

17 JANUARY 2019

## THOR MINING PLC

Registered Numbers:  
United Kingdom 05276 414  
Australia 121 117 673

Registered Office:  
58 Galway Avenue  
MARLESTON, SA, 5035  
Australia

Ph: +61 8 7324 1935  
Fx: +61 8 8351 5169

Email:  
corporate@thormining.com

Website:  
[www.thormining.com](http://www.thormining.com)

Twitter  
[@ThorMining](https://twitter.com/ThorMining)

Enquiries:  
Mick Billing  
Executive Chairman  
Thor Mining PLC  
+61 8 7324 1935

Nominated Advisor  
Colin Aaronson  
Grant Thornton  
+44 (0) 20 7383 5100

AIM & ASX Listings:  
Shares: THR

Directors:  
Michael Billing  
Richard Bradey  
Mark Potter

### Key Projects:

- **Tungsten**  
*Molyhil NT*  
*Pilot Mountain USA*
- **Copper**  
*Kapunda SA*  
*Moonta SA*

## Company Announcements Office

ASX Securities Limited,  
20, Bridge Street,  
Sydney, N.S.W. 2000

### GOLD, NICKEL & CHROME - PILBARA SAMPLE ASSAYS

The Board of Thor Mining Plc ("Thor") (AIM, ASX: THR) is pleased to advise gold, nickel, and chromium assays from preliminary geochemistry reconnaissance at its 100% owned Pilbara Goldfield tenements (E46/1262 and E46/1190) in Western Australia.

The program comprised stream sediment samples from 44 sites located to provide a broad coverage across the tenements. Initial gold panning provided strong evidence of gold prospectivity. Subsequent laboratory assay results now to hand provide further support for the gold potential in addition to identifying nickel and chrome potential of the location.

#### Highlights:

- Three samples assayed above 0.3g/t gold, including
- One assay of 0.9g/t gold
- Anomalous nickel & chromium up to 1,272ppm Ni and 2,074ppm Cr.

The assays follow up previously announced results from panning (7 Nov 2019) with best results of:

- Visible gold from panning of 13 of the 44 sediment trap sites sampled;
- Maximum observed gold comprised 20 grains (very fine) from one trap site with five grains (very fine) observed in the adjacent creek sample;

#### Mr Mick Billing, Executive Chairman, commented:

*"Very encouraging results from our initial reconnaissance survey on this ground, with plenty of follow up targets, focussing on gold, nickel & chrome."*

*"The elevated nickel & chrome samples either side of the ultramafic ridge on the western side of the licence area is particularly intriguing".*

*"The next phase of work here is likely to comprise further detailed stream sediment sampling, and soil sampling to confirm and extend these results, along with geological mapping".*

The program was designed and implemented by George Merhi of Bann Geological Services Pty Ltd.

The programme comprised stream sediment trap site sampling (detailed in Figure 1 & Table A). Samples comprising coarse (-5mm+2mm) and fine (-2mm) fraction sediment were collected for geochemical analysis comprising Au 2kg BLEG (fine fraction), aqua regia (fine and coarse fractions) and multi-element analysis.

17 JANUARY 2019

The combined assay and gold panning results have several areas for follow up field evaluation likely to comprise detailed stream sediment sampling, soil sampling and geological mapping to better evaluate potential source lithologies.

Elevated nickel and chrome results obtained from samples 19PST23 and 19PST31 straddle the north-south trending ultramafic ridge on the west of E46/1262 provide strong encouragement for follow up sampling and evaluation.

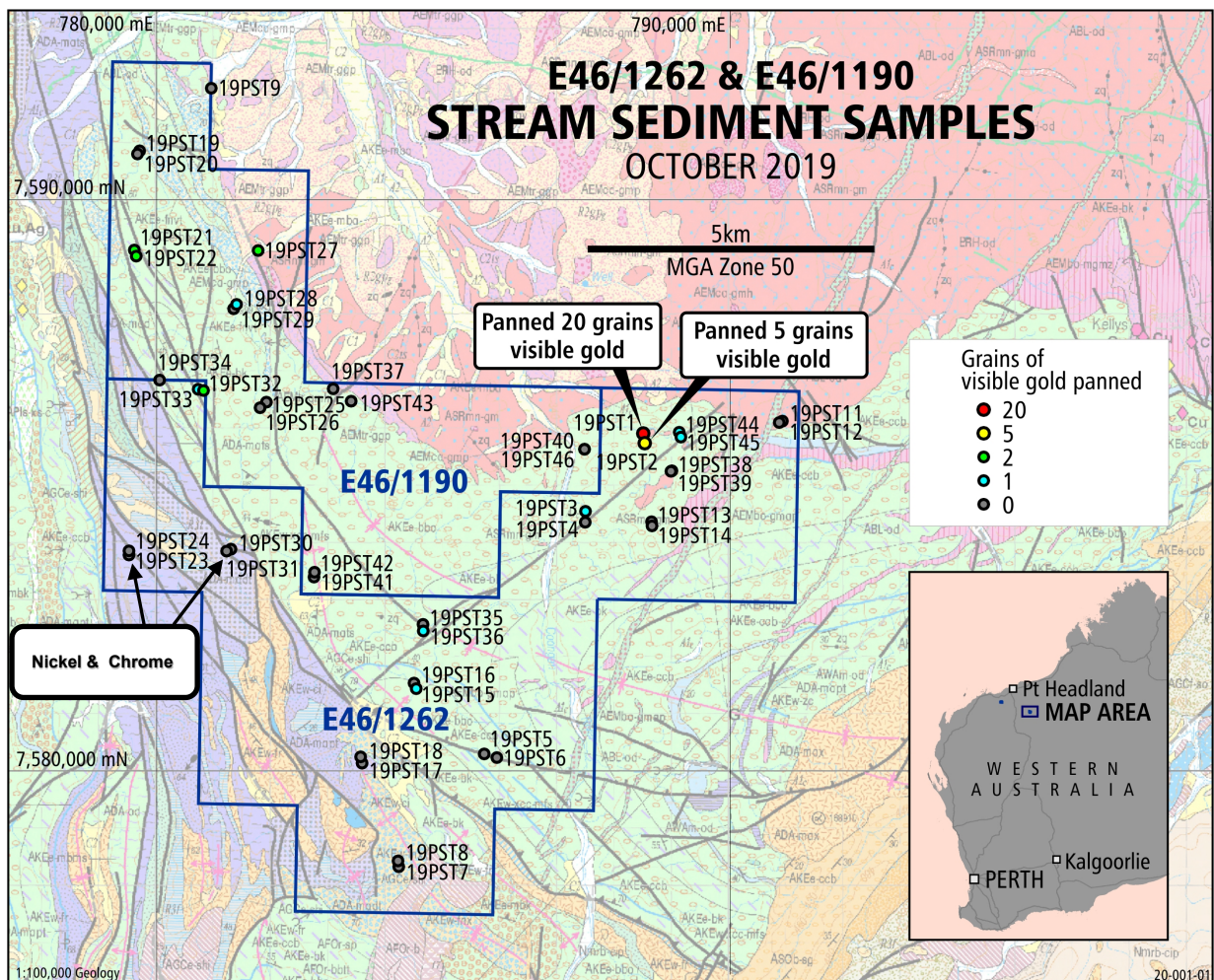


Figure 1: Tenement & sample location map

Table: A Summary of results

Sample No	Easting	Northing	Tenement	Visual Gold count	Comment	Au (CN <sup>1</sup> ) ppb	Au Repeat ppb	Au (AR <sup>2</sup> ) ppb	Au Repeat ppb	Ni ppm	Cr ppm
19PST1	788517	7585914	E46/1262	20	v fine	No significant assays					
19PST2	788542	7585747	E46/1262	5	v fine	"					
19PST3	787507	7584556	E46/1262	1	m rounded	"					
19PST4	787501	7584365	E46/1262	0		"					
19PST5	785739	7580319	E46/1262	0		"					
19PST6	785962	7580255	E46/1262	0		"					

17 JANUARY 2019

Sample No	Easting	Northing	Tenement	Visual Gold count	Comment	Au (CN <sup>1</sup> ) ppb	Au Repeat ppb	Au (AR <sup>2</sup> ) ppb	Au Repeat ppb	Ni ppm	Cr ppm
19PST7	784251	7578348	E46/1262	0							
19PST8	784238	7578402	E46/1262	0							
19PST9	780980	7591940	E46/1190	0							
19PST11	790941	7586131	E46/1262	0							
19PST12	790887	7586107	E46/1262	0							
19PST13	788661	7584372	E46/1262	0							
19PST14	788668	7584326	E46/1262	0							
19PST15	784554	7581458	E46/1262	1	nugget angular	6.7	72.26				
19PST16	784518	7581504	E46/1262	0				No significant assays			
19PST17	783611	7580160	E46/1262	0							
19PST18	783583	7580269	E46/1262	0							
19PST19	779729	7590847	E46/1190	0				256	373		
19PST20	779691	7590795	E46/1190	0				No significant assays			
19PST21	779637	7589090	E46/1190	2	med flat						
19PST22	779673	7589010	E46/1190	2	1 m/ 1 f flat						
19PST23	779543	7583792	E46/1262	0						643	1477
19PST24	779545	7583840	E46/1262	0				No significant assays			
19PST25	781942	7586463	E46/1190	0							
19PST26	781830	7586363	E46/1190	0							
19PST27	781797	7589110	E46/1190	2	very fine						
19PST28	781421	7588166	E46/1190	1	1 fine flat						
19PST29	781369	7588090	E46/1190	0							
19PST30	781323	7583894	E46/1262	0							
19PST31	781247	7583860	E46/1262	0						1272	2074
19PST32	780820	7586665	E46/1262	2	fine	21.98	119.54		864		
19PST33	780775	7586684	E46/1262	1	fine chunky			No significant assays			
19PST34	780079	7586846	E46/1262	0							
19PST35	784674	7582582	E46/1262	0							
19PST36	784678	7582468	E46/1262	1	1vcs flat						
19PST37	783105	7586695	E46/1190	0							
19PST38	789014	7585264	E46/1262	0							
19PST39	788997	7585253	E46/1262	0							
19PST40	787488	7585639	E46/1190	0							
19PST41	782773	7583406	E46/1190	0							
19PST42	782779	7583466	E46/1190	0							
19PST43	783418	7586477	E46/1190	0		20.19	12.83				
19PST44	789142	7585884	E46/1262	1	coarse rounded		463				
19PST45	789173	7585849	E46/1262	1	med			No significant assays			

1. CN: Cyanide leach

2. AR: Aqua Regia

For further information, please contact:

17 JANUARY 2019

---

## **THOR MINING PLC**

**Mick Billing**, Executive Chairman  
+61 8 7324 1935

Updates on the Company's activities are regularly posted on Thor's website [www.thormining.com](http://www.thormining.com), which includes a facility to register to receive these updates by email, and on the Company's twitter page [@ThorMining](https://twitter.com/ThorMining).

## **Competent Persons Report**

*The information in this report that relates to exploration results is based on information compiled by Richard Bradey, who holds a BSc in applied geology and an MSc in natural resource management and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Bradey is an employee of Thor Mining PLC. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Richard Bradey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## **About Thor Mining PLC**

*Thor Mining PLC (AIM, ASX: THR) is a resources company quoted on the AIM Market of the London Stock Exchange and on ASX in Australia.*

*Thor holds 100% of the advanced Molyhil tungsten project in the Northern Territory of Australia, for which an updated feasibility study in August 2018<sup>1</sup> suggested attractive returns.*

*Adjacent Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including an Inferred resource for the Bonya copper deposit<sup>2</sup>.*

*Thor also holds 100% of the Pilot Mountain tungsten project in Nevada USA which has a JORC 2012 Indicated and Inferred Resources Estimate<sup>3</sup> on 2 of the 4 known deposits. The US Department of the Interior has confirmed that tungsten, the primary resource mineral at Pilot Mountain, has been included in the final list of Critical Minerals<sup>6</sup> 2018.*

*Thor is also acquiring up to a 30% interest Australian copper development company EnviroCopper Limited, which in turn holds rights to earn up to a 75% interest in the mineral rights and claims over the resource on the portion of the historic Kapunda copper mine in South Australia recoverable by way of in situ recovery<sup>4</sup>, and also holds rights to earn a 75% interest in portion of the Moonta Copper project also in South Australia, and is considered amenable to recovery by way of in situ recovery<sup>5</sup>.*

*Thor has an interest in Hawkstone Mining Limited, an Australian ASX listed company with a 100% Interest in a Lithium project with a JORC compliant resource in Arizona, USA.*

*Finally, Thor also holds a production royalty entitlement from the Spring Hill Gold project<sup>6</sup> of:*

- A\$6 per ounce of gold produced from the Spring Hill tenements, sold for up to A\$1,500 per ounce; and
- A\$14 per ounce of gold produced from the Spring Hill tenements, sold for amounts over A\$1,500 per ounce.

17 JANUARY 2019

---

Notes

<sup>1</sup> Refer ASX and AIM announcement of 23 August 2018

<sup>2</sup> Refer ASX and AIM announcement of 26 November 2018

<sup>3</sup> Refer AIM announcement of 13 December 2018 and ASX announcement of 14 December 2018

<sup>4</sup> Refer AIM announcement of 10 February 2016 and ASX announcement of 12 February 2018

<sup>5</sup> Refer AIM announcement of 5 March 2019 and ASX announcement of 6 March 2019

<sup>6</sup> Refer AIM announcement of 26 February 2016 and ASX announcement of 29 February 2016.



17 JANUARY 2019

# 1 JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	The programme comprised stream sediment trap site sampling with coarse (3kg - 5mm+2mm) and fine (4kg - 2mm) fraction samples collected for geochemical analysis for Au 2kg BLEG (fine fraction), aqua regia (fine and coarse fractions) and multi-element analysis. In addition a 10-12 kg sample of - 2mm material was collected from each trap site and panned in the field.
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	Not applicable
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	Not applicable
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	No logging was undertaken
Sub-sampling techniques	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and</li> </ul>	Samples were screened in the field as described in "Sampling Techniques" above. The sample sizes are as per industry standard for stream

17 JANUARY 2019

Criteria	JORC Code explanation	Commentary
and sample preparation	<p><i>appropriateness of the sample preparation technique.</i></p> <ul style="list-style-type: none"> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	sediment geochemistry.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	The proposed assay method is appropriate for preliminary exploration.
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	Not undertaken
Location of data points	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	Hand held GPS – MGA94 zone 50
Data spacing and distribution	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	Data reported is for a preliminary reconnaissance survey and is indicative of the mineral prospectivity. No inferences are made as to mineralisation potential.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	Orientational bias is not applicable to stream sediment sampling which are essentially one dimensional.
Sample security	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	Samples were flown back to Newman and trucked to the assay laboratory in Perth.

17 JANUARY 2019

Criteria	JORC Code explanation	Commentary
		Sample security levels are considered appropriate for a preliminary reconnaissance assessment.
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	None undertaken

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	Exploration results is reported on E46/1190 and E46/1262 in Western Australia held 100% by Thor Mining plc.
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Not applicable
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Yet to be determined
Drill hole Information	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No drilling has been undertaken or reported
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent</li> </ul>	Only field observations have been reported. There has been no data aggregation.



17 JANUARY 2019

Criteria	JORC Code explanation	Commentary
	<i>values should be clearly stated.</i>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true width not known’).</i></li> </ul>	No drilling has been undertaken or reported
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	A sample location plan including current 1:100k scale geology has been provided
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	All results have been reported
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	All data have been reported
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	It is anticipated that follow up stream sediment geochemistry and geological mapping will be undertaken to locate sources of anomalous results.