

Date: 1 September 2022

ASX Code: MAN

Capital Structure

Ordinary Shares: 534,499,920 Unlisted Options: 18,000,000 (3c exercise) Current Share Price: 4.2c Market Capitalisation: \$22M Cash: ~\$17.2M (July 2022) EV: \$4.8M Debt: Nil

Directors

Lloyd Flint Non-Executive Chairman Company Secretary

James Allchurch Managing Director

Roger Fitzhardinge Non-Executive Director

Contact Details First Floor 10 Outram Street West Perth WA 6005 Australia

Tel: +61 9200 3743

mandrakeresources.com.au

Drilling commences at the Berinka goldcopper project in the NT

Highlights

- Drilling commences at Berinka Pine Creek gold-copper Project in the NT, following up previous drilling which returned high-grade intercepts including¹:
 - \circ 3m @ 1.8 g/t Au, 32 g/t Ag and 2.1% Cu from 124m including;
 - <u>1m @ 3.7 g/t Au, 69 g/t Ag and 3.1% Cu from 124m</u>
- 1,410m RC programme (plus diamond tails if required) will target 5 prospects with high-grade gold and copper potential
- As a precursor to drilling, recent soil geochemical sampling undertaken by the Company at Berinka returned highly anomalous gold results up to 236 ppb
- Approx \$17.2M cash as at 26 July 2022

Mandrake Resources Limited (ASX: MAN) (Mandrake or the Company) has commenced a reverse circulation (RC) drilling programme targeting highgrade gold and copper mineralisation at the 100%-owned Berinka Pine Creek Gold Project in the Northern Territory.

In mid-2020, Mandrake undertook frontier drilling at Berinka targeting two greenfield prospects, Vegetation Anomaly and Terry's Gap, identified from aeromagnetics and historic gold results derived from costeans. The programme in 2020 was curtailed by difficult ground conditions and rig breakdown.

RC hole FBRC005 at Vegetation Anomaly returned the following high-grade gold-silver-copper intercept:

- o 3m @ 1.8 g/t Au, 32 g/t Ag and 2.1% Cu from 124m including;
 - Im @ 3.7 g/t Au, 69 g/t Ag and 3.1% Cu from 124m

Gold appears to be hosted in a series of veins in close proximity to a faulted contact between a gabbro and granite and is associated with sulphides, particularly pyrite and chalcopyrite (copper).

The current drilling programme aims to follow up the encouraging 2020 drilling programme results and test five other prospects in the immediate vicinity (see Figure 1).

1

¹ See Mandrake ASX release dated 16 October 2020



The programme comprises approximately 1,410m of RC drilling across 10 holes. The RC rig engaged has the ability to convert to diamond drilling as dictated by ground conditions, allowing for diamond tails if warranted.



Figure 1: Plan showing inferred lithology, proposed and historic drill hole locations and results

Soil and Rock Chip Sampling

In July and August 2022, Mandrake carried out soil and rock chip sampling at Berinka with a view to refining existing prospects and generating new targets.

Infill soil sampling was carried out in two areas (see Figure 2) to follow up gold in soil anomalism in a soil sampling program carried out by Discovery Nickel Limited (DNL) in 2004. Soil samples were taken at 50m sample spacings to infill the existing grid to 200m line spacings. A total of 56 (+1 standard for a total of 57) samples were collected along 5 lines. Soils were taken at 0.1-0.4m depth and sieved to 1.5mm in the field. Notes on soil type and outcrop were taken.

The infill soil sampling returned a peak result of 236 ppb Au. This sample appears to validate the DNL peak soil result of 250ppb Au on a line 200m to the north. A follow up program of closer spaced (25m x 50m) infill soil sampling between the two lines is warranted.

Rock chip results are pending.

2





Figure 2: Berinka July/August 2022 soil sampling - gold

Brief Exploration History – Berinka Gold Project

Carpentaria Exploration (CEC) first explored in the area in 1975 when a reconnaissance visit found quartz veining at what is now known as the Terry's Prospect that assayed 5.5g/t Au.

Over the next six years CEC conducted soil sampling, mapping, gridding, rock chip sampling and ground magnetics. Most of these activities were focused on the Terry's Prospect area which is situated approximately 2km south-east of Vegetation Anomaly. Importantly, Vegetation Anomaly and Terry's Prospect appear 'connected' by a distinct NW-SE lineament as interpreted from magnetic imagery.

In the mid-1980s CEC drilled 36 RC drill holes totalling 3,014m at Terry's prospect. Best intersections include*:

- 4m @ 6.6g/t from 32m
- 6m @ 3.1g/t from 18m
- 5m @ 2.6g/t from 30m

*A complete list of all historic drill intercepts is contained in the Mandrake Resources prospectus lodged with the ASX on 24 May 2019.

3





Figure 3: Location of Berinka Pine Creek Project

This announcement has been authorized by the board of directors of Mandrake.

About Mandrake Resources

Mandrake is a junior exploration company established with the purpose of exploring and developing gold, nickel, copper and PGE opportunities. The Company controls 100% of a 140km² exploration licence prospective for PGE-Ni-Cu in the exciting Jimperding Metamorphic Belt, 70km NE of Perth.

Mandrake also owns a mineral exploration project located in the prolific Pine Creek Orogen of the Northern Territory prospective for gold, silver and base metals. For further information visit <u>www.mandrakeresources.com.au</u>

Competent Persons Statement

The technical information in this announcement complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and has been compiled and assessed under the supervision of Mr Harry Mees, consulting geologist to Mandrake Resources. Mr Mees is a Member of the Australian Institute of Geoscientists. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Mees consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.



Table 1: Soil Geochemical Results – Berinka Pine Creek Gold Project

Sample	Easting	Northing	Description		Cu	Ag
oumpie	2000008				ppm	ppm
FS 0037	663451	8438761	residual mafic soils	10	38	<1
FS 0038	663501	8438761	skeletal soils over gabbro outcrop	4	55	<1
FS 0039	663552	8438762	skeletal soils over gabbro outcrop	3	43	<1
FS 0040	663599	8438760	skeletal soils over gabbro outcrop	5	39	<1
FS 0041	663649	8438760	skeletal soils over gabbro outcrop	4	40	<1
FS 0042	663700	8438761	skeletal soils over gabbro outcrop	4	20	<1
FS 0043	663751	8438761	skeletal soils over gabbro outcrop	4	16	<1
FS 0044	663800	8438762	skeletal soils over gabbro outcrop	4	15	<1
FS 0045	663850	8438763	skeletal soils over gabbro outcrop	5	16	<1
FS 0046	663903	8438759	colluvial soils over gabbro	4	17	<1
FS 0047	663949	8438761	sandy loam - over granite or alluvium?	3	<1	<1
FS 0048	664002	8438760	sandy loam - over granite or alluvium?	3	<1	<1
FS 0049	664050	8438762	sandy loam - over granite or alluvium?	3	<1	<1
FS 0050	664100	8438762	sandy loam-probably alluvial	5	<1	<1
FS 0051	664150	8438763	sandy loam - over granite or alluvium?	3	<1	<1
FS 0052	663798	8438360	sandy loam over granite outcrop	2	2	1
FS 0053	663851	8438361	sandy loam over granite outcrop	3	4	1
FS 0054	663900	8438362	sandy loam over granite outcrop	3	8	1
FS 0055	663998	8438361	sandy loam over granite outcrop	236	5	<1
FS 0056	664050	8438362	granite soil with ferruginous pisolites	2	2	<1
FS 0057	664100	8438362	loamy soil with ferruginous fragments	4	1	<1
FS 0058	664149	8438360	residual granite soil	12	6	<1
FS 0059	664200	8438362	residual granite soil	2	3	<1
FS 0060	664251	8438360	residual granite soil	3	2	<1
FS 0061	664300	8438359	residual granite soil	4	<1	<1
FS 0062	664352	8438361	residual granite soil	4	1	<1
FS 0063	662099	8438261	residual soil gabbro cobbles	3	3	<1
FS 0064	662000	8438261	residual gabbro boulders	3	4	<1
FS 0065	661903	8438262	skeletal soils over gabbro boulders	3	25	<1



Sample	Fasting	Northing	Description		Cu	Ag
Sample	Lasting	Northing	Description	ppb	ppm	ppm
FS 0066	661696	8438264	reduced swamp clays, residual over decomposed gabbro	3	27	<1
FS 0067	661600	8438264	reduced swamp clays, residual over decomposed gabbro	2	29	<1
FS 0068	661505	8438265	reduced swamp clays, residual over decomposed gabbro	6	30	<1
FS 0069	661395	8438262	reduced swamp clays, residual over decomposed gabbro	2	42	<1
FS 0070	661300	8438260	reduced swamp clays, residual over decomposed gabbro	3	53	<1
FS 0071	661201	8438260	reduced swamp clays, residual over decomposed gabbro	3	72	<1
FS 0072	661094	8438265	reduced swamp clays, residual over decomposed gabbro	2	76	<1
FS 0073	660995	8438263	reduced swamp clays, residual over decomposed gabbro	3	72	<1
FS 0074	660906	8438260	reduced swamp clays, residual over decomposed gabbro	2	56	<1
FS 0075	660699	8437860	residual on gabbro outcrop	2	115	<1
FS 0076	660800	8437863	skeletal soils over gabbro outcrop	2	139	<1
FS 0077	660901	8437860	skeletal soils over gabbro outcrop	4	82	<1
FS 0078	660998	8437864	reduced swamp clays, over decomposed gabbro	3	26	<1
FS 0079	661098	8437858	reduced swamp clays, over decomposed gabbro	3	43	<1
FS 0080	661201	8437862	reduced swamp clays, over decomposed gabbro	3	6	<1
FS 0081	661302	8437860	reduced swamp clays, over decomposed gabbro	3	27	<1
FS 0082	661401	8437863	skeletal soils over gabbro outcrop	3	32	<1
FS 0083	661502	8437862	skeletal soils over gabbro outcrop	2	9	<1
FS 0084	661599	8437861	skeletal soils over gabbro outcrop	3	<1	<1
FS 0085	660550	8437460	skeletal soils over gabbro outcrop	3	57	<1
FS 0086	660654	8437463	skeletal soils over gabbro outcrop	2	25	<1
FS 0087	660750	8437462	skeletal soils over gabbro outcrop	3	26	<1
FS 0088	660851	8437462	skeletal soils over gabbro outcrop	4	23	<1
FS 0089	660950	8437462	skeletal soils over gabbro, quartz float/lag	2	27	<1
FS 0090	661047	8437464	skeletal soils over gabbro outcrop	2	<1	<1
FS 0091	661151	8437460	hematitic loam with magnetite after mafic	3	<1	<1
FS 0092	661251	8437462	hematitic loam with magnetite after mafic	3	<1	<1

Coordinates in MGA GDA94 Zone52

All soil samples collected from B-horizon and sieved to <1.5mm



• JORC Code, 2012 Edition – Table 1 report template

• Section 1 Sampling Techniques and Data

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

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 down hole 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. 	 Soil samples were collected from the interpreted "B-horizon" using a hand auger. Samples were collected between 5cm and 40cm depth depending on the thickness of the organic A-horizon and presence of underlying bedrock. Samples were taken on a nominal 200m x 50m grid. Samples were sieved to -1.5mm in the field to produce a 200-400g sample for laboratory analysis. Whole samples were pulverized in the laboratory to produce a 50g charge for low detection level analysis of Au, Pd, Pt by fire assay and a sub-sample for 4-Acid digest determination of Cu, Pb, Zn, Ag, As, Co, Ni, Cd, Fe, Mn, Mo, Bi, Sb, Sn, Se, Te, W, Ta, U, Th, Sr, Nb, Ce by MS. Samples were analysed by North Australian Assay Laboratories, Pine Creek.
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). 	The 2020 holes were drilled using reverse circulation drilling. Holes FBRC001-FBRC006 were drilled with a 5 1/2" face sampling hammer. Hole FBRC007 was drilled using conventional hammer and cross-over sub.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	 Recoveries were noted in the drill logs for each individual metre interval. Recoveries were visually



Criteria	JORC Code explanation	Commentary
	 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. 	 estimated from the quantity of drill chips collected in standard plastic sample bags for each metre drilled. Samples were collected through a cyclone to maximise recovery of fines. A well-fitting stuffing box was used around the collar to minimise material to the outside return. The samples were kept dry by using a booster. Rods, cyclone and splitter were regularly cleaned. Moisture content was qualitatively estimated. There is no observable relationship between recovery and grade in the RC drilling at this stage.
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. 	 The lithology, colour, weathering, texture, mineralogy, alteration and vein percentage were recorded for each metre interval. Data was captured using Excel spreadsheets on a field logging computer. Logging is both qualitative and quantitative. Downhole optical imaging was used in holes FBRC002 and FBRC005 to determine structural orientation associated with mineralization. All holes were logged in full. Soil samples were geologically logged for sample depth, colour, nature of the soil profile (transported or residual) and soil protolith if known.
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, 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 	 RC samples were split at a ratio of 87.5%-12.5% through a riffle splitter. RC composite samples were collected by spear sampling of the riffle split bulk sample contained in green plastic bags. The RC samples were sent to an accredited laboratory for sample preparation and analysis. All samples were sorted, dried, crushed and pulverized to -75um to produce a homogeneous 50g subsample for analysis. A



Criteria	JORC Code explanation	Commentary
	 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. 	 grind quality target of 85% passing -75um was established. Quality control procedures included the insertion of certified standards every 25 samples. Intertek Genalysis' internal QAQC procedures included insertion of certified standards, blanks, check replicates and testing for grind fineness of 85% passing -75um.
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. 	 The sample analytical technique used a 50g charge fire assay and is considered appropriate to detect gold, mineralization. Fire assaying is considered a total assay. The 4-acid digest analytical technique is considered a total assay for Ag, As, Bi, Cd, Ce, Co, Cu, Mn, Mo, Ni, Pb, Se, Sr, Te, Zn. It is considered near total for Fe, Nb, Sb, Sn, Ta, Th, U, W. Standards (soils and RC) were inserted into the sample sequence prior to submission to the laboratory.
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. 	 The company used industry standard techniques for sampling and used independent laboratories. Primary geological and sampling data were recorded digitally.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 The grid system used is MGA GDA94 Zone 52 A handheld GPS (Garmin 66i) was used to locate the sample points to an estimated accuracy of +_3m.
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 	 Soil samples were collected at 50m spacings along east-west oriented lines. The lines infill previous soil sampling from 400m-600m line spacing to 200m line



Criteria	JORC Code explanation	Commentary
	appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.Whether sample compositing has been applied.	spacings to form a regular grid.The reported sampling is reconnaissance in nature at this stage.
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. 	• The sampling is reconnaissance in nature. There is limited orientation data for potentially mineralized structures. There is no indication of bias based on the currently known orientation of geological structures.
Sample security	The measures taken to ensure sample security.	 Samples were placed in plastic bags with unique sample numbers and stapled closed in the field. The plastic sample bags were bagged in zip-tied polyweave sacks. Once delivered from the field the samples were housed in secure premises prior to laboratory submission by Mandrake personnel. Results data was emailed to the Mandrake MD.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits/reviews have been undertaken to date.

Section 2 Reporting of Exploration Results

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

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 soil samples were taken on EL31710. EL31710 is held by Focus Resources Ltd, a wholly owned subsidiary of Mandrake Resources. There are no material interests or issues associated with the tenement.
Exploration	 Acknowledgment and appraisal of exploration by other 	 Costeaning, rock-chip sampling and ground magnetics



Criteria	JORC Code explanation	Commentary
done by other parties	parties.	work carried out by Carpentaria Exploration Company in the mide-1980's showed indications of gold mineralization. Discovery Nickel Ltd carried out broad spaced multielement soil sampling during 2004, which shows gold anomalism to 250 ppb.
Geology	 Deposit type, geological setting and style of mineralisation. 	 Sulfide-quartz lodes associated with Proterozoic granitoid intrusions and the regional Halls Creek/Giants Reef Fault zone.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	• Refer to Mandrake ASX release dated 16 October 2020.
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. 	 No length weighting or cut-off grades have been applied. No metal equivalent values have been reported.



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation 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 drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 At this stage the main primary mineralised structural orientations are still being ascertained and are inconclusive. Downhole lengths are reported; true widths are unknown.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	Refer to figures in announcement.
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. 	 All significant results are reported in Table 1.
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. 	• All meaningful information provided.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout 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. 	 Further infill soil sampling to refine areas of gold anomalism has been planned. RC drilling has commenced.