

# Lithium Mapping and Rock Chip Sampling Program at Carlingup

## Key Highlights:

- Mapping and sampling program to commence in early November by Newexco.
- The quarry and surrounds will be prioritised, including four Lithium-Caesium-Tantalum (LCT) pegmatite target areas. NickelSearch has confirmed spodumene-bearing pegmatites at the quarry, including NSR04389 - **5.19% Li<sub>2</sub>O**, NSR04388 – **4.99% Li<sub>2</sub>O**, NSR04386 – **1.27% Li<sub>2</sub>O**, and NSR04367 – **1.92% Li<sub>2</sub>O**.<sup>1</sup>
- These four priority target areas each extend over 800m strike.
- NickelSearch is collaborating with Allkem Limited (ASX:AKE) to advance lithium exploration on its Carlingup tenements. Allkem is the owner and operator of the Mt Cattlin lithium mine, 10km from NickelSearch's Carlingup Project.

NickelSearch Limited (ASX: NIS) (NickelSearch, NIS or the Company) is pleased to provide an update on progress in assessing the lithium potential at its Carlingup Project (Carlingup) near Ravensthorpe in Western Australia.

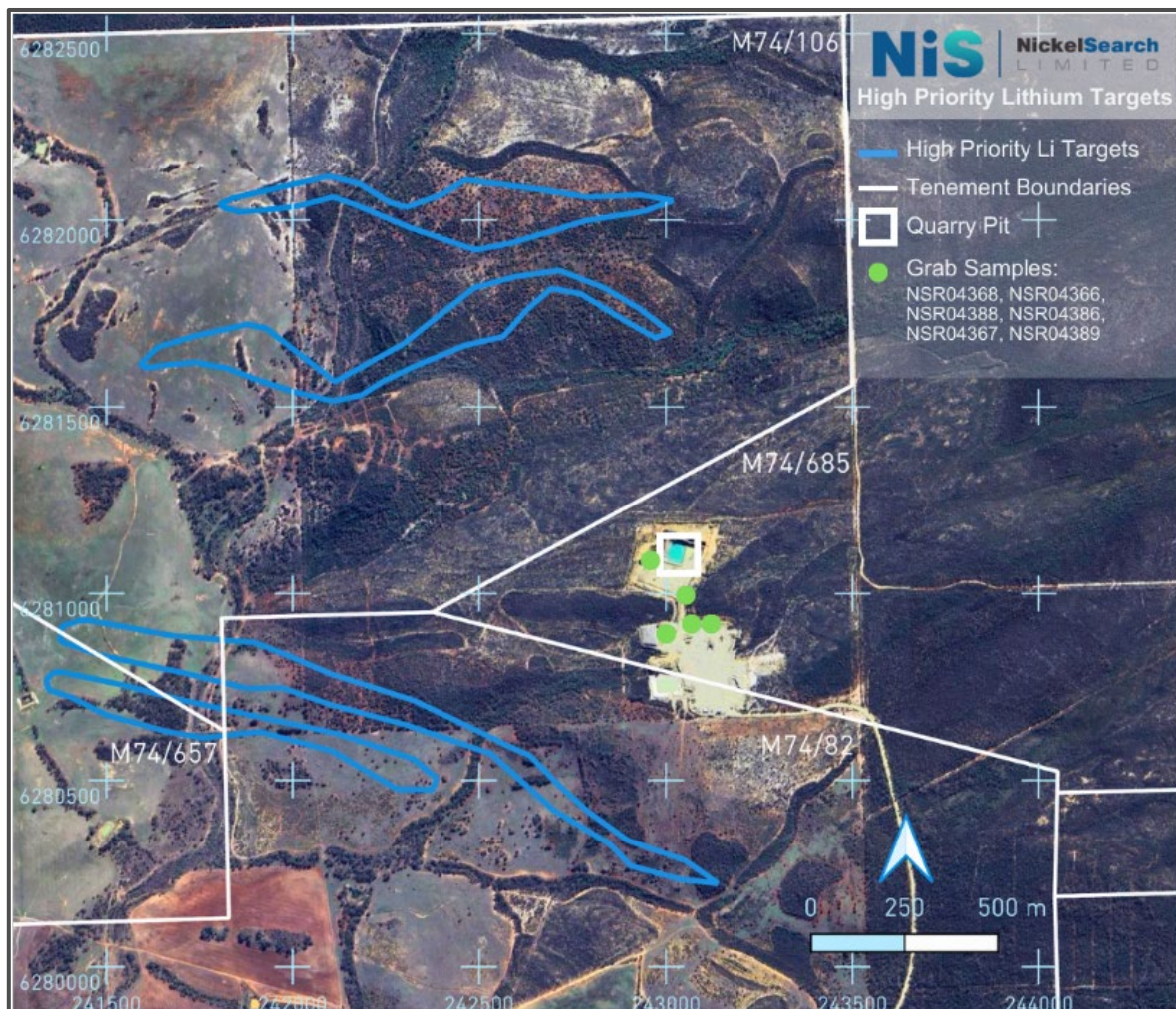
## NickelSearch Managing Director, Nicole Duncan, commented:

*"We are keen to progress our lithium exploration across the targets identified at Carlingup. The next phase of exploration involves the experienced team from Newexco mapping and sampling the initial four priority target areas, plus the quarry area, to support drill planning."*

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<sup>1</sup> NIS ASX Announcement 16 October 2023 - "Assays over 5% Lithium Oxide (Li<sub>2</sub>O) at Carlingup"

## High Priority LCT Targets to be Mapped



**Figure 1:** Carlingup project area showing priority Lithium mapping areas.

In April 2023, NickelSearch highlighted the lithium potential at Carlingup, identified through an independent geochemical review.<sup>2</sup> This review studied the results of ultra-fine fraction soil sampling previously conducted over parts of the Carlingup Trend by the Company (and also soil sampling completed by previous owners) for LCT pegmatite potential.

The four areas identified as anomalous are within NIS tenure located on private land to the northwest and southwest of a quarry site. At this quarry, NickelSearch has confirmed high-grade lithium within spodumene-bearing pegmatites through the sampling and analysis of rocks within the quarry<sup>1</sup>. The grab samples were taken from stockpiles of rock material extracted from the quarry and their original in-situ location within the pit (which is currently flooded) is not known. Assay results confirmed the significant lithium content of some of the quarry pegmatite samples<sup>3</sup>, including:

- NSR04389: **5.19% Li<sub>2</sub>O**, 43 ppm Ta, 37.8 ppm Nb, 71 ppm Sn, 85.4 ppm Cs
- NSR04388: **4.99% Li<sub>2</sub>O**, 89.6 ppm Ta, 20.6 ppm Nb, 95 ppm Sn, 581 ppm Cs
- NSR04386: **1.27% Li<sub>2</sub>O**, 30.8 ppm Ta, 12.6 ppm Nb, 46 ppm Sn, 65.4 ppm Cs

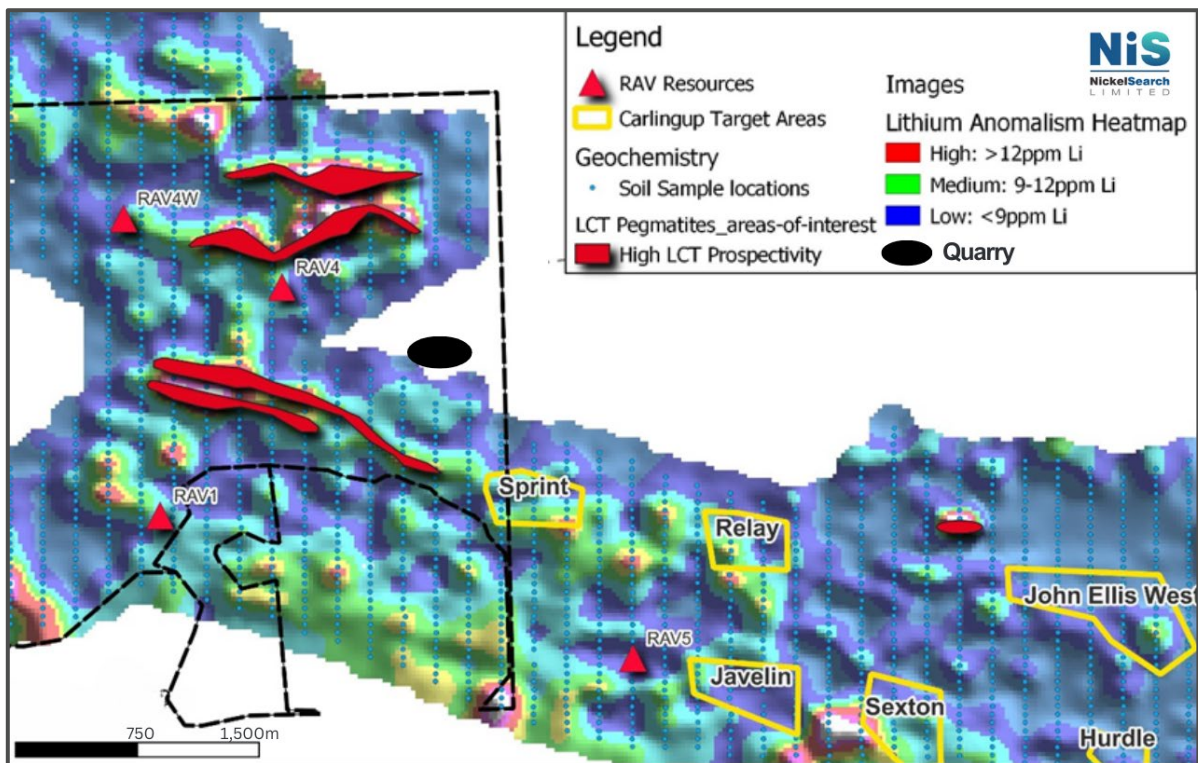
<sup>2</sup> NIS ASX Announcement 5 April 2023 - "Lithium and VHMS Potential Identified at Carlingup"

<sup>3</sup> NIS ASX Announcement 16 October 2023 - "Assays over 5% Lithium Oxide (Li<sub>2</sub>O) at Carlingup"

- NSR04367\*: **1.92% Li<sub>2</sub>O**, 242 ppm Ta, 280 ppm Nb, 52 ppm Sn, 44.1 ppm Cs  
*\*(field repeat sample of same material as NSR04389)*

NickelSearch accessed the private land under a permit issued by a WA Mining Warden that allowed NIS personnel to conduct reconnaissance geological work on the four areas identified as anomalous. Pegmatite outcrops were observed within all four high-priority areas identified in the geochemical review. Each of these areas has an interpreted strike length of over 800m.

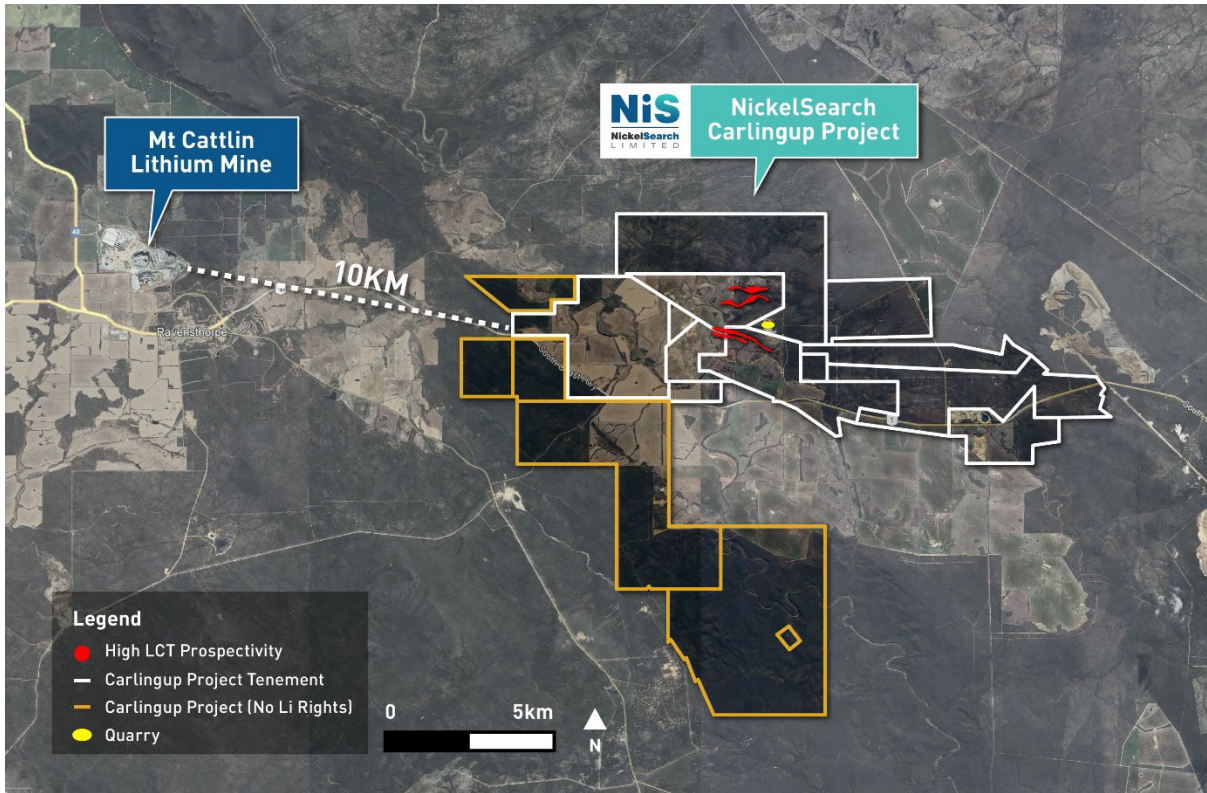
In November 2023, Newexco geologists (with Ian Pryor to start the work) will undertake a mapping and sampling program of the four priority target areas, plus the immediate surrounds of the quarry, in conjunction with NIS field staff and Allkem geologists.



**Figure 2:** Priority lithium target areas (derived from coincident Li, Cs, Nb, Be anomalous soils) shown in red, overlying a heatmap image of Lithium results. Drilling in area denoted by black dotted outline is subject to the final consent and compensation agreement being executed.

NickelSearch and Allkem have agreed to collaborate on the potential of Carlingup for lithium mineralisation. Allkem is the owner and operator of the Mt Cattlin Lithium Mine in Ravensthorpe, located just 10km away from Carlingup (see Figure 3). Mt Cattlin lithium operations produced 131kt of spodumene concentrate in FY2023. Allkem has announced a 4-5 year mine life extension via open-pit methods and has commenced studies for an underground mining option. Allkem has also flagged latent capacity at Mt Cattlin to potentially toll-treat third party product.<sup>4</sup>

<sup>4</sup> Allkem Limited 9 August 2023 Diggers & Dealers Presentation “Creating a Leading Global Lithium Chemicals Company”



*Figure 3: Map of Ravensthorpe area showing Allkem's Mt Cattlin and NIS' Carlingup.*

## Next Steps

- Geological mapping and sampling will commence in November by Newexco geologists within the areas of the priority geochemical anomalies;
- NIS has obtained a new access permit from the WA Mining Warden to re-enter the quarry and these priority target areas;
- Negotiations for consent and compensation to these areas will continue and require finalisation (as between the parties) before an exploration program that involves ground disturbance (i.e., drilling) can commence;
- NIS is in the process of agreeing next steps regarding access with the operator of the quarry, including the draining of the quarry pit; and
- Regional lithium exploration continues with rock chip sampling, stream sediment sampling and additional soil sampling continuing across the Carlingup tenements.

This announcement has been approved for release by the Board of NickelSearch Limited.

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## Compliance Statement:

The information in this announcement that relates to previously reported exploration results for NickelSearch has been extracted from the Company's announcement dated 16 October 2023 entitled "Assays over 5% Lithium Oxide ( $Li_2O$ ) at Carlingup" which was released to ASX and is available on the Company's website at [www.nickelsearch.com](http://www.nickelsearch.com). NickelSearch Limited confirms that it is not aware of any new information or data that materially affects the information included in the relevant Company announcement.

## About NickelSearch

**NickelSearch Limited [ASX: NIS]** is a dedicated nickel sulphide and lithium spodumene explorer focused on advancing its flagship Carlingup Project in Western Australia.

The Project has an existing mineral resource base totalling 155kt contained nickel and is strategically located in the same greenstone corridor as IGO's Forrestania nickel mining complex, and only 10km from Allkem's Mt Cattlin Lithium Mine.

**Highly Prospective Tenure  
Covering +10km Strike**

**Multiple high priority, drill-ready  
greenfield nickel sulphide targets**

**Proven high grade nickel  
production of 16.1kt Ni at 3.45%**

**Technical collaboration with  
Allkem Limited on lithium  
potential**

### Directors and Management

Mark Connelly  
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Norm Taylor  
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