

# **Kingston Resources Limited**

ACN 009 148 529



EL31148

Barrow Creek

Annual Technical Report

3/10/16 - 2/10/17

Author: N Chalmers Tenement Holder: Slipstream WANT Pty Ltd Submitted Report By: Kingston Resources Ltd Date of Report: 23/11/17 Distribution To: Kingston Resources Ltd (1 copy) Northern Territory Geological Survey (1 copy)

# Keywords

| Titleholder                               | Slipstream WANT Pty Ltd                                    |
|---|--|
| Operator                                  | Kingston Resources Ltd                                     |
| Titles/Tenements                          | EL 31148   |
| Tenement Manager/Agent                    | Complete Tenement Management                               |
| Mine/Project Name                         | Barrow Creek   |
| Report title including type of report and | EL31148 1 <sup>st</sup> Annual Technical Report for period |
| reporting period including a date         | 3/10/16 till 2/10/17                                       |
| Personal author(s)                        | N Chalmers   |
| Corporate author(s)                       | Kingston Resources Ltd                                     |
| Target Commodity or Commodities           | Lithium/Gold   |
| Date of report                            | 23/11/17   |
| Datum/Zone                                | GDA94/Zone 53  |
| 250 000 K mapsheet                        | Barrow Creek (SF53-06)                                     |
| 100 000 K mapsheet                        | Crawford 5655, Barrow 5654                                 |
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### Summary

Slipstream WANT Pty Ltd (wholly owned subsidiary of Kingston Resources Ltd) pegged EL31148 targeting the area's potential to host hard rock lithium in pegmatite mineralisation.

The current price increase and interest in lithium is due to its increased global demand as a result of its use in battery technologies. This has resulted in a 'lithium rush' with numerous exploration licences pegged or re-evaluated based on its pegmatite hosted lithium prospectivity. EL31148 was pegged to explore for pegmatite hosted lithium mineralisation. Slipstream Resources Pty Ltd then entered into a corporate transaction with Kingston Resources Ltd to acquire a number of lithium projects including EL31148 as well as other Arunta Region tenure and projects at Mt Cattlin (WA) and Bynoe (NT).

Kingston's has undertaken an initial reconnaissance field trip onto EL31148 where it has collected four rock chip samples from outcropping pegmatites. KSN visited the Unnamed mica occurrence within EL31148 which was found as a small surface workings into a micaceous edge zone of a broader quartz outcropping pegmatite.



Figure 1: EL31148 Exploration Index Map for 2017

# Location and General Discussion

EL31148 is located on within the Aileron Province within the Arunta Region, within central Australia in the Northern Territory. The tenement is located on pastoral land (Neutral Junction Station), it surrounds the township of Barrow Creek which is located on the Stuart Highway, 285km north of Alice Springs.

Access within the tenement is reasonable on the flat sandy plains along station tracks, fence lines and historical tracks.

The climate in the area is semi arid with dry sandy creek beds prone to flood during heavy rains in the summer months.

#### Tenure

EL31148 is held by Slipstream WANT Pty Ltd and an 100% owned subsidiary of Kingston Resources Ltd, who are the operator. The tenement was granted in October 2016 and as such this report represents the first annual technical report for the tenement.

The tenement is split into four linked parts covering 58 gratitular blocks covering 173km<sup>2</sup>.

| Tenement | Status | Holder       | Land   | Grant Date | Expiry    | Legal Area | Area |  |
|----------|--------|--------------|--------|------------|-----------|------------|------|--|
|          |        |              | Status |            |           |            | SqKm |  |
| EL31148  | Live   | Slipstream   | معدما  |            |           | 58         |      |  |
|          |        | WANT Pty Ltd | LEASE  | 3/10/2016  | 2/10/2022 |            | 173  |  |

Table 1: EL31148 tenement details

# Previous Exploration Activities

Previous exploration within the current boundaries of EL31148 has focused on tin, tantalum, tungsten, uranium, base metals and gold. No previous exploration for lithium has occurred within EL31148, however hard rock lithium is mineralised within LCT type pegmatites so tantalum in a good indicator. A summary of the previous explorers to hold tenure covering EL31148 is provided in Table 2.

Previous drilling within EL31148 is restricted to a series of shallow aircore holes completed by BHP in 1982, located on the northern boundary of the current tenement which were <10m deep designed to test the top of the weathered basement rocks. Samples were assayed for Nb, Sn, Ta and W. Results within EL31148 drilled holes were not significant.

There are two existing mineral occurrences within EL31148. An Unnamed mica occurrence (02463) the history of which is unknown, but was visited by KSN (see Exploration Conducted) and a uranium occurrence called Barrow Creek. This uranium occurrence was reported to have initially been discovered by a prospector called Jim Weir (Snelling 1980) and subsequently visited and described as containing torbernite and carnotite coatings on fracture plans within the Bean Tree Granite (Barrow Creek Granite). Rock chip assays returned 0.9% and 0.4%  $U_3O_8$  (Clarke 1978).

| Title Type<br>Code | Title<br>Number | Date<br>Granted | Date<br>Ceased | Report ID   | Holder(s)   | Work<br>undertaken<br>within<br>EL31148               |
|--------------------|-----------------|-----------------|----------------|---|---|---|
| AP                 | 2430            | 25/11/1969      | 24/05/1972     | CR1971-0067, CR1970-0076  | Utah<br>Developments                                  | mapping<br>targeting Ta                               |
| EL                 | 2064            | 22/08/1979      | 21/08/1981     | CR1982-0094, CR1981-0087  | ВНР   | targeting W,<br>Sn, Ta RAB<br>drilling                |
| EL                 | 1880            | 6/12/1978       | 5/12/1982      | CR1982-0273, CR1982-0015, CR1981-0021, CR1980-<br>0115  | CRA   | targeting<br>uranium and<br>Sn, field tests           |
| EL                 | 24556           |                 | 7/09/2005      | None  | ALDERSHOT<br>RESOURCES<br>LTD                         | No reports  |
| EL                 | 25235           |                 | 20/09/2006     | None  | MARINDI<br>METALS<br>LIMITED                          | No reports  |
| EL                 | 25618           |                 | 17/09/2007     | None  | ARNHEM<br>RESOURCES<br>PTY LTD                        | No reports  |
| EL                 | 23122           | 6/02/2003       | 20/12/2007     | CR2007-0744, CR2007-0074, CR2007-0060, CR2006-<br>0051, CR2006-0038, CR2005-0021, CR2004-0180,<br>CR2004-0116 | TANAMI<br>EXPLORATION<br>NL                           | Au & Base<br>Metal<br>targeting, rock<br>chip samples |
| EL                 | 26449           |                 | 16/06/2008     | None  | NICHOLSON<br>IRON PTY LTD                             | No reports  |
| EL                 | 26820           | 4/04/2012       | 14/05/2014     | CR2014-0443, CR2013-0355  | BLACKWOOD<br>CORPORATION<br>LIMITED:<br>Cockatoo Coal |   |

Table 2: Previous Explorers within EL31148 tenement area summary

# Geology

Within EL31148 a thin (up to 5m) sandy veneer of in situ and transported soil dominated the landscape and almost completely covers the underlying basement rocks, with localised incisions into the cover sequences at dry drainage channels. The tenement is located on the northern contact of the northern Aileron Province, part of the Arunta Inlier. Basement rocks outcrop along the ridge that form the Crawford Range which strikes north westerly across EL31242.

Extracted and edited from ABM Resources NL - EL 26825 Partial Relinquishment Report – From 27 January 2009 to 26 January 2016; (from Vandenberg 2014)

Granitoids are widespread throughout the northern part of the Aileron Province and extend from Barrow Creek into the Tanami Region to the northwest. These granitoids (-Pg, -Pg>1m, -Pg1, -Pg2, -Pg3, -Pg4, -Pga, -Pgb, -Pgg, -Pgw) intrude Lander Rock Formation and mafic bodies. A variety of textures, grainsizes and compositions are found in the region. Granitoids are typically equigranular to porphyritic biotite-granite, biotite-muscovite granite, medium-to coarse grained quartz-feldspar-muscovite-tourmaline ± garnet leucogranite with metasedimentary enclaves, biotite-granodiorite and monzogranite. Many granitoids display gneissic to locally mylonitic fabric (-Plg). In adjacent Lander Rock Formation local tourmalisation, pseudomorphic replacement of andalusite by quartz-muscovite and growth of minute garnet porphyroblasts (<2mm diameter) are interpreted to be associated with contact metamorphism during intrusion. Similarly, local hornfels and calc-silicate rock (-Plc) in areas such as the Ringing Rocks Ta-Sn Prospect may be attributed to contact metamorphism. Pegmatite dykes and sills are common in Lander Rock Formation and in particular the Barrow Creek Sn-Ta-W Pegmatite Field.

The metasedimentary rocks of the Lander Rock Formation, together with mafic and granitic rocks, are overlain by open-folded sedimentary and volcanic rock sequences of the Hatches Creek Group. In Barrow Creek the Hatches Creek Group (-Ph) comprise lower most Gwynne Sandstone (-Phx), interdigitating Tinfish Sandstone (Php) and Strzeleckie Volcanics (-Phq), and the Illoquarra Sandstone (-Phw). These rocks are interpreted to represent shallow-marine and fluviatile sandstone with predominantly subaerial felsic volcanic rocks.

### Exploration Undertaken

Kingston undertook a desktop review of the geology and previous exploration within EL31148, focusing on the tenements potential to host LCT type pegmatites.

Kingston undertook a preliminary reconnaissance fieldtrip onto EL31148 in July 2016 when the tenement was in application. Kingston staff had positive interactions with the station managers at Neutral Junction who had no issue with KSN entering the station.

Kingston investigated the Unnamed (02463) mica working south east of Barrow Creek where a small shallow scratching was identified approximately 5m × 1m × 1m pit with into a pegmatite with micaceous clusters which was sampled (samples 5015-5017)(Figure 2; Table 1). The micaceous cluster sample (5015) returned 89ppm Cs, 270ppm Li, 2020ppm Rb and 21ppm Ta whilst a sample taken more representative of the pegmatite (5016) returned 22.5ppm Ta. Kingston has found in other parts of the Arunta Region that mica rich samples can contain elevated Cs, Ta and Li likely to be sourced from within the mica structure or minor weathered lepidolite incorporated into the muscovite cluster. This result is suggestive of a LCT system at this location, with the existence of

extensive clean quartz outcrops in the area indicates a larger pegmatite system. However, the results are still low in lithium grade and further surface sampling (rock chips and soils) is required to increase the prospectivitiy of the area.



Figure 2: Photos of historic working and 5015 sample site/sample

When undertaking rock chip sampling KSN routinely collect (Appendix 1)

- Sample ID, (on bag + in GPS)
- GPS position (GDA 94),
- Sample position (insitu, mullock or float)
- Photographs of the sample on the labelled sample bag + pre sampling in situ
- Lithological description
- sample date
- collector

KSN selectively surface rock chip sample rocks which either may contain lithium or other mineralization as well as samples that may increase the understanding of the broad geological context. Samples were sent to Bureau Veritas for analysis who crushed to nominal 10mm – Up to 3 kg, split the sample using a Riffle Splitter – Up to 3kg, pulverizing to 1.0 kg and taking a portion for analysis. The analysis undertaken was Sodium Peroxide fusion with a ICP-MS or ICP-OES finish.



Figure 3: EL31148 2017 prospects, KSN route and samples

| Sample<br>ID | Easting | Northing | Tenement | Prospect | Description                               | Sample type | Li ppm | Li2O % | Ta ppm | Cs ppm | Rb ppm | Be ppm |
|--------------|---------|----------|----------|----------|---|-------------|--------|--------|--------|--------|--------|--------|
| 5105         | 386850  | 7611696  | EL31148  | Mica     | m.g up to 5mm yellow muscovite cluster,   | mullock     | 270    | 0.06   | 21     | 89     | 2020   | 18     |
|              |         |          |          | Mine     | oxidised red                              |             |        |        |        |        |        |        |
| 5106         | 386856  | 7611692  | EL31148  | Mica     | representative pegmatite v.c.g up to 3cm  | mullock     | -10    | 0      | 22.5   | 28     | 800    | 5      |
|              |         |          |          | Mine     | clear grey qrtz + orange cream feldspar + |             |        |        |        |        |        |        |
|              |         |          |          |          | mica (green oxidised red) + tourmaline    |             |        |        |        |        |        |        |
| 5107         | 386851  | 7611696  | EL31148  | Mica     | weathered bleached white feld + grey qrtz | mullock     | -10    | 0      | 2.5    | 16     | 400    | 4      |
|              |         |          |          | Mine     | + green tinged muscovite + red iron?      |             |        |        |        |        |        |        |
|              |         |          |          |          | Oxidised mica + dendritic manganese,      |             |        |        |        |        |        |        |
|              |         |          |          |          | weathered pegmatite                       |             |        |        |        |        |        |        |
| 5108         | 384742  | 7616523  | EL31148  | Regional | white qrtz with red oxidised feld? +      | mullock     | -10    | 0      | -0.5   | -1     | 7      | -1     |
|              |         |          |          |          | common dark metallic minerals infilling   |             |        |        |        |        |        |        |
|              |         |          |          |          | fractures (manganese)                     |             |        |        |        |        |        |        |

Table 3: Summary rock chip analysis from initial rock chip samples from EL31148

# Conclusions and Recommendations

The tenement is prospective for LCT type pegmatites with the potential to host lithium mineralisation. Surface geochemical sampling at the unnamed mica mine is warranted to test for a broader LCT signature in soils and/or rock chips. The identification of any LCT pegmatite derived anomalies would greatly increase the prospectiveness of the area for lithium mineralisation and depending on the orientation and geometry of the anomaly may indicate potential pegmatite trends worth following up throughout the tenement.

The lack of outcropping pegmatites in large parts of the tenement means that either geophysical techniques or auger/vacuum drilling would be required to undertake systematic exploration for pegmatites within EL31148.

### Expenditure

| ACTIVITY DETAILS FOR THE REPORTING PERIOD   |  |                      |          |  |  |  |  |
|---|--|----------------------|----------|--|--|--|--|
| Admissible<br>Expenditure                   | Detail work done includi<br>stations / line km su                          | AU\$<br>Claimed      |          |  |  |  |  |
| A. Geological Activities<br>and Prospecting | Reconnaissance fieldtrip, site   | \$2,800              |          |  |  |  |  |
| B. Geochemical<br>Activities                | Assays o   | \$ 200               |          |  |  |  |  |
| H. Office Studies                           | Literature review, mineralisa<br>collectio                                 | \$15,200             |          |  |  |  |  |
| I. Land Access                              |  |                      |          |  |  |  |  |
| J. Overheads                                | Not to exceed 15% of the sum of A to I above.<br>Description not required. |                      |          |  |  |  |  |
| K. Preliminary<br>Exploration               | Pre-grant airborne and ground s  |                      |          |  |  |  |  |
| L. Total Expenditure<br>Claimed             |  |                      | \$19,700 |  |  |  |  |
| M. Covenant for this reporting period       | \$18,700   | Number of blocks: 58 |          |  |  |  |  |

Table 4: Expenditure details of EL31148 for 2017

### References

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