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Cactus Induced Polarisation Geophysics Enhances Copper Targets, Utah, USA

HIGHLIGHTS

- A review of induced polarisation (IP) geophysical survey data over the Cactus district has identified high priority resistivity and chargeability anomalies coincident with magnetic and soil geochemical anomalies.
- The Cactus, Comet and New Years copper deposits all have coincident resistivity and magnetic low anomalies associated with structures and highly anomalous copper in soils.
- The **Cactus Deep target** is a resistivity low anomaly which extends 400m beyond the 3-D modelled Cactus deposit suggesting potential for lateral extensions to the known mineralisation.
- The **CZ-1 target** in the Copperopolis Zone has a prominent 100 Ωm resistivity low anomaly (background of +500 Ωm) at a structural intersection and is coincident with the District's most intense magnetic low.
- The **N-1 target** in the Northern Zone has 30mV and 50mV chargeability high anomalies (background 5mV) coincident with magnetic lows associated with structures, copper soil anomalies up to 875ppm (background <60ppm Cu) and the margins of the interpreted Northern intrusive stock.
- The **Northern intrusive target** immediately east of N-1 has a coincident +50mV chargeability anomaly (+10 times background) plus the New Years, New Years West, N-1 and N-2 structurally controlled magnetic lows and copper in soil anomalies on its southern and western margins.
- The **CZ-5/SZ-1 target** is a 60mV chargeability anomaly between the Sigmoid and Copperopolis Zones which sits below copper in soils up to 1,000ppm and between structurally controlled magnetic low anomalies at a depth of approximately 150m from surface.
- The results of the IP review will be used with the magnetics and soil geochemistry to rank targets in the Cactus district for drill testing.

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Hawk Resources Limited (ASX: HWK) (**Hawk** or the **Company**) is pleased to announce that a review of the induced polarisation (IP) geophysical survey data collected over the Cactus District by the Company in 2017 has highlighted multiple resistivity and chargeability anomalies coincident with known copper deposits and with magnetic and copper soil anomalies.[1]

This IP data will be integrated with magnetic and soil sample data to rank targets for drilling in 2025.

Managing Director of Hawk Resources, Scott Caithness, commented:

"Hawk's targeting criteria for copper exploration in the Cactus copper-gold district has been further enhanced by the induced polarisation data where resistivity and chargeability anomalies are associated with magnetic low and copper in soil anomalies plus structures.

"The exploration signature of the historical Cactus and Comet copper-gold deposits now includes resistivity low anomalies attributed to electrically connected sulphide mineralisation which are coincident with alteration related magnetic lows, anomalous copper in soils and structures interpreted from magnetic data. Using these criteria, high priority targets include lateral extensions to the Cactus Deep zone plus the N-1, CZ-1 and CZ-5/SZ-1 anomalies.

"The intrusive stock interpreted from magnetics which lies immediately to the northwest of New Years is also a key target due to its high order chargeability anomaly which may indicate sulphide mineralisation. The New Years, New Years West, N-1 and N-2 magnetic and copper soil anomalies are all associated with structures and lie along the southern and western margin of this intrusive.

"Hawk's next steps will include integrating all the geophysical, geological and soil data ahead of designing its 2025 drilling programme."

Induced Polarisation Data Review Outcomes

A review has been completed of the Hawk IP survey carried out over the Cactus district in 2017. The aim of the review was to determine whether the historically mined Cactus and Comet copper-gold deposits have chargeability and resistivity signatures and to identify new targets within the project area. A key focus was assessing the electrical response

[1] See Hawk ASX Announcement dated 12 September 2017

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over the New Years prospect plus magnetic and copper in soil anomalies highlighted by Hawk's 2024 exploration (see Figures 1 & 2).[2]

The IP highlights that the Cactus deposit is associated with a discrete 100 Ωm resistivity low anomaly within a background of 500 Ωm (see Figure 3). This is attributable to the sulphide mineralisation around the known Cactus deposit. The anomaly extends up to 400m into an undrilled area and indicates potential for additional sulphide mineralisation lateral to the 3-D modelled Cactus deposit. There is a similar resistivity anomaly associated with the mineralised New Years prospect.

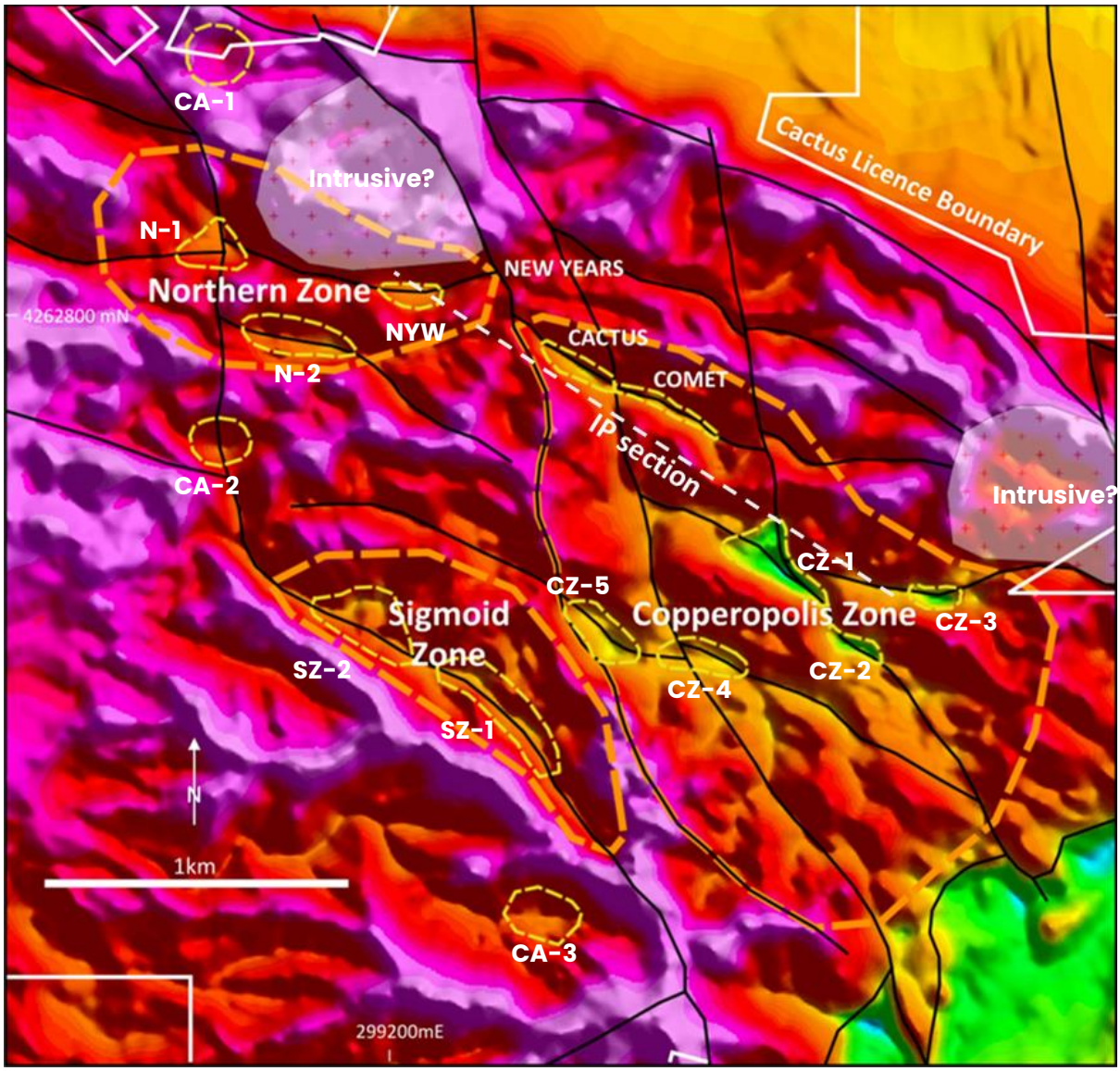

Figure 1: *Magnetic anomalies (eg N-1, CZ-1, SZ-1 outlined by thin dashed yellow line) and interpreted structures on an image of the Cactus district reduced to pole magnetics. The location of the Figure 3 IP section line is shown.*

[2] See Hawk ASX announcements dated 22 February 2024, 13 March 2024, 29 April 2024, 17 June 2024, 25 June 2024, 8 July 2024, 30 September 2024, 7 October 2024, 18 November 2024 and 13 December 2024

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The prominent +50mV chargeability high anomaly 14 times background at the northwestern end of the section is associated with the interpreted intrusive body immediately to the northwest of New Years (see Figures 3 & 4). This anomaly suggests that the intrusive may be a sill with associated disseminated sulphide mineralisation. The New Years, New Years West, N-1 and N-2 magnetic and copper in soil anomalies all occur on the southern and western margins of this intrusive.

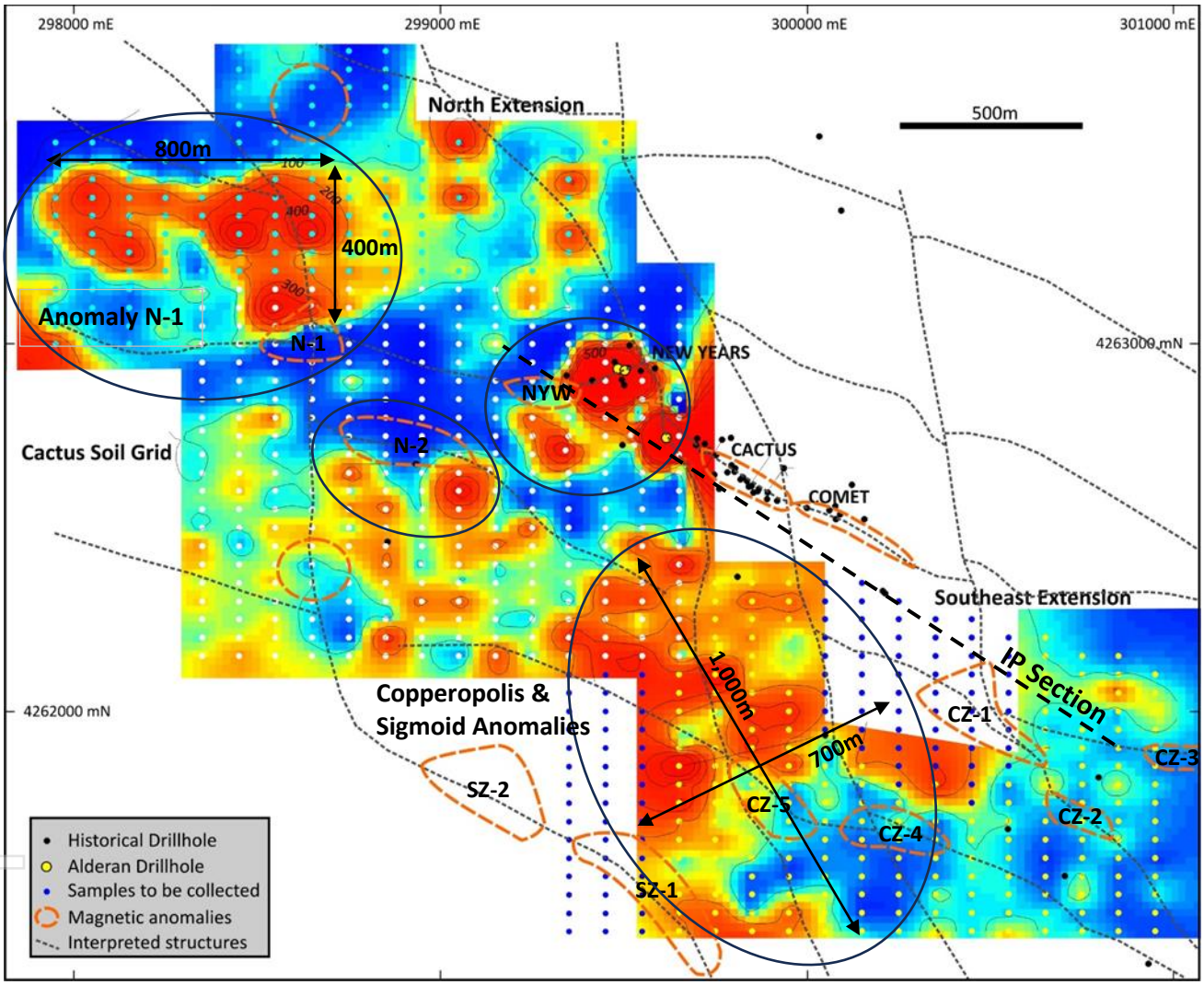

***Figure 2**: Cactus soil grid contoured pXRF copper assays, structures and magnetic anomalies with priority areas circled in black. Contour intervals are 100ppm copper. The location of the Figure 3 IP section line is shown.*

A key feature of the resistivity section in Figure 3 is the pronounced 100 Ωm low coincident with the CZ-1 magnetic anomaly in the Copperopolis Zone. CZ-1 is the most intense magnetic low in the Cactus district and lies at a structural intersection. Soil sampling coverage does not yet extend over CZ-1 however an elevation in copper grade is trending towards the target. The soil sampling will be completed over CZ-1 as soon as weather permits after winter.

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The N-1 anomaly has soils grading up to 875ppm copper which is more than ten times the background grade, a coincident magnetic low plus 30mV and 50mV chargeability high anomalies which are six and ten times background respectively (See Figures 4 & 5). The chargeability anomalies sit below the anomalous soils, are located at structural intersections and occur on the margin of the intrusive stock interpreted from the magnetics.

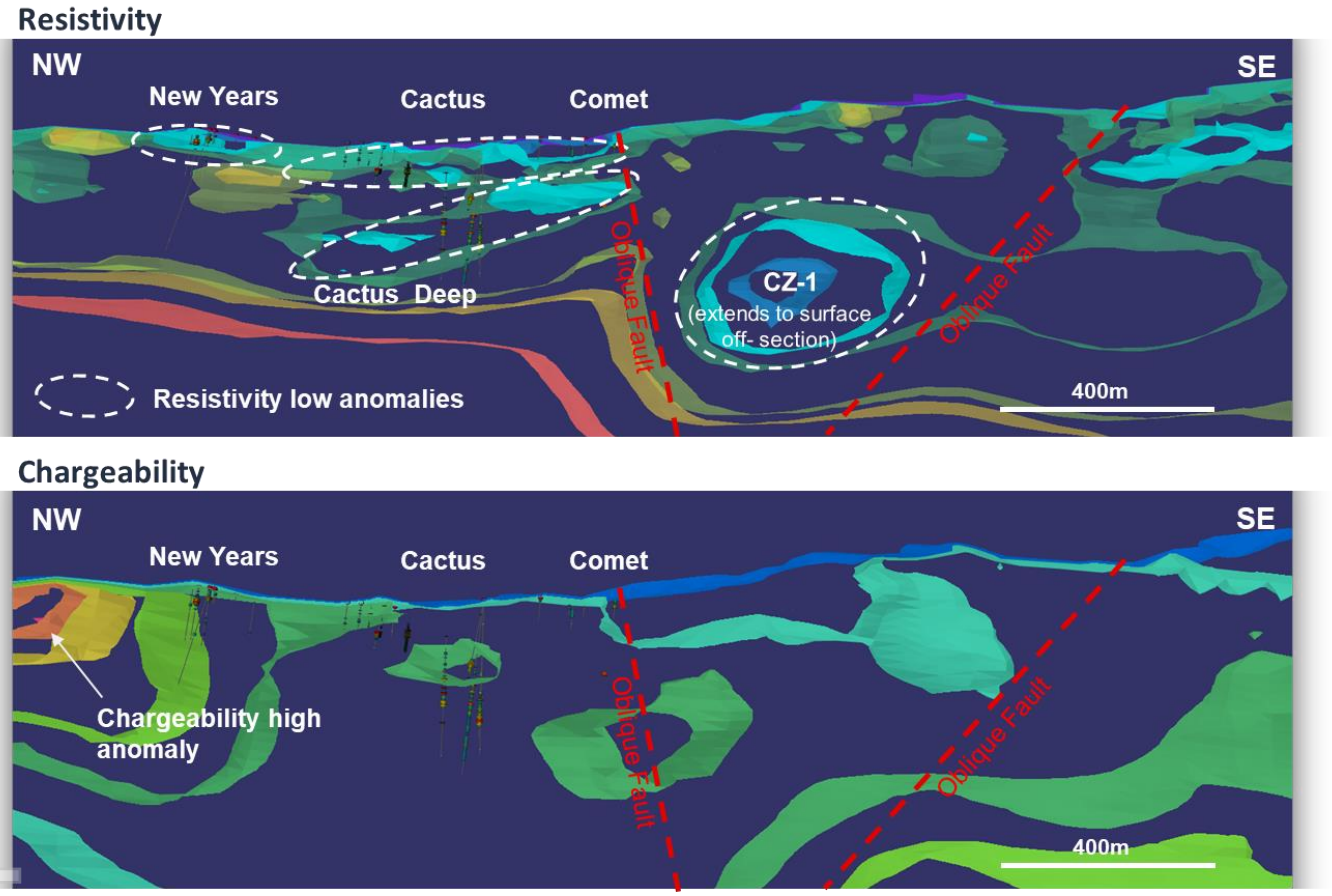

Figure 3: *Resistivity and chargeability sections along the northwest-southeast IP section line shown in Figures 1 and 2. Cactus, Comet and New Years all have associated resistivity low anomalies. Additional key features include a very prominent resistivity low anomaly associated with the CZ-1 magnetic anomaly and a high order 50mV chargeability high coincident with the intrusive stock interpreted from magnetics (see Figure 4).*

Additional chargeability anomalies have been identified in the 500m wide zone between structurally controlled magnetic anomalies SZ-1 and CZ-5 in the Sigmoid Zone. A +50mV chargeability anomaly within 150m of surface lies directly below anomalous copper in soil grading up to 1,000ppm which is more than ten times the background grade. Large 70mV chargeability anomalies at ~700m below surface lie immediately to the southeast, marking potential pathways for intrusive activity and mineralising fluids (see Figure 6).

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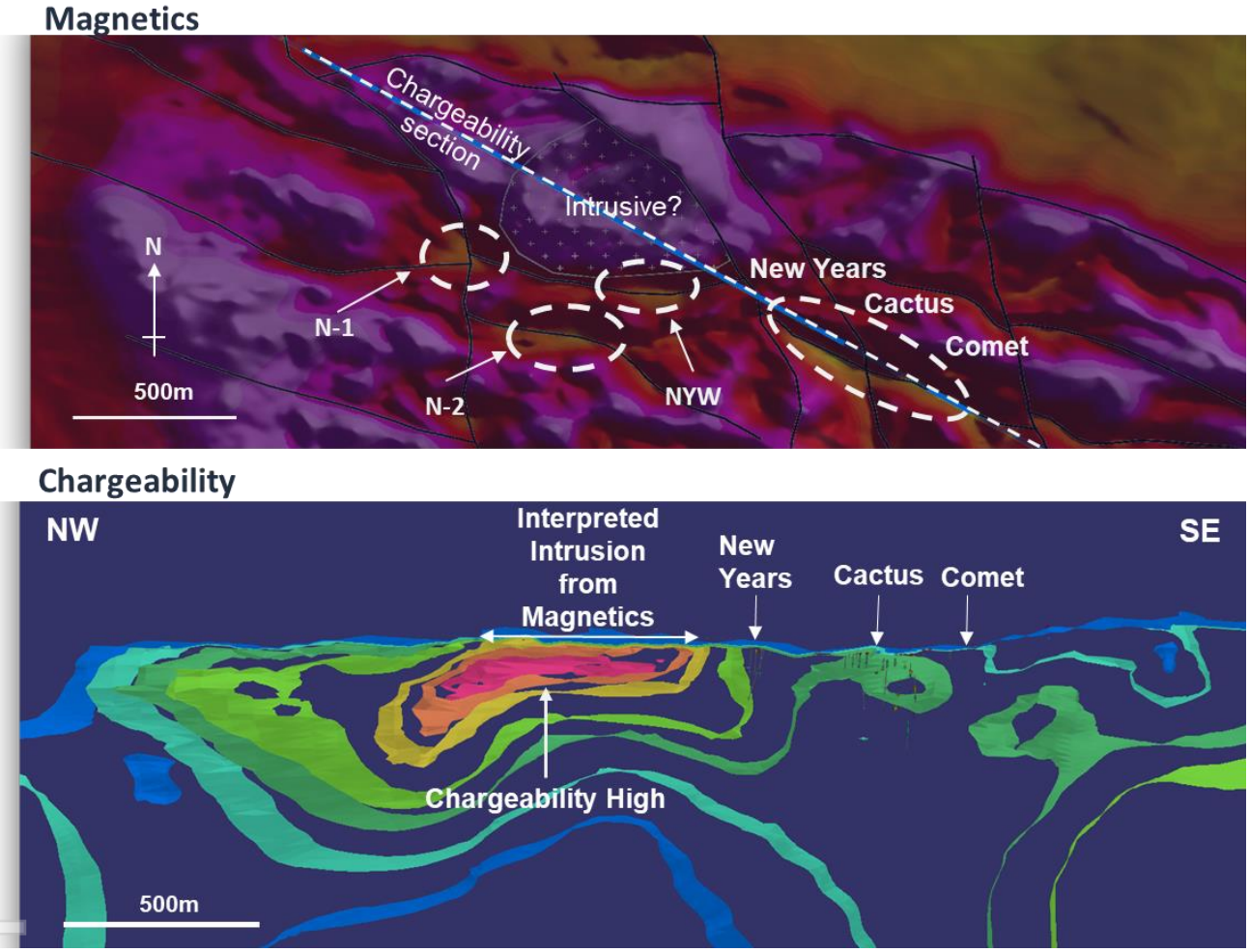

Figure 4: *Magnetics plan (top) showing location of the chargeability section line which runs northwest through Comet-Cactus-New Years and the interpreted intrusive stock to the northwest of New Years which is highlighted by a +60mV chargeability anomaly (bottom). The New Years, NYW, N-1 and N-2 magnetic and copper soil anomalies lie on the southern and western margins of the intrusive.*

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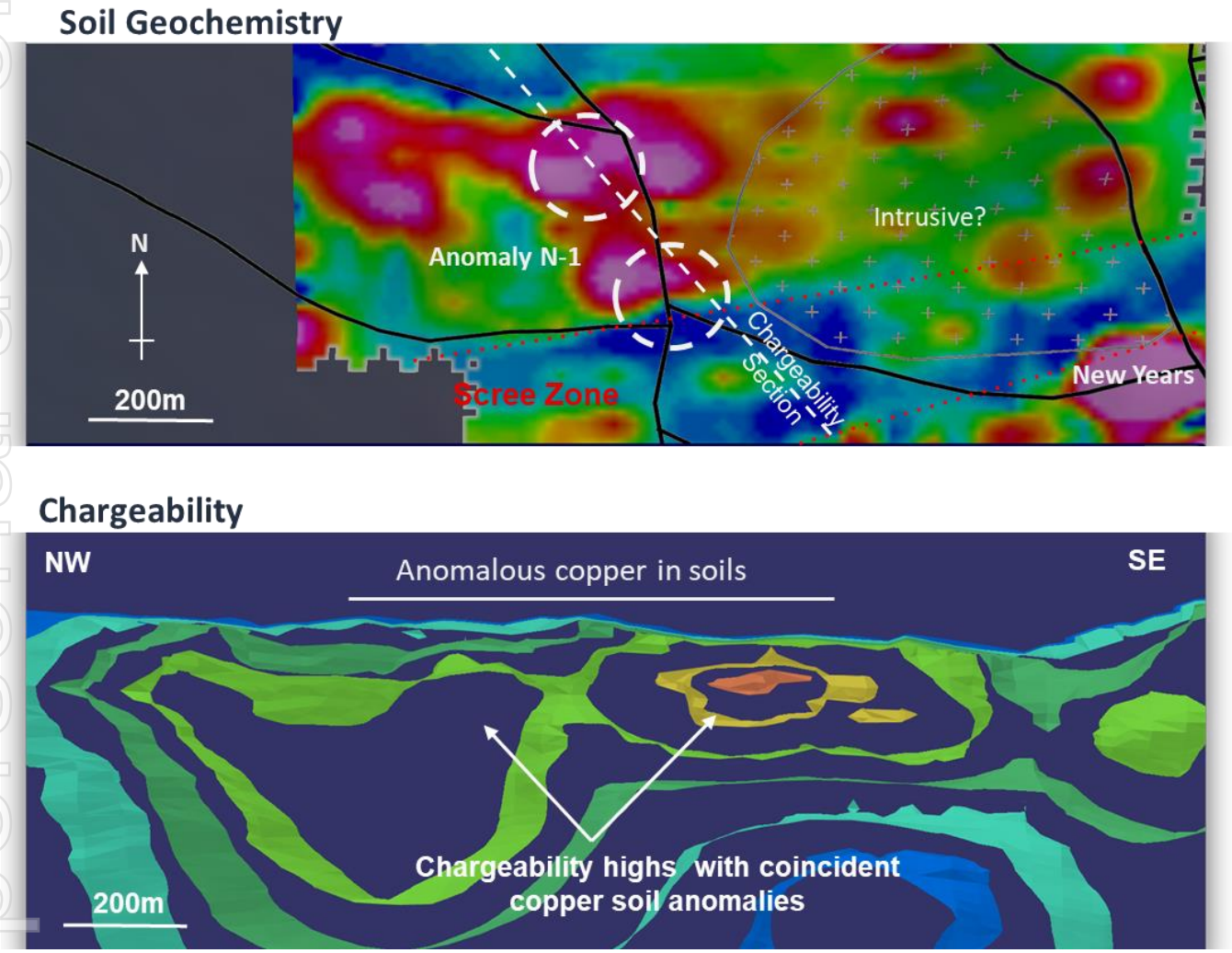

Figure 5: *Anomaly N-1 soil geochemistry plan (top) and chargeability section (bottom). The N-1 soil geochemistry anomaly grades up to 875ppm copper (>10 times background) and extends 400m north-south and 800m east-west. The chargeability anomalies (white dashed circles) occur at structural intersections along the southern margin of an interpreted intrusive. The chargeability section shows the 30mV and 50mV anomalies (6 & 10 times background) which sit below the anomalous soils.*

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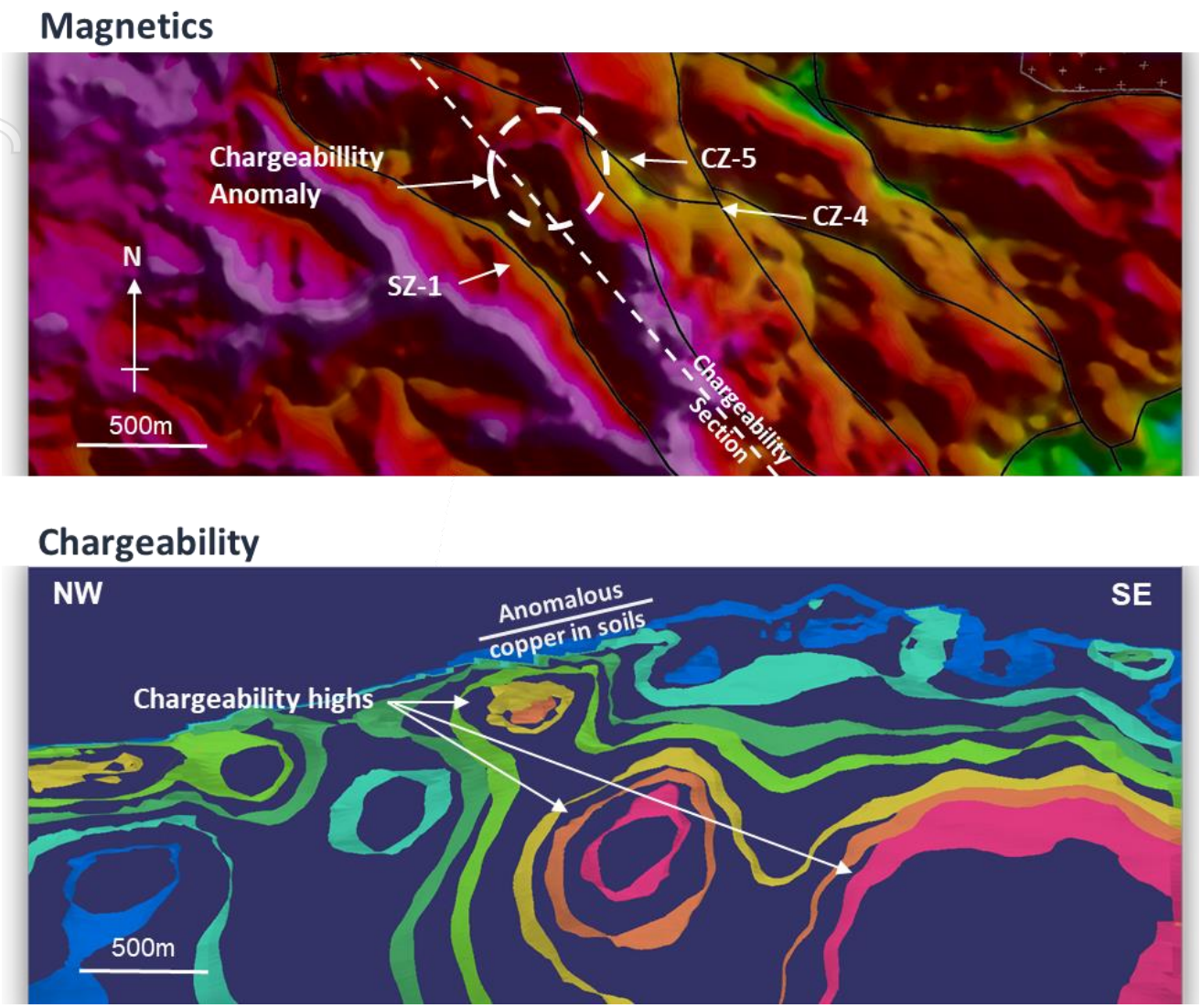

Figure 6: *Reduced to pole magnetics plan (top) and chargeability section (bottom) in the Copperopolis and Sigmoid zones. The near surface 60mV chargeability high lies immediately below a copper in soil anomaly which grades up to 1,000ppm copper (more than 10 times background) and between structurally controlled magnetic low anomalies CZ-5 and SZ-1. Larger and higher order chargeability anomalies at a depth of approximately 700m can be seen immediately to the southeast.*

Induced Polarisation Survey Details

The induced polarisation survey was completed in 2017 by Hawk with the prime aim of identifying District scale porphyry copper deposits. The survey coverage is shown in Figure 7 and specifications are outlined in Table 1.

IP data were inverted to create a 3D model using the Res3Dinv program, which generates a voxel or block model with each cell containing a resistivity and chargeability value. The

isosurfaces, or 3D contours, shown in the images are cut through this model. The colour contour intervals for the resistivity and chargeability sections are outlined in Table 2.

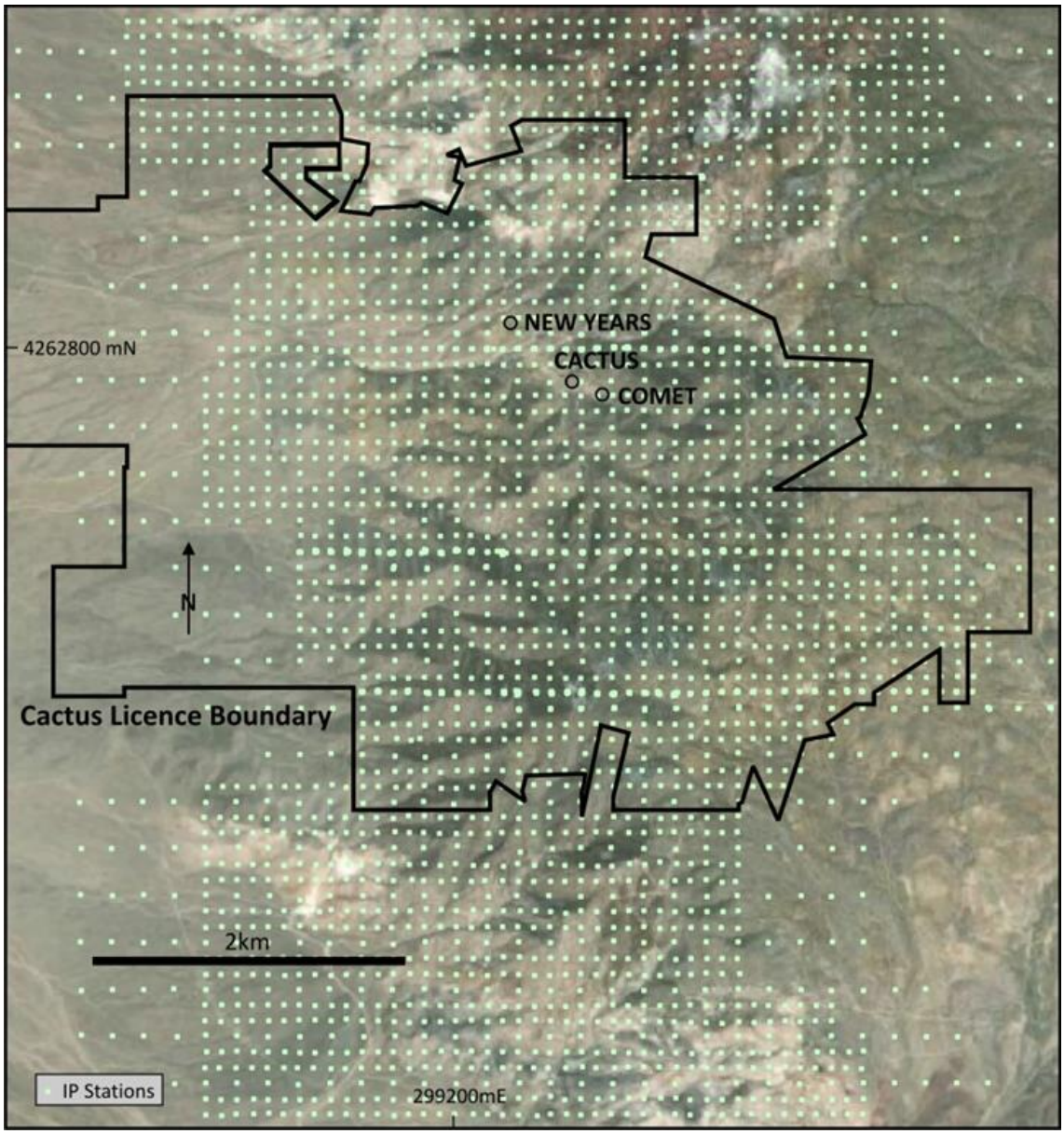

Figure 7: *Cactus district induced polarisation survey coverage*

Table 1: Induced Polarisation Survey Specifications

Contractor	DIAS Geophysical
IP Receiver	DIAS32 ~80 nodes
IP Transmitter	GDD 5 kVA Tx
IP Mode	Time domain
IP Array	Double Offset Pole-Dipole and Double Offset Dipole-Dipole

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IP Transmitter Frequency	0.125 Hz, 2 second on 2 second off cycle
IP Receiver dipole minimum/maximum length	100m/400m
IP Transmitter dipole length	200m
IP Line spacing	100m
IP Maximum n value	42
IP Transmitter current	0.28 – 5.9A, Avg 2.67A
IP readings after averaging repeats and removal of bad data	109322
IP Total Distance Covered	339.4 km
IP Survey Dates	June 30 to September 21, 2017

Table 2: Resistivity and Chargeability Section Colour Contour Intervals

Resistivity Ωm		**Chargeability mV**	
Dark blue	50	Blue	5
Mid blue	100	Turquiose	10
Light blue	150	Dark green	20
Dark green	200	Light green	30
Light green	400	Yellow-orange	50
Yellow-orange	500		
Red	1000		

Next Steps

Hawk's next steps at Cactus will include:

- Completion of the soil sampling to extend the soil anomalies and cover the magnetic anomalies at Cactus (Q1, 2025);
- An electromagnetic survey over the Cactus district to assess the potential for conductors which may represent massive sulphide mineralisation (Q1, 2025);
- Drilling at New Years to follow up copper intersections in Hawk drill holes plus test additional high priority targets (Q2, 2025).

END

This announcement was authorised for release by the Board of Hawk Resources Limited.

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HAWK RESOURCES LIMITED
ABN: 55 165 079 201
Suite 1, Level 6, 350 Collins Street, Melbourne, 3000, VIC
www.alderanresources.com.au

For further information:

Scott Caithness, Managing Director
Hawk Resources
M: +61 3 8630 3321
E: scott@hawkresources.com.au

Rod North, Managing Director
Bourse Communications Pty Ltd
M: +61 408 670 706
E: rod@boursecommunications.com.au

About Hawk Resources Limited

Hawk Resources specialises in critical and precious metal exploration.[3] The Company has copper and gold projects in Utah, USA (Cactus and Detroit) plus eight (8) lithium projects in Minas Gerais and Bahia, Brazil Resources Corp (see Figures 8 & 9). Hawk's objective is to rapidly discover, delineate and develop critical and precious metal deposits for mining. The Company's project portfolio has high potential for discovery as it lies in under-explored geological belts with similar geology to neighbouring mining districts. Our exploration plans also include reviewing new opportunities to secure and upgrade our pipeline of projects.

For more information please visit: https://alderanresources.com.au/

Competent Persons Statement

The information contained in this announcement that relates to exploration results is based on, and fairly reflects, information compiled by Mr Scott Caithness, who is a Member of the Australian Institute of Mining and Metallurgy. Mr Caithness is the Managing Director of Hawk Resources and 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Caithness consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. Mr Caithness holds securities in the Company.

[3] *https://www.energy.gov/cmm/what-are-critical-materials-and-critical-minerals*

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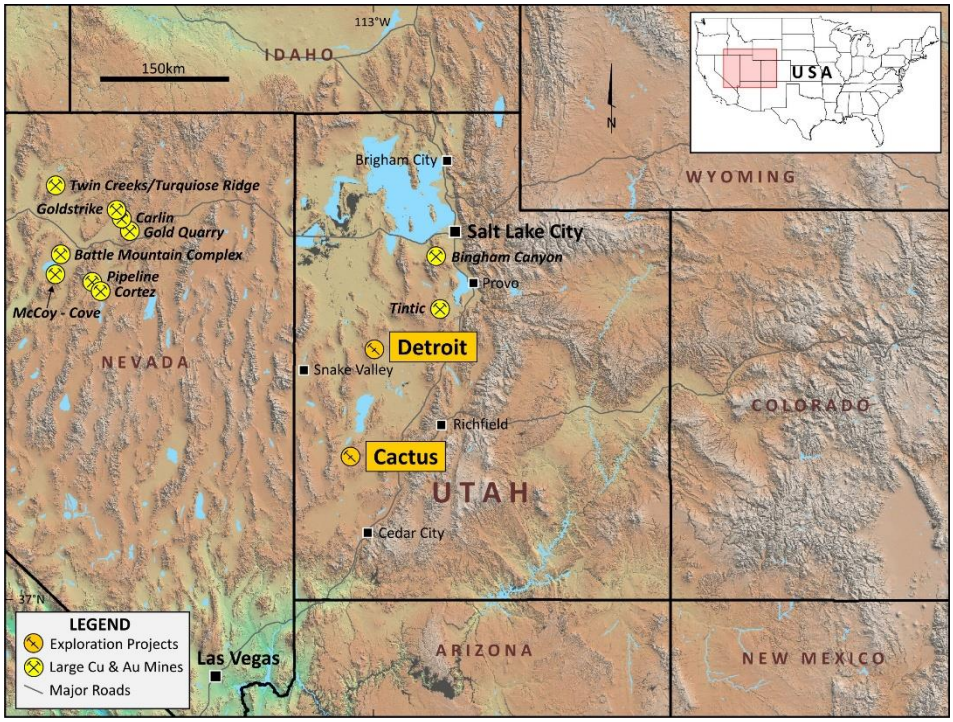

***Figure 8**: Hawk Resources project locations in Utah, USA.*

***Figure 9:** Hawk Resources project locations in Minas Gerais and Bahia, Brazil.*

Appendix 1: JORC Code, 2012 Edition – Table 1 Report in relation to the induced polarisation survey.

Section 1 - Sampling Techniques and Data

(Criterial in this section apply to all succeeding sections)

Criteria of JORC Code 2012	***JORC Code (2012) explanation***	**Details of the Reported Project**
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	No new sampling results are reported in this announcement.
	Include reference to measures taken to ensure sample representativeness and the appropriate calibration of any measurement tools or systems used.	No new sampling results are reported in this announcement.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	No new sampling results are reported in this announcement and all sampling and assaying details are reported in earlier Hawk announcements which are referenced in the body of the announcement. The soil samples referred to in this announcement were typically collected within 30cm of surface with collected weights approximately 1kg. Samples were coarse sieved in the field to remove coarse rock material that could bias a result. For pXRF analysis, samples were dried and then sieved to -1mm to create a plastic cap charge for analysis. Any organic matter was removed. The pXRF machine was calibrated daily against standard reference materials and the samples were analysed a minimum of three times with the final sample assay being an average of the readings taken.

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Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	Not applicable – no drilling data is reported in this announcement.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Not applicable – no drilling data is reported in this announcement.
	Measures taken to maximize sample recovery and ensure representative nature of the samples.	
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	No new sampling results are reported in this announcement. All soil sample sites were described during sampling.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken*	Not applicable – no drilling data is reported in this announcement.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Not applicable – no new sampling results are reported in this announcement.

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	For all sample types, the nature, quality, and appropriateness of the sample preparation technique.	No new sampling results are reported in this announcement. The soils referred to in this announcement were coarse sieved during collection in the field to remove coarse material that could bias the soil assays. They were then dried and sieved to -1mm with any organic matter removed ahead of packing into a charge cap for pXRF analysis. This is a standard sample preparation procedure for analysis using a pXRF machine.
	Quality control procedures adopted for all sub-sampling stages to maximise representativeness of samples.	No new sampling results are reported in this announcement. In reference to the soil sampling mentioned in the announcement duplicate samples were collected from all sites. Hawk will retain the duplicate samples for lab analysis if required for quality control check on the pXRF assays. Hawk carried out lab check sample analyses on 98 soil samples analysed by pXRF which were collected over the Cactus grid in June 2024 and found that the Olympus pXRF assays under-reported copper assays. The pXRF readings required an average multiplier of 1.35 to match the lab assays. Since this work was carried out the Olympus pXRF has been fully serviced and calibrated by the manufacturer due to a technical issue during the earlier Cactus soil sample analyses. Given this background, the Hawk is confident that the anomalies identified by the pXRF readings reflect genuine elevations in copper content and are not false positives. The results of the June 2024 comparison between the pXRF and lab assays are contained in Hawk's ASX announcement dated 8 July, 2024. Samples analysed with the pXRF machines were sieved to -1mm and homogenised ahead of placing in a charge cap for analysis.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	No new sampling results are reported in this announcement. The soils referred to in this announcement were coarse sieved in the field to remove any coarse rock material that could bias assays. Duplicate samples were collected from all sites – one for pXRF and one for lab analysis if required.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No new sampling results are reported in this announcement. For the soils referred to in this announcement sample sizes after sieving in the field were approximately 1kg which is considered appropriate for the programme being undertaken.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	No new sampling results are reported in this announcement. For the soils referred to in this announcement the analysis was carried out using the Olympus Vanta pXRF analyser which was calibrated at the start of each day of readings against standard reference material 2711A and a blank. No issues were detected with the calibration readings It should be noted that pXRF analysis is not as accurate as lab analysis. The pXRF results are regarded by Hawk as indicative copper grades only but are viewed as suitable for determining areas of anomalous copper mineralisation.

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	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No new sampling results are reported in this announcement. The full specifications for the 2017 induced polarisation survey are outlined in the body of this announcement and included below:

Contractor	DIAS Geophysical
IP Receiver	DIAS32 ~80 nodes
IP Transmitter	GDD 5 kVA Tx
IP Mode	Time domain
IP Array	Double Offset Pole-Dipole and Double Offset Dipole-Dipole
IP Transmitter Frequency	0.0125 Hz, 2 second on 2 second off cycle
IP Receiver dipole minimum/maximum length	100m/400m
IP Transmitter dipole length	200m
IP Line spacing	100m
IP Maximum n value	42
IP Transmitter current	0.28 – 5.9A, Avg 2.67A
IP readings after averaging repeats and removal of bad data	109322
IP Total Distance Covered	339.4 km
IP Survey Dates	June 30 to September 21, 2017

IP data were inverted to create a 3D model using the Res3Dinv program, which generates a voxel or block model with each cell containing a resistivity and chargeability value. The isosurfaces, or 3D contours, shown in the images are cut through this model. The colour contour intervals used in resistivity and chargeability sections are outlined below:

Resistivity Ωm		**Chargeability mV**	
Dark blue	50	Blue	5
Mid blue	100	Turquiose	10
Light blue	150	Dark green	20
Dark green	200	Light green	30

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		<table><tr><td>Light green</td><td>400</td><td>Yellow-orange</td><td>50</td></tr><tr><td>Yellow-orange</td><td>500</td><td></td><td></td></tr><tr><td>Red</td><td>1000</td><td></td><td></td></tr></table> For the soils referred to in this announcement the sample analyses were carried out using an Olympus Vanta pXRF analyser with all readings taken in 3 beam mode. This machine was serviced and certified by Olympus within the last 3 months. The standard operating procedure was to take a minimum of three readings and most commonly four readings on dry samples sieved to -1mm. Sample reading times were 30 seconds. The final assay for the interval was calculated as the average of the reading collected for the sample. No calibration factors have been applied to the assays.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	No new sampling results are reported in this announcement. For the soils referred to in this announcement a standard operating procedure was utilised throughout the pXRF analysis process which entailed calibrating the machine at the start of each reading period against standard reference material 2711A and a blank. Sample readings are a minimum of three readings and most commonly four readings on dry samples sieved to -1mm. Sample reading times were 30 seconds. The readings for each sample were then averaged to calculate the final assay for each sample.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Not applicable – no drilling was carried out for this announcement.
	The use of twinned holes.	No new sampling results are reported in this announcement. For the soils referred to in this announcement duplicate samples were collected in the field at each sample site for future lab analysis to provide a check on the pXRF assays if required.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data has been stored electronically in the company's secure digital database
	Discuss any adjustment to assay data.	No new sampling results are reported in this announcement. For the soils referred to in this announcement sample readings are a minimum of three readings and most commonly four readings on dry samples sieved to -1mm. Sample reading times are 30 seconds. The readings for each sample have then been averaged to calculate the final assay for each sample. No adjustments have been made to readings.
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole*	No new sampling results are reported in this announcement.

	surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	For the soils referred to in this announcement all sample sites were located using a Garmin Montana 750i GPS.
	Specification of the grid system used.	No new sampling results are reported in this announcement. For the soils referred to in this announcement all data are recorded in a UTM zone 12 (North) NAD83 grid.
	Quality and adequacy of topographic control.	No new sampling results are reported in this announcement. For the soils referred to in this announcement the elevation data for sample sites is collected by the Garmin Montana 750i GPS used to locate each sample site. Elevation data is not considered critical for the soil sampling. No new topographic data has been generated for this announcement.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	No new sampling results are reported in this announcement. For the soils referred to in this announcement the sampling was carried out on a 100m x 50m grid.
	Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	No new sampling results are reported in this announcement. For the soils referred to in this announcement the 100m x 50m grid used for the soil sampling is considered appropriate to identify anomalous zones of mineralisation. Infill sampling may be required in future to better define the anomalous areas.
	Whether sample compositing has been applied.	Not applicable - no new sampling results are reported in this announcement.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Not applicable - no new sampling results are reported in this announcement.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Not applicable - no new sampling results are reported in this announcement.
Sample security	*The measures taken to ensure sample security*	Not applicable - no new sampling results are reported in this announcement. For the soils referred to in this announcement all samples were managed and controlled by the sampling crew from Burgex that executed the programme. Samples sent to the lab were transported by Burgex personnel.

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Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Not applicable - no new sampling results are reported in this announcement.

Section 2 – Reporting of Exploration Results
(Criterial in this section apply to all succeeding sections)

Criteria of JORC Code 2012	**JORC Code (2012) explanation**	**Details of the Reported Project**
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	The Cactus Prospect comprises over 300 patented and unpatented claims which are governed by the Cactus lease agreement entered into with the private landowners and held by Hawk in its own right. The Cactus lease agreements grant Hawk all rights to access the property and to explore for and mine minerals, subject to a retained royalty of 3% to the landholder. Hawk holds options to reduce the royalty to 1% and to purchase the patented claims.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	All licences covering the Cactus project are granted.

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Exploration done by other parties (2.2)	*Acknowledgment and appraisal of exploration by other parties.*	A large amount of historical exploration has been carried out by numerous different parties dating back to the 1800's. Historical mining records including level plans and production records exist for the Cactus and Comet mines for the period between 1905 and 1915 when the vast majority of production occurred. Historical drilling has been carried out by multiple parties including Anaconda Company, Rosario Exploration Company, Amax Exploration and Western Utah Copper Corporation/Palladon Ventures. Data has been acquired, digitized where indicated, and interpreted by Hawk. This announcement covers a review of induced polarisation geophysical data which was collected and announced by Hawk on the ASX on 12 September 2017
Geology	*Deposit type, geological setting, and style of mineralisation.*	Mineralisation throughout the Cactus district is primarily copper-gold rich tourmaline breccias, structurally hosted mineralisation and oxide copper mineralised zones. Part of the larger Laramide mineralising event. Overprinted by Basin and Range tectonics.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	This announcement covers a review of induced polarisation geophysical data which was collected and announced by Hawk on the ASX on 12 September 2017 No new drilling data has been generated for this announcement - all relevant historical data is referenced in the body of the announcement and the history of the project is outlined in Hawk announcements dating back to 2015.
	Easting and Northing of the drill hole collar. Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar.	
	Dip and azimuth of the hole.	
	Down hole length and interception depth and *hole length.*	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Not applicable. All new drilling data has been reported in this announcement.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	This announcement covers a review of induced polarisation geophysical data which was collected and announced by Hawk on the ASX on 12 September 2017 The soil sample copper assays referred to in the announcement have been calculated by averaging a minimum of three readings but most commonly four readings for each sample.

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	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Not applicable - no new sampling results are reported in this announcement.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable - no new sampling results are reported in this announcement.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	Not applicable - no new sampling results are reported in this announcement.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Not applicable - no new sampling results are reported in this announcement.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable - no new sampling results are reported in this announcement.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Maps are presented in the text of this ASX release.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	All new data has been reported in this announcement.

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Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	All new sampling data has been reported in this announcement. The induced polarisation geophysical survey specifications are reported in full in the body of the announcement. The IP data were inverted using Res3DInv using a nominally 50m x 50m mesh draped under topography with voxel height increasing from 25m at the surface to 300m at a depth of 2km. Both L1 and L2 norm convergence criteria were used for both linear perturbation and non-linear complex IP inversion algorithms. In a gross sense all inversions produced similar models and geological implications although there were subtle differences in detail which may affect drill targeting but not the overall conclusions.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	1. Reviewing induced polarisation geophysical data collected by Hawk Reeources in 2017 over the Cactus project area 2. Extending the northeast grid soil sampling to extend the open soil anomalies and cover the magnetic anomalies 3. Carrying out an electromagnetic geophysical survey to detect conductors which may represent massive sulphide mineralisation 4. Followup drilling on the New Years prospect and to test new high priority anomalies.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Maps showing targets are presented in the text of this ASX release.

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