



# QUARTERLY REPORT

Ending 31 March 2015



## HIGHLIGHTS - Advancing silver and copper discovery opportunities in the southern Gawler Craton of South Australia

### STRONG STRATEGIC POSITION

- A\$3.4m cash at end of quarter.
- Dominant position in new belt.
- Cornerstone Paris silver resource.
- Multiple priority flow-on targets.

### EYRE PENINSULA

#### Paris-Nankivel (100% IVR): Silver and copper gold targets around Paris silver lead deposit

- Updated prospectivity model for the large Paris-Nankivel mineral system.
- Detailed gravity and soil geochemical surveys completed near Paris, firming up targets.

- Drilling of highest priority copper gold silver targets near Paris deposit to commence mid-year.
- A\$100,000 government grant awarded for upcoming drilling.
- Collaborative research agreement with the State Geological Survey to improve understanding of new Paris-style discovery opportunities in the emerging Uno Province.

#### Thurlga Joint Venture: Targeting silver copper gold on tenement adjacent to Paris

- Completed minimum expenditure phase and activated right

to earn to 75% interest.

- Definition of large gravity target.
- First-pass prospecting & soil geochemistry sampling with assays awaited.

### NORTHERN YORKE PENINSULA

#### IOCG copper gold targets on extensions to Moonta historic field

- Two diamond holes completed at Roundabout and Spyll targets.
- Encouraging anomalous gold and copper in prospective rocks at shallow depths.

Investigator has maintained an active exploration program during the March quarter, building on its understanding and opportunities within its extensive tenement holdings in the resurging southern Gawler Craton.

Exploration activity was focused on:

- Completion of in-fill gravity and soil geochemical surveys for the large Paris-Nankivel mineral system.
- Gravity traverses and the collection of soil and rock-chip samples in identified areas of interest within the Thurlga JV tenement.
- The drilling of two-diamond holes on the northern Yorke Peninsula at the Roundabout and Spyall IOCG copper gold prospects.
- Maximising the value of IVR's extensive dataset, innovative ideas and multiple target opportunities.

During the quarter, A\$1.03million was spent on exploration and A\$0.26million spent on corporate and administration costs. Cash held at the end of the March quarter was A\$3.374million.

Investigator Resources' Managing Director John Anderson said:

**"During the March quarter, Investigator gained even better understanding of the large minerals systems extending from our Paris silver deposit on the northern Eyre Peninsula.**

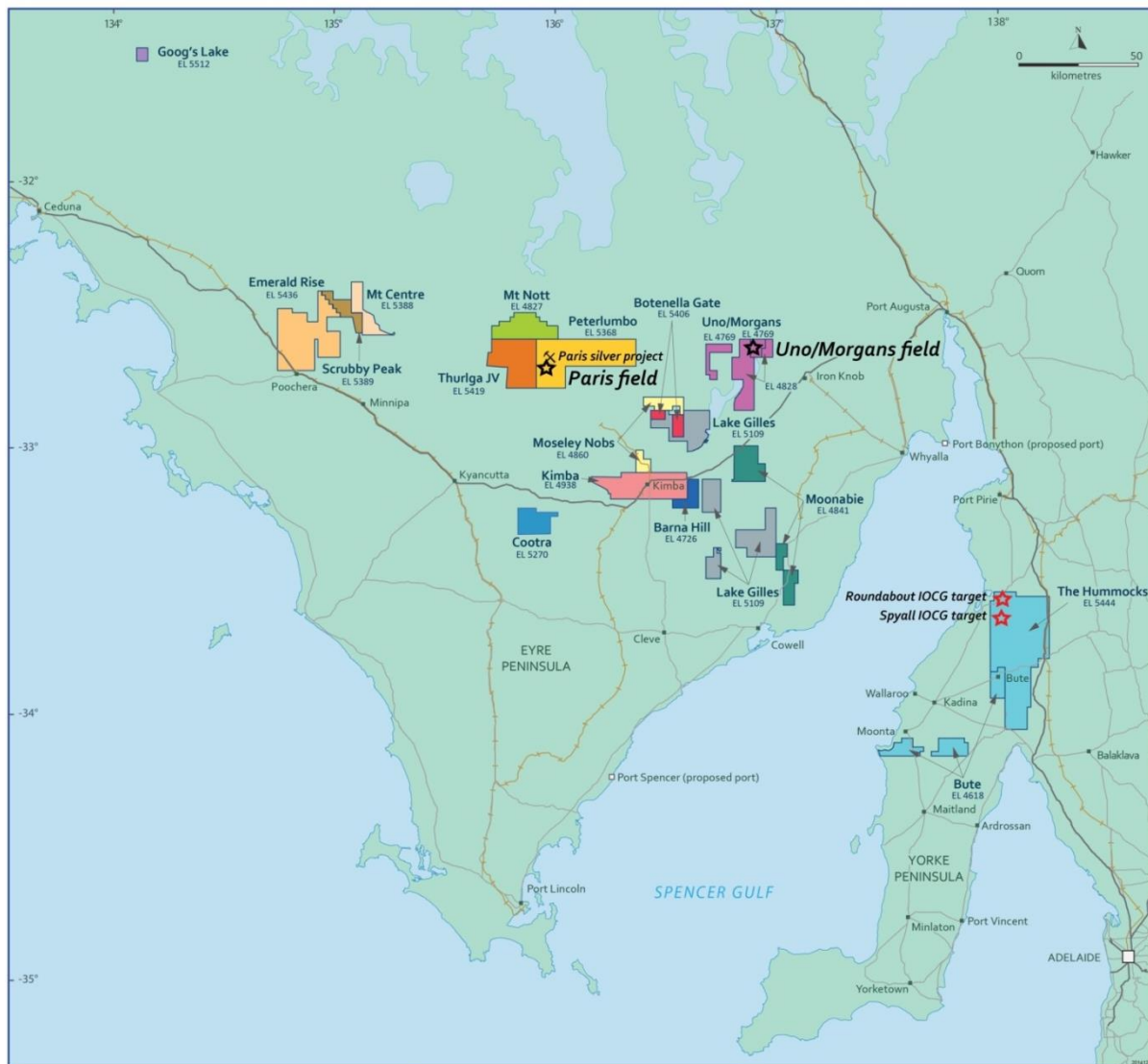
**The potential for further silver lead and associated copper gold discoveries warranted on-going surface exploration near Paris in preparation for drilling mid-year.**

**This will be supported with collaborative research and drill funding by the State Government who are focussing the activities of the Geological Survey in this new minerals province for South Australia.**

**The confirmation of our earn-in rights to the Thurlga joint venture tenement adjoining Paris further strengthened Investigator's holding of prospective ground as first movers in the region.**

**We are applying the Company's available funds to prioritise our best targets and to maximise the impact of our 2015 exploration program."**

Mr Anderson added **"On the northern Yorke Peninsula, Investigator successfully negotiated farmland access and drilled the first holes at the Roundabout and Spyall copper gold targets. Using minimal ground disturbing techniques in full co-operation with the farmers, our drilling intersected elevated levels of copper and gold. These results are encouraging for just two holes testing such a large covered area extending from the historic Moonta copper field."**



**Figure 1: Investigator Resources - Plan showing Tenement holding and key Projects**

**Peterlumbo Project (EL5368 - IVR 100%) [Refer to Figure 1, 2, 3, 4, 5 and 6]:**

**Paris-Nankivel surveys:**

As previously announced (Investigator ASX Release: 13 April 2015), gravity and soil geochemical in-fill surveys were completed in the Paris-Nankivel area of the Peterlumbo tenement. The gravity survey was completed over an area east and south-east of the Paris Silver Deposit (“Paris”) (Figure 3) to cover the newly-recognised copper gold potential of the Nankivel dome. Two soil geochemical surveys were completed; east / south-east of Paris (Nankivel East) and north-west of Paris (Argos North) (Figure 4). Assay results have been received for the Nankivel East area, but are pending from the Argos North area.

The Nankivel granodiorite intrusive is interpreted to be a central driver to the Paris-Nankivel mineral system. The new data was collected as a follow-up to the step-change discovery of the Helen copper-gold-silver mineralisation about 3km north-east of Paris in late 2014. The data supports the exciting opportunity for more copper-gold deposits to be directly associated with surrounding Paris-style silver-lead deposits.



The integration of the multiple geological, geochemical and geophysical datasets, and iteration with the upgraded mineral systems model enables better prediction of targets in the Paris-Nankivel field. This includes a re-interpretation of the soil geochemical dataset that remains a major asset and advantage to the Company. Further interrogation of the extensive soil dataset, particularly for pathfinder elements has started. This is showing promising results towards improved target vectors for the soil targets that previously produced equivocal drill results such as Alexander west of Paris.

About 2,000m of drilling is planned to commence mid-2015 on the highest priority targets 1km to 3km east of Paris. The targets were selected due to their geochemical signatures and close association with structures and intrusives extending from the Paris deposit (Argos-Paris-Nankivel trend - Figure 5). The drill targets are; Helen South-west Skarn (copper, gold and silver), Nankivel Central Porphyry/Breccia (copper and gold) and Nankivel West (silver, lead and gold) (Figure 6).

Other drilling in the Argos/Ares North area (silver, lead, gold and copper) will be dependent on upcoming soil geochemical assay results and a successful Heritage clearance. The results of the 'pathfinder studies' in and around Paris, *i.e.* Helen East (copper, gold and silver), Helen West (copper, gold and silver), Diomedes (copper, gold and silver), Alexander South-east (copper, gold and silver), Nankivel (silver, lead and gold) and Nankivel East Rim (copper and gold) (Figures 2 & 6), will assist with priorities for the following round of drilling.

### Collaborative Drill Funding:

The 2,000m drilling planned for mid-2015 will be partially funded (A\$100,000) by a financial grant under the Plan for Accelerating Exploration ("PACE") Discovery Drilling 2015. This is a partnership between the South Australian Government and the minerals industry, designed to stimulate exploration in the State by providing a drilling grant for proposals with economic mineral potential (Investigator ASX Release: 29 April 2015). The program is managed by Department of State Development ("DSD"). A total of A\$10million over five-years has been made available to the minerals industry with grants of A\$2million per year.

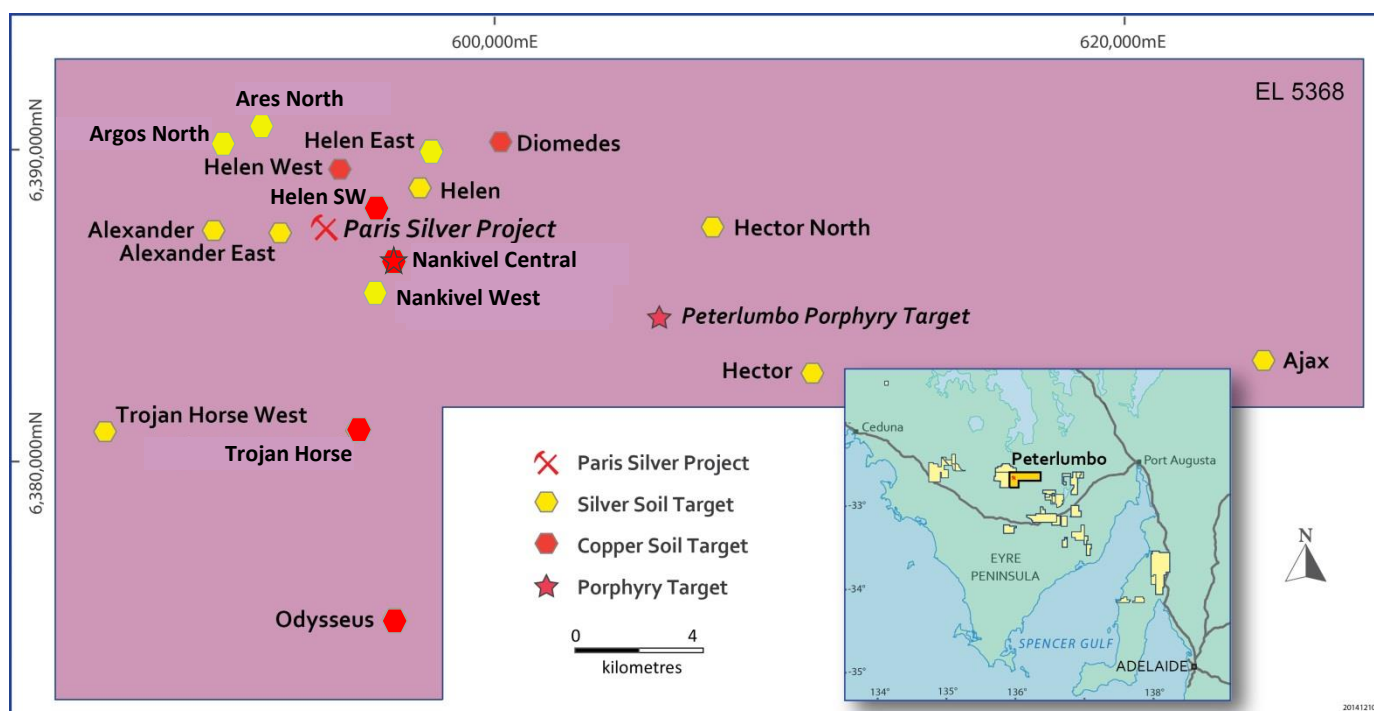
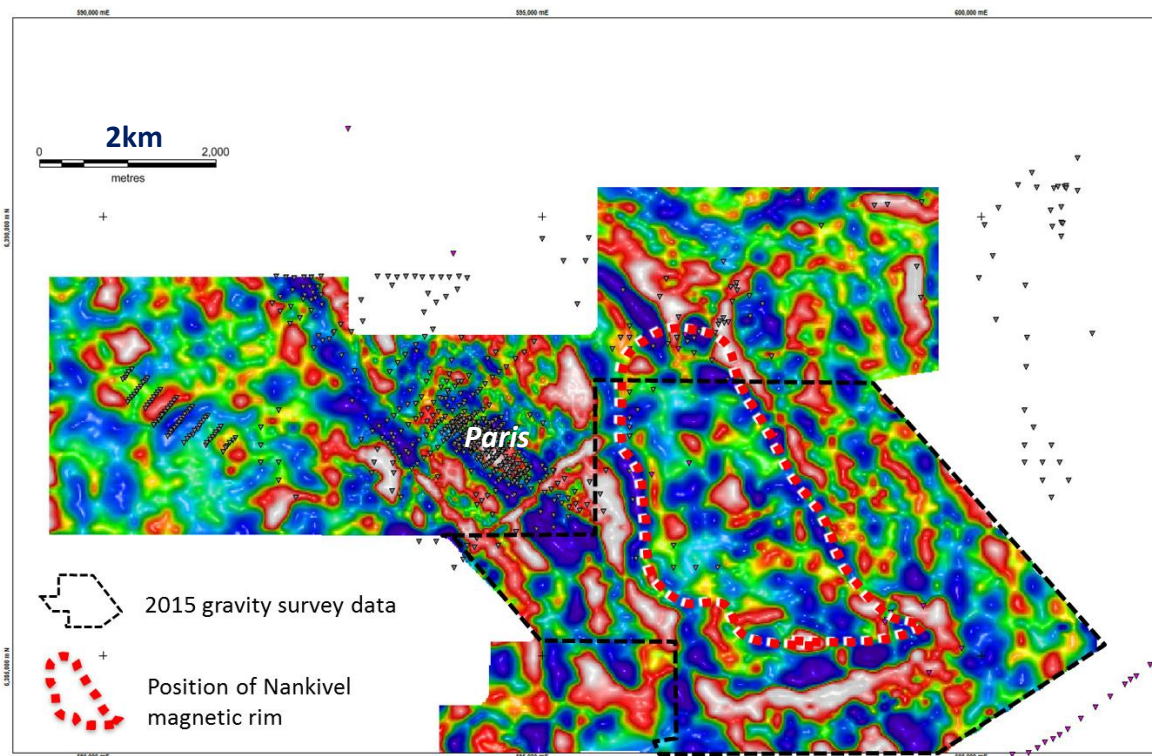
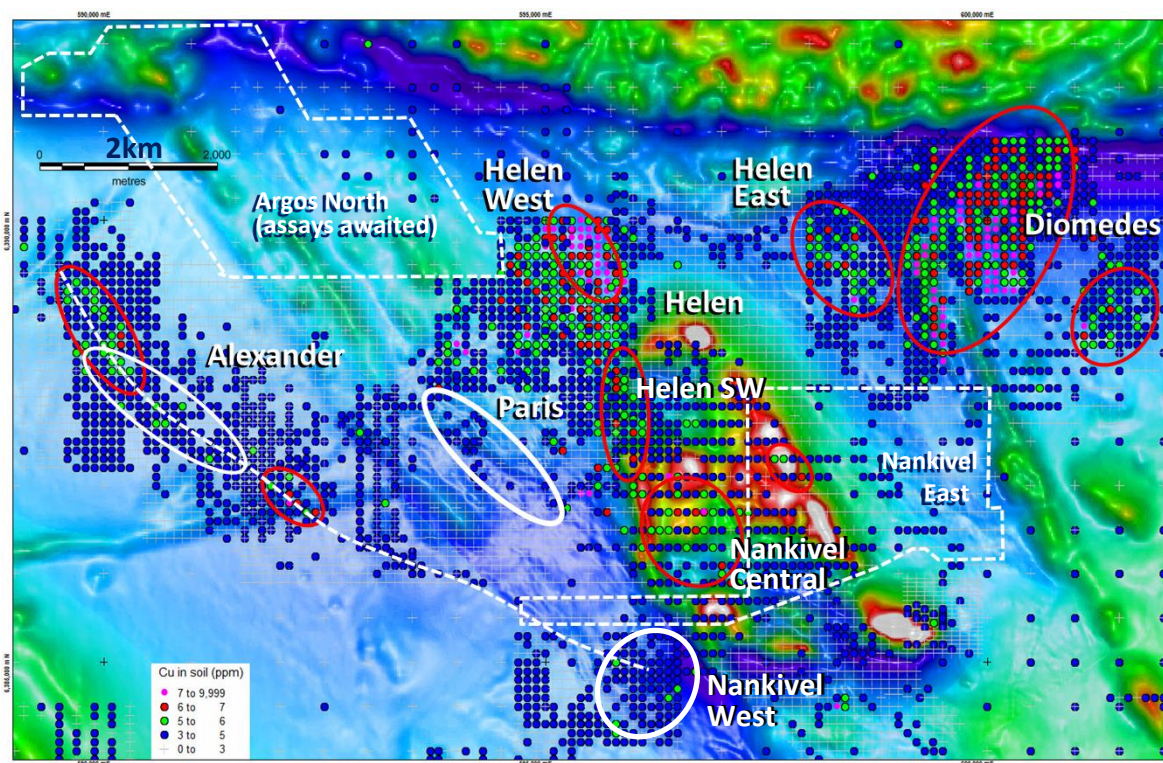


Figure 2: Peterlumbo – Plan of Target Locations



**Figure 3: Paris-Nankivel area** - Smoothed residual gravity image incorporating new Nankivel gravity data. Drillholes are shown as triangles.



**Figure 4: Paris-Nankivel area** - Copper-in-soil anomaly plan on TMI magnetic image incorporating the recent Nankivel East data and showing the Argos North survey area for which assays are pending



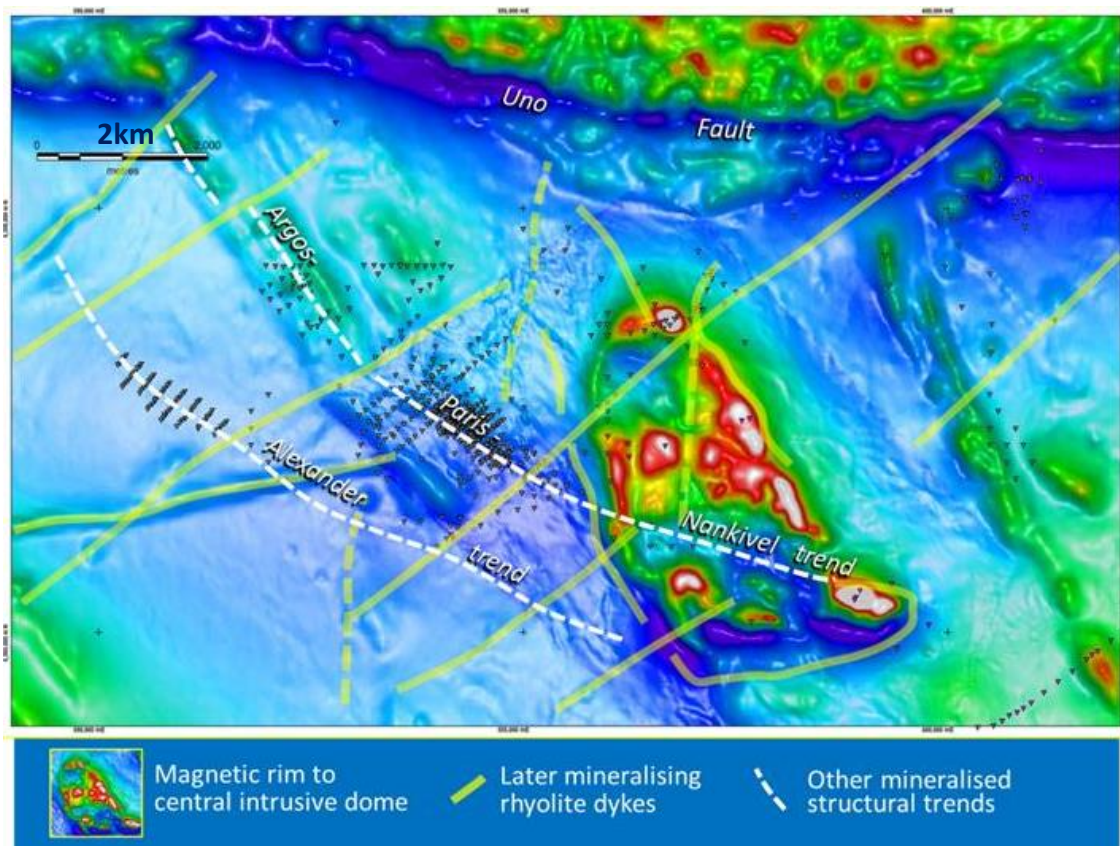


Figure 5: Paris-Nankivel area - Updated mineral system model

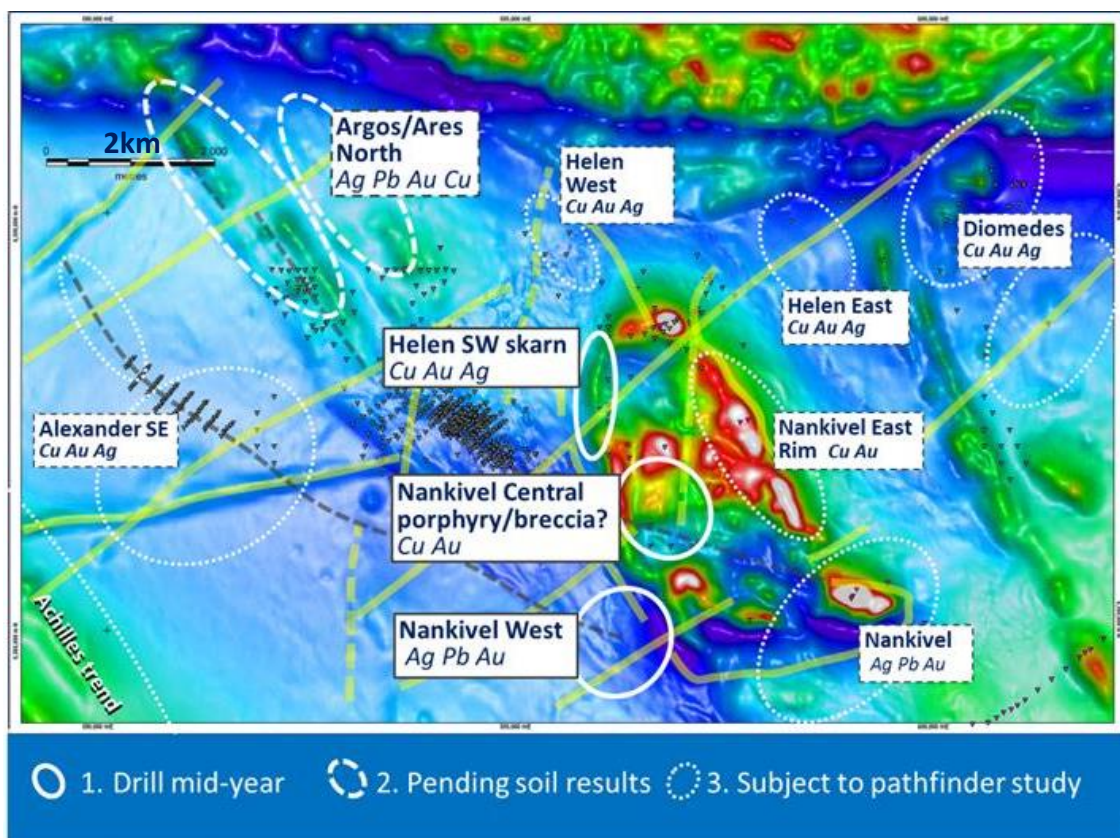


Figure 6: Paris-Nankivel area – Targets, targeted metals & deposits styles and prioritisation

## **Collaborative Research:**

The breakthrough Paris discovery, surrounding minerals system and the Company's interpretation of potential for new target styles in the Uno Province is attracting a lot of interest from research institutions and government agencies. Investigator is aiming to leverage its Paris project, data assets and Paris camp infrastructure as a research platform for these parties.

Considerable collaborative research on Paris and surrounds has commenced or is proposed with the Geological Survey of South Australia ("GSSA") and University of Adelaide.

Investigator has signed a *Memorandum of Understanding* with DSD for the GSSA to undertake and fund collaborative research on the company's Paris drill core. Access will also be provided to Paris and the surrounds, and also to Investigator's related datasets to facilitate the research. The primary research techniques that have already commenced and are being funded by GSSA are HyLogger™ scanning of representative drill cores, age dating and biogeochemical trials across the Paris deposit. The new information will be publicly available after short confidentiality periods. The collaborative research is expected to provide valuable information on the nature and target signatures of the breakthrough Paris discovery that will assist Investigator and the wider exploration community towards discovering more resource and development opportunities for South Australia.

## **Regional Eyre Peninsula Projects**

### **Kimba (EL4938) (IVR 100%) [Refer to Figure 1]:**

The Company has received approval (2 February 2015) from the Minister of Mineral Resources and Energy, South Australia to the transfer of Ellemby Consulting Pty Limited 49% interest to Investigator. Investigator now holds 100% of the tenement.

There has been limited activity on the tenement as the focus has been on the other higher priority East Eyre Projects and Northern Yorke Peninsula during the March 2015 Quarter.

### **Thurlga Joint Venture (Gawler Resources Limited, earning to 75% and Manager, Peninsula Resources/Adelaide Resources) Thurlga (EL5419) [Refer to Figure 1, 7 and 8]:**

In August 2014 (Investigator ASX Release: 18 August 2014) Investigator, established the "Thurlga Joint Venture" for the right to earn 75% interest in Thurlga EL5419. The initial phase was the expenditure of A\$200,000, which Investigator has now expended. The Company has advised its JV partner, Adelaide Resources, who agree and Investigator will continue with the Thurlga Joint Venture. Investigator will spend A\$550,000 over the next two-years to earn a 75% equity interest in the Joint Venture and will continue to manage the Joint Venture during this time.

As previously announced (Investigator ASX Release: 28 April 2015), during the Quarter, two gravity traverses have been completed (see Figure 7) over the central northern area of the Thurlga tenement, 'Central Gravity Zone' (Highlighted in green - Figure 8) previously identified from a course 2km by 2km regional survey. Further interpretation is required on this data.

Several field trips were undertaken early in the quarter, with preliminary geological mapping and rock-chip sampling to determine the required coverage for the soil sampling.

Regional soil sampling was completed (see Figure 8) over the identified target areas as determined by the gravity traverses, magnetic survey and topography. A total of 747 samples was collected on a 500m by 500m grid and were submitted for the "standard" 32-elements analysis. Prospecting during the soil sampling located further unmapped outcrops, some with skarn and altered carbonate appearances. Assay results for the soils and rocks are due early to mid-May.



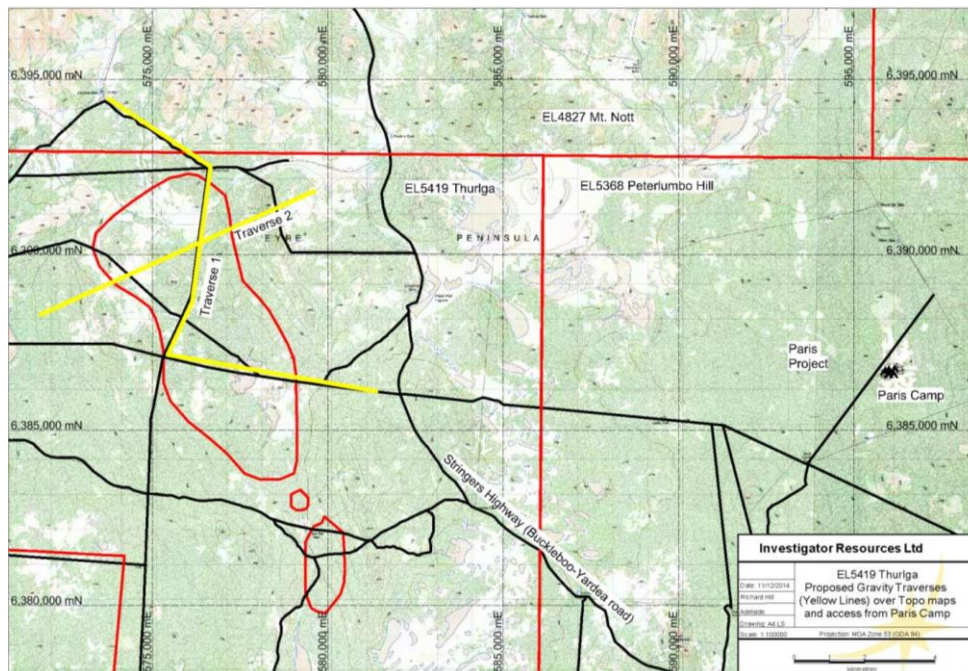


Figure 7: Thurlga Joint Venture - Recent Gravity Traverses (yellow lines) over main gravity anomaly (red outline)

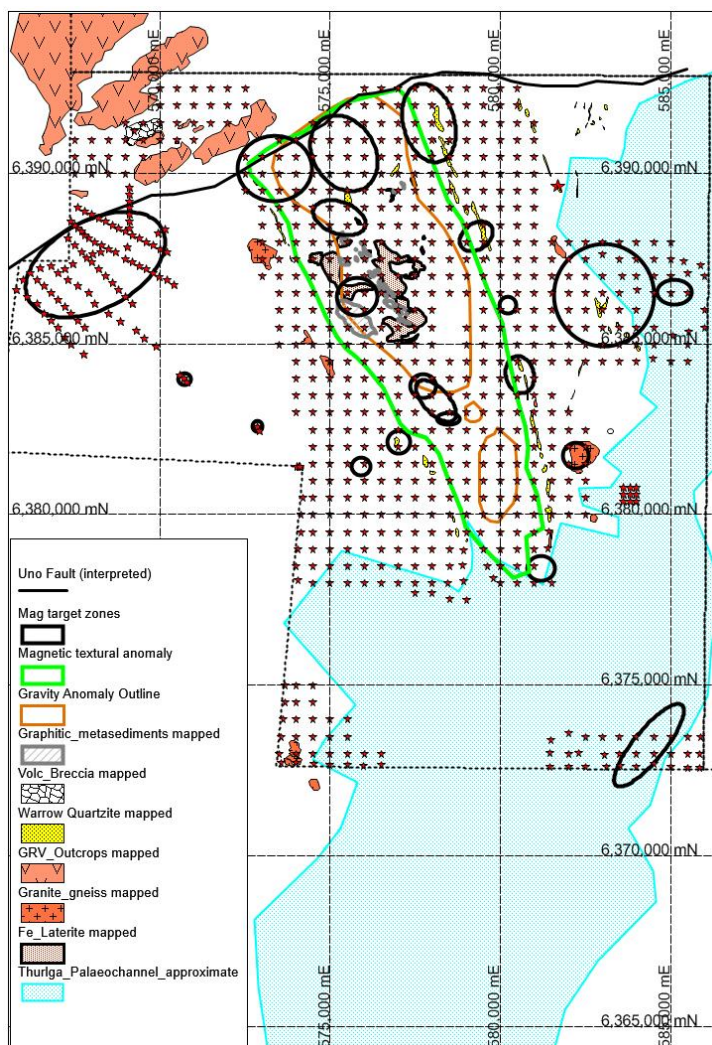


Figure 8: Thurlga Joint Venture - Completed regional soil sampling (red stars) and mapped geology.

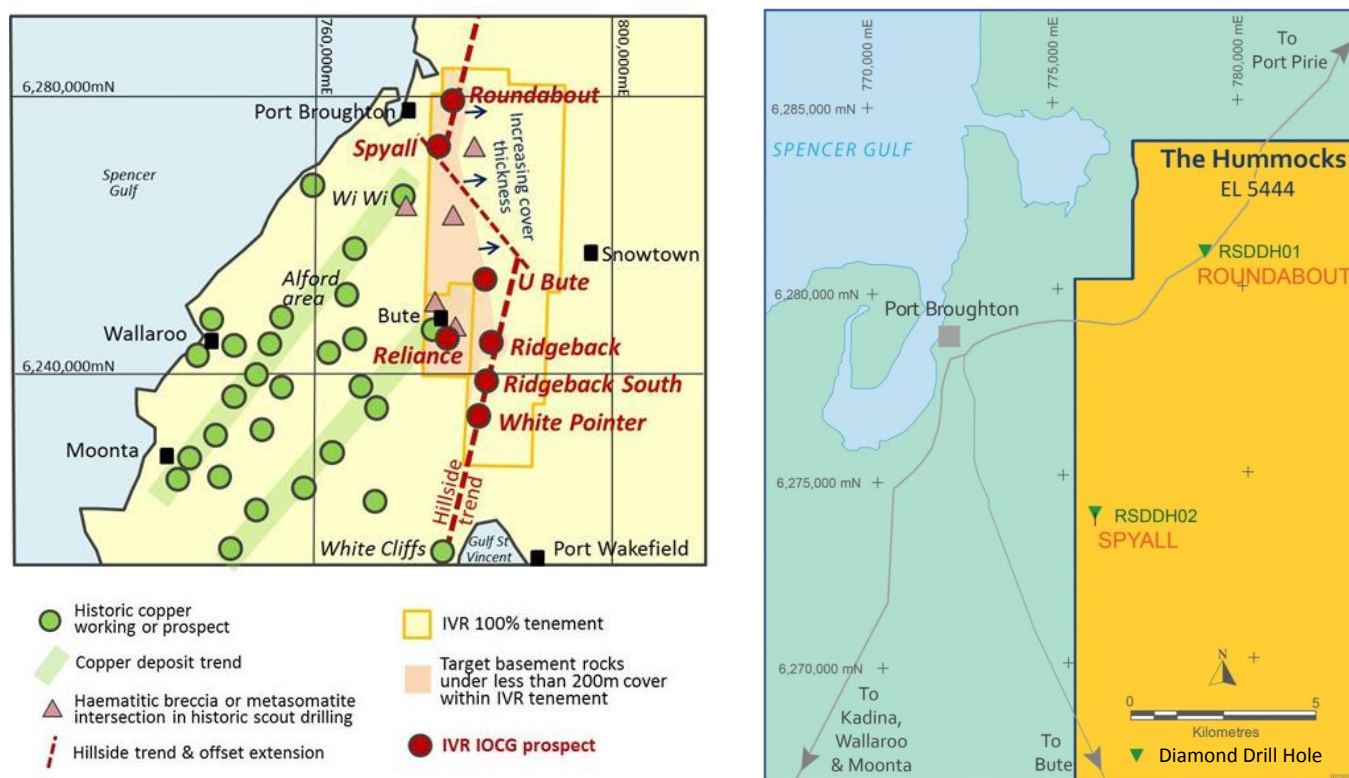


## Northern Yorke Peninsula IOCG Targets (IVR 100%)

**The Hummocks (EL4278) and Bute (EL4618) (IVR 100%)** [Refer to Figure 1, 9, 10, and 11, and Table 1]:

As previously announced (Investigator ASX Release: 18 February 2015 and 24 April 2015), two diamond holes, one at each prospect, were completed at Roundabout and Spyall (Figure 9). The drilling tested geophysical targets with iron-oxide copper gold (IOCG or Olympic Dam-style) potential under 50m to 200m of cover on the regional extensions to the historic Moonta copper field and the Hillside IOCG deposit. The drilling was conducted under access agreements with the landowners and site-specific procedures were applied to protect the sensitive cultivated environment.

Drilling commenced in mid-January 2015 at the Roundabout Prospect with a 341.4m vertical diamond hole (RSDDH001) drilled into the magnetic target. A second diamond drill hole RSDDH002 was drilled at Spyall to test a combined magnetic and gravity target. This hole was drilled to 349.7m at an inclination of 70° to the south.



**Figure 9: Northern Yorke Peninsula** - Plans of key targets, drill holes within Investigator’s tenements and relation to copper deposits and interpreted prospective trends.

A selected interval of drill core from both holes was cut and sent for analysis. Core was half-cut and 1m samples taken, with several samples taken to lithological boundaries. Sample preparation was completed in the Analytical Laboratory Services’ (“ALS”) laboratory, with samples being crushed and pulverised to >95% less than 75µm. Sub-samples were analysed utilising the ME-MS61r (gold by AA-26) analytical method.

Figures 10 and 11 show the lithological logs for the Roundabout and Spyall holes respectively, as well as the Roundabout gold profile and the Spyall copper profile for the assayed intervals.

## Roundabout Prospect

The Roundabout hole intersected Adelaidean sandstone and conglomerates to a depth of 301m and then Bute Metadolerite. The magnetite content of the metadolerite could account for the magnetic target and the hole was terminated at 341.4m (Figure 10).

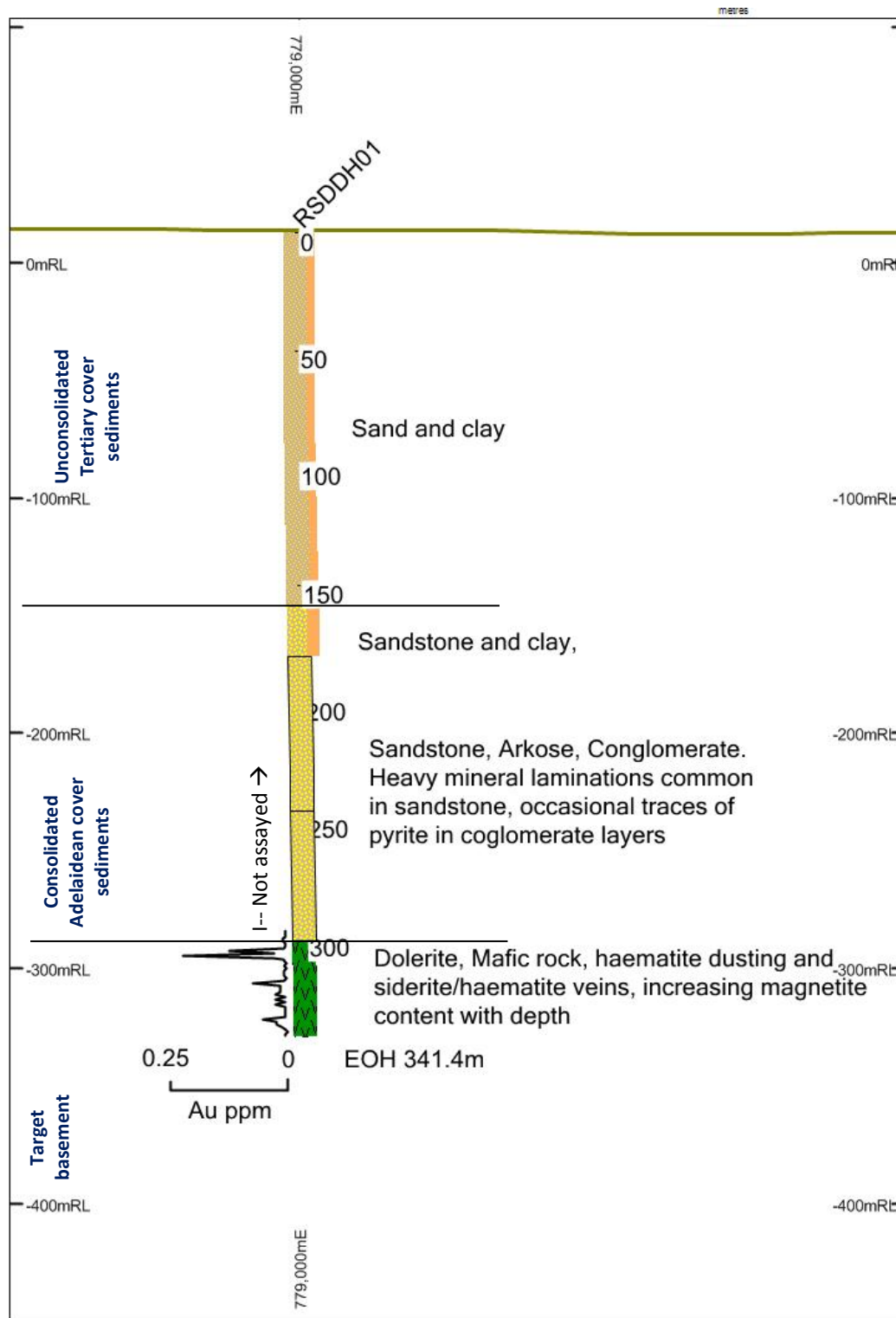


Figure 10: Roundabout drill section - Lithology log with gold profile



## Spyall Prospect

The Inclined Spyall hole intersected Adelaidean sandstone and conglomerate from a shallow depth and then Wandearah Metasediments from 81.5m. Of note were the relatively low magnetic susceptibility readings to about 300m followed by a zone of magnetite-bearing metasediments from 301m to 333m, which would account for the magnetic anomaly. Specific gravity of the core showed minor variations, however they are probably not significant enough to account for the gravity anomaly. It is most likely that (from the shallow depth to Palaeoproterozoic basement) the gravity anomaly could be due to an uplifted block of basement (horst) in this structurally complex basin margin area (Figure 11).

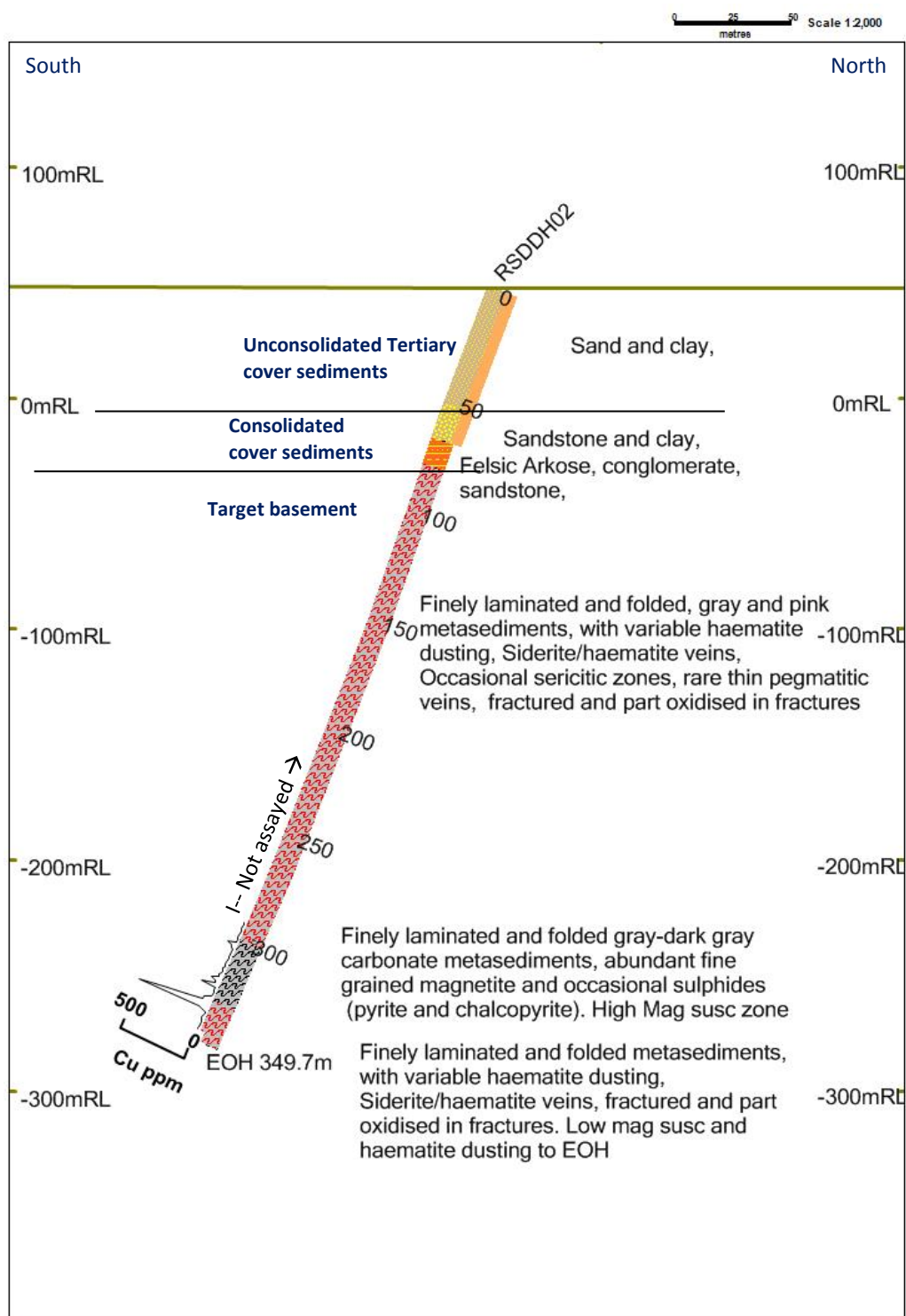


Figure 11: Spyall drill section - Lithology log with copper profile

## Assay Results

Assay results have now been received for the two holes drilled and Table 1 summarises the best gold and copper intersections.

**Table 1:** Summary of best gold and copper intervals

Hole ID	Prospect	From (m)	To (m)	Thickness (m)	Element	Grade (ppm)
RSDDH01	Roundabout	306.0	309.0	3.0	Gold	0.13
		302.0	339.0	37.0	Gold	0.03
		301.4	304.0	2.6	Copper	336.0
		312.0	314.0	2.0	Copper	129.0
		324.0	327.0	3.0	Copper	328.0
RSDDH02	Spyall	332.0	335.0	3.0	Copper	215.0

**Note:**

- All assay sample types were ½ core.
- Detection limits; gold 0.01ppm and copper 0.1ppm.
- Gold 0.01ppm cut-off, max interval of 1m internal dilution.
- Copper 120ppm cut-off, no internal dilution.

The 37m interval of anomalous gold in the Roundabout hole, RSDDH01 is considered to be significant, as in previous drilling (Ridgeback and re-assays of other companies' drilling) gold has been either at or below detection, or very low level. The peak value of 1m @ 0.23ppm gold is highly significant as it is the highest gold values Investigator has seen in the area.

Anomalous copper in RSDDH01 occurs below the unconformity between the Adelaidean and the Bute Metadolerite. The elevated copper in the Spyall hole (RSDDH02) at 332m to 335m occurs in carbonate metasiltstone.

Investigator will incorporate the new assay data to reinterpret the geology intersected in the holes. The broad gold-anomalous interval at the bottom of the Roundabout hole is particularly interesting as a possible indicator of a proximal mineral system. Adjacent geophysical features will be assessed as potential nearby targets.

## West Eyre Peninsula Projects

**Mt Centre (EL53880), Scrubby Peak (EL5389) Emerald Rise (EL5436) and Goog's Lake (EL5512) (IVR 100%) [Refer to Figure 1]:**

There has been no activity on the tenements as the focus has been on the higher priority Peterlumbo and northern Yorke Peninsula Projects during the March 2015 Quarter.

## Corporate - Priority Agreement

During the March 2015 Quarter, the 'Priority Agreement' with CITIC Australia expired. This does not have any impact to the operation of the Company.



# TENEMENT QUARTERLY STATUS

Table 2 summarises the changes to Investigator Resources Limited tenement holding during the March 2015 Quarter. Figure 1 shows the location of the Investigator tenements.

**Table 2:** Summary of Investigator Resources Limited tenement changes during the March 2015 Quarter

Tenement Number	Tenement Name	Registered Holder	Note
<b>Project: East Eyre Peninsula (IVR 100%)</b>			
5109	Lake Gilles	GRL	Current
4841	Moonabie	GRL	Current
4860	Moseley Nobs	GRL	Current
5406	Botenella Gate	GRL	Current
4726	Barna Hill	GRL	Current
4827	Mt Nott	GRL	Current
5270	Cootra	GRL	Current
4938	Kimba	IVR	Current *
<b>Project: Peterlumbo (IVR 100%)</b>			
5368	Peterlumbo	Sunthe	Current
<b>Project: Uno/Morgans (IVR 100%)</b>			
4769	Uno Range	GRL	Current
4828	Morgans	GRL	Current
<b>Project: West Eyre Peninsula (IVR 100%)</b>			
5388	Mt Centre	IVR	Current
5436	Emerald Rise	IVR	Current
5389	Scrubby Peak	IVR	Current
5512	Googs Lake	IVR	Current
<b>Project: Northern Yorke Peninsula (IVR 100%)</b>			
5444	The Hummocks	GOY	Current
4618	Bute	GOY	Current
<b>Project: Thurgla JV (PRL; GRL earning to 75%)</b>			
5419	Thurlga	PRL, GRL earning to 75%	Current

**Notes:**

IVR - Investigator Resources Ltd.

Sunthe - Sunthe Uranium Pty Ltd, a wholly owned subsidiary of Investigator Resources Ltd.

GRL - Gawler Resources Pty Ltd, a wholly owned subsidiary of Investigator Resources Ltd.

GOY - Goyder Resources Pty Ltd, a wholly owned subsidiary of Investigator Resources Ltd.

PRL - Peninsula Resources Ltd, a wholly owned subsidiary of Adelaide Resources Ltd.

\* Now 100% held by Investigator.

Investigator now holds 100% beneficial interest in EL4938 (Kimba) following the Minister of Mineral Resources and Energy, South Australia approval of the 49% interest transfer from Ellemby Consulting Pty Ltd. There were no other changes to the beneficial percentage interests in farm-in or farm-out agreements held or relinquished during the quarter.

## CORPORATE FOCUS AND KEY PROJECTS

- Build on the maiden resource for the Paris silver project by testing the related silver lead copper gold targets
- Further discoveries of competitive deposits of silver, lead, gold and copper using our first mover status, strong ground position and proprietary soil geochemical dataset in the reinvigorated Uno Province
- Become a silver, lead, gold and copper developer through exploration and acquisition.

## KEY PROJECTS

### Southern Gawler Craton:

1. Paris silver project and other silver lead gold or copper targets within the Paris-Nankivel minerals system
2. Regional East Eyre Peninsula - silver lead gold copper soil targets in other potential fields such as Thurlga & Uno/Morgans.
3. Northern Yorke Peninsula - Roundabout/Ridgeback IOCG & Hillside-style copper targets.



The quarterly direct exploration expenditure was A\$1.032million, and associated corporate and administration costs were A\$0.259million. The Company held A\$3.374million in cash at the end of the report quarter.

### Capital Structure

As at 27 April 2015:

- Shares on issue 462,287,960
- Listed Options 114,179,704
- Unlisted Options 15,480,000

The top 20 shareholders at 27 April 2015 held 37.13% of the shares on issue.

Total shareholders: 3,450

### Substantial Shareholders

As at 27 April 2015:

- CITIC Australia Pty Ltd - 14.51%
- Acorn Capital Limited - 5.99%

ASX listing code: IVR

### Directors and Management

Mr Roger Marshall OBE (Non Exec. Chairman)

Mr David Jones (Non Exec. Director)

Mr Bruce Foy (Non Exec. Director)

Mr John Anderson (Managing Director)

Mr Garry Gill (CFO and Company Secretary)

## About Investigator Resources

Investigator Resources Limited (ASX code: IVR) is a metals explorer with a focus on the opportunities for greenfields silver-lead and copper-gold discoveries offered by the resurging minerals frontier in South Australia's southern Gawler Craton underlying the northern Eyre and Yorke Peninsulas.

The Company announced its maiden Inferred Mineral Resource for its 2011 Paris silver project of 5.9Mt at 110g/t silver and 0.6% lead, containing 20Moz silver and 38kt lead credit (at a 30g/t silver cut-off) in October 2013.

Investigator Resources Limited has developed and applied a consistent and innovative strategy that defined multiple quality targets, including the Paris silver discovery and at least two other epithermal fields at Ajax and Uno/Morgans, giving Investigator Resources Limited first mover opportunities across the Uno Province.

The Paris mineralisation is considered to have formed at the same time as the Olympic Dam IOCG deposit and opens up new target potential for silver-lead and copper-gold mineralisation in epithermal, porphyry and IOCG-style deposits on the northern Eyre Peninsula.



The information in this report relating to exploration results is based on information compiled by Mr. John Anderson who is a full time employee of the company. Mr. Anderson is a member of the Australasian Institute of Mining and Metallurgy. Mr. Anderson has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Anderson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this report that relates to Mineral Resources Estimates at the Paris Silver Project is extracted from the report entitled "Maiden Resource Estimate for Paris Silver Project, South Australia" dated 15 October 2013 and is available to view on the Company website [www.investres.com.au](http://www.investres.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 and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.