

PHYSICAL PROCESSING ACHIEVES EXCEPTIONAL PURITY CONCENTRATES

Sovereign Metals Limited (“the Company” or “Sovereign”) is pleased to report that the latest flotation test-work on Malingunde saprolite has produced **concentrates with ~98% TGC across all size fractions**.

Test-work has shown that the process flowsheet, with no primary crush or grind and no chemical or heat purification, can produce **both exceptional concentrate purity and outstanding flake distribution** from the soft, saprolite material at Malingunde.

Sovereign has now demonstrated unique optionality to **produce a range of high-quality products from a simple flotation flowsheet**. This gives the Company the potential to generate revenues from sales of premium products into existing traditional markets as well as emerging markets.

HIGHLIGHTS:

The results highlight the large degree of product and market diversification available for Malingunde:

Traditional markets: shorter attritioning times produce a coarser flake distribution but slightly lower grade concentrates, suited to the traditional industrial markets such as refractories and foundries.

Emerging markets: longer attritioning times produce a slightly finer flake distribution with exceptionally high concentrate purity; suitable for Li-ion batteries and other high-end applications.

TRADITIONAL MARKETS

TEST F13
(previously reported)



FLAKE SIZE

79% above 150µm

BIAS TO FLAKE SIZE:

- REFRACTORIES
- EXPANDABLES
- OTHER TRADITIONAL APPLICATIONS

EMERGING MARKETS

TEST F23
(new results)



PURITY

Combined concentrate +98% C

BIAS TO PURITY:

- Li-ION BATTERIES
- OTHER HIGH END APPLICATIONS:
NUCLEAR, FUEL CELLS ETC.

Managing Director Dr Julian Stephens commented, “These world-class concentrate purity results further support Sovereign’s strategy of targeting initial sales into key traditional industrial graphite markets, with future entry into the emerging Li-ion battery sector. Very low costs, product optionality and development in a stable jurisdiction highlights the enormous potential of the Malingunde graphite project.”

ENQUIRIES

+618 9322 6322

Dr Julian Stephens – Managing Director

Dominic Allen – Business Development Manager

Metallurgical test-work

Metallurgical test-work on material from the Malingunde saprolite-hosted flake graphite project was undertaken at SGS Lakefield Canada under the supervision of Mr Oliver Peters (MSc, P.Eng, MBA).

The recent test-work was conducted on several composite samples of PQ diamond drill core obtained from the 2016 drilling program. The work formed part of a larger test-work program that was used as the basis for the Scoping Study process design criteria.

Test #F23 was designed to test the effect of increased attritioning on overall flake size distribution and concentrate grades. Results show that increased attritioning time consistently produces higher grade concentrates with decreased flake size distribution.

Given the estimated measurement uncertainty associated with standard chemical analyses (LECO) of samples with total carbon values greater than 90% C, **the Company verified the results of Test #F23 with the more accurate double Loss on Ignition (LOI) analysis.**

MALINGUNDE 2017 FLOTATION RESULTS

		TEST F13 (previously reported)		TEST F23 (new results)			
PARTICLE SIZE		C LECO ¹ (%)	Distribution (wt. %)	C LECO ¹ (%)	C (%) Double LOI ²	Distribution (wt. %)	Flake category
Tyler mesh	(µm)						
+ 32	+ 500	97.1	14.2	99.5	98.5	3.8	Super Jumbo
+ 48	+ 297	96.1	32.7	100.0	98.4	15.6	Jumbo
- 48 + 80	- 297 + 177	96.7	25.4	98.4	98.1	22.8	Large
- 80 + 100	- 177 + 149	97.1	6.3	98.8	98.4	8.2	Medium
- 100 + 200	- 149 + 74	97.0	16.7	99.0	98.4	33.1	Small
- 200	- 74	95.4	4.7	97.3	97.7	16.4	Amorphous
TOTAL		96.6	100	98.7	98.2	100	

Footnote to Table 1.

- (1) The chemical analysis used to determine the total carbon content employs combustion of a sample followed by infrared detection on a LECO SC-632 instrument. Values at 100% should not be treated as pure products without additional impurity testing.
- (2) The chemical analysis used to determine the total carbon content employs a double Loss on Ignition (LOI) method. Sample is placed in a TGA furnace for one hour at 500°C and weight loss recorded. Sample is then returned to furnace and temperature increased to 1,000°C until constant weight is achieved and weight loss is again recorded

Both analytical methods have an associated measurement uncertainty based on the expected precision and accuracy relating to the method and graphite concentration. No carbonate minerals or organic carbon have been detected in mineralogical test-work, hence all carbon units are considered to be graphite.

Concluding Comments

The new, very high-grade concentrates highlight the simplicity and flexibility of the Malingunde process flow sheet. Significant increases in grade of the final concentrates across all size fractions can be produced with additional attritioning times in the secondary cleaning circuit of a simple flotation process.

These very high concentrate purity results support and enhance Sovereign's strategy of initial sales into the key traditional industrial graphite markets (i.e. refractories, foundries etc), with future entry to the emerging Li-ion battery sector. The project is at the lowest end of the cost curve and will be able to target all major graphite markets, both existing and emerging.

Competent Person Statement

The information in this report that relates to Metallurgical Testwork Results is based on information compiled by Mr Oliver Peters, M.Sc., P.Eng., MBA, who is a Member of the Professional Engineers of Ontario (PEO), a 'Recognised Professional Organisation' (RPO) included in a list promulgated by the ASX from time to time. Mr Peters is a consultant of SGS Canada Inc. ("SGS"). SGS is engaged as a consultant by Sovereign Metals Limited. Mr Peters has sufficient experience, which is relevant to the style of mineralisation and type of deposit 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'. Mr Peters consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward Looking Statement

This release may include forward-looking statements, which may be identified by words such as "expects", "anticipates", "believes", "projects", "plans", and similar expressions. These forward-looking statements are based on Sovereign's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Sovereign, which could cause actual results to differ materially from such statements. There can be no assurance that forward-looking statements will prove to be correct. Sovereign makes no undertaking to subsequently update or revise the forward-looking statements made in this release, to reflect the circumstances or events after the date of that release.