



QUARTERLY REPORT FOR THE QUARTER TO 31 MARCH 2016

REGAINING TITLE TO THE KIHABE- NXUU Zn/Pb Ag PROJECT, BOTSWANA

On 26 January 2016, The Ministry for Minerals Energy and Water Resources, Botswana granted Prospecting Licence PL 43/2016 to Mount Burgess (Botswana) (Proprietary) Ltd (MBB), a wholly owned subsidiary of the Company. PL 43/2016 covers an area of 977 square kilometres covering that section of a Neo-proterozoic belt situated in Western Ngamiland, Botswana.

PL 43/2016 contains the Kihabe and Nxuu Zn/Pb/Ag 25 million tonnes of 3% Zn equivalent resources, including some 3.3 million ozs Ag, previously developed by the Company and MBB while held under title of PL 69/2003 up to 30 June 2012 (refer to Resource Statement attached). PL 43/2016 has an initial three year term to 26 January 2019 with the right to apply for a two year extension to 26 January 2021 and a further two year extension to 26 January 2023.

KIHABE AND NXUU RESOURCES UPDATE

Mr Chris Campbell-Hicks (BSc, metallurgist and Non-Executive Director of the Company) and Ms Karen Lloyd (Bsc (Hons), as Principal of Jorvik Resources and consultant to the Company) have been engaged to provide technical support services to the Company and assist in the delivery of an updated Mineral Resource estimate on the Kihabe and Nxuu Projects.

Work in the March 2016 quarter included a preliminary metallurgical and processing review and a geological data assessment.

METALLURGICAL REVIEW

Subsequent to the Scoping Study completed by ProMet in May 2009 [*CS5401-RP-001 Scoping Study_2 May 2009*] after extensive mineralogical testwork, it was recognised that almost 50% of the Kihabe/Nxuu zinc, lead, silver resources were oxidised.

In the upper zones of the Kihabe resource, Sphalerite (ZnS) is oxidised to Baileychlore, a Zinc Chlorite (30% ZnO) with the lead remaining as Galina (PbS). In the Nxuu resource both the zinc and lead are fully oxidised and exist only as Smithsonite (ZnCO₃) and Cerussite (PbCO₃) respectively. [*Mineralogy Reports Pontifex Mineralogical Report No 8976 (December 2006). Roger Townend & Associates (13 October 2009 and 15 November 2009)*]

The zinc, lead and silver minerals in the Kihabe and Nxuu oxide zones respond well to acid digest followed by solvent extraction and electrowinning (SX/EW). The zinc lead and silver minerals in the

Kihabe sulphide zone respond well to conventional flotation and concentration. Overall recoveries are well into the 90 percentiles.

The less common and less well understood zinc mineral, Baileychlorite, is the major zinc mineral in the oxide portion of the Kihabe resource. Also 50% of the main zones of mineralisation are either fully oxidised and/or a mixture of oxidised and fresh sulphide material. These will require the application of metallurgical processes alternative to conventional flotation and concentration. However, these alternative processes offer potential for simpler and lower capital cost process pathway options.

The Company is currently undertaking a program of metallurgical test work which will assist in the determination of metallurgical recoveries for mineral resource estimation and development of a preliminary process flowsheet.

PROCESSING STRATEGIES

Oxidised Mineral Process Pathway to Produce Zinc Metal on Site

It was determined from further testwork carried out by Promet in 2009/2010 [*MM01 RB Test work-Update_Dec 09.doc*] that both the Kihabe and Nxuu mineralised oxide zones were amenable to acid leaching followed by solvent extraction and electrowinning (SX/EW). This allowed for production of zinc metal on site with recoveries of both lead and zinc at greater than 90%.

Kihabe Details

The base of the mineralised oxide zone of the Kihabe resource varies in depth from between 10m to 60m beneath Kalahari sand cover of some 10m. Where the mineralisation commences immediately beneath the Kalahari sand cover parts of the oxide zone are up to 50m deep. In this oxide zone zinc occurs in the rare zinc oxidised chlorite mineral Baileychlorite. Lead is present as the sulphide mineral Galena throughout the oxide, transition and sulphide zones.

Within the Kihabe oxide zone there are high grade zones of up to 15% zinc, associated with low to insignificant levels of lead and silver (KDD126 returned 9m at 15% zinc from 44m to 53m, with only 0.87% lead and no silver grades). **The Company is investigating resource models to determine the overall tonnage of these higher grade zinc zones associated with low grade lead and silver.** These zones could present as an initial low cost CAPEX treatment pathway, completely eliminating the initial sulphide flotation treatment otherwise needed to recover the lead and silver.

Nxuu Details

Both the lead and zinc are fully oxidised in the Nxuu resource with the zinc occurring primarily as Smithsonite (ZnCO_3) and the Lead primarily as Cerussite (PbCO_3).

Three possibilities present as pathway options for treatment:

- Treatment of higher grade zinc zones with lower to nil grade lead and silver by acid leach and solvent extraction electrowinning (SX/EW), after crushing and milling at 0.5MTPA processing rate for initial 2 years, subject to sufficient resource volumes. The resource is currently being modelled to assess this option.

- Selective Control Potential Sulphidisation (CPS) flotation of the Lead (and Silver) followed by acid digest and solvent extraction/electrowinning (SX/EW) of the Lead flotation tails for production of zinc metal.
- Treatment of run of mine (ROM) grade zinc with very low to nil lead and silver grades by Heap Leach with crushing only followed by SX/EW. The resource is currently being modelled to assess this option.

Silver Recovery

Additional mineralogical and metallurgical testwork will be conducted to improve silver recoveries in both the lead flotation concentrate and using a gravity concentration and separation pre-step. The gravity step will be carried out prior to flotation and leaching, taking advantage of the significant density differences between the zinc, lead and quartz minerals shown in Table 1 below:

Table 1

NAME	Formula	Hardness (Mohs)	Density (p)
Silver	Ag	2.5	10.5
Pyragyrite	Ag₃ SbS₃ PbS	2.5	5.8
Freibergite	(Ag,Cu,Fe)₁₂ (SbAs)₄ S₁₃	3.8	4.9
Tetrahedrite	(Cu,Fe)₁₂ Sb₄S₁₃ + Ag	3.8	4.9
Smithsonite	ZnCO₃	4.5	4.5
Baileychlore	Zn(30%) chlorite	2.8	3.2
Cerussite	PbCO₃	3.3	6.6
Sphalerite	(Zn,Fe)S	3.8	4.0
Galena	PbS	2.6	7.4
Vanadium	V	6.7	6.0
Gallium	Ga	1.5	5.9
Germanium	Ge	6	5.3
Vanadinite	Pb₅(VO₄)₃Cl	3.5	6.8
Quartz	SiO₂	7	2.7

Further follow up testwork will also be carried out to determine the Control Potential Sulphidisation (CPS) requirements for optimal flotation recovery of fully oxidised and transition mineralisation as part of a mineral variability testwork program. Historically, silver and base metal flotation recoveries have often been improved in the presence of CPS reagents.

Sodium metabisulphite (MBS) has also demonstrated improved silver (and copper) recoveries when used as an alternative to cyanide in the depression of pyrite and will be likewise tested.

Other Metal Credits

1. Vanadium

The presence of up to 0.4% Vanadium in one area of the Kihabe resource offers the opportunity to **assess the viability of a stand-alone vanadium recovery facility, subject to a testwork program** and

validation of the initial mineral grades and volumes. A follow up drilling program will be required for this.

2. Gallium and Germanium

The strong association of gallium (Ga) and germanium (Ge) with zinc minerals and with bauxite is the major source of these metals. Significant levels of both gallium and germanium have been found in the Kihabe and Nxuu resources. Their amenability to acid leaching and SX/EW, and the classification of germanium as a strategic metal by the US government offers the opportunity for MTB and Botswana to take advantage of their current value by separate extraction from the zinc SX raffinate. **An initial testwork programme to determine whether there is significant enrichment to justify beneficiation of these metals is pending.** This will determine whether they can then be recovered by either precipitation or electrowinning. Gallium is currently trading at US \$399/kg and Germanium is currently trading at US \$ 2,350/kg (online quote Rotometals).

3. Indium

The main source of Indium globally is captured during the processing of zinc ores. Because of Indium's high price of US \$599/kg (online quote Rotometals), **this metal, that has not been assayed for previously, is currently being assayed with results pending.**

4. Copper and Cobalt

A strong copper (Cu) and cobalt (Co) anomaly has also been identified, on PL 43/2016. **This will require follow up drill testing.** Whether the mineralisation occurs as oxidised material or fresh sulphide, both Cu and Co are traditionally amenable to the same processing pathways as above. Oxidised copper minerals also have the advantage of cyanide solubility as shown in Table 2 below:

Table 2

SOLUBILITY OF COPPER MINERALS IN 0.099 PERCENT NaCN SOLUTIONS

Mineral		Percent Total Copper Dissolved	
		At 23°C	At 45°C
Azurite	$2 \text{ CuCO}_3 \cdot \text{Cu}(\text{OH})_2$	94.5	100.0
Malachite	$\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$	90.2	100.0
Cuprite	Cu_2O	85.5	100.0
Chrysocolla	CuSiO_3	11.8	15.7
Chalcocite	Cu_2S	90.2	100.0
Chalcopyrite	CuFeS_2	5.6	8.2
Bornite	$\text{FeS} \cdot 2 \text{ Cu}_2\text{S} \cdot \text{CuS}$	70.0	100.0
Enargite	$3 \text{ CuS} \cdot \text{As}_2\text{S}_5$	65.8	75.1
Tetrahedrite	$4 \text{ Cu}_2\text{S} \cdot \text{Sb}_2\text{S}_3$	21.9	43.7
Metallic Copper	Cu	90.0	100.0

After Menne 2001

5. Sulphide Leaching

For treatment of the zinc and lead sulphides it had always been Mount Burgess intention to produce separate lead and zinc sulphide concentrates when the oxide mineralisation becomes depleted or exhausted. More recently however Outotec, in conjunction with a Chinese client Zhuzhou Smelter Group, has developed an alternative direct leach process pathway for zinc sulphide (Outotec direct leaching application in China – SAIMM symposium, lead and zinc 2008, 25 -29 February). As this process is also followed by SX/EW, that will already be in operation at Kihabe, **this option will be actively pursued by MTB.**

RESOURCES REVIEW

Potential to Increase Resource Grades

Both the Kihabe and Nxuu Mineral Resources have been reported using the results from reverse circulation (RC) drilling and in consideration of a limited amount of information from diamond core drilling (DD). Twinning of RC drill holes with DD holes has shown a positive grade increment of close to 60% from the DD results, indicating poor recovery of mineralised material using the reverse circulation method and a negative bias on reported tenor. A further exercise was conducted at the Kihabe resource by running a comparison within the 0.5% resource envelope, between (a) the RC and DD drill results combined and (b) ONLY the DD results. Whilst the DD results alone were not sufficient to estimate a resource based entirely on DD results, they likewise, on their own, showed a positive increment in grade within the 0.5% envelope of around 47%.

To allow a revised Mineral Resource estimate in accordance with JORC (2012) guidelines, a new program of diamond core drilling will be undertaken. **This drilling program is currently at the planning stage.**

Potential to Increase the Resource Base

The Company has taken some 17,000 geochemical soil samples on the project. These have generated six new Zn/Pb anomalies and one Cu/Co anomaly within close proximity to the Kihabe and Nxuu resources. Whilst confirmatory drilling is required, **these anomalies show potential to significantly increase the project's resource base** in this SEDEX system of mineralisation within this Neo-proterozoic belt.

Three of the Zn/Pb anomalies and the Cu/Co anomaly have been generated within areas known to have a contact between the regional dolostone and a quartz wacke. At both the Kihabe and Nxuu resources, the mineralisation occurs in a quartz wacke right at the contact with the regional dolostone.

The Kihabe and Nxuu 25 million tonnes resources cover a combined strike length of 2.3 km. The seven other anomalies have a combined strike length of over 12 km. One of those anomalies, Target 52, has a strike length of 5.2 km, exhibiting mineralisation occurring around a fold closure, known to

exist in the regions of a dolostone/quartz wacke contact. The Cu/Co anomaly has a strike length of 2.4 km.

COMPETENT PERSON'S STATEMENT

The section of this report headed **METALLURGICAL REVIEW** and **PROCESSING STRATEGIES**, together with any related assessments and interpretations, is based on and fairly represents information and supporting documentation compiled by and approved for release by Mr Chris Campbell-Hicks (BSc, metallurgist and Non-Executive Director of the Company). Mr Campbell-Hicks is a fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Metallurgist (FAusIMM CP Metallurgy) and a Member of the Mineral Industry Consultants Association (MMICA). Mr Campbell-Hicks has sufficient experience to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code and Valmin Codes and the Canadian National Instrument NI-43-101 relating to metallurgical and processing engineering issues under consideration and to activities which have been undertaken. Mr Campbell-Hicks consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

CORPORATE

Funding

During the quarter Jan and Nigel Forrester lent the Company a further \$35,000 for ongoing project and administration funding.

During the quarter the Company obtained agreement from professional investors for the placement of 14,250,000 shares at an issue price of 0.8 of 1c, to raise \$114,000. Funds amounting to \$89,000 for the issue of 11,125,000 were received during the quarter. The remaining balance of \$25,000 for the issue of 3,125,000 shares was received in early April.

At the end of the quarter, 31 March 2016, the Company had funds of \$84,000 with a further \$25,000 received in early April 2016.

KIHABE- NXUU RESOURCE STATEMENT REPORTED 15 MAY 2013

Deposit	External Cut %	Indicated M Tonnes %	Inferred M Tonnes %	Total M Tonnes %
Kihabe	1.5%	11.4 @ 2.90%*	3.0 @ 2.60%*	14.4 @ 2.84%*
Nxuu	0.3%	-	10.9 @ 3.20%*	10.9 @ 3.20%*
		11.4 @ 2.90%*	13.9 @ 3.07%*	25.3 @ 3.00%*

*Zinc Equivalent Grade

Kihabe resource calculated on metal Zn US\$1,810/t Pb US\$1,955/t Ag US\$18.75/oz
prices as at 17 July 2008:

Grades applied: Zn 1.8% Pb 0.8% Ag 7.7 g/t

Nxuu resource calculated on zinc and lead at US\$ par

Grades applied: Zn 1.8% Pb 1.4%

The information in the resource statement that relates to the Kihabe Resource is compiled by Byron Dumpleton, B.Sc., a member of the Australasian Institute of Geoscientists. The information that relates to the Nxuu Resource is compiled by Mr Ben Mosigi, M.Sc., (Leicester University – UK), B.Sc., (University of New Brunswick – Canada), Diploma Mining Tech (Haileybury School of Mines – Canada), a member of the Geological Society of South Africa.

Mr Dumpleton is an independent qualified person and Mr Mosigi is a Technical Director of the Company. Both Mr Dumpleton and Mr Mosigi have sufficient experience relevant to the style of mineralisation under consideration and to the activity to which they have undertaken to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code of Reporting of Mineral Resources and Ore Reserves". Both Mr Dumpleton and Mr Mosigi consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

KIHABE-NXUU METAL RECOVERIES

Independent metallurgical testwork has confirmed the metal recoveries shown in the table below. Accordingly the Company believes these recoveries are achievable. Zinc recovered from acid leaching oxide zones will enable Zn metal to be recovered on site from electro-winning.

DEPOSIT	Zone	Time	Zinc	Lead	Silver
Kihabe					
Oxide Zone					
Acid leaching @40°C 30 kg/t acid	Oxide *	24 hrs	96.9%	91.9%	n/a
Sulphide Zone					
Rougher flot	Sulphide	90 seconds	91.9%	84.8%	94%
	Sulphide	15.5 mins	93.8%	88.1%	96.4%
Nxuu					
All Oxide					
Acid leaching @25°C 30 kg/t acid	Oxide *	12 hrs	93%	93%	n/a

** Note: Zn mineralisation in the oxidised zones is hosted within Smithsonite and Baileychlore and independent test work has confirmed both of these are amenable to acid leaching.*

This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Appendix 5B

Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001, 01/06/10.

Name of entity

MOUNT BURGESS MINING N.L.

ABN

31009067476

Quarter ended ("current quarter")

31 March 2016

Consolidated statement of cash flows

Cash flows related to operating activities		Current quarter \$A'000	Year to date (9 months) \$A'000
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for (a) exploration & evaluation	(55)	(55)
	(b) development	-	-
	(c) production	-	-
	(d) administration	(5)	(139)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	-	-
1.5	Interest and other costs of finance paid/Interest overcharged	1	-
1.6	Income taxes refund	-	-
1.7	Other (provide details if material)	-	-
Net Operating Cash Flows		(59)	(194)
Cash flows related to investing activities			
1.8	Payment for purchases of: (a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
1.9	Proceeds from sale of: (a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	-	-
Net investing cash flows		-	-
1.13	Total operating and investing cash flows (carried forward)	(59)	(194)

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(59)	(194)
Cash flows related to financing activities			
1.14	Proceeds from issues of shares, options, etc.	89	121
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	35	142
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other – Lease liability repayments	-	-
	Other – Placement fees	-	-
	Net financing cash flows	124	263
	Net increase / decrease in cash held	65	69
1.20	Cash at beginning of quarter/year to date	19	15
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	84	84

**** The Company currently has an overdraft facility of \$NIL**

Payments to directors of the entity and associates of the directors

Payments to related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	-
1.24	Aggregate amount of loans to the parties included in item 1.10	-
1.25	Explanation necessary for an understanding of the transactions	
	N/A	

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

N/A

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

N/A

+ See chapter 19 for defined terms.

Financing facilities available

**** The Company currently has an overdraft facility of \$NIL**

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	-	-
3.2 Credit standby arrangements	2	-

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	50
4.2 Development	-
4.3 Production	-
4.4 Administration	25
Total	75

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	84	19
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)		-
Total: cash at end of quarter (item 1.22)	84	19

**** The Company currently has an overdraft facility of \$NIL**

Changes in interest in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1 Interests in mining tenements relinquished, reduced or lapsed	-	-	-	-
6.2 Interests in mining tenements acquired or increased	-	-	-	-

+ See chapter 19 for defined terms.

Issued and quoted share securities at the end of current quarter

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference securities (description)	N/A			
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	+Ordinary securities (Note 1)	180,352,958	180,352,958		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	11,125,000 (Note 2) N/A	11,125,000 (Note 2) N/A		
7.5	+Convertible debt securities (description)	N/A	N/A		
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	Options Employee Share Plans (note 1)	71,430	NIL	35 cents	31/12/16
7.8	Issued during quarter	NIL			
7.9	Exercised during quarter	NIL			
7.10	Expired / Cancelled	NIL	NIL		
7.11	Debentures (totals only)	NIL			
7.12	Unsecured notes (totals only)	NIL			

Note 1 Post consolidation

Note 2 Subsequently after quarter end, the Company received \$25,000 (which is equivalent to 3,125,000 shares) via share placement. The Company allotted in total 14,250,000 shares in accordance to announcement dated on 6 April 2016.

+ See chapter 19 for defined terms.

Compliance statement⁷

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act [or other standards acceptable to ASX \(see note 4\)](#).
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here: *Serene Chau*
 (Director/Company secretary)

Date: 28 April 2016

Print name: Serene Chau

Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 Issued and quoted securities The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 [Accounting Standards ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic \(if any\) must be complied with.](#)

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⁷ See chapter 19 for defined terms.