

# INTERNATIONAL BASE METALS LIMITED

## QUARTERLY ACTIVITIES REPORT – End September 2012

### HIGHLIGHTS

#### **Corporate**

- A Board Strategic planning session was held on 5 September. Our strategy was revised to include an increased focus in Australia and possible projects in Botswana.
- \$4.35 million was received on 28 September 2012.
- IBML made a \$300k investment in African Mining Capital Pty Ltd (“**AMC**”). This investment secures IBML the option to earn a 51% stake in the Epembe tantalum-niobium (Ta-Nb) project in northern Namibia.
- IBML continued to assess other possible acquisition opportunities.

#### **Exploration Projects**

##### Omitiomire project

- Resource extension drilling has been terminated and an updated resource estimate has been provided by independent consultants. This confirms resource + potential in excess of 1.2 million tonnes of contained copper metal.
- Pre-feasibility studies on a proposed oxide copper mining and processing operation have been accelerated. Project financials are being re-evaluated prior to a decision on whether to proceed with a full feasibility study.
- Bulk sampling of sulphide copper material, for metallurgical testing, is being carried out through large diameter drill core.

##### Other Namibian exploration projects

- Small reverse circulation (‘RC’) drilling programmes have been completed at the Sib copper prospect (Kalahari Copperbelt Project) and Tzamin copper prospect (Kamanjab Project). At both prospects, drilling confirmed the presence of small deposits at shallow depth but failed to indicate the presence of more substantial deposits.
- At the Kopermyn JV, a deep drill hole has tested an induced polarisation (I.P.) anomaly. It intersected iron sulphide minerals which are believed to have been the source of the anomaly. Drilling is continuing.
- Craton has commenced assessment of AMC’s Epembe Ta-Nb prospect.

## **CORPORATE REPORT**

### **Occupational Health and Safety**

No lost time incidents were reported during the quarter.

### **Corporate Activities**

It is with sadness that we report the death of Ken Hart, our senior geologist at Omitiomire. Our condolences go out to his family.

Dr Deng resigned from the IBML Board. Mr Luo ZheHong was appointed to the IBML Board as his replacement. Mr Chen is his alternate.

### **Craton Mining and Exploration (Pty) Ltd ('Craton')**

A Craton Board meeting was held on 11 September to coincide with the Namibian Copper Conference in Windhoek. At the conference, Craton's geologists contributed a paper on the geology of the Omitiomire deposit. A number of field trips were also undertaken.

Further, but slow, progress was made regarding the proposed JV with HPX on the Kopermyn project. We are still trying to fully understand the implications of the new tax on diluting licence rights in Namibia. Work, however, continued on the strength of the signed Term Sheet.

### **Company Strategy**

The Company's strategy is to raise private equity to fund ongoing exploration activities while, in parallel, seeking a new cornerstone investor.

A Board Strategic Planning session was held on 5 September. The IBML Vision and Values remain unchanged. Our strategy was revised to include an increased focus in Australia and possible projects in Botswana.

Our strategy and goals are:

- The five-year goal is to have one operating mine and at least one advanced exploration project.
- The 10-year goal is to be a significant mining and exploration company with its focus in Namibia, Australia and Botswana.
- We will consider off-take agreements for the commodities we produce but would limit such off-takes to the percentage investment held.
- Joint venture (JV) arrangements will be encouraged for both exploration and mining activities.
- We will seek to retain at least 30% interest in any Southern African JV.

The following four short term objectives have been set:

- Having identified a potential resource of 1.2 million tonnes of contained copper at Omitiomire we will focus on trying to find satellite deposits within trucking distance of the main deposit;
- We will continue to seek a cornerstone investor to fund a Feasibility Study for Omitiomire, followed by a possible listing;
- We will progress our other exploration targets through a combination of equity funded drilling and JV's; and
- We will continue to identify further exploration growth opportunities in Namibia, Australia and Botswana.

### **Capital Raising**

\$4.35 million was received on 28 September 2012. The placement comprised the issue of 19.77 million shares at \$0.22 per share. Funds from the placement will be allocated towards financing the drilling and work programmes at Omitiomire and regional exploration up to the end of November 2012.

The Azure appointment was further extended until 30 November on a non-exclusive hourly rate. The aim remains to secure a \$20 million - \$30 million investment in IBML. An exclusive and confidential Letter of Intent was signed with a potential cornerstone investor.

### **Miscellaneous Activities**

- A \$300k investment was made in African Mining Capital Pty Ltd (“**AMC**”). This investment secures IBML the option to earn a 51% stake in the Epembe tantalum-niobium (Ta-Nb) project in Namibia. A binding Heads of Agreement was signed and work is progressing towards a formal JV agreement.
- The MD visited Namibia from 10 to 14 September. This included a Craton board meeting on 11 September. Discussions were also held with legal and financial tax experts in Namibia.
- Strategic planning workshops and an IBML Board meeting were held from 4 to 6 September in Perth.
- An IBML team visited China from 26 to 30 August.

## REVIEW OF PROJECTS

### BACKGROUND

Craton Mining and Exploration (Pty) Ltd ('Craton'), IBML's wholly-owned Namibian subsidiary, holds ten Exclusive Prospecting Licences ('EPLs'), covering 7,690 km<sup>2</sup>. An additional two EPLs, covering 1,940 km<sup>2</sup> in the Steinhausen project area, were offered for grant in early October 2012.

The Company's major project is the Omitiomire Copper Project, which consists of the Omitiomire copper deposit and the surrounding area in EPL 3589. The other tenements are clustered into project areas as shown in Figure 1.

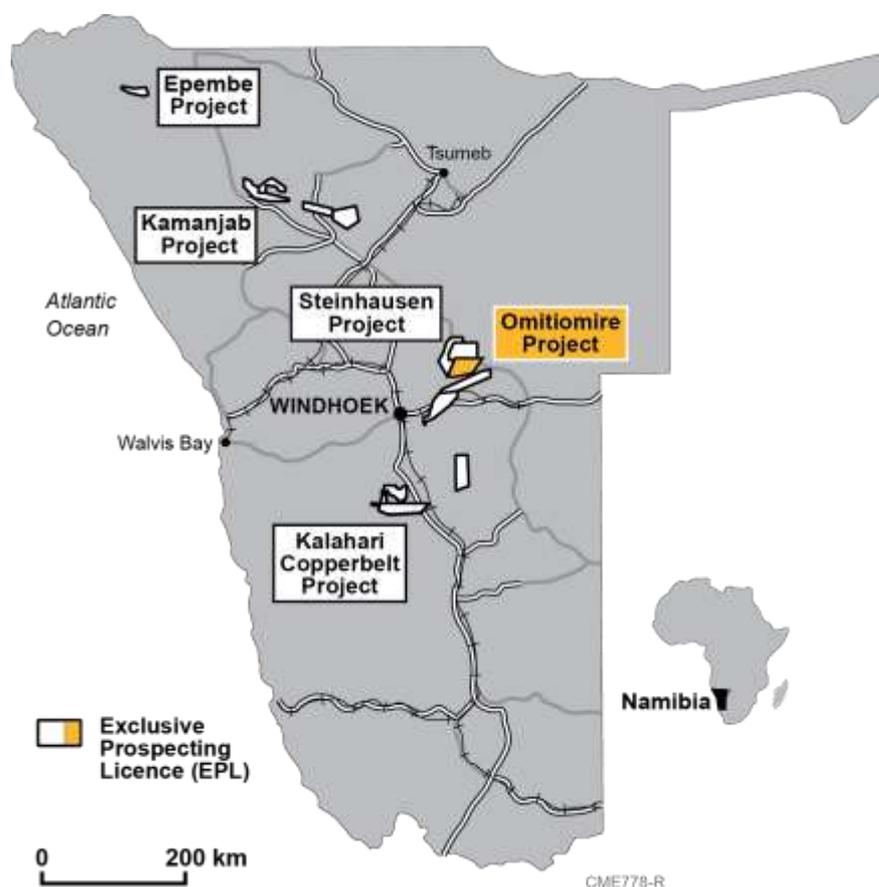


Figure 1. Craton's EPLs (including the tenements recently offered for grant)

In addition to its Namibian projects, IBML has a number of exploration projects in Australia. These are held in separate wholly-owned subsidiary companies:

- AuriCula Mines Pty Ltd: Exploration for copper-gold in the Cobar district of New South Wales;
- Maranoa Resources Pty Ltd: Exploration for nickel and copper in the Maranoa district of south-central Queensland;
- Endolithic Resources Pty Ltd: Exploration for base metals in north Queensland.

## OMITIOMIRE PROJECT

### Strategy

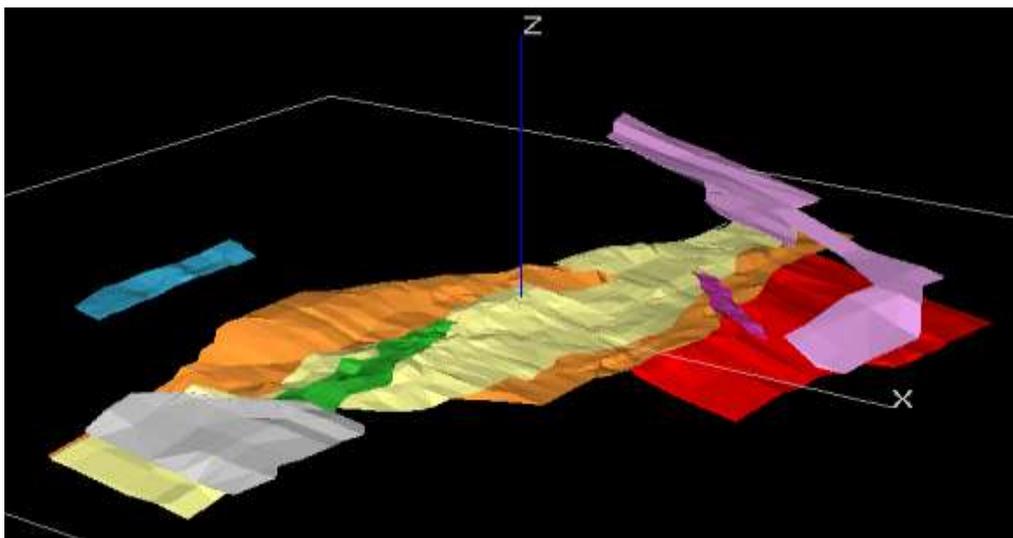
The Company plans a staged approach to bring Omitiomire into production:

- Phase 1 targets the near-surface oxide copper resource;
- Phase 2 targets the larger sulphide copper resource.

Studies towards Phase 1 feasibility are scheduled within the current IBML budget; Phase 2 will require additional funding from a new cornerstone investor.

### Resource Update

During early July, the resource drilling programme was suspended after completion of Hole ORC544. A total of 23,661m has been drilled since the programme commenced in June 2011. The results of this drilling have been used to provide a resource upgrade. The deposit was “wire-framed” in nine mineralised lenses, referred to as “domains” (Figures 2 and 3).



*Figure 2. Isometric view of the 2012 resource wireframes. The model recognises eight lenses: A (yellow); B (orange); C (red); Central (green); Kaya (grey); Mamba (blue); Bruce (pink) and Bruce Terrace (purple). Almost half the resource tonnage is within the B Lens*

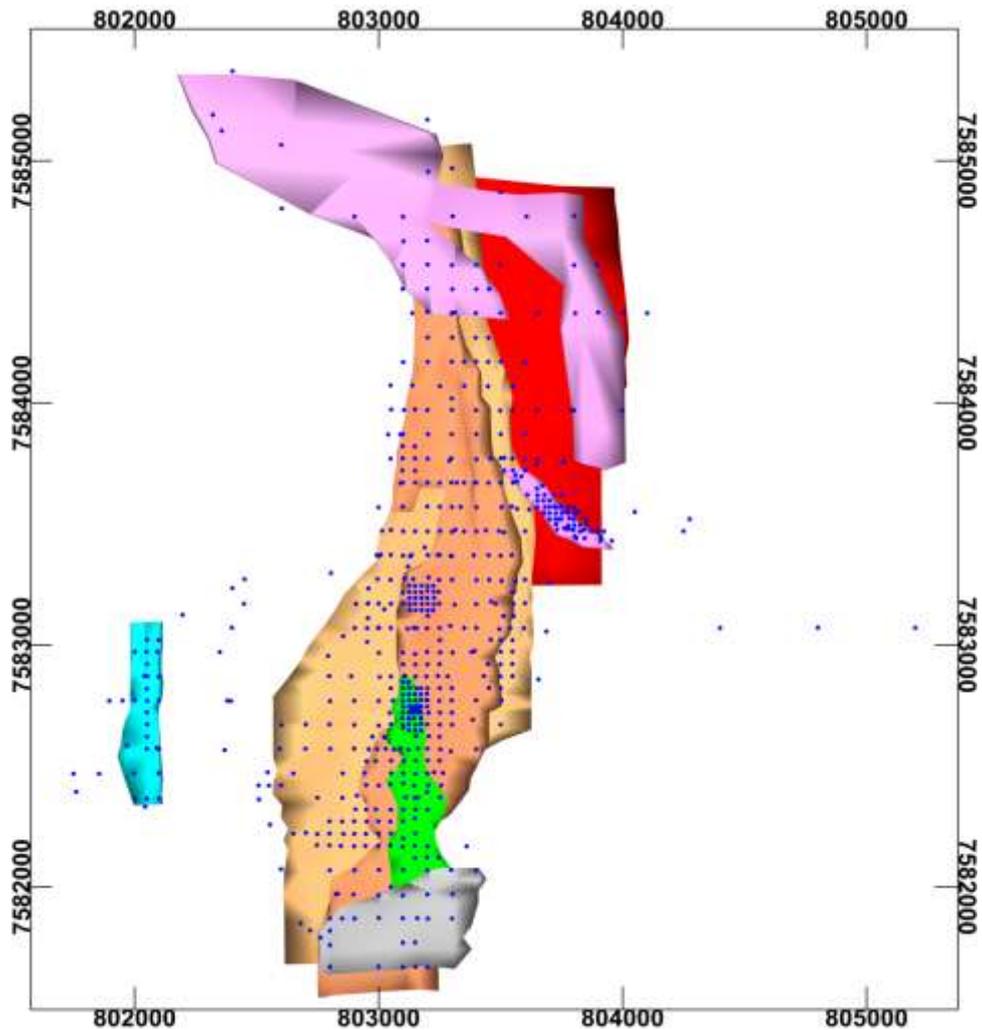


Figure 3. Plan view of the 2012 resource wireframes, showing holes drilled before and after the previous (September 2011) resource estimate

Independent consultants, Bloy Resource Evaluation, delivered the following models during August 2012:

- The grade model of each domain was estimated by Ordinary Kriging (Table 2).
- The densities used for the model were determined by rock type and oxidation state.
- The S\_Ratio is a measure of the sulphide content and was calculated on a block-by-block basis from the kriged S% and Cu%.
- The PC\_Dark field in the model is the estimate of the percentage of dark rocks, which influences the effectiveness of pre-concentration by dense medium separation ('DMS').

Cut-off grade (% Cu)	Indicated + Inferred Resource 70% of resource in Indicated category			Resource + Potential		
	Tonnage (Mt)	Grade (% Cu)	Metal (tonnes)	Tonnage (Mt)	Grade (% Cu)	Metal (tonnes)
0.1	193	0.43	825,000	301	0.45	1,367,000
0.2	168	0.47	784,000	269	0.49	1,315,000
0.25	136	0.53	712,000	230	0.53	1,228,000
0.3	117	0.57	661,000	203	0.57	1,155,000

Table 1: Summary of August 2012 resource estimate

## **Phase 1 Oxide Copper Feasibility Study**

An “order of magnitude” study determined that Phase 1 oxide copper mining and beneficiation could be feasible as a stand-alone operation. A beneficiation process of crush – screen – DMS – mill – sulphide float – solvent extraction – electrowinning (‘SX-EW’) is being investigated. The aims of this test work are:

- To determine whether coarse grinding can minimise milling costs;
- To confirm that sulphide copper contained in oxide material can be removed through flotation prior to leaching;
- To confirm that oxide copper recoveries from leaching would be significantly higher than achieved through flotation (<65%);
- To determine whether acid consumption during leaching can be reduced to acceptable levels to reduce operating costs (‘Opex’);
- To determine the optimal sample size required for oxide bulk sampling and the pilot plant scope of works.

Based on the results received, the Company believes that all of these aims have been achieved:

- Recoveries and acid consumption are good at a coarse grind size, with an optimal size of about 150 µm.
- The overall head grade was 1.23% Cu, with a sulphide copper content of 21% being close to the expected 23% as indicated by Craton on dispatch of the sample. The float recovered 93% of the sulphide copper.
- Oxide copper recovery of 80% through acid leaching was comparable to the initial oxide leach test work. The combined recovery of oxide and sulphide is 83%.
- Acid consumption of 28.8 kg/t was significantly reduced from previous tests (> 80kg/t) which were designed with longer leach times in order to simultaneously leach sulphide (chalcocite) and oxide copper;
- Initial indications are that the sample size could be as little as 50 tonnes. The pilot plant scope of works is in preparation.

The “order of magnitude” study can now be amended, incorporating these results. Project financials will then be re-evaluated based on the new information and a decision made whether to proceed with a full feasibility study. Such a study would include revised oxide pit designs and collection of a 50 tonne bulk sample of oxide material for metallurgical pilot plant testing.

## **Phase 2 Sulphide Copper Feasibility Study**

The resource update in August 2012 was the first step in the Phase 2 feasibility studies.

- It confirmed resource potential of > 1 million tonnes of contained copper metal.
- It provided improved models of oxide copper distribution and “bandedness” of mineralised material.

- It provided additional confidence in the resource within and below the previous (2011) pit shells.

The updated resource provides an improved basis on which to plan a Feasibility Study for Phase 2 operations, including expanded pit shells, pit designs, mine schedules and definition of the material fed into the processing plant.

The collection of a 30 tonne bulk sample for metallurgical pilot plant testing is identified as a bottleneck in the Feasibility Study schedule. For this purpose, a drilling programme to collect 2500m of large diameter ('PQ' – 85 mm diameter) drill core has been initiated (Figure 1). Reverse circulation ('RC') drilling is providing pre-collars to the top of the ore zone; the more expensive PQ drilling will be restricted to the mineralised zone.

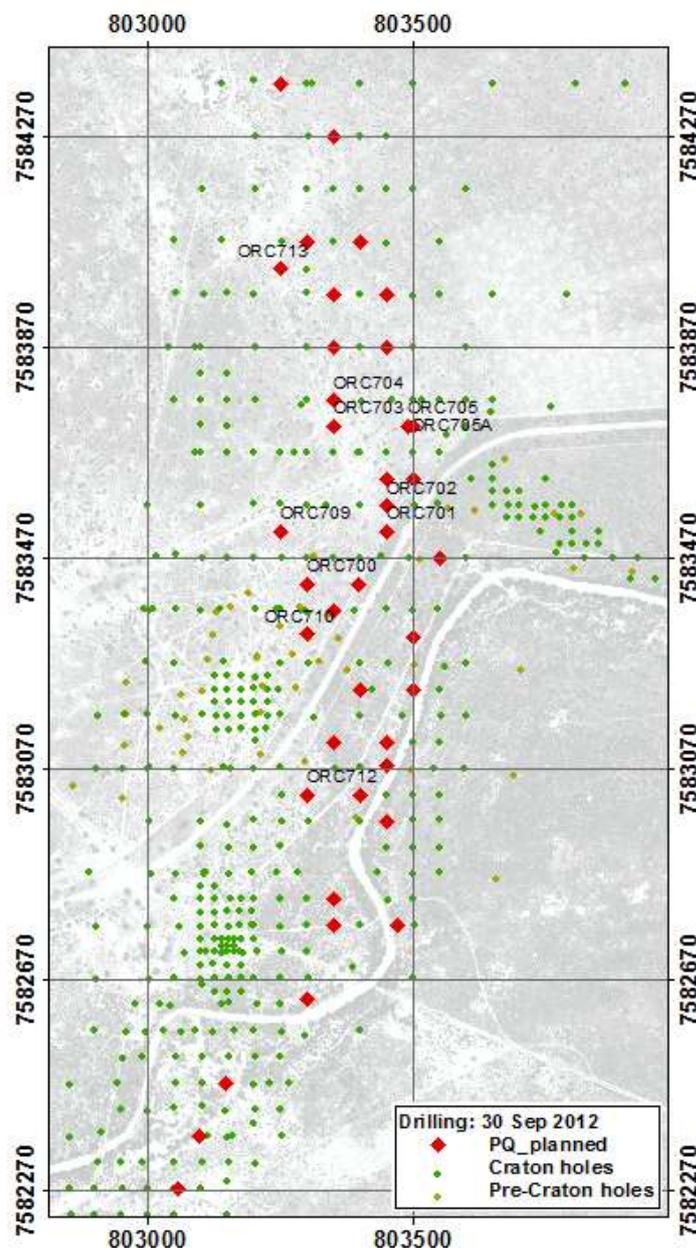


Figure 4. Planned large diameter ('PQ') drill holes at Omitiomire. Numbered holes were completed during the quarter

## Social and Environmental Impact Assessment (SEIA)

Once it is shown that Phase 1 oxide mining and processing is viable as a stand-alone operation and the process parameters are updated, the scope of the SEIA will likely require amendments to include the use of acid for leaching.

The results of the groundwater modelling have determined that the cone of depression caused by Phase 1 oxide mining is minimal and that it is likely that more than 15 m<sup>3</sup>/hour of groundwater can be extracted from drill holes on a sustainable basis.

According to a legal opinion of the Namibian Environmental Act (2007) and Regulations (2012), Craton will be required to apply for an Environmental Clearance Certificate before February 2013. The Company is seeking a meeting with senior staff of the Ministry of Environment and Tourism to determine the extent of any further the studies required.

## Omitiomire Exploration

The Company is planning drill testing of at least two, and possibly three, targets.

## STEINHAUSEN PROJECT

The Project currently consists of two licences (EPLs 3590 and 4054) and two applications (EPLs 4150 and 4151). Craton has received a document from the Ministry of Mines and Energy confirming the Ministry's intention to grant the two applications.

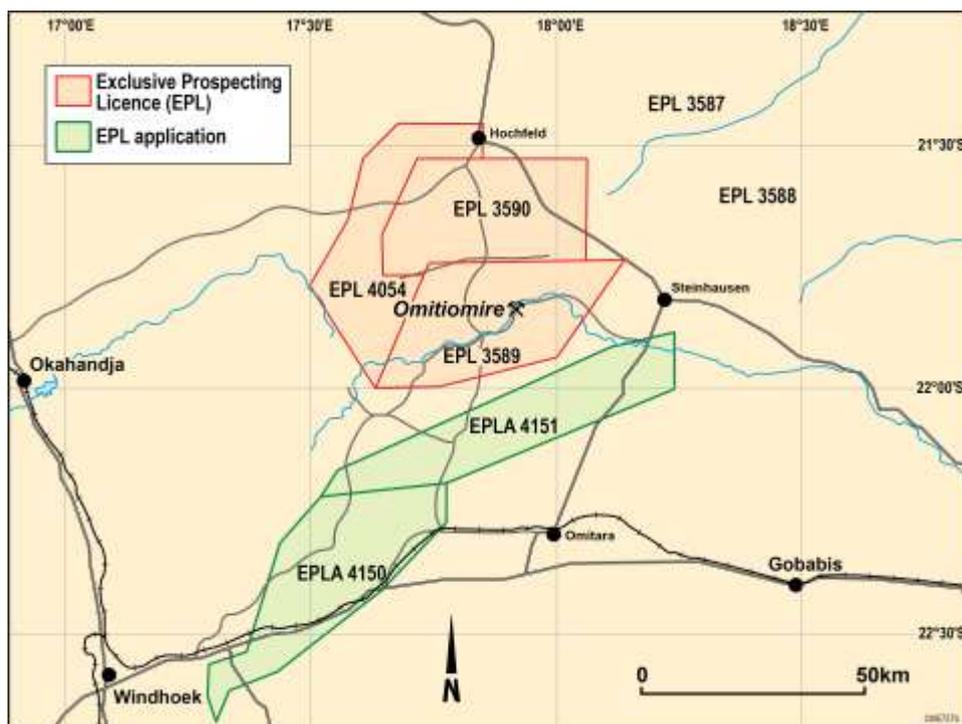


Figure 5. Omitiomire and Steinhausen tenements

During the quarter, early-stage exploration aimed at identifying and prioritising drilling targets continued on the granted EPLs.

## KALAHARI COPPERBELT PROJECT

The project consists of three granted EPLs, covering known copper occurrences.

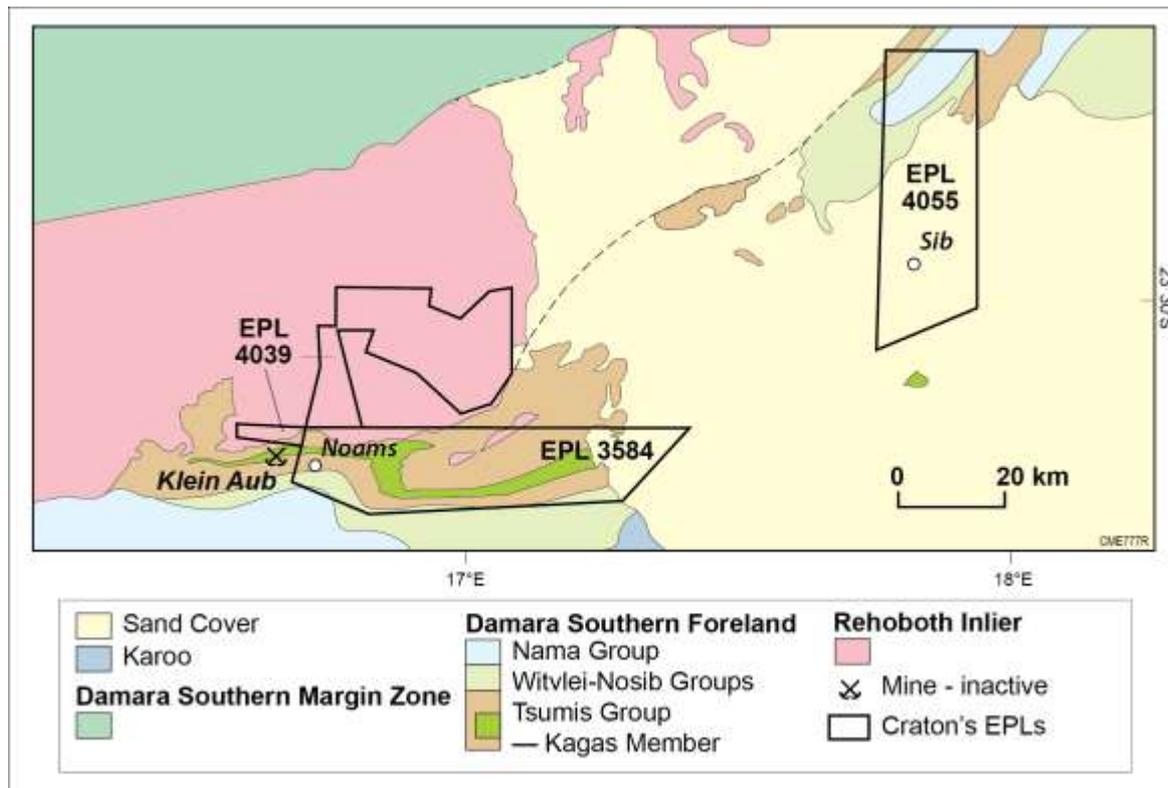


Figure 6. Craton's Kalahari Copperbelt tenements

### EPL 3584 (Rehoboth South)

Following the disappointing results from drilling in late 2011 and early 2012, the potential for discovery of shallow copper within the Kagas Member of the Klein Aub Formation has been downgraded. Craton is considering how best to define and test deeper targets.

At the Noams prospect, several outcrops of copper-bearing sandstone, up to 15m in width, lie along a target zone several kilometres in length. The potential for acid-soluble copper was emphasised by Denver-based geological consultant, Dr Jon Thorson, who visited the prospect with Craton geological staff during September 2012. The Company plans completion of ground magnetics, geological mapping and surface sampling ahead of a preliminary drilling programme.



*Figure 7. Karl Hartmann at Noams copper prospect, September 2012.  
Note green oxide copper staining*

#### **EPL 4039 (Nomeib)**

Regional and detailed soil geochemistry have identified four areas of copper anomalies. During July-August these areas were explored with 210 line km of ground magnetics, covering an area of 1100 Ha, and interpretation of hyperspectral imagery. This work has identified three copper-gold targets for further follow up in the field. Isolated grab samples have assayed up to 8.6 g/t Au, 109 ppm Ag and 1.4% Cu.

#### **EPL 4055 (Sib)**

At the Sib prospect, oxide copper is exposed as two zones in a number of shallow prospecting trenches along several hundred metres of strike within sandstone and pebbly sandstone of the Nosib Group. The project area presents a difficult exploration environment, where sand, gravel and calcrete obscure weathered bedrock. Previous drilling at the Sib prospect defined a small resource of oxide copper in sandstone.

During July-August, Craton completed a programme of 1274.5m of RC drilling in 33 shallow holes. All samples were analysed with the in-house XRF analyser and 260 samples have been analysed with ICP for Cu, Ag, S, Cu partial leach and density (Table 3).

Hole ID	From	To	Metres	ppm Cu	ppm Ag	Analysis
SRC002	8	17	9	9832	32	ICP
SRC005	17	24	7	9437	26	ICP
SRC009	24	33	9	9028	28	ICP
SRC017	6	15	9	8906	44	ICP
SRC019	2	17	15	8221	15	ICP
SRC023	1	9	8	13460	28	ICP
SRC024	1	9	8	9343	24	ICP
SRC026	2	9	7	9143	29	ICP

Table 2. Selected assay results from Sib drill holes

The drilling shows a thin (up to 15m thickness) northeast-trending sub-horizontal deposit, largely at shallow depth. Figure 8 outlines that portion of the deposit which could perhaps be mined in a shallow (< 35m depth) pit. Based on the analytical results, the resource potential is estimated at 1.1 million tonnes at 0.8% Cu and 20 ppm Ag (at a cut-off grade of 0.25% Cu). Initial indications, from copper partial leach results, are that around 80% of the copper could be recovered in an acid leach operation. Samples have been selected for bench-scale metallurgical testing.

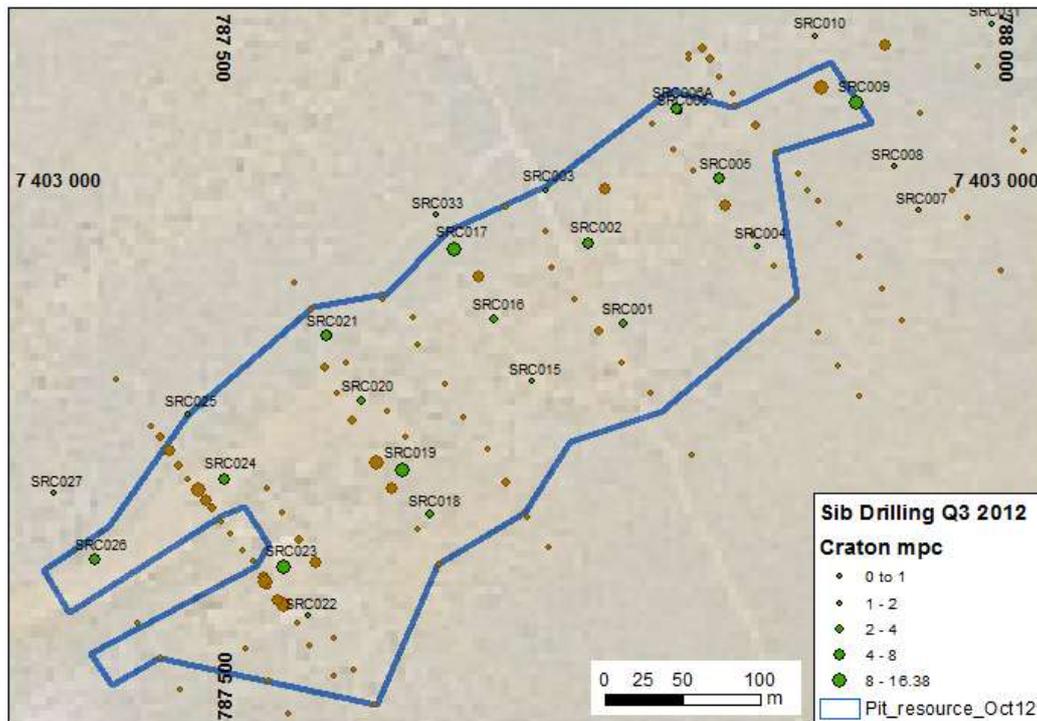


Figure 8. Outline of the Sib resource potential shallower than 35m. Craton's drill holes are shown in green and previous holes in brown



*Figure 9. Field examination of copper mineralisation exposed in a small trench at Sib, September 2012. Dr Jon Thorson is at left*

From the drilling to date, there is no indication of a more substantial shallow copper deposit. However, the deposit lies in the crest of a northeast-trending anticline, suggesting that there could be potential for a larger tonnage at depth along the anticline axis.

Planned work during the next quarter includes:

- Review of geological and geophysical data to determine geological controls on the deposit;
- Mineralogical studies;
- “Order of magnitude” metallurgical, resource, mining and financial studies to test the viability of mining a small deposit.

## **KAMANJAB PROJECT**

The Namibian Ministry of Mines and Energy issued its intention to grant EPL 4296 (Tzaus) and EPL 4297 (Vaalberg). The terms and conditions have been accepted by Craton, which received the licences on 11 October 2012.

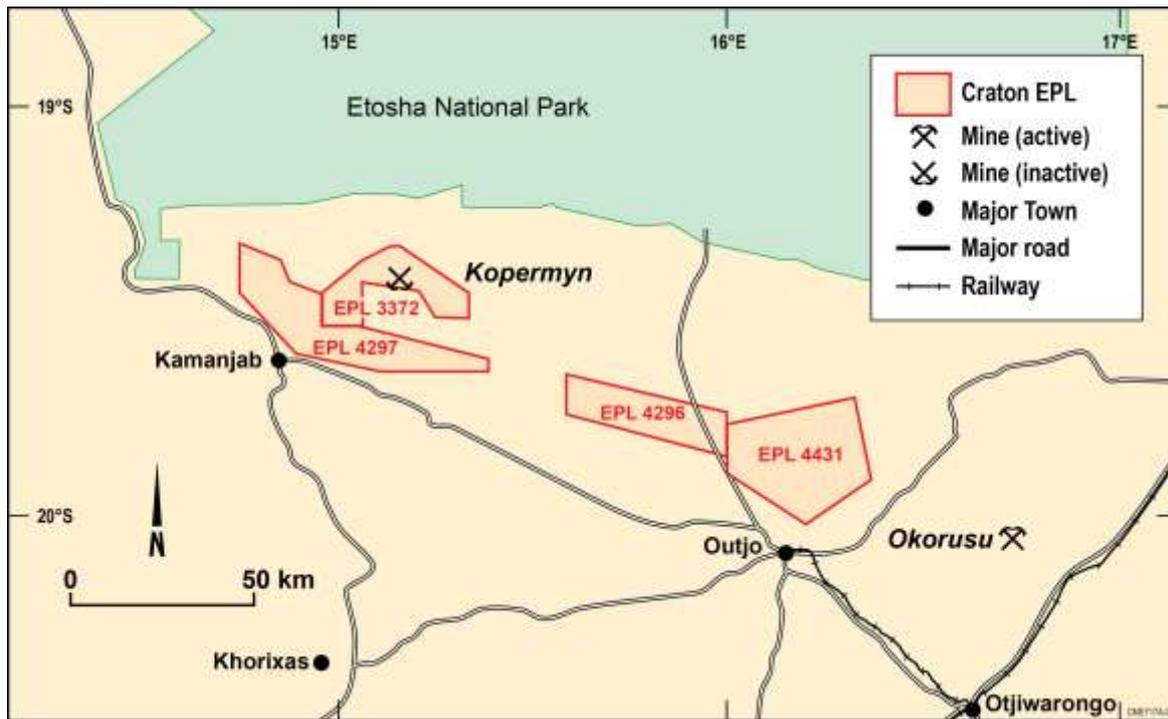


Figure 10. Kamanjab Project tenement position

#### **EPL 4431 (Tzamin)**

During the 1960s, drilling at the Tzamin prospect intersected copper-silver mineralisation in three zones within the upper part of the Nosib Group, the lowermost unit of the Neoproterozoic Damara Sequence.

Craton carried out detailed geological mapping, soil geochemistry and a ground magnetic survey during the 2011-2012 year and, during the September 2012 quarter, drilled 20 shallow RC holes, totalling 1453m. These holes showed the presence of minor copper, the best intersections being 5m at 0.56% Cu, 4m at 0.52% Cu and 2m at 1.21% Cu. (Note: These are XRF analyses, not high quality ICP assays.) Based on these results, no significant extension to the known deposit can be expected.

Regionally, soil sampling, termite mound sampling and geological mapping continued during the quarter.

#### **EPL 3372 (Kopermyn)**

The Kopermyn deposit is hosted by sandstone and conglomerate of the Nosib Group. Previous exploration by Craton had identified extensively developed but low grade copper concentrations along strike from the Kopermyn deposit in both the Nosib Group and in the overlying mixed carbonate-clastic strata of the Ombombo Subgroup of the Otavi Group.

After signing the Kopermyn Farmin and Joint Venture Term Sheet in July 2012, High Power Exploration ('HPX') re-interpreted the regional magnetic data then, using the recently-

commissioned 'Typhoon' system, carried out a deep induced polarisation ('I.P.') survey designed to identify possible sulphide mineralisation at depth below barren cover strata. The conceptual target was sulphide-bearing strata of the Ombombo Subgroup and Nosib Group below younger units of the Otavi Group - the Tsumeb Subgroup and the underlying Abenab Subgroup.

The initial gradient array survey, covering 112.7 km<sup>2</sup>, identified an I.P. chargeability feature which was followed up with a detailed 3D I.P. survey covering 10 km<sup>2</sup> (Figure 11).

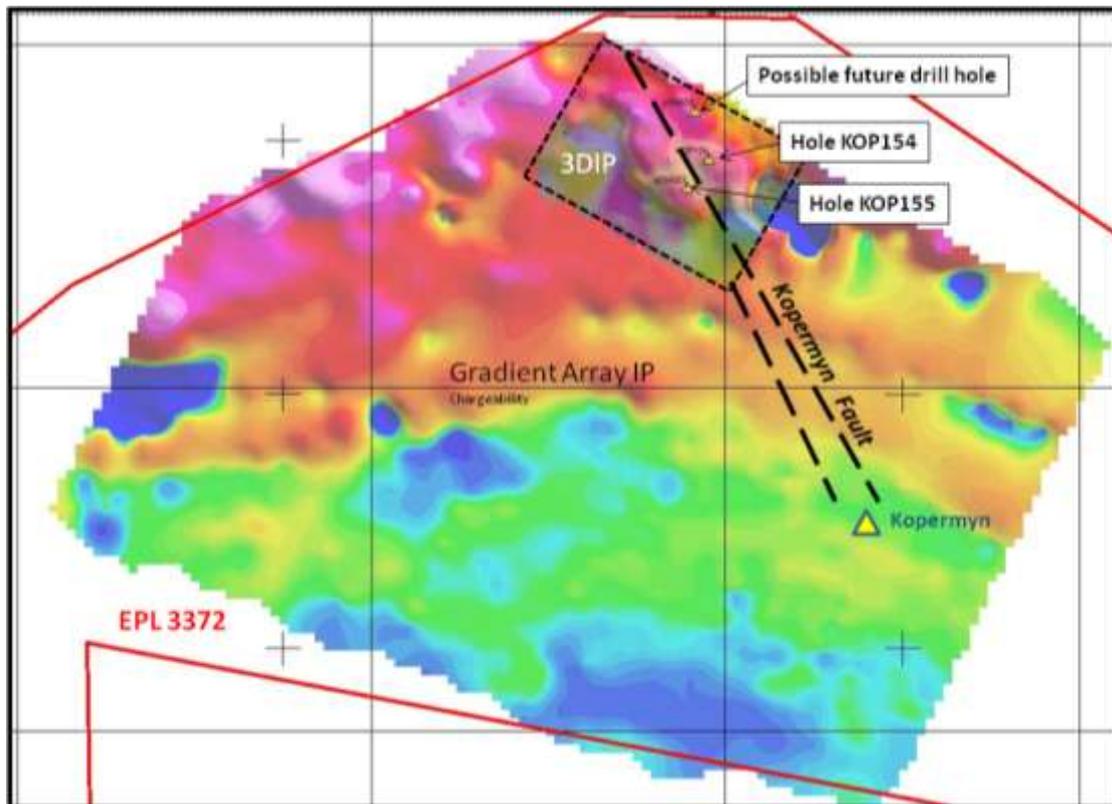


Figure 11. Kopermyn: Results of the gradient array I.P. survey with the detailed 3D I.P. inserted in the north

The survey identified a target ranging in depth from 120m to as much as 600m. From the geophysical data, geological interpretation produced the sketch section as shown in Figure 12.

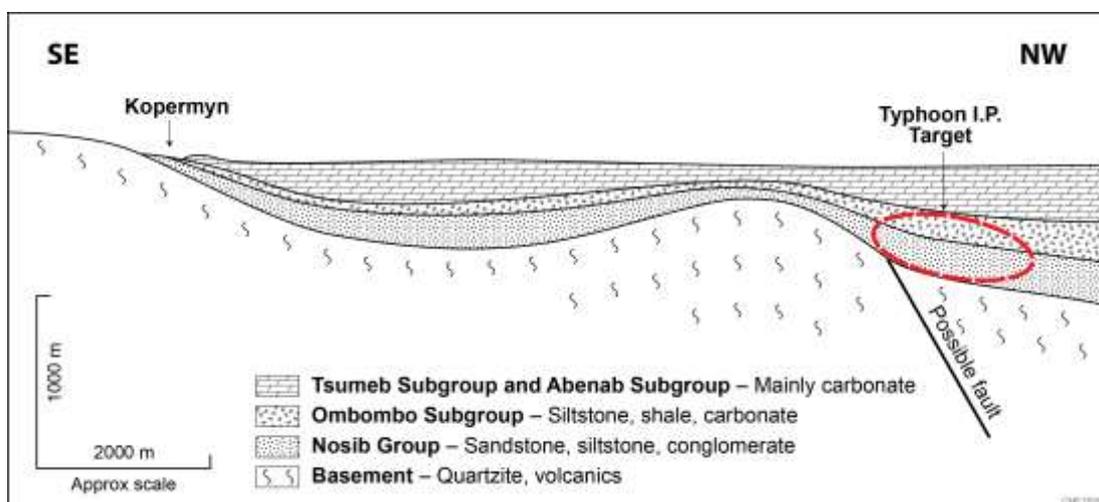


Figure 12. Sketch section showing interpreted geology and 'Typhoon' I.P. target prior to drilling

This target was tested with a deep drill hole (Hole KOP154) which was pre-collared by RC drilling to 150m and deepened by NQ diamond drilling to 729m. The hole intersected near-horizontal strata of the Tsumeb Subgroup to 190m depth, overlying the Abenab Subgroup. Towards the bottom, the hole entered the Ombombo Subgroup. The hole showed that the depth to the top of the target strata - the Ombombo Subgroup and Nosib Group – is considerably greater than interpreted in Figure 12.

KOP154 intersected several pyrite- and pyrrhotite (FeS)-bearing zones, mainly within shaly components of the stratigraphy; these provide an explanation for the I.P. anomaly. Minor disseminated covellite (copper sulphide - CuS) occurs at about 362m depth and some galena (lead sulphide – PbS) is evident at about 630m depth. The core will be cut and sampled.

A second drill hole (KOP155) has been sited about 600m southwest of KOP154. This position targets a lower order, but shallower, IP anomaly, anticipated to be in an up-dip and up-faulted position. A third possible drill hole site has also been identified (Figure 11).

#### **EPL 4296 (Tzaus) and EPL 4297 (Vaalberg)**

Planned work on the two new licences includes:

- Completion of an environmental management plan;
- Compilation and review of data on previous exploration;
- Assessment of sediment-hosted copper potential along the base of the Damara Sequence;
- Assessment of the potential of known lead-zinc occurrences at Vaalberg and Gelbingen;
- Soil geochemical surveys on the basal Damara Sequence.

#### **EPEMBE PROJECT**

As noted previously, the investment in African Mining Capital ('AMC') secures IBML the option to earn a 51% stake in the Epembe tantalum-niobium (Ta-Nb) project. During September, Craton staff carried out a field reconnaissance of the project. The project is within EPL 3299, held by AMC through a Namibian-registered subsidiary, and located in northwestern Namibia, about 600 km northwest of Windhoek and 200 km northwest of Craton's Kopermyn project.

The Epembe deposit is hosted in a northwest-striking, steeply southwest-dipping dyke of carbonatite, 10 km long and 200m - 400m wide, which outcrops as a line of low but rugged hills. Carbonatite is an unusual igneous rock consisting mainly of the mineral calcite (calcium carbonate - CaCO<sub>3</sub>), with subordinate amounts of aegirine (a sodium pyroxene), feldspar, apatite (a phosphate mineral) and a number of minor minerals, including pyrochlore which contains concentrations of tantalum, niobium and uranium.

The dyke is a composite body, composed of syenite (a felsic igneous rock) and several phases of carbonatite; some of these are barren and some contain pyrochlore. Field

inspection shows mineralised zones ranging from < 1m up to 25m in width. The high grade zones typically have grades of 250 ppm Ta<sub>2</sub>O<sub>5</sub>, 900 ppm Nb<sub>2</sub>O<sub>5</sub>, 150 ppm U<sub>3</sub>O<sub>8</sub>, and with minor P<sub>2</sub>O<sub>5</sub> (in apatite). Surface samples show grades up to 1500 ppm Ta<sub>2</sub>O<sub>5</sub>, 2770 ppm Nb<sub>2</sub>O<sub>5</sub> and 1800 ppm U<sub>3</sub>O<sub>8</sub>. Limited drilling confirms the surface sampling results.

Exploration of the prospect is at an early stage and no resource estimations have been carried out. Under the terms of the Investment and Farm-In Agreement dated 12 September 2012, IBML will carry out a due diligence assessment of the project over a period of six months, prior to making a decision on whether to proceed with an exploration joint venture on the project.



*Figure 13. Epembe project: Low ridge formed by carbonatite dyke*

## **AUSTRALIAN PROJECTS**

### **Endolithic Resources Pty Ltd**

The Company has commenced compilation and review of previous exploration in the recently-granted EPM 18306 (Gereta) in the Mount Isa district.

### **Maranoa Resources Pty Ltd**

The planned ground electro-magnetic ('E.M.') survey in EPM 14260 (Darkwater) is expected to commence during October 2012.