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Company Announcements Office
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Pilot Sorter Delivers Significant Tungsten Ore Upgrade

- Technical team at Mt Carbine achieved meaningful commercial improvement with early sampling operations using latest XRT Sorting technology
- Throughput rates of up to 50tph achieved during testing, significantly higher than historical bulk XRT Sorting trials which were completed at a 5tph rate
- 10mm x 25mm size range realises highest upgrade ratio of 28:1 and achieving sorter concentrate grade of 1.89% WO₃, further crushing and screening optimisation to take place as program develops
- Results support the Company's development plan in commercializing the historical waste rock stockpiles and on its basis emerge as Australia's new low-cost tungsten producer

Speciality Metals International Limited ("SEI" or the "Company") is pleased to announce that the XRT Sorting Pilot Plant ("XRT Sorter") Test Program being undertaken with CRONIMET Australia Pty Ltd ("CRONIMET") has commenced with excellent early results. This test work program forms part of the ongoing METS Ignited program [as announced on 24 July 2020](#).

The test work conducted to date indicates a more significant upgrade is realised for sorting the 10-25mm size fraction when compared to the 25-50mm fraction. At this stage, the on-site technical team believe this is likely due to liberation of the tungsten-bearing particles and increased associated waste in the 25-50mm fraction. Further test work will be conducted on the crushing and screening of the particle size range of materials to optimise liberation and sorter concentrate grade while reducing mass for further downstream processing.

CRONIMET Operations Director, Mr Ruan Kroukamp stated, *"Having worked with TOMRA sorters on a range of commodities for the last decade, their upgradability on tungsten, especially with wolframite mineralisation, is always outstanding. I am excited about moving this program forward thoroughly and efficiently with the aim of producing a consistent 1-2% WO₃ sorter concentrate. Greater efficiencies and effectiveness of ore sorting offer cost savings and will directly benefit the overall concentrate output at our downstream processing plant which has seen a steady ramp up of throughput and is designed to utilize this higher-grade feed material."*

Assays of the individual feedstock samples and the XRT Sorter concentrate were completed by independent laboratory, ALS in Brisbane. Test work was completed on the Optical Ore Sorter Rejects (+/-5.5-million tonnes, used purely for quarry feedstock to date) and the Low-Grade (mineralised waste) Stockpile (+/-12-million tonnes).

A summary of the results as following:

Bulk Sample	Size Range (mm)	Concentrate Grade (WO ₃)	Upgrade Ratio	Sorter Recovery
Sample 1 – Optical Ore Sorter Rejects	10-25	1.26%	17.38	86.21%
Sample 2 – Optical Ore Sorter Rejects	10-25	1.52%	24.09	87.32%
Sample 3 – Mineralised Waste Stockpile	10-25	1.89%	28.05	83.67%
Sample 4 – Mineralised Waste Stockpile	10-25	1.64%	27.50	78.20%
Sample 5 – Optical Ore Sorter Rejects	25-50	0.74%	5.74	92.24%
Sample 6 – Optical Ore Sorter Rejects	25-50	0.30%	6.31	78.95%

Historical test work at Mt Carbine [published by the Company \(formerly known as ICON Resources Ltd\) on 23 March 2011](#) using an XRT Sorter from Applied Sorting Technologies had an upgrade ratio of 7.7:1 on the Low Grade (mineralised waste) Stockpile and 3.6:1 on the Optical Ore Sorter. These tests were conducted on a larger size range of material and with a different XRT Sorting technology several years ago which is likely the reason for the significantly higher upgrade ratios now being achieved.



Figure 1 - XRT Sorter Product with scheelite under ultraviolet lamp



Figure 2 - XRT Sorter Product with high-grade wolframite particles

At the start of September, additional staff were appointed to site operations to operate the XRT Sorting Pilot Plant and to conduct the bulk test work as material is made available for processing. This will allow the sorting test work to take place without any disruptions to ongoing production activities for the quarry and tailings retreatment operation.

SEI Chief Executive Officer, Mr Kevin MacNeill stated, *“This is another step towards commercialising the value in the stockpiles around Mt Carbine which has been the goal of the team for some time now. The information generated from this early test work is key to confirming the economic viability of using the latest XRT Sorting technology now being applied to the historic test work areas and the development of an optimised mining and earth moving plan. When handling and processing stockpiles such as these with such significant tonnages, it’s critical we maximise value at every cost centre.”*

On Behalf of the Board

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About Speciality Metals International Limited

Speciality Metals International Limited is an ASX-listed company transforming its world-class tungsten assets at Mt Carbine in North Queensland; leveraging advanced technology, historical stockpiles and unexploited resource, with the aim of being the pre-eminent tungsten producer in Australia. The Company also holds gold exploration licences in New South Wales. The Company aims to create shareholder value through the exploration and development of its current portfolio whilst continuing to evaluate corporate and exploration opportunities within the specialty metals sector.

This news release may contain forward-looking statements. Forward-looking statements address future events and conditions and therefore involve inherent risks and uncertainties. Actual results may differ materially from those currently anticipated in such statements. Particular risks applicable to this press release include risks associated with planned production, including the ability of the company to achieve its targeted production outline due to regulatory, technical or economic factors. In addition, there are risks associated with estimates of resources, and there is no guarantee that a resource will have demonstrated economic viability as necessary to be classified as a reserve. There is no guarantee that additional exploration work will result in significant increases to resource estimates. Neither the Australian Securities Exchange nor its Regulation Services Provider (as that term is defined in policies of the Australian Securities Exchange) accepts responsibility for the adequacy or accuracy of this release.