



## STEP-OUT DRILLING INCREASES STRIKE LENGTH OF AARNIVALKEA GOLD MINERALISATION

### Key Points

- Assays received for selected intervals from the first two diamond holes of a 13-hole program comprising very broad step-outs to previous high grade gold intercepts to scope out the extent of the mineralised zone at Aarnivalkea
- Strike length of gold mineralisation extended by 135 metres to 700 metres with all deep holes drilled to date intersecting mineralisation
- Better intercepts from selected sample intervals include:
  - 5.81 metres at 2.7g/t gold from 381.1m and 5.64 metres at 3.1g/t gold from 393.4 metres in hole FAVD0065 - located 135m south of FAVD0062
  - 0.64 metres at 7.5g/t gold from 314.2 metres and 6.79 metres at 1.2g/t from 330.5 metres in hole FAVD0066 - located 265 metres north of hole FAVD0062 and 300 metres south of FAVD0064
- Results awaited for the remainder of holes FAVD0065 and FAVD0066 and for the entirety of holes FAVD0067 and FAVD0068

S2 Resources Ltd (“S2” or the “Company”) has received gold assays for selected intervals of the first two diamond holes (FAVD0065 and FAVD0066) drilled at the Company’s 100% owned Aarnivalkea prospect in the Central Lapland Greenstone Belt (“CLGB”) in northern Finland (Figure 1).

Better intercepts included:

#### Hole FAVD0065

- 1.20 metres at 1.0g/t gold from 166.0 metres and
- 5.81 metres at 2.7g/t gold from 381.1, including 0.62 metres at 16.7g/t gold from 386.3 metres and
- 5.64 metres at 3.1g/t gold from 393.4 metres, including 1.04m at 14.2g/t gold from 393.4 metres

#### Hole FAVD0066

- 0.64 metres at 7.5g/t gold from 314.2 metres and
- 6.79 metres at 1.2g/t gold from 330.5 metres, including 0.89 metres at 5.2g/t gold from 335.5 metres



Hole FAVD0065 is located 135 metres south hole FAVD0062, which intercepted 6.8 metres at 11.8g/t gold from 223.0 metres (see S2 ASX announcement dated 8<sup>th</sup> December 2020). Hole FAVD0066 is located 265 metres north of hole FAVD0062 and 300 metres south of holes FAVD0064, which intercepted 20.4 metres at 4.0g/t gold from 193.1 metres (see S2 ASX announcement dated 4<sup>th</sup> January 2021). The strike length of gold mineralisation has been extended by 135 metres to a total of 700 metres, with all holes drilled to date below 110 metres intercepting significant mineralisation. Holes FAVD0067 and FAVD0068 have also been completed, stepping out 100 metres and 300 metres respectively north of hole FAVD0064. Hole FAVD0069 is currently underway, 110 metres down dip and 35 metres south of FAVD0062.

Assays are awaited for the remainder of sampled intervals of holes FAVD0065 and FAVD0066, and for the entirety of holes FAVD0067 and FAVD0068, completed to depths of 323.8 metres and 240.6 metres respectively. The current diamond program consists of thirteen 250 to 500 metre deep, broad spaced scout holes designed as a first pass systematic test of approximately 1.1 kilometres of strike below the gold anomalism identified in previous shallow diamond drilling. (Figure 2).

Drilling is continuing to scope out this zone on a broad spacing.

Commenting on the drill results, S2's Chief Executive Officer Matthew Keane said, "These results are highly encouraging given the step-out distance from previous holes and considering that all deeper holes drilled to date have intercepted gold mineralisation. S2 is still in the early stages of understanding the scale of and controls on gold mineralisation, but this program will significantly advance our knowledge to benefit future targeting".

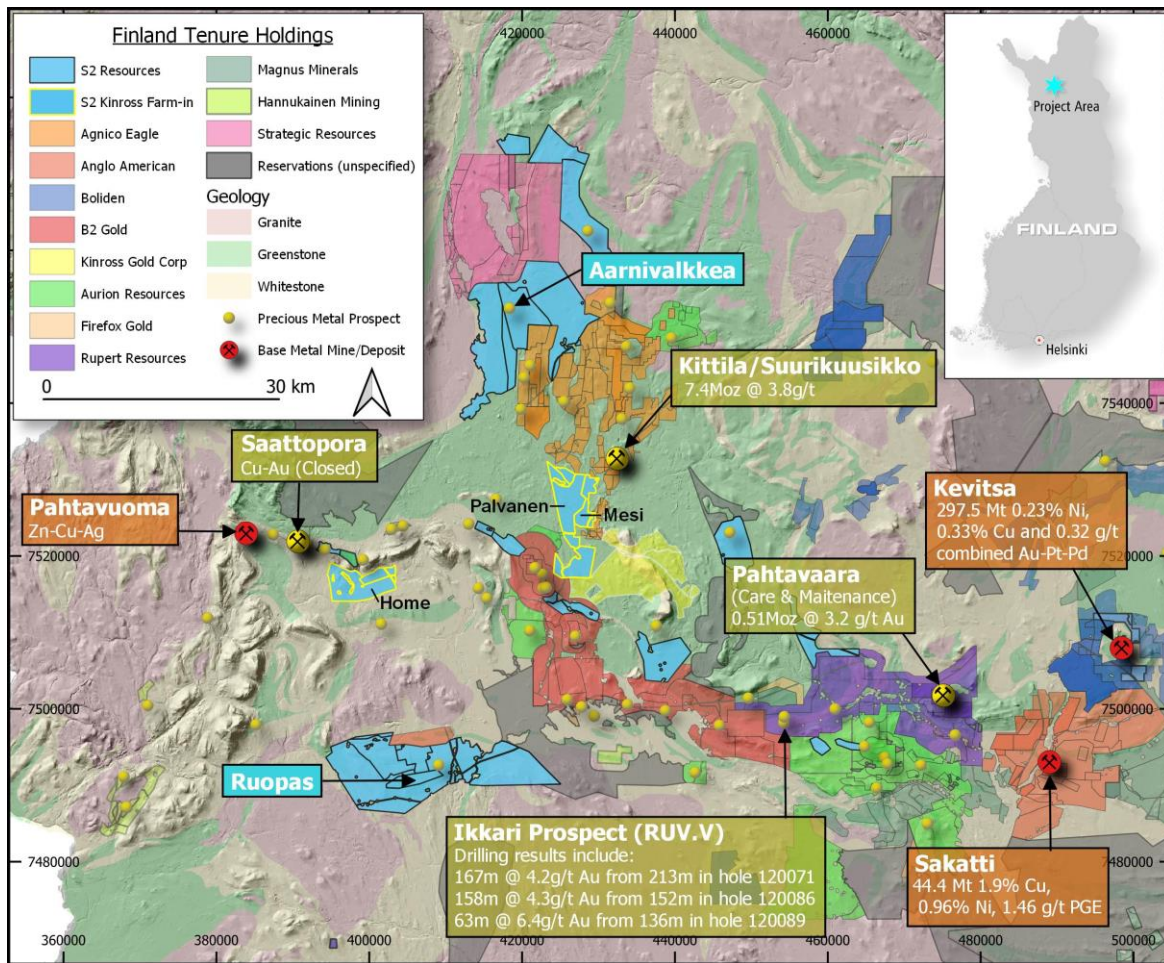


Figure 1. Map of S2's landholding in the Central Lapland Greenstone Belt, including neighbouring companies, mines, defined resources and recent drill intercepts. Resources and drill intercepts are sourced from public company statements.

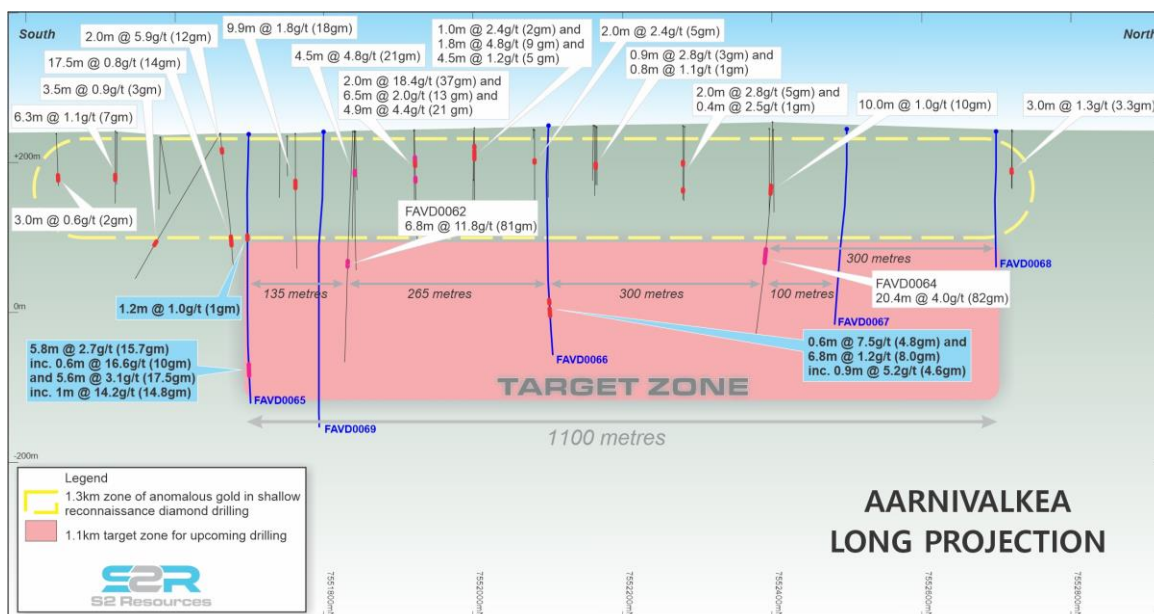


Figure 2. Long projection of the Aarnivalkka prospect showing recently completed holes, the target zone for the ongoing drilling program and selected intercepts from previous diamond drilling.



This announcement has been provided to the ASX under the authorisation of Mark Bennett, Executive Chairman.

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Past Exploration results reported in this announcement have been previously prepared and disclosed by S2 Resources Ltd in accordance with JORC 2012. The Company confirms that it is not aware of any new information or data that materially affects the information included in these market announcements. The Company confirms that the form and content in which the Competent Person's findings are presented here have not been materially modified from the original market announcement. Refer to [www.s2resources.com.au](http://www.s2resources.com.au) for details on past exploration results.

**Competent Persons statements**

The information in this report that relates to Exploration Results is based on information compiled by John Bartlett, who is an employee and shareholder of the Company. Mr Bartlett is a member of the Australian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Bartlett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

Table 1. Details of diamond holes completed at Aarnivalkea in 2020 by S2 (refer to previous S2 ASX announcements on 8 October 2019 and 12 November 2019 for all 2019 drill results and previous S2 ASX announcements on 8 December 2020 and 4 January 2021 for all 2020 drill results).

Hole	Easting	Northing	RL	Dip	Azimuth	Depth	From	To	Width	Grade Au g/t
FAVD0065	418460	7551700	238.8	-55	270	449.7	166	167.2	1.2	1.0
And							230.72	231.25	0.53	0.5
And							258.9	261.15	2.25	0.7
And							381.09	386.9	5.81	2.7
Including							386.28	386.9	0.62	16.7
And							391.05	392	0.95	0.6
And							393.36	399	5.64	3.1
Including							393.36	394.4	1.04	14.2
And							401	402	1	0.4
FAVD0066	418420	7552100	249.7	-50	270	419.7	292.27	293.8	1.53	0.4
And							301	305	4	0.4
And							314.2	314.84	0.64	7.5
And							326.8	329.25	2.45	0.4
And							334.5	337.25	6.79	1.2
Including							335.51	336.4	0.89	5.2



FAVD0067	418570	7552500	244.5	-55	270	323.8	AWR
FAVD0068	418480	7552700	242.1	-50	270	240.6	AWR
FAVD0069	418550	7551800	241.8	-55	270	IP	IP

Note, results from FAVD0065 and FAVD0066 are from selected intervals only, with additional sampling yet to be reported by the laboratory. The following abbreviations have been used; AWR – Awaiting results, IP – In progress

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

#### SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>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.</i>	The reported drilling was using MK Drilling of Ranua, Finland drilling NQ2 rod size with a DDH size of 75.7mm and core size of 50.7mm. NQ2 core samples are logged and marked up by S2 personnel. Unbiased core sample intervals were cut in half by diamond saw with half core sent for preparation and analysis at ALS Laboratories.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>	Sampling and QAQC procedures are carried out using S2 protocols as per industry best practice.
	<i>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</i>	Diamond drilling was used to obtain core samples that have been cut and sampled on intervals that are determined by lithology and mineralisation.  The drill core samples are sent to ALS Laboratories for analyses for gold and base metals. Drill core is sampled at S2's facilities in Kittila, Finland.
<b>Drilling techniques</b>	<i>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).</i>	Diamond drilling with NQ2 wireline bit producing a 50.7mm diameter core.
<b>Drill sample recovery</b>	<i>Method of recording and assessing core and chip sample recoveries and results assessed</i>	Diamond Drill core recoveries are recorded by the driller and written on core block markers. The exact recovery is then recorded on a metre basis after core mark-up and recorded in the database.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	Sample quality is qualitatively logged on a metre basis, recording sample condition.

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	No relationship has been seen to exist
<b>Logging</b>	<i>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.</i>	The logging uses a standard legend developed by S2 which is suitable for implicit wireframing. All diamond holes are geotechnically and structurally logged.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	All core has been photographed both dry and wet. Geological logging of the diamond drill holes is into tough books using standardised codes and templates. These logs are then imported into S2's central database
	<i>The total length and percentage of the relevant intersections logged</i>	All drill holes were logged in full.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Core sawn in half and half core taken for assay.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were delivered by S2 personnel to ALS Minerals laboratory in Sodankyla, Finland, where they are crushed with >70% <2mm (code CRU-31), split by riffle splitter (code SPL-21), and pulverised 1000grm to 85% <75 um (code PUL-32). Crushers and pulverizers are washed with QAQC tests undertaken (codes CRU-QC, PUL-QC). The prepared samples are forwarded to ALS Minerals Loughrea, Ireland, for analysis.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Full QAQC system in place to determine accuracy and precision of assays
	<i>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.</i>	For DDH's non-biased core cutting through using an orientation line marked on core and cut to the line
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Samples of appropriate size
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	All samples were analysed by ALS Minerals Loughrea, Ireland. Core samples analysed for gold undergo a 50g fire assay with AA finish (code Au-AA26).
	<i>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.</i>	No geophysical tools were used to determine any element concentrations.
	<i>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.</i>	Full QAQC system in place including Certified Standards and blanks of appropriate matrix and levels
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	all significant intercepts have been verified by senior S2 exploration personnel, including verifying against drill logging, core photos and/or direct visual inspection of drill core.
	<i>The use of twinned holes.</i>	No twinned diamond holes have been drilled at Arnievalkea

Criteria	JORC Code explanation	Commentary
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary sampling data is collected in a set of standard Excel templates. The information is managed by S2's database manager for validation and compilation into S2's central database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments made
<b>Location of data points</b>	<i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Diamond drill collars are pegged using a Trimble DGPS to +/- 1m accuracy. Drill rigs are aligned to Grid west using Standard Finnish National Grid ETRS-TM35FIN. The holes are downhole surveyed using a Deviflex tool.
	<i>Specification of the grid system used.</i>	The grid system used is the Standard Finnish National Grid ETRS-TM35FIN.
	<i>Quality and adequacy of topographic control.</i>	Elevation data for all collars is determined by a digital elevation model derived from public domain 2m Lidar data. Topographic control and map data is excellent.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	Recent drilling was not completed on a regular grid. Previous diamond drilling at Aarnivlakea has been completed on 40m drill spacings on lines between 80 – 240 metres apart.
	<i>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.</i>	Data spacing and distribution is not sufficient at this stage to allow the estimation of mineral resources.
	<i>Whether sample compositing has been applied.</i>	No sample compositing has been applied
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Drillhole orientation is designed to intersect the mineralised package of rocks and be perpendicular to shearing and mineralisation. Structural measurements from orientated core indicate that the main fabric and contacts are dipping steeply to the east and hence holes collared at -60dip 270deg azimuth are appropriate. The two southern holes were drilled obliquely due to the local terrain, but the hole orientations are still considered appropriate.
	<i>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.</i>	The drilling at this stage is preliminary and exploratory. It is not possible to assess if any sample bias has occurred due to drillhole orientation at this stage.
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by S2 personnel. Drill samples and core is visually checked at the drill rig and then transported to S2's logging and cutting facilities by S2 personnel for logging, cutting and sampling. Bagged samples are transferred to ALS Laboratories in Sodankyla, Finland by S2 personnel.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits or reviews have been conducted at this stage.

## SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	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 Aarnivalkea prospect is located within the Paana Central Exploration Licence. ML2018:0081 The exploration licences are 100% owned by Sakumpu Exploration Oy, a Finnish registered 100% owned subsidiary of S2

Criteria	JORC Code explanation	Commentary
	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.	All of the Exploration Licences are in good standing and no known impediments exist on the tenements being actively explored.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	The Aarnivalkea prospect is a greenfield discovery with historic BoT holes drilled in the region by Outokumpu not having been assayed for gold.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The prospect is a shear zone hosted orogenic gold deposit within the Kittila Group of the Paleoproterozoic Central Lapland Greenstone belt. The primary host rocks include altered and sheared basalt, dacites and sediments Alteration assemblages include albite, sericite, carbonate, chlorite with disseminated pyrite, pyrrhotite and arsenopyrite.
<b>Drill hole Information</b>	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: <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	Refer to sample plans in text.
<b>Data aggregation methods</b>	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.	All reported intersections of drilling undertaken by S2 have been length weighted. A nominal 0.2g/t lower cut-off is used for the reconnaissance diamond drill intersections. No top cut has been applied.
	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.	High grade intervals internal to broader zones of mineralisation are reported as included intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	None used.
<b>Relationship between mineralisation widths and intercept lengths</b>	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 trend of mineralisation at the targets/prospects described is estimated to be dipping steeply to the east at approximately 75 to 80 deg.  Refer to figures in body of text.
<b>Diagram</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.



Criteria	JORC Code explanation	Commentary
<b>Balanced reporting</b>	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 considered significant are reported.
<b>Other substantive exploration data</b>	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.	None at present
<b>Further work</b>	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	Drilling is ongoing at Aarnievalkea, with the current drilling planned to scope out the gold potential beneath the shallow drilling to date.