Mineral Commodities

Quarterly operating update

December quarter – in transition, uplift in 2016

Metals & mining

Mineral Commodities (MRC) operates the Tormin mineral sands project in South Africa. This is differentiated by the high grades and profitability relative to its peers, even during the current period of subdued mineral sands prices. Technical enhancements are forecast to lift earnings. Exploration offers the potential for a larger and longer life operation.

Year end	Revenue (US$m)	PBT* (US$m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/13	0.2	(1.6)	(0.6)	0.0	N/A	N/A
12/14	35.0	3.9	2.1	0.0	5.3	N/A
12/15e	46.6	13.6	2.4	0.0	4.7	N/A
12/16e	46.0	17.5	3.0	1.4	3.7	12.3

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments. MRC is an ASX company that reports in US$.

December quarter below budget due to GSP delay

The commissioning of the Tailings Scavenger Plant (TSP) in mid-October led to an increase in heavy mineral concentrate (HMC) to the Secondary Concentrator Plant (SCP). However, Tormin production in the December quarter was below the original processing budget. This was based on completing the Garnet Stripping Plant (GSP) in the September quarter, designed to increase the hourly throughput by around 25%. Commissioning of the GSP is now deferred until early July 2016.

GSP financing secured – commissioning in July 2016

Financing a $4.5m loan for the GSP has been secured, together with an increased offtake agreement for garnet concentrate. The GSP will remove the garnet fraction from the HMC with the end effect being a higher overall recovery of zircon and rutile and higher zircon and rutile grades in the non-magnetic combined product. This will lead to higher received prices and lower unit costs.

Exploration 10km offshore and along 24km coastline

MRC's South African subsidiary, Mineral Sands Resources (MSR), has been granted prospecting rights over a c 10,000ha area, extending its prospecting area up to 10km offshore from current mining activities at Tormin. Resource definition is planned for early 2016. MSR has also lodged a prospecting and bulk sampling application targeting c 24km of coastline to the north of Tormin. These initiatives have the potential to increase resources and the life and potential scale of the Tormin operation.

Valuation: Significant upside for an existing producer

Using NPV_{10} analysis to value the Tormin project and valuing the early-stage Xolobeni project on a nominal basis, our base case valuation is A$0.31/share for a four-year mine life, supported by existing resources. This is higher than our mid-2015 A$0.21/share valuation, mainly due to the efficiency benefits from the GSP plant, which we have now fully factored into our forecasts. We have also assessed the impact of resource extensions and calculated a valuation of A$0.50/share for the scenario of an eight-year life.

5 February 2016

Price	**A$0.11**
Market cap	**A$45m**
	US$0.70/A$
Net cash (US$m) at 31 December 2015	4.2
Shares in issue	404.9m
Free float	100
Code	MRC
Primary exchange	ASX
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	10.0	(12)	4.8
Rel (local)	16.4	(7.4)	19.4
52-week high/low		A$0.2	A$0.1

Business description

Mineral Commodities (MRC) is an expanding producer of non-magnetic zircon/rutile concentrate and ilmenite and garnet co-products from its high-grade Tormin resource on the west coast of South Africa. It also owns the large, early-stage, Xolobeni ilmenite deposit on the east coast of South Africa.

Next event

Quarterly activities	April 2016

Analysts

Peter Chilton +44 (0)20 3077 5700

Charles Gibson +44 (0)20 3077 5724

mining@edisongroup.com

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Tormin: Major initiatives to come to fruition in 2016

Major initiatives are underway or planned to increase production and product grades. These include the installation of new processing plant to lift capacity and heavy mineral recoveries. The initiatives will increase revenue due to greater sales volumes and higher product quality. Unit costs will also be lowered.

December quarter production statistics

Production achieved in the December quarter (see Exhibit 1) was below the original budget. Although the Tailings Scavenger Plant (TSP) was commissioned by mid October 2015, the processing budget was based on completion of the Garnet Stripping Plant (GSP) in the September quarter. Completion of the GSP has been delayed and is now is expected on or around 30 June 2016, with commissioning and tie in to the existing plant completed in early July 2016.

Funding through a US$4.5m loan facility has just been secured to fund the completion of the GSP.

The GSP, when operating in conjunction with the existing Secondary Concentrator Plant (SCP), is designed to increase the hourly throughput rate by around 25%.

Exhibit 1: Quarterly production, sales and cost statistics for 2015

	March quarter	June quarter	September quarter	December quarter	Comments
Production					
Mining					
ROM production (kt)	362.2	456.6	367.0	438.8	Feed for Primary Beach Concentrators (PBC)
Grades					
Garnet (%)	25.79%	24.50%	31.78%	30.90%	
Ilmenite (%)	15.82%	12.08%	18.70%	16.99%	
Zircon (%)	4.06%	3.40%	4.39%	3.77%	
Rutile (%)	0.57%	0.52%	0.63%	0.66%	
Total valuable heavy mineral (%)	46.24%	40.50%	55.50%	52.32%	Higher grades in December half
SCP production and processing					
HMC feed from PBC (kt)	99.7	112.2	110.1	151.5	Proportion of feed from PBCs increasing
Direct high-grade ROM feed (kt)	48.0	37.0	30.4	8.2	Direct high-grade ROM feed falling
Total HMC processed (kt)	147.9	149.2	140.5	160.4	Strong processing rate in Dec quarter
Concentrates (kt)					
Garnet	75.1	61.8	67.6	80.4	
Ilmenite	32.1	29.5	23.6	24.8	
Zircon/rutile	11.7	11.3	10.3	11.2	
Total	119.0	102.6	101.5	116.4	
Zircon in zircon/rutile concentrate (%)	72.78%	73.39%	72.86%	72.47%	Zircon grade fairly flat
Rutile in zircon/rutile concentrate (%)	12.83%	12.94%	13.80%	14.25%	Rising rutile grade trend
Sales					
Zircon/rutile concentrate (kt)	12.8	11.6	10.5	10.3	Dec quarter affected by TSP/GSP delay
Ilmenite concentrate (kt)	0.0	0.0	0.0	0.0	Now seeing more active enquiries
Garnet concentrate (kt)	162.5	66.3	63.5	80.2	Stockpiling delaying full revenue recognition
Financial					
Sales revenue (US$m)	18.2	8.4	9.3	9.7	Some December shipments delayed
Cash costs (Actual) (US$/t ZR conc)	N/A	442.7	311.0	371.0	Costs above budget due to TSP/GSP delay
Cash costs (Budget) (US$/t ZR conc)	N/A	311.7	306.0	255.0	

Source: Mineral Commodities, Edison Investment Research

Processing plant upgrades and benefits

Before the changes, the processing arrangements at Tormin mainly comprised two Primary Beach Concentrators (PBC) and the SCP.

- **PBC:** this produces an HMC. Trommel screens remove oversize material. Concentration is achieved by a spiral circuit using gravity. The HMC incorporates all the heavy minerals which, at this stage, are not separated.

- **SCP:** the HMC is further upgraded by a second series of gravity spirals. High-intensity magnetic separation is then used to separate the magnetic components of the feed from the non-magnetic components. The non-magnetic components are zircon and rutile, which are recovered as a combined concentrate. The magnetic components are ilmenite and garnet, which are both saleable, and magnetite.

The two major upgrades to the plant configuration are the TSP and the GSP.

- **TSP:** the scavenger circuit is linked to the two PBC units. It recovers additional HM material from 'waste' previously disposed to tails. It increases the efficiency of recoveries in the PBC circuit with test work indicating an increase in total HM recovery from 66% to 89%, including an increase in zircon recovery from 83.8% to 95.2%. This has the effect of producing an additional 147ktpa HMC.
- **GSP:** this will be installed at the front of the existing SCP. It will remove the garnet fraction from the HMC before the SCP. This will have the effect of increasing the non-magnetic zircon/rutile feed grade to the SCP. This in turn will allow a higher-grade, non-magnetic zircon/rutile concentrate to be fed to the existing magnetic circuit. This will lead to an increase in overall final zircon/rutile concentrate production.

In Exhibit 2, we show some of the production and efficiency gains expected to be achieved as a result of the combined effect of the recent TSP installation and the proposed GSP installation. Overall recoveries are indicative and are the product of heavy mineral recoveries in the separate TSP and GSP plants.

Exhibit 2: Production and efficiency benefits from capital investment in TSP/GSP installations

	Before TSP/GSP installations	After TSP/GSP installations
ROM		
Feed rate (t/hr)	125.0	133.0
Utilisation (%)	54.0	77.2
Throughput (Mtpa)	1.18	1.80
SCP		
Feed rate (t/hr)	61.6	100.0
Zircon		
Overall recovery (%)	57.6	78.5
Concentrate grade (%)	72.0	80.0
Rutile		
Overall recovery (%)	55.0	65.7
Concentrate grade (%)	11.0	13.0
Garnet		
Overall recovery (%)	35.0	43.0
Concentrate grade (%)	59.0	88.0
Ilmenite		
Overall recovery (%)	33.1	82.1
Concentrate grade (%)	69.0	69.0

Source: Mineral Commodities, Edison Investment Research

Tormin resource and offshore prospecting activities

MCR's exploration activities are supportive of long-term plans to extend the heavy mineral sand resource of the Tormin mining operation and underpin the economic viability of the current operation. The following activities took place during the December quarter:

- **Extension of prospecting area 10km offshore:** MRC's South African subsidiary, MSR, was granted a new prospecting right by the Department of Mineral Resources – South Africa. The new right represents an area c 10,500ha in size, seaward from its current mine and prospecting areas. It extends MSR's prospecting area up to 10km offshore from current mining activities at Tormin.

- **Offshore areas already a source of beach HM replenishment:** the prospecting area is to be investigated for its offshore HM sand potential, which is currently the source of wave-driven replenishment taking place on the beach held under mining rights.
- **Finalising offshore drilling plans:** MRC is finalising offshore drilling logistics investigations with various contractors, which will enable it to commence resource definition, starting in the surf zone in early 2016.
- **Targeting c 24km coastline for HM:** MSR has also lodged a new prospecting and bulk sampling application along the beach and surf zone north of the current mining operations, representing a target area of c 24km along the coastline. This area has been extensively drilled by Trans Hex (TSX.JSE) for diamonds and heavy mineral sands. The results show known heavy mineral sand resources (non-JORC) totalling 1.8Mt with sampled zircon grades of between 1.4% and 3.5%.

Xolobeni: Potential to be a globally significant asset

MRC's Xolobeni resource is located on South Africa's east coast. It has a measured, indicated and inferred resource of 346Mt at 5% HM containing 9.3Mt ilmenite.

- **Moving towards an EIA report:** during the period, MRC stated that it is making good progress with its consultants, with necessary baseline and technical studies to move the project through to submission of the environmental impact assessment (EIA) report, which is required as part of the mining right application process.
- **Extension to submission of final EIA granted:** an extension for the submission of the final EIA has been granted to April 2016. A reassessment of the mining right application will take place in the March quarter, which could delay the final submission of the EIA.

Financial: Potential for a dividend payment in 2016

GSP financing and Tormin land purchase are supporting the growth of the Tormin operation.

- **GSP financing:** MRC's South African subsidiary, MSR, has secured US$4.5m via a loan facility from the GMA Group to fund the completion of the GSP. GMA is the world's largest producer and global distributor of garnet abrasive products. The loan agreement has a three-year repayment term commencing on the restart of shipping of garnet concentrate product to GMA, which is planned for January 2007. Currently, MSR stockpiles garnet concentrate, on behalf of GMA, at the Tormin mine site. The revenues for stockpiled garnet are initially lower, with full sales value on shipment. The offtake agreement with GMA has been amended to increase the term of the agreement to the life of mine, with an increase in annual tonnage to 210ktpa, up from 150ktpa, and an option to take all other remaining garnet concentrate production.
- **Purchase of land for processing facilities:** during the December quarter, MRC concluded the 1,787ha farm purchase on which the Tormin processing facilities are located. The purchase price has not been disclosed. This removes land use restrictions and provides significantly more land to expand the footprint of the process plant facilities and stockpiling area for optimisation of operating performance. Further synergistic land and tenement acquisitions in the vicinity of current operations are being reviewed.
- **Debt:** while debt reduction is part of MRC's overall capital management strategy, the company's preferred position for existing debt was to retain 50% of the debt previously owing to provide flexibility with regard to the GSP financing. At the beginning of the December quarter, MRC repaid US$1.2m or 50% of its debt, which was owed to two of its largest shareholders.
- **Cash:** at 31 December 2015, MRC had cash of US$4.2m.

- **Dividend:** we believe there is potential for a maiden dividend payment in 2016.

Valuation increases due to plant initiatives

Our base case MRC valuation is A$0.31/share with an upper case of A$0.50 share (Exhibit 3).

- **Mine life:** our base case valuation is for a four-year mine life using existing resources. The upper case is for an eight-year scenario, which assumes some mineral replenishment due to tidal activity and additional exploration.
- **Potential additional upside:** with offshore exploration and the potential for exploration along c 24km of coastline, there is potential for the discovery of additional resources and further life extensions or production enhancements.
- **Prices:** our valuations, earnings and cash flow forecasts use long-term zircon and rutile prices of US$1,050/t and US$865/t respectively, which are based on price ranges provided by mineral sands consultants ZTM Marketing.
- **Payment terms:** MRC sells its products in concentrate form at discounts to full prices to take into account the further processing required by the end-user.
- **Valuation increase:** our updated base case valuation of A$0.31/share is higher than the valuation in our initiation report published in August 2015. The main reason is the impact of the TSP/GSP installations, which increase both overall heavy mineral recoveries and product grades. This has the effect of reducing unit costs and price discounts. The efficiency benefits of the GSP have now been fully factored into our forecasts and valuation.

Exhibit 3: Valuations – base case and upper case

Mine life (years)	Four	Eight
Tormin (NPV_{10} @ 10% discount rate (US$m)	73.2	127.1
Xolobeni resource (nominal (US$m)	10.0	10.0
Net debt/(cash) at 31 December 2015	(4.2)	(4.2)
Total	87.4	141.3
NPV (US$/share)	0.22	0.35
NPV at US$0.70/A$ (A$/share)	**0.31**	**0.50**
No of shares (m)	404.9	404.9

Source: Edison Investment Research

Exhibit 4: Financial summary

US$000	2013	2014	2015e	2016e	2017e
31-December	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS					
Revenue	225	34,960	46,570	45,981	85,087
Cost of Sales	(1,382)	(27,233)	(27,806)	(23,775)	(35,082)
Gross Profit	(1,157)	7,728	18,764	22,206	50,006
EBITDA	(1,157)	7,728	18,764	22,206	50,006
Operating Profit (before amort. and except.)	(1,309)	4,457	14,581	17,275	44,376
Intangible Amortisation	0	0	0	0	0
Share based payments	0	0	0	0	0
Other	(95)	(30)	(30)	(30)	(30)
Exceptionals	0	0	0	0	0
Operating Profit	(1,404)	4,427	14,551	17,245	44,346
Net Interest	(166)	(478)	(906)	212	271
Profit Before Tax (norm)	(1,570)	3,949	13,645	17,458	44,617
Profit Before Tax (FRS 3)	(1,570)	3,949	13,645	17,458	44,617
Tax	0	4,427	(4,093)	(5,237)	(13,385)
Profit After Tax (norm)	(1,570)	8,376	9,551	12,220	31,232
Profit After Tax (FRS 3)	(1,570)	8,376	9,551	12,220	31,232
Minority Interest	0	0	0	0	0
Net income (normalised)	(1,570)	8,376	9,551	12,220	31,232
Net income (FRS3)	(1,570)	8,376	9,551	12,220	31,232
Average Number of Shares Outstanding (m)	251.8	404.9	404.9	404.9	404.9
EPS - normalised (c)	(0.6)	2.1	2.4	3.0	7.7
EPS - normalised and fully diluted (c)	(0.6)	2.0	2.4	3.0	7.7
EPS - (IFRS) (c)	(0.6)	2.1	2.4	3.0	7.7
Dividend per share (c)	0.0	0.0	0.0	1.4	5.0
Gross Margin (%)	-514.5	22.1	40.3	48.3	58.8
EBITDA Margin (%)	-514.5	22.1	40.3	48.3	58.8
Operating Margin (before GW and except.) (%)	-581.8	12.7	31.3	37.6	52.2
BALANCE SHEET					
Fixed Assets	30,383	34,986	37,302	42,871	46,642
Intangible Assets	0	4,037	4,037	4,037	4,037
Tangible Assets	30,383	30,949	33,265	38,834	42,605
Investments	0	0	0	0	0
Current Assets	3,548	13,488	16,511	17,538	41,275
Stocks	772	6,123	8,156	8,053	14,902
Debtors	1,178	3,085	4,109	4,057	7,508
Cash	1,503	4,216	4,246	5,428	18,865
Other	94	64	0	0	0
Current Liabilities	(8,548)	(17,191)	(10,020)	(8,568)	(12,642)
Creditors	(2,522)	(9,956)	(10,020)	(8,568)	(12,642)
Short term borrowings	(6,026)	(7,235)	0	0	0
Long Term Liabilities	0	(77)	0	0	0
Long term borrowings	0	0	0	0	0
Other long term liabilities	0	(77)	0	0	0
Net Assets	25,382	31,206	43,793	51,842	75,275
CASH FLOW					
Operating Cash Flow	(2,209)	8,440	18,764	22,206	50,006
Net Interest	56	(932)	(906)	212	271
Tax	0	0	(4,093)	(5,237)	(13,385)
Capex	(20,517)	(5,414)	(6,500)	(10,500)	(9,400)
Acquisitions/disposals	0	18	0	0	0
Financing	10,492	(3)	0	0	0
Dividends	0	0	0	(5,499)	(14,054)
Net Cash Flow	(12,177)	2,108	7,265	1,182	13,437
Opening net debt/(cash)	(8,057)	4,523	3,019	(4,246)	(5,428)
HP finance leases initiated	0	0	0	0	0
Other	(403)	(604)	0	0	(0)
Closing net debt/(cash)	4,523	3,019	(4,246)	(5,428)	(18,865)

Source: Company accounts, Edison Investment Research

EDISON

Frankfurt +49 (0)69 78 8076 960
Schumannstrasse 34b
60325 Frankfurt
Germany

London +44 (0)20 3077 5700
280 High Holborn
London, WC1V 7EE
United Kingdom

New York +1 646 653 7026
245 Park Avenue, 39th Floor
10167, New York
US

Sydney +61 (0)2 9258 1161
Level 25, Aurora Place
88 Phillip St, Sydney
NSW 2000, Australia

Wellington +64 (0)48 948 555
Level 15, 171 Featherston St
Wellington 6011
New Zealand