, Curnamona – 947km<sup>2</sup> (100%); and
- ELA 2021/003, Erudina – 987km<sup>2</sup> (option to acquire 100%).

#### Cummins Project, SA

The Cummins project area is located on the southern Eyre Peninsula, South Australia. The area features Tertiary age paleochannels that have been demonstrated by historic drilling to contain concentrations of uranium. The paleochannels have upper and lower units that are similarly prospective. The upper unit is very close to surface and presents as a walk-up drilling target in urgent need of further drilling.

Uranium contained in these subsurface channels is interpreted to have been sourced from two adjacent uranium-bearing granites (Figure 10).

The Cummins licence area also contains prospective calcrete-hosted uranium targets and dissolved uranium in groundwater.

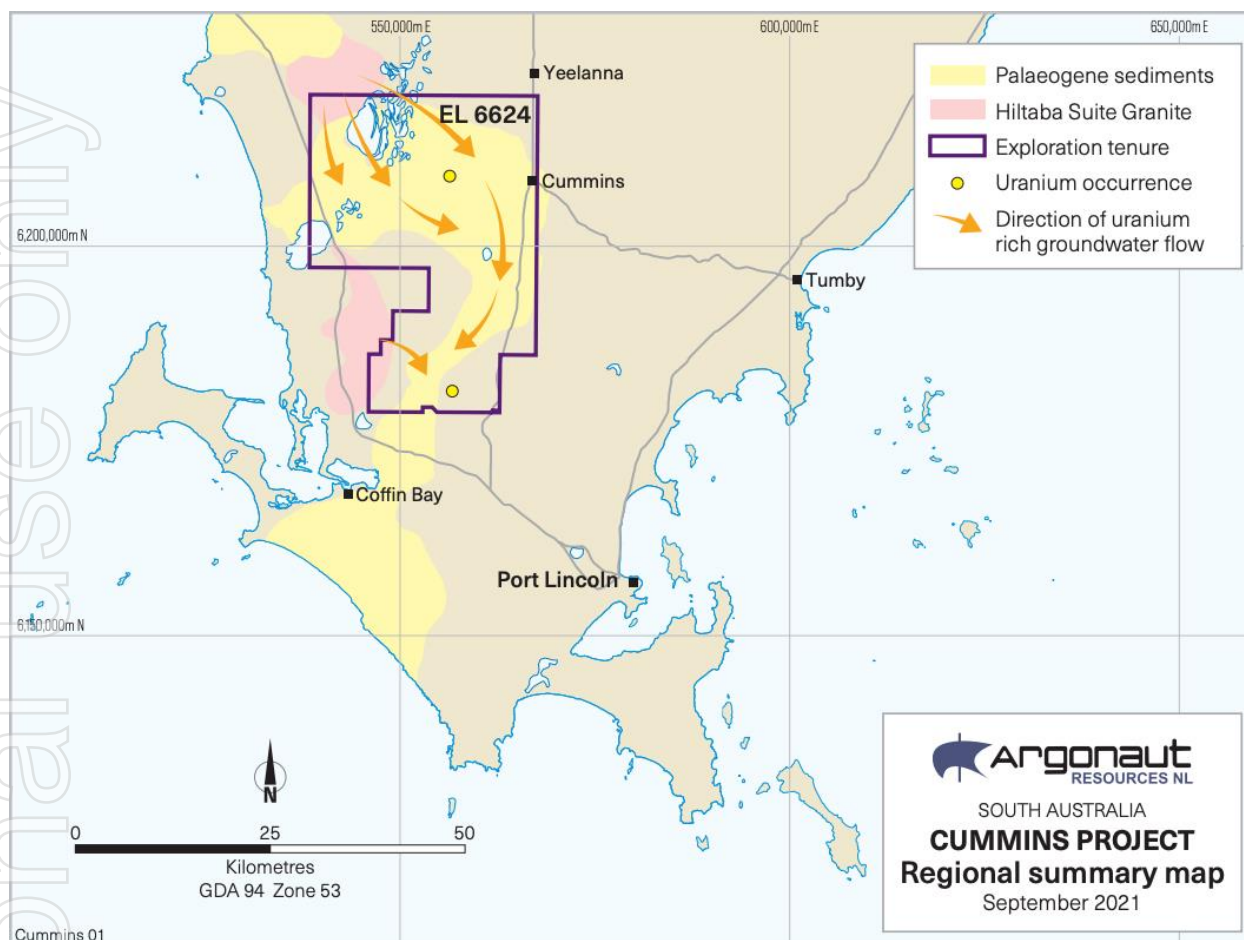


Figure 10: The Cummins project licence showing paleochannels with demonstrated uranium content within the area of the licence and the granite bodies which are interpreted to have provided the uranium source material

### Prospectivity

Four distinct uranium exploration targets have been identified within the Cummins exploration licence. These targets are:

- Target A: upper paleochannel unit (20-30m depth) defined by a consistently high gamma ray response from wireline logs of historic drill holes.
- Target B: lower paleochannel unit (60-70m depth) containing reduced, pyritic sands, also defined by gamma ray logs of historic drilling.
- Target C: dissolved uranium in groundwater defined by a groundwater sampling program undertaken in the 1970s.
- Target D: potential near-surface calcrete-hosted uranium deposits defined by unusually high uranium channel responses in a modern (2011) airborne radiometric survey.

Orpheus has developed exploration programs designed to test all targets and it plans to execute these programs following the successful completion of the proposed IPO.

Targets A and B relate to a sandstone-bearing paleochannel that contains groundwater that drains from uranium-bearing granites (Figure 11). Previous drilling of these paleochannels confirms the presence of sandstone aquifers within the channels. These sandstone aquifers contain the necessary permeable coarse sands and have been shown by gamma ray logging of historic drill holes to contain uranium.

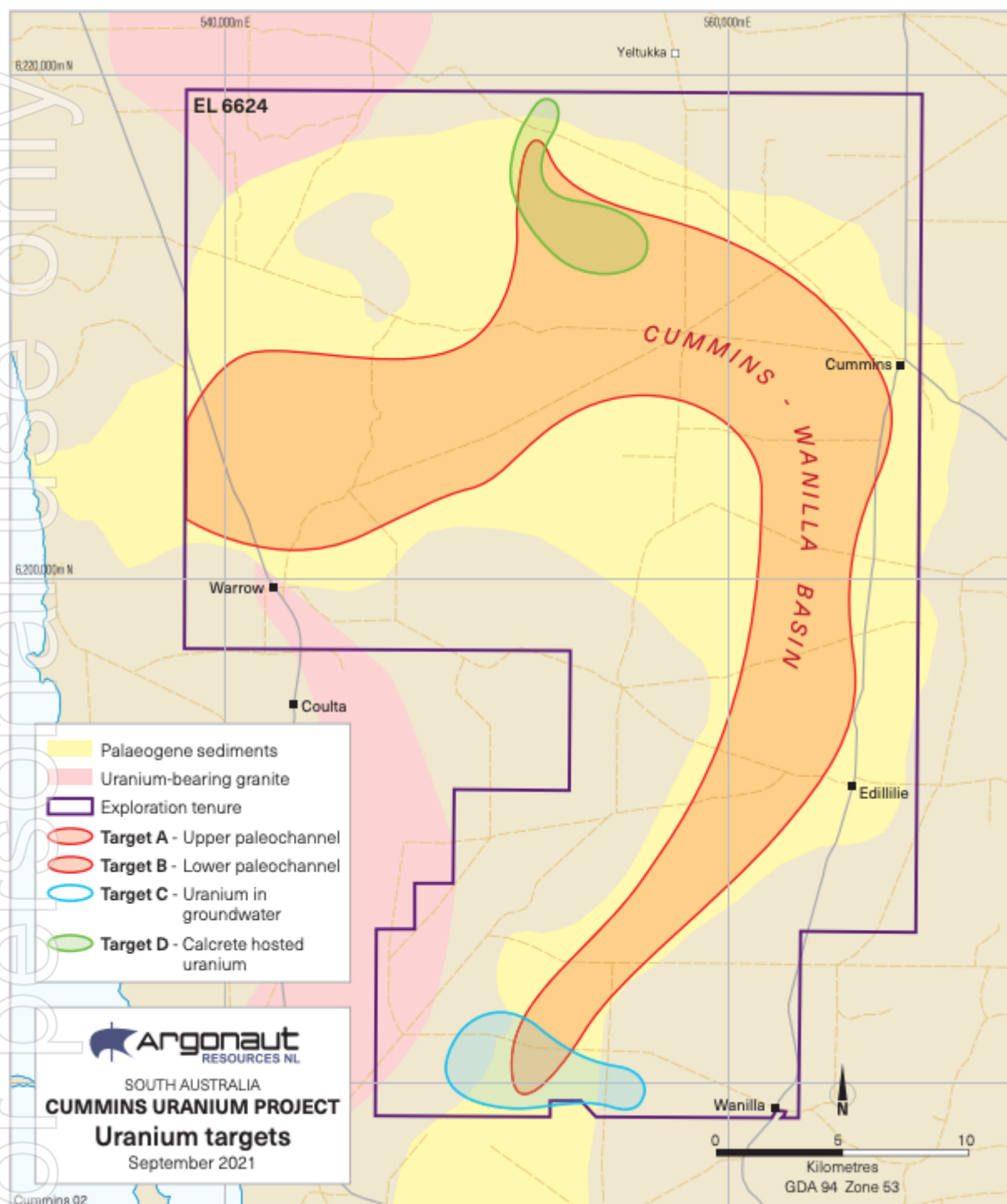


Figure 11: Cummins uranium exploration project – target locations.

#### Option, Sale and Milestone Agreement

Orpheus holds its interest in the Cummins licence via an option, sale and milestone agreement. This agreement provides for the acquisition by Orpheus of a 100% interest of this large, recently granted exploration licence.

#### Northern Territory Projects

Most of the historic uranium production in the Northern Territory has been from the Alligator Rivers Uranium Field (Figure 12). The Alligator Rivers field contains unconformity-related uranium deposits that locally contain more than 100,000 tonne contained  $U_3O_8$ , with grades generally in the range 0.2-2%  $U_3O_8$ . These deposits, which include Ranger, Jabiluka, Koongarra and Nabarlek, are typically hosted close to the unconformity at the base of the MacArthur Basin.

In January 2021, production at the Ranger uranium mine ceased after 40 years. The Ranger mine produced over 132,000 tonnes of U<sub>3</sub>O<sub>8</sub>.

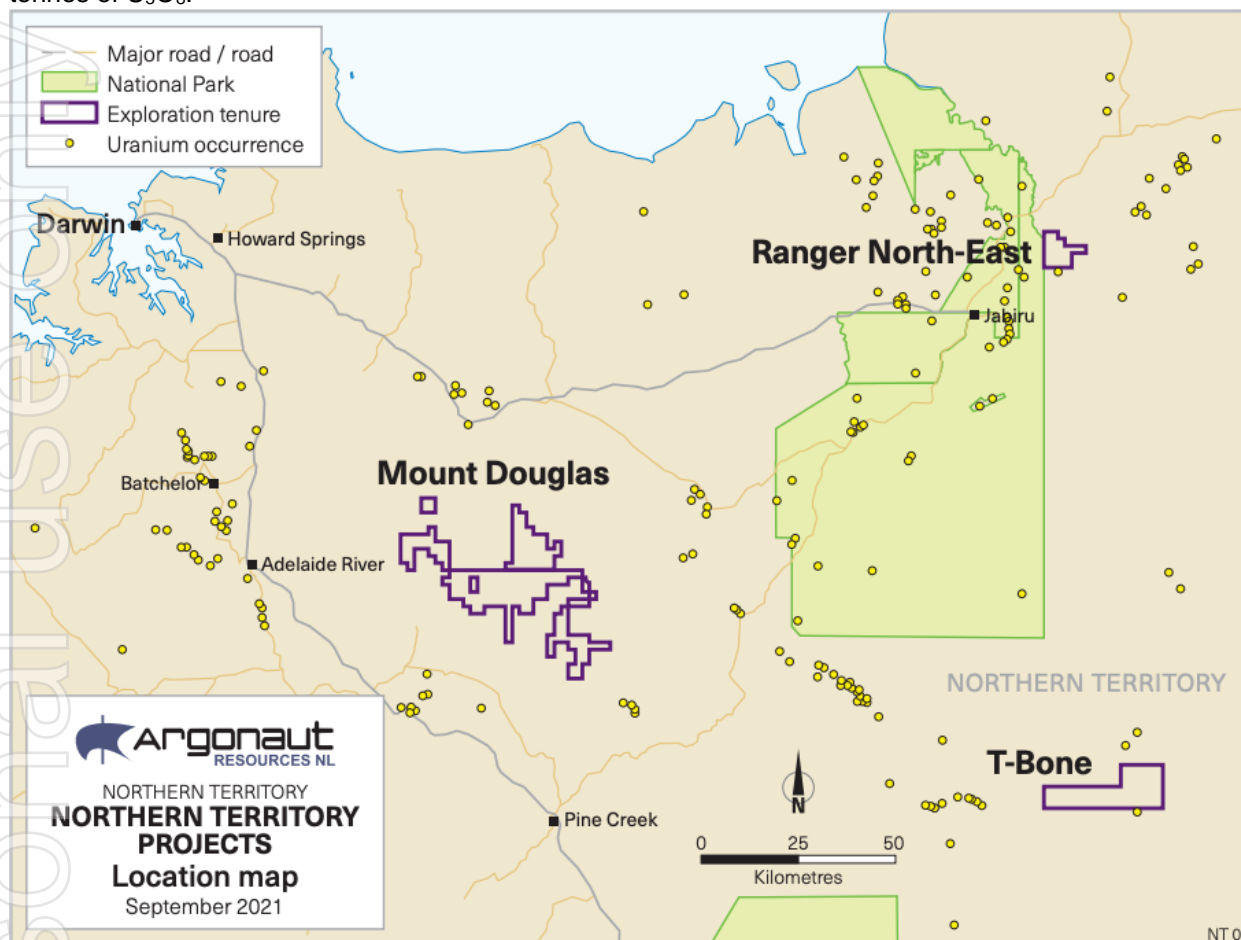


Figure 12: Location of Orpheus Minerals uranium exploration projects in the Northern Territory.

### Mount Douglas, NT

The Mount Douglas area covers several geological settings that are significantly prospective for deposits of gold, base metals and uranium. These targets have received less attention than surrounding areas during historic exploration efforts due to thin sedimentary cover of the rocks favourable for mineralisation. The area covers portions of the drainage of the Margaret River (part of the Adelaide River system), and the McKinlay/Mary Rivers catchments. The licence areas are centred about 130 kilometres southeast of Darwin (Figure 12) and extend south from the Rustlers Roost Mine near Mount Bunday.

### Propectivity

Mount Douglas features a recent discovery of outcropping uranium-bearing rocks near the base of the Kombolgie Sandstone. Surface sampling return assays of 750 to 1,000ppm uranium, possibly the highest uranium values yet obtained around the Mount Douglas Outlier. These unconformity-related uranium deposits are the most important uranium deposit styles in the Northern Territory.

The discovery was made as a result of a detailed airborne radiometric survey that became available in recent years. This uranium discovery clearly warrants follow-up drilling to test the extent of mineralisation. Orpheus has plans to drill at Mount Douglas shortly after the proposed IPO.

### Tenure

The Mount Douglas project was purchased by Orpheus via a two-stage payment of \$80,000 (paid in 2021) and \$120,000.

- Mount Douglas, NT – unconformity-related uranium covered by one granted licence and two licence applications.
  - EL31451, Mount Douglas – 474km<sup>2</sup> – 100%;
  - ELA32038, Mount Douglas (Mary River) – 127km<sup>2</sup> – 100%; and
  - ELA33075, Mount Douglas (Ban Ban) – 103.63km<sup>2</sup> (100%).

#### *Ranger North-East, NT*

The Ranger North-East uranium exploration project is located within the Alligator Rivers Uranium Field, nearby to the Ranger and Jabiluka uranium deposits in the Northern Territory. The project area is covered by a single exploration licence application held by Orpheus.

#### *Prospectivity*

The Ranger North-East application area features an unconformity-style, hard rock uranium target defined by a strong radiometric (uranium/thorium) anomaly. Geologically, the anomaly sits at the base of the Kombolgie sandstone unit which is prospective for uranium in this area, and is at the intersection of a major northwest trending fault and an intersecting east-northeast structure.

Open file records show limited historic exploration at the site.

#### *Tenure*

Orpheus holds a 100% interest in an exploration licence application.

- Ranger North-East, NT - Ranger-style unconformity related targets, Alligator Rivers Uranium Field.
  - ELA32446, Ranger North-East – 64km<sup>2</sup> – 100%.

#### *T-Bone, NT*

The T-Bone uranium exploration project is located northwest of Katherine, within the South Alligator Valley Mineral Field which contains the Coronation Hill uranium deposit. The Coronation Hill mine produced 26,000 tonnes of uranium ore at 2.6kg/t U<sub>3</sub>O<sub>8</sub> during the 1950s and 1960s.

#### *Prospectivity*

The T-Bone area is defined by uranium/thorium radiometric anomaly that sits on a regional, northwest striking fault zone. Orpheus has identified a possible unconformity-style uranium target beneath alluvium to the north of this structure. No significant uranium exploration has been undertaken at the target area and Orpheus has plans for a grassroots exploration program at the site following the licence grant and the potential IPO.

#### *Tenure*

Orpheus holds a 100% interest in an exploration licence application.

- T-Bone, NT - South Alligator Valley Mineral Field – unconformity related targets near Coronation Hill deposit:
  - ELA32445, T-Bone – 230km<sup>2</sup> – 100%.

#### *Woolner and Marrakai, NT*

The Woolner and Marrakai licences are located approximately 85 kilometres southeast of Darwin within the Money Shoal Basin region of the Northern Territory.

#### *Prospectivity*

The application area encompasses a poorly exposed area of the Pine Creek Orogen that is concealed under 50-100m of sediment of the Money Shoal Basin. The area is prospective for unconformity style uranium mineralisation at the unconformity between the Pine Creek Orogen and the overlying McArthur Basin, where it overlies the Archaean-aged Woolner Granite complex.

#### *Tenure*

Orpheus holds a 100% interest in two exploration licence applications, recently acquired.

- Woolner and Marrakai, NT – unconformity-related and structurally controlled uranium covered by two licence applications.
  - ELA33088, Woolner – 473.23km<sup>2</sup> (100%); and
  - ELA33089, Marrakai – 458.81km<sup>2</sup> (100%).

#### *Corporate – Orpheus Minerals Limited*

The Company appointed Mr Simon Mitchell as Managing Director of Orpheus Minerals Ltd.

Mr Mitchell is a geologist by training who has a significant history working in uranium and precious metals exploration and development, capital markets, and investment banking. Accordingly, his expertise is well suited to leading an ASX listed uranium exploration and development company.

Mr Mitchell was General Manager of Business Development, responsible for mergers and acquisitions, corporate and project financing, and strategy for uranium developer and explorer, Toro Energy Ltd, for seven years from 2006 to 2013. Simon has worked with numerous other companies including Aurora Gold, North Flinders Mines (ultimately Normandy NFM) and Commonwealth Bank. He negotiated acquisitions that led to the consolidation in ownership of the Wiluna uranium mine and was the lead executive in the takeover by Toro of Nova Energy. Mr Mitchell was most recently, Managing Director of Southern Gold Ltd, from February 2015 to October 2021.

## **Kroombit, Queensland**

(Argonaut 100%)

### **Background**

Argonaut holds a 100% interest in the Kroombit zinc-copper deposit in Central Queensland via its interest in ML5631 and MDL2002. Mining on ML5631 is subject to a 2% net smelter royalty, payable to Aeris Resources Ltd.

On 11 June 2009 Argonaut announced a maiden resource estimation for the Kroombit deposit. The Indicated and Inferred Resources at Kroombit comprise:

- a Zinc Resource of 5.2 million tonnes at 1.9% zinc and 0.15% copper using a cut-off of 1.0% Zn, for 98,800 tonnes of zinc and 7,800 tonnes of copper; and
- a Copper Resource of 0.9 million tonnes at 1.0% copper at a cut-off of 0.5% Cu for 9,000 tonnes of copper.

In addition, Exploration Results are reported comprising a defined Exploration Potential of between:

- 1 million and 1.5 million tonnes at 1.5% to 2.0% zinc, and between
- 0.5 million and 1 million tonnes at 0.7% to 1.3% copper.

Argonaut plans to capitalise on its Kroombit holding at a time of higher zinc prices. No field-based work was undertaken at Kroombit during the reporting period.

## **Aroona, South Australia**

(Argonaut 100%)

The Aroona licence, is subject to a joint venture agreement with Perilya Limited.

No field based work was undertaken at Aroona during the reporting period.

## **Higginsville, Western Australia**

The tenements that make-up the Higginsville project are in Western Australia's Eastern Goldfields. Geologically, the package sits within the Norseman-Wiluna Belt, a belt of ancient rocks endowed with gold and nickel that sits within the broader Yilgarn Craton.

Approximately 70% of Australia's historical gold production has come from the Yilgarn Craton and most of that from the Norseman-Wiluna Belt. The Higginsville project is located south of Kambalda, west of Lake Cowan and adjacent to the Higginsville mine where over two million ounces of gold has been defined.

At 19 February 2022, Argonaut had not met the second phase earn-in amount necessary under the JVA to take an 80% interest in the package. Following this date, Argonaut and Loded Dog Prospecting Ltd entered a dispute with regards to the status of Argonaut's 51% interest.

### **Lithium Exploration**

The Company undertook a reconnaissance program in early February 2022 to examine mapped and outcropping pegmatites that are previously untested for lithium. These possible lithium-caesium-tantalum pegmatites are shown on historic maps as being Archean in age and they are located nearby to the Pioneer Dome Lithium-Caesium-Tantalum (LCT) Pegmatite deposit. The reconnaissance program also considered another area adjacent to the Pioneer Dome that is obscured by sedimentary cover. This area has potential to host additional Archean pegmatites.

## Argonaut – Corporate

On 2 February 2022, Argonaut announced that long serving director, Malcolm Richmond, elected to retire from his position on the Argonaut Board of Directors. Mr. Richmond served on the Board as a Non-Executive Director since March 2012.

## About Argonaut

Argonaut Resources NL is an Australian Securities Exchange listed exploration and development company focused on the Murdie copper project in South Australia, the Torrens copper project in joint venture with Aeris Resources Ltd, (adjacent to the Murdie project) and several exploration licences in North-western Zambia that are prospective for copper, cobalt and gold.

Lindsay Owler  
Director and CEO  
Argonaut Resources NL

*Sections of information contained in this report that relate to Exploration Results were compiled or supervised by Mr Lindsay Owler BSc, MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Argonaut Resources NL. Mr Owler holds shares and options in Argonaut Resources NL, details of which are disclosed in the Company's 2021 Annual Report. Mr Owler has sufficient experience which is relevant to the style of mineral deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Owler consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

## Significant changes in the state of affairs

Except as disclosed in the review of operations, there were no significant changes in the state of affairs of the consolidated entity during the financial half-year.

## Matters subsequent to the end of the financial half-year

On 24 January 2022, Argonaut announced to the ASX, that the Company had become aware that Large-scale Exploration Licence 22399-HQ-LEL, Lumwana West, was not renewed by the Zambian Government on 28 December 2021 as expected. This licence area contains the Nyungu deposit. The Company is currently working to having Large-scale Exploration Licence 22399-HQ-LEL, Lumwana West restored to Mwombezhi Resources Ltd.

The Joint Venture between Argonaut and Loded Dog Prospecting Pty Limited ended on 19 February 2022. Following this date, Argonaut and Loded Dog Prospecting Ltd entered a dispute with regards to the status of Argonaut's 51% interest.

On 25 February 2022 the Government of Zambia advised that the recently elected Zambian government is taking action to restore order to the country's mineral licencing system.

No other matter or circumstance has arisen since 31 December 2021 that has significantly affected, or may significantly affect the consolidated entity's operations, the results of those operations, or the consolidated entity's state of affairs in future financial years.

A copy of the auditor's independence declaration as required under section 307C of the Corporations Act 2001 is set out immediately after this directors' report.

This report is made in accordance with a resolution of directors, pursuant to section 306(3)(a) of the Corporations Act 2001.

On behalf of the directors



Patrick JD Elliott  
Chairman

15 March 2022



**Building a better  
working world**

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GPO Box 1271 Adelaide SA 5001

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## **Auditor's independence declaration to the directors of Argonaut Resources NL**

As lead auditor for the review of the half-year financial report of Argonaut Resources NL for the half-year ended 31 December 2021, I declare 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 review;
- b. No contraventions of any applicable code of professional conduct in relation to the review; and
- c. No non-audit services provided that contravene any applicable code of professional conduct in relation to the review.

This declaration is in respect of Argonaut Resources NL and the entities it controlled during the financial period.

Ernst & Young

L A Carr  
Partner  
15 March 2022

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### General information

The financial statements cover Argonaut Resources NL as a group consisting of Argonaut Resources NL and the entities it controlled at the end of, or during, the half-year. The financial statements are presented in Australian dollars, which is Argonaut Resources NL's functional and presentation currency.

Argonaut Resources NL is a listed public company limited by shares, incorporated and domiciled in Australia. Its registered office and principal place of business is:

Level 6, 100 Pirie Street  
Adelaide SA 5000  
Telephone: +61 8 8231 0381

A description of the nature of the consolidated entity's operations and its principal activities are included in the notes to the financial statements.

The financial statements were authorised for issue, in accordance with a resolution of directors, on 15 March 2022.

Argonaut Resources NL  
Statement of profit or loss and other comprehensive income  
For the half-year ended 31 December 2021



	Note	Consolidated 31 Dec 2021 \$	31 Dec 2020 \$
<b>Other revenue</b>	3	1,211	51,223
<b>Expenses</b>			
Employee benefits expense	4	(524,408)	(456,539)
Office administration expenses		(137,035)	(81,326)
Depreciation and amortisation expense	4	1,399	(43,703)
Exploration costs expensed	5	(57,951)	(44,583)
Exploration assets impaired	5	(2,004,632)	-
Finance expense		(1,019)	(937)
Foreign exchange		(24,907)	-
Share based payments		(44,345)	(81,269)
Other expenses		(153,992)	(207,438)
<b>Loss before income tax expense</b>		(2,945,679)	(864,572)
Income tax expense		-	-
<b>Total comprehensive loss for the period</b>		(2,945,679)	(864,572)
Loss is attributable to:			
- Owners of Argonaut Resources NL		(2,941,592)	(864,572)
- Non-controlling interests		(4,087)	-
<b>Total comprehensive income for the half-year attributable to the owners of Argonaut Resources NL</b>		<u>(2,941,592)</u>	<u>(864,572)</u>
		<b>Cents</b>	<b>Cents</b>
Basic earnings / (loss) per share	12	(0.0008)	(0.0003)
Diluted earnings / (loss) per share	12	(0.0008)	(0.0003)

The above statement of profit or loss and other comprehensive income should be read in conjunction with the accompanying notes

**Argonaut Resources NL**  
**Statement of financial position**  
**As at 31 December 2021**



	Note	Consolidated 31 Dec 2021 \$	30 Jun 2021 \$
<b>Assets</b>			
<b>Current assets</b>			
Cash and cash equivalents		2,159,436	5,347,638
Trade and other receivables		73,421	249,975
Other assets		63,283	8,277
<b>Total current assets</b>		<u>2,296,140</u>	<u>5,605,890</u>
<b>Non-current assets</b>			
Property, plant and equipment		49,703	58,109
Exploration and evaluation	5	6,002,814	6,044,704
Right of Use assets		33,747	67,495
<b>Total non-current assets</b>		<u>6,086,264</u>	<u>6,170,308</u>
<b>Total assets</b>		<u>8,382,404</u>	<u>11,776,198</u>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Trade and other payables		476,100	1,275,394
Employee benefits		104,115	90,407
Lease liability	6	-	76,875
<b>Total current liabilities</b>		<u>580,215</u>	<u>1,442,676</u>
<b>Non-Current liabilities</b>			
Employee benefits		249,341	249,340
<b>Total non-current liabilities</b>		<u>249,341</u>	<u>249,340</u>
<b>Total liabilities</b>		<u>829,556</u>	<u>1,692,016</u>
<b>Net assets</b>		<u>7,552,848</u>	<u>10,084,182</u>
<b>Equity</b>			
Contributed equity	7	62,363,294	62,386,957
Reserves	8	1,995,633	1,927,625
Accumulated losses		<u>(57,171,992)</u>	<u>(54,230,400)</u>
		7,186,935	10,084,182
Non-controlling interest		<u>365,913</u>	<u>-</u>
<b>Total equity</b>		<u>7,552,848</u>	<u>10,084,182</u>

*The statement of financial position should be read in conjunction with the accompanying notes*

**Argonaut Resources NL**  
**Statement of changes in equity**  
**For the half-year ended 31 December 2021**



<b>Consolidated</b>	<b>Contributed equity</b> <b>\$</b>	<b>Other reserves</b> <b>\$</b>	<b>Share based payments reserve</b> <b>\$</b>	<b>Accumulated losses</b> <b>\$</b>	<b>Total equity</b> <b>\$</b>
Balance at 1 July 2020	52,791,932	(3,749,322)	1,754,485	(46,871,549)	3,925,546
Loss after income tax expense for the half-year	-	-	-	(864,572)	(864,572)
Other comprehensive income for the half-year, net of tax	-	(4,151)	-	-	(4,151)
Total comprehensive income for the half-year	-	(4,151)	-	(864,572)	3,056,823
<i>Transactions with owners in their capacity as owners:</i>					
Contributions of equity, net of Transaction costs (note 7)	4,893,312	-	-	-	4,893,312
Share based payments	-	-	97,561	-	97,561
Balance at 31 December 2020	57,685,244	(3,753,473)	1,852,046	(47,736,121)	8,047,696

<b>Consolidated</b>	<b>Contributed equity</b> <b>\$</b>	<b>Share based payments reserve</b> <b>\$</b>	<b>Accumulated losses</b> <b>\$</b>	<b>Total</b> <b>\$</b>	<b>NCI</b> <b>\$</b>	<b>Total equity</b> <b>\$</b>
Balance at 1 July 2021	62,386,957	1,927,625	(54,230,400)	10,084,182	-	10,084,182
Loss after income tax expense for the half-year	-	-	(2,941,592)	(2,941,592)	-	(2,941,592)
Loss attributable to non-controlling interests	-	-	-	-	(4,087)	(4,087)
Other comprehensive income for the half-year, net of tax	-	-	-	-	-	-
Total comprehensive income for the half-year	-	-	(2,941,592)	(2,941,592)	(4,087)	(2,945,679)
<i>Transactions with owners in their capacity as owners:</i>						
Non-controlling interests	-	-	-	-	370,000	370,000
Contributions of equity, net of Transaction costs (note 7)	(23,663)	-	-	(23,663)	-	(23,663)
Share based payments	-	68,008	-	68,008	-	68,008
Balance at 31 December 2021	62,363,294	1,995,633	(57,171,992)	7,186,935	365,913	7,552,848

The statement of changes in equity should be read in conjunction with the accompanying notes

Argonaut Resources NL  
 Statement of cash flows  
 For the half-year ended 31 December 2021



	Consolidated	
	31 Dec 2021	31 Dec 2020
Note	\$	\$
<b>Cash flows from operating activities</b>		
Payments to suppliers and employees	(1,532,849)	(1,092,144)
Interest received	1,211	1,223
Net cash used in operating activities	<u>(1,531,638)</u>	<u>(1,092,921)</u>
<b>Cash flows from investing activities</b>		
Payments for exploration and evaluation	(2,322,169)	(906,264)
Receipt of government grant for exploration	300,000	-
Payment for office equipment	(4,395)	-
Net cash used in investing activities	<u>(2,026,564)</u>	<u>(906,264)</u>
<b>Cash flows from financing activities</b>		
Ordinary shares issued	-	5,204,000
Cash receipts from shares issued into subsidiary	370,000	-
Share issue transaction costs	-	(294,386)
Net cash from/(used in) financing activities	<u>370,000</u>	<u>4,909,614</u>
Net increase/(decrease) in cash and cash equivalents	(3,188,202)	(2,912,429)
Cash and cash equivalents at the beginning of the financial half-year	<u>5,347,638</u>	<u>1,175,023</u>
Cash and cash equivalents at the end of the financial half-year	<u><u>2,159,436</u></u>	<u><u>4,087,452</u></u>

*The statement of cash flows should be read in conjunction with the accompanying notes*

## Note 1. Significant accounting policies

These general purpose financial statements for the interim half-year reporting period ended 31 December 2021 have been prepared in accordance with Australian Accounting Standard AASB 134 'Interim Financial Reporting' and the Corporations Act 2001, as appropriate for for-profit oriented entities. Compliance with AASB 134 ensures compliance with International Financial Reporting Standard IAS 34 'Interim Financial Reporting'.

These general purpose financial statements do not include all the notes of the type normally included in annual financial statements. Accordingly, these financial statements are to be read in conjunction with the annual report for the year ended 30 June 2021 and any public announcements made by the company during the interim reporting period in accordance with the continuous disclosure requirements of the Corporations Act 2001.

The principal accounting policies adopted are consistent with those of the previous financial year and corresponding interim reporting period, unless otherwise stated.

### New or amended Accounting Standards and Interpretations adopted

The consolidated entity has adopted all of the new or amended Accounting Standards and Interpretations issued by the Australian Accounting Standards Board ('AASB') that are mandatory for the current reporting period.

Any new or amended Accounting Standards or Interpretations that are not yet mandatory have not been early adopted.

### Going concern

The financial report has been prepared on a going concern basis, which assumes continuity of normal business activities and realisation of assets and settlement of liabilities in the ordinary course of business. The consolidated entity has incurred net losses after tax of \$2,941,592 (2020: \$864,572) and net cash outflows from operating and investing activities of \$3,558,202 (2020: \$1,999,185) for the period ended 31 December 2021.

As at 31 December 2021, the consolidated entity has prepared a cash flow forecast which indicates that the consolidated entity does not have sufficient funds to meet its minimum expenditure commitments and support its current level of corporate overheads for a period of at least 12 months from the date of this financial report, and would need to raise additional funds in the upcoming 6 months to continue as a going concern.

Considering the current price of copper of around \$4.60 per pound, price of uranium of around \$53 per pound and exploration potential across key tenements, the Directors are confident in the ability of the consolidated entity to continue to raise funds through the issuing of new shares to support its planned level of overhead expenditures and exploration activities. Accordingly the Directors consider it appropriate to prepare the financial statements on the going concern basis.

However, in the event that the consolidated entity is not able to successfully complete the fundraising referred to above, significant uncertainty would exist as to whether the company and consolidated entity will continue as going concerns and therefore whether they will realise their assets and extinguish their liabilities in the normal course of business at the amounts stated in the financial statements.

The financial statements do not include adjustments relating to the recoverability and classification of recorded assets amounts nor to the amounts and classification of liabilities that might be necessary should the company and the consolidated entity not continue as going concerns.

## Note 2. Operating segments

### Identification of reportable operating segments

The Chief Operating Decision Maker (CODM) reviews only direct exploration expenditure. As such no segment results or revenues are separately disclosed. The accounting policies adopted for internal reporting to the CODM are consistent with those adopted in the financial statements.

The information reported to the CODM is on a monthly basis.

### Segment assets

Segment assets are those operating assets of the entity that the CODM views as directly attributing to the performance of the segment. These are the mining and exploration assets.

Where an asset is used across multiple segments, the asset is allocated to the segment that receives the majority of economic value from the asset. In the majority of instances, segment assets are clearly identifiable on the basis of their nature and physical location.

### Corporate office activities

Corporate office activities comprise of non-segmental revenues and expenses and are therefore not allocated to operating segments.

### Operating segment information

<b>Consolidated - 31 Dec 2021</b>	Australia \$	Zambia \$	Total \$
<b>Assets</b>			
Exploration assets	5,636,493	366,321	6,002,814
<i>Unallocated assets:</i>			
Cash and cash equivalents			2,159,436
Other assets			220,154
<b>Total assets</b>			<u>8,382,404</u>
<b>Liabilities</b>			
<i>Unallocated liabilities:</i>			
Current			580,215
<b>Total liabilities</b>			<u>829,556</u>
<b>Consolidated - 30 Jun 2021</b>	Australia \$	Zambia \$	Total \$
<b>Assets</b>			
Exploration assets	5,257,542	787,163	6,044,704
<i>Unallocated assets:</i>			
Cash and cash equivalents			5,347,638
Other assets			383,866
<b>Total assets</b>			<u>11,776,198</u>
<b>Liabilities</b>			
<i>Unallocated liabilities:</i>			
Current			1,442,676
<b>Total liabilities</b>			<u>1,692,016</u>

**Note 3. Other revenue**

	<b>Consolidated</b>	
	<b>31 Dec 2021</b>	<b>31 Dec 2020</b>
	\$	\$
Interest	1,211	1,223
Original Cash Boost – Australian Taxation Office	-	50,000
	<u>1,211</u>	<u>51,223</u>
Other income	<u>1,211</u>	<u>51,223</u>

**Note 4. Profit / (loss) items**

	<b>Consolidated</b>	
	<b>31 Dec 2021</b>	<b>31 Dec 2020</b>
	\$	\$
Depreciation expense	12,809	17,743
Amortisation expense (including additional lease incentive)	(14,208)	25,960
	<u>(1,399)</u>	<u>43,703</u>
Director fees	140,609	115,000
Wages and salaries	335,250	428,402
Superannuation	33,525	32,102
Leave provisions	13,709	(120,837)
Sundry expenses	1,315	1,872
	<u>524,408</u>	<u>456,539</u>

**Note 5. Non-current assets - Exploration and evaluation**

	<b>Consolidated</b>	
	<b>31 Dec 2021</b>	<b>30 Jun 2021</b>
	\$	\$
Exploration and evaluation assets	32,666,245	30,703,503
Less: Impairment	(26,663,431)	(24,658,799)
	<u>6,002,814</u>	<u>6,044,704</u>



*Reconciliations*

Reconciliations of the written down values at the beginning and end of the current financial half-year are set out below:

<b>Consolidated</b>	Australia	Mwombezhi	Total
	\$	Zambia \$	\$
Balance at 1 July 2021	5,257,541	787,163	6,044,704
Expenditure during the half-year	736,903	1,583,790	2,320,693
Impairment of asset awaiting clarification of licence ownership	-	(2,004,632)	(2,004,632)
Receipt of government grant for exploration	(300,000)	-	(300,000)
Exploration expenditure written off	(57,951)	-	(57,951)
Balance at 31 December 2021	<u>5,636,493</u>	<u>366,321</u>	<u>6,002,814</u>

The Directors have reviewed the current market conditions relating to commodity prices and exploration results and the carrying value as at 31 December 2021 represents the Directors' view of these assets, which are expected to be recovered.

On 24 January 2021, the Company advised that it had become aware that Large-scale Exploration Licence 22399-HQ-LEL, Lumwana West, was not renewed by the Zambian Government on 28 December 2021 as expected. This licence area contains the Nyungu deposit. This is the area where \$1,580,584 had been spent within the last six months on drilling on the Nyungu deposit.

At the time of the purported cancellation, the Company's 90% held subsidiary, Mwombezhi Resources Ltd, was operating in full compliance with all licence conditions and other regulatory requirements. However, Argonaut's Zambian lawyers have discovered that key compliance documents provided by the Company to its Zambian shareholders for filing were not submitted as required and this appears to have led to the cancellation of the licence.

As the license was not renewed as at 31 December 2021, it is considered a trigger for impairment under AASB 6 as a company should have the right to tenure to continue to carry the exploration and evaluation expenditure to date on the balance sheet date. The Company is disputing the nature of the non-renewal of the license with relevant authorities in Zambia. The license has been impaired to nil. Should the licence be reinstated in line with the Company's requests, the impairment of the license can be reversed.

**Note 5. Right of use assets**

	<b>Consolidated</b>	
	<b>31 Dec 2021</b>	<b>30 Jun 2021</b>
	\$	\$
Corporate office – right of use	124,606	124,606
Less: accumulated depreciation	<u>(90,859)</u>	<u>(57,111)</u>
	<u><u>33,747</u></u>	<u><u>67,495</u></u>

**Note 6. Lease liabilities**

The Company leases floor space in a building for its corporate office. The lease terminates on 30 June 2022 with no determination to extend for any further periods.

Set out below is the carrying amount of the right of use asset recognised and movements during the period.

	<b>Consolidated</b>	
	<b>31 Dec 2021</b>	<b>30 Jun 2021</b>
	\$	\$
<b>Right of Use Asset</b>		
As at 1 July 2021	67,495	-
Additions	-	124,606
Less Amortisation	<u>(33,748)</u>	<u>(57,111)</u>
As at 31 December 2021	<u><u>33,747</u></u>	<u><u>67,495</u></u>
Lease liability - current	-	76,875
Lease liability – non-current	<u>-</u>	<u>-</u>
	<u><u>-</u></u>	<u><u>76,875</u></u>

**Note 7. Equity – issued capital**

	<b>Consolidated</b>			
	<b>2021</b>	<b>2020</b>	<b>2021</b>	<b>2020</b>
	Shares	Shares	\$	\$
Ordinary shares - fully paid	<u>3,582,204,782</u>	<u>2,888,871,449</u>	<u>62,729,207</u>	<u>57,685,244</u>

*Movements in ordinary share capital*

Details	Date	Shares	Issue Price	\$
Balance	30 June 2020	1,942,689,706		52,741,932
Issue of shares – placement	5 October 2020	491,636,371	0.0055	2,704,000
Issue of shares – share purchase plan	16 October 2020	454,545,372	0.0055	2,500,000
Share issue costs		-		(310,688)
Treasury shares now vested	20 November 2020	24,000,000		-
Balance 31 December 2020		2,888,871,449		57,685,244
Issue of shares – placement	22 June 2021	693,333,333	0.0075	5,200,000
Share issue costs		-		(498,287)
Balance 30 June 2021		3,582,204,782		62,386,957
Non-controlling interest		-		365,913
Share issue costs		-		(23,663)
Balance 31 December 2021		3,582,204,782		62,729,207

*Shares under option*

Unissued ordinary shares of Argonaut Resources NL under option as at 31 December 2021 are as follows:

Grant date	Expiry date	Exercise price	Number under option
3 November 2017	31 December 2022	\$0.030	28,000,000
27 August 2020	30 April 2022	\$0.010	19,750,000
27 August 2020	11 August 2025	\$0.020	30,000,000
			<u>77,750,000</u>

No person entitled to exercise the options had or has any right by virtue of the option to participate in any share issue of the company or of any other body corporate.

*Ordinary shares*

Ordinary shares entitle the holder to participate in dividends and the proceeds on the winding up of the company in proportion to the number of and amounts paid on the shares held. The fully paid ordinary shares have no par value and the company does not have a limited amount of authorised capital.

On a show of hands every member present at a meeting in person or by proxy shall have one vote and upon a poll each share shall have one vote.

*Treasury shares*

Treasury shares relates to shares issued in connection with awards made to employees under the Company's Incentive Plan. Treasury shares is held by the Company on the award recipient's behalf until such time as the recipient repays the limited recourse loan attached to each award. Once repayment is made, treasury shares are formerly issued to the employee and presented as ordinary share capital.

<b><u>Movements in Treasury stock</u></b>	Grant date	Vested	Vest Date	Fair Value \$	Number of shares
Balance – 1 July 2020					-
Issue of ordinary shares – Tranche 1	26 Nov 2018	12,000,000	20 Nov 2020	\$0.01533	12,000,000
Issue of ordinary shares – Tranche 2	26 Nov 2019	12,000,000	20 Nov 2020	\$0.01470	12,000,000
Issue of ordinary shares – Tranche 3	26 Nov 2019	<u>16,000,000</u>	20 Nov 2021	\$0.01415	<u>16,000,000</u>
Balance – 31 December 2021		<u>40,000,000</u>			<u>40,000,000</u>

The issue of these shares was approved at the Annual General Meeting of Shareholders held on 13 November 2018. These shares are vested on 20 November 2021 provided that the holder has been continuously employed by the Company and there have been no significant adverse environmental or health and safety matters at any project that is operated by the Company during the relevant vesting period. The other terms of the loan are as follows:

1. Five-year term
2. No interest

**Note 8. Equity - Reserves**

	<b>Consolidated</b>	
	<b>31 Dec 2021</b>	<b>30 Jun 2021</b>
	<b>\$</b>	<b>\$</b>
Share based payments reserve	<u>1,995,633</u>	<u>1,927,625</u>
	<u><u>1,995,633</u></u>	<u><u>1,927,625</u></u>

*Share based payments reserve*

The reserve is used to recognise the value of equity benefits provided to employees and directors as part of their remuneration, and other parties as part of their compensation for services.

*Movements in reserves*

Movements in the reserve during the current financial half-year are set out below:

<b>Consolidated</b>	Share based payment reserve \$
Balance at 1 July 2021	1,927,625
Share based payments expense	44,345
Share based payments cost of capital	23,663
	<hr/>
Balance at 31 December 2021	<u>1,995,633</u>

**Note 9. Equity - Dividends**

There were no dividends paid, recommended or declared during the current or previous financial half-year.

**Note 10. Net fair values**

The carrying amounts of trade and other receivables and trade and other payables are assumed to approximate their fair values due to their short-term nature.

**Note 11. Events after the reporting period**

On 24 January 2021, the Company advised that it had become aware that Large-scale Exploration Licence 22399-HQ-LEL, Lumwana West, was not renewed by the Zambian Government on 28 December 2021 as expected. This licence area contains the Nyungu deposit. This is the area where \$1,580,584 had been spent within the last six months on drilling on the Nyungu deposit.

At the time of the purported cancellation, the Company's 90% held subsidiary, Mwombezi Resources Ltd, was operating in full compliance with all licence conditions and other regulatory requirements. However, Argonaut's Zambian lawyers have discovered that key compliance documents provided by the Company to its Zambian shareholders for filing were not submitted as required and this appears to have led to the cancellation of the licence.

On 25 February 2022 the Government of Zambia advised that the recently elected Zambian government is taking action to restore order to the country's mineral licencing system.

The Joint Venture agreement with Loded Dog Prospecting Pty Limited in relation to the Higginsville tenements ended on 19 February 2022. At 19 February 2022, Argonaut had not met the second phase earn-in amount necessary under the JVA to take an 80% interest in the package. Following this date, Argonaut and Loded Dog Prospecting Ltd entered a dispute with regards to the status of Argonaut's 51% interest.

No other matter or circumstance has arisen since 31 December 2021 that has significantly affected, or may significantly affect the Company's operations, the results of those operations, or the Company's state of affairs in future financial years.

**Note 12. Earnings per share**

	<b>Consolidated</b>	
	<b>31 Dec 2021</b>	<b>31 Dec 2020</b>
	<b>\$</b>	<b>\$</b>
Loss after income tax attributable to the owners of Argonaut Resources NL	<u>(2,941,592)</u>	<u>(864,572)</u>
	<b>Number</b>	<b>Number</b>
Weighted average number of ordinary shares used in calculating basic earnings per share	<u>3,582,204,782</u>	<u>2,404,905,706</u>
Weighted average number of ordinary shares used in calculating diluted earnings per share	<u>3,582,204,782</u>	<u>2,404,905,706</u>
	<b>Cents</b>	<b>Cents</b>
Basic earnings / (loss) per share	(0.0008)	(0.0003)
Diluted earnings / (loss) per share	(0.0008)	(0.0003)

At the reporting date, the Company has 77,750,000 (31 December 2020: 99,750,000) options issued and of those, none of the options are in the money and so have not been included in the calculation of diluted earnings per share because they are anti-dilutive for the balance sheet date presented.

In the directors' opinion:

- the attached financial statements and notes comply with the Corporations Act 2001, Australian Accounting Standard AASB 134 'Interim Financial Reporting', the Corporations Regulations 2001 and other mandatory professional reporting requirements;
- the attached financial statements and notes give a true and fair view of the Company's financial position as at 31 December 2021 and of its performance for the financial half-year ended on that date; and
- there are reasonable grounds to believe that the company will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of directors made pursuant to section 303(5)(a) of the Corporations Act 2001.

On behalf of the directors



Patrick JD Elliott  
Chairman

15 March 2022



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working world

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## Independent auditor's review report to the members of Argonaut Resources N.L.

### Conclusion

We have reviewed the accompanying half-year financial report of Argonaut Resources N.L. (the Company) and its subsidiaries (collectively the Group), which comprises the condensed statement of financial position as at 31 December 2021, the condensed statement of profit or loss and other comprehensive income, condensed statement of changes in equity and condensed statement of cash flows for the half-year ended on that date, notes comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration.

Based on our review, which is not an audit, we have not become aware of any matter that makes us believe that the half-year financial report of the Group does not comply with the *Corporations Act 2001*, including:

- a. Giving a true and fair view of the consolidated financial position of the Group as at 31 December 2021 and of its consolidated financial performance for the half-year ended on that date; and
- b. Complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.

### Basis for conclusion

We conducted our review in accordance with ASRE 2410 *Review of a Financial Report Performed by the Independent Auditor of the Entity* (ASRE 2410). Our responsibilities are further described in the *Auditor's responsibilities for the review of the half-year 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 annual financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

### Material uncertainty related to going concern

We draw attention to Note 1 in the financial report, which describes the principal conditions that raise doubt about the Group's ability to continue as a going concern. These events or conditions indicate the existence of a material uncertainty that may cast significant doubt about the Group's ability to continue as a going concern. Our conclusion is not modified in respect of this matter.

### Directors' responsibilities for the half-year financial report

The directors of the Company are responsible for the preparation of the half-year 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 half-year financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.





### **Auditor's responsibilities for the review of the half-year financial report**

Our responsibility is to express a conclusion on the half-year financial report based on our review. ASRE 2410 requires us to conclude whether we have become aware of any matter that makes us believe that the half-year financial report is not in accordance with the *Corporations Act 2001* including giving a true and fair view of the Group's financial position as at 31 December 2021 and its performance for the half-year ended on that date, and complying with Accounting Standard AASB 134 *Interim Financial Reporting* and the *Corporations Regulations 2001*.

A review of a half-year financial report consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

A handwritten signature in black ink that reads 'Ernst &amp; Young'.

Ernst & Young

A handwritten signature in black ink that reads 'L A Carr'.

L A Carr  
Partner  
Adelaide  
15 March 2022

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