



6 June 2018

# Lithium Ore Reserve Increase of 105% at Bald Hill

Joint venture partners Tawana Resources NL (TAW:ASX) (**Tawana**) and Alliance Mineral Assets Limited (SGX:40F) (**AMAL**) (together the **JV partners**) are pleased to announce a 105% Reserve upgrade for the Bald Hill Lithium-Tantalum Mine (**Bald Hill** or **Mine** or **Project**), located in the eastern goldfields of Western Australia. The Reserve upgrade reflects pit design changes resulting from increases to Indicated Resources following infill drilling completed in the second half of 2017. Infill drilling at Bald Hill is continuing.

# **Bald Hill Resource/Reserve Upgrade Highlights**

- Total lithium Resources of 26.5Mt at 1.0% Li<sub>2</sub>O (using 0.3% Li<sub>2</sub>O cut off).
- Project lithium Indicated Resources of 14.4Mt at 1.02% Li<sub>2</sub>O an increase of 55% in contained lithium from October 2017<sup>1</sup>.
- Lithium Ore Reserve of 11.3Mt at 1.0% Li<sub>2</sub>O and 160 ppm Ta<sub>2</sub>O<sub>5</sub> representing an increase of 105% in contained lithium from the July 2017 reserve estimate<sup>2</sup>.
- Tantalum Ore Reserve of 2.0Mt at 313ppm Ta<sub>2</sub>O<sub>5</sub> − an increase of 43% from the July 2017 reserve estimate<sup>2</sup>.

Upgraded Reserves now support a mine life of 9 years at the current processing rate of 1.2Mtpa. However, given the large quantity of Inferred Resources awaiting infill drilling, strong market demand and superior economics of increased throughput rates, the JV partners are actively reviewing options for significant expansion in processing capacity and concentrate production.

# **Bald Hill Production Update**

- Lithium and tantalum concentrate production commenced at Bald Hill as announced on 14 March 2018.
- Stage 1 DMS circuit achieved 50% of nameplate throughput for month 1 and 75% for month 2 of ramp-up, producing a premium high-quality lithium concentrate.
- Tantalum pre-concentrate recoveries from lithium circuit are exceeding initial expectations.
- Mining is averaging approximately 30,000Bm3 per day.
- Logistics, including power, fuel management, concentrate haulage and ship loading are functioning as expected.
- Two shipments were completed in May and the next shipment is anticipated in late June/early July 2018 with the exact shipment date and quantity still to be determined.

## **Opportunities for Growth**

- Approximately 8.8Mt of additional Inferred Resources reported to the preferred Indicated +
  Inferred Whittle (optimization) shell providing focus areas infill drilling. Exploration drilling in
  recent months has intersected significant mineralisation outside the current resource.
   Refer to Appendix A.
- There are numerous untested, drill-ready targets which the JV partners expect to start testing within the next six months.
- A further Resource/Reserve update is planned for later in 2018.

Tawana Managing Director Mark Calderwood said: "The increased Reserves along with the potential for additional Reserves resulting from infill drilling of Inferred material, provide strong support for significantly increasing processing throughput rates. We are actively reviewing the options to best increase throughput in the existing plant and/or add an additional DMS circuit and fines circuit. There has been strong interest from a number of parties to obtain concentrate supply from Bald Hill."

- <sup>1</sup> Refer ASX announcement 11 October 2017 and SGX announcement 12 October 2017.
- <sup>2</sup> Refer ASX announcement 11 July 2017 and SGX announcement 8 August 2017.

All figures throughout this announcement regarding the Project are, unless expressly stated to the contrary, are presented on a 100% of Project basis. *All production targets* and financial information based on production targets, are supported exclusively by the ore reserves discussed below under the heading "Mining / Reserves".



### About the Bald Hill Project

The Bald Hill Mine is in the southeast of the Goldfields-Esperance Region of Western Australia, approximately 105km south-southeast of Kalgoorlie. Kalgoorlie is the main hub in the region providing access to the Project which can be accessed from Perth by air, rail and road.

The principal road access to the Project is via the (sealed) Coolgardie-Esperance Highway (National Highway 94), and then the Binneringie Road from Widgiemooltha, a distance of 65km of unsealed shire road. The Project is approximately 350km by road from the Port of Esperance.

The Mine currently consists of an open pit, a Dense Media Separation and Spiral Circuits, waste rock dumps, stores, a camp (including administrative and living quarters) and associated infrastructure. Lithium concentrate is hauled via Binneringie Road to the Port of Esperance. Tantalum concentrates will be packed into 205L drums and/or bulka-bags and exported via Fremantle in standard shipping containers.

Each of Tawana and AMAL executed separate offtake agreements in April 2017 (and subsequent variations thereto) for the supply of lithium concentrate from Bald Hill over a five-year term with pricing for 2018 and 2019 of US\$880/t (A\$1,173) (FOB Esperance) for 6% Li<sub>2</sub>O concentrates. The offtake agreement provides for an attractive fixed price in US dollars per dry metric tonne for the first 2 years of production, and shipping costs are borne by the offtake party. Refer to ASX announcement of 26 April 2017 and SGX announcement of 4 May 2017.

# **Geology / Resources**

The JV partners commissioned CSA Global Pty Ltd (**CSA Global**) to update the Mineral Resource estimate for the Bald Hill Project.

The Bald Hill Pegmatite Mineral Resource comprises one large, main, sub horizontal pegmatite body, striking north-south, with a strike length of 1,070 metres, and a width at its widest point of 775 metres. This main body is surrounded by several smaller discrete pegmatite bodies, sub-parallel to the main, which result in a total strike length for the whole resource of 1,245 metres, and a total width of 990 metres. The Mineral Resource has a total vertical depth of 195 metres, beginning 20 metres below the natural surface and plunging gently to the south along its entire strike length.

The Mineral Resource was classified as Indicated and Inferred in accordance with the JORC Code (2012 Edition) on a qualitative basis; taking into consideration numerous factors including drillholes spacing, estimation quality statistics (kriging slope of regression), number of informing samples, average distance to informing samples in comparison to the semivariogram model ranges, and overall coherence and continuity of the modelled mineralisation wireframes.

The resource has been cut to the current mine survey as at 30 April 2018; ore and concentrate stockpiles have been excluded from totals.

Table 1 | Bald Hill Project, Resources above 0.3% Li<sub>2</sub>O cut-off

Resource Category	Tonnes (Mt)	Grade Li₂O %	Contained Li₂O Tonnes	Grade Ta₂O₅ ppm	Contained Ta <sub>2</sub> 0 <sub>5</sub> (,000) Lbs
Indicated	14.4	1.02	147,200	168	5,300
Inferred	12.1	0.90	108,000	123	3,300
Total	26.5	0.96	255,200	149	8,600



Table 2 | Bald Hill Project, Tantalum Resources below 0.3% Li₂O and above 200ppm Ta₂O₅ cut-offs

Resource Category	Tonnes (Mt)	Grade Li₂O %	Contained Li <sub>2</sub> O Tonnes	Grade Ta₂O₅ ppm	Contained Ta <sub>2</sub> 0 <sub>5</sub> (,000) Lbs
Indicated	3.0	0.16	4,700	333	2,200
Inferred	1.4	0.15	2,200	339	1,100
Total	4.4	0.16	6,900	336	3,300

Note: The tantalum resources reported in Table 2 are additional to those reported in Table 1.

Compared to the prior estimate (refer ASX announcement 11 October 2017 and SGX announcement of 12 October 2017), the revised Mineral Resource estimate above 0.5% Li<sub>2</sub>O is essentially the same total size but Indicated resources have increased by 67% as a result of infill drilling and lowering the cut-off due to plant performance. The latest Mineral Resource estimate includes a low-grade component grading between 0.3 and 0.5% Li<sub>2</sub>O due to the metallurgical performance of low-grade or feed ore to the Stage 1 DMS.

## Mining / Reserves

SMS Innovative Mining Solutions Pty Ltd is undertaking contract open-pit mining of the lithium and tantalite ore. The mining of staged open pits uses a conventional truck/excavator mining method.

Current key mining equipment on site includes 1 x 360t Excavator, 1 X 200t excavator, 1 x 120t Excavator, a fleet of Cat785/777 trucks and ancillary equipment including dozers, graders, loaders and water carts. Drill and blast is being undertaken under sub-contract by JSW Australia using a combination of top hammer and down hole hammer drill rigs.

To minimise ore loss and dilution, ore is being mined in blocks of shallow bench height of 2.5m with drill and blast limited to 5m depth is areas containing ore. Bulk waste is mined utilising 5m to 10m benches, with bulk waste drill and blast targeting 10m benches.

The mining sequence provides advance dewatering, grade control drilling and modelling, followed by drill and blast, survey control and load and haul operations, with strong visual controls during ore mining.

To establish revised mineable quantities and grades, a number of optimisations were completed on the Resource model completed by CSA Global using Whittle Four-X pit optimisation software (**Whittle**). These results were then analysed with a set of current price and costs to determine their respective value and an optimal shell was selected for the study based on both value and risk.

An ultimate pit was designed using a conservative optimal pit shell derived from JORC Mineral Resource Indicated material only. All Inferred Mineral Resources within the pit design are reported as waste during the Reserve estimation.

Pit shells created from Whittle optimisations inclusive of Inferred Mineral Resources were about 60% larger than those used for the pit design, these shells are only used as a guide to infill drilling.

Pit shells were used as stage designs and from these a mine production schedule was completed for the life of the mine. The mine schedule was completed using Minesched scheduling software using a cut-off grade of 0.30% Li<sub>2</sub>O for Indicated material only and iterations of the mining schedule were run based on the capabilities of the mining equipment on site and to meet a minimum ore mining rate of 110,000t/month.



Table 3: Bald Hill Mine - Reserves above 0.3% Li<sub>2</sub>O

Reserve Category	Tonnes (Mt)	Grade Li₂O %	Contained Li <sub>2</sub> O Tonnes	Grade Ta₂O₅ ppm	Contained Ta <sub>2</sub> 0 <sub>5</sub> (,000) Lbs
Proven	-		-		-
Probable	11.3	1.01	114,100	160	4,000
Total	11.3	1.01	114,100	160	4,000

Notes: 1) Allows for mining ore loss of 7.5% and dilution of 7.5% at 0% Li<sub>2</sub>O and 0ppm Ta<sub>2</sub>O<sub>5</sub>

2) Reserves have been cut to the April 2018 end of month mine survey

Table 4: Bald Hill Project - Reserves below 0.3%  $\text{Li}_2\text{O}$  and above 200ppm  $\text{Ta}_2\text{O}_5$  cut-offs, April 2018

Reserve Category	Tonnes (Mt)	Grade Ta₂O₅ ppm	Contained Ta <sub>2</sub> 0 <sub>5</sub> (,000) Lbs
Proven	-	-	-
Probable	2.0	313	1,400
Total	2.0	313	1,400

Notes: 1) Allows for mining ore loss of 7.5% and dilution of 7.5%

2) Reserves contained in Table 4 are additional to those reported in Table 3.

3) Reserves have been cut to the April 2018 end of month mine survey; ore stockpiles and concentrates are excluded.



Figure 1: Current Stage 1 Pit





Figure 2: Oblique View of New Pit Design (dark magenta = Indicated, light magenta = Inferred, mineral resources)

### **Processing**

The Bald Hill Mine commenced lithium concentrate production effective 14 March 2018. The Mine is currently in ramp-up with the Stage 1 DMS plant performing at about nameplate capacity with utilisation rates exceeding expectations. The Stage 1 DMS includes a spirals circuit for -1mm lithium fines which is producing tantalum pre-concentrates.

Table 5: Staged DMS throughput rates

Period	Budget (t) Throughput	Actual (t) Throughput	Average tph	Operating hours
14 March – 13 April	22,509	50,042	148.2	337.6
14 April – 13 May	45,015	75,612	157.0	481.7
14-May – 3 June (21 days)	58,740 <sup>(1)</sup>	63,077	174.4	362.7 <sup>(2)</sup>

#### Notes:

- 1) Based on full month target of 85033t
- 2) Operating hours affected by crusher circuit modifications and downtime

The successful Stage 1 DMS plant was constructed on time and on budget by Primero Group (**Primero**). The JV partners and Primero are undertaking a review of the Stage 1 DMS circuit performance and proposed 1mm fines circuit design, with the aim of identifying minor design improvements for a possible Stage 2 DMS circuit which will advance the Stage 1 DMS design. The proposed fines circuit and existing slimes thickening facility would be common to both modules.

More immediate process improvements currently under consideration are to increase mass yield and plant throughput by crushing to a coarser size. Plant performance to date on the -10mm +1mm size range has been exceptional and plans are in place to increase the crush size and possibly reduce the bottom size.

Crushing services are provided by Cape Crushing and Earthmoving Contractors Pty Ltd on a fixed and variable fee structure. The current arrangement provides for 1.55Mtpa crushing rate and the modular circuit can be modified or expanded with relative ease.



The Bald Hill Mine produces high lithium, low iron and low mica, concentrates. The first shipment of spodumene concentrate in early May 2018 averaged 6.37% Li<sub>2</sub>O and 0.5% Fe<sub>2</sub>O<sub>3</sub> and contained less than 0.4% mica, and the second shipment of spodumene concentrate in late May 2018 also averaged +6% Li<sub>2</sub>O and less than 0.6% Fe<sub>2</sub>O<sub>3</sub>. To date, the quality of concentrate and overall recovery is not highly sensitive to feed grade and this has allowed a reduction in the reserve cut off from 0.39% Li<sub>2</sub>O to 0.3% Li<sub>2</sub>O.

#### Tantalum

Tantalum will be recovered from three streams:

Primary tantalum ore which will be processed through the existing 320,000tpa Tantalum Processing Facility (TPF or T1) once it has been refurbished. The TPF comprises a screening and crushing circuit feeding a three-stage spiral circuit. The TPF is expected to come on line in early 2019.

Tantalum in -1mm fines from the lithium plant is currently being recovered in a separate spiral plant (T2) which was commissioned just after the main lithium plant. Concentrates containing 2-6 %  $Ta_2O_5$  are being stored for later processing over tables which will be installed by July 2018. This table concentrate will be further upgraded by toll treatment at Nagrom in the interim.

Gravity pre-concentrates produced from the TPF will be combined with tantalum pre-concentrates from T2 and sent to a concentrate upgrade shed for further upgrading by tabling and magnetic separation.

The final spodumene concentrate can also contain significant quantities of tantalite, depending on the type of ore being processed. The first shipment contained around 0.8kg/t. Plans are currently being finalised to install a relatively low cost stand-alone jigging circuit (T3) to recover the majority of this tantalite before concentrates are shipped.

### **Metallurgical Performance**

The DMS circuit was commissioned on low grade semi-oxidised ore which had a head grade of 0.3% to 0.9% Li<sub>2</sub>O. The -1mm fines content was higher than design but this was anticipated. Despite this and the low grade, concentrate yields of 4-8% have been achieved at grades in excess of 6% Li<sub>2</sub>O.

Pit development has advanced to a stage where this semi-oxidised ore is almost depleted and the yield of concentrate is expected to improve significantly once fresh ore with a grade of 1% Li<sub>2</sub>O or better, is processed from late May onwards.

Overall, operational metallurgical performance of the DMS circuit during ramp-up has been consistent with the original test work with high grade concentrates being produced and high recoveries to primary concentrates and middlings being achieved. The plant has already achieved feed rates of up to 210tph compared to the design feed rate of 161 tph and opportunities for increasing the throughput by increasing the crush size to 14mm and lowering the bottom cut-off size to 0.8mm are currently being planned.

Tantalum pentoxide recovery into pre-concentrate from the T2 spirals has exceeded expectation and is estimated to have averaged about 0.36kg/t of fines feed for the month of April.

For further details of metallurgical test work, please refer to the following:

ASX and SGX announcements 6 September 2017 ASX announcement 11 July 2017, SGX announcement 8 August 2018 ASX announcement 16 March 2017, SGX announcement 15 March 2017 ASX announcement 13 February 2017, SGX announcement 12 February 2017





Figure 3: Stage 1 DMS Plant

## Sales/Marketing/ Pricing

#### Lithium

The Company has a binding offtake agreement for the supply of lithium concentrate from the Bald Hill Project in Western Australia over an approximate initial five-year term.

The key terms of the offtake agreement are as follows:

- A fixed price for all production for 2018 and 2019 of US\$880/t (FOB Esperance) for 6% Li<sub>2</sub>O with price adjustment increment/decrement of US\$15/t based on grade variation of 0.1%.
- From 2020 to 2023, the sales price and volumes are to be negotiated and agreed based upon prevailing market conditions at the time.

For the purpose of cash flow modelling US\$800/t (6%  $Li_2O$  FOB Esperance) has been assumed for calendar year 2020 and calendar year 2021 and US\$750 (6%  $Li_2O$  FOB Esperance) from calendar year 2022 to calendar year 2025. These prices assume Bald Hill quality concentrates which are relatively high in Li, low in Fe and low in mica.

## **Tantalum**

Historic Bald Hill tantalum concentrates have a reputation for low levels of deleterious elements and a non-binding term sheet has been signed with HC Starck for the supply of a minimum 600,000 pounds of contained tantalum pentoxide to December 2020 (refer ASX and SGX announcements of 25 January 2018 and 29 January 2018). Tawana, AMAL are still in the process of negotiating the terms of a binding definitive agreement.



Excess production may be sold to HC Starck or other companies that have expressed interest for Bald Hill tantalum concentrates.

The pricing assumption used for tantalum pentoxide is based on a price of US\$70/lb (FOB Fremantle) for +25% Ta<sub>2</sub>O<sub>5</sub> from 2018-2020 and US\$60 thereafter.

# **Tenure & Approvals**

All current mining and processing activities are contained on granted Mining Lease M15/400 owned by the JV partners and part of a larger tenement package. M15/400 was granted in 1988 and its second extension of term will expire 7 September 2030. It pre-dates Native Title and has been the subject of prior mining and production. Apart from state government royalties, M15/400 is not subject to royalties.

Two additional mining leases are expected to be required within three to five years: an application is currently underway for one of these licences; and an application for the second licence will be made in the coming months. Both areas are currently under tenure owned by the JV partners.

The Bald Hill site is an operating mine site with all required permits. Ongoing variations and additional permitting will be required from the Department of Water and Environmental Regulation (**DWER**) and Department of Mines, Industry Regulation and Safety (**DMIRS**), for additional clearing, mining pits or pit extensions, waste dumps, tailing facilities, and water. There are no known impediments to extending the currently permitted active mining area and associated infrastructure.

# **Opportunities for Resource Growth**

There are several opportunities for increasing production rates and the mine life.

- Approximately 8.8Mt to 12.2Mt of additional Inferred Resources reported to the Indicated + Inferred
  Whittle shells, highlighting potential for Reserve growth with the completion of the current infill
  drilling program.
- Limited exploration drilling in recent months has been successful in intersecting significant mineralisation outside the current Resource. Intercepts include:

#### **Northern Extension**

- 21m at 1.50% Li<sub>2</sub>O from 169m from a 22m wide pegmatite in an isolated water exploration drill hole (LRC0707), 600m north of the current pit. A second water exploration drill hole, LRC0708 drilled 400m to the west, also intercepted a 6m wide pegmatite from 41m and a 17m wide pegmatite from 128m which included 9m at 0.33% Li<sub>2</sub>O. A third water exploration drill hole (LRC0706) located 1.2km south of LRC0708 intercepted a 13m wide pegmatite from 23m and an 8m wide pegmatite from 43m and included 6m at 0.68% Li<sub>2</sub>O from 24m and 4m at 1.0% Li<sub>2</sub>O from 45m, (Appendix A).

# **Eastern Extension**

- 33m at 1.33% Li<sub>2</sub>O from 228m incl. 20m at 1.78% Li<sub>2</sub>O;
- 24m at 1.51% Li<sub>2</sub>O from 200m;
- 29m at 1.31% Li<sub>2</sub>O from 174m;
- 28m at 1.28% Li<sub>2</sub>O from 179m incl. 11m at 1.73% Li<sub>2</sub>O;

Details of the intercepts are set out in Appendix A

Initial mine development has slowed exploration at Bald Hill, with about 12 months of lithium
exploration drilling completed in the past 18 months. There are numerous untested, drill-ready
targets which the JV partners expect to start testing within the next six months. Please refer to ASX
and SGX announcements of 6 December 2017.



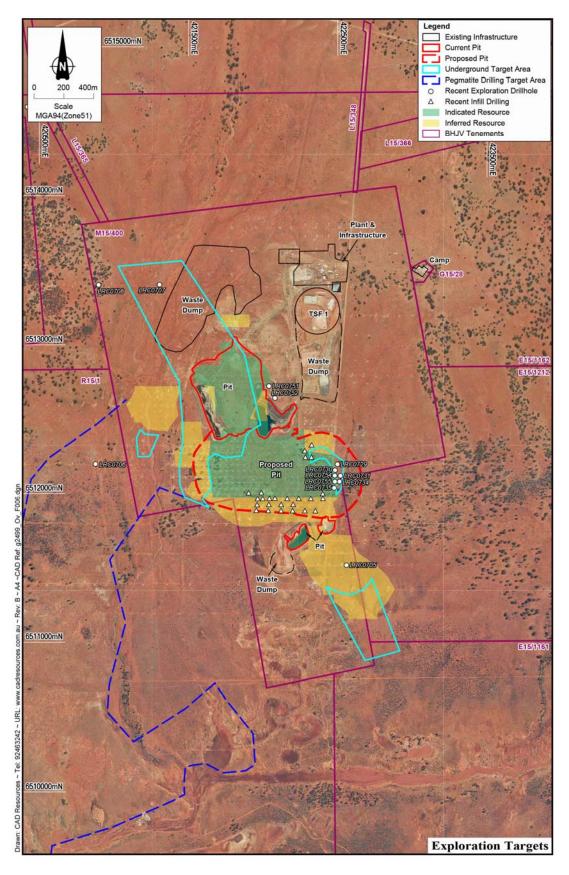


Figure 4: Exploration Targets



#### **Competent Persons Statement**

#### **Exploration**

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Gareth Reynolds, who is an employee of Tawana. Mr Reynolds is a member of The Australasian Institute of Geoscientists. Mr Reynolds has sufficient experience relevant to the style of mineralisation under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Reynolds consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Mr Reynolds meets the requirements to act as a Qualified Person (as defined in the SGX Catalist rules).

Mr Reynolds is an employee of Tawana. Mr Reynolds is not aware of any other relationship with Tawana which could constitute a potential for a conflict of interest.

#### Resources

The information in this announcement that relates to Mineral Resources is based on and fairly represents information and supporting documentation compiled by Dr Matthew Morgan Cobb, a Competent Person who is a is a member of both The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Dr Cobb is a full-time employee of CSA Global Pty Ltd. Dr Cobb has sufficient experience that is relevant to the type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Cobb consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. Dr Cobb meets the requirements to act as a Qualified Person (as defined in the SGX Catalist rules).

Dr Cobb is not an employee of Tawana or AMAL. Dr Cobb is not aware of any other relationship with Tawana which could constitute a potential for a conflict of interest.

#### Reserves

The information in this announcement that relates to Ore Reserves is based on and fairly represents information and supporting documentation compiled by Mr Karl van Olden a Competent Person who is a is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr van Olden is a full-time employee of CSA Global Pty Ltd.

Mr van Olden has sufficient experience that is relevant to the type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr van Olden consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Mr van Olden not is an employee of Tawana or AMAL. Mr van Olden is not aware of any other relationship with Tawana which could constitute a potential for a conflict of interest.

#### Metallurgical

The information in this release that relates to metallurgy and metallurgical test work has been reviewed by Mr Noel O'Brien, FAusIMM, MBA, B. Met Eng. Mr O'Brien is a part time employee of the company. Mr O'Brien is a Fellow of the Australasian Institute of Mining and Metallurgy, and he has sufficient experience with the style of processing response and type of deposit under consideration, and to the activities undertaken, to qualify as a competent person as defined in the 2012 edition of the "Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr O'Brien consents to the inclusion in this report of the contained technical information in the form and context as it appears.

### **Forward Looking Statements**

This announcement may contain certain forward looking statements and projections including regarding estimated resources and reserves, production and operating costs profiles, capital requirements and strategies and corporate objectives. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon as representation or warranty, express or implied, of Tawana and/or AMAL. They are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors many of which are beyond the control of Tawana and/or AMAL. The forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved.

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Neither Tawana nor AMAL provide any financial or investment 'advice' as that term is defined in the South African Financial Advisory and Intermediary Services Act, 37 of 2002.

Investors should exercise caution when dealing in the securities of Tawana and AMAL. In the case of any doubt, they should seek their own professional advice and consult with their own bank manager, stockbroker, solicitor, accountant, tax adviser or other professional adviser.

### **End Notes**

All figures throughout this presentation regarding the Project are, unless expressly stated otherwise, presented on a 100% of Project basis. Tawana and AMAL each have a 50% interest in the Project comprising the Bald Hill tenements, the processing plant and infrastructure at Bald Hill, and all minerals from the Bald Hill tenements under the terms of the Bald Hill Joint Venture Agreement. Refer to SGX and ASX announcements of 24 October 2017.

Figures are in AUD unless otherwise indicated.



# Appendix A

Table A-1 | Drill Summary, Exploration Drill Holes with Pegmatite Intercepts

11.1.15	Easting	Northing	RL	Depth		D		From	То	Width	Pegmatite
Hole ID	m	m	m	m	Azm	Dec.	Туре	m	m	m	Туре
LRC0705	422558	6511520	272.2	102	0	-90	RC	79	102	23	Li, Ta
LRC0706	420877	6512199	279.2	210	0	-90	RC	23	36	13	Li, Ta
								43	51	8	Li, Ta
LRC0707	421305	6513402	285.4	210	0	-90	RC	46	53	7	Li
								169	191	22	Li
LRC0708	420897	6513401	286.8	198	0	-90	RC	41	47	6	Та
								128	145	17	Li
LRC0751	422038	6512721	300.3	90	90	-60	RC	72	75	3	Та
LRC0752	422079	6512640	301.6	150	0	-90	RC	57	60	3	Та
								63	65	2	Та
								105	109	4	Та
								121	133	12	Li, Ta
LRC0712	420420	6514599	300.9	222	0	-90	RC	87	105	18	barren
								112	118	6	barren
								156	184	28	barren
								209	215	6	barren
LRC0713	420297	6517198	323.1	198	0	-90	RC	162	174	12	Li
LRC0714	419164	6517198	315.1	192	0	-90	RC	70	72	2	barren
								150	154	4	barren
LRC0729	422497	6512198	279.3	320	0	-90	RC	225	272	47	Li
LRC0730	422481	6512158	279.0	266	0	-90	RC	165	167	2	Та
								200	236	36	Li, Ta
LRC0731	422517	6512121	278.1	303	0	-90	RC	274	286	12	Li, Ta
LRC0734	422511	6512081	277.7	356	0	-90	RC	286	308	22	Li, Ta
								316	356	40	Li
LRC0735	422476	6512039	278.5	248	0	-90	RC	181	182	1	Li
								192	210	18	Li, Ta
LRC0754	422479	6512122	278.7	234	0	-90	RC	0	1	1	Ta
								178	210	32	Li, Ta
LRC0755	422480	6512081	278.3	242	0	-90	RC	95	98	3	Та
								174	206	32	Li

# Notes:

- 1) The true width of pegmatites are generally considered 80-95% of the intercept width.
- 2) Only pegmatite intercepts of 1m or more in width are included.
- 3) Resource infill drill holes excluded

Table A-2 | Significant Infill Drill Intercepts from Water Exploration Drill Holes

Hole ID		From	То	Interval	Li₂O	Ta₂O₅	Nb <sub>2</sub> O <sub>5</sub>	SnO <sub>2</sub>
		(m)	(m)	(m)	%	ppm	ppm	ppm
LRC0705		80	94	14	1.20	80	87	74
	incl	83	89	6	1.62	48	90	55
		90	91	1	0.21	211	129	52
		101	102	1	0.71	43	57	33
LRC0706		23	24	1	0.07	372	79	112
		24	30	6	0.68	99	49	79
	incl	27	30	3	1.04	74	50	85
		45	49	4	1.00	175	140	95
LRC0707		47	49	2	0.98	52	58	145



Hole ID		From	То	Interval	Li₂O	Ta₂O₅	Nb <sub>2</sub> O <sub>5</sub>	SnO <sub>2</sub>
		(m)	(m)	(m)	%	ppm	ppm	ppm
		169	190	21	1.50	41	76	114
	incl	170	172	2	2.17	40	93	163
	and	178	188	10	1.96	39	84	115
LRC0708		42	44	2	0.05	216	54	127
		132	141	9	0.33	56	91	263
		144	145	1	0.31	2	14	19
LRC0713		165	169	4	1.70	56	84	99

Note: Only intercepts of greater than 0.3% Li $_2\text{O}$  or 200 ppm  $\text{Ta}_2\text{O}_5$  included.

Table A-3 | Significant Infill Drill Intercepts Extensional Exploration Drilling

11.1.15		From	То	Interval	Li₂O	Ta₂O₅	Nb <sub>2</sub> O <sub>5</sub>	SnO <sub>2</sub>
Hole ID		(m)	(m)	(m)	%	ppm	ppm	ppm
LRC0751		73	75	2	0.19	255	40	132
LRC0752		57	59	2	0.12	331	79	167
		63	65	2	0.13	459	93	246
		105	106	1	0.14	171	100	70
		123	126	3	0.08	416	95	240
		126	128	2	0.71	105	90	91
LRC0729		226	227	1	0.18	190	165	42
		228	261	33	1.33	59	85	49
	incl	230	250	20	1.78	55	84	48
		261	262	1	0.08	210	129	55
		270	271	1	0.38	50	64	166
LRC0730		165	166	1	0.17	215	43	250
		200	224	24	1.51	81	94	46
LRC0731		274	285	11	0.63	67	89	63
	incl	280	281	1	2.12	29	50	44
LRC0734		286	302	16	0.65	92	114	52
		302	304	2	0.18	481	151	124
		318	344	26	0.72	51	109	52
	incl	324	329	5	1.46	42	156	51
		346	347	1	0.61	42	107	51
		351	356	5	1.08	43	97	48
LRC0735		181	182	1	0.40	61	36	144
		200	210	10	0.77	117	101	60
	incl	200	206	6	1.15	63	98	50
	and	208	209	1	0.04	595	250	151
LRC0754		179	207	28	1.28	69	98	49
	incl	180	191	11	1.73	72	105	46
LRC0755		96	97	1	0.05	190	43	239
		174	203	29	1.31	63	93	50
		203	204	1	0.26	184	86	95

Note: Only intercepts of greater than 0.3% Li $_2\text{O}$  or 200 ppm  $\text{Ta}_2\text{O}_5$  included.



# Appendix B

# Section 1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Drilling consists of ~99% reverse circulation (RC), RC with diamond core tails (RCD) and diamond drilling (DD) for a total 1,128 holes for 104,465.89 m of drilling in the Bald Hill project database. The Bald Hill Mineral Resource is based on assay data from 699 RC holes, 17 RCD holes and 12 DD holes.
		RC cuttings were continuously sampled at 1 m intervals through all pegmatite intercepts including 2 m of waste above and below each intercept.  DD core is typically continuously sampled at 2 m intervals through pegmatite intercepts. Where required by changes in lithology, mineralisation, or alteration, core samples may be
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	shorter or longer than the typical 2 m.  The majority of drillhole collars are accurately surveyed using RTK DGPS equipment.  Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features.
		Half diamond core was collected and placed in marked plastic sacks, and shipped to the assay laboratory.  RC samples were collected and placed in marked plastic bags which were placed in sacks and then shipped to the assay laboratory.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed	Drill samples were jaw crushed and riffle split to 2–2.5 kg for pulverizing to 80% passing 75 microns. Prepared samples are fused with sodium peroxide and digested in dilute hydrochloric acid. The resultant solution is analysed by ICP by Nagrom Laboratory in Perth.  The assay technique is considered to be robust as the method used offers total dissolution of the sample and is useful for mineral matrices that may resist
Drilling techniques	information.  Drill type (e.g. core, reverse circulation, openhole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	acid digestions.  RC was drilled using 4.5-inch (140 mm) rods with a nominal 5.9-inch (150 mm) diameter hole. Diamond core used either PQ, NQ2 or HQ3 diameter core. Core was oriented where possible.  All DD holes and ~98% of RC drillholes are angled; the remainder were drilled vertically.



Criteria	JORC Code explanation	Commentary
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Chip recovery or weights for RC drilling were not recorded. Core recovery is very good through the mineralised zones and estimated to be greater than 90%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC drilling generally utilised an external booster to keep samples dry and maximising recoveries. The majority of RC holes are shallow (<150 m) with very few wet samples encountered.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship between grade and recovery has been identified.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Geological logs exist for all drillholes with lithological codes via an established reference legend.  Drill samples were logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features. Logging and sampling has been carried out to "industry standards" to a level sufficient to support the Mineral Resource estimate.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Drillholes have been geologically logged in their entirety. Where logging was detailed, the subjective indications of spodumene content were estimated and recorded.
	The total length and percentage of the relevant intersections logged.	All drillholes are logged in full, from start to finish of the hole.
Subsampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Where sampled, core is cut in half onsite using a core saw, to produce two identical halves.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Dry RC samples were collected at 1 m intervals and riffle or cone split on-site to produce a subsample less than 5 kg.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation is according to industry standard, including oven drying, coarse crush, and pulverisation to 80% passing 75 microns.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Subsampling is performed during the preparation stage according to the assay laboratories' internal protocol.
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	Field duplicates, laboratory standards and laboratory repeats are used to monitor analyses.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The assay technique is considered to be robust as the method used offers total dissolution of the sample and is useful



Criteria	JORC Code explanation	Commentary
		for mineral matrices that may resist acid digestions.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	None were used.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Standards and duplicates were submitted in varying frequency throughout the exploration campaign and internal laboratory standards, duplicates and replicates are used for verification.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections have been verified by alternative Tawana Resources NL personnel and by CSA Global Pty Ltd Competent Person Matthew Cobb.  The Ta and Li assays show a marked correlation with the pegmatite
		intersections via elevated downhole grades.
	The use of twinned holes.	Twinning of holes undertaken to date show reasonable continuity and representivity of the mineralised intervals.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Drill logs exist for all holes as electronic files and/or hardcopy (all 2017 logging has been input directly to field logging computers).
		Digital log sheets have been created with inbuilt validations to reduce potential for data entry errors.  All drilling data has been loaded to a database and validated prior to use.
	Discuss any adjustment to assay data.	For the Mineral Resource estimate, adjustments were made to a number of downhole surveys. These adjustments were made where angled holes were blocked well before the end of hole, or where downhole surveys had not yet been undertaken but surveys had been completed for nearby holes.  Where the drillhole was blocked, the last survey was copied to the end of hole depth. Where no down hole survey was completed or the hole was blocked at surface, the downhole surveys from a nearby hole, drilled by the same rig (and preferably same driller), was copied and applied to the hole. Some of these holes may need to be re-entered, cleaned and surveyed in the future. All changes were marked as "nominal" in the database.  In all cases, corrections to downhole surveys were reviewed against



Criteria	JORC Code explanation	Commentary
		surrounding drillholes and pegmatite intervals to ensure error was minimised.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Prior to drilling, collar coordinates are situated using handheld GPS (considered accurate to within 4 m). Following drilling, accurate surveying using RTK DGPS is undertaken by trained site personnel.
		Hole collars are preserved until completion of downhole surveying. A significant portion of holes are surveyed using downhole digital instruments dominated by gyroscopic tools.
	Specification of the grid system used.	Grid used is MGA 94 Zone 51.
	Quality and adequacy of topographic control.	Topographical survey is generated from detailed airborne survey with points generated on a 1 m x 1 m grid. Areas mined have been defined by final mine surveys.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drilling has been conducted on a 40 m x 40 m grid extending to 80 m x 80 m on the peripheries of the deposit, with a 140 m x 80 m area in the northern portion of the deposit drilled out at 20 m x 20 m.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The spacing of holes is considered of sufficient density to classify the Mineral Resource as "Indicated" or "Inferred" in accordance with the JORC Code.
	Whether sample compositing has been applied.	There has been no sample compositing.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering	Drilling has been angled to achieve the most representative intersections through mineralisation.
	the deposit type.	The majority of drilling is angled. Some vertical holes have been drilled in areas where access is limited or the pegmatites are interpreted to be flat lying.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The lithium tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. The true width of pegmatites is generally considered 80–95% of the intercept width, with minimal opportunity for sample bias.
Sample security	The measures taken to ensure sample security.	The drill samples are taken from the rig by experienced personnel, stored securely and transported to the laboratory by a registered courier and handed over by signature.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been undertaken to date.



# Section 2 – Reporting of Exploration results

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Bald Hill Resource is situated on Mining Lease M15/400 comprising 501 hectares. M15/400 is beneficially owned 50% by AMAL and 50% by Lithco No.2 Pty Ltd (Lithco), a wholly owned subsidiary of Tawana. AMAL holds legal title to 100% pending transfer of 50% of legal title to Lithco pursuant to the joint venture agreement between AMAL and Lithco.  There are no other third-party interests or
		royalties. Government royalties are 5% for lithium or tantalum mineral concentrates.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The portfolio of mineral tenements, comprising mining leases, exploration licences, prospecting licences, miscellaneous licences, a general-purpose lease, and a retention lease are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Alluvial tantalite has been mined periodically from the early 1970s.
parties		Gwalia Consolidated Limited undertook exploration for tantalite-bearing pegmatites from 1983–1998. Work included mapping, costeaning, and several phases of drilling using rotary air blast (RAB), RC, and DD methods. The work identified Mineral Resources that were considered uneconomic at the time.
		Haddington Resources Limited (Haddington) entered an agreement to develop the resource and mining commenced in 2001 and continued until 2005. Haddington continued with exploration until 2009.
		Living Waters acquired the project in 2009 and continued with limited exploration to the north of the main pit area.
Geology	Deposit type, geological setting and style of mineralisation.	The Bald Hill area is underlain by generally north- striking, steeply dipping Archaean metasediments (schists and greywackes) and granitoids.
		Felsic porphyries and pegmatite sheets and veins have intruded the Archaean rocks. Generally, the pegmatites crosscut the regional foliation, occurring as gently dipping sheets and as steeply dipping veins.
		The pegmatites vary in width and are generally comprised quartz-albite-muscovite-spodumene in varying amounts. Late-stage albitisation in the central part of the main outcrop area has resulted in fine-grained, banded, sugary pegmatites with visible fine-grained, disseminated tantalite. A thin hornfels characterised by needle hornblende crystals is often observed in adjacent country rocks to the pegmatite intrusives. Tantalite generally occurs as fine disseminated crystals commonly associated with fine-grained albite zones, or as coarse crystals associated with cleavelandite.



Criteria	Explanation	Commentary
		Weathering of the pegmatites yields secondary mineralised accumulations in alluvial/eluvial deposits.
Drillhole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:  • easting and northing of the drillhole collar  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar  • dip and azimuth of the hole  • downhole length and interception depth  • hole length.	Not applicable – not reporting exploration results.
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Not applicable – not reporting exploration results.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	Not applicable – not reporting exploration results.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Not applicable – not reporting exploration results.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable – not reporting exploration results.
Relationship between	These relationships are particularly important in the reporting of Exploration Results.	Not applicable – not reporting exploration results.
mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The majority of drilling is angled. Some vertical holes have been drilled in areas where access is limited or the pegmatites are interpreted to be flat lying.  The lithium tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. The true width of pegmatites is generally 85–95% of the intercept width, with minimal opportunity for sample bias.
	If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Not applicable – not reporting exploration results.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Not applicable – not reporting exploration results.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Not applicable – not reporting exploration results.
Other substantive	Other exploration data, if meaningful and material, should be reported including (but not limited to):	Metallurgical testwork has been conducted by the analytical laboratory Nagrom. Nagrom has



Criteria	Explanation	Commentary
exploration data	geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	extensive experience with tantalum and lithium extraction testwork and has ISO9001:2008 accreditation. Results have demonstrated that the Bald Hill pegmatite is amenable to the production of Li and Ta concentrates.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further RC and diamond drilling is warranted at the deposit to explore for additional resources and improve the understanding of the current resources prior to mining.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Diagrams have been included in the body of this report.

# **Section 3 - Estimation and Reporting of Mineral Resources**

(Criteria listed in the preceding section also apply to this section)

Criteria	Explanation	Commentary
corrupted by, for errors, between Mineral Resource  Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	Logging is completed onto templates using standard logging codes into Toughbook laptops. Analytical results are imported directly into the database by a database specialist. The central database, from which the extract used for Mineral Resource estimation was taken, is managed by Tawana. Upon receipt of the extract, CSA Global validated the database for internal integrity as part of the import process for modelling in Surpac.
	Data validation procedures used.	Data were validated for internal database integrity as part of the import process for use in Surpac. This includes logical integrity checks for data beyond the hole depth maximum and overlapping from-to errors within interval data. Visual validation checks were also made for obviously spurious collar or downhole survey values, collars which were not assigned a proper RL value, and collars which may lack substantial downhole survey data.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	CSA Global Competent Person; Matthew Cobb, has visited site and reviewed the drilling, sample collection, and logging data collection procedures, along with conducting a review of the site geology.  The outcome of the site visit was that data has been collected in a manner that supports reporting a Mineral Resource estimate in accordance with the JORC Code, and controls to the mineralisation are well-understood.
	If no site visits have been undertaken indicate why this is the case.	Not Applicable.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	The geological model developed is based on lithological logging of pegmatites within a metasedimentary host, with occasional hypabyssal intrusions of dioritic composition. The deposit geology is very well understood based on previous mining history and open pit exposures, and this is reflected in the generally high



	Nature of the data used and of any assumptions made.	confidence in both the mineralisation and geological interpretations.  The input data used for geological modelling has been derived from the qualitative and quantitative logging of lithology, alteration, geochemical composition of samples returned from RC and DD drilling.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The geological model developed has a solid lithological basis, and is controlled by the presence of visually distinct pegmatite within drillholes. Pegmatite structures have been modelled as predominantly low angle / subhorizontal structures on the basis of a high density of input drillhole data and confirmation of the interpretation on the basis of mapping. The data do not readily lend themselves to alternative interpretations, and it is unlikely that such alternatives would yield a more geologically reasonable result.
	The use of geology in guiding and controlling Mineral Resource estimation.	The model developed for mineralisation is geologically driven; controlled by the presence or absence of pegmatite.
	The factors affecting continuity both of grade and geology.	Geological continuity is controlled by the preference for fractionated pegmatitic fluids to follow preferential structural pathways through the host rocks (an intercalated pile of metasediments and metavolcanics. Grade within this pegmatite is controlled by numerous factors such as fluid residence time, degree of fluid fractionation and pegmatite thickness.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The Bald Hill Mineral Resource comprises one large, main, sub horizontal pegmatite body, striking north-south, with a strike length of 1,070m, and a width at its widest point of 775m. This main body is surrounded by several smaller discrete pegmatite bodies, sub-parallel to the main, which result in a total strike length for the whole resource of 1,245m, and a total width of 990m. The Mineral Resource has a total vertical depth of 195m, beginning 20m below the natural surface and plunging gently to the south along its entire strike length.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	The Bald Hill Mineral Resource has been estimated using ordinary kriging in a Surpac block model. The variables Li <sub>2</sub> O ppm and Ta <sub>2</sub> O <sub>5</sub> ppm were estimated independently in a univariate sense. The pegmatites on which this Mineral Resource was defined was domained internally on the basis of a 7,500ppm Li <sub>2</sub> O cut-off, which itself was determined from exploratory data analysis as a point of inflection within the Li <sub>2</sub> O grade distribution. This resulted in a high-grade core of Li <sub>2</sub> O mineralisation surrounded by lower grade pegmatite, and is an interpretation supported by the petrogenetic model for the formation of Li <sub>2</sub> O bearing pegmatites.  Samples were composited to 1m intervals based on assessment of the raw drill hole sample intervals. Various high-grade cuts were used for both Li <sub>2</sub> O (ranging from 10,000ppm to



	50,000ppm) and Ta <sub>2</sub> O <sub>5</sub> (ranging from 300mm to 4,000ppm) based on statistical review of each object. Composites for some objects remained uncut depending on the statistical review. High- and low-grade domains were estimated independently with hard boundaries assumed between domains. Parameters for estimation and search ellipsoids were determined from quantitative kriging analysis performed within the Supervisor™ software package, which was also used to define semivariogram models for each variable. The parameters defined for the largest, most populated domains (main mineralised body and its high-grade core) were used to inform all smaller subsidiary domains during estimation. A two-search pass strategy was employed, with successive searches using more relaxed parameters for selection of input composite data, and a greater search radius. Blocks not informed for any given variable after two passes were assigned the Sichel Mean of the input data from that particular domain. All geological modelling and grade estimation was completed using Surpac software.
The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	This Mineral Resource estimate is an incremental update from previous recent estimates, and compares well, with only the expected minor incremental changes to grades and tonnages. Historic estimates for the Bald Hill deposit focussed on $Ta_2O_5$ only, and as such are not directly comparable to the current estimate for which $Li_2O$ is the primary target variable.
The assumptions made regarding recovery of by-products.	The only significant by-product to be considered is $Ta_2O_5$ which has been estimated within the domains defined by $Li_2O$ .
Estimation of deleterious elements or other non-grade variables of economic significance (eg. sulphur for acid mine drainage characterisation).	No deleterious elements have been identified or estimated.
In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Block model dimensions used for the Bald Hill Mineral Resource estimate were 10 by 10 by 5m (XYZ) sub-celled to 2.5 by 2.5 by 1.25m for resolution of volumes at lithological boundaries. This compares to an average drillhole spacing of 20m within the more densely informed areas of the deposit. This 20m spacing increases to up to 80m between drillholes in less well-informed portions of the deposit. Kriging Neighbourhood Analysis (KNA) was conducted within the Supervisor <sup>TM</sup> software package to test a variety of block sizes in both well and poorly informed areas of the deposit. The chosen block size represents the smallest block size that yields a robust set of estimation statistics, which are comparable to the results also yielded from larger blocks sizes.
Any assumptions behind modelling of selective mining units.	No assumptions were made regarding selective mining units.



	Any assumptions about correlation between variables.	The two variables under consideration; $\text{Li}_2\text{O}$ and $\text{Ta}_2\text{O}_5$ are uncorrelated within both the pegmatite as a whole, and within the high-grade domain (correlation coefficient of -0.04). Consequently, no correlation between variables was considered. Both variables were treated in a univariate sense.
	Description of how the geological interpretation was used to control the resource estimates.	The nature of the mineralised body is such that the definition of the pegmatite host also defines the mineralisation. Within that, and based on a combination of petrogenetic process and statistical appraisal, an internal high-grade Li <sub>2</sub> O domain was defined.
	Discussion of basis for using or not using grade cutting or capping.	Domained data for both variables were assessed using histogram and log probability plots to define potential top cuts to data. Where the Competent Person observed likely breaks in the continuity of the grade distributions, a top cut was chosen and applied. This was conducted on a per-domain basis.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	The results of estimation into the block model for the Bald Hill Mineral resource were validated visually and statistically. Estimated block grades were compared visually in section against the corresponding input data values. Additionally, trend plots of input data and block estimates were compared for swaths generated in each of the three principal geometric orientations (northing, easting and elevation).
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are reported on a dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Modelling of mineralisation for the resource was based on a combination of pegmatite lithological logging. Within this mineralisation shape, a higher-grade core was defined on the basis of a 7,500 ppm Li <sub>2</sub> O cut-off.  The Mineral Resource is reported using a 0.5% Li <sub>2</sub> O cut-off which approximates a conservative cut-off grade used for potential open pit mining as determined from preliminary pit optimisations.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	The methods used to design and populate the Bald Hill Mineral Resource block model were defined under the assumption that the deposit will be mined via open pit methods.



Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	The material targeted for extraction predominantly comprises the mineral spodumene, for which metallurgical processing methods are well established. No specific detail regarding metallurgical assumptions have been applied in the estimation the current Mineral Resource, however at the current level of detail available, the Competent Person believes with sufficient confidence that metallurgical concerns will not pose any significant impediment to eventual economic extraction.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	No assumptions have been made regarding waste products, however the Mineral Resource has previously been mined by open pit methods with a processing facility, stacked waste dumps and tailings storage facilities on site. It is reasonable to assume that in the presence of this infrastructure, the creation and storage of waste products on site will not be of concern for future mining activities.
	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	In situ bulk densities for the Bald Hill Mineral Resource have been assigned on a lithological basis for both mineralisation and waste, based on historical values derived from mining and values taken from those used in similar deposits and lithologies.  The Competent Person considers the values chosen to be suitably representative.
Rully doneity	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.	Densities have been assigned on a lithological basis based on a total of 44 metasediment and 25 pegmatite core samples measured at the Nagrom laboratory and values derived from surrounding deposits and rock types.
Bulk density	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Bulk densities have been applied on a lithological unit basis. Values assigned were as follows: Fresh pegmatite mineralisation 2.65 t/m³ Transitional pegmatite 2.5t/m³ Fresh diorite 2.8t/m³ Transitional diorite 2.6t/m³ Fresh metasediments 2.74t/m³ Transitional metasediments 2.6t/m³ Oxide metasediments 2.2t/m³ Waste fill 1.8t/m³ Additional bulk density testwork utilising drill core across the mineralised zones and less common waste units is recommended for future estimates.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	The Mineral Resource has been classified as Indicated and Inferred on a qualitative basis; taking into consideration numerous factors such as drillhole spacing, estimation quality statistics (kriging slope of regression), number of informing samples used in the estimate, average distance to informing samples in comparison to the semivariogram model ranges, and overall coherence and continuity of the modelled mineralisation wireframes.



		Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The classification reflects areas of lower and higher geological confidence in mineralised lithological domain continuity based on the intersecting drill sample data numbers, spacing and orientation. Overall mineralisation trends are reasonably consistent within the various lithology types over numerous drill sections.
		Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource estimate appropriately reflects the Competent Person's views of the deposit.
Audits reviews	or	The results of any audits or reviews of Mineral Resource estimates.	Internal audits were completed by CSA Global which verified the technical inputs, methodology, parameters and results of the estimate.  The current model has not been audited by an independent third party.
Discussion orelative accuracy/confidence	of	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	The Mineral Resource accuracy is communicated through the classification assigned to the deposit. The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table.
		The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The Mineral Resource statement relates to a global estimate of in-situ tonnes and grade.
		These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	The deposit has been historically mined for tantalum ( $Ta_2O_5$ ), however no accounting for $Li_2O$ had been undertaken, and therefore no production records are available for comparison to the current estimate.





# Section 4 - Ore Reserve Modifying Factors, JORC 2012 Modifying Factors

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	<ul> <li>The Mineral Resource estimate was compiled by Dr Matthew Cobb of CSA Global Pty Ltd in R148.2018 Bald Hill Mineral Resource Update February 2018. The Mineral Resource estimate was depleted by Dr Matthew Cobb in R276.2018 Bald Hill Mineral Resource Estimate – April 2018 Depletion.</li> <li>The Mineral Resource estimate is reported inclusive of the Ore Reserve estimate.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>Mr Karl van Olden of CSA Global Pty Ltd (CSA Global) visited the Bald Hill Project in May 2018 and inspected the locations of the open pit, waste dumps, transport corridors, and processing plants.</li> </ul>
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Prefeasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	<ul> <li>A Prefeasibility Study (PFS) has been prepared and released in July 2017 by Tawana Resources NL (Tawana Resources) for a 1.2 Mtpa lithium Dense Media Separation (DMS) circuit adjacent to the existing tantalum processing facility. The FS addressed mining and processing costs, geotechnical parameters and placement of waste material. Additional studies, and project construction and commissioning have produced more recent mining and processing costs and first indication of plant performance. An optimization study and pit design was completed in December 2017 by CSA Global. Tawana Resources completed a detailed mining schedule and cost model in May 2018. An updated geotechnical analysis was completed by Dempers and Seymour Pty Ltd (Dempers and Seymour) in April 2018.</li> <li>The work undertaken to date has addressed all material Modifying Factors required for the conversion of a Mineral Resources estimate into an Ore Reserve estimate and has shown that the mine plan is technically feasible and economically viable.</li> </ul>
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	The economic cut-off grade has been estimated as 3,000 ppm for Li2O and 200 ppm for Ta2O5 based on relevant processing costs and metallurgical recoveries, a fixed 6% Li2O concentrate price of AUD\$1,170 and Ta2O5 price of AUD\$87/lb.





Mining factors or assumptions  Metallurgical	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	<ul> <li>Input parameters for pit optimisations were; mining costs based on mining contract rates; mineral processing costs and recoveries both from site and the Primero Group Limited (Primero) Prefeasibility Study (PFS); commodity prices of AUD\$1,170 for a 6% Li2O concentrate price and a AUD\$87/lb Ta2O5 price. These input parameters were reviewed by CSA Global. They are considered appropriate for the current lithium and tantalum world markets. An updated Resource Block Model for the Bald Hill deposit was optimised using WhittleTM software. The current pit design is considered suitable for Ore Reserve estimation.</li> <li>Geotechnical analysis has been undertaken by Dempers and Seymour after the initial design was completed. Some areas of the design require minor adjustment to align with the latest geotechnical recommendations. These changes will not impact on the value of the pit or the Ore Reserve estimate. The proposed pit slopes are considered likely to be stable for the current pit designs.</li> <li>The Mineral Resource model was estimated by CSA Global. The Resource Block Model was used for optimization and mine planning after inclusion of additional attributes. The Block Model has block sizes of 10 m x 10 m x 5 m for the pit designs which is considered suitable for the proposed mining method and equipment. All pit designs have catch berms every 20 vertical meters and are appropriate for a 5 m bench height.</li> <li>Fixed values for mining dilution and recovery of 7.5% and 92.5% were adopted for both the optimisation and determination of Ore Reserves. A grade of 0% Li2O and 0% Ta2O5 was assumed for dilution material. These levels are considered suitable for the deposit geometry, mining method, and size of mining equipment.</li> <li>A minimum mining width of 30m was used in the pit design.</li> <li>Inferred Mineral Resources have not been included in the mining schedule and treated as waste, Inferred mined material does not make a material impact on the Bald Hill Project's overall f</li></ul>
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> </ul>	<ul> <li>For lithium ore the economic analysis has only considered Phase one processing, comprising dense media gravity separation (DMS) of the 1 mm to 10 mm fraction after P100 crushing to 10 mm. This process is considered the lowest risk methodology for the coarse grained,</li> </ul>





- Whether the metallurgical process is well-tested technology or novel in nature.
- The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.
- Any assumptions or allowances made for deleterious elements.
- The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.
- For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?

spodumene pegmatite of the Bald Hill Project. To further reduce processing risk the DMS circuit will treat 1-5.6 mm and 5.6-10 mm separately, with partial mica removal from the 1-5.6 mm fraction using a reflux classifier (RFC). -1 mm material (lithium fines) along with low grade DMS concentrates (middlings) will be treated at a later date through a lithium fines circuit (LFS). For tantalum ore the PFS has only considered tantalum recovery from direct ore feed to the existing tantalum spiral plant and from additional spirals to remove a portion of the tantalum from the lithium fines prior to stockpiling for future treatment through the LFS. Test work has shown additional tantalum concentrate recovery can be obtained from treatment of DMS concentrate through jigs, however this has not been considered by the PFS.

- All technologies proposed are proven and well tested with easily sourced components. The Lithium processing plant is commissioned and producing within design specifications.
- Samples used for metallurgical test work were sourced from existing open pits and 10 diamond core holes distributed across the Indicated Resource area. Variability test work and mineralogy was undertaken, and a composite drill core sample was used for design purposes. A bulk sample collected from open pit material was processed to obtain approximately 1.5 tonnes of spodumene concentrates averaging 6.23% Li2O for down-stream test work by lithium converters. The variability, composite and bulk samples all show the same metallurgical characteristics with no apparent variation or domaining across the deposit. About 99% of the Resources are fresh rock and the remaining 1% is transitional to fresh rock.
- For lithium concentrates, potential deleterious elements have been observed at low concentrations in concentrates or are non-existent. Key deleterious minerals and elements are; lepidolite and petalite, not present in test work; iron, concentrates to date contain less than the 0.8% total Fe and 8% moisture content, being the key contractual requirements; mica, concentrates to date contain less than 3% mica and The Port of Esperance allows a limit of 5% mica. Detailed mineral product quality and safety chemical and micro mineral analysis undertaken on concentrates for the Port of Esperance returned favourable results.
- A bulk sample was processed through a DMS250 at Nagrom. A total 3,887 kg of material was treated through the DMS after removal of fines and





Environmental	The status of studies of potential environmental impacts	partial mica for recovery of 1,490 kg of combined concentrates averaging 6.23% Li2O at a recovery of 95.9% of contained lithium in the DMS feed or net recover of 84.9% after taking into account lithium contained in fines and RFC rejects. The iron content of the combined concentrate was 0.21%. This is a significantly better result than the Composite test work used for engineering mass balance and PFS recoveries. The exceptionally high recoveries were due in part to the higher than expected head grade of the bulk sample feed resulting in middlings being able to be blended with primary concentrates and grades in excess of 6% being maintained.  The Ore Reserve has been based on being able to produce concentrates of at between 5.5% and 7.0% Li2O.  The site is a 'Brown Fields' site with existing workings and infrastructure.
	of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	The mine has Environmental approvals for the pre-existing open pit, waste rock dumps, and tailings facility. The Bald Hill Project has formal Department of Mines, Industry Regulation and Safety (DMIRS) approval for the addition of spodumene production. The Department of Water and Environmental Regulation (DWER) has approved a license to take water, the 1.5 Mt/a production capacity, power station, fuel storage, and in pit tailings disposal. Additional approvals for the larger open pit, waste rock dumps, and the long-term tailings facility are still under assessment. Studies have shown that there are no significant additional environmental impacts for the lithium circuit or extensions to the existing permitted pits.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	The Bald Hill Project is located in the Goldfields region of Western Australia where suitable infrastructure is available for mining projects. A sealed highway and unsealed public road with RAV-7 approval provides access from the port of Esperance to within 1.8 km of the plant site where an existing private access road has been upgraded for the increased traffic load. Process water requirements are available from water resources within the mine area, as per the existing water Permits. Potable water is transported to site until the new mine camp is constructed. Power is produced on site using diesel generators. Product will be shipped via the port of Esperance located approximately 360 km south of Bald Hill via road. The site will operate on a fly-in fly-out basis to Kalgoorlie with a village constructed to house operations personnel whilst





		on site. During construction and operations, a combination of the existing village and a leased neighboring village will be used.
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal minerals and coproducts.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	<ul> <li>Remaining project capital expenditure was derived using actual site data where available or from the Primero PFS. The Primero PFS was based on budget pricing and Primero's database of recent project costs. Tawana provided the Owner's costs and has been reviewed by CSA Global.</li> <li>Updated mine operating costs have been based on actual site data. Processing costs are a combination of site data where available and the PFS.</li> <li>Due to the low concentration of Fe and mica in the concentrates, no allowance has been made for deleterious elements.</li> <li>Exchange rates were applied based on external sources and at current levels.</li> <li>Transport and port charges were derived from quotations by reputable contractors and includes storage and re-handling costs.</li> <li>Based on the off-take agreement, concentrates must contain 5.5% Li2O.</li> <li>Allowances were made for State Government royalties. No other royalties are payable for production from M15/400.</li> </ul>
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	<ul> <li>Exchange rate of 0.75 AUD:USD. Transportation and port loading charges have been allowed for. Spodumene revenue factors were: variable head grade averaging 1.04% Li2O; processing recoveries applied at 65% for the first year and then 80%. Tantalum revenue factors were: direct tantalum feed averaging 327 ppm Ta2O5 with a recovery of 65% to saleable concentrates. Secondary production of 39,000 kg of Ta2O5 from the lithium circuit fines.</li> <li>Tawana has a binding offtake agreement for the supply of lithium concentrate from the Bald Hill Project in Western Australia over an approximate initial five-year term. The commodity pricing for spodumene concentrates is based on a price of US\$880/t (FOB Esperance) for 6% Li2O. The key terms of the agreement are: a fixed price for all production for 2018 and 2019 of US\$880/t (FOB Esperance) for 6% Li2O with price adjustment increment/decrement of US\$/15t based on grade variation of 0.1%; from 2020 to 2023 the sales price and volumes are to be negotiated and agreed based on prevailing market conditions at the time. For the purposes of the estimate, reference prices of US\$800/t for 2020,</li> </ul>





		<ul> <li>US\$800/t for 2021 and US\$750/t for 2022 and beyond at 6% Li20 concentrates.</li> <li>The commodity price for tantalum is based on a price of US\$60/lb (FOB Esperance) for +25% Ta2O5. The assumed spot price is US\$70/lb for 2018 to 2020, then US\$60/lb from 2021 to 2023 and a premium (based on historic sales from Bald Hill) of US\$5/lb has been assumed due to the low radiation and past sales history from the Bald Hill Mine.</li> </ul>
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	<ul> <li>Medium and long-term supply and demand modeling for spodumene concentrates is difficult to predict due to the rapid growth in demand and promise of supply. Tawana has signed a binding offtake agreement for 100% production for the first two years which includes substantial prepayments.</li> <li>Lithium demand growth will likely be driven by demand for electric cars and energy storage systems. There are several large Lithium projects that are expected to come into production in late 2018 and 2019. These may result in a period of oversupply from 2020. However, based on history, supply has significantly lagged in analysts' predictions.</li> <li>The commodity pricing for spodumene concentrates is based on a price of US\$880/t (FOB Esperance) for 6% Li2O</li> <li>Concentrates produced during bulk metallurgical test work are within the contractually acceptable limits of grade and impurities.</li> </ul>
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	<ul> <li>The economic analysis is based on cash flows driven by the production schedule. The cash flow projections include: initial and sustaining capital estimates; mining, processing and concentrate logistics costs to the customer based on FOB pricing; revenue estimates based on concentrate pricing adjusted for fees, charges and royalties; and a 10% discount factor.</li> <li>Sensitivity analyses were generated by varying the salient economic variables. The project is most sensitive to grade, recovery of lithium and exchange rate. The Bald Hill Project is robust against a 20% negative change to recovery, grade, metal pricing, foreign exchange rates, capital or operating costs.</li> </ul>
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	The site is a Brown Fields operation however over time the larger project footprint will have a marginal impact on pastoral leases. Tawana is working with the lessee to mitigate impacts. The License pre-dates Native





		Title however Tawana has been in dialog with the Ngadju Native Title Group on neighbouring tenements.
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<ul> <li>No material naturally occurring risks have been identified.</li> <li>Tawana has a binding offtake agreement for the supply of lithium concentrate from the Bald Hill Project Apart from the Bald Hill JV agreements that govern the Bald Hill Project there are no other relevant material legal agreements.</li> <li>There are no apparent impediments to obtaining all government approvals required for the Bald Hill Project.</li> </ul>
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	<ul> <li>Probable Ore Reserves were determined from Indicated Resources as per the JORC (2012) guidelines. The Bald Hill Project has no Measured Resource, therefore there are no Proved Ore Reserves.</li> <li>Mr Karl van Olden, the Competent Person for this Ore Reserve estimation has reviewed the work undertaken to date and considers that it is sufficiently detailed and relevant to the deposit to allow those Ore Reserves derived from Indicated Mineral Resources to be classified as Probable.</li> <li>Zero (0) % of Probably Ore Reserves have been based on Measured Mineral Resources.</li> </ul>
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	The Primero capital costs and operating estimate, and scope of work was externally reviewed. Ore Reserve estimates have been reviewed internally. Mine design, scheduling, and financial model has been reviewed by CSA Global. No material flaws have been identified and the Ore Reserve is considered appropriate for a PFS level of study.
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of</li> </ul>	<ul> <li>This Ore Reserve estimation is supported by the PFS and the current operational plans, that have taken into account geological, metallurgical, geotechnical, process engineering and mining engineering considerations. It has a nominal accuracy of within 25%.</li> </ul>





- statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.
- The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.
- Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.
- It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

- The Bald Hill Project has an IRR and NPV which makes it robust in terms of cost variations. The Project is most sensitive to price variations for spodumene concentrates.
- All estimates are based on local costs in Australia dollars. Standard industry practices have been used in the estimation process. The Bald Hill Project is currently in the commissioning and early operations phase and therefore recent and relevant costs have been utilized where available.
- Capital expenditure estimates are considered to be within -5/+10%
   accuracy and a substantial amount of the original project capital
   expenditure has been completed. Operating expenditure estimates are
   considered to be within 25% accuracy.
- There has been limited lithium production via DMS to date so no comprehensive comparison or reconciliation of data has been made.
   Current initial performance of the process aligns with expectations. There are significant historic tantalum recovery records and these have been used as a basis for estimating future recovery.