

ASX Market Announcements Australian Securities Exchange 20 Bridge Street Sydney NSW 2000

By Electronic Lodgement

## **CONSOLIDATED ACTIVITIES REPORT**

As previously announced by Paladin Energy Ltd (**Paladin** or **Company**), the ASX requires the satisfaction of certain conditions before Paladin's shares can be reinstated to official quotation (and trading) on the ASX. One of the conditions requires Paladin to provide a consolidated activities report in the form of this document, setting out the proposed business strategy, confirmation that Paladin is in a position to meet its financial obligations for a period of 12 months without having to raise any additional capital and providing an update on the status of Paladin's assets and current activities.

## **INTRODUCTION**

Paladin operates in the uranium mining industry. The Company considers its value to be based on five key drivers – its producing mine (Langer Heinrich Mine), the quality of its pipeline of exploration and pre-development projects, the experience of its management team, the dynamics of the uranium industry and the sustainability of its operations.

Paladin's principal business is the evaluation, development and operation of uranium projects in Africa, Canada and Australia. The Company currently sells uranium concentrates from the operating Langer Heinrich Mine (LHM) and has previously developed to production phase the Kayelekera Mine (KM), currently on care and maintenance.

The company's key traits are as follows:

- We are a **global leader in uranium** Paladin is the 8th largest uranium company in the world by capacity and the largest pure-play uranium producer listed on the ASX.
- Langer Heinrich Mine is a strategic tier one mine Our main operating asset, LHM in Namibia can be considered a strategic tier one mine in the uranium industry. It's the fourth largest open-pit uranium mine in the world, has a remaining production life in excess of 20-years and is within the first quartile of global cash costs.
- **Optimisation is a core competency** for us Paladin has an industry leading position in being able to introduce optimisation projects that enhance our operating margins. Our Bicarbonate

Recovery Plant (BRP) installation at Langer Heinrich Mine was largely designed in-house and since its implementation in FY2015 and FY2016, it has halved our reagent costs. The resultant saving has been reflected in an approximately US\$6/lb reduction in our cash cost of uranium production. The team that designed the BRP continues to work on future optimisation initiatives to ensure we get maximum value from our resources.

Senior leverage to uranium price upside – Should the uranium market eventually reach a
post-Fukushima incident normalisation where uranium prices are much higher than now,
Paladin has unique leverage to uranium price upside. We are generally more exposed to spot
prices vs. fixed contract prices than peer companies and we can also quickly bring on an
additional 3-4Mlb of annual production through unwinding of the mining curtailment at LHM
and a re-start of our KM in Malawi, which has been on care and maintenance since mid2014.

Paladin's current strategy is based around four key elements, including:

- We are maximising operating cash flows from LHM through optimisation and cost reduction initiatives whilst preserving the integrity of the long-term mine plan.
- Our exploration business and KM are being maintained on a minimal expenditure and care and maintenance basis until such time as the uranium price recovers substantially.
- Corporate costs and administrative expenses are minimised.
- We are committed to maintaining a capital structure that is sustainable for the uranium price environment.

Through the combination of our focussed strategy, the quality of our asset base and more importantly, the quality of the Paladin team implementing the strategy, the post-restructure Company is well positioned to take advantage of evolving conditions in the uranium market.

A brief update on the status of Paladin's assets and current activities is set out below.

#### **NAMIBIA – LANGER HEINRICH MINE**

LHM is a surficial calcrete type uranium deposit located in the Namib Desert, approximately 80km inland from the major seaport of Walvis Bay.

Following the sale in 2014 of a 25% equity stake to CNNC Overseas Uranium Holding Limited, a wholly owned subsidiary of China National nuclear Corporation, Paladin owns 75% of LHM in Namibia through its Namibian subsidiary, Langer Heinrich Uranium (Pty) Ltd.

Following the continued decline in the spot price uranium market, the mine introduced a mining curtailment strategy in November 2016 following approval received from the Minister of Mines and Energy in late October 2016. With the benefit of substantial Medium Grade (**MG**) stockpiles available, in order to reduce operating costs the mine suspended all mining activities and commenced with the processing of its MG stockpiles.

The current operating strategy, including the physical curtailment of mining, is dependent on processing available stockpiles of MG ore. At the current processing rate it is expected that such stockpiles will be exhausted in early-to-mid-2019. At least six months in advance of that, the

Company will need to consider alternative operational options for LHM going forward including: a restart of physical mining operations; processing of LG ore stockpiles; or care and maintenance. Various factors will need to be considered to determine the appropriate operating strategy including uranium market conditions.

### Production and cash cost of production

	2016	2017	2017	2017	2017
	Dec Qtr	Mar Qtr	Jun Qtr	Sep Qtr	Dec Qtr
U <sub>3</sub> O <sub>8</sub> production (lb)	1,206,685	896,070	753,573	840,664	873,107
C1 cash cost of production (US\$/lb)	16.03	21.02	25.08	23.56	22.67

Quarterly  $U_3O_8$  production of 873,107lb was up on the preceding quarter by 4%. The amount of drummed material produced (i.e.  $U_3O_8$  drummed) for the quarter was up 6% from last quarter at 890,230lb.

LHM unit C1 cash cost of production for the quarter decreased by 4% from US\$23.56/lb in the September quarter to US\$22.67/lb in the December quarter. Unit C1 cash cost of production was 41% higher than in the quarter to 31 December 2016.

## **Mining**

	2016	2017	2017	2017	2017
	Dec Qtr	Mar Qtr	Jun Qtr	Sep Qtr	Dec Qtr
Ore mined (t)	245,030	-	-	-	-
Grade (ppm U₃O <sub>8</sub> )	710	-	-	-	-
Low grade ore mined (t)	358,896	-	-	-	-
Grade (ppm U₃O <sub>8</sub> )	314	-	-	-	-
Waste (t)	500,904	-	-	-	-
Total Ore and Waste (t)	1,104,830	-	-	-	-
Waste/ore ratio	3.5	-	-	-	-

No mining activities were carried out during the December quarter. The long term ore stockpiles continued to supplement the Run-of-Mine (RoM) with medium grade ore in line with the current mining curtailment plan.

## **Processing**

	2016	2017	2017	2017	2017
	Dec Qtr	Mar Qtr	Jun Qtr	Sep Qtr	Dec Qtr
Ore milled (t)	903,313	837,990	830,204	878,421	862,961
Grade (ppm U₃O <sub>8</sub> )	692	547	475	488	529
Overall recovery (%)	87.6	88.6	86.7	89.0	86.8
U₃O <sub>8</sub> production (lb)	1,206,685	896,070	753,573	840,664	873,107

 $U_3O_8$  production for the December quarter was up 4% on the prior quarter mainly due to 8% higher plant feed grade which was partially offset by a decrease in ore milled and lower overall recoveries. The decrease in ore milled was due predominantly to ore type on the MG3 stockpile. A number of blends were selected, but in most cases the ore exhibited poor settling and compaction characteristics and was wet, causing equipment blockages.

Issues are being experienced with the ore exhibiting poor settling characteristics, which is impacting plant throughputs and efficiency. Blending of ore to minimise these effects is difficult due to limited ore sources. More stable operation of the CCD circuit has come about by introduction of a revised

control strategy, however the full benefits of this have not been realised due to poor settling of the solids. Challenges with resin movement due to contaminants in the resin and lower loading capacities continue to hinder NIMCIX performance. Plans are in place to replace the resin next financial year. The Bicarbonate Recovery Plant continues to operate successfully with bicarbonate recovery matching design conditions for the plant. Minimisation of metal recycle from the precipitation area is a primary focus to reduce the overall bicarbonate consumption.

#### **MALAWI – KAYELEKERA MINE**

KM, currently on care & maintenance, is located in northern Malawi, 600km north of the country's capital city, Lilongwe, and 52km west of the regional administrative and commercial centre of Karonga.

Kayelekera is a sandstone-hosted uranium deposit, associated with the Permian Karoo sediments and hosted by the Kayelekera member of the North Rukuru sedimentary outcrop of the Karoo System. Kayelekera is owned 100% by Paladin (Africa) Limited (PAL) which is jointly owned 85% by a subsidiary of Paladin and 15% by the Government of Malawi (GoM).

As a consequence of sustained losses due to low prevailing uranium prices in the wake of the 2011 Fukushima incident, production at KM was suspended in May 2014. The operation was placed on care & maintenance until such time as economic conditions improve sufficiently to enable KM to resume production with sustained profitability.

KM completed its third full year on care & maintenance, with no production since May 2014 and no sales revenue since December 2014. The key focus at KM remains: ensuring the safety of care & maintenance personnel and the security of the project assets; maintaining idled plant and equipment in a fit state of readiness to facilitate a rapid restart of operations when a decision is made to do so; maintaining legal and social obligations encompassing community relations, environmental and radiological monitoring; and treating and discharging surplus water stocks.

A feasibility study for recommencement of production at KM was completed in 2017, with results showing that KM remains a valuable strategic asset that can be quickly returned to production when justified by a higher uranium price environment. This study will be reviewed and updated in 2018.

## **CANADA – MICHELIN PROJECT**

Paladin, through its wholly-owned subsidiary Aurora Energy Ltd (**Aurora**), holds rights to 91,500 hectares within the Central Mineral Belt of Labrador (**CMB**), Canada, approximately 140km north of Happy Valley-Goose Bay and 40km southwest of the community of Postville.

On 26 June 2014, Paladin announced a revised Mineral Resource Estimate for the Michelin Deposit, conforming to both JORC (2012) Code and NI43-101, taking into account alterations to the Michelin geological model at depth which have resulted principally in the reduction in the amount of Inferred category material contained in the mineral resource.

The Michelin deposit is still open along strike and at depth. Drilling programmes have already been designed to both infill and extend the existing Mineral Resource and these will be executed when conditions allow. There are also a number of promising targets within the CMB, which are currently being explored and are expected to contribute to the economic viability of the project.

A detailed review of the Jacques Lake data was undertaken and an updated geological model has now been completed. It is felt that this model more accurately reflects the underlying geology and mineralisation than the previous version, particularly with regard to the positioning of unmineralised intrusive elements. The most recent work also indicates that the mineralisation has a significant apparent plunge component which was not previously accounted for in the drilling and, as a result, the mineralisation has the potential to remain open at depth along strike. Due to the particular surface topography overlying the Jacques Lake deposit, a review of the positioning of the open pit/underground interface was undertaken. The vertical location of the base of the open pit portion of the model is particularly critical in the case of the Jacques Lake deposit in that it has the potential to add or subtract resource tonnes and metal due to the change in cut off grades from open pit to underground mining. Pit optimisation studies were carried out using a range of uranium prices with mining and processing costs being derived from the original 2009 Aurora preliminary economic analysis with appropriate CPI inflation allowance.

Planning is underway for exploration programmes in the region of the Inda, Nash and Gear deposits in order to meet current expenditure commitments. It is intended that the work programmes will cover the commitments until the next license renewal date allowing the Company to focus on the licenses surrounding the Michelin deposit.

# QUEENSLAND – ISA URANIUM JOINT VENTURE, MOUNT ISA NORTH PROJECT AND VALHALLA NORTH PROJECT

In early 2015, the Queensland Government reinstated the previous ban on uranium mining. This decision has caused Paladin to slow the development of its uranium holdings in the Mount Isa region of northwest Queensland.

Paladin has an 82.08% majority shareholding in Summit Resources Ltd (**Summit**) acquired in 2007. Summit's (**Summit**) wholly-owned subsidiary, Summit Resources (Aust) Pty Ltd (**SRA**), operates the Isa Uranium Joint Venture (**IUJV**) and the Mount Isa North Project (**MINP**). Additionally, the company wholly owns the Valhalla North Project (**VNP**) immediately to the north of the MINP area. The projects include 10 deposits with the bulk of the mineralisation concentrated in the Valhalla deposit.

The IUJV covers ground containing the Valhalla, Odin and Skal uranium deposits 40km north of Mount Isa. Participants in the joint operation are SRA and Valhalla Uranium Pty Ltd (**VUL**), each holding a 50% interest, with SRA as manager. VUL was formerly a public company and is now a wholly-owned subsidiary of Paladin. Paladin's effective participating interest in the IUJV is 91.04% through its ownership of 82.08% of the issued capital of Summit.

The MINP is located 10 to 70km north and east of Mount Isa and contains numerous uranium prospects. The area is 100% held and managed by SRA utilising Paladin staff and expertise. Exploration continues on MINP where Summit holds 934km² of granted tenements that are prospective for uranium, copper and base metals. In early 2015 the Queensland Government extended the licences for a further three years to 2018. The tenements are centred on the city of Mount Isa. Planning for a 2,500m drilling programme to be completed on the Round Hill and Elbow prospects, in order to meet tenement expenditure commitments, was completed during the year. At

the same time the drilling is in progress, a low level helicopter magnetic and radiometric survey will be completed in the region to the south west of Valhalla.

The VNP is located on EPM 12572 and MDL's 507 and 508 totalling 70km², situated approximately 80km north of the Valhalla deposit. The geological setting is similar to the Summit/Paladin projects to the south where albitised basalts with interbedded metasediments are mineralised along east-west and north-south structures in Eastern Creek Volcanics. The project includes the Duke Batman and Honey Pot deposits.

The mineralisation from all of the deposits can be radiometrically sorted to a greater or lesser extent with no appreciable increase in deleterious gangue materials. Other forms of mineral sorting may be trialled in the future to improve the sorting efficiency of some of the deposits. Follow on alkaline leach test work also indicates that the material from all of the deposits can be leached using this methodology, though with variable levels of uranium recovery broadly in line with the work previously undertaken. Work in the future will be focussed on optimising the potential flow sheet, improving recoveries in both the sorting and leach steps and analysing reagent consumption in order to better define the economics of all of the projects.

## WESTERN AUSTRALIA - MANYINGEE URANIUM PROJECT (Manyingee) and CARLEY BORE

Manyingee is located in the north-west of Western Australia, 1,100km north of Perth and 85km inland from the coastal township of Onslow. The property is comprised of three mining leases covering 1,307 hectares. Paladin purchased Manyingee in 1998 from Afmeco Mining and Exploration Pty Ltd (AFMEX), a subsidiary of Cogema from France.

Field trials by AFMEX demonstrated that the Manyingee sandstone-hosted uranium deposit is amenable to extraction by in-situ recovery (ISR). The Company has engaged with WWC Engineering (WWC), an ISR specialist group in Wyoming USA, to advance the existing scoping studies on the Manyingee project using all the available data. It is expected that, when funds allow, additional test work will be conducted which it is hopes will enable progress towards a pre-feasibility study on the project.

The Company completed the purchase of the Carley Bore project from Energia Minerals Limited (**EMX**) early in FY2016. Consisting of three contiguous exploration licences, this new project area is located 100km south of Manyingee.

This acquisition has significantly increased the Company's JORC (2012) Indicated Mineral Resources and Inferred Mineral Resources within the area. Carley Bore remains open to the North and South and Paladin believes there is excellent potential within this land package to increase this resource base.

The large tenement package contains geology similar to that which hosts the Carley Bore and Manyingee deposits as well as numerous identified regional drill anomalies which offer additional targets warranting follow-up investigation. The established resource inventory and potential upside of the combined tenement portfolio will ensure that a single ISR facility in the region is able to operate with a long processing life. The potential to develop a significant mining operation with a long mine life extending well beyond 20 years within a new uranium district is compelling. In-house

studies indicate the acquisition of Carley Bore will be value accretive independent of the significant resource upside Paladin considers exploration may deliver.

Exploration drilling was completed in November 2016 with 64 holes drilled for 4,982.5m and confirmed the tenor of the exiting EMX resource drilling at Carley bore. As all of the drill holes in this programme were logged with both down hole radiometric and prompt fission neutron tools, a more reasonable estimation of the local disequilibrium within the deposit can be estimated. A number of exploration holes were drilled on E 08/1644 in order to locate the projected redox front on the most northerly portion of the project area. Information from this drilling will be used to plan a more detailed exploration programme expected to be undertaken in the latter half of CY2018.

#### **GENERAL**

Paladin confirms that, having raised US\$115m through the issue of new notes and extinguishment of the majority of its debt obligations pursuant to the restructure, it is in a strong financial position and able to meet its financial obligations for the next 12 months without having to raise any additional capital.

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#### FORWARD LOOKING STATEMENTS

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The information contained in this report contains forward looking statements and forward looking information, which are based on assumptions and judgements of management regarding future events and results. Such forward looking statements and forward looking information involve known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward looking statements. Such factors include, among others, the actual market prices of gold, the actual results of current exploration, the availability of debt and equity financing, the volatility in global financial markets, the actual results of future mining, processing and development activities, receipt of regulatory approvals as and when required and changes in project parameters as plans continue to be evaluated.