# ASX RELEASE 21 October 2015

**ASX Code: POZ** 



## **QUARTERLY REPORT**

Period Ending 30 September 2015

# **Summary:**

### **Highland Plains Phosphate Project, Northern Territory**

**POZ 100%** 

- The Company continues to explore various options for the commercialisation of the Highland Plains Phosphate Project in the Northern Territory, with a view to attracting investment capital to further develop the project.
- The Highland Plains deposit is only 68km west of the Century Zinc Mine which utilises a slurry pipeline to the coast. Century has stated it plans to end all production and processing in 2015, this potentially frees up the pipeline for other uses.

## Laverton Gold Project, WA

**POZ 100%** 

- 100% interest acquired over 44.6 km² in the highly-endowed Laverton gold district, with defined targets 2.3km east from the Granny Smith gold mine.
- Excellent low-cost opportunity for gold discovery near operating mill.
- Maiden drill program on track to commence this calendar year.

#### Blina Diamond Project, Ellendale WA

**POZ 100%** 

- Acquisition of 100% of the Blina Diamond Project in the Ellendale Region of Western Australia.
- Terrace 5 alluvial prospect covers 40km strike of diamondiferous gravels.
- Includes historic bulk sampling of 40,613 cubic metres which recovered 1,432 carats
  of diamonds at a grade of 3.53 carats per hundred cubic metres and an average
  stone size of 0.42 carats. This included fancy yellow diamonds for which the Ellendale
  Field is renowned.

### Musgrave Cu-Ni-PGE Project, WA

**POZ 100% (80% under Option)** 

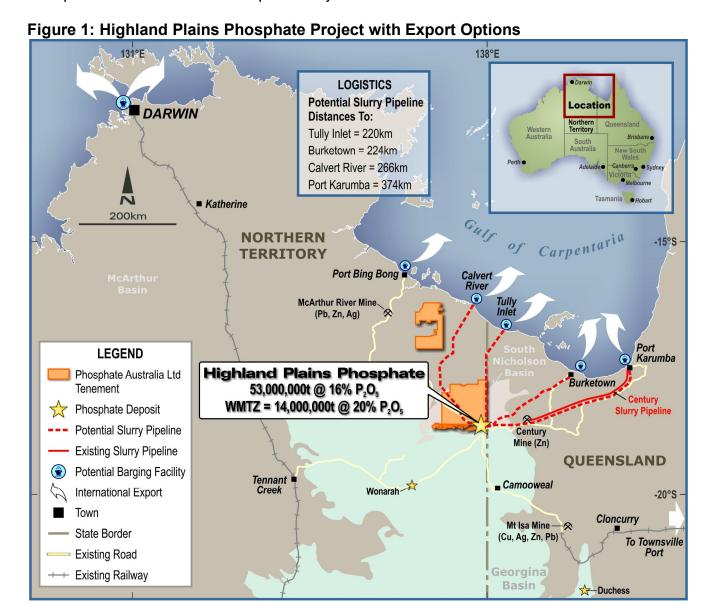
- The Musgrave Project is currently operated (under option) by ASX listed PepinNini Minerals Limited (PepinNini), an established Musgrave explorer.
- Reconnaissance vacuum regolith drilling of prospective nickel-copper sulphide and PGE targets completed. Six hundred and twenty two (622) vertical holes were drilled using the PepinNini's vacuum drill rig to an average depth of 5.1m for a combined total of 3.170m.
- Five prospect areas returned vacuum soil samples with anomalous geochemical results. Evaluation is ongoing.



## 1.0 Highland Plains Phosphate Project (Northern Territory) Update POZ 100%

The Highland Plains Phosphate Project in the NT has a JORC Code (2004) compliant Inferred Resource of 53 million tonnes at 16%  $P_2O_5$  (POZ ASX release dated 31 March  $2009^A$ ).

The Company is actively seeking partners for this project which is 100% owned by Phosphate Australia and has no private royalties.



#### 2.1 Highland Plains Scoping Study

Last quarter, the Company initiated an expert's scoping study for Highland Plains with a view to attracting investment capital to further develop the project.

Of particular interest to this scoping study is the Century Zinc Mine. This mine is only 68km east of the Highland Plains deposit (Figure 1), it has mains power, a full beneficiation plant and utilises a slurry pipeline to transport its product from Century to Port Karumba on the coast.



At Port Karumba there are existing port facilities including a slurry de-watering system, bulk storage and operational barging, currently being utilised for zinc concentrate.

Century has stated it will end all production and processing in 2015. POZ has considerable interest in the Century infrastructure as one possible solution to greatly reduce the capital requirements needed to develop Highland Plains. As such, the Company is actively seeking investors who have an interest in financing the potential use of this infrastructure. The recent falls in the Australian dollar are seen by the Board as adding further operational cost advantages to the Highland Plains project.

The scoping study has now been completed. As the Study is based upon an Inferred Resource at Highland Plains, the Company is not able to publicly release the information due to ASX restrictions. However, the scoping Study has enabled the Company to focus on utilisation of the Century slurry pipeline and infrastructure as a means to most beneficially develop the project.

### 2.0 Laverton Gold Project, WA: Acquisition

During the quarter, Phosphate Australia Limited (ASX:POZ, Phosphate Australia) announced the acquisition of the Laverton Gold Project, 10 km southeast of Laverton in the highly-endowed Mount Margaret district of Western Australia. The tenements are 2.3km east of Granny Smith gold mine (plant capacity 3.5 Mtpa).

The project was pegged by the Company at minimal cost and has no private royalty obligations. The Laverton Project consists of two tenements with a combined area of 44.6 km<sup>2</sup>. The main tenement has recently been granted.

Recent field reconnaissance trip to Laverton Gold Project by POZ geologist Michael Denny and POZ Commercial Manager Yaxi Zhan. Historic workings and drilling on E38/3038.



#### 2.1 Laverton Project Drill Targets

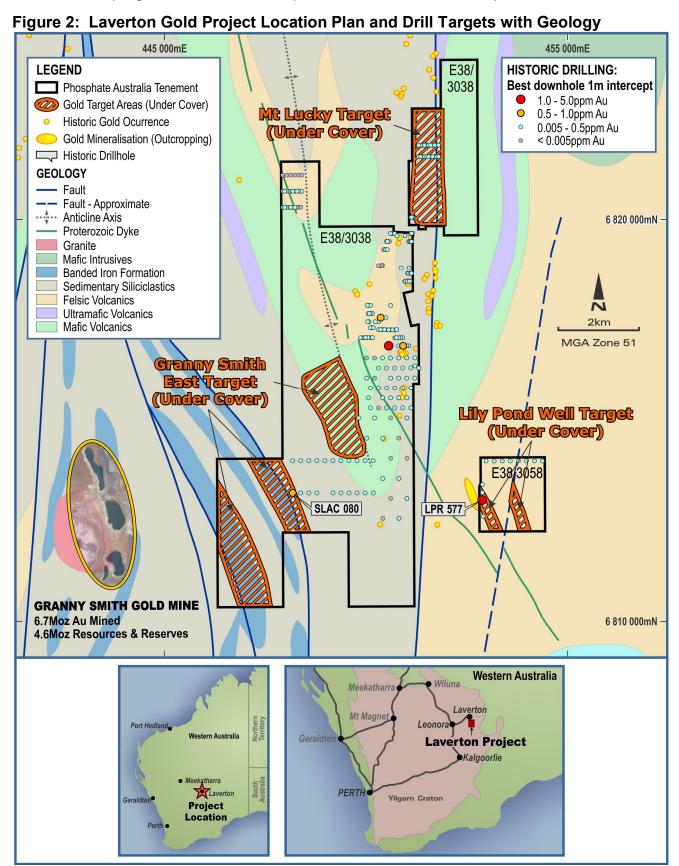
POZ has identified a series of under-cover gold mineralisation targets (Figure 2) within the tenements with no recorded historic drilling and no drilling visible on aerial imagery.

 Granny Smith East ('GSE') Prospect: fault-bounded sediment-BIF and mafic targets to the east of Granny Smith mine. These targets are under laterite and transported cover and almost entirely untested by historic drilling. A single drillhole (SLAC080) tested the eastern margin of the central target and returned 2m @ 0.57g/t Au from 33m to EOH (Figure 2).



 Mount Lucky: A continuation of the north-south regional fault which hosts the Mount Lucky group of mines. Historic drilling has tested only 300 metres of this 3km target, which is under shallow lateritic cover.

Permitting to drill has now been granted, the clearing of drill lines will commence shortly and a maiden drill program is due to be completed before the end of the year.



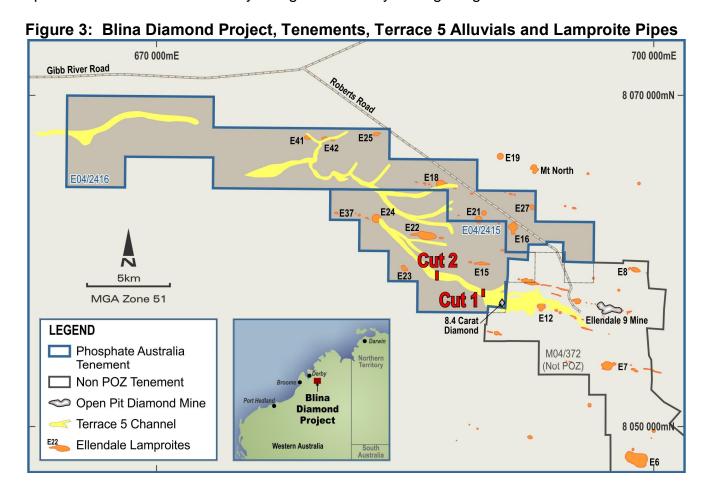


### 3.0 Blina Diamond Project, Ellendale WA

**POZ 100%** 

Subsequent to the quarter, POZ announced the acquisition of the Blina Diamond Project in the Ellendale Diamond Province of the Kimberleys Region, Western Australia. The project is 100% owned by POZ and has no private royalty obligations. The Blina Diamond Project consists of two POZ tenement applications with a combined area of 161 km² situated 100km east of Derby.

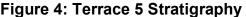
A significant amount of historical exploration work within the project area includes geophysical surveys, geochemical sampling, aircore drilling, Bauer drilling and bulk sampling operations. The data is currently being assessed by POZ geologists.

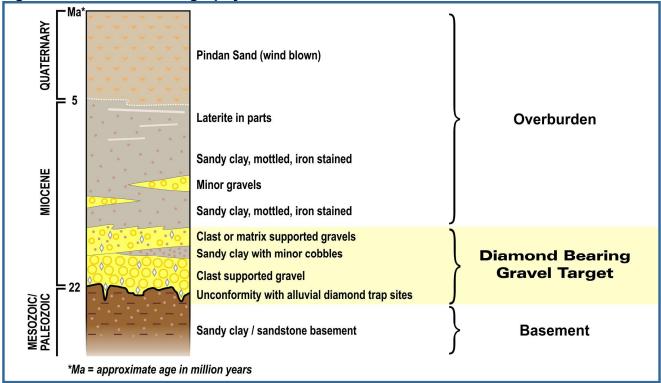


## 3.1 Terrace 5 Alluvial Diamond Prospect

Central to the Blina Diamond Project is a diamondiferous palaeo-channel, discovered in 1995 and named Terrace 5 (Figure 3). This channel has been tracked over a distance of some 40km and drains the central section of the diamondiferous Ellendale lamproite field. Gravels from this system are characterised by containing significant concentrations of relatively large diamonds<sup>2</sup>. It is likely that there are multiple lamproitic sources for these diamonds that remain to be identified.







Terrace 5 was once a major alluvial system with channel widths from 200-500m. Gravels (where present) are variable, but average about one metre in thickness. Diamonds recovered from the gravels are considered large, with an average stone size of around 0.42 carats. Most stones are of gem quality. The largest diamond recovered to date from Terrace 5 weighed 8.44 carats (from Pit 82)<sup>6</sup>, with stones larger than two carats common.<sup>1</sup>

### 3.2 Terrace 5 Bulk Sampling Program 2005

Any of the following which is italicised is taken from statutory reports as referenced.

During 2005, two large cuts were excavated from within Terrace 5 (Cut 1 and Cut 2) as part of a program aimed at recovering sufficient diamonds to provide a 'run-of-mine' valuation for the Terrace 5 production. The Government Mines Department decided the bulk sampling operations be considered "trial mining"<sup>6</sup>.

All samples were processed through Blina's 50 tonne per hour DMS processing plant. This plant was built by Mine Plant Constructions in May 2005, and commissioned in early July. Concentrate from the samples was processed at KDC's Recovery section using Flowsort X-ray machines, with hand-sorting of the final product.<sup>3</sup>

#### 3.3 Geology of Bulk Sample Zone

At Cut 1 and Cut 2. the overburden (waste) consists of Quaternary Pindan (wind-blown dune) Sand, then Miocene clays, sands and sandy clays with minor lateritic horizons. Below these lie the Miocene diamondiferous gravels. Below the gravels lies the unconformable basement (bedrock) consisting of Mesozoic and Paleozoic sandstones and siltstones. This unconformity surface at the base of the gravels is the most prospective area for diamonds, especially within natural trap sites such as gutters or potholes.



## 3.4 Bulk Sampling Test Results from Cut 1 and Cut 2

A total of 72,050 tonnes was reported as being mined and treated. This equates to 40,613 cubic metres. The average grade from cut 1 was 4.36 carats per hundred cubic metres (ct/100m³) and from Cut 2 a grade of 2.71 ct/100m³.

An overall average grade was 3.53 ct/100m<sup>3</sup> with an average stone size of 0.42carats. A total of 1,432 carats were recovered from the two cuts.

Table 1: Summary of Bulk Sampling Results Cut 1 & Cut 2

Cut	Volume (m³)	Tonnes (t)	Size Distribution*		Number Diam-	Total Carats	Average Size (ct)	Grade ct/100m <sup>3</sup>	Grade ct/100t	Largest Diam-
			+3.35mm	-3.35mm	onds					ond ct
C1	22,006	40,445	676	1,698	2,363	959.2	0.41	4.36	2.37	5.92
C2	18,607	31,605	336	757	1,093	472.3	0.43	2.71	1.49	7.00
Total	40,613 <sup>A</sup>	72,050	1,012	2,455	3,456	1,432	0.42	3.53	2.00	7.00

<sup>\*</sup> Diamonds to 1.5-16mm range recovered for these samples

Due to restrictions within the JORC Code, POZ is not able to report the valuation placed on these diamonds. However, to ensure as full a disclosure as possible, the following information (which is publicly available via the ASX website<sup>2</sup>) is reproduced below:

The diamonds (recovered from Cut 1 and Cut 2) were largely consistent with typical Ellendale Field diamonds and contained a significant proportion of fancy yellow stones - particularly in the larger stone sizes. The diamonds were considered of high quality and have a larger stone size distribution than Ellendale 9. The diamond population is distinguished from Ellendale 9 material by the presence of a significant proportion of angular octahedral stones.<sup>2</sup>

The best result from Cut 1 was 7.34 carats per hundred cubic metres (sample block C1WB 008) and the largest stone size recovered was 5.92 carats (sample block C1CB004B).

The best result from Cut 2 was 4.62 carats per hundred cubic metres (sample block C2CB 005) and the largest stone size recovered was 4.63 carats (sample block C2CB001).

#### 3.5 Further Exploration Targets

Previous work has outlined a number of diamond bearing lamproite pipes on the tenement area. Data is currently being reviewed with a view to prioritising which pipes may be the most prospective for further sampling work.

In addition, geophysical and geochemical surveys have been previously conducted over the area and some new pipes were identified by KDC and BDI. There is the potential to discover further new pipes which may have only a minimal geophysical signature.

<sup>&</sup>lt;sup>A</sup> Includes Metallurgical and other bulk samples collected from the Cut 2 area for which volumes were not recorded. Diamonds to 1.2-14.0mm range recovered for these samples. All weights are pre-cleaning



#### 3.6 Ellendale Diamonds

The Ellendale diamond mining project on Mining Lease M04/372 (which adjoins POZ tenements, Figure 3) was until recently operated by Kimberley Diamonds Pty Ltd (KDC) a wholly owned subsidiary of Kimberley Diamonds Limited (ASX: KDL). On 1 July 2015, KDC was placed into voluntary administration by KDL.<sup>3</sup>

KDL reported (ASX Release dated 31 December 2014) that the Ellendale mine was the world's leading source of rare fancy yellow diamonds, contributing 'an estimated 50% of global supply'.<sup>4</sup>

With the recent closure of the Ellendale mine, this supply of fancy yellows has now ceased. The majority of the diamonds within the Terrace 5 prospect are almost certainly sourced from lamproite pipes within M04/372 and POZ believes Terrace 5 could be a potentially significant new source for these fancy yellow diamonds.<sup>2</sup>

#### 3.7 Ellendale Diamond Purchase

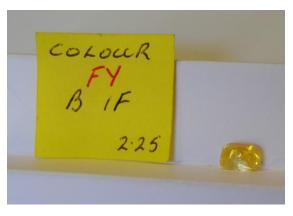
To assist in the search for new lamproite pipes, a parcel of diamonds was recently purchased from the administrators of KDC. This parcel includes some stones from the area currently covered by POZ tenements. These diamonds may prove useful in searching for new, as yet undiscovered, lamproite pipes.

The diamonds cost \$64,947 (plus GST), and remain an asset of the Company.

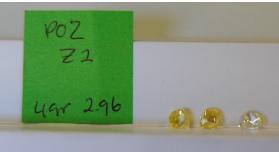
## Some of the Ellendale Diamonds Purchased by POZ



POZ Directors examine the recently purchased rough diamonds and associated exploration data.









Total diamond weight (in carats) written at bottom right of notes



NB: The diamonds pictured above were mined from the adjoining Ellendale Mining Lease M04/372 and were not mined from the POZ tenements. They are not representative of any 'run-of-mine'. Terrace 5 has been reported as containing a *'significant proportion of fancy yellow stones'* (para 2.3). This type of high quality rough is being targeted by POZ's Blina Diamond Project.

### 3.8 Blina Diamond Project Summary

The Blina Diamond Project is the kind of undertaking which interests POZ due to the following key factors:

- 1. The project is situated within a highly endowed diamond belt with excellent logistics and significant exploration upside.
- 2. A considerable amount of historic exploration has been done on the POZ permits and the Company has access to this data.
- 3. The potential for finding high value fancy yellow diamonds is very high.
- 4. Any diamonds produced would be conflict free and could represent an opportunity for branding and premium pricing.
- 5. The setting up of an alluvial diamond mining operation would be relatively modest in terms of capital cost.
- 6. Acquisition costs were minimal.
- 7. The project is 100% owned and carries no private royalties.
- 8. Recent drops in the Australian dollar and oil prices also work in the project's favour.

Phosphate Australia is pleased with this acquisition and is now seeking permiting to explore the project. For the full set of results including JORC Table 1, see POZ ASX release dated 9 October 2015 click here.

### 4.0 Musgrave Project, WA

**POZ 100% (80% under option)** 

The Musgrave Project lies in the relatively unexplored Musgrave Province of Western Australia. The project area consists of two 100% POZ held tenements, E69/2864 and E69/3191 (both granted) for a total area of 785.7km<sup>2</sup>.

The project is currently operated (under option) by ASX listed PepinNini Minerals Limited (ASX: PNN), an established Musgrave explorer. POZ are 20% free carried until completion of a bankable feasibility study or expending \$15 million on the Tenements (at which point POZ becomes a contributing party). At any point after the formation of the Joint Venture, POZ may elect to convert its 20% interest to a 1% gross revenue royalty.

The Spinifex Range Project (E69/2864) has potential for polymetallic nickel-copper-vanadium-titanium(Ti)-platinum group elements (PGE) mineralisation associated with large mafic intrusions. The tenement block covers part of the Jameson Intrusion and is located within 50 kilometres of the Nebo-Babel and Succoth mineral deposits. PNN are exploring for magmatic nickel-copper sulphides and PGE's.

During the quarter, PNN completed sub-surface soil geochemical vacuum drilling of Ni-Cu-PGE targets across the northern part of the E69/2864. The activities were designed to examine geochemical distributions where an interpretation of the detailed airborne magnetic and historic exploration results suggested untested potential for nickel-copper sulphide or PGE mineralisation.



A total of six hundred and twenty two (622) vertical vacuum holes were completed using PepinNini's drill rig to an average depth of 5.1m for a combined total of 3,170m. Soil cuttings collected from bottom-of-hole were submitted for multi-element geochemical analyses.

Five prospect areas (Figure 6) returned vacuum soil samples with anomalous geochemical results:

Canaan East
Sword Blade
Canaan Cu-Ni Trend
West Lirra Road
PGE Reconn
685ppm Ni, 1020ppm Cu, 241 ppb (Pt+Pd+Au)
599pm Ni, 721ppm Cu, 54 ppb (Pt+Pd+Au)
531ppm Ni, 721ppm Cu, 143 ppb (Pt+Pd+Au)
284ppm Ni, 561ppm Cu, 163 ppb (Pt+Pd+Au)
1,140ppm Ni, 3,040ppm Cu, 294 ppb (Pt+Pd+Au)

The most encouraging Ni-Cu and PGE results were returned from the 'PGE Reconn' prospect where five traverses of close spaced holes were completed across a 2.5 kilometre section of magnetic ridge interpreted to represent enriched basal PGE-magnetite mineralisation (Figure 7). The variable results up to 140ppb Platinum(Pt), 151ppb Palladium(Pd), 107ppb Gold(Au), 0.11% Ni and 0.3% Cu confirm the interpreted geological setting of this feature.

The "Canaan East" prospect also returned encouraging soil geochemistry including up to 685ppm Ni, 1020ppm Cu, 109 ppb Pt, 101 ppb Pd and 35 ppb Au across a magnetic feature interpreted to represent a small intrusive "feeder" structure (Figure 8). Trace sulphides were observed in some vacuum samples across this target.

The variable results from the closely spaced samples suggest that limited sections of the bedrock sequence do contain Ni-Cu, Pt-Pd and Au mineralisation at a small scale. However, the ground geophysical surveying Electromagnetic (EM) undertaken by PNN at the Canaan East prospect, and historic sampling, geophysics (EM and Induced Polarisation) and drilling work undertaken by Western Mining Corporation(WMC) across the adjoining stratigraphy are not indicative of the presence of massive or disseminated magmatic sulphide systems.

Further integration of the anomalous results with the existing geophysical and geochemical data sets is ongoing to evaluate whether additional field investigations and bedrock drill testing will be pursued.

Ni-Cu & PGE targets

- Vscoum Drilling
Completed

- Vscoum Drilling
Comple

Figure 5: Regional Geology Musgraves Project (named 'Spinifex Range' by PNN)



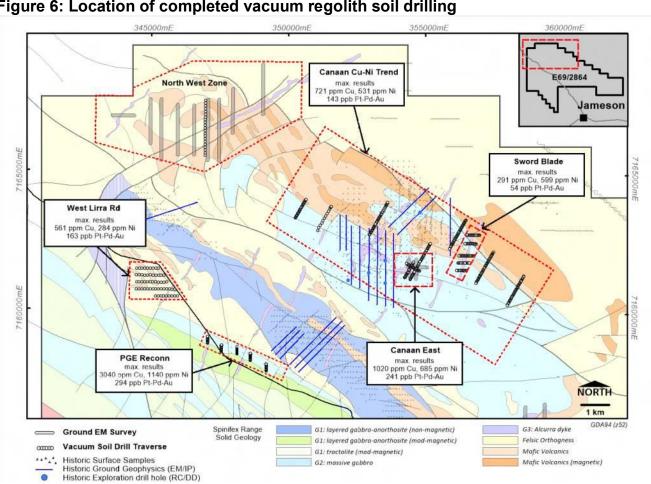
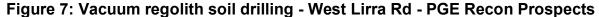


Figure 6: Location of completed vacuum regolith soil drilling



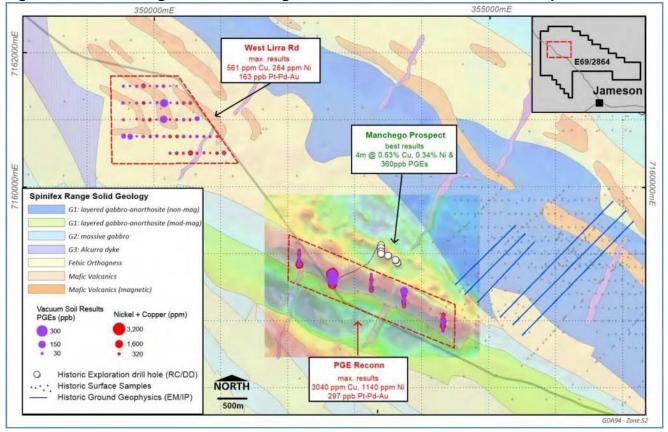




Figure 8: Vacuum regolith soil drilling - Canaan Cu-Ni Trend, Cannaan East and Sword Blade Prospects

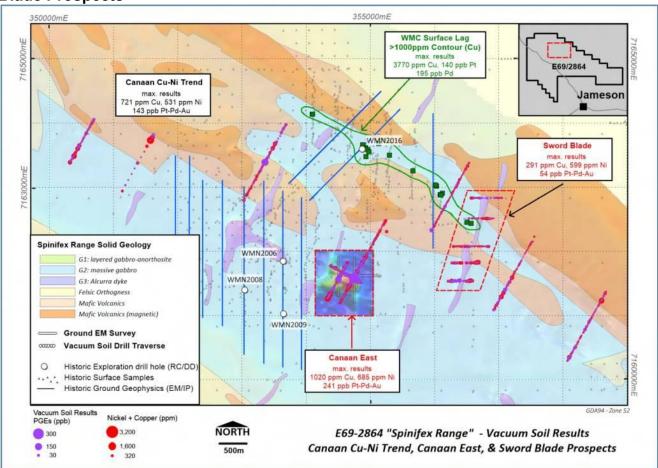


Figure and source text courtesy of Pepinnini Minerals Limited

For the full set of results including JORC Table 1, see PepinNini Minerals Limited ASX Release Dated 18 September 2015 <u>click here</u>

## 5.0 Horse Well Gold Project, Wiluna WA

**POZ 20%** 

POZ retains a 20% interest in E69/2820 which is free carried up to the completion of a bankable feasibility study. This tenement is a part of Alloy Resources Limited (ASX: AYR) Horse Well Gold Project which lies approximately 50km north-east of the major Jundee gold mine. This project is currently being explored by AYR (<a href="http://www.alloyres.com/projects-horsewell.php">http://www.alloyres.com/projects-horsewell.php</a>).

## 6.0 Summary and Outlook

During the quarter, the Laverton Gold Project tenement was granted and permitting to drill was secured. The maiden drill program is planned for completion before the end of the year.

The Company is still focused on delivering a commercial outcome for the Highland Plains Phosphate Project. With this in mind, Phosphate Australia's Commercial Manager Yaxi Zhan is currently on a roadshow in China to promote the Company's various projects including Highland Plains.



A considerable amount of work has been completed by the Company's partners in the Musgraves (PepinNini Minerals), and this project continues to provide exposure to a possible discovery in the region.

The acquisition of the Blina Diamond Project in the Kimberleys of WA is an exciting development for POZ and has considerable potential for the future.

The Company has a cash balance of \$3.3 million (30 September 2015).

Jim Richards Executive Chairman

Enquiries To: Mr Jim Richards +61 8 9422 9555

#### References

<sup>1&3&6</sup> Blina Diamonds NL, DME Report A72738. Period to 23 February 2006.

http://geodocs.dmp.wa.gov.au/common/searchAPI.do?cabinetId=2301&Report Ref=A72738

<sup>2</sup> Blina Diamonds NL, Annual Report 2006 to the ASX, Page 9.

http://www.asx.com.au/asxpdf/20061031/pdf/3zb17snfdslkj.pdf

<sup>3</sup> Kimberley Diamonds Limited, ASX Announcement dated 1/7/2015. http://www.asx.com.au/asxpdf/20150701/pdf/42zkbchk0938k5.pdf

<sup>4</sup> Kimberley Diamonds Limited, ASX Quarterly Report dated 30/10/2014. http://www.asx.com.au/asxpdf/20141030/pdf/42tb3nt44508lc.pdf

<sup>5</sup> Kimberley Diamond Company NL, DME Report A62589. Period to 23 Feb 2001 http://geodocs.dmp.wa.gov.au/viewer/multipageViewerAction.do?documentId=212199&viewMarkId=0&ct=true&at=none&btv=true&atv=false&vmtv=false&ac=ff0000&cabinetId=2301&pg=0&scl=64&bds=0|0|2560|3584

The information in this report that relates to previously reported exploration results is based on information compiled by Mr Jim Richards who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Richards is a Director of Phosphate Australia. Mr Richards 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 Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Richards consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The Information in this report that relates to Highland Plains Mineral Resources is based on information compiled by Rick Adams and Ted Hansen who are members of the Australasian Institute of Mining and Metallurgy. Rick Adams and Ted Hansen are directors of Cube Consulting Pty Ltd. and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a competent Person as defined in the December 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Rick Adams and Ted Hansen consent to the inclusion in this report of the Information, in the form and context in which it appears.

<sup>A</sup>The Company is not aware of any new information or data that materially affects the information included in the previous announcement (JORC 2004) and that all of the previous assumptions and technical parameters underpinning the estimates in the previous announcement/year have not materially changed.

# **Appendix A - Interests In Mining Tenements**

Table 1: Western Australia

Lease	State	Status	Held at end of quarter %	Acquired during the quarter %	Disposed of during the quarter %	Beneficial interests in farm-in or farm-out agreements at the end of the quarter
E04/2388	WA Aus	Withdrawn	0%	0%	100%	Withdrawn
E04/2415	WA Aus	Application	100%	100%	0%	Application
E04/2416	WA Aus	Application	100%	100%	0%	Application
E12/11	WA Aus	Application	100%	0%	0%	Application
E25/525	WA Aus	Application	100%	0%	0%	Application
E38/3036	WA Aus	Withdrawn	0%	0%	100%	Withdrawn
E38/3038	WA Aus	Granted	100%	0%	0%	Granted
E38/3058	WA Aus	Application	100%	0%	0%	Application
E52/3276	WA Aus	Application	100%	0%	0%	Application
E52/3316	WA Aus	Application	100%	0%	0%	Application
E59/2114	WA Aus	Withdrawn	0%	0%	100%	Withdrawn
E69/2820	WA Aus	Granted	20%	0%	0%	Joint Venture with Alloy Resources Limited
E69/2864	WA Aus	Granted	100%	0%	0%	PPN option to purchase 80%
E69/3191	WA Aus	Granted	100%	0%	0%	PPN option to purchase 80%
E69/3401	WA Aus	Application	100%	100%	0%	Application
E80/4935	WA Aus	Application	100%	0%	0%	Application
E80/4937	WA Aus	Application	100%	0%	0%	Application
E80/4953	WA Aus	Application	100%	0%	0%	Application



Table 2: Northern Territory

Lease	Mineral Field	Location	Status	Held at end of quarter %	Acquired during the quarter %	Disposed of during the quarter %	Beneficial interests in farm-in or farm-out agreements at the end of the quarter
EL25068	NT Aus	Highland Plains	Granted	100%	0%	0%	JIMPEC have a Joint Venture Option Agreement to
EL26604	NT Aus	Nicholson	Application	100%	0%	0%	acquire 80% of the iron ore and manganese rights
EL26645	NT Aus	Nicholson	Application	100%	0%	0%	
EL26646	NT Aus	Murphy	Application	100%	0%	0%	
EL26648	NT Aus	Nicholson	Application	100%	0%	0%	
EL26649	NT Aus	Nicholson	Application	100%	0%	0%	
EL26650	NT Aus	Nicholson	Application	100%	0%	0%	
EL27854	NT Aus	Manganese	Application	100%	0%	0%	JIMPEC have a Joint Venture Option Agreement to
EL27855	NT Aus	Manganese	Application	100%	0%	0%	acquire 80% of the iron ore and manganese rights
EL27856	NT Aus	Manganese	Application	100%	0%	0%	
EL28152	NT Aus	Nicholson	Granted	100%	0%	0%	
EL28153	NT Aus	Nicholson	Granted	100%	0%	0%	
EL28220	NT Aus	Nicholson	Application	100%	0%	0%	
EL30890	NT Aus	HP West	Application	100%	0%	0%	
EL30891	NT Aus	HP West	Application	100%	0%	0%	