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Company Announcements Platform  
Australian Securities Exchange

## **EXPLORATION UPDATE AT FIFIELD NSW**

### **- Progress on Platinum Bulk sampling at Pit One**

The Company provides a Platinum (Pt) and Gold (Au) exploration update covering the bulk sampling area, Pit One at Fifield NSW.

Significant progress is being made with the gravel layer mining and processing, gravity plant improvements and mineral concentrate examination for Pt and Au. Inclement weather, plant procurement and fabrication issues have slowed trial mining and processing operations in the last month, but the Company is satisfied with the foundation now established in the bulk sampling operations to date.



*Gravel completely removed on Block A within Pit One Area*



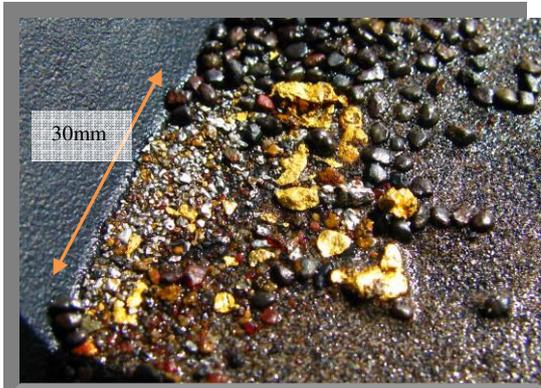
*Block A and C within Pit One Area*

At this stage, bedrock testing has yet to be undertaken, but will occur once the gravel layer has been mined and processed.

### **Highlights of the Current Work Program**

- **Two blocks are exposed (blocks A and C), within Pit One area, where the Pt bearing gravel layer has been substantially removed, and processed through the gravity plant (Appendix 1).**
  - Approx. 2,000tonnes of gravel has been processed, producing approx. 1,500kgs of Ironstone concentrate, containing Pt and Au
- **The Ironstone concentrate recovered from “Pit One” is undergoing metallurgical testing for Pt and Au recovery.**
  - Examination of the Ironstone concentrate indicates free Pt and Au grains are present as expected
  - Crushing and grinding tests on Ironstone also reveal that a portion of Pt and Au grains are encapsulated within certain Ironstone pebbles (the full extent is not yet known)
  - A large proportion of the Ironstone is magnetically susceptible, therefore offering a metallurgical pathway
- **The gravity plant and circuit continue to be modified for improved efficiency.**
  - The hopper capacity is being increased four fold to 20 tonnes
  - The plant throughput has exceeded 100 tonnes of gravel per 8 hour shift

- Concentrate processing facilities are being established
- **Petrological examination is currently being undertaken on a range of materials recovered from the plant including rock, mineral and metal grain samples, including important composite materials.**
  - This should assist further understanding of the genesis and character of the Pt and Au being recovered
  - Field observation, under microscope, of the morphology of the coarse metal grains, indicates many Au and Pt grains appear to have a local provenance. Grains with longer travel histories are also present.



*Free Pt & Au recovered from a mixed Ironstone concentrate. Additional Pt & Au is also encased within the Ironstone*



*Short travelled Pt Grain, angular and indented*



*Gravity Plant able to process in excess of 100mt/day of low clay gravels, when operational*

### **Near term goals for the Bulk Sampling program at Pit One**

The Company is endeavouring to achieve a range of qualitative and quantitative outcomes within the next few months at Pit One area, as follows:

- Continue to improve mining methods to minimize overburden dilution of the gravel processed and increase efficiency in handling and throughput.
- Determine an approximate head grade for the Pt & Au within this particular section of the gravel system, but recognizing that gravel systems in general are likely to contain irregular grade.
  - Advance the metallurgy and characterization of the mineralisation
  - Establish broad parameters for the cashflow contribution of processing the gravel system
- Process the 0.4m section below the gravel layer, testing for alluvial Pt & Au trapped within crevices in the underlying bedrock.
- Having established a clear divide with the alluvial Pt & Au system in the gravel influenced layer above, examine the underlying bedrock, for “in situ bedrock Pt, Au and indicator minerals”.
  - Map the bedrock geology in large “plan view” exposures
  - Excavate vertical sections of bedrock for detailed sampling
- Delineate larger sections of the Pt & Au bearing gravels and bedrock systems.
  - Open new mining blocks D and E to continue the bulk sampling
  - Use extensive auger drill traverses and additional trenches
  - Examine additional known gravels on the Company freehold, including historic tailings from the Platina Lead

## **Project and Mineralisation Background – Fifield NSW**

The systematic exploration by Rimfire within the immediate Fifield region has continued to develop a wide variety of mineralisation prospects. Each prospect has a strong surface expression, a highly relevant geological context and favourable development criteria.

There is a significant variation in mineralisation styles at Fifield, which includes Au, Pt and Cu/Base Metal prospects with these occurring across a zone of less than 10km. This observation also provides further support to the interpretation of the region as being a complex volcanic rift setting, with evidence for multiple, polymetallic mineralisation events associated with sub-volcanic intrusives, shearing and brecciation at various scales.

*Accordingly, the exploration shows that metal zoning remains an important feature of the regional geology at Fifield. The under explored Fifield area represents an excellent exploration setting for commercial mineralisation discovery in the Company's view (Appendix 2).*

*The major mineralisation target for exploration by the Company at Fifield remains focused on coarse grain Platinum. The Platina-Gillenbine area is of particular importance in understanding the bedrock mineralisation<sup>1</sup>.*

A key feature of the exploration landscape at Fifield NSW is the minimal outcrop available for examination. However, in many instances the depth to bedrock is less than two metres, so a combination of soil geochemistry, auger drilling and trenching to bedrock is an ideal way to prospect for the evidence of significant mineralisation in most instances. These activities are also relatively low cost to undertake.

Historic Pt mining at Fifield yielded in excess of a reported 20,000 oz of Pt from the deep leads and surface soil mining (circa. 1900~1930). The soil mining activity has disturbed the most exposed areas of the land surface, thus requiring a customized soil sampling technique in many instances. The large scale of the Pt mineralisation at Fifield has meant that the Company has needed considerable near surface sample processing to assist in defining representative areas of bedrock Pt.

The Company maintains 5 exploration licences and two mineral claims focused on Platinum mineralisation in the Fifield district. These licences cover an area of approximately 500 sq km.

## **Commodity Pricing**

The Platinum price has remained steady in recent months. **Currently, the price of Platinum closed in New York at Ask, US\$1,272 per oz as at 10<sup>th</sup> June 2009 ([www.kitco.com](http://www.kitco.com)).**

Yours faithfully

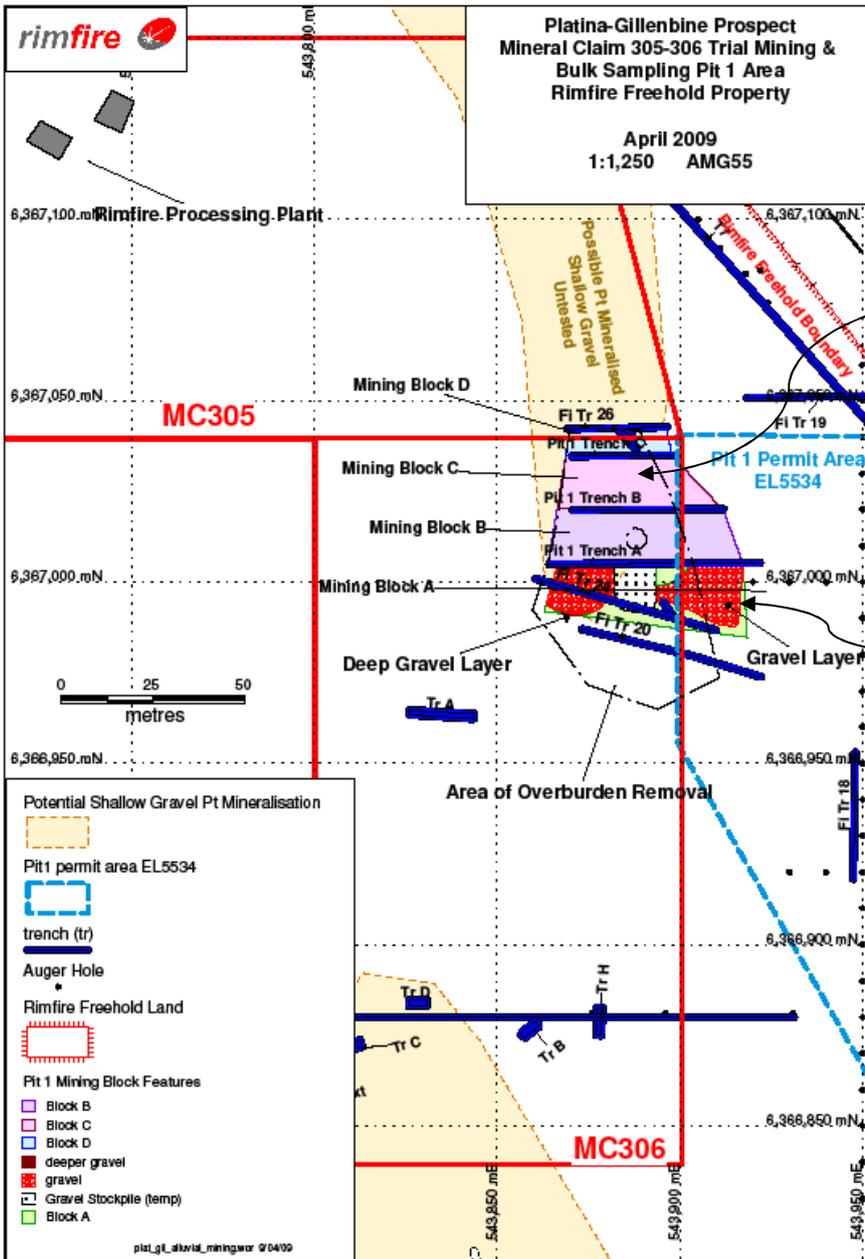


**JOHN KAMINSKY**  
**Executive Chairman**  
**Rimfire Pacific Mining NL**

*The information in the report to which this statement is attached that relates to Exploration Results is compiled by Mr Colin Plumridge, who is a Member of The Australian Institute of Mining and Metallurgy, with over 30 years experience in the mineral exploration and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. Mr Plumridge has sufficient experience, which is relevant to the style of mineralization and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australian Code for Reporting of Mineral Resources and Ore reserves". Mr Plumridge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

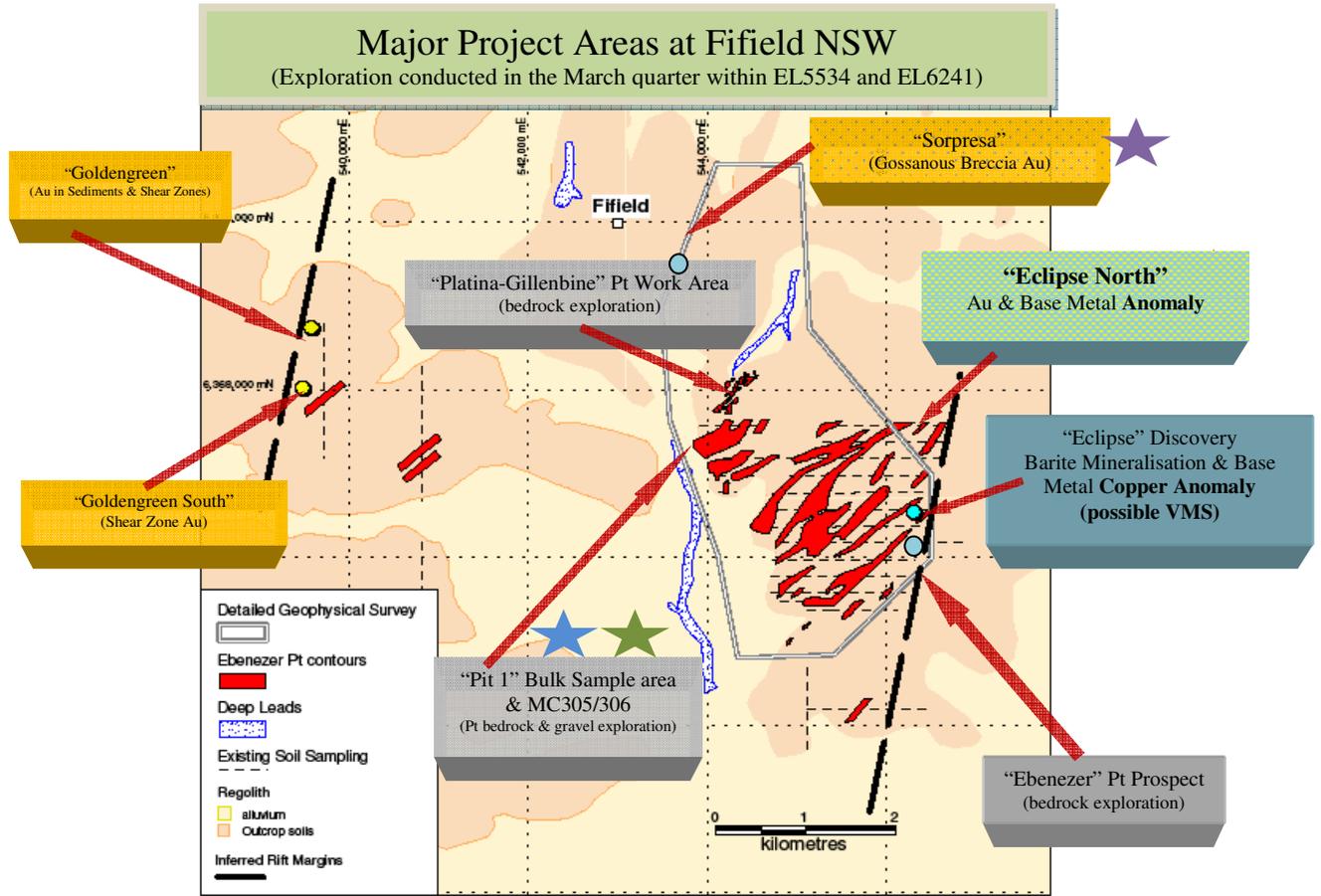
<sup>1</sup>ASX March 2009 Quarterly Report <http://www.asx.com.au/asxpdf/20090421/pdf/31h512vtvg5mmr.pdf>

## Appendix 1 – Pit One Work Area



## Appendix 2

### Location of Project Areas Fifield NSW and Metal Zoning Interpretations



★ Auger Drilling and Soil sampling

★ Rock Chip program and Soil Sampling

★ Trenching

★ Bulk sampling

