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tungsten mining NL

ABN 67 152 084 403

30 July 2018

ASX Announcement

High-grade tungsten results from Infill drilling at Mulgine Hill

Highlights

- Infill drilling continues to confirm high-grade zones in the Mineral Resource estimate at Mulgine Hill with better intersections of:
  - 17 metres at 0.59% WO_3 from 8 metres including 2 metres at 3.32% WO_3,
  - 23 metres at 0.33% WO_3 from 10 metres,
  - 10 metres and 7 metres at 0.86% WO_3 from 82 metres.
- Sterilisation drilling at Mulgine Hill East defined a suitable site for the proposed waste landform. This drilling has also identified tungsten-molybdenum mineralisation over 500 metres of strike and open to the east.
- Completion of 20 metre infill sections at Mulgine Hill planned for the September quarter.

Australian tungsten development company, Tungsten Mining NL (ASX: TGN) ("Tungsten Mining" or "the Company"), is pleased to report on results from drilling at the Mt Mulgine Project in the Murchison Region of Western Australia, approximately 350km north northeast of Perth.

Between the 19 February and 10 April 2018, the Company drilled 89 reverse circulation (RC) holes and four diamond holes at the Mulgine Hill Prospect and surrounding targets (Figure 1). Results from the first 75 holes were reported in the previous ASX releases on 16 February and 4 May 2018. This report announces results from the last 14 RC holes and four diamond holes.

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.

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

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Mulgine Hill

Between November 2017 and April 2018, Tungsten Mining drilled 35 RC holes to complete the 40 metre hole spacing over pit optimisations at Mulgine Hill. Holes focused on the margins of the main pit and three satellite pits (Figure 2). Four diamond holes were also drilled during this period to collect geotechnical data. Results received since the 4 May 2018 ASX release were from the last five RC holes drilled at Mulgine Hill and the four diamond holes. These results confirmed high-grade zones in the Mineral Resource estimate with better intersections of 17 metres at 0.59% WO_3 from 8 metres, 23 metres at 0.33% WO_3 from 10 metres and 7 metres at 0.86% WO_3 from 82 metres.

Results are refining the understanding of mineralisation present and will not significantly change the Mineral Resource estimate. Further infill drilling is proposed in the September Quarter to complete 20 metre infill section and on completion of this infill-drilling program, a new resource estimate will be prepared. Significant tungsten intersections received since the 4 May 2018 ASX release are listed in Table 1. A complete list of all intersections not already announced and greater than 2 metres at 0.10% WO_3 are presented in Appendix 1.

Table 1 – Significant Tungsten Mineralisation from Infill Drilling at Mulgine Hill

Mulgine Hill Drilling - Significant Tungsten Mineralisation									
Hole No	MGA Coordinates				Intersections				
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%
RC Drilling									
MMC154	6,772,240	498,060	48	-90/0	**8**	**25**	**17**	**0.59**	0.032
MMC154		Incl.			**10**	**12**	**2**	**3.32**	0.001
MMC155	6,772,216	498,086	42	-90/0	21	26	5	0.31	0.015
MMC158	6,772,132	498,101	42	-90/0	10	33	23 *	0.33	0.035
Diamond Drilling									
MMD007	6,772,059	497,705	96.1	-60/057	**73**	**76**	**3**	**1.05**	0.002
MMD007				Incl.	**75**	**76**	**1**	**2.79**	0.004
MMD007					**82**	**89**	**7**	**0.86**	0.008
MMD007				Incl.	**85**	**86**	**1**	**1.03**	0.011
MMD007				Incl.	**87**	**88**	**1**	**3.69**	0.013
MMD009	6,771,927	497,786	74.9	-50/200	19	27	8	0.22	0.005
MMD009					35	46	11	0.10	0.030
MMD010	6,772,104	497,904	57.2	-60/060	34	46	12	0.22	0.035

1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% combined WO_3, no top cut grade. All high-grade intervals greater than 1.00% WO_3 listed. Grid coordinates are MGA Zone 50.
** Contains preliminary composite samples.*

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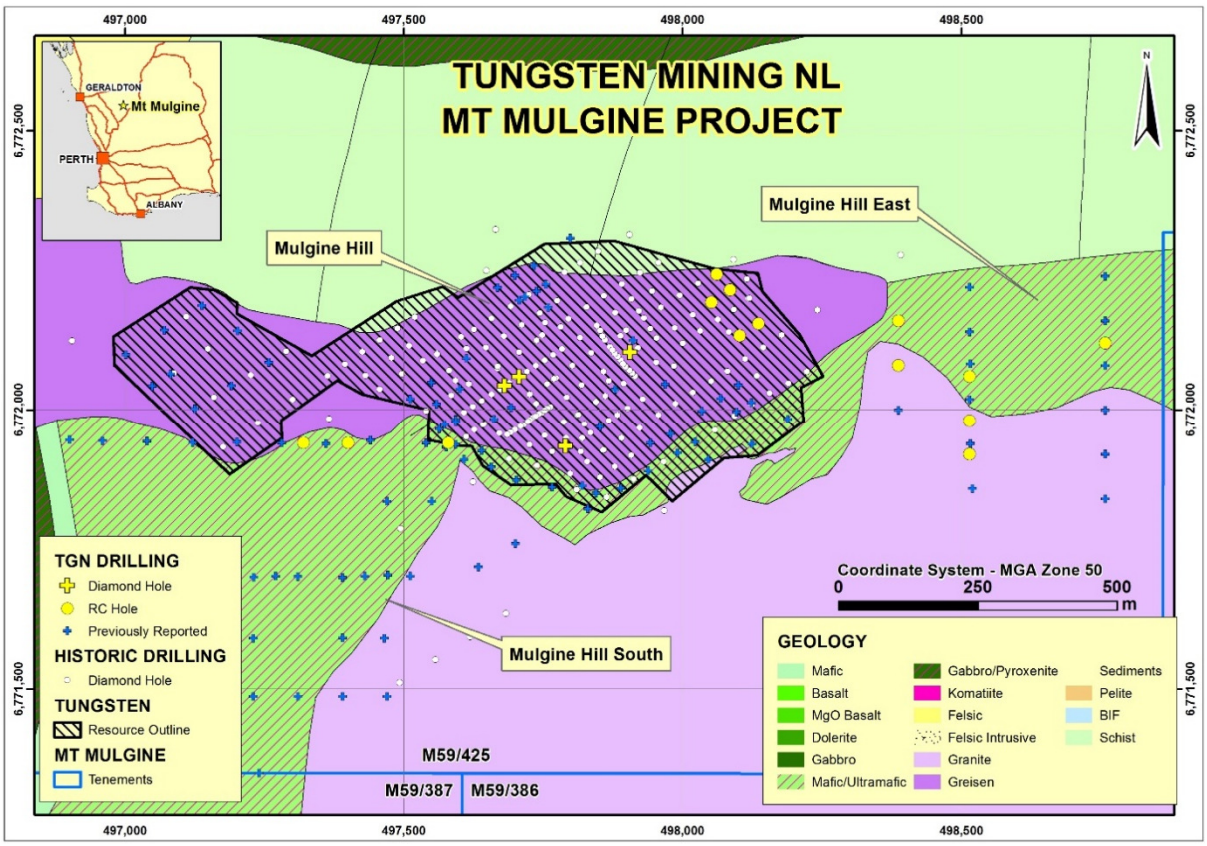

Figure 1 – Plan displaying location of drilling reported in this release (Yellow dots – RC hole, Yellow crosses – diamond hole).

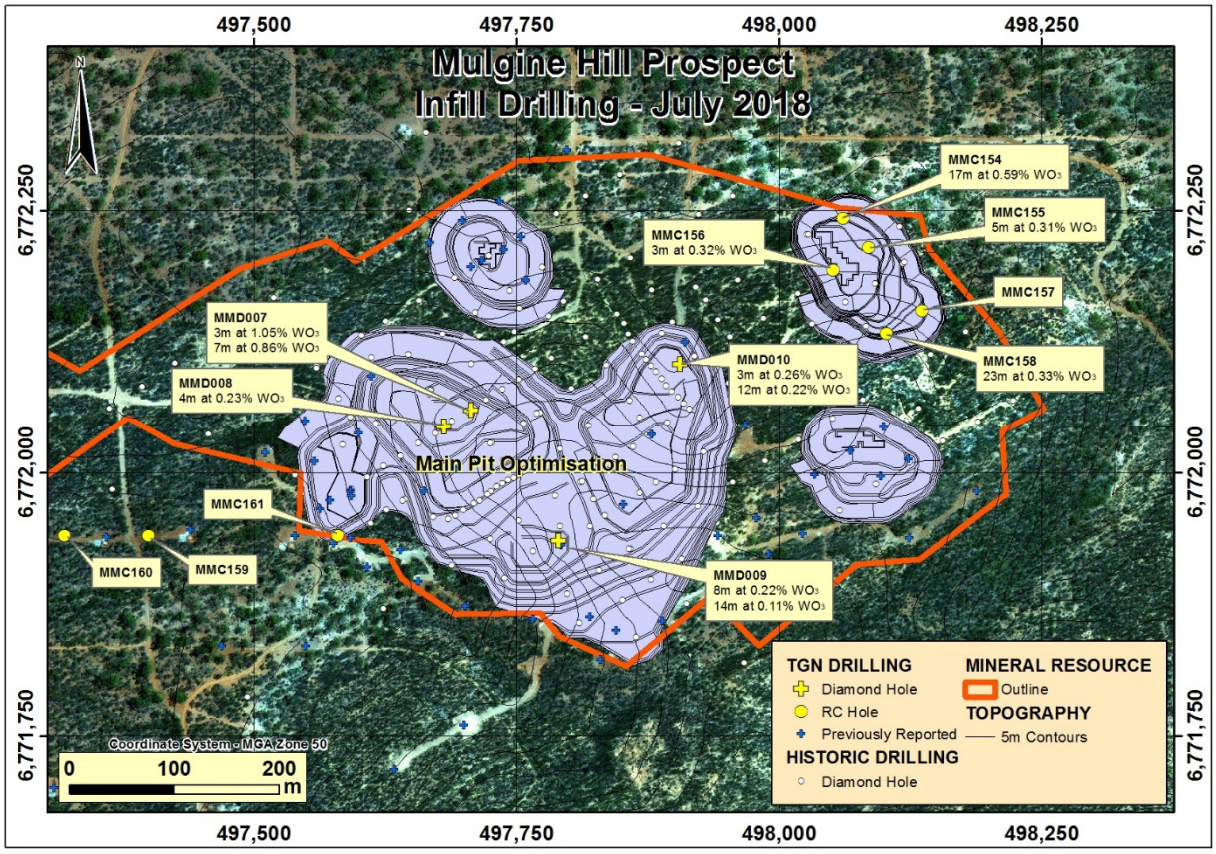

Figure 2 – Plan showing the location of significant intersections and infilling drilling at Mulgine Hill.

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Mulgine Hill South

In the December Quarter, Tungsten Mining conducted sterilisation drilling beneath a proposed waste landform immediately south of Mulgine Hill, intersecting significant tungsten-molybdenum mineralisation associated with the Mulgine Granite contact. An additional four zones of low – medium grade tungsten mineralisation were intersected west of the Mulgine Granite contact in mafic units.

A further 27 RC holes were drilled to target this tungsten-molybdenum mineralisation and across a proposed waste landform further south. Twenty four of these holes were reported in earlier ASX releases intersecting significant tungsten-molybdenum mineralisation over one kilometre of strike. Better intersections including 9 metres at 0.05% WO_3 and 0.38% Mo from 11 metres and 10 metres at 0.20% WO_3 and 0.16% Mo from 77 metres.

Results from the last three RC holes that infilled tungsten ± molybdenum mineralisation immediately south of Mulgine Hill have been received (Figure 2). The holes intersected mineralisation at target depths showing continuity to these mineralised zones (Figure 3). Better intersections are listed in Table 2 and a complete list of intersections not already announced and greater than 2 metres at 0.10% WO_3 plus Mo are listed in Appendix 1.

Table 2 – Significant Tungsten Mineralisation at Mulgine Hill South

Mulgine Hill South Drilling - Significant Tungsten-Molybdenum Mineralisation									
Hole No	MGA Coordinates				Intersections				
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%
MMC159	6,771,941	497,401	36	-90/0	22	24	2	0.29	0.010
MMC160	6,771,938	497,321	60		37	40	3	0.12	0.013
MMC161	6,771,938	497,581	78	-90/0	1	2	1	1.30	0.005
MMC161					63	68	5	0.06	0.044

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 1.00% WO_3 listed. Grid coordinates are MGA Zone 50.

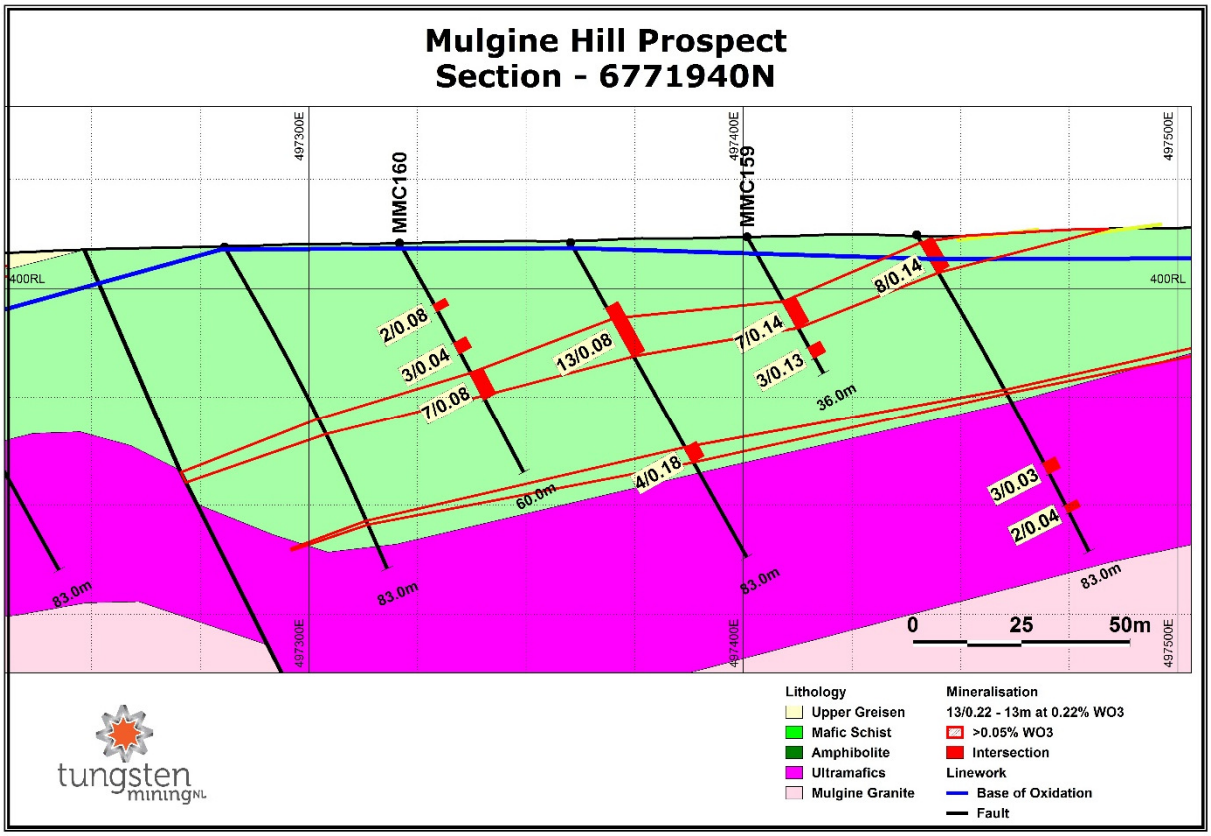

Figure 3 – Intersections greater than 0.05% WO_3 in drilling immediately south of Mulgine Hill.

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Mulgine Hill East

In December 2017, one line of RC holes was drilled beneath a potential location for a waste landform to the east of the Mulgine Hill Mineral Resource. 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.

A further 21 RC holes were drilled in 2018 on three new sections and some infill drilling. Results from the first 15 holes were reported in earlier ASX releases. This drilling intersected broad zones of tungsten-molybdenum mineralisation associated with alteration and quartz veining in mafic units similar to that at Mulgine Hill. Mineralisation dips shallowly towards the north and better results include 12 metres at 0.08% WO_3 and 0.15% Mo from 17 metres in MMC144 and 19 metres at 0.06% WO_3 and 0.13% Mo from 18 metres MMC138. Drilling indicates potential for broad zones of low to medium grade tungsten-molybdenum mineralisation over 500 metres of strike and the zone is open to the east.

Results received since the 4 May 2018 ASX release were from the last two sterilisation holes and limited Infill drilling. Sterilisation drilling has defined a suitable site for the waste landform, however additional drilling will be required to adequately define mineralisation at the eastern end of the landform.

The infill hole MMC152 was drilled up-dip from MMC143 that intersected a thick zone of molybdenum mineralisation (19 metres at 0.03% WO_3 and 0.12% Mo). This hole intersected broad zones of low-grade molybdenum ± tungsten mineralisation (best - 7 metres at 0.10% Mo).

Significant tungsten-molybdenum intersections for Mulgine Hill East drilling are listed in Table 3. A complete list of all intersections not already announced and greater than 2 metres at 0.10% WO_3 plus Mo are presented in Appendix 1.

Table 3 – Significant Tungsten Mineralisation at Mulgine Hill East

Mulgine Hill East Drilling - Significant Tungsten-Molybdenum Mineralisation									
Hole No	MGA Coordinates				Intersections				
	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO_3%	Mo%
MMC152	6,772,118	498,759	90	-60/180	54	58	4	0.01	0.163
MMC152					67	74	7	0.03	0.102

*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 1.00% WO_3 listed. Grid coordinates are MGA Zone 50. * Contains preliminary composite samples.*

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.

-ENDS-

30 July 2018

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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℃ 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 implementing a staged approach to the development of the Mt Mulgine Tungsten Project, initially focussed on a low capital start-up from Mulgine Hill, directed at demonstrating a pathway to positive cash flow and the basis for large scale mining and processing operations at Mulgine Trench.

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Appendix 1
Mt Mulgine Project - Drill Collar Data and Significant Intersections

Mulgine Hill, RC Drilling (>2m at 0.10 % WO_3) for Tungsten Mineralisation										
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 – RC Drilling										
MMC154	6,772,240	498,060	48	-90/000	**8**	**25**	**17**	**0.59**	0.032	Fresh
MMC154				**Incl.**	**10**	**12**	**2**	**3.32**	0.001	Fresh
MMC155	6,772,216	498,086	42	-90/000	**21**	**26**	**5**	**0.31**	0.015	Fresh
MMC155					31	33	2	0.10	0.035	Fresh
MMC156	6,772,191	498,049	48	-90/000	27	30	3	0.32	0.003	Fresh
MMC157	6,772,149	498,138	42	-90/000	10	15	5	0.09	0.033	Weath.
MMC157					24	29	5	0.07	0.060	Fresh
MMC158	6,772,132	498,101	42	-90/000	**10**	**27**	**17 ***	**0.39**	0.023	Weath.
MMC158	6,772,132	498,101	42	-90/000	27	33	6	0.13	0.069	Fresh
Mulgine Hill – Diamond Geotechnical Drilling										
MMD007	6,772,059	497,705	96.1	-60/057	7	12	5	0.14	0.009	Weath.
MMD007					**73**	**76**	**3**	**1.05**	0.002	Fresh
MMD007				**Incl.**	**75**	**76**	**1**	**2.79**	0.004	Fresh
MMD007					**82**	**89**	**7**	**0.86**	0.008	Fresh
MMD007				**Incl.**	**85**	**86**	**1**	**1.03**	0.011	Fresh
MMD007				**Incl.**	**87**	**88**	**1**	**3.69**	0.013	Fresh
MMD008	6,772,043	497,679	93.2	-60/237	1	3	2	0.14	0.026	Fresh
MMD008					44	46	2	0.19	0.004	Fresh
MMD008					58	62	4	0.23	0.002	Fresh
MMD008					77	79	2	0.27	0.001	Fresh
MMD009	6,771,927	497,786	74.9	-50/200	19	27	8	0.22	0.005	Weath.
MMD009					35	46	11	0.10	0.030	Fresh
MMD009					57	59	2	0.15	0.012	Fresh
MMD010	6,772,104	497,904	57.2	-60/060	16	19	3	0.26	0.005	Fresh
MMD010					**34**	**46**	**12**	**0.22**	0.035	Fresh

*1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.10% combined WO_3, no top cut grade. All high-grade intervals greater than 1.00% 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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Mulgine Hill, RC Drilling (>2m at 0.10 % WO_3 + Mo) for Tungsten-Molybdenum Mineralisation										
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 – RC Drilling										
MMC159	6,771,941	497,401	36	-60/090	22	24	2	0.29	0.010	Fresh
MMC160	6,771,938	497,321	60	-60/090	37	40	3	0.12	0.013	Fresh
MMC161	6,771,938	497,581	78	-60/090	**1**	**2**	**1**	**1.30**	0.005	Weath.
MMC161					8	10	2	0.22	0.048	Fresh
MMC161					57	60	3	0.04	0.083	Fresh
MMC161					63	68	5	0.06	0.044	Fresh
Mulgine Hill East – RC Drilling										
MMC148	6,772,077	498,387	78	-60/180	24	26	2	0.02	0.092	Fresh
MMC149	6,771,919	498,518	18	-60/180	No Significant Intersections					
MMC150	6,771,976	498,516	30	-60/180	No Significant Intersections					
MMC151	6,772,049	498,516	78	-60/180	No Significant Intersections					
MMC152	6,772,118	498,759	90	-90/000	67	74	7	0.03	0.102	Fresh
MMC152					85	87	2	0.13	0.027	Fresh
MMC153	6,772,159	498,387	76	-60/180	No Significant Intersections					

*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 1.00% 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

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 and HQ_3 diamond drilling. A total of 89 Tungsten Mining RC (6,222m) and 4 diamond (321.4m) drillholes were drilled in the latest campaign and the majority of the holes were drilled at approximately 60° perpendicular to strike. Infill drilling at Mulgine Hill were vertical. Diamond holes were drilled to intersect pit walls and would intersect stratigraphy and mineralisation at 50° - 60°.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Previous 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. The current drilling programme for Tungsten Mining drillhole collar locations were picked-up using a Hemisphere R120 DGPS with sub-metre accuracy. Certified standards were inserted into the sample sequences in according to Tungsten Mining QAQC procedures. These certified standards fell within expected ranges for tungsten (i.e. all standards fell within two standard deviations of the mean). A small number of molybdenum standards were inserted into the sample sequence. The 0.095% Mo standard fell within expected ranges, however the one 0.010% Mo standard used fell outside three standard deviations of the mean. Duplicate samples were collected to check repeatability of sampling and variability or nugget effect for tungsten and molybdenum mineralisation. Results from this QAQC sampling were considered acceptable with an R^2 value of 0.92 and 0.99 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. For HQ diamond holes the core was split using a diamond saw produce a half core sample and sampled at 1m intervals. Core was orientated and the same side of the core was submitted for analysis. One half of the cut core is left in core boxes and retained in core storage. The core that is not sampled is kept uncut. Tungsten Mining samples were submitted to Nagrom Laboratory of Kelmscott for analysis by XRF Tungsten Suite.

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Criteria	JORC Code explanation	Commentary
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 89 RC drillholes in the latest phase of drilling. RC holes depths ranged from 24 to 108 m, averaging 70 m. RC drilling used a face-sampling hammer that produced a nominal 135 – 145mm diameter hole. Tungsten Mining drilled 4 HQ3 diamond drillholes. Diamond holes were drilled from 75 to 96m, averaging 80m. Core was orientated using either an Ace Orientation tool or an OriShot Orientation tool Diamond drill and RC holes were surveyed in-rods at 30 meter intervals using a gyroscopic probe.
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. Diamond core recovery is logged and recorded in the database. No significant core loss issues exists.
	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. Diamond core was reconstructed into continuous runs for orientation marking, depths being checked against the depth marked on the core blocks and core recovery.
	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. Contamination would be minimal for dry samples. Sample recovery for diamond holes is generally very high. 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.*	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 lamped and a visual estimate of scheelite content made. The chip trays are stored in Tungsten Mining's core yard in Perth or in a sea container on site. 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 and molybdenum mineralisation and veining are made. Diamond core was geotechnically logged for recovery and RQD. Information on structure, lithology and alteration zones were recorded. All drill core is photographed in natural and UV light. Diamond core trays are stored on the site for future reference.
	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.*	All HQ diamond drill core was cut in half by an Almonte diamond saw. A half core 1m sample was placed in calico bags and sent to Nagrom the Mineral Processor for analysis.

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Criteria	JORC Code explanation	Commentary
	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 0.92 and 0.99 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. Certified standards fell within expected ranges for tungsten (i.e. all standards fell within two standard deviations of the mean). A small number of molybdenum standards were inserted into the sample sequence. The 0.095% Mo standard fell within expected ranges, however the one 0.010% Mo standard fell outside three standard deviations of the mean.
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. A visual estimate is made and recorded of molybdenite content.
	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. A further five twin holes were drilled in the current campaign. Twin holes intersected similar widths and grades of tungsten mineralisation, however they demonstrate that very high grade zones were found to be variable or nuggety.

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Criteria	JORC Code explanation	Commentary
	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 "ruggedized" computers. Standardised Excel logging templates are used to capture the drill data and once validated by the supervising geologist are 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 from previous campaigns were picked-up by a licenced surveyor using an RTK GPS accurate to +/- 10mm North +/- 10mm East and +/- 15mm RL. The current drilling programme for Tungsten Mining drillhole collar locations were picked-up using a Hemisphere R120 DGPS with sub-metre accuracy.
	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. Some infill of significant results in sterilisation drilling to 100 – 120 m line spacing was completed.
	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. Where intersections quoted in the report have preliminary composite samples included they are identified.
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. The four geotechnical diamond holes intersected were drilled at 60 to 90 degrees (or perpendicular) to 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.	Geological logging of drill core and 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 on 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. Assay results are visually compared against UV estimates for tungsten and visual estimates for molybdenum.

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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. Recent drilling by Tungsten Mining has identified significant tungsten-molybdenum mineralisation associated with the Mulgine Granite contact south of Mulgine Hill. Mineralisation is associated with quartz veining hosted by greisen and mafic units over a strike length of one kilometre and is open to the south. Tungsten Mining drilling also identified broad zones of shallow southerly dipping tungsten-molybdenum mineralisation associated with potassic alteration and veining in mafic units to the east of Mulgine Hill. Alteration and veining is similar to that at Mulgine Hill, situated close the Mulgine Granite contact and open to the east.

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Criteria	JORC Code explanation	Commentary
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 April 2018 are tabulated in Appendix 1.
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.	For prospect that are dominantly tungsten, 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. For prospects 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 >1.0% WO_3 and/or Mo 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 (or >0.10% combined WO_3 plus Mo).
	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 and Appendix 1 for drill intersections.
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 (or >0.10% combined WO_3 plus Mo) at Mt Mulgine are reported and holes with no significant mineralisation are documented in Appendix 1.

Criteria	JORC Code explanation	Commentary
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 Mulgine 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	Further infill drilling is planned to complete 20 metre spaced sections with a 40 metre hole spacing at Mulgine Hill for optimised pit shells.

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