

# MARCH 2022 QUARTERLY REPORT

Sovereign Metals Limited (**Company** or **Sovereign**) (**ASX:SVM & AIM:SVML**) is pleased to provide its quarterly report for the period ended 31 March 2022.

### HIGHLIGHTS

#### MRE upgrade confirmed Kasiya as the largest rutile deposit ever discovered

- 1.8 Billion tonnes @ 1.01% rutile and 1.32% graphite (Indicated + Inferred) equating to 18 million tonnes contained rutile and 23 million tonnes contained graphite
- The updated Mineral Resource Estimate (MRE) confirmed Kasiya as the world's largest rutile deposit and one of the largest flake graphite deposits globally
- High global resource grade @ 1.64% RutEq.\* (recovered rutile + recovered graphite)
- 662 Mt (37%) of the total MRE reports to the Indicated category with remainder in Inferred category

#### Updated Scoping Study underway

• Updated Scoping Study to build on initial study reflecting the substantial MRE scale increase and to examine the impact of higher grades, increased production volumes and increased mine-life

#### Industry defining independent LCA studies shows Sovereign's ability to reduce the carbon footprint

- Scope 1, 2 and 3 benchmark Life Cycle Assessment (LCA) studies for natural rutile and graphite produced from Kasiya have the potential for a substantially reduced carbon footprint compared to other titanium feedstocks and flake graphite products in the market, with results including:
  - Each tonne of natural rutile produced at Kasiya is expected to have a Global Warming Potential (GWP) of only 0.1 tonnes CO<sub>2</sub> eq., which equates to a <u>95% to 97% reduction</u> in total greenhouse gas emissions (20 to 33 times less) compared to production of titania slag and synthetic rutile respectively both of which are alternative titanium pigment feedstocks produced by upgrading ilmenite via energy and carbon intensive processes
  - Each tonne of graphite produced from Kasiya is expected to have a GWP of only 0.2 tonnes CO<sub>2</sub>e which represents **~80% lower** greenhouse gas emissions compared to natural graphite produced in China

#### Offtake MoU for premium priced rutile sales to the welding sector

- MoU (non-binding) signed for supply of 25,000 tonnes of natural rutile per annum to Hascor, a market leading global processor and distributor of rutile products for the welding industry
- Hascor to provide Sovereign with strategic advice on marketing and product development
- Pricing of rutile for welding generally attracts significant premiums to bulk rutile prices in the titanium pigment sector



#### Former Rio Tinto executive joins Sovereign board

- Leading international mining executive, Mr Nigel Jones, appointed as Non-Executive Director of Sovereign Metals and Chairman of the ESG Committee
- Mr Jones has over 30 years of mining industry experience with 22 years in a number of senior roles at Rio Tinto Group including most recently as Managing Director of Rio Tinto's Simandou iron ore project, one of the world's largest proposed mining developments

#### Joined UK's Critical Minerals Association

- During the quarter, Sovereign became a member of the UK's Critical Minerals Association which works to increase the self-sufficiency of supply chains for the UK's industrial strategy
- Presentation at UK Houses of Parliament on the potential for Sovereign to become an important supplier of low carbon footprint natural graphite

#### Rutile market remains strong and robust

Demand for high-grade titanium dioxide feedstocks continued to remain strong, and along with supply shortages
has led to continued rutile price appreciation, with major producer Iluka Resource commenting that the current
rutile spot price is at ten year highs.

#### **ENQUIRIES**

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Figure 1: Logging of drill samples at Kasiya



# **CRITICAL MINERALS FOR A SUSTAINABLE WORLD**

Sovereign is focused on developing its flagship project Kasiya, which is a major potential source of sustainable critical raw materials to contribute to a low carbon global economy.

- natural rutile is the cleanest, purest natural form of titanium dioxide with a far lower carbon footprint than
  other higher energy and carbon intensive "upgraded" titanium pigment feedstocks such as synthetic rutile or
  titania slag.
- natural graphite mined, beneficiated, and purified with a considerably lower carbon footprint than hard-rock
  operations or synthetic graphite production, with the product potentially suitable as feedstock for the rapidly
  expanding lithium-ion battery sector.

Kasiya is the largest rutile deposit in the world and is highly strategic in a market characterised by extreme supply deficit. The initial Scoping Study confirmed Kasiya as a globally significant natural rutile project with a multi-decade operation providing a stable supply of highly sought-after rutile (**TiO**<sub>2</sub>) and graphite whilst contributing significantly to the economy of Malawi.

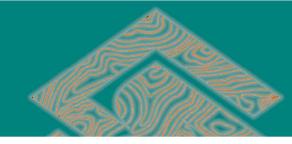
The initial Scoping Study completed in December 2021 demonstrated outstanding results including:

- a 12Mtpa operation producing 122kt rutile and 80kt graphite per annum over a 25 year mine life
- exceptional economics including a post-tax NPV<sub>8</sub> of US\$861m and post-tax IRR of 36%
- a large-scale operation with a low-cost profile resulting from the deposit's near surface nature, grade and excellent existing infrastructure
- a low carbon operation with the project to be powered by 100% renewables (hydro and solar)

The Company is advancing an updated Scoping Study which is targeted for completion Q2 2022 to build on the 2021 Scoping Study. This will be driven by the significant increase in the MRE, providing the opportunity to assess higher grade throughput, increased production rates and longer mine life.



Figure 2: Sample de-sliming at the Company's laboratory facility in Malawi



# **KASIYA – THE LARGEST RUTILE DEPOSIT IN THE WORLD**

In April, the Company announced its updated **MRE** for Kasiya which confirmed it as a Tier 1 natural rutile deposit and a potential major source of low CO<sub>2</sub> footprint critical minerals natural rutile and graphite.

The updated MRE now places Kasiya as the largest rutile deposit in the world with more than double the contained rutile as its nearest rutile peer, Sierra Rutile (Tables 1, 2 & 3, Figure 3). Additionally, the graphite by-product MRE at Kasiya places it as one of the largest flake graphite deposits in the world.

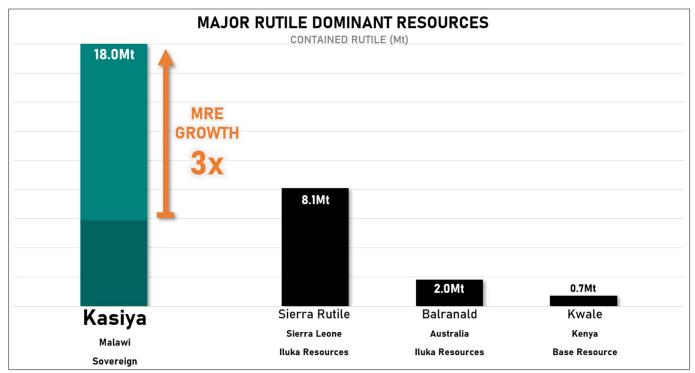


Figure 3: Major rutile dominant resources (Sources: refer to Appendix 2)

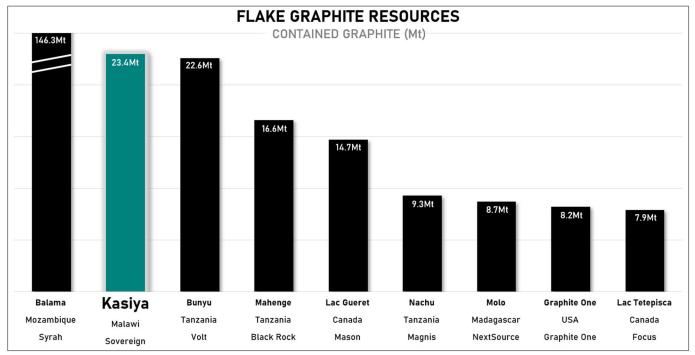


Figure 4: Major listed global flake graphite resources (Sources refer to Appendix 2)



Table 1: Kasiya Mineral Resource Estimate at 0.7% Rutile Cut-off							
Mineral Resource Material Rutile Rutile TGC TGC Tonnes RutEq. Category (millions) (%) (millions) (%) (millions) (%)							
Indicated	662	1.05%	6.9	1.43%	9.5	1.73%	
Inferred	1,113	0.99%	11.0	1.26%	14.0	1.59%	
Total	1,775	1.01%	18.0	1.32%	23.4	1.64%	

\* RutEq. Formula: Rutile Grade x Recovery (97%) x Rutile Price (US\$1,346/t) + Graphite Grade x Recovery (62%) x Graphite Price (US\$1,085/t) / Rutile Price (US\$1,346/t). All assumptions taken from the Company's 2021 Scoping Study released 16 December 2021 \*\* Any minor summation errors are due to rounding

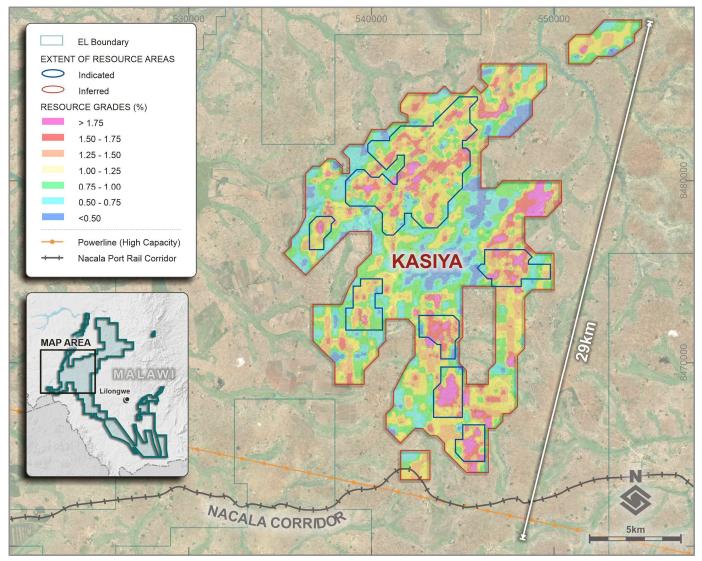


Figure 5: Kasiya map showing rutile grades in the uppermost part of the updated MRE block model

The MRE has broad zones of very high-grade rutile which occurs contiguously across a very large area of over 180km<sup>2</sup> (Figure 5). Rutile mineralisation lies in laterally extensive, near surface, flat "blanket" style bodies in areas where the weathering profile is preserved and not significantly eroded.

Overall, the new MRE shows a number of new large, but generally discrete high grade rutile zones, particularly in the southern parts and eastern parts of the resource area. The discovery and delineation of these new high grade mineralised zones has been the dominant factor in the tripling of the resource base.

A Total of 662 Mt (37%) of the total MRE reports to the Indicated category @ 1.05% rutile and 1.43% TGC, with a recovered grade of 1.73% RutEq.

The deposit is expansive with high-grade rutile mineralisation commonly grading 1.2% to 2.0% in the top 3-5m from surface. Moderate grade mineralisation generally grading 0.5% to 1.2% rutile commonly extends from 5m to end of hole where it remains open at depths >10m in numerous drill-defined, N to NE-striking zones.

Graphite is generally depleted near surface in the top 3-5m with grades commonly in the 0.1% to 0.5% total graphitic carbon (**TGC**) range. Graphite grades generally increase with depth to about 8m, then remain constant ranging from 1% to 8% TGC. A number of higher-grade graphite zones at depth have been identified which are generally associated with higher grade rutile at surface. Some of these zones have graphite grades at depth >8m in the 4% to 8% TGC range and represent very significant coarse flake graphite tonnages.

The highlighted cut-off of 0.70% presents 1.8 billion tonnes at a rutile grade of 1.01% with high-grade components providing over 352 Mt at a rutile grade of 1.44% at a 1.20% cut-off (Table 2). The overall recovered rutile equivalent grade for the MRE at the global 0.7% cut-off is 1.64% RutEq. (Table 1).

Table 2: Kasiya Total Indicated + Inferred Mineral Resource Estimate at various rutile cut-offs						
Cut-off (rutile)	Resource (Mt)	Rutile Grade (%)	Contained Rutile (Mt)	Graphite Grade (%)	Contained Graphite (Mt)	
0.40%	2,825	0.84%	23.8	1.26%	35.5	
0.50%	2,503	0.89%	22.4	1.30%	32.5	
0.60%	2,155	0.95%	20.4	1.33%	28.6	
0.70%	1,775	1.01%	18.0	1.32%	23.4	
0.80%	1,391	1.09%	15.1	1.24%	17.3	
0.90%	1,024	1.17%	12.0	1.09%	11.2	
1.00%	727	1.26%	9.2	0.92%	6.7	
1.10%	516	1.35%	7.0	0.76%	3.9	
1.20%	352	1.44%	5.1	0.55%	1.9	
1.30%	241	1.53%	3.7	0.46%	1.1	
1.40%	165	1.62%	2.7	0.43%	0.7	

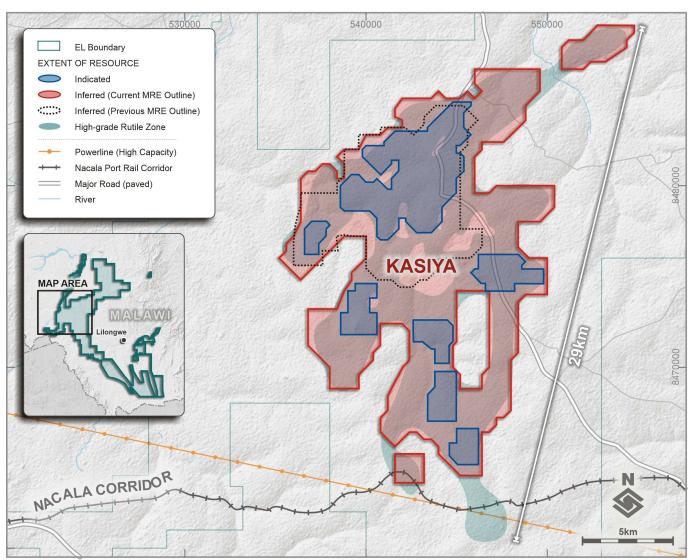


Figure 6: Kasiya MRE footprint showing the Indicated and Inferred areas



Figure 7: Core drilling at Kasiya



#### **Global Significance - Rutile**

Natural rutile is a genuinely scarce commodity, with no other known large rutile dominant deposits being discovered in over half a century. Kasiya is now shown to be the largest single rutile deposit in the world (Table 3), with central Malawi now hosting the largest known rutile province in the world.

Current sources of natural rutile are in decline as several operations' reserves are depleting concurrently with declining ore grades. These include Iluka Resources' (Iluka) Sierra Rutile and Base Resources' Kwale operations in Sierra Leone and Kenya respectively. Additionally, there are limited new deposits forecast to come online, meaning supplies of natural rutile are likely to remain in extreme structural deficit.

Table 3: Summary of major rutile dominant resources <sup>1</sup>							
	In-situ Grade						Contained
Company	Project	Resource (Mt)	Rutile (%)	Ilmenite (%)	Zircon (%)	TGC (%)	Rutile (Mt)
Sovereign Metals	Kasiya	1,775	1.01%	-	-	1.32%	18.0
Iluka Resources	Sierra Rutile	752	1.10%	0.90%	0.10%	-	8.1
Iluka Resources	Balranald <sup>2</sup>	53	3.68%	19.34%	3.38%	-	2.0
Base Resources	Kwale	194	0.37%	1.31%	0.17%	-	0.7

#### Sources: Refer to Appendix 2

Notes:

1. Projects selected with rutile contributing over 30% of the in-situ value

2. The Balranald Project is being investigated for underground mining by Iluka

As contemplated in the December 2021 initial Scoping Study, the Kasiya operation will primarily employ conventional hydro-mining to produce a slurry that is pumped to a Wet Concentration Plant (WCP) where the material is sized. A Heavy Mineral Concentrate (HMC) is produced via processing the sand fraction through a series of gravity spirals. The HMC is transferred to the dry Mineral Separation Plant (MSP) where premium quality rutile is produced via electrostatic and magnetic separation. Test work has been very successful and has resulted in conventional flowsheets proving highly efficient for producing premium quality rutile and graphite products.

World-class rutile product chemical specifications are reported at 95.0% to 97.2% TiO<sub>2</sub> with low impurities and standout metallurgical recoveries ranging from 94% to 100%. For the Scoping Study and rutile equivalent (RutEq.) grade calculation, a product grade of 96% TiO<sub>2</sub> and recovery of 97% are assumed for rutile.



Figure 8: Photomicrograph of high purity rutile product 97.2% TiO<sub>2</sub>



### Graphite - A Valuable By-Product

The 23.4 Mt of contained graphite in the Kasiya MRE now places it as one of the largest flake graphite deposits in the world (Table 4).

Table 4: Summary of major listed flake graphite resources						
Company <sup>1</sup>	Project	Resource (Mt)	TGC Grade (%)	Contained Graphite (Mt)		
Syrah Resources	Balama	1,421	10.3%	146.3		
Sovereign Metals	Kasiya	1,775	1.3%	23.4		
Volt Resources	Bunyu	461	4.9%	22.6		
Black Rock Mining	Mahenge	213	7.8%	16.6		
Mason Graphite	Lac Gueret	83	17.6%	14.7		
Magnis Energy	Nachu	174	5.4%	9.3		
NextSource Materials	Molo	141	6.1%	8.7		
Graphite One	Graphite One	103	8.0%	8.2		
Focus Graphite	Lac Tetepisca	74	10.6%	7.9		

Sources: Refer to Appendix 2

Graphite rich pre-concentrate will be produced from the light fraction of the gravity spiral tails and processed in a separate graphite flotation plant to produce a high-quality flake graphite by-product. Because graphite will be a by-product from rutile production, it will have a very low production cost compared to graphite-only projects, as shown in the initial Kasiya Scoping Study.

A very coarse-flake and high-grade graphite product at 96% TGC can be produced via this simple flowsheet. This product has over 60% in the large to super-jumbo fractions (+180µm) with overall graphite recovery from the raw sample to product of 62%.

As well as being very coarse flake, the Kasiya graphite is also highly crystalline and of high purity. These are both important features required for use in lithium-ion battery anodes. The high crystallinity means that the graphite will have high electrical conductivity – a key requirement. High purity means the material will be easier to upgrade to 99.95% TGC, the minimum requirement for lithium-ion battery anodes.



### **INDUSTRY DEFINING LCA STUDIES**

#### Sovereign's Natural Rutile to significantly reduce Pigment Industry Carbon Footprint

Sovereign has recently completed LCA study assessing the GWP of natural rutile produced at Kasiya.

This expanded LCA builds on the Company's LCA study completed last year which demonstrated the substantial environmental benefits possible by utilising natural rutile (TiO<sub>2</sub>) versus beneficiated high-grade titanium feedstocks made from the lower quality mineral ilmenite (~FeTiO<sub>3</sub>) such as synthetic rutile and titania slag, with this latest study extending the scope to include the positive environmental attributes of the Kasiya operation.

In assessing each GWP, Scope 1, 2 and 3 greenhouse gas emissions were included. The Greenhouse Gas Protocol supplies the world's most widely used greenhouse gas (GHG) accounting standards and establishes comprehensive global standardised frameworks to measure and manage GHG emissions from private and public sector operations, value chains and mitigation actions. The Protocol identifies three "scopes" of GHG emissions which were included in this study.

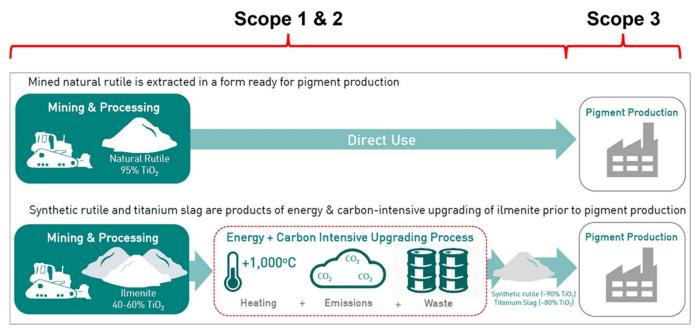


Figure 9: Natural rutile is a direct use titanium feedstock

The LCA demonstrated the potential for Sovereign's natural rutile to significantly reduce the carbon footprint of the titanium pigment industry. Each tonne of natural rutile produced at Kasiya is expected to have a Global Warming Potential of only 0.1 tonnes CO2 eq., which equates to a 95% to 97% reduction in total greenhouse gas emissions (20 to 33 times less) compared to production of titania slag and synthetic rutile respectively – both of which are alternative titanium feedstocks produced by upgrading ilmenite via energy and carbon intensive processes



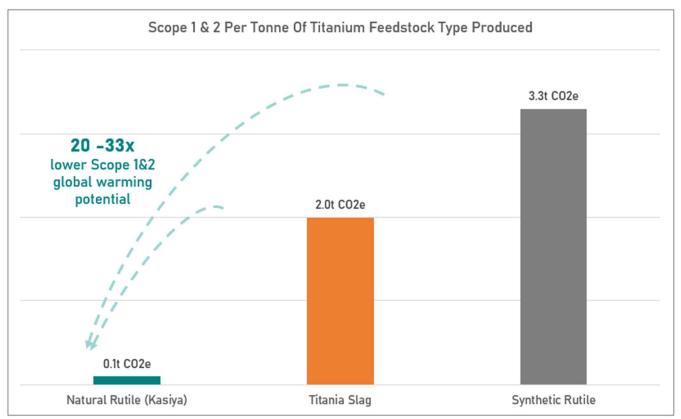


Figure 10: GWP impact of natural rutile production from Kasiya as a titanium feedstock vs. alternatives (Source: Minviro)

# Kasiya's by-product graphite has a significantly lower carbon footprint than natural graphite from China

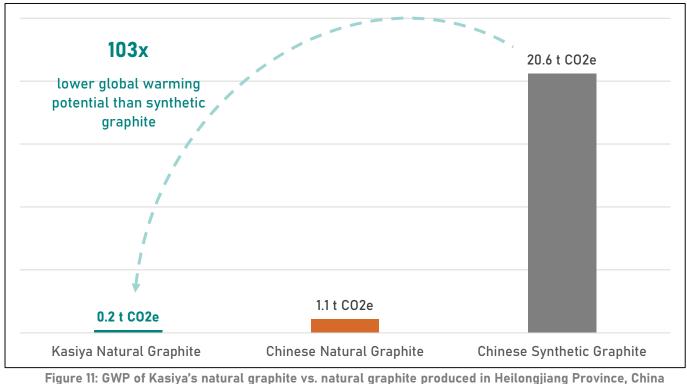
The LCA benchmarked the GWP of Sovereign's natural flake graphite product versus natural flake graphite concentrate produced in the Heilongjiang Province, China. This benchmark was chosen as a comparison point as it is one of the largest global production centres for natural flake graphite.

The Study made efforts to ensure maximum comparability for the benchmarking exercise meaning that the Study focused on graphite produced at site and does not include transportation. The Study concluded that Sovereign's natural flake graphite concentrate has significantly lower greenhouse gas emissions than the Chinese produced natural flake graphite concentrate from the Heilongjiang Province.

Each tonne of Sovereign's natural graphite is estimated to have a GWP of 0.2 tonnes CO<sub>2</sub>e (carbon dioxide equivalent) – 5x lower than producing natural flake graphite concentrate in the Heilongjiang Province, China which is estimated to have a GWP of 1.1 tonnes CO<sub>2</sub>e for each tonne produced.

The significantly lower GWP for Kasiya graphite is due to the fact that it is hosted in soft, friable saprolite material which will be mined via hydro methods (high pressure water monitors) powered by renewable energy sources – hydro power from the Malawi grid and on-site solar power. This is opposed to the production in Heilonjiang Province, China where hard-rock ore requires drilling, blasting, excavation, trucking, crushing and grinding – overall high CO<sub>2</sub>e activities.

In addition to the results of the LCA, the Company's research noted a report published in the Journal of Industrial Ecology estimating the GWP of synthetic graphite production. Synthetic graphite is manufactured by high-temperature treatment of by-products of hydrocarbon refining such as petroleum coke and coal tar pitch. Currently, the highest purity synthetic graphite is produced from petroleum needle coke which is a complex, emission, and energy intensive process which is estimated to have a GWP of 20.6 tonnes CO<sub>2</sub>e for each tonne produced.



and synthetic graphite produced in China

(Sources: Minviro Ltd; Journal of Industrial Ecology)

### **OFFTAKE MOU INTO PREMIUM PRICED WELDING SECTOR**

In March, Sovereign entered into a non-binding Memorandum of Understanding (**MoU**) with Hascor International Group<sup>™</sup> (**Hascor**) for potential supply of 25,000 tonnes of natural rutile per annum from the Company's Kasiya Rutile Project (**Kasiya**) in Malawi to Hascor's processing plants and clients across five continents.

The MoU with Hascor contemplates a supply agreement to cover an initial five-year period from commencement of nameplate production for potential 25,000 tonnes per annum of natural rutile to Hascor and their existing clients. Volumes may be varied up or down by mutual agreement. Pricing at commencement will reference market prices to the welding sector subject to agreed price variations through the supply term.

Hascor is a multinational ferroalloy and metal powder supplier. The group is a key processor and global distributor of natural rutile products for the welding industry with production and distribution centres across five continents.

This maiden MoU is part of Sovereign's product marketing strategy as the demand and pricing for natural rutile are both very strong as the global structural deficit in supply continues to widen. The premium chemical parameters of Kasiya's natural rutile produced indicates the product is suitable for all major end-use markets including welding, TiO<sub>2</sub> pigment feedstock and titanium metal.



### **APPOINTMENT OF DIRECTOR**

In February, the Company appointed leading international mining executive, Mr Nigel Jones, as Non-Executive Director of Sovereign Metals and Chairman of the ESG Committee. Mr Jones has over 30 years of mining industry experience with 22 years in a number of senior roles at Rio Tinto Group, where most recently, Mr Jones was Managing Director of Rio Tinto's Simandou iron ore project, one of the world's largest proposed mining developments.

In this role, he was accountable for all aspects of the project's development, including its complex environmental, social and governance (**ESG**) strategy. Such aspects included impacts on natural ecosystems, biodiversity, and community and government relations.

Mr Jones was also a member of the senior leadership team of the Energy and Minerals product group, which incorporated Rio Tinto's titanium dioxide feedstock businesses in Canada and southern Africa. Prior roles in Rio Tinto included Head of Business Development, Head of Business Evaluation and Managing Director of the group's Marine operations.

### **UK CRITICAL MINERALS ASSOCIATION**

During the quarter, Sovereign became a member of the UK's Critical Minerals Association (**CMA**) which works to increase the self-sufficiency of supply chains for the UK's industrial strategy. Discussions with governmental groups are ongoing with Sovereign's Chairman attending the UK Government's Critical Minerals Strategy Roundtable.

### **RUTILE MARKET**

The rutile market fundamentals are robust with current and forecast pricing remaining very strong.

Major producers Base Resources and Iluka Resources have reported that demand for high grade  $TiO_2$  feedstocks increased through the quarter as western  $TiO_2$  pigment producers maximise their output volumes and the welding consumable and titanium metal sectors continue to strengthen.

Major western pigment producers have reported that a lack of titanium feedstock is limiting their production rates and inhibiting their ability to meet demand from their end customers. Rutile prices increased significantly through the quarter and further price increases have been secured for the June quarter.

The war in Ukraine has caused disruptions throughout the titanium feedstock and titanium finished goods supply chains, with bulk exports of ilmenite for pigment manufacture and rutile used in welding consumables significantly impacted. Ukrainian producers in aggregate comprise the largest source of rutile to the global welding market. The production and export of titanium metal has also been impacted. A continuation of disruption to mining and processing of titanium feedstock and finished goods will further constrain supply into what is already a tight market.

Iluka reports current spot prices for rutile are at ten year highs.

Sources: Base Resources Limited – Quarterly Report 31 March 2022 Iluka Resources Limited – Quarterly Report 31 March 2022

### **NEXT STEPS**

The updated MRE confirmed Kasiya as a Tier 1 mineral project, being the largest deposit of natural rutile in the world and the second largest flake graphite deposit in the world. The strong economics of the project were confirmed in the initial Scoping Study based on the previous resource estimate which was released in December 2021.

Sovereign is rapidly continuing its work programs with the following near and medium-term targets and developments:

- An updated Scoping Study is targeted for completion Q2 2022 to build on the 2021 Scoping Study. This will be driven by the significant increase in the MRE, providing the opportunity to assess higher grade throughput, increased production rates and longer mine life.
- Initial Pre-feasibility Study (**PFS**) activities are commencing and include metallurgical programs and hydrogeological studies. Other study elements will commence shortly with major technical consultant site visits commencing in April. The PFS is targeted for completion in early 2023.
- Drilling programs are planned to continue, testing depth and lateral extensions at Kasiya. These include:
  - An air-core drilling rig is set to be mobilise to Kasiya in mid-May, with a planned 300 hole/10,000m program
    with the aim of deepening the better high-grade areas in order to add to the next MRE upgrade
  - Continued infill and step-out hand-auger drilling expand the overall mineralised footprint with drill teams to mobilise in April
- The Company continues to work with potential offtakers and strategic partners in the pigment, welding and titanium metal industries to secure further agreements regarding future offtakes.
- Continued strong focus on ESG and sustainability initial ESIA activities have commenced including environmental and community baseline surveys, which will inform the upcoming PFS, with continued focus on developing low carbon-footprint operations taking advantage of renewable power supply and soft-friable saprolite mineralisation to produce natural rutile and graphite with far lower Global Warming Potential than alternative products.



Figure 12: Sovereign's Managing Director, Julian Stephens and Senior Geologist Tupoche Malikeni reviewing the exploration drill plan in Malawi



### CORPORATE

At the date of release of this report, Sovereign has approximately A\$6.2m of cash at bank.

Subsequent to the end of the quarter, the Company issued 8.67 million shares as a result of the exercising of \$0.50 unlisted options. The exercising of the options raised an additional A\$4.3m in working capital to fund further exploration and development of Kasiya.

During the quarter, Sovereign appointed Joh. Berenberg, Gossler & Co KG (**Berenberg**) as the Company's Joint Corporate Broker to work alongside the Company's other broker, Optiva Securities, to further assist in raising Sovereign's profile in UK and European capital markets.

### **RELATED PARTY PAYMENTS**

During the quarter ended 31 March 2022, the Company made payments of \$188,000 to related parties and their associates. These payments relate to existing remuneration arrangements (executive salaries, director fees and superannuation of \$88,000), business development services (\$25,000) and provision of serviced office facilities, company secretarial services and administration services (\$75,000).

### MINING EXPLORATION EXPENDITURES

During the quarter, the Company made the following payments in relation to mining exploration activities:

Activity	A\$'000
Assaying and Metallurgical Test-work	(578)
Resource Estimation and Studies	(391)
Field Supplies, Equipment, Vehicles	(120)
Tenement Rents and Rates	(29)
Malawi Operations - Site Office, Personnel and Travel	(525)
Total as reported in Appendix 5B	(1,643)

There were no mining or production activities and expenses incurred during the quarter ended 31 March 2022.



#### **Competent Person Statement**

The information in this announcement that relates to the Mineral Resource Estimate is extracted from the announcement dated 5 April 2022. The announcement is available to view on www.sovereignmetals.com.au. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the announcement; b) all material assumptions included in the announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the announcement.

The information in this announcement that relates to Production Targets, Processing, Infrastructure and Capital and Operating Costs, is extracted from the announcement dated 16 December 2021 entitled 'Kasiya Scoping Study Confirms Globally Significant Natural Rutile Project' (Announcement). Sovereign confirms that: a) it is not aware of any new information or data that materially affects the information included in the announcement; b) all material assumptions and technical parameters underpinning the Production Target, and related forecast financial information derived from the Production Target included in the Announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this presentation have not been materially modified from the Announcement.

The information in this announcement that relates to the Metallurgy is extracted from the announcement dated 7 December 2021. The announcement is available to view on www.sovereignmetals.com.au. Sovereign confirms that a) it is not aware of any new information or data that materially affects the information included in the announcement; b) all material assumptions included in the announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the announcement.

#### **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.

#### **Authorisation Statement**

This announcement has been approved and authorised for release by the Company's Managing Director, Julian Stephens.



## **APPENDIX 1: SUMMARY OF MINING TENEMENTS**

Licence	Holding Entity	Interest	Status	Licence Renewal Date	Expiry Term Date <sup>1</sup>	Licence Area (km²)	Comments
EL0609	MML	100%	Exploration	25/09/2024	25/09/2028	440.5	Granted
EL0582	SSL	100%	Exploration	15/09/2023	15/09/2027	285.0	Granted
EL0372	SSL	100%	Exploration	N/A	13/03/2022 <sup>2</sup>	729.2	Granted
EL0492	SSL	100%	Exploration	29/01/2023	29/01/2025	935.4	Granted
EL0528	SSL	100%	Exploration	27/11/2021 <sup>3</sup>	27/11/2025	16.2	Granted
EL0545	SSL	100%	Exploration	12/05/2022 <sup>3</sup>	12/05/2026	53.2	Granted
EL0561	SSL	100%	Exploration	15/09/2023	15/09/2027	124.0	Granted
EL0574	SSL	100%	Exploration	15/09/2023	15/09/2027	292.0	Granted <sup>4</sup>
RL0012	SSL	100%	Retention	N/A	26/07/2026	6.0	Granted

#### As at 31 March 2022, the Company had an interest in the following tenements:

Notes:

SSL: Sovereign Services Limited & MML: McCourt Mining Limited

<sup>1</sup> An exploration licence (EL) covering a preliminary period in accordance with the Malawi Mines and Minerals Act (2018) (Mines Act) is granted for a period not exceeding three (3) years. Thereafter two successive periods of renewal may be granted, but each must not exceed two (2) years. This means that an EL has a potential life span of seven (7) years. ELs that have come to the end of their term can be converted by the EL holder into a retention licence (RL) for a term of up to 5 years subject to meeting certain criteria.

<sup>2</sup> Prior to expiry of EL0372, the Company applied for the grant of a mining licence (**ML**) and a RL over separate parts of EL0372. Under the Mines Act, an EL term automatically extends until the ML application has been processed and/or granted.

<sup>3</sup> EL0528 and EL0545 currently under application for renewal.

<sup>4</sup> Relinquishment report submitted.



# **APPENDIX 2 – PEER SOURCE INFORMATION**

#### Figure 2 & Table 3

Company	Project	Source	
Iluka Resources	Sierra Rutile	Iluka Resources Limited's 2021 Annual Report (released on ASX 24/02/2022)	
Iluka Resources	Balranald	lluka Resources Limited Annual Ore Reserve and Resources as at 31 December 2021: https://iluka.com/CMSPages/GetFile.aspx?guid=213396d8- 1630-49ff-8d1b-fe4b1ee71e7e	
Base Resources	Kwale	Updated Kwale North Dune and maiden Bumamani Mineral Resource Estimate (released on ASX 19/02/2021)	

#### Figure 3 & Table 4

Company	Project	Source
Syrah Resources	Balama	Syrah Resources Limited's 2021 Annual Report (released on ASX 24/02/2022)
Volt Resources	Bunyu	Volt Resources Limited's 2021 Annual Report (released on ASX 29/09/2021)
Black Rock Mining	Mahenge	ASX Announcement: Black Rock Mining confirms 25% increase in Measured Mineral Resource, now the largest in class globally (released 3/02/2022)
Mason Graphite	Lac Gueret	Mason Graphite's Corporate Presentation released July 2021
Magnis Energy	Nachu	Magnis' Corporate Presentation released February 2022
NextSource Materials	Molo	https://www.nextsourcematerials.com/graphite/molo-graphite-project/
Graphite One	Graphite One	https://www.graphiteoneinc.com/graphite-one-increases-tonnage- grade-and-contained-graphite-of-measured-and-indicated-and- inferred-resources-in-updated-mineral-resource-estimate/
Focus Graphite	Lac Tetepisca	https://focusgraphite.com/focus-graphite-reports-major-maiden- mineral-resource-estimate-at-lac-tetepisca-quebec/

# Appendix 5B

# Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Sovereign Metals Limited

ABN

71 120 833 427

Quarter ended ("current quarter")

31 March 2022

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(1,643)	(4,920)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(331)	(900)
	(e) administration and corporate costs	(148)	(614)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	2	12
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	-	-
1.8.1	Other – R&D Tax Refund	-	-
1.8.2	Other – Business Development	(234)	(531)
1.8.3	Initial AIM Dual Listing Fees	(388)	(547)
1.9	Net cash from / (used in) operating activities	(2,742)	(7,500)

2.	Cash flows from investing activities	
2.1	Payments to acquire or for:	
	(a) entities	-
	(b) tenements	-
	(c) property, plant and equipment	-
	(d) exploration & evaluation	-
	(e) investments	-

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
	(f) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	(170)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	1,923	1,923
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	157	877
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(97)	(101)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	1,983	2,699

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	3,747	7,959
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,742)	(7,500)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(170)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,983	2,699

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(151)	(151)
4.6	Cash and cash equivalents at end of period	2,837	2,837

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	1,848	59
5.2	Call deposits	989	3,688
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,837	3,747

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	188
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	f any amounts are shown in items 6.1 or 6.2, your quarterly activity report must includ ation for, such payments.	e a description of, and an

#### Appendix 5B Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7.	<b>Financing facilities</b> Note: the term "facility' includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	-	-
7.5	Unused financing facilities available at quarter end		
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
	-		

8.	Estimated cash available for future operatin	g activities \$A'000	
8.1	Net cash from / (used in) operating activities (item 1	.9) (2,742)	
8.2	(Payments for exploration & evaluation classified as activities) (item 2.1(d))	investing -	
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(2,742)	
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,837	
8.5	Unused finance facilities available at quarter end (item 7.5)		
8.6	Total available funding (item 8.4 + item 8.5) 2		
8.7	Estimated quarters of funding available (item 8.6 item 8.3)	divided by 1	
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.		
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:		
	8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?		
	Answer: Yes		
	8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?		
	Answer: Yes, at the date of release of this report, Sovereign has approximately A\$6.2m of cash at bank.		
	Subsequent to the end of the quarter, the Company issued 8.67 million shares as a result of the exercising of \$0.50 unlisted options. The exercising of the options raised an additional A\$4.3m in working capital to fund further exploration and development of Kasiya.		
	Further, on 28 April 2022, the Company ann ASX, pending the announcement regarding		

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Yes - refer to question 8.8.2.

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

#### **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 April 2022

Authorised by: Company Secretary (Name of body or officer authorising release – see note 4)

#### Notes

- 1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
- 2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
- 5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.