



BLACKTHORN RESOURCES

8 April 2013

MUMBWA PROJECT – UPDATED KITUMBA MINERAL RESOURCE ESTIMATE

KEY POINTS

- An updated 2004 JORC Code compliant Mineral Resource estimate has been completed for the Kitumba deposit within the Mumbwa Project, Zambia.
- The last update to the Kitumba Mineral Resource was released in June 2012.
- Recent Phase 6 drilling has confirmed the scale of material in the indicated category, which now stands at 87.6 Mt @ 1.17% Cu using a 0.5% Cu cut-off:

<i>Cu cut-off (%)</i>	<i>Tonnes (millions)</i>	<i>Cu grade (%)</i>
0.20	258.2	0.60
0.35	146.9	0.87
0.50	87.6	1.17
1.00	29.8	2.13

- The addition of 16km of core from the Phase 6 drilling has significantly improved our understanding of the geology, metal distribution, geometry and alteration of the deposit.
- The deposit contains a robust high-grade core and remains open to the west and northwest where future drilling will test for resource extension.
- Metallurgical testing is continuing with encouraging early results.
- Drill rigs to be remobilised for additional resource definition and step-out drilling.

Managing Director Scott Lowe said, “We continue to develop and de-risk the Kitumba deposit with tighter drilling confirming a scale of material in the Indicated category that is very promising and may be compared with the Prominent Hill deposit in South Australia. We look forward to tightening the drilling further in the next phase of resource definition drilling.

This resource update is a critical step on the Pre-feasibility study (PFS) that is currently in progress and we now have the potential to release a maiden ore reserve statement along with PFS outcomes in the third quarter of 2013. This work is required for the Company to apply for conversion of its exploration licence to a mining licence by November 2013.

In addition to progress at Kitumba we are optimistic about of the potential for further discoveries within the Mumbwa Project area and will look to exploring these whilst further defining the Kitumba deposit.”

Blackthorn Resources Limited (ASX: BTR) (“the Company” or “Blackthorn Resources”) is pleased to provide an updated Mineral Resource estimate for the Kitumba deposit, located within the Mumbwa Project area in Zambia (see Figure 1). Blackthorn Resources holds a 100% interest in the Mumbwa Iron Oxide Copper-Gold (“IOCG”) Project.

Following the recent completion of the Phase 6 drilling programme, the Company engaged The MSA Group (“MSA”) from South Africa as an independent consultant to conduct the updated Mineral Resource estimate, which is reported in accordance with the 2004 JORC Code. This Mineral Resource estimate updates the resource announced on 29 June 2012, which was also undertaken by MSA.

The Phase 6 drilling programme commenced in July 2012 and included 19 holes within the Kitumba area, as well as drilling on satellite targets within the broader Mumbwa Project area for a total of 15,970 meters.

Using a 0.5% Cu cut-off, the Kitumba deposit now contains a total Indicated Mineral Resource of approximately 87.6 Mt at 1.17% copper (“Cu”) and 0.03 g/t gold (“Au”). Data for the Mineral Resource estimate included 27,184m from 49 cored drill holes (Figure 1).

The Kitumba resource model was interrogated over a range of copper cut-off grades to observe the trend in tonnage. Table 1 shows the tonnage variation in the Indicated Mineral Resource category using 0.2%, 0.35%, 0.5% and 1% copper cut-off grades. A complete table of resources by category is included in Table 3.

TABLE 1 – Updated Kitumba *Indicated* Mineral Resource Estimate by cut-off grade – April 2013.

Indicated Mineral Resource

Copper cut-off (%)	Resource Tonnes (millions)	Average Grade Cu (%)	Average Grade Au (g/t)	Average Grade Ag (g/t)	Average Grade U (ppm)
0.20	258.2	0.60	0.04	0.80	34
0.35	146.9	0.87	0.03	0.77	28
0.50	87.6	1.17	0.03	0.86	29
1.00	29.8	2.13	0.03	1.03	27

Deposit Characteristics

Geological confidence in the deposit has been substantially improved through the discrimination of hypogene and supergene zones by means of detailed mineral zone logging, both in the historical and new drill holes. This information is also being fed into the PFS metallurgical studies.

Detailed alteration logging in combination with modelling of multi-element geochemistry, has an alteration zoning pattern, which will assist in vectoring towards potential targets elsewhere in the Mumbwa Project area.

During Phase 6, a complete review was conducted of all drill holes within the resource area, based on an updated understanding of geology, alteration, structure and mineralisation. This included re-logging of all previous holes, revisions to the database, and improved inputs into the geology model.

Resource Estimation Methodology

Drill hole spacing varied from 50m by 50m over the high-grade core of the deposit to 100m by 100m and 200m by 200m outside of this, as shown in Figure 2. Outlying peripheral drill holes are in the order of 350m apart.

The Mineral Resource estimate was conducted using ordinary kriging of metal grades into a three dimensional block model. The estimate was guided by the use of grade and mineralisation domains where appropriate.

Geological Context

The Mumbwa Project area is located approximately 200km west of Zambia's capital, Lusaka. The region is largely underlain by metasedimentary rocks of the Kundulungu Group of the Neoproterozoic Katanga Sequence which are intruded by syn- to post-tectonic granitic and related rocks of the Hook Granitoid Complex, with associated iron-oxide alteration. The Mumbwa Project area is underlain by a giant mineralised iron-oxide alteration system extending over a 25km long north-south trending structural corridor, with associated large scale magnetic and gravity anomalies. The Kitumba and Kakozhi areas are the main target areas for exploration, with on-going exploration work in progress.

The Kitumba deposit is located on the western flank of a north-south trending massive haematite replacement breccia system, and is expressed as a broad zone of copper mineralisation, with gold mineralisation spatially associated with the linear breccia system. The currently defined extent of the deposit covers an area of 1,800m along a north-south strike by 700m in width.

Copper mineralisation at Kitumba comprises a primary hypogene disseminated to semi-massive pyrite-chalcopyrite assemblage that has been extensively modified by deep weathering and oxidation resulting in a redistributed supergene assemblage comprising secondary copper minerals in the form of malachite, chalcocite, pseudomalachite and cuprite, as well as native copper.

The deposit shows a grade zonation with a well-developed high-grade zone related to supergene concentration of mainly malachite and chalcocite with accompanying native copper in a zone of structural complexity and deep weathering (Figure 2). The high-grade copper zone is located between 150m and 600m vertical depth from surface, and extends along strike for a distance of ~500m and across strike for ~ 300 meters. Additional information on the near surface behaviour of the deposit, yielded by the Phase 6 drilling programme, has enabled the modelling of a deeply leached zone in the top section. This has contributed to a reduced estimate in the quantity of Inferred Mineral Resources.

Infill drilling and re-logging of all of the earlier drill holes within the resource area has resulted in greatly improved geological confidence.

Further Potential

Drilling to the east of the previously defined resource area has clearly defined the limits of mineralisation to the east. However, modelling of the Mineral Resource indicates that the deposit is open to the west and north-west. Extension of mineralisation to the west was confirmed through Phase 6 drill testing of selected Orion 3D chargeability anomalies to the west of the previous resource limits. In addition, potential for additional hypogene mineralisation at depth has been demonstrated by deepening hole S36_032 during the course of Phase 6.

With the completion of the resource modelling work, the drilling rigs will now be remobilised to site to conduct further resource definition and step-out drilling on the Kitumba deposit. The drilling will be focused on increasing the geological confidence and converting some of the Indicated Resource to Measured, while the step-out drilling will target resource extension to the west and northwest of the deposit.

On-going work within the Mumbwa Project area has contributed to a significantly improved understanding of the broader mineral system. The presence of a separate mineralised system at Kakozhi, 5km north-west of Kitumba, was confirmed during Phase 6. Within the Mumbwa Project area there are a number of additional targets prospective for IOCG-style mineralisation identified through re-modelling and re-interpretation of airborne FALCON™ geophysical data. Further work at Kakozhi and other target areas will continue in conjunction with resource definition work.

Benchmarking

For a comparison of scale (grades and tonnage) with Prominent Hill, another hematite-dominated IOCG hydrothermal breccia deposit, refer to Table 2.

TABLE 2 - Comparative analysis of the Kitumba Indicated Mineral Resource estimate with Prominent Hill. This comparison only takes into account copper Mineral Resources.

Deposit	Category	Cut-off Grade Cu (%)	Tonnes (Mt)	Cu (%)	Contained Cu (Kt)
Kitumba	Indicated	0.5	87.6	1.17	1 025
Prominent Hill ¹	Indicated	0.3 (open pit) and 0.5 (underground)	76.4	1.40	1 068
	Measured		21.3	1.62	347

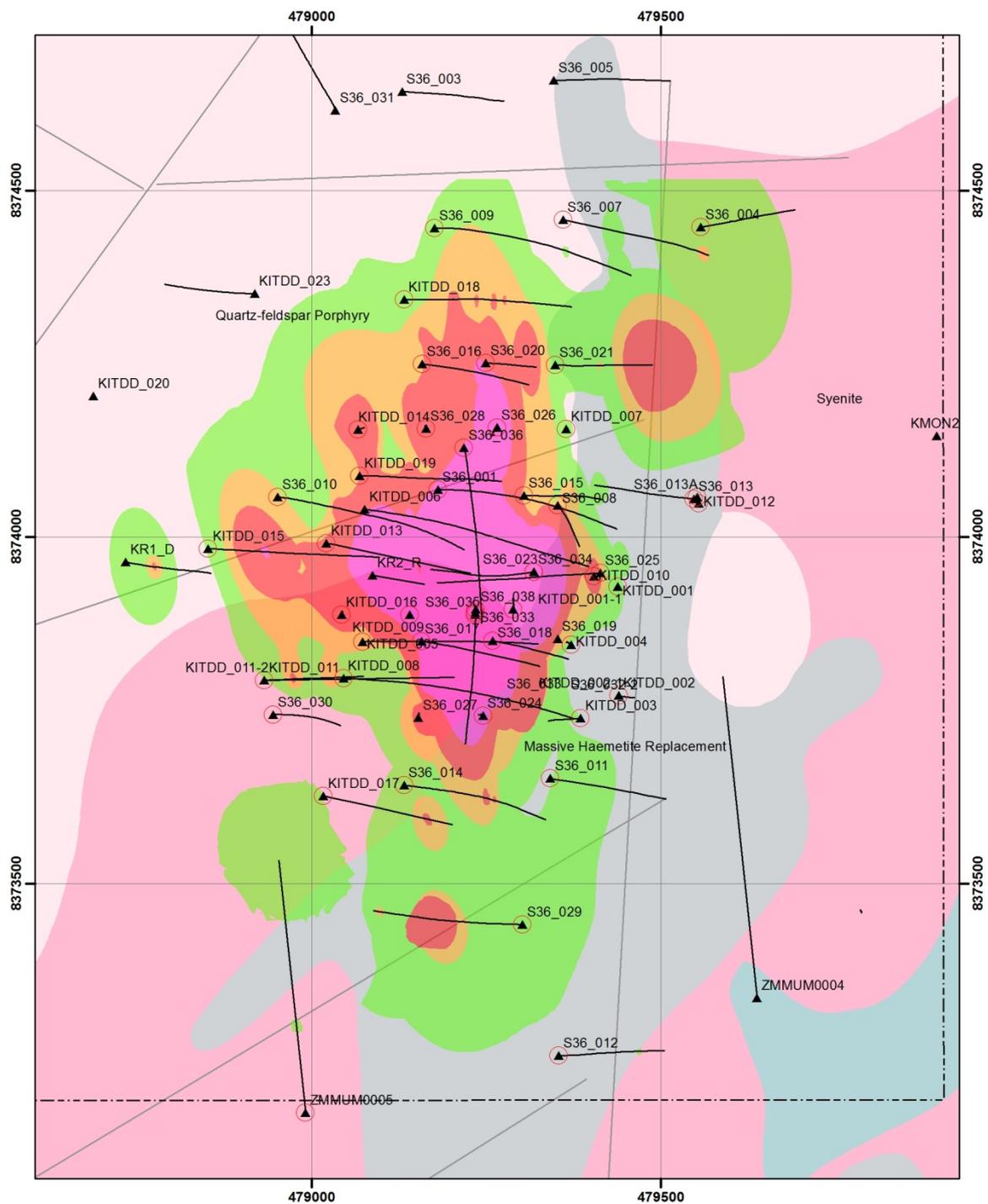
¹ Source: OZ Minerals Ltd (www.ozminerals.com) – 30 June 2012

ATTRIBUTION	<p>The information in this report which relates to Mineral Resources at the Mumbwa Project in Zambia is based on information compiled by Mr Jeremy C Witley, BSc (Hons), Pr.Sci.Nat., who is a member of the Geological Society of South Africa, which is a Recognised Overseas Professional Organisation ('ROPO'). Mr Witley has more than 20 years' experience in base and precious metals exploration, mining geology and mineral resource estimation and is a Principal Consultant with the MSA Group. Mr Witley has sufficient experience, which is relevant to the style of mineralisation and type of deposit 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 Witley has consented to the inclusion in this report of the matters based on his information in the form and context in which it appears.</p>
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ATTRIBUTION	<p>The information in this report which relates to Exploration Results at the Mumbwa Project in Zambia is based on information compiled by Mr Michael J Robertson, MSc, Pr.Sci.Nat., MSAIMM who is a member of the South African Institute of Mining and Metallurgy, which is a Recognised Overseas Professional Organisation ('ROPO'). Mr Robertson has 22 years' experience in mineral exploration and is a full-time employee of The MSA Group. Mr Robertson has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken 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 Robertson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.</p>
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Should you require further information please contact:

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Mumbwa Project Diamond Drill Holes

- Collars used in estimation
- ▲ Mumbwa collars
- Mumbwa traces
- - - Mumbwa licence area
- Cu 1%
- Cu 0.5%
- Cu 0.35%
- Cu 0.2%



FIGURE 1 - Drill holes used in the updated Mineral Resource estimate.

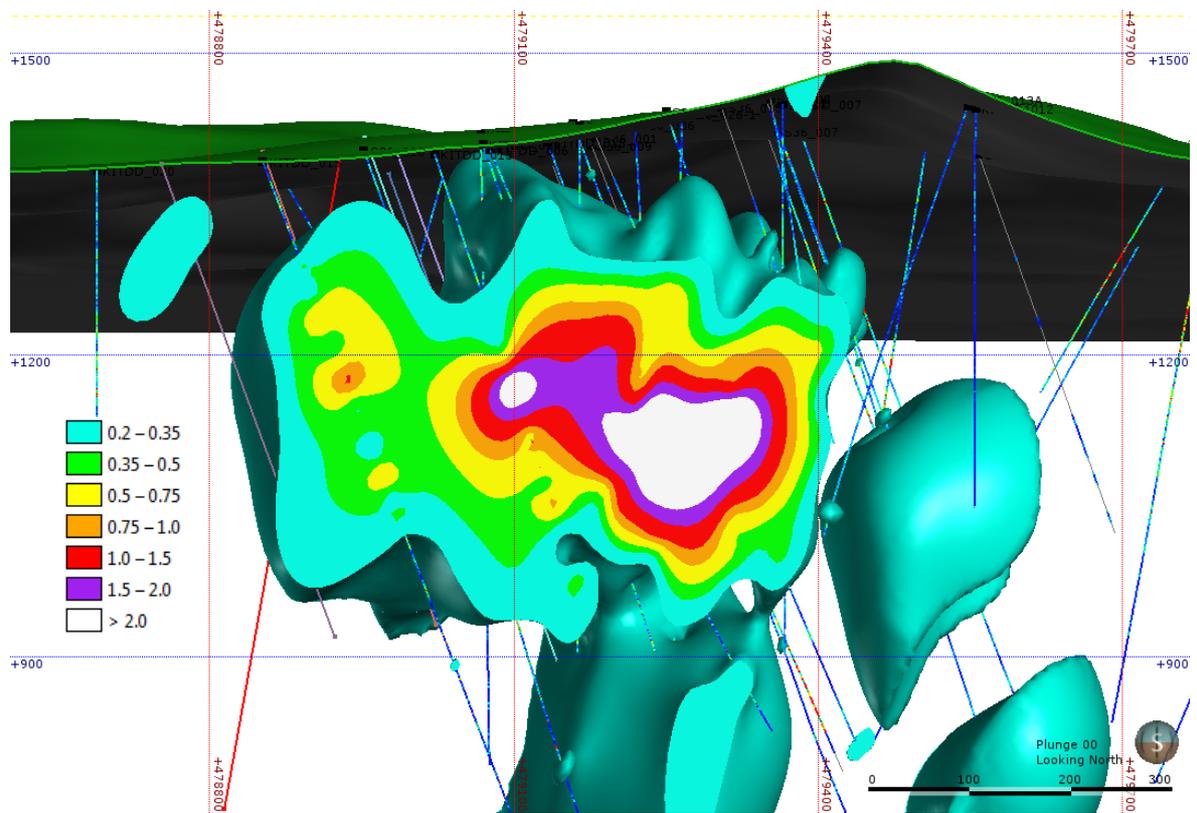


FIGURE 2 - East-west cross section through Kitumba deposit showing grade envelopes.

Table 3 – Mineral Resource Estimate by classification – April 2013.

In-situ Mineral Resource at 0.2% Cu cut-off grade

Category	Resource Tonnes (Millions)	Average Grade Cu (%)	Average Grade Au (g/t)	Average Grade Ag (g/t)	Average Grade U (ppm)
Indicated	258.2	0.60	0.04	0.80	34
Inferred	146.6	0.36	0.04	0.58	28

In-situ Mineral Resource at 0.35% Cu cut-off grade

Category	Resource Tonnes (millions)	Average Grade Cu (%)	Average Grade Au (g/t)	Average Grade Ag (g/t)	Average Grade U (ppm)
Indicated	146.9	0.87	0.03	0.77	28
Inferred	43.9	0.59	0.05	0.49	22

In-situ Mineral Resource at 0.5% Cu cut-off grade

Category	Resource Tonnes (millions)	Average Grade Cu (%)	Average Grade Au (g/t)	Average Grade Ag (g/t)	Average Grade U (ppm)
Indicated	87.6	1.17	0.03	0.86	29
Inferred	21.3	0.77	0.05	0.46	20

In-situ Mineral Resource at 1.0% Cu cut-off grade

Category	Resource Tonnes (millions)	Average Grade Cu (%)	Average Grade Au (g/t)	Average Grade Ag (g/t)	Average Grade U (ppm)
Indicated	29.8	2.13	0.03	1.03	27
Inferred	3.5	1.39	0.04	0.37	21