

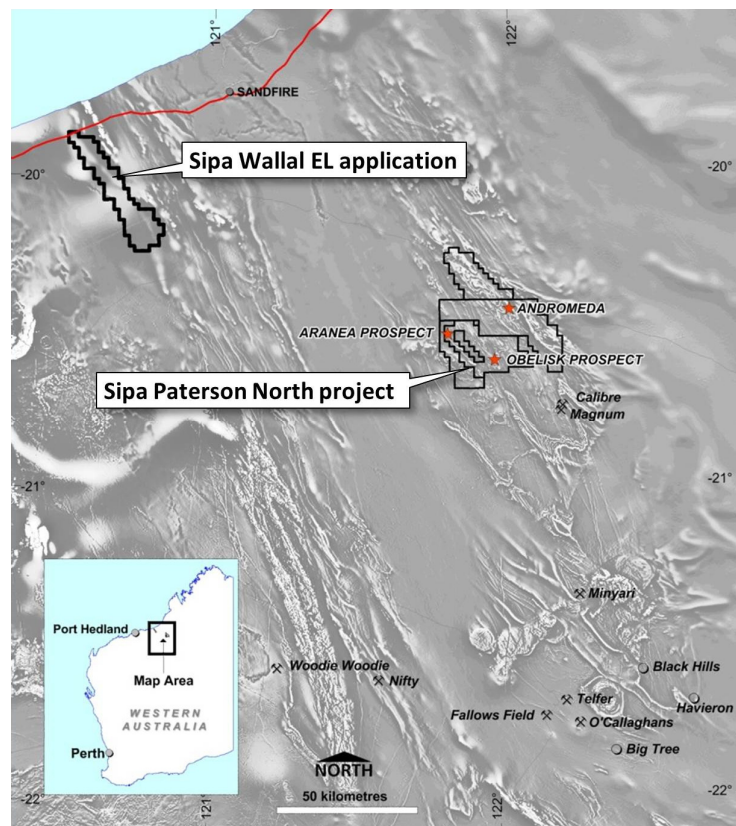


## Drilling advances in the Paterson and Uganda as Sipa secures major new Australian zinc project

### HIGHLIGHTS

#### **North Paterson, WA (Copper-Gold)**

- 510m diamond hole completed at Obelisk providing further important information which indicates the presence of a large and complex mineral system.
- Data compilation shows an extensive 5km by 1km mineralised footprint at Obelisk coincident with a gravity anomaly and broad zones of bedrock copper which remain open at depth.
- Modelling also shows that the main magnetic feature and peak gravity response is not fully explained by the drilling to date and requires more drilling to locate the source.
- Sipa further expands its strategic footprint in the Paterson with a new 390km<sup>2</sup> tenement application called Wallal, based on gravity modelling to cover the north-west margin of the Province – a potentially similar structural domain to Rio Tinto's rumoured Winu discovery.
- The tenement is bounded by Rio Tinto and Red Metal to the north and east, increasing Sipa's prospective Paterson land-holding to 1,632km<sup>2</sup>. **(Figure 1)**



*Figure 1. Sipa's expanded landholding with regional projects over magnetics 1VD.*

#### **Uganda, East Africa (Nickel-Copper)**

- Extensive gravity survey, soil sampling and 2,000+m of diamond drilling completed over three prospects under the US\$59M JV with Rio Tinto (Sipa as manager). Diamond drilling underway at Akelikongo with one hole completed and further drilling underway.



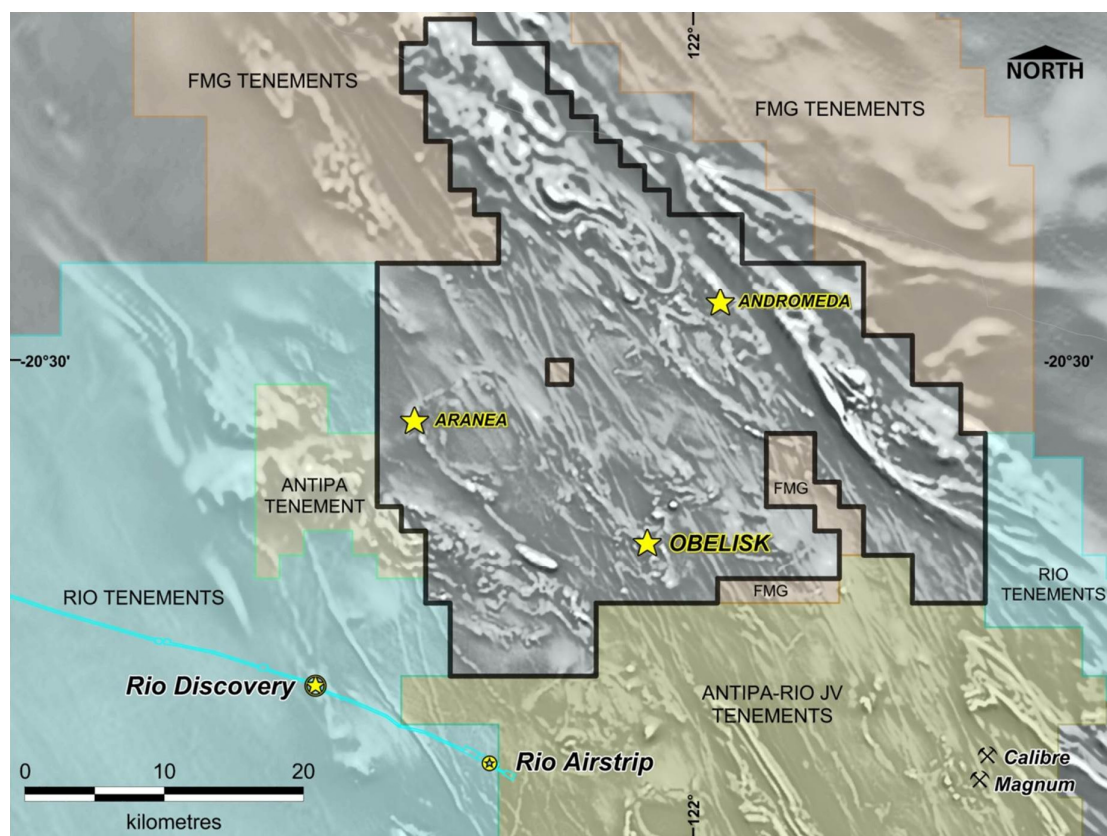
### **Barbwire Terrace, WA (Zinc-Lead) – New Licence Applications, 100% Sipa**

- Major new MVT-type zinc-lead project generated by Sipa in WA's Canning Basin, 150km south-west of Fitzroy Crossing.
- Previous work including geophysics and broad spaced drilling has been compiled with core assays highlighting some broad areas of anomalous zinc.
- A review of this core at the GSWA core library indicates that zinc-rich fluids did move south and deposit in Devonian carbonate rich rocks, similar to the mineralisation on the Lennard Shelf, with spot XRF assays of this core showing up to 2% Zn associated with marcasite in breccias.

### **Corporate**

- Underwritten Share Purchase Plan and Placement closed oversubscribed, raising \$3M to progress exploration in the Paterson Province as well as for generative activities and working capital.

### **Paterson North Project, Western Australia**



*Figure 2: Paterson North magnetics RTP image showing prospect locations.*

Deep diamond drilling completed during the quarter at the Obelisk prospect has intersected a style of alteration and mineralisation which has not previously been observed at the project and which is considered to be similar in style to large-scale iron-oxide copper-gold (IOCG) mineral systems.

The 510.5m diamond hole (co-funded by WA Government EIS grant) was designed to test the eastern chargeability anomaly identified in a single line pole-dipole IP survey also completed during the quarter.

The anomaly is located 300m east of the previously drilled and copper-mineralised IP gradient anomaly (Figures 3 and 4).



A zone of intensely hematite altered, red and oxidized granitic dykes and grey quartz veins was intersected between 390m and 404m down-hole at the edge of the IP anomaly (section shown in Figure 4).

The red granitic dykes are locally brecciated with red granitic clasts and a dark grey quartz matrix which contains fine chalcopyrite grains adjacent to the red granitic clasts (Figure 5).

Although the drill hole did not contain any significant reportable intercepts, character sampling for specific geological features of interest returned strongly anomalous copper and gold assays from this part of the hole of 1,630ppm copper and 83ppb gold.

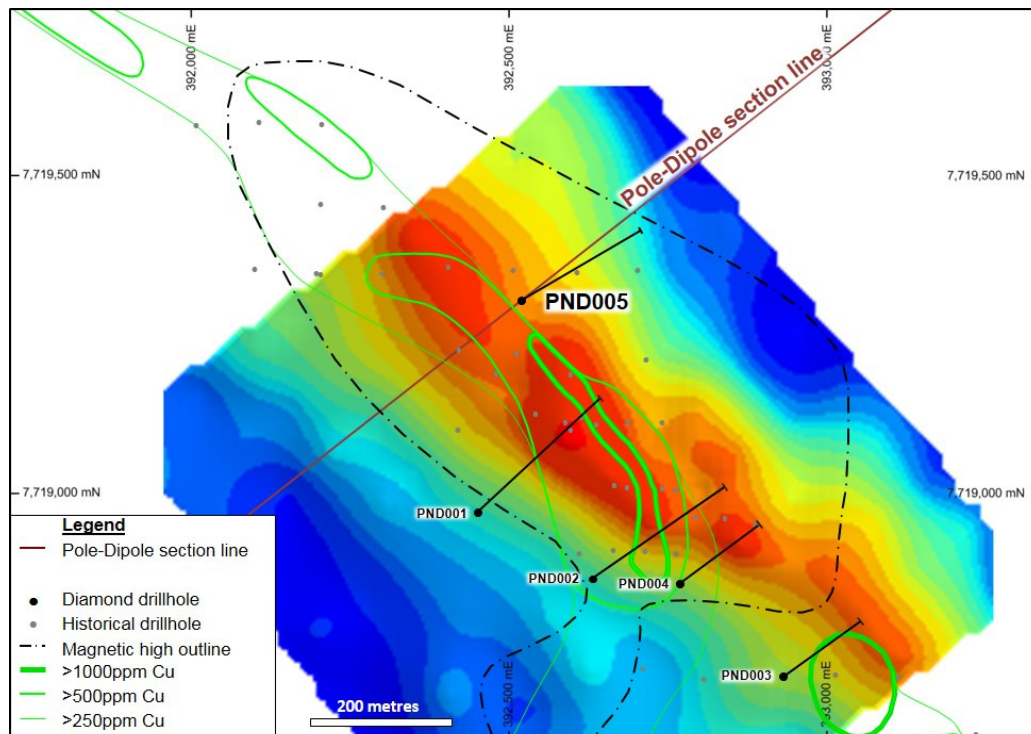


Figure 3: IP gradient array chargeability with the Pole-Dipole section and drill-hole shown. Copper contours represent average values within Proterozoic bedrock.

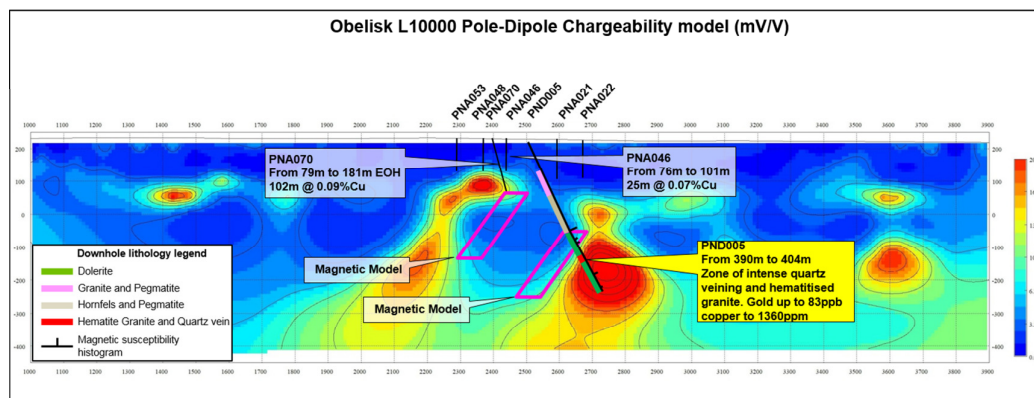


Figure 4: Pole-Dipole chargeability model section showing north-eastern deeper (about 400m below surface), stronger chargeable zone (30mV/V) drilled by PND005 and a south-western shallower (about 140m below surface) and slightly weaker chargeable zone (21mV/V).



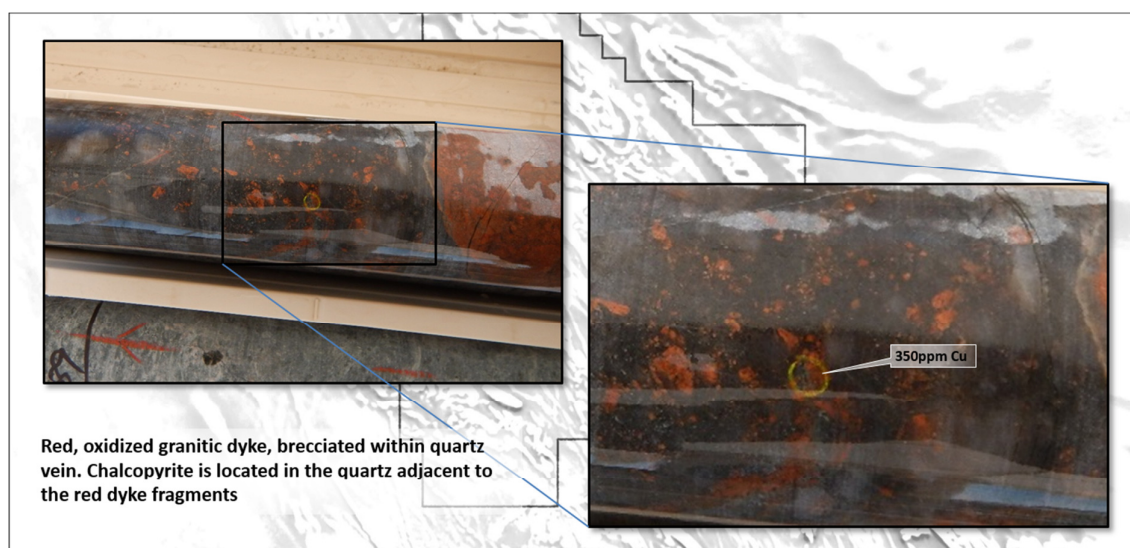
A program of pole-dipole IP geophysics completed during the quarter provided depth information on the anomalous domains along a 2D section – in contrast to gradient array IP, which produces only a map of anomalous zones with no depth or dip information.

Figure 4 shows the chargeability section of the pole-dipole survey. It contains two anomalous zones: a deeper, stronger chargeable zone in the north-east (about 400m below surface) with a chargeable response of 30mV/V; and a shallower zone in the south-west (about 140m below surface) with a slightly weaker chargeable zone (21mV/V).

It's clear from this geophysical information that the deeper, stronger chargeable zone targeted by PND005 was not intersected by the drill hole.

It is likely this anomaly represents the intense central part of the gradient array IP anomaly but does not extend as far as the drilling and that the 2D IP anomaly is detected off-section. Further pole-dipole IP lines are required to more accurately model the IP chargeability features in three dimensions to better target future drilling.

The shallower chargeable zone in the south-west corresponds to the main IP gradient array anomaly detected from the survey in 2017. The IP anomaly in this northern area has only been tested by very shallow Aircore and RC drilling, but is open to the end of the holes drilled and contains strong copper anomalism.



*Figure 5: Close-up of a zone of intensely hematite altered, red and oxidized granitic dykes and grey quartz veins. Chalcopyrite is located in the quartz adjacent to the red dyke fragments.*

The oxidised alteration encountered in the hole contrasts with the mineralisation intersected in earlier drilling, which is associated with biotite, quartz, pyrrhotite and chalcopyrite. The copper-mineralised alteration assemblage of biotite, quartz, pyrrhotite and chalcopyrite – as drilled in holes PND001 and 2 – is most likely represented by the magnetic high and the gradient array IP anomaly.

These two distinct styles of alteration and associated mineralisation suggests that Obelisk is a complex zoned system. Complexity and zonation of oxidized and reduced mineralisation is regarded as an indicator of enhanced prospectivity, as a change in oxidation state often leads to the precipitation of mineralisation.

Data compilation shows that the strong association of broad zones of bedrock copper anomalism associated with the large gravity anomaly, as defined by detailed ground gravity.

The zones typically occur from the Proterozoic unconformity to the end of each AC/RC hole in fresh bedrock. A number of strong geophysical features within this large anomaly remain to be tested by drilling, with further work planned for the 2019 field season. Figure 6 shows the widespread copper anomalism of the Obelisk Prospect using gravity and magnetic data as a base.

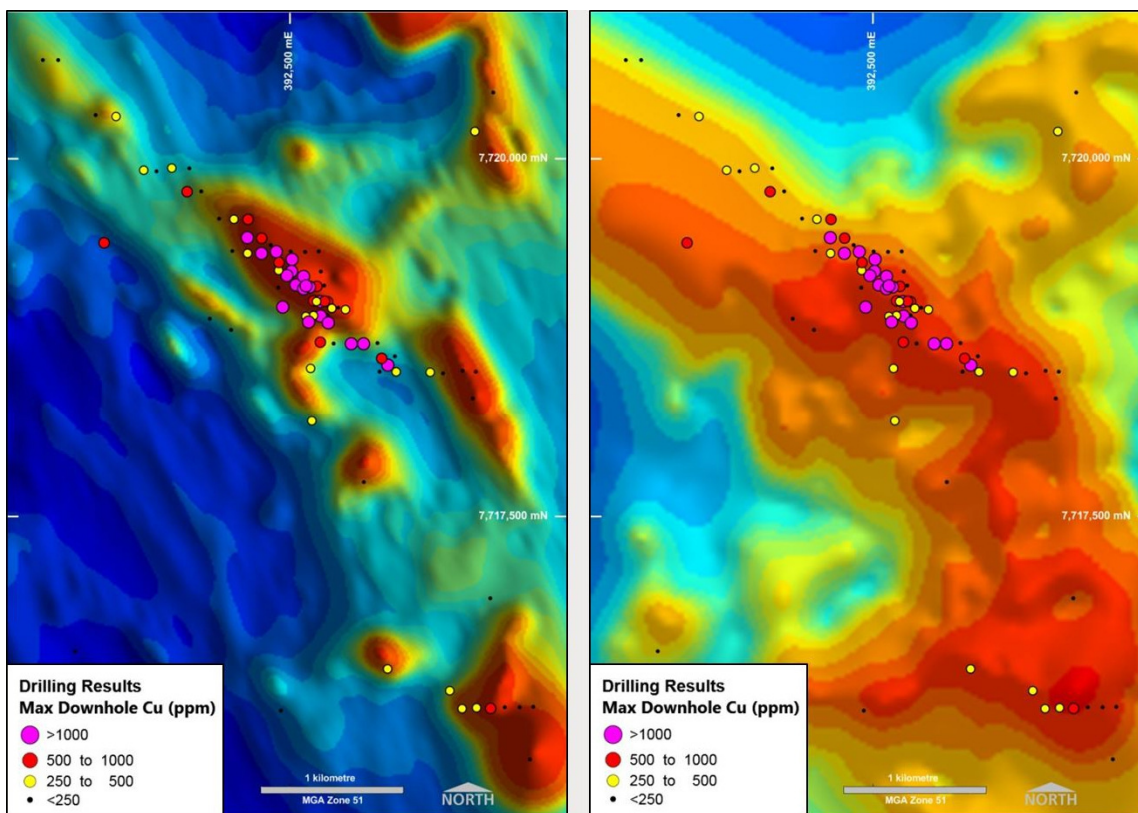


Figure 6: Magnetics RTP on left, Residual Gravity on right with all drilling showing best in hole copper ppm.

### Kitgum Pader Nickel-Copper Project, Uganda

The nickel-copper exploration program funded by Rio Tinto is continuing at the Kitgum Pader Base Metal Project in Uganda. The program is being managed by Sipa on behalf of its joint venture partner, Rio Tinto, which is currently earning a 51% interest in the project.

The program included the following activities for the quarter:

- **Regional gravity surveying:** A program of detailed ground gravity surveying commenced in mid-August and was completed by early December. The surveys were designed to provide three-dimensional data to determine the nature, shape and plunge of intrusions believed to be related to geochemically anomalous soils. The surveys covered four areas of nickel and copper anomalism and known ultramafic intrusions. Areas selected included Goma, Lawiyadul, Katunguru and Lugwa Jopudung prospects. The results assisted in defining the location of diamond drill holes to test for the presence of further fertile nickel sulphide-bearing intrusions (in addition to the Akelikongo and Akelikongo West intrusions) within the overall land-holding. (Figure 7).
- **Soil sampling:** Assessment of Sipa's extensive >70,000 pXRF soils database indicates that a number of anomalies remain open. In light of this information, additional tenements have been acquired with soil sampling underway over these areas and other tenements were rationalised on the basis of this data.

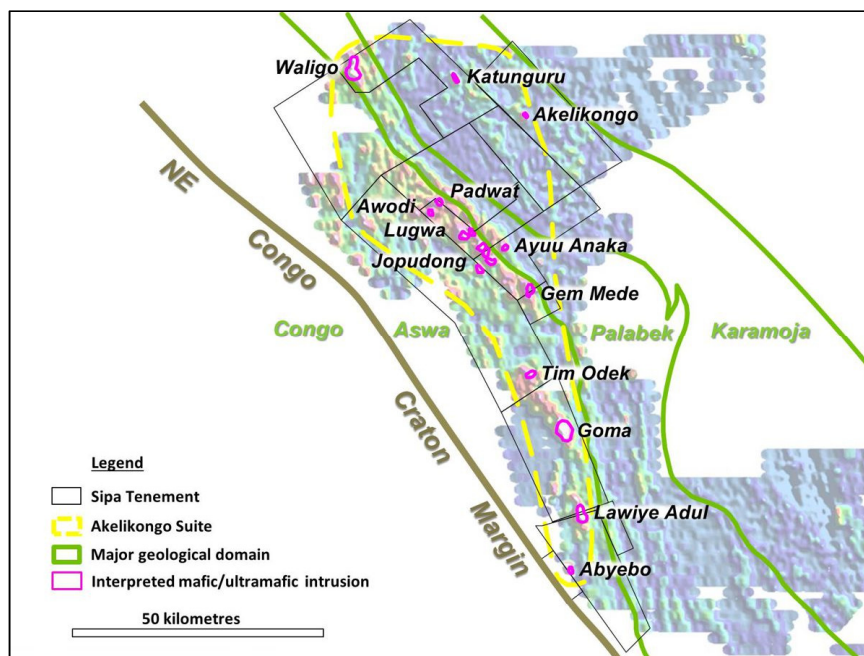


Figure 7: Kitgum Pader project areas showing nickel-in-soil anomalies and interpreted prospective ultramafic intrusions as named prospects.

- Diamond Drilling:** An initial program comprising 2017.3m of diamond drilling in five holes was completed covering the Goma and Lawiyadul regional targets, with one hole completed at the Akelikongo discovery. The drilling at the regional targets intersected ultramafic intrusions as envisaged. Geochemical and litho-geochemical sampling is currently underway in order to relate these intrusions to the Akelikongo suite. Core logging is underway.

Hole_ID	East	North	RL m	UTM Grid azimuth	dip	Total Depth	Prospect
LAD001	466956	326924	1023	060	-60	362.7	Lawiyadul
LAD002	466380	328410	1008	268	-60	317.5	Lawiyadul
LAD003	466380	328409	1008	060	-60	458.7	Lawiyadul
GMD001	464473	342079	917	300	-60	431.7	Goma
AKD018	456790	397096	950	045	-60	446.7	Akelikongo

Hole AKD018 at Akelikongo intersected a complex contact zone at the western margin of the Akelikongo ultramafic intrusion, where numerous 10cm to several metre wide intervals of pyroxenite and norite are intruded into the gneiss country rock.

Some intervals of the pyroxenite and norite contain interstitial magmatic sulphide including pyrrhotite and traces of chalcopyrite. The gneissic country rock contains disseminated graphite, pyrite and pyrrhotite. Core logging and sampling is underway.

Drilling has now re-commenced at Akelikongo with the objective of further investigating both the geometry of the down-plunge position of the mineralisation and the eastern margin of the intrusive complex.

The south-western footwall has been the focus of drilling to date, with only four holes drilled away from this zone – all of which have been angled to the south-west. A number of untested off-hole DHEM (down-hole electromagnetic) plates remain to be tested as well as potential target areas arising from new information gained from the AMT (audio magneto telluric) lines collected in early 2018.

## Barbwire Terrace

During the quarter, Sipa secured the Barbwire Terrace Project (Barbwire), consisting of seven Exploration Licence Applications covering a total area of 3,824km<sup>2</sup> located in the Canning Basin of Western Australia. The Project is 100% held by Sipa.

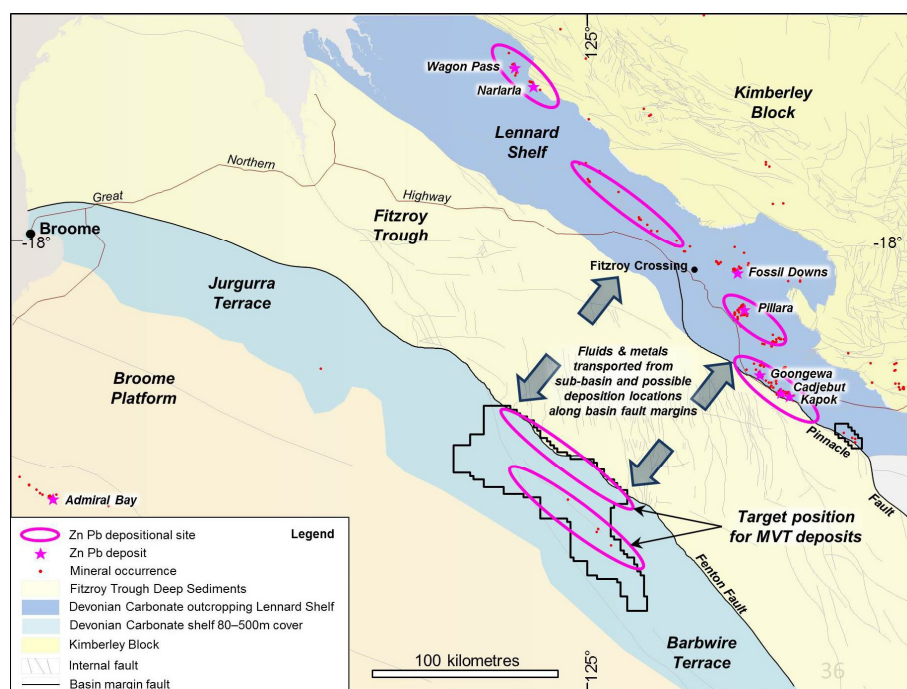
The Canning Basin contains known MVT-style zinc and lead endowment of over 200Mt in the Lennard Shelf and Willara sub-basin regions. Limited drilling in the 1980's and 1990's has encountered zinc and lead anomalism along two major fault corridors within Barbwire, with anomalism detected adjacent to the Fenton Fault and for over 30km strike along the Abutilon Fault corridor.

Sipa's objective for Barbwire is to discover a belt-scale economic zinc and lead mineral field.

Both modelling studies and oil field discoveries (the Ungani discovery by Buru Energy) indicate that fluid flow from the Fitzroy Trough was directed both north to the Lennard Shelf and south, to the Barbwire Terrace and Jurgurra Terrace.

There is a strong likelihood that basinal brines from the Fitzroy Trough that formed the Lennard Shelf Zn-Pb deposits were also directed to the south, across the Barbwire Terrace (Figure 8).

The prospective Devonian carbonate stratigraphy at Barbwire is covered by later Permian and Jurassic sediments. The depth to the base of the Grant Formation, the basal Permian unit, from the 38 drill-holes (13 petroleum and 25 mineral) to date through this contact in the project area ranges from 85 – 479m, with a mean depth of 250m and a median depth of 236m.



*Figure 8: Location and Geology of Devonian Carbonate hosted zinc-lead mineralisation, Lennard Shelf deposits with prospective Barbwire Terrace tenements.*

High-resolution gravity surveys and 2D seismic reflection surveys carried out for petroleum exploration over Barbwire have markedly improved the understanding of the basin architecture, and hence possible controls on mineralisation since the last mineral exploration was undertaken in 1998.

Together with improved tools for integrating the new information, advances in other exploration technologies also provide encouragement to Sipa that the project potential can be tested with improved efficiency, resulting in improved probability of discovering deposits at Barbwire.



Previous work including geophysics and drilling has been compiled with core assays highlighting some broad areas of anomalous zinc.

A review of some of these cores at the GSWA core library indicates that zinc-rich fluids did move south and deposit in Devonian carbonate rich rocks in a similar fashion to the mineralisation on the Lennard Shelf with spot XRF assays of this core showing up to 2% Zn associated with marcasite in breccias (Figure 9), proving that the concept is valid.



*Figure 9: Close-up of WRD01 at 495.3m showing carbonate breccia hosted mineralisation with 2% Zn spot XRF with marcasite.*

## Plan Forward

### Paterson North

At Obelisk in the Paterson, further petrophysical measurements of the drill core are being collected in order to understand the geological context, geochemistry and geophysical aspects of the drilled geology with a view to further resolving the geophysical nature and footprint of this large and complex zoned system. 3D modelling of the data clearly shows the geophysical anomaly peaks are still untested with the potential for discovery of a large and economic mineral system still very high.

An airborne EM survey is planned for 2019 to cover key areas of Sipa's extensive tenement holding. It is understood that airborne EM played a significant part in Rio Tinto's rumoured Winu copper discovery, located 10km to the west of Sipa's land-holdings.

A WA government EIS grant to test both Obelisk South and the newly-identified Aranea copper zone was awarded to Sipa during the quarter to assist with the cost of drilling in the 2019 field season. Sipa was the only Paterson explorer to receive a grant in the last round of applications. Since Sipa commenced exploration in 2016, we have received a total of \$809,000 in State and Federal Government co-funding to advance exploration in this highly prospective and exciting frontier.

### Uganda

In Uganda, drilling is continuing at Akelikongo with further regional drilling to be targeted following the geological mapping campaign that is currently underway.

### Barbwire Terrace

At Barbwire Terrace, an integrated 3D geological and geophysical model and information memorandum has been completed and sent to a number of groups with base metal interests. The data is available on request to parties interested in partnering with Sipa to explore this large, belt-scale tenement package which, if successful, will represent a commanding position a large new MVT-style zinc mineralised belt.



## About Sipa

Sipa Resources Limited (ASX: SRI) is an Australian-based exploration company aiming to discover significant new gold-copper and base metal deposits in established and emerging mineral provinces with world-class potential.

In Northern Uganda, the 100%-owned Kitgum-Pader Base Metals Project contains an intrusive-hosted nickel-copper sulphide discovery at Akelikongo, one of the most significant recent nickel sulphide discoveries globally.

In May 2018 Sipa announced a Landmark Farm-in and JV Agreement with Rio Tinto to underpin accelerated nickel-copper exploration at the Kitgum Pader Base Metals Project in Northern Uganda in which Rio Tinto can fund up to US\$57M of exploration expenditure and make US\$2M in cash payments to earn up to a 75% interest the project.

In Australia, Sipa has an 80% interest in Joint Venture with Ming Gold at the Paterson North Copper Gold Project in the Paterson Province of North West Western Australia, where polymetallic intrusive related mineralisation was intersected at the Obelisk prospect.

The Paterson Province is a globally recognized, strongly endowed and highly prospective mineral belt hosting the plus 25Moz world-class Telfer gold and copper deposits, Magnum and Calibre gold and copper deposits, Nifty copper and Kintyre uranium deposits and the O'Callaghans tungsten deposit.

In the Canning Basin 150km south west of Fitzroy Crossing Sipa has a 3824km<sup>2</sup> tenement position known as the Barbwire Terrace project, prospective for Mississippi Valley Type (MVT) Zinc and Lead mineralisation. The style and extent of mineralisation identified by previous explorers provides strong evidence that similar mineralisation processes that formed the Lennard Shelf deposits were also active on the Barbwire Terrace.

The generation of this project is entirely consistent with Sipa's strategy of being a first mover and mineral discoverer in highly prospective mineral belts.

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## Competent Persons Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation compiled by Ms Lynda Burnett, who is a Member of The Australasian Institute of Mining and Metallurgy. Ms Burnett is a full-time employee of Sipa Resources Limited. Ms Burnett has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Ms Burnett consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Various information in this report which relates to Exploration Results reported within is extracted from the following previously released reports:

- 5 December 2018 Paterson North Exploration Results
- 25 October 2018 Sipa Secures New Belt Scale Zinc Project
- 14 September 2018 Paterson North Update Assay Results
- 28 March 2018 New drill targets highlighted in recently completed geophysical modelling
- 21 February 2018 Potential for Large scale Ni sulphide province confirmed at Akelikongo
- 30 November 2017 Gravity identifies compelling new targets – Paterson North
- 20 October 2017 Further High-Grade Vein Hosted Gold-Copper at Obelisk
- 12 October 2017 Initial Assays Confirm Large Bedrock Mineral System
- 22 September 2017 Progress Report – Update on 2<sup>nd</sup> Diamond Hole
- 18 September 2017 Paterson North Drilling Update
- 19 June 2017 Paterson North Assays Confirm Large Copper System
- 24 May 2017 Initial Results Expand Potential of Paterson North
- 22 February 2017 Progress Report – Akelikongo Geophysics Results
- 1 December 2016 Akelikongo Final Assays Discovery Continues to Grow
- 17 November 2016 Strong Nickel and Copper hits up to 2.4% Nickel and 2% Copper
- 22 April 2015 Progress Report - Akelikongo

All of the above reports are available to view of [www.sipa.com.au](http://www.sipa.com.au) and [www.asx.com.au](http://www.asx.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement



### APPENDIX – ASX LISTING RULE 5.3.3

#### Mining Tenements Acquired during Quarter:

Tenement reference	Project	Nature of interest	Beneficial Interest at beginning of quarter	Beneficial Interest at end of quarter
EL1862*	Kitgum-Pader	Granted	100%	100%
EL04/2576	Barbwire Terrace	Application	0%	100%
EL04/2577	Barbwire Terrace	Application	0%	100%
EL45/5390	Wallal	Application	0%	100%
EL80/5279	Bohemia	Application	0%	100%

\* Formerly TN2767

#### Mining Tenements Disposed during this Period:

Tenement reference	Project	Nature of interest	Beneficial Interest at beginning of quarter	Beneficial Interest at end of quarter
NIL				

#### Mining Tenements Held at End of Quarter:

Tenement reference	Project	Nature of interest	Beneficial Interest at beginning of quarter	Beneficial Interest at end of quarter
EL 1048	Kitgum-Pader	Granted	100%	100%
EL 1049	Kitgum-Pader	Granted	100%	100%
EL 1229	Kitgum-Pader	Granted	100%	100%
EL 1270	Kitgum-Pader	Granted	100%	100%
EL 1271	Kitgum-Pader	Granted	100%	100%
EL 1590	Kitgum-Pader	Granted	100%	100%
EL 1800	Kitgum-Pader	Granted	100%	100%
EL 1801	Kitgum-Pader	Granted	100%	100%
EL 1803	Kitgum-Pader	Granted	100%	100%
EL 1804	Kitgum-Pader	Granted	100%	100%
EL 1805	Kitgum-Pader	Granted	100%	100%
EL 1829	Kitgum-Pader	Granted	100%	100%
EL 1862	Kitgum-Pader	Granted	100%	100%
E45/4697	Paterson North	Granted	100%	100%
E45/3599	Paterson North	Granted (Farm In)	80%	80%
EL45/5335	Paterson North	Application	100%	100%
EL45/5336	Paterson North	Application	100%	100%
EL45/5337	Paterson North	Application	100%	100%
EL04/2555	Barbwire Terrace	Application	100%	100%
EL04/2556	Barbwire Terrace	Application	100%	100%
EL04/2558	Barbwire Terrace	Application	100%	100%
EL04/2559	Barbwire Terrace	Application	100%	100%
EL04/2576	Barbwire Terrace	Application	100%	100%
EL04/2577	Barbwire Terrace	Application	100%	100%
EL45/5330	Barbwire Terrace	Application	100%	100%
EL45/5390	Barbwire Terrace	Application	100%	100%
EL80/5279	Bohemia	Application	100%	100%



### Summary of Royalties

Project	Party	Summary Terms
Sulphur Springs (Currently under Scoping Study)	Venturex Resources	\$2 each tonne of ore from the Sulphur Springs Tenements processed to produce zinc concentrate up to \$3.7M; Strongly positive DFS completed with decision to mine expected early in 2019. Eighteen months construction period noted in DFS.
Panorama (Kangaroo Caves Deposit)	Venturex Resources	40% holder of uncapped royalty equivalent to \$2 per dry metric tonne of all ore mined and processed. Exploration underway by Venturex at Breakers
Enigma Copper (Thaduna)	Sandfire Resources NL	1.0% of the Net Smelter Return
Ashburton	Northern Star Resources Limited	1.75% Gross Royalty on all gold production from the Tenements, excluding the first 250,000 ounces of gold produced, and the Merlin Tenements;  0.75% Gross Royalty on all gold production from the Merlin tenements, excluding the first 250,000 ounces of gold produced