

ABN: 72 002 261 565

# Diorite East mineralisation target zone discovery and primary gold confirmed at Diorite North

## **Highlights:**

#### Diorite East interpreted ~460m strike mineralisation target zone discovery

- A new significant ~460m target zone has been discovered with a peak 1m @ 2.19 g/t
   Au (from 8m DIRC006)
- A second intercept of 1m @ 0.96 g/t Au (from 80m DIRC009) was obtained ~350m SE along the same mineralised target horizon
- Diorite East shares structural and geological similarities to Mt Stirling-Viserion structural setting in that both are NW-SE shear zones situated sub-parallel to the regional significant Ursus Fault
- The potential for mineralisation to extend between and beyond reported pierce points warrants immediate follow-up RC drill testing with a rig currently mobilising to site

#### **Diorite North – Unexpected Mine significant Au intercepts**

- A primary gold intercept of 1m @ 4.66 g/t Au (from 109m DIRC014) has been obtained beneath the historical "Unexpected Mine" workings
- Nearby on a secondary line of workings, an encouraging sub-surface intercept of 4m @ 0.47 g/t Au (from 4m DIRC012) is pending upgrade from individual respective 1m split sample assays
- Near surface drill intercept confirms mineralisation associated with rock-chips DIR066 & DIR067 of 9.04 g/t Au & 6.09 g/t Au (reported ASX 27 July 2020)
- Follow-up RC drill testing is planned this week with a rig currently mobilising to site

Matthew Foy, Company Secretary

#### Diorite Regional drill update

Torian Resources Limited (**Torian** or the **Company**) is pleased to announce that all initial results from Diorite regional reconnaissance drilling have now been received and reviewed.

A total of 21 drill holes for 2,683m were drilled. Encouraging results from gold intercepts associated with historical workings at the "Unexpected Mine" prospect, and mineralised target horizon zone at Diorite East, warrant follow-up RC drill testing.

Planned drilling will test the strike extensions of these recent results with an RC rig mobilising to the Project this week.

Diorite sample results have taken considerable time to be reported as once submitted, samples were required to be retrieved from original laboratory and re-submitted to expedite the turn-around assay times due to processing bottle-necks at original laboratory. Resource drilling samples were also prioritised ahead of Diorite reconnaissance drilling samples, compounding delays.

Multi-Element pXRF results are still to be confirmed by selective laboratory analysis. Several copper anomalous values from mineralised zones (peak 1927 ppm Cu from 61m DIRC020) warrant further follow-up exploration.

Target generation work continues throughout the Diorite Project area. Numerous prospective historical and conceptual areas of interest are being systematically explored via structural mapping, and pXRF surveys. Auger vacuum (AV) and further RC drilling will be planned over anomalous and prospective ranked anomalous targets.

#### **Diorite East**

A total of 11 drill holes were drilled for a total of 1254m (Figure 1).

A new significant **~460m target zone** has been discovered with a peak 1m @ 2.19 g/t Au (from 8m DIRC006); and a further intercept ~350m SE of 1m @ 0.96 g/t Au (from 80m DIRC009).

Diorite East shares structural and geological similarities to Mt Stirling-Viserion structural setting in that both are NW-SE shear zones situated sub-parallel to the regional significant Ursus Fault.

The potential for mineralisation to significantly extend between and beyond reported pierce points warrants immediate follow-up RC drill testing.

Planned RC drilling will test immediate strike extension and down-dip continuity of mineralisation along interpreted shallow target zone.

Table 1: Diorite East - Drill summary and Significant intercepts

Project	Tenement	Hole ID	Easting GDA94	Northing GDA94	RL	Az	Dip	Depth	SI Au (FA ppm)	SI Cu (pXRF ppm)
		DIRC001	314458	6824726	407	260	-60	114	1m @ 0.20 (from 5m)	317 (from 9m)
		DIRC002	314495	6824738	407	260	-60	108	NSI	480 (from 21m)
		DIRC003	314663	6825250	409	120	-48	114	NSI	406 (from 71m)
		DIRC004	314686	6825487	407	255	-55	102	NSI	358 (from 26m)
		DIRC005	314531	6825259	415	70	-50	126	NSI	550 (from 76m)
Diorite East	P37/8857	DIRC006	315350	6825901	399	220	-60	120	<b>1m @ 2.19</b> (from 8m)	NSI
		DIRC007	315380	6825846	398	240	-60	114	NSI	NSI
		DIRC008	315437	6825721	396	250	-60	108	NSI	NSI
		DIRC-009	315651	6825700	397	240	-60	102	1m @ 0.96 (from 80m)	NSI
		DIRC-010	314992	6824828	404	340	-50	144	NSI	NSI
		DIRC011	314656	6825148	410	340	-50	102	NSI	NSI



Figure 1: Diorite East Drill Collars



Figure 2: Diorite East Drill Collars and Significant intercepts

#### **Diorite North**

A total of 10 drill holes were drilled for a total of 1,429m (Figure 3).

Primary gold has been confirmed with a substantial intercept of **1m @ 4.66 g/t Au** (from 109m DIRC014) obtained beneath the historical "Unexpected Mine" workings.

Encouraging sub-surface intercept of 4m @ 0.47 g/t Au (from 4m DIRC012) was also obtained in this phase of drilling. The Company awaits these individual respective 1m split sample assays drilled immediately along strike from the historical workings.

Drilling targeted geochemistry and lithological contacts and not necessarily controlling structure that is likely to be the conduit for gold mineralisation. Planned drill angles will be optimised (as best fit to perpendicular) to transect interpreted structures likely to host mineralisation.

Previous drilling also drilled too close to historical workings and target horizons, which has been counter-acted with proposed planning further away from immediate strike extent of interest, to improve follow up targeting and results.

These near surface intercepts confirm the mineralisation occurrence demonstrated by rock-chips DIR066 & DIR067 returning values of **9.04 g/t Au & 6.09 g/t Au** respectively (reported ASX 27 July 2020).

Follow-up RC drilling is planned to test the strike extensions and explore the continuity and plunge of gold mineralisation to depth.

Table 2: Diorite North - Drill summary and Significant intercepts

Project	Tenement	Hole ID	Easting GDA94	Northing GDA94	RL	Az	Dip	Depth	SI Au (FA ppm)	SI Cu (pXRF ppm)
		DIRC012	310730	6825387	435	340	-60	139	4m @ 0.47 (from 4m)	335 (from 6m)
		DIRC014	310815	6825362	434	350	-50	144	1m @ 4.66 (from 109m)	<b>1232</b> (from 50m)
		DIRC015	310842	6825411	439	350	-70	126	1m @ 0.31 (from 88m)	369 (from 80m)
	P37/8868	DIRC016	311098	6825189	424	340	-55	168	NSI	<b>1927</b> (from 61m)
Diorite	P3//8808	DIRC017	311116	6825158	426	350	-55	150	NSI	565 (from 29m)
North		DIRC018	311184	6825155	424	350	-55	180	NSI	350 (from 158m)
		DIRC019	311112	6825297	428	315	-55	126	NSI	NSI
		DIRC020	311024	6825484	424	20	-55	120	NSI	<b>1526</b> (from 33m)
	P37/8883	DIRC013	311350	6825131	424	350	-55	150	NSI	377 (from 68m)
	P37/8882	DIRC021	311259	6825155	433	350	-55	126	NSI	416 (from 117m)

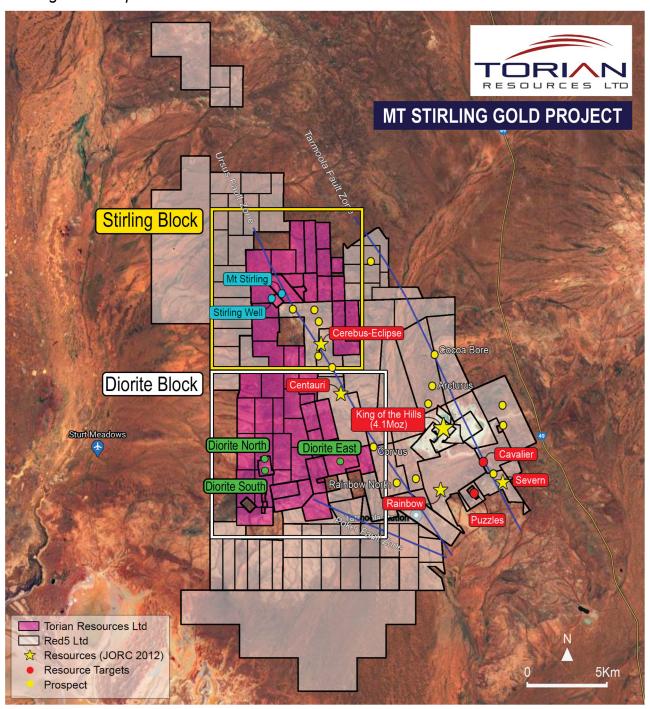


Figure 3: Diorite North Drill Collars and significant intercepts

**Torian's Executive Director Mr Peretz Schapiro said** "As this campaign was essentially greenfield exploration, we are highly encouraged that we have uncovered a number of structures and gold intercepts that warrant follow up drilling.

We are excited to further progress the exploration of the Diorite Block with another RC drilling campaign which is scheduled to begin this week.

We are also pleased to inform the market that we have recently switched labs and have now been assured of ~1 month turnaround times; a marked improvement on what we have been receiving until this point."



**Figure 4:** A regional map of the Mt Stirling Gold Project tenements showing the Stirling and Diorite Blocks and surrounding Red 5 (ASX:RED) tenements including the 4.1Moz King of the Hills gold mine and Cerebus-Eclipse and Centauri deposits





This announcement has been authorised for release by the Board.

Peretz Schapiro
Executive Chairman
Torian Resources Ltd
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#### About Torian:

Torian Resources Ltd (ASX: TNR) is a highly active gold exploration and development company with an extensive and strategic land holding comprising six projects and over 400km² of tenure in the Goldfields Region of Western Australia. All projects are nearby to excellent infrastructure and lie within 50km of major mining towns.

Torian's flagship Mt Stirling Project is situated approximately 40km NW of Leonora, and neighbours Red 5's Kind of the Hills mine. The region has recently produced approximately 14M oz of gold from mines such as Tower Hills, Sons of Gwalia, Thunderbox, Harbour Lights and Gwalia.

The Mt Stirling Project consists of 2 blocks:

- 1. The Stirling Block to the north which contains two JORC compliant resources at a 0.5g/t cut-off: (refer ASX release 27/5/21 for further information)
  - a. Mt Stirling 355,000t at 1.7 g/t Au for 20,000oz (Indicated)
    - 1,695,000 at 1.5 g/t Au for 82,000oz (Inferred)
  - b. Stirling Well 253,500t at 2.01 g/t Au for 16,384oz (Inferred)
  - 2. The Diorite Block to the south, home of the historic 73 g/t Diorite King Mine.

Another project in the Kalgoorlie region is the Zuleika project in which the Company is involved in a JV with Zuleika Gold Ltd (ASX: ZAG). The Zuleika project is located along the world-class Zuleika Shear, which is the fourth largest gold producing region in Australia and consistently produces some of the country's highest grade and lowest cost gold mines. This project lies north and partly along strike of several major gold deposits including Northern Star's (ASX: NST) 7.0Moz East Kundana Joint Venture and Evolution's (ASX: EVN) 1.8Moz Frogs Legs and White Foil deposits.

Torian's other projects within the Kalgoorlie region include the Bonnie Vale and Gibraltar Projects, and its Credo Well JV with Zuleika Gold Ltd (ASX: ZAG), host of a JORC Inferred resource of 86,419t at 4.41 g/t Au for 12,259 oz.

Torian also holds ~10.7% of Monger Gold (ASX:MMG) as well as a 20% free carried JV interest in its projects.

#### **Competent Person Statement**

The information in this report relating to exploration results and Mineral Resource Estimates is based on information compiled, reviewed and relied upon by Mr Dale Schultz. Mr Dale Schultz, Principle of DjS Consulting, who is a Torian Director, compiled, reviewed and relied upon prior data and ASX releases dated 27 May 2021, 25 February 2019 and 29 January 2020 to put together the technical information in this release and is a member of the Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS), which is ROPO,



accepted for the purpose of reporting in accordance with ASX listing rules. Mr Schultz has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Schultz consents to the inclusion in the report of the matters based on information in the form and context in which it appears.

The JORC Resource estimate released on 27 May 2021 and 25 February 2019 were reviewed and relied upon by Mr Dale Schultz were reported in accordance with Clause 18 of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition) (JORC Code).

Torian Resources confirms in the subsequent public report that it is not aware of any new information or data that materially affects the information included in the relevant market announcements on the 25 February 2019, 29 January 2020 and 27 May 2021 and, in the case of the exploration results, that all material assumptions and technical parameters underpinning the results in the relevant market announcement reviewed by Mr Dale Schultz continue to apply and have not materially changed.

#### **Cautionary Note Regarding Forward-Looking Statements**

This news release contains "forward-looking information" within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information, and forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget" "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or indicates that certain actions, events or results "may", "could", "would", "might" or "will be" taken, "occur" or "be achieved." Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, Gold and other metal prices, the estimation of initial and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions with respect to currency fluctuations, the timing and amount of future exploration and development expenditures, receipt of required regulatory approvals, the availability of necessary financing for the Project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in Gold prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the Project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the Project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward looking information is made as of the date of this announcement and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws.





## Mt Stirling Project: JORC Table 1

## **Section 1 - Sampling Techniques and Data**

Commentary					
Drilling results reported from previous and current exploration completed by Torian Resources Ltd and historical explorers.					
• Reverse circulation drilling was used to obtain 1m split samples from which 2-3kg was pulverised to produce a 500g tub for Photon assay; and/or a 50g Fire Assay. Sampling has been carried out to company methodology and QA/QC to industry best practice. Zones of interest were 1m split sampled, and comp spear sampling was carried out on interpreted barren zones. Samples were dispatched to MinAnalytical in Kalgoorlie / Nagrom Laboratory in Kelmscott; were prep included sorting, drying and pulverisation for a 500gm Photon Assay (PAAU02) and/or a 50g Fire Assay (FA50)					
Surface soil sample locations are directly analysed using a Niton XL5portable XRF analyser (pXRF). Drill sample pXRF measurements are obtained from the primary split sample taken off the drilling rig's static cone splitter, with a single measurement from each respective meter sample, through the green mining bag.					
• Calibration on the pXRF is carried out daily when used, with the instrument also serviced and calibrated as required. Standards and blank material are also used under Torians QAQC protocols in line with industry standard practice and fit for purpose.					
Exploration results reported are pXRF preliminary results which are superceded by laboratory analysis when available.					
Historical drilling techniques include reverse circulation (RC) drilling. Standard industry techniques have been used where documented. Current RC drilling was carried out by PXD and Orlando utilising a Schramm truck and track mounted rig respectively.					
The more recent RC drilling utilised a face sampling hammer with holes usually 155mm in diameter.					
Drill recovery has not been routinely recorded on historical work, and is captured for all recent drilling.					
Geological logs are accessible and have been examined over the priority prospect areas. The majority of the logging is of high quality and has sufficiently captured key geological attributes including lithology, weathering, alteration and veining.					
Logging is qualitative in nature, to company logging coding.					
• ·All samples / intersections have been logged. 100% of relevant length intersections have been logged.					
Standard industry sampling practices have been undertaken by the historical exploration companies. Appropriate analytical methods have been used considering the style of mineralisation being sought.					
Sample sizes are considered appropriate.					
QC/QC data is absent in the historical data with the exception of the more recent Torian drilling, where sample standards and blanks are routinely used.					

	In the more recent Torian drilling duplicate samples (same sample duplicated) were commonly inserted for every 20 samples taken. Certified Reference Materials (CRM's), blanks and duplicates, are included and analysed in each batch of samples.
	pXRF sampling is fit for purpose as a preliminary exploration technique, with data being acquired and compiled into an extensive regional database.
	pXRF readings have a diminished precision due to grain size effect (homogeneity) when obtained from naturally occurring settings. The Competent Person considers this diminished precision acceptable within the context of reporting exploration results.
Quality of assay	The historical drill sample gold assays are a combination of Fire Assay and Aqua Regia. The assay techniques and detection limits are appropriate for the included results.
data and laboratory tests	Various independent laboratories have assayed samples from the historical explorers drilling. In general they were internationally accredited for QAQC in mineral analysis.
laboratory tests	The laboratories inserted blank and check samples for each batch of samples analysed and reports these accordingly with all results.
	Reference Photon pulps have been submitted to Nagrom Laboratory, in order to verify MinAnalytical mineralised assays accuracy and precision.
	Samples were analysed for gold via a 50 gram Lead collection fire assay and Inductively Coupled Plasma optical (Atomic) Emission Spectrometry to a detection limited of 0.005ppm Au.
	Intertek Genalysis routinely inserts analytical blanks, standards and duplicates into the client sample batches for laboratory QAQC performance monitoring.
	The laboratory QAQC has been assessed in respect of the RC chip sample assays and it has been determined that the levels of accuracy and precision relating to the samples acceptable.
	Where pXRF analysis reported, field analysis only; laboratory assay not yet carried out.
	A portable Niton XL5 instrument was used to measure preliminary quantitative amounts of associated mineralisation elements. Reading time of 30 seconds, over grid survegrid position, or drill metre interval respective green bags
	Daily calibration of pXRF conducted with standards and silica blanks.
Verification of	The historical and current drill intercepts reported have been calculated using a 0.5g/t Au cut-off, with a maximum 2m internal waste.
sampling and assaying	Documentation of primary data is field log sheets (handwritten) or logging to laptop templates. Primary data is entered into application specific data base. The data base is subjected to data verification program, erroneous data is corrected. Data storage is retention of physical log sheet, two electronic backup storage devices and primary electronic database.
	pXRF analytical data obtained has been downloaded by digital transfer to working excel sheets inclusive of QAQC data. Data is checked by technical personnel and uploaded drill hole or grid survey respective files, in preparation for database import.
Location of data points	Drill hole collars were located using a handheld GPS system. The coordinated are stored in a digital exploration database and are referenced to MGA Zone 51 Datum GDA 94
	Location of the majority of the historical drill holes has been using a handheld GPS system, or local grids that have been converted to MGA Zone 51 Datum GDA 94. Survey control used is handheld GPS for historic holes and
	The more recent Torian drilling has been located utilising a differential GPS and the majority of these holes have been surveyed downhole.
	The historical drill spacing is variable over the project as depicted on map plan diagrams.



Data spacing and distribution	•	Sample compositing has been used in areas where mineralisation is not expected to be intersected. If results return indicate mineralisation, 1m split samples were submitted for analysis.
Orientation of data in relation to geological	•	The orientation of the drilling is not at right angles to the known mineralisation trend and so gives a misrepresentation of the true width of mineralisation intersected.  Efforts to counteract to as reasonably as perpendicular to interpreted controlling mineralisation structures and trends has gone into drill planning.
structure	•	No sampling bias is believed to occur due to the orientation of the drilling.
Sample security	•	Drill samples were compiled and collected by Torian employees/contractors. All sample were bagged into calico bags and tied. Samples were transported from site to the MinAnalytical laboratory in Kalgoorlie and Nagrom laboratory in Kelmscott by Torian employees/contractors.
	•	A sample submission form containing laboratory instructions was submitted to the laboratory. The sample submission form and sample summary digitised records were compiled and reviewed so as to check for discrepancies.
Audits or reviews	•	A review of historical data over the main Mt Stirling and Stirling Well Prospects has been undertaken. The QA/QC on data over the remainder of the project tenements is ongoing.

## **Section 2 - Reporting of Exploration Results**

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>Diorite East is located on P37/8857 held by Torian Resources Limited, and Diorite North on P37/8868 and forms part of the Mt Stirling Joint Venture. This tenement is held by a third party on behalf of the Joint Venture. Torian Resources is the Manager of the Joint Venture and holds executed transfers which will permit this tenement becoming the property of the Joint Venture.</li> <li>The tenements are in good standing.</li> </ul>
Exploration done by other parties	Previous exploration completed by Torian Resources Ltd and historical explorers including Hill Minerals and Jupiter Mines Ltd.
Geology	The Mt Stirling Project tenements are located 40 km northwest of Leonora within the Mt Malcolm District of the Mt Margaret Mineral Field.
	• The project tenements are located within the Norseman-Wiluna Greenstone Belt in the Eastern Goldfields of Western Australia.



	• T	The project tenements cover a succession of variolitic, pillowed high Mg basalts that have been intruded by syenogranites/monzogranites.
		Historical prospecting and exploration activities have identified areas of gold mineralisation at various prospects. The orogenic style gold mineralisation appears in different nanifestations at each of the prospects.
		At the Mt Stirling Prospect gold mineralisation is associated with zones of alteration, shearing and quartz veining within massive to variolitic high Mg basalt. The alteration ones comprise quartz-carbonate-sericite-pyrite+/- chlorite.
	• A	at the Stirling Well Prospect gold mineralisation is associated with millimetre to centimetre scale quartz veining within the Mt Stirling syenogranite/monzogranite. The gold nineralised quartz veins have narrow sericite/muscovite- epidote-pyrite alteration selvages.
	1	Gold mineralisation at the Diorite King group of mine workings is hosted by dolerite and metabasalts which strike NE-SW predominantly and are associated with sub-vertical tockwork quartz. Other historical gold workings in the Project area occur along quartz veined contact zones between mafic intrusive and mafic schist units.
	• T	The characteristic of each prospect adheres to generally accepted features of orogenic gold mineralisation of the Eastern Goldfields of Western Australia.
Drill hole Information	• T	The location of drill holes is based on historical reports and data originally located on handheld GPS devices.
	• N	Northing and easting data for historic drilling is generally within 10m accuracy.
	• R	Recent Torian RC drill holes located with differential GPS.
	• N	No material information, results or data have been excluded.
Data aggregation methods		Best gold in drill hole was calculated by taking the maximum gold value in an individual down hole interval from each drill hole and plotting at the corresponding drill hole ollar position. Individual downhole intervals were mostly 1m, but vary from 1m to 4m in down hole length.
		n relation to the reported historical drill hole intersection a weighted average was calculated by a simple weighting of from and to distances down hole. The samples were am down hole samples. No top cuts were applied.
	• T	The current drill hole intersection is reported using a weighted average calculation by a simple weighting of from and to distances down hole at 1m intervals per sample.
	• T	The historical drilling intercept reported has been calculated using a 1g/t Au cut off, no internal waste and with a total intercept of greater than 1 g/t Au.
	• N	No metal equivalent values are used
Relationship between mineralisation widths and intercept lengths	• T	The orientation of the drilling is approximately at right angles to the known trend mineralisation.
	• D	Oown hole lengths are reported, true width not known.



Diagrams	•	The data has been presented using appropriate scales and using standard aggregating techniques for the display of data at prospect scale.
	•	Geological and mineralisation interpretations based off current understanding and will change with further exploration.
Balanced reporting	•	Historical Diorite results have been reported in TNR:ASX announcements dated: 08/10/2020, 06/10/2020, 27/07/2020, 29/01/2020.
Other substantive exploration data	•	Geological interpretations are taken from historical and ongoing exploration activities. Historical exploration within the existing Diorite North Prospect has provided a reasonable understanding of the style and distribution of local gold mineralised structures at the prospect.
	•	Other areas outside of the existing Diorite historical workings are at a relatively early stage and further work will enhance the understanding of the gold prospectivity of these areas.
Further work	•	A review of the historical exploration data is ongoing with a view to identify and rank additional target areas for further exploration.
	•	The results of this ongoing review will determine the nature and scale of future exploration programs.
	•	Diagrams are presented in this report outlining areas of existing gold mineralisation and the additional gold target areas identified to date.
	•	Selective preliminary pXRF analytical results are confirmed by laboratory analysis as further planning to advance exploration is contingent on confirmatory assays and further targeting analysis.

