Metallurgical results 74% recovery to 6.2% Li_2O concentrate

Highlights Include;

- Very positive first-pass metallurgical testwork with headline recovery of 74% Li_2O to 6.2% Li2O concentrate utilising DMS-Flotation flowsheet
- 50% Li_2O recovered by DMS (Dense Media Separation) to a 6.08% Li_2O concentrate
- Low iron impurity of 0.04% Fe_2O_3 in concentrate
- Additional testwork planned for improvements to recovery and optimisation of flowsheet
- Collection of large scale comprehensive testwork sample +2,500kg nearing completion with PRIMERO Engineering contracted to oversee second phase of testwork

Sample and Testwork Completed

Red Dirt Metals Limited (ASX: RDT) ("Red Dirt" or the "Company") is pleased to report results from initial sighter testwork completed on a pegmatite sample from the Mt Ida Lithium Project.

The Company submitted approximately 50kg of ½ HQ size drill core sourced from IDDD002 (251.7m-274m) in early December 2021 to carry out a series of sighter metallurgical tests at Nagrom Laboratories Perth. The sample represented a full cross section from the *Sister Sam* pegmatite from the hanging wall through to the footwall contacts.

Figure 1; Spodumene DMS concentrate produced from 3.35mm-+0.85mm DMS 2.95 feed

ACN 107 244 039

ASX RDT

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ISSUED CAPITAL

Ordinary Shares: **299.8M**

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The testwork flowsheet included HLS (Heavy Liquid Separation) at multiple crush sizes, follow up DMS (Dense Media Separation) and sighter flotation testwork. The head grade of the composite used for testwork was 2.08% Li_2O, 0.05% Fe_2O_3 and 250ppm Ta_2O_5.

A 30kg subsample of the composite was crushed to P100 3.35mm and wet screened at 0.85mm to produce a P100 3.35mm +0.85mm particle size feed for DMS testwork. For this sample and crush size, 75% of the Li_2O from the head composite was observed to report to DMS feed. The DMS tests were carried out in two stages using a pilot DMS rig with a 100mm cyclone at sequential SG cut points of 2.7 and 2.95, to separate low density gangue (DMS Tail) and higher density spodumene (DMS Con) respectively. A high percentage 68% of the Li_2O contained in the DMS feed reported to the SG 2.95 DMS concentrate at a grade of 6.08% Li_2O and 0.02% Fe_2O_3, which represents a positive first pass result.

A weighted composite of the Secondary DMS SG 2.95 float fraction (DMS Mids) and wet screen undersize (-0.85mm) was produced for flotation testwork. The flotation feed composite contained 42% of the Li_2O from the head composite sample at a grade of 1.50% Li_2O. This sample was ground to P80 106µm before iron from grinding was removed using Low Intensity Magnetic Separation (LIMS). The sample was then deslimed at 20µm before being subjected to rougher-cleaner mica flotation to reject gangue. The mica rougher tail and mica cleaner tail were then combined and subjected to rougher flotation and 3 stages of cleaner flotation. This generated a flotation concentrate grading 6.50% Li_2O and 0.08% Fe_2O_3 with a global recovery of 23% Li_2O, which is in addition to the DMS recovery giving a 74% Li_2O recovery in total. Another positive at this early stage is that the iron content in the concentrates produced is very low compared to typical spodumene concentrate iron levels which are preferred to be <1% Fe_2O_3.

Sighter Float 1 Testwork Deportments									
	Grade			**Stage Deportment**			**Global Deportment**		
	Mass (kg)	Li_2O (% w/w)	Fe_2O_3 (% w/w)	Mass (%)	Li_2O (%)	Fe_2O_3 (%)	Mass (%)	Li_2O (%)	Fe_2O_3 (%)
Feed	31.0	2.18	0.05	100	100	100	100	100	100
DMS Feed	22.6	2.22	0.02	73	75	28	73	75	28
DMS Reject	6.4	0.50	0.02	28	6	28	21	5	8
DMS Con	5.6	6.08	0.02	25	68	25	18	50	7
DMS Mids	10.6	1.33	0.02	47	28	47	34	21	13
-0.85mm	8.4	1.72	0.14	27	21	72	27	21	72
Flot Feed	19.0	1.50	0.07	61	42	86	61	42	86
Flot Con	2.4	6.50	0.08	13	55	14	8	23	12
Combined Flot Tail	16.6	0.89	0.30^	87	51	363^	54	22	311^
Global Con	8.0	6.20	0.04	-	-	-	26	74	19
Global Tail	23.0	0.78	0.23	-	-	-	74	26	319
Global Balance	-	-	-	-	-	-	100%	100%	338%^

Table 1; Results of first stage Sighter Testwork for Mt Ida Sister Sam pegmatite and IDDD002 (251.7-274m). ^Higher iron due to iron introduced from abrasion during milling

Follow up work

PRIMERO Engineering has been contracted to oversee the next stage of metallurgical testwork. This testwork phase will incorporate multiple composite samples from up to approximately 2,500kg of feed material sourced from diamond holes currently being completed into the Sister Sam and Timoni pegmatite intrusives. These samples will be used to classify the global pegmatite system, test and develop unit processes within the flowsheet and perform preliminary testing of the mineralogical variability seen throughout the system.

The objective of this sighter metallurgical testwork programme was to perform a first-pass check on the amenability of ore from the Mt Ida Project to DMS and flotation processing. The sample and results presented in this announcement are not considered to be representative of the entire Sister Sam pegmatite or the Mt Ida project as a whole due to the ore being sourced from a single drill hole with comparatively high Li_2O grade and low Fe_2O_3 grade.

Managing Director Matthew Boyes commented on the sighter metallurgical testwork results;

"One of the major risks in any mining project is the quality of the ore and its amenability to utilising standard extraction technology to produce a saleable product. With this first round of sighter testwork RDT has taken a massive step forward in mitigating that risk and demonstrating the Mt Ida pegmatites contain a significant portion of the Lithium bearing Spodumene which is recoverable into a high-quality and high-purity concentrate.

"A comprehensive follow up testwork programme designed to better delineate and optimise the DMS and flotation response to our ore will be underway shortly and the results will form an integral part of our PFS and resource estimation work scheduled to commence in Q3 this year."

Authorised for ASX lodgement by the Board.

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Mt Ida Mineral Metallurgical Test Work - Competent Person Statement

The information in this report that relates to metallurgical test work for the Mt Ida Lithium Project has been reviewed by Mr Joshua Paterson who is a member of the Australasian Institute of Mining and Metallurgy. Mr Paterson is an employee of Primero Ltd and has sufficient experience relevant to the style of processing response and type of deposit under consideration, and to the activities undertaken, 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'. Mr Paterson consents to the inclusion in the report of a summary based upon his information in the form and context in which it appears.

The information in this release that references previously reported exploration results is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears, or above. The previous market announcements are available to view on the Company's website or on the ASX website (www. asx.com.au). 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. 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 announcements.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	**Red Dirt Metals** • Sampling activities have included reverse circulation (RC) and diamond (DD) drilling, and rock chip sampling at the Mt Ida project. Core sampling of one historic drillhole has also been carried out, with assaying, petrological and XRD analysis completed • RC are samples collected from a static cone splitter mounted directly below the cyclone on the rig • DD core has not yet been processed **Historic Data** • Limited historical data has been supplied, historic sampling referenced has been carried out by Hammill Resources, International Goldfields, La Mancha Resources, Eastern Goldfields and Ora Banda Mining, and has included rock chip sampling, and RC, DD and rotary air blast (RAB) drilling • Sampling of historic RC has been carried out via riffle split for 1m sampling, and scoop or spear sampling for 4m composites, historic RAB drilling was sampled via spear into 4m composites • Historic core has been cut and sampled to geological intervals • These methods of sampling are considered to be appropriate for this style of exploration
Drilling techniques	**Red Dirt Metals** • Drilling is being carried out by Orlando Drilling, RC drilling is utilising an Explorac 220RC rig with a 143 mm face sampling hammer bit and DD drilling is carried out by a truck mounted Sandvik DE820 and is HQ2 diameter • Diamond tails average 110m depth **Historic Data** • Historic drilling has been completed by various companies including Kennedy Drilling, Wallis Drilling, Ausdrill and unnamed contractors utilising purpose-built RAB, RC and DD rigs as well as combination rigs • Historic DD drilling was NQ sized core • It is assumed industry standard drilling methods and equipment were utilised for all historic drilling
Drill sample recovery	**Red Dirt Metals** • Sample condition is recorded for every RC drill metre including noting the presence of water or minimal sample return, inspections of rigs is carried out daily • DD core has not yet been processed **Historic Data** • Limited sample recovery and condition information has been supplied or found
Logging	**Red Dirt Metals** • Quantitative and qualitative geological logging of drillholes adheres to company policy and includes lithology, mineralogy, alteration, veining and weathering • Diamond core has not yet been processed or logged • All chip trays and drill core are photographed in full **Historic Data** • A complete quantitative and qualitative logging suite was supplied for historic drilling including lithology, alteration, mineralogy, veining, weathering

Criteria	Commentary
	• It is unknown if all historic core was oriented, limited geotechnical logging has been supplied • No historic core or chip photography has been supplied • Logging is of a level suitable to support Mineral resource estimates and subsequent mining studies
Sub-sampling techniques and sample preparation	**Red Dirt Metals** • DD core has not yet been processed or sampled • RC samples are collected from a static cone splitter mounted directly below the cyclone on the rig, sample weights are kept under 3kg to ensure total inclusion at the pulverisation stage • Occasional wet samples are encountered, extra cleaning of the splitter is carried out afterward • Chip samples have been analysed for Li suite elements via ICPMS, and for Au by 50g fire assay by Nagrom. • Select samples have been assayed at North Australian Laboratories (NAL) for Au via 50g fire assay and a limited multielement suite via ICP-OES • Historic core sampled by Red Dirt Metals was collected for ICPMS analysis via selection from NQ half and quarter core, and submitted to Nagrom • Samples analysed by Nagrom were dried, crushed and pulverised to 80% passing 75 microns before undergoing a peroxide fusion digest with ICPMS finish or fire assay with ICPMS finish • Samples submitted to NAL were dried, crushed and pulverised to 90% passing 75 microns before undergoing fire assay with AAS finish or acid digest with ICP-OES finish • Semi-Quantitative XRD analysis was carried out by Microanalysis Australia using a representative sub-sample that was lightly ground such that 90% was passing 20 µm to eliminate preferred orientation • RC duplicate field samples were carried out at a rate of 1:20 and were sampled directly from the splitter on the rig. These are submitted for the same assay process as the primary samples and the laboratory are unaware of such submissions **Historic Data** • Historic chip sampling methods include single metre riffle split and 4m composites that were either scoop or spear sampled, while historic core was cut onsite and half core sampled • Historic samples were analysed at LLAS, Genalysis and unspecified laboratories • Historic Au analysis techniques generally included crushing, splitting if required, and pulverisation, with aqua regia or fire assay with AAS finish used to determine concentration • Historic multielement analysis was carried with mixed acid digest and ICP-MS determination
Quality of assay data and laboratory tests	**Red Dirt Metals** • Samples have been analysed by external laboratories utilising industry standard methods • The assay methods utilised by Nagrom and NAL for RC chip, rock chip and historic core sampling allow for total dissolution of the sample • Standards and blanks are inserted at a rate of 1 in 20 in RC sampling, All QAQC analyses were within tolerance • No QAQC samples were submitted with rock chip analysis • No standards were used by Red Dirt Metals in the historic core ICP analysis or XRD quantification process. Internal duplicate and repeat analyses were carried out as part of the assay process by Nagrom, as

Criteria	Commentary
	well as internal standard analysis. • A standard mica phase was used for the XRD analysis. It is possible that a lithium bearing mica such as lepidolite is present. A subsequent analysis technique would be required for confirmation **Historic Data** • All historic samples are assumed to have been prepared and assayed by industry standard techniques and methods • Limited historic QAQC data has been supplied, industry standard best practice is assumed
Verification of sampling and assaying	**Red Dirt Metals** • Significant intercepts have been verified • No specific twinned holes have been completed, but drilling has verified historic drilling intervals • Primary data is collected via excel templates and third-party logging software with inbuilt validation functions, the data is forwarded to the Database administrator for entry into a secure SQL database. Historic data was supplied in various formats and has been validated as much as practicable • No adjustments to assay data have been made other than conversion from Li to Li2O and Ta to Ta2O5 **Historic Data** • Data entry, verification and storage protocols remain unknown for historic operators
Location of data points	**Red Dirt Metals** • MGA94 zone 51 grid coordinate system is used • Current drilling collars have been pegged using a handheld GPS unit, all collars will be surveyed upon program completion by an independent third party • Downhole surveys are completed by Orlando using a true north seeking gyro instrument • Topography has been surveyed by recent operators. Collar elevations are consistent with surrounding holes and the natural surface elevation **Historic Data** • Historic collars are recorded as being picked up by DGPS, GPS or unknown methods and utilised the MGA94 zone 51 coordinate system • Historic downhole surveys were completed by north seeking gyro, Eastman single shot and multi shot downhole camera
Data spacing and distribution	• Drill hole spacing is variable throughout the programme • Spacing is considered appropriate for this style of exploration and development drilling • Sample composting has not been applied
Orientation of data in relation to geological structure	• Drill holes are orientated perpendicular to the regional trend of the mineralisation previously drilled at the project; drill hole orientation is not considered to have introduced any bias to sampling techniques utilised
Sample security	**Red Dirt Metals** • Samples are prepared onsite under supervision of Red Dirt Metals staff and transported by personnel directly to the Nagrom laboratory. Samples despatched to NAL were delivered via third party transport contractor **Historic Data** • Sample security measures are unknown
Audits or reviews	• None carried out

Section 2; Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	• Drilling and sampling activities have been carried on M29/2, M29/165 and E29/640 • The tenements are in good standing • There are no heritage issues
Exploration done by other parties	• The area has a long history of gold and base metals exploration and mining, with gold being discovered in the district in the 1890s. Numerous generations of exploration have been completed including activities such as drilling, geophysics and geochemical sampling • Targeted Li assaying was first carried out in the early 2000s by La Mancha Resources and more recently, lithium assays were completed by Ora Banda Mining
Geology	• The Mt Ida project is located within the Eastern Goldfields region of Western Australia within the Mt Ida/Ularring greenstone belt • Locally the Kurrajong Antiform dominates the regional structure at Mount Ida, a south-southeast trending, tight isoclinal fold that plunges at a low angle to the south. The Antiform is comprised of a layered greenstone sequence of mafic and ultramafic rocks. • Late stage granitoids and pegmatites intrude the sequence.
Drill hole Information	• A list of the drill hole coordinates, orientations and metrics are provided as an appended table
Data aggregation methods	• No metal equivalents are used
Relationship between mineralisation widths and intercept lengths	• The geometry of the Li mineralisation is currently unknown although preliminary interpretation suggests the pegmatite intrusive sills and bodies are orientated sub-parallel to the Mt Ida Granitic intrusion and the northwest trending amphibolite mafic units which bound the western and eastern limbs of the intrusive
Diagrams	• Figures have been included in the announcement
Balanced reporting	• It is not practical to report all historical exploration results from the Mount Ida Project. Relevant collars and details are contained within the body of the announcement
Other substantive exploration data	• Sighter Metallurgical testwork programme was undertaken on material sourced from 21.7m of mineralised ½ HQ diameter core selected from IDDD002 (251.7-274m) and submitted to Nagrom Laboratories • Testwork include, HLS separation, Comminution, Mag Separation, DMS separation and Flotation testwork to ascertain amenability of the Mt ida pegmatite material to DMS and flotation treatment routes
Further work	• Drilling is continuing at Mt Ida with an initial 25,000m programme consisting of a mix of RC and diamond drilling underway • Aircore and geochemical drilling will also be commenced along strike from the Mt Ida central area with the objective of targeting the pegmatite outcrops located in the mafic sequence sitting to the west of the Mt Ida granitic complex