



**Cougar Metals NL** is a Perth based exploration company listed on the Australian Securities Exchange (ASX: CGM).

The Company holds an option to acquire a 51% undivided interest in the Shoal Lake Gold East Project containing the Mikado and Cedar Island historic mines. The Project is located in the Shoal Lake region of Ontario, Canada; an area containing a number of past gold producers and significant exploration results. Work on the Project is suspended.

The Company also operates a mineral drilling business in Brazil providing surface diamond, reverse circulation and RAB drilling services to the Brazilian mineral resource industry. The Company currently operates a fleet of 9 rigs.

In Australia, the Company holds the laterite nickel and cobalt mineral rights to the Pyke Hill prospect located 40km east of the Murrin Murrin Nickel operations in Western Australia. The prospect contains a Measured and Indicated Resources of 14.7mt @ 0.9% Ni and 0.06% Co. (March 2008).

#### **Directors**

Randal Swick – Executive Chairman  
Michael Fry – Executive Director  
David Symons – Non Executive Director

#### **Senior Management**

Randal Swick – Managing Director  
Michael Fry – CFO & Company Secretary

#### **Capital Structure**

Shares on Issue: 665,268,524  
52 week range: \$0.001 - \$0.008  
Last Price (2/8/16): \$0.005  
Market Capitalisation: \$ 3.325 million

#### **Substantial Shareholders**

Marcia Swick – 41.5%  
Savvy Capital Management – 20.8%

## **LOI EXECUTED OVER BRAZILIAN LITHIUM PROJECT**

### **HIGHLIGHTS:**

- Letter of Intent (LOI) executed with Dubai based investment group MMH Capital Ltd (MMH) to acquire an 85% interest in its “Ceara Lithium Project” located in north-eastern Brazil.
- project comprises 30 applications covering ~51,000ha.
- project incorporates two separate areas lying ~150kms apart, being (i) an area covering the historical lithium mining centre at Solonopole, and (ii) an area encompassing a pegmatite swarm at Cristais.

### **Solonopole Project**

- small scale lithium mining undertaken in the area over last 30 years for use in domestic ceramics and grease production.
- lithium minerals (spodumene, amblygonite and lepidolite) plus tin, niobium, tantalum and gemstones present.
- mapping undertaken by Brazil’s National Department of Mining and Petroleum (DNPM) in 2012 identified more than 200 pegmatites over an area of size 40 km by 10 km (~90% of which are contained within MMH applications).
- 11 of 60 grab samples taken by DNPM returned grades between 0.5% and 9.41% Li<sub>2</sub>O (assayed at ACME laboratory in Brazil).
- no modern exploration previously undertaken apart from the work performed by the DNPM in 2012.

### **Cristais Project**

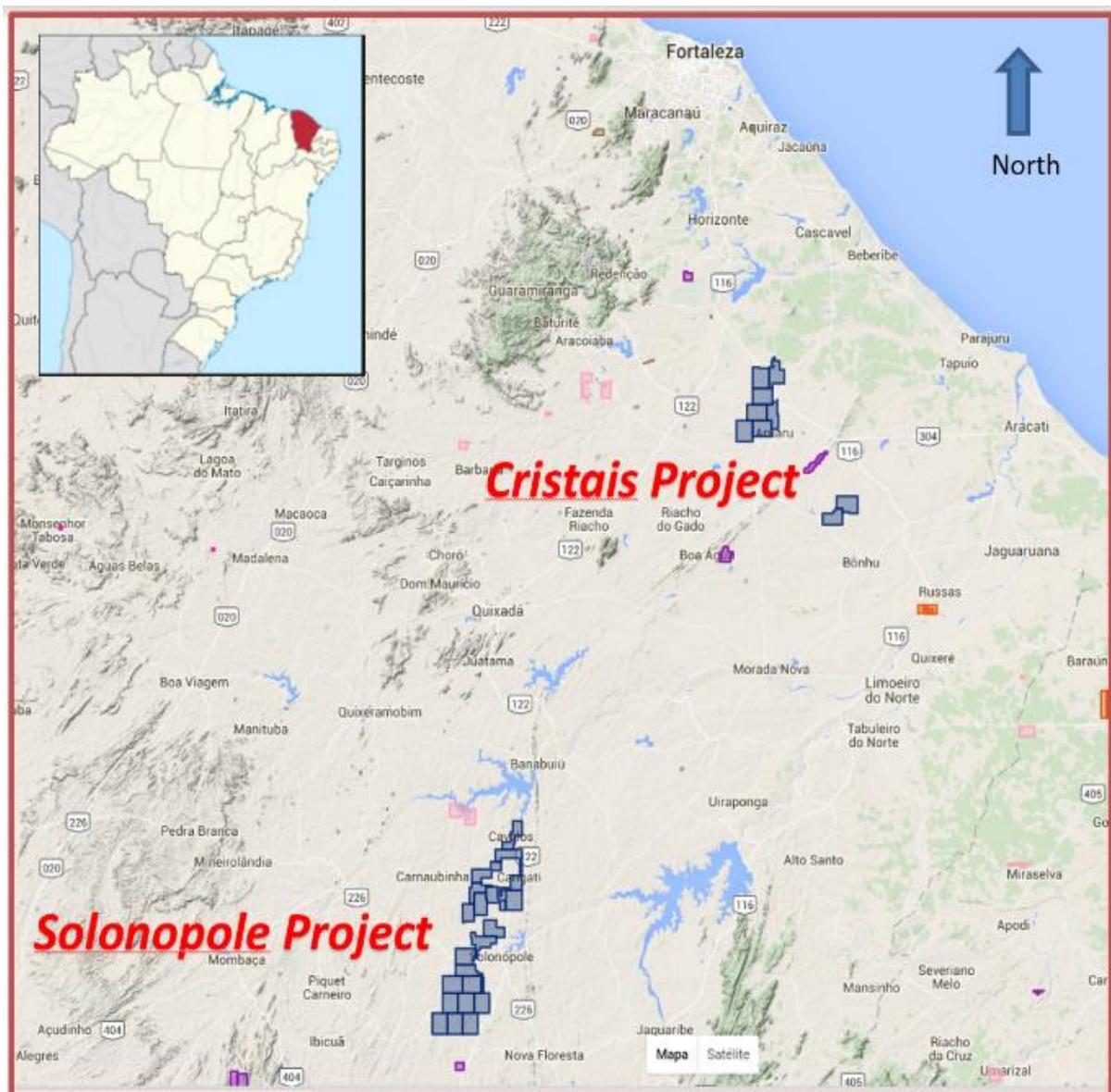
- applications over ~35km of strike of a pegmatite swarm.
- pegmatites being mined artisanally for quartz and beryl crystals.
- no modern exploration previously undertaken in the region.

## ***Ceara Lithium Project***

The Ceara Lithium Project is located in Ceara State, in north-eastern Brazil. The Project comprises two separate areas, being (i) at Cristais (1.5 hours' drive from State Capital, Fortaleza) and (ii) at Solonopole (3.5 hours' drive from Fortaleza).

Both Cristais and Solonopole have excellent infrastructure being located along major sealed highways and in close proximity to a high voltage national electricity grid.

Thirty (30) exploration permit applications cover a total of 51,593ha. DNPM permit approval allowing exploration to commence is expected within 60 days.



**Location map of project areas in Ceara (north-eastern Brazil) state; application areas in blue**

## **Solonopole Project**

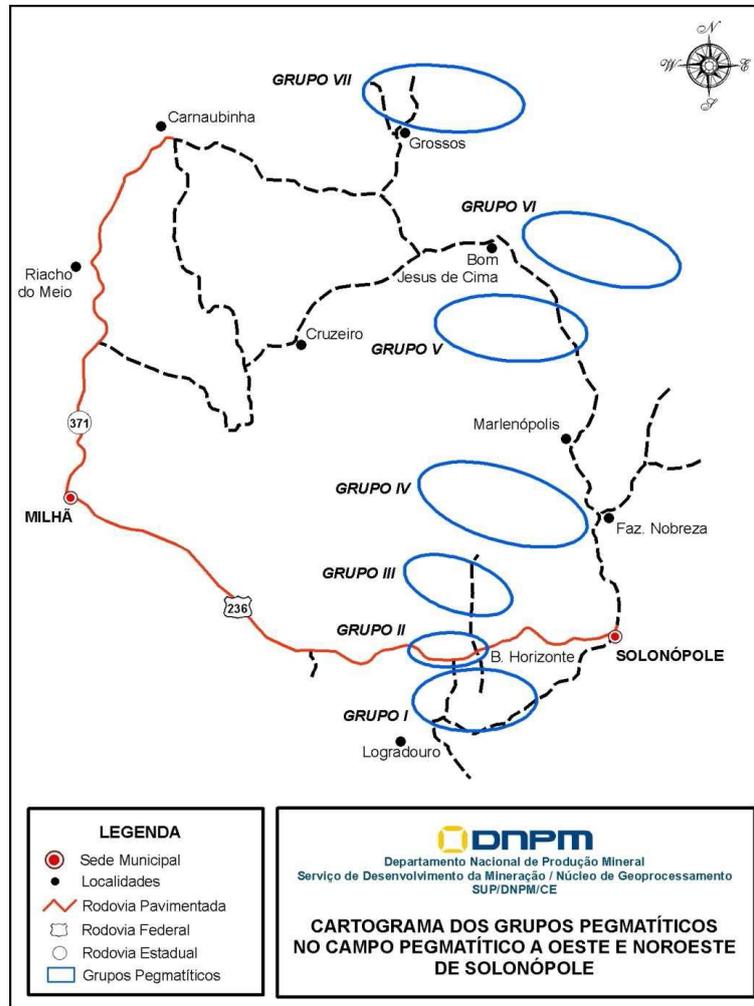
The Solonopole area is a known area of lithium mineralisation with lithium having been mined in the area intermittently over the past 40 years.

Historical production tonnages of lithium have not been recorded as mining operations have been informal and of small scale, with no pits going below 5 metres in depth.

The image below is from a small scale mining operation in Solonopole during the 1980's, typical of the region.



In 2012, the DNPM undertook a geological assessment of the Solonopole region. The DNPM identified seven (7) distinct areas of pegmatite as depicted in the following diagram:



Fonte: Adaptado de Souza (1985).

The minerals identified in each of the areas were determined as follows:

Area 1:	amblygonite and secondarily tantalite-columbite and beryl
Area 2:	quartz k-feldspar, clevelandite, spodumene, lepidolite, amblygonite, cassiterite, muscovite, tantalite, beryl and tourmaline;
Area 3:	amblygonite crystals up to 40 cm x 15 cm
Area 4:	amblygonite, tantalite-columbite and beryl
Area 5:	amblygonite, beryl and spodumene
Area 6:	beryl main production, in association with microcline, afrisite, apatite and other phosphates;
Area 7:	beryllium, mica and amblygonite

The DNPM's geological team took 60 grab samples across the locations and had the samples assayed at ACME Laboratories in Brazil.

The assays returned 11 positive results with grades ranging between 0.5% and 9.41% Li<sub>2</sub>O, as presented in Table 1 below. The principle lithium minerals identified were spodumene, amblygonite and lepidolite.

<b>Table 1</b>		
<b>DNPM Grab Sampling Results 2012</b>		
<b>Sample Number</b>	<b>Mineral</b>	<b>Li<sub>2</sub>O</b>
DNPN-53	Amblygonite	9.41
DNPN-26	Amblygonite	8.89
DNPN-01	Amblygonite	8.68
DNPN-41B	Lepidolite	4.84
DNPN-45	Lepidolite	3.16
DNPN-41A	Lepidolite	3.12
DNPN-52	Lepidolite	2.48
DNPN-37B	Lepidolite	2.35
DNPN-55	Lepidolite	1.96
DNPN-40	Amblygonite	1.03
DNPN-37A	Spodumene	0.43
** Samples assayed at ACME laboratory – details of analysis not provided.		
***XRD undertaken to define mineralogy		

The images below show the pegmatites identified during the site visit undertaken by MMH's geological consultants in March 2016.



Image 3



Image 4



### **Initial Exploration Program**

A staged exploration program following the granting of permits will include:

- airborne geophysics and remote sensing targeting;
- project mapping and grab sampling;
- soil geochemistry;
- trenching; and
- drilling.

Cougar will enlist the support of Amazon Geoservices to develop and implement its exploration programs.

### **Terms**

A LOI has been executed between Cougar and MMH.

The key the terms of the LOI are:

- a “Newco” entity is to be registered with 85% ownership Cougar and 15% MMH
- Cougar will issue 100,000,000 shares in CGM to MMH following the formation of Newco
- Cougar will pay USD25,000 to MMH upon the transfer of 30,000ha of permits to Newco
- Cougar will free carry MMH until a decision to mine.

## Message from the Managing Director

*“Having survived the global exploration downturn of the last few years without dilution to our shareholders, the management of Cougar welcomes the acquisition of this promising project which has the potential to return significant value to our stock and shareholders. We look forward to working with MMH to add further value to Cougar”*

For further information please contact the undersigned via email at [r.swick@cgm.com.au](mailto:r.swick@cgm.com.au) or alternatively contact Michael Fry (CFO & Company Secretary) on +61 8 9226 5002.

Yours sincerely

**COUGAR METALS NL**



**RANDAL SWICK**

*Executive Chairman*

## **Forward Looking Statements**

*Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Cougar Metals NL, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.*

## **Competent Persons Statement**

***Information in this report relates to exploration results that are based on information compiled by Mr Beau Nicholls (Member of the Australasian Institute of Geoscientists). Mr Nicholls is a fulltime employee of Sahara Mining Services and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activities undertaken 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 Nicholls consents to the inclusion in the release of the statements based on his information in the form and context in which they appear.***

## Appendix 1

The following Table is provided in compliance with the JORC Code

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The results announced here are from historic DNPM grab sampling taken from Field mapping. only 11 of the 60 sample results are available</li> <li>.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole 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).</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Grab samples are selective samples</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>NA.</li> <li>Mineralogy has been identified by DNPM which is done by X ray diffraction (XRD)</li> <li>.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Grab Samples in Pegmatites can be very biased due to the nuggetty composition of a pegmatite.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>DNPM report note 1-2kg was sent to the ACME Laboratory for analysis. Laboratory certificates are not available, but typical ACME analysis for Li20 is by ICP-OES/MS in a multi-element suite</li> <li>.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Sampled by government geologists.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Only summary tables are provided of the grab samples, their sample locations are not accurately recorded in the reports available</li> <li>Grid coordinates are in UTM WGS 84</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Grab samples are not sufficient to indicate resources, they indicate that mineralisation is present in the geological system, Additional sampling is required</li> <li>No compositing of samples was adopted.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li></li> <li>Its highly likely that DNPM sampling of pegmatites is bias. It was a geological investigation. Again this can be positive or negative, the Pegmatites identified on the MMH site visit are between 5 meters and 200m in diameter. A single grab sample cannot represent this</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Not available</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>

## Section 2: Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Permits in application are under Amazon Consultoria em Mineracao e Servicos. This company has a service agreement with MMH</li> <li>These applications are in good standing after 2 months and can be viewed on the Sigmim website which is controlled by the DNPM.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Gran Sampling and Mapping was undertaken and reported by DNPM in 2012.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Pegmatite Swarms</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>NA.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li>NA</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See table and figures within the release.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Only the DNPM reported results have been provided. We assume that of the ~60 samples taken by the DNPM only 11 returned high grades which were reported in Table 1. These samples do show consistent high grade spread over a 40 kilometre strike x10km width suggesting the entire pegmatite swarm has very good exploration potential</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results;</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Further work</i>	<p><i>bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p> <ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Subject to permit granting and funding a staged program of airborne geophysics plus mapping and sampling plus soil geochemistry plus drilling will be undertaken</li> </ul>