ASX Announcement

ASX: ERM

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18 September 2017

Drilling defines new gold targets at Edna Beryl in the NT. Exploration ramps up across five projects in NSW

Highlights

- **The broad spaced regional drill program at Edna Beryl has successfully delineated new ironstones that host gold and copper mineralisation – providing new targets for detailed follow-up drilling**
- **Deep diamond drilling at Edna Beryl has confirmed the ironstones and gold mineralisation continues at depth and remains open**
- **Planning is underway for developing an underground exploration/drill drive from the Edna Beryl East mine workings. Providing a more effective platform to infill drill the high grade gold intersected outside of the Tribute area**
- **The next 2,500m drill campaign at Tennant Creek (funded by JV partner Evolution Mining) will focus on the high grade Gecko-Goanna-Monitor copper-gold project**
- **Large geophysical survey underway at Kadungle in NSW to test for extensions to the previously intersected epithermal gold and porphyry copper-gold**

Emmerson Resources Limited ("Emmerson" ASX: ERM) is pleased to announce that the near mine and regional exploration programs completed at Edna Beryl within its 2,800km^2 Tennant Creek project has discovered additional ironstones, some highly anomalous in both copper and gold (figure 1& 2, table 1).

The deep diamond drill program at Edna Beryl has confirmed that ironstones and mineralisation persist at depth, with the best intersections in EBWDD073 of 0.65m at 6.53g/t gold from 305m and EBWDD076 of 5m at 0.45g/t gold, including 1m at 1.40g/t gold and highly elevated bismuth of 0.12% - typically a pathfinder to high grade gold. The depth extent remains open and requires deeper testing, while further drilling is required to define the volume and grade of mineralisation associated with these new intercepts.

Drill hole EBWRC083 some 200m to the west of the Edna Beryl mine intersected a thick shear zone containing chlorite-hematite ironstone and quartz veining, assaying 7m at 1.33g/t gold from 171m including 2m at 4.31g/t gold and 1m at 6.60g/t gold. Encouragingly, this is supported in adjacent gold anomalous drill holes EBWRC080 and 079 – indicating good potential for extensions to the known mineralisation.

Drilling in the district has confirmed potential for new mineralisation immediately to the north of the Edna Beryl mine particularly in the vicinity of drill holes EBWCRC061 which intersected 12m at 0.59% copper with 0.07g/t gold from 90m and; EBWRC062 which returned 15m at 0.25% copper and 0.03g/t gold from 210m down the hole. This intersection included some higher grades of 1m at 2.80% copper and anomalous gold. Of interest is another anomalous zone some 200m to the west in EBWRC068 of 2m at 0.95% copper and 0.05g/t gold (figure 2, table 1). Pleasingly this drilling when combined with the detailed gravity survey completed earlier in the field season, indicates a close correlation with the mineralisation and the most intense gravity anomalies (figure 2 – pink colour). Providing a tool to screen and detect "Edna Beryl" style hematite hosted mineralisation under cover.

Planning is underway for the development of an underground exploration drive from the current Edna Beryl mine across to the recently discovered Edna Beryl West mineralisation. This will enable more effective and cheaper drilling of the greater Edna Beryl mineralisation from underground, consistent with resource delineation at many of the historic deposits within the Tennant Creek Mineral Field.

The next drill campaign at Tennant Creek will focus on the Gecko-Goanna-Monitor project, where Emmerson discovered high grade copper and gold in 2011 (figure 3). More recent drilling of GODD032 intersected 7m at 5.98% copper including 3m at 10.4% copper from 123m down the hole (ASX: 19/08/15). Another zone of 3m at 4.75% copper including 1m at 10.6% copper from 162m suggests significant potential exists for high grade copper, similar to what has been discovered at Goanna. Thus drilling will test for extensions to this style of copper to the south of the previous defined mineralisation and will also include testing for down plunge extensions at Goanna.

A large Induced Polarisation and Gradient Array geophysical survey is underway at Emmerson's Kadungle project in NSW. This survey is aimed at defining the extent of the previously intersected shallow epithermal gold and deeper porphyry copper-gold mineralisation. The survey covers the +1km diameter zone of magnetite destruction plus the newly discovered epithermal veins, some 2km to the north (figure 4). Further drilling on this project is planned for later in the year.

About Tennant Creek and Emmerson Resources

Emmerson is a leading gold and copper gold explorer with projects in the Northern Territory and New South Wales and is led by a board and management group of experienced Australian mining executives including former MIM and WMC mining executive Andrew McIlwain (non-executive chairman), and former senior BHP Billiton and WMC executive Rob Bills (Managing Director and CEO).

The Northern Territory projects are centred around the Tennant Creek Mineral Field (TCMF), which is one of Australia's highest grade gold and copper fields producing >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. Emmerson's track record of discovery includes copper and gold mineralisation at Goanna, Monitor, Mauretania and more recently, the discovery of very high-grade gold at Edna Beryl - the first discoveries in the TCMF for over a decade.

Emmerson holds 2,800 km^2 of ground in the TCMF, owns the only gold mill in the region and is in the process of monetising a pipeline of small high-grade exploration targets via a Tribute Agreement with a specialised small mines company. The first of these small mines will be at Edna Beryl, with production commencing in 2017.

Exploration in the TCMF is funded via a Farm-in agreement with Evolution Mining Limited (EVN), where EVN is sole funding exploration expenditure of $15 million by 31 December 2017 to earn a 65% interest (Stage 1 Farm-in). EVN then has a further option to sole fund a further $10 million over two years to earn an additional 10% (Stage 2 Farm-in). Emmerson is the operator and manager during the Stage 1 Farm-in.

Emmerson has recently commenced exploration on new gold-copper projects in NSW, identified (with our strategic alliance partner Kenex Limited) from the application of "big multiple independent datasets" – aimed at increasing the probability of discovery through enhanced predictive capability (particularly important in covered terrains). The highly prospective Macquarie Arc hosts >80Mozs gold and >13Mt copper but with these resources heavily weighted to areas of outcrop or limited cover. Emmerson's five exploration projects cover some 1,500 km^2 of Macquarie Arc rocks and contain many attributes of the known deposits but remain under explored due to historical impediments, including overlying cover (plus farm lands) and a lack of exploration focus. Kadungle is an option (and potential JV) with Aurelia Metals covering 43km^2 adjacent to Emmerson's Fifield project.

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. The Company is planning further drilling programs to understand the geology, structure and potential of the untested areas below current mineralisation. 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 Results is 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.

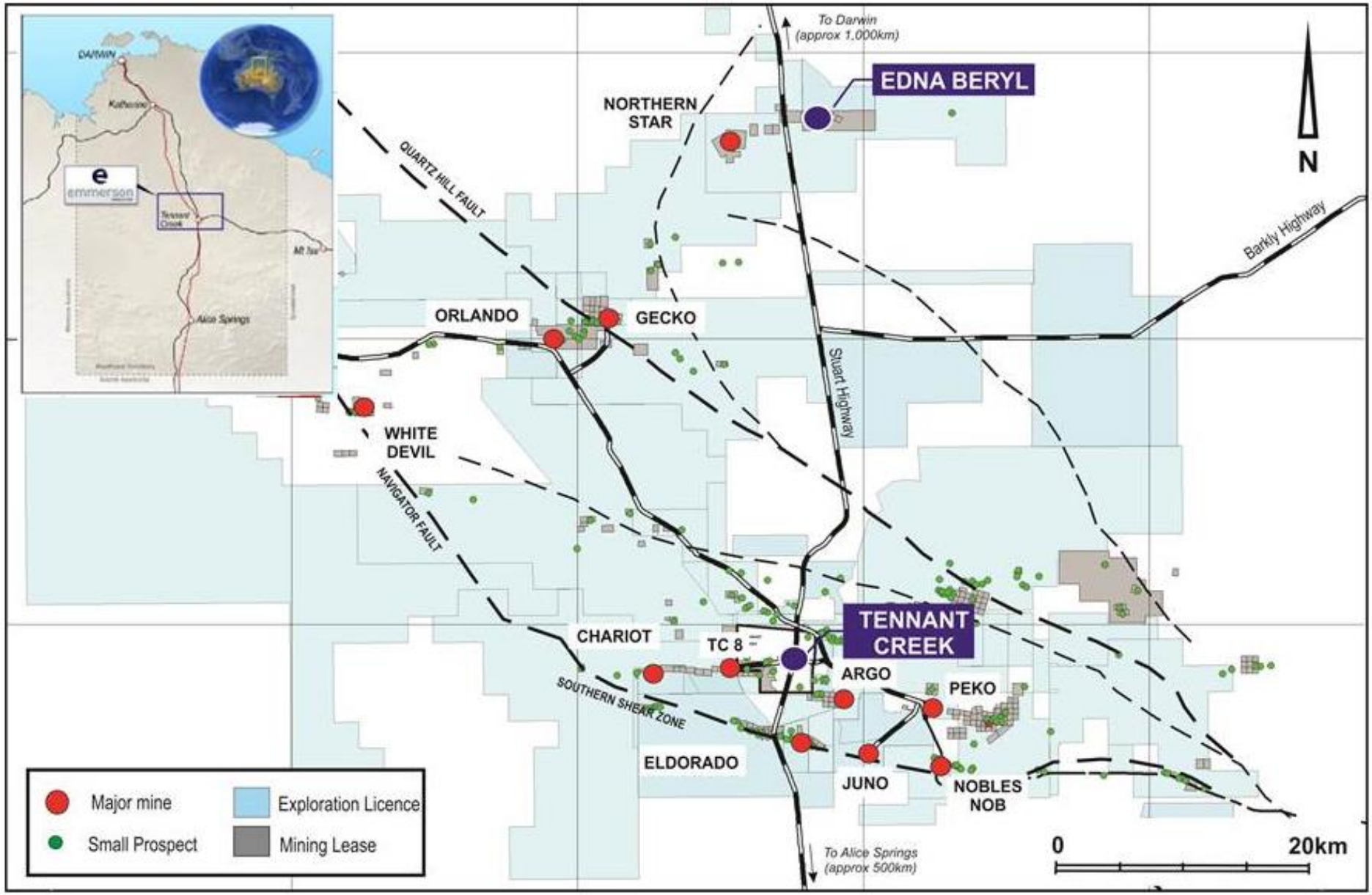

Figure 1: Location of Emmerson's tenement package (light blue) and the Edna Beryl Project Area.

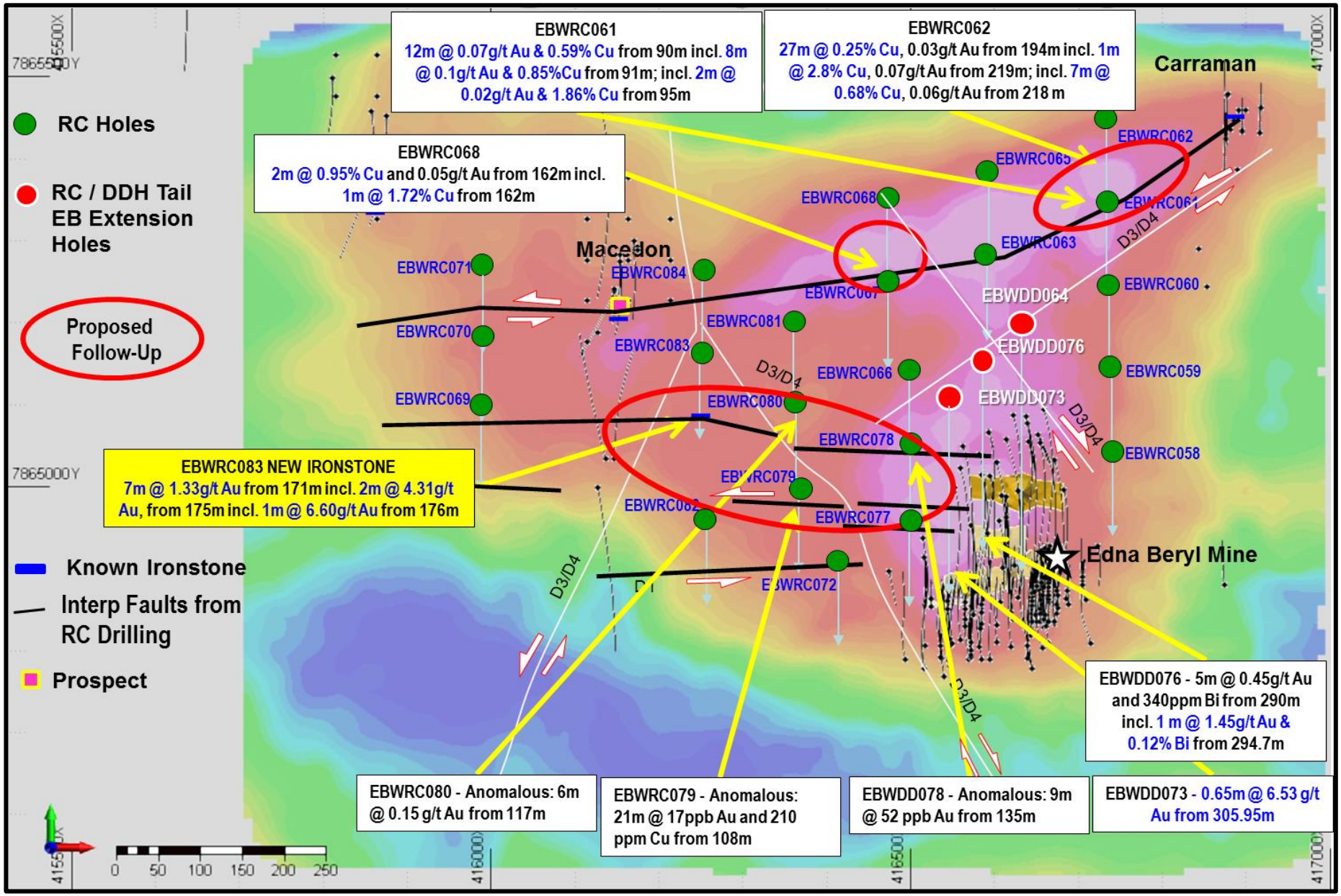

Figure 2: Plan View on residual gravity image of the Edna Beryl Project Area highlighting the locations of the current RC and Deep diamond hole drilling.

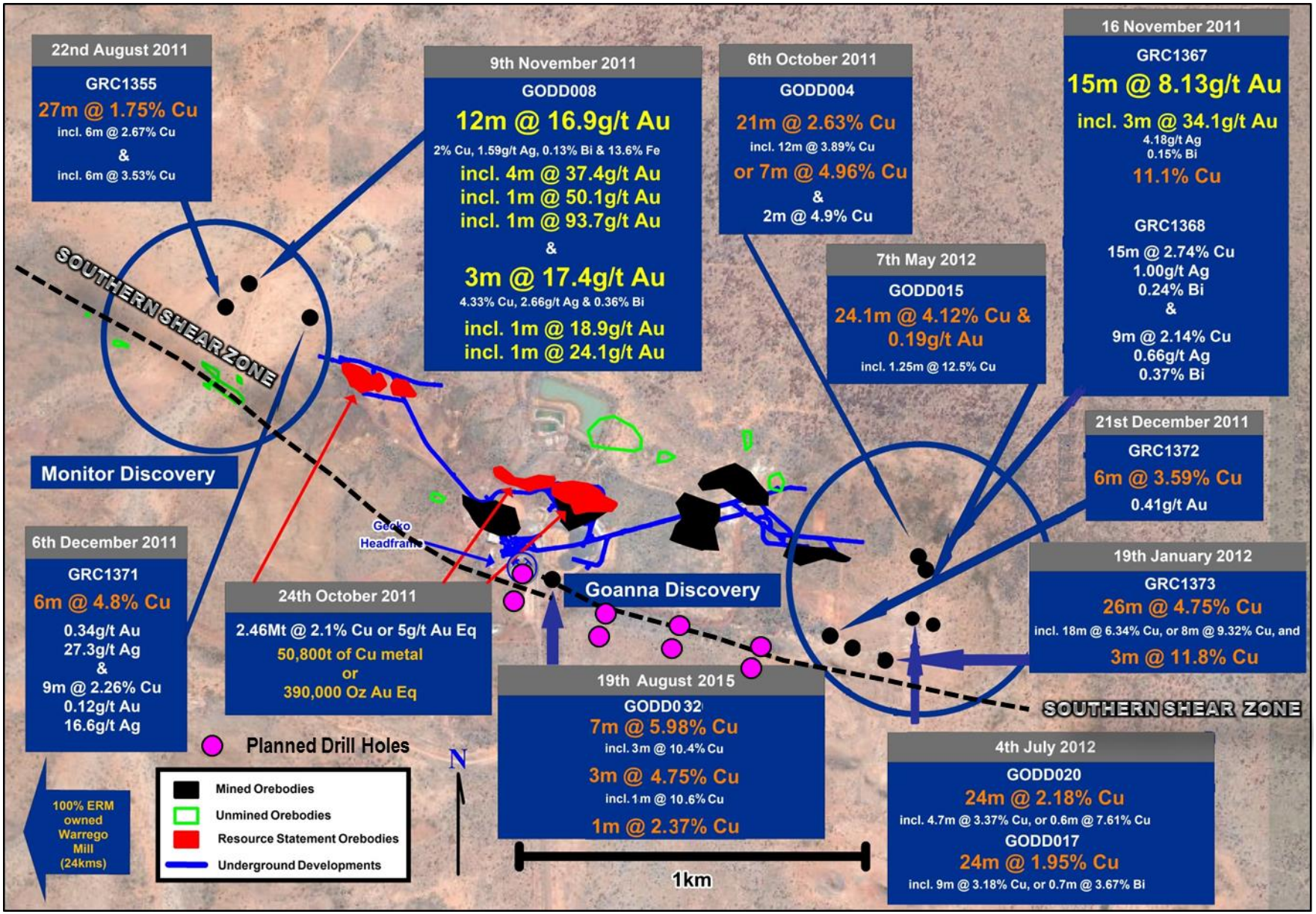

Figure 3: Gecko-Goanna-Monitor discoveries showing high grade copper and gold intersections plus newly discovered southern shear zone (GODD032)

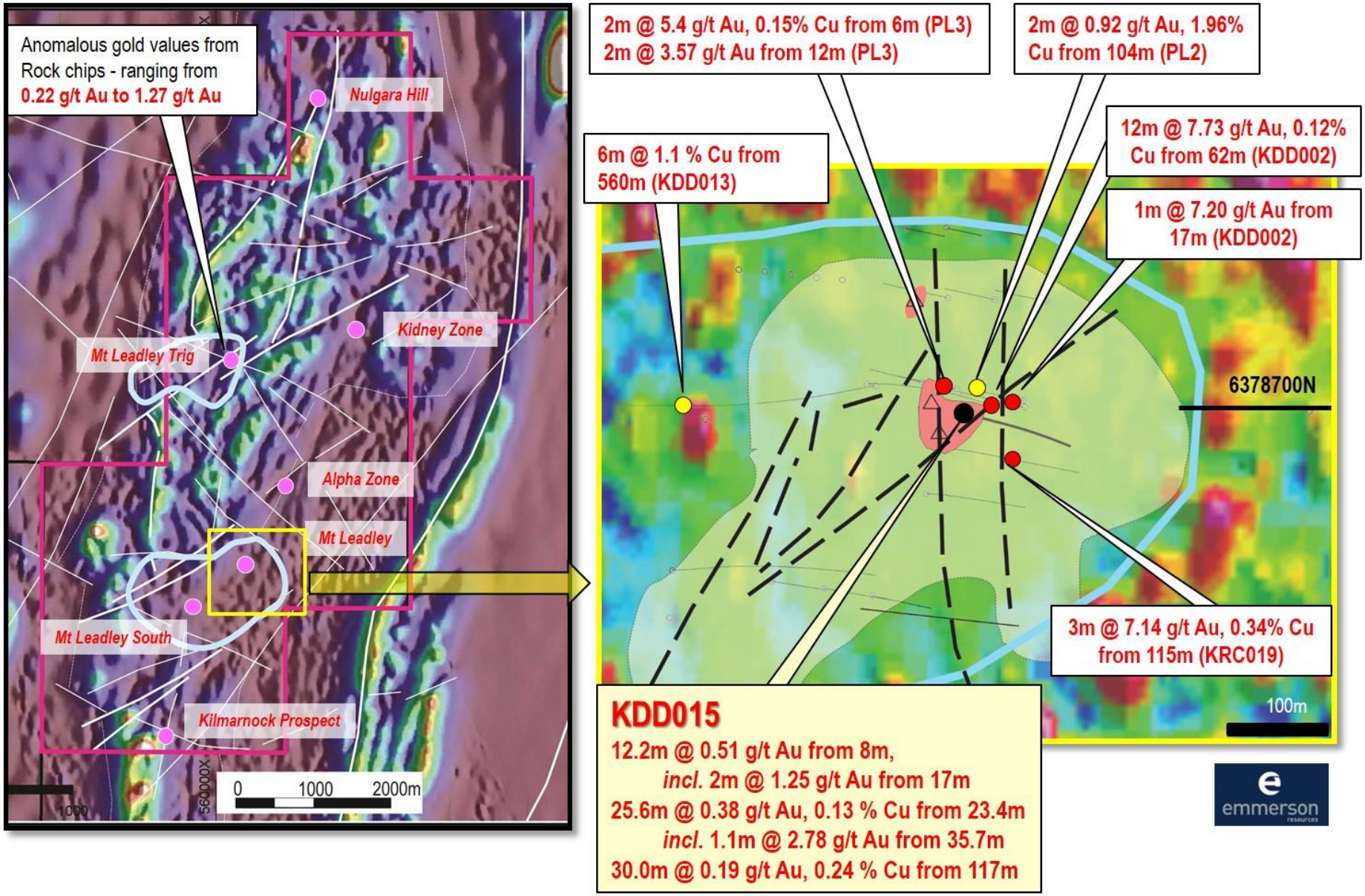

Figure 4: Plan of the Mt Leadley Prospect within the Kadungle Tenement in NSW. Note ERM drill hole drill hole KDD015 plus historic intersections. Background is the 1VD of the recent aeromagnetics with blue correlating to possible zones of magnetite destruction associated with the hydrothermal alteration

Table 1: Edna Beryl 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 (ppm)	Bi (ppm)	Cu (ppm)	Fe (%)	Pb (ppm)	Zn (ppm)	Mo (ppm)	Sb (ppm)	Sample Type
EBWDD073	416546.47	7865071.45	297.8	-68	**162.5**	**305.9**	**306.6**	**0.65**	**6.53**	**0.89**	**100**	**46.0**	**8.71**	**22.7**	**67**	**13.7**	**1.32**	**½ NQ[2]**
EBWDD076	416582.28	7865141.68	298.09	-69	160.5	290.0	295.70	5	0.45	0.60	340	40.2	17.6	218	73	1.64	5.03	½ NQ[2]
					Incl.	**294.7**	**295.7**	**1**	**1.45**	**2.81**	**0.12%**	**69**	**12.3**	**56.1**	**121**	**0.90**	**0.71**	
EBWRC083	416245.27	7865137.17	297.68	-60	164.5	165	166	1	0.01	0.79	159	0.79%	5.33	11	41	1.5	0.3	1m
						171	**178**	**7**	**1.33**	**3.23**	**174**	**214**	**13.0**	**17.6**	**93.9**	**425**	**1.09**	**1m**
					Incl.	**175**	**177**	**2**	**4.31**	**8.58**	**413**	**64.5**	**19.5**	**41.9**	**149**	**910**	**1.36**	**1m**
					Incl.	**175**	**176**	**1**	**6.60**	**4.20**	**417**	**82.0**	**21.3**	**32.6**	**167**	**245**	**0.82**	**1m**
EBWRC061	416727.80	7865348.18	298.10	-65	164.5	91	99	8	0.01	0.39	133	0.85%	10.1	3.16	155	5.26	0.49	1m
					Incl.	94	96	2	0.02	0.78	230	1.86%	14.5	4.40	137	8.85	0.47	1m
EBWRC062	416728.18	7865447.20	297.91	-65	164.5	199	204	5	0.01	0.70	146	0.36%	11.6	8.3	99.6	111	0.80	1m
					Incl.	201	203	2	0.02	1.55	255	0.56%	13.9	16.1	92.5	243	1.66	1m
						210	**225**	**15**	**0.01**	**0.46**	**160**	**0.36%**	**13.0**	**83.0**	**150**	**18.1**	**0.62**	**1m**
					Incl.	**219**	**220**	**1**	**0.01**	**1.09**	**504**	**2.80%**	**13.9**	**326**	**154**	**47.1**	**0.30**	**1m**
EBWRC068	416468.13	7865347.62	297.50	-60	164.5	162	163	1	0.01	0.70	146	1.72%	11.8	13.7	243	6.2	1.26	1m

Note:

(1) EBWDD073 & EBDD076 results are ½ diamond core samples.
(2) Results are reported as a down hole weighted average.
(3) Gold analysis method by 25g fire assay with ICP-OES finish.
(4) Multi element analysis method by 4 acid digest & ICP-OES, ICP-MS finish.
(5) Intersections are reported as downhole lengths and not true width.
(6) Minimum cut-off of 0.5 g/t Au. No maximum cut-off.
(7) Minimum cut-off of 0.5% Cu. No maximum cut-off.
(8) Maximum of 2m internal dilution.
(9) RC samples are 1 metre riffle split samples.

Table 2: Edna Beryl reverse circulation drill hole details

Prospect	Hole No	MGA94_53 Easting	MGA94_53 Northing	RL	Dip	Azi (Nat)	Azi (Mag)	RC Depth (m)	Tenure	Drill Type
Edna Beryl	EBWRC058	416728.36	7865046.90	302.96	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC059	416724.27	7865146.89	300.21	-65.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC060	416728.28	7865247.18	298.63	-65.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC061	416727.80	7865348.18	298.10	-65.0	169.00	164.50	210.0	MLC705	RC
Edna Beryl	EBWRC062	416728.18	7865447.20	297.91	-65.0	169.00	164.50	234.0	MLC705	RC
Edna Beryl	EBWRC063	416588.15	7865282.51	297.66	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC064	416629.98	7865157.02	298.95	-69.0	169.00	164.50	204.0	MLC705	RC
Edna Beryl	EBWRC065	416586.14	7865382.43	297.52	-60.0	169.00	164.50	204.0	MLC705	RC
Edna Beryl	EBWRC066	416496.15	7865146.74	297.68	-60.0	169.00	164.50	192.0	MLC705	RC
Edna Beryl	EBWRC067	416468.28	7865247.18	297.57	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC068	416468.13	7865347.62	297.50	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC069	416000.17	7865062.38	298.38	-60.0	169.00	164.50	168.0	MLC705	RC
Edna Beryl	EBWRC070	416000.15	7865162.89	298.40	-62.0	169.00	164.50	204.0	MLC705	RC
Edna Beryl	EBWRC071	416000.29	7865262.07	298.43	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC072	416410.10	7864910.88	297.81	-60.0	169.00	164.50	198.0	MLC705	RC
Edna Beryl	EBWRC073	416546.47	7865071.45	297.83	-68.0	167.00	162.50	234.0	MLC705	RC
Edna Beryl	EBWRC074	416586.80	7864992.18	298.48	-65.0	165.00	160.50	227.0	MLC705	RC
Edna Beryl	EBWRC075	416567.59	7864988.04	298.23	-67.0	165.00	160.50	221.0	MLC705	RC
Edna Beryl	EBWRC076	416582.28	7865141.68	298.09	-69.0	165.00	160.50	270.0	MLC705	RC
Edna Beryl	EBWRC077	416496.31	7864946.83	297.95	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC078	416496.16	7865047.29	297.79	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC079	416358.17	7865000.85	297.74	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC080	416358.19	7865100.26	297.63	-60.0	169.00	164.50	203.0	MLC705	RC
Edna Beryl	EBWRC081	416358.30	7865199.70	297.62	-60.0	169.00	164.50	197.0	MLC705	**RC**
Edna Beryl	EBWRC082	416242.29	7864936.67	297.88	-60.0	169.00	164.50	197.0	MLC705	RC
Edna Beryl	EBWRC083	416245.27	7865137.17	297.68	-60.0	169.00	164.50	221.0	MLC705	RC
Edna Beryl	EBWRC084	416243.18	7865236.84	297.66	-60.0	169.00	164.50	203.0	MLC705	RC

Table 3: Edna Beryl diamond drill hole details.

Prospect	Hole No	MGA94_53 Easting	MGA94_53 Northing	RL	Dip	Azi (Nat)	Azi (Mag)	Pre Collar Depth (m)	Diamond NQ2 (m)	Final Hole Depth (m)	Drill Type
Edna Beryl	EBWDD064	416629.98	7865157.02	298.95	-69.0	169.00	164.50	204.0	39.1	243.1	DDH
Edna Beryl	EBWDD064W1	416629.98	7865157.02	298.95	-69.0	169.00	164.50	204.0	234.0	445.4	DDH
Edna Beryl	EBWDD073	416546.47	7865071.45	297.8	-68.0	167.00	162.50	234.0	125.6	359.6	DDH
Edna Beryl	EBWDD076	416582.28	7865141.68	298.1	-69.0	165.00	160.50	270.0	170.6	440.6	DDH

SECTION 1 SAMPLING TECHNIQUES AND DATA–EDNA BERYL EXPLORATION TARGET

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	• Drill holes (EBWRC001-004) were reported ASX: 19/05/2016. • Drill holes (EBWRC005-030) were reported were drilled during the period from 5/06/2016 – 25/06/2016 and reported to the ASX: 02/08/2016. • Drill holes (EBWRC033-035, EBWRC038-046, 048, 052,) and EBWDD031-32, DD036-037, DD047 (abandoned), DD049-057 and GRED42A were drilled during the period from 16/09/2016 – 21/11/2016 and reported to the ASX: 21/02/2017. • Drill holes EBWRC058-083 (RC) and EBWDD064, EBWDD064W1, EBWDD073 and EBWDD076 were drilled during the period from 26/06/2017 – 27/07/2017 – reported in this ASX release. • Current drilling targeted gravity anomalies interpreted to be ironstone to the east, west and to the north of the known Edna Beryl mineralisation. Three diamond holes and one wedge hole were drilled to test for extensions within the Edna Beryl Deeps area. • Holes were angled to optimally test the interpreted shear zones. • Drill holes have been drilled at an angle between 60 – 69 degrees with all holes are drilling towards the south. • The Edna Beryl Exploration Target has been historically sampled using RAB, Reverse Circulation (RC) and diamond drilling (DD) techniques. 24 RAB holes for 1,140m, 67 RC/Percussion holes for 10,971m and 32 Diamond holes for 5396.9m have been completed. The drill hole spacing is nominal 10m x 10m grid spacing. • RC chips (EBWRC058-EBRC083) were riffle split on site to obtain 3m composite samples from which 2.5–3.0kg sample was pulverised (at Intertek in Alice Springs) to produce a 25g charge for analysis by Aqua Regia digestion / ICP-MS/OES (Au, Ag, Bi, Cu, Fe, Pb, Zn, Mo, Se, Sb). • To increase assay turnaround times samples reported in this release were collected as 1m samples through zones of interest. • These 1m samples were pulverised to produce a 25g charge for analysis by four acid digest with an ICP/OES (Cu, Fe, Pb, Zn) ICP/MS (Ag, Bi, Mo, Sb,) & Fire Assay/AAS (Au) finish. • RC samples were collected via a fixed cone splitter that is mounted to the drill rig under a 1200cfm cyclone. • The fixed cone splitter has three sample chutes for comparative sampling, 2 chutes are synchronised for comparative samples and 1 Chute is independently set for the geologists field samples. • Diamond holes were sawn in half and submitted to Intertek in Alice Springs) to produce a 25g charge for analysis by four acid digest with an ICP/OES (Cu, Fe, Pb, Zn) ICP/MS (Ag, Bi, Mo, Sb,) & Fire Assay/AAS (Au) finish.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• 24 RC drill holes for 5,564m were drilled in this current drill program (EBWRC058-083) • 3 diamond hole pre collars (RC) for 708m were drilled in this current drill program (EBWDD064, EBWDD073, EBWDD076). • 3 diamond holes have been completed for 569.3m (EBWDD064, EBWDD073, EBWDD076). • RC drilling utilizes a 5 3/4 inch, face sampling bit. • Diamond drilling utilizes NQ^2 size drill bit, standard tube. • RAB, RC, Diamond drilling & underground air leg drilling accounts for 100% of the current drilling at the Edna Beryl Exploration Target. • RC recoveries are logged and recorded in the database and for this program were considered excellent. • Diamond drill core were oriented in unbroken ground. • Orientation tool was a ori-mark tool.
Drill sample	• *Method of recording and assessing core and chip sample recoveries*	• RC samples are visually checked for recovery, moisture and contamination. No issues were encountered.

Criteria	JORC Code explanation	Commentary
recovery	*and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	• If any issues or concerns are raised they are discussed at the time with the drilling contractor and also recorded in our database and drilling diary. • Recoveries for both diamond and RC drill holes are considered good to excellent. • Core recoveries are measured and cross checked against the drillers records. • RC samples are collected via a fixed cone splitter that is mounted to the drill rig under a 1200cfm cyclone. • The cyclone and splitter are routinely cleaned with more attention spent during the drilling of damp or wet samples. • There were no "wet samples" during this program. • Drill core is oriented and recovery recorded during geological logging. • 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 historical diamond core so caution is required. • Sample recovery for RC and Diamond core is considered good and representative.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Standard operating procedures are employed by Emmerson for logging of RC and diamond drill samples. • All RC and DDH samples are lithologically logged in one metre intervals. • Drill hole logging data is directly entered into field tough book computers via Logchief software. Look up codes and real time validations reduce the risk of data entry mistakes. • Field computer data (the drill log) are uploaded to Emmerson's relational database whereby the data undergoes a further set of validations checks prior to final upload. • Standardised codes are used for lithology, oxidation, alteration, veining and presence of sulphide minerals. • Structural logging of the RC drill samples was not possible however is possible within sections of the diamond core. • Magnetic susceptibility data for all individual 1m RC samples and selected zones of diamond core are collected as per ERM procedure. • All RC chips are stored in trays in 1m intervals. • All diamond holes are photographed prior to cutting of the drill core. • Representative RC chips and diamond core is available to all geologists (a physical reference set) to ensure consistency of logging. • All historical drill core and RAB & RC samples has been lithologically re logged. • A detailed validation of all historical drilling data was completed in 2015 by a full time Emmerson Resources senior geologist. • Structural logging of diamond drill core was completed recording orientation of veins, fractures and lithological contacts. • Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of Emmerson's database. • Historical and current diamond core is stored in Tennant Creek however several historical holes (or sections of holes are missing or incomplete. Historical RC chips could not be located. • Logging is qualitative in nature and records interpreted lithology, mineralogy, mineralisation, weathering, colour and other features of the samples
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature,*	• Standard sampling operating procedures have used by Emmerson during this current drill program Edna Beryl drilling. • The sample preparation for both diamond drill and RC samples follows industry best practice in sample preparation involving oven drying, coarse crushing of the sample down to ~10mm followed by pulverisation of the entire sample (total prep) using LM5 grinding mills to a grind size of 85% passing 75 micron.

Criteria	JORC Code explanation	Commentary
	quality and appropriateness of the sample preparation technique. • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Pulverised material not required by the laboratory (pulps) including duplicate samples are returned to ERM, logged into a database and stored undercover at the Tennant Creek office. • Coarse rejects are disposed of by the Laboratory. • RC and diamond duplicate samples were routinely submitted with duplicate assays returning acceptable comparison results.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Field QC procedures involve the use of certified reference material (CRM's) as assay standards, and ERM include blanks, duplicates. • QAQC protocols consist of the insertion of blanks at a rate of one in every 40 samples, insertion of standards (CRM's) at a rate of approximately one in every 20 samples and duplicate field sample analysis of at a rate of approximately one in every 20 samples. • A selection of CRM's is available to the geologists and insertion points are predetermined prior to drilling. • The geologist has the ability to override this predetermined insertion based on visual and geological characteristics of the current drill hole. • Insertion of assay blanks is increased when visual mineralisation is encountered and consists of insertion above and below the mineralised zone. • Individual 1m field duplicates RC samples are collected using a riffle splitter. • Diamond drill core duplicates were in the form of quarter core. Remaining quarter core resides in the core trays on site in Tennant Creek. • Laboratory checks include CRM's and 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 mineralisation. • QAQC data is uploaded with the sample values into ERM's database through an external database administrator (contractor). • A QAQC database is created as a separate table in the database and includes all field and internal laboratory QC samples. • QC data is reported through a series of control charts for analysis and interpretation by the Exploration Manager or his/her delegate. • The sample sizes are considered to be appropriate to correctly represent the gold 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). • Emmerson's sampling methodology (SOP) is available at any time for peer review.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Emmerson's Exploration Manager (Competent Person) has discussed in detail the drill and sample collection procedures with the drillers and is satisfied that best practice has been followed. • Emmerson's Exploration Manager (Competent Person) has discussed sample preparation and analyses with Intertek sample Prep and Lab Manager to confirm the integrity of the sample assay process. • Do to the high grade nature of the samples several repeats have been carried out and the repeatability is considered to be reasonable. • Screen assays have been previously submitted to assist in correct reporting and particle size analysis. • Original data sheets and files are retained to validate the contents of the database against the original logging.

Criteria	JORC Code explanation	Commentary
		• No twin drill holes have been completed at the Edna Beryl Exploration Target.

Location of data points	• *Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*
	• *Specification of the grid system used.*
	• *Quality and adequacy of topographic control.*
		• Sample locations are shown in Figure 2 and Table 1-3 within the main text.
		• All reported drill hole collars were surveyed (set out and picked up) using a differential GPS and by a suitably qualified company employee.
		• Collar survey accuracy is +/- 30 mm for easting, northing and elevation coordinates.
		• Co-ordinate system GDA_94, Zone 53.
		• Topographic measurements are collected from the final survey drill hole pick up.
		• Downhole survey measurements were collected routinely every 6m down hole using an REFLEX EZ-Shot® electronic single shot camera for RC.
		• A selection of RC holes have been surveyed using a gyroscope tool and accuracy is comparable to the REFLEX single shot too.
		• Diamond drill holes are surveyed every 15m using a REFLEX single shot tool.
		• This survey camera equipment is quoted by the manufacturer to have an accuracy of
		  ○ Azimuth 0-360° ± 0.5°
		  ○ Dip ± 90° ± 0.2°
		• 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.
		• There were no down hole survey issues during this drill program and all collar positions have been validated by the Exploration Manager.

Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill holes are spaced 10-15 metres apart in dip and strike. This close spacing is necessary due to the style and morphology of the shear zone being drill tested. • The spacing of historic drill hole collars is erratic, possibly to allow for the high degree of drilling deviation encountered in the Tennant Creek Mineral Field. • Identified mineralisation within the Edna Beryl Exploration Target has been defined by drill holes on a section spacing of 10m to 20m with an average on-section spacing of 10m. • Emmerson considers the Edna Beryl mineralisation to be an Advanced Exploration Target and that 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).
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• Exploration drilling is at a high angle to the mineralized bodies and/or shear zones. • Exploration drilling is perpendicular to mineralized bodies or shear zones. • No orientation based sampling bias has been identified in the data at this point. • It is considered that the recent RC and diamond drilling is representative and that no sample bias has been introduced. • Results at this stage suggest that the geological targets being tested have been drilled at the correct orientation.
Sample security	• *The measures taken to ensure sample security.*	• RC samples from this round of drilling were selected, bagged and labelled by site geologist and field assistants. • They are placed in sealed polyweave bags and then larger bulka bags for transport to the assay laboratory. • Diamond core is cut down the core orientation line and same side half

Criteria	JORC Code explanation	Commentary
		core is collected for assay. • Core length minimum is 0.6m and maximum 1.5m. • Sampling intervals are determined by lithological changes. • The assay laboratory confirms that all samples have been received and that no damage has occurred during transport. • Tracking is available through the internet and designed by the Laboratory for ERM to track the progress of batches of samples. • Sample receipt is logged into ERM's sample ledger. • While samples are being prepared in the Lab they are considered to be secure. • While samples are being analysed in the Lab they are considered to be secure.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No formal audit has been completed on the historical samples. • An internal review of the historical sampling techniques, QAQC protocols and data collection has not been conducted by Emmerson. • 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.

SECTION2 REPORTING OF EXPLORATION RESULTS – EDNA BERYL EXPLORATION TARGET

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Edna Beryl Exploration Target lies wholly within Mineral Lease C705 (ML C705). • The Edna Beryl Exploration Target is located 37kms north of Tennant Creek Township and 3kms east of the Stuart Highway. • 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. • ML C705 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. • The exploration target 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). • Emmerson Resources are in Joint Venture with Evolution Mining. • Exclusion Zones are identified within MLC 705 however does not impact on the Edna Beryl Exploration Target area. • Approval to drill the third phase of drilling was received from Traditional Owners prior to drilling commencement. • MLC 705 is in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• 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. • Giants Reef Mining conducted all known “modern” exploration in and around the Edna Beryl Exploration Target Area. • 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. • An existing shaft sunk during the earlier mining was refurbished in 1996. • 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. • Influx of underground water plus declining gold price ceased the operation in July 2005.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Gold and copper-gold deposits discovered in the Tennant Creek gold field to date, are hosted in the Lower Proterozoic Warramunga Formation; a metamorphosed (greenschist facies) • 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

Criteria	JORC Code explanation	Commentary
		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	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* ○ *easting and northing of the drillhole collar* ○ *elevation or RL of the drillhole collar* ○ *dip and azimuth of the hole* ○ *downhole length and interception depth* ○ *hole length.*	• A table of significant results is presented in the text, Table 1 and on Figure 2 within this report. • A list of the drill holes and collar detail is provided as Tables 2 and 3.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Mineralized RC and Diamond intersections are reported as down hole intervals and not weighted averages. . • 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.
Relationship between mineralization widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *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').*	• The holes drilled within the Edna Beryl Exploration Target area are perpendicular the east-west striking shear zones. 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 significant discovery being*	• Refer to Figures in body of text.

Criteria	JORC Code explanation	Commentary
	reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Due to the age the Resource Estimation for the Edna Beryl resource, 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 Advanced Exploration Target. • 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).
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Geotechnical logging was carried out on all historical and current 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. • Density measurements were routinely collected by Giants Reef and Emmerson geologists. • Metallurgical testing of selected mineralised Edna Beryl samples was conducted by Metcon Laboratories Pty Ltd in 1996. • Metallurgical testing concluded that 70% of the ore could be gravity recovered with the remaining gold cyanide soluble so that total gold extraction of >98% could be obtained. Screen Fire Assay of selected samples was conducted by Giants Reef Mining. • Geophysical magnetic susceptibility logging is completed at 1m intervals on site (RC drilling) and in the core shed for selected sections of diamond core. • Thin section and polished samples were collected by Giants Reef Mining to assist in the refinement of the geological model. • Three component magnetic down hole surveying was completed 7 of the RC holes from this current drill program. • Optical / Acoustic televiewer survey of selected drill holes has been completed. • Higher gold grade intersections selected for screen fire assay. •
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• RC and diamond drilling (Phase 4) is now completed. This information will further assist in confirming the geological and grade continuity of gold mineralisation already intersected. • Current drill hole spacing is still considered too wide to enable an accurate Mineral Resource Estimate. • Twin hole drill program to be designed. • Petrological study of selected core and drill chips continues • Geological interpretation as discussed in the text.