MINERALS

Excellence in Exploration

**ASX Code: IPT** 

# **ASX ANNOUNCEMENT**

Date: 22 April 2022

# NEW PROJECT FOR BATTERY AND STRATEGIC METALS IN WA AND HOPETOUN DRILL PROGRAMME UPDATE

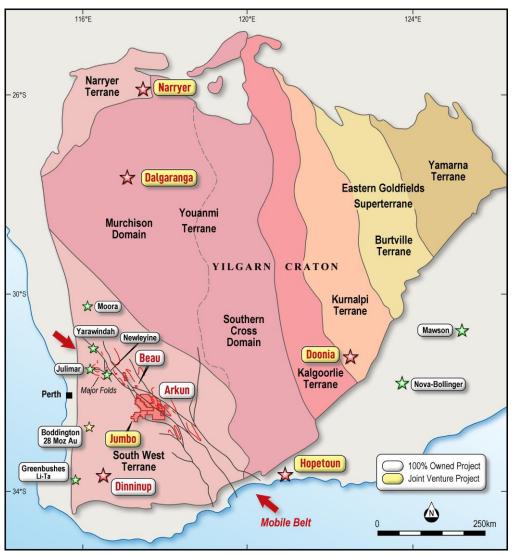
- The Dinninup project covers 485 sq km, is located 60 km east of the world-class Greenbushes lithium-tantalum mine and has had no previous exploration except for bauxite.
- Project acquired for \$20,000 cash and 3 million options exercisable at 2.4 cents.
- High-priority targets for nickel-copper-Platinum Group Elements (PGM) (3), lithium-caesium-tantalum (LCT) pegmatites (2) and Rare Earth Elements (REE) (4) have been identified in a first-pass soil geochemistry survey that tested geophysical targets.
- Soil anomalies for all metal groups occur over significant areas of at least several hundred metres along the limited soil geochemistry traverse. Further anomalies are expected with more comprehensive coverage of the project area.
- Very high success rate of anomaly identification validates Impact's targeting methodology.
- Dinninup, together with the flagship Arkun and Jumbo projects, forms the core of Impact's battery and strategic metals portfolio in WA and the combined projects cover 2,720 sq km of the emerging mineral province of SW Western Australia.
- Follow-up work including field checking and rock chip sampling will commence this Quarter in concert with on-ground work at Arkun, where Land Access Negotiations are ongoing.
- First drill hole at the Silverstar copper-gold-silver prospect at the Hopetoun project intersects a 25 metre thick shear zone with high temperature alteration minerals and minor disseminate sulphides in places together with a 30 cm wide spodumene-bearing pegmatite.
- An extra hole to test the structure up dip will be commenced late next week.

Impact Minerals Limited (ASX:IPT) is pleased to announce that it has acquired a new project prospective for a range of battery and strategic metals located 60 km east of the world-class Greenbushes lithium-tantalum mine (owned by Talison-Lithium Pty Ltd) in the emerging mineral province of south west Western Australia (Figure 1).

Impact Minerals' Managing Director Dr Mike Jones said "The Dinninup Project adds further significant value to our early project portfolio in south west Western Australia. Once again, our initial soil geochemistry results indicate untapped potential for a range of battery and strategic metals in this part of the state in an area where there has only been previous exploration for bauxite. The strong lithium anomalies are particularly exciting given our proximity to the world-class Greenbushes mine just 60 kilometres to the east and with similar geology. Together with our flagship Arkun-Jumbo project Impact has identified a significant number of areas for follow up work in the region and we are continuing to negotiate land access agreements to gain access to the priority targets.



"We are also encouraged by our initial drill hole at the Silverstar prospect at the Hopetoun joint venture project. The 25 metre thick shear zone contains significant high-temperature alteration minerals with minor sulphide and, although we were not looking for it, a narrow zone of quartz-tourmaline pegmatite with spodumene crystals. Following our recent announcement of spodumene-bearing veins at the Kalahari prospect the discovery of spodumene at Silverstar several kilometrs away attests to the prevalence of lithium in this area. A second hole will commence in about a week to test the structure closer to surface. In the meantime the core will be logged, cut and sent for assay with results expected in early June. It is a very busy time for Impact" Dr Jones said.

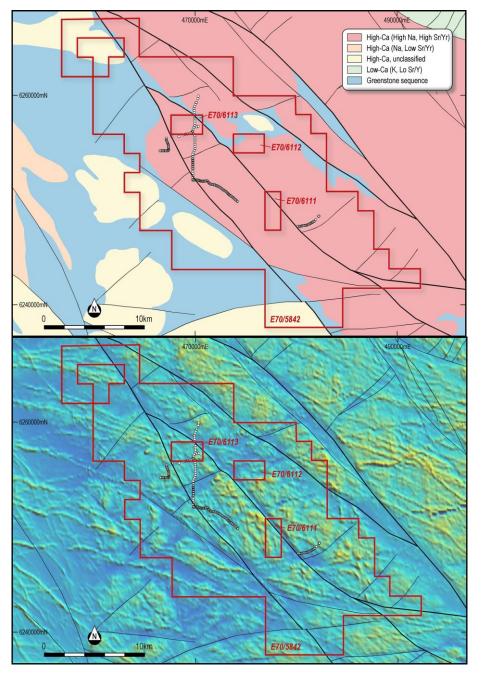


**Figure 1.** Location and regional geology of the Jumbo and Arkun Projects, and showing key nickel-copper-PGE deposits and recent discoveries.

The Dinninup Project comprises 4 exploration licences covering about 485 square kilometres (E70/5842, E70/6111, E70/6112 and E70/6113). These are underlain by a variety of Archaean-aged granites and high-grade metamorphic rocks including gneisses (Figure 2). The area is cross-cut by numerous, mostly northwest trending faults and shear zones, as well as younger west-northwest trending Proterozoic dykes (Figure 2).



The project was brought to Impact's attention by an unrelated private group (Fiddler's Creek Mining Company Pty Ltd). As consideration for a 100% interest in the project, Impact has paid \$20,000 cash to the vendor, and will issue 3 million unlisted options exercisable at 2.4 cents with a three year term. The options will be issued under the Company's available placement capacity pursuant to Listing Rule 7.1.



**Figure 2.** Geology of (top) and magnetic data (bottom) for the Dinninup Project showing major structures and the location of the soil geochemistry traverses.



As part of the due diligence process, Impact utilised in-house geophysical data to identify a number of areas of interest for follow up and which were close to a major access road that traverses the project area. Soil geochemistry samples were taken mostly at about 100 metre spacings at the side of the road over a distance of about 20 kilometres (Figure 2). This length of traverse has allowed samples to be taken in areas of "background" in order to establish the relative anomalism of the various metals in the target above background.

#### SOIL GEOCHEMISTRY RESULTS

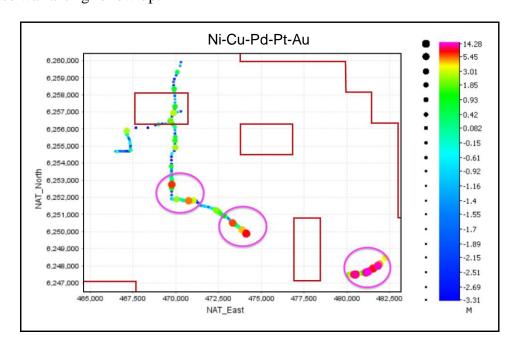
The results of the soil geochemistry survey are presented as additive Z scores in Figures 3, 4 and 5. The priority targets are also shown on an image of regional magnetic data in Figure 6. Maximum and minimum values for each of the relevant metals for Dinninup are given for reference in Table 1.

New targets have been identified at Dinninup as follows:

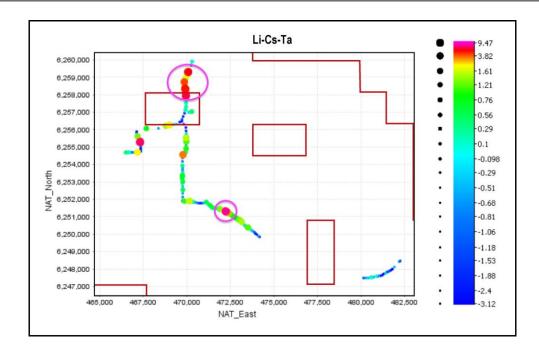
**Nickel-copper-Platinum Group Elements-Gold** (Figure 3): three new priority targets identified. The easternmost target has a significant response and which covers an area of several hundred metres across trend. This anomaly is coincident with a series of Proterozoic dykes which may be a potential host for this style of mineralisation.

**Lithium-caesium-tantalum** (Figure 4): two new priority targets identified with one area covering at least several hundred metres.

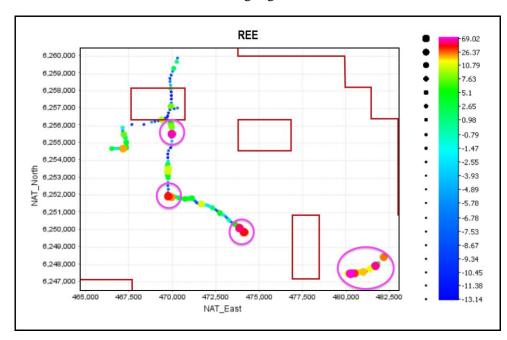
**Rare Earth Elements** (Figure 5): four new priority targets identified with numerous other lower priority areas also warranting follow-up.



**Figure 3.** Additive Z scores for Ni-Cu-Pd-Pt-Au across the Dinninup project area. Three priority areas for follow-up work are highlighted.



**Figure 4.** Additive Z scores for Li-Cs-Ta across the Dinninup project area. Two priority areas for follow up work are highlighted.



**Figure 5.** Additive Z scores for all REE across the Dinninup project area. Four priority areas for follow up work are highlighted. Note that there are several other areas with strong responses which will also require follow-up



#### 3. NEXT STEPS

The results of Impact's first ever soil geochemistry programme at Dinninup, as at the Company's other projects in the region, Arkun and Jumbo, has outlined a number of areas for follow-up work for nickel-copper-PGM mineralisation, LCT pegmatites and REE. These results further confirm the prospectivity of this poorly explored part of the emerging mineral province of south west Western Australia.

First pass follow-up field checking and sampling will commence in May, with the aim of prioritising areas for more detailed soil geochemistry and ground geophysics that will extend away from the roads and into the surrounding paddocks. This work will dovetail with continuing on-ground follow-up work at Arkun and Jumbo.

In order to explore in the paddocks, land access agreements will be required with the relevant land owners and this process has been initiated. Land access negotiations are also ongoing at Arkun with a view to on-ground work later this Quarter.

## **About the Soil Geochemistry Survey**

The soil samples were submitted to ALS in Perth for analysis by the ionic leach method. This method is a so-called "partial digest" technique that uses very dilute chemical solutions that only extract weakly bound ions from the sample for analysis.

Many case studies have shown that partial digests tend to give better discrimination of soil geochemical anomalies over background values. However the weak nature of the chemical solutions used, means that the **absolute** values of metals returned in the analysis are much lower than those returned from more aggressive digestion techniques such as aqua regia and four acid digests. It is the background-to-anomaly ratio that is the critical factor to consider.

**Table 1**: shows the minimum and maximum absolute assay values for the metals reported here for reference.

Metals	Au_ppb	Ni_ppm	Cu_ppm	Pt_ppb	Pd_ppb	Li_ppm	Cs_ppm	Ta_ppm	Rb_ppm	La_ppm	Ce_ppb
Minimum	0.02	0.025	0.038	0.1	0.05	0.0002	0.0008	0.00005	0.0573	0.0199	66.3
Maximum	1	0.199	1.945	0.1	0.79	0.0197	0.0219	0.00032	1.09	1.425	3560
Metals	Nd_ppb	Sm_ppb	Eu_ppb	Ga_ppb	Tb_ppb	Dy_ppb	Er_ppb	Ho_ppb	Tm_ppb	Yb_ppb	Lu_ppb
Minimum	36.9	7	1.7	0.9	0.3	1.7	1	0.3	0.1	1.1	0.2
Maximum	2500	619	175	37.7	80.8	510	266	93.2	30.1	182.5	21.8

#### **About Z Scores**

Z scores are a standard statistical calculation of the number of standard deviations a raw data (assay) value is from the mean of the data. For example a Z score of 2 indicates a value 2 standard deviations above the mean. The higher the Z score, the more anomalous the data point is with respect to the dataset.



Z scores are a standard method of normalising data so that statistically meaningful associations between datasets can be made. In this case, the Z scores for individual metals that occur within assemblages specific to nickel-copper-PGM-gold and lithium-cesium-tantalum mineralisation respectively are added together in order to amplify the metal associations.

#### DRILLING UPDATE: HOPETOUN JOINT VENTURE

A diamond drill programme is in progress to test two copper-gold-silver targets at the Hopetoun joint venture project located about 30 km south of the Ravensthorpe mining centre and where lithium-bearing spodumene was recently recognised for the first time in the area by Impact (ASX Release 19<sup>th</sup> April 2022).

Two drill holes have been completed at the Top Knotch prospect and one hole has now been completed at Silverstar (ASX Release 19<sup>th</sup> April 2022).

At Silverstar, a 25 metre thick (true width) shear zone containing high-temperature alteration minerals with extensive potassium and silica alteration has been intersected from about 290 metres down hole. A zone up to 50 cm thick contains minor disseminated chalcopyrite-pyrrhotite mineralisation at about 308.5 metres down hole.

In addition, a 30 cm thick quartz-tourmaline pegmatite with about 1% spodumene crystals has also been intersected towards the base of the shear zone.

It should be noted that some of the exploration information in this announcement is based only on visual field observations. The Company emphasises that these are visual estimates only and that assays will be required to determine the absolute amounts of any metals that could be present.

This is an encouraging development and accordingly the Company has decided to drill a second hole at Silverstar to test the structure closer to surface. This hole will commence in about a week.

The core is being transported back to Perth where it will be logged in detail and sampled for assay. It is anticipated that assay results will be returned in June.

## COMPLIANCE STATEMENT

This report contains new Exploration Results for soil samples from the Dinninup Project.

Dr Mike Jones

Managing Director



#### Competent Person's Statement

## **Exploration Results**

The review of exploration activities and results contained in this report is based on information compiled by Dr Mike Jones, a Member of the Australian Institute of Geoscientists. He is a director of the company and works for Impact Minerals Limited. He has sufficient experience which is relevant to the style of mineralisation and types 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). Mike Jones has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## **APPENDIX 1 - SECTION 1 SAMPLING TECHNIQUES AND DATA**

Criteria	JORC Code explanation	Commentary		
Sampling techniques	Nature and quality of sampling (e.g. 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.	Soil samples of a weight of about 250 grams were taken from a depth of about 15-20 cm below surface. They were sieved on site to -2 mm and placed in plastic snap seal bags for transport to the laboratory.		
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The soil samples were taken on 100 metre spacings along gazetted roads and tracks across the centre of the Dinninup licence. Enough samples were taken to establish the background values of the metals and elements that can be used to determine levels of anomalism.		
	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	The soil samples were taken using industry standard procedures.		
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	N/A		
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	N/A		
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Standard field procedures for soil samples were used.		
	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.	No sample bias has been established.		
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.	N/A		



Criteria	JORC Code explanation	Commentary		
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	N/A		
	The total length and percentage of the relevant intersections logged	N/A		
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	N/A		
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	N/A		
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The size and distribution of the soil samples is appropriate for regional exploration.		
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Laboratory QC procedures for soil samples involve the use of internal certified reference material as assay standards, along with blanks, duplicates and replicates.		
	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.	No field duplicates were taken as this is not warranted at this early stage of exploration.		
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are appropriate		
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.	Samples were submitted to ALS Laboratories in Perth for analysis by the ionic leach method ME-MS23 with ICP-MS finish for 61 elements including: Ag, Au, Bi, Cd, Co, Cr, Cs, Cu, Li, Mo, Ni, Pb, Pd, Pt, Sn, Ta, W, Zn. Sample preparation involved weighing out of 50 g of the soil sample and adding a fixed aliquot of the digest.		
	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.	N/A		
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Duplicate samples are not required at this early stage of exploration.		
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The results have not been verified by independent or alternative companies. This is not required at this stage of exploration.		
	The use of twinned holes.	N/A		
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary assay data has been entered into standard Excel templates for plotting in QGIS and IOGAS.		
	Discuss any adjustment to assay data.	There are no adjustments to the assay data.		



Criteria	JORC Code explanation	Commentary		
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Sample locations were located by handheld GPS.		
	Specification of the grid system used.	The grid system for Dinninup is MGA_GDA94, Zone 50.		
	Quality and adequacy of topographic control.	N/A		
Data spacing and distribution	Data spacing for reporting of Exploration Results.	The samples were taken at 100 metre spacings along the traverses.		
	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.	N/A		
	Whether sample compositing has been applied.	N/A		
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Not relevant to soil results.		
	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.	Not relevant to soil results.		
Sample security	The measures taken to ensure sample security.	Samples were taken by Impact contractors and delivered by them directly to the laboratory.		
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	At this stage of exploration a review of the sampling techniques and data by an external party is not warranted.		

### **SECTION 2 REPORTING OF EXPLORATION RESULTS**

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 Dinninup project comprises four tenements E70/5842, E70/6111, E70/6112 and E70/6113. The tenements are held 100% by Aurigen Pty Ltd a 100% owned subsidiary of Impact Minerals Limited. Impact has signed Land Access agreements in place with the various Native Title claimants that cover the area.		
	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 tenements are in good standing with no known impediments.		
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There has been no significant previous work at this project.		



Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	Nickel-copper-PGE sulphide mineralisation associated with mafic to ultramafic intrusions and gold-copper in deformed and metamorphosed greenstone belts. LCT Pegmatites, REE and Rb granites and pegmatites.
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.	N/A
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	N/A.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	N/A
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	N/A
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 (e.g. 'down hole length, true width not known').	N/A
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.	Refer to Figures in body of text.
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.	All results reported are representative



Criteria	JORC Code explanation	Commentary		
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.	Assessment of other substantive exploration data is not yet complete however considered immaterial at this stage.		
Further work	The nature and scale of planned further work (e.g. 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	Follow-up work programmes will be subject to interpretation of results which is ongoing.		





