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# E2 Metals

## ASX RELEASE

E2 Metals Limited

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Directors / Secretary

Melanie Leydin  
Executive Chairman

Todd Williams  
Managing Director

Justin Klintberg  
Non Executive Director

Justin Mouchacca  
Company Secretary

Issued capital

60.7M fully paid ordinary shares

## E2 Metals to Acquire a Portfolio of Gold & Silver Projects in the World-Class Santa Cruz Province

20<sup>th</sup> December 2018

### Highlights:

- E2 Metals Limited (ASX: E2M) (**E2 Metals** or **Company**) has executed a binding agreement to acquire Los Domos Pty Ltd holding a 90,000 hectare portfolio of highly prospective gold and silver projects in the mining friendly Santa Cruz province, Argentina.
- Drilling scheduled for the high priority Sierra Morena prospect in March 2019 with two kilometres of untested veins. Up to 3240 gpt Ag and 23.3 gpt Au in surface samples.
- Situated in the Deseado Massif epithermal gold & silver province, hosts several world-class mines such as Goldcorp's Cerro Negro and AngloGold's Cerro Vanguardia.
- Outcropping vein targets at Conserrat adjacent to the Cerro Vanguardia epithermal field, which hosts total endowment of 8.9Moz Au and 137Moz Ag. Up to 1.99gpt Au and 663 gpt Ag at the Veta Blanca prospect.
- Work prioritised at Corona thirty kilometers south of Goldcorp's recent Silica Cap discovery at Cerro Negro.
- The portfolio includes 37,000 hectares of strategic ground with near-term exploration targets in the emerging Rio Negro province.
- Projects portfolio situated within thirty-kilometer radius of 20 million gold equivalent ounces of total endowment.
- Board and Management team bolstered with appointment of Mr Todd Williams as Managing Director and Mr Colin Brodie as In Country Manager, positioning E2M as one of the leading junior explorers in this district.
- E2M is well funded with \$3.18M cash to fund program of work.

E2 Metals Limited is pleased to announce that it has entered into a binding agreement to acquire an 80% interest in a portfolio of highly prospective epithermal gold and silver projects from private explorer Circum Pacific Pty Ltd (the **Transaction**).

This includes the advanced Sierra Morena, Conserrat, Corona and Angostura projects (Figure 1) strategically positioned along trend from established epithermal vein districts, including the world-class Cerro Vanguardia and Cerro Negro mines that are operated by AngloGold Ashanti and Goldcorp respectively.

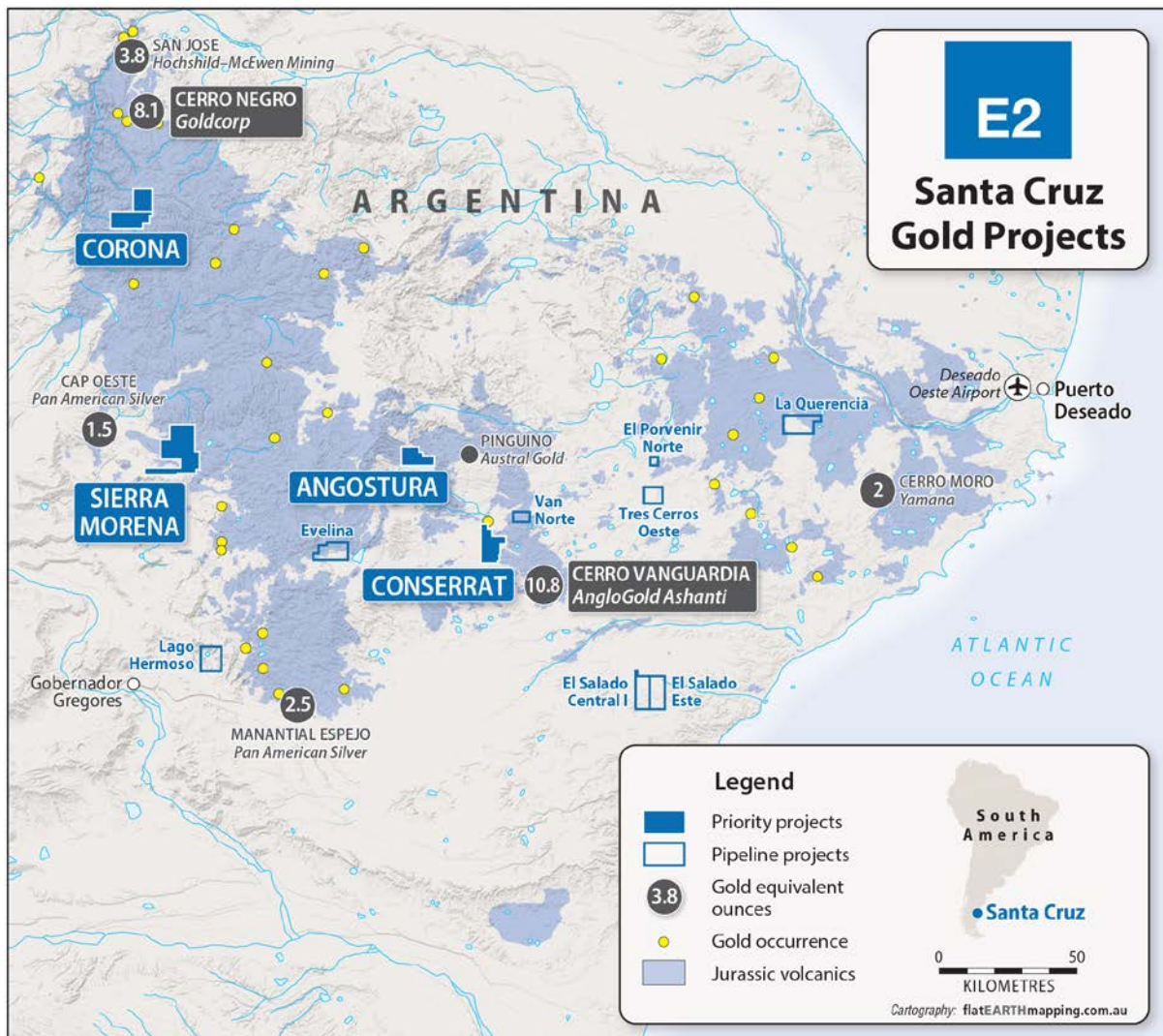


Figure 1: Location of the Santa Cruz projects in relation to existing projects and gold endowment<sup>1</sup>

The Transaction also includes earlier stage projects in the nearby Rio Negro Province that consist of exposed epithermal gold and silver veins but no prior drilling. A new government and pro-mining policies have seen Rio Negro emerge as a new exploration frontier that has attracted senior gold miners such as NovaGold (TSX: NG) who have announced a new discovery at the San Roque Project<sup>2</sup>.

<sup>1</sup> Historic and current resources gold equivalent = gold + silver / 70

<sup>2</sup> Press Release 5 November 2018: Marifil Mines reports new gold system discovery at the San Roque Gold Project

The Transaction positions the Company as one of the leading junior explorers in this district with portfolio of exciting 'walk up' exploration targets alongside gold majors. It also leverages ten years of patient land aggregation by Circum Pacific Pty Ltd (**Circum Pacific**) and its in-country team.

### Access and Location

The landholding totalling 90,000 hectares is located in the undulating and semi-arid plains of the Deseado Massif geological terrane in northern Patagonia, Argentina. Access to the region is via internal flights from Buenos Aires or Mendoza to Comodoro Rivadavia. The projects are connected by paved highways and all-season roads that connect small towns and infrastructure servicing the petroleum and mining industries. The project areas are situated on 'estancias' or farms that were vacated following the eruption of Chile's Mt Hudson in 1991. The agricultural industry of Santa Cruz never recovered, with most estancias now serving as short-term accommodation for the mining industry.

### History

Santa Cruz is a relatively new gold province with first production in the late 1990s from Cerro Vanguardia, which has approximate reserves and historic production of 8.9Moz Au and 137 Moz Ag<sup>3</sup>. The province experienced an exploration boom during the period 2000 to 2010 that was linked to the discovery of the multi-million-ounce San Jose, Cerro Negro and Cerro Moro gold and silver deposits. Most discoveries were by junior explorers such as Andean Resources and Extorre Resources who were acquired by Goldcorp for US\$3.4 billion<sup>4</sup> and Yamana for C\$413 million<sup>5</sup> respectively.

Key developments for the province include:

- Goldcorp (TSX: G) Cerro Negro mine – 2018 guidance of 490koz at ASIC US\$600<sup>6</sup>
- Anglo Ashanti (ASX: AGG) Cerro Vanguardia mine – continual production for two decades
- Yamana's Cerro Moro mine – Commissioned May 2018, spending US\$11.3M on exploration<sup>7</sup>
- Pan American Silver (TSX: PAAS) – recently acquired COSE & Joaquin advanced projects<sup>8</sup>
- OceanaGold (ASX: OGC) – first entry, two exploration JVs with Mirasol Resources (TSXL: MRZ)<sup>9</sup>

The province is now home to senior gold miners such as AngloGold Ashanti, Goldcorp, Yamana, and Pan American Silver, and is considered one of the best mining destinations in South America having permitted seven new mines in the past 15 years.

Goldcorp's Cerro Negro is flagship mining operation for the province with a 2018 production guidance of 490koz per annum at an ASIC of US\$600 per ounce<sup>6</sup>, and historic and current reserves that exceed 8 million gold equivalent ounces<sup>10</sup>. The growth potential of Cerro Negro is underpinned by Goldcorp's US\$20 million exploration budget for 2018 and reported discoveries<sup>11</sup> (e.g. Silica Cap) that continue to outpace depletion.

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<sup>3</sup> Mirasol Resources Ltd Corporate Presentation: September 2018

<sup>4</sup> Press Release, 29 December 2010: Goldcorp announces completion of acquisition of Andean Resources

<sup>5</sup> Press Release, 22 August 2012: Yamana completes acquisition of Extorre Gold

<sup>6</sup> Goldcorp corporate website

<sup>7</sup> Press Release, 26 May 2018: Yamana Gold announces first gold and silver production at Cerro Moro and provides details on mine exploration programs,

<sup>8</sup> Joaquin acquisition announced 10 February 2017 and the COSE acquisition announced 25 April 2017

<sup>9</sup> OceanaGold corporate presentation November 2018

<sup>10</sup> Goldcorp Technical Report NI 43-101, 31 December 2015 – Cerro Negro Operation Santa Cruz Province.

<sup>11</sup> Press Release, 24 October 2018: Goldcorp Q3 2018 Reserves Resources and Exploration Update

### Geology & Target Models

Low and Intermediate Sulphidation Epithermal gold and silver vein deposits are directly associated with middle to late Jurassic age rhyolitic to andesitic ignimbrite and lavas of the Chon Aike volcanics. Mineralisation is hosted in narrow vein systems that sporadically outcrop over large areas (2 to 200 square kilometres) within broader zones of white kaolinite or illite clay alteration. Most epithermal districts are spatially associated with fossil hot spring deposits such as silica sinter and travertines deposits, that are typical of modern geothermal systems like the Taupo Volcanic Zone in New Zealand. Preservation of the epithermal systems appears in some cases to be nearly complete.

Epithermal vein fields and associated hot spring deposits occur along major northwest trending structural lineaments interpreted as deep seated structures that were active at the time of mineralisation. On a local scale, veins are located within zones of structural complexity where rifting causes the propagation of parallel faults and splays that host many small veins. These veins often occur at surface as narrow silicified ridges or float trails that can be innocuous and often underestimates the size and distribution of concealed veins at depth. Target models must also consider that the best mineralised veins are often barren at surface and pass downward into well developed ore shoots from 50 to 100m below the surface. Pathfinder elements such as arsenic, antimony and mercury are typically elevated directly above mineralised epithermal veins and are therefore useful vectors to ore. Geophysical techniques such as gradient array and Induced Polarisation (IP) have proven very effective in defining the structures and pyrite alteration (chargeability high) that often envelope mineralised veins.

### Project Overview

The **Sierra Morena Project** comprises two titles totalling 19,676 hectares and is located some 30 kilometres east of Pan American Silver's COSE development project and Patagonia Gold's (LSE: PGD) Cap Oeste heap leach mine. The project was explored by De Grey Mining (ASX: DEG) during the period 2011 to 2013 who conducted detailed surface geochemistry and outlined several kilometres of vein 'trends' which include a high-grade zone at the SM6 prospect with samples up to 3240 gpt Ag and 23.3 gpt Au<sup>12</sup>. De Grey completed seven holes for approximately 1100m at the SM6 prospect and failed to intercept the vein in all but one of the historical holes. An independent assessment of the De Grey drilling determined that all historical holes were collared sub-optimal for the projected dip of the veins and that future drilling should be orientated in the opposite direction. The single hole that intercepted the vein yielded 1m at 5.5 gpt Au and 67 gpt Ag, which is a typical thickness and tenor (eg San Jose) of mineralised veins in the Santa Cruz district<sup>13</sup>. Circum Pacific has recently conducted a large gradient array and dipole-dipole Induced Polarisation (IP) geophysical survey over the SM6 prospect and has submitted permit applications for an approximate 2500m drill program to test both the outcropping veins and their geophysical extensions under shallow cover. This includes testing over two kilometres of veins with no prior drilling.

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<sup>12</sup> De Grey ASX Announcement, 4 December 2012: Sierra Morena Sur Sampling

<sup>13</sup> E2 Metals Technical Presentation – Santa Cruz Acquisition, December 2018

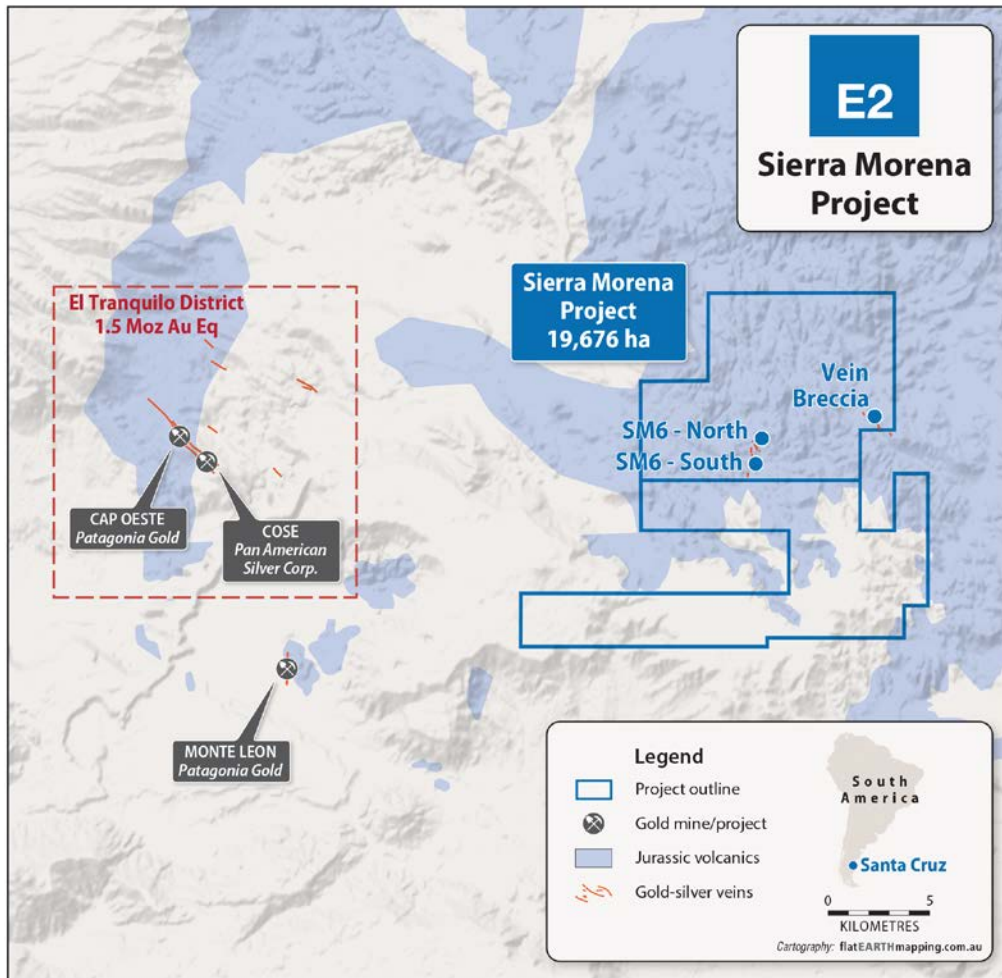


Figure 2: Location of the Sierra Morena Project and prospects



Figure 3: View of the Sierra Morena Project and SM6 Prospect



Figure 4: View of the Corona Norte Sinter Prospect

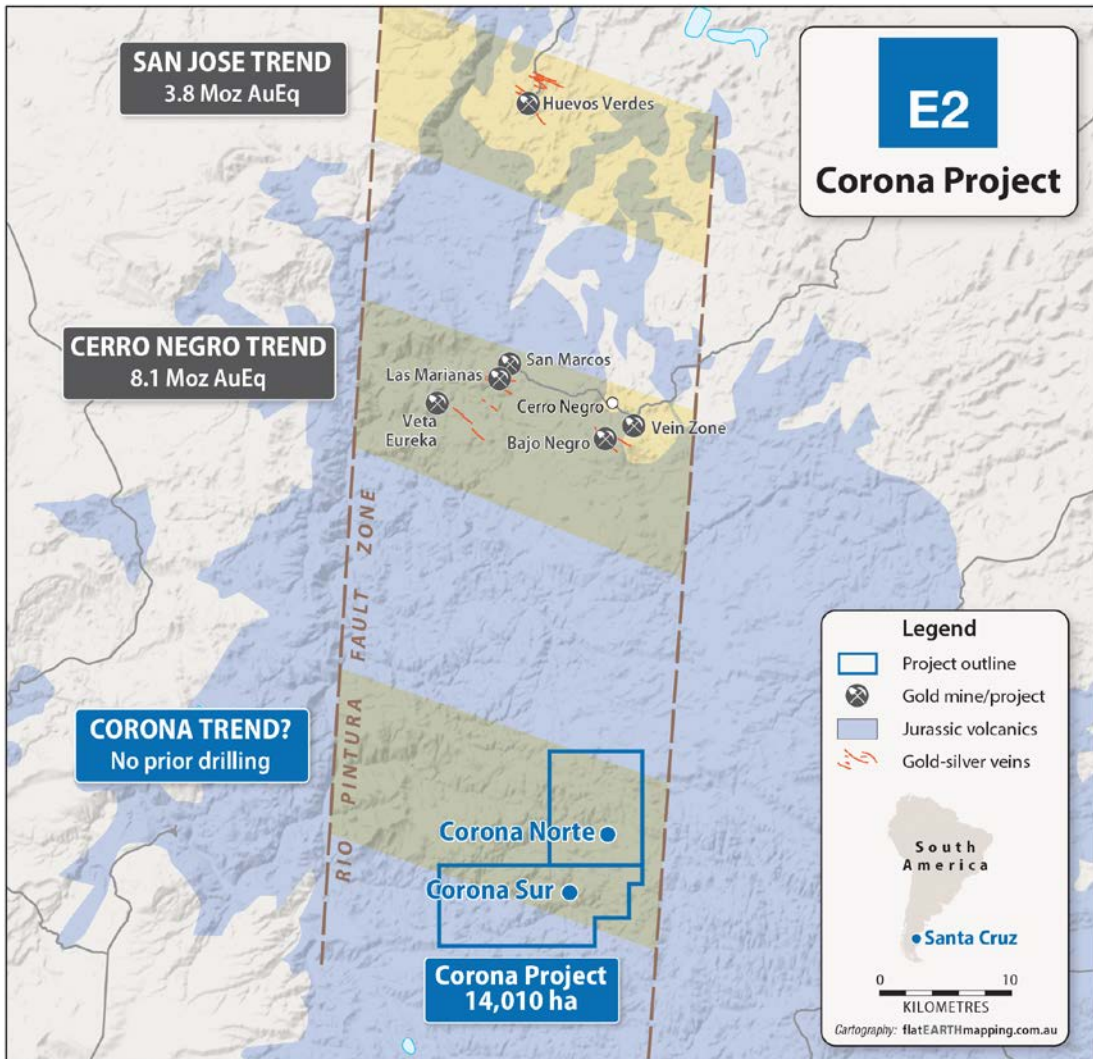


Figure 5: Location of the Corona Project and prospects

The **Corona Project** is comprised of two contiguous titles totalling 14,010 hectares. It is centred on an epithermal alteration system that is a prominent anomaly in regional hyperspectral ASTER images and is located within the Rio Pinturas Fault Zone that hosts the Cerro Negro and San Jose gold mines, thirty and sixty kilometres to the north respectively. Work to date has been prioritised at the Corona Norte sinter outcrop based on similarities to nearby Cerro Negro (e.g. Emilio sinter, Bajo Negro sinter). Such sinters are typical of the 'barren' upper parts of epithermal systems and at Cerro Negro are associated with blind ore shoots at depth. This is consistent with the exploration history of the Silica Cap prospect where during 1995 Mount Isa Mines (MIM) downgraded the target based on low surface gold. Over two decades later, Goldcorp has discovered three parallel veins directly beneath the Silica Cap prospect that have contributed over 700,000 ounces of additional high-grade gold to the resource base.

The **Conserrat Project** is a single title of 8,696 hectares adjoining the western margin of the Cerro Vanguardia mining lease and hosts the continuation of the mine sequence and epithermal vein field. Work to date has identified silica ribs and epithermal veins over an area of 25 square kilometres partially exposed within a thin veneer of younger Tertiary basalt cover. Historic regional rock sampling has identified a four kilometre long west-northwest corridor of parallel veins and silica ribs with anomalous rock chip samples of over 500 ppb on a gold equivalent basis. The best surface grades of up to 1.99gpt Au and 663 gpt Ag14 are recorded at the Veta Blanca where gold and silver mineralisation is associated with a series of with a series of crustiform banded quartz-chalcedony and quartz-adularia veins that are exposed over a 250m strike before disappearing under shallow cover.

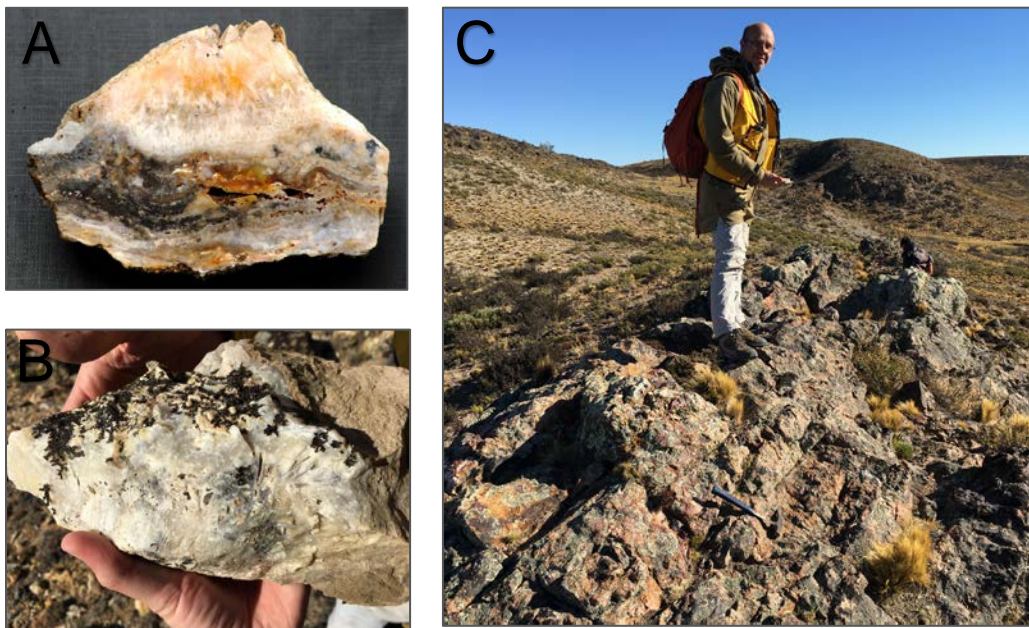


Figure 6: Conserrat Project, A) crustiform banded chalcedony-quartz ± adularia and B) chalcedonic quartz and bladed carbonate vein from Veta Blanca Prospect. Outcropping silica rib, Emilia Prospect.

Both Corona and Conserrat are unique opportunities in that although both projects contain outcropping epithermal veins and sinters, neither have been previously drilled. The projects were previously held by IAMGOLD in the early 2000's but they were never systematically explored prior to the company exiting Argentina. The titles were since held privately and remained unworked for a decade, effectively missing the last exploration boom in Santa Cruz.

<sup>14</sup> E2 Metals Technical Presentation – Santa Cruz Acquisition, December 2018

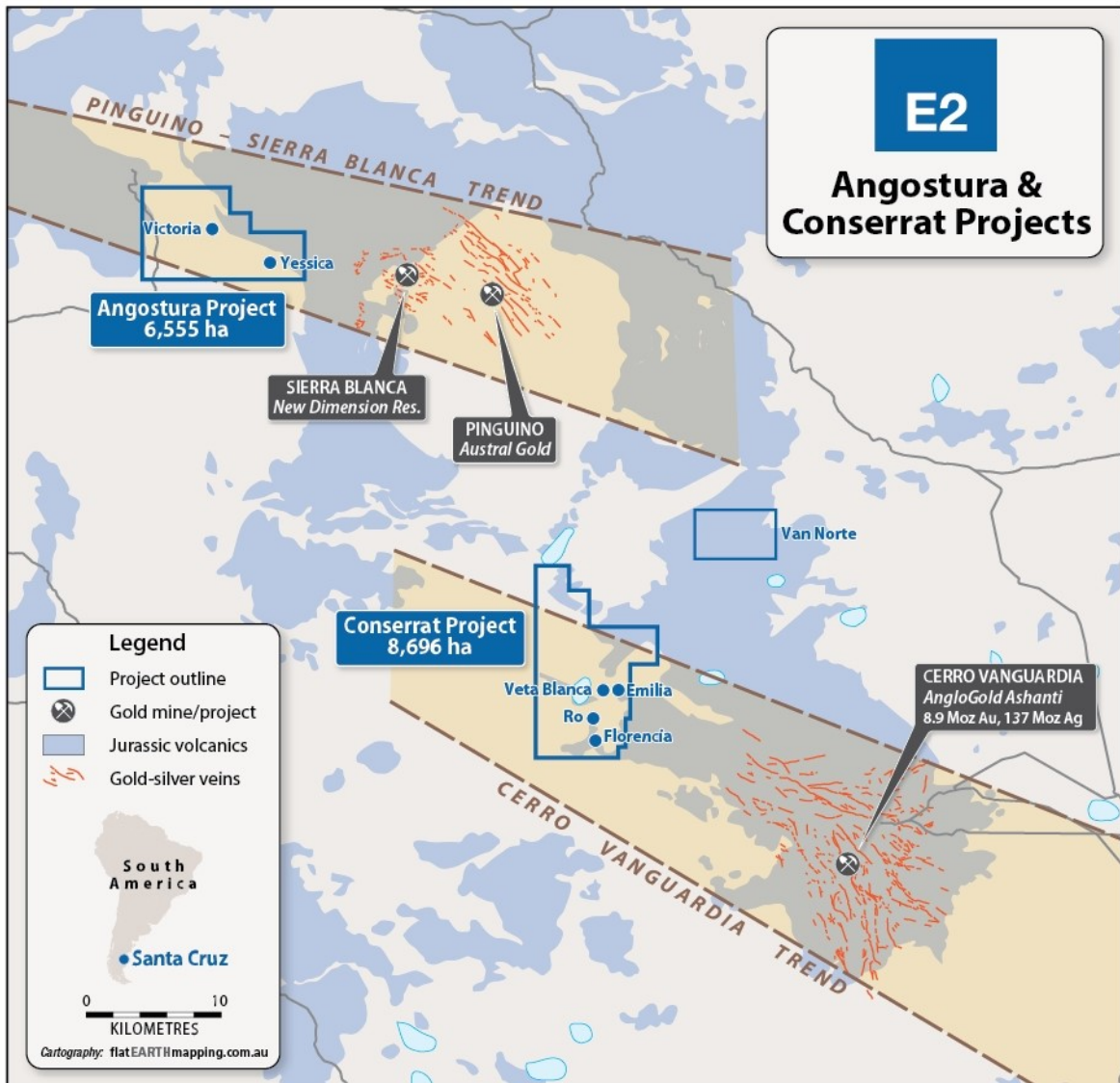


Figure 7: Location of Conserrat and Angostura Projects and prospects in relation to the Cerro Vanguardia mine and the Sierra Blanca and Pinguino gold-silver vein fields

The **Angostura project** is a single title totalling 6,555 hectares and is centred on a major WNW structure corridor that hosts large epithermal vein fields at the Sierra Blanca and Pinguino projects held by New Dimension Resources (TSX-V: NDR) and Austral Gold (ASX: AGD) respectively. The project was acquired on the basis that known veins extend into Angostura in the form of diffuse veinlets that extend up into the overlying Cretaceous sediments. A subsequent regional IP geophysical survey by Circum Pacific has identified a strong and coherent chargeability anomaly with a strike of 1800 meters<sup>15</sup>. The target is considered to be the subsurface expression of the continuation of the Sierra Blanca vein system.

<sup>15</sup> E2 Metals Technical Presentation – Santa Cruz Acquisition, December 2018



### Work Plans

The Company will immediately mobilise into the field at Conserrat in Q1 2019 to undertake systematic coarse fraction soil (LAG) and IP geophysical traverses over the Veta Blanca prospect and surrounding areas to define drill targets for permitting in the second half of the year.

A drill proposed and Environmental Impact Study (EIS) has been submitted to the authorities at the Santa Cruz mining department for a drill program at Sierra Morea. It is anticipated that all statutory approvals will be received by March 2019.

Generative is also planned for the Corona Project to further refine the Corona Norte sinter target and prepare for drilling.

### Commercial Terms

Finalisation of the Transaction will be subject to the execution of a detailed Share Purchase and Joint Venture Agreement (**Acquisition Agreement**). The Transaction is conditional on, amongst other things, the Company obtaining shareholder approval pursuant to ASX Listing Rule 7.1 at a General Meeting of the Company to be held in due course.

In consideration for the Acquisition, the Company has agreed to issue the Vendors 15,000,000 fully paid ordinary shares (**Shares**) in the capital of the Company at nil consideration. The recipients of the Shares will be the Vendors (or their nominees) who are unrelated parties to the Company, being Todd Williams, Colin Brodie, Emilio Bastias, Alastair Morrison, Anthony Guistozzi, Dael Investments (SA) Pty Ltd, Guistozzi Superannuation Pty Ltd, CCF No.1 Pty Ltd and Dellta Pty Ltd.

- E2 Metals will acquire 100% of Los Domos Pty Ltd which holds an 80% interest through Minera Los Domos S.A (an Argentinian operating company) which is the holder of titles in all the Santa Cruz and Rio Negro projects (collectively, the **Projects**) in exchange for 15,000,000 Shares in the Company including a minimum exploration expenditure commitment of A\$2,100,000 over a period of 2.5 years (**Milestone**).
- Upon signing of the Acquisition Agreement, E2 Metals and Circum Pacific (via a related entity RN Gold Pty Ltd) will enter an Incorporated Joint Venture and Circum Pacific will be free-carried to completion of the Pre-Feasibility Study on each Project.
- In the event that the Milestone is not fully completed further Shares will be issued to the shareholders of RN Gold Pty Ltd on a sliding scale as noted below:
  - If no money is spent 21,000,000 Shares are issued; and
  - If half the money is spent then 10,500,000 Shares are issued.
- Todd Williams will assume the role of Managing Director of E2 Metals and Colin Brodie will assume the role as In Country Manager. In light of Mr Williams appointment as Managing Director he will receive 2,250,000 Performance Rights on terms and conditions to be advised upon his appointment.
- Following shareholder approval of the above Transaction, Circum Pacific has the right to nominate a Non-Executive Director to the Board of E2 Metals.

Mr Williams is the founder and principal of Circum Pacific, a private Australia-based prospect generator focused on Argentina and Colombia. Todd brings significant technical and commercial experience in operating in South America and has been responsible for assembling, operating and transacting Circum Pacific's quality exploration portfolios.

Mr Brodie is based in Argentina, with 35 years' experience in all aspects of mineral exploration, with specific focus on porphyry and epithermal copper gold deposits in Peru, Chile and Argentina. Colin was formerly the Argentinian Country Manager for IAMGOLD, and was also closely involved in Underworld Resource's White Gold discovery in the Yukon Territory, Canada.

Executive Chair Melanie Leydin commented, *"after an extensive search of opportunities, this is an exciting transaction for the company enabling immediate meaningful exploration in a proven province within close proximity to large established major miners and explorers."*

#### Indicative Timetable

<b>Event</b>	<b>Date</b>
ASX announcement of the Acquisition	20 <sup>th</sup> December 2018
Lodgement of the Notice of Meeting with ASX	4 <sup>th</sup> January 2019
Dispatch of the Notice of Meeting	4 <sup>th</sup> January 2019
Shareholders meeting to approve the Acquisition	5 <sup>th</sup> February 2019
Completion of the Acquisition	8 <sup>th</sup> February 2019

#### Capital Structure

<b>Structure</b>	<b>Shares</b>	<b>Options</b>	<b>Performance Rights</b>
Existing Securities	60,707,938		
Consideration Shares	15,000,000		
Managing Director Sign-on Award			2,250,000
Unlisted Options		9,376,421	
<b>Total</b>	<b>75,707,934</b>	<b>9,376,421</b>	<b>2,250,000</b>

#### Competent Person's Statement

The information in this announcement that relates to the Santa Cruz Gold Projects, owned by Circum Pacific is based on information compiled and fairly represented by Circum Pacific and Benjamin (Ben) Nicolson. Ben visited the Santa Cruz Gold Project in April-May 2018. Benjamin Nicolson is a Member of the Australian Institute of Geoscientists (AIG) and is a consultant to the company. Benjamin Nicolson has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results. Benjamin Nicolson consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

**Table 1: JORC Code Reporting Criteria**  
**Section 1 Sampling Techniques and Data**

Criteria	JORC Code Explanation	Commentary
<p><b>Sampling Techniques</b></p>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialized 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> </ul>	<p>IAMGOLD Corporation conducted reconnaissance rock chip sampling at what is now the Conserrat (n=131) and the Corona projects (n=30) during the early 2000s, Hochschild Mining then enter a Joint Venture with IAMGOLD Corporation and collected a further 44 samples. The samples were analyzed for both base metals and gold, but the analytical suite and sample methodology is unknown.</p> <p>De Grey Mining Limited (ASX: DEG) explored the Sierra Morena Project during the period 2011 to 2013. During this time 316 drainage BLEG, 860 coarse fraction LAG, 68 float rock, 209 rock, 35 trench and 1441 diamond core samples were submitted for analysis. Sample methodology for the coarse fraction LAG samples is not publicly available.</p> <p>Sample methodology for the stream samples is stated in the De Grey ASX announcement on the 9<sup>th</sup> of June 2011. Samples were analyzed by ACME Analytical Laboratories, Mendoza, Argentina. ICP Mass Spectrometer analysis of 30g sample split from original 500g sample after Aqua Regia digestion for ultra-low determinations. Basic suite of elements consisted of 37 elements.</p> <p>Sample methodology for rock, trench and float samples are stated in the De Grey ASX announcement on the 21<sup>st</sup> of May 2012. Samples were analysed by ALS Mineral Laboratories (ALS), Mendoza, Argentina. ICP Mass Spectrometer analysis of 30g sample split from original 500g sample after Aqua Regia digestion for ultra-low determinations. The element suite consists of 51 elements. Samples that returned &gt;10gpt Au were re-assayed using a 30g Fire Assay with gravimetric finish. Samples that returned &gt;100gpt Ag were re-assayed using aqua regia with AAS finish. Samples that returned &gt;15000gpt Ag were re-assayed using 30g Fire Assay with gravimetric finish.</p> <p>Sample methodology for drill core samples are provided in the De Grey ASX announcement on the 23<sup>rd</sup> of January 2013. Samples were analyzed by ALS, Mendoza, Argentina. Au was analyzed using fire assay and AAS finish of a 30g</p>

Criteria	JORC Code Explanation	Commentary
		<p>nominal sample weight. Ag and all other elements (33) were analyzed using aqua regia digestion with ICP-AES finish.</p> <p>During the period between October 2017 and February 2018 Circum Pacific collected 120 confirmatory rock samples over all prospects explored previously to validated historic rock chip values. Samples were analysed by ALS, Mendoza, Argentina. Samples were crushed to less than 2mm, split and pulverized to &lt;75µm. Multi-element (48) data was by four acid digest and ICP-MS including trace mercury by ICP-MS. Au was by fire assay using a 50g sample with AA finish.</p> <p>During the period between October 2017 and February 2018 Circum Pacific acquired 899-line kilometers of ground magnetic geophysical data at the Corona, Conserrat and Angostura projects. The work was complete on north orientated lines (Angostura, Conserrat Norte, Conserrat Sur Blocks) and east orientated lines (Corona Norte, Corona Sur) to be perpendicular to the structural and geological fabric observed at surface. Data was collected using a GEM System GSM-19 Overhauser V-7 walking magnetometer and base station. Diurnal corrections, quality control and other processing of the data was undertaken by Miles Rideout, a Canadian geophysicist and resident in Mendoza with significant experience in epithermal gold exploration in Santa Cruz. Line spacing varies from 50 meters to 100 meters.</p> <p>During the period between April to May 2018 Circum Pacific complete a gradient array and an Induced Polarisation (IP) geophysical survey at the Sierra Morena, Corona and Angostura projects. This survey included 30-line kilometers of gradient array and 25.6-line kilometers of IP. The data was acquired by Geofisica Argentina S.A. using pole-dipole (P-DP) surveys with short 50m dipoles and n-10 or n-20 dipole separations, and 1500m bipole gradient arrays, which is suited to the detection of low-sulphidation vein targets. The data acquisition employed a 0.125 Hz time-domain 'box car' transmitter waveform. The receiver set-up employed 20 arithmetically spaced channels of 80 ms which follow 240 ms delay.</p>

Criteria	JORC Code Explanation	Commentary
<b>Drilling Techniques</b>	<ul style="list-style-type: none"> <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>	<p>During 2012 to 2013 De grey complete 16 diamond core holes totaling 3213m at the Sierra Morena Project. Holes were drilled by Energold and Goland using a 'S2' and 'Boart Longyear LF90D N1' rig respectively. All holes were dimensions of HQ reducing to NQ at depth. Holes were surveyed for downhole inclination and azimuth using a REFLEX tool.</p>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <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>	<p>Sample quality is documented on the drill logs when compromised, no other record of sample quality is recorded. This news release makes specific reference to a significant intercept of 1m @ 5.56 gpt Au and 67 gpt Ag for drill hole SM-12-06 located at the SM6 prospect, Sierra Morena Project. The hole was collared in December 2012 but re-entered by De Grey in April 2013. The mineralized sample was collected at downhole interval 127.8 to 128.8m and the core recoveries for this section are stated to be 100%.</p>
<b>Logging</b>	<ul style="list-style-type: none"> <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> </ul>	<p>No JORC Mineral Resource Estimate exists for any of the Santa Cruz or Rio Negro gold projects</p>
	<ul style="list-style-type: none"> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	<p>Downhole lithology logs for the Sierra Morena drilling is qualitative in nature and records include a description on the geology, alteration and mineralization include relative percentages of sulphide minerals</p>
	<ul style="list-style-type: none"> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<p>De Grey logged all diamond drill holes from top-of-hole to bottom-of-hole</p>
<b>Sub-Sampling Techniques and Sample Preparation</b>	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p>	<p>Selected intervals were sampled by De Grey. Core in these intervals was cut and half core samples submitted.</p>
	<ul style="list-style-type: none"> <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> </ul>	<p>Not applicable</p>

Criteria	JORC Code Explanation	Commentary
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
<b>Quality of Assay Data and Laboratory Tests</b>	<ul style="list-style-type: none"> <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>	<p>All core samples submitted by De Grey for the Sierra Morena project were analysed by aqua regia digestion with ICP-AES finish. Aqua regia digestion is limited in determining the acid leachable portion of the elements. Au was by fire assay which is appropriate for quantitative analyses of elemental Au concentrations. Drill core batches were submitted with a Duplicate, Standard and Blank samples every 20, 25 and 35 samples.</p> <p>Rock samples submitted by Circum Pacific were all analysed by four acid digest and ICP-MS which is the most robust analytical method for full digestion and qualitative analyses of multi-element concentrations.</p>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <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>	<p>Circum Pacific conducted confirmatory sampling at the Corona and Conserrat Projects to validate historic sampling by IAMGOLD and Hochschild. Outcrop samples with high gold, silver or arsenic were revisited and sampled to determine if the values are reproducible and accurate. The highest single historic rock chip sample at the Veta Blanca prospect was 1.7 gpt Au and 663 gpt Ag compared to 1.91 gpt Au and 590 gpt Ag for a sample collected by Circum Pacific at the same outcrop.</p> <p>Historic surface and drill core sampling collected by De Grey at Sierra Morena have not been validated because the sample methodology is well documented, and all data was verified by De Grey with their internal QAQC programs.</p>
<b>Location of Data Points</b>	<ul style="list-style-type: none"> <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>	<p>Sample locations and drill hole collars at Sierra Morena are referenced by De Grey using the datum Campo Inchauspe Zone 2. Sample locations by IAMGOLD, Hochschild and Circum Pacific are referred in Datum WGS84 UTM Zone 19S.</p>
<b>Data Spacing</b>	<ul style="list-style-type: none"> <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</li> </ul>	<p>Ground LAG samples at the Sierra Morena project were collected on 200m spaced lines and on 50m sample centers. This sample spacing is considered</p>

Criteria	JORC Code Explanation	Commentary
<b>and Distribution</b>	<p>Resource and Ore Reserve estimation procedure(s) and classifications applied.</p> <ul style="list-style-type: none"> <li>• Whether sample compositing has been applied.</li> </ul>	<p>appropriate for defining corridors of elevated arsenic that correlate to structures with known outcropping veins.</p> <p>Ground magnetics surveys at Corona, Conserrat and Angostura were conducted on line spacings that varied from 50 to 100m depending on the scale of the survey. In all instances the data was effective in geophysical breaks and de-magnetized zones interpreted as structures or breaks in lithology.</p> <p>IP traverses were complete on 200m line spacing at the SM6 prospect, Sierra Morena Project, and is appropriate for first phase of drill planning in a prospect area. Prospects at Angostura or Corona where reconnaissance IP traverses were complete to determine the subsurface response of areas with limited outcrop a standard line spacing of 400 to 500m was utilized.</p>
<b>Orientation of Data in Relation to Geological Structure</b>	<ul style="list-style-type: none"> <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>	<p>All Induced Polarisation, gradient array and magnetics geophysical surveys conducted by Circum Pacific were undertaken perpendicular to the observed fabric of the geology and structures. Geochemical sampling of outcropping veins is selective, and samples are collected on equal spacing along the trace of the vein where outcrop is exposed.</p>
<b>Sample Security</b>	<ul style="list-style-type: none"> <li>• The measures taken to ensure sample security.</li> </ul>	<p>All surface rock chip samples collected by Circum Pacific were shipped directly from the field to the laboratory.</p>
<b>Audits or Reviews</b>	<ul style="list-style-type: none"> <li>• The results of any audits or reviews of sampling techniques and data.</li> </ul>	<p>Circum Pacific collected duplicate samples of the IAMGOLD rock samples and demonstrated that the surface gold, silver and arsenic values for the Conserrat and Corona project are accurate and repeatable.</p>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code Explanation	Commentary
<b>Mineral Tenement and Land Tenure Status</b>	<ul style="list-style-type: none"> <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 license to operate in the area.</li> </ul>	<p>All the Santa Cruz and Rio Negro titles are owned 100% by Minera Los Domos S.A., a private company incorporated in Argentina, a wholly owned subsidiary of RN Gold Pty Ltd, a private company incorporated in Australia.</p> <p><b>Sierra Morena Project titles</b></p> <ul style="list-style-type: none"> <li>• 430.269/MS/14</li> <li>• 430.270/MS/14</li> </ul> <p><b>Corona Projects titles</b></p> <ul style="list-style-type: none"> <li>• 437.470/BVG/17</li> <li>• 437.472/BVG/17</li> </ul> <p><b>Conserrat Project title</b></p> <ul style="list-style-type: none"> <li>• 437.471/BVG/17</li> </ul> <p><b>Angostura title</b></p> <ul style="list-style-type: none"> <li>• 437.502/BVG/17</li> </ul> <p><b>All Other Santa Cruz Titles</b></p> <ul style="list-style-type: none"> <li>• 423.826/MS/09</li> <li>• 423.827/MS/09</li> <li>• 423.828/MS/09</li> <li>• 424.985/MS/10</li> <li>• 421.672/MS/12</li> <li>• 422.990/MS/12</li> <li>• 406.735/MS/08</li> <li>• 430.269/MS/14</li> <li>• 430.270/MS/14</li> <li>• 437.502/BVG/17</li> <li>• 437.503/BVG/17</li> </ul> <p><b>Rio Negro Titles</b></p> <ul style="list-style-type: none"> <li>• 32.053-M-2007</li> <li>• 32.055-M-2007</li> <li>• 32.056-M-2007</li> </ul>



Criteria	JORC Code Explanation	Commentary
		<ul style="list-style-type: none"> <li>• 32.057-M-2007</li> <li>• 42056-M-2017</li> </ul>
<b>Exploration Done by Other Parties</b>	<ul style="list-style-type: none"> <li>• Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Early 2000s:</b> IAMGOLD conducted reconnaissance surface at the Conserrat Project</li> <li>• <b>Early 2000s:</b> IAMGOLD and Hochschild conducted reconnaissance surface exploration at the Corona Project</li> <li>• <b>2011 to 2013:</b> De Grey conducted detailed surface geochemistry, a CSAMT geophysical survey and drilled the Sierra Morena project.</li> <li>• <b>2017 to 2018:</b> Circum Pacific conducted surface mapping and sampling on the Corona, Conserrat, Angostura and Sierra Morena projects.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• Gold and silver mineralisation is associated with quartz &amp; carbonate vein eposits classified in geological literature as Low-Sulphidation Epithermal.</li> <li>• The projects are in the Deseado Massif geological terrane, which is a 60,000km<sup>2</sup> crustal block in southern Argentine Patagonia that host numerous low-sulphidation, epithermal precious metal deposits that are spatially and genetically related to Jurassic volcanic rocks.</li> </ul>
<b>Drill Hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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> <p>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.</p>	<p>This news release makes specific reference to a significant intercept of 1m @ 5.56 gpt Au and 67 gpt Ag for drill hole SM-12-06 located at the SM6 prospect, Sierra Morena Project. The hole was collared (4687249E, 2418065N; Datum Campo Inchauspe Zone 2; RL 664m) in December 2012 but re-entered by De Grey in April 2013. The stated azimuth is 270 and inclination is -60. The hole was terminated at 191m depth.</p>
<b>Data Aggregation Methods</b>	<ul style="list-style-type: none"> <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</li> </ul>	<p>The only drill hole intercept reported in this news release was from a single sample for a 1m interval.</p>

Criteria	JORC Code Explanation	Commentary
	<p>such aggregations should be shown in detail.</p> <ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
<b>Relationship Between Mineralisation Widths and intercept lengths.</b>	<ul style="list-style-type: none"> <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>	<p>Drill hole SM-6-12 was collared on the eastern side of a westerly dipping vein and therefore it is probable that the drill hole intersected the vein at a low angle that would exaggerate the true thickness. The true thickness cannot be estimated without downhole structural data for the vein contact.</p>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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>	
<b>Balanced Reporting</b>	<ul style="list-style-type: none"> <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>	<p>For simplicity gold and silver values are reported on a gold equivalent basis. Gold equivalent values are calculated as <math>AuEq = Au + Ag / 70</math></p>
<b>Other Substantive Exploration Data</b>	<ul style="list-style-type: none"> <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>	
<b>Further Work</b>	<ul style="list-style-type: none"> <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>	