Arcadia Spodumene concentrate samples ready for shipment

- **25kg of spodumene concentrate samples produced from Arcadia core**
- **Sample assays confirm high purity spodumene**
- **Samples being shipped to strategic groups engaged in spodumene offtake and project funding discussions for Arcadia**

Prospect Resources Ltd (ASX: PSC, FRA:5E8) ("**Prospect**" or "**the Company**") is pleased to announce that it has produced 25kg of spodumene concentrate from core samples collected from its Arcadia Lithium Project ("**Arcadia Project**").

Sample assays have confirmed the high purity nature of the spodumene concentrate produced from the Arcadia Project. Table 1 outlines the average sample composition, including a plus-6% Li_2O concentrate grade.

Product	Li_2O	Fe_2O_3
Spodumene concentrate	6.08%	0.46%

Table 1: Spodumene Concentrate (SC6) Product

Samples of the Lower Main Pegmatite (LMP) drill core were extracted from inventory for spodumene sample production. LMP contributes a significant portion of the Arcadia ore feed for the first 5 years of operation and constitutes greater than 63% of the Arcadia planned production.

The spodumene concentrate product samples have been produced for supply to, and potential qualification with, strategic groups across Japan, China and Europe. Prospect has been progressing engagement with a range of these groups that have an interest in spodumene concentrate offtake and assisting with development of the Arcadia Project. The shipment of samples is being coordinated over the next few weeks.

Prospect Managing Director, Sam Hosack, said *"These results confirm Arcadia as a producer of high purity spodumene concentrate and demonstrates the value of the Arcadia Project. The production of spodumene in conjunction with the successful operation of the petalite pilot plant at Arcadia Mine puts the team in a strong position as we focus on progressing due diligence discussions and the development of the Arcadia Project."*

The spodumene samples were prepared by a third-party independent metallurgical testing company in South Africa, Geolabs. Geolabs has executed significant metallurgical testwork for Prospect Resources from 2016 to date with their results having been used to complete the 2018 Definitive Feasibility Study (DFS) as well as the 2019 updated DFS, with these results being utilised in the independent Optimised Feasibility Study being prepared by Lycopodium Minerals.

The selected samples were subjected to froth flotation consistent with the approved Arcadia flowsheet, which was developed through the technical assistance of Dorfner Anzaplan, a specialist company in Germany with vast expertise in both spodumene and petalite flotation. The achieved results as shown in Table 1 demonstrate the robustness of the Arcadia process flowsheet to produce excellent product quality and recovery efficiencies as attested by the previously announced Metallurgical testwork results.

This release was authorised by the Sam Hosack, Managing Director of Prospect Resources Ltd.

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About Prospect Resources Limited (ASX: PSC, FRA:5E8)

Prospect Resources Limited (ASX: PSC, FRA:5E8) is an ASX listed lithium company based in Perth with operations in Zimbabwe. Prospect's flagship project is the Arcadia Lithium Project located on the outskirts of Harare in Zimbabwe. The Arcadia Lithium Project represents a globally significant hard rock lithium resource and is being rapidly developed by Prospect's experienced team, focusing on near term production of high purity petalite and spodumene concentrates. Arcadia is one of the most advanced lithium projects globally, with a Definitive Feasibility Study, Offtake Partners secured and a clear pathway to production.

About Lithium

Lithium is a soft silvery-white metal which is highly reactive and does not occur in nature in its elemental form. In nature it occurs as compounds within hard rock deposits (such as Arcadia) and salt brines. Lithium and its chemical compounds have a wide range of industrial applications resulting in numerous chemical and technical uses. Lithium has the highest electrochemical potential of all metals, a key property in its role in lithium-ion batteries.

Caution Regarding Forward-Looking Information

This announcement may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although the Company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars ($) and cents in this announcement are in United States currency, unless otherwise stated.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities. Prospect confirms that for the purposes of Listing Rule 5.19.2, all material assumptions underpinning the information continue to apply and have not materially changed

Competent Persons Statements

The information in this announcement that relates to Exploration Results, is based on information compiled by Mr Roger Tyler, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and The South African Institute of Mining and Metallurgy. Mr Tyler is the Company's Senior Geologist. Mr Tyler has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012 Edition. Mr Tyler consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this study that relates to Metallurgical Testing is based on information compiled by or under the supervision of Mr John Maketo, who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Maketo is an independent mineral processing consultant. Mr Maketo has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012 Edition.

JORC Code, 2012 Edition – Table 1 report template

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 (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.* • *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 (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 (eg submarine nodules) may warrant disclosure of detailed information.*	• 3 core samples from Phase 7 drilling campaign which specifically targeted the Main Pegmatite MP) representing first 18 -24 months LOM were selected. • 3x selected cores approximately 80Kg each were crushed to -25 mm by jaw crusher and further crushed to -3.5mm employing HPGR crushing at the ThyssenKrupp facility in Johannesburg. • The crushed sample was sized to 3 size fractions 3.5x 1mm, 1 x 0.3 mm and -0.3mm • Each size fraction was sampled during crushing by taking regular sub-samples during the crushing and sizing process. • The sub-samples were blended and sampled again by rotary splitter at Geolabs to produce head samples for analysis and heavy liquid separation (HLS). • 3.5 x 1mm and 1 x 0.3mm size fractions were subjected to DMS with further sampling of feed and products taken. • Further sampling was carried out during flotation stage. • All samples were analysed by semi-quantitative XRD employing Reitveld mineral content estimation, and multi-element XRF and ICP-OES. • Validated quantitative mineral analysis was produced by matching ICP elemental analyses to the mineral phases present.
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,*	• There was no new drilling conducted in relation to this metallurgical testwork announcement

Criteria	JORC Code explanation	Commentary
	face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	
Drill sample recovery	•	• There was no new drilling conducted in relation to this metallurgical testwork announcement
Logging	•	• All core previously logged in detail using standard Prospect Resources logging codes.
Sub-sampling techniques and sample preparation	• *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 being sampled.*	• Entire PQ sized core was crushed • The samples were crushed to P100 25 mm at the Prospect Laboratory. • Secondary crushing to -3.5 mm was carried out using pilot-scale HPGR equipment. • 3.5 mm screen undersize was sampled on a regular basis to produce a representative composite sample of each batch of crusher feed. • The -3.5 mm material was then blended and split to provide a head analysis sample using a rotary splitter.
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*	• All samples were analysed by multi-element ICP (ME-MS61). Over limits (> on lithium analysed by LiOG63 method, after four acid dissolution. All assays were performed at ALS Johannesburg. • All samples were analysed by XRD techniques to produce an initial Rietveld estimate of mineral content. • The XRD data was subsequently validated against the ICP elemental analyses.

Criteria	JORC Code explanation	Commentary
	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.	
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.*	• Prospect Resources' Chief Geologist and Consulting Metallurgist were on site during bulk sample collection. • The Consulting Metallurgist accompanied the samples to the Prospect Laboratory and supervised the primary crushing, packaging and dispatch of all 10 bags. • All hard copies of data are retained at the Prospect Resource Exploration offices. All electronic data resides in Excel™ format on the office desktop, with back-ups retained on hard-drives in a safe, and in an Access™ database in a data cloud offsite. • All assay results reported as Li_2O %. Ta assays are expressed as Ta_2O_5. Fe_2O_3 assays were reported in %.
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.*	• Virimai Mining was contracted to carry out blast hole drilling and blasting focused on the old Arcadia Pit. • In order to generate the required material, three 1.2 m wide benches were developed to fully expose the 7 m vertical thickness of the Main Pegmatite
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.* • *Whether sample compositing has been applied*	• Samples were generated from both from the blasted and broken Main Pegmatite stockpiles. Continuous 1 m samples were channel sampled and hand sampled along cut lines, every 2 m on the pit face.
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.* • *If the relationship between the*	• Face sampling in the pit was carried out as vertical channels (approx. normal to the dip of the mineralisation).

Criteria	JORC Code explanation	Commentary
	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	
Sample security	• *The measures taken to ensure sample security.*	• Bulk samples were placed in sealed bulk bags to loss during transport. Minimal preparation was done on site. Samples were transported in company vehicles accompanied by the Consulting Metallurgist to the pre-preparation laboratory in Kwekwe.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The Chief Metallurgist is continually reviewing sample management practices and data generation and collection.

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.*	• An approx. 10 square km (1,038 hectares) mining lease, no 38 was issued on August 16th 2018 to Prospect Lithium Zimbabwe (formerly Examix Investments (Pvt)). This encompasses the entire mineral resource. • No environmental or land title issues or impediments. EIA certificate of approval granted by the Environmental Management Agency, to cover all of the company's exploration activities. • Rural farmland – fallow, effectively defunct commercial farm.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Two rounds of historical drilling were done. Three EXT holes were drilled in 1969 with support from the Geological Survey of Zimbabwe, at the site of the historic pit. These logs are available, and the lithologies observed are consistent with that seen by Prospect Resources' drilling. • The sites of at least 10 previously drilled NQ sized boreholes have also been identified in the field. Much detailed records of this programme have been lost. But the work done is mentioned in the Geological Survey in their 1989 Harare bulletin, no 94 where a non-JORC compliant estimate of 18 Mt is recorded.

		• Recent investigations have revealed that this was actually two campaigns of drilling. The first in 1974, consisted of six diamond drill holes and a limited number of percussion holes by local company Rhodex. • The second round was undertaken in 1981 by Rand Mines' local subsidiary Central African Minerals. A total of 813.77 m was drilled in eight diamond drill holes. Six of the old the bore hole collars have been identified, one with a hole number AC#4, and depth 47 m. (This was twinned by PR hole ACD001). It is apparent that though Rand Mines intersected the Lower Main Pegmatite in one of the holes, they were not aware that the ore body thickened significantly to the north. • A weighted average grade of 1.47 % Li_2O over 26 m was recorded from the eight holes. Though non-JORC compliant, the order of magnitude of the results are consistent with Prospect's work.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The deposit comprises a number of pegmatites hosted in meta-basalts of the Arcturus Formation within the Harare Greenstone Belt. • The pegmatites belong to the Petalite subclass of the Rare-Element pegmatite deposit class and belong to the LCT pegmatite family. • The pegmatites are poorly to moderately zoned (but not symmetrically or asymmetrically zoned and have no quartz core). The main lithium bearing minerals are dominantly petalite and spodumene, with sub-ordinate eucryptite, Bikitaite, and minor lepidolite. In addition, disseminated tantalite is present. Gangue minerals are quartz, alkali feldspars and muscovite. • The pegmatites strike 045° and dip at 10° to the northwest.

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 meters) 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*
		• There was no new drilling conducted in relation to this metallurgical testwork announcement .

	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.	
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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• There was no drilling conducted in relation to this metallurgical testwork announcement. • Sampling for metallurgical testwork has no effect on current Mineral Resource.
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').*	• There was no drilling conducted in relation to this metallurgical testwork announcement
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.*	• N/A

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.*	• The Company states that all results have been reported and comply with balanced reporting.
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.*	• Channel sampling also carried out at the adjacent dormant pit, previously mined in the 1970's. Continuous 1 m samples were channel sampled and hand sampled along cut lines, every 2 m on the pit face. Approximately 3 kg samples were collected, and assayed at ALS after crushing and milling at Zimlabs. Assays were incorporated into the MRE. • Geological mapping was undertaken down-dip and along strike of the pit and has been incorporated into the current MRE. • Soil sampling orientation lines have produced lithium geochemical anomalies that coincide with sub-outcropping projections of the pegmatites. • Detailed XRD and petrographic investigations have been completed on a range of samples from across and at depth from the Arcadia deposit. The results indicate the mineralogy of the lithium mineralisation is coarse grained petalite and fine grained spodumene, both of which are amenable to conventional recovery methods for the production of a potentially saleable lithium concentrate. Initial heavy liquid separation results in petalite reporting largely to the floats and spodumene to the sinks. The two may be separated after primary fine crushing by dense medium separation (DMS) and after successive fine grinding, by flotation. Petalite is comparatively coarse grained, primarily reporting to gravity concentrates. The finer spodumene responds very well to conventional fatty acid flotation. • Testing Lower Main Pegmatite ore produced spodumene concentrate grade of >5% lithium oxide (Li_2O) and petalite concentrate at >4% Li_2O from dense medium separation tests with a lithium recovery of up to 20% as petalite in gravity concentrates. Spodumene, reporting to DMS sinks graded ~5% Li_2O at a lithium recovery of ~8%. Lithium recovery of ~44% to spodumene flotation concentrate grading >6% Li_2O was achieved. These results reflect near total recovery of spodumene and significant initial recovery of petalite minerals. Work to maximize petalite recovery employing spirals and flotation is continuing. Further bulk testing of Main Pegmatite ore supports the selection of DMS for coarse petalite recovery, and specialist flotation testing has indicated

		additional petalite may be recoverable while achieving specification grade. · The following products have been produced; o Spodumene flotation concentrate @ 6.5% Li_2O and 0.33% Fe2O3 o Spodumene flotation concentrate @ 6.1% Li_2O and 0.52% Fe2O3 o Petalite gravity concentrate @ 4.2 % Li_2O and 0.08 % Fe2O3 • Dry magnetic separation was carried out on Petalite and Spodumene concentrates and the results below achieved • Spodumene flotation concentrate 6.1% Li_2O and 0.18% Fe_2O_3 • Petalite flotation concentrate 4.5% Li_2O and 0.02% Fe_2O_3 • Petalite DMS concentrate 4.26% LI_2O and 0.045% Fe_2O_3 · Battery grade lithium carbonate has been produced from the laboratory and pilot test facility established in Kwekwe, Zimbabwe. Excellent quality product significantly above battery grade specification been produced at lithium carbonate analyses >99.5%.
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.*	• Phase 7 was drilled as infills within the existing grid on Arcadia to produce more Main Pegmatite intercepts for continuing the metallurgical test work. The geological information from the logging was to update the geological and resource models, as the grid is now less than 30 m in these areas. • .