

18 August 2021



## MALAWI RUTILE PROVINCE CONTINUES TO EXPAND WITH LATEST DRILLING RESULTS FROM NSARU

Sovereign Metals Limited (the **Company** or **Sovereign**) is pleased to report further drilling results from the recently discovered Nsaru rutile deposit within the Malawi rutile province. Nsaru is located adjacent to, and within the same geological domain as Kasiya where the Company recently reported the maiden Mineral Resource Estimate (**MRE**) of 644Mt at 1.01% rutile.

Step-out drilling has increased the Nsaru rutile-mineralised footprint to 40km<sup>2</sup> (from 25km<sup>2</sup> previously). Overall, the Company's drilling at Kasiya and Nsaru has now defined a very large-scale area of high-grade rutile at 129km<sup>2</sup>. The Kasiya JORC MRE covers just 38% of this area, offering substantial resource growth potential.

### HIGHLIGHTS

- Phase 2 drilling confirms and expands the high-grade rutile discovery at Nsaru
- A total of 98 exploration holes were drilled to depths of up to 14m. 94 holes showed high-grade rutile with **very high-grades shown consistently in the top 3-5m from surface** including;
  - 11m @ 1.29% inc. 5m @ 1.55% rutile
  - 10m @ 1.51% inc. 3m @ 1.99% rutile
  - 10m @ 1.51% inc. 4m @ 2.14% rutile
  - 8m @ 1.25% inc. 5m @ 1.43% rutile
  - 7m @ 1.18% inc. 4m @ 1.55% rutile
  - 11m @ 1.17% inc. 4m @ 1.53% rutile
  - 10m @ 1.14% inc. 5m @ 1.37% rutile
  - 10m @ 1.08% inc. 4m @ 1.46% rutile
  - 10m @ 1.14% inc. 7m @ 1.38% rutile
  - 12m @ 1.16% inc. 4m @ 1.51% rutile
  - 10m @ 1.15% inc. 5m @ 1.36% rutile
  - 9m @ 1.32% inc. 5m @ 1.59% rutile
  - 10m @ 1.17% inc. 2m @ 1.41% rutile
  - 6m @ 1.13% inc. 2m @ 2.14% rutile
- Nsaru now shows consistent high-grade rutile mineralisation from surface with lateral **widths of up to 9.0km across and a current strike length of about 11.5km.**
- The high-grade rutile envelope remains open** to the north toward Kasiya and to the south.
- The **area of drilled mineralisation** to date at Nsaru has grown from 25km<sup>2</sup> to **40km<sup>2</sup>** – a 37% increase.

Combined with Kasiya's footprint of **89km<sup>2</sup>** this gives a **total mineralised area of 129km<sup>2</sup>**. Only **49km<sup>2</sup> (or 38%)** of this area is in the current Kasiya MRE offering significant resource growth potential.

**Sovereign's Managing Director Dr Julian Stephens commented:**

*"The high-grade Nsaru rutile deposit builds on and continues to validate our view that we have discovered one of the world's largest and most strategic natural rutile provinces. In parallel with the Company's primary Scoping Study objectives at Kasiya, the team is rapidly progressing resource drilling at Nsaru in preparation for a JORC resource estimate toward the end of the year. This is an important step toward the Company's objective of becoming a future supplier of premium grade natural rutile to the global titanium markets."*

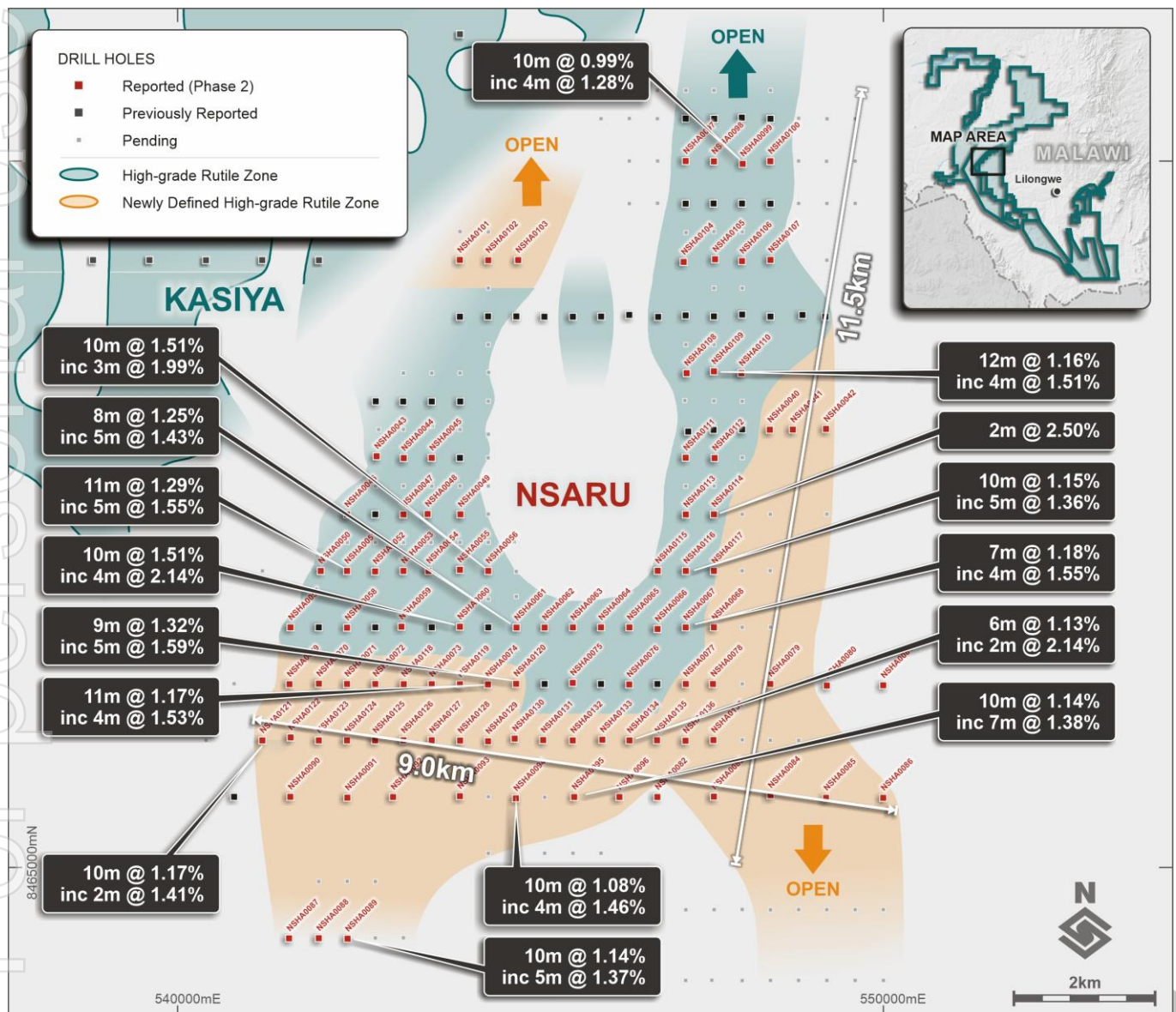


Figure 1. Drill-hole location map showing the extensive and consistent high-grade rutile mineralisation at Nsaru.

## ENQUIRIES

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## NSARU RUTILE DISCOVERY

Nsaru was identified by the Company's geological team as an area with strong potential for rutile mineralisation using the proprietary geological exploration targeting model developed in-house by Sovereign. Nsaru is located within just a few kilometres of the large and high-grade Kasiya rutile deposit and may eventually link up with Kasiya once more drilling has been completed.

Initially, 39 wide-spaced, reconnaissance hand-auger holes were drilled in Phase 1 for a total of 371m to test Nsaru. A further 98 holes for 842m in Phase 2 are reported now (Figure 1). This infill and extensional drilling program has continued to intersect high-grade rutile mineralisation generally from surface to up to 14m depth. In some zones, high-grade rutile remains open at depth with these zones also developing good coherency along strike.

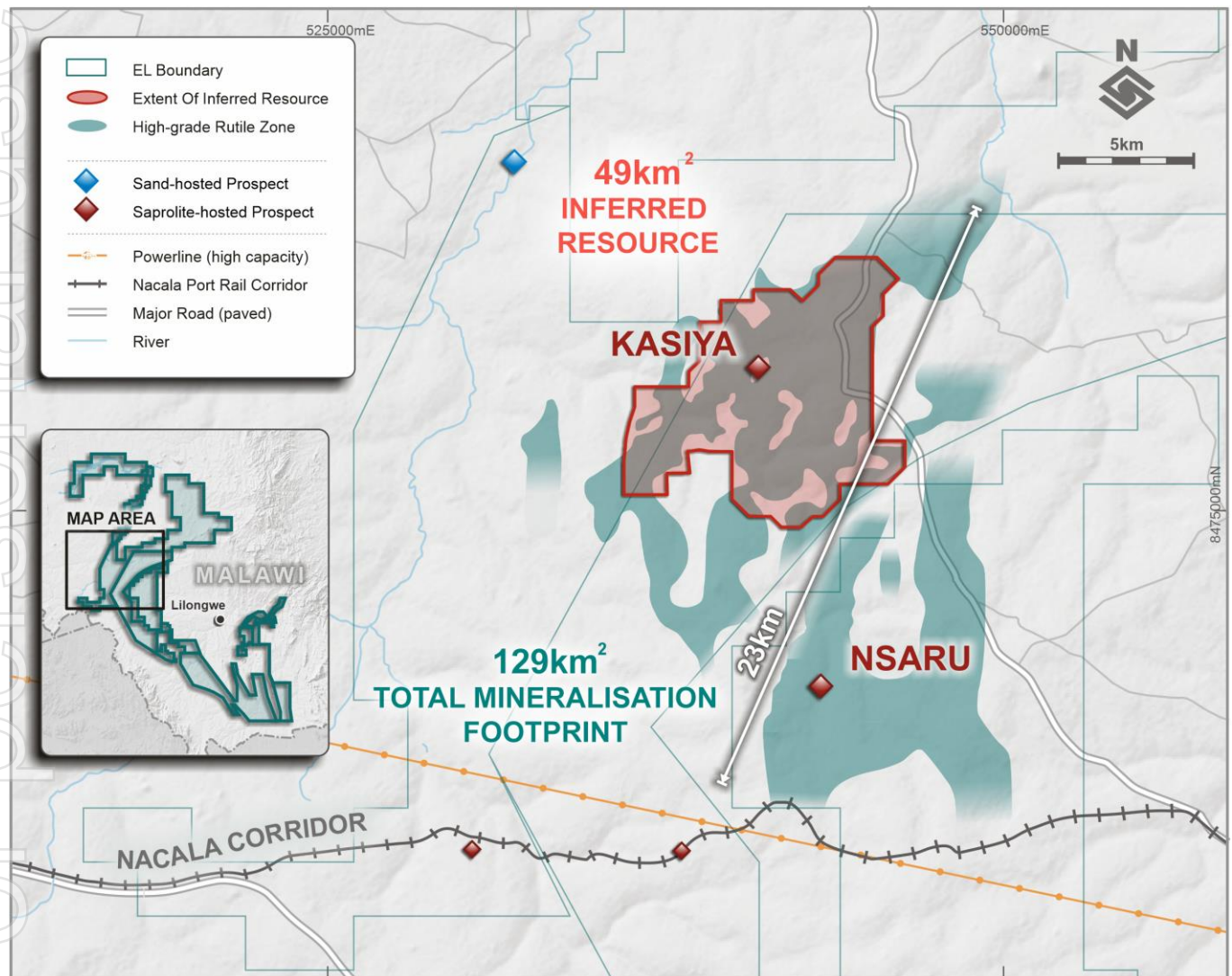


Figure 2. Map of new mineralised area at Nsaru showing its relationship to the large Kasiya rutile deposit.

Nsaru now shows a high-grade mineralised envelope with widths of up to 9.0km across and a strike length of about 11.5km. Mineralisation remains open along strike to the north and to the south at its widest zone. The area of high-grade rutile mineralisation identified by drilling to date at Nsaru is now approximately 40km².

When added to the mineralised area at Kasiya of 89km², Sovereign's total high-grade mineralised footprint is now approximately 129km². Just 38% of this area is currently classified within the Kasiya MRE, suggesting significant resource growth potential.

The Company has commenced a systematic drill program at Nsaru aimed at bringing the drill spacing down to 400m by 400m to incorporate the results into a future MRE. A 100+ hole core drilling program has also been planned for completion at Nsaru later in the year to bring higher-grade areas to the JORC Indicated category.

## FORWARD PLAN

The JORC MRE released in June 2021 confirmed Kasiya as one of the world's largest undeveloped rutile deposits. The Company's next major technical milestone is the Kasiya Scoping Study (**Study**) with completion targeted for late 2021. The objective is to develop a large-scale, long life, environmentally sustainable and socially responsible natural rutile operation.

In addition to the Study and supporting activities, the Company has the following work programs underway:

- ✦ +2,000m core drilling program ongoing at Kasiya targeting Indicated JORC MRE category to feed into the Study.
- ✦ Continued extensional and infill drilling at Nsaru and the broader surrounding area to identify extensions, discover new regional mineralised zones.
- ✦ Further metallurgical test-work has now commenced on a bulk representative sample from Kasiya.
- ✦ Investigation and further test-work for a potential coarse-flake graphite by-product from Kasiya.



Figure 3. Drone image at the Nsaru area showing typical flat and open landscape of central Malawi.



## DRILL RESULTS

Drilling results from Phase 2 at Nsaru are shown below in Table 1.

Hole ID	Interval Thickness	Rutile %	From (m) Downhole	Comments	Purpose
NSHA0040	5	0.59	surface		exploration
NSHA0041	10	0.87	surface	open at depth	exploration
incl	4	1.11	surface		
NSHA0042	10	0.86	surface	open at depth	exploration
incl	4	1.17	surface		
NSHA0043	5	0.88	surface	open at depth	exploration
incl	2	1.15	surface		
NSHA0044	7	1.07	surface	open at depth	exploration
incl	4	1.26	surface		
NSHA0045	11	0.95	surface	open at depth	exploration
incl	5	1.02	surface		
NSHA0046	4	0.60	surface		exploration
NSHA0047	11	1.08	surface	open at depth	exploration
incl	4	1.35	surface		
NSHA0048	5	1.28	surface	open at depth	exploration
NSHA0049	11	0.92	surface	open at depth	exploration
incl	4	1.24	surface		
NSHA0050	3	1.00	surface	open at depth	exploration
<b>NSHA0051</b>	<b>11</b>	<b>1.29</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>5</b>	<b>1.55</b>	<b>surface</b>		
NSHA0052	4	1.12	surface		exploration
NSHA0053	3	0.68	surface		exploration
NSHA0054	5	1.31	surface	open at depth	exploration
incl	3	1.56	surface		
NSHA0055	10	1.08	surface	open at depth	exploration
incl	4	1.23	6m		
<b>NSHA0056</b>	<b>10</b>	<b>1.51</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>3</b>	<b>1.99</b>	<b>surface</b>		
NSHA0057	5	0.70	surface	open at depth	exploration
NSHA0058	10	0.85	surface	open at depth	exploration
incl	4	1.11	surface		
NSHA0059	4	0.88	surface		exploration
<b>NSHA0060</b>	<b>10</b>	<b>1.51</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>4</b>	<b>2.14</b>	<b>surface</b>		
<b>NSHA0061</b>	<b>8</b>	<b>1.25</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>5</b>	<b>1.43</b>	<b>surface</b>		
NSHA0062	4	1.65	surface	open at depth	exploration
NSHA0063	5	1.22	surface	open at depth	exploration
NSHA0064	6	0.99	surface	open at depth	exploration
incl	2	1.52	surface		
NSHA0065	7	1.10	surface	open at depth	exploration

Hole ID	Interval Thickness	Rutile %	From (m) Downhole	Comments	Purpose
incl	3	1.32	surface		
NSHA0066	5	0.98	surface		exploration
<b>NSHA0067</b>	<b>7</b>	<b>1.18</b>	<b>surface</b>		<b>exploration</b>
incl	4	1.55	surface		
NSHA0068	10	0.97	surface	open at depth	exploration
incl	2	1.04	surface		
NSHA0069	4	0.57	3m		exploration
NSHA0070	10	0.79	surface	open at depth	exploration
incl	2	1.37	surface		
NSHA0071	4	0.67	surface		exploration
NSHA0072	5	1.03	surface	open at depth	exploration
incl	4	1.13	surface		
NSHA0073	8	1.04	surface	open at depth	exploration
incl	5	1.15	surface		
<b>NSHA0074</b>	<b>11</b>	<b>1.17</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
incl	4	1.53	surface		
NSHA0075	10	1.11	surface	open at depth	exploration
incl	3	1.33	surface		
NSHA0076	11	0.96	surface	open at depth	exploration
incl	4	1.22	surface		
NSHA0077	6	0.92	surface	open at depth	exploration
incl	4	1.01	surface		
NSHA0078	8	0.83	surface	open at depth	exploration
incl	2	1.26	surface		
NSHA0079	4	1.21	surface		exploration
NSHA0080	no significant results			exploration	
NSHA0081	no significant results			exploration	
NSHA0082	no significant results			exploration	
NSHA0083	9	0.74	surface	open at depth	exploration
NSHA0084	8	0.85	surface	open at depth	exploration
incl	5	1.04	surface		
NSHA0085	10	0.74	surface	open at depth	exploration
NSHA0086	2	0.54	surface		exploration
NSHA0087	5	0.83	4m	open at depth	exploration
incl	1	1.08	8m		
NSHA0088	5	1.13	surface		exploration
<b>NSHA0089</b>	<b>10</b>	<b>1.14</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
incl	5	1.37	surface		
NSHA0090	2	1.24	surface	open at depth	exploration
NSHA0091	no significant results			exploration	
NSHA0092	4	0.62	surface	open at depth	exploration
NSHA0093	4	1.41	surface	open at depth	exploration
<b>NSHA0094</b>	<b>10</b>	<b>1.08</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
incl	4	1.46	surface		
<b>NSHA0095</b>	<b>10</b>	<b>1.14</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>

Hole ID	Interval Thickness	Rutile %	From (m) Downhole	Comments	Purpose
<b>incl</b>	<b>7</b>	<b>1.38</b>	<b>surface</b>		
NSHA0096	5	0.63	surface		exploration
NSHA0097	7.5	1.21	surface	open at depth	exploration
incl	5	1.51	surface		
NSHA0098	9	1.22	surface	open at depth	exploration
incl	4	1.62	surface		
<b>NSHA0099</b>	<b>10</b>	<b>0.99</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>4</b>	<b>1.28</b>	<b>surface</b>		
NSHA0100	5	1.22	surface	open at depth	exploration
incl	2	1.61	surface		
NSHA0101	6	1.00	surface	open at depth	exploration
incl	3	1.38	surface		
NSHA0102	11	0.91	surface	open at depth	exploration
incl	4	1.05	surface		
NSHA0103	5	0.59	surface		exploration
NSHA0104	2	1.38	surface	open at depth	exploration
NSHA0105	11	0.88	surface	open at depth	exploration
incl	5	1.19	surface		
NSHA0106	12	0.99	surface	open at depth	exploration
incl	4	1.17	surface		
NSHA0107	4	0.83	surface	open at depth	exploration
NSHA0108	7	1.04	surface	open at depth	exploration
incl	4	1.37	surface		
<b>NSHA0109</b>	<b>12</b>	<b>1.16</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>4</b>	<b>1.51</b>	<b>surface</b>		
NSHA0110	10	0.94	surface	open at depth	exploration
incl	4	1.06	surface		
NSHA0111	4	1.00	surface		exploration
NSHA0112	10	1.06	surface	open at depth	exploration
incl	3	1.41	surface		
NSHA0113	10	0.85	surface	open at depth	exploration
incl	3	1.00	7m		
<b>NSHA0114</b>	<b>2</b>	<b>2.50</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
NSHA0115	7	1.02	surface	open at depth	exploration
<b>NSHA0116</b>	<b>10</b>	<b>1.15</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>5</b>	<b>1.36</b>	<b>surface</b>		
NSHA0117	7	1.08	surface	open at depth	exploration
NSHA0118	5	0.82	surface	open at depth	exploration
NSHA0119	11	1.16	surface	open at depth	exploration
incl	4	1.49	surface		
<b>NSHA0120</b>	<b>9</b>	<b>1.32</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>5</b>	<b>1.59</b>	<b>surface</b>		
<b>NSHA0121</b>	<b>10</b>	<b>1.17</b>	<b>surface</b>	<b>open at depth</b>	<b>exploration</b>
<b>incl</b>	<b>2</b>	<b>1.41</b>	<b>8m</b>		
NSHA0122	12	1.07	surface	open at depth	exploration

Hole ID	Interval Thickness	Rutile %	From (m) Downhole	Comments	Purpose
incl	4	1.34	surface		
NSHA0123	6	0.95	surface		<i>exploration</i>
NSHA0124	3	0.50	surface		<i>exploration</i>
NSHA0125	3	0.64	surface	open at depth	<i>exploration</i>
NSHA0126	9	0.89	surface	open at depth	<i>exploration</i>
NSHA0127	12	0.80	surface	open at depth	<i>exploration</i>
incl	4	1.10	surface		
NSHA0128	13	0.85	surface	open at depth	<i>exploration</i>
incl	5	1.01	surface		
NSHA0129	13	0.98	surface	open at depth	<i>exploration</i>
incl	7	1.12	surface		
NSHA0130	11	0.82	surface	open at depth	<i>exploration</i>
incl	4	1.14	surface		
NSHA0131	5	0.76	surface	open at depth	<i>exploration</i>
NSHA0132	6	0.95	surface	open at depth	<i>exploration</i>
incl	3	1.08	surface		
NSHA0133	8	1.19	surface	open at depth	<i>exploration</i>
incl	5	1.28	surface		
<b>NSHA0134</b>	<b>6</b>	<b>1.13</b>	<b>surface</b>		<b><i>exploration</i></b>
<b>incl</b>	<b>2</b>	<b>2.14</b>	<b>surface</b>		
NSHA0135	11	0.84	surface	open at depth	<i>exploration</i>
incl	4	1.07	7m		
NSHA0136	4	0.83	surface		<i>exploration</i>
NSHA0137	5	0.95	surface		<i>exploration</i>

Table 1.



**Competent Person's Statement**

*The information in this announcement that relates to Exploration Results is based on information compiled by Dr Julian Stephens, a Competent Person who is a member of the Australian Institute of Geoscientists (AIG). Dr Stephens is the Managing Director of Sovereign Metals Limited and a holder of ordinary shares, unlisted performance rights and unlisted options in Sovereign Metals Limited. Dr Stephens has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken, 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'. Dr Stephens consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The information in the announcement that refers to the Kasiya MRE is extracted from an announcement dated 9 June 2021. This announcement is available to view on the Company's website at [www.sovereignmetals.com.au](http://www.sovereignmetals.com.au). The information in the original ASX Announcement that related to Mineral Resources were based on, and fairly represents, information compiled by Mr Richard Stockwell, a Competent Person, who is a fellow of the Australian Institute of Geoscientists (AIG). Mr Stockwell is a principal of Placer Consulting Pty Ltd, an independent consulting company. Mr Stockwell has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity 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'. The Company confirms that a) it is not aware of any new information or data that materially affects the information included in the original market announcement; b) all material assumptions included in the original announcement continue to apply and have not materially changed; and c) the form and context in which the Competent Person's findings are presented have not been materially modified from the original 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.*

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

## APPENDIX 1: DRILL HOLE DATA

Hole ID	Easting	Northing	RL	Depth
NSHA0040	548392	8471200	1169	10.0
NSHA0041	548719	8471200	1173	10.0
NSHA0042	549189	8471209	1175	10.0
NSHA0043	542820	8470824	1104	5.0
NSHA0044	543202	8470797	1104	7.0
NSHA0045	543600	8470800	1112	11.0
NSHA0046	542400	8470000	1124	8.0
NSHA0047	543200	8470000	1123	12.0
NSHA0048	543541	8470006	1110	5.0
NSHA0049	544007	8470001	1125	11.0
NSHA0050	542026	8469200	1128	3.0
NSHA0051	542400	8469200	1135	11.0
NSHA0052	542799	8469193	1134	11.0
NSHA0053	543200	8469200	1127	9.0
NSHA0054	543556	8469200	1115	5.0
NSHA0055	544000	8469217	1129	10.0
NSHA0056	544400	8469200	1135	10.0
NSHA0057	541600	8468400	1137	5.0
NSHA0058	542401	8468397	1142	10.0
NSHA0059	543170	8468410	1124	7.0
NSHA0060	544000	8468410	1137	10.0
NSHA0061	544802	8468398	1135	8.0
NSHA0062	545199	8468398	1135	4.0
NSHA0063	545600	8468400	1145	5.0
NSHA0064	545999	8468401	1153	6.0
NSHA0065	546403	8468400	1158	8.0
NSHA0066	546800	8468378	1160	10.0
NSHA0067	547200	8468400	1158	10.0
NSHA0068	547601	8468400	1150	10.0
NSHA0069	541584	8467597	1153	8.0
NSHA0070	542001	8467604	1148	10.0
NSHA0071	542400	8467600	1138	6.0
NSHA0072	542800	8467600	1131	5.0
NSHA0073	543599	8467598	1136	8.0
NSHA0074	544396	8467592	1146	11.0
NSHA0075	545599	8467615	1153	10.0
NSHA0076	546400	8467592	1169	11.0
NSHA0077	547201	8467600	1166	6.0
NSHA0078	547586	8467598	1166	8.0
NSHA0079	548400	8467600	1163	6.0
NSHA0080	549200	8467576	1175	8.0
NSHA0081	550000	8467580	1173	8.0
NSHA0082	546799	8466000	1155	6.0

Hole ID	Easting	Northing	RL	Depth
NSHA0083	547600	8466004	1168	9.0
NSHA0084	548400	8466024	1181	9.0
NSHA0085	549189	8465987	1171	10.0
NSHA0086	550000	8465987	1162	9.0
NSHA0087	541578	8463998	1161	9.0
NSHA0088	542000	8464000	1165	10.0
NSHA0089	542408	8463993	1164	10.0
NSHA0090	541597	8466001	1151	2.0
NSHA0091	542405	8465990	1144	9.0
NSHA0092	543053	8466000	1136	8.0
NSHA0093	544000	8466011	1153	4.0
NSHA0094	544793	8465980	1159	10.0
NSHA0095	545620	8465999	1154	10.0
NSHA0096	546260	8466000	1152	7.0
NSHA0097	547198	8475002	1152	7.5
NSHA0098	547599	8474999	1157	9.0
NSHA0099	548007	8474963	1155	10.0
NSHA0100	548400	8475001	1145	5.0
NSHA0101	543998	8473602	1120	6.0
NSHA0102	544400	8473599	1131	11.0
NSHA0103	544825	8473600	1138	11.0
NSHA0104	547171	8473574	1148	2.0
NSHA0105	547616	8473612	1159	11.0
NSHA0106	547998	8473588	1159	12.0
NSHA0107	548402	8473603	1150	4.0
NSHA0108	547213	8472000	1161	13.0
NSHA0109	547600	8472025	1168	10.0
NSHA0110	547988	8472000	1170	10.0
NSHA0111	547200	8470802	1156	12.0
NSHA0112	547608	8470798	1161	10.0
NSHA0113	547201	8469999	1145	10.0
NSHA0114	547600	8470000	1145	2.0
NSHA0115	546803	8469202	1142	7.0
NSHA0116	547200	8469200	1143	10.0
NSHA0117	547599	8469200	1144	7.0
NSHA0118	543203	8467597	1126	5.0
NSHA0119	544001	8467595	1144	9.0
NSHA0120	544796	8467603	1141	11.0
NSHA0121	541200	8466800	1157	10.0
NSHA0122	541600	8466843	1152	12.0
NSHA0123	542000	8466800	1144	10.0
NSHA0124	542400	8466800	1138	6.0
NSHA0125	542797	8466801	1132	8.0
NSHA0126	543200	8466802	1133	9.0



Hole ID	Easting	Northing	RL	Depth
NSHA0127	543599	8466802	1144	12.0
NSHA0128	544003	8466798	1151	13.0
NSHA0129	544398	8466789	1154	13.0
NSHA0130	544776	8466826	1150	11.0
NSHA0131	545180	8466805	1143	5.0
NSHA0132	545599	8466800	1145	6.0
NSHA0133	546018	8466810	1150	8.0
NSHA0134	546401	8466801	1158	10.0
NSHA0135	546795	8466803	1163	11.0
NSHA0136	547196	8466796	1168	12.0
NSHA0137	547593	8466805	1175	14.0

\* All holes were vertical.

## APPENDIX 2: JORC CODE, 2012 EDITION – TABLE 1

### SECTION 1 - SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Hand Auger Drilling Commentary
<b>Sampling Techniques</b>	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	A total of 98 hand auger holes for 842.5m were drilled at the Nsaru Prospect to obtain samples for quantitative mineralogical determination.  Samples were composited based on regolith boundaries and chemistry generated by hand-held XRF, generally at 3, 4 or 5m intervals.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Drilling and sampling activities were supervised by a suitably qualified Company geologist who was present at all times. All bulk 1-metre drill samples were geologically logged by the geologist at the drill site  Each 1m sample was sun dried and homogenised. Sub-samples were carefully riffle split to ensure representivity. ~1.5kg composite samples were processed.  Extreme care is taken to ensure an equivalent mass is taken from each 1m sample to make up the composite. The primary composite sample is considered representative for this style of rutile mineralisation.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	Logged mineralogy percentages, lithology information and TiO <sub>2</sub> % obtained from handheld XRF were used to determine compositing intervals. Care is taken to ensure that only lithological units with similar geological and grade characteristics are composited together.
<b>Drilling Techniques</b>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit, or other type, whether core is oriented and if so, by what method, etc).</i>	Hand-auger drilling with 75mm diameter enclosed spiral bits with 1-metre-long steel rods. Each 1m of drill sample is collected into separate sample bags and set aside. The auger bits and flights are cleaned between each metre of sampling to avoid contamination.
<b>Drill Sample Recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Samples are assessed visually for recoveries. Overall, recovery is very good. Drilling is ceased when recoveries become poor once the water table has been reached.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	The Company's trained geologists supervise auger drilling on a 1 team 1 geologist basis and are responsible for monitoring all aspects of the drilling and sampling process.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No bias related to preferential loss or gain of different materials has occurred.
<b>Logging</b>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation mining studies and metallurgical studies.</i>	All individual 1-metre auger intervals are geologically logged, recording relevant data to a set template using company codes. A small representative sample is collected for each 1-metre interval and placed in appropriately labelled chip trays for future reference.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	All logging includes lithological features and estimates of basic mineralogy. Logging is generally qualitative.
	<i>The total length and percentage of the relevant intersection logged</i>	100% of samples are geologically logged.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable – no core drilling conducted.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	Samples from the 98 auger holes drilled were composited. Each 1m sample was sun dried and homogenised. Sub-samples were carefully riffle split to ensure sample representivity. ~1.5kg composite samples were processed.  Extreme care is taken to ensure an equivalent mass is taken from each 1m sample to make up the composite.  The primary composite sample is considered representative for this style of rutile mineralisation and is consistent with industry standard practice.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Use of the above compositing and sampling technique is deemed appropriate given the dry nature of the samples.

Criteria	JORC Code explanation	Hand Auger Drilling Commentary
<b>Quality of assay data and laboratory tests</b>	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	The sampling equipment is cleaned after each sub-sample is taken.
	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Extreme care is taken to ensure an equivalent mass is taken from each 1m sample to make up each composite.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample size is considered appropriate for the material sampled.
	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p>The Malawi onsite laboratories sample preparation methods are considered quantitative to the point where a heavy mineral concentrate (HMC) is generated.</p> <p>Final results generated are for recovered rutile i.e. the % mass of the sample that is rutile that can be recovered to a heavy mineral concentrate.</p> <p>The following workflow for the samples was undertaken on-site in Malawi;</p> <ul style="list-style-type: none"> <li>• Dry sample in oven for 1 hour at 105°C</li> <li>• Soak in water and lightly agitate</li> <li>• Wet screen at 5mm, 600mm and 45µm to remove oversize and slimes material</li> <li>• Dry +45µm -600mm (sand fraction) in oven for 1 hour at 105°C</li> <li>• Pass +45µm -600mm (sand fraction) across wet table twice to generate a heavy mineral concentrate (HMC)</li> <li>• Dry HMC in oven for 30 minutes at 105°C</li> </ul> <p>Bag HMC Fraction and send to Perth, Australia for quantitative chemical and mineralogical determination.</p> <p>The following workflow for the samples was then undertaken at Perth based Laboratories.</p> <ul style="list-style-type: none"> <li>• Magnetic separation of the HMC by Carpco magnet @ 16,800G (2.9Amps) into a magnetic (M) and non-magnetic (NM) fraction. Work undertaken at Allied Mineral Laboratories (AML) in Perth.</li> <li>• The NM fractions were sent to ALS Perth for quantitative XRF analysis.</li> <li>• Rutile is reported as: rutile mineral recovered to the total NM concentrate fraction as a % of the total primary, dry, raw sample mass.</li> </ul>
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	Acceptable levels of accuracy and precision have been established. No handheld methods are used for quantitative determination.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicate, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	ALS used internal XRF standards and duplicates. The overall quality of QA/QC is considered to be good.
<b>Verification of sampling &amp; assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Significant mineralisation intersections were verified by qualified, alternative company personnel.
	<i>The use of twinned holes.</i>	No twin holes have been used.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All data was collected initially on paper logging sheets and codified to the Company's templates. This data was hand entered to spreadsheets and validated by Company geologists. This data was then imported to a Microsoft Access Database then validated automatically and manually.
	<i>Discuss any adjustment to assay data.</i>	Rutile is reported as: rutile mineral recovered to the total NM concentrate fraction as a % of the total primary, dry raw sample mass.
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	<p>A Trimble R2 Differential GPS was used to pick up the hand auger collars.</p> <p>No downhole surveying of auger holes is completed. Given the vertical nature and shallow depths of the auger holes drill hole deviation is not considered to significantly affect the downhole location of samples.</p>
	<i>Specification of the grid system used.</i>	WGS84 UTM Zone 36 South.
	<i>Quality and adequacy of topographic control.</i>	DGPS pickups are considered to be high quality topographic control measures.
<b>Data spacing &amp; distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	<p>The hand auger collars are spaced at approximately 400m along the drill-lines. All extensional holes are designed to provide systematic strike and width extension of the anomalous lines of hand auger drilling previously reported along this same trend.</p> <p>It is deemed that these holes should be broadly representative of the mineralisation style in the general area. More work is required to accurately determine the variability of the mineralisation in the Nsaru region.</p>



Criteria	JORC Code explanation	Hand Auger Drilling Commentary
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	Not applicable, no Mineral Resource or Ore Reserve estimations are covered by new data in this report.
	<i>Whether sample compositing has been applied.</i>	Individual 1-metre auger intervals have been composited over a determined interval of interest for the 98 auger holes drilled in order to obtain a primary sample of ~1.5kg mass for mineralogical analysis.
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known considering the deposit type</i>	No bias attributable to orientation of sampling has been identified.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	All holes were drilled vertically as the nature of the mineralisation is horizontal. No bias attributable to orientation of drilling has been identified.
<b>Sample security</b>	<i>The measures taken to ensure sample security</i>	Samples were stored in secure storage from the time of drilling, through gathering, compositing and analysis. The samples were sealed as soon as site preparation was completed, and again securely stored during shipment and while at Australian laboratories.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data</i>	It is considered by the Company that industry best practice methods have been employed at all stages of the exploration.

## SECTION 2 - REPORTING OF EXPLORATION RESULTS

Criteria	Explanation	Commentary
<b>Mineral tenement &amp; land tenure status</b>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environment settings.</i>	The Company owns 100% of the following Exploration Licences (ELs) under the Mines and Minerals Act 2019, held in the Company's wholly owned, Malawi-registered subsidiary, Sovereign Services Limited: EL0372, EL0355, EL0413, EL0492, EL0528, EL0545, EL0561 and EL0582.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	The tenements are in good standing and no known impediments to exploration or mining exist.
<b>Exploration done by other parties</b>	<i>Acknowledgement and appraisal of exploration by other parties.</i>	No other parties were involved in exploration.
<b>Geology</b>	<i>Deposit type, geological setting and style of mineralisation</i>	<p>The rutile deposit type could be termed a residual placer formed by the intense weathering of rutile-rich basement paragneisses.</p> <p>Rutile occurs in a mostly topographically flat area west of Malawi's capital known as the Lilongwe Plain where a deep tropical weathering profile is preserved. A typical profile from top to base is generally soil ("SOIL" 0-1m) ferruginous pedolith ("FERP", 1-4m), mottled zone ("MOTT", 4-7m), pallid saprolite ("PSAP", 7-9m), saprolite ("SAPL", 9-25m), saprock ("SAPR", 25-35m) and fresh rock ("FRESH" &gt;35m).</p>
<b>Drill hole information</b>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northings of the drill hole collar; elevation or RL (Reduced Level-elevation above sea level in metres of the drill hole collar); dip and azimuth of the hole; down hole length and interception depth; and hole length</i>	All collar and composite data are provided in the body and Appendices of this report. All holes were drilled vertically.
	<i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case</i>	No information has been excluded.

Criteria	Explanation	Commentary
<b>Data aggregation methods</b>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high-grades) and cut-off grades are usually Material and should be stated.</i>	All results reported are of a length-weighted average. The results reported in the body of the report are on a nominal lower cut-off of 0.5% Rutile.
	<i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	No significant aggregate intercepts have been reported.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values are used in this report.
<b>Relationship between mineralisation widths &amp; intercept lengths</b>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	It is considered that the mineralisation lies in laterally extensive, near surface, flat "blanket" style, generally NNE striking bodies in areas where the entire weathering profile is preserved and not significantly eroded.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	The mineralisation lies in laterally extensive, near surface, flat "blanket" style, in generally NNE striking bodies.
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	Downhole widths approximate true widths. Some mineralisation currently remains open at depth.
<b>Diagrams</b>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of the drill collar locations and appropriate sectional views.</i>	Refer to figures in the body of this report.
<b>Balanced reporting</b>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high-grades and/or widths should be practiced to avoid misleading reporting of exploration results.</i>	All results have been reported in this report.
<b>Other substantive exploration data</b>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to: geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	Rutile has been determined to be the major TiO <sub>2</sub> -bearing mineral at and around several rutile prospects and within Sovereign's ground package. The company continues to examine broad areas across the large tenement package for rutile mineralisation.
<b>Further work</b>	<i>The nature and scale of planned further work (e.g. test for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Laboratory processing of 2021 drilling samples on the saprolite prospects continues.  Drilling is ongoing at the Nsaru prospect to further expand the area of known rutile mineralisation.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Refer to diagrams in the body of this report.