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16 February 2018

tungsten mining NL

ABN 67 152 084 403

ASX Announcement

Significant tungsten-molybdenum mineralisation intersected in drilling at Mt Mulgine

Highlights

- Sterilisation drilling south of Mulgine Hill intersects significant tungsten - molybdenum mineralisation on the Mt Mulgine Project. Better intersections include:
  - 13 metres at 0.22% WO_3 and 0.09% Mo from 25 metres,
  - 8 metres at 0.34% WO_3 and 0.17% Mo from 80 metres.
- Mineralisation is associated with quartz veined greisen close to the Mulgine Granite Contact and intersected by 3 holes over 500 metres of strike.
- Sterilisation drilling to the west of this Mulgine Granite Contact intersected tungsten mineralisation associated with quartz veining hosted by amphibolite. Up to four zones have been identified with better intersections as follows:
  - 8 metres at 0.15% WO_3 from 2 metres,
  - 4 metres at 0.15% WO_3 from 45 metres.
- Follow-up drilling testing these zones is planned in the March quarter.
- Infill drilling was commenced on the Mulgine Hill to complete 40 metre spaced holes within pit optimisations. This drilling is scheduled to be completed in the March quarter.

Australian tungsten development company, Tungsten Mining NL (ASX: TGN) ("Tungsten Mining" or "the Company"), is pleased to report on results from drilling at Mulgine Hill on the Mt Mulgine Project in the Murchison Region of Western Australia, approximately 350km north northeast of Perth. During November/December 2017, the Company drilled 37 reverse circulation (RC) holes for 2,692 metres at the Mulgine Hill Prospect (Figure 1).

Tungsten Mining has 100% of the tungsten and molybdenum rights on a contiguous group of tenements at Mt Mulgine that have been the subject of significant previous exploration for tungsten and molybdenum.

Two near surface Mineral Resources have been delineated by previous explorers at the Mulgine Trench and Mulgine Hill deposits. Tungsten Mining is focussed on delivering on its strategic development plan directed at the production of tungsten concentrate from the Mt Mulgine Project by the end of 2018.

The drilling, which commenced in late November 2017, forms part of a larger program of project development activities directed at establishing suitable locations for mine site infrastructure at Mt Mulgine and to also complete infill drilling across the Mulgine Hill Mineral Resource.

The objectives of this initial drilling campaign were to complete sterilisation drilling across two potential locations for proposed waste landforms and to complete a pattern of 40 metre drill spacing over optimised pits at Mulgine Hill.

Drilling recommenced at Mt Mulgine in February 2018 with a diamond drill rig mobilised for geotechnical drilling. A Reverse Circulation (RC) drill rig is scheduled to return to site next week to advance sterilisation, infill and exploration drilling. Results from the initial phase of drilling completed in late 2017 have been received and are discussed in sections below.

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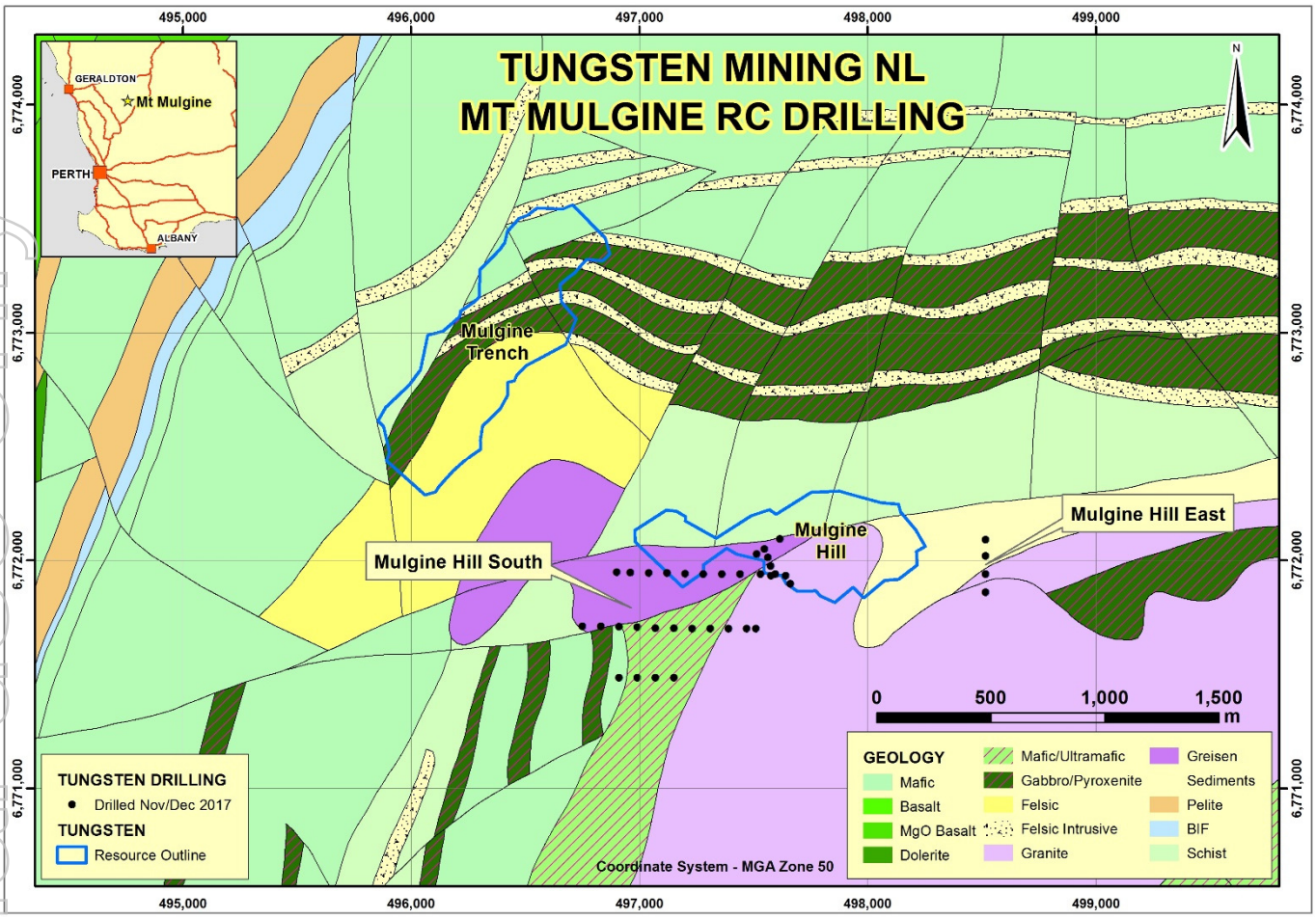

Figure 1 – Plan displaying location of RC drilling completed in the December quarter.

Sterilisation Drilling

A total of 28 RC holes for 2,344 metres were completed across proposed waste landforms. Geological logging and ultra-violet lamping identified zones of tungsten (scheelite) mineralisation present to the south and east of the Mulgine Hill Mineral Resource (Figure 1).

Significant tungsten-molybdenum mineralisation associated with quartz veined greisen close to the Mulgine Granite contact was intersected by drilling on 240 metre spaced sections. Mineralisation is located immediately south of the Mulgine Hill Mineral Resource and dips shallowly towards the east (Figure 2). The hole MMC059 intersected 8 metres at 0.34% WO_3 and 0.17% Mo from 80 metres on section 6,771,700N (Figure 3) and MMC044 intersected 13 metres at 0.22% WO_3 and 0.09% Mo from 25 metres on 6,771,940N section (Figure 4). The historic diamond hole DDM040 drilled 200 metres south of MMC059 intersected 11 metres at 0.12% WO3 and 0.21% Mo from 35 metres.

Results are extremely encouraging with strong mineralisation intersected over 500 metres of strike. Weathering is shallow (<5 metres), indicating potentially favourable metallurgical properties. The Mulgine Granite contact at this locality is complex and covered by a thin veneer of colluvium and further drilling is planned in the March quarter to determine the geometry and continuity of mineralisation present. Significant tungsten-molybdenum intersections associated with this zone are listed in Table 1.

Up to four zones of low – medium grade tungsten mineralisation were intersected west of the Mulgine Granite contact (Mulgine Hill South - Figure 1). Mineralisation was associated with zones of shallow westerly dipping quartz veining hosted by amphibolite. Better intersections include 8 metres at 0.15% WO_3 from 2 metres in MMC036 and 4 metres at 0.15% WO_3 from 45 metres in MMC047.

One line of RC holes was drilled beneath a potential location for a waste landform to the east of the Mulgine Hill Mineral Resource (Mulgine Hill East - Figure 1). This drilling intersected a shallow south dipping zone of low – medium grade tungsten mineralisation hosted by Mulgine Granite up to 4 metres at 0.19% WO_3 from 50 metres in MMC063 (Figure 5).

Significant tungsten intersections at Mulgine Hill South and East are listed in Table 2. A complete list of all intersections greater than 2 metres at 0.10% WO_3 are presented in Appendix 1.

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Table 1 **– Significant Tungsten-Molybdenum Mineralisation on Mulgine Granite Contact**

Mulgine Hill Sterilisation Drilling - Significant Tungsten-Molybdenum Mineralisation										
	MGA Coordinates				Intersections					
Hole No	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
MMC044	6771701	497470	83	-60/090	**25**	**38**	**13**	**0.22**	**0.09**	Fresh
MMC044					44	47	3	0.06	0.15	Fresh
MMC058	6771701	497510	95	-60/090	**11**	**21**	**10**	**0.05**	**0.17**	Fresh
MMC058					64	68	4	0.05	0.14	Fresh
MMC059	6771940	497530	89	-60/090	**80**	**88**	**8**	**0.34**	**0.17**	Fresh
MMC071	6771932	497640	48	-90	46	48	2 (eoh)	0.28	0.03	Fresh

1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% combined WO_3 plus Mo, no top cut grade, up to 2m of internal waste. eoh – end of hole. Grid coordinates are MGA Zone 50. Fresh – tungsten present in scheelite, Weath. – tungsten present in another mineral species.

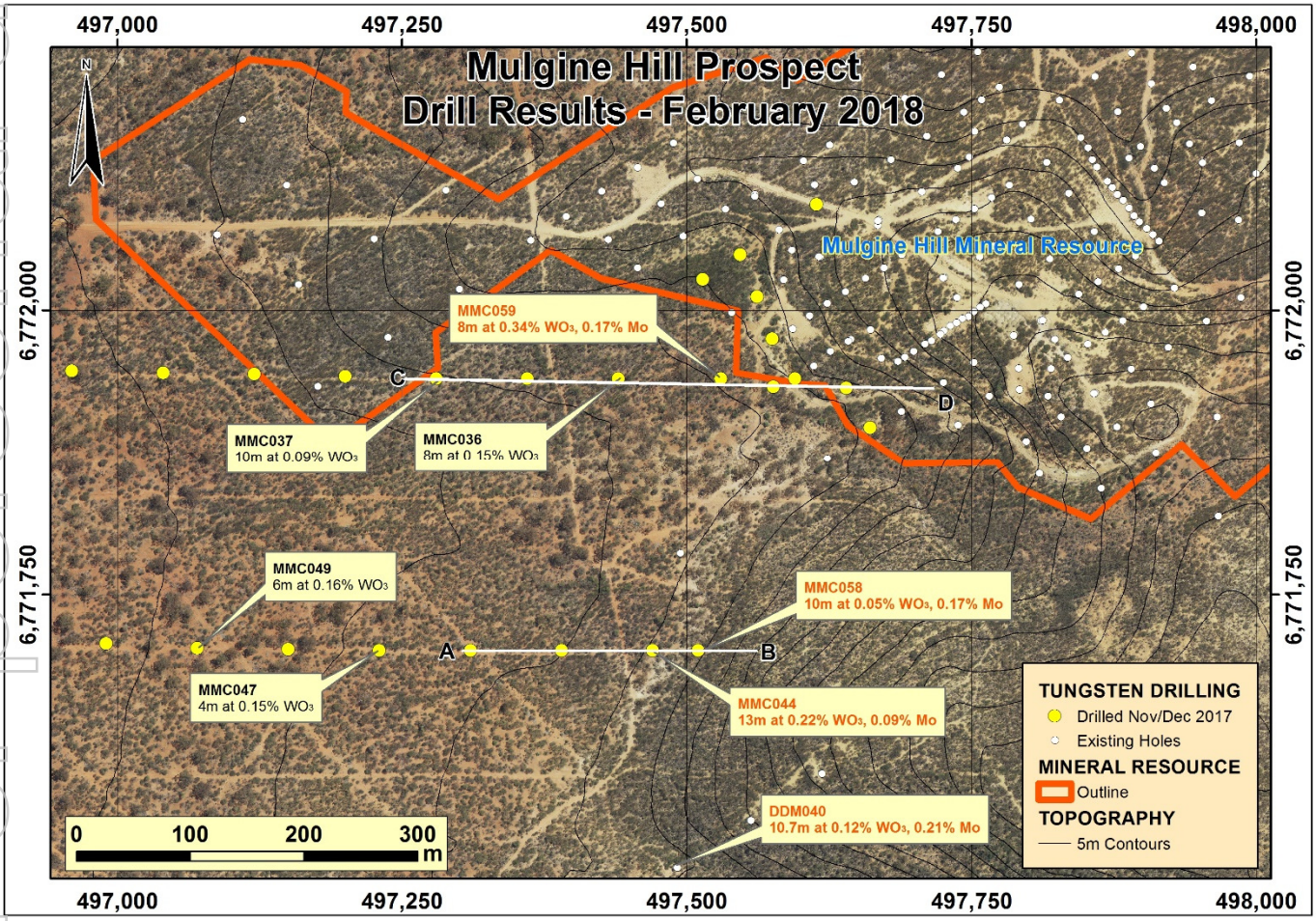

Figure 2 – plan displaying hole location, drill intersections and 2017 Mulgine Hill Mineral Resource outline.

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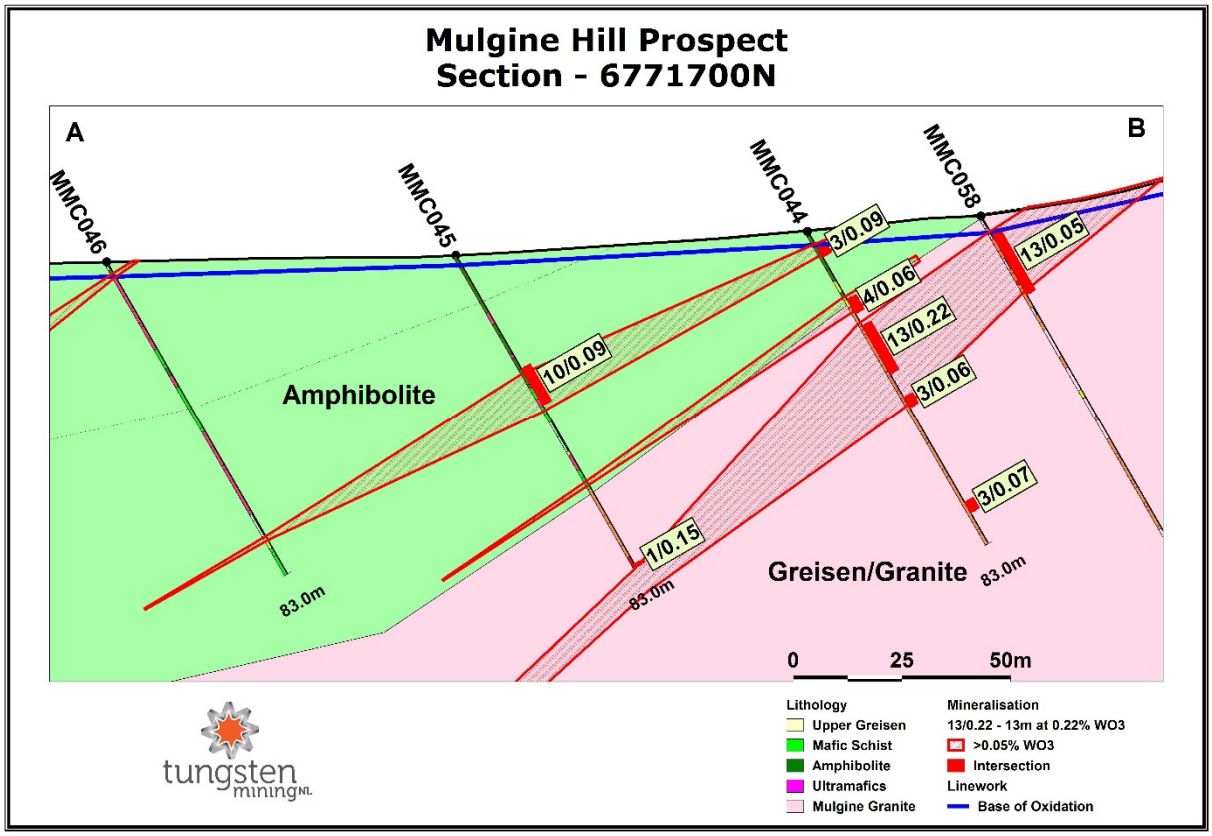

Figure 3 – Cross section showing drill intersections (0.5% WO_3 cut) on 6,771,700N section – Mulgine Hill South.

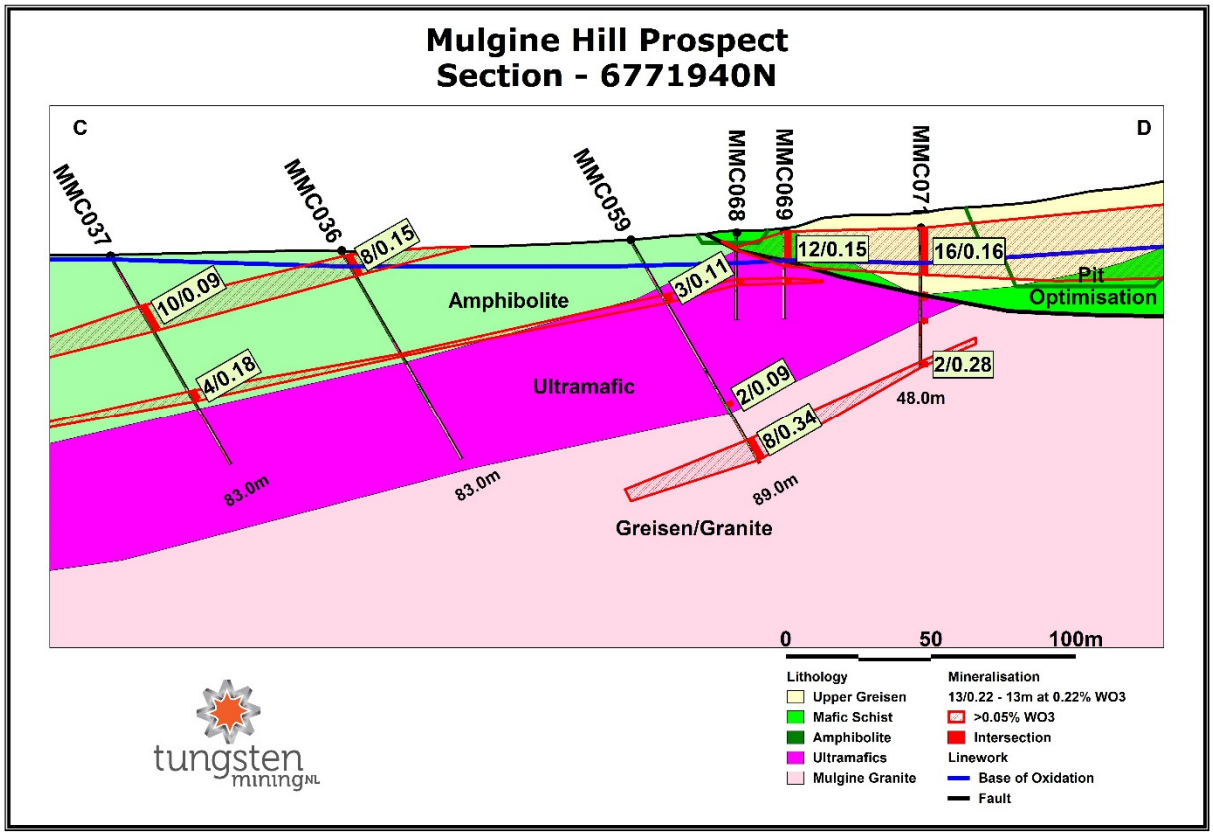

Figure 4 – Cross section showing drill intersections (0.5% WO_3 cut) on 6,771,940N section – Mulgine Hill South.

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Table 2 – Significant Tungsten Intersection from Sterilisation drilling

Mulgine Hill Sterilisation Drilling (>0.10 % WO_3)										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
Mulgine Hill South										
MMC036	6771940	497440	83	-60/090	**2**	**10**	**8**	**0.15**	0.004	Fresh
MMC037	6771940	497360	83	-60/090	56	58	2	0.29	0.001	Fresh
MMC045	6771701	497390	83	-60/090	**30**	**35**	**5 ***	**0.12**	0.002	Fresh
MMC047	6771701	497230	83	-60/090	45	49	4	0.15	0.011	Fresh
MMC047					74	76	2	0.25	0.027	Fresh
MMC049	6771703	497070	83	-60/090	**22**	**28**	**6 ***	**0.16**	0.009	Fresh
MMC050	6771707	496990	83	-60/090	10	13	3	0.15	0.004	Fresh
Mulgine Hill East										
MMC061	6771940	498515	83	-60/180	8	10	2	0.24	0.008	Fresh
MMC063	6772090	498515	85	-60/180	**50**	**54**	**4**	**0.19**	0.002	Fresh

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% WO_3, no top cut grade, up to 2m of internal waste. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. * Contains preliminary composite samples.*

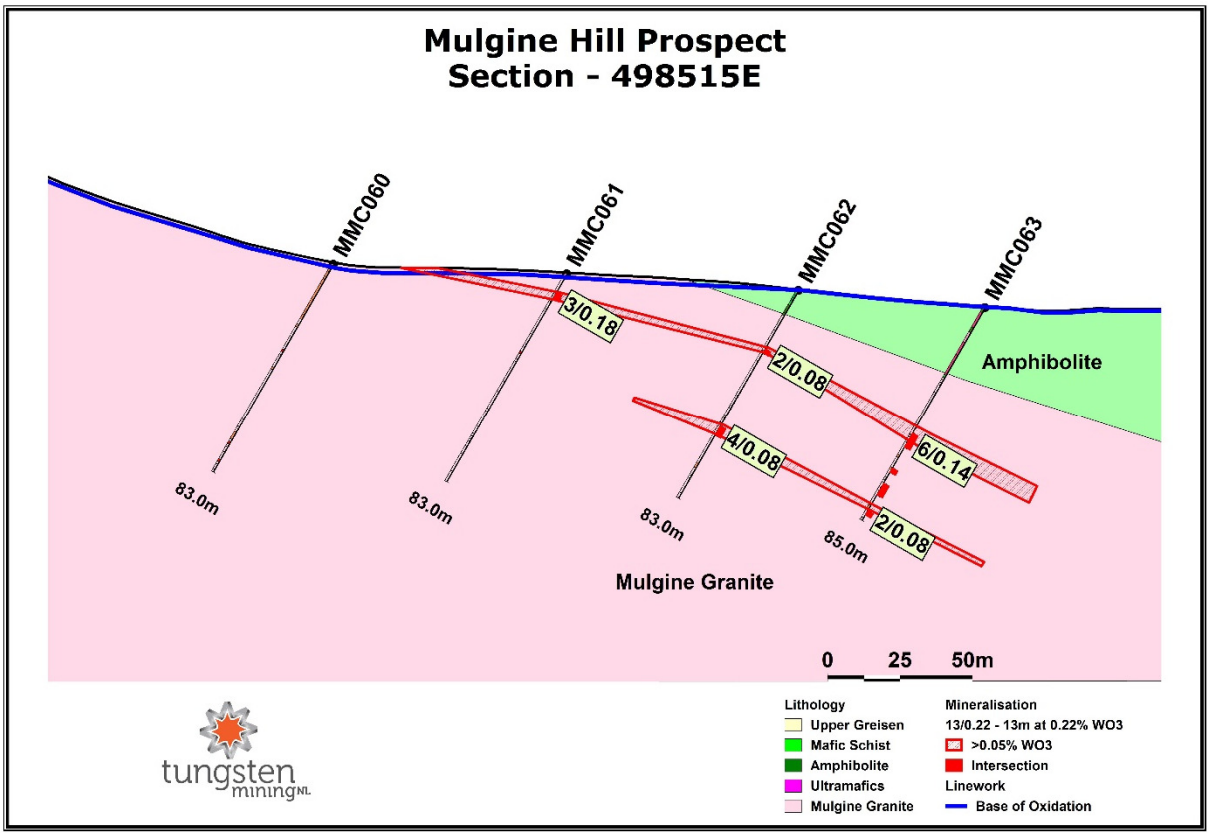

Figure 5 – Cross section showing drill intersections (0.5% WO_3 cut) on 498,515E section – Mulgine Hill East.

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Mulgine Hill Infill Drilling

Infill drilling was commenced to complete the 40 metre hole spacing over pit optimisations at Mulgine Hill. A total of 9 holes for 348 metres were drilled and drilling is scheduled to be completed in the March 2018 quarter. Holes drilled focused on the margins of the main pit defined by optimisation work (Figure 6).

Results received to date are refining the understanding of mineralisation present and will not significantly change the Mineral Resource estimate. On completion of the infill drilling program, a new resource estimate will be prepared. Significant tungsten intersections from infill drilling are listed in Table 3. A complete list of all intersections greater than 2 metres at 0.10% WO_3 are presented in Appendix 1.

Table 3 – Significant Tungsten Intersection from Infill drilling of Mulgine Hill pit optimisation

Infill RC Drilling (>0.10 % WO_3)										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
MMC065	6772012	497562	30	-90	0	4	4	0.13	0.024	Weath.
MMC065					25	30	5 *	0.14	0.002	Fresh
MMC066	6772027	497514	30	-90	6	8	2	0.34	0.011	Fresh
MMC068	6771933	497576	30	-90	16	18	2	0.24	0.005	Fresh
MMC069	6771940	497595	30	-90	**8**	**10**	**2**	**0.50**	**0.058**	Fresh
MMC069					16	18	2	0.26	0.007	Fresh
MMC071	6771932	497640	48	-90	**1**	**9**	**8**	**0.19**	0.011	Weath.
MMC071					**9**	**14**	**5**	**0.18**	0.001	Fresh
MMC071					22	25	3	0.16	0.02	Fresh

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% WO_3, no top cut grade, up to 2m of internal waste. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. * Contains preliminary composite samples.*

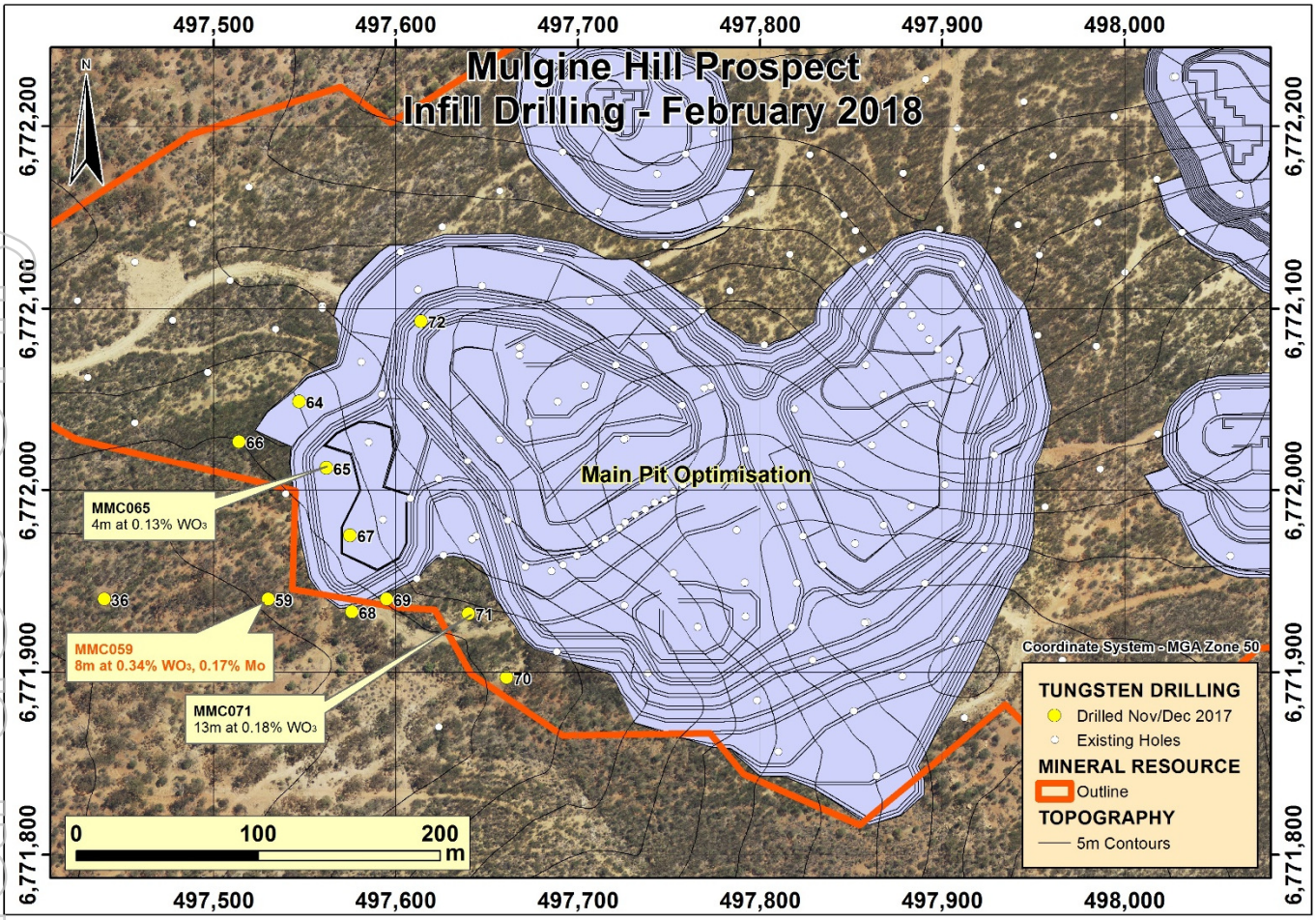

Figure 6 – Plan showing location infilling drilling of the main Mulgine Hill pit design.

Tungsten Mining's CEO, Mr Craig Ferrier said "*We are very encouraged by the significant tungsten and molybdenum mineralisation intersected in this latest phase of drilling. Identifying additional near surface mineralisation as a feed source for the planned tungsten concentrate plant has the potential to add significant value to the project, particularly in its initial phase of operation. As such, we have committed to additional drilling to test the continuity of the tungsten mineralisation. We are also taking the opportunity to better understand the extent of molybdenum mineralisation that has been highlighted in both this recent and historical drilling at Mulgine Hill.*"

ENDS

Craig Ferrier
Chief Executive Officer

Competent Person's Statement

The information in this report that relates to Exploration Targets and Exploration Results 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.

For further information contact:

Craig Ferrier Chief Executive Officer Tel: +61 9486 8492

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About Tungsten Mining

Emerging 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.

Tungsten Mining has three advanced tungsten projects in Australia: the Mt Mulgine Project in the Murchison region, the Big Hill Project in the Pilbara region and the Kilba Project in the Ashburton region of Western Australia

Tungsten Mining is currently identifying opportunities for near term tungsten production, particularly from the Mulgine Hill and Mulgine Trench deposits within the Mt Mulgine Project.

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Appendix 1
Mulgine Hill - Drill Collar Data and Significant Intersections

Mulgine Hill, RC Drilling (>0.10 % WO_3)										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
Sterilisation Drilling – Mulgine Hill South										
MMC036	6,771,945	497,440	83	-60/090	**2**	**10**	**8**	**0.14**	0.004	Fresh
MMC037	6,771,939	497,360	83	-60/090	20	22	2	0.13	0.009	Fresh
MMC037					44	45	1	0.54	0.008	Fresh
MMC037					56	58	2	0.29	0.001	Fresh
MMC038	6,771,940	497,281	83	-60/090	No Significant Intersection					
MMC039	6,771,942	497,201	83	-60/090	No Significant Intersection					
MMC040	6,771,941	497,121	83	-60/090	No Significant Intersection					
MMC041	6,771,943	497,040	83	-60/090	28	29	1	0.53	0.003	Fresh
MMC042	6,771,944	496,960	83	-60/090	No Significant Intersection					
MMC043	6,771,946	496,900	83	-60/090	52	54	2	0.24	0.003	Fresh
MMC044	6,771,703	497,471	83	-60/090	**25**	**38**	**13**	**0.22**	**0.087**	Fresh
MMC044				Incl.	25	26	1	1.21	0.001	Fresh
MMC044					44	47	3	0.06	0.147	Fresh
MMC045	6,771,699	497,390	83	-60/090	30	35	5 *	0.12	0.002	Fresh
MMC046	6,771,700	497,310	83	-60/090	No Significant Intersection					
MMC047	6,771,700	497,231	83	-60/090	45	49	4	0.15	0.011	Fresh
MMC047					74	76	2	0.25	0.027	Fresh
MMC048	6,771,701	497,150	83	-60/090	No Significant Intersection					
MMC049	6,771,701	497,070	83	-60/090	**22**	**28**	**6 ***	**0.16**	0.009	Fresh
MMC050	6,771,704	496,990	83	-60/090	10	13	3	0.15	0.004	Fresh
MMC051	6,771,706	496,910	83	-60/090	No Significant Intersection					
MMC052	6,771,706	496,830	83	-60/090	No Significant Intersection					
MMC053	6,771,710	496,749	83	-60/090	No Significant Intersection					
MMC054	6,771,485	497,163	83	-60/090	No Significant Intersection					
MMC055	6,771,486	497,081	83	-60/090	No Significant Intersection					
MMC056	6,771,494	497,001	83	-60/090	No Significant Intersection					
MMC057	6,771,472	496,921	83	-60/090	No Significant Intersection					
MMC058	6,771,701	497,511	95	-60/090	**11**	**21**	**10**	**0.04**	**0.170**	Fresh
MMC058					64	68	4	0.05	0.137	Fresh
MMC058					80	82	2	0.03	0.192	Fresh
MMC059	6,771,940	497,540	89	-60/090	**80**	**88**	**8**	**0.34**	**0.165**	Fresh
MMC059				**Incl.**	**85**	**87**	**2**	**1.08**	0.010	Fresh

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Mulgine Hill, RC Drilling (>0.10 % WO_3)										
Hole No	MGA Coordinates				Intersections					
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%	Weath.
Sterilisation Drilling – Mulgine Hill East										
MMC060	6,771,858	498,520	83	-60/180	No Significant Intersection					
MMC061	6,771,939	498,516	83	-60/180	8	10	2	0.24	0.008	Fresh
MMC062	6,772,019	498,515	83	-60/180	No Significant Intersection					
MMC063	6,772,083	498,516	85	-60/180	50	54	4	0.19	0.002	Fresh
Mulgine Hill – Infill Drilling										
MMC064	6,772,050	497,549	48	-90	20	21	1	1.15	0.018	Fresh
MMC065	6,772,011	497,558	30	-90	0	4	4	0.13	0.024	Weath.
MMC065					**25**	**30**	**5 ***	**0.14**	0.002	Fresh
MMC066	6,772,020	497,511	30	-90	6	8	2	0.34	0.011	Fresh
MMC067	6,771,974	497,573	42	-90	5	6	1	0.57	0.003	Weath.
MMC068	6,771,932	497,576	30	-90	16	18	2	0.24	0.005	Fresh
MMC069	6,771,938	497,593	30	-90	0	2	2	0.15	0.025	Weath.
MMC069					8	10	2	0.50	0.058	Fresh
MMC069				Incl.	9	10	1	0.88	0.050	Fresh
MMC069					16	18	2	0.26	0.007	Fresh
MMC070	6,771,897	497,657	30	-90	No Significant Intersection					
MMC071	6,771,926	497,640	48	-90	**1**	**9**	**8**	**0.19**	0.011	Weath.
MMC071					**9**	**14**	**5**	**0.17**	0.002	Weath.
MMC071					22	25	3	0.16	0.020	Fresh
MMC071					46	48	2 (eoh)	0.28	0.025	Fresh
MMC072	6,772,092	497,612	60	-90	No Significant Intersection					

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% combined WO_3 plus Mo, no top cut grade. All high-grade intervals greater than 0.50% WO_3 listed. Grid coordinates are MGA Zone 50. Fresh – contains fresh scheelite, Weath. – tungsten present in another mineral species. * Contains preliminary composite samples.*

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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.*	Mulgine Trench and Mulgine Hill are sampled using Reverse Circulation (RC) and Diamond Drilling (DD) over multiple drilling campaigns. The latest drilling campaign was completed by Tungsten Mining utilising RC drilling. A total of 37 Tungsten Mining RC drillholes (2,692m) were drilled and the majority of the holes were drilled at approximately 60° perpendicular to strike. Infill drilling at Mulgine Hill were vertical.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Tungsten Mining drillhole collar locations were picked-by a licenced surveyor up using an RTK GPS accurate to +/- 10mm North +/- 10mm East and +/- 15mm RL. Certified standards were inserted into the sample sequences according to Tungsten Mining QAQC procedures. These certified standards fell within expected ranges (i.e. all standards fell within two standard deviations of the mean). Duplicate samples were collected to check repeatability of sampling and variability or nugget effect for tungsten mineralisation. Results from this QAQC sampling were considered acceptable with an R^2 value of 0.85 and 0.83 for WO_3 and Mo respectively.
	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	The RC drilling crew collected 1 metre intervals from the cyclone and the sample was split using a cone splitter to produce two representative 2 – 4 kilogram 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 for possible reanalysing / QAQC activities. Tungsten Mining 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).*	Tungsten Mining completed 37 RC drillholes in the latest phase of drilling. RC holes depths ranged from 30 to 95 m, averaging 72 m. RC drilling used a face-sampling hammer that produced a nominal 135 – 140mm diameter hole.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	RC sample recovery was visually assessed, recorded on drill logs and considered to be acceptable within the mineralized zones.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	RC samples were visually checked for recovery, moisture and contamination. A cyclone and cone splitter were 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.
	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.	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.

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Criteria	JORC Code explanation	Commentary
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.*	Tungsten Mining 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. All samples are UV lamps and a visual estimate of scheelite content made. The chip trays are stored in Tungsten Mining's core yard in Perth. 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.	RC chips logging included records of lithology, mineralogy, textures, oxidation state and colour. Visual estimates of percentages of key minerals associated with tungsten mineralisation and veining are made.
	The total length and percentage of the relevant intersections logged	All drill holes were logged in full.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were collected by a cyclone attached to the drill rig. Material was split by a cone splitter immediately beneath the cyclone to produce two 2 – 4 kg samples. Samples are logged as dry or wet.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were dried, crushed to 6.3mm using a jaw crushers. Samples in excess of 2kg are riffle split and pulverised to 80% passing 75µm in LM5 pulveriser.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QAQC procedures included the insertion of field duplicates and commercial standards. Duplicates and standards were inserted at intervals of one in every 30 samples. Duplicate were inserted from mineralised samples on a one in 30 sample basis.
	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.	Approximately 1 in 30 RC field duplicates were taken from 1m cone split samples at the rig. Results from this QAQC sampling were considered acceptable with an R^2 value of 0.85 and 0.83 for WO3 and Mo respectively.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered to be appropriate to accurately represent the tungsten mineralisation at Mt Mulgine based on the thickness and consistency of the intersections, the sampling methodology and the percent value assay ranges for the primary elements.
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.	Field QAQC procedures included the insertion of field duplicates and commercial standards. Assay results from standards demonstrating acceptable levels of accuracy and precision.

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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	No independent personnel have verified intersections in RC drilling. Tungsten Mining personnel conducted UV lamping to visually estimate scheelite content and confirm drill intersections.
	The use of twinned holes.	In previous campaigns Tungsten Mining drilled four RC holes and Hazelwood Resources drilled five diamond to twin historic diamond holes and intersected similar widths and grades of tungsten mineralisation. Twin holes did demonstrate that very high grade zones were however found to be variable or nuggety.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological logging of RC holes takes place at the drilling site on "Toughbook" computers. Standardised Excel logging templates are used to capture the drill data and once validated by the supervising geologist is sent to Perth office. Data is 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.*	Tungsten Mining drillhole collar locations were picked-up by a licenced surveyor using an RTK GPS accurate to +/- 10mm North +/- 10mm East and +/- 15mm RL.
	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 metres.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Drill holes were generally drilled using 240 by 80 m spacing for sterilisation drilling and 40 by 40m spacing for infill drilling.
	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.	Not Applicable.
	Whether sample compositing has been applied.	For non-mineralised intervals 1 m samples were composited into 5m composite samples for RC drilling. Any anomalous composite samples will have the 1m cone split samples 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.	Interpretation of RC logging and whole-rock geochemistry confirmed that drilling orientation did not introduce any bias regarding the orientation of stratigraphy or vein orientation.

Criteria	JORC Code explanation	Commentary
		All sample numbers are generated in the site office. Once samples intervals are selected, the numbers are assigned to each sample.
Sample security	*The measures taken to ensure sample security.*	The sample number, drillhole name and sampled interval are recorded in the sampling sheets. All sample bags are properly sealed and are couriered by West Star logistics to Nagrom laboratory in Kelmscott.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Sampling techniques are consistent with industry standards. Consistency of data was validated by Tungsten Mining while loading into the database (Depth from < Depth to; interval is within hole depth, check for overlapping samples or intervals, etc.). Any data which fails the database constraints and cannot be loaded is returned for validation, etc.). Global consistency was also checked later by plotting sections using the database and reconciling assays.

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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. Tungsten Mining 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 (10,631m DD, 2,355m precollars) at Mulgine Hill in the 1970s and 1980s. Hazelwood completed 5 NQ diamond drillholes in February 2011 to twin earlier drilling. Minefields and ANZECO drilled 63 NQ/BQ diamond drillholes (7,337m DD, 1,644m precollars) at Mulgine Trench during the 1970s and 1980s. Vital Metals drilled one RC hole (149m) in 2008 and Minjar Gold drilled 28 RC holes (1856m) between 2012 to 2014 at Mulgine Trench. Tungsten Mining have conducted a thorough review of all historic drilling.
Geology	Deposit type, geological setting and style of mineralisation.	Tungsten-molybdenum mineralisation at Mt Mulgine is associated with the Mulgine Granite - a high-level leucogranite forming a 2km stock intruding the Mulgine anticline. The intrusion is associated with intense hydrothermal alteration with late stage fluids containing tungsten, molybdenum, gold, silver, bismuth and fluorite. The Hill Deposit occurs along the northern margin of the Mulgine Granite preserved in an arcuate dominantly north northeast trending trough. The main mineralised zone occurs along the upper contact of the phlogopite 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 pyritic phlogopite schist and the quartz-muscovite greisen. Overlying the main zone are multiple less continuous zones hosted by the greisenised granite. Tungsten mineralisation at Mulgine Trench is hosted by quartz-scheelite veins in mafic and ultramafic volcanics in a 100 to 180 metres thick zone that extends over 1.5 kilometres of strike. Mineralisation is open along strike and down dip and is associated with foliation parallel quartz veins generally less the 10cm in width. Strongest mineralisation is where quartz veining averages 15 – 20% of the total rock volume.
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.	All relevant data for Tungsten Mining's drilling conducted in November/December 2017 are tabulated in Appendix 1.

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Criteria	JORC Code explanation	Commentary
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 are reported for all intervals greater than 2m at 0.10% WO_3 using a lower cut-off grade 0.10% WO_3, no top cut grade and up to 3m of internal waste. Where there is significant molybdenum present (>0.05% Mo), intersections were reported using a lower cut-off grade 0.10% combined WO_3 plus Mo. WO_3 and Mo grades are reported separately for intersections. No top cut and up to 3m of internal waste was used.
	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 high-grade assays >0.5% WO_3 are reported beneath the relevant intersection. Interval waste up to 3m is included in intersections provided the adjacent zone and waste are >0.10% WO_3.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable.
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').	Drilling is generally perpendicular to the strike of mineralisation. Holes intersect mineralisation at between 70 - 90° and 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 0.10% WO_3 at Mulgine Hill 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.	**Mulgine Hill** Mineralogical and metallurgical studies on the Hill deposit showed scheelite was well liberated below 0.3mm and gave high recoveries using x-ray ore sorting, gravity separation tables and flotation. X-ray Ore sorting to remove gangue material prior to milling, gravity treatment and flotation will significantly reduce the processing plant footprint, capital and operating costs. Cleaning of the final concentrate to achieve the required grade was achieved using flotation at ambient temperature. Evidence gathered to date shows that no metallurgical problems are expected to affect the overall viability of the project. These results re-inforce the metallurgical test work completed in the 1970s and 1980s that showed that the ore as represented by the samples tested was readily concentrated to a 65% WO3 concentrate at an estimated recovery of 80%
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	Follow-up drilling of significant mineralisation generated by the December drilling program. Drilling is also planned to upgrade the existing Mineral Resource at Mulgine Hill to dominantly an Indicated status.