Alligator Energy

ASX Announcement

17 March 2023

Piedmont Nickel-Cobalt Project – Ground EM results identify potential drill targets

Alligator Energy Limited **ASX: AGE** (**Alligator** or the **Company**) is pleased to provide the results of the interpretation of the time domain ground electromagnetic (EM) survey conducted at the Piedmont nickel (sulphide) - cobalt Project.

Initial Exploration Services completed a ground-based EM survey over five grids at the Alpe Laghetto licence during October 2022, the results of which have now been processed and interpreted with the assistance of consultant geophysicists.

Key Highlights

- VTEM conductor identified in historical data¹ was confirmed through the ground EM survey;
- Conductive EM anomaly identified which is coincident with observed mineralisation at historic Alpe Laghetto mine;
- New large scale conductive EM anomaly identified east of historic La Balma prospect (see Figure 2);
- Anomalies present in four out of five targeted EM survey grids;
- Completion of the survey marks conclusion of the Phase 2 farm-in work program with Chris Reindler and Partners (CRP) and secures Alligator a registered interest of 51% in the underlying licences. Next steps include establishing a Joint Venture Committee with CRP;
- Rock-chip samples collected around the time of the survey have recently been submitted for lab analysis including petrophysical characteristics; and
- Planning has commenced for a northern summer exploration program including consideration of a maiden drilling program and further engagement with strategic investors.

Alligator's CEO Greg Hall stated: "The ability and efficiency of the Initial Exploration team in combination with AGE's in-country contracting personnel has delivered an exceptionally high-quality survey in challenging terrain and further enhanced the Piedmont project's accessibility and potential to hold identifiable massive sulphide bodies.

The new anomaly at La Balma East is of similar amplitude to that observed over the historic Ni Co Alpe Laghetto mine which is directly associated with outcropping nickel sulphide mineralisation but to a much larger extent.

Planning has commenced for a northern summer program to investigate the La Balma anomaly in more detail whilst re-engaging potential strategic investors and considering the prospects of drilling in 2023 as we have approved drilling permits."

 VTEM survey conducted by Nyota in 2015 has previously been released, refer ASX: https://www.asx.com.au/asxpdf/20150714/pdf/42ztb6f6kp847g.pdf



Results of 2022 geophysics program

The 2022 Piedmont ground EM survey was designed to target areas immediately surrounding known historic workings and mapped mineralisation trends from previous AGE fieldwork and sampling. The use of ground EM is an industry accepted standard for the targeting and identifications of massive nickel sulphide bodies, representing the preferred mineralisation style targeted within the Project. The location of the survey within the Company's combined Piedmont project package is reflected in Figure 1.

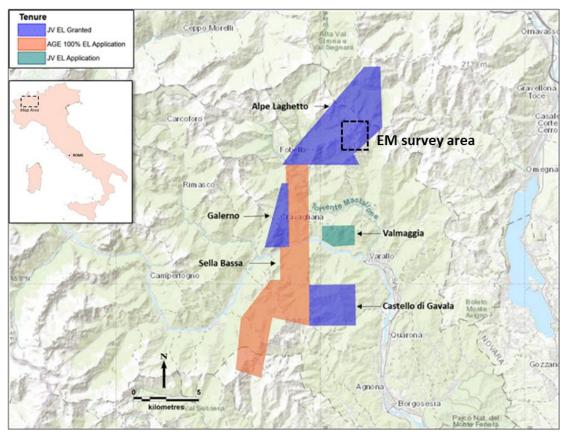


Figure 1: EM survey location on Piedmont Ni-Co Project licences

The final EM survey is comprised of and designed to test five areas within the Alpe Laghetto Exploration Licence. Details of the five survey grids can be found below in Table 1 with completed grids shown in Figure 2 below.

Survey ID	Station	Survey	Toract	Loop size
Survey ID	points	lines	Target	(m)
Alpe Laghetto	220	9	Continuation of observed mineralisation	400 x 200
Laghetto South	115	6	Extended mineralisation trend	400 x 150
La Balma	253	14	Observed and extended mineralisation	400 x 200
EM 1	39	4	VTEM anomaly	300 x 250
Cevia	129	9	Mineralisation extent around old working	450 x 150

Table 1 – Ground TDEM survey summary



Five surveys were completed in total with four of these survey grids targeting extensions along strike and at depth of the historic nickel mineralisation at La Balma, Laghetto, Laghetto South and Cevia. A fifth smaller grid (EM1) was planned to further investigate the primary anomaly from an historic airborne VTEM lite survey.

Interpretations from modelled data have highlighted notable conductive anomalies in four of the five survey grids with the exception being the Cevia grid. Modest scale anomalies are highlighted in the Laghetto south and EM1 grids. Both of these anomalies are yet to be explained with scree and vegetation covering the EM1 anomaly and the Laghetto south anomaly yet to be site inspected.

The primary anomalies are those highlighted red and purple within Figure 2 (highest conductivity) at Alpe Laghetto and La Balma. The highest order anomaly identified is that at the La Balma prospect (northern most grid). This anomaly is approximately 700m in length located to the east of historic workings and observed mineralisation and not closed off by the current survey due to timing of identification and accessibility. The originally planned grid was extended by approximately 50% during the initial survey to further delineate the conductive anomaly. Modelling of the anomaly indicates the feature is steeply dipping to the west with continuation to depth. This modelling aligns closely with mapped geology and observed layering of gabbro's from field investigations which are yet to determine the cause of the large scale anomaly.

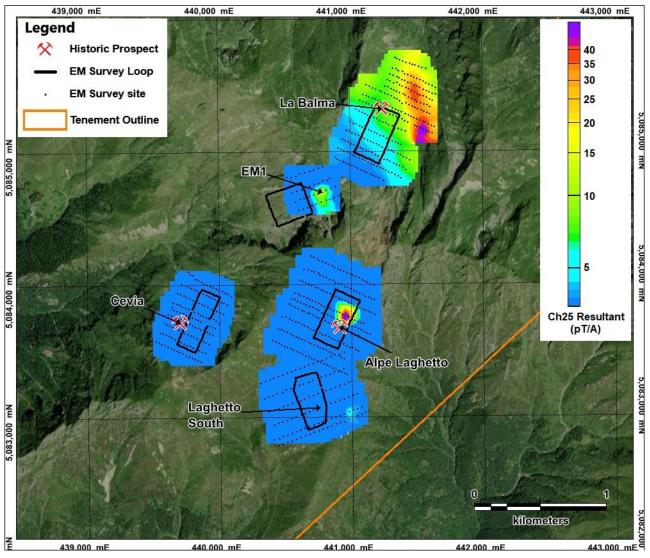


Figure 2: Completed EM survey grids showing Channel 25 conductivity plots and historic nickel – cobalt working locations



The Laghetto anomaly occurs directly coincident with historic workings and mapped extent of mineralisation at the prospect, believed to be associated with the observed sulphide body present there. Due to topographic constraints the EM loop was situated above the mineralisation likely leading to poor coupling and limiting the ability to model depth extent or orientation accurately. Potential drill targeting of the Laghetto, La Balma and EM1 anomalies in 2023 is now being investigated with Alligator already holding approved drilling permits close to these targets.

Initial reconnaissance work was conducted in November 2022 at both the La Balma and EM1 anomalies but was however limited by early season snow. In total 10 rock-chip samples (7 and 3 respectively) were collected and sent for analysis to help determine the cause of both anomalies and rule out other conductive features such as graphite and fine shale like units. A representative sample from each anomaly will also be considered for petrophysical analysis to identify sulphide assemblage styles and lithological properties.

In summary the completion of this program has enhanced the geological understanding of the Piedmont Project through the collection and presentation of high-quality data, demonstrating the projects exploration potential with the identification of high-order EM anomalies. This will allow Alligator and its Partner (CRP) to consider a targeted follow up drill program.

In addition to the 10 rock chip samples collected during the EM field reconnaissance, an additional 18 samples from the Isola, Sella Bassa and Gavala prospects have also been submitted for analysis.

Next Steps

Issue a Notice to CRP confirming completion of the Company's obligations under the farm-in arrangement. This will then trigger formation of a joint venture and the transfer of a 51% interest in the Alpe Laghetto, Galerno and Gavala exploration licences to Alligator.

Modelling and interpretation of the new EM data remains ongoing with next key steps being to identify lithological properties from the samples collected and conduct further field reconnaissance to determine the actual cause of the identified EM anomaly.

In conjunction with investigative geological works, planning of potential drill targeting has commenced to ensure, if warranted, that this can be conducted in 2023 under the currently approved or varied drilling permits..

This announcement has been authorised for release by the Alligator Energy CEO.

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Forward Looking Statement

This announcement contains projections and forward-looking information that involve various risks and uncertainties regarding future events. Such forward-looking information can include without limitation statements based on current expectations involving a number of risks and uncertainties and are not guarantees of future performance of the Company. These risks and uncertainties could cause actual results and the Company's plans and objectives to differ materially from those expressed in the forward-looking information. Actual results and future events could differ materially from anticipated in such information. These and all subsequent written and oral forward-looking information are based on estimates and opinions of management on the dates they are made and expressly qualified in their entirety by this notice. The Company assumes no obligation to update forward-looking information should circumstances or management's estimates or opinions change

Competent Person's Statement

Information in this report is based on current and historic Exploration Results compiled by Mr Andrew Vigar who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Vigar is a non-executive director of Alligator Energy Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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 Vigar consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.



About Alligator Energy

Alligator Energy Ltd is an Australian, ASX-listed, exploration company focused on uranium and energy related minerals, principally cobalt-nickel. Alligator's Directors have significant experience in the exploration, development and operations of both uranium and nickel projects (both laterites and sulphides).

Projects NT, AUSTRALIA **ITALY Alligator Rivers** (ARUP) **Piedmont NW** High Grade U Ni-Co-Cu-Au-PGEs SA, AUSTRALIA Big Lake SA, AUSTRALIA (Cooper Basin) ISR style U Samphire ISR style U resources

Appendix 1

Piedmont Property Loop Summary				
	Size (m)	Turnoff	Current	Loop Coordinates WGS84 Zone 32N
				440711E 5083599N
Loop 1	400 200	1.5 ms	~18 A	440880E 5083961N
(Laghetto Mine)	400 x 200			441061E 5083877N
				440892E 5083514N
				440662E 5082904N
				440554E 5083203N
Loop 2	400 x 150	1.5 ms	~18 A	440573E 5083304N
(Laghetto South)	400 X 150	1.5 ms	10 A	440729E 5083342N
South				440803E 5083087N
				440795E 5082952N
				439672E 5083559N
Loop 3 (Cevia)	450 x 150	1.5 ms	~18 A	439862E 5083967N
Loop 3 (Cevia)	450 X 150	1.5 1115	.5 ms ~18 A	439998E 5083903N
				439807E 5083496N
				441030E 5084994N
Loop 4 (La	400 x 200	1.5 ms	~18 A	441199E 5085357N
Balma)	400 X 200	1.5 ms	18 A	441381E 5085272N
				441212E 5084910N
				440442E 5084441N
Loop 5	300 x 250	1.5 ms	~18 A	440357E 5084674N
(EM1)				440623E 5084771N
				440707E 5084538N

Table a – Loop Summary and Corner Locations

Channel	Start (ms)	Finish (ms)	Channel	Start (ms)	Finish (ms)
PP	0.048	97.7	1	0.048	0.064
2	0.064	0.084	3	0.084	0.112
4	0.112	0.152	5	0.152	0.204
6	0.204	0.268	7	0.268	0.36
8	0.36	0.48	9	0.48	0.64
10	0.64	0.848	11	0.848	1.128
12	1.128	1.496	13	1.496	1.992
14	1.992	2.644	15	2.644	3.512
16	3.512	4.664	17	4.664	6.192
18	6.192	8.22	19	8.22	10.92
20	10.92	14.4	21	14.4	17.7
22	17.7	27.7	23	27.7	37.7
24	37.7	47.7	25	47.7	57.7
26	57.7	67.7	27	67.7	77.7
28	77.7	87.7	29	87.7	97.7

Table b - SmartEM 24 Windows Scheme



JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	 Ground EM: Sampling of Geophysical data referenced within this repost was obtained utilising an EMIT SMARTem24 reciever system in conjunction with a SMART Fluxgate 3-component surface magnetometer system. A total of 5 survey loops ranging from 300-450m in length and 150-250m wide were utilised and offset from mineralisation where possible to improve coupling. Loops were powered by a Geonics TEM67A Tx system and portable generators charging loops with ~18A. Loop specifications can be seen in Appendix 1, Table a. Station spacing for each grid was approximately 25 meters with occasional infill collected when anomalies were identified by the operators. In general, 2 readings were taken at each station. Where significant noise was observed more repeats were taken or stacks were increased. Transmitter and receiver units are synced to GPS time at each station and inline with each other through a sync signal sent from the transmitter at the start of each current ramp. All data was collected using a frequency of 5 Hz. The time channels recorded and processed were the standardised windows of the SmartTem24 system shown in Appendix 1, Table b. Data was quality checked daily in the field by Initial exploration coordinators and project geophysical consultants at Geodiscovery Brisbane. Data is deemed of good quality with low noise levels and not effected by any infrastructure. Units were hired from EMIT Midland WA providing New and well-maintained units for the survey.
Drilling techniques	 Drill type (eg core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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). 	N/A New geophysical data only



Criteria	JORC Code explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise 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. 	N/A New geophysical data only
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	N/A New geophysical data only
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	N/A No sampling required. Ground based station EM readings only.
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. 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. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 Ground EM: The EM survey referenced within this report was conducted by contractors; Initial Exploration services with extensive experience conducting ground based TDEM surveys in mountainous environments. The survey type is deemed appropriate for exploration of connected conductive features. Sampling of geophysical data was obtained utilising a EMIT SMARTem24 reciever system in conjunction with a SMART Fluxgate 3-component surface magnetometer system and a Geonics TEM67A transmitter system. Survey data acquisition was obtained at pre planned survey stations sited by GPS and subsequently location corrected following survey completion. Additional survey lines were added ad-hoc to further investigate anomalous readings and



Criteria	JORC Code explanation	Commentary
		 expand survey grids where possible on review of preliminary data to ensure optimum survey coverage and data integrity. Data was quality checked daily in the field before being uploaded to the Initial Exploration shared data site to be reviewed by independent geophysical consultants, GeoDiscovery group based in Brisbane.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Ground EM: Geophysical data has been verified and quality controlled externally by GeoDiscovery Australia.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 Ground EM: Station and transmitter loop location data was collected using a Trimble R12i GNSS GPS in WGS84, UTM Zone 32N datum. Individual ground TDEM stations were preplanned with a movement tolerance of up to 25% at the operators discretion. The TDEM method used has the advantage of measuring the secondary field while the primary field is off, improving sensitivity reducing/avoiding the influence of topographic effects. Topographic controls added limitations to joining individual surveys, however all surveys were setup independently. Survey grid specifications were planned at 50 to 100 metre line spacings orientated perpendicular to observed mineralisation trends with station recordings taken approximately every 25m along survey lines.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 Ground EM: Survey data acquisition was recorded at preplanned and ad-hoc station points planned at 25m intervals along typically 50 to 100m line spaced survey lines. The combined surveys as outlined in Table 1. Total 756 station recordings over 5 survey grids. Survey lines were orientated cross-cutting to mapped geology, historic workings and mineralisation trends where possible to maximise survey efficiency. Loop locations were laid adjacent to the primary survey areas where possible to achieve best coupling with conductors. The Laghetto survey loop overlies targeted mineralisation and may lead to poor coupling and modelling of the identified anomaly. The spacing and density of EM data forming the survey is deemed high resolution and



Criteria	JORC Code explanation	Commentary
		forms the basis of a program to identify conductive features commensurate with massive sulphide responses and improve geological understanding in the survey area.
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. 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. 	 Ground EM: Survey lines were orientated northwest-southeast and northeast-southwest discordant to the typical near north-south orientation of mapped geology and mineralisation trends in the region. This combined with high resolution 25m station spacings along close spaced survey lines additionally mitigates any sampling orientation bias in relatively high density gridded sampling.
Sample security	The measures taken to ensure sample security.	 Daily report on activities and production summary received with final data and daily updated from field crew. No physical samples take. Digital data uploaded to secure shared site for sharing between geophysical contractors. All field data uploaded daily for independent QAQC and full cleaned and corrected data provided at end of program via digital download from operator.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 All data subject to independent review and auditing by separate geophysical contractors GeoDiscovery Group.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

_	ed in the preceding section also apply to this	
Criteria	JORC Code explanation	Commentary
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 security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The survey referenced within the report is conducted within the Alpe Laghetto licence held by Ivrea Minerals Pty Ltd An earn-in agreement between AGE and Ivrea Minerals/KEC (collectively Chris Reindler and Partners) entitles AGE to earn a 51% holding of the licence (including two additional licences) which has now been met with completion of this work program. A joint venture in the ownership interest in the ratio of 51:49% will now be formed. This holding percentage may increase with ongoing project funding or dilution of Ivrea Minerals. The Alpe Laghetto licence remains in good standing with a replacement application due before the end of 2023.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Limited historical exploration has been conducted across the Piedmont project; Mining of Ni mineralisation outcrops occurred during the 1940 to support WWII efforts with



Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	 little documented information outside of partial mine plans. Limited historical exploration in the region was also conducted by Rimin/Aquater in the 1980s restricted predominantly to surface sampling and geological mapping with one localised IP survey. Academic research of the regions geological setting is relatively abundant and well documented with the region comprising a continental margin and lower mantle uplifted ophiolite succession combined with limited research of mineralisation styles in the region. Modern exploration across the Laghetto licence is limited to a helicopter supported VTEM lite airborne EM survey commissioned by previous operators Nyota in 2015. No deposit has yet been defined at the Piedmont project. The geological setting of the region is dominated by the Eurasian and Adriatic continental plate margins with an uplifted ophiolite succession dominating the Laghetto licence. Primary lithologies include layered Gabbros, Peridotite, Pyroxinites and Granulite metamorphics. Geological formations are typically near North-South striking with a steep westerly dip. The region is referred to as the Ivrea-Verbano zone. Varying mineralisation styles are present in the project area, target styles include layered/cyclic unit hosted, pipe style hosted, Gabbro hosted and ultramafic sill hosted. Varying levels of volatile-rich intrusions and structural-metamorphic remobilisation impact
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: 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 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. 	N/A New geophysical data only
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of 	N/A New geophysical data only



Criteria	JORC Code explanation	Commentary
	 high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisati- on widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	N/A New geophysical data only
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. 	 All diagrams within this release have respective appropriate scales.
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.	 This report provides all available information to date highlighting all high priority EM anomalies. Continued interpretation and targeting from new geophysical data will remain ongoing. No new exploration results are contained within this report. Geophysical data has been acquired for assisting geological interpretations, understanding, field reconnaissance sampling and potential drill targeting.
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.	 The VTEM survey conducted by Nyota in 2015 has previously been released, refer ASX: https://www.asx.com.au/asxpdf/20150714/pd f/42ztb6f6kp847g.pdf with discussion of subsequent results. Historic surveys will continue to be used in conjunction with new data to further geological understanding and support future exploration.
Further work	 The nature and scale of planned further work (eg 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. 	 Next steps are discussed with in the body of the report. Initial reconnaissance of anomalies has been conducted with limited success due to snowy conditions. Further site reconnaissance is recommended to determine the cause of identified conductive anomalies. Follow up drilling of anomalies as determined from field reconnaissance to identify cause of conductive anomaly.



