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11 July 2022

# Massive Sulphides Intersected In Drilling at Queen Grade Zinc Project

### Highlights

- First diamond core hole intersects a 12 m downhole intersection of sphalerite dominant (zinc sulphide) massive and semi massive sulphides downdip of previous drilling.
- Intersection indicates down dip mineralisation continuity in the Queen Grade zinc project.
- Next hole (TDH25) to test at least a further 65 m below the current intersection.
- If TDH25 is successful in replicating the mineralisation intersected in TDH24, both intersections will materially contribute to a maiden JORC 2012 resource currently being estimated.
- R3D has dispatched 106 RC samples to SGS for assay including gold and silver

R3D Resources Limited (**R3D** or the **Company**) is pleased to announce that the first diamond drill hole in the current drilling program (announced to the ASX on 1 July 2022) has intersected sphalerite dominant massive and semi massive sulphides in the first hole at the Queen Grade Project.

The intersection from 160.7 metres downhole depth comprises approximately 6 metres of massive sulphide dominated by sphalerite (zinc sulphide) followed by a further 6 metres of semi massive and banded sulphide which is also dominated by sphalerite. True width is approximately 9.0 metres.



Figure 1. Massive sulphide dominated by sphalerite (zinc sulphide) (red-brown), pyrrhotite (brass colour) and calcite (white).

This 12 metre downhole intersection is around 30 metres vertically below historical drilling and is important as it highlights mineralisation is widening and continuous at depth and that the mineralised zone remains open down dip. Analogies with nearby deposits including the King Vol zinc mine and Monte Video zinc project suggests that the Queen Grade project has the potential for significant depth extension, and which is being reaffirmed by the current drilling.



R3D estimates that the mineralisation dips 70 degrees west and is hosted in carbonate rich units ranging from calcareous sediments up to limestones. The sulphides are also associated with garnet skarns very similar to those occurring in the orebody at the King Vol zinc mine and Monte Video Zinc Project (both on Aurora Metal Limited's tenements).

Dr Stephen Bartrop, CEO and Managing Director of R3D stated,

"This intersection is very encouraging as it demonstrates zinc mineralisation is continuous and widening with increasing depth within the Queen Grade zinc main mineralised horizon. It also suggests scope for the zinc mineralisation to pinch and swell as evident in nearby King Vol mineralisation where drilling at King Vol has also demonstrated that mineralisation continues to more than 900 metres depth.

"The Queen Grade zinc project has not been a priority of the past owners of the Tartana mining leases who primarily focused on the copper mineralisation. However, this intersection reaffirms our belief that Queen Grade can develop into a significant zone of zinc mineralisation with the next hole planned to intersect the mineralisation approximately 230m below the surface."

## Queen Grade Zinc Project

Queen Grade is located wholly in ML 4820 (Tartana North) and has previously had 27 RC and diamond drill holes test oxide and shallow sulphide zones (see R3D Prospectus dated 26 May 2021). R3D is currently reprocessing all geological, structural and geochemical data given the similarities with the zinc mineralisation at the King Vol zinc mine (see figure 2a) which is 500m to the west.

R3D has now identified two mineralised horizons:

- Main or western zone which contains the more significant intersections of zinc and is hosted by a complex mix of reactive (limey) units and altered skarn alteration, and
- The Eastern Zone which is a lower grade zinc zone hosted in silicious cherts and basic volcanics. Most drill holes that intersect this zone are weathered and, as such, the zone may host economic mineralisation in deeper fresher units.

In addition, previous drilling by Dominion Mining Limited had encountered anomalous gold and silver values west of the main zone in a black slate to siltstone and which was regarded as being the hanging wall of the zinc mineralisation.

R3D geophysical consultants have located a Helicopter borne Electro Magnetic (EM) survey over King Vol, Tartana and surrounds undertaken by Kagara Limited in 2007. Within the survey area, the most significant anomaly is centred on Queen Grade (see figure 2b). EM is often associated with significant sulphide concentrations and is the method that R3D will be using on the Beefwood and Bulimba Projects later in 2022 (refer R3D announcement to the ASX on 29 June 2022).



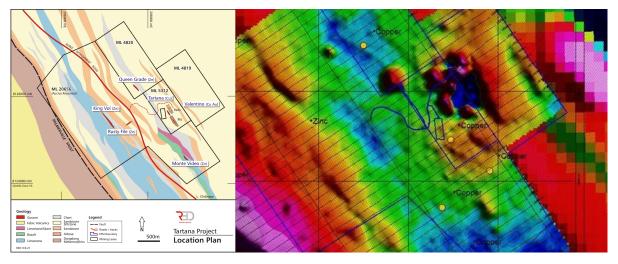


Figure 2. 2(a)Tartana Mining Leases and location of Queen Grade Zinc Project. 2(b) Kagara 2007 Heli EM Geophysical Survey with a strong circular anomaly centred on Queen Grade (GSQ Open Data Portal).

#### **Current Drilling**

R3D's first diamond hole TDH 24 tested the northern line of the previous drilling, but at greater depths and utilised a RC Percussion Pre-collar to initially drill to target depth before converting to diamond drilling. The geology from the drilling can be summarised as follows:

• 50 to 153.4 m depth: Black graphitic slates and siltstones with locally up to 10% quartz-carbonate veining and locally up to 5% veined and disseminated sulphides dominated by pyrite and arsenopyrite.

This is interpreted as being prospective for gold mineralisation and the Company has already dispatched these intervals to the laboratory to test for gold and silver as well as base metals.

• 160.66 to 172.67 m: Sphalerite dominant massive to semi massive sulphides, skarn alteration and limey units over 12 metre interval (true width estimated 9.0 metres width and interpreted to be the main mineralised zone.



Figure 3. 3(a) Drill rig on site with Queen Grade surface gossan in foreground and King Vol zinc mine in distance. 3 (b) Massive sulphide dominated by sphalerite (zinc sulphide) (red-brown), pyrrhotite (brass colour) and calcite (white).



R3D's Manager – Technical Services Tom Saunders, who is managing the drilling program has commented on the similarities of the current intersection to the discovery holes at both King Vol and Monte Video as he was previously involved in these discoveries in the past. Details of the current hole, TDH24 are provided in Figure 4.

				Azimuth	
Hole_ID	East MGA55	North MGA55	RL	М	Declination
TDH24	207764	8126087	223	50	60

Figure 4 – TDH 24 Collar Details.

#### Follow – Up Drilling and Sampling

The Company is currently drilling TDH25 from the same collar location and which has been designed to test the mineralisation at around 230 metres vertical depth and which is approximately 65 – 85 metres below the current (TDH24) intersection. If TDH25 is successful in replicating the mineralisation intersected in TDH24, both intersections will materially contribute to a maiden JORC 2012 resource currently being estimated.

R3D has already dispatched 106 RC samples to SGS for assay from the TDH24 RC pre-collar. These samples are being assayed for gold and silver which may be associated with the quartz carbonate veining in a black graphitic slates and siltstones which contain pyrite and arsenopyrite sulphides locally up to 5%.

The diamond core mineralised and buffer zones will be laboratory assayed after all geological and structural logging, photography and field density determinations have been completed.

Stephen Bartrop Managing Director R3D Resources Limited

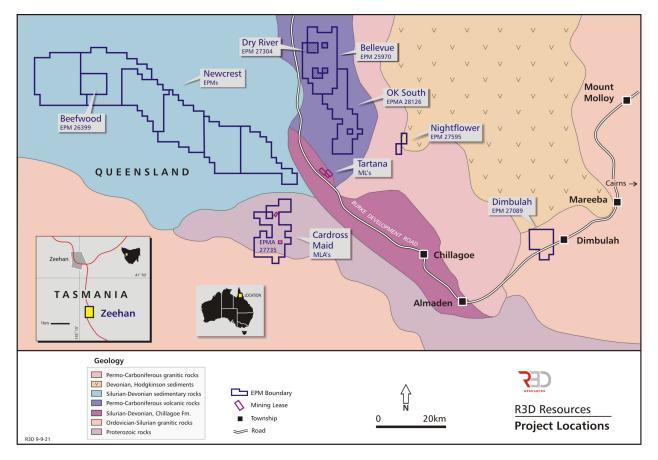
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This announcement has been approved by the Disclosure Committee of R3D Resources Limited.



#### About R3D Resources



#### **Competent Person's Statement**

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Wayne (Tom) Saunders who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM), and a Member of the Australian Institute of Geologists (AIG). Mr Saunders has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity that is being undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Saunders is an employee of R3D Resources Limited, and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this announcement that relates to Exploration Results is based on information compiled by Mr Geoff Reed who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM (CP)), and a Member of the Australian Institute of Geologists (AIG). Mr Reed has sufficient experience that is relevant to the styles of mineralisation and types of deposit under consideration, and to the activity that is being undertaking to qualify as a Competent Person, as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Reed is a consultant of R3D Resources Limited, and consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

## **Disclaimer Regarding Forward Looking Statements**

This ASX announcement contains various forward-looking statements. All statements, other than statements of historical fact, are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which



could cause actual values or results, performance or achievements to differ materially from the expectations described in such forward-looking statements.

R3D Resources does not give any assurance that the anticipated results, performance or achievements expressed or implied in those forward-looking statements will be achieved.

## JORC Code, 2012 Edition

## Section 1 Sampling Techniques and Data

Criteria	Commentary		
Sampling techniques	Quarter core sampling (not yet started)		
Drilling techniques	<ul><li>RC Precollar</li><li>NQ Diamond Core utilizing a UDR650 Drill Rig</li></ul>		
Drill sample recovery	<ul> <li>RC recoveries are exceeding 99%.</li> <li>Diamond Core has only been preliminary markup but recoveries exceeding 99%</li> </ul>		
Logging	<ul> <li>Preliminary logging has been completed for normal drill coring control. Drilling is currently ongoing but expected to be completed within the week.</li> </ul>		
Sub-sampling techniques and sample preparation	All core has been washed and cleaned of drill mud and polymers.		
Quality of assay data and laboratory tests	<ul> <li>RC samples from 50-155m has been dispatched to SGS Laboratories 7/7/2022 to be tested for gold, silver and base metals.</li> <li>No diamond samples dispatched as yet.</li> <li>Contract with laboratory in place to complete ore grade base metal assays.</li> </ul>		
Verification of sampling and assaying	<ul> <li>No repeat assays or laboratory assays undertaken.</li> <li>R3D currently has external base metal standards on site.</li> <li>These have been inserted at a rate of each 20<sup>th</sup> sample (5%) into the RC sampling</li> <li>Repeat and other QAQC steps will be based on assay results.</li> </ul>		
Location of data points	<ul> <li>Handheld GPS reading 10+ satellites with a nominal accuracy of 5m was used for initial location of collar.</li> <li>R3D has completed a drone LIDAR over the whole of the four mining leases. This will enable to improve accuracy of the collar location down to DGPS quality.</li> <li>A Public Survey Mark (PSM) is located between Tartana and King Vol for survey control.</li> <li>Downhole survey (magnetic beating and declination) was completed by an Imdex downhole survey machine supplied by the drilling company with readings every 30m downhole.</li> </ul>		
Data spacing and distribution	<ul> <li>Sampling was completed at 1m intervals for the RC chips.</li> <li>Sampling of the diamond core will be based on geological intervals.</li> </ul>		
Orientation of data in relation to geological structure	<ul> <li>The drilling was designed to test the Queen Grade structure at right angles to the surface strike.</li> <li>The main zone (based on surface mapping and other intersections), is dipping at approximately 70° grid west and so the True Width (TW) will be 75% of the intersection.</li> </ul>		



Criteria	Commentary
Sample security	<ul> <li>Security is in place at the mine site and a reliable transport agent has been engaged to transport the samples to the laboratory in Townsville.</li> </ul>
Audits or reviews	<ul> <li>Auditing of previous drilling and surface geology and geochemistry is currently underway to validate such that R3D progress the Queen Grade mineralization to JORC resource status.</li> </ul>

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary	
Mineral tenement and land tenure status	<ul> <li>ML's 4819, 4820, 5312 and 20489 wholly owned by Tartana Resources Limited (A 100% subsidiary of R3D Resources Ltd.).</li> </ul>	
Exploration done by other parties	<ul> <li>Numerous mining operations and exploration programs. Refer to Independent Geologists Report in 2021 prospectus.</li> <li>Drilling Programs have been completed at Queen Grade by:         <ul> <li>Solomon Copper (previous holder) initial discovery into oxide and primary zones.</li> <li>Aztec Mining had completed additional logging and duplicate assaying on these initial holes.</li> <li>Dominion Mining RC drilling tested the upper sections of Queen Grade and identified the main and eastern zones.</li> <li>Solomon Copper completed additional RC and diamond core drilling from 2006-2012.</li> </ul> </li> </ul>	
Geology	Skarn hosted massive to semi massive sulphide mineralization associated with reactive host rocks and complex clastic sediments in a strong shear zone. Monte Video (Aurora) is 1.4 km southwest of Queen Grade and both sit on the Queen Grade structure. King Vol mine portal lies 500m west of Queen Grade. The similarities with the King Vol mineralization is also striking.	
<ul> <li>Drill hole Information</li> <li>Drilling has been completed by a Townsville based drilling contractor with a high level of competence and industry recognit</li> <li>RC Precollar was undertaken to 155m with quality recovery throughout.</li> <li>Current diamond drilling is NQ size (46.5mm diameter).</li> <li>Downhole surveys are completed at intervals of 30m downhole spacing.</li> <li>The core is oriented for geological structural analysis both at correcovery runs but also at the survey points.</li> </ul>		
Data aggregation methods	N/A at this stage	
Relationship between mineralisation widths and intercept lengths	R3D is planning to sample all mineralised zones (as defined by as a minimum of 1% total sulphide and/or shearing and alteration) Non mineralised sections (as defined by the detailed geological and structural logging) will be completed only where they abut mineralised core	
Diagrams	See main body of report.	



Criteria	Commentary
Balanced reporting	<ul> <li>Not applicable at this early phase.</li> <li>Further JORC statements will be completed on the completion of the detail logging and interpretation and the arrival of assays.</li> </ul>
Other substantive exploration data	Refer to Independent Geologists Report in the 2021 Prospectus
Further work	<ul> <li>R3D already has additional holes planned for both Queen Grade and Copper mineralization in the current drilling phase.</li> </ul>

Depth	Azimuth M	Declination	Туре			
0	50	-60	RC			
30	46.22	-58.58	RC			
60	44.28	-57.7	RC			
90	42.48	-56.89	RC			
120	41.87	-56.04	RC			
150	40.74	-55.75	RC			
198	40.19	-55.34	Diamond			
210	40.73	-55.29	Diamond			
240	40.61	-55.05	Diamond			
270	42.35	-54.63	Diamond			

Down Hole Survey TDH 24