



LUCAPA IDENTIFIES SEVEN NEW KIMBERLITE TARGETS AT MERLIN

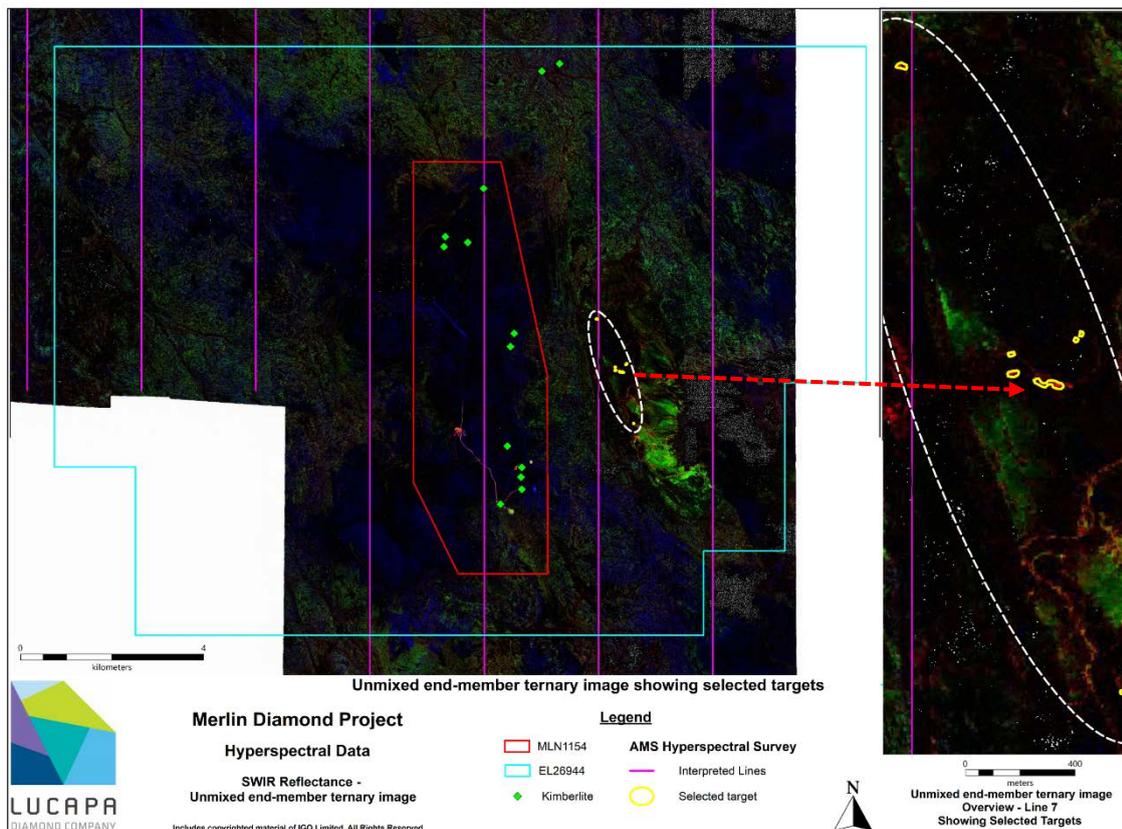
KEY HIGHLIGHTS

- Interpretation of hyperspectral data identifies new kimberlite targets at Merlin
- Targets selected displayed magnesium rich clay signatures, commonly associated with kimberlites
- Lucapa acquired the airborne hyperspectral data flown by De Beers in 1997 - understood to be the first time this data has been interpreted by an operator at Merlin
- Further interpretation and field follow up program to commence soon

Lucapa Diamond Company Limited (ASX: **LOM**) (“Lucapa” or “the Company”) is pleased to announce that seven new kimberlite targets have been identified on the Merlin Diamond Project in the Northern Territory (“Merlin”) through interpretation of historical De Beers airborne hyperspectral data.

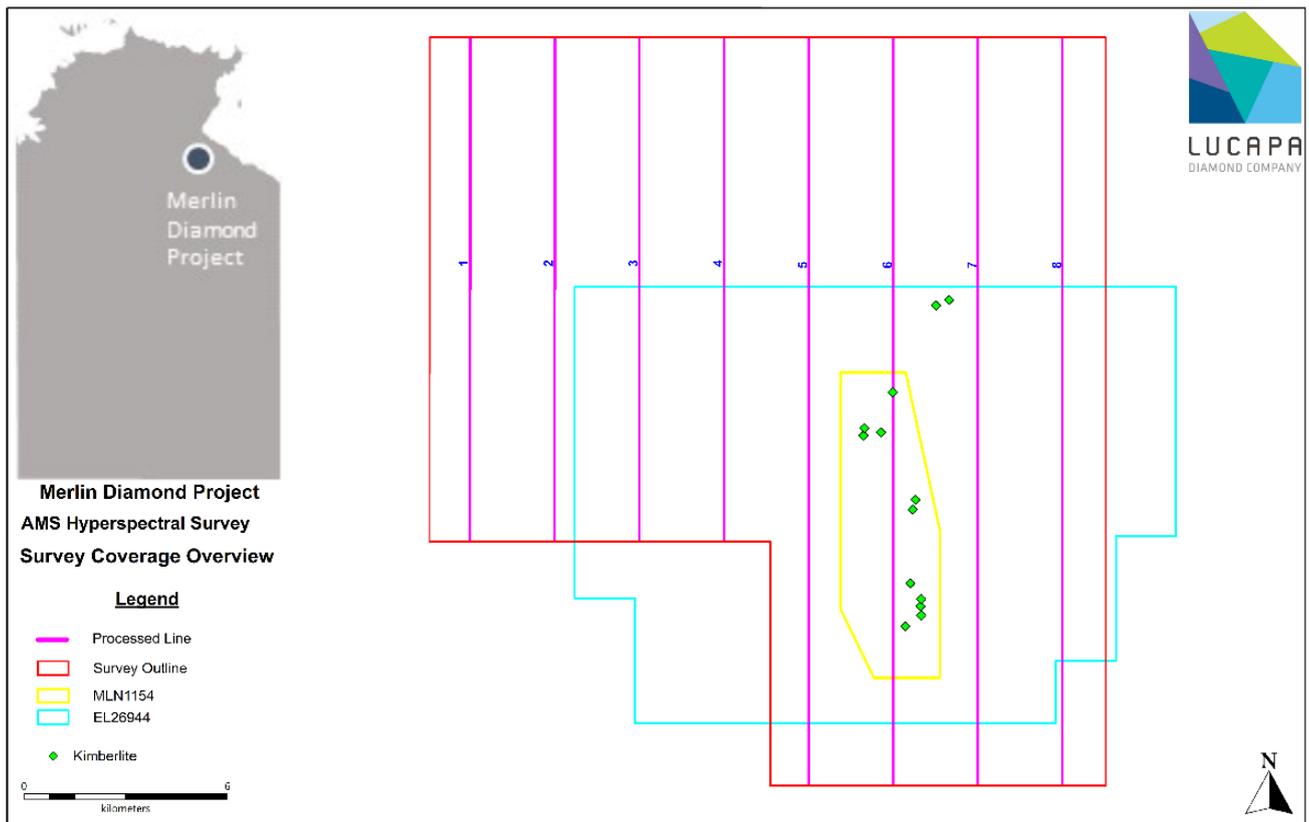
As per the ASX announcement on 11 April 2022, in 1997 and prior to mining commencing at Merlin by Ashton and Rio Tinto in 1999, De Beers used its proprietary Airborne Multispectral Scanner technology to fly over an area in the Northern Territory including Merlin (Map 1). Lucapa acquired the hyperspectral data from IGO Ltd and it is understood that to date it has not been available to or interpreted by previous operators at Merlin.

The signatures identified display elevated magnesium rich clay readings, which are commonly associated with kimberlites. The seven selected kimberlite targets lie ~3km to the east of the known Merlin kimberlites.



Map 1: The Visible-Near-Infra-Red (“VNIR”) reflectance matched filter ternary image highlighting the seven magnesium clay rich signatures and possible kimberlites identified at Merlin

Eight flight lines, covering 371km² including the Merlin tenements were processed by Western Geospectral in Perth (Map 2).



Map 2: Map illustrating the survey area and eight lines flown by De Beers over the Merlin tenements in 1997

The seven selected targets will be followed up with visual ground inspection, soil samples for spectral analysis and heavy mineral soil samples.

The data is being integrated with existing airborne geophysics, ground geophysics, heavy mineral soil sampling and geochemical soil sampling to identify additional kimberlite targets for follow-up. Additional geophysical work is also planned for the large magnetic target (“Leviathan”) on the exploration licence in 2022.

Lucapa Managing Director Stephen Wetherall said, *“The identification of these kimberlite targets through interpretation of the historical De Beers hyperspectral data increases our confidence that there could be more diamondiferous kimberlites at Merlin beyond the 13 previously identified. This is a very positive first step by our technical team and we look forward to growing our exploration efforts at Merlin.”*

Authorised by the Lucapa Board.

STEPHEN WETHERALL
MANAGING DIRECTOR

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ABOUT LUCAPA

Lucapa is an ASX listed diamond miner and explorer with assets in Africa and Australia. It has interests in two producing diamond mines in Angola (Lulo) and Lesotho (Mothae). The large, high-value diamonds produced from these two niche African diamond mines attract some of the highest prices per carat for rough diamonds globally.

The Lulo mine has been in commercial production since 2015, while the Mothae mine commenced commercial production in 2019.

In 2021, through its wholly owned subsidiary, Australian Natural Diamonds Pty Ltd, Lucapa completed the strategic and transformative acquisition of the Merlin Diamond Project, an historic Australian mine containing a 4.4 million carat JORC (2012) compliant Mineral Resource with significant exploration potential. The Company published an Updated Scoping Study re-enforcing the significant economic potential for a long-life mine at Merlin with a production target of 2.1 million carats. A feasibility study is expected to be completed by Q3 2022.

Lucapa and its project partners are also exploring for potential primary source kimberlites or lamproites at the prolific Lulo concession in Angola, the Brooking project in Australia and the Orapa Area F project in Botswana.

The Board, management and key stakeholders in Lucapa have deep global diamond industry experience and networks all through the value chain from exploration to retail.

Competent Person's Statement

Information included in this announcement that relates to exploration results and resource estimates is based on and fairly represents information and supporting documentation prepared and compiled by Richard Price MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Price is an employee of Lucapa Diamond Company Limited. Mr Price 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 Exploration Results, Mineral Resources and Ore Reserves. Mr Price consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

No New Information

To the extent that this announcement contains references to prior exploration results and Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Forward-Looking Statements

This announcement has been prepared by the Company. This document contains background information about the Company and its related entities current at the date of this announcement. This is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement.

This announcement is for information purposes only. Neither this document nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction. This announcement may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction.

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Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) risks associated with mining, exploration, operations, resource, environment, funding and adverse or unanticipated market, financial, currency or political developments.

No responsibility for any errors or omissions from this document arising out of negligence or otherwise is accepted. This document does include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of the Company. Actual values, results, outcomes or events may be materially different to those expressed or implied in this announcement. Given these uncertainties, recipients are cautioned not to place reliance on forward-looking statements. Any forward-looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and ASX Listing Rules, the Company does not undertake any obligation to update or revise any information.

Appendix 1

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Sampling Techniques and Data

Criteria	JORC Code Explanation	Lucapa Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>Nature and quality of sampling (e.g. 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.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • No sampling was undertaken. • The De Beers AMS hyperspectral sensor is a 3-spectrometer, opto-mechanical, line-scanning system that records imagery in 96 channels across the reflective solar region of the electromagnetic spectrum. This spans the visible and near infrared ("VNIR") to the short-wave infrared ("SWIR") spectral regions from approximately 530nm to 2500nm. • Imagery is typically acquired at an altitude of 2500m above ground level to provide a nominal 5m pixel size across a 3km swath. • The Matheson Creek survey was acquired in one day on 21 August 1997, and covers an area totalling approximately 408km².
Drilling techniques	<ul style="list-style-type: none"> • <i>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.).</i> 	<ul style="list-style-type: none"> • No drilling was undertaken.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • No drill samples were taken.

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Criteria	JORC Code Explanation	Lucapa Commentary
Logging	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • No drilling or logging was undertaken.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • No sub-sampling was undertaken.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • No sample treatment or analysis was undertaken.
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • No verification of samples has been undertaken.
Location of data points	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • The data was geo-rectified by referencing to ortho-rectified Sentinel-2 satellite base imagery. • The grid system is MGA (GDA 1994).

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Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Imagery is typically acquired at an altitude of 2500m above ground level to provide a nominal 5m pixel size across a 3km swath. • No mineral resource is being estimated based on the results presented and no sample compositing has been applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The orientation of the data does not cause bias in assessing of structures or deposits. • No drilling was undertaken.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • No samples were taken.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits were undertaken. • The data was interpreted and reviewed by Western Geospectral.

Reporting of Exploration Results

Criteria	JORC Code Explanation	Lucapa Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The Merlin Diamond Project is contained within mining lease ML1154 in the Northern Territory, Australia and covers 23.5km². The lease was granted in 1998 for a period of 25 years. It is held by Australian Natural Diamonds Ltd, which is a 100% owned subsidiary of Lucapa Diamond Company Limited. Exploration license EL26944 surrounds MLN1154 was granted in 2009 and covers approximately 186km². • The lease is located on Special Purpose Crown Lease held by Wardell Nominees Pty Ltd on behalf of Ashton Mining Limited. • A Native Title Agreement with local traditional owners includes a minimum annual payment of \$10,000, and a Net Profit Interest to be paid annually at the rate of 1% on total profit <\$10M and scaling up to 5% above \$40M. • The project is subject to a Royalty Agreement with Mr R.M. Biddlecombe. A 0.75% royalty is payable to prospector Mr R.M. Biddlecombe who was the original holder of EL6424, which preceded the application for a mining lease based upon diamond sales. • Australia Natural Diamonds (Pty) Ltd acquired the mining and exploration tenements under a Sale and Purchase Agreement with the liquidators of Merlin Diamonds Limited in December 2021.
Exploration done by other parties	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • Extensive exploration has been undertaken over the Merlin project area by Ashton, Rio Tinto and Merlin Diamonds Limited.

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		<ul style="list-style-type: none"> • Work undertaken has included soil and stream heavy mineral sampling, airborne and ground EM, magnetics and gravity.
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The deposits of interest are hard rock diamond deposits. • The ore rock type is kimberlite, which is an ultramafic volcanic rock. • The geological interpretation is based on a standard kimberlite emplacement model, which suggests the kimberlite 'pipes' are vertically emplaced volcanic intrusives that maintain a predictable geometry with depth. • Drilling has demonstrated this to be the case. • Kimberlites originate from the upper mantle at depths greater than 100km below surface and entrain diamonds during ascent. Kimberlites generally occur in clusters within a larger field, which is the case at the Merlin deposit. • The kimberlites at the Merlin deposit include a total of fifteen pipes, which occur in several clusters within a larger field approximately 10km by 5km. The pipes have been shown to vary in size, kimberlite type, and diamond content. • The pipes intrude the Neo-Proterozoic Bukalara Formation and have been dated as Devonian based on K-Ar and Rb-Sr dating of phlogopite. • The pipes are representative of the diatreme facies with the uppermost crater facies having been eroded between emplacement and the Cretaceous.
Drill hole Information	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth hole length.</i> ○ <i>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.</i> 	<ul style="list-style-type: none"> • No drilling information is presented here.
Data aggregation methods	<ul style="list-style-type: none"> • <i>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.</i> • <i>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</i> 	<ul style="list-style-type: none"> • No drilling information is presented here.

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	<p><i>examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>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').</i> 	<ul style="list-style-type: none"> • No drilling information is presented here.
Diagrams	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Appropriate maps and plans for the reported data are included with the text of the report.
Balanced reporting	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Results reported are complete.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • All historical exploration data will be integrated with the hyperspectral data during the final interpretation process.
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • Further interpretation of the data in conjunction with the review of existing soil sampling and geophysics datasets will assist in identifying targets worthy of follow-up sampling and/or geophysics surveys. The geophysics will likely include ground EM, ground or UAV mounted magnetics and ground gravity surveys, while soil geochemistry, soil spectral sampling will be used to complement heavy mineral soil and stream sampling.