

ASX Announcement ASX: ERM ABN: 53 117 086 745

11 August 2015

# **Gold Production to Restart in Tennant Creek**

- Tribute mining agreement entered into with Edna Beryl Mining Company as part of strategy to monetise non-core assets.
- Underground production planned to recommence at the high-grade Edna Beryl Gold mine.
- Other non-core assets being considered for tribute mining to produce income from the valuable tenement holding.

Emmerson Resources Limited (Emmerson) and partner, Evolution Mining Limited (Evolution) are pleased to announce the signing of a "small mines" Tribute Agreement with Edna Beryl Mining Company (EBMC). This agreement allows EBMC to commence permitting and if successful, mining of the high-grade Edna Beryl gold deposit within Emmerson's Northern Project Area (Figures 1 & 2).

Edna Beryl was discovered by prospectors in 1935 and mined underground in the 1940s and 1950s to a maximum depth of approximately 50 metres (Figures 2 & 3). Production up until 1952 was reportedly 2,700t of ore at an exceptional grade of 53g/t gold.

More recent exploration in the Edna Beryl area between 1996 and 2000 by Giants Reef Mining outlined additional high-grade gold mineralisation below the historic workings and resulted in an estimate being reported in 1998 by independent consultants in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC:1998). While this estimate does not meet the minimum reporting requirements for a Mineral Resource under the current 2012 JORC Code, Emmerson considers the Edna Beryl mineralisation to constitute a conceptual exploration target of 5,000t to 10,000t at a likely grade of 20 to 30 g/t gold, thus with further exploration will result in the estimation of a Mineral Resource.

EBMC (formally known as Craig's Mining Services) are narrow vein mining specialists with over 50 years of combined mining and mine management experience. The principals of EMBC are very familiar with the Tennant Creek Mineral Field, having started their careers at the White Devil gold mine and successfully completed similar small-scale underground mining projects at Rising Sun and New Hope. EBMC also has prior underground experience at Edna Beryl having been involved with exploratory shaft sinking and ore extraction under the previous owners of the field, Giants Reef Mining and also produced approximately 410 ounces of gold between 2004 and 2005 from the upper mineralised pod (Figure 2). EBMC has advised Emmerson that they intend to commence mining as soon as all statutory requirements are met (Figure 3).

This standalone Tribute Agreement with EBMC provides Emmerson with a number of advantages:

- a risk-free, near term income stream from its non-core assets via a royalty agreement;
- future access to refurbished underground workings for near mine exploration; and
- the opportunity to monetise other non-core assets within our extensive tenement holding, subject to formal agreements being executed.

Emmerson's Managing Director, Mr Rob Bills commented: "This agreement is a major step toward the resumption of mining activities within the Tennant Creek Mineral Field and will benefit all stakeholders. The Tribute Agreement is structured so that EBMC is self-sufficient and does not distract from our key task of discovering a new generation of gold-copper deposits in partnership with Evolution. Moreover, if successful the tribute agreement will supplement our already healthy cash reserves and provide further opportunities to gain access to these historic, high-grade mines for near-mine exploration, keeping in mind that some of the most famous mines within the mineral field such as White Devil were discovered from similar strategies."

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## About Tennant Creek and Emmerson Resources

The Tennant Creek Mineral Field (TCMF) is one of Australia's highest grade gold and copper fields producing over 5.5 Mozs of gold and 470,000 tonnes of copper from a variety of deposits including Gecko, Orlando, Warrego, White Devil, Chariot and Golden Forty, all of which are within Emmerson Resources (ASX: ERM) exploration and joint venture portfolio. These deposits are considered to be highly valuable exploration targets and, utilising modern exploration techniques, Emmerson has been successful in discovering copper and gold mineralisation at Goanna and Monitor in late 2011, the first discoveries in the TCMF for over a decade. To date, Emmerson has only covered 5.5% of the total tenement package (in area) with these innovative exploration techniques and is confident that, with further exploration, more such discoveries will be made.

Emmerson holds 2,500km<sup>2</sup> of ground in the TCMF, owns the only gold mill in the region and holds a substantial geological database plus extensive infrastructure and equipment. Emmerson has consolidated 95% of the highly prospective TCMF where only 8% of the historical drilling has penetrated below 150m.

Emmerson is led by a board and management group of experienced Australian mining executives including former MIM and WMC mining executive Andrew McIlwain as non-executive chairman, and former senior BHP Billiton and WMC executive Rob Bills as Managing Director and CEO.

Pursuant to the Farm-in agreement entered into with Evolution Mining Limited (Evolution) on 11 June 2014, Evolution is continuing to sole fund exploration expenditure of \$15 million over three years to earn a 65% interest (Stage 1 Farm-in) in Emmerson's tenement holdings in the TCMF. An option to spend a further \$10 million minimum, sole funded by Evolution over two years following the Stage 1 Farm-in, would enable Evolution to earn an additional 10% (Stage 2 Farm-in) of the tenement holdings. Evolution must spend a minimum of \$7.5 million on exploration, or pay Emmerson the balance in cash, before it can terminate the

farm-in. Emmerson is acting as manager during the Stage 1 Farm-in and is receiving a management fee during this period. Exploration expenditure attributable to the Stage 1 Farm-in to date is approximately \$5 million.

## About Evolution Mining

Evolution Mining (ASX:EVN, <u>www.evolutionmining.com.au</u>) is a leading, growth-focused Australian gold miner. The Company operates five wholly-owned mines – Cracow, Mt Carlton, Mt Rawdon and Pajingo in Queensland and Edna May in Western Australia.

Group production for FY15 totalled 437,570 ounces gold equivalent at an All-In Sustaining Cost of A\$1,036 per ounce."

### Regulatory Information

The Company advises that 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 by the Company, the potential quantity and grade of this exploration target is conceptual in nature, there has been insufficient exploration to determine a mineral resource (JORC 2012) and there is no certainty that further exploration work will result in the determination of a mineral resource. Emmerson are planning further drilling programs to understand the geology, structure and potential of any 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 report which relates to Exploration Targetsis based on information compiled by Mr Steve Russell BSc, Applied Geology (Hons), MAIG, MSEG. Mr Russell 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 he 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. Mr Russell is a full time employee of the Company and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

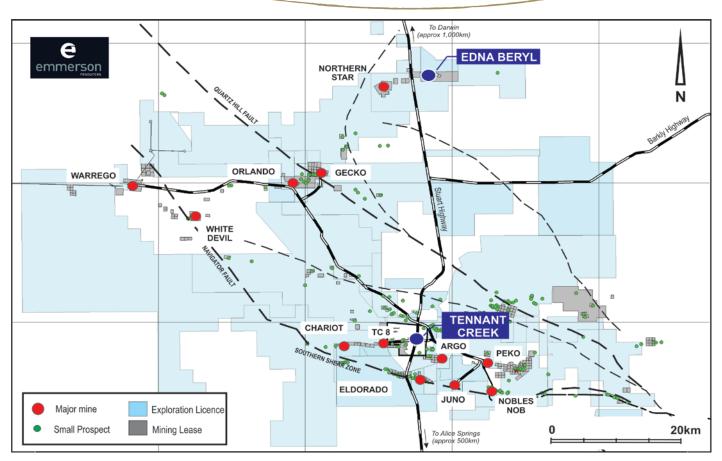


Figure 1. Edna Beryl location plan on Emmerson Exploration and Mining tenements.

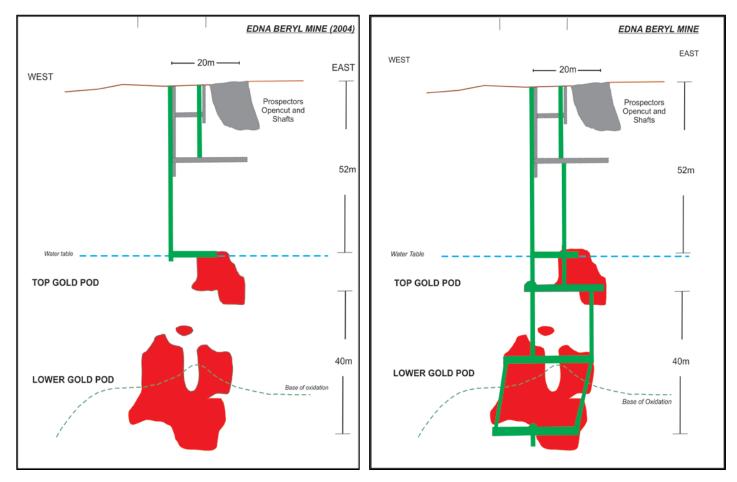


Figure 2. Plan View: Existing underground development at Edna Beryl

Figure 3. Proposed shaft development at Edna Beryl

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 – EDNA BERYL EXPLORATION TARGET

	ION 1 SAMPLING TECHNIQUES AND DATA – E	
Criteria 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 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 (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>	<ul> <li>Commentary</li> <li>The Edna Beryl Exploration Target has been sampled using RAB, Reverse Circulation (RC) and diamond drilling (DD) techniques. 24 RAB holes for 1,140m, 29 RC/Percussion holes for 2,534m and 26 Diamond holes for 4,678.2m have been completed. The drill hole spacing is nominal 10m x 10m grid spacing. In areas of mineralisation spacing has been reduced to 5m x 5m. Holes have been angled to optimally test the host shear zone. Typically, most drill holes have been drilled towards the North at angles (dip) between 45 to 70 degrees from surface.</li> <li>RAB samples consist of 4m composites which may have suffered from down-hole contamination and were not used in any resource estimation. Only RC and Diamond data was used for resource estimations which included 55 holes and 2,373 samples.</li> <li>RC chips are riffle split on site to obtain 3m composite samples from which 2.5 – 3.0kg was pulverised (at the laboratory) to produce a 50g charge for analysis by multi acid digest with an AAS (Cu,Fe,Bi) finish &amp; Fire Assay (Au) finish.</li> <li>Individual 1m samples were pulverised (at the laboratory) to produce a 50g charge for analysis by multi acid digest with an AAS (Cu,Fe,Bi) finish &amp; Fire Assay (Au) finish.</li> <li>RC samples were collected via a fixed splitter that is mounted to the drill rig. Samples were manually split a second time by field assistants.</li> <li>Diamond core was used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes.</li> <li>No assessment of the QC of drill hole sampling methods, after cut by the drill rig can be made from available data, hence the author has to assume no significant errors occurred during or post drilling sampling process. QAQC measures are assumed to be as per industry best practice for the time.</li> <li>Diamond core was also collected (HQ). Core was sampled on geological intervals (0.5 m to 1.5 m), cut into half core using a standard brick saw. S</li></ul>
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>	<ul> <li>Assay (Au) finish.</li> <li>RAB, RC and Diamond drilling accounts for 100% of the current drilling at <i>the</i> Edna Beryl Exploration Target.</li> <li>RC drilling utilizes a 4.5 inch, face sampling bit.</li> <li>NO2 core diameter is 50.6mm.</li> <li>HQ core diameter is 63.5mm.</li> <li>Drill hole depths range from 17m to 508m.</li> <li>Sections of diamond drill core has been oriented to obtain structural measurements however orientation tool type and frequency could not be established with any degree of certainty.</li> <li>Diamond core and RC recoveries are logged and recorded in the database.</li> <li>Standard inner tube has been used.</li> <li>Diamond core from the Edna Beryl exploration target was reconstructed into continuous runs on a 6m long angle-iron cradle for orientation marking.</li> <li>Depths are checked against the depth given on the core blocks for accuracy.</li> </ul>
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</li> </ul>	<ul> <li>accuracy.</li> <li>RC samples were visually checked for recovery, moisture and contamination.</li> <li>Any issues or concerns were recorded in the Giants Reef database.</li> <li>Overall recoveries for diamond core are &gt;80% however recovery and RQD information is not complete so caution is required.</li> </ul>

Criteria	JORC Code explanation	Commentary
	and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<ul> <li>The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples.</li> <li>Emmerson consider that there is evidence for sample bias that may have occurred due to preferential loss/gain of fine/coarse material. Visible (course) gold is identified in sections of diamond core so caution is required.</li> </ul>
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>	<ul> <li>Standard operating procedures are employed by Giants Reef for logging RAB, RC and Diamond core samples.</li> <li>All drill core and RAB &amp; RC samples was lithologically logged.</li> <li>No lithological log could be completed in zones were no core was recovered due to voids encountered.</li> <li>Drill hole logging data was transcribed into Giants Reef's database post drilling.</li> <li>A detailed validation of all drilling data was completed in 1999 by a full time Giants Reef geologist.</li> <li>Standardised codes were used for lithology, oxidation, alteration and presence of sulphide minerals.</li> <li>Structural logging of selected diamond drill core 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>RQD logging records core lengths, recovery, hardness and weathering however this data was not routinely collected.</li> <li>Magnetic susceptibility data for selected diamond core was collected as per Giants Reef procedures.</li> <li>All drill core was reported to be photographed, however Emmerson geologists could not locate digital or hard copy data.</li> <li>Diamond core is stored in Tennant Creek however several holes (or sections of holes are missing or incomplete. RC chips could not be located.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <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 in situ 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> <li>Standard operating procedures are used by Giants Reef Mining at the Edna Beryl Exploration Target) for sampling RC and diamond core samples.</li> <li>Core for the Edna Beryl Exploration Target was cut in half (NQ2 &amp; HQ) at Giants Reef's Tennant Creek exploration office, using a hand operated brick saw.</li> <li>All samples were collected from the same side of the core and were half core samples.</li> <li>Half core samples are submitted for analysis, unless a field duplicate was required, in which case quarter core samples were submitted.</li> <li>The sample preparation of diamond core for followed industry best practice (at that time) in sample preparation involving oven drying, coarse crushing of the half core followed by pulverisation of the entire sample (total prep) using grinding. The sample preparation for RC samples is identical, without the coarse crush stage.</li> <li>Pulverised material not required by the laboratory (pulps) including duplicate samples were returned to Giants Reef however have subsequently been lost.</li> <li>Coarse rejects are disposed of by the Laboratory.</li> <li>RC samples were collected on the rig using cone (from the drill rig) and then riffle split by the field assistants if dry to obtain a 3 kg sample.</li> <li>If samples are wet, they are left to dry before being riffle split.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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 instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg</li> </ul>	<ul> <li>No assessment of the field QC of drill hole sampling methods, after cut by the drill rig can be made from available data, hence the author has to assume no significant errors occurred during or post drilling sampling process. QAQC measures are assumed to be as per industry best practice for the time.</li> <li>Samples typically weighed less than 3kg to ensure total preparation at the pulverisation stage.</li> <li>RC field duplicates were collected on the 3m composites samples,</li> </ul>

Criteria	JORC Code explanation	Commentary
	standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>using a riffle splitter.</li> <li>Individual 1m RC sample duplicates were also collected using the same technique.</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. Barren quartz washes are also routinely used in zones of visible gold mineralisation.</li> <li>QAQC data was difficult to locate and is not included as a digital database.</li> <li>The sample sizes are considered to be appropriate to correctly represent the oxide and fresh mineralisation at the Edna Beryl Exploration Target based on: the style of mineralisation (iron oxide copper gold), the thickness and mineral consistency of the intersection(s).</li> </ul>
Verification of sampling and assaying	<ul> <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> <li>The Exploration Manager of Emmerson has visually verified significant intersections in Diamond core however not in the RAB or RC as samples could be found.</li> <li>Assay Corp and North Australian Laboratories located in Pine Creek, Northern Territory conducted all analytical analysis.</li> <li>The geochemical data was managed by Giants Reef in house and not an external database administrator.</li> <li>The digital data was not secured through a relational database and was kept in Micromine.</li> <li>Digital laboratory data was and uploaded directly to Giants Reef Micromine database by a project geologist.</li> <li>Original data sheets and files (when located) have been retained and were used to validate the contents of the database against the original logging.</li> <li>No twin drill holes have been completed at the Edna Beryl Exploration Target.</li> </ul>
Location of data points	<ul> <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> <li>Drill hole collars were surveyed (pick up) using a differential GPS and by a suitably qualified surveyor based out of Alice Springs.</li> <li>Collar survey accuracy is +/- 50 mm for easting, northing and elevation coordinates.</li> <li>Co-ordinate system GDA_94, Zone 53.</li> <li>Topographic measurements are collected from the final survey drill hole pick up.</li> <li>Downhole survey measurements were collected at a minimum of every 30m using an Eastman Single-Shot® camera for RC and every 6-12m for diamond drill holes</li> <li>This survey camera equipment is quoted by the manufacturer to have an accuracy of         <ul> <li>Dip ± 90° ± 0.5°</li> <li>If the measurement is considered to be affected by magnetic material (ironstone) then an average from the last non affected and the next non affected measurement is used.</li> </ul> </li> </ul>
Data spacing and distribution	<ul> <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>	The spacing of drill hole collars is erratic, possibly to allow for the high degree of drilling deviation encountered in the Tennant Creek

Criteria	JORC Code explanation	Commentary
		Core sampling is generally defined by geological characteristics and controlled by alteration and lithological boundaries.
Orientation of data in relation to geological structure	<ul> <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> <li>Exploration drilling is at a high angle to the mineralized bodies and or shear zone.</li> <li>Exploration drilling is perpendicular to mineralized bodies or shear zone.</li> <li>No orientation based sampling bias has been identified at the Edna Beryl Exploration Target in the data at this point.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were placed in sealed polyweave bags and larger bulka bags for transport to the assay laboratory (Pine Creek).</li> <li>The assay laboratory confirms that all samples have been received and that no damage has occurred during transport.</li> <li>Results data was faxed to the Exploration Manager of Giants Reef and also emailed to the Project geologist.</li> <li>While samples are being processed in the Lab they are considered to be secure.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>An internal review of the sampling techniques, QAQC protocols and data collection <u>has not been conducted by Emmerson.</u></li> <li>Digital Rock Services Pty Ltd (1998) and Rocksearch Australia (?) validated historical data on two separate occasions. Minor issues were identified and remedied at the time.</li> <li>In 2004 a 52m shaft was sunk into the Edna Beryl exploration target where mineralisation was intersected as per the data.</li> </ul>

### SECTION 2 REPORTING OF EXPLORATION RESULTS – EDNA BERYL EXPLORATION TARGET

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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> <li>The Edna Beryl Exploration Target lies wholly within Mineral Lease (ML) C705.</li> <li>The Edna Beryl Exploration Target is located 37kms North of Tennant Creek Township and 3kms east of the Stuart Highway.</li> <li>Edna Beryl is situated on map sheet SE53-14 Tennant Creek 1:250,000 and sheet 5759 Flynn 1:100,000 at GDA coordinate 416500mE 7864700mN.</li> <li>MLC705 is located within Aboriginal Freehold Land held by the Warumungu Aboriginal Land Trust (NT portion 1754). The tenement is 100% held by Emmerson Resources Limited.</li> <li>The mine is on Aboriginal freehold land. An agreement under the Aboriginal Land Rights (Northern Territory) Act 1976 has been entered into between Emmerson Resources and the Central Land Council on behalf of the Aboriginal landowners. The agreement provides for the protection of sites, the payment of compensation and allows the landowners unfettered access to the lease area (other than the immediate mine site where there are restrictions).</li> <li>Emmerson Resources are in Joint Venture with Evolution Mining.</li> <li>Exclusion Zones are identified within MLC 705 however does no impact on the Edna Beryl Exploration Target area.</li> <li>MLC 705 is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Edna Beryl was discovered in 1935 and mined in the 1940s and 1950s by excavation of vertical shafts and horizontal drives to a maximum depth of about 50 metres. Production up until 1952 was reportedly 2,700 tonnes of ore at an average grade of 53 grams gold per tonne.</li> <li>Giants Reef Mining conducted all known "modern" exploration in and around the Edna Beryl Exploration Target Area.</li> <li>Giants Reef has carried out exploration on the Edna Beryl area from 1990 to 2005 and during this time identified significant gold mineralisation below the original workings.</li> <li>An existing shaft sunk during the earlier mining was refurbished in 1996.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>In 2004 – 2005 mining was conducted by the Edna Beryl Mining Company (formally known as Craig's Mining Services) in a Tribute arrangement with Giants Reef Mining. Approximately 410 ounces was produced during this period from the upper mineralised pod from an exploration shaft and drive to current depth of 52m.</li> </ul>
		• Influx of underground water plus declining gold price ceased the operation in July 2005.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	Gold and copper-gold deposits discovered in the Tennant Creek gold field to date, are hosted in the Lower Proterozoic Warramunga Formation; a metamorphosed (greenschistfacies) greywacke-siltstone-shale sedimentary sequence, that usually displays a pronounced east-west cleavage. Ore occurs adjacent to steeply dipping, lenticular or pipe-like magnetite / haematite / chlorite / quartz bodies ('ironstone') that are found along east-west trending structures. It is generally thought that the magnetite/haematite was hydrothermally formed in dilation zones along the controlling structures, and that the deposition of gold, sulphides and associated alteration minerals was a later event with mineralisation possibly being derived from a different source but following the same structurally controlled path.
		• In plan view, the ironstone bodies tend to be narrowest in the north- south direction and elongated east west, reflecting the regional cleavage and shearing. Edna Beryl clearly follows this pattern. Their vertical dimensions may run to hundreds of metres, beyond the reach of surface drilling. Ore grades may occur over substantial vertical intervals of an ironstone pipe or lens, but are not expected to occur over the entire length.
		The mineralisation style is considered to be Iron Oxide Copper Gold.
		Supergene enrichment is very evident.
Drillhole information	<ul> <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> <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> </ul>	<ul> <li>A list of the drill holes, collar detail and intersections has not been provided as no significant or mineralised intersections have been reported in the body of this text or figures.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Mineralized RC and Diamond intersections are reported as down hole intervals and not weighted averages.</li> <li>The results discussed 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> </ul>
Relationship between mineralization widths and intercept lengths	<ul> <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 (eg 'downhole length, true width not known').</li> </ul>	The holes drilled within the Edna Beryl Exploration Target area are perpendicular the east-west striking mineralised zone. The holes were designed and drilled perpendicular to the steep dipping mineralised zone making the intercepts approximate to true width.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any	Refer to Figures in body of text.

Criteria	JORC Code explanation	Commentary
	significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	
Balanced reporting	<ul> <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> <li>Due to the age of this Resource estimation, Emmerson are cautious and do not believe the historical Resource estimate can be reported in accordance with the current 2012 JORC Code. Emmerson considers the Edna Beryl mineralisation to be an Exploration Target.</li> <li>It is uncertain that following evaluation and/or further exploration work that the historical estimate will be able to be reported as Mineral Resources or Ore Reserves in accordance with the requirements in Appendix 5A (JORC Code).</li> </ul>
Other substantive exploration data	<ul> <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> <li>Geotechnical logging was carried out on all diamond drill holes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material was stored in the structure table of the Micromine database.</li> <li>Density measurements were collected by Giants Reef geologists.</li> <li>Metallurgical testing of selected mineralised Edna Beryl samples was conducted by Metcon Laboratories Pty Ltd in 1996.</li> <li>Metallurgical testing concluded that 70% could be gravity recovered with the remaining gold cyanide soluble so that total gold extraction of &gt;98% could be obtained. Screen Fire Assay of selected samples was conducted by Giants Reef Mining.</li> <li>Geophysical magnetic susceptibility logging is completed at 1m intervals on site (RC drilling) and in the core shed for selected sections of diamond core.</li> <li>Thin section samples were collected by Giants Reef Mining to assist in the refinement of the geological model.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg 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> <li>Once the underground development has been established, Emmerson plan to conduct a small underground diamond drilling program searching for lateral and down dip continuance of the known Edna Beryl mineralisation.</li> <li>Several other exploration targets are proximal to the Edna Beryl exploration target. Exploration data is currently being reviewed and evaluated.</li> <li>It is likely that additional surface drilling will occur testing for the similar style of mineralisation as reported.</li> </ul>