

High Priority Prospects to be Targeted in Forthcoming Field Work

Date: 24 January 2020

ASX Code: MAN

Directors

Patrick Burke Non-Executive Chairman

James Allchurch
Managing Director

Ben Phillips Non-Executive Director

Stephen Buckley Company Secretary

Contact Details

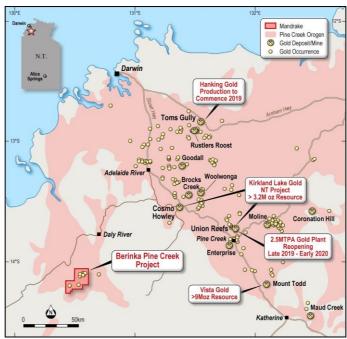
Ground Floor 24 Outram Street West Perth WA 6005 Australia

Tel: +61 8 6189 1155

mandrakeresources.com.au

Highlights

- Three high priority prospects (Silver Strike, RGC Creek and Bubbles East) identified from historic stream and rock chip geochemistry will be investigated in February/March 2020.
- Several highly anomalous historic results have been recorded at Silver Strike including sub-parallel E-W striking veins that returned rock chips grading 175g/t silver¹.
- RGC Creek (along strike from Silver Streak) and Bubbles East represent anomalous gold zones identified through the review of historic stream sediment data. Inadequate or no follow-up work was conducted at these prospects.



Location of Berinka Pine Creek Project

¹ Source: Outback Metals Limited EL10140 Wingate Mountains Annual Report for the year ending 13th February 2010, report submitted to the NT Department of Mines



Exploration Activities - Berinka Pine Creek Project

Through the review of historic detailed geological exploration data, Mandrake Resources Limited (Mandrake or the Company) has identified three compelling prospects within the Berinka Pine Creek Project.

Site visits to the three prospects, Silver Strike, RGC Creek and Bubbles East, will be undertaken in February/March 2020 in order to conduct geological mapping and rock chip sampling. Given the remote nature of these prospects and the difficulty of access during the wet season this work will be undertaken using a helicopter.

Further details of the prospects identified are provided below.

Silver Streak

Silver Streak is situated on a SW-NE trending structural corridor sub-parallel with the regionally important Giants Reef Fault. The structural corridor is associated with a series of flexure faults and splays and was previously explored for base and precious metals.

Several vein sets were previously identified at Silver Streak with rock chip sampling indicating silver grades of up to 175g/t along with anomalous Au (maximum value of 0.17g/t), Bi, Cu, Pb and Sb².

A further target is the NNE trending fault which runs from Silver Strike to the north. Particular zones of interest include an area of fault bifurcation/splay coincident with anomalous arsenic values (stream sediments) as well as the fault intersection with the mafic package to the north.

RGC Creek

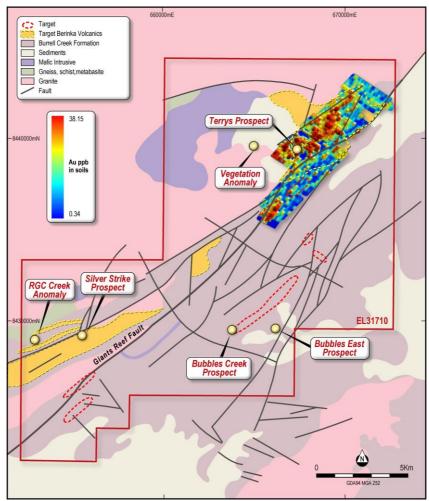
The RGC Creek prospect is located approximately 2km along strike to the west of Silver Strike and is characterized by a highly anomalous gold zone approximately 3,000m x 700m in area as demonstrated by historic high density stream geochemistry data.

Follow-up of the anomalous gold zone by previous explorer Renison Goldfields Consolidated Limited (RGC) was very limited. Crucially, the most anomalous stream sediment samples collected are derived from a creek that has its headwaters outside of the former exploration licence (EL) boundary and was thus not followed up by RGC.

The current EL held by Mandrake incorporates the catchment of this anomaly with the anomalous zone also representing an important lithological contact.

² Source: Outback Metals Limited EL10140 Wingate Mountains Annual Report for the year ending 13th February 2010, report submitted to the NT Department of Mines





Berinka Pine Creek Project - Prospects

Bubbles East

A major, multi drainage area anomalous for Au, As and Bi has been identified immediately east of the Bubbles Creek prospect.

Several of the stream sediment anomalies have not been followed up in this area and thus represent targets for mapping and rock chip analysis.

An application to undertake drilling at the Berinka Pine Creek Project, known as a Mining Management Plan (MMP), was submitted to the Northern Territory Department of Primary Industry and Resources (DPIR) in August 2019. The Company is in the process of modifying the MMP application, informed by both recent observations and results from fieldwork conducted in late 2019 as well as forthcoming field work. A drilling programme testing several targets is scheduled for the quarter ending 30 June 2020, immediately following the wet season.

This announcement has been authorised by the Board of Mandrake Resources Limited.



Enquires please contact: James Allchurch admin@mandrakeresources.com.au (08) 6189 1155

Berinka Pine Creek Project - Background

Gold mineralisation at the project is associated with >10km strike of poorly tested structurally controlled igneous units of the Proterozoic Pine Creek Orogen. Previous reverse circulation (RC) drilling has intersected gold mineralisation associated with sulphide rich veins and is open at depth and along strike at the Terrys prospect with a best intersection of 4m @ 6.56g/t from 32m (TRP-018). A complete list of all historic drill intercepts is contained in the Mandrake Resources prospectus lodged with the ASX on 24 May 2019.

About Mandrake Resources

Mandrake is a junior exploration company established with the purpose of exploring and developing gold, nickel, copper and other mineral opportunities. The Company owns a mineral exploration project located in the prolific Pine Creek Orogen of the Northern Territory and is focussed primarily on gold exploration.

For further information visit www.mandrakeresources.com.au

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.



JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	J	ORC 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.	Historical chip sampling; no details of the sampling methods were reported in the source.(Outback Metals Limited EL10140 Wingate Mountains Annual Report for the year ending 13 th February 2010)
	•	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.	
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).	Not applicable
Drill sample recovery	•	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable
	•	Measures taken to maximise sample recovery and ensure representative nature of the samples.	



Criteria	JORC Code explanation	Commentary
	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.	
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.	Not applicable
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. 	
	The total length and percentage of the relevant intersections logged	f.
Sub- sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. 	Historical rock chip sampling, sampling methodology is not available. The work was carried out under supervision of a
	 If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. 	Chartered Professional Geologist, it is assumed normal industry practices were used.
	 For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	 The samples were analysed by an accredited laboratory (ALS Chemex Brisbane)
	 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 situ material collected, including for instance results for field duplicate/second-half sampling. 	e in
	 Whether sample sizes are appropriate to the grain size of the mater being sampled. 	rial
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.	 The samples appear to have been analysed for gold by fire assay with ICP-AES finish of a 30g sample.
	 partial or total. For geophysical tools, spectrometers, handheld XRF instruments, e the parameters used in determining the analysis including instruments make and model, reading times, calibrations factors applied and the 	nt were reanalyzed using an aqua-regia digest, with ICP-AES or AAS



Criteria	J	ORC Code explanation	Commentary
		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.	
Verification of sampling	•	The verification of significant intersections by either independent or alternative company personnel.	 The assay results were reported in an annual report prepared for Outback Metals Limited by a Chartered Professional Consultant Geologist (WJ Fraser and Associates Pty Ltd)
and assaying	•	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.	
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.	 Samples were located using hand held GPS with accuracy of +- 5m.
	•	Specification of the grid system used.	
	•	Quality and adequacy of topographic control.	
Data spacing and distribution	•	Data spacing for reporting of Exploration Results.	Not applicable.
	•	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.	
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.	Not available
	•	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.	



Criteria	JORC Code explanation	Commentary
Sample security	The measures taken to ensure sample security.	Not available
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 samples referred to are located on EL31710 which is held 100% by Mandrake Resources Limited The tenement is in good standing and no known impediments exist.
	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.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Gold mineralization on EL31710 was discovered by Carpentaria Gold, who carried out intensive exploration work culminating in RC drilling of 36 short holes at the Terry's prospects, and the discovery of Bubbles prospect.
		 RGC Exploration carried out stream geochemistry and rock chip sampling for gold and base-metals over a large part of the current EL31710.
		 Outback Metals Limited carried out rock chip sampling at the Silver Streak Prospect during 2009, following up a sample anomalous in silver collected by Planet Management during the 1960's.
Geology	Deposit type, geological setting and style of mineralisation.	Terry's Prospects are Proterozoic orogenic lode gold deposits. They are hosted by Berinka Volcanics and Ti-Tree Granophyre proximal to the major regional Giants Reef Fault zone in the Pine



Criteria	JORC Code explanation	Commentary
		Creek Orogen.
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: 	Not applicable
	 easting and northing of the drill hole collar 	
	 elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar 	
	o dip and azimuth of the hole	
	 down hole length and interception depth 	
	o 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. 	
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. 	None used
	 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. 	
Relationship between	 These relationships are particularly important in the reporting of Exploration Results. 	Not applicable
mineralisation widths and intercept	 If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. 	
lengths	 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 	



Criteria	JORC Code explanation	Commentary
	width not known').	
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. 	
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. 	 Only highlights of historical sampling have been referred to, to provide an indication of future exploration objectives. Detailed reporting of all historical sampling would be meaningless in this context.
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. 	 Available data from historic or previous exploration parties includes some surface mapping, surface geochemical surveys and geophysical surveys.
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. 	Potential work across the Berinka project may include further verification drilling, sampling, assaying and QA/QC. Other further work may also include mapping, surface sampling, ground or airborne geophysics as well as in-fill or exploratory drilling