## **Thor Mining PLC**

("Thor" or the "Company")

## Ragged Range, WA Exploration Update

The directors of Thor Mining Plc ("Thor") (AIM, ASX: THR, OTCQB: THORF) are pleased to provide an exploration update for the Ragged Range Project, located in the eastern Pilbara, Western Australia.

#### **Project highlights:**

- Completion of the 2,000m reverse circulation ("RC") drilling program at Kelly's Prospect, Ragged Range.
- Six holes tested the Kelly's Ridge area following up on rock chip samples returning up to 15.5 g/t Au and 535g/t Ag, and a historic drill intercept of 1.5m @ 22.97g/t Au (DDHK2 drilled in 1969¹).
- Two holes were drilled beneath the high-grade Kelly's historic copper workings, testing potential chalcopyrite extensions at depth (historic production: 609t of cupreous ore with a grade of 19% Cu, mined 1955-1970).
- Two holes tested a new conceptual target called Kellys NE.
- RC drilling at the Sterling Prospect has returned anomalous gold results up to **6m @ 0.2g/t Au** from 83m (22RRC010) associated with extensive sericite-sulphide alteration.



**Photo 1**: Drilling at Kelly's Ridge Prospect, Ragged Range

#### Nicole Galloway Warland, Managing Director of Thor Mining, commented:

"We are pleased to report that the 2,000m drilling program at the Kelly's Prospect, Ragged Range is now complete. The program was designed to follow up on prospective rock chip samples, including a high-grade, historic drill intercept. We look forward to reporting the results of the program in due course.

"Drilling at Sterling has highlighted several zones of intense alteration with anomalous gold warranting detailed structural mapping and sampling, including veining associate with the 6g/t rock chips at Sterling central "Kink" area."

The Ragged Range Project, located in the prospective Eastern Pilbara Craton, Western Australia, is 100% owned by Thor Mining (covering E46/1190, E46/1262, E46/1355, E46/1340 and E46/1393 - Figure 2 and Figure 3).

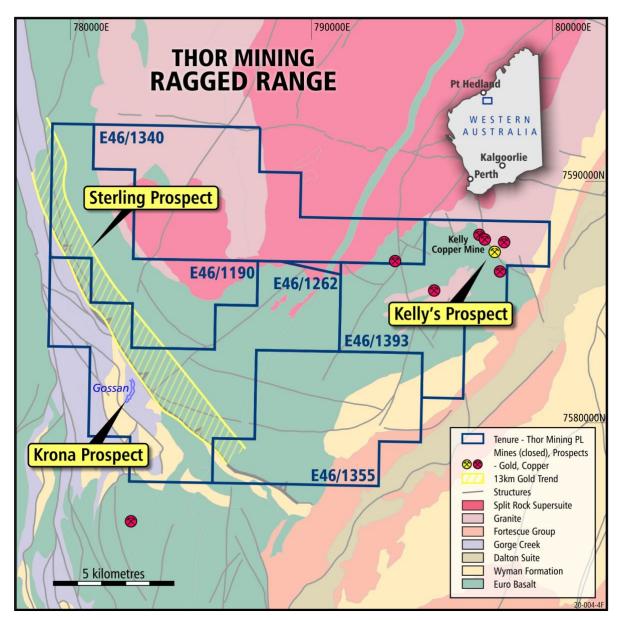


Figure 1: Location Plan

#### **Kelly's Prospect**

A small, 10-hole RC drilling program was completed at the Kelly's Prospect, testing Kelly's Ridge, Kelly's Copper and Kelly's NE areas.

Drilling at Kelly's Ridge was designed to test below the high-grade rock chips returning up to 15g/t Au and 535g/t Ag along the 1 km silicified ridge at the contact between the Boobina Porphyry and Euro Basalt and to also test below and along strike of the historic drill hole (DDHK2), that reported 1.5m @ 22.97g/t gold located at the porphyry-basalt contact.

Two historic copper mines were worked on at either end of the Boobina Porphyry/Euro Basalt contact; Copper Hills (which produced 15,730t of cupreous ore with a grade of 13% Cu, mined in 1952-1963)<sup>3</sup> and Kelly's (which produced 609t of cupreous ore with a grade of 19% Cu, mined in 1955-1970).

The north-north-west trending mineralisation at Kelly's Copper Mine, extending over 600 metres, is developed in quartz veins along shears, cutting the Boobina Porphyry. The oxidised zone contains malachite, azurite, cuprite, chrysocolla, with bornite and chalcocite in the supergene zone, and pyrite and chalcopyrite in quartz-sericite-chlorite alteration at depth.

Two drillholes were positioned to drill beneath these historic high-grade workings to provide a representative sample of mineralisation, rock types, and alteration. The holes extended through the volcanic porphyries into the basalt, testing the contact at depth for primary sulphide copper mineralisation (chalcopyrite).

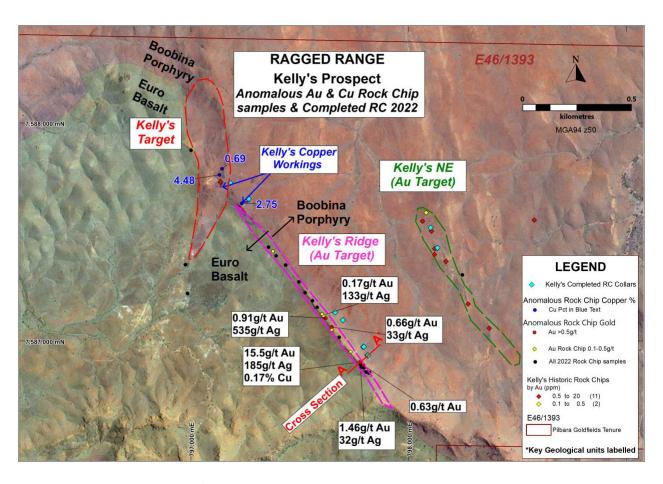


Figure 2: Kelly's Prospect, highlighting drill collars and gold in rock chips.

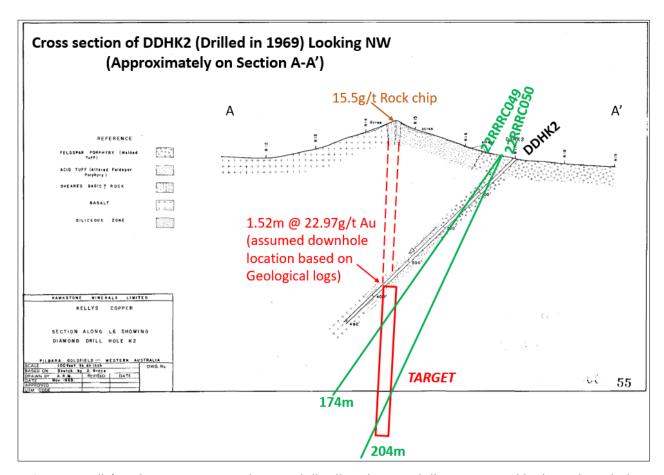


Figure 3: Kelly's Ridge cross section, showing drill collars, historic drill intercept and high-grade rock chip

#### **Sterling Prospect**

In July 2022, 48 drillholes totalling 3,120m were drilled along the Sterling Prospect 13km structural gold corridor, testing interpreted dilational zones (potential trap sites for mineralisation and the potential source of the gold anomalies found in stream and soil samples) (ASX/AIM: 11 July 2022).

Drilling intercepted key zones of sericite-sulphide-quartz alteration, with anomalous gold up to 6m @ 0.16 g/t Au at the southern end of the prospect (Table A, Figures 4 - 6). Although the tenure of the gold result is low these results demonstrate gold is present in the system and warrant following up with detailed structural and geochemical mapping.

**Table A**: Sterling Prospect Drilling -All Significant Gold Intercepts above 0.1g/t Au (refer to Table B for list all Drill Collar information)

Hole ID	Easting MGA94E	Northing MGA94N	ASL	Dip	Azi	EOH Depth (m)	From	То	Interval	Au g/t
22RRRC002	784040	7580769	384	60	224	60	30	33	3	0.12
22RRRC010	784291	7580725	384	75	9	114	83	89	6	0.16
22RRRC047	784354	7580696	386	71	7	126	6	9	3	0.11
22RRRC048	784290	7580720	380	86	356	168	144	145	1	0.1

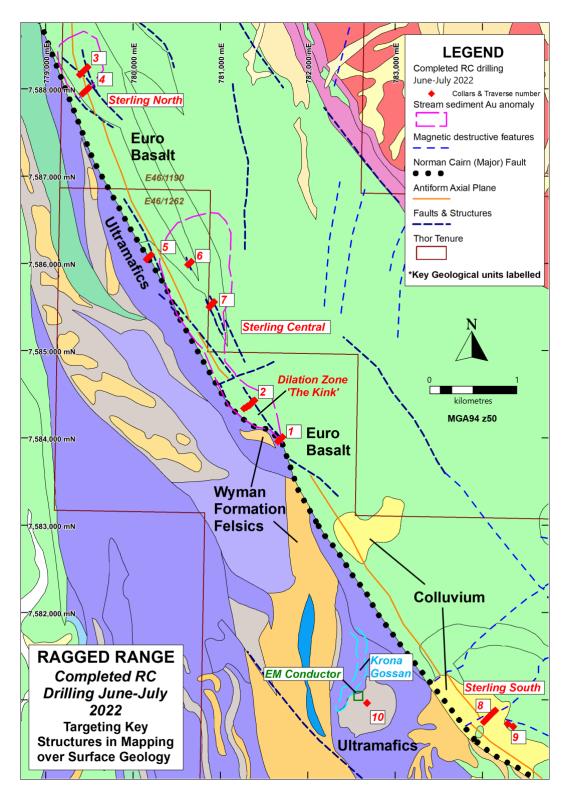


Figure 4: Sterling Prospect Drill traverse

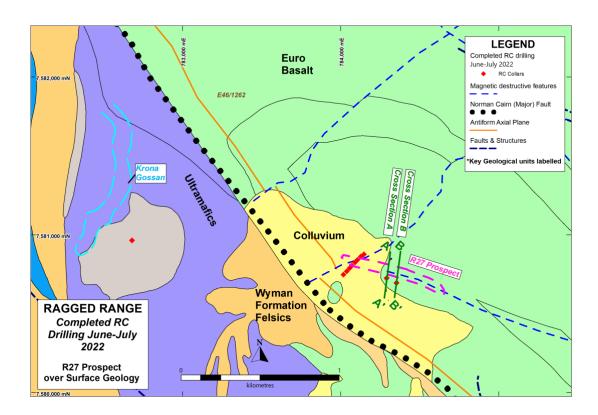
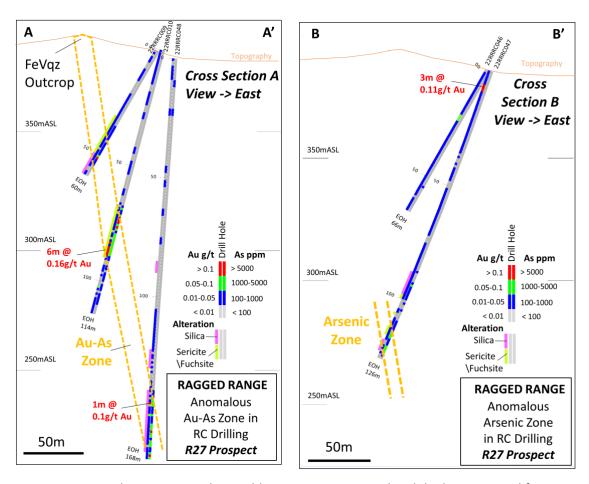


Figure 5: Sterling Prospect showing drilling in the south area refereed to as R27and location of cross sections



**Figure 6:** Cross sections showing anomalous gold intercepts associated with high arsenic and ferruginous quartz vein at surface



**Photo 2:** 22RRC010 drill spoils showing the strong 'white' sericite altered zone from approximately 73m with gold - 6m @ 0.2g/t Au from 83m with Euro basalt

#### **Next Steps**

The following activities and results at Ragged Range are anticipated over the coming weeks:

- 1. Report assay results from the Kelly's drilling program
- 2. Report Platinum Group Elements (PGE) results from the Krona Nickel Drillhole 22RRC045 associated with the 66m @ 0.2% Ni from 81m (ASX/AIM: 20 September 2022)
- 3. Continue regional exploration, including reconnaissance sampling over ground in the northern portion of tenure for prospective lithium-caesium-tantalum enriched (LCT) pegmatites

#### References:

- 1. DDHk2, drilled by Hawkstone 1969, Open File Annual Report
- 2. Kelly's: produced 609t of cupreous ore with a grade of 19% Cu, mined 1955-1970. https://www.mindat.org/loc-122951.html
- 3. Copper Hill: produced 15,730 t of cupreous ore with a grade of 13% Cu, mined 1952-1963 https://www.mindat.org/loc-122950.html

This announcement is authorised for release to the market by the Board of Directors.

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This announcement contains inside information for the purposes of Article 7 of the UK version of Requlation

(EU) No 596/2014 which is part of UK law by virtue of the European Union (Withdrawal) Act 2018, as amended ("MAR"). Upon the publication of this announcement via a Regulatory Information Service, this inside information is now considered to be in the public domain.

#### **Competent Persons Report**

The information in this report that relates to exploration results is based on information compiled by Nicole Galloway Warland, who holds a BSc Applied geology (HONS) and who is a Member of The Australian Institute of Geoscientists. Ms Galloway Warland is an employee of Thor Mining PLC. She has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she 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'. Nicole Galloway Warland consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

Updates on the Company's activities are regularly posted on Thor's website <a href="www.thormining.com">www.thormining.com</a>, which includes a facility to register to receive these updates by email, and on the Company's twitter page <a href="https://example.com">@ThorMining</a>.

#### **About Thor Mining PLC**

Thor Mining PLC (AIM, ASX: THR; OTCQB: THORF) is a diversified resource company quoted on the AIM Market of the London Stock Exchange, ASX in Australia and OTCQB Market in the United States.

The Company is advancing its diversified portfolio of precious, base, energy and strategic metal projects across USA and Australia. Its focus is on progressing its copper, gold, uranium and vanadium projects, while seeking investment/JV opportunities to develop its tungsten assets.

Thor owns 100% of the Ragged Range Project, comprising 92 km<sup>2</sup> of exploration licences with highly encouraging early stage gold and nickel results in the Pilbara region of Western Australia.

At Alford East in South Australia, Thor is earning an 80% interest in copper deposits considered amenable to extraction via In Situ Recovery techniques (ISR). In January 2021, Thor announced an Inferred Mineral Resource Estimate of 177,000 tonnes contained copper & 71,000 oz gold<sup>1</sup>.

Thor also holds a 30% interest in 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 and the Alford West copper project, both situated in South Australia, and both considered amenable to recovery by way of ISR.<sup>23</sup>

Thor holds 100% interest in two private companies with mineral claims in the US states of Colorado and Utah with historical high-grade uranium and vanadium drilling and production results.

Thor holds 100% of the advanced Molyhil tungsten project, including measured, indicated and inferred resources<sup>4</sup>, in the Northern Territory of Australia, which was awarded Major Project Status by the Northern Territory government in July 2020.

Adjacent to Molyhil, at Bonya, Thor holds a 40% interest in deposits of tungsten, copper, and vanadium, including Inferred resource estimates for the Bonya copper deposit, and the White Violet and Samarkand tungsten deposits. <sup>5</sup>

#### Notes

- <sup>1</sup> <u>www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210127-maiden-copper.gold-estimate-alford-east-sa.pdf</u>
- $^2 \underline{www.thormining.com/sites/thormining/media/pdf/asx-announcements/20172018/20180222\text{-}clarification-kapunda-} \\ \underline{copper-resource-estimate.pdf}$
- <sup>3</sup> <u>www.thormining.com/sites/thormining/media/aim-report/20190815-initial-copper-resource-estimate---moonta-project---rns---london-stock-exchange.pdf</u>

 Table B: Sterling Prospect Drilling - Drill Collars Information (MGA94 Zone 50)

Hole_ID	ЕОН	Easting	Northing	RL	Dip	Azi_TN	Tenement
22RRRC001	54	784019	7580748	384.2	-61.12	223.26	E46/1262
22RRRC002	54	784040	7580769	384.2	-60.12	223.14	E46/1262
22RRRC003	54	784058	7580789	382.8	-60.69	221.68	E46/1262
22RRRC004	54	784072	7580805	384.6	-60.52	223.49	E46/1262
22RRRC005	54	784092	7580825	385.8	-59.82	222.17	E46/1262
22RRRC006	60	784107	7580841	383.7	-60.57	220.71	E46/1262
22RRRC007	54	784128	7580862	381.5	-60.73	228.14	E46/1262
22RRRC008	60	784148	7580877	384.4	-60.38	225.29	E46/1262
22RRRC009	60	784292	7580727	383.7	-60.11	9.89	E46/1262
22RRRC010	114	784291	7580725	383.9	-75.16	8.01	E46/1262
22RRRC011	54	781661	7583961	396.9	-60.15	225.53	E46/1262
22RRRC012	120	781663	7583964	397.1	-75.67	225.56	E46/1262
22RRRC013	54	781678	7583980	395.7	-59.3	221.69	E46/1262
22RRRC014	54	781696	7583994	395.4	-60.44	220.97	E46/1262
22RRRC015	54	781713	7584012	393.8	-60.94	224.31	E46/1262
22RRRC016	54	781274	7584339	396.5	-60.21	224.58	E46/1262
22RRRC017	54	781302	7584355	391.1	-60.13	228.19	E46/1262
22RRRC018	54	781314	7584364	392.3	-59.95	224.28	E46/1262
22RRRC019	54	781337	7584376	395.8	-60.08	223.49	E46/1262
22RRRC020	54	781359	7584399	391.3	-60.03	226.26	E46/1262
22RRRC021	54	781375	7584420	391.3	-60.09	223.88	E46/1262
22RRRC022	54	781393	7584431	392.4	-60.68	225.69	E46/1262
22RRRC023	60	780157	7586048	381.9	-60.05	223.24	E46/1262
22RRRC024	60	780174	7586065	379.3	-61.28	224.54	E46/1262
22RRRC025	54	780195	7586083	381.8	-60.65	225.15	E46/1262
22RRRC026	60	780210	7586099	374	-59.44	224.93	E46/1262
22RRRC027	54	779425	7587946	375.8	-60.96	224.06	E46/1190
22RRRC028	54	779444	7587963	373.9	-60.34	223.2	E46/1190
22RRRC029	54	779466	7587981	372.2	-59.69	224.06	E46/1190
22RRRC030	54	779485	7588001	372.2	-60.33	224.05	E46/1190
22RRRC031	60	779495	7588012	372.8	-59.37	223.42	E46/1190
22RRRC032	54	779392	7588162	375.1	-60.08	226.38	E46/1190
22RRRC033	54	779409	7588179	373.3	-60.62	226.96	E46/1190
22RRRC034	54	779432	7588198	372.8	-59.58	225.96	E46/1190
22RRRC035	54	779445	7588212	370.9	-60.04	224.72	E46/1190
22RRRC036	54	779469	7588236	370.8	60.3	226.56	E46/1190
22RRRC037	54	779482	7588250	370.6	-60.27	224.74	E46/1190
22RRRC038	66	780632	7585985	380.3	-59.81	224.5	E46/1262
22RRRC039	54	780655	7586005	378.3	-60.27	227.4	E46/1262
22RRRC040	54	780668	7586020	380.5	-60.32	222.38	E46/1262
22RRRC041	60	780877	7585503	384.8	-60.3	226.71	E46/1190
22RRRC042	54	780895	7585520	387.3	-60.17	222.92	E46/1190
22RRRC043	60	780910	7585540	380.9	-59.83	221.92	E46/1190
22RRRC044	72	780930	7585558	380.5	-60.85	224.16	E46/1190
22RRRC045	174	782678	7580968	296.9	-53.16	301.95	E46/1262
22RRRC046	66	784355	7580697	385.8	-60.21	6.12	E46/1262

 $<sup>^4 \</sup>underline{www.thormining.com/sites/thormining/media/pdf/asx-announcements/20210408-molyhil-mineral-resource-estimate-updated.pdf}$ 

<sup>&</sup>lt;sup>5</sup> www.thormining.com/sites/thormining/media/pdf/asx-announcements/20200129-mineral-resource-estimates---bonya-tungsten--copper.pdf

22RRRC047	126	784354	7580696	380.6	-70.58	6.37	E46/1262
22RRRC048	168	784290	7580720	380.4	-86.45	354.74	E46/1262

## 1 JORC Code, 2012 Edition - Table 1

## **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <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>	Reverse circulation drill samples were collected utilising a PVC sampling spear on the drill cutting piles to collect a 3m composite sample weighing approximately 3kg. Equal portions were taken from each pile to ensure representative samples and every metre was sampled. In addition, 1m samples were collected directly off the cyclone (1/8 split), which can be assayed as required to replace the 3m composite sample results. In zones of visual interest during drilling, these 1m splits were submitted for analysis instead of the 3m composites.
Drilling techniques	<ul> <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>	Reverse circulation drilling (5 1/4 inch diameter)
Drill sample recovery	<ul> <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>	Sample recovery was good. Each drill cutting pile size is logged and any deviation from expected is raised with the driller, and if undersize, to check for blockages. No sample biases are expected, and no relationship is known to exist between sample recovery and grade.
Logging	<ul> <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>	All chip samples are qualitatively geologically logged (lithology, structure, alteration, veining, mineralisation, weathering, colour and other features). No mineral resource estimation, mining studies or metallurgical studies have been conducted at this stage, but samples have been logged in sufficient detail to use for this function.

Subsampling techniques and sample preparation

- If core, whether cut or sawn and whether quarter, half or all core taken.
- If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.
- For all sample types, the nature, quality and appropriateness of the sample preparation technique.
- Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.
- 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.
- Whether sample sizes are appropriate to the grain size of the material being sampled.

Drill samples were taken dry with a PVC spear as described in "Sampling Techniques" above. The sample sizes are as per industry standard for RC drilling.

Sampling is carried out using standard protocols and QAQC procedures as per industry practice.

Field QAQC procedures for drilling involved the use of a certified standard, blank and field duplicate sample submitted every 20 samples (i.e., 17 samples and 3 QAQC samples). These are routinely checked against originals.

All samples were sent to Bureau Veritas Laboratories in Adelaide, which is an ISO 9001 accredited laboratory. Sample preparation includes sorting and drying, followed by LM5 pulverising (PR303).

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.
- 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.
- 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.

The assay method is considered 'industry standard' and appropriate for exploration.

Drill samples were assayed at Bureau Veritas Laboratories in Adelaide by lead collection fire assay with a 40g charge and AAS finish for gold with a detection limit of 0.01ppm (FA001) and multi-element analysis by mixed acid digest and ICP-MS (MA102) and ICP-AES (MA101).

Internal certified laboratory QAQC was undertaken including check samples, duplicates, blanks and internal standards

Handheld pXRF readings readings are taken on -2mm sieved samples on every drill metre, using an Olympus Vanta Series C with a 40 second reading time.

Instrument is calibrated at start of each day, along with QAQC of 1 standard and 1

blank. External instrument calibration completed annually.

All drill samples are measured for magnetic susceptibility at 1m intervals using a hand-held magnetic susceptibility meter.

# Verification of sampling and assaying

- The verification of significant intersections by either independent or alternative company personnel.
- The use of twinned holes.
- Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.
- Discuss any adjustment to assay data.

All significant intersections have been verified by a company geologist and alternative company geologist. There are no twinned drillholes.

All drilling data is collected in a series of templates in excel including geological logging, sample information, collar and survey information.

All data is digitally recorded in the company's electronic database, managed by external database company utilising Datashed5 software. No adjustments have been made to the assay data.

# 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.
- · Specification of the grid system used.
- Quality and adequacy of topographic control.

Drill collars were surveyed using a handheld Garmin 62s GPS with an accuracy of +/-3m. Grid system is MGA94 zone 50 (GDA). Drill rig alignment at the collar was conducted using a north seeking gyro. Topographic control using the GPS is suitable for early- stage exploration.

#### Data spacing and distribution

- Data spacing for reporting of Exploration Results.
- 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.
- Whether sample compositing has been applied.

Data spacing for preliminary exploration deemed is sufficient to test geochemical and mapped anomalies structural features. No sample compositing of data was conducted. Sufficiently anomalous assays and any other zones of interest will be assayed in more detail using the 1m samples collected off the cyclone.

Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieved sampling of possible structures and the exit this is known, considering the deposit type.</li> <li>If the relationship between the drilling orient the orientation of key mineralised structure considered to have introduced a sampling should be assessed and reported if material.</li> </ul>	applicable to RC drilling at this stage but samples and drill lines were orientated approximately perpendicular to the assumed strike of gold
Sample security	The measures taken to ensure sample sec	All samples were trucked back from Bonney Downs Station to Bureau Veritas Adelaide, SA (Via Perth Lab) via registered freight company.  Sample Security levels are considered appropriate for RC Drilling.
Audits or reviews	<ul> <li>The results of any audits or reviews of same techniques and data.</li> </ul>	None undertaken. Thor's sampling procedure conforms to industry standard practice and each assay program is reviewed internally for any discrepancies.