



27 July 2017

DIAMOND PRODUCTION, SALES, MINE DEVELOPMENT AND EXPLORATION UPDATE

- 4,605 CARATS OF DIAMONDS PRODUCED AT 100%-OWNED MERLIN MINE IN NORTHERN TERRITORY
- DIAMONDS TO BE AUCTIONED NEXT MONTH IN ANTWERP THROUGH INDUSTRY-LEADING ROUGH & POLISHED DIAMOND TENDER HOUSE KOIN INTERNATIONAL
- MERLIN PLANS TO ENHANCE RECOVERY OF LARGER DIAMONDS THROUGH INSTALLATION OF TOMRA XRT MACHINE – MACHINE TO BE INSTALLED BY END SEPTEMBER
- CURRENT 3,500 METRE DRILLING PROGRAM PROGRESSING

Melbourne, 26 July 2017: Australian diamond mining and exploration company **Merlin Diamonds Limited (ASX: MED)** is pleased to provide this update to shareholders on diamond production and pending sales, as well as mine development and exploration progress at the Company's 100%-owned Merlin diamond mine in the Northern Territory, Australia.

1. PRODUCTION AND MINING OPERATIONS UPDATE

- 86,407 tonnes for 4,605.764 carats produced since mining operations commenced.
- 22,000 diamonds.
- 37 diamonds above 5 carats with the largest diamond being 35.74 carats have been recovered.
- Current production a standout in proportion of larger stones.
- 26 high quality diamonds chosen to be polished – largest cut and polished reached over 8 carats.
- A high proportion of large diamonds have been recovered in the current production.
- A high proportion of large high quality diamonds was also evident in historical production.
- No non-fluorescent ore and not all oversized material has been processed to-date.

Production summary: (diamonds only 5 carats and larger from 86,407 tonnes throughput)

Carats	Carats	Carats	Carats	Carats	Carats	Carats	Carats
35.74	15.20	13.12	9.39	8.45	6.60	6.05	5.02
20.04	14.63	12.16	9.27	8.26	6.59	5.84	5.00
18.48	13.69	11.45	9.19	7.72	6.45	5.71	
17.25	13.26	10.65	8.76	7.30	6.33	5.49	
16.64	13.26	9.47	8.74	6.91	6.16	5.37	

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2. SALE OF DIAMONDS

Merlin is pleased to confirm that its production inventory of polished and rough diamonds are to be sold in Antwerp by tender in late August 2017, after the Northern Hemisphere summer holidays, by Koin International DMCC.

Koin provides specialist rough and polished diamond expertise and services, specifically diamond tenders and auctions, to select clients globally. Koin develops innovative sales and marketing strategies to extract maximum value and revenues for clients, particularly rough producers.

Staffed with an experienced multi-disciplinary team including seasoned diamond experts, marketing and client service personnel, Koin uses a sophisticated IT platform to conduct global tenders, auctions and trading. Koin management and staff have broad exposure to the field of rough diamond tenders/auctions.

Merlin will update shareholders on the outcome of the tender in September.

Annexed are images of the diamonds to be sold at tender and a short video will be available on the Company's website at www.merlindiamonds.com.au.

3. TOMRA XRT MACHINE TO ENHANCE RECOVERY OF LARGER DIAMONDS AT MERLIN

Following consultation and engagement with leading diamond industry experts the installation of a Tomra XRT machine has been strongly recommended.

Following a meeting between Merlins executives' and the manufacturers of the Tomra XRT machine, an agreement for the purchase of a XRT machine has been signed. Installation and commissioning is expected towards the end of September. The Company is considering the purchase of additional XRT sorters as they become required.

Tomra Sorting diamond recovery solutions replace the conventional concentration and recovery stages such as Dense Media Separation (DMS) and X-Ray Luminescence (XRL) sorting in a diamond recovery process.

Advanced X-Ray transmission technology (XRT) reliably detects all diamonds including coated, low-luminescent and Type II diamonds.

Being integrated at the earliest stage of the recovery process, TOMRA Sorting's advanced XRT equipment considerably simplifies the flow sheet thereby reducing the risk of diamond damage.

Advantages of Tomra's sorters include:

- Compact footprint,
- Low operating costs,
- High diamond recovery rates and
- Extremely low concentrate yields.

The integration of automated sorting allows the overall complexity of recovery plants to be reduced, resulting in lower capital and operating costs. There is no need to further process a sorter's concentrate before final hand sorting.

The large Tomra XRT machine is the latest state of the art sorting machine and has been used by Lucara Diamond Corp (TSE: LUC) to find large diamonds (the largest diamond recovered is 1,100 carats which is the second largest diamond ever recovered).

Photos and a description of the Tomra XRT machine are annexed to this release.

Rationale for Tomra XRT machine

The Merlin diamond mine is famous for its large high quality diamonds. Australia's largest diamond, 104 carats, was found at Merlin as well as a 43 carat, 32 carat, and 28 carat diamond. See picture. In addition up to 2,000 diamonds larger than five carats were found at Merlin.

In recent production, 37 diamonds above five carats were produced from only 86,407 tonnes of ore, of which 15 diamonds are above 10 carats with the largest diamond being 35.74 carats.

Leading Diamond Industry consultants strongly recommend the purchase of a Tomra Large Diamond XRT Machine for use in future production because of its compact footprint, low operating costs, high recovery rates and extremely low concentration yields. This will be beneficial to the Company given the number of high quality large stones at Merlin.

The highest distribution and amount of larger diamonds are found in the northern cluster more so than the other eleven kimberlite pipes at Merlin (see attached).

The Ector kimberlite pipe at Merlin has the highest proportion of larger stones than any other of the pipes. The 104 carat diamond (likely half a stone) was found in the Northern Cluster of which Ector is one of them. Ector is at a depth of only 30 metres. Current open pits depths range between 30-100 metres. Core drill holes has found kimberlite as deep as 718 metres at Palsac.

Currently there is 4.35 million carats of JORC code resource at Merlin with the potential for this to increase significantly within existing kimberlite pipes with further drilling delineation.

With the recent outstanding successes at Lucara following the implementation of the state of the art large XRT sorting machines to recover very large diamonds it is blatantly obvious that the Company will benefit from the purchase and use of Tomra XRT machines for production at Merlin.

The amount of large diamonds in proportion to the tonnage processed makes Merlin a perfect fit to recover very large diamonds. The Tomra XRT machine allows larger diamonds to be captured before the crushing process (which may reduce the size of diamonds recovered as they are crushed) or sorting process which may result in diamonds being transferred to non-fluoro or oversized material stockpiles.

Very few mines in the world have the proportion of high quality large diamonds like Merlin. Therefore, the use of the Tomra XRT machine should prove Merlin to be a world class deposit.

A major overhaul of the scrubber is required after constant failure. This has temporarily halted production, with recommencement expected when the Tomra XRT is installed.

4. EXPLORATION UPDATE

As announced on 12 July 2017, a 3,500 metre RC drilling program is being undertaken to identify undiscovered kimberlites on the Merlin mine lease in the Northern Territory.

A recent extensive study of all exploration data has identified 74 potential additional targets for more kimberlite pipes. The Merlin mine lease is largely underexplored, with only 11 kimberlite pipes discovered so far within the Lease. The Company and its geological team believe the lease has the potential to host many more undiscovered kimberlite pipes.

The Company holds a significant historical database comprising airborne and ground geophysical, soil geochemical, diamond and indicator mineral datasets compiled by the previous owners of the lease. Since 2004, this work has been supplemented by diamond and additional indicator mineral sampling in areas with insufficient sample density, and detailed ground EM surveys over anomalous areas. The careful analysis of this data, and some fieldwork, has helped the Company determine these new exploration targets.

This drilling program will test 40 priority targets selected from the Company's exploration data sets. Prioritisation is based on each target's similarity to the geophysical and geochemical signatures of known Merlin kimberlite pipes. Many targets are proximal to unresolved positive indicator mineral results.

Any discovery that materialises from the initial drill program will be followed with further RC drilling to delineate the size of the discovery, and thereafter, diamond drilling to determine the depth of the discovery.

5. NEXT STEPS

The Company will continue to be active across production, enhancing mining operations (Tomra XRT machine installation) and exploration activities. The Company looks forward to updating shareholders on progress in this regard and unlocking the true value of what is potentially a world class diamond mine at Merlin.

-ENDS-



Image one: Part of current diamond production

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Image two: Seven large rough diamonds



Image three: Light yellow high quality gemstones, 4.051cts VVS2 and 5.39cts VVS1 (right to left)

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Image four: High quality white diamond, 5.122cts D/VS2



Image five: Variety of 4ct rough diamonds

MINING SORTING SOLUTIONS

TOMRA SORTING'S XRT EQUIPMENT RECOVERS WORLD'S LARGEST DIAMOND IN OVER 100 YEARS



TOMRA Sorting Mining congratulates Lucara Diamond Corp. upon the recent recovery of a magnificent 1,111ct type IIa diamond using TOMRA X-ray transmission (XRT) technology at their Karowe Mine in Botswana.

24 November 2015

The diamond, which is the second largest **gem quality diamond** in history and the largest ever to be recovered through a modern processing facility was recovered by a TOMRA **large diamond recovery** (LDR) machine utilizing X-ray transmission sensors which was commissioned at Karowe earlier this year. The value of the diamond is not yet assessed.

Paul Day, Chief Operating Officer at Lucara Diamond Corp. said: "We selected TOMRA XRT following an extensive suite of test work which demonstrated TOMRA XRT technology as a **superior technological solution** having the **highest efficiency** of diamond recovery and **lowest concentrate yield** compared to their competitors. TOMRA's technology detects all types of diamonds with the same efficiency and has a remarkably **small footprint** in terms of power and water consumption. "

Dr Volker Rehmann, Head of TOMRA Sorting Solutions: "It's an honor for us to be part of **setting new benchmarks** in the diamond mining industry. We are very proud that Lucara showed confidence in our **innovative sensor-based sorting technology** which was rewarded with this outstanding recovery."

Six TOMRA XRT sorters are in operation at the Karowe Diamond Mine since May 2015 replacing conventional Dense Media Separation (DMS) technology in the -60+8mm size range. Each sorter can treat up to 150 tons per hour at over 8,000 hours per year. Advantages of the XRT technology include its **compact footprint**, **low operating costs**, **high recovery rates** and extremely **low concentrate yields**. There is no need to further process the sorter's concentrate before final hand sorting.

TOMRA launched at the beginning of 2014 a new range of diamond recovery solutions which out-performs traditional technologies, providing the highest diamond recovery rates at the lowest yields. This allows the overall complexity of recovery plants to be reduced, resulting in lower running costs.

GOT A QUESTION?

Contact us

(/en/contact-us/your-enquiry/)

The information in this report is based on information compiled by Dr DS Tyrwhitt who is a Fellow of the Australasian Institute of Mining and Metallurgy. Dr DS Tyrwhitt is a consulting geologist employed by DS Tyrwhitt & Associates Pty Ltd. Dr DS Tyrwhitt is a director of Merlin Diamonds Limited, has 50 years' experience in the industry and has more than 5 years' experience which is relevant to the style of mineralisation being reported upon to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Tyrwhitt consents to the inclusion in the report of the matters based on the information in the form and context to which it appears.