



MINERAL RIDGE PROJECT

QUALITY ASSURANCE AND QUALITY CONTROL – QA/QC

All technical information for the Mineral Ridge project is obtained and reported under a formal quality assurance and quality control (QA/QC) program. The procedure for sample collection, processing and analyzing is as follows:

Sample Collection

Reverse Circulation (RC) Drilling

Samples are collected on 5-ft intervals from a rotating wet splitter assembly attached to the drill rig. Chip tray samples are collected from the reject side of the wet splitter. The splitter is adjusted to produce 20 to 30 lbs of sample which was riffle split at the rig to produce one 10 - 15 lbs sample. The drill hole samples are placed in separate lockable containers, to be submitted for analysis. A minimum of one duplicate sample per 100 ft of drilling was coded and submitted for assay along with the rest of the submission as a blind check of the laboratory. The duplicates are collected at the 50', 150', 250', etc. intervals and later checked against the sample collected at those intervals. For quality assurance, one standard is inserted for every 100 ft of core and one crushed rock blank inserted for every 200 ft of drilling. In practice, Scorpio Gold uses standards typical of likely run-of-mine gold values: 0.205 ppm, 1.817 ppm, 3.474 ppm (0.006 opt, 0.051 opt, 0.101 opt, respectively); all prepared from certified standards by RockLabs laboratories of Australia.

Core Diamond Drilling

Sample intervals are determined by the site geologist and are typically 5 ft in length within homogeneous zones or less as dictated by lithology. Sample intervals are marked and the core is sawn into symmetrical halves. One half is sampled and the other half retained in the core box for future reference. For quality assurance, one standard is inserted for every 100 ft of core and one crushed rock blank inserted for every 200 ft of core. These are submitted for assay along with the rest of the core samples as a blind check of the laboratory.

Mine Blast Hole Drilling (Conventional Rotary with down hole hammer)

Blast holes are drilled to a depth of 11 ft (1-ft sub drill) within the area where mineralization could occur. Mining occurs on ten foot benches in order to minimize dilution. Typically one sample is collected from the cone of drill cutting surrounding the collar of each blast hole. A check sampling program has been initiated in which a "B" sample is collected from approximately every 25th blast hole. A check sampling program has been initiated in which a "B" sample is collected from

approximately every 25th blast hole. Representative samples weighing approximately 5 lbs are collected manually by the Geotech or Ore Control Geologist and placed into a labelled sample bag. Each sample bag has a sample identification tag stapled to it along with a duplicate sample tag placed inside the bag. The sample ID is also written on the outside of each bag. The samples are loaded onto a flatbed truck and taken to the mine assay laboratory. With only a 1-ft sub-drill depth no attempt is made to remove this material from the sampling process. A program is being developed by which a specified number of blast holes are collected and sent to an outside lab for analysis. Final specifications for this program are not yet available.

Sample Preparation and Security

Collection and packaging of the samples at site is undertaken by employees of Scorpio Gold. All sample preparation prior to assaying and all analytical work is either conducted by the American Assay Laboratories (AAL) in Sparks, Nevada or onsite at the Mineral Ridge Assay Laboratory (MRG).

Samples planned for offsite analysis are, under the supervision of the site geologist, placed in sealed cloth sample bags and lockable transportation bins next to the Mineral Ridge security office until they were ready to be shipped to AAL. Samples planned for onsite analysis deliver in barcoded, tie-sealed bags directly to the assay lab. At the assay lab samples log in via barcode scanning and are cross-checked against sample lists provided by the geologist.

Upon arrival of the AAL collection truck, AAL and Scorpio Gold site personnel inventory and supervise the loading of the bins. AAL picks up and transports the bins with its dedicated truck to the laboratory in Sparks.

Upon receipt, AAL bar codes and logs in the samples. This sample list is checked against the submittal and discrepancies, if any, are noted. The computer generated sample list includes the random position of two standards and one blank per 40 sample batch submitted by Scorpio Gold. AAL includes additional random materials (two standards, one blank) in its final sample report.

Sample Analysis

Both the MRG and AAL laboratories perform fire assays on 30-g aliquots of sample pulps. The sample is mixed with 100 g to 180 g of flux (the assayer determines the flux composition). The fused sample is poured while an assayer makes notes on the quality of each fusion. The lead button is separated and an assayer reports any low weights or slag composition problems. The button is cupelled and an assayer records any cupellation problems. For gravimetric finish analysis (MRG default finish), the bead is weighed and parted and the analyst reports any parting problems. For instrument finish analysis (AAL default finish), the bead is dissolved and the solution is examined for any undissolved prill. The solution is read by AAS/ICP (AAL) or FAAS (MRG). AAL results are recorded to enable fire assay personnel to discard any crucible that had a sample >2 ppm. MRG applies assay monitoring, blank checks, certified control samples, and crucible monitoring to every batch (tray of 22 assays) to verify assay quality and reliability.

When requested, AAL re-assays samples returning >2.5 ppm (0.073 troy oz/st) Au utilizing fire assay with gravimetric finish. MRG re-assays any sample that fails quality control. MRG considers

values obtained by gravimetric finish fire assay that assay below 0.2 ppm (0.006 troy oz/st) as trace unless confirmed by instrument finish. For quality control, the inserted standards results for both MRG and AAL must check between 90% and 110% for the batch to be valid. The AAL blank must be less than twice the detection limit for level results to be valid. The MRG gravimetric blank must be less than 0.07 ppm (0.002 troy oz/st); MRG instrument finish assays, when performed, apply the sample blank validity criteria as AAL. AAL checks outlier controls using a second pass assay of control samples. MRG uses recognized certified controls. MRG batches failing certified control values or internal random replicate matches (one per batch of 22 or less) are re-assayed.

External check assays to verify lab accuracy are routinely completed ALS Chemex (ALS) in Reno Nevada, an ISO 9001:2000 certified and ISO/IEC 17025:2005 accredited laboratory.

Laboratory Status

AAL does not have ISO/IEC 17025 accreditation but implements a quality management system following ISO/IEC 17025 standards and maintains a paperwork trail for ISO/IEC 17025 accreditation. AAL participates in a number of testing and certification programs as follows:

- Certificate of laboratory proficiency CANMET PTP-MAL accredited by the Standards Council of Canada.
- GEOSTATS of Australia certificate.
- Society of Mineral Analysts (USA and Canada) – round robin testing.
- IOAG testing twice a year.

MRG does not have ISO/IEC 17025 accreditation but implements a quality management system compatible with the ISO/IEC 17025 standards and maintains a paperwork and LIMS trail suitable for future ISO/IEC 17025 accreditation. The participation by MRG in round robin exercises is similar in many small laboratories in North America which do not have ISO certification.

- Society of Mineral Analysts (USA and Canada) – round robin testing.
- One in 20 (5%) of all samples are randomly pulled by geology for external check assays.
 - The MRG laboratory is not informed which samples are pulled until after analysis is returned by the external laboratory.
 - External check assays are sent to either AAL or ALS for cross validation.

Tonnage and Grade Estimation

Mined Tonnage and Grade

Mined tonnage is measured with truck weightometers to derive wet tons. Moisture content, as determined by the average for the month from the crusher, is subtracted from the wet tons to derive dry tons.

Mined grade is determined using MicroMine mine planning software to create a bench grid map of 5 ft. by 5 ft. grids and incorporate the blast hole assays. The inverse distance method is used for interpolating into the grid to derive an in-situ grade of the outlined ore shapes. The final mined grade is determined from the tonnage actually mined compared to the in-situ tonnage, with a dilution factor applied if necessary.

Crushed Tonnage and Grade

The tonnage of material processed through the crusher is measured by a Ramsey belt scale located on the feed belt to the agglomerator. The scale weightometer totalizer is recorded at midnight and noon every day. Calibration of the scale is done on a weekly basis.

Samples to determine grade of the material processed through the crusher are taken from the same belt feeding the agglomerator, via an automated sampling system that cuts the entire width of the feed stream. The sampler is currently set to cut a sample every 15 minutes, producing a composite sample representing a 12 hour period (midnight to noon and noon to midnight daily). The samples are processed onsite at MRG, and are run in triplicate to attain an average feed grade for the composite, which is associated with the weightometer for the tons processed during that period.