

## Leaky Bore Lithium Update

- **Rockchip sampling results reinforce lithium prospectivity of the 100% - owned project**
- **Anomalous lithium oxide (Li<sub>2</sub>O) values returned from outcropping pegmatite**
- **New (additional) prospective pegmatites identified with no previous lithium exploration**
- **Follow-up program of geological mapping and rockchip sampling to commence next week with results expected by end of the June 2016 Quarter**

Mithril Resources Ltd (ASX: MTH) is pleased to provide an update on continuing lithium and cobalt exploration activities at its 100%-owned Leaky Bore Project (*located 150 kilometres east of Alice Springs, NT – Figure 1*).

Rockchip sampling of 5 outcropping pegmatite bodies undertaken last month has reinforced the lithium – prospective nature of the area with samples returning elevated lithium oxide (Li<sub>2</sub>O) values up to 0.06% from one of the pegmatites (“Pegmatite A” - see *Table 1, and Figures 2 - 3*).

Given that last month’s sampling was the first ever lithium – focussed assessment of Leaky Bore, further field investigation is warranted to better understand the significance of the results.

Ongoing evaluation of Leaky Bore has also identified a number of new (additional) pegmatite occurrences which occur immediately north of Pegmatite A and were not assessed during last month’s field work.

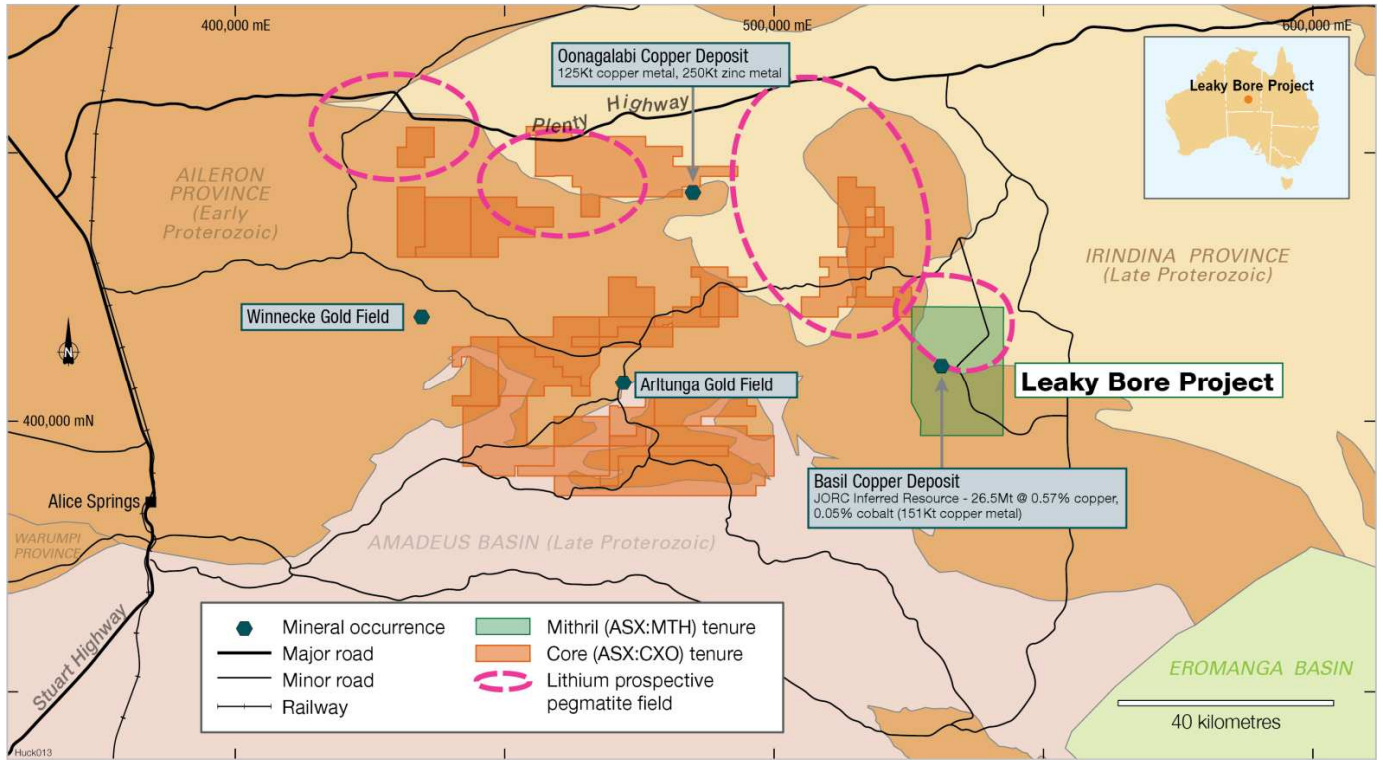
Geological mapping and rockchip sampling of the new pegmatite occurrences will take place next week with further results expected by the end of the June 2016 Quarter.

The pegmatites occur within the northern half of the Leaky Bore Project (*Figure 2*) proximal to the Company’s 100%-owned Basil Copper-Cobalt Deposit (2004 JORC Code compliant Inferred Resource of 26.5Mt@0.57% copper, 0.05% cobalt - 151,050 tonnes copper metal and 13,356 tonnes cobalt metal).

With the growing interest in cobalt, the Company has undertaken a technical review of the deposit (given that it was previously assessed primarily for its copper potential), which demonstrates that there is considerable potential to extend known cobalt mineralisation.

While this is a positive, preliminary metallurgical analysis suggests that the cobalt is likely not amenable to conventional flotation processing and would likely not be able to be extracted economically at current market cobalt prices.

As such Mithril will only focus on Leaky Bore’s lithium targets at this time.



**Figure 1: Leaky Bore Project Location Plan showing location of lithium prospective pegmatite fields**

**Table 1: Rockchip Sampling - Locations and Analytical Results**

| Sample ID | Easting | Northing  | Pegmatite ID | Sample Description                    | Li <sub>2</sub> O% | Be ppm |
|-----------|---------|-----------|--------------|---------------------------------------|--------------------|--------|
| LB1604-01 | 535,918 | 7,414,000 |              | Coarse grained pegmatite              | 0.02               | <20    |
| LB1604-02 | 535,918 | 7,414,000 |              | Amphibolite float / wall rock         | 0.02               | <20    |
| LB1604-03 | 535,918 | 7,414,000 |              | Biotite in pegmatite                  | 0.04               | <20    |
| LB1604-04 | 535,918 | 7,414,000 |              | Muscovite in pegmatite                | 0.02               | <20    |
| LB1604-05 | 528,400 | 7,414,497 | A            | Pale green blue minerals in pegmatite | 0.06               | >1%    |
| LB1604-06 | 528,400 | 7,414,497 | A            | Pegmatite / garnet / beryl            | 0.06               | 60     |
| LB1604-07 | 528,400 | 7,414,497 | A            | Pegmatite / pale green mica           | 0.04               | 130    |
| LB1604-08 | 530,699 | 7,420,342 |              | Coarse grained pegmatite              | 0.04               | 30     |
| LB1604-09 | 530,715 | 7,420,373 |              | Pegmatite / rose quartz               | 0.04               | <20    |
| LB1604-10 | 530,922 | 7,418,630 |              | Coarse grained pegmatite              | 0.02               | <20    |
| LB1604-11 | 531,296 | 7,418,644 |              | Coarse grained pegmatite / tourmaline | <0.02              | <20    |



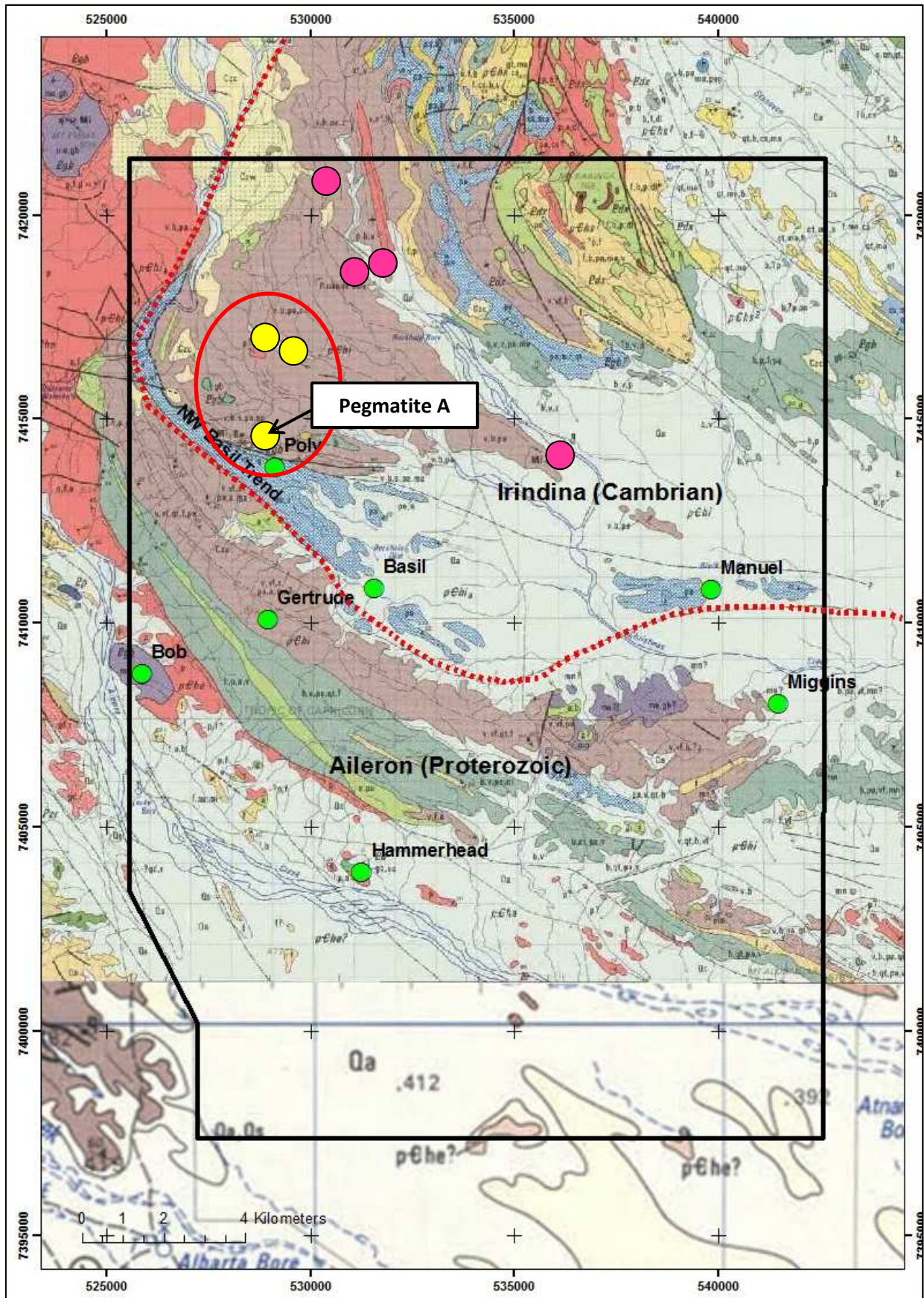


Figure 2: EL26942 Leaky Bore geology and mineral occurrences – lithium prospective pegmatites (yellow), outcropping pegmatites (pink) and base-metals (green). Red polygon shows area for further field inspection.





**Figure 3: Photo of Sample LB1604-05 showing quartz – feldspar pegmatite with mica and beryl (pale green).**

### JORC Statement: Basil Copper-Cobalt Deposit

| 2004 JORC Category | Tonnes (Mt) | Cu % | Co ppm | Contained copper (tonnes) | Contained cobalt (tonnes) |
|--------------------|-------------|------|--------|---------------------------|---------------------------|
| Inferred           | 26.5        | 0.57 | 504    | 151,050                   | 13,356                    |

The information pertaining to the Basil Copper-Cobalt Deposit Inferred Resource was prepared and first disclosed by Mithril Resources under the JORC Code 2004 (please refer to the ASX Announcement by Mithril Resources dated 21 March 2012).

It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

**JORC Code, 2012 Edition - TABLE 1 (Section 1: Sampling Techniques and Data)**

| <b>Criteria</b>                                       | <b>JORC Code explanation</b>   | <b>Commentary</b>   |
|---|--|---|
| <b>Sampling techniques</b>                            | <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>   | 1 – 3kg samples of either outcrop, sub crop or float/lag material was collected at various locations based on prospective geology.  |
|   | <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>   | Each rock chip location (easting and northing) was collected by a handheld GPS. A brief sample description and additional comments as necessary were recorded at every sample location. All sampling protocols remained constant throughout the program.  |
|   | <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> | 1 – 3kg rock chip samples were collected from either outcrop or sub crop and placed inside calico sample bags for transport to ALS Laboratories in Adelaide, SA for sample preparation. Subsequent geochemical analysis was conducted by ALS in Perth WA.<br><br>In the laboratory, samples are crushed and pulverised to produce a representative 30g sub-sample for analysis for the following:<br><br>Al <sub>2</sub> O <sub>3</sub> , As, Be, CaO, Co, Cr <sub>2</sub> O <sub>3</sub> , Cu, Fe <sub>2</sub> O <sub>3</sub> , K <sub>2</sub> O, Li <sub>2</sub> O, MgO, MnO, Ni, Pb, S, SiO <sub>2</sub> , TiO <sub>2</sub> , and Zn (Method: ME-ICP89. Peroxide Fusion followed by ICP-AES analysis).<br><br>Cs, Nb, Rb, Sn, Ta, Th, and U (Method: ME-MS91. Sodium Peroxide Fusion followed by ICP-MS analysis). |
| <b>Drilling techniques</b>                            | <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>   | Not Applicable as no drilling was undertaken.   |
| <b>Drill sample recovery</b>                          | <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>   | Not Applicable as no drilling was undertaken.   |
|   | <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>   | Not Applicable as no drilling was undertaken.   |
|   | <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>  | Not Applicable as no drilling was undertaken.   |
| <b>Logging</b>  | <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>   | Rock chip samples have been described geologically but not to a level of detail suitable for Mineral Resource estimation, mining and metallurgical studies.   |
|   | <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography</i>  | Logging of rock chip samples is of a qualitative nature.<br><br>Samples are logged for lithology and sometimes logged for colour, texture, weathering, minerals and alteration. An overall sample description and general comment on location is also included.   |
|   | <i>The total length and percentage of the relevant intersections logged.</i>   | Logging was restricted to describing individual rock sample collected for analysis.   |
| <b>Sub-sampling techniques and sample preparation</b> | <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>   | Not Applicable as no drilling was undertaken.   |
|   | <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>  | Rock chip samples were collected from outcrop, sub crop or float and all samples were dry.  |
|   | <i>For all sample types, the nature, quality and</i>   | The sample preparation of the rock chip samples follows industry  |



| Criteria  | JORC Code explanation  | Commentary  |
|---|--|---|
|   | <i>appropriateness of the sample preparation technique.</i>  | best practice, involving oven drying (110°C) where necessary, crushing and pulverising (~90% less than 75µm).   |
|   | <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>   | Sub-sampling will only occur if the sample is >3kg. All samples submitted were <3kg so no sub sampling occurred.  |
|   | <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>  | No field duplicates were taken. All samples collected were ~1 – 3kg, and entire sample pulverized.  |
|   | <i>Whether sample sizes are appropriate to the grain size of the material being sampled</i>  | Sample sizes are considered appropriate for the exploration method.   |
| <b>Quality of assay data and laboratory tests</b> | <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>  | Peroxide and / or sodium peroxide fusion, followed by an ICP-AES and / or ICP-MS finish is considered to be a total technique and appropriate for determining lithium bicarbonate analyses.   |
|   | <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> | Not applicable as no geophysical tools were used.   |
|   | <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>                  | For Multi-element analysis, each rack (40 tubes) contains one blank to monitor the purity of the reagents. Each rack contains two duplicate samples and the results are reported in a QC report at the end of the analytical report. Each rack contains two digested standards to monitor the accuracy of the method. The laboratory also conducts monthly round robin programs for fire assay gold and base metal analysis.<br><br>The laboratory expects to achieve a precision and accuracy of plus or minus 10% for duplicate analyses, in-house standards and client submitted standards, when conducting routine geochemical analyses for gold and base metals. These limits apply at, or greater than, fifty times the limit of detection. |
| <b>Verification of sampling and assaying</b>      | <i>The verification of significant intersections by either independent or alternative company personnel.</i>   | Significant Results detailed in this Report have been verified by the Company's Geology Manager and Managing Director   |
|   | <i>The use of twinned holes.</i>   | Not Applicable as no drilling was undertaken.   |
|   | <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>  | Handwritten data entry was used for documenting the rock chip sampling.   |
|   | <i>Discuss any adjustment to assay data</i>  | None undertaken.  |
| <b>Location of data points</b>                    | <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>   | Data points (rock chip sample locations and historic drill hole collars) were recorded using a handheld GPS with an expected accuracy of +/- 5m. For the nature of the program completed, this level of accuracy is considered to be suitable.  |
|   | <i>Specification of the grid system used.</i>  | Data points have been quoted in this Report using the MGA Zone 53 (GDA94) coordinate system.  |
|   | <i>Quality and adequacy of topographic control.</i>  | Level of topographic control offered by the handheld GPS was considered sufficient for the work undertaken.   |
| <b>Data spacing and distribution</b>              | <i>Data spacing for reporting of Exploration Results.</i>  | As detailed in Table 1 of this Report. The rock chip samples were randomly located based on where prospective rocks occurred as either outcrop or sub crop at the surface.  |
|   | <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>      | The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s).  |

| Criteria   | JORC Code explanation   | Commentary   |
|--|---|--|
|  | <i>Whether sample compositing has been applied.</i>   | No composite sampling has been applied.  |
| <b>Orientation of data in relation to geological structure</b> | <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>   | Unknown as the nature of the underlying structures are unknown and sampling was of a reconnaissance nature only.   |
|  | <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> | Not Applicable as no drilling was undertaken.  |
| <b>Sample security</b>   | <i>The measures taken to ensure sample security.</i>  | Not Applicable as no drilling was undertaken.  |
| <b>Audits or reviews</b>                                       | <i>The results of any audits or reviews of sampling techniques and data.</i>  | All results were reviewed by Company personnel including the Geology Manager and Managing Director. No negative issues were identified from these reviews. |

### JORC Code, 2012 Edition - TABLE 1 (Section 2: Reporting of Exploration Results)

| Criteria                                       | JORC Code explanation  | Commentary   |
|--|--|--|
| <b>Mineral tenement and land tenure status</b> | <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>  | The work described in this Report was undertaken on EL26942 (Leaky Bore) which is wholly owned by Mithril Resources Ltd.                                     |
|  | <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>  | There are no known existing impediments to the tenements.  |
| <b>Exploration done by other parties</b>       | <i>Acknowledgment and appraisal of exploration by other parties.</i>   | There is no known previous lithium - focussed exploration activities that have been undertaken on the tenement.  |
| <b>Geology</b>                                 | <i>Deposit type, geological setting and style of mineralisation.</i>   | Lithium mineralisation at Leaky Bore is interpreted to lie within pegmatites that cross cut a sequence of Cambrian age mafic and meta sedimentary rocktypes. |
| <b>Drill hole Information</b>                  | <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:<br/><br/>    <i>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.</i></i> | A summary of all material information referred to in this Announcement is presented in Figures 1 to 3 of this Report.  |
|  | <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>   | No information has been excluded.  |
| <b>Data aggregation methods</b>                | <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>  | No weighting methods and / or cut-offs have been applied.  |

| Criteria  | JORC Code explanation  | Commentary   |
|---|--|--|
|   | <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 examples of such aggregations should be shown in detail.</i>  | Not Applicable as no aggregate intercepts have been reported.        |
|   | <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>   | Not Applicable as no metal equivalent values have been reported.     |
| <i>Relationship between mineralisation widths and intercept lengths</i> | <i>These relationships are particularly important in the reporting of Exploration Results.</i>   | Not Applicable as no drilling results have been reported.            |
|   | <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>   | Not Applicable as no drilling results have been reported.            |
|   | <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>   | Not Applicable as no drilling results have been reported.            |
| <i>Diagrams</i>   | <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>   | See Figures 1 - 3 of this Report.                                    |
| <i>Balanced reporting</i>   | <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>   | All results have been reported                                       |
| <i>Other substantive exploration data</i>                               | <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> | All relevant data has been included within this Report.              |
| <i>Further work</i>   | <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>  | Field inspection of the lithium targets is planned as the next step. |
|   | <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>   | Figure 2 display areas of interest at Leaky Bore.                    |



ENDS

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**Competent Persons Statement:**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr David Hutton, who is a Competent Person, and a Fellow of The Australasian Institute of Mining and Metallurgy. Mr Hutton is Managing Director and an employee of Mithril Resources Ltd.

Mr Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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 Hutton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**About Mithril Resources Ltd:**

Mithril Resources Ltd is an Australian exploration company focused on the discovery and development of base metal deposits primarily copper. Mithril is a frontier explorer with a small but highly experienced team based in Adelaide. Combining advanced technology with a proven field-based approach ensures the bulk of the company's expenses go directly into the ground.

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