



# **ROX RESOURCES LIMITED**

**ASX: RXL** 

Resources Limited Rox exploring and developing advanced gold assets in Western Australia, the Youanmi Gold Project and the Mt Fisher - Mt Eureka Project.

#### **DIRECTORS**

Mr Stephen Dennis Chairman

Mr Robert Ryan Managing Director

Dr John Mair Non-Executive Director

**Matthew Hogan** Non-Executive Director

Shares on Issue 360.0m **Share Price** \$0.215 Market Cap. \$77.4m

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# 5,000m RC exploration drilling program underway at Youanmi

Regional and near-mine targets within the newlyconsolidated Youanmi Gold Belt offer strong potential to expand existing high-grade 3.2Moz Resource

- Dynamic, multi-pronged exploration strategy designed to rapidly progress the existing strong project pipeline across the Company's now dominant tenure position over the Youanmi greenstone belt.
- Rox's tenements cover 643km<sup>2</sup> and straddle more than 60km of the highly endowed Youanmi Shear Zone, which is the gold feeder for the 3.2Moz Youanmi gold deposit and Ramelius' high-grade Penny West deposit.
- Renewed exploration focus on the recently consolidated Youanmi Gold Belt (now owned 90-100%) to follow-up previously announced results from high-priority targets including:
  - Currans North<sup>1</sup>
    - CFRC026: 3m @ 32.58g/t Au from 115m
    - CFRC016: 3m @ 27.50g/t Au from 39m
    - CFRC031: 3m @ 25.00g/t Au from 109m
    - CFRC084: 3m @ 19.58g/t Au from 21m
  - Linda Gossan²
    - VMC054: 9m @ 15.6g/t Au from surface
- Follow-up drilling at near-mine IP targets including Paddy's Lode, Bunker North and the Youanmi Shear Zone.
- Rox's tenements offer substantial upside to the current 3.2Moz Mineral Resource, with a highly prospective combination of advanced prospects, greenfields prospects and target generation.

Rox Resources Limited (ASX: RXL) ("Rox" or the "Company") is pleased to advise that it has embarked on a significant new phase of regional and near-mine exploration aimed at unlocking the full potential of the consolidated 3.2Moz Youanmi Gold Project in WA.

The Company's exploration activities during the past 12 months have largely focused on drilling the Link and Kathleen areas of the Youanmi deposit aimed at converting a significant portion of the Inferred Resource to Indicated category. In addition to upgrading the Youanmi Resource classification, Rox has advanced the

<sup>&</sup>lt;sup>1</sup> Refer to ASX Announcement from VMC on 11 September 2020

<sup>&</sup>lt;sup>2</sup> Refer to ASX Announcement from VMC on 10 October 2022



definition of the near-mine Midway Lodes and discovered significant mineralisation directly to the south of the known Youanmi deposit at Paddy's Lode. These developments have demonstrated that significant mineralisation exists in the near-mine area, presenting the opportunity for further resource growth.

The potential of the regional tenements has been poorly explored over the last decade, primarily due to a fractured ownership history that has limited the ability to apply a systematic regional exploration approach. Rox's recent consolidation of the Youanmi joint venture has given the Company fresh impetus to explore the 60km strike extent of the Youanmi Shear Zone, putting Rox in a unique position to organically grow the Youanmi Gold Project by actively exploring and progressing its project pipeline.

The exploration growth strategy is designed to realise additional value from the significant tenement package of contiguous and highly prospective tenements in the world-class yet underexplored Youanmi Greenstone Gold Belt in Western Australia.

Rox's exploration team, with assistance from external geological consultants, has ranked and prioritised key targets within the tenement package, with four primary objectives:

- 1. **Near-Mine Targets** following-up on the IP survey results which highlighted a number of high-priority targets including extensions to Paddy's Lode, Bunker North, Southern Granite and the Youanmi Shear Zone.
- 2. Regional Advanced Targets to rapidly progress the most advanced regional targets including the very high-grade Currans Find Gold Project, which has returned drill-hole intercepts up to 32.58g/t Au (ASX: VMC announcement 11 September 2020) with the objective of increasing the current Mineral Resource to add further value to the Youanmi Project;
- 3. Greenfields Targets exploring highly-prospective greenfields targets including the 2022 discovery of 9m @ 15.60g/t Au from surface at Linda Gossan (ASX: VMC announcement 10 October 2022), along with a number of other significant prospects located within the tenement package; and
- 4. Target Generation to undertake a thorough study to identify any gaps in tenement-wide datasets and to develop a full pipeline of gold targets to realise the full potential of the Rox tenement package. One of the prime focus areas will be the Penny South Project, where Rox holds 24km of prospective strike extent directly south of Ramelius' high-grade Penny West operating mine. These southern tenements cover the gold-rich mineralised regional Youanmi Shear structure that hosts the Penny West deposit.

## **Managing Director Comments**

Rox Resources' Managing Director, Mr Robert Ryan, said the current exploration program is aimed at unlocking the vast potential of the strongly endowed Youanmi Shear Zone.

"On the back of the recent consolidation of the Youanmi Gold Project and the regional joint venture, Rox has developed a comprehensive project pipeline of highly prospective regional exploration projects that we'll be targeting in parallel with our established near-mine targets at Midway and Paddy's.

"One of these key regional targets is the Penny North Project which offers several high-priority prospects, most notably Currans Find, located 20km south of Youanmi, where previous drilling intersected multiple high-grade lodes with assays of up to 32.58g/t.

"The Youanmi South area also continues to be a primary focus, with Paddy's Lode and potential parallel structures scheduled to be tested.

"Testing strong chargeability anomalies identified in the recent IP geophysics survey, including a previously unknown structure on the southern granite contact and on the edge of the regional Youanmi Shear Zone, will





also form part of this regional program, and importantly provide information on the forward use of IP to identify corridors of mineralisation under cover.

"Drilling has now commenced, with news flow expected to increase over the coming weeks as we seek to unlock the vast potential of the under-explored Youanmi Greenstone Belt."

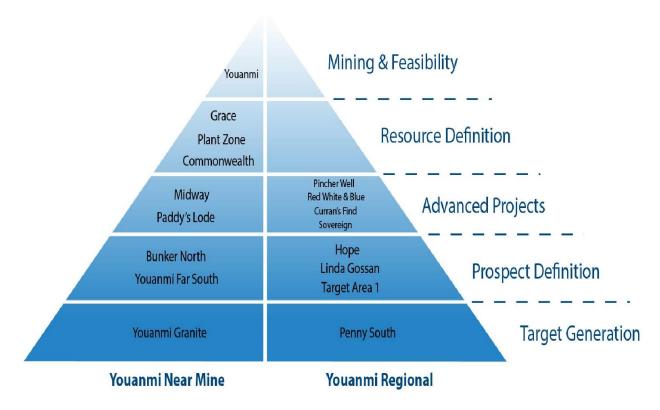


Figure 1: Rox Project Pipeline



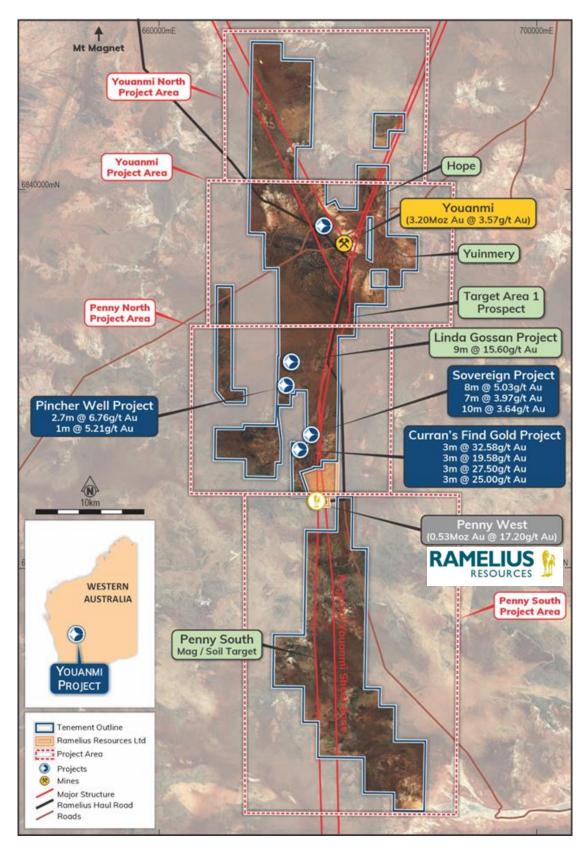


Figure 2: Regional Tenure Project Area







#### YOUANMI NEAR MINE TARGETS

Following the recent near-mine discoveries of the Midway and Paddy's lodes, on the southern end of the 3.2Moz Youanmi deposit, the Company commissioned an Induced Polarisation (IP) geophysical survey to identify additional undiscovered mineralised structures in the bedrock at the southern end of the Youanmi deposit.

As the gold mineralisation at Youanmi is strongly associated with disseminated sulphides, pyrite and arsenopyrite, the Company selected an IP survey as the most effective geophysical technique to identify subsurface, sulphide-rich mineralised structures that produce strong chargeability responses.

The IP survey consisted of four dipole-dipole electrode configuration lines spaced approximately 200m apart, with electrodes spaced at 50m intervals along each line. Chargeability and resistivity sections were produced for each of the four lines enabling an interpretation of sulphide-rich structures in the fresh bedrock. The IP survey was successful in identifying five targets that warrant drill testing.

- Target 1 (T1) Bunker North Chargeability response suggests that the Bunker high sulphide-bearing structure extends at depth along strike to the north under historical anomalous gold results within the regolith.
- **Target 2 (T2) Youanmi Granite South** A chargeability response at the southern end of the granite contact, indicating potential sulphide mineralisation within the granite.
- Target 3 (T3) and Target 4 (T4) Paddy's Lode Chargeability responses further south of the currently defined Paddy's lode mineralisation indicate southern extensions to the mineralised zone, whilst a potential parallel structure (T4) is interpreted from the IP results.
- Target 5 (T5) Youanmi Shear Zone an intense chargeability response juxtaposing the regional Youanmi Shear Zone (primary source of gold in the region) could indicate significant sulphides along the Youanmi Shear Zone western boundary, where only wide-spaced shallow historical RAB drilling has been completed through an interpreted layer of transported cover. This represents a significant new target for Rox given the intensity of the response.



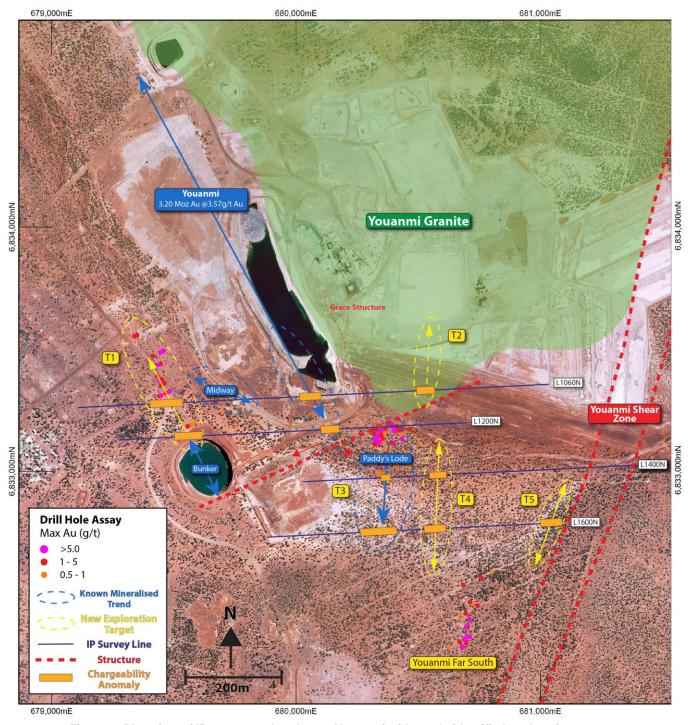


Figure 3: Plan view of IP survey undertaken at Youanmi with newly identified exploration targets.



#### **REGIONAL ADVANCED PROJECTS**

All of Rox's advanced projects currently sit within the Penny North Project Area located south of the 3.2Moz Youanmi gold deposit and north of the high-grade Penny West deposit.

## **Penny North Project Area**

The Penny North Project Area covers a 15km stretch of the Youanmi Shear Zone directly north of the Penny West deposit (Figure 4). This area is a structurally complex area with the highly gold mineralised regional Youanmi Shear being the dominant structural feature.

Feeding off this regional structure is a series of interpreted NW-trending structures that provide an excellent geological setting to host significant high-grade gold mineralisation. The Sovereign Project is located along one of these NW-trending structures. Within these NW-trending structures are a series of interpreted linking structures that host the Currans North, Red White & Blue, and Pincher Well Projects (Figure 4).

# **Currans Find Gold Project**

The Currans Find Gold Project is located approximately 20km south of the Youanmi mine site.

The project area has three distinct zones of high-grade mineralisation that have been identified through historical mining, AC and RC drilling including the Currans North project, Red White & Blue project and Sovereign project (Figure 5).

Historically, Currans Find produced 6,874 tonnes at 13g/t from a battery located on-site at Red White & Blue in the early 1900's. The project was owned by Eastmet in the 1990's, with expenditure on the project just meeting minimum commitments. In 2019 and 2020, VMC conducted drilling campaigns that intersected multiple high-grade lodes at Currans North, Red White & Blue and Sovereign.

The gold rights are varied for these projects, with both the Currans North and Red White & Blue projects located on tenement M57/641 with Rox holding 90% of the gold rights. The Sovereign project is located on tenement E57/1019 with Rox holding 100% of the gold rights.

Gold mineralisation at both Currans North and Red White & Blue projects is associated with elevated copper and lead, which is a characteristic of gold mineralisation at the high-grade Penny West gold mine (5km to the SE).

Currans North and Red White & Blue have a current combined Indicated and Inferred Resource of 22,000 ounces @ 3.81g/t Au (VMC ASX Announcement 23 June 2021). There is currently no resource for the Sovereign project.





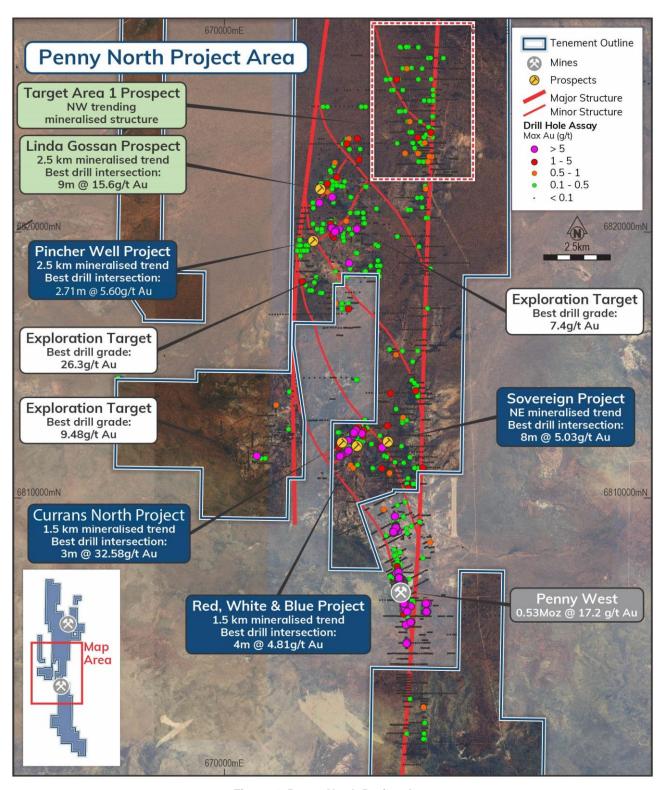


Figure 4: Penny North Project Area

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# i. Currans North Project (Rox, 90% Au rights)

Gold mineralisation at Currans North is hosted in multiple ENE-trending quartz veins within mafic, ultramafic and intermediate rocks. These veins are dipping towards the SE and mineralisation appears to be plunging at 30° towards 206°.

Previous drilling on this project shows exceptionally high-grade gold mineralisation including (ASX: VMC announcement 11 September 2020):

- CFRC026: 3m @ 32.58g/t Au from 115m
- CFRC016: 3m @ 27.50g/t Au from 39m
- CFRC031: 3m @ 25.00g/t Au from 109m
- CFRC084: 3m @ 19.58g/t Au from 21m

Rox has interpreted a 1.5km ENE mineralised trend covering the previous exploration drilling (Figure 5).

## ii. Red White & Blue Project (Rox, 90% Au rights)

The structure hosting the Red White & Blue Prospect sits 200m to the south of the Currans North trend and is striking at a similar orientation. The mineralisation style and structural trend at Red White & Blue is similar to the Currans North trend, however due to the lack of drilling, a high-grade plunge component is yet to be established.

Previous drilling on this project shows high-grade gold mineralisation including (ASX: VMC announcement 13 June 2019):

- CFRC006: 4m @ 4.81g/t Au from 36m
- CFRC009a: 1m @ 10.79g/t Au from 25m
- CFRC008: 1m @ 4.96g/t Au from 46m

Rox has interpreted a 2km ENE mineralised trend covering the previous exploration drilling with the large central area along this trend that requires drill testing (Figure 5).

RC drilling at both the Currans North and Red White & Blue Projects is planned to extend the known mineralisation along strike and at depth, along with a number of strategically-located infill holes aimed at potentially increasing the current Mineral Resource.

# iii. Sovereign Project (Rox, 100% Au rights)

The Sovereign prospect is located 1km east of the Currans Find Project (Figure 4 and 5).

Gold is associated with numerous steeply dipping quartz lodes striking towards the north, hosted within basalt and mafic schists. As with the Currans prospects, anomalous gold grades are associated with elevated levels of base metals.

RC drilling is planned to initially infill the deposit with the aim of potentially generating a maiden Mineral Resource.



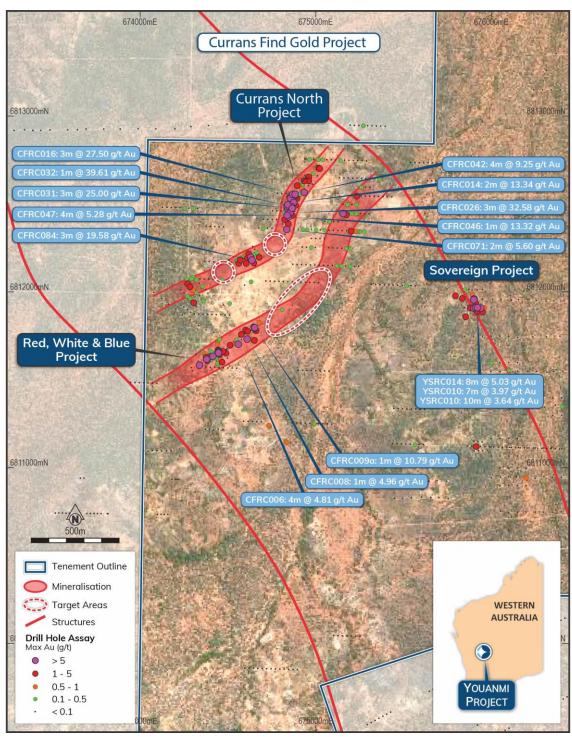


Figure 5: Prospects at the Currans Find Gold Project



#### **GREENFIELDS PROSPECTS**

Rox currently has a number of greenfields prospects with known gold mineralisation at different stages of development. All of these prospects are located proximal to known gold fluid pathways on mineralised structures that all feed from the regional Youanmi Shear Zone.

The key greenfields targets with the potential to host high-grade deposits are:

- Linda Gossan; and
- Target Area 1

# Linda Gossan Prospect (Rox, 100% Au rights)

The Linda Gossan Prospect is located approximately 14km south of the Youanmi Mine site (Figure 1) within tenement E57/1019. The prospect is underlain by a sequence of felsic lavas and tuffs, and chert and Banded iron formations (BIFs), all intruded by mafic to intermediate sills.

The Gossan was discovered in 1971 and since then companies including WMC and BHP have undertaken exploration involving limited drilling. Over this period of historical exploration, the exploration focus was almost exclusively on base metals and largely neglected the gold potential.

More recently, RC drilling by VMC during 2022 intersected a hugely significant gold intercept of 9m @ 15.6g/t Au from surface in drill hole VMC054 (ASX: VMC announcement 10 October 2022).

Given the recent significant, wide and high-grade drill intercept from VMC054, within an area with very limited true gold exploration, this prospect represents one of Rox's highest priority targets.

Follow-up drilling has been designed to initially test the strike extent from the VMC054 intercept.

# Target Area 1 (Rox, 90% Au rights)

During 2021, Rox completed a 426-hole, 22,455 metre aircore drilling program that straddled the regional Youanmi Shear Zone to the south of the Youanmi deposit (Figure 4 & 6).

The Youanmi Shear Zone is a major crustal-scale structure and is likely the first-order fluid pathway for gold mineralisation at the Youanmi Mine and Penny West Mine (Ramelius Resources). The drilling program covered an 18km strike length between these two mining operations and was designed to test for regolith gold anomalies within NW-trending structures proximal to the Youanmi Shear Zone.

Following the drilling program, the most prospective area – named Target Area 1 – displayed several anomalous gold results along these NW-trending structures, seen through the regional geophysics (Figure 6).

Significant intersections include (ASX Announcement 3 February 2022) (Figure 6):

- 12m @ 0.68g/t Au from 48m (including 4m @ 1.29g/t Au); and
- 16m @ 0.91g/t Au from 56m (including 4m @ 2.37g/t Au).

Rox has designed follow-up drilling to test the continuation and orientation of mineralisation at depth and along strike for the early stage aircore program.



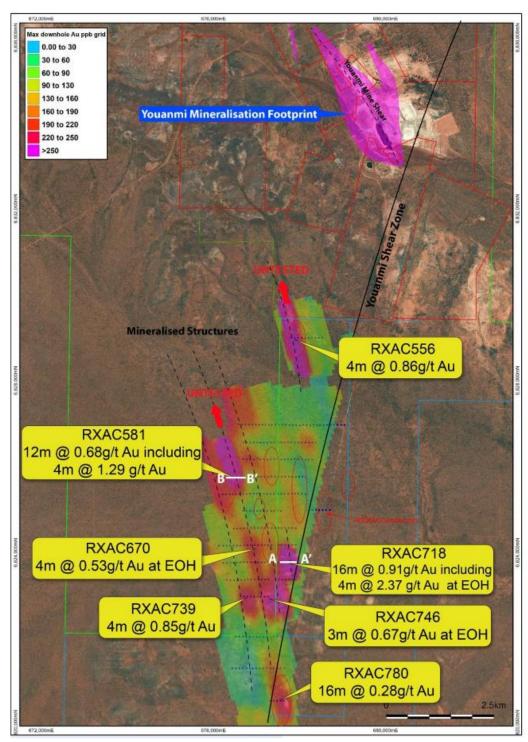


Figure 6: Target Area 1 aircore results along NW-trending structures.



# **Figure References**

Figure 1 – ASX: VMC announcement on 25 August 2017, 5 September 2019, 11 September 2020, 18 September 2020 and 10 October 2022 and RXL announcement on 20 April 2022

Figure 3 - ASX: VMC announcement 25 August 2017, 17 April 2019, 13 June 2019, 5 September 2019, 11 September 2020, 18 September 2020 and 10 October 2022

Figure 4 – ASX: VMC announcement 11 September 2020

Figure 5 – ASX announcement 20 April 2022

# For more information:

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#### **Competent Person Statement**

#### **Exploration Results**

The information in this report that relates to Data and Exploration Results is based on information compiled and reviewed by Mr Travis Craig a Competent Person who is a Member of the Australasian Institute of Geologists (AIG) and Exploration Manager at Rox Resources. Mr Craig has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Craig consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Where reference is made to previous releases of exploration results in this announcement, the Company confirms that it is not aware of any new information or data that materially affects the information included in those announcements and all material assumptions and technical parameters underpinning the exploration results included in those announcements continue to apply and have not materially changed.

The information in this report that relates to previous Exploration Results was prepared and first disclosed under the JORC Code 2012 and has been properly and extensively cross-referenced in the text to the date of the original announcement to the ASX.

#### **Resource Statements**

The Statement of Estimates of Mineral Resources for the Youanmi Near Surface Resource was reported by Rox in accordance with ASX Listing Rule 5.8 in the announcement released to the ASX on 20th April 2022. Rox confirms it is not aware of any new information or data that materially affects the information included in the previous announcements and that all material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.

The Statement of Estimates of Mineral Resources for the Youanmi Underground Resource was reported by Rox in accordance with ASX Listing Rule 5.8 in the announcement released to the ASX on 20th January 2022. Rox confirms it is not aware of any new information or data that materially affects the information included in the previous announcements and that all material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.

The Statement of Estimates of Mineral Resources that relates to gold Mineral Resources for the Mt Fisher – Mt Eureka Project was reported by Rox in accordance with ASX Listing Rule 5.8 in the announcement released to the ASX on 2nd November 2022. Rox confirms it is not aware of any new information or data that materially affects the information included in the previous announcements and that all material assumptions and technical parameters underpinning the estimates in the previous announcements continue to apply and have not materially changed.

## **Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Rox Resources Limited planned exploration program(s) and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should," and similar expressions are forward looking statements.

### **About Rox Resources**

Rox Resources (ASX: RXL) is a West Australian focused gold exploration and development company. It is the 100 per cent owner of the historic Youanmi Gold Project near Mt Magnet, approximately 480 kilometres northeast of Perth, and owns the Mt Fisher - Mt Eureka Gold and Nickel Project approximately 140 kilometres southeast of Wiluna, with 100% ownership of certain tenure with the remaining tenure held via a joint venture (Rox 51%, earning into 75%).

Youanmi Project has a Total Mineral Resource of 3.2Moz of contained gold, with potential for further expansion with the integration of existing prospects into the Resource and further drilling. Youanmi was a high-grade gold mine and produced ~667,000oz of gold (at 5.47 g/t Au) before it closed in 1997. It is classified as a disturbed site and is on existing mining leases which have significant existing infrastructure to support a return to mining operations.

