



JUNE 2022 QUARTERLY REPORT

Sovereign Metals Limited (**Company** or **Sovereign**) (ASX:SVM & AIM:SVML) is pleased to provide its quarterly report for the period ended 30 June 2022.

HIGHLIGHTS

Expanded Scoping Study results confirm Kasiya as an industry-leading major source of critical raw materials

The Expanded Scoping Study (ESS) confirmed Kasiya as <u>one of the world's largest and lowest cost</u> producers of **natural rutile and natural graphite** with a carbon-footprint substantially lower than current alternatives

The ESS demonstrated outstanding results including:

- a two-stage development (stage 2 self-funded) with full production at **24Mtpa operation** producing **265kt rutile** and **170kt graphite** per annum with a **25 year mine life**
- exceptional economics including a post-tax NPV₈ of US\$1,537m and post-tax IRR of 36%
- a **large-scale operation with a low-cost profile** resulting from the deposits near surface nature, grade, conventional processing and excellent existing infrastructure
- conservative assumptions applied with long-term prices used discounted against current spot prices

Natural rutile market is in structural deficit with **current global supply estimated to decline 45%** in the next three years with graphite **demand set to soar** as electric vehicle production is forecast to increase 12-fold by 2040

Highly strategic project and a potential **major source of raw materials deemed critical** to the decarbonisation of the global economy

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**

Offtake MoU and Market Alliance with major Japanese trader

- MoU (non-binding) signed with Mitsui & Co Ltd (Mitsui), one of the largest global trading and investment companies in Japan
- The MoU establishes a marketing alliance and offtake for 30,000 tonnes of natural rutile per annum. The alliance will allow Sovereign to leverage off Mitsui's extensive network and their market-leading understanding of the titanium industry and global logistics



Institutional Placement for A\$15m

In May 2022, Sovereign completed a Placement raising A\$15m at an issue price of A\$0.67 from UK, European and North American institutional investors

The Placement was corner-stoned by Thematica Future Mobility UCITS Fund, a European green energy fund which offers exposure to companies to benefit from the transition to clean and sustainable energy solutions

PFS commenced with drilling underway and key consultants appointed

Pre-Feasibility Study (PFS) for Kasiya commenced with globally recognised consultants appointed.

12,000m drilling program commenced across Kasiya to upgrade higher-grade Mineral Resource areas to underpin conversion to Reserves as part of the PFS

Rutile market remains strong and robust

Demand for high-grade titanium dioxide feedstocks continued to remain strong, and along with supply shortages leading to continued rutile price appreciation, with contract prices of +US\$1,500/t¹ recorded in the quarter and spot price currently +US\$2,200/t²

ENQUIRIES

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Dr Julian Stephens (Perth) Managing Director +61(8) 9322 6322

2. Ruidow.com TiO₂>95%, P<0.03%, S<0.03 CIF: China

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– Sources: __1.1luka Resources Limited – Quarterly Review to 30 June 2022 (released 20 July 2022)



EXPANDED SCOPING STUDY

In June 2022, the Company announced the Expanded Scoping Study that confirmed Kasiya will be one of the world's targest and lowest cost producers of natural rutile and natural graphite with a carbon-footprint substantially lower than current alternatives while significantly contributing to the social and economic development of Malawi.

HIGHLIGHTS

Significant **increase in NPV and EBITDA** from the 2021 Initial Scoping Study with **lower operating costs** for a relatively small increase in Capex to first production

US\$1,537M	36%	US\$12,038M
After Tax NPV ₈	After Tax IRR	LOM Revenue
(↑ 79%)	(No change)	(↑92%)
US\$323M	US\$320/t	US \$ 372M
Ave. Annual EBITDA	Operating Cost per tonne of product	Capex to 1 st Production
(↑101%)	(↓10%)	(↑ 12%)
Potential to become a major produ	cer in both the natural rutile and grapl	hite markets with steady state productio

Potential to become a **major producer in both the natural rutile and graphite markets** with steady state production of 265,000 tonnes of rutile and 170,000 tonnes of graphite over a 25-year mine life

Low capital costs to first production due to exceptional existing infrastructure offering significant cost reductions and providing optionality and scalability

Low operating cost and high margins due to deposit size, zero strip ratio with soft, friable high-grade mineralisation from surface, amenability to hydro-mining, conventional processing, enviable deposit location and low transport costs

Extremely favourable market fundamentals as rutile (titanium) and natural graphite deemed critical raw materials for the US and EU based on economic importance and supply risk

Natural rutile market in structural deficit with current global supply estimated to decline 45% in the next three years with graphite demand set to soar as electric vehicle production is forecast to increase 12-fold by 2040

Natural ESG benefits for Kasiya:

- Substantially reduced CO₂ emissions for both rutile and graphite compared to current alternatives, including substantial Scope 3 emissions reductions for pigment production from rutile compared to alternative feedstocks
- Significant social and economic benefits for Malawi including job creation, fiscal returns, training and continued community social initiatives
- Study based on conservative commodity price estimates. Long-term rutile price (real) of US\$1,254/t versus current spot price of +US\$2,200/t¹ and long-term natural graphite basket price (real) of US\$1,085/t versus current equivalent spot price of US\$1,223/t²

The Study envisages a 25-year mine life during which time both rutile and graphite are produced during two stages:

Stage 1

Years 0-5: 12Mt of ore processed per annum to produce approximately 145,000 tonne of natural rutile and 85,000 tonnes of flake graphite per annum

Stage 2

Years 6-25: Additional 12Mt capacity for total 24Mt of ore processed per annum to produce approximately 265,000 tonnes of natural rutile and 170,000 tonnes of flake graphite per annum. Stage 2 will be funded from cashflows from Stage 1.

Table 1: Key Scoping Study Outcomes		
Outcome	Unit	Kasiya Rutile Project
NPV₀ (real post-tax)	US\$	\$1,537M
NPV10 (real post-tax)	US\$	\$1,185M
IRR (post-tax)	%	36%
Capital Costs to First Production - Stage 1	US\$	\$372M
Expansion Capex – Stage 2 (funded from project cashflows)	US\$	\$311M
Operating Costs	US\$/t mined	\$5.86
Operating Costs	US\$/t product	\$320
Revenue to Cost Ratio	Х	3.0
NPV ₈ / Capital Costs to First Production	Х	4.1
\mathcal{I}		
Throughput (LOM)	Mtpa	21.6
Life of Mine	years	25
Annual Production – rutile	ktpa	242
Annual Production – graphite	ktpa	155
Total Revenue (LOM)	US\$	\$12,038M
Annual Revenue (Average LOM)	US\$	\$482M
Annual EBITDA (Average LOM)	US\$/year	\$323M
Payback – from start of production	years	2.6 years
Payback – from start of construction	years	3.7 years
Government Royalties (LOM)	US\$	\$601M
Corporate Taxes (LOM)	US\$	\$2,138M



ESS OVERVIEW

Sovereign is aiming to develop an environmentally and socially sustainable operation to be the largest supplier of highly sought-after natural rutile to global markets and an important low-cost natural graphite supplier.



Figure 1: High-level schematic of the proposed Kasiya Rutile Project

The proposed large-scale operation will process soft, friable mineralisation from surface. The 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.

Graphite rich concentrate is collected from the gravity spirals and processed in a separate graphite flotation plant, producing a high purity and high value coarse-flake graphite product.

The Project has excellent surrounding infrastructure including bitumen roads, a high-quality rail line connecting to the deep-water of Nacala on the Indian Ocean and hydro-sourced grid power. At full production, rutile and graphite products will be railed directly from a purpose-built rail dry port at the mine site eastward via the Nacala Logistics Corridor (NLC) to the deep-water port of Nacala or southward via the Sena Rail Line to the deep-water port of Beira.

LOW CARBON ADVANTAGE FOR TWO CRITICAL RAW MATERIALS

Natural Rutile – critical to lowering the Titanium industry's carbon footprint

Like many other industries globally, the titanium dioxide pigment industry is targeting reduced carbon emissions, reduced energy consumption and a move toward renewable energy and waste minimisation. A shift towards a greater percentage of natural rutile feedstock offers the titanium pigment industry a simple and short lead-time opportunity to significantly lower its carbon intensity and total environmental impact.

Sovereign's natural rutile product is expected to have substantially lower Global Warming Potential (**GWP**) (Scope 1, 2 and 3 scope emissions) when compared to other titanium feedstock alternatives produced by upgrading ilmenite (i.e., synthetic rutile and titania slag). Using natural rutile from Kasiya as titanium feedstock for the chloride pigment process would significantly reduce Scope 1, 2 and 3 greenhouse gas emissions.

Titanium feedstock is a key component of various industrial and consumer products. Therefore, utilising natural rutile such as from Kasiya as direct use titanium feedstock could hold the solution to developing low-carbon footprint products including low carbon paints.





Potential CO2e savings using Kasiya rutile in alkyd paint

Figure 3: GWP impact of natural rutile production from Kasiya as a titanium feedstock vs. alternatives (Source: Minviro)

Titania

Slag

Synthetic

Rutile

Natural Graphite - a significant component in lithium-ion batteries for electric vehicles

The lithium-ion battery sector is the main emerging market for flake graphite. Greater capacity batteries, such as those required for electric vehicles, are expected to drive significant demand for graphite over the coming years. It is forecast the battery sector will drive the largest demand for graphite by 2028, with graphite making up to 50% of the composition of a lithium-ion battery.

Currently, China is the world's largest supplier of natural flake graphite. In 2020, leading data provider and market intelligence publisher Benchmark Mineral Intelligence reported that China produced 86% of all lithium-ion battery anodes from natural and synthetic graphite and 100% of all the world's natural graphite anodes.

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 CO₂e – 5x lower than producing natural flake graphite concentrate in the Heilongjiang Province, China and 103x lower than production of synthetic graphite.



Figure 4: Global Warming Potential of Kasiya's natural graphite vs. natural graphite produced in Heilongjiang Province, China and synthetic graphite produced in China

(Sources: Minviro Ltd; Journal of Industrial Ecology)

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 Heilongjiang Province, China where hard-rock ore requires drilling, blasting, excavation, trucking, crushing, and grinding - overall high CO2e activities.



LOW-COST OPERATION

Kasiya's low operating costs are achieved through deposit size and grade, zero strip ratio, location and excellent existing operational infrastructure. Central Malawi boasts hydropower and an extensive sealed road network. The Kasiya Rutile Project is strategically located in close proximity to the capital city of Lilongwe, providing access to a skilled workforce and industrial services.

The existing quality logistics routes to the Indian Ocean deep-water ports of Nacala and Beira for the export of products to global markets provides significant capital cost savings for Kasiya compared to many other undeveloped minerals projects.

The soft, friable and high-grade mineralisation occurring from surface results in no waste stripping requirement and the amenability to hydro-mining means the mining cost component is kept relatively low.

One of the highest Revenue : Cost of Sales Ratios in the Mineral Sands Industry

The revenue-to-cash cost ratio of 3.0x positions Kasiya in the first quartile compared to other undeveloped mineral sands operations. The production of high value natural rutile and graphite provides strong margins with a cash margin of over 67% for the life of the operation.

The Study has applied conservative pricing assumptions for both products which still results in a strong position on the revenue to cost ratio. This supports the robustness of the Kasiya operation and its strong profitability during different pricing environments and the revenue stability of two different products with different demand drivers.



Figure 5: Revenue to cost ratio (Sources: see Appendix 2)



Lowest Cost Flake Graphite Project in the World

Benchmarking the co-product production cost of graphite from Kasiya based on the Study results against peer flake graphite projects positions Kasiya as the lowest operating cost graphite project in the world. Kasiya has an average life-of-mine FOB (Nacala) operating cost of US\$320 per tonne of product (rutile plus graphite). On an incremental cost basis reflecting graphite production as a co-product to primary rutile production, the operating cost is US\$140 per tonne of graphite produced (FOB Nacala).



Figure 6: Actual and Forecast Graphite Production (non-Chinese)

(Sources: See Appendix 2; All costs presented as FOB and exclusive of royalties)

*Syrah Resources (E) is the only producer and is presented as US\$464 per tonne FOB (Q1 2022 results) with production based on last reported quarter on an annualised basis

**Northern Graphite (L) costs and production include both Phase 1 (Feasibility Study) and Phase 2 (Preliminary Economic Analysis)

KASIYA: MINING AND PROCESSING FRONT END



Figure 7: Schematic of Kasiya's co-product graphite mining and processing front end compared to hard-rock peers



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 CO₂ 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 (Figure 8). Additionally, the graphite by-product MRE at Kasiya places it as one of the largest flake graphite deposits in the world.



Figure 8: Major rutile dominant resources (Sources: refer to Appendix 2)



Figure 9: Major listed global flake graphite resources (Sources refer to Appendix 2)



Mineral Resource Category	Material Tonnes (millions)	Rutile (%)	Rutile Tonnes (millions)	Total Contained Graphite (TGC) (%)	TGC Tonnes (millions)	RutEq. Grade* (%)
Indicated	662	1.05%	6.9	1.43%	9.5	1.76%
Inferred	1,113	0.99%	11.0	1.26%	14.0	1.61%
Total	1,775	1.01%	18.0	1.32%	23.4	1.67%

*RutEq. Formula: Rutile Grade x Recovery (98%) x Rutile Price (US\$1,308/t) + Graphite Grade x Recovery (62%) x Graphite Price (US\$1,085/t) / Rutile Price (US\$1,308/t). All assumptions are taken from this Study ** Any minor summation inconsistencies are due to rounding



Figure 10: 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 180km² (Figure 10). 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 1.76% 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 3). The overall recovered rutile equivalent grade for the MRE at the global 0.7% cut-off is 1.67% RutEq. (Table 2).

Table 3: 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



OFFTAKE AND MARKETING ALLIANCE

In July 2022, Sovereign entered into a non-binding Memorandum of Understanding (**MoU**) with Mitsui & Co Ltd (**Mitsui**), one of the largest global trading and investment companies in Japan. The MoU establishes a marketing alliance and offtake for 30,000 tonnes of natural rutile per annum from the Company's world-class Kasiya project.

This MoU creates a marketing alliance between the two parties to jointly market Sovereign's rutile across Asia and other markets. The alliance will allow Sovereign to leverage off Mitsui's extensive network and their market-leading understanding of the titanium industry and global logistics.

Mitsui has shared samples of rutile product from Kasiya with Asian end-users that have confirmed its premium chemical specifications should be suitable for use in their titanium sponge and pigment processes, as a precursor for high-grade, high-specification titanium metal and pigment production.

COMMENCEMENT OF PFS

Activities for Kasiya's PFS have commenced with globally recognised consultants appointed with the Company hosting a site visit for all major consultants during the quarter. The first key PFS program was initiated with the commencement of a major drilling program across Kasiya.



Figure 11 & 12: Sovereign's PFS project team in Malawi. Left: Examining a historical borrow pit and Right: Team briefing.



Drilling

A 10,000m air-core (**AC**) drilling program was designed to extend Indicated zones at depth to base of saprolite ~20 - 25m, from the current ~10m average drill depth. Drilling will be on a 200m x 200m grid to target Indicated classification which should convert to Probable Reserves as part of the PFS.



Figure 13: Drone photo of air-core drilling at Kasiya overseen by Sovereign's geology team

The Company has also commenced a core (push-tube) drilling program across Inferred areas of the MRE. This in-fill program is targeting nearer-surface, high-grade areas for conversion to Indicated and Measured resources.

In parallel to these mechanical drill programs, the Company is continuing extensional and regional hand-auger drilling with multiple drill teams active across the Company's extensive target areas at Kasiya with the aim to expand the overall mineralised footprint and identify further high-grade rutile zones.

The low cost and low impact hand-auger drilling technique has proven to be a very effective exploration tool in the initial delineation of the Kasiya rutile and graphite MRE.



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 TiO₂ feedstocks increased further with all rutile end-user sectors continuing to seek more supply than is available as they aim to maximise output.

Supply of high-grade feedstock remains constrained with no new major sources of supply likely to impact the market in the short term. Rutile prices increased again through the quarter with further price gains likely in the September 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.

Sources:

Base Resources Limited – Quarterly Activities Report – June 2022 Iluka Resources Limited – Quarterly Review to 30 June 2022

INSTITUTIONAL PLACEMENT

During the quarter, Sovereign completed a placement for A\$15 million (gross proceeds) from UK, European and North American institutional investors to subscribe for 22,210,268 new ordinary shares of the Company at an issue price of A\$0.67 plus a one-for-two unlisted option with an exercise price of A\$0.80 and 12 month expiry.

Thematica Future Mobility UCITS Fund, a Luxembourg-based green energy fund with a strong emphasis on Critical Raw Materials and ESG, was the cornerstone participant in the well-supported Placement which will fund exploration and development activities at Kasiya.

RELATED PARTY PAYMENTS

During the quarter ended 30 June 2022, the Company made payments of \$376,000 to related parties and their associates. These payments relate to existing remuneration arrangements (executive salaries, director fees, superannuation and bonuses of \$231,000), business development services (\$45,000) and provision of serviced office facilities, company secretarial services and administration services (\$100,000).



MINING EXPLORATION EXPENDITURES

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

Activity	A\$'000
Drilling	(103)
Assaying and Metallurgical Test-work	(112)
Studies and Reserve/Resource Estimation	(412)
Field Supplies, Equipment, Vehicles	(199)
Tenement Rents and Rates	(2)
Malawi Operations - Site Office, Personnel and Travel	(507)
Total as reported in Appendix 5B	(1,335)

There were no mining or production activities and expenses incurred during the quarter ended 30 June 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 June 2022 entitled 'Kasiya Expanded Scoping Study Results'. 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

As at 30 June 2022, the Company had an interest in the following tenements:

Licence	Holding Entity	Interest	Туре	Licence Renewal Date	Expiry Term Date ¹	Licence Area (km²)	Status
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 ²	729.2	Granted
EL0492	SSL	100%	Exploration	29/01/2023	29/01/2025	935.4	Granted
EL0528	SSL	100%	Exploration	27/11/2021 ³	27/11/2025	16.2	Granted
EL0545	SSL	100%	Exploration	12/05/2022 ³	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 ⁴
RL0012	SSL	100%	Retention	N/A	26/07/2026	6.0	Granted

Notes:

SSL: Sovereign Services Limited & MML: McCourt Mining Limited

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.

² 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.

³ EL0528 and EL0545 currently under application for renewal.

⁴ Relinquishment report submitted.



APPENDIX 2 – PEER SOURCE INFORMATION

SOURCE 1 – MINERAL SANDS PEER INFORMATION

Reference	Company	Project	Stage of Development	Revenue to Cost ratio	Source
Ilmenite -Madagascar	Base Resources	Toliara	FS Complete	3.5	ASX Announcement: https://wcsecure.weblink.com.au/pdf/BSE/02426235.pdf
llmenite – Western Australia	Strandline	Coburn	Construction	2.4	Investor Presentation: https://www.strandline.com.au/irm/PDF/35d74951-750a-4bdf- 8234-62e58a2d10a9/InvestorPresentation
Zircon – Western Australia	Sheffield Resources	Thunderbird	FS Complete	2.1	ASX Announcement: https://www.sheffieldresources.com.au/site/PDF/1b39388b- 3a10-4733-9976- 167a3d4a2333/BFSUpdateMateriallyImprovesProjectEconomics
Ilmenite – Greenland	Bluejay Mining	Dundas	FS Complete	2.0	Investor Presentation: https://bluejaymining.com/wp-content/uploads/2021/09/Jay- Corporate-September-2021-1.pdf

SOURCE 2 – GRAPHITE PEERS INFORMATION

	Company	Project	Stage of Development	Operating Costs (FOB) <i>US\$/t</i>	Steady State Production <i>tpa</i>	Current Production <i>tpa</i>	Source
A	Walkabout Resources	Lindi	Construction	347	40,000	n/a	ASX Announcement: Updated DFS Confirms Standout Graphite Project (7 Mar 2019)
B	Renascor	Siviour	DFS Complete	355	105,000	n/a	ASX Announcement: Siviour Definitive Feasibility Stud (11 Nov 2019)
C	Mason Graphite ¹	Lac Gueret	FS Complete	370	51,865	n/a	SEDAR FILING: NI 43-101 Technical Report: Feasibility Study Update of the Lac Gueret Graphite Project (12 Dec 2018)
P	Nouveau Monde ¹	Matawinie	Construction	382	100,000	n/a	SEDAR FILING: NI 43-101 Technical Feasibility Study Report for the Matawinie Graphite Project (10 Dec 2018)
E	Syrah Resources²	Balama	Production	464	184,000	46,000	ASX Announcement: Q1 2022 Quarterly Activities Report (27 Apr 2022)
F	NextSource Materials	(Molo Phase 2)	PEA Complete	496	150,000	n/a	Press Release: MD&A March 2022 (16 May 2022)
G	Écograf	Epanko	BFS Complete	500	60,000	n/a	ASX Announcement: Positive Response to Proposed US\$60m Epanko Debt Financing (10 Mar 2019)
Н	SRG Mining	Lola	FS Complete	508	55,000	n/a	SEDAR FILING: Lola Graphite Project NI 43-101 Technical Report - Feasibility Study (16 Aug 2019)
I	Magnis Energy	Nachu	BFS Complete	559	220,000	n/a	ASX Announcement: Nachu Bankable Feasibility Stuc Finalised (31 Mar 2016)
J	NextSource Materials	(Molo Phase 1)	Construction	566	17,000	n/a	SEDAR Filing: 2021 Annual Information Form (28 Sep 2021)
K	Triton Minerals	Ancuabe	DFS Complete	634	60,000	n/a	COMPANY PRESENTATION: Developing the World Class Ancuabe Graphite Projec (16 Feb 2022)
L	Northern Graphite ³	Bisset Creek	FS & PEA	660	44,000	n/a	COMPANY PRESENTATION: Building the leading public graphite company (May 2022)
М	Volt Resources	Bunyu (Stage 1)	FS Complete	664	23,700	n/a	ASX Announcement: Positive Stage 1 Feasibility Stud For Bunyu Graphite Project, Tanzania (30 Jul 2018)
Ν	Graphite One	Graphite One	PEA Complete	960	60,000	n/a	NI 43-101 Preliminary Economic Analysis On the Graphite One Project (30 Jun 2017)

1. Canadian dollar (CAD) costs converted to US\$ at CAD1.307 / US\$

2. Operating costs shown are actual C1 cash costs for Q1 2022; Steady State Production is last quarter natural graphite production annualised

3. Includes Phase 1 (Feasibility Study Stage) and Phase 2 (PEA Stage)



SOURCE 3 – RUTILE MINERAL RESOURCES INFORMATION

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

Detailed Mineral Resources by Category

	Mt	Rutile Grade*	In-situ Rutile
Measured	178	1.4%	2.4
Indicated	309	1.0%	3.1
Inferred	265	1.0%	2.6
Total	752	1.1%	8.1
2. Iluka Resources - Balranald			
	Mt	Rutile Grade*	In-situ Rutile
Measured	12	3.8%	0.5
Indicated	28	4.3%	1.2
Inferred	13	3.0%	0.4
Total	53	3.7%	2.0
3. Base Resources - Kwale			
	Mt	Rutile Grade*	In-situ Rutile
Measured	160	0.3%	0.3
Indicated	91	0.2%	0.2
Inferred	13	0.2%	0.2
Total	254	0.2%	0.7
	(•
Rutile grade calculated as HM% times rutile % of	tassemblage		



SOURCE 4 – GRAPHITE RESOURCE INFORMATION

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

Detailed Mineral Resources by Category

1. Syrah Resources – Balama			
	Mt	TGC (%)	In-situ TGC
Measured	23	17.5%	4.0
Indicated	378	11.2%	42.3
Inferred	1,020	9.8%	100.0
Total	1,421	10.3%	146.3
2. Volt Resources - Bunyu			
	Mt	TGC (%)	In-situ TGC
Measured	20	5.3%	1.1
Indicated	155	5.0%	7.8
Inferred	286	4.9%	14.0
Total	461	4.9%	22.6
3. Black Rock Mining – Mahenge			
	Mt	TGC (%)	In-situ TGC
Measured	32	8.6%	2.7
Indicated	85	7.8%	6.6
Inferred	97	7.4%	7.2
Total	213	7.8%	16.6
4. Mason – Lac Gueret			
	Mt	TGC (%)	In-situ TGC
Measured	19.0	17.9%	3.4
Indicated	46.5	16.9%	7.9
Inferred	17.6	17.3%	3.4
Total	83.2	17.6%	14.7



_	Measured	
	Indicated	
	Inferred	
F	Total	
10	6. NextSource - Molo	
$(\subset$	Measured	
C	Indicated	
	Inferred	
	Total	
	7. Graphite One – Graphite	0
2	Measured	
(? [Indicated	
U	Inferred	
	Total	
	8. Focus – Lac Tetepisca	
	Measured	
	Indicated	
	Inferred	
(\cap)	Total	
7		
14		

5. Magnis - Nachu			
	Mt	TGC (%)	In-situ TGC
Measured	63	4.7%	3.0
Indicated	61	5.7%	3.5
Inferred	50	5.8%	2.9
Total	174	5.4%	9.3
6. NextSource - Molo			
	Mt	TGC (%)	In-situ TGC
Measured	160	0.3%	0.3
Indicated	91	0.2%	0.2
Inferred	13	0.2%	0.2
Total	254	0.2%	0.7
7. Graphite One – Graphite One			
	Mt	TGC (%)	In-situ TGC
Measured	2	8.0%	0.1
Indicated	9	7.7%	0.7
Inferred	92	8.0%	7.3
Total	103	8.0%	8.2
8. Focus – Lac Tetepisca			
	Mt	TGC (%)	In-situ TGC
Measured	_	-%	-
Indicated	59	10.6%	6.3
Inferred	15	11.1%	1.6
Total	74	10.6%	7.9

Appendix 5B

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

Name of entity				
Sovereign Metals Limited				
ABN Quarter ended ("current quarter")				
71 120 833 427	30 June 2022			

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(1,335)	(6,257)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(573)	(1,473)
	(e) administration and corporate costs	(290)	(878)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	8	20
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	(255)	(785)
1.8.3	Initial AIM Dual Listing Fees	-	(547)
1.9	Net cash from / (used in) operating activities	(2,445)	(9,920)

2.	Cash flows from investing activities		
2.1	Payments to acquire or for:		
	(a) entities	-	
	(b) tenements	-	
	(c) property, plant and equipment	(235)	(405
	(d) exploration & evaluation	-	
	(e) investments	-	

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 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	(235)	(405)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	14,915	16,839
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	4,189	5,066
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(372)	(500)
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	18,732	21,405

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	2,837	7,959
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,445)	(9,920)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(235)	(405)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	18,732	21,405

ASX Listing Rules Appendix 5B (17/07/20) + See chapter 19 of the ASX Listing Rules for defined terms.

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	5	(145)
4.6	Cash and cash equivalents at end of period	18,894	18,894

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	1,322	1,848
5.2	Call deposits	17,572	989
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)	18,894	2,837

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	376
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
	if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include pation for, such payments.	e a description of, and an

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

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7.	Financing facilities 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 qu	arter 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.		tional financing

8.	Estima	ated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)		(2,445)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))		-
8.3	Total relevant outgoings (item 8.1 + item 8.2)		(2,445)
8.4	Cash and cash equivalents at quarter end (item 4.6) 18,		18,894
8.5	Unused	used finance facilities available at quarter end (item 7.5)	
8.6	Total available funding (item 8.4 + item 8.5) 18,89		
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)		7.7
	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: Not applicable		
	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: Not applicable		
	8.8.3	Does the entity expect to be able to continue its operations an objectives and, if so, on what basis?	d to meet its business
	Answer: Not applicable		
	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 July 2022

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

Notes

- 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.