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ASX Release

12 September 2023

High-grade Au-Ag in breccia at Cardigan Dam Drill Ready Targets Identified – Main and Southern Gossans

Highlights

- Cardigan Dam is a target on the Lighthouse Farm-In, Ravenswood Consolidated. Recent field work has shown potential for both breccia hosted gold (as at Mt Leyshon 3.5Moz Au, Mt Wright 1Moz Au, Plateau 50Koz Au) and orogenic gold (as at Charters Towers 6.5Moz Au).
- First fieldwork at Cardigan Dam was completed in February 2023 at the Main Gossan which extends for >300m in strike and is 2m wide at the sampled location¹. A rock chip from the Main Gossan assayed:

8.35g/t Au, 32.8g/t Ag, 0.28% Cu, 0.13% Co, >1% Ba (CD23_001)

• Further mapping and sampling at Cardigan Dam have confirmed a second gossanous zone ("Southern Gossan"). Rock chip results include:

59.5g/t Au, 41g/t Ag (CD23_059)

• Mapping and sampling at the ~700m x 600m Cardigan Dam Breccia Pipe has returned highgrade Au-Ag rock chip results including:

1.68g/t Au, 415g/t Ag (CD23_057)

1.27g/t Au (CD23_051)

Sunshine Metals Limited (ASX:SHN, "Sunshine") has recently commenced field work at Cardigan Dam part of the Ravenswood Consolidated Project (100%), North Queensland.

Sunshine Managing Director, Dr Damien Keys, commented "Field reconnaissance of the broader Cardigan Dam area has highlighted the potential for both breccia pipe hosted Au and orogenic Au mineralisation. The Cardigan Dam Southern Gossan has returned a sample grading 59.5g/t Au & 41g/t Ag located 70m along strike from a 9.58g/t Au sample. Both samples appear to be related to the same shear zone which has been mapped over 180m. Cardigan Dam will be drilled in October-November 2023.

Field validation has also confirmed the presence of a ~700m x 600 m breccia pipe, initially identified from geophysical interpretation. As we have come to understand from other regional breccia gold deposits, only 20-30% of the pipe is expected to be mineralised. Identification of gold and high-grade silver in sampling, shows the potential for a fertile system and narrows the target focus within the pipe. Geophysical surveys will be undertaken to further refine the breccia pipe target."

¹ Refer ASX release dated 14 March 2023 First fieldwork confirms high-grade potential at Lighthouse, Ravenswood West Project.





Figure 1: Ravenswood Consolidated Project area showing location of the Lighthouse Farm-In and Cardigan Dam target.

Cardigan Dam: Orogenic gold target with strong rock chip anomalism

<u>Cardigan Dam</u> is located 3.5km SE of the Plateau Au deposit and comprises a ~300m long, subcropping zone of brecciated and sheared granodiorites (Figure 3). Historic rock chip results from the Main Gossan include: 23.4g/t Au, 15.6g/t Au, 11.4g/t Au and 9.9g/t Au. The rock chips correlate with a 300m long, >50ppb Au soil anomaly and are coincident with a magnetic feature interpreted to be a large fault zone.

Field reconnaissance² located the historic ridge of rock chip gold anomalism and identified the Main Gossan, being a gossanous breccia with clasts of rhyolite and granodiorite (Figure 2). A sample of the manganiferous gossan was elevated in gold, silver, copper, cobalt and a significant amount of barium. The Main Gossan extends for >300m in strike and is 2m wide at the sampled location. A rock chip assayed:

• 8.35g/t Au, 32.8g/t Ag, 0.28% Cu, 0.13% Co, >1% Ba (CD23_001)

The Southern Gossan comprised of sheared volcanics was identified 480m south of the Main Gossan ridge (Figure 2). The shear has been defined in mapping over 180m strike, with rock chips assaying:

- o **59.50g/t Au, 41g/t Ag** (CD23_059)
- o 9.58g/t Au (CD23_004)

² Refer ASX release dated 14 March 2023 First fieldwork confirms high-grade potential at Lighthouse, Ravenswood West Project.



Both the Main and Southern Gossans are drill ready targets and will be drilled in October-November 2023.



Figure 2: Fault breccia coinciding with a lithological contact ESE of the Cardigan Dam main gossan.





Figure 3: Map displaying Cardigan Dam Main Gossan and the recently mapped Southern Gossan.



Cardigan Dam Breccia Pipe: Breccia gold target with elevated gold-silver rock chip samples

Cardigan Dam Breccia Pipe is located ~1.6km ESE of the gossanous Au-rich outcrops at Cardigan Dam. The target is likened to the Mt Wright (1Moz Au), Mt Leyshon (3.5Moz Au) and Plateau (50Koz Au) breccia-pipe hosted Au deposits. The breccia pipe has been identified from magnetics and field mapping.

Field reconnaissance work has identified anomalous Au in rock chip samples. Best rock chip results include:

- **1.68g/t Au, 415g/t Ag** at Cardigan Dam Breccia Pipe (CD23_057)
- o 1.27g/t Au at Cardigan Dam Breccia Pipe (CD23_051)

Six historic drill holes have been drilled from a north-south oriented station track. Encouragingly, the holes intersected rhyolitic and granitic breccias with discrete zones of anomalous Ag mineralisation including:

- o 2.8m @ 430g/t Ag, 0.9% Pb and 0.2% Zn (from 253.3m, CDDH0001)
- o 24m @ 20.6g/t Ag, 0.1% Pb and 0.42% Zn (from 351m, CDDH0004)

Further geophysical testwork is required to determine sulphide rich portions of the breccia.



Figure 4: 1.27g/t Au rock chip sample (CD23_051) of weathered volcanics from Cardigan Dam Breccia Pipe.



Planned activities.

Sept 2023: Fieldwork update: Coronation
 Sept 2023: Drilling commences Greater Liontown, Ravenswood Consolidated

Sunshine's Board has authorised the release of this announcement to the market.

For more information, please contact:

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Competent Person's Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Matt Price, a Competent Person who is a Member of the Australian Institute of Geoscientists (AIG) and the Australian Institute of Mining and Metallurgy (AusIMM). Mr Price 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. Mr Price consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Waterloo and Orient is based on information compiled and reviewed by Mr Stuart Hutchin, who is a Member of the Australian Institute of Geoscientists (AIG) and is a Principal Geologist employed by Mining One Pty Ltd. Mr Stuart Hutchin 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 'Australasian Code for Reporting of Mineral Resources. Mr Stuart Hutchin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources at Liontown and Liontown East is based on information compiled and reviewed by Mr Peter Carolan, who is a Member of the Australasian Institute of Mining and Metallurgy and was a Principal Geologist employed by Red River Resources Ltd. Mr Peter Carolan 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 'Australasian Code for Reporting of Mineral Resources. Mr Peter Carolan 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 Metals

Two projects. Big System Potential.

Triumph Project (Au): More than 85% of Triumph's Inferred Resource of 118,000oz @ 2.03g/t Au³ is <100m deep and largely located within 1.2km of strike within a 6km long trend. Recent drilling has confirmed Triumph's intrusion-related gold system is analogous to the large Ravenswood Mine (5.6Moz Au Resource).

Ravenswood Consolidated Project (Zn-Cu-Pb-Au-Ag-Mo): Located in the Charters Towers-Ravenswood district which has produced over 20Moz Au and 14mt of VMS Zn-Cu-Pb-Au ore. The project comprises:

- o a Zn-Cu-Pb-Au VMS Resource of 4.94mt @ 12.0% ZnEq (32% Indicated);
- 26 drill ready VMS Zn-Cu-Pb-Au IP geophysical targets where testing of a similar target has already led to the Liontown East discovery which hosts a current Resource of 1.47mt @ 11.0% ZnEq;
- the under-drilled Carrington Au Lode in the footwall of the Liontown VMS deposits with significant intersections including 3m @ 46.2g/t Au from 20m (LRC0018) and 2m @ 68.6g/t Au from 24m (LRC0043);
- advanced Au-Cu VMS targets at Coronation analogous to the nearby Highway-Reward Mine (4mt @ 6.2% Cu & 1.0 g/tAu mined);
- overlooked orogenic, epithermal and intrusion related Au potential with numerous historic gold workings and drill ready targets; and
- o a Mo-Cu Exploration Target at Titov of 5-8mt @ 0.07-0.12% Mo & 0.28-0.44% Cu.

**Investigator Project (Cu):* Located 100km north of the Mt Isa, home to rich copper-lead-zinc mines that have been worked for almost a century. Investigator is hosted in the same stratigraphy and similar fault architecture as the Capricorn Copper Mine, located 12km north.

**Hodgkinson Project (Au-W):* Located 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.

*A number of parties have expressed interest in our other quality projects (Investigator Cu and Hodgkinson Au-W). These projects will be divested in an orderly manner in due course.

³ SHN ASX Release, 31 March 2022, "Robust Maiden Resource at Triumph Gold Project". No new information has been collected and all material assumptions remain unchanged.







SampleID	NAT_East	NAT_North	NAT_RL	Au_ppm	Ag_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Company
2593966	462632	7737588	264	15.9	8	810	173	82	CRA
2781710	462619	7737864	274	11.4	11	1200	230	110	Aberfoyle
BCMRS013	462615	7737865	274	23.4	8.65	647	1270	207	BGM
BCMRS022	462722	7737830	324	9.93	21	74.5	156	9	BGM
CD23_001	462618	7737869	318	8.35	32.8	2810	51.8	194	SHN
CD23_004	462442	7737403	285	9.58	9.94	976	500	42	SHN
CD23_023	462636	7737861	319	13.2	4.78	422	83.7	389	SHN
CD23_051	462824	7738110	319	1.27	0.42	47	547	8	SHN
CD23_057	464474	7737290	263	1.68	415	214	9560	1245	SHN
CD23_059	462412	7737459	276	59.5	41.1	479	260	112	SHN

Attachment A: Rock Chip Sample Location and Assay



Section 1 - Sampling Techniques and Data

Criteria	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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information. 	 GEOCHEMICAL SAMPLING SHN – 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. Western Mining Corporation – Samples were assayed for Au, Ag, As, Cu, Pb and Zn. No methods reported, however samples taken by WMC at a similar time utilised AAS. Pan Australian, City Resources & Aberfoyle – Rock chips of approximately 2kg size, one per outcrop. Assayed by AAL Townsville for Cu, Pb, Zn, Ag, Mo, As and Bi using AAS; and for Au using a 50g fire assay. Rockfire Resources – Rock chips were analysed using a 50g fire assay for Au and ME-MS41 for multi-element DRILLING (EXPLORATION) Ramelius Resources: RC and DD drilling, with samples taken every metre. Au was analysed using fire assay, and multi-element using ICP-OES/MS.
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.).	DRILLING (EXPLORATION) Ramelius Resources: One RC hole was drilled to 36m. Five diamond core holes were drilled for a total of 2045.2 metres in two phases (Holes 001 – 003; and subsequently 004 to 005). No reference to core diameter has been located.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	DRILLING (EXPLORATION) No reference is made to sample recoveries within the historical reports.
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.	GEOCHEMICAL SAMPLING SHN – Rocks have been logged for lithology, alteration, mineralisation and veining and recorded in the SHN Geochemistry Database. Photos are taken of all submitted samples.



Criteria	Explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged.	DRILLING (EXPLORATION) All drill holes quoted within were geologically logged with digitised scans provided in the open-file company reports
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	GEOCHEMICAL SAMPLING SHN: Sample size of 1 – 2kg 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 are used for rock chips. Samples have utilised the laboratory in-house QAQC protocols. DRILLING (EXPLORATION) All drill holes quoted were sampled in 1m intervals
Quality of assay data and Laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	GEOCHEMICAL SAMPLING SHN – Rock chips were assayed using a 50g fire assay for gold with AAS finish, which is considered appropriate for this style of mineralisation. Fire assay is considered total assay for gold. All other elements were assayed using an ICP-MS/OES. DRILLING (EXPLORATION) It is not believed that routine QAQC samples were used during historical drilling.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data 	GEOCHEMICAL SAMPLING SHN – All rock chips are considered valid for that point location only if outcrop, or as an example of ore/waste material if mullock. DRILLING (EXPLORATION) No validation of historical assays from exploration targets has occurred. As such, historical intercepts should be considered of lesser confidence than modern exploration where reporting is more thorough and well-documented.



Criteria	Explanation	Commentary
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	 GEOCHEMICAL SAMPLING SHN – Sample locations are located as points using handheld GPS in GDA94, Zone 55 format. DRILLING (EXPLORATION) Drilling Ramelius Resources used GDA94, Zone 55 as standard.
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	GEOCHEMICAL SAMPLING No data spacing has been applied to the rock chip samples due to the nature of the technique. DRILLING (EXPLORATION) Due to the nature of the initial exploratory drill phase, no specific drill spacings were attributed to early-stage programs.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	GEOCHEMICAL SAMPLING Rock chip samples are taken relative to the overall outcrop on which they are sampling. Soil sampling at Cardigan Dam was oriented with closely-spaced north-south sample centres to perpendicularly cover the east-west trending structural / lithological grain. DRILLING (EXPLORATION) All exploratory drill holes were designed to test their targets as perpendicular as possible. As the dip of the structure is often unknown, it is possible that some drill holes were drilled in a less optimal orientation upon completion.
Sample security	The measures taken to ensure sample security.	GEOCHEMICAL SAMPLING SHN – Samples were numbered in the field at the time of collection. The samples are photographed at the time of collection and are then transported by SHN to the laboratory. No third party was involved with the handling of the sample between collection and drop off.



Criteria	Explanation	Commentary
		DRILLING (EXPLORATION)
		No sample security information is available in the historic reports.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	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 Metals: 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	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 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 Lighthouse Project consists of EPMs 25617 and 26705. All EPMs are owned 100% by BGM Investments Pty Ltd, a wholly owned subsidiary of Rockfire Resources Limited. No current Mining Leases exist on the tenure. South-eastern blocks on EPM 26705 are situated within the Burdekin Falls Dam catchment area. Sunshine Gold has the option to earn 75% of the project.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Several exploration companies have explored within the Lighthouse tenure, most notably Cormepar Minerals, Penarroya, Pan Australian, Esso Australia, Battle Mountain, CRA Exploration, Western Mining Corporation, Aberfoyle Resources, Mt Leyshon Gold Mines, Liontown Resources, Ramelius Resources and most recently Rockfire Resources.
Geology	Deposit type, geological setting and style of mineralisation.	The Lighthouse tenure is dominated by the Seventy Mile Range Group, which is considered prospective for VHMS deposits. These rocks have been intruded by younger felsics (and lesser mafics) including those of Ordovician, Silurian and Late Carboniferous-Early Permian age, the latter being prospective for breccia pipe style gold mineralisation.
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	Drilling at the Cardigan Dam Breccia Pipe as per Ramelius Resources (CR 74757). Coordinates reported in GDA94, Z55:



Criteria	Explanation	Commentary								
elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	Hole_ID	Hole_Type	Max_Depth	NAT_East	NAT_North	NAT_RL	Dip	Grid Azi		
	down hole length and interception depth	CDDH0001	DD	(m) 347.1	464525	7737000	300	-50	90	
	hole length.	CDDH0002	DD	381.4	464456	7737292	300	-60	180	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract	CDDH0003	DD	344.5	464500	7737600	300	-60	180	
	from the understanding of the report, the Competent Person	CDDH0004	DD	456.2	464420	7737056	300	-70	7	
	should clearly explain why this is the case	CDDH0005	DD	516	464500	7736720	300	-60	180	
		CDRC0001	RC	36	464499	7737600	300	-60	200	
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. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated 	Assay results reported within are raw assays directly reported by the laboratory with no subsequent modification of the data.				of the data.				
Relationship between mineralisation widths and intercept length	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 rock chip from whi	samples are o ich they are so	designated as p urced.	ooint samples	only and do no	t pronounce c	limensions or	orientations o	f the outcrop
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.	All relevant diagrams are reported in the body of this report								
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.	All relevant re	esults are prov	ded within this	report					



Criteria	Explanation	Commentary
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.	Relevant rock chip sample data is tabulated within this report. Coordinates in GDA94, Zone 55.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Further work is addressed in the body of this report but will include drilling of the Cardigan Dam gossans and target development using geophysics and geological mapping at the Cardigan Dam Breccia Pipe.