



## **ASX ANNOUNCEMENT**

15 MARCH 2016

**Rox Resources Limited** 

**ASX: RXL** 

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**Projects:** 

Mt Fisher: nickel-gold (100%)

Reward: zinc-lead (diluting

from 49%)

Bonya: copper-silver (earning

up to 70%)



# MT FISHER GOLD PROJECT

- Potential for shallow heap leachable resources
- JORC 2004 Mineral Resource of 973,800t @ 2.75 g/t Au for 86,080 ounces being updated to JORC 2012 compliance
- Previous drilling indicates high grade gold potential, including:
  - o 9m @ 7.1 g/t Au
  - o 3m @ 17.4 g/t Au
  - 4m @ 9.0 g/t Au, and
  - 11m @ 5.3 g/t Au

In light of the current strong gold price environment Rox Resources Limited (ASX: RXL) ("Rox" or "the Company") is pleased to advise on a number of developments at is Mt Fisher gold project.

A Mineral Resource of 973,800t @ 2.75 g/t Au for 86,080 ounces was previous estimated to JORC 2004 standard (ASX:RXL 10 February 2012), and is currently being updated to JORC 2012 compliance.

In addition, potential to expand this resource has been identified with the location of a shallow zone of mineralisation at the Dam prospect that may be extractable by heap leach methods. The first stage target for this zone is 50,000 contained ounces of gold.

A recently acquired option over tenement E53/1788 located to the south of the Dam trend (Figure 2), which includes the Shiva and Ravana prospects, has extended the major gold-in-regolith anomaly to over 12 km in strike.

Rox Managing Director, Mr Ian Mulholland commented "With the price of gold up 15% since our last project evaluation, the Mt Fisher gold project is looking even stronger. The gold-in-regolith anomaly is of significant size and contains a large amount of gold. We strongly believe this indicates a deeper source of gold, and from the amount of gold in the weathered regolith that gold source must be sizeable. In addition the identification of near surface mineralisation is an exciting development."

## **Regional Context**

The Mt Fisher Gold Project is located in the north-eastern goldfields of Western Australia. It is an area of active gold mining with major mines located at Wiluna, Jundee, Bronzewing and Darlot (Figure 1).

The total mineral resource endowment of the Emu to Wiluna greenstone belt exceeds 10 million ounces, while the endowment of the Yandal belt (Darlot to Jundee) exceeds 17 million ounces (Figure 1).

The current mineral resource endowment of the Mt Fisher greenstone belt is about 0.5 million ounces in comparison, and by analogy with other under explored greenstone belts in the Yilgarn province (e.g. Yarmana belt) the potential for the belt to host significantly more gold than currently defined is very strong.

Currently there are gold mining operations at Jundee, Darlot and Lawlers, with the Bronzewing project on care and maintenance, and the Wiluna project undergoing re-evaluation and development studies.

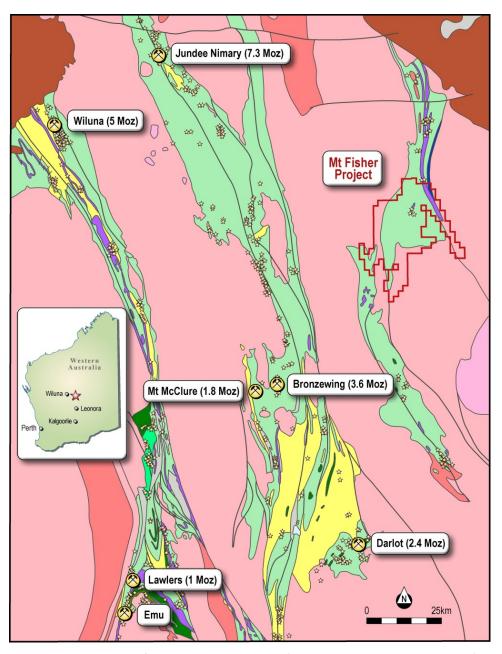


Figure 1: Location of Mt Fisher Gold Project (yellow stars are gold prospects)

Rox and previous explorers have identified a significant near surface gold-in-regolith anomaly extending over 13 km in strike length from the Damsel prospect in the north to the Shiva prospect in the south (Figure 2). This mineralisation most likely occurs along a regional shear zone and is a very permissive geological environment for gold mineralisation to occur.

In addition, underground mineral resources have been identified at the old Mt Fisher gold mine and at the Moray Reef deposit.

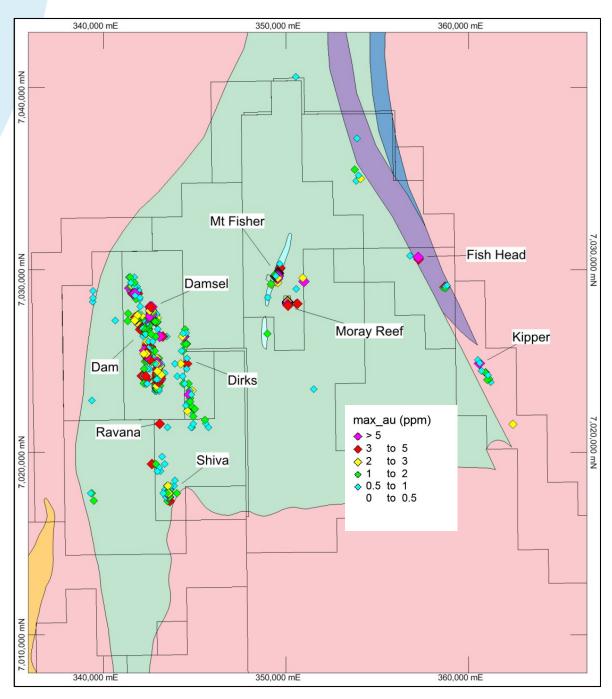


Figure 2: Gold Prospects showing Maximum gold in hole

#### **Mineral Resources**

A Mineral Resource was previously defined to JORC 2004 compliance of 973,800t @ 2.75 g/t Au for 86,080 ounces (ASX:RXL 10 February 2012). That Mineral Resource (Table 1) is currently being upgraded to JORC 2012 compliance.

Table 1: Mineral Resources – Mt Fisher, 0.8 g/tAu minimum cut-off

Deposit	Category	Tonnes	Uncut		Cut		
			Grade (g/tAu)	Metal (Ozs)	Grade (g/tAu)	Metal (Ozs)	Value (g/tAu)
Moray Reef	Measured	25,700	10.84	8,957	7.96	6,577	80
	Indicated	4,900	6.09	959	5.95	937	80
	Inferred	1,200	3.87	149	3.87	149	80
	TOTAL	31,800	9.85	10,066	7.50	7,664	80
Mt Fisher	Measured	119,600	3.72	14,304	3.60	13,843	50
	Indicated	56,700	3.62	6,599	3.62	6,599	50
	Inferred	38,900	3.44	4,302	3.41	4,265	50
	TOTAL	215,200	3.64	25,206	3.57	24,707	50
Damsel	Measured	26,600	2.91	2,489	2.68	2,292	30
	Indicated	143,300	2.47	11,380	2.39	11,011	30
	Inferred	556,100	2.34	41,837	2.26	40,407	30
	TOTAL	726,000	2.39	55,705	2.30	53,710	30
TOTAL	Measured	171,900	4.66	25,750	4.11	22,712	
	Indicated	204,900	2.87	18,938	2.82	18,548	
	Inferred	596,200	2.41	46,288	2.34	44,821	
	TOTAL	973,000	2.91	90,976	2.75	86,080	

Of the resource approximately 48% is measured and indicated (26% measured, 22% indicated) and 52% is inferred.

Studies by Rox in 2012 indicated that the Damsel deposit was mineable by open pit methods, however the cost of trucking the ore to one of the four (4) treatment plants (Wiluna, Jundee, Bronzewing or Darlot) within a 150km radius made the project marginal at the gold price at the time and the cost regime.

Currently the gold price (in A\$) is 15% higher, and costs are significantly lower.

Metallurgical testwork carried out in 2012 returned encouraging recoveries from Damsel, Moray Reef, and the low grade stockpile at Mt Fisher as shown in Table 2 (ASX:RXL 29 May 2012).

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In addition, a target zone of about 50,000 ounces of shallow heap leachable mineralisation has been identified at the Dam prospect, and warrants drill follow-up to confirm a mineral resource. It is possible that the Damsel resource could be treated by heap leach methods as well, but further metallurgical testwork will be required to confirm the gold recovery.

Table 2: Metallurgical Test Results

Ore Type	Grind Size P80 (μm)	Head Grade g/t Au	Recovery (%)	NaCN (kg/t)	Lime (kg/t)
Damasi	150	2.46	96	0.50	2.24
Damsel	300	2.46	94	0.29	1.16
Mayou Doof	150	22.4	98	0.25	1.35
Moray Reef	300	22.1	98	0.18	1.41
	150	6.25	66	0.57	1.04
Mt Fisher Sulphide	75		67	0.49	1.34
	38		75	0.59	1.34
Mt Fisher Tailings	50 (nominal)	1.28	35	0.32	8.67
Wit Fisher Failings	10	1.26	42	0.92	8.38
Mt Fisher LG Stockpile	75	0.83	97	0.18	0.53
Wit Fisher LG Stockpile	150	0.63	96	0.22	0.38

## **Prospect Descriptions**

#### Dam - Shiva Trend

This is a major zone of gold anomalism extending over 13km in strike length. Numerous high grade gold intersections have been made, including:

Dam	<b>9m @ 7.1 g/t A</b> u from 76m
	<b>3m @ 17.4 g/t Au</b> from 30m
	4m @ 9.0 g/t Au from 26m
	8m @ 4.1 g/t Au from 36m
Damsel	<b>9m @ 4.4g/t Au</b> from 54m
	<b>9m @ 7.1 g/t Au</b> from 76m
	11m @ 5.3g/t Au from 60m
	<b>12m @ 2.3g/t Au</b> from 46m
Dirks	2m @ 13.7 g/t Au from 54m
	2m @ 4.8 g/t Au from 33m
	2m @ 3.8 g/t Au from 90m
Shiva	7m @ 2 E7 a/t Au from 2m
Siliva	7m @ 2.57 g/t Au from 3m
	6m @ 2.0g/t Au from 30m
	<b>3m @ 3.53 g/t Au</b> from 44m

The potential for a significant gold deposit located beneath the near surface gold anomalism is strong, however exploration drilling below the oxide zone is sparse. Less than 8% of all drill holes are deeper than 100m and only 2% of all drill holes are greater than 200m depth.

Figure 3 shows a contoured plan of the drilling results from Dam North to Nile. There are three distinct zones of mineralisation, along interpreted shear zones, with strong concentrations of gold corresponding cross-cutting faults. These would form ideal locations for dilation and gold precipitation, but have not been effectively drill tested at depth. The potential for multi-million ounce gold deposits is high.

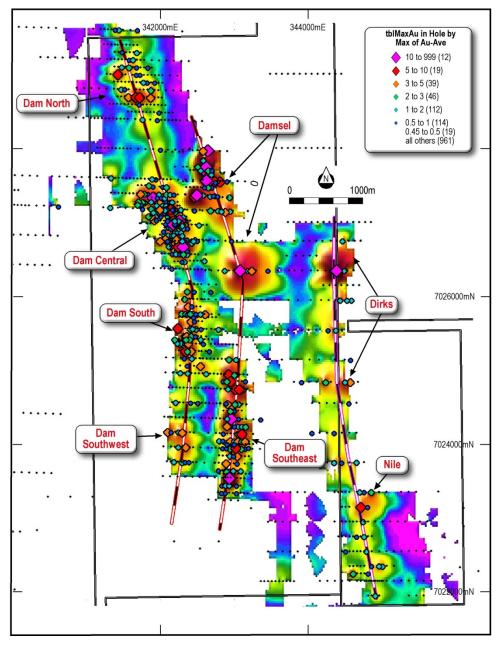


Figure 3: Dam North to Nile gold-in-regolith anomaly. Contour shading is the same as the drill hole legend.

A single diamond hole drilled at the Dam Central prospect in 2014 (ASX:RXL 10 September 2014) to test interpreted structurally controlled gold mineralisation intersected several zones of mineralisation (Figure 4), including:

1.3m @ 5.47 g/t Au from 125.3m 4.4m @ 2.35 g/t Au from 155.0m 0.4m @ 25.9 g/t Au from 215.8m 3.0m @ 2.21 g/t Au from 319.0m

Follow-up deeper drilling is warranted.

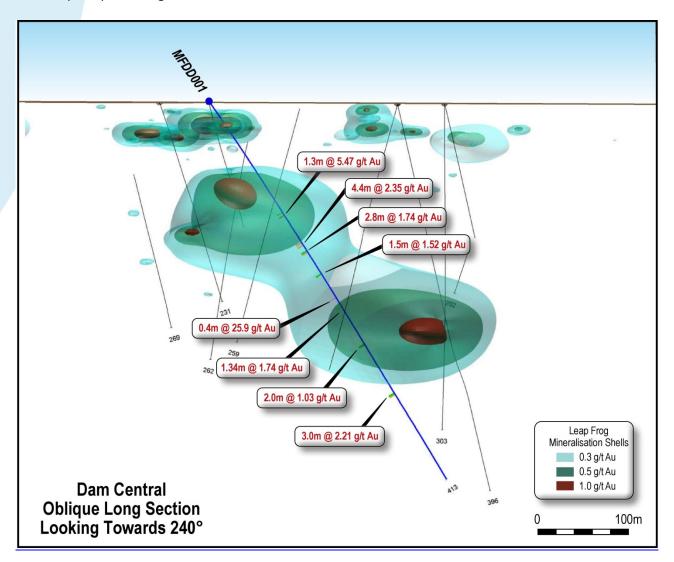


Figure 4: Dam Central Oblique Long Section showing Diamond Drill Hole Results. Leapfrog is a predictive modelling software that can be used to suggest trends in data. In this case Leapfrog was used to model the previous drilling data at 0.3 g/tAu, 0.5 g/tAu and 1.0 g/tAu levels. The Leapfrog "shells" suggested a possible structurally controlled mineralised structure plunging to the northwest, which was tested by the diamond drill hole MFDD001.

#### Mt Fisher and Moray Reef

Both the Mt Fisher and Moray Reef gold deposits are located on granted mining leases. The resource identified below the Mt Fisher open pit is still open at depth (Figure 5). Further drilling is warranted to extend the resource down plunge.

The Moray Reef deposit is relatively small, but very high grade. Metallurgical recoveries are also high at 98%. Figure 6 shows the distribution of gold in long section.

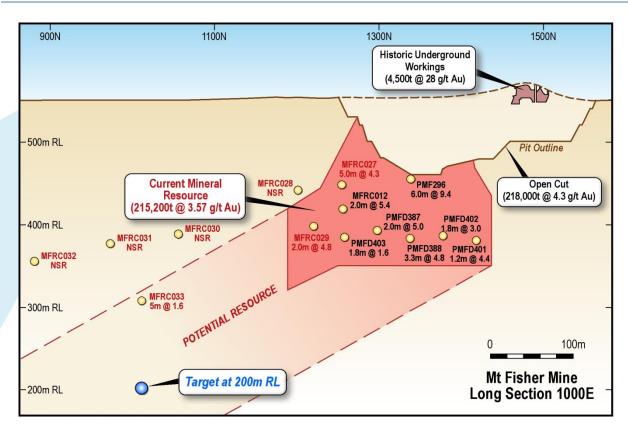


Figure 5: Mt Fisher Mine Long Section

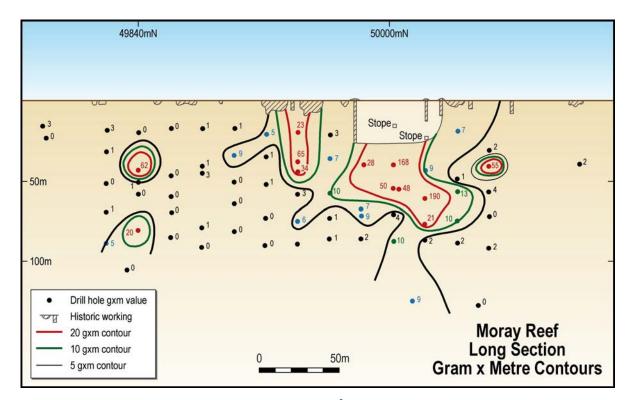


Figure 6: Moray Reef Long Section

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# **Plans**

Rox is currently re-evaluating the gold potential of the Mt Fisher project on the following basis:

- 1. Upgrade of the previous mineral resource to JORC 2012 compliance.
- 2. Evaluation of potential for heap leachable resource at the Dam prospect to add to the resource base. An RC drilling program to define this potential resource is being planned and costed.
- 3. Re-evaluation of the current resources for exploitation, given the higher gold price and lower operating cost regimes.
- 4. Planning and costing of an aircore drilling program to extend and in-fill the gold-in-regolith anomaly from Dam North to Shiva, with follow-up RC drilling to potentially define additional mineral resources.

## **ENDS**

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## **Competent Person Statements:**

The information in this report that relates to nickel Exploration Results for the Fisher East Project is based on information compiled by Mr Ian Mulholland BSc (Hons), MSc, FAusIMM, FAIG, FSEG, MAICD, who is a Fellow of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Mulholland has sufficient experience which is relevant to the style of mineralisation and type of deposit 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 Exploration Results, Mineral Resources and Ore Reserves". Mr Mulholland is a full time employee and Managing Director of the Company and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Mineral Resource for the Fisher East nickel sulphide deposits (viz. Camelwood, Cannonball and Musket) is based on information compiled by Mr Mick McKeown B.Sc. (Geology), Grad. Dip. Mining, M.Eng.Sci, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr McKeown has sufficient experience which is relevant to the style of mineralisation and type of deposit 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 Exploration Results, Mineral Resources and Ore Reserves". Mr McKeown is Senior Geologist/Mining Engineer at consulting firm Mining One Pty Ltd, and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to previous Exploration Results and Mineral Resources for the Reward Zinc-Lead, and Bonya Copper projects and for the gold Mineral Resource defined at Mt Fisher, was either prepared and first disclosed under the JORC Code 2004 or under the JORC Code 2012, and has been properly and extensively cross-referenced in the text. In the case of the 2004 JORC Code Exploration Results and Mineral Resources, they have not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

# **About Rox Resources**

Rox Resources Limited is an emerging Australian minerals exploration company. The company has three key assets at various levels of development with exposure to gold, nickel, zinc, lead, and copper, including the Mt Fisher Gold Project (WA), Myrtle/Reward Zinc-Lead Project (NT), and the Bonya Copper Project (NT).

## Mt Fisher Gold-Nickel Project (100% + Option to Purchase)

The Mt Fisher gold project is located in the highly prospective North Eastern Goldfields region of Western Australia and in addition to being well endowed with gold the project hosts strong nickel potential. The total project area is 675km², consisting of a 600km² area 100% owned by Rox and an Option to purchase 100% of a further 75km² of nickel and gold prospective ground.

Discovery of, and drilling at the Camelwood, Cannonball and Musket nickel prospects has defined a JORC 2012 Mineral Resource (ASX:RXL 5 February 2016) of **4.2Mt grading 1.9% Ni** reported at 1.0% Ni cut-off (Indicated Mineral Resource: 3.7Mt grading 1.9% Ni, Inferred Mineral Resource: 0.5Mt grading 1.5% Ni) comprising massive and disseminated nickel sulphide mineralisation, and containing 78,000 tonnes of nickel. Higher grade mineralisation is present in all deposits (refer to ASX announcement above), and is still open at depth beneath each deposit. Additional nickel sulphide deposits continue to be discovered (e.g. Sabre) and these will add to the resource base. Exploration is continuing to define further zones of potential nickel sulphide mineralisation.

Drilling by Rox has also defined numerous high-grade gold targets and a JORC 2004 Measured, Indicated and Inferred Mineral Resource (ASX:RXL 10 February 2012) of **973,000 tonnes grading 2.75 g/t Au** reported at a 0.8 g/tAu cut-off exists for 86,000 ounces of gold (Measured: 171,900 tonnes grading 4.11 g/t Au, Indicated: 204,900 tonnes grading 2.82 g/t Au, Inferred: 596,200 tonnes grading 2.34 g/t Au) aggregated over the Damsel, Moray Reef and Mt Fisher deposits.

### Reward Zinc-Lead Project (49% + Farm-out Agreement diluting to 30%)

Rox has signed an Earn-In and Joint Venture Agreement with Teck Australia Pty Ltd. ("Teck") to explore its highly prospective 670km<sup>2</sup> Myrtle/Reward zinc-lead tenements, located 700km south-east of Darwin, Northern Territory, adjacent to the McArthur River zinc-lead mine.

The first deposit explored, Myrtle, has a current JORC 2004 zinc-lead Mineral Resource (ASX:RXL 15 March 2010) of **43.6 Mt** @ **5.04% Zn+Pb** reported at a 3.0% Zn+Pb cut-off (Indicated: 5.8 Mt @ 3.56% Zn, 0.90% Pb; Inferred: 37.8 Mt @ 4.17% Zn, 0.95% Pb).

Drilling at the Teena zinc-lead prospect includes intersections of **38.8m** @ **16.9% Zn+Pb**, **26.4m** @ **13.3% Zn+Pb**, and **20.1m** @ **15.0% Zn+Pb**, and together with historic drilling has defined significant new high grade zinc-lead mineralisation over a strike length of at least 1.9km (ASX:RXL 5 August 2013, 26 August 2013, 18 September 2013, 11 October 2013, 27 October 2014, 10 November 2014, 15 December 2014, 29 September 2015, 9 November 2015, 17 November 2015, 17 December 2015). Teena is the most significant new discovery of zinc in Australia since Century in 1990.

Under the terms of the Agreement, Teck has earned a 51% interest, with Rox holding the remaining 49%. Teck has elected to earn a further 19% (for 70% in total) by spending an additional A\$10m by 31 August 2018 (ASX:RXL 21 August 2013).

## **Bonya Copper Project** (51% + Farm-in Agreement to earn up to 70%)

Rox (51%) is exploring the Bonya Copper Project located 350km east of Alice Springs, Northern Territory, in joint venture with Arafura Resources Limited (49%) (ASX:ARU). Outcrops of visible copper grading up to 34% Cu and 27 g/t Ag are present, with the style of mineralisation similar to the adjacent Jervois copper deposits (see ASX:KGL). Drill testing has intersected visible copper mineralisation at three prospects, with massive copper sulphides intersected at the Bonya Mine prospect, including **38m @ 4.4% Cu** and **11m @ 4.4% Cu** (ASX:RXL 20 October 2014, 5 November 2014, 1 December 2014).

Under the Farm-in Agreement Rox has earned a 51% interest in the copper, lead, zinc, silver, gold, bismuth and PGE mineral rights at Bonya after spending \$500,000 (ASX:RXL 16 December 2014). Rox has elected to earn a further 19% (for 70% in total) by spending a further \$1 million by 10 December 2016.