

## DRILLING ON LARGE SCALE CU-MO-AU-AG PROSPECTS, RAVENSWOOD WEST

Sunshine Gold Limited (ASX:SHN, "Sunshine Gold", "the Company") is pleased to announce the commencement of the first RC drilling programs at the Titov and Keans prospects, Ravenswood West.

#### **HIGHLIGHTS**

- Commencement of first drilling at Titov and Keans prospects in over 50 years. Despite surface gold (to 14.7 g/t Au) and silver anomalism, the prospects have only been historically assayed for copper (Cu) and molybdenum (Mo) with no assaying for gold (Au) or silver (Ag). The RC drilling programs include 1,400m of focussed drilling at Titov and 1,500m of reconnaissance drilling at Keans.
- Drilling with vertical holes at Titov in the 1950/60s intersected significant mineralisation including: 110.9m @
   0.35% Cu and 0.09% Mo from surface (DDH5); and 97.3m @ 0.41% Cu and 0.10% Mo from 6.1m (DDH10).
- Drilling at Keans in the 1960's also intersected significant mineralisation with 3.3m @ 1.02% Mo from 180.7 (R1).
   Rock chip sampling around the Heuirs Shaft recently returned 25.0% Cu, 0.26% Mo, 8.7 g/t Au and 578 g/t Ag.





Figure 1. Titov: (left) Malachite-stained copper outcrop (right) Coarse molybdenite crystals in quartz veining

Sunshine Gold's Managing Director, Damien Keys commented: "Titov is an amazing geological, geochemical, geophysical and geobotanical anomaly. Titov was drilled in the 1950's and the 1960's for its Cu/Mo potential. Eleven vertical holes intersected significant mineralisation and there was no precious metals assaying. Recent gold in rock chips (to 14.7 g/t Au) indicate Titov may be a large Cu-Mo-Au-Ag intrusion related system with the potential to host Au/Ag and to improve at depth. We also now have the benefit of modern day exploration tools to focus our targeting. Likewise, Keans has seen little modern work. The last drilling in the 1960's intersected 3.3m @ 1.02% Mo. Rock chips sampling around Heuirs Shaft returned 25.0% Cu, 0.26% Mo, 8.7 g/t Au, and 578 g/t Ag. The vein system at Heuirs Shaft is currently undrilled and represents an exciting walk-up target. Mo is typically found in quantities of 0.01%-0.25% in porphyry or skarn deposits and is often associated with larger copper and tungsten occurrences, so the grades we are seeing are most encouraging."

# SUNSHINE GOLD LIMITED (ASX:SHN)

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#### Capital:

Ordinary shares: 356,711,618 Unquoted shares: 88,000,000 (24m Esc) Deferred shares: 100,000,000 (24m Esc) Unlisted options:71,000,000 (24m Esc) Unlisted plan options: 1,000,000 Perf Rights: 17,000,000 (24m Esc)



## **TITOV DRILL PROGRAM (Sunshine Gold 100%)**

Titov is a swarm of Mo-bearing quartz veins hosted within a malachite (Cu carbonate) stained granodiorite. The prospect is located on a hill and is a devoid of trees, owing to the elevated Cu in soils. A shaft and series of shallow workings are spread across the 300m x 120m surface anomaly. A persistent and inter-connecting quartz-molybdenite vein swarm is also documented at the 3.5 Moz Mt Leyshon gold deposit (Wormald, PhD thesis, 1993).

Three holes were drilled for Mo in the late 1950s and re-assayed for Cu in the 1960s, reporting a best intersection of **25.9m @ 0.37 % Cu and 0.02% Mo** (Company Report #1838). As was typical in the day, precious metals were not assayed for.

Planet Metals completed soil geochemical surveys and an induced polarisation (IP) over Titov in 1968. The results were encouraging and lead to a further nine diamond holes being drilled, again only assaying for Cu and Mo (Significant Intercepts, Table 1). The historic intersections suggest a moderate to steep southerly plunge to the mineralisation, possibly bound by a graphitic fault zone. This fault is interpreted to be a splay off the regional-scale, ENE-WSW trending Basal Fault that hosts Au mineralisation at Hadleigh Castle (500koz) and Disraeli (400koz).

Hole ID	From (m)	To (m)	Interval (m)	Cu (%)	Mo (%)
DDH4	3.0	145.1	142.0	0.32	0.05
DDH5	0.0	110.9	110.9	0.35	0.09
DDH6 *	211.4	234.7	23.3	0.27	-
DDH9	0.0	44.4	44.4	0.22	0.01
DDH10	6.1	103.4	97.3	0.41	0.10
DDH11	94.5	109.7	15.2	0.51	-
DDH11	181.4	189.0	7.6	0.25	-
DDH12 ^	61.0	91.4	30.5	0.25	-
DDHT2	30.5	73.2	42.7	0.29	0.03
DDHT2 *	103.6	119.2	15.5	0.23	0.06
DDHT3 *	91.4	117.3	25.9	0.37	0.02

<sup>\*</sup> Interval coincides with bottom of hole

Table 1. Significant assays from Titov drilling.

There was no further work on Titov until 1992 when Placer Exploration (Placer) completed a 100m x 200m spaced, IP survey producing chargeability and resistivity maps. Placer also completed a north-south oriented dipole-dipole (100m stations) IP cross section. The chargeability map shows a large anomaly coincident with Titov increasing to the ESE and likely to be attributed to "fresh" sulphides at depth (Figure 3).

<sup>^</sup> Hole did not reach Titov target surface



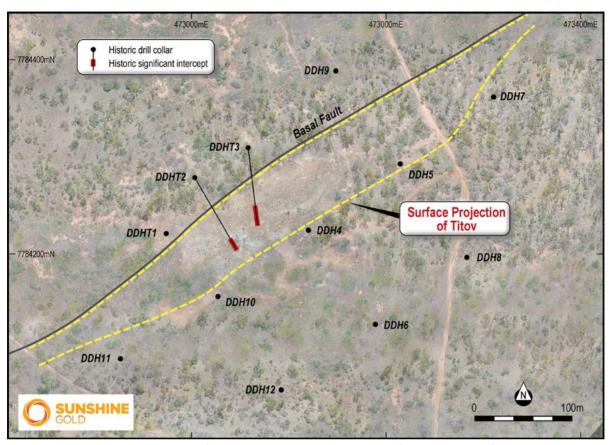


Figure 2. Aerial photograph of Titov with historic drilling and surface projection of modelled lode.

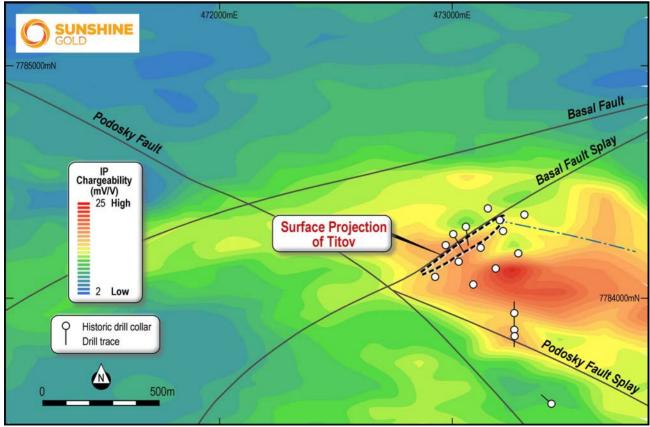


Figure 3. Contoured IP chargeability at Titov with historic drill holes.



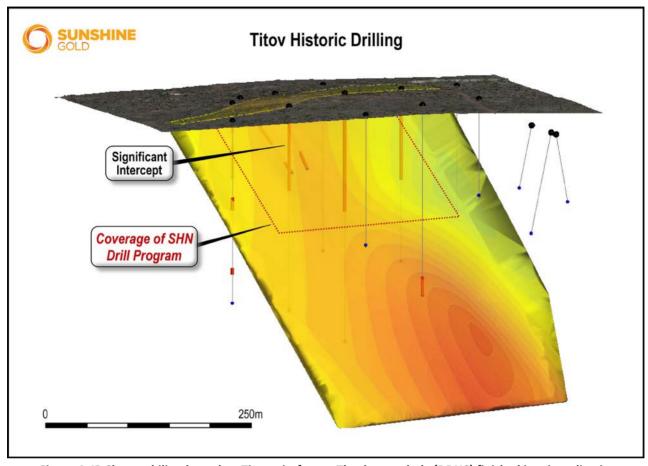


Figure 4. IP Chargeability draped on Titov wireframe. The deepest hole (DDH6) finished in mineralisation.

Downhole IP is planned for the deeper RC holes to assess the potential for higher-grade mineralisation at depth.

Twenty-five rock chip samples were collected in 2019 and assayed for a suite of elements. The samples returned best assays of 8.44% Cu, 8,060ppm Mo and 82 g/t Ag across various samples. Four rock chips at Titov reported elevated Au values of 2.03 g/t Au, 0.95 g/t Au, 0.76 g/t Au and 0.69 g/t Au. A fifth rock chip, collected to the west of the outcropping vein swarm, returned 14.75 g/t Au.

The presence of broad Cu-Mo mineralisation in historical drilling, coupled with Au-Ag in rock chips makes Titov an attractive large-scale target. The planned drill program's objectives are to:

- Confirm large thickness intervals of Cu and Mo;
- Assess potential for Au-Ag mineralisation within the Cu-Mo;
- Define zones of high-grade mineralisation within the broader mineralised envelope; and
- Test the nature of the emerging IP chargeability anomaly at depth with downhole geophysics on the deepest drilling.



# **KEANS PROGRAM (Sunshine Gold 100%)**

Keans is a series of outcropping quartz and carbonate veins within a granodiorite that were initially worked for Au in the 1930s. The two shafts, Shaft A and Heuirs Shaft, were sunk to depths of ~20m and ~7m respectively. No production totals are available. However, Shaft A reported mined grades of 28 g/t Au near the top of the shaft decreasing to 3 g/t Au at the base. Heuirs Shaft reported 46 g/t Au mined grades at top of the workings decreasing to 15 g/t Au at base (Company Report #465).

The first documented exploration at Keans in 1959, noted high amounts of molybdenite within the shaft spoils which led explorers to target porphyry-style mineralisation. Rock chip samples taken from the prospect were highly encouraging, including highest values of <u>25% Cu, 1.03% Mo, 8.7 g/t Au and 183 oz/t Ag</u> across various samples (Company Report #465).

Eight diamond holes were drilled at Keans between 1959 and 1962. Assay information is limited to select intersections of Cu, Mo, Au and Ag. Both the drill core and the "drill sludge" were assayed. Assays from core record impressive Mo results including 3.3m @ 1.02% Mo (Hole R1) and 13.8m @ 0.26% Mo (Hole R4). Au showed a best intercept of 3m @ 1.36 g/t Au (Hole R2) from sludge sampling. This result, whilst deemed unreliable, highlights the potential for Au in the system. Elevated Ag including 0.5m @ 61 g/t Ag (Hole R6) was also recorded. No further drilling has been recorded at Keans.

Recent field mapping of Keans shows two dominant vein orientations. Mo and Cu (malachite and azurite) are commonly seen in both vein sets. A series of 1-4m thick, north-south oriented veins are mapped with a moderate, westerly dip and are laterally continuous for up to 200m in areas. Three east-west oriented costeans were cut in 1962 to sample prominent north-south veins. A second set of east-west oriented veins have also been mapped throughout the prospect. The east-west veins are often narrower (50cm-2m thickness) but are typically sheeted and are believed to be the mineralisation host in Shaft A. Many of the significant rock chip assays reported have been sampled from the east-west oriented veining.

A major regional fault, easily defined in magnetics, passes to the south of Keans. The fault is inferred to be the Buck Reef Fault, a key structural feature of the Ravenswood Gold Mine (>9 Moz Au). In the Ravenswood Gold Mine, higher Au grades are observed on structures near the intersection with the Buck Reef Fault.

The planned reconnaissance drilling program will test several veins south of Keans near the Buck Reef Fault for signs of enrichment. Sunshine Gold's Keans RC drill campaign aims to:

- Assess the Cu-Mo-Au-Ag prospectivity of both north-south and east-west oriented vein sets, especially near untested historic workings: and
- Assess veins in the south of the Keans prospect area that may be associated with the regionally significant Buck Reef Fault.



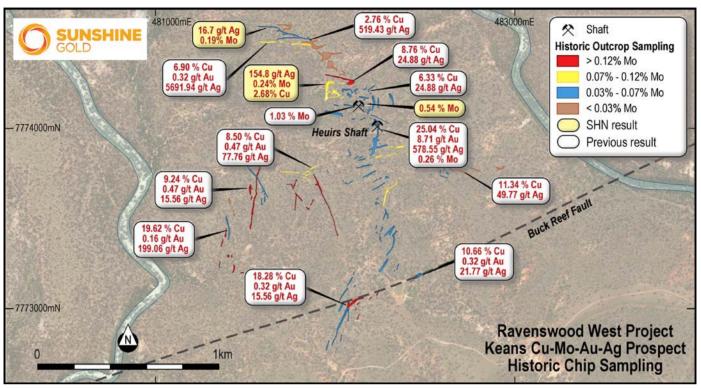


Figure 5. Keans: Historic rock chip sampling and vein mapping.

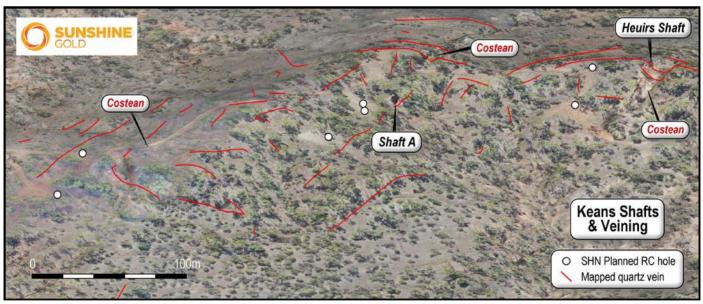


Figure 6. Orthogonal view of central Keans area and planned drill collars.



# **GAGARIN PROSPECT (Sunshine Gold 100%)**

A strong geochemical and geophysical anomaly was identified at Gagarin, located between Keans and Titov. Two historic rock chip samples were collected 400m apart from Gagarin South in 1999 and returned results of 11.17 % Cu, 396ppm Mo, 1.0 g/t Au and 12 g/t Ag (Sample PK42) and 10.55 % Cu, 1,180ppm Mo, 0.25 g/t Au and 5 g/t Ag (Sample PK43, Company Report #31839).

A Sunshine Gold field team visited the site and mapped a 1-3m wide quartz vein and sulphide system outcropping over 400m of strike. The rocks immediately adjacent to the veining were sheared and contained abundant Cu malachite. Fifteen rock chip samples were collected from two locations (assays pending). Follow up mapping and sampling are planned to further refine drill targets.



Figure 7. Gagarin quartz vein sample containing sulphide and Cu malachite (477110mE, 7776421mN).

## **OTHER ACTIVITIES**

Upon completion of the Titov and Keans RC drill programs (21 holes, 2,900m), drilling will recommence at the Triumph Gold Project in October 2021. An 8,500m RC and diamond drill program at Triumph will infill and extend on the successful maiden drilling campaign. The program is anticipated to take three months to complete and will provide enough geological and metallurgical information for a maiden JORC 2012 Resource in early 2022.

A separate field crew will continue early reconnaissance of other Cu-Mo-Au prospects (Gagarin), REE-Cu-Au prospects (Elphinstone Creek) and Au prospects (Eastern Dreghorn) at Ravenswood West throughout the remainder of 2021.



### **About Molybdenum**

Mo is a silvery metal with the sixth-highest melting point of any element, it can withstand extremely high temperatures and is highly resistant to corrosion. Mo is a great steel alloy because of its strength and high melting point, which preserves and protects steels from corrosion, embrittlement, and decay. Mo is mainly used as an alloying agent in stainless steel and also in the manufacture of aircraft parts and industrial motors.

Mo is typically found in quantities of 0.01%-0.25% in porphyry or skarn deposits and is often associated with larger copper and tungsten occurrences.

China is the world's biggest consumer of molybdenum.

The current Mo price is US\$46.25kg.

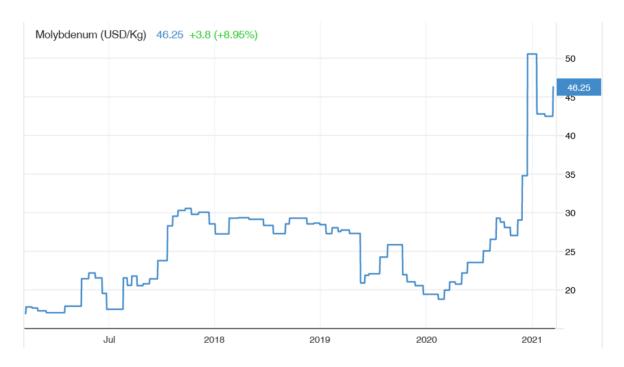


Figure 8: 5-year Mo price chart (source Trading Economics)

#### **PLANNED ACTIVITIES**

Sept 2021 quarter: Audited financial statements.
 October 2021: September 2021 quarterly report.

Oct 2021 quarter: Infill and extensional drilling at Triumph.
 Oct 2021 quarter: Early-stage field work at Ravenswood West.
 October 21-22, 2021: Presentation at Australian Gold Conference.

• November 2021: Annual General Meeting.



#### **ENDS**

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This ASX announcement is authorised for market release by the Board of Sunshine Gold.

Competent Person's Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled by Dr Damien Keys, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG). Dr Keys has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Dr Keys consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



#### **ABOUT SUNSHINE GOLD**

Sunshine Gold is focused on its high-quality gold and copper projects in Queensland. Following recent acquisitions, Sunshine Gold has secured 100% interest in the Triumph, Hodgkinson, Investigator and Ravenswood West projects.

### Triumph Gold Project (EPM18486, EPM19343: 100%)

Triumph is centred around the historical Norton gold field from which ~20,000 oz of gold was extracted between 1879-1941. The project is located 50km south of the mining hub of Gladstone and comprises two exploration permits covering 138km². Triumph is located within the Wandilla Province of the New England Orogen. Nearby large gold deposits include Mt Rawdon (2.8 Moz Au), Mt Morgan (8 Moz Au and 0.4 Mt Cu) and Cracow (2 Moz Au). Triumph is a 15km² intrusion related gold system which has the potential to host both discrete high-grade vein deposits and large-scale, shear hosted gold deposits.

#### Hodgkinson Gold Copper Project (EPM18171, EPM19809, EPM25139, EPM27539, EPM27574, EPM27575: 100%)

Hodgkinson is located 100km north east of Cairns in North Queensland. The project comprises four exploration permits and two exploration lease applications covering 365km<sup>2</sup>. The project is situated between the Palmer River alluvial gold field (1.35 Moz Au) and the historic Hodgkinson gold field (0.3 Moz Au) and incorporates the Elephant Creek Gold, Peninsula Gold-Copper and Campbell Creek Gold prospects. Hodgkinson has been extensively explored for tungsten, owing to its proximity to the Watershed and Mt Carbine tungsten deposits, but underexplored for gold. BHP-Utah International completed stream sediment sampling across the entire tenure in the late 1980's and confirmed that the area was anomalous in gold as well as tungsten.

## Investigator Copper Project (EPM27344, EPM27345: 100%)

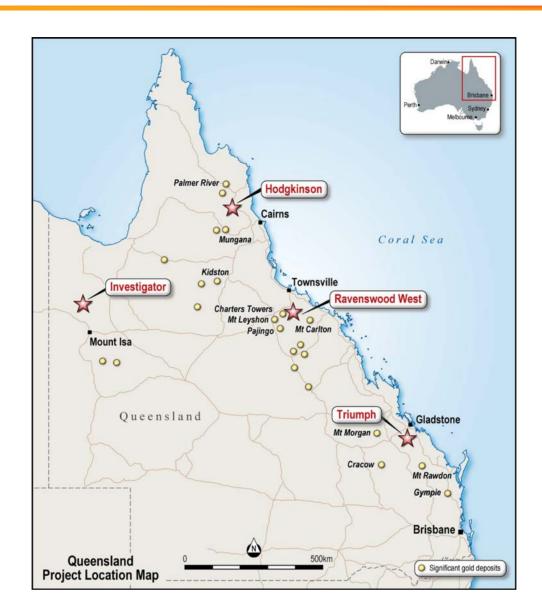
Investigator comprises two exploration permits covering 115km<sup>2</sup>. It is located 110km north of Mt Isa and 12km south of the Mt Gordon Copper Mine. Investigator has seen no modern exploration and importantly, no holes have been drilled in the most prospective stratigraphic and structural positions.

# Ravenswood West Gold-Copper-Rare Earths Project (EPM 26041, EPM 26152, EPM 26303, EPM 26304: 100%)

Ravenswood West is comprised of a significant holding (392 km2) of highly prospective gold-copper ground within 5 kms of the Ravenswood Mining Centre (4 Moz Au produced, a further 4.3 Moz Au in Resource and 1.8 Moz in Ore Reserves). The Ravenswood Mining Centre was purchased by EMR Capital and Golden Energy & Resources Ltd. (SGX:AUE) from Resolute Mining Ltd. (ASX:RSG) in 2020 for up to \$300m and is presently subject to a ~\$200m upgrade. In addition, there are three other gold mills within 100km, two of which are toll treating.

The project is also highly prospective for intrusion-related and orogenic gold, porphyry copper-molybdenum-gold and rare earth elements. Ravenswood West covers 20-25km of strike along a major fault that links Pajingo (4 Moz) and Ravenswood (9.8 Moz) and contains numerous historic gold workings.







# **JORC Code, 2012 Edition TABLE 1**

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurementtools or systems used.</li> <li>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.</li> </ul>	Historical Drilling:  Titov —  North Broken Hill - Diamond half core samples (CR1838) as resampled by New Consolidated Goldfields. Half core samples also taken for New Consolidated Goldfields and Planet Metals holes, and Placer Exploration diamond tails. RC chips for Placer were riffle split as per industry standard.  Keans — Diamond full core samples alongside sludge samples. (CR476 & CR1776). It is believed those reported in this release were core samples.  Historical Rock Chips — Were collected from outcrop or float. Partial records exist of provenance. No records are present on sample size.  Sunshine Gold Rock Chips: Rocks were selected by the field geologist and recorded as either in situ (outcrop), float (alluvial) or from working spoil. A standard geopick hammer is utilised to collect a sample typically of 1 — 2kg size along the required outcrop ensuring care is taken to only sample the required unit.
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.).	Historical Drilling:  Titov - North Broken Hill — Diamond drilling, unorientated unknown size but likely similar to that reported at Keans.  • New Consolidated Goldfields — Diamond drilling unorientated, AXT size  • Planet Metals — Six "dust" holes (percussion); and nine diamond core holes collaring in NMLC up to approximately 68ft then drilled in NQ for the remainder.  • Placer — Three RC holes using a 4.75" hammer; followed by one diamond tail on hole TIRC-1 (renamed TIRD-1) using NQ core.  Keans — Diamond drilling, unorientated, collaring in NX size reducing to BX around 34ft, AX at 49ft and EX at 99ft (Hole R1)



Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Historical Drilling:  Titov – North Broken Hill and New Consolidated Goldfields – No records available.  Planet Metals – no record of dust hole recoveries; Diamond core recoveries typically over 90%.  Placer – Recoveries for RC or diamond tail not recorded.  Keans – Recoveries for holes R1 to R6 averaged 83.4% (CR1776).
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Historical Drilling:  Titov - North Broken Hill & New Consolidated Goldfields – No geological logs have been located  • Planet Metals – Geological logs obtained for all diamond core intervals. No logs for dust holes.  • Placer – Full logs located  Keans – Holes reportedly logged in full but only log for hole R1 located. No photos are available.  Historical Rocks:  Partial logging was undertaken to record rock type, alteration and mineralisation.  Sunshine Gold Rock Chips:  Rocks have been logged for lithology, alteration, mineralisation and veining and recorded in the SHN Geochemistry Database. Photos are taken of all submitted samples.
Sub- sampling techniques, sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Titov: North Broken Hill & New Consolidated Gold Fields — Initial selective samples taken by New Broken Hill, followed up by full half core repeat sampled of NBH core by NCGF, and on NCGF core.  Planet Metals — Diamond holes were typically sampled as half core in 5ft intervals; Dust holes were sampled in 5ft intervals after splitting.  Placer — RC samples were riffle split to 5kg and composited over 2m. Core samples were half core and composited to 2m.  Historical Rock Chips:  Keans & Titov — No sampling methodologies available  Sunshine Gold Rock Chips:  Sample size of 1 — 3kg is deemed representative as a "point sample" within a referenced outcrop or location. They are not deemed representative of the entire outcrop or prospect as a whole. No SHN QC procedures used for rock chips. Samples have utilised the laboratory in-house QAQC protocols.



Criteria	JORC Code explanation	Commentary
Quality of data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	Titov  North Broken Hill – the only record states the holes were analysed spectrographically for Cu and Mo.  New Consolidated Goldfields – Cu was reportedly determined by "wet assay method" and Mo by quantitative spectrographic analyses.  Planet Metals – Assayed for Cu, Pb, Ag and Au in the dust holes using AAS. It is unknown what methods were used for the diamond holes, however only Cu and Mo were reported.  Placer – Samples were assayed for Au using 50g fire assay with AAS finish, and for Cu, Pb, Zn, and Ag by perchloric digest with AAS finish.  Keans – No information is available on the analysis methodology, however it is likely similar to that at Titov.  Sunshine Gold Rock Chips:  Rock chips were assayed using a 50g fire assay for gold which is considered appropriate for this style of mineralisation. Fire assay is considered total assay for gold. All other elements were assayed using ICP-MS.
		Historical Rocks: No QAQC or raw data available
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative companypersonnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Historical Datasets:  Historical data is reported as per the open file reports. No twinned holes are available for direct correlation to drill hole. Primary data is largely unavailable. Internal validation has been undertaken by SHN personnel. Historical depth intervals have been converted from feet into metres. No conversions on assays have been undertaken here.  SHN drilling will assist in validating some of the historical intercepts.
		Sunshine Gold Rock Chips:
		All rock chips are considered valid for that point location only if outcrop, or as an example of ore/waste material if mullock.
		Sunshine Gold Soils:
		Some soils from the program will be collected near historical data and will be compared in due course.



Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Historical Drilling:  Keans & Titov – Collar locations are approximates only and are calculated using a historical maps roughly registered into GDA94 Zone 55 projection.  Historical Rocks:  Provided in QLD open file datasets, downloaded in CSV format.  Sunshine Gold Rock Chips and Soils:  Rock chips locations are located as points using handheld GPS in GDA94, Zone 55 format.
Data Spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Historical Drilling:  Historical drill holes were exploration holes only and therefore did not have a set spacing. The holes were considered appropriately located for the target.  Historical and Sunshine Gold Rock Chips:  No data spacing has been applied to the rock chip samples due to the nature of the technique.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposittype.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	Historical Drilling:  Drill holes in order to intersect the interpreted mineralisation trends as orthogonal (perpendicular) as possible. These trends were determined using surface geology and target interpretations.
Sample security	The measures taken to ensure sample security.	Historical Datasets:  No information on sample security is available.  Sunshine Gold Rock Chips:  Samples were allocated an identification number upon collection, which was written on the calico sample bag by the Geologist. The samples were then placed into plastic bags (approximately five per bag) and transported by SHN to the laboratory. No third party was involved with the handling of the sample between collection and drop off.



Criteria	JORC Code explanation	Commentary
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	Historical Datasets:  Sampling techniques and data are considered standard for the time at which they were collected. As with all historical datasets, there is an acknowledged gap in the available information and as such should be treated with caution.
		Sunshine Gold:  The sampling techniques are regularly reviewed during the program and further review will take place prior to future drilling.

Section 2 – Reporting of Exploration Results (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	The Ravenswood West Project consists of EPMs 26041, 26152, 26303 and 26404, and EPMAs 27824 and 27825. All EPMs are owned 100% by Ukalunda Pty Ltd, a wholly owned subsidiary of Sunshine Gold Limited. EPMAs 27824 and 27825 are owned 100% by XXXX Gold Pty Ltd, also a wholly owned subsidiary of Sunshine Gold Limited. The tenements are in good standing and no known impediments exist.  Two current, third party Mining Leases exist on EPM 26041 — named ML 10243 (Delour) and ML 10315 (Podosky). One further current, third party Mining Lease exists partially on EPM 26152 — named ML 1529 (Waterloo).  All of EPM 26303 and part of EPM 26041 are situated within the Burdekin Falls Dam catchment area.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Numerous exploration companies have explored within the Ravenswood West Project area, namely North Broken Hill, New Consolidated Gold Fields, Noranda, Planet Metals, MAT, Nickel Mines Ltd, Minefields, Kennecott, Cormepar Minerals, Geopeko, Esso, Dampier Mining, IMC, CRA, Ravenswood Resources, Dalrymple Resource, BJ Hallt, Poseidon, Haoma Mining, Kitchener Mining, Placer, Goldfields, Carpentaria Gold, MIM, BHP, and Stavely Minerals.



Criteria	JORC Code explanation	Commentary
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	The Ravenswood West Project area is located within open file 100k map sheet area 8257.
		The project is hosted within the Ravenswood Batholith of the Charters Towers Province, which consists primarily of Ordovician to Silurian granitoids and lesser sedimentary packages. The area is considered by SHN to be prospective for orogenic and intrusion-related gold deposits, as well as granitoid-related copper, molybdenum, silver and rare earth deposits. There also appears to be prospectivity for MVT deposits on the fringes of the tenement area.
	A summary of all information	
Drill hole information	material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	Refer Table 1
	O easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	o dip and azimuth of the hole	
	O down hole length and intercept depth	
	• hole length.	
Data aggregation methods	<ul> <li>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.</li> </ul>	Historical drilling results are reported as previously reported in open file data.
	<ul> <li>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.</li> </ul>	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of ExplorationResults.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	The geometry of the mineralisation is subject to ongoing interpretation and as such intervals are reported in downhole length only.  Refer JORC Table 1, Section 1.
Diagrams	<ul> <li>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.</li> </ul>	Refer to figures contained within this report.
Balanced reporting	<ul> <li>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.</li> </ul>	All results are presented in figures and tables contained within this report.
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.	Geophysical data — Historical geophysical data has been approximately registered in GDA94 Zone 55, using the available open-file information. These approximations have then been use to determine geological interpretations, some of which will be the target of this drilling campaign.