



## NEW LITHIUM EXPLORATION PROGRAMS COMMENCE AT ROOT LAKE, CANADA

*The next phase of ground-based exploration activities is underway, with mapping and sampling in preparation for future drilling; all data generated will be integrated into a maiden resource model*

### HIGHLIGHTS

- A geological team is now on the ground at the newly acquired Root Lake Lithium Project in Ontario, Canada.
- Initial focus is to map and channel sample the Root Lake prospect.
- The results will be used to validate historical drilling and sampling results and to confirm the orientation of the pegmatite structures. All data collected will be included in any future resource models.
- The geological team will conduct a survey of the current prospect to identify potential extensions of the known pegmatite structures, to delineate any additional pegmatite structures in the surrounding area, and to define any further drill-ready targets ahead of the next phase of drilling.
- Final preparations are almost complete to undertake further exploration activities at the Root Bay Lithium Projects and the Manitouwadge Graphite project, following the start of ground-based exploration programs at the Seymour Lake Lithium Project.

Further to its announcement of 19 July, Ardiden Limited (ASX: ADV) is pleased to advise that the next phase of exploration has now also commenced at its newly acquired **Root Lake Lithium Project** in Ontario, Canada with the exploration team currently on the ground conducting mapping and sampling programs.

As previously announced, the Company is adequately funded for the next stage of ground-based exploration activities and resource development activities following the recently completed \$2.9 million capital raising.

### ROOT LAKE LITHIUM PROJECT

Ardiden confirms that the next phase of its planned exploration program at the Root Lake Project is currently underway with geological teams on site. This phase of exploration is expected to take approximately three weeks to complete.

This program is being undertaken in conjunction with a further in-depth analysis of the current and historical drill and sampling data from the project.

### Board of Directors

Mr Neil Hackett (Non-Executive Chairman, Joint Company Secretary)

Mr Brad Boyle (Executive Director)

Mr Piers Lewis (Non-Executive Director)

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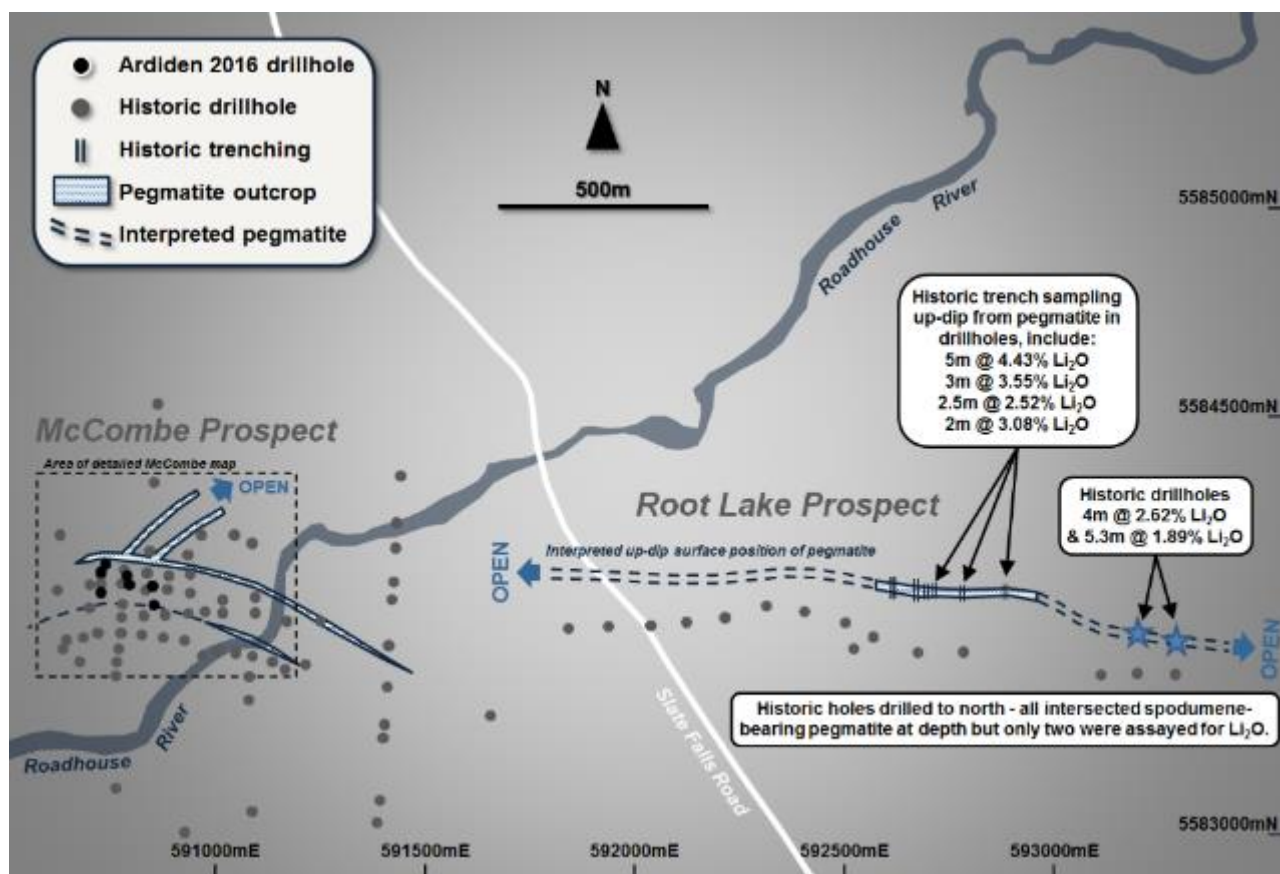
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**ASX Code:** ADV  
**Shares on Issue:** 788.8M  
**Options:** 21M  
**Cash at Bank:** \$3.75M

The current exploration program includes detailed geological and structural mapping in order to develop a better understanding of the known pegmatites and the influence of the surrounding structures at the Root Lake Project.

The Company's geological team has also been tasked with obtaining grab and channel samples from the known outcropping pegmatite structures at the Root Lake prospect.

**Ardiden has already identified multiple new drill-ready targets areas along both the McCombe and Root Lake prospects, which will provide Ardiden with the opportunity to expand the known zones of lithium mineralization at these locations.**



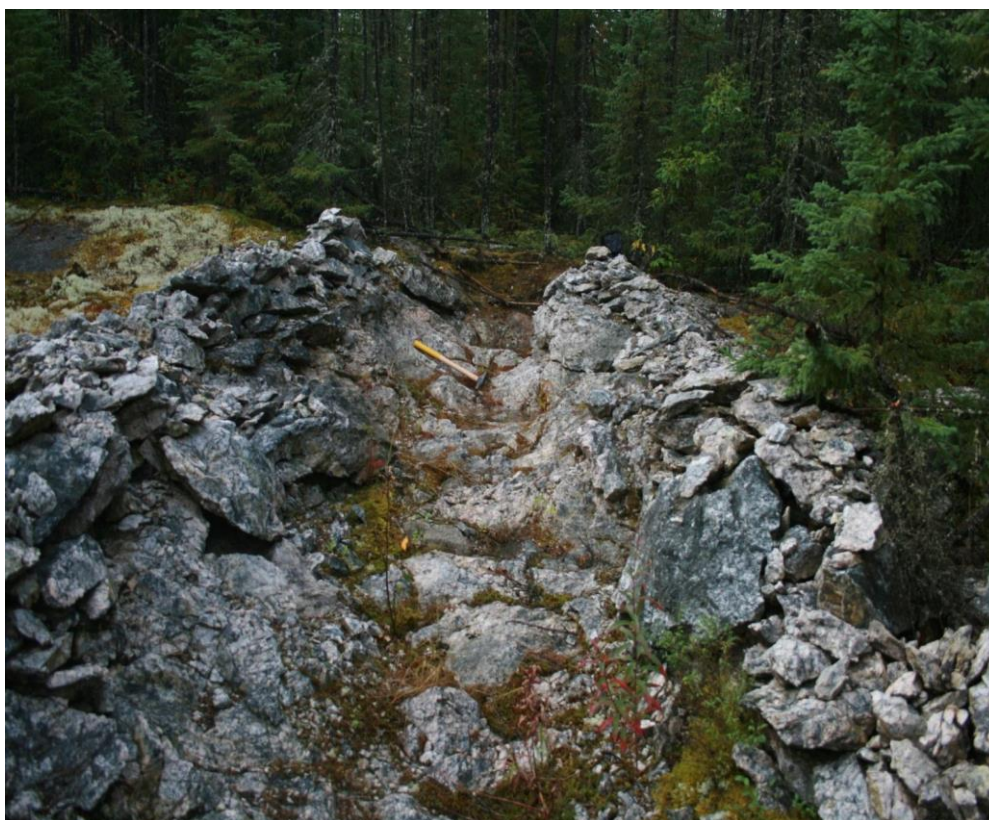
**Figure 1.** Map showing the location of the McCombe and Root Lake pegmatites on the Root Lake lithium project. The outcropping pegmatites structures, current and historical trenches and drilling and the potential extensions of the mineralisation zones are all highlighted.

After completing these tasks, the team will then survey and undertake a broader mapping and sampling program around the known pegmatite structures, in order to develop a better understanding of the potential for extensions of the spodumene mineralization zones at the Root Lake prospect, and to detect any additional pegmatite structures in the surrounding area which have not previously been identified.

Figure 1 above shows the McCombe and Root Lake pegmatites, highlighting the various outcropping pegmatites structures, current and historical trenches and drilling, and the potential extensions of the lithium mineralisation zones.

The Root Lake prospect is an encouraging exploration target with a known strike length of 1,200m and remains open both to the east and west. Historical drilling completed in 1956 confirmed and intersected a pegmatite structure at depth (~25-30m below surface), verifying the presence of spodumene with grades of up to 2.62%  $\text{Li}_2\text{O}$  being reported.

In 2009/2010, Golden Dory completed a trenching and sampling program on the outcropping zones of the pegmatite structure, which is located approximately 75m to 100m north of the historical drilling locations. Golden Dory reported grades of up to **4.43%  $\text{Li}_2\text{O}$**  from those trench samples.



**Figure 2.** 1955 Historical Trench Sampling of the Pegmatite at Root Lake

These historical high grade intersections of  $\text{Li}_2\text{O}$  at the Root Lake prospect are consistent with the high grades identified at the McCombe prospect and provide Ardiden with greater confidence in the overall project to host multiple high grade spodumene structures.

The current exploration program will help Ardiden to develop a better understanding of whether the pegmatite intersected at the Root Lake prospect in the historical drilling is in fact the same pegmatite structure that is outcropping to the north and was tested by Golden Dory.

This phase of exploration will also provide the Company with a better understanding of the pegmatites and the influence of the surrounding structures, including the relationship and potential connection between the McCombe and Root Lake pegmatites.

Should a relationship and connection between the McCombe and Root Lake pegmatites be confirmed during this next phase of exploration, **Ardiden will again have further opportunities to substantially expand the known lithium mineralisation zones** at the Root Lake Project.

Once all grab and channel samples have been collected, logged and prepared, the samples will be sent to Activation Laboratories in Thunder Bay for assay and metallurgical testing.



The results obtained from this mapping and sampling program will be used to validate historical drilling and sampling results, while also confirming the orientation of the known pegmatite structures. The data collected from this program is expected to provide the Company with an improved understanding of the development of pegmatite structures and the relevant spodumene mineralization zones within these structures.

All of data collected during this program will also be incorporated into, and assist in the development of resource models for the project. These results will also enable Ardiden to better plan for the next phase of drilling at Root Lake, which will be designed with the intent to delineate a maiden JORC compliant Mineral Resource estimate.

As announced on 22 June 2016, the recent due diligence drilling program at the McCombe prospect confirmed the high potential of the Root Lake project to host a quality lithium deposit. Although limited drilling was undertaken, the results further increased the Company's confidence in the historical drill data and the overall prospectivity of the Root Lake Project.

The assay results included several thick intercepts of spodumene-lithium mineralisation with all 151 drill core samples from the program showing various grades of lithium, including an exceptional grade of **3.8%** Lithium Oxide ( $\text{Li}_2\text{O}$ ).

The limited due diligence drilling previously completed by Ardiden confirmed multiple mineralization zones at the McCombe prospect.



**Figure 3.** Drill core from the McCombe Pegmatite at the Root Lake Project showing multiple intersections of spodumene mineralisation.

Ardiden verifies the geological team on site at the Root Lake Lithium Project have successfully located the extensive outcropping Root Lake pegmatite (refer to Figures 4 & 5). Multiple mineralisation zones have already been identified at surface and can be readily seen in Figure 4 below.





**Figure 4.** Visible spodumene mineralisation in the extensive outcropping of the Root Lake Pegmatite.



**Figure 5.** Further visible spodumene mineralisation at the outcropping Root Lake Pegmatite.

The Company confirms that plans and preparations are currently being finalised in relation to undertaking supplementary exploration activities at the Root Bay Lithium Project and additional field work at the Manitouwadge Graphite project.

Ardiden looks forward to providing further updates and results from this mapping and sampling program as they come to hand.

**-ENDS-**

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**About the Ardiden Ltd**

The Seymour Lake Lithium Project (option exercised to acquire 100%) is located in Ontario, Canada. The project comprises 912 Ha of mining claims and has over 4,000m of historic drilling. Mineralisation is hosted in extensive outcropping spodumene-bearing pegmatite structures with widths up to 26.13m and grades of up to 2.386% Li<sub>2</sub>O. In addition, tantalum and beryllium grades of up to 1,180 ppm (Ta<sub>2</sub>O<sub>5</sub>) and 1,270ppm (BeO) respectively were intersected.

The Root Lake Lithium Project (option exercised to acquire 100%) is located in Ontario, Canada. The project comprises 1,013 Ha of mining claims and has over 10,000m of historic drilling. Mineralisation is hosted in extensive outcropping spodumene-bearing pegmatite structures with widths up to 19m and grades of up to 5.10% Li<sub>2</sub>O. In addition, tantalum grades of up to 380 ppm were intersected.

The 100%-owned Root Bay Lithium Project is located in Ontario, Canada. The project comprises 720 Ha of mining claims. This is a greenfields project located approximately 5kms East of the Root Lake Lithium Project. Exploration activities are planned to access the quality and quantity of the spodumene hosting pegmatite structure.

The 100%-owned Manitouwadge Jumbo Flake Graphite Project is located in Ontario, Canada. The Project area is 5,300 Ha and has a 20km strike length of EM anomalies with graphite prospectivity and is being subject to systematic exploration to determine areas that have potential to be a near-term development opportunity.

Metallurgical testwork has indicated that up to 80% of the graphite is high value jumbo or large flake graphite. Testwork has also indicated that simple, low-cost gravity and flotation beneficiation techniques can result in graphite purity levels of up to 96.8% for jumbo flake and 96.8% for large flake. Testing using the proven caustic bake process was able to produce ultra-high purity (>99.95%) graphite. The graphite can also be processed into high value expandable graphite and produces a high quality graphene and graphene oxide.

**Competent Person's Statement**

The information in this report that relates to exploration and drilling results for the Seymour Lake Lithium project is based on, and fairly represents, information and supporting geological information and documentation in this report has been reviewed by Mr Paul Nielsen who is a member of the Association of Professional Geoscientists of Ontario. Mr Nielsen is not a full-time employee of the Company. Mr Nielsen is employed as a Consultant Geologist. Mr Nielsen has more than five years relevant exploration experience, and qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Mr Nielsen consents to the inclusion of the information in this report in the form and context in which it appears.

The information in this report that relates to exploration results on the Seymour Lake project is extracted from the reports entitled ASX Release “Grades Of Up To 3.8% Lithium Oxide From Maiden Drill Program at Root Lake Lithium Project, Canada” created 22 June 2016, and is available to view on [www.ardiden.com.au](http://www.ardiden.com.au). The reports were issued in accordance with the 2012 Edition of the JORC Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

#### **Forward Looking Statement**

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this presentation are to Australian currency, unless otherwise stated. Investors should make and rely upon their own enquires and assessments before deciding to acquire or deal in the Company’s securities.