

4 February 2021

## DRILLING SIGNIFICANTLY INCREASES AREA OF VERY HIGH-GRADE RUTILE AT KASIYA

Sovereign Metals Limited (**the Company** or **Sovereign**) is pleased to announce Phase 8 drill results from Kasiya, the Company's flagship, large, high-grade rutile deposit in Malawi. This substantial batch of 70 drill-holes, located within the extensive 66km<sup>2</sup> mineralised footprint, has further extended, and defined the very high-grade zones.

### HIGHLIGHTS

- ◆ Phase 8 drilling has established further **broad zones of very high-grade rutile from surface**, within the existing 66km<sup>2</sup> mineralised envelope at Kasiya.
- ◆ Phase 8 results display numerous areas with greater than 1.5% rutile in the top 3-5m from surface. Results include:
  - **13m @ 1.47% inc. 4m @ 1.71% rutile**
  - **12m @ 1.33% inc. 5m @ 1.64% rutile**
  - **7m @ 1.28% inc. 4m @ 1.52% rutile**
  - **8m @ 1.29% inc. 3m @ 1.63% rutile**
  - **12m @ 1.24% inc. 3m @ 1.67% rutile**
  - **11m @ 1.23% inc. 5m @ 1.51% rutile**
  - **8m @ 1.21% inc. 4m @ 1.50% rutile**
  - **11m @ 1.20% inc. 4m @ 1.60% rutile**
  - **8m @ 1.19% inc. 4m @ 1.51% rutile**
  - **10m @ 1.00% inc. 3m @ 1.58% rutile**
  - **8m @ 1.08% inc. 3m @ 1.72% rutile**
  - **8m @ 1.29% inc. 3m @ 1.63% rutile**
  - **11m @ 1.13% inc. 5m @ 1.65% rutile**
- ◆ The new results show well defined, very high-grade rutile zones with good continuity collectively **forming a substantial central high-grade area** that has now been drilled at generally 400m x 400m spacing.
- ◆ Resource definition drilling at Kasiya and regional exploration drilling is ongoing with multiple drill and sample processing teams active at Kasiya and other regional prospects.
- ◆ The analysis of numerous batches of Kasiya and regional drilling samples is well advanced with a further number of batches expected over the coming weeks.
- ◆ These drill results, along with additional further wide-spaced drilling yet to be reported, will be incorporated into the maiden MRE for Kasiya which is expected in Q2.

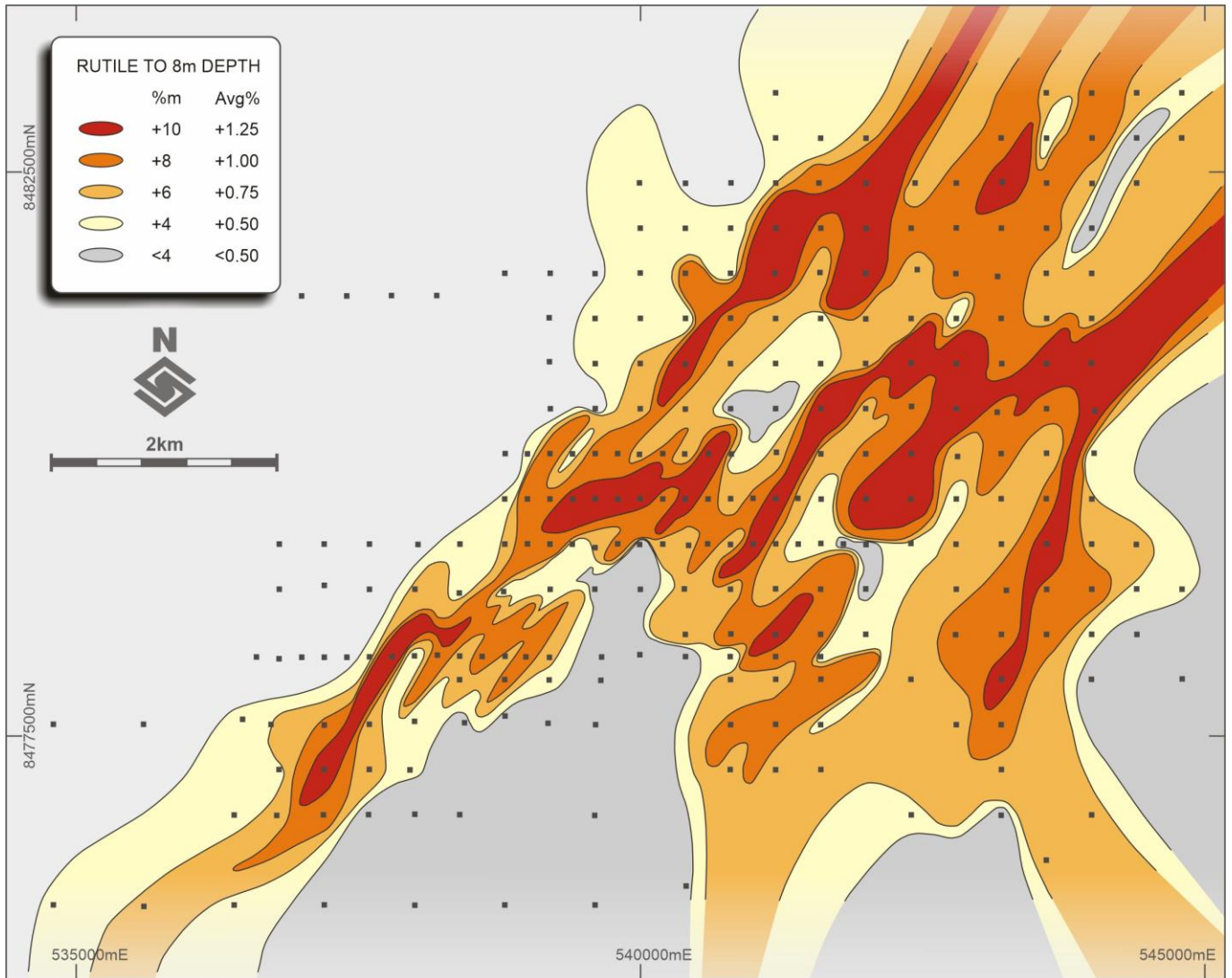


Figure 1. Drill plan of the central high-grade zone at Kasiya showing % rutile contours over the top 8m for each drill-hole.

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

*“This drilling has served to increase and further define the very high-grade, near surface rutile zones occurring within a central core area where drilling is at 400m x 400m spacing or closer. These areas will be targeted for further, near-future infill drilling and metallurgical variability test-work in order to support our maiden Mineral Resource Estimate and Scoping Study. Kasiya is shaping up to be a very large, high-grade rutile deposit that may well become one of the largest primary rutile deposits in the world.”*

**ENQUIRIES**

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

Sam Cordin (Perth)  
+61(8) 9322 6322

Sapan Ghai (London)  
+44 207 478 3900

## KASIYA DRILLING – PHASE 8

The Phase 8 drilling results reported comprise a further 70 hand-auger holes for a total of 725m. With the inclusion of Phase 8, the total number of holes reported from Kasiya to date is now 303 with 3,023m drilled.

These results have increased and further defined the high-grade, near surface rutile zones within the northern and eastern sides of the core central area at Kasiya, internal to the 66km<sup>2</sup> mineralised envelope. The results show well defined, very-high-grade rutile mineralised zones from surface with the majority occurring within a ~2.5km radius from a central point, having been defined by nominally 400m x 400m drilling.

These high-grade areas will be targeted for additional infill drilling and metallurgical variability test-work in order to form the basis of our Scoping Study, planned for later in 2021.

The Phase 8 drill results continue to show high-grade rutile from surface to as deep as 16m across the extensive mineralisation footprint.

Significant rutile enrichment occurs in the top ~8 metres from surface with very-high grades, generally greater than 1.5% rutile occurring in the top 3-5m from surface. In most cases, drill depth was restricted by the hand-auger drilling equipment capacity and it is assumed that free-dig rutile mineralisation should continue vertically to the base of saprolite estimated at approximately 25m depth from surface.

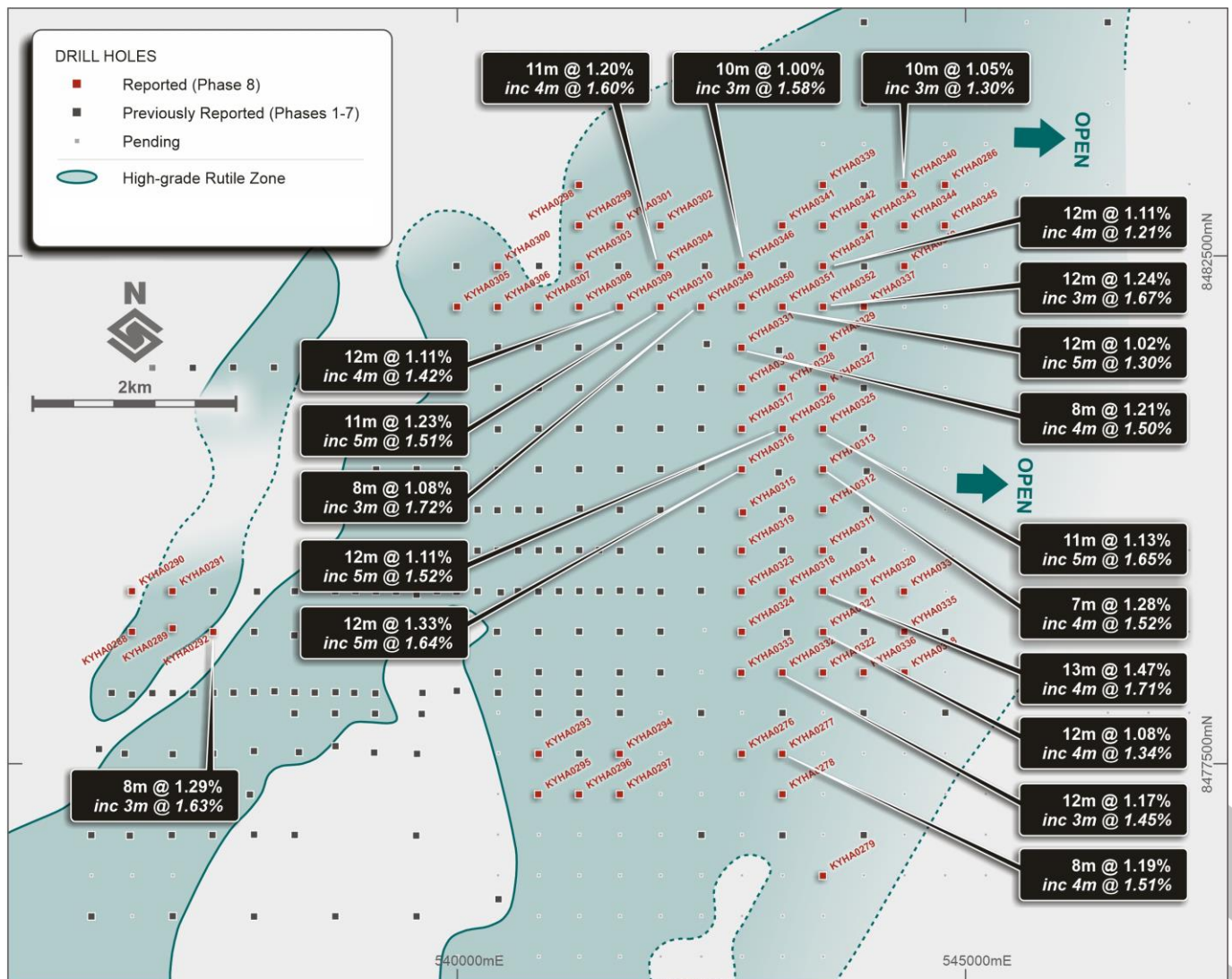


Figure 2. The central zone at Kasiya showing selected significant intercepts received from Phase 8 drilling.



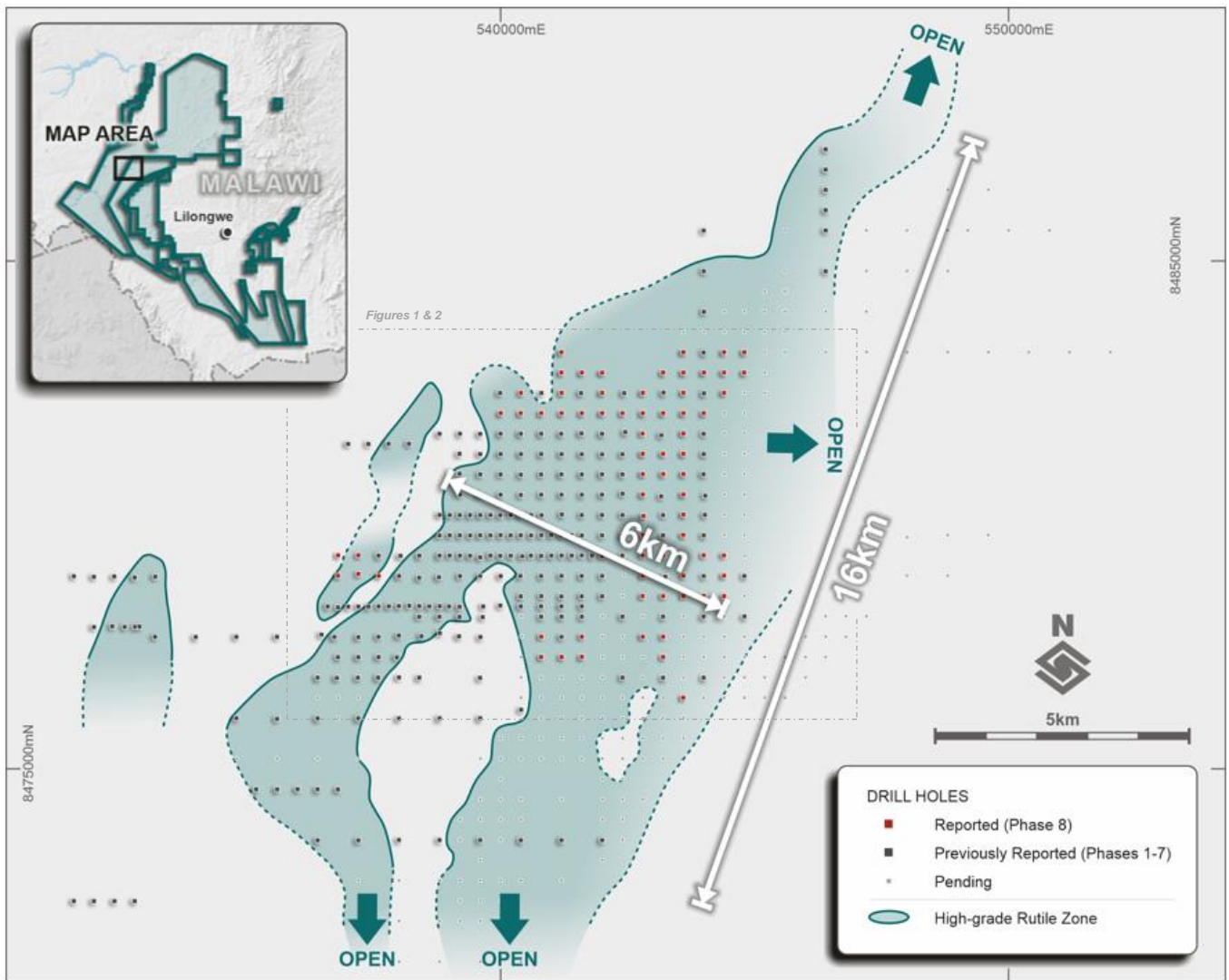


Figure 3. Map showing the entire 66km<sup>2</sup> mineralised footprint at Kasiya.



## CONCLUSIONS & FORWARD PLAN

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The Phase 8 drill results now complete the drilling of the ~30km<sup>2</sup> central core zone of mineralisation at Kasiya to a drill spacing of 400m x 400m or closer which are expected to be included in the upcoming MRE.

The Company's objective is to delineate a large rutile resource that could support a long-life, large-scale rutile mining operation.

Sovereign has also achieved exceptional outcomes from its 2020 rutile metallurgy program. Premium chemical and sizing parameters were produced with over 98% recovery, via simple, conventional "off the shelf" processing methods. This continues to consolidate our view that we have discovered a potentially globally significant rutile deposit at Kasiya in Malawi that forms part of a new rutile province.

Ongoing work programs for Kasiya and the other prospects within the Company's large ground package include;

- ❖ A maiden Mineral Resource Estimate for Kasiya, expected to cover approximately half of the extensive 66km<sup>2</sup> mineralised footprint;
- ❖ Continued step-out and extensional drilling at Kasiya and the broader surrounding area to identify extensions, bring further mineralisation into a MRE and discover new regional mineralised zones;
- ❖ Mining and tailings studies continue and will feed into a future Scoping Study;
- ❖ Metallurgical variability test-work planned for three separate samples representative of different regolith units at Kasiya;
- ❖ Continued engagement with potential rutile off-takers, particularly those in the pigment industry from which highly favourable feedback on chemical and physical specifications has already been received;
- ❖ Investigation and further test-work for a potential coarse-flake graphite by-product from Kasiya; and
- ❖ Re-examination of the Company's Malingunde Graphite Project in light of renewed market interest for graphite, particularly related to sustainability and EVs.



## A NEW RUTILE PROVINCE

The Central Malawi Rutile Project (**Project**) features two confirmed, discrete rutile mineralisation styles hosted in saprolite (soft, friable weathered material) and sand. Both styles are amenable to conventional processing.

In addition to the flagship Kasiya Rutile Deposit, the Company has identified numerous other saprolite-hosted rutile prospects and targets. The Bua Channel is the Company’s high-grade, rutile dominant, sand-hosted placer prospect along a 50km length of a fluvial channel system. Drilling in 2020 over the southern part of the Bua Channel over ~8km confirmed excellent rutile grades with accessory ilmenite.

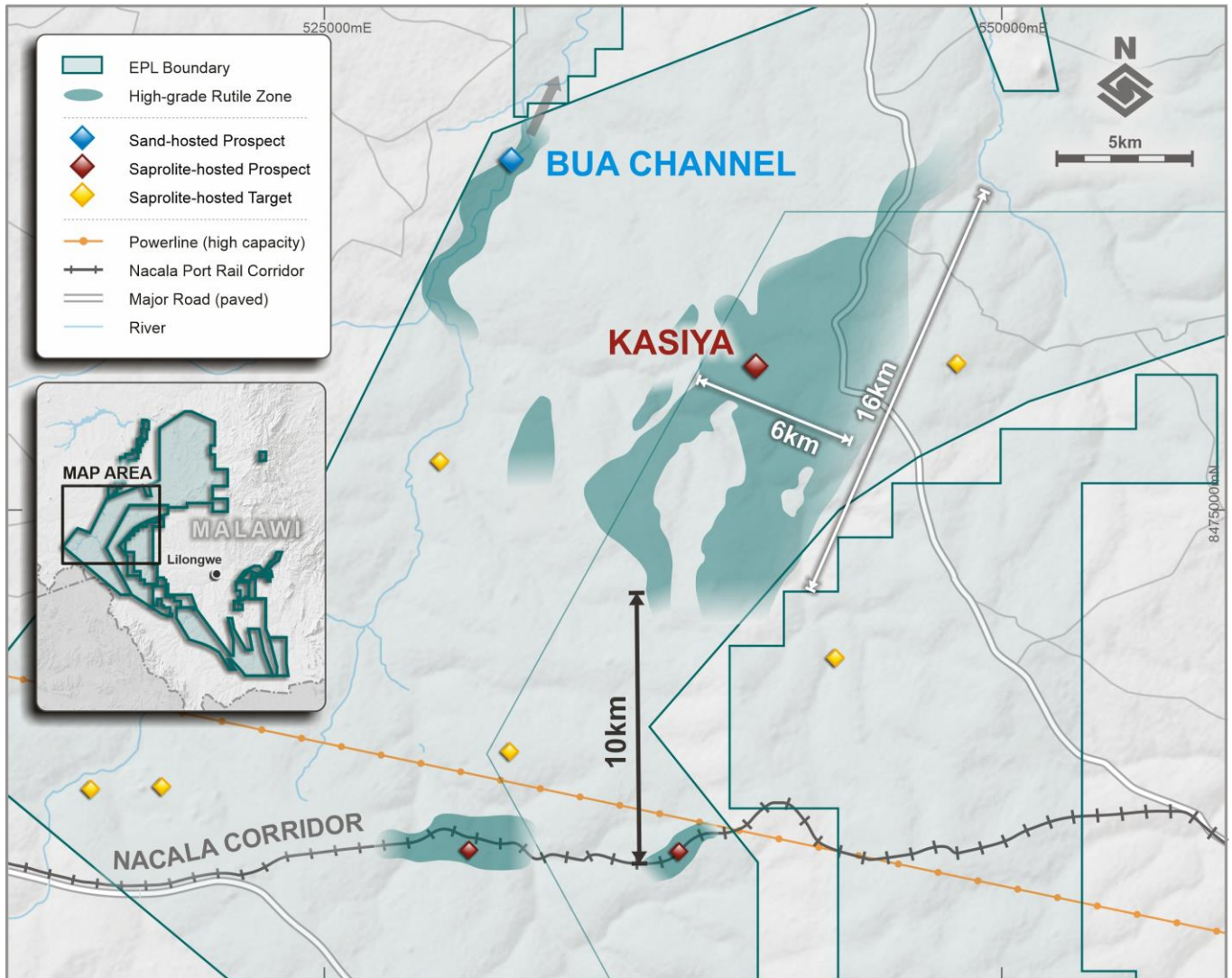


Figure 4. Map of the broader Kasiya and Bua Channel area showing the multiple rutile deposits, prospects and targets and proximity to the Nacala Rail Corridor.

This potentially globally significant rutile province is located in Malawi, a stable, transparent jurisdiction. Malawi is increasingly attracting international investment with substantial potential for mining to contribute to the country’s economic growth and development. Central Malawi boasts excellent existing infrastructure including grid power and an excellent sealed road network. The Project is strategically located in close-proximity to the capital city of Lilongwe, providing access to a skilled workforce and mining and industrial services. The location provides access to the operating Nacala Rail Corridor linking to the Indian Ocean port of Nacala in Mozambique, providing a low-cost transport solution and access to major international markets.

## DRILL RESULTS

Drilling results from Phase 8 at Kasiya are shown below in Table 1.

Hole ID	Interval Thickness	Rutile %	From (m) Downhole	Comments	Purpose
KYHA0276	8	0.77	surface	<i>open at depth</i>	<i>infill</i>
<b>KYHA0277</b>	<b>8</b>	<b>1.19</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b>incl</b>	<b>4</b>	<b>1.51</b>	<b>surface</b>		
KYHA0278	5	0.76	surface	<i>open at depth</i>	<i>infill</i>
KYHA0279	3	1.06	surface		<i>infill</i>
KYHA0286	13	0.68	surface	<i>open at depth</i>	<i>infill</i>
incl	4	0.91	surface		
KYHA0288	4	0.54	surface		<i>infill</i>
KYHA0289	4	0.58	surface		<i>infill</i>
KYHA0290	<i>No significant results</i>				
KYHA0291	2	0.82	surface		<i>infill</i>
<b>KYHA0292</b>	<b>8</b>	<b>1.29</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b>incl</b>	<b>3</b>	<b>1.63</b>	<b>surface</b>		
KYHA0293	11	1.03	surface	<i>open at depth</i>	<i>infill</i>
incl	4	1.12	surface		
KYHA0294	3	0.67	3m	<i>open at depth</i>	<i>infill</i>
KYHA0295	12	1.02	surface	<i>open at depth</i>	<i>infill</i>
KYHA0296	12	0.91	surface	<i>open at depth</i>	<i>infill</i>
incl	7	1.09	surface		
incl	4	1.29	surface		
KYHA0297	11	0.94	surface	<i>open at depth</i>	<i>infill</i>
incl	6	1.03	5m		
KYHA0298	3	0.87	surface		<i>infill</i>
KYHA0299	4	0.74	surface		<i>infill</i>
KYHA0300	4	0.51	surface		<i>infill</i>
KYHA0301	4	0.86	surface		<i>infill</i>
KYHA0302	10	0.77	surface	<i>open at depth</i>	<i>infill</i>
incl	3	1.17	surface		
KYHA0303	5	0.87	surface		<i>infill</i>
<b>KYHA0304</b>	<b>11</b>	<b>1.20</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b>incl</b>	<b>4</b>	<b>1.60</b>	<b>surface</b>		
KYHA0305	13	0.57	surface	<i>open at depth</i>	<i>infill</i>
KYHA0306	11	0.66	surface	<i>open at depth</i>	<i>infill</i>
KYHA0307	4	0.66	surface		<i>infill</i>
KYHA0308	4	1.38	surface	<i>open at depth</i>	<i>infill</i>
<b>KYHA0309</b>	<b>12</b>	<b>1.11</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b>incl</b>	<b>4</b>	<b>1.42</b>	<b>surface</b>		
<b>KYHA0310</b>	<b>11</b>	<b>1.23</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b>incl</b>	<b>5</b>	<b>1.51</b>	<b>surface</b>		
KYHA0311	13	1.00	surface	<i>open at depth</i>	<i>infill</i>

Hole ID	Interval Thickness	Rutile %	From (m) Downhole	Comments	Purpose
incl	5	1.22	surface		
KYHA0312	8	0.80	surface		<i>infill</i>
incl	4	1.06	surface		
<b>KYHA0313</b>	<b>7</b>	<b>1.28</b>	<b>surface</b>		<b><i>infill</i></b>
<b>incl</b>	<b>4</b>	<b>1.52</b>	<b>surface</b>		
<b>KYHA0314</b>	<b>13</b>	<b>1.47</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>4</b>	<b>1.71</b>	<b>9m</b>		
KYHA0315	9	0.78	surface	<i>open at depth</i>	<i>infill</i>
<b>KYHA0316</b>	<b>12</b>	<b>1.33</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>5</b>	<b>1.64</b>	<b>surface</b>		
KYHA0317	3	1.62	surface	<i>open at depth</i>	<i>infill</i>
KYHA0318	8	0.99	surface		<i>infill</i>
incl	4	1.23	surface		
KYHA0319	5	0.67	surface		<i>infill</i>
KYHA0320	4	1.13	surface		<i>infill</i>
<b>KYHA0321</b>	<b>12</b>	<b>1.08</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>4</b>	<b>1.34</b>	<b>surface</b>		
KYHA0322	9	1.21	surface	<i>open at depth</i>	<i>infill</i>
KYHA0323	7	0.99	surface	<i>open at depth</i>	<i>infill</i>
incl	2	1.38	surface		
KYHA0324	2	1.50	surface		<i>infill</i>
<b>KYHA0325</b>	<b>11</b>	<b>1.13</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>5</b>	<b>1.65</b>	<b>surface</b>		
<b>KYHA0326</b>	<b>12</b>	<b>1.11</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>5</b>	<b>1.52</b>	<b>surface</b>		
KYHA0327	12	0.86	surface	<i>open at depth</i>	<i>infill</i>
incl	5	1.26	surface		
KYHA0328	4	1.21	surface	<i>open at depth</i>	<i>infill</i>
KYHA0329	12	0.98	surface	<i>open at depth</i>	<i>infill</i>
KYHA0330	3	1.02	2m		<i>infill</i>
<b>KYHA0331</b>	<b>8</b>	<b>1.21</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>4</b>	<b>1.50</b>	<b>surface</b>		
<b>KYHA0332</b>	<b>12</b>	<b>1.17</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>3</b>	<b>1.45</b>	<b>surface</b>		
KYHA0333	4	1.10	surface	<i>open at depth</i>	<i>infill</i>
incl	2	1.56	surface		
KYHA0334	12	0.85	surface	<i>open at depth</i>	<i>infill</i>
KYHA0335	5	0.68	surface		<i>infill</i>
KYHA0336	5	0.71	surface		<i>infill</i>
KYHA0337	2	0.72	surface		<i>infill</i>
KYHA0338	3	0.50	surface		<i>infill</i>
KYHA0339	6	0.82	surface	<i>open at depth</i>	<i>infill</i>
<b>KYHA0340</b>	<b>10</b>	<b>1.05</b>	<b>surface</b>	<b>open at depth</b>	<b><i>infill</i></b>
<b>incl</b>	<b>3</b>	<b>1.30</b>	<b>surface</b>		



Hole ID	Interval Thickness	Rutile %	From (m) Downhole	Comments	Purpose
KYHA0341	5	1.59	surface		<i>infill</i>
<i>incl</i>	3	1.76	2m		
KYHA0342	10	0.91	2m	<i>open at depth</i>	<i>infill</i>
<i>incl</i>	2	1.02	10m		
KYHA0343	5	1.22	surface	<i>open at depth</i>	<i>infill</i>
KYHA0344	<i>No significant results</i>				<i>infill</i>
KYHA0345	9	0.82	surface		<i>infill</i>
<i>incl</i>	4	1.15	surface		
<b>KYHA0346</b>	<b>10</b>	<b>1.00</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b><i>incl</i></b>	<b>3</b>	<b>1.58</b>	<b>surface</b>		
<b>KYHA0347</b>	<b>12</b>	<b>1.11</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b><i>incl</i></b>	<b>4</b>	<b>1.21</b>	<b>surface</b>		
KYHA0348	7	0.88	surface		<i>infill</i>
<i>incl</i>	4	1.11	surface		
<b>KYHA0349</b>	<b>8</b>	<b>1.08</b>	<b>surface</b>		<b>infill</b>
<b><i>incl</i></b>	<b>3</b>	<b>1.72</b>	<b>surface</b>		
KYHA0350	13	0.93	surface	<i>open at depth</i>	<i>infill</i>
<i>incl</i>	4	1.14	surface		
<b>KYHA0351</b>	<b>12</b>	<b>1.02</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b><i>incl</i></b>	<b>5</b>	<b>1.30</b>	<b>surface</b>		
<b>KYHA0352</b>	<b>12</b>	<b>1.24</b>	<b>surface</b>	<b>open at depth</b>	<b>infill</b>
<b><i>incl</i></b>	<b>3</b>	<b>1.67</b>	<b>9m</b>		



## **Competent Person's Statement**

*The information in this report 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 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.*

## **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 ASX 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
KYHA0276	542800	8477599	1108	8
KYHA0277	543199	8477599	1116	8
KYHA0278	543199	8477200	1109	7
KYHA0279	543598	8476398	1117	8
KYHA0286	544800	8483200	1133	13
KYHA0288	536801	8478800	1078	10
KYHA0289	537200	8478834	1069	11
KYHA0290	536801	8479200	1072	11
KYHA0291	537199	8479200	1064	13
KYHA0292	537601	8478799	1063	8
KYHA0293	540801	8477599	1096	11
KYHA0294	541600	8477598	1096	6
KYHA0295	540797	8477200	1085	12
KYHA0296	541199	8477198	1093	12
KYHA0297	541601	8477201	1087	11
KYHA0298	541198	8483199	1103	12
KYHA0299	541199	8482800	1107	12
KYHA0300	540400	8482399	1106	12
KYHA0301	541600	8482799	1108	11
KYHA0302	542001	8482798	1110	10
KYHA0303	541200	8482400	1110	13
KYHA0304	542000	8482399	1116	11
KYHA0305	540000	8482000	1110	13
KYHA0306	540399	8482000	1110	11
KYHA0307	540800	8482000	1109	10
KYHA0308	541200	8482000	1111	4
KYHA0309	541601	8482000	1115	12
KYHA0310	542000	8481999	1117	11
KYHA0311	543598	8479601	1139	13
KYHA0312	543599	8480005	1138	14
KYHA0313	543599	8480400	1141	13
KYHA0314	543599	8479200	1142	13
KYHA0315	542812	8479977	1129	9
KYHA0316	542800	8480400	1129	12
KYHA0317	542800	8480800	1121	3
KYHA0318	543200	8479200	1132	15
KYHA0319	542801	8479601	1121	8
KYHA0320	543999	8479200	1147	12
KYHA0321	543601	8478798	1145	12
KYHA0322	543600	8478399	1139	9
KYHA0323	542798	8479199	1118	7
KYHA0324	542800	8478800	1118	7
KYHA0325	543600	8480799	1139	12

Hole ID	Easting	Northing	RL	Depth
KYHA0326	543204	8480800	1131	12
KYHA0327	543601	8481201	1137	12
KYHA0328	543199	8481200	1124	4
KYHA0329	543599	8481601	1139	12
KYHA0330	542800	8481200	1116	10
KYHA0331	542797	8481597	1122	8
KYHA0332	543201	8478399	1131	11
KYHA0333	542796	8478397	1117	4
KYHA0334	544396	8479197	1145	12
KYHA0335	544400	8478801	1140	12
KYHA0336	543999	8478400	1137	12
KYHA0337	544001	8482000	1142	11
KYHA0338	544400	8478398	1132	7
KYHA0339	543598	8483201	1112	6
KYHA0340	544400	8483200	1129	10
KYHA0341	543199	8482799	1115	8
KYHA0342	543599	8482799	1123	12
KYHA0343	544003	8482800	1125	5
KYHA0344	544400	8482800	1133	12
KYHA0345	544797	8482801	1135	14
KYHA0346	542800	8482400	1118	10
KYHA0347	543599	8482401	1131	12
KYHA0348	544400	8482400	1136	10
KYHA0349	542400	8482000	1120	12
KYHA0350	542800	8482002	1124	13
KYHA0351	543200	8482000	1130	12
KYHA0352	543600	8482000	1137	12

\* 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>	<p>A total of 70 hand auger holes for 725m were drilled at the Kasiya Rutile Deposit to obtain samples for quantitative determination of recoverable rutile graphite (graphite results are pending).</p> <p>Samples were composited based on regolith boundaries and chemistry generated by hand-held XRF, generally at 3, 4 or 5m intervals.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<p>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</p> <p>Each 1m sample was sun dried and homogenised. Sub-samples were carefully riffle split to ensure representivity. ~1.5kg composite samples were processed.</p> <p>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.</p>
	<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>	<p>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.</p>
<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>	<p>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.</p>
<b>Drill Sample Recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<p>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.</p>
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<p>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.</p>
	<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>	<p>No bias related to preferential loss or gain of different materials has occurred.</p>
<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>	<p>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.</p>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	<p>All logging includes lithological features and estimates of basic mineralogy. Logging is generally qualitative.</p>
	<i>The total length and percentage of the relevant intersection logged</i>	<p>100% of samples are geologically logged.</p>
<b>Sub-sampling techniques</b> <b>Sub-sampling techniques</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<p>Not applicable – no core drilling conducted.</p>
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	<p>Samples from the 70 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.</p>

Criteria	JORC Code explanation	Hand Auger Drilling Commentary
<b>and sample preparation</b>		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.
	<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.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The Malawi onsite laboratories sample preparation methods are considered quantitative to the point where a heavy mineral concentrate (HMC) is generated.  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.  The following workflow for the samples was undertaken on-site in Malawi; <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> </ul> The following workflow for the samples was then undertaken at Perth based Laboratories. <ul style="list-style-type: none"> <li>• Split ~150g off Sand fraction for Heavy Liquid Separation (HLS) using Tetrabromomethane (TBE, SG 2.96g/cc) as the liquid heavy media. Work undertaken at Diamantina Laboratories.</li> <li>• Magnetic separation of the THM Sinks by Carpc 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.

Criteria	JORC Code explanation	Hand Auger Drilling Commentary
<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>	A Trimble R2 Differential GPS was used to pick up the hand auger collars.  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.
	<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>	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.  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 Kasiya region.
	<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 70 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				
		Permit Number	Percentage Interest	Area (km <sup>2</sup> )	Status	Expiry
<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>	EL 0413	100%	535	Granted <sup>1</sup>	21/09/2021
		EL 0561	100%	125	Granted	15/09/2023
		EL 0582	100%	285	Granted	15/09/2023
		EPL (EL) 0355	100%	12	Granted <sup>1</sup>	14/06/2021
		EPL (EL) 0372	100%	732	Granted <sup>1</sup>	13/03/2022 <sup>2</sup>
		EPL (EL) 0492	100%	1,895	Granted <sup>1</sup>	29/01/2023 <sup>2</sup>
		EPL (EL) 0528	100%	21	Granted <sup>1</sup>	27/11/2021
		EPL (EL) 0537	100%	339	Granted <sup>1,3</sup>	17/03/2022
		EPL (EL) 0545	100%	54	Granted <sup>1</sup>	12/05/2022
<b>Notes</b>						
1. A new Mines and Mineral Act came into effect in late 2019 replacing the Mines and Mineral Act 1981. Under the new Mines and Minerals Act 2019 (Act), Exclusive Prospecting Licences (EPLs) are						

Criteria	Explanation	Commentary
		<p>required to be converted into Exploration Licences (ELs) and to be held in a Malawi-registered company.</p> <p>The Company has received written confirmation that the Mineral Resource Committee (MRC) has approved the conversion of the Company's EPLs to ELs (where applicable) and the transfer to the Company's Malawi subsidiary (where applicable).</p> <p>Formal documentation of the new ELs has been delayed due to the impact of Covid-19 on Government functions in Malawi.</p> <p>2. Notification of renewal received with formal documentation pending.</p> <p>3. Notification of 100% relinquishment received with formal documentation pending.</p>
	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.	The tenements are in good standing and no known impediments to exploration or mining exist.
<b>Exploration done by other parties</b>	Acknowledgement and appraisal of exploration by other parties.	No other parties were involved in exploration.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation	<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>	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	All collar and composite data is provided in the body and Appendices of this report. All holes were drilled vertically.
	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	No information has been excluded.
<b>Data aggregation methods</b>	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.	<p>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.</p> <p>Figure 1 illustrates rutile %m combined to 8 metres depth. The resulting geological and mineralisation interpretation was completed by Sovereign technical team.</p>
	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.	No significant aggregate intercepts have been reported.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used in this report.
<b>Relationship between mineralisation widths &amp; intercept lengths</b>	These relationships are particularly important in the reporting of Exploration Results.	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.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The mineralisation lies in laterally extensive, near surface, flat "blanket" style, in generally NNE striking bodies.
	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'.	Downhole widths approximate true widths. Some mineralisation currently remains open at depth.
<b>Diagrams</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be	Refer to figures in the body of this report.



Criteria	Explanation	Commentary
	<i>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>	
<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 all areas within the large tenement package for rutile mineralisation.
<b>Further work</b>	The nature and scale of planned further work (e.g. test for lateral extensions or depth extensions or large-scale step-out drilling).	Laboratory processing of 2020 drilling samples on the saprolite prospects continues.  Drilling is ongoing at the Kasiya 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.

