

# **QUARTERLY REPORT FOR THE PERIOD ENDED 30 JUNE 2019**

## **Highlights**

- Successful Reinstatement to Official Quotation on ASX with the completion of the transaction with AEP Corporation Pty Ltd
- Completion of \$5M Capital Raising at 3 cents per share to progress exploration of the Hualilan Gold Project, Argentina and the El Guaybo Copper Gold Project, Ecuador
- Identification of two large exploration targets from Geophysical Survey campaign at the El Guaybo Copper Gold Project:
  - The first target coincides with historical drilling such as JDH-09 (112m @ 0.6% Cu + 0.7 g/t gold + 14.6 g/t silver) (Refer Appendix 3 below for full details).
  - historical drilling was completed to only 300m beneath surface with the target increasing markedly in both intensity and width below the current drilling
- Substantial progress on validating historically reported mineralisation at Hualilan Gold Project with the receipt of High-Grade Gold results including (refer table 1 below for full details):
  - 201 g/t Gold, 1560 g/t Silver and 3.3% Zinc from a 1m channel sample within a 5m zone of 52.2 g/t Gold, 410 g/t Silver and 6.1% Zinc channel sample
  - 132 g/t Gold, 65.0 g/t Silver and 0.7% Zinc 0.6m channel sample
- SRK engaged to expand on the company's 3D geological model of the Hualilan deposit. The brief includes guidance on twin/infill drilling and other work to facilitate mineral resource that is reportable under the JORC Code (2012).
- Appointment of experienced exploration and mining executives Fletcher Quinn, Kris Knauer and Scott Funston
- During the current quarter the company anticipates that it will receive:
  - the balance of the geophysics, MMI survey results, surface and underground mapping/sampling, and core re-assaying for the El Guayabo Project
  - the remainder of the results from the underground channel sampling program at Hualilan and formal approval for a first drilling program to commence

**During the quarter Challenger Exploration** completed the acquisition of AEP Corporation Pty Ltd and a \$5 million capital raising which facilitated the company's reinstatement to the ASX. This coincided with the appointment of a new and experienced exploration and mining Board of Directors and a change of focus to gold/copper exploration, with the rights to explore two high quality gold-copper projects in South America, the Hualilan Gold Project in San Juan Argentina and the El Guaybo Copper Gold Project in Ecuador.



The Hualilan Gold Project is a high-grade gold and silver prospect associated with a multi-phase porphyry intrusive. It has extensive historical drilling with over excess of 150 drill-holes dating back to the 1970s. There has been limited historical production reported despite having in excess of 6km of underground workings. The property was last explored in 2006 by La Mancha Resources, a Toronto Stock Exchange listed company. La Mancha's work resulted in NI43-101 (non-JORC) resource estimates that remain open in most directions. Exploration by La Mancha attempted to assess the continuity of mineralisation across the property, but this is yet to be tested by systematic drilling. CEL has the rights to earn up to 75% of the Project which comprises 15 mining licences and an exploration licence application covering the surrounding 26km²s.

The El Guayabo Copper-Gold Project was last drilled by Newmont Mining in 1995 and 1997 targeting gold in hydrothermal breccias. Historical drilling has demonstrated potential to host significant copper and associated gold and silver mineralisation. Historical drilling has returned a number of ore grade intersections of plus 100m of intrusion related breccia and vein hosted mineralisation. The Project has multiple targets including breccia hosted mineralization, an extensive flat lying late stage vein system and an underlying porphyry system target neither of which has been drill tested. CEL has a farmin agreement under which It can earn 100% of the project.

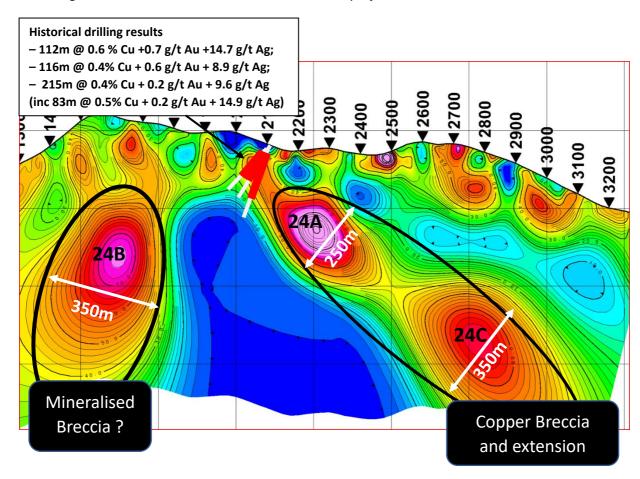


Figure 1 - Expanded IP Chargeability model along north-south IP line showing historical drilling

Note - a complete listing of all Historical drilling results Is provided In Appendix 3



## El Guayabo Project Ecuador

The company has a full time team of 3 geologists, 2 data/GIS personnel and 4 field assistants at the El Guaybo project all of which are Ecuadorian citizens. During the quarter a number of exploration initiatives were ongoing. These Included a 3D Magnetotelluric (MT) survey (with two IP test lines) covering 16 sq. kms, a soil geochemistry and Mobile Metal Ion (MMI) survey covering the same 16 km² and detailed field mapping covering the same area. A number of underground adits and various underground workings were also mapped and sampled. All of the available drill core, a total of 4400m, was also relogged with approximately 1000m of this core re-assayed as part of a program to validate the historical results.

Results from the MMI soil survey, field mapping/sampling and underground sampling, and core reassaying is expected to be available in this coming quarter.

## **Geophysical Survey Campaign**

During the quarter international geophysical company Quantec Geoscience, conducted a distributed array 3D-MT (3D Magneto-Telluric) covering 16 km² using its Spartan system. Two 2D IP/EMAP test lines were also collected using Quantec's deep-earth imaging Titan electrical geophysical system. The data was collected on a 300m spaced grid with the location of the survey is shown In Figure 1.

Quantec were contracted by Solgold to undertake 3DIP-MT (3D Induced Polarisation and Magneto-Telluric) survey over their Cascabel project In Ecuador. Whilst conventional IP systems typically see to depths of around 400m at best, the Titan system can read IP effects to potential depths of 800m and beyond, and Spartan can read resistivity data to potential depths of 2 kilometres and beyond using magneto-telluric measurements.

The Spartan and Titan systems are a very sophisticated survey technique and were designed to image the existing breccia bodies (and their depth extensions), new breccia bodies, and to define porphyry targets to a depth of 2 km. Only widely spaced airborne magnetics has previously been done over the property. The final survey results to which will be delivered will consist of:

- Inversion 2D products
  - 2D model sections (for each line) of the DC resistivity model;
  - IP chargeability model using the DC resistivity model as a reference;
  - · IP chargeability model using a half-space resistivity model as a reference;
  - MT(EMAP) resistivity model;
  - Joint MT+DC resistivity model; IP chargeability model using the MT+DC resistivity model;
- Inversion 3D products
  - · 3D MT model;
  - Cross-sections and Elevation Plan maps of the 3D MT models;



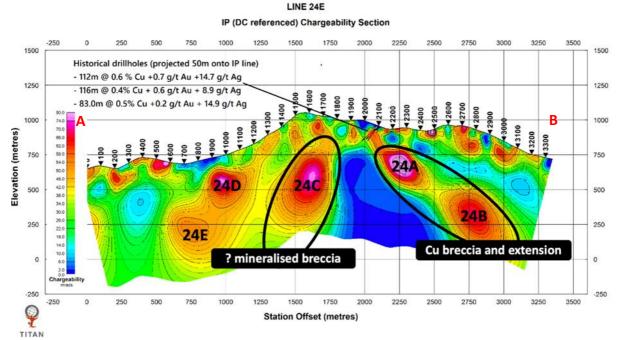


Figure 2 - Complete IP Chargeability model along north-south IP line

Note - a complete listing of all Historical drilling results Is provided In Appendix 3

#### **Geophysical Survey Results**

Results were received for the first IP line which was oriented north-south (A-B on Figure 3) and was designed to traverse the copper breccia to test for possible extensions at depth. The IP Chargeability Section is shown as Figure 1 has Identified two key targets as well as a number of secondary targets.

The most noticeable feature on the chargeability section is a high chargeability zone starting just below site 2100 and dipping to the north (24A). This zone can be correlated with the copper breccia which was Intersected by 6 drill holes as listed In Table 1. These drill holes and the known copper breccia mineralisation is shown on Figure 1. Historical drilling was completed to only 250-300m beneath surface with drill holes such as JDH-06 (116m @ 0.4% Cu + 0.6 g/t gold + 8.9 g/t silver) and GY-05 (150m @ 0.3% Cu + 0.4 g/t gold + 11.0 g/t silver). This chargeability-high increases significantly in both width and intensity from 300m to 500m subsurface which is below the limit If the deepest drilling. This chargeability high also shows a second higher grade zone (24B) which is approximately 500m-800m sub surface.

As part of the geophysical survey a program of measurement of the chargeability, magnetic susceptibility and resistivity was undertaken across all rock types and mineralisation in the core. The high chargeability response of the mineralised copper breccia, compared to all other known rock types intersected in the core, was confirmed by the program and in addition this program showed a linear relationship between copper/gold grade and increasing chargeability in the copper breccia samples. It should be noted that the chargeability response where Newmont undertook historical drilling was 25-40 mrads whereas the chargeability response in the main part of this anomaly is 80-90 mrads. A second main chargeability-high zone occurs approximately 600m south along strike (24C). This chargeability high looks to be blind (does not reach surface), has a width of approximately 300m and extends at to at least 750m sub-surface. A program of field reconnaissance has commenced to in the



projected outcrop of this chargeability anomaly to check for signs of leakage from a mineralised system below. This chargeability high could indicate another mineralised breccia analogous to the copper breccia.

Additionally, there are two lower tenor chargeability anomalies further south along strike (24D) and (24E) on Figure 2.

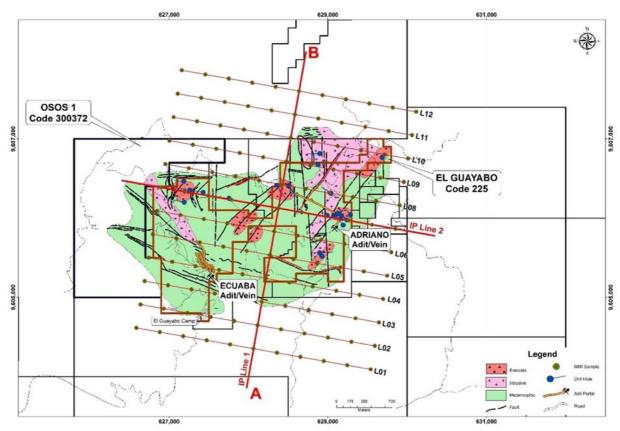


Figure 3 - Plan View Geophysics survey and north-south IP Line (A-B)

## IP resistivity results

The IP Resistivity section Is shown below In Figure 2. Of note Is that the more chargeable zone of the copper breccia (24A) can be correlated with a more conductive zone 24F. Similarly, we can also correlate the more conductive zone 24G observed at 300-600m depth below site 2800N with the more chargeable zone which is interpreted as a deep extension of the copper breccia (24B).

A small more conductive feature 24I is identified below site 1400N; that feature might be correlated with the more chargeable zone 24C. Note here that a more resistive zone 24J is located between the two more conductive zones 24F and 24I; that more resistive unit is non-chargeable.

CEL anticipates receiving the 2D chargeability and resistivity models and preliminary interpretation for the east-west IP line shortly with the 3D-MT results after this. The company will wait for the complete survey results however given the success of the IP test line in delineation the breccia targets, the



company anticipates it will undertake additional IP lines to better define these two breccia targets and explore for additional targets.

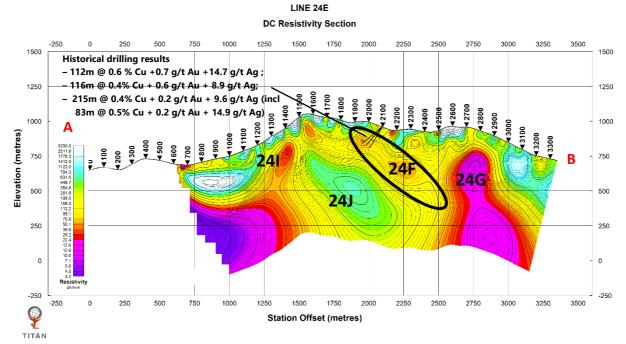


Figure 4 - DC 2D Resistivity model along north-south IP line

## **Hualilan Project Argentina**

The company commenced its on-ground exploration program at Hualilan with an underground bulk and channel sampling program designed to validate the historic mineralisation and provide a representative grade of the mineralisation. In addition to this, which is detailed below. CEL has engaged SRK Consulting to expand on the company's 3D geological model of the Hualilan deposit. This will incorporate all historical and new data including but not limited to:

- Surface mapping/pit mapping
- Underground workings
- Drill holes
- Topographic/satellite data and drone Images

SRK's brief is to review the existing interpretation, identifying drillable targets on areas within the model and provide recommendations made as to where and how to progress towards the estimation of a mineral resource that is reportable under the JORC Code (2012). This will include guidance on the requirements for twin and infill drilling in the 2019 drilling program required to facilitate mineral resource that is reportable under the JORC Code (2012). Results from this work are expected to be received in the coming quarter.

In addition, the company has completed all environmental and safety work required at Cerro Sur by the mines department and lodged Its EIS (Environmental Impact Statement) covering the Cerro Sur



program and is close to finalising drilling approval at Cerro Sur. The EIS and drilling permit applications are currently being finalised for the Cerro Norte portion of the Project. The company Is also finalising a drilling contract. This contract will be for an initial 2000m of core drilling broken into two 1000m segments with drilling targeted to begin in the current quarter.

#### **Sampling Programme Overview**

During the quarter CEL undertook an underground channel sampling, underground ore stockpile sampling and sampling of the mine dumps. This program was designed to validate the historic mineralisation and provide a representative grade of the mineralisation. Where possible the sampling programme re-sampled the historical underground channel sampling points used in the preparation of the historical non-JORC resource. The sampling was conducted over the majority of the known zones of mineralisation including the Magnata Vein and Manto, Sentazon, Bicolor, Dona Justa Pit, Main Manto, Muchilera, Northern Magnata. For the location of these zones within the larger Project the reader is referred to Figures 3 and 4.

Results from the first half of the program from Cerro Sur are outlined in Table x and were discussed in detail in ASX releases dated 9 July and 16 July. Suffice to say that the results to date are highly encouraging on a number of levels:

- The results validate the historically reported mineralisation and its high-grade nature
- The assays included some spectacular results, including the second highest assay ever recorded at Hualilan of 201 g/t Gold, 1560 g/t Silver and 3.3% Zinc from a 1 metre channel sample within a broader 5m zone grading 52.2 g/t Gold, 410 g/t Silver and 6.1% Zinc - 5m channel sample Magnata Adit
- The gold grades we are seeing are consistently 20% above the reported historical grades".
- High copper grades have been encountered with grades including 16.1% and 6.8% copper (0.4m and 1.1m channel samples respectively) which were never previously evaluated.

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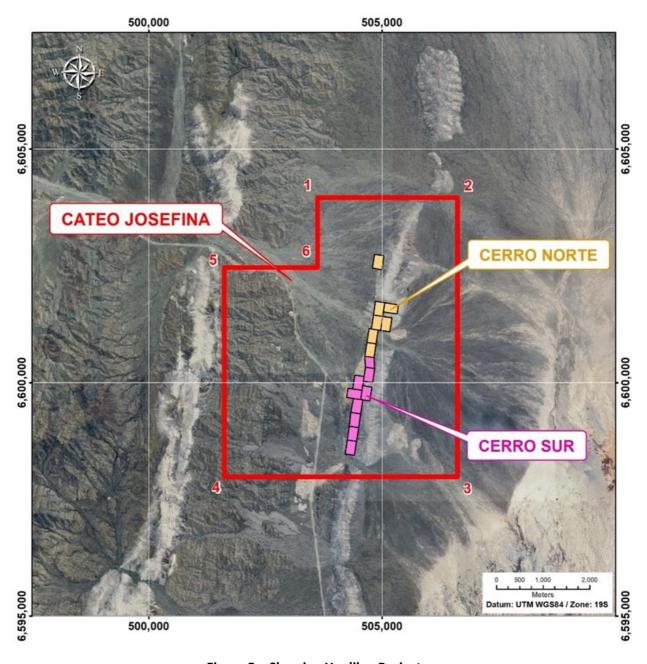


Figure 5 – Showing Hualilan Project



Table 1: Initial sampling results from 2019 Hualilan Gold Project Sampling Programme

Sample	Location	Sample	Sample	True width	Au	Ag	Zn	Pb	Cu	Au Equiv
Number		Type	Length	Structure						
			(m)	(m)	(g/t)	(g/t)	%	%	%	(g/t)
485104	Magnata	Channel	0.9	0.8	0	10	0.15	0.02	0.00	0.2
485105	Magnata	Channel	3	5	1.37	14	3.40	0.31	0.03	3.6
485106	Magnata	Chip	-	3?	0.76	0	0.04	0.02	0.01	0.8
485107	Magnata	Channel	1	5	11.05	105	6.42	0.04	0.35	16.6
485108	Magnata	Channel	1	5	36.9	302	10.60	0.04	0.18	47.0
485109	Magnata	Channel	1	5	201	1560	3.25	0.05	0.03	221.0
485110	Magnata	Channel	1	5	4.76	38	3.21	0.04	0.04	7.2
485111	Magnata	Channel	1	5	7.45	47	6.82	0.04	0.10	12.2
485112	Magnata	Channel	1.4	3	7.09	54	3.55	0.05	0.13	10.0
485113	Magnata	Channel	2.8	3	10.3	41	7.73	0.42	0.16	15.6
485114	Magnata	Channel	0.4	0.4	81.7	162	2.36	3.74	0.16	85.2
485115	Magnata	Channel	0.4	0.4	0.08	0	0.17	0.01	0.00	0.2
485116	Magnata	Channel	0.3	0.3	0	0	0.07	0.01	0.00	0.0
485117	Magnata	Channel	1	>10	14.3	76	0.50	0.11	0.12	15.7
485118	Magnata	Channel	1.5	-	5.66	234	0.41	2.27	1.67	11.0
485119	Magnata	Channel	1	-	0.21	22	0.04	0.08	0.01	0.5
485120	Murchilera	Channel	1.5	4.5	0.2	0	9.02	0.72	1.80	8.2
485121	Sentazon	Channel	0.6	0.6	132	65	0.74	0.80	0.09	133.3
485122	Sentazon	Channel	0.4	0.15	0.19	6	3.63	0.16	16.10	25.5
485123	Sentazon	Channel	1.1	0.7	2.94	86	2.00	1.52	0.18	5.4
485124	Sentazon	Channel	1.1	0.8	2.01	20	5.47	1.88	6.84	15.3
485125	Sentazon	Channel	0.6	0.4	10.05	44	0.91	0.59	0.31	11.5
485126	Sentazon	Channel	0.25	0.25	0	0	0.08	0.04	0.01	0.1
485127	Bicolor	Channel	1	1	31.7	133	3.71	0.02	0.48	36.1
485128	Bicolor	Channel	0.3	0.3	0.12	0	6.29	0.01	0.03	3.9
485129	Bicolor	Channel	0.5	0.5	0	0	0.05	0.01	0.00	0.0
485130	Bicolor	Channel	1	-	0.63	0	8.15	0.09	1.08	7.1
485131	Bicolor	Channel	1	1	0.84	10	1.87	0.01	0.05	2.1
485217	Manata	Channel	1	3	30.87	248	4.45		0.18	36.4
485218	Manata	Channel	1	3	26.81	192	2.46		0.11	30.5
485219	Manata	Channel	1	3	9.63	66.6	3.90		0.05	12.7
485220	Manata	Channel	1	3	6.26	33.9	9.31		0.07	12.2
485221	Manata	Bulk	n/a	n/a	13.32	61	6.42		0.14	17.9
485222	Sentazon	Bulk	n/a	n/a	16.16	22.8	2.96		3.78	18.2
485223	Sentazon	Bulk	n/a	n/a	4.52	22.7	8.11		2.21	9.6
485224	Manata	Bulk	n/a	n/a	5.40	193	1.52		0.34	8.5

<sup>(1)</sup> Gold equivalent values were calculated using a price of US\$1300 for Gold, US\$15 for Silver and US\$2500t Zinc. (Copper and lead were not included as metallurgical test work has yet to demonstrate an economic path for the extraction of Copper and Lead. Recoveries were not factored into the calculation of Gold equivalents given metallurgical test work is preliminary in nature)

<sup>(2)</sup> Location co-ordinates for the samples provided in Appendix 2



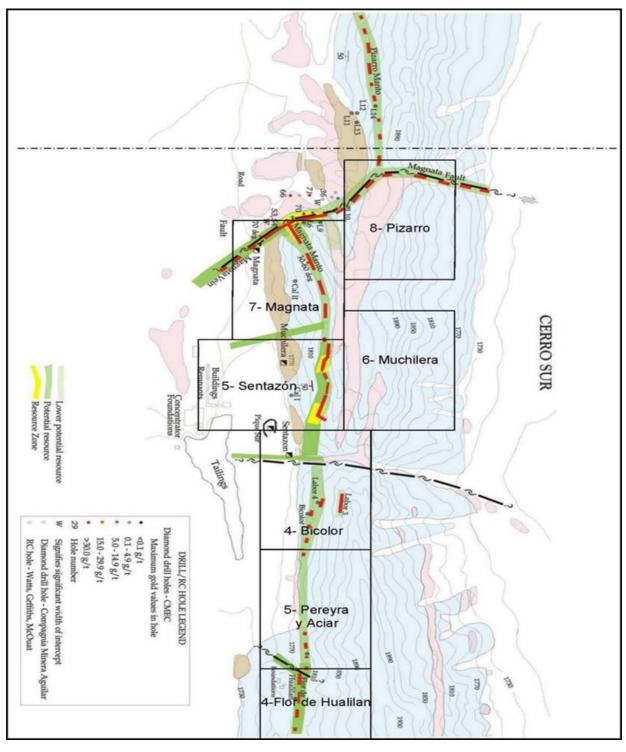


Figure 6 – Showing Main Cerro Sur Mineralised Zones (Source SRK Independent Geologist Report)



## **Karoo Basin South Africa**

The Company continues to pursue its application for shale gas exploration rights in South Africa. As previously reported, the Department of Mineral Resources is progressing a new petroleum resources development bill, and the Minister reportedly indicated during his address in the debate on the Presidential State of the Nation Address in June that the bill will soon undergo public participation, as part of the cabinet and parliamentary approval processes.

With regard to previously reported legal challenges to the Regulations for Petroleum Exploration and Production, on 4 July the Supreme Court of Appeal (SCA) heard a consolidated appeal in which the Minister of Mineral Resources appealed the decision of the Eastern Cape High Court, which set aside the proposed Technical Regulations for Petroleum Exploration and Exploitation, and in which the Treasure the Karoo Action Group (TKAG) and Afriforum appealed a decision of the Pretoria High Court, which upheld the Technical Regulations.

The SCA dismissed the appeal of the Minister of Mineral Resources and upheld the appeal of the TKAG and Afriforum and ruled that the Technical Regulations were published unlawfully and are therefore set aside. The decision of the court was based on a procedural question and turned on whether the Minister of Mineral Resources had the power to make regulations of an environmental nature. The Court found that the Minister did not have the power to make such regulations, and since the greater part of the Technical Regulations were considered to be of an environmental nature, the Minister did not have the power to make the Technical Regulations. Challenger understands that the Technical Regulations may therefore need to be redrafted.

# **Corporate**

During the quarter CEL completed the acquisition of 100% of the issued share capital of AEP Pty Ltd ("Acquisition"). AEP owns the rights to earn in to 75% of the Hualilan Project in Argentina and 100% of the El Guayabo Project in Ecuador (collectively referred to as the Projects. This also Involved a change in name from Challenger Energy Limited to Challenger Exploration Limited and the appointment of a new Board of Directors with requisite minerals exploration experience. The company's ASX Code remained CEL. Challenger Exploration Limited commence trading on the Australian Securities Exchange (ASX) at 10am July 4, after successfully raising \$5 million at \$0.03 per share by the issue of 166,666,667 ordinary shares under a re-compliance prospectus.

#### **Commentary on Cashflow**

The cashflow in the current quarter included payments of approximately \$260,000 for geophysics related expenditure. During the next quarters cash expenditure there are one off payments for capital raising fees (approx. \$450,000) and the repayment of a third party loan (approx. \$468,000), as disclosed in the Company Prospectus released to the market on 16 May 2019.



Exploration expenditure Includes approximately \$100,000 on tenement and acquisition expenses to increase our ownership of the Cerro Norte project to 25% and drilling related expenditure of approximately \$300,000.

Under the principles of AASB 3: Business Combinations, AEP Corporation Pty Ltd is considered the accounting acquirer and Challenger Exploration Limited the accounting acquiree, and therefore the transaction has been accounted for as reverse acquisition. Accordingly, the Appendix 5B has been prepared as a continuation of the financial statements of AEP Corporation Pty Ltd.

#### **Management and Board Changes**

With the completion of the Acquisition of AEP the following management appointments were made during the quarter:

#### **Appointment of Fletcher Quinn as Chairman**

Fletcher has over 35 years' experience in venture capital, corporate finance and investment banking including extensive experience with both listed and unlisted companies, including public company development, management and governance. Mr. Quinn was the foundation chairman for ASX entities Citadel Resources and Sirocco Resources.

## **Appointment of Kris Knauer as Managing Director**

Kris started his career as an exploration geologist before moving into investment banking, initially as a mining analyst. He is an experienced listed company CEO. He led the listing of a package of copper/gold assets in Saudi Arabia to create Citadel Resources (ASX: CGG) becoming the Managing Director for the first 18 months. Citadel completed a DFS on the Jabal Sayid copper project in Saudi Arabia prior to being taken over for \$1 billion. Kris has been managing the company's projects in Ecuador and Argentina for the past 18 months

#### **Appointment of Scott Funston as CFO and Director**

Mr. Funston is a qualified Chartered Accountant and Company Secretary with nearly 20 years' experience in the mining industry and the accounting profession. Mr. Funston is a member of Member of the Institute of Chartered Secretaries and Administrators. His expertise is financial management, regulatory compliance and corporate advice. Mr. Funston possesses a strong knowledge of the Australian Securities Exchange requirements and has assisted a number of resources companies operating throughout Australia, South America, Asia, USA and Canada with financial accounting, stock exchange compliance and regulatory activities. Mr. Funston has performed roles as an executive director, non-executive director, chief financial officer and company secretary for numerous ASX listed companies.

#### **Retirement of Existing Directors**

Following completion of relisting Mr. Robert Willes, Managing Director, has stepped down as a Director.

Mr. Clinton Carey, previous Non-Executive Director, and Mr. Michael Fry, former Chairman, have also resigned.





The company and the incoming management team would like to thank all three for their considerable commitment to the company and efforts in completing the transaction and re-listing of CEL on the ASX.

**Ends** 

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#### **About Challenger Exploration**

Challenger Exploration Limited (ASX: CEL) is developing two key gold/copper projects in South America.

- 1. **Hualilan Project**, located in San Juan Province Argentina, is a near term development opportunity. It has extensive historical drilling with over 150 drill-holes and a Non-JORC historical resource (#1) of >600,000 Oz @ 13.7 g/t gold which remains open in most directions. In the 15 years prior to being acquired by CEL the project was dormant. CEL's focus over the coming 12 months will be to redefine the scope of the Hualilan Project to better determine the best means of development to seek to achieve early cash-flows.
- 2. El Guayabo Project was last drilled by Newmont Mining in 1995 and 1997 targeting gold in hydrothermal breccias. Historical drilling has demonstrated potential to host significant copper and associated gold and silver mineralisation. Historical drilling has returned a number of intersections of plus 100m of intrusion related breccia and vein hosted mineralisation. The Project has multiple targets including breccia hosted mineralization, an extensive flat lying late stage vein system and an underlying porphyry system target neither of which has been drill tested.
- 3. **Karoo Basin** provides a wildcard exposure to 1 million acres shale gas application in the world class Karoo Basin in South Africa in which Shell is the largest application holder in the basin.

## Foreign Resource Estimate Hualilan Project

La Mancha Resources 2003 foreign resource estimate for the Hualilan Project ^							
Category	Tonnes	Gold Grade	Contained Gold				
Category	(kt)	(g/t)	(koz)				
Measured	218	14.2	100				
Indicated	226	14.6	106				
Total of Measured & Indicated	445	14.4	206				
Inferred	977	13.4	421				
Total of Measured, Indicated & Inferred	1,421	13.7	627				

<sup>^</sup> Source: La Mancha Resources Toronto Stock Exchange Release dated 14 May 2003 -Independent Report on Gold Resource Estimate.
Rounding errors may be present. Troy ounces (oz) tabled here

### **Competent Person Statement – Exploration results**

The information in this release provided under ASX Listing Rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the material mining project. The information that relates to sampling techniques and data, exploration results and geological interpretation has been compiled by Mr John King who

<sup>\*\*</sup>I For details of the foreign non-JORC compliant resource and to ensure compliance with LR 5.12 please refer to the Company's ASX Release dated 22 February 2019. These estimates are foreign estimates and not reported in accordance with the JORC Code. A competent person has not done sufficient work to clarify the foreign estimates as a mineral resource in accordance with the JORC Code. It is uncertain that following evaluation and/or further exploration work that the foreign estimate will be able to be reported as a mineral resource. The company is not in possession of any new information or data relating to the foreign estimates that materially impacts on the reliability of the estimates or CEL's ability to verify the foreign estimates estimate as minimal resources in accordance with Appendix 5A (JORC Code). The company confirms that the supporting information provided in the initial market announcement on February 22 2019 continues to apply and is not materially changed



is a full-time employee of JRK Consulting Pty Ltd. Mr King is a member of the Mining and Metallurgical Society of America and a senior fellow of the Society for Economic Geologists in the USA. This is a Recognised Professional Organisation (RPO) under the Joint Ore Reserves Committee (JORC) Code.

Mr King has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities 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, Mineral Resources and Ore Reserves. Mr King consents to the inclusion in this report of the matters based on information in the form and context in which it appears. The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.

**Appendix 1 - Schedule of Tenements** 

Project	Property Name	Tenure Title Holder	Interest %	AREA (ha)	DNPM No of Area	Status of Tenure
El Guayabo	El Guayabo	Torata Mining Resources S.A	earning 100%	281	COD225	Granted
Hualilan	Divisadero	Golden Mining S.R.L.	earning 75%	6	5448-M-1960	Granted
Hualilan	Flor de Hualilan	Golden Mining S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Pereyra y Aciar	Golden Mining S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Bicolor	Golden Mining S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Sentazon	Golden Mining S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Muchilera	Golden Mining S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Magnata	Golden Mining S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Pizarro	Golden Mining S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	La Toro	CIA GPL S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	La Puntilla	CIA GPL S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Pique de Ortega	CIA GPL S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Descrubidora	CIA GPL S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Pardo	CIA GPL S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Sanchez	CIA GPL S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	Andacollo	CIA GPL S.R.L.	as above	6	5448-M-1960	Granted
Hualilan	North of "Pizarro" Mine	Golden Mining S.R.L.	as above	1.9	195-152-C- 1981	Granted
Hualilan	South of "La Toro" Mine	CIA GPL S.R.L.	as above	1.9	195-152-C- 1981	Granted
Hualilan	Josefina	Golden Mining S.R.L.	as above	2570	30.591.654	Pending



**Appendix 2 - Hualilan Underground Sampling Location Data** 

Sample	LC	CATION DA	TA		STRUCTURE		SAMPLING			
Number	COORD	INATES_WGS	5-84_19S	Structure	Dip_Dir	Width	Туре	Length	Sample_	
	Х	Υ	Z	Az_	Dip_Dir	(m)		(m)	Az	
485104	504560.36	6600127.26	1804.00	185	60_W	0.8	Channel	0.9	95	
485105	504578.00	6600087.00	1825.00	220	70_NW	5	Channel	3	140	
485106	504564	6600103.00	1825	95	85_SE	3?	Chip	-	-	
485107	504559.41	6600070.97	1744.00	170	50_SW	5	Channel	1	260	
485108	504559.76	6600070.98	1744.00	170	50_SW	5	Channel	1	260	
485109	504560.18	6600070.98	1744.00	170	50_SW	5	Channel	1	260	
485110	504560.63	6600070.97	1744.00	170	50_SW	5	Channel	1	260	
485111	504561.08	6600070.97	1744.00	170	50_SW	5	Channel	1	260	
485112	504561.26	6600063.63	1744.00	175	50_SW	3	Channel	1.4	300	
485113	504562.51	6600063.64	1744.00	175	50_SW	3	Channel	2.8	300	
485114	504559.40	6600053.77	1744.00	180	65_W	0.4	Channel	0.4	270	
485115	504557.85	6600053.87	1744.00	180	65_W	0.4	Channel	0.4	270	
485116	504555.67	6600033.97	1744.00	190	65_NW	0.3	Channel	0.3	270	
485117	504556.72	6600080.98	1744.00	230	85_NW	>10	Channel	1	45	
485118	504569.16	6600088.69	1744.00	260	80_NW	-	Channel	1.5	80	
485119	504573.19	6600089.11	1744.00	190	50_NW	-	Channel	1	260	
485120	504564.00	6599671.00	1759.00	30	55_E	4.5	Channel	1.5	100	
485121	504527.82	6599784.81	1769.00	200	50_NW	0.6	Channel	0.6	120	
485122	504530.50	6599794.33	1769.00	195	50_NW	0.15	Channel	0.4	280	
485123	504532.05	6599794.02	1769.00	165	50_SW	0.7	Channel	1.1	280	
485124	504532.99	6599808.62	1769.00	185	40_SW	0.8	Channel	1.1	330	
485125	504532.63	6599819.03	1769.00	185	40_NW	0.4	Channel	0.6	270	
485126	504517.85	6599723.55	1702.00	180	50_W	0.25	Channel	0.25	280	
485127	504529.54	6599607.04	1695.00	195	65_NW	1	Channel	1	280	
485128	504529.07	6599647.66	1695.00	180	50_W	0.3	Channel	0.3	270	
485129	504526.97	6599655.31	1695.00	280	75_N	0.5	Channel	0.5	180	
485130	504528.63	6599622.65	1695.00	-	-	-	Channel	1	180	
485131	504507.52	6599451.11	1701.00	195	50_NW	1	Channel	1	260	
485217	504559.07	6600074.9	1744	175	60_SW	3	Channel	1	120	
485218	504558.01	6600075	1744	175	60_SW	3	Channel	1	190	
485219	504556.84		1744	175	60_SW	3	Channel	1	80	
485220	504559.41	6600068.5	1744	175	60_SW	3	Channel	1	120	
485221	504558.64	6600066.1	1744	-	-	-	Bulk	-	-	
485222	504472.06	6599634.2	1695	-	ī	-	Bulk	-	-	
485223	504469.37	6599605.4	1695	-	-	-	Bulk	-	-	
485224	504450.16	6600104	1744	-	-	-	Bulk	-	-	



Appendix 3 - Complete table of all drilling results from El Guayabo

Drillhole			sed Inte			Gold		Ag			Cu		Au Equiv		Incl	TD
(#)		From	То	(m)		(g/t)		(g/t)	L		(%)	L	(g/t)	(deg)	(deg)	(m)
JDH-001	from	183	190.6	7.6	m @	0.3	g/t Au +		not a	ssa	ayed	1	n/a	280	-60	236.9
JDH-002	from	7.6	152.9	145.3	m @	0.4	g/t Au +		not a	ssa	ayed		n/a	280	-45	257.5
	and	199	243	44.0	m @	0.4	g/t Au +		not a	ssa	ayed		n/a			
JDH-003	from	35.95	71.6	35.7	m @	0.5	g/t Au +		not a	ssa	yed		n/a	280	-45	261
	and	120.4	254.6	134.2	m @	0.4	g/t Au +		not a	ssa	ayed		n/a			
	inc	146.81	224.08	77.3	m @	0.5	g/t Au +		not a	ssa	ayed		n/a			
JDH-004	from	3.96	21.95	18.0	m @	0.4	g/t Au +		not a	ssa	yed		n/a	280	-45	219
	and	79.74	120.42	40.7	m @	0.4	g/t Au +		not a	ssa	ayed		n/a			
	and	150.9	203.7	52.8	m @	0.7	g/t Au +		not a	ssa	ayed		n/a			
JDH-005	from	5.2	81.4	76.2	m @	0.4	g/t Au +		not a	ssa	yed		n/a	280	-45	210.4
	and	169.7	208.5	38.8	m @	0.2	g/t Au +		not a	ssa	ayed		n/a			
JDH-006	from	17.99	89.6	71.6	m @	0.2	g/t Au +	2.0	g/t Ag	+	0.10	% Cu	0.42	150	-45	302.7
	and	164.8	281	116.2	m @	0.6	g/t Au +	8.9	g/t Ag	+	0.40	% Cu	1.37			
	inc	227.8	281.09	53.3	m @	1.2	g/t Au +	13.2	g/t Ag	+	0.62	% Cu	2.39			
JDH-007	from	39.7	84.45	44.8	m @	0.3	g/t Au +	1.4	g/t Ag	+	0.04	% Cu	0.38	150	-75	105.8
JDH-008	from	104.7	136.7	32.0	m @	0.1	g/t Au +	3.6	g/t Ag	+	0.13	% Cu	0.41	150	-60	352.7
	and	249.08	316.15	67.1	m @	0.2	g/t Au +	5.7	g/t Ag	+	0.21	% Cu	0.62			
	and	291.76	316.15	24.4	m @	0.5	g/t Au +	9.2	g/t Ag	+	0.34	% Cu	1.13			
JDH-009	from	10.3	122.03	111.7	m @	0.7	g/t Au +	14.6	g/t Ag	+	0.58	% Cu	1.85	150	-45	256.7
	inc	34.6	91.54	56.9	m @	0.2	g/t Au +	19.1	g/t Ag	+	0.82	% Cu	1.80			
	and	201.4	205.4	4.0	m @	11.4	g/t Au +	9.7	g/t Ag	+	0.01	% Cu	11.54			
	and	255.1	eoh	1.5	m @	0.7	g/t Au +	1.5	g/t Ag	+	0.02	% Cu	0.75			
JDH-10	from	1.5	50.9	49.4	m @	0.5	g/t Au +	2.5	g/t Ag	+	0.09	% Cu	0.68	270	-45	221.6
	and	90.54	119	28.5	m @	0.2	g/t Au +	3.0	g/t Ag	+	0.10	% Cu	0.40			
	and	140	203	81.6	m @	0.4	g/t Au +	1.3	g/t Ag	+	0.07	% Cu	0.53			
JDH-011	from	100.7	218	117.3	m @	0.4	g/t Au +	4.6	g/t Ag	+	0.10	% Cu	0.62	270	-45	218.0
JDH-012	from	12.2	53.96	41.8	m @	0.6	g/t Au +	6.5	g/t Ag	+	0.02	% Cu	0.67	150	-60	124.1
JDH-013	from	53.35	69.6	16.3	m @	0.5	g/t Au +	1.2	g/t Ag	+	0.01	% Cu	0.48	150	-60	239.3
	and	89.9	154.9	65.0	m @	1.4	g/t Au +	2.8	g/t Ag	+		% Cu	1.53			
	inc	114.32	142.76	28.4	m @	2.8	g/t Au +	4.9	g/t Ag	+	0.10	% Cu	3.03			
JDH-014	from	26.96	75.69	48.7	m @	0.4	g/t Au +	5.2	g/t Ag	+	0.10	% Cu	0.63	90	-60	239.4
	and	85.84	116.32	30.5	m @		g/t Au +		g/t Ag	+	0.1	% Cu	0.42			
	and	128.52	175.3	46.8	m @		g/t Au +		g/t Ag			% Cu	0.63			
	and	179.35	217.98	38.6	m @	0.1	g/t Au +	2.5	g/t Ag	+	0.08	% Cu	0.26			



Drillhole		Mineral	ised Inte	Total	G	old	Ag			Cu		Au Equiv	Azimuth	Incl	TD
(#)		From	То	(m)	(	g/t)	(g/t)	)		(%)		(g/t)	(deg)	(deg)	(m)
GGY-001	from	10	69	59.0	m @	0.2	g/t Au + 2.8	g/t Ag	+	0.07 9	% Cu	0.35	360	-90	249.2
	and	139	249.2	110.2	m @	0.4	g/t Au + 1.1	g/t Ag	+	0.06 9	% Cu	0.51			
	inc	141	174	33.0	m @	0.6	g/t Au + 2.0	g/t Ag	+	0.08 9	% Cu	0.76			
GGY-002	from	9.7	166	156.3	m @	2.6	g/t Au + 9.7	g/t Ag	+	0.16 %	% Cu	2.99	360	-90	272.9
	inc	27	102	75.0	m @	4.6	g/t Au + 19.1	g/t Ag	+	0.22 9	% Cu	5.21			
	and	114	166	52.0	m @	1.3	g/t Au + 3.3	g/t Ag	+	0.18 9	% Cu	1.64			
	plus	244	272.9	28.9	m @	0.3	g/t Au + 2.4	g/t Ag	+	0.04 9	% Cu	0.37			
GGY-003	from	40	260.75	220.8	m @	0.2	g/t Au + 2.9	g/t Ag	+	0.06 9	% Cu	0.36	305	-60	295.9
GGY-004	from	1	42	41.0	m @	0.5	g/t Au + 2.3	g/t Ag	+	0.03 9	% Cu	0.56	125	-60	172.2
GGY-005	from	12	162	150.0	m @	0.4	g/t Au + 11.0	g/t Ag	+	0.30 9	% Cu	0.99	145	-60	258.3
	inc	14	54	40.0	m @	0.6	g/t Au + 25.5	g/t Ag	+	0.60 9	% Cu	1.95			
	and	180	194	14.0	m @	0.2	g/t Au + 6.1	g/t Ag	+	0.22 9	% Cu	0.64			
GGY-006	from	72	101.9	49.0	m @	0.4	g/t Au + 2.3	g/t Ag	+	0.03 9	% Cu	0.45	305	-60	101.9
GGY-007	from	0.9	41	40.1	m @	1.1	g/t Au + 2.6	g/t Ag	+	0.04 9	% Cu	1.20	305	-75	127
	inc	110	127	17.0	m @	0.9	g/t Au + 1.2	g/t Ag	+	0.04 9	% Cu	0.98			
GGY-008	from	16	271	255.0	m @	0.1	g/t Au + 6.5	g/t Ag	+	0.24 9	% Cu	0.62	145	-75	312.3
	inc	235	271	36.0	m @	0.4	g/t Au + 11.5	g/t Ag	+	0.50 9	% Cu	1.32			
GGY-009	from	1.65	45	43.4	m @	1.7	g/t Au + 3.0	g/t Ag	+	0.06 %	% Cu	1.80	45	-75	166.2
GGY-010	from	0	69	69.0	m @	1.6	g/t Au + 2.3	g/t Ag	+	0.03 9	% Cu	1.67	225	-75	194.5
	inc	21	50	29.0	m @		g/t Au + 2.7					2.98			
	and	75	95	20.0	m @	0.3	g/t Au + 0.8	g/t Ag	+	0.01 9	% Cu	0.33			
GGY-011	from	14	229	215.0	m @	0.2	g/t Au + 9.6	g/t Ag	+	0.36 9	% Cu	0.89	160	-60	241.6
	inc	14	97	83.0	m @	0.2	g/t Au + 14.9	g/t Ag	+	0.50 9	% Cu	1.24			
	inc	202	229	27.0	m @	0.4	g/t Au + 15.2	g/t Ag	+	0.80 9	% Cu	1.90			
GGY-012	from	57	192	135.0	m @	0.3	g/t Au + 2.0	g/t Ag	+	0.06 9	% Cu	0.39	125	-60	256
	and	156	192	36.0	m @	0.2	g/t Au + 3.3	g/t Ag	+	0.13 9	% Cu	0.44			
GGY-013	from	229.7	280	50.3	m @	0.2	g/t Au + 2.2	g/t Ag	+	0.05 9	% Cu	0.31	320	-65	340.9
GGY-014				nsi								0.00	320	-75	309.1
GGY-015	from	110	132.4	22.4	m @	0.4	g/t Au + 0.5	a/t Aa	+	0.03 %	% Cu	0.41	320	-60	251.1
	and	157	225.5				g/t Au + 1.5					0.45			
GGY-016	from	8	30	22.0	m @	0.2	g/t Au + 0.7	a/t Aa	+	0.01 9	% Cu	0.26	320	-60	195.7
	and	42	57				g/t Au + 0.5		_			0.34			
	and	105	118				g/t Au + 0.7		_			0.26			
	and	185	188	3.0	m @	1.0	g/t Au + 0.8	g/t Ag	+	0.02 9	% Cu	1.04			
GGY-017	from	0	24	24.0	m @	0.5	g/t Au + 1.3	g/t Ag	+	0.01 9	% Cu	0.49	125	-82	280.4
	and	69	184				g/t Au + 2.1	-	_			0.53			
	inc	125	147	22.0			g/t Au + 2.0		_			0.29			
	and	206	241				g/t Au + 1.7					0.41			
	and	254	277	23.0	m @	0.6	g/t Au + 1.2	g/t Ag	+	0.04 9	% Cu	0.63			
GGY-018	from	81	136	55.0	m @	0.2	g/t Au + 3.5	g/t Ag	+	0.06 9	% Cu	0.34	140	-60	160.4
GGY-019	from	89	155	66.0	m @	0.3	g/t Au + 2.0	g/t Ag	+	0.03 9	% Cu	0.36	45	-53	175.4



- (1) drill collar coordinates for all holes in Table 2.3 are provided in Section 2 of the JORC Appendix in this ASX Release
- (2) cut of grade of 0.2 g/t Au Equiv used for calculating significant intercepts with 6m of internal dilution allowed

# The above table presents all drill holes and all relevant intersections (or nsi) to ensure full picture of the results of the drilling campaign is presented.

# Drill Collar coordinates provided in JORC Table 1 – El Guayabo Concession in ASX Release dated 22 February 2019

Note - The following drill holes were drilled into the copper breccia above geophysical anomaly 24A:

- JDH-06
- JDH-08
- JDH-09
- GY-005
- GY-008
- GY-011



## **Appendix 4 - ASX Waivers**

The ASX granted the Company a waiver from ASX Listing Rule 7.3.2 to permit the notice of meeting (the "Notice") seeking shareholder approval for the issue of up to 245,000,001 fully paid ordinary shares in the Company ("Waiver Securities") upon the Company satisfying the milestones in relation to each of the Projects ("Milestones") not to state that the Waiver Securities will be issued within 3 months of the date of the shareholder meeting.

The Waiver Securities must be issued no later than 60 months after the date of reinstatement of the Company's securities to official quotation.

Nil Waiver Securities have been issued during the quarter.

The total Earn-In Shares will be issued progressively subject to the achievement of the following milestones:

### **El Guayabo Project Milestones**

Project Interest	Cumulative Interest	Project Milestones
19.9%	19.9%	Existing interest in the project
15.1%	35%	Minimum expenditure on project of A\$2m - ~1 Year after relisting
16%	51%	Minimum expenditure on project of A\$3m - ~3 Years after relisting
49%	100%	180m CEL shares payable at the sole discretion of the Board of CEL. Shares to be issued no later than 15 December 2022.

## **Hualilan Project Milestones**

- A payment of 1.667 million shares (being shares in CEL assuming the Transaction completes) to Cerro Sur owners for assignment of Cerro Norte farmin due no later than one month after re-listing on the ASX.
- A milestone payment of 1.667 million shares (being shares in CEL assuming the Transaction completes) due on 22 June 2019.
- Minimum expenditure of A\$1 million on the Hualilan Project.
- The issue of a 11.667 million shares (being shares in CEL assuming the Transaction completes) no later than 1 July 2020 to acquire a 25% interest in the project.



Completion of a Definitive Feasibility Study within five years and the issue of 50 million shares (being shares in CEL assuming the Transaction completes) to move from 25% to 75% of the project.

#### **Performance Shares**

The Company has 60,000,000 Class A Performance Shares and 60,000,000 Class B Performance Shares on Issue

A summary of the terms and conditions of the Performance Shares are as follows:

The Performance Shares shall automatically convert into Shares, provided that if the number of Shares that would be issued upon such conversion is greater than 10% of the Company's Shares on issue as at the date of conversion, then that number of Performance Shares that is equal to 10% of the Company's Shares on issue as at the date of conversion under this paragraph will automatically convert into an equivalent number of Company Shares. The conversion will be completed on a pro rata basis across each class of Performance Shares then on issue as well as on a pro rata basis for each Holder. Performance Shares that are not converted into Shares under this paragraph will continue to be held by the Holders on the same terms and conditions.

(**No Conversion if Milestone not Achieved**): If the relevant Milestone is not achieved by the required date (being seven years from the date of the Proposed Acquisition or such other date as required by ASX), then all Performance Shares held by each Holder shall lapse.

(**After Conversion**): The Shares issued on conversion of the Performance Shares will, as and from 5.00pm (WST) on the date of issue, rank equally with and confer rights identical with all other Shares then on issue and application will be made by the Company to ASX for official quotation of the Shares issued upon conversion (subject to complying with any restriction periods required by the ASX).

(**Milestones**): The Performance Shares will, convert upon the satisfaction of the following milestones:

(Class A): A JORC Compliant Mineral Resource Estimate of at least Inferred category on either Project of the following:

a minimum 500,000 ounces of gold (AU) or Gold Equivalent (in accordance with clause 50 of the JORC Code) at a minimum grade of 6 grams per tonne Gold Equivalent; or

a minimum 1,500,000 ounces of gold (AU) or Gold Equivalent (in accordance with clause 50 of the JORC Code) at a minimum grade of 2.0 grams per tonne Gold Equivalent; or

a minimum 3,000,000 ounces of gold (AU) or Gold Equivalent (in accordance with clause 50 of the JORC Code) at a minimum grade of 1.0 grams per tonne Gold Equivalent;

(Class B): The Class B Performance Shares held by the holder will convert into an equal number of Shares upon the Company:





Completion and announcement by CEL (subject to the provision of information allowable at the time of completion) of a positive Scoping Study (as defined in the JORC Code) on either Project by an independent third-party expert which evidences an internal rate of return of US Ten Year Bond Rate plus 10% (using publicly available industry assumptions, including deliverable spot commodity / mineral prices, which are independently verifiable) provided that the total cumulative EBITDA over the project life is over US\$50m.

No Performance Milestones were met during the quarter.

#### JORC Code, 2012 Edition – Table 1 report template

#### Section 1 Sampling Techniques and Data -El Guayabo Project

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Newmont Mining Corp (NYSE: NEM) ("Newmont") and Odin Mining and Exploration Ltd (TSX: ODN) ("Odin") core drilled the property between February 1995 and November 1996 across two drilling campaigns.</li> <li>The sampling techniques were reviewed as part of a 43-101 Technical report on Cangrejos Property which also included the early results of the El Joven joint venture between Odin and Newmont, under which the work on the El Guayabo project was undertaken. This report is dated 27 May 2004 and found the sampling techniques and intervals to be appropriate with adequate QA/QC and custody procedures, core recoveries generally 100%, and appropriate duplicates and blanks use for determining assay precision and accuracy.</li> <li>Duplicates were prepared by the Laboratory (Bonder Cleg) which used internal standards. Newmont also inserted its own standards at 25 sample intervals as a control on analytical quality</li> <li>Diamond drilling produced core that was sawed in half with one half sent to the laboratory for assaying per industry standards and the remaining core retained on site.</li> <li>Cu assays above 2% were not re-assayed using a technique calibrated to higher value Cu results hence the maximum reported assay for copper is 2%.</li> <li>All core samples were analysed using a standard fire assay with atomic absorption finish on a 30 g charge (30 g FAA). Because of concerns about possible reproducibility problems in the gold values resulting from the presence of coarse gold, the coarse crusher rejects for all samples with results greater than 0.5 g/t were re-assayed using the "blaster" technique - a screen type fire analysis based on a pulverized sample with a mass of about 5 kg. Samples from most of these intersections were also analysed for Cu, Mo, Pb, Zn and Ag.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Diamond core drilling HQ size from surface and reducing to NQ size as necessary. The historical records do not indicate if the core was oriented</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>In a majority of cases core recovery was 100%.</li> <li>In the historical drill logs where core recoveries were less than 100% the percentage core recovery was noted.</li> <li>No documentation on the methods to maximise sample recovery was reported in historical reports however inspection of the available core and historical drilling logs indicate that core recoveries were generally 100% with the exception of the top few metres of each drill hole.</li> </ul>

Challenger Exploration Limited ACN 123 591 382 ASX: CEL **Issued Capital** 465.6m shares 92.4m options 120m perf shares

**Australian Registered Office** Level 3, Suite 302 17 Castlereagh Street Sydney NSW 2000 **Directors**Mr Kris Knauer, MD and CEO
Mr Scott Funston, Finance Director
Mr Fletcher Quinn, Chairman

Contact T: +61 2 9299 9580 E: admin@challengerex.com.au

Criteria	JORC Code explanation	Commentary
		<ul> <li>No material bias has presently been recognised in core.</li> <li>Observation of the core from various drill holes indicate that the rock is generally fairly solid even where it has been subjected to intense, pervasive hydrothermal alteration and core recoveries are generally 100%. Consequently, it is expected that the samples obtained were not unduly biased by significant core losses either during the drilling or cutting processes</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical 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>Geological logging was completed at 1-3 m intervals which is appropriate given the exploration was reconnaissance in nature.</li> <li>All core was logged qualitatively at 1 to 3 m intervals depending on geology intercepted and core was photographed.</li> <li>Inspections of core and logging have concluded that the logging was representative.</li> <li>100% of all core including all relevant intersections were logged</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Core was cut with diamond saw and half core was taken</li> <li>All drilling was core drilling as such this is not relevant</li> <li>Sample preparation was appropriate and of good quality. Each 1-3 m sample of half core was dried, crushed to a nominal – 10 mesh (ca 2mm), then 250 g of chips were split out and pulverized. A sub-sample of the pulp was then sent for analysis for gold by standard fire assay on a 30 g charge with an atomic absorption finish with a nominal 5 ppb Au detection limit.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected is not outlined in the historical documentation however a program of re-assaying was undertaken by Odin which demonstrated the repeatability of original assay results</li> <li>The use of a 1-3 m sample length is appropriate for deposits of finely disseminated mineralisation where long mineralised intersections are to be expected.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used by Newmont and Odin are still in line with industry best practice with appropriate QA/QC and chain of custody and are considered appropriate.</li> <li>Available historical data does not mention details of geophysical tools as such it is believed a geophysical campaign was not completed in parallel with the drilling campaign.</li> <li>Duplicates were prepared by the Laboratory (Bonder Cleg) which used internal standards. Newmont also inserted its own standards at 25 sample intervals as a control on analytical quality. Later Odin undertook a re-assaying program of the majority of the higher grade sections which confirmed the repeatability.</li> <li>Given the above, it is considered acceptable levels of accuracy and precision have been established</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>All intersections with results greater than 0.5 g/t were re-assayed using the "blaster" technique - a screen type fire analysis based on a pulverised sample with a mass of about 5 kg. Additionally Odin re-assayed the many of the higher grade sections with re-assay results demonstrating repeatability of the original results.</li> <li>Neither Newmont nor Odin attempted to verify intercepts with twinned holes</li> <li>Data was sourced from scanned copies of original drill logs and in some cases original paper copies of assay sheets are available. This data is currently stored in a drop box data base with the originals held on site.</li> <li>No adjustments to assay data were made.</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>Newmont undertook survey to located drill holes in accordance with best practice at the time.         No formal check surveying has been undertaken to verify drill collar locations at this stage     </li> <li>Coordinate System: PSAD 1956 UTM Zone 17S Projection: Transverse Mercator Datum:         Provisional S American 1956     </li> <li>Quality of topographic control appears to be+ - 1 meter which is sufficient for the exploration activities undertaken.</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>Grid drilling was exploration based and a grid was not considered appropriate at that time.</li> <li>A JORC compliant Mineral Resource Estimate has not been calculated</li> <li>Sample compositing was not used</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>Estimation bias is not evident.</li> <li>A sampling bias is not evident.</li> </ul>
Sample security	- The measures taken to ensure sample security.	<ul> <li>Newmont sent all its field samples to the Bondar Clegg sample preparation facility in Quito for preparation. From there, approximately 100 grams of pulp for each sample was air freighted to the Bondar Clegg laboratory (now absorbed by ALS-Chemex) in Vancouver, for analysis. There is no record of any special steps to monitor the security of the samples during transport either between the field and Quito, or between Quito and Vancouver. However, Newmont did insert its own standards at 25 sample intervals as a control on analytical quality</li> </ul>
Audits or reviews	- The results of any audits or reviews of sampling techniques and data.	<ul> <li>The sampling techniques were reviewed as part of a 43-101 Technical report on Cangrejos</li> <li>Property which also included the early results of the El Joven joint venture between Odin and</li> </ul>

Criteria	JORC Code explanation	Commentary
		Newmont, under which the work on the El Guayabo project was undertaken. This report is
		dated 27 May 2004 and found the sampling techniques and intervals to be appropriate with
		adequate QA/QC and custody procedures, core recoveries generally 100%, and appropriate
		duplicates and blanks use for determining assay precision and accuracy.

## **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 El Guayabo (Code. 225) mining concession is located within El Oro Province. The concession is held by Torata and was granted in compliance with the Mining Act ("MA") in on April 27, 2010. There are no overriding royalties on the project other than normal Ecuadorian government royalties.</li> <li>The property has no historical sites, wilderness or national park issues.</li> <li>The mining title grants the owner an exclusive right to perform mining activities, including, exploration, exploitation and processing of minerals over the area covered by the prior title for a period of 25 years, renewable for a further 25 years. Under its option agreement, the owner has been granted a negative pledge (which is broadly equivalent to a fixed and floating charge) over the concession. In addition a duly notarized Irrevocable Promise to Transfer executed by Torata in favor of AEP has been lodged with the Ecuador Mines Department.</li> </ul>
Exploration done by other parties	- Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous exploration on the project has been undertaken by Newmont and Odin from 1994 to 1997. This included surface pit and rock chip geochemistry, followed by the drilling of 33 drill holes for a total of 7605.52 meters) to evaluate the larger geochemical anomalies.</li> <li>The collection of all exploration data by Newmont and Odin was of a high standard and had appropriate sampling techniques and intervals, adequate QA/QC and custody procedures, and appropriate duplicates and blanks used for determining assay precision and accuracy.</li> <li>The geological interpretation of this data, including core logging and follow up geology was designed and directed by in-country inexperienced geologists. It appears to have been focused almost exclusively for gold targeting surface gold anomalies or the depth extensions of higher grade gold zones being exploited by the artisanal miners. The geologic logs for all drill holes did not record details that would have been typical, industry standards for porphyry copper exploration at that time. A number of holes which ended in economic mineralisation have never been followed up.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>In short, important details which would have allowed the type of target to be better explored were missed which in turn presents an opportunity to the current owner.</li> </ul>
Geology	- Deposit type, geological setting and style of mineralisation.	<ul> <li>It is believed that the El Guayabo property is a "Low Sulfide" porphyry gold copper system. The host rocks for the intrusive complex is metamorphic basement and Oligocene – Mid-Miocene volcanic rocks. This suggests the intrusions are of a similar age to the host volcanic sequence, which also suggests an evolving basement magmatic system. Intrusions are described in the core logs as quartz diorite and dacite. Mineralisation has been recognized in:         <ul> <li>Steeply plunging breccia bodies and in the metamorphic host rock adjacent to the breccia (up to 200 m in diameter)</li> <li>Quartz veins and veinlets</li> <li>Disseminated pyrite and pyrrhotite in the intrusions and in the metamorphic host rock near the intrusions.</li> </ul> </li> </ul>

## Drill hole Information

- 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:
  - easting and northing of the drill hole collar
  - elevation or RL (Reduced Level elevation above sea level in metres) of the drill hole collar
  - o dip and azimuth of the hole
  - down hole length and interception depth
  - o hole length.
- 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.

Drillhole		Minerali	sed Inte	Total		Gold		Ag			Cu		Au Equiv	Azimuth	Incl	TD
(#)		From	То	(m)		(g/t)	(	(g/t)			(%)		(g/t)	(deg)	(deg)	(m)
JDH-001	from	183	190.6	7.6	m @	0.3	g/tAu+		not a	ssay	ed		n/a	280	-60	236.9
JDH-002	from	7.6	152.9	145.3	m @	0.4	g/t Au +		not a	ssay	ed		n/a	280	-45	257.5
	and	199	243	44.0	m @	0.4	g/t Au +		not a	ssay	ed		n/a			
JDH-003	from	35.95	71.6	35.7	m @	0.5	g/t Au +		not a	ssay	ed		n/a	280	-45	261
	and	120.4	254.6	134.2	m @	0.4	g/t Au +		not a	ssay	ed		n/a			
	inc	146.81	224.08	77.3	m @	0.5	g/tAu+		not a	ssay	ed		n/a			
JDH-004	from	3.96	21.95	18.0	m @	0.4	g/tAu+		not a	ssay	ed		n/a	280	-45	219
	and	79.74	120.42	40.7	m @	0.4	g/t Au +		not a	ssay	ed		n/a			
	and	150.9	203.7	52.8	m @	0.7	g/tAu+		not a	ssay	ed		n/a			
JDH-005	from	5.2	81.4	76.2	m @	0.4	g/t Au +		not a	ssay	ed		n/a	280	-45	210.4
	and	169.7	208.5	38.8	m @	0.2	g/t Au +		not a	ssay	ed		n/a			
JDH-006	from	17.99	89.6	71.6	m @	0.2	g/t Au +	2.0	g/t Ag	+ (	0.10	% Cu	0.42	150	-45	302.7
	and	164.8	281	116.2	m @	0.6	g/t Au +	8.9	g/t Ag	+ (	0.40	% Cu	1.37			
	inc	227.8	281.09	53.3	m @	1.2	g/t Au +	13.2	g/t Ag	+ (	0.62	% Cu	2.39			
JDH-007	from	39.7	84.45	44.8	m @	0.3	g/tAu+	1.4	g/t Ag	+ (	0.04	% Cu	0.38	150	-75	105.8
JDH-008	from	104.7	136.7	32.0	m @	0.1	g/t Au +	3.6	g/t Ag	+ (	0.13	% Cu	0.41	150	-60	352.7
	and	249.08	316.15	67.1	m @	0.2	g/t Au +	5.7	g/t Ag	+ (	0.21	% Cu	0.62			
	and	291.76	316.15	24.4	m @	0.5	g/tAu+	9.2	g/t Ag	+ (	0.34	% Cu	1.13			
JDH-009	from	10.3	122.03	111.7	m @	0.7	g/t Au +	14.6	g/t Ag	+ (	0.58	% Cu	1.85	150	-45	256.7
	inc	34.6	91.54	56.9	m @	0.2	g/t Au +	19.1	g/t Ag	+ (	0.82	% Cu	1.80			
	and	201.4	205.4	4.0	m @	11.4	g/t Au +	9.7	g/t Ag	+ (	0.01	% Cu	11.54			
	and	255.1	eoh	1.5	m @	0.7	g/tAu +	1.5	g/t Ag	+ (	0.02	% Cu	0.75			
JDH-10	from	1.5	50.9	49.4	m @	0.5	g/t Au +	2.5	g/t Ag	+ (	0.09	% Cu	0.68	270	-45	221.6
	and	90.54	119	28.5	m @	0.2	g/t Au +	3.0	g/t Ag	+ (	0.10	% Cu	0.40			
	and	140	203	81.6	m @	0.4	g/tAu+	1.3	g/t Ag	+ (	0.07	% Cu	0.53			
JDH-011	from	100.7	218	117.3	m @	0.4	g/t Au +	4.6	g/t Ag	+ (	0.10	% Cu	0.62	270	-45	218.0
JDH-012	from	12.2	53.96	41.8	m @	0.6	g/t Au +	6.5	g/t Ag	+ (	0.02	% Cu	0.67	150	-60	124.1
JDH-013	from	53.35	69.6	16.3	m @	0.5	g/t Au +	1.2	g/t Ag	+ (	0.01	% Cu	0.48	150	-60	239.3
	and	89.9	154.9	65.0	m @		g/t Au +	2.8	g/t Ag	+ (	0.06	% Cu	1.53			
	inc	114.32	142.76	28.4	m @	2.8	g/t Au +	4.9	g/t Ag	+ (	0.10	% Cu	3.03			
JDHbiQelc4or		26.96	75.69	48n7a	dn@	0.4	g/t Au +	5.2	g/t Ag	+ (	0.10	% Cu	0.63	90	-60	239.4
Mr Kris K Mr Scott	nauer, MD Funston, F	and CEO inance Dire	ctdr16.32	3.0+5	2 929 <b>M.Q</b>	9580 allenger	e <b>g/t,Au</b> +	4.2	g/t Ag	+	0.1	% Cu	0.42			
Mr Fletch	er Quinn,	Cheirman	175.3	46.8	m @	0.5	g/t Au +	3.3	g/t Ag	+ (	0.08	% Cu	0.63			
	and	179.35	217.98	38.6	m @	0.1	g/t Au +	2.5	g/t Ag	+ (	0.08	% Cu	0.26			

Challenger Exploration Limited
ACN 123 591 382
ASX: CEL

**Issued Capital** 465.6m shares 92.4m options 120m perf shares

Australian Registered Office Level 3, Suite 302 17 Castlereagh Street Sydney NSW 2000

Drillhole		Minerali	ised Inte	Total	Gold	Ag		Cu		Au Equiv	Azimuth	Incl	TD
(#)		From	То	(m)	(g/t)	(g/t)		(%)		(g/t)	(deg)	(deg)	(m)
GGY-001	from	10	69	59.0 m (	0.2	g/t Au + 2.8	g/t Ag +	0.07	% Cu	0.35	360	-90	249.2
	and	139	249.2	110.2 m (	0.4	g/t Au + 1.1	g/t Ag +	0.06	% Cu	0.51			
	inc	141	174	33.0 m (	0.6	g/t Au + 2.0	g/t Ag +	0.08	% Cu	0.76			
GGY-002	from	9.7	166	156.3 m (	2.6	g/t Au + 9.7	g/t Ag +	0.16	% Cu	2.99	360	-90	272.9
	inc	27	102	75.0 m (	4.6	g/t Au + 19.1	g/t Ag +	0.22	% Cu	5.21			
	and	114	166	52.0 m (			g/t Ag +			1.64			
	plus	244	272.9	28.9 m (	0.3	g/t Au + 2.4	g/t Ag +	0.04	% Cu	0.37			
GGY-003	from	40	260.75	220.8 m (	0.2	g/t Au + 2.9	g/t Ag +	0.06	% Cu	0.36	305	-60	295.9
GGY-004	from	1	42	41.0 m (	0.5	g/t Au + 2.3	g/t Ag +	0.03	% Cu	0.56	125	-60	172.2
GGY-005	from	12	162	150.0 m (	0.4	g/t Au + 11.0	g/t Ag +	0.30	% Cu	0.99	145	-60	258.3
	inc	14	54	40.0 m (	0.6	g/t Au + 25.5	g/t Ag +	0.60	% Cu	1.95			
	and	180	194	14.0 m (	0.2	g/t Au + 6.1	g/t Ag +	0.22	% Cu	0.64			
GGY-006	from	72	101.9	49.0 m @	0.4	g/t Au + 2.3	g/t Ag +	0.03	% Cu	0.45	305	-60	101.9
GGY-007	from	0.9	41	40.1 m (	1.1	g/t Au + 2.6	g/t Ag +	0.04	% Cu	1.20	305	-75	127
	inc	110	127	17.0 m (	0.9	g/t Au + 1.2	g/t Ag +	0.04	% Cu	0.98			
GGY-008	from	16	271	255.0 m @	0.1	g/t Au + 6.5	g/t Ag +	0.24	% Cu	0.62	145	-75	312.3
	inc	235	271	36.0 m (	0.4	g/t Au + 11.5	g/t Ag +	0.50	% Cu	1.32			
GGY-009	from	1.65	45	43.4 m (	1.7	g/t Au + 3.0	g/t Ag +	0.06	% Cu	1.80	45	-75	166.2
GGY-010	from	0	69	69.0 m (	1.6	g/t Au + 2.3	g/t Ag +	0.03	% Cu	1.67	225	-75	194.5
	inc	21	50	29.0 m (	2.9	g/t Au + 2.7	g/t Ag +	0.03	% Cu	2.98			
	and	75	95	20.0 m (	0.3	g/t Au + 0.8	g/t Ag +	0.01	% Cu	0.33			
GGY-011	from	14	229	215.0 m @	0.2	g/t Au + 9.6	g/t Ag +	0.36	% Cu	0.89	160	-60	241.6
	inc	14	97	83.0 m (	0.2	g/t Au + 14.9	g/t Ag +	0.50	% Cu	1.24			
	inc	202	229	27.0 m (	0.4	g/t Au + 15.2	g/t Ag +	0.80	% Cu	1.90			
GGY-012	from	57	192	135.0 m (	0.3	g/t Au + 2.0	g/t Ag +	0.06	% Cu	0.39	125	-60	256
	and	156	192	36.0 m (	0.2	g/t Au + 3.3	g/t Ag +	0.13	% Cu	0.44			
GGY-013	from	229.7	280	50.3 m (	0.2	g/t Au + 2.2	g/t Ag +	0.05	% Cu	0.31	320	-65	340.9
GGY-014				nsi						0.00	320	-75	309.1
GGY-015	from	110	132.4	22.4 m @	0.4	g/t Au + 0.5	g/t Ag +	0.03	% Cu	0.41	320	-60	251.1
	and	157	225.5	68.5 m @	0.3	g/t Au + 1.5	g/t Ag +	0.10	% Cu	0.45			
GGY-016	from	8	30	22.0 m (	0.2	g/t Au + 0.7	g/t Ag +	0.01	% Cu	0.26	320	-60	195.7
	and	42	57	15.0 m (	0.3	g/t Au + 0.5	g/t Ag +	0.02	% Cu	0.34			
	and	105	118	13.0 m @	0.2	g/t Au + 0.7	g/t Ag +	0.01	% Cu	0.26			
	and	185	188	3.0 m (	1.0	g/t Au + 0.8	g/t Ag +	0.02	% Cu	1.04			
GGY-017		0	24			g/t Au + 1.3				0.49	125	-82	280.4
Directo	and	69	184			g/t Au + 2.1							
Mr Kris	Kn <b>aue</b> r,	MD <b>126</b> CE					g/t Ag +						
Mr Fleto		n, Finance In, Chairma	n 241		_	allengerex.com <sub>la.y</sub>							
	and	254	277			-	g/t Ag +						
GGY-018	from	81	136	55.0 m (	0.2		g/t Ag +				140	-60	160.4
GGY-019	from	89	155	66.0 m (	0.3	g/t Au + 2.0	g/t Ag +	0.03	% Cu	0.36	45	-53	175.4

Challenger Exploration Limited ACN 123 591 382 ASX: CEL **Issued Capital** 465.6m shares 92.4m options 120m perf shares

**Australian Registered Office** Level 3, Suite 302 17 Castlereagh Street Sydney NSW 2000

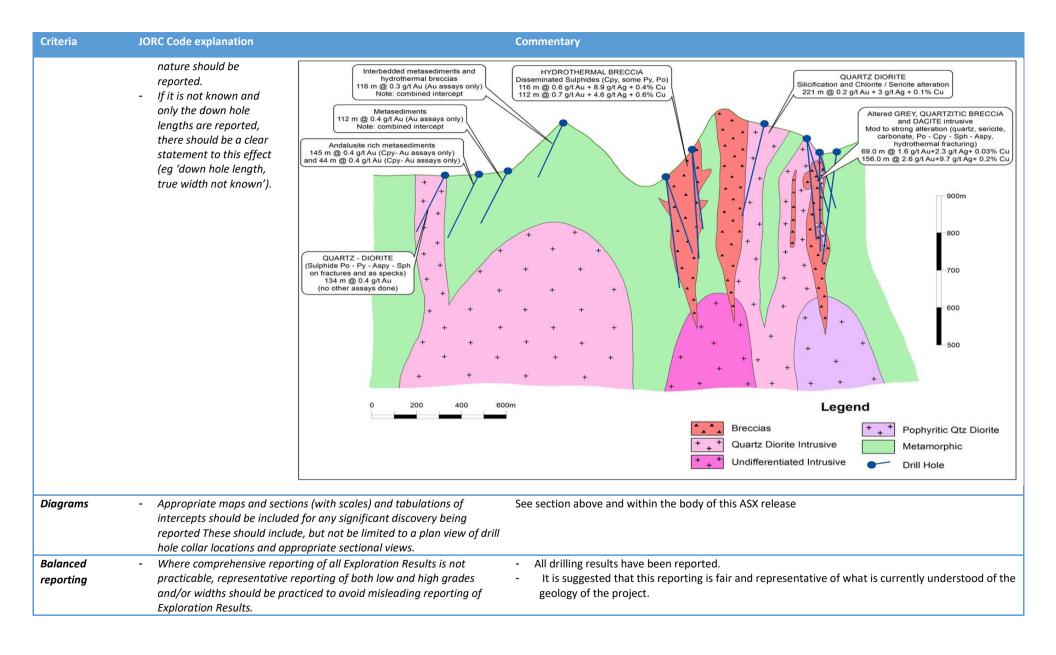
Criteria	JORC Code explanation			Commentary					
	-	DRILLHOLE	EAST	NORTH	ELEVATION	AZIMUTH	DIP	FINAL	DRILLED
		CODE	(X)	(N)	(m.a.s.l)	(°)	(°)	DEPTHP	BY
		DDHGY01	628928.09	9605517.20	839.01	360	-90.0	249.20	Odin
		DDHGY 02	629171.15	9606025.55	983.16	360.0	-90.0	272.90	Odin
		DDHGY 03	629041.84	9606312.81	1063.37	305.0	-60.0	295.94	Odin
		DDHGY 04	629171.68	9606025.18	983.2	125.0	-60.0	172.21	Odin
		DDHGY 05	628509.21	9606405.29	989.87	145.0	-60.0	258.27	Odin
		DDHGY 06	629170.56	9606025.97	983.11	305.0	-60.0	101.94	Odin
		DDHGY 07	629170.81	9606025.80	983.16	305.0	-75.0	127.00	Odin
		DDHGY 08	628508.95	9606405.74	989.86	145.0	-75.0	312.32	Odin
		DDHGY 09	629171.22	9606025.88	983.22	45.0	-75.0	166.25	Odin
		DDHGY 10	629170.77	9606025.24	983.12	225.0	-75.0	194.47	Odin
		DDHGY11	628507.97	9606405.33	989.83	160.0	-60.0	241.57	Odin
		DDHGY 12	629087.18	9606035.53	996.98	125.0	-60.0	255.7	Odin
		DDHGY 13	629242.46	9605975.42	997.292	320.0	-65.0	340.86	Odin
		DDHGY14	629242.27	9605975.64	997.285	320.0	-75.0	309.14	Odin
		DDHGY15	629194.67	9605912.35	977.001	320.0	-60.0	251.07	Odin
		DDHGY16	629285.92	9606044.44	1036.920	320.0	-60.0	195.73	Odin
		DDHGY17	629122.31	9606058.64	1021.053	125.0	-82.0	280.04	Odin
		DDHGY18	628993.10	9606035.45	977.215	140.0	-60.0	160.35	Odin
		DDHGY19	629087.23	9606034.98	997.332	45.0	-53.0	175.41	Odin

Criteria	JORC Code explanation			Commentary					
		DRILLHOLE	EAST	NORTH	ELEVATION	AZIMUTH	DIP	FINAL	DRILLED
		CODE	(X)	(N)	(m.a.s.l)	(°)	(°)	DEPTHP	BY
		JDH01	627185.78	9606463.27	933.47	280.0	-60.0	236.89	Newmont
		JDH02	627260.37	9606353.12	921.56	280.0	-45.0	257.62	Newmont
		JDH03	627191.61	9606200.35	952.82	280.0	-45.0	260.97	Newmont
		JDH04	627429.81	9606324.00	933.80	280.0	-45.0	219.00	Newmont
		JDH05	627755.97	9606248.70	1066.24	280.0	-45.0	210.37	Newmont
		JDH06	628356.37	9606416.13	911.58	150.0	-45.0	302.74	Newmont
		JDH07	628356.37	9606416.13	911.58	150.0	-75.0	105.79	Newmont
		JDH08	628356.37	9606416.13	911.58	150.0	-60.0	352.74	Newmont
		JDH09	628507.01	9606408.43	990.18	150.0	-45.0	256.70	Newmont
		JDH10	628897.96	9606813.62	985.60	270.0	-45.0	221.64	Newmont
		JDH11	628878.64	9606674.39	1081.96	270.0	-45.0	217.99	Newmont
		JDH12	629684.61	9606765.31	993.45	150.0	-60.0	124.08	Newmont
		JDH13	629122.61	9606058.49	1020.98	125.0	-60.0	239.33	Newmont
		JDH14	628897.15	9605562.77	852.59	90.0	-45.0	239.32	Newmont
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting maximum and/or minimum grade truncati grades) and cut-off grades are usually Mat</li> </ul>	ons (eg cutting d terial and should	of high I be stated.	• Minimum	veraging technic	).2 g/t Au Equiv	alent was used	for determining	g intercepts.

- 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.
- The assumptions used for any reporting of metal equivalent values should be clearly stated.
- Aggregate intercepts have been reported with higher grade inclusions to demonstrate the impact of aggregation. A bottom cut of 0.5 g/t Au Equiv has been used to determine the higher grade inclusions. Given the generally consistent nature of the mineralisation the impact of the aggregation of high grade results and longer lengths of low grade results does not have a large impact. For example in the intercept of 156m @ 2.6 g.t Au in hole GGY-02:
  - over half of the intercept comprises gold grades in excess of 1 g/t Au
  - only 20% of the intercept includes grades between 0.2 and 0.5 g/t Au
  - over one third includes gold grades in excess of 2 g/t Au.

Relationship between mineralisation widths and intercept lengths

- These relationships are particularly important in the reporting of Exploration Results.
- *If the geometry of the* mineralisation with respect to the drill hole angle is known, its
- The owner cautions that the geometry of the breccia hosted mineralisation appears to be predominantly vertical pipes while the geometry of the intrusive hosted mineralisation is not yet clear. The owner cautions that only and only the down hole lengths are reported and the true width of mineralisation is not known.
- The preliminary interpretation is that the breccia hosted mineralisation occurs in near vertical breccia pipes. Thus intersections in steeply inclined holes may not be representative of the true width of this breccia hosted mineralisation. The relationship between the drilling orientation and some of the key mineralised structures and possible reporting bias in terms of true width is illustrated in the figure below.



#### Criteria JORC Code explanation Commentary Other exploration data, if meaningful and material, should be Other Quantec Geophysical services conducted a SPARTAN Broadband Magnetotelluric and TITAN IP/EMAP reported including (but not limited to): geological observations; substantive surveys completed February 3rd to April 1st, 2019 over the El Guayabo property by Quantec Geoscience geophysical survey results; geochemical survey results; bulk samples -Ltd. on behalf of AAR Resources. exploration data size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential The survey covered 16 square kilometersa with data collected on 300m 3D spacing on a gride oriented deleterious or contaminatina substances. at 10 degrees and 100 degrees. The grid was moved 10 degrees so the survey could be orineted perpendicu; lar to the main geological srtuctures. The survey involved a total of 205 Magnetotelluric (MT) sites and 2 test TITAN IP/EMAP profiles were surveyed The final survey results to which will be delivered will consist of: Inversion 2D products 2D model sections (for each line) of the: DC resistivity model; IP chargeability model using the DC resistivity model as a reference; IP chargeability model using a half-space resistivity model as a reference; MT(EMAP) resistivity model: Joint MT+DC resistivity model; IP chargeability model using the MT+DC resistivity model: Inversion 3D products 3D MT model: Cross-sections and Elevation Plan maps of the 3D MT models; Figures showing Survey Locations and Results are included in the boidy of this release **DCIP INVERSION PROCEDURES** DCIP is an electrical method that uses the injection of current and the measurement of voltage difference along with its rate of decay to determine subsurface resistivity and chargeability respectively. Depth of investigation is mainly controlled by the array geometry but may also be limited by the received signal (dependent on transmitted current) and ground resistivity. Chargeability is particularly susceptible to data with a low signal-to-noise ratio. The differences in penetration depth between DC resistivity and chargeability are a function of relative property contrasts and relative signal-to-noise levels between the two measurements. A detailed introduction to DCIP is given in Telford, et al. (1976).

The primary tool for evaluating data is through the inversion of the data in two or three dimensions. An inversion model depends not only on the data collected, but also on the associated data errors in the reading and the "model norm". Inversion models are not unique and may contain "artefacts" from the Criteria **JORC Code explanation** Commentary inversion process. The inversion model may not accurately reflect all the information apparent in the actual data. Inversion models must be reviewed in context with the observed data, model fit, and with an understanding of the model norm used. The DC and IP inversions use the same mesh. The horizontal mesh is set as 2 cells between electrodes. The vertical mesh is designed with a cell thickness starting from 20 m for the first hundred metres to accommodate the topographic variation along the profiles, and then increases logarithmically with depth. The inversions were generally run for a maximum of 50 iterations. The DC data is inverted using an unconstrained 2D inversion with a homogenous half-space of average input data as starting model. For IP inversions, the apparent chargeability 2 is computed by carrying out two DC resistivity forward models with conductivity distributions  $\sigma(xi,zi)$  and  $(1-n)\sigma(xi,zi)$  (Oldenburg and Li. 1994), where (xi,zj) specifies the location in a 2D mesh. The conductivity distributions used in IP inversions can be the inverted DC model or a half space of uniform conductivity. Two IP inversions are then calculated from the same data set and parameters using different reference models. The first inversion of the IP data uses the previously calculated DC model as the reference model and is labelled the IP dcref model. The second IP inversion uses a homogeneous half-space resistivity model as the reference model and is labelled IP hsref model. This model is included to test the validity of chargeability anomalies, and to limit the possibility of inversion artefacts in the IP model due to the use of the DC model as a reference. The results of this second IP inversion are presented on the digital archived attached to this report. MAGNETOTELLURIC INVERSIONS The Magnetotelluric (MT) method is a natural source EM method that measures the variation of both the electric (E) and magnetic (H) field on the surface of the earth to determine the distribution at depth of the resistivity of the underlying rocks. A complete review of the method is presented in Vozoff (1972) and Orange (1989). The measured MT impedance Z, defined by the ratio between the E and H fields, is a tensor of complex numbers. This tensor is generally represented by an apparent resistivity (a parameter proportional to the modulus of Z) and a phase (argument of Z). The variation of those parameters with frequency relates the variations of the resistivity with depth, the high frequencies sampling the sub-surface and the low frequencies the deeper part of the earth. However, the apparent resistivity and the phase have an opposite behaviour. An increase of the phase indicates a more conductive zone than the host rocks and is associated with a decrease in apparent resistivity. The objective of the inversion of MT data is to compute a distribution of the resistivity of the surface that explains the variations of the MT parameters,

i.e. the response of the model that fits the observed data. The solution however is not unique and

Criteria **JORC Code explanation** Commentary different inversions must be performed (different programs, different conditions) to test and compare solutions for artefacts versus a target anomaly. An additional parameter acquired during MT survey is the Tipper. Tipper parameters Tzx and Tzy (complex numbers) represent the transfer function between the vertical magnetic field and the horizontal X (Tzx), and Y (Tzy) magnetic fields respectively (as the impedance Z represent the transfer function between the electric and magnetic fields). This tipper is a 'local' effect, mainly defined by the lateral contrast of the resistivity. Consequently, the tipper can be used to estimate the geological strike direction. Another important use of the tipper is to display its components as vectors, named induction vectors. The induction vectors (defined by the real components of Tzx and Tzy) plotted following the Parkinson-Real-Reverse-Angle convention will point to conductive zones. The tipper is then a good mapping tool to delineate more conductive zones. The depth of investigation is determined primarily by the frequency content of the measurement. Depth estimates from any individual sounding may easily exceed 20 km. However, the data can only be confidently interpreted when the aperture of the array is comparable to the depth of investigation. The inversion model is dependent on the data, but also on the associated data errors and the model norm. The inversion models are not unique, may contain artefacts of the inversion process and may not therefore accurately reflect all the information apparent in the actual data. Inversion models need to be reviewed in context with the observed data, model fit. The user must understand the model norm used and evaluate whether the model is geologically plausible. For this project, 2D inversions were performed on the TITAN/EMAP profiles data. For each profile, we assume the strike direction is perpendicular to the profile for all sites; the TM mode is then defined by the inline E-field (and cross line H-field); no TE mode (crossline E-field) were used in the 2D inversions. The 2D inversions were performed using the TM-mode resistivity and phase data interpolated at 6 frequencies per decade, assuming 10% and 5% error for the resistivity and phase respectively, which is equivalent to 5% error on the impedance component Z. No static shift of the data has been applied on the data. The 3D inversion was carried out using the CGG RLM-3D inversion code. The 3D inversions of the MT data were completed over an area of approximately 5km x 3.5km. All MT sites from this current survey were used for the 3D inversion.

Criteria	JORC Code explanation	Commentary
		The 3D inversion was completed using a sub sample of the MT data with a maximum of 24 frequencies at each site covering the measured data from 10 kHz to 0.01 Hz with a nominal 4 frequencies per decade. At each site, the complete MT complex impedance tensors (Zxx, Zxy, Zyx, and Zyy) were used as input data with an associated error set to 5% on each parameter. The measured tipper data (Tzx, Tzy) were also used as input data with an associated error set to 0.02 on each parameter. A homogenous half space with resistivity of 100 Ohm-m was used as the starting model for this 3D MT inversion. A uniform mesh with 75 m x 75 m cell size was used in horizontal directions in the resistivity model. The vertical mesh was defined to cover the first 4 km. Padding cells were added in each direction to accommodate the inversion for boundary conditions. The 3D inversion was run for a maximum of 50 iterations.  In addition a total of 129 samples distributed along 12 holes were analysed to measure the resistivity (Rho (Ohm*m) and chargeability properties (Chargeability M and Susceptibility (SCPT 0.001 SI) . The equipment used for the analyses was the Sample Core IP Tester, manufactured by Instrumentation GDD Inc. It should be noted that these measures should be taken only as first order estimate, and not as "absolute" (true) value as readings by the field crew were not repeated and potentially subject to some errors (i.e. wrong size of the core entered in the equipment).
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Re-logging and re-assaying core including SWIR/alteration mapping to better vector on the porphyry and breccia targets – available assays 6 elements only, no SWIR, and not logged by porphyry experts. The Company understands that this is complete with assays being waitied on.</li> <li>Channel sampling of the adit and artisanal workings - &gt; 1km of underground exposure of the system which has never been systematically mapped or sampled.</li> <li>Sampling of additional breccia bodies – only 2 of the 10 known breccias have been systematically defined and properly sampled.</li> <li>Complete interpreation of the 3D MT survey (with IP lines) covering 16 sq. This will include integration of all the geological data and constrained inversion modelling</li> <li>MMI soil survey covering 16 sq kms</li> <li>The aim of the program above is to define targets for a drilling program</li> </ul>

## Section 1 Sampling Techniques and Data -Hualilan Project

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Channel samples from underground workings were taken over widths of 12-15cm to depths of 2.5 cm and sampling was non-selective and designed to provide a representative grade of the mineralisation.</li> <li>Samples were collected dry and consisted of multiple chips dislodged and fractured by a geological pick.</li> <li>Samples were between a nominal 1-3kg weight and placed directly in to numbered calico bags at the collection point.</li> <li>Bulk samples of dumps and ore stockpiles were a minimum of 1kg, and sampling was non-selective and designed to provide a representative grade of the dump/stockpile</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	- n/a
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>	- n/a
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>The channel sampling has been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation.</li> <li>Logging was quantitative for both channel and bulk sample the following logging information is recorded in the database. Date sampled, samplers' details, sample coordinates, general location description, summary and comments on visual mineralisation and alteration, Azimuth, Dip Direction and true width of structure being sampled, length and azimuth of the channel sample. A photo was taken of each sample location</li> <li>100% of sampled intervals were logged</li> </ul>

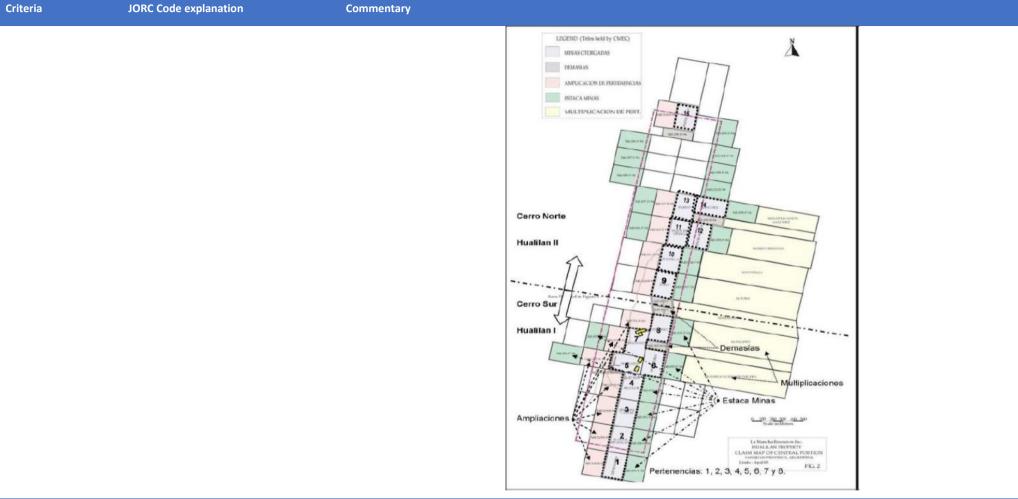
Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>n/a</li> <li>The sample preparation technique is considered appropriate</li> <li>Standard quality control procedures were implemented</li> <li>20% of samples were duplicates</li> <li>Sample sizes were appropriate for the mineralisation style and grain size of the deposit</li> <li>The sample length was based on lithologic and mineralised units and where warranted samples as small at 10 cm were taken. This is appropriate for deposits of this nature</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used were of high quality with appropriate QA/QC and chain of custody and are considered appropriate.</li> <li>assays were undertaken by ALS Laboratories. Samples were assayed by Au 25g fire assay ICP-MS (Au, Pt, Pd); 4-acid digest ICP-OES (Al, Ca, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, P, S, Sc, Ti, V, Zn););4-acid digest ICP-MS (Ag, As, Ba, Be, Bi, Cd, Ce, Co, Cs, Ga, Ge, Hf, In,La, Li, Mo, Nb, Pb, RB, Re, Sb, Se, Sn, Sr, Ta, Te, Th, Tl, U, W, Y, Zr). Ore grade reassays were done where the Au, Ag, Cu, Pb, and Zn assays that were above the measuring limit for the 100ppm for Au and Ag and 1% for Cu, Pb, Zn</li> <li>Internal laboratory standards were used for each job to ensure correct calibration of elements.</li> <li>Only relevant and material element results are reported.</li> <li>Standard industry practices have been employed in the collection and assaying of samples. Internal laboratory standards and checks have passed control thresholds. The assay data has sufficient quality for the reporting of Exploration Results.</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 and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Assay results summarised in the context of this report have been rounded appropriately.</li> <li>No assay data 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</li> </ul>	<ul> <li>Sample locations were surveyed by a hand-held GPS +/-5m and underground laser scanner with an accuracy of 4mm</li> </ul>

Criteria	JORC Code explanation	Commentary
	estimation Specification of the grid system used Quality and adequacy of topographic control.	<ul> <li>Coordinates reported are WGS-84_19S.</li> <li>Location data is considered to be of sufficient quality for reporting of exploration results</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>Data spacing was controlled by underground access and the location of previous sampling points which were being validated</li> <li>n/a</li> <li>yes</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>Unless otherwise stated the orientation of sampling achieves unbiased sampling of structures</li> <li>n/a</li> </ul>
Sample security	- The measures taken to ensure sample security.	<ul> <li>Samples were under 24 hour supervision of senior personnel prior to be delivered to lab</li> </ul>
Audits or reviews	- The results of any audits or reviews of sampling techniques and data.	- n/a

## 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 current Hualilan project comprises 15 Minas (equivalent of mining leases) and 2 Demasias as illustrated in as listed in the table below and shown in Figure 2-2. This covers approximately 4 km of strike and includes all of the currently defined mineralization. There are no royalties on the project at CEL is earning a 75% interest in the project by funding a DFS. Additionally an application for an Exploration Licence covering 26sqkms surrounding the 15 Minas has been accepted by the San Juan Department of Mines and is currently being processes.</li> </ul>



Exploration done by other parties

Acknowledgment and appraisal of exploration by other parties.

- Intermittent sampling dating back over 500 years has produced a great deal of data including sampling data, geologic maps, reports, trenching data, underground workings, drill hole results, geophysical surveys, resource estimates plus property examinations and detailed studies by several geologists although no work has been completed since 2006.
- There is 6 km of underground workings that pass through mineralised zones. Records of the underground geology and sampling are currently being compiled and digitised, as are sample data, geological mapping, trench and adit exposures, and drill hole

Criteria	JORC Code explanation	Commenta	iry									
Geology	- Deposit type, geological setting and style of mineralisation.	- Dri ext - 19: - 19: - 19: - 19: - 20: - De wh - Th an pre - Mi - Th div - Go	rilling on the ploration d 184 – Lixivia 195 - Plata N 198 – Chilea 199 – Comp 1903 – 2005 - etailed resonich were was ecollection and intervals, ecision and ineralisatione mineralis vided into told occurs in the pld occurs in t	e Hualilan Properties of the Hualilan Properties	rs exist but have large ject (Cerro Sur and Conpling results are listed ampling & 16 RC hole of (TSE: PMT) 33 RC hole of (TSE: PMT) 33 RC hole of (TSE Listed) undertoo on studies were underessional standards and the confidence of the confidence o	erro Norte c ed below. es (AG1-AG1 oles (Hua- 1 alf of Plata M EC") 59 core ik 7447m of l ertaken by El nd La Manch ious operato ocedures, and eferentially r n-Cu Skarn n rograde skarn	6) for 2040m to 33) + 1500 lining) system holes (DDH-20 DDH core drill PROM Ltda. (Ena 2003 and 20 ors was of a high dappropriate replaces limes manto-style (don and a late quinto 100 line for the late quinto 100 line f	ends to ove samples natic underg 0 to 79) plus ling (HD-01 i EPROM) in 1 2006. igh standard de duplicates a stone and far distal skarn)	round mass 1700m R to HD-48) 996 and C and had a and blank ult zones. with vein- ia event.	pping and c C program CMEC (1999) appropriate s used for d	hannel sam revised 200 sampling te etermining eralisation.	pling 00) both of echniques assay It has bee
Drill hole Information	- A summary of all information materi	- Mi vei be mi	ineralisatio ins that cro	on is either par coss the beddin bedding-para	allel to bedding, in bg at a high angle. The liel mineralisation an LOCATION DATA	edding-para e veins have	thicknesses of triking cross v	of 1–4 m and	d contain	sulphides. 7	The intersec	tion
	understanding of the exploration res including a tabulation of the followin	ng .	#	COOF	RDINATES_WGS-84_:	198	Structure	Dip_Dir	Width	Туре	Length	Sample
	information for all Material drill hole o easting and northing of the drill l	hole collar		х	Υ	Z	Az_	Dip_Dir	(m)		(m)	Az
	<ul> <li>elevation or RL (Reduced Level – above sea level in metres) of the</li> </ul>		485104	504560.36	6600127.26	1804.00	185	60_W	0.8	Channel	0.9	95
	collar  o dip and azimuth of the hole		485105	504578.00	6600087.00	1825.00	220	70_NW	5	Channel	3	140
	<ul> <li>down hole length and interception</li> </ul>	on depth	485106	504564	6600103.00	1825	95	85_SE	3?	Chip	-	-
	<ul><li> hole length.</li><li> If the exclusion of this information is</li></ul>		485107	504559.41	6600070.97	1744.00	170	50_SW	5	Channel	1	260
	the basis that the information is not				6600070.98				<b>-</b>	1	<b>-</b>	

Challenger Exploration Limited ACN 123 591 382 ASX: CEL

**Issued Capital** 465.6m shares 92.4m options 120m perf shares **Australian Registered Office** Level 3, Suite 302 17 Castlereagh Street Sydney NSW 2000

**Directors**Mr Kris Knauer, MD and CEO
Mr Scott Funston, Finance Director
Mr Fletcher Quinn, Chairman

Contact T: +61 2 9299 9580 E: admin@challengerex.com.au

Criteria	JORC Code explanation	Commentary									
	understanding of the report, the Com Person should clearly explain why this		504560.18	6600070.98	1744.00	170	50_SW	5	Channel	1	260
	case.	485110	504560.63	6600070.97	1744.00	170	50_SW	5	Channel	1	260
		485111	504561.08	6600070.97	1744.00	170	50_SW	5	Channel	1	260
		485112	504561.26	6600063.63	1744.00	175	50_SW	3	Channel	1.4	300
		485113	504562.51	6600063.64	1744.00	175	50_SW	3	Channel	2.8	300
		485114	504559.40	6600053.77	1744.00	180	65_W	0.4	Channel	0.4	270
		485115	504557.85	6600053.87	1744.00	180	65_W	0.4	Channel	0.4	270
		485116	504555.67	6600033.97	1744.00	190	65_NW	0.3	Channel	0.3	270
		485117	504556.72	6600080.98	1744.00	230	85_NW	>10	Channel	1	45
		485118	504569.16	6600088.69	1744.00	260	80_NW	-	Channel	1.5	80
		485119	504573.19	6600089.11	1744.00	190	50_NW	-	Channel	1	260
		485120	504564.00	6599671.00	1759.00	30	55_E	4.5	Channel	1.5	100
		485121	504527.82	6599784.81	1769.00	200	50_NW	0.6	Channel	0.6	120
		485122	504530.50	6599794.33	1769.00	195	50_NW	0.15	Channel	0.4	280
		485123	504532.05	6599794.02	1769.00	165	50_SW	0.7	Channel	1.1	280
		485124	504532.99	6599808.62	1769.00	185	40_SW	0.8	Channel	1.1	330
		485125	504532.63	6599819.03	1769.00	185	40_NW	0.4	Channel	0.6	270
		485126	504517.85	6599723.55	1702.00	180	50_W	0.25	Channel	0.25	280
		485127	504529.54	6599607.04	1695.00	195	65_NW	1	Channel	1	280
		485128	504529.07	6599647.66	1695.00	180	50_W	0.3	Channel	0.3	270
		485129	504526.97	6599655.31	1695.00	280	75_N	0.5	Channel	0.5	180
		485130	504528.63	6599622.65	1695.00	-	-	-	Channel	1	180

Criteria	JORC Code explanation	Commentary									
		485131	504507.52	6599451.11	1701.00	195	50_NW	1	Channel	1	260
Data aggregation methods	<ul> <li>In reporting Exploration Results, we techniques, maximum and/or minin (eg cutting of high grades) and cut-Material and should be stated.</li> <li>Where aggregate intercepts incorporting frade results and longer length the procedure used for such aggregand some typical examples of such shown in detail.</li> <li>The assumptions used for any reporting equivalent values should be clearly seen and some typical examples.</li> </ul>	num grade truncations off grades are usually orate short lengths of this of low grade results, ration should be stated aggregations should be reting of metal	- n/a - n/a - n/a								
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly reporting of Exploration Results.</li> <li>If the geometry of the mineralisatio drill hole angle is known, its nature</li> <li>If it is not known and only the down reported, there should be a clear stage (eg 'down hole length, true width not the control of the co</li></ul>	on with respect to the should be reported. In hole lengths are atement to this effect	true width of striking cross	sed bodies are gener f 1-4 metres. Where veins intersect mine of the sampled struc	the north-so eralisation wi	uth striking b	edding-para ease beyond	llel mant 4 metre	o mineralisa s.	tion and the	
Diagrams	<ul> <li>Appropriate maps and sections (wit tabulations of intercepts should be significant discovery being reported include, but not be limited to a plan collar locations and appropriate sec</li> </ul>	th scales) and - included for any I These should I view of drill hole	In body of re	port							
Balanced reporting	<ul> <li>Where comprehensive reporting of Results is not practicable, represent both low and high grades and/or w practiced to avoid misleading repor Results.</li> </ul>	all Exploration - cative reporting of idths should be	All data have	been reported.							
Other substantive exploration data	Other exploration data, if meaningly should be reported including (but not geological observations; geophysical geochemical survey results; bulk sampled of transment; metally reisal metally reisal.	ot limited to): al survey results; mples – size and	Sample Number	SUMMA	RY COMMEN	NTS OF MINE	RALIZATION				
	method of treatment; metallurgical density, groundwater, geotechnical		485104		50% Fe O	x. 10% Hem?					
	characteristics; potential deleteriou substances.	s or contaminating	485105	80%	Fe Ox. Cct 10	0%, Mal? aro	und 1%,				

Criteria	JORC Code explanation	Commentary		
			485106	1% Hem, 50% Fe Ox.
			485107	20% Qtz, 20% Fe Ox.
			485108	3%Py, 2% Shp
			485109	3%Py, 2% Shp
			485110	50%Qtz, 3%Cp
			485111	50% Ox. Fe, 2% Py
			485112	2% Py, 2% Cp
			485113	50% Fe Ox., 2% Py, 1% Cp
			485114	80% Fe Ox. (Gt around 50%)
			485115	<1% Fe Ox.
			485116	<1% Fe Ox.
			485117	80% Fe Ox., <1% Cu Ox.
			485118	2% Py, 3%Cp, 10% Cu Ox.
			485119	60% Fe Ox. 10% Hem?
			485120	60% Fe Ox. 20% Cu Ox.
			485121	40% Fe Ox. 1% Cu Ox. And garnets
			485122	20% Cu Ox, 10% Fe Ox
			485123	20% Fe oxides, 15 Cu Oxides, 1% Mn oxides and 2% garnets
			485124	50% Fe Ox, 10% Cu Ox, 30% Mn Oxides
			485125	30% Fe Ox, 10% Cu oxides
			485126	40% Limonites
			485127	20%Qtz, 5%Py, 3%Cp, 1% Cu Ox and 50% Fe Ox.

Criteria	JORC Code explanation Commentary			
		485128	5% Fe Ox	
		485129	5% Fe Ox	
		485130	10% Cu Ox, 30%Mn Ox. And 50% Iron Oxides	
		485131	50% Fe Ox, 1% CaCO3, 10% Garnets, 1% Hem and <1% Cu Ox	
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is no commercially sensitive.</li> </ul>	<ul> <li>Addition</li> <li>Detailent</li> <li>Structure</li> <li>extension</li> <li>Field model</li> <li>Investigning the extension</li> <li>Initial of mineral</li> </ul>	o undertake the following over the next 12 months anal data precision validation as required; and interpretation of known mineralized zones; and interpretation and alteration mapping using high resolution satell ions of known mineralisation.  Inapping program targeting extensions of known mineralisation. In gate further drilling requirements to upgrade both the unclassified mexisting historical resources to meet JORC 2012 requirements; and targeting extensions; urgical test work.	ineralisation and mineralisation

## **Section 3 Estimation and Reporting of Mineral Resources**

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>The drill hole data is stored in a drop box database is and currently being loaded into a new database. The database has been previously split into original paper components and electronic components.</li> <li>The owner's representatives have reviewed and confirmed the database structure and integrity.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>A 4-day site visit was undertaken from Wednesday Jan 17, 2018 to Saturday 20 January 2018.</li> <li>During this visit:         <ul> <li>a number of the historical drill collars were located, and their location confirmed</li> <li>The mineralisation was inspected and sampled in the main underground workings and also</li> </ul> </li> </ul>

Challenger Exploration Limited ACN 123 591 382 ASX: CEL **Issued Capital** 465.6m shares 92.4m options 120m perf shares

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Mr Scott Funston, Finance Director
Mr Fletcher Quinn, Chairman

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Criteria	JORC Code explanation	Commentary
		<ul> <li>in a number of waste dumps associated with exploration adits.</li> <li>The visual investigation of the mineralisation confirmed the historically reported mineralisation,</li> <li>Assay results of representative samples from the underground workings and dumps also confirmed the tenor of the reported resource grades of the various styles of mineralisation.</li> <li>In addition, SRK undertook a site visit 30 August 2018 where they reviewed much of the above. Their review confirmed the results of the first site visit</li> <li>In addition, the Competent person was on site for 3 weeks during the underground channel and bulk sampling which is the subject of this release</li> </ul>
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>The interpretation is considered appropriate given the stage of the project and the nature of activities that have been conducted. The interpretation captures the essential geometry of the mineralised structure and lithologies with drill data supporting the findings from the initial underground sampling activities.</li> <li>The most recent resource calculation (2006 and 2003 – La Mancha) used all core drilling and detailed underground channel sampling collected by EPROM, CMEC and La Mancha. Overlying assumptions included a reduction of the calculated grade in each resource block by a factor of 10% to account for possible errors in the analyses and samples. An arbitrary reduction factor was applied to the 2006 resource whereby the net reported tonnage was reduced by 25% for indicated resource blocks, 50% for inferred resource blocks, and 75% of potential mineral resource blocks. The reason for the application of these tonnage reduction factors was not outlined in the resource report. It is noted that at the time of this report La Mancha was in a legal dispute concerning the project with its joint venture partner and given the acquisition of a 200,000 Oz per annum producing portfolio the project was likely no longer a core asset for La Mancha at that time. Additionally, under the original acquisition agreement La Mancha had to issue additional acquisition shares based on resource targets.</li> <li>The effect of removing the assumptions relating to application of the arbitrary tonnage reduction factors applied increases the overall resource tonnage by in excess of 50%. Removing these correction factors would bring the overall tonnage and grade close the earlier (2003, 1999, and 1996) tonnage and grade estimates albeit in different categories (lower confidence) which are considered more appropriate.</li> <li>The mineralisation is defined to the manto and vein bodies detailed cross section and plan maps were prepared for these bodies with their shapes used in controlling the resource estimate.</li> <li>The</li></ul>

Criteria	JORC Code explanation	Commentary
Dimensions	<ul> <li>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</li> </ul>	<ul> <li>No reliable information has been provided to the owner however through further ongoing investigation is being conducted by the owner to address this information gap.</li> </ul>
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available</li> </ul>	<ul> <li>The estimation techniques are appropriate. The 2003 and 2006 resources used a longitudinal section polygonal method was used for estimating resources, with individual blocs representing weighted averages of sampled underground and/or areas of diamond drill pierce points with zones of influence halfway to adjacent holes. The area of the block was calculated using AutoCad directly from the longitudinal sections.</li> <li>As outlined in Section 2 check assaying by PG Consulting returned values in the check assay sample which were 3.4% and 12.99% greater for Au and Ag than the original assays. A number pf previous resource estimates were available to check the 2006 resource estimate when the arbitrary tonnage reduction factors are removed brings the overall tonnage and grade close the earlier (2003, 1999, and 1996) tonnage and grade estimates albeit indifferent categories which are considered more appropriate.</li> <li>It was assumed only gold silver and zinc would be recovered and that no other by products would be recovered. This is viewed as conservative given metallurgical data pointing to the production of a salable zinc concentrate.</li> <li>Based on the preliminary metallurgy estimation of deleterious elements or other non-grade variables of economic significance was not required</li> <li>The minimum mining width of 0.8m was assumed for veins less than 0.6m and for wider widths a dilution of 0.2m was used to calculate the grade.</li> <li>No assumptions were made regarding correlation between variables</li> <li>The mineralisation is defined to the manto and vein bodies. Detailed cross section and plan maps were prepared for these bodies with their shapes used in controlling the resource estimate Long sections for the veins and mantos were taken and sampling was plotted, and the blocks outlined considering this.</li> <li>Grade cutting was not used in the calculation of the resource and no discussion was given as to why it was not employed. It is recommended that a study be undertaken to determine if a</li></ul>
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	<ul> <li>No data is available. There is unlikely to be any significant difference between dry and natural moisture results.</li> </ul>
Cut-off parameters	- The basis of the adopted cut-off grade(s) or quality parameters applied.	<ul> <li>The Mineral Resource Estimate is above a cut-off grade of 3.89 g/t Au. This is based on the assumed mining cost</li> </ul>

Criteria	JORC Code explanation	Commentary		
Mining factors or assumptions	- Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	<ul> <li>The Mineral Resource Estimate considered the assumptions outlined below which are considered appropriate         <ul> <li>Metal prices: Au US\$550 Oz, Ag US\$10 Oz</li> <li>Metallurgical Recovery; Au – 80%, Ag – 70% Zn - nil</li> <li>Operating cost: US\$55t based on underground cut and fill mining and flotation and cyanidation combined</li> </ul> </li> <li>The minimum mining width of 0.8m was assumed for veins less than 0.6m and for wider width a dilution of 0.2m was used to calculate the grade.</li> </ul>		
Metallurgical factors or assumptions	<ul> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul> <li>Historical metallurgical test-work is currently under review however the assumptions used (80% Au recovery, 70% Ag and no zinc recovery) seem conservative. The most recent test work was conducted in 2000 and was a preliminary assessment only. This work was conducted at Lakefield Labs (cyanidation) and CIMM Labs (flotation) in Chile. While this work is preliminary it indicates recoveries for differential flotation in conjunction with a Knelson concentrator at 80% each for gold and silver and 50% for zinc regardless of the type of material (sulphide or oxidized).</li> </ul>		
Environmen-tal factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul> <li>It is considered that there are no significant environmental factors, which would prevent the eventual extraction of gold from the project. Environmental surveys and assessments will form a part of future pre-feasibility.</li> </ul>		
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<ul> <li>Densities of 2.7 m³/MT were used for mineralised veins and 2.6 m³/MT for wall rock</li> <li>No data of how densities were determined in available</li> <li>The bulk densities used in the evaluation process are viewed as appropriate at this stage</li> </ul>		

Criteria JORC Code explanation	Commentary
<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	<ul> <li>The Mineral Resource Estimate has both Indicated and Inferred Mineral Resource classifications under the National Instrument 43-101 code and is considered foreign. These classifications are considered appropriate given the confidence that can be gained from the existing data and results from drilling.</li> <li>The reliability of input data for the 2003 and 2006 resources is acceptable as is the confidence in continuity of geology and metal values, quality, quantity and distribution of the data. Appropriate account has been taken of all relevant factors with the exception of studies into the appropriateness of the application of a top cut.</li> <li>The reported 2006 NI43-101 (non-JORC Code compliant Measured and Indicated) estimate for the Hualilan Project is measured resource of 164,294 tonnes averaging 12.6 grams per tonne gold and 52.1 g/t silver and 2.5% zinc plus an indicated resource of 51,022 tonnes averaging 12.4 grams per tonne gold and 36.2 g/t silver and 2.6% zinc plus an inferred resource of 213,952 tonnes grading 11.7 grams per tonne gold and 46.6 g/t silver and 2.3% zinc. (Source La Mancha resources Toronto Stock Exchange Release April 7, 2007 - Interim Financials) – See Table 1</li> <li>The 2006 estimate did not include the east-west mineralised Magnata Vein despite the known mineralisation in the Magnata Vein being drilled on a 25 x 50-metre spacing. The 2003 NI43-101 (non-JORC Code compliant) estimate attributed approximately half of its measured and indicated tonnage to the Magnata Vein. The 2006 estimate also included arbitrary tonnage reduction factors of 25% for indicated category, 50% for inferred category and 75% for potential category.</li> <li>The 2006 estimate also included a significant tonnage of Potential Category Resources which have not been reported.</li> <li>The reported 2003 NI43-101 (non-JORC Code compliant) estimate for the Hualilan project is a measured resource of 299,578 tonnes averaging 14.2 grams per tonne gold plus an inferred resource of</li></ul>

Criteria	JORC Code explanation	Commentary					
		Measured	299,578	14.2			
		Indicated	145,001	14.6			
		Inferred	976,539	13.4			
		Historic 2006 NI43-101 (non-JORC Code compliant)					
		CATEGORY	TONNES	Au (g/t)	Ag (g/t)	Zn%	
		Measured	164,294	12.5	52.1	2.5	
		Indicated	51,022	12.4	36.2	2.6	
		Inferred	213,952	11.7	46.6	2.3	
Audits or reviews	- The results of any audits or reviews of Mineral Resource estimates.	<ul> <li>The most recent Mineral Resource Estimate has not been audited.</li> <li>The earlier (1996 and 2000) Mineral Resource Estimates were audited and re-stated in a 2003 resource report. This independent report was done to NI-43-101 standard and the results of this report were released to the TSX. This report concluded that "Detailed resource calculations made by three different groups are seen to be realistic.</li> </ul>					
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul> <li>There is sufficient confidence in the data quality, drilling methods and analytical results that they can be relied upon. The available geology and assay data correlate well. The approach or procedure are deemed appropriate given the confidence limits. The main two factors which could affect relative accuracy is grade continuity and top cut.</li> <li>Grade continuity is variable in nature in this style of deposit and has not been demonstrated to date and closer spaced drilling is required to improve the understanding of the grade continuity in both strike and dip directions. It is noted that the results from the twinning of three holes by La Mancha are encouraging in terms of grade repeatability</li> <li>The deposit contains very high grades, and there is a potential need for the use of a top cut. It is noted that an arbitrary grade reduction factor of 10% has already been applied to the resource as reported.</li> <li>No production data is available for comparison</li> </ul>					