17 October 2016 ASX ANNOUNCEMENT



LARGE GOLD SYSTEM IDENTIFIED AT SATULINMÄKI PROSPECT, FINLAND

Highlights

- Assay results received from holes SMDD002, 005 and 007 and include:
 - 83m at 1.2 g/t gold from 137m in SMDD007,
 - including 9m at 7.3 g/t from 147m
 - 42m at 0.9 g/t gold from 112m in SMDD002
 - \circ 2m at 10.5 g/t gold from 7m in SMDD005
- Results define a significant gold system with both narrow high grade intervals and wide lower grade intervals, all within 150m of surface
- The gold system is open in all directions
- Visible gold has been noted in several samples, and the highest individual assay was 45.6 g/t over a 1-metre sample in SMDD007 from 150-151m
- Interpretation of Induced Polarisation geophysical data demonstrates a much larger target area than that drilled. The IP anomaly measures 750m long and remains open to the northeast

Avalon Minerals Ltd **(ASX: AVI) ('Avalon**') is pleased to report assay results from diamond drill holes SMDD002, 005 and 007 from the Satulinmäki Prospect.

The results from Avalon's drilling, together with the historical drilling results of the Finnish Geological Survey, clearly show a large gold system of broad mineralised zones and sub-parallel narrow veins. The system is open in all directions, and has a length of at least 400m, a vertical extent of at least 150m, and ranges up to approximately 50m thick.

Malcolm Norris, Avalon's CEO commented: "This is a very significant gold system. We have identified a large mineralised system that comprises both thick, near surface, lower grade intervals and narrower, at and near surface, high grade intervals. We are very excited by this discovery. It is very early days and Avalon has only drilled 7 holes, and yet we are seeing the potential for a large mineralised body. The rocks are very altered, they contain sulphides that can be mapped using geophysics, and the system is open in all directions. The initial drilling area measures 400m x 250m, while the geophysical anomaly is at least 750m long."

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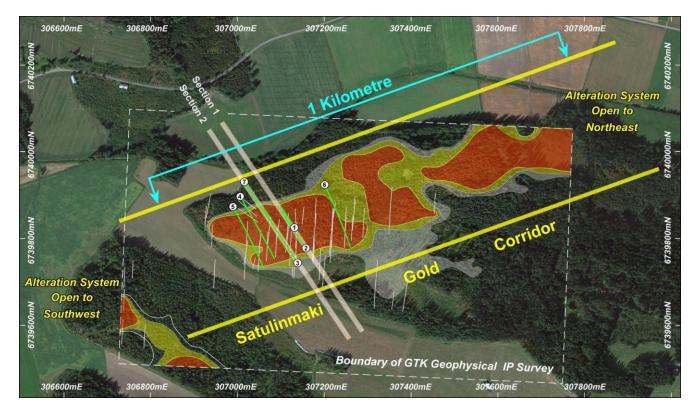


Figure 1: Satulinmäki gold prospect showing the location of drilling in the south-west portion of the IP anomaly. The coloured contours are IP chargeability which is interpreted to map sulphide distribution associated with the alteration envelope of the gold mineralisation. The backdrop image shows the timbered area where the gold mineralisation occurs. Locations of cross sections for figures 3 and 4 are shown. Historical holes are shown with white traces. Completed holes SMDD001 to SMDD007 are shown in green.

Assay results reported here are from holes SMDD002, 005 and 007. The upper 100m and lower 80m, below 220m, of hole SMDD007 are still to be assayed and reported, and the mineralisation is open at depth below 220m. Individual 1m assay results from hole SMDD007 have returned assays up to 45.6 g/t gold. Results from hole SMDD001 were reported on 22nd September 2016.

Following the encouragement from hole SMDD007, where significant intervals of very altered rock containing abundant sulphides were identified, it was decided to re-position the drill rig over hole SMDD003 and extend its length. The assays from hole 003 are pending and are expected within the next few weeks. Assays from holes SMDD004 and 006 are also expected within the next few weeks.

The historical government drilling at Satulinmäki has helped identify the potential of this gold system, and Avalon has recently re-logged several holes and sampled a number of intervals that were previously not sampled. Those assays are also pending.



The combination of thick lower grades and narrow higher grades at Satulinmäki represents significant opportunities for follow-up drilling and consideration of development options.

A detailed geophysical IP program is currently being planned and is expected to commence in November. Follow-up drilling is expected to commence in December.

At Riukka, located 4km to the south-east, Avalon has completed 3 diamond drill holes and these are currently being logged and sampled. The holes have intersected quartz veins down-dip from quartz vein hosted gold mineralised intervals drilled by the Finnish Geological Survey and containing up to 2m at 16.6 g/t gold.

Intersections from holes SMDD002, 5 and 7 include:

Drill Hole Number	From (m)	To (m)	Interval (m)	Au (g/t)	_
SMDD002	10.0	11.0	1.0	1.73	
	71.0	72.0	1.0	1.31	
	85.0	86.8	1.8	1.59	
	121.4	163.3	41.9	0.88	
includes					
	121.4	126.0	4.6	2.47	
	121.4	122.3	0.9	7.63	
	129.0	130.0	1.0	1.29	
	135.0	138.5	3.5	2.36	
	154.0	156.0	2.0	1.79	
	161.0	163.3	2.3	1.28	
SMDD005	7.0	9.0	2.0	10.48	
	74.0	75.0	1.0	1.67	
	80.4	81.4	1.0	1.21	
	122.2	123.2	1.0	1.56	
	162.4	163.4	1.0	1.00	
SMDD007	137.0	220.0	83.0	1.24	open
includes	107.0	220.0	0010		open
	143.0	166.5	23.5	3.25	
includes					
	147.0	156.2	9.2	7.29	
	150.0	151.0	1.0	45.6	
	176.0	177.0	1.0	3.70	
	196.9	205.9	9.0	1.64	
	209.0	214.5	5.5	0.45	
	218.5	220.0	1.5	0.58	open

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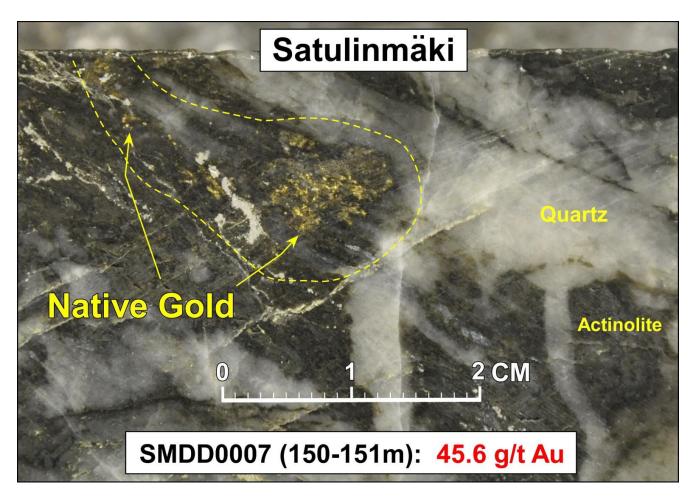


Figure 2: Visible gold in hole SMDD007 at 150m





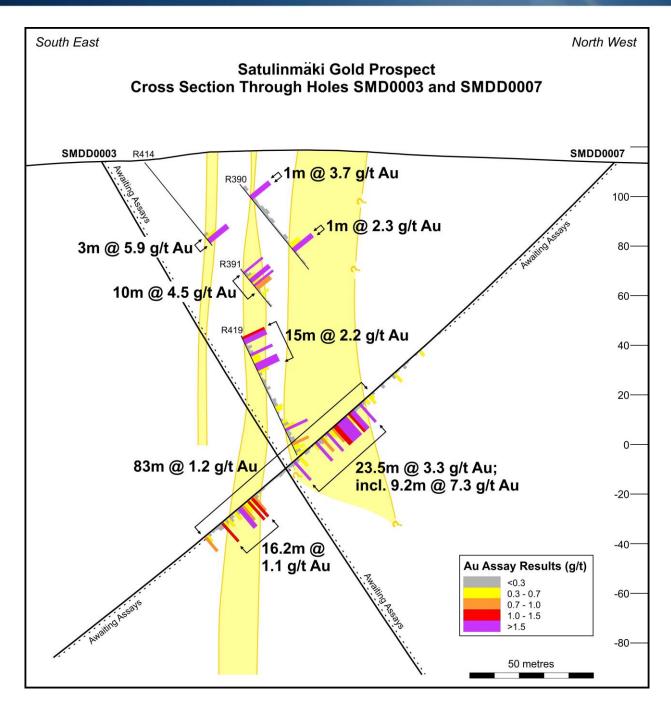


Figure 3: Cross section through drill holes SMDD003 and 007 at Satulinmäki gold prospect.



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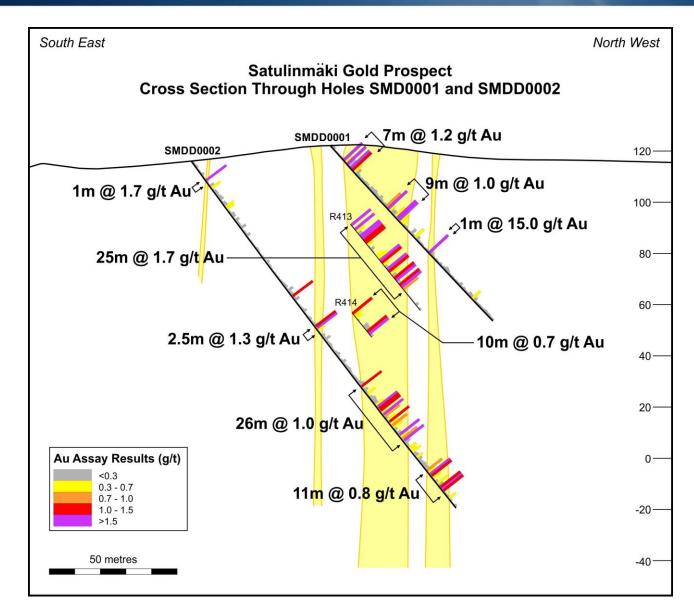


Figure 4: Cross section through drill holes SMDD001 and 002 at Satulinmäki gold prospect.





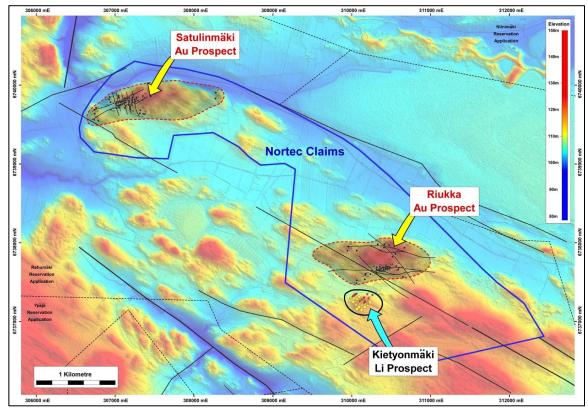


Figure 5: Location map of Satulinmäki and Riukka gold prospects





Hole ID	East (m)	North (m)	RL (m)	Magnetic Azimuth (deg.)	Dip (deg.)	Total Depth (m)
SMDD0001	307130	6739825	122	313.86	-48	92.9
SMDD0002	307160	6739780	116	313.86	-52	169.6
SMDD0003	307130	6739760	114	313.86	-60	242.7
SMDD0004	307010	6739900	113	138.86	-35	194.2
SMDD0005	306990	6739875	111	138.86	-40	206.3
SMDD0006	307205	6739930	120	143.86	-40	196.5
SMDD0007	307018	6739932	113	135.86	-46	299.4

Table listing current holes drilled at Satulinmäki by Avalon.

About Avalon

Avalon has an advanced portfolio of exploration and development projects in Scandinavia. The portfolio comprises:

- The Satulinmäki and Riukka gold prospects in southern Finland. These prospects have received shallow diamond drilling by GTK and are now the subject of follow-up drilling by Avalon. Intersections include 18m @ 4.1g/t Au from 50m downhole, including 3m @ 9.3g/t Au, and 4m @ 10.3g/t Au in drill hole R391 at Satulinmäki. The Satulinmäki and Riukka gold prospects are included in the earn-in JV with Canadian company Nortec Minerals, where Avalon can earn up to an 80% interest (see ASX announcement dated 19th May 2016). Avalon has acquired a significant land position in the district.
- 2. The Kietyönmäki lithium pegmatite project in southern Finland which is currently being drill tested. The project is part of the earn-in JV with Canadian company Nortec Minerals. Historical drilling by the Geological Survey of Finland (GTK) identified a high grade lithium pegmatite deposit including diamond drill intersections of up to 18m at 1.8% Li₂O Drilling by Avalon has returned 24.2m at 1.44% Li₂O (see ASX announcement dated 12th September 2016).
- 3. The Viscaria Copper project in northern Sweden which has a completed Scoping Study and is moving towards PFS and permitting to allow for mine development. The project has a mineral resource estimate of 52.4 Mt at 1.2% Cu, and a Mining Inventory considered for the 2016 Scoping Study Update (see ASX announcement dated 5th April 2016) of 18Mt at 1.2% Cu. Considerable exploration upside exists and low technical risk extensional drill targets have been defined to increase the resource estimate.
- 4. A portfolio of early stage lithium exploration projects in Sweden and Finland. These cover areas of documented lithium bearing pegmatite rocks and are being advanced to allow for drill testing in 2017.



Competent Persons Statement

The information in this report that relates to exploration results is based upon information reviewed by Dr Bruce Rohrlach who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Rohrlach is a full-time employee of Avalon Minerals Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Rohrlach consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information, please visit www.avalonminerals.com.au or contact:

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APPENDIX 1 The following Table and Sections are provided to ensure compliance with the JORC Code (2012 Edition)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	 The results announced here are from the first phase of diamond drilling by Avalon (SMDD001-07) and historical diamond drill core samples drilled during the period 2001 to 2005 by the Geological Survey of Finland (GTK). Six of the 60 holes were subsequently selectively re-logged and re-sampled by Nortec Minerals Corp (see Nortec announcement March 1st, 2011). At Satulinmäki 60 drill holes were completed by GTK and Nortec's check sampling was from drill holes, R329, 330, 334, 340, 385 and 386.
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	 Core recovery has been measured by Avalon and is almost 100% across all intervals. No reports of core recovery from historical drilling have been sighted, but inspection of that drill core shows very good core recovery.
	• 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.	 SMDD001-007 diamond drill core samples were prepared using ALS procedure PREP-33D designed specifically for rocks containing high grade or coarse gold and/or silver. Samples were crushed to 90% less than 2mm, riffle split off 1 Kg (larger than normal), with the split pulverised to better than 95% passing 106 microns (a coarser pulverisation than normal, designed to counter the possibility of gold smearing). Au was assayed by Fire Assay on a 50-gram aliquot. The aliquot was cupelled to yield a precious metal bead, which was then underwent acid digestion prior to analysis by atomic absorption spectroscopy against matrix-matched standards. A total of 33 additional elements were analysed by ALS technique ME-ICP61 which involves HNO3-HCIO4-HF-HCl digestion and HCl Leach (GEO-4ACID) with analysis by Inductively Coupled Plasma - Atomic
Drilling techniques	• Drill type (eg 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).	 Emission Spectroscopy (ICP - AES). Diamond drill core.
	Method of recording and assessing core and chip sample recoveries and results assessed.	• Diamond core recovery was measured against drilled intervals and is of high quality. Data for historical drilling has not been sighted.

TABLE 1 – Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	• Diamond core recovery was measured against drilled intervals and is of high quality. Details of historical geological logs, and photographs of historical core suggest good core recovery.
	• 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.	• No relationship between sample recovery and grade has been established.
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.	• Drill samples were logged for geotechnical measurements and lithology. No further studies were undertaken.
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	• Drill samples were logged for lithology and hence this logging is qualitative. Geotechnical logging is quantitative. Core has been photographed.
	• The total length and percentage of the relevant intersections logged.	• Drill holes have been logged in full. All historical drill holes were logged in full from start to finish of the hole, based on historical reports. Nortec re-logged selected intervals.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken.	 Half core was sampled and the other half retained in a secure core storage facility. For the historical holes, half core was sampled and the remaining core is stored in GTK's core storage facility. The core was logged at GTK's Loppi core archive. After logging the core was cut in half by saw for those holes drilled between 2002 and 2005, and by hand splitter for holes drilled in 2001.
	• If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	• Core samples.
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	 Sample preparation was undertaken at the ALS Pitea laboratory and is considered appropriate for assessing a gold mineralised system. For the historical holes, the whole half-core sample was ground by a swing mill at GTK's Kuopio or Rovaniemi laboratories. The analyses were undertaken at GTK's Espoo and Rovaniemi laboratories. Assays by Notec were submitted to ALS Chemex in Outokumpu for Ore grade Gold by fire assay with an AAS finish (FA-AAS).
	• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	 Avalon has used an industry standard QAQC programme involving Certified Reference Materials "standards" and blank samples, which were introduced in the assay batches. Standards, blanks and duplicates were each submitted at an approximate rate of 1 in 30 samples or one standard, blank and duplicate per hole if the hole has less than 20 samples.

Criteria	JORC Code explanation	Commentary
	• Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field	 The check assay results are reported along with the sample assay values in the preliminary and final analysis reports. There is no record of specific QAQC processes during the historical drilling or on the check assays, although assays from both GTK and Nortec were consistent with one another hence providing confidence in the results. No record of these procedures.
	 duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	• Sample sizes are considered to be appropriate and correctly represent the style and type of mineralisation.
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.	 Au was assayed by Fire Assay on a 50 gram aliquot. The aliquot was cupelled to yield a precious metal bead, which was then underwent acid digestion prior to analysis by atomic absorption spectroscopy against matrix-matched standards. A total of 33 additional elements were analysed by ALS technique ME-ICP61 which involves HNO3-HClO4-HF-HCl digestion and HCl Leach (GEO-4ACID) with analysis by Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES). The major method used by GTK was fire assay (plus ICP-AES) from a 50 gram subsample (method code 705P). Gold from the first drill cores (DH 326-DH331) was analysed by GFAAS from aqua regia leach Hg-coprecipitation and using 20g subsamples (method 522U). In addition, ICP-AES analyses by partial leaching (aqua regia digestion, method code 511P) were used for samples from holes D326-D347 and ICP-MS analyses from holes D379-D389. Samples taken by Nortec were submitted to ALS Chemex in Outokumpu for Ore grade Gold by fire assay with an AAS finish (FA-AAS). Best intercepts were calculated using a cut-off grade of 0.4g/t Gold and a maximum internal waste of 2 metres.
	• For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• No handheld XRF measurements were taken on this hole.

Criteria	JORC Code 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.	 The values of the standards range from low to high grade and are considered appropriate to monitor performance of values near cut-off and near the mean grade of the deposit. The check sampling results are monitored and performance issues are communicated to the laboratory if necessary. Re-sampling by Nortec confirmed earlier assay results received by the Geological Survey of Finland (GTK).
Verification of sampling and	• The verification of significant intersections by either independent or alternative company personnel.	• Verification of GTK results by subsequent sampling by Nortec.
assaying	• The use of twinned holes.	• Twin holes have not been drilled in this area.
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Nortec data and the Finnish Geological Survey (GTK) data have been sighted in reports.
	• Discuss any adjustment to assay data.	• Assay data was not adjusted.
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.	• Historical hole locations are shown on detailed maps from GTK 2006 report Kärkkäinen et. al. Hole collars have been sighted in the field and pick-ups of historical holes, and those drilled by Avalon, have been undertaken by a qualified surveyor.
	• Specification of the grid system used.	• The current projection used for map preparation in Finland is ETRS- TM35FIN, with Datum EUREF89
	Quality and adequacy of topographic control.	• LIDAR data are available and have been used to apply topographic control.
Data spacing and distribution	• Data spacing for reporting of Exploration Results.	 Drilling by Avalon is on 5 traverses between 30 and 100m apart. The historical drilling was comprised of 60 drill holes on multiple traverses at approximately 10 and 40m apart.
usnibuton	• 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.	 Sufficient continuity in both geology and mineralisation has been established based on geological mapping and cross-section representation. No JORC 2012 mineral resource has yet been estimated for the Satulinmäki Gold Project.
	Whether sample compositing has been applied.	No sample compositing was done.
Orientation of data in	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	• Drilling orientations were considered appropriate for the interpreted structures controlling mineralisation.

Criteria	JORC Code explanation	Commentary
relation to geological structure	• If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• The company does not believe that any sample bias had been introduced which could have a material effect.
Sample security	• The measures taken to ensure sample security.	 A secure sample management system has been established and documented and involves the drilling contractor, Avalon consultants, personnel from contracting group Palsatech, and the assay laboratories. Nortec's sampling procedures indicate individual samples were given due attention.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits were completed.

<u>TABLE 1 – Section 2: Exploration Results</u>

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	• The Satulinmäki gold occurrence is covered by approved exploration claims, under the Finnish Mining Act.
	• 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.	• Exploration claims are valid and are held by Nortec Minerals Corp. Avalon has a joint venture with Nortec to explore the claims.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The historic drilling at Satulinmäki was undertaken by the Finnish Geological Survey in 2001-2005, and was re-logged and re-sampled by Nortec Minerals Corp. in 2010.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Satulinmäki gold occurrence is interpreted to be an orogenic gold system hosted by a series of quartz veins.

Criteria	JORC Code explanation	Commentary
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: a. easting and northing of the drill hole collar b. elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar c. dip and azimuth of the hole d. down hole length and interception depth e. hole length. 	 See table in text of announcement. Details of the historical drill holes discussed in this announcement are referenced to Nortec Minerals Corp reports at http://www.nortecminerals.com/index.php. 60 drill holes were completed by GTK on multiple traverses. Holes were drilled at mainly -45 degree angles. The deepest hole was to 139.2m EOH at -60 degrees which tested to ~100m below surface.
	• 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.	Information included above.
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.	• The Weighted Averaging method is used to calculate drill hole intersections for the gold grade based on the assay results received, and the down hole width of the assayed interval.
	• 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.	• Weighted averaging method used.
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal Equivalents have not been applied.
Relationship between	• If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.	• The orientations of the mineralised horizons are interpreted to be sub-vertical based on geological mapping and cross-sectional interpretation.
mineralisation widths and intercept lengths	• 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').	• See above – estimated true widths are approximately 60% of intersected widths based on cross section construction.
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.	• See main announcement for appropriate diagrams.

Criteria	JORC Code explanation	Commentary
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.	• Both recent and historical results are included in this announcement.
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 significant geological data has been reviewed at this stage.
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).	 A total of 7 diamond drill holes have been drilled at Satulinmäki for approximately 1,340m. Follow-up drilling is expected and will be planned once all assay results are received, and interpretation of geophysics is complete. Comprehensive data compilation is ongoing. The GTK have extensive open file data available. Field work is ongoing during 2016, with follow-up drilling expected in Q4 2016.
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Additional exploration reservation areas have been applied for which cover the interpreted extensions of the prospective domains.