12 April 2019

ASX ANNOUNCEMENT

Update on Activities at Mount Mulgine

Highlights

- Results from sampling of metallurgical core at Mulgine Trench confirm historic drilling intersecting significant thick zones of tungsten-molybdenum mineralisation. Better intersections include:
    - 90 metres at 0.16% WO_3 and 0.015% Mo from 0 metres in MMD014.
    - 65 metres at 0.13% WO_3 and 0.032% Mo from 4 metres in MMD011.
- PQ diamond drilling has provided 4 tonnes of mineralised core for the metallurgical program at Mulgine Trench.
- Infill drilling increases the Indicated tonnes at Mulgine Hill by 37% with 25% more molybdenum and similar contained tungsten.

Introduction

Australian tungsten developer, Tungsten Mining NL (ASX: TGN) ("TGN" or "the Company") is pleased to report the updated Mineral Resource for Mulgine Hill and assay results for diamond holes drilled at Mulgine Trench, part of the Mt Mulgine Project, located in the Murchison Region of Western Australia.

Mt Mulgine Project

The Mt Mulgine Project is located within the Midwest Region of Western Australia, approximately 350km north northeast of Perth (Figure 1). The Company owns 100% of the tungsten and molybdenum rights on a group of tenements that have been the subject of significant previous evaluation for tungsten and molybdenum. Near surface Mineral Resources have been delineated by previous explorers at the Mulgine Hill and Mulgine Trench deposits, which have been the subject of ongoing evaluation by the Company.

Mulgine Trench Diamond Drilling

In September 2018, the Company drilled four PQ diamond holes for 528.2 metres to obtain samples for metallurgical studies at Mulgine Trench (Figure 1). The PQ core will be used to conduct extensive test work to identify the optimal recovery process for both tungsten and molybdenum.

Geological logging and sampling was completed in the December quarter and assay results have now been received. The PQ diamond holes twinned historical diamond holes and one TGN reverse circulation (RC) hole confirming original intersections. These holes demonstrated the significance of mineralisation present at Mulgine Trench by intersecting substantial thicknesses of low to medium grade tungsten-molybdenum mineralisation including 90 metres at 0.16% WO_3 and 0.015% Mo in MMD014 and 65 metres at 0.13% WO_3 and 0.032% Mo in MMD011. Drilling has provided four tonnes of mineralised core for the metallurgical program.

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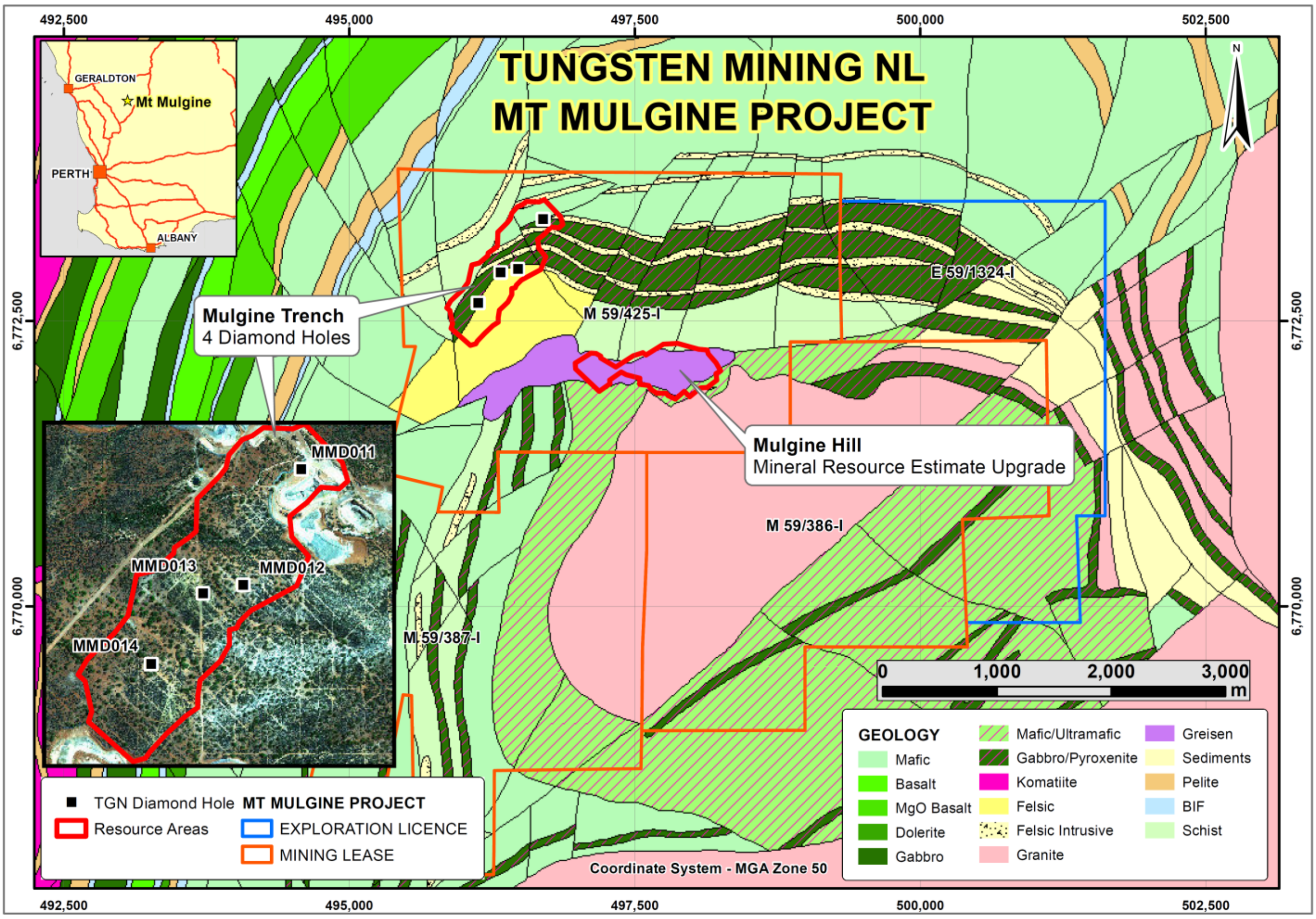

Figure 1. Location of Mulgine Hill Mineral Resource and Mulgine Trench diamond drilling.

The Hazelwood 2014 Mulgine Trench Mineral Resource (Table 1) estimated grades for tungsten and molybdenum into 0.10% WO_3 domains and ignored low-grade tungsten that in many instances has associated molybdenum mineralisation. By including this mineralisation, the Company's recent metallurgical drilling and historic diamond holes indicates significant potential to add to the 2014 Mineral Resource. Mineralisation is open along strike, down dip and in some cases up dip.

Table 1: JORC-2012 Mineral Resource estimates for Mulgine Trench

Mulgine Trench Deposit – November 2014			
Classification	**Tonnes (Millions)**	**WO_3%**	**Mo ppm**
Indicated	0.4	0.14	400
Inferred	63.4	0.17	250
Total	**63.8**	**0.17**	**250**

Refer ASX (HAZ) Announcement 5 November 2014, "Hazelwood continues to increase tungsten resource".

A list of intersections at a 0.05% WO_3 lower cut-off displaying the bulk tonnage potential at Mulgine Trench is presented in Table 2 and a complete list of intersections greater than two metres at 0.05% WO_3 are listed in Appendix 1.

Table 2 –Tungsten – Molybdenum Intersections from diamond drilling at Mulgine Trench

Mulgine Trench Drilling - Significant Tungsten – Molybdenum Mineralisation (at 0.05% WO_3 cut off)										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3 (%)	Mo (%)	Weathering
MMD011	6,773,387	496,696	93.1	-60/135	4	34	30	0.12	0.036	Weath.
MMD011					34	69	35	0.13	0.028	Fresh
MMD012	6,772,950	496,475	87.1	-60/135	14	54	40	0.10	0.087	Weath.
MMD012					54	78	24	0.08	0.028	Fresh
MMD013	6,772,920	496,323	177	-90	34	82	48	0.11	0.033	Weath.
MMD013					128	163	35	0.14	0.046	Fresh
MMD013					172	176	4	0.18	0.114	Fresh
MMD014	6,772,656	496,128	171	-90	0	27	27	0.16	0.021	Weath.
MMD014					27	90	63	0.16	0.013	Fresh
MMD014					116	136	20	0.19	0.040	Fresh
MMD014				(EOH)	163	171	8	0.13	0.059	Fresh

Quarter core samples analysed by XRF determination at Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.05% WO_3, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Intervals listed are >2 metres at 0.05% WO_3 with up to 2 consecutive metres of internal waste. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. EOH – End of hole

Mulgine Hill Mineral Resource Update

The previous Mulgine Hill Mineral Resource estimate was prepared by Optiro Pty Ltd in May 2017 in accordance with the guidelines provided by the 2012 JORC Code (see ASX Annuouncement dated 28 July 2017) . Since the May 2017 Mineral Resource estimate, the Company has drilled an additional 153 RC holes for 8,912 metres and four HQ diamond holes for 321 metres.

Resource consultancy Optiro Pty Ltd was engaged to update the Mulgine Hill Mineral Resource and completed this exercise in March 2019. The revised Mineral Resource estimate for Mulgine Hill above a 0.10% WO_3 reporting cut-off grade is presented in Table 3.

Table 3: JORC-2012 Mineral Resource estimates for Mulgine Hill

Mulgine Hill Deposit – March 2019 reported above a 0.10% WO_3 cut-off				
Classification	Oxidation	Tonnes (Millions)	WO_3%	Mo ppm
Indicated	Oxide	0.7	0.21	149
	Fresh	4.9	0.23	131
Sub-Total		**5.6**	**0.23**	**133**
Inferred	Oxide	0.4	0.20	127
	Fresh	1.3	0.18	109
Sub-Total		**1.7**	**0.19**	**113**
Total	Oxide	1.1	0.21	141
	Fresh	6.2	0.22	126
Grand Total		**7.3**	**0.22**	**129**

A comparison between the previous and current Mineral Resource estimates for the Mulgine Hill deposit is shown in Table 4. The drilling completed by the Company has resulted in a 37% increase of Indicated tonnes at Mulgine Hill with 25% more molybdenum and 4% decrease in tungsten.

Table 4: Mulgine Hill Resource Comparison

Class	Cut-off Grade	Tonnes (Millions)	WO_3 (%)	Mo ppm	WO_3 metal (Tonnes)	Mo metal (Tonnes)
March 2019 Mulgine Hill Resource Estimate						
Measured	0.10	-	-	-	-	-
Indicated	0.10	5.6	0.23	133	12,880	745
Inferred	0.10	1.7	0.19	113	3,230	192
Total	**0.10**	**7.3**	**0.22**	**129**	**16,060**	**942**
May 2017 Mulgine Hill Resource Estimate						
Measured	0.10	-	-		-	
Indicated	0.10	4.1	0.25	91	10,250	373
Inferred	0.10	3.5	0.18	110	6,300	385
Total	**0.10**	**7.6**	**0.22**	**100**	**16,720**	**760**
Difference						
Measured		-	-	-	-	-
Indicated		37%	-8%	47%	25%	100%
Inferred		-51%	0%	3%	-51%	-49%
Total		**-3%**	**0%**	**29%**	**-4%**	**25%**

Note: Totals may differ from sum of individual numbers as numbers have been rounded in accordance with the Australian JORC code 2012 guidance on Mineral Resource reporting.

Geology

Tungsten-molybdenum mineralisation at Mt Mulgine is associated with the Mulgine Granite - a high-level leucogranite forming a 2km stock that intrudes the Mulgine anticline (Figure 1). The granite intrudes a greenstone sequence composed of micaceous schists, amphibolite and talc-chlorite schist which were formerly metasediments, mafic and ultramafic rocks respectively.

The Mulgine Hill Deposit occurs in a well-defined reaction zone along the northern margin of the Mulgine Granite preserved in an arcuate dominantly north northeast trending trough. Within the mineralised zone there is both quartz-muscovite greisen (upper and lower greisen horizons) and complexly veined phlogopite pyrite schist. The main mineralised zone is associated with the sub-horizontal upper contact of the phlogopite schists (Figure 2) where scheelite has been deposited either as coarse disseminations within the quartz-muscovite (fluorite-apatite) greisen or within numerous quartz and greisen veins in both the pyritic phlogopite schist and the quartz-muscovite greisen.

Metallurgy

Completion of the metallurgical test work program has shown that scheelite was readily concentrated to exceed the target concentrate grade of 50% WO_3. Levels of potential deleterious contaminants reporting to the final concentrate were below the minimum threshold for specific APT conversion processes. X-Ray ore sorting test work to remove gangue material prior to milling and beneficiation has removed up to 50% of the feed mass as waste whilst maintaining greater than 95% tungsten yield. The removal of waste material will significantly reduce the processing plant footprint, capital and operating costs.

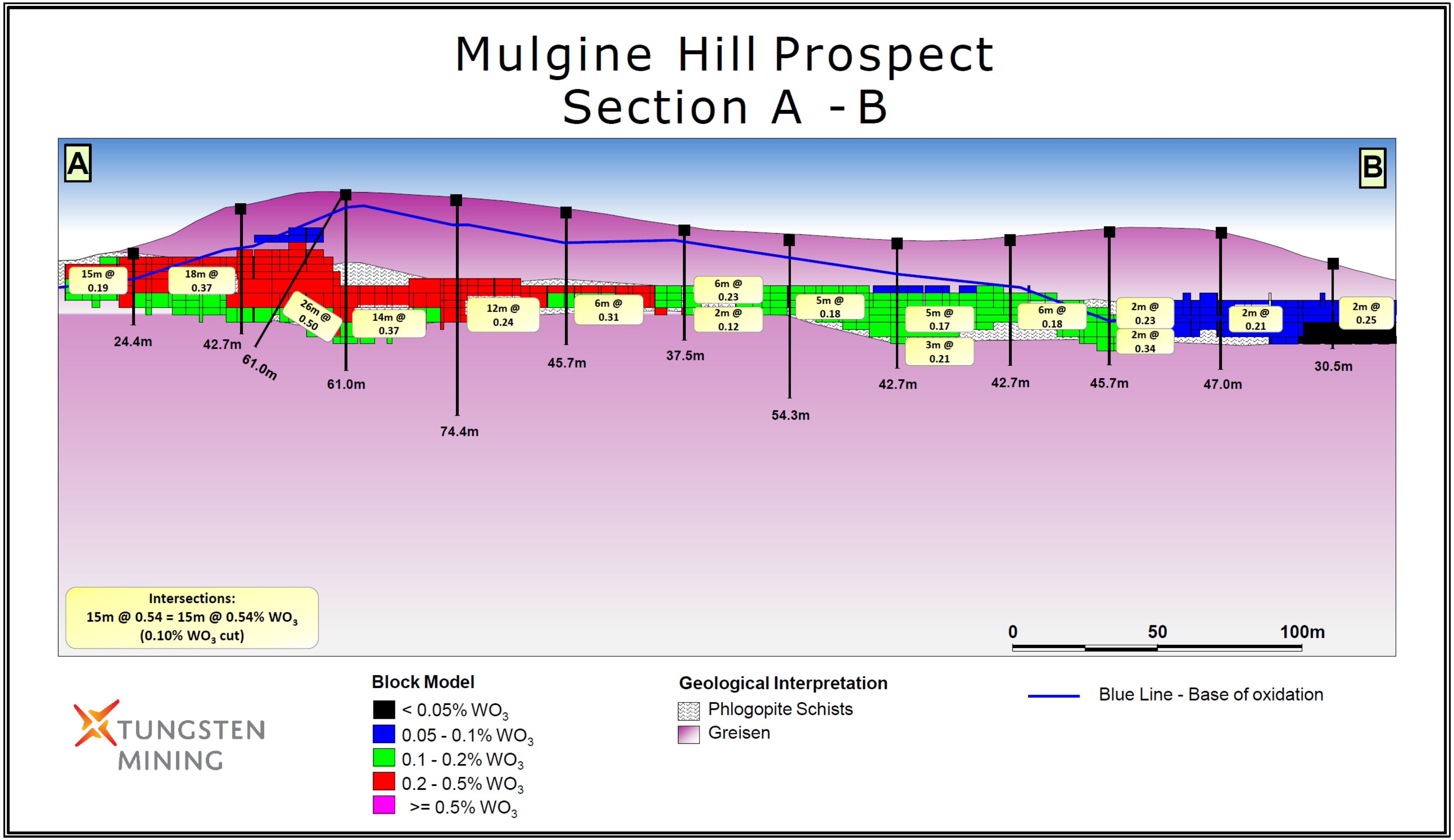

Figure 2. Cross section showing Mulgine Hill Mineral Resource (section location shown on Figure 3).

Preliminary leaching studies demonstrated that high extraction rates of tungsten and molybdenum from secondary minerals in the weathered profile at Mulgine Hill are achievable. Future testwork phases will focus on the recovery of tungsten in solution into a saleable solid form.

Drilling

The deposit was sampled using diamond drilling (DD) over several campaigns from 1970 to 1980 and 2011 (Figure 3) and three RC drilling campaigns since August 2016. Earlier campaigns were conducted by Minefields Exploration NL (Minefields) and Australian and New Zealand Exploration Company (ANZECO). The majority of the drilling was vertical with a total of 213 NQ and BQ diamond drillholes (10,631m DD, 2,355m precollars) drilled by Minefields and ANZECO. In 2011 Hazelwood drilled five NQ diamond holes (437.3m), four of these holes twinned earlier Minefields/ANZECO drilling.

Since August 2016, the Company drilled 153 RC holes for 8,912m to infill the drill pattern to a 40 by 20 metre spacing over pit optimisations. A additional four HQ diamond holes for 321m were drilled to collect geotechical data and these were also assayed for tungsten.

Sampling

Minefields and ANZECO diamond holes were logged and UV lamped to determine mineralised material and these intervals were initially sampled at 5 feet intervals to 1977 and then 1m to 2m intervals in later campaigns. Samples were half core split by either a chisel or diamond saw. Mineralised intervals in precollars were sampled at 1m intervals. Diamond core drilled in 2011 was oriented, photographed and geologically logged prior to cutting in half by an Almonte diamond saw.

Minefields and ANZECO samples were submitted to either General Superintendence Co P/L or AMDEL in Perth for tungsten analysis by XRF. There is no mention of routine quality control testing, however, a batch of duplicate samples were sent to external laboratories and these repeated well. Core samples from drilling in 2011 were submitted to ALS Chemex of Malaga for tungsten analysis by XRF.

In addition, 414 duplicate half-core samples were collected from the Minefields and ANZECO holes and submitted to ALS Chemex for a tungsten suite by XRF analysis in 2011. Results from these samples correlated well with original assays given the coarse-grained nature of scheelite mineralisation present.

For the Company's 2016 to 2018 RC drilling campaigns, samples were collected on the rig by a cyclone and material was split by a cone splitter immediately beneath the cyclone to produce two 2kg to 4 kg samples. For HQ geotechnical diamond holes drilled by the company, core was cut in half by an Almonte diamond saw and one metre half core samples were submitted for analysis. The Company also sampled 1,956.4m of historic BQ and NQ core that was previously not assayed and submitted the samples for tungsten analysis. All Tungsten Mining samples were submitted to Nagrom Laboratory in Kelmscott for analysis by XRF for a tungsten suite. QAQC procedures included the insertion of field duplicates and commercial standards.

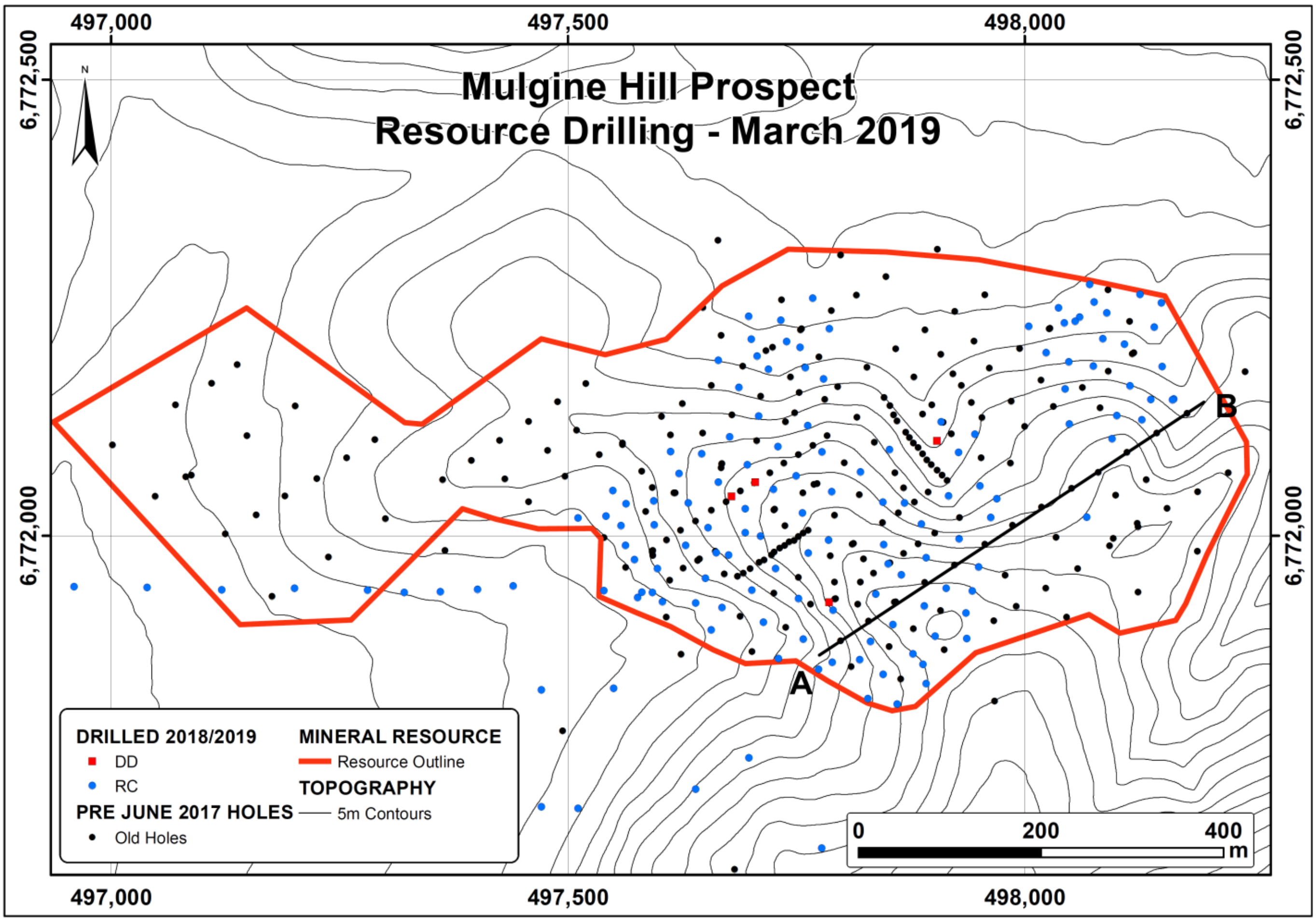

Figure 3 Collar plan showing section A-B and outline of Mulgine Hill Mineral Resource.

Database

Data used in the Mineral Resource estimate is sourced from excel spreadsheets supplied to Optiro. The drill database was originally provided by Hazelwood in December 2015 and validated by the Company in Micromine. Data was checked against original hard copy drill logs, sections and plans and validated against UV core photographs. Drilling undertaken by the Company was logged on site. Ruggedised computers were used to record the logging for RC samples, while diamond logging was on paper drill logs with data entered in Perth. Global consistency was checked by plotting sections using the database and reconciling assays and geology.

Geological Interpretation

Lithological contacts defining the upper and lower greisen horizons separated by a mafic schist and ultramafic units (phlogopite schists) were interpreted from geological logging. The current interpretation represents a refinement of the previous interpretation used for the 2017 Mineral Resource estimate. In addition to geological domains, mineralisation envelopes were constructed based on a nominal 0.025% WO_3 cut-off. Three mineralised domains were interpreted; the Main Zone, which consists of a continuous mineralised horizon associated with the mafic schist/upper greisen contact, and the Hangingwall and the Footwall Zones, which consists of a series of less continuous mineralised envelopes confined to the upper and lower greisen.

Further evaluation of the geological data has led to the recognition of a spatially discrete high grade core within the Main zone of mineralisation which has been addressed by a high grade sub-domain to constrain the estimation process. This has led to less grade smoothing across the domain boundary.

The extra drilling data allowed the molybdenum mineralisation to be constrained within envelopes that are based on a nominal 0.005% Mo grade threshold. This process differs from the 2017 model which was estimated with no domain constraints. High grade sulphur regions were discriminated using an interpretation based on a 1.5% sulphur grade threshold.

Estimation and modelling techniques

Tungsten, molybdenum and sulphur grade estimation used Ordinary Kriging (OK) in Datamine RM software using 2m composited samples within the tungsten mineralised domains. Sulphur grade was not previously estimated in the 2017 model, but has been included to allow an assessment of the acid forming potential of the rock mass. Domains were treated as hard boundaries for the estimation of tungsten, molybdenum and sulphur. The mineralisation envelopes were projected to a horizontal reference plane for grade estimation and top-cuts employed to reduce the influence of high-grade outliers that could affect the quality of a resource estimate.

The block volume model used to spatially represent the oxidation, lithological and mineralisation boundaries applied an estimation block size of 10 mE by 10 mN by 5 mRL, with sub-blocks allowed to reduce to 2.5 mE by 2.5 mN by 2.5 mRL to resolve boundaries between adjacent domains and to represent current topography.

Grade estimation used a three-pass search strategy. The search radii for each element and all domains were based on the demonstrated Main Zone tungsten continuity. The primary search represents half the in-plane maximum ranges determined from the tungsten variograms. The secondary search doubles these ranges, making it approximately equivalent to the maximum in-plane ranges modelled for tungsten. The tertiary search is 10 times the primary search and is designed to ensure that most of the model blocks receive a grade estimate. The primary and secondary searches both required between 10 and 32 composites to inform a block grade estimate. The minimum number of composites was reduced to one for the tertiary search. This was done for convenience as several of the smaller domains contained less than 10 composite samples and did not receive a block grade estimate during preliminary grade estimation runs. The maximum number of samples that could be utilised from a single drillhole was limited to three for all grade estimation.

Bulk density assignment is unchanged from that applied in 2017 Mineral Resource estimate. The density factors applied represent length-weighted average density values divided into oxidation and lithological categories.

Mining Factors and Assumptions

Potential mining of the Mulgine Hill deposit will be by surface mining methods involving standard truck and haul mining techniques. The geometry of the deposit makes it amenable to mining methods currently employed in many surface operations in similar deposits around the world. The current block grade estimate includes internal and some edge dilution and assumes bulk mining on 5 m high benches.

Mineral Resource Estimate

Mineralisation at Mulgine Hill has been classified as Indicated or Inferred Mineral Resources using the guidelines of the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves, 2012 (the JORC Code). The initial classification process assigns the Main Zone to Indicated where tested by the closer spaced drillhole data. The remaining parts are classified as Inferred. Due to continuing geological and grade continuity uncertainty, all Hangingwall and Footwall mineralisation is classified as Inferred irrespective of local drill spacing. The reported Indicated and Inferred Mineral Resource is constrained to a reasonable prospects of eventual economic extraction limit created by producing an optimised pit shell based on an ammonium paratungstate (APT) price of US$400 per metric tonne unit (metric tonne unit or mtu is equivalent to 10 kg of tungsten) and reasonable pit slope, dilution, ore loss and recovery assumptions. The APT price was above US$400 per mtu for periods of 2011 through to 2013.
The Mulgine Hill Mineral Resource is reported below using a range of WO_3 lower cut-off grades in Table 5.

Table 5: Mineral Resource estimates for Mulgine Hill at 0.05%, 0.10% and 0.15% WO_3 cut-off.

Tungsten Mining NL Mulgine Hill Deposit – March 2019						
WO_3 % cut-off	**Classification**	**Oxidation**	**Tonnes (Millions)**	**WO_3 %**	**Mo ppm**	**S %**
0.05	Indicated	Oxide	1.1	0.17	134	0.07
		Fresh	7.2	0.18	127	1.47
		Sub-Total	8.3	0.18	128	1.29
	Inferred	Oxide	0.6	0.14	119	0.05
		Fresh	3.3	0.11	118	0.65
		Sub-Total	4.0	0.12	118	0.55
	Total	Oxide	1.7	0.16	129	0.06
		Fresh	10.5	0.16	124	1.21
		Total	**12.3**	**0.16**	**125**	**1.05**
0.10	Indicated	Oxide	0.7	0.21	149	0.09
		Fresh	4.9	0.23	131	1.71
		Sub-Total	5.6	0.23	133	1.49
	Inferred	Oxide	0.4	0.20	127	0.05
		Fresh	1.3	0.18	109	0.73
		Sub-Total	1.7	0.19	113	0.58
	Total	Oxide	1.1	0.21	141	0.08
		Fresh	6.2	0.22	126	1.50
		Total	**7.3**	**0.22**	**129**	**1.28**
0.15	Indicated	Oxide	0.7	0.22	153	0.09
		Fresh	4.3	0.25	132	1.77
		Sub-Total	5.0	0.24	135	1.55
	Inferred	Oxide	0.4	0.21	128	0.05
		Fresh	1.1	0.20	104	0.68
		Sub-Total	1.4	0.20	110	0.52
	Total	Oxide	1.1	0.22	144	0.08
		Fresh	5.4	0.24	126	1.55
		Total	**6.4**	**0.23**	**130**	**1.32**

Note: Totals may differ from sum of individual numbers as numbers have been rounded in accordance with the Australian JORC code 2012 guidance on Mineral Resource reporting.

-ENDS-

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Competent Person's Statement

The information in this report that relates to Mulgine Hill Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Paul Blackney, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Blackney is not a full-time employee of the company. Mr Blackney is employed by the resource industry consultancy Optiro Pty Ltd. Mr Blackney has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Blackney consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results and Data Quality is based on, and fairly represents, information and supporting documentation prepared by Peter Bleakley, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Bleakley is not a full-time employee of the company. Mr Bleakley is a consultant to the mining industry. Mr Bleakley has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Bleakley consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Mulgine Trench Mineral Resources are extracted from the report titled 'June 2016 Mineral Resource Update and Core Sampling' released to the ASX on 24 June 2016, available to view at www.tungstenmining.com. Tungsten Mining have drilled an additional 6 RC and five diamond holes into the Mulgine Trench Mineral Resource. Interpretation of all new data is proceeding and a revised estimate will be released later in 2019. Other than the aforementioned review, the Company confirms that it is not aware of any new information or data that materially affects the information included in the ASX announcement and that all material assumptions and technical parameters underpinning the estimates in original ASX announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original ASX announcements

About Tungsten Mining

Australian tungsten developer, Tungsten Mining NL is an Australian based resources company listed on the Australian Securities Exchange. The Company's prime focus is the exploration and development of tungsten projects in Australia.

Tungsten (chemical symbol W), occurs naturally on Earth, not in its pure form but as a constituent of other minerals, only two of which support commercial extraction and processing - wolframite ((Fe, Mn) WO_4) and scheelite ($CaWO_4$).

Tungsten has the highest melting point of all elements except carbon – around 3400°C giving it excellent high temperature mechanical properties and the lowest expansion coefficient of all metals. Tungsten is a metal of considerable strategic importance, essential to modern industrial development (across aerospace and defence, electronics, automotive, extractive and construction sectors) with uses in cemented carbides, high-speed steels and super alloys, tungsten mill products and chemicals.

Through exploration and acquisition, the Company has established a globally significant tungsten resource inventory in its portfolio of advanced mineral projects across Australia. This provides the platform for the Company to become a major player within the global primary tungsten market through the development of low-cost tungsten concentrate production.

Appendix 1

Intersections greater than 2 metres at 0.05% WO_3 in Mulgine Trench Drilling

Mulgine Trench Drilling - Significant Tungsten – Molybdenum Mineralisation (at 0.05% WO_3 cut off)										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3 (%)	Mo (%)	Weathering
MMD011	6,773,387	496,696	93.1	-60/135	**4**	**34**	**30**	**0.12**	**0.036**	**Weath.**
MMD011					**34**	**69**	**35**	**0.13**	**0.028**	**Fresh**
MMD011					81	84	3	0.09	0.003	Fresh
MMD012	6,772,950	496,475	87.1	-60/135	7	9	2	0.09	0.135	Weath.
MMD012					**14**	**54**	**40**	**0.10**	**0.087**	**Weath.**
MMD012					54	78	24	0.08	0.028	Fresh
MMD012					80	84	4	0.06	0.044	Fresh
MMD013	6,772,920	496,323	177	-90	**0**	**8**	**8**	**0.10**	**0.032**	**Weath.**
MMD013					15	27	12	0.07	0.011	Weath.
MMD013					**34**	**82**	**48**	**0.11**	**0.033**	**Fresh**
MMD013					**86**	**90**	**4**	**0.26**	**0.037**	**Fresh**
MMD013					95	97	2	0.08	0.077	Fresh
MMD013					**111**	**113**	**2**	**0.17**	**0.103**	**Fresh**
MMD013					**117**	**123**	**6**	**0.12**	**0.108**	**Fresh**
MMD013					**128**	**163**	**35**	**0.14**	**0.046**	**Fresh**
MMD013					**172**	**176**	**4**	**0.18**	**0.114**	**Fresh**
MMD014	6,772,656	496,128	171	-90	**0**	**27**	**27**	**0.16**	**0.021**	**Weath.**
MMD014					**27**	**90**	**63**	**0.16**	**0.013**	**Fresh**
MMD014					**95**	**101**	**6**	**0.10**	**0.047**	**Fresh**
MMD014					**108**	**112**	**4**	**0.120**	**0.072**	**Fresh**
MMD014					**116**	**136**	**20**	**0.19**	**0.040**	**Fresh**
MMD014					146	150	4	0.08	0.017	Fresh
MMD014					**158**	**160**	**2**	**0.23**	**0.093**	**Fresh**
MMD014				(EOH)	**163**	**171**	**8**	**0.13**	**0.059**	**Fresh**

Quarter core samples analysed by XRF determination at Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.05% WO_3, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Intervals listed are >2 metres at 0.05% WO_3 with up to 2 consecutive metres of internal waste. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. EOH – End of hole

Appendix 2 - JORC Code Reporting Criteria

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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	The deposit was sampled using diamond drilling (DD) over several campaigns from 1970 to 1980, 2011, 2017 and 2018 and reverse circulation drilling (RC) in several campaigns from 2016 to 2018. Earlier campaigns were conducted by Minefields Exploration NL (Minefields) and Australian and New Zealand Exploration Company (ANZECO). Hazelwood Resources Ltd (Hazelwood) drilled NQ diamond holes in 2011. Tungsten Mining NL (TGN) completed drilling campaign utilising RC and diamond drilling from 2016. A total of 213 NQ/BQ diamond drillholes (10,631 m DD, 2,355 m pre-collars) were drilled by Minefields and ANZECO. The majority of the drillholes were vertical. Hazelwood drilled five NQ diamond holes (437.3 m) in 2011; four of these holes twined historical Minefields/ANZECO drilling. In 2016/2017, TGN collected and assayed 1966 half-core samples from Minefields and ANZECO holes. These intervals had not previously been assayed and often had visible scheelite in UV photography. Between August 2016 and October 2018, TGN drilled an additional 152 RC drillholes (7,852 m) and the majority of the holes were vertical. TGN also drilled five PQ diamond hole (202 m) were drilled to collect metallurgical samples and four HQ diamond hole (321 m) to collect geotechnical data. In October 2018, TGN drilled four PQ diamond hole (528.2 m) to collect metallurgical samples. Results from this drilling are reporting in the accompanying announcement.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	ANZECO submitted a small number of duplicate samples to external laboratories and these repeated well. There is no reference to standards, duplicates or blanks in reports on Minefields and ANZECO drilling. In 2011, Hazelwood submitted 414 duplicate half-core samples from the Minefields and ANZECO holes to ALS Chemex for tungsten analysis by XRF. Results from these samples correlated well given the coarse-grained nature of scheelite mineralisation present. The coefficient of determination (R^2) was 0.68 and the mean was 0.238% W and 0.235% W for the original and repeat assays respectively. Hazelwood inserted one standard in 20 samples; however, 50% of these weren't assayed for tungsten as there was insufficient sample. TGN drillhole collar locations were picked up by a licenced surveyor using an RTK GPS accurate to +/- 10mm North +/- 10mm East and +/- 15mm RL. . Downhole surveying was measured by the drill contractors using a Champ North Seeking solid state gyroscopic system in the drill rods. Accuracy is ±0.75° for azimuth and ±0.15° for inclination. Certified standards were inserted into the sample sequences in according to TGN QAQC procedures. Duplicate samples were collected to check repeatability of sampling and variability or nugget effect for tungsten mineralisation. Results from this QAQC sampling were considered excellent.

Criteria	JORC Code explanation	Commentary
	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 information	NQ or BQ diamond holes were logged and UV lamped to determine mineralised material. These mineralised zones were then sampled at dominantly 5 feet intervals to 1977 or 1 to 2 m intervals in later campaigns. Samples were half core split by either a chisel or diamond saw. One half of the cut core is left in core boxes and retained in core storage at the Minjar core yard unless used for metallurgy or QAQC samples. Mineralised intervals in pre-collars were sampled at 1 m intervals. There is no documentation on how pre-collar samples were collected. Samples were initially submitted to General Superintendence Co P/L in Perth for XRF analysis. Holes drilled later in the programme were submitted to AMDEL in Perth for tungsten (±Mo, Sb, Mo) by XRF analysis (Method B1/1 or B2) and Mo (±Au, Ag, Bi, Cu, Sb, Zn) by AAS analysis. Diamond core drilled in 2011 was oriented and photographed on site and then sent to the Hazelwood core yard at Malaga, Perth. Geological logging and sampling took place in Malaga. Core was cut in half by an Almonte diamond saw and 1 m samples submitted to ALS Chemex of Malaga for tungsten (plus As, Ba, Ca, Cu, Mo, Pb, S, Sn, Ta, Zn) analysis by XRF. In 2016/2017, TGN collected generally 1 m half core (NQ or BQ) samples cut by previous operators by either chisel or diamond saw. Samples were then submitted to Nagrom Laboratory of Kelmscott for analysis by XRF Tungsten Suite. For TGN RC drilling, the drilling crew collected 1 m intervals from the cyclone and the sample was split using a cone splitter to produce two representative 2 - 4 kg samples in calico bags. The cone splitter was cleaned by hosing with pressurised air to eliminate sample contamination. One of the calico samples is for analysis and the second duplicate sample is retained as a reference sample or for possible re-analysing / QAQC activities. All TGN core was oriented, logged and photographed on site. PQ metallurgical core from August 2016 wasn't sampled at set intervals and have no assay data that can be used in the Mineral Resource estimate. For geotechnical HQ diamond holes, core was cut in half by an Almonte diamond saw and 1 m samples submitted analysis. For metallurgical PQ diamond holes drilled at Mulgine Trench in September 2018, core was cut in half and then quartered by an Almonte diamond saw and quarter core 1 m samples submitted for analysis. All TGN samples were submitted to Nagrom Laboratory of Kelmscott for analysis by XRF Tungsten Suite.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole 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).*	Minefields and ANZECO drilled 213 NQ/BQ diamond drillholes (10,631 m DD, 2,355 m pre-collars) over multiple campaigns from 1970 to 1980. Holes depths ranged from 11 to 154 m, averaging 61 m. Most holes drilled by Minefields and ANZECO were vertical: holes that were inclined had core orientated using a spear to mark the bottom of the core for logging structures. Hazelwood completed 5 inclined NQ diamond holes for 437 m in 2011 to twin historic drilling. Core was orientated using a REFLEX orientation device. Downhole surveying was conducted using a Reflex multi-shot survey system. TGN completed 152 RC drillholes in four drilling programmes. RC holes depths ranged from 18 to 102 m, averaging 52 m. RC drilling used a face-sampling hammer that produced a nominal 140 mm diameter hole. TGN drilled 9 PQ3 and 4 HQ3 diamond drillholes. Diamond holes were drilled from 30 to 96 m, averaging 58 m. Drill core was orientated for inclined holes, but not for vertical holes. The orientated holes were mark on the bottom of the core for structural logging. TGN diamond and RC holes were surveyed by in-rods at 20 - 30 m intervals using a North Seeking gyroscopic probe.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Minefields and ANZECO reports referred to core recovery as being excellent. No records of diamond core recovery were found in the database or on drill logs. A review of core photography shows there to be no significant core loss. TGN RC recovery was visually assessed, recorded on drill logs and considered to be acceptable. TGN diamond core recovery is logged and recorded in the database. No significant core loss issue exists. Sample recoveries were recorded and stored in the database for intervals from Minefields and ANZECO core sampled by TGN in 2016/2017. Most of these samples were from intervals that were close to 100% core recovery.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	During validation of the drill database in 2011, all available core was reconstructed into continuous runs for marking depths and core recovery. This process confirmed there was excellent core recovery. RC samples collected by TGN were visually checked for recovery, moisture and contamination. A cyclone and cone splitter was used to provide a uniform sample and these were routinely cleaned. The drill contractor blew out the hole at the beginning of each drill rod to remove excess water and maintain dry samples. Diamond core was reconstructed into continuous runs for orientation marking, depths being checked against the depth marked on the core blocks.
	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.	Sample recovery for diamond holes is generally very high within the mineralised zones. No significant bias is expected, and any potential bias is not considered material at this stage. BQ sample size is small given the coarse grained or nuggety nature of the scheelite mineralisation. Ground conditions for RC drilling were good and drilling returned consistent size samples. All RC samples were dry and contamination would be minimal. No significant bias is expected, and any potential bias is not considered material at this stage.
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.*	Diamond core was geologically logged with information on structure, lithology and alteration zones recorded. Diamond core trays containing half or quarter core are stored for most holes at the Minjar core yard for future reference. TGN uses specially designed drill logs for tungsten mineralisation to capture the geological data. During logging part of the RC sample is washed, logged and placed into chip trays. The chip trays are stored at TGN's core yard. TGN diamond core was geotechnically logged for recovery and RQD. Information on structure, lithology and alteration zones are recorded. Diamond core trays are photographed in plane and UV light. All drill data is digitally captured and stored in a central database.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Diamond core logging included records of lithology, mineralogy, textures, oxidation state and colour. Core was photographed in daylight and UV light to estimate scheelite content. TGN diamond core and RC chip logging included records of lithology, mineralogy, textures, oxidation state and colour. Key minerals associated with tungsten mineralisation and veining are recorded.
	The total length and percentage of the relevant intersections logged	There is either historical logging or recent re-logging for three quarters of the drillholes. All TGN drill holes were logged in full.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	For Minefields and ANZECO holes, NQ and BQ core was cut by either a chisel or a diamond saw and 5 feet or 1 - 2 m half core samples were submitted to General Superintendence Co P/L or AMDEL in Perth. For Hazelwood holes, NQ diamond drill core was cut in half by an Almonte diamond saw and submitted to ALS Chemex of Malaga. In 2016/2017, TGN collected generally 1 m half core (NQ or BQ) samples cut by previous operators by either chisel or diamond saw. TGN HQ geotechnical diamond core was cut in half by an Almonte diamond saw. PQ metallurgical core was cut in half and then quartered. 1 metre samples of half core for HQ holes and quarter core for PQ holes were submitted to Nagrom for XRF analysis.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	There are no records of how Minefields and ANZECO sampled pre-collars. TGN RC samples were collected on the rig by a cyclone. Material was split by a cone splitter immediately beneath the cyclone to produce two 2 - 4 kg samples.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Minefields and ANZECO samples were submitted to either General Superintendence Co P/L or AMDEL in Perth. No details were found on sample preparation for samples submitted to General Superintendence Co P/L. Samples submitted to AMDEL were crushed to -1/4 inch, pulverised to -30 mesh in a Braun Pulveriser and a 120 – 150 g riffle split milled to 98% passing 200 mesh. Hazelwood samples were submitted to ALS Chemex and were crushed to -2 mm and then milled to 90% passing 75 µm in a LM5 mill with a chrome free bowl. TGN submitted all samples to Nagrom and these were dried and crushed to 6.3 mm using a jaw crusher. Samples in excess of 2 kg are riffle splits and pulverised to 80% passing 75 µm in LM5 pulveriser.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	There is no mention of routine standards and duplicate samples in Minefields and ANZECO reports. A small number of duplicate samples were sent to external laboratories and these repeated well. TGN's QAQC procedures included the insertion of field duplicates and commercial standards. Duplicates and standards were inserted at intervals of 30. Geological logging and UV lamping was used to ensure duplicate samples were from mineralised intervals.
	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.	In 2011, Hazelwood submitted 414 duplicate half-core samples to ALS Chemex for tungsten analysis by XRF. Results from these samples correlated well given the coarse-grained nature of scheelite mineralisation present. The coefficient of determination (R^2) was 0.68 and the mean was 0.238% W and 0.235% W for the original and repeat assays respectively. TGN inserted 1 in 30 RC field duplicates taken from 1 m cone split samples at the rig. Repeatability in RC duplicate samples was found to be excellent. Eight RC holes were drilled to twin historic diamond drilling at Mulgine Hill. These holes intersected similar grade and thickness of mineralization at target depths. Individual very-high grade zones did demonstrate the particulate or nuggety nature of tungsten mineralisation present.

Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Duplicate sampling of the smaller diameter BQ core indicates the nuggetty nature of tungsten mineralisation present and small sample size resulted in a relatively high degree of scatter. As noted above duplicates samples correlated well, therefore sample sizes are considered to be acceptable to accurately represent the tungsten mineralisation at Mulgine Hill given the thickness and consistency of the intersections. The larger sample size of approximately 40 kg per metre collected by RC drilling is considered more appropriate. The coefficient of determination (R^2) for RC duplicates was 0.88 and the mean was 0.149% W and 0.152% W for the original and repeat assays respectively.
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.*	XRF has proven to be a very accurate analytical technique for a wide range of base metals, trace elements and major constituents found in rocks and mineral materials. Glass fusion XRF is utilised for assaying, since it provides good accuracy and precision; it is suitable for analysis from very low levels up to very high levels.
	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.	A handheld magnetic susceptibility meter (KT-10) was used to measure magnetic susceptibility for every sample. Data is stored in the database.
	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.	ANZECO submitted a small number of duplicate samples to external laboratories and these repeated well. There is no reference to standards, duplicates or blanks in reports on Minefields and ANZECO drilling. In 2011, Hazelwood submitted 414 duplicate half-core samples from the Minefields and ANZECO holes to ALS Chemex for tungsten analysis by XRF. Results from these samples correlated well given the coarse-grained nature of scheelite mineralisation present. The coefficient of determination (R^2) was 0.68 and the mean was 0.238% W and 0.235% W for the original and repeat assays respectively. Field QAQC procedures for TGN sampling included the insertion of commercial standards and duplicates at the rate of one in 30 samples. Assay results have demonstrated acceptable levels of accuracy and precision.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No independent personnel have verified intersections in DD drilling. TGN personnel have conducted a review of all assaying by visual inspection of UV core photography and comparing original drill logs against the drill database.
	The use of twinned holes.	Hazelwood drilled four NQ diamond holes in 2011 to twin historical Minefields/ANZECO drilling. Twin holes intersected mineralisation at target depths; however, grades and widths show the nuggety or variable nature of the scheelite mineralisation present. TGN drilled eight RC holes to twin historic diamond holes and intersected similar widths and grades for mineralisation. Very high grade zones were however found to be variable or nuggety.

Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Minefields and ANZECO drilling were carefully measured, geologically logged and UV lamped prior to sampling. Data was recorded onto paper drill logs and was later transferred into an electronic database. TGN have conducted a thorough validation of this data against original paper copies/files. Diamond core drilled in 2011 was oriented and photographed on site and then sent to the Hazelwood core yard at Malaga, Perth. Geological logging and sampling took place in Malaga. Data capture was straight into Excel files. Logging conducted by TGN takes place at the drilling site. Ruggedised computers are used to record the logging for RC samples. Diamond logging is onto paper drill logs and data entered in Perth. A set of standard Excel templates are used to capture the data. Data was validated on-site by the supervising geologist before being sent to Perth office. It was then loaded into Micromine and validated for logging codes, missing intervals, overlapping intervals, hole location and downhole surveying. Validated data is then loaded into a relational database for storage.
	Discuss any adjustment to assay data.	No adjustments were made, other than for values below the assay detection limit which have been entered as half of the detection limit.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	Minefields and ANZECO collar locations were picked-up by a licensed surveyor on the national grid (AMG). This has been transformed to GDA94 Zone 50 in 2011 and old drill pad positions were located, and original collars pegged where possible. These holes were picked-up by a licenced surveyor using a DGPS and this confirmed the grid transformation was accurate. Holes drilled by TGN were picked-up by a licenced surveyor using an RTK GPS accurate to +/- 10 mm North +/- 10 mm East and +/- 15 mm RL. Downhole surveying of TGN holes was measured by the drill contractors using a North Seeking solid state gyroscopic system in the drill rods. Accuracy is ±0.75° for azimuth and ±0.15° for inclination.
	Specification of the grid system used.	Geocentric Datum of Australia 1994 (GDA94) - Zone 50.
	Quality and adequacy of topographic control.	High resolution aerial photography and digital elevation survey was flown by Fugro Spatial Solutions Pty Ltd in October 2013 with expected height accuracy of +/- 0.9 m.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Drillholes were drilled using 20 by 40 m grid for most of the deposit and 80 by 80 m grid elsewhere. Two close spaced (5 to 10 m spacing) sections were drilled to determine grade continuity. Metallurgical diamond holes drilled at Trench are within the historic drill pattern completed by Minefields and ANZECO in the 1980s. This drill spacing is generally 80 metre spaced holes on 120 – 180 metre sections. Selected areas have been infilled to closer spacings.
	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.	For Mulgine Hill, the current drill spacing, combined with kriging efficiency, geological confidence and the quality control standards achieved have been used to divide the deposit into Indicated and Inferred Mineral Resource within the Main Mineralisation Zone. Hangingwall and Footwall mineralisation zones have poorer geological and grade continuity and blocks within this domain have been classified as Inferred. The drill spacing is sufficient to define an Inferred Mineral Resource reported in November 2014.

Criteria	JORC Code explanation	Commentary
	Whether sample compositing has been applied.	For non-mineralised intervals 1 m samples were composited into 5 m composite samples for RC drilling. Where composite samples have anomalous tungsten, the 1 m cone split samples have been submitted for analysis.
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 the deposit type.*	The orientation of drilling was designed to intersect mineralisation perpendicular to the dominant vein geometry and mineralised stratigraphy.
	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.	Structural logging of diamond core has confirmed that drill orientation did not introduce any bias regarding the orientation of mineralised veining.
Sample security	*The measures taken to ensure sample security.*	Samples numbers were recorded on drill logs for Minefields and ANZECO holes. No records of measures taken to ensure sample security were documented in historical reports for these holes. Diamond core for Hazelwood holes was oriented and photographed on site and then sent to the Hazelwood core yard at Malaga, Perth. Geological logging and sampling took place at the Malaga core yard with samples sent directly to the laboratory in Perth. Samples collected by TGN were securely sealed and stored on site and delivered by courier to the laboratory in Perth. Sample submissions forms used to track samples were sent with samples as well as emailed directly to the laboratory.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	In January 2010, SJS Management conducted a review of the QAQC for drilling at Mulgine Hill. This audit found procedures for drilling, logging and sampling acceptable. However, they did find issues with assaying and the small sample size (NQ and BQ) given the coarse-grained nature of tungsten mineralisation present. In 2016, TGN conducted a thorough interrogation of the drill database reviewing consistency of data, geological logging, field procedures and sampling/assaying. UV photographs of core were checked against assay results. Any data that failed validation was checked against original paper copies/files, edited and the validated drill database loaded into Micromine. Global consistency was then checked by plotting sections using the drill database and reconciling assays against geological logging.

Section 2: Reporting of Exploration Results

Criteria	JORC Code 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 Mulgine Hill prospect is located on Mining Lease M59/425-I covering an area of approximately 9.4 km^2. TGN has 100% of the mineral rights for tungsten and molybdenum. The current registered holder of the tenement is Minjar Gold Pty Ltd. The normal Western Australian state royalties apply.
	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 tenements are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Minefields and ANZECO drilled 213 NQ/BQ diamond drillholes (10,631 m DD, 2,355 m pre-collars) in the 1970s and 1980s. Hazelwood completed 5 NQ diamond drillholes in February 2011. TGN have conducted a thorough review of all drilling and sampling procedures that are discussed in Table 1 – Sections 1 and 2.
Geology	Deposit type, geological setting and style of mineralisation.	**Mulgine Hill** The Mulgine Hill mineralisation occurs in a well-defined reaction zone along the northern margin of the Mulgine Granite preserved in an arcuate dominantly north-northeast trending trough. Within the mineralised zone there is both quartz-muscovite greisen and complexly veined mafic (phlogopite pyrite) schist. The main mineralised zone is along the upper contact of the mafic schist where scheelite has been deposited either as coarse disseminations within the quartz-muscovite (fluorite-apatite) greisen or within numerous quartz and greisen veins in both the mafic schist and the quartz-muscovite greisen. Overlying the Main Zone of mineralisation there are multiple less continuous zones hosted by the greisenised granite. Beneath the Main Zone, poorly defined zones of scheelite-molybdenite mineralisation have been identified by recent drilling. **Mulgine Trench** Stratigraphy for the Mulgine Trench deposit consists of a hangingwall amphibolites, the main mineralised horizon and footwall felsic volcanics and quartzite. The mineralised horizon is a 100 to 250 metre thick zone, is delineated over 1.5 kilometres of strike and dips shallowly (25 – 40 degrees) towards the northwest. Tungsten mineralisation dominantly occurs as scheelite in foliation parallel veins or adjacent to vein margins or as coatings on fractures or disseminated in greisen units/veins.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	Collar data for drilling is included in Appendix A.
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.	Intersections were reported using a lower cut-off grade of 0.05% WO_3. WO_3 and Mo grades are reported separately for intersections. No top cut and up to 2m of internal waste were used.

Criteria	JORC Code explanation	Commentary
	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.	All assays >0.05% WO_3 are reported beneath the relevant intersection. Interval zones of waste up to 2m wide are included in intersections provided the adjacent zone and waste are >0.05% WO_3.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable, no metal equivalents were quoted.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Two diamond holes were vertical and two inclined intersecting mineralisation at between 60° - 90°. True thickness will be between 70 – 100% of the intersection thickness.
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 drill hole collar locations and appropriate sectional views.	Refer to diagrams in the body of text.
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.	All Intersections greater than 2m at 0.05 WO_3 at Mt Mulgine are reported and holes with no significant mineralisation are documented in Appendix 1.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): 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.	Historic mineralogical and metallurgical studies on the Mulgine Hill deposit greisen and schist ore zones showed scheelite was well liberated below 0.3 mm and gave good recoveries in a simple gravity circuit using spirals and tables. Evidence gathered to date show that no major metallurgical problems are expected to affect the overall viability of the project. Metallurgical test work has shown that the ore as represented by the samples tested, is readily concentrated to exceed the target of +50% WO_3 concentrate. Levels of potential deleterious contaminants reporting to the final concentrate were below the minimum threshold for specific APT conversion processes. Ore sorting test work to remove gangue material prior to milling and gravity treatment showed that X-Ray Transmission (XRT) sorting has removed up to 50% of the feed mass as waste whilst maintaining +95% tungsten yield. The removal of waste material will significantly reduce the processing plant footprint, capital and operating costs. Preliminary leaching studies demonstrated that high extraction rates of tungsten and molybdenum from secondary minerals in the weathered profile at Mulgine Hill are achievable. Subsequent testwork phases will focus on the recovery of tungsten in solution into a saleable solid form.
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). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	TGN are looking at completing a Pre-Feasibility Study on the greater Mt Mulgine Project incorporating the Mulgine Trench and Mulgine Hill deposits.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
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.	The bulk of the drilling was completed by Minefields and ANZECO between 1970 and 1980. Both Minefields and ANZECO produced graphical geological logs of a high standard that describe lithology, textures, structures and sampling. This data has been used by TGN for geological interpretation and grade interpolation. Data from these logs have been cross checked with digital records and data entered by TGN where necessary. Diamond core drilled in 2011 was oriented and photographed on site and then sent to the Hazelwood core yard at Malaga, Perth. Geological logging and sampling took place in Malaga with data capture straight into Excel files. Data associated with TGN RC drilling was recorded onto ruggedised computers. Diamond logging is onto paper drill logs and data entered in Perth. A set of standard Excel templates are used to capture the data. Data was validated on-site by the supervising geologist before being sent to Perth office. It was then loaded into Micromine and validated for logging codes, missing intervals, overlapping intervals, hole location and downhole surveying. Validated data is then loaded into a relational database for storage.
	Data validation procedures used.	TGN, where possible, reviewed the original source data (i.e. original drill logs, laboratory assay reports, cross sections and plans) to validate the historical database. Data collected by TGN is validated as described above. Optiro conducted additional data validation checks as part of the drillhole desurveying process including: •missing assays and collars •below detection limit values •overlapping and duplicated sample intervals •comparison of assay and geology depths against collar end of hole depths •assay column swaps. All issues found were resolved prior to commencing statistical analysis. Whilst the identified database related issues have been resolved, there remains the possibility that when drillhole data is transferred to a formal drillhole data management system, further issues will be identified. In Optiro's opinion, TGN's database related efforts have reached a point of diminishing returns and any issues identified in the future will be of a relatively minor nature.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	No site visit has been carried out by Optiro. TGN's Exploration Manager is acting as Competent Person for data and geological interpretation aspect of this Mineral Resource estimate.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	There is a reasonable level of confidence in the geological interpretation which divides the deposit into major lithological domains and oxidation horizons. Mineralised zones are designated by elevated tungsten grades.

Criteria	JORC Code explanation	Commentary
	Nature of the data used and of any assumptions made.	The lithology and oxidation domains are based on geological logging codes and observations from core photographs. Mineralisation domains are based on tungsten assay data with some input from UV light photographs of core. Mineralisation is defined by assay grades exceeding a nominal 0.025% WO_3 cut-off. Three mineralisation domains were interpreted; the Main Zone, which consists of a mineralisation horizon associated with the mafic schist/Upper Greisen contact, the Hangingwall Zone, which consists of a series of mineralisation envelopes confined to the Upper Greisen, and the Footwall Zone which is represented by a set of less continuous mineralisation envelopes within the Lower Greisen. A high-grade subdomain based on a 0.075% WO_3 cut-off was included within the Main Zone. No assumptions were made regarding un-assayed drillhole intervals within the mineralised domains for either tungsten or molybdenum. Unsampled intervals within the background are assumed to have grade lower than the mineralisation threshold.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The Main Zone mineralisation presents as a continuous blanket like horizon and appears robust based on the current drillhole data. Recent drilling of this zone has introduced some modifications to the margins of this domain since 2017. The Hangingwall and Footwall Zones are considerably less continuous, and the geometry of the interpreted zones may change considerably as more data is gathered. Sporadic elevated tungsten grade intersections located outside these three domains have not been estimated due to a lack of discernible continuity.
	The use of geology in guiding and controlling Mineral Resource estimation.	There is a clear relationship between the mafic schist/Upper Greisen contact and the Main Zone mineralisation horizon. This relationship influences the geometry of the Main Zone mineralisation which is primarily based on elevated tungsten grade.
	The factors affecting continuity both of grade and geology.	Lithological boundaries are reasonably defined by the available drillhole data. Grade continuity is visually obvious within the Main Zone but grade continuity modelling suggests that further close spaced data would benefit the definition of grade continuity, both in terms of directional controls and ranges.
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 Mulgine Hill Mineral Resources extends approximately 500 m in a north-south direction and extends for a maximum distance of 1,100 m in an east-west direction. Mineralisation is flat lying with an average thickness of 10 to 20 m and is close to surface (extending to a maximum depth of 80 m below surface).
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.*	Tungsten, molybdenum and sulphur grade estimation used ordinary kriging (OK) in Datamine Studio RM software. Drill grid spacing ranges from a nominal 20 m by 20 m staggered grid, which increases to a nominal 75 m by 75 m grid outside of the central area of the deposit. Drillhole sample data was flagged using domain codes generated from three-dimensional mineralisation domains, lithology wireframes and oxidation surfaces. Sample data was composited to a 2 m downhole length using a best fit-method. Variography analysis of the composite data within the mineralisation domains for tungsten, molybdenum and sulphur provided kriging parameters. Top-cuts were applied prior to block grade estimation as required. Mineralisation boundaries were treated as hard boundaries for each element for grade estimation. Other estimation parameters, such as block size, minimum and maximum sample numbers were modified after completing a kriging neighbourhood analysis.

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	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	The previous Mulgine Hill Mineral Resource estimate was completed in 2017 using a similar geological interpretation and mineralisation boundaries. No previous mining activity has taken place in this area although tungsten grade data from two exploration shafts and associated crosscuts is available.
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding recovery of by-products. Molybdenum has been estimated as it may be partly recovered as a by-product. The molybdenum grades suggest it is not a viable economic source in its own right. The possibility exists that some precious metals are associated with the tungsten mineralisation, but this has not been addressed by the resource modelling as only very limited data is available.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	No deleterious elements that may impact metallurgical processing are known to exist at Mulgine Hill. Sulphur was estimated to assist in the understanding of the acid forming potential of the rock mass.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The Mulgine Hill block model was created with parent block dimensions of 10 mE by 10 mN by 5 mRL. Block sub-celling was allowed down to a minimum block size of 5 mE by 5 mN by 2.5 mRL to represent domain boundaries. Grade estimation used a three-pass search. The primary search radii were based on the tungsten variogram models and were constant for all elements and domains. Minimum and maximum informing sample numbers remained constant between the primary, secondary and tertiary searches. The primary search radii were doubled for the secondary search and multiplied by ten for the tertiary search. The maximum number of samples that could be utilised from a single drillhole was limited to three for all grade estimation.
	Any assumptions behind modelling of selective mining units.	No selective mining units were assumed in this estimate.
	Any assumptions about correlation between variables.	No grade correlation exists between tungsten, molybdenum and sulphur globally, by lithology, or by domain. Any molybdenum produced would likely only be as a by-product of tungsten production. Highest sulphur grades are generally hosted the mafic schist and ultramafic rock units
	Description of how the geological interpretation was used to control the resource estimates.	Drillhole sample data was flagged using domain codes generated from the mineralisation, lithological and oxidation interpretations. Mineralisation domains were treated as hard boundaries in the estimation of tungsten, molybdenum and sulphur. Lithology and oxidation were used to control density assignment. Oxidation was also used to control sulphur grade estimation due to the visually obvious sulphur depletion within the oxide.
	Discussion of basis for using or not using grade cutting or capping.	Top-cut analysis of tungsten, molybdenum and sulphur was undertaken by viewing log probability plots and by identifying values at which the population distributions started to become discontinuous, i.e. included outlier grades. Top-cuts were applied to all tungsten domains, a small number of molybdenum domains and the background sulphur domains based on this analysis.

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	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Comparative checks were carried out between interpretation wireframe and subsequent block model volumes. No significant discrepancies were found. Estimated block grades were compared to the input drill data on a domain basis using visual appraisal, domain average grade comparisons and grade trend plots in the three grid axis directions. Reasonable outcomes were obtained, particularly in the context of the moderate nugget and moderate grade continuity environment. Visual validation of grade trends and distributions was carried out. No mining has taken place; therefore, no reconciliation data is available.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The tonnages are estimated on a dry basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied*	A cut-off grade of 0.10% WO_3 for the stated Mineral Resource estimate is determined from current and anticipated economic parameters.
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.*	Potential mining of the Mulgine Hill deposit will be by surface mining methods involving standard truck and haul mining techniques. The geometry of the deposit will make it amenable to mining methods currently employed in many surface operations in similar deposits around the world. The current block grade estimate includes internal and some edge dilution and assumes bulk mining on 5 m high benches.
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.*	Completion of the preliminary metallurgical test work programme has shown that scheelite was readily concentrated to exceed the target concentrate grade of 50% WO_3. Levels of potential deleterious contaminants reporting to the final concentrate were below the minimum threshold for specific APT conversion processes. Ore sorting test work to remove gangue material prior to milling and gravity treatment showed that X-ray type sorting has removed up to 43% of the feed mass as waste whilst maintaining +95% tungsten yield. The removal of waste material will significantly reduce the processing plant footprint, capital and operating costs. Preliminary leaching studies for the extraction of tungsten from secondary minerals in the weathered profile at Mulgine Hill demonstrated high recoveries are achievable. Subsequent testwork phases will focus on the recovery of tungsten in solution into a saleable solid form.
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*	Waste rock from any mining will be placed into a waste rock landform adjacent to the main pit. Process plant residue will be pumped and stored as a slurry in a tailings storage facility with a central decant station that returns process water back to the process plant. An acid mine drainage management plan has been developed, utilising encapsulation of PAF material with NAF waste from the main pit pre-strip material and existing waste stockpiles in the area.

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Bulk density	*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.*	A total of 1,602 density measurements are present within the database. These were averaged within the lithological and oxidation domains and applied to the block model for tonnage estimation. The assigned density averages varied between 2.59 and 2.89 t/m^3. Dry density was measured.
	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,	Measurements were taken using the "Archimedes Principle" water displacement technique on diamond drill core from the Mulgine Hill Project. Measurements were taken from both BQ and NQ core, and from both whole core, half and quarter cut core. Measurements were also collected from PQ core drilled in 2016 by TGN. Measurements were taken using the "Archimedes Principle" water displacement technique on whole core.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	Average density values were assigned relative to lithological and oxidation conditions.
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories*	The Mineral Resource classification at Mulgine Hill is based on confidence in the geological and grade continuity, along with the 20 m by 20 m drillhole grid informing the core of the deposit (with two infill section lines on 5-10 m in-section spacing also present). These grid conditions combined with geological confidence and grade continuity achieved from variography modelling has divided the Main Zone mineralisation into Indicated and Inferred regions. Due to the poorer geological and grade continuity within the Hangingwall and Footwall Zone mineralisation all blocks within these zones have been classified as Inferred. Blocks with assigned grades, and blocks with tungsten and molybdenum grades within the background domain have not been classified as Mineral Resources. All blocks outside or below the drilling limits are unclassified. No Measured Mineral Resources have been defined. The total reported Mineral Resource is constrained within an open pit shell based on an ammonium paratungstate (APT) price of USD400 per metric tonne unit (mtu).
	Whether appropriate account has been taken of all relevant factors (i.e. 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 resource classification process addresses all known contributing issues.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resource estimate appropriately reflects the view of the Competent Persons.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	No audits have been undertaken on the 2019 Mineral Resource estimate apart from internal peer review by Optiro.
	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 relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code (2012 Edition). No attempt has been made to quantify relative accuracy and confidence at this stage of analysis.
	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 statement relates to global estimates of tonnes and grade.

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	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	No production data is available.