THOR MINING PLC

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Company Announcements Office,
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Gold Assays up by more than 50% in new Screen Fire Assays at Spring Hill project in Northern Territory

A more than 50% increase in gold grades has been achieved in new higher level assay testing by Thor Mining PLC ("Thor") (AIM, ASX: THR) on its Spring Hill gold project in Australia's Northern Territory.

Thor completed a resource enhancement Reverse Circulation drilling program at Spring Hill last year, and over the Christmas-New Year break, undertook a series of **screen fire assays** as a follow-on to the conventional gold assay results announced in December.

Over the full 34 samples submitted in the latest batch for screen fire assaying, the upgrade averaged 57% more gold. The samples were selected from conventional fire assay results below 2.0 grams/tonne (g/t). The first batch for screen fire assaying had been from samples above 2.0 g/t Au.

These new results announced today represent additional significant upgrades to values already reported from the 2013 Spring Hill drilling.

Thor holds a 51% equity interest in Spring Hill, south of Darwin, and is exercising rights to increase that interest to 80% from Western Desert Resources Limited (ASX: WDR").

Mr Mick Billing, Executive Chairman of Thor Mining:
"These additional results are being treated as significant. The upgraded results from conventional screen fire assays reported on 14th January, on assays of over 2.0 g/t, averaged a 37% increase in grade. This latest upgrade on assays first assayed at below 2.0 g/t, is 57%. The upgraded values are spread all four zones of the Spring Hill resource rather than one particular zone. If this trend can be confirmed, then a substantial uplift in the value of the total Spring Hill resource is probable. Subject to field programs to confirm this trend, we could expect increases in the grade of the resource, the number of contained ounces, and the proportion of the Spring Hill resource which could be incorporated into an ore reserve and mining plan."

Upgrades on sample ranges are as follows:

From g/t	To g/t	No of Samples	Original Assay Average g/t	Screen Fire Assay Average g/t	Upgrade g/t	% Upgrade
	<0.5	2	0.39	0.33	-0.06	-15%
0.5	1.0	17	0.72	1.29	0.57	79%
1.0	1.5	9	1.26	1.85	0.59	47%
1.5	2.0	6	1.68	2.02	0.34	20%

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  Tungsten, Molybdenum
- Spring Hill (NT)
  Gold
- Dundas (WA)
  Gold

Figure 1: Thor Mining PLC project locations

Following Thor's report on January 14th 2014 of upgraded screen fire assay results from 55 samples with fire assays results greater than 2.0g/t, from the reverse circulation 2013 drilling program, a further selection of samples with fire assays grading below 2.0 g/t was selected for follow up screen fire assay. Of the 34 selected, 6 samples were either downgraded or returned the same value, with the remaining 28 samples returning improved gold values.

The Screen Fire Assay technique is different from fire assay in that ~1kg of material collected from the drill is analysed, as opposed to a 30 gram sub-sample analysed by the fire assay technique. This is particularly relevant where the occurrence of gold is nuggetty and the presence or absence of individual gold particles can significantly influence the fire assay result. The analysis of ~1kg of drill cuttings provides a more accurate estimate of the gold content of the rock being sampled. Details of the analytical technique are appended below.

A review of historical assays from drilling programs in the early 1990's showed that of approximately 3,500 assays of intersections with gold values greater than 0.5 g/t, only 156 were subject to screen fire assays. Information in respect of any upgrade from original fire assays is not available.

For further information, please contact:

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Table 1: Round 2 Screen Fire Assay Summary Report.

Hole ID	Nth GDA	East GDA	RL GDA	Azim-uth	Dip	From (m)	To (m)	Sample ID	+106 WT[1] gms	-106 WT[2] gms	+106 Au[3] ppm	-106 Au[4] ppm	-106 Au[5] ppm	SFAA u[6] ppm	Conv FA[7] ppm
SHRC235	8493957	794223	250	238.5	-55	148	149	SR2072	41.1	982	7.04	1.12	1.05	1.32	1.205
SHRC235						150	151	SR2073	47.7	991	1.99	0.86	0.95	0.95	0.7
SHRC235						150	151	SR2076	41.7	986	22.98	1.14	1.15	2.03	1.375
SHRC235						152	153	SR2078	5.8	1031	189.7	1.42	1.48	2.5	0.53
SHRC235						155	156	SR2081	10.6	1021	0.23	0.34	0.32	0.33	0.465
SHRC241	8494148	794156	271	238.5	-55	0	1	SR1259	5.5	746	53.55	2	2.04	2.4	1.475
SHRC241						1	2	SR1260	6.6	962	1.82	1.59	1.59	1.59	1.62
SHRC241						4	5	SR1263	12	1005	26.27	3.16	3.22	3.46	1.175
SHRC241						8	9	SR1267	7.8	1001	26.27	1.68	1.7	1.88	1.75
SHRC241						17	18	SR1279	23.9	1024	0.5	0.6	0.6	0.6	0.52
SHRC241						18	19	SR1280	52.3	985	0.26	0.67	0.72	0.67	0.625
SHRC241						24	25	SR1287	41.4	890	17.87	1.23	1.19	1.95	0.925
SHRC244	8493868	794056	217	238.5	-60	10	11	SR2456	7.1	1016	1.07	1.22	1.23	1.22	2.12
SHRC244						11	12	SR2457	4	1013	2.08	0.67	0.73	0.71	1.18
SHRC244						13	14	SR2459	4.6	1040	0.26	0.33	0.33	0.33	0.5
SHRC244						14	15	SR2460	7	1018	9.31	1.93	2.02	2.03	0.32
SHRC244						16	17	SR2462	2.3	1035	2.46	0.51	0.54	0.53	1.64
SHRC247	8494066	794055	240	236.9	-53.9	1	2	SR2557	12.8	1023	0.22	0.92	1	0.95	1.475
SHRC247						2	3	SR2558	1.9	1016	191.3	0.56	0.59	0.93	0.56
SHRC247						3	4	SR2559	4.9	1058	313.2	0.55	0.57	2	0.91
SHRC247						31	32	SR2591	2.7	1044	295.9	1.9	2.04	2.73	0.57
SHRC247						32	33	SR2592	4.4	1039	0.82	0.84	0.81	0.82	0.745
SHRC247						33	34	SR2593	4.5	1045	47.91	0.76	0.8	0.98	0.76
SHRC247						35	36	SR2595	10	1051	1.2	0.98	0.98	0.98	1.12
SHRC248	8494195	794031	244	238.5	-55	0	1	SR2640	5.4	1020	0.89	1.4	1.51	1.45	0.975
SHRC248						2	3	SR2642	9.2	1022	0.39	0.39	0.39	0.39	0.94
SHRC248						3	4	SR2643	20.1	1013	0.74	2.04	2.05	2.02	0.565
SHRC249	8494338	794245	270	238.5	-60	89	90	SR1506	42.1	970	27.84	2.25	2.06	3.22	1.68
SHRC249						92	93	SR1512	29.3	1006	20.34	2.45	2.4	2.93	1.37
SHRC249						94	95	SR1514	25.3	996	0.48	1.7	1.71	1.67	1.605
SHRC250	8494414	794334	271	238.5	-55	9	10	SR1350	86.7	961	0.64	0.92	0.9	0.89	1.785
SHRC250						10	11	SR1353	33.8	994	1.54	1.1	1.12	1.12	0.8
SHRC250						11	12	SR1354	30.5	981	2.86	1.43	1.43	1.47	0.875
SHRC250						12	13	SR1355	27.3	1001	58.9	0.72	0.72	2.26	1.005
SHRC250						13	14	SR1356	41.4	890	17.87	1.23	1.19	1.95	0.8

1: Weight of sample coarse fraction (particles greater than 106 micro metres)
2: Weight of sample fine fraction (particles less than 106 micro metres)
3: Fire assay of coarse fraction (ppm)
4: Fire assay of fine fraction (ppm)
5: Repeat fire assay of fine fraction (ppm) repeated until consecutive results are within 10%
6: Weighted average of coarse and fine fraction assays
7: Original conventional fire assay for comparison

NORTH AUSTRALIAN LABORATORIES PTY LTD

SCREENFIRE GOLD ASSAY PROCEDURE.

A bulk sample of up to 2.5 Kg is pulverized in a Labtechnics model LM5 Grinder to give a nominal 95% passing 106Um particle size. The pulverized sample is then split to about one kilogram for the assay sample. With the screenfire Au assay procedure it is essential that all material that is used in the assay procedure that can trap or retain Au particles is consumed within the assay procedure, for this reason cloth 106Um screen and plastic screen holders are used as the cloth and sample bag are fired with the oversize material. A synopsis of the assay procedure is as follows:

1. Weigh the approximate one kilogram sub-sample and record the sample weight.
2. Weigh the 106Um screen cloth together with the sample packet and record the combined weight.
3. Wet screen the sample in 100 gram increments until the whole sample has been screened through the 106Um screen, collect all -106Um washings in a 20 litre plastic bucket.

4. Remove the screen with the +106Um sample fraction from plastic screen holder and transfer to the weighed sample packet, wipe the rim of the plastic screen holder with a small piece of tissue and transfer to the sample packet.
5. Dry the sample packet, screen cloth and +106Um sample fraction at 110 degrees C for four hours, cool and weigh, record sample weight.
6. Prepare a 20 litre pressure filter with a felt filter base and a double postlip filter paper and pressure filter the -106Um sample fraction, wash the bucket thoroughly and transfer all washings to the pressure filter, continue filtering until the pressure filter runs dry.
7. Remove the postlip filter papers with the -106Um sample filter cake and dry at 105 degrees C for eight hours.
8. Weigh the dried filter cake, zero the balance with two postlip filter papers before weighing, record sample weight.
9. Grind the filter cake in the LM5 grinder for 30 seconds to break up the filter cake and homogenize the sample.
10. Assay in duplicate the -106Um fraction for Au by fire assay, the assays must be within 10%, if they are not a third assay is done, all -106Um assays are reported if outside the 10% limit.
11. Assay the +106Um sample fraction including the sample packet and screen cloth, if the +106Um fraction is greater than 50 grams divide the charge into two or three assays [or more, depending on the weight of the fraction], the cloth and packet must be fired with the last +106Um assay. NOTE: the whole of the +106Um fraction must be fired together with the screen cloth and sample packet.
12. The head grade of the sample is calculated from the mass of the +106Um and -106Um sample fractions and the Au assay of the +106Um fraction and the mean Au assay of the -106Um fraction.

Table 2 – Section 1: Sampling Techniques and Data – Spring Hill

Criteria	JORC Code explanation	Commentary
Sampling techniques	• 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.	• Industry standard RC drilling, sampling and assay designed to test target areas of potential gold mineralisation considered likely to enhance the previously identified resource.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Collar locations were picked up using handheld GPS. • Downhole survey shots were taken at 30 metre intervals using Reflex electronic single shot.
	• Aspects of the determination of mineralisation that are Material to the Public Report.	• Every metre drilled was sampled, logged and assayed to industry standards.
	• 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.	• Reverse circulation drilling was used to obtain 1 m samples from which 1 kg was pulverised to produce a 50 g charge for fire assay
Drilling techniques	• 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).	• Drilling was carried out using a 4¾ inch reverse circulation face sampling hammer bit.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• Qualitative observations were recorded in geology logs.
	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	• Some sample loss was experienced in the first metre or two of each hole but overall sample recovery was very good
	• 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.	• As sample recovery was very good it is unlikely that such a relationship could be established.
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.	• All drill samples were was geologically logged and photographed
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	• All drill samples were geologically logged and photographed
	• The total length and percentage of the relevant intersections logged.	• 100%

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	• No core drilled
	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	• Rotary split
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• Accepted industry standard sampling process
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	• QAQC procedures were followed as per industry best practice including the use blanks, duplicates and certified reference material standards.
	• 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.	• Field duplicates were inserted every 30 samples
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	• A 2 kg sub sample from 30 kg with particle size sub 10mm is within the acceptable sample size range.
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.	• Both Fire assay and Screen Fire assay techniques were used to determine total gold content with results of both reported in Table 1.
	• 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.	• Not applicable
	• 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.	• Internal laboratory quality control was applied and duplicates run on all samples over 2g/t Au. Accuracy and precision was deemed acceptable.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• Yes
	• The use of twinned holes.	• No
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Validation processes integrated with data entry procedure.
	• Discuss any adjustment to assay data.	• None required
Location of data points	• 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.	• Hand held GPS averaged over 10 minute interval • Downhole survey shots were taken at 30 metre intervals using Reflex electronic single shot.
	• Specification of the grid system used.	• The Spring Hill mine grid comprises the following adjustments relative to GDA94 zone52: o Rotation -28.16degrees o East translation -790,091.789m o North translation -8,480,800.386m o Mine Grid RL = AHD + 976.75m
	• Quality and adequacy of topographic control.	• < 5m
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	• As per drill hole location plan
	• 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.	• Significant intercepts are calculated as length weighted averages
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.	• Drilling is oriented to minimise sample bias as much as possible. Interpreted true thicknesses are provided where possible. Whether a quoted mineralised interval is downhole or considered true is indicated throughout the report.
	• 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.	• Yes, and has therefore been addressed.
Sample security	• The measures taken to ensure sample security.	• Direct delivery by Thor personnel to the assay laboratory.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Not available.

Table 2 - 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.	• Spring Hill is located on ML23812 in the Pine Creek Orogen and is jointly owned by Thor Mining subsidiary TM Gold P/L (51%) and Western Desert Resources (49%).
	• 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 tenement is in good standing
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Prior to Thor Mining involvement previous drilling of the resource was conducted by the Ross Mining / Billiton joint venture in the 1990s
Geology	• Deposit type, geological setting and style of mineralisation.	• Orogenic gold hosted by siltstones and greywackes of the Mount Bonnie Formation of the Pine Creek Orogen.
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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	• Table provided
	• 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.	• Not applicable
Data aggregation methods	• 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.	• Aggregated grades are length weighted where applicable. • Intersections less than 0.2g/t Au are not presented in significant intersect summary tables. • No high grade cut has been applied.
	• 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.	• Intersections are calculated using 0.2 g/t gold cutoff with a minimum interval of 1 metre and maximum internal dilution of 3 metres • High grade intersections indicated by use of bold font are calculated using 2 g/t gold cutoff with a maximum of 3 metres internal dilution
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Not applicable
Relationship between mineralisation on 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.	• 'True width' is estimated for wider intersections from the interpreted dip of the intersected mineralisation and the declination of the drill hole.
	• 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').	•
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 figures in the body of the text
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• All intercepts of gold mineralisation over 0.2 g/t are provided in the report.
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.	•
Further work	• The nature and scale of planned further work (eg 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	• Screen fire assays are in progress on all samples greater than 2g/t Au. Other future work is yet to be determined.

Criteria	JORC Code explanation	Commentary
	future drilling areas, provided this information is not commercially sensitive.	

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.