

SOILS AND MINERALOGICAL STUDY CONFIRM RARE EARTH POTENTIAL, RAVENSWOOD WEST

Sunshine Gold Limited (ASX:SHN, "Sunshine Gold", "the Company") is pleased to provide an update from soils and mineralogical analysis at Elphinstone Creek, Ravenswood West.

HIGHLIGHTS

- Completion of a 974 sample Elphinstone Creek rare-earth element (REE) soil sampling campaign. A peak value of 1,715 ppm TREO (total rare-earth oxides) was sampled and 44 samples returned > 1,000 ppm TREO.
- Mineralogical analysis reveals abundant monazites are the rare-earth element-bearing mineral phase. The study also confirms the highly evolved, Barrabas Adamellite is the likely source of rare-earth anomalism and ideal feedstock for the generation of secondary REE deposits.
- The next phase of work will focus on mapping (particularly for pegmatites), reconnaissance drill testing and assessing ionic clay potential over the 27km² Barrabas Adamellite. Works will commence in August 2022.



Figure 1. Garnet-bearing pegmatite float from tributary that contained 6.28 g/t Au & 0.83% TREO from stream sediment sampling (SRS13012).

Sunshine Gold's Managing Director, Damien Keys commented: "The soils and mineralogical work are the first concerted effort to determine the true rare-earth potential at Elphinstone Creek. The mineralogical results indicate the dominant rare-earth mineral phase is monazite and that the rare earths are locally derived from an evolved granitic source. The highly evolved granites provide the perfect feedstock for the generation of secondary REE deposits such as ionic clay deposits and heavy mineral sands upon deep weathering. Potential also remains for fractionated phases of the granite such as pegmatites to contain economic quantities of rare earth mineralisation. Pegmatites have been previously identified within the Barrabas Adamellite as creek float and subcrop.

Importantly, the soils confirm that the distribution of the rare earths within the pluton is not homogenous. Broad zones of elevated rare earths > 1,000ppm TREO have been delineated and will form a focus for next phase mapping, depth of regolith analysis and reconnaissance drill testing."

SUNSHINE GOLD LIMITED (ASX:SHN)

Directors: Mr Alec Pismiris Dr Damien Keys Mr Anthony Torresan Mr Paul Chapman Mr Les Davis Queensland Office: 1/23 Mackley Street Garbutt QLD 4814

Contact:

T | +61 8 6245 9828 E | info@shngold.com.au W | www.shngold.com.au ABN 12 063 388 821

Capital:

Ordinary shares: 467,822,730 Unquoted shares: 151,900,000 (24m Esc) Deferred shares: 50,000,000 (24m Esc) Unlisted options: 65,000,000 (24m Esc) Unlisted plan options: 2,700,000 Perf Rights: 8,500,000 (24m Esc)



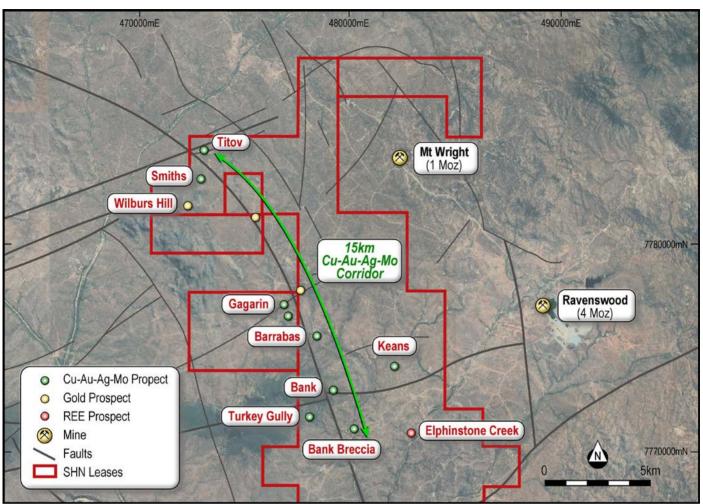


Figure 2. Elphinstone Creek, located between the 15km northwest-southeast porphyry corridor and Ravenswood Gold Mine.

ELPHINSTONE CREEK

Elphinstone Creek is hosted within the Barrabas Adamellite, a quartz monzonite occupying an area of 27km². The target was initially generated from elevated REE and Au in stream sediment sampling. The anomalous samples were collected from tributaries to Elphinstone Creek (Figure 3) where exploration in 2018 returned significant stream sediment assay results including:

- o <u>6.28 g/t Au & 0.83% TREO including 0.12% Nd₂O₃, 0.05 % Pr₆O₁₁ (SR513012)</u>
- o <u>1.11 g/t Au & 0.29% TREO including 0.04% Nd₂O₃, 0.01 % Pr₆O₁₁ (SRS10165)</u>
- o 2.28% TREO including 0.37% Nd₂O₃, 0.11 % Pr₆O_{11 (SRS10163)}
- 0 1.63% TREO including 0.26 % Nd₂O₃, 0.08 % Pr₆O₁₁ (SRS10149)
- 0 1.56% TREO including 0.25 % Nd₂O₃, 0.08 % Pr₆O₁₁ (SRS10160)
- 0 1.12% TREO including 0.19 % Nd₂O₃, 0.05 % Pr₆O₁₁ (SRS10164)
- 0.83% TREO including 0.12 % Nd₂O₃, 0.05 % Pr₆O₁₁ (SRS10158)
- 0.81% TREO including 0.13 % Nd₂O₃, 0.04 % Pr₆O₁₁ (SRS10150)

SOIL SAMPLING STUDY

Soil sampling at Elphinstone Creek has demonstrated that the Barrabas Adamellite is enriched in REE, with > 90% of the Barrabas Adamellite soil samples grading > 400 ppm TREO. Despite the high overall TREO content of the soil samples over the Barrabas Adamellite, discrete zones of highly anomalous (> 750 ppm TREO) are observed. In general,



TREO grades are highest in the west and north-east of the Barrabas Adamellite, centred around a zone of elevated magnetics (Figure 3).

<u>Importantly, the average Neodymium + Praesodymium oxide content of the TREO is 20.3%</u>. Nd+Pr are used in permanent magnets and <u>constitute an estimated 90% of global REE value</u>.

Gold anomalism appears to be focussed on Elphinstone Creek and may be related to drainage from the nearby Ravenswood Gold Mine. Further reconnaissance is required as soils up to 395 ppb Au appear unrelated to drainage and a historic rockchip sample grading 25.0 g/t Au is recorded near a small shaft in the Barrabas Adamellite.

Assays for the soil sampling program will be reimbursed to a total of \$34,050 via a Collaborative Exploration Incentive grant from the Queensland Department of Resources. We acknowledge and appreciate the support of the Queensland Department of Resources.

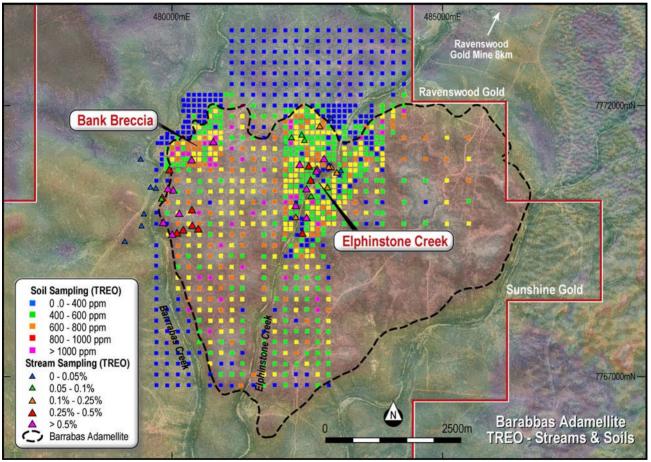


Figure 3. TREO distribution in soil sampling at Elphinstone Creek.



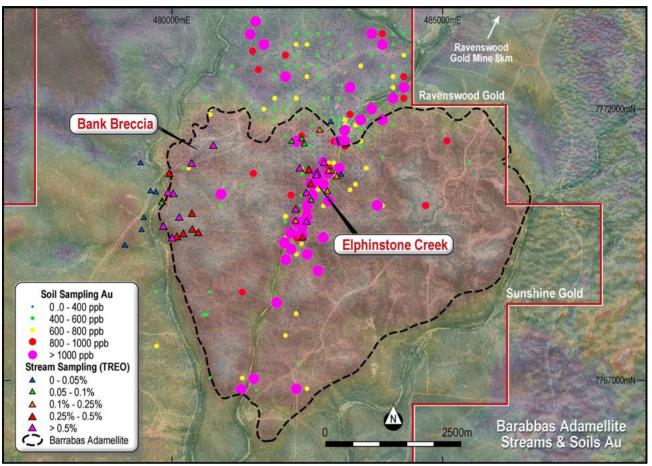


Figure 4. Au distribution in soil sampling at Elphinstone Creek.

MINERALOGICAL STUDY

Sunshine Gold engaged rare-earth specialist Ross Chandler (ANU), to undertake a preliminary mineralogical investigation into the mineral host to the high REE grades and any implications this may have for the exploration for economic concentrations of REE in the Elphinstone Creek area.

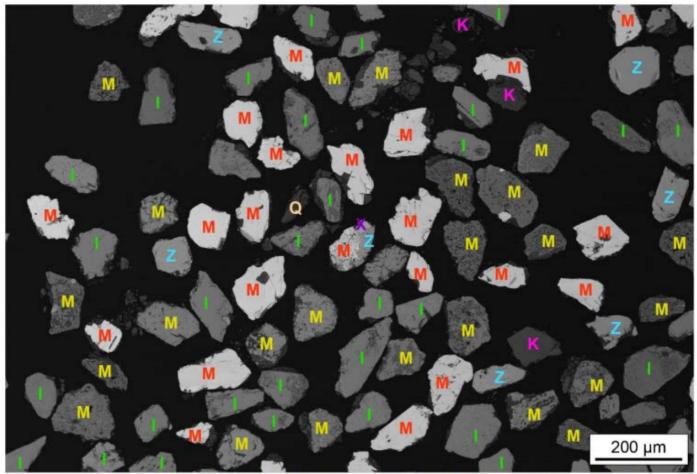
The material provided for study comprised of two samples (ANU001 and ANU002) consisting of ~750g of stream sediment sieved to 80 mesh (<177 μ m). The samples underwent heavy liquid mineral separation and identification with a focus on constraining the mineral(s) responsible for the high REE identified in stream sediment sampling. The produced mineral concentrates were observed as being composed of:

- ANU001 (Figure 5): Ilmenite (40%), **monazite (25%)**, magnetite (25%), zircon (8%), K-feldspar (1%), quartz (1%), plagioclase (trace), xenotime (trace), thorite (trace), cordierite (trace)
- ANU002: Ilmenite (50%), magnetite (20%), monazite (15%), zircon (5%), hornblende (5%), K-feldspar (3%), quartz (2%), plagioclase (trace), cordierite (trace)

Both samples showed a similar mineralogy with **monazite** as the dominant REE-bearing mineral observed with trace xenotime and thorite. The monazite observed in the samples are largely fragments of larger grains, and rarely display pitted and altered textures. The monazite is classified as monazite-(Cerium), with no detectable europium and variable but generally high thorium. These geochemical observations, coupled with the location of the samples and associated mineral assemblage, indicates the source of the monazite is an evolved granitic system, the obvious candidate likely being the underlying Barrabas Adamellite. Potential also exists for there to be units within the Barrabas Adamellite such as pegmatites or late-stage intrusives with higher monazite concentrations.



If areas of the Barrabas Complex display deep and extensive weathering, it might also represent an ideal candidate for secondary REE deposits such as ionic clay REE mineralisation which form upon the breakdown of REE-enriched source rocks.



Monazite Ilmenite Magnetite Zircon K-feldspar Quartz Xenotime

Figure 5. Scanning electron microscope image of mineral separates (sample ANU001). Note abundant monazite.

ABOUT RARE EARTH ELEMENTS

The unique chemical and physical properties of REEs have positioned them as a critical material across a number of rapidly evolving markets and industrial applications.

NDPr constitutes ~90% of global REE value.

NdPr are critical elements in the manufacture of permanent magnets used for motors, turbines and in mobile phones. Permanent magnet production accounts for ~90% of the total value of TREO consumption. Permanent magnets and catalysts are the largest, rare earth demand drivers.

Key global megatrends are driving strong and diversified demand for NdPr:

- Automation: accelerating technological progress
- Low carbon transition: environmental decarbonisation
- Sustainable resource security: increasing scarcity of and global competition for resources
- Supply chain security: against backdrop of heightened national protectionism



There are currently no acceptable substitutes for NdPr in permanent magnets for electric vehicles (EVs) and wind turbines.

NEXT STEPS

Follow up work at Elphinstone Creek will commence in August 2022 and will incorporate:

- Detailed field mapping in areas of defined elevated rare-earth anomalism
- Auger or air core drill transects along station tracks to determine depth of regolith profile
- Reconnaissance RC drill select rare-earth soil anomalies to assess the geochemical and physical characteristics of the fresh rock beneath

PLANNED ACTIVITIES

- July 2022: June 2022 Quarterly Report
- July-August 2022: Results of IP surveys Gagarin and Titov, Ravenswood West
- August 2022: RC drill results from Bank, Titov North, Titov South, Titov Main
- August 2022: Wilburs Hill IP/MT survey results
- August-Sept 2022: Wilburs Hill and Bank follow up drilling
- September 2022: Electromagnetic & magnetic geophysical survey, Investigator
- September 2022: Audited Annual Financial Statements
- October 2022: Follow up RC drilling RC drilling- Southern & Northern Corridors, Triumph

ENDS

For further information:

Dr Damien Keys Managing Director Telephone: +61 428 717 466 E-mail: <u>dkeys@shngold.com.au</u> Mr Alec Pismiris Director & Company Secretary Telephone: +61 402 212 532 E-mail: <u>alec@lexconservices.com.au</u>

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 comprising a 100% interest in the Triumph, Hodgkinson, Investigator and Ravenswood West projects.

Ravenswood West Gold-Copper-Rare Earth Project (EPM 26041, EPM 26152, EPM 26303, EPM 26304, EPM 27824, EPM 27825: 100%)

Ravenswood West is comprised of a significant holding (447 km²) of highly prospective gold-copper ground within 5 kms of the Ravenswood Mining Centre (6.6 Moz Au produced and in Resource). The Ravenswood Mining Centre was purchased by EMR Capital and Golden Energy & Resources Ltd. (SGX:AUE) in 2020 for up to \$300m and is presently subject to a ~\$450m upgrade. In addition, there are three other gold mills within 100 km, two of which are toll treating.

The Project is highly prospective for intrusion-related and orogenic gold, porphyry gold-copper-molybdenum and rare earth elements. Ravenswood West covers 20-25 km of strike along a major fault that links Pajingo (4 Moz) and Ravenswood (6.6 Moz) and contains numerous historic gold workings.

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 tenements covering 138km². Triumph is located within the Wandilla Province of the New England Orogen. Triumph contains 118koz of near surface Resource (March 2022). 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.

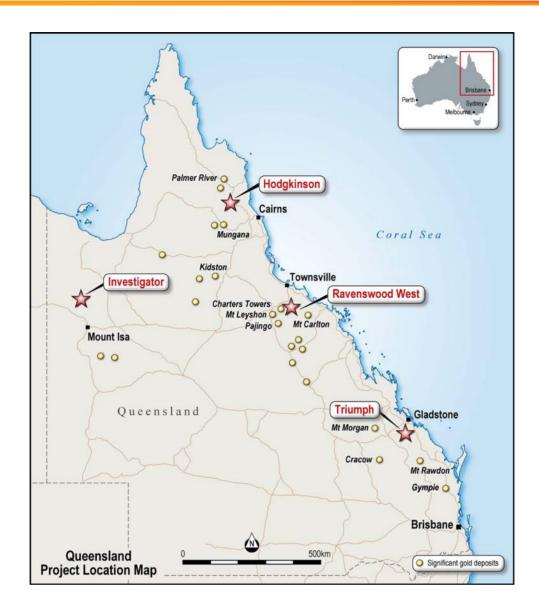
Hodgkinson Gold Copper Project (EPM18171, EPM19809, EPM25139, EPM27539, EPM27574, EPM27575: 100%)

Hodgkinson is located 100km northwest of Cairns in North Queensland. The project comprises tenements covering 365km². 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 project 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 tenements covering 115km². 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.







APPENDIX A: SOIL SAMPLES > 750PPM TREO AND ALL HISTORIC SAMPLES AT ELPHINSTONE CREEK

Sample ID	NAT North	NAT East	Au	CeO2	Eu2O3	La2O3	Nd2O3	Pr6011	Sm2O3	Dy2O3	Er2O3	Gd2O3	Ho2O3	Lu2O3	Tb407	Tm2O3	Yb2O3	Sc2O3	Y2O3	TREO
			ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
254822	7771600	481100	-5	489.4	2.0	242.7	159.7	50.1	0.0	9.2	3.4	18.4	1.4	0.5	2.1	0.4	2.9	7.2	39.6	1029.1
254824	7771200	481100	-5	514.2	2.0	247.4	171.1	52.6	0.0	9.4	3.6	18.9	1.4	0.5	2.1	0.5	3.3	9.0	42.6	1078.7
254825	7771000	481100	-5	452.4	2.0	224.9	146.3	45.4	0.0	8.7	3.8	16.5	1.4	0.6	1.9	0.5	3.9	10.1	42.2	960.7
254826	7770800	481100	-5	377.6	2.4	204.7	136.2	43.0	0.0	10.6	5.3	17.1	1.8	0.9	2.1	0.7	5.6	13.8	54.9	876.9
254842	7772000	481300	6	557.9	2.3	269.7	189.7	58.6	0.0	13.2	4.5	24.3	2.0	0.5	2.9	0.5	3.2	10.9	55.9	1196.1
254844	7771600	481300	-5	382.6	1.6	177.4	121.6	38.0	0.0	8.0	3.4	14.3	1.3	0.5	1.7	0.4	3.2	7.8	37.1	798.9
254846	7771200	481300	-5	409.6	1.7	194.3	130.3	40.3	0.0	8.0	2.9	14.6	1.1	0.5	1.7	0.4	2.7	6.9	32.1	847.0
254847	7771000	481300	5	628.5	2.2	300.9	201.5	63.9	0.0	10.5	3.9	21.8	1.6	0.6	2.4	0.5	3.5	7.1	45.7	1294.5
255211	7771400	481900	-5	419.2	1.9	209.1	143.1	44.5	0.0	9.4	3.9	17.2	1.5	0.6	2.1	0.5	3.4	11.2	44.5	912.2
255235	7771700	482100	-5	430.1	2.0	211.7	141.6	44.4	0.0	10.0	4.1	17.0	1.6	0.6	2.1	0.5	3.5	9.4	46.8	925.2
255237	7771500	482100	7	381.5	1.8	188.2	130.5	40.6	0.0	9.3	3.8	16.7	1.5	0.6	2.0	0.5	3.2	8.3	43.7	832.1
255264	7771700	482200	-5	541.7	2.2	272.3	177.0	55.4	0.0	10.5	4.3	19.2	1.7	0.6	2.2	0.6	3.9	16.4	47.6	1155.4
255265	7771600	482200	-5	478.4	2.2	235.9	162.4	50.0	0.0	10.5	3.4	20.1	1.5	0.4	2.4	0.4	2.6	7.1	42.7	1019.9
255268	7771300	482200	-5	486.3	2.0	236.8	161.0	50.5	0.0	10.0	3.8	19.3	1.5	0.5	2.2	0.5	3.4	11.4	44.2	1033.2
255299	7771800	482300	-5	428.6	2.2	207.2	146.5	45.0	0.0	10.8	4.1	19.1	1.7	0.5	2.3	0.5	3.2	8.6	46.6	926.8
255326	7772000	482400	-5	398.9	2.4	205.3	139.3	42.8	0.0	9.9	4.0	16.8	1.6	0.5	2.0	0.5	3.1	13.7	47.1	887.8
255328	7771800	482400	-5	405.4	2.1	200.2	140.6	43.4	0.0	10.3	3.9	17.8	1.6	0.5	2.2	0.4	2.8	16.1	44.4	891.8
255330	7771600	482400	-5	406.6	2.1	201.9	141.9	43.8	0.0	10.7	4.1	18.7	1.6	0.5	2.3	0.5	3.3	10.9	49.6	898.8
255333	7771300	482400	-5	370.3	1.7	177.2	126.0	38.9	0.0	8.1	3.2	15.2	1.2	0.5	1.8	0.5	3.0	7.4	37.9	792.5
255365	7771700	482500	-5	380.6	1.9	186.8	125.5	39.1	0.0	8.7	3.5	15.5	1.5	0.4	2.0	0.5	2.9	8.3	40.1	817.1
255433	7771300	482700	-5	354.9	1.7	162.4	117.0	36.3	0.0	8.7	3.9	15.1	1.4	0.6	1.8	0.6	3.7	12.4	41.5	762.0
255455	7771700	482800	-5	361.9	2.1	184.8	126.4	38.7	0.0	10.5	4.9	16.1	1.9	0.7	2.2	0.7	4.4	14.3	54.6	824.3
255456	7771600	482800	-5	389.9	1.9	191.9	130.1	40.6	0.0	9.8	4.1	16.7	1.6	0.5	2.2	0.5	3.4	9.4	46.2	848.8
255459	7771300	482800	-5	350.7	1.5	169.1	115.5	36.1	0.0	8.0	3.6	13.7	1.3	0.6	1.7	0.5	3.7	10.1	41.1	757.3
256089	7770700	483300	-5	420.7	2.0	203.5	144.2	45.0	0.0	10.5	4.0	18.5	1.5	0.5	2.2	0.5	3.4	9.7	47.6	913.9
256109	7771000	483400	-5	383.5	1.5	184.5	128.9	40.3	0.0	8.7	3.4	15.8	1.3	0.5	1.9	0.5	3.2	10.3	40.4	824.7
256127	7771400	483500	13	494.4	2.0	234.0	169.4	52.0	0.0	10.9	3.8	21.2	1.6	0.4	2.4	0.5	2.8	16.1	49.2	1060.7
256139	7771600	483600	-5	402.6	1.8	199.5	136.3	42.6	0.0	9.9	3.6	16.9	1.6	0.3	2.2	0.4	2.4	10.4	42.7	873.2
256145	7771000	483600	-5	446.6	1.9	220.1	142.6	45.6	0.0	9.5	3.7	17.2	1.4	0.5	2.0	0.5	3.4	12.3	45.0	952.3
256158	7771600	483700	-5	360.2	1.7	183.4	122.0	38.0	0.0	9.4	3.7	15.6	1.6	0.4	2.0	0.5	2.6	9.7	43.9	794.6
256164	7771000	483700	-5	400.2	1.7	196.3	131.1	41.6	0.0	8.3	3.3	14.7	1.2	0.5	1.8	0.4	3.0	9.5	39.3	852.9
256175	7771700	483900	-5	475.1	2.4	241.0	158.1	49.4	0.0	10.4	3.7	17.3	1.6	0.4	2.1	0.5	2.6	9.4	44.2	1018.1
256177	7771500	483900	-5	483.9	2.0	252.4	157.2	50.1	0.0	11.1	4.2	18.5	1.8	0.5	2.3	0.5	3.1	8.6	49.0	1045.2
256190	7771800	484100	-5	350.4	1.7	177.4	117.4	36.9	0.0	8.6	3.3	13.9	1.4	0.4	1.8	0.4	2.6	7.2	37.5	760.9
256191	7771700	484100	6	370.7	1.7	193.9	120.7	38.3	0.0	8.4	3.4	13.8	1.4	0.4	1.8	0.5	2.8	8.3	38.7	804.8
256192	7771600	484100	-5	374.5	1.6	172.5	135.5	41.7	0.0	10.4	3.7	17.3	1.6	0.4	2.2	0.5	2.5	6.9	40.0	811.4
256202	7771900	484300	-5	470.2	1.9	243.7	159.4	49.7	0.0	10.8	3.4	18.7	1.6	0.3	2.4	0.4	2.1	6.6	43.8	1015.0
256203	7771800	484300	-5	426.4	1.9	199.1	144.4	44.9	0.0	10.5	3.7	17.4	1.6	0.4	2.2	0.4	2.4	5.2	41.1	901.7
258149	7770402.18	481104.04	-1	366.1	1.5	167.1	121.9	37.8	0.0	6.4	2.8	11.2	1.1	0.5	1.4	0.4	2.9	8.3	32.6	762.1
258151	7770001.92	481110.64	1	366.1	1.6	177.1	129.5	40.0	0.0	6.9	2.8	12.9	1.1	0.4	1.5	0.4	2.5	5.4	32.0	780.2
285025	7770200.98	479905.8	-1	389.4	1.8	183.0	123.1	38.3	0.0	9.3	5.1	13.9	1.8	0.9	1.9	0.8	5.3	15.2	51.8	841.4



Sample ID	NAT North	NAT East	Au	CeO2	Eu2O3	La2O3	Nd2O3	Pr6011	Sm2O3	Dy2O3	Er2O3	Gd2O3	Ho2O3	Lu2O3	Tb407	Tm2O3	Yb2O3	Sc2O3	Y2O3	TREO
	-	-	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
285044	7770611.41	480084.22	-1	415.2	1.8	200.5	138.8	42.8	0.0	8.0	3.7	14.2	1.4	0.6	1.8	0.5	3.7	11.5	38.7	883.3
285046	7770202.98	480103.71	-1	358.7	1.6	175.9	114.0	35.5	0.0	7.3	3.7	12.2	1.3	0.7	1.5	0.5	3.8	10.3	38.1	765.1
285048	7769805	480105	-1	428.7	1.8	189.4	141.1	42.8	0.0	7.3	3.2	14.9	1.2	0.5	1.8	0.4	3.0	9.5	36.7	882.3
285050	7769401	480103	1	452.0	1.8	192.9	157.5	46.6	0.0	7.3	3.0	15.5	1.2	0.5	1.8	0.4	2.7	7.4	35.4	926.1
285051	7769202	480104	-1	459.4	1.9	198.8	162.1	49.1	0.0	7.1	2.8	15.9	1.1	0.4	1.8	0.4	2.5	6.3	33.1	942.7
285066	7770394.31	480302.87	-1	388.2	1.9	195.9	135.9	42.6	0.0	7.3	3.3	12.9	1.3	0.6	1.6	0.5	3.4	8.3	40.6	844.3
285067	7770202.87	480300.37	-1	372.2	1.6	180.6	134.7	41.1	0.0	6.6	3.0	11.6	1.2	0.5	1.4	0.5	3.1	8.0	34.7	800.8
285073	7769001	480299	2	388.2	1.7	178.3	129.5	39.1	0.0	6.3	3.0	11.7	1.1	0.5	1.4	0.4	3.0	8.6	34.2	807.0
285075	7768603	480300	1	372.2	1.9	175.3	128.3	37.8	0.0	6.0	2.9	11.5	1.1	0.5	1.4	0.4	2.8	9.2	32.5	783.9
285076	7768399	480299	-1	493.8	2.0	217.5	165.0	50.0	0.0	6.5	2.6	14.8	1.0	0.4	1.7	0.4	2.4	6.3	32.1	996.6
285077	7768201	480302	5	614.2	3.7	435.1	400.1	120.1	0.0	15.3	4.9	39.4	2.2	0.6	4.0	0.6	3.3	6.9	65.4	1715.7
285089	7770006	480492.97	-1	584.7	2.6	282.6	203.5	62.5	0.0	9.8	3.9	18.6	1.6	0.6	2.2	0.5	3.5	11.8	49.0	1237.5
285090	7769803	480502	1	390.6	1.7	178.8	131.8	40.2	0.0	6.4	3.1	12.3	1.1	0.5	1.5	0.4	3.0	9.0	34.7	815.2
285095	7768806	480499	3	541.7	2.1	247.5	183.1	55.8	0.0	8.4	3.3	18.2	1.4	0.5	2.1	0.4	2.8	7.5	39.2	1114.2
285096	7768603	480499	1	415.2	1.8	158.9	143.5	42.6	0.0	6.6	2.8	13.2	1.1	0.5	1.6	0.4	2.8	7.7	33.1	832.0
285097	7768404	480504	-1	361.1	1.6	164.2	123.6	36.8	0.0	5.8	2.7	11.6	1.0	0.5	1.4	0.4	2.7	7.4	29.7	750.5
285098	7768196	480500	1	388.2	1.8	173.0	128.3	38.8	0.0	6.4	2.7	11.8	1.1	0.5	1.4	0.4	2.8	6.7	31.2	794.9
285106	7770798.8	480701.6	-1	417.6	1.7	200.0	141.1	43.4	0.0	7.1	3.0	12.9	1.2	0.5	1.6	0.4	2.9	8.1	35.8	877.3
285110	7769998.48	480702.49	1	391.9	1.7	190.0	138.8	43.0	0.0	8.3	4.0	13.1	1.5	0.7	1.6	0.6	4.3	17.9	44.4	862.0
285113	7769402	480704	3	449.6	1.9	177.1	145.2	45.5	0.0	7.6	3.2	14.5	1.3	0.6	1.7	0.5	3.5	9.4	39.7	901.5
285114	7769202	480697	1	445.9	1.8	129.0	146.4	46.0	0.0	7.5	3.2	13.6	1.3	0.6	1.6	0.5	3.6	13.3	42.9	857.4
285116	7768803	480706	1	540.5	2.0	154.2	187.8	58.6	0.0	8.9	3.5	17.2	1.5	0.7	2.0	0.5	3.7	12.4	47.0	1040.5
285118	7768406	480703	1	410.3	2.0	147.2	137.6	42.3	0.0	7.7	3.8	13.2	1.3	0.7	1.6	0.6	4.4	15.6	41.7	830.0
285119	7768203	480701	1	394.3	1.8	115.6	143.5	43.1	0.0	7.4	3.5	13.4	1.3	0.7	1.6	0.6	4.2	12.3	47.5	790.8
285121	7767798	480697	1	529.4	2.1	204.1	176.1	54.4	0.0	8.4	3.6	15.7	1.4	0.6	1.9	0.6	3.8	13.2	49.1	1064.5
285130	7770199.99	480899.14	8	362.4	1.6	163.0	121.3	37.3	0.0	6.6	2.8	11.7	1.1	0.5	1.4	0.4	2.8	5.7	32.5	751.0
285133	7769596	480900	-1	375.9	1.4	162.4	123.6	38.5	0.0	5.7	2.2	11.3	0.9	0.4	1.3	0.3	2.4	5.2	28.4	760.2
285134	7769403	480903	1	576.1	2.2	253.3	201.2	61.5	0.0	8.6	3.4	18.2	1.4	0.6	2.0	0.5	3.4	9.0	44.7	1186.1
285135	7769208	480901	1	375.9	1.5	169.5	127.7	38.9	0.0	6.8	3.0	12.0	1.1	0.6	1.5	0.5	3.3	10.1	40.0	792.4
285136	7769006	480900	1	406.6	1.7	141.3	132.4	42.0	0.0	6.7	3.4	12.0	1.2	0.6	1.4	0.5	3.6	11.2	42.4	807.1
285138	7768605	480898	2	395.5	2.1	180.6	137.0	42.2	0.0	7.0	3.1	13.5	1.2	0.6	1.6	0.5	3.2	10.1	40.4	838.6
285139	7768398	480904	1	524.5 412.7	2.6 1.7	217.0	228.0 145.2	70.2	0.0	11.0	3.8	21.4	1.6	0.7	2.4 1.7	0.6	3.9	14.4	53.7	1155.9
285140	7768199	480897				154.8		44.2		7.7	3.6	13.7	1.4	0.7		0.6	4.0	13.2	45.8	851.0
285142	7767799 7769796	480906 481105	1	366.1 536.8	1.7 1.7	167.1 203.5	123.6 177.3	38.3 56.2	0.0 0.0	6.7 7.3	3.2 2.7	11.8 15.7	1.2	0.6 0.5	1.5	0.5 0.4	3.8 2.6	11.5 5.4	39.7 39.0	777.3 1051.9
285152 285153	7769603	481105	2	434.8	1.7	203.5 196.4	177.3	45.4	0.0	7.3 6.9	2.7	13.7	1.1 1.1	0.5	1.8 1.6	0.4	2.6	5.4 6.9	39.0	899.3
285153	7769603	481101 481099	-1	434.8	1.6	203.5	147.0	45.4 39.9	0.0	6.9	3.2	13.9	1.1	0.5	1.6	0.4	2.8	7.8	37.1	899.3 863.7
285157	7767805	481099	-1	383.3	1.9	185.3	130.1	39.9	0.0	6.2	3.2	12.9	1.1	0.5	1.4	0.4	2.9	7.8	35.7	799.0
285162	7767606	481098	-1	390.6	1.6	185.3	120.7	30.8	0.0	5.9	3.0	12.3	1.1	0.5	1.4	0.4	2.9	9.2	35.7	799.0 814.0
285103	7769598	481100	-1	457.0	1.7	209.3	124.2	45.1	0.0	8.2	3.0 4.0	12.0	1.0	0.5	1.5	0.4	3.6	9.2	43.1	955.5
285175	7769402	481309	1	437.0	1.9	190.0	131.0	40.1	0.0	6.3	2.8	13.5	1.4	0.8	1.9	0.3	2.6	4.9	30.5	843.5
285174	7769402	481302	1	614.2	2.4	315.5	237.9	70.0	0.0	10.1	2.8 3.9	23.0	1.1	0.4	2.4	0.4	2.6	4.9 6.1	46.1	843.5 1337.0
2851/6	//69001	481298	1	014.Z	2.4	312.2	237.9	/0.0	0.0	10.1	3.9	23.0	1.5	0.5	2.4	0.5	2.9	6.1	46.1	1337.0



Sample ID	NAT North	NAT East	Au	CeO2	Eu2O3	La2O3	Nd2O3	Pr6011	Sm2O3	Dy2O3	Er2O3	Gd2O3	Ho2O3	Lu2O3	Tb4O7	Tm2O3	Yb2O3	Sc2O3	Y2O3	TREO
		····	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
285187	7766791	481275	661	369.7	1.9	183.0	122.5	36.5	0.0	7.5	3.8	13.1	1.3	0.6	1.6	0.5	3.3	15.6	43.8	804.7
285189	7771003.28	481502.06	-1	396.8	1.7	142.5	137.0	40.7	0.0	8.9	4.7	13.0	1.7	0.9	1.7	0.8	5.5	17.8	51.7	825.5
285190	7770802.88	481501.54	28	466.8	1.8	164.2	160.4	48.1	0.0	8.6	3.6	15.4	1.4	0.6	1.9	0.5	3.7	14.4	47.0	938.5
285193	7770203.08	481503.02	-1	438.5	1.6	169.5	146.4	43.1	0.0	7.7	3.3	13.7	1.3	0.6	1.7	0.5	3.4	10.4	45.1	886.9
285194	7770002	481498.63	1	519.6	1.9	164.8	174.4	52.0	0.0	9.5	3.9	16.1	1.4	0.6	2.0	0.5	3.5	8.1	50.0	1008.2
285197	6275406	485985	2	350.1	1.7	175.9	113.0	35.0	0.0	7.9	4.6	12.9	1.4	0.8	1.6	0.7	4.7	12.7	53.7	776.7
285203	6274223	349371	1	441.0	1.9	215.8	151.0	45.7	0.0	6.8	2.8	13.4	1.1	0.5	1.5	0.4	2.8	8.0	37.2	929.9
285209	7766994	481513	258	391.9	1.9	191.7	135.3	41.1	0.0	6.7	3.1	12.2	1.2	0.6	1.4	0.5	3.3	12.7	38.2	841.7
285211	7771208.78	481704.16	1	371.0	1.6	161.8	126.6	37.3	0.0	7.3	3.0	12.8	1.2	0.5	1.6	0.5	3.1	9.2	38.6	776.1
285213	7770804.85	481703.43	5	547.9	2.0	241.6	180.2	52.6	0.0	8.2	3.1	16.1	1.3	0.5	1.9	0.4	2.9	7.2	39.9	1105.7
285215	7770396.17	481701.57	4	426.2	1.6	143.7	135.3	40.5	0.0	7.8	3.5	13.1	1.3	0.7	1.6	0.5	3.8	11.8	47.5	839.0
285216	7770194.77	481700.74	1	565.1	1.9	277.9	213.4	63.4	0.0	10.2	3.6	21.4	1.6	0.6	2.4	0.5	3.3	8.7	49.3	1223.4
285220	7769404	481701	2	431.2	1.6	211.1	146.4	43.9	0.0	6.9	3.2	12.8	1.2	0.6	1.5	0.5	3.3	9.8	43.6	917.3
285224	7768601	481700	2	390.6	1.7	197.6	134.7	41.7	0.0	6.1	2.6	12.0	1.0	0.4	1.4	0.4	2.4	6.4	36.6	835.7
285234	7771194.82	481902.41	2	367.3	1.5	158.9	124.8	38.1	0.0	6.9	2.7	12.2	1.1	0.4	1.5	0.4	2.6	6.6	36.2	761.2
285235	7771001.6	481902.3	5	495.0	1.9	216.4	158.0	46.3	0.0	7.9	3.0	15.1	1.2	0.5	1.8	0.4	2.8	7.5	40.3	998.1
285236	7770800.52	481903.24	3	379.6	1.6	161.3	123.6	36.7	0.0	7.3	3.0	12.9	1.2	0.6	1.6	0.5	3.2	8.7	41.4	783.4
285237	7770599.24	481904.18	1	425.0	1.8	184.1	146.4	42.6	0.0	8.1	3.3	14.1	1.3	0.6	1.8	0.5	3.2	7.5	42.7	882.9
285238	7770421.4	481903.63	3	418.9	1.7	180.6	140.5	42.3	0.0	8.1	3.4	13.7	1.4	0.6	1.8	0.5	3.6	11.2	43.8	872.0
285239	7770207.93	481898.42	-1	409.0	1.9	192.9	149.3	44.0	0.0	8.5	3.1	15.0	1.3	0.5	1.9	0.4	3.0	5.4	42.2	878.5
285242	7769600	481881	2	389.4	1.5	184.1	133.6	40.6	0.0	6.2	2.3	13.0	1.0	0.4	1.5	0.3	2.2	8.0	34.5	818.5
285243	7769395	481902	1	409.0	1.6	193.5	141.1	43.3	0.0	7.0	2.9	13.5	1.1	0.5	1.6	0.4	2.9	8.0	38.6	865.2
285250	7768002	481898	1	372.2	1.5	178.3	124.8	38.3	0.0	6.0	2.4	11.9	1.0	0.4	1.5	0.3	2.2	5.7	32.1	778.6
285261	7771001.25	482099.5	2	420.1	1.9	194.7	141.7	43.0	0.0	7.7	3.2	13.8	1.3	0.5	1.7	0.4	3.0	6.3	36.1	875.3
285263	7770801.17	482096.36	1	425.0	2.0	195.3	151.0	45.7	0.0	9.3	3.9	15.8	1.5	0.7	2.0	0.6	4.1	14.1	44.6	915.7
285269	7770202.83	482104.29	1	507.3	1.8	226.9	175.5	52.8	0.0	9.3	3.4	17.7	1.4	0.5	2.1	0.5	3.0	6.1	39.4	1047.7
285270	7770093.16	482101.37	1	394.3	1.7	180.6	137.0	41.3	0.0	8.0	3.3	14.1	1.3	0.6	1.7	0.5	3.3	7.5	38.6	833.9
285271	7770003.29	482100.63	18	400.4	1.9	194.7	135.3	41.4	0.0	7.9	3.6	13.1	1.4	0.7	1.6	0.6	4.0	9.0	43.4	859.1
285275	7769603	482097	12	431.2	2.0	218.1	146.4	44.2	0.0	6.7	3.0	12.7	1.1	0.6	1.5	0.5	3.2	9.4	38.5	918.9
285281	7768799	482099	3	482.8	1.7	224.0	174.4	52.0	0.0	10.0	4.2	18.0	1.7	0.8	2.2	0.6	4.4	12.7	57.0	1046.4
285283	7768398	482104	-1	453.3	1.9	225.8	154.0	47.4	0.0	7.6	2.8	14.6	1.2	0.4	1.7	0.4	2.6	6.7	34.4	954.8
285293	7771297.37	482200.04	-1	363.6	1.6	153.0	128.3	38.2	0.0	8.2	3.1	14.2	1.3	0.5	1.8	0.4	3.0	12.1	34.8	764.2
285303	7770297.21	482203.25	1	493.8	2.0	231.0	170.9	52.4	0.0	8.8	3.0	17.5	1.3	0.4	2.1	0.4	2.7	10.0	39.9	1036.3
285304	7770204.25	482203.77	-1	410.3	1.6	191.7	139.4	42.9	0.0	7.2	2.7	13.8	1.1	0.4	1.6	0.4	2.5	5.8	34.7	856.1
285305	7770108.64	482202.61	1	357.5	1.6	184.1	118.4	37.2	0.0	5.6	2.5	10.2	0.9	0.5	1.2	0.4	2.6	7.8	31.0	761.4
285320	7770900.32	482309.22	1	375.9	1.4	165.9	118.4	36.6	0.0	7.2	3.0	13.8	1.2	0.5	1.6	0.4	2.8	6.4	34.3	769.3
285326	7770302.51	482304.51	3	517.1	2.1	251.0	156.3	49.1	0.0	7.4	3.1	15.0	1.2	0.6	1.6	0.5	3.4	7.4	38.1	1053.9
285335	7769397	482303	5	404.1	1.9	189.4	128.3	40.0	0.0	7.3	3.5	11.9	1.3	0.6	1.5	0.5	3.7	13.8	34.7	842.5
285336	7769305	482301	18	357.5	1.6	183.5	119.6	36.2	0.0	6.1	2.6	11.4	1.0	0.4	1.4	0.4	2.6	6.1	28.7	759.2
285346	7767402	482301	2	378.3	1.7	192.3	126.6	38.9	0.0	6.4	2.7	12.1	1.1	0.4	1.4	0.4	2.7	7.7	31.1	803.7
285372	7769204	482401	1	429.9	1.8	222.8	142.3	44.2	0.0	6.3	2.6	12.4	1.0	0.4	1.4	0.4	2.4	5.2	29.7	903.0
285375	7771201.46	482500.77	2	465.6	1.9	212.9	165.0	48.6	0.0	9.2	3.6	16.4	1.5	0.6	2.0	0.5	3.6	8.6	42.2	982.0



Sample ID	NAT North	NAT East	Au	CeO2	Eu2O3	La2O3	Nd2O3	Pr6O11	Sm2O3	Dy2O3	Er2O3	Gd2O3	Ho2O3	Lu2O3	Tb4O7	Tm2O3	Yb2O3	Sc2O3	Y2O3	TREO
		_	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
285376	7771101.04	482504.86	1	409.0	1.9	190.0	142.3	43.0	0.0	9.8	4.4	15.3	1.7	0.7	2.0	0.7	4.4	13.2	51.1	889.7
285377	7770999.77	482499.94	1	346.4	1.7	164.8	125.4	37.0	0.0	7.4	3.0	12.8	1.2	0.5	1.6	0.4	3.1	8.3	35.2	748.9
285401	7767996	482503	1	377.1	2.0	183.5	134.7	41.3	0.0	7.7	3.0	13.7	1.3	0.5	1.7	0.4	2.7	11.7	33.4	814.7
285403	7767602	482508	1	431.2	1.9	212.9	141.1	45.1	0.0	6.6	2.6	12.7	1.1	0.4	1.5	0.4	2.4	7.2	30.9	898.0
285410	7771202.39	482601	5	350.1	1.7	163.0	119.6	34.9	0.0	8.4	4.0	13.0	1.5	0.7	1.7	0.6	4.2	11.4	44.6	759.5
285412	7770996.45	482599.11	1	417.6	2.0	192.3	142.9	42.6	0.0	8.7	3.5	15.0	1.4	0.6	1.8	0.5	3.5	11.7	43.7	887.9
285413	7770899.95	482602.66	1	363.6	1.6	159.5	121.3	36.0	0.0	7.3	3.1	12.0	1.2	0.6	1.5	0.5	3.3	10.9	36.3	758.7
285420	7770199.02	482600.96	1	601.9	2.3	313.1	210.5	64.2	0.0	8.6	3.5	16.9	1.4	0.6	2.0	0.5	3.5	8.6	42.2	1279.9
285426	7769601	482601	1	380.8	1.7	187.6	130.6	40.0	0.0	6.7	2.9	12.3	1.1	0.5	1.4	0.4	3.0	10.6	29.7	809.5
285429	7769299	482599	2	412.7	1.7	201.1	127.1	41.6	0.0	6.1	2.7	11.4	1.0	0.5	1.3	0.4	2.6	5.7	30.4	846.2
285434	7771094.04	482698.82	-1	386.9	1.7	190.6	135.3	41.3	0.0	7.9	3.7	13.4	1.4	0.6	1.7	0.6	3.8	8.6	48.0	845.5
285435	7771003.97	482704.23	-1	405.4	2.0	192.3	140.0	42.8	0.0	7.7	3.2	13.5	1.3	0.5	1.7	0.5	3.1	9.4	37.0	860.3
285437	7770806.54	482699	3	348.9	1.9	171.8	122.5	37.2	0.0	7.4	3.4	12.7	1.3	0.6	1.6	0.5	3.4	7.8	39.6	760.4
285447	7769797.53	482706.17	1	517.1	2.4	262.7	180.2	55.7	0.0	8.4	3.6	15.8	1.4	0.6	1.9	0.6	3.8	8.9	42.3	1105.4
285448	7769702.02	482707.94	-1	448.4	1.7	218.7	151.6	46.2	0.0	6.7	2.8	12.8	1.1	0.5	1.5	0.4	2.7	6.6	33.4	935.1
285449	7769601	482701	1	438.5	1.7	214.6	144.6	45.7	0.0	6.2	2.4	13.1	1.0	0.4	1.4	0.3	2.2	4.1	26.7	903.0
285454	7768404	482698	-1	486.4	2.1	231.0	171.5	52.4	0.0	7.9	2.8	16.0	1.3	0.5	1.9	0.4	2.6	11.5	32.4	1020.7
285455	7768200	482702	3	601.9	2.6	293.2	197.1	64.3	0.0	10.1	3.9	19.5	1.6	0.6	2.2	0.5	3.3	12.3	46.5	1259.6
285468	7770901.92	482801.53	1	425.0	1.7	204.1	148.1	44.6	0.0	7.4	2.9	13.8	1.2	0.5	1.7	0.4	2.7	6.7	37.2	898.1
285476	7770099.5	482796.67	1	385.7	1.7	185.3	127.1	40.1	0.0	6.2	2.6	11.5	1.1	0.5	1.4	0.4	2.8	5.5	29.7	801.6
285479	7769801.71	482805.65	1	393.1	1.7	194.7	131.8	40.8	0.0	6.7	3.1	12.0	1.2	0.6	1.5	0.5	3.3	8.1	35.7	834.8
285498	7770002.66	482900.95	1	385.7	1.7	195.3	126.6	39.7	0.0	6.5	3.3	11.2	1.2	0.6	1.4	0.5	3.6	9.0	38.6	825.0
285505	7768199	482902	1	400.4	1.8	201.1	130.6	40.6	0.0	6.5	2.6	11.9	1.1	0.4	1.4	0.4	2.6	13.3	31.0	846.0
285562	7771102.06	483202.82	4	355.0	1.6	163.0	121.9	37.7	0.0	7.6	3.0	13.2	1.2	0.5	1.7	0.4	2.8	9.2	36.2	754.9
285564	7770897.89	483204.79	8	385.7	1.8	185.9	129.5	39.5	0.0	7.9	3.5	13.2	1.4	0.6	1.7	0.6	3.7	11.5	42.7	829.1
285570	7770301.31	483200.56	1	373.4	1.7	182.4	129.5	39.0	0.0	6.2	2.6	11.7	1.0	0.4	1.4	0.4	2.6	7.8	28.3	788.6
285610	7770202.01	483399.62	2	436.1	1.7	207.0	141.1	43.3	0.0	6.4	2.6	11.9	1.1	0.5	1.5	0.4	2.8	10.3	32.6	899.3
285611	7770011.9	483404.82	3	394.3	1.6	184.1	125.4	38.1	0.0	6.0	2.7	11.4	1.0	0.6	1.4	0.4	3.0	7.4	33.5	810.7
285706	7771398.11	484296.48	3	383.3	1.8	174.7	129.5	40.1	0.0	9.7	4.0	15.3	1.6	0.6	2.1	0.5	3.6	12.1	52.7	831.7
285707	7771001.83	484300.59	1	415.2	1.7	181.8	139.4	44.2	0.0	8.8	3.1	15.7	1.4	0.4	2.0	0.4	2.6	10.9	44.3	872.0
285718	7771403.23	484702.88	2	379.6	1.5	171.8	128.9	40.1	0.0	8.4	3.0	14.8	1.3	0.4	1.9	0.4	2.6	8.3	40.0	802.9
285719	7771002.96	484698.21	1	393.1	1.6	181.2	130.6	41.2	0.0	8.7	3.1	16.1	1.3	0.5	2.1	0.4	2.7	8.6	43.3	834.7
285731	7770994.78	485095.74	4	426.2	1.7	189.4	143.5	45.1	0.0	9.1	3.1	16.5	1.4	0.4	2.2	0.4	2.4	6.3	40.6	888.3
285733	7770198.57	485097.06	2	356.2	1.3	173.6	121.3	36.7	0.0	6.8	2.7	12.2	1.1	0.4	1.6	0.4	2.6	9.0	32.6	758.6
285742	7771399.49	485502.33	1	417.6	2.0	197.0	148.7	44.6	0.0	9.7	3.5	15.7	1.5	0.4	2.1	0.4	2.7	6.0	42.4	894.3
285743	7771009.85	485503.28	9	367.3	1.5	177.7	130.6	39.4	0.0	7.7	3.0	13.9	1.2	0.4	1.7	0.4	2.4	8.3	35.2	790.7
285744	7770603.38	485501.22	1	429.9	1.8	203.5	154.0	45.7	0.0	8.6	3.0	15.5	1.3	0.4	2.0	0.4	2.3	5.4	36.1	909.7 760.1
285746	7769805.07	485506.58	2	361.1	1.7	173.0	122.5	36.8	0.0	6.9	2.9	11.9	1.1	0.5	1.5	0.4	2.7	12.0	34.2	769.1
258150	7770202.43	481101.44	1	351.3	1.6	166.5	125.4	38.7	0.0	7.2	3.0	12.9	1.2	0.5	1.6	0.5	3.0	7.4	34.7	755.2
SRS10001	7770827	479894	2	236.5	1.4	110.6	74.3	23.2	0.0	4.8	2.3	7.7	0.8	0.4	1.0	0.3	2.3	6.4	28.4	500.5
SRS10002	7770900	479800	1	66.1	0.9	31.4	23.7	7.0	0.0	2.8	1.6	3.2	0.6	0.3	0.5	0.3	1.8	14.7	18.4	173.3
SRS10003	7770900	479900	-1	227.9	1.3	107.1	71.6	22.6	0.0	4.2	1.8	7.4	0.7	0.3	0.9	0.3	1.8	4.8	22.9	475.4



Sample ID	NAT_North	NAT_East	Au	CeO2	Eu2O3	La2O3	Nd2O3	Pr6011	Sm2O3	Dy2O3	Er2O3	Gd2O3	Ho2O3	Lu2O3	Tb4O7	Tm2O3	Yb2O3	Sc2O3	Y2O3	TREO
	_	_	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SRS10004	7770900	480000	1	267.8	1.4	123.1	81.9	25.4	0.0	4.7	2.1	8.1	0.8	0.4	1.0	0.3	2.2	6.1	26.9	552.3
SRS10005	7770900	480100	-1	250.6	1.4	114.9	76.4	23.7	0.0	4.8	2.4	7.9	0.9	0.4	1.0	0.4	2.6	7.5	29.6	524.6
SRS10006	7770900	480200	6	277.6	1.4	126.7	84.6	26.7	0.0	4.9	2.1	8.6	0.8	0.4	1.0	0.3	2.2	5.8	27.0	570.2
SRS10007	7770900	480300	18	459.4	1.6	198.8	139.4	43.0	0.0	6.4	2.2	12.7	1.0	0.3	1.5	0.3	1.9	4.8	30.2	903.6
SRS10008	7771000	479900	2	294.8	1.4	134.3	88.8	27.7	0.0	4.5	2.0	8.3	0.8	0.3	1.0	0.3	2.0	6.3	25.1	597.4
SRS10009	7771000	480100	1	457.0	1.9	194.1	140.5	43.7	0.0	7.6	3.2	13.8	1.3	0.5	1.6	0.5	3.2	9.0	39.0	916.9
SRS10010	7770900	480400	1	468.0	1.8	202.3	139.4	43.6	0.0	7.5	3.1	13.6	1.2	0.5	1.7	0.4	3.2	8.1	39.7	934.2
SRS10011	7770900	480500	1	429.9	1.7	194.7	135.3	42.0	0.0	7.6	3.2	13.4	1.2	0.5	1.6	0.5	3.3	9.7	39.9	884.5
SRS10012	7770900	480600	1	412.7	1.8	182.4	124.8	39.3	0.0	7.5	3.4	12.8	1.3	0.6	1.6	0.5	3.5	9.5	42.4	844.1
SRS10013	7770900	480700	1	531.9	2.1	231.0	159.8	50.5	0.0	8.1	3.1	15.7	1.3	0.5	1.9	0.4	3.0	12.3	42.3	1063.9
SRS10014	7770900	480800	-1	638.8	2.6	327.2	228.6	72.0	0.0	10.1	3.7	21.0	1.6	0.6	2.4	0.5	3.4	13.2	51.3	1376.9
SRS10015	7771000	480700	1	507.3	2.0	224.6	156.3	49.3	0.0	8.3	3.1	15.6	1.3	0.5	1.8	0.4	2.9	7.1	41.0	1021.6
SRS10016	7771000	480500	2	292.4	1.7	140.1	96.7	28.9	0.0	5.6	2.6	10.1	1.0	0.5	1.3	0.4	2.7	6.4	32.0	622.3
SRS10017	7771007	480282	3	273.9	1.5	130.2	89.6	26.8	0.0	5.0	2.2	9.6	0.9	0.4	1.2	0.3	2.2	6.3	27.2	577.3
SRS10018	7771000	479800	1	42.1	0.9	21.1	18.1	4.9	0.0	2.7	1.6	2.9	0.5	0.3	0.5	0.3	1.8	14.3	17.8	129.7
SRS10019	7771000	479900	1	209.4	1.2	96.2	66.7	20.1	0.0	4.0	1.8	7.0	0.7	0.3	0.9	0.3	1.9	6.1	22.4	439.1
SRS10020	7771100	480100	1	348.9	2.0	161.8	116.2	34.4	0.0	6.7	3.3	11.9	1.2	0.6	1.5	0.5	3.5	10.6	39.0	742.1
SRS10021	7771100	480200	2	582.2	2.3	277.9	191.9	57.0	0.0	8.0	3.2	17.3	1.3	0.5	1.9	0.5	3.1	9.5	39.9	1196.6
SRS10022	7771100	480300	1	561.4	2.2	263.9	184.9	54.9	0.0	8.7	3.5	17.6	1.4	0.6	2.0	0.5	3.3	7.7	43.7	1156.3
SRS10023	7771100	480400	1	324.3	1.9	155.4	108.4	32.0	0.0	6.4	2.9	11.5	1.1	0.5	1.4	0.4	3.1	8.3	35.4	693.0
SRS10024	7771100	480500	1	310.8	1.7	145.4	105.0	31.2	0.0	6.0	2.5	11.4	1.0	0.4	1.4	0.4	2.5	7.1	30.7	657.3
SRS10025	7771100	480600	1	265.3	1.6	124.9	90.7	26.9	0.0	5.3	2.3	9.8	0.9	0.4	1.2	0.3	2.2	6.1	27.3	565.4
SRS10026	7771100	480700	1	353.8	1.6	162.4	115.7	34.1	0.0	6.4	2.7	12.0	1.1	0.5	1.5	0.4	2.8	7.5	33.3	735.6
SRS10027	7771100	480800	1	396.8	1.7	178.8	126.6	37.8	0.0	6.5	2.6	13.0	1.1	0.5	1.6	0.4	2.5	6.0	32.4	808.1
SRS10028	7771100	480900	1	470.5	1.9	218.7	152.2	45.1	0.0	6.9	2.5	14.9	1.1	0.4	1.7	0.3	2.2	5.2	32.9	956.5
SRS10029	7771097	479805	1	74.7	0.8	36.9	24.7	7.4	0.0	2.5	1.5	3.2	0.5	0.3	0.5	0.3	1.8	9.4	16.8	181.3
SRS10030	7771115	479906	1	351.3	1.9	170.1	116.3	34.9	0.0	6.1	2.7	11.5	1.1	0.5	1.4	0.4	2.9	8.7	33.0	742.8
SRS10031	7771100	480000	4	724.7	2.9	358.9	257.8	76.4	0.0	10.8	3.7	24.8	1.6	0.5	2.7	0.5	3.1	8.9	48.9	1526.2
SRS10032	7771200	479900	5	256.7	1.5	124.3	85.4	25.4	0.0	5.1	2.6	8.6	0.9	0.5	1.1	0.4	2.8	10.1	30.0	555.4
SRS10033	7771200	480100	1	577.3	2.6	287.3	210.5	62.3	0.0	9.9	4.1	20.2	1.6	0.7	2.3	0.6	3.9	11.2	50.7	1245.4
SRS10034	7771200	480300	1	434.8	2.0	202.9	145.2	43.1	0.0	8.3	4.0	14.7	1.5	0.7	1.8	0.6	4.0	10.4	46.4	920.5
SRS10035	7771200	480500	-1	426.2	1.9	196.4	138.8	41.0	0.0	7.0	3.0	14.0	1.2	0.6	1.6	0.4	3.1	7.5	36.4	879.2
SRS10036	7771200	480700	3	346.4	1.8	160.1	114.2	34.1	0.0	8.1	4.1	13.0	1.5	0.8	1.7	0.7	4.6	14.0	48.1	753.1
SRS10037	7771300	479722	1	67.4	1.2	31.9	26.4	7.2	0.0	3.5	2.2	4.0	0.7	0.4	0.6	0.3	2.3	16.9	23.4	188.5
SRS10038	7771300	479800	-1	57.5	1.0	28.1	20.2	5.9	0.0	2.9	2.0	3.0	0.6	0.4	0.5	0.3	2.4	20.2	21.3	166.5
SRS10039	7771300	479900	2	78.7	1.2	40.8	30.0	8.8	0.0	3.9	2.6	4.1	0.8	0.6	0.7	0.4	3.2	17.5	28.3	221.8
SRS10040	7771300	480000	1	326.7	1.7	154.2	108.1	31.9	0.0	6.0	2.8	11.1	1.1	0.5	1.3	0.4	2.9	9.2	33.5	691.6
SRS10041	7771300	480100	1	442.2	2.3	210.5	147.0	43.6	0.0	7.6	3.4	14.8	1.3	0.6	1.8	0.5	3.3	13.3	41.8	934.0
SRS10042	7771300	480200	3	348.9	1.7	169.5	115.1	34.3	0.0	5.1	2.2	10.5	0.8	0.4	1.2	0.3	2.3	9.4	26.7	728.5
SRS10043	7771300	480300	1	457.0	2.1	211.1	154.0	46.2	0.0	8.8	3.8	16.4	1.5	0.6	2.0	0.6	3.8	10.4	46.7	965.0
SRS10044	7771300	480400	1	452.0	1.9	211.7	148.1	44.3	0.0	7.3	2.9	14.9	1.2	0.5	1.8	0.4	2.6	6.9	35.4	931.8
SRS10045	7771300	480500	-1	487.7	1.9	217.0	160.4	47.4	0.0	8.2	3.2	16.5	1.3	0.5	2.0	0.5	3.1	8.7	40.4	998.6



Sample ID	NAT_North	NAT_East	Au	CeO2	Eu2O3	La2O3	Nd2O3	Pr6011	Sm2O3	Dy2O3	Er2O3	Gd2O3	Ho2O3	Lu2O3	Tb4O7	Tm2O3	Yb2O3	Sc2O3	Y2O3	TREO
			ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SRS10046	7771300	480600	1	577.3	2.4	288.5	204.1	61.0	0.0	9.3	3.2	20.6	1.4	0.5	2.3	0.4	2.6	6.6	42.3	1222.6
SRS10047	7771300	480700	1	552.8	2.3	258.0	181.4	53.8	0.0	8.7	3.3	18.6	1.4	0.5	2.1	0.5	3.0	9.4	42.8	1138.4
SRS10048	7771300	480800	-1	572.4	2.4	266.2	191.3	56.7	0.0	9.1	3.1	19.5	1.4	0.5	2.3	0.4	2.7	7.2	41.0	1176.1
SRS10049	7771400	479800	2	70.4	1.0	32.6	25.9	7.5	0.0	2.9	2.0	3.4	0.6	0.4	0.5	0.3	2.3	15.0	19.4	184.5
SRS10050	7771400	479900	5	79.4	1.0	39.2	27.2	8.1	0.0	2.4	1.5	3.0	0.5	0.3	0.4	0.3	1.9	12.1	16.0	193.2
SRS10051	7771400	480000	2	94.8	1.2	51.0	34.5	10.0	0.0	3.7	2.4	4.0	0.8	0.5	0.6	0.4	2.8	20.2	25.8	252.7
SRS10052	7771400	480100	1	265.3	1.7	138.4	92.6	26.6	0.0	5.6	2.7	9.0	1.0	0.5	1.2	0.4	2.8	12.4	30.7	590.9
SRS10053	7771400	480300	2	95.3	0.9	52.5	32.0	9.4	0.0	2.7	1.6	3.4	0.6	0.3	0.5	0.3	1.9	17.5	17.3	236.2
SRS10054	7771400	480500	3	375.9	1.6	190.0	124.2	36.1	0.0	6.3	2.7	11.7	1.1	0.5	1.5	0.4	2.7	8.6	31.1	794.4
SRS10055	7771400	480700	1	293.6	1.4	137.8	94.8	27.4	0.0	5.7	2.9	9.0	1.0	0.6	1.2	0.5	3.2	10.9	30.6	620.5
SRS10056	7771000	480000	2	289.9	1.6	145.4	97.7	27.9	0.0	6.1	3.0	9.4	1.1	0.6	1.2	0.5	3.2	10.4	33.9	632.0
SRS10057	7771000	480200	1	218.0	1.5	113.4	76.4	21.9	0.0	5.4	2.7	8.0	1.0	0.5	1.1	0.4	2.9	8.6	31.5	493.4
SRS10058	7771000	480400	1	336.6	1.4	170.6	116.3	33.3	0.0	5.6	2.0	11.0	0.9	0.3	1.3	0.3	1.7	4.0	25.7	711.1
SRS10059	7771000	480600	1	189.8	1.1	94.4	63.9	18.4	0.0	4.1	2.0	6.5	0.8	0.4	0.9	0.3	2.2	6.0	23.1	413.8
SRS10060	7771000	480800	-1	305.9	1.3	148.4	98.1	28.0	0.0	5.4	2.3	9.3	0.9	0.4	1.2	0.3	2.3	5.4	27.3	636.3
SRS10061	7771200	480800	-1	401.7	1.7	192.3	137.6	38.9	0.0	7.3	3.0	13.4	1.2	0.5	1.7	0.4	2.9	8.1	35.4	846.3
SRS10062	7771200	480600	-1	264.1	1.5	134.9	90.9	26.1	0.0	5.7	2.6	9.5	1.0	0.5	1.2	0.4	2.7	8.7	31.1	581.0
SRS10063	7771200	480400	-1	468.0	2.2	239.2	161.0	46.5	0.0	8.7	3.7	15.4	1.5	0.6	2.0	0.5	3.6	10.1	44.8	1008.0
SRS10064	7771200	480200	2	249.4	1.5	122.0	83.2	23.9	0.0	6.2	3.6	8.4	1.2	0.6	1.2	0.5	3.8	11.8	38.4	555.6
SRS10065	7771200	480000	-1	414.0	2.0	205.8	143.5	41.0	0.0	8.7	3.8	14.4	1.5	0.6	1.9	0.6	3.8	11.0	44.8	897.4
SRS10066	7771400	480200	-1	474.2	2.1	236.9	161.5	46.6	0.0	8.9	3.9	15.3	1.6	0.6	2.0	0.6	3.7	11.7	47.0	1016.5
SRS10067	7771400	480400	-1	265.3	1.4	133.7	93.5	26.8	0.0	6.7	3.6	9.6	1.3	0.7	1.3	0.6	4.0	12.0	38.0	598.4
SRS10068	7771400	480600	1	454.5	1.9	226.9	156.3	44.6	0.0	7.7	2.8	15.0	1.2	0.4	1.8	0.4	2.5	9.5	35.7	961.3
SRS10069	7771400	480800	-1	560.1	2.2	270.9	191.9	54.6	0.0	9.1	3.1	18.2	1.4	0.4	2.2	0.4	2.6	6.9	39.7	1163.7



Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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. 	 Rock Chip Sampling: BHP Exploration - Sampling methodology unknown Stream Sediment Samples: BHP Exploration - Stream sediments were collected as -2mm BLEG samples with -80 mesh samples also collected for re-assay if required. Stavely Minerals - The stream sediment samples were taken from a reasonably straight section of the stream away from turbulent flow. The surface sand was removed and a sample was taken from a depth of between 5 and 20cm. The sample was sieved with a 4mm mesh to remove the larger fraction and placed in labelled calico bags. Sample preparation was completed by Stavely Minerals' personnel. Preparation involved mechanical sieving using a -80 mesh sieve stack to produce an > 100g sample, which was weighed on a digital kitchen scale and was subsequently placed in a corresponding numbered brown paper geochem bag. Damp samples were sun dried prior to sieving. The fines were submitted to ALS Laboratory in Townsville. Soil Samples Stavely Minerals - Soils were collected from the B-Horizon and sieved to -2mm using a coarse mesh. This was placed in a ziplock bag and subsequently sieved again to -80mesh out of field by Stavely personnel and placed in corresponding paper geochem bags, of weight 100 - 150g. Sunshine Gold - Samples were collected from between 5 - 15cm below existing surface and sieved to -80 mesh size. A sampling pick is used to remove the top 5cm of vegetation and dirt (A-Horizon) and then a roughly 40cm x 40cm sized hole is dug and turned over. The dirt is sieved to -80 mesh and approximately 100g of sample is placed within a numbered paper bag. The samples were transported by SHN to the laboratory for assay.
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.).	N/A
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.	N/A



Criteria	Explanation	Commentary
	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.	
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	Rock Chip Sampling: BHP Exploration - No record of rock-chip description for sample BKR-060, although some rocks collected at the same time were described. Historical Streams & Soils: Partial logging was undertaken to record substrate Sunshine Gold - No geological information has been logged whilst directly taking the soil sample. All samples are ensured they are not collected on top of infrastructure (e.g. historical workings) or from alluvial sources (e.g. creeks).
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. 	Rock Chip Sampling: BHP Exploration - Sampling methodology unknown Stream Sediments: BHP Exploration - BLEG samples sieved to -2mm were taken, as well as corresponding -80mesh samples. The BLEG samples were sent to the laboratory, with follow up using the -80 mesh is required. Stavely Minerals - Approximately 100 - 150g of -80mesh sample was collected. The sample sizes are considered to be appropriate to correctly represent the sought mineralisation. Soil Sampling: Stavely Minerals - Approximately 100 - 150g of -80mesh sample was collected. The sample sizes are considered to be appropriate to correctly represent the sought mineralisation. Soil Sampling: Stavely Minerals - Approximately 100 - 150g of -80mesh sample was collected. The sample sizes are considered to be appropriate to correctly represent the sought mineralisation. Sunshine Gold - Approximately 100g of -80 mesh sample is collected. This is deemed representative of the B-Horizon soil as a point location. Laboratory in-house QAQC protocols are solely used.
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.	 Rock Chip Sampling: BHP Exploration - No methodologies are reported, but soils and stream samples at the same time used 2 to 3 acid digest with ICP-OES finish on for multi-element, including REEs. Stream Sediment Samples: BHP Exploration - Stream sediment samples of -2mm size were analysed for Au by active cyanide solvent extraction, carbon rod finish. This is a partial extraction technique. Some of these were followed up by using 2 to 3 acid digest with ICP-OES finish on select samples for multi-element, including REEs.



Criteria	Explanation	Commentary	
	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.	Stavely Minerals - The sieved -80 mesh stream sediment samples were analysed for gold by using regia extraction and ICP-MS finish. The determination of gold by aqua regia digest offers very low d limits, making it an attractive option for soil and stream sediment sampling surveys. Multi-eleme including REEs, were assayed by four-acid digest and ICP-MS finish. Only internal laboratory QA applied.	letection ent data,
		Soil Sampling:	
		Stavely Minerals - The sieved -80 mesh samples were analysed for gold by using an aqua regia es and ICP-MS finish. The determination of gold by aqua regia digest offers very low detection limits, it an attractive option for soil and stream sediment sampling surveys. Multi-element data, including were assayed by four-acid digest and ICP-MS finish. Only internal laboratory QAQC was applied.	, making g REEs,
		Sunshine Gold - Soils were assayed using a 25g fire assay with ICP-AES finish, which is cor appropriate for this style of mineralisation. Fire assay is considered total assay for gold. All other el including REEs, were assayed using ICP-MS.	
Verification	The verification of significant intersections by either	Soil and Stream Sediment Sampling:	
of sampling	independent or alternative company personnel. The use of twinned holes.	Samples will be collected by SHN near historical data and will be compared in due course. However, both	stavely
and	Documentation of primary data, data entry procedures,	Minerals and Sunshine Gold samples confirm anomalism within the boundaries of the Barrabas Ada	
assaying	data verification, data storage (physical and electronic)	REE assays have been converted to their economic oxide equivalents using the factors listed below:	
	protocols.	REO Unit Factor Type	
	Discuss any adjustment to assay data	CeO ₂ ppm 1.228 LREO	
		Eu ₂ O ₃ ppm 1.158 LREO	
		La ₂ O ₃ ppm 1.173 LREO	
		Nd ₂ O ₃ ppm 1.166 LREO Pr ₆ O ₁₁ ppm 1.208 LREO	
		Sm ₂ O ₃ ppm 1.160 LREO	
		Dy ₂ O ₃ ppm 1.148 HREO	
		Er ₂ O ₃ ppm 1.143 HREO	
		Gd ₂ O ₃ ppm 1.153 HREO	
		Ho _z O ₃ ppm 1.146 HREO	
		Lu ₂ O ₃ ppm 1.137 HREO	
		Tb ₄ O ₇ ppm 1.176 HREO	
		Tm ₂ O ₃ ppm 1.142 HREO	
		Yb ₂ O ₃ ppm 1.139 HREO	
		In addition, prior to the REO conversions, historical data has been converted from parts per billion (ppb) per million (ppm) by dividing by 1000.	to parts



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.	Historical: BHP data was recorded in AGD84, Zone 55. Stavely Minerals - The grid system used by Stavely Minerals was GDA94, Zone 55. Sunshine Gold - Samples are located as points using handheld GPS in GDA94, Zone 55 format.
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.	 Rock Chip Sampling: BHP Exploration - No spacing due to the nature of the sampling method. Stream Sediments: BHP Exploration - Typically took 1 sample within 1.5km of stream Stavely Minerals - Due to the nature of the sampling method, no specific spacing is recorded and can vary between 30m to over 300m. Soil Sampling: Stavely Minerals - A nominal 100m x 100m grid was used over the Bank area. Sunshine Gold - A nominal 200m x 200m grid was used on the edges of the sample area, closing to 100m x 100m in the core of the grid.
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.	 Stream Sediment Sampling: Sample locations are limited by stream location. Soil Sampling: Stavely Minerals - The soil sampling grid was not orientated (100m by 100m sampling) and is considered to have achieved unbiased sampling. Sunshine Gold - An evenly spaced, unbiased N - S 100m x 100m grid is used to cover the Barrabas Adamellite in order to assist in distinguishing any mineralised orientations within the core of the unit.
Sample security	The measures taken to ensure sample security.	Rock Chips, Stream Sediment Samples and Soil Samples: BHP Exploration - It is not known how samples were stored or transported. Stavely Minerals - The brown paper geochem sample bags containing the sieved stream sediment samples were packaged in a sealed cardboard box for hand delivery to ALS in Townsville, Queensland. Sunshine Gold - Samples were pre-numbered prior to collection. Samples are sieved when collected and placed immediately into a paper geochemical bag marked with the sample ID. The paper bags are then placed in boxes or calicos with a numbered range. The samples are then transported by SHN to the laboratory. No third party was involved with the handling of the sample between collection and drop off.
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.



Criteria	Explanation	Commentary
		Sunshine Gold - The sampling techniques are regularly reviewed during the program and further review will take place prior to future drilling. No external audits have been undertaken.

Section 2 - Reporting of Exploration Results

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

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 Ravenswood West Project consists of EPMs 26041, 26152, 26303, 26404, 27824 and 27825. All EPMs are owned 100% by Ukalunda Pty Ltd or XXXX Gold Pty Ltd, both wholly owned subsidiaries of Sunshine Gold Limited. EPMAs 28237 and 28240 are owned 100% by XXXX Gold Pty Ltd, 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	Acknowledgment and appraisal of exploration by other parties.	 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.
Geology	Deposit type, geological setting and style of mineralisation.	 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.
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	- N/A



Criteria	Explanation	Cor	nmentary	,			
Data aggregation methods	 explanation 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 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 		TREO	calculat			n used to convert elemental assays into their economic oxide counterparts, e the "Factor" is the number by which the original elemental value is multiplied.
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'). Appropriate maps and sections (with scales) and 	-	N/A				
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should	 All relevant diagrams are reported in the body of this report 					



Criteria	Explanation	Commentary
	include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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 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.	No other material data is presented in this report.
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. Further work will incorporate field mapping, reconnaissance drilling and determining depth of weathered cover through auger/drilling techniques.