

Rock samples at new REE Prospect at North Fork Project with up to 2.41% TREO, including 0.58% Nd-Pr

HIGHLIGHTS

- **Rock sample assay results have been received from reconnaissance sampling undertaken at the North Fork Rare Earth Elements Project in Idaho, USA**
- **Key rock sample results:**
 - **2.90% TREO including 0.48% Nd-Pr from Silver King Prospect**
 - **2.41% TREO including 0.58% Nd-Pr from the new Dutchler Prospect**

Megado Minerals (ASX: MEG) (**Megado** or the **Company**) is pleased to provide an update on activities associated with its North Fork Rare Earths Project, located in Idaho, USA.

Rock sample results have been received from reconnaissance sampling at Dutchler Mountain and Silver King Prospect (see Table 1). All elements assayed are included on the US Government's 2022 List of [Critical Minerals](#) (refer Appendix A). Samples from the newly discovered Dutchler Prospect, approximately 300m east of the Silver King Prospect, returned up to 2.41% TREO including 0.58% Nd-Pr. The extent of the outcropping mineralised vein network at Dutchler is not yet known, with further mapping and sampling activities in the coming months to better define its extent.

Megado Minerals CEO, Ben Pearson, commented:

"The assay results from Dutchler are particularly encouraging, not only do they improve our understanding of the geology and the extent of REE mineralisation at North Fork, but they give us confidence in relation to our future exploration strategy".

The Silver King prospect is known to consist of two (2) dike/sills (North & South) of 210 and 170 meters in strike length which are exposed at the surface. Historic channel sampling at Silver King returned elevated concentrations of TREO with the North and South vein returning assay grades of 10.3% and 5.8% TREO respectively ([refer MEG ASX announcement 15 June 2022](#)).

Historic exploration suggested that these 2 dikes/sills are related and may be the same vein off-set by faulting. The relationship between these veins remains to be determined and will be clarified by Megado's future exploration work.

Exploration and sampling activities on the North Fork Project have been delayed by an extensive fire in the Salmon-Challis National Forest. The fire continues to hamper access to the project area. The company is liaising with the relevant authorities to obtain access as soon as possible.

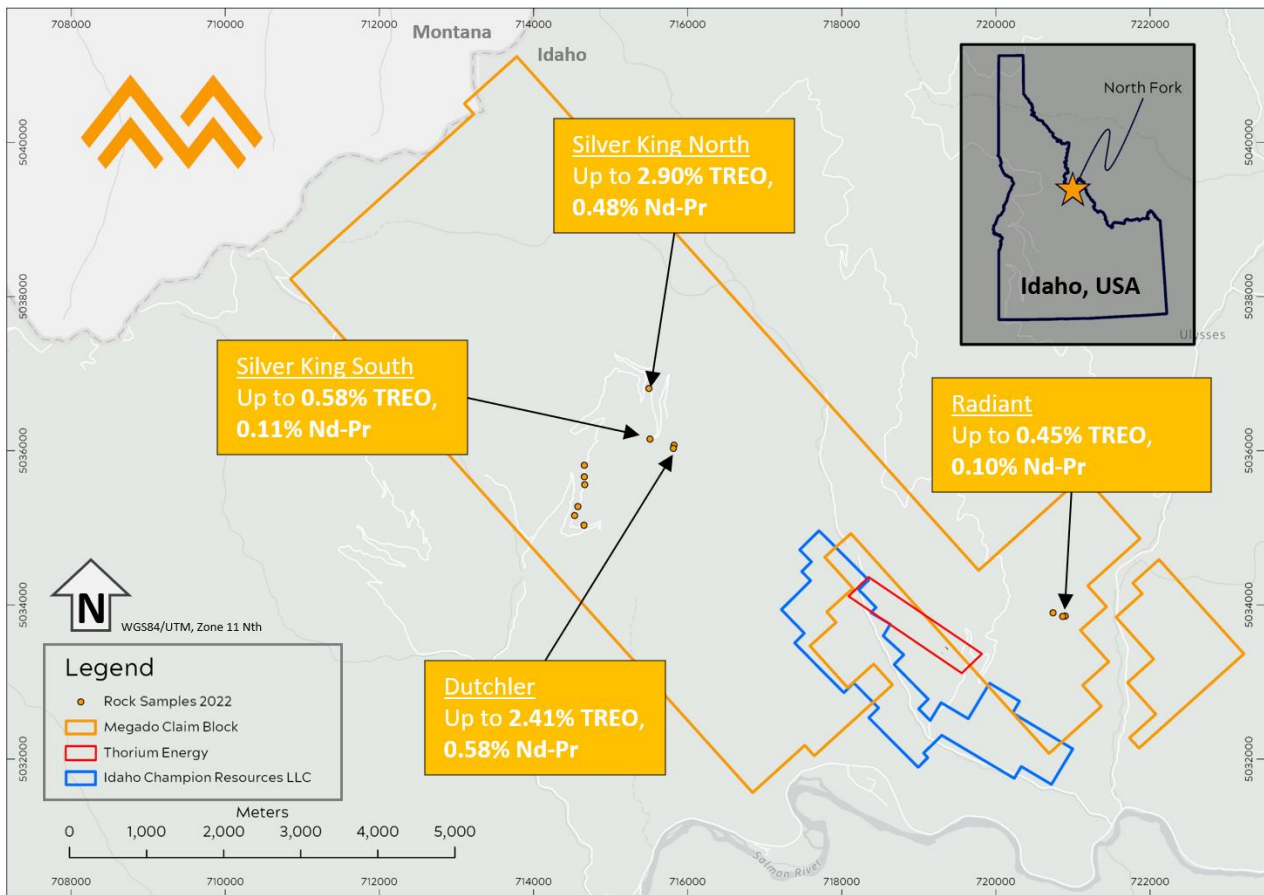


Figure 1: Locations of rock chip samples, taken from the North Fork Project, Idaho, USA

Table 1: Selected Assay Results from North Fork Project

Sample	Easting	Northing	TREO (%)	Nd-Pr (%)	Prospect
1692536	715498	5036811	2.90	0.48	Silver King North
1692535	715814	5036031	2.41	0.58	Dutchler
1692520	715814	5036031	1.93	0.47	Dutchler
1692518	715498	5036811	0.73	0.14	Silver King North
1692504	715590	5035949	0.58	0.11	Silver King South
1692528	720864	5033853	0.45	0.10	Jackpot
1692509	714736	5035459	0.05	0.01	Reconnaissance
1692503	714656	5035076	0.02	0.00	Reconnaissance
1692501	714734	5034831	0.01	0.00	Reconnaissance
1692502	714734	5034961	0.01	0.00	Reconnaissance
1692506	718203	5034560	0.00	0.00	Reconnaissance
1692507	713989	5034179	0.01	0.00	Reconnaissance
1692508	714742	5035361	0.01	0.00	Reconnaissance
1692519	715824	5036071	0.01	0.00	Dutchler
1692526	720741	5033901	0.01	0.00	Jackpot
1692527	720898	5033856	0.01	0.00	Jackpot

Note to Table 1: See Appendix B for JORC Table 1. Datum: WGS 84

About North Fork

- The North Fork claims are located approximately 40km (25 miles) northwest of Salmon, Idaho and consist of 499 unpatented/patented BLM mining lode claims. The North Fork Project has several prospect areas warranting further exploration.
- North Fork 499 claims (granted and in application) cover approximately 10,309 acres (42km²) with outcropping, high-grade, rare-earth element (REE) mineralised rock.
- North Fork contains multiple carbonatite-hosted, high-grade, REE mineralised veins that have been observed at surface across numerous prospects over 10km along strike.
- Previous exploration has returned exceptional grades in channel samples (see previous ASX release):
 - Silver King Prospect: 2m @ 10.3% TREO incl. 1.2% CREO¹; and 2m @ 5.8% TREO; and 1.52m @ 17.7% TREO
 - Jackpot Prospect: 0.76m @ 21.5% TREO; and 0.76m @ 14.5% TREO
 - Monazite Queen Prospect: 0.91m @ 21% TREO; and 3m @ 2.16% TREO

For more information on North Fork, refer to ASX Announcement 14 April 2022 “Megado Secures Transformational Acquisition of High-Grade Rare Earth Element Project in Idaho, USA”

¹ In December 2010, the US Department of Energy's (DOE) [Critical Minerals Strategy](#) identified five rare earth metals including Dy, Nd, Tb, Er, Y as being critical in the short term. These were historically referred to as Critical Rare Earth Oxides (CREO). The 2010 DOE list has now been superseded by the [2022 final list of critical minerals](#) published by the U.S. Geological Survey. There are 50 minerals in the list.

Related Announcements:

[29 August 2022:](#) Megado Initiates Strategic Review at USA Rare Earths Project

[21 June 2022:](#) Felix Strategic Minerals Acquisition Completes

[15 June 2022:](#) Carbonatites located at Surface at North Fork Project, Idaho

[7 June 2022:](#) MEG Raises A\$2.4m to Fund Initial Exploration at North Fork

[14 April 2022:](#) MEG to Acquire US High-Grade Rare Earth Element Project

-ENDS-

Authorised for release by the Board.

For more information:

Ben Pearson

Chief Executive Officer

+61 8 6141 3260

ben.pearson@megadominerals.com

Mark Flynn

Investor Relations

+61 416 068 733

mflynn@megadominerals.com

About Megado Minerals

Megado Minerals Ltd (ASX: MEG) (the Company or Megado) is an ASX-listed company with a recent rare earth acquisition in Idaho, USA, and highly prospective gold assets in Ethiopia.

In June 2022, Megado completed the acquisition 100% of the rights, title, and interest in the North Fork Rare Earth Project ('North Fork'), located in the mining-friendly Idaho Cobalt Belt region of Idaho, USA. North Fork consists of 499 claims (granted and in application), covering approximately 10,309 acres (42km²) with outcropping, high-grade, rare-earth element (REE) mineralised rock. It contains multiple carbonatite-hosted, high-grade, REE mineralised veins that have been observed at surface across numerous prospects over 10km along strike. Previous exploration has returned exceptional grades in channel samples. REE mineralisation displayed at North Fork is high-grade and enriched in critical rare earths (CREO), (typically Y, Nd, Tb, Dy, Eu). Idaho, where North Fork is located, is ranked the best mining policy jurisdiction in the world in 2020 by Fraser Institute.

In Ethiopia, the Company has five granted high-quality gold exploration assets covering 511km² and one licence application covering 227km² in southern and western Ethiopia with the geological potential to host gold deposits of significant scale. Ethiopia contains a world-class greenstone geological terrane and hosts part of the prolific Arabian-Nubian Shield (ANS).

The Megado Belt in southern Ethiopia is hosted within the broader Adola Belt, a granite-greenstone terrane that is part of the ANS and is characterised by a dominant N-S trending suite of metamorphosed rocks hosting significant occurrences of gold mineralisation, including Ethiopia's only modern gold mines, Lega Dembi and Sakaro (+3.0Moz Au). Megado has a premium land position immediately along strike to the north and south of the Lega Dembi and Sakaro deposits covering the same fertile greenstone host rocks and structural setting, in addition to the Chochi Project located proximal to Ethiopia's next gold mine, the +1.5Moz Tulu Kapi deposit.

Forward Looking Statements

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward-looking information.

Competent Persons Statement

Information in this "ASX Announcement" relating to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves has been compiled by Dr Chris Bowden who is a Fellow and Chartered Professional of the Australian Institute of Mining and Metallurgy and is a Director of Megado Gold Ltd.

He has sufficient experience that is relevant to the types of deposits being explored for and qualifies as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2012 Edition). Dr Bowden has consented to the release of the announcement.

Appendix A: Elements Assayed & Identified as Total Rare Earth Oxides (TREO)

Element	Chemical Symbol	Atomic Number
Scandium	Sc	21
Yttrium	Y	39
Lanthanum	La	57
Cerium	Ce	58
Praseodymium	Pr	59
Neodymium	Nd	60
Samarium	Sm	62
Dysprosium	Dy	66
Europium	Eu	63
Gadolinium	Gd	64
Terbium	Tb	65
Holmium	Ho	67
Erbium	Er	68
Thulium	Tm	69
Ytterbium	Yb	70
Lutetium	Lu	71

Note: All elements assayed in Appendix A are included in the [2022 Final List of Critical Minerals](#) published by the US Geological Survey, Department of the Interior.

Appendix B – JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<i>Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	The nature of the samples in the body of this ASX Release relate to rock grab samples from the North Fork Project, Idaho, USA, within tenements (granted and in application) that Felix Strategic Minerals Pty Ltd hold the contractual rights over those tenements. Use of handheld scintillometer, and handheld XRF instruments were used to determine rocks with anomalous pathfinder elements for REE mineralisation.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Sample sites have been chosen selectively to reflect geological features relevant to the target style of mineralisation.
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>	Key aspects are discussed within the body of this release.
	<i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverized to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.</i>	Sampling was 'industry standard' rock grab and chip sampling, as early stage exploration in order to determine mineralisation potential.
<i>Drilling techniques</i>	<i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	Not applicable for this release.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Not applicable for this release.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Not applicable for this release.
	<i>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.</i>	Not applicable for this release.
Logging	<i>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.</i>	Not applicable for this release. No Mineral Resource estimation, mining studies or metallurgical studies have been conducted at this stage.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Rock sample descriptions were qualitative; rock sample analyses were quantitative.
	<i>The total length and percentage of the relevant intersections logged.</i>	All rock samples were logged.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable for this release.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	A representative rock chip sample is collected then sample is put in a labeled sample bag with a corresponding numbered tag inside. A sample card is filled out with the date, UTM coordinates, the samplers name, sample description, etc.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Rock samples were sent to American Analytical Services, Idaho, USA. Samples were prepared for analysis under laboratory code M-SP-R (crush) and M-SP-WSP (pulverise) and SD-4A (4-acid digest). Whole sample is dried and crushed (100%) through jaw-crusher and then split. 200-250grams is pulverised to at least 85% passing #140 mesh (0.1mm). 0.25grams of pulverised sample then undergoes 4-acid ACS grade

Criteria	JORC Code explanation	Commentary
		<p>(HCl, HNO₃, HClO₄, HF) digest.</p> <p>These laboratory preparation techniques are considered appropriate for rock grab and chip samples, given the nature of the early stage exploration.</p>
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Given the nature of the early stage exploration and samples were rock grab and chip, internal lab quality control was considered appropriate for this level of early exploration.
	<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>	<p>Given the nature of the early stage exploration, it is acknowledged that rock grab and chip sampling is selective in nature, in order to initially determine mineralisation potential. No coarse field duplicate (or lab pulp duplicate) samples were collected.</p> <p>It is considered that the sampling is representative of the in-situ material collected, and is considered appropriate for the target style of mineralisation, the requirements for laboratory sample preparation and analyses, and consideration reporting is for early-stage Exploration Results.</p>
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are appropriate (ca. 1kg each) to the material being sampled, and is considered appropriate for the target style of mineralisation, the requirements for laboratory sample preparation and analyses, and consideration reporting is for early-stage Exploration Results.
<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<p>Samples were analysed under laboratory code M-ICP-35-4A an ICP-OES finish for n=35 multielement analyses.</p> <p>Samples were also analysed under laboratory code M-ICPMS-RE which includes an additional 14 rare earth element package (La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu).</p>

Criteria	JORC Code explanation	Commentary
		It is considered that the laboratory procedures and the assaying technique used are considered appropriate for the target style of mineralisation and consideration reporting is for early-stage Exploration Results.
	<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>	Not applicable. Whilst handheld scintillometer and handheld XRF instruments were used to determine rocks with anomalous pathfinder elements for REE mineralisation, results reported in this ASX release are only from the laboratory prepared and analysed results for REE mineralisation.
	<i>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Given the nature of the early stage exploration and samples were rock grab and chip, internal lab quality control was considered appropriate for this level of early exploration.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable for this release.
	<i>The use of twinned holes.</i>	Not applicable for this release.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	All field data is collected from geologists working directly on projects. The data is in both electronic and paper format and is securely stored at the company offices and access is limited to personnel working on the project. Any historic data is reviewed and field verified to determine accuracy.
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made to the assay data.
Location of data points	<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>	GPS accuracy was +/- 5 to 10 m, using modern Garmin GPS's.
	<i>Specification of the grid system used.</i>	WGS 84 Universal Transverse Mercator, Zone 11 Northern Hemisphere.
	<i>Quality and adequacy of topographic control.</i>	GPS accuracy was +/- 5 to 10 m, using modern Garmin GPS's.
	<i>Data spacing for reporting of Exploration</i>	Rock sample spacing is variable. See figures in body

Criteria	JORC Code explanation	Commentary
<i>Data spacing and distribution</i>	<i>Results.</i>	of release.
	<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>	No Mineral Resource or Ore Reserve have been estimated in this ASX Release.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied.
<i>Orientation of data in relation to geological structure</i>	<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>	Given the nature of the early stage exploration, it is acknowledged that rock grab and chip sampling is selective in nature, in order to initially determine mineralisation potential.
	<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>	Not applicable for this release.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Samples are kept under the control of Megado in a safe location until they are hand delivered to the lab.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews of sampling techniques and data have been undertaken at this time.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>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.</i>	Information regarding tenure is included in the body of this release.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i>	The Concessions are in good standing with the governing authority and there is no known impediment to operating in the area. As long as all filing fees are made the property is held into perpetuity.

Criteria	JORC Code explanation	Commentary
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Limited and historical exploration works have been done on the area, which include the reported historical trench results in this and previous related ASX Releases. The previous exploration work is currently under appraisal.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Regional geology of the area consists predominantly of Proterozoic metamorphosed amphibolite and augen gneiss, with younger Palaeozoic igneous carbonatite intrusions, and minor felsic dykes. Rare earth mineralisation is primarily associated with the igneous carbonatite intrusions as dykes and sills, with additional rare earth mineralisation noted within pegmatites, and disseminated within the host rock gneiss and schistose amphibolite rocks.
<i>Drill hole Information</i>	<i>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:</i> <ol style="list-style-type: none"> <i>1. easting and northing of the drill hole collar</i> <i>2. elevation or RL (Reduced Level – elevation above sea level in meters) of the drill hole collar</i> <i>3. dip and azimuth of the hole</i> <i>4. down hole length and interception depth</i> <i>5. hole length.</i> 	Not applicable for this release.
	<i>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.</i>	This information has not been excluded from this release.
<i>Data aggregation methods</i>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	No data aggregation methods have been used.
	<i>Where aggregate intercepts incorporate</i>	Not applicable for this release.

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values have been reported in this ASX Release.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	The results reported in this announcement are considered to be of an early stage in the exploration of the project.
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	Mineralisation geometry is not accurately known as the exact orientation and extend of the known mineralised are not yet determined.
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	Not applicable for this release.
<i>Diagrams</i>	<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>	Appropriate maps, sections, and tables have been included in this ASX Release.
<i>Balanced reporting</i>	<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>	Representative reporting of all grades has been done, see Table 1 in the body of this release.
<i>Other substantive exploration data</i>	<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>	To the best of our knowledge, no meaningful and material exploration data have been omitted from this ASX Release.

Criteria	JORC Code explanation	Commentary
<i>Further work</i>	<i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	Megado Minerals is reviewing the data to determine the best way to advance the projects and will notify such plans once confirmed.
	<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>	Refer to figures in the main body of this ASX Release that shows where exploration works have been conducted, and highlight possible extensions and where future exploration campaigns may focus.