



28<sup>th</sup> May 2012

Company Announcement Office  
Australian Securities Exchange

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## **Sorpresa Gold Project Deeper Mineralised Potential – Fifield NSW** **- IP Survey and mapped structure indicates possible large scale disseminated gold at depth**

The Company undertook an IP (Induced Polarity) Survey at the Sorpresa Gold project area at Fifield NSW earlier this year. The 3D interpretation of this IP survey lends strongly to the view that the gold mineralisation could extend at depth in the SSE dip direction from the known surface orientation (0m to 60m) established in RC drilling during 2011.

**In addition, the IP anomaly indicates the possibility of a deeper (150m to 350m) large disseminated gold mineralisation position at Sorpresa.** This inference is made through the established knowledge of the geology, structure and gold mineralised position that is already known in this 0m to 60m depth at Sorpresa.

**Specifically, within the 0m to 60m depth, the gold mineralisation is observed to have a close association to the black silica, sulphide (pyrite) and graphite (schist) occurrences.** This spatial relationship to the IP anomaly near surface implies that the deeper and larger IP chargeability response could be **indicative of similar, but more intense mineralisation also associated with the gold.**

A video link is provided to a [3D model of the IP Anomaly at Sorpresa \(click here\)](#).

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### **Key Summary of the Sorpresa IP Survey Interpretation**

- **IP Survey Results at the Sorpresa Project indicate a deeper geological context is present for the gold mineralisation offering the possibility of a large disseminated system of the mineralisation**
  - **A strong empirical spatial relationship** to the known (0m to 60m) Sorpresa Au & Ag position is seen in the IP chargeability results
  - The IP Anomaly extends and generally increases from the known Au position at Sorpresa to **a depth of hundreds of metres in accordance with known angles of dip**
  - Higher chargeability values at surface also **appear coincident with structural context established at Sorpresa**
  - **Possible causes of the IP chargeability include metallic sulphides or graphite**, both spatially known to be associated with the Au mineralisation in the 0m to 60m position already
  - IP Resistivity values correlate well to established black silica geology
- **Important geological targets are interpreted in the depth range 150m to 350m below and down dip from the Sorpresa Main Project**
  - The high chargeability targets identified have **a strike length greater than 1km**
  - Drill program design is being established to test the targets
- **Preliminary geological interpretation suggests “A Syncline Basin” is operating at the greater Sorpresa Area**
  - The drilled (2011) Sorpresa Area is likely a small component of the mineralisation at the margin of an interpreted geological **Syncline Basin of approx. 5km x 1km size**
  - **Large disseminated mineralisation** potential is strongly inferred at depth within the main body of the Syncline Basin

**Colin Plumridge, Head of Exploration, expanded:**

“The near surface work at Sorpresa is now well complimented by a deeper interpretation emerging through the IP Survey conducted at Sorpresa.

Recent geological mapping leads me to the view that we have a large (estimated at 5km x 1km size) Syncline Basin setting at Sorpresa, with extensive gold mineralization at the surface in parts already tested and a coincident IP anomaly. These appear all spatially connected.

The significant and exciting deeper IP chargeability targets that have now emerged show a **strong empirical correlation with known geology, structure and mineralization as seen at the surface (0m to 60m) at Sorpresa. This is very compelling, so we are looking forward to testing this geology at depths of 150m to 350m.**

We will look to validate the IP survey results, and whilst we recognize that there are still inherent risks in the next stages of the work program, **make no mistake this is a genuine shot at a big ore body at Fifield. We are looking at a very large potential for the disseminated gold mineralization now at depth.**”



**The Executive Chairman, John Kaminsky commented:**

“Sorpresa has grown further in its potential, and represents a very **strong opportunity for the Company**. Shareholders should be delighted with the prospect of testing the deeper IP Chargeability anomaly beneath and down dip from the known gold mineralized position already discovered at surface.

It takes Sorpresa to the next level and continues to show the highly prospective nature of the ground. **Whilst it is not a guarantee, we could not have expected a better result in the IP Survey.**

The next stages of planning still require careful thought and execution, but we have had very important progress in the last few months. A drilling program to test IP targets at 150~300m depths is being designed, we are hopeful this would proceed in the next quarter.

This drilling is in addition to our current drilling campaigns at Sorpresa within the Black Silica geology and the soon to be commenced Yoes Lookout scout drill program. These are still very important components of the overall work program at Fifield.”



**IP Survey Background at Sorpresa and Geological Setting – Syncline Basin**

The geology at Sorpresa is recently interpreted to be the peripheral position within a syncline basin, of the order 1km x 5km size. The gold receptive horizon described by the Company, is a thick layer in the basin stratigraphy. The basin itself goes above and below the receptive horizon.

The Sorpresa area is on the edge of the basin, which in turn appears orientated with the known shear zone positions for Platina-Gillenbine.

The project area at Sorpresa represents a large gold exploration target that requires drilling from the near surface to hundreds of metres in depth. To date, the Company has undertaken drilling within the 40~60m depth range, where results provide significant encouragement to justify a far greater drilling density and also depth extension.

IP (Induced Polarity) is an electrical geophysical method that demonstrates a strong capacity to direct the deeper drilling into the better mineralized areas. The IP chargeability can highlight minerals that can be electrically excited, producing a 3D image of the target areas to be tested.

At Fifield, the strong IP anomaly appears located at the centre of the syncline basin. This gives rise to the possibility of a huge mineralising system being present, and focused on the basin centre. Additional geological mapping is being undertaken to provide greater interpretation of the geological model being developed.

### Possible Causes of IP Chargeability Response

The IP method does not directly locate gold with its chargeability response, but is used indirectly for gold exploration by way of identifying gold accompanying minerals. These minerals are largely pyrite (iron sulphide) and graphite (crystalline carbon). Similarly, the Black silica geology, being resistive, is also indicated in the IP survey.

The general risk with IP is that the accompanying minerals are plentiful, but that the gold is less abundant.

However, the Company is extremely encouraged to find that **the known Sorpresa gold (and silver) position has an IP anomaly**. This cuts through the science and provides a direct empirical connection between gold and IP.

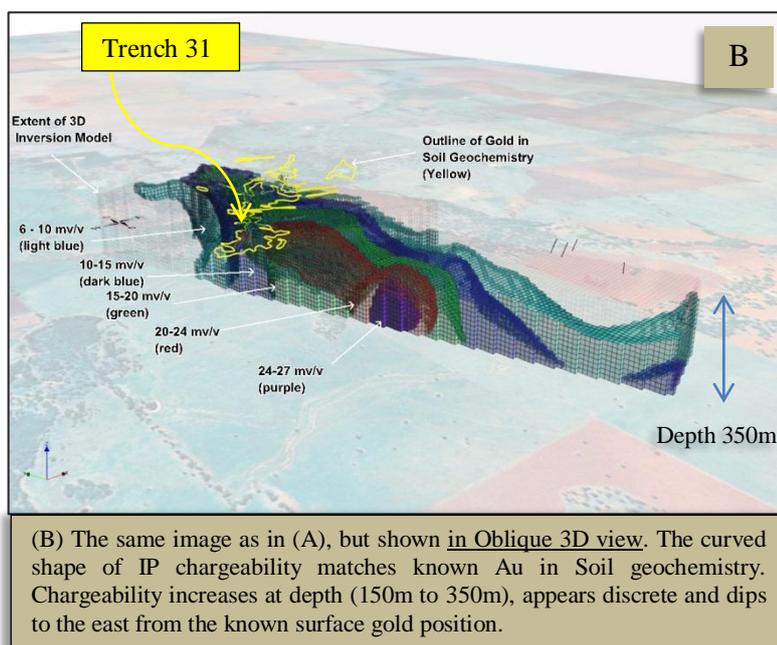
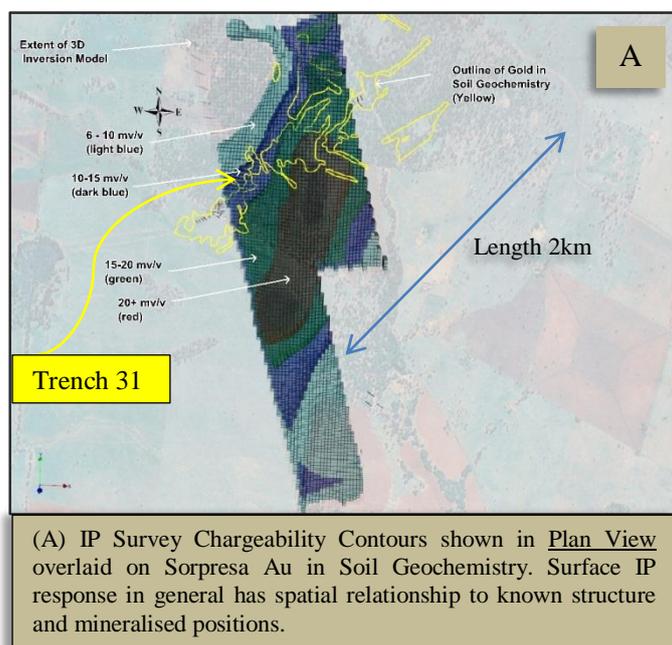
The IP anomaly extends from the known gold position to a depth of hundreds of metres in accordance with the known angles of dip. **The unusual curved western edge of the surface gold position at Sorpresa is repeated below surface and down dip (see Appendix 1).**

It should be noted that the receptive horizon at Sorpresa is high in carbon, and that this **becomes graphitic in the shear zones**. Similarly the known gold positions are frequently **marked by an increase in pyrite**.

### Next Stage of Program to Test the IP Anomaly

The Company is developing a drill program design to test the deeper IP anomaly, with the potential to yield large disseminated gold mineralized positions within geology in the depth range of 150m to 350m.

Initial concepts suggest approximately 10 x 300m holes would be required to test the observed IP anomaly in a systematic way. Further drilling may then be required in order to be conclusive. The Company is planning for the drilling to commence in the 3<sup>rd</sup> Quarter in 2012, using an external contract driller.



### Recent Sorpresa Information Thread

The Company provides a hyperlink thread of the Sorpresa Gold Mineralisation area of recent ASX and video materials as follows:

1. ASX April 30<sup>th</sup> 2012 [Quarterly Exploration Activities March 2012](#)
2. ASX January 31<sup>st</sup> 2012 ([Quarterly Exploration Activities December 2011](#))
3. ASX [January 2012 Sorpresa Gold Project – Trench 31 Area Review Video](#)

4. ASX 28th November 2011 [AGM Exploration Presentation – Including Summary results of Sorpresa](#)
5. Rimfire Website Summary [Brief history of Sorpresa Mineralisation discovery and style \(to September 2011\)](#)



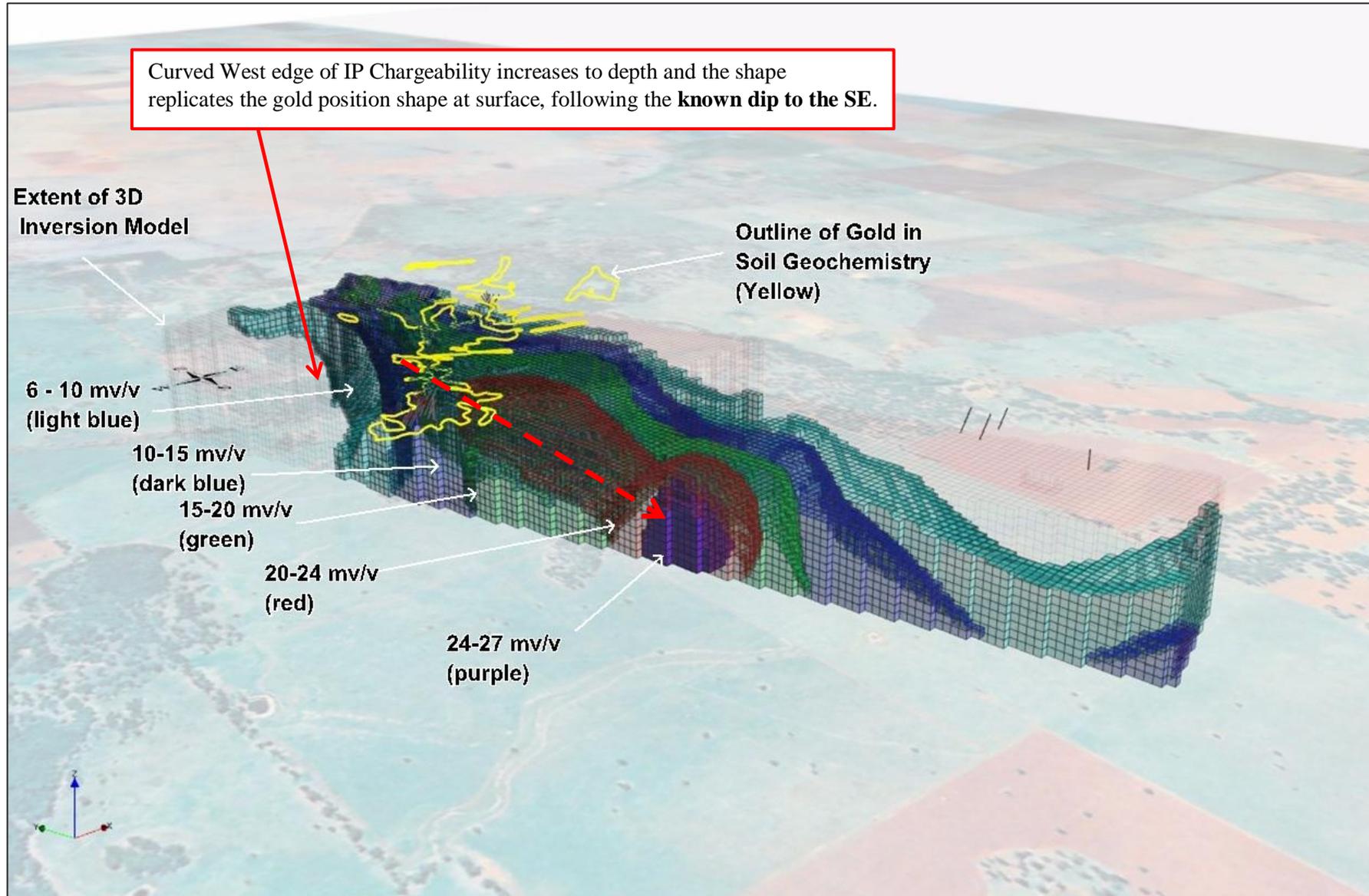
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**JOHN KAMINSKY**  
**Executive Chairman**

*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 40 years experience in the mineral exploration and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. and is a consulting geologist to the Company. He has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which is being undertaken to qualify as Competent Persons 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.*

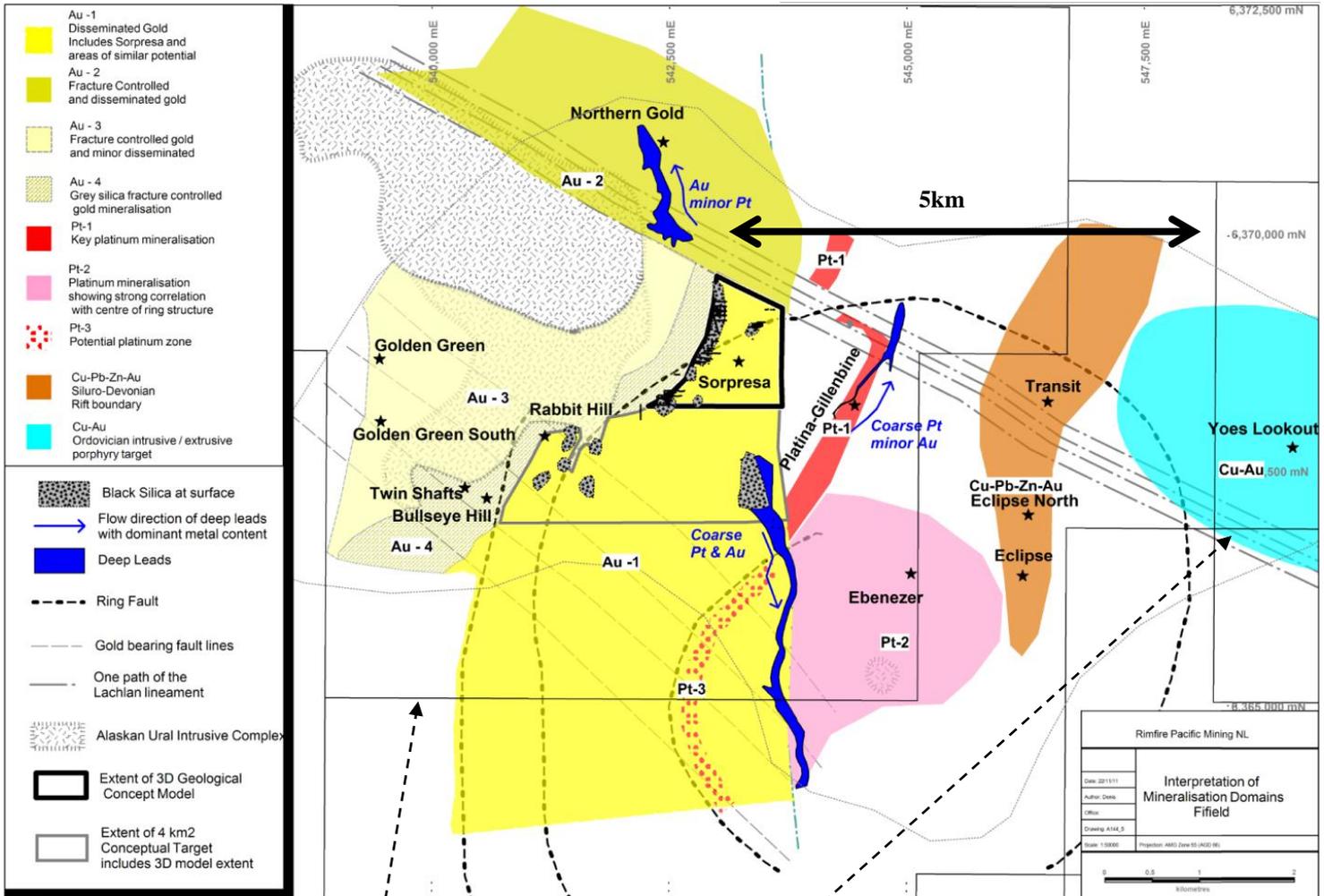
Appendix 1

IP Survey Results (Chargeability) as Oblique 3D View Cross-section at Sorpresa on Airphoto

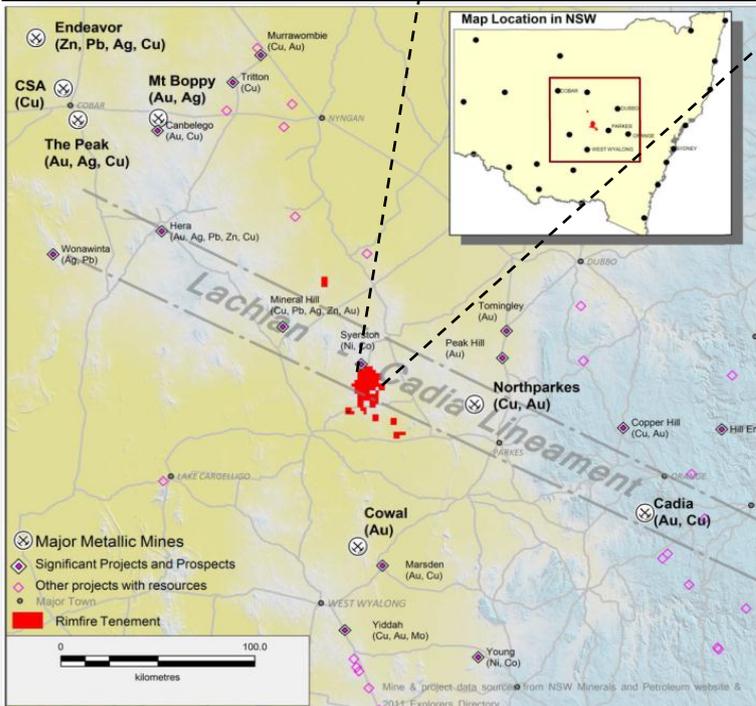


## Appendix 2

### Project Locations at Fifield NSW within Lachlan-Cadia Lineament and Metal Zoning Interpretations at Rimfire Fifield Project Areas



#### Regional Position for Fifield Mineralisation



*Rimfire tenements shown in red (at left) within the Lachlan-Cadia Lineament.*

*Metal zoning interpreted (above) within key Rimfire Tenements at Fifield, making this an exciting location for discoveries.*

*Note the Black Silica areas (above) mapped as part of the Au receptive horizon inferred*

**APPENDIX 3**

**EL5534 The Sorpresa Area Anomalous Gold Zone – within the wider Fifield Gold Observations “Some” New Prospects Highlighted**

