

# Landmark Agreement with Traditional Owners for future mining at Jasper Hills, Hermitage and Golden Slipper in NT

# Highlights

- Landmark Joint Venture Agreement reached between the Marnturla Aboriginal Corporation and Emmerson Resources
- Agreement relates to previously restricted areas which contain the Jasper Hills, Golden Slipper and Hermitage High-Grade Gold-Copper-Cobalt projects in the Northern Project Area at Tennant Creek
- Aligns the interests of both parties in providing employment opportunities and direct interest in the projects by the Marnturla Corporation
- The agreement continues Emmerson's track record in Tennant Creek of working with Traditional Owners to provide economic opportunities while protecting heritage sites
- Drilling planned comprising an initial 1000m five-hole diamond drill program

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

"The Marnturla Agreement is a very positive development in our relationship with the custodians of the land. It not only heralds a new era for direct participation in the success of Emmerson's exploration at Jasper Hills, Hermitage and the Golden Slipper projects but also in providing employment opportunities that include the appointment of a Cultural Heritage Officer. It is envisaged that further such landmark agreements will follow across Emmerson's extensive holdings in one of Australia's highest-grade goldfields.

While the Jasper Hills project was discovered back in the 1930's, it received little attention at the time due to a combination of the cobalt price and focus on the nearby North Star gold mine. Emmerson's initial program in 2018 consisted of locating the historic drill core, relogging and assaying but was terminated due to land access issues.

Although early days, the indicative cobalt grades at Jasper Hills compares favourably with other Australian deposits and the combination with copper and gold provides potential for very high value mineralisation

The **Golden Slipper** project has potential for shallow, high-grade gold mineralisation with walk up drill targets testing extensions to the mineralisation.

Emmerson has considerable experience in the exploration for this style of mineralisation, with discoveries at Edna Beryl, Mauretania and Goanna – all sharing some or all common attributes of high-grades of gold, copper and now cobalt, associated with oxidised, hematite ironstones."



# Marnturla Aboriginal Corporation (MAC) Agreement (Figure 1)

Emmerson Resources Limited ("Emmerson" ASX: ERM) is pleased to announce an agreement with MAC, which acts on behalf of the custodians of the land that contain the Jasper Hills, Hermitage and Golden Slipper mineral titles. The agreement with MAC provides an equity interest in the projects and employment opportunities during exploration, which if successful may lead to mining.

Noting the commencement of any exploration approval is still subject to receiving a variation under the Aboriginal Areas Protection Authority (AAPA). Following receipt of the variation, Emmerson expects the immediate exploration priorities will include a circa 1000m, five diamond drill hole program to verify historic drilling results and further assess the continuity of the gold, copper and cobalt mineralisation.

Jasper Hills – a high grade copper-gold and cobalt project (figure 2)

Emmerson previously announced the following re-assayed historical drill results from Jasper hills (ASX:10 April 2018 and tables 1,2 and 3):

**NSDH101: 28m at 5.83g/t gold, 0.17% cobalt and 8.52% copper** (from 108 to 136m) and includes:

- o 19m at 0.56g/t gold, 0.47% cobalt and 11.4% copper and
- o 2m at 50.1g/t gold and 10.5% copper

NSDD100: 11m at 0.22g/t gold, 0.18% cobalt and 2.56% copper (from 117 to 128m) and includes:

- o 3m at 0.34g/t gold, 0.55% cobalt and 5.80% copper and
- o 1m at 0.48g/t gold, 1.07% cobalt and 5.71% copper

NSDH547: 23m at 0.14% cobalt and 7.04% copper (from 95 to 118m) and includes:

o 4m at 0.37% cobalt and 10.2% copper and 1.35g/t gold

NSDH488: 14m at 6.72g/t gold, 0.28% cobalt and 2.17% copper (from 284 to 298m) and includes:

- o 5m at 16.6g/t gold
- o 2m at 1.32% cobalt and 2% copper

NSDD110: 15m at 7g/t gold (from 295 to 310m) and includes:

o 6m at 14.9g/t gold

The Jasper Hills mineralisation is hosted in brecciated hematite ironstones surrounded by intensely chloritized sediments of the Warramunga Group. The ironstones are enveloped by silicified carbonates, quartz and jasper, similar in most respects to Edna Beryl and within the district, encompass high-grade gold (North Star Deeps Gold, Jasper Hill Gold), high-grade copper (Katherine Star, Northern Star and Hermitage) and high-grade gold-copper-cobalt exploration targets (Jasper Hills) (Figure 3).

Mineralisation at Jasper Hills is typically associated with the footwall or core of the ironstones and in the oxide zone, some 50m below the surface, consists of gold, malachite and lessor azurite. The transition zone includes these plus bornite, chalcocite and native copper, extending down some 200m below the surface to encompass the sulphide zone of mainly chalcopyrite and gold. The high-grade cobalt zone transgresses the copper and consists of mainly cobaltite in association with chalcopyrite and digenite Interestingly, historic metallurgical testing of these ores in the 1990's produced a high-grade copper and cobalt concentrate, with a 20kg sample grading 3.6% copper and 0.16% cobalt (1990 Optimet Laboratories). The exploration will initially consist of a circa 1000m, five-hole diamond drill program aimed at verifying the historic drill results and better defining the extent and grade of the various copper and gold ironstones, particularly mineralisation displaced by the Higgins Fault(Figure 3)



## Golden Slipper – a shallow high-grade gold project (figure 1)

The Golden Slipper mineralisation consists of a subvertical pipe of shallow gold and bismuth within 30m of the surface. The mineralisation is hosted in two lenses of quartz-hematite veinlets and brecciated quartz-hematite ironstone within hematitic shale and siltstone of the Warramunga Group. The lenses are 300m apart, with the northern lens consisting of massive hematite and associated gold and bismuth plus historical workings. Mineralisation within the southern lens consists of quartz veins in brecciated sandstone.

A review of historical drilling has identified that most of the drilling has fallen short of intersecting the main ore body and other drill holes were abandoned in mineralisation. Thus, providing a great opportunity to extend the mineralisation.

On gaining approval from the AAPA, the first step of the program will include compiling and verifying all the historic exploration data ahead of drill testing.

## For further information, please contact:

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#### 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 report which relates to Tennant Creek 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.

### **Cautionary Statement**

The Exploration Targets described in Figure 5 are conceptual in nature. It must be noted that that there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

## 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.



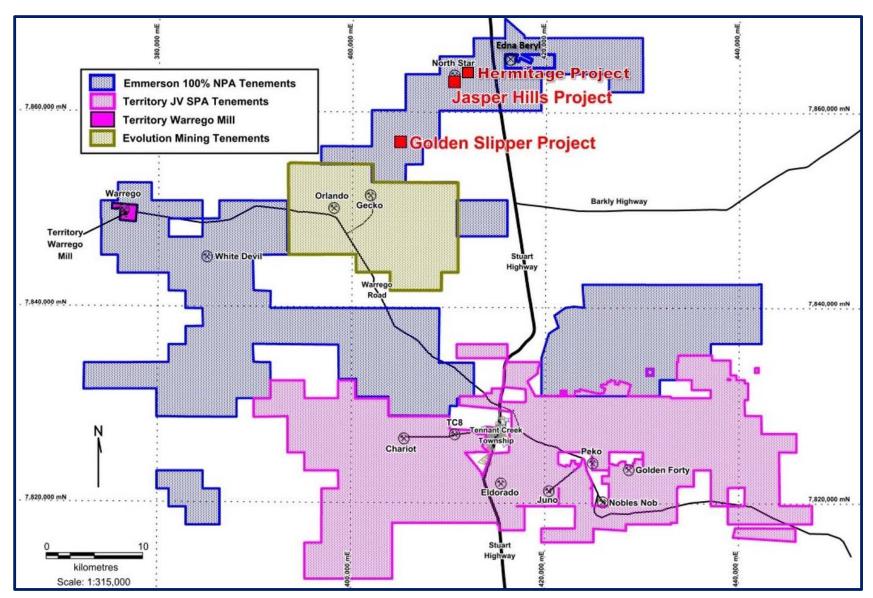


Figure 1: Location of Emmerson's 100% owned package (blue) and the Jasper Hills and Golden Slipper Projects (red squares).



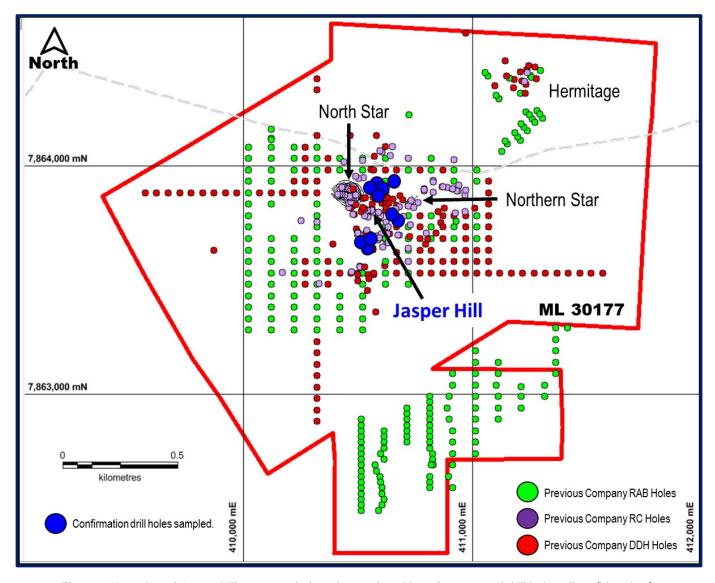
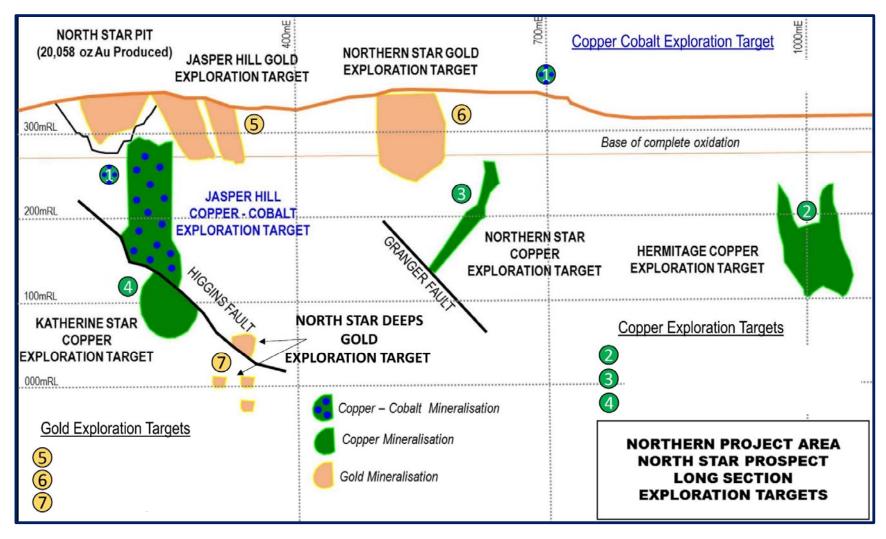


Figure 2: Location of Jasper Hill copper-cobalt project and position of re assayed drill hole collars (blue dots).





**Figure 3**: Schematic long section highlighting the potential of the project area. Note that these exploration targets are conceptual in nature and that there has been insufficient exploration to estimate a Mineral Resource.



 Table 1: Jasper Hill significant confirmation Cobalt 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)	Co (%)	Cu (%)	Bi (%)	Mn (%)	Fe (%)	As (%)	Zn (ppm)	Mo (%)	Al (%)
NSDH105	410530.71	7863557.11	320.8	-70.0	347	146	160	14	0.17	0.20	3.45	0.02	0.70	25.7	0.26	202	0.03	3.15
					Incl.	151	156	5	0.17	0.40	3.27	0.02	0.80	28.4	0.54	63.4	0.01	0.37
NSD75	410648.06	7864084.75	315.5	-68.8	166	307	317	10	0.03	0.15	1.71	0.01	0.17	34.4	0.19	57.7	0.01	1.73
					Incl.	307	308	1	0.04	0.35	4.57	0.01	0.13	35.1	0.47	79.0	0.01	1.75
					171	117	128	11	0.22	0.18	2.56	0.01	0.05	17.6	0.22	222	0.06	4.38
NCDD100	410550 21	70/2005 10	227.0	/1.0	Incl.	122	125	3	0.34	0.55	5.80	0.01	0.07	23.2	0.34	421	0.20	3.66
NSDD100	410559.31	7863805.19	336.8	-61.0	Incl.	123	124	1	0.48	1.07	5.71	0.01	0.04	19.1	0.48	442	0.36	2.55
						138	147	9	0.68	0.15	4.05	0.63	0.04	26.4	0.17	113	0.17	2.31
					Incl.	144	146	2	2.20	0.32	5.60	1.98	0.06	19.9	0.37	160	0.43	4.33
NSDD140	410562.536	7863806.796	337.95	-55.0	173	168	172	4	0.01	0.16	0.34	0.01	0.17	10.5	0.20	382	0.01	7.72
					Incl.	170	172	2	0.01	0.22	0.49	0.01	0.14	7.87	0.28	297	0.01	8.08
			338.8	-63.0	171	88	97	9	0.05	0.10	2.65	0.01	0.17	21.6	0.14	454	0.02	5.68
NSDH101	410529.49	7863809.75				108	136	28	5.83	0.17	8.52	0.33	0.09	19.2	0.27	417	0.12	3.32
					Incl.	115	134	19	0.56	0.47	11.4	0.47	0.10	16.7	0.36	510	0.17	3.68
						134	136	2	50.1	0.09	10.5	0.23	0.11	9.55	0.09	348	0.03	4.42
			338.2	-73	002	95	118	23	0.86	0.14	7.04	0.68	0.18	13.42	0.17	0.16%	0.34	5.72
NSDH547	410539.86	7863713.43			Incl.	106	110	4	1.35	0.37	10.2	0.71	0.11	7.67	0.42	0.34%	0.75	3.61
						135	144	9	0.07	0.17	2.86	0.03	0.07	5.20	0.19	241	0.01	4.29
					Incl.	141	143	2	0.09	0.53	8.77	0.04	0.02	2.22	0.64	164	0.01	3.22
		7863855.79	330.7		175.5	119	134	15	0.14	0.17	2.03	0.05	1.45	30.2	0.18	377	0.02	3.18
				-48	Incl.	127	132	5	0.25	0.36	2.92	1.29	0.18	24.0	0.45	426	0.03	3.95
NSDH488	410521.29					138	146	8	0.06	0.19	1.28	0.02	0.18	18.13	0.20	329	0.01	7.23
					Incl.	143	146	3	0.10	0.29	3.21	0.06	0.18	17.6	0.32	389	0.03	7.49
						284	299	15	6.72	0.26	2.56	0.24	0.29	24.5	0.33	939	0.14	8.12
					Incl.	296	298	2	0.78	1.32	2.00	0.85	0.32	24.5	0.17	0.12%	0.48	4.38
NSDH543	410555.13	7863697.91	339.7	-56	010	83	99	17	0.13	0.14	3.70	0.01	0.16	23.14	0.07	354	0.01	2.83
11000011	112/12/2		007.0			91	94	3	0.09	0.43	5.17	0.01	0.31	21.66	0.09	442	0.02	3.51
NSDD110	410619.83	7863713.62	327.9	-70	355					NSI								<b></b>
NSDD112	410552.16	7863681.30	339.7	-70	360					NSI								



 Table 2: Jasper Hill significant confirmation Copper drill hole intersections.

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI mag (deg)	From (m)	To (m)	Nidth (m)	Au (g/t)	Co (%)	Cu (%)	Bi (ppm)	Mn (%)	Fe (%)	As (%)	Zn (ppm)	Mo (%)	AI (%)
NSD105				-70.0	347	147	160	13	0.17	0.21	3.69	260	0.62	25.0	0.28	211	0.03	3.39
1102.00				7010	Incl.	155	160	5	0.21	0.23	5.66	640	0.20	22.8	0.30	482	0.07	8.49
NSD75	410648.06	7864084.75	315.5	-68.8	166	306	315	9	0.03	0.16	2.09	22.0	0.13	35.5	0.20	88	0.01	2.12
		. 30 100 1.70	010.0		Incl.	307	308	1	0.04	0.35	4.57	26.0	0.13	35.1	0.47	79	0.01	1.75
					171	117	126	9	0.26	0.22	3.03	34.1	0.06	14.0 26.0 23.0 21.7 24.9 19.2 12.8 23.1	0.27	248	0.07	5.13
NSDD100	410559.31	7863805.19	336.8	-61.0		138	147	9	0.68	0.15	4.05	0.63%	0.04	26.0	0.17	113	0.17	2.31
					Incl.	141	147	6	0.92	0.19	5.09	0.94%	0.24	23.0	0.21	138	0.24	3.09
						73	97	24	0.25	0.08	2.51	44.0	0.16		014	262	0.02	2.98
NSDH101	410529.49	7863809.75	338.8	-63.0	171	101	103	2	0.05	0.03	2.74	10.0	0.14	24.9	0.02	564	0.01	5.21
						108	136	28	5.83	0.17	8.52	0.33%	0.09	19.2	0.27	417	0.12	3.32
					Incl.	120	135	15	10.5	0.18	13.2	0.59%	0.10	12.8	0.34	497	0.19	3.62
		7863713.43	338.2	-73	002	66	119	58	0.47	0.09	5.32	0.31%	0.45	23.1	0.12	932	0.16	2.86
					Incl.	75	81	6	0.11	0.07	6.29	0.01	0.04	27.4	0.08	705	0.01	0.02
NSDH547	410539.86				Incl.	85	116	31	0.69	0.12	6.83	0.42%	0.13	20.4	0.16	1162	0.20	4.18
						131	145	14	0.06	0.12	4.17	0.04	0.09	6.97	0.13	302	0.01	4.88
					Incl.	132	134	2	0.07	0.03	14.9	0.11%	0.15	11.0	0.03	408	0.01	5.06
		7863855.79	330.7	-48		116	133	17	0.13	0.15	2.10	409	1.59	31.1	0.16	330	0.01	2.59
NSDH488	410521.29				175.5	144	148	4	0.14	0.22	3.33	635	0.18	15.7	0.24	516	0.03	7.27
						292	299	7	3.51	0.46	4.48	0.37%	0.27	23.8	0.59	1060	0.24	6.18
					Incl.	293	299	6	0.67	0.53	4.88	0.42%	0.27	23.4	0.68	1056	0.26	5.29
NSDH543	410555.13	7863697.91	339.7	-56	010	82	100	18	0.13	0.14	3.53	0.01	0.16	22.5	0.07	355	0.02	319
					Incl.	85	88	3	0.27	0.07	9.14	0.01	0.05	19.3	0.11	196	0.02	1.25
NSDD110	410619.83	7863713.62	327.9	-70	355						NSI							
NSDD112	410552.16	7863681.30	339.7	-70	360						NSI							



 Table 3: Jasper Hill significant confirmation Gold drill hole intersections.

Hole ID	East (MGA94_53)	North (MGA94_53)	RL AHD	Dip (deg)	AZI mag (deg)	rom (m)	To (m)	/idth (m)	Au (g/t)	Co (%)	Cu (%)	Bi (%)	Mn (%)	Fe (%)	As (%)	ľn (ppm)	Mo (%)	AI (%)
NSDH488	410521.29	7863855.79	330.7	-48.0	175.5	284	298	14	6.72	0.28	2.17	0.26	0.29	24.4	0.34	996	0.14	8.68
					Incl.	288	293	5	16.9	0.08	0.72	0.16	0.30	24.0	0.08	999	0.07	9.21
NSDD110	410619.83	7863713.62	327.9	-70.0	355	295	310	15	7.00	0.01	0.06	0.12	0.16	50.1	0.01	71.7	0.01	0.74
					Incl.	302	308	6	14.9	0.01	0.04	0.09	0.18	58.6	0.01	73.5	0.01	1.06
NSDH547	410539.86	7863713.43	338.2	-73.0	002	106	117	11	1.47	0.19	8.70	1.22	0.13	8.28	0.18	0.21%	0.65	4.18
					Incl.	112	117	5	1.99	0.09	9.19	2.02	0.13	8.45	0.06	0.17%	0.73	4.27
NSDH101	410529.49	7863809.75	338.8	-63.0	171	134	136	2	50.1	0.09	10.5	0.23	0.11	9.55	0.09	348	0.03	4.42

#### Note:

- (1) All samples are sawn quarter diamond NQ or HQ size core samples.
- (2) All core is historic in nature with some holes dating back to 1975.
- (3) Gold analysis method by 25g Aqua Regia with ICP-OES finish.
- (4) Where gold analysis is greater than 2 g/t Au, repeat assay is by Fire Assay
- (5) Multi element analysis method by 4 acid digest & ICP-OES, ICP-MS finish.
- (6) Intersections are reported as downhole lengths and not true width.

- (7) Minimum cut-off of 400 ppm Co. No maximum cut-off.
- (8) Minimum cut-off of 0.50 g/t Au. No maximum cut-off.
- (9) Minimum cut-off of 0.50% Cu. No maximum cut-off.
- (10) Minimum cut-off of 0.50 g/t Au. No maximum cut-off.
- (11) Maximum of 2m internal dilution.