

## 1Q 2016 OPERATIONS REVIEW

MDL's primary asset is a 50% interest in the TiZir joint venture ('TiZir'), which owns the Grande Côte mineral sands operation ('GCO') in Senegal, West Africa and the TiZir Titanium & Iron ilmenite upgrading facility ('TTI') in Tyssedal, Norway. ERAMET of France is MDL's 50% joint venture partner in TiZir.

### KEY POINTS

- TTI commenced chloride slag shipments
- TTI production ramp up continued – March production represented over 90% of total production capacity prior to undertaking the furnace reline and capacity expansion project
- GCO successfully completed its first mine path turnaround
- Titanium feedstocks market remains soft due to downstream weakness in the pigment market, but pricing remained stable during the quarter
- Zircon market adversely affected by competition between major suppliers
- Exited position in World Titanium Resources, realising proceeds of approximately A\$6.45 million
- Robert Sennitt appointed Managing Director

### GCO

After strong production growth in 3Q and 4Q 2015, production levels at GCO in 1Q 2016 were lower as a result of the first 180 degree mine path turnaround and a major scheduled maintenance shutdown of the dredge in February.

Completed in early February, the scheduled maintenance shutdown was a significant undertaking involving substantial works, including replacement of the dredge cutter shaft for the first time since the commencement of mining in March 2014. Other preventative maintenance activities focused primarily on the dredge and wet concentrator plant.

During February and March, the dredge and wet concentrator plant reversed course to move south along the dune system. As this was the first 180 degree turn for the plant since operations commenced, throughput was restricted. However, the manoeuvre provided an opportunity to optimise the dredge automation system, tails deposition procedure and anchor positioning plans which will reduce the impact of future turnarounds.



Mine path turnaround at Grande Côte Operations, Senegal, West Africa

As a result of the above, overall dredge throughput was down 13.1% (compared to 4Q 2015) to 9.6 million tonnes, which had a corresponding impact on heavy mineral concentrate ('HMC') production. A decrease in grade experienced during the turnaround as a result of being at the edge of the mine path also contributed to the 25.4% reduction in HMC production compared to 4Q 2015.

As expected, the reduced availability of HMC impacted finished goods production, with ilmenite and zircon production down 15.2% and 21.3% respectively, compared to 4Q 2015.

Now that the turnaround has been completed, it is anticipated that mine productivity will increase to levels consistent with Q3 and Q4 2015.

**GCO production volumes**

100% basis		1Q 2015	2Q 2015	3Q 2015	4Q 2015	1Q 2016
<b>Mining:</b>						
Ore mined	(kt)	8,039	7,522	8,165	11,033	9,583
Heavy mineral concentrate produced	(t)	131.6	136.6	176.0	188.7	140.7
<b>Finished goods production</b>						
Ilmenite	(t)	89,789	97,789	113,679	126,433	107,181
Zircon	(t)	9,118	11,357	11,159	13,614	10,713
Rutile & Leucoxene	(t)	1,635	1,247	1,076	1,353	1,906

**GCO sales volumes**

100% basis		1Q 2015	2Q 2015	3Q 2015	4Q 2015	1Q 2016
<b>Sales volume</b>						
Ilmenite (including sales to TTI)	(t)	71,857	64,051	145,551	138,958	65,001
Zircon	(t)	6,502	12,196	11,415	11,742	9,661
Rutile & Leucoxene	(t)	22	1,406	1,804	1,379	1,740

Sales volumes were significantly lower than both 3Q and 4Q 2015, primarily as a result of the continuing ramp up of operations at TTI which impacted on the timing of ilmenite shipments. Zircon sales volumes were also soft during the quarter due, in part, to lower available inventory.

Lower production and sales volumes in February 2016 halted GCO's run of consecutive months of positive EBITDA. GCO is continuing to work towards significantly reducing costs and improving the efficiency of its operations in order to improve profitability whilst enduring near record low prices in the mineral sands industry.



Grande Côte Operations, Senegal, West Africa

**TTI**

Following completion of the furnace reline and capacity expansion project, production ramp up at TTI began in 1Q 2016 with first production of chloride slag in early January and iron tapping occurring shortly thereafter. Whilst the ramp up has impacted overall 1Q 2016 production volumes (34.8kt and 14.1kt for titanium slag and high purity pig iron ('HPPI') respectively), March volumes achieved over 90% of full production capacity prior to undertaking the furnace reline and capacity expansion project. Optimisation projects continued to increase the efficiency of the operations throughout the quarter and the plant is currently performing according to expectations as the ramp up progresses.

Titanium slag sales volumes of 31.2kt for the quarter included TTI's first shipments of chloride slag. Lower sales volumes were a function of lower production volumes early in the quarter. During the period, TTI sold all remaining volumes of sulphate route titanium slag inventory produced prior to the furnace shutdown in 4Q 2015.

HPPI sales volumes for 1Q 2016 were significantly higher than 4Q 2015, predominantly due to the increase in available volumes. Despite the increase in volumes, demand remained under pressure from local European foundries.

**TTI physical volumes**

100% basis		1Q 2015	2Q 2015	3Q 2015	4Q 2015	1Q 2016
<b>Titanium Slag</b>						
Produced	(kt)	43.8	37.1	25.9	-	34.8
Sold	(kt)	30.2	38.8	36.7	26.0	31.2
<b>High Purity Pig Iron</b>						
Produced	(kt)	24.0	20.2	15.0	-	14.1
Sold	(kt)	19.8	23.5	17.0	4.3	9.9



First chloride slag shipment from TiZir Titanium & Iron ilmenite upgrading facility, Tyssedal, Norway



## MARKETS

Market conditions for titanium feedstocks were largely unchanged throughout 1Q 2016, remaining supply driven with increased pressure on prices. Overcapacity persists in both the mineral sands and pigment production industries, due mainly to weak demand and Chinese oversupply. The tighter market for chloride slag continues to justify the strategy to focus on this sector of the market.

The market for zircon slowed during 1Q 2016, with major suppliers competing more aggressively in search of increased sales volumes. Price decreases have been announced by some major producers for standard and lower grades of zircon products.

As outlined above, demand in the HPPI market remains under pressure due to the reduced activity of local European factories together with increased competition from Eastern European producers.

## TIZIR

As announced (ASX Releases: 11 December 2015, 21 January 2016), a number of amendments to the TiZir Bond Agreement were approved at a meeting of Bondholders in December 2015. One of the conditions in reaching an agreement with Bondholders was that MDL and ERAMET establish a US\$60 million committed facility in favour of TiZir (US\$30 million from each of ERAMET and MDL) for the payment of interest and principal under the bond issue. The entire US\$60 million facility is to be underwritten by ERAMET.

In respect of the interest payment due to Bondholders at the end of March 2016, TiZir drew down US\$12.4 million under this facility (funded US\$6.2 million by each of MDL and ERAMET) to enable the payment to be made. ERAMET funded MDL's contribution on similar terms to those announced previously (ASX Release: 6 January 2016).

In addition to the above funding and the funding outlined in MDL's previous announcement (ASX Release: 6 January 2016), the owners have contributed, via subordinated loans, US\$3.6 million to TiZir for working capital purposes. ERAMET has agreed to fund the Company's share of this contribution (US\$1.8 million).

At 31 March 2016, ERAMET had contributed \$11.0 million on behalf of the Company. On 12 April 2016, \$4.0 million of this funding was repaid by MDL with a portion of the proceeds from the sale of its 20.02% interest in World Titanium Resources Limited (ASX Release: 4 March 2016) as outlined below.

At 31 March 2016, external borrowings (excluding shareholder loans) by TiZir amounted to US\$337.3 million, comprising the senior secured bonds (including accrued interest) due September 2017 and amounts drawn under TTI's and GCO's working capital facilities.

TiZir's cash and cash equivalents at 31 March 2015 were US\$10.2 million, giving net external debt of US\$327.1 million.

## OUTLOOK

GCO will focus on continued improvements at its operations. These improvements will include implementation of numerous initiatives to reduce overall costs as well as programs to enhance both mining and operational efficiencies. There are a number of minor operational projects to be commissioned in 2Q 2016 which will continue the drive to maximise the operations' mining recoveries and processing yields and improve technical reliability.

TTI is approaching production levels equivalent to those prior to the furnace reline and capacity expansion project. The focus in 2Q 2016 will be to consolidate production at these levels. As at GCO, cost reduction initiatives to ensure product competitiveness and sustainable operations continue and will ramp up as operations are optimised.

**CORPORATE**

As announced (ASX Release: 4 March 2016), during the quarter MDL undertook to exit its position in World Titanium Resources Limited ('WTR'). The proceeds from the sale of the Company's interest in WTR amounted to approximately A\$6.45 million.

On 8 April 2016, MDL announced the appointment of current Chief Executive Officer Robert Sennitt as Managing Director, effective from that date. In association with this appointment, Executive Chairman Nic Limb will relinquish his executive role and become non-executive Chairman at the upcoming 2016 Annual General Meeting ('AGM') of the Company.

Further to the above, long-serving Director David Isles will retire at the AGM. David was a founding Director of the Company and his contribution has been fundamental to MDL's achievements over the years.

At 31 March 2016:

- issued shares were 103,676,341
- cash was US\$12.2 million (approx. A\$15.9 million)
- contribution shortfall funded by ERAMET of US\$7.0 million

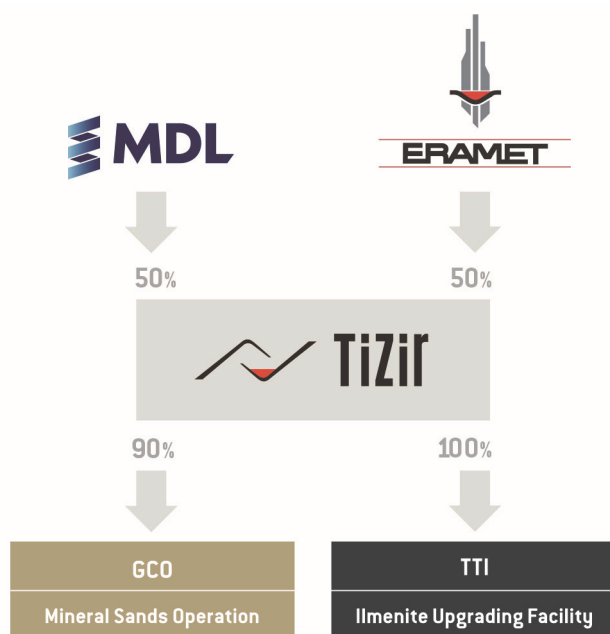
**ABOUT MDL**

Mineral Deposits Limited (ASX: MDL) is an Australian based mining company in the business of mining, integrating and transforming mineral sands resources.

MDL owns 50% of the TiZir joint venture in partnership with ERAMET of France. The TiZir joint venture comprises two integrated, operating assets – the Grande Côte mineral sands operation ('GCO') in Senegal, West Africa and the TiZir Titanium & Iron ilmenite upgrading facility ('TTI') in Tyssedal, Norway.

GCO is a large-scale, cost competitive mineral sands operation located in Senegal that is fully integrated from mine-to-ship, using owned or controlled infrastructure. GCO commenced mining activities in March 2014 and, over an expected mine life of at least 25 years, will primarily produce high quality zircon and ilmenite. A majority of GCO's ilmenite is sold to TTI. GCO also produces small amounts of rutile and leucoxene.

TTI upgrades GCO ilmenite to produce high-quality titanium feedstocks which are primarily sold to pigment producers and a high-purity pig iron, a valuable co-product, which is sold to ductile iron foundries. TTI benefits from excellent logistics with respect to cheap and clean power access, year-round shipping capacity and customer proximity.



**Forward looking statements**

Certain information contained in this report, including any information on MDL's plans or future financial or operating performance and other statements that express management's expectations or estimates of future performance, constitute forward-looking statements.

Such statements are based on a number of estimates and assumptions that, while considered reasonable by management at the time, are subject to significant business, economic and competitive uncertainties. MDL cautions that such statements involve known and unknown risks, uncertainties and other factors that may cause the actual financial results, performance or achievements of MDL to be materially different from the Company's estimated future results, performance or achievements expressed or implied by those forward-looking statements. These factors include the inherent risks involved in mining and mineral processing operations, exploration and development of mineral properties, changes in economic conditions, changes in the worldwide price of zircon, ilmenite and other key inputs, changes in the regulatory environment and other government actions, changes in mine plans and other factors, such as business and operational risk management, many of which are beyond the control of MDL.

Except as required by applicable regulations or by law, MDL does not undertake any obligation to publicly update, review or release any revisions to any forward-looking statements to reflect new information, future events or circumstances after the date of this report.

Nothing in this report should be construed as either an offer to sell or a solicitation to buy or sell MDL securities.

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