

## Bonanza gold intercept from first diamond drill hole at Mauretania, Tennant Creek

### Highlights

Extension of diamond drill hole MTDD010 returns the first bonanza gold intercept in the sparsely drilled primary gold zone of:

- **3.95m at 57g/t gold, 0.22% bismuth, 20.6g/t silver and 0.23% copper** from 207m including:
  - **1m at 102 g/t gold, 47g/t silver and 0.6% bismuth, and**
  - **0.8m at 135.5 g/t gold, 40.2 g/t silver and 0.34% bismuth**

Previously reported copper mineralisation in the shallower oxide zone of:

- **7m at 0.81% copper from 88m** including:
  - **1m at 1.66% copper** (ASX 17 February 2021)
- Assay results from the remainder of the current 1700m program expected in late July/early August
- Next drill program scheduled for Black Snake and Susan following previous high grade gold intersections (ASX:25 May 2021)
- Ultra-High-Resolution drone magnetic survey 50% complete and aimed at generating new greenfield discoveries

### Emmerson's Managing Director, Rob Bills commented:

---

*"This first drill intersection in the current program demonstrates the unexplored potential beneath the known oxide- gold mineralisation at Mauretania. Previous drilling was focussed on delineating the shallow mineralisation amenable to open pit mining; however, this bonanza intersection now greatly expands the potential for high-grade gold in the underlying primary zone - some 100m below the current modelled open pit floor.*

*Once all the assay results are received, further drilling will be planned to test for extensions of this primary mineralisation that is open in all directions but likely controlled by the WNW and ENE faults – representing the feeder or conduits to the mineralising fluids.*

*Emmerson has a strong pipeline of high-grade gold, copper, and cobalt projects at various stages of exploration. The green-fields discovery at Mauretania is one of our most advanced projects with open pit optimisation studies to benefit from the results of this current drill program.*

*Our Joint Venture partner, TCMG, is fully funding the drill program at Mauretania as part of the \$5.5m earn-in over the Northern Project Area at Tennant Creek. Given the favourable economics of the proposed Mauretania open pit, this project is a priority in the TCMG mining schedule. TCMG are in the advanced stages of a feasibility study to build a central processing hub at Tennant Creek. This hub will process ore from multiple sources in the Tennant Creek district and is forecast to be operating in 2022."*

---



Diamond drill rig commencing the first hole, above the bonanza gold zone at Mauretania. The absence of outcrop highlights the opportunity to deploy new technology and concepts for discovering the next generation of blind, hematite hosted deposits.

### **Mauretania Drilling – testing for extensions to the primary gold mineralisation**

Mauretania is located within the Northern Project Area (NPA) of the Tennant Creek Mineral Field (TCMF) (Figure 1), where historically drilling has been focussed on the shallow oxide mineralisation (figure 2). Diamond drill hole MTDD010 was prematurely terminated last year at 106m due to the impending wet season. This drill hole has now been completed and is one of only three that have intersected the primary gold zone (figure 3). The results together with intersections of similar primary mineralisation from diamond drill hole MTDD009 (ASX: 17 February 2021) of:

- **8.8m at 3.44g/t gold from 181m including:**
  - **2m at 9.0g/t gold** from 186m
- plus, a further shallow high-grade copper zone of:
  - **12m at 2.5% copper, 0.26g/t gold and 0.14% cobalt** from 85m including:
    - **2m at 4.1% copper** from 90m and
    - **9.5m at 0.17g/t gold** from 60m

are highly encouraging. Supporting the typical metal zonation in the TCMF of near surface bonanza style oxide gold, followed by copper at the base (or lateral) and primary gold below.

The mineralisation in drill hole MTDD010 is some 100m below the oxide gold and copper zones, but within the footwall of a massive hematite +/- magnetite ironstone. It consists of 7m of brecciation and intense chlorite alteration with hematite and magnetite stringers (figure 4). Thus, future exploration in the primary zone will be focussed on pinpointing these structurally controlled, brecciated, feeder conduits – where the mineralised fluids have been channelled into the chemically reactive ironstones.

The remainder of the program at Mauretania was Reverse Circulation (RC) drilling, consisting of ten step out holes to establish the lateral extent of the upper oxide mineralisation, prior to finalising the design of the open pit (Figure 3). This program also consisted of geotechnical drilling that will feed into the final pit design.

Mauretania is a greenfields discovery that recognised the association between high-grade gold, copper and hematite ironstones that had largely gone undetected prior to Emmerson's entry to the Tennant Creek Mineral Field in 2008. The hallmark of the Company's discoveries at Edna Beryl, Goanna, Monitor and now Mauretania include the exceptional grade of both copper and gold and their association with hematite dominant ironstones.

## Emmerson and TCMG to drive aggressive gold exploration in 2021

As previously announced, Emmerson has entered into a Strategic Alliance at Tennant Creek with Tennant Consolidated Mining Group (TCMG), which includes the following:

- \$10.5m Exploration Earn-in and JV (EEJV) across both the Northern Project (NPA) and Southern Project (SPA) areas
- A Small Mines JV (SMJV) with a free carried 6% gold gross revenue royalty for production from Small Mines (<250,000oz); and
- A Major Mines (MMJV) interest whereby Emmerson retains up to a 40% interest in any Major Discovery (>250,000oz gold equivalent)

This Strategic Alliance establishes a funded pathway for the development of Emmerson's high-grade gold projects and provides substantial new funding for exploration to continue to build and advance the resource pipeline.

As part of this funding, and consistent with Emmerson applying new technology to make new discoveries, a large drone magnetic survey is underway. The resolution of this survey is far superior to historic, fixed wing surveys due to the drone being able to fly 15m above the ground and on 10m spaced lines.

Emmerson retains 100% ownership of the Jasper Hills and Edna Beryl projects and is advancing these through to planned drilling activities in 2021.

### Next Steps – TCMG Joint Venture

Emmerson and TCMG are advancing Tennant Creek on two major fronts:

- Undertaking advanced scoping studies on existing projects such as Mauretania, Chariot, Malbec West and Black Snake – it is anticipated these will advance to JORC compliant resource estimates in late 2021 and will provide feed for the central mill, plus support a “see through valuation” of the emerging Emmerson royalty business. Noting that under the SMJV, the costs associated with this phase of work are covered 100% by TCMG.
- Exploration and discovery of new gold projects and/or extensions to existing projects. In the first instance this will include drill programs at Black Snake, Susan and further drilling at Mauretania. New technology such as the Ultra High Resolution Drone magnetic survey is aimed at pinpointing new green field opportunities. Emmerson remain the managers and operators of the EEJV until TCMG have met their earn-in commitments.

#### For further information, please contact:

**Rob Bills**

Managing Director and CEO

E: [rbills@emmersonresources.com.au](mailto:rbills@emmersonresources.com.au)

T: +61 8 9381 7838

**Media enquiries**

Michael Vaughan, Fivemark Partners

E: [michael.vaughan@fivemark.com.au](mailto:michael.vaughan@fivemark.com.au)

T: +61 422 602 720

**This release has been authorised by the Board of Emmerson Resources Limited.**

## **About Emmerson Resources, Tennant Creek and New South Wales**

Emmerson has a commanding land position and is exploring the Tennant Creek Mineral Field (TCMF), one of Australia's highest-grade gold and copper fields that has produced over 5.5Moz of gold and 470,000t of copper from deposits including Warrego, White Devil, Orlando, Gecko, Chariot, and Golden Forty. These high-grade deposits are highly valuable exploration targets, and to date, discoveries include high-grade gold at Edna Beryl and Mauretania, plus copper-gold at Goanna and Monitor. These discoveries were found utilising new technology and concepts and are the first discoveries in the TCMF for over two decades.

### **A recent rush of new tenement applications by major and junior explorers in the Tennant Creek district, not only highlights the prospectivity of the region for copper and gold but also Emmerson's strategic 1,800km<sup>2</sup> land holding.**

In addition, Emmerson is fast tracking exploration across five early-stage gold-copper projects in NSW, identified (with our strategic alliance partner Kenex/Duke Exploration ASX: DEX) from the application of 2D and 3D predictive targeting models – aimed at increasing the probability of discovery. Duke can earn up to 10% (to pre BFS) of any project generated providing certain success milestones are met.

The highly prospective Macquarie Arc in NSW hosts >80Moz gold and >13Mt copper with these resources heavily weighted to areas of outcrop or limited cover. Emmerson's five exploration projects contain many attributes of the known deposits within the Macquarie Arc but remain underexplored due to historical impediments, including overlying cover (farmlands and younger rocks) and a lack of effective historic exploration.

### **About Tennant Consolidated Mining Group (TCMG)**

TCMG is a subsidiary of TA Private Capital Security Agent Ltd, a Hong Kong headquartered assets management firm, best known for its private debt solutions spanning trade finance through mid-tenor supply chain financing to mid to longer tenor term and project loans. TA has a diverse portfolio of capital deployed globally including within the Australian mining sector.

TCMG's focus is to rationalise assets in the Tennant Creek area, with the objective of undertaking detailed studies with the ultimate goal of developing a centralised processing facility commercialising known mill feed sources in and around Tennant Creek.

### **Regulatory Information**

The Company does not suggest that economic mineralisation is contained in the untested areas, the information contained relating to historical drilling records have been compiled, reviewed and verified as best as the Company was able. As outlined in this announcement the Company is planning further drilling programs to understand the geology, structure and potential of the untested areas. The Company cautions investors against using this announcement solely as a basis for investment decisions without regard for this disclaimer.

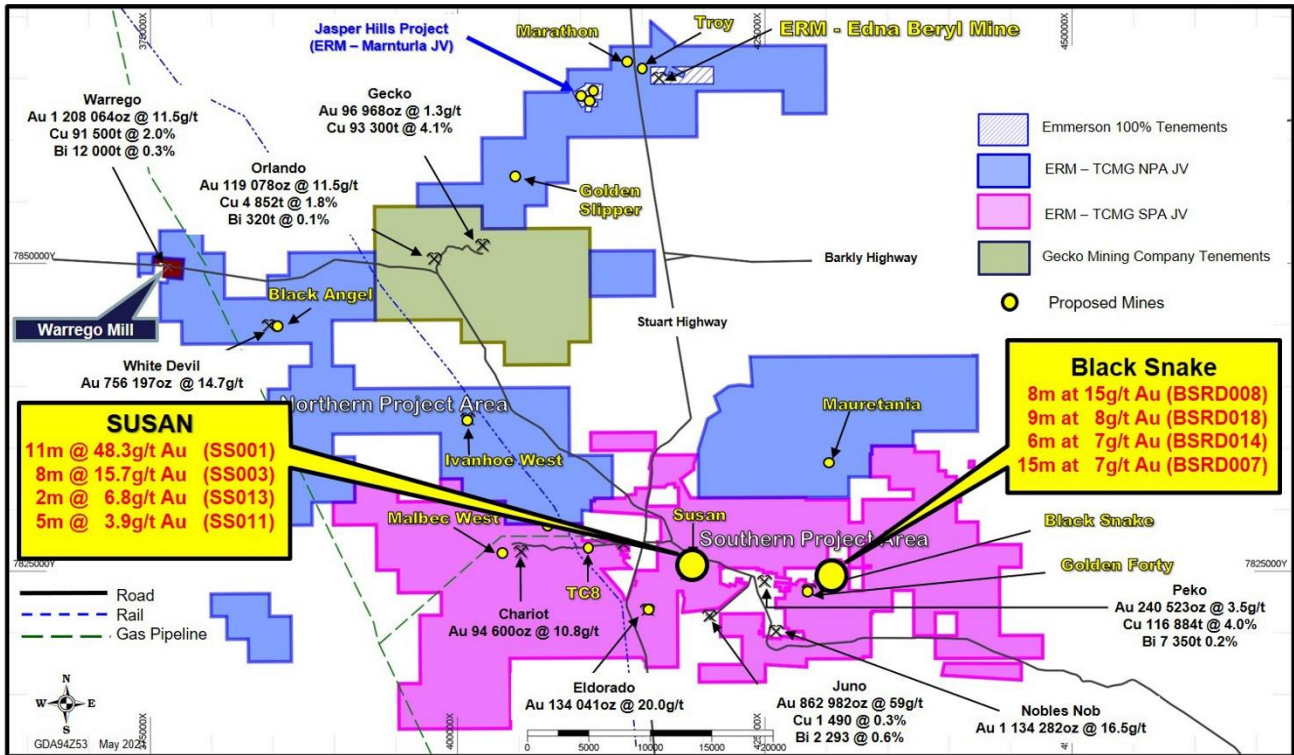
### **Competency Statement**

The information in this release is based on information compiled by Dr Ana Liza Cuison, MAIG, MSEG. Dr Cuison is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2004 edition and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Cuison is a full-time employee of the Company and consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

### **Forward-Looking Statements**

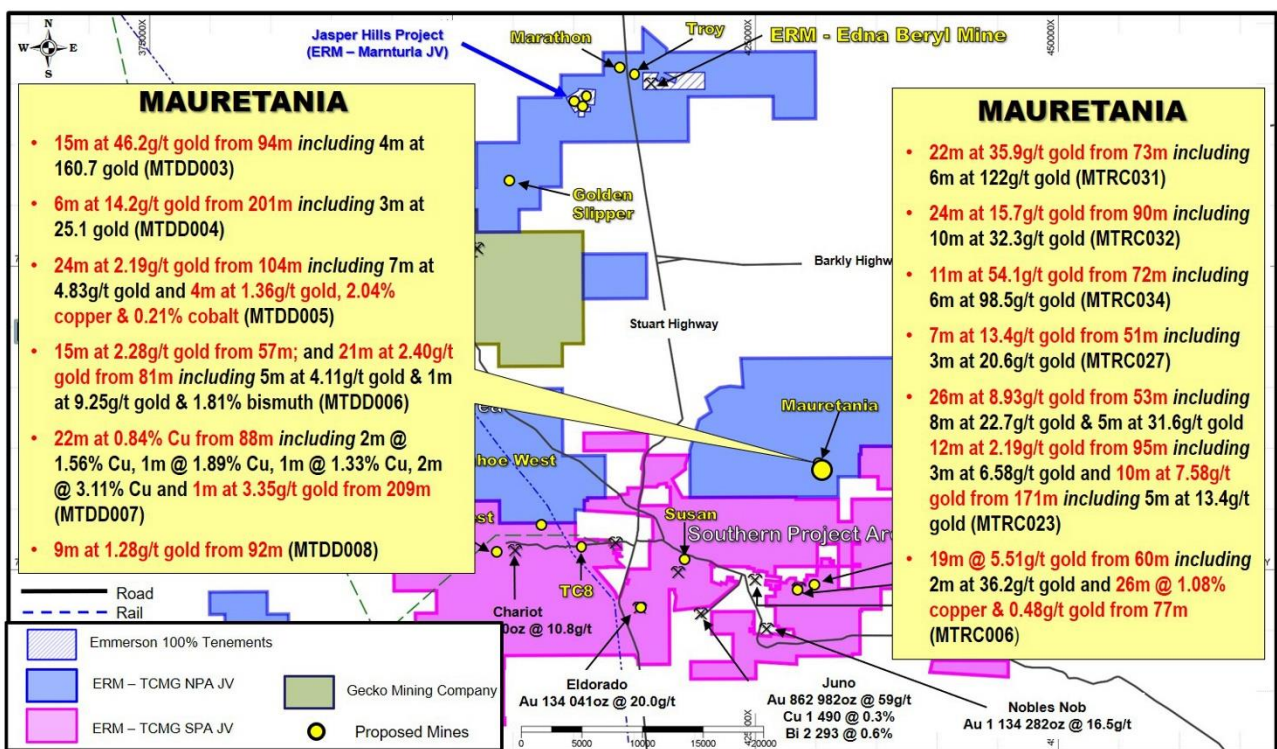
This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Emmerson Resources Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," and similar expressions are forward-looking statements. Although Emmerson believes that its expectations reflected in these forward- looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in the estimation of a Mineral Resource.





**Figure 1.** Map of the Emmerson Tennant Creek Project showing the Northern Project (NPA) and Southern Project (SPA) Areas, which are the subject of two Exploration (EEJV) and Small Mines (SMJV). Yellow dots are potential small mines and/or remnant resources. Noting that Emmerson has retained 100% of the Jasper Hills and Edna Beryl projects. (Black Snake and Susan high grade gold intersections ASX: 25 May 2021).

Note: quoted resources from historical deposits from Ahmad, M., Wygralak, A.S. and Ferenczi, P.A. (1999). Gold deposits of the Northern Territory 2<sup>nd</sup> ed. Darwin: Northern Territory Geological Survey, p.60



**Figure 2.** Mauretania plan view showing previously announced drill results in the upper oxide zone – the subject of advanced mining studies funded 100% by our partner, TCMG.



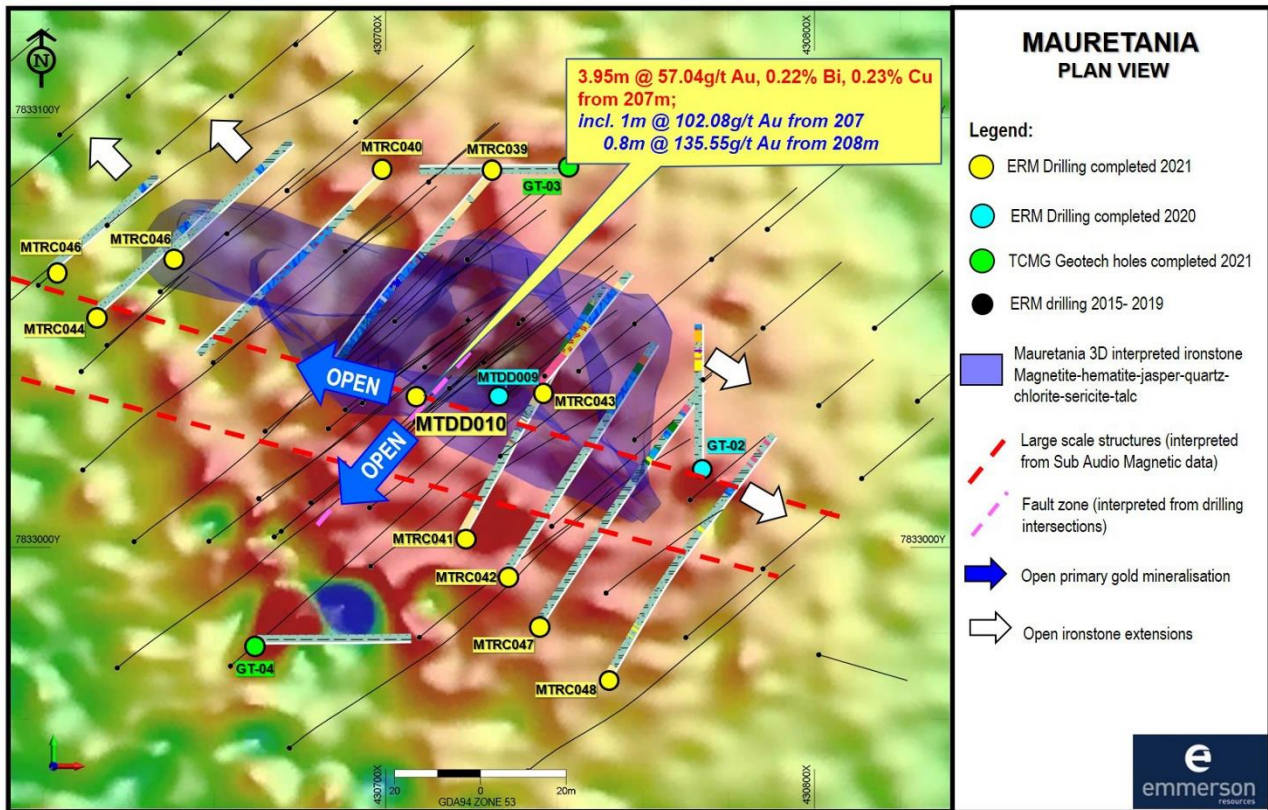


Figure 3. Mauretania plan view showing drill collars from the current program on a background of the magnetic geophysics (red = magnetic high that reflect residual magnetite within the ironstone). Note the blue shaded ironstone is the previous known extent of ironstone in the oxide zone. The extent of ironstone associated with the primary gold zone will be the subject of future drilling.

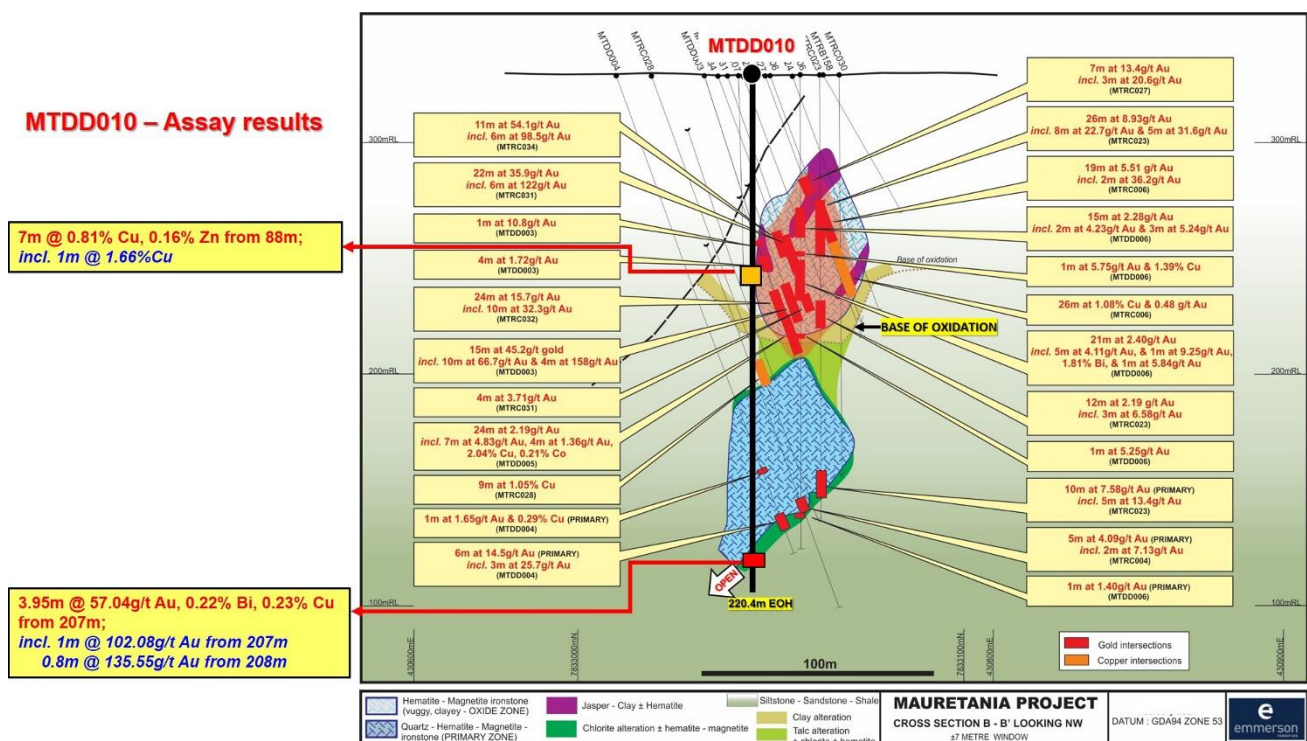


Figure 4. Cross section of Mauretania and drill hole MTDD010 – noting the metal zonation of copper peripheral/lateral to the oxide gold zone, and above the emerging bonanza primary gold zone. The primary gold zone is open in all directions, with the bonanza grades likely reflective of proximity to the structurally controlled feeder conduit.

**Table 1: MTDD010 significant drill hole intersections**

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI mag (deg)	From (m)	To (m)	Width (m)	Au (g/t)	Ag (g/t)	Bi (%)	Cu (%)	Fe (%)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Sb (ppm)	Se (ppm)	Co (ppm)	Sample Type	Geology	Tenement
MTDD010	430706.01	7833035.01	329.0	-90	4.5	207	210.95	3.95	57.04	20.62	0.22	0.23	11.0	31	154	5.0	0.95	1041	62	0.5NQ3	chlorite rock + hematite ± magnetite stringers	ML32214
					<i>incl.</i>	207	208	1.00	102.08	46.79	0.59	0.43	15.3	62	201	4.5	0.53	2733	106			
					<i>incl.</i>	208	208.8	0.80	135.55	40.17	0.34	0.57	13.7	59	167	8.7	1.06	1594	81			

Note: (1) All samples are half core samples

(2) Gold analysis method by 50g fire assay (ICP-OES - FA50/OE04)

(3) Multi element analysis method by Aqua Regia digestion (ICP MS - AR25/OM)

(4) Intersections are reported as downhole lengths and not true width.

(5) Minimum cut-off of 1 g/t Au. No maximum cut-off.

**Table 2. Mauretania drilling collar location data**

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI mag (deg)	Depth (m)	Drill Date	Drill Type	Tenement
MTDD010	430706	7833035	329	-90	4.15	220.4	10/12/2020	DDH	ML32214



The exploration results contained within the above company release are in accordance with the guidelines of *The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves* (the JORC Code, 2012)

## Section 1: Sampling Techniques and Data – MAURETANIA EXPLORATION TARGET – MTDD009 and MTDD010 DIAMOND DRILLING

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>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 downhole 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 (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g 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.</li> </ul>	<ul style="list-style-type: none"> <li>The <i>Mauretania Project</i> holes have been sampled using Diamond (DDH) drilling techniques. MTDD009 was drilled with a total depth of 214m. MTDD010 have been partially drilled down to 106.5m in 2020, drilling resumed in May 2021, drilled to 220.4m. MTDD009 and MTDD010 are vertical holes to confirm shallow oxide gold mineralisation and extended to test for deeper, primary gold mineralisation confirmed by previous drilling.</li> <li>Diamond core has been logged for lithological, density, magnetic susceptibility, and geotechnical characteristics. The core interval for sampling was marked by Emmerson geologist during logging, taking into account the contact of mineralization and alteration. Core was cut along a longitudinal line (core axis) and sampled on geological intervals (0.5 m to 1.5 m) as marked and using the pre-designed sample number/cut sheet</li> <li>MTDD009 &amp; MTDD010 were drilled with PQ3, HQ3 and NQ3 size, sampled on geological intervals cut into half core to provide sample weights of approximately 4.0kg.</li> <li>Individual DDH core samples are pulverised to produce a 25g charge for analysis by Aqua Regia digestion/ ICP MS &amp; 50g charge Fire Assay/ICP-OES.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>MTDD009 - PQ3 = 72.8m, HQ3 = 78.1m, NQ3 = 63.1m, final depth = 214m.</li> <li>MTDD010 – PQ3 = 106.5m, HQ3 = 36.7m, NQ3 = 76.3m, final depth = 220.4m.</li> <li>PQ3 core diameter is 83.0mm</li> <li>HQ3 core diameter is 61.1mm.</li> <li>NQ3 core diameter is 45.0mm</li> <li>MTDD009 &amp; MTDD010 core was not oriented due to the vertical nature of the drill hole.</li> <li>Standard inner tube has been used for the diamond core drilling.</li> <li>PQ3 triple tube was used for drillholes MTDD009 and MTD010</li> </ul>
<i>Drill sample recovery</i>	<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>	<ul style="list-style-type: none"> <li>Recoveries are considered satisfactory. Diamond drill core recoveries were recorded during drilling and reconciled during the core processing and geological logging.</li> <li>The recovery for MTDD009 is 91%.</li> <li>The recovery for MTDD010 is 89.4%.</li> <li>Diamond drill core recovery was marked after each drill run using plastic blocks calibrating depth by the drilling contractor. The driller adjusting rig procedures as necessary including rotation, fluid, pressure to maintain sample integrity.</li> <li>Emmerson field technician contractor then</li> </ul>

		<p>measure/check the recovery after each run, RQD and fracture count, and core loss has been recorded on the original diamond logging sheets (Geotech sheet) and retained for reference.</p> <ul style="list-style-type: none"> <li>No detailed analysis was conducted to determine relationships between sample recovery of metal grades. Emmerson do not consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>
<i>Logging</i>	<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>	<ul style="list-style-type: none"> <li>Standard operating procedures were employed for MTDD09 and MTDD010</li> <li>Drill hole logging data is directly entered into field laptop computer. Standardised code were used for lithology, oxidation, alteration, presence of sulphide information is recorded.</li> <li>Structural logging records orientation of veins, fractures and lithological contacts.</li> <li>Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.</li> <li>Geotechnical logging records the RQD, core lengths, recovery, and fracture count and hardness.</li> <li>Magnetic susceptibility data were collected for diamond core every 1m meter as per standard procedure using a Terraplus KT-10 magnetic susceptibility meter</li> <li>Specific density is recorded for all lithological types and entered in the database.</li> <li>Drill core was logged both qualitative (discretionary) and qualitative (% volume). All drill core is photographed (wet and dry).</li> <li>All the diamond holes (total length = 434.4m) were geologically and geotechnically logged 100%</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<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 appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond core was halved using an automatic core saw. Samples were collected from the same side of drill core.</li> <li>Standard operating procedures were used for sampling diamond core. Areas of geological interest were identified by the Emmerson geologists and the halved core samples dispatched for assay. This procedure meets industry standard where 50% of the total sample interval from the core is submitted for analysis. Sample weights are recoded by the laboratory.</li> <li>No sub-sampling is completed by Emmerson. All sub-sampling is completed by the laboratory.</li> <li>The core interval for sampling was marked by Emmerson geologist during logging, taking into account the contact of mineralization and alteration. The remaining half core is retained and stored at Emmerson's core yard located at Tennant Creek for future viewing and cross-checking of assay values against the actual geology. Where require, further samples may be submitted for quality assurance.</li> <li>The sample sizes are considered to be appropriate to correctly represent the mineralization on the style of mineralisation.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF</li> </ul>	<ul style="list-style-type: none"> <li>The samples are submitted to Interk Laboratory in Alice Springfor preparation. The sample preparation of diamond core follows industry best practice involving coarse crushing of the half core</li> </ul>

	<p>instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul>	<p>sample down to ~10mm followed by pulverisation of the entire sample to a grind size of 85% passing 75 micron.</p> <ul style="list-style-type: none"> <li>• The following techniques were used for analysis: ICP MS - AR25/OM and ICP-OES - FA50/OE04.</li> <li>• No downhole geophysical tools or handheld XRF instruments were used to determine grade.</li> <li>• Magnetic susceptibility data were collected for diamond core every 1m meter as per standard procedure using a Terraplus KT-10 magnetic susceptibility meter.</li> <li>• Laboratory checks include CRM's and/or in-house controls, blanks, splits, and replicates that are analysed with each batch of samples submitted. These QC results are reported along with sample values in the final analytical report.</li> <li>• Emmerson field QC procedures involve the use of certified reference material (CRM's) as assay standards and include blanks. Certified reference material or blanks are inserted at least every 20 samples.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• Original sample data sheets and files have been retained and were used to merge the assay results with the sample intervals for each hole. Assay data is loaded to an industry-standard database and intercepts calculated. Assay data and intercepts are cross-check internally by Emmerson geologist.</li> <li>• No twin drillholes have been completed.</li> <li>• Drill Hole Data including meta data, orientation methods, any gear left in the drill hole, lithological, mineral, structural, geotechnical, downhole survey, sampling, magnetic susceptibility are collected and entered directly into an excel spread sheet using drop down codes.</li> <li>• All digital logs, sample ledgers, assay results were uploaded to a secure server. The merged and complete database is then plotted imported to Micromine software for assessment.</li> <li>• Data back-ups (onsite) are employed to external drive.</li> <li>• No adjustment were made on original assay data for the purpose of reporting grade and mineralized intervals.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>• Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole collars were surveyed (set out and pick up) using a differential GPS and by a suitably qualified company employee.</li> <li>• Collar survey accuracy is +/- 30 mm for easting, northing and elevation coordinates.</li> <li>• Downhole survey measurements for diamond drilling were collected at a minimum of every 30m using a True North Seeking Gyro (Axis Mining Technology)</li> <li>• Co-ordinate system GDA_94, Zone 53.</li> <li>• Topographic measurements are collected from the final survey drill hole pick up.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• Data spacing for reporting of Exploration Results.</li> <li>• 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.</li> <li>• Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill density within the Mauretania Exploration Target area is 10m x 10m.</li> <li>• The mineralised areas are yet to demonstrate sufficient grade or continuity to support the definition of a Mineral Resource and the classifications applied under the 2012 JORC code.</li> <li>• No sample compositing was applied.</li> </ul>

<p><i>Orientation of data in relation to geological structure</i></p>	<ul style="list-style-type: none"> <li>• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• MTDD009 and MTDD010 are vertical holes</li> <li>• No orientation-based sampling bias has been identified in the data at this point.</li> <li>• Results at this stage suggest that the geological and geophysical targets being tested have been drilled in the correct orientation.</li> <li>• Diamond core sampling is generally defined by geological characteristics and controlled by alteration and lithological boundaries. No orientation-based sampling biased has been identified in the data.</li> </ul>
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>• Cut samples were placed in sealed calico bags with predetermined sample number, placed in polyweave bags for transport to the assay laboratory.</li> <li>• Digital data is emailed to the Exploration Manager. The samples are placed in sealed polyweave bags and then larger bulka bags for transport to the sample preparation facility in Alice Springs (laboratory).</li> <li>• The laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> <li>• Tracking is available through the internet and designed by the Laboratory for ERM to track the progress of batches of samples.</li> <li>• Sample receipt is logged into ERM's sample ledger.</li> <li>• While samples are being processed in the Lab, they are considered to be secure.</li> <li>• All diamond core is stored in Emmerson yard in Tennant Creek</li> </ul>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>• No formal audits ore reviews have been completed on the samples being reported.</li> </ul>



**Section 2: Sampling Techniques and Data – MAURETANIA EXPLORATION TARGET –  
MTDD009 and MTDD010 DIAMOND DRILLING**

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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>	<ul style="list-style-type: none"> <li><i>The Mauretania Exploration Target</i> is located within ML32214.</li> <li>Application for a Mineral Lease has been granted by the Northern Territory Government in 7th April 2021 for a period of 20 years, .</li> <li><i>The Mauretania exploration target</i> is located on Tennant Station Perpetual Pastoral Lease.</li> <li>ML32214 is 100% held by Emmerson Resources Limited.</li> <li>Land Access is secured through Emmerson's Indigenous Land Use Agreement (ILUA) with the CLC which is in good standing.</li> <li>Land Access is secured through Emmerson's Land Access Agreement signed by the owners of the Tennant Creek station.</li> <li>Heritage surveying (assisted by the Central Land Council) was conducted prior to any exploration being conducted within the <i>Mauretania Project Area</i>.</li> <li>Sacred Site Certificate Number 2021-034 (C2021-034) was issued post field inspection allowing field exploration and drilling to commence.</li> <li>Two exclusion zones were identified during the field inspections however do not impact on the current exploration drilling.</li> <li>Emmerson do not believe that the two identified exclusion zones will impact of future exploration of the <i>Mauretania Project Area</i>.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Emmerson Resources commenced exploration at the <i>Mauretania Exploration Target</i> in 2015. RAB drilling (158 holes for 6,956 metres), 31 RC holes for 4,487 metres (MTRC003-MTRC034) and 5 diamond (HQ) drill hole tails for 738.1m.</li> <li>Regional mapping and rock chipping was undertaken by previous explorers. Most of this work was completed in the 1970's by Australian Development Pty Ltd and in the 1980's by Normandy Tennant Creek</li> <li>Adelaide Petroleum NL (Sabminco NL JV) drilled 11 RC holes at the Black Cat Prospect (1988) however did not discover significant results and no further work was done.</li> <li>Matana Minerals NL also mapped the general area in 1989.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The reader is referred to AusIMM Monograph 14 (Geology of the Mineral Deposits of Australia and Papua New Guinea), Volume 1, pp. 829-861, to gain an introduction to the regional geology and styles of gold-copper mineralisation of the area.</li> <li>In 1995 the Northern Territory Geological Survey released a geological map and</li> </ul>

		<p>explanatory notes for the Tennant Creek 1:100,000 sheet, which covers the area of the license.</p> <ul style="list-style-type: none"> <li>• The rocks of the Warramunga Formation host most of the ore bodies in the region and underlie the Exploration License.</li> <li>• Mineralisation is considered to be Proterozoic Iron Oxide Copper Gold (IOCG) mineralisation of similar style and nature to other mineralisation / deposits in the Tennant Creek Mineral Field.</li> </ul>
<i>Drillhole information</i>	<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 drillholes: <ul style="list-style-type: none"> <li>○ easting and northing of the drillhole collar</li> <li>○ elevation or RL of the drillhole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ downhole 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>	<ul style="list-style-type: none"> <li>• A list of drill hole information, collar detail and intersections is provided in the main text, Table 1 and Table 2.</li> <li>• Non-significant assay values were not individually reported. Lower cut-offs are shown in Table 1.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• 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.</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 values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Mineralized intersections are reported as down hole intervals and not weighted averages.</li> <li>• Significant Intersections and cut-off grade are shown in Table 1.</li> <li>• These results are exploration results only and no allowance is made for recovery losses that may occur should mining eventually result, nor metallurgical flow sheet considerations.</li> <li>• No metal equivalent values reported</li> </ul>
<i>Relationship between mineralization widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>• If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• Mineralisation identified at the <i>Mauretania Exploration Target</i> is contained within hematite-magnetite-quartz jasper ironstone in the oxidized zone, and intense chlorite alteration with hematite and magnetite stringers in the primary zone see cross – section in the text).</li> <li>• The ironstone dips ~75 degrees to the southwest and strikes NW-SE. Ironstone intersections from current drilling showed a lateral extent of ~150m</li> <li>• Downhole lengths only, true width not known</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• 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 drillhole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to Figures in body of text.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Drilling results are reported at cut-offs as shown in Table 1.</li> </ul>

<p><i>Other substantive exploration data</i></p>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to body of report.</li> </ul>
<p><i>Further work</i></p>	<ul style="list-style-type: none"> <li>• The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>• Geological reinterpretation based on new drilling information</li> <li>• Refer to Figures and text in body of report</li> </ul>