

**ASX ANNOUNCEMENT** 

October 20<sup>th</sup>, 2022

## INITIAL DRILLING IDENTIFIES POTENTIAL NI-Cu-PGE HOST ROCKS AT THE MORRISEY PROJECT, WA

- Reconnaissance Reverse Circulation drilling program successfully completed
- Potential Ni-Cu-PGE host rocks intersected at Sandfly and Waterfall prospects
- Magnetite within meta-iron formations to be tested for possible upgrade
- Results to be reviewed with South32 to determine follow-up work

AusQuest Limited (ASX: AQD) is pleased to report results from the initial reconnaissance Reverse Circulation (RC) drilling program completed at the Morrisey Nickel-Copper-Platinum Group Element (Ni-Cu-PGE) Project, located in the Narryer Terrane approximately 500km north of Perth in WA (*Figure 1*). The Morrisey Project is subject to the Strategic Alliance Agreement (SAA) with a wholly-owned subsidiary of South32 Limited (South32).

Drilling was designed to test three discrete electromagnetic (EM) targets that were closely associated with magnetic anomalies similar to the anomaly over the Gonneville intrusion that hosts Ni-Cu-PGE mineralisation at the Julimar Project, just north of Perth.

The initial three-hole drilling program (726m) intersected a mixed sequence of high-grade metamorphic rocks including iron formations, mafic (meta-gabbros) and ultramafic (meta-pyroxenites) units, interleaved within a sequence of granitic gneisses. The ultramafic units reflect potential host rocks for Ni-Cu-PGE mineralisation.



Figure 1: Magnetic images showing magnetic targets and drill-hole locations.

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Drilling at the Waterfall and Sandfly prospects intersected increased sulphide levels (up to 13% S) within and marginal to the iron formations that coincide with the location of the modelled EM plates. The sulphide zones vary in thickness from a few metres up to 34 metres (in 22MYRC02) and consist of pyrrhotite and pyrite mineralisation, with no significant base metal anomalism reported.

Narrow (<20m) intervals of ultramafics containing elevated chrome (>1000ppm Cr), magnesium (>10% Mg) and nickel (up to 1,350ppm Ni) values were also intersected at Sandfly and Waterfall, reflecting potential host rocks for Ni-Cu-PGE mineralisation. The extent of these units is unknown but is likely to be more extensive than indicated by this initial drilling program.

High iron values (25% to 39% Fe) reported in drill-holes 22MYRC001 and 22MYRC002 occur within relatively thick metamorphosed iron formations (up to 60 metres) that contain coarsely crystalline magnetite (*Figures 2 and 3*), which could reflect a new opportunity for the Company if the magnetite can be easily beneficiated. Test work is currently being considered under the SAA.



Figure 2: Waterfall prospect showing drill-hole on magnetics and Fe, Ni down-hole assays.

At the Bilga Rocks prospect, drilling (hole 22MYRC003) intersected a thick body (>120m) of meta-gabbro, which appears to form part of a much larger magnetic complex that extends for several kilometres to the north. Trace sulphides (mainly pyrite) reported throughout the meta-gabbro partly explain the EM response that was targeted by drilling.

Strong magnetic anomalies north of 22MYRC003 reflect possible ultramafic units within the inferred complex that have not been tested by drilling.

Numerous magnetic responses evident in the regional aeromagnetic data are now considered to be potential prospects for either magnetite and/or nickel-copper-PGE mineralisation based on the results of this program (*Figure 1*). None of these targets have previously been tested by drilling.





Figure 3: Sandfly prospect showing drill-hole on magnetics and Fe, Cu down-hole assays.

AusQuest's Managing Director, Graeme Drew, said the initial three-hole drilling program had provided much needed geological control in areas considered to have the potential for Ni-Cu-PGE mineralisation, including confirmation of the presence of prospective ultramafic host rocks.

"This is an important outcome, with the drilling also revealing the potential for high-grade iron, in the form of coarsely crystalline magnetite – which could open up a new opportunity for the Company," he said.

"Results from this early-stage drilling are being reviewed in consultation with South32, to agree further work required to unlock the potential of this area.

"These are still early days for the Morrisey Project, which has seen little exploration activity prior to the discovery of the Julimar nickel-copper-PGE deposit by Chalice Mining, which highlighted the untested nickel-copper-PGE potential along the western margin of the Yilgarn," he added.

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Graeme Drew Managing Director

### **COMPETENT PERSON'S STATEMENT**

The details contained in this report that pertain to exploration results are based upon information compiled by Mr Graeme Drew, a full-time employee of AusQuest Limited. Mr Drew is a Fellow of the Australasian Institute of Mining and Metallurgy (AUSIMM) and has sufficient experience in the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the "Australasian Code for Reporting of



Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Drew consents to the inclusion in the report of the matters based upon his information in the form and context in which it appears.

#### FORWARD LOOKING STATEMENT

This report contains forward looking statements concerning the projects owned by AusQuest Limited. Statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward looking statements as a result of a variety of risks, uncertainties and other factors. Forward looking statements are based on management's beliefs, opinions and estimates as of the dates the forward looking statements are made and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

# JORC Code, 2012 Edition – Table 1 Report Reverse Circulation Drilling at the Morrisey Project

### **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary			
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>RC drilling was used to obtain 1m split samples which were composited over 2m using an onboard cone splitter.</li> <li>Sample depths were determined by the length of the rod string and confirmed by counting the number of samples and rows as per standard industry practice.</li> <li>Sample weight of each 2m composite submitted for analysis was approximated 3kg.</li> </ul>			
Drilling techniques	<ul> <li>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).</li> </ul>	<ul> <li>Reverse circulation (RC) drilling with 4.5 inch face sampling bit.</li> </ul>			
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>Experienced RC drillers and an appropriate rig size were used to ensure maximum sample recovery.</li> <li>Sample quality and recovery was noted for each metre.</li> <li>At this early stage of exploration it is not possible to identify any relationship between sample recovery and assay grade.</li> </ul>			
Logging	<ul> <li>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</li> </ul>	<ul> <li>RC sample chips were logged by an experienced geologist to identify key rock types and mineralisation styles.</li> </ul>			

Criteria	JORC Code explanation	Commentary			
	<ul> <li>studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Sample logging was qualitative with visual estimates of mineral composition made for later comparison with assay results.</li> <li>All samples were logged.</li> </ul>			
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>RC samples were collected every 1 metre and presented in rows corresponding to sample depth.</li> <li>Assay samples were collected every 2m utilising a cone spltter on the rig's cyclone to produce a representative composite sample for assay.</li> <li>Certified standards or blanks were inserted every twentieth sample for initial quality control purposes.</li> <li>The sample sizes are considered appropriate for the geological materials sampled.</li> </ul>			
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The sample sizes are considered appropriate for the geological materials sampled.</li> <li>Assaying of the drill samples is by standard industry practice.</li> <li>The samples are sorted and dried and the whole sample is crushed then split by riffle splitter to obtain a representative sub-sample which is then pulverized in a vibrating pulveriser.</li> <li>A portion of the pulverized sample is then digested and refluxed using a four acid digest (hydrofluoric, nitric, hydrochloric and perchloric) which approximates a total digest for most elements. Some refractory minerals are not completely dissolved.</li> <li>Inductively Coupled Plasma Mass Spectroscopy (ICP-MS) is used to measure Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, and Zr (48 element suite).</li> <li>A 25g fire assay is used for Au, Pt, and Pd assays.</li> <li>Data from the laboratory's internal quality procedures (standards, repeats and blanks) are reviewed to check data quality.</li> <li>Assays are provided by Intertek Genalysis, Maddington, WA which is a certified laboratory for mineral analyses. Analytical</li> </ul>			

Criteria	JORC Code explanation	Commentary			
		data is transferred to the company via email and by hard copy.			
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No verification of intersections was undertaken, drilling was reconnaissance in nature.</li> <li>Sample details were compiled into Excel spreadsheets for merging with assay data.</li> <li>Digital data is regularly backed-up on the company's servers.</li> </ul>			
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collar locations were established with a handheld GPS to +/- 5m accuracy.</li> <li>Down hole surveys were carried out below the collar and at the bottom of each hole using a multi-shot gyro system.</li> <li>Grid system used is GDA94 Zone 50S.</li> </ul>			
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill holes were reconnaissance in nature and designed to test isolated EM targets beneath cover.</li> <li>Drill holes were between 12km and 50km apart.</li> </ul>			
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>Any bias due to the orientation of the drilling is unknown at this early stage of exploration.</li> </ul>			
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were collected in securely tied bags and placed into cable-tied polywoven for transport to the assay laboratory, accompanied by a sample submission sheet listing sample numbers and required sample preparation and assay procedures.</li> <li>Reputable companies are used to transport samples to the laboratory.</li> <li>Sample pulps (after assay) are held by the laboratory and returned to the company after 90 days.</li> </ul>			
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or reviews have been carried out on the sampling.			

## 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	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Morrisey Project is located approximately 150 km northeast of Geraldton in Western Australia.</li> <li>Tenement holdings consist of four granted Exploration Licences E70/5383, E09/2397, E59/2525 and E59/2526 held 100% by AusQuest.</li> <li>The Morrisey Project is subject to a Strategic Alliance Agreement whereby South32 have the right to earn a 70% interest by spending US\$4.5M.</li> <li>The tenements are located partly within (WC2004/010) Wajarri Yamatji #1Native Title Claim (partially determined) and partially within (WC1996/093) Mullewa Wadjari Community Native Title Claim.</li> <li>Aboriginal heritage surveys are routinely completed ahead of ground disturbing activities.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous exploration is very limited and was mainly focused on iron ore and gold targets together with some regional diamond exploration by Stockdale Prospecting and CRA Ltd.</li> <li>Limited aircore drilling and surface lag sampling was reported by several companies that were targeting magnetic anomalies as possible iron ore or nickel prospects but no RC or diamond drilling has been 4 Criteria JORC Code explanation Commentary reported.</li> <li>Detailed aeromagnetic data was acquired over the northern half of EL 70/5383 and the southern part of EL 70/2397 as part of a search for iron ore. This data is being used by the current exploration in the area</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	The Morrisey Project is targeting nickel-copper-PGE mineralisation in mafic/ultramafic intrusions within the Narryer Terrane which forms the NW margin of the Yilgarn Craton.

Criteria	JORC Code explanation	Commentary			
Drill hole Information	<ul> <li>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: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	• All relevant drill hole data are provided below.			
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No aggregation techniques have been used on the data.</li> </ul>			
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	<ul> <li>No significant base metal intersections obtained, drilling was reconnaissance in nature.</li> </ul>			
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Drill holes locations are shown on appropriate plans and included in the ASX release.</li> </ul>			
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>Drilling was reconnaissance in nature, no economic intersections reported.</li> </ul>			

Criteria	JORC Code explanation	Commentary			
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>The area was selected for drilling based on modelled electromagnetic targets in conjunction with geological, geochemical and magnetic interpretations by the company.</li> </ul>			
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Proposals of further work will be done after a thorough analysis of the current data is completed.</li> </ul>			

# **Drilling Details:**

Hole_No	Prospect	Easting	Northing	RL	Datum	Zone	Azimuth	Inc	RC_Depth (m)
22MYRC001	Waterfall	370820	6972580	300	GDA94	50	270	-60	246
22MYRC002	Sandfly	364030	6962700	265	GDA94	50	270	-70	252
22MYRC003	Bilga	395400	7017440	287	GDA94	50	090	-60	228