ASX ANNOUNCEMENT

13 September 2024



# POSITIVE ORE SORTING TRIAL RESULTS ON LEI DEPOSIT ORE

## SIGNIFICANT LITHIUM HEAD-GRADE UPLIFT AND REDUCTION IN WASTE ORE FOR FUTURE DSO DEVELOPMENT PATHWAY

Lithium Plus Minerals Limited (ASX: LPM) (**LPM**, **Lithium Plus** or the **Company**) is pleased to announce positive results from ore sorting trials, undertaken as part of the ongoing metallurgical test work programme on samples from the Lei deposit. The trials utilised ultra-violet (**UV**) laser sorting technology, which returned significant uplifts in lithium head-grades while enabling a meaningful reduction in ore mass. Outcomes are expected to enhance the viability of a direct shipped ore (**DSO**) commercialisation pathway for the Lei deposit, located within the Company's 100%-owned Bynoe Lithium Project in the Northern Territory, Australia (**Lei Development**).

### ORE SAMPLING OUTCOMES

- Demonstrated amenability of the mineralogically simple Lei deposit to UV-laser spodumene sorting, enabling a range of attractive ore concentrate mixes to be produced from mined ore.
- Most impressive results achieved included:
  - **5.25% $Li_2O$ head-grade (370% uplift)** at 8.3% mass yield, with low 0.28% $Fe_2O_3$ content (from a two-stage sorted concentrate product), representing a potential chemical-grade SC5.0 product.
  - **2.52% $Li_2O$ head-grade (51% uplift)** at 57.8% mass yield, with very low <0.23% $Fe_2O_3$ content, which **enables the reduction of approximately 42% of ore into a waste steam** containing just 0.5% $Li_2O$.
- Results indicate the strong potential for enhanced future economic outcomes in a DSO commercialisation pathway.

**Commenting on the results of initial ore sorting, Executive Chairman, Dr Bin Guo, said:**

*Our focus at Lei has been on establishing a simple, low-capital, direct shipped ore development pathway. As part of ongoing metallurgical testing, a first-pass ore sorting trial was undertaken to better understand the potential of the Lei ore to respond to simple beneficiation.*

*These initial ore sorting results demonstrate that UV-laser technology is an ideal fit for Lei's simple mineralogical profile, providing a material upgrade in lithium head-grades with impressive waste rejection potential.*

*This is important, as significantly less ore, at a much higher grade, could be delivered to our offtake partner, CANMAX, reducing processing, transport and logistics costs to enhance future potential economic outcomes for both offtake parties.*

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## BACKGROUND

Earlier this year, LPM entered into a non-binding Memorandum of Understanding (**MOU**) with Canmax Technologies Co., Ltd (XSHE: 300390) (**Canmax**) regarding a spodumene offtake agreement covering the supply of DSO or concentrate (refer to ASX announcement 5 June 2024).

The MoU encompasses 50% of all DSO and spodumene concentrate produced from the Lei Project, with an option for Canmax to purchase additional product, subject to availability. Pricing will be based on a percentage of Canmax's profit from lithium hydroxide/carbonate sales, taking into account mining, transportation, and processing costs at Lei. Initially, Lei's product will be DSO (Stage 1), with the potential for spodumene concentrate (Stage 2). Canmax has also agreed to assist with project financing arrangements for the Lei Project.

## ORE SORTING TESTWORK PROCESS

Lithium Plus engaged global specialised ore sorting technology engineering group Stark Resources GmbH (**Stark**) to undertake initial ore sorting trials on Lei deposit ore. Two representative composite samples were prepared at the Nagrom metallurgical and analytical laboratory in Perth (**Nagrom**):

+ Run-of-Mine composite (**ROM Sample**) 1.39% $Li_2O$; and
+ High-Grade composite (**HG Sample**), 1.67%, $Li_2O$.

On inspection of the composite samples, Stark recommended trailing UV-laser sorting technology across a size range of 10mm to 25mm, identifying it as the most effective method for spodumene recovery and barren waste rejection. The UV-laser sorting process directly targets spodumene's unique fluorescence under UV light, as demonstrated in Figure 1.

**Figure 1: Fluorescent response of Lei pegmatite crushed samples to UV light**.

**Ore preparation process (refer to Figure 1)**

- Crushing 100% of samples to -25mm (**Crushed Feed** output).
- Wet screening of crushed sample at 10mm and assaying at +10mm and -10mm fractions (**+10mm Feed** and **-10mm Fines** produced).
- Transportation of all material, excluding -10mm fines, to the Stark sorting facility in Belgium for testing.
- Sample masses sent for ore sorting were 42 kg and 41 kg for the ROM Sample and HG Sample composites respectively.

Material -10mm is considered fines (**-10mm Fines**) and was excluded from the UV-laser sorting process due to limitations in sorting technology for finer material.

**UV-laser ore sorting process (refer to Figure 1)**

Sorting was carried out post calibration of equipment using separate mineral reference samples from the deposit and included the following steps:

- ROM Sample and HG Samples (+10mm) separately passed through the ore sorter using dynamic sorting. This method simulated a full-scale sorter operation.
- **1.Rougher Ore Sorter Stage**: **+10mm Feed** input to reject barren waste (**Rougher Waste** output) and produces a **Rougher Concentrate** (refer to Figure 2).
- **2.Cleaner Ore Sorter Stage: Rougher Concentrate** treated through a second sorting stage targeting a product at maximum grade (**Cleaner Concentrate**) plus a middlings fraction (**Cleaner Rejects**) (refer to Figure 2).
- **3.Combine Cleaner Rejects and Fines Stage:** Outputs a **Cleaner Rejects and -10mm Fines Product.**
- **4.Combine All Products Stage: Cleaner Concentrate** is combined with the **Cleaner Rejects and -10mm Fines** product, outputting a **Combined Product.**

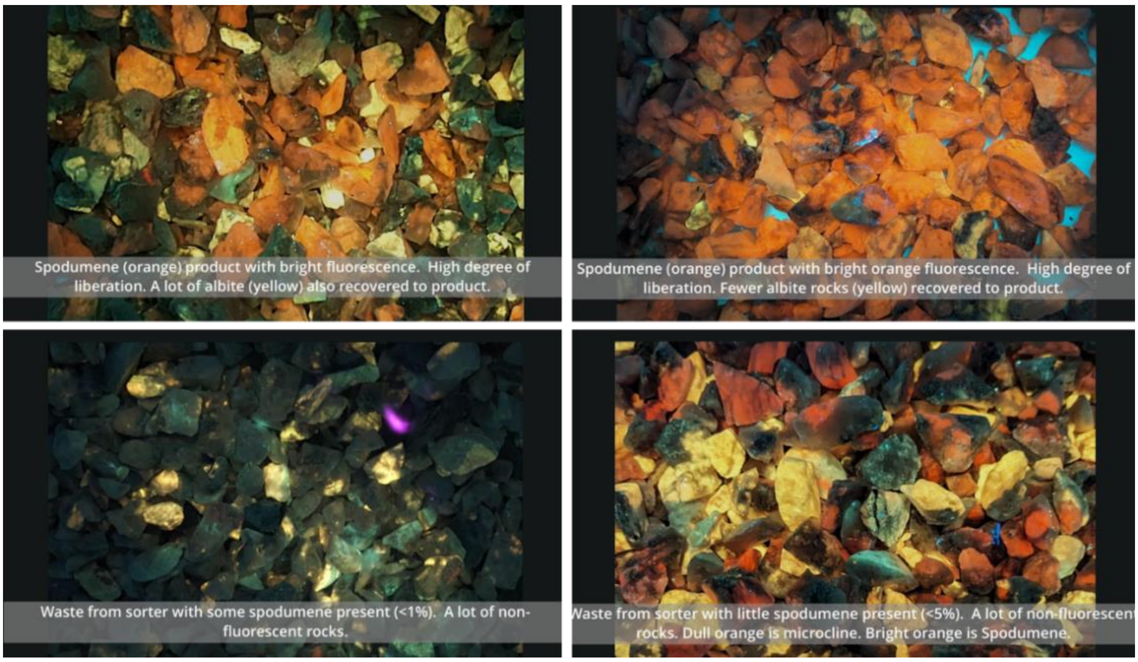


Figure 2: Rougher Ore Sorting Stage (left) and Cleaner Ore Sorting Stage (right) outputs.

## Lei Deposit: UV-laser sorter process flowsheet

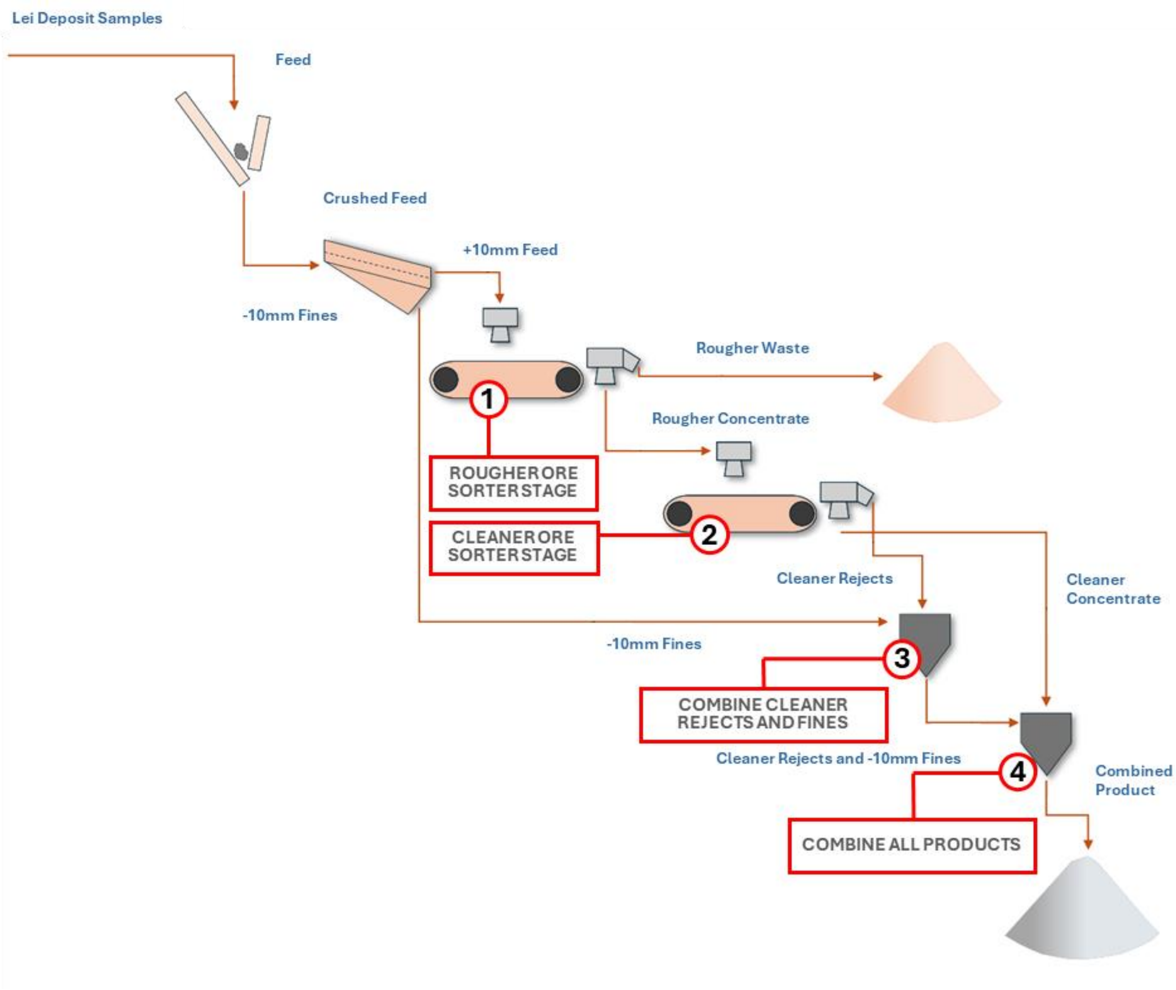


Figure 3: Sorter test work schematic

All sorted products were returned to Nagrom for analysis to ensure consistency in assays.

## UV-LASER ORE SORTING TRAIL RESULTS

Results for the ROM Sample are reported in Table 1 and results for the HG Sample are reported in Table 2. Results from both samples clearly demonstrate the potential for UV-laser based spodumene sorting of Lei deposit ore to enable the production of a range of ore concentrates.

Of particular note was the results obtained for the Cleaner Concentrate and Combined Product.

**Cleaner Concentrate**

Produced from crushed ore (+10mm) fed through two sorting stages with all waste and rejects removed and all -10mm ore excluded. Notable outcomes included:

- **ROM Sample:** Head-grade improved to 5.25% $Li_2O$ (+370%) at 8.3% mass yield, with low 0.28% $Fe_2O_3$ content, representing a potential chemical-grade SC5.0 saleable product.

- **HG Sample:** Head-grade improved to 4.91% $Li_2O$ (+294%) at 10.0% mass yield, with very low 0.23% $Fe_2O_3$ content.

**Combined Product**

Produced from crushed ore (+10mm) fed through two sorting stages with all waste and rejects removed and all -10mm ore recombined Notable outcomes included:

- **ROM Sample:** Head-grade improved to 2.24% $Li_2O$ (+%) at 52.9% mass yield, with 0.56% $Fe_2O_3$ content. Removes approximately 47% of ore into a waste steam containing just 0.4% $Li_2O$.
- **HG Sample:** Head-grade improved to 2.52% $Li_2O$ (51%) at 57.8% mass yield, with very low <0.23% $Fe_2O_3$ content. Removes approximately 42% of ore into a waste steam containing just 0.5% $Li_2O$.

The results highlight the potential opportunity in a DSO development scenario for UV-laser ore sorting to significantly reduce any future operating costs, particularly in relation to transportation and downstream processing.

**Table 1. Summary of Ore Sorting Results for the ROM Sample**

| Sample | ROM Sample composite (reconciled results) | | | | | | |
|---|---|---|---|---|---|---|---|
| Stream | Mass Yield % | $Li_2O$ | | $Fe_2O_3$ | | MgO | |
| | | Grade % | Distribution % | Grade % | Distribution % | Grade % | Distribution % |
| **Feed** | 100 | 1.39 | 100 | 0.66 | 100 | 0.13 | 100 |
| **-10mm Fines** | 28 | 1.11 | 22.3 | 0.81 | 34.6 | 0.15 | 32.9 |
| **+10mm Feed** (-25mm +10mm) | 72 | 1.51 | 77.7 | 0.6 | 65.4 | 0.12 | 67.1 |
| **Rougher Concentrate** | 24.9 | 3.51 | 62.8 | 0.28 | 10.4 | 0.02 | 4.7 |
| **Rougher Waste** | 47.1 | 0.44 | 15 | 0.77 | 55 | 0.17 | 62.5 |
| **Cleaner Rejects** (middlings) | 16.6 | 2.64 | 31.4 | 0.27 | 6.9 | 0.03 | 4 |
| **Cleaner Concentrate** | **8.3** | **5.25** | **31.3** | **0.28** | **3.6** | **0.01** | **0.7** |
| **Combined Product** | **52.9** | **2.24** | **85** | **0.56** | **45** | **0.09** | **37.5** |

Table 2: Summary of Ore Sorting Results for the HG Sample

| Sample | HG Sample composite (reconciled results) | | | | | | |
|---|---|---|---|---|---|---|---|
| Stream | Mass Yield % | $Li_2O$ | | $Fe_2O_3$ | | MgO | |
| | | Grade % | Distribution % | Grade % | Distribution % | Grade % | Distribution % |
| **Feed** | 100.0 | 1.67 | 100.0 | 0.32 | 100.0 | 0.04 | 100.0 |
| **-10mm Fines** | 28.9 | 1.35 | 23.3 | 0.35 | 32.1 | 0.04 | 33.2 |
| **+10mm Feed** (-25mm +10mm) | 71.1 | 1.8 | 76.7 | 0.3 | 67.9 | 0.04 | 66.8 |
| **Rougher Concentrate** | 28.8 | 3.7 | 63.8 | 0.23 | 21.0 | 0.02 | 12.7 |
| **Rougher Waste** | 42.2 | 0.51 | 12.9 | 0.35 | 47.0 | 0.05 | 54.2 |
| **Cleaner Rejects** (middlings) | 18.8 | 3.06 | 34.4 | 0.23 | 13.7 | 0.02 | 10.0 |
| **Cleaner Concentrate** | **10.0** | **4.91** | **29.4** | **0.23** | **7.3** | **0.01** | **2.7** |
| **Combined Product** | **57.8** | **2.52** | **87.1** | **0.29** | **53.0** | **0.03** | **45.8** |

## NEXT STEPS

Further test work is being planned to optimise the sorting process, ahead of a desktop study to the cost of constructing a crushing and ore sorting facility near the Lei deposit.

## ABOUT STARK RESOURCES

Stark Resources is a specialised, privately held engineering group, with a global mining footprint. STARK's expertise bridges the understanding of in-ground ore deposits with tailored recovery solutions, ensuring a compelling and economically viable proposition across the entire mining value chain, from Greenfield exploration projects to active production mines, including the implementation of the world's first UV laser technology.

## ABOUT CANMAX TECHNOLOGIES CO., LTD.

Canmax is a diverse industrial conglomerate renowned for its expertise and leadership in the lithium industry, specialising in downstream lithium processing. It is involved in various stages of the lithium supply chain, from processing raw materials to producing high-purity lithium products used in batteries and other applications.

Canmax's lithium operations include three major chemical facilities: a 75,000-tonne-per-annum lithium hydroxide plant in Yibin (a joint venture with CATL), a 60,000-tonne-per-annum lithium hydroxide plant in Meishan, and a 30,000-tonne-per-annum lithium carbonate plant in Yichun （a joint venture with CATL. Canmax is listed on the Shenzhen Stock Exchange under the code 300390.SZ.

## MINERAL RESOURCE

The MRE summary for the Lei Deposit is outlined in Table 3. Resources have been estimated as 4.09Mt @ 1.43% $Li_2O$ at 0.5% cutoff including Indicated and Inferred material, with measured material not classified at this time. (Refer ASX announcement of 19 December 2023)

**Table 3: Mineral Resource Summary (at 0.5% $Li_2O$ cutoff)**

| Resource Category | Million Tonnes | $Li_2O$ (%) | Contained $Li_2O$ (Kt) |
|---|---|---|---|
| Indicated | 0.42 | 1.22 | 5 |
| Inferred | 3.67 | 1.45 | 53 |
| **Total** | **4.09** | **1.43** | **58** |

All Mineral Resource Estimates are inclusive of drilling undertaken throughout 2022 and 2023.



## COMPETENT PERSON STATEMENT

The information in this release that relates to Exploration Results for the Bynoe Lithium Project is based on, and fairly represents, information and supporting documentation prepared by Dr Bryce Healy, Exploration Manager of Lithium Plus Minerals Ltd. Dr Healy is a Member of the Australasian Institute of Mining and Metallurgy and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been 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". Dr Healy consents to the inclusion in this release of the matters based on the information in the form and context in which they appear.

The information in this ASX Announcement that relates to Metallurgical results is based on information compiled by Mr Jeremy Ison, a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy (FAusIMM). Mr Ison is a consultant for Lithium Plus. Mr Ison has sufficient experience in mineral processing of this nature to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Page 5 of 22 Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Ison consents to the inclusion in this Announcement in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant ASX release, and the form and context of the announcement has not materially changed.

This announcement has been authorised for release by the Board of Lithium Plus.

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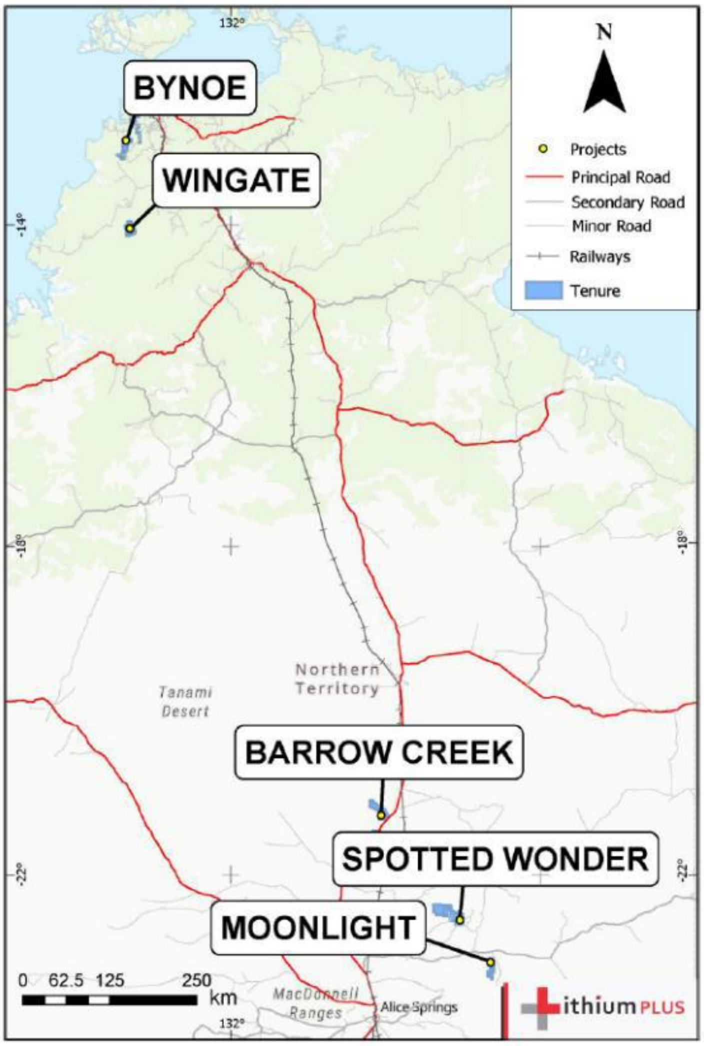
## About Lithium **Plus** Minerals

Lithium Plus Minerals Limited (ASX: LPM) is an Australian Lithium exploration company with 22 tenements in the Northern Territory grouped into the following projects:

### Bynoe Lithium Project (100% LPM)

Situated on the Cox Peninsula, 45 km south of Darwin, on the northern end of the Litchfield Pegmatite Belt, with 11 granted tenements covering 297 km$^2$. Geologically centred around the Bynoe Pegmatite Field, the tenements share a border with Core Lithium's Finniss mine development. Significant lithium mineralisation was discovered at Lei in 2017 within the north-northeast trending spodumene bearing pegmatites. Current drill ready targets are Lei, SW Cai, Cai and Perseverance.




### Wingate Lithium Project (100% LPM)

Located 150km south of Darwin. this single tenement (EL31132) covers the Wingate Mountains Pegmatite District, the southern part of the Litchfield Pegmatite Belt. It contains the known presence of pegmatites with little exploration and minor historical production of tin. Historical gold workings (Fletcher's Gully) are present.

### Arunta Lithium Projects (100% LPM)

***Barrow Creek***

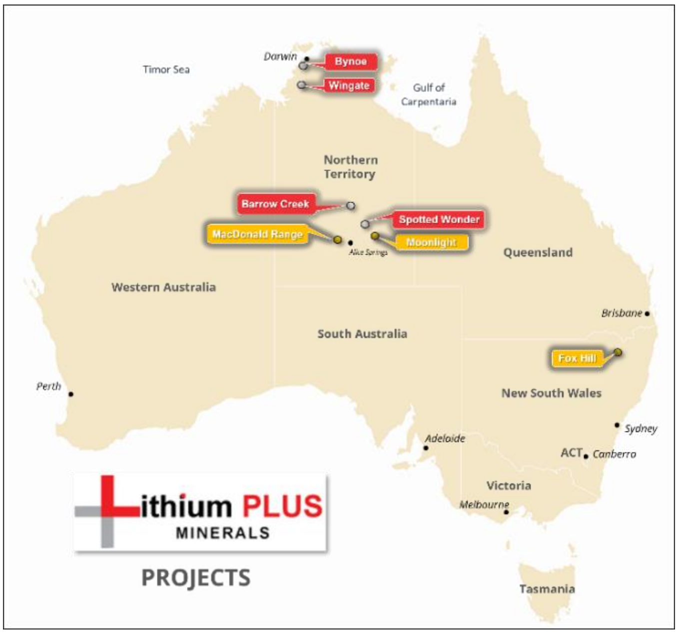
Located in the Northern Arunta pegmatite province, 300km north of Alice Springs. Historic tin and tantalum production and the presence of spodumene in nearby Anningie Pegmatite field suggest lithium potential.

***Spotted Wonder***

Located approx. 200km north-north-east of Alice Springs with proven lithium mineralisation, with amblygonite present in the Delmore Pegmatite.

### Moonlight Resources Pty Ltd (50% LPM)

Australian uranium and REE portfolio including MacDonnell Ranges Uranium Project and the Moonlight Project in the NT, and the Fox Hill REE Project in NSW.

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## Appendix 1 – Metallurgical Samples, Related Exploration Results and Compositing

| Sample ID | Drill Hole ID | Core Type | From (m) | To (m) | Length (m) | Est Sample Mass (kg) | Lithium Grade ($Li_2O$%) | Fe Grade (ppm) | ROM Comp Mass (kg) | HG Comp Mass (kg) |
|---|---|---|---|---|---|---|---|---|---|---|
| MS_001 | BYLDD006 | ½ HQ | 214.3 | 219 | 4.70 | 20.54 | 1.06 | 1113 | 5.14 | 7.17 |
| MS_002 | BYLDD011 | ½ HQ | 465 | 475 | 5.00 | 20.90 | 1.18 | 1597 | 5.12 | 7.1 |
| MS_003 | BYLDD011 | ½ HQ | 444.95 | 450 | 5.05 | 21.46 | 0.85 | 1912 | 5.17 | |
| MS_004 | BYLDD026 | ½ HQ | 150 | 155 | 5 | 19.18 | 1.13 | 1035 | 5.17 | 7.02 |
| MS_005 | BYLDD019 | ½ HQ | 722 | 727 | 5 | 22.62 | 1.16 | 4411 | 5.02 | 7.16 |
| MS_006 | BYLDD011 | ½ HQ | 450 | 455 | 5 | 22.98 | 2.12 | 3152 | 5.21 | 7.17 |
| MS_007 | BYLDD015 | ½ HQ | 567 | 572 | 5 | 20.38 | 1.48 | 1983 | 5.08 | 7.06 |
| MS_008 | BYLDD019 | ½ HQ | 653.26 | 658 | 4.74 | 18.48 | 1.68 | 2527 | 5.09 | 7.11 |
| MS_009 | BYLDD031 | ½ HQ | 113 | 118 | 5 | 18.84 | 0.67 | 751 | 5.11 | |
| MS_010 | BYLDD021 | ½ HQ | 790 | 795 | 5 | 21.88 | 0.67 | 3373 | 5.13 | |
| MS_011 | BYLDD015 | ½ HQ | 561 | 565.6 | 4.60 | 19.22 | 1.66 | 12304 | 5.13 | 7.01 |
| MS_012 | BYLDD027 | ½ HQ | 170 | 175 | 5 | 20.1 | 0.77 | 6302 | 5.09 | |
| MS_013 | BYLDD011 | ½ HQ | 475 | 480 | 5 | 21.92 | 1.20 | 2069 | 5.17 | 7.19 |
| MS_014 | BYLDD019 | ½ HQ | 658 | 663 | 5 | 19.78 | 1.86 | 2417 | 5.03 | 7.12 |
| MS_015 | BYLDD022 | ½ HQ | 788 | 793.1 | 5.10 | 22.5 | 0.28 | 17871 | 5.17 | |
| MS_016 | BYLDD015 | ½ HQ | 577 | 582 | 5 | 22.14 | 1.45 | 1469 | 5.12 | 7.22 |
| MS_017 | BYLDD011 | ½ HQ | 455 | 460 | 5 | 21.44 | 2.36 | 3030 | 5.17 | 7.09 |
| MS_018 | BYLDD027 | ½ HQ | 155 | 160 | 5 | 19.2 | 0.97 | 24123 | 5.15 | |
| MS_019 | BYLDD019 | ½ HQ | 697 | 702 | 5 | 23.84 | 2.37 | 3705 | 5.01 | 7.04 |
| MS_020 | BYLDD015 | ½ HQ | 587 | 592 | 5 | 22.16 | 1.23 | 1100 | 5.17 | 7.12 |
| ROM COMPOSITE | | | | | | | 1.31 | 0.48 | 102.45 | |
| HIGH GRADE COMPOSITE | | | | | | | 1.57 | 0.30 | | 99.58 |

*The G400I assay method (4-acid ICP-OES/S) is report here for Lithia and iron grades*

## Appendix 2 – Test work Sample Composite Summary

| Phase | Title | Grade | | Number of Drill Holes | Number of Intervals | Length (m) |
|---|---|---|---|---|---|---|
| | | Li2O (%) | Fe2O3 (%) | | | |
| MRE – Mining One | Resource Classification (4.09Mt) | 1.43 | | | | |
| Concept Study | ROM Composite | 1.39 | 0.48 | 9 | 20 | 99.2 |
| | High Grade Composite | 1.67 | 0.30 | 5 | 14 | 69.0 |

*Assay data from NAGROM (assay by ICP-OES) is report here for Lithia and iron grades*

## Appendix 3 – Summary of drill holes used in Test work Sample Composites

| Hole ID | Collar Co-ordinates GDA94 MGA Zone 52 | | Survey Data | | | |
|---|---|---|---|---|---|---|
| | Easting | Northing | RL (m) | Azi (°) | Dip (°) | Depth (m) |
| BYLDD006 | 693796 | 8591290 | 27 | 270 | -60 | 279.7 |
| BYLDD011 | 693886 | 8591200 | 24 | 271 | -60 | 495.5 |
| BYLDD015 | 693928 | 8591246 | 35 | 266 | -69 | 606.7 |
| BYLDD019 | 693861 | 8590905 | 35 | 319 | -63 | 756.6 |
| BYLDD021 | 693863 | 8590907 | 23 | 315 | -70 | 851.5 |
| BYLDD022 | 693960 | 8591096 | 24 | 289 | -70 | 862.1 |
| BYLDD026 | 693719 | 8591218 | 17 | 276 | -62 | 204.4 |
| BYLDD027 | 693717 | 8591217 | 17 | 282 | -65 | 201.5 |
| BYLDD031 | 693744 | 8591313 | 19 | 260 | -56 | 135.5 |

# JORC, 2012 Edition: Table 1 report

## Section 1 Sampling Techniques and Data

This Table 1 refers to 2022/2023 Lithium Plus Minerals (LPM) drilling and metallurgical sampling at the Lei Prospect, Bynoe Project.

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| Sampling techniques | • 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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.<br>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.<br>• Aspects of the determination of mineralisation that are Material to the Public Report.<br>• 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. | • Drill core samples (Appendix 1) from the Lei Prospect, Bynoe were provided by diamond (DDH) drill holes completed from the 2022 and 2023 drilling campaigns by Lithium Plus Minerals Ltd.<br>Diamond drilling<br>• Diamond holes were completed using diamond drilling with HQ core to planned EOH.<br>• The drillholes were sampled on intervals based on mineralisation potential, lithology contacts and structure.<br>• Larger diameter HQ core had preference as a sample technique due to the coarse nature of mineralogy in the target lithology.<br>• Drill core was collected directly into core trays, marked with hole orientation, downhole lines and metre marks. The core was transported directly to the LPM logging facility in Darwin for geological logging and sampling.<br>• Sampling adopted a recommended 1 metre of core length to maintain representivity and based on observed sample heterogeneity with sample size down to 0.3m to match geological contacts. 1m sampling continued into the barren wall zone of the pegmatite and then for 3m into the immediate metasedimentary wall-rock.<br>• The core was cut in half by a diamond core saw with care taken to sample the same side of core for a representative sample.<br>Metallurgical Composite Sampling<br>• The geological block model incorporating the drill hole database was loaded into specialist software, Cancha (Cancha Geometallurgy) t better assess the representivity of the sample and provide a structured method for sample selection and matching metallurgical results to the geological data.<br>• Twenty (20) composite metallurgical samples (419.56 kg) were taken from ½ core (HQ) from 9 representative diamond holes (BYLDD006, BYLDD011, BYLDD015, BYLDD019, BYLDD021, BYLD022, BYLDD026, BYLDD027, BYLDD031).<br>• Composite samples (summarised in Appendix A and B) varied in length from 4.60 to 5.09m (downhole length) and were matched to assay sample intervals.<br>• Two subsequent composites (ROM and HG comps) were provided to NAGROM test facilities in Kelmscott, Western Australia, with a target mass of 100kg for each composite sample.<br>• The ROM recipe incorporates equal masses from each of the 20 metallurgical samples, while the HG currently includes only samples with grades > 1% $Li_2O$ (Appendix 2).<br>• Samples were bagged and sent to NAGROM laboratories in Perth for crushing and screening.<br>• Samples have lithium grades close to the MRE grade which improves test work relevance, as test work is being conducted on samples that don't have significantly higher grade than the MRE which typically improves recovery<br>• Crushed samples (-25mm +10mm) were shipped to Stark testing facilities in Belgium. These were labelled ROM Composite and HG Composite. Both samples were crushed and screened to -25mm +10mm. The HG composite totalled 41.2kg in mass while the ROM composite totalled |

| Criteria | JORC Code explanation | Commentary |
| --- | --- | --- |
| | | 42.2kg.<br>• All ore sorting products (rougher waste, cleaner product, cleaner waste) were packaged up by the Optimum team and returned to Nagrom in Perth where they underwent sub-sampling and assay by ICP-OES. From this, a staged and global balance was produced for each composite sample.<br>• Nagrom use Riffle Splitters and Rotary Sample Dividers for dry samples and Cone and Quartering for moist cakes to generate subsamples for assay. |
| Drilling techniques | • Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). | • Diamond drilling was carried out by drilling contractor, DDH1 Pty Ltd using an DE 710 track mounted Drill Rig with HQ3 (63.5mm) standard tube.<br>• Core is oriented with a Reflex Ez-Trac tool. The oriented core line is recorded for length and confidence and is never sampled, preserving the line for future use. |
| Drill sample recovery | • Method of recording and assessing core and chip sample recoveries and results assessed.<br>• Measures taken to maximise sample recovery and ensure representative nature of the samples.<br>• 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. | • Diamond drill recovery is recorded run by run reconciling against driller's depth blocks noting depth, core drilled, and core recovered.<br>• Geological logging currently documents core recoveries within 95% of expected with nothing recorded concerning the amount and consistency of material recovered from the drilling. |
| 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.<br>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.<br>• The total length and percentage of the relevant intersections logged. | • Geological logging identifying the primary lithologies, mineralogy and core run recovery has been undertaken by suitably qualified geologists along the entire length of the hole.<br>• All holes have been logged for mineralogy, veining, alteration, weathering, structure, and other sample features as appropriate to the style of deposit. Logging has been undertaken at site and at the Company's core logging facility.<br>• Pegmatite intervals have been checked for UV light-response for spodumene identification and to provide qualitative information as part for the logging process.<br>• Logging is stored in MX Deposit Database software which utilises validated logging lists and data entry rules.<br>• All core trays have been photographed in natural light.<br>• The level of detailed logging is aimed at supporting detailed geological modelling considered appropriate for future potential Resource estimation and metallurgical studies. |
| Sub-sampling techniques and sample preparation | • If core, whether cut or sawn and whether quarter, half or all core taken.<br>• If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.<br>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.<br>• 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.<br>• Whether sample sizes are appropriate to the grain size of the material being sampled. | • The pegmatite intervals (and up to 3m of the immediate wall rock) within the drillhole were sampled on intervals based on mineralisation potential, lithology contacts and structure.<br>• Sampling length ranged up to 1.0 metre of core length, appropriate to geology and mineralogy.<br>• Sampling is ½ cut core by diamond core saw by experienced LPM personnel at onsite core cutting facilities at Yarrawonga. ½ HQ core size is considered by LPM to be the minimum acceptable standard for representivity of pegmatite samples.<br>• Sampled core was transported to North Australian Laboratories (NAL) in Pine Creek for sample analysis.<br>• ½ core is retained in plastic core trays at the LPM core facility for future work and reference.<br>• Sample preparation and associated QA/QC protocol has not been undertaken and will be reported at the appropriate time. |

| Criteria | JORC Code explanation | Commentary |
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| | | • Metallurgical sampling composites intervals were matched to primary sample intervals lengths using the remaining ½ core.<br>• Sampled core was transported to Nagrom Laboratories (Nagrom) in Western Australia for sample analysis and crushing and screening.<br>• A sub-sample of the crushed sample (-25mm +10mm) was sent to Stark testing facilities in Belgium for ore sorting test work before being returned to Nagrom in Perth where they underwent sub-sampling and assay by ICP-OES.<br>• Nagrom use Riffle Splitters and Rotary Sample Dividers for dry samples and Cone and Quartering for moist cakes to generate subsamples for assay. |
| 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.<br>• 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.<br>• 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. | • Original Sample analysis for DDH samples were undertaken at North Australian Laboratories, Pine Creek, NT.<br>• A 0.3 g sub-sample of the pulp is digested in a standard 4 acid mixture and analysed via ICP-MS and ICP-OES methods for the following elements: Li, Cs, Rb, Sr, Nb, Sn, Ta, U, As, K, P, S and Fe. The lower and upper detection range for Li by this method are 1 ppm and 5000 ppm respectively.<br>• During the drilling program a 3000 ppm Li trigger was set to process that sample via a fusion method. The fusion method was - a 0.3 g sub-sample is fused with 1g of Sodium Peroxide Fusion flux and then digested in 10% hydrochloric acid. ICP-OES is used for the following elements: Li, P and Fe. The lower and upper detection range for Li by this method are 10 ppm and 20,000 ppm respectively.<br>• The laboratory has a regime of 1 in 8 control subsamples.<br>• NAL utilise standard internal quality control measures including the use of Certified Lithium Standards (approx. 1 in 4) and duplicates/repeats (approx 1 in 6).<br>• Approximate LPM-implemented quality control procedures include:<br>• One in 20 certified Lithium ore standards were used for this drilling.<br>• One in 20 duplicates were used for this drilling program.<br>• One in 20 blanks were inserted for this drilling.<br><br>QAQC of drilling data<br>• LPM used 3 standards based on Bynoe Region pegmatites between 2300ppm and 10200ppm Li.<br>• LPM used 1 blank based on granite chips between 38 ppm Li.<br>• No umpire samples<br><br>Metallurgical sample assays<br>• Nagrom laboratory prepared metallurgical samples using a fusion with sodium peroxide and digested in dilute hydrochloric acid.<br>• The resultant solution is analysed by ICP for $Li_2O$, $Fe_2O_3$, $Al_2O_3$, $SiO_2$, $TiO_2$, Mn, S, P, $SnO_2$, $Ta_2O_5$, $Nb_2O_5$, $Na_2O$, PbO, CaO, MgO, $K_2O$, Rb and LOI1000.<br>• ROM and HG Composite assay results from NAGROM varied from the primary composite sample estimate from NAL, which is attributed to variability between 1/2 core segments due to the coarse nature of the ore mineralogy. LPM believe the agreement between the samples is acceptable for the purposes of the work undertaken and presented within this release. |

| Criteria | JORC Code explanation | Commentary |
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| Verification of sampling and assaying | • The verification of significant intersections by either independent or alternative company personnel.<br>• The use of twinned holes.<br>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>• Discuss any adjustment to assay data. | • Detailed logging of the core is entered directly into excel spreadsheets prior to finalising in MX deposit Database software.<br>• MX Deposit utilises validated logging lists and data entry rules.<br>• The logging is routinely checked and manually verified within against core photos and recovery by the exploration manager and the site procedures are routinely verified by the Site manager.<br>• Audits of the logging will be periodically done by external consultants.<br>• Metallic lithium percent was multiplied by a factor of 2.153/10000 to report Li ppm as $Li_2O$%. |
| 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.<br>• Specification of the grid system used.<br>• Quality and adequacy of topographic control. | Drill Collar<br>• Handheld GPS derived Easting and Northing coordinates were captured for each collar location, and have not been modified from their originals, captured as MGA94 - Zone 52.<br>• The GPS collar coordinates have a high variability in Northing and Easting (±10m) in RL, especially 2016 holes (±15m).<br>• To provide an internally consistent model for accurate production of volumes and relative geometry, topographic control for both the deposit modelling boundaries and collar RL coordinates is set with a triangulation derived from 1 Arc Second SRTM (2001) data. This data has been deemed adequate due to the lack of high frequency prominent features in the drilled area.<br>• Downhole surveys are conducted using Reflex EZ shot (2023) and Reflex Sprint IQ Gyro (Pre-2022) survey tools. Surveys are generally conducted at 30m intervals, with some campaigns of closer spaced gyro surveying. |
| Data spacing and distribution | • Data spacing for reporting of Exploration Results.<br>• 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.<br>• Whether sample compositing has been applied. | • Drill spacing is determined by the stage of exploration of the prospect.<br>• The current hole positioning has been aimed at to 40 to 80m spacing along strike and vertical at a distance suitable to define structural trends and establish continuity of the pegmatite body.<br>• Mineralised intervals reported are based on a maximum of one metre sample interval, with local intervals down to 0.3m |
| 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.<br>• 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. | • Drill spacing is determined by the stage of exploration of the prospect.<br>• Multiple zones exist with differing intercept spacing. The upper area of the Lei Main pegmatite is well represented by a ~25m drillhole spacing. Middle levels are variably intercepted at a 50m spacing, with deep intercepts being spaced at 100m or more.<br>• 100m spaced drilling has been established at nearby similar pegmatite deposits as adequate for tracing continuity, with tighter spacing required for delineation of local perturbation and bifurcation.<br>• Mineralised intervals reported are based on a maximum of one metre sample interval down hole, with local intervals down to 0.3m<br>• Grade within the mineralised core of the pegmatite has been shown to be high nugget due to grainsize, but consistent over large distances. The hole spacing is deemed adequate to estimate mineral grades with applied classification.<br>• 1m compositing has been conducted within each lithological domain to ensure a standardised representation of grade. |

| Criteria | JORC Code explanation | Commentary |
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| Sample security | • The measures taken to ensure sample security. | • Drill core samples for assay is collected by LPM personnel from site and transported to the core logging facility in Darwin daily. The logging facility is within a secure industrial premises, within a gated and fenced complex.<br>• The samples are logged in detail and processed for sampling prior to be transported off site by LPM personnel to core cutting facilities and then analytical laboratory for analysis. |
| Audits or reviews | • The results of any audits or reviews of sampling techniques and data. | • No review or audit has been conducted on the current drilling. |

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## Section 2 Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
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| 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.<br>• 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 Bynoe project is centred around 15 km south of Darwin (at 12°40'S latitude, 130° 45'W longitude). The drilling and associated metallurgical sampling reported here took place at the Lei prospect (EL 31091).<br>• Lithium Plus Minerals Ltd are the registered holders of 22 EL's.<br>• The tenements are in good standing with the NT DPIR Title Division. |
| Exploration done by other parties | • Acknowledgment and appraisal of exploration by other parties. | • Previous exploration of pegmatite hosted mineralisation has occurred in the Bynoe region predominantly through historical small-scale workings targeting Sn ± Ta and through regional recent RC drilling programs by Core Exploration and Liontown Resources. Within Lithium Plus's target areas only historical workings and sparsely selected rock chip samples (pegmatite + host rock) have been previously undertaken.<br>• First pass drilling on the mentioned prospects was conducted by Kingston Resources under the current tenure in 2017.<br>• This is the first metallurgical work program to be completed at Lei. |
| Geology | • Deposit type, geological setting and style of mineralisation. | • The Tenements listed above form part of LPM's Bynoe Project which is in the Bynoe Pegmatite Field (NTGS Report 16).<br>• The Bynoe Pegmatite Field (BPF) is situated within the bounds of the Paleoproterozoic Pine Creek Orogen (PCO) and as part of the 180km long corridor of Lichfield Pegmatite Belt that extends from Darwin Harbour in the north to Wingate Mountains in the south. The BPF covers an approximate 70km x 15km area and contains numerous pegmatite dykes hosted in metasediments of the Finnis River Group including the widespread Burrel Creek Formation (BCF) and counterparts (Welltree, Metamorphics) in the west. The BCF comprises various sandstones, siltstone, shale, phyllite, schist, and minor conglomerate.<br>• The Two Sisters Granite intruded the BCF in the east and is generally considered as the parent to the numerous dyke swarms of the Bynoe Pegmatite Field. Over 100 pegmatites are grouped into several clusters including Observation Hill, Leviathan, Kings Table, River Annie, Walkers Creek, and Labelle pegmatites. |

| Criteria | JORC Code explanation | Commentary |
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| | | • The extent of the pegmatites is highly variable and may range from less than a meter to tens of meters wide and up to hundreds of meters long. The pegmatite swarms are irregularly distributed but are ordinarily conformable to the regional schistosity and often sub-parallel bedding. Most are steeply plunging with occasional instances of shallower or horizontal emplacement. Contacts with the wall rocks are generally sharp with common generation of hornfels in the metasediments with variable production of large andalusite crystals and fine tourmaline.<br>• The Lei Main pegmatite is interpreted to be a single coherent body with multiple inclusions of rafts of wall-rock on a NE-SW sub-vertical orientation. The geometry is generally a lenticular prism, with steep plunge and lateral pinch-out along strike. Significant variations in thickness occur over short distances, with theorised short distance offshoots and lobes on multiple scales.<br>• Internal wall-rock rafts are also variable, often existing within only a single drillhole but sometimes persisting across hundreds of meters. Schistose fabric is developed to a higher degree within the rafts, likely because of late emplacement-related shears, suggesting isolated waste rafts are aligned sub-parallel with the major pegmatite trend. The edges of the pegmatite and internal rafts form persistent barren zones proximal to spodumene mineralisation<br>• Fresh pegmatite at Lei is composed of coarse spodumene, quartz, albite, microcline and muscovite. Spodumene, a lithium-bearing pyroxene ($LiAl(SiO_3)_2$), is the predominant lithium-bearing phase and displays a diagnostic orange-pink UV fluorescence. |
| 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 drillholes:<br>• easting and northing of the drillhole collar<br>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar<br>• dip and azimuth of the hole<br>• downhole length and interception depth<br>• hole length.<br>• 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. | • See Appendix 1 and Appendix 3 for drill hole information relevant to this release.<br>• No drilling or material assay information has been excluded. |
| Data aggregation methods | • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.<br>• 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.<br>• The assumptions used for any reporting of metal equivalent values should be clearly stated. | • Any sample compositing reported here is calculated via length weighted averages of the 0.3 to 1 m assays. Length weighted averages are acceptable method because the density of the rock (pegmatite) is constant.<br>• 0.3% $Li_2O$ was used as lower cut off grades for compositing and reporting intersections with allowance for including up to 2m of consecutive drill material that has assayed below cut-off grade (internal dilution).<br>• There has been no top-cut to high grade with all 1m samples below 3.50% $Li_2O$.<br>• No metal equivalent values have been used or reported |

| Criteria | JORC Code explanation | Commentary |
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| Relationship between mineralisation widths and intercept lengths | • These relationships are particularly important in the reporting of Exploration Results.<br>• If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.<br>• If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). | • The Average geometry of the orebody is a steeply dipping plane with an average Dip and dip direction of 87° -> 123°.<br>• Holes are drilled obliquely to the strike of the pegmatite with intersecting azimuths of 325° and 265° being within 46° of being perpendicular to deposit strike.<br>• Holes are drilled at a plunge of 60° or greater, which when combined with the steep geometry of the pegmatites, results in intersection angles from ~45° down to ~35° from the hanging-wall position.<br>• The general orientation of the Lei Pegmatite is known so indicative true thicknesses may be calculated. Intercepts added to the geological model may have true thicknesses estimated as minimum distance across the intercept accounting for local variation in orientation |
| 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 drillhole collar locations and appropriate sectional views. | • NA |
| Balanced reporting | • Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. | • All relevant exploration results have been reported. |
| Other substantive exploration data | • Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. | • All relevant exploration data have been reported. |
| Further work | • The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | • Lithium Plus Minerals is conducting additional DD drilling at its Lei Prospect to evaluate the down-plunge extent of the pegmatite.<br>• Further test work planned to refine and optimise further improvements in the process including downstream test work on sorter products, testing with alternative sorter technologies such as XRT, ore sorting test work at different size ranges and bulk sorting test work.<br>• High Level scoping study aimed at quantifying costs for implementing a crushing and ore sorting facility onsite. |