

**ASX/MEDIA RELEASE**

**24 January 2012**

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## **LEACHWELL GOLD ASSAYS 9% HIGHER**

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### **Highlights**

- **Leachwell gold assays from recent drilling at Moray Reef indicates grades 9% higher on average than traditional fire assays.**
  - **Resource estimates underway for a number of gold deposits at Mt Fisher.**
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Rox Resources Limited (ASX: RXL) ("Rox") is pleased to report that cyanide bottle roll leach analyses ("Leachwell") on selected samples from its Moray Reef gold deposit at Mt Fisher, located 450 km north of Kalgoorlie in Western Australia (Figure 1) have returned values 9% higher on average than the previous traditional fire assays.

Rox recently completed a 36 hole, 5,670 metre RC drilling program at Mt Fisher, which included a number of high grade gold intercepts and confirmed the potential for several gold resources to be estimated.

Full drilling results, are listed in Table 1.

### ***Moray Reef***

Moray Reef 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 its extents.

Recent drilling at Moray Reef returned a number of high grade gold intercepts and indicates the potential presence of a high grade resource. Highlights from this drilling, with all samples assayed by 50g fire assay included;

4 m @ 13.9\* g/t Au from 24 metres in MRRC001,  
2 m @ 4.36 g/t Au from 141 metres in MRRC002,  
3 m @ 15.9 g/t Au from 61 metres in MRRC003, and  
2 m @ 16.9 g/t Au from 49 metres in MRRC005.

Hole MRRC001 intersected a new lode, previously unknown at Moray Reef, from 24 to 28 metres. The drill intercept was from a 4 metre composite sample that will need to be checked by re-assay of the appropriate 1 metre split samples.

Hole MRRC002 showed that mineralisation extends to at least 125 metres vertical depth.

Holes MRRC003 and MRRC005 were drilled to duplicate previous holes, and confirmed previous thicknesses and grades, providing confidence in using this previous data in resource estimates.

A program of re-assay of selected fire assayed samples was undertaken using a cyanide bottle roll leach method (“Leachwell”).

The Leachwell method is used where there is evidence of high grades or free gold and indicates the likely gold that can be recovered using the sort of gold extraction normally used in gold treatment plants. On the other hand fire assay is the more traditional (and first pass) analytical method since it also recovers any gold that might be included in sulphide grains (so called “refractory” gold).

Although only a small batch of samples were re-analysed (7 samples), the Leachwell results indicate a 9% higher gold grade on average. The data are shown in Figure 2 and the correlation co-efficient for the dataset is 0.997, which indicates an excellent correlation.

### **Resource Estimates**

#### *Mt Fisher Mine*

A resource estimate for the gold mineralisation immediately below the Mt Fisher open pit is currently being undertaken.

Recent drilling by Rox has intersected gold beneath the Mt Fisher open pit, indicating continuity of gold mineralisation for about 60 metres below and south of the pit (Figure 4).

The recent drill intercepts included:

5 m @ 4.34 g/t Au from 126 m in hole MFRC027, and  
2 m @ 4.78 g/t Au from 158 m in hole MFRC029.

Hole MFRC027 was drilled at a shallower angle than previous hole MFRC012 which intersected 2 m @ 5.44 g/t Au in July 2011.

This mineralisation is also thought to extend at least a further 300-500 metres south of the pit as indicated by a strong VTEM anomaly (termed anomaly B4) probably reflecting the presence of the sulphidic chert host unit at depth (Figure 5); this extension is poorly drill defined at present. For example Hole MFRC033 returned 5m @ 1.58 g/tAu from 263 metres downhole.

#### *Damsel*

Recent drilling at Damsel has defined 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). Drill results included:

3 m @ 1.83 g/t Au from 141 metres in MFRC016,  
5 m @ 1.49 g/t Au from 159 metres in MFRC016,  
7 m @ 3.02 g/t Au from 120 metres in MFRC018,  
12 m @ 2.28 g/t Au from 46 metres in MFRC019,  
2 m @ 7.86 g/t Au from 72 metres in MFRC020,  
5 m @ 1.90 g/t Au from 61 metres in MFRC021,  
1 m @ 3.65 g/t Au from 79 metres in MFRC022.

3 m @ 2.22 g/t Au from 39 metres in MFRC023,  
3 m @ 4.90 g/t Au from 71 metres in MRFC024, and  
1 m @ 2.86 g/t Au from 37 metres in MFRC025.

A resource estimate for this body of gold mineralisation is also currently underway.

**ENDS**

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Table 1: RC Drilling Results – Mt Fisher

Hole	North <sup>(11)</sup>	East <sup>(11)</sup>	Dip	Azimuth	Total Depth (m)	From (m)	To (m)	Interval (m)	Au <sup>(11)</sup>	Prospect
MFRC013	7021882	348576	-55	270	188	NSR				MFB_07
MFRC014	7021421	348539	-60	270	202	NSR				MFB_07
<b>MFRC015</b>	<b>7027975</b>	<b>342602</b>	<b>-55</b>	<b>90</b>	<b>120</b>	<b>NSR</b>				<b>Damsel</b>
<b>MFRC016</b>	<b>7027980</b>	<b>342528</b>	<b>-55</b>	<b>90</b>	<b>178</b>	<b>112</b>	<b>113</b>	<b>1</b>	<b>2.32</b>	<b>Damsel</b>
						<b>131</b>	<b>132</b>	<b>1</b>	<b>1.86</b>	
						<b>135</b>	<b>137</b>	<b>2</b>	<b>1.98</b>	
						<b>138</b>	<b>139</b>	<b>1</b>	<b>1.58</b>	
						<b>141</b>	<b>144</b>	<b>3</b>	<b>1.83</b>	
						<b>159</b>	<b>164</b>	<b>5</b>	<b>1.49</b>	
<b>MFRC017</b>	<b>7027846</b>	<b>342604</b>	<b>-60</b>	<b>90</b>	<b>112</b>	<b>NSR</b>				<b>Damsel</b>
MFRC018	7027846	342539	-60	90	170	120	127	7	3.02	Damsel
						146	147	1	0.81	
MFRC019	7027750	342611	-60	90	110	46 <sup>(2)</sup>	58	12	2.28	Damsel
						90	92	2	1.44	
						104	105	1	1.19	
MFRC020	7027756	342557	-60	90	152	72 <sup>(3)</sup>	74	2	7.86	Damsel
						78	79	1	2.77	
						100	101	1	1.23	
						103	104	1	5.14	
						107	108	1	1.35	
<b>MFRC021</b>	<b>7027666</b>	<b>342593</b>	<b>-60</b>	<b>90</b>	<b>100</b>	<b>61</b>	<b>66</b>	<b>5</b>	<b>1.90</b>	<b>Damsel</b>
						<b>74</b>	<b>75</b>	<b>1</b>	<b>2.29</b>	
<b>MFRC022</b>	<b>7027664</b>	<b>342567</b>	<b>-60</b>	<b>90</b>	<b>120</b>	<b>67</b>	<b>68</b>	<b>1</b>	<b>1.29</b>	<b>Damsel</b>
						<b>79</b>	<b>80</b>	<b>1</b>	<b>3.65</b>	
						<b>93</b>	<b>94</b>	<b>1</b>	<b>2.70</b>	
MFRC023	7027558	342622	-60	90	70	39 <sup>(4)</sup>	42	3	2.22	Damsel
						49	50	1	0.89	
MFRC024	7027560	342573	-60	90	100	64	65	1	1.42	Damsel
						68	69	1	1.51	
						71 <sup>(5)</sup>	74	3	4.90	
						84	85	1	2.22	
						96	97	1	1.37	
MFRC025	7027470	342627	-60	90	60	37	38	1	2.86	Damsel
MFRC026	7027471	342585	-60	90	80	NSR				Damsel
MFRC027	7029548	349567	-50	290	145	126 <sup>(6)</sup>	131	5	4.34	Mt Fisher Mine
MFRC028	7029510	349566	-50	290	152	NSR				Mt Fisher Mine
MFRC029	7029510	349567	-70	290	177	158 <sup>(7)</sup>	160	2	4.78	Mt Fisher Mine
MFRC030	7029338	349574	-60	290	213	NSR				MFB_04
<b>MFRC031</b>	<b>7029262</b>	<b>349528</b>	<b>-65</b>	<b>290</b>	<b>208</b>	<b>NSR</b>				<b>MFB_04</b>
<b>MFRC032</b>	<b>7029167</b>	<b>349532</b>	<b>-60</b>	<b>290</b>	<b>300</b>	<b>NSR</b>				<b>MFB_04</b>
<b>MFRC033</b>	<b>7029250</b>	<b>349651</b>	<b>-60</b>	<b>290</b>	<b>318</b>	<b>263</b>	<b>268</b>	<b>5</b>	<b>1.58</b>	<b>MFB_04</b>

ROX RESOURCES LIMITED – ASX RELEASE

24 January 2012

MFRC034	7028746	349363	-60	270	253	NSR				MFB_05
MFRC035	7028660	349344	-55	270	258	NSR				MFB_05
MFRC036	7037195	350048	-60	270	213	NSR				MFB_01
MFRC037	7035890	350327	-60	270	272	NSR				MFB_02
MFRC038	7035581	350315	-55	270	226	NSR				MFB_02
MFRC039	7034379	350498	-60	270	261	NSR				MFB_03
MRRC001	7028279	350163	-60	270	168	24 <sup>(8)</sup>	28	4	13.9	Moray Reef
MRRC002	7028242	350172	-60	270	163	141	143	2	4.36	Moray Reef
MRRC003	7028223	350130	-60	270	73	61 <sup>(9)</sup>	64	3	15.9	Moray Reef
MRRC004	7028197	350172	-60	270	95	Abandoned				Moray Reef
MRRC005	7028156	350118	-60	270	58	49 <sup>(10)</sup>	51	2	16.9	Moray Reef
MRRC006	7028056	350175	-60	270	150	NSR				Moray Reef
MRRC007	7028004	350128	-60	270	73	NSR				Moray Reef
MRRC008	7027963	350118	-60	270	50	NSR				Moray Reef
MRRC009	7027961	350136	-60	270	81	NSR				Moray Reef
<b>TOTAL</b>					<b>5,670</b>					

Notes

<sup>(1)</sup> Results quoted at 0.8 g/t Au cut-off, all assays by Fire Assay 50g charge, AA finish

<sup>(2)</sup> MFRC019, incl. 1m @ 7.67 g/t Au from 55m

<sup>(3)</sup> MFRC020, incl. 1m @ 15.1 g/t Au from 72m

<sup>(4)</sup> MFRC023, incl. 1m @ 4.87 g/t Au from 39m

<sup>(5)</sup> MFRC024, incl. 1m @ 10.4 g/t Au from 72m

<sup>(6)</sup> MFRC027 incl. 1m @ 14.7 g/t Au from 129m

<sup>(7)</sup> MFRC029, incl. 1m @ 8.35 g/t Au from 159m

<sup>(8)</sup> MRRC001, 4 metre composite with widely varying results 1.51, 4.86 and 35.4 g/tAu. Average value shown. Needs to be re-checked on 1 metre split samples

<sup>(9)</sup> MRRC003, incl. 1m @ 37.8 g/t Au from 63m

<sup>(10)</sup> MRRC005, incl. 1m @ 32.7 g/t Au from 49m

<sup>(11)</sup> GPS coordinates for drill collars, MGA94, zone 53



Figure 1: Mt Fisher Project Location

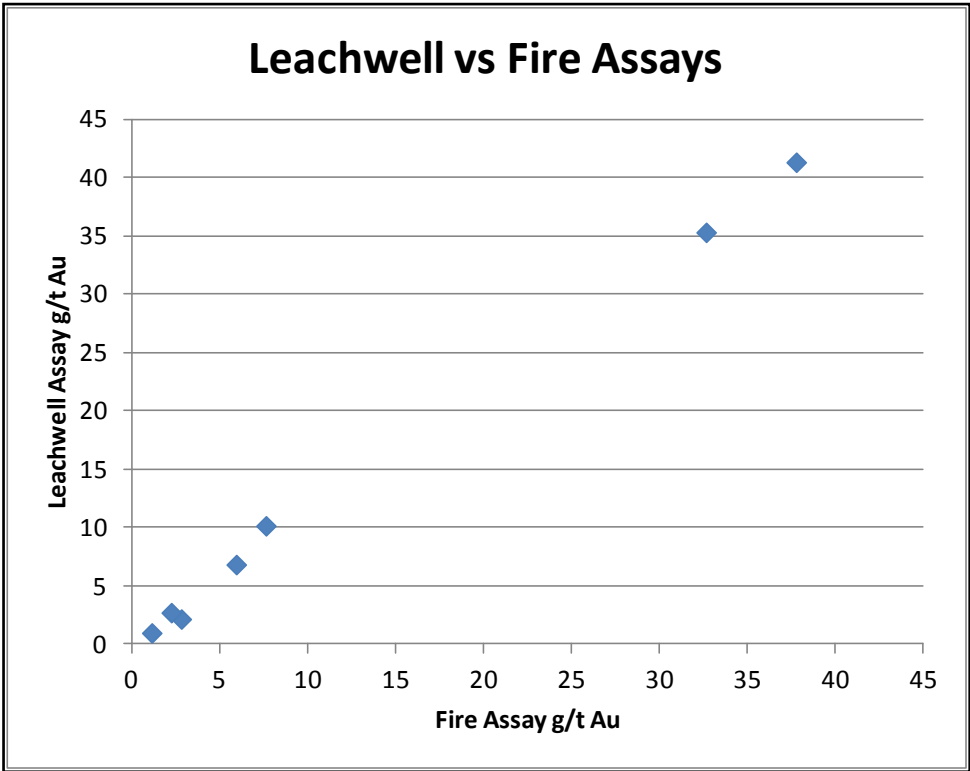


Figure 2: Moray Reef Leachwell vs Fire Assay Results

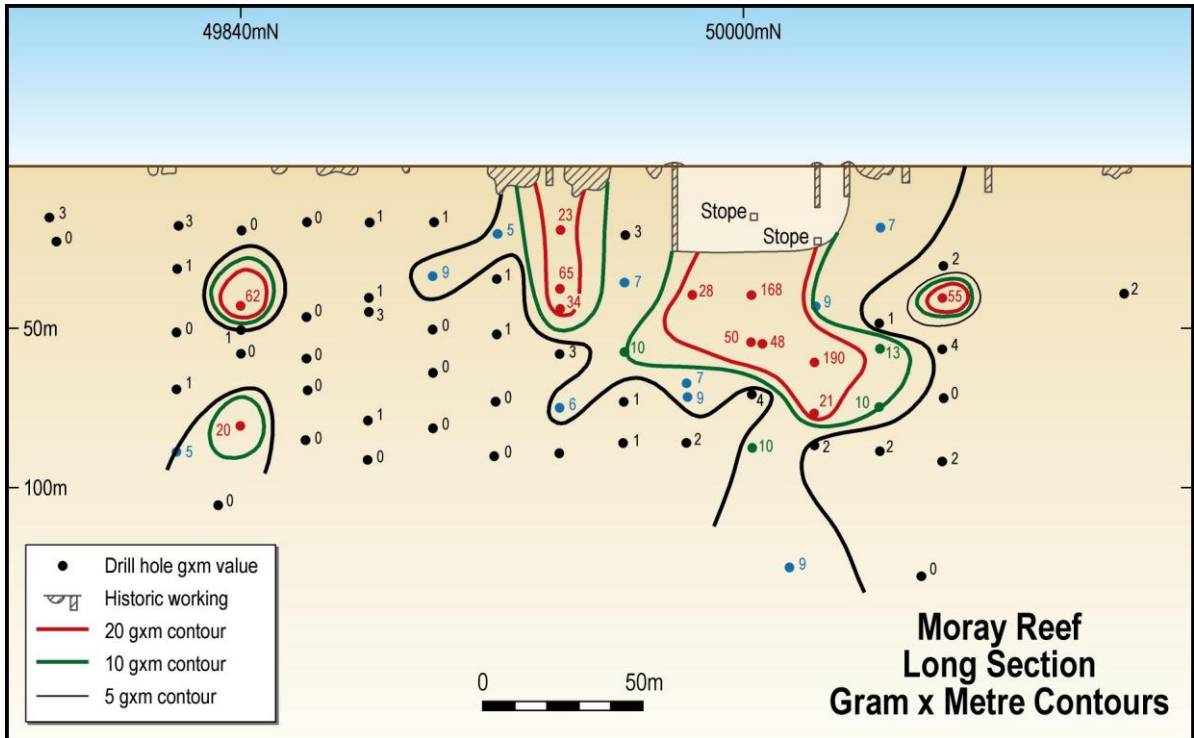


Figure 3: Moray Reef Long Section

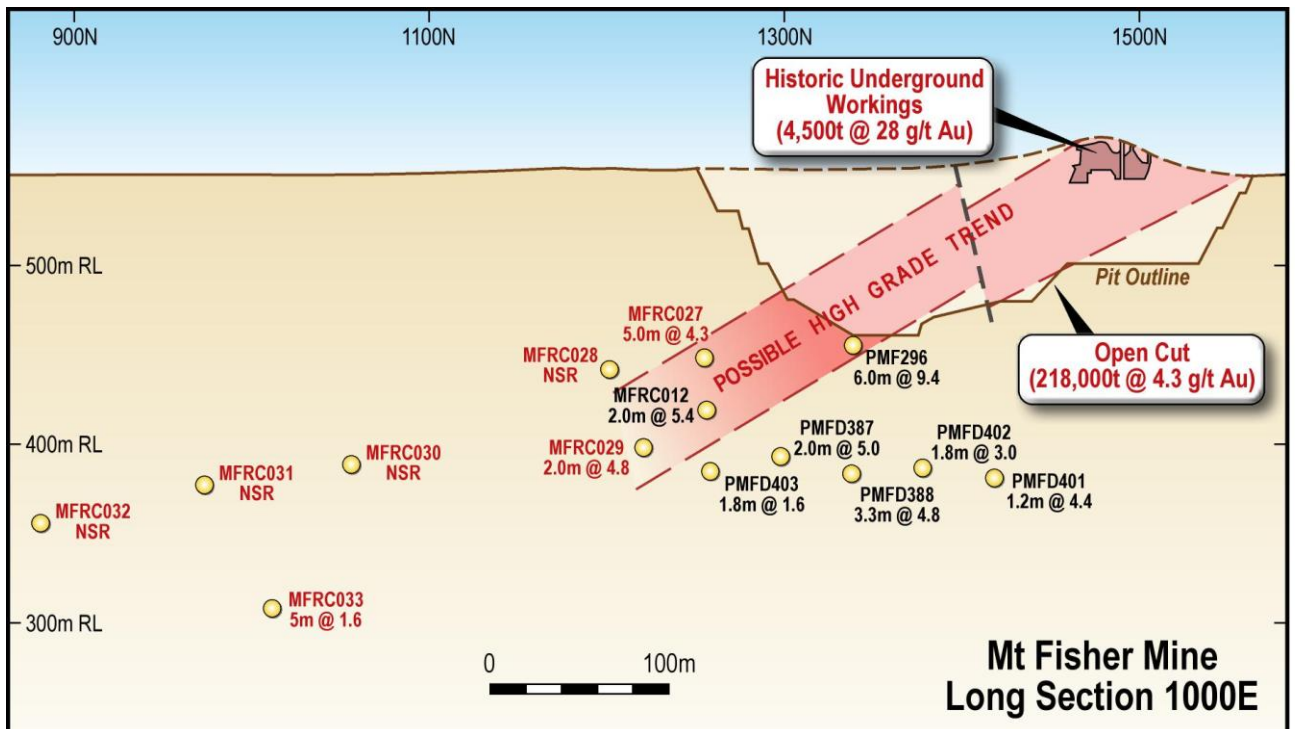


Figure 4: Mt Fisher Mine Long Section



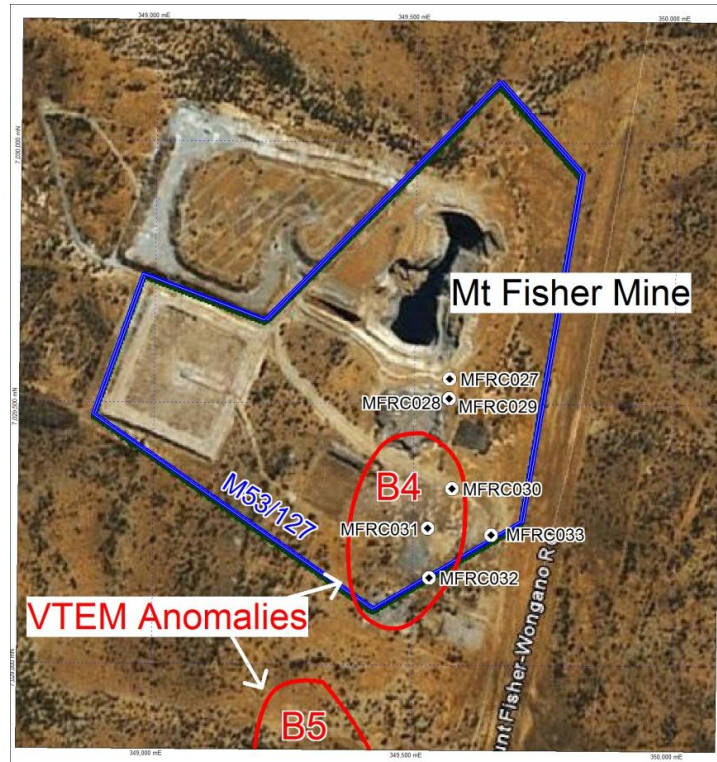


Figure 5: Mt Fisher Mine Drill Locations

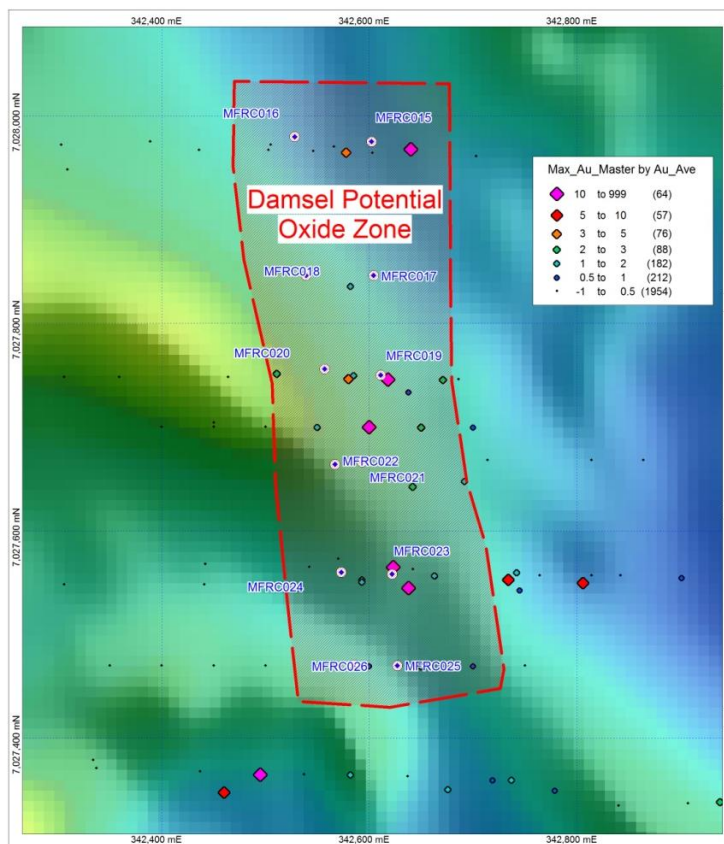


Figure 6: Damsel Drill Locations over Magnetics, previous drilling results shown as coloured diamonds



## 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 the Marqua phosphate project, both located in the Northern Territory..

At Mt Fisher, Rox has acquired a highly prospective area of 615 km<sup>2</sup>, 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 km<sup>2</sup>, 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 km<sup>2</sup>.

Rox has signed a joint venture agreement with Teck Australia Ltd. (“Teck”) to explore its Myrtle project tenements which cover 669 km<sup>2</sup> 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 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<sub>2</sub>O<sub>5</sub>) and drilling (including 6m @ 19.9% P<sub>2</sub>O<sub>5</sub> and 5m @ 23.7% P<sub>2</sub>O<sub>5</sub>), 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 km<sup>2</sup>.

*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.*