

# **Quarterly Activities Report**

# FOR THE PERIOD ENDING 31 DECEMBER 2023

# Key Highlights:

- NIS confirmed the presence of lithium through grab sample assays of pegmatites located on NickelSearch's Carlingup Project, with highlights including:
  - o NSR04389 **5.19% Li₂O**, and
  - o NSR04388 4.99% Li<sub>2</sub>O.
- Geochemical and geophysical analysis identified 28 areas of interest for lithium-caesiumtantalum (LCT) pegmatites across the tenement package, in first stage of work program.
- Mapping and sampling program undertaken across five high priority areas of interest.
- Outcropping pegmatites identified at five areas of interest for lithium with infill soil samples submitted to lab for assays.
- Acquisition of five Exploration Licences (ELs) and one Prospecting Licence (PL) expanded the Company's landholding by 87.1 km<sup>2</sup>.
- \$1.2M raised via a Placement to fund the accelerated lithium exploration strategy.
- Funds from option exercises and underwritten shortfall raised a further circa \$2.44M.

**NickelSearch Limited (ASX:NIS)** ("**NickelSearch**" or "the Company") is pleased to present its Quarterly Report for the period 1 October 2023 to 31 December 2023 (the "Quarter").

# **NickelSearch Managing Director Nicole Duncan, commented:**

"It has been an exciting and progressive quarter for NickelSearch, with non-stop lithium exploration activities continuing at our Carlingup Project.

"We were thrilled to have successfully confirmed lithium through grab samples, with an impressive 5.19% Li<sub>2</sub>O grade returned. Mapping and sampling programs progressed across the 28 areas of lithium interest.

"The major strategic acquisition of land tenements exposes NickelSearch to potential lithium exploration success whilst further strengthening our presence in the Ravensthorpe area.

"The capital raise and exercise of options positions NickelSearch as well funded to successfully execute our upcoming exploration programs.

"I am very proud of the NIS team for their exploration efforts and momentum across the quarter. We look forward to providing further exciting information as we continue to uncover Carlingup's lithium potential."







# **Exploration Activities**

Lithium exploration activities progressed during the Quarter across the Company's Carlingup Project near Ravensthorpe in Western Australia (*Figure 1*).



Figure 1: Map of Ravensthorpe area showing Allkem's Mt Cattlin and NIS' Carlingup (includes new tenements acquired during the Quarter and described in this report on page 6)







#### Mapping and Sampling<sup>1,2,3,4</sup>

NickelSearch was pleased to report high-grade lithium within spodumene-bearing pegmatites identified through grab samples from the quarry at the project site (Figure 2), with significant results 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
- 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)

The results demonstrated the presence of a pegmatite system capable of developing lithium spodumene mineralisation, with NickelSearch needing to further determine the scale and extent.



Figure 2: Grap sample NSR04389 from pegmatite containing coarse spodumene. Ruler graduations in centimetres.

During the Quarter, NickelSearch completed a further mapping and sampling program across initial high priority LCT areas of interest. These areas were identified through a previous geochemical review, situated to the northwest and southwest of the quarry site (Figure 3).

The mapping successfully identified outcropping pegmatites at five areas of interest across the Carlingup Project. The identified felsic intrusive dykes supported the hypothesis of being related to the geochemical anomalies, with pegmatite present within a number of dykes.

<sup>&</sup>lt;sup>4</sup> ASX Announcement 21 November 2023 – Outcropping Pegmatites Identified at Carlingup





<sup>&</sup>lt;sup>1</sup> ASX Announcement 16 October 2023 – Assays over 5% Lithium Oxide (Li2O) at Carlingup

<sup>&</sup>lt;sup>2</sup> ASX Announcement 26 October 2023 – Lithium Mapping and Rock Chip Sampling Program at Carlingup

<sup>&</sup>lt;sup>3</sup> ASX Announcement 30 October 2023 – 28 Lithium Areas of Interest Identified Across Carlingup



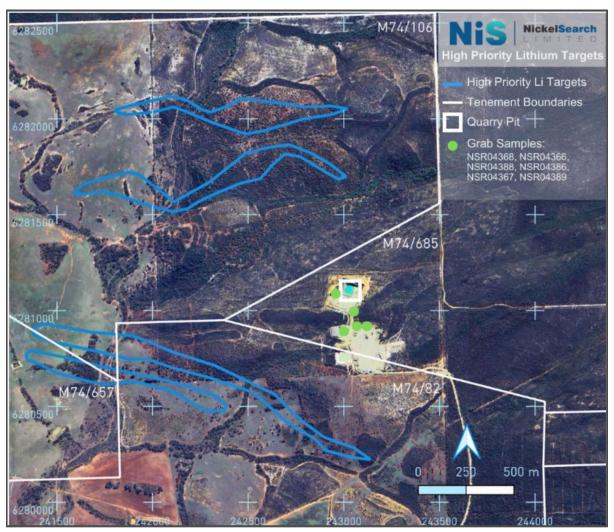


Figure 3: Carlingup project area showing priority Lithium mapping areas.

NickelSearch commenced in-fill soil sampling across the high-priority areas of interest to effectively test the north / north-west trending dykes, with samples sent for assay.

A first pass soil sampling programme was completed at the areas surrounding the quarry, with samples submitted for priority assay (Figure 4). Partial assay results<sup>5</sup> on the soil sampling have been received post Quarter end with the geochemical anomalism in the soils dataset being most evident for lithium, with a peak value of approximately 3.8x average background and for Tantalum with of about 3.5x background. Caesium and tin both show peak values of about 2.3 – 2.4x average background. The tight spatial association of anomalous Li-Cs-Tn-Sn samples is encouraging as this is indicative of co-accumulation of these elements (i.e. mineralisation) in a LCT pegmatite system. Further analysis and assay results from rock chip samples and in-fill soil sampling over the four high-priority areas of geochemical interest surrounding the Quarry to the north, west and south is continuing.

A stream sediment sampling program also commenced to test the area to the east and southeast of the quarry.

<sup>&</sup>lt;sup>5</sup> ASX Announcement 15 January 2024 - LCT Pegmatite Anomalies Identified In Proximity to Quarry







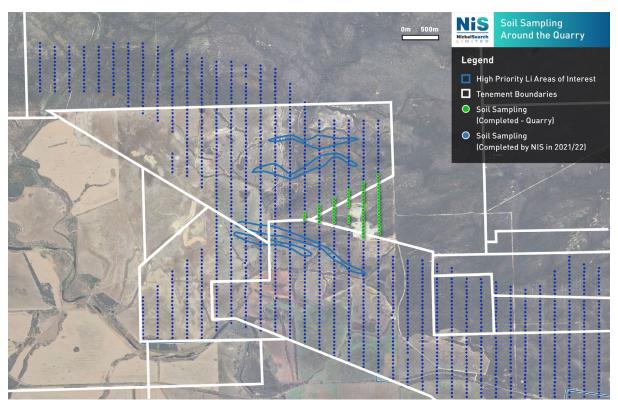


Figure 4: Location of soil sampling completed at the quarry (green dots).

## **Lithium Targets Identified**

A previous lithium geochemical review of the Carlingup project site identified 22 areas of interest, whilst further review and targeting work across the Quarter added a further 6 areas, increasing the total to 28 areas of exploration interest. Further regional lithium exploration continues with additional work programs across these identified areas. (*Figure 5*).

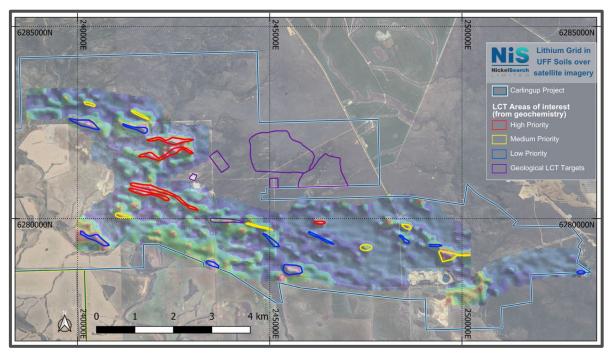


Figure 5: Lithium areas of interest: ultra-fine soil samples over satellite imagery.







## Tenement Acquisition<sup>6</sup>

During the Quarter, NickelSearch announced the acquisition of five Exploration Licences (E74/719, E74/744, E74/743, E74/762, E74/777) and one Prospecting Licence (P74/387), adding an additional 87.1km<sup>2</sup> of landholding prospective for lithium to the Company's Ravensthorpe tenement portfolio (Figure 6). NickelSearch now holds 194.5km<sup>2</sup> of landholding, of which 148.7 km<sup>2</sup> is for all mineral rights including lithium, and the remaining 45.8 km<sup>2</sup> is for nickel rights only.

The new tenements are in proximity to NickelSearch's flagship Carlingup Project and the Mt Cattlin lithium mine owned by Allkem Limited now called Arcadium Lithium Limited [ASX: LTM]. The new landholding contains a continuation of structures northeast of the Mt Cattlin Mine and nearby to tenements held by Bulletin Resources Ltd [ASX: BNR], enhancing the potential of the lithium target pipeline.

Desktop analysis and planning is underway to inform the planning needed to accelerate lithium exploration programs at the newly acquired tenements.

# Corporate

#### \$1.2M Capital Raise

During the Quarter, NickelSearch received firm commitments for a share placement to raise \$1.20 million at \$0.045 per share (Placement), representing a 19.6% discount to the Company's share price at that time. The Placement was strongly supported by existing shareholders including several high-net-worth investors, domestic and international institutional investors.

The funds are being directed to support the acceleration of lithium exploration efforts, which is further advancing the Company's understanding of Carlingup's lithium potential.

#### Option Exercise and Underwriting<sup>7</sup>

NickelSearch received exercise notices from the holders of 32,752,172 options and Discovery Capital Pty Ltd agreed to underwrite the shortfall, being 1,632,761 options, at a price of \$0.07 to raise approximately \$2.43M in total in new lithium exploration funding.

#### Changes in Company Board<sup>8,9</sup>

During the Quarter, and further to Medallion Metals Limited's reduction in substantial shareholding below 10%. Paul Bennett resigned as a Non-Executive Director from the NickelSearch board. Norm Taylor also resigned as a Non-Executive Director but remains as a Special Advisor to the Board and continues to oversee critical Ravensthorpe stakeholder negotiations.

#### **Securities Information**

As at 31 December 2023, the Company had approximately 214 million ordinary fully paid shares on issue and 85 million unquoted options granted at various vesting and expiration dates.

<sup>&</sup>lt;sup>9</sup> ASX Announcement 24 November 2023 – Resignation of Non Executive Director





<sup>&</sup>lt;sup>6</sup> ASX Announcement 12 December 2023 – Major Strategic Acquisition of Mt Cattlin Lithium Tenements

<sup>&</sup>lt;sup>7</sup> ASX Announcement 27 November 2023 – Early Option and Underwriting

<sup>&</sup>lt;sup>8</sup> ASX Announcement 20 October 2023 – Resignation of Non Executive Director



#### **Financial**

As at 31 December 2023, NickelSearch held approximately \$3.5 million in cash.

The Company's cash movements during the Quarter can be found in the Company's Appendix 5B. Additional ASX Listing Rule disclosure matters are also detailed in Appendix 1 attached.

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

**Enquiries:** 

Nicole Duncan Managing Director NickelSearch Limited information@nickelsearch.com

**Broker & Media Enquiries:** Fiona Marshall, Senior Communications Advisor White Noise Communications T: 0400 512 109

# **Competent Persons Statement**

#### **Mineral Resource Estimate**

The information contained within this announcement on the Nickel Sulphide Resources at Carlingup is extracted from the ASX announcement titled "Significant Upgrade of Nickel Sulphide Indicated Resources" released 30 March 2023, which is available to view www.nickelsearch.com. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the Resource estimates in the market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

#### **Exploration and Targeting**

The information in this release that relates to previously reported exploration results for NickelSearch are extracted from the ASX Announcements listed in footnotes to this release, which are also available on the Company's website at www.nickelsearch.com and the ASX website www.asx.com under the code NIS. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the results and estimates in the market announcements continue to apply and have not materially changed.







#### APPENDIX 1 - ADDITIONAL ASX LISTING RULE DISCLOSURES

**ASX Listing Rule 5.3.1**, the Company advises that payments for exploration, evaluation and development during the Quarter totalled approximately \$540,000. Material developments, changes in exploration activities and details of exploration activities undertaken during the Quarter are described above and in this section.

**ASX Listing Rule 5.3.2**, the Company confirms there were no mining production and development activities undertaken during the Quarter.

**ASX Listing Rule 5.3.5**, the Company confirms payment to Directors of NickelSearch during the Quarter totalled approximately \$110,000. The payments were in respect of Directors salaries, fees and superannuation.

## **Tenement Summary**

The following information is provided pursuant to ASX Listing Rule 5.3.3 for the Quarter.

Tenement	Location	Nature of	Interest at	Interest at
		Interest	beginning of	end of the
			Quarter	Quarter
RAV1, RAV4, RAV4 West (i)				
M74/82	Carlingup Project (WA)	Granted	100%	100%
M74/84	Carlingup Project (WA)	Granted	100%	100%
M74/106	Carlingup Project (WA)	Granted	100%	100%
RAV8 (i)				
M74/13	Carlingup Project (WA)	Granted	100%	100%
John Ellis (ii)			T	
M74/107	Carlingup Project (WA)	Granted	100%	100%
M74/85	Carlingup Project (WA)	Granted	100%	100%
M74/104	Carlingup Project (WA)	Granted	100%	100%
Other (i)			T	
E74/657	Carlingup Project (WA)	Granted	100%	100%
E74/675	Carlingup Project (WA)	Granted	100%	100%
E74/685	Carlingup Project (WA)	Granted	100%	100%
E74/719	Carlingup Project (WA)	Granted	0%	100%
E74/744	Carlingup Project (WA)	Granted	0%	100%
E74/743	Carlingup Project (WA)	Granted	0%	100%
E74/762	Carlingup Project (WA)	Granted	0%	100%
P74/387	Carlingup Project (WA)	Granted	0%	100%
Mineral Rights To	enements (iii)			
M74/83	Carlingup Project (WA)	Granted	See note(iii) below	0%
E74/602	Carlingup Project (WA)	Granted	See note(iii) below	0%
E74/638	Carlingup Project (WA)	Granted	See note(iii) below	0%
E74/656	Carlingup Project (WA)	Granted	See note(iii) below	0%
E74/683	Carlingup Project (WA)	Granted	See note(iii) below	0%





# **Notes to Tenement Summary Schedule**

- (i) The RAV1, RAV4, RAV4 West, RAV8 and Other tenements are all held by the Company's wholly owned subsidiary AML (Ravensthorpe) Pty Ltd. The Mineral Rights (see note (iii) below) are also being exercised by AML (Ravensthorpe) Pty Ltd.
- (ii) The John Ellis tenement package is all held by the Company's wholly owned subsidiary Phanerozoic Energy Pty Ltd.
- (iii) The Company (via its wholly owned subsidiary, AML (Ravensthorpe) Pty Ltd) secured an exclusive sub licence from MM8 to explore for and mine nickel, cobalt and platinum element group metals (being platinum, palladium, ruthenium, rhodium, osmium, and iridium) on all these tenements pursuant to a Mineral Rights Deed. Details of the Mineral Rights Deed are disclosed in the Prospectus.
- (iv) The Company did not enter into any farm-in or farm-out agreements during the Quarter.
- (v) The Company did not dispose of any tenements during the Quarter.

# **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% Ni

Technical collaboration with Allkem Limited on lithium potential