Hawthorn RESOURCES

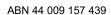
30 July 2021

Market Announcements Office ASX Limited

COMPANY ANNOUNCEMENT

EDJUDINA GOLD PROJECT TENEMENT M 31/481, W A - UPDATE

(Hawthorn Resources Limited: 100%)



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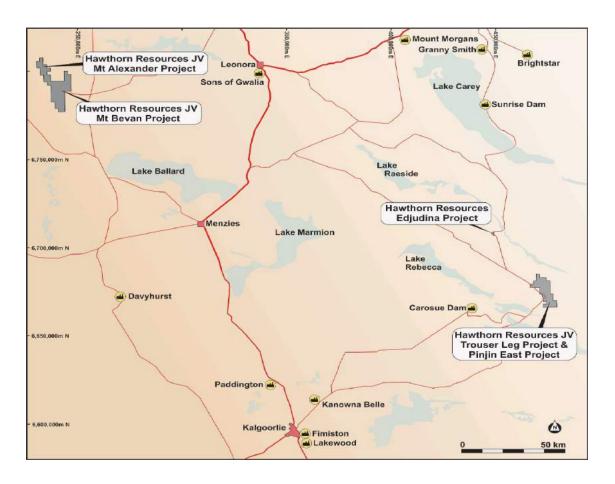


Figure 1 - Project location map - Western Australia Goldfields

As announced to the Market on 30 June 2021 and following the grant of a POW by the W.A. DMIRS the Company, on 2 July 2021, commenced a 600m Reverse Circulation (RC) drill campaign to investigate potential extensions of mineralisation into Hawthorn's M31/481, which is contiguous to Gibb River Diamond's (ASX: GIB) Neta Project, with the Carlsen lode as the focus of the RC drilling campaign. (Refer Figure 1Project location map)

The program of Reverse Circulation drill holes, conducted from 2 to 4 July 2021, completed testing the area immediately south of the recently discovered Carlsen Lode made by Gibb River Diamonds in air core drilling last October; refer to GIB ASX announcement 8 October 2020; refer Table 1 Drilling Summary.

The six-hole program for 612 meters showed only weak intercepts in the southern extension of this lode. The best grade intersections of 1.32g and 4.74g were made in hole 21EDRC002 drilled just south of the Mining Lease boundary with the GIB lease. A wider intersection was seen in hole 21EDRC004 of low-grade quartz-pyrite mineralised lode grading 0.45g between34 and 35 meters and a deeper lode of 0.5g over 2 meters between 46-48 meters.

It appears that the Carlsen lode has weakened south along strike from GIB hole AC013. Refer Fig 2, Drill hole collar plan and Table 2. Downhole drilling intercepts >0.2g/t gold.

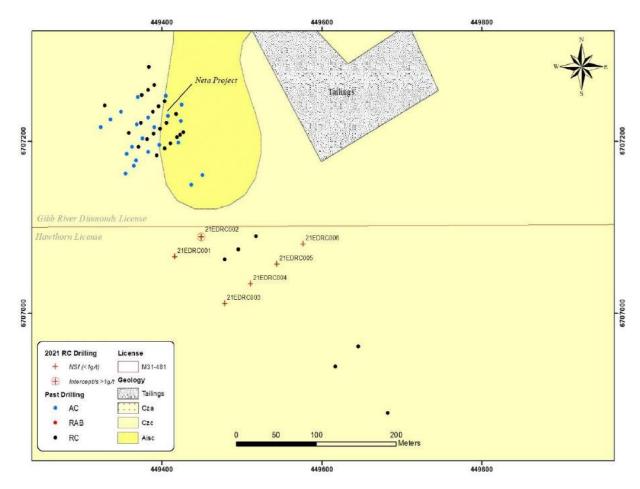


Figure 2. Drill hole collar plan.

Future RC drilling will now be focussed further east testing near surface and deeper sections of the Neta Lode which was the target of underground historic mining via the Geneve and Senate shafts on lease ML481 Whilst much of the past RC drilling by the company has tested this area the holes are widely spaced and require in-fill testing. Also, no deeper diamond drilling has been conducted which is needed to test such deep targets at a depth of 200 meters below surface. It is expected that such a program will be conducted in the coming year.

This announcement can be viewed on the Company's website at: <u>www.hawthornresources.com</u> **END**

For further information contact: Mark Kerr, Managing Director/CEO Telephone: + 613 9605 5902

This announcement was authorised for release to the Market by the Company Secretary, Mr M Garbutt.

The information in this report that relates to Exploration Results has been compiled by Mr Joseph Clarry, an employee of BM Geological Services. Mr Clarry is a member of the Australian Institute of Geosciences (AIG). Mr Clarry has been engaged as a consultant by Hawthorn Resources. Mr Clarry 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Clarry consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

APPENDIX 1 – DRILLING

Hole Coordinates

Hole ID	Easting	Northing	RL	Grid	Max Depth	Dip	Azimuth	Tenement
21EDRC001	449413	6707069	375	MGA94_51	102	-60	235	M31-481
21EDRC002	449443	6707090	374	MGA94_51	102	-60	235	M31-481
21EDRC003	449480	6707018	373	MGA94_51	102	-60	235	M31-481
21EDRC004	449515	6707037	370	MGA94_51	102	-60	235	M31-481
21EDRC005	449537	6707064	373	MGA94_51	102	-60	235	M31-481
21EDRC006	449573	6707083	373	MGA94_51	102	-60	235	M31-481

Table 1. Drilling summary.

	ignificaı iold)	nt Intere	cepts (+0.	Comments	
Hole_ID	From	То	Interval	Grade (ppm)	
21EDRC001	33	34	1	0.22	5-10% qtz veining.
	60	61	1	0.4	Slatey mdst. Tr qtz-cb vnl's
	36	37	1	0.21	Schistose. Li on jts.
21EDRC002	9 3	94	1	1.31	Green mdst
	96	97	1	4.74	Green mdst
	36	37	1	0.4	Green mdst
21EDRC003	66	67	1	0.22	Green mdst
	89	90	1	0.35	Green mdst
	34	35	1	0.45	Fe-alteration. 15% qtz veining.
21EDRC004	46	48	2	0.5	60% qtz veining 47-48m.
	62	63	1	0.3	Green mdst, tr cb in matrix.
21EDRC005		-	-	NSI	
21EDRC006	õ <i>37</i>	38	1	0.7	Schistose, some haematitic clays.

Table 2. Downhole drilling intercepts >0.2ppm gold.

APPENDIX 2 - JORC STATEMENT



JORC Code, 2012 Edition – Edjudina RC Drilling 2021

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. 	 Sampling was conducted using a Reverse Circulation (RC) drilling rig. RC samples were collected at every 1m cone splitter to obtain a ~3kg representative sub-sample for each 1m interval. The cyclone and splitter were cleaned regularly to minimize contamination. Certified Reference Materials and blank samples were inserted at regular intervals into the samples sequence for quality assurance of assay results. Samples were pulverised to produce a 50g charge for fire assay. Sampling and QAQC procedures are carried out using industry standard protocols.
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). 	 Reverse circulation (RC) drilling was carried out using a face sampling hammer with a 143mm (5 1/4") drill bit.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries 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. 	 RC sample recoveries are visually estimated and low recoveries were recorded in the database. Drilling contractors adjust their drilling approach to specific conditions to maximise sample recovery. No sample recovery issues have impacted on potential sample bias.
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. 	 All drillholes are logged in full. RC holes were logged at 1m intervals for the entire hole from drill chips collected and stored in chip trays. Data was recorded for regolith, lithology, veining, fabric (structure),

Criteria	JORC Code explanation	Commentary
	 Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	grain size, colour, sulphide presence, weathering and alteration.Logging is both qualitative and quantitative in nature depending on the field being logged.
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 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. 	 All RC samples were passed through cyclone and cone split, and a ~3kg split sample is collected for each 1m interval. Blank samples were inserted in each hole where mineralisation was suspected based on logging. CRM's were inserted in each drill hole at intervals of 1 in 40 samples. Sample preparation was conducted by Bureau Veritas Laboratory in Kalgoorlie using a fully automated sample preparation system. Preparation commences with sorting and drying. Oversized samples are crushed to <3mm and split down to 3kg using a rotary or riffle splitter. Samples are then pulverized and homogenized in LM5 Ring Mills and ground to ensure >90% passes 75µm. 200g of pulverized sample is taken by spatula and used for a 50g charge for Fire Assay for gold analysis. A high-capacity vacuum cleaning system is used to clean sample preparation equipment between each sample. The sample size is considered appropriate for this type and style of mineralisation.
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. 	 Fire Assay is an industry standard analysis technique for determining the total gold content of a sample. The 50g charge is mixed with a lead based flux. The charge/flux mixture is 'fired' at 1100oC for 50mins fusing the sample. The gold is extracted from the fused sample using Nitric (HNO3) and Hydrochloric (HCl) acids. The acid solution is then subjected to Atomic Absorption Spectrometry (AAS) to determine gold content. The detection level for the Fire Assay/AAS technique is 0.01ppm. Laboratory QA/QC controls during the analysis process include duplicates for reproducibility, blank samples for contamination and standards for bias.
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. 	 All drilling and significant intersections have been assessed by the Project Geologist No pre-determined twin holes were drilled during this program. Geological logging was captured digitally for each hole. No adjustments or calibrations were made to any assay data reported.

Criteria	J	ORC Code explanation	C	ommentary
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 is GDA 94 Zone 51 Drillhole collar locations are surveyed before and after using a hand- held Garmin 64 GPS to an accuracy of +/-3m. Downhole surveys were completed by the drilling contracted at 10m intervals using a North-Seeking Reflex Gyro.
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.	•	between and along strike from previous drilling.
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.	•	Drilling was perpendicular to the strike of the main mineralised structure targeted for this program. All reported intervals are howeve reported as downhole intervals and not true-width. No drilling orientation and/or sampling bias have been recognized in the data at this time.
Sample security	•		•	During sampling of all drill holes, a staff member was always present. Samples were delivered to the laboratory in batches by staff.
Audits or	٠	The results of any audits or reviews of sampling techniques and data.	٠	No audits or reviews have been conducted on sampling techniques and data at this stage.

Cr	iteria	JORC Code explanation	Commentary
ter lan	ineral nement and nd tenure atus	 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 mineral tenements M31/481 with a PoW The tenements are in good standing.

Criteria	JORC Code explanation	Commentary
	• 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. 	• Limited earlier drilling has been completed in the same area of M31/481 with substantial drilling having been completed by Gibb River Diamonds Ltd along strike to the immediate north. The work Gibb River provided the motivation for this drill program which was test southern extensions of the mineralisation they intercepted.
Geology	• Deposit type, geological setting and style of mineralisation.	• The gold mineralisation occurs in parallel, mainly quartz-bearing veins which are hosted by, and conformable with a sequence of mafic volcanics and sediments. The sequence is bound to the east and west by thin Banded Iron Formation (BIF) horizons. The gener orientation of the sequence is to the north-west, dipping steeply ea
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. 	 Drill hole information for the drilling discussed in this report is listed Tables 1 and 2 within the report.
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. 	There has been no aggregation, compositing or top capping applie
Relationship between mineralisation	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole 	• The holes were drilled perpendicular to the expected strike of the exploration target however the mineralised intercepts could only be described as 'down hole' given the limited understanding of the

Criteria	JORC Code explanation	Commentary
widths and intercept lengths	 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'). 	mineralisation at this early stage of exploration.
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. 	 Appropriate plans and results have been included in this report. Sections are not necessary given the lack of continuity of mineralisation intersected.
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. 	 No misleading results have been reported in this program.
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. 	 Drill holes have all been surveyed using a Reflex north seeking gyroscope at 5m intervals by Australian Exploration Drilling Company (ASX Drilling)
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. 	 No further follow up at this target is required.

Estimation and Reporting of Mineral Resources Sec

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria JORC Code explanation	Commentary
 Database integrity Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	

Criteria	JORC Code explanation	Commentary
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	• The project was implemented by the Competent Person and industry standard logging, sampling and QAQC procedures were used.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 The mineralisation identified in the limited drilling was not considered significant enough to warrant follow up drilling, nor is it conclusive enough to allow a confident geological interpretation or define a mineral deposit. No mineral resource has been estimated - or is currently intended to be. Some of the mineralisation was associated with clearly visible quartz (+/- carbonate) veining with minor amounts of sulphide (or iron hydroxides from weathered sulphides) whereas in other mineralization there was little or no visible veining or obvious sulphides in the drill cuttings.
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	There has been no mineral resource defined.
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	There has been no mineral resource defined.
	 The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. 	
	 The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). 	
	 In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. 	
	 Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. 	
	 Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison 	

Criteria	JORC Code explanation	Commentary
	of model data to drill hole data, and use of reconciliation data if available.	
Moisture	 Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	There has been no mineral resource defined.
Cut-off parameters	 The basis of the adopted cut-off grade(s) or quality parameters applied. 	 There has been no mineral resource defined. A cut-off grade of 0.2ppm has been used for the reporting of mineralised drill intercepts.
Mining factors or assumptions	 Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	There has been no mineral resource defined to warrant mining studies.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 There has been no mineral resource defined to warrant metallurgical studies.
Environmen- tal factors or assumptions	 Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	 There has been no mineral resource defined to warrant mining studies.
Bulk density	• Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	There has been no density studies conducted or mineral resources defined.

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Criteria	JORC Code explanation	Commentary
	 The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	There has been no mineral resource defined.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• There has been no mineral resource defined requiring audit or review.
Discussion of relative accuracy/ confidence	 Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	There has been no mineral resource defined.