

# Quarterly Exploration and Mining Activities Report

## April to June 2020 (Q4 FY20)



### Q4 Highlights

The coronavirus (COVID-19) crisis did not materially impact Mineral Resources Limited (ASX: MIN; MRL or Company) during Q4 FY20 and FY20 overall. From April to 30 June, MRL conducted more than 25,000 COVID-19 PCR screening tests for resource industry workers through MRL's seven screening facilities in metropolitan Perth and regional areas across the WA. All results were negative. Our ongoing focus has been to protect our employees and their families from the virus while keeping everyone employed to ensure that everyone has a pay cheque to take home. As a result of these actions, we have maintained and increased production.

- Safety performance continued to improve, with a Total Reportable Injury Frequency Rate (TRIFR) for the past 12 months of 3.29. This represented an improvement of 18% compared to FY19.
- A record breaking quarter for iron ore business with total iron ore production of 4.2 million (m) wet metric tonnes (wmt), 22% higher than Q3 FY20. Iron ore shipments for the quarter were 4.4m wmt, up 53% from Q3 FY20. Total FY20 iron ore shipments of 14.1m wmt were 33% higher than FY19.
- Koolyanobbing ramped up to ship 2.6m wmt iron ore during Q4 FY20. Shipments in the month of June of 1.1m wmt represented an annualised run rate of 12.7 mtpa. Total FY20 shipments of 7.4m wmt were in line with guidance.
- Iron Valley shipped 1.8m wmt iron ore for the quarter, an increase of 35% from the previous quarter. Total FY20 shipments of 6.7m wmt were in line with guidance.
- Average iron ore revenue received of US\$84 per dry metric tonne (dmt) during the quarter, 12% higher than the previous quarter.
- Mt Marion Lithium Project achieved record production of 146,000 wmt and record shipments of 114,000 wmt of spodumene concentrate during the quarter.
- During the quarter, MRL completed a transaction comprising a series of arrangements with BCI Minerals Limited (ASX: BCI, BCI) that will enhance the Company's iron ore footprint in the Pilbara region, including the purchase of the Buckland Project from BCI for cash consideration of up to \$20 million and the optimisation of the existing Iron Valley Agreement whereby BCI will participate in the capital investment required to extend the mine life at Iron Valley through a partial rebate of MRL's payments to BCI.<sup>1</sup>
- MRL also completed an Asset Sale Agreement with Resources Development Group Limited (ASX: RDG, RDG) to transfer a 100% interest in the Company's non-core Ant Hill and Sunday Hill manganese assets to RDG in return for MRL receiving scrip equivalent to a 75% shareholding in RDG. The transaction was completed during the quarter.<sup>2</sup>

<sup>1</sup> See ASX announcement 31 March 2020.

<sup>2</sup> See ASX announcement 17 June 2020.

## COVID-19 Update on Operations

The COVID-19 crisis continues to cause significant damage to communities across Australia and the world. Since the outbreak in January 2020, MRL has continuously monitored developments around the world along with guidelines introduced by the Federal and State Governments and health authorities to minimise the risks that COVID-19 presents to us.

In April 2020, Mineral Resources began swab-screening all workers and visitors to operational sites. Our aim is to ensure that anyone entering our sites is free of the virus.

- PCR screening is conducted at four drive-through facilities in Perth, Kalgoorlie, Mandurah and Port Hedland as well as screening centres in Busselton, Esperance and Geraldton. All sites were chosen to maximise convenience for workers and visitors to site, enabling them to be screened without compromising the integrity of the screening process. Qualified nursing staff with full medical PPE clothing and equipment undertake all collections. Samples collected are processed in National Association of Testing Authorities (NATA) accredited laboratories for analysis.
- MRL's screening process uses PCR COVID-19 analysers and Therapeutic Goods Administration (TGA) approved testing kits, specifically targeted at testing for the SARS-CoV-2 virus. The machines and the testing kits, which were sourced and procured by MRL, are of the highest global standard and the testing approach is recognised by the Royal College of Pathologists of Australasia (RCPA). The screening and results reporting processes fully comply with all government regulations, guidelines and standards.
- All workers and site visitors are required to attend a swab-screening facility in the days leading up to the start of their shift/swing and pass the COVID-19 test before they can travel to site.
- The COVID-19 screening process is part of MRL's standard 'fit for work' regime and will remain in place until the Commonwealth and State Governments declare that COVID-19 is no longer a risk to our community.
- The machines used by MRL in the COVID-19 screening process are capable of performing a high volume of tests. The screening process has been offered to other West Australian resource companies at cost to reduce the risk of closures in the State's resources industry.
- Since the first screening tests in April and up to the end of Q4 FY20, more than 25,000 workers have been swab-screened at MRL's screening facilities.

This initiative complements other actions taken on our sites, further details of which are available at [www.mineralresources.com.au/home-page/covid19-response/](http://www.mineralresources.com.au/home-page/covid19-response/).

## Production and Commodity Shipments

'000 wet metric tonnes	Q4 FY20		Q3 FY20		Q4 FY19		YTD FY20	
	PRODUCED	SHIPPED	PRODUCED	SHIPPED	PRODUCED	SHIPPED	PRODUCED	SHIPPED
<b>IRON ORE</b>								
Iron Valley	1,674	1,783	1,684	1,323	1,136	1,945	6,158	6,697
Koolyanobbing	2,521	2,647	1,752	1,574	1,398	1,346	7,890	7,379
<b>TOTAL IRON ORE</b>	<b>4,195</b>	<b>4,430</b>	<b>3,436</b>	<b>2,897</b>	<b>2,534</b>	<b>3,291</b>	<b>14,048</b>	<b>14,075</b>
<b>SPODUMENE</b>								
Mount Marion <sup>1</sup>	146	114	111	99	90	81	496	407
Wodgina <sup>2</sup>	-	-	-	-	-	-	31	3
<b>TOTAL SPODUMENE</b>	<b>146</b>	<b>114</b>	<b>111</b>	<b>99</b>	<b>90</b>	<b>81</b>	<b>528</b>	<b>411</b>
<b>GRAND TOTAL</b>	<b>4,341</b>	<b>4,544</b>	<b>3,547</b>	<b>2,996</b>	<b>2,624</b>	<b>3,372</b>	<b>14,575</b>	<b>14,486</b>

<sup>1</sup> Volumes presented as 100% for the Mt Marion project. MRL operates 100% of the Mt Marion project, in which it owns a 50% interest.

<sup>2</sup> Volumes presented as 100% for the Wodgina Lithium project. The project is structured as an unincorporated joint venture from 1 November 2019 with MRL holding a 40% interest. The project is currently on care and maintenance.

# LITHIUM

## Mt Marion Lithium Project

SPODUMENE			
'000 wet metric tonnes	Q4 FY20	Q3 FY20	Q4 FY19
Mined	681	591	668
Produced	146	111	90
Shipped	114	99	81
'000 dry metric tonnes	Q4 FY20	Q3 FY20	Q4 FY19
Mined	667	579	654
Produced	116	89	73
Shipped	110	96	78

Volumes presented as 100% for the Mt Marion project. MRL operates 100% of the Mt Marion project, in which it owns a 50% interest. In response to requests from the market, from 1Q FY2021 MRL will report Mt Marion volumes on a dry metric tonne (dmt) basis.

During the quarter, operations continued in line with the optimised mine plan, which includes lower processing throughput to achieve higher yields. The specifications of high-grade spodumene concentrate were amended to target 5.4% spodumene compared to 6%, further increasing yields and in line with the offtake plans of Mt Marion's 100% product customer, Jiangxi Ganfeng Lithium Co, Ltd.

Mining activities continued during the quarter with 681,000 wmt (667,000 dmt) of ore mined and 7.6m wmt (7.5m dmt) of total material moved. Mining returned to normal volumes after a temporary decrease in Q3 FY20 which resulted from moving from the central pit to the N6 and N7 pits.

During the quarter, the processing plant's total utilisation remained consistent to the prior quarter at 90% and the throughput rate decreased from 295 wmt per hour (tph) to 292 tph, in line with the optimised mine plan. This resulted in beneficiated feed tonnes decreasing to 570,000 wmt (559,000 dmt) compared to 579,000 wmt (567,000 dmt) in the previous quarter. The proportion of high-grade spodumene concentrate produced during the quarter was 74%, compared to 55% in the previous quarter.

Shipped tonnes increased to 114,000 wmt (110,000 dmt) in the quarter as a result of the increase in produced tonnes.

The MRL-operated Mt Marion Lithium Project is a joint project between MRL (50%) and one of the world's largest lithium producers, Jiangxi Ganfeng Lithium Co., Ltd (50%).

## Wodgina Lithium Project

SPODUMENE			
'000 wet metric tonnes	Q4 FY20	Q3 FY20	Q4 FY19
Mined	-	-	253
Produced	-	-	-
Shipped	-	-	-

Volumes presented as 100% for the Wodgina Lithium project. The project is structured as an unincorporated joint venture from 1 November 2019 with MRL holding a 40% interest. The project is currently on care and maintenance.

The Wodgina Lithium Project is structured as an unincorporated joint venture (MARBL JV) between MRL (40%) and Albemarle Corporation (60%) effective from 1 November 2019. The project is currently on care and maintenance because of the challenging global lithium market conditions and to preserve the value of the world-class Wodgina spodumene ore body.

MARBL JV will regularly review market conditions with a view to resuming spodumene concentrate production as and when required and as driven by market demand. MRL remains confident in the Wodgina Lithium Project as a world-class asset and the decision to partner with Albemarle to help MRL drive sustainable and lasting value for shareholders.

## IRON ORE

### Koolyanobbing

'000 wet metric tonnes	Q4 FY20	Q3 FY20	Q4 FY19
Mined	2,236	1,262	1,467
Produced	2,521	1,752	1,398
Shipped	2,647	1,574	1,346

Koolyanobbing operations ramped up to an annualised run rate 12.7mtpa based on the month of June, with both Deception and Jackson pits successfully transitioning to lower-strip ore delivery phases.

The primary focus for the quarter was the Deception pit. Stage 3 cut back and waste stripping have progressed well and mining of ore from Stage 2 is on schedule. Ground water has been encountered in the bottom of the pit and requires short-term remediation works to ensure continued ore presentation from the pit.

The F3 pit is reaching the bottom of the orebody with final benches being removed. In parallel, access works and site clearing commenced on the new F1 pit. After delays while awaiting environmental approvals, the F1 pit start-up is targeted for Q1 FY21.

Rail and shipping also ramped up ahead of schedule to 12.7mtpa in Q4, delivering 2.6mt shipped for Q4 and total shipped tonnes of 7.4m wmt for FY20.

### Iron Valley

'000 wet metric tonnes	Q4 FY20	Q3 FY20	Q4 FY19
Mined	2,313	1,357	1,263
Produced	1,674	1,684	1,136
Shipped	1,783	1,323	1,945

Iron Valley mining increased in Q4 in line with the medium-term mine plan.

Stage 1 of the C10 pit cutback progressed in line with the development plan for the quarter, with Stage 2 commencing early. Dewatering of the C8 pit continued with production bores equipped and running.

Additional shipping in Q4 was achieved with the inclusion of stockpiled material crushed and hauled to port.

# MINING EXPLORATION AND DEVELOPMENT ACTIVITY

## West Pilbara Iron Ore

In April 2020, MRL completed the transaction to purchase the Buckland Project encompassing the Bungaroo South ore reserve, relevant haul road licences, designs, approvals and agreements under a series of arrangements with BCI Minerals Limited that it announced to the ASX on 31 March 2020. The transaction included the purchase of the Buckland Project from BCI for cash consideration of up to \$20 million and the optimisation of the existing Iron Valley Agreement, whereby BCI will participate in the capital investment required to extend the mine life at Iron Valley through a partial rebate of MRL's payments to BCI.

The transaction will enhance MRL's iron ore footprint in the Pilbara region, where MRL currently operates the Iron Valley iron ore mine and is conducting exploration and development activities at the Kumina Iron Ore Project, acquired from BCI in 2018. The Kumina Iron Ore Project mineral resource update is expected to be provided to the market with MRL's group resource and reserve update in Q2 FY21. A follow-up drill campaign for Kumina previously planned for Q4 FY20 was rescheduled to Q2 FY21 because of COVID-19.

Significant environmental surveys and monitoring programs were completed in the West Pilbara during the quarter to advance the approvals process for the projects.

## Marillana Iron Ore

MRL progressed drilling and metallurgical test work at Marillana in line with the Farm-in and Joint Venture Agreement (FJV Agreement) entered into on 21 January 2019 with Brockman Iron Pty Ltd, a subsidiary of Brockman Mining Limited (SEHK: 159; ASX: BCK). Pursuant to the FJV Agreement, and subject to the terms and conditions therein, MRL may farm in by satisfying the farm-in obligations and earn a 50% interest in the Marillana Project (the Joint Venture). The Farm-in Obligations are expected to be completed in the second half of calendar year 2020.

## Central Pilbara Iron Ore

A 10,000m reverse circulation (RC) program and 700m of diamond drilling are planned for Q1 FY21 at the Lambs Creek Iron Ore project, located approximately 100km north-west of the town of Newman. The aim of this drilling is to provide further information for technical studies.

## Ant Hill Manganese

MRL completed the restructure of its non-core manganese assets during the quarter under an Asset Sale Agreement with Resource Development Group Limited (the Transaction). As a result of the Transaction, RDG acquired a 100% interest in the Ant Hill and Sunday Hill manganese tenements and MRL was issued with 1,897,587,201 fully paid RDG ordinary shares in return – equivalent to a 75% shareholding in RDG on a fully diluted basis. RDG is a company with relevant scale to enable MRL to realise value from the manganese assets. MRL will support RDG in its development of the manganese assets via a services contract and provide funding assistance through a secured loan of up to \$35 million. See MRL ASX announcements 17 June 2020.

## Oil and Gas

Energy Resources Limited (ERL), a wholly owned subsidiary of MRL, holds nine oil and gas exploration permits across the onshore Perth Basin, extending from south of the Perth metropolitan area to the Shire of Mingenew north of Perth.

ERL continues to progress exploration programs across this acreage as part of its vision for its Perth Basin acreage to one day underpin long-term access to low-cost, cleaner energy for current and future MRL mining operations.

The Lockyer Deep-1 well is a conventional gas well planned to be drilled in the northern Perth Basin. A land access agreement is in place and the Environment Plan has been submitted to the Department of Mines, Energy Regulation and Safety (DMIRS). Long lead items including casing, tubulars and wellhead have been ordered. Timing for drilling is dependent upon rig availability and regulatory approvals. However, ERL anticipates the well to spud in 1H CY2021.

A seismic survey is also planned for H1 CY2021 to find drillable targets to enable the 10 terajoule per day (TJ/day) Red Gully gas processing facility (currently on care and maintenance) to be brought back into production. ERL is currently finalising land access agreements to enable the survey to proceed.

ERL continues to review renewable energy solutions including solar, wind and emerging technologies for power generation, mobile equipment, transport and rail that, when combined with pipeline gas and/or LNG, will help reduce MRL's cost of energy and carbon footprint.

*This announcement dated 24 July 2020 has been authorised for release to the ASX by Mark Wilson, Company Secretary of Mineral Resources Limited.*

## Further Information

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### Competent Person's Statement

*The information presented is extracted from previous MIN ASX announcements available on the company website at [www.mrl.com.au](http://www.mrl.com.au). The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*

### About Mineral Resources

Mineral Resources Limited (ASX: MIN) is a Perth-based leading mining services provider, with a particular focus on the iron ore and hard-rock lithium sectors in Western Australia. Using technical know-how and an innovative approach to deliver exceptional outcomes, Mineral Resources has become one of the ASX's best-performing contractors since listing in 2006.

To learn more, please visit [www.mrl.com.au](http://www.mrl.com.au).

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