

MRG's Heavy Mineral Sands Acquisition in Mozambique

A world class titanium province

*Subject to regulatory approval

MRG Metals Ltd

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Exploration Targets: It is common practice for a company to comment on and discuss its exploration in terms of target size and type. The information in this presentation relating to exploration targets should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. Hence the terms Resource(s) or Reserve(s) have not been used in this context in this presentation. The potential quantity and grade of resource targets are conceptual in nature since there has been insufficient work completed to define them beyond exploration targets and that it is uncertain if further exploration will result in the determination of a Mineral Resource or Ore Reserve.

***Subject to regulatory approval**



Corporate snapshot

HIGHLY CREDENTIALED MANAGEMENT TEAM INVESTED IN MRG'S SUCCESS

Financial information

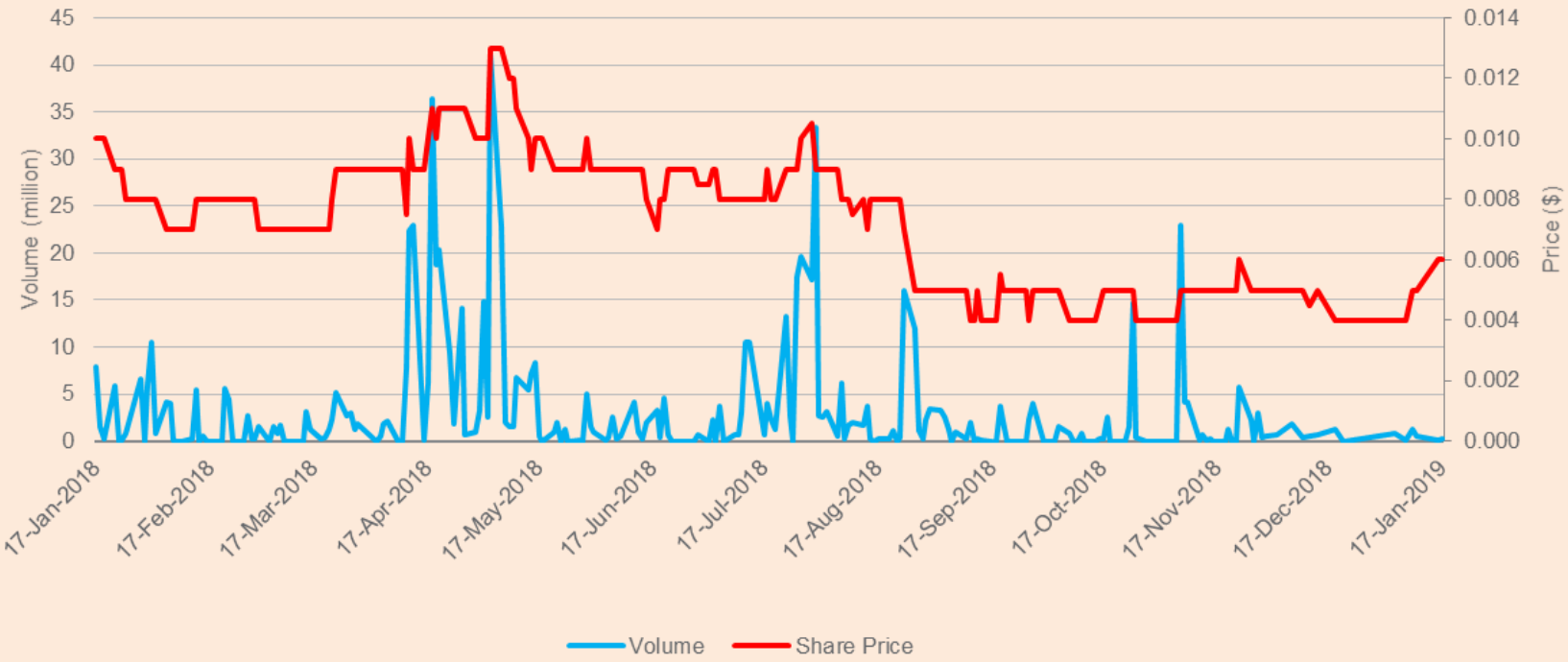
Share price (22-Jan-19)	A$0.006
Number of shares	757M
Market capitalization	**A$4.5M**
Cash (31-Dec-18)	A$1.2M
Debt (31-Dec-18)	No debt
Enterprise Value	**A$3.3M**

Options (after HMS issue):
MRQOA.ASX (listed) – 73M options, ex. price A$0.15, expiry 31-Aug-2020
MRQOB.ASX (listed) – 411M options, ex. price A$0.01, expiry 20-Dec-2020

Top shareholders

MRG Board members	8.2%
Sofala vendors	6.6%
Trophosys vendors	5.3%
Paul Cozzi	4.5%
Syracuse Capital Pty Ltd	3.2%
Thomas Sorensen	2.9%

MRG Metals Ltd – Share price & volume (Source – ASX)



MRG ON THE MOVE

A POTENTIALLY TRANSFORMATIVE ACQUISITION, HEAVY MINERAL SANDS (HMS) IN MOZAMBIQUE

MRG BOARD:

Mr Andrew Van Der Zwan
Non Executive Chairman, BE Chemical Engineering (Hons)
Andrew has over 30 years engineering and commercial experience, both local and international. He was employed in various senior positions within the worldwide operations of Exxon Mobil for 17 years. Director of Argo Exploration Ltd (ASX: AXT).

Mr Christopher Gregory
Non Executive Director, BSc Geology, MAusIMM, MAIG, FSEG, MAICD
Chris has extensive global minerals industry experience over 37 years, at both technical and executive levels. Career foundation of 22 years in the Asia-Pacific region with Rio Tinto. Executive Director of Sasak Minerals (Private) since 2010. Currently Vice President – Operational Geology at Mandalay Resources (TSX: MND).

Mr Shane Turner
Non Executive Director, Company Secretary, CA, Bachelor of Business
Shane is a Chartered Accountant and has over 30 years financial and accounting experience. He has been employed with KPMG, a large regional public accounting practice, operated his own public accounting practice and now is employed with RSM Australia. He was a Non Executive Director and Company Secretary of Metminco (ASX: MNC). Company Secretary and CFO of White Rock Minerals (ASX: WRM) since August 2015.

HMS Acquisition Highlights

The Acquisition Update (Slides 7-11)

- Next Steps
- Exploration Update

Why Mineral Sands? (Slides 12 & 13)

Why these Assets? (Slides 14-24)

Heavy Mineral Sands Background (Slides 25-29)



Photo Source: TZMI

The Acquisition Details

A Corporate Transformation in the making…

Vendor Payments

Deal Completion **90M shares & 90M 1c options***

JORC Resource 350MT @ >5%THM** **160M shares**

Scoping Study with positive economics & Board Decision into PFS **320M shares*****

About the "Prize" to be Delivered

Access to property in world class province

- •Largest Mineral Sands project in the world 10km to the north of Corridor Central
- •RIO/ Savannah Chilubane JV to the south of Corridor South
- •RIO/ Savannah Mutamba JV to the North of Linhuane - Surrounded by Multi-Billion dollar market cap players (refer following slide)

Inexpensive and effective exploration program (airborne geophysics and drilling). Rapid path to JORC Resource.
Minimum prize may be conservative.

Rapid Value Uplift Potential based on Peer Comparison

Savannah Resources Mutamba Project: RESOURCE 451mt@6%THM; 30 year mine life; IRR23%; Pre-tax NPV (10% Disc) of US$245M **(refer slide 15)**

	Number of shares	Number of options
MRG Capital Structure Prior to the Transaction	667,196,639	394,368,284
Number of ordinary shares and listed options held by shareholders		
Total	**667,196,639**	**394,368,284**
MRG Capital Structure After the Transaction		
Number of ordinary shares and options held by the vendors	90,000,000	90,000,000
Number of ordinary shares and options held by the shareholders	667,169,639	394,368,284
Total	**757,169,639**	**484,368,284**

A successful implementation will cost less than 45% of MRG's current equity and US$2M over less than 2 years to generate multiple upside potential.

*Subject to voluntary escrow for 12 months

**THM (Total Heavy Minerals) within 24 months of completion with 3 months voluntary escrow

***Voluntary Vendor Escrow of 240M shares until >$100M MRG market cap within 30 months of completion



Mozambique HMS Assets

Three High Potential Tier 1 Projects

GRANTED

CORRIDOR CENTRAL
CORRIDOR SOUTH

UNDER APPLICATION

LINHUANE
MARAO
MARRUCA

COMPETITOR OPERATIONS

CORRIDOR 1
CHILUBANE
SAVANNAH MUTAMBA



*Corridor 1 Project 10 km North - Worlds largest HMS deposit with over $1 Billion dollars committed to date
**Savannah Resources Mutamba Project (Resource 451mt @6% THM with NPV of US 245 Million at scoping study)

Sofala Management

Not only assets, but access to a quality team.

MARK ALVIN

B.Sc Hons (Geol), PhD, MAusIMM, MSEG, MGSA

- +20 years experience in mine and exploration geology covering Australia, Africa and North America
- 12 years African experience in titanium sand exploration and project evaluation with Rio Tinto Iron & Titanium Inc.
- 7 years specific field and project management experience in Mozambique (Portuguese language proficiency)
- Specialist in establishment and management of multifaceted exploration teams in challenging environments.
- Proven History of Tier 1 HMS discoveries in Mozambique

ROBERT WALKER

Legal Representative Mozambique

- Chartered Accountant with over 35 years experience in finance, taxation and auditing
- Senior Partner and Manager of PricewaterhouseCoopers in Mozambique (2001 – 2012), with oversight of multinational mining industry clients
- Member of the Institute of Chartered Accountants in England and Wales (ICAEW)
- Founding Member and current Executive Board Member of the Mozambican Institute of Accountants and Auditors
- Resident of Mozambique for 16 years with full Portuguese language proficiency

Continued access to the collective project knowledge will expedite exploration programs.



Next Steps – Corridor (Granted Tenement)

	Commenced	Expected completion
Corporate		
Share Holder Approval	✓	✓
Escrow/Share transfer forms/Issue Shares	✓	✓
Staffing Appointments		
-Search Managing Director Mozambique	✓	✓
...Contract Negotiation	✓	31-Jan-19
-Senior Field Geologist Mozambique Appt	✓	31-Jan-19
-Community Relations Officer Appt	✓	31-Jan-19
Mozambique Transfer Approvals (inc Tax Payment)	✓	28-Feb-19
Streamline non Mozambique Assets	✓	31-Mar-19
Realign Reporting and Board Structures	✓	31-Jan-19
Exploration Activities (refer next page for details)		
Design Detailed 2019 Program	✓	24-Jan-19
Airborne Magnetic, Radiometric and Digital Elevation Survey	✓	
-Quotes	✓	31-Jan-19
-Contracted	Mid Feb	Late Feb
Air Core Drilling Program		
-Quotes (Work to start after wet season)	Late Jan	Late March
Inferred Resources Estimation	Q3 2019	Q3 2019



Proposed Exploration Plan - Corridor (2019)

Activity	Cost (US)	Duration
Airborne magnetic/ radiometric/ topographic survey (Granted tenement Corridor) Planned for late February	$90K	3 weeks
Aircore drilling in two phases commencing end of wet season (March) to define zones of high rutile + zircon content and high grade HMS at the high priority Corridor Projects (5000m) – (cost includes drill, assay and local staffing, vehicles) Note: Initial targets already identified but anticipate additional targets from the airborne survey	$630K	9 Months
Hand Auger reconnaissance sampling – increasing the footprint of mineralised zones; identifying new zones for aircore drilling. Planned for July-August	$120K	2 months
Mineral Resource Estimation – JORC compliant Indicated and Inferred Resources	$60K	2 Months
Technical Reviews and Planning between programs (total 3 months)	$100K	2 Months
Metallurgical test work - Minibulk samples post Aircore drilling phases	$50K	2 Months
Tenement payments, administration and exploration management	$250K	Ongoing
TOTAL	$1.3 M	

Results will guide adjustments to work programs, budgets and timing

Drill campaigns and associated results to be ongoing and in parallel with results provided as market updates

2020 – Bulk Sampling, detailed metallurgical study and into a Scoping Study



Mineral Sand Market -Recent success stories

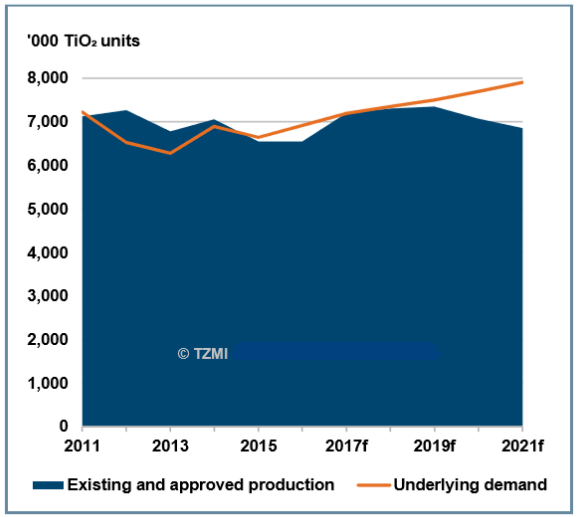
Sheffield Resources LIMITED



BASE RESOLUTIONS



GLOBAL FEEDSTOCK SUPPLY/DEMAND BALANCES AND OUTLOOK TO 2021



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KENMARE



MDL



Rising Mineral Sand Market

Key Drivers for Influencing the Mineral Sand Market in 2017 and beyond (Reg Adams - Artikol)

1. **Growth in end-use demand:** increased demand for paint, plastics decorative laminates and packaging paints with a serious lack of serious technical substitutes. Increase demand related to continued growing affluence of developing countries
2. **Available mineable deposits and upgrading facilities (smelters and syn-rutile plants):** old mines drawing close to their producing lives, decreasing THM grade and lower value mineral assemblages. Larger Capital hurdles to replace or develop new mines tightening supply
3. **Industry Structure:** traditionally dominated by Iluka and Rio Tinto: the introduction of upstream vertical integration from newcomers like Tronox and Cristal who have sought their own supply has restricted the market for mineral sand suppliers relying on third party sales.
4. **GDP growth – globally and also the major economies:** The major economies including US, China, Japan, the EU, India, Brazil, Russia, Indonesia and Nigeria. Growth in GDP, in consumer incomes and in construction industry investment will have a positive impact on growth in the consumption of paint and plastics.
5. **China going Green:** Blue skies policy continues to close pigment plants and reducing the availability of environmentally acceptable TiO2 internally and externally

What happens as demand grows....

1. **Increased MA Activity:**
   - Iluka has been aggressive and positioning the Company for growth with a takeover offer for Kenmare Resources (Mozambique) and successful acquisition of Sierra Rutile in Sierra Leone - Both TiO2 dominant operations

   - Base Resources acquired the Ranobe Project from World Titanium Resources for **$92 million**

   - Evidenced by Eramet, **$344 million** takeover of Mineral Deposits Ltd, a 40% premium to prior trading.

1. **Increase in risk profile:** traditionally conservative majors and companies will accept more risk and look for their next acquisition in non traditional locations
2. **Projects get funded:** Sheffield Resources has secured a **US$200m underwritten** senior debt facility from Taurus Mining Finance.
3. **Off take Agreements:** security of product becomes very important to end users. Willingness to directly invest in projects and secure long term off take for the right projects



Peer Comparison – Clear Tier 1 Pedigree

Holder	Project	Status	Resource - all categories (Mt)	Key Parameters THM %	Slimes %	Mineral Assemblage % Ilmenite	Rutile	Zircon	In-situ HMS (Mt)	In-situ Ilmenite (Mt)	In-situ Rutile (Mt)	In-situ Zircon (Mt)	Market Cap $A Million
Anhui FECG	Corridor Sands 1	Development	8700.0	6.9	16.4	53	0.8	3	600.3	318.16	4.80	18.01	
Kenmare Resources	Moma	Operation	7160.0	2.9		82	1.9	5.8	182.9	149.98	3.48	10.61	374
Savannah Resources	Mutamba	Scoping	4400.0	3.9		58.9	1.3	2.8	171.6	101.07	2.23	4.80	48
TiZir (ERAMET SA)	Grand Cote	Operation	1900.0	1.4		75.2	2.5	10.7	26.6	20.00	0.67	2.85	
Base Resources	Toliara	Feasibility	857.0	6.2	4	72	2	6	53.1	38.26	1.06	3.19	
Tronox	Namakwa	Operation	686.1	7.2		40.1	2.6	9.7	49.6	19.89	1.29	4.81	
Keysha	Xolobeni	Feasibility	346.0	5.0		54.6	3	3	17.3	9.45	0.52	0.52	
Base Resources	Kwale	Operation	134.0	3.5	25	57	13	6	4.7	2.67	0.61	0.28	280
Sheffield Resources	Dampier (Thunderbird)	Development	680.5	11.3	15.7	27.4	0	7.7	76.9	21.07	0.00	5.92	158
WIM Resources	Avonbank	Exploration	490.0	4.0		35	14	21	19.6	6.86	2.74	4.12	
Kalbar Resources	Glenalandale	Feasibility	339.7	2.8	21.3	35.08	13.83	26.61	9.6	3.37	1.33	2.56	
WIM Resources	Wedderburn	Exploration	223.0	2.9		23	14	20.5	6.5	1.49	0.91	1.33	
WIM Resources	Bungalally	Exploration	205.0	2.7	15.5	35	2	21	5.5	1.94	0.11	1.16	
Sheffield Resources	Eneabba	Feasibility	193.3	3.0	14	60	6.8	12	5.8	3.48	0.39	0.70	
Relentless Resources	Various NSW	Exploration	39.1	4.5	4.7	56	9	12	1.8	0.99	0.16	0.21	45 Valuation
Image Resources	Boonanarring	Feasibility	19.9	7.2	15.5	50.7	2.4	22.7	1.4	0.72	0.03	0.32	110
Image Resources	Atlas	Exploration	9.5	8.1	15.9	50.5	7.5	10.6	0.8	0.39	0.06	0.08	
MRG TARGET													
MRG Mozambique	**Corridor Central & South**	**Exploration**		**5.0**	**20**	**55**	**0.09**	**2.2**					

Notes: Corridor Sands Deposit 1 data from Southern Mining Corporation Annual Report 2000. Projects with Operation, Feasibility, or Development status will have measured and indicated JORC-compliant mineral resources. Source is company websites. MRG's exploration target will be further developed, but parameters are known from drill data that extends the entire length of the project areas, with mineralisation extending from surface to >90m below surface, & representative mineral assemblage data. Density assumed as 1.8

Value Creation Milestones

Mineral Resource Drilling & Resource Estimation (12 months)			
Aircore drilling	Heavy mineral analyses	Mineral assemblage analyses	Stakeholder engagement

ANTICIPATE RE-RATING UPON SUCCESSFUL DRILLING AND RESOURCE GROWTH

Target Aggregate Mineral Resource 350Mt @ 5% THM
Target US$8/t ore value

POTENTIAL MULTIPLE UPSIDE UPON ACHIEVEMENT OF THIS KEY MILESTONE

Economic Scoping Study (6 months)		
Define minability/transport/export options	Product marketing/Opex/Capex	Stakeholder engagement

LINE OF SIGHT TO PRELIMINARY NPV VALUATION

Pre-feasibility Study (12 months)		
Study best mining/transport/export option	Increase financial model confidence	Begin EIA and community study

Definitive Feasibility Study (12 months)



The Mozambique Opportunity

- **Significant tenure footprint:** 100% owned, in a rich titanium sand province – with 631km^2 of Exploration Licences **GRANTED** and 360km^2 of Exploration Licences pending approval

- **Globally significant Mineral Resource potential:** defined by 35 drill holes at the Corridor Central and Corridor South tenements all showing significant mineralisation.

- **Significant opportunity to add value:** through low cost exploration activities over areas of known heavy mineral sand (HMS) mineralisation to discover large tonnage, high grade sweet spots and high unit value resources rapidly

- **Project with scale:** potential for long mine life mining asset under a number of staged mining and process scenarios. Mining and Processing all conventional

- **High calibre team:** proven history of company-making HMS discoveries and experience in Africa

- **Unique knowledge of HMS prospectivity in Mozambique:** Technical and strategic edge



World Class Neighbouring Deposits

- **Rio Tinto** is developing the Mutamba and Chilubane projects through a **JV with Savannah Resources**.
- The Government of Mozambique signed a **$500m** agreement (Dec 2013) with a Chinese firm to develop the **Corridor Sands (Deposit 1)** project immediately **northwest of Sofala tenements**. **(Less than 10 km)**
- Current updates indicate expenditure exceeding **$1 billion***
- Anhui currently producing from Corridor Deposit 1 and Truck to Maputo (over 200km)
- **Kenmare Resources** currently operates the **Moma mine** on the northeast coast of Mozambique producing 1Mt of ilmenite, 74kt of zircon and 9.1kt of rutile per year.
- Other mineral sands explorers and developers in Mozambique include **Savannah** Resources, **Mozmin** Resources, **Regius** Resources and **Pathfinder** Minerals.



***Mining News 5 April 2018**

Sofala & HMS in Mozambique

- Sofala Resources established to secure prospective exploration projects in Mozambique. Company directors have an **intimate knowledge of the mineral sands** potential of the country, providing Sofala with a **strategic competitive advantage**.

- Mozambique is a developing country with an emerging exploration and mining industry. It has an extensive 2,700km-long coastline that has proven to be highly prospective for large **titanium and zircon heavy mineral sand deposits**.

- Modern HMS exploration commenced in the late 1980s, with discovery of deposits in Nampula (**Namalope and Moebase** deposits) and Gaza Provinces (**Corridor Sands** deposit). Tenure for HMS has been held by Western Mining Corporation & BHP Billiton (Corridor Project), Gencor, Anglo American, Iscor, Iluka Resources and Rio Tinto (various projects in Mozambique).

- **Recent positive scoping study by Savannah Resources/ RT JV on the Mutamba Mineral Sands Project based on a Mineral Resource of 451mt @ 6.0% THM and provides company making analogue for MRG.**



AIM: SAV – Savannah Resources PLC Scoping Study 30 May 2017

Corridor Projects

Strategic location

- Corridor Deposit 1 – located **10km north, +$1 Billion** recently committed to develop
- Savannah/ Chilubane Deposit – located **10km south**

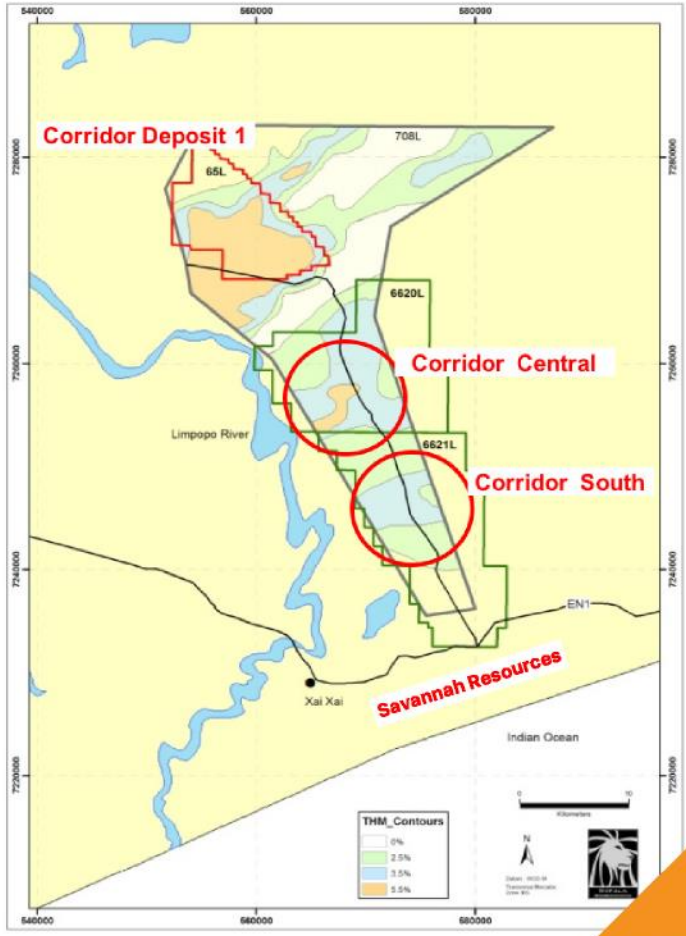
First-pass RC drilling completed at the Corridor Central and Corridor South projects has yielded impressive total heavy mineral (THM) intervals that include:

- Corridor Central comprises 179km2 covering palaeodunes known to host significant HMS mineralisation

  Very large high grade core with down hole grades up to 14% THM with high grades from surface to 60m, extending over an area of 5.5km x 1.2km

- Corridor South comprises 208km2 covering palaeodunes known to host significant HMS mineralisation

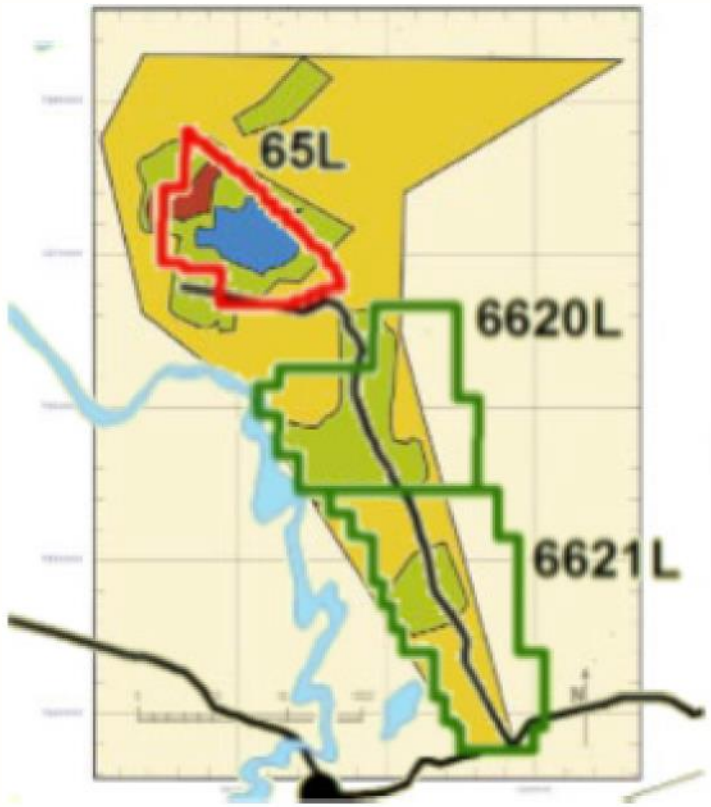
- Large high grade core with down hole grades up 7.4% THM extending over an area of 6.5km x 4.5km



Corridor Sands Deposit 1

Case Study

- Sofala Resources' Corridor Projects are located immediately south of the world class Corridor Deposit 1 (License 65L)
- Deposit 1 has 2.7 billion tonnes of JORC-compliant Measured and Indicated resources at 7% THM
- These resources comprise 107Mt of ilmenite - globally significant, potential +100 year mine life

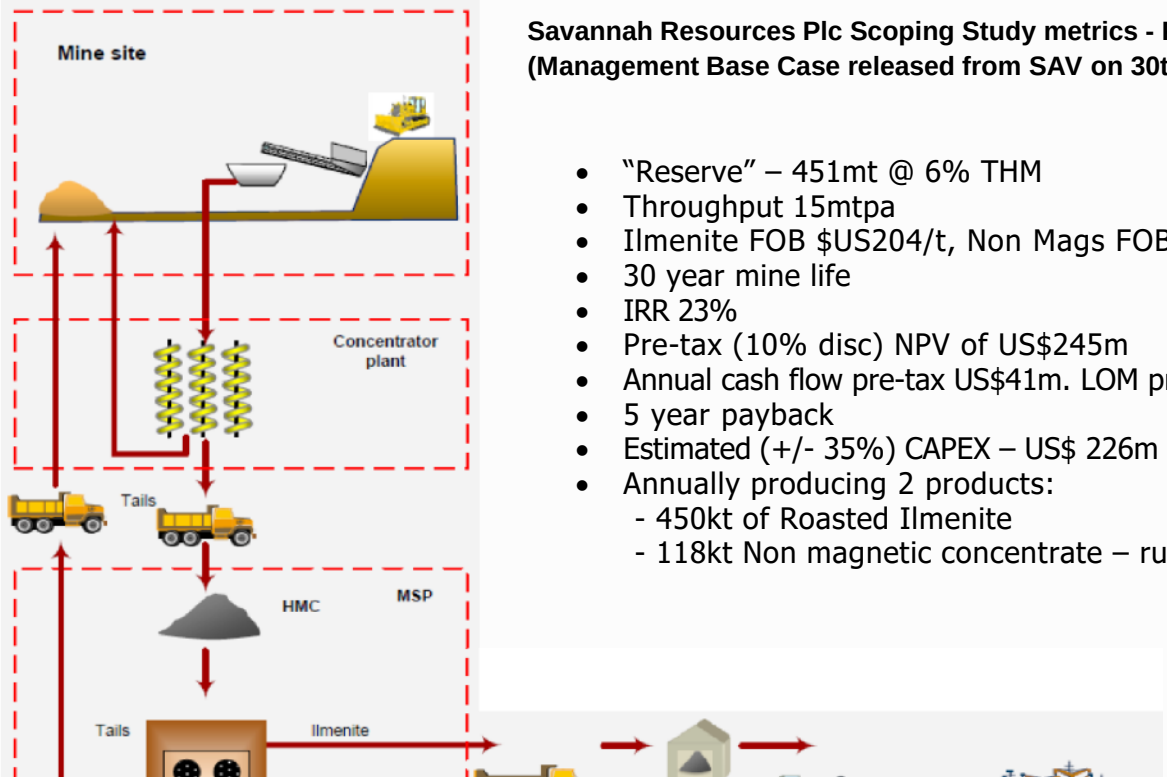


Mineral Resources

	Million Tonnes	Total Heavy Mineral	Ilmenite	Zircon	Rutile	Silt
		%	%	%	%	%
Measured & Indicated Resources						
West Block	1,765	7.47	4.14	0.15	0.02	16.4
East Block	908	7.18	3.80			19.0
Inferred Resources						
Other areas	13,920	4.9				
Total	**16,593**	**5.3**				

Taken from WMC Resources Ltd fact sheet for the Corridor Sands Project

Mutamba Project - Direct Analogue for MRG ?



Savannah Resources Plc Scoping Study metrics - Potential Analog
(Management Base Case released from SAV on 30th May 2017)

- "Reserve" – 451mt @ 6% THM
- Throughput 15mtpa
- Ilmenite FOB $US204/t, Non Mags FOB US$275/t
- 30 year mine life
- IRR 23%
- Pre-tax (10% disc) NPV of US$245m
- Annual cash flow pre-tax US$41m. LOM pre-tax cash flow US$1.35b
- 5 year payback
- Estimated (+/- 35%) CAPEX – US$ 226m = US$152m + US$74m contingency, EPCM
- Annually producing 2 products:
  - 450kt of Roasted Ilmenite
  - 118kt Non magnetic concentrate – rutile and zircon

Note: Savannah current market cap of circa $50 million AUD with only 20% project ownership at this time and currently capped at 51% under Agreement Terms

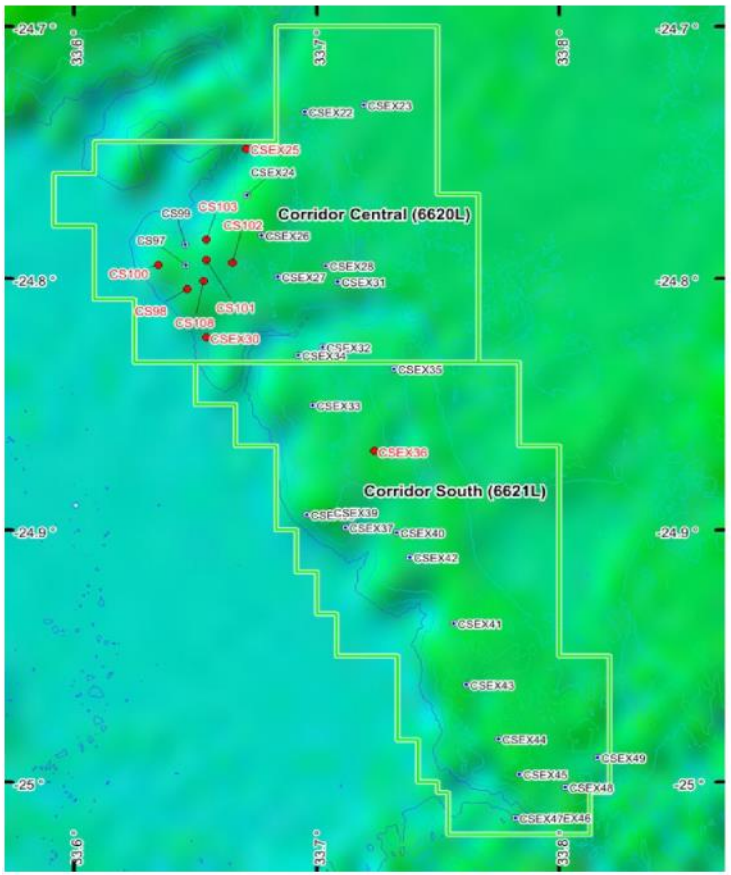


Corridor Projects – Historic drill database

(1999-2002) (Refer MRG TSX Announcement 11 May 2018)

Drillhole locations and average THM grade summary

Every hole is mineralised





Hole Id	Drill hole THM intersect (no cuts)	Hole depth
CS97	48m @ 3.7% THM	48
CS98	54m @ 4.0% THM	54
CS99	40m @ 3.2% THM	40
CS100	36m @ 5.2% THM	36
CS101	63m @ 5.8% THM	63
CS102	27m @ 4.7% THM	30
CS103	48m @ 4.5% THM	48
CS108	42m @ 4.4% THM	42
CSEX22	93m @ 3.6% THM	93
CSEX23	75m @ 3.4% THM	75
CSEX24	54m @ 3.7% THM	90
CSEX25	60m @ 4.6% THM	75
CSEX26	69m @ 3.5% THM	81
CSEX27	90m @ 3.5% THM	90
CSEX28	66m @ 2.4% THM	90
CSEX30	48m @ 4.4% THM	63
CSEX31	30m @ 3.9% THM	75
CSEX32	81m @ 3.6% THM	87
CSEX33	30m @ 3.1% THM	81
CSEX34	42m @ 3.4% THM	78
CSEX35	18m @ 1.7% THM	78
CSEX36	48m @ 4.5% THM	75
CSEX37	42m @ 3.3% THM	75
CSEX38	24m @ 3.1% THM	60
CSEX39	42m @ 3.7% THM	60
CSEX40	72m @ 3.5% THM	84
CSEX41	87m @ 3.1% THM	87
CSEX42	78m @ 3.0% THM	84
CSEX43	60m @ 2.3% THM	78
CSEX44	54m @ 2.7% THM	75
CSEX45	78m @ 2.3% THM	78
CSEX46	66m @ 2.1% THM	66
CSEX47	30m @ 1.5% THM	63
CSEX48	87m @ 3.1% THM	87
CSEX49	87m @ 2.5% THM	87
	Total drill stats 35 holes for	2476
	Average hole depth	71

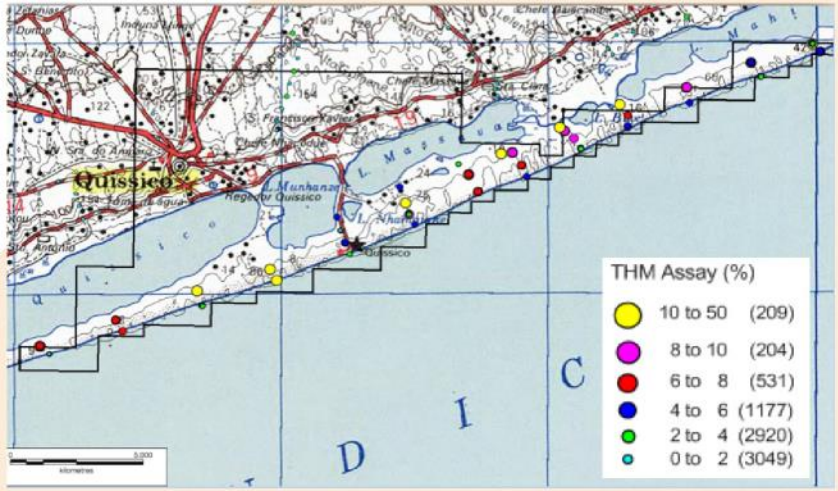
DRILL SAMPLES WERE 3M COMPOSITES
A NUMBER OF HOLES WERE TERMINATED IN HIGH GRADE MINERALISATION

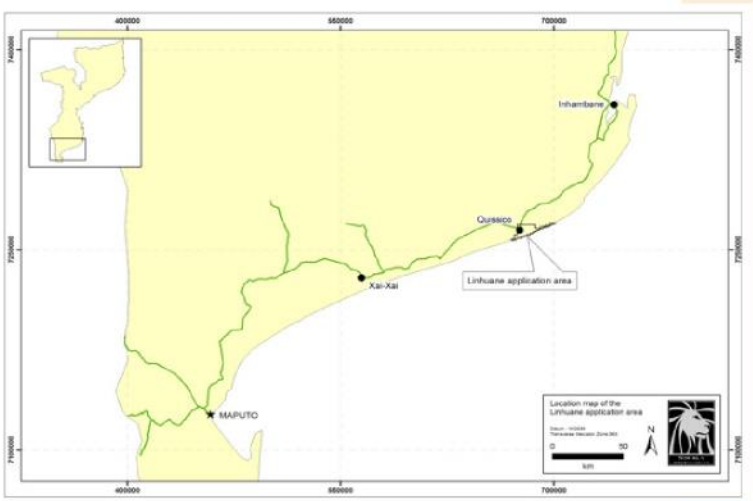
Linhuane Exploration Project

- **Linhuane project** (7423L of 113 km2) is located in Inhambane Province

- Includes **20km strike of prospective palaeodunal feature**, defined by 100m topographic contour, adjacent to the present coast

- Immediately south of RIO/ Savannah JV Mutamba Project





- Open file reports indicate Rio Tinto conducted shallow reconnaissance exploration drilling within the license. Auger drill holes 500m apart on drill traverses 3km apart

- Summary results show very continuous zones of very high grade **THM** to depths of **10m** ranging from **5% to 25%** THM

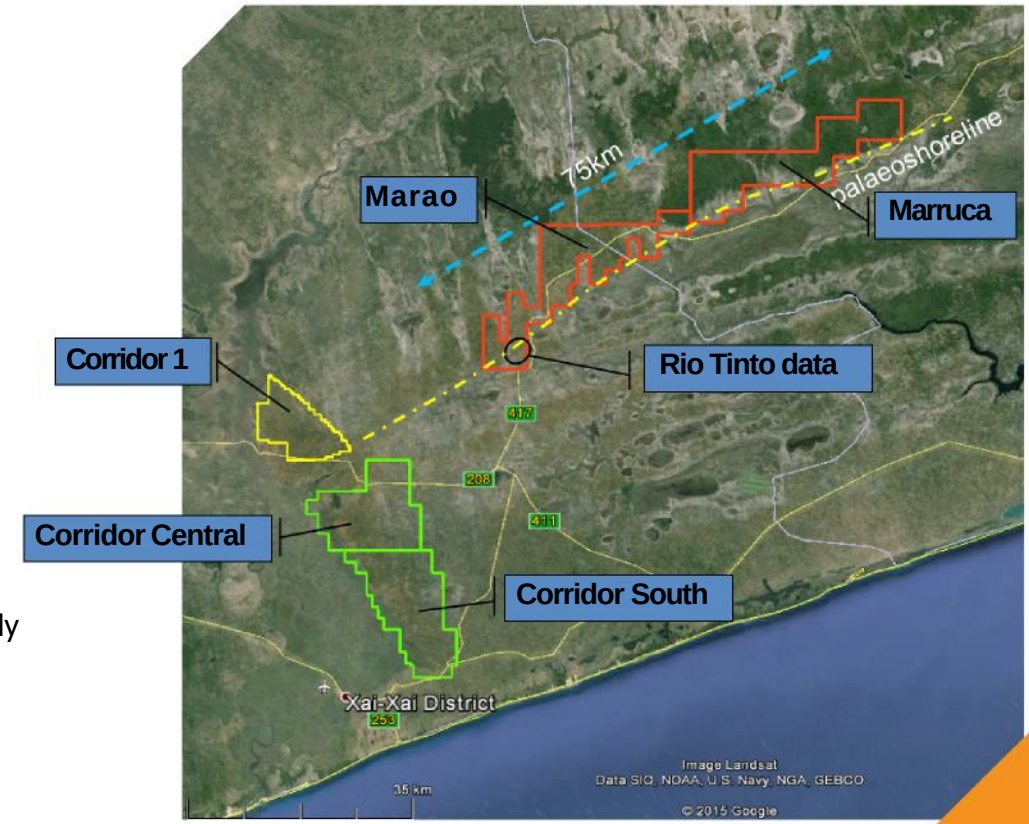
- No drilling information below 10.5m depth

(Refer ASX announcement 11 May 2018)

Marao and Marruca Exploration Projects

- Open file reports show Rio Tinto undertook shallow reconnaissance exploration on a small portion of 6842L
- Grades between 1.5%-2.0% THM from surface to a maximum of 10.5m down hole, ending in 2% THM
- Significant result includes 9m @ 2.85%THM with slimes typically 10% or less
- Surface mineralisation extends up to 7km along strike with drill holes 1km apart along main vehicular tracks
- Combined **prospective palaeodunal strike length of 75km**, inland from an interpreted palaeoshoreline
- Extent of mineralisation was never systematically tested at depth or along strike

(Refer ASX announcement 11 May 2018)



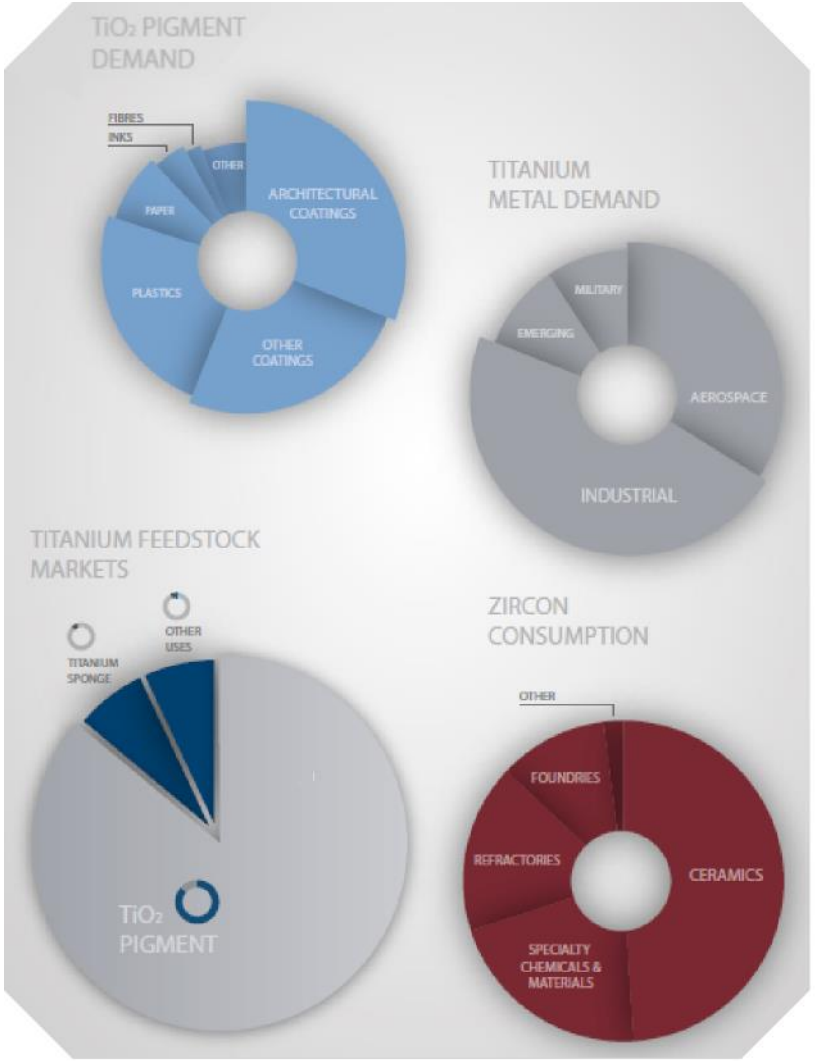
Why Heavy Minerals?

- The **mineral sands industry** involves mining heavy mineral sand (HMS) identified in fossil beach and river environments. These deposits are primarily exploited for their titanium and zircon mineral content.

- Titanium minerals are commonly referred to as **titanium feedstocks**. Key titanium feedstocks include: ilmenite, rutile and leucoxene. Ilmenite can also be refined to produce feedstocks with higher titanium dioxide (TiO2) content such as high titania slag and synthetic rutile.

- **Zircon** is generally a smaller part of the HM suite, and attracts a higher price than titanium feedstocks. As a result, zircon provides a significant financial contribution to mineral sands operations.

- Titanium feedstocks are characterised by two primary product chains: **TiO2 pigment and the titanium metal sector**. TiO2 pigment production accounts for almost 90% of global titanium feedstock consumption. Titanium metal manufacture is the second primary feedstock consumer, while the balance of supply is used to produce welding electrode fluxes and titanium-based chemicals.

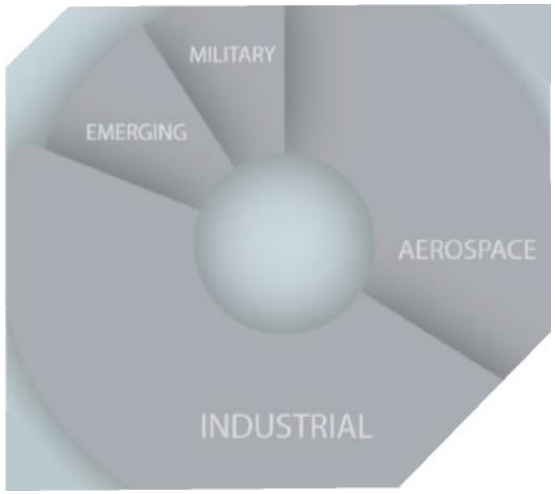


Source: TZMI titanium and zircon value chains, 2013

TiO_2 Feedstock Usage

- **TiO_2 is considered a 'quality of life' product** - its consumption increases as disposable income rises. It is predominantly added to high-quality surface finishes for opacity, brightness and whiteness. When incorporated in applications such as paint and coatings, TiO_2 pigment extends the product life by absorbing and reflecting ultraviolet radiation that generally accelerates decomposition. It is non-toxic and inert to most chemical reagents.





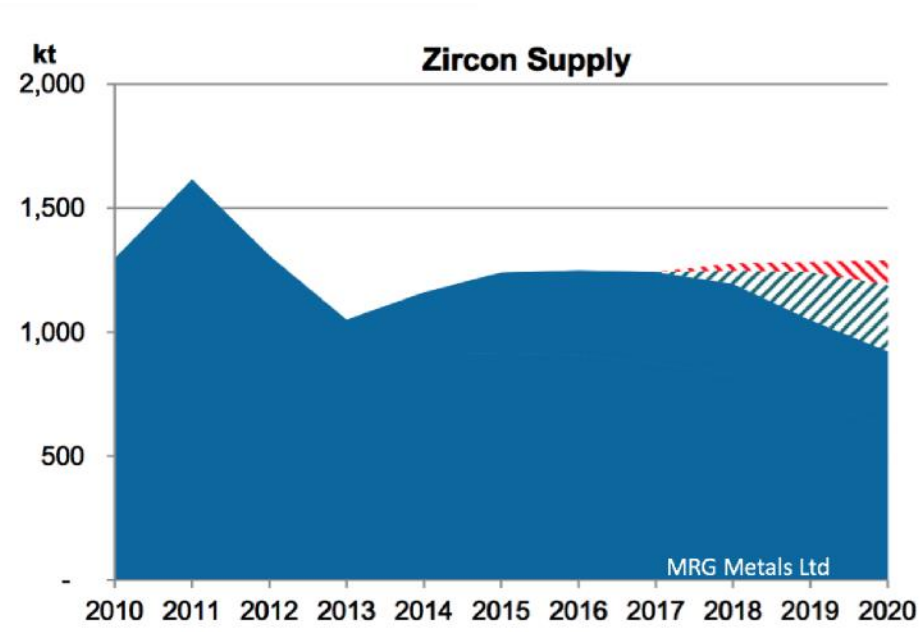
- Titanium metal is the **fourth most common structural metal** in use. It is made from titanium feedstock and is sought for its corrosion-resistance, which makes it resilient against acids, aqueous alkali and halogen gases.

- Titanium has **greater strength and a higher melting point** than most other light metals. It has the highest strength-to-weight ratio of any metal. Commercial titanium has tensile strength as strong as common steel alloys while being 45% lighter.

- Titanium's elevated melting point makes it **preferred for a range of applications.**

Source: TZMI titanium and zircon value chains, 2013

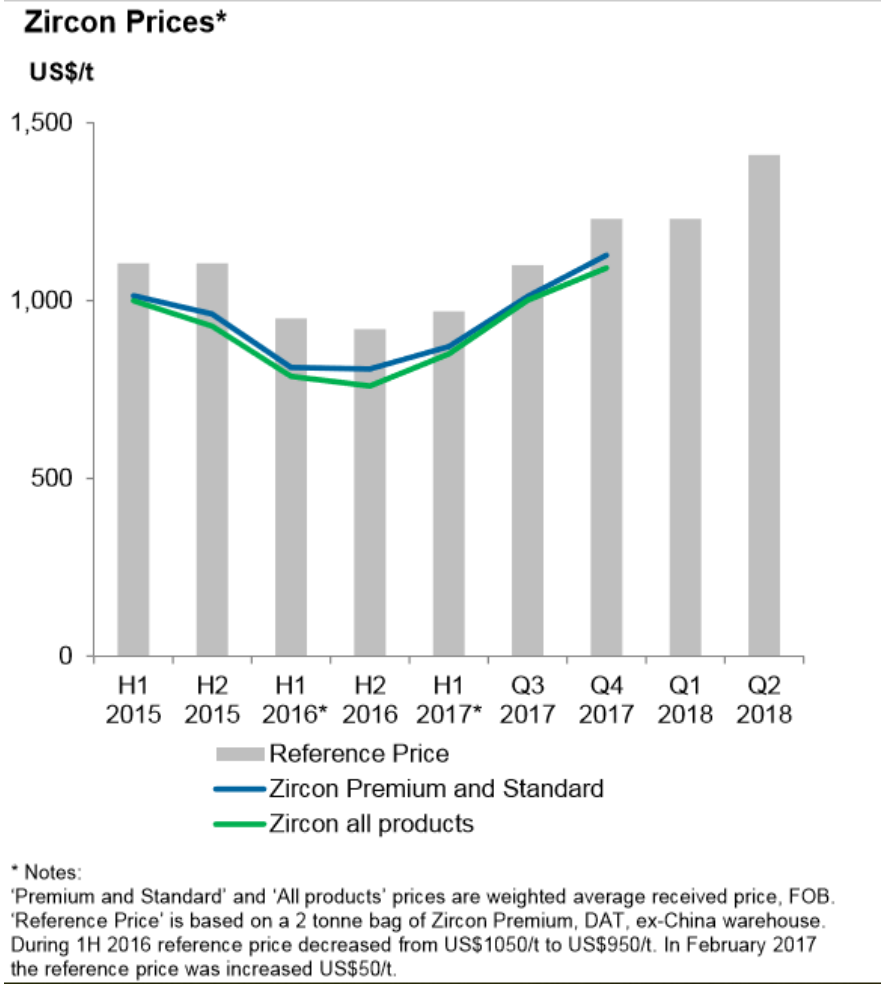
Zircon Market Supply Characteristics



- Zircon from existing producers declining due to depletion and decline in grade and assemblage
- Minor producers not sufficient to fill structural supply gap
- Inventory largely held in the hands on Iluka – can and will fill gap
    - New zircon production dependent on co-product zircon from yet to be built TiO2 mines

Source: Iluka
***Zircon production from 2016 onwards excludes any finished inventory held at 31 December 2015 but includes zircon**

Recent market dynamics



Source: TZMI

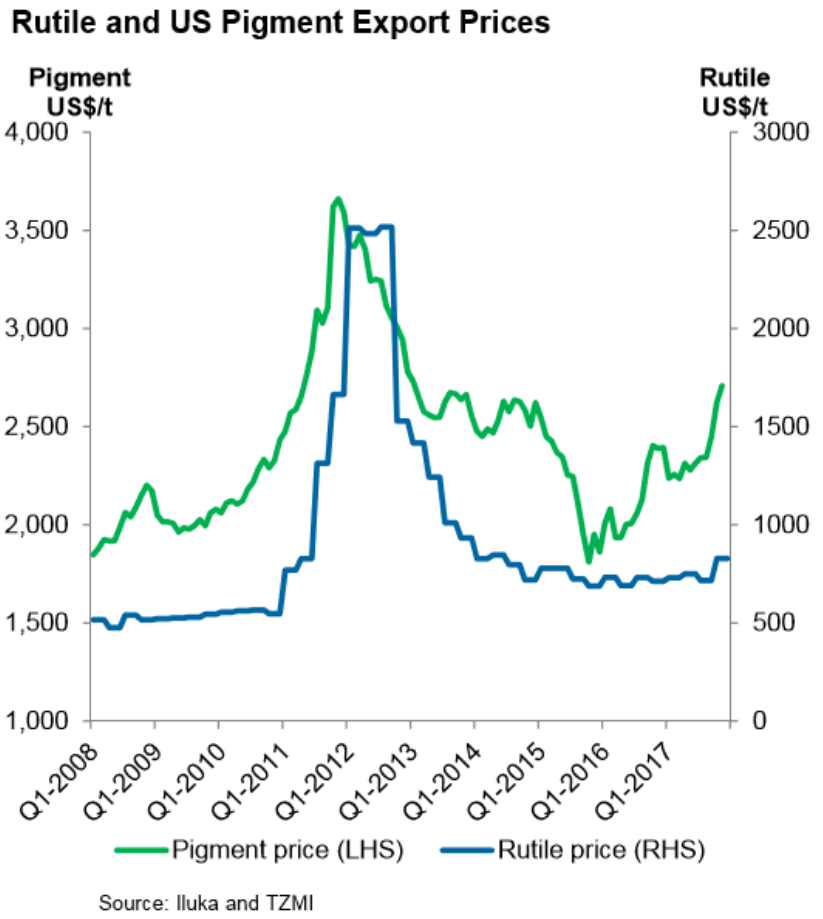
PRICING

- 2017 weighted average premium and standard received price up 18% year on year
- Increase to Reference Price of US $1,230/t from 1 October for the 6 months to end March 2018
- Announced Reference to US$1,410/t announced from Q2 2018 for a period of 6 months

SUPPLY AND DEMAND

- Reflects
  - Underlying market conditions
  - Restocking from depleted levels
- Increased demand for premium products
- Moderate market growth expected
- Limited ability for existing producers to respond in short term

High Grade TiO_2 Feedstock Market



Source: Iluka and TZMI

PRICING

- 2017 weighted average rutile prices up 8% (to US$790/t) year on year
- H2 2017 price of US$825/t up 13% from 2016

PIGMENT MARKET UPDATE

- Broad-based, continuing improvement in chloride pigment market commentary of above trend demand - continued restocking of depleted pigment inventories and feedstock demand expected to exceed underlying market conditions
- Potential for pigment plants to increase high grade feed (rutile and synthetic rutile) to deliver higher plant output

Contacts

MRG Metals Ltd

12 Anderson Street West, Ballarat, VIC 3350

(03) 5330 5800

info@mrgmetals.com.au

www.mrgmetals.com.au

