

### **ASX/MEDIA RELEASE**

## 10 February 2012

# MT FISHER MAIDEN GOLD RESOURCE

## **HIGHLIGHTS**

Gold Resource of 973,800t @ 2.75 g/t Au for 86,080 ounces

Measured 171,900t @ 4.11 g/t Au for 22,712 ounces
Indicated 204,900t @ 2.82 g/t Au for 18,548 ounces
Inferred 596,200t @ 2.34 g/t Au for 44,821 ounces

- Further drilling planned for 2012
- Metallurgical testwork and pit optimisation underway

Rox Resources Limited (**ASX: RXL**) ("**Rox**") is pleased to announce a maiden Mineral Resource for its flagship 100%-owned Mt Fisher gold project, located 450 km north of Kalgoorlie in Western Australia's goldfields region (Figure 1).

The JORC compliant resource estimate is based on drilling conducted at the Damsel, Moray Reef and Mt Fisher prospects (Table 1).

Rox Managing Director, Mr Ian Mulholland said, "In just 12 months we have established a maiden resource of almost 1 million tonnes and added considerable value to the Company through exploration. We are confident further value will be added with follow up drilling later this year. Geophysical surveys carried out at Mt Fisher in 2011 identified numerous highly prospective gold targets which we will test this year."

"This is a major milestone for Rox Resources. We anticipate further milestones will be achieved over the next 12 months as we continue to define the resource, conduct pit optimisation and metallurgical test work."

- ENDS -

## For more information:

**Shareholders** 

Ian Mulholland Managing Director Tel: +61 8 6380 2966

admin@roxresources.com.au

Email: admin@roxresources.com.au

Media

Tony Dawe Professional Public Relations Tel: + 61 8 9388 0944 tony.dawe@ppr.com.au

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	

#### **APPENDIX**

The mineral resources are based on RC drilling completed by Rox during 2011 (48 holes for 8,619 metres) plus previous drilling by other companies.

Resource models are reported using a minimum cut-off of 0.8 g/tAu (Table 1). A second table of total resources at different cut-off grades is given in Table 2.

## Moray Reef

Moray Reef (Figure 2) is a high grade gold deposit 100% owned by Rox Resources, within 120km trucking distance of the nearest gold treatment plant. The deposit is still open at depth and potentially along strike (Figure 3), with parallel lodes also possible. Further drilling is warranted to fully investigate the extent of the mineralisation.

#### Mt Fisher Mine

The resource estimate is for gold mineralisation up to 60 metres below the Mt Fisher open pit (see Figure 2 for location) as shown in Figure 4. This ore may be possible to access via a put cut-back. Recent drilling by Rox indicates that the gold resource may continue for at least a further 300-500 metres south of the pit as indicated by a strong VTEM anomaly probably reflecting the presence of the sulphidic chert host unit at depth, and drill hole MFRC033 which intersected 5m @ 1.58 g/tAu from 263 metres down hole (Figure 5).

#### Damsel

Damsel (Figure 2) is a gold mineralised zone about 500-600 metres long and 50-100 metres wide and 1-15 metres thick, between surface (at the south end) and 100 metres depth (at the north end) (Figure 6). There may be continuation of the mineralisation down dip within the unweathered zone, but this requires more drilling. At the northern end the mineralisation is truncated by a palaeochannel.

#### RESOURCE ESTIMATE METHODOLOGY

Cross-sections showing logged geology, assay results and drillhole traces were examined at appropriate spacing and mineralised intervals were selected using a minimum thickness of 1 metre and a maximum internal dilution of 1 metre above the selected cut-off grade. The mineralised intervals were plotted on the cross sections, and outlines drawn using known geological interpretation. These outlines were then converted to three dimensional wireframes which constrained the mineralisation. Standard 1 metre downhole composite intervals were used for estimation of grade.

### **SAMPLING TECHNIQUES AND DATA**

### Sampling Techniques

Drill samples were collected in bags online from the drill rig's splitter. There was minimal sample loss and most holes were kept dry by the air pressure and volume. Only a small number of samples were damp.

A sub-split sample was retained from each one metre interval for subsequent re-analysis if required.

## **Drilling Techniques**

Resource outlines were based on results from RAB, Aircore and RC drilling. However only RC assay results were used in the estimation of resource grade.

The RC drilling used a face-sampling hammer and a closed riffle/cone splitting system which delivered a 2-3kg sample for assay.

## Drill sample recovery

Drill sample recovery in RC holes was excellent, estimated to be generally >90%.

## Logging

Logging was completed as each hole was being drilled. Data recorded included lithology, sulphide and vein content, as well as depth.

## Sub-sampling techniques and sample preparation

A standard sampling length of one metre was chosen for suspected/anticipated mineralised intervals and composite samples of up to four metres length were used for all other parts of the drill hole. Any composite samples grading more than 0.5 g/tAu were re-analysed using the retained one metre sub-splits.

All drill samples were appropriately packaged and dispatched to Intertek Genalysis Laboratories in Kalgoorlie by road transport, where sample preparation was undertaken. Sample pulps were then transported to Perth for analysis.

### Verification of sampling and assaying

No inter-laboratory check assays have been completed at this stage. The laboratory routinely ran and reported standards at various values as an internal control. The laboratory also ran duplicate analyses on certain samples. In addition field duplicate splits were submitted along with the routine samples and these results were plotted to detect any inconsistencies.

There were no significant problems detected in the QA/QC data from the primary assay laboratory. Two twinned holes were drilled at the Moray Reef deposit and returned satisfactory comparative results.

## Location of data points

Location of each drill hole was established using a hand-held GPS unit accurate to within 1 metre.

Downhole surveys were initially conducted using a multi-shot digital recorder supplied with the drilling rig and surveys were undertaken at approximately 50 metre intervals downhole. Subsequently a continuous downhole logging tool operated by Ranger Surveys was used to survey the drill holes used in the resource estimates.

## Data spacing and distribution

Holes were drilled at various spacings varying from 20 x 10 metres at Moray Reef, 40 x 40 metres at Mt Fisher to 100 x 25 metres at Damsel, reflecting the drill evolution of each of these prospects.

The spacing of this data is considered adequate to establish geological and grade continuity for the resource categories given the nature and style of the gold mineralisation.

## Orientation of data in relation to geological structure

Data from previous drilling allowed the generalised dip and strike of the geological units to be determined, and drillhole orientations were designed to be as perpendicular to this as possible, while still honouring the drill directions preferable to draw cross sections.

A generalised drill hole orientation of -60° towards 270° azimuth was used at Moray Reef and Mt Fisher, while at Damsel the drill hole orientation was -60° towards 090° azimuth.

#### Audits or reviews

No audits or reviews of the database have been conducted at this stage, although a preliminary resource estimate (not quoted herein) of the Moray Reef deposit was undertaken by an independent consultant.

### **ESTIMATION AND REPORTING OF MINERAL RESOURCES**

## Database integrity

A database comprising 4 separate files for collar location, assay values, downhole survey and geology was compiled. Sample location data recorded in the field were matched with assay data provided by the laboratory.

#### Geological interpretation

Lithology and mineralisation were recorded for each hole drilled, and these where matched up between holes to form a coherent geological model. Because of the vein and structural controls on mineralisation, and its cross-cutting nature, mineralisation sometimes crosses lithological boundaries. There is a reasonable to strong confidence in geological and grade continuity.

No extrapolation of mineralisation beyond half the distance to an adjacent drill hole has been made, or where mineralisation is open, half the drillhole spacing has been used.

The depth to the top of fresh rock was observed to vary between 20 and 60 metres below surface at Moray Reef and Mt Fisher, while at Damsel is was up to 100 metres below surface. Appropriate coding of weathering into oxide, transition and fresh rock was applied.

#### Dimensions

The dimensions of mineralisation so far defined in the resource estimation are:

Moray Reef: 350 metres strike (north-south), 100 metres down dip, 1-4m thick (east-west).

10 February 2012

Mt Fisher: 200 metres strike (north-south), 100 metres down dip, 2-10 metres thick (east-

west).

Damsel: 500 metres strike (north-south), 100 metres down dip, 2-15 metres thick (east-

west)

## Estimation and modelling techniques

The estimation technique used was the inverse distance cubed interpolation method, using an ellipsoidal search method of varying radius depending on the geostatistical parameters of each mineralised zone. These were:

Deposit	Ellipse							
	Major Axis	Minor Axis	Thickness	Azimuth	Plunge	Dip		
Moray Reef	40m	40m	5m	360	0	-90		
Mt Fisher	90m	65m	5m	350	-25 south	-40 east		
Damsel	100m	25m	5m	180	-10 north	-45 west		

High grades were cut to 80 g/tAu (Moray Reef), 50 g/tAu (Mt Fisher) and 30 g/tAu (Damsel) as indicated by cumulative and log probability graphs. The mineralisation in each deposit was shown to form only one population which was generally a log-normal distribution typical of gold deposits.

Grade interpolation was undertaken using one metre downhole composite assay values constrained within the interpreted wireframes as described above.

One of the deposits, Mt Fisher, was also modelled using ordinary kriging and the results produced were similar to the inverse distance cubed result.

No previous resource estimates for these zones of mineralisation have been made, although a previous ore reserve estimate of the mined mineralisation at the Mt Fisher mine was made in 1986 as 250,000 tonnes grading 5.3 g/tAu to a vertical depth of 100m, at 1 g/tAu cut-off (Powell et. al., 1990). A high grade cut of 30 g/tAu was made and a bulk density of 2.6 t/m³ was used. By the end of 1989 217,705 tonnes had been mined and recovered 22,665 oz of gold by CIP methods (implied recovered grade of 3.24 g/tAu). Reports indicated that mined ROM grade was 4.3 g/tAu implying mining dilution of 19% (5.3 g/tAu reserve grade to 4.3 g/tAu mined grade) and recovery of 75% (4.3 g/tAu mined grade to 3.24 g/tAu recovered grade).

### Moisture

The tonnages are estimated on a dry basis. No hygroscopic minerals have been observed or are suspected of being present.

## **Cut-off parameters**

Cut-off parameters were selected based on the current price for gold, and likely mining and processing costs which were estimated from published data relating to similar type operations to that envisaged at Mt Fisher. On this basis a cut-off of 0.8 g/tAu was chosen for reporting of resources.

## Mining factors and assumptions

A minimum intersection thickness of 1 metre was used to reflect a likely minimum mining thickness. No mining dilution has been accounted for in the resource model. Internal dilution of a maximum of 1 metres has been accounted for in the intersection calculation.

No specific assumptions about mining technique have been made, although it is envisaged to be open cut.

## Metallurgical factors and assumptions

It is assumed that satisfactory metallurgical recoveries will be possible, but no specific metallurgical testwork has been undertaken as yet. A cyanide leach test on a 40kg sample grading about 0.85 g/tAu from the low grade stockpile at Mt Fisher was undertaken and produced a recovery of 97%.

Previous mining at Mt Fisher recovered 75% of gold using the CIP extraction method.

## Bulk density

Average bulk densities of 1.8t/m³ for oxide, 2.2 t/m³ for transition and 2.7 t/m³ for fresh rock have been used, and are based on average values used in the WA Eastern Goldfields. These will need to be confirmed when geotechnical drilling takes place prior to mining and finalisation of any ore reserves.

### Classification

The resources have been classified according to the amount of assay information available to inform the block interpolator. This was related to the geostatistical range of mineralisation as indicated on semi-variograms. The categories were determined as follows:

Measured: Sufficient data within a distance of two-thirds of the semi-variogram range

Indicated: Sufficient data within a distance of the semi-variogram range Inferred: All blocks with sufficient data beyond the semi-variogram range

Essentially this results in the measured category where data is most dense and the inferred category where there is sparse data, and reflects the confidence in estimating grade for any particular block.

The resources are considered to be suitable for preliminary mine planning, which upon further drilling and metallurgical testwork could result in ore reserves being defined.

#### Audits or reviews

No independent external review of the resource estimation methodology has been conducted however the resource estimation methodology was developed in consultation with a reputable resource consultant.

## Discussion of relative accuracy/confidence

As further drilling is completed, the spatial location of the mineralisation will become better known and the thickness and grades in these locations will become better defined. Within the resource now estimated, because of the consistency in grade and thickness of the mineralisation between drillholes already observed, it is believed that this initial estimate of the volume and grade herein estimated will not vary beyond reasonable limits.

However, the detail within the resource may change, and at certain cut-off grades more or less tonnes at higher or lower grades will be estimated. Also, as more drill holes extend the mineralisation the tonnage is expected to increase at any given cut-off grade.

Table 2: Resource Summary at Different Cut-offs

Cut-Off g/tAu	Tonnes	Grade g/tAu (uncut)	Grade g/tAu (cut)	Ozs (uncut)	Ozs (cut)
0.0	1,029,000	2.78	2.63	92,022	87,098
0.8	973,000	2.91	2.75	90,976	86,080
1.0	932,000	3.00	2.83	89,856	84,935
2.0	575,900	3.91	3.64	72,331	67,420
3.0	308,200	5.14	4.65	50,954	46,104

<sup>\*</sup> Figures may not add up because of rounding errors

### **COMPETENT PERSON STATEMENT**

The information in this report that relates to Exploration Results and Mineral Resources 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Mulholland is a full time employee 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.



Figure 1: Mt Fisher Project Location

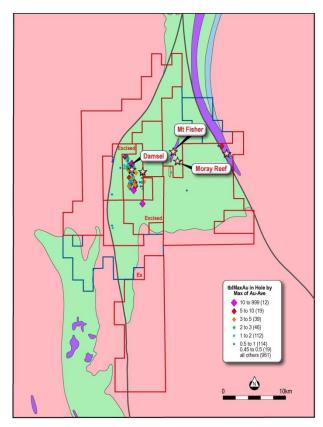


Figure 2: Mt Fisher Prospect Locations

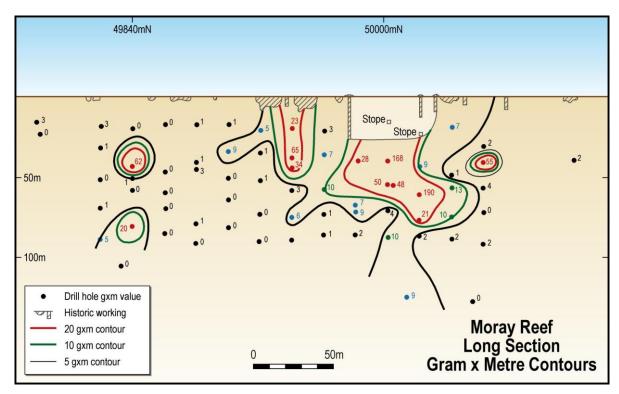


Figure 3: Moray Reef Long Section

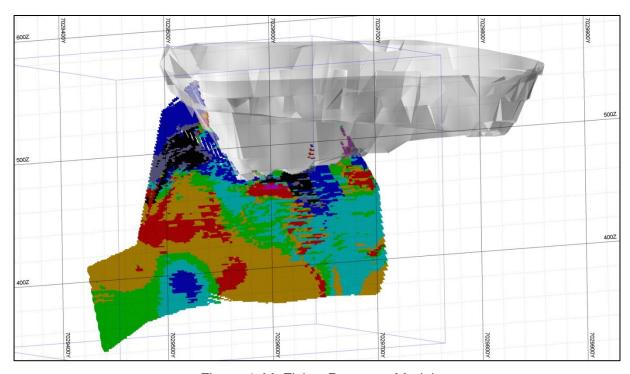


Figure 4: Mt Fisher Resource Model

(Colour Legend: Magenta >10 g/tAu, Red 5-10 g/t Au, Orange/Brown 4-5 g/tAu, Green 3-4 g/tAu, Light Blue 2-3 g/tAu, Dark Blue 1-2 g/tAu, Grey 0.5-1 g/tAu, Black <0.5 g/tAu)

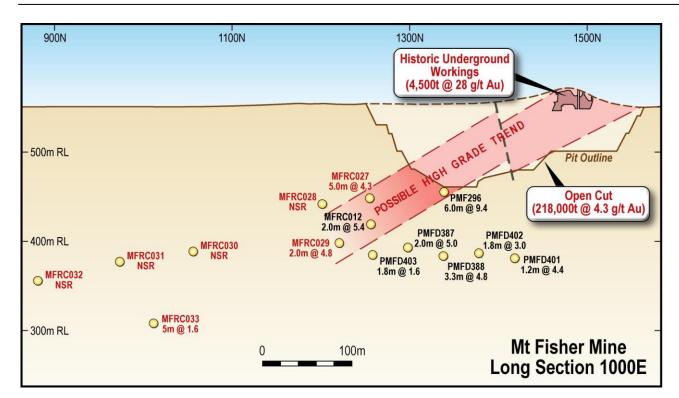


Figure 5: Mt Fisher Mine Long Section

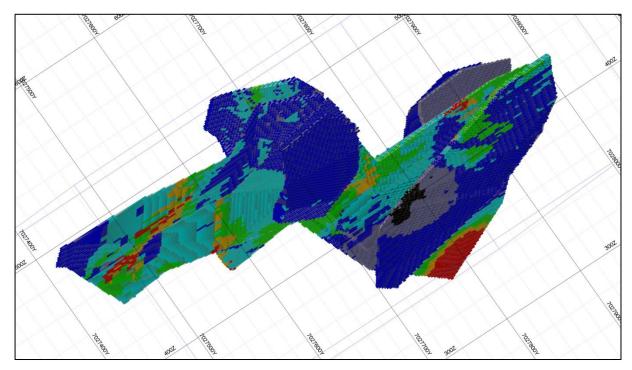


Figure 6: Damsel Resource Model (Colour Legend same as for Figure 4)

#### **About Rox Resources**

Rox Resources (ASX: RXL) is an Australian exploration company with three key projects: the Mt Fisher Gold project in Western Australia, and the Myrtle zinc-lead project and Marqua phosphate projects, both located in the Northern Territory.

At Mt Fisher, Rox has acquired a highly prospective area of 615 km², well endowed with gold, and with strong potential for nickel, only 40km to the east of the prolific Yandal greenstone belt and 100km east of the main Wiluna greenstone belt. Three parallel structures at the Dam-Dirks prospect define a 5km long gold-in-regolith anomaly which is largely untested at depth. There are numerous high grade drill results over the project area including 1m @ 187 g/t Au and 3m @ 67 g/t Au at the Moray Reef prospect.

In addition Rox has an Option to acquire a further area of  $170 \text{ km}^2$ , including the Mt Fisher gold mine which has produced ~ 4,500 ozs of gold from historic underground mining and 22,500 ozs of gold from open pit mining, and is open at depth and down plunge. There are several other strong targets for drill testing as well. The total area under exploration by Rox at Mt Fisher is  $785 \text{ km}^2$ .

Rox has signed a joint venture agreement with Teck Australia Ltd. ("Teck") to explore its Myrtle project tenements which cover 669 km² adjacent to the world-class McArthur River zinc-lead deposit in the Northern Territory. The terms of the JV require Teck to spend \$5 million to earn an initial 51% interest within 4 years including a minimum of \$1 million and 2,000 metres of drilling by 21 July 2012. Teck can increase its interest in the project to 70% by spending an additional \$10 million (\$15 million in total) over an additional 4 years.

A SEDEX style deposit has been identified by Rox at the Myrtle prospect, where an Inferred Mineral Resource of 43.6 million tonnes grading 4.09% zinc and 0.95% lead has been delineated to JORC Code standards. Thick drill intercepts of prospective stratigraphy carrying significant zinc-lead grades have already been made but only a small portion of the prospective area has been drilled, and Rox is extremely confident the resource will to continue to grow with further drilling. A higher grade core of 15.3 million tonnes grading 5.45% zinc and 1.40% lead is present, and a large mineralised system is indicated. Several other prospects in the tenement area have similar potential to Myrtle but are at an early stage of exploration.

Rox also owns 100% of the Marqua phosphate project in the Northern Territory located 300km southwest of Mt Isa. A 25 km long strike length of phosphate bearing rocks has been identified by surface sampling (up to 39.4%  $P_2O_5$ ) and drilling (including 6m @ 19.9%  $P_2O_5$  and 5m @ 23.7%  $P_2O_5$ ), and there is the potential for a sizeable phosphate resource to be present. The project is located only 250 km from the nearest railhead and gas pipeline at Phosphate Hill and covers ~ 2,600 km².

The information in this report that relates to Exploration Results and Mineral Resources 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Mulholland is a full time employee 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.