

05 July 2022

## Encouraging Exploration Results of Mortimer Hills Project Field Work

### Highlights

- Follow up reconnaissance mapping and pegmatite sampling at Zeus's 'Pegmatite Creek' Prospect (Figure 2), located 5km southeast along strike from the Malinda Lithium Deposit (held by Arrow Minerals Ltd; ASX: AMD) ("Arrow").
- Field work has located an extensive suite of pegmatites outcropping beneath alluvial cover following exposure by recent rainfall.
- Further mapping has also located several outcrops of manganiferous gossan (associated with dolomite) within the tenement.
- A total of 40 rock chip samples submitted for assay to examine the geochemical signature of the gossans, pegmatites, and their parent granites.
- Rehabilitation of drill sites and tracks at Zeus' Reid Well Base Metals Prospect was partially completed during the quarter.

Zeus Resources Ltd (ACN 139 183 190) (ASX: ZEU) ("Zeus" or "the Company") is pleased to announce that the Company completed Phase 3 of its Mortimer Hills Project (E09/2147) exploration plan in June 2022 and achieved further exploration results.

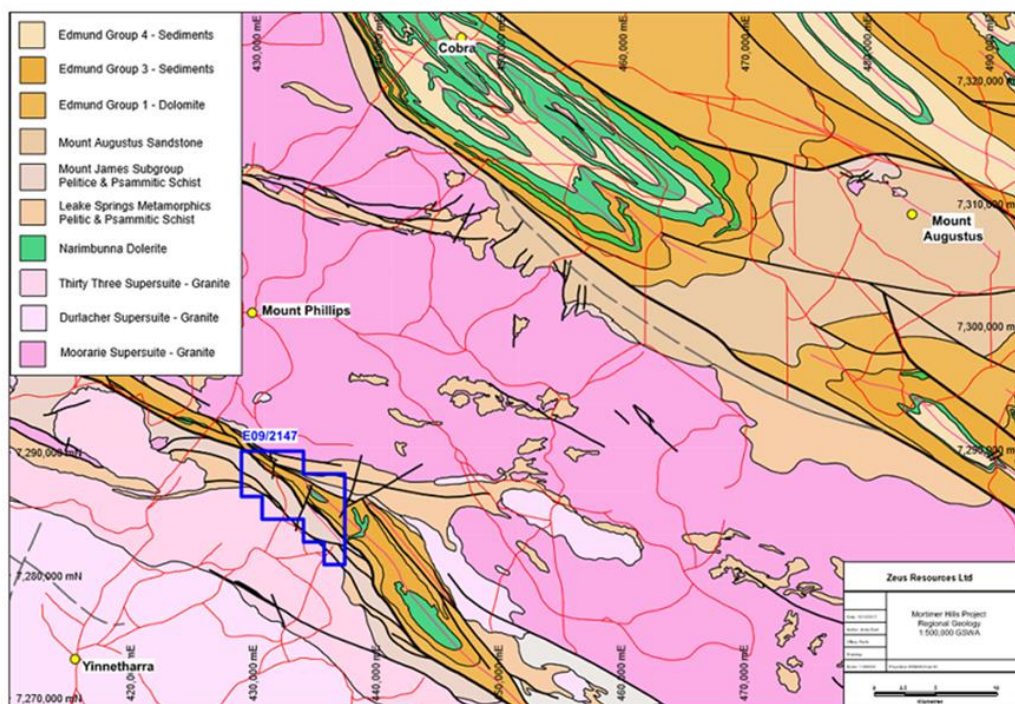


Figure 1. Regional Geology & E09/2147

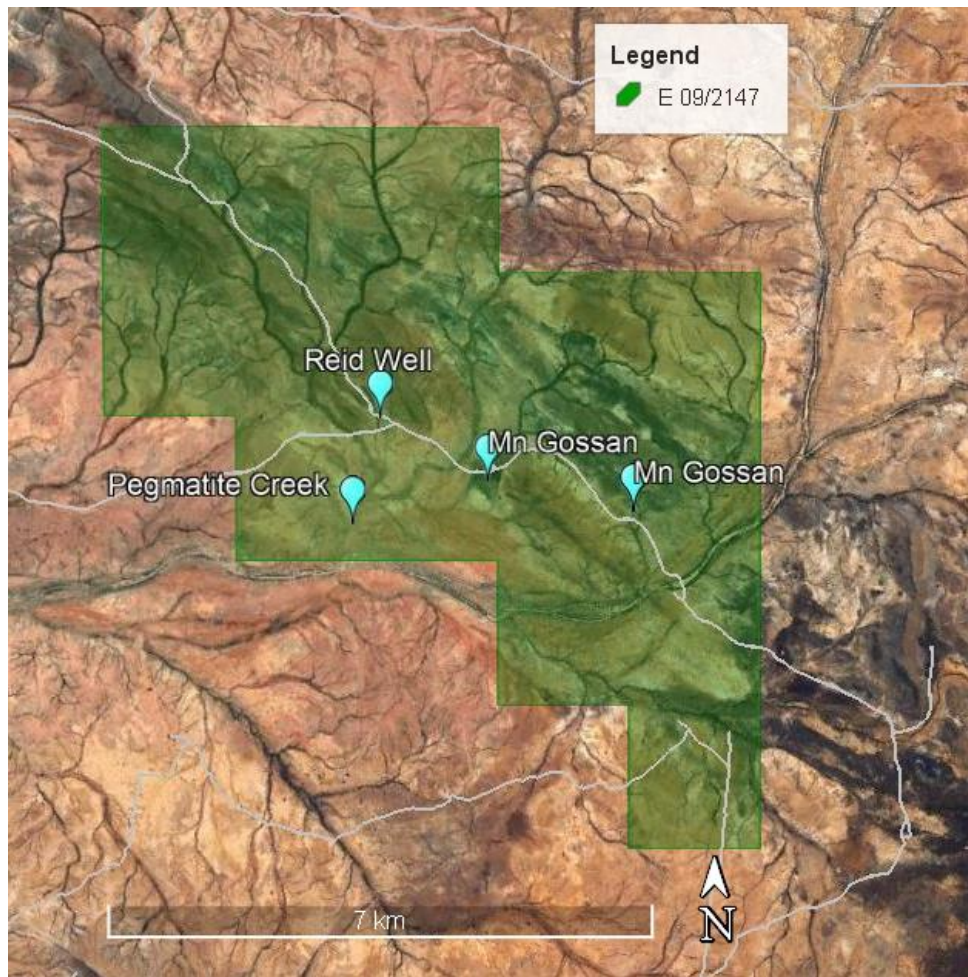


Figure 2. Gascoyne Project- Mortimer Hills E09/2147 Prospect Locations.

### 1. Rehabilitation of drilling disturbance

A total of 22 RC drillholes were drilled at the Reid Well Base Metals Prospect during Q4 2021. Rehabilitation of drillholes, pads and access tracks were partially completed during June 2022.

### 2. Thirty-Three Supersuite Lithium-Caesium-Tantalum (LCT) Pegmatite Prospectivity

Previous work by Arrow immediately to the east of Zeus' E09/2147 tenement has identified the Thirty-Three Supersuite as a fertile parent granite with the potential to generate LCT Pegmatite swarms.

Rock chip sampling by Arrow returned results up to 3.77% Li<sub>2</sub>O and observed distinct Niobium/Tantalum fractionation trends extending outwards from the parent granite intrusion. Arrow's work indicated that Lithium mineralisation (in the form of spodumene and lepidolite) within the region occurs in a 'sweet spot' lying 500 to 3,000m outboard of the parent granitoid. (See **Segue Resources ASX Announcement, 09 October 2017**).

The Thirty-Three Supersuite extends ESE along strike and the southern margin of Zeus' tenement. Zeus considers the tenement has substantial potential for host-related LCT Pegmatite mineralisation. Extensive tourmaline alteration of the country-rock also suggests the granitoid of the Thirty-Three Supersuite are highly fractionated and have the potential to generate LCT Pegmatites. Subcropping



deformed pegmatites, similar in character to those encountered further west at Arrow's Malinda Lithium Prospect, were first identified on Zeus' E09/2147 tenement in Q3 2021 (**See Zeus ASX Announcement, 1 October 2021**) with subsequent mapping locating the Pegmatite Creek Prospect in Q4 2021 (**See Zeus ASX Announcement, 17 December 2021**).

Recent fieldwork during Q2 2022 has targeted the prospective zone extending outwards from the intrusive contact of the Thirty-Three Supersuite Granitoids.



*Figure 3. Extensive quartz sheetwash blanket covering the metamorphosed contact between the vegetated Thirty-Three Supersuite granitoids (RHS) and metasedimentary country rock. Arrow pointing to the location of the Pegmatite Creek prospect (see Figure 6).*

The prospective zone extending outwards from the margins of the prospective granites into the host metasediments is largely obscured by an extensive blanket of quartz sheetwash (Figure 3) derived from weathering of the intrusive granitoid.

At the Pegmatite Creek prospect numerous pegmatites are exposed by erosion along the flanks of the intrusive Granite with recent winter rainfalls fortuitously facilitating better exposure of outcrops.

Mapping indicates the core of the intrusive is comprised of K-feldspar-quartz-muscovite/biotite granite is surrounded by a siliceous outer carapace of quartz-albite-tourmaline granite containing extensively developed pegmatites and quartz-tourmaline veining.

A 50-200m wide (narrowing along strike to the southeast) transitional margin contains interleaved quartz veins, quartzose pegmatites, tourmaline-rich zones and migmatized biotite-cordierite schists. The contact metamorphic aureole, in which the regional chlorite-sericite-garnet schists are metamorphosed to biotite-cordierite schists, extends outwards for approximately 500m from the parent granite.

Individual pegmatites (Figure 4) and pegmatite swarms (Figure 5) are observed intruding along the dominant NW-SE regional metamorphic fabric. Evidence of zonation has been observed within larger pegmatites and some pegmatites appear to be recrystallised and sheared and boudinaged by post-intrusion deformation.



*Figure 4. Pale-coloured boudinaged pegmatite intruding dark grey biotite-cordierite schists on the the margins of the parent granite (hillside in background).*

A total of 4 rock chip samples were taken from the parent granite and 28 rock chip samples were taken from pegmatites were taken to investigate their geochemical signatures.

The Company has engaged Western Geophysics Pty Ltd in WA to collect more available geophysics data and carry out the desktop research for the prospective area now. Follow up airborne (drone) surveying is being planned next for Q3 2022 to target the the lithium 'sweet spot' lying 500 to 3,000m outboard of the parent granitoid.





*Figure 5. Pegmatite swarm (pale coloured) intruding biotite-cordierite schists/hornfels (dark coloured) developed on the margins of Thirty-Three Supersuite Granite (hillside in background) Arrows highlighting individual pegmatites.*





### 3. Manganiferous Gossans

Previous work has located the widespread occurrence of manganiferous ironstone clasts within transported sheetwash on the tenement.

Field mapping during the Quarter located several outcrops of manganiferous gossans developed adjacent to fault-bounded outcrops of dolomite within sedimentary units of the Bangemall Basin.

Competent outcrops of dolomite typically form large, sheared lobes 0.5 to 2 kilometres in length within the Ti-Tree shear zone. Manganiferous nodules and manganese-cemented breccias (Figure 6) outcrop on their southern margins where erosion and transport downslope forms extensive pediments of transported manganite and quartz (Figure 7).



*Figure 6. Extensive manganiferous lag developed adjacent to outcropping brown dolomites (in foreground).*



*Figure 7. Manganite sample showing pyrolusite needles (Sample#ZEU110).*

Zeus considers these regions to have the potential to host a fault-bound manganese deposit.

A total of 6 rock chip samples were taken to investigate the potential of these manganiferous gossans/breccias.

These regions will be targeted for detailed mapping and airborne geophysical survey in the near future with a view to developing suitable drill targets.

#### **4. Base-Metal Targets**

Significant historical exploration efforts have been undertaken throughout the region exploring for base metal mineralisation within the Bangemall Basin and its outlier, the Ti-Tree syncline. Low grade occurrences, gossans and anomalous outcrops of base metals (Pb-Zn-Cu) are widely reported throughout the region within the Ti-Tree Syncline.

Gossanous material has been previously observed and sampled on Zeus' now defunct E09/1618 tenement and was also observed throughout the E09/2147 tenement along the margins of the metamorphosed sediments of the Bangemall Basin within the sheared Ti-Tree Syncline.

A further two rock chip samples were taken from base-metal gossans observed during field work.



## 5. Summary

Reconnaissance mapping and sampling conducted during Q2 2022 has continued to build upon Zeus' exploration success.

Exploration at the Pegmatite Creek Prospect has confirmed the intrusive nature of the Thirty-Three Supersuite granitoids and better defined the prospective Lithium target zone.

Mapping indicates that the parent granitoid has generated a swarm of prospective pegmatites which have intruded the host rocks along the regional metamorphic fabric associated with the Ti-Tree Shear Zone. Post-intrusive shearing has partially deformed, boudinaged and recrystallised these pegmatites.

The Lithium 'sweet spot', lying 500 to 3,000m outboard of the parent granitoid, is largely blanketed by alluvial cover with follow up work aiming to better define the margins of the parent granite under cover and target this zone.

Additional exploration work has located several prospective outcrops of manganese and ironstone gossans and breccias developed along the shear/fault-bounded margins of outcropping dolomites within the tenement.

Further airborne / drone-borne photogrammetry and geophysical surveying to define targets for follow up sampling and subsequent drilling.



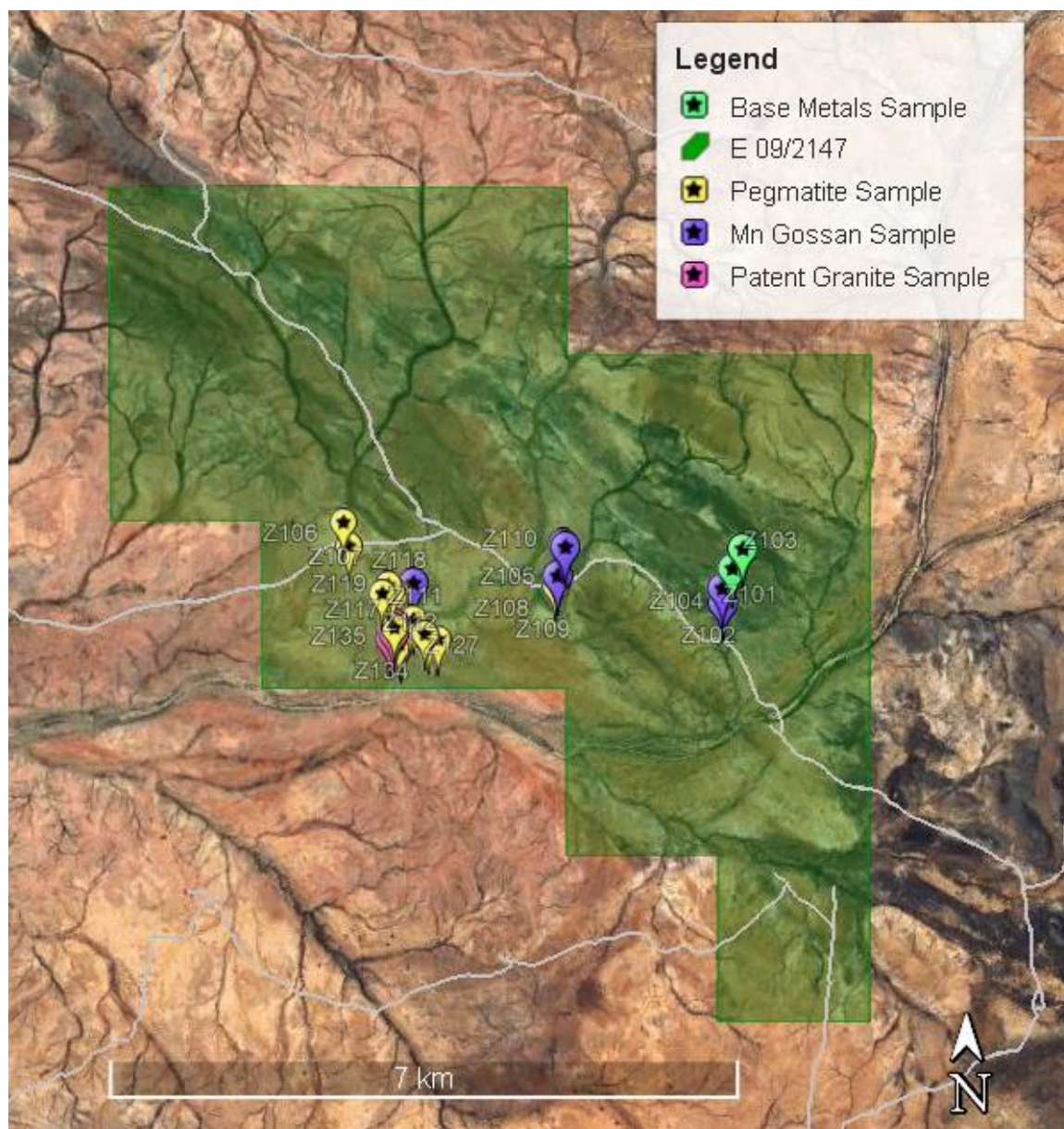


Figure 8. Mortimer Hills Tenement; Q2 2022 Sample Locations referred to in text.

SampleID	GDA94_E	GDA94_N	Sample Type
<b>ZEU101</b>	435,911	7,285,245	Mn Gossan
<b>ZEU102</b>	435,903	7,285,405	Mn Gossan
<b>ZEU103</b>	436,125	7,285,844	Base Metals
<b>ZEU104</b>	436,013	7,285,624	Base Metals
<b>ZEU105</b>	434,131	7,285,888	Mn Gossan
<b>ZEU106</b>	431,683	7,286,157	Pegmatite
<b>ZEU107</b>	431,745	7,285,897	Pegmatite
<b>ZEU108</b>	434,071	7,285,534	Mn Gossan
<b>ZEU109</b>	434,050	7,285,465	Pegmatite
<b>ZEU110</b>	434,155	7,285,854	Mn Gossan
<b>ZEU111</b>	432,186	7,285,463	Pegmatite
<b>ZEU112</b>	432,118	7,285,371	Pegmatite
<b>ZEU113</b>	432,248	7,285,333	Pegmatite
<b>ZEU114</b>	432,252	7,285,327	Pegmatite
<b>ZEU115</b>	432,281	7,285,227	Pegmatite
<b>ZEU116</b>	432,325	7,285,186	Pegmatite
<b>ZEU117</b>	432,378	7,285,112	Pegmatite
<b>ZEU118</b>	432,466	7,285,447	Fault Breccia
<b>ZEU119</b>	432,224	7,285,397	Pegmatite
<b>ZEU120</b>	432,273	7,285,374	Pegmatite
<b>ZEU121</b>	432,258	7,285,262	Pegmatite
<b>ZEU122</b>	432,257	7,285,256	Pegmatite
<b>ZEU123</b>	432,426	7,285,083	Pegmatite
<b>ZEU124</b>	432,440	7,285,086	Pegmatite
<b>ZEU125</b>	432,466	7,285,085	Pegmatite
<b>ZEU126</b>	432,593	7,284,917	Pegmatite
<b>ZEU127</b>	432,595	7,284,922	Pegmatite
<b>ZEU128</b>	432,601	7,284,905	Pegmatite
<b>ZEU129</b>	432,638	7,284,870	Pegmatite
<b>ZEU130</b>	7,284,870	7,284,863	Pegmatite
<b>ZEU131</b>	432,724	7,284,852	Pegmatite
<b>ZEU132</b>	432,282	7,285,157	Pegmatite
<b>ZEU133</b>	432,272	7,285,020	Pegmatite
<b>ZEU134</b>	432,255	7,284,990	Pegmatite
<b>ZEU135</b>	432,252	7,284,991	Granite
<b>ZEU136</b>	432,250	7,284,887	Granite
<b>ZEU137</b>	432,211	7,284,829	Granite
<b>ZEU138</b>	432,328	7,284,783	Pegmatite
<b>ZEU139</b>	432,332	7,284,792	Granite
<b>ZEU140</b>	432,312	7,284,812	Pegmatite

Table1. Rock Chip Sample Locations.



**Competent Person Statement:**

*Information in this release that relates to Exploration Results is based on information compiled by Mr Jonathan Higgins, who is a Member of the Australian Institute of Geologists (AIG). Mr Higgins is engaged by Zeus Resources Limited as an independent consultant. Mr Higgins has sufficient experience which 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 Higgins consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.*

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This announcement was authorised for release to the ASX by the Board of the Company.

ENDS

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