



ASX: MRC 2 July 2020

# MRC GRANTED APPROVALS TO EXPAND MINING AND PROCESSING AT TORMIN

- Section 102 Amended Mining Right allows access to high-grade Northern Beaches and Inland Strand
- Section 102 allows mining and processing operations to immediately shift to higher grade Northern Beaches with recently released JORC resource of 2.5 million tonnes at 23.5% Total Heavy Minerals ("THM")<sup>1</sup>
- Section 102 approved processing expansion developments include:
  - Connection to grid power via nearby Eskom renewable wind farm
  - Relocation of existing Primary Beach Concentrator ("PBC") unit to the Northern Beaches Mining areas
  - Construction of a new Primary Concentration unit with front end feed system and crushing circuit to provide capacity of 4Mtpa<sup>2</sup>
  - Construction of a Magnetic Separation Plant ("MSP") to make finished Heavy Mineral Sands ("HMS") ilmenite, garnet and rutile products to provide capacity of 350ktpa<sup>2</sup>

## Mining expansion under Section 102 Amended Mining Right includes:

- Northern Beaches incorporating 23.5km and an additional 43.7 hectares
  of replenishable placer beach deposits adjoining the current Tormin Beach
  mining rights and operations with high-grade heavy mineral resources similar
  to Tormin.
- **Inland Strand** 75 hectares of highly prospective heavy mineral immediately adjacent to the existing mining operations with recent drilling confirming western strandline open along continuous strike of 5,500m, 200m wide and up to 23m thick mineralised layer with intersections up to 62% THM<sup>3</sup>.

Mineral Commodities Ltd ("MRC" or "the Company") and its empowerment partner, Blue Bantry Investments 255 (Pty) Ltd, are pleased to announce that their South African subsidiary, Mineral Sands Resources (Pty) Ltd ("MSR") has received notification from the Department of Mineral Resources and Energy – South Africa ("DMRE") that its Application to amend (expand) the mining right at Tormin under Section 102 of the Mineral and Petroleum Resources Development Act No. 49 of 2008 ("MPRDA") has been approved.

- 1- ASX Announcement 19 May 2020 TORMIN NORTHERN BEACHES HIGH-GRADE MAIDEN RESOURCE
- 2- These present expected capacity only and does not represent actual annual production guidance. Specific annual production guidance will be provided on a quarter and annual basis.
- 3- ASX Announcement 7 April 2020 HIGH-GRADE RESULTS AND NEW INLAND STRANDLINE DISCOVERY AT TORMIN

The Section 102 Amended Mining Right Application ("S102 Mining Right") permits the Company to expand mining operations to the adjoining Northern Beaches and the Inland Strand adjacent to the existing Tormin mining area on the MSR owned freehold farm, Geelwal Karoo 262, in the Western Cape province of South Africa. (See Figure 1)

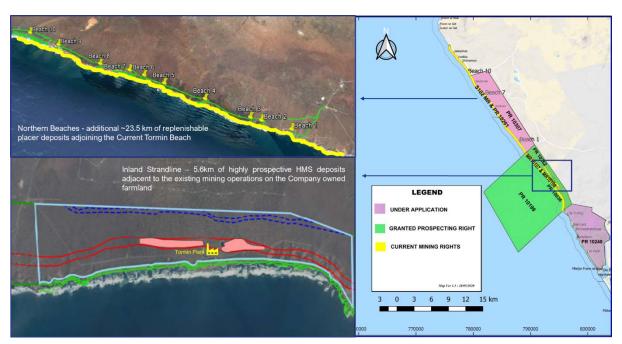


Figure 1 – Tenements under application and granted in South Africa

Contemporaneously, the S102 Mining Right also provides for expanded processing activities including the construction of additional crushing and classifying capacity as well as the construction of an MSP. The S102 Mining Right also allows for the connection of Eskom grid power by the Sere Wind Farm, which will significantly reduce current power generation costs and provide up to 10 megawatts of power for any future downstream processing requirements.

Executive Chairman Mark Caruso said, "This is a significant turning point in realising the value of the world-class Tormin mineral sands operation. The Section 102 Mining Right provides access to two very exciting mining areas that are pivotal in the growth of our Company. Finally, we will be able to demonstrate the huge potential of this unique Mineral Sands precinct. The access to the Northern Beaches has doubled our placer beach mining area, allowing us to properly optimise and manage the ongoing replenishment rate of the existing Tormin and Northern Beaches resources. The Inland Strand offers significant long-term high-grade mineralisation, and an announcement of a JORC compliant maiden resource is imminent.

With the security of resources and tenure, we are now able to methodically expand both the Primary Concentration capacity to enable 4mtpa and move from existing concentrate-only production to full vertically integrated finished HM products through the construction of an MSP, thus opening a broader market for our products and extracting greater value from them."





Figure 2 – Tormin Mineral Sands Operation with Sere Wind Farm in background, Western Cape, South Africa

#### **Northern Beaches**

Mining operations are to immediately shift to the higher grade Northern Beaches where a high grade JORC compliant resource of **2.5 million tonnes at 23.5% THM** in the category of Measured, Indicated and Inferred using a 2% cut-off was reported in May 2020<sup>1</sup>. The Mineral Resource (Table 1) demonstrates the high-grade nature of the deposit, with over 70% of the total Resource reporting in the category of Measured at 24% THM. The Measured Resource categorisation is also higher than any of the historical resource estimates at Tormin, which have only ever been reported as high as Indicated.

Table 1 - Total Mineral Resources for the Northern Beaches HM Deposit (2% cut-off grade)<sup>1</sup>

Category	Tonnes (t)	THM (%)	Zircon (%HM)	Garnet (%HM)	Ilmenite (%HM)	Rutile (%HM)	Anatase (%HM)	Magnetite (%HM)
Measured	1,776,000	24.01	3.29	51.60	9.28	1.05	0.20	0.45
Indicated	680,000	22.16	5.09	44.94	8.25	0.94	0.18	0.81
Inferred	50,000	27.50	4.69	25.52	5.05	0.58	0.10	0.54
Total	2,507,000	23.58	3.77	49.27	8.90	1.06	0.16	0.55

The Northern Beaches incorporate ten beaches directly north of and adjoining the current beaches ("Current Beaches") at Tormin. The areas unite semi-continuous tenements approximately 23.5km in length, covering an area of 398 hectares of beach sands prospective for zircon, rutile, ilmenite, garnet, leucoxene and magnetite. Like the Current Beaches, this deposit is an HMS deposit located on an active placer beach strandline undergoing continuous erosion, deposition and replenishment from oceanic storm and wave activity. The heavy minerals in the beach are constantly replenished by the transport of new sediment from deeper waters, much of which has been derived from the erosion of deposits accumulated in the elevated historic beach terraces onto the present beach.





Figure 3 - Northern Beaches area

The Prospecting Rights over the Northern Beaches were first granted in late January 2020<sup>4</sup> with the recent drilling program delineating a JORC Code (2012) compliant Mineral Resource Estimate outlined in Table 1.

#### **Planned Development – Northern Beaches**

With the granting of the S102 Mining Right, the Company now has mining access to both the Current and the Northern Beaches, which effectively doubles the mining footprint of active placer beach deposits. Due to the constant replenishment profile of the beaches, the Current Beaches have generated over 12.3Mt of mining production over the past six years from the initial Indicated Resource of 2.7Mt @ 49.4% THM. The Company expects that the Northern Beaches will sustain mining operations well beyond the initial resource of 2.5Mt @ 23.5% THM.

Project engineering and planning is already completed for bringing the Northern Beaches into production with mining operations expected to commence as early as August 2020. Development is relatively straight forward, with low capital costs, involving the relocation of one of the current PBC-TSP primary beach concentrators to Beach 10. Initially, the Company will maintain existing mining operations, before simultaneously mining the Northern Beaches and Inland Strand at the current mining rate at ~ 2.3-2.5Mtpa. Although mining and processing rates remain relatively unchanged, concentrate production is expected to increase significantly due to the higher grade of the Northern Beaches (23.5% THM) compared with the Current Beaches grade (7.68%). Once development work is completed at the Inland Strand, the Northern Beaches will reduce to 50% of ore feed and will be incorporated into an overall mining schedule designed to optimise the replenishment cycle of both the Current and Northern Beaches mining areas.

4 - ASX Announcement 30 January 2020 - MRC RECEIVES REGISTERED PROSPECTING RIGHTS AT TORMIN



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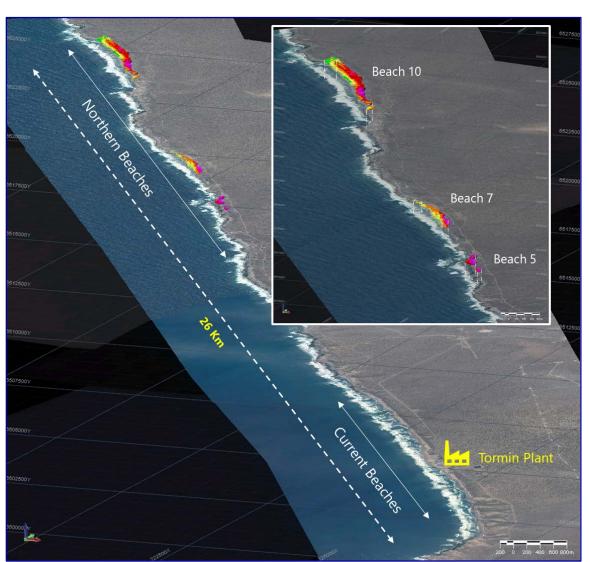


Figure 4 - Location of the Northern Beaches 10, 7 and 5 deposits

### **Inland Strandline**

The Inland Strand areas granted under the S102 Mining Right include two areas approximately 5.6km in total length, covering 75 hectares of high-grade mineralisation immediately adjacent to the existing mining operations on the MSR owned farm Geelwal Karoo 262. The Inland Strand S102 Mining Right areas are part of the Inland Strand Prospecting Right 10262, which incorporates an area approximately 12km in length, covering 1,741 hectares. The Inland Strand is a palaeo-marine strandline 35m above mean sea-level in an area that has undergone historical exploration since the 1930s. The historical resource work and estimates are not JORC compliant as previously reported to the ASX.³ Geophysics indicate that the Inland Strand runs contiguously along the coastline of the Company's entire granted mining and prospecting tenure as well as areas under application.

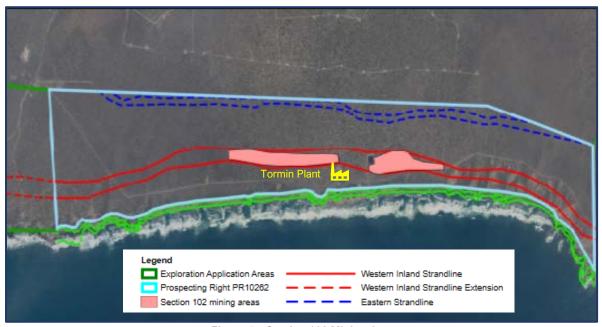


Figure 5 – Section 102 Mining Areas

In February 2020, the Company commenced a 7,000m resource definition drilling program targeting the Inland Strand and adjoining Northern Beaches. Drilling has confirmed the western strandline open along a continuous strike of 5,500m, 200m wide and up to a 23m thick mineralised layer. A JORC compliant resource in the Measured, Indicated and Inferred category is expected to be released by the end of July 2020.

Notable drillholes from the resource definition drilling, located only 200 metres north of the current Tormin Processing Plant (all from surface), include:<sup>3</sup>

- Hole L11-11) 4m @ 61.34% THM and 7m @ 49.99% THM from 10m
- Hole L11-12) 5m @ 62.52% THM and 8m @ 48.50% THM from 11m
- Hole L11-13) 6m @ 58.81% THM from 12m
- Hole L11-8) 7m @ 43.29% THM from 9m

600 metres south of the current Tormin Processing Plant (all from surface) include:

- Hole L6-4) 2m @ 57.41% THM from 7m
- Hole L6-5) 3m @ 53.11% THM from 6m

The high-grade THM mineralisation and mineral assemblage observed in the laboratory results of the drilling on the Inland Strand confirm the historical resource grades and are similar to the grades encountered in the first years of mining the high-grade Tormin Beach areas. The reported THM contains high constituent zircon, rutile, ilmenite, garnet assemblage as well as anatase and magnetite.



## Planned Development - Inland strandline

The Company intends to adopt a phased development program by initially targeting the high-grade Strandline horizons in the orebody before processing the lesser grade Red Aeolian and Orange Feldspathic sands.

A new front end feed system, including a crushing circuit, will be constructed as well as additional classification, concentration and thickener circuits. These front end and additional upgrades will increase overall processing capacity from the current ~2.5Mtpa to a targeted 4Mtpa<sup>2</sup>.

Detailed test work and engineering work has already commenced on the planned front end upgrades with the Company anticipating 4Mtpa throughput capacity by 2022.

### Mineral Separation Plant ("MSP")

The increase in processing capacity will be followed by the construction of a 350,000tpa infeed MSP, enabling production of up to 300,000tpa of finished product, significantly increasing the value of Tormin's product suite. <sup>2</sup>

The MSP will recover additional minerals from the heavy mineral ilmenite and garnet concentrates. The concentrate streams will be dried and processed using magnetic and gravity separation techniques to produce high grade and/or finished ilmenite including secondary ilmenite (leucoxene), garnet, magnetite, zircon and rutile products. Initial feasibility studies show that the MSP circuit will have a target initial nameplate capacity of 350ktpa, and finished heavy mineral products including ~150,000tpa garnet production, 140,000tpa ilmenite production and 6,000tpa rutile². Construction of the plant is currently forecast to commence in 2023 with the first production in 2024.

## Power

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The new S102 Mining Right incorporates approval to access renewable grid power via the nearby Eskom owned Sere Wind Farm. Currently, the site is powered by four 1,250kVA diesel generators that provide power to site. Under S102 Mining Right approvals, the Company will supply current and expected future demand for electricity for Tormin operations through a connection to Eskom's Skaapvlei sub-station on the nearby Sere Wind Farm. The grid power connection is expected to reduce operating power costs by over 50% and the capital cost of the connection is forecast to be paid back within two years.



The expansion of the Tormin Mineral Sands Operation under the S102 Mining Right will extend the Life Of Mine, thereby securing long term employment that contributes to the local and regional economies. Approximately 80 additional employment opportunities will be created by the mine expansion.



Important social programs will also be continued and extended as a result of the expansion. MSR's strong investment in the social and economic upliftment of Historically Disadvantaged South Africans ("HDSA") and the ongoing support of its Black Economic Empowerment ("BEE") partners in the Tormin Mineral Sands Operation will continue to grow under the proposed mine expansion. The Company has submitted and received approval for its future 2019 – 2023 Social Labour Plan from the DMRE, which underpins the Company's future commitment to local enterprise development, education, and infrastructure projects and initiatives. The total committed expenditure over five years is ZAR36.8 million.

Environmental impacts will be further mitigated and easier to manage with the expanded processing footprint, which alleviates issues previously arising from spatial constraints. A stringent environmental management process will remain in place. Mining of the Northern Beaches will concentrate on two areas which have no cliff interface, similar to the Current Beaches. The Inland Strand will be mined using traditional industry practice of sequential void backfill with tails deposition from the processing operations.

The S102 Mining Right at Tormin will enable the Company to continue to deliver economic benefits to its employees, the local community, South African partners and shareholders alike.

## **Bibliography**

- 1- ASX Announcement 19 May 2020 TORMIN NORTHERN BEACHES HIGH-GRADE MAIDEN RESOURCE
- 2- These present expected capacity only and does not represent actual annual production guidance. Specific annual production guidance will be provided on a quarter and annual basis.
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#### **ENDS**

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Authorised by the Executive Chairman and Company Secretary, Mineral Commodities Ltd

For further information, please contact:

INVESTORS & MEDIA
Peter Fox
Investor Relations and Corporate
Development
T: +61 8 6253 1100

investor@mncom.com.au

**About Mineral Commodities Ltd:** 

CORPORATE
Peter Torre
Company Secretary

T: +61 8 6253 1100 peter@torrecorporate.com.au



Mineral Commodities Ltd (ASX: MRC) is a global mining and development company with a primary focus on the development of high-grade deposits within the Mineral Sands and Battery Minerals sectors.

The Company is a leading producer of zircon, rutile, garnet and ilmenite concentrates through its Tormin Mineral Sands Operation, located on the Western Cape of South Africa. In October 2019, the Company completed the acquisition of Skaland Graphite AS, the owner of the world's highest-grade operating flake graphite mine and one of the only producers in Europe. The planned development of the Munglinup Graphite Project, located in Western Australia, builds on the Skaland acquisition and is a further step toward an integrated, downstream value-adding strategy which aims to capitalise on the fast-growing demand for sustainably manufactured Lithium-Ion Batteries.

#### **Cautionary Statement**

MRC confirms that it is not aware of any new information or data that materially affects the information in this announcement and in the case of mineral resources, all material assumptions and technical parameters underpinning the estimates published in earlier announcements continue to apply and have not materially changed.

This report may contain forward-looking statements. Any forward-looking statements reflect management's current beliefs based on information currently available to management and are based on what management believes to be reasonable assumptions. It should be noted that several factors could cause actual results or expectations to differ materially from the results expressed or implied in the forward-looking statements.

#### **Competent Persons Statement**

The information in this Announcement is based on information compiled and has been approved for release by Mr Bahman Rashidi, who is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). Mr Rashidi is the Exploration Manager and a fulltime employee of the Company and has over 22 years of exploration and mining experience in a variety of mineral deposits and styles. Mr Rashidi has sufficient experience which is relevant to the style of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person in accordance with the JORC Code 2012.

The information from Mr Bahman Rashidi was prepared under the JORC Code (2012). Mr Rashidi consents to inclusion in the report of the matters based on this information in the form and context in which it appears.

