

# Superior Resources Limited

ABN 72 112 844 407

## Registered Office:

Level 2, 87 Wickham Terrace,  
Spring Hill,  
QUEENSLAND, 4000.

## Postal Address:

PO Box 10288,  
Brisbane Adelaide Street,  
QUEENSLAND, 4000.

**Telephone:** 07 3839 5099

**Facsimile:** 07 3832 5300

**Email:** [manager@superiorresources.com.au](mailto:manager@superiorresources.com.au)

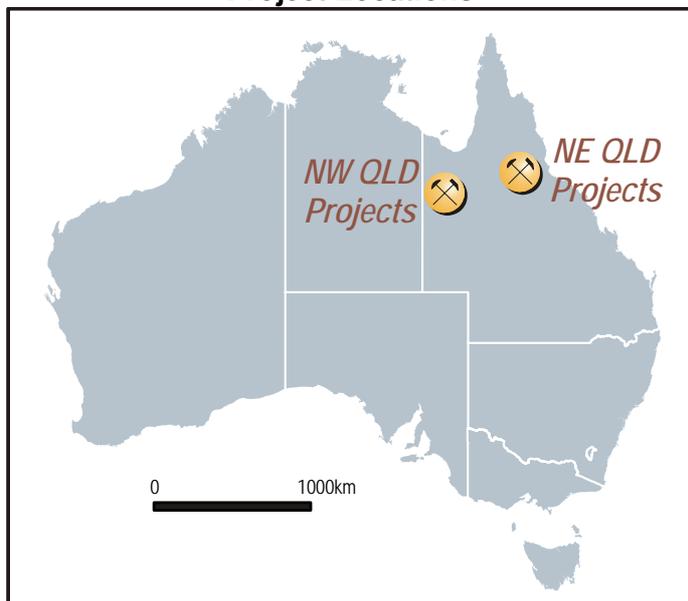
30 JUNE 2013

## QUARTERLY ACTIVITIES REPORT

### HIGHLIGHTS

- A new exploration permit granted at Cassidy Creek in the Greenvale Project with initial work indicating good potential for volcanogenic massive sulphide mineralisation at the Burgundy, Riesling and Chablis prospects.
- An application made for an additional exploration permit in the Tomahawk Creek area in the Victor Project where a review of the data indicates substantial potential for Mount Isa type copper and lead-zinc-silver mineralisation within the basement Proterozoic rocks below Cambrian cover.

### Project Locations



### Superior Resources Limited

#### ASX:SPQ

#### Board

David Horton – Non-exec Chairman  
Peter Hwang – Managing Director  
Ken Harvey – Exploration Director  
Carlos Fericola – Company Secretary

#### Securities

Ordinary Shares – 83,105,955  
Top 20 hold over 60% of Shares

#### Financial

Cash and Shares – \$0.5M

#### Summary

Superior Resources Limited (SPQ) is a Brisbane based ASX listed mineral explorer whose principle aim is the discovery of a large base metal deposit in northern Queensland. Superior holds a number of exploration projects in northwest Queensland for large Mount Isa type copper and lead-zinc-silver deposits and exploration projects in northeast Queensland for copper-gold-lead-zinc-silver deposits. Superior also holds gold, phosphate and uranium tenements.

#### Share Registry

Link Market Services  
Level 15, 324 Queens Street  
Brisbane, QLD, 4000

#### Web Site

[www.superiorresources.com.au](http://www.superiorresources.com.au)

#### Contact

Peter Hwang  
(07) 3839 5099

## EXPLORATION OVERVIEW

This quarter has seen the granting of the Cassidy Creek exploration permit (EPM19247) with initial work on the area showing good potential for volcanogenic massive sulphide (VMS) deposits at the Burgundy, Riesling and Chablis prospects within this tenement. This Cassidy Creek exploration permit has now been combined with the One Mile mining lease and the Cockie Creek exploration permit application (EPMA18987) into the Greenvale Project. The addition of the prospective Burgundy, Riesling and Chablis prospects to the prospective One Mile and Cockie Creek Copper prospects further increases the value of the Greenvale Project to SPQ.

Despite the apparent increasing value of the Greenvale Project to SPQ, exploration for Mount Isa style deposits in northwest Queensland is still seen of great importance to SPQ. It is the search for these world-class deposits that offers the best chance of SPQ becoming a major company. During the quarter a review of northwest Queensland was undertaken to identify the most prospective areas on which further work should be focussed. This work highlighted the potential of the Victor Project which includes the Victor Creek, Harris Creek and adjacent tenements and a further exploration permit application (EPM25264 "Tomahawk Creek") was made over the area to the south of the Harris Creek area. The work also highlighted the potential of the Nicholson West prospect.

A 50% reduction in area was made to EPM16995 "Wills Creek" during the quarter.

SPQ's current tenement position, in northeast and northwest Queensland, is shown in Figures 1 and 2 respectively.

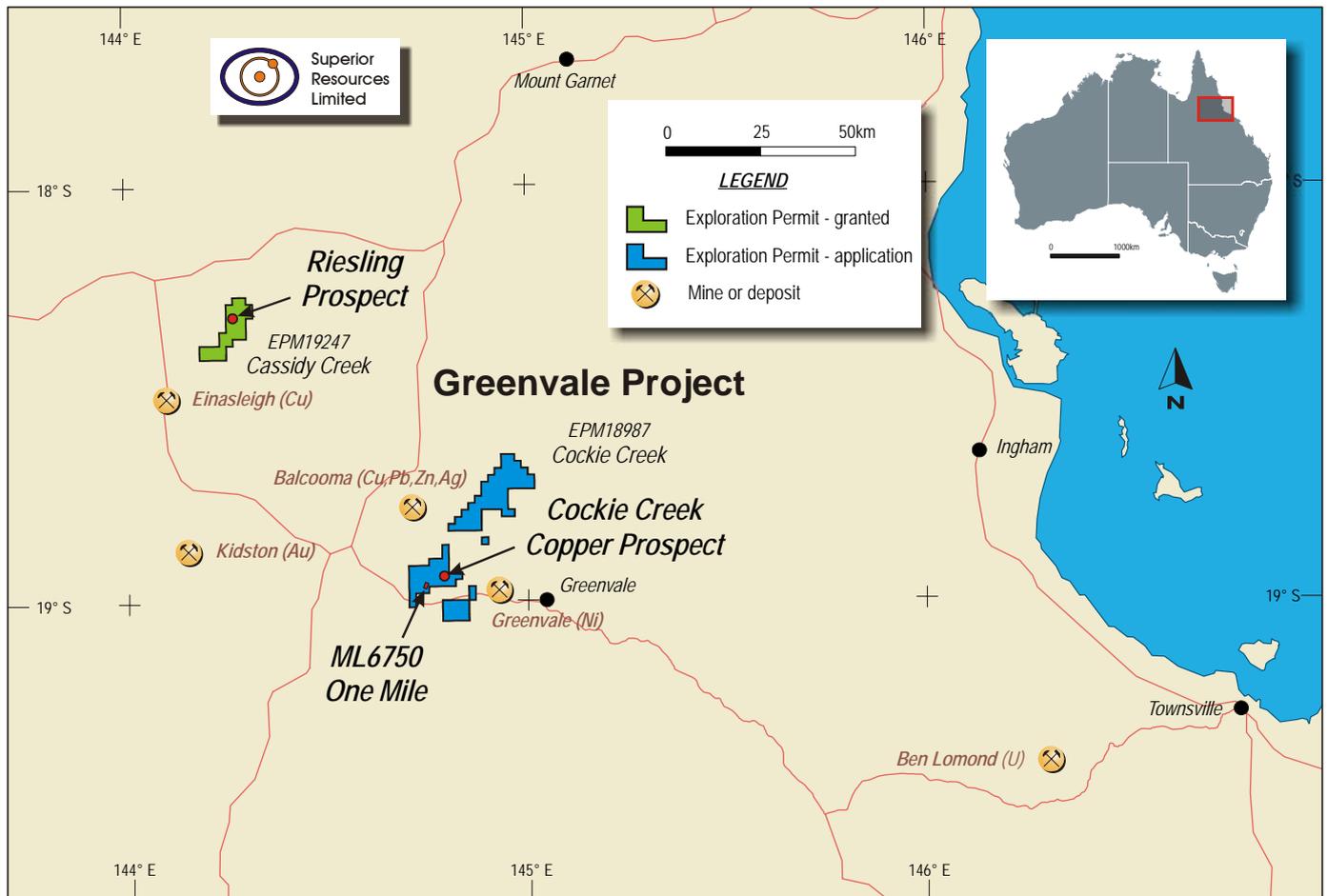


Figure 1. Superior Resources Limited – Greenvale Project location northeast Queensland .

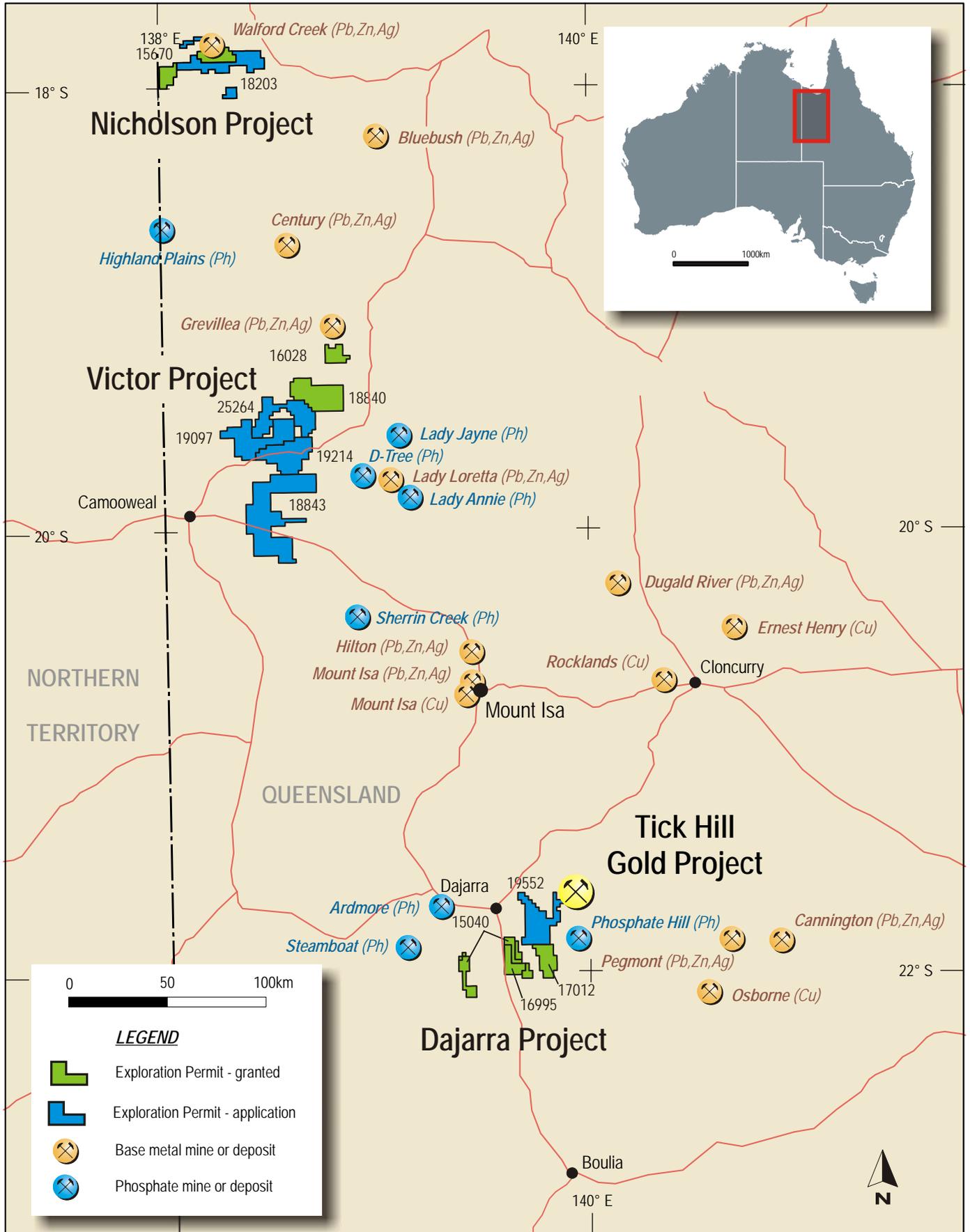


Figure 2. Superior Resources Limited - Northwest Queensland project locations.



## EXPLORATION ACTIVITIES

### Greenvale Project – Northeast Queensland

Granting of EPM19247 “Cassidy Creek” occurred on 28 May 2013. This tenement has now been combined with the One Mile mining lease and the Cockie Creek exploration permit application (EPMA18987) into the Greenvale Project.

#### ***EPM19247 “Cassidy Creek” (Burgundy, Riesling and Chablis Prospects)***

Assessment of the area applied for under EPM19247 prior to its offer, allowed reduction of the granted area of the tenement to 30 sub-blocks (90 km<sup>2</sup>). This keeps the tenement rent to a minimum and focuses attention to the areas with the best potential. The granted area (Figure 3) covers all of the Burgundy, Riesling and Chablis prospects as well as two areas which show anomalous stream gold BCL anomalies in historical exploration. Two interesting magnetic low features have also been retained.

As announced to the ASX on 24 July 2013, the initial compilation and assessment work as well as a field visit to the Burgundy, Riesling and Chablis prospects have been encouraging and a soil sampling program is currently in progress. This soil sampling program covers the most prospective areas of the Riesling and Burgundy prospects and is designed to highlight the best areas within the 6km length of the extensive mineralised zone for further attention.

Limited rock chip sampling completed during the field visit validates the more extensive rock chip sampling completed over the area by CRA Exploration (CRAE) and provides additional elements not assayed by CRAE (Table 1). Notably bismuth is elevated in samples which show higher lead values. The gossan showing high-grade lead (29.7%) in sample 3005684 is shown in Photograph 1.

**Table 1. Recent surface rock chip sample results from the Riesling and Burgundy prospects**

Prospect	Easting	Northing	Rock	Sample	Au (g/t)	Ag (g/t)	Bi (ppm)	Cu (%)	Fe (%)	Pb (%)	Zn (%)
	MGA Z55	MGA Z55									
Riesling	211099	7972372	Gossan	3005683	0.02	7.4	83	0.11	18.8	0.16	0.25
Riesling	211177	7972633	Gossan	3005684	0.17	44.4	1555	0.29	20.3	29.70	0.40
Riesling	211408	7973145	Gossan	3005685	0.06	105.0	662	0.53	16.9	1.12	0.10
Riesling	210987	7972262	Gossan	3005686	0.01	0.8	5	0.07	22.0	0.30	0.51
Burgundy	209920	7970675	Gossan	3005687	0.01	2.1	146	0.09	25.7	0.64	0.21

In addition to the soil sampling currently in progress, interpretation of the extensive ground electromagnetics (EM) completed by CRAE is currently in progress. This EM survey was completed after CRAE drilled five holes and, apart from drilling by BHP of four holes at the Burgundy Prospect, most anomalies within the EM survey appear to be untested by drilling.



Photo 3. Riesling Prospect – High grade lead gossan (29.7% Pb, 44g/t Ag) containing cerussite ( $PbCO_3$ ) after massive sulphides – 211,177E; 7,972,633N.

## Victor Project – Northwest Queensland

As shareholders are aware, the principal reason for incorporating SPQ was to search for large Mount Isa style deposits in northwest Queensland. These world-class deposits not only offer the best chance of SPQ becoming a major company but they are also essential for sustaining a long term mining industry in northwest Queensland.

A review of the northwest Queensland project during the quarter further highlighted the potential of the Victor Project which now includes the Victor Creek, Harris Creek and other EPMs in the general area. On the basis of the review a further exploration permit application (EPM25264 “Tomahawk Creek”) was made over the area to the south of the Harris Creek area.

The location of the Tomahawk Creek EPM application in relation to SPQ’s other tenements is shown in Figure 4. The new EPM area is totally covered by Cambrian cover sediments with a thickness of between approximately 200m and 400m and which lie above the Proterozoic rocks which are prospective for Mount Isa type deposits. Extensive areas of highly anomalous soil lead values (as shown in Figure 4) occur in soils on the Cambrian sediments. These reflect substantial lead-zinc mineralisation in the Cambrian rocks. However of greater interest to SPQ is the possibility that the lead could reflect ‘leakage’ from lead-zinc mineralisation in the more prospective Proterozoic basement rocks.

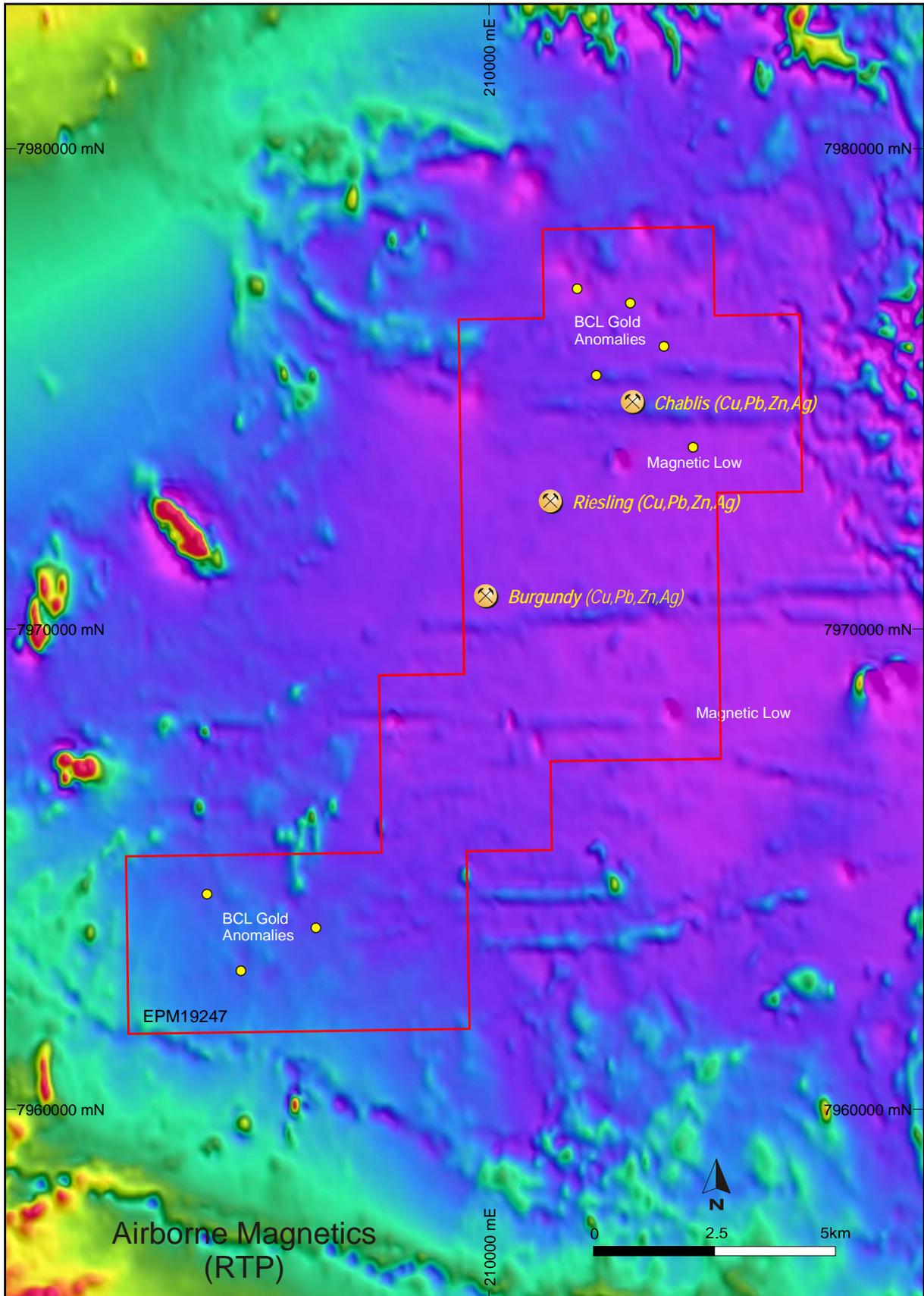


Figure 3. Cassidy Creek Exploration Permit (EPM19247) – Airborne magnetics (RTP) with Burgundy, Riesling and Chablis prospect locations shown. Also shown are the anomalous BCL stream samples and two magnetic low features of possible interest.

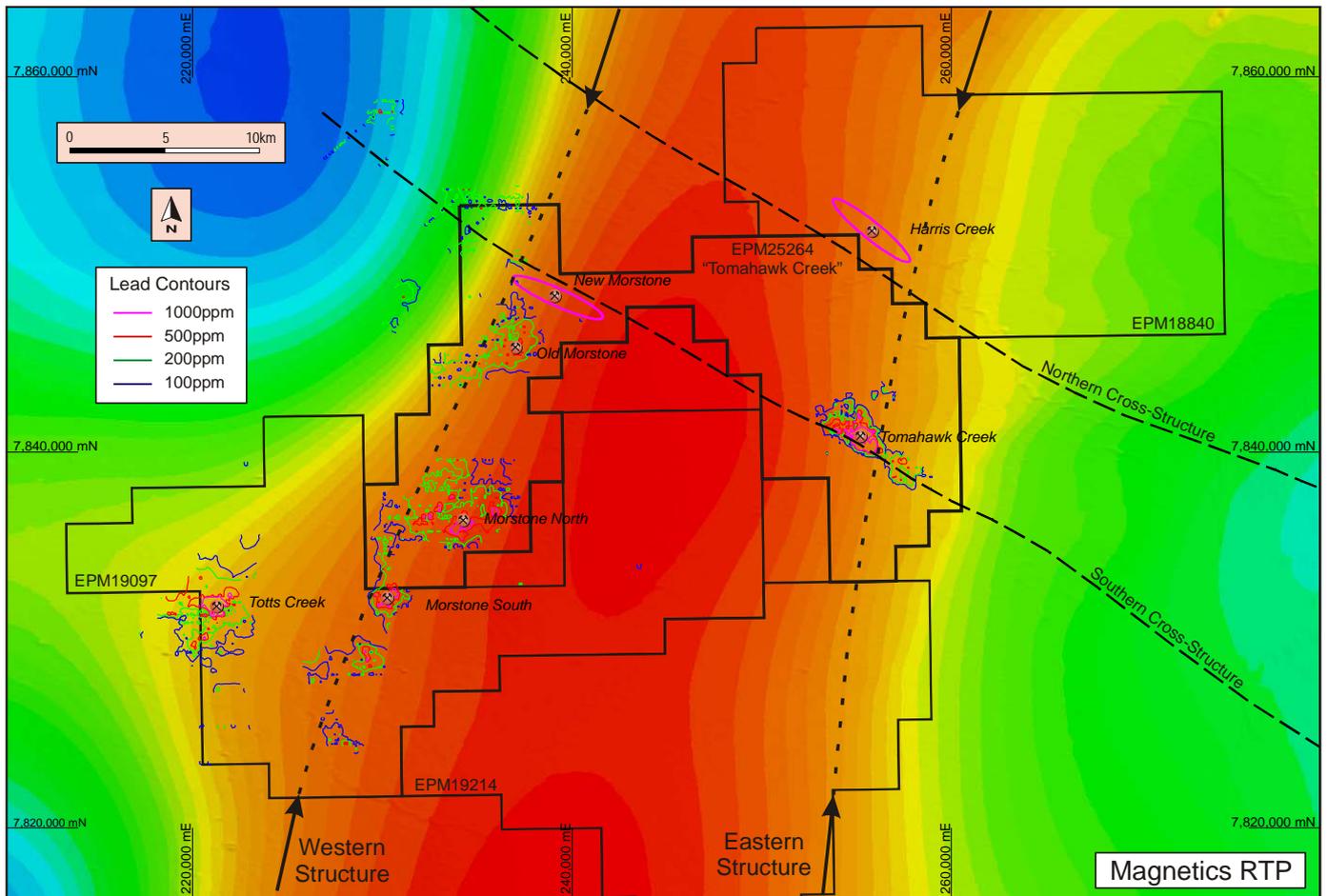


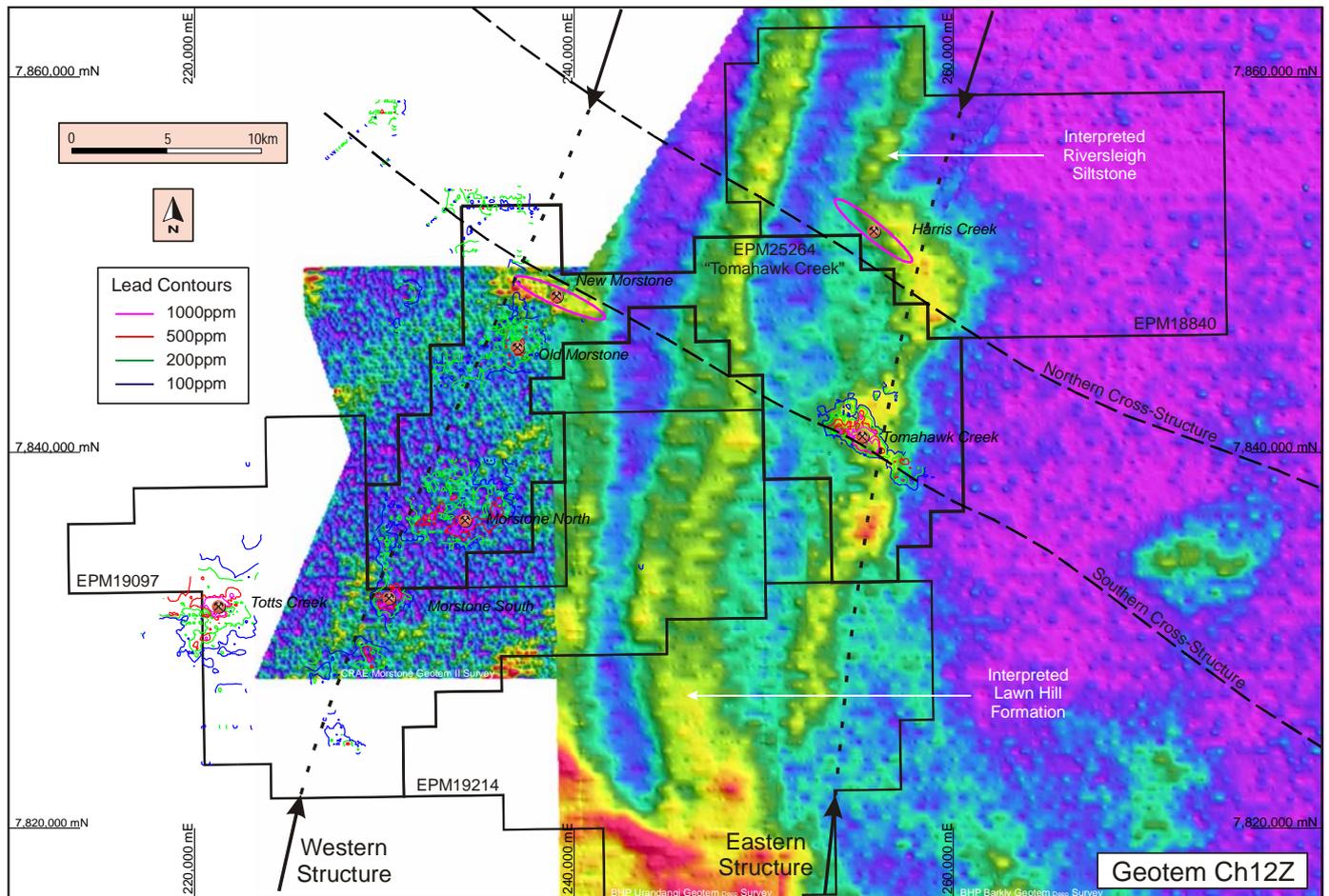
Figure 4. Tomahawk Creek Exploration Permit – Airborne magnetics (RTP) showing the prominent northeast trending magnetic anomaly which is interpreted to reflect a fault bounded block of Proterozoic basic volcanics which are a potential source of copper for deposits in the area. Soil lead contours are shown with lead anomalies apparently lying above the structures which bound the block of interpreted basic volcanics. The structural setting is similar to that at Mount Isa.

Because the Tomahawk Creek area is covered by Cambrian sediments, information on the underlying prospective Proterozoic rocks has to be interpreted from geophysical surveys and other data. The following material is a summary of the interpretation which supports the conclusion that there is substantial potential in the basement Proterozoic rocks in the Tomahawk Creek and surrounding area.

As shown in Figure 4, a major northeast trending magnetic anomaly occurs through the Victor Project area. This magnetic anomaly is interpreted to result from a deeply buried block of basic volcanics with a width of approximately 25km. The basic volcanics are potentially a source of copper for deposits as occurs at Mount Isa where the copper is presumed to be sourced from a similar block of basic volcanics within the Leichhardt River Fault Trough.

At Mount Isa copper and lead-zinc-silver deposits occur within the sediments above and on the faulted margins of the Leichhardt River Fault Trough. As shown in Figure 4 the lead anomalies tend to lie along the faulted margins (Eastern and Western structures) of the interpreted block of basic volcanics. The lead therefore appears to be related to the structures in the prospective basement Proterozoic rocks rather than to the Cambrian rocks. The lead may therefore be 'leakage' from mineralisation in the basement in a similar structural setting to that at Mount Isa.

Figure 5 shows a compiled image of the channel 12Z airborne electromagnetics (EM) data for the Tomahawk Creek area. The channel 12Z data 'looks' below the Cambrian cover and detects conductors in the Proterozoic basement. The two linear anomalous zones are conductive sedimentary units within the basement Proterozoic rocks. These units are interpreted to be the Riversleigh Siltstone and the Lawn Hill Formation which are hosts to Mount Isa type mineralisation at Grevillea and Century respectively. Both units are therefore prospective for Mount Isa type deposits. It is also clear from this data that these prospective units lie on top of the deeper interpreted basic volcanics indicated by the airborne magnetics.



*Figure 5. Tomahawk Creek Exploration Permit – Airborne electromagnetics (Channel 12Z) showing prospective host conductive horizons within the basement Proterozoic sediments. These horizons are interpreted to be the Riversleigh Siltstone and the Lawn Hill Formation which both contain Mount Isa style mineralisation to the north of the area.*

In this permissive environment, geophysical anomalies which may reflect mineralisation in the basement should be considered to be highly prospective for Mount Isa style deposits – particularly those that occur on or close to the eastern or western structures. Figure 6 shows the late channel 16X data from the airborne EM. This image shows clearly the Harris Creek anomaly which has been reported previously but also the New Morestone anomaly in the northwest part of the new Tomahawk Creek area. Both anomalies occur close to the main bounding structures but also lie near the two cross-structures shown. Both anomalies are considered to have significant potential for Mount Isa style mineralization.

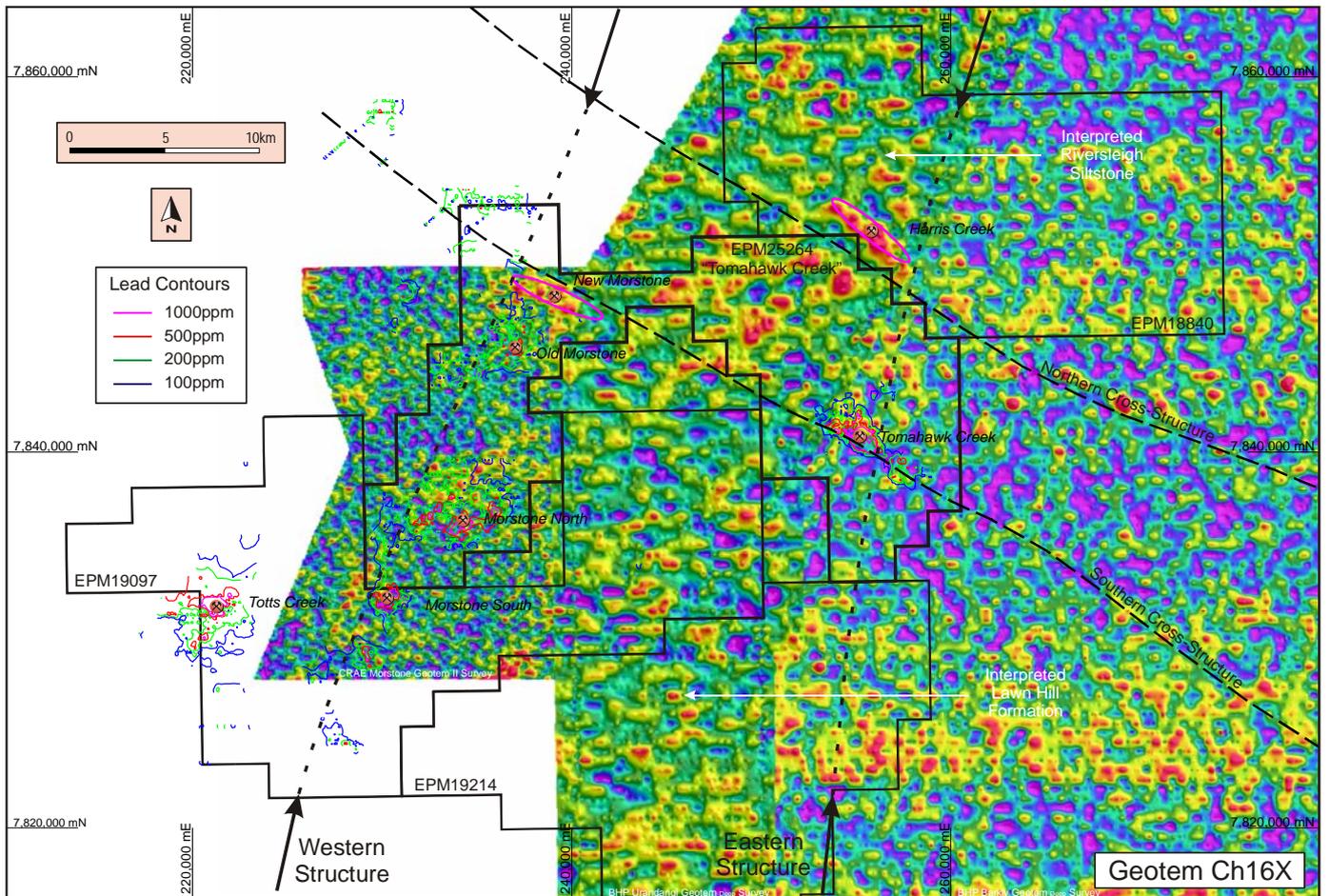


Figure 6. Tomahawk Creek Exploration Permit – Airborne electromagnetics (Channel 16X) showing the Harris Creek airborne EM anomaly and the anomalous area which stretches westward from the Harris Creek anomaly to the New Morestone anomaly in the northwestern part of the Tomahawk Creek EPM.

A continuing issue with parts of the Victor Project area relates to the declaration of Wild Rivers and Endangered Regional Ecosystems over areas that do not warrant preservation or protection but which restrict access for exploration. These areas affect the Harris Creek and Victor Creek prospects to a significant extent, but to much lesser extents in other areas of the Victor Project. Exploration should be possible over a considerable part of the Tomahawk Creek area when granted.

## Tick Hill – Northwest Queensland

In accordance with an Option and Sale Agreement between Diatreme Resources Limited (DRX) and Mount Isa Mines Limited (MIM), mining lease No's 7094, 7096 and 7097 are being assigned 100% to DRX. This process has been delayed over the past couple of years by regulatory requirements within the government approvals process. However, progress achieved to date was sufficient to allow the Farm-In and Joint Venture Agreement between SPQ and DRX to be formalised and signed in June.

Following renewal of the mining leases, each for ten (10) year terms, the commencement of the earn-in under the Joint Venture Agreement remains conditional on the completion of the transfer of the mining leases from MIM to DRX which is in progress.



## CORPORATE ACTIVITIES

The company has continued an increasingly active period of corporate activity during this quarter. The main corporate focus of the company has been:

1. continued development of its corporate growth strategy;
2. planning and developing fund raising strategies; and
3. engaging with local and foreign third parties regarding potential participation in the NW Queensland projects.

Significant resources during this quarter were directed to further developing current and long term funding strategies. Broadly, the company's strategy contemplates a combination of direct project funding from third parties through direct investment and joint venture arrangements as well as on-market funding through traditional capital raising campaigns.

Apart from funding the general operational requirements of the company, the capital raising campaigns will be based on proposals to increase the exploration activity levels on the Northwest Queensland projects and to resource the exploration of the several new prospects at the Greenvale Project.

The company has engaged in initial discussions with several local and foreign corporations regarding the co-funding of the larger Northwest Queensland projects.

## INVESTMENTS

SPQ maintains an exposure in relation to ASX listed uranium focused company, Deep Yellow Limited (ASX:DYL). At 30 June 2013, the company holds 7,000,000 DYL shares with a closing value of \$245,000.

A handwritten signature in black ink, appearing to read 'Peter Hwang', with a long horizontal flourish extending to the right.

**Peter Hwang**  
**Managing Director**

*The information in this report that relates to Mineral Resources and Exploration Results is based on information compiled by Mr Ken Harvey, a full-time employee and shareholder of Superior Resources Limited, who is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Harvey has sufficient experience which is relevant to the style of mineralisation 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Harvey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*