



Davenport Resources, Exploration Review

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Geophysics

Davenport Resources engaged Southern Geoscience Consultants (SGC) to review and interpret the data from the airborne survey with the following transcribed from the final report.

In total, 7,290 line km of airborne magnetics and radiometrics was flown by MagSpec airborne surveys in July 2017 over the Southern Cross Bore project. The Southern Cross Bore Project includes one known deposit, Johnnies Reward, which is characterised by a discreet magnetic anomaly.

The new detailed magnetic and radiometric survey has delivered good quality data and has enhanced the understanding of the area. A new structural and lithological interpretation has been completed and has delivered a range of exploration leads.

Three styles of targets have been selected, discreet magnetic targets, radiometric targets and broad areas of interest. Sixteen discreet targets and five broad areas of interest have been selected (Figure 1), although two targets T13 and T14 were outside the exploration licenses. These targets are recommended for further investigation. Field follow up, including mapping and geochemistry, will drive more rigorous ranking and prioritisation of targets. The highest priority targets recommended for ground follow up are the high amplitude magnetic targets T1, T2, and T3 which are most analogous to Johnnies Reward, only larger in size and amplitude.

Analysis of Landsat and Aster data in the project area should also be considered to enhance geology and targeting. A specialist in the economic geology of high grade metamorphic terrains may add significant value to the work compiled.

There remains scope for more detailed scale analysis of the airborne survey data, including modelling and inversion, but this is best suited to small areas of specific interest with confirmed priority. Geophysical follow up would be recommended for confirmed target areas; suitable methods include electromagnetics and IP, depending on the style of mineralisation expected.

Field Work

A four-day reconnaissance field mapping project was carried out in September 2017 by Chris Bain and John Collier. The aim of the field work was to follow up the recommendations made by SGC with respect to the higher priority targets. A total of 20 rock chip samples and three stream samples were collected. A summary of the findings are as follows:

Traverse 1 (Day 1) – Started at Johnnies Reward then west over the ridge to JC's target 1. Samples (DAV0001 – DAV0005) were taken within the calc-silicate unit which was followed to the south then back around a possible fold hinge to Jonnies Reward. DAV0001, ~200 m southwest of Johnnies Reward recorded anomalous copper (81 ppm Cu) and within the 90th percentile of all samples. No anomalous gold was evident from the assays

Traverse 2 (Day 1) – West of Black Angus (Target 3). Evidence of tourmaline-rich rocks (Figure 2). Sample DAV0006 was taken in garnet-rich calc-silicates with minor anomalous copper assay. It is suggested that this area be targeted for follow up geochemical sampling.



Figure 2 – Tourmaline-rich rock.

Traverse 3 (Day 1) – Located the Pinnacles Central No.2 (Target 4) north of the creek where the extent of the diggings appears to be chasing copper on the margins of a cross-cutting quartz vein (Figure 3). More workings were evident south of the creek (Ophir North).



Figure 3 – Pinnacles Central No. 2

Traverse 4 (Day 2) – Located the SGC targets 1 – 4 which were ranked as the highest priority. Traversing up the creek taking a stream sample (DAV0007 and Figure 4) then to target 3 (DAV0008 – DAV0010). Margins were garnet and magnetite rich with minor epidote (Figure 5). There were minor small bands of chlorite (DAV0009) and the east contact being more quartz-rich and slightly more foliated. Dimensions of anomaly was approximately 75 m x 50 m



Figure 4 – Magnetite-rich Stream Sample



Figure 5 – SGC Target 3

Target 1 (Figure 4) was also magnetite-garnet-chlorite-quartz rich on the northern contact with no evidence of quartz towards the centre (DAV0011 – DAV0012).

Target 2, the largest of the magnetic highs, was a topographic high forming a magnetic dome at the peak (DAV0013). The surrounding rocks were foliated around the domal structure. Still shows evidence of garnet-magnetite-quartz with margins being very heavily chloritised.

Target 4 is a very well banded quartz-magnetite-garnet rock with DAV0014 having a moderate Cu anomalous assay.

In conclusion, the assays were disappointing with no anomalous results. Given the rugged terrain and access difficulties, it is suggested that no further work be carried out in this area.

Traverse 5 (Day 3) – The Two Amigos gossan shows a very siliceous outcrop, almost cherty at times, with minor copper staining on the western margin (Figure 6). Some signs of gossanous rock with Mn staining. Three samples DAV0016 – DAV0018 all show extremely anomalous Cu (0.5% Cu) and Zn (1.4%). These samples also have encouraging arsenic, bismuth, cadmium, molybdenum, lead and tungsten values and also are depleted in aluminium. To the immediate west of Two Amigo's the rocks were steeply dipping, highly crenulated and striking 320 degrees.

Given the anomalous assays for copper, zinc, arsenic, bismuth, cadmium, molybdenum, lead and tungsten, it is suggested that this area be targeted for follow up geochemical sampling.



Figure 6 – Two Amigo’s gossan showing copper staining

Traverse 6 (Day 3) Targeting the magnetic high 700 m north-west of Two Amigo’s. Margin of the magnetic anomaly showed spotted chlorite. Centre of the high was a banded quartz-magnetite-biotite gneiss with some magnetite crystals up to 1mm. DAV0019 showed anomalous copper that although not that high (61 ppm Cu) is within the 90th percentile for all samples. The magnetic high was followed around in an arc showing similar rocks.

The rocks in the arc are typical of the region with the strong magnetic response attributed to banded magnetite within the lithology. It is suggested that no further work be carried out in this area. Although this area is proximal to the Two Amigo’s gossan, follow up work of Two Amigos may provide additional information.

Traverse 6 (Day 3) CB target 7 - Small magnetic high 1 km north of SGC Target 12. Walking up the creek, the sediments were abundant in magnetite DAV0020 (Figure 7).



Figure 7 – Magnetite-rich stream sample

Target 12 (DAV0021) showed banded quartz-garnet-magnetite rock. Actinolite was noticed but could be diopside or tremolite, these minerals are often located in the position of a lode horizon.

Traverse 7 (Day 4) – On margins of JC's Target 5, the rocks are banded quartz-biotite-magnetite-garnet rich. Intensely folded tending to be ptigmatic (Figure 8). Nearly vertically dipping striking 60 degrees.



Figure 8 – Intensely folded rock near JC's target 5

Folded rocks evident to the top of the knoll (Figure 9). Intense magnetic high could be caused by banded magnetite rich rocks culminating together and then plunging to the north causing a concentration of magnetite. Evidence of some intrusion being fine grained quartz-biotite-chlorite rich.

Although the assays were disappointing with no anomalous results, the area could be of interest with respect to the structural setting relating to the Pinnacles and Black Angus mineralisation. A detailed review should include this target as an area of interest.



Figure 9 – Folder magnetite-rich rocks on top of knoll

Conclusions

Most of the magnetic highs are likely caused by banded magnetite bearing schists / gneisses. These often form topographical highs than can be traced on a regional scale. There is little evidence of why Johnnies reward (including Black Angus), Two Amigo's or the Pinnacles are copper bearing considering they show the same zonation as the host magnetic rocks. Therefore, given the overall disappointing results from the rock chip assays, these known areas of mineralisation represent the best targets and should be the focus of any ongoing exploration.

1. Two Amigo's Gossan

The initial visit to Two Amigo's concluded that the area was small with little potential for economic material both in size and grade. However, the assays that were returned since the field exercise are extremely encouraging with results up to 0.5% Cu. With this knowledge, a review of the magnetic data (RTP) shows a very weak trend to the west-northwest, extending approximately 800 m (Figure 10). This low-amplitude target could represent a geophysical target (extensions of Two Amigo's) at depth.

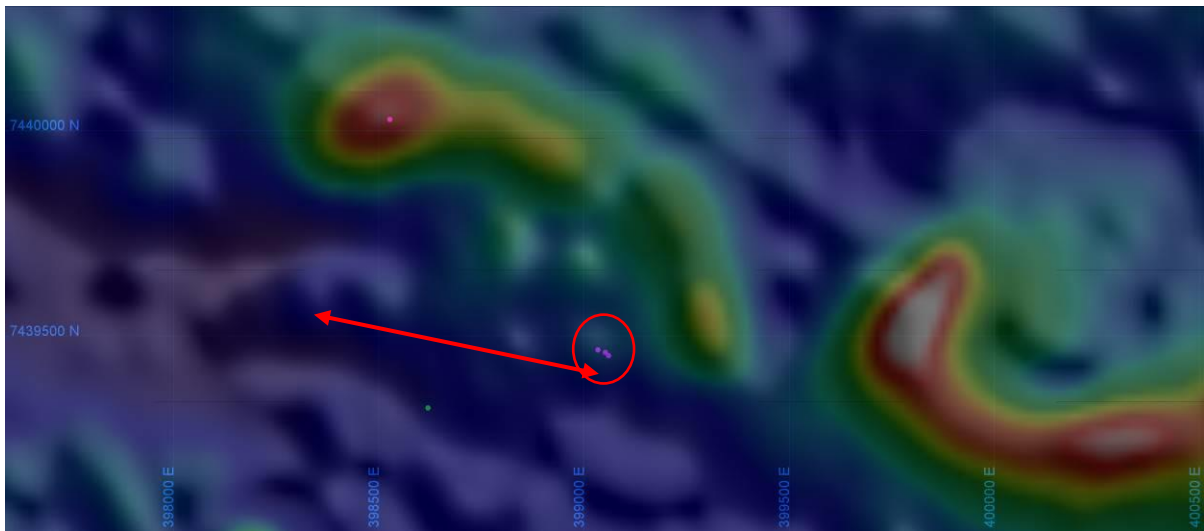


Figure 10 – Results of Two Amigo’s sampling (red circle) and geophysical trend
Recommendations

It is suggested that this area be short listed for follow-up geochemical sampling. A broader 100m x 100 m grid would be suitable and would identify areas of closer spaced sampling or drilling (Figure 11). A localised 50 m x 50 m grid along the gossanous trend may also be warranted. In addition, this area is proximal to a dam where water could be sourced if deemed suitable for drilling.

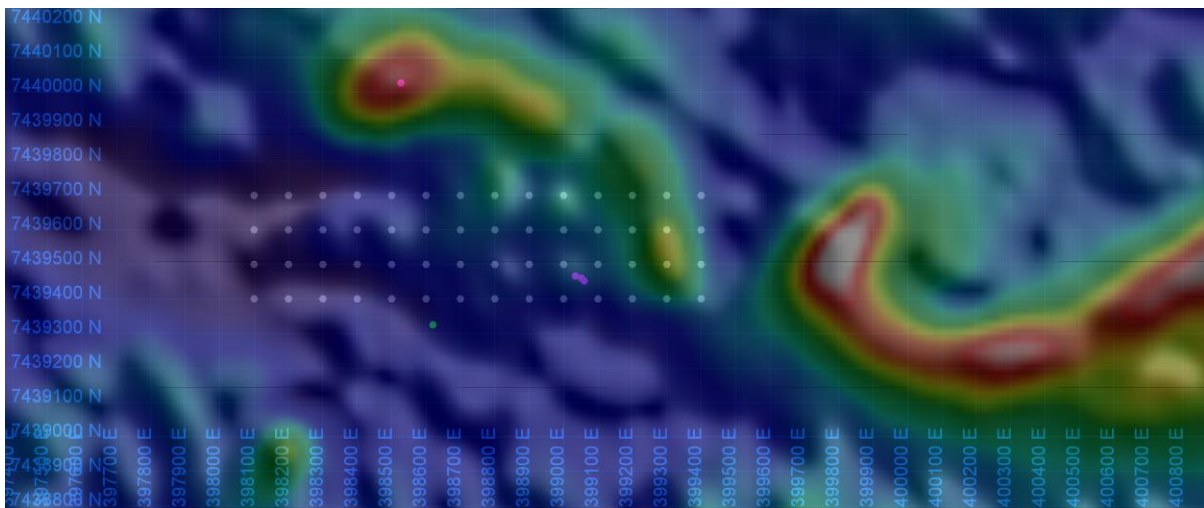


Figure 11 – Suggested grid for sampling for the Two Amigos prospect.

2. Black Angus (north-west)

The area north-west of Black Angus comprises tourmaline-rich rocks. These rocks usually do not host mineralisation, but can be considered a vector to mineralisation as seen in other known IOCG deposits. In addition to this, the wide spaced 200m x 200m sampling already conducted (Figure 12) has not closed off the mineralisation. This sampling also follows a known fault zone that is thought to control the Black Angus mineralisation.

Recommendations

It is recommended that the geochemical sampling be extended to the west and north of the current sampling (Figure 12). Given the potential size of the target, an initial 100m x 100 m grid would be suitable as a first pass followed by infill sampling if required (Figure 13).

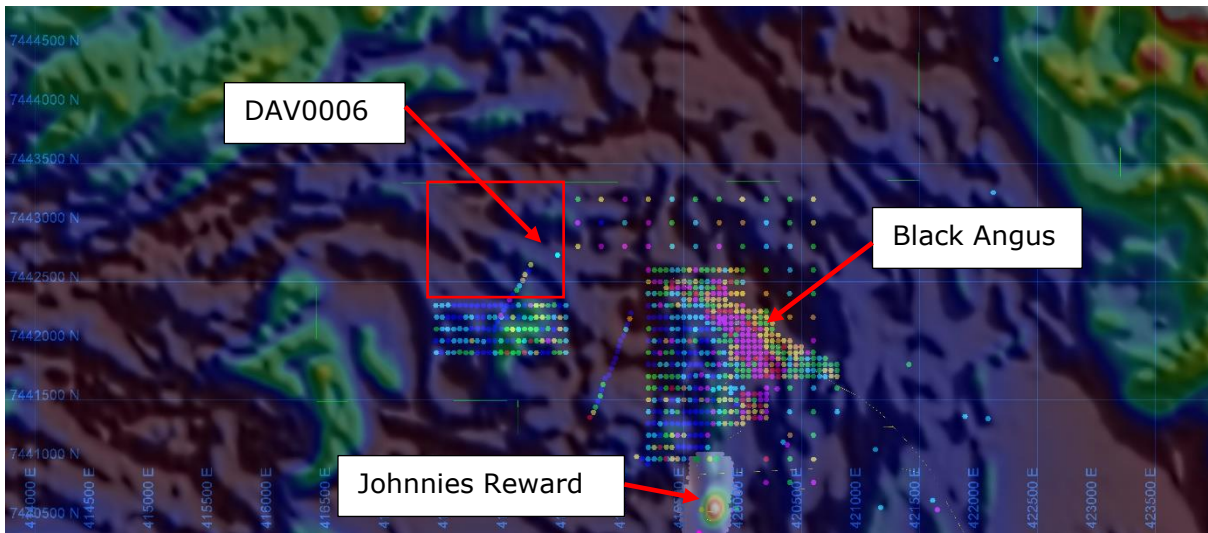


Figure 12 – North-west Black Angus and the area for follow up sampling (red box)



Figure 13 – Suggested grid for sampling for the Black Angus prospect.

3. SGC Targets 1 – 4

SGC ranked targets 1 – 4 (Figure 14) as the most prospective within the tenement holdings. Target 1 – 3 did not return any significant assays however Target 4 returned a low to modest copper assay.

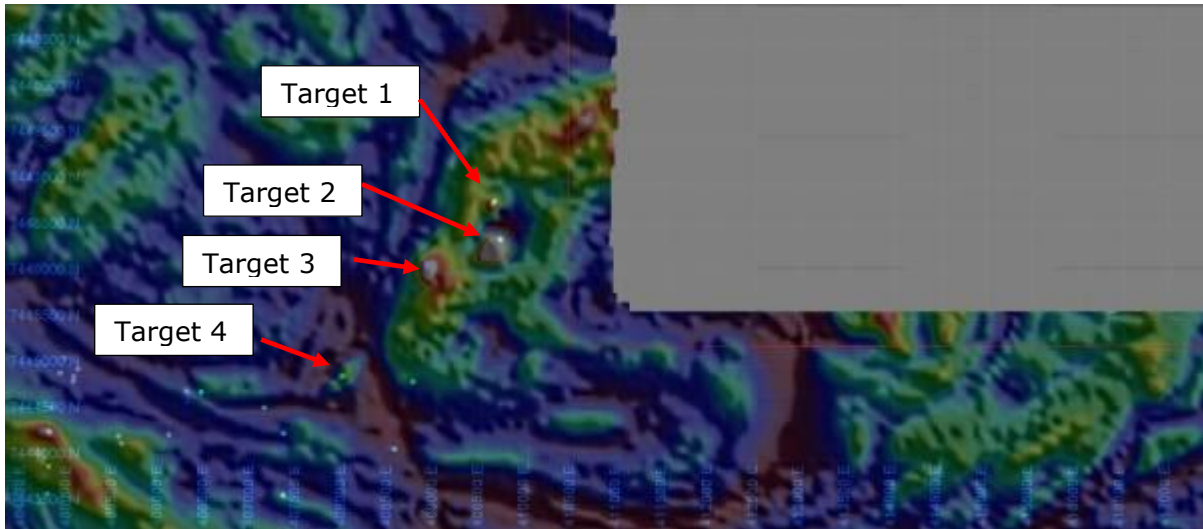


Figure 14 – Location of targets 1 – 4

Recommendations

Due to difficult access and rugged terrain, it is suggested that this area be downgraded for the potential of follow up work.

It is suggested that if all other priority targets are exhausted that a geochemical survey be carried out over the discrete anomalous geophysical targets with a grid spacing of 100 m x 100 m or wider depending on budget commitments.

3. Pinnacles, Johnnies Reward and Jill's Penny

Further research has discovered additional exploration reports and information relating to shallow percussion sampling along the Pinnacles line of lode, Johnnies Reward and Jill's Penny (similar mineralisation style to the Pinnacles) 5 km to the south of Johnnies Reward. This information was easily imported into the database and the results indicate definite anomalies around each of the three targets.

In addition to this, drill hole data was also discovered for the Pinnacles diamond drilling and the Johnnies Reward "JR series" holes. The reports for the Pinnacles indicate the occurrence of native copper as well as other important copper species such as cuprite, chalcocite, bornite and chalcopyrite. Further to this, the report comprised a detailed geological map of the Pinnacles area and it was observed that the main fault trended to the north-west and coincided with the fault controlling the mineralisation at Black Angus (Figure 15). This fault extends to the south east proximal to the position of JC's target 5 (Pinnacles East) where a slightly anomalous copper assay was taken.

The reports concluded that the Pinnacles did not show encouraging results both from a grade and tonnage potential. However, the importance of the controlling structure linking to the Black Angus mineralisation should not be over looked. It is recommended that information relating to the drilling be imported into the database, which may have to be manually entered due to the quality and age of the report. Once this is completed, a thorough analysis of the Pinnacles should be completed using the entire data available, including the recent magnetic survey.

Percussion drilling of the Jill's Penny mineralisation has been imported into the database however the location of the samples does not match the location shown on the government's 100K map sheet. Once the location of the mineralisation has been verified it is recommended that a 9 x 7 100 m sample grid be carried out.

Also, a geochemical analysis of the Jill's Penny should be considered with the location shown in Figures 16 and 17.

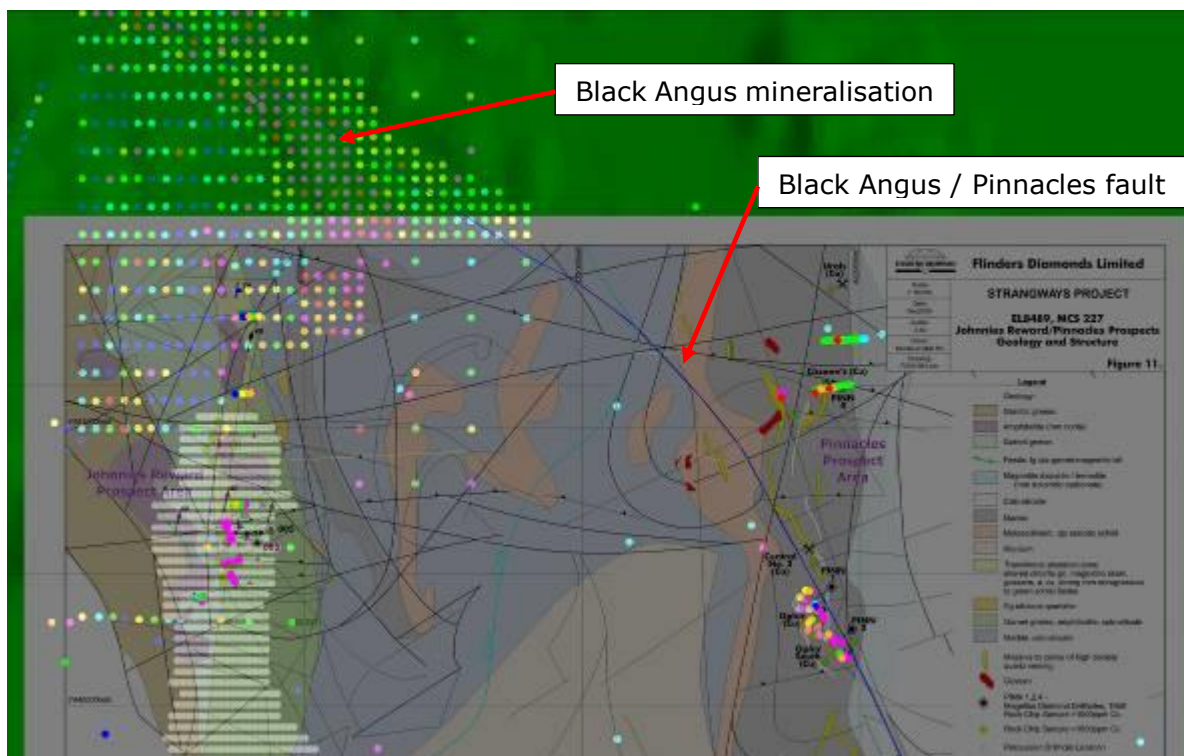


Figure 15 – Geological mapping showing the Black Angus / Pinnacles fault line (blue) and the geochemical results.

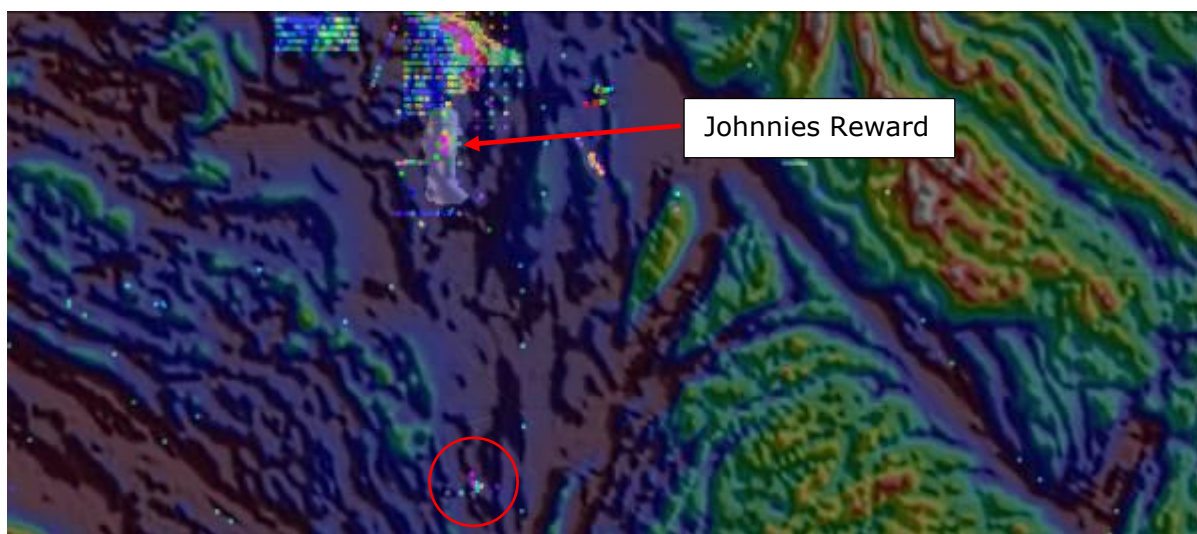


Figure 16 – Location of Jill's Penny prospect (red circle)

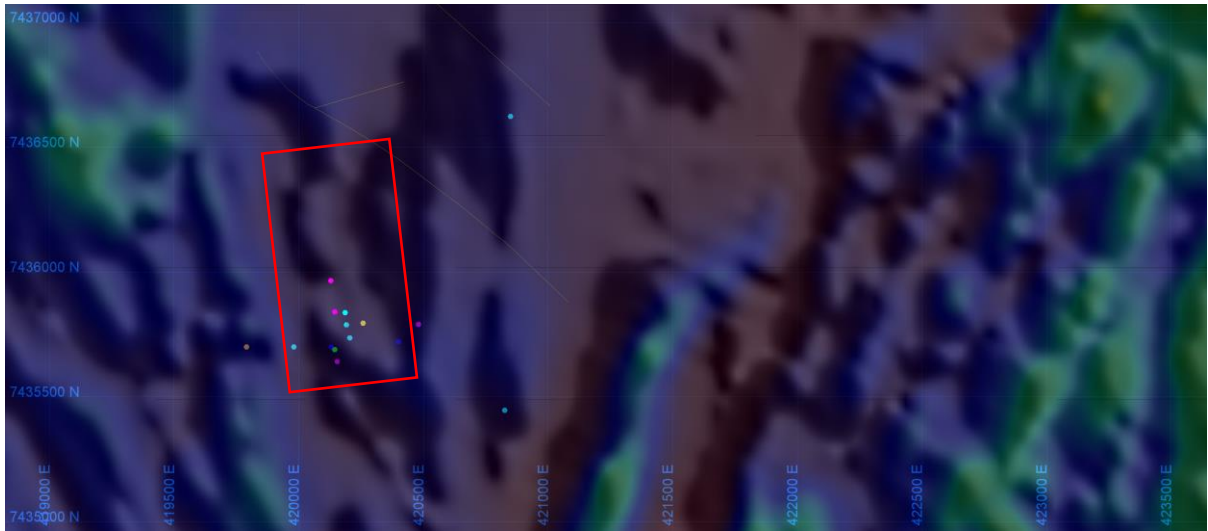


Figure 17 – Jill's' Penny prospect and the location of potential grid sampling.