

RESTATED RESOURCE ASSESSMENT FOR CHALLENGER DEPOSIT

Highlights

- Follows Improved interpretation of the gold mineralisation at the Challenger Gold Project
- Restates Resource from ASX Announcement 30 August 2021
- JORC (2012) Mineral Resources for Challenger now 663,000t @ 3.77g/t Au which adjusts the total resources for the Adelong Gold Project to 171,700 oz Au(25% Measured, 20% Indicated and 55% inferred Resources)

3D Resources Limited (ASX:DDD) (3D Resources or the Company) announces that in preparation for release of the Company's scoping study on the Adelong Gold project, it has re-released the JORC (2012) resource estimates announced on 30 August 2021 to include a full JORC Table 1 (sections 1 & 2) rather than just the reference to earlier reports, as required by listing rules 5.8.1 and 5.8.2 with which the earlier release did not comply. This re-release has also adjusted earlier estimates to exclude a small amount (2%) of the historic workings. This report updates the previous announcement dated 30 August 2021.

This re-assessment and the reissued estimation were undertaken after an independent technical review of the Resource Estimates carried out in 2018 had shown that significant quantities of un-mineralised/sub-economic grade material had been incorporated into the mineralised domains used in the earlier JORC (2012) Resource Estimates for the Challenger deposits.

The nature of the mineralisation in the Challenger deposit is a shear hosted gold veining system in highly competent granodiorite host rock where the mineralisation is structurally controlled and tends to form high grade veins along discrete faults, with the occasional stringers found in the surrounding host rock which give the appearance of a low grade mineralised envelope.

The geological interpretation on which the previous resource estimates had been made, stemmed from work completed by Robin Rankin (as a consultant with ECSMC) in 1999, that had largely modelled several of the veins based on the mineralised envelopes. While minor changes to the Resource Estimates were subsequently reported as a result of additional drilling results and underground sampling, no major review of the geological interpretation had been made. This work culminated in the 2016 Resource Estimates for the Challenger deposits that were reported and previously announced by the Company for the Challenger Deposit.

Following the findings of the 2018 review, Robin Rankin (GeoRes) was engaged to update his geological interpretation of the vein system at Challenger and to take into account the additional geological information generated from drilling and assay results. This interpretation was aimed at better defining the mineralised zones and in particular the main high grade mineralisation at Challenger.

The earlier interpretation on which the 2016 resource estimations were based, had broadly interpreted the main Challenger deposits as 4 mineralised envelopes (CH0 – CH3) as shown (left section) in Figure 1, but following the reinterpretation of all the assay data and in particular the higher grade zones (>2g/t Au), this reinterpretation split these broader envelopes into 9 discrete higher grade veins contained within the mineralised envelopes.



To show the effect of this reinterpretation, Figures 1 & 2 shows a typical cross section across the Challenger Deposit that highlight the changes made as a result of the geological interpretation and associated block model for the Challenger deposits.





Figure 2 Showing a Cross Section(6,903,740N) Showing the revised Block Model (right)

This interpretation better fits the style of mineralisation at Challenger and is an important step forward in assessing the mining options for these deposits. As a result of this re-interpretation, the resources were remodelled into a new JORC (2012) Resource Estimate for the Challenger and Challenger Extended Deposits. A copy of this JORC Report is appended to this announcement and has also been lodged on the <u>Company's</u> <u>website</u>.



SUMMARY OF THE CHANGES

Table 1: Prior Resource Estimates for the CHALLENGER deposits		Tonnes (t)	Au (g/t)	Au (oz)
Measured	51%	459,000	3.07	45,000
Indicated	26%	268,000	2.67	23,000
Inferred	23%	290,000	2.16	20,000
Total	100%	1,017,000	2.72	89,000

The previously announced resources for the Challenger deposits are shown in Table 1

Following the reassessment of the geology and remodelling of the JORC Resource Estimates for the Challenger deposits, the revised resource estimates for the Challenger deposits can be summarised as follows in table 2:

Table 2: Revised Resource Est deposits	imate for CHALLENGER	Tonnes (t)	Au (g/t)	Au (oz)
Measured	60%	357,000	4.17	47,900
Indicated	23%	163,000	3.50	18,300
Inferred	17%	144,000	3.07	14,100
Total	100%	663,000	3.77	80,300

(See Attached JORC Report for Details)

This re-interpretation has shown there to be good correlation between the high grade zones and also vastly improves the geological interpretation of the Challenger Deposits to better reflect the current data. This has resulted in:

- An improved level of confidence in continuity between high grade vein intersections that has allowed Measured Resources to increase (now based on drill spacing of <27.5m)
- Reduced the influence that the lower grade "envelope" has on block model. The net effect of the improved interpretation has been to reduce overall gold resources at the Challenger deposits by just 7% but it has substantially increased the overall grades by 39%. This will be an important factor in underground mining or selective mining of the deposit.
- A revised definition of mineralised zones that provides a better fit with the geology of the deposits and one that highlight the best zones for mining.

Drilling Techniques

The attached Resource Report details the history of modern exploration at Adelong which shows there has been several periods of Reverse Circulation Drilling and Diamond drilling carried out since 1979 by several significant and lesser known companies, with JORC Table 1 providing an overview of this long exploration history. A limited quantity of shallow RAB drilling occurred mainly in search of extensions to the vein system. The use of RAB samples were not material in the overall resource estimation. In all other matters (orientation, surveys, logging, records) the drilling appears to have been carried out in a competent way that would allow this drilling to be used in Resource Estimation.



Sampling and Subsampling techniques

The records show these drill holes have been appropriately sampled and analysed at accredited laboratories and as reported the work has shown a degree of repeatability in results between phases and types of drilling techniques used. This information would support the use of this historical exploration database in any Resource Estimation.

Sample Analysis Method

Most of the samples have been assayed via fire assay at recognised and accredited laboratory. Some of the very early drilling core involved sampling/assaying in 4 ways and there has been some work done on Cyanide Leach of larger 1kg samples. The methods used are appropriate for this deposit. It should be noted that there is an issue with coarse gold that can have a nugget effect. This "nugget effect" remains a factor that needs to be recognised in assessing any individual sample results and this effect tends to favour assaying techniques applied to larger samples.

Resource Classification

The Challenger and Challenger Extended Deposits each have a well defined core to the mineralisation and the majority of the resource in each case has been sampled at less than 27.5metre intervals and with more than 6 sample points, so has been classified as a Measured Resource. Surrounding that is a zone of Indicated with less sample points and drill density. The Inferred Category mainly applies to the deeper and lateral extensions. This is appropriate given that continuity and grade distribution of mineralisation is evident in the drill hole samples.

Estimation Methodology

The Resource Estimation was undertaken using Minex Genesis software that is specifically designed for the task of resource estimation calculation and geological modelling. The approach taken of identifying and modelling the individual veins based on drill intersections and then applying geostatistically derived grade estimation parameters algorithm to populate blocks with values is appropriate in this narrow vein and style of deposits. Also a model of the voids identified through drill intersections of historical mining and more recent development has been generated and the resource has specifically excluded those "mined areas from the estimates.

Cut Off Grades

The Resource Estimates reporting supplied in the attached report are based on a cut-off grade of 1g/t Au. This has been a historical "standard" for reporting Adelong resource estimates. This cut-off grade would be a reasonably conservative for open cut mining at Adelong with recent work suggesting a lower cut-off at 0.7-0.8g/t Au may be feasible to mine and treat Adelong ore commercially, but equally underground mining and treatment costs may suggest a 1.8-2g/t Au would be applicable for underground mining.

Mining and Metallurgical Matters

Mining and Processing cost estimates have been completed for the Challenger Deposit.

With the detailed knowledge of the Challenger Resources, it has been possible to evaluate all mining options. Geotechnical studies show that the host rock is highly competent and can support pit slopes of 60-65° and similarly the underground development options have been assessed and an existing Decline to 380mRL above sea level also provides excellent knowledge on underground mining conditions.



Metallurgical test work has shown that the Challenger Deposit is amenable to a range of commercial process routes and the one selected for Adelong involves a combination of gravity concentration and cyanidation. These tests have shown a +92% gold recovery to a gold dore on Challenger ores.

PROJECT RESOURCES

Based on this updated Resource Estimate for the Challenger Deposit, and the previously announced resource estimated for the Currajong West, Currajong East, Donkey Hill and Caledonian deposits (<u>ASX Announcement 17</u> <u>August 2020 and later reissued dated 29 September 2021</u>)</u>, the overall JORC Resource Estimates for the Adelong Gold Project are summarised in Table 3.

This is a fair representation of the total project resources in the Challenger, Currajong, Caledonian and Donkey Hill deposits. Additional drilling will be required to assist in in evaluating the distribution of high grade ore shoots the Inferred Resources at Currajong, Caledonian and Donkey Hill resources and the extent of underground workings in order to generate future underground mine plans.

Table 5. Resources Stateme		ong Gold Project based on a	Ig/tAu Cuton	
CHALLENGER deposit		Tonnes	Au	Au
		(t)	(g/t)	(oz)
Measured	60%	357,000	4.17	47,900
Indicated	23%	163,000	3.50	18,300
Inferred	17%	144,000	3.07	14,100
Total	100%	663,000	3.77	80,300
CURRAJONG deposit		Tonnes (t)	Au (g/t)	Au (oz)
Measured	-	-	-	-
Indicated	22%	126,000	2.57	10,400
Inferred	78%	407,000	2.63	34,400
Total	100%	533,000	2.61	44,800
DONKEY HILL deposit		Tonnes (t)	Au (g/t)	Au (oz)
Measured	-	-	-	-
Indicated	-	-	-	-
Inferred	100%	103,000	5.03	16,600
Total	100%	103,000	5.03	16,600
CALEDONIAN deposit		Tonnes (t)	Au (g/t)	Au (oz)
Measured	-	-	-	-
Indicated	-	-	-	-
Inferred	100%	157,000	5.94	30,000
Total	100%	157,000	5.94	30,000
TOTAL ADELONG GOLD PROJECT RESOURCES*		Tonnes (t)	Au (g/t)	Au (oz)
Measured	25%	357,000	4.17	49,700
Indicated	20%	289,000	3.09	29,200
Inferred	55%	811,000	3.65	95,400
Total	100%	1,457,000	3.67	171,700

*Note minor Rounding Errors in Tonnes



See details of the Resource Estimates for Challenger (attached to this announcement) and the Resource Assessment for Currajong West, Currajong East, Donkey Hill and Caledonian deposits completed by Robin Rankin (GeoRes) and announced by the Company on <u>17 August 2020 and 29 September 2021</u>. These reports are also located on the Company's <u>website</u>.

-ENDS-

Released with the authority of the board.

For further information on the Company and our projects, please visit: <u>3dresources.com.au</u> Contact:

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Competent Persons Statement

Information attached to this "ASX Announcement" is a JORC (2012) Resource Estimation published by Robin Rankin who is the Competent Person and Member of the AusIMM in respect of those Resource Estimates.

Mr Peter Mitchell has prepared the "ASX Announcement" of the JORC (2012) Resource Estimate based on the report prepared by Robin Rankin and his own experience with the Exploration Results and geological data for this Project. Mr Peter Mitchell is a Member of the Australasian Institute of Mining and Metallurgy, the Institute of Materials, Minerals and Mining and the Canadian Institute of Mining, Metallurgy and Petroleum. He is Managing Director and paid by 3D Resources Ltd. Peter Mitchell has sufficient experience that is relevant to the style of mineralisation and types of deposits under consideration and to the activity being undertaken to qualify as a Competent Person (CP) as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Peter Mitchell believes that these Resource Estimates fairly represent the resources the subject of this Report.

The JORC (2012) Resource Estimates and associated report attached to this announcement was prepared Robin Rankin. Robin Rankin is a Competent Person who is a Member (#110551) of the Australasian Institute of Mining and Metallurgy (MAusIMM) and accredited since 2000 as a Chartered Professional (CP) by the AusIMM in the Geology discipline. Robin Rankin provided this information to his Client 3D Resources Limited as paid consulting work in his capacity as Principal Consulting Geologist and operator of independent geological consultancy GeoRes. He and GeoRes are professionally and financially independent in the general sense and specifically of their Client and of the Client's project. This consulting was provided on a paid basis, governed by a (in this case an on-going engagement) scope of work and a fee and expenses schedule, and the results or conclusions reported were not contingent on payments. Robin Rankin has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person (CP) as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Robin Rankin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Attn: Mr Peter Mitchell

3D Resources Limited 4/91 William Street Melbourne VIC Australia **Geo**Res PO Box 2332 Bowral NSW 2576 Australia

21st September 2021

Dear Peter

Adelong Gold Project – Challenger JORC Gold Resources – September 2021

This V2 is a re-issue of my Resource report of 27th August 2021. Principal difference is the addition of Sections 1 and 2 of the JORC Table 1. As much of the older data used in the estimation (all of that prior to ~2010) had not been tabulated before the Consultant collates all of that past data here as it applies to these Resources. The report also revises the Resource figures down slightly by removing the old mining voids and accounting for the filled stopes with a lower density. It adds detail on the treatment of past mining and amends the Introductions.

The attached Report summarises a JORC Resource re-estimate and reporting of gold in 3D Resources Ltd's (3D or the Company) Challenger deposit at the Adelong Gold Project in NSW, Australia. This re-estimate used existing data. The Report is brief and in a summary form due to the understood imperative to supply sufficient documentation to back other downstream analysis and reporting by the Company. As such it does not contain some of GeoRes's standard long-form reporting features (such as a full set of plans and sections) and GeoRes's Consultant Statements Appendix which defines such issues as independence, confidentiality, and validity.

The Report consists of a Project precis, a JORC Table 1 (Sections 1 to 3), CP statement, detailed Resources by vein (Appendix 2), a listing of the drill holes used (Appendix 3), and a listing of interpreted vein intercepts (envelope veins in Appendices 4 and high grade veins in Appendix 5).

This documentation is specifically directed at the 'estimation' process and results. Other peripheral supporting information regarding the Project (such as location, tenure, geology etc) which would normally accompany an announcement have been reported in the past and should be supplied by the Company in any public release.

Yours sincerely

R.A. Rankin.

Robin A Rankin MSc DIC MAusIMM (CPGeo)¹

Principal Consulting Geologist - GeoRes

¹ Accredited by The Australasian Institute of Mining & Metallurgy (The AusIMM) since 2000 as a Chartered Professional (CP) in the Geology discipline.



Adelong Gold Project

Challenger JORC (2012 Edition) Gold Resources

21st September 2021

V2

Report for 3D Resources Limited

> By Robin Rankin MAusIMM CPGeo

> > GeoRes Project GR2202

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VERSIONS

- Version 1 27th August 2021.
- Version 2 21st September 2021
 - Adds a Summary.
 - Amends the Introduction.
 - Adds Sections 1 and 2 of JORC Table 1.
 - Adds notes on old mining and the modelling of available data.
 - Marginally reduces the reported Resources by excluding old mining voids and accounting for the filled stopes with a lower density.
 - Adds several Figures.



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Adelong Gold Project Challenger Deposit JORC (2012 Edition) Gold Resource Re-estimate

SUMMARY DOCUMENTATION - 21ST SEPTEMBER 2021

Summary: This document reports Global in-situ gold Mineral Resources in the Challenger deposit at 3D Resource Ltd.'s (3D) Adelong Project in southern NSW. The Project comprises the historic Adelong Goldfield mined underground and alluvially at the beginning of the last century. Resources were re-estimated from existing data. This new work was based on a geological re-interpretation of the dominant semi-vertical sub-parallel vein systems (or mineralised envelopes) followed by discrimination of multiple narrow high grade veins within the envelopes. Resources (given below) were reported used a 1.0 g/t lower gold cut-off. Challenger was historically patchily and partially mined by underground methods. In-situ (un-mined) material was reported here with a fixed default density of 2.7 t/m³. The Resources contain a small volume (~4% of the reported Resource) of old filled stopes reported at a fixed density of 1.5 t/m³. Resources were depleted of a similar small volume of old stope voids. It is likely that the volume of old underground workings is under-represented. Rounding may introduce minor summation errors. Resource class percentages are by gold ounces.

Resource		Cut-off	SG	Tonnes	Au	Au
class		Au (g/t)	(t/m³)	(t)	(g/t)	(oz)
Measured	60%	1.00	2.70	357,000	4.17	47,900
Indicated	23%	1.00	2.70	163,000	3.50	18,300
Inferred	18%	1.00	2.70	144,000	3.07	14,100
Measured + Indicated +	nferred	1.00	2.70	663,000	3.77	80,300

Comparison of these Resources with those previously reported illustrate a considerable increase in accuracy of discrimination and containment of high grade portions of the lodes. The decrease in tonnage (35%) was offset by a similar increase in grade (39%) leaving a slight decrease in contained ounces (10%).

Engagement & objectives: GeoRes (through Consultant Robin Rankin) was engaged by 3D's Peter Mitchell on 4th August 2021 to complete Mineral Resource estimation and JORC² reporting (the Estimate and the Consultant's Project) of gold in the Challenger deposit (white label and oval in Figure 1, 500 m grid lines) at the Adelong Gold Project (the Client's Project) from existing drill hole data. JORC Resources had previously been reported for Challenger, most recently mentioned by the Consultant in August 2016³ for Macquarie Gold Ltd. (MGL). GeoRes has worked on Adelong since ~1998 and consequently possesses considerable Project knowledge.

Introduction: The Adelong Gold Project is centred on the Adelong Goldfield which saw historical underground and alluvial mining around the turn of the 20th century. The Goldfield saw total underground gold production of ~380,000 oz of which one of the major lines of lode, the 1.4 km long Old Hill Line (including Challenger at its northern end), accounted for ~130,000 oz. Challenger and nearby deposits in Figure 1 represent a portion of the deposits mined underground and scattered remnant dumps and shaft platforms are visible in the Figure. In recent times the Project has been explored periodically since the 1980s.

Background: This reports a re-estimate of previously reported Mineral Resources, used existing raw drill hole data, and was based on interpretation and preliminary estimation work commenced in 2018 for a previous owner. JORC gold Resources had previously been reported by the Consultant for a series of previous owners – and that work iterated on a 'Phase 1' single semi-vertical vein interpretation dating back from 2016 to 1999. The subsequent work initiated a re-assessment and refinement of the geological vein models and a re-estimation of gold grades – a 'Phase 2' multi-vein interpretation. It proved underground mining viability. Interpretation added a number of minor sub-parallel veins and discriminated multiple narrow semi-vertical sub-parallel high grade veins within the dominant wider semi-vertical vein-like mineralised envelopes. This Phase 2 block grade estimation also employed 'un-folding' for the first time, a process to trend grade continuity along the plane of the veins. A similar JORC report to this was prepared in August 2020 of maiden gold Resources at the three other nearby deposits labelled in black in Figure 1.

² The JORC Code (2012 Edition), abbreviated as JORC or the Code. Prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy (AusIMM), Australian Institute of Geoscientists (AIG) and Minerals Council of Australia (MCA).

³ Rankin, R., 3rd August 2016. Geologist's Report on Macquarie Gold Limited's tenements at Adelong, NSW, Australia. Report for MGL included within their IPO Prospectus of August/September 2016 lodged with ASIC.



Consultant/CP: Robin Rankin has +30 years' experience as a geologist, the majority of those years also as a JORC Mineral Resource estimator and reporter. He is a Competent Person (CP) according to the JORC Code's requirements, being a Member of the AusIMM, having +5 years relevant experience in the styles of mineralisation, and also being a Chartered Professional in geology as accredited by the AusIMM. As such he is the CP for this Resource re-estimate. The Consultant's CP Statement and release consent is included, as is a Code Table 1.

Consulting: All Resource estimation work (the Consulting) behind this Statement (the geological interpretation, modelling, grade estimation, reporting, and JORC Mineral Resource classification) was performed by the Consultant. This was a 're-estimate' of Challenger and as such all data was either already with the Consultant or was supplied by or on behalf of the Client and was taken at face value. Although the Consultant validated the data to his satisfaction he nevertheless provides this estimate on the basis that his Client takes responsibility for the data integrity.

Site visit: The Consultant did not visited the Project specifically for this re-estimate. However he has consulted to all recent Project owners, has visited it many times since 1998, and has gone underground in the Adit at Challenger several times including in the months immediately prior to the Company acquiring the Project.

Location, tenure & history: Details should be sources from 3D. However in summary the Adelong Gold Project is located immediately north of the small town of Adelong in southern NSW. Historically the area hosted the Adelong Goldfield which produced nearly 1M oz of gold at the beginning of the 19th century from underground and alluvial workings. The Goldfield saw total underground gold production of ~380,000 oz of which the 1.4 km long Old Hill Line (including Challenger at its northern end) accounted for ~130,000 oz. Pertinent mineral leases held by 3D are a central Mining Lease (ML 1435) of ~6 km² surrounded by a larger Exploration License (EL 5278) of ~68 km². Also within the EL and just outside the ML exist a number of small Mineral Claim

Figure 1 Adelong deposits



Leases (MCLs). The ML is shown by the red boundary in Figure 1, overlayed on solid shaded topography. Coordinate grid lines are at 500 m spacing, are in AMG66, and north is to the top. The Challenger deposit surface expression is marked by the small scale disturbances over a ~750 m long strike length in the white oval.

Geology: The Consultant's Geologist's Report to MGL (referenced above) should be consulted for a full geological summary of the Project area and its gold deposits.

Gold deposits & drilling: The Project area covers the heart of the old goldfield and contains numerous deposits which were mined underground. Exploration over the last 25 years focused on the Challenger deposit (labelled in white in Figure 1 and at the northern part of the historic 1.4 km long Old Hill Line) and it was well drilled as shown by the many black E/W traces in the orange oval in Figure 2. However many other nearby deposits were also drilled in more limited amounts, and the drilling at the three which were the subject of the Consultant's 2020 Resource estimation, Currajong, Caledonian and Donkey Hill, is shown within the green ovals in Figure 2.

Gold mineralisation: Gold mineralisation is contained in narrow sub-vertical sub-parallel quartz veins hosted in granodiorite. Surface outcrop mapping shows that the veins cluster in groups with a ~350° to 355° orientation. Caledonian and Donkey Hill appear to be along strike north of the Challenger deposit. Currajong is on a parallel system ~600 m to the west and south of it the line probably runs through the Victoria deposit (which is marked by the drilling south west of Challenger in Figure 2. Recent high definition geophysical ground mag surveys by MGL highlighted these mineralisation directions clearly and aided the geological vein interpretation done here.

Data: Drill hole data from all explorers over the last 25 years was collated by the Consultant as part of past Resource estimation. Data consists of reports; topographical data; mapping data; geophysical maps; and drill hole data. The bulk of the drilling was undertaken in the late 90s and early 2000s (by Carpentaria Exploration Corporation (CEC) and Adelong Consolidated / Capital (AC)). Subsequent drilling was mostly of an in-fill nature (by Golden Cross Resources (GCR) and Macquarie Gold Ltd (MGL)). Details of the subsequent limited drilling by the Company post-dates this estimation work. Drill hole and topography data is in AMG66 coordinates.



Drill hole data: Figure 2 shows thick black traces of all drill holes at the Project (excluding Company holes). Coordinate lines are at 500 m spacing. Contour lines are at 5 m intervals. Drill holes were overwhelmingly steeply inclined and oriented ~E/W across the strike of the veins. At Challenger topography dictated that the great majority of holes were drilled eastwards. Drill hole sample data was predominantly of gold at various interval lengths. Challenger drilling is tightly clustered (orange oval) over the southern ~500 m part of the deposit (known now as 'Challenger Extended') is less tightly and more shallowly drilled. Drilling of the line to the south is very sparse. Holes were predominantly drilled by Reverse Circulation (RC) and Reverse Air Blast (RAB), a lesser number were drilled by diamond drilling (DDH).

Challenger: At Challenger (comprising Main and Extended) ~218 holes exist for a total of ~19,531 m (average length ~90 m). Of those holes ~10 were drilled slightly to the north of Challenger Extended. A listing of drill holes at Challenger (with collar surveys) is given in Appendix 3 – Challenger drill hole listing & collar surveys.

Geological vein interpretation: The Consultant firmly believes gold mineralisation is generally speaking 'narrow sub-vertical sub-parallel quartz vein hosted'. Drill hole assays are either completely barren (noted as blanks, zero or below detection values (typically <0.01 g/t)) or very sharply slightly to highly mineralised (typically >0.2 g/t) with gold over short intervals. Mineralised intervals represent correlateable sharply bounded vein intercepts.

Figure 2 Adelong drill holes



Interpretation involved 1) identifying all mineralised vein intercepts and

then 2) identifying or correlating each intercept as belonging to a particular named vein. Identification was iterative and performed from cross-section to cross-section on the belief that the strike was essentially N/S.

From ~1999 to 2015 the early 'Phase 1' computerised geological interpretation and Resource estimation of Challenger was as a single semi-vertical vein along the full deposit strike length. The vein was named C1 (and identified as data population domain 1). Its overall strike was assumed as virtually exactly N/S. However this vein kinked slightly to the east (and changed strike slightly to slightly west of north) at a point roughly between Challenger Main and Challenger Extended. Thus in 2016 the interpretation was refined to terminate the Challenger vein C1 at that point and to rename the vein to the north to CHX2 (and domain 2). The CHX2 vein was effectively sub-parallel to C1 and ~10-15 m to the east. It was then also interpreted as overlapping southwards with C1 as it could be found in the foot-wall in the northern parts of C1. This re-interpretation coincided with the Consultant's conviction that the vein's true strike was slightly west of north at 350° to 355° as could be deduced from MGL's new high resolution geophysical data produced at the time. This strike also better lined up Challenger with the Caledonian deposit to the north.

A 'Phase 2' re-interpretation in mid-2018 (*the Resources of which are reported here*) considerably refined the vein definition by segregating multiple narrow semi-vertical markedly high grade veins within the wider semi-vertical old C1 vein-like more poorly mineralised 'envelope' previously interpreted. Additionally other minor veins were interpreted within the foot-wall and hanging-wall of C1. This process was principally aimed at investigating the practicality of underground mining. Previous open-cut mine planning had assumed a lower gold cut-off at ~1.0 g/t which was found to produce an economic pit when studied with pit optimisation software. Underground mine planning would require a higher gold cut-off at ~2.0 g/t. The Phase 2 re-interpretation researched the possibility of sufficient contiguous high grade lodes (with sufficient dimensions) being found to support underground mining.

The Phase 2 re-interpretation successfully showed that underground mining was possible. Two of the three new veins interpreted within the old C1 now corresponded closely to the actual old mined lodes (narrow and high grade) visible now within the Challenger Adit.

The Phase 2 re-interpretation was a 2-step process:

- 1. Interpret broad generally and variably mineralised vein envelope veins. These intercepts were interpreted on gold grade using a lower ~0.2 g/t cut-off.
- 2. Interpret narrow high grade veins within the envelopes. These intercepts were interpreted on gold grade using a lower ~2.0 g/t cut-off.



All envelope vein intercepts are listed in Appendix 4 – Challenger drill hole 'ENVELOPE' vein intercepts. All high grade vein intercepts are listed in Appendix 5 – Challenger drill hole 'HIGH GRADE' vein intercepts.

Vein gold assays: An important addition to the Phase 2 vein re-interpretation effort was a re-collation of assays from all previous Project owners. This revealed that many re-assays of high grade samples had been previously ignored in the grade estimation. A feature long appreciated of Adelong sample gold assaying (along with many other gold deposits) was the accuracy of high grade values in the initial XRF/XRD/AAS assaying. Different project owners had variously re-assayed such samples using cyanide leaching and fire assay methods. Re-assays generally returned more repeatable values which were thought more accurate – as well as higher values for the truly high grade samples. Incorporating the re-assay results helped the vein interpretation process as well as improving the ultimate block grade estimates.

Vein sequence: The sequence of envelope veins, and the high grade veins within them, is listed going west to east in Table 1. Each vein was assigned a unique population domain number (for segregating during analysis and grade estimation). The four central envelope veins (CH0 to CH3, shaded red) were the principal veins, the outer ones (CHM1 and CH4) were only rarely encountered. The central envelope vein CH1 was approximately equivalent to the old vein C1. Only the high grade veins shaded in red contained sufficient samples for grade estimation.

Table 1 Challenger vein sequence

Interpretation	WEST										EAST
Envelope veins:	CHM1	CH0		CH1	(~C1)		CH2		CH3		CH4
Domain:	6	5		1			2		3		4
High grade veins:		CHOW	CHOE	CH1W	CH1M	CH1E	CH2W	CH2E	CH3W	CH3E	CH4E
Domain:		16	17	7	8	9	10	11	12	13	15

Veins interpreted at Challenger remain open at depth and to a more limited extent along strike (because the drilling distinctly drops off in coverage outside the tight Challenger Main and Extended areas).

Vein surface modelling: Given the geological vein interpretation of gold grade mineralisation existing within fairly linear sharply bounded vein systems the veins were modelled from the drill hole intercept ends as computed DTM gridded surfaces. As they were semi-vertical they were computed relative to a vertical N/S plane located to the west. For each a roof (east side) and a floor (west side) was computed. Grid point interpolation in 3D employed a 'growth' algorithm to best suit realistic geological undulations. A 5*5 m mesh was chosen to adequately represent the typical drill hole spacing (typically 20-50 m). Lateral extrapolation was conservatively restricted to 25 m outside bounding drill holes.

Envelope models: Figure 3 shows a typical vertical E/W crosssection through envelope surface models (bounding blocks) and drill holes at Challenger Main (50 m grid lines). Pairs of thin blue lines mark the bounding surfaces of the four principal envelope veins CH0, CH1, CH2 and CH3 (west to east), with CH1 clearly the thickest.

Envelope vein dimensions: The same four principal envelope veins are shown on a level plan in Figure 4 for the full deposit strike length (CH0 on the left in purple, CH1 in brown, CH2 in green, and CH3 in blue on the right, 50 m grid lines).

Figure 3 Envelope veins in section



At Challenger Main (southern end) the principal and widest vein CH1 (brown) averaged \sim 15-20 m (true horizontal width) over a \sim 350 m strike length. At Challenger Extended (northern end) the principal and widest vein CH3 (blue) averaged \sim 10-15 m over a \sim 200 m strike length. The total combined Challenger strike length was \sim 650 m N/S.

Strike direction of the veins was \sim 350-355° over a total strike length of 700+ m (not all veins covered the full strike length). Average dip of the veins was \sim 80°W (seen clearly in Figure 3).





Maximum vertical depth of the veins was 250+m with Main averaging $\sim 200 m$ and Extended averaging $\sim 100 m$.

High grade models: Figure 5 shows the high grade veins within the envelopes on the same vertical E/W cross-section as above. Only the six high grade veins with sufficient data for grade estimation are shown (the ones marked in red in Table 1).

High grade vein dimensions: Widths of the six principal high grade veins were in the order of several metres.



Un-folding block grade continuity control: Grade estimation continuity along (in the plane of) the veins was implemented (for the first time at Challenger) though use of a 3D 'un-folding' block model built within the vein surfaces. This method dynamically (changing at every block to be parallel to the vein orientation at that spot) trends the data search parallel to the vein by subblocking finely across a vein and then trending the search along the fine layers in the plane of the vein. Bock sizes were $4*10 \text{ m} (Z^*Y)$ in the long-section (~vertically N/S) in the plane of the veins and dynamically of the order of <1 m (X) across-strike (E/W).

Gold block grade estimation: Gold grades were estimated into orthogonal blocks using an 'un-folding' grade continuity control block model. Model block sizes were ultimately set at 1*5*2 m with no sub-blocking (during a 1/2021 re-estimation to remove sub-blocking implemented in the original 7/2018 model). A fine block size was used to honour the narrow sub-vertical vein shapes. Grade estimation was performed in a single pass using a simple Inverse Distance squared (ID2) algorithm. Across strike (E/W) a distance weighting of 3 was applied to impose weak cross-strike continuity (and increase along strike continuity). This directional continuity control supplemented the inherently greater vein continuity (along the veins rather than across them) implemented by concurrently using the 'un-folding' control. A maximum scan distance of 50 m was used, with up to 3 samples per sector allowed (potential maximum 18). Drill hole samples were composited down-hole to exactly 1.0 m with residuals >0.5 m. No data cutting or clipping was used. Low values had effectively been clipped out by the vein interpretation; and high grades were deliberately left in to simulate expected high grade pods (even though numerically they would be numerically highly diminished). A second round high grade specific interpolation was not considered necessary.

Figure 7 and Figure 6 illustrate the effect of introducing the 'high grade' vein segregation in the Phase 2 interpretation. In Figure 7 the gold grades are smoothed across the wide vein CH1. In Figure 6 the high grade veins contain most of the grades >1.0 g/t and the intervening remaining envelope grades are mostly <0.5 g/t.



Figure 7 'Envelope' gold grades





Old underground mining and 3D models: *Mining*: Challenger lies on the 1.4 km long Old Hill Line of lode where mining commenced in 1857. Total recorded gold production for the Line was ~130,000 oz at a very high recovered grade of 2.8 oz/t (87 g/t). Actual production was probably even greater than this. These high grades were presumed to partly originate from near surface supergene enrichment. The Old Hill Line includes a series of separate mines along strike, generally working the same lode (vein) although two sub-parallel structures were mined in places. The mines going northwards were Adelong United (140 m deep), Our Own (120 m deep), Prowse and Woodward (335 m deep, although much of the deeper part was only a test shaft), Challenger (205 m deep), North Challenger (140 m deep) and Challenger Extended (70 m deep). The Challenger deposit modelled here (modelled strike length ~650 m long N/S) was equivalent to the northern half of the Old Hill Line.

Modelling: Due to the age of the Goldfield mapping of old underground workings is generally poor and incomplete. However during the Adelong Capital period (1996-2000) the Consultant created solid 3D wire-frame models where possible at Challenger (records were too scarce for the other deposits). That included modelling a number of hanging-wall and foot-wall stopes. Stope outlines on levels were originally partly sourced from CEC's exploration in the early 1980s. Both the hanging-wall and foot-wall stopes were also differentiated as either being voids or filled with mineralised waste - on the basis of the intersection exploration drill hole logging.





Subsequently the stope models were updated slightly and the Challenger Adit (decline) and various development and level drives added. Figure 8 shows the underground workings below surface topography, looking horizontally towards the ENE (grid lines are at 50 m spacing). The green and cyan solids are the filled stopes (towards the southern end of the Resources), and the blue and purple solids are the stope voids. Small thin grey solids represents the levels and the Adit.

Resources previously reported at Challenger were depleted of the stope voids. They were a relatively minor volume of 15,100 m³, representing ~5% of the total Resource volume (295,000 m³) at a >1.0 g/t cut-off. Filled stopes included in the Resources at a >1.0 g/t cut-off were also a relatively minor volume of 14,000 m³ and were assigned a lower in-situ density (1.5 t/m³ rather than 2.7 t/m³).

The volume of the updated stope voids depleted (excluded) from the new Resources stands at 16,200 m³, representing 6.5% of the total volume of the Resources (250,200 m³) reported at a >1.0 g/t cut-off. Voids comprise hanging-wall voids of 8,400 m³ and foot-wall voids of 7,800 m³. Stope voids represent 1.3% of the total volume of



modelled blocks (i.e. at no cut-off). The volume of the filled stopes included (at the lower density of 1.5 t/m³) in the new Resources at a >1.0 g/t cut-off stands at 10,200 m³, representing 4.1% of the Resource volume. Filled stopes comprise hanging-wall fill at 7,400 m³ and foot-wall fill at 2,800m³. Filled stopes (volume 18,100 m³) represent 1.5% of the total model blocks. It is likely that the old stopes (both voids or filled) are under-represented.

JORC classification method: During the individual gold block grade estimation individual average sample distances (D) and number of sample points (P) were stored for subsequent use in the JORC Resource classification. Those distance and points value ranges were used solely as the criteria to classify each block as either Measured, Indicated or Inferred. Before acceptance the classifications produced were validated by viewing the blocks in 3D and ensuring that each class formed a contiguous zone without being patchy or otherwise unrealistic. The primary criterium was distance (as the numbers of points were generally near maximum), and distance ranges were based on results of past geostatistical analysis of the gold samples. Classification criteria applied sequentially were:

٠	Measured:	Class 1	D ≤ 27.5 m	P≥
٠	Indicated:	Class 2	D ≤ 35.0 m	P≥
•	Indicated:	Class 2	D ≤ 70.0 m	P≥

Challenger's JORC (2012 Edition) Resource

classification: The Consultant had previously classified Challenger's Resources according to the JORC Code into varying proportions (by ounces of gold) of Measured (51%), Indicated (26%) and Inferred (23%) classes (in declining levels of confidence).

Here the CP maintains continuance of those classifications, albeit with lower tonnages and in different proportions to before. Class proportions by (rounded) ounce here were Measured (60%), Indicated (23%) and Inferred (17%). The Measured Resources constitute a contiguous central core to the Challenger Main deposit, shown by the red blocks in the oblique 3D view looking down to the WNS in Figure 9. The red Measured blocks are surrounded by a selvage of Indicated blocks (yellow), with Inferred blocks (blue) around the edges and particularly to depth below. Contours in Figure 9 illustrate an open pit designed on Challenger Main.

Measured Resources also constitute a contiguous core to the Challenger Extended deposit, shown on the right of Challenger Main in the long section view in Figure 10, also looking west. The yellow line marks the approximate section outline of an optimum pit shell.

Both Figures illustrate the coincidence and link between the location of the Measured class Resources with zones considered suitable for open-cut mining as determined by down-stream mining studies. $P \ge 6$ $P \ge 3$ $P \ge 1$ (in reality $D \le 50$ m)

Figure 9 Resource classes at Challenger Main





Measured class support statements: In supporting the his statements on JORC Resource classifications the CP includes quotes from the Code's definitions (given in italics).

Measured – is the JORC classification 'for that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered.

In overall terms the Consultant (CP) believes Adelong's exploration data:



- is adequate and appropriate in scale (sufficient drill holes at close enough spacing and sampling),
- uses multiple complimentary methodologies, and
- has shown good repeatability (multiple drilling programs in similar areas producing similar results).

The CP also notes (particularly in relation to the Measured classification) that the deposit has undergone considerable mine planning (and limited underground mining) in the recent and near past all of which assumed the robust nature of the Resources being sufficient to support mining without further exploration.

These features, in combination with physical observation of veins on surface and particularly in the underground adit (which is located in the centre of the Challenger Main deposit), are sufficient 'to leave no reasonable doubt, in the opinion of the CP ..., that the tonnage and grade of the mineralisation can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly affect potential economic viability. Furthermore the CP asserts that he is confident in his geological understandings of the deposit as 'this category requires a high level of confidence in, and understanding of, the geological properties and controls of the mineral deposit. And the CP believes that 'Confidence in the estimate is sufficient to allow application of Modifying Factors within a technical and economic study'.

Indicated class support statements:

Indicated – is the JORC classification 'for that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit'. Furthermore 'Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered'.

The CP's Measured class statements above fully cover the Indicated class's requirements on adequacy to support '*Modifying Factors*' for mine planning and economic evaluation. Furthermore he asserts that the data and observations allow '*confident interpretation of the geological framework and to assume continuity of mineralisation*' and are more than '*sufficient to assume geological and grade continuity between observation points*' (principally drill holes and samples).

Indicated class support statements:

Inferred – is the JORC classification 'for that part of a Mineral Resource for which quantity and grade may be estimated from limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes'. Furthermore 'It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration'.

The CP believes that the Inferred classified parts of the deposit outside the Indicated zones are extensions of the same structures and mineralisation but are currently simply less explored (drill holes are further apart and 'sufficient to imply but not verify geological and grade continuity'). He believes that 'the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration'. As the Resources reported here are not predominantly in the Inferred class the Code requirement for the supply of greater detail to inform risk assessment is not necessary. And the CP states that nowhere does the estimation of Inferred Resources rely on 'extrapolation beyond the nominal sample spacing'.

Challenger JORC Mineral Resources: Global in-situ JORC (2012 Edition) Mineral Resources of gold at the Challenger deposit at the Adelong Gold Project are summarised by Resource class in Table 2 as at 15 September 2021. They were reported above a lower gold cut-off of 1.0 g/t. In-situ (un-mined) material was reported with a fixed default density of 2.7 t/m³. The Resources contain a small volume (18,200 m³) of filled stopes which were reported at a fixed density of 1.5 t/m³. The 2.7 t/m³ default density value has been employed at the Project for +20 years and accepted by multiple consultants. The Resources are fully depleted of the underground voids that could be modelled (it is likely they are under-represented). Tonnage and ounce rounding may introduce minor summation errors. The Resource class percentage proportions are by gold ounces.



Resource class		Cut-off <mark>Au</mark> (g/t)	SG (t/m³)	Tonnes (t)	Au (g/t)	Au (oz)
Measured	60%	1.00	2.70	357,000	4.17	47,900
Indicated	23%	1.00	2.70	163,000	3.50	18,300
Inferred	18%	1.00	2.70	144,000	3.07	14,100
Measured + Indicated + Inferred		1.00	2.70	663,000	3.77	80,300

Table 2 Challenger JORC Mineral Resources	- summary by Resource class
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Detailed reporting by vein is given in Appendix 2 – Challenger JORC Mineral Resources – by vein.

Resource reconciliation: Table 3 sets out a comparison between the most recent previous 2016 Resource estimates reported for MGL and the current 2021 Resource estimates reported here.

		•							
Resource		Cut-off	SG	Tonnes	Tonnes	Au	Au	Au	Au
class		Au (g/t)	(t/m³)	(t)	(Δ %)	(g/t)	(Δ %)	(oz)	(Δ %)
MGL 7/2016									
Measured	51%	1.00	2.70	459,000		3.07		45,000	
Indicated	26%	1.00	2.70	268,000		2.67		23,000	
Inferred	23%	1.00	2.70	290,000		2.16		20,000	
Meas + Ind+ Inf		1.00	2.70	1,017,000		2.71		89,000	
3D 9/2021									
Measured	60%	1.00	2.70	357,000		4.17		47,900	
Indicated	23%	1.00	2.70	163,000		3.50		18,300	
Inferred	18%	1.00	2.70	144,000		3.07		14,100	
Meas + Ind+ Inf		1.00	2.70	663,000		3.77		80,300	
DIFFERENCE									
Measured	6%	1.00	2.70	-102,000	-22%	1.10	36%	2,900	6%
Indicated	-20%	1.00	2.70	-105,000	-39%	0.83	31%	-4,700	-20%
Inferred	-30%	1.00	2.70	-146,000	-50%	0.91	42%	-5,900	-30%
Meas + Ind+ Inf	-10%	1.00	2.70	-354,000	-35%	1.06	39%	-8,700	-10%

Table 3 Challenger -	Resource re	econciliation	2016/2021
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Given the considerably different modelling methodologies used (2016 used the Phase 1 method, 2021 used the high grade vein discriminating Phase 2 method) gold ounce differences between the estimates are considered remarkable close and adequate. The latest 2021 Resource ounces were less by 10%. That could have been expected as both used the same input data. The slight reduction is ascribed to the overall effect of the latest Phase 2 model having far more veins and thus fewer samples per vein.

However the new Phase 2 high grade vein modelling had a dramatic effect on the grades and tonnages – with the 2021 grades 39% higher and the tonnes 35% lower. Whilst large these differences could have been expected and the newer grades are considered more accurate than before.

Competent Person Statement:

Source data: All source data in the Consultant's possession was originally taken at face value by the Consultant. The Consultant performed validation of the drill hole data to the extent thought possible, and believes that validation to at least be to the level required for JORC Resource estimation and reporting. Although the Consultant validated the data to his satisfaction he nevertheless provides this Resource estimate and the following Competent Person Statement for it on the basis that i) the Client takes responsibility to a Competent Persons level for the integrity of the source data and ii) that it partly uses historical descriptive data which cannot be physically validated to the same degree as recent data.

Statement: The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by **Robin Rankin**, a Competent Person who is a Member (#110551) of the Australasian Institute of Mining and Metallurgy (MAusIMM) and accredited since 2000 as a Chartered Professional (CP) by the AusIMM in the Geology discipline. Robin Rankin provided this information to his Client **3D Resources Limited** as paid consulting work in his capacity as Principal Consulting Geologist and operator of independent geological consultancy GeoRes. He and GeoRes are professionally and financially independent in the general sense and specifically of their Client and of the Client's project. This consulting was provided on a paid basis, governed by a (in this case an on-going engagement) scope of work and a fee and expenses schedule, and the results or conclusions reported were not contingent on payments. Robin Rankin has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person (CP) as defined in the 2012 Edition of the 'Australasian



Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Robin Rankin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Validity: This Statement will be become invalid, and all consents withdrawn, if consulting fees are outstanding for an unreasonable period (taken here to be more than a month after the date on the introductory letter). This general consent may be subordinated by specific consent details agreed with the Client.

APPENDIX 1-JORC CODE, 2012 EDITION-TABLE 1

Foreword on Table 1, Sections 1 to 3:

- Sections 1 (sampling techniques and data) and 2 (exploration results):
 - Sections 1 and 2 of Table 1 here are given relating to data all used for the new Challenger deposit Mineral Resources reported here for 3D Resources Ltd (3D).
 - The Sections have also been used to update the August 2020 Mineral Resources report for 3D on nearby deposits (Currajong, Caledonian and Donkey Hill) which previously omitted Sections 1 and 2 of Table
 - The exploration data covers the period 1979 to 2016 and is thus predominantly historical. That collected prior to ~2010 has not previously been included in a JORC Table 1.
 - The Consultant is not aware of the details of any exploration on the deposits since late 2016 and statements on that, as they could relate to these Resource estimates, should be sought from 3D.
- Section 3 (estimation and reporting of Mineral Resources):
 - o Details reported pertain to the Consultant's re-estimation of the Resources in the Challenger deposit performed in 2018.
 - That re-estimation was performed in-house for a group evaluating the Adelong Gold Project and before the Project was acquired by 3D. The un-published reestimation partially implemented results of a re-interpretation of existing data from a new perspective.
 - Recent 3D work has progressed the Project and included the completion and reporting of the re-estimation (including this new Table 1).
 - Aspects of Section 3 here have also been abstracted from the Section 3 in the 2016 MGL IPO report Appendix 2 mentioned below.

History of past JORC reporting:

- This history aims to explain and clarify the past reporting and give particular context to the provision of Sections 1 and 2 here.
- Mineral Resources at Challenger have been reported according to JORC several times since 2000 but effectively prior to the existence of or a requirement for a JORC Table 1.
- Sections 1 and 2 here tabulate the Consultant's knowledge as best as can be done on data which is predominantly historical. By that the Consultant means that the bulk of data (sample data from drill holes) was either collected before his first involvement in 1995 or was collected before a 'Table 1' became a requisite of JORC reporting (and hence was not tabulated in current JORC formats).
- The latter situation applied (regarding the Challenger deposit) to the Consultant's JORC reporting of Mineral Resources in June 2000 (for Agelong Capital (AC)) and again in July 2005 and March 2006 (for Golden Cross Resources (GCR)).
- Challenger Resources were re-estimated in 2016 for Macquarie Gold Limited (MGL) and reported by the Consultant in July 2016 under JORC 2012. The JORC Table 1 (stand-alone Appendix 2) was attached to the Resource report and issued as an 'Expert Geologist's Report' (EGR) for MGL included fully within their IPO document lodged with the Australian Securities and Investments Commission (ASIC) in August 2016. The 2016 Resource re-estimation was to incorporate 'new' drilling data collected between 2005 and 2010 by GCR and Tasman Resources (TR) as well as drilling data and geophysical collected by MGL from 2011 to 2013.
- The August 2016 report's Sections 1 and 2 of Table 1 focused on MGL's new data and not previous data, arguing that the previous data was outside their remit.
- Consequently Sections 1 and 2 here aim to consolidate all exploration data pertinent to the Resources reported here. That data covers the period 1979 to 2016. The data collected prior to ~2010 had not previously been described in a JORC Table 1.

JORC Code, 2012 Edition – Table 1

GeoRes

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information. 	 Partly historical: Sampling prior to the Consultant's first involvement in the Project in ~1995 was historical and therefore not observed. Documentation for the historical sampling is poor and the Consultant initially (~1995) relied on the Project geologist for opinions and details of historical sampling. All indications of the historical sampling were that it was "industry standard" for the time, that it was administered by geological professionals, and that it was mostly collected by well-known, respected and experienced explorers. Subsequent to ~1995 the Consultant was generally in close consultation with Project geologists operating the field exploration programs. Except in one small instance for MGL the Consultant was NOT present during sampling. Sampling: Style of mineralisation being sampled: Exploration was aimed at finding gold mineralisation in narrow sub-vertical quartz veins striking ~N/S set in granodiorite country rock. This exploration was following known mineralisation mined underground earlier in the century (underground mining in the Gold field commenced in the late 1800s and ended in ~1910). Objective & concept: The objective of all modern exploration since approximately the mid-1970's has been to delineate the narrow gold veins (frequently with little actual surface outcrop) principally through drilling and sampling closely spaced 'fence lines' of holes across the vein strike indicated by the pits and shafts left by the old underground mining. Source & method of sampling: Virtually all samples (certainly all of those used for Resource estimation) were from drill holes. Sampling varied for the types of drilling, over time and between different drilling contractors. A very small proportion of samples were from surface costeans (trenches), outcrop rock chips, and u

GeoRes		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
		 most sampling for assaying was only done for intervals considered to be mineralised or potentially mineralised (effectively vein samples). Diamond drill holes: Drill core was placed in trays by the drillers. Based on visual geological logging most sampling was only done for intervals considered to be mineralised or potentially mineralised (effectively vein samples). For those intervals the core was split with one part stored and the other part processed for assaying (either on-site or by the laboratory). Underground: Face channel samples were taken underground in the Challenger Adit (understood to by Adelong Capital (AC). Details were not available. Sample assay data exists but was not used in the recent Resource estimation. Costean sampling: No details of this was available and no data is held. Quality: Sample quality varied by drilling method with RAB assumed to be lowest quality and diamond coring the highest. However it is assumed that quality varied over time and between different drilling contractors and field staff. Sampling representivity: As all down-hole sampling was based on short intervals (a sub-set of 6 m drill rod lengths, being 1, 2 or 3 m lengths) and continuous sampling (without breaks) the sampling is considered to be highly representative of the rock considered to be mineralised in cross-section (here E/W). Representivity in long section (here N/S) was reasonably assured by close-spaced sections and holes designed to intersect the veins at multiple depths on section. However the relatively small diameter of all drilling (typically +10 cm) would introduce an element of doubt of true representativity of typically highly variable vein mineralisation over short distances (< 1 m). And the common practic at Adelong of only sampling mas andards. Considered along with the inherent difficulty of sampling narrow vein mineralisation (such as at Adelong) the opinion suggested freating the C2C illing data with cauti

⁴ Pp17. Rankin et al, June 2000. Independent Geological Report. By ECS International for Adelong Capital Ltd.

GeoRes		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
		 would assist in quantifying the reliability of sample or assay results. Under-calling gold grade: Various Consultants have consistently observed that it seems likely that drill hole assays under-call the actual vein gold grades when compared against the historical high mine production grades. Pan Aust's 1989 Challenger Adit bulk sample average grade (5.6 g/t) was significantly higher than drill hole grades in the vicinity of the Adit and they concluded that drill holes may have under-sampled Adelong gold mineralisation by as much as 50%. ECSI's 2000 opinion however noted that the Adit sampling should be treated with caution as it represented a small portion of the deposit and may not be representative. GCR and possibly more so MGL made concerted efforts to determine the most accurate assay methods for Adelong 'ore' grade samples. They both concluded that if a sample indicated virtually any gold mineralisation that it was better assayed with a longer duration acid digestion method. Mineralisation identification: Determination of gold mineralisation in all drilling was visually made during geological hole logging. Principal indicators were typical veins minerals (particularly massive quartz), sulphides and occasionally gold itself. Identification was considered accurate with diamond drill core. Mineralisation was considered far less so with RAB/RC chips, which was catered for by sampling adjacent intervals to some degree. Mineralisation was assumed to be reliably determined by assay results. Assay results precipitated assaying of some intervals previously not considered mineralised. "Industry standard": Sampling of the RAB/RC and diamond drilling programs is considered to have been (noting comments on time-based representivity above) of "industry standard"
Drilling techniques	 Drill type (e.g. core, reverse circulation, hole hammer, rotary air blast, auger, Ba sonic, etc.) and details (e.g. core diame or standard tube, depth of diamond tails sampling bit or other type, whether core oriented and if so, by what method, etc. 	 open- ongka, ter, triple RAB – rotary air blast (down-hole hammer) open hole (single tube) method. RC – reverse circulation method to provide cased (twin tube) sample collection for accurate depth sampling and sample contamination minimization. Typically 6 m rods, ~140 mm diameter holes. Diamond coring (triple tube). Details on core orientation work not available. Blast hole – shallow air blast (top-hole hammer) open hole method. Typically 3.6 m rods, ~102 mm diameter holes. Underground face channel sampling – specific details not available. However the sampling was along continuous channels separated into fixed sample lengths. Separate channels sampled across the ore body in the section of the Adit which

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
Drill comple	. Method of recording and appropriate core and obin	 drove along the hanging wall and footwall lodes. Channels were also sampled along the drives and along parts of the decline. Early databasing of this data treated the sample strings as pseudo drill holes located by the Adit surveys. Drill hole down-hole survey: All RAB/RC and diamond hole tracks were surveyed using down-hole instruments. Casing: All holes were drilled un-cased with the great majority using a short temporary section of casing at surface to prevent hole collapse. Subsequently the temporary casing was generally removed and the hole collar rehabilitated.
<i>Drill sample</i> recovery	 wethod of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	 Sample recovery overall comments: Sample recoveries overall were poorly recorded over time and varied between Project operators and between programs. This opinion largely derives from the limited documentation now available. However overall sample recovery was considered very good over the Project as the granodiorite country rock was very hard, competent and tight giving little opportunity for hole collapse or sample loss. Except for the valley bottom (Caledonian, Fletchers and to some degree Victoria) ground water generally posed no threat to sample recovery. Recovery was hampered where drilling encountered underground voids, whether dry or wet. No recovery data exists in the Consultant's drill hole database as it was never provided. That does not necessarily imply that the data was not originally recorded. Recovery assessment: Diamond core drilling recovery: All diamond holes were drilled before ~2000, were essentially historical to the Consultant, and core treatment details were scant. Core recovery was determined by recording the length of core against the drill roc length. It is understood that core drilling could usually bridge across narrow underground mining voids. RC drilling recovery: RC drilling recovery: RAs with coring it is understood that RC drilling could usually bridge across narrow underground mining voids. RAB drilling recovery: RAB drilling recovery: RAB drip sample recovery was

O GeoRes _	Res	
Criteria	JORC Code explanation	Commentary
		 Recovery maximisation/representivity measures: Close geological supervision during drilling. Reasonably short sample intervals (producing manageable weight samples which were easier to assess). Continuous sampling. Sampling according to geology (i.e. not sampling across rock type breaks). Use of competent drillers. Use of RC drilling – which inherently ensures good sample recovery and limitation of sample contamination. With RC/RAB use of drilling rigs with sufficient compressed air capacity to easily lift drill cuttings. This capacity was apparently somewhat lacking in the limited drilling done by Tasman Goldfields in 2007-9, hence the short holes. Recovery/grade relationship & sample material bias: As no recovery was measured (reasons above) it could not be compared with grade. In any event any relationship would have been very difficult to determine as the number of 'mineralised' intervals was very small compared to the total number of intervals (typical of the narrow vein style of mineralisation). Sample bias due to grain size was completely absent for the core drilling. Bias was minimised during RC drilling by the continuous use of cyclones (to remove the air) and catching all of the sample (i.e. all grain sizes), albeit a split fraction.
Logging	 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 Logging and adequacy: Geological logging was performed on all holes. Not all logs were available and no logging data exists in the Consultant's drill hole database as it was either never provided or simply (mostly) not available digitally. The Consultant has not seen any detailed log reports. Logging was aimed at characterising the geology sufficiently and particularly towards finding or defining the mineralised intercepts – and so was considered adequate for Resource estimation. Some core remains on site in the core shed (the proportion is unknown). Photographing samples and storage of small fractions in chip boxes has only been used in the most recent drilling. Qualitative/quantitative logging: All logging was qualitative in nature (or is unknown for the core). This involved observation and description.
Sub-	 If core whether cut or sawn and whether quarter 	Percentage logged: Logging aimed to represent 100% of drilled intersections. Sub-sampling overall comments:
sampling techniques and sample preparation	 alf or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation 	 The large number of explorers using varied drilling and sampling techniques implies sub-sampling on the Project would have varied over time. However the Consultant believes all used generally "industry-standard" methods and observes that results of different programs do not appear to have produced noticeable differences.

Criteria	JORC Code explanation	Commentary
	 technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Far greater differences would have arisen due to differing sample analytical methods. Core sub-sampling: Core sub-sampling: Core samples were split into regular down-hole interval lengths. Core was then also sawn in half lengthways with one half retained and the other sent for analysis. Subsequent re-sampling saw core sawn into quarters, and so on. Chip sub-sampling: Chip samples were divided into regular down-hole interval lengths during drilling. A portion (fraction) of the full interval sample was obtained directly from a sample splitter on or below the cyclone. The portion was bagged. Typically the split fraction was approximately an 1/8th, designed to give a -2-3 kg sample. With RAB shallow blast hole drilling (the MGL 2011 program) the sample combined the fraction from the coarse cyclone with a fraction from the sample dust cyclone (ensuring fines were collected). Sampling was performed both wet and dry. When wet sampling usually became more difficult. Then full samples typically would be collected in a large bucket or barrow below the cyclone, with the bagged sample collected by hand or spade from the bucket/barrow. This manual collection usually aimed to collect a similar volume to dry samples and grabs would be made at different depths in an effort to maintain representivity. Appropriateness of methods: Consultant believes all sub-sampling methods were "industry-standard" and therefore fully appropriate for sampling on the Project. QC measures to maximise representivity: Described above with recovery maximisation and representivity. Gaw as also monitored through the duplication of samples (see below). Sampling continuou

GeoPes

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 Assay method and appropriateness: Laboratories: All Project operators used commercial assaying laboratories. Details are lacking of which labs were used before ~2010. After 2010 MGL used ALS (NATA certified) in Orange, NSW. Analytical methods prior to ~2010: Details are missing, but are known to be generally the same as described below. Analytical methods since 2010 (MGL): Samples were submitted to ALS and analysed in batches. All samples were run through ALS's standard sample preparation procedures for assaying by AAS. In 2013 the 1,528 samples are weighed upon receipt, dried for 24 hours, and whole samples pulverised to 85% passing 75 microns. 30 g assay charges were then extracted from a 100 g pulp and fire assayed for gold with an AAS analysis (ALS method Au-AA25) and assayed for a suite of 35 other elements by aqua regia digestion and ICP/AES analysis (ALS method ME-ICP41). The gold lower detection limit was 0.002 ppm. Selected mineralized samples (275) were re-submitted for gold analysis of 500 g splits by full cyanide bottle roll digestion (method Au-CN11). ALS QC: The laboratory carried out internal QC, which included the insertion of certified reference standards and duplicates on a sample batch basis. These results were supplied with the assay results. Geophysics: Not necessary and none undertaken. Hand-held XRF tools have not been used on the Project to date. QC - duplicate assays: Prior to -2010: Details are missing but it is known that to check lab assay results the explorers routinely submitted sample duplicates, blanks and standards a
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. 	 Independent verification of significant intersections: Significant (gold mineralised) intervals were very sparse by the location nature, so verification by any means was effectively impractical. Twinned holes:

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GeoRes-	CHALLENGER JOKC RESOURCES – SUMMARY SEPTEMBER 2	
Criteria	JORC Code explanation	Commentary
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 No program specifically twinned any holes. However a handful of holes were effectively twinned by later programs drilling a number of holes very close to existing holes. Most mineralised intercepts correlated well, thus partly confirming their representivity. Primary data documentation, entry, verification and storage: Most drill hole field data (collar positions, down-hole surveying, sample assays, and mineralised intercept interpretations) since -2005 has been computerised into MS spread-sheet form. Most assay data was supplied by the labs in computerised spread-sheet form. Geological logging has not been computerised. Adjustment of assays: No adjustment of assay data has occurred (other than for non-numeric values Detection limits: Assay lower detection limits have become lower over the Project time. Where marked as such with non-numeric text (such as "less then x" or "<x") been="" have="" li="" sample="" set="" to="" values="" zero.<=""> In 2013: The detection limit was 0.002 ppm. </x")> Not sampled: Early assay data did not consistently handle intervals which had not been sampled or for which there was no assay. A proportion of those instances had zero gold values erroneously assigned. Where possible those intervals were identified and set more accurately to null (implying no assay). 2018 duplicate assay analysis and adjustment: The er-estimation of Resources in 2018 included a detailed study of duplicate assay data (intervals were generally mineralised and the objective of the reassaying had been to determine the actual tenor of the mineralisation (a known problem for assaying higl gold values at the Project). The most

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Surveying: Drill hole collars prior to 2010: It is understood that all hole collars were picked up by licensed surveyors. Drill hole collars 2011 to 2013:
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 Drill hole data spacing: Drill holes prior to ~2010: N/S spacing (~ strike direction): The great majority of drill holes were drilled on vertical E/W cross-sections spaced 20 m apart N/S. E/W spacing (across strike direction): Virtually all holes were drilled steeply inclined, the great majority (and all at Challenger) towards the east. Collars tended to be spaced ~20 m apart E/W, but the hilly topography played a part in actual spacing by dictating possible practical drill pads. In places multiple holes were drilled from the same location, each with slightly different inclinations to achieve fairly even spacings at depth. Vertical spacing (down dip direction): Combining the ~20 m E/W hole spacing with the steep inclinations gave approximate vertical spacing of ~20-30 m. Down-hole sampling intervals were typically 1 m. 2011 MGL drill holes (Caledonian): 34 short (20 m) blast holes were drilled over 4 ~E/W cross-section lines spaced ~50 m apart N/S.

Criteria	JORC Code explanation	Commentary
		 Holes were thus inclined to the E (60°), parallel, and 10 m apart. Down-hole sampling interval was 1.8 m (half a blast hole rod). 2013 MGL drill holes (Donkey Hill, Fletchers, Caledonian, Currajong and Victoria North): 12 RC holes (average depth ~125 m) drilled over 11 ~E/W cross-section lines – generally 1 hole per line. Distances between lines was not relevant as the
		 Generally Thole per line. Distances between lines was not relevant as the program was aiming to simply test mapped vein intersections at depth. Holes were all inclined (~50° to 60°) to the E or W and positioned to intersect reefs at moderate depth (50-100 m). Down-bole sampling interval was 1.0 m.
		 Data distribution adequacy wrt grade estimation & classification:
		 Given: Individual mineralised sub-vertical veins at Adelong have been mined, mapped and interpreted over >400 m strike lengths and >250 m vertical depths. Typical horizontal across-strike widths are in the approximate range 2-20 m.
		 Opinion: The Consultant's views are that (for all deposits except Gibraltar): Both the ~N/S along-strike drill hole spacing (~20 m) and the vertical down-dip hole spacing (~20-30m) are clearly sufficient to effectively test and demonstrate geological and grade continuity between holes in the mineralised sub-vertical ~N/S striking vein
		 This drill hole spacing sufficiency for continuity is supported by the long ~35 m N/S and ~25 m vertical data ranges determined by the Consultant in a 2010⁵ geostatistical study.
		 The fine down-hole sampling (1 m) in steeply inclined holes is sufficient to provide representative traverses of individual veins (typically with >2-5 samples per vein). This fine down-hole sampling is well supported by the long 6 m down-hole data range determined in the study mentioned above.
		 Qualifier: Existing drill spacing proves the known deposits fairly well – but does not preclude new deposit discovery. The Consultant would observe that links between deposits in the average N/S strike direction remain poorly drilled (with 100s of metres untested in places), with the same situation occurring in the E/W across-strike direction. At Challenger much of the drilling stopped once the "main vein" was intersected, leaving potential foot-wall veins unexplored.
		Compositing:
		 During grade estimation and statistical analysis raw sample interval assays were composited down-hole to exactly 1.0 m. Residual intervals >0.5 m long were included.
		 This 1.0 m length was the same as the majority of sample intervals and would then composit the lesser number of 2 and 3 m intervals. Compositing was done within interpreted value intervals.

⁵ Rankin, R., December 2010. Adelong – a geostatistical analysis of the Challenger Gold Deposit. Report by GeoRes for Somerset Mining.

GeoPos

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 Samples were not composited by the laboratories. Data orientation adequacy wrt structure: Given (all deposits except Gibraltar): Veins typically have an ~N/S strike, a vertical or very steep westerly dip, and horizontal ~E/W across-strike widths of 2-20 m. These directions and dimensions are clearly visible in the Challenger Adit and elsewhere. At Gibraltar the veins are oriented ~050°. Drill holes from surface were typically drilled steeply inclined E (or to a lesser extent W) and sampled continuously (in vein zones) at short intervals (1 m). Within the Boumoya Adit at Currajong the holes were drilled at a variety of azimuths and dips. Opinion: The Consultant considers that the surface drilling orientation and fine downhole sampling interval lengths achieves unbiased sampling of the sub-vertical vein structures by being across-strike of the veins and as close as practically possible normal to the sub-vertical vein dip. Underground at Currajong some holes could be drilled horizontally and therefore very close to normal to the vein dip. Qualifiers: Although cross-cutting dykes (not N/S) have been noted in past mining virtually no drilling has ever been done that in not ~E/W (with the exception of Gibraltar). Although this is a directional bias the great mass of drilling and mining would appear to make this bias irrelevant.
Sample security	 The measures taken to ensure sample security. 	 Sample security: Drill holes prior to ~2010: The Consultant is unaware of the sample security measures. Drill holes since 2010: All samples were taken, bagged, handled and supervised by the Consultant (2011) or MGL contractors (2013). All samples were despatched directly to ALS by those personnel and MLG employees.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 Audits of past drilling: The Consultant is generally unaware of audits or reviews of Project drill hole sampling techniques and data (except where mentioned in Section 2 below). However several operators re-sampled the old dumps and compared their results with earlier ones. The Consultant has not sighted any reporting on this. As the Project moved through a series of operators it is likely that drill hole samples were audited to some degree, probably by re-assaying. It is known that drill core was re-assayed to an extent.

Section 2 Reporting of Exploration Results

GeoRes

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	 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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	 Mineral tenement status: Qualifier: Whilst the following tenement details represent the Consultant's understandings he nevertheless states that he has not verified them recently and they should be confirmed by the 3D Resources (the Company). Ownership: The Consultant believes that the Company acquired the Adelong tenements as part of its acquisition of the previous owner, Macquarie Gold Ltd (MGL). The Consultant is not aware of the details of the acquisition. MGL's title was confirmed by tenement specialists for the Consultant's 2012 EGR report to MGL. The Consultant is not aware of any subsequent changes to that title. Tenements: Previously MGL owned (through Challenger Mines Pty Ltd (CMPL)): Exploration Licence (EL) 5728 covering the Adelong Goldfield. Mining Lease (ML) 1435 within the EL. A series of small Mineral Claim Leases (MCLs, numbered 279 to 291 and 311 to 313 inclusive) within the EL and surrounding the ML closely. Location: Adelong is situated in the SE of NSW, and the town of Adelong (within the EL) is ~20 km SW of the regional centre of Tumut (at the northern tip of the Snowy Mountains) Land ownership: The project area is on private land which was partly owned by MGL. Other issues: The Consultant is unaware of other issues (such as agreements with third parties, royalties, native title, archaeology, history and the environment) which might influence the Project. Security of tenure and impediments to operation: Tenure: The Consultant is not aware of the security of tenure at the time of reporting. Impediments to operation: The Consultant is unaware of impediments to operation. However he would presume operating on at least part of it (within the ML) would be secure owing to the twore of minereal tenure
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Previous mining and exploration: Adelong is a historic mining area (the Adelong Goldfield was mined underground and alluvially between ~1852 and ~1940). It has seen numerous eras of mineral exploration since mining ceased. Past explorers: The Project has had multiple owners and explorers in the modern era since 1979. Those between 1979 and ~1994 were pre-JORC. Carpentaria Exploration Corporation (CEC, 1979-82): Initially their focus was on proving underground gold Resources (predominantly on the Old Hill line and Challenger), but low drill hole grades shifted their focus to proving open-cuttable Resources (as illustrated by their use of a low gold cutoff grade (0.5 g/t) for reporting). CEC made in-house Resource estimates and their eventual decision was that their open-cut potential was insufficient.

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021		
Criteria	JORC Code explanation	Commentary		
Criteria	JORC Code explanation	 CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021 Commentary CEC also made in-house estimates of material in the old dumps. Mineral Management & Securities (MM&S, 1982-5): Their focus appeared to be proving underground gold Resources (based on their use of a high gold cut-off grade (4 g/) for reporting) by drilling. Focus was mostly on Challenger with lesser focus on Caledonian and Currajong. Pan Australian Mining (Pan Aust, 1985-9): Their focus initially was on shallow open-cuttable mineralisation. Exploration drilling was spread fairly widely over most reefs (Challenger/Our Own, Caledonian, Victoria, Currajong, Gibraltar and Dyke). Ultimately their opinion was that the likelihood of economic open-cuttable Resources were low. However they revisited the possibility of underground Resources by sinking a decline at Challenger (see below) to demonstrate gold mineralisation continuity. The decline was done in a JV with the NSW Government Insurance Office. Republic Minerals Corporation (RMC, ~1991). Mining Management Services (MMS, ~1994). Focus was on alluvial/colluvial potential. (Expenditure 1979 to 1996 was estimated to total ~\$3M. Adelong Consolidated Gold Mines / Adelong Capital (AC, 1996-2000). AC undertook the first considerable exploration in the JORC era. This initially involved collation of all past data and computerisation of parts. AC looked at and drilled most deposits, undertook soil geochemical sampling, and commissioned geophysical surveys. The Consultant was engaged to estimate and report Resources at Challenger and Currajong. As at February 2000, using a 1.0 g/t cut-off, in-situ JORC Resources were: Challenger: 796,000 t @ 3.0 g/t (Indicated + Inferred) Currajong: 207,000 t @ 3.0 g/t (Indireted) Donkey Hill: 56,000 t @ 3.0 g/t (Indireted) Sawpit: 58,000 t @ 1.6 g/t (Inferred) <li< th=""></li<>		
		 (Expenditure 1979 to 1996 was estimated to total ~\$3M. Adelong Consolidated Gold Mines / Adelong Capital (AC,1996-2000). AC undertook the first considerable exploration in the JORC era. This initially involved collation of all past data and computerisation of parts. AC looked at and drilled most deposits, undertook soil geochemical sampling, and commissioned geophysical surveys. The Consultant was engaged to estimate and report Resources at Challenger and Currajong. As at February 2000, using a 1.0 g/t cut-off, in-situ JORC Resources were: Challenger: 796,000 t @ 3.0 g/t (Indicated + Inferred) Currajong: 207,000 t @ 2.7 g/t (Inferred) Donkey Hill: 56,000 t @ 1.7 g/t (Inferred) Old dumps: 190,000 t @ 1.6 g/t (Inferred) At Challenger the Indicated portion of Resources lay above the 1,370mRL in 		
		 a zone of dense drilling and where assaying had been predominantly by bottle roll. The Inferred material was at the peripheries and below the 1,370mRL where drilling was less dense and older (CEC). The Challenger Resource block model took account of the old mine voids (excluded) as well as the mineralised filled voids (given a low density of 1.5 t/m³). Project development activities included: Incomplete preparation for a gravity/CIP plant. Commissioning a technical audit by Metplant Engineering Services in 1999. 		

GeoRes	
Criteria JORC Code explanation	Commentary
Criteria JORC Code explanation	 Commentary Entered into an agreement with Adelong Quarries to excavate a portion of over-burden above Challenger (west of the main lode). Obtaining the granting of ML 1435. Signing an indigenous Land Use Agreement with the local community (believed to be the first in NSW). Expenditure by AC was estimated to total ~\$5.2M (~\$3.7M on exploration, ~\$1.5M on development). Golden Cross Resources (GCR, 2000-7). As at July 2005 in-situ Resources using a 1.0 g/t cut-off were: Challenger: 930,000 t @ 2.74 g/t (Indicated + Inferred) Currajong: 338,000 t @ 3.39 g/t (Inferred) Tasma Goldfields (Tasman, 2007-9). Macquarie Gold Limited (MGL, 2009-20) and its intermediate antecedent Somerset Mining (Somerset). 3D Resource Ltd (3D, 2020-present). Past exploration: Geological mapping: Most recent explorers undertook geological mapping through incorporating analysis of their enhanced geophysical surveys. Topography survey: Detailed topography data was obtained by AC in 2002 from a helicopter survey by GeoSpectum. Drilling: CEC: Total ~7,700 m in 38 (117?) holes of diamond tailed percussion, predominantly at Challenger (1,670 m in 1 boles). Also Caledonian (1,160 m i 6 holes). Victoria (490 m in 2 holes) and Currajong (750 m in 4 holes). MM&S: Total -2,810 m in 58 holes of percussion and diamond. Scattered across many deposits – Old Hill line (Challenger 620 m in 2 holes). Currajong (380 m in 6 holes), Gibtratar (710 m in 1 hole) and Currajong (110 m in 1 hole). Pan Aust: Total -2,800 m in 58 holes of percussion and diamond. Scattered across many deposits – Old Hill line (Challen

GeoRes		CHALLENGER JORC RESOURCES - SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
	· · · · · · · · · · · · · · · · · · ·	 Gibraltar ~710 m in 15 holes.
		Dyke ~260 m in 6 holes.
		 Total ~13,310 m in 116 holes.
		• AC:
		 Challenger ~5,600 m in 80 holes of RC for Resource definition. This program tightened up the hole spacing at Challenger Main and found the Challenger Extended just to the north. AC employed bottle roll analysis methods.
		 Challenger, Donkey Hill, Fletchers, Currajong, Gibraltar ~5,850 m in 55 holes of RC for reconnaissance and geochem and IP anomaly follow-up. Sawpit ~500 m of RC.
		 Currajong underground in Boumoya Adit ~820 m in 6 holes of diamond. Total ~12,780 m in 141 holes
		 GCR: Challenger ~6,320 in 70 holes of RC for in-fill mostly at Challenger and a little at Currajong.
		 Tasman:
		 Very short holes at scattered locations ~910 m in 34 holes of RC. Aimed at finding N/S extensions to deposits.
		 MGL:
		 2011: Caledonian ~640 m in 34 holes (averaging 20 m depth) of RAB on 4 E/W cross-sections to test N/S reef connections in areas of little or no outcrop and no old pits. Holes inclined @ 60° to the E and spaced 10 m apart. Down-hole sampling 1.8 m. 2013: Currajong, Caledonian, Fletchers, Donkey Hill and Victoria ~1,530 m in 12 holes of RC for Resource definition in-fill and extension.
		 Challenger Adit bulk sample (1988/9):
		 In 1988/9 Pan Aust drove a 410 m long decline eastwards into the centre (in a N/S sense) of the Challenger deposit on the 1,380RL (the Challenger Adit). On encountering the ore body drives were driven 20 m N and 80 m S to encounter the hanging wall and foot wall in several spots.
		 The purpose of the adit was to allow bulk samples for grade determination, for metallurgical testing, and to illustrate continuity of gold mineralisation. A bulk sample of 1,300 t @ 5.6 g/t gold was made
		 AC refurbished the Challenger Adit and the old Boumoya Adit at Currajong (335 m long incline driven SE towards the old Currajong shaft).
		 Old dumps sampling: CEC, MM&S and GCR all undertook programs of sampling the old waste dumps scattered over the Property. MGL also sampled the dumps as part of processing part of them through their
		 mod also sampled the dumps as part of processing part of them through their new mill. Costeans:
GeoRes		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
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Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	 Details are almost absent on costean work performed at Adelong other than knowing that RMC carried out a limited program in ~1991. No costean data has been used in Resource estimations. Soil and rock chip geochemical sampling: Surveys were undertaken by Pan Aust and AC. Geophysical surveys: MMS undertook ground magnetometer surveys in ~1994 over Old Hill and Caledonian. AC undertook in the late 1990s: Detailed aero-magnetic and radiometric surveys by helicopter (E/W lines at 50 m spacing with readings every 4-5 m for 220 line km or 11 km²). Gradient ground-based array IP and resistivity surveys (E/W lines at 100 m spacing and sampling every 25 m for 30 line km or 4 km²). These were successful in delineating several new anomalies. Dipole-dipole IP surveys (8 line km) following up the anomalies found by the gradient array IP.
		 resolution and allowed clearer geological mapping. It also illustrated and confirmed the ~350° strike of the reefs interpreted by the Consultant. This small but highly significant variation from the previously mis-interpreted 360° orientation gave the reason some past along-strike extensional drilling programs had moved off the reefs. A series of fine scale ground-based magnetometer surveys (to 2016 that included 1,814 lines at 5 m spacing and sampling every 0.8 m for 500 line km).
		\sim Geological re-interpretation of the new data.
		 GCR undertook a geotechnical study in 2001 to evaluate open-cat mining parameters such as possible pit wall slopes. Data was soured from the small waste rock quarry dug above Challenger. A further study in 2005 evaluated open-cut the impact of encountering underground underground
		workings in the walls of an open-cut.
		 Consultant's capacity to comment. The Consultant has consulted on Adelong since
		~1996 (JORC era) for AC and then for all subsequent explorers. That consulting required familiarity with all exploration data and some involvement or advice on each new explorer's actual exploration.
		 Overall opinion: The Consultant considers that past exploration followed clear objectives, was competently carried out, and produced good data. That data was sufficient for the estimation of Mineral Resources at some of the better explored deposits. The early explorers (up to and including GCR) undertook the bulk of the exploration and advanced

Criteria	JORC Code explanation	Commentary
		the Project significantly. Later explorers performed less exploration but allowed a refinement in understanding of the mineralisation which provide pointers for future exploration.
Geology	 Deposit type, geological setting and style of mineralisation. 	 Deposit type: The deposit type is that of narrow sub-vertical gold bearing quartz veins hosted in granitic rocks. Geological setting: Regionally: The Adelong Project is regionally situated at the southern end of the Lachlan Fold Belt (an orogenic zone containing many mineral deposits and mines). Two contrasting geological and tectonic environments dominate the Adelong region – the Wagga-Omeo Belt to the W (with Adelong on its eastern edge) and the Tumut Trough to the east. Adelong is located on the eastern edge of the Wagga-Omeo Belt. The Wagga-Omeo Belt is a metamorphic terrain dominated by metasediments that were deposited in a marginal basin. Granitoids are widespread and occur near Adelong, along with numerous small gabbroic stock like bodies. The Tumut Trough is dominated by rift-related sequences of flysch sediments, mafic-felsic volcanics and related sediments, and minor granites. The N to NW trending, west dipping, Gilmore Suture defines the boundary between the two zones. The Gilmore Suture broadly defines a 300 km long belt of gold (+/- copper) mineralisation in which several mines and numerous prospects are located. Locally: In the local Adelong area the Gilmore suture bifurcates into the Gilmore Fault Zone (E of Adelong) and a subsidiary western structure known as the Wondalga Shear Zone (west of Adelong). The dominant rock types in the Adelong Project area are the Wondalga Granodiorite and the Avenal Basic Igneous Complex (ABIC) comprising norites, gabbros and diorites.
		sub-vertical vein or shear structures.
		Wondalga Shear Zone and the Gilmore Suture.
		accompanied by significant hydrothermal alteration and gold mineralisation.
		 I he aplite dykes, along with the matic dykes and quartz veins, are regarded as the likely conduits and hosts of the gold mineralisation.
		 However the source of the ore bearing fluids appears unrelated to magmatic fluids associated with the Wondalga Granodiorite or the ABIC themselves and a deep

GeoRes

GeoRes_				CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	J(ORC Code explanation	Со	mmentary
				mantle source is postulated.
Drill hole Information	0	 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 dip and azimuth of the hole down hole length and interception depth 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. 	•	 Drill hole data: Listings of all drill hole data used in these <i>Challenger</i> Resource estimations are given in Appendices: Collar data: See Appendix 3 – Challenger drill hole listing & collar surveys. Includes: Drill hole names and deposit classification. Collar – E and N (AMG66). Elevation – RL above sea level PLUS 1,000 m. The addition of 1,000 m to all Project data was done historically to avoid negative elevations (below sea level). Hole direction – azimuth and dip below horizontal (negative angle). Hole depth – down-hole. Vein intercepts: See Appendix 4 – Challenger drill hole 'ENVELOPE' vein intercepts. Details of individual named vein "envelope" interpretations. Includes vein intercepts. Details of individual named vein 5 – Challenger drill hole 'HIGH GRADE' vein intercepts. Details of individual named vein "high grade" interpretations within the envelopes. Includes vein intercept down-hole depths, down-hole thickness and composite gold grade.
Data aggregation methods	0	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 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.	•	 Reporting aggregation/weighting: Gold grades in the individual vein intercept interpretations (listed in the Appendices detailed above) were reported composited across the full vein intercept with the constituent sample grades weighted on sample length. No gold high grade cutting was applied. Vein intercept interpretation in itself implied the selection of "gold mineralised" intervals, where low grades (taken to be ~<0.2 g/t) outside the veins were excluded. Intercept aggregations: Intercept aggregations simply represented the report of composite grade of a vein at a specific location. Veins were effectively geologically based. Resource block grade estimation worked of individual samples, not vein composites. Metal equivalents: No metal equivalent values were necessary or used.
Relationship	0	These relationships are particularly important in	•	Geometry of mineralization with respect to drill hole angles:
between mineralisation widths and intercept lengths	0	the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	•	 Mineralisation was assumed sub-vertical and striking ~N/S. All drilling was inclined at ~50-60° and drilled ~E/W. Thus all drill holes would intercept veins obliquely at ~30° to dip and effectively normal to the vein strike direction. Down-hole reporting basis – down-hole: All reporting of vein intercepts was on a simple "down-hole" basis (NOT on a true width (effectively horizontal) basis).
Diagrams	0	Appropriate maps and sections (with scales) and	•	Diagrams:

Criteria	JORC Code explanation	Commentary
	tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	 All exploration mentioned here is historical. No new data is reported here. All current intercept interpretations are tabulated in the Appendices below (and described in the "drill hole information" Section above. Representative diagrams of drill hole vein intercepts are given in the body of the report above. Detailed section by section diagrams appeared in past reporting.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 Balanced reporting: Reporting of all historical exploration results, and the constituent assays within each interpreted vein intercept, is not practicable here and would partly duplicate past reporting. However the listing of all individual vein intercepts (used in the Resource estimation reported here) are given in the Appendices below – with the basic statistics for each individual vein given as maximum, minimum and mean values.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 Other material exploration data: No other exploration data is reported here as none is considered material to this Resource report. Other peripheral data is mostly historical, precedes this report considerably, or was previously reported. That other data (exploration and otherwise) included: Mining studies Geophysical surveys. Density determinations. Geotechnical studies. Environmental studies. Heritage studies. Metallurgical testwork.
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Further work planned: The Consultant is not specifically aware of the Company's future work plans. The Consultant is aware that this report will be accompanied by a similar report(s) on the Resources at the other deposits at the project.

GeoPes



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	 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. Data validation procedures used. 	 Historical knowledge continuity: All data was essentially 'historical' to the current Project owners. However the Consultant has worked on the Project continuously (in a Resource estimation sense) for each successive owner since the late 1990s. Over that period he worked for ECS Mining Consultants (ECSMC), SMG Consultants (SMGC), and then latterly for his own consultancy GeoRes. Previous Project owners during the Consultant's involvement included:

GeoRes_			CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	С	ommentary
		0	 For the AC/GCR data the Consultant verified all data to the extent possible with partly historical data. That mostly included working directly with the Client's geologists and cross-referencing already computerised data with hard copy reports and maps. For the Tasman data the Consultant's checking was by directly working with the Client geologist, providing maps of databased drill holes for the geologist to check with his actual drilling knowledge. For the MGL drilling the Consultant's checking was by cross-referencing his own entered data with his actual drilling knowledge (2011 drilling) or with the contract geologist's drilling knowledge (2013 drilling). The Consultant databased all data (historical and recent) into Minex geological software. Gross error software data checking occurred with all drill holes during its databasing into Minex. This caught various collar, survey, sample depth and assay value inconsistencies. All data issues were satisfactorily resolved and fixed by reference to logs. Assumed integrity: The Consultant relied on the basic integrity of the data supplied. This position was partly justified by the good standing of the exploration company's concerned and personal knowledge of the geologists. Gross integrity of the drilling data emanating from the different sampling eras and from different drilling methods was indicated by the very similar tenor and spread of gold assays. This was particularly noted during the section-by-section geological vein intercept interpretation Topography data integrity & validation: Topography data was sourced from a specific site survey (GeoSpectrum 2002). Data (when contoured and visualised) was validated on foot. All topography XY locations matched the many hand-held GPS readings taken when mapping and pegging hole locations Topography data datali was considered accurate enough for the tasks of mapping, d
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	0	 Site visits: The Consultant (the Competent Person) has visited the Property on numerous occasions in the last 22 years (since 1998) The Consultant visited the Property in the company of all successive exploration owners (except 3D Resources Ltd) since 1998 and with the local land holder. During those visits virtually all parts of the Project surface area were visited. The Consultant has also visited the underground workings in the Challenger Adit early on with AC and most recently in 2019 with MGL (during the Sale process). Various drill hole locations, dumps and old shafts were inspected, photographed and coordinates taken by GPS.
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. 	0	 Geological mineralisation style interpretation: The geological interpretation at ALL prospects is that of similar 'narrow sub-vertical sub-parallel quartz vein hosted gold mineralisation'.
	 Nature of the data used and of any 	0	Contidence in the geological interpretation:

GeoRes		
Criteria	JORC Code explanation	Commentary
	 assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	 The Consultant is confident in the geological interpretation of vein style gold deposits. This was ultimately and primarily based on the known style of the historical mining of narrow sub-vertical quartz reefs, observing outcrops of the reefs at surface, and being able to observe such reefs underground in the Challenger Adit. All drill hole gold mineralisation confirmed the shape, position and style of a vein system. Intercepts in the drill holes in the immediate vicinity of the Challenger Adit and of the Boumoya Adit at Currajong confirm the vein styles at both deposits. Data nature, assumptions & geological controls: The basic assumption was that all gold assays ->0.2 g/t represented localized mineralization (a vein) and that lower or zero assays represented barren rock. These mineralization intercepts would also frequently contain much higher grades typically recognized as 'ore' grades (>1.0 g/t). Mineralization clearly grouped together in laminar 'vein' styles (contiguously from hole to hole along strike and up and down dip) forming bodies (lodes) of realistic extraction size (and therefore representing Resources). Even very lowly mineralized intercepts (0.1 to 0.2 g/t) exist on strike and dip of veins – interpreted as the trace of the vein between thicker and better mineralized lodes. Mineralised intercepts clearly aligned in 3D into swarms of sub-parallel sub-vertical narrow planes interpreted geologically as veins. At all deposits the strike of the mineralized intercepts was clearly parallel (sub-vertical dips were interpreted - similar to the 80°W observed and modelled at Challenger. The vein foot wall and hanging wall positions were interpreted in drill holes from the ends of contiguous sharply gold mineralised intercepts. In all cases where the geological logging was available (minimal) it confirmed the occurrence of veins. Country rock was virtual

GeoRes_			CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Сс	ommentary
			 Within CH1: CH1W (dom 7), CH1M (dom 8), CH1E (dom 9) Within CH2: CH2W (dom 10), CH2E (dom 11) Within CH3: Ch3W (dom 12), CH3E (dom 13)
		0	Alternative interpretations:
			 All deposits. Given the physical evidence from past mining it is very difficult to envisage an interpretation other than a multi-vein system
			 Even if the nature of mineralisation is different to that interpreted as being within sharply defined veins then its continuity would still have been constrained by the vein surface modelling, the block modelling within the vein surfaces, and the domain (by individual vein) assay control.
			 And in many spots the density of drilling is sufficient to preclude any other type of mineralisation continuity.
			 Where drill hole spacing becomes wider (>50 m) the individual close-spaced veins may have been miss-named (hence the lowest confidence assignment). However this would not impact volumetrics and would have minimal impact on estimated grades overall.
			 The CP considers it very unlikely overall that mineralization continuity could be interpreted in any other orientation (sub-vertical 355° oriented veins) given the more recent geophysical mag data modelling.
		0	 Continuity factors on geology and grades: Geological continuity was ultimately controlled by interpreting individual named veins in each deposit. This name was used to model the vein's roof and floor surfaces independently.
			 Grades in each vein were segregated with a unique a data population domain number. All assays within a vein were linked by the number with other assays in the vein identified in other holes.
			 Block grade continuity within veins was controlled by an 'un-folding' technique oriented in the plane of the veins.
			 Block grade estimation also employed a strong E/W (X) direction distance weighting factor (3) to minimise cross-strike continuity and emphasise continuity within the vein (up-dip and along-strike).
Dimensions	 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. 	0	Deposit dimensions (volume containing deposit). <i>Challenger dimensions</i>: Strike length (N/S): ~750 m Width (E/W): ~30 m Depth: 250 m from surface down
		0	 Vein dimensions: Widths: Individual veins were typically ranged from ~0.5 m to ~15 m wide horizontally (E/W).
		0	Vein spacing: Spacing between individual veins varied, but typically closer spacings were of the orde of ~5 to 10 m apart.

GeoRes		CHALLENGER JORC RESOURCES - SUMMART SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
Estimation and modelling techniques	 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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 Commentary ESTIMATION TECHNIQUES Vein surface modelling: Software: Modelling and estimation was done in Minex Genesis software. Method: Geological modelling employed computerised gridded DTM surface interpolation The method's appropriateness stems from its 3D computational capability and rigor. Gridded surfaces allow simple mathematical operations within and between surfaces. Bounding lode surfaces were interpolated from the top and bottom down-hole lode intercepts. Each lode was modelled independently with a hanging wall (structure roof, SF and foot wall (structure floor, SF) boundary surface (see below). Algorithm: Surface modelling used a trending growth algorithm to interpolate smooth natural surfaces (as opposed to straight line methods) as a regular fine mesh. Through extrapolation this method honours local inflections away from the reference plane mean orientation. Mesh point interpolations grow out from data points until all mesh points are estimated. Orientation: All vein surfaces effectively semi-vertical and ~N/S. So model wrt a vertical N/S reference plane west of the veins. Models vertical N/S, looking west. Model build: After independent interpolation of each lode's roof and floor the suite of surfaces was 'built' into a valid model using processes to correct potential cross-overs between and within lodes. <i>Surface estimation parameters – common to ALL deposits</i>: Algorithm: Growth Surface names: Vein name + suffix SR (roof) or SF (floor) Xry directions: Pseudo vertical N/S 6800E, group REF (596,800E) Grid file: DD 2018 CH, file: .201907_Chall_env_model_GR1806.GRD Origin (minimum) – lower south corner:
		 Domains were set in the drill hole database and in the block models.

GeoRes		CHALLENGER JORC RESOURCES - SUMMARY SEPTEMBER 2021
Criteria JORC Code	e explanation	Commentary
		 Domain numbers are given above with the vein names. Drill hole gold sample analysis: Gold (AU) was the focus of the Project. Detailed statistical or geostatistical analysis was undertaken up to 2016 and has been previously reported. That detailed geostatistical analysis informed the general grade estimation parameters (see below). Gold grades throughout the goldfield are characterised generally by great variability. Scattered high grade samples are of much higher tenor (to >100 g/t) than more general (numerous) 'ore grade' samples (-2-5 g/t). This nuggety effect would typically require specific handling of high grades during block estimation. Grade continuity control block model (Z-grid): An 'un-folding' 3D block model (a Minex Z-grid) was built within the geological vein surface models to provide domain control within layers and to control grade trending continuity within and along the layers (the 'Z' direction). As the veins were essentially in an ~N/S semi-vertical plane the Z-grid required rotating to have its Z axis normal to that plane (see below). 'Un-folding' block model (Z-grid): A -2-grid is built to align its X and Y data search directions sub-parallel to geological layer models (with each layer modelled by bounding upper and lower surfaces) with the same orientation. The XY searching is continuously (dynamically) transformed to follow along the undulations of the geological layer (and is therefore not in a straight line but parallels the layer. The Iz direction remains a fixed direction normal to the average plane of the layer sub-parallel effect is achieved by a fixed number of 'sub-block's being assigned across a layer in the Z direction (say 10). Layers with higher average and maximum thicknesses are assigned the most Z blocks. Thus Z direction have fixed haver state individual Z block boundaries continuously remain sub-parallel to the layer as the individ

GeoRes		CHALLENGER JORG RESOURCES - SUMMART SEPTEMBER 2021			
Criteria	JORC Code explanation	Commentary			
		 the Z axis now being horizontal. Adelong Z-grid rotation – common to ALL deposits: As all vein surfaces were in an ~N/S semi-vertical plane the Z-grids were rotated -90° about the Y axis to orient its pseudo 'Z' axis to be horizontal E/W (normal to the vertical N/S plane). This also rotated the pseudo 'X' axis to be vertical down. This rotation also require the grid's origin and extents to be transformed to pseudo positions and directions (see dimensions below). Rotation – common to ALL deposits: X: 0° Y: -90° X: 0° 			
		 Adelong Z-grid block sizes – Challenger deposit only (Currajong, Caledonian, Donkey Hill different). 			
		 different): X and Y (pseudo Z and Y) block sizes were set to reflect a simple proportion (usually 25%) of the actual drill hole spacings N/S and vertically. As this spacing averaged ~20 m for closer holes an X/Y blocks size of 5 m was set. This was also a simple multiple (x2) of the vein surface X/Y mesh size of 2.5 m. Z (pseudo X) block sizes were nominally set to be 2.5 m by dividing ~100 blocks into an horizontal deposit width of ~250 m. Actual Z block sizes would be determined by the number of blocks assigned and vein widths. In practice the Z block sizes would all be <0.5 m wide. Z-grid block sizes: X: 4.0 m (pseudo Z) Y: 10.0 m (actual Y) Z: 2.0 m nominal (pseudo X (E/W)) Challenger Z-grid block dimensions: (CH_HG_Z.GR3) Origin: X: 596,900 E (actual) Y: 6.092 951 N (actual) 			
		 Z: 1,500 RL (actual – at surface) 			
		 Extent: X: 400 m (pseudo vertically down (to 1,100 RL) with rotation about Y axis) Y: 1,300 m (actual to 6,094,251 N) Z: 130 m (pseudo horizontally east (to 597,030 E) with rotation about Y axis) 			
		 Z blocks: A Z block size of 2.0 m would give 65 blocks over the 130 m pseudo Z extent. 			
		 To accommodate 6 high grade veins each was assigned ~10 blocks. Domain control block model (domain 3D-grid): A 'domain' 3D block model (a Minex 3D-grid) was built for each deposit within the geological vein surface models to provide block domain control within veins – linking vein block domains with the vein assay domains in the drill hole database. 			

GeoRes		CHALLENGER JORG RESOURCES - SUMMART SEPTEMBER 2021				
Criteria	JORC Code explanation	Commentary				
		 The domain grids was built in tandem with the Z-grids, with the same block dimensions and rotations. The domain grids carried similar names to the Z grids with the substitution of the letter 'D' for the 'Z'. 				
		 Gold grade block estimation (gold 3D-grid): 				
		• A 'gold' grade 3D block model (a Minex 3D-grid) was estimated for each deposit from gold				
		assays stored in the drill hole database.				
		 The grade grids was built with direct control from the Z-grids (to dynamically trend search 				
		directions along the veins) and the domain grids (to segregate samples by vein).				
		 Minex 3D-grids are usually built as orthogonal 3D grids without sub-blocking. 				
		 However here the gold grade 3D-grids had the same block dimensions and rotations as the Z gride (see above). The grade gride carried similar names to the Z gride with the inclusion 				
		of the letters 'AU'				
		 Input drill hole sample parameters – common to ALL deposits: Variable: AU 				
		 Down-hole sample compositing: None. 				
		 This position was taken because of the typically very limited (typically 1-3) numbers of samples in each vein intercept. 				
		 Down-hole composit lengths of 1.0 m and 0.5 m were trialled initially – both leading to excessive data smoothing and the effective elimination of any high grades. 				
		 Block gold grade estimation parameters – common to ALL deposits: 				
		 Method: Single pass estimation. 				
		 The interpolation of grades in two passes (to overcome the issues of very localised highly anomalous grades) was considered but not undertaken because of the limited numbers of samples/holes in general and high grade samples in particular. 				
		 In a 2 pass estimation an initial 1st pass uses all samples whilst a 2nd pass uses only high grade samples with severely restricted scan distances to over-write blocks close to the high grades 				
		 Algorithm: Inverse distance squared (ID2). 				
		 Continuity control: Un-folding search direction continuity control by Z-grid in the vertical N/S plane of the lodes. 				
		 Scan distance: 50 m. One pass. 				
		 Data limits: None. 				
		 No lower cut or clip was required as the vein intercept interpretation effectively excluded all grades outside the veins, the vast majority of which were effectively 0 g/t (or below detection). 				
		 No upper cut of clip was applied because of 1) the limited number of anomalous high grades, 2) their short intervals, and 3) the positive desire to allow the few high grades to register higher grades in some blocks because of the CP's past experience at the Challenger deposit where this was found to be realistic. 				

GeoRes		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
		 Sample numbers used to calculate each block:
		 Samples/sector: 3 maximum, 1 minimum
		Sectors: 1 minimum
		 Effectively samples 18 maximum, 1 minimum
		 Anisotropy:
		 Without any clear indications of plunge in the ~N/S plane of the veins the grades
		were assumed to be isotropic (effectively in Y and Z directions) in the plane.
		 With the natural in-vein continuity in play continuity was discouraged across strike
		(effectively X direction). Direction distance weighting was applied to the X
		direction (E/W) to minimise continuity across strike.
		• Distance weighting: Direction distance ratios applied were $X = 3$, $Y = 1$, $Z = 1$.
		 Direction rotation: None (no plunge accounted for).
		 Block gold grade estimation statistics: Challenger gold estimates: (CB2)
		 Unailenger gold estimates. (.GR3) Input Aux Semples 7.022 Mey 72.00 g/t Min 0.00 g/t Aux 0.52 g/t
		 Input Au. Samples 7,955, Max 75.00 g/l, Mill 0.00 g/l, AV 0.52 g/l Estimated Au: Blocks 112 226 Max 45.96 g/t Min 0.00 g/t Av 1.05 g/t
		• Estimated Ad. Diocks 112,220, Max 45.00 g/t, Mill 0.00 g/t, AV 1.05 g/t
		 Geological resource block database':
		 A Minex geological database is used to store. JORC classify, report and plot grade
		estimates. It may then also be used for pit optimisation.
		The database has regular orthogonal 3D blocks (which may be sub-blocked down
		in size) and is used to database geology (by domain) and multiple variables
		(typically grades and density).
		 Blocks are built from geological models (typically wire-frames or vein surface
		models). Primary maximum size blocks are created where possible, and smaller
		variably sized sub-blocks are created along edges of models to provide volumetric
		accuracy.
		 Grades may be estimated directly into blocks from drill hole samples of may be loaded from individual grade block 2D grids. These grade 2D grids may be retated.
		and/or computed with Z-grid control
		 Other variables, such as manipulated grades, density or JORC classification
		variables, may be computed using SQL macros.
		• Adelong resource block database: (ALL deposits)
		 Primary block sizes (1*5*5 m) were set to reflect the thin N/S vertical planar shape
		of the veins.
		 Sub-blocking: None (XYZ 1)
		 Grades: Database blocks were loaded with grades directly from the individual
		grade block models (see above). Grades were averaged into the database
		orthogonal blocks from the dynamic sized Z-grid blocks.
		 Challenger reporting block model dimensions: (CHALL_20210101_2_ENV_HG.G3*)
		History; Initially (7/2018) a coarser block model including sub-blocking was built.

GeoRes		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	Commentary Subsequently (1/2021) a finer block size model was built with no sub-blocking. Details given below are for the ,most recent 2021 block model. Block build: Block build: Block build: Rotation: None. All coordinates actual. Sub-blocking: None Origin (minimum): X: 596,900 E Y: 6,092,951 N Z: 1,100 RL Extent: X: 130 m Y: 1,330 m Z: 400 m Block sizes: X: 1.0 m Y: 5.0 m Z: 2.0 m Block glade estimation statistics: Challenger gold estimates: direct into block model Input Au: Samples 7,933, Max 73.00 g/t, Min 0.00 g/t, Av 0.52 g/t Estimated Au: Blocks 112,226, Max 45.86 g/t, Min 0.00 g/t, Av 1.05 g/t Resource classification: Challenger: Resources were all considered to be in all classes (continuing on from past estimates).
		 During grade estimation of each block the average distance of samples and the number of samples were stored (variables AU_D and AU_P).
		 A classification variable (AU_CAT) was computed in each block by applying CP
		determined criteria (see below in JORC classification section) to the distance and number variables. The criteria set a number in each block for Resource class:
		• 3 – Measured
		• 2 – Indicated
		 I – INTERIED Check estimates: Other estimates to check against included:
		 determined criteria (see below in JORC classification section) to the distance number variables. The criteria set a number in each block for Resource class 3 – Measured 2 – Indicated 1 – Inferred Check estimates: Other estimates to check against included:

Georges	IODC Code evaluation	Comment	o #1/								
riteria	JORC Code explanation	Commenta	ary	<u> </u>		<u> </u>	<u> </u>		_	-	
			Company	Deposit	Resource	%	Cut-off	SG	Tonnes	Au	Au
			Date		class	by oz	Au (g/t)	(t/m [*])	(t)	(g/t)	(oz)
			AC C	Challenger	Indicated	37%	1.00	2.70	328,000	2.80	29,5
			Feb 2000		Inferred	63%	1.00	2.70	468,000	3.30	49,7
			CCD	Challenger	Indicated	0.40/	1.00	2.70	796,000	3.10	79,3
				chanenger	Indicated	04% 16%	1.00	2.70	165,000	2.01	12 0
			July 2005		Total	10%	1.00	2.70	930 000	2.43	12,3 81 0
			MGI	Challenger	Measured	51%	1.00	2.70	459 000	3.07	45 3
			July 2016	chancinger	Indicated	26%	1.00	2.70	268,000	2.67	23 (
			5019 2020		Inferred	23%	1.00	2.70	290.000	2.16	20.3
					Total		1.00	2.70	1,017,000	2.71	88,
		o Bv-pro	duct recovery	& deleteri	ious eleme	nts:					
		• = ; , , , • •	Potential by-prod	ucts:							
			 Other eleme 	ents were	effectivelv r	not cons	sidered in	this Res	source esti	mation as	s the
			Client's ecor	nomic foci	us was prin	cipally (nold				
			 This focus w 	ould appe	ear reasona	ble fror	n the past	t aold m	inina histor	v in the c	distri
			 Silver was a 	ssaved fo	r verv spor	adically	. and show	wed little	e mineralisa	ation.	
			 From a wide 	er range of	f element a	ssaved	in scatter	ed holes	s there app	ears little	•
			potential for	both by-p	roduct or d	eleterio	us elemer	nts.			
			 The CP's im 	pression i	is that <mark>no</mark> 'n	nodern'	high-tech	elemen	nts (lithium,	rare ear	ths e
			have been a	Issayed fo	or, their pote	ential w	ould appe	ar comp	pletely unte	sted, and	d the
			presence wo	ould be un	likely.			•	2		
		o [Deleterious elem	ents:	-						
			 Past mining 	did not ap	parently er	ncounte	r deleterio	ous elen	nents.		
			 The presence 	ce of some	e sulphides	(princip	ally pyrite	e) within	veins was	apparent	tly
			taken into ad	ccount by	MGL's mor	e recer	nt metallur	gy and p	plant desig	n.	
			 It is presume 	ed that the	e AMD issu	e was s	imilarly ta	ken into	account by	y MGL	
		 Block st 	size – sample s	ize relatio	onship:						
		0	Situation:								
			 Block sizes 	s: Major b	olock sizes	were ef	fectively s	small at	1*5*2 m.		
			 Sample sp 	acing: Do	own-hole sa	ampling	typically -	~0.5 to 2	2 m; drill se	ction spa	acing
			mostly dov	vn to ~20-	50 m; and	hole spa	acing on s	section v	vas ~20-10	0 m.	
			 Data searce 	ch distanc	es: Maxim	um 50 r	n.				
		0	Distance relation	ships:							
			 Block sizes 	s were con	nsidered we	ell-prop	ortioned to	o drill ho	le spacing	and dow	n-ho
			sampling in	ntervals.							
			In long-sec	ction block	size (5 m)	was 25	5% of typic	cal minir	num hole s	pacing (2	20 m
			In cross-se	ection the	block size (1 m) wa	as of the s	same or	der as dow	n hole sa	ampl
			intervals a	nd usually	^v 2-300% na	arrower	than 2-3	m wide	veins.		
		 Model 	 SMU relations 	ship:							

GeoRes		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	 No specific focus on selective mining units occurred. However The primary 1*5*2 m tall thin block sizes in the model was specifically built not only to reflect vein shape but to take into account the probability of hand-held underground mining. Therefore the block shape and size reflected a practical underground mining unit. Correlation between variables: No work on variable correlation was done as the sample database only effectively contained one variable (gold). Geological interpretation control of estimate: The block grade estimate was fundamentally controlled by the geological interpretation of sample mineralization – in thin sub-vertical sub-parallel veins. Use of 'un-folding' Z-grid modelling emphasised in-vein continuity. Use of sample domain control prevented contamination of grades between veins. Grade estimation anisotropy enhanced in-vein continuity. Effectively no grade cutting of clipping was used. Justification for this was Vein interpretations had effectively already clipped out low grades (the country rock between veins. Anomalously high grades were relatively uncommon and where they existed experience with Challenger showed that they should be incorporated to realistically allow the known high grade shuts to be represented. Because of their relative scarcity the high grades were not specifically catered for with 2nd pass estimation (which would have limited high grade samples to very short distances. An indeterminate number (but possibly significant) of un-sampled drill hole intervals had wrongly been assigned gold assay values of zero. And many mineralised
		conservative.
		 Estimate validation: Block geology validation:
		 Block geology valuation. Volume report: Initial check to compare volumes reported within geological model lode surfaces with volumes reported from the blocks built from them. Expect almost exact match. Spot checks of several lodes considered acceptable. Plots: Visual cross-sectional plot comparison of block boundaries with geological model surface intersections. Particular focus on validity of the blocks in each lode (possibly corrupt if the raw surfaces overlapped). Also check of block domain assignments. Comparisons considered good. Block grade estimate validation:
		 Estimate stats: initial basic check to compare overall (not on a lode/domain basis) stats given during the block estimation – input drill sample stats with output

Critorio	1/	ODC Code ownlongtion	0.0	un un a u fa m .
Criteria	J	DRC Code explanation	Co	ommentary
			0	 estimated grade stats. Expect reasonable but not exact match. Particular focus on closeness of the maximums and the raw averages. Plots: Methodical visual cross-sectional plot comparison of colour-coded block grades with annotated drill hole samples. Comparisons considered acceptable. Estimate reconciliation: Not possible as no previous estimates exist. Estimate reconciliation: The Challenger 8/2018 estimate was compared with the 7/2016 estimate done for MGL (see summary above). Total contained gold ounces were 7% lower in the 2018 estimate. This result was considered close and acceptable. The slight reduction would be expected from the Phase 2 re-estimation process where the same number of samples would be spread over more veins (meaning less samples in each vein). reconcile against. Mine records: Comparison was not specifically possible with mine records as where they applied to was not certain. However the reported past production grades are very high by rough comparison. This fact is presumably the reason many past geologists have surmised that drill hole assay values under-call the true grades significantly. This latter position is partially bourne out by the Consultants' experience with the MGL 2013 drilling where all 'anomalous' fire assay gold values were re-assay by bottle roll – and found to be up to ~100% greater. The Consultant's overall view here is that past Adelong mining encountered small volumes of ore with possible very high grades (in the order of many oz/t, or >100 g/t). Encountering these by drilling is very difficult and unlikely, and only actual mining will prove the point.
Moisture	0	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	0	Moisture: Reporting has assumed a hard rock dry basis, with no account made for water. No data on moisture was available.
Cut-off parameters	0	The basis of the adopted cut-off grade(s) or quality parameters applied.	0	The principal low Resource reporting 1.0 g/t gold cut-off value was justified as being in line with other similar gold deposits in Australia.
Mining	0	Assumptions made regarding possible	0	Underground mining has been considered for the Project as this occurred in the past.
factors or		mining methods, minimum mining	0	However open cut mining would also be highly possible for shallower regions of the deposits.
assumptions		umensions and internal (or, it applicable, external) mining dilution. It is always	0	Past Resources have be studied using pit optimisation and practical protitable open cuts have been shown for Challenger and Curraiong
		necessary as part of the process of		
		determining reasonable prospects for		
		eventual economic extraction to consider		
		potential mining methods, but the		

GeoPos

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
	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.	
Metallurgical factors or assumptions	 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. 	 Several past owners have conducted metallurgical studies. The most recent (MGL) undertook fairly extensive testing and on that basis constructed a gold mill at site. The CP understands that a high proportion (>90%) of the gold may be extracted by gravity.
Environmen- tal factors or assumptions	 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. 	 The Project is understood to have had recent (and possibly continuing) mining approval – which would indicate that environmental factors have already been addressed.
Bulk density	 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 	 Density used: No density data was available. A dry bulk density of 2.7 t/m³ has been assumed and used. The Consultant is not generally aware of historic drill hole density determinations, and is under the impression they had either not been taken (particularly not recently) or not in sufficient

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Commentary
	 the samples. 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	 numbers. The assumed density was derived from the detailed AC/GCR dump studies (and possibly by the CEC bulk sample from the Challenger adit). Density accounting for rock variability: The vein rock could be considered as a rock type whose density may vary considerably over short distances (considering the variable mineralogy). This represents an inhomogeneous rock mass on a small drill hole diameter scale. Therefore bulk sampling should be the most reliable source of determinations. The historic CEC bulk sample is the only one to date, and data is sketchy (but possibly informed AC/GCR use of 2.7 t/m³). Assumptions behind density estimates: The Consultant has taken the default 2.7 t/m³ density default as reasonable for a considerable period. During that time the density has also been assumed as correct by a variety of mining angineers and other experts, particularly metallurgiets.
JORC Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whather appropriate account has been 	 Classification basis: Classification: Classification: Challenger: The CP's opinion was that the deposit's JORC classification should follow the past decisions to classific the deposit with properties of Measured Indicated and
	 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 It should be noted that the deposit with proportions of Measured, indicated and Inferred classes. It should be noted that the deposit was historically mined, hence the confidence with the Measured classification. Classification criteria: Classification of acceptable areas of contiguous classes. The principal criteria used to set a block class number was the average distance and number of samples used to estimate individual block grades (see method above). Sample distance could be related to the average geostatistical maximum range determined from the variogram analysis done in the past for the Challenger deposit Samples distances less than the range would have higher confidence (as they would be statistically linked) with increasing confidence with reducing distance. Numbers of samples could be related to the uniformity of drilling around a block. Greater numbers of samples would imply better data distribution around a block. Blocks at the edges of veins, where holes were only present on one side, would have the lowest confidence.
		■ Measured – 3distance ≤ 27.5 m and samples ≥ 6 ■ Indicated – 2 distance ≤ 35.0 m and samples ≥ 3
		 Inferred – 1 distance ≤ 70.0 m and samples ≥ 1 (although in reality this was 50 m) Accounting for relevant factors:

GeoRes_		CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	• The results of any audits or reviews of Mineral Resource estimates.	 Commentary Classification details were developed :
		 Currajong (West). In 2016 an independent geological Resource consultant very briefly reviewed the Resources, apparently concluding their validity but noting the risk of not having excluded all past mining. The Consultant concurs with that risk, but considers it minimal (see also 'Risk' below).
Discussion of relative accuracy/ confidence	 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 	 Accuracy & confidence in the estimate: Statement: The Consultant is confident in the accuracy of the estimate. Reasons: The careful geological vein intercept interpretation and vein surface modelling are considered the most appropriate to the style of mineralisation. The clear continuity of grades between a great majority of drill holes gives the CP confidence in the interpretation. Drilling on Challenger is of multiple eras – and the results of each are similar. Parts of these interpretations and estimates may be considered as at least second generation studies. The Challenger geostatistical analysis in 2010 produced good results which build

GeoRes_			CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021
Criteria	JORC Code explanation	Со	mmentary
	could affect the relative accuracy and confidence of the estimate.		confidence and showed that statistically determined ranges were up to ~200% the typical drill hole spacings.
	 The statement should specify whether it 	0	Risks:
	relates to global or local estimates, and, if local, state the relevant tonnages, which		 The Consultant considers the greatest risk to the reported Resources is the quantum of materially already mined.
	should be relevant to technical and economic evaluation. Documentation		 That material has been deducted to the extent that it is known (through wire-framing known stopes and drives).
	should include assumptions made and the procedures used.		 However whilst the CP would assess that deduction to in all likelihood be incomplete he nevertheless considers the potential omissions would be comparatively small (see below).
	• These statements of relative accuracy and		Old records are scarce and poor quality.
	confidence of the estimate should be compared with production data, where available.		 However all past attempts to quantify this at Challenger (where some records are available and the site of effectively the greatest extraction) have shown that the mined volumes are much <10% of Resource volumes.
			• This previously mined risk is considered minimal (and nil below old depth limits which are above the base of the Resources)
		0	Global or local estimate: This is a global estimate.
		0	Comparisons:
			 Comparisons can only be made are with historical (~100 year old now) mine production. That production was considerable (see all recent reports, including the 2016 MGL IPO document) and cut-off grades were much higher than possible now.
			 These facts would very strongly indicate that these new estimates are highly plausible.

APPENDIX 2 - CHALLENGER JORC MINERAL RESOURCES - BY VEIN

The following tabulations give the Challenger JORC Mineral Resources by Resource class for individual veins.



Table 4 Adelong Challenger JORC Mineral Resources - by vein

ADELONG - Challer	nger "fu	Ill strike" Gl	obal in-si	tu JORC	Resources		ГОРО
Block model:	CHALL	_20210908_	ENV_HG_	UG.G3*	15/9/2021	Low	
Area:		Resource	Cut-off	SG	Tonnes	Au	Au
Vein	Dom	class	Au (g/t)	(t/m³)	(t)	(g/t)	(oz)
MEASURED							
CH0 envelope	5	Measured	1.00	2.70		1.16	
CH1 envelope	1	Measured	1.00	2.70	5,000	1.17	200
W high grade	7	Measured	1.00	2.70	63,000	4.58	9,300
M high grade	8	Measured	1.00	2.70	145,000	4.20	19,600
E high grade	9	Measured	1.00	2.70	54,000	4.37	7,600
CH2 envelope	2	Measured	1.00	2.70			
E high grade	11	Measured	1.00	2.70	1,000	2.14	100
CH3 envelope	3	Measured	1.00	2.70	1,000	1.47	100
W high grade	12	Measured	1.00	2.70	40,000	4.54	5,900
E high grade	13	Measured	1.00	2.70	32,000	2.78	2,800
Hanging-wall fill	22	Measured	1.00	1.50	10,000	5.35	1,700
Foot-wall fill	23	Measured	1.00	1.50	3,000	4.33	500
Total	72%	Measured	1.00		357,000	4.17	47,900
INDICATED							
CH0 envelope	5	Indicated	1.00	2.70			
CH1 envelope	1	Indicated	1.00	2.70	2,000	1.05	100
W high grade	7	Indicated	1.00	2.70	20,000	4.78	3,100
M high grade	8	Indicated	1.00	2.70	52,000	3.52	5,800
E high grade	9	Indicated	1.00	2.70	45,000	3.47	5,000
CH2 envelope	2	Indicated	1.00	2.70			
E high grade	11	Indicated	1.00	2.70	17,000	3.99	2,200
CH3 envelope	3	Indicated	1.00	2.70	4,000	1.52	200
W high grade	12	Indicated	1.00	2.70	11,000	3.36	1,200
E high grade	13	Indicated	1.00	2.70	11,000	1.66	600
Hanging-wall fill	22	Measured	1.00	1.50	1,000	3.57	100
Foot-wall fill	23	Measured	1.00	1.50	1,000	2.69	100
Total	28%	Indicated	1.00		163,000	3.50	18,300
MEASURED + INDI	CATED						
CH0 envelope	5	Meas + Ind	1.00	2.70		1.16	
CH1 envelope	1	Meas + Ind	1.00	2.70	7,000	1.13	300
W high grade	7	Meas + Ind	1.00	2.70	83,000	4.63	12,400
M high grade	8	Meas + Ind	1.00	2.70	197,000	4.02	25,400
E high grade	9	Meas + Ind	1.00	2.70	99,000	3.96	12,700
CH2 envelope	2	Meas + Ind	1.00	2.70			
E high grade	11	Meas + Ind	1.00	2.70	18,000	3.85	2,300
CH3 envelope	3	Meas + Ind	1.00	2.70	5,000	1.51	200
W high grade	12	Meas + Ind	1.00	2.70	51,000	4.29	7,100
E high grade	13	Meas + Ind	1.00	2.70	42,000	2.50	3,400
Hanging-wall fill	22	Meas + Ind	1.00	1.50	11,000	5.20	1,900
Foot-wall fill	23	Meas + Ind	1.00	1.50	4,000	4.03	500
Total		Meas + Ind	1.00		520,000	3.96	66,200

INFERRED							
CH0 envelope	5	Inferred	1.00	2.70			
CH1 envelope	1	Inferred	1.00	2.70	5,000	1.09	200
W high grade	7	Inferred	1.00	2.70	27,000	3.90	3,400
M high grade	8	Inferred	1.00	2.70	31,000	3.80	3,700
E high grade	9	Inferred	1.00	2.70	31,000	2.55	2,500
CH2 envelope	2	Inferred	1.00	2.70	1,000	2.26	100
E high grade	11	Inferred	1.00	2.70	19,000	3.83	2,300
CH3 envelope	3	Inferred	1.00	2.70	10,000	1.24	400
W high grade	12	Inferred	1.00	2.70	9,000	2.91	800
E high grade	13	Inferred	1.00	2.70	11,000	1.99	700
Hanging-wall fill	22	Inferred	1.00	1.50		3.49	
Foot-wall fill	23	Inferred	1.00	1.50		6.28	
Total	18%	Inferred	1.00		144,000	3.07	14,100



All classes		All	1.00		663,000	3.77	80,300
Foot-wall fill	23	All	1.00	1.50	4,000	4.03	500
Hanging-wall fill	22	All	1.00	1.50	11,000	5.20	1,900
E high grade	13	All	1.00	2.70	54,000	2.39	4,100
W high grade	12	All	1.00	2.70	60,000	4.09	7,900
CH3 envelope	3	All	1.00	2.70	15,000	1.33	600
E high grade	11	All	1.00	2.70	37,000	3.84	4,600
CH2 envelope	2	All	1.00	2.70	1,000	2.26	100
E high grade	9	All	1.00	2.70	130,000	3.62	15,200
M high grade	8	All	1.00	2.70	227,000	3.99	29,200
W high grade	7	All	1.00	2.70	110,000	4.45	15,800
CH1 envelope	1	All	1.00	2.70	13,000	1.12	500
CH0 envelope	5	All	1.00	2.70		1.16	
MEASURED + INDI	CATED +	INFERRED)				

ADELONG - Challe	ТОРО					
Block model:	Low					
Resource		Cut-off	SG	Tonnes	Au	Au
class		Au (g/t)	(t/m³)	(t)	(g/t)	(oz)
Measured	72%	1.00	2.70	357,000	4.17	47,900
Indicated	28%	1.00	2.70	163,000	3.50	18,300
Measured + Indic	ated	1.00	2.70	520,000	3.96	66,200

ADELONG - Challe	enger "full strike" Global in-si	tu JORC	Resources		ТОРО
Block model:	CHALL_20210908_ENV_HG_	UG.G3*	15/9/2021		Low
Resource	Cut-off	SG	Tonnes	Au	Au
class	Au (g/t)	(t/m³)	(t)	(g/t)	(oz)
Inferred	1.00	2.70	144,000	3.07	14,100

ADELONG - Challe	ТОРО					
Block model:	CHALL_20210908_	Low				
Resource		Cut-off	SG	Tonnes	Au	Au
class		Au (g/t)	(t/m³)	(t)	(g/t)	(oz)
Measured	60%	1.00	2.70	357,000	4.17	47,900
Indicated	23%	1.00	2.70	163,000	3.50	18,300
Inferred	18%	1.00	2.70	144,000	3.07	14,100
Measured + Indicated + Inferred 1.00 2.70 663,000 3.77 8						

APPENDIX 3 – CHALLENGER DRILL HOLE LISTING & COLLAR SURVEYS

The following listing gives name and collar details of the drill holes within the Challenger deposit area.

NB: Easting and Northing coordinates are in AMG 66. Elevations have had 1,000 m added to true elevation.

Drill	Easting	Northing	Elevation	Depth	Azimuth	Dip	Туре
1010		(11)	1466.0		102.6	()	CIII
AD039	596,950.7	6,093,082.9	1400.0	64.5	102.6	-60.0	CHL
AD040	596,950.0	6,093,734.1	1458.7	61.0	102.0	-60.0	CHL
AD041	590,950.7	6,093,791.9	1443.2	02.0	119.6	-00.0	CHL
AD043	590,935.8		1472.0	117.8 64.0	102.0	-70.0	
AD044	596,950.4	6,093,000.5	1470.7	64.0 F 9 7	102.6	-60.0	
AD040	590,902.7	6,093,901.1	1424.0	58.7 E1 4	102.0	-60.0	
AD047	590,977.7	6,095,225.4	1412.0	JI.4 49 D	102.0	-00.0	
AD046	590,961.9	6,093,171.3	1405.0	40.Z	102.0	-00.0	
AD049	590,970.2	6,093,909.8	1429.0	240.4	102.0	-05.0	
AD050	590,807.0 EGE 862 E	6,095,770.0	1459.7	249.4	102.0	-75.0	CHL
AD052	506 020 8	6 002 880 2	1432.8	150 4	102.0	-70.0	CHY
AD052	596 932 2	6 093 969 3	1420.0	157.7	102.0	-75.0	СНХ
AD053	596 888 7	6 093 508 9	1477 0	310.6	102.0	-65.0	СНІ
AD055	596 861 0	6 093 854 3	1/28 5	319.6	102.0	-68.0	CHI
AD055	596 881 0	6 093 371 7	1420.5	232.6	102.0	-65.0	CHI
AD050	596 931 1	6 093 257 4	1402.5	130.6	102.0	-65.0	CHI
AD058	596 920 2	6 093 163 7	1421.0	214 5	102.6	-65.0	
AD050	596 959 3	6 093 659 8	1469 3	61.8	102.0	-60.0	СНІ
AD060	596 961 4	6 093 682 8	1467.0	41 7	102.0	-60.0	CHI
AD061	596 952 2	6 093 710 2	1462.3	55.7	100.6	-60.0	CHI
AD062	596,964,9	6.093.737.2	1458.4	40.5	105.6	-60.0	CHI
AD063	596,959,5	6.093.765.8	1451.0	57.6	103.6	-60.0	CHL
AD064	596.956.5	6.093.611.3	1474.0	69.8	101.1	-50.0	CHL
AD069	596.960.3	6.093.295.3	1427.8	64.3	84.6	-70.0	CHL
AD070	596,962.7	6,093,252.0	1420.7	66.0	85.6	-59.0	CHL
AD071	596,973.2	6,093,198.8	1409.4	67.4	88.6	-55.0	AU
AD072	596,963.1	6,093,575.6	1476.4	68.7	97.6	-55.0	CHL
AD073	596,964.4	6,093,537.5	1470.4	72.7	93.6	-55.0	CHL
AD074	596,957.1	6,093,435.4	1453.3	69.3	100.6	-60.0	CHL
AD075	596,982.0	6,093,847.2	1435.1	80.0	96.6	-60.0	CHX
AD080	596,930.3	6,094,321.7	1407.5	51.0	97.6	-60.0	CHX
AD081	596,977.1	6,094,189.6	1414.2	51.0	99.6	-60.0	CHX
ARC001	596,789.8	6,094,198.7	1399.7	80.0	91.6	-59.5	CHX
ARC002	596,750.2	6,094,198.4	1397.1	96.0	93.6	-60.2	CHX
ARC003	596,998.6	6,093,924.1	1433.3	30.0	95.6	-60.0	CHX
ARC004	596,961.0	6,093,921.1	1426.7	102.0	96.6	-64.3	CHX
ARC005	596,946.2	6,093,721.6	1460.4	86.0	90.6	-68.0	CHL
ARC006	596,935.1	6,093,758.1	1453.0	96.0	92.1	-60.0	CHL
ARC007	596,964.8	6,093,714.8	1462.2	54.0	96.6	-60.4	CHL
ARC008	596,939.1	6,093,821.1	1435.6	96.0	89.1	-59.0	CHL
ARC009	596,995.3	6,093,905.6	1436.9	60.0	100.1	-90.0	CHX
ARC010	596,988.5	6,093,784.8	1452.3	12.0	358.3	-70.0	CHX
ARCUII	596,946.0	6,093,721.7	1460.4	84.0	90.6	-69.0	CHL
ARCUZU	596,831.0	6,094,199.5	1402.9	96.0	94.6	-49.0	CHX
ARCUZZ	596,937.0	6,093,887.2	1427.3	120.0	89.0 06.6	-20.0	
ARC025	596,090.9	6,094,190.0	1393.0	52.0	90.0	-49.0	
ARC024	596,907.2	6,093,036.5	1472.2	52.0 02.0	97.1	-39.2	
ARC023	596 946 3	6,093,039.5	1473.1	59.0	87.0 90.6	-70.8	CHL
ARC028	596,940.3	6 093 711 8	1400.3	94.0	90.0	-70.0	CHL
ARC042	596 899 9	6 093 711 7	1454.5	150.0	91.6	-56.8	CHI
ARC051	596 968 9	6 093 619 1	1473 3	51.0	91.6	-48.0	CHI
ARC052	596 987 5	6.093 660 6	1470.2	46.0	91.6	-48.0	CHI
ARC053	596,977 9	6.093.628 3	1472 0	36.0	86.6	-49.0	CHI
ARC055	596.972.8	6.093.660.5	1469.8	72.0	88.6	-60.0	CHL
ARC056	596.946.5	6.093.660.1	1470.0	88.0	85.6	-60.0	CHI
ARC057	596.955.3	6.093.616.9	1474.2	66.0	87.6	-50.0	CHL
ARC058	596.976.4	6,093.682.3	1467.9	40.0	90.6	-60.0	CHL
ARC059	596.965.0	6,093.681.9	1467.8	51.0	89.1	-61.5	CHL
ARC060	596,955.1	6,093,681.8	1467.6	61.0	92.6	-60.0	CHL
ARC061	596,974.6	6,093,719.2	1462.5	41.0	93.6	-54.5	CHL
ARC062	596,967.8	6,093,701.6	1465.3	48.0	90.6	-56.0	CHL



Drill	Easting	Northing	Elevation	Depth	Azimuth	Dip	Туре
hole	(m)	(m)	(m)	(m)	(°)	(°)	
ARC063	596,952.6	6,093,700.1	1464.3	60.0	87.6	-60.0	CHL
ARC065	596,936.1	6,093,699.4	1463.9	90.0	94.6	-60.5	CHL
ARC066	596,953.5	6,093,719.7	1461.3	69.0 40.0	93.0	-58.5	
ARC068	596 952 2	6 093 738 9	1458 1	40.0 66.0	97.0	-59.5	CHI
ARC069	596,971.7	6.093.604.4	1473.4	48.0	102.6	-45.0	CHL
ARC070	596,974.1	6,093,760.9	1453.0	54.0	96.6	-61.5	CHL
ARC071	596,987.6	6,093,776.8	1452.6	30.0	92.6	-60.0	СНХ
ARC072	596,961.4	6,093,791.2	1443.0	60.0	97.6	-55.0	CHL
ARC073	596,988.4	6,093,819.9	1439.8	37.0	92.6	-50.0	CHX
ARC074	596,976.5	6,093,878.6	1431.9	50.0	91.6	-59.0	CHX
ARC075	596,959.8	6,093,898.4	1428.4	66.0	89.1	-55.0	CHX
ARC076	596,974.3	6,093,919.4	1428.7	54.0	92.6	-55.0	CHX
ARCU77	596,979.1	6,093,960.1	1427.0	48.0	90.6	-59.5	
ARC078	596,981.9	6,094,034.5	1425.9	84.0 84.0	95.0 87.6	-67.5	СНХ
ARC081	596,932.8	6.093.659.2	1469.7	108.0	92.6	-58.0	СНІ
ARC082	597,003.8	6,093,659.2	1469.7	24.0	94.6	-54.5	CHL
ARC083	596,954.6	6,093,617.1	1474.3	80.0	88.6	-62.5	CHL
ARC084	596,933.9	6,093,679.5	1466.4	90.0	88.6	-60.0	CHL
ARC085	596,940.1	6,093,738.2	1457.7	73.0	88.6	-63.0	CHL
ARC086	596,984.3	6,093,898.5	1432.2	42.0	88.6	-54.5	CHX
ARC087	596,974.2	6,093,981.1	1425.9	36.0	91.6	-58.0	CHX
ARC088	596,980.7	6,093,766.3	1452.7	42.0	93.1	-48.5	CHL
ARC089	596,963.7	6,093,940.0	1425.9	66.0	91.6	-59.0	CHX
ARC090	596,979.3	6,093,940.3	1428.5	42.0	91.6 102.6	-58.5	
ARC091	596 977 2	6 093 890 2	1430.0	45 0	91.6	-55.0	СНХ
ARC093	596,988.2	6.093.882.7	1433.5	24.0	91.6	-49.0	СНХ
ARC094	596,962.6	6,093,918.9	1426.9	60.0	90.6	-60.0	CHX
ARC095	596,996.7	6,093,940.8	1431.1	30.0	92.6	-55.0	CHX
ARC096	596,975.3	6,093,931.3	1427.6	48.0	90.6	-60.0	CHX
ARC097	596,973.0	6,093,960.1	1426.0	50.0	89.6	-61.0	CHX
ARC098	596,969.9	6,093,999.7	1423.8	36.0	88.6	-59.0	CHX
ARC099	596,912.6	6,094,160.5	1410.3	80.0	92.6	-60.0	CHX
ARC100	596,920.2	6,094,036.4	1415.1	96.0	87.6	-60.0	CHX
ARCIUI	590,939.2	6,094,100.5	1413.1	20.0	89.0 89.0	-60.0	
ARC102 ARC104	596 991 2	6,093,940,6	1435.7	30.0	91.6	-49.5	СНХ
ARC104	596.897.0	6.093.764.0	1445.0	138.0	84.6	-53.0	CHL
ARC106	596,963.7	6,094,063.3	1420.3	52.0	92.6	-62.5	CHX
ARC107	596,962.1	6,094,093.9	1420.9	36.0	88.6	-60.0	CHX
ARC108	596,984.3	6,093,981.4	1426.5	20.0	89.6	-57.5	CHX
ARC109	596,963.1	6,093,980.8	1423.4	54.0	90.6	-60.5	CHX
ARC110	596,978.9	6,093,994.7	1425.2	18.0	91.6	-59.5	CHX
ARC111A	596,958.2	6,093,999.9	1422.3	50.0	90.6	-60.0	CHX
ARC112	596,972.1	6,094,018.9	1422.8	36.0	91.6	-58.0	
ARC115 ARC125	596,955.8	6,094,019.1	1420.7	96.0	91.0 86.6	-36.5	СНХ
ARC126	596.970.0	6,093.858.0	1431.5	58.0	93.6	-58.5	CHX
ARC127	596,986.0	6,093,836.0	1438.0	30.0	94.6	-45.5	CHX
ARC128	596,965.0	6,093,810.0	1441.5	66.0	77.6	-58.5	CHL
ARC129	596,955.0	6,093,791.0	1444.5	78.0	78.6	-59.5	CHL
ASD001	596,917.4	6,093,665.2	1466.6	165.4	78.1	-71.5	CHL
ASD002	596,901.1	6,093,711.2	1454.6	90.0	81.6	-60.0	CHL
ASD003	596,901.5	6,093,711.4	1454.6	132.0	83.6	-54.0	CHL
ASD004	596,850.4	6,093,920.9	1415.8	315.2	91.1	-65.0	CHX
ASD005	596,954.6	6,093,644.2	14/2./	/9.0	90.6 02.6	-6U.U	CHL
	596,939.U 596 910 5	0,093,039.4 6 093 668 7	14/3.3 1/6/ 5	90.4 157 1	92.0 105.6	-39.5 -60 0	СПС
DDH002	596.862.7	6.093.681.5	1452.8	250.0	105.6	-65.0	CHI
DDH003	596,897.8	6,093,718.2	1453.6	205.6	105.6	-60.0	CHL
DDH006	596,870.1	6,093,725.4	1448.4	250.0	105.6	-60.0	CHL
DDH007	596,936.8	6,093,732.9	1458.6	175.1	105.6	-72.0	CHL
DDH008	596,888.7	6,093,746.1	1448.5	209.5	105.6	-60.0	CHL
DDH009	596,933.5	6,093,760.7	1452.8	156.9	105.6	-70.0	CHL
DDH010	596,897.3	6,093,770.0	1445.2	148.5	105.6	-63.0	CHL
DDH011	596,915.4	6,093,792.2		216.9	105.6	-53.5	CHL
	590,914.9 596 919 7	0,093,792.3 6 002 810 0	1441.5	193.5 244 E	105.b 105.c	-07.0 -52.0	
DDH013	596,912.7	6.093.819.1	1436.2	244.5 250.2	105.0	-77.0	CHI
1 22.1011	230,312.3	0,000,010.1	1,30.2	230.2	100.0		0112



Drill	Easting	Northing	Elevation	Depth	Azimuth	Dip	Туре
hole	(m)	(m)	(m)	(m)	(°)	(°)	
DDH015	596,914.0	6,093,792.5	1441.5	220.5	105.6	-78.0	CHL
DDH016	596,896.3	6,093,770.2	1445.2	235.5	105.6	-70.0	CHL
DDH017	596,932.2	6,093,683.2	1465.8	223.5	105.6	-68.5	CHL
	596,932.2	6,093,683.2	1465.8	180.1	105.6	-80.0	
	596 898 7	6 093 718 0	1453.6	129.5	105.0	-52.0	CHI
DDH021	596.895.8	6.093.770.3	1445.2	257.0	105.6	-77.0	CHL
DDH022	596,887.7	6,093,746.3	1448.5	212.0	105.6	-72.0	CHL
DDH023	596,888.3	6,093,799.4	1437.2	225.2	105.6	-76.0	CHL
DDH024	596,872.3	6,093,827.5	1433.1	246.1	105.6	-76.0	CHL
DDH025	596,912.5	6,093,819.1	1436.2	137.8	105.6	-67.0	CHL
DDH026	596,899.3	6,093,848.3	1430.0	173.0	105.6	-74.0	CHL
DDH027	596,917.9	6,093,615.2	1475.0	131.0	105.6	-62.0	CHL
DDH038	596,899.5	6,093,848.3	1430.0	148.3	105.6	-62.3	CHL
GAB001 GAB002	590,989.0	6,093,665.0	1469.0	17.0	270 3	-45.0	СНІ
GAB002 GAB003	596 985 0	6,093,007.0	1408.0	17.0	270.3	-43.0	СНІ
GAB004	596.864.0	6.093.419.0	1474.3	25.0	270.3	-45.0	CHL
GAB005	596,871.0	6,093,368.0	1464.2	25.0	270.3	-45.0	CHL
GAB006	596,879.0	6,093,237.0	1439.0	25.0	270.3	-45.0	CHL
GAB007	596,881.0	6,093,242.0	1439.0	12.0	270.3	-45.0	CHL
GAB008	596,980.0	6,093,341.0	1431.0	11.0	90.1	-45.0	CHL
GAB009	596,986.0	6,093,234.0	1411.0	12.0	90.1	-45.0	CHL
GAB010	597,011.0	6,093,005.0	1390.0	6.0	90.1	-45.0	CHL
GAB011	597,011.0	6,092,978.0	1386.0	25.0	90.1	-45.0	CHL
GAB012 GAB013	597,024.0	6,093,003.0	1300.0	25.0 16.2	270.3	-45.0	CHL
GAB015 GAB038	596,972.0	6.094.075.0	1420.0	25.0	270.3 90.1	-47.0	CHX
GAB039	596,986.0	6,094,070.0	1422.0	25.0	90.1	-46.0	CHX
GAB040	596,940.0	6,094,178.0	1412.0	25.0	90.1	-45.0	СНХ
GAB041	596,955.0	6,094,179.0	1413.0	25.0	94.1	-46.0	CHX
GAB042	596,973.0	6,094,179.0	1415.0	25.0	90.1	-45.0	СНХ
GAB068	597,177.0	6,094,058.0	1451.0	25.0	90.1	-41.0	CHXE
GAB069	597,163.0	6,094,058.0	1449.0	25.0	90.1	-45.0	CHXE
GRC001	596,995.6	6,093,880.7	1434.9	20.0	87.6	-56.0	CHX
GRC002	596,984.4	6,093,880.3	1435.3	33.0 24.0	80.0 86.6	-59.5	СНХ
GRC004	596,984,8	6.093.890.6	1432.6	36.0	89.6	-60.0	СНХ
GRC005	596,974.9	6,093,899.8	1429.8	45.0	88.6	-54.0	CHX
GRC006	596,976.8	6,093,909.6	1429.5	42.0	87.6	-48.0	СНХ
GRC007	596,980.4	6,093,919.5	1429.8	36.0	89.6	-54.5	CHX
GRC008	596,966.1	6,093,919.3	1427.6	53.0	90.6	-54.0	СНХ
GRC009	596,974.4	6,093,999.7	1424.3	30.0	91.6	-55.5	CHX
GRC010	596,946.9	6,093,976.9	1420.2	78.0	87.6	-55.0	CHX
GRC011	596,985.4	6,093,939.9	1429.5	30.0	90.6	-60.0	
GRC012 GRC013	596 989 5	6 093 965 1	1423.0	48.0 24.0	91.6	-58.5	СНХ
GRC014	596.963.9	6.094.020.6	1422.5	40.0	89.6	-57.0	СНХ
GRC015	597,002.4	6,094,040.1	1426.1	36.0	89.6	-51.0	СНХ
GRC016	596,990.0	6,093,934.0	1429.3	15.0	97.6	-49.5	СНХ
GRC017	596,935.2	6,093,998.8	1417.5	90.0	90.1	-55.0	CHX
GRC018	596,944.6	6,093,976.6	1419.8	95.0	85.1	-63.0	CHX
GRC019	596,927.1	6,093,754.8	1452.9	132.0	108.6	-65.5	CHL
GRC020	596,925.6	6,093,755.1	1452.8	150.0	108.6	-/1.0	
GRC021	596,920.9	6,093,737.3	1452.7	130.0	01.1 QO 1	-06.0	СНІ
GRC022	596,930,1	6.093.685.4	1457.9	150.0	90.1	-73.0	CHI
GRC027	596,929.0	6,093,577.7	1479.1	120.0	90.1	-67.0	CHL
GRC029	596,930.3	6,093,577.7	1479.1	96.0	90.1	-53.0	CHL
GRC030	596,878.7	6,093,724.3	1449.3	197.0	86.1	-65.0	CHL
GRC032	596,917.5	6,093,614.0	1475.0	168.0	91.1	-68.0	CHL
GRC033	596,874.4	6,093,777.3	1439.2	216.0	102.1	-65.0	CHL
GRC034	596,879.3	6,093,819.8	1432.9	192.0	97.0	-61.0	CHL
GRC035	596,872.U	6,093,868./	1425.2 1425.2	186.0	90.1	-08.U	
GRC062	590,075.0 596 970 N	0,093,009.0 6,094 100 0	1425.2 1414 0	220.0 120.0	90.1 90 1	-30.0	СНХ
GRC063	596.915.0	6,094.000.0	1416.0	126.0	90.1	-60.0	CHX
GRC064	596,940.0	6,093,920.0	1415.2	125.0	90.1	-80.0	СНХ
GRC065	596,914.0	6,093,485.0	1476.5	142.0	120.1	-60.0	CHL
GRC066	596,965.0	6,093,295.0	1426.5	60.0	90.1	-60.0	CHL
GSD001	596,898.9	6,093,711.8	1454.5	165.4	98.1	-60.0	CHL



Drill	Easting	Northing	Elevation	Depth	Azimuth	Dip	Туре
hole	(m)	(m)	(m)	(m)	(°)	(°)	
GSD003	596,891.2	6,093,793.5	1437.8	165.9	109.1	-62.0	CHL
GSD004	596,877.3	6,093,819.8	1432.7	240.1	90.1	-69.0	CHL
GSD005	596,862.0	6,093,660.0	1458.0	108.0	90.1	-66.0	CHX
TGRC004	596,781.0	6,093,322.0	1468.7	10.0	90.1	-50.0	CHL
TGRC026	596,905.0	6,094,146.0	1409.9	8.0	90.1	-60.0	CHX
TGRC027	596,931.0	6,094,176.0	1411.6	15.0	90.1	-60.0	CHX
TGRC028	596,917.0	6,094,216.0	1407.7	10.0	90.1	-60.0	CHX
TGRC029	596,937.0	6,094,251.0	1406.7	38.0	90.1	-50.0	CHX
TGRC030	596,926.0	6,094,299.0	1405.8	19.0	90.1	-50.0	CHX
TGRC031	596,919.0	6,094,348.0	1407.4	34.0	90.1	-50.0	CHX
TGRC040	597,067.0	6,094,178.0	1426.7	40.0	90.1	-60.0	CHX
TGRC041	596,945.0	6,094,299.0	1407.5	20.0	270.3	-65.0	CHX
TGRC047	596,959.0	6,094,220.0	1410.9	9.0	270.3	-60.0	CHX
218			Total	19,531.4	m		



APPENDIX 4 - CHALLENGER DRILL HOLE 'ENVELOPE' VEIN INTERCEPTS

The following listings give all drill hole vein intercepts within the Challenger deposit area – for the 'Envelope veins' interpretation. Intercepts are listed by vein, from east to west. Vein intercepts may have had multiple sample intervals and the gold values are the composits of all samples within each vein.

Vein	Roof	Floor	Thick	Au
Hole	(m)	(m)	(m)	(g/t)
CHALLENGER				
ENVELOPE				
CH4	121.00	122.00	1.00	0.00
AD052	131.00 66.70	132.00 67.70	1.00	0.00
AD072 ABC008	94.00	95.00	1.00	0.03
ARC052	41.00	42.00	1.00	6.25
ARC082	18.00	24.00	6.00	0.60
DDH001	148.15	153.48	5.33	0.28
DDH003	166.80	169.60	2.80	0.75
DDH006	243.30	246.60	3.30	0.03
DDH008	184.90	185.50	0.60	0.34
DDH011	152.10	155.90	3.80	0.64
DDH013	138.80	141.70	2.90	0.03
DDH017	154.40	156.60	2.20	0.54
Mean_Value :	128.26	130.84	2.58	0.57
Max_Value :	243.30	246.60	6.00	6.25
Min_Value :	18.00	24.00	0.60	0.00
No. Samples :	12.00	12.00	12.00	12.00
СНЗ				
AD046	40.65	56.65	16.00	0.87
AD049	36.60	51.00	14.40	0.68
AD052	120.00	120.20	0.20	
AD053	121.00	142.00	21.00	0.03
AD055	305.65	306.29	0.64	2.69
AD059	59.70	60.70	1.00	
AD064	63.50	66.30	2.80	0.42
AD072	61.70	62.70	1.00	0.01
AD073	57.50	58.50	1.00	0.12
AD075	30.00	31.00	1.00	0.17
ARC003	0.00	13.00	13.00	0.25
ARC004	53.00	65.00	12.00	0.35
ARC006	91.00	92.00	1.00	0.03
ARCOU7	51.00	52.00	1.00	0.53
ARCOU8	76.00	81.00	5.00	0.87
ARC009	33.00	49.00	1 00	2.84
ARCO22	81.00 147.00	149.00	1.00	0.22
ARC040	147.00	140.00	2.00	0.14
ARCO52	42.00	17.00	1.00	0.75
ARC052 ARC053	35.00	36.00	1.00	0.00
ARC055	42.00	43.00	1.00	0.24
ARC056	86.00	87.00	1 00	0.00
ARC057	64.00	65.00	1.00	0.76
ARC058	30.00	31.00	1.00	0.00
ARC059	50.00	50.10	0.10	0.00
ARC060	60.00	61.00	1.00	0.07
ARC061	34.00	35.00	1.00	0.10
ARC062	45.00	46.00	1.00	0.05
ARC066	66.00	67.00	1.00	0.38
ARC067	36.00	40.00	4.00	1.34
ARC069	41.00	45.00	4.00	0.80
ARC070	37.00	39.00	2.00	0.02
ARC071	20.00	20.10	0.10	0.02
ARC072	54.00	54.10	0.10	0.00
ARC073	17.00	20.00	3.00	0.10
ARC074	32.00	37.00	5.00	0.46
ARC075	46.00	59.00	13.00	0.67
ARC076	26.00	40.00	14.00	10.43
ARC077	15.00	30.00	15.00	1.03
ARC081	98.00	102.00	4.00	1.40
ARC083	76.00	77.00	1.00	0.05
ARC086	20.00	31.00	11.00	0.31

Vein Hole	Roof (m)	Floor (m)	Thick (m)	Au (g/t)
ARC087	18.00	31.00	13.00	2.49
ARC088	22.00	23.00	1.00	
ARC089	39.00	52.00	13.00	0.37
ARC090	21.00	36.00	15.00	1.61
ARC091	17.00	28.00	11.00	0.59
ARC092	32.00	39.00	7.00	0.37
ARC093	14.00	22.00	8.00	3.58
ARC094	47.00	58.00	11.00	0.31
ARC095	0.00	12.00	12.00	0.02
ARC096	28.00	42.00	14.00	3.35
ARC097	23.00	40.00	17.00	2.84
ARC098	16.00	35.00	19.00	4.67
ARC099	72.00	73.00	1.00	1.25
ARC100	86.00	87.00	1.00	0.06
ARC102	14.00	17.00	3.00	1.35
ARC104	6.00	21.00	15.00	0.17
ARC105	136.00	137.00	1.00	0.00
ARC106	16.00	17.00	1.00	0.01
ARC107	15.00	16.00	1.00	0.03
ARC108	6.00	14.00	8.00	0.33
ARC109	37.00	49.00	12.00	0.68
ARC110	3.00	18.00	15.00	0.45
ARC111A	36.00	51.00	15.00	3.38
ARC112	13.00	17.00	4.00	1.03
ARC113	38.00	47.00	9.00	3.79
ARC126	41.00	44.00	3.00	0.01
ARC127	22.00	24.00	2.00	0.16
ARC128	49.00	50.00	1.00	0.05
ARC129	67.00	68.00 247.00	1.00	0.37
ASD004	237.70	247.90	10.20	0.50
	140.00	141.00	1.00	0.31
	140.00	221.00	1.00	
	220.00	145 10	1.00	
DDH006	143.00	143.10	0.10	
	160.00	160 10	0.10	
	130.00	130.10	0.10	
DDH011	112.00	112 10	0.10	
DDH012	139.20	139.90	0.10	0.02
DDH013	111.00	111.10	0.10	0.02
DDH014	190.90	192.60	1.70	27.51
DDH015	196.20	196.40	0.20	1.50
DDH017	128.40	129.40	1.00	0.28
DDH020	129.40	129.50	0.10	
DDH021	235.00	235.10	0.10	
DDH023	215.20	218.50	3.30	0.37
DDH025	129.10	129.70	0.60	0.42
DDH027	130.00	131.00	1.00	0.09
DDH038	142.60	144.30	1.70	0.14
GAB001	16.00	17.00	1.00	0.52
GAB002	14.00	15.00	1.00	0.04
GAB040	19.00	20.00	1.00	0.17
GRC001	6.00	15.00	9.00	1.12
GRC002	23.00	30.00	7.00	0.77
GRC003	5.00	15.00	10.00	1.17
GRC004	21.00	31.00	10.00	2.24
GRC005	32.00	39.00	7.00	7.06
GRC006	24.00	35.00	11.00	2.14
GRC007	21.00	33.00	12.00	1.82
GRC008	35.00	49.00	14.00	1.78
GRC009	10.00	24.00	14.00	1.37
GRC010	52.00	67.00	15.00	3.43
GRC011	13.00	29.00	16.00	0.81



Vein	Roof	Floor	Thick	Au
Hole	(m)	(m)	(m)	(g/t)
GRC012	28.00	45.00	17.00	1.72
GRC013	0.00	13.00	13.00	0.59
GRC014	5.00	28.00	12.00	0.15
GRC010	5.00	75.00	14.00	0.96
GRC017	66.00	75.00 80.00	14.00	0.90
GRC010	94.00	00.00 05.00	14.00	0.40
GRC023	94.00	169.00	1.00	0.00
GRC032	210.00	210 10	0.10	
GRC034	178.00	180.00	2 00	0.06
GRC034	178.00	180.00	2.00	0.00
GRC057	94.00	116 00	22.00	0.22
GRC064	118.00	120.00	22.00	0.22
	234.00	234 10	0.10	0.00
	204.00	4 00	1 00	2 27
Mean Value :	68 59	74.25	5.66	1 57
Max Value .	305.65	306.29	22.00	27.51
Min Value :	505.05 E 00	4 00	22.00	27.51
No Samples :	-5.00	-4.00	122.00	104.00
NU. Samples :	122.00	122.00	122.00	104.00
	61.00	62.00	1 00	
AD033	46.20	40.00	1.00	0.10
	40.20	48.20	2.00	0.19
	106.00	105.05	0.10	0.02
	114.00	114 50	0.30	0.03
	114.00	114.50	0.50	0.00
	293.93	295.00	1.07	0.02
	209.00	290.00	1.00	0.02
	120.00	123.00	3.00	0.28
AD059	51.50	55.00	1.50	0.41
AD060	40.30	40.69	0.39	0.15
AD062	57.60	38.0U	1.00	0.08
AD063	53.10	55.10	2.00	0.03
AD064	56.50	59.70	3.20	0.81
AD070	60.00	60.10	0.10	
AD071	51.00	51.10	0.10	0.04
AD072	57.70	58.70	1.00	0.04
AD073	51.30	52.30	1.00	0.24
AD074	63.00	64.00	1.00	0.00
	12.00	14.00	2.00	0.00
	44.00	45.00	1.00	0.03
	85.00	80.UU	1.00	0.03
	44.00	48.00	4.00	0.24
	09.00	73.00	4.00	0.47
AKCUZZ	/1.90	/2.00	0.10	0.00
AKCU24	39.00	47.00	8.00	0.79
	140.00	141.00	1.00	0.20
	37.00	39.00	2.00	0.28
	7.00	8.00	1.00	0.01
AKCU53	24.00	28.00	4.00	0.34
ARCU55	26.00	27.00	1.00	0.02
ARCU56	/6.00	/9.00	3.00	0.13
ARCU5/	55.00	58.00	3.00	2.25
AKCU58	23.00	24.00	1.00	0.22
ARCU59	38.00	38.50	0.50	0.03
ARCUBU	48.00	49.00	1.00	0.46
AKCU61	24.00	25.00	1.00	0.04
ARCU62	36.00	37.00	1.00	0.08
ARCU65	88.00	90.00	2.00	0.10
ARC066	59.00	61.00	2.00	0.17
ARCU67	27.00	31.00	4.00	0.66
AKCU68	60.00	61.00	1.00	
ARC069	32.00	33.00	1.00	0.02
ARC070	28.00	29.00	1.00	0.00
ARC071	9.00	10.00	1.00	0.46
ARC072	48.00	48.10	0.10	0.00
ARC073	6.00	7.00	1.00	0.00
ARC074	19.00	19.10	0.10	0.00
ARC075	34.00	36.00	2.00	0.41
ARC077	11.00	11.10	0.10	0.00
ARC081	91.00	94.00	3.00	0.36

Vein	Roof	Floor	Thick	Au
ABC083	70.00	72.00	2.00	(g/t) 0.20
ARC084	89.00	90.00	1.00	0.20
ARC087	14.00	14.10	0.10	0.00
ARC088	15.00	15.50	0.50	
ARC089	34.00	34.10	0.10	0.00
ARC090	15.00	15.10	0.10	0.00
ARC093	4.00	5.00	1.00	0.12
ARC094	39.00	40.00	1.00	0.02
ARCU98	14.00	15.00	1.00	0.08
ARC102	1.00	2.00	1.00	0.05
ARC104	129.00	130.00	1.00	0.27
ARC108	3.00	4.00	1.00	0.10
ARC109	34.00	35.00	1.00	0.13
ARC110	-2.00	-1.90	0.10	
ARC111A	31.00	32.00	1.00	0.07
ARC112	6.00	6.10	0.10	0.05
ARC113	30.00	30.10	0.10	0.00
ARC125	87.00	88.00	1.00	0.16
ARC120 ARC128	20.00	20.10	2 00	0.78
ARC129	57.00	63.00	6.00	0.52
ASD003	129.60	130.05	0.45	0.11
ASD004	221.70	222.70	1.00	0.04
ASD005	63.00	72.45	9.45	0.10
ASD006	89.80	91.00	1.20	0.49
DDH001	132.00	133.00	1.00	
DDH002	207.10	207.60	0.50	0.05
DDH003	141.10	141.50	0.40	0.38
	151.00	152.00	0.10	0.02
DDH009	123.80	124.30	0.50	0.02
DDH011	104.10	105.70	1.60	9.11
DDH012	130.50	131.50	1.00	0.72
DDH013	104.80	106.80	2.00	3.14
DDH014	179.80	183.80	4.00	1.15
DDH015	183.70	192.20	8.50	0.46
DDH016	185.00	185.10	0.10	0.24
	120.40	121.40	1.00	0.24
DDH019	217.00	217.10	0.10	
DDH020	120.70	121.60	0.90	0.41
DDH021	230.00	230.10	0.10	
DDH022	206.50	207.50	1.00	0.09
DDH023	208.80	211.10	2.30	0.18
DDH024	237.00	244.10	7.10	3.97
DDH025	123.30	126.30	3.00	1.23
	159.50	100.10	0.00 2.10	1.79
DDH038	131.40	132.20	0.80	2.96
GAB013	4.00	5.00	1.00	0.83
GRC010	50.00	51.00	1.00	0.30
GRC011	8.00	9.00	1.00	3.23
GRC012	23.00	24.00	1.00	0.00
GRC017	58.00	59.00	1.00	0.02
GRC018	63.00	64.00	1.00	0.00
GRC019 GPC021	127.00	127.10	1.00	0.05
GRC021	139.00	132.00	1.00	0.05
GRC023	145.00	147.00	2.00	1.52
GRC027	117.00	118.00	1.00	0.08
GRC029	88.00	91.00	3.00	0.23
GRC030	189.00	189.10	0.10	0.00
GRC032	150.00	155.00	5.00	0.16
GRC033	204.00	205.00	1.00	37.00
GRC027	170.00	170.10	2.00	0.00
GRC063	170.00 88.00	90.00	2 00	በ በጽ
GRC064	106.00	108.00	2.00	0.16
GRC065	140.00	142.00	2.00	0.00
GRC066	56.00	56.10	0.10	



Vein Hole	Roof (m)	Floor (m)	Thick (m)	Au (g/t)
GSD001	160.00	161.00	1.00	0.03
GSD003	155.00	156.00	1.00	0.00
GSD004	217.00	219.00	2.00	0.21
Mean_Value :	87.68	89.21	1.54	0.88
Max_Value :	293.93	295.00	9.45	37.00
Min_Value :	-2.00	-1.90	0.10	0.00
No. Samples :	124.00	124.00	124.00	107.00
CH1				
AD039	38.00	53.50	15.50	4.57
AD040	40.00	57.10	17.10	2.45
AD043	97.35	113.00	15.65	1.12
AD044	53.15	67.00	13.85	0.24
AD047	38.30	43.14	4.84	0.64
AD048	43.00	40.05	3.05	0.39
AD051 AD052	299.14	00.14 00.10	0.10	0.01
AD052 AD054	279.13	280.36	1 23	0.00
AD055	270.00	279.00	9.00	0.40
AD056	217.35	220.35	3.00	0.05
AD057	115.62	116.23	0.61	0.22
AD058	194.00	198.00	4.00	0.12
AD059	30.00	46.40	16.40	1.68
AD060	22.00	32.60	10.60	0.16
AD061	34.00	53.70	19.70	0.93
AD062	19.00	35.10	16.10	1.33
AD063	32.00	50.00	18.00	0.59
AD064	36.00	50.10	14.10	1.16
AD070	48.00	48.10	0.10	
AD071 AD072	40.00	40.10 51 70	10.10	0 59
AD072 AD073	43.00	49.00	6.00	2 25
AD074	53.60	54.70	1.10	0.01
AD075	2.70	3.60	0.90	0.01
ARC005	54.00	80.00	26.00	2.05
ARC006	64.00	83.00	19.00	0.70
ARC007	18.00	41.00	23.00	1.17
ARC008	58.00	59.00	1.00	0.04
ARC011	56.00	83.00	27.00	2.71
ARC022	64.00	64.10	0.10	0.00
ARC024	22.00	37.00	15.00	2.01
ARCU25	88.00 110.00	120.00	20.00	0.58
ARC040 ARC051	22.00	33.00	11 00	1.05
ARC052	-8.00	3.00	11.00	0.27
ARC053	9.00	20.00	11.00	1.08
ARC055	9.00	19.00	10.00	1.19
ARC056	47.00	63.00	16.00	2.24
ARC057	37.00	53.00	16.00	1.53
ARC058	2.00	8.00	6.00	0.64
ARC059	17.00	27.00	10.00	0.83
ARC060	31.00	43.00	12.00	0.74
ARCU61	b.UU	19.00	13.00	0.63
	13.00	22.00 52.00	9.00 20.00	0.58
ARC065	62 00	79 NN	17 00	3 45
ARC066	33.00	53.00	20.00	0.69
ARC067	11.00	22.00	11.00	0.73
ARC068	33.00	51.00	18.00	0.96
ARC069	18.00	28.00	10.00	0.29
ARC070	10.00	26.00	16.00	0.88
ARC071	-5.00	6.00	11.00	0.24
ARC072	33.00	40.00	7.00	0.01
ARC075	30.00	31.00	1.00	0.02
ARC081	69.00	90.00	21.00	5.69
ARC083	48.00	67.00	19.00	0.61
	63.00	83.00	20.00	2.90
	00.00	30.00 13.00	20.00	1.23 0.18
ARC105	110.00	126.00	16.00	0.66
ARC125	64.00	84.00	20.00	1.10

Vein	Roof	Floor	Thick	Au (a(t)
HOIE	(m) 20.00	(m)	(m)	(g/t)
ASD001	140.00	159.70	19.70	1.89
ASD003	107.85	125.00	17.15	1.74
ASD005	35.00	53.40	18.40	2.04
ASD006	67.00	81.15	14.15	6.69
DDH001	110.00	128.50	18.50	1.54
DDH002	192.90	199.20	6.30	0.30
DDH003	120.80	140.20	19.40	7.26
DDH006	174.60	185.00	10.40	2.60
DDH007	85.60	114.20	28.60	4.30
DDH008	131.40	149.50	18.10	6.36 2.61
	80.40	117.60	37.20	3.01
	90.60	102.40	11.50	5.30 6.00
DDH012	111.70	129.50	17.80	1.42
DDH013	84.20	101.90	17.70	0.46
DDH014	154.20	174.60	20.40	0.67
DDH015	162.80	177.80	15.00	2.70
DDH016	160.50	178.60	18.10	0.19
DDH017	83.60	110.50	26.90	3.20
DDH018	136.70	163.00	26.30	2.29
DDH019	206.00	206.50	0.50	
DDH020	107.00	120.20	13.20	2.02
	100 60	225.20	12.00	0.24
	101.20	202.50	13.90	1.14
DDH023	225.60	205.80	10 30	0.39
DDH025	104.40	122.30	17.90	1.48
DDH026	155.00	156.00	1.00	0.04
DDH027	109.70	120.70	11.00	0.07
DDH038	119.50	127.20	7.70	0.10
GAB003	16.00	17.00	1.00	0.00
GAB008	6.00	7.00	1.00	0.05
GAB011	11.00	12.00	1.00	0.14
GAB012	7.00	8.00	1.00	0.00
GAB013	11.00	12.00	1.00	0.74
GRC019 GRC020	88.00	119.00	31.00	2.78
GRC020	101.00	127.00	26.00	2 33
GRC022	106.00	126.00	20.00	3.49
GRC023	114.00	138.00	24.00	7.18
GRC027	107.00	115.00	8.00	0.80
GRC029	76.00	83.00	7.00	1.05
GRC030	177.00	188.00	11.00	0.37
GRC032	132.00	144.00	12.00	0.39
GRC033	184.00	197.00	13.00	0.66
GRC034	153.00	167.00	14.00	1.53
GRC037	158.00	158.10	0.10	0.22
GRC065	130.00	134.00	4.00	0.22
GRC066	34.00	36.00	2 00	0.05
GSD001	139.00	157.00	18.00	2.18
GSD003	134.00	153.00	19.00	1.54
GSD004	195.00	206.00	11.00	3.45
Mean_Value :	84.51	97.07	12.56	1.98
Max_Value :	299.14	300.14	37.20	7.26
Min_Value :	-8.00	-2.00	0.10	0.00
No. Samples :	117.00	117.00	117.00	112.00
CH0	.		-	
AD039	34.00	36.00	2.00	0.00
AD041	30.30	33.89	3.59	0.06
AD043	93.15	94.15 E1.26	1.00	0.11
AD044 AD054	254 20	222 20 222 20	1 00	0.20
AD056	200.00	202 25	2.00	1 00
AD059	24.00	29.00	5.00	0.36
AD060	18.00	19.00	1.00	0.00
AD061	29.00	32.00	3.00	0.23
AD062	10.00	11.00	1.00	0.01
AD063	22.00	23.00	1.00	0.01



Vein	Roof	Floor	Thick	Au
Hole	(m)	(m)	(m)	(g/t)
AD064	32.00	33.50	1.50	0.04
AD072	29.70	30.70	1.00	0.00
AD073	25.90	27.90	2.00	0.36
ARCOUS	48.00	49.00	1.00	0.03
	54.00 13.00	59.00 16.00	3.00	0.04
ARCOOR	50.00	52.00	2.00	0.03
ARC011	50.00	51.00	1.00	0.03
ARC024	16.00	21.00	5.00	0.43
ARC025	74.00	75.00	1.00	0.01
ARC046	106.00	113.00	7.00	1.31
ARC051	14.00	15.00	1.00	0.03
ARC053	1.00	2.00	1.00	0.19
ARC055	7.00	8.00	1.00	0.04
ARC056	42.00	46.00	4.00	1.41
ARC057	31.00	37.00	6.00	1.17
ARCU58	-3.00	-2.00	1.00	0.00
ARC059	27.00	29.00	2.00	0.00
ARC061	27.00	3.00	1.00	0.00
ARC062	7.00	9.00	2.00	1.02
ARC063	28.00	30.00	2.00	0.08
ARC065	54.00	57.00	3.00	0.17
ARC066	28.00	31.00	3.00	0.93
ARC067	3.00	4.00	1.00	0.42
ARC068	26.00	28.00	2.00	0.20
ARC069	15.00	16.50	1.50	0.13
ARC070	0.00	1.00	1.00	0.02
ARC072	18.00	19.00	1.00	0.02
ARC081	61.00	65.00	4.00	0.57
ARCU83	43.00	44.00	1.00	0.38
ARC085	44.00	47.00	4.00	1.04
ARC125	57.00	58.00	1.00	0.03
ASD001	135.90	138.30	2.40	0.53
ASD003	96.25	102.20	5.95	0.25
ASD005	31.00	34.00	3.00	0.28
ASD006	54.00	60.00	6.00	0.22
DDH001	105.00	106.00	1.00	
DDH002	185.00	185.10	0.10	
DDH003	110.00	114.00	4.00	0.70
DDH006	172.80	1/3./0	0.90	0.76
	125.00	126.00	3.30 1.00	3.38
	73 40	79.40	6.00	0 48
DDH010	123.00	125.00	2.00	0.10
DDH011	79.00	79.10	0.10	
DDH012	102.30	104.40	2.10	0.33
DDH013	80.20	81.20	1.00	0.19
DDH015	150.00	150.10	0.10	
DDH016	156.80	158.80	2.00	0.19
DDH017	79.00	82.70	3.70	1.45
DDH018	132.00	135.80	3.80	2.11
	95.00	102.00	/.00	0.62
	213.5U 185.00	214.5U 185 10	1.00 0.10	0.09
DDH023	178.00	178 10	0.10	
DDH025	94.00	94.10	0.10	
DDH027	105.60	106.60	1.00	0.04
DDH038	107.60	108.60	1.00	0.23
GRC019	77.00	81.00	4.00	0.32
GRC020	101.00	112.00	11.00	0.35
GRC021	87.00	89.00	2.00	0.19
GRC022	99.00	104.00	5.00	0.95
GRC023	110.00	113.00	3.00	5.27
GRC027	100.00	101.00	1.00	0.00
GRC029	68.00	09.00	1.00	0.00
GRC022	126.00	122.10	1.00	0.00
GRC033	180.00	181 00	1.00	0.08
GRC034	146.00	148.00	2.00	0.00

Vein	Vein Roof Floor Thi		Thick	Au
Hole	(m)	(m)	(m)	(g/t)
GSD001	129.00	133.00	4.00	0.05
GSD003	132.00	134.00	2.00	2.83
Mean_Value :	76.21	78.53	2.31	0.67
Max_Value :	254.20	255.20	11.00	5.27
No Samplos :	-3.00	-2.00	0.10 84.00	71.00
NU. Samples .	84.00	64.00	64.00	/1.00
AD059	5.00	7 00	2 00	0.20
AD061	15.00	16.00	1.00	2.80
ARC025	66.00	68.00	2.00	0.12
ARC046	94.00	96.00	2.00	0.03
ARC056	25.00	26.00	1.00	0.44
ARC065	46.00	48.00	2.00	0.13
ARC084	47.00	56.00	9.00	1.00
ARC085	24.00	30.00	6.00	0.02
	90.40 108.60	91.30	0.90	0.07
DDH011	66 20	67.40	1 20	2 56
DDH020	84.40	86.90	2.50	0.10
GRC019	67.00	69.00	2.00	0.28
Mean Value :	56.82	59.32	2.50	0.54
Max_Value :	108.60	109.50	9.00	2.80
Min_Value :	5.00	7.00	0.90	0.02
No. Samples :	13.00	13.00	13.00	13.00
CHN1				
AD052	139.90	141.50	1.60	0.09
AD058	171.00	172.00	1.00	0.06
ARC008	22.00	32.00	10.00	0.03
ARC009	1 00	22.00 8.00	7.00	0.37
ARC022	108.00	112.00	4.00	7.43
ARC025	48.00	50.00	2.00	0.15
ARC052	35.00	37.00	2.00	1.07
ARC065	29.00	30.00	1.00	0.66
ARC078	54.00	66.00	12.00	0.11
ARC084	26.00	27.00	1.00	0.22
ARC095	17.00	18.00	1.00	0.38
ARC107	25.00	26.00	1.00	0.08
ASDU04	257.80	201.00	3.80	0.08
DDH009	142.00	142.60	0.75	0.09
DDH011	170.60	171.30	0.70	0.16
DDH014	197.70	199.80	2.10	0.08
DDH017	45.70	47.70	2.00	0.24
GAB001	12.00	13.00	1.00	0.13
GAB009	10.00	11.00	1.00	0.02
GAB013	15.00	16.00	1.00	0.38
GAB039	13.00	14.00	1.00	0.08
GRC015	5.UU 22.00	0.00 24.00	1.00	2.32
GRC064	23.00 52.00	24.00 54.00	2.00	0.00
Mean Value ·	67.14	69.55	2.00	0.62
Max Value	257.80	261.60	12.00	7.43
Min_Value :	1.00	6.00	0.60	0.02
No. Samples :	26.00	26.00	26.00	26.00
CHN2				
ARC078	30.00	36.00	6.00	0.04
ARC084	36.00	40.00	4.00	0.91
ASD004	250.55	251.25	0.70	0.78
DDH017	143.60	144.60	1.00	0.61
Mean_Value :	115.04	117.96	2.93	0.43
Nin Value :	250.55	251.25	6.00 0.70	0.91
No. Samples	2 00 2 00	20.00 2 00	0.70 4 00	0.04 1 00
	4.00	7.00	7.00	00
Mean Value :	79.71	85.05	5.34	1,64
Max_Value :	305.65	306.29	37.20	37.00
Min_Value :	-8.00	-4.00	0.10	0.00
No. Samples :	502.00	502.00	502.00	449.00

APPENDIX 5 - CHALLENGER DRILL HOLE 'HIGH GRADE' VEIN INTERCEPTS

The following listings give all drill hole vein intercepts within the Challenger deposit area – for the 'High grade veins' interpretation. Intercepts are listed by vein, from east to west. Vein intercepts may have had multiple sample intervals and the gold values are the composits of all samples within each vein.

Vein Hole	Roof (m)	Floor (m)	Thick (m)	Au (g/t)	Vein Hole
CHALLENGER	• •	. ,			ARC128
HIGH GRADE					ARC129
CH4					ASD004
ARC052	41.00	42.00	1.00	6.25	DDH011
ARC082	18.00	24.00	6.00	0.60	DDH012
DDH003	167.60	167.90	0.30	1.95	DDH013
DDH011	155.00	155.90	0.90	2.13	DDH014
DDH017	154.40	154.90	0.50	1.52	DDH015
Mean Value :	107.20	108.94	1.74	1.51	DDH023
Max Value :	167.60	167.90	6.00	6.25	DDH025
Min Value :	18.00	24.00	0.30	0.60	DDH038
No. Samples :	5.00	5.00	5.00	5.00	GRC001
CH3E					GRC002
AD046	53.65	55.65	2.00	2.80	GRC003
AD049	50.00	51.00	1.00	1.10	GRC004
AD052	120.00	120.20	0.20	-	GRC005
AD053	141.90	142.00	0.10	0.09	GRC006
AD055	305.65	306.29	0.64	2.69	GRC007
AD075	30.00	31.00	1.00	0.17	GRC008
ARC003	10.00	11.00	1.00	0.71	GRC009
ARC004	58.00	60.00	2.00	0.59	GRC010
ARC006	91.00	91.10	0.10	0.03	GRC011
ARC008	79.00	81.00	2.00	1.53	GRC012
ARC009	47.00	49.00	2.00	0.34	GRC013
ARC022	81.00	82.00	1.00	0.22	GRC014
ARC067	37.00	38.00	1.00	3.86	GRC017
ARC070	38.90	39.00	0.10	0.02	GRC018
ARC071	20.00	20.10	0.10	0.02	GRC034
ARC072	54.00	54.10	0.10	0.00	GRC037
ARC073	19.00	20.00	1.00	0.11	GRC063
ARC074	35.00	36.00	1.00	0.36	GRC064
ARC075	56.00	57.00	1.00	0.19	GSD004
ARC076	36.00	38.00	2.00	3.09	Mean_Value :
ARC077	21.00	23.00	2.00	1.80	Max_Value :
ARC078	-4.10	-4.00	0.10		Min_Value :
ARC086	26.00	28.00	2.00	0.51	No. Samples :
ARC087	25.00	27.00	2.00	9.71	CH3W
ARC088	22.90	23.00	0.10		AD046
ARC089	44.00	49.00	5.00	0.84	AD049
ARC090	30.00	35.00	5.00	4.21	AD053
ARC091	24.00	26.00	2.00	2.15	ARC003
ARC092	35.00	36.00	1.00	0.57	ARC004
ARC093	18.00	21.00	3.00	1.94	ARC009
ARC094	50.00	55.00	5.00	0.26	ARC074
ARC095	5.00	6.00	1.00	0.03	ARC075
ARC096	34.00	39.00	5.00	5.25	ARC076
ARC097	35.00	37.00	2.00	1.47	ARC077
ARC098	29.00	31.00	2.00	0.87	ARC078
ARC100	86.90	87.00	0.10	0.06	ARC086
ARC102	16.00	17.00	1.00	1.50	ARC087
ARC104	12.00	16.00	4.00	0.35	ARC089
ARC105	136.00	136.10	0.10	0.00	ARC090
ARC106	16.90	17.00	0.10	0.01	ARC091
ARC108	11.00	12.00	1.00	0.66	ARC092
ARC109	48.00	49.00	1.00	2.16	ARC093
ARC110	11.00	15.00	4.00	1.25	ARC094
ARC111A	49.00	50.00	1.00	37.30	ARC095
ARC112	15.00	16.00	1.00	2.51	ARC096
ARC113	43.00	47.00	4.00	0.64	ARC097
ARC126	43.00	43.10	0.10	0.02	ARC098
ARC127	23.00	23.10	0.10	0.19	ARC100

Vein	Roof	Floor	Thick	Au
Hole	(m)	(m)	(m)	(g/t)
ARC128	49.00	49.10	0.10	0.05
ARC129	67.00	68.00	1.00	0.37
ASD004	242.00	247.90	5.90	0.86
DDH011	112.00	112.10	0.10	
DDH012	139.20	139.30	0.10	0.02
DDH013	111.00	111.10	0.10	
DDH014	190.90	191.20	0.30	154.98
DDH015	196.20	196.40	0.20	1.50
DDH023	217.30	217.50	0.20	0.57
DDH025	129.10	129.70	0.60	0.42
DDH038	144 00	144 30	0.30	0.23
GRC001	11.00	14.00	3 00	2 31
GRC002	27.00	30.00	3.00	0.26
CRC002	7.00	11 00	4.00	2 52
CDC003	7.00	11.00	4.00	2.52
GRC004	27.00	30.00	3.00	2.27
GRC005	37.00	38.00	1.00	0.60
GKCUUb	29.00	33.00	4.00	4.81
GRC007	24.00	29.00	5.00	2.31
GRC008	44.00	47.00	3.00	0.80
GRC009	19.00	23.00	4.00	3.04
GRC010	61.00	63.00	2.00	1.26
GRC011	23.00	27.00	4.00	1.53
GRC012	42.00	45.00	3.00	1.92
GRC013	5.00	6.00	1.00	0.35
GRC014	25.00	26.00	1.00	0.35
GRC017	69.00	72.00	3.00	1.07
GRC018	71.00	75.00	4.00	1.09
GRC034	178.00	178.10	0.10	0.06
GRC037	186.00	186 10	0.10	0.00
GRC063	112.00	114.00	2 00	0.56
GRC064	110 00	120.00	0.10	0.00
GRC004	224.00	224.10	0.10	0.00
Maan Value i	234.00	234.10	0.10	2.40
iviean_value :	65.22	66.88	1.67	2.40
Max_Value :	305.65	306.29	5.90	154.98
iviin_Value :	-4.10	-4.00	0.10	0.00
No. Samples :	80.00	80.00	80.00	73.00
CH3W				
AD046	41.65	43.25	1.60	2.66
AD049	44.00	47.00	3.00	1.36
AD053	121.00	121.40	0.40	0.00
ARC003	6.00	7.00	1.00	1.06
ARC004	54.00	56.00	2.00	0.78
ARC009	33.00	43.00	10.00	4.36
ARC074	32.00	34.00	2.00	0.88
ARC075	54.00	55.00	1.00	5.19
ARC076	32.00	36.00	4 00	29.05
ARC077	16.00	20.00	4 00	20.00
ARC078	-2.00	_/ 00	0.10	2.24
	-3.00	-4.90	0.10	
ARCU80	23.00	25.00	2.00	
AKCU87	20.00	22.00	2.00	4.65
ARC089	42.00	43.00	1.00	0.08
ARC090	21.00	25.00	4.00	0.59
ARC091	20.00	22.00	2.00	0.43
ARC092	33.00	34.00	1.00	1.29
ARC093	15.00	18.00	3.00	7.23
ARC094	48.00	50.00	2.00	0.87
ARC095	0.00	1.00	1.00	0.03
ARC096	28.00	30.00	2.00	9.11

24.00

16.00

86.00

15.00

34.00

25.00

86.10

16.00

10.00

9.00

0.10

1.00

4.35

9.38

0.06

2.21

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ARC102



Vein	Roof Floor Thick		Thick	Au
Hole	(m)	(m)	(m)	(g/t)
ARC104 ARC106	16.00	8.00 16.10	0.10	0.07
ARC108	7.00	8.00	1.00	0.86
ARC109	38.00	41.00	3.00	1.35
ARC110	3.00	5.00	2.00	0.15
ARC111A	38.00	40.00	2.00	3.55
ARC112	13.00	15.00	2.00	0.71
ARC113	38.00	42.00	4.00	7.75
ARC120 ASD004	42.00 237.70	239.60	1 90	0.01
GRC001	7.00	8.00	1.00	1.03
GRC002	23.00	26.00	3.00	1.44
GRC003	6.00	7.00	1.00	0.63
GRC004	22.00	26.00	4.00	3.66
GRC005	32.00	36.00	4.00	12.08
GRC006	25.00	28.00	3.00	1.16
GRC008	40.00	44.00	4.00	5.25
GRC009	10.00	13.00	3.00	1.75
GRC010	53.00	58.00	5.00	8.93
GRC011	14.00	16.00	2.00	1.74
GRC012	30.00	34.00	4.00	4.72
GRC013	1.00	4.00	3.00	2.19
GRC014	24.00	25.00	1.00	0.20
GRC010	5.00	64.00	2.00	1.52
GRC018	66.00	68.00	2.00	0.39
GRC063	94.00	96.00	2.00	0.92
GRC064	118.00	118.10	0.10	0.00
Mean_Value :	35.41	37.94	2.53	4.58
Max_Value :	237.70	239.60	10.00	29.05
Min_Value :	-5.00	-4.90	0.10	0.00
No. Samples :	54.00	54.00	54.00	52.00
	61 00	61 10	0 10	
AD059	51.50	52.50	1.00	0.49
AD060	40.30	40.69	0.39	0.15
AD062	37.60	38.60	1.00	0.68
AD063	54.10	54.20	0.10	0.03
AD064	56.50	57.70	1.20	1.95
AD075 ABC006	12.00	12.10 85.10	0.10	0.00
ARC007	44.00	45.00	1.00	0.34
ARC008	70.00	71.00	1.00	1.44
ARC024	44.00	45.00	1.00	3.02
ARC046	140.00	141.00	1.00	0.20
ARC051	38.00	39.00	1.00	0.35
ARC052	7.00	8.00	1.00	0.01
ARC055	26.00	27.00	1.00	0.71
ARC055	78.00	27.00 79.00	1.00	0.02
ARC057	56.00	58.00	2.00	3.22
ARC058	23.00	24.00	1.00	0.22
ARC059	38.00	38.50	0.50	0.03
ARC060	48.00	49.00	1.00	0.46
ARC061	24.00	25.00	1.00	0.04
ARCU62	36.00	37.00	1.00	0.08
ARCOGE	59.00 59.00	90.00 60.00	1.00	0.12
ARC067	28.00	29.00	1.00	1.87
ARC068	60.00	60.10	0.10	
ARC069	32.00	33.00	1.00	0.02
ARC070	28.00	28.10	0.10	0.00
ARC071	9.00	10.00	1.00	0.46
ARC072	48.00	48.10	0.10	0.00
AKCU/3 ARC081	6.00 91.00	6.10 92.00	0.10	0.00
ARC083	71.00	72.00	1.00	0.79
ARC084	89.00	89.10	0.10	0.03
ARC088	15.00	15.10	0.10	

	Vein	Roof	Floor	Thick	Au
7	Hole	(m)	(m)	(m)	(g/t)
/	ARC102	1.00	1.10	0.10	0.03
L C	ARCIUS	129.00	129.10	0.10	0.00
5	ARC125 ARC126	26.00	26.00 26.10	0.10	0.10
5	ARC128	42.00	43.00	1.00	1.40
5	ARC129	60.00	62.00	2.00	0.93
1	ASD003	129.60	130.05	0.45	0.11
5	ASD005	71.80	72.45	0.65	0.48
1	ASD006	90.20	91.00	0.80	0.38
3	DDH001	132.00	133.00	1.00	
3	DDH003	141.10	141.50	0.40	0.38
4	DDH006	190.00	190.10	0.10	
3	DDH008	151.40	152.00	0.60	0.02
6 0	DDH009	123.80	124.30	0.50	0.00
0 6		104.90	121 50	1.00	17.70
0 R	DDH012	104.80	105 50	0.70	0.72 8.45
5	DDH014	180.80	182.80	2.00	1.87
5	DDH015	184.70	186.60	1.90	0.94
3	DDH016	185.00	185.10	0.10	
4	DDH017	120.40	121.40	1.00	0.24
2	DDH018	180.00	180.10	0.10	
9	DDH019	217.00	217.10	0.10	
0	DDH020	121.40	121.60	0.20	1.16
2	DDH022	206.50	207.50	1.00	0.09
5	DDH023	208.80	209.00	0.20	0.75
9	DDH024	237.00	241.00	4.00	6.94
2	DDH025	125.10	126.30	1.20	2.66
0		164.20	166.10	1.90	3.60
ð E		125.70	124.70	0.80	2.96
5 N	GRC019	127.00	127 10	0.00	2.50
n	GRC021	131.00	131.10	0.10	0.05
•	GRC022	139.00	140.00	1.00	0.01
	GRC023	145.00	147.00	2.00	1.52
9	GRC030	189.00	189.10	0.10	0.00
5	GRC032	154.00	155.00	1.00	0.21
8	GRC033	204.00	205.00	1.00	37.00
3	GRC034	171.90	172.00	0.10	0.00
5	GSD001	160.00	161.00	1.00	0.03
0	GSD003	155.00	155.10	0.10	0.00
3	GSD004	217.00	218.00	1.00	0.36
4	Mean_Value :	97.63	98.42	0.79	2.24
4	Min Value :	237.00	241.00	4.00	37.00
2	No Samples	1.00 78 00	1.1U 78 00	78 00	0.00
5	CH2W/	70.00	70.00	70.00	00.00
5 1	ARC024	39 00	41 00	2 00	0.76
1	ASD005	63.00	64.00	1.00	0.12
2	ASD006	89.80	90.20	0.40	0.70
4	DDH026	159.50	160.20	0.70	4.09
2	Mean_Value :	87.82	88.85	1.02	1.17
2	Max_Value :	159.50	160.20	2.00	4.09
3	Min_Value :	39.00	41.00	0.40	0.12
6	No. Samples :	4.00	4.00	4.00	4.00
4	CH1E				
ð 2	AD039	53.00	53.50	0.50	_
2 2	AD040	51.60	55.60	4.00	7.80
∠ 7	AD043	111.00	112.09	1.09	0.42
·		64.00	04.10	0.10	0.07
2	AD035 AD059	∠/8.00 /0.20	279.00 AG AO	£ 20	1 44
0	AD060	40.20 29 NN	40.40 21 10	0.20 2.10	1.44 0.30
6	AD061	48.70	50.80	2.10	3.95
0	AD062	30.60	31.70	1.10	1.68
0	AD063	46.00	48.50	2.50	3.21
9	AD064	48.70	49.80	1.10	1.25
3	AD072	49.70	51.70	2.00	1.48
3	AD073	48.30	49.00	0.70	0.34
	AD075	3.50	3.60	0.10	0.01



Roof

(m)

122.00

127.00

114.00

81.00

184.00

143.00

193.00

164.00

156.00

151.00

205.00

94.44

278.00

-2.10

96.00

45.45

44.60

105.00

274.00

36.00

24.90

46.00

23.00

38.00

43.00

46.70

46.00

3.00

64.00

71.00

24.00

58.40

67.00

28.00

92.00

125.00

24.00

-4.00

12.00

13.00

49.00

39.00

3.00

22.00

36.00

11.00

16.00 44.00

70.00

40.00

13.50

42.00

22.00

17.00

0.00

36.00

-2.30

76.00

53.00

72.00

63.00

6.00

118.00

73.00

30.30

151.45

114.00

47.10

60.00

:

Floor

(m)

125.00

135.00

115.00

82.00

185.00

144.00

197.00

167.00

157.00

153.00

206.00

96.37

279.00

-2.00

96.00

49.35

50.60

109.05

275.00

37.40

25.00

48.70

27.80

41.00

43.80

47.70

46.40

3.10

74.00

78.00

30.00

58.50

69.00

33.00

93.00

132.00

30.00

-3.90

13.00

14.00

54.00

45.00

5.00

22.10

36.10

13.00

19.00

47.00

74.00

43.00

15.00

44.00

24.00

23.00

36.10

-2.20

81.00

56.00

73.00

69.00

7.00

120.00

75.00

30.40

154.30

122.00

52.00

1.00

60.10

Thick

(m)

3.00

8.00

1.00

1.00

1.00

1.00

4.00

3.00

1.00

2.00

1.00

1.92

8.00

0.10

96.00

3.90

6.00

4.05

0.10

1.00

1.40

0.10

2.70

4.80

3.00

0.80

1.00

0.40

0.10

10.00

7.00

6.00

0.10

2.00

5.00

1.00

7.00

6.00

0.10

1.00

1.00

5.00

6.00

2.00

0.10

0.10

2.00

3.00

3.00

4.00

3.00

1.50

2.00

2.00

6.00

1.00

0.10

0.10

5.00

3.00

1.00

6.00

1.00

2.00

2.00

0.10

2.85

8.00

4.90

Au (g/t)

12.39

6.28

0.20

0.30

1.19

0.12

0.54

0.97

0.72

2.81

0.93

3.45

26.70

0.00

91.00

6.56

2.52

3.19

0.34

5.15

2.46

2.05

0.23

0.80

1.54

20.65

0.01

2.71

1.44 3.08

0.04

3.36

2.22

10.98

1.09

1.82

1.32

2.08

1.13

0.82

1.54

0.55

0.92

0.85

1.98

2.02

4.37

0.31

2.07

0.71

0.01

10.84

1.63

1.06

1.51

0.10

3.22

5.37

0.00

1.92

2.69

4.11

17.37

1	Vein	Roof	Floor	Thick	Διι	Vein
	Hole	(m)	(m)	(m)	(g/t)	Hole
	ARC005	77.00	80.00	3.00	0.57	GRC022
	ARCOOG	82.00	83.00	1 00	0.62	GRC023
		34.00	35.00	1.00	1.80	GRC023
	ARC008	58 90	59.00	0.10	0.04	GRC029
	ARC000	77.00	82.00	5.00	1.07	GRC020
	ARC024	34.00	37.00	3.00	1.07	GRC032
	ARC024	101.00	102.00	1 00	1.15	GRC033
		122.00	126.00	2.00	E 02	GRC033
	ARC040	22.00	22.00	1.00	2.05	
	ARC051	0.00	1 00	1.00	2.70	G3D001
	ARC052	16.00	10.00	2.00	2 5 9	GSD003
	ARCOSS	15.00	17.00	2.00	2.50	G3D004
	ARCOSS	15.00	£1.00	2.00	2.91	Iviean_value
	ARC050	48.00	52.00	4.00	2 20	
	ARC057	40.00	7 00	4.00	J.29 1 11	Iviin_value
	ARC050	26.00	27.00	1.00	0.05	No. Samples
	ARCOSO	42.00	42.00	1.00	0.05	CH1M
	ARC000	42.00	45.00	1.00	1.46	AD039
	ARC001	20.00	21.00	1.00	2.40	AD040
	ARC002	47.00	48.00	1.00	2.20	AD043
	ARC005	76.00	40.00	1.00	1 00	AD044
	ARCOGG	/0.00 //7.00	50.00	3.00	0.97	AD055
	ARC067	19.00	20.00	1 00	1 37	AD059
	ARC007	19.00	20.00 10.00	5.00	0.77	AD060
	ARC069	26.00	27.00	1.00	1 30	AD061
	ARC070	25.00	27.00	1.00	0.44	AD062
	ARC070	5.00	6.00	1.00	0.30	AD063
	ARC072	39.00	40.00	0.10	0.01	AD064
	ARC072	-2 10	-2.00	0.10	0.01	AD072
	ARC081	88.00	90.00	2 00	1 87	AD073
	ARC083	65.00	66.00	1.00	1.87	
	ARC084	75.00	79.00	4.00	7.26	ARCOUS
	ARC085	70.00	73.00	3.00	1.81	ARCOUD
	ARC088	11.00	12.00	1.00	0.71	
	ARC105	122.00	124.00	2.00	0.65	ARC008
	ARC125	82.00	83.00	1.00	2.38	ARCO11
	ARC128	31.00	31.10	0.10	0.04	
	ASD001	157.60	159.70	2.10	0.86	ARC046
	ASD003	123.55	125.00	1.45	1.83	ARC051
	ASD005	53.00	53.40	0.40	1.12	ARC052
	ASD006	79.90	80.70	0.80	1.58	ARC053
	DDH001	122.00	127.00	5.00	3.43	ARC055
	DDH002	198.10	199.20	1.10	0.36	ARC056
	DDH003	136.80	139.20	2.40	3.95	ARC057
	DDH006	184.00	185.00	1.00	0.26	ARC058
	DDH007	109.50	112.80	3.30	11.46	ARC059
	DDH008	147.40	148.50	1.10	0.28	ARC060
	DDH009	113.50	116.60	3.10	26.70	ARC061
	DDH010	141.50	144.50	3.00	1.07	ARC062
	DDH011	100.50	102.40	1.90	0.76	ARC063
	DDH012	127.60	128.60	1.00	12.70	ARC065
	DDH013	100.60	101.90	1.30	0.94	ARC066
	DDH014	173.60	174.60	1.00	8.20	ARC067
	DDH015	171.90	175.00	3.10	12.46	ARC068
	DDH016	177.70	178.60	0.90	0.37	ARC069
	DDH017	105.80	110.50	4.70	2.38	ARC070
	DDH018	157.20	158.20	1.00	7.47	ARC071
	DDH019	206.40	206.50	0.10	2 72	ARC072
	DDH020	118.00	120.20	2.20	2.72	ARC073
		224.3U	223.20	U.9U	1.05	ARC081
ļ		201 00	202.30	1 00	1.00	ARC083
ļ		201.90	202.90	2.00	1.92	ARC084
ļ		233.90	233.90 177 20	2.00	2.89 0.79	ARCO85
		121.40 155 QA	122.30	0.90	0.78	ARCO88
		118 60	110.00	1 10	0.04	ARC105
	DDH038	126.00	127.20	1 00	0.24	ARC125
	GAB003	16.90	17 00	0.10	0.24	AKC128
	GRC019	109.00	116.00	7 00	7 00	
	GRC020	145.00	148.00	3.00	0.63	
	GRC021	125.00	127.00	2.00	3.00	ASDOOS



Vein	Roof	Floor	Floor Thick	
Hole	(m)	(m)	(m)	(g/t)
	76.35 118.00	78.90 121.00	2.55	15.05
DDH002	195.40	195.70	0.30	1.07
DDH003	125.70	134.30	8.60	14.23
DDH006	177.80	178.90	1.10	15.30
DDH007	94.50	109.50	15.00	3.53
DDH008	135.20	144.40	9.20	4.86
DDH009	99.40	104.40	5.00	2.00
DDH010	132.50	140.50	8.00	3.23
DDH011	93.50	96.70	3.20	21.57
DDH012	120.70	127.60	6.90	1.32
DDH013	98.30	99.00	0.70	5.65
DDH014	161.20	163.60	2.40	0.39
	167.00	171 20	2.30	0.40
	103.30	102 00	8.00 5.70	0.20
	149 10	103.90	7 10	2 5 3
DDH019	206.20	206 30	0.10	2.55
DDH020	114.10	116.10	2.00	2.79
DDH021	221.40	223.40	2.00	0.70
DDH022	191.20	194.30	3.10	2.64
DDH023	194.40	198.50	4.10	0.57
DDH024	230.10	231.00	0.90	0.88
DDH025	112.50	114.40	1.90	13.10
DDH026	155.40	155.50	0.10	0.04
DDH027	115.10	115.80	0.70	0.06
DDH038	122.50	123.50	1.00	0.10
GAB003	16.40	16.50	0.10	0.00
GRC019	96.00	103.00	7.00	3.63
GRC020	126.00	137.00	11.00	1.90
GRC021	108.00	123.00	15.00	2.07
GRC022	114.00	116.00	2.00	3.17
GRC025	110.00	112 00	8.00 1.00	15.40
GRC029	79.00	81.00	2.00	1 93
GRC030	179.00	180.00	1.00	0.90
GRC032	139.00	142.00	3.00	0.87
GRC033	187.00	192.00	5.00	1.05
GRC034	157.00	158.00	1.00	0.46
GSD001	145.00	153.00	8.00	1.86
GSD003	139.00	147.00	8.00	2.40
GSD004	201.00	204.00	3.00	1.69
Mean_Value :	88.10	91.56	3.46	3.64
Max_Value :	274.00	275.00	15.00	21.57
Min_Value :	-4.00	-3.90	0.10	0.00
No. Samples :	96.00	96.00	96.00	89.00
CHIW	42 50	42 70	0.20	25.00
AD039	43.5U /1 E7	43.70 13 60	1.02	25.00
AD040	41.37	42.00 98 NN	1.03	2.98
AD044	53 15	56.00	3 13	0.33
AD055	273.00	274.00	1.00	2.81
AD059	31.00	32.00	1.00	2.10
AD060	22.00	23.00	1.00	
AD061	37.00	38.00	1.00	1.32
AD062	19.00	21.00	2.00	3.17
AD063	32.00	33.00	1.00	0.32
AD064	38.80	40.50	1.70	6.42
AD072	42.70	43.70	1.00	0.69
AD073	43.00	43.10	0.10	
AD075	2.70	2.80	0.10	0.01
ARC005	54.00	62.00	8.00	2.20
ARC006	64.00	65.00	1.00	0.14
ARCOU/	18.00	23.00	5.00	0.44
	58.00	58.10	0.10	0.04
ARCUII ARCUII	2/LOO	00.00 26.00	2 00	2.77
ARC024	24.00 88 NN	20.00 92 MM	2.00 4.00	5.80 1 /17
ARC046	119.00	124.00	5.00	5.04
ARC051	22.00	23.00	1.00	1.51
				-

Vein	Roof Floor Thick		Thick	Au
Hole	(m)	(m)	(m)	(g/t)
ARC052	-8.00	-7.90	0.10	0.41
ARCOSS	9.00	10.00	1.00	0.41
ARC056	47.00	48.00	1.00	2.49
ARC057	37.00	39.00	2.00	1.02
ARC058	2.00	3.00	1.00	0.23
ARC059	17.00	19.00	2.00	2.73
ARCO60	31.00	33.00	2.00	2.20
ARC061 ARC062	0.00 13.00	7.00 14.00	1.00	0.87
ARC063	32.00	36.00	4.00	0.15
ARC065	63.00	70.00	7.00	7.26
ARC066	36.00	38.00	2.00	0.41
ARC067	11.00	13.50	2.50	1.00
ARC068	33.00	35.00	2.00	1.16
ARC069	18.00	19.00	1.00	0.07
ARC070 ARC071	-5.00	-4.90	0.10	0.19
ARC072	33.00	33.10	0.10	0.01
ARC073	-2.50	-2.40	0.10	
ARC081	70.00	71.50	1.50	22.90
ARC083	50.00	51.00	1.00	0.65
ARC084	66.00	69.00	3.00	5.21
ARC085 ARC088	0.00	61.00 1.00	1.00	0.57
ARC105	112.00	113.00	1.00	0.53
ARC125	66.00	69.00	3.00	1.61
ARC128	30.00	30.10	0.10	0.00
ASD001	145.10	148.10	3.00	7.08
ASD003	108.50	111.80	3.30	0.75
ASD005	37.00	45.00	8.00	1.10
	09.00 116.00	75.10 117.00	0.10 1.00	3 02
DDH002	192.90	193.10	0.20	1.22
DDH003	120.80	124.80	4.00	1.44
DDH006	174.60	175.70	1.10	7.62
DDH007	87.60	90.50	2.90	7.50
DDH008	132.30	134.40	2.10	32.84
	85.20 128 70	91.70 131.50	2.80	5.47 8.04
DDH010	90.60	90.80	0.20	0.06
DDH012	113.80	115.30	1.50	0.29
DDH013	85.20	86.10	0.90	0.32
DDH014	158.20	159.20	1.00	2.24
DDH015	162.80	163.80	1.00	0.06
	260.50	162.30	1.80	0.33
DDH018	138.50	141 30	2 70	5.50
DDH019	206.00	206.10	0.10	0.00
DDH020	107.00	111.20	4.20	3.24
DDH021	217.50	218.40	0.90	0.15
DDH022	188.60	189.20	0.60	1.38
DDH023	191.20	193.30	2.10	0.36
DDH024	225.60	226.20	0.60	2.26
DDH025	155.00	155.10	0.10	0.04
DDH027	109.70	110.80	1.10	0.09
DDH038	120.50	121.50	1.00	0.28
GAB003	16.00	16.10	0.10	0.00
GRC019	91.00	93.00	2.00	1.90
GRC020	102.00	107.00	4.00 5.00	4.3/ 1/1
GRC021	106.00	110.00	5.00 4.00	4.41
GRC023	114.00	117.00	3.00	2.12
GRC027	107.00	109.00	2.00	1.93
GRC029	78.00	79.00	1.00	2.47
GRC030	178.00	179.00	1.00	0.80
GRC032	133.00	134.00	1.00	0.40
GRC033	104.00 153.00	122.00 122 UU	2.00	U.58 R 10
GSD001	139.00	141.00	2.00	10.80


CHALLENGER JORC RESOURCES – SUMMARY SEPTEMBER 2021

Vein	Roof	Floor	Thick	Au
Hole	(m)	(m)	(m)	(g/t)
GSD003	135.00	136.00	1.00	1.20
GSD004	195.00	196.00	1.00	29.50
Mean_Value :	83.35	85.40	2.06	3.71
Max_Value :	273.00	274.00	10.00	32.84
Min_Value :	-8.00	-7.90	0.10	0.00
No. Samples :	96.00	96.00	96.00	90.00
CHOE				
AD056	200.00	201.25	1.25	1.66
AD059	28.00	29.00	1.00	0.67
AD061	31.00	32.00	1.00	0.60
AD073	26.90	27.90	1.00	0.59
ARC007	13.00	14.00	1.00	2.93
ARC024	19.00	20.00	1.00	1.01
ARC046	112.00	113.00	1.00	1.90
ARC051	14.00	15.00	1.00	0.03
ARC056	43.00	45.00	2.00	1.93
ARC057	34.00	35.00	1.00	1.59
ARC062	8.00	9.00	1.00	1.83
ARC081	64.00	65.00	1.00	1.89
ARC084	57.00	59.00	2.00	1.59
ARC085	44.00	46.00	2.00	1.69
ASD001	137.70	138.30	0.60	1.33
ASD003	101.70	102.20	0.50	0.51
DDH006	172.80	173.70	0.90	0.76
DDH007	73.50	76.80	3.30	3.58
DDH009	78.40	79.40	1.00	1.11
DDH012	102.30	103.40	1.10	0.52
DDH017	81.60	82.70	1.10	3.75
DDH018	133.90	135.80	1.90	3.97

Vein	Roof	Floor	Thick	Au
Hole	(m)	(m)	(m)	(g/t)
DDH020	100.30	102.00	1.70	0.72
GRC019	79.00	80.00	1.00	0.57
GRC020	107.00	108.00	1.00	0.94
GRC022	102.00	103.00	1.00	3.05
GRC023	111.00	113.00	2.00	7.71
GSD003	132.00	134.00	2.00	2.83
Mean_Value :	78.82	80.12	1.30	2.18
Max_Value :	200.00	201.25	3.30	7.71
Min_Value :	8.00	9.00	0.50	0.03
No. Samples :	28.00	28.00	28.00	28.00
CHOW				
ARC046	108.00	109.00	1.00	3.33
ARC057	32.00	33.00	1.00	2.76
ASD003	96.25	97.05	0.80	1.31
DDH009	73.40	74.40	1.00	0.64
DDH017	79.00	79.50	0.50	1.70
DDH020	95.00	96.70	1.70	1.36
GRC020	104.00	105.00	1.00	1.05
GRC022	99.00	100.00	1.00	0.69
Mean_Value :	85.83	86.83	1.00	1.58
Max_Value :	108.00	109.00	1.70	3.33
Min_Value :	32.00	33.00	0.50	0.64
No. Samples :	8.00	8.00	8.00	8.00
ALL				
Mean_Value :	80.83	82.85	2.02	3.42
Max_Value :	305.65	306.29	15.00	154.98
Min_Value :	-8.00	-7.90	0.10	0.00
No. Samples :	545.00	545.00	545.00	508.00