NIS | NickelSearch

25 May 2023

Cross Release: MM8

NICKEL SULPHIDES INTERSECTED AT B1

KEY HIGHLIGHTS:

- Initial Reverse Circulation (RC) drilling at B1 (7 holes) and Serendipity (3 holes) completed at the Carlingup Nickel Project.
- Drilling at B1 has confirmed and extended the area of known historical nickel sulphide intercepts with sulphidic komatiites and cumulate ultramafics logged, and assay results eagerly awaited.
- The results validate the continuation of mineralisation from historic intercepts at B1, which include:
 - DDHB1001 9.1m @ 0.7% Ni, 0.1% Cu from 19.8m,
 - $\circ~$ DDHB1001 4.6m @ 0.8% Ni, 0.1% Cu from 35.0m,
 - \circ $\;$ RAVC0162 7.0m @ 1.0% Ni, 0.09% Cu from 157.0m, and
 - o DDHB1010 6.1m @ 1.0% Ni, 0.08% Cu from 192.6m.
- In addition to Sexton, B1 is now the second regional prospect at Carlingup to deliver nickel sulphide intersections that warrant immediate follow up. This aligns with NickelSearch's strategy to identify high grade nickel sulphides to complement the existing shallow, large-scale nickel sulphide resource base at Carlingup (11.6Mt @ 0.56% Ni for 65kt contained nickel).
- Drilling at Serendipity targeted geochemical areas of interest and identified very thick intervals of nickel host rock cumulate ultramafic these drillholes will be surveyed using downhole electromagnetics (DHEM).
- RC drilling is now occurring at RAV8 and then Sexton to drill pre-collars for diamond drilling in early June, targeting extensions of high-grade mineralisation at RAV8 based on DHEM plates, and the very strong down-plunge conductor at Sexton.

NickelSearch Limited (ASX: NIS) (NIS or Company) is pleased to advise that drilling at its high priority target, B1, has confirmed and extended nickel mineralisation at the Company's Carlingup Nickel Sulphide Project (Carlingup) near Ravensthorpe, Western Australia.

NickelSearch's Managing Director, Nicole Duncan, commented:

"We have intersected visual nickel sulphide mineralisation and expanded the extent of the nickel mineralisation at B1. The historical drilling intersected nickel sulphides at over 1% nickel (see Figure 2) so we are happy to be improving our understanding of the geology and architecture. We know we are in the right setting for nickel sulphides and are keen to follow up with diamond drilling in early June. These are fantastic results for NickelSearch's maiden drilling at B1 and Serendipity!"

The Company completed 10 RC drill holes for 1,564m across two high priority target areas of B1 and Serendipity (see Figure 1). At B1, NIS drilled seven holes for a total of 1108m with the aim of validating and extending nickel mineralisation (grading >1% Ni over multiple metres) identified by historical drilling. Figure 2 outlines the historical intersections and shows the collar locations of the drilled holes from this program, for which assays are eagerly anticipated. Figure 3 is a cross-section of relevant intersections, while Figures 4-6 illustrate the visual nickel sulphides in the rock chip samples from those recent drill holes.

The mineralisation appears to form a shoot on a predictable planar surface, dipping very steeply to the southwest. The mineralisation occurs as disseminated sulphides in altered cumulate ultramafics. DHEM of selected holes is planned to locate conductors that may indicate the presence of matrix or massive sulphides. The results of the DHEM will allow an improved understanding of the direction of the mineralisation.





Figure 1: Location of B1 and Serendipity, in the Carlingup Range, within the Company's tenement package.









Figure 3: Cross section of relevant intersections at B1, showing historical drilling, recent NIS drilling and planned drilling (subject to DHEM results)





Figure 4: Visually logged chips 109m-113m in 23NRC021 showing abundant disseminated nickel sulphides (brown colouration is due to the sulphides oxidizing) *



Figure 5: Visually logged chips 109m-110m in 23NRC021 showing abundant disseminated nickel sulphides*





Figure 6: Visually logged chips 51m-55m in 23NRC019 showing abundant disseminated nickel sulphides (brown colouration is due to the sulphides oxidizing) *

* Certain information in this announcement contains references to visual results. The Company draws attention to the inherent uncertainty in reporting visual results.

Further afield, the B1 mineralised horizon appears to stretch for some distance, particularly to the southeast where weak mineralisation is observed on the contact hundreds of metres along strike. This suggests that the fertile flow is extensive, and the location of a further shoot (or channel) on this horizon where sulphides can accumulate may yield further exploration targets.

At Serendipity, NIS drilled 3 holes for a total of 456m to test the ultrafine soil sampling anomalies (see Figure 7). The holes intersected very thick flows of cumulate ultramafic (between 50 and 60m thick) in holes 23NRC015 and 23NRC016. The cumulate ultramafic was the prime target for the drilling, and DHEM will now be completed as a critical next step to identify off-hole conductors for nickel sulphides. The drill hole samples from B1 and Serendipity are with the laboratory for assay.





Figure 7: Plan view at Serendipity showing NIS drilling, geology and results from ultrafine soil sampling

NEXT STEPS

This RC program also drilled a recently developed RAV8 South target, identified from historical geochemical test results gathered prior to mining at RAV8. DHEM will now be completed there to assist targeting new massive sulphide pods. The RC rig is now drilling a pre-collar at RAV8 South, then will move to Sexton to drill two pre-collars, prior to diamond drilling that will commence in early June 2023.

The planned diamond hole at RAV8 South will test for down plunge extensions to the deposit. The diamond drilling at Sexton is following up massive sulphides intersected earlier in the year that contain significant nickel mineralisation, with DHEM surveys showing that the mineralisation extends down-plunge and remains open (see NIS Announcement 14 March 2023).

LOGGING RESULTS

Table 1: Significant visual logging results from recent drilling at B1

	From	То	
Hole ID	(metres)	(metres)	Comments
23NRC019	49	55	Talc carbonate altered cumulate komatiite with 0.5-1% pyrite>pyrrhotite coarse grained disseminations
23NRC020	111	123	Carbonate chlorite cumulate komatiite with abundant pyrite and fine pyrrhotite up to 1% sulphides
23NRC021	109	116	Talc carbonate altered cumulate komatiite with 0.5-10% pyrrhotite>pyrite coarse grained disseminations, rare thin sulphide stringers in places.
23NRC022	69	71	Carbonate chlorite cumulate komatiite with abundant pyrrhotite>pyrite disseminations up to 5% sulphides
23NRC023	189	190	Serpentinised cumulate komatiite with disseminated, pyrrhotite>pyrite> chalcopyrite up to 5% sulphides
23NRC024	220	221	Carbonate chlorite altered komatiite with patchy hematite, 5% disseminated pyrite> pyrrhotite

Note: Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

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

Nicole Duncan Managing Director NickelSearch Limited information@nickelsearch.com

COMPETENT PERSON STATEMENT:

The information contained within this announcement on the historic massive sulphide intersection at Sexton is extracted from the announcement titled "Multiple Exploration Targets Prioritised" released 16 May 2022, which is available to view on 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 announcement. 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.

The information in this announcement that relates to exploration targeting and results is based on, and fairly represents, information compiled and reviewed by Nicholas S Walker, who is a consultant to NickelSearch, and is a Member of The Australian Institute of Geoscientists. Mr Walker has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify 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 2012). Mr Walker consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

FORWARD-LOOKING STATEMENTS:

This announcement contains certain forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate"," continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward-looking statements. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of NickelSearch's exploration activities.

CAUTIONARY STATEMENT:

Certain information in this announcement may contain references to visual results. The Company draws attention to the inherent uncertainty in reporting visual results.

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About NickelSearch

NickelSearch Limited (ASX code: NIS) is a dedicated WA nickel sulphide explorer focused on advancing its flagship Carlingup Nickel Project.

The Project has an existing resource base totalling 155kt contained nickel and is strategically located in the same greenstone corridor as IGO's Forrestania nickel mining complex, and adjacent to First Quantum Minerals' Ravensthorpe Nickel Operation.

Directors & Management

Nicole Duncan Managing Director

Mark Connelly Non-Executive Chair

Paul Bennett Non-Executive Director

Lynda Burnett Non-Executive Director

Norm Taylor Non-Executive Director

NickelSearch ACN 110 599 650

Projects Carlingup Nickel Project (100%)

Shares on Issue

104,264,018

Options 13,250,817

ASX Code

Highly prospective tenure covering +10km strike



Multiple high priority, drill-ready resource extension targets



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



Significant, shallow resource base open in most directions

Strategically positioned next to major nickel mining & processing hubs



Appendix 1: Collar details

Hole number	Hole Type	Target depth	Actual Depth	Northing	Easting	Elevation	Prospect	Azimuth	Dip
23NRC015	RC	100	142	6281854	237099	165	Serendipity	30	-60
23NRC016	RC	150	148	6281769	237411	173	Serendipity	30	-60
23NRC017	RC	200	166	6281691	237460	168	Serendipity	30	-65
23NRC018	RC	80	94	6281906	236006	177	B1	30	-60
23NRC019	RC	70	70	6281927	235986	176	B1	35	-60
23NRC020	RC	150	148	6281881	235975	178	B1	42	-60
23NRC021	RC	120	214	6281895	235964	180	B1	30	-62
23NRC022	RC	120	118	6281927	235946	175	B1	42	-60
23NRC023	RC	200	214	6281895	235894	175	B1	35	-80
23NRC024	RC	250	250	6281867	235879	174.5	B1	42	-70



Appendix 2: JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 RC Drilling with samples composited by cone splitter for each metre and collected in calico bags. Each 1m was visually logged, plus field elemental analysis was completed by handheld pXRF and magsus metres. Sampling procedures adopted by NickelSearch use a 1m composite 3-5 kg cone split sample collected in calico bags for dispatch to the sample laboratory. Sample preparation was in 3-5kg pulverizing mills, followed by sample splitting to a 200g pulp which will then be further split to 30g samples for analysis by Intertek Perth using methods 4A/MSA48 for sample digest followed and FA25/MS for fire assay where applicable.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	 RC rig contracted from Strike Drilling with additional auxiliary booster and compressor for deeper drilling or when water present. Water produced from outside returns and cone splitter were capture in above ground Enviropod for offsite disposal.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	Recoveries for all sampling methods are recorded by the geologist during the drill program. No recovery issues were identified during the drill program within mineralised intervals. Sample representation is considered to be adequate for the reporting of Exploration Results
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	 Detailed geological logs were recorded by the geologist for the entire length of all holes. The lithological logs are considered to be adequate for the reporting of Exploration Results. These logs are qualitative in nature. Chip trays are photographed after drilling and retained to compare against logs and assays.

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APPENDIX



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	 The total length and percentage of the relevant intersections logged. If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material basic 	 The whole hole is logged (100%) 1 metre representative composite samples are selected for assay that were sampled with a cone splitter attached to the rig. Samples are collected dry where possible, but wet in fibrous material. Each calico bag weighs between 3 and 5kgs. Standards, blanks and duplicates are inserted at 20m intervals. The sample size is considered to be appropriate for the style of lithologies and mineralisation expected.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 4 Acid digest is considered the appropriate assay technique as it allows for the full digest of sulphide and silicate nickel. pXRF devices are calibrated daily against the manufacturer provided calibration materials. NickelSearch Ltd uses the Niton XL5 Analyzer. Standards and blank materials were purchased from OREAS, and the accompanying certificates held on file.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Verification drilling has not been conducted. Duplicate samples were taken at regular intervals and will be checked for consistency when assays become available.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 Collar locations were surveyed by handheld GPS with downhole surveys every 30m. Grid used is GDA 94/MGA Zone 51. Collar locations are picked up by DGPS at the end of the program.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. 	 Not applicable for this announcement.

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Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	 Whether sample compositing has been applied. Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	• Drilling was conducted at an azimuth and dip that is assumed to give good intercept angles to surface mapping dip and dip direction. This will be modified as dip and plunge become more apparent.
Sample security	 The measures taken to ensure sample security. 	 Samples are collected by Nickelsearch at the end of each hole and stored at the field office. They are then dispatched by the freight company to the laboratory, who confirms their arrival and checks received samples.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 Audits and reviews have not been undertaken at this stage.



Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The Carlingup Project, located 20km east of Ravensthorpe comprises 8 MLs, 7 ELs covering 108 sq km (All rights -ML74/013, M74/085, M74/107, M74/104, M74/082, M74/084, M74/106, E74/685, E74/657, E74/675; nickel only rights M74/083, E74/656, E74/602/ E74/683, E74/638). The project tenements are in good standing and no known impediments exist. The tenements are 100% owned by NickelSearch.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	 Several generations of drilling and exploration have been carried out in the project area. These are detailed in the NiS Prospectus published in October 2021.
Geology	• Deposit type, geological setting, and style of mineralisation.	 Nickel Sulphide occurrences identified to date are associated with the Bandalup Ultramafic on the northern limb of the Maydon Syncline. They occur typically as disseminated sulphides, however narrow lenses of massive to semi-massive sulphide have been located near the basal contact of the ultramafic, but are poorly exposed.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	 Summary tables of drill hole information are included in the announcement as Appendix 1.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the 	Not applicable for this announcement.

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Criteria	JORC Code explanation	Commentary
	 procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 At this early stage of exploration, the true widths are not known. All intersections are reported as down hole lengths.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Appropriate diagrams for the release have been included within the main body of the release
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 This is a report on the completion of drilling activities. No grades have been reported in this release
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 Geophysical data in the form of will be collected later in the program. It will be released when available. Samples were sent to Intertek laboratory for analysis. Results will be released to the market when available.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Further work in the Carlingup area was mentioned in general terms. Decisions will not be made around the nature of that work until results and additional permits are received.