



## REPORT ON ACTIVITIES FOR THE QUARTER ENDED 31st DECEMBER 2002

### SUMMARY

Excellent progress has been made at Apex's Windimurra and Jillawarra projects. Over the past two Quarters they have been rapidly and cost-effectively advanced from the concept through to the priority target generation stage. Last Quarter soil sampling campaigns confirmed or identified several new anomalies at both. This has provided confidence in the integrity of the diligent Apex approach and the prospectivity of its projects. Apex is committed to firming-up and drill testing selected targets in the March Quarter.

### WINDIMURRA SUPERPROJECT

#### Gold

- Existing gold anomalies extended and several new anomalies discovered at Paynesville by 2,000 sample soils programme over 20 square kilometre target area. (Figure 1)
- Anomalies will be firming-up and tested by a soil sampling and RAB drilling programme planned for February.

#### Platinum Group Metals (PGE)

- Reinterpretation of Windimurra Complex geology and structure using new aeromagnetic and other recently acquired data identifies relatively unexplored Muleryon Hill, Corner Well and Wyemadoo areas as priority PGE targets. (Figure 2)
- Field mapping, soil sampling and RAB/Aircore drilling programme to test prospectivity of these areas to commence in early February.
- Falconbridge – Implats Joint Venture rock chip and soil sampling programme over 30 kilometres strike of Narndee Complex delineates a broad arcuate anomalous PGE trend centred at Milgo.
- Joint Venture project manager has recommended follow-up soil sampling and drill testing.



## **JILLAWARRA**

- **Exploration in region opened up by orientation programme confirming that partial leaching and assaying of a magnetic soil fraction may detect metals associated with buried base metal mineralisation.**
- **Multi-element soil anomaly extends 46-40 prospect by 2.0 kilometres and identifies new 1.8 kilometre and 2 x 0.5 kilometre long anomalies at No Name and Cork Tree prospects. (Figure 3)**
- **Soil sampling in February to firm-up and extend anomalies ahead of proposed drilling.**

## **CORPORATE**

- **Apex spent \$388,000 on exploration during Quarter and retained cash reserves of \$2,724,000 at end of Quarter. Falconbridge – Implats Joint Venture spent \$328,000 on the Narndee project.**
- **Apex has on issue 38,208,755 fully paid shares (21,683,755 quoted) and 20,348,750 performance linked 20 cent shares part paid to 0.001 cents each.**

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## **Windimurra Superproject**

**80% interest. Sole funding Windimurra Complex exploration.  
Falconbridge – Implats JV funding Narndee Complex exploration.**

*The 5,000 square kilometre Windimurra Superproject encompasses the Windimurra and Narndee layered intrusions and is being explored for platinum group metals (PGE), nickel-copper and gold mineralisation.*

*These intrusions are considered to be geologically similar to South Africa's Bushveld Complex from where a majority of the world's platinum is mined. Apex is the first company to have consolidated a majority of the ground covering these intrusions. Previous explorers were constrained by fragmented ground holdings, lack of outcropping rocks, lack of technology able to discern what lies beneath the soil cover and restricted geological models for targeting.*

## **High Resolution Aeromagnetism Facilitate Geological Reinterpretation**

During the Quarter Apex and joint venture partners Falconbridge-Implats received final processed data from their respective 21,500 and 17,300 line kilometre adjoining high-resolution aeromagnetic and radiometric surveys.

These surveys cover most of the Windimurra and Narndee Complexes and for the first time provide an invaluable, consistent, detailed whole-of-region dataset that will serve as a backdrop for all future work.

Apex's consulting geophysicist has subsequently completed 1:250,000 and 1:100,000 scale reinterpretations of the Windimurra Complex region. These have provided considerable insights into the regional and project scale geology especially in those broad areas obscured by overburden.

## **Gold Anomalies Extended and New Anomalies Identified At Paynesville**

The northern part of the Windimurra project area contains widespread shallow historical gold workings and prospecting pits generally known as the Paynesville mining district. It is relatively unexplored.

The new aeromagnetic data has indicated that many of these workings are proximal to north-south trending structures or the north-south trending contact between Kantie Murdana felsic and gabbroic rocks.

A 2,000 soil sample survey over a large portion of the area to the south-west of the main Paynesville workings was undertaken to firm up and extend gold anomalies identified by a widely spaced soil sampling programme undertaken by Apex's project partners (Figure 1).

Existing anomalies were sampled on 100 x 100 metre or 100 x 50 metre grids. Extensions to areas were sampled on a 250 x 100 metre grid. The first 800 samples were assayed using an aqua regia digest with a 0.1ppb gold detection limit. Results indicated a significant coarse gold content in the samples. The remaining 1,200 samples were assayed using a bulk cyanide digest with a 0.01ppb detection limit.

**Overall the programme was successful in either extending or outlining several new gold anomalies (>9ppb gold) and has considerably increased the prospectivity of the Paynesville area.**

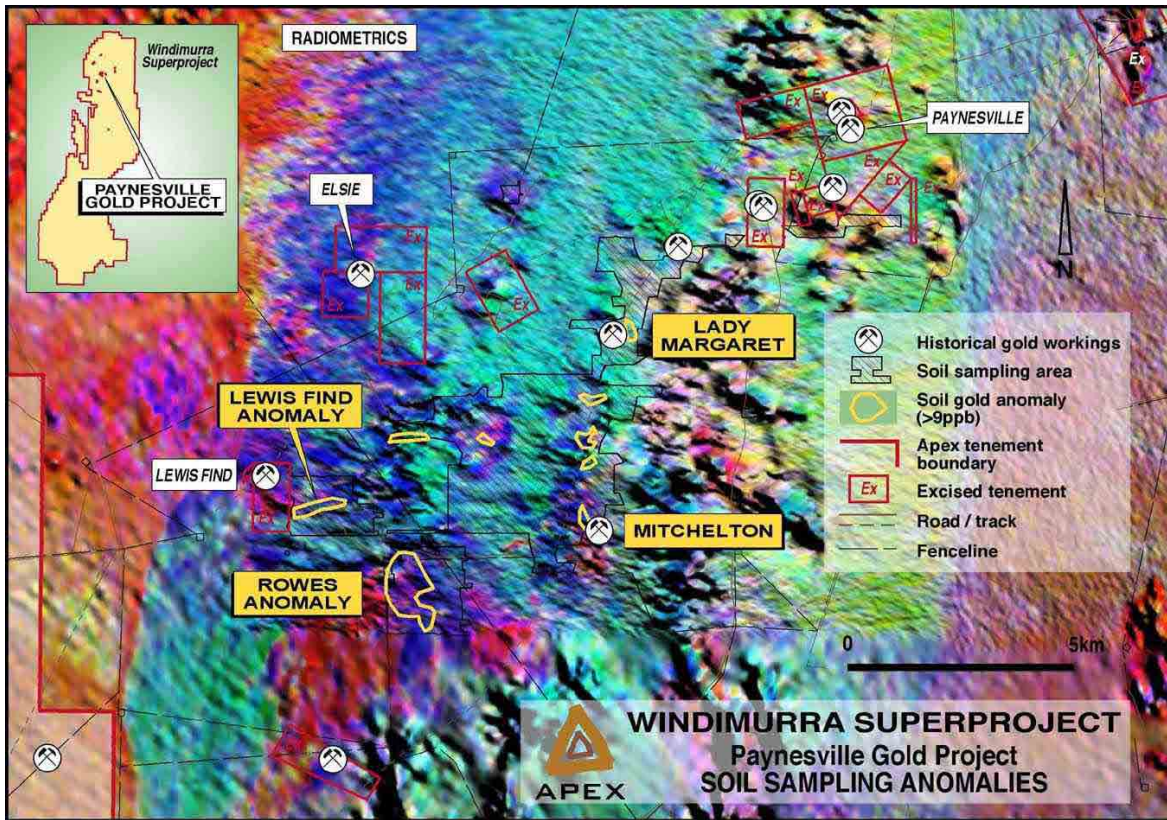


Figure 1

At **Rowes** Apex has delineated a 1.5 x 1.0 kilometre anomaly extending south from the historical Rowes workings. The anomaly appears to follow a prominent north-south aeromagnetic feature and returned a peak value of 254ppb gold.

At the northern edge of the anomaly rock chip sampling of selected quartz reefs by previous explorers returned a maximum value of 9.1 g/t gold. A follow-up RAB drill intercept of 1.0 metre grading 1.0 g/t gold from 20 metres depth was obtained within weathered gabbros.

Between the north-south trending **Lady Margaret to Mitchelton** workings Apex has delineated over 6.0 kilometres a series of discrete anomalies of at least 200 x 300 metres each. They contain peak gold values of 50 to 100ppb with a maximum of 718ppb at Lady Margaret. The trend runs parallel to but west of the contact between Kantie Murdana felsic volcanics and a lateritised gabbro to its west.

East of the **Lewis Find** workings (excised) Apex has identified a 1.0 kilometre long east-west trending anomaly that contains a peak value of 58ppb gold. It appears to run parallel to an interpreted magnetic contact between lateritised gabbro to the south and Windimurra Complex gabbro-norites to the north. Quartz reefs are observed parallel to this contact and the area is well known for gold nuggets.

**Apex is planning to commence in early February a soil sampling and RAB drilling programme to investigate selected anomalies.**

### Areas Most Prospective For Platinum Group Metals Relatively Unexplored

A multi-skilled task force was established to review Apex’s new geophysical reinterpretations of the Windimurra Complex and other datasets acquired or compiled by the Company. This was undertaken in the context of the very latest understanding of the mineralising mechanisms operating in layered intrusions. It was facilitated by the inclusion in the group of Perth based CSIRO Exploration and Mining personnel who are specialists in PGE and nickel exploration.

The result has been a much clearer definition and understanding of the relationship between structurally defined ‘domains’ within the complex. Each of these domains can be viewed as representing various ‘windows’ into different levels of its layered stratigraphy.

**The Muleryon Hill, Corner Well and Wyemandoo areas have been ranked as presenting the most prospective areas for PGE mineralisation. They are relatively unexplored for PGE. (Figure 2)**

Datasets and interpretations at 1:25,000 scale are being compiled for each of these areas ahead of a field mapping, soil sampling and RAB/Aircore drilling programme planned to commence in early February.

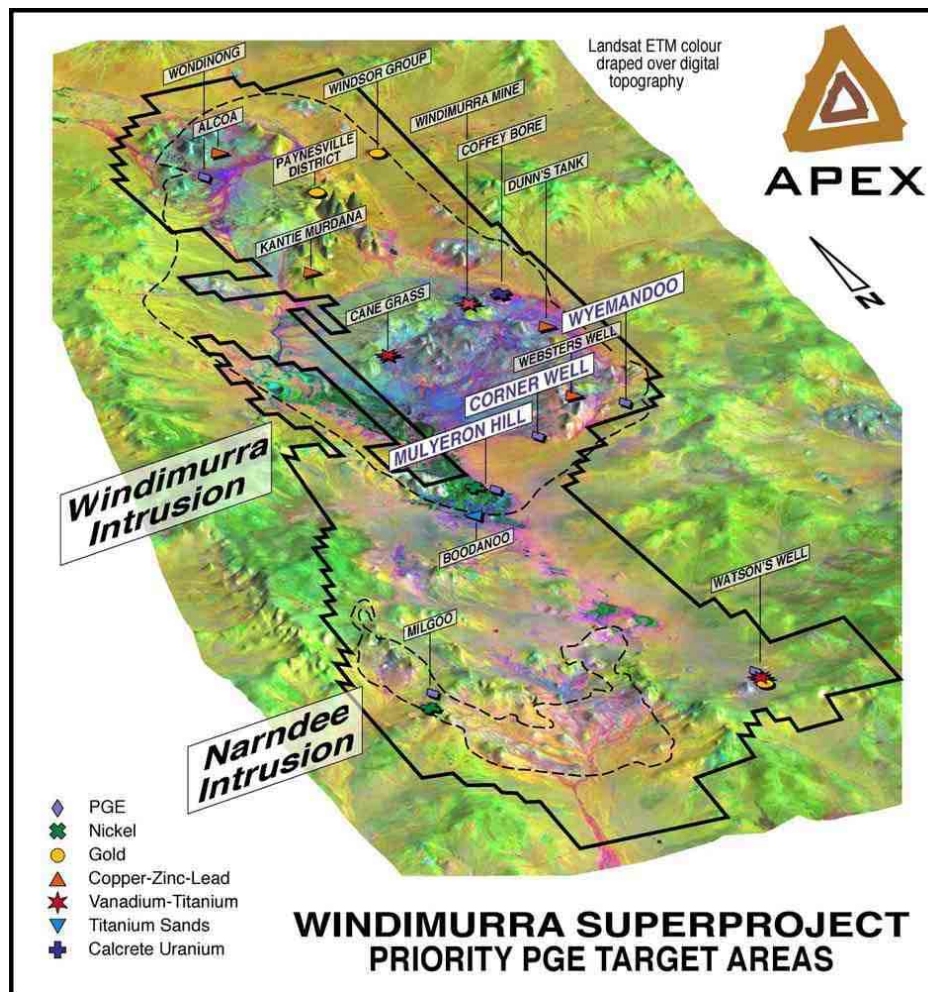


Figure 2



## Narndee Complex

**Encouraging results have been obtained by the Falconbridge-Implats joint venture from a multi-faceted four month exploration programme completed in December.**

The programme tested a significant portion of the Narndee Complex. Its aim was to validate historical data, collect fresh rock samples and soil samples from large parts of the layered complex for geochemical analysis and ground check interesting magnetic features derived from its recently completed aeromagnetic and radiometric survey.

Falconbridge has reported that rock chip sampling returned 26 grab samples (from a total of 458) containing anomalous platinum or palladium (>20 ppb platinum or palladium). The majority of these lie in the Milgoos area which was extensively explored for nickel in the 1970's.

Anomalous PGE intervals from a short programme of RC holes drilled late in 2001 by Wedgetail Exploration NL (incl a very encouraging 1.0 metre grading 5.2 g/t palladium from 113 metres depth) were also confirmed.

A major soil sampling programme comprised the collection and analysis of 5000 samples. Following a short orientation phase to determine the most responsive and reliable sampling technique for the area, it was decided to sample the lag component (coarse loose surface material) of the surface profile using a rare earth magnet (the Maglag technique). A total of 3,887 Maglag samples were collected at 40 metre intervals along 0.5 to 1.0 kilometre spaced traverses and elsewhere at 80 metre intervals along 2.0 kilometre spaced regional traverses.

This grid sampling has resulted in effective Maglag geochemical coverage of over 30 kilometres of the Narndee Complex.

**Results from the detailed and regional soil sampling has supported the rock chip work by confirming the presence of elevated PGE values within an arcuate trend centred over the Milgoos area.**

Other work by Falconbridge using the new aeromagnetic data and air photos has resulted in a modification to the interpretation of the Narndee Complex geology.

**The project manager has recommended the follow-up sampling and drill testing of selected Maglag defined targets in the Milgoos area and additional reconnaissance geochemical traverse lines over the southern and eastern portions of project area. This work is expected to commence in February. Its primary objective will be to determine if a specific geological unit within the layered stratigraphy at Milgoos is associated with these anomalous results.**

*Falconbridge, one of the world's largest nickel miners and most respected PGM explorers, has made a minimum two year commitment to explore the Narndee layered intrusion. It may earn an initial 56% interest by spending A\$4.0 million over 5 years and can increase this to 64% in specific areas where it completes a bankable feasibility study. Falconbridge also holds a 4% stake in Apex. Apex retains the right to any minerals other than PGE, nickel and copper at Narndee.*

*Impala Platinum Holdings Limited ('Implats'), the world's second largest producer of platinum, has joined forces with Falconbridge (Australia) Limited to explore the Narndee layered intrusion. The entry of Implats arises through a strategic alliance it has with Falconbridge to explore for and develop high quality PGM projects worldwide. Under that deal Implats may earn in stages up to half of any equity that Falconbridge has secured in a project.*



## **Jillawarra**

**80% interest. Apex sole funding exploration.**

*The 1,470 square kilometre Jillawarra project is considered prospective for iron-oxide copper-gold (IOCG) style mineral deposits such as Olympic Dam and Ernest Henry in Australia.*

*Work last quarter by Apex culminated in the designation of certain major faults in the Jillawarra sub-basin as defining corridors of increased prospectivity along which it will focus its exploration effort.*

*These 'syn-sedimentary' faults flank major magnetic anomalies at Woodlands Dome and Manganese Range. Apex believes that these faults may have acted as conduits for the migration to surface of mineralising fluids and perhaps the formation of ore deposits.*

### **Sampling Programme Successfully Detects Multi-Element Anomalies**

During the Quarter an orientation and reconnaissance sampling programme focussing first on the prospective Woodlands Fault corridor was undertaken on behalf of Apex by consulting geochemist, Pathfinder Exploration Pty Ltd.

The purpose of the preliminary orientation phase work was to identify a soil sampling and assaying regime that could reliably detect at surface indications of any mineralisation buried below. Conventional soil sampling and assaying in the region had not been effective and has considerably restricted exploration.

Two types of sample were collected from each sample site along an orientation line located above known mineralisation at the 300 metre plus deep polymetallic Abra deposit (not an Apex prospect). Three traverses of samples were also collected above a 'blind' low grade copper-lead system at the 46-40 prospect on the Woodlands Fault.

An -80 mesh soil fraction and a magnetic soil fraction (Maglag) were collected at each site. These were subjected to a partial (as opposed to a normal whole) leach and then assayed for 29 elements.

Both partial leach methods appear to have successfully obtained credible responses at surface to the known mineralisation below. The Maglag samples returned the stronger responses across a wider range of elements and this will be the preferred technique for the area.

**This is a major breakthrough for exploration in the region as Apex now has a tool other than expensive reconnaissance drilling that may cost-effectively close in on targets ahead of deeper drilling.**

Eighteen 1.6 to 2.0 kilometre traverses (including orientation lines) were run across subtle gravity and magnetic targets along the Woodlands structural corridor. Approximately 300 sites were dual sampled at 100 metre intervals along 200 metre or 400 metre spaced traverses. Following the orientation work only the Maglag samples collected were assayed (Figure 3).

**Pathfinder Exploration has reported that 'the Maglag programme has effectively highlighted anomalous areas within the three main areas sampled.'**

At **46-40** orientation Maglag sampling obtained strongly anomalous multi-element values above relatively shallow low-grade copper-lead mineralisation defined by drilling of a magnetic high by previous explorers.

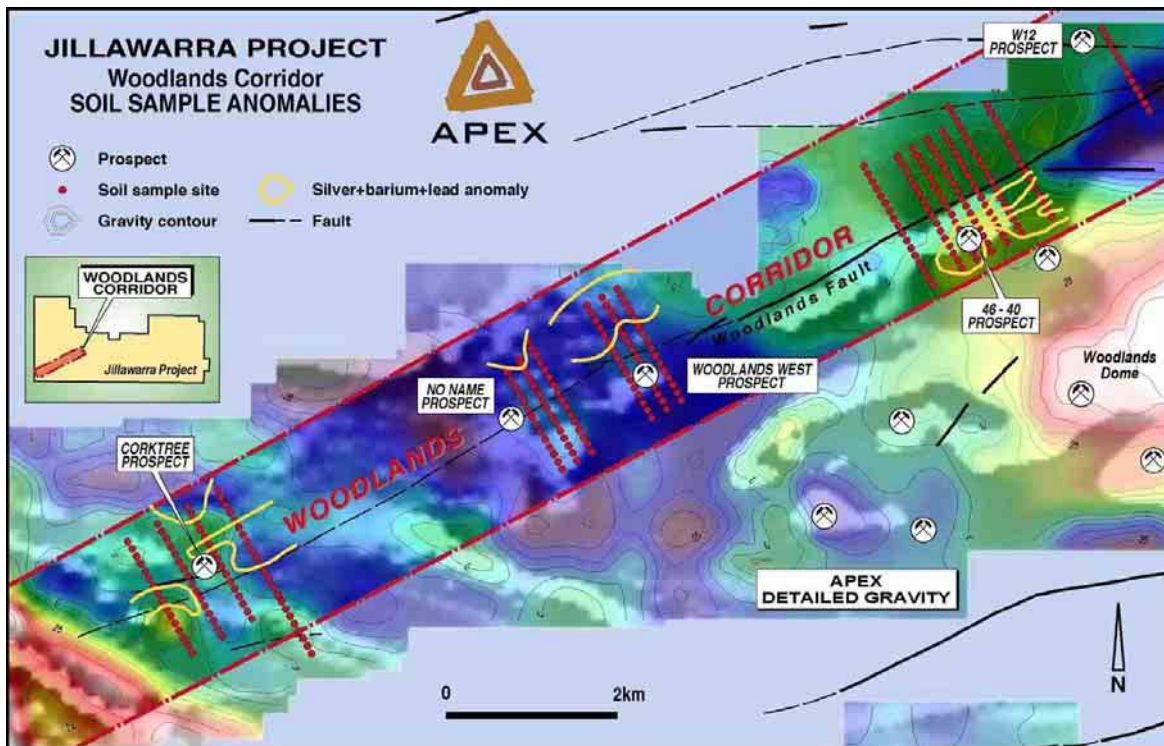


Figure 3

An additional six traverses have extended the anomaly a further 2.0 kilometres and it remains open to the north, south and east.

At **No Name – Woodlands West** an open well developed multi-element anomaly outlined over 1.5 kilometres by six traverses may be indicative of deeper seated mineralisation

At **Cork Tree** four traverses returned multi-element Maglag anomalies broadly coincident with the western extension of the Woodlands Fault close to where it is intersected by the east-west trending West Creek fault. Strongly anomalous values associated with an intense gravity feature in the west portion of the sampling grid present a very attractive target.

Pathfinder Exploration has commented that the nature of the Cork Tree anomaly is reminiscent of the anomaly obtained from the Abra orientation traverse. In addition, petrological evidence of altered and mineralised clasts in rock chip samples collected by Apex from exposed West Creek Formation rocks at Cork Tree provides evidence of earlier mineralisation. Importantly, it also suggests that the Woodlands Fault was active during and immediately after mineralisation as is similarly inferred at Abra.

All this reinforces work by previous explorers who in following-up a nearby magnetic anomaly at Cork Tree discovered minor polymetallic mineralisation at surface grading up to 5.08% lead, 1.41% copper and 140g/t silver.

**Apex plans to infill and extend its sampling of these anomalies in February prior to the drilling of selected targets.**



## **Apex Earns 80% Interest In Jillawarra**

Pursuant to the terms of its Farm-In and Joint Venture Agreement, Apex has advised owners (Messrs Creasy, Legendre and Voermans) that it has spent in excess of \$100,000 on the Jillawarra Project and has therefore earned an 80% interest.

## **Tenements**

Eight exploration licences were granted at Windimurra - Narndee during the Quarter.

## **Corporate**

Apex spent \$388,000 on exploration during the Quarter and held cash reserves of \$2,724,000 at 31<sup>st</sup> December.

The Falconbridge – Implats Joint Venture spent approximately \$328,000 on the Narndee project. (Total \$578,000 to date)

Apex has budgeted to spend \$400,000 on exploration activities during the March 2003 Quarter.

Apex has on issue 38,208,755 fully paid shares of which 21,683,755 are quoted. This includes 1,683,750 that were released from restrictions during the Quarter. The Company also has on issue 20,348,750 performance linked 20 cent shares part paid to 0.001 cents each.

**Stephen Stone**  
**Executive Chairman**  
**Mb 0418 804 564**

*Unless otherwise indicated, technical information contained in this report is based on information compiled by a competent person who is a corporate member of the Australasian Institute of Mining and Metallurgy. The competent person is Mr Stephen Stone who is Executive Chairman. All statements in this release, other than statements of historical facts, that address future timings, activities, events and developments that the Company expects, are forward looking statements. Whilst the expectations expressed in such forward looking statements are based on reasonable expectations, investors are cautioned that such statements are not guarantees of future performance and actual results or developments may for several reasons including site access differ materially from those stated.*