

6 June 2016

# Confidence Boost from RC Drilling Results at Golden Terrace South – Redcliffe Gold Project

The Company is pleased to announce results from preliminary composite sampling of the recently completed 10 hole RC drilling programme at the Golden Terrace South (GTS) gold deposit.

### The results include;

15m @ 14.47g/t	from 85m to 100m EOH in GTRC 381
40m @ 4.35g/t	from 30m to 70m including
20m @ 6.98g/t	from 50m to 70m from GTRC 382
60m @ 4.04g/t	from 70m to 120m EOH in GTRC 385
65m @ 4.46g/t	from 60m to 125m in GTRC 386
91m @ 3.88g/t	from 35m to 126m EOH in GTRC 387

The ten RC holes were completed for a total of 1150 metres. The primary aim of these holes was to more accurately define the extent, geometry, and grade of critical high grade gold zones. These zones are largely within the conceptual "phase 1 open pit" being considered to exploit the oxide/supergene zones although several of the deeper intersections extend outside the envelope.

Composite samples over 5 metres were collected and submitted for assay to determine zones requiring assay of single metre splits (composites are not used in resource calculations and are used as a guide only).

Results from follow up single metre assays and geological information will be used to aid interpretation and resource modelling for the GTS deposit and lead to a resource update and JORC 2012 compliance.

The current JORC 2004 compliant resource estimate for GTS is 90,000 ounces. (1,391,000t @ 2.02g/t, of which 707,000t @ 2.46g/t for 56,000oz is classified as Indicated and 684,000 @ 1.56g/t for 34,000oz as Inferred)

The Mining Execution plan is to be brought up to date along with financial studies to enable decisions to be made on the development.

Further results from single metre assays will be announced as they come to hand as will findings from studies over the coming weeks.



### **Sampling Procedure and Results**

Drill chips are collected for each metre advance of RC drill holes samples from which a single metre sample is riffle split and saved for later assaying if required. A sub sample is collected from the remainder of the sample and composited over 5m intervals. The 5m composite assay results reported herein will not be used in resource calculations but give an overview of mineralisation and provide a guide as to which intervals require the individual samples to be assayed.

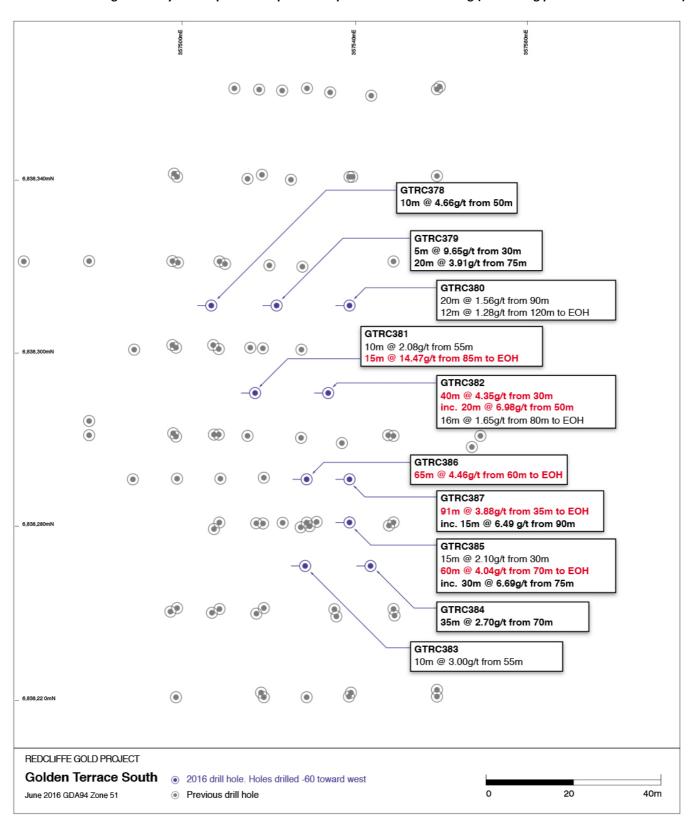
#### **DRILL HOLE RESULTS SUMMARY TABLE**

This table is a summary of results obtained from each hole. Intercepts are down hole widths calculated using a nominal 0.5g/t lower cut, generally maximum one sample of lesser grade included. No upper cut employed. Coordinates are GDA94 Zone 51

	CDA F	CDA N	DEDTIL ( )	47/DID	FROM	T0	DECLUT (A.)
HOLE	GDA_E	GDA_N	DEPTH (m)	AZ/DIP	FROM	то	RESULT (Au)
GTRC378	357508	6838310	100	270/-60	40	50	10m @ 4.66g/t
					85	95	10m @ 1.42g/t
GTRC379	357523	6838310	120	270/-60	30	35	5m @ 9.65g/t
					75	95	20m @ 3.91g/t
GTRC380	357540	6838310	132	270/-60	90	110	20m @ 1.56g/t
					120	132	12m @ 1.28g/t EOH
GTRC381	357518	6838290	100	270/-60	55	65	10m @ 2.08g/t
					85	100	15m @ 14.47g/t
GTRC382	357535	6838290	96	270/-60	30	70	40m @ 4.35g/t
				Inc.	50	70	20m @ 6.98g/t
					80	96	16m @ 1.65g/t EOH
GTRC383	357530	6838250	100	270/-60	55	65	10m @ 3.00g/t
GTRC384	357545	6838250	108	270/-60	70	105	35m @ 2.70g/t
GTRC385	357540	6838260	130	270/-60	30	45	15m @ 2.10g/t
					70	130	60m @ 4.04g/t EOH
					75	105	30m @ 6.69g/t
GTRC386	357530	6838270	138	270/-60	60	125	65m @ 4.46g/t
GTRC387	357540	6838270	126	270/-60	35	126	91m @ 3.88g/t EOH
				Inc.	90	105	15m @ 6.49 g/t



### Collar Plan Showing Summary of Composite Sample Intercepts from 2016 RC Drilling (& showing previous drill hole collars)





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### **Redcliffe Gold Project**

The Company has a 100% beneficial interest in the Redcliffe Gold Project which is located 40-55km northeast of Leonora and around 230km north of Kalgoorlie in Western Australia. The Project consists of four granted mining leases and an exploration licence covering 118sqkm and includes a considerable strike length of the regionally important Mertondale Shear Zone (MSZ). Current estimated gold resources within the mining leases, over a number of deposits, stands at 278,000 ounces. (5,480,000t @ 1.57g/t of which 969,000t @ 2.70g/t for 84,000oz is classified as Indicated and 4,512,000t @ 1.33g/t 193,600oz as inferred.)

The highly prospective project area offers considerable scope for new discoveries and extension of existing deposits.

Further exploration and mining studies are proposed to advance NTM in its objective to exploit gold deposits.

## Lloyd Jones Managing Director

For further information relating to this programme contact Rodney Foster, Technical Director on 0417 343111.

### **Competent Person Statement**

The information in this report, as it relates to Exploration Results, is based on information compiled and/or reviewed by Rodney Foster who is a Member of The Australasian Institute of Mining and Metallurgy. Rodney Foster is a Director of the Company. He has sufficient experience which is 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 "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Rodney Foster consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This information with respect to Resources was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

## **Appendix 1**

## JORC Code, 2012 Edition – Table 1 report – Golden Terrace South Prospect RC drilling

### **Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	The sampling has been carried out using Reversed Circulation drilling (RC) . A total of 10 holes were drilled in the reported program for a total of $1150$ m of RC at depths ranging from of $100$ to $138$ m. The holes were drilled at - $60$ degrees at approximately $270^{\circ}$ . Sample quality was high with only minimal sample loss around the annulus in the top 5m of each hole. Some samples were damp to wet as noted below $120$ m depth but overall dry sample was produced to the depths drilled.
	Include reference to measures taken to ensure sample representation and the appropriate calibration of any measurement tools or systems used.	The drill holes were initially located by handheld GPS, and then verified with tape measure from base line pegs. Sampling was carried out under Company protocols and QAQC procedures as per current industry practice. See further details below.
	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.	RC holes were drilled with a 5.25inch face-sampling bit, 1m samples collected through a cyclone and riffle splitter, to form a 2 to 3kg sub sample. These samples are stored for future assaying dependent on zones that reveal anomalism in composite sampling. Field residue bags are spear or trowel sampled to provide approximately 600g form each metre and composited over 5m. (0-5m,5-10m, and so on to end of hole) These samples are sorted and dried by the assay laboratory. pulverised , and as 40gm charge split off and subjected to Fire Assay for gold.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	A KL drilling rig, operated by K&J Drilling Pty Ltd was used to drill holes using standard Reverse Circulation configuration with a face sampling hammer.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	The majority of samples were dry. Ground water was encountered in all holes, the inflow was controlled by increasing the air volume. RC recoveries were visually estimated and any low recoveries recorded in the drill logs. Recovery of the samples was good, generally estimated to be full, except for some sample loss at depths of +120m in holes GTRC380, 382, 384 and 386. Sample quality was noted on the drill logs.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC face-sample bits, PVC casing in the top 6 metres and dust suppression were used to minimise sample loss. RC samples are collected through a cyclone and riffle splitter, with the bulk of the sample deposited in a plastic bag and a sub sample up to 3kg collected for dispatch to the assay laboratory. Cyclone and riffle splitter are cleaned between rods and at EOH to minimize contamination
	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.	Ground water ingress to the holes resulted in some damp to wet samples towards the EOH, notable in GTRC380, 382, 384 and 386. Sample quality was noted on drill logs, and drilling of the hole was terminated when sample quality was compromised at depth through excessive water flow.
	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.	All chips were geologically logged by NTM geologists, using the Companies logging scheme.

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.	All chips were geologically logged by NTM geologists, using the Companies logging scheme.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of RC chips records lithology, mineralogy, mineralisation, weathering, colour and other features of the samples. A portion of every metre sample is wet-sieved and stored in chip trays. These trays are stored off site for future reference.
	The total length and percentage of the relevant intersections logged.	All holes were logged in full.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and	If core, whether cut or sawn and whether quarter, half or all core taken.	NA NA
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	One-metre drill samples are passed through a 3-tiered riffle splitter installed directly below a rig mounted cyclone. A 2-3 kg sub-sample is collected in a calico bag and the balance (field residue) in a plastic bag. The calico bag is positioned with the corresponding plastic bag for later collection if required. Most samples were dry except as noted above. A 5m composite preliminary sample was collected by spearing the plastic bag of field residue for each 5m interval. Results from the composite samples are used to identify which singe meter samples will be submitted to laboratory for individual Fire Assay. Composite samples are not used in resources calculations.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Samples were prepared at the Bureau Veritas Laboratory in Kalgoorlie. Samples were dried, and the whole sample pulverised to 90% passing 75um, and a reference sub-sample of approximately. 200g retained. A nominal 40g was used for the analysis (FA/AAS). The procedure is industry standard for this type of sample.
		RC samples are collected at 1 m intervals and composited into 5 m samples using a PVC spear to sample individual metre samples. Certified Reference Materials (CRM's) and/or in house controls, blanks, splits and replicates are analysed with each batch of samples. These quality control results are reported along with the sample values in the final report. Selected samples are also re-analysed to confirm anomalous results.
	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.	One-metre samples are split on the rig using a 3 tier splitter, mounted directly under the cyclone. This standard Industry practice. The samples weigh 3-5kg prior to pulverisation.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate to give an indication of mineralisation given the particle sizes and the practical requirement to maintain manageable sample weights.
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.	Samples were analysed for Au to ppm levels via 40gm fire assay / AAS finish which gives total digestion and is appropriate for high-level samples.
	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.	No geophysical tools were used in this program.

	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.	Company QA/QC protocol for RC & DC drilling is for Field Standards (Certified Reference Materials) and Blanks inserted at a rate of 4 Standards and 3 Blanks per 100 single metre samples. Duplicate samples were collected at a rate of 3 in 100 single meter samples in RC drilling.
		Similarly, for 5m composite sampling, Field Standards (Certified Reference Materials) and Blanks are inserted at a rate of 1 in 20 samples. At the Assay Laboratory additional Repeats, Lab Standards, Checks and Blanks are analysed concurrently with the field samples. Results of the field and Lab QAQC samples were checked on assay receipt. All assays met QAQC protocols, showing no levels of contamination or sample bias. Analysis of field duplicate assay data suggests expected levels of sampling precision, with less than 10% pair difference.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant results were checked by the Technical Director and a consultant Geologist.
	The use of twinned holes.	Twin holes were not employed during this part of the program although nearby holes were checked to validate relevant positions of mineralized zones.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All field logging was carried out on hardcopy geological log sheet. Data is entered electronically to the Database Geologist in the Redcliffe Victorian office. Assay files are received electronically from the Laboratory. All data is stored in a Company database system, and maintained by the Database Manager.
	Discuss any adjustment to assay data.	No assay data was adjusted. The lab's primary Au field is the one used for analysis purposes. No averaging is employed.

JORC Code explanation	Commentary
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.	RC locations were determined by hand-held GPS, and then verified with tape measure off known base line points  The drill rig mast is set up using a clinometer. Down hole directional surveying was completed regularly using a down hole multi-shot tool within a 6m long stainless steel rod.
Specification of the grid system used.	Grid projection is GDA94, Zone 51.
Quality and adequacy of topographic control.	Relative Levels are allocated to the drill hole collars using current Digital Terrain Model's for the area . The accuracy of the DTM is estimated to be better than 5m.
Data spacing for reporting of Exploration Results.	RC drilling was designed to intersect modelled oxide mineralisation within the known high grade zone at GTS. One sample was collected for every metre drilled and selected samples submitted for assay.
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.	The drilling is close spaced within the confines of the current GTS resource, and as such will be incorporated into Resource estimations.
Whether sample compositing has been applied.	Preliminary samples are composites over 5m.agrgIntercepts are calculated as a guide by aveaging mineralized samples over a 0.5g/t cut off. No compositing will be employed in the single metre results to be used in resource definition.
Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The orientation of the drill hole (azimuth) is approximately perpendicular to the strike of the targeted mineralisation.
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.	The drill orientation is estimated to be approximately perpendicular to the main mineralised trend. It is unclear at present whether cross structures are mineralised, however it is considered unlikely that any sampling bias has been introduced.
The measures taken to ensure sample security.	Calico sample bags were collected in pre -numbered plastic bags (five calico bags per single plastic bag), sealed and transported to the Bureau Veritas Laboratory in Leonora then on to Kalgoorlie for assaying.
	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.  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.  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.

Audits or reviews	Sampling and assaying techniques are industry-standard. No specific audits or reviews have been undertaken at this stage in the program.
	this stage in the program.

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

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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 RC drilling occurred within tenement M37/1276 which is held 100% by Northern Manganese Pty Ltd and wholly owned subsidiary Redcliffe Resources Limited. The Redcliffe Gold Project is located 45km NE of Leonora in the Eastern Goldfields of Western Australia
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenement subject to this report is in good standing with the Western Australian Department of Mines & Petroleum.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous exploration at GTS has been completed on this prospect by Ashton Gold, Sons of Gwalia and CRAE in the 1990's. This work broadly outlined the GTS mineralised trend to shallow depths. Where relevant, assay data from this earlier exploration has been incorporated into Company databases.
Geology	Deposit type, geological setting and style of mineralisation.	The GTS mineralisation is hosted largely within Archaean-aged felsic, sediment (inc. black shale) and minor mafic rocks. A schistose fabric is observable in the lithologies. Gold mineralisation occurs in sub-vertical to steep west dipping zones associated with quartz-carbonate-sulphide-mica veins and alteration. Alteration intensity and quartz-sulphide (pyrite) abundance are controls to mineralisation in the primary zone. Depth of oxidation is generally 90-100m down hole.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  • easting and northing of the drill hole collar  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  • 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.	Refer to table in the body of text.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	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.	Grades are reported as down-hole length-weighted averages of grades. No top cuts have been applied to the reporting of the assay results.
	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.	All higher grade intervals are included in the reported grade intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its 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').	The geometry of the mineralisation at depth is interpreted to vary from steeply west dipping to sub-vertical. (80 to 90 degrees). All assay results are based on down-hole lengths, and true width of mineralisation is not known.
Diagrams	Appropriate maps and sections (with scales) and 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.	Refer to Figure in the body of text.
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.	Refer to results reported in body of text and summary statistics for the elements reported.
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.	Refer to body of text and this appendix.
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 drill testing at depth targeting primary mineralisation is planned at GTS, including both RC and DC drilling. The location of the collars of these holes is still to be determined. Currently there is insufficient geological information to determine the extent of mineralisation in the primary zone beneath the GTS oxide deposit.