



## Cascavel: More Visible Gold and Bonanza Assays from Exploration Decline

*Results up to 417g/t gold and a continuous zone of 9.76m grading 125g/t*

- New high grade results received from contiguous ~0.5m x 0.5m panel samples from the Cascavel exploration decline include:
  - 4m @ 148.5g/t gold (4.7oz/tonne from 18.16m to 22.16m of decline) at approx. 27m from surface and remaining open to the SW including:
    - 0.46m @ 417g/t gold (12.9oz/tonne from 19.40m to 19.86m of decline)
- These panel sample results are directly contiguous with the previously reported panel sample results of 5m @ 113g/t gold and, together, represent a continuous zone both along strike and down plunge within the decline of:

9.7m @ 125 g/t gold (4.01oz/tonne from 12.4m to 22.16m of decline)<sup>1</sup>
- Abundant visible gold continues to be consistently encountered for at least 5m in the area immediately following these reported results –assays pending (Figure 1).
- The last panel sample reported in this batch returned 124 g/t of gold.
- Sampling has shown individual high grade shoots encountered to date have greater strike extent (up to 12m) than previous interpretations.

Orinoco Gold Limited (ASX: **OGX**) is pleased to report further excellent assay results from contiguous panel sampling undertaken within the exploration decline at its **Cascavel Gold Project**, part of its 70%-owned Faina Goldfields Project in central Brazil, with the results continuing to demonstrate the continuity and exceptional grade of the mineralisation.

**Significant visible gold** continues to be encountered in the decline at **shallow depths (approximately 30m below surface)** as the decline continues along strike and down-dip (at an angle of approximately 40 degrees to the strike – see Figure 4). Re-modelling using all currently available data shows that the high-grade shoots at Cascavel have a greater individual strike than previously thought and that some of the Company's previously announced drilling intersected these high grade shoots at significant distances down-dip, highlighting their continuity (Figure 3 & 4).

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<sup>1</sup> The reported intersection is at an angle of ~60 degrees to the strike.



**Figure 1.** Visible gold from the area in the exploration decline immediately adjacent to the results contained in this announcement.

Orinoco continues to develop the exploration decline at Cascavel to further delineate additional high-grade shoots and assist in the planning of resource definition drilling. The exploration decline is designed to test the mineralised zone along strike and down dip and is programmed to reach the high grade zone at the end of the Mestre winze (bulk sample reported 12 November 2012).

Orinoco's Managing Director, Mr Mark Papendieck, said the exploration decline was continuing to demonstrate the presence of significant amounts of high-grade gold at shallow depths at Cascavel, while also providing invaluable information on the orientation and strike extent of the high grade shoots.

"The exploration decline has proven to be an excellent method of unlocking the potential of Cascavel and we continue to be pleasantly surprised by the amount of gold that we are seeing as the decline advances," he said. "We were always aware that an exploration decline would be the best way to ascertain the grade of the gold at Cascavel. Now, by combining geological and grade information from the decline with structural data from



drilling, we are beginning to be able to show the true upside of the project.

“This stems from the presence of a significant amount of shallow gold at significantly better-than-expected grades within a structurally controlled package that remains open along strike and down-dip,” Mr Papendieck said. “Importantly, this gold should be recoverable by low-cost gravity methods, which would significantly enhance the commercial potential of the project.

“This has positive implications not just for the future of Cascavel, but also for the prospectivity of the broader mineralised shear zone that makes up the +20km long corridor that extends from Cascavel to Sertão and which remains largely untested by drilling and bulk sampling,” he added.



**Figure 2.** Orinoco geologist with a sample containing considerable visible gold taken from the latest advance at the Cascavel decline.

**-ENDS-**

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**Competent Person's Statement:** The information in this presentation that relates to Exploration Results is based on information compiled by Dr Klaus Petersen who is a member of the Australasian Institute of Mining and Metallurgy and CREA and Dr. Marcelo Juliano de Carvalho who is member of the Australasian Institute of Mining and Metallurgy. Dr Klaus Petersen and Dr. Marcelo Juliano de Carvalho are employees of Orinoco Gold Limited and have sufficient experience, which is relevant to the style of mineralisation under consideration and to the activity that they are undertaking 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. Dr Klaus Petersen and Dr. Marcelo Juliano de Carvalho consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

**Previous Reported Results:** There is information in this report relating to Exploration Results at Cascavel. Full details of the Results were included in the following ASX Release and are available to view on the Company's website [www.orinocogold.com](http://www.orinocogold.com):

1. 8 October 2012 - High-Grade Gold Results Returned From Curral De Pedra Project, Brazil
2. 12 November 2012 - 1 Tonne Bulk Sample Returns Head Grade of 22.5g/t Au
3. 8 May 2013 – Thick High Grade Silver Discovered at Cascavel
4. 23 December 2013 – Clarification to Inside Briefing Interview Announcement
5. 20 January 2014 - Successful Bulk Sampling Highlights the Opportunity for High Grade Development at Cascavel Gold Project.
6. 8 October 2012 - High-Grade Gold Results Returned From Curral De Pedra Project, Brazil
7. 12 December 2012 - Hits of up to 193gpt Au confirm mineralisation over 620m down dip
8. 14 May 2014 - Outstanding Gold Grade from Latest Cascavel Bulk Sample

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the Exploration Results in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### **Forward-Looking Statements:**

This Announcement includes "forward-looking statements" as that term within the meaning of securities laws of applicable jurisdictions. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond Orinoco Gold Limited's control. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this presentation, including, without limitation, those regarding Orinoco Gold Limited's future expectations. Readers can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "predict," "project," "risk," "should," "will" or "would" and other similar expressions. Risks, uncertainties and other factors may cause Orinoco Gold Limited's actual results, performance, production or achievements to differ materially from those expressed or implied by the forward-looking statements (and from past results, performance or achievements). These factors include, but are not limited to, the failure to complete and commission the mine facilities, processing plant and related infrastructure in the time frame and within estimated costs currently planned; variations in global demand and price for coal and base metal materials; fluctuations in exchange rates between the U.S. Dollar, the Brazilian Real and the Australian dollar; the failure of Orinoco Gold Limited's suppliers, service providers and partners to fulfil their obligations under construction, supply and other agreements; unforeseen geological, physical or meteorological conditions, natural disasters or cyclones; changes in the regulatory environment, industrial disputes, labour shortages, political and other factors; the inability to obtain additional financing, if required, on commercially suitable terms; and global and regional economic conditions. Readers are cautioned not to place undue reliance on forward-looking statements. The information concerning possible production in this announcement is not intended to be a forecast. They are internally generated goals set by the board of directors of Orinoco Gold Limited. The ability of the company to achieve any targets will be largely determined by the company's ability to secure adequate funding, implement mining plans, resolve logistical issues associated with mining and enter into any necessary off take arrangements with reputable third parties. Although Orinoco Gold Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

It is common practice for a company to comment on and discuss its exploration in terms of target size and type. Any information relating to the exploration target should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. Hence the terms Resource(s) or Reserve(s) have not been used in this context. The potential quantity and grade is conceptual in nature, since there has been insufficient exploration to define a Mineral Resource. It is uncertain if further exploration will result in the determination of a Mineral Resource.

## About the Faina Goldfields Project

Orinoco aims to build a high-grade resource inventory at the Faina Goldfields Project, initially to support a low-cost gravity gold operation. The Company is confident that sites within the broader Faina Project such as Cascavel (OGX: 70%) and the Sertão gold mine (OGX acquiring 100%) offer significant resource potential from ongoing exploration and resource definition programmes.

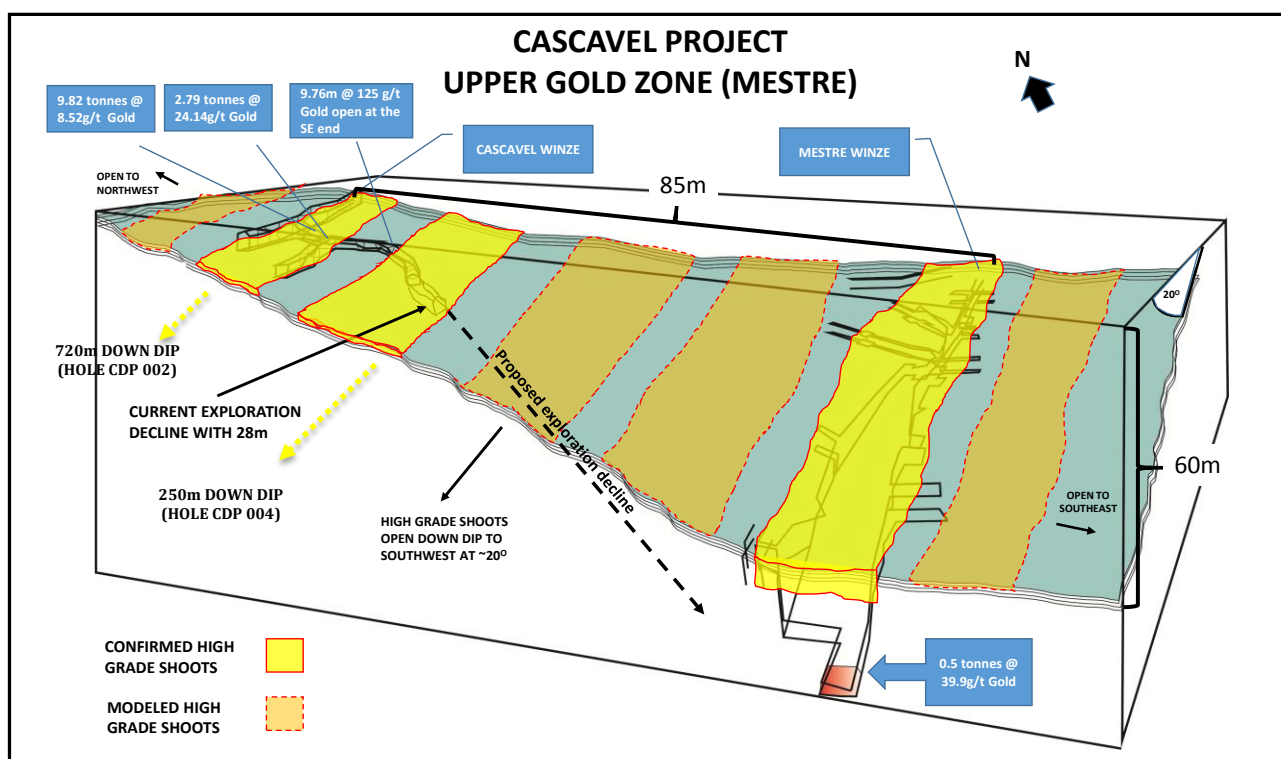
Sertão is a fully licensed gold mine located 18km along strike (28km by road) on the same mineralised shear zone as Cascavel, which in turn is currently licensed for underground ore extraction.







**Figure 3.** Location of Cascavel exploration decline. The proposed exploration decline (represented here in light blue) is a total of 90m in length.



**Figure 4.** Schematic representation of updated geological model of the area of the exploration decline. The yellow/brown coloured shoots are representations of the confirmed and modeled high grade shoots. Confirmation of high grade shoots are through bulk or panel samples and modeled high grade shoots are through drilling results. Note that the second gold level (bulk sample results from Cuca level reported 14 May 2014) is not represented here.

**TABLE 1. PANEL SAMPLE RESULTS**

Panel sample coordinates mark the edges counterclockwise of each panel. Missing sample numbers are due to Standards or Blanks. Panel sample CAS-P-050 has a non standard length of 0.97m.

PANEL	X	Y	Z	Au_Panel (ppm)
CAS-P-050	561508.60	8288125.08	537.15	105.00
	561508.61	8288125.13	536.50	
	561508.03	8288124.40	536.00	
	561507.99	8288124.29	536.27	
CAS-P-051	561507.99	8288124.29	536.27	417.00
	561508.03	8288124.40	536.00	
	561507.58	8288124.36	535.87	
	561507.55	8288124.13	536.15	
CAS-P-052	561507.55	8288124.13	536.15	3.95
	561507.58	8288124.36	535.87	
	561507.00	8288124.27	535.60	
	561506.98	8288124.05	535.93	
CAS-P-054	561506.98	8288124.05	535.93	7.25
	561507.00	8288124.27	535.60	
	561506.51	8288124.08	535.41	
	561506.54	8288123.91	535.69	
CAS-P-055	561506.54	8288123.91	535.69	386.00
	561506.51	8288124.08	535.41	
	561506.16	8288123.75	535.21	
	561506.25	8288123.55	535.47	
CAS-P-056	561506.25	8288123.55	535.47	93.40
	561506.16	8288123.75	535.21	
	561505.82	8288123.34	534.93	
	561505.92	8288123.24	535.18	
CAS-P-057	561505.92	8288123.24	535.18	124.00
	561505.82	8288123.34	534.93	
	561505.46	8288122.92	534.69	
	561505.54	8288122.91	535.12	

Reported Panel Sample Composite

New panel results composite	4m@148.5 g/ton of Au (from 18.16m)
Including	0.46m@417g/ton of Au (from 19.40)
Current composite of high grade panels in the same ore shoot (former and new results)	9.76m@145 g/ton of Au (from 12.4m)

## Section 1 Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Continuous panel sampling has been undertaken across the mineralised zone at Cascavel. Panels measuring approximately 0.5m x 0.5m are being cut contiguously (each panel abutting another panel) along one wall of the decline (the southern wall) with the sample from each panel being composed of chips from the entire area of each panel. The panel samples in the current exploration decline represent a section sub-parallel to the strike and almost perpendicular to the dip (the decline cross-cuts sections of the high-grade shoots that dip to the SW).</li> <li>Where a vertical height of more than 0.5m is assessed as requiring sampling, contiguous panels will be cut below or above a panel. Each panel sample (approximately 4-11kg in weight) is crushed/milled/homogenised and split to obtain a 1kg sample in the laboratory and that 1kg sample is submitted for a screen fire assay.</li> <li>Panel sampling has been undertaken along the mineralised vein/s and alteration and screen fire assay has been used to obtain correct grades of each panel. This assay procedure is not only more expensive but needs more time for the lab to screen larger amounts of the samples instead of splitting fractions in an ordinary fire assay procedure. Channel sampling on the entire height of the exploration decline has been done every three metres to maintain control on the potential mineralisation of the hostrock (not visually recognisable)</li> <li>All data is stored in the database following appropriate QA/QC procedures.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>No drilling is reported in this announcement.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>No drilling is reported in this announcement.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>No logging is reported in this announcement</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Chip samples went sent to the laboratory without drying or splitting.</li> <li>Blanks and standards are inserted into panel samples batches;</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>In the lab, all samples are dried at 100°C and crushed to 9 mesh in a jaw crusher. The samples go to a Jones or Rotary splitter and 500g of material is separated and powdered to 150 mesh. The 150# pulp is quartered and an aliquot of 50g is obtained. This aliquot is analysed by Fire Assay in non-mineralised samples. Metallic Screen Fire Assay is applied if the sample is considered mineralised. Selective samples are analysed in ICP-MS (Inductively Coupled Plasma Atomic Emission Spectrophotometry), with a multi-acid digestion for 32 elements.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li><b>Standards:</b> (insertion of different standards in each 30 samples approximately): If less than 10% are outside of the mean + 2x Std. Dev, the results are validated. If less than 10% is outside the Mean + 3x Std. Dev, but there are standards between the first and these two points - the results are validated, but the Lab is notified. If more than 10% is outside the Mean + 3x Std. Dev, the batch (40 samples) is rejected, an investigation is required and a re-analysis of the batch is made;</li> <li><b>Blanks</b> (insertion in each 30 samples approximately): If less than 5% are above 5x the detection limit of the Lab, the results are validated. If more than 5% is above 5x the detection limit, the Lab is notified and the batches with failure are re-analysed;</li> <li><b>Duplicates</b> (insertion in each 20 samples – Bias control): Project Duplicates are core quarter and Lab duplicates are Gravel and Pulp Duplicates.</li> </ul>



Criteria	Commentary
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>The topographic survey on the exploration decline has been done with the help of a Total Station (RUIDE), model RTS 822R<sup>3</sup>. The survey use prisms for the coordinate transport (UTM) and laser for the location of channels, panels and decline walls and decline sections.</li> <li>The grid system used is UTM South American 1969 - Zone 22 S;</li> <li>The topography crew uses local landmarks to guarantee the quality of their surveying.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Panel samples are approximately 0.5 x 0.5 metres and continuous on the mineralised zone.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>The data orientation is intended to cover the mineralised zone approximately along strike and down dip.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Samples are stored in plastic sample bags, stored in the core shed on site prior to transport to the lab.</li> <li>All laboratory pulps are stored in the core shed in boxes supplied by the labs, stacked in dry places.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>No audit or review has been undertaken regarding the results reported in this announcement.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>The Faina Goldfield project is 70% owned by Orinoco do Brasil Mineração Ltda, which in turn is 100% owned by Orinoco Gold Ltd. The 30% partners are free carried during the exploration stage until a decision to mine.</li> <li>The Sertão and Antena mining leases are being acquired 100% by Orinoco, but the acquisition remains subject to previously announced conditions precedent.</li> <li>Some locations within the Cascavel project have archaeological sites that are required to be mapped and photographed prior to removal of the sites.</li> <li>The key Tinteiro tenements are granted exploration leases.</li> <li>The key Cascavel tenement has a granted trial mining licence for 50.000 tonnes ROM for underground operation and granted Environmental/Archaeological licences.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Exploration for oxide gold deposits has been well developed through the belt during the last 20 years, in different cycles and by different companies. Initial exploration according to IOCG models is recorded to have taken place in recent times. A reasonable amount of surface exploration has been carried out. Soil, stream sediments and chip sampling (for gold) are widespread along and around both belts. Those surface surveys detected several gold and arsenic anomalies (about 64 anomalies are described). Some of those anomalies were tested with drilling, frequently with positive results. However drilling was generally very shallow RAB drilling.</li> </ul>

Criteria	Commentary
<i>Geology</i>	<ul style="list-style-type: none"> <li>CASCADE: Cascavel is best characterised as an Archean shear hosted Orogenic gold system. The structurally controlled mineralised quartz vein/s, veinlets and related sericite alteration evident in the decline and from drilling are continuous both along strike and down-plunge with some minor off-sets caused by later E-W and N-W striking faults (associated with the Tinteiro mineralisation). Visible offsets are no greater than 1m in the walls of the decline. These late faults also cause a slight rotation between the blocks, slightly changing the dip of the veins.</li> </ul> <p>Repetition of high grade shoots along the strike has been confirmed by bulk and panel sampling and with visible gold up to 10mm in size evident in the walls of the decline.</p> <ul style="list-style-type: none"> <li>REGIONAL: Gold mineralisation is widely distributed on the Faina Greenstone Belt, occurring in the ultramafics, felsic and mafic volcanics, in the clastic metasedimentary sequence and particularly in the chemical metasedimentary rocks;</li> <li>Strong gold anomalies seem to be very continuous also along the strike, mostly associated with the main regional scale shear zones;</li> <li>Mineralisation style is also varied on the belt. Most of the gold mineralisation can be classified as Orogenic, mainly hosted in chemical and volcanoclastic sedimentary units. The following models are considered relevant: Shear Hosted (Orogenic) associated with carbonaceous/BIF hosts, mafic volcanic and volcanoclastic units. Paleo-Placer/Conglomerate Hosted: associated with meta-conglomerates within the Proterozoic (Paleo?) transgressive clastic sequence. Au rich VHMS: hosted by younger Meso-Proterozoic intrusives in the volcanosedimentary rocks sequence in the Goiás Block, potentially in the Faina greenstone. The silver-tungsten-copper mineralisation at Cascavel has been interpreted as a carbonate replacement deposit due to the strong relationship to the impure limestone unit and crosscutting faults. Tinteiro Target shows features so far interpreted as being related to an IOCG system.</li> <li>Polymetallic mineralisation at Tinteiro: silver/tungsten/copper is interpreted as a carbonate replacement mineralisation type that overlaps parts of the Cascavel Orogenic style mineralisation and represents a distal expression of the Tinteiro system. Closer to the core of the Tinteiro system gold, copper, barium, cobalt, uranium anomalies occur with hematite, potassic and sodic alteration together with structural features like fold hinges and crosscutting faults that are interpreted as an IOCG target.</li> <li>The mineralisation of copper/gold/silver and other metals at Tinteiro is associated with zones of mainly hydrothermal sericite, hematite and magnetite alteration that are associated with regional and potentially deep crustal faults systems showing several non-deformed mafic alkaline to felsic intrusions. These mineralised faults have been mapped and sampled over an area of approximately 7km x 4km to date.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>No drill holes are reported in this announcement.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>To composite the panel samples the results were treated as a drill core section. The coordinates of the middle point at the left edge of each panel and vector data of azimuth and dip angles of a middle line in the panels was precisely surveyed. Those lines were used for the from/to data on the assay table. To give the correct weight for the grades in the panels due to minor differences in the length, 0.5 metres was considered 100% and all grades went normalised to this length. The normalised intervals were used to obtain the composite grade for the section.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>Reported rock chips are single point, selective samples of outcropping lithologies.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>Diagrams are attached to the current announcement.</li> </ul>

Criteria	Commentary
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>This announcement is a comprehensive report of the results covered by this announcement.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>Only assays for panel samples are reported in this announcement.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>Drilling and exploration decline development is required to test the identified targets at depth.</li> </ul>