

ASX ANNOUNCEMENT ASX Code: BDR 13 December 2012

# **DUCKHEAD HIGH GRADE DRILL RESULTS**

New Hangingwall Lode	FVM96	22 m @ 3.1 g/t gold
New Hangingwall Lode	FVM105	21 m @ 3.4 g/t gold
Main Lode Infill	FVM137	18 m @ 4.9 g/t gold
Main Lode Infill	FVM143	23 m @ 9.3 g/t gold
Main Lode Infill	FVM148	11 m @ 19.3 g/t gold
Main Lode Infill	FVM154	13 m @ 9.1 g/t gold
Main Lode Infill	FVM166	8 m @ 16.5 g/t gold

# HIGH GRADE STARTER PIT

# 62,000 tonnes @ 29.7 g/t for 59,000 oz gold

Beadell Resources Limited (Beadell) is pleased to announce significant drill results from the new and emerging Hangingwall Lode at the Duckhead deposit at Tucano in Brazil. This lode, which is approximately 20m true width, is located on the edge of a new starter pit design for the main high grade lode and will form an expansion of the open pit once the new results are incorporated into the Duckhead resource and optimised into the growing reserve (Figure 1, 2, 3, 4, Table 2).

Infill RC drilling of the main high grade lode continues to show excellent continuity and repeatability of the high grade mineralisation (Figure 1, 2, Table 2).

Extensional diamond drilling of the main high grade shoot continues to extend the resource at depth, with results from the first hole expected shortly.

Concurrently, a high grade starter open pit for the Duckhead deposit has been designed totalling **62,000 t** @ **29.7 g/t gold for 59,000 oz** (Table 1). Revenue of approximately **US\$100M** (@ US\$1700/oz) with total operating costs of less than **US\$10M**. Subject to government and Anglo Ferrous approvals, the starter pit is expected to be mined and processed in the CY2013 Tucano gold production plan. As a result, revised production guidance will be released in first quarter 2013.

### New Duckhead Hangingwall Lode – 21 m @ 3.4 g/t from surface, 22 m @ 3.1 g/t from 66 m

Further highly encouraging results have been received from the emerging Hangingwall Lode. In RC hole FVM96, **22 m @ 3.1 g/t gold** from 66 m including **6 m @ 7.4 g/t gold** from 69 m was intersected 50 m below a recently reported intersection in FVM61 of **43 m @ 1.7 g/t gold** from surface (Figures 1, 2, 3 & 4). Gold mineralisation in the Hangingwall Lode is hosted in completely oxidised saprolite within Banded Iron Formation (BIF) dipping moderately to the southwest.

An additional Hangingwall Lode result was received in FVM105, intersecting **21 m @ 3.4 g/t gold** from surface, including **7 m @ 6.7 g/t gold** from 12 m. This result represents the south-eastern extension of the Hangingwall Lode which shows excellent continuity in both strike and depth extent.

The Hangingwall Lode remains completely open at depth and to the east and ongoing RC drilling is in progress with further results expected shortly (Figure 1).

The location of the newly discovered Hangingwall Lode on the east edge of the Duckhead starter pit and ongoing infill and extension RC drilling will ensure that the resource and reserves at Duckhead continue to grow.

### High Grade Main Lode Infill – 11 m @ 19.3 g/t from 21 m, 23 m @ 9.3 g/t from surface

Infill RC drilling of the Main Lode continues to show excellent continuity of the high grade gold mineralisation. Results include FVM143, 23 m @ 9.3 g/t gold from surface, including 8 m @ 20.8 g/t gold from 4 m, FVM154, 13 m @ 9.1 g/t gold from 37 m, including 6 m @ 17.9 g/t gold from 37 m, FVM166, 8 m @ 16.5 g/t gold from 15 m and FVM148, 11 m @ 19.3 g/t gold from 21 m including 4 m @ 50.7 g/t gold from 29 m.

Diamond drilling of the depth extension to the Main Lode is ongoing with the first of a series of holes completed with results pending. The high grade lode has been drilled to a maximum depth of 150 m below surface with excellent potential to grow the resource with ongoing drilling.

In preparation of an anticipated commencement of open pit mining at Duckhead in the first half of 2013 (subject to government approval), a first stage of grade control drilling has been completed across the main high grade lode. Grade control drilling on 10 m x 5 m spacing to approximately 50 m below surface will ensure rapid material movement rates once open pit mining commences.

#### Duckhead Starter Pit JORC Probable Reserve – 62,000 t @ 29.7 g/t gold for 59,000 oz

A preliminary Duckhead starter pit JORC probable reserve totalling **62,000 tonnes @ 29.7 g/t gold for 59,000 oz** has been optimised and designed and, subject to regulatory and Anglo Ferrous approval, is expected to be mined in 2013 as part of the Tucano gold production schedule. The starter pit is considered to be only an interim design and the reserve will continue to grow with ongoing drilling and incorporation of the new Hangingwall and Main Lode results.

Physicals	Open pit
Gold Ore (000' tonnes)	62
Gold Grade (g/t)	29.74
Contained gold (000' ounces)	59
Milling recovery	96%
Recovered gold (000' ounces)	56
Total material – (million tonnes)	4.57
Iron ore – (million tonnes)	1.47

Table 1. Duckhead Starter Pit Physicals

The Duckhead starter pit will be one of the highest grade oxide gold open pits globally and provides a highly valuable incremental ore source to the base load Tucano deposits for the recently commissioned 3.5 Mtpa Tucano Gold Plant.

Approximately one third of the gold waste in the Duckhead Starter pit is iron ore and, under the Duckhead Agreement with Anglo Ferrous, when Beadell is mining the deposit, iron ore within the pit is delivered to a stockpile and reimbursed on a cost recovery basis. This arrangement effectively reduces the gold waste movement costs by one third.

The Duckhead starter pit regulatory and Anglo Ferrous approval process has commenced with documents already submitted to the Government Mining Department. Beadell is targeting an April 2013 start-up of the open pit operation at Duckhead and has incorporated the Duckhead Starter pit into the mine schedule.

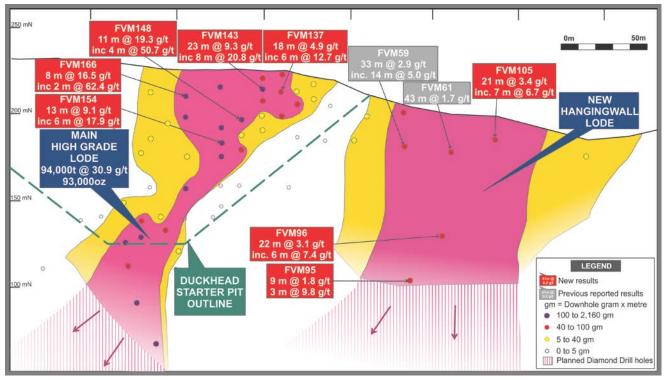


Figure 1. Duckhead long-section showing location of new RC drill results and starter pit

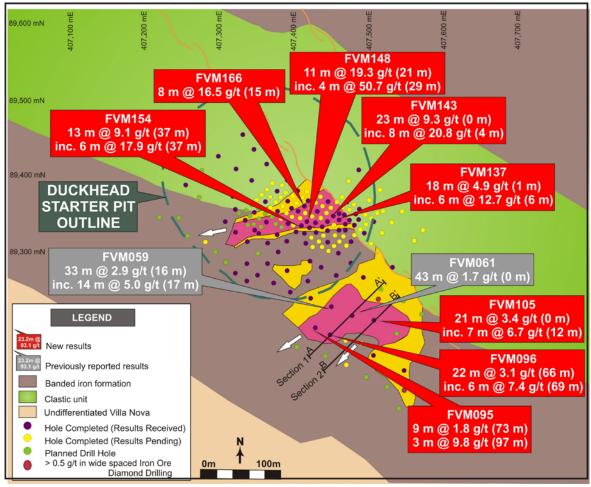


Figure 2. Duckhead plan showing location of new RC results and starter pit

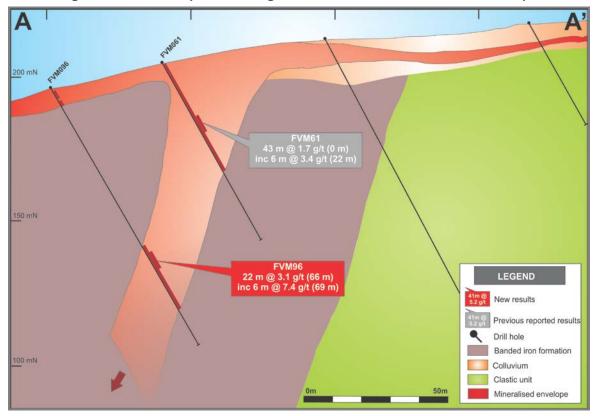


Figure 3. Duckhead Hangingwall Lode cross-section 1

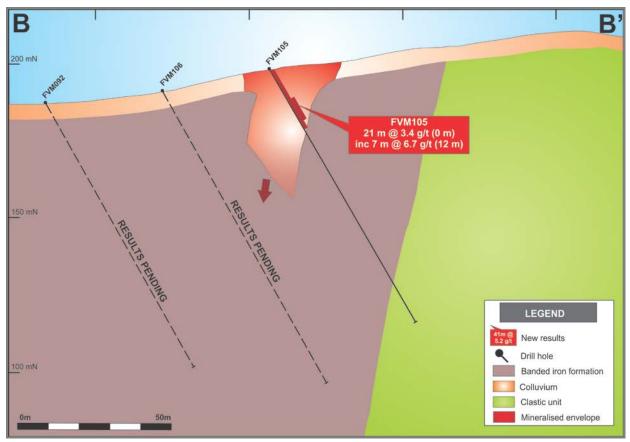


Figure 4. Duckhead Hangingwall Lode cross-section 2.

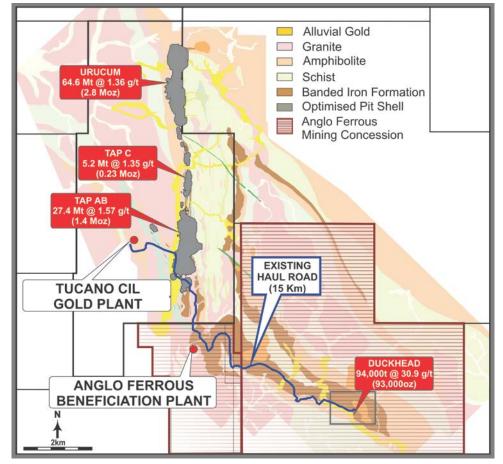


Figure 5. Tucano plan showing location of Duckhead and haul road access.

Duckhead Lode	Hole	From (m)	To (m)	Width (m)	Gold (g/t)
Duckhead West	FVM78	0	6	6	1.1
Duckhead West	FVM81	5	9	4	1.4
Hangingwall Lode	FVM95	73	81	9	1.8
	1 11100	97	100	3	9.8
Hangingwall Lode	FVM96	66 Incl. 69	88 75	22 6	3.1 7.4
Hangingwall Lode	FVM105	0 Incl. 12	21 19	21 7	3.4 6.7
Colluvium	FVM107	0	5	5	1.0
Colluvium	FVM122	1	16	15	1.0
Colluvium	FVM124	1	7	6	1.7
Colluvium	FVM123	0	9	9	1.8
Main Lode	FVM129	0	15	15	2.6
Main Lode	FVM130	1	8	7	3.7
Main Lode	FVM135	22 Incl. 25 38	30 27 40	8 2 2	5.1 18.8 3.7
Main Lode	FVM137	1 Incl. 6	19 12	18 6	4.9 12.7
Colluvium	FVM138	0	12	12	2.4
Main Lode	FVM142	27	32	5	4.4
Main Lode	FVM143	0 Incl. 4	23 12	23 8	9.3 20.8
Main Lode	FVM146	47 Incl. 47	52 48	5 1	11.5 54.6
Main Lode	FVM147	38	41	3	9.8
Main Lode	FVM148	21 Incl. 29	32 33	11 4	19.3 50.7
Main Lode	FVM154	37 Incl. 37 55	50 43 59	13 6 4	<b>9.1</b> <b>17.9</b> 0.8
Main Lode	FVM166	15 Incl. 17	23 19	8 2	16.5 62.4
Main Lode	FVM171	30	34	4	5.8

All results are reported as >0.5g/t with no greater than 2 m internal dilution.

Table 2. Duckhead new RC drill results.

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#### Competency Statement

The information in this report relating to Open Pit Ore Reserves is based on information compiled by Mr Mark Jewell who is a member of the Australasian Institute of Mining and Metallurgy and who has sufficient experience which is relevant to the styles 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 Jewell is a full time employee of Beadell Resource 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 relating to Mineral Resources is based on information compiled by Mr Ted Coupland who is a member of the Australasian Institute of Mining and Metallurgy and has sufficient exploration experience which is relevant to the various styles of mineralisation under consideration 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 Coupland is a full time employee of Cube Consulting Pty Ltd. Mr Coupland 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 relating to Exploration Results is based on information compiled by Mr Robert Watkins who is a member of the Australasian Institute of Mining and Metallurgy and has sufficient exploration experience which is relevant to the various styles of mineralisation under consideration 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 Watkins is a full time employee of Beadell Resources Ltd. Mr Watkins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## Appendix 1.

### **Reserve Parameters for Duckhead Deposit.**

- Whittle pit optimisation software was used to generate the pit design.
- The pit optimisation was based on Geotechnical slope parameters were based on Tucano historical data and independent consultant review.
- The geotechnical parameters assume drained or partially drained slope conditions that include pit dewatering and depressurisation measures. These measures are considered technically possible considering the site conditions but have not yet been proven in the field.
- The mining model used a 10% mining dilution and 100% extraction of the ore to generate the diluted gold grades.
- Densities were based on lithological modelling and derived from an extensive database of specific gravity in situ measurements.
- Mining costs were estimated for an owner operator scenario, guided by the April 2011 DFS study cost estimates.
- The processing costs and processing recoveries were provided by Ausenco and allocated by material type for the pit optimisation purposes.
- The gold recoveries for this Ore Reserve were based on test work data trends for 80% passing sizes of approximately 115 microns.
- The operating costs for the 3.5 Mt/y throughput, used for this Ore Reserve, were calculated based on the unit cost and methodology outlined in the Tucano Definitive Feasibility Study for the 3 Mt/y plant but adjusted as fixed and variable costs for the higher throughput.
- Inferred Resource material blocks were classified as waste for pit optimisation purposes.
- Pit designs incorporate the use of ramps suitable for 100 ton haul trucks for the upper section and 35 ton trucks for the final 20m to pit bottom.
- Base gold revenue for the pit optimisations excluding was US\$1,200 per troy ounce gold. A 2% royalty charge was deducted from this base revenue as selling costs. A US\$ 2 per troy ounce charge was used for refining charges.

## **Resource Parameters for Duckhead Deposit.**

- Gold mineralisation at Duckhead occurs on a sheared contact between a BIF (Banded Iron Formation) unit which also host significant quantities of friable iron ore. Higher grades are associated with the more intensely sheared and hydrothermally altered rocks. Extremely deep oxidation along the lode has produced abundant near-surface saprolitic mineral deposits. Additional oxide gold occurs in an overlying colluvium layer up to 10 metres thick. No primary mineralization has been intersected to date, however the high grade lode maintains a primary lode orientation of steeply south west dipping and steep plunge to the Westsouthwest. The mineralisation's shows widespread similarities to the Tap AB2 high grade shoot at Tucano located on the same geological contact to the northwest.
- A summary of the drill holes at Duckhead is tabulated below.

Deposit	Diamond Holes	Diamond Metres	RC Holes	<b>RC Metres</b>	Total Hole	Total Metres
Duckhead	13	1,894	57	4,651	70	6,545

- Duckhead resource is reported above a 1.5 g/t gold lower cut off grade.
- RC Holes of 5 and quarter inch diameter were angled to the northeast at generally minus 60°. Entire samples are taken every metre, dried and split on site to 600g. 300g split of this sample is then pulverised to -100 um and a 100g pulp shipped for offsite analysis.
- The diamond drill holes commence with HQ size in the colluvium/saprolite, reducing to NQ size in hard rock. Core is half cut to a maximum length of 1m, crushed (-2mm) and split to 600 g. 300 g of this sample is then pulverised to -100 um and a 100 g pulp shipped for offsite analysis.
- All gold determinations were carried out by standard 50g fire assay at SGS laboratories in Belo Horizonte. Pulps are retained on the mine site for storage.
- Diamond holes have been surveyed by techniques unaffected by magnetism such as Maxibore and more recently Deviflex methods.
- Drillhole collar locations and elevation are surveyed by total station.
- The resources have been drilled up to 140 vertical metres below surface on a 20 m x 20 m drill pattern.
- Densities were based on lithological modelling and derived from an extensive database of specific gravity in situ pit measurements.
- For both RC and Diamond, a lab duplicate, field duplicate and certified standard are inserted every 20<sup>th</sup> sample. A blank is inserted at the start of every batch. Standard results are routinely checked to ensure values are within tolerance and the whole batch submitted for reanalysis if this is exceeded.
- The Duckhead resource was modelled and estimated using conventional 3D wireframing and block modelling within Surpac software.
- The high grade Duckhead zone was defined using a 2 g/t Au mineralisation boundary.
- Ordinary Kriging was used to estimate block grades into parent cells of 5m x 10m x 2m (xyz) within individual lode wireframes. Sub-blocks of 0.625m x 2.5m x 1m (x,y,z) were defined for volume resolution.
- A top cut was applied to two individual intervals, cutting the grade to 250 g/t gold.
- Oxidation, colluvium and resistance surfaces were modelled. Geological domains were wireframed.
- Drill hole samples have been composited to 1 m intervals for the resource estimation.