



Middle Island Resources Limited ACN 142 361 608

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#### Middle Island Resources Ltd ACN 142 361 608 ASX code: MDI www.middleisland.com.au

#### Capital Structure:

586 million ordinary shares 38,300,000 unlisted options

#### Cash

\$1.84m (as at 30 June 2017)

# Directors & Management: Peter Thomas

Non-Executive Chairman
Rick Yeates
Managing Director
Beau Nicholls
Non-Executive Director
Dennis Wilkins
Company Secretary

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## ASX Release - 12 September 2017

# Aircore drilling identifies new gold targets at Davis Prospect, Sandstone gold project (WA)

- Results from geochemical auger and aircore drilling at the Davis prospect (comprising Davis East and Davis West) have defined several significant new blind gold anomalies beneath a blanket of transported sheetwash cover.
- Four cohesive anomalies, with peak values up to 688ppb Au (0.68g/t) have been defined over individual strike lengths of ~200m, some of which may prove to be linked over strike lengths of up to 600m.
- Each of the anomalies are consistent with those defining nearby, high grade open pit deposits that have been mined and processed.
- All new gold anomalies at Davis lie within 1km of the Company's 600,000tpa Sandstone gold processing plant, consistent with an area hosting the highest density of gold deposits within the entire Sandstone greenstone belt.
- Davis is the first of the 'weights of evidence' (WoE) targets to be tested by geochemical drilling, providing considerable confidence that other WoE targets may generate similar anomalies.
- Along with the current resource definition drilling at the nearby Wirraminna deposit, each of the Davis targets provide further potential to contribute to an early mill recommissioning decision.
- Reconnaissance RC drill traverses will be immediately undertaken over two
  of the Davis anomalies in order to understand the nature and tenor of
  associated saprolitic mineralisation.

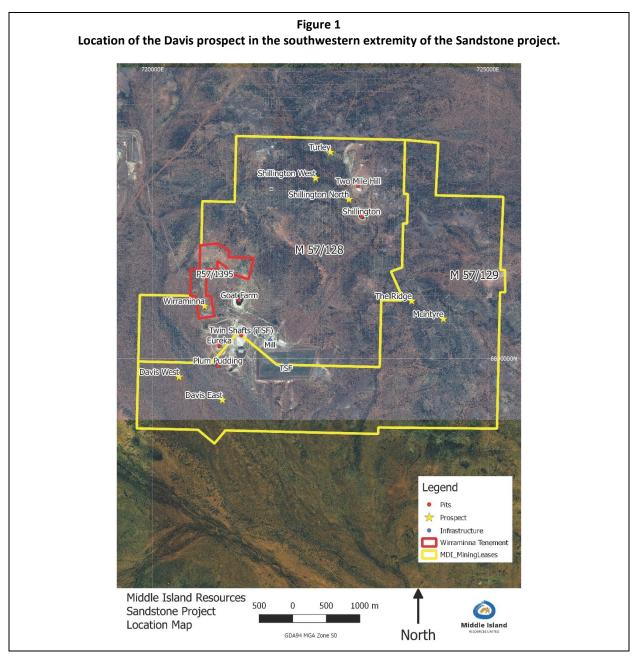


#### **SANDSTONE GOLD PROJECT (WA)**

#### Davis Prospect Aircore Drilling

Aspiring gold developer, Middle Island Resources Limited (**Middle Island**, **MDI** or **the Company**), is pleased to announce that it has received results from geochemical auger and aircore drilling recently completed at the Davis prospect, within the Company's 100%-owned Sandstone gold project in WA.

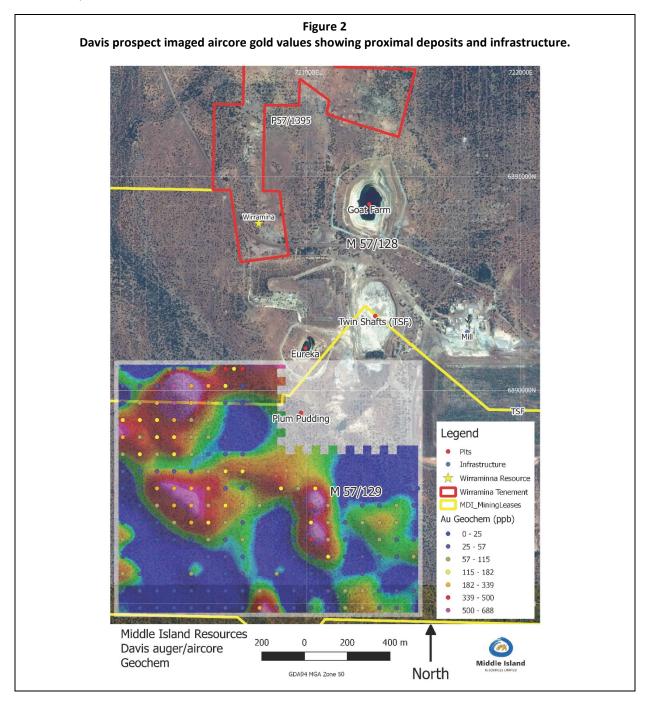
The Davis prospect is located in the extreme southwest corner of the project, as shown in Figure 1. The Davis prospect was designated as the highest priority WoE target generated from a targeting study completed by structural geologist, Dr Brett Davis of Orefind Pty Limited, in the March quarter this year. The Davis target was assigned a higher priority, not only due to its 'evidence' ranking, but also based on its larger size, close proximity to five known gold deposits (Goat Farm, Twin Shafts, Eureka, Plum Pudding and Wirraminna) and the presence of a significant blanket (5-15m) of transported sheetwash cover that had discouraged previous exploration.





A combined auger (shallow) and aircore (deeper) geochemical drilling programme was completed over the Davis target in order to penetrate the sheetwash cover to sample the interface between the transported and residual profiles – in effect, a soil sampling survey of the paleo-surface. Drilling was completed on an 80m x 80m pattern in order to ensure adequate coverage over what can be small, but especially significant for MDI, very high grade targets in this vicinity.

The imaged gold geochemistry, provided in Figure 2 below, demonstrates a series of four principal anomalies, each with maxima exceeding 180ppb Au (0.18g/t Au). Individually the anomalies have strike lengths of ~200m, but some may prove to be linked over strike lengths up to 600m. The gold anomalies are very cohesive in nature, each comprising a series of high values typical of gold dispersion patterns in such environments. The gold results are coincident with elevated arsenic values and zones of relative calcium depletion.





Given the availability of an RC drill rig on site, the Company has elected to drill a traverse of angled RC holes across each of the Davis West and Davis East anomalies to provide an initial assessment as to the nature and tenor of the saprolitic source of gold mineralisation. Five initial RC holes, to approximately 80m depth (400m in total), are planned.

Davis is the first of the WoE targets to be tested by geochemical drilling, providing considerable confidence in both the auger/aircore technique in defining anomalies beneath transported cover for cost-effective bedrock drilling and that the multitude of other WoE targets may generate similar anomalies.

All gold anomalies comprising the Davis prospect lie within 1km of the Company's 600,000tpa Sandstone gold processing plant. Along with the current resource definition drilling at the nearby Wirraminna deposit, each of the Davis targets enhances the potential to contribute to an early mill recommissioning decision.

#### Middle Island Managing Director, Mr Rick Yeates:

"Although only a technical success at this stage, identification of the Davis anomalies beneath an extensive blanket of transported cover, in the Company's first genuine grassroots exploration campaign at the Sandstone gold project, is extremely gratifying. The discovery thoroughly vindicates the Orefind team's application of sound structural and lithological evidence, based on geophysical data and astute field observations, and provides considerable confidence that additional anomalies will be generated from the remaining 30 targets generated by the WoE study.

"Should drilling confirm the presence of significant saprolite mineralisation at any one or more of the Davis anomalies, such a discovery would represent an additional catalyst for an early plant recommissioning decision.

"I look forward to updating shareholders on the outcome of reconnaissance RC drill testing to commence immediately on the Davis West and Davis East anomalies."

#### **COMPANY CONTACTS:**

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#### **Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Middle Island, industry growth or other trend projections are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.

#### **Competent Persons' Statement**

Information in this report relates to exploration results that are based on information compiled by Mr Rick Yeates (a Member of the Australasian Institute of Mining and Metallurgy). Mr Yeates is a fulltime employee of Middle Island and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration 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 Yeates consents to the inclusion in the release of the statements based on his information in the form and context in which they appear.

# **Appendix 1**

The following Table and Sections are provided to ensure compliance with the JORC Code

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. 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> </ul>	<ul> <li>Geochemical auger and aircore drilling, comprising vertical holes drilled through the transported profile to recognisable saprolite.</li> <li>Samples were piled in rows of 10m directly onto the ground.</li> </ul>
	<ul> <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> </ul>	<ul> <li>The thickness of the transported profile ranged from approximately 4m to 16m depth, comprising alluvial sheetwash of predominantly pisolitic gravels.</li> </ul>
	• In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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 (e.g. submarine nodules) may warrant disclosure of detailed information.	<ul> <li>A single or composite sample, of approximately 1kg weight, straddling the interface between transported and residual profiles, was collected via tube sampling over a 1m to 4m interval in each hole.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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>Vertical auger (where the transported profile was shallow) or aircore (where the transported profile is thicker) drilling was employed to intersect the interface between the transported and residual profiles.</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>No specific measures were adopted to determine the sample recovery, as the programme was effectively a soil sapling exercise of the paleo-surface, however the holes were all dry and sample piles were routinely of a consistent size.</li> </ul>

Criteria	JORC Code explanation	Commentary
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 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>All holes were routinely logged by an MDI geologist, however the primary focus was to identify the precise transition from transported to residual material for sampling.</li> <li>Sample logging was qualitative in nature, consistent with a soil sampling programme.</li> <li>Holes were logged at 1m intervals.</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/secondhalf sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>A single sample, straddling the interface between the transported and residual profiles was collected via tube sampling.</li> <li>Where there was doubt as to the precise location of the interface, or the interface appeared to occur between 1m drill samples, composite sampling was employed to ensure the interface was incorporated in the single sample collected from each hole.</li> <li>All samples were drilled and collected dry into labelled calico bags.</li> <li>A field duplicate sample was collected from every 20th sample to monitor a reasonable degree of reproducibility.</li> <li>Samples of approximately 1kg were collected, however precise sample size consistency was not considered relevant due to the qualitative nature of what was effectively a 'soil' geochemical programme.</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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Samples were assayed for gold by Minalytical using a 10g aqua regia with ICP-MS finish.</li> <li>Samples were assayed for trace (pathfinder) elements by Gyro Australia. The pulps from Minanalyitcal were used to generate a pressed pellet that was assayed via a handheld XRF unit.</li> <li>Given that the programme was essentially a soil geochemical survey, the relative (rather than absolute) values required did not necessitate exhaustive verification. However, MDI did insert a gold standard every 20th sample to verify the lab results.</li> </ul>

Criteria	JORC Code explanation	Commentary
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>A selection of holes was reviewed by senior MDI technical management to ensure the correct intervals were sampled.</li> <li>No twinned holes were drilled due to the grassroots nature of the programme.</li> <li>Holes were electronically logged on site. The field and assay data were recorded in the company's electronic field logger.</li> <li>No assays were adjusted.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole 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>Handheld GPS unit used to record the location of auger and aircore drill holes.</li> <li>Drill hole locations are shown on Figure 2 in the release and recorded in the Company's database.</li> <li>MGA94 Zone 50.</li> <li>Topographic control provided by the handheld GPS is adequate for the nature of the programme.</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>Holes were drilled on a nominal 80m by 80m orthogonal pattern, and samples collected at 1m intervals down-hole.</li> <li>The drillhole density is more than adequate to define the interface geochemical anomalies, with each individual target comprising multiple anomalous gold values that demonstrate expected dispersion patterns.</li> <li>Downhole sample compositing over 2-4m was employed in some cases to ensure that the transported/residual interface was sampled in each case.</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>Given that the programme effectively comprised soil sampling of the essentially planar, paleo land surface, rather than designed to intersect mineralisation, the application of vertical holes is entirely appropriate.</li> <li>No sampling bias is introduced by drilling vertical holes when sampling a horizontal planar surface.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples remained in the custody of the independent drilling contractor, which was responsible for submitting the samples for gold assay and undertaking the trace element sampling.</li> </ul>

Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>Other than MDI senior technical management reviewing the drill sampling on site, no field audit or review has been undertaken of what was essentially a soil sampling survey.</li> <li>The field and analytical data were independently verified by the Company's external database consultant.</li> </ul>

## **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 drilling was completed within, and the samples derived from, M57/128 and M57/129 (as shown in Figure 2 of the release), which are 100% owned by Sandstone Operations Pty Ltd, a wholly-owned subsidiary of Middle Island Resources Limited.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Two reconnaissance traverses of broadly spaced, RAB holes were previously completed across the Davis targets by Herald Resources Ltd in 1993.</li> <li>In retrospect, the Herald RAB traverses straddled the Davis anomalies, although a broad zone of quartz veining, with anomalous associated gold values, was logged within a RAB hole that may represent the southern strike continuation of the Davis East target.</li> </ul>

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Drilling encountered 4m to 16m of alluvial sheetwash cover, predominantly comprising loose to partially-cemented pisolitic gravels.</li> <li>As holes were only drilled to the top of the residual saprolite profile, the basement geology could not be accurately determined, however airborne magnetic surveys, historic drilling and trace element scans suggest the basement comprises ultramafic rocks, with a possible intrusive in the northeast quadrant of the drilled area.</li> <li>The Davis anomalies are proximal to a number of significant gold deposits that have been mined previously or have been quantified. The nearest of these, being the Eureka, Plum Pudding and Wirraminna deposits, comprise zones of ferruginous quartz veining hosted within ultramafic rocks.</li> </ul>
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> </ul>	<ul> <li>The location of each drill hole was recorded by handheld GPS (see Figure 2), including the easting, northing and RL (flat topography) to an accuracy of +/-5m.</li> <li>All holes were drilled in a vertical orientation and the depth of each hole recorded.</li> </ul>
	<ul> <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>	<ul> <li>The accuracy of this information is not required on the basis that the programme is effectively a soil sampling survey of the paleo land surface and the information does not contribute in any way to the definition of Mineral Resources or Ore Reserves.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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> </ul>	<ul> <li>designed for relative, rather than absolute, determination of trace elements to define anomalies for subsequent testing.</li> <li>Reported results are derived from either individual 1m samples or composite samples collected over 2-4m intervals in order to ensure that the transported/residual interface was incorporated in each sample.</li> </ul>
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Not applicable.

Criteria	JORC Code explanation	Commentary
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 (e.g. 'down hole length, true width not known').</li> </ul>	<ul> <li>Not applicable, as the programme is effectively a soil sampling survey of the paleo land surface and the information does not contribute in any way to the definition of Mineral Resources or Ore Reserves.</li> <li>Based on the anomalies generated by the programme and mineralisation exposed in the walls of proximal pits, the geometry of the primary mineralisation is expected to strike northwest, through north, to northeast and dip steeply to sub-vertically.</li> <li>The geometry of mineralised zones is irrelevant, given the programme is effectively a soil sampling survey of the paleo-surface, only designed to determine the planar footprint of mineralised zones prior to bedrock drilling.</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>	See figures within the release.
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>	See reported relative (rather than absolute) grades in Figure 2.
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>	Reported within the release as appropriate and relevant.
Further work	<ul> <li>The nature and scale of planned further work (e.g. 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>Stated within the release as appropriate and relevant.</li> <li>Each of the Davis East and Davis West anomalies are currently being tested by short reconnaissance RC drill traverses to determine the nature and significance of any associated saprolitic mineralisation.</li> </ul>