ASX Announcement **22 March 2023**

First Stage Leach Amenability Test-Work Completed - Los Pumas Manganese Project

Highlights:

- **Los Pumas ore suitable for HPMSM for the battery metals market.**
- **Los Pumas ore achieved ~99% extraction of manganese under "standard" leach conditions, producing a leach solution containing 80 g/L manganese.**

Southern Hemisphere Mining Limited ("Southern Hemisphere" or "the Company") (ASX: SUH) reports that Mn Energy Ltd ("Mn Energy"), a specialist manganese processing company, has completed the first stage leach amenability test-work on ore provided from the Company's wholly owned Los Pumas Manganese Project, with excellent results.

Natalie Dawson, The lead director on the Los Pumas Manganese Project said, "*it is a great opportunity to combine Mn Energy's patented technology with the Company's wholly owned Los Pumas Project to extract more manganese more efficiently. Given the projects location and surrounding infrastructure, the Los Pumas Manganese Project should start attracting interest from those within the electric vehicle industry".*

The leach amenability test-work determined that the Los Pumas manganese ore was suitable for High Purity Manganese Sulphate Monohydrate ("HPMSM") for the battery metals market.

The Los Pumas ore achieved ~99% extraction of manganese under "standard" leach conditions, producing a leach solution containing 80 g/L manganese.

Of interest, as well as manganese extraction were no deleterious elements that would be cause for concern in future stages.

The Mn Energy HPMSM production process is a significant improvement on current HPMSM operations, as it has six fewer processes in the stream, as well as other efficiencies.

Compared to the flowsheet for Los Pumas as published to ASX on 6 October 2021, the Mn Energy approach, illustrated below, incorporates significant changes including the removal of the roasting step, reduction in the number of PLS purification processes and removal of the electrowinning step. The potential benefits of this approach include reduced energy and reagent requirements.

This has a significant positive outlook on the project economics as:

1. Lower grade ore is potentially viable; noting that Los Pumas also has a large low grade indicated and inferred resource of 264mt @ 2.4% Mn (resource published ASX 10 May 2010 – Coffey Mining).
2. End product HPMSM is transported (minimal waste and associated costs vs a 38% Mn concentrate per a conventional manganese mine).
3. Lower Capex as 6 fewer processes to build in the plant and related Opex reduction.

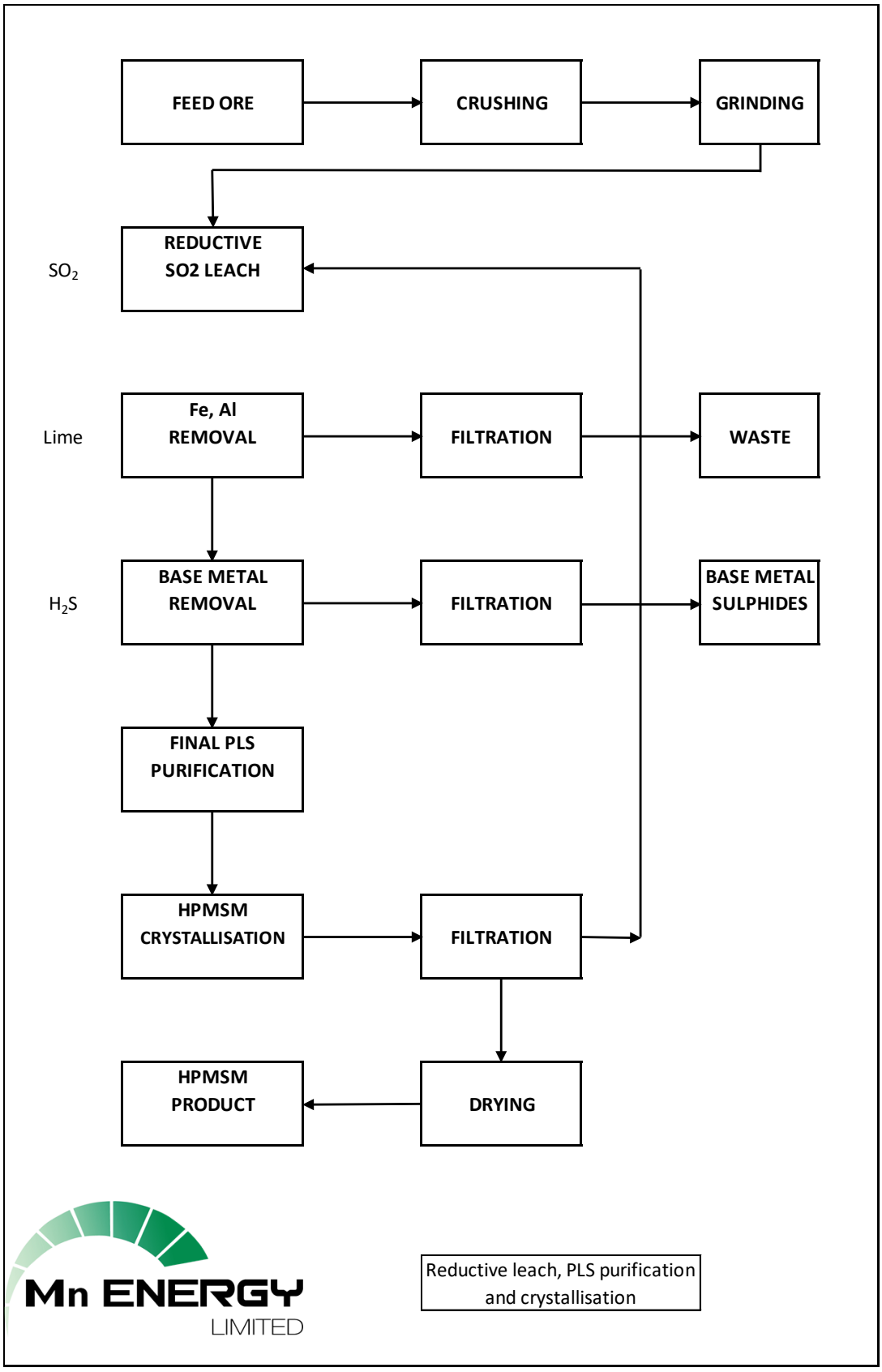

Figure 1: Los Pumas HPMSM Manufacture Indicative Flowsheet using Mn Energy Process

The location of the Los Pumas Manganese Project is also highly advantageous from a carbon footprint perspective:

1. Close to the Chapiquina Hydroelectric Power Plant ~55km via the town of Putre.
2. 175km from the port city of Arica – La Paz railway line passes next to the project.
3. Elevation is advantageous for added solar power options.
4. The town of Putre is 35km away for workers, logistics and equipment support.

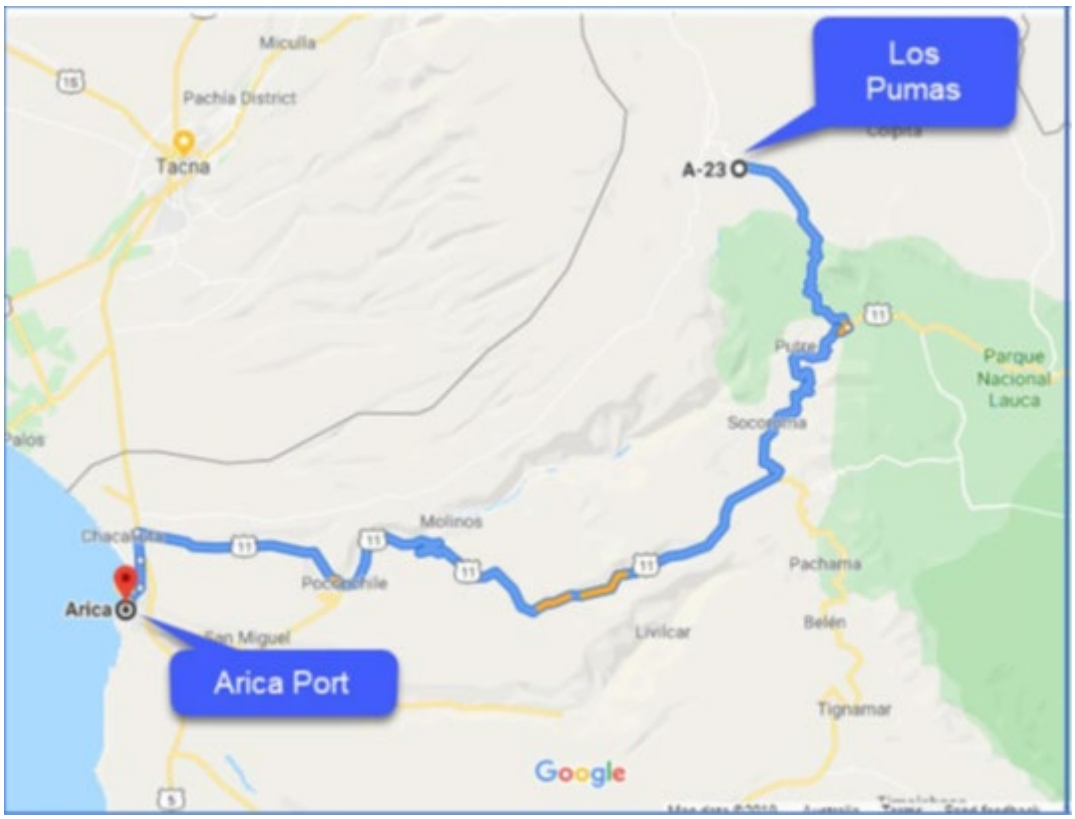

Figure 2: Los Pumas Manganese Project location

Figure 3: Train on the Arica – La Paz Railway

The next stage of work on the Los Pumas Project is processing with the focus on marketing to downstream partner(s)/ offtake/ JV in the battery metals industry. The Chilean government has recently announced its intention to promote the development of related mining and downstream industries.

Approved by the Board for release.

Natalie Dawson
Lead Director on Los Pumas Manganese Project

CONTACTS:
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BACKGROUND INFORMATION ON SOUTHERN HEMISPHERE MINING:

Southern Hemisphere Mining Limited is an experienced minerals explorer in Chile, South America. Chile is the world's leading copper-producing country and one of the most prospective regions of the world for major new copper discoveries. The Company's projects include the Llahuin Porphyry Copper-Gold Project, the Colina 2 Gold/Copper prospect near Llahuin, and the Los Pumas Manganese Project, all of which were discovered by the Company.

Los Pumas Manganese Project: Total Measured and Indicated Resources - JORC (2004) Compliant. As announced to the market on 25 March 2011.

Resource (at 4% Mn cut-off)	Tonnes Millions	Mn %	SiO_2 %	Fe_2O_3 %	Al %	K %	P %
Measured	5.27	7.39	57.85	2.78	5.62	2.88	0.05
Indicated	13.06	7.65	55	2.96	5.64	2.92	0.05
Measured plus Indicated	**18.34**	**7.58**	**55.82**	**2.91**	**5.62**	**2.91**	**0.05**
Inferred	5.39	8.59	51.44	2.72	5.49	2.69	0.06
Total	**23.73**	**7.81**					

Metallurgical studies have demonstrated greater than 38% Mn concentrates are achievable by DMS with low impurities and high silica product.

In relation to the above resources, the Company confirms that it is not aware of any new information or data that materially affects the information in the announcements, and all material assumptions and technical parameters in the announcements underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

COMPETENT PERSON / QUALIFIED PERSON STATEMENT:

The information reported herein that relates to testing manganese ore is based on information compiled by or under the supervision of Mr Mike Kitney of Mn Energy Limited, WA. Mr Kitney is registered as a Fellow of The Australasian Institute of Mining and has sufficient experience which is relevant to the mineral processing procedures under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code 2012 Edition. Mr Kitney consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.