

Adelaide Resources Limited ABN: 75 061 503 375

#### **Corporate details:**

ASX Code: ADN Cash: \$1.71 million Issued Capital: 304,545,685 ordinary shares 37,222,104 listed options (ADNO) 750,000 performance rights

#### Directors:

Colin G Jackson Non-executive Chairman Chris Drown

Managing Director

Nick Harding Executive Director and Company Secretary

Jonathan Buckley Non-executive Director

#### **Contact details:**

69 King William Road, Unley, South Australia 5061

PO Box 1210 Unley BC SA 5061

Tel: +61 8 8271 0600 Fax: +61 8 8271 0033

adres@adelaideresources.com.au www.adelaideresources.com.au

#### Fact:

The Hishikari mine in Japan has produced 6.2Moz of gold from ore grading 49g/t gold. It is a classic example of an epithermal style deposit.



# **ASX Announcement**

19 May 2015

# Drummond epithermal gold project

(100% owned), Queensland

Ounce per tonne gold grades in rock chip samples from South West Limey Dam

## Summary

- Rockchip sample assaying 31.0g/t gold at a newly discovered vein at South West Limey Dam prospect.
- Another sample assaying 34.2g/t gold was collected from second vein where 55.4g/t gold was also noted in previous work. These results highlight the potential to discover a high grade gold deposit at Drummond.
- A maiden drill programme at South West Limey Dam is scheduled once the current drilling programme on the Eyre Peninsula is completed.
- An aboriginal heritage survey was recently completed over the entire South West Limey Dam prospect by the Native Title Claimants. No exclusion zones were set allowing the Company flexibility in siting drill holes.
- Surface mapping has located an outcrop of sinter, a rock type that forms at the very top of an epithermal system. The presence of sinter implies that a complete sub-surface epithermal system, including any gold zone, will be preserved at depth. This new target is named Max's Sinter.

Chris Drown Managing Director

Direct enquiries to Chris Drown. Ph (08) 8271 0600 or 0427 770 653.

#### Introduction

Adelaide Resources holds EPM 18090 and EPMA 25660 in the Drummond Basin in Queensland (Figure 1). The Drummond Basin is prospective for high grade epithermal gold deposits exemplified by the Pajingo Field which to date has produced over 3 million ounces of gold.

The Company's project includes the South West Limey Dam prospect where previous work has confirmed the presence of a large gold-bearing epithermal system.

Further rockchip sampling was completed recently in conjunction with an aboriginal heritage survey.

## Rockchips return more high grades

Eleven rockchip samples collected from various locations around the South West Limey Dam prospect were submitted for laboratory assay. Results confirm that five of the samples contain greater than 1.0g/t gold, with two of these samples returning ounce/tonne grades of 31.0g/t gold and 34.2g/t gold. The new rockchip assay results are tabulated in Table 1 and their locations are shown on Figure 2.

The sample assaying 31.0g/t gold was taken from a newly located east-west trending vein that falls in the central northern part of the prospect where we interpret the gold zone to be at or near surface (Figure 2). This new vein is named Alexandra.

Table	1: Rock	chip	assay	results -	- South	West
Limey	Dam.					

Easting	ng Northing Au g/t Ag g/t		Ag g/t	Pathfinder Elements (ppm)		
(IIIga94)	(IIIga94)			As	Bi	Sb
517868	7731289	31.00	4.1	<5	<2	<5
517888	7731290	0.41	0.6	<5	<2	<5
517907	7731285	0.38	<0.5	<5	<2	7
517250	7730400	0.03	<0.5	184	<2	6
517300	7730400	0.01	<0.5	49	2	<5
517923	7731290	0.07	<0.5	<5	<2	<5
517830	7731171	34.20	7.4	<5	<2	<5
517415	7731052	1.61	<0.5	<5	<2	<5
517415	7731052	0.20	<0.5	29	5	5
517415	7731052	1.15	<0.5	15	2	<5
517850	7731171	1.14	<0.5	9	<2	13

Gold determined by fire assay with AAS finish on 30gm sample weight. Other metals determined using four-acid digest with ICP-AES finish. Laboratory introduced QA/QC samples indicate acceptable analytical quality.



Figure 1: Drummond Epithermal Gold Project location plan.



Figure 2: South West Limey Dam Prospect summary plan.

The sample assaying 34.2g/t gold is from a previously located vein where past rockchips have returned results of 55.4g/t gold and 9.32g/t gold supporting its high grade character. This vein is now designated Nadia. This vein also trends east-west and is located about 100 metres south of the Alexandra vein (Figure 2).

Samples collected from a north-south vein located on the western boundary of the prospect, now named the Anna vein, include results to 1.61g/t gold, building on a cluster of strongly anomalous rockchips taken over a 300 metre strike length (Figure 2). We interpret the gold zone target in the Anna vein area to be transitioning from near surface in the north to deeper in the south, with the gold-bearing samples signalling the top of a gold zone that is potentially largely preserved at depth.

### Native Title and aboriginal heritage

In another positive development for the Drummond project, an Exploration Agreement has been finalised and executed with the Native Title Claimants to the two Drummond tenements, the Birriah People.

A recent aboriginal heritage survey has been completed over an area that includes both the South West Limey Dam and Limey Dam prospects (Figure 3).

The survey did not identify any sites where future exploration activities are restricted, giving the Company flexibility in the design of its planned drilling programme.



Figure 3: Aboriginal Cultural Heritage Survey.

### Drill program

The Company is planning to commence its maiden drill programme at the South West Limey Dam prospect once the current drilling programme on the Eyre Peninsula is completed. The Alexandra, Nadia and Anna veins will be among the first targets tested.

The drill programme will in part be funded through a grant of up to \$100,000 from the Queensland Government through its Collaborative Drilling Initiative scheme.

#### New target - Max's Sinter

Surface mapping in the vicinity of the South West Limey Dam has located an outcrop interpreted to be a sinter (Max's Sinter), located about 1 km southeast of the main South West Limey Dam prospect (Figure 1).

In epithermal systems, sinters form as flat lying terraces of banded silica at the land surface around volcanic hot springs. A well-known example of a sinter terrace occurs at the Champaign Pool near Rotorua on New Zealand's North Island.

The presence of a sinter implies that the entire underlying epithermal system, including any associated gold-bearing zone, will remain preserved at depth, and Max's Sinter represents a new target in this emerging epithermal field.

# Third Party interest may present alternate funding options

The promising potential revealed through Adelaide Resources' successful early exploration programmes has prompted interest from a number of Australian listed gold producers wishing to review the project. The Company has engaged with these groups to explore whether a compelling funding option exists to see exploration accelerated and expanded.

#### Vein photographs

The photographs below illustrate the similarity between the high grade veins collected from surface outcrops at South West Limey Dam and a high grade vein from the Pajingo mine.

All three veins display banded botryoidal coliform texture and possible ginguro bands (the thin darker bands), and it is likely the three veins formed under essentially identical physical, chemical and geological conditions.

The photo on the left is of a vein sample collected from an underground ore heading in the Zed Lode at Evolution Mining Limited's Pajingo Mine. It assays 26.2g/t gold. Pajingo is a profitable operation that has produced over 3 million ounces of gold.

The photo in the middle is a sample from the Nadia vein at South West Limey Dam which assays 34.2g/t gold. The photo on the right is of the recently discovered Alexandra vein, located about 100 metres north of the Nadia vein. It assays 31.0g/t gold. The similar textures and high gold grades of the South West Limey Dam veins to the Pajingo vein provide further encouragement in the potential of the South West Limey Dam prospect.



#### Competent Person Statement and JORC 2012 notes

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Chris Drown, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Drown is employed by Drown Geological Services Pty Ltd and consults to the Company on a full time basis. Mr Drown 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 Drown consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# 1 JORC CODE, 2012 EDITION – TABLE 1

# 1.1 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 hand held 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>Rock chip samples were collected on an opportunistic basis from outcropping veins displaying epithermal textures and the vein host rocks.</li> <li>By their nature rockchip samples are not considered to be samples of high representivity.</li> </ul>	
Drilling Techniques	<ul> <li>Drill type (air 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 orientated and if so, by what method, etc).</li> </ul>	• No drilling results are included in the report.	
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 sample.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of coarse/fine material.</li> </ul>	• No drilling results are included in the report.	
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>	• No drilling results are included in the report.	
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</li> </ul>	• No sample preparation was completed on the rock chips other than crushing and pulverising by the analytical laboratory, which is the standard preparation used for	

	<ul> <li>appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representativity 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>rockchip samples.</li> <li>A portion of each sample has been retained as a geological record and for photographic purposes.</li> <li>The sample sizes are considered appropriate for epithermal gold which is present as very fine (micron sized) grains.</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 mode, reading times, calibration factors applied and their derivation, etc.</li> <li>Nature and 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>Rock chips were assayed in a commercial lab using standard methods.</li> <li>Gold was determined by fire assay with AAS finish utilising a 30gm charge weight.</li> <li>Other metals were determined using four-acid digest with ICP-AES finish.</li> <li>Laboratory QA/QC samples were introduced into the rock chip assay stream.</li> </ul>
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 or electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No drilling results are included in the report.</li> <li>No assay results have been adjusted.</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>Rock chip sample location points were collected using a Trimble Juno 3D GPS with autonomous accuracy of +/- 5 meters.</li> <li>GDA94 (Zone 55)</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 classification applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	• The samples were collected on an opportunistic basis. The data is not appropriate for use in estimating a Mineral Resource and is not intended for such use.
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>	• The samples were collected on an opportunistic basis and it is unknown if this results in biased or unbiased sampling.
Sample security	• The measures taken to ensure sample security.	• The samples were collected, packaged and delivered to the laboratory by senior company staff.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data	• No audits or reviews have been completed.

# **1.2 Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section may 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 of material issues with third parties such as joint ventures, overriding royalties, native titles 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 license to operate in the area.</li> </ul>	<ul> <li>The area the subject of this report falls within EPM 18090, which is 100% owned by Adelaide Exploration Pty Ltd, a wholly owned subsidiary of Adelaide Resources Limited.</li> <li>There are no third party agreements, non govt royalties, or historical sites known. Underlying land title is Pastoral leasehold. The tenement area is covered by a Native Title claim and an Exploration Agreement has been executed with the Native Title Claimants. The report advises that an aboriginal heritage survey has been completed and did not locate any areas that are required to be excluded form exploration. Part of the tenement falls within Restricted Area 206 – Burdekin Falls Dam Catchment.</li> <li>EPM 18090 is in good standing.</li> </ul>
Exploration done by other parties	• Acknowledgement and appraisal of exploration by other parties.	• The general area the subject of this report has been explored in the past by various companies including Cormepar Minerals, Otter Exploration, Hunter Resources, Poseidon Gold, Dalrymple Resources and MIM Exploration. The Company has reviewed past exploration data generated by these companies.
Geology	• Deposit type, geological setting and style of mineralisation.	• Deposits in the general region are considered to be of low sulphidation epithermal vein style.
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 collar</li> <li>Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill collar.</li> <li>Dip and azimuth of the hole.</li> </ul> </li> </ul>	• The report does not include drilling results.

	<ul> <li>Down hole length and interception depth.</li> <li>Hole length.</li> <li>If the exclusion of this information is justified on the axis 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>	
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 some detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	• The report does not include drilling results.
Relationship between mineralisati on 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>	• The report does not include drilling results.
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 maps are included as Figures 1 to 3 in the report.
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.	• Results of all geochemical data are presented in Table 1 of the report.
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, ground water, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• Historic rock chip sample results are discussed and shown on Figure 2.
Further work	<ul> <li>The nature and scale of planned further work (eg tests of 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>	• The report advises that the company is planning to drill test the South West Limey Dam prospect in 2015.