

# Quarterly Report

December 2018

## Quarterly Report – December 2018

## Highlights

- Significant tungsten and molybdenum mineralisation identified during infill drilling program of the Mulgine Hill Mineral Resource, adding to mineralisation identified in earlier sterilisation drilling of major mine infrastructure and exploration drilling of newly defined tungsten-molybdenum mineralisation south of Mulgine Hill.
- 20 metre spaced infill drilling completed confirms continuity of high-grade zones in the Mineral Resource estimate at Mulgine Hill. Geological resource model updated and a revised Mineral Resource estimate is being finalised. Revised pit optimisations being generated from updated block model.
- Highly encouraging results from Mulgine Hill Moly Prospect intersecting multiple zones of molybdenum-tungsten mineralisation within a 100 metre wide envelope.
- Agreement to acquire Hatches Creek Project progressing In September the Company and GWR Group Ltd agreed terms for TGN to acquire NT Tungsten Pty Ltd a wholly owned subsidiary of GWR which in turn owns a 100% interest in the Hatches Creek Tungsten Project located 375 km north east of Alice Springs in the Northern Territory of Australia. Tungsten Mining is consulting with ASX in relation to a restructure of the purchase terms.
- Initial phase of Mt Mulgine Strategic review completed TGN has produced a sophisticated scenario modelling tool as part of the initial phase of its strategic review of the Mt Mulgine project with the aim of better understanding the opportunities presented by more extensive mineralisation and large scale mining and processing activities.
- Re-submission of NVCP application Requests from the regulator for additional information on the NVCP submission were promptly addressed and the NVCP application resubmitted. Subsequent to the end of the quarter, the Company has elected to withdraw its current application and will submit a revised document once additional information has been collated.
- New logo design released together with corporate communications and presentation materials being refreshed.
- Cash position The Company's cash position as at 31 December 2018 was \$37.33m.

## Commentary

TGN continues to implement its strategy directed at building a tungsten business of scale, completing the acquisition of the Watershed Project and entering into an agreement to acquire the Hatches Creek Project during 2018. The Company has now grown its resource inventory to 25.5 million MTU's (metric tonne units) of  $WO_3$  (tungsten trioxide) and a further 19,100 tonnes of Mo (molybdenum) (refer accompanying Mineral Resource Statements).

On the back of the September quarter drilling results that highlighted the more extensive nature of tungsten and molybdenum mineralisation at Mt Mulgine, TGN completed the initial phase of its strategic review of the Mt Mulgine project with the aim of better understanding the opportunities presented by more extensive mineralisation. The review, amongst other outcomes, has delivered a sophisticated scenario modelling tool that will be used to assess and inform the decision for implementing the project on the most appropriate scale of mining and processing activities that maximises the potential of the project.

It is planned to use the same tool across the entire business to inform long term project and production planning.

## **Tungsten Mining**

Tungsten Mining NL ("the Company") is focussed on the discovery and development of tungsten deposits in Australia. The Company's key projects are Mt Mulgine, Big Hill and Kilba in Western Australia and Watershed in north east Queensland.

Through exploration and acquisition, the Company has grown its resource inventory, to 25.5 million MTU's (metric tonne units) of  $WO_3$  (tungsten trioxide) and a further 19,100 tonnes of Mo (molybdenum) comprising Measured Resources of 9.5Mt at 0.16%  $WO_3$ , Indicated Resources of 55.7Mt at 0.14%  $WO_3$  and 10ppm Mo and Inferred Resources of 111.7Mt at 0.14%  $WO_3$  and 170ppm Mo at a cut-off grade of 0.05%  $WO_3$  (refer ASX announcement dated 31 July 2018 - June Quarterly Report p23). This provides the platform for the Company to become a globally significant player within the primary tungsten market through the development of low-cost tungsten concentrate production.

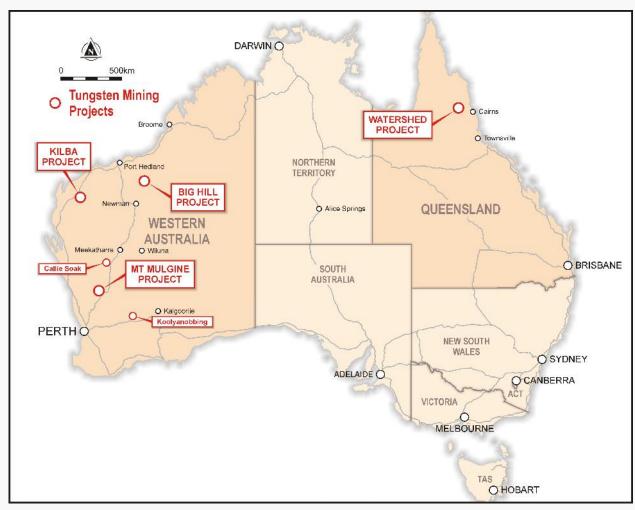


Figure 1 – Projects location map

## Mt Mulgine Project, Murchison WA

The Mt Mulgine Project remains the highest priority development project for the Company, responsible for the majority of activity during the quarter.

It is located within the Murchison Region of Western Australia, approximately 350km north northeast of Perth. The Company has 100% of the tungsten and molybdenum rights on a contiguous group of tenements that have been the subject of significant previous exploration for tungsten and molybdenum.

Two near surface Mineral Resources have been delineated at the Mulgine Trench and Mulgine Hill deposits. Currently, there is a combined Mineral Resource estimate of 70.8Mt at 0.18% WO $_3$  and 230ppm Mo (0.10% WO $_3$  cutoff) comprising Indicated Resources of 4.5Mt @ 0.24% WO $_3$  and 120ppm Mo and Inferred Resources of 66.4Mt @ 0.17% WO $_3$  and 240ppm Mo.

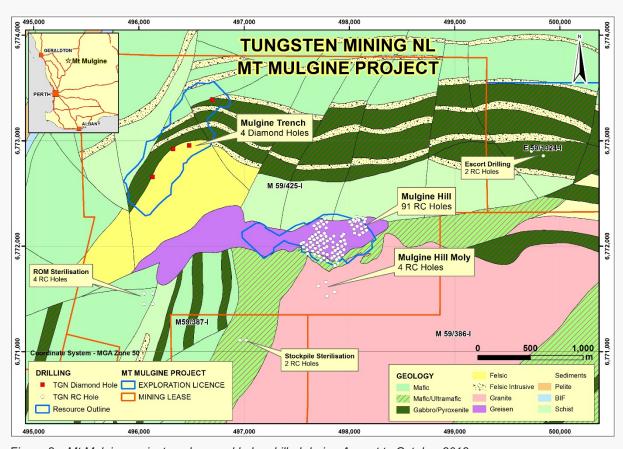


Figure 2 – Mt Mulgine project geology and holes drilled during August to October 2018.

## Mt Mulgine Development Plan

#### **December Quarter Activities**

For the December quarter, work was focussed on the following major activities:

- Updated the geological resource model following completion of infill drilling program;
- Commenced revised pit optimisations, pit designs and mining schedules based on the updated resource model;
- Completed a review of the Mt Mulgine project that produced a modelling tool to help assess and inform the decision for implementing the project on the most appropriate scale of mining and processing activities;
- Completed metallurgical recovery of scheelite concentrate from bulk sample for marketing purposes, to be made available to potential offtake partners;
- Completed additional flora survey as requested by DMIRS and re-submitted NVCP application;

X

Continued R&D test work on the recovery of tungsten from the oxide layer of the Mt Mulgine deposit;



Continued review of historic drilling, geological interpretation and metallurgical test work on the Trench resource;



Granted 2 miscellaneous licenses, L59/161 and L59/162 that will enable the construction of access roads into the plant site and proposed accommodation facility respectively; and



Completed Factory Acceptance Testing (FAT) for ore sorting machines at Tomra's facilities in NSW.

#### Planned Activities - March Quarter

The major activities planned for the March quarter will be to;



Complete and review revised pit optimisations, pit designs and mining schedules based on the updated resource model:



Implement the findings of the Mt Mulgine strategic review;



Re-submit revised NVCP application, Mining Proposal and Works Approval documents;



Receive all regulatory approvals for the Mulgine Hill project;



Provide tungsten concentrate marketing samples to potential off take partners; and



Continue R&D test work on the recovery of tungsten from the oxide layer of the Mt Mulgine deposit.

#### Strategic Review - Large Scale Mining and Processing operations

The far greater extent of tungsten and molybdenum mineralisation at Mt Mulgine identified during the recent drilling programs necessitated the Company to engage a specialist resource consultant to undertake a strategic review of the entire Mt Mulgine project to better understand the opportunities that this represents.

The review, amongst other outcomes, has delivered a sophisticated scenario modelling tool that will be used to assess and inform the decision for implementing the project on the most appropriate scale of mining and processing activities.

This work was completed concurrent with the resource upgrade and re-optimisation of the Mulgine Hill project, and is directed at ensuring the maximum value can be derived from the Mt Mulgine Project over the long term.

Whilst the initial focus of the strategic review was specific to the Mt Mulgine Project, it is also planned that the scope of the review, including the use of the scenario modelling tool, will extend to an assessment of other projects held in the Company's portfolio to assist in ranking and developing a comprehensive project development pipeline.

A revised schedule will be determined as a component of the development activities and strategic review described above.

## Geology and Resource

#### **Mulgine Hill**

At Mulgine Hill, mineralisation is associated with the sub-horizontal upper contact of a mafic schist unit and overlying quartz-muscovite greisen. Tungsten occurs as scheelite in coarse disseminations within the greisen or within numerous quartz and greisen veins in both the mafic schists and the quartz-muscovite greisen.

#### Resource Update - June 2017

In the June 2017 quarter, specialist Mineral Resource consultants, Optiro Pty Ltd were engaged to update the Mulgine Hill Mineral Resource estimate. Two new components were added to the 2017 Mineral Resource estimate, comprising the introduction of a high-grade sub-domain for the Main Zone and a Mineral Resource reporting constraint addressing the prospects for eventual economic extraction.

The Mineral Resource estimate for Mulgine Hill as of 30 June 2017 is 7,100,000 tonnes at 0.23% WO<sub>3</sub> and 98 ppm Mo (Refer to ASX announcement dated 28 July 2017).

## November 2017 to April 2018 Drilling Program

Between 29 November 2017 and 11 April 2018, Tungsten Mining drilled a total of 126 RC holes for 8,938 metres and four HQ diamond holes for 321.4 metres at the Mt Mulgine Project. The objectives of this drilling program were to complete 40 metre drill spacing over optimised pits at Mulgine Hill and sterilisation drilling across proposed waste landforms locations. Diamond drilling was also completed to collect data and material for geotechnical studies associated with Mulgine Hill pit designs.

The results of the drilling program were reported to ASX on 16 February, 4 May and 30 July 2018.

#### September 2018 Quarter Drilling

Between the 27 August and 5 October 2018, Tungsten Mining drilled 91 RC holes for 5,195 metres to complete 20 metre infill sections over pit optimisations at Mulgine Hill. Holes focused on the proposed main pit and two proposed satellite pits. Results from the first 92 holes were received in the September quarter and reported in an ASX announcement dated 30 October 2018. Results from this drilling continue to confirm continuity of high-grade mineralisation including intersections of 31 metres at 0.34% WO<sub>3</sub> from 17 metres, 14 metres at 3.85% WO<sub>3</sub> from 45 metres and 18 metres at 1.61% WO<sub>3</sub> from 54 metres.

Drilling has also identified additional new zones of significant mineralisation as follows:



High-grade tungsten - molybdenum mineralisation in the footwall greisen beneath the Main pit that requires further drilling to define geometry and grade.



Thick zones of low – medium grade tungsten ± molybdenum mineralisation intersected that is open to the north and east of the Mineral Resource.



Multiple zones of low-medium grade tungsten molybdenum mineralisation in the upper greisen.

Results from the final 11 holes from this programme were received during the quarter (refer ASX announcement dated 18 January 2019). These holes tested the following:



Two holes completed the 20 metre spaced sections at Mulgine Hill.



First pass drilling of Mulgine Hill Moly Prospect.



Completion of sterilisation drilling of the low-grade stockpile and Run of Mine (ROM) pad.

Interpretation of drilling completed since the June 2017 Mineral Resource estimate has been completed and a revised Mineral Resource estimate for Mulgine Hill is being prepared and will be reported in the March quarter.

At Mulgine Hill Moly Prospect, drilling was highly encouraging intersecting multiple zones of molybdenum-tungsten mineralisation within a 100 metre wide envelope. Better intersections are listed in Table 1 and displayed in Figure 3.

Table 1 – Better molybdenum-tungsten intersections from RC drilling at Mulgine Hill Moly Prospect.

Mulgine	Mulgine Hill South Drilling - Significant Molybdenum - Tungsten Mineralisation (at 0.05% WO₃ + Mo lower cut off)								
MGA Coordinates Intersect			Intersection	ons					
Hole No	Northing (m)	Easting (m)	Depth (m)	Dip/ Azim	From (m)	To (m)	Interval (m)	WO <sub>3</sub> %	Mo%
MMC261	6,771,564	497,858	180	-60/237	55	61	6	0.13	0.201
MMC261					88	93	5	0.04	0.222
MMC262	6,771,524	497,785	108	-60/237	0	22	22	0.06	0.218
MMC263	6,771,657	497,777	156	-60/237	23	39	16	0.14	0.045
MMC263					80	84	4	0.18	0.062
MMC264	6,771,619	497,704	102	-60/237	21	27	6	0.04	0.215
MMC264					89	91	2	0.19	0.175

1m cone split RC samples. Analysis is XRF determination by Nagrom laboratories, Kelmscott WA. Lower cut-off grade 0.05% combined WO<sub>3</sub> plus Mo, no top cut grade. All high-grade intervals greater than 1.00% WO<sub>3</sub> listed. Grid coordinates are MGA Zone 50.

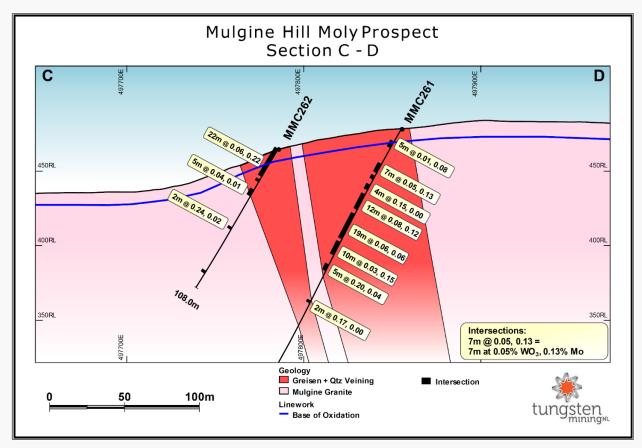


Figure 3 – Multiple molybdenum-tungsten intersections at Mulgine Hill Moly Prospect. Red outlines define zones of quartz veining and greisen.

#### **Mulgine Trench**

Tungsten mineralisation at Mulgine Trench is hosted by quartz-scheelite veins in mafic and ultramafic volcanics in a 100 to 250 metre 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 than 10 centimetres in width. Mineralisation is strongest where quartz veining averages 15 – 20% of the total rock.

During August 2016, the Company drilled 9 RC holes for 476 metres at Mulgine Trench to test tungsten mineralisation adjacent to and beneath the Bobby McGee pit. Results from this drilling were extremely encouraging, intersecting substantial thicknesses of tungsten mineralisation (i.e. 72 metres at 0.16% WO<sub>3</sub> and 0.02% Mo from surface in MMC030) and molybdenum mineralisation (40 metres at 0.08% WO<sub>3</sub> and 0.12% Mo from surface in MMC028).

During the December quarter, geological logging and sampling of four  $PQ_3$  diamond holes drilled in the September 2018 quarter was completed. The Trench deposit has several metallurgical domains and this core will be used to conduct metallurgical test work to identify the optimal recovery process for both tungsten and molybdenum.

## Development - Mt Mulgine

#### **Metallurgical Testwork**

#### Oxide/Weathered Layer R&D

The R&D test work program to recover tungsten from the oxide/weathered zone continued in the December quarter.

Samples collected from the recent reverse circulation (RC) drilling program underwent HLS test work and mineralogical analysis to identify mineral types that will be amenable to gravity concentration. The results from this work are still outstanding. This data will contribute towards forming a geo-metallurgical map of the Mt Mulgine oxide layer. This will identify areas of the oxide layer where tungsten minerals can be economically extracted and included in future resource modelling.

A Federal Government (co-funding) grant application was submitted by Tungsten Mining to support further R&D work on the oxide ore. A scope of work for this will be issued pending the HLS work outlined above.

The Geological Survey of Western Australia (GSWA) has accepted a proposal for Hyperspectral Scanning of the recently drilled PQ diamond core. This work will be completed in the March quarter of 2019 and will provide a good understanding of mineral associations in both the oxide, transitional and fresh rock. A total of 530 meters of core will be submitted to GSWA.

#### **Bulk Concentrate**

The production of the bulk scheelite concentrate for marketing purposes has been completed. A total of 10kg of a 55% tungsten concentrate and 4 kg of a 65% tungsten concentrate were produced. These samples will be sent to prospective customers for test work in the period ahead.

Filtration and drying of the sulphide and tungsten concentrate is planned to be completed in the next quarter. This will allow for definition of performance guarantees on the dewatering equipment required in the process plant.

#### **Regulatory Submissions**

As reported previously (refer ASX Announcement dated 16 November 2018), the Company was working with its environmental advisers to respond to matters raised by the regulatory bodies in response to the Company's Native Vegetation Clearing Permit (NVCP) application to support its re-submission. Additionally, the Company's Mining Proposal and Works Approval require the assessment process for the NVCP to be completed prior to advancing. Details on the status of those submissions were described in the aforementioned announcement.

In late October Tungsten Mining received feedback from the Department of Mines, Industry Regulation and Safety (DMIRS) in relation to its NVCP application. In response the Company initiated further flora surveys to address the principle concerns with the proposed clearing and resubmitted the NVCP application in mid-December. To facilitate a greater level of stakeholder consultation and complete any additional biological surveys that may reasonably be required to enable the final assessment and approval, the Company has elected to withdraw its current application and submit a revised document once additional information has been collated.

Whilst the Company is confident of being able to address the remaining concerns promptly - to allow a re-submission of its application, the requirement for, and timing of, any additional surveys may also be influenced by seasonal factors. As such, the project schedule and Mulgine Hill development plan will be updated once the approval process has concluded.

#### **Mulgine Trench Development Plan**

A review of the historic drilling, geological interpretation and metallurgical test work on the Trench resource continued into the December quarter. Development of the large Trench deposit will enable the long-term production of concentrate at Mt Mulgine.

This review forms part of the broader review extending to an assessment of other projects held in the Company's portfolio to assist in ranking and developing a comprehensive project development pipeline and formalising the level and scope of future feasibility studies.

## Other Projects

## Watershed Project, Far North, Queensland

On 1 May 2018 the Company and Vital Metals Limited (Vital) executed a binding term sheet for TGN to acquire a 100% interest in the Watershed Tungsten Project located in far north Queensland for a cash consideration of \$15m. Following completion of due diligence and preparation of formal transaction documents, the parties executed a formal Sale Agreement to give effect to the transaction contemplated by the term sheet. Completion of the transaction occurred on 9 August 2018.

Watershed is located 130km north of Cairns in a mining friendly jurisdiction, with granted Mining Leases and an Environmental Authority for an open-pit development. Vital completed a Definitive Feasibility Study (DFS) for the project in 2014.

The Watershed Project substantially adds to Tungsten Mining's global resource inventory and boasts a JORC 2012 Mineral Resource Estimate of 49.3Mt grading 0.14% WO<sub>3</sub> comprising Measured Resources of 9.5Mt at 0.16% WO<sub>3</sub>, Indicated Resources of 28.4Mt at 0.14% WO<sub>3</sub> and Inferred Resources of 11.5Mt at 0.15% WO<sub>3</sub> at a cut-off grade of 0.05% WO<sub>3</sub> (refer ASX announcement dated 31 July 2018 - June Quarterly Report p23).

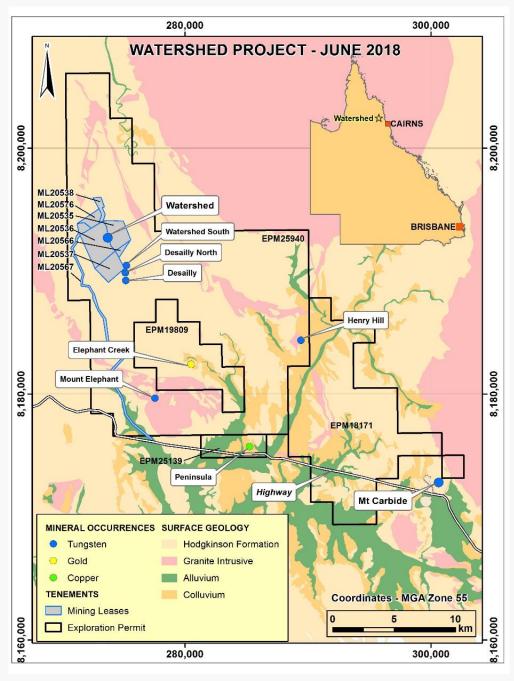


Figure 4 - Watershed Project location map

## Big Hill Project, Eastern Pilbara, WA

The Big Hill Project area is located approximately 30km northeast of the Nullagine township in the Eastern Pilbara of Western Australia. The project contains the Big Hill deposit where 22,871 metres of diamond and RC drilling have defined a JORC-2012 Mineral Resource estimate totalling 11.5Mt at 0.15% WO<sub>3</sub> (0.10% WO<sub>3</sub> cut-off) comprising an Indicated Resource of 6.2Mt at 0.16% WO<sub>3</sub> and an Inferred Resource of 5.3Mt at 0.13% WO<sub>3</sub>.

Metallurgical test work conducted on samples from Big Hill at bench and pilot scale has produced high quality tungsten concentrates at acceptable scheelite recoveries. This work has identified a simple and potentially low cost processing route.

Retention License R46/003 was granted in April 2017. There are no planned activities for the Big Hill Project in the next quarter.

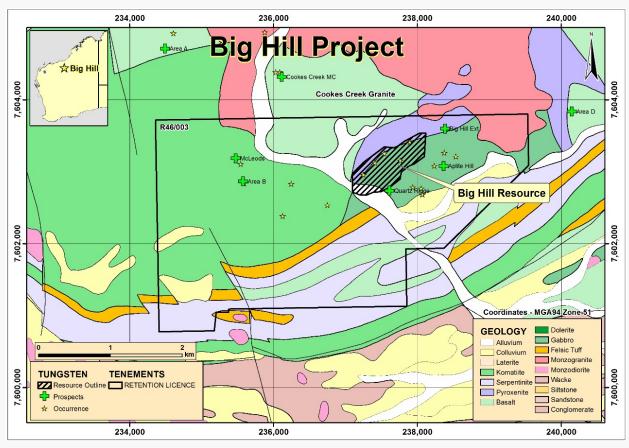


Figure 5 – Big Hill project geology

## Kilba Project, Ashburton Region, WA

The Kilba Project is located within the Ashburton Region of Western Australia, 250km southwest of Karratha. To date, Tungsten Mining has focused on the historic Zones 8, 11 and 12 that Union Carbide discovered in the 1970s. Drilling has targeted high-grade tungsten mineralisation associated with skarns and calc-silicate units situated close to the Kilba granite.

This work has defined a JORC-2012 compliant Mineral Resource totalling 5.0Mt at 0.24% WO<sub>3</sub> (0.10% WO<sub>3</sub> cut-off) comprising an Indicated Resource of 4.1Mt at 0.25% WO<sub>3</sub> and an Inferred Resource of 0.8Mt at 0.20% WO<sub>3</sub>.

Metallurgical test work shows that the tungsten is present as coarse-grained scheelite that will respond well to conventional gravity separation. Test work completed in 2015 has demonstrated the ability to produce an extremely high grade tungsten concentrate.

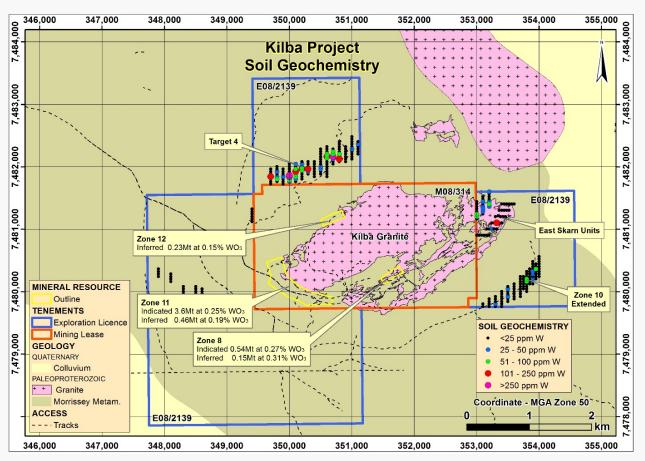


Figure 6 – plan displaying location of recent soil geochemistry and Mineral Resource at the Kilba Project

In May 2017, DMIRS approved a 5 year exemption from expenditure for M08/314 pursuant to the Mining Act. Work was undertaken during the quarter in relation to rehabilitation of the Company's exploration infrastructure and sample storage at Kilba.

## Other Projects, Regional WA

Tungsten Mining has a portfolio of other projects in Western Australia prospective for tungsten. These include the Koolyanobbing and Callie Soak projects. Work on these projects is in the initial stages of reconnaissance and target generation and it is hoped that these tenements will yield additional mineralisation, that Tungsten Mining can exploit.

## Corporate

#### **Agreement to Acquire Hatches Creek Tungsten Project**

On 3 September 2018 the Company announced that it had agreed the terms with GWR Group Limited (ASX: GWR) ("GWR") for the acquisition of the Hatches Creek Tungsten Project.

GWR has reported that it successfully completed RC drilling programs in 2016 and 2017, which confirmed multiple high-grade polymetallic tungsten prospects and demonstrated potential for a large high-grade polymetallic tungsten deposit. Further details on the Hatches Creek Project, including GWR's Exploration Target Estimate for the project, are set out in GWR's ASX announcement dated 17 July 2018 and in the June Quarter Activities Report released by GWR on 31 July 2018.

On 25 October 2018 the Company announced that following consultation with ASX the Company has been advised that the transaction as currently structured, purchase by way of cash consideration of \$8.68m, cannot proceed. GWR and TGN remain committed to implement a transaction to enable TGN to invest in the Hatches Creek Tungsten Project and have agreed to negotiate in good faith such amendments as may be required. TGN have continued to consult with ASX over the quarter in relation to a restructure of the purchase terms. The Company will update the market once the revised terms have been agreed.

#### **Tungsten Pricing**

Global tungsten prices (by reference to price quotations for European ammonium paratungstate – APT) remained weaker during the December quarter after having made a sustained recovery through 2018 that reached four-year highs in June. Tungsten prices have started 2019 lower with soft demand from the cemented carbide sector. Environmental inspections in China and increased activity post the luna new year holiday in February are expected to deliver some support for prices.

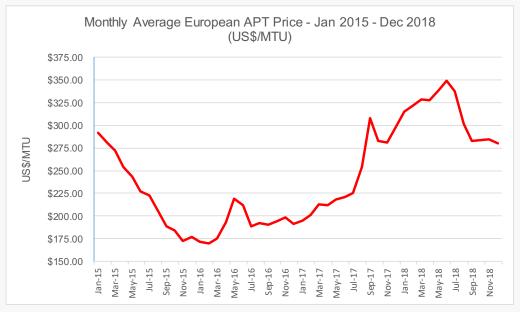


Figure 7 – APT Price (source: Metal Bulletin, Argus)

#### Other

The Company's cash position as at 31 December 2018 was \$37.33m.

## For further information:

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#### **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.

The information in this report that relates to Mineral Resources at Mt Mulgine, Big Hill and Kilba are extracted from the reports titled 'Kilba Mineral Resource Update' released to the Australian Securities Exchange (ASX) 30 January 2015, 'June 2016 Mineral Resource Update and Core Sampling' released to the ASX on 24 June 2016, and the report titled 'Mulgine Hill Resource Update' released to the ASX on 28 July 2017, all are available to view at <a href="https://www.tungstenmining.com">www.tungstenmining.com</a>. The information in this report that relates to Mineral Resource at Watershed is extracted from the report titled 'Watershed Mineral Resources Restatement JORC Code (2012)' released to the ASX on 4 July 2018 by Vital Metals Limited. Since the June 2017 estimate, Tungsten Mining have drilled an additional 113 RC and four diamond holes into the Mulgine Hill Mineral Resource. Interpretation of all new data is proceeding and a revised estimate will be released in the March 2019 quarter. 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 announcements 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**

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<sub>4</sub>) and scheelite (CaWO<sub>4</sub>).

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 four 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 and the Watershed Project in north east Queensland.

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.



## **Tenement Summary**

Tenement Name	Tenement	Interest held at 30 September 2018	Interest acquired/ disposed of during quarter	Interest Held at 31 December 2018
Kilba Well	E08/2139	100%	N/A	100%
Kilba Well	M08/314	100%	N/A	100%
Kilba Well	E08/2780	0%	100%	100%
Koolyanobbing*	E77/2279	100% mineral rights for tungsten, 20% for other commodities	N/A	100% mineral rights for tungsten, 20% for other commodities
Callie Soak	E20/854	100%	N/A	100%
Mt Mulgine**	E59/1324-I	100% mineral rights for tungsten and molybdenum	N/A	100% mineral rights for tungsten and molybdenum
Mt Mulgine**	M59/386-I	u	N/A	ш
Mt Mulgine**	M59/387-I	ш	N/A	ш
Mt Mulgine**	M59/425-I	ш	N/A	ш
Mt Mulgine	L59/161	0%	N/A	100%
Mt Mulgine	L59/162	100%	N/A	100%
Big Hill	L46/70	100%	N/A	100%
Big Hill	R46/3	100%	N/A	100%
Watershed	ML20535	0%	100%	100%
Watershed	ML20536	0%	100%	100%
Watershed	ML20537	0%	100%	100%
Watershed	ML20538	0%	100%	100%
Watershed	ML20566	0%	100%	100%
Watershed	ML20567	0%	100%	100%
Watershed	ML20576	0%	100%	100%
Watershed	EPM25102	0%	100%	100%
Watershed	EPM18171	0%	100%	100%
Watershed	EPM25940	0%	100%	100%
Watershed	EPM19809	0%	100%	100%
Watershed	EPM25139	0%	100%	100%

<sup>\*</sup> This tenement is held by Lithium Australia NL and subject to the terms of the Seabrook Rare Metals Venture

<sup>\*\*</sup> Certain Mt Mulgine tenements are registered in the name of Minjar Gold Pty Ltd with Mid-West Tungsten Pty Ltd (MWT), a subsidiary of Tungsten Mining NL being the holder of the Tungsten and Molybdenum Mineral Rights. MWT is the registered holder of Miscellaneous Licenses L59/161 and 162.

## Tungsten Mining NL - Resource Inventory at 0.10% WO<sub>3</sub> Cut-Off

Class	Tonnes	Grade WO₃%	Metric Tonne Units	Mo (ppm)	Contained Mo Tonnes
Mulgine Trend	ch (October 2014)	1			
Measured	-	-	-	-	-
Indicated	400,000	0.14	50,000	400	150
Inferred	63,400,000	0.17	10,930,000	250	15,600
Total	63,700,000	0.17	10,980,000	250	15,700
Mulgine Hill (	June 2017) <sup>2</sup>				
Measured	-	-	-	-	-
Indicated	4,100,000	0.25	1,030,000	90	400
Inferred	3,000,000	0.19	570,000	110	300
Total	7,100,000	0.23	1,630,000	98	700
Mt Mulgine (T	otal)				
Measured	-	-	-	-	-
Indicated	4,500,000	0.24	1,080,000	120	500
Inferred	66,400,000	0.17	11,500,000	240	15,900
Total	70,800,000	0.18	12,620,000	230	16,400
Watershed (Ju	uly 2018) <sup>3</sup>				
Measured	4,400,000	0.25	1,110,000	-	-
Indicated	11,500,000	0.24	2,760,000	-	-
Inferred	4,700,000	0.26	1,230,000	-	-
Total	20,700,000	0.25	5,070,000	-	-
Big Hill (June	2016) 4				
Measured	-	-	-	-	-
Indicated	6,200,000	0.16	980,000	-	-
Inferred	5,300,000	0.13	700,000	-	-
Total	11,500,000	0.15	1,670,000	-	-
Kilba (January	y 2015) <sup>5</sup>				
Measured	-	-	-	-	-
Indicated	4,100,000	0.25	1,040,000	-	-
Inferred	840,000	0.20	170,000	-	-
Total	5,000,000	0.24	1,210,000	-	-
Total Resourc	e Inventory				
Measured	4,400,000	0.25	1,110,000	0	0
Indicated	26,300,000	0.22	5,860,000	20	500
Inferred	77,200,000	0.18	13,600,000	210	15,900
Total	107,900,000	0.19	20,570,000	152	16,400

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.

- 1. Refer ASX (HAZ) Announcement 5 November 2014, "Hazelwood continues to increase tungsten resource".
- 2. Refer ASX (Tungsten Mining) Announcement 28 July 2017, "Mulgine Hill June 2017 Mineral Resource Update".
- 3. Refer ASX (Vital Metals) Announcement 4 July 2018, "Watershed Mineral Resources Restatement JORC Code (2012)".
- 4. Refer ASX (Tungsten Mining) Announcement 23 June 2016, "Big Hill June 2016 Mineral Resource Update".
- 5. Refer ASX (Tungsten Mining) Announcement 30 January 2015, "Kilba Mineral Resource Update".

## Tungsten Mining NL - Resource Inventory at 0.05% WO<sub>3</sub> Cut-Off

Class	Tonnes	Grade WO₃%	Metric Tonne Units	Mo (ppm)	Contained Mo Tonnes
Mulgine Trench	(October 2014) <sup>1</sup>	_		_	
Measured	-	-	-	-	-
Indicated	400,000	0.14	50,000	400	150
Inferred	71,300,000	0.16	11,610,000	250	17,900
Total	71,700,000	0.16	11,660,000	250	18,100
Mulgine Hill (Ju	ine 2017) <sup>2</sup>				
Measured	-	-	-	-	-
Indicated	5,400,000	0.21	1,130,000	90	500
Inferred	4,800,000	0.14	670,000	130	600
Total	10,200,000	0.18	1,810,000	100	1,000
Mt Mulgine (Tot	tal)				
Measured	-	-	-	-	-
Indicated	5,800,000	0.21	1,190,000	110	600
Inferred	76,100,000	0.16	12,280,000	240	18,600
Total	81,900,000	0.16	13,470,000	230	19,100
Watershed (Jul	y 2018) <sup>3</sup>				
Measured	9,500,000	0.16	1,520,000	-	-
Indicated	28,400,000	0.14	3,970,000	-	-
Inferred	11,500,000	0.15	1,720,000	-	-
Total	49,300,000	0.14	7,040,000	-	-
Big Hill (June 2	016) <sup>4</sup>				
Measured	-	-	-	-	-
Indicated	15,800,000	0.11	1,680,000	-	-
Inferred	22,700,000	0.09	1,930,000	-	-
Total	38,500,000	0.09	3,620,000	-	-
Kilba (January	2015) <sup>5</sup>				
Measured	-	-	-	-	-
Indicated	5,700,000	0.20	1,150,000	-	-
Inferred	1,500,000	0.15	220,000	-	-
Total	7,200,000	0.19	1,370,000	-	-
Total Resource	Inventory				
Measured	9,500,000	0.16	1,520,000	-	-
Indicated	55,700,000	0.14	7,980,000	10	600
Inferred	111,700,000	0.14	16,150,000	170	18,600
Total	176,900,000	0.14	25,500,000	110	19,100

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.

- 1. Refer ASX (HAZ) Announcement 5 November 2014, "Hazelwood continues to increase tungsten resource".
- 2. Refer ASX (Tungsten Mining) Announcement 28 July 2017, "Mulgine Hill June 2017 Mineral Resource Update".
- 3. Refer ASX (Vital Metals) Announcement 4 July 2018, "Watershed Mineral Resources Restatement JORC Code (2012)".
- 4. Refer ASX (Tungsten Mining) Announcement 23 June 2016, "Big Hill June 2016 Mineral Resource Update".
- 5. Refer ASX (Tungsten Mining) Announcement 30 January 2015, "Kilba Mineral Resource Update".

+Rule 5.5

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## Appendix 5B

## Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

### Name of entity

Tungsten Mining NL

ABN

Quarter ended ("current quarter")

67 152 084 403

31 December 2018

Cor	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	45
1.2	Payments for		
	(a) exploration & evaluation	(2,083)	(3,825)
	(b) development	-	-
	(c) production		-
	(d) staff costs	(76)	(108)
	(e) administration and corporate costs	(537)	(966)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	202	311
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(2,494)	(4,543)

2.	Cash flows from investing activities		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(1,679)	(1,709)
	(b) tenements (see item 10)	-	-
	(c) investments (see note 4)	(168)	(14,908)
	(d) other non-current assets	-	-

<sup>+</sup> See chapter 19 for defined terms

1 September 2016

Con	solidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (security deposit)	(156)	(168)
2.6	Net cash from / (used in) investing activities	(2,003)	(16,785)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	-	25,438
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	422
3.4	Transaction costs related to issues of shares, convertible notes or options	(2)	(1,332)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings		
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(2)	24,528

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	41,829	34,130
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,494)	(4,543)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,003)	(16,785)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(2)	24,528
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	37,330	37,330

<sup>+</sup> See chapter 19 for defined terms 1 September 2016

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5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,647	11,273
5.2	Call deposits	34,683	30,556
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	37,330	41,829

6.	Payments to directors of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	115
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Payments to Directors for fees and consulting.

7.	Payments to related entities of the entity and their associates	Current quarter \$A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	198
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

Payments to associate entity GWR Group Limited for management and technical services and the reimbursement of expenses incurred by GWR Group on behalf of the Company.

8.	Financing facilities available Add notes as necessary for an understanding of the position	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	-	-
8.3	Other (please specify)	-	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

1 September 2016 Page 3

<sup>+</sup> See chapter 19 for defined terms

9.	Estimated cash outflows for next quarter	\$A'000
9.1	Exploration and evaluation	1,000
9.2	Development	-
9.3	Production	-
9.4	Staff costs	150
9.5	Administration and corporate costs	450
9.6	Other (Including asset acquisition related costs)	1,800
9.7	Total estimated cash outflows (see note 5)	3,400

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced				
10.2	Interests in mining tenements and petroleum tenements acquired or increased	L59/161	acquired	0%	100%

## **Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: Date: 25 January 2019 (Chief Executive Officer)

Print name: Craig Ferrier

1 September 2016

#### **Notes**

- The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
- 2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
- 3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
- 4. Year to date cash consideration includes \$14.74m, representing the purchase price of \$15m less agreed completion adjustments for the acquisition of the Watershed Tungsten Project from Vital Metals Ltd.
- 5. The estimated cash outflows for the next quarter include forecast expenditures related to the development of the Mt Mulgine Tungsten Project, the timing of which will vary from quarter to quarter.

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<sup>+</sup> See chapter 19 for defined terms