

8 November 2021



Uranium Prospectivity Enhanced by Helium Anomalies at Lake Surprise Project

Highlights:

- Extensive helium anomalies identified using Sentinel-2 satellite imagery
- Spectral signatures from helium anomalies better defines uranium targets for upcoming exploration
- Several helium anomalies are coincident with gamma anomalies at surface within the Lake surprise tenement, one measuring 1.8km x 8km
- Correlation between helium signatures and uranium occurrences supported by data from known proximal uranium deposits
- Application lodged for new tenement covering large coincident gamma and helium anomalies

Adavale Resources Limited (ASX: ADD) (“Adavale” or “the Company”) is pleased to announce the results of a desktop study undertaken by Dr. Neil Pendock analysing the presence of helium spectral signatures from the radioactive decay of uranium within the Lake Surprise Uranium Project. Dr Neil Pendock is a consultant, specialising in remote sensing exploration techniques.

Adavale commissioned this desktop study while waiting for Covid-19 related travel restrictions to ease so our technical team could enter South Australia from the Australian Capital Territory.

The study has highlighted the presence of helium anomalies within the Company’s Lake Surprise tenement package. Several of the helium anomalies are coincident with elevated gamma in the regional geophysical data, strongly indicating the presence of uranium given the correlation seen at known Uranium deposits proximal to the Lake Surprise Project.

These targets will be further investigated in conjunction with the forthcoming ground-based gamma survey. The targeted gamma anomaly is 1.8km x 8km and is much larger and stronger than the one defined by historic drilling in the northwest of the tenement and presents an exciting target for the Company.

Planning and preparations for the exploration program are complete and exploration is scheduled to begin as soon as Covid-19 related travel restrictions ease for entry into South Australia from ACT.

ASX: ADD

DIRECTORS AND OFFICERS

GRANT PIERCE
CHAIRMAN

ALLAN RITCHIE
CHIEF EXECUTIVE OFFICER

DAVID RIEKIE
DIRECTOR

JOHN HICKS
DIRECTOR

LEONARD MATH
CFO & COMPANY SECRETARY

ISSUED CAPITAL

Shares: 326 million
Unlisted options: 17.5 million

ABOUT ADAVALE

Adavale Resources is an ASX-listed exploration company targeting projects in the 'battery materials' space. The company is currently focussed on its 100% owned Kabanga Jirani Nickel Project adjacent and along strike from the world's largest undeveloped high grade NiS resource of 58Mt @ 2.62% Ni. Adavale is also progressing exploration on its 100% owned uranium tenements in South Australia

MORE INFORMATION

adavaleresources.com

CONTACT

Adavale Resources Limited
Level 7,
6 Underwood Street
Sydney NSW 2000
+61 2 8003 6733
investor@adavaleresources.com



Adavale’s Senior Exploration Geologist, Patrick Harvey commented:

“The workstream undertaken by Dr Pendock, using the helium data as a pathfinder is well established and provides additional evidence of the potential presence of uranium, highlighting the prospective nature of Adavale’s uranium tenement package.

This survey and resulting information provide an extra layer of data that builds upon our understanding of the tenements to support the upcoming geophysical survey.”

Lake Surprise Tenements

The Lake Surprise uranium tenements have been held and explored by Adavale Resources since 2006. The tenement package was originally selected based on outcrop sampling and regional radiometric anomalies, however the radiometric anomalies remain largely untested. The largest radiometric anomaly identified will be the target of the upcoming planned program of work (Figure 1).

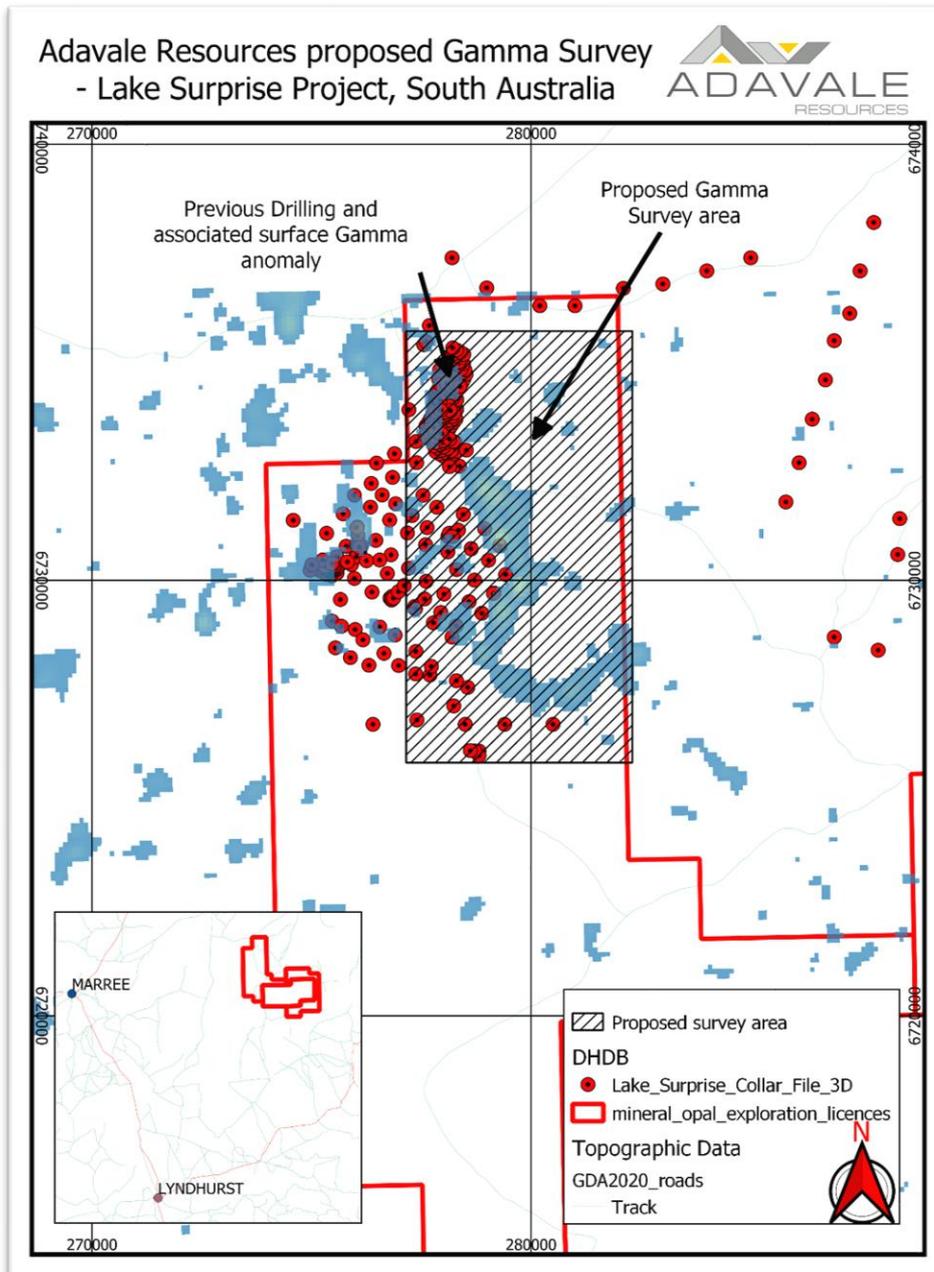


Figure 1: Proposed area of gamma survey and rock chip sampling

The radiometric gamma anomalies that are the target of the planned exploration were never tested historically and provided sound initial targets for the forthcoming program. This anomaly is approximately 1.8km wide and 8km in length. Adavale's program of works aims to better delineate this anomaly and provide valuable data for future exploration programs in the area.

The planned works over the anomaly currently comprises a 1,100 line-kilometre ground based radiometric survey including targeted outcrop sampling, focussing on the priority gamma anomalies generated by the survey results (as shown in Figure 1).

Some of the surface outcrops of silcrete and sandstone coincident with the untested geophysical anomaly returned highly encouraging values of uranium using portable XRF in historic work.

Helium anomaly spectral signatures in the Lake Surprise Project

Dr. Neil Pendock is a consultant, specialising in remote sensing exploration. Dr. Pendock has prepared an assessment of the helium and hydrogen potential of the Lake Surprise tenements, as related to the radioactive decay of uranium. Dr Pendock has compared some of the anomalies at known uranium deposits, for correlation within the area covered by the Lake Surprise tenement package.

By way of background, helium is released as a “daughter” product of radioactive decay as uranium breaks down into other elements. Helium is a very light element which migrates through the regolith after decay which is then released into the atmosphere. Where the release of helium is concentrated enough, it will have a spectral signature in specific wavelengths that can be seen by sensors on satellites or other detection vehicles. These sensors provide data in the Visible-Near Infra-Red (VNIR) and Short Wave Infra-Red (SWIR) wavelengths which are the wavelengths where helium is visible.

Dr. Pendock uses Sentinel-2 imagery and unique methods to remove the data not related to the release of helium from the regolith, providing powerful images that highlight areas of potential uranium deposition.

Helium anomalies are present in several known uranium bearing systems, most notably the Beverly Mine to the southeast of Adavale's tenements. Similar helium signatures can be seen on the Lake Surprise tenement package.

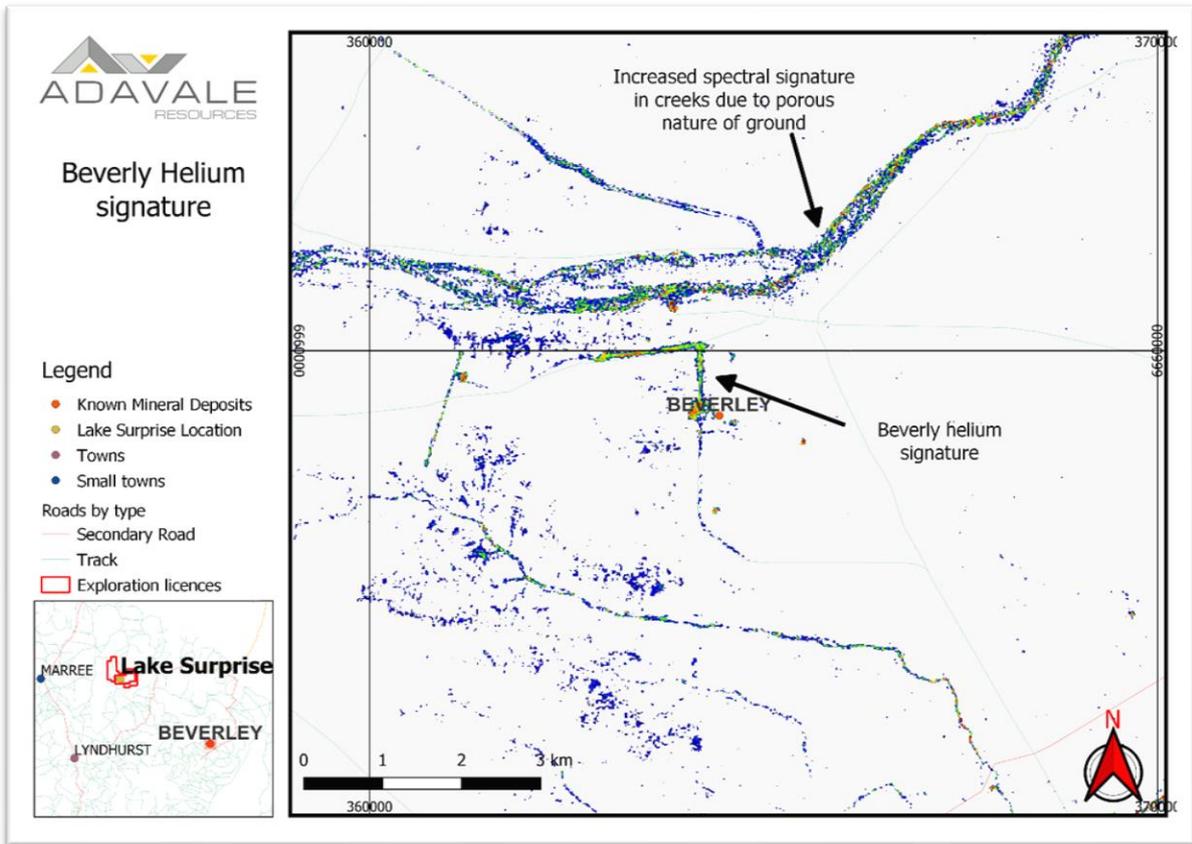


Figure 2: map outlining the Beverly Uranium Mine and interpreted helium signature from Sentinel-2 Imagery

The helium anomalies highlighted in the work by Dr. Pendock are coincidental with the gamma anomalies in the Lake Surprise tenements (as seen in 3 and Figure 4). This result is encouraging and useful for the pending exploration program as it provides two lines of evidence for the area.

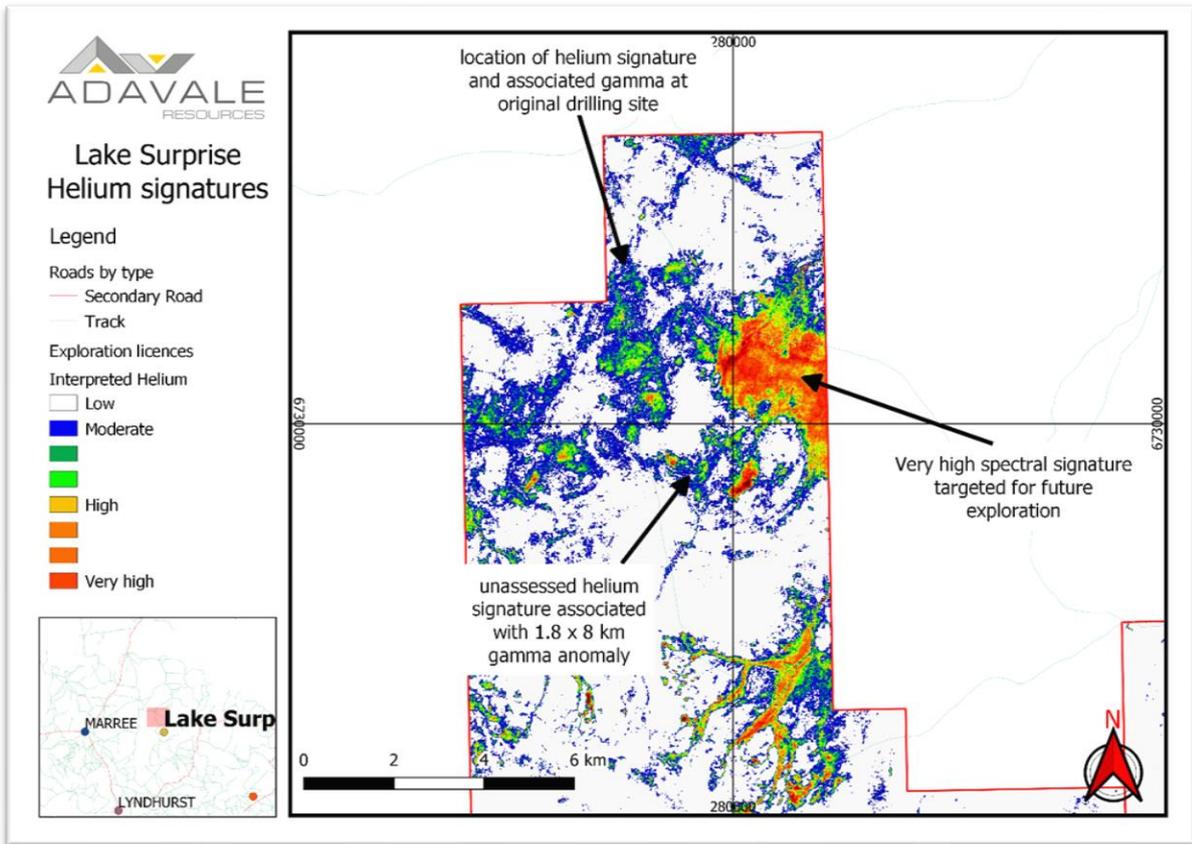


Figure 3: Helium anomalies in Lake Surprise Tenements

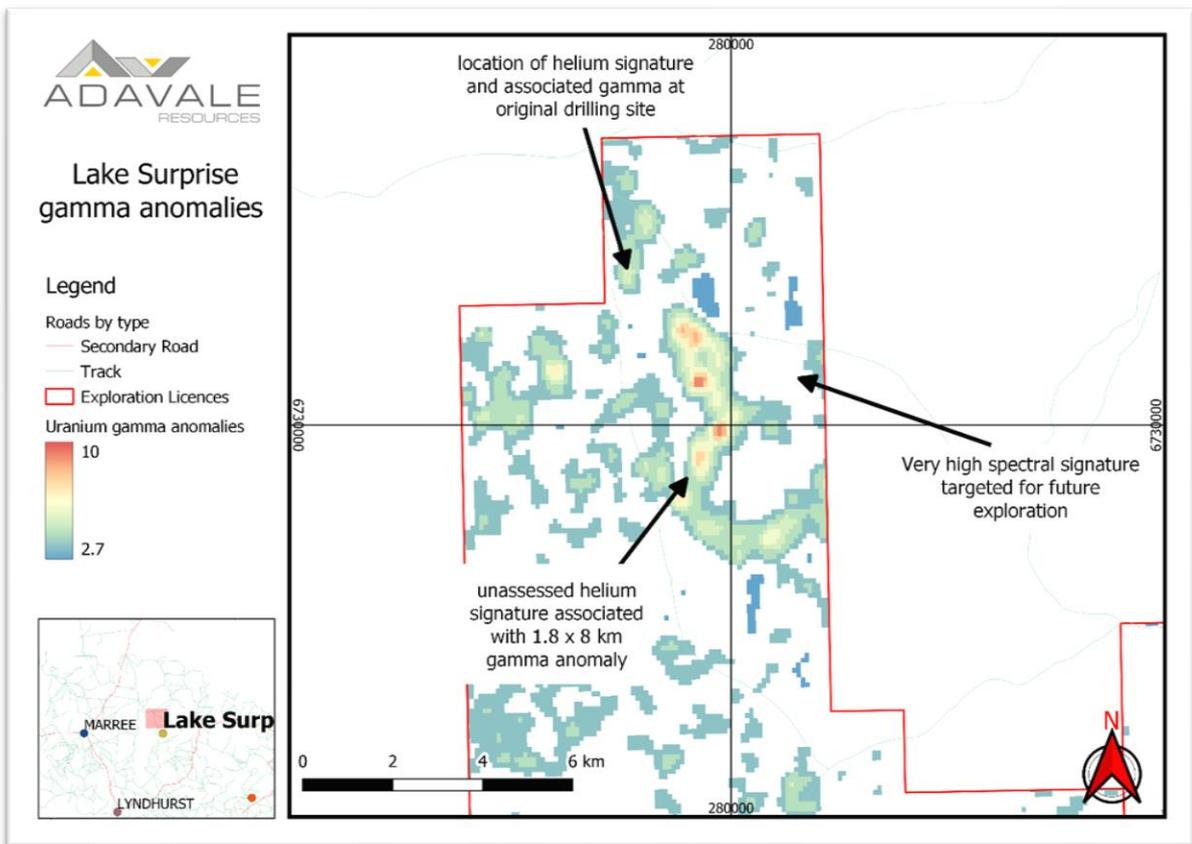


Figure 4: Gamma anomalies in Lake Surprise project area associated with helium spectral signature

The anomaly covering the lakebed of Lake Arthur (highlighted in Figure 3 and Figure 4) will be investigated together with access and exploration considerations. For the upcoming works program the investigation will focus on linking the helium signatures associated with gamma anomalies defined in the survey and determining the relationship between helium, gamma and uranium mineralisation.

New Tenement Application West of the Lake Surprise Project

Adavale Resources has applied for a new tenement to the west of Lake Surprise. The application for this area was completed based on available geological and geophysical data and the area was assessed to have potential uranium hosting lithologies. The area is geologically similar to the Lake Surprise tenements and has a larger gamma anomaly than the one that will be explored in the upcoming Lake Surprise program (Figure 5).

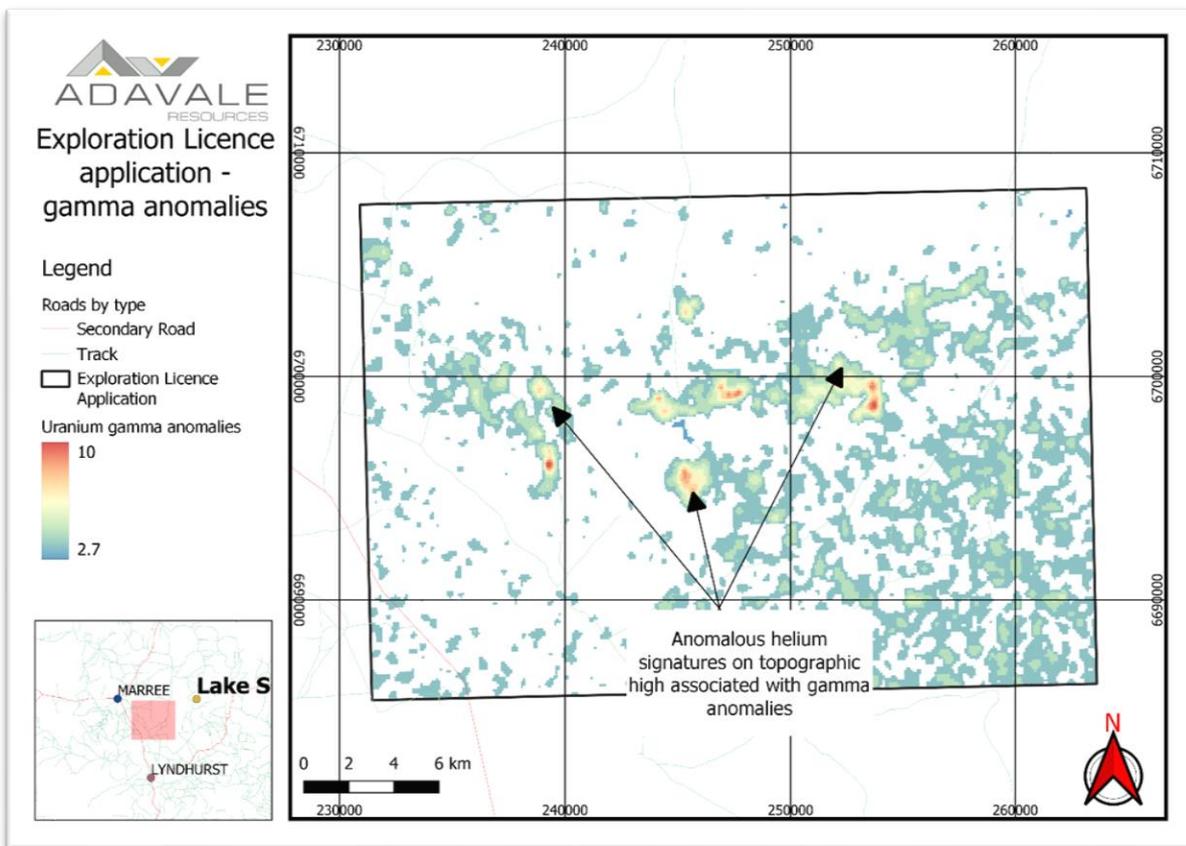


Figure 5: Area of new application with identified gamma anomalies highlighted

The additional information provided by Dr. Neil Pendock extends across this tenement. The area of the gamma anomaly also has a coincidental helium anomaly. This information was not available when the application was submitted but improves the prospectivity of the area greatly. The following figure shows the area with helium spectral signatures (Figure 6).

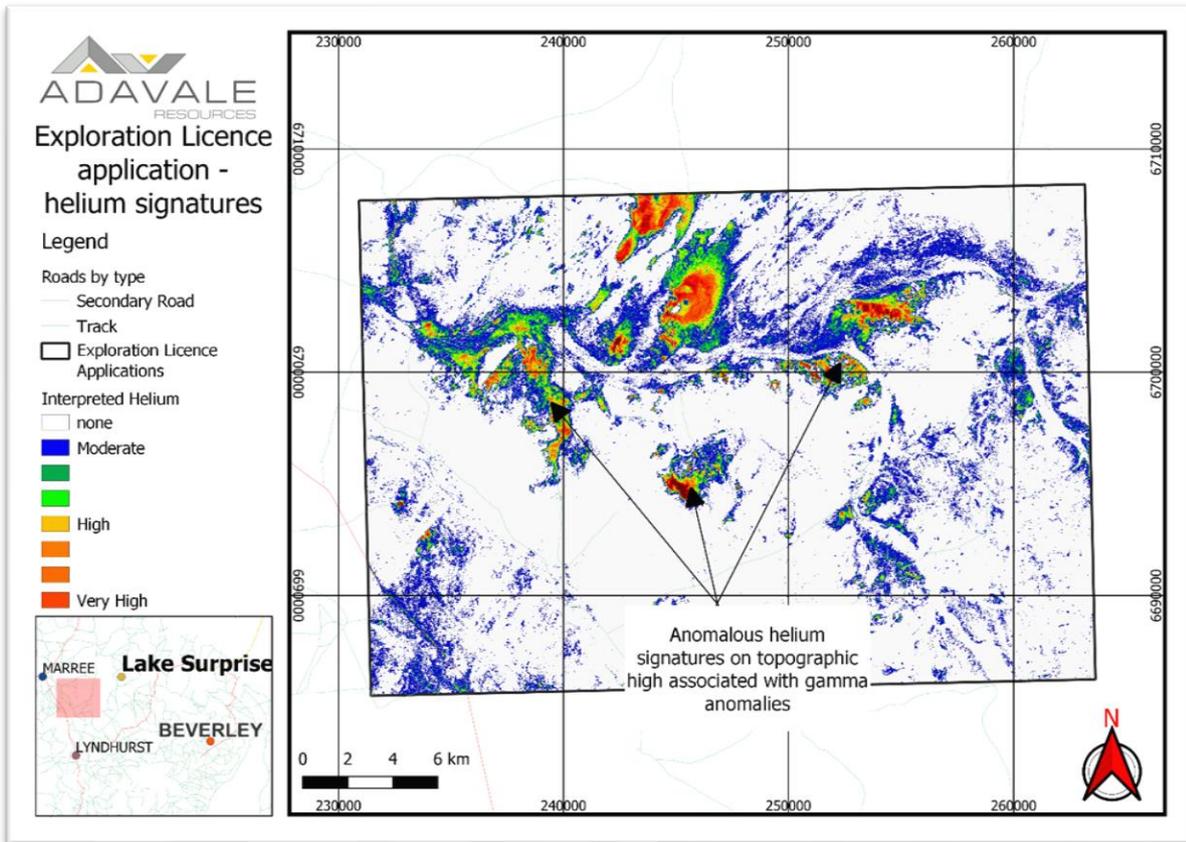


Figure 6: Area of new application with helium signatures.

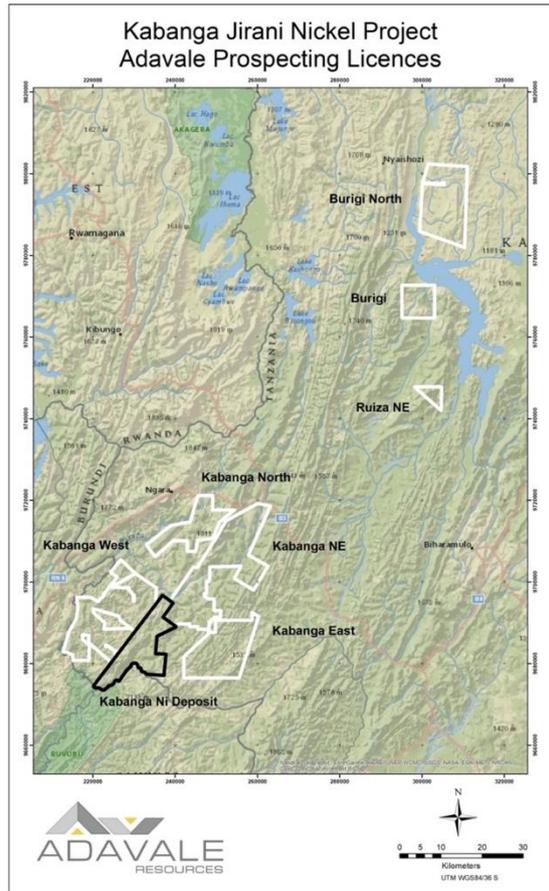
This application is currently under the consideration of the Department for Energy and Mining and no ground-based exploration will be completed on the area, until the tenement has been granted.

This announcement has been authorised for release by The Board of Adavale Resources Limited.

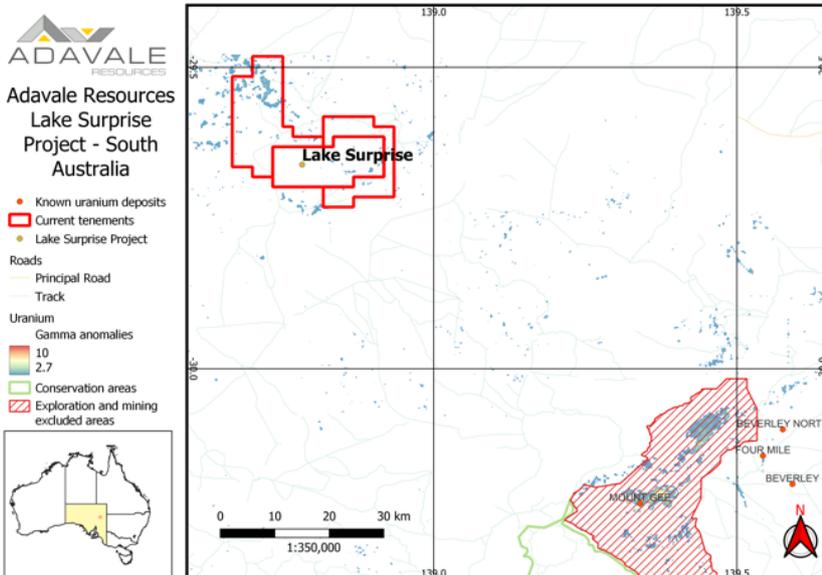
For further information please contact investor@adavaleresources.com or visit www.adavaleresources.com

About Adavale

Adavale Resources Limited (ASX:ADD) is a nickel sulphide exploration company that holds 100% of the Kabanga Jirani Nickel Project a portfolio of 7 highly prospective granted licences, covering over 1,145km² surrounding and proximal to the world class Kabanga Nickel Deposit (58Mt @ 2.62% Ni) and located along the Karagwe-Ankolean belt in Tanzania. Adavale’s licences were selected based on their strong geochemical and geophysical signatures from previous exploration undertaken by BHP Billiton.



Adavale also holds three exploration licences within part of the highly prospective sedimentary uranium province within the northern part of the Lake Frome Embayment.



Competent Persons Statement

The information in this release that relates to “exploration results” for the Project is based on information compiled or reviewed by Mr Patrick Harvey MAppSci, Australia. Mr Harvey is a consultant for Adavale Resources Limited and is a member of the AIG. Mr Harvey has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration as well as to the activity that is being undertaken to qualify as a Competent Person under the ASX Listing Rules. Mr Harvey consents to this release in the form and context in which it appears.

Dr. Neil Pendock

Dr. Neil Pendock is an applied mathematician who built an association with geologists and geophysicists four decades initially for Anglo American and De Beers. More recently his roles have focused on various Australian explorers for a range of commodities and elements.

Dr. Pendock develops his own algorithms and writes his own code, including inverting airborne gravity gradient data to uncover iron ore deposit under dense cover and by unmixing satellite thermal imagery to find copper ore under dense cover

Exploration that has a measure of dense ground or “blanketing” cover remains a focus.

In respect to Uranium exploration, Dr Pendock has developed techniques that use pathfinder elements of helium and hydrogen; These gases escaping from subsurface deposits, via through radioactive decay, percolate to the surface through cracks and fractures in the regolith.

Forward looking statements

This document contains forward looking statements concerning Adavale. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes. Forward looking statements in this document are based on Adavale's beliefs, opinions and estimates of Adavale as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments. Although management believes that the assumptions made by the Company and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. Forward-looking information involves known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, the actual market price of nickel, the actual results of future exploration, changes in project parameters as plans continue to be evaluated, as well as those factors disclosed in the Company's publicly filed documents. Readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws. No representation, warranty or undertaking, express or implied, is given or made by the Company that the occurrence of the events expressed or implied in any forward- looking statements in this presentation will actually occur.

