Technical Report on the Mineral Resource Estimate, Nivré Gold Deposit

Dorlin Project, French Guiana

Effective Date: March 2nd, 2019

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1. SUMMARY

1.1 Introduction

Reunion Gold Corporation ("RGD" or "Reunion Gold") appointed G Mining Services Inc. ("GMSI") to complete an independent Mineral Resource estimate for the Nivré deposit of the Dorlin Project located in French Guiana. No previous Canadian National Instrument 43-101 ("NI 43-101") Technical Report has been issued for the Project. This independent Technical Report was prepared to support the mineral resource estimate for the Project prepared by GMSI and disclosed by RGD by press release on March 14, 2019.

The 2019 Nivré deposit Mineral Resource Estimate ("MRE") was prepared by James Purchase, P.Geo. under the supervision of Mr. Réjean Sirois, P.Eng. from GMSI, who acts at the Qualified Person ("QP") for this Report.

GMSI believes the information used to prepare this Technical Report is valid and appropriate considering the status of the Project and the purpose of the Technical Report. The authors, by their technical review of the Project's exploration potential, confirm that the work programs and recommendations presented in the Report are in accordance with NI 43-101 and Canadian Institute of Mining, Metallurgy and Petroleum Definition Standards for Mineral Resources ("CIM Definition Standards").

1.2 Reliance on Other Experts

The authors of this Report have gathered information from a variety of sources, notably Sections 4 – 11, 13 and 20 which have been provided by Dominique Fournier, Exploration Manager at RGD. These sections have been based on historical reports by Cambior Inc. and Guyanor Resources from the mid to late 1990's, and work undertaken during the 2017 and 2018 field season by RGD.

Information for Section 12 was partly derived from a field report undertaken by Rejean Sirois during a site visit in August 2018 and elaborated further by GMSI for this Technical Report.

Section 14 was written by GMSI relying on drilling and geological data provided by RGD in January 2019. This data was provided to GMSI via a third-party database expert gDAT Applied Solutions ("gDAT") who independently validated the robustness of the historical database for use in resource estimation.

1.3 Project Description and Location

The Dorlin Project is located approximately 180 kilometres south-west of Cayenne, the capital of French Guiana, an Overseas Department of France in South America, and approximately 55 kilometres east-north-east of the village of Maripasoula on the Maroni (Lawa) River.

The Project is covered by an operating licence (*Permis d'Exploitation* or PEX) number 12/2010, also named Dorlin. The Dorlin PEX covers an area of 84 km², or 8,400 ha. This PEX for gold and related substances was granted to a local company - Société Minière Yaou-Dorlin ("SMYD") - for a period of five years on July 31, 2010.

An application for the renewal of the licence over the same area and for five years was filed by SMYD on June 30, 2015. The renewal of the PEX has not yet been granted, but the application extends the validity of the PEX until it is either granted or rejected for renewal. There is no logical reason for this application to be rejected; and therefore, the title is in good standing.

On February 4, 2017, RGD entered into an option agreement with SMYD a subsidiary of Auplata S.A., a French company listed on Euronext Growth ("ALAUP"), to acquire a 75% interest in the Dorlin Project in French Guiana.

The option is subject to certain conditions precedent including the renewal of the Dorlin Project permit and the completion by RGD of technical and legal due diligence on the Project. The option will be valid for a period of five years from the date all conditions precedent are satisfied. To exercise the option to acquire a 75% interest in the Dorlin Project, RGD will have to complete and deliver a feasibility study to SMYD within a period of four years and six months after the start of the option period. To maintain the option, RGD is required to spend at least US$ 3 million in the first three years. Once the option is exercised, SMYD will have to choose between maintaining a 25% participating interest ("PI") or a 5% net profit interest ("NPI"). If SMYD chooses a 25% PI, RGD will have the option to acquire an additional 5% PI from SMYD for a consideration based on the NPV in the feasibility study.

1.4 Accessibility, Climate, Local Resources, Infrastructure and Physiography

1.4.1 Accessibility

The Project is accessible by small fixed wing using an airstrip that was refreshed by RGD in the permit area. Flight time from Cayenne is approximately one hour, and from Maripasoula 20 minutes.

Maripasoula is accessible by daily flights from Cayenne and has a concrete runway suitable for medium sized jet aircraft. Several “drop zones” suitable for helicopter landings are present on the Project area, including at the camp.

Fluvial access to the Project is possible by use of local canoes (*pirogues*) from the city of Saint-Laurent, down the Maroni river, and then from Maripasoula, along the Grand Inini and Petit Inini rivers. During the rainy season the trip from Saint-Laurent takes three to four days, while it takes one day from Maripasoula. During the dry season the trip from Maripasoula takes two to three days in a smaller craft unsuitable for cargo transportation and in the driest part of the season, no canoe can reach Dorlin.

The Project area is also accessible by tracked vehicles during the dry season by use of the so-called Bélizon track, linking the RN 2 highway to the village of Saul.

1.4.2 Climate

The climate is typically equatorial, with daytime temperatures between 25°C and 31°C, falling to 19°C to 22°C at night. There are two wet seasons; the main period is typically from April to July, and the lesser one from December to February, although they vary from year to year. The average annual rainfall is in excess of 2,500 millimetres. The humidity is constantly high, ranging from 78% to 92% during the year.

1.4.3 Local Resources

Skilled, semi-skilled and unskilled labour is readily available in Cayenne, with most professional and technical personnel being trained in metropolitan France. Unskilled labour is also available in Maripasoula. French labour laws apply to French Guiana, resulting in relatively high salaries and restrictive employment contracts compared to the neighbouring countries of Suriname and Brazil.

1.4.4 Existing Infrastructure

Paved roads are only limited to the northern part of French Guiana along the Atlantic coast, where 90% of the population lives. The French Government plans to construct an all-weather laterite road into the interior of the territory between the RN 2 highway in the north, and the village of Saül, in the centre of French Guiana. This road would eventually be extended past the Dorlin permit on the way to Maripasoula. A laterite road would provide an alternative to the river as an access route between Cayenne and Maripasoula for heavy equipment and supplies for mining operations at Dorlin.

1.4.5 Physiography

Dorlin is situated in a region containing some of the highest peaks in French Guiana. Montagne Nivré reaches a maximum altitude of 372 m and forms a long ridge with steep slopes descending 240 m in elevation. For the most part topography consists of a gently rounded or flat-topped hills and deeply weathered valleys with small streams flowing off relatively flat laterite ridges and plateaux.

1.5 History

Gold placers were discovered at Dorlin in the early 1900's. Alluvial mining took place until 1955 with an estimated production of 11 tonnes gold (t Au) (388,000 ounces gold). Dorlin area was later prospected by the Bureau Minier Guyanais ("BMG") from 1950 to 1960.

In 1974-1975, the French geological survey ("BRGM") conducted a country-wide aeromagnetic and radiometric survey followed in 1975-1976 by regional geochemistry work that identified polymetallic copper-gold and lead-zinc anomalies in the Dorlin area. From 1977 to 1979, a syndicate including the BRGM, Comilog and Blanchard drilled 27 short holes and six long drill holes on polymetallic anomalies at THR, Dorlin and Florida prospects. In 1980-1985, detailed soil geochemistry for gold targets was carried out by the BRGM on behalf of the Mining Inventory. In 1986-1989, the syndicate BRGM-BHP carried out soil geochemistry and drilled 19 holes at Dorlin.

From 1993 to 1998, Guyanor and Cambior carried out a large exploration program including airborne geophysics, geochemistry, deep auger, trenching and core drilling. In 1997, Cambior completed earn-in at 50% and SMYD was created.

In 1996, the BRGM commissioned from CGG and Geoterrex a country-wide airborne magnetic, radiometric and radar altimetry survey; 135,300 kilometres of flight lines orientated 030° at a nominal elevation of 120 m above ground level, with the line spacing over greenstone belts being 500 m. The Dorlin area is covered by this survey.

From 1994 to 2001, illegal mining activity for both alluvial and primary gold occurred on the Dorlin PEX, ravaged the forest of the area, aggravated sanitary conditions and introduced chronic insecurity.

Until 2011, the Dorlin area was the object of intense illegal mining activity. In 2002, Golden Star acquired the 50% share of Cambior on the Project and in 2004 Auplata acquired 100% of SMYD. In 2010, the Dorlin PEX was granted. Finally, in 2013, SMYD permanently settled on the PEX following numerous army / *gendarmerie* missions and started mining the left-over alluvial resources and assessed the eluvial potential of the Nivré, Sept Kilos and Frères areas with 29 trenches.

In 2017, SMYD optioned the Dorlin Project to RGD, which created its subsidiary in French Guiana, Ressources Réunion SAS, and initiated a new phase of systematic exploration.

Several historical mineral resources were estimated for the Nivré deposit:

- 1993: BHP-BRGM estimated, at a 2.5 grams of gold per tonne (“g Au/t”) cut-off, resources of 1.7 million tonnes (“Mt”) grading 3.0 g Au/t (164,000 oz Au).
- July 1997: Cambior estimated, at a 0.5 g Au/t cut-off in saprolite / “laterite” and a 0.7 g Au/t cut-off in transition / fresh rock, resources of 16.817 Mt grading 1.1 g Au/t (630,000 oz Au) in measured and indicated categories and of 8.163 Mt grading 2.0 g Au/t (311,543 oz Au) in the inferred category (not constrained by pit).
- April 1998: Cambior estimated, at a price of US$ 400/oz Au, resources of 21.905 Mt grading 1.1 g Au/t (779,000 oz Au) in measured and indicated categories and of 21.993 Mt grading 1.1 g Au/t (792,700 oz Au) in the inferred category, unconstrained by a pit. Cambior also estimated pit-constrained measured and indicated resources within a 45°Whittle pit and at US$ 400/oz at 12.368 Mt grading 1.2 g Au/t (474,300 oz Au).
- April 1998: Guyanor, using the same parameters and Whittle pit as Cambior and a price of US$ 400 /oz Au, estimated pit-constrained resources of 22.123 Mt grading 1.15 g Au/t (814,808 oz Au) in the measured and indicated categories and of 1.692 Mt grading 1.2 g Au/t (489,795 oz Au) in the inferred category.
- August 1998: Cambior constrained the measured and indicated resources within a 45°Whittle pit and at US$ 400/oz price, estimating 7,780 Mt grading 1.3 g Au/t (335,700 oz Au) in the measured and indicated categories and 6,120 Mt grading 1.5 g Au/t (286,900 oz Au) in the inferred category.
- 2004: RSG Global, contracted by Guyanor, using a price of US$425/oz Au, estimated pit-constrained resources of 5.475 million tonnes grading 1.47 g Au/t with “mineralized waste” of 141.9 Mt grading 0.88 g Au/t for a total of 288,300 oz Au in saprolite and of 4.052 Mt grading 1.29 g Au/t with “mineralized waste” of 66.1 Mt grading 0.7 g Au/t for a total of 186,000 oz Au in “laterite”.
- 2012: OSEAD with Geovariance, using only drill hole data and excluding trenches and auger results, estimated a pit-unconstrained resource for each type of material at 0.0, 0.5, 0.7 and 1.0 g Au/t cut-off. The total resource at 0.7 g Au/t cut-off was estimated at 18.315 Mt averaging 1.14 g Au/t for a total of 673,000 oz Au.

Although the later resource estimates followed guidelines and definitions outlined by the CIM or JORC Committee, no QP had undertaken validation of the drilling database and no independent check assays had been conducted. Therefore, these mineral resources cannot be considered in conformance with CIM standards or suitable for reporting under NI 43-101. Additional details on the resources are described in Section 6.3 of the Report.

1.6 Geological Setting

The Guiana Shield covers part of Brazil, Colombia, Venezuela and the three Guianas (Guyana, Suriname and French Guiana). This Shield consists of Archean protoliths, between which Paleoproterozoic rocks (2.2 to 2.0 Ga) are widely developed, including low-grade metamorphosed sedimentary and volcanic sequences and granite, and medium-grade metamorphic terranes.

This evolution in French Guiana began with the formation of Eorhyacian (2.26 - 2.20 Ga) gabbroic rocks from "Île de Cayenne Complex". Then, from 2.18 to 2.13 Ga, came a period of dominant tonalite-trondhjemite-granodiorite ("TTG") type magmatism and regionally associated greenstone belts. It has been interpreted as multi-pulse island-arc plutonic-volcanism in response to a main southward-directed subduction during a D1 event related to a N-S oriented convergence of the African and Amazonian Archean blocks. TTG association forms a large batholith (Central Guiana Complex, CGC) in central French Guiana.

North and south of this Central Guiana Complex, volcano-sedimentary units occur in two "synclinoria", a southern greenstone belt and a northern greenstone belt which merge westward toward Suriname into a single greenstone belt. The lowest stratigraphic formations consist essentially of basaltic to rhyolitic lava and pyroclastic rocks (Paramaca Formation, 2.156 ± 0.006 Ga), intercalated with scarce sericite-chlorite schist and flysch-type formation (Armina Formation) with a minimum age of 2.132 ± 0.003 Ga.

Granitic magmatism and minor gabbroic intrusions then occurred at ca. 2.11 - 2.08 Ga in response to the closure of the island-arc basins, with an evolution from southward-directed subduction to sinistral wrenching ("D2a"). In northern French Guiana, the D2a transcurrent sinistral event was marked by the opening of late detrital basins, along the northern limb of the central TTG complex (pull-apart basins). The overlying Upper Detrital Unit ("UDU") crops out exclusively in northern French Guiana where it constitutes a geological entity, the "North Guiana Trough" ("NGT"), composed of sandstones and conglomerates, including monogenic gold-bearing conglomerates, with a minimum age of 2.115 ± 0.004 Ga. During the D2b (2.07 - 2.06 Ga), late metaluminous monzogranite were emplaced along a WNW-ESE dextral strike-slip corridor, and dissecting pull-apart basins.

Dyke swarms, marking the precursor stages of the opening of the Atlantic Ocean, cut all the Paleoproterozoic lithologies.

The Dorlin Project is underlain by a sub-vertical sequence of eastward younging mafic to intermediate volcanics comprised of volcanic lava, tuff and lapilli tuff facies. Locally, zones of these tuff sequences are altered by intense silica-tourmaline replacement, which are defined as discrete stratigraphic units within the overall sequence. The silica-tourmaline unit outcrops well due to its high resistance to weathering and is closely associated with gold mineralisation in the Nivré deposit area.

To the west of the Project area, Guyanais granitoids dominate. These are poorly exposed but develop a white sandy gravel which is clearly observed in the streams draining them.

To the east of the Dorlin Project, additional mafic and intermediate volcanics are encountered in the East Inini prospects area. Although not observed in outcrop, an ultramafic north-south “lineament” derived from ICP data (anomalous Cr, Ni, Co) crosses this same area of the Project and extends northward to the Jadfar area. The age relationship of these ultramafic and volcanic units in this eastern area have not been determined with respect to the volcanic packages observed at Nivré.

Through the central part of the Project, occasional outcrops of sericite schist are noted, although this zone is mostly observed in remote sensing data, such as potassium counts. The protolith is presumed to be part of the Paramaca volcanic package.

Deep weathering at Dorlin has resulted in the development of an incomplete and discontinuous lateritic profile. A locally thick duricrust is partly dismantled. Slopes are covered by a locally extensive layer of colluvium generally gold enriched in mineralised areas. Colluvium is especially deep on the eastern flank of Montagne Nivré, where landslides have locally caused considerable thickening. The saprolitic layer on Nivré, presents variable depths, ranging from nothing, where large, little weathered silica tourmaline bodies occur, to depths of 80 m in areas of thick feldspar porphyry bodies.

Remnants of older thick and complete duricrust plateaux cover significant parts of Nord Inini. The duricrust, where directly observed, is up to 2 m thick and in places appears to mask the underlying gold geochemistry.

A strong and penetrative schistosity affects all Paramaca volcanics with an increase in intensity inside the sericite schist "belt". This schistosity (S1) predominantly dips to the east at 60°-80° and typically strikes between 140° and 170°. A second schistosity (S2) also affects the Paramaca volcanics and generally dips more steeply to the east and is frequently sub-vertical; strikes normally vary between 170° and 200°.

Regional drainage patterns indicate three major fault directions. An approximately 160°orientation (NNW-SSE), parallel to S1 in the Dorlin area. The second is 040° to 050° (NE-SW) and is followed by many of the major streams in the Dorlin area. The third is broadly E-W and appears to mainly affect the Nivré-South Inini area.

1.7 Mineralization

The Dorlin Project area has numerous areas with anomalous gold regolith geochemistry. The principal mineralised zones have been explored by RGD and previous operators, but most of the exploration focus remained on the Nivré area.

Because of both the steep slopes on the eastern flank of Montagne Nivré and the cropping out of primary mineralisation near the crest of the ridge, a thick and gold-enriched colluvial layer has developed. This layer is typically composed of poorly sorted red gravely clay including boulders of duricrust remnants and silica-tourmaline facies, with an average thickness of approximately 6 m. On the lower parts of the slopes (e.g.: Johnny Wait prospect), landslides and slumping locally cause significant thickening (of up to 35 m).

Primary mineralisation on Nivré East zone can de divided into three main groups; the eastern massive silica-tourmaline body, the western semi massive and disseminated silica-tourmaline bodies, silica-pyrite (not necessarily with tourmaline) altered tuffs and lapilli-tuffs. The eastern massive silica-tourmaline body is the most significant mineralised unit on Nivré East. It is extremely continuous for over one kilometre. The massive body strikes N 350° and dip varies from approximately 75° E in the north to sub-vertical in the south. Its thickness reaches 50 m in the central area.

Ductile deformation of the massive body is rare, but fracturing can be quite intense. Mineralisation is usually associated with high pyrite content (from 5 to 25% locally). The pyrite, a ubiquitous component of these bodies, is disseminated or in massive to sub-massive veinlets (+ quartz and carbonate). West of this massive unit, numerous semi-massive (typically 5 to 10 m thick) silica-tourmaline facies bodies occur along with disseminated much thinner bodies. Dip angles, strike, textures, mineralogy and mineralisation types are like those of the massive body.

1.8 Deposit Types

Three main types of primary gold deposits have been recognized in French Guiana, based on textural features and geological setting (adapted from Milesi *et al.*, 2003), as follows:

1. Stratiform/stratabound gold-bearing tourmalinites (essentially pre-D1), in which gold is associated with disseminated sulphides, hosted by the volcanic and sedimentary rocks of the Paramaca Formation.
2. Gold-bearing conglomerates (D2-related): disseminated gold hosted by the Upper Detrital Unit of the North Guiana Trough.
3. Mesothermal-orogenic ore deposits (D2-related): This type of discordant polymorph mineralization is represented by quartz-carbonate-sulphide veins and stockworks, essentially hosted by the Paramaca Formation and granitoids.

Nivré is considered one of the best examples of a tourmalinite-hosted gold deposit, in which an orebody is produced by polydeformation of a large stratabound sulphide deposit hosted by volcanic and volcanoclastic rocks, metamorphosed to greenschist facies (Milesi *et al.*, 1988; Lerouge *et al.*, 1999).

1.9 Exploration

RGB initiated its exploration program in September 2017. Considering that exploration work in the Project was interrupted in 1998, RGB needed to validate the historical geological database used for prior resource estimates. This validation work included geological relogging and resampling of available core and drilling "twin" holes to demonstrate that historical results could be used for ongoing resource estimates. 7,147 m of Nivré drill core were relogged, representing all available core, and 854 validation samples were collected. This work indicated a good correlation and no significant analytical bias between the laboratories used in the 1990s and laboratories used by RGD. Minor nugget effect was identified when assessing the correlation of higher-grades.

Six validation holes ("almost twins") totaling 760 m were drilled further proving the validity of the historical drill results. Subsequently, 50 "expansion" drill holes totaling 5,825 m were drilled. This was followed by the re-interpretation of group lithologies in units and 3D modeling to constrain and model gold according to its host rocks.

A gradient array induced polarization ("IP") and resistivity survey has been carried out since November 2018, by Matrix Geotechnologies Ltd. over the Nivré deposit and other prospects. Results from the geophysical survey show a strong correlation between chargeability and zones of gold mineralization, likely due to the often-observed spatial association of gold with pyrite within the deposit area. Resistive highs appear to be associated with zones of silicification (and tourmalinisation). The results from this survey are being used in the definition of further drill targets within the Dorlin Project area.

Field mapping and rock sampling was carried out on the Roche d'Olon and Sept Kilos prospect areas during 2018, to delineate additional prospective areas for drill targeting gold mineralization. The outcrops of the Roche d'Olon prospect comprises the same lithologies as those found on the Nivré area, namely the strongly altered silica-tourmaline facies, in addition to some outcrops of intrusive porphyry. It has been interpreted that the silica-tourmaline facies continue north from Nivré East. This is further confirmed by results from the IP geophysical survey. In follow-up to historical auger sampling, fieldwork focused on the assessment of boron anomalies that extend through Sept Kilos, terminating in the north of the prospect. Within this wider boron anomaly, silica-tourmaline alteration zones have been mapped and sampled.

1.10 Drilling

Historically, 182 drill holes and 24,625 m were drilled in the permit by various operators (BRGM, BRGM-BHP and Guyanor-Cambior). Out of this, only 23 holes for a total of 2,768 m representing 13% of the total drilled length were drilled outside Nivré.

In 2018, RGD completed a validation program of six holes (seven when including the first 20 m of the first hole that were re-drilled) for 760 m and an expansion program of 50 holes for 5,825 additional metres for a total in the 2018 program of 57 drill holes and 6,585 m.

All 2018 drill collars were surveyed by a registered surveyor with a +/- 2 cm accuracy. All easting and northing measurements were recorded in RGFG95 UTM zone 22, while elevations were measured in NGG77. In addition to the 2018 drill collars, a selection of ten widespread historical holes were also surveyed and no significant differences on collar coordinates were reported for the historical holes.

Down-hole surveys are measured by the drillers using a REFLEX EZ SHOT instrument. Surveys are made at depths of 15, 45, 75, 105 m (etc.) until the end of the drill hole. The measure at 15 m allows to check the proper orientation of the drill hole before it is completed. To avoid errors in surface measurement of the drill hole direction and dip, it was decided to use the 15 m down-hole measure as the collar direction and dip.

Following transportation of the core boxes from the drill rig to the camp, they were then laid out at the core shed and verified by geology staff. Cleaning of core is done using water sprayers and gently brushing the core, never directly using a water hose. Core is logged on inclined logging tables. The geological technician carries out systematic measurements of core runs and marks each meter directly on the core. This is followed by logging and measurements including core recoveries, simple rock quality designation (RQD) and rock strength (hardness).

All NQ drilling uses a Reflex ACT III tool for orientation, and the bottom of the hole is marked by the drill crew when the core is retrieved and pumped from the inner tube. Wherever there are two successive orientation marks or more, an orientation line is marked in red denoting the bottom of the core, with arrows indicating the downhole direction.

The measurement of magnetic susceptibility is done using a Terraplus KT-10 instrument. The measurements are usually made at every metre on the whole core before it is sawed.

Logging is made by the geologist on Excel templates with notebooks, using pull-down menus to minimize typing errors and capture data consistently among geologists. A description of each sample is made, along with geological descriptions and other notes on mineralization and alteration. Quantitative (in cm or %) to semi quantitative (1 to 5) estimates are made for shearing/schistosity, cumulative quartz vein, intensity of silica, carbonates, sericite, epidote, chlorite, leucoxene, fuchsite, biotite, tourmaline, magnetite, clay, kaolinite, limonite, hematite, iron-copper-manganese oxides, pyrite boxwork, pyrite, chalcopyrite, arsenopyrite, other sulphides. Visible gold is noted, and the last column is left for descriptions.

Structural measurements are made on fresh rock and whole core by the logging geologist in charge of the drill hole. The structural measurements are captured on an Excel spreadsheet and for each drill hole, the geologist completes a structural report.

Core boxes are photographed on an inclined frame. One photography either covers four boxes of HQ core (about 8 m) or three boxes of NQ core (about 9 m), using a color chart for eventual corrections.

The geologist prepares the sample plan on the log and assigns sample numbers to the sampling intervals during logging. Core boxes containing saprock and fresh rock are cut using the on-site diamond-blade core saws, while core boxes containing saprolite are sampled using a trowel to slice the core in half. The left side of the core looking downhole is sampled and bagged with a sample tag while the other half remains in the core box for future observations or other analyses. A second tag is placed in the core box at the end of the sample interval.

Once sampling is completed, both the original samples and QA/QC samples are added to rice bags for transport. Individual sample bags are closed using single-use plastic straps, while rice bags are sealed using numbered security tags and both remains unopened until arrival at the assay laboratory, thus guaranteeing sample integrity.

Each sample submission form contains samples from only one hole and comprise several bags, each up to 20 kg in weight. The sealed bags are stored in a locked room at camp at the end of each day while awaiting the next available transport (by helicopter or light aircraft) to the Cayenne office. Upon arrival in Cayenne, the sealed bags are stored in another locked room pending a weekly transport to the laboratory. About 2,550 kilograms of samples were shipped each week during 2018.

Samples from drill holes DO-18-144 through DO-18-176 were shipped to MSA Analytical in Georgetown, Guyana, after which a change in assay laboratory was made due to delays with customs and shipping. Samples from drill holes DO-18-177 to DO-18-193A were shipped to FILAB AMSUD in Paramaribo, Suriname.

The transportation process for samples leaving Cayenne is as follows: samples for MS Analytical were loaded onto a closed truck at the Ressources Réunion office in Rémire-Montjoly, and traveled to Suriname, where they spend the night in the transporter's garage before heading to Georgetown the next day. During the second part of the 2018 drill program, the same process took one day, with samples going from the Remire-Montjoly office to FILAB-AMSUD in Paramaribo without any stops.

1.11 Sample Preparation, Analyses and Security

All core samples were either sent to MS Analytical in Georgetown, Guyana or FILAB-AMSUD in Paramaribo, Suriname. Both are accredited laboratories for quality procedure. FILAB was used for one shipment of reanalyses from historical mineralized core still available at the Yaou camp at the beginning of the exploration program. FILAB was also used for the end of the drill program from drill hole DO-18-177 to DO-18-193A. MS-Analytical was used for most of the historic assay validation and for drill holes DO-18-144 to DO-18-176.

At MS-Analytical, samples are dried for 12 hours at 105°C and crushed to 2 mm in Rocklabs automatic crushers. A 500 g split sub-sample is then pulverized to 75 microns with an 85% pass rate. At FILAB, samples are dried for 4 to 24 hours according to the moisture content at 105°C in an electric oven, then crushed to 2.5 millimetres ("mm") using a jaw crusher. A sub-sample of 500 g is then pulverized to minus 90 microns with an 85% pass rate.

At MS-Analytical, a 50 g fire assay is carried out on the prepared pulp sample, using an atomic absorption spectrometric (AAS) finish. Samples with assays above 10 grams per tonnes of gold are re-assayed using gravimetric finish. At FILAB, fire assay analyses were completed on either 30 g (FA30) or 50 g (FA50) aliquots with an AAS finish. Samples above five grams per tonne of gold were re-assayed using a gravimetric finish.

Standard control samples (or certified reference materials) are regularly inserted every 25 samples, but some extra standards are added in mineralized zones at the discretion of the geologist. Coarse blanks are routinely inserted every 25 samples and extra coarse blanks are added as the first sample of the batch and immediately after any suspected high-grade mineralized interval. Field duplicate were inserted every 20 samples.

When sample results are received, the QA/QC manager immediately assesses the results. In cases of failing controls according to a strict protocol, re-assaying of samples is requested. All assays including initial failures are entered in the Excel and in the acQuire software-validated databases.

To assess the possibility of any analytical bias between the two laboratories used during the 2017-2018 programs, a total of 221 pulp duplicates of assays completed at MS Analytical were sent to FILAB to be re-assayed. Graphs indicate a good correlation between the two laboratories.

Coarse blank samples are inserted to assess contamination during the preparation of the samples at the laboratory. The blank samples are coarse-grained (2-4 cm) and undergo both stages of sample preparation: crushing and pulverizing. Most blank samples fall within the acceptable limit set at five times the detection limit. The few exceptions remained minor failures and do not indicate possible smearing of gold during the preparation stage at both laboratories.

Duplicates are used to assess field, preparation and analytical precision. The pulp duplicates record errors of analyses. They are assessed using correlation plots. The correlations for the Dorlin samples are excellent, proving the analytical precision at both laboratories. The coarse duplicates indicate the error of sample size reduction in the preparation lab and the error of analyses. The correlation between the original and duplicate samples is excellent, proving that sample preparation and reduction are also correct at both laboratories. The field duplicates are used to calculate field, preparation and analytical precision. Dispersion is greater at MS-Analytical than at FILAB. However, this may be a function of MS-Analytical receiving more high-grade assays than FILAB. High-grade samples are often subject to a greater nugget effect and therefore lower repeatability than with lower grade samples.

The standards are used to monitor the laboratory assay accuracy. RGD uses several types of standards purchased from the CDN Resource Laboratory Ltd in Vancouver. Target grades of the standards are cut-off grade, average grade of the deposit, medium-grade and high-grade. In addition, the standards are either made of oxide to be inserted with saprolite samples or rock for fresh samples. Care is also paid to the media of the standard samples to be coherent with the Dorlin core. Despite occasional failure, the standard results show that the assays may be used for resource estimate.

The chain of custody includes an independent audit of the drill data entered and validated in the acQuire software by an arms-length consultant (gDAT Applied Solutions) that audited the acQuire drill database and run independent QA/QC controls prior to directly handing over exports from the acQuire-validated database and an accompanying report to GMSI bringing an extra level of data security to the process.

1.12 Data Verification

Data verification performed by GMSI comprises of a site visit to the Dorlin Project (undertaken between August 16th and August 19th, 2018), and drill hole database validations.

During the site visit, Mr. Rejean Sirois, P.Eng., the Qualified Person ("QP") for the Nivré mineral resource estimation reviewed the data from historical drilling by Cambior and Guyanor, aiming at confirming the geology descriptions, weathering profiles and the previous gold assay results received by Guyanor and Cambior. In addition, the sampling protocols, QA/QC and best practices were audited by the QP. Historical drill collars were visited, and validation twin hole results were reviewed and compared with historical values.

Independent assaying of 2018 drilling and historical drilling by the QP confirmed assays present in the database. The drill hole database was validated internally by GMSI, and no significant errors were found.

1.13 Mineral Processing and Metallurgical Testing

In 1998, Cambior requested to the Centre des Recherches Minérales located at Sainte Foy, Québec, metallurgical tests on eight samples coming from the Dorlin and Yaou Projects, considered at the time as a single project (M. Saint-Jean, 1998). Four of these samples were from Yaou and four were from Dorlin but it is unclear which were coming from each project as appendices of the report are missing. Details on each composite sample are missing although three were from saprolite and five from fresh rock. Cyanidation on pulverized samples at 70% passing 200 mesh recovered from 81.8 to 97.8% of the contained gold. The average recovery of the eight composites is 92%.

Cambior in its pit constrained resource estimate of 1998 (F. Clouston, 1998) for the Dorlin Project, used a 93% recovery for the estimate. GMSI has used the same recovery for the current estimate. Additional work is required on metallurgical testing.

1.14 Mineral Resources Estimate

GMSI prepared a mineral resource estimate for the Dorlin Project based on data provided up to and including the 14th January 2019. This database included all available historical drilling by BHP/BRGM and

Guyanor Resources (182 holes), and drilling completed by RGD in 2018 (57 holes for 6,585 m). In addition, 962 shallow auger holes and 2,311 m of trenching data was made available. GMSI has reviewed the database and is satisfied that the integrity of the drilling database is of an acceptable standard and can be used for resource estimation.

An interpretation of geological domains was provided to GMSI in the form of hand-drawn sections and a drilling interval file. This information was incorporated into Leapfrog GEO™ and each domain was interrogated in 3D to determine if it was a valid domain for resource estimation. The Nivré deposit has a geological model that contains 10 lithological codes, which cover following lithologies; laterite-colluvium, weakly unaltered tuffs, strongly altered tuffs, tourmalinite and an individual quartz vein. GMSI adjusted the geological model to better reflect gold mineralisation (rather than alteration), resulting in a model more suitable for resource estimation.

Four additional surfaces were generated based on weathering data provided: 1) Laterite-Colluvium, 2) Saprolite, 3) Transition and 4) Fresh. A LiDAR topography surface for Nivré deposit was provided to GMSI and integrated to the geological model.

Length-weighted statistics of the raw assays were computed using R statistical software. A specific grade capping was applied to the raw assays for each domain based on probability plots of the raw assays. GMSI capped 69 assays in total, which resulted in a reduction of the global mean from 0.49 g/t to 0.45 g/t, and a reduction in metal content of 8.4%.

The capped raw-assays were composited into 1.5 m run length (down-hole) within each of the lithology domains. Unsampled intervals were assigned a zero grade for historical drilling.

The database includes specific gravity measurement from 1,736 samples collected from drill core. Density was assigned based on weathering codes using the median value for each weathering type.

Experimental correlograms were modelled using a single grouped domain consisting of all UTO domains and the UTTA domain for the Nivré East zone only. Correlograms were also produced for the laterite domain, which were unfolded to horizontal.

GMSI constructed a block model in Geovia GEMS ™ using the refined geological model built based on geological sections and drill hole intervals provided by Dominique Fournier of Reunion Gold. The geological model contains both lithological and weathering interpretations. The chosen block size was 5m (X) by 10 m (Y) by 5 m (Z), and the model was rotated 17.5 degrees anticlockwise from north. GMSI used a percentage block model type to more accurately represent the laterite domain.

The interpolation technique selected to estimate the Nivré deposit block model is the Ordinary Kriging ("OK") method with 1.5 m composited capped gold grades using a four-pass interpolation strategy. In addition, a high-grade restraining was implemented to control the extrapolation of high-grades in later estimation passes. Lithological domains were considered as hard boundaries for all domains. For the laterite domain, two search ellipses were used to model the two flanks of the hill (east and west). For all other domains, a narrow lenses-like search ellipse dipping steeply to the ENE was used with a narrow Z-Axis. The search ellipse distances progressively increase from 40 m x 40 m x 20 m (laterite domain) and 60 m x 60 m x 15 m (all other domains) in the first interpolation pass towards longer distances up to 100 m x 100 m x 40 m (laterite domain only) and up to 120 m x 120 m x 30 m (all other domains) in the fourth pass.

Resource classification was determined from estimation pass and distance from the 50 m x 50 m drilling pattern at the Nivré East zone. Indicated Mineral Resources are blocks estimated in Pass 1 or 2 within the vicinity of the 50 m x 50 m drilling pattern at Nivré East. Inferred Mineral Resources are blocks estimated in Pass 1 or 2 outside of the 50 m x 50 m drilling pattern at Nivré East, and all blocks estimated in Pass 3.

The block model was validated using visual validation, global comparative statistics by domain, swath plots and Q:Q (quantile-quantile) plots comparing Inverse Distance Cubed (“ID^3”) to OK interpolation methods.

The Total Open-Pit Constrained Mineral Resource as of the 2nd March 2019 is 18.9 Mt at 1.09 g Au/t for 665,000 oz in the Indicated Category, and 26.0 Mt at 1.06 g Au/t for 884,000 oz in the Inferred Category. A detailed breakdown of the total Mineral Resource by weathering type is show in Table 1.1.

For the Whittle pit optimization constraining the resource, a price of US$1,250/oz Au was used, with a 93% metallurgical recovery and a US$/€ exchange rate of 0.86. Mining dilution was included (5% in saprolite, 10% in fresh rock) when producing the Whittle shells for the declaration of the Mineral Resource.

Table 1.1: Open-pit Constrained Total Mineral Resource for All Nivré Deposits Combined

Weathering	Lower Cut-off	Indicated Resources			Inferred Resources		
		Tonnes (Mt)	Grade (g Au/t)	Ounces (000s)	Tonnes (Mt)	Grade (g Au/t)	Ounces (000s)
Laterite/Colluvium	0.40 g/t	3.0	1.02	99	5.6	0.99	179
Saprolite	0.40 g/t	3.2	0.89	91	9.7	0.91	282
Transition	0.53 g/t	3.3	1.17	124	3.8	1.10	134
Fresh	0.63 g/t	9.4	1.16	351	6.9	1.30	288
Total	***Various***	**18.9**	**1.09**	**665**	**26.0**	**1.06**	**883**

Notes on the Mineral Resource Estimate:

(1) *Mineral Resources are reported using a gold price of US$ 1250/ounce*
(2) *The metallurgical testing was set as 93% for all types of weathering based on historical metallurgy testing.*
(3) *US$/€ exchange rate was set at 0.86.*
(4) *Cut-off grade of 0.40 g Au/t was used for colluvium/laterite and for saprolite, 0.53 g Au/t was used for transition and 0.63 g Au/t for fresh rock.*
(5) *Only Indicated and Inferred blocks were considered during the optimization.*
(6) *Mining dilution was included (5% in saprolite, 10% in fresh rock) when producing the whittle shells but the Mineral Resources are reported undiluted.*
(7) *A royalty was estimated at 2.27%.*
(8) *Resource classification was determined from estimation pass and distance from the 50 m x 50 m drilling pattern at Nivré East zone: Indicated Resources – Blocks estimated in pass 1 or 2 within the vicinity of the 50 m x 50 m drilling pattern at Nivré East. Inferred Resources – Blocks estimated in pass 1 or 2 outside of the 50 m x 50 m drilling pattern, and all blocks estimated in pass 3.*
(9) *Rock bulk densities were assigned by weathering type (colluvium/laterite, saprolite, transition, fresh rock), and values were derived from the average of drill core measurements.*
(10) *Classification of Mineral Resources conforms to CIM definitions.*
(11) *The qualified person for the estimate is Mr. Réjean Sirois, P. Eng, Vice President Geology and Resources for GMSI. The estimate has an effective date of March 2nd, 2019.*
(12) *Mineral Resources do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.*
(13) *The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured Mineral Resources.*

1.15 Environmental Studies and Permitting

The Nivré Mountain and surrounding areas were the object of intense environmental studies starting with Guyanor in 1999, then with SMYD in 2014 and RGB in 2017. All environmental aspects were addressed by these studies. The highest environmental stakes in the area are with the fauna and flora. Several species are protected and one of them at least, *Rupicola* or “coq of the rock”, will require exemptions to work in their habitat. Several planned drill holes in the nesting area were relinquished in 2018 although no bird was ever seen since 1998. However, identification of recent nests indicates an occasional presence of the bird at Nivré. Several studies were completed by biologists for RGD and additional have been ordered to work on a compensation plan for these exemptions. It should be noted that the coq of the rock is present all over the Guiana Shield.

In addition, there are indications of Amerindian sites on the top of the Nivré Mountain that will deserve additional archaeological conservation work before being drilled or mined. This work will be planned to avoid slowing down permitting and drilling work.

1.16 Adjacent Properties

The only adjacent property to the Dorlin permit is a 1 km² AEX for alluvial gold mining held by Ermina SARL.

1.17 Recommendations

GMSI recommendations focus on the development and elaboration of the geological model (in relation to gold mineralisation controls), and the weathering model where understanding at present is limited. GMSI also recommends regular down-hole measurements of bulk density to improve the confidence in the weathering types and total tonnages. Lastly, the collection of metallurgical and geochemical samples (arsenic and sulphur) is recommended to elaborate on the existing historical metallurgy test work, and to investigate if arsenic or sulphur influence gold recovery.

2. INTRODUCTION

The Dorlin Project has been subjected to on-ground exploration since 1974 when region was explored by the BRGM. The most significant exploration campaigns occurred in the 1990's when the Nivré deposit was explored and delineated by drilling by Guyanor Ressources and Cambior Inc. A mineral resource was released in 1998. Due to illegal mining of the Nivré deposit and a depressed gold price, the project remained relatively dormant until 2013, when the army / *gendarmerie* involvement gradually resulted in the removal of illegal miners in the region over the following 2-3 years. RGD entered the project in 2017.

RGD has conducted validation and exploratory drilling in 2018 with the aim of validating the historical drilling database, and test for extensions to the north of the Nivré deposit. Drilling is now at an enough density and quality to allow the estimation of a maiden Mineral Resource Estimate in conformity with NI 43-101.

2.1 Scope of Work

RGD has retained the services of GMSI to prepare an Independent Mineral Resource estimate for the Nivré deposit (part of the greater Dorlin Project). No previous NI 43-101 Technical Report has been issued on the Project. This independent Technical Report was prepared to support the mineral resource estimate for the Project prepared by GMSI and disclosed by RGD by press release on March 14, 2019.

2.2 Qualifications and Experience

This Mineral Resource Estimate has been produced under the supervision of Mr. Réjean Sirois P.Eng. and is considered the Qualified Person (QP) for this Report. Mr. Réjean Sirois has significant experience in producing Mineral Resources of gold deposits in the Guiana Shield, and other orogenic gold deposits around the world (West Africa, Eastern Canada).

2.3 Site Visits

A site visit was undertaken between August 16th and August 19th, 2018 by Mr. Rejean Sirois, P.Eng., the QP for the Nivré mineral resource estimation.

2.4 Units of Measure, Abbreviations and Nomenclature

All coordinates used in the Mineral Resource reference the RGFG95 Datum (Réseau Géodésique Français de Guyane 1995) and relate to the UTM 22N coordinate system. All units of measure are in International System of Units (SI).

3. RELIANCE ON OTHER EXPERTS

The authors of this Report have gathered information from a variety of sources, notably Sections 4, 5 and 20 which have been provided by Dominique Fournier, Exploration Manager at Reunion Gold.

The authors have relied on this information to describe, in Section 4, the mineral rights, permit requirements and contractual rights relating to the Dorlin Project.

For Section 5, the authors have relied on written text provided by Reunion Gold regarding the accessibility, climate, infrastructure, physiography.

For Section 20, the majority of information has been sourced from recent environmental impact assessments by GeoPlus Environnement, which act as a basis for the text in this section. Reunion Gold provided the authors of this report with a summarised version for inclusion in Section 20.

The authors have made every attempt to accurately describe and convey the information contained in these sources, however we cannot guarantee the accuracy, validity or completeness of the data. Therefore, the authors rely on the accuracy of this information used to prepare Sections 4, 5 and 20 of this report.

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4. PROJECT DESCRIPTION AND LOCATION

4.1 Location

The Nivré deposit is found in the Nivré Mountain massif which culminates at 395 metres and is located near the Petit Inini river, 57 kilometres east of the village of Maripasoula, in central French Guiana (see Figure 4.1).

The village of Maripasoula is located on the right bank of the Lawa river (upper part of the Maroni River) about 230 kilometres southwest of the town of Cayenne, the capital of the Overseas Department of French Guiana. The Maripasoula municipality covers a territory of 18,360 km² and its geographical center coordinates are 03° 38' 40” North / 54° 02' 02” West. In terms of surface area, Maripasoula is the largest municipality in France.

RGD uses a camp established by SMYD, the subsidiary of Auplata SA holding the Dorlin mining lease. The camp is located northeast of the Nivré deposit next to the Petit Inini River in the southern part of the lease (see Figure 4.1).

Figure 4.1: Location of the Dorlin *PEX*

4.2 Mineral Tenure

4.2.1 Mining Regulations

Under the French Mining Code, mines can only be exploited under a concession or by the state, and for the overseas departments like French Guiana, by virtue of an operating authorization ("AEX") or an operating (exploitation) permit ("PEX") (art. L. 131-1 and L. 611-1, mining code). Since the Dorlin project is covered by an exploitation permit, as explained below, the process for permitting exploration activities alone, which are done through an exploration permit (a "PER"; that may eventually lead to the application of an exploitation lease) is not explained here.

4.2.1.1 Exploitation Permit (PEX)

A PEX confers an exclusive right of exploitation on the substances mentioned in the granting decree (art. L. 611-17, mining code). The PEX alone does not allow carrying out of specific exploration or mining work, which in turn requires a declaration ("DOTM") or authorisation ("AOTM") according to their nature. However, only the holder of a PEX holds the right to request such permission to carry out any activities, including mining operations, on the area covered by the PEX.

A PEX is granted for a maximum initial period of five years by ministerial order following local instruction by the *Direction de l'Environnement, de l'Aménagement et du Logement* ("DEAL"), national instruction by the Minister responsible for Mines, and an opinion of the General Council for the economy, industry, energy and technology ("CGEIET").

The validity of the PEX can be renewed twice. If an exploitation license expires before the end of the operation, mining can only then continue under a concession.

4.2.1.2 Concession (CON)

The concession is the equivalent of mining title. The institution of a concession creates a real estate right separate from the property of the surface. However, the concession alone does not allow the realization of any work, which requires a declaration ("DOTM") or an authorization ("AOTM") based on their nature.

The concessionaire holds the right to declare or request permission to start exploration and operating work on the entire surface covered by the concession. There are no constraints on the shape and the size of the concession. The concession is granted for a maximum initial period of 50 years, by order in Council of State after a local directive (by the DEAL), national instruction (by the minister responsible for mines), and an opinion of the CGEIET.

The application for a concession is submitted for public review for a period of 30 days, and conjunctly for auction, allowing any person or company to file an application for a concession, presented under the same conditions, within 30 days of the issuance of the auction notice. However, there is no auction required for an existing holder of a valid PER or PEX. The duration of a mining concession may be subject to successive extensions, each for a period of less than or equal to 25 years.

4.2.1.3 Declaration / Authorization of work (DOTM or AOTM)

In addition to the mining titles, any activities of mining, drilling or earthworks require a DOTM or an AOTM for such work, depending on the scale of the planned activities. The AOTM requires a full Environmental Impact Assessment and the administrative process takes longer.

Mining operations are always under the scope of an AOTM. Both an AOTM or a DOTM may be used to permit exploration activities but depending on either (i) drill density and purpose of exploratory boreholes (definition drilling requires an AOTM), (ii) the volume of ground disturbance (threshold set at 20,000 m^3), or (iii) the impact of the work, one or the other will be required.

The approval for the AOTM or DOTM is made locally in French Guiana by the DEAL. An application is made for each group of activities, and the DEAL has 35 days to decide between requiring an AOTM or a DOTM. No decision within 35 days defaults to an AOTM being required. An application for an AOTM is submitted to a public review for a period of 30 days to three months, depending on the activities involved. The AOTM is then to be issued by the Prefect and takes 12 to 18 months to be granted. A DOTM application is also processed locally by the DEAL and takes two months for an approval to be received.

4.2.2 Dorlin Exploitation Permit

The project is located within the operating licence (*Permis d'Exploitation* or PEX) number 12/2010, also named Dorlin. The Dorlin PEX covers an area of 84 km^2, or 8,400 ha. This PEX for gold and related substances was granted to SMYD for a period of five years on July 31, 2010 (Ministerial order DEV01019326A dated July 22, 2010, published in the official Journal of the French Republic of July 31, 2010).

Table 4.1: Coordinates of the Dorlin PEX

Corner	UTM CSG67 Zone 22		UTM RGFG95 Zone 22		LAT/LONG	
	E	N	E	N	W	N
A	215760	410100	215758	410212	53° 33' 32,000"	3° 42' 27,178"
B	215760	420100	215758	420212	53° 33' 33,000"	3° 47' 52,540"
C	214260	420100	214258	420212	53° 34' 21,511"	3° 47' 52,396"
D	214260	425100	214258	425212	53° 34' 22,000"	3° 50' 35,075"
E	219260	425100	219258	425212	53° 31' 40,034"	3° 50' 35,500"
F	219260	420100	219258	420212	53° 31',39,558"	3° 47' 52,876"
G	220760	420100	220758	420212	53° 30' 50,971"	3° 47' 53,018"
H	220760	416100	220758	416212	53° 30' 50,596"	3° 45' 42,868"
I	222260	416100	222258	416212	53° 30' 02,010"	3° 45' 43,009"
J	222260	410100	222258	410212	53° 30' 01,457"	3° 42' 27,782"

An application for the renewal of the licence over the same area and for five years was filed by SMYD on June 30, 2015. The renewal of the PEX has not yet been granted, but the application extends the validity of the PEX until it is either granted or rejected for renewal. There is no logical reason for this application to be rejected; and therefore, the title is in good standing.

The intention of SMYD, with the approval and support from its partner RGD, is to file a concession application before the end of the 2nd five-year term of the exploitation licence.

4.2.3 Option from SMYD

On February 4, 2017, RGD entered into an option agreement with SMYD a subsidiary of Auplata S.A., a French company listed on Euronext Growth, to acquire a 75% interest in the Dorlin Project in French Guiana.

The option is subject to certain conditions precedent including the renewal of the Dorlin Project permit and the completion by RGD of technical and legal due diligence on the Project. The option will be valid for a period of five years from the date all conditions precedent are satisfied. To exercise the option to acquire a 75% interest in the Dorlin Project, RGD will have to complete and deliver a Feasibility Study to SMYD within a period of four years and six months after the start of the option period. To maintain the option, RGD is required to spend at least US$3 M in the first three years. Once the option is exercised, SMYD will have to choose between maintaining a 25% participating interest (“PI”) or a 5% net profit interest (“NPI”). If SMYD chooses a 25% PI, RGD will have the option to acquire an additional 5% PI from SMYD for a consideration based on the NPV in the Feasibility Study.

4.2.4 Royalties, Agreements and Encumbrances

The Dorlin Project is subject to a 0.5% royalty payable to Euro Ressources, a subsidiary of Iamgold.

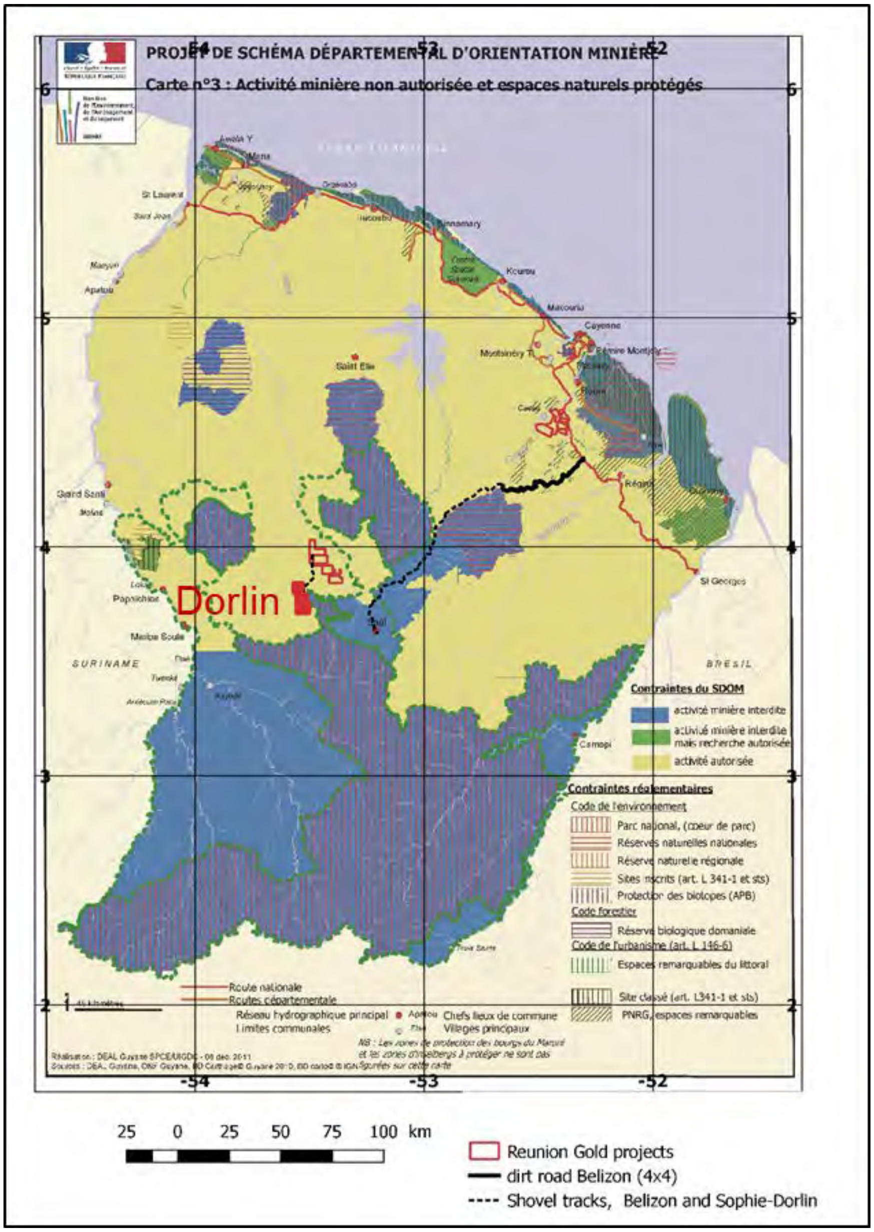
4.3 Environment

Mining in French Guiana is subject to environmental oversight, depending on the location according to the Departmental Mining Guidance Scheme (“SDOM”), established in accordance with the principles of sustainable development. French Guiana is divided into four zones under which prospecting, and mining are regulated, to ensure the protection of sensitive natural environments, landscapes, habitats and populations. Each zone corresponds to specific rules as follows:

- Zone 0: areas prohibited for prospecting and mining;
- Zone 1: areas only open for airborne exploration and underground operation;
- Zone 2: areas where exploration and mining are subject to additional constraints;
- Zone 3: areas open for prospecting and exploitation under the normal regulations of mining and environmental laws.

The Dorlin PEX is classified under zone 3 of the SDOM (Figure 4.2).

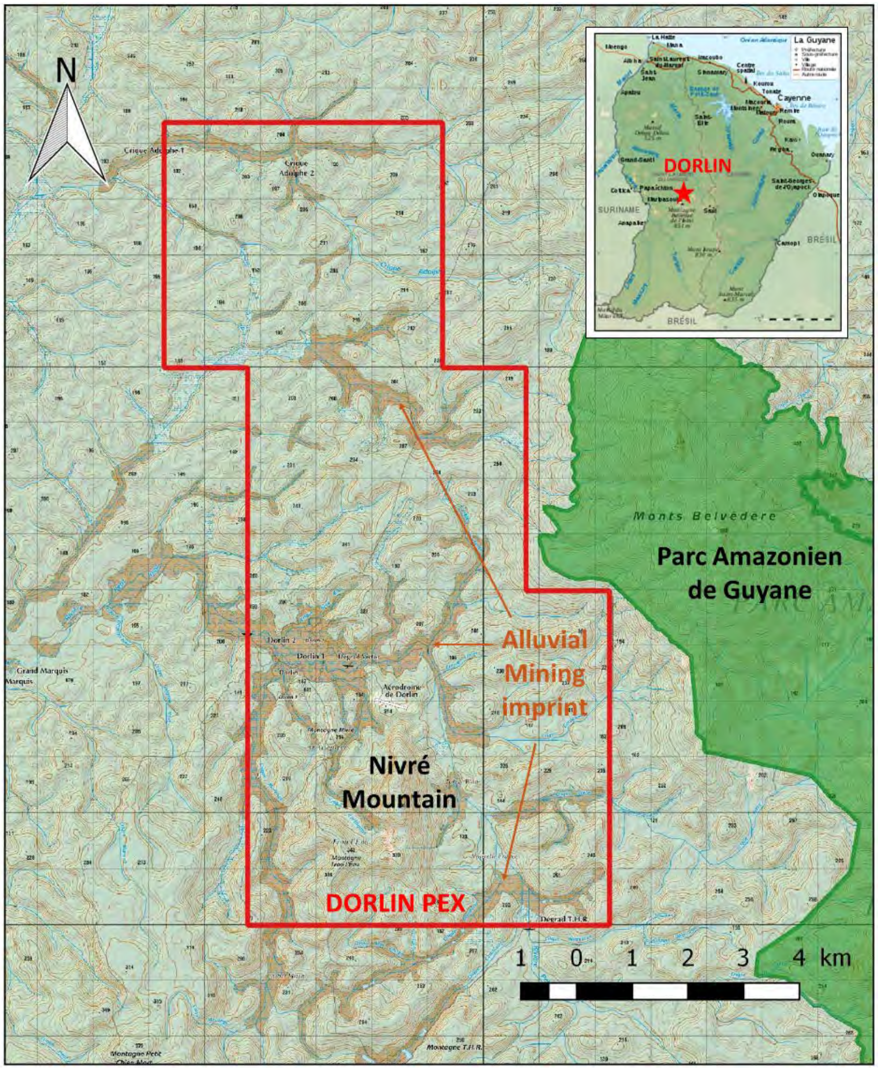
Figure 4.2: Project Location vs. SDOM Areas



Artisanal mining, also referred to in French as "orpaillage", at the Dorlin region occurred irregularly from the beginning of the 20th century to the end of the 2000s. Part of these activities were illegal, and part were carried out by mining companies under an agreement with SMYD. Historical illegal mining activities on primary gold mineralization resulted in several pits and underground shafts, mostly abandoned and either filled with water or collapsed. Historical illegal or legal mining, and recent legal alluvial gold activities resulted in an environmental imprint shown on Figure 4.3. Environmental impacts in French Guiana are supervised locally by the DEAL, and reported to the *Direction Générale de l'Aménagement, du Logement et de la Nature (DGALN)* in Paris.

SMYD is only responsible for reclaiming recent alluvial mining by its contractors and not of the all historical impact. SMYD has a plan to proceed with this reclamation in 2019. Upon completion, environmental discharge requirements for on-site activities are delivered by the DEAL.

Figure 4.3: Dorlin Environmental Imprint



5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The Project is located approximately 180 kilometres south-west of Cayenne, the principal town of French Guiana in South America (Figure 4.1), and approximately 55 east-north-east of the village of Maripasoula on the Maroni (Lawa) River.

The Project is accessible by small fixed wing aircraft (Islander, Cessna 182 and 206) using a 380 m long airstrip that was refreshed by RGD. Flight time from Cayenne is approximately one hour, and from Maripasoula 20 minutes. Maripasoula is accessible by daily flights from Cayenne and has a concrete runway suitable for medium sized jet aircraft. Several “drop zones” suitable for helicopter landings are present on the Project area, including at the camp. Despite its slightly higher price, helicopter is more widely used than fixed wings charters, due to the much greater flexibility and efficiency for a similar payload.

The Project is also accessible by use of local canoes (*pirogues*) from Saint-Laurent, down the Maroni River, and then from Maripasoula, along the Grand Inini and Petit Inini Rivers. During the rainy season the trip from Saint-Laurent takes three to four days, while it takes one day from Maripasoula to the Dorlin landing and vessels capable of carrying a five-tonne payload can thereby reach the Dorlin camp. During the dry season the trip from Maripasoula takes two to three days in a smaller craft unsuitable for cargo transportation and in the driest part of the season, no canoe can reach Dorlin.

As far as possible, mobilization is made during the rainy season with large pirogues loaded in Saint-Laurent with fuel or equipment trucked from Cayenne. For very large or heavy cargoes it is possible to unload at the Bas Espoir landing site near the confluence of the Grand and Petit Inini Rivers. From here, a 35 kilometres rough track accesses the Dorlin camp. This route is usually only used to bring in heavy machinery. A helicopter landing area is also available at Bas Espoir.

5.2 Climate

The climate is typically equatorial, with daytime temperatures between 25°C and 31°C, falling to 19°C to 22°C at night. There are two wet seasons; the main period is typically from April to July, and the lesser one from December to February, although they vary from year to year. The average annual rainfall is in excess of 2,500 mm. The humidity is constantly high, ranging from 78% to 92% during the year.

5.3 Topography and Vegetation

Dorlin is situated in a region containing some of the highest peaks in French Guiana. The Mont Belvedere range, whose foothills occur on the eastern limit of the permits, reach altitudes of 700 m. Montagne Nivré (the site of the current resource estimate) reaches a maximum altitude of 395 m and forms a long ridge with steep slopes descending 260 m in elevation. For the most part, topography consists of a gently rounded or flat-topped hills and deeply weathered valleys with small streams flowing off relatively flat laterite ridges and plateaux. Differences in topographic expression are clearly related to underlying geology: Paramaca rocks being characterised by steep sided ridges and higher relief with elevations ranging from 125 m to greater than 250 m; areas underlain by granitoids have lower relief (elevations from 125 m to 200 m) and rounded or flat-topped hills. The entire Project area is covered by a thick canopy of primary and secondary forest, with variations in vegetation type related to the underlying geology.

5.4 Local Resources

Skilled, semi-skilled and unskilled labour is readily available in Cayenne, with most professional and technical personnel being trained in metropolitan France. Unskilled labour is also available in Maripasoula. French Guiana is an overseas department of France and French labour laws apply, resulting in relatively high salaries and restrictive employment contracts compared to the neighbouring countries of Suriname and Brazil.

5.5 Existing Infrastructures

Paved roads are only limited to the northern part of French Guiana along the Atlantic coast, where 90 % of the population lives. The French Government plans to construct an all-weather laterite road into the interior of the territory between the RN 2 highway in the north, and the village of Saül, in the centre of French Guiana. This road would eventually be extended past the Dorlin permit on the way to Maripasoula. There is already a bush trail on this route (“route de Bélizon”), used by artisanal miners to bring heavy equipment during the dry season. A laterite road would provide an alternative to the river as an access route between Cayenne and Maripasoula for heavy equipment and supplies for mining operations at Dorlin.

In 2016, the new Regional Development Scheme (*Schéma d’Aménagement Régional* or SAR) was approved by ministerial decree enacting the Apatou-Maripasoula-Saul-Bélizon link in the *Communauté Territoriale de Guyane* (“CTG”) projects.

5.6 Physiography

Dorlin is situated in a region containing some of the highest peaks in French Guiana. The Mont Belvedere range whose foothills occur on the eastern limit of the permits reach altitudes of 700 m. Montagne Nivré reaches a maximum altitude of 372 m and forms a long ridge with steep slopes descending 240 m in elevation. For the most part topography consists of a gently rounded or flat-topped hills and deeply weathered valleys with small streams flowing off relatively flat laterite ridges and plateaux. Differences in topographic expression are clearly related to underlying geology: Paramaca rocks being characterised by steep sided ridges and higher relief with elevations ranging from 125 m to greater than 250 m; areas underlain by granitoids have lower relief (elevations from 125 m to 200 m) and rounded or flat-topped hills. The entire Property area is covered by a thick canopy of primary and secondary forest, with variations in vegetation type related to the underlying geology.

6. HISTORY

6.1 Historical Mining and Exploration Work

This section is summarized from Gautier & al., 1998: Compilation Report on the Historical and Recent Exploration, Dorlin Gold Project, French Guiana, Guyanor Ressources S.A. Internal Report, June 1998. Historical activity is summarized in Table 6.1.

Table 6.1: Historical Mining and Exploration Activities 1900-1999

Years	Activity	Company
1900-1955	Gold placers were discovered at Dorlin. Alluvial mining took place until 1955 with an estimated production of 11 t Au (388,000 oz Au).	
1950-1960	Prospections by the Bureau Minier Guyanais (BMG).	BMG
1974-1975	Country-wide aeromagnetic survey	BRGM
1975-1976	Mining inventory regional geochemistry work identified polymetallic copper-gold and lead-zinc anomalies.	BRGM
1977-1979	27 short drill holes and six long drill holes on polymetallic anomalies at THR, Dorlin and Florida.	BRGM - COMILOG - Blanchard
1980-1985	Mining inventory detailed soil geochemistry and auger work for gold targets.	BRGM
1986-1989	Soil geochemistry, auger and 19 drill holes.	BRGM - BHP
1993	Guyanor Ressources (a Golden Star Resources subsidiary) acquires the exploration permits owned by the BRGM/BHP syndicate.	Guyanor
1994	Cambior Inc. and Guyanor sign an option agreement allowing Cambior to earn 50% in the project.	Guyanor-Cambior
1994-1998	Exploration program with geophysics, geochemistry, auger, trenching and core drilling.	Guyanor-Cambior
1996	Airborne magnetics, radiometric and radar altimetry survey by CGG and Geoterrex covering most of French Guiana; 135,300 km of flight lines orientated 030° at a nominal elevation of 120 m above ground level, with the line spacing over greenstone belts being 500 m. The Dorlin area is covered by this survey.	BRGM – CGG Geoterrex
1994-2001	Illegal mining activity for both alluvial and primary gold on the Dorlin PEX, ravaged the forest of the area, aggravated sanitary conditions and introduced chronic insecurity.	
1997	Cambior completed earn-in at 50%. SMYD is created.	Guyanor-Cambior
1998	Guyanor & Cambior complete resource estimates for the Nivré deposit.	Guyanor-Cambior

Years	Activity	Company
1998-1999	After a pre-feasibility study, Guyanor/Cambior filed in March 1999, a concession application, that was not processed.	Guyanor - Cambior

6.2 SMYD Mining and Exploration Work

This section is summarized from SMYD, 2015: Demande de Renouvellement du Permis d'Exploitation (PEX) de Dorlin. Société Minière de Yaou Dorlin, June 2015. SMYD activity is summarized in Table 6.2.

Table 6.2: SMYD mining and Exploration Activity 1999-2019

Years	Activity
1999	SMYD is created as a 50-50% subsidiary of Guyanor and Cambior.
1999-2003	Gold price does not justify mine development. Until 2001, the Guyanor camp is guarded, then used by gendarmerie forces until 2002 when it is burnt.
2001	Several AEX are granted at Dorlin to reorganize illegal mining in the area. Jean Bena illegally mines primary gold underground at Nivré West.
2001-2002	Illegal gold rush at Sept Kilos leading to the creation of villages of illegal miners.
2002	Golden Star acquires the 50% share of Cambior on the Project.
2004	Auplata acquires 100% of SMYD.
2005	Two AEX granted on Sept Kilos.
2007-2011	Worse period for illegal mining at Dorlin.
July 2010	The Dorlin PEX is granted.
2012	Resource estimate by Geovariances.
2013	SMYD can finally permanently settle on the PEX following numerous army / *gendarmerie* missions. SMYD builds a camp and a permanent camp for the army forces. SMYD helps for the logistical support of the army forces at Dorlin.
2013-2015	SMYD, through its 100% subsidiary CMD and another sub-contractor, mines the left-over alluvial resources and assesses the eluvial potential of the Nivré area with 29 trenches, Sept Kilos by 500 m of trenches and Frères by 400 m of trenches. SMYD also completes test mining of eluvium under the duricrust.
2015	SMYD applies for the PEX renewal based on a gravimetry mining of Nivré saprolite gold mineralization. However, the corresponding AOTM and ICPE (industrial permits) applications were never filed. They provide, nevertheless, the bulk of data for RGD's current EIA.
2017	SMYD options the Dorlin project to RGD. RGD creates its subsidiary in French Guiana and initiates exploration.

6.3 Historical Resources

Historical resource estimates were completed by BRGM and BHP in 1993, Cambior in 1997, Guyanor and Cambior in 1998, RSG Global for the oxide material in 2004, and Geovariance in 2012. The last two resources were optimizations of previous estimates using the resource definition of the Joint Ore Reserve Committee ("JORC") or the Canadian Securities regulatory standards contained in the NI 43-101 guidelines. However, no QP had verified the validity of the initial data. Therefore, they are also considered as historical. It should also be noted that the Nivré Deposit was previously referred to as "Dorlin".

6.3.1 BRGM-BHP Resources (1993)

The BRGM / BHP syndicate produced a pre-NI 43-101 guidelines "potential resource" for the Dorlin Project (BHP, 1993) based on the BRGM-BHP drill- holes. Using a 2.5 g/t cut-off, they estimated the Montagne Nivré area to contain 1.7 million tonnes of resources grading 3.0 g Au/t or 164,000 oz Au (see Table 6.3).

Table 6.3: BRGM - BHP Potential Resource for Nivré; Oxide and Sulphide Ore, 0 – 100 m. 1993

	5 g Au/t Cut-off	2.5 g Au/t cut-off
Ore (t)	650,000	1,700,000
Gold Grade (g/t)	5 - 6	3
Gold Content (t)	3.5	5.1

6.3.2 Cambior (July 1997)

In July 1997, Cambior produced a resource estimate for Nivré (Cambior, 1997). The estimate used the results from the most up-to-date database available on the June 16th, 1997; the data set used included 519 auger holes from the BRGM, nine trenches from Guyanor and 72 diamond drill holes from the BRGM and Guyanor-Cambior programs. The in-situ geological resource was separately estimated by zone (Nivré West – Nivré East and South) by protolith (saprolite, transition and rock) and by categories (measured and indicated, inferred).

The resources were not pit constrained and included 630,300 oz Au at an average grade of 1.1 g Au/t in the measured and indicated categories and 311,543 oz Au at an average grade of 2.0 g Au/t in the inferred category. From this total, 148,004 oz Au (all categories) came from Nivré West and 793,840 oz Au (all categories) came from Nivré East and South zones (see Table 6.4).

Table 6.4: Nivré *In-situ* Historical Geological Resources, June 1997

Zones	Categories	Saprolite		Transition & Rock		Combined Rock Types		Total Au Content
		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	(g/t)	(oz)
Nivré NO	Measured & Indicated	425	1.2	1,390	1.5	1,815	1.4	82,200
	Inferred	244	1.7	770	2.1	1,015	2.0	65,804
Nivré NE&	Measured & Indicated	8,575	1.1	6,428	1.2	15,002	1.1	548,100
Nivré SE	Inferred	1,107	0.9	6,042	1.1	7,148	1.1	245,740
All Zones	Measured & Indicated	9,000	1.1	7,817	1.3	16,817	1.1	630,300
	Inferred	1,357	1.0	6,812	1.2	8,163	2.0	311,543

Using section interpretations from Nivré, a geological model was produced by Guyanor consultant D. Costelloe. For the purposes of the estimation, three zones of mineralisation were delineated: Nivré Nord-Ouest (Nivré NO), Nivré Nord-Est (Nivré NE) and Nivré Sud-Est (Nivré SE); these correspond to the current terminology of Nivré West, Nivré East and Nivré South, respectively. It should be noted that this model gave Nivré West mineralisation a westerly dip.

Based on defined orebody interpretations three-metre grade composites were created. Grade estimation was done using the inverse distance squared method. For measured and indicated category calculations, radius search ellipses of 50 m orientated along the orebodies' main axes, were used; to avoid grade smearing, the ellipses were 40 m thick in laterite, 20 m in ore zones and 10 m in host rocks; a minimum of two and a maximum of 12 composites were used to estimate blocks. To estimate inferred resources, only one composite was required, and search ellipses were extended to a maximum of 10 m to calculate grade in blocks left non-estimated from the measured and indicated calculations. In each case a maximum of three composites per hole was allowed. Half-dimension search ellipses were used to limit the projection of high-grade values (i.e. >75% of the high-grade limit), this was done to reduce the nugget effect impact. The upper cut-off high grade limit used was 20 g Au/t. Lower cut-off grades of 0.5 g/t, for saprolite and laterite, and 0.7 g/t, for transition and rock, were used.

Optimum Whittle pits with 45° slopes were computed for each model using separate mining and milling costs for saprolitic and unaltered rocks. Operation costs used were those of the Omai Mine in Guyana and Gross Rosebel project in Suriname. Transition material was considered as hard rock and laterite material included with saprolite. Pits were calculated using $400/oz and $350/oz Au prices. Table 6.5 shows the measured and indicated resources located within the optimal pits.

Table 6.5: Measured and Indicated Resources within the July 1997 Whittle Pit

Gold Price	Zones	Saprolite & Laterite		Transition & Rock		TOTAL		Waste	Waste / Ore Ratio	Au
		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	(g/t)	('000 t)		(oz)
$400	Nivré NO	250	1.5	543	1.8	793	1.7	4,698	5.9	42,900
	Nivré NE & SE	6,891	1.2	843	1.6	7,753	1.2	6,161	0.8	303,100
	All Zones	**7,141**	**1.2**	**1,386**	**1.7**	**8,526**	**1.3**	**10,859**	**1.3**	**346,000**
$350	Nivré NO	171	1.7	246	1.7	417	1.7	1,504	3.6	23,000
	Nivré NE & SE	5,692	1.3	430	1.3	6,122	1.3	3,302	0.5	255,500
	All Zones	**5,863**	**1.3**	**676**	**1.3**	**6,539**	**1.3**	**4,806**	**0.7**	**278,500**

6.3.3 Cambior (April 1998)

In April 1998, a drafty of a new resource estimation was released by Cambior (Clouston, 1998 in Gautier *et al.,* 1998). This resource estimation was done using the new geological model prepared by the project geologists in January 1998, and includes drilling, trenching and augering data acquired during the second half of 1997.

Two estimates were made with the gold price set at $350/oz and $400/oz Au using 5 m x 10 m blocks on 5 m benches. A metallurgical recovery of 93% was used and 45° Whittle pits were calculated to estimate recoverable resources. For each deposit, a first pit was computed using the measured and indicated resources only while a second pit was generated to include all the recoverable resources (measured, indicated and inferred). The resource classification was made according to Cambior Inc. standards and procedures on reserves and resources published in December 1997; these are different to those used in the June-July 1997 resource estimation.

Two block models were built: one for Nivré West and the other encompassing both Nivré East and South zones. The east-west block dimension was set to 5 m to account for the narrow north-south trending ore zones that make up most of the Nivré orebodies. Two domains with constant strike and dip were defined in Nivré West and four in Nivré East to properly orient search ellipses. Grade estimations were made using inverse distance squared and ordinary kriging methods, with the latter being used for the resource estimation. Four resource categories were calculated, with in all cases a maximum of two composites per hole allowed and half-dimension search ellipses used to limit the projection distance of high-grade values:

- Measured resources were defined as blocks estimated from at least three different sources within search ellipses radii that were set to half the variogram ranges.
- Indicated resources I were estimated using the full variogram ranges with at least three different sources.
- Indicated resources II were estimated as with the previous parameters but with only two separate sources.
- Inferred resources were estimated by extending the search ellipses long and medium ranges an extra 50% and using only one data source.

Optimum Whittle pit calculations were based on Omai Mine mining costs and would necessarily need to be refined using French Guiana parameters. Table 6.6 lists in-situ recoverable resources at $350/oz Au, Table 6.7 lists in-situ recoverable resources at $400/oz Au and Table 6.8 lists resources within 45° Whittle pits at $350 and $400/oz Au.

The changes in the definition of resource classes from the July 1997 estimate standards appear to have allowed only a small increase in measured and indicated recoverable resources within optimum Whittle pits from 278, 500 (1.3g Au/t) to 303, 700 (1.3 g Au/t) ounces at $350/oz Au and from 346, 000 (1.3 g Au/t) to 474, 300 (1.2 g Au/t) ounces at $400/oz Au even though many extensions to the previous known mineralised zones were drilled. The correction of topography for the modelling also reduced the impact of the most recent results. The generally low grades from Nivré East resulted in many deeper mineralised intersects being excluded from the mineral inventory. It can also be noted that the June-July 1997 estimation used the inverse distance squared method for grade estimation whilst the April 1998 estimation used ordinary kriging, even though an inverse distance squared estimate was run, which gave both increased tonnages and grade.

Table 6.6: Nivré *In-situ Recoverable* Resources, April 1998. $350/oz Au

Zone	Categories	Saprolite		Transition & Rock		Combined Rock Types		Total Au
		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	(g/t)	(oz)
Nivré West	Measured & Indicated	402	1.4	1,566	1.8	1,968	1.8	111,500
	Inferred	539	1.7	2,712	1.9	3,251	1.9	194,900
Nivré East &	Measured & Indicated	6,222	1.1	5,602	1.4	11,825	1.2	466,600
Nivré South	Inferred	2,655	1.0	6,317	1.4	8,973	1.3	363,200
	Measured & Indicated	6,625	1.1	7,168	1.5	13,793	1.3	578,100
Total	**Inferred**	**3,194**	**1.1**	**9,029**	**1.5**	**12,224**	**1.4**	**558,100**

Table 6.7: Nivré *In-situ Recoverable* Resources, April 1998. $400/oz Au.

Zone	Categories	Saprolite		Transition & Rock		Combined Rock Types		Total Au
		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	(g/t)	(oz)
Nivré West	Measured & Indicated	577	1.2	2,639	1.4	3,216	1.4	143,200
	Inferred	645	1.5	3,734	1.6	4,738	1.6	222,700
Nivré East &	Measured & Indicated	7,941	1.0	10,748	1.1	18,689	1.1	635,800
Nivré South	Inferred	5,827	0.8	11,787	1.1	17,614	1.0	570,000
	Measured & Indicated	8,518	1.0	13,387	1.2	21,905	1.1	779,000
Total	**Inferred**	**6,472**	**0.8**	**15,521**	**1.2**	**21,993**	**1.1**	**792,700**

Table 6.8: Measured and Indicated Resources within the April 1998, 45° Whittle Pit, at $400 & $350 Gold Prices. Preliminary.

Gold Price	Zone	Saprolite & Laterite		Transition & Rock		TOTAL		Waste	Waste / Ore	Au
US$/oz		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	Ratio	(oz)
$400	Nivré West	492	1.2	1,165	1.8	1,658	1.6	6,843	4.1	85,200
	Nivré East & South	7,169	1.1	3,542	1.3	10,710	1.1	13,619	1.3	389,100
	All zones	7,661	1.1	4,707	1.4	12,368	1.2	20,462	1.7	474,300
$350	Nivré West	356	1.4	714	2.1	1,070	1.9	5,784	5.4	65,600
	Nivré East & South	5,520	1.2	653	1.5	6,173	1.2	4,522	0.7	238,100
	All zones	5,876	1.2	1,367	1.9	7,243	1.3	10,306	1.4	303,700

6.3.4 Guyanor (April 1998)

Guyanor separately completed a new resource estimate using Whittle pit optimization and the same data set and parameters than Cambior's 1998 estimate. Table 6.9 gives the in-situ geological resource estimation based on data used by Cambior for the 1998 resource Inventory; these results can be compared with Table 6.4.

Table 6.9: *In Situ* Historical Geological Resources, 1998 (Gautier *et al.,* 1998,)

Zone	Categories	Saprolite & Laterite		Transition & Rock		Combined Rock Types		Total Au
		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	(g/t)	(oz)
Nivré West	Measured & Indicated	949	1.1	3,467	1.5	4,416	1.4	200,351
	Inferred	419	1.1	2,250	1.6	2,668	1.5	127,823
Nivré East &	Measured & Indicated	6,878	1.0	10,829	1.1	17,707	1.1	612,457
Nivré South	Inferred	2,623	0.9	7,401	1.2	10,024	1.1	361,972
All Zones	Measured & Indicated	7,827	1.0	14,296	1.2	22,123	1.15	814,808
	Inferred	3,042	0.9	9,650	1.3	12,692	1.2	489,795

6.3.5 Cambior (August 1998)

Cambior in August 1998 released a pit-constrained final resource estimate for the Dorlin and Yaou projects (Clouston, 1998) based on March 1998 work that is slightly different from the April resource estimate reported in Guyanor's Dorlin report (Gautier *et al.,* 1998). Pit slopes were set at 45° for both hard rock and saprolite. Table 6.10 shows the pit constrained resources at US$350/oz Au. Cut-off was set at 0.7 g Au/t for lateritic and saprolitic materials and 1.0 g Au/t for transition and fresh rock.

Table 6.10: Pit Constrained Historical Geological Resources, 1998 (Clouston, 1998 for Cambior)

Zone	Categories	Saprolite & Laterite		Transition & Rock		Combined Rock Types		Total Au
		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	(g/t)	(oz)
Nivré West	Measured & Indicated	356	1.4	714	2.1	1,070	1.9	65,600
	Inferred	522	1.7	887	1.8	1,409	1.8	84,800
Nivré East &	Measured & Indicated	6,250	1.2	456	1.6	6,706	1.3	270,100
Nivré South	Inferred	2,589	1.1	2,127	1.6	4,716	1.4	205,100
All zones	Measured & Indicated	6,610	1.2	1,170	1.9	7,780	1.3	335,700
	Inferred	3,110	1.2	3,010	1.7	6,120	1.5	286,900

6.3.6 Guyanor (2004)

In 2004, RSG Global undertook for Guyanor data validation, geological modelling and a resource estimate using parent block size at 20 m (E), 30 m (N) and 10 m (vertical) and selective mining units of 10 m x 10 m x 10 m based on multiple indicator kriging (MIK) for saprolite and rock and ordinary kriging for laterite. Results at a cut-off grade of $ 425/oz Au are presented in Table 6.11. The total in the indicated category is 313,100 oz Au and in the inferred category 941,800 oz Au.

Table 6.11: Nivré Historical Geological Resources, $425 Gold Price, RSG Global, 2004

Type	Categories	Tonnage (t)	Grade (g/t)	Total gold (t)	Total Au (oz)
“Laterite”	Indicated	3,766,000	1.2	4.5	159,400
Saprolite	Indicated	648,000	1.3	0.8	29,700
Transition	Indicated	2,511,000	1.4	3.5	124,000
Total	Indicated	6,295,000	1.3	8.9	313,100
“Laterite”, Saprolite, Transition	Inferred	10,863,00	1.2	13.0	630,300
Rock	Inferred	18,684,000	1.1	21.0	311,543

The new corporate objective of Guyanor was focusing on only mining “laterite” (colluvium) and saprolite from Nivré. Therefore, pit optimization was only completed for the saprolite and “laterite” at escalating prices between $325 and $425/oz Au. Only the $425/oz Au price is summarized in Table 6.12.

Table 6.12: Pit constrained Resources, $425 Gold Price, RSG Global, 2004

Gold Price	Type	Mineralization		Mineralized Waste		Waste	Waste / Ore	Au
		('000 t)	(g/t)	('000 t)	(g/t)	('000 t)	Ratio	(oz)
$425	Saprolite	5,475	1.47	141.9	0.88	9,127	1.67	288,300
$425	“Laterite”	4,052	1.29	66.1	0.7	1,971	0.4	186,000

6.3.7 Geovariances (2012)

In 2012, OSEAD, a shareholder of Auplata, requested a new study from Geovariance on the Nivré resources. Following a statistical study, Geovariances only worked with the drill holes and did not include surface material estimated from trenches and from auger holes. This reduced the gold content in their resource estimate, which was also not completed according to the NI 43-101 guidelines. None plus three cut-offs were used 0.5 g/t, 0.7 g/t and 1.0 g Au/t. Results are presented in Table 6.13. No pit optimization was carried out on this historical estimate.

Table 6.13: Nivré Resources, Geovariance, 2012

Type	Categories	Tonnage	Grade	Total Au
	Cut-off	(t)	(g/t)	(oz)
"Laterite"	0.0	932,000	1.31	39,200
	0.5	890,000	1.36	38,900
	0.7	843,000	1.40	38,000
	1.0	659,000	1.54	33,000
Saprolite	0.0	9,400,000	0.68	206,000
	0.5	5,531,000	0.95	169,000
	0.7	3,464,000	1.15	128,000
	1.0	1,607,000	1.50	78,000
Transition	0.0	7,998,000	0.71	183,000
	0.5	4,936,000	0.93	148,000
	0.7	3,089,000	1.11	110,000
	1.0	1,437;000	1.43	66,000
Fresh	0.0	31,020,000	0.68	678,000
	0.5	17,664,000	0.93	528,000
	0.7	10,919,000	1.13	397,000
	1.0	5,524,000	1.43	254,000
Total	**0.0**	**49,350,000**	**0.70**	**1,106,000**
	0.5	29,021,000	0.95	884,000
	0.7	18,315,000	1.14	673,000
	1.0	9,228,000	1.45	430,000

7. GEOLOGICAL SETTING AND MINERALIZATION

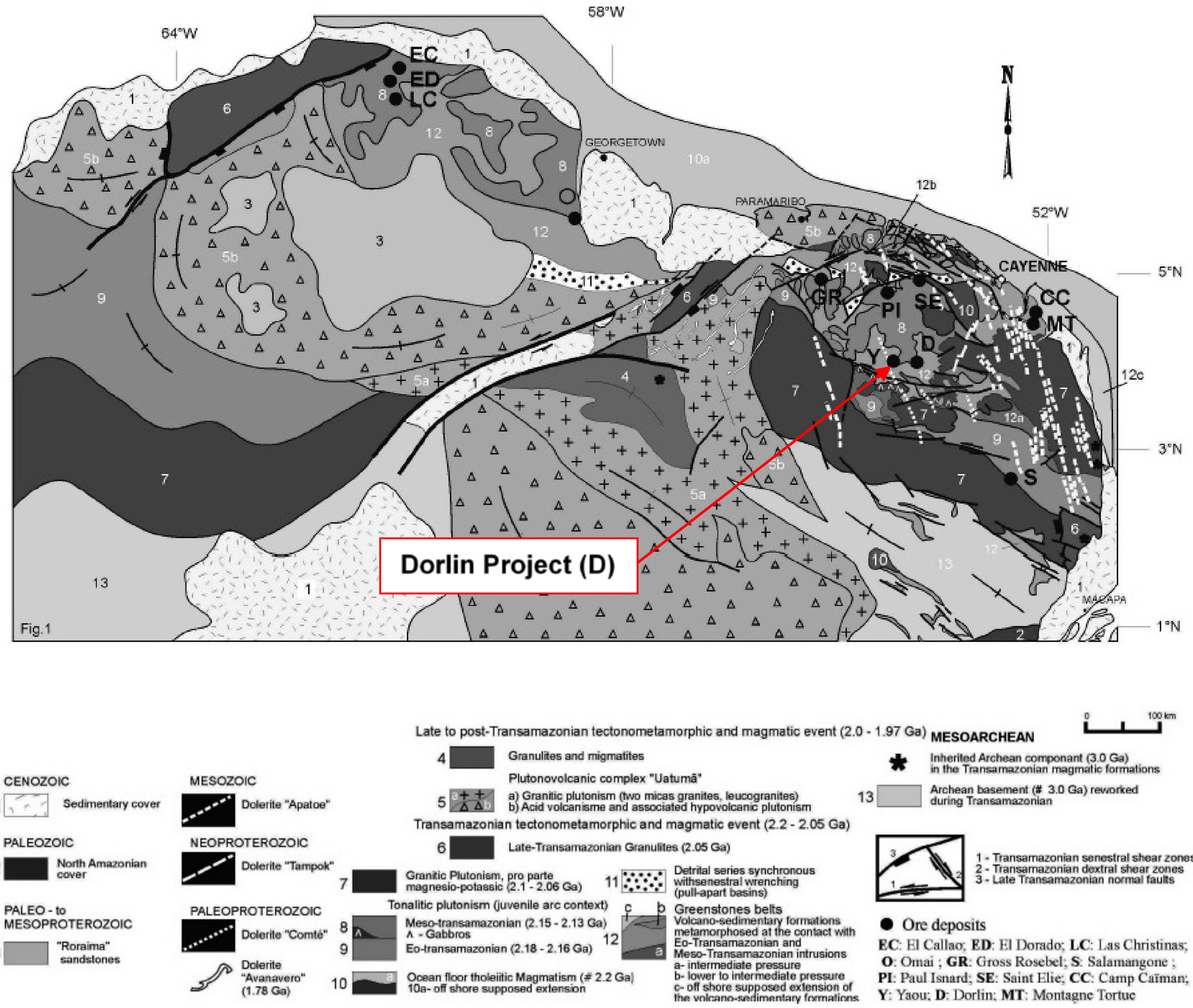
7.1 Regional Geology

The following summary is adapted from Milesi *et al*., 2003 and from Delor *et al*., 2003.

French Guiana is underlain by the Guiana Shield, which covers the north amazonian part of Brazil, the easternmost edge of Colombia, eastern Venezuela, and the three Guianas (Guyana, Suriname and French Guiana, Figure 7.1). The Guiana Shield is a major Precambrian shield consisting of Archean protoliths (Imataca Complex and Amapa terranes), between which Paleoproterozoic formations (2.2 to 2.0 Ga) are widely developed, including mainly low-grade metamorphosed sedimentary and volcanic formations and granite, and medium-grade metamorphic terranes. Evidence of Proterozoic-younging crustal growth has been documented closer to the Amazon Basin (Uatumã plutonic and volcanic sequences 1.97 to 1.8 Ga, Roraima sedimentary deposits 1.88 to 1.7 Ga). Finally, alkalic magmatic rocks have been dated at 1.7 to 1.3 Ga.

The Guiana Shield and the West African Craton belonged to a single Proterozoic continental landmass until the opening of the Atlantic Ocean, which started with extensive Late Jurassic volcanic activity.

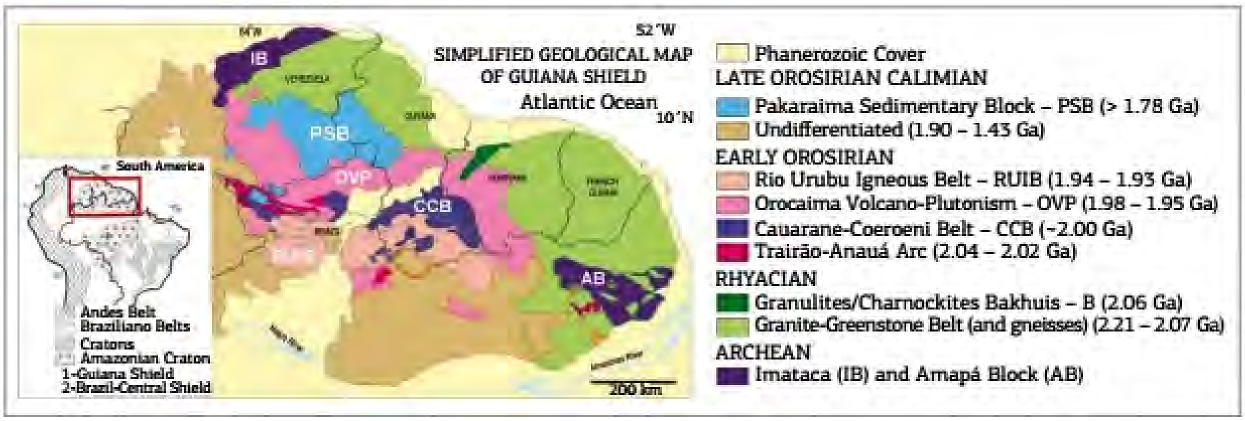
Figure 7.1: Geological Sketch Map of the Guianas Showing Location of Main Gold Deposits (after Delor et al., 2003a)



7.1.1 French Guiana Geology

French Guiana is essentially composed of Paleoproterozoic rocks that were affected at about 2.1 Ga by tectonic, metamorphic and intrusive events of the Transamazonian Orogeny (Figure 7.2). Major structural features include the Central Guiana Shear Zone (CGSZ) and the North Guiana Trough (*Sillon Nord Guyanais*, NGT). The CGSZ is a large-scale ductile shear zone, extending from French Guiana westerly through central Suriname and north-central Guyana. The NGT is interpreted to be a sinistral strike-slip "pull-apart basin" formed during one of the major tectonic stages of the Transamazonian Orogeny.

Figure 7.2: Simplified Geological Map of the Guiana Shield (from Reis *et al*., 2017)



This evolution began with the formation of juvenile oceanic crust at 2.26 - 2.20 Ga, as indicated by the Eorhyacian crystallization age of gabbroic rocks from "Île de Cayenne Complex". Then, from 2.18 to 2.13 Ga, came a period of dominant TTG type magmatism and regionally associated greenstone belts. It was interpreted as multi-pulse island-arc plutonic-volcanism in response to a main southward-directed subduction during a D1 event related to a N-S oriented convergence of the African and Amazonian Archean blocks. TTG association forms a large batholith (Central Guiana Complex, CGC) in central French Guiana.

North and south of this Central Guiana Complex, volcano-sedimentary units occur in two "synclinoria", a southern greenstone belt and a northern greenstone belt which merge westward toward Suriname into a single greenstone belt. The lowest stratigraphic formations, common to both southern and northern greenstone belts, consist essentially of lava and pyroclastic rocks (Paramaca Formation). Their compositions range from basalt to rhyolite as young as 2.156 ± 0.006 Ga, intercalated with scarce sericite-chlorite schist and flysch-type formation (Armina Formation). Both the northern and southern greenstone belts have a minimum age of 2.132 ± 0.003 Ga.

Granitic magmatism and minor gabbroic intrusions then occurred at ca. 2.11 - 2.08 Ga in response to the closure of the island-arc basins, with an evolution from southward-directed subduction to sinistral wrenching (D2a). In northern French Guiana, the D2a transcurrent sinistral event was marked by the opening of late detrital basins, along the northern limb of the central TTG complex (pull-apart basins). The overlying Upper Detrital Unit ("UDU") crops out exclusively in northern French Guiana where it constitutes a geological entity, the "North Guiana Trough" ("NGT"), with an estimated thickness of 5000 m. It is composed of sandstones and conglomerates, including monogenic gold-bearing conglomerates, with a minimum age of 2.115 ± 0.004 Ga.

The age of a D2b event is inferred from the 2.07 - 2.06 Ga dating of late metaluminous monzogranite emplaced along a WNW-ESE dextral strike-slip corridor, and dissecting pull-apart basins. A low- to medium-pressure D2b counter clockwise metamorphism, recorded in the detrital basin units, reflects a lack of significant crustal thickening in the metasediments; it is best interpreted as an anomalously high geothermal gradient during burial followed by isobaric cooling.

Dyke swarms, marking the precursor stages of the opening of the Atlantic Ocean, cut all the Paleoproterozoic lithologies. In addition to these well-known Mesozoic occurrences, NNE-SSW Paleoproterozoic (≥1.8 Ga) and NW-SE Neoproterozoic (809 Ma) generations of dykes have been identified by Ar-Ar and K-Ar dating, respectively, and by the paleomagnetic signature.

Figure 7.3: Geodynamic Evolution Model for French Guiana Paleoproterozoic Terrains (Delor *et al.,* 2003)

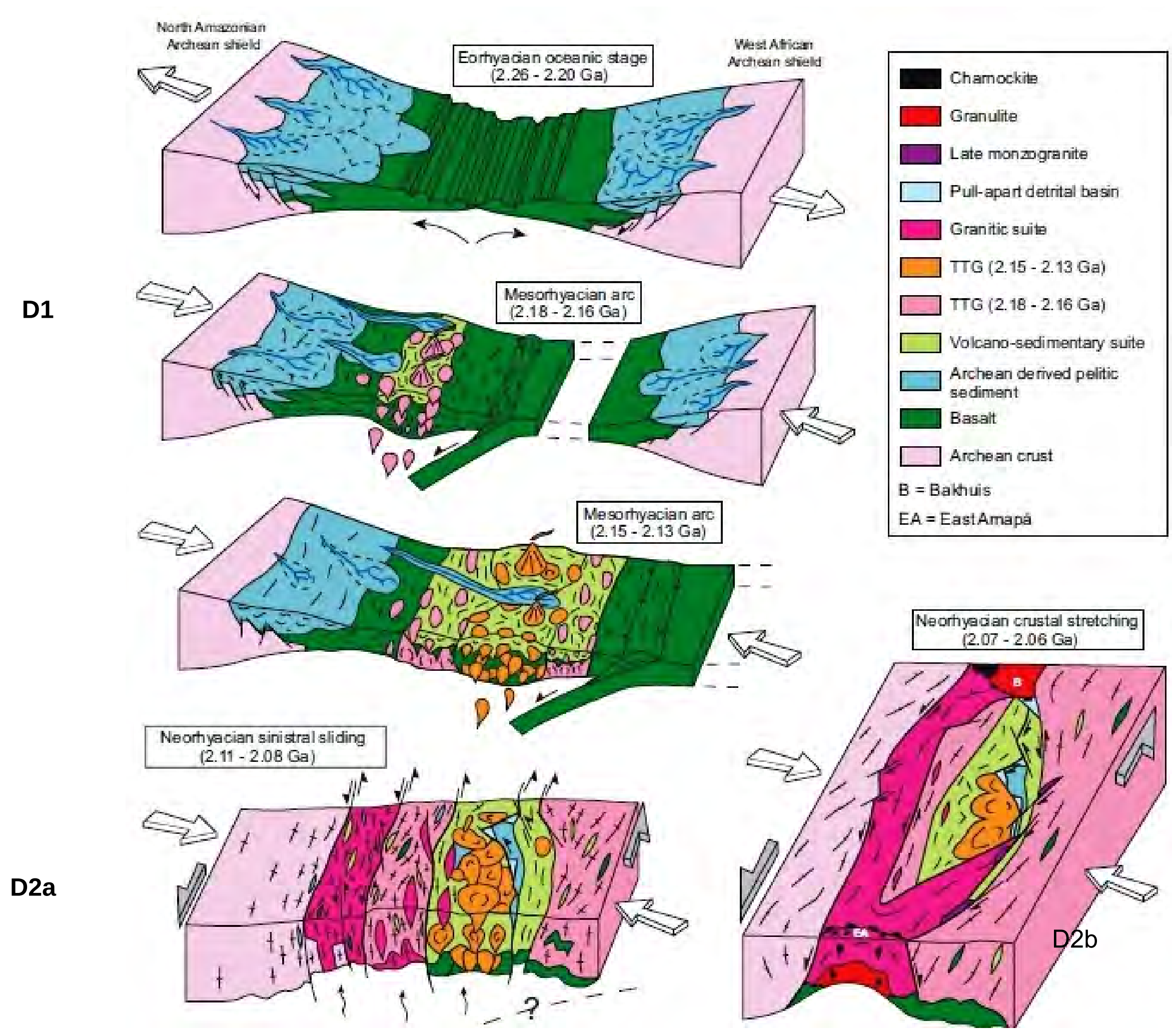
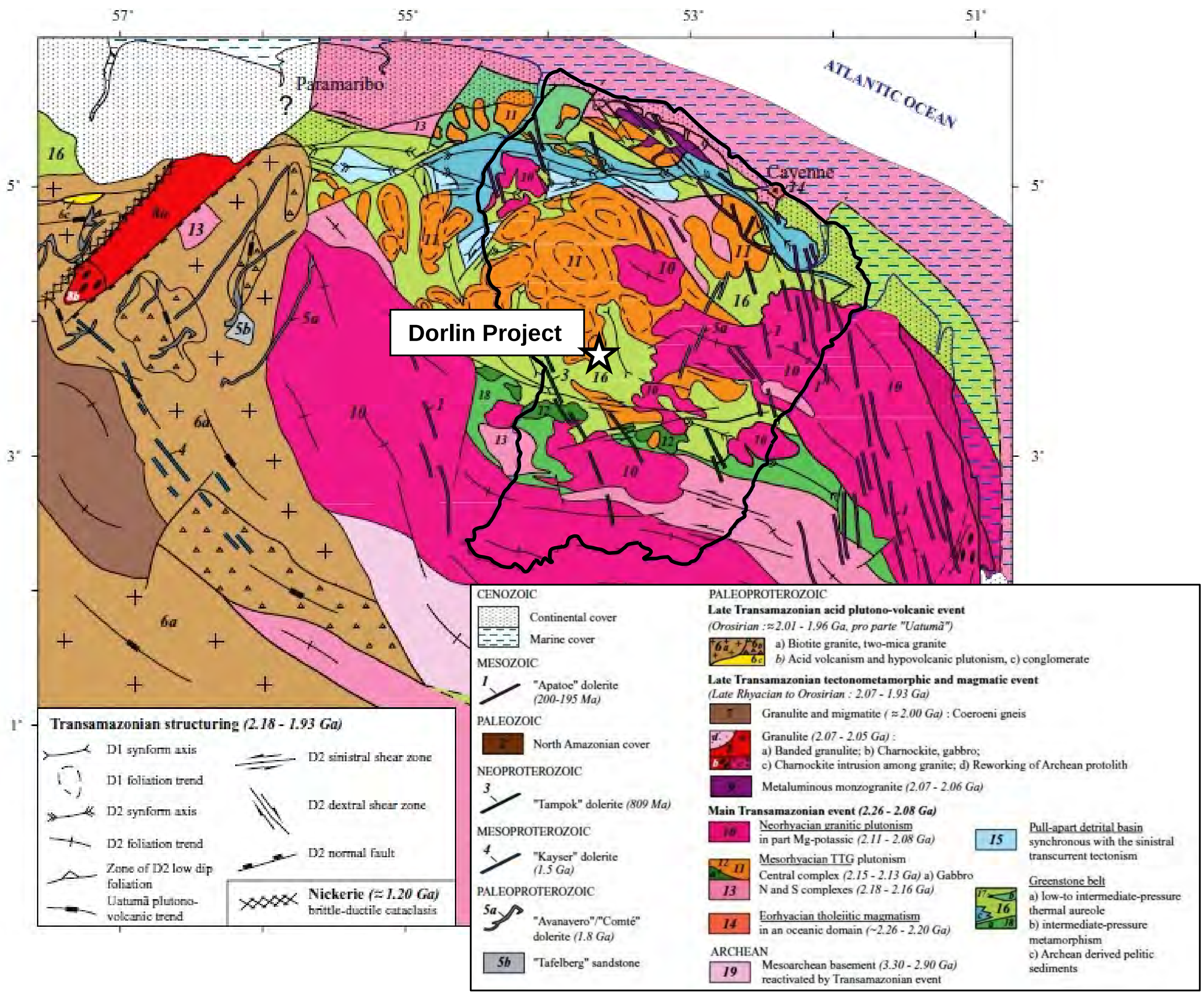


Figure 7.4: Structural Sketch Map of French Guiana in its Lithostructural Setting at Regional Scale, including Suriname to the West and Amapá and Pará States (Brazil) to the South and East (from Delor *et al.,* 2003)



7.2 Project Area Geology

The Dorlin Project (see Figure 7.5) area is underlain by a sub-vertical sequence of eastward younging mafic to intermediate volcanics comprised of volcanic lava, tuff and lapilli tuff facies. Locally, zones of these tuff sequences are altered by intense silica-tourmaline replacement, which are defined as discrete stratigraphic units within the overall sequence. The silica-tourmaline unit outcrops well due to its high resistance to weathering and is closely associated with gold mineralisation in the Nivré deposit area.

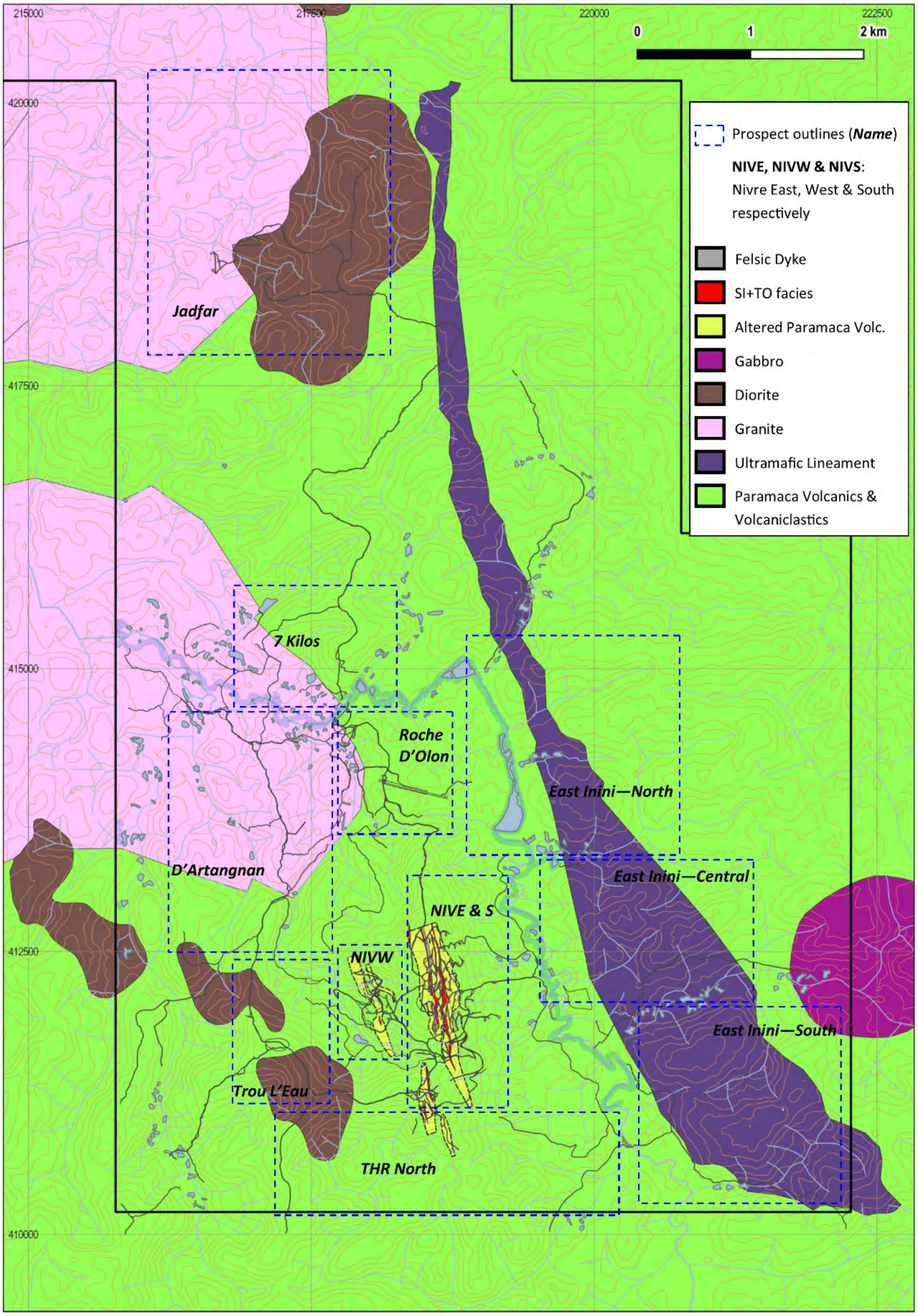
To the west of the Project area, Guyanais granitoids dominate. These are poorly exposed but develop a white sandy gravel which is clearly observed in the streams draining them.

To the east of the Dorlin Project, additional mafic and intermediate volcanics are encountered in the East Inini prospect area. Although not observed in outcrop, an ultramafic north-south “lineament” derived from ICP data (anomalous Cr, Ni, Co) crosses this same area of the project and extends northward to the Jadfar area (see Figure 7.5). The age relationship of these ultramafic and volcanic units in this eastern area have not been determined with respect to the volcanic packages observed at Nivré.

Through the central part of the Project, occasional outcrops of sericite schist are noted, although this zone is mostly observed in remote sensing data, such as potassium counts as shown in Figure 7.6. The protolith is presumed to be part of the Paramaca volcanic package.

The following sections are adapted from Gautier *et al*., 1998, and summarise the general units described above, as well as the surficial weathering that has affected all rock units.

Figure 7.5: Prospect Locations Overlain on a Simplified Geology Map of the Dorlin Project



7.2.1 The Weathered Zone

Deep weathering at Dorlin has resulted in the development of an incomplete and discontinuous lateritic profile. Some key observed elements of the Dorlin weathered profile are:

- A thick saprolitic and transitional horizon;
- A locally thick duricrust, now mostly in progressive dismantlement;
- A locally extensive layer of colluvium generally gold enriched in mineralised areas and especially deep on the eastern flank of Montagne Nivré, where landslides have locally caused considerable thickening.

The saprolitic layer on Nivré East, where it is best known, reaches an average vertical depth of 45 m, however this depth varies considerably, ranging from nothing where large, little weathered silica tourmaline bodies occur, to depths of 80 m in areas where thick feldspar porphyry bodies, more amenable to saprolite development, are present. The oxidation front is generally sub-parallel to the saprolitic-transition rock front but can locally be well above, yielding a green, sulphide bearing saprolite. Landslides may also locally remove the saprolite layer, and semi-fresh, non-silica tourmaline rocks can also be seen in deep valleys.

Remnants of older thick and complete duricrust plateaux cover significant parts of Nord Inini. The duricrust, where directly observed, is up to 2 m thick and in places appears to mask the underlying gold geochemistry. The phenomenon of maximum concentration of lateritic gold in the uppermost part of the mottled zone and significant depletion of gold in the duricrust is well understood and documented (Freyssinet, ibid.). In other areas, dismantled and discontinuous duricrust cover most of the flat plateaux (e.g. Trou L'Eau, Nivré South, Roche d'Olon) these show reduced, but perceptible, soil gold geochemistry responses (e.g. Trou L'Eau with soil gold values typically of 100 ppb, but deep auger samples frequently yielding values greater than 1 g/t). In some areas, dissolution-erosion of former lateritic duricrusts has developed typical stone lines.

7.2.2 The Paramaca Mafic to Intermediate Volcanics

This unit probably represents the oldest suite of rocks on the Project area and is presumed to belong to the lower Paramaca Formation. Members of this unit have been altered to form hydrothermally altered lithologies and affected by later intrusive events. Though probably widespread, it has been best observed in the Nivré West (though rare), Sept-kilos and farther to the north.

Most observed primary rocks show volcaniclastic textures with plagioclase phenocrysts in a brown-green matrix. Primary quartz is also relatively commonly observed. These lithologies are believed to have an andesite and/or dacite composition. More mafic volcanics usually form dark green chlorite schists, especially in one of the head creeks of D'Artagnan creek, and basaltic and andesitic lavas have been mapped by the BRGM geologists in various areas. Minor felsic and sedimentary units are included within this group.

Variably altered versions of this unit are well known from drill holes from the Nivré and THR areas, and it is possible to distinguish the following rock types for this and the THR area: Tuffs and lapilli tuffs of andesitic and dacitic composition; pyroclastic rhyolite with platten-quartz texture (THR only); "quartz-eye" dacites; hornblende dacites; chert-like grey sediments or ash deposits; intermediate to mafic lavas which are variably feldspar, amphibole and pyroxene phyric.

In the Nivré area, on evidence from drill holes, this unit is intruded by later diorite, gabbro and granodiorite dykes and sills, the former two probably related to the eastern and/or contact intrusives and the latter possibly to the Guyanais intrusive phase; however, there is no evidence for these relationships.

7.2.3 The Sericite Schist "Belt"

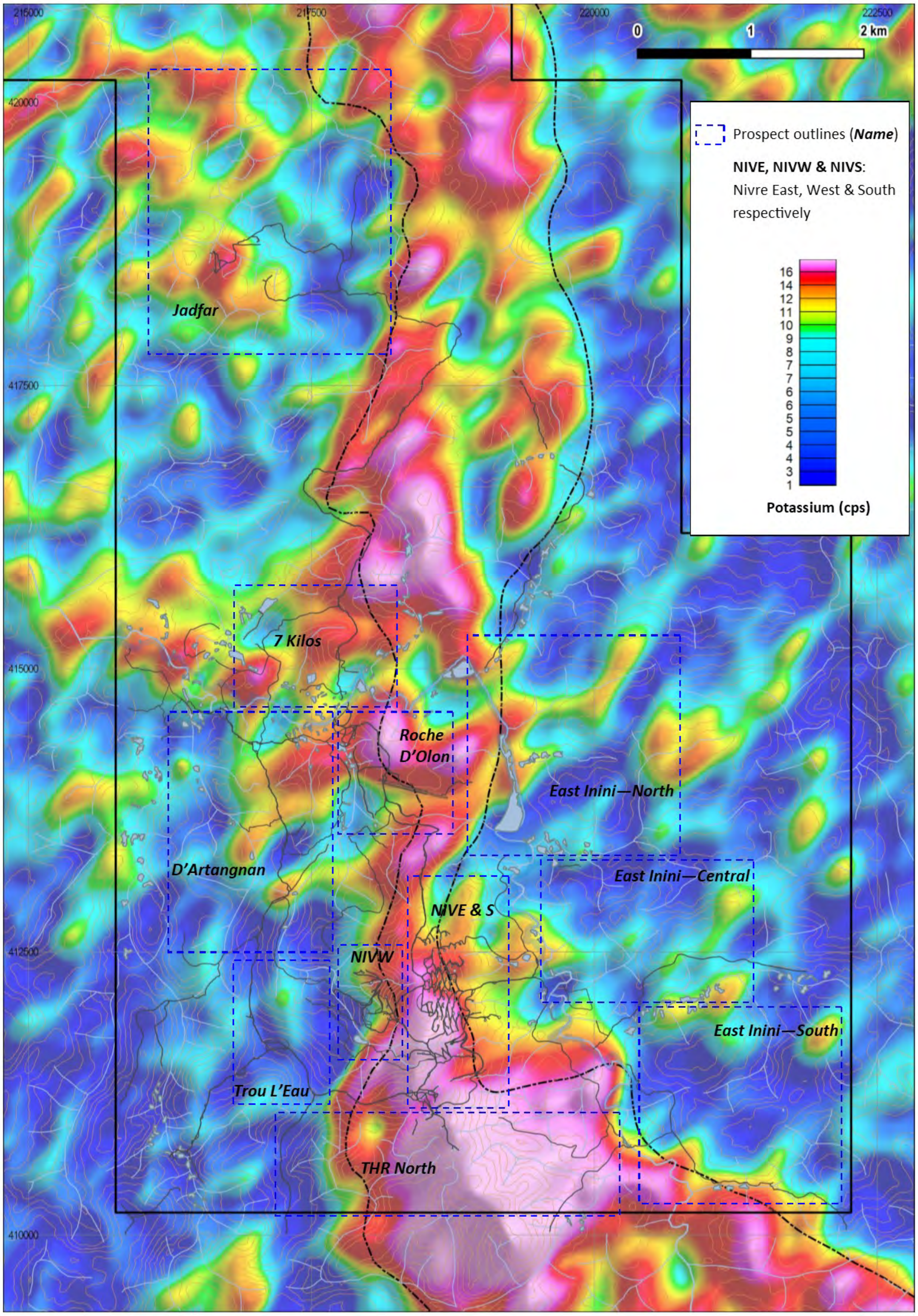
This unit forms a broad N-S "belt" traced through the central part of the Project area and enclosing the mineralised zones of Montagne Nivré (East, West, and South), THR North, and most of Roche D'Olon. It is a strongly sericitized and schistosed version of the Paramaca volcanics. In the Nivré area, it is about 2-kilometre wide and can be seen along the Petit Inini river where it forms most or all the outcrops. This unit generally shows a very penetrative S1(?) schistosity and much weaker S2(?) spaced or fracture cleavage, as well as numerous microfolds affecting S1. In an area stretching from THR to Sept Kilo, and centred on Montagne Nivré, disseminated tourmalinisation affects this unit. Very frequently, these schists exhibit discrete box-work textures, increasing usually with silicification and/or tourmalinisation, but not systematically associated with anomalous gold grades.

It is postulated that this belt is responsible for the high potassium lineament identified by the airborne radiometric survey (see Figure 7.6). However, the two features are not exactly coincident suggesting that the potassium anomaly is following the most sericitic and muscovite rich zone within the belt.

7.2.4 Feldspar Porphyry (dykes)

This feldspar porphyry rock type is predominantly observed within the sericite schist belt, most clearly within the resource area of Nivré East and South. This distinctive rock type is pale yellow green and generally coarsely feldspar phyric when undeformed, but often very strongly sheared, especially along its contacts. It appears to form dykes or sills. Within the Nivré area it forms a N-S trending unit parallel and to the west of the main silica-tourmaline massive body.

Figure 7.6: Dorlin Project Map with Gridded Potassium Response, Corresponding to Sericite (schist) Alteration Zone.



7.2.5 The Silica Tourmaline Facies

This unit is also an altered version of rocks originally part of the Paramaca mafic to intermediate volcaniclastics. It has been strongly silicified and tourmalinised resulting in an extremely competent, hard and generally undeformed rock. Typically, in hand specimen it appears to consist almost entirely of three components: A white, fine quartz matrix surrounding prisms and nodules of black tourmaline, and automorphic or corroded pyrite crystals (normally forming box-works of iron oxides on surface exposures). Tourmaline nodules, which normally consist of radiating acicular black tourmaline intergrown with quartz and/or chlorite, vary in size from a few millimetres to several tens of centimetres and usually exhibit rounded and irregular shapes (globular - amoebic), but can be angular. They are believed to represent the ultimate replacement of mafic clasts, lapillis and blocks within the dacitic and andesitic groundmass volcaniclastics. Prismatic tourmaline crystals rarely exceed lengths of 2 cm and are usually much smaller; they are believed to form predominantly in finer grained tuffs. Individual units' range in thickness from a few centimetres to several tens of metres and are more or less parallel to the S1 schistosity (less true for thicker bodies). Many bodies show evidence of shearing around their margins and boudins have been seen.

A later variety consists of a hydrothermal breccia composed of a fine-grained black tourmaline enclosing clast of the other tourmaline bearing facies as well as frequent fine-grained siliceous sediments or vitric tuff clasts.

These rocks are found from 7 Kilos, north of the Petit Inini, river through to THR in the south with an overall 160° trend. In detail, this "belt" has a S shape, 150° on Boeuf Mort and Roche d'Olon, 180° on Nivré and 150° again on THR. This unit is the main known host rock for gold mineralisation, although many occurrences are also nearly barren. These rocks are resistant to weathering, due to the high quartz and tourmaline content, and thus crop out commonly.

7.2.6 The East Inini Ultramafic to Basic "Lineament"

The presence of a basic or ultramafic unit in east and north Inini areas was initially indicated based on the BRGM soil geochemistry ICP results. The ultramafic-like Ni, Cr and Co anomalies indicate an 160° trend swinging to 180° in the north for this unit. Source rocks for these anomalies have been intersected in three drill holes (DEl, DN2 and DN3) in which units referred to as soapstones and talc schists, as well as zones of serpentinization were recorded by the BRGM along with gabbros and diorites. According to Milesi *et al*. (1988) this has characteristics of a cumulate layered intrusive. The limits on the geological unit are based predominantly on soil geochemistry.

Studies by the Guyanor diamond exploration group led to the identification of soapstone samples as talc-carbonate-chlorite+/-actinolite+/-cordierite schists, possibly originally volcaniclastic kimberlites

(Letendre, 1996). These rocks have breccia- like textures in the core with angular clasts of several mm to more than 1 cm. It is not known whether this texture is indicative of a pyroclastic flow or of an in-situ breccia. Samples taken from surface outcrop or float were classified as altered tremolite and tremolite-talc schists (Letendre, *ibid*.). The rock is green to grey and has a typical soft surface giving rise to its soapstone description.

7.2.7 The Eastern Mafic to Intermediate Intrusives

These intrusive diorites and gabbros were cut by three BRGM drill holes located on or close to the ultramafic lineament of east and nord Inini zones DN2, DN3 and DBI. The gabbro has been observed cropping out at the CMC camp site on Crique Frere and saprolite derived from deep augering samples in Marguerite sector, is interpreted as the diorite. On the geological map these diorites are included in the ultramafic to basic lineament trend.

Diorites appear very weakly deformed and the gabbro outcrops are clearly undeformed. The age of these intrusives relative to the Paramaca volcanics and the ultramafic rocks is still unknown. The gabbro on Crique Frere corresponds to an area of high magnetics on the airborne geophysical survey but is out of the Ni, Cr and Co soil anomalies.

7.2.8 The Contact Zone Mafic to Intermediate Intrusives

These are located along the eastern and southern limits of the Guyanais granites and their definition is largely based on geophysical interpretation. A silicified dioritic intrusive mapped on the Jadfar geochemical grid and cut by trench 39 and drill hole 97-134 coincides with a geophysical anomaly. Diorite boulders in the Trou L'Eau area can also be related to geophysical magnetic highs. Boulders are typically an extremely silicified hornblende diorite porphyry containing quartz, chlorite, epidote and locally porphyric plagioclase. In drill hole 97-134, several sulphides such as pyrite, arsenopyrite and chalcopyrite are found as disseminations or along veinlets and fractures.

In drill hole 97-134, granitic dykes are seen cross-cutting the diorite indicating that this unit pre-dates the Guyanais granodioritic or granitic intrusive. An alternative interpretation of these locally extremely silicified rocks is that they could be contact hornfels developed in mafic and intermediate Paramaca volcanics.

Two similar such magnetic features are located on the Hollandais and Sept-Kilos streams. The former location has not been investigated whilst the Sept-Kilos creek contains no silicified diorite float. This may indicate that the diorites do not crop out but are close to the surface.

7.2.9 The Guyanais Granitoid Intrusives

Felsic intrusives, presumed to be of the Guyanais phase, occur over much of the western parts of the Project. Two distinct plutons can be distinguished; one is centred on Jadfar creek and known as the Jadfar intrusive, the other is centred on the Petit Inini river near the old Dorlin village and known as the D'Artagnan intrusive. Both are multi-kilometric in extension and within the Project area appear to be separated by a Paramaca window (BRGM interpretation).

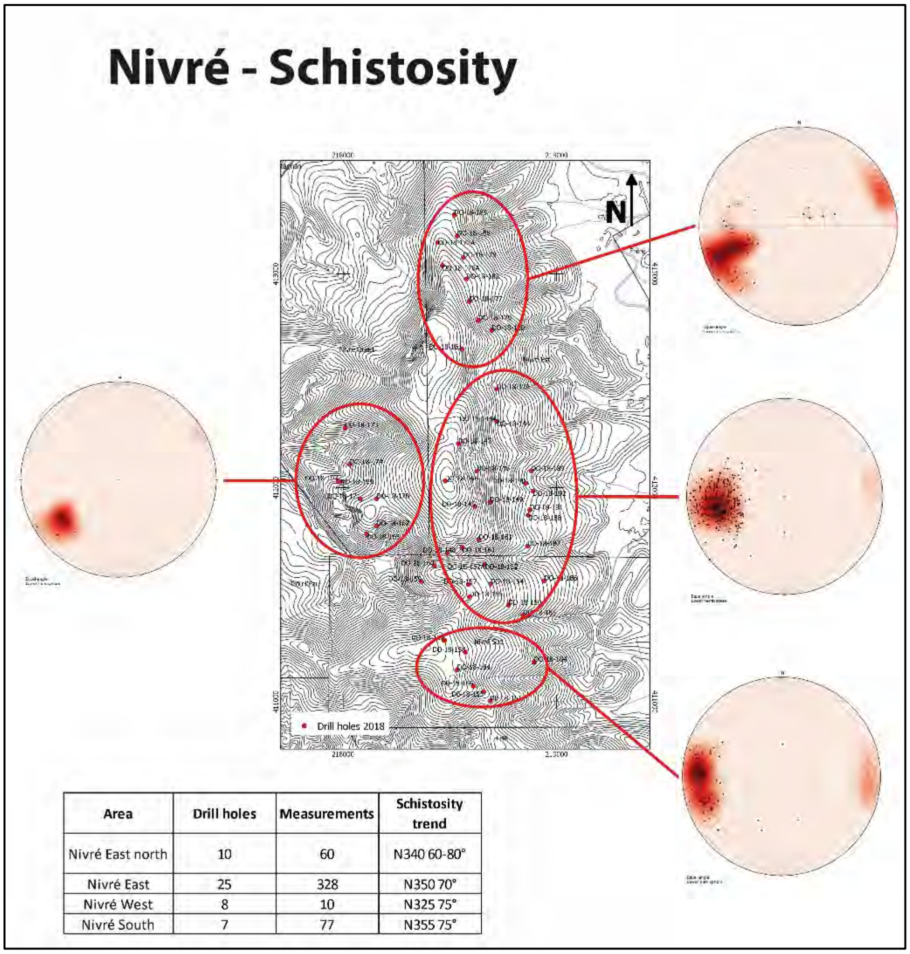
Both intrusives are granitic to granodioritic in composition, medium grained, with primary plagioclase, orthoclase, amphibole, quartz and sometimes muscovite. Common alteration minerals include sericite, chlorite, epidote and locally sulphides such as pyrite and chalcopyrite. These intrusives are rarely observed cropping out but have been intersected by five drill holes, three in Jadfar and two in Roche D'Olon (D'Artagnan granite). The Jadfar intrusive is logged as being a granodiorite in the contact zone (DDH 97-134) and a granite in the remaining two holes. Locally shearing is seen, especially in the contact zone, with re- alignment of crystal changing the appearance of the rock; it may be that the granodiorite is merely a deformed variety of the granite.

Illegal mining activity on the D'Artagnan creek has provided large exposures of saprolite where structural and alteration features were easily observed. The saprolite exhibits three different colours: pink, greenish and white. Though the pink represents the unaltered granite, it is believed that green coloration results from chlorite and epidote alteration, and the white colour results from sericite alteration. A quartz veinlet stockwork, usually of low fracture intensity, is frequently seen in both the white and green types. The granite is generally undeformed except along discrete and silicified shears of a few centimetres to several decimetres thickness that strike in the range of 130° to 170°, dipping east. The shears frequently contain sheared remnants of the quartz veinlets and along one shear a 1 m xenolith boulder of schistosed and tourmaline bearing Paramaca volcanics was observed.

7.3 Structure

A strong and penetrative schistosity affects all Paramaca volcanics with an increase in intensity inside the sericite schist "belt". This schistosity (S1) predominantly dips to the east at 60°-80° and typically strikes between 140° and 170°. A summary of schistosity measurements from recently drilled oriented core is shown in Figure 7.7, and shows the variation of the in-situ S1 fabric within Nivré East and West.

Figure 7.7: S1 Measurements from 2018 Oriented Core Over the Nivré Zones.



Area	Drill holes	Measurements	Schistosity trend
Nivré East north	10	60	N340 60-80°
Nivré East	25	328	N350 70°
Nivré West	8	10	N325 75°
Nivré South	7	77	N355 75°

A second schistosity (S2) also affects the Paramaca volcanics although not always present or distinguishable. Much less penetrative than S1, it generally dips more steeply to the east and is frequently sub-vertical; strikes normally vary between 170° and 200°, systematically 20° to 30° more easterly than SL Locally, especially where S2 is well developed, the two schistosities are parallel or sub-parallel. Petrographic studies support these observations and show that S I is marked by sericite-quartz layering and S2 by muscovite. In thin section S2 is seen to fold and kink S1. In the THR area BRGM petrographic studies indicate that the angular difference between the two schistosities may increase to approximately 50° although orientations are not known. The BRGM relate S2 to tight, upright folding, best defined on Montagne Nivré where an antiform slightly overturned to the west and plunging at 20° to the north was interpreted between Nivré East and West.

Outcrops and trench exposures show that thin (centimetres to several metres) silica-tourmaline bodies are mostly parallel to S1 and can even be boudinaged along it proving that more competent altered bodies developed prior to schistosity. However, a few exposures (trenches 25 and 35-36) clearly show a 30 to 40°

angle between silica-tourmaline facies and S1. This, coupled with observations of closed metric folds affecting silica-tourmaline bodies (trench 35-36), may be indicative of some larger scale fold structures.

Granites, diorites and gabbros seem to be only weakly affected by schistosity, however, exposures are lacking especially for the latter two. Discrete shears observed in the granites at D'Artagnan have a somewhat similar trend to S1, ranging from 120° to 170° in direction with eastward dips. However, these structures could also possibly be related to S2 deformation with orientations refracted in the granites. This interpretation would fit better with the regional structural model developed by the BRGM for French Guyana.

Regional drainage patterns indicate three major fault directions. An approximately 160° orientation (NNW-SSE), parallel to S1 in the Dorlin area; this is followed by the Petit Inini river upstream from Roche d'Olon. The second is 040° to 050° (NE-SW) and is followed by many of the major streams in the Dorlin area. The third is broadly E-W and appears to mainly affect the Nivré-South Inini area. None of the movements of these faults is known for sure. A fault from the E-W family crops out in trench 35-36 in which a fault plane exhibits fault step ("gradin d'arrachement") structures indicative of a dextral movement but this cannot be extended to the whole family with certitude. Granites are typically affected by radiating faults, NS, EW, NE and NW.

7.4 Mineralization

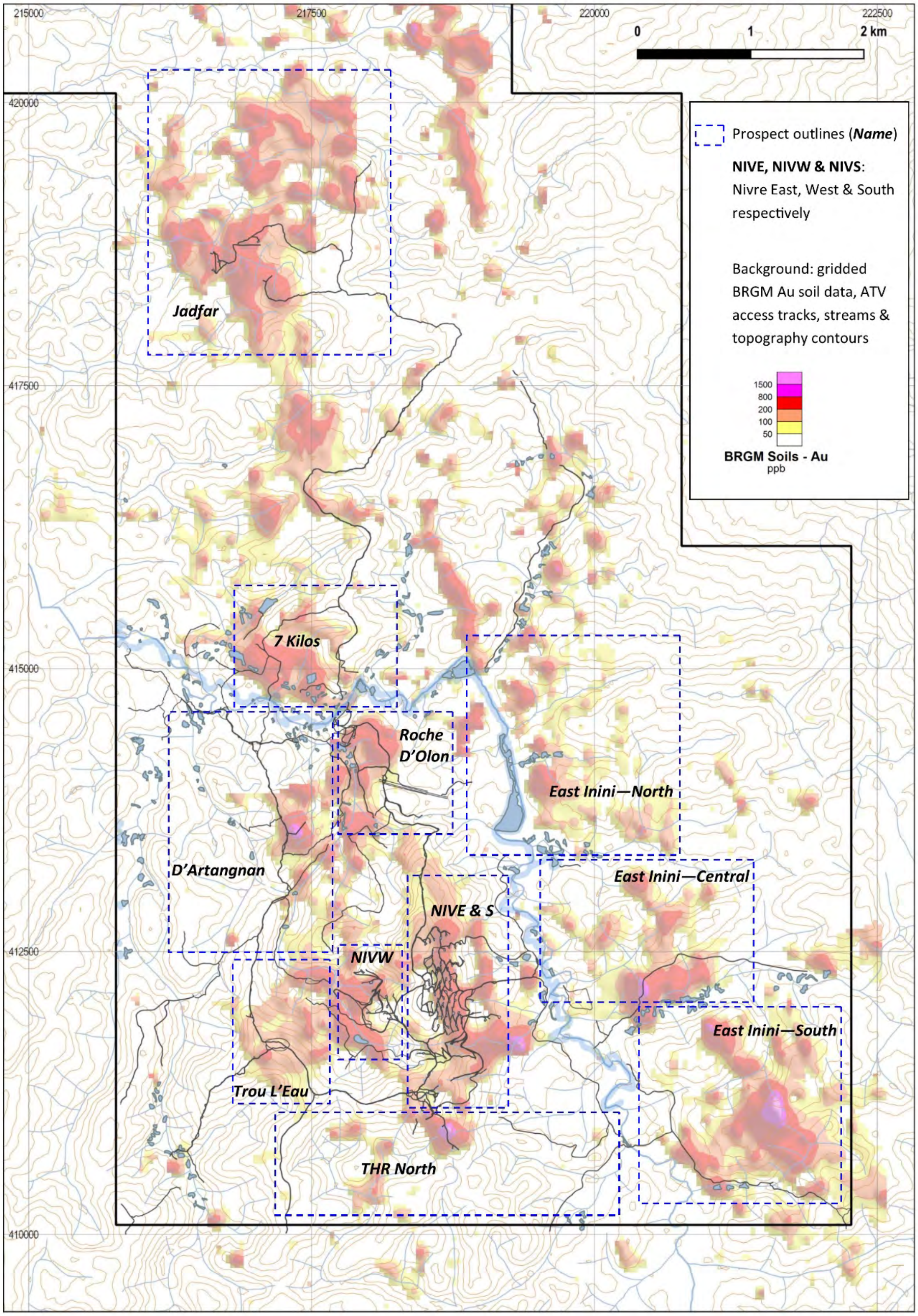
The Dorlin Project has numerous areas with anomalous gold soil geochemistry as shown in Figure 7.8. The principal mineralised zones that have been explored by RGD and others to date, to varying levels of development are:

- On Montagne Nivré: Nivré East, Nivré West and Nivré South zones;
- Elsewhere in the area south of the Inini River: Roche d'Olon; D'Artagnan and Trou L'Eau prospects;
- In the North Inini area: the Jadfar prospects.

On most slopes, a red colluvial layer derived from the dissolution and erosion of both duricrust and hard rock outcrops has developed usually to depths of several metres. Gold enrichment in the colluvium is best developed in the Sept-kilos, Roche d'Olon and Nivré East areas.

The following is a description of the principal features of the mineralised zone at Nivré East (East) based on information obtained from mapping, geochemistry, deep augering, trenching and drilling.

Figure 7.8: BRGM Soil Survey Data Showing Gold Results with Respect to Prospect Locations.



7.4.1 Nivré East

Because of both the steep slopes on the eastern flank of Montagne Nivré and the cropping out of primary mineralisation near the crest of the ridge, a thick and gold-enriched colluvial layer has developed. This layer is typically composed of poorly sorted red gravely clay including boulders of duricrust remnants and silica-tourmaline facies, with an average thickness of approximately 6 m. On the lower parts of the slopes (e.g. Johnny Wait), landslides and slumping locally cause significant thickening (of up to 35 m). This layer is systematically enriched with highest values usually found at the interface with the saprolitic layer.

Primary mineralisation on Nivré East can de divided into three main groups:

- the eastern massive silica-tourmaline body;
- the western semi massive and disseminated silica-tourmaline bodies;
- silica-pyrite (not necessarily with tourmaline) altered tuffs and lapilli-tuffs.

The eastern massive silica-tourmaline body is the most significant mineralised unit on Nivré East. It is extremely continuous for over from approx. N411500 m to N412500 m.

The massive body strikes N 350° and dip varies from approximately 75° E in the north to sub-vertical in the south. There is a general increase in thickness from south (around 15 m) to north (around 40 – 50 m), with the body reaching its maximum thickness in the central area; locally, the mineralised body in this central area is two massive silica tourmaline bodies separated by a narrow core of tourmalinised, generally low grade, schists. It is possible that this thickened zone is related to faulting.

Ductile deformation of the massive body is rare, but fracturing can be quite intense. Mineralisation is usually associated with high pyrite content (from 5 to 25% locally). The pyrite, a ubiquitous component of these bodies, is disseminated or in massive to sub-massive veinlets (+ quartz and carbonate). A late quartz-carbonate vein set is widely present, commonly forming stockworks and locally associated with chalcopyrite development both in the vein and the hosting rock; large masses of tetrahedrite-tennantite (grey copper) and sulfosalts are also locally associated with these veins.

West of this massive unit numerous semi-massive (typically 5 to 10 m thick) silica-tourmaline facies bodies occur along with disseminated much thinner bodies. Dip angles, strike, textures, mineralogy and mineralisation types are like those of the massive body.

7.4.2 Mineralization Paragenesis

It is interpreted from mineralogical, geochemistry ("ICP") studies and direct observations that the paragenesis involved in the silica-tourmaline-pyrite and silica-chlorite-pyrite associated deposits is the following:

1. First gold bearing pyrite (As-rich pyrite?) event associated with silica, sericite and possibly Mg-rich tourmaline. Pyrite occurs as fine to coarse crystals, mainly disseminated but also along with quartz-carbonate-(chalcopyrite) veinlets. Coarse pyrite possibly a later sub-event.
2. Strong silicification and tourmalinisation (Fe-rich tourmaline) generally spatially superimposed on the previous stage (Nivré East and South) but locally not (Nivré West). Partial corrosion of the first pyrite by Fe-tourmaline. Development of highly competent rocks.
3. Second main pyrite event (Au or not?) defined by pyrite overgrowths and euhedral pyrite best exposed in the late Fe-tourmaline cemented hydrothermal breccias.
4. First main deformation (D1) and development of S1 schistosity. Transposition and locally boudinage along schistosity (±160°) of semi-massive and disseminated silica-tourmaline bodies. The massive body on Nivré East remains on a N-S strike. At a smaller scale (mineralogical) and because of their competency, silica tourmaline bodies, either thin or massive, do not develop fabrics. It is suspected that folding is associated with this first deformation, but the style and scale of folding remains uncertain. Development in the silica and silica-tourmaline altered facies of quartz-carbonate veins, veinlets and stockworks associated with sulfosalt minerals and gold (Ag-rich?) responsible for local higher gold grades. Possible remobilisation of gold into fractures in pyrite. This mineralisation appears dominant towards the end of the deformation process.
5. Intrusion of feldspar porphyries and granodiorites.
6. Second deformation (D2) and development of S2 mainly concentrated on feldspar porphyries and associated to a strong muscovite alteration. Fractures filled with muscovite are observed in the silica-tourmaline facies that could be related to the same event.
7. Late D2 intrusion of diorites.

Tourmaline has a close spatial relationship to gold mineralization, although the timing of the original tourmaline alteration is likely to have occurred prior to deformation (D1). It is likely that this strong spatial correlation is due to a rheology contrast, whereby the tourmaline bodies act as a structural (and possibly chemical) trap for later gold mineralisation. A strong chemical association between pyrite and gold is apparent in all Nivré zones, as is an association with more competent units such as those strongly silicified in Nivré West.

8. DEPOSIT TYPES

Three main types of primary ore deposits have been recognized in French Guiana, based on textural features and geological setting (adapted from Milesi *et al.,* 2003). These three types are defined as follows:

1. Stratiform/stratabound gold-bearing tourmalinites (essentially pre-D1), in which gold is associated with disseminated sulphides, hosted by the volcanic and sedimentary rocks of the Paramaca Formation.
2. Gold-bearing conglomerates (D2-related): disseminated gold hosted by the Upper Detrital Unit of the North Guiana Trough. Mineralization is found in polygenic conglomerates containing detrital oxides and hydrothermally altered and schistose metasedimentary pebbles, as well as in quartzites and more rarely in monogenic conglomerates (Vinchon *et al.,* 1988; Ledru *et al.,* 1991; Manier, 1992; Milesi *et al*., 1995).
3. Mesothermal-orogenic ore deposits (D2-related): This type of discordant polymorph mineralization is represented by quartz-carbonate-sulphide veins and stockworks, essentially hosted by the Paramaca Formation and granitoids. The most numerous are vein-type occurrences with sulphide haloes related to different phases of the D2 tectonic event (Lasserre *et al*., 1989; Manier, 1992; Manier *et al*., 1993; Milesi *et al*., 1995), although some are associated with late phases of D1 tectonics.

Nivré is considered one of the best examples of a tourmalinite-hosted gold deposit, in which an orebody is produced by polydeformation of a large stratabound sulphide deposit hosted by volcanic and volcanoclastic rocks, metamorphosed to greenschist facies (Milesi *et al*., 1988; Lerouge *et al*., 1999).

9. EXPLORATION

9.1 Exploration History

A summary of historical activities, prior to the involvement of RGD, is presented in Section 6. The following presents the activities undertaken by RGD since the signing of the option agreement with Auplata in 2017.

9.2 Validation of Historical Resource Database (2017 & 2018)

Considering that exploration work in the Project was interrupted in 1998, RGD needed to validate the historical geological database used for resource estimate. This validation work included geological relogging and resampling of available core and drilling "twin" holes to demonstrate that historical results could be used for ongoing resource estimates. 7,147 m of Nivré core were relogged – all core available.

Re-logging was made on a semi-quantitative and sample by sample basis to allow for statistical comparisons. Relogging confirmed the quality of the initial Guyanor logging.

Resampling included 691 validation samples for 645 historical intervals complemented by 46 blanks and 32 standards for a total of 769 samples. In addition, 66 coarse duplicates and 123 pulp duplicates were requested to asses the nugget effect.

Six validation drill holes ("almost twins") of about 760 m were drilled to further validate historical drill results. There drill holes confirmed their validity.

The geology of the Nivré deposit area was re-interpreted with the grouping of the lithologies into units large enough (5 m) to be modeled in three dimensions ("3D"). The selected units include:

- Tourmaline-quartz-pyrite bodies;
- Mixed tuffs and volcanics and tourmaline-quartz-pyrite alteration;
- Shear controlled quartz veins;
- Colluvium and lateritic clays ("laterite").
- Barren tuffs and volcanics;
- Dykes.

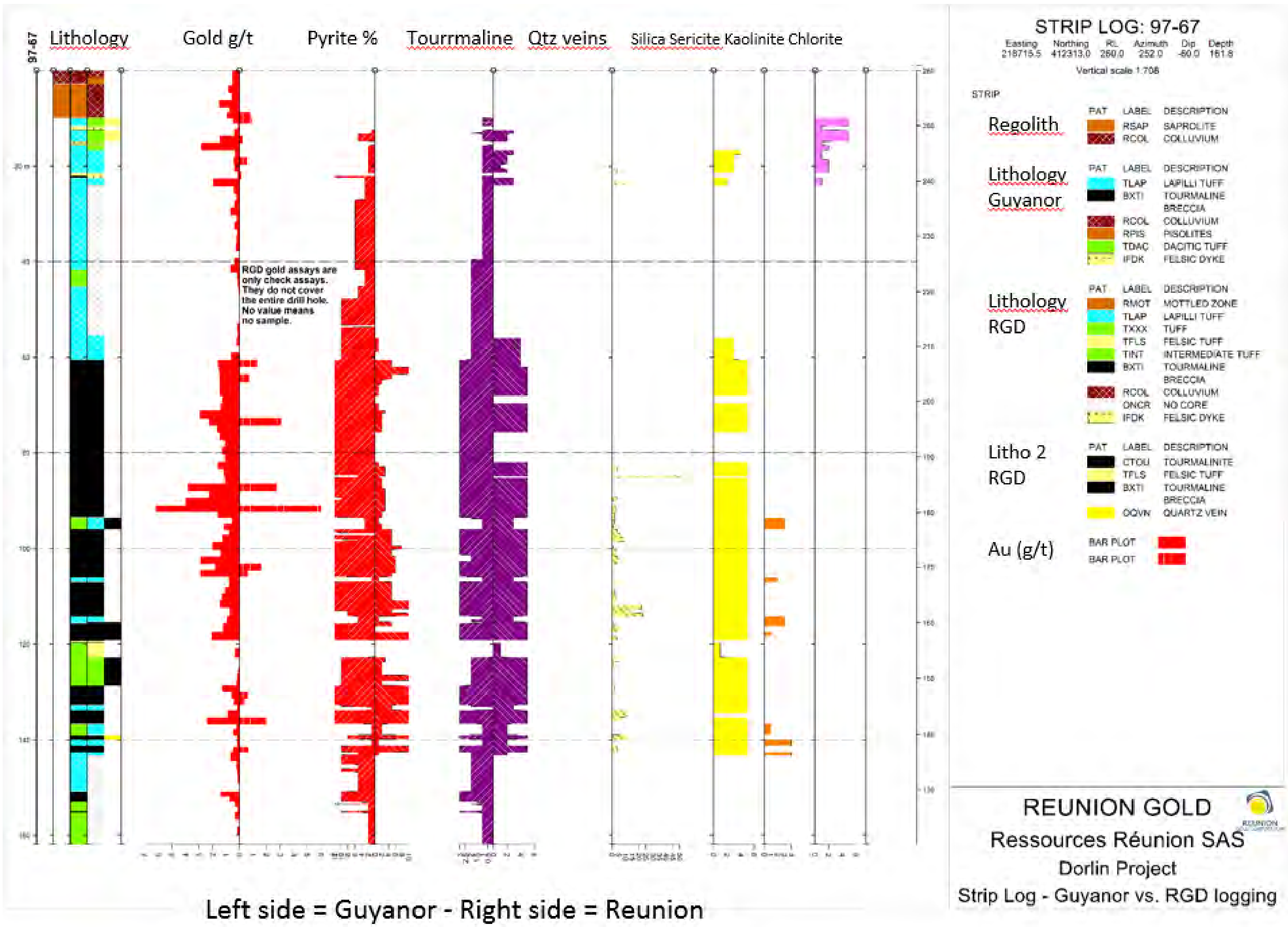
The geological interpretation was modelled in 3D for the resource estimate with the idea to constrain and model gold according to its host units as listed above. The first four units control gold, while the last two are barren.

9.2.1 Geological Relogging

Re-logging was made on a semi-quantitative and sample by sample basis to allow for statistical comparisons. Relogging confirmed the quality of the initial Guyanor logging as indicated by the strip log in Figure 9.1, where historical logging and assay results are on the left side of each column while relogging and new assay results are on the right side. The order of the columns is:

- Lithologies 1 and 2 (modifier). Missing lithologies on the right side indicate the lack of core as only mineralized sections were saved from destruction;
- Gold in g/t. Only selected samples representing about 10% of mineralized core were re-assayed. The lack of assay results on the right side of the column only indicates that the sample was not re-assayed);
- Pyrite in percent;
- Tourmaline (0 to 5);
- Silica alteration (not quantified in the historical log);
- Sericite (not quantified in the historical log);
- Kaolinite (not quantified in the historical log);
- Chlorite (not quantified in the historical log).

Figure 9.1: Example of a Nivré East Strip Log Comparing Guyanor and Reunion Gold Results



9.2.2 Resampling

Resampling included 691 validation samples for 645 historical intervals complemented by 46 blanks and 32 standards for a total of 769 samples. In addition, 66 coarse duplicates and 123 pulp duplicates were submitted. Samples corresponding to the first 105 historical intervals were analyzed at FILAB in Paramaribo. The samples corresponding to the first 105 historical intervals were analyzed at MS Analytical in Georgetown and assay results were validated. In total, 645 historical samples were validated. The discrepancy between the number of validation samples and the number of historical assays is due to the splitting of some historical assays into two validation intervals to better follow the geology. The two validation results were then composited for the comparison with the historical results.

9.2.3 Validation Twin Holes

The validation drilling program consisted in drilling five holes in proximity (“near twins”) to historical ones, so that entire mineralized intersections could be compared. In addition, a sixth hole was drilled vertical between two historical holes drilled at -60° to test the continuity of the mineralization within the block model. The six holes represent a total of 760 m. RGD contracted the services of drilling company based in French Guiana which started work on July 12, 2018. Core drilling used HQ-size rods in saprolite and NQ-size rods in rock with half-core samples analyzed by MS Analytical laboratory in Guyana, for gold fire assay, observing full QA/QC and chain of custody protocols.

Highlights of the results of the validation drilling program are listed below. The Nivré deposit location map is shown in Figure 9.2 and a typical cross-section is provided in Figure 9.3.

- 1.72 g/t gold over 62.2 m in DO-18-144 from 65.8 m comparing with 1.69 g Au/t over 60.2 m from 59.0 m in historical hole 97-67.
- 1.92 g Au/t over 18.2 m in DO-18-145 from 18.8 m comparing with 15.5 g Au/t over 9.5 m from 18.5 m in historical hole 97-100; but when assays from both holes are cut to 10 g/t gold, 1.65 g Au/t over 18.2 m in DO-18-145 compares with 3.92 g Au/t over 9.5 m from 18.5 ms in historic hole 97-100.
- 1.96 g Au/t over 69.0 m in DO-18-146 from collar comparing with 1.36 g Au/t over 47.45 m from 13.7 m in historical hole 97-37.
- 1.37 g Au/t over 17 m in DO-18-148 from 77.0 m and 1.76 g Au/t over 24 m in DO-18-148 from 102.0 m and comparing with 1.31 g Au/t over 47.25 m from 77.9 m in historical hole 97-43.
- 2.54 g Au/t over 85.00 m in DO-18-149 or 2.17 g Au/t over 102.00 m in DO-18-149 from collar comparing with 1.69 g Au/t over 102.5 m from collar in historic hole 97-104, including some dilution.

Figure 9.2: Location of the Nivré Validation Drill Holes

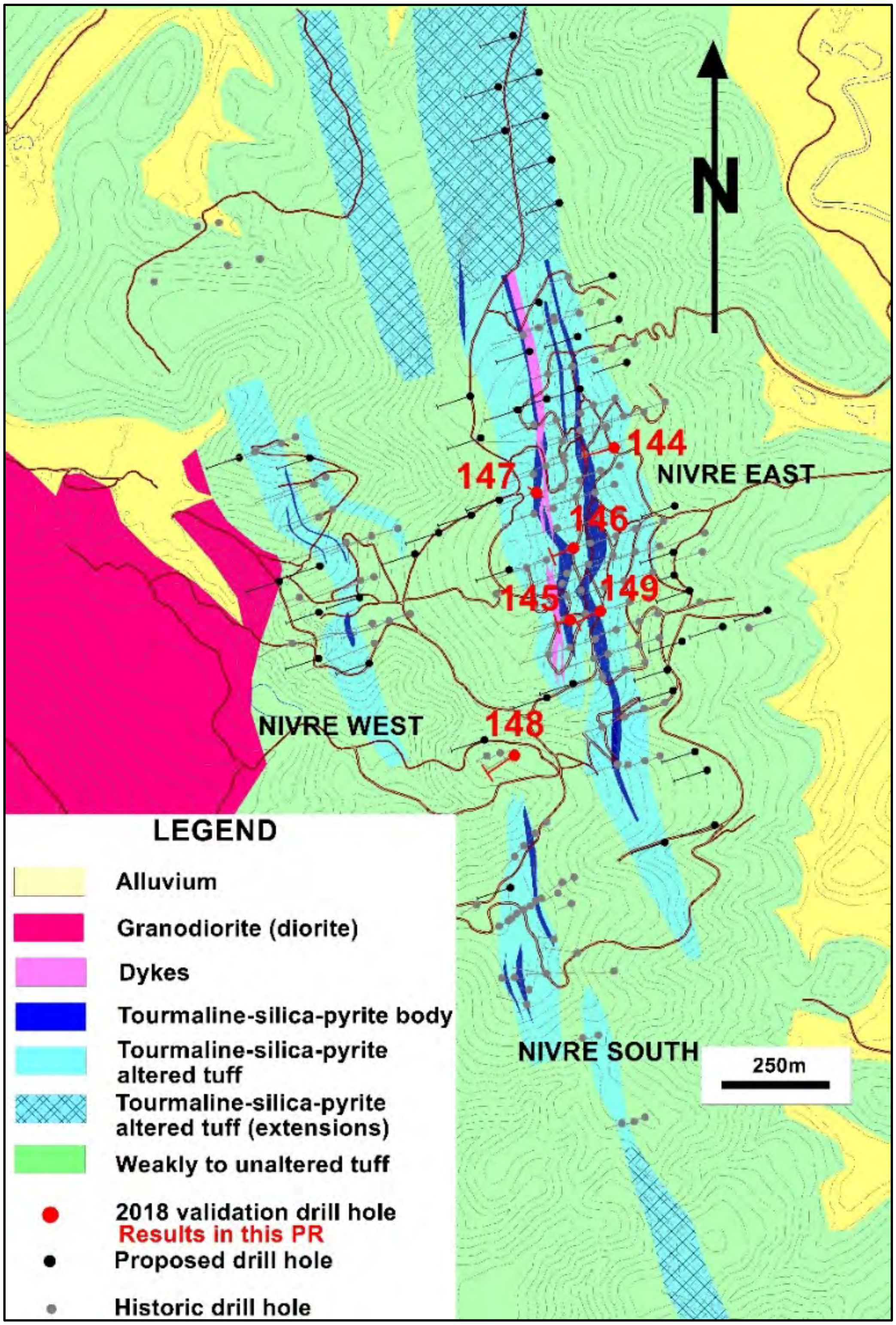
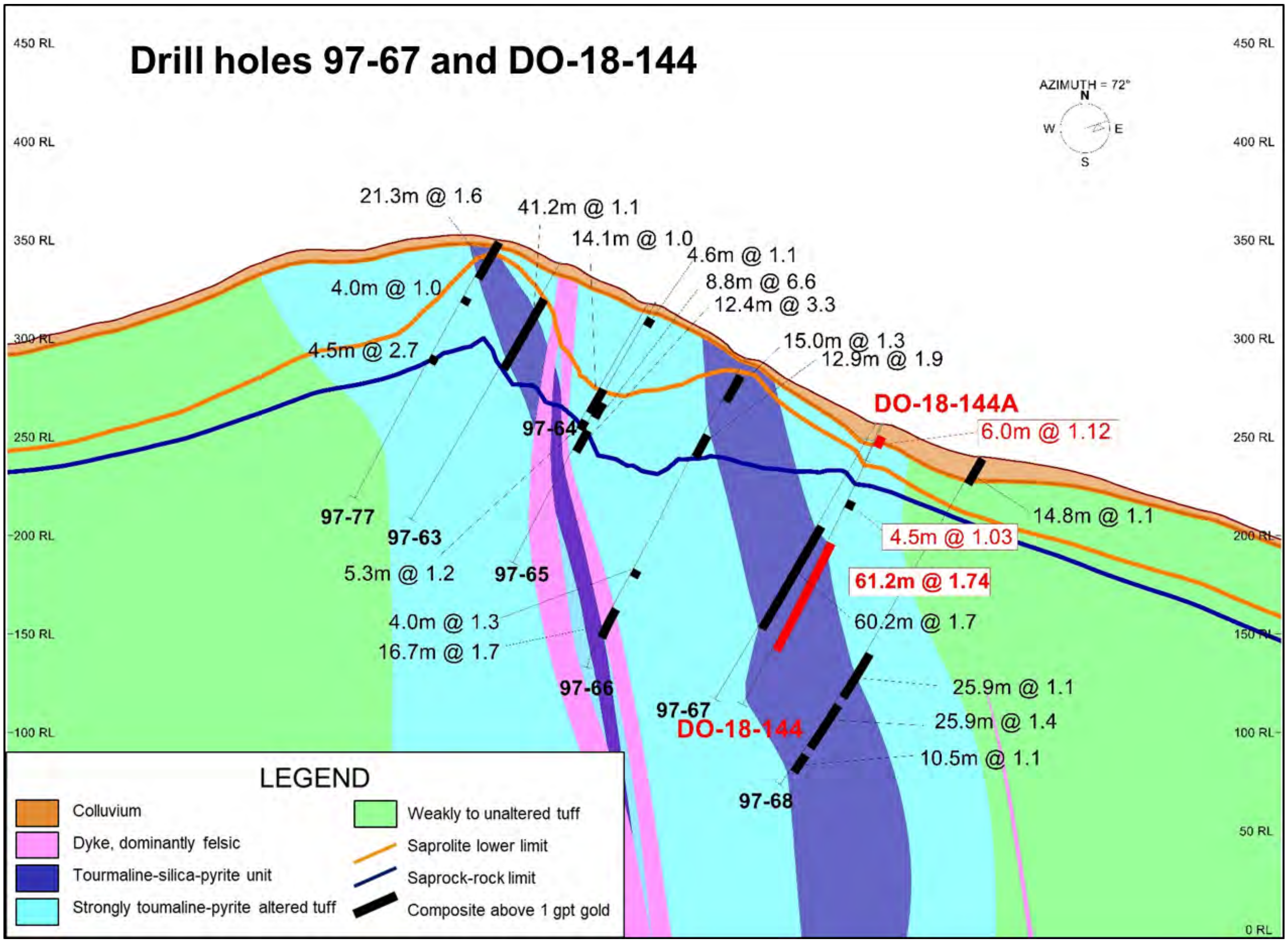


Figure 9.3: Cross-Section Through Historical Hole 97-67 and Validation Hole DO-18-144 (and DO-18-144a in the top 20 m)



9.2.4 Geological Database Validation

Once the QA/QC results of the re-assays were validated, it was possible to compare historical results with the resampling on the same intervals. Figure 9.4 and Figure 9.5 show the comparison plots of the assay results at FILAB and MS-Analytical with historical assay results. There is a very good correlation until 10 g Au/t in both laboratories with the original assays despite an apparent strong nugget effect that is currently being assessed. The nugget effect is particularly visible on high assays.

Figure 9.4: Gold Results at FILAB vs. Historical Assays

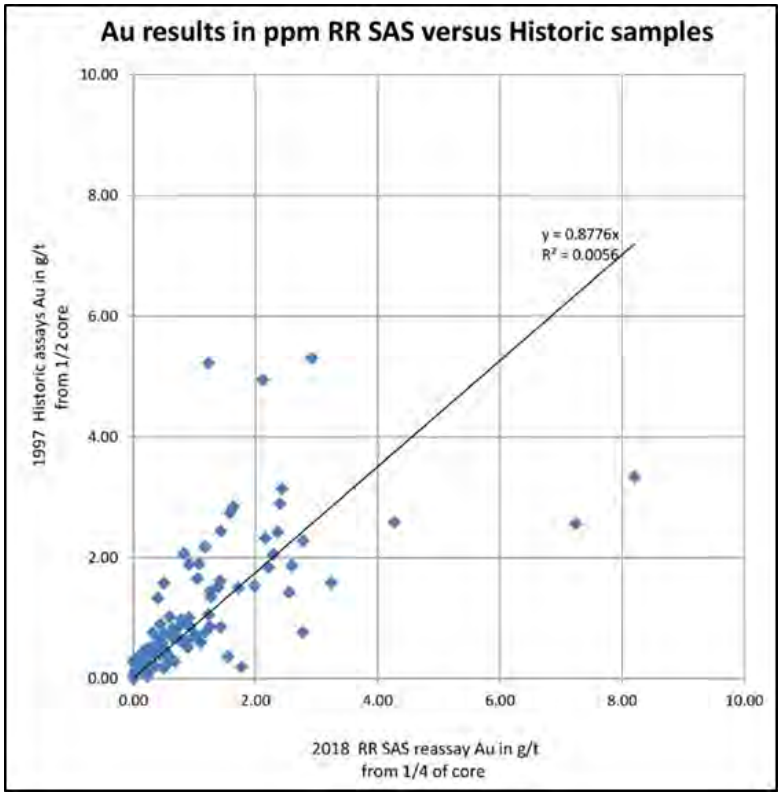
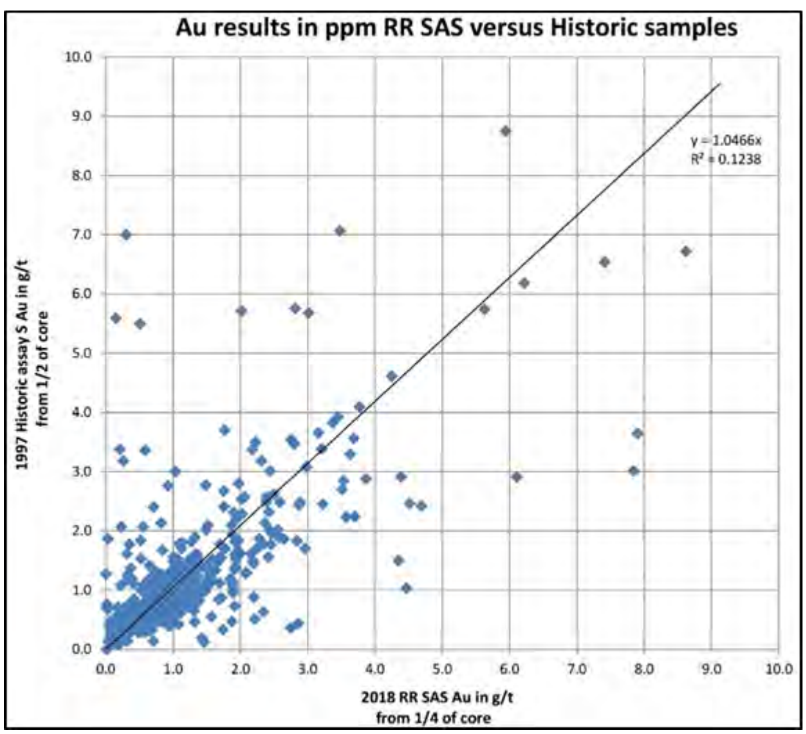
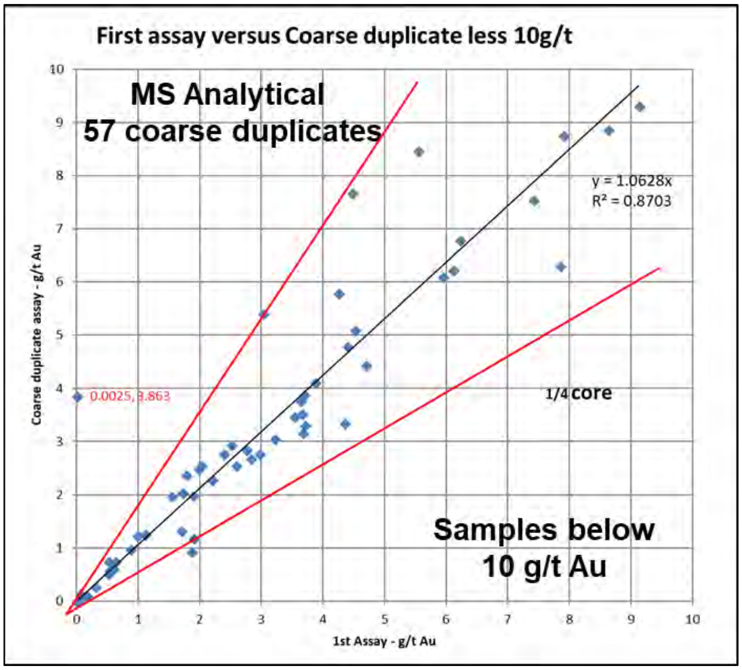


Figure 9.5: Gold Results at MS Analytical vs. Historical Assays



To assess if the nugget effect was real or exaggerated due to assaying ½ versus ¼ core sizes in different laboratories with different assaying protocols, 87 pulp and 57 coarse duplicates were re-assayed in the same laboratory, at MS-Analytical. Figure 9.6 shows a good correlation between the original assay and its coarse duplicate, demonstrating that the nugget effect is in fact limited.

Figure 9.6: Gold Results at MS Analytical 1st Re-assay vs. Coarse Duplicates



9.3 Induced Polarization Survey (2018)

A gradient array induced polarization and resistivity survey has been carried out since November 2018, by Matrix Geotechnologies Ltd. over the Nivré deposit and other prospects. Station spacings for this survey were 25 m, with a nominal line spacing of 200 m. A single line (line 12250N) was also re-surveyed using a pole-dipole configuration for comparison purposes.

Results from the geophysical survey show a strong correlation between chargeability and zones of gold mineralization, likely due to the often-observed spatial association of gold with pyrite within the deposit area. Resistive highs appear to be associated with zones of silicification (and tourmalinisation). The results from this survey are being used in the definition of further drill targets within the Dorlin project area (Figure 9.7 and Figure 9.8).

Figure 9.7 - Chargeability Results from the 2018 Gradient Array IP Survey Undertaken Over the Nivré Deposit and Other Prospects

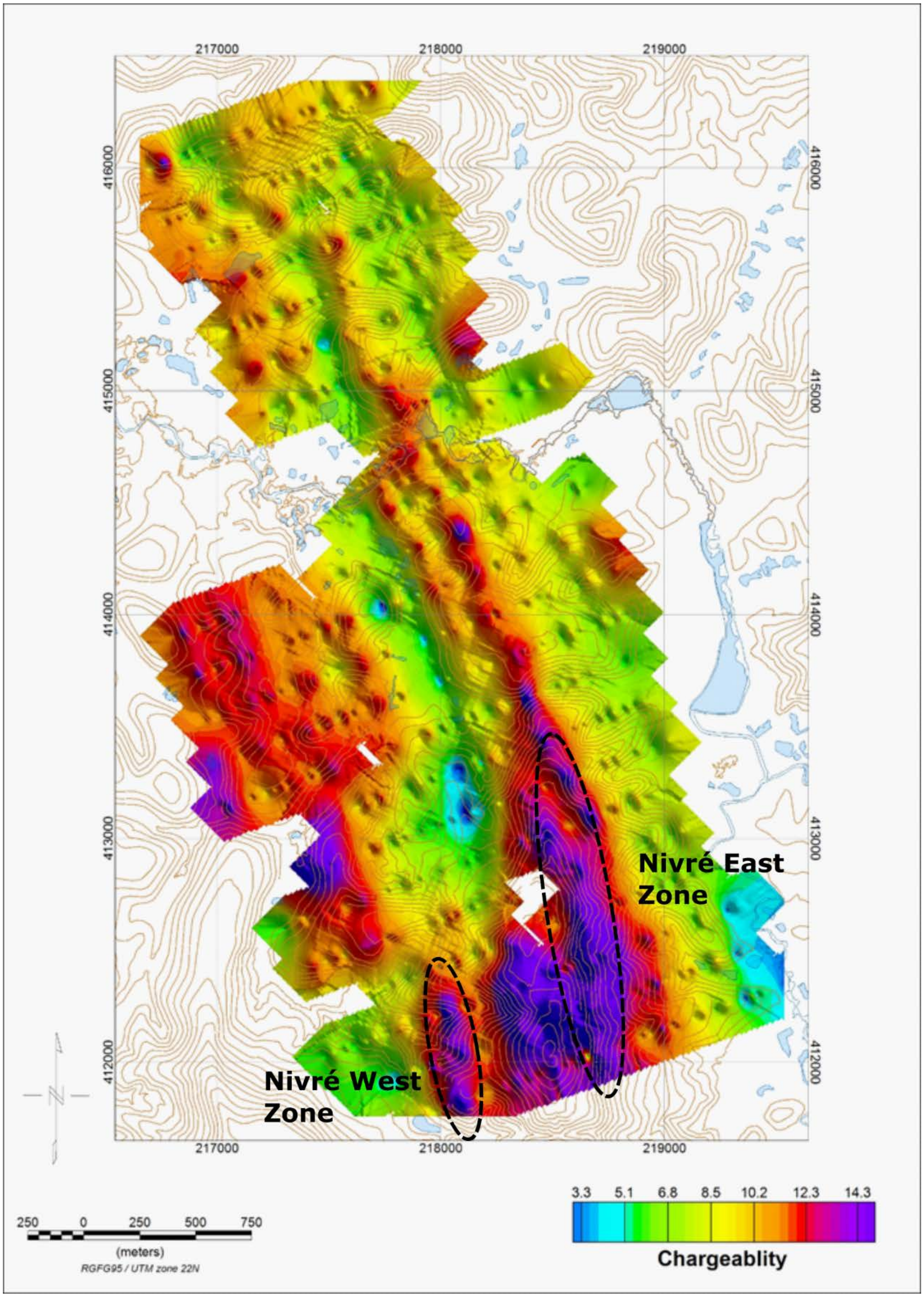
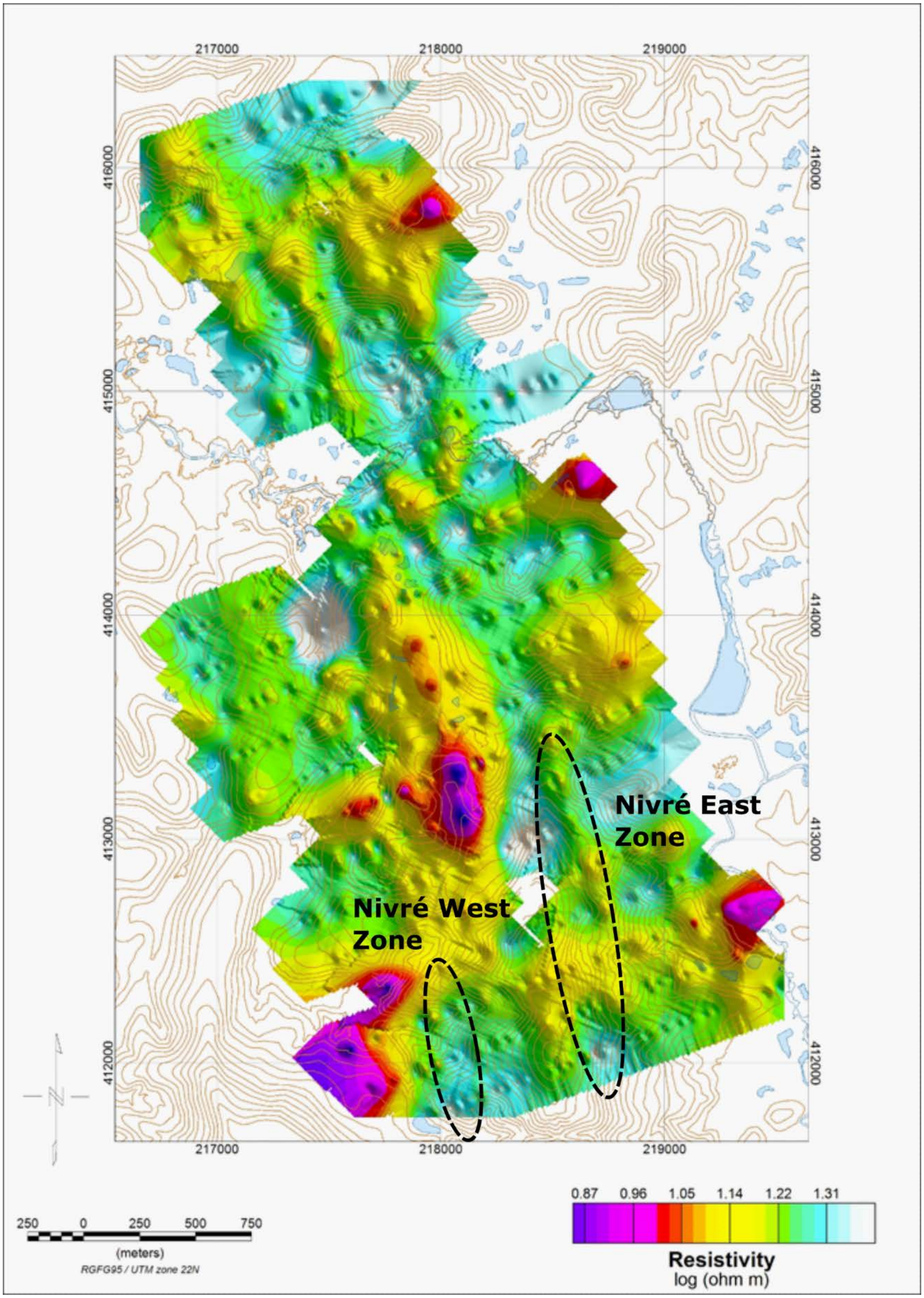


Figure 9.8 - Resistivity Results from the 2018 Gradient Array IP Survey Done Over the Nivré Deposit and other Prospects



9.3.1 Geological Mapping and Reconnaissance (2018)

Field mapping and rock sampling was carried out on the Roche d'Olon and Sept Kilos prospect areas during 2018, to delineate additional prospective areas for drill targeting gold mineralization.

9.3.2 Roche d'Olon

A total of 92 punctuated channel and "grab" samples were collected within the Roche D'Olon prospect over the course of 10 field days. In addition, 231 structural measurements were made.

The outcrops of the Roche d'Olon prospect comprises the same lithologies as those found on the Nivré area, namely the strongly altered silica-tourmaline facies, in addition to some outcrops of intrusive porphyry. It has ben interpreted that the silica-tourmaline facies continue north from Nivré East where the unit rotates to an NNW-SSE strike, parallel to the inferred granite contact to the west, and cross the Roche d'Olon prospect. This orientation is further confirmed by results from the IP geophysical survey that clearly define a chargeability anomaly coincident with the silica-tourmaline facies outcrops.

Outcrops of silica-tourmaline facies exhibit numerous subvertical extensional quartz-only veins with an overall NE strike. It is likely that these veins are like those observed at Nivré East where no direct correlation with gold has been noted.

Highlights of the punctuated channel sampling (chip sampling across defined zones of alteration) returned with assay grades of up to 5.8 g Au/t.

9.3.3 Sept Kilos

A total of 91 channel, punctuated channel, and grab samples were collected within the Sept Kilos prospect over the course of 40 field days. In addition, 50 structural measurements were made.

In follow-up to historical auger sampling, fieldwork focused on the assessment of boron anomalies that extend through Sept Kilos, terminating in the north of the prospect. Within this wider boron anomaly, silica-tourmaline alteration zones have been mapped and sampled.

Highlights from channel (TR-18-001) sampling include 1.5 m @ 1.2 g Au/t, from one of the above-mentioned silica-tourmaline altered zones.

10. DRILLING

10.1 Drilling History

Historically, 182 drill holes and 24,625.75 m were drilled in the permit by historical operators (BRGM, BRGM-BHP and Guyanor-Cambior). Out of this, only 23 holes for a total of 2,768.64 m representing 13% of the total drilled length were drilled outside the Nivré area.

In 2018, RGB completed a validation program of six holes (seven when including the first 20 m of the first hole that were re-drilled) for 760.06 m and an expansion program of 50 holes for 5,824.93 additional metres for a total in the 2018 program of 57 drill holes and 6,584.99 m.

The following table provides a summary of the diamond drilling work that took place on the Dorlin Project:

Table 10.1: Summary of Diamond Drilling at Dorlin Project

Target	BRGM Holes (nb)	BRGM-BHP Holes (nb)	Guyanor-Cambior Holes (nb)	RGD Holes (nb)	Total Holes (nb)
THR	11				**11**
d'Artagnan	3		2		**5**
Marguerite		1			**1**
Nathanael		1			**1**
Jadfar		2	3		**5**
Nivré W	6	10	9	**12**	**37**
Nivré E		4	93	**27**	**124**
Nivré S		1	36	**18**	**55**
Total	**20**	**19**	**143**	**57**	**239**
Target	**BRGM (m)**	**BRGM-BHP (m)**	**Guyanor-Cambior (m)**	**RGD (m)**	**Total (m)**
THR	1,372.14				**1,372.14**
d'Artagnan	166.55		222.35		**388.90**
Marguerite		181.20			**181.20**
Nathanael		105.85			**105.85**
Jadfar		392.15	328.40		**720.55**
Nivré W	338.70	2,571.00	1,397.10	**1,592.25**	**5,899.05**
Nivré E		770.90	13,704.55	**2,791.85**	**17,267.30**
Nivré S		300.00	2,774.86	**2,200.89**	**5,275.85**
Total	**1,877.39**	**4,321.10**	**18,427.26**	**6,584.99**	**31,210.74**

10.2 Drilling Procedures

Drilling procedures adopted by RGD from the field, to the shipment of the samples to the laboratory are described in this section.

10.2.1 Collar Surveys

All 2018 drill collars have been surveyed by SIAGE (Société d'Imagerie d'Aménagement et de Géodésie), an independent surveying company based in Cayenne. Surveys were carried out using a DGPS, using five base stations (averaging a +/- 2 cm accuracy) located in and around the Dorlin camp, and at the Dorlin airstrip north of the Nivré deposit. All Easting and Northing measurements were recorded in RGFG95 UTM zone 22, while elevations were measured in NGG77.

In addition to the 2018 drill collars, a selection of ten widespread historical holes were also surveyed as a form of QAQC. No significant differences on collar coordinates were reported for the historical holes.

10.2.2 Down-Hole Surveys

Down-hole surveys are measured by the drillers using a REFLEX EZ SHOT instrument. Surveys are made at depths of 15, 45, 75, 105 m (etc.) until the end of the drill hole. The measure at 15 m allows to check the proper orientation of the drill hole before it is completed. To avoid errors in surface measurement of the drill hole direction and dip, it was decided to use the 15 m down-hole measure as the collar direction and dip. The measures by the REFLEX EZ SHOT instrument can be directly downloaded as mhl that cannot directly be read without a software or .dat, .csv or even .xls.

Among other parameters, the down-hole measures include

- Hole name;
- Depth of measure;
- Dip;
- Azimuth;
- Temperature;
- Gravity;
- Magnetism.

The REFLEX EZ SHOT instrument was calibrated on February 1, 2018. Calibration is required every second year.

10.2.3 Transport and Preparation of Core

Transport of closed core boxes was made from the drill site to the camp by the drilling company using a trailer hauled by an ATV. Core boxes were then laid out at the core shed and were verified by geology staff. Cleaning of core is done at this stage by a technician or geologist by using water sprayers and gently brushing the core, never directly using a water hose.

10.2.4 Geotechnical Logging

Core is logged on inclined logging tables. The geological technician carries out systematic measurements of core runs and marks each metre directly on the core.

For saprolite, the core remains in the box for geotechnical measurements. For fresh rock, the core pieces are moved to on an angle iron mounted on the edge of the inclined logging table, and the core reconstructed as accurately as possible.

All NQ drilling uses a Reflex ACT III tool for orientation, and the bottom of the hole is marked by the drill crew when the core is retrieved and pumped from the inner tube. A minimum of two successive orientation marks are necessary to validate the core orientation; three or four coherent marks are noted for high confidence orientations. An orientation line is marked in red denoting the bottom of the core, with arrows indicating the downhole direction. A second line is marked in blue at one centimetre from the red line to serve as the guide for sawing the core in order to preserve the orientation line after sampling is completed. The core is then returned to the boxes for further logging and measurements including core recoveries, rock quality designation ("RQD") and rock strength (hardness).

Each drill run as marked by the driller at the rig is measured and these measurements are used with the run lengths to calculate a recovery percentage.

Simple RQD measurements of the degree of jointing or fractures in a rock mass are recorded for each drill run. The RQD value is the percentage of the drill core in lengths of 10 cm or greater. When the drillers break the core in order to fit it in the core box, red markers are placed with a wax pencil on both pieces of core so that the breakage is not counted for RQD measurements.

The determination of rock strength is made by the geologist using the Brown Index of Soil and Rock Strength. This classification is used for similar deposits located in equatorial environment and is presented in Table 10.2.

Table 10.2: Brown Index of Soil and Rock Strength

	Index	Description	Identification	Approximate Range of UCS (MPa)
Saprolite Upper Saprolite (WSU)	S1	Very Soft	Easily penetrated several inches by fist.	< 0.025
	S2	Soft	Easily penetrated several inches by thumb.	0.025 – 0.05
	S3	Firm	Can be penetrated several inches by thumb with moderate effort.	0.05 – 0.10
	S4	Stiff	Readily indented by thumb but penetrated only with great effort.	0.10 – 0.25
Transition Lower Saprolite (WSL) Saprock (WSR1), (WSR2)	S5	Very Stiff	Readily indented by thumb nail.	0.25 – 0.50
	S6	Hard	Indented with difficulty by thumb nail.	> 0.50
	R0	Extremely weak rock	Indented by thumb nail.	0.50 – 1.0
	R1	Very weak rock	Crumbles under firm blow with point of geological hammer.	1.0 – 5.0
Rock Saprock (WSR2) Fresh Rock	R2	Weak rock	Can be peeled by a pocket knife.	5.0 – 25
	R3	Medium strong rock	Can be peeled by a pocket knife with difficulty; shallow indentations made by firm blow with point of geological hammer.	25 – 50
	R4	Strong rock	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with a single firm blow of geological hammer.	50 – 100
	R5	Very strong rock	Specimen requires more than one blow of geological hammer to fracture it.	100 – 250
	R6	Extremely strong rock	Specimen requires many blows of geological hammer to fracture it. Specimen can only be chipped with geological hammer.	> 250

Note:
1. UCS: Uniaxial Compressive Strength

10.2.5 Measurement of Magnetic Susceptibility

The measurement of magnetic susceptibility is done in the plastic core tray by the technician or the geologist. Most of the drill holes were measured using a Terraplus KT-10 instrument, but four drill holes were measured with a SM30 unit at the beginning of the 2018 drill program. A comparison of the measurements showed slight differences between these two instruments and therefore it was decided to only use the KT10 unit from hole DO-18-146 onwards.

The measurements are made at every metre on the whole core before it is sawed, but for two drill holes, DO -18-152 and DO-18-175, they were done on half core. Measurement readings are entered directly on the Excel logging spreadsheet.

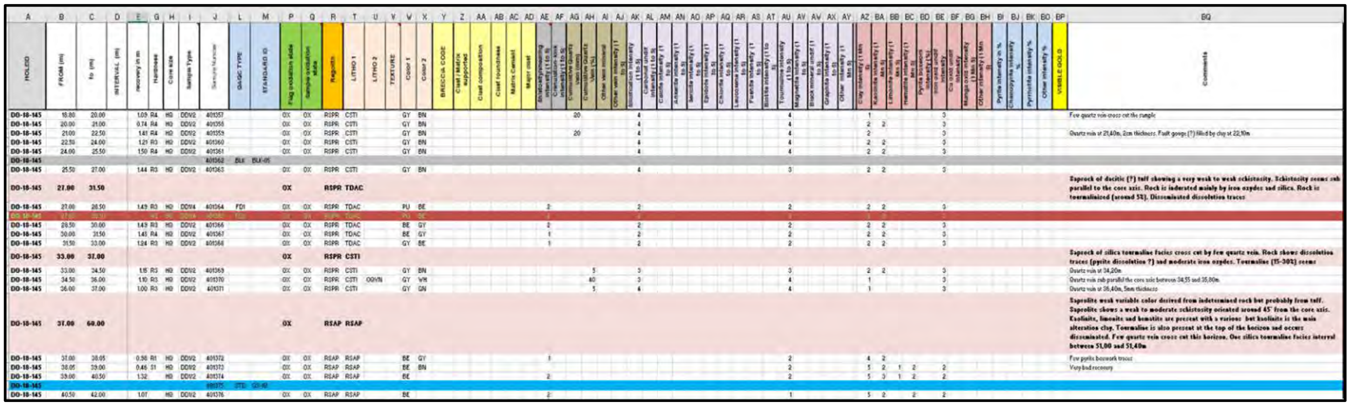
10.2.6 Geological Logging

The geologist first identifies and describes the largest lithological / alteration intervals. Sample from-to intervals are marked based on geological control and each interval is then described. Sample intervals are generally between 30 cm and 1.5 m. In areas with no visible mineralization, the larger interval of 1.5 m is used, whereas in mineralized areas the sample interval is generally one metre in length unless geological boundaries are encountered. Logging is done directly on Excel templates with notebooks, using pull-down menus to minimize typing errors and capture data consistently among geologists.

A description of each sample is made, along with geological descriptions and other notes on mineralization and alteration. An example of drill log form is presented in Figure 10.1. Besides the sample intervals and numbers, the logging form captures:

- Lithology 1 and 2, texture and color (see legend in Appendix B);
- Intensity of shearing/schistosity in semi-quantitative form (from 1 very low to 5 very strong);
- Cumulative quartz vein in centimetres and in percentage;
- Intensity of silica, carbonates, sericite, epidote, chlorite, leucoxene, fuchsite, biotite, tourmaline, magnetite and others (1 to 5);
- Intensity of clay, kaolinite, limonite, hematite, iron-copper-manganese oxides (1 to 5) and pyrite boxwork intensity in percentage;
- Intensity of pyrite, chalcopyrite, arsenopyrite, other sulphides in percentages;
- Visible gold;
- Description.

Figure 10.1: Log of Hole DO-18-145

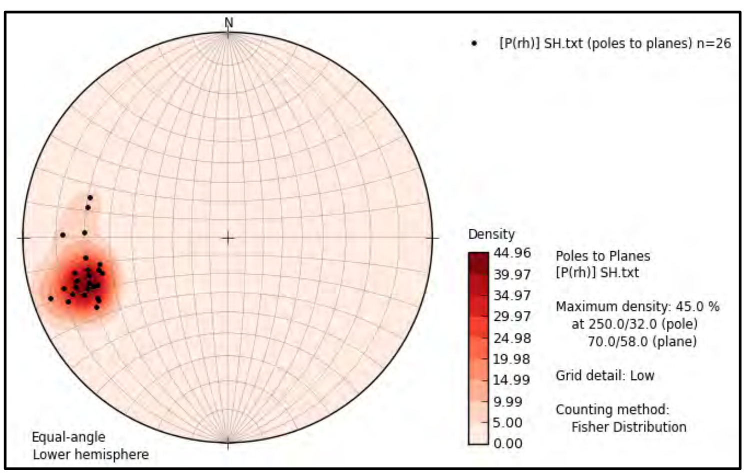


10.2.7 Structural Logging

Structural measurements are made on fresh rock and whole core by the logging geologist in charge of the drill hole. These measurements were initially done with direct compass measurements on drill core placed in a frame and oriented in the same orientation (dip and azimuth) as the drill hole (at a “rocket launcher”). This method allowed for an immediately check on the validity of the structural measurement. From drill holes DO-18-184 onward, measurements were made using a goniometer, collecting alpha and beta measurements with respect to the bottom of the core. Three holes were checked using both methods to ensure that there were no discrepancies between them.

The structural measurements are captured on an Excel spreadsheet and for each drill hole, the geologist completes a structural report (per the template and example shown in Figure 10.2).

Figure 10.2: Poles of the Schistosity of DO-18-154 (Wulf Canvas – Lower Hemisphere)



10.2.8 Core Photos

Core boxes are photographed on an inclined frame under combined daylight and LED flood lighting. A color scale is photographed along the core box to ensure proper colour white balance calibration. One photography either covers four boxes of HQ core (about 8 m) or three boxes of NQ core (about 9 m). The name of the drill holes and the depths are included in the photographs and in the corresponding image file (see Figure 10.3).

Figure 10.3: Photograph of the Core of DO-18-193 from 40.20 to 48.37 m

10.2.9 Core Storage

The core logging facility and the core storage at the Dorlin camp are shown in Figure 10.4 and Figure 10.5

Figure 10.4: Photograph of the Dorlin Core Logging Facility

Figure 10.5: Photograph of the Dorlin Core Storage

10.3 Sampling and Shipping

10.3.1 Sampling Method

The geologist prepares the sample plan on the log and assigns sample numbers to the sampling intervals during logging. In fresh rock, the sample limits are indicated with a yellow-pencil mark and in the saprolite with aluminum tags and red flagging tape. Standards, blanks and field duplicates are also indicated in both log and core boxes.

Core boxes containing saprock and fresh rock are cut using the on-site diamond-blade core saws, while core boxes containing saprolite are sampled using a trowel to slice the core in half. After sawing, each piece is returned to its original box and at the end the boxes are brought back to the sampling table in the cores shed where sampling takes place.

The left side of the core (looking downhole) is sampled and placed in a numbered plastic sample bag with a sample tag. In some cases, the samples are double bagged if the weight is high and/or if the edges of the samples are sharp. Sample tags come from a sample book resistant to moisture and heat. One tag is placed in the sample bag while another one is placed in the core box at the end of the sample interval. The details of the sample are also written on the sample bag and each sample is weighted, both for QA/QC purposes. Then they are grouped in rice bags to a maximum of 20 kg for transportation.

Half the core is sampled and sent to the laboratory while the other half remains in the core box for future observations or other analyses.

The saw room includes three sawing stations (two gasoline powered saws and one electric saw). The saw operator must cut the core following the blue line drawn by the geologist, preserving the orientation line. Sampling is always done on the left side of the blue line to ensure that the red orientation line remains in the core box after sampling.

For field duplicate samples, the half-core is again halved (creating two quarter core intervals). One quarter core sample is bagged with the original sample number while the second quarter core interval is assigned the field duplicate sample number.

Once sampling is completed, both the original samples and QA/QC samples are added to rice bags for transport. Individual sample bags are closed using single-use plastic straps, while rice bags are sealed using numbered security tags and both remains unopened until arrival at the assay laboratory.

10.3.2 Shipping

Each sample submission form contains samples from only one hole and comprise several bags, each up to 20 kg in weight. The sealed bags are stored in a locked room at camp at the end of each day while awaiting the next available transport (by helicopter or light aircraft) to the Cayenne office. Upon arrival in

Cayenne, the sealed bags are stored in another locked room pending a weekly transport to the laboratory. About 2,550 kg of samples were shipped each week during 2018.

Samples from drill holes DO-18-144 through DO-18-176 were shipped to MSA Analytical in Georgetown, Guyana, after which a change in assay laboratory was made due to delays with customs and shipping. Samples from DO-18-177 to DO-18-193A were shipped to FILAB AMSUD in Paramaribo, Suriname.

The transportation process for samples leaving Cayenne is as follows: samples for MS Analytical were loaded into a closed truck at the Ressources Réunion office in Remire-Montjoly, and traveled to Suriname, where they spend the night in the transporter’s garage before heading to Georgetown the next day. During the second part of the 2018 drill program, the same process took one day, with samples going from the Remire-Montjoly office to FILAB-AMSUD in Paramaribo without any stops.

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

All core samples were either sent to MS Analytical in Georgetown, Guyana or FILAB-AMSUD in Paramaribo, Suriname.

FILAB-AMSUD is an accredited laboratory for quality procedure according to ISO 9001(2008) and ISO/IEC 17025 (latest version). FILAB was used for one shipment of reanalyses from historical mineralized core still available at the Yaou camp at the beginning of the exploration program. FILAB was also used for the end of the drill program from drill hole DO-18-177 to DO-18-193A.

MS-Analytical is an accredited laboratory and has been certified ISO 9001 since 2015. It was used for most of the historic assay validation and for drill holes DO-18-144 to DO-18-176.

11.1 Sample Preparation and Analyses

11.1.1 Sample Preparation at MS-Analytical

Samples are dried for 12 hours at 105°C and crushed to 2 mm in automatic Rocklabs Combo ASD for normal grades and TM Engineering crushers for possible high-grade samples. A 500 g split sub-sample is then pulverized to 75 microns with an 85% pass rate in Rocklabs pulverisers.

11.1.2 Sample Preparation at FILAB AMSUD

Samples are dried for 4 to 24 hours according to the moisture content at 105°C in an electric oven, then crushed to 2.5 mm using a Rhino or Terminator type jaw crusher. A sub-sample of 500 g is then pulverized to minus 90 microns with an 85% pass rate using LM1, LM2 or ESSA pulverisers.

As an exception to the above, for the reanalysis of historical mineralized core still available, the pulverization was on 350 g of material instead of the later standard of 500 g.

11.1.3 Analysis at MS-Analytical

A 50 g fire assay is carried out on the prepared pulp sample, using an atomic absorption spectrometric (“AAS”) finish. Samples with assays above 10 g Au/t are re-assayed using gravimetric finish.

11.1.4 Analysis at FILAB AMSUD

Fire assay analyses were completed on either 30 g (FA30) or 50 g (FA50) aliquots with an atomic AAS finish. Samples above 5 g Au/t were re-assayed using a gravimetric finish.

11.1.5 Quality Control

Each submission form number corresponds to one drill hole. Standard samples are regularly inserted every 25 samples, but some extra standards are added in mineralized zones at the discretion of the geologist. Coarse blanks are routinely inserted every 25 samples and extra coarse blanks are added as the first sample of the batch and immediately after any suspected high-grade mineralized interval. Field duplicate were inserted every 20 samples.

When sample results are received, the QA/QC manager immediately assesses the results. In cases where a single standard or blank fails with respect to the expect results:

- The other standards in the submission are checked;
- It is verified if the failed control sample could affect a mineralized zone;
- A re-assay of samples on both sides of the failing control sample is requested and the laboratory informed.

For the validation resampling of historical core, out of the 131 assays in the shipment to FILAB, five re-analyses were requested and carried out. For the 2018 drilling program, 20 re-analyses were requested out of the 1,227 analyses (in two submissions) sent to FILAB, representing a re-assay rate of 1.6%.

At the end of the 2017-2018 resampling of historical core program, the RGD also requested that MS Analytical re-assay 95 pulp duplicates and 66 coarse splits to assess the nugget effect within the assay data (and not because of failing control standards).

For the 2018 drilling program, approximately 170 re-assays out of 3,428 primary assays were requested from MS analytical for QAQC issues on standards or blanks. This represents a re-assay rate of 5%.

All assays including initial failures are entered in the Excel and the acQuire databases.

11.2 Evaluation of Bias Between Laboratories

To assess the possibility of any analytical bias between the two laboratories used during the 2017-2018 programs, a total of 221 pulp duplicates of assays completed at MS Analytical was sent to FILAB to be re-assayed. Figure 11.1 and Figure 11.2 respectively present the correlation plot of the assays at the two laboratories and the mean vs. HRD plot. The first graph shows a good correlation between the two laboratories and the second plot indicates that the assay discrepancies are mostly below 0.1 g Au/t and will not affect the resource.

Figure 11.1: Correlation Plot for FILAB – MS-Analytical

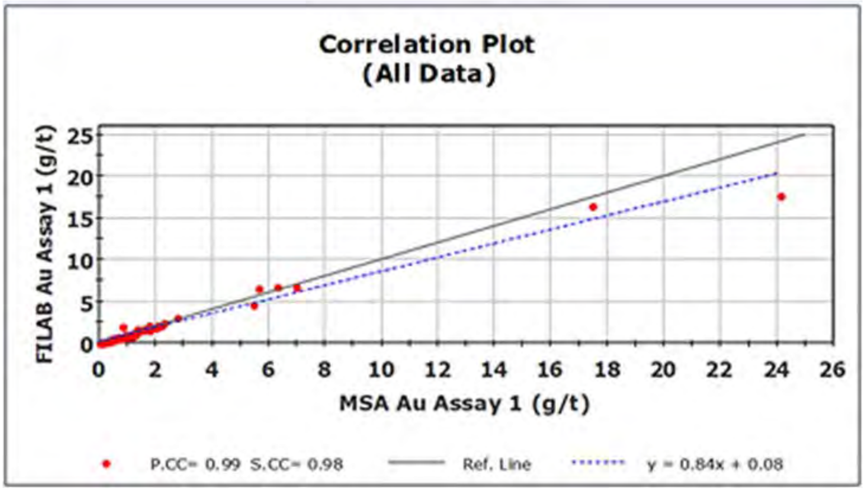
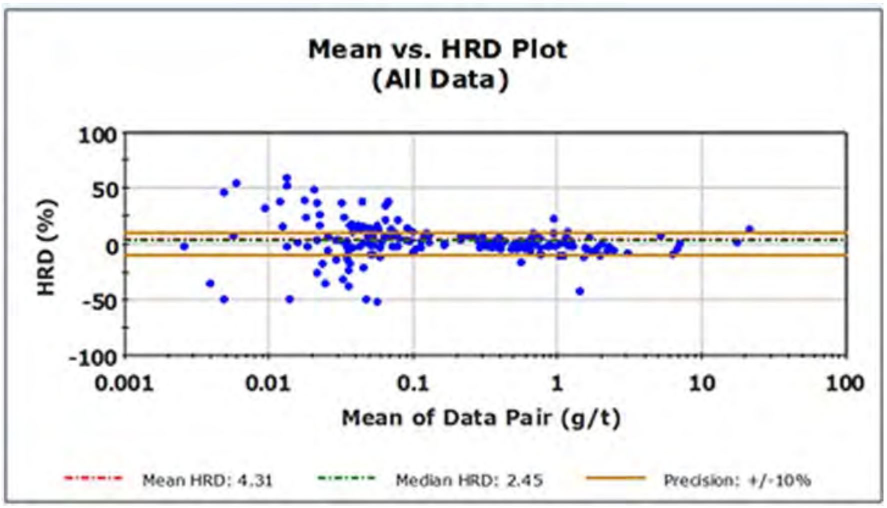


Figure 11.2: Mean vs. HRD for FILAB - MS-Analytical



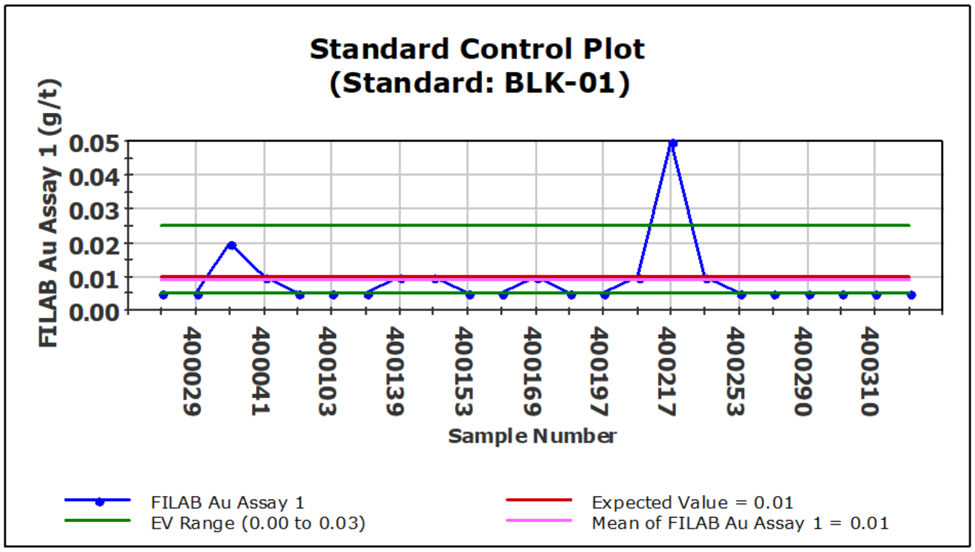
11.3 Coarse Blanks and Assessment of Contamination

Coarse blank samples are inserted to assess contamination during the preparation of the samples at the laboratory. The blank samples are coarse-grained (2-4 cm) and undergo both stages of sample preparation: crushing and pulverizing. Coarse blanks used during the 2017–2018 validation program of resampling historical holes and the 2018 drill program are of two different types and have both been previously tested in the FILAB and MS Analytical laboratories.

BLK-01: barren dolerite taken at the edge of the Yaou Project site.

BLK-05: coarse gravel of barren gneiss purchased from a quarry near Cayenne.

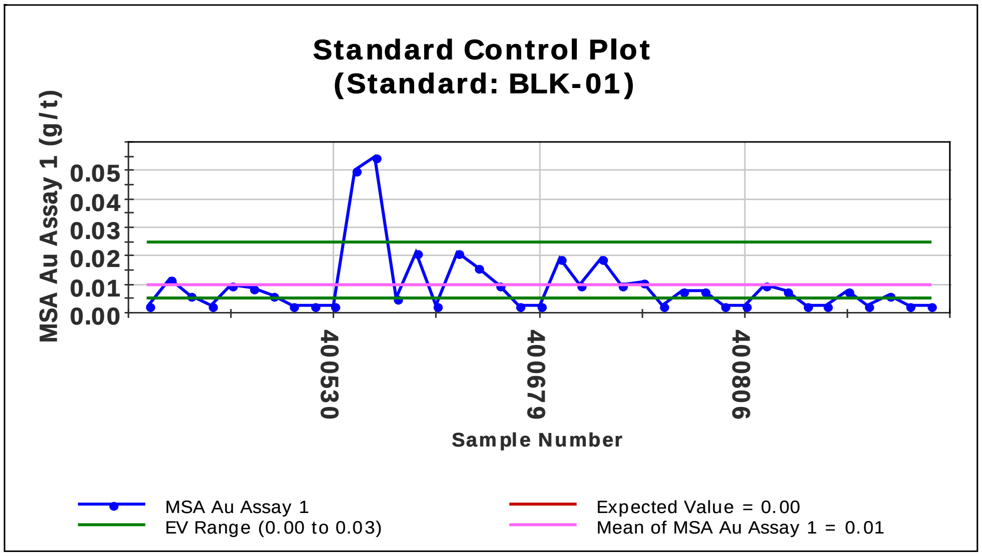
Figure 11.3: Graph of Blank BL-01 at FILAB



The BL-01 set of blanks was used during the re-analyses of historical drill holes by Guyanor. At FILAB, except for one assay, they all fall within the acceptable limit set at five times the detection limit (Figure 11.3). The first peak corresponds to sample 400037 inserted after a sample assayed at 2.16 g Au/t. Although this represents a *possible* carry over form the previous sample, the low value is considered acceptable and immaterial to the overall project.

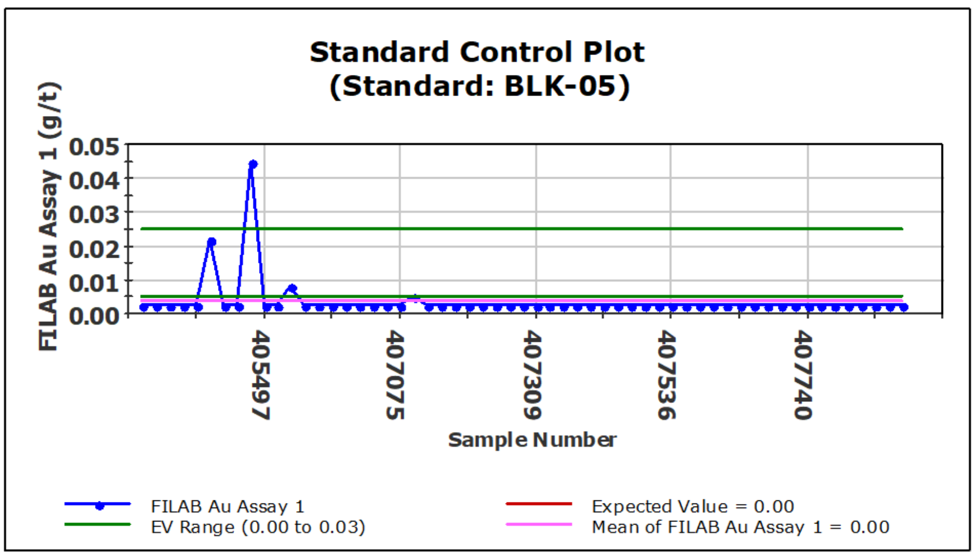
Results from MS-Analytical are also acceptable but show some more noise (Figure 11.4) than for the coarse blanks assayed at FILAB. The first peaks correspond to blanks 400557 and 400585, which follow very high-grade results of respectively 44.27 g/t and 13.49 g Au/t. A possible contamination of 0.050 or 0.055 g Au/t is however deemed well within acceptable limits.

Figure 11.4: Graph of Blank BL-01 at MS-Analytical



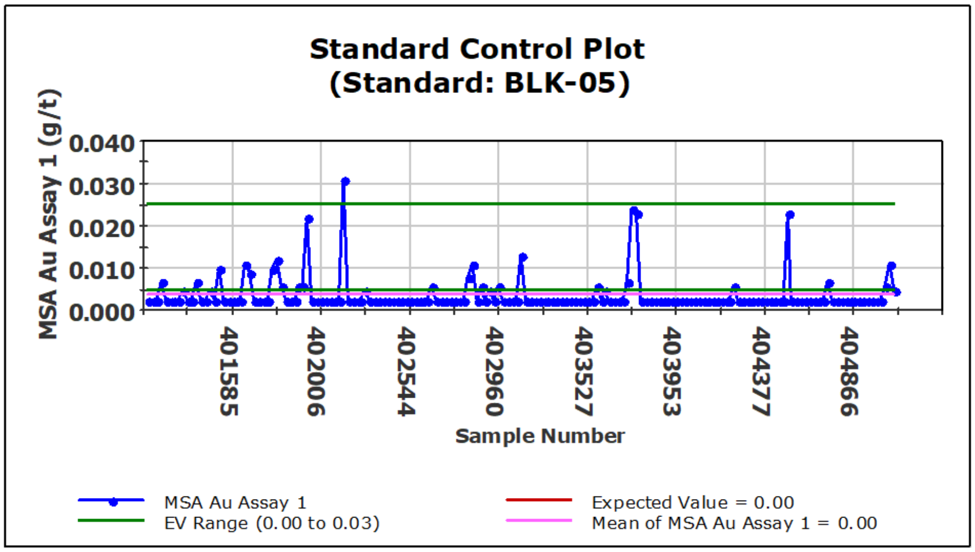
The BL-05 set of coarse blanks was used for the 2018 drill program. The blank sample that returned a value above the accepted limit at FILAB comes from a barren section of drill hole DO-18-180 (Figure 11.5). All blanks located near or following high values of this hole are normal and bear no consequence on assay quality.

Figure 11.5: Graph of Blank BL-05 at FILAB



The blank sample that returned a value above the accepted limit at MS-Analytical comes from a barren section of drill hole DO-18-156 (Figure 11.6). All blanks located near or following high values of this hole are normal and bear no consequence on assay quality.

Figure 11.6: Graph of Blank BL-05 at MS-Analytical



11.4 Duplicate Sample Performance

Duplicate samples are used to assess field, preparation and analytical precision. The duplicate samples include:

- Pulp duplicates are prepared at the laboratory by separate weightings and analyses from one pulp. The pulp duplicate record errors of analyses (Smee, 2000);
- Coarse duplicates, also named preparation duplicates, are splits of one sample taken after the coarse crush, but before pulverizing. The preparation duplicate indicates the error of sample size reduction in the preparation lab and the error of analyses (Smee, 2000);
- The field duplicates are prepared in the field and contain all levels of error: core sampling, sample size reduction in the prep lab, and subsampling at the pulp, plus the analytical error. The duplicates are used to calculate field, preparation and analytical precision (Smee, 2000).

In the case of gold assays, the nugget effect may increase the discrepancies between the original and the duplicates samples for both the coarse and field duplicates. Pulp Duplicate Sample Performance

Pulp duplicates of the two laboratories used in 2017 and 2018 are assessed using correlation plots (see Figure 11.7 for FILAB and Figure 11.8 for MS-Analytical. The correlation is excellent, proving the analytical precision of both laboratories.

Figure 11.7: Correlation Plot of the Pulp Duplicates at FILAB

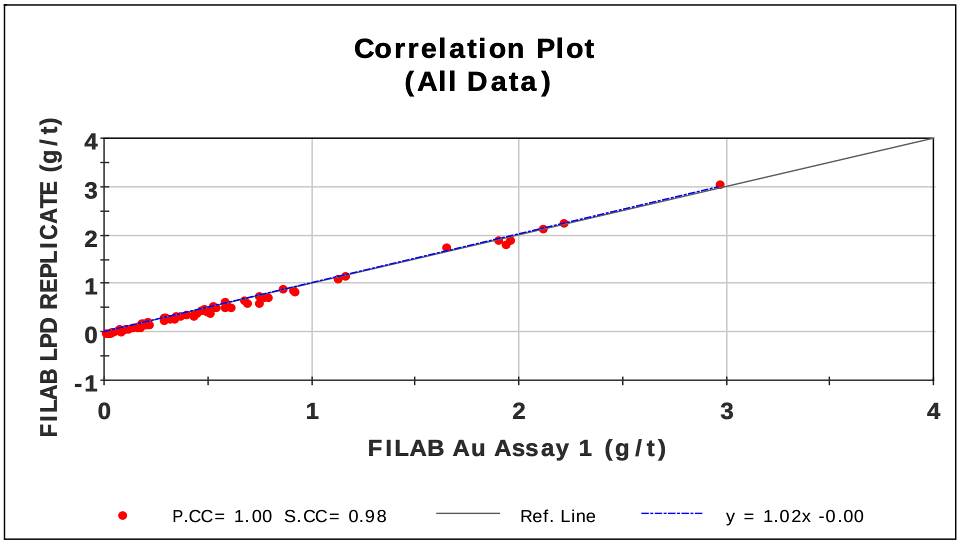
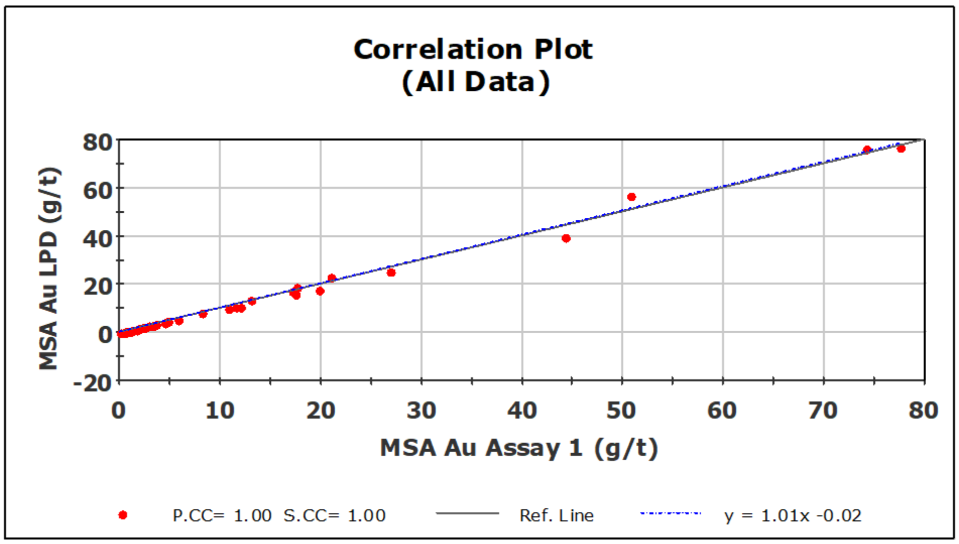


Figure 11.8: Correlation Plot of the Pulp Duplicates at MS Analytical



11.4.1 Coarse Duplicate Sample Performance

Coarse duplicates of the two laboratories used in 2017 and 2018 are assessed using correlation plots (see Figure 11.9 for FILAB and Figure 11.10 for MS-Analytical. The correlation is excellent, proving that sample preparation and reduction are also correct at both laboratories.

Figure 11.9: Correlation Plot of the Coarse Duplicates at FILAB

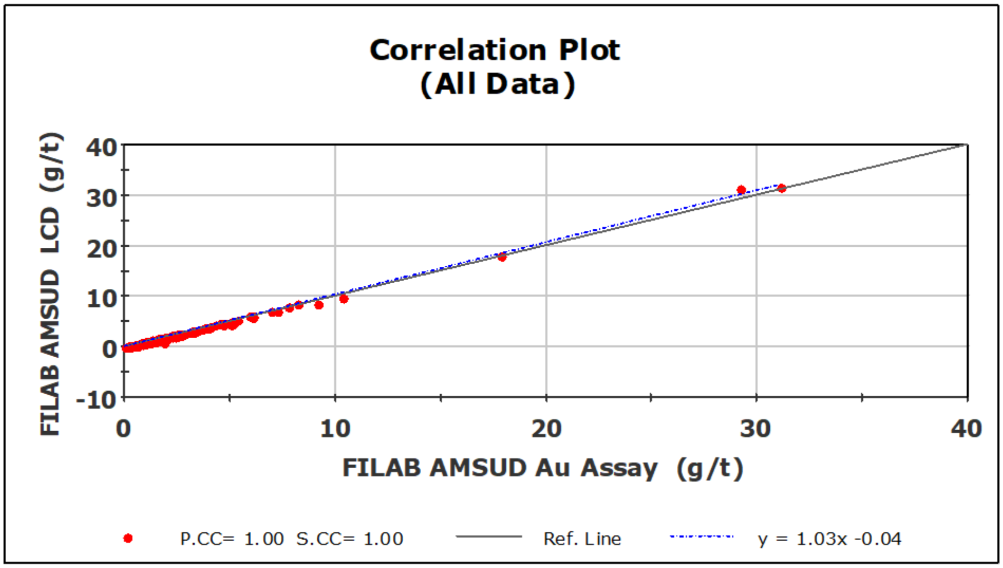
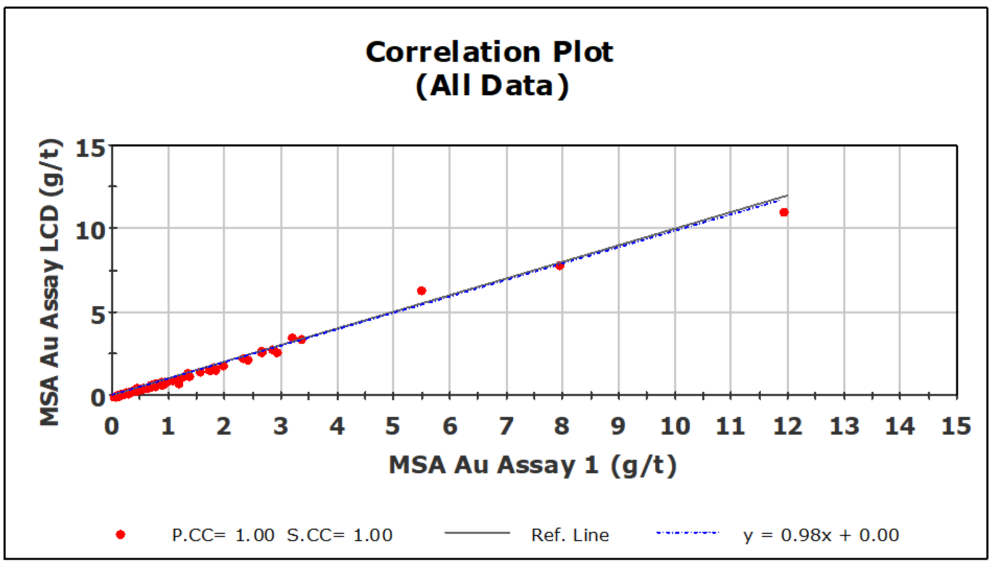


Figure 11.10: Correlation Plot of the Coarse Duplicates at MS Analytical



11.4.2 Field Duplicate Sample Performance

Field duplicates from the 2017 and 2018 programs are assessed using correlation plots (see Figure 11.11 and Figure 11.12 for FILAB, and Figure 11.13 for MS-Analytical). Dispersion is greater at MS-Analytical than at FILAB. However, this may be a function of MS-Analytical receiving more high-grade assays than FILAB. High-grade samples are often subject to a greater nugget effect and therefore lower repeatability than with lower grade samples.

Figure 11.11: Correlation Plot of the Field Duplicates at FILAB

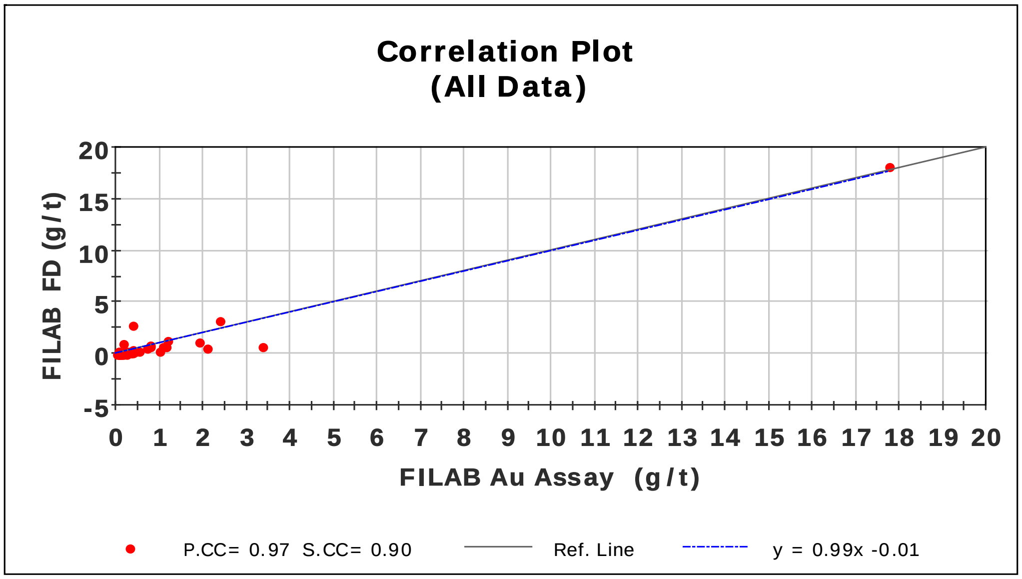


Figure 11.12: Correlation Plot of the Field Duplicates at FILAB – 0 to 4 g Au/t

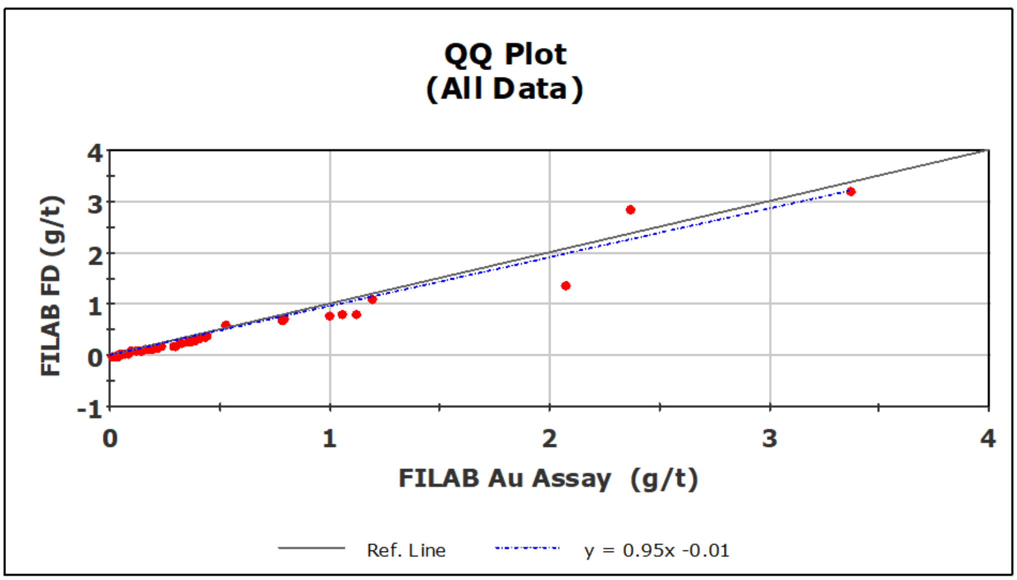
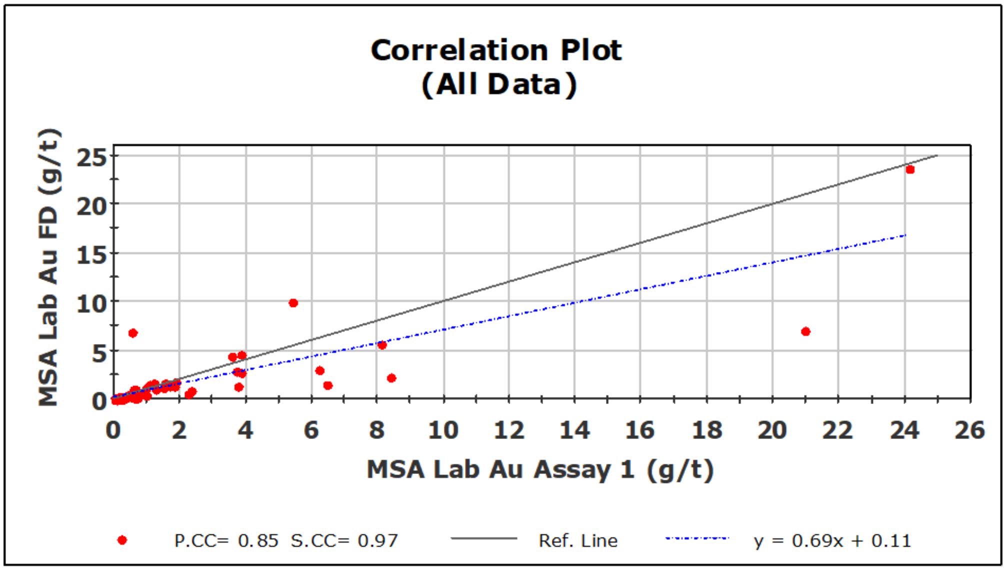


Figure 11.13: Correlation Plot of the Field Duplicates at MS-Analytical



11.5 Performance of Standards

The standards are used to monitor the laboratory assay accuracy. RGD uses several types of standards (Certified Reference Material or CRM) purchased from the CDN Resource Laboratory Ltd in Vancouver. The standard samples are conditioned in 100 g paper bags allowing two assays of 50 g material and therefore, a re-assay in case of initial failure of the standard.

Target grades of the CRMs are cut-off grade, average grade of the deposit, medium-grade and high-grade. However, two different standards ranging close to each other are used to avoid the laboratory identifying the standard values. In addition, the standards are either made of oxide to be inserted with saprolite samples or rock for fresh samples. Care is also paid to the media of the standard samples to be coherent with the Dorlin core. Table 11.1 presents the target CRM value and the standard deviation.

Table 11.1: Characteristics of the Certified Reference Materials used at Dorlin in 2017-2018

Standard ID		CRM Value (g Au/t)	Standard Deviation (g Au/t)
CDN-	GS-P4E	0.49	0.03
CDN-	GS-P4G	0.47	0.03
CDN-	GS-P5C	0.57	0.02
CDN-	GS-P5E	0.66	0.03
CDN-	GS-1Q	1.24	0.04
CDN-	GS-1R	1.21	0.06
CDN-	GS-1U	0.97	0.04
CDN-	GS-1V	1.02	0.05
CDN-	GS-3P	3.06	0.09
CDN-	GS-3S	3.58	0.10
CDN-	GS-3T	3.05	0.10
CDN-	GS-8E	8.53	0.21
CDN-	GS-9B	9.02	0.38

The following graphs show the standards used by RGD during the quarter core resampling of Dorlin historical drill core and those used during the 2018 drilling campaign on Nivré East, West and South.

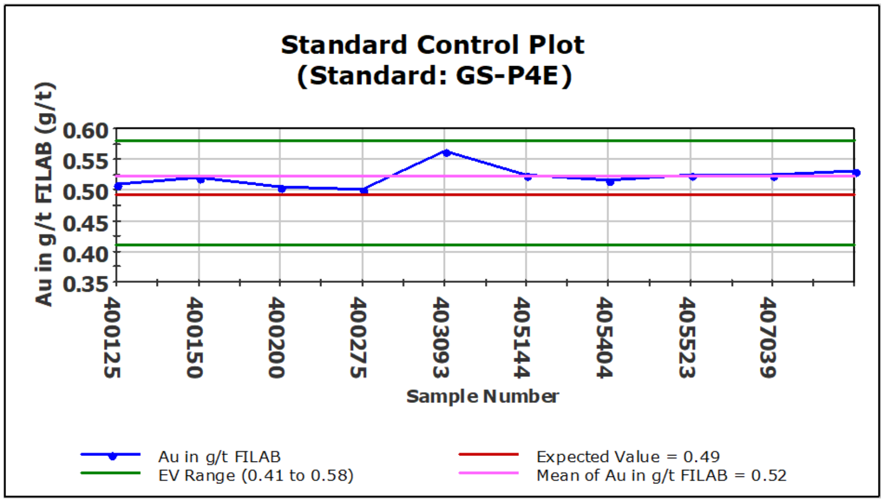
The acceptable limit plotted on these graphs is three standard deviation as check analyses were requested as soon as a standard sample was outside the three standard deviations limit.

Requests for reanalysis of the standards and some samples around standards beyond these limits have been requested during all the program immediately after reception of the results from the laboratory. Most issues were solved but some CRM samples could not be re-assayed at the same time as the surrounding samples for lack CRM material left (usually on a third assay attempt). The standard results are described hereafter.

11.5.1 Standard GS-P4E

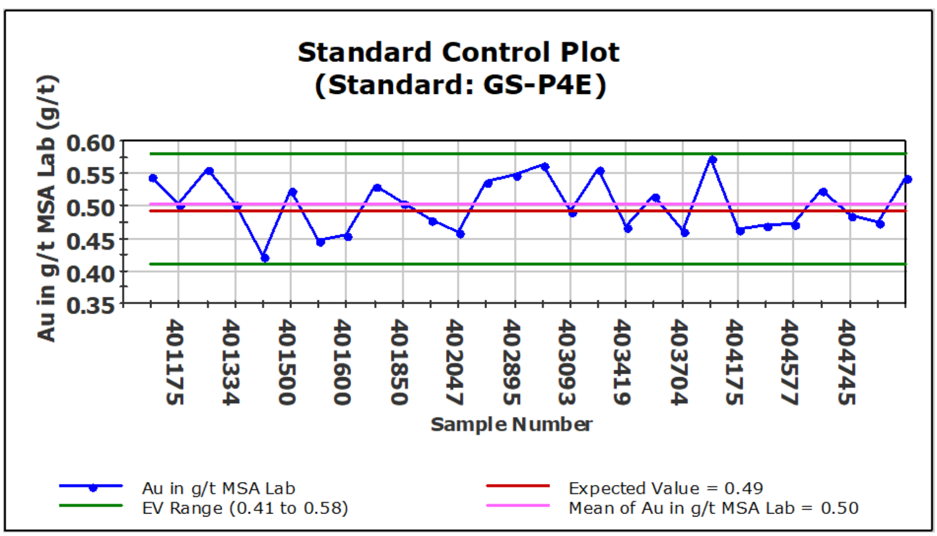
Only 10 standards of this set were used at FILAB; the first four samples relate to the 2017 reanalysis of mineralized zones from historical drill holes available. They were analyzed with the FA30 method at the FILAB laboratory. The other standards used during the second part of 2018 campaign were analyzed using method code FA50. Results are shown in Figure 11.14.

Figure 11.14: Control Plot Standard GS-P4E at FILAB



Only the first standard sent to MS-Analytical was related to the reanalysis of historical drill holes, while the remaining 27 standards were inserted during the 2018 drilling campaign (Figure 11.15). For standards close to the limit of the three standard deviations (401350 / DO-18-145 & 403912 / DO-18-161); a check of the other standards and blanks present in the same shipment was made and indicated no anomaly.

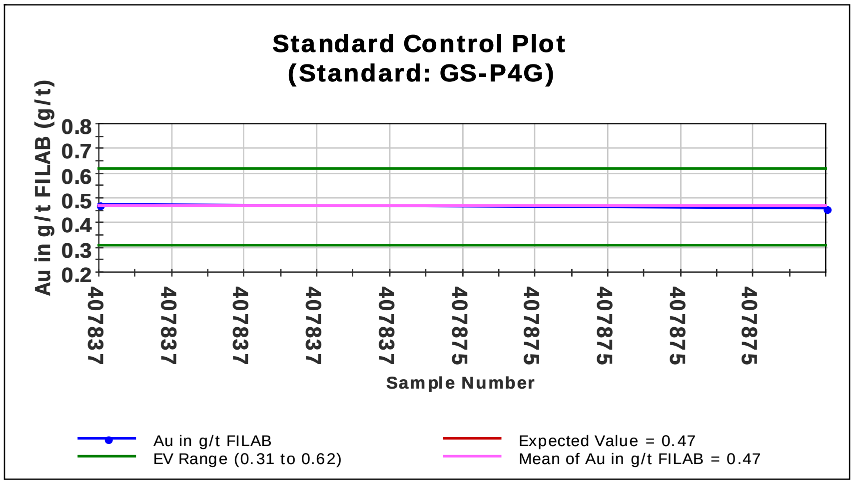
Figure 11.15: Control Plot Standard GS-P4E at MS-Analytical



11.5.2 Standard GS-P4G

This standard was introduced at the end of the drill program when the GS-P4 standard was no longer available. It only concerns holes DO-18-193 and DO-18-193A analyzed at the FILAB Laboratory (Figure 11.16).

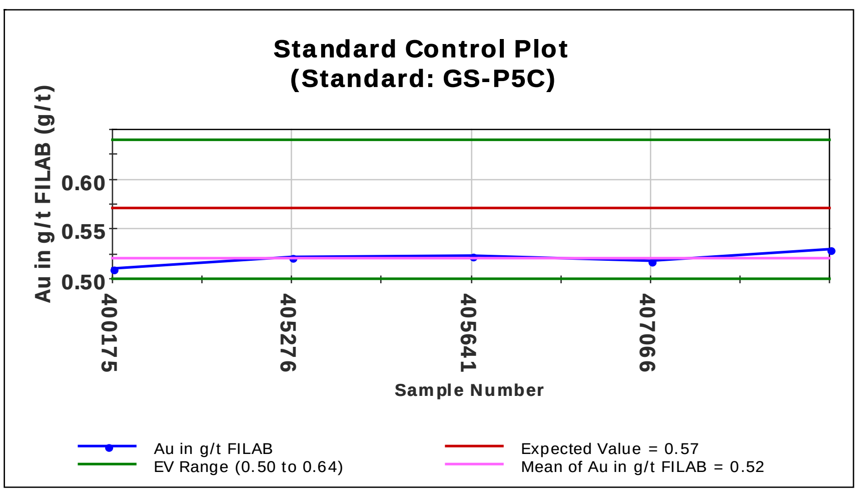
Figure 11.16: Control Plot Standard GS-P4G at FILAB



11.5.3 <u>Standard GS-P5C</u>

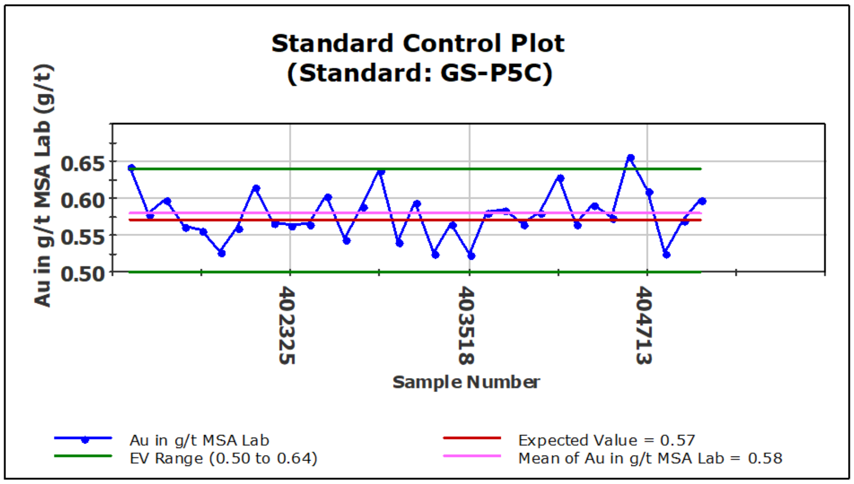
Standard GS-P5C is another low-grade standard that was used for five of the resampled historical drill holes, and during the 2018 drill program. Only five of these standards were assayed at FILAB, and of these five standards, the first one concerns the reanalysis of the historical drill holes. All assays of the standard were returned with a consistent negative bias of minus two standard deviations (Figure 11.17) from the expected value. However, there are not enough samples to draw firm conclusions. The other standards in the same batches as those shown below did not show any discrepancies.

Figure 11.17: Control Plot Standard GS-P5C at FILAB



There is more variability in the 34 GS-P5C standards assayed at MS-Analytical and no bias (Figure 11.18). Sample 404602 is above three standard deviations and seven samples around the standard were reanalyzed. The standard again returned with an assay higher than the three standard deviations. There was not enough pulp left to re-assay the standard with a second re-assay of the surrounding samples. The average of the samples around this area is less than 0.1 g Au/t.

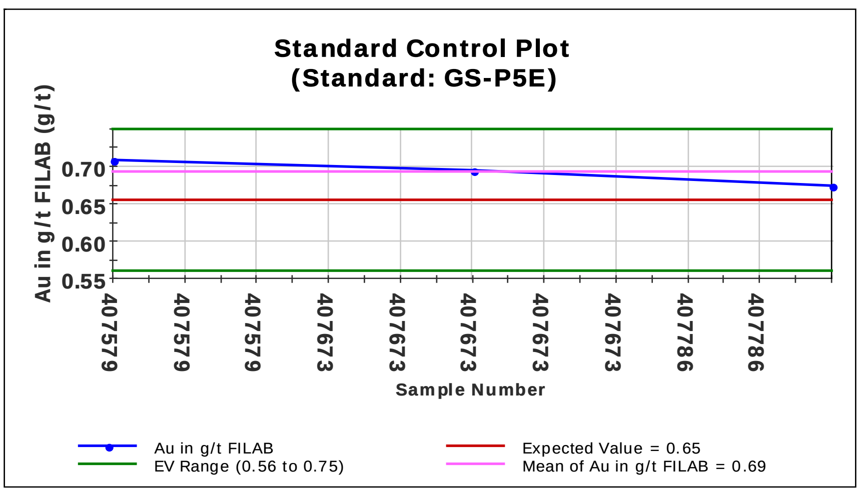
Figure 11.18: Control Plot Standard GS-P5C at MS-Analytical



11.5.4 Standard GS-P5E

Standard GS-P5E were inserted at the end of the campaign to replace GS-P5C for only three drill holes analyzed at FILAB (Figure 11.19). On the contrary of P5C and for a similar target grade, the three assays were above the target value confirming that the apparent low bias in GS-P5C at FILAB is not a concern.

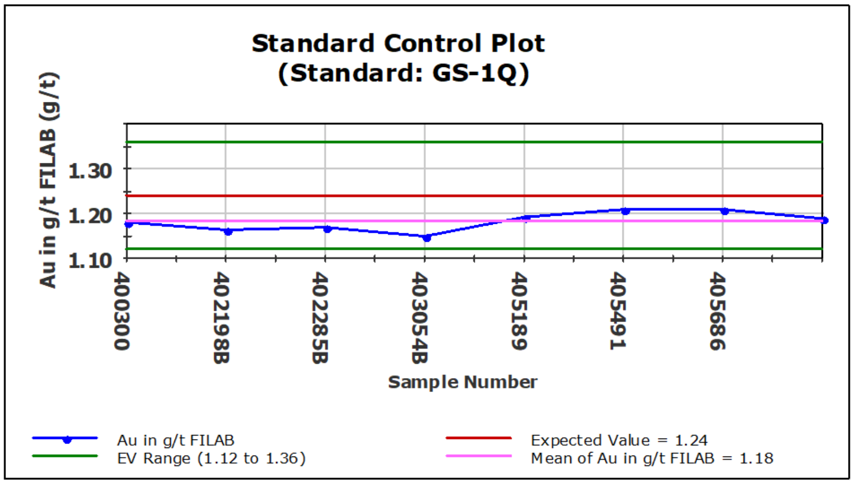
Figure 11.19: Control Plot Standard GS-P5E at FILAB



11.5.5 Standard GS-1Q

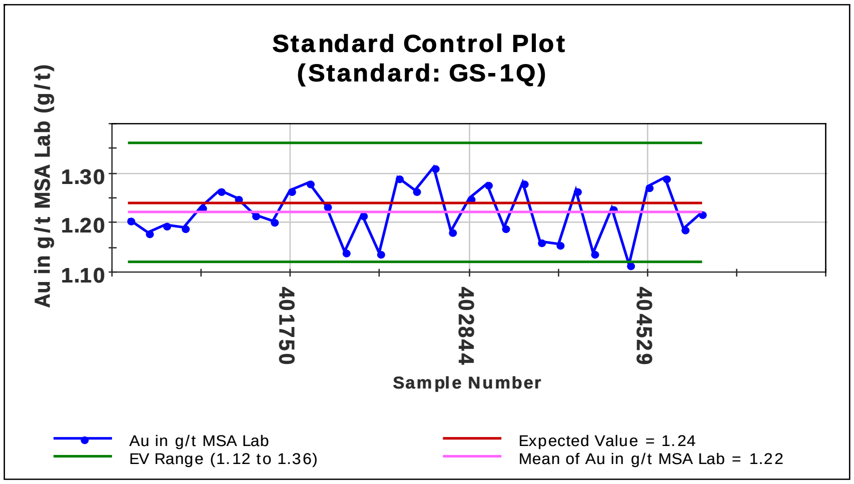
Standard GS-1Q is the first of the standards around the average deposit grade. Out of the eight GS-1Q standards assayed at FILAB, only one was part of the re-assaying program of the historical drill holes; the others coming from the 2018 drill program. As with the GS-P5C, it is noted that it fits in the lower range of acceptable limits (Figure 11.20).

Figure 11.20: Control Plot Standard GS-1Q at FILAB



The first six out of 33 GS-1Q standards assayed at MS-Analytical (Figure 11.21), are part of the reanalyzed samples of historical drill holes. Only one standard is below three standard deviations at 1.115 g/t instead of 1.12 g/t (in DO-18-160). This standard was inserted into a small dispatch of re-prepared quarter core samples from camp because the previous ones had been damaged during transport. This small shipment only concerned four samples, and no follow-up was deemed necessary.

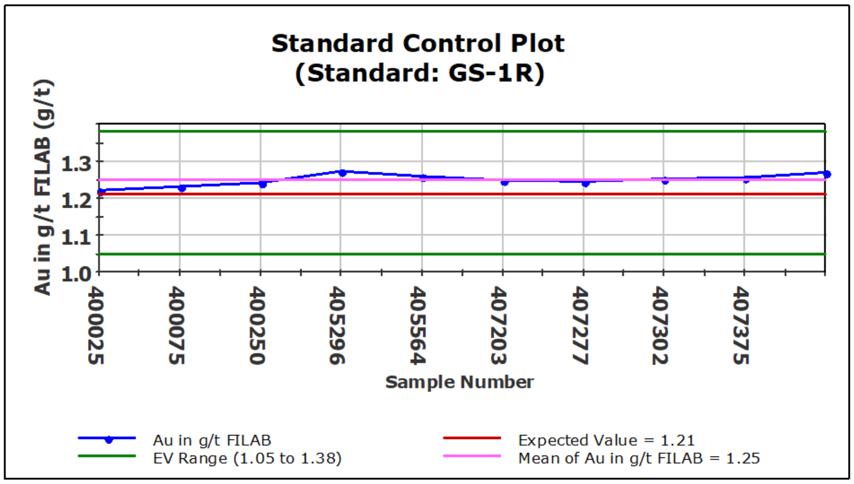
Figure 11.21: Control Plot Standard GS-1Q at MS-Analytical



11.5.6 Standard GS-1R

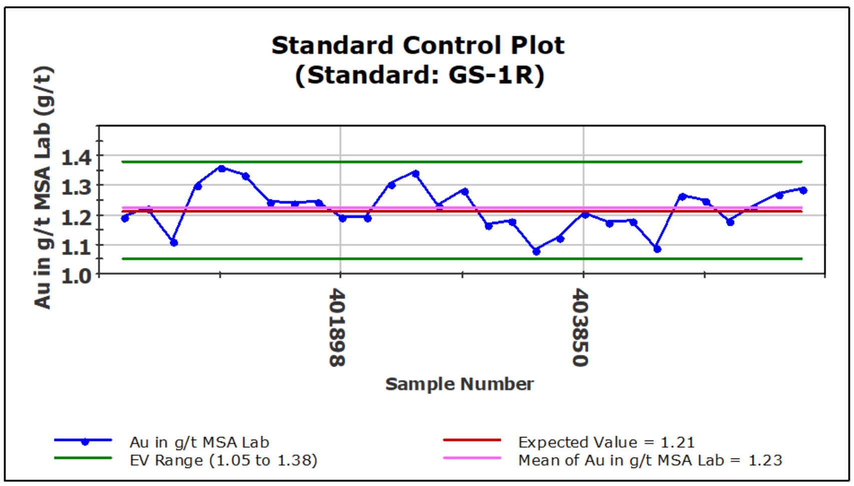
Standard GS-1R is another standard around the average deposit grade. Out of the ten GS-1R standards, three were inserted during the resampling of historical drill holes. All standards assayed at FILAB were assayed at or close to the target value (Figure 11.22), generally slightly above it further confirming that the apparent bias observed in GS-1Q at FILAB is not systematic for assays around the average deposit grade.

Figure 11.22: Control Plot Standard GS-1R at FILAB



Out of the 30 standards of this set assayed at MS-Analytical, five were inserted during the resampling of historical boreholes. There is no issue with this standard Figure 11.23).

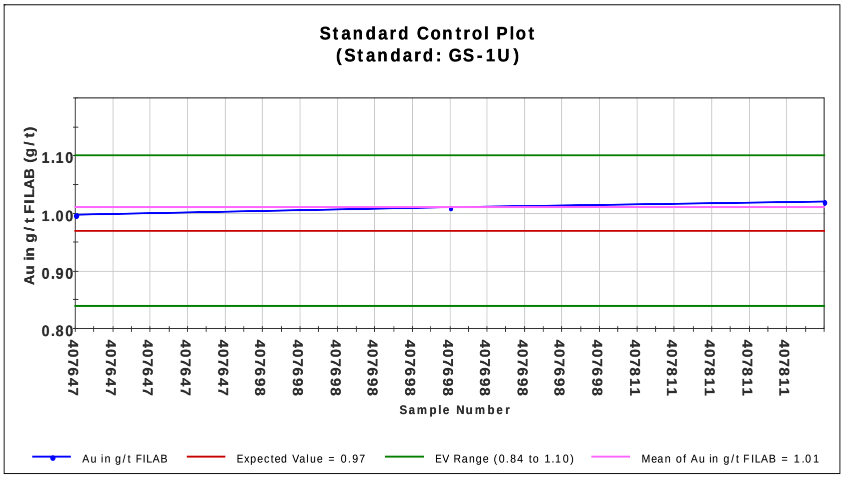
Figure 11.23: Control Plot Standard GS-1R at MS-Analytical



11.5.7 Standard GS-1U

Standard GS-1U is a new standard around the average deposit grade only introduced at the end of the drill program. There is no issue with the three assays of the standard (Figure 11.24).

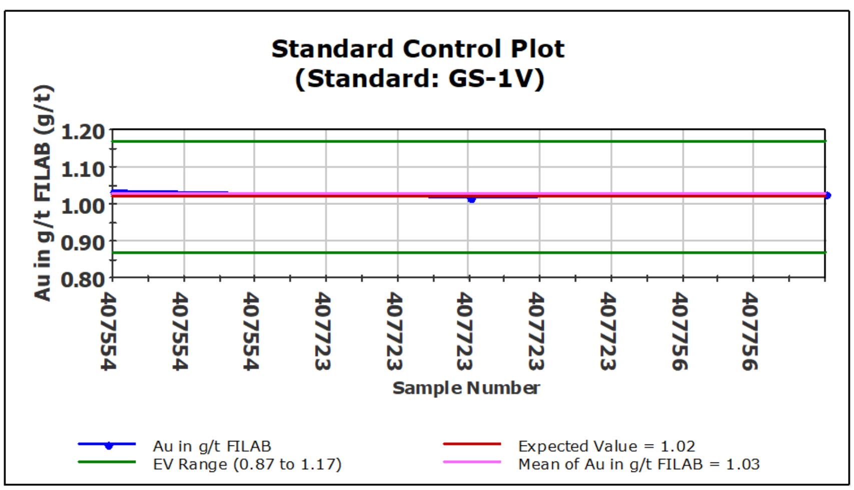
Figure 11.24: Control Plot Standard GS-1U at FILAB



11.5.8 Standard GS-1V

Standard GS-1V is a new standard around the average deposit grade only introduced at the end of the drill program. There is no issue with the three assays of the standard (Figure 11.25).

Figure 11.25: Control Plot Standard GS-1V at FILAB



11.5.9 Standard GS-3P

Standard GS-3P is a medium-grade standard introduced at the end of the drill program with two or three assays in each laboratory. There is no issue with the assays of the standard at both laboratories (Figure 11.26 and Figure 11.27).

Figure 11.26: Control Plot Standard GS-3P at FILAB

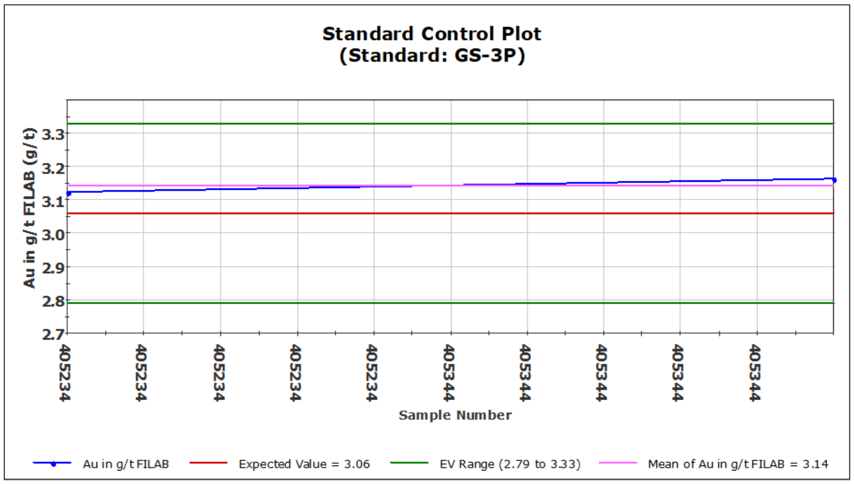
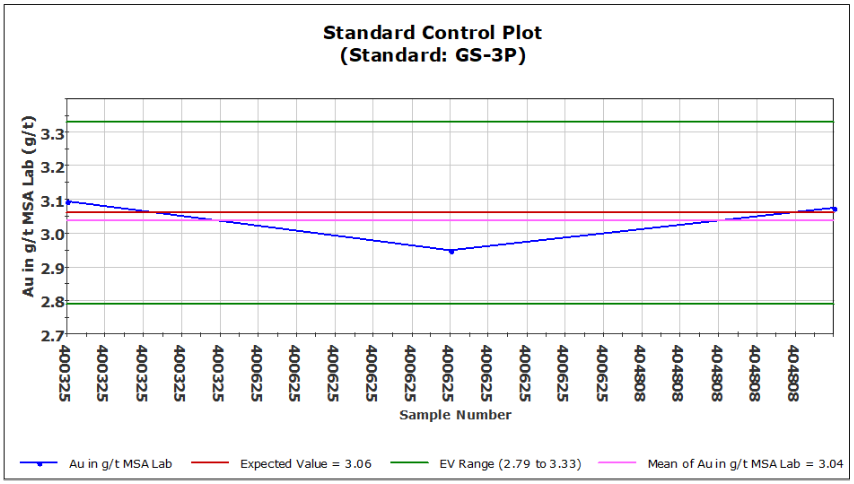


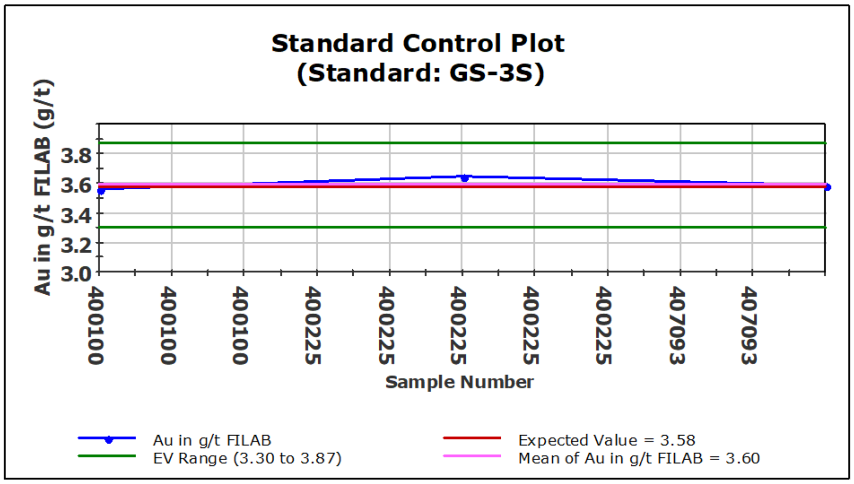
Figure 11.27: Control Plot Standard GS-3P at MS-Analytical



11.5.10 Standard GS-3S

Standard GS-3S is a medium-grade standard used for both the resampling of the historical holes and the 2018 drill programs. Only three assays were done at FILAB and show no issue (Figure 11.28).

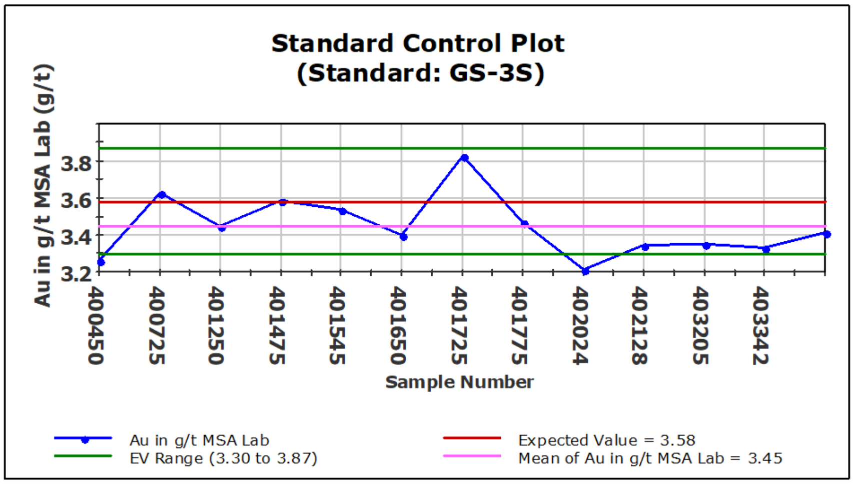
Figure 11.28: Control Plot Standard GS-3S at FILAB



Out of 14 GS-3S standards analyzed at MS-Analytical, two are below the accepted grade range (Figure 11.29). Sample 400450 comes from the re-assaying program of historical core and could not be re-assayed because of the lack of remaining pulp at the laboratory. The surrounding samples were sent to FILAB to assess the nugget effect by re-assaying both the coarse and pulp rejects, without any issue.

Sample 402024, below the three standard deviations limit, is a relatively high-grade standard inserted in DO-18-153, together with a very high-grade standard GS-8E in a completely barren drill hole. Hence, no re-assaying was needed nor requested.

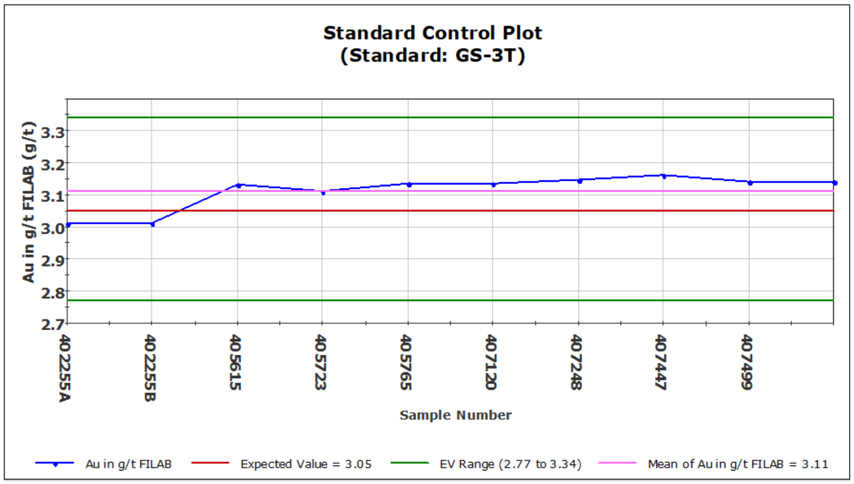
Figure 11.29: Control Plot Standard GS-3S at MS-Analytical



11.5.11 Standard GS-3T

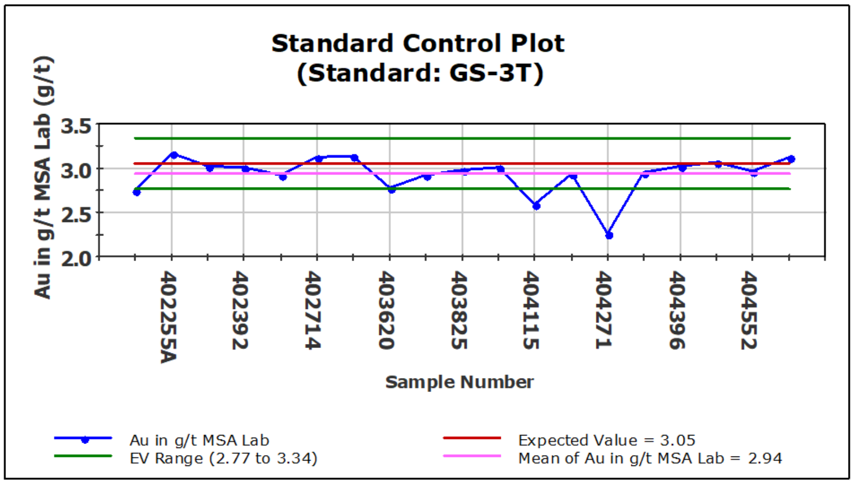
Standard GS-3S is another medium-grade standard used for the 2018 drill programs. Ten assays were done at FILAB and show no issue (Figure 11.30).

Figure 11.30: Control Plot Standard GS-3T at FILAB



Out of 19 GS-3T standards analyzed at MS-Analytical, two are below the accepted grade range (Figure 11.31). Sample 404115 (DO-18-165) shows an anomalously low assay. It was assayed twice without change, together with the surrounding samples. The mineralized zone has been validated as two coarse blanks and two other standards were correct. Sample 404271 (DO-18-167) also shows an anomalously low assay. Twenty six mineralized samples were re-assayed in the hole. All other standards had passed including a second GS-3T standard.

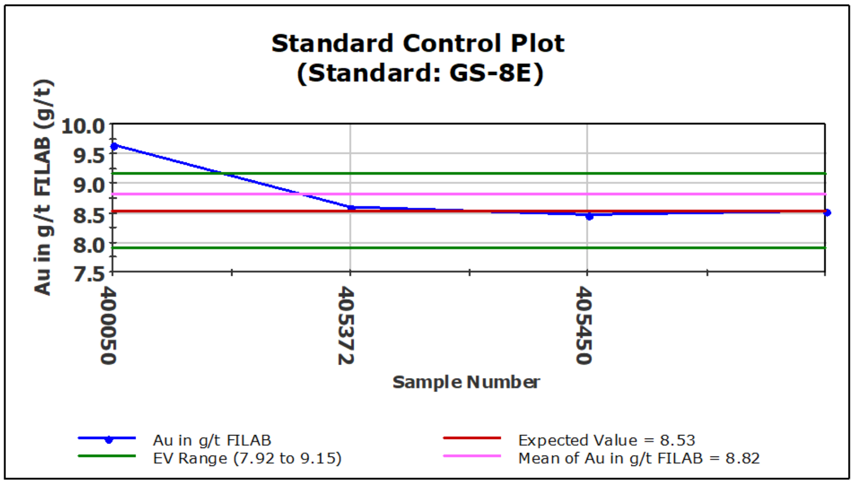
Figure 11.31: Control Plot Standard GS-3T at MS-Analytical



11.5.12 Standard GS-8E

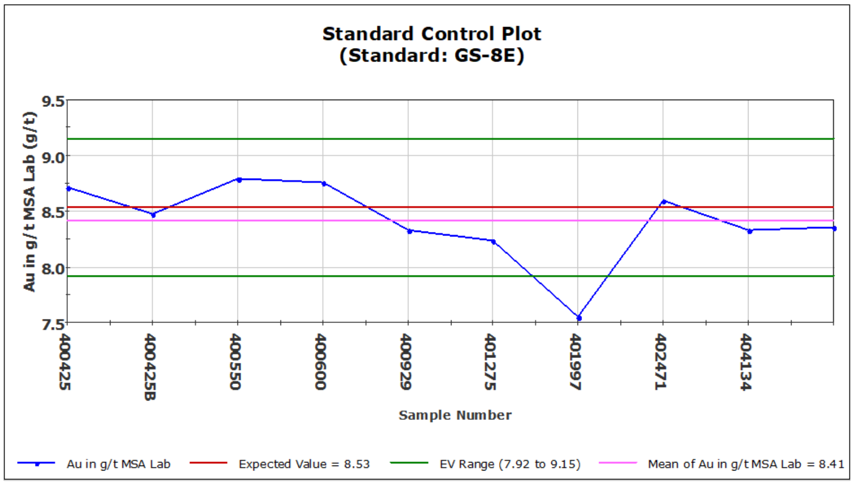
Standard GS-8E is a high-grade standard used for both the resampling of the historical holes and the 2018 drill programs. Four assays were done at FILAB. The first of this standard (sample 400050) corresponds to a standard inserted during the re-sampling program of the historical drill holes. A possible inversion with the following sample 400051 assayed at 8.20 g Au/t is suspected. The other standards and blanks of the same batch are correct (Figure 11.32).

Figure 11.32: Control Plot Standard GS-8E at FILAB



Out of 10 GS-8E standards analyzed at MS-Analytical, one is below the accepted grade range (Figure 11.33). Sample 401997 in hole DO-18-153 is a high-grade standard inserted by mistake in a barren drill hole while all the other standards included in the shipment returned acceptable values. It was decided that there was no need to request re-assaying of the low-grade or barren samples of the batch.

Figure 11.33: Control Plot Standard GS-8E at MS-Analytical



11.5.13 Standard GS-9B

Standard GS-9B is a high-grade standard used at the end of the 2018 drill program. Four assays were done at FILAB. Only three standards were assayed at FILAB and four at MS-Analytical, all with no issues (Figure 11.34 and Figure 11.35).

Figure 11.34: Control Plot Standard GS-9B at FILAB

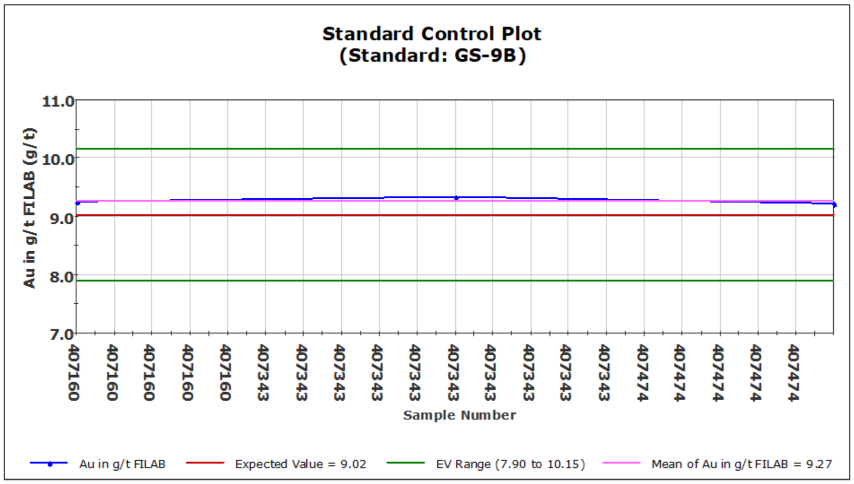
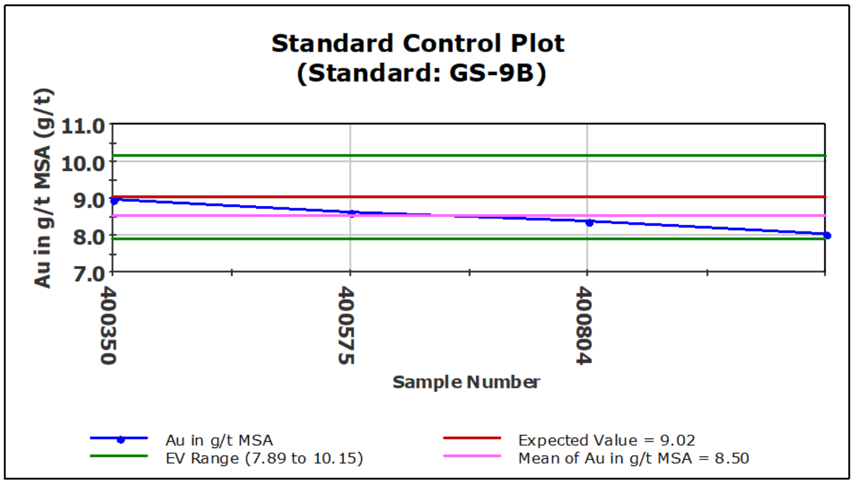


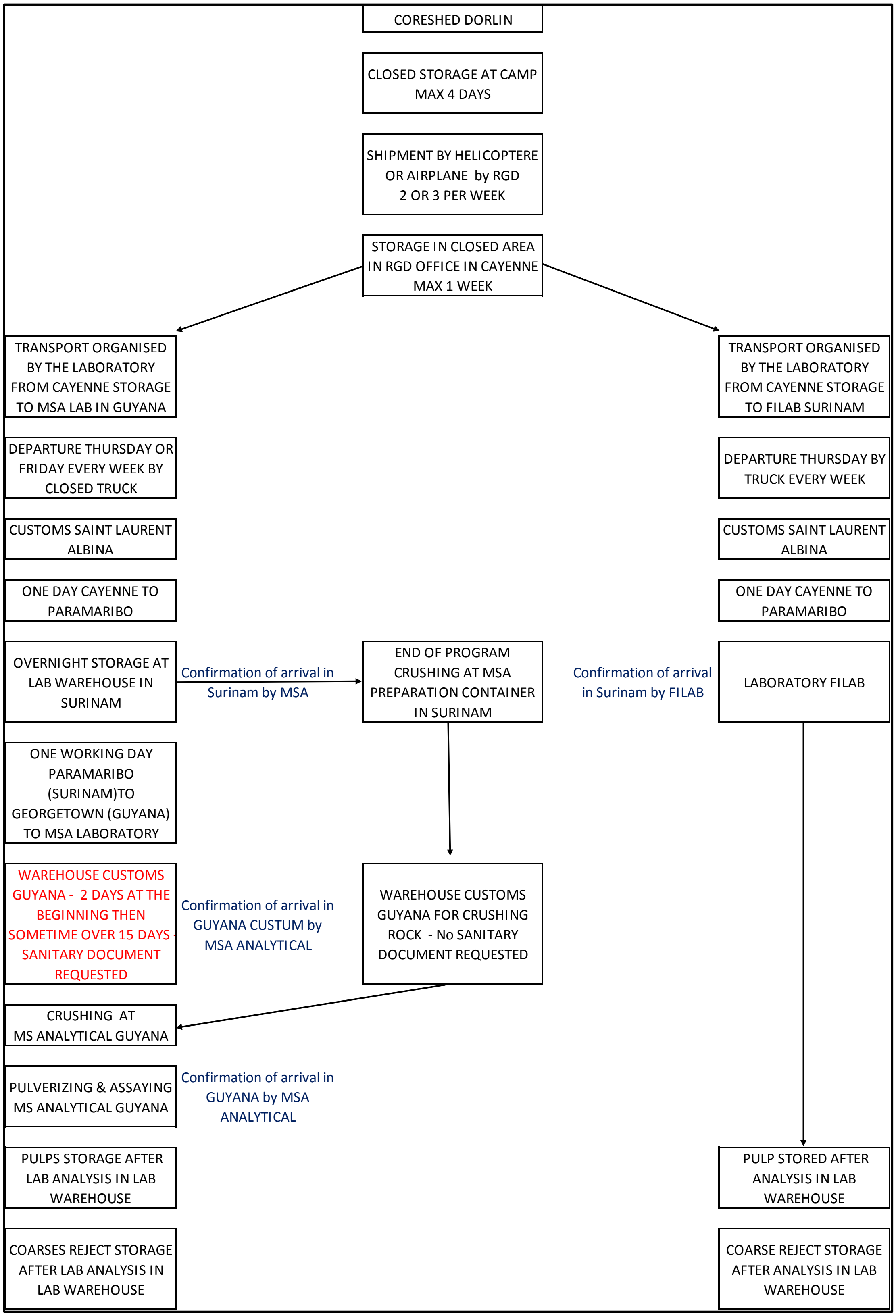
Figure 11.35: Control Plot Standard GS-9B at MS-Analytical



11.6 Chain of Custody

Table 11.2 shows the chain of custody of the Dorlin samples.

Table 11.2: Chain of Custody Flow Chart for Dorlin Samples



The chain of custody includes an independent audit of the drill data entered and validated in the acQuire software by an arm-length consultant. Jaroslav Dintchev of gDAT Applied Solutions (www.gdatsolutions.com) audited the acQuire drill database and ran independent QA/QC controls prior to directly handing over exports from the acQuire-validated database, his own QA/QC controls and an accompanying report to GMSI, bringing an extra level of data security to the process. His report and graphs are presented in Appendix B. All assay certificates were sent to the RGD database and the QA/QC manager who processed the data, checked QA/QC samples and eventually requested re-assaying. Data was partly entered into acQuire by gDAT and partly by the RGD database and QA/QC manager according to protocols prepared by gDAT. At gDAT's request, all mails from the laboratories with assay certificates were forwarded to them for their audit.

11.7 Conclusions

The systematic and very thorough quality control program set by RGD was efficient in identifying a few assay issues at the laboratories used. All were addressed as soon as assay results were received and core samples that could have been affected in shipments with a standard failure were re-assayed unless there was no risk of the failing standard affecting the validity of mineralized assays, as for instance, a failing high-grade standard in a barren drill hole. The resulting drill database is valid to be used for resource estimate.

12. DATA VERIFICATION

12.1 GMSI Data Verification

Data verification performed by GMSI comprises of a site visit to the Dorlin Project (undertaken between August 16th and August 19th, 2018), and drill hole database validations.

During the site visit, Mr. Rejean Sirois, P.Eng., the QP for the Nivré mineral resource estimate reviewed the data from historical drilling by Cambior and Guyanor, aiming at confirming the geology descriptions, weathering profiles and the previous gold assay results received by Guyanor and Cambior. In addition, the sampling protocols, QA/QC and best practices were audited by the QP.

The following validation checks were made by GMSI during the site visit:

- Software used to consolidate and validate the database that will be used for resource estimation;
- The use of the Brown's Index for weathering mapping;
- Review of lithology and alteration classification;
- Audit of protocols, QA/QC and best practices;
- Re-sampling strategy;
- Validation of historical drillhole collars;
- Proposed 2018 drilling program (validation drillholes);
- Preliminary Results from the validation drillholes;

12.1.1 Software

RGD used the acQuire software to manage and validate the historical Dorlin database. After reviewing the compiled information, GMSI proposed guidelines to ensure that the geological modelling and grade estimation of the Nivré deposit could be produced according to NI 43-101 Guidelines.

12.1.2 Brown's Index

To avoid discrepancies between the weathering descriptions (laterite, saprolite, transition and fresh rock) logged by RGD's geologists, GMSI recommended to relog all the diamond drill holes using the Brown Index of soil and rock strength. This classification is used for similar deposits located in equatorial environment and is presented in Figure 12.1.

Figure 12.1: Brown Index of Soil and Rock Strength

	Index	Description	Identification	Approximate Range of UCS (MPa)
Saprolite Upper Saprolite (WSU)	S1	Very Soft	Easily penetrated several inches by fist.	< 0.025
	S2	Soft	Easily penetrated several inches by thumb.	0.025 – 0.05
	S3	Firm	Can be penetrated several inches by thumb with moderate effort.	0.05 – 0.10
	S4	Stiff	Readily indented by thumb but penetrated only with great effort.	0.10 – 0.25
Transition Lower Saprolite (WSL) Saprock (WSR1), (WSR2)	S5	Very Stiff	Readily indented by thumb nail.	0.25 – 0.50
	S6	Hard	Indented with difficulty by thumb nail.	> 0.50
	R0	Extremely weak rock	Indented by thumb nail.	0.50 – 1.0
	R1	Very weak rock	Crumbles under firm blow with point of geological hammer.	1.0 – 5.0
Rock Saprock (WSR2) Fresh Rock	R2	Weak rock	Can be peeled by a pocket knife.	5.0 – 25
	R3	Medium strong rock	Can be peeled by a pocket knife with difficulty; shallow indentations made by firm blow with point of geological hammer.	25 – 50
	R4	Strong rock	Cannot be scraped or peeled with a pocket knife, specimen can be fractured with a single firm blow of geological hammer.	50 – 100
	R5	Very strong rock	Specimen requires more than one blow of geological hammer to fracture it.	100 – 250
	R6	Extremely strong rock	Specimen requires many blows of geological hammer to fracture it. Specimen can only be chipped with geological hammer.	> 250

Note:
1. UCS: Uniaxial Compressive Strength

12.1.3 Review Lithology and Alteration Classification

GMSI validated the lithology and alteration descriptions written in the logging sheets of a few historical holes. The descriptions correlated with the observed drill core, and GMSI found them well aligned.

GMSI noted that some strongly altered core are logged as saprolite in the lithology descriptions because the geologist cannot identify the proper unit (rock type). That process should be revised and the name saprolite should be used only for the alteration or weathering profile and not as a rock type description.

12.1.4 Audit of Protocols, QA/QC and Best Practices

At the time of the site visit, no written procedures were presented to GMSI for review and/or comments. RGD expected to finalize these procedures before the end of September 2018.

The recommendations formulated by GMSI in a previous technical note regarding the certified reference material (CRM) were taken in account by RGD during the re-sampling program and the validation drilling. Standards (CRMs) are now added systemically to the sampling and assaying flowsheets.

A database of bulk density covering the various rock types and weathering profiles is available. More than a thousand samples were collected, and density measurements were taken. GMSI recommended to gather additional information on core samples during the 2018 drilling program. The sampling should be done systematically every 20 metres along the holes to capture the variability between rock types and weathering profiles.

12.1.5 Re-Sampling Strategy

RGD performed the re-sampling of remaining core samples in the existing core boxes from previous operators. The study was designed to validate the historical gold assays from the database using the re-sampling results.

12.1.6 Historical Drill Collars Validation

During the visit, three old collars were observed (97-86, 97-85 and 97-139), and their coordinates validated by Handheld GPS. GMSI compared the results with the database and found a good match for these three collars. All drill hole locations visited were easily identifiable. Examples are shown in Figure 12.2.

Figure 12.2: Historical Drill Hole Collar Validation - Hole ID 97-139

12.1.7 Proposed Drill Program (Validation Holes)

The six drill holes proposed by GMSI to validate the assay results as well as geology and mineralization of the surrounding historical holes were performed by RGD in 2018 (Figure 12.3). All the collars were planned on historical platforms. These drill holes are presented in Table 12.1.

Table 12.1: Validation Drilling Program

Section	Historical Drill Hole	2018 Drill Hole	Azimuth (°)	Dip (°)	Length (m)
650N	97-67	DO-18-144	254	-65	159
450N	97-125	DO-18-146	249	-65	120
300N	97-100	DO-18-145	254	-64	74
300N	97-104	DO-18-149	246	-61	125
50N	97-43	DO-18-148	238	-64	161
600N	97-127	DO-18-147	35	-90	101

Figure 12.3: 2018 Drilling Program Set-up

12.1.8 Results from the Validation Holes

Assay results from the validation holes illustrates that the nugget effect seems to have an impact on the overall assay results. These holes are presented in Table 12.2. The results of holes DO-18-144 (97-67), DO-18-148 (97-43), and DO-18-149 (97-104) are the closest to the historical values, while the other DO - results are higher for 18-147 (97-127) and lower for 18-145 (97-100), and DO-18-146 (97-125).

Table 12.2: Assay Results from Validation Drilling Program 2018

Section	2018 Drill Hole	Au (g/t)	Length (m)	Historical Drill Hole	Au (g/t)	Length (m)	Difference Historical vs. 2018 Au (%)
50N	DO-18-148	0.69	161.03	97-43	0.61	160.00	-13
650N	DO-18-144	0.97	159.22	97-67	0.88	161.85	-9
300N	DO-18-145	0.76	73.50	97-100	3.88	151.45	81
300N	DO-18-149	1.59	125.14	97-104	1.41	154.45	-13
450N	DO-18-146	1.24	120.46	97-125	1.62	80.00	23
600N	DO-18-147	0.66	100.71	97-127	0.41	151.50	-60

12.2 Database Validation

The diamond drill hole ("DDH") database used for the mineral resource estimate ("2019 MRE") was provided GMSI by gDAT Applied Solutions on January 14, 2019 (Dintchev Y. and Mannola P., 2019). The drilling database, in CSV format, was imported by GMSI into Geovia® GEMS software.

The following drill hole information was imported in the Dorlin GEMS Project:

- Collar information: Hole ID, X, Y and Z coordinates of collar (UTM) and length;
- Down-hole survey: Hole ID, down-hole depth, azimuth and dip;
- Assay: Hole ID, from, to, length, Sample number and Au values in g/t;
- Geology: Hole ID, from, to, length, simplified lithology unit and simplified regolith unit;
- Density: Hole ID, depth, sample number and bulk density (SG) value in g/cm^3.

The Dorlin Project geological and geotechnical dataset consist of information from 239 drill holes, 2,311 m of trenches and 962 auger holes related to the Nivré gold deposit. The drill hole data includes both historical (182 holes) and 2018 drilling program (57 holes) information. The database was reviewed and corrected if necessary, prior to final use in resource evaluation.

The following activities were performed during database validation:

- Validate total hole lengths and final sample depth data;
- Verify for overlapping and missing intervals;

- Check drill hole survey data for out of range or suspect down-hole deviations;
- Visual check of spatial distribution of drill holes and trenches;
- Validate lithology codes.

No significant errors were identified during GMSI's data verification on drill holes surveys. The survey data are considered valid and reliable.

Based on the results obtained from the Dorlin geological database validation, it is GMSI's opinion that the results are acceptable for use in the current Mineral Resource Estimate.

12.3 QA/QC Validation

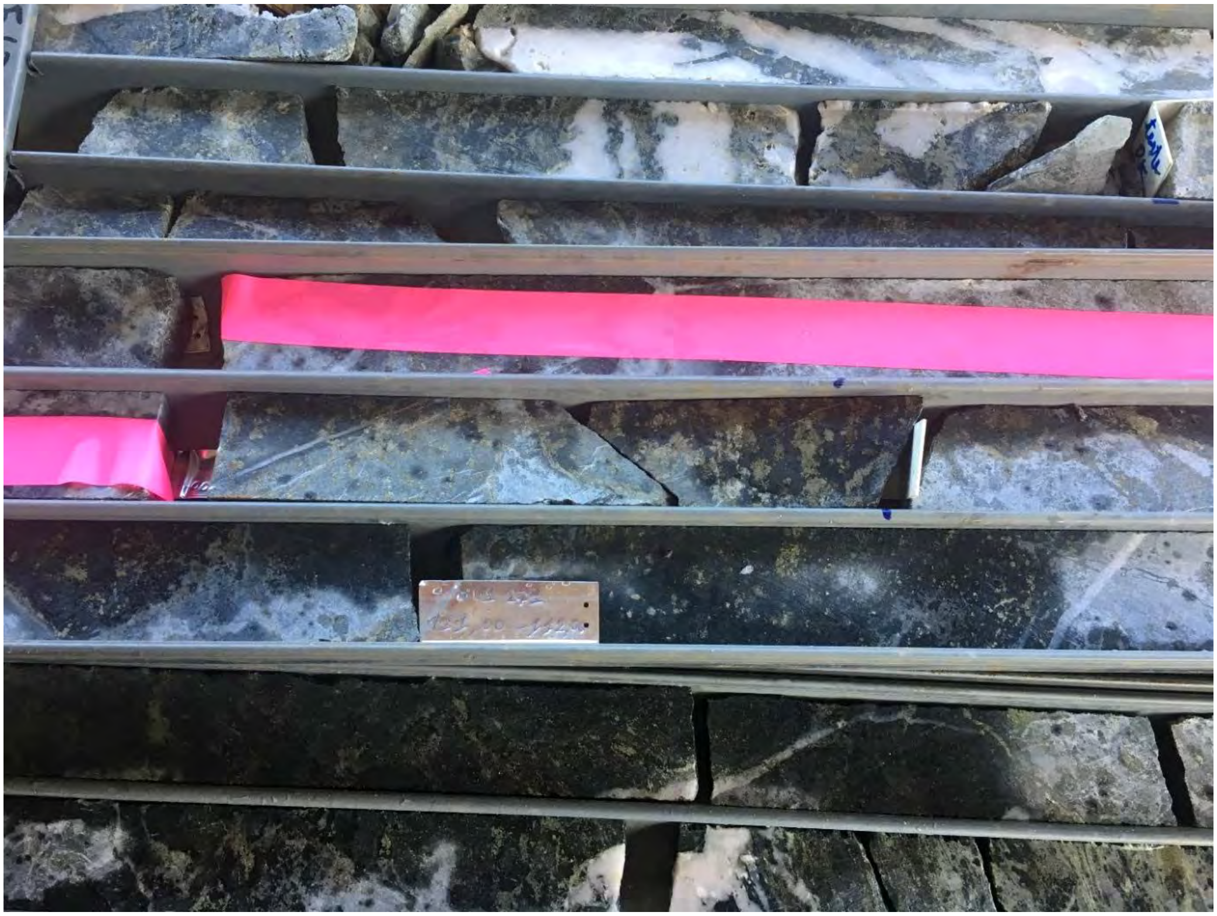
GMSI reviewed the results of the QAQC from the 2018 drilling campaign (as discussed in Section 11) and found them to be within acceptable limits.

12.4 Independent Sampling

During the 2018 site visit, GMSI collected 11 independent verification core samples from three 2018 drill holes and four historical drill holes located in the Nivré deposit (Table 12.3). The verification samples were collected on ½ or ¼ core from mineralized intervals previously sampled by RGD (Figure 12.5). The samples were cut, bagged and shipped by RGD personnel using the same cutting, sampling shipping and sample security procedures used during 2018 drilling program.

Figure 12.4: Holes Selected for Independent Re-sampling

Figure 12.5: Drill Core from Mineralized Zone



Samples chosen for assay analysis by the QP were shipped directly to the MS Analytical laboratory in Guyana. At the MS Analytical lab, all samples were weighed, dried and crushed. All samples were analyzed for gold by fire assay with a gravimetric finish. All samples returning a value > 10 g Au/t were re-analysed with metallic screen fire assay in MS Analytical. The results for the GMSI sampling gold check are shown in Table 12.3.

The correlation (r^2=0.8) between the independent verification samples and the original analyses in the RGD database is considered by GMSI as acceptable (Figure 12.6). In total, 36.4% of the gold results obtained from GMSI independent sampling are higher than RGD gold values and 63.6% are lower than the original sampled core.

Table 12.3: GMSI Independent Gold Values Check Results

Drill Hole	Sample Number		From	To	Length	Au (ppm)		Relative Diff %
	GMSI	RGD	(m)	(m)	(m)	GMSI	RGD	
97-104	700954	400785	30.0	32.0	2.0	0.41	0.54	24
97-109	700957	400524	52.6	54.3	1.7	1.69	1.21	-39
97-109	700958	400526	61.8	63.3	1.5	0.92	0.96	4
97-125	700960	400689	68.5	70.0	1.5	1.97	2.07	5
DO-18-144	700961	401259	100.0	101.0	1.0	1.07	1.08	1
DO-18-144	700962	401269	110.0	111.0	1.0	1.01	1.03	2
DO-18-145	700963	401367	30.0	31.5	1.5	1.01	1.20	16
DO-18-145	700964	401357	18.8	20.0	1.2	0.86	0.76	-13
DO-18-147	700965	401535	39.5	41.0	1.5	0.79	0.97	18
DO-18-147	700966	401551	56.0	57.0	1.0	3.05	1.93	-58
DO-18-147	700967	401506	1.4	2.0	0.7	1.76	1.53	-15

Figure 12.6 : 2018 GMSI Check Gold Values (ppm)

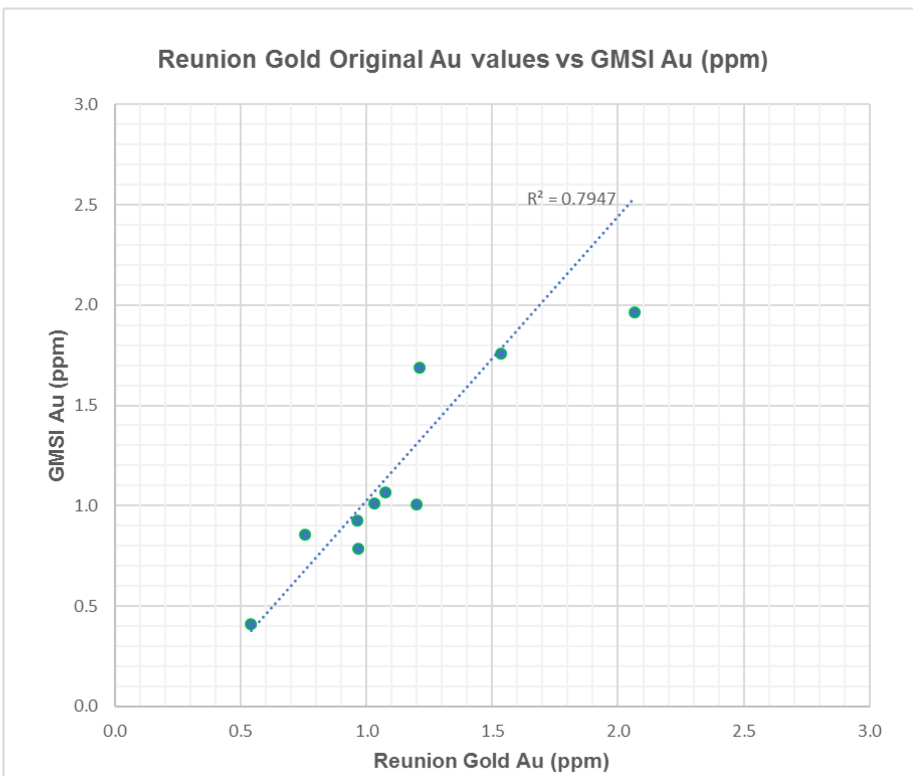


Figure 12.7: Shipment Bags of Samples

12.5 Conclusions

Overall, GMSI is comfortable that the data, analyses, QA/QC and geological interpretation presented by RGD's geologist team. It was performed in a professional manner using industry best practices. GMSI believes that all data is reliable for use in the statement of Mineral Resources presented in this Technical Report.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

In 1998, Cambior had requested to the Centre des Recherches Minérales located at Sainte Foy, Québec, metallurgical tests on eight samples coming from the Dorlin and Yaou Projects considered at the time as a single project (M. Saint-Jean, 1998). Four of these samples were from Yaou and four were from Dorlin but it is unclear which were coming from each project as appendices of the report are missing. Details on each composite sample are missing although three were from saprolite and five from fresh rock.

Head assays on the eight samples returned assays ranging between 1.07 and 2.70 g Au/t. The Work Index varied from 4.7 to 18.1 KW/t averaging 11.9 KW/t. Flotation of the five fresh rock composites varied from 60.3 to 97.6% averaging 87.4%. Cyanidation on pulverized samples at 70% passing 200 mesh recovered from 81.8 to 97.8% of the contained gold. The average of the eight composites is 92%.

Cambior in its pit constrained resource estimate of 1998 (F; Clouston, 1998) for the Dorlin Project, used a 93% recovery for the estimate. GMSI has used the same recovery for the current estimate. Additional work is required on metallurgical testing.

14. MINERAL RESOURCE ESTIMATE

14.1 Introduction

GMSI prepared a mineral resource estimate for the Nivré deposit of the Dorlin Project based on data provided up to and including the 14th January 2019. Resource estimation methodologies, results and validations are presented in this section of the Technical Report.

The MRE presented herein has been prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and in conformity with generally accepted "CIM Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines.

The mineral estimate was prepared by James Purchase, P.Geo. under the supervision of Mr. Réjean Sirois, P.Eng. GMSI, Vice President Geology and Resources, an independent QP as defined in NI 43-101.

Geovia GEMS™ and Leapfrog Geo™ software was used to facilitate the resource estimation process.

14.2 Data

The drill hole database was provided to GMSI on January 14, 2019 by gDAT Applied Solutions (Dintchev Y., Mannola P., 2019). This database included all available historical drilling by BHP/BRGM and Guyanor Resources (182 holes), and drilling completed by RGD in 2018 (57 holes for 6,585 m). Drill holes included in the database comprise of those from the following series: 96, 97, DE1, DN1, DN3, DO-18, NI, SDAR, STHR, THR, T, TP and TR. GMSI has reviewed the database and is satisfied that the integrity of the drilling database is of an acceptable standard and can be used for resource estimation. A list of drill holes used during the estimation can be found in Appendix A.

14.2.1 Drill Holes

The GEMS Nivré project holds a total of 1501 exploration drill holes, 23,893 assays, ten lithological domains (units) and four weathering domains covering the Nivré gold deposit.

The data used for the estimation includes three types of drill holes: diamond drill holes ("DDH"), auger holes and trenches. Around 80% of the total drilled metres used for the estimation of Nivré deposit are derived from diamond drill holes, with the remainder auger holes and trenches (20%). Table 14.1 details the different types of drill holes found in the Nivré deposit and Table 14.2 shows the total meterage of DDH drilled since 1979. Drill collars of the deep augering and trenching is presented in Figure 14.1, and diamond drill collars and traces are presented in Figure 14.2.

Figure 14.1: Drill Hole Plan - Nivré Deposit (Auger holes and Trenches) - March 2019

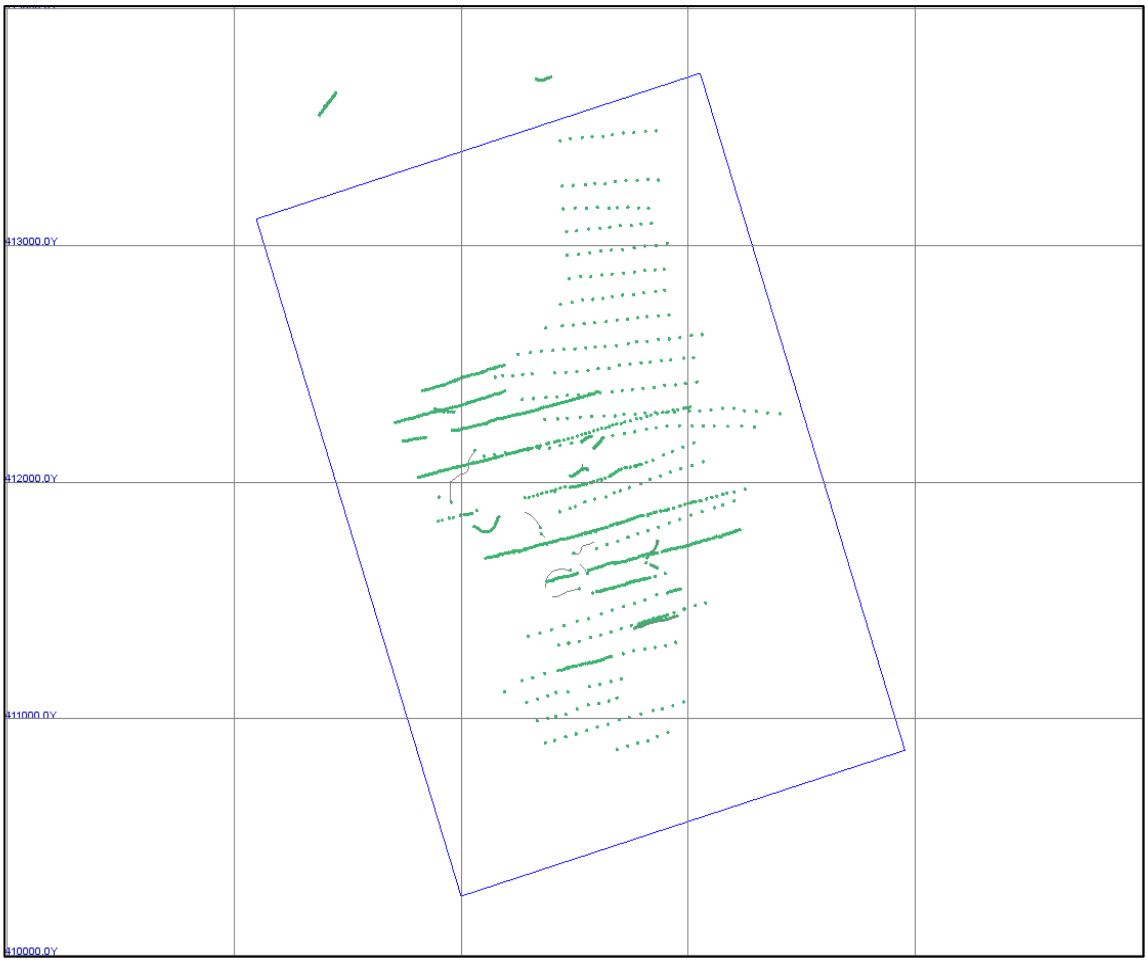


Figure 14.2: Drill Hole Plan - Nivré Deposit (Diamond drill holes) - March 2019

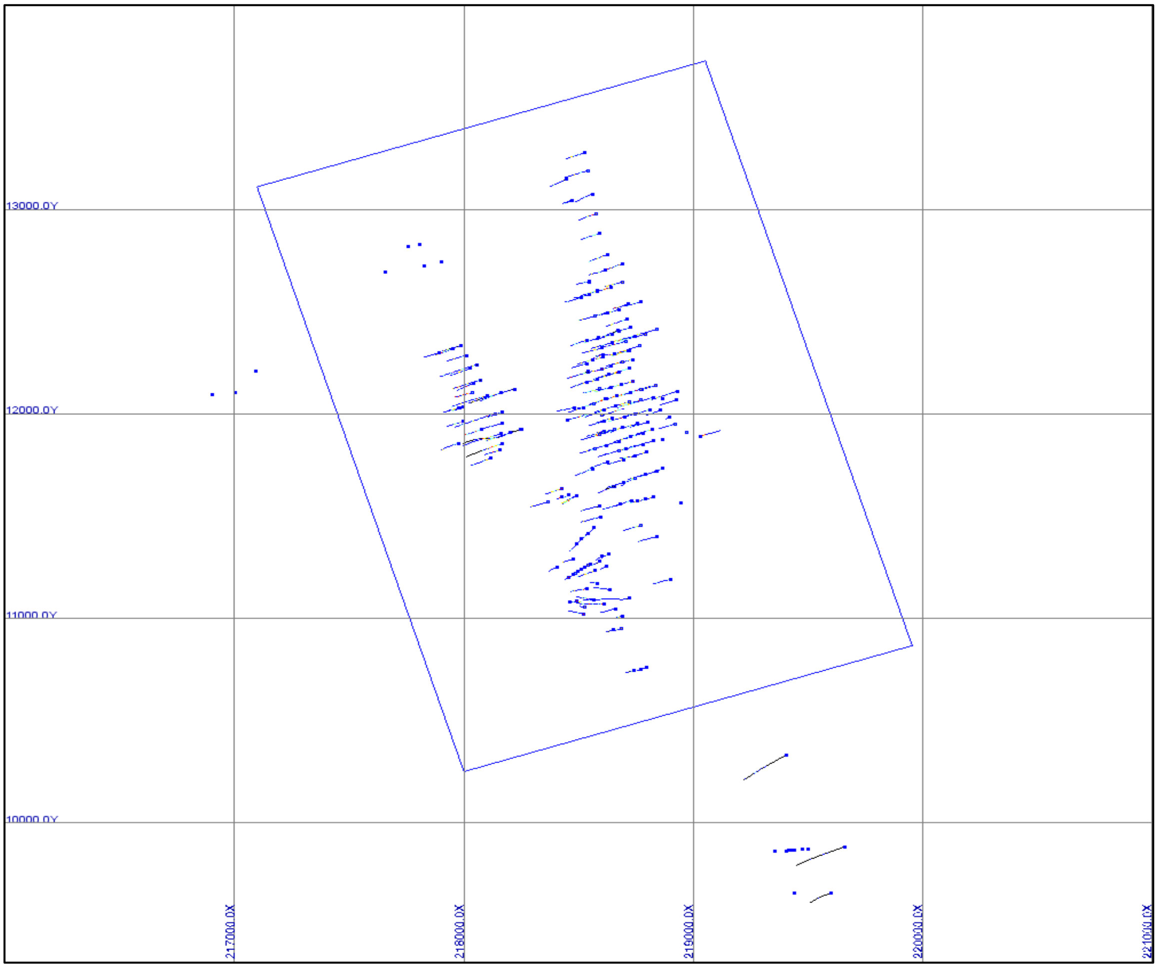


Table 14.1: Summary of Drill Holes as of March 2019

Hole Type	Number of Holes	Metres
DDH	239	31,210
Trenches	300	2,311
Auger Holes	962	4,039
Total	**1501**	**37,560**

Table 14.2 Diamond Drill Holes and Total Meterage Drilled in Nivré Deposit

DDH Hole Name Prefix	Number of Holes	Metres Drilled
96	35	2,610
97	108	15,817
DE1	1	181
DN	3	498
DO-18	57	6,585
NI	15	3,642
SDAR	9	505
STHR	8	441
THR	3	932
Total	**239**	**31,210**

14.3 Modelling

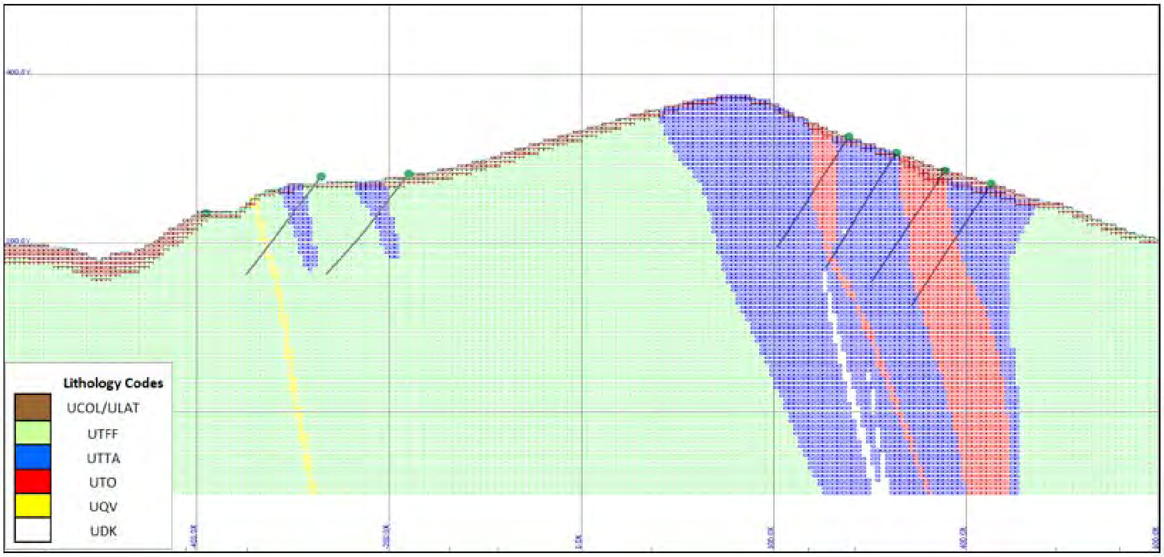
An interpretation of geological domains (Figure 14.3) was provided to GMSI in the form of hand-drawn sections and a drilling interval file. This information was incorporated into Leapfrog GEO™ and each domain was interrogated in 3D to determine if it was a valid domain for resource estimation. Although in general the gold grades increase with the levels of tourmaline alteration, there are complexities at the Nivré West zone, where little tourmaline is present in strongly mineralised areas. New geological interpretations suggest that the tourmaline alteration event was "ground preparation" for later mineralizing fluids. GMSI considered this new hypothesis and adjusted the geological model to better match gold grades rather than tourmaline alteration, resulting in a model more suitable for resource estimation. The geological model is summarized in Figure 14.3 below.

Table 14.3: Geological Code Grouping and Assignment

Zone	Rock Code	Domain Code	Description	Treatment in Leapfrog GEO™
ALL	UCOL	9	Colluvium	Grouped into a single domain (due to logging inconsistencies between Auger and Diamond holes) and modelled
	ULAT		Laterite	
	UTFF	10	Tuff or Dacite with no or weak alteration	Modelled
	UTTA	20	Tuff or Dacite with strong alteration	Modelled
	UDK	50	Post-mineralisation felsic Dykes	Modelled individually and grouped into a single wireframe
Nivré East	UTO1	31	Massive sub-vertical tourmalinite with intense alteration	Modelled
	UTO2	32		Modelled
	UTO3	33		Modelled
	UTO4	-		Domain to small to model
	UTO11	-		Domain to small to model
Nivré South	UTO5	35		Modelled
	UTO6	36		Modelled
	UTO7	-		Domain to small to model
Nivré West	UTO8	-		Domain to small to model
	UTO9	-		Less tourmaline, not logged in 2018 drilling
	UTO10	-		
	UQV1	40	Qtz vein mined by artisanals	Modelled

The Nivré deposit has a geological model that contains 10 lithological codes modelled which are: UCOL (including ULAT), UTFF, UTTA, UDK (UDK1-10), UTO1-UTO3, UTO5, UTO6 and UQV1.

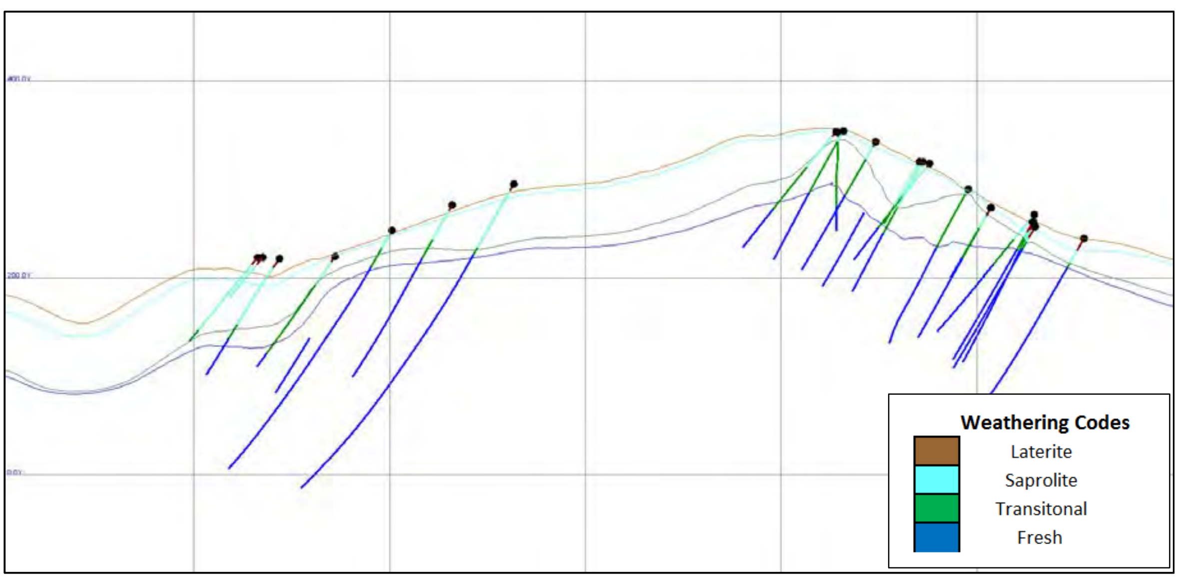
Figure 14.3: Lithology Model Example: Section 412131 NE



14.3.1 Weathering Wireframe

In total, four surfaces were generated based on the data provided in January 2019:1) Laterite-Colluvium, 2) Saprolite, 3) Transition and 4) Fresh. These wireframes are used for the density model presented in Section 14.7. Figure 14.4 illustrates the weathering surfaces covering the prospect area.

Figure 14.4: Weathering Profile Model Section 412274 NE



All drill holes and trenches were used to estimate the laterite-colluvium domain, however only diamond drill holes were used to estimate the saprolite, transition and fresh rock due to possible down-hole smearing of the auger drill holes.

14.3.2 Topography Surface

A LiDAR topography surface for Nivré deposit was provided to GMSI and integrated to the geological model in GEOVIA GEMS™ software.

14.4 Statistical Analysis

14.4.1 Statistics of the Raw-Assays

Length-weighted statistics of the raw assays were computed using R statistical software. Statistics were studied for assays grouped by geological domains and are presented in Table 14.4. A specific grade capping was applied to the raw assays for each domain based on probability plots of the raw assays (Figure 14.5 to Figure 14.10).

Table 14.4: Basic Statistics of Raw Assays by Mineralized Domain

Domain	Description	Raw Assays Au (g/t)							Capping (Au g/t)
		No. of Assays	Min	Max	Mean (Uncapped)	Median	Standard Deviation	CoV	
9	UCOL	3,852	0	54.43	0.75	0.40	1.66	2.46	10
10	UTFF	6,297	0	75.28	0.19	0.06	1.37	6.81	10
20	UTTA	10,222	0	95.40	0.43	0.15	1.85	4.12	25
31	UTO1	1,819	0	40.26	1.03	0.68	2.07	1.99	9
32	UTO2	725	0.003	241.06	1.66	0.58	9.31	6.23	13
33	UTO3	233	0.003	8.85	0.69	0.43	1.03	1.46	3
35	UTO5	72	0.03	6.97	1.53	0.94	1.63	1.07	5
36	UTO6	122	0	25.40	2.22	1.07	4.25	1.89	6
40	UQV1	37	0.005	12.86	2.68	0.77	3.77	1.41	9
50	UDK1	748	0.003	13.74	0.14	0.03	0.63	4.04	2

Figure 14.5: Probability Plots of Raw Assays (Uncapped) Grouped by the Most Populated Domains (UCOL-LAT (9), UTFF (10) And UTTA (20))

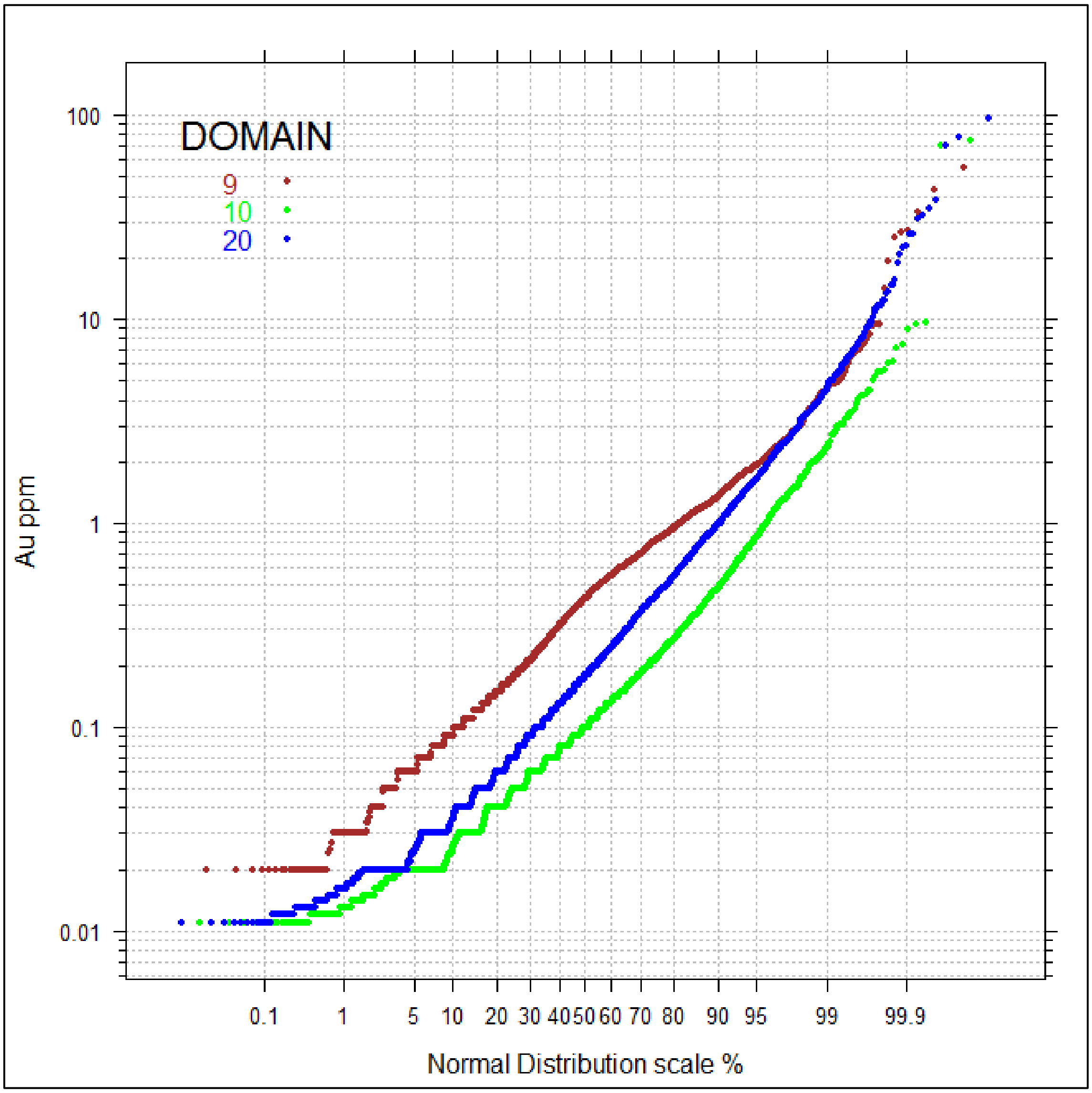


Figure 14.6: Probability Plots of Raw Assays – Domain UTO1 (31)

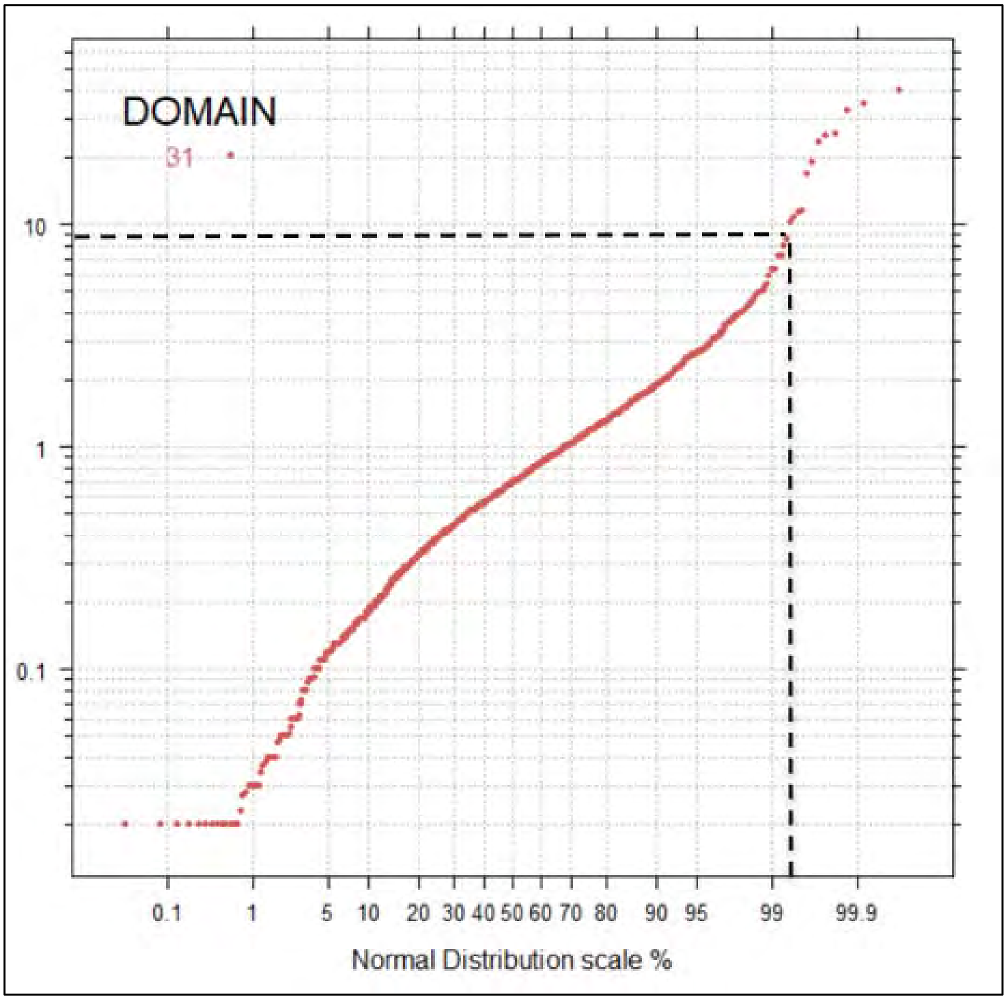


Figure 14.7: Probability Plots of Raw Assays – Domain UTO2 (32)

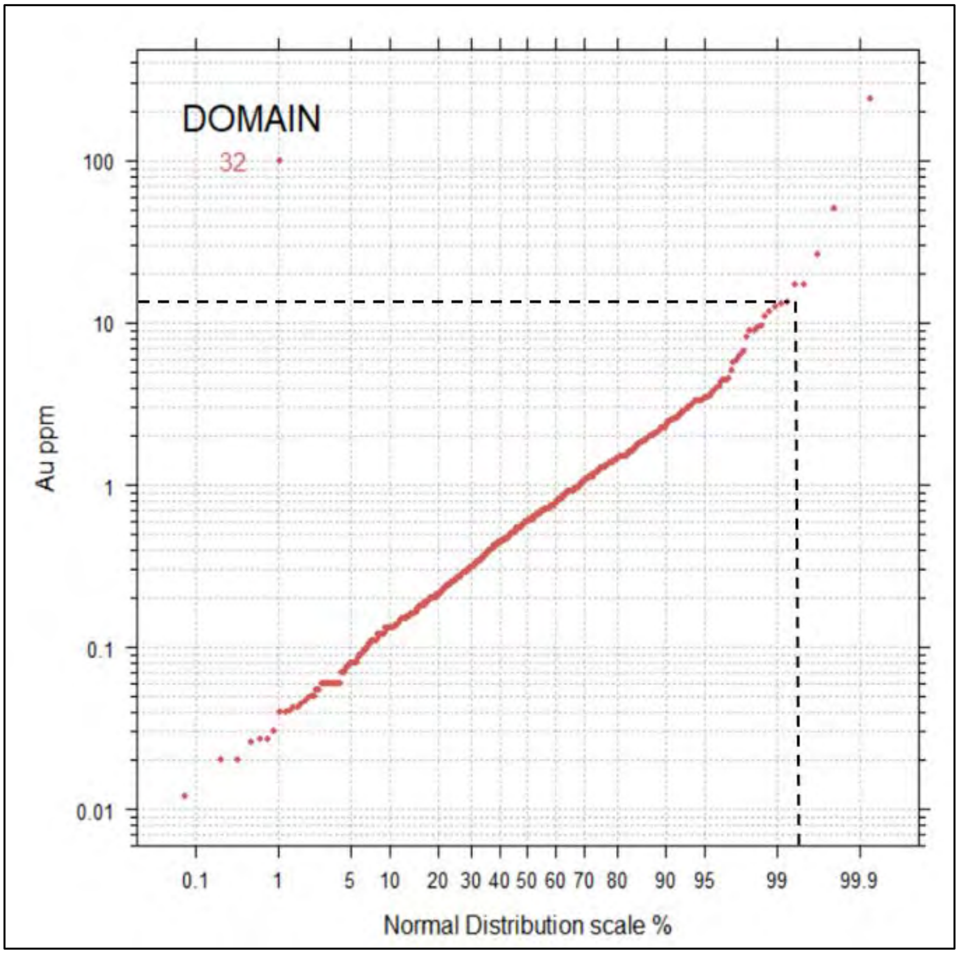


Figure 14.8: Probability Plots of Raw Assays – Domain UTO3 (33)

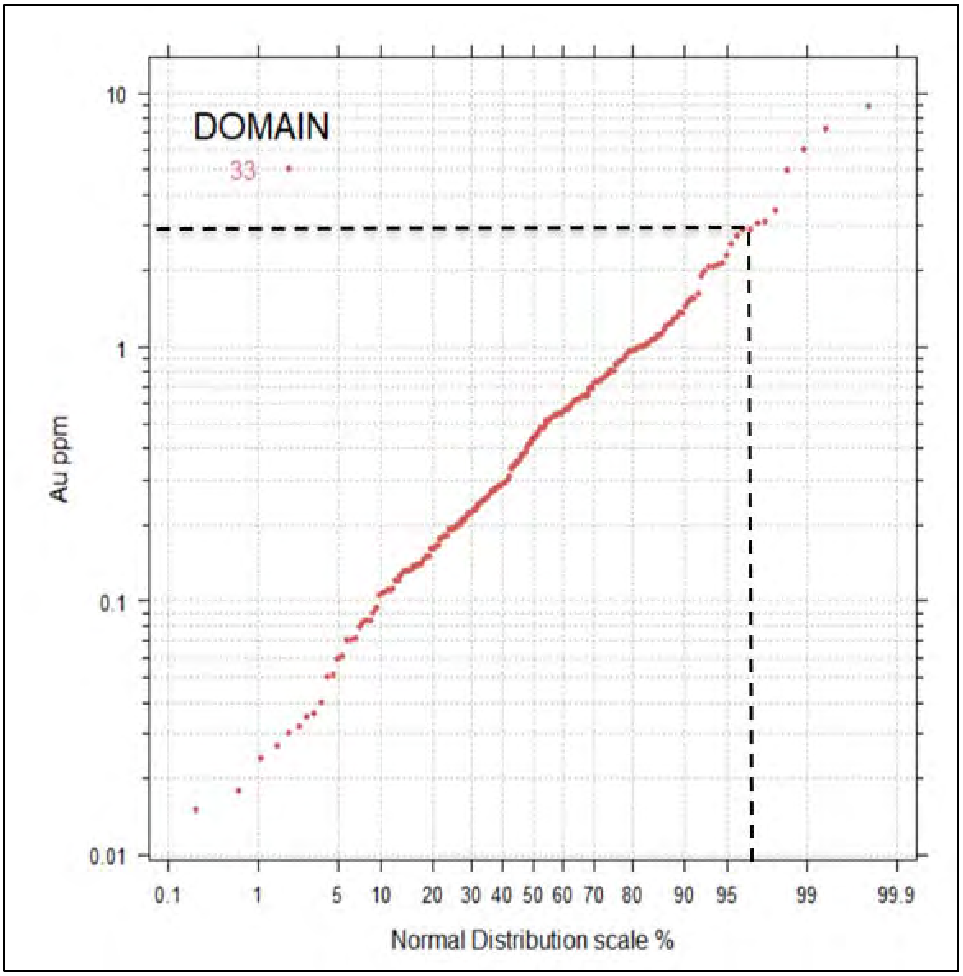


Figure 14.9: Probability Plots of Raw Assays – Domain UTO5 (35)

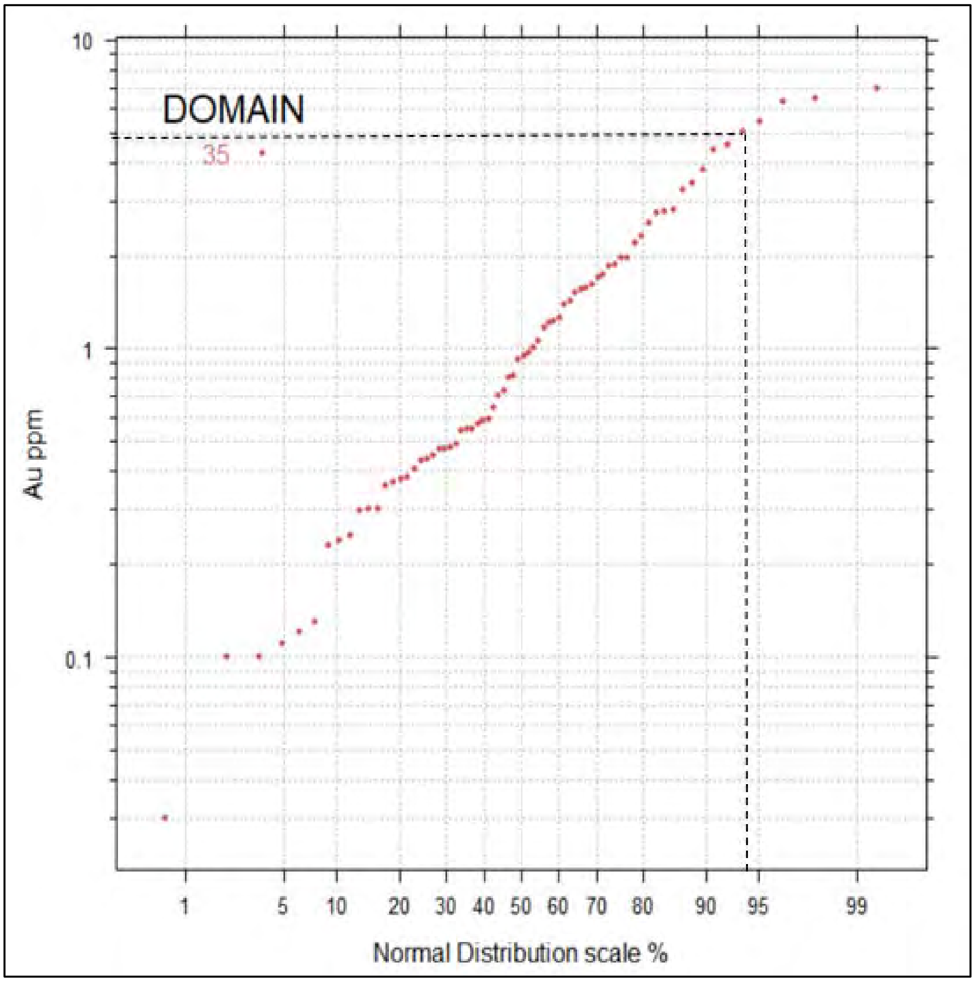
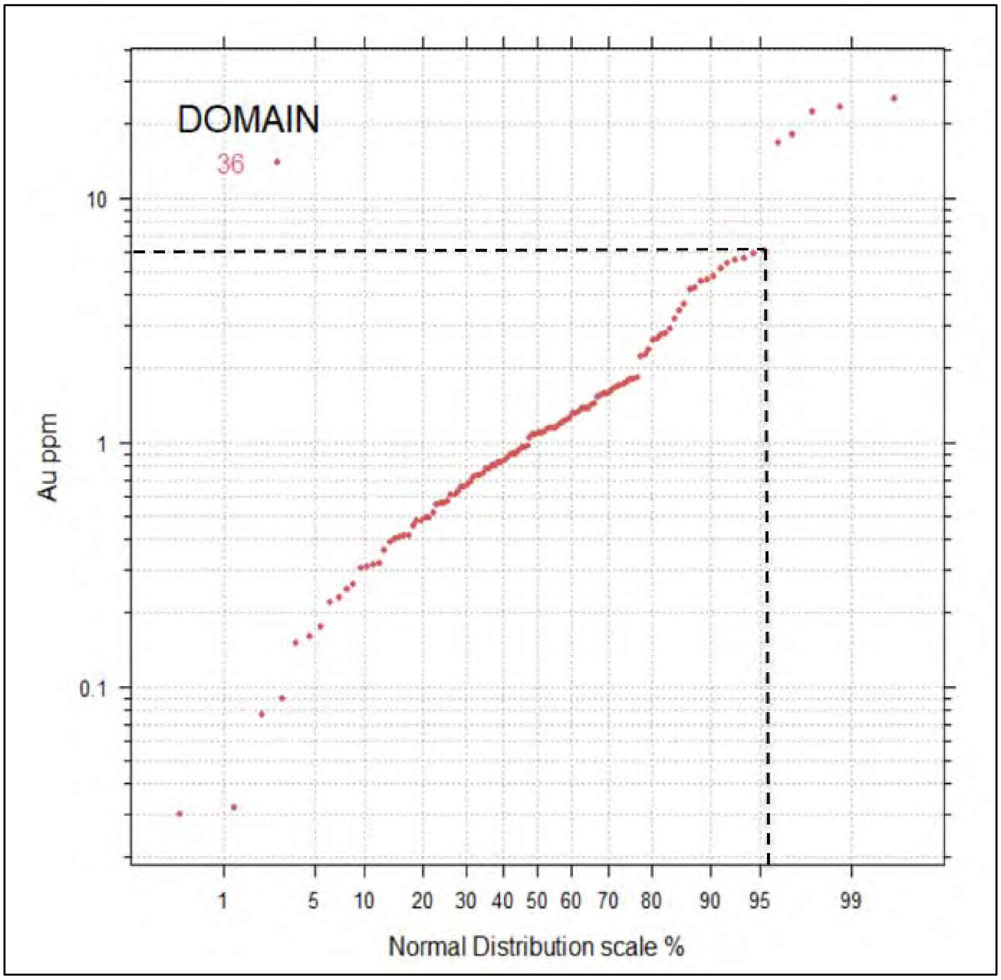


Figure 14.10: Probability Plots of Raw Assays – Domain UTO6 (36)

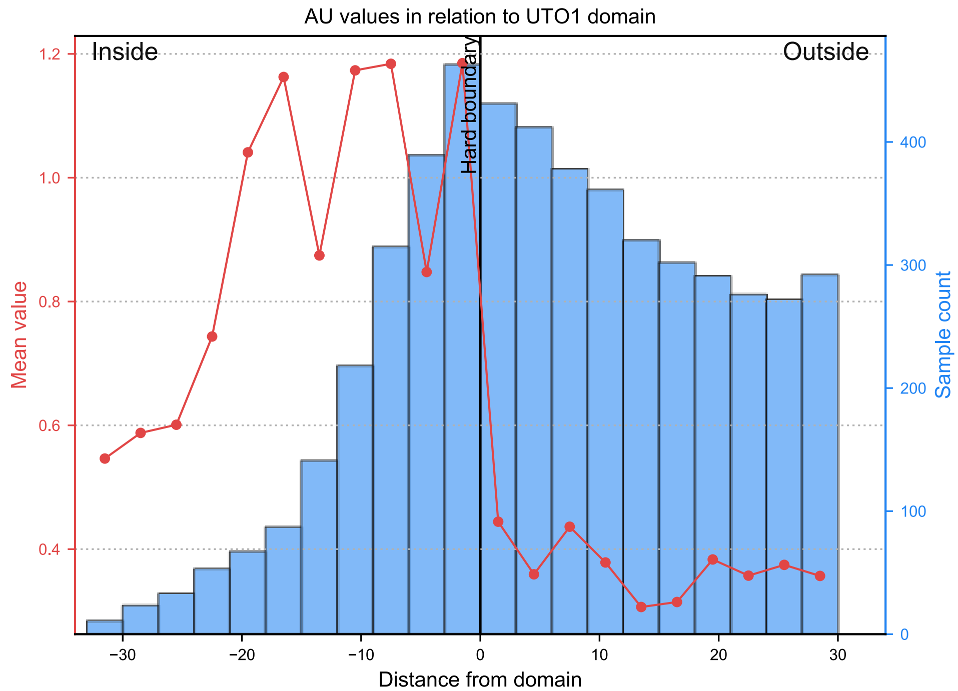


GMSI capped 69 assays in total, which resulted in a reduction of the global mean from 0.49 g/t to 0.45 g/t, and a reduction in metal content of 8.4%.

14.5 Contact Analysis

As part of the statistical review and to determine the nature of contacts during interpolation, GMSI conducted contact analysis on the UTO – UTTA boundary. The results show that the boundary can be considered hard, and that grade changes rapidly (from 0.45 g/t to 1.2 g/t) over a distance of 3 m (Figure 14.11)

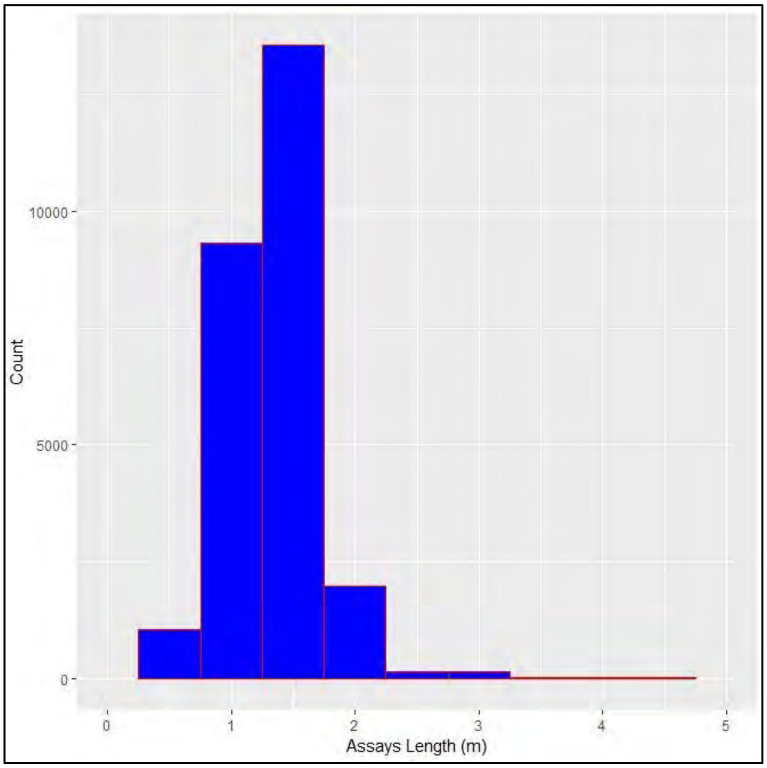
Figure 14.11: Contact Analysis of UTO1 - UTTA Contact showing hard boundary



14.6 Compositing

The capped raw-assays were composited into 1.5 m run length (down-hole) within each of the lithology domains. Figure 14.12 illustrates the distribution of raw assays per sample length. Unsampled intervals were assigned a zero grade for historical drilling. Capped composite statistics are shown in Sections 14, 10.2, Table 14.12.

Figure 14.12: Histogram of Raw Assays Length - Nivré Deposit



14.7 Bulk Density Data

The database includes specific gravity measurement from 1,736 samples collected from drill core. Table 14.5 summarizes the basic statistics obtained from these samples. Density was assigned based on weathering code using the median value for each weathering type. The distribution of bulk density's ("SG") data population for each weathering profile is illustrated with histograms and Kernel density plots (Figure 14.13, Figure 14.14, Figure 14.15, Figure 14.16 and Figure 14.17).

Table 14.5 Bulk Density Values used for the Nivré Block Model

Weathering Type	Weathering Code	Mean SG (g/cc)	Median SG (g/cc)
Laterite	9	1.68	1.66
Saprolite	1	1.79	1.73
Transition	2	2.20	2.19
Fresh Rock	3	2.78	2.81

Figure 14.13: Kernel Density Plots with Mean and Median Values for Laterite-Colluvium (code 9)

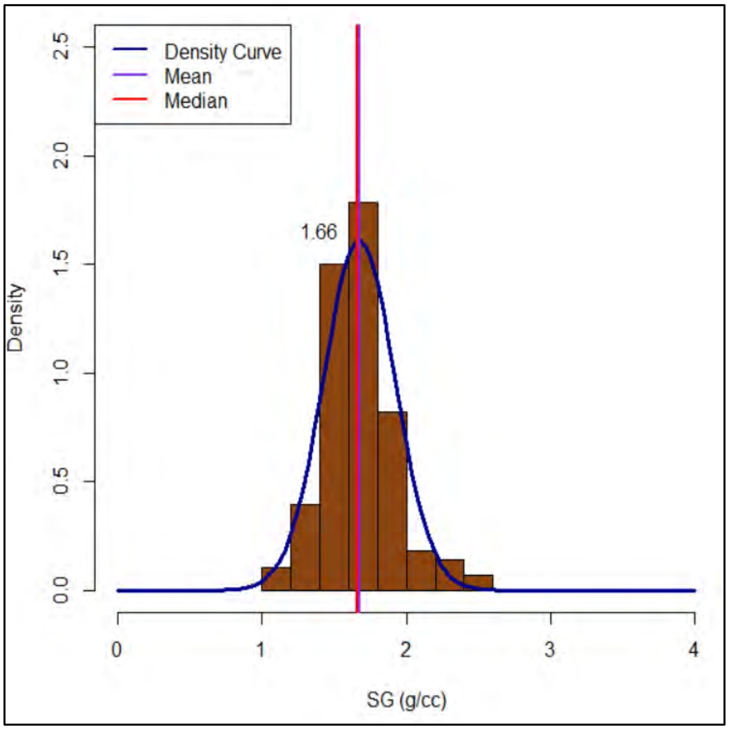


Figure 14.14: Kernel Density Plots with Mean and Median Values for Saprolite (code 1)

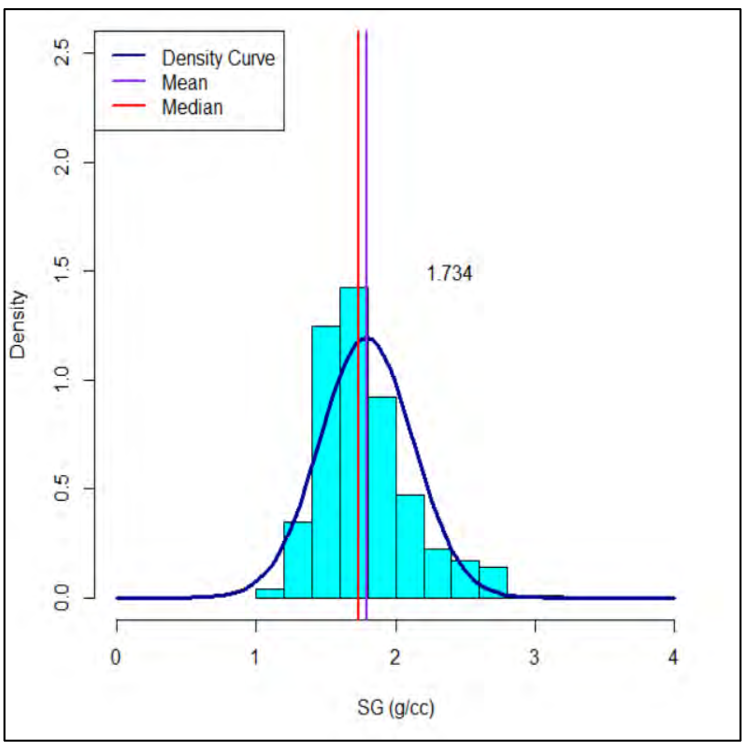


Figure 14.15: Kernel Density Plots with Mean and Median Values for Transition (code 2)

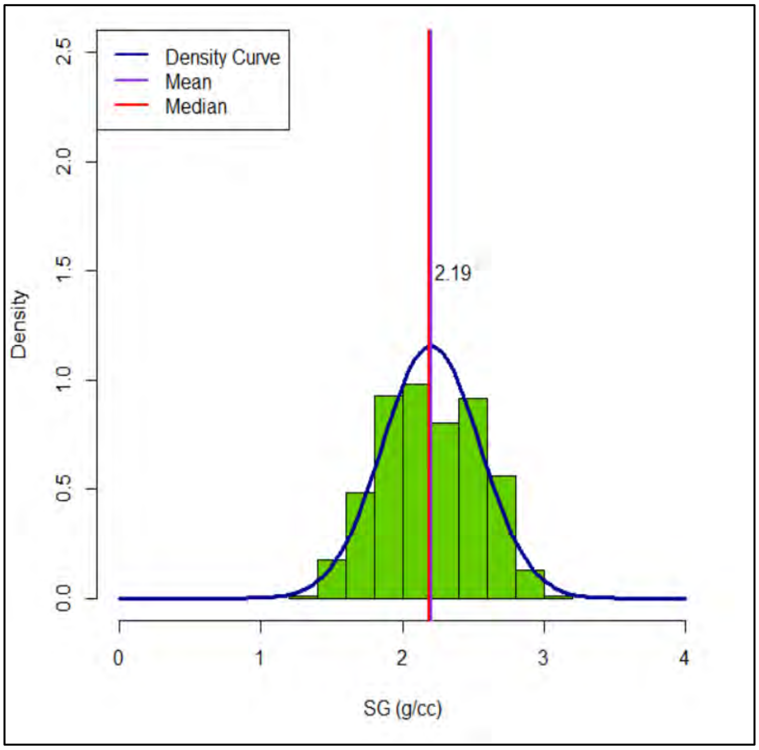


Figure 14.16: Kernel Density Plots with Mean and Median Values for Fresh Rock (code 3)

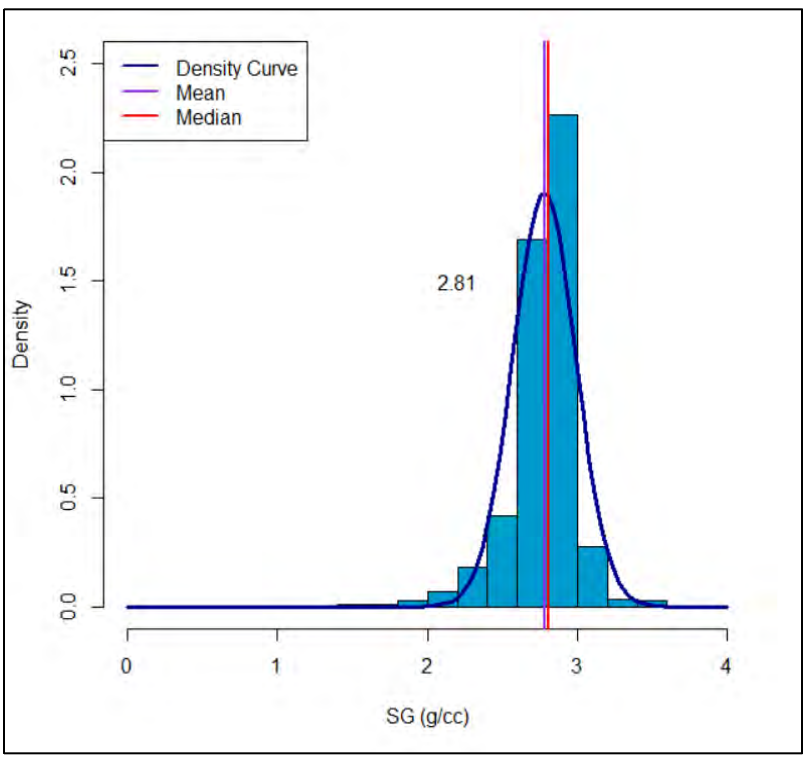
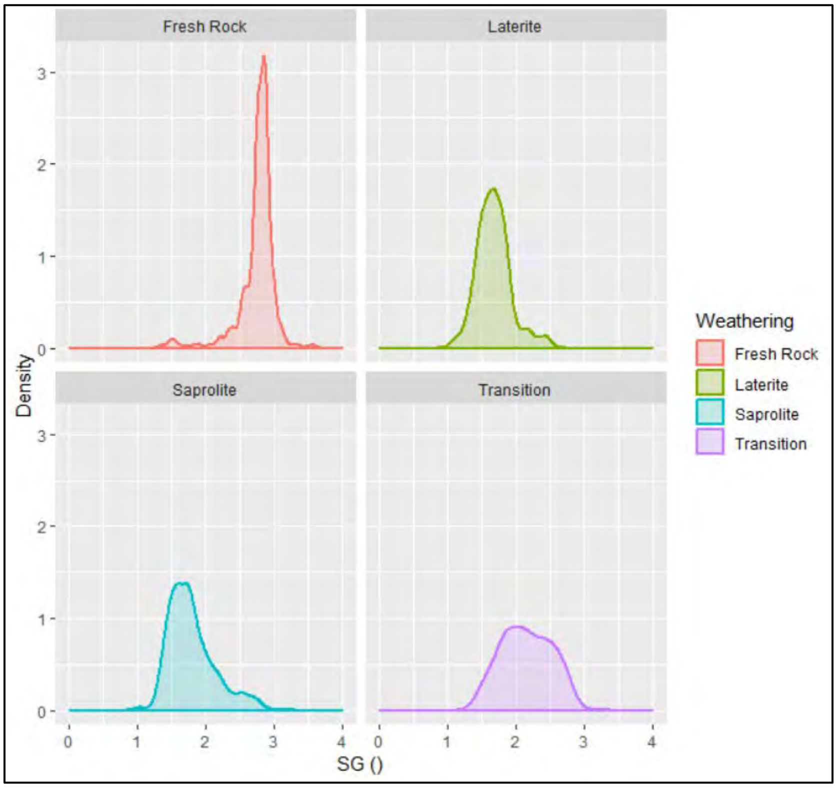


Figure 14.17: Density Curves of Bulk Density (SG) by Weathering Profile



14.7.1 <u>Variography</u>

Experimental correlograms were modelled using a single grouped domain consisting of all UTO domains and the UTTA domain for Nivré East only. In addition, correlograms were produced for the laterite-coluvium domain, which were unfolded to horizontal. Nugget variances were derived from downhole correlograms at a 1.5 m lag distance. The results of the derived variogram models are shown in Table 14.6 and an example of the models for the UTO grouped and UTTA domains are illustrated in Figure 14.18 and Figure 14.19.

Table 14.6: Variogram Parameters

Domain	Variogram Type	Nugget (C_0)	Sill 1 (S_1)	Range 1 (R1)			Sill 2 (S_2)	Range 2 (R_2)			Orientation (Major, Semi, Minor Axes)
				Major	Semi-Major	Minor		Major	Semi-Major	Minor	Dip/Dip Direction
UCOL	Spherical	0.2	0.5	25	60	8	0.15	100	100	60	0°/345°
											0°/075°
											90°/90°
UTO-UTTA	Spherical	0.4	0.45	55	60	10	0.15	100	120	30	-15°/345°
											-75°/075°
											15°/75°

n.b. negative is downwards

Figure 14.18: UTO Grouped and UTTA Correlogram Model- Major Axis (Y)

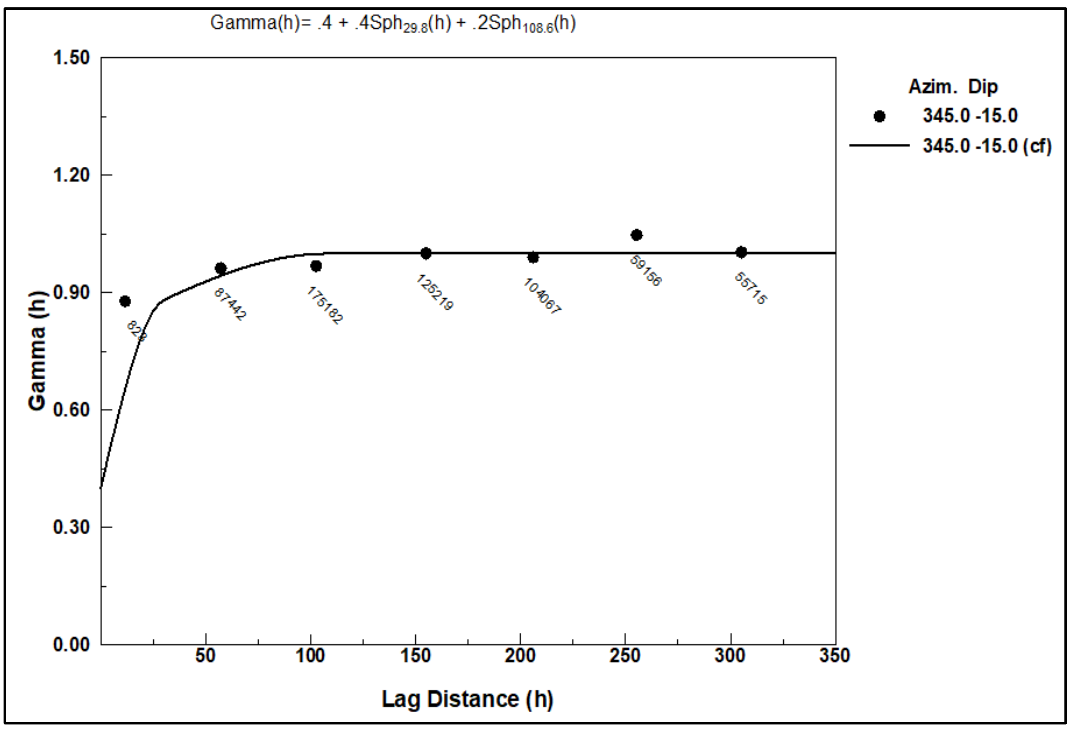
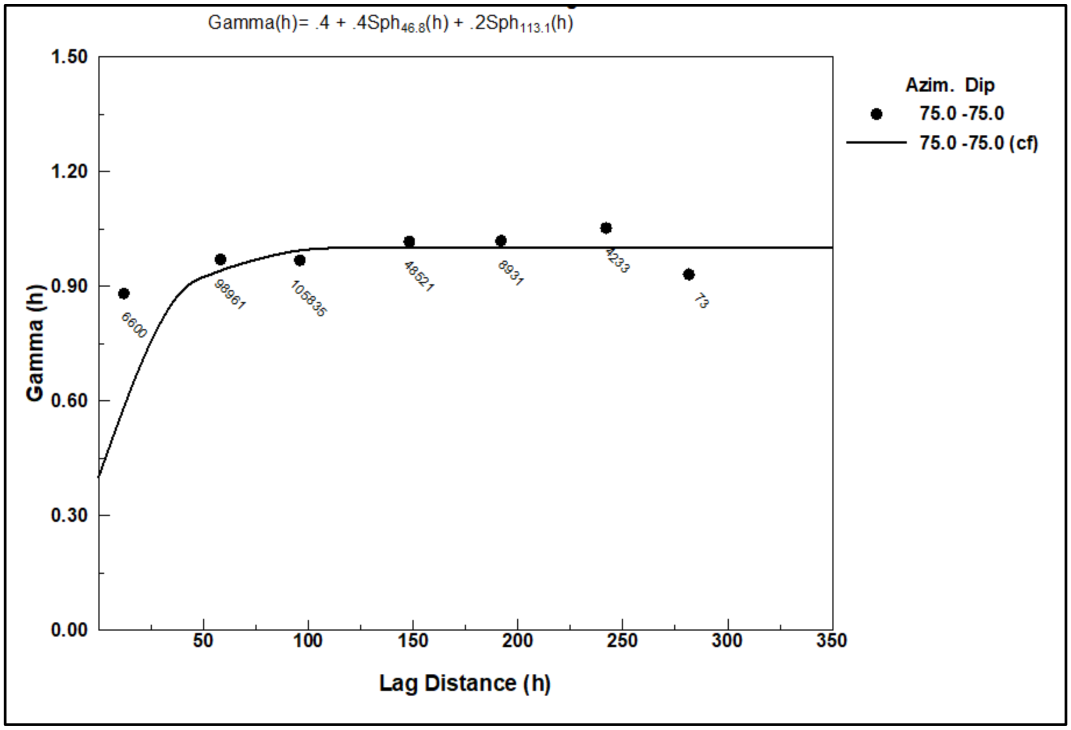


Figure 14.19: UTO Grouped and UTTA Correlogram Model - Semi-Major Axis (X)



The nugget variance is higher in the UTO/UTTA domain (40%) and observed ranges were 100 m in the major axis, and 120 m in the semi-major axis. Slight anisotropy was observed with stronger grade continuity down-dip compared to along strike. In the laterite (UCOL domain), the nugget variance is lower (22%) with slightly shorter ranges observed (100 m in the major axis, 100 m in the semi-major axis).

14.8 Block Modelling

GMSI constructed a block model in Geovia GEMS ™ using the refined geological model built based on geological sections and drill hole intervals provided by Dominique Fournier of RGD. The geological model contains both lithological and weathering interpretations.

14.8.1 Block Model Parameters

The drilling pattern, the thickness and continuity of lithological domains, and the open pit mining selectivity considerations were factors in the choice of block dimensions. The block model parameters are summarized in Table 14.7.

Table 14.7: Block Model Settings (March 2019)

Axis	Origin and Rotation (m)	Block Size (m)	Number of Blocks	
X	218,000	5	410	Columns
Y	410,250	10	300	Rows
Z	400	5	100	Levels
Rotation*	17.5			

**Rotation is anticlockwise from north*

GMSI selected the percent model as block model type. For a percent model, GEMS software determines the portion (%) of each block that lies inside or outside any active wireframe and assigns to each blocks the percentage obtained from the results.

Additionally, a series of attributes required during block modelling were incorporated. Table 14.8 presents the list of attributes found in the block model project RES19.

Table 14.8: List of Attributes Found in the Block Model RES19

Folder Name	Model Name	Description
ROCK, DYKE, UCOL	PERC_ORE / PERC_UCOL	Percent attributes
	REGOLITH	Weathering profile coding (LAT - 9, SAP - 1, TRANS - 2, FRESH - 3)
	UNIT	Domain coding (shown in Table 14.9)
	DENS_2019	Specific gravity (g/cm^3)
	AU_CAP_OK	Ordinary Kriging gold grades (g/t) – Capped Composites – Used for final resource figures
	CLASS_RES19	Resource classification (2 = Indicated and 3 = Inferred)
	DEPOSIT	Nivré deposit coding (1 = Nivré East, 2 Nivré West and 3 = Nivré South)
	PIT2019	Whittle Pit Shell used to report the Resource 2019
	PASS	Estimation pass (1 to 4)

14.8.2 Rock Type Model

The rock type model, or domain coding, was built from the lithological units presented in Section 14.3. Table 14.9 lists all the rock coding associated to domains developed and used in the block model.

Table 14.9: Rock Codes (Lithological units)

Code	Lithology Description	Rock Code
9	Laterite/Colluvium	UCOL
10	Tuff or Dacite with (no or weak alteration)	UTFF
20	Tuff or Dacite (strong alteration)	UTTA
31	Massive Sub-vertical Tourmalinite	UTO1
32		UTO2
33		UTO3
35		UTO5
36		UTO6
40	Qtz veins	UQV1
50	Felsic Dykes (Post-mineralisation)	UDK

14.8.3 Grade Estimation Methodology

The interpolation technique selected to estimate the Nivré deposit block model is the OK method with 1.5 m composited capped gold grades using a four-pass interpolation strategy. In addition, a high-grade restraining was implemented to control the extrapolation of high-grades in later estimation passes. GMSI also used an ID^3 estimate for comparative purposes only.

Lithological domains were considered as hard boundaries for all domains through each interpolation step. Each domain was estimated using only composites pertaining to the domain in question. Geovia® GEMS 6.8.2 software was used for the estimate.

Four interpolation passes were used iteratively to estimate the blocks for Nivré deposit (Table 14.10). The sample selection methodology for each pass is summarized below:

- **First Pass**: A minimum of eight and a maximum of 16 composites within the selected search ranges. A maximum of three composites per hole could be used for any block estimate.
- **Second Pass**: A minimum of four and a maximum of 16 composites within the selected search ranges. A maximum of three composites per hole could be used for any block estimate. Only blocks which were not estimated during the first pass could be estimated during the second pass.
- **Third Pass**: A minimum of two and a maximum of 16 composites within the selected search ranges. A maximum of three composites per hole could be used for any block estimate. Only blocks which were not estimated during the first and second passes could be estimated in the third pass.
- **Fourth Pass**: A minimum of two and a maximum of 16 composites within the selected search ranges. A maximum of three composites per hole could be used for any block estimate. The only difference between the third and fourth pass is an increase in the XYZ search dimensions. Only blocks which were not estimated during the first, second and third passes could be estimated in the fourth pass.

Over 85% of the contained ounces within the constrained open-pit Mineral Resource were estimated in estimation pass 1 or 2, with the remaining 15% estimated in estimation pass 3 and 4.

For the laterite domain, two search ellipses were used to model the two flanks of the hill (east and west). For all other domains, a narrow lens-like search ellipse dipping steeply to the ENE was used with a narrow Z-Axis. See Table 14.10 for a summary of the estimation parameters and passes.

Table 14.10: Ordinary Kriging Estimation Parameters

Deposit	Domain	Estimation Pass	Search Ellipse Dimensions (X, Y, Z)			Search Ellipse Orientations (Major, Semi-Major, Minor Axes) Dip/Direction	Minimum/Maximum No. Samples	Minimum No. Drill Holes
Nivré	Laterite-colluvium (East)	1	40	40	20	0°/345° -25°/75° +65°/75°	8/16	3
		2	60	60	30	0°/345° -25°/75° +65°/75°	4/16	2
		3	80	80	40	0°/345° -25°/75° +65°/75°	2/16	1
		4	100	100	40	0°/345° -25°/75° +65°/75°	2/16	1
	Laterite-colluvium (West)	1	40	40	20	0°/345° -20°/255° +70°/255°	8/16	3
		2	60	60	30	0°/345° -20°/255° +70°/255°	4/16	2
		3	80	80	40	0°/345° -20°/255° +70°/255°	2/16	1
		4	100	100	40	0°/345° -20°/255° +70°/255°	2/16	1
	All other domains	1	60	60	15	-15°/345° -80°/75° +10°/75°	8/16	3
		2	80	80	20	-15°/345° -80°/75° +10°/75°	4/16	2
		3	100	100	25	-15°/345° -80°/75° +10°/75°	2/16	1
		4	120	120	30	-15°/345° -80°/75° +10°/75°	2/16	1

**For domain UTO5, the search ellipse orientation dip was -15°/345°, +80°/075°, and +10°/255° for the Major, Semi and Minor axes to account for the change in dip of the domain (the unit dips steeply towards the west).*

Search ellipse ranges were determined considering the drill hole spacing and the desired level of extrapolation of gold grade (for mineral resource categorisation purposes). The search ellipse distances progressively increase from 40 m x 40 m x 20 m (laterite-colluvium domain) and 60 m x 60 m x 15 m (all other domains) in the first interpolation pass towards longer distances up to 100 m by 100 m x 40 m (laterite-colluvium domain only) and up to 120 m x 120 m x 30 m (all other domains) in the fourth pass.

Restrictions were placed on the search ellipse to limit the influence of high-grade composites. An internal search ellipse of 30 m x 30 m x 5 m and high-grades restraining cap shown Table 14.11 was used by GMSI during the estimation process.

Table 14.11: High-grade Restraining Levels

Rock Code	High- grade Restraining Cap for Passes 1 and 2 (g Au/t)	High- grade Restraining Cap for Passes 3 and 4 (g Au/t)
UCOL/LAT	Not applied	Not applied
UTFF	5	Not applied
UTTA	16	5
UTO1	Not applied	5
UTO2	Not applied	5
UTO3	Not applied	Not applied
UTO5	Not applied	Not Applied
UTO6	Not applied	5
UQV1	Not applied	5
UDK1	Not estimated, assigned zero grade	

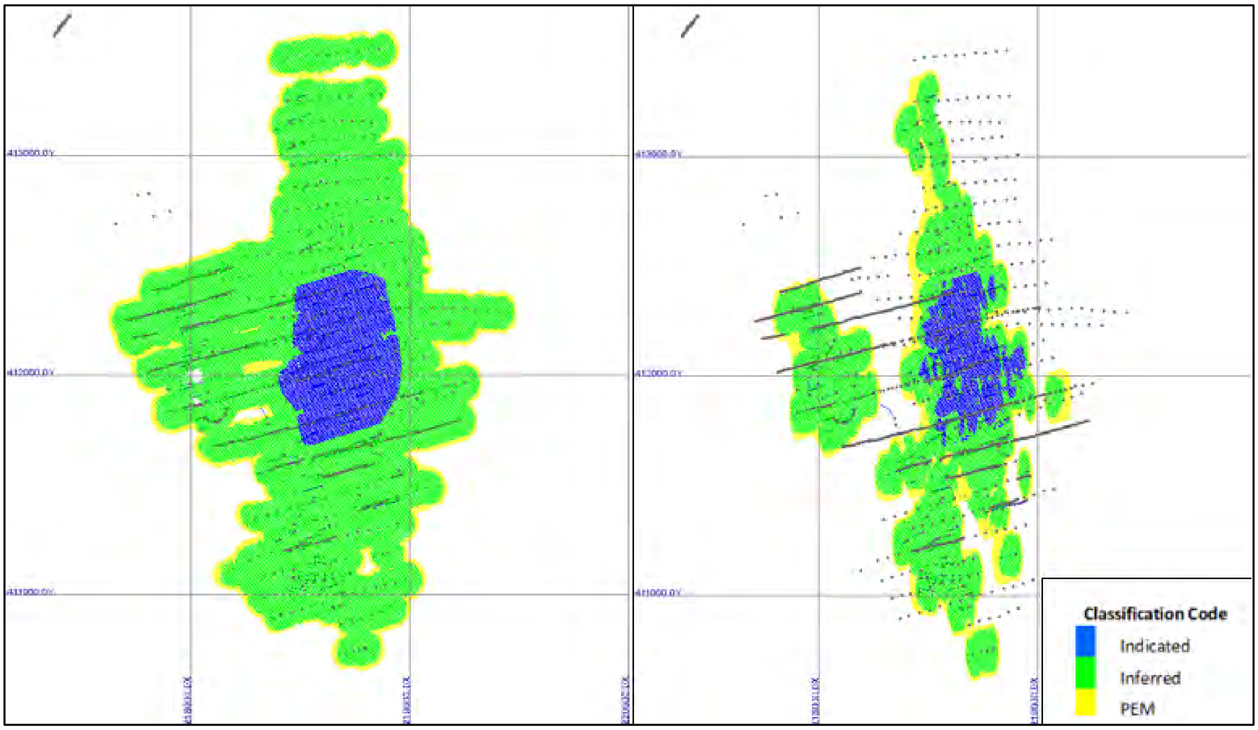
14.9 Classification and Resource Reporting

Resource classification was determined from estimation pass and distance from the 50 m x 50m drilling pattern at the Nivré East zone:

> *Indicated Resources* – Blocks estimated in Pass 1 or 2 within the vicinity of the 50 m x 50m drilling pattern at Nivré East
>
> *Inferred Resources* – Blocks estimated in Pass 1 or 2 outside of the 50 m x 50 m drilling pattern at Nivré East, and all blocks estimated in pass 3.

The resource categories for the Nivré deposit are shown in Figure 14.20.

Figure 14.20: Resource Classification for Laterite-colluvium Domain (left) and All Other Domains (right).



14.10 Block Model Estimation Validation

The block model was validated using visual validation, global comparative statistics by domain, swath plots and Q:Q (quantile-quantile) plots.

14.10.1 Visual Validation

Figure 14.21 (Nivré East) and Figure 14.22 (Nivré West) show example sections through the block model comparing block gold grades with the composite gold grades.

Figure 14.21: Section 412084 at Nivré East Comparing Block Gold Grades with Composite Gold Grades and Whittle Pit Shell at US$ 1,250 used to Report Resource. Looking North.

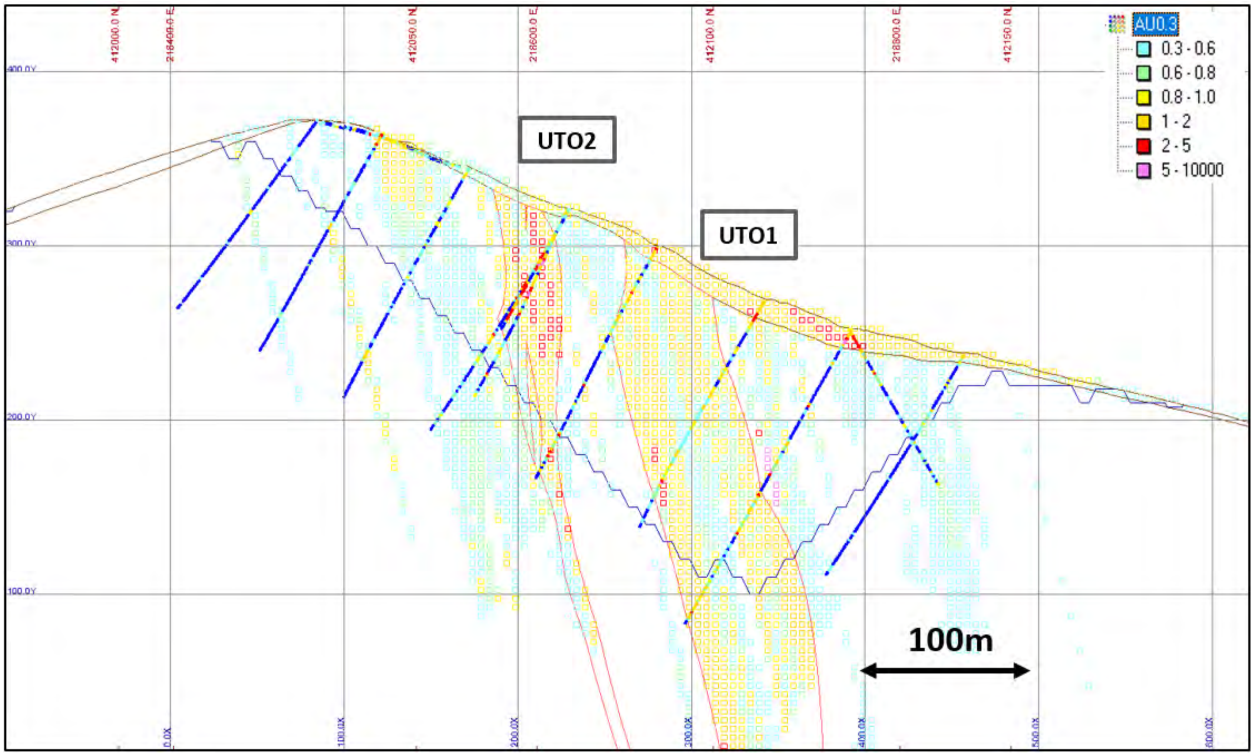
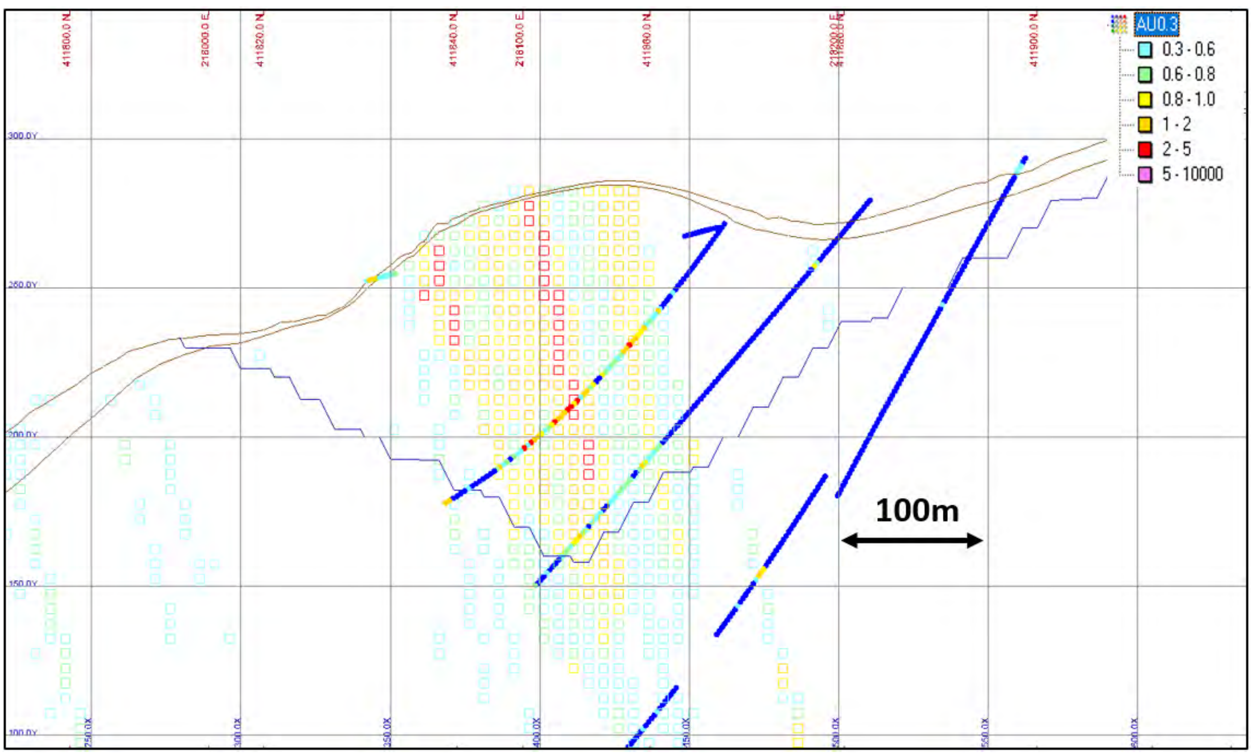


Figure 14.22: Section 411782 at Nivré West Comparing Block Gold Grades with Composite Gold Grades and Whittle Pit Shell at US $1,250 used to Report Resource. Looking North.



14.10.2 Global Statistical Validation

Comparative statistics were generated for the composites and the blocks for each domain at Nivré considering only blocks estimated in pass 1 and pass 2. The results are presented in Table 14.12.

Table 14.12: Comparative Global Statistics by Domain – Composites vs. Blocks, Estimation Pass 1 and 2 Only

RES19 Ordinary Kriging Pass 1 and 2 Only															
Domain	Description	No. of Composites	Gold Composites (g Au/t)					CoV	No. of Blocks		Gold Blocks (g Au/t)				CoV
			Min	Max	Declustered Mean (Capped)	Median	Standard Deviation			Min	Max	Mean (Capped)	Median	Standard Deviation	
9	UCOL	3,569	0	10.00	0.64	0.45	0.92	1.36	78,371	0.005	8.16	0.63	0.49	0.56	0.92
10	UTFF	5,814	0	7.05	0.18	0.07	0.39	2.15	104,001	0.001	2.54	0.18	0.12	0.20	1.09
20	UTTA	9,774	0	24.99	0.38	0.17	0.98	2.38	209,449	0.003	8.19	0.37	0.24	0.44	1.17
31	UTO1	1,732	0	9.00	0.93	0.71	0.93	0.99	31,550	0.079	5.03	0.93	0.85	0.48	0.51
32	UTO2	719	0	13.00	0.98	0.66	1.61	1.43	8,555	0.084	6.95	1.08	0.91	0.70	0.65
33	UTO3	222	0.01	3.00	0.63	0.46	0.60	0.95	3,424	0.173	1.78	0.66	0.57	0.34	0.51
35	UTO5	70	0.1	5.00	1.58	0.98	1.33	0.92	429	0.277	3.06	1.26	1.25	0.51	0.38
36	UTO6	107	0.03	6.00	1.74	1.05	1.55	1.00	894	0.279	5.07	1.36	0.96	1.08	0.79
40	UQV1	30	0	9.00	2.66	1.36	2.34	1.06	298	0.382	5.24	2.28	2.59	1.19	0.51

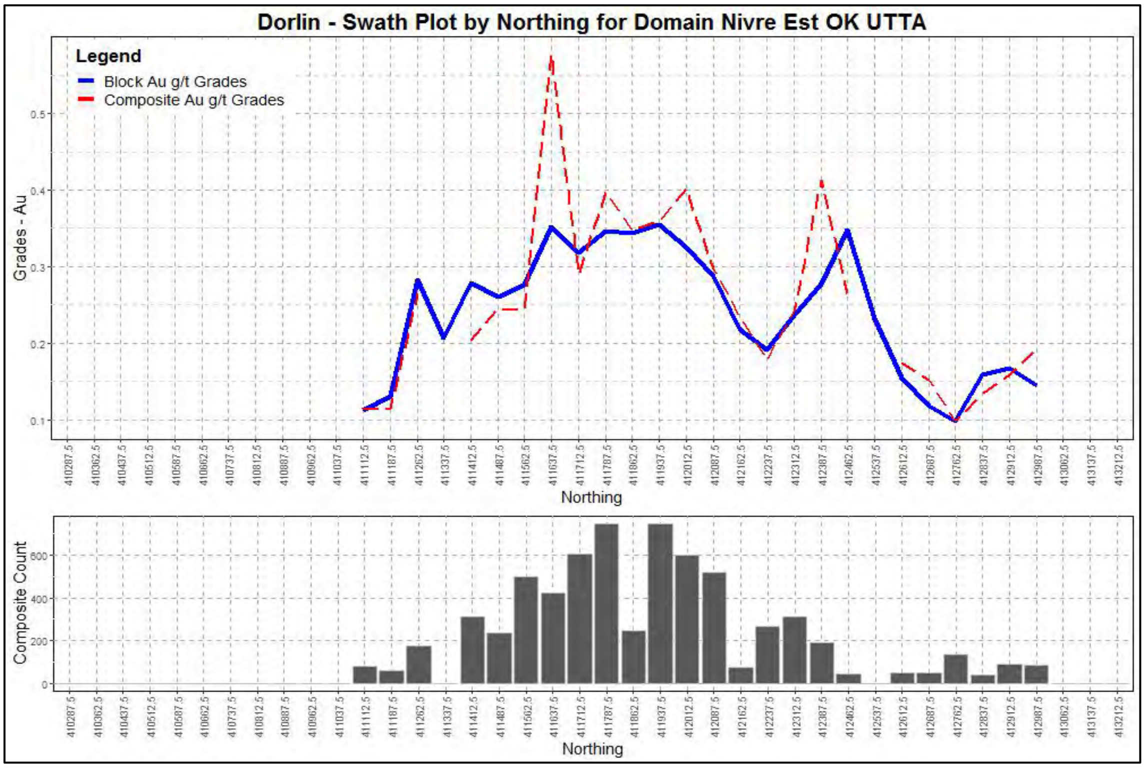
14.10.3 Local Statistical Validation - Swath Plots

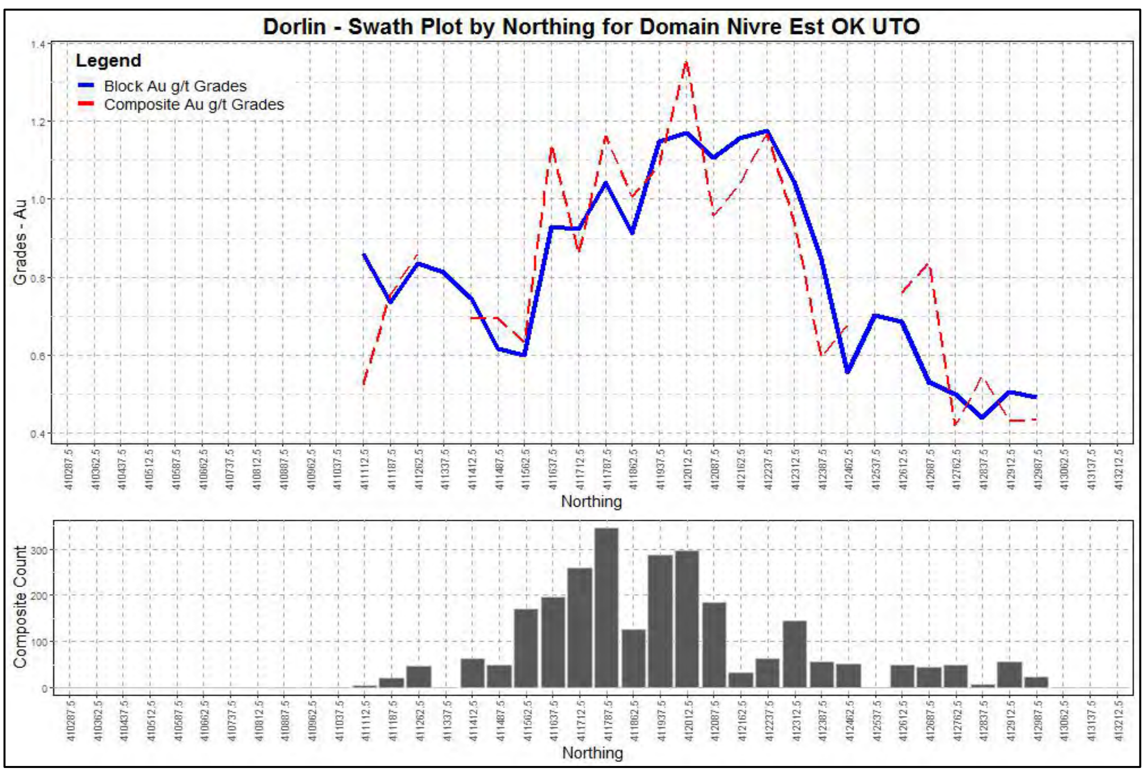
The swath plot method is considered a local validation, which works as a visual mean to compare estimated block grades against composite grades within a 3D moving window. In addition, it can identify possible bias in the interpolation (i.e. over/under estimation of grades).

Swath plots were generated for UCOL, UTTA and grouped UTO domains at increments of 25 m (Easting) by 50 m (Northing) by 15 m (Elevation). Figure 14.23 illustrates the swath plot for blocks estimated in pass 1 and 2 for Nivré East by Northing.

At the Nivré deposit we see a good correlation between the drill hole composites and the blocks, with an underestimation observed in high-grades values and an overestimation in low-grades values across all northings (as expected). GMSI is satisfied that the block model is a good representation of the drill hole composites.

Figure 14.23: Swath Plot by Northing for Nivré East Comparing Composite Grades Against Block Grades for the UTTA (top) and UTO Grouped (bottom) Domains. Pass 1 & 2 only and by Ordinary Kriging Interpolation Method.

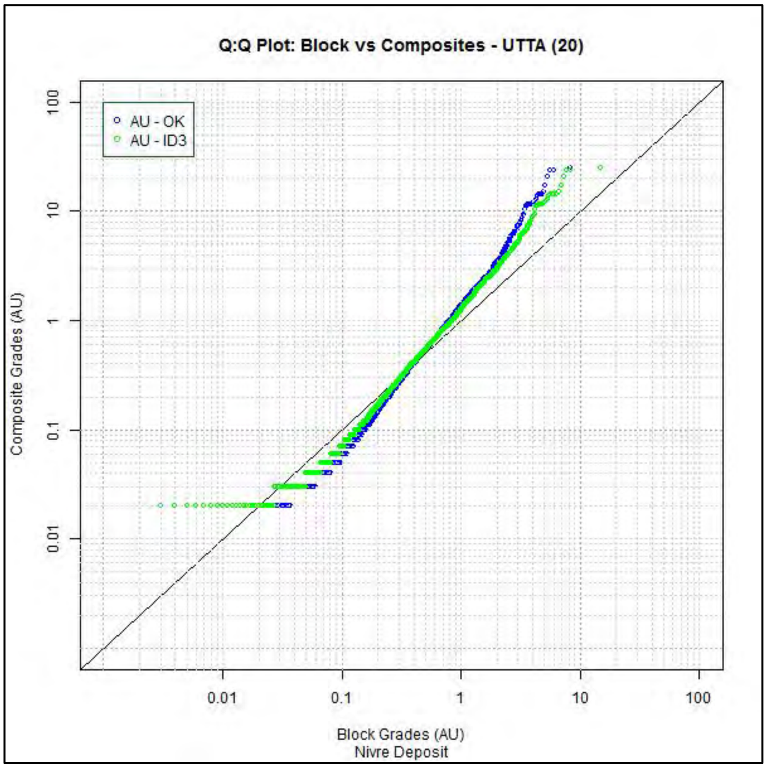


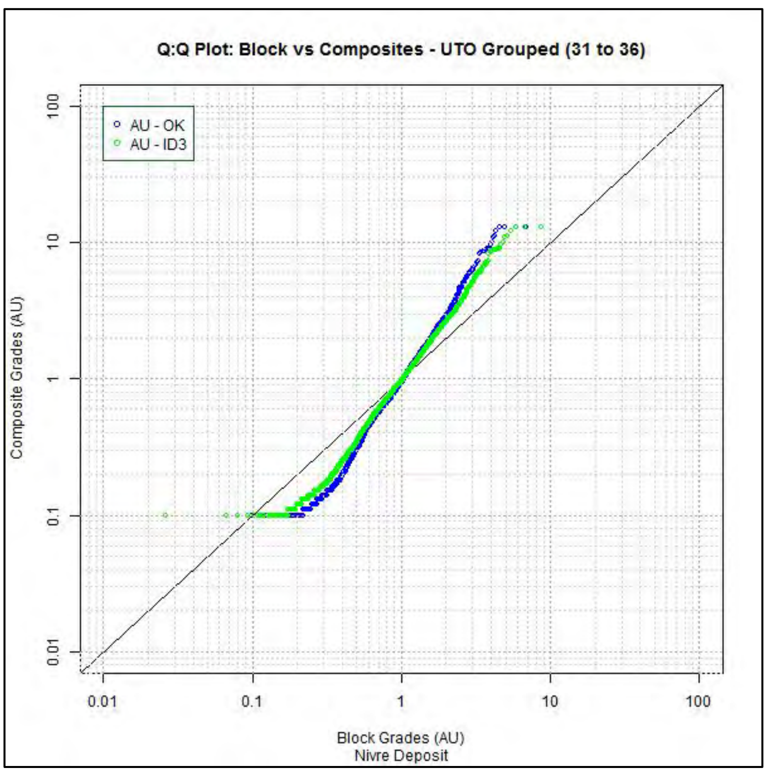


14.10.4 Q: Q Plots Validation

In addition to descriptive statistics and local statistical analysis, Q: Q plots were generated to assess the statistical distribution of gold grades of composites against blocks on a domain-by-domain basis. These plots are useful in assessing the degree of smoothing (conditional bias) observed during the grade estimation process and can identify any significant over/under estimation of grades. Figure 14.24 shows a Q: Q plot of composite gold grades (Y-axis) vs block gold grades (X-axis) for UTTA and grouped UTO domains for both estimation methods: (ID^3 and OK).

Figure 14.24: Q: Q Plot Comparing Grade Smoothing Between Ordinary Kriging (blue line) and Inverse Distance Cubed (red line) for the UTTA and UTO Domains Grouped. Pass 1 & 2 only.





14.10.5 Discussion on Block Model Validation

Overall, the Nivré block model is a good representation of composite gold grades used in the estimation. Global statistical validations demonstrate an acceptable reproduction of the mean between blocks vs. composites and the results obtained show no over/under estimation. Local statistical validations show good local correlation of block and composite gold grades, and no excessive extrapolation of grades was observed.

14.11 Constrained Mineral Resources

14.11.1 Open Pit Constrained Mineral Resource

The Total Open-Pit Constrained Mineral Resource as of March 2nd,2019 is as follows:

Indicated Resources – 18.9 Mt at 1.09 g Au/t for 665,000 oz

Inferred Resources – 26.0 Mt at 1.06 g Au/t for 884,000 oz

A detailed breakdown of the total Mineral Resource by weathering type is shown Table 14.13 below:

Table 14.13: Open-pit constrained Total Mineral Resource for All Nivré deposits combined

Weathering	Lower Cut-off	Indicated Resources			Inferred Resources		
		Tonnes (Mt)	Grade (g Au/t)	Ounces (000s)	Tonnes (Mt)	Grade (g Au/t)	Ounces (000s)
Laterite/Colluvium	0.40 g/t	3.0	1.02	99	5.6	0.99	179
Saprolite	0.40 g/t	3.2	0.89	91	9.7	0.91	282
Transition	0.53 g/t	3.3	1.17	124	3.8	1.10	134
Fresh	0.63 g/t	9.4	1.16	351	6.9	1.30	288
Total	***Various***	**18.9**	**1.09**	**665**	**26.0**	**1.06**	**883**

Notes on the Mineral Resource Estimate:

(1) *Mineral Resources are reported using a gold price of US$1250/ounce*
(2) *The metallurgical testing was set as 93% for all types of weathering based on historical metallurgy testing.*
(3) *US$/€ exchange rate was set at 0.86.*
(4) *Cut-off grade of 0.40 g Au/t was used for colluvium/laterite and for saprolite, 0.53 g Au/t was used for transition and 0.63 g Au/t for fresh rock.*
(5) *Only Indicated and Inferred blocks were considered during the optimization.*
(6) *Mining dilution was included (5% in saprolite, 10% in fresh rock) when producing the whittle shells but the Mineral Resources are reported undiluted.*
(7) *A royalty was estimated at 2.27%.*
(8) *Resource classification was determined from estimation pass and distance from the 50 m x 50 m drilling pattern at Nivré East: Indicated Resources – Blocks estimated in Pass 1 or 2 within the vicinity of the 50 m x 50 m drilling pattern at Nivré East. Inferred Resources – Blocks estimated in Pass 1 or 2 outside of the 50 m x 50 m drilling pattern, and all blocks estimated in Pass 3.*
(9) *Rock bulk densities were assigned by weathering type (colluvium/laterite, saprolite, transition, fresh rock), and values were derived from the average of drill core measurements.*
(10) *Classification of Mineral Resources conforms to CIM definitions.*
(11) *The Qualified Person for the estimate is Mr. Réjean Sirois, P.Eng, Vice President Geology and Resources for GMSI. The estimate has an effective date of March 2nd, 2019.*
(12) *Mineral Resources do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.*
(13) *The quantity and grade of reported Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured Mineral Resources.*

The optimization parameters applied to the 2019 MRE are discussed later in this document. In summary, a price of US$ 1,250/oz Au was used, with a 93% metallurgical recovery and a US$/€ exchange rate of 0.86. Only Indicated and Inferred blocks were considered during the optimization (no Measured Resources exist at Nivré), and a revenue factor of 1 was selected (Whittle pit shell # 39). Mining dilution was included (5% in saprolite, 10% in fresh rock) during the production of the whittle shells, but no mining dilution was added for the declaration of the Mineral Resource.

A more detailed breakdown of the Mineral Resource by deposit is shown in Table 14.14 below:

Table 14.14: 2019 Open-Pit Constrained Mineral Resources by Deposit (detailed)

Nivré East

Weathering	Lower Cut-off	Indicated Resources			Inferred Resources		
		Tonnage (Mt)	Grade (g Au/t)	Ounces (000s)	Tonnage (Mt)	Grade (g Au/t)	Oz (000s)
Laterite/Colluvium	0.40 g/t	3.0	1.02	99	4.1	0.92	124
Saprolite	0.40 g/t	3.2	0.89	91	4,1	0.80	105
Transition	0.53 g/t	3.3	1.17	124	1.7	0.95	52
Fresh	0.63 g/t	9.4	1.16	351	1,5	1.35	63
Total	***Various***	**18.9**	**1.09**	**665**	**11.4**	**0.94**	**344**

Nivré West

Weathering	Lower Cut-off	Indicated Resources			Inferred Resources		
		Tonnage (Mt)	Grade (g Au/t)	Ounces (000s)	Tonnage (Mt)	Grade (g Au/t)	Oz (000s)
Laterite/Colluvium	0.40 g/t	-	-	-	0.3	0.62	5
Saprolite	0.40 g/t	-	-	-	2.4	1.07	85
Transition	0.53 g/t	-	-	-	1.2	1.24	48
Fresh	0.63 g/t	-	-	-	3.5	1.33	149
Total	***Various***	**-**	**-**	**-**	**7.4**	**1.20**	**288**

Nivré South

Weathering	Lower Cut-off	Indicated Resources			Inferred Resources		
		Tonnage (Mt)	Grade (g Au/t)	Ounces (000s)	Tonnage (Mt)	Grade (g Au/t)	Oz (000s)
Laterite/Colluvium	0.40 g/t	-	-	-	1.2	1.31	50
Saprolite	0.40 g/t	-	-	-	3.1	0.93	91
Transition	0.53 g/t	-	-	-	0.9	1.19	34
Fresh	0.63 g/t	-	-	-	2.0	1.20	76
Total	***Various***	**-**	**-**	**-**	**7.2**	**1.10**	**251**

14.12 Pit Optimizations

GMSI conducted pit optimizations including mining dilution (5% saprolite, 10% fresh rock) to identify the pit shell with the most optimal NPV using blocks classified as Indicated and Inferred. The outline of the Whittle shell for Indicated and Inferred showing the drill holes and topography can be seen in Figure 14.25 and Figure 14.26.

Figure 14.25: Plan View of MII Whittle Shell at $1,250 (pink) and Topography (grey), Drill Hole Collars and Traces.

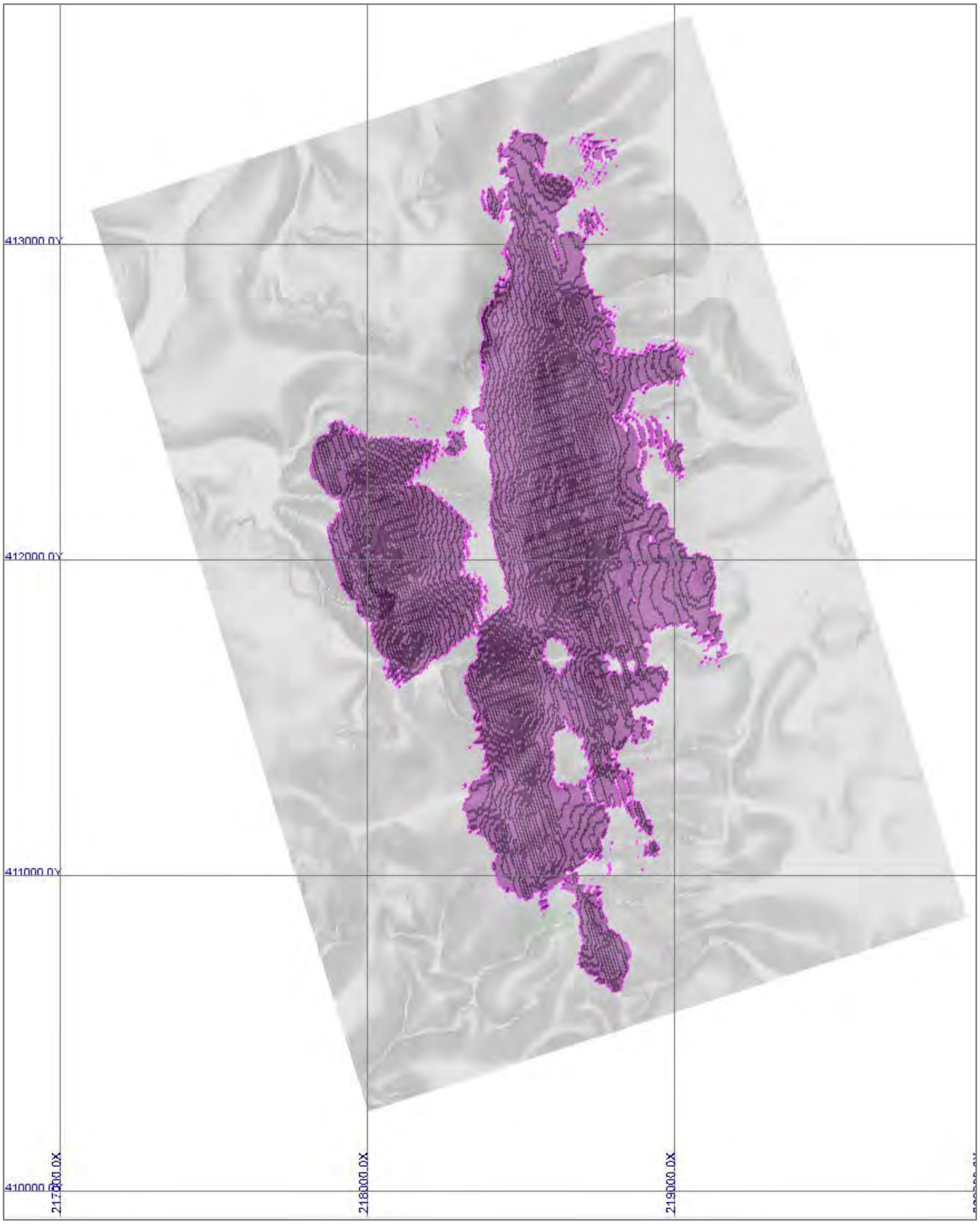
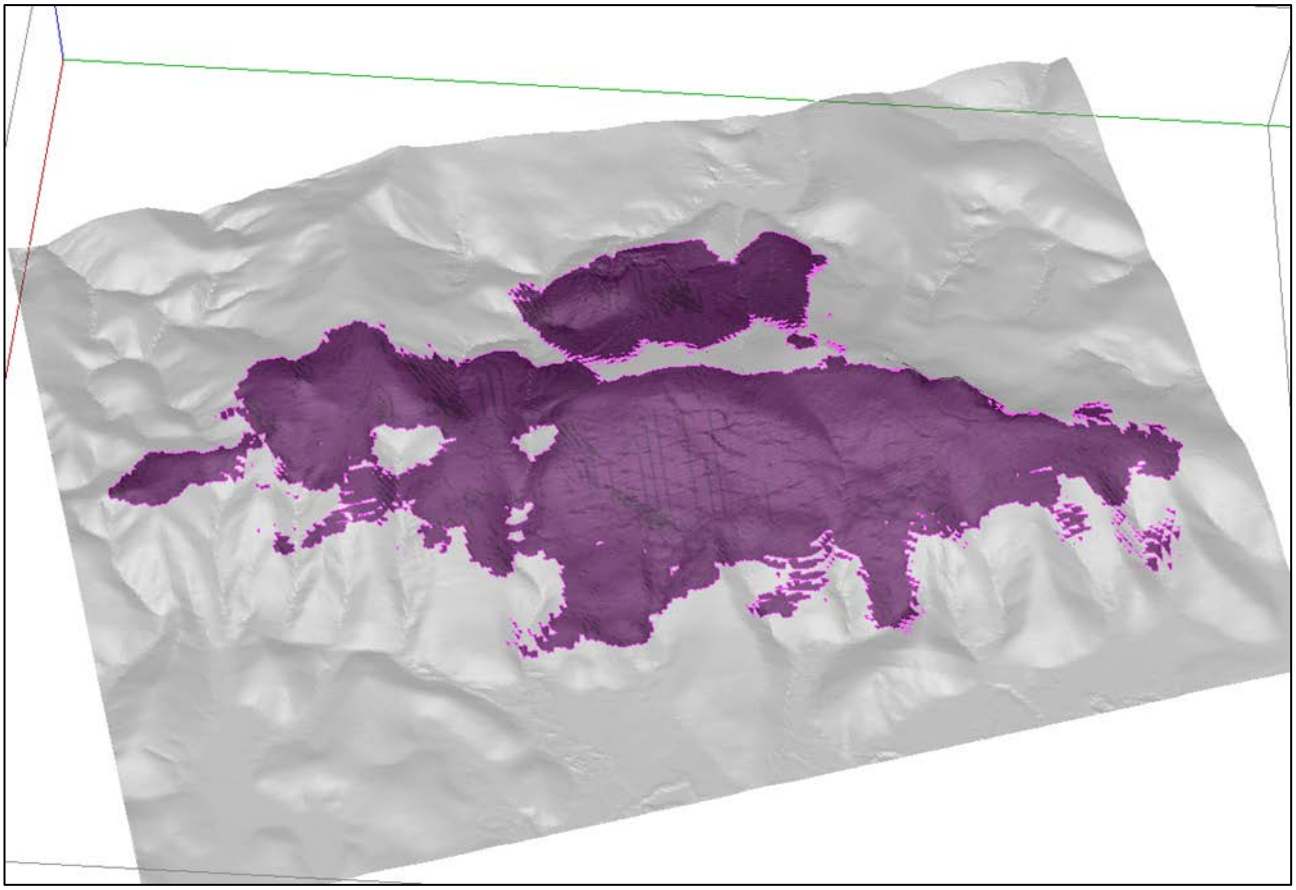


Figure 14.26: 10: Orthogonal View (looking West) of the MII Pit Optimization at $1,250 and Topography (grey)



Optimization parameters are shown in Table 14.15, and results of the optimizations are shown in Table 14.16 and Table 14.17.

For the reporting of the resource, a revenue factor on 1 was chosen with mining dilution considered during the optimization process.

Table 14.15: Optimization Parameters for Mining Scenarios

Nivré Pit Optimization Parameters		Saprolite + Laterite-colluvium	Transition	Rock
Nominal Milling Rate	t/d	12,000	12,000	12,000
Plant Throughput	kt/yr	4,380	4,380	4,380
Exchange Rate	US$/€	0.86	0.86	0.86
Gold Price (local currency)	US$/oz	1250	1250	1250
Transport & Refining Cost	US$/oz	2.50	2.50	2.50
Royalty	US$/oz	28.36	28.36	28.36
Royalty Rate	%	2.27%	2.27%	2.27%
Metallurgical Recovery at COG	%	93.0%	93.0%	93.0%
Total Processing Cost	US$/t milled	8.00	11.50	15.00
Re-handling	US$/t milled	0.00	0.00	0.00
Incr. Ore Haulage	US$/t milled	0.00	0.00	0.00
General & Administration	US$/t milled	4.00	4.00	4.00
Closure Costs	US$/t milled	0.75	0.75	0.75
Tailings Storage	US$/t milled	1.00	1.00	1.00
Sustaining Capital	US$/t milled	0.25	0.25	0.25
Total Ore Based Cost	US$/t milled	14.00	17.50	21.00
Marginal Cut-Off Grade	g Au/t	0.40	0.53	0.63
Mining Rate	kt/yr	15,000	15,000	15,000
Mining Dilution	%	5.0%	10.0%	10.0%
Mining Recovery	%	100.0%	100.0%	100.0%
Total Mining Reference Cost	US$/t mined	2.75	3.05	3.35
Overall Slope Angle	degrees	32	40	45

Table 14.16: Optimization Results

Pit Shell	Rev. Factor	Gold Price	Total (kt)	Ore (kt)	Strip Ratio	Grade g/t	In-Situ Au Oz
21	0.64	800	30,630	13,540	1.26	1.30	566
22	0.66	825	35,074	15,144	1.32	1.28	622
23	0.68	850	37,515	16,278	1.30	1.25	656
24	0.70	875	39,119	17,197	1.27	1.23	681
25	0.72	900	43,106	18,729	1.30	1.21	729
26	0.74	925	48,474	20,562	1.36	1.19	785
27	0.76	950	52,725	22,164	1.38	1.17	833
28	0.78	975	55,961	23,631	1.37	1.15	873
29	0.80	1,000	59,945	25,217	1.38	1.13	918
30	0.82	1,025	62,997	26,570	1.37	1.12	953
31	0.84	1,050	67,921	28,257	1.40	1.10	1,001
32	0.86	1,075	77,155	31,035	1.49	1.09	1,085
33	0.88	1,100	85,504	33,589	1.55	1.08	1,162
34	0.90	1,125	97,942	36,904	1.65	1.06	1,263
35	0.92	1,150	103,592	38,929	1.66	1.05	1,318
36	0.94	1,175	108,299	40,742	1.66	1.04	1,364
37	0.96	1,200	111,269	42,339	1.63	1.03	1,400
38	0.98	1,225	117,247	44,604	1.63	1.02	1,456
39	1.00	1,250	123,266	46,877	1.63	1.00	1,511
40	1.02	1,275	133,609	49,863	1.68	0.99	1,590
41	1.04	1,300	138,055	51,721	1.67	0.98	1,630
42	1.06	1,325	150,186	54,950	1.73	0.97	1,714
43	1.08	1,350	157,689	57,359	1.75	0.96	1,771
44	1.10	1,375	163,456	59,599	1.74	0.95	1,820
45	1.12	1,400	166,878	61,279	1.72	0.94	1,853
46	1.14	1,425	172,841	63,268	1.73	0.93	1,897
47	1.16	1,450	178,900	65,301	1.74	0.92	1,941
48	1.18	1,475	187,146	67,776	1.76	0.92	1,995
49	1.20	1,500	193,640	70,031	1.77	0.91	2,042

Table 14.17: Selected Pit Shells

Shell Selection	Selection
Shell Number	39.0
Shell RF	1.000
Shell Price	1250
Total Tonnage (kt)	123,266
Waste Tonnage (kt)	76,382
Strip Ratio (W:O)	1.63
Ore Tonnage (kt)	46,884
Grade (g/t)	1.00
In-situ gold (k oz)	1,511

14.13 Mineral Resource Sensitivity to Cut-Off Grades

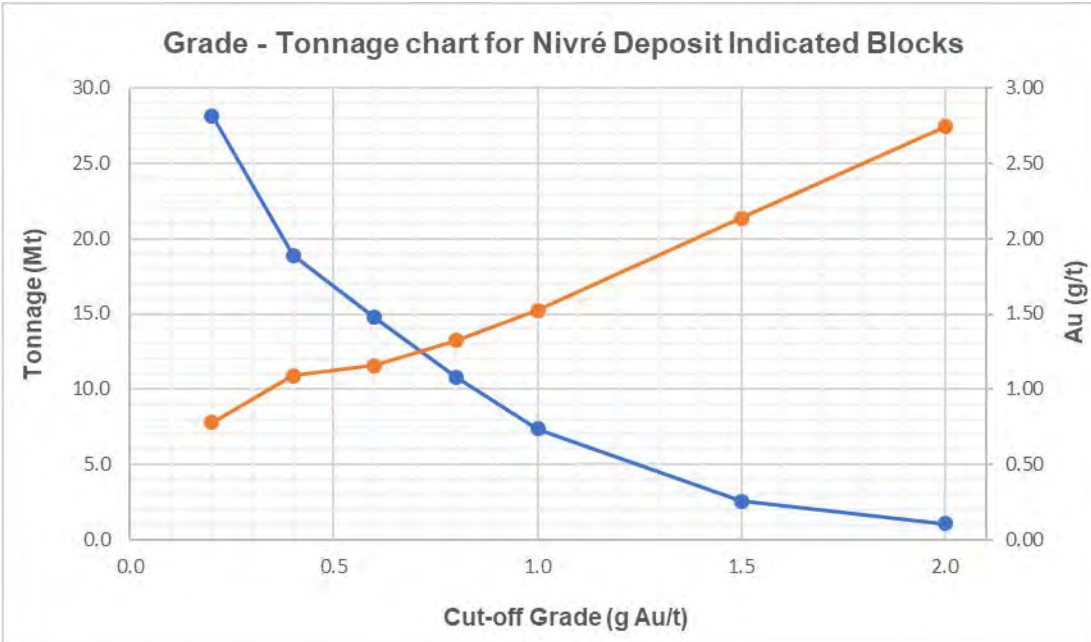
Table 14.18 summarizes the sensitivity of the Constrained Mineral Resources of the Nivré deposit for a series of selected cut-off grades. The sensitivity analysis uses gold cut-off grades ranging between 0.4 g/t and 2.0 g/t. Figure 14.27 illustrates the grade-tonnage curves for the open pit-constrained Indicated and Inferred Mineral Resources for Nivré. The sensitivity table and graph groups the regolith, saprolite, transition and fresh rock weathering profiles and reports them at a single cut-off.

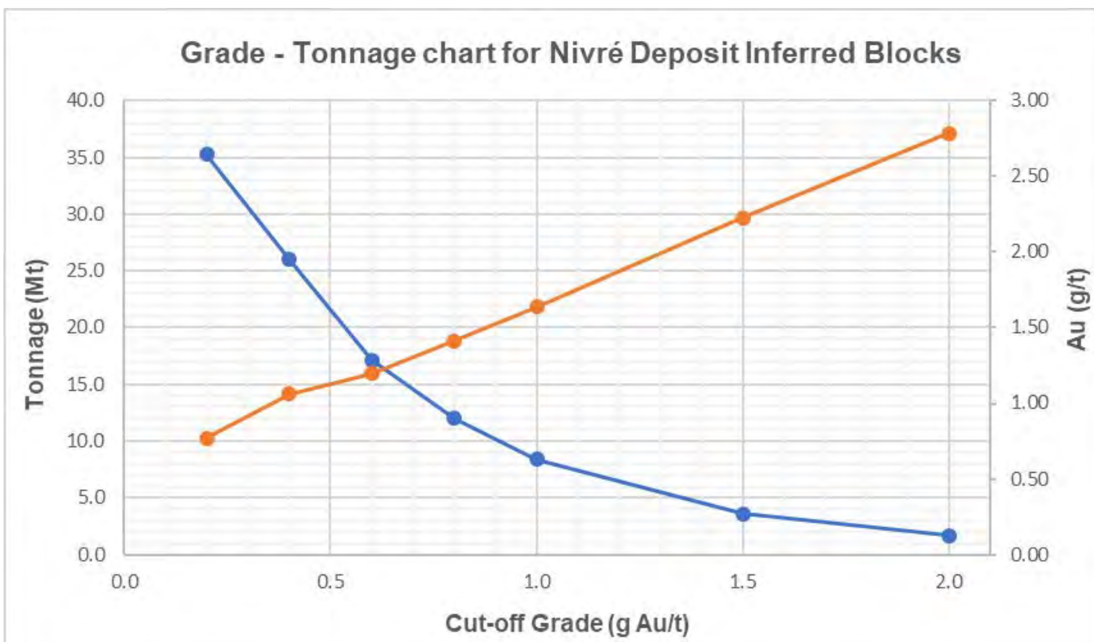
Table 14.18: Open Pit-constrained Indicated and Inferred Mineral Resource Sensitivity to Cut-off Grade

Cut-off Grade* (g Au/t)	Indicated			Inferred		
	Tonnage (Mt)	Grade (g Au/t)	Au (koz)	Tonnage (Mt)	Grade (g Au/t)	Au (koz)
>2.00 g/t	1.1	2.74	93	1.7	2.79	153
>1.50 g/t	2.5	2.14	174	3.6	2.22	256
>1.00 g/t	7.4	1.52	361	8.4	1.64	441
>0.80 g/t	10.8	1.32	460	12.0	1.41	546
>0.60 g/t	14.8	1.16	549	17.2	1.20	660
>0.4/0.53/0.63 g/t**	18.9	1.09	665	26.0	1.06	884

**A single cut-off grade for all weathering types grouped was used for the Mineral Resource Sensitivity above, therefore discrepancies may exist. **The stated mineral resource*

Figure 14.27: Grade Tonnage Curves of Constrained Indicated and Inferred Mineral Resource Estimate at Nivré for Selected Gold Cut-off Grades





15. MINERAL RESERVE ESTIMATES

Not applicable at this stage of the Project.

16. MINING METHODS

Not applicable at this stage of the Project.

17. RECOVERY METHODS

Not applicable at this stage of the Project.

18. PROJECT INFRASTRUCTURE

Not applicable at this stage of the Project.

19. MARKET STUDIES AND CONTRACTS

Not applicable at this stage of the Project.

20. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

20.1 Introduction

Permitting was discussed in Section 4.2. The current section will summarize environmental work carried out over time on the Dorlin permit.

20.2 Environmental Studies

During the Guyanor-Cambior period, their newly created common subsidiary SMYD completed an impact notice for the Dorlin concession application (Apave, 1999). It included the 204-page impact notice and 10 appendices on the environmental baseline including:

- Air, surficial water, noise, archeology (Apave);
- Geology and mineralization (Guyanor);
- Underground water (BRGM);
- Pedology (CIRAD-IRD);
- Forest (IRD);
- Avifauna and vegetation (IRD);
- Reclamation of alluvial mining zones (IRD);
- Remote sensing mapping (IRD);
- Human activities related to artisanal gold mining (IRD);
- Socio-economic considerations for the Yaou-Dorlin area.

More recently in 2014, GeoPlus Environnement, a French consultant group, prepared for SMYD an Environmental Impact Statement (GeoPlus Environnement, 2014). This Statement includes:

- A summary description of SMYD's Nivré saprolite mining project and its characteristics;
- An environmental baseline analysis of the zones likely to be affected by the Project;
- An analysis of the positive and negative effects, direct and indirect, permanent and temporary of the project on the environment.

- An analysis of the cumulative effects of this project with other known projects;
- The outline of the main alternative solutions and the motivations of the project retained;
- The compatibility of the project with the planning documents and the various plans and programs;
- Measures to avoid, reduce and/or compensate for the significant negative effects of the project on its environment;
- The principles of rehabilitation and redevelopment of the site;
- An analysis of the effects of the project on public health;
- The presentation and analysis of the methods used to assess the effects of the project on the environment;
- Possible difficulties of a technical or scientific nature encountered in the preparation of this impact study.

This Study served as the basis for the work carried out in 2017 and 2018 by GeoPlus Environment on the Dorlin Project on behalf of the RGD. The fauna and flora inventories were updated through additional work by Biotope, a French biology consulting group (Biotope, 2018). Quality of water and hydrology measures were reinitiated as well in view of a future Environmental Impact Assessment for a primary gold mining project. Drill permitting requires high-level impact notice as well, so updated Environmental Impact Notices were filed in March 2018 and in January 2019.

The most important environmental issues are the presence of protected species (Figure 20.1):

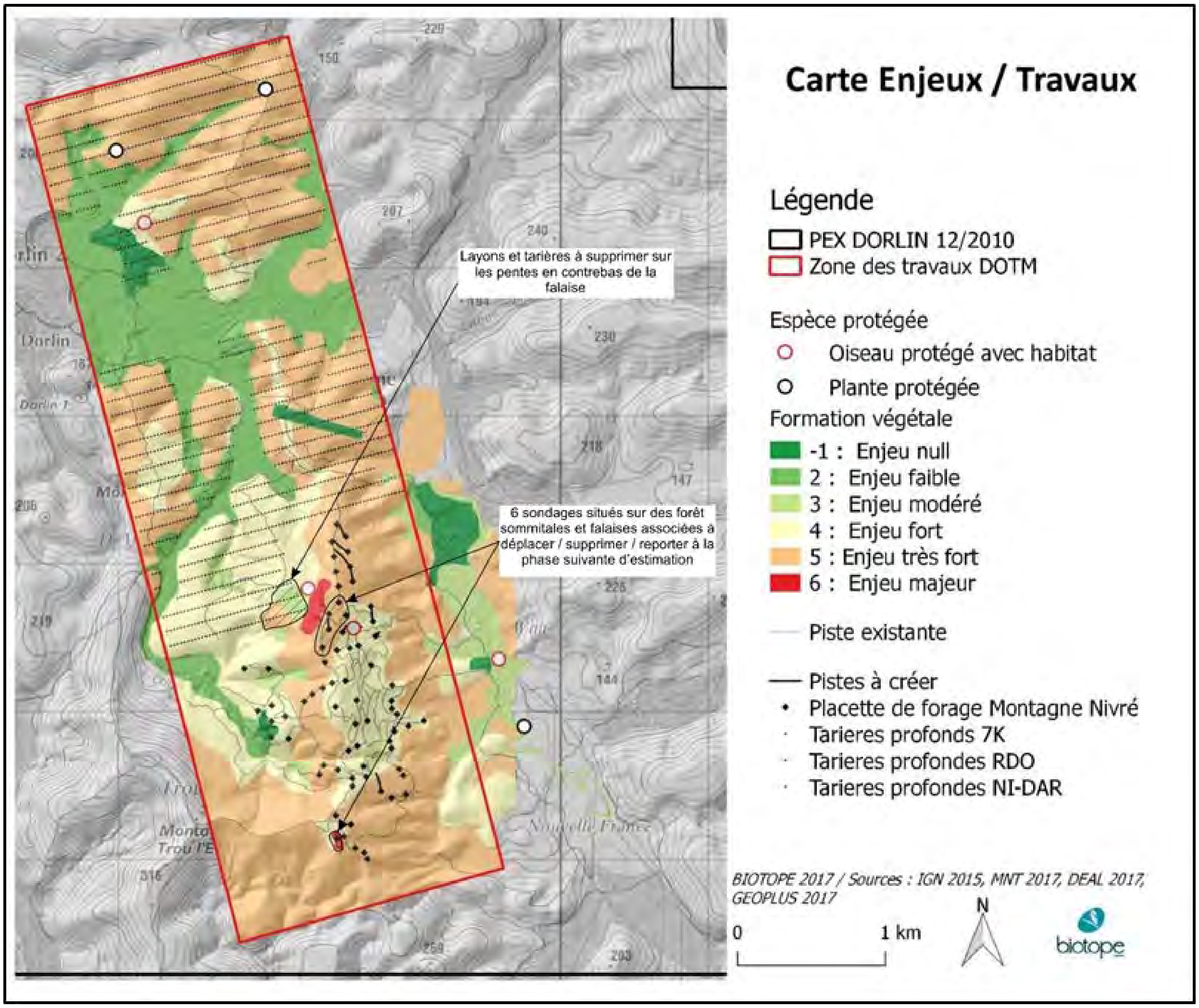
- *Bactris viriflora*, palm tree to be avoided by roads and drill pads in 7 Kilos during the exploration phase, which is easy to do.
- *Rupicola Rupicola* or "*coq* of the rock", an emblematic bird in French Guiana that is protected and his habitat as well. This bird nests on specific cliffs that are relatively rare and one of the tourmaline-silica cliffs on the Nivré Mountain hosted eighteen birds observed during a survey in 1998. Years of illegal mining activities and associated hunting probably decimated the population. However, an unoccupied nest was found by a survey in 2013, another one was observed in January 2018 and four more in February 2019. Although, the presence of the bird was never observed after 1998, the presence of recent nests proves the occasional passage of at least one couple of *coq* of the rock. RGD has made several studies to monitor the presence of the bird (Biotope, 2018, and 2019, report not yet completed). A perimeter around the nests was set with work limited to the period July-October to protect the habitat during the *parade* and the nesting season. With additional studies proving only the occasional use of the cliff by the bird, we now must work on several other cliffs in

the vicinity of Dorlin to prove that *coq* of the rock has other habitats close to Nivré. We will then work on compensation options to get the authorization to drill and to mine the area. Such exemptions on protected habitat are usually granted if they are well documented. The coq of the rock is present all over the Guiana Shield, from northern Brazil to Guyana.

- The specific forest on the top of a Nivré plateau next to the cliff with the coq of the rock nests is protected as well, due to its interesting flora. RDG initially relinquished applying for a few drill holes, but additional studies are being made to get the authorization to drill and later mine this area.

In addition, there are rich Amerindian sites on the top of the Nivré Mountain that will deserve additional archaeological conservation work before being drilled or mined. This work will be planned to avoid slowing down permitting and drilling work.

Figure 20.1: Main Environmental Stakes in the Nivré Area



Although there are environmental and archaeological issues on the Nivré Mountain area, the proactive approach taken by RGD is allowing to address them and work on solutions that do not prevent eventual mine development.

20.3 Social and Community Impact

The Dorlin Project is located in a remote place and distant of the nearest towns: 40 kilometres from Saül and 56 km from Maripasoula in direct line. For this reason, social and community impact assessment was postponed, but will commence in 2019.

21. CAPITAL AND OPERATING COSTS

Not applicable at this stage of the Project.

22. ECONOMIC ANALYSIS

Not applicable at this stage of the Project.

23. ADJACENT PROPERTIES

The only adjacent property to the Dorlin permit is a 1 km² AEX for alluvial gold mining held by Ermina SARL.

24. OTHER RELEVANT DATA AND INFORMATION

Not applicable.

25. INTERPRETATION AND CONCLUSIONS

25.1 Mineral Resources

- The geological interpretation for the Nivré deposit is based primarily on diamond drilling data and geological interpretations by RGD representatives. The current understanding of the geology of Nivré is acceptable but limited due to the current wide-spaced nature of information.
- The mineralization is found mainly in association with tourmalinisation, silicification and pyritisation of tuffs at the Nivré East and Nivré South zones, and silicification and pyritization at the Nivré West zone. Stronger mineralisation is sometimes found along the contacts of the tourmalinite bodies and the surrounding altered tuffs. A significant component of mineralisation at Nivré is hosted within saprolite and saprock (transition). The understanding of the weathering profile at Nivré is currently limited, mainly due to the lack of close-spaced information and lithological complexities. Gold mineralisation is also found within the laterite (in-situ) and colluvium (transported) on the flanks of the Nivré outcrop. The mineralization controls of the deposit are reasonably understood for the stage of the Project. Some uncertainty remains regarding the tonnages and proportion of saprolite and transitional material in the Mineral Resource. A close space drill program could help in defining more accurately the saprolitic and transitional material that could be mined
- The protocols followed to collect new sample data in 2018 are considered enough for NI 43-101 purposes. Stringent protocols are in place to ensure that sampling and assaying of drill samples are undertaken to a high standard, and that QA/QC data is checked frequently to identify any errors that may arise. Sampling has been undertaken based on geological logging and is adequate for the mineralization style and size of the deposit.
- QA/QC samples submitted as part of the 2018 drilling campaign returned values within expectations. All analyses were undertaken independently and off-site at two main laboratories: MS Analytical in Georgetown, Guyana or FILAB-AMSUD in Paramaribo, Suriname. GMSI considers all matters relating to QA/QC for the 2018 campaign in-line with NI 43-101 requirements.
- Historical data collected predominantly in the late 1990's has been compiled and independently validated by an external geological database consultant to ensure its integrity. RGD undertook a significant reassaying campaign of historical drill core in 2017/2018 to confirm and validate historical assay results. The results of this reassaying study confirmed that the historical values are valid, and no major bias exists. GMSI also conducted its own independent reassaying program and found no major inconsistencies. However, it should be noted that the nugget effect at higher-grades was observed. It should be noted that a large proportion of the 2019 Mineral Resource is based predominantly on historical data at this time.

- Réjean Sirois, P.Eng., from GMSI, oversaw drilling activities during a site visit between August 16th and August 19th, 2018. GMSI found the drilling methods and sample recoveries are following industry standards.

- The geological model was undertaken in Leapfrog GEO™, where 3D wireframe solids of lithology domains and weathering profiles were produced and are representative of the style of deposit observed at Nivré.

- Mineral Resources were estimated within the lithology domains using Geovia GEMS™ from capped 1.5 m long composites using four interpolation passes of OK. Each search ellipse was incrementally larger than the previous, and dimensions were based on drill hole spacing and desired extrapolation of gold grades. High-grade restraining was used in later interpolation passes to restrict extrapolation of grades.

- The block model was validated against the drill hole composites through global and local validation methods, including visual comparisons, descriptive statistics, swath plots and Q:Q plots. No production data was available to validate the accuracy of the model to true known grade. Block grades were found to reproduce composite grades sufficiently in the block model.

- The Mineral Resources are reported within a Lerchs-Grossman open pit shell (based on Indicated and Inferred Mineral Resources) and are effective March 2nd, 2019. A cut-off of 0.40 g Au/t cut-off for saprolite and laterite material, 0.53 g Au/t for transitional material and 0.63 g Au/t for fresh rock was used to report Mineral Resources. A gold price of US$ $1,250 per ounce was used for the pit optimization. The open-pit constrained Mineral Resource for the Nivré deposit is as follows:
  - Indicated Mineral Resource is estimated to a total of 18.9 Mt at an average grade of 1.09 g Au/t, totalling 665 koz Au.
  - Inferred Mineral Resource is estimated at 26.0 Mt at an average grade of 1.06 g Au/t, totalling 883 koz Au.

- Mineral Resources were classified into Indicated and Inferred categories according to the CIM Definition Standards on Mineral Resources and Mineral Reserves as adopted by NI 43-101.

- Gold recoveries used during the pit optimization (93%) to limit Mineral Resources have been derived from limited historical metallurgical test work undertaken in 1998 by Cambior. RGD is currently undertaking significant metallurgical test work on various material (laterite, saprolite, transition and fresh) and rock types (tourmaline and tuffs) to confirm and elaborate on the recoveries observed by Cambior in 1998.

26. RECOMMENDATIONS

26.1 Project Recommendations

GMSI makes the following recommendations to improve the robustness of the Mineral Resource and to advance the Project:

1) Develop a better understanding of the weathering profile at Nivré. Currently, there is significant uncertainty relating to the interpretation of the saprolite/transition boundary. This is due to the complex interaction of the silicified tourmalinite subvertical bodies and weathering processes. The surrounding tuffs weather to deeper profiles of predominantly clays, however the silicified tourmalinite zones are more resistant to weathering and remain relatively unchanged nearer surface (often termed “preferential weathering”). This poses a problem when attempting to accurately model the densities and tonnages of the Mineral Resource. GMSI recommends that all future infill drilling should take bulk density measurements regularly downhole to build up a database that can be used to interpolate bulk density attribute into the block model.
2) Reanalyse a proportion of the existing sample pulps for arsenic and sulphur, to determine the relationship between these elements and gold. This information could also be used downstream for geo-metallurgical studies to optimise recoveries, and to determine the potential for acid-forming waste material.
3) Develop a better understanding of the controls on gold mineralisation. Although a spatial link exists between the tourmalinite bodies and gold mineralisation, there is insufficient evidence to confirm that the two events were coeval. GMSI has noted during the interpretation of the geological domains that the edges of the tourmalinite bodies are often higher grade and could have acted as potential fluid pathways.
4) Infill drilling is required to convert areas to the north of Nivré East, and all Nivré West and South from Inferred to Indicated category. GMSI suggests a 50 m x 50 m drilling pattern would be enough to define Indicated Mineral Resources (as implemented at Nivré East).
5) To increase confidence in the continuity of high-grades, GMSI suggests closer-spaced drilling at the central portion of Nivré East (a 25 m x 25 m drill spacing would be enough). This will improve the definition of the experimental variograms between the ranges of 0 m and 50 m, where there is currently no information. Depending on the results of this close-spaced drilling, there may be potential to define Mineral Resources in the Measured Category.

6) Regarding exploration strategy of the greater Dorlin Project, GMSI suggests focusing short-term exploration efforts and budgets on the discovery of new mineral resources within the lease in an effort to reach the critical mass required to advance and develop the project. Saprolite-rich resources should be targeted, as they represent simpler and more profitable mining opportunities. This type of exploration could be undertaken using a small RC or aircore rig capable of traversing the challenging terrain at Dorlin and cost-effectively testing the regional gold-in-soil anomalies.

26.2 Recommended Work Programs

GMSI has compiled a high-level work program and cost estimate to advance the Dorlin Project to the next stages of development. Table 26.1 shows indicative costs associated with the work programs recommended in Section 26.1 above. Note that the conversion of Indicated Mineral Resources to Measured Category is only recommended before the onset of mining activities. GMSI considers that the conversion of Inferred Mineral Resources to Indicated Category, and the regional exploration campaigns should be the priority and focus of near-term endeavours.

Table 26.1: Recommended Work Program for the Dorlin Project

Program	Type of Drilling	Total Meterage	Included Costs (Million Euros)	Total Cost (Million Euros)
Convert Inferred Resources to Indicated Category for all Nivré Sectors	Diamond	35,000	Drilling Costs (drilling, assays) - €200 per metre Support Costs (camp, staff, transport, logistics, etc.) - €140 per metre	€11.9
Test Regional Anomalies in Saprolite	RC/AC	10,000	Drilling Costs (drilling, assays) - €120 per metre Support Costs (camp, staff, transport, logistics, etc.) - €85 per metre	€2.0
Convert Indicated Resources to Measured Category at Nivré East	Diamond	50,000	Drilling Costs (drilling, assays) - €200 per metre Support Costs (camp, staff, transport, logistics, etc.) - €140 per metre	€17.0

27. REFERENCES

Aerodat Inc., 1995: Report on a Fixed Wing High Sensitivity Magnetic and Radiometric Survey, Dorlin Area, French Guiana, For Guyanor Ressources S.A. Aerodat Inc. Report. 26p.

Aguilar A., 1985: Appendix to Dorlin - French Guyana Report (Godbeat, 1984 ibid.). Internal BHP Report, Minera Utah de Chile Inc., Jan 1985.

Aye F., 1978: Les Minéralisations Volcanosédimentaires Pb, Zn, Ag (Ba) de THR et Florida, Leurs Extensions Possibles. État des Connaissances et Recommandations pour la Poursuite des Travaux. BRGM Rapport78 RDM 063 AM. 12p.

Aymard G., 1979: Recherche de Minéralisations Polymétalliques, Résultats des Travaux de Détail Réalisés dans la Région Occidentale du Permis de Saül. BRGM Rapport 79 GUY 004, 70p

Badham J.P.N., 1996: Report on a Field Visit and Data Review of the Dorlin and Paul Isnard Prospects, French Guyana. Consultant's Report for Golden Star Resources Ltd., Nov 1996. 20p.

Bardoux M., 1997: Metallogenic Investigation of the Dorlin Project, Final draft. Consultant's Report for Golden Star Resources Ltd., Nov. 1997. 8p.

Barroul J., Brosse J.-M., Langevin C., 1978: Carte Géologique de la France - Inini à 1:100,000 et Notice Explicative. BRGM, Département de la Guyane, 23p.

Barroul J., Brosse J.-M., Langevin C., 1978: Carte Géologique de la France - Saül à 1:100,000 et Notice Explicative. BRGM, Département de la Guyane, 30p.

Bell T., 1986: Dorlin Drilling Project, French Guiana. World Metals Report for BHP.

Besrest J., 1997: Etude Pétrologique du Site de Dorlin en Guyane Centrale. Mémoire de Fin de Cycle CESEV, 20p.

BHP Minerals, 1993: Yaou-Dorlin Gold Project, French Guiana. Information Memorandum for Prospective Buyers. BHP Minerals International, April 1993, 23p.

Biotope, 2018: DAOTM permis de Dorlin. Mission Coq-de-roche. Consultant report, Jan 2018, 23p.

Biotope, 2018: Programme d'Exploration Aurifère dans le Secteur de la Mine de Dorlin. Consultant report for Ressources Réunion SAS, Mar 2018, 53p.

Biotope, 2018: Suivi des populations de Coq de roche orange. Consultant report for Ressources Réunion SAS, Sep 2018, 28p.

BRGM, 1996: Inventaire Minier du Département de la Guyane, Bilans de Travaux et Résultats au 31 décembre 1995. BRGM, Département de la Guyane. p439-477.

Camargo dos Santos R., 1996: Core drilling Descriptions, Dorlin Project. BHP Internal Report, Mineraçã Colorada Ltda.

Cambior, 1997: Yaou-Dorlin 1997 Resource estimate. Cambior Inc. Internal Report, July 1997, 9p.

Cette-Apave, 1998: Caractérisation de L'état initial de L'environnement de la région de Yaou et Dorlin. Consultants Report for Guyanor Ressouces S.A. & Cambior Inc., June 1998. 130p.

CLM Petrografia Ltda., 1996: Summary - In Appendix to Letendre (1996, ibid.). Consultant's Report for Golden Star Resources Ltd. 2p.

Clouston F., 1998: Evaluation des Ressources Minérales des Gisements Nivré. August 1998. 61p.

Coste B., Zeegers H., 1986: Dorlin. Tarières Nord Inini, Commentaires Préliminaires sur les Résultats ICP, Note Technique GMX / GCA / 18 / 86, BRGM Rapport, Août 1986. 3p.

Dean A.W., 1993: Summary Report on the Dorlin Gold Property in French Guiana. Consultant's Report for Golden Star Resources Ltd. 13p.

Delor C., Perrin J. et Truffert C., 1997: Campagne de Géophysique Aéroportée en Guyane Française - Magnétisme et Radiométrie Spectrale. Juin 1997, BRGM Rapport R39625. 102p.

Dintchev J.; Mannola P., 2019: Geological Database Handover Report for Dorlin Project. Memorandum 14/01/2019.

Dyer R.C., 1993: Report on Photointerpretation Work in French Guiana for Golden Star Resources. Consultant's Report for Guyanor Ressources S.A..15p.

Faron D., et Sapor L., 1996: Etude Petrominéralogique de 16 Echantillons Guyanais. Mémoire de Fin de Cycle CESEV.

Fournier-Angot B., 2018: Laboratory assessments in Suriname and Guyana. Ressources Réunion SAS Memorandum dated 27-01-2018, 14p.

Fournier-Angot B., 2018: QAQC sur les résultats des réanalyses de forages du projet Dorlin en 2018. Ressources Réunion SAS Memorandum dated 27-05-2018, 16p.

Freyssinet Ph., 1997: Laterite Weathering and Regolith Evolution of West Africa. In West Africa Field Trip, May 1997, Association of Exploration Geochemists, p12-34.

Gautier E., 1995: Rapport d'Exploration, Première Phase. Guyanor Ressources S.A. Internal Report, Oct 1995.

Gautier E., 1996: Rapport d'Exploration, Deuxième Phase. Guyanor Ressources S.A. Internal Report, Oct 1996.

Gautier E., 1998: ICP Study in Jan 1998 Monthly Report. Guyanor Ressouces S.A. Internal Report, Jan 1998.

Gautier E., Suter N., dos Santos David B., 1998: Compilation Report on the Historical and Recent Exploration, Dorlin Gold Project, French Guiana. Guyanor Ressouces S.A. Internal Report, June 1998.

GeoPlus Environnement, 2018: Déclaration d'Ouverture de Travaux Miniers (DOTM) de recherche aurifère au titre du Code Minier et en application du Décret n°2006-649. P EX n°12/2010 dit de « Dorlin », Commune de Maripasoula (973). Consultant report. Apr 2018, 205p. and 6 appendices.

GeoPlus Environnement, 2018: Mission de Terrain du 6 avril au 10 avril 2018 – Compte-Rendu des Relevés Eaux Superficielles. PEX n°12/2010 dit de « Dorlin », Commune de Maripasoula (973). Consultant report. Apr 2018, 40p. and 3 appendices.

GeoPlus Environnement, 2018: Déclaration d'Ouverture de Travaux Miniers (DOTM) de recherche aurifère au titre du Code Minier et en application du Décret n°2006-649. Campagne de Travaux de Recherche Aurifère. Sondages Carottés de Reconnaissance sur les Secteurs de Roche d'Olon et Sept Kilos. Consultant report. Dec 2018, 248p. and 14 appendices.

Guyanor Ressources S.A. Godbeat L.J., 1984: Evaluation, B.R.G.M. Dorlin Project, French Guyana. BHP Internal Report, Nov 1984.

Hitzman M., 1996: Report on Thin Sections Dorlin #27 / 85m 1 Dorlin # 17 / 54-55.5m. Consultant's Report for Golden Star Resources Ltd., 1p.

Hornea R.M., 1997: Polished Section and X-ray Powder diffraction Examination of Mineralized Core Samples. Consultant's Report for Golden Star Resources Ltd, Nov 1997.

Khin B. Petrographic, 1997: Petrographic Descriptions of 20 samples from Dorlin. Consultant's Report for Golden Star Resources Ltd., 20p.

Lacroix B., 2019: Structural and Petrological Investigation of the Dorlin Project France-French Guiana (973). Gexplore report for Ressources Réunion SAS, Feb 2019, 36p.

Laforêt C., 1986: No Title - Polished Section Descriptions given in Camargo dos Santos (1986, ibid.). BRGM Rapport WG 411 / ML 836, Nov 1986.

Lambert A.,1985: Inventaire Guyane: Prospection Géochimique Stratégique dans la Région Sophie-Dorlin (zones GU 09-10-16). Interprétation de Résultats Géochimiques, Note GMX No 1223, BRGM Rapport, Nov,1985. 10p.

Lambert A., 1986: Dorlin Sud - Montagne Nivré. Interprétations des Résultats d'Analyse Multiélémentaire des Fonds de Tarières, Note Technique No 04 / 86, BRGM Rapport, Avril 1985. 8p.

Lambert A., 1986: Interprétations Géochimique des Résultats d'Analyses Multiélémentaires des Sols de Dorlin-Nord Inini (GU 10 F), Note Technique No 05/86, BRGM Rapport, Avril 1985. 10p.

Lambert A., Zeegers H. et Milési J.-P., 1985: Synthèse et interprétation de données Géochimiques Concernant le Secteur de DORLIN. Note GMX No 1216, BRGM Rapport, Oct 1985. 10p.

Letendre J., 1996: Report on the First and Second Phase of Diamond Exploration, and Proposed Phase III Work Program, Dorlin Property, Guyane Française. Golden Star Resources Ltd., Internal Report, Aug 1996.

Letendre J., 1996: Report on the Third Phase of Diamond Exploration, and Proposed Phase IV Work Program, Dorlin Property, Guyane Française. Golden Star Resources Ltd., Internal Report, Mar 1997.

Milési J.-P., Lambert A. et Ledru P., 1988: Résultats Préliminaires a l'Etude Gitologique et Structurale de Dorlin (Guyane). BRGM Rapport 88 GUF 052 DEX, Mars 1988. 33p.

Nagel J.L., 1984: Note de Synthèse des Prospections Aurifères de la Zone GU 10. Note Technique 03 / 84, BRGM Rapport, Avril 1984. 31p.

Plat R., 1979: Recherches de Minéralisations Aurifères, Prospects d'Artagnan, Nathanael, Giromon et Repentir (Résultats des Campagnes 1977 à 1979). Rapport BRGM 79 GUY 005.

Petôt J., 1986: L'or de Guyane. Son histoire, ses hommes. Editions Caribéennes, Paris. 248p.

Reford S.W. and Paterson N.R., 1996: Report on Interpretation of Airborne Geophysical Data, Dorlin Property, French Guiana for Guyanor Ressources S.A. Paterson, Grant and Watson Ltd., Mar 1996.22p

Rostan P., 2018: Rapport d'étude. Reconnaissance Géologique et Gîtologique, Secteurs Roche d'Olon, d'Artagnan et Sept Kilos. Sinte Minier de Dorlin, Commune de Maripasoula. Report by Mines et Avenir for Ressources Réunion SAS, January 2018, 42p and 3 appendices.

Saint-Jean M., 1998: Tests préliminaires de valorisation du gisement Yaou-Dorlin. Projet 7212 Z 099. Rapport Final. Centre de Recherches Minérales. Jan 1998.

Sapor L., 1997: Rapport d'Actvité de Juin 96 à Mars 97. Guyanor Ressources S.A. Internal Report.

Sirois R., 2017: Nivré Mountain Prospect - Dorlin Project – Technical Support – Alignment with NI 43-101 Guidelines. G Mining Services Inc. Memorandum to Reunion Gold Corporation, Oct 2017, 13p.

Sirois R., 2018: Nivré Mountain Prospect - Dorlin Project – Site Visit. G Mining Services Inc. Memorandum to Reunion Gold Corporation, Aug 2018, 8p.

Suter N,.1998: Dorlin Targets, 11 March 1998. Guyanor Ressources S.A. Internal Report

Wissink A.J., 1965: Mission 215 - Or Dorlin, Rapport de Fin de Mission. B.M.G. Rapport, Août 1965. 18p.

Zeegers H., 1985: Etude Lithogéochimique d'Echantillons de Roches et d'Altérites du Prospect Aurifère de Dorlin (Guyane)., Note BRGM/GMX/ 1172. BRGM Rapport, Juin 1985.

APPENDIX A

“List of Drill Collars used in the Mineral Resource”

96-01	DO-18-180	T1212	T2198	T380	TP-307	TP-496	TR-36-9
96-02	DO-18-181	T1248	T2199	T381	TP-308	TP-497	TR-37-1
96-03	DO-18-181A	T1249	T2200	T600	TP-309	TP-498	TR-37-10
96-04	DO-18-182	T1250	T2201	T600-2	TP-310	TP-499	TR-37-11
96-05	DO-18-183	T1251	T3003	T601-2	TP-311	TP-500	TR-37-12
96-06	DO-18-184	T1252	T3004	T602-2	TP-312	TP-501	TR-37-13
96-07	DO-18-185	T1253	T3005	T603-2	TP-313	TP-502	TR-37-14
96-08	DO-18-186	T1254	T3006	T604-2	TP-314	TP-503	TR-37-15
96-09	DO-18-187	T1255	T3007	T605-2	TP-315	TP-504	TR-37-16
96-10	DO-18-188	T1256	T3008	T606-2	TP-316	TP-505	TR-37-17
96-11	DO-18-189	T1257	T3009	T607	TP-317	TP-506	TR-37-18
96-12	DO-18-190	T1258	T3010	T607-2	TP-318	TP-507	TR-37-19
96-13	DO-18-191	T1259	T3011	T607-3	TP-319	TP-508	TR-37-2
96-14	DO-18-192	T1260	T3012	T608	TP-320	TP-509	TR-37-20
96-15	DO-18-193	T1261	T3013	T608-1	TP-321	TP-510	TR-37-21
96-16	DO-18-193A	T1262	T3014	T608-2	TP-322	TP-511	TR-37-22
96-17	NI-1	T1303	T3015	T609	TP-323	TP-512	TR-37-23
96-18	NI-10	T1304	T3016	T609-3	TP-324	TP-513	TR-37-24
96-19	NI-11	T1305	T3017	T610	TP-325	TP-514	TR-37-25
96-20	NI-12	T1306	T3018	T610-1	TP-326	TP-515	TR-37-26
96-21	NI-13	T1307	T3019	T612	TP-327	TP-516	TR-37-27
96-22	NI-14	T1308	T3020	T613	TP-328	TP-517	TR-37-3
96-23	NI-15	T1309	T3021	T614	TP-329	TP-518	TR-37-4
96-24	NI-16	T1310	T3022	T615	TP-330	TP-519	TR-37-5
96-25	NI-2	T1311	T3023	T616	TP-331	TP-520	TR-37-6
96-26	NI-3	T1312	T3024	T617	TP-332	TP-521	TR-37-7
96-27	NI-4	T1313	T3025	T618	TP-333	TP-522	TR-37-8
96-28	NI-5	T1314	T3026	T619	TP-334	TP-523	TR-37-9
96-29	NI-6	T1315	T3027	T620	TP-335	TP-524	TR-38-1
96-30	NI-8	T1316	T3028	T621	TP-336	TP-525	TR-38-10
96-31	NI-9	T1317	T3029	T632	TP-337	TP-526	TR-38-11
96-32	SDAR-1	T1318	T3030	T633	TP-338	TP-527	TR-38-12
96-33	SDAR-2	T1319	T3031	T634	TP-339	TP-528	TR-38-13
96-34	SDAR-3	T1320	T3032	T635	TP-340	TP-529	TR-38-14
96-35	SDAR-4	T1321	T3033	T636	TP-341	TP-530	TR-38-15
97-100	SDAR-5	T1322	T3034	T637	TP-342	TP-531	TR-38-16
97-101	SDAR-6	T1323	T3035	T638	TP-343	TP-532	TR-38-17
97-102	SDAR-7	T1324	T3036	T686	TP-344	TP-533	TR-38-18
97-103	SDAR-8	T1325	T3037	T686-2	TP-345	TP-534	TR-38-19
97-104	SDAR-9	T1326	T3038	T687	TP-346	TP-535	TR-38-2
97-105	STHR-1	T1327	T3039	T687-1	TP-347	TP-536	TR-38-20
97-106	STHR-2	T1328	T304	T688	TP-348	TP-537	TR-38-21
97-107	STHR-3	T1329	T3040	T689	TP-349	TP-538	TR-38-22

97-108	STHR-4	T1330	T3041	T690	TP-350	TP-539	TR-38-23
97-109	STHR-5	T1331	T3042	T691	TP-351	TP-540	TR-38-24
97-110	STHR-6	T1332	T3043	T692	TP-352	TP-541	TR-38-25
97-111	STHR-7	T1333	T3044	T692-1	TP-353	TP-542	TR-38-26
97-112	STHR-8	T1334	T3045	T802	TP-354	TP-543	TR-38-27
97-113	T1101	T1335	T3046	T803	TP-355	TP-544	TR-38-28
97-114	T1101-2	T1336	T3047	T804	TP-356	TP-545	TR-38-29
97-115	T1102	T1337	T3048	T805	TP-357	TP-546	TR-38-3
97-116	T1103	T1338	T3049	T806	TP-358	TP-547	TR-38-30
97-117	T1104	T1339	T305	T807	TP-359	TP-548	TR-38-31
97-118	T1105	T1340	T3050	T808	TP-360	TP-549	TR-38-32
97-119	T1106	T1341	T3051	T809	TP-361	TP-550	TR-38-33
97-120	T1106-2	T1342	T3052	T810	TP-362	TP-551	TR-38-34
97-121	T1107	T1343	T3053	T811	TP-363	TP-552	TR-38-35
97-122	T1107-2	T1344	T3054	T812	TP-364	TP-553	TR-38-36
97-123	T1108	T1345	T3055	T813	TP-365	TP-554	TR-38-37
97-124	T1108-2	T1346	T3056	T814	TP-366	TP-555	TR-38-38
97-125	T1109	T1347	T3057	T815	TP-367	TP-556	TR-38-39
97-126	T1109-2	T1348	T3058	T816	TP-369	TP-557	TR-38-4
97-127	T1110	T1349	T3059	T817	TP-370	TP-558	TR-38-5
97-128	T1110-2	T1350	T306	THR-1	TP-371	TP-559	TR-38-6
97-129	T1111	T1351	T3060	THR-2	TP-372	TP-560	TR-38-7
97-130	T1111-2	T1352	T3061	THR-3	TP-373	TP-561	TR-38-8
97-131	T1112	T1353	T3062	TP-185	TP-374	TP-562	TR-38-9
97-132	T1112-2	T1354	T3063	TP-186	TP-375	TP-563	TR-41-01
97-133	T1113	T1355	T3064	TP-187	TP-376	TP-564	TR-41-02
97-134	T1113-2	T1356	T3065	TP-188	TP-377	TP-565	TR-41-03
97-135	T1114	T1357	T3066	TP-189	TP-378	TP-566	TR-41-04
97-136	T1114-2	T1358	T3067	TP-190	TP-379	TP-567	TR-41-05
97-137	T1115	T1359	T3068	TP-191	TP-380	TP-568	TR-41-06
97-138	T1115-2	T1360	T3069	TP-192	TP-381	TR-22	TR-41-07
97-139	T1116	T1361	T307	TP-193	TP-382	TR-23	TR-41-08
97-140	T1116-2	T1362	T3070	TP-194	TP-383	TR-24	TR-41-09
97-141	T1117	T1363	T3071	TP-195	TP-384	TR-25	TR-41-10
97-142	T1117-2	T1364	T3072	TP-196	TP-385	TR-26	TR-41-11
97-143	T1118	T1365	T3073	TP-197	TP-386	TR-27	TR-41-12
97-36	T1118-2	T1366	T3074	TP-198	TP-387	TR-28	TR-41-13
97-37	T1119	T1367	T3075	TP-199	TP-388	TR-28-1	TR-41-14
97-38	T1119-2	T1368	T308	TP-200	TP-389	TR-28-10	TR-41-15
97-39	T1120	T1369	T309	TP-201	TP-390	TR-28-11	TR-41-16
97-40	T1120-2	T1370	T310	TP-202	TP-391	TR-28-12	TR-41-17
97-41	T1121	T1371	T311	TP-203	TP-392	TR-28-13	TR-41-18
97-42	T1121-2	T1372	T3110	TP-204	TP-393	TR-28-14	TR-41-19

97-43	T1122	T1373	T3111	TP-205	TP-394	TR-28-15	TR-41-20
97-44	T1122-2	T1585	T3112	TP-206	TP-395	TR-28-2	TR-41-21
97-45	T1123	T1586	T3113	TP-207	TP-396	TR-28-3	TR-41-22
97-46	T1123-2	T1587	T3114	TP-208	TP-397	TR-28-4	TR-41-23
97-47	T1124	T1588	T3115	TP-209	TP-398	TR-28-5	TR-41-24
97-48	T1124-2	T1589	T3116	TP-210	TP-399	TR-28-6	TR-41-25
97-49	T1125	T1590	T3117	TP-211	TP-400	TR-28-7	TR-41-26
97-50	T1125-2	T1591	T3118	TP-212	TP-401	TR-28-8	TR-41-27
97-51	T1126	T1592	T3119	TP-213	TP-402	TR-28-9	TR-41-28
97-52	T1126-2	T1593	T312	TP-214	TP-403	TR-29	TR-41-29
97-53	T1127	T1594	T3120	TP-215	TP-404	TR-30	TR-41-30
97-54	T1127-2	T1595	T3121	TP-216	TP-405	TR-31	TR-41-31
97-55	T1128	T2041	T3122	TP-217	TP-406	TR-31-1	TR-41-32
97-56	T1128-2	T2109	T3123	TP-218	TP-407	TR-31-2	TR-41-33
97-57	T1129	T2110	T3124	TP-219	TP-408	TR-31-3	TR-41-34
97-58	T1129-2	T2111	T3125	TP-220	TP-409	TR-31-4	TR-41-35
97-59	T1130	T2112	T3126	TP-221	TP-410	TR-31-5	TR-41-36
97-60	T1130-2	T2113	T3127	TP-222	TP-411	TR-31-6	TR-41-37
97-61	T1131	T2114	T3128	TP-223	TP-412	TR-31-7	TR-41-38
97-62	T1131-2	T2115	T3129	TP-224	TP-413	TR-31-8	TR-41-39
97-63	T1132	T2116	T313	TP-225	TP-414	TR-32	TR-41-40
97-64	T1132-2	T2117	T3130	TP-226	TP-415	TR-32-1	TR-41-41
97-65	T1133	T2118	T3131	TP-227	TP-416	TR-32-2	TR-41-42
97-66	T1133-2	T2119	T3132	TP-228	TP-417	TR-32-3	TR-41-43
97-67	T1134	T2120	T3133	TP-229	TP-418	TR-32-4	TR-41-44
97-68	T1135	T2121	T3134	TP-230	TP-419	TR-32-5	TR-41-45
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97-70	T1137	T2123	T3136	TP-232	TP-421	TR-32-7	TR-41-47
97-71	T1138	T2124	T314	TP-233	TP-422	TR-32-8	TR-41-48
97-72	T1139	T2125	T315	TP-234	TP-423	TR-32-9	TR-41-49
97-73	T1140	T2126	T316	TP-235	TP-424	TR-33	TR-41-50
97-74	T1141	T2127	T317	TP-236	TP-425	TR-33-1	TR-41-51
97-75	T1142	T2128	T318	TP-237	TP-426	TR-33-2	TR-41-52
97-76	T1143	T2129	T319	TP-238	TP-427	TR-33-3	TR-41-53
97-77	T1144	T2130	T320	TP-239	TP-428	TR-33-4	TR-41-54
97-78	T1145	T2131	T321	TP-240	TP-429	TR-34	TR-41-55
97-79	T1146	T2132	T322	TP-241	TP-430	TR-34-1	TR-41-56
97-80	T1147	T2133	T324	TP-242	TP-431	TR-34-10	TR-41-57
97-81	T1148	T2134	T3248	TP-243	TP-432	TR-34-11	TR-42-01
97-82	T1149	T2135	T3249	TP-244	TP-433	TR-34-12	TR-42-02
97-83	T1150	T2136	T325	TP-245	TP-434	TR-34-13	TR-42-03
97-84	T1151	T2137	T3250	TP-246	TP-435	TR-34-14	TR-42-04
97-85	T1152	T2138	T3251	TP-247	TP-436	TR-34-15	TR-42-05

97-86	T1153	T2139	T3252	TP-248	TP-437	TR-34-16	TR-42-06
97-87	T1154	T2140	T3253	TP-249	TP-438	TR-34-17	TR-42-07
97-88	T1155	T2141	T326	TP-250	TP-439	TR-34-18	TR-42-08
97-89	T1156	T2142	T328	TP-251	TP-440	TR-34-19	TR-42-09
97-90	T1157	T2143	T329	TP-252	TP-441	TR-34-2	TR-42-10
97-91	T1158	T2144	T3297	TP-253	TP-442	TR-34-20	TR-42-11
97-92	T1159	T2145	T3298	TP-254	TP-443	TR-34-3	TR-42-12
97-93	T1160	T2146	T3299	TP-255	TP-444	TR-34-4	TR-42-13
97-94	T1161	T2147	T330	TP-256	TP-445	TR-34-5	TR-42-14
97-95	T1162	T2148	T3300	TP-257	TP-446	TR-34-6	TR-42-15
97-96	T1163	T2149	T3301	TP-258	TP-447	TR-34-7	TR-42-16
97-97	T1164	T2150	T3302	TP-259	TP-448	TR-34-8	TR-42-17
97-98	T1165	T2151	T3303	TP-260	TP-449	TR-34-9	TR-42-18
97-99	T1166	T2152	T3304	TP-261	TP-450	TR-35	TR-42-19
DE1	T1167	T2153	T3305	TP-262	TP-451	TR-36-1	TR-42-20
DN1	T1168	T2154	T3306	TP-263	TP-452	TR-36-10	TR-42-21
DN2	T1169	T2155	T3307	TP-264	TP-453	TR-36-11	TR-42-22
DN3	T1170	T2156	T3308	TP-265	TP-454	TR-36-12	TR-42-23
DO-18-144	T1171	T2157	T3309	TP-266	TP-455	TR-36-13	TR-42-24
DO-18-144A	T1172	T2158	T331	TP-267	TP-456	TR-36-14	TR-42-25
DO-18-145	T1173	T2159	T3310	TP-268	TP-457	TR-36-15	TR-42-26
DO-18-146	T1174	T2160	T3311	TP-269	TP-458	TR-36-16	TR-42-27
DO-18-147	T1175	T2161	T3312	TP-270	TP-459	TR-36-17	TR-42-28
DO-18-148	T1176	T2162	T3313	TP-271	TP-460	TR-36-18	TR-42-29
DO-18-149	T1177	T2163	T3314	TP-272	TP-461	TR-36-19	TR-42-30
DO-18-150	T1178	T2164	T3315	TP-273	TP-462	TR-36-2	TR-42-31
DO-18-151	T1179	T2165	T3316	TP-274	TP-463	TR-36-20	TR-42-32
DO-18-152	T1180	T2166	T3317	TP-275	TP-464	TR-36-21	TR-42-33
DO-18-152A	T1181	T2167	T3318	TP-276	TP-465	TR-36-22	TR-42-34

DO-18-153	T1182	T2168	T3319	TP-277	TP-466	TR-36-23	TR-42-35
DO-18-154	T1183	T2169	T332	TP-278	TP-467	TR-36-24	TR-42-36
DO-18-155	T1184	T2170	T3321	TP-279	TP-468	TR-36-25	TR-42-37
DO-18-156	T1185	T2171	T3322	TP-280	TP-469	TR-36-26	TR-42-38
DO-18-157	T1186	T2172	T3323	TP-281	TP-470	TR-36-27	TR-42-39
DO-18-157A	T1187	T2173	T3324	TP-282	TP-471	TR-36-28	TR-42-40
DO-18-158	T1188	T2174	T3325	TP-283	TP-472	TR-36-29	TR-42-41
DO-18-159	T1189	T2175	T3326	TP-284	TP-473	TR-36-3	TR-42-42
DO-18-160	T1190	T2176	T3327	TP-285	TP-474	TR-36-30	TR-42-43
DO-18-161	T1191	T2177	T3328	TP-286	TP-475	TR-36-31	TR-43-01
DO-18-162	T1192	T2178	T3329	TP-287	TP-476	TR-36-32	TR-43-02
DO-18-163	T1193	T2179	T333	TP-288	TP-477	TR-36-33	TR-43-03
DO-18-164	T1194	T2180	T3330	TP-289	TP-478	TR-36-34	TR-43-04
DO-18-165	T1195	T2181	T3331	TP-290	TP-479	TR-36-35	TR-43-05
DO-18-166	T1196	T2182	T3332	TP-291	TP-480	TR-36-36	TR-43-06
DO-18-167	T1197	T2183	T3333	TP-292	TP-481	TR-36-37	TR-43-07
DO-18-168	T1198	T2184	T3334	TP-293	TP-482	TR-36-38	TR-43-08
DO-18-169	T1199	T2185	T334	TP-294	TP-483	TR-36-39	TR-43-09
DO-18-170	T1200	T2186	T335	TP-295	TP-484	TR-36-4	TR-43-10
DO-18-171	T1201	T2187	T336	TP-296	TP-485	TR-36-40	TR-43-11
DO-18-172	T1202	T2188	T337	TP-297	TP-486	TR-36-41	TR-43-12
DO-18-172A	T1203	T2189	T338	TP-298	TP-487	TR-36-42	TR-43-13
DO-18-173	T1204	T2190	T339	TP-299	TP-488	TR-36-43	TR-43-14
DO-18-174	T1205	T2191	T340	TP-300	TP-489	TR-36-44	TR-43-15
DO-18-175	T1206	T2192	T341	TP-301	TP-490	TR-36-45	TR-43-16
DO-18-176	T1207	T2193	T342	TP-302	TP-491	TR-36-46	TR-43-17
DO-18-176A	T1208	T2194	T343	TP-303	TP-492	TR-36-5	TR-43-18
DO-18-177	T1209	T2195	T344	TP-304	TP-493	TR-36-6	
DO-18-178	T1210	T2196	T374	TP-305	TP-494	TR-36-7	
DO-18-179	T1211	T2197	T375	TP-306	TP-495	TR-36-8	

APPENDIX B
“G-Dat Solutions Report and QAQC Graphs”

Geological Database Handover Report for Dorlin Project

To: Réjean Sirois and James Purchase (GMining Services)
From: Yaroslav Dintchev and Pia Mannola (gDat Applied Solutions)
Cc: Beatrice Fournier, Dominique Fournier, Carlos Bertoni and Justin van der Toorn

Subject: Dorlin Project geological and geotechnical data handover
Date: 14/01/2019

Appendix 1: Handover data files (RGD_db_handover_GMINING_20190114.zip)
Appendix 2: 2018 drill hole and core duplicate campaign CRM and blank performance reports (RGD_db_handover_GMINING_qaqc_20190114.zip)

Contents

1. Summary

The Dorlin Project geological and geotechnical data handover consist of information from 239 drill holes, 300 trenches and 962 auger samples related essentially to the Nivré gold deposit. The drill hole data includes both historical (182 holes) and currently-acquired (57 holes) information. Current drilling consists of:

1. Seven holes, which are validation of six historical holes with change of the collar position - up to 10 m or change in azimuth or dip up to 7 degrees (with exception of hole DO-18-147);
2. 50 resource drill holes.

The data is stored in the SQL based relational database management system acQuire designed for exploration and mining data. The data included in the handover is listed in table 1. The data is handed over in .csv format.

Table 1.

Data type	FileName	Comments
Validation codes	00_Validation_codes_20190114.csv	Validation codes including all codes present in the database
Collar	01_Collar_20190114.csv	Includes all drill holes
Downhole survey	02_Survey_20190114.csv	Includes all drill holes
Lithology	03_Lithology_simplified_20190114.csv	Includes all drill holes
Structure	04_Structure_20190114.csv	Includes all drill holes
Geotech	05_Geotech_20190114.csv	Includes all drill holes
Bulk density	06_Bulk_density_20190114.csv	Includes all drill holes
Assay	07_Assay_20190114.csv	Includes all drill holes
Check assay	08_Check_assay_company_crms_20190114.pdf	Includes company CRMs
	08_Check_assay_lab_crms_20190114.pdf	Includes lab CRMs
	08_Check_assay_pairs_20190114.pdf	Includes paired check data
	08_Check_assay_pairs_nmm_20190114.pdf	Includes core duplicate date with non-matching original and check methods (i.e. includes resampling pairs)

acQuire includes in-build and user defined validation and rules and triggers ensuring data integrity. In acQuire the data is stored in acQuire fixed fields (AF), virtual fields (VF) and derived fields (DF). acQuire fixed fields are designed by acQuire and fixed in the data model. Virtual fields are designed and created by the user hereby providing the means to extend the acQuire data model to include data specific for each operation. Derived fields do not exist in the database as such but are generated via an expression to present the data, which sources it from the database. Derived fields have a suffix _D in the field name. Alias field names are not used, and all data is exported with the actual field names residing in acQuire.

This database handover consists of three main datasets:1) historical, 2) relogging-resampling and 3) 2018 holes.

1.1 Historical drilling

The data was transformed by gDat to fit the schema set up in July-2018 for another project of the company. Validation was done only on the digital files, presented by Beatrice Fournier (RGD database geologist). No check on hard copies is done by now, as it was not requested.

1.2 Relogging-resampling

The project was validated during a late-2017 early-2018 relogging and resampling campaign of historical drill core, which included 124 drill holes and 854 quarter core duplicates. For the geological relogging, standard company templates were used. Blanks and certified reference materials (CRM) were inserted in the sample stream and submitted to two assay laboratories, first two batches to Filab in Suriname and the following batches to MS Analytical in Guyana. See notes on assays in section 9.

1.3 2018 drilling

Geological and geotechnical data is currently being recorded by site geologists on standard Excel logging templates using standard codes. Geologists insert quarter core duplicates, blanks and CRMs into the sampling stream. The samples are submitted to MS Analytical or Filab, which insert into the sample stream internal laboratory blanks and CRMs, crushing and pulverising stage duplicates. Additionally, screen passing tests were done on selected samples in MS Analytical.

2. Collar data

The historical coordinate data (up to 1998) is taken from the reports and transformed to RGFG95 UTM22N grid. Collars of the 2018 drilling campaign and 10 historical drill holes were surveyed by SIAGE utilising total station. All trench elevations were adjusted by James Purchase from GMining utilising an existing LIDAR dataset. All drill hole and trench coordinates are stored together with survey method and coordinate system and the coordinate sets are ranked according to the survey method and coordinate system. The highest ranked coordinate set for each drill hole and trench resides in the fields DhEasting_D, DhNorthing_D and DhElevation_D. The collar data contains the data features listed in table 2.

Table 2. Collar data

Name	Description	Type	Comments
HOLEID	Hole ID	AF	
PROJECTCODE	Project code	AF	
PROSPECT	Prospect code	AF	
DhEasting_D	Best ranked X (RGFG95 UTM22N)	DF	
DhNorthing_D	Best ranked Y (RGFG95 UTM22N)	DF	
DhElevation_D	Best ranked Z (RGFG95 UTM22N)	DF	
XYZGrid_D	Best ranked grid (RGFG95 UTM22N)	DF	
XYZMethod_D	Best ranked coordinate survey method (RGFG95 UTM22N)	DF	
DEPTH	Hole depth	AF	
Dh_type	Drill hole type	VF	
Dh_year	Drill hole year	VF	
Dh_section	Drill hole section	VF	
Dh_company	Drill hole operating company	VF	
Drill_company	Drill company	VF	
Drill_rig	Drill rig	VF	
STARTDATE	Drill hole start date	AF	
ENDDATE	Drill hole completion date	AF	
Plan_depth	Planned depth	VF	
Dh_comments	Drill hole comments	VF	

3. Downhole survey data

3.1 2018 drilling

The downhole surveys for the 2018 drill holes (hole id starting with DO-18) are measured with Reflex magnetic downhole survey tool. The geologists on site analyse the surveys and indicates which surveys to reject due to casing interference or other reason. All survey measurements, including planned and rejected surveys, are imported to acQuire. The first accepted azimuth and dip not interfered by casing down the drill hole is copied to 0 meters. Only downhole surveys with priority=1 are included in the database handover.

3.2 Historical drilling

The historical drill holes (up to hole number 97-143) were measured with acid test, Tropari or other unknown methods, while the historical trenches were measured with a compass.

The downhole survey data file contains the data features listed in table 3. The magnetic declination adjustment is applied by the RGD database geologist. Both the original magnetic survey azimuth and the azimuth adjusted to true north are stored in acQuire. All data included in the raw downhole survey report file is imported to acQuire.

Table 3. Downhole survey data

Name	Description	Type	Comments
HOLEID	Hole ID	AF	
PROJECTCODE	Project code	AF	
DEPTH	Depth of measurement	AF	
AZIMUTH	Azimuth	AF	
DIP	Dip	AF	
PRIORITY	Priority	AF	
SURVTYPE	Survey type	AF	

Table 3. Downhole survey data			
Name	**Description**	**Type**	**Comments**
AZ_orig	Downhole survey original azimuth	VF	
AZ_origtype	Downhole survey original azimuth type	VF	
Svy_tool	Survey tool	VF	
Svy_date	Downhole survey date	VF	
Svy_driller	Downhole survey driller	VF	
Svy_shift	Downhole survey shift	VF	
Svy_company	Downhole survey company	VF	
AZIMUTHGRIDNAME	Grid name of the azimuth	AF	
AZIMUTHTYPE	Azimuth type	AF	
Svy_comments	Survey comments	VF	

4. Lithology data, simplified form

The lithology data (simplified) contains the data features listed in table 4. Validation codes are applied for the virtual fields and are listed in 00_Validation_codes_20190114.csv.

Table 4. Lithology data			
Name	**Description**	**Type**	**Comments**
HOLEID	Hole ID	AF	
PROJECTCODE	Project code	AF	
GEOLFROM	Lithology from	AF	
GEOLTO	Lithology to	AF	
S_Ox_flag	Simplified lithology flag oxidation state	VF	
S_Regolith	Simplified regolith	VF	
S_Unit	Simplified lithology lithological unit	VF	
S_Litho1	Simplified lithology main lithology	VF	
S_Litho2	Simplified lithology second lithology	VF	
S_Litho_comments	Simplified lithology comments	VF	

5. Structure data

The structural data is populated for the 2018 drill holes only (hole id starting with DO-18). The measurements are taken from oriented core in the field and the declination adjustment is applied. The files are handed over to the database geologist and imported to acQuire. The structure data contains the features listed in table 5. Validation codes are applied for the virtual fields and are listed in 00_Validation_codes_20190114.csv.

Table 5. Structure data			
Name	**Description**	**Type**	**Comments**
HOLEID	Hole ID	AF	
PROJECTCODE	Project code	AF	
GEOLFROM	Measurement depth	AF	
GEOLTO	Measurement depth	AF	
Str_type	Structure type	VF	
Str_int	Structure intensity	VF	
Str_Ca	Presence of mineral Ca in structure	VF	
Str_Cb	Presence of mineral Cb in structure	VF	
Str_Ch	Presence of mineral Ch in structure	VF	
Str_Ep	Presence of mineral Ep in structure	VF	
Str_Fp	Presence of mineral Fp in structure	VF	
Str_Fk	Presence of mineral Fk in structure	VF	
Str_Mg	Presence of mineral Mg in structure	VF	
Str_Po	Presence of mineral Po in structure	VF	
Str_Py	Presence of mineral Py in structure	VF	
Str_Qz	Presence of mineral Qz in structure	VF	
Str_To	Presence of mineral To in structure	VF	
Str_dip	Structure dip	VF	
Str_direction	Structure direction (right hand rule)	VF	
StrBy_D	Structure by	DF	
Str_comments	Structure comments	VF	

6. Geotech data

The geotech data is populated both for the 2018 and the historical drill holes. The technicians populate the Excel logging template on site and handover the file to the database geologist after drilling is completed. The geotech data contains the features listed in table 6. Some of the high run recoveries in the current drilling were re-checked. Validation codes are applied for the virtual fields and are listed in 00_Validation_codes_20190114.csv.

Table 6. Geotech data

Name	Description	Type	Comments
HOLEID	Hole ID	AF	
PROJECTCODE	Project code	AF	
GEOLFROM	Start of the interval	AF	
GEOLTO	End of the interval	AF	
Gt_trec_m	Total recovery (m)	AF	
GtTRecPct_D	Percent total recovery	AF	
Gt_core_size	Core size	VF	
Gt_rqd_m	RQD (m)	VF	
GtRqdPct_D	Percent RQD	VF	
Gt_hardness	Geotech hardness	VF	
Gt_frac_deg	Fractionation degree	VF	
Gt_comments	Geotech comments	VF	

7. Bulk density data

7.1 2018 drilling

Bulk density is measured with water immersion method on regular basis. The bulk density samples are taken from single lithological units. The sample depth is recorded by the site geologists, however the length of the sample is not recorded. The samples are assigned the same sample id as the sample id in assay sampling by site geologists regardless if the sample from and to intervals between bulk density and assay sampling differ. In acQuire, the bulk density samples for the 2018 drill holes have been assigned the same from/to intervals as the assay sampling intervals since sample id is a primary key and must be unique.

7.2 Historical drilling

The historical drill holes again have only the depth without the sample length recorded. The sample ids for the historical drill holes, however, are unique and differ from the assay sampling sample ids. In acQuire, the bulk density samples for historical drill holes have been assigned from/to intervals, which equal each other.

The actual sample depth is recorded in the field Sa_depth both for the 2018 and the historical drill holes and additionally for the historical drill holes the actual sample depth is also recorded in the fields SAMPFROM and SAMPTO. The bulk density data contains the features listed in table 7.

Table 7. Bulk density data

Name	Description	Type	Comments
HOLEID	Hole ID	AF	
PROJECTCODE	Project code	AF	
SAMPLEID	Sample ID	AF	
SAMPFROM	From	AF	
SAMPTO	To	AF	
Sa_depth	Sample depth as originally recorded	VF	
BD_gcm3_BESTEL	Assay value of the highest ranked method	VF	
BD_HIST_gcm3	Historical BD result	VF	
BD_RGD_gcm3	RGD BD result	VF	
WEI_air_rock_g	Core weight	VF	
WEI_air_para_g	Paraffin weight	VF	
WEI_air_tot_g	Total weight (paraffin + core)	VF	
WEI_wtr_tot_g	Total weigh in water (paraffin + core)	VF	

8. Assay data

8.1 2018 drilling

The diamond drill core is cut into halves and analysed in MS Analytical or FILAB lab. Core duplicates are taken regularly as quarter core samples. Fire assay with instrumental finish is followed by gravimetric finish, if the first assay exceeds 10 ppm (MSA) or 5 ppm (FILAB). Eight samples were repeated with metallic screen fire assay in MS Analytical. “>” (more than) values are reported as they are stored, while the “<” (less than) assay values are reported with ½ of the lower detection limit.

8.2 Historical drilling

Historically, samples were assayed for gold in SGS Triad and BRGM as primary laboratory (99% of the records) and OMAI, OMAC and Cantec were used as control laboratories. When SGS was used as primary laboratory around 7.5% of the samples were sent to another laboratory, in the case when BRGM was primary – around 31%. Non-numeric values include the following signs: “>” (more than), “NF” (not found), “NE” (not estimated) and “NS” (not sampled).

The assay data contains the features listed in table 8.

Table 8. Assay data

Name	Description	Type	Comments
HOLEID	Hole ID	AF	
PROJECTCODE	Project code	AF	
SAMPFROM	From	AF	
SAMPTO	To	AF	
SAMPLETYPE	Sample type	AF	
SAMPLEID	Sample ID	AF	
FD2_CHECKID	Core duplicate	DF	
FD3_1_CHECKID	Core duplicate#1 (historical hole)	DF	
FD3_2_CHECKID	Core duplicate#2 (historical hole)	DF	
FD3_3_CHECKID	Core duplicate#3 (historical hole)	DF	
FD4_CHECKID	Core duplicate (additional series)	DF	
Sa_recovery_pct	Sa recovery %	DF	
Au_AVG_ppm	Arithmetic average of all assays listed below	DF	Depends on all primary and check assays and their priorities (versions). Heavily interpreted value.
Au_FAS121_ppm_PR1	Gold assay of primary sample, analyzed in MSA, priority 1	VF	
Au_FAS121_ppm_PR3	Gold assay of primary sample, analyzed in MSA, priority 3	VF	
Au_FAS121_ppm_PR4	Gold assay of primary sample, analyzed in MSA, priority 4	VF	
Au_FAS425_ppm_PR1	Gold assay of primary sample, analyzed in MSA, gravimetric finish, priority 1	VF	
Au_FAS121_ppm_FD2_PR1	Gold assay of core duplicate, analyzed in MSA, priority 1	VF	
Au_FAS121_ppm_FD2_PR3	Gold assay of core duplicate, analyzed in MSA, priority 3	VF	
Au_FAS121_ppm_FD2_PR4	Gold assay of core duplicate, analyzed in MSA, priority 4	VF	
Au_FAS121_ppm_FD2_LCD_PR1	Gold assay of crush duplicate of core duplicate, analyzed in MSA, priority 1	VF	
Au_FAS121_ppm_FD2_LCD_PR3	Gold assay of crush duplicate of core duplicate, analyzed in MSA, priority 3	VF	
Au_FAS121_ppm_FD2_LDUP_PR1	Gold assay of pulp duplicate of core duplicate, analyzed in MSA, priority 1	VF	
Au_FAS121_ppm_FD2_LDUP_PR3	Gold assay of pulp duplicate of core duplicate, analyzed in MSA, priority 3	VF	
Au_FAS425_ppm_FD2_PR1	Gold assay of core duplicate, analyzed in MSA, gravimetric finish, priority 1	VF	
Au_FAS425_ppm_FD2_LDUP_PR1	Gold assay of pulp duplicate of core duplicate, analyzed in MSA, priority 1	VF	
Au_FD3_WAV_MSA_ppm	Gold assay of core duplicate (historical holes) analyzed in MSA, weighted average of all samples, their duplicates and priorities	VF	
Au_FAS121_ppm_FD4_PR1	Gold assay of core duplicate (additional series), analyzed in MSA, priority 1	VF	
Au_FAS121_ppm_FD4_LCD_PR1	Gold assay of crush duplicate of core duplicate (additional series), analyzed in MSA, priority 1	VF	

Table 8. Assay data

Name	Description	Type	Comments
Au_FAS121_ppm_FD4_LDUP_PR1	Gold assay of pulp duplicate of core duplicate (additional series), analyzed in MSA, priority 1	VF	
Au_FAS121_ppm_LCD_PR1	Gold assay of crush duplicate, analyzed in MSA, priority 1	VF	
Au_FAS425_ppm_LCD_PR1	Gold assay of crush duplicate, analyzed in MSA, gravimetric finish, priority 1	VF	
Au_Plus_MSC550_ppm_LCD_PR1	Gold assay of crush duplicate, plus fraction, analyzed in MSA, priority 1	VF	
Au_Minus_MSC550_ppm_LCD_PR1	Gold assay of crush duplicate, minus fraction, analyzed in MSA, priority 1	VF	
Au_Total_MSC550_ppm_LCD_PR1	Gold assay of crush duplicate, weighted average, analyzed in MSA, priority 1	VF	
Au_FAS121_ppm_LDUP_PR1	Gold assay of pulp duplicate, analyzed in MSA, priority 1	VF	
Au_FAS425_ppm_LDUP_PR1	Gold assay of pulp duplicate, analyzed in MSA, gravimetric finish, priority 1	VF	
Au_Minus_MSC550_ppm_LDUP_PR1	Gold assay of pulp duplicate, minus fraction, analyzed in MSA, priority 1	VF	
Au_FA50_ppm_PR1	Gold assay of primary sample, analyzed in FILAB, priority 1	VF	
Au_FA50_ppm_PR3	Gold assay of primary sample, analyzed in FILAB, priority 3	VF	
Au_FA50_ppm_FD2_PR1	Gold assay of core duplicate, analyzed in FILAB, priority 1	VF	
Au_FA50_ppm_FD2_PR3	Gold assay of core duplicate, analyzed in FILAB, priority 3	VF	
Au_FA50_ppm_FD2_LCD_PR1	Gold assay of crush duplicate of core duplicate, analyzed in FILAB, priority 1	VF	
Au_FA50_ppm_FD2_LDUP_PR1	Gold assay of pulp duplicate of core duplicate, analyzed in FILAB, priority 3	VF	
Au_FD3_WAV_FILAB_ppm	Gold assay of core duplicate (historical holes) analyzed in FILAB, weighted average of all samples, their duplicates and priorities	VF	
Au_FA50_ppm_LCD_PR1	Gold assay of crush duplicate, analyzed in FILAB, priority 1	VF	
Au_FA50_ppm_LDUP_PR1	Gold assay of pulp duplicate, analyzed in FILAB, priority 1	VF	
Au_SGSTriad_ppm_PR1	Gold assay analyzed in SGS/Triad	VF	
Au_SGSTriad2_ppm_PR1	Gold assay analyzed in SGS/Triad, 2nd run	VF	
Au_SGSTriad3_ppm_PR1	Gold assay analyzed in SGS/Triad, 3rd run	VF	
Au_SGSTriad4_ppm_PR1	Gold assay analyzed in SGS/Triad, 4th run	VF	
Au_BRGM_ppm_PR1	Gold assay analyzed in BRGM	VF	
Au_OMAI_ppm_PR1	Gold assay analyzed in OMAI	VF	
Au_OMAI2_ppm_PR1	Gold assay analyzed in OMAI, 2nd run	VF	
Au_OMAI_MET_ppm_PR1	Gold assay analyzed in OMAI, metallic screen	VF	
Au_OMAC_ppm_PR1	Gold assay analyzed in OMAC	VF	
Au_Cantec_ppm_PR1	Gold assay analyzed in Cantec	VF	
Au_Cantec2_ppm_PR1	Gold assay analyzed in Cantec, 2nd run	VF	
Au_Cantec3_ppm_PR1	Gold assay analyzed in Cantec, 3rd run	VF	
Au_Cantec4_ppm_PR1	Gold assay analyzed in Cantec ,4th run	VF	
Au_Cantec_Met_ppm_PR1	Gold assay analyzed in Cantec, metallic screen	VF	
Au_Cantec_Met_ck_ppm_PR1	Gold assay analyzed in Cantec, metallic screen, check	VF	
SAMPLE_DESPATCHNO_LIST	Sample dispatch list	DF	
SAMPLE_LABJOBNO_LIST	Sample laboratory job no list	DF	
SAMPLE_LABCODE_LIST	Sample laboratories list	DF	
SAMPLE_SENDDATE_LIST	Sample sent dates list	DF	
SAMPLE_RETURNDATE_LIST	Sample return dates list	DF	
FD_DESPATCHNO_LIST	Core duplicate dispatch list	DF	
FD_LABJOBNO_LIST	Core duplicate laboratory job no list	DF	
FD_LABCODE_LIST	Core duplicate laboratories list	DF	
FD_SENDDATE_LIST	Core duplicate sent dates list	DF	
FD_RETURNDATE_LIST	Core duplicate return dates list	DF	
FD4_DESPATCHNO_LIST	Core duplicate (additional series) dispatch list	DF	
FD4_LABJOBNO_LIST	Core duplicate (additional series) laboratory job no list	DF	
FD4_LABCODE_LIST	Core duplicate (additional series) laboratories list	DF	
FD4_SENDDATE_LIST	Core duplicate (additional series) sent dates list	DF	
FD4_RETURNDATE_LIST	Core duplicate (additional series) return dates list	DF	
Sa_comments	Sample comments	VF	

9. Check assay data

9.1 2018 drilling

The company routinely takes core duplicates, inserts blanks and certified reference material (CRM) in the sample stream. Certified expected value plus minus two standard deviations are used as monitoring limits. Reassays are requested when the reported value exceeds the three standard deviations difference from the expected value. In some cases, reassays were not requested: a) failed CRM in a barren hole; b) failed lab CRM in the metallic screen job, because of confirmed sample assay value and not failing another lab CRM; c) failed lab CRM, for which the lab uses 10% as control value, due to low relative standard deviation of the CRM.
All original and reassayed values are reported in the assay table. As requested, the paired data (core, crush and pulp duplicates) is included in the assay data file. Performance of the company and lab blanks and CRMs is presented in graphical form in Appendix 2.

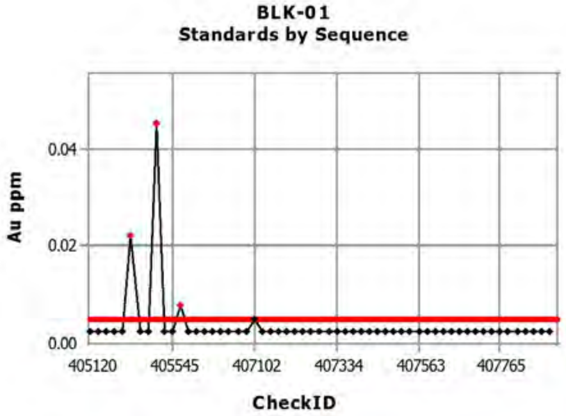
9.2 Re-sampling validation

During a late-2017 early-2018 relogging and resampling campaign 124 historical holes were relogged and partially re-sampled. The core duplicates in most of the cases are matching the original sampling intervals. There are some re-sampling cases and they can be represented as: 1) exact match of the historical and re-sampling interval; 2) historical sample is resampled with two or three sub-samples; 3) two or more historical samples are re-sampled with one core duplicate; 4) two or more historical samples are resampled with two or more core duplicates, but only beginning and the end of the whole sampling interval is matching; 5) historical sample is re-sampled with slight variation (up to 15 cm, but most of the cases <10 cm) of the from-to interval. Link of the "original sample" and the "duplicate sample" is the key for dataset comparison to assay QAQC software (incl. acQuire). To fit acQuire model, the re-sampling data was transformed and stored as follows: in case 1 it is exact assay representation of the sample (suffix _A to the ID added), in case 2 it is represented of weighted average of the values where weights are taken from laboratory assay reports (ID is concatenation of all included samples with underscores and suffix _A), in cases 3 and 4 the data is not represented, in case 5 it is exact representation of the assay data (suffix _A to the ID added) with note in comments regarding sampling interval.

QAQC - COMPANY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4
Reporting Period: 1-Jan-2018 To 14-Jan-2019

BLK-01 (Au_FA50_ppm)

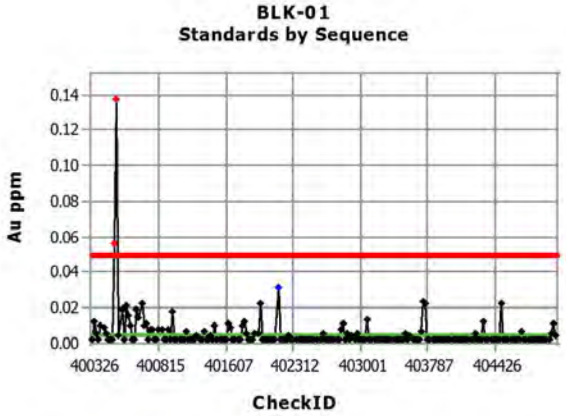


StandardID: BLK-01
Name: Au_FA50_ppm
LDL: <0.005

No Standards: 57
STD Value: 0.005
SD of CRM: -

Outside error limit: 3

BLK-01 (Au_FAS121_ppm)

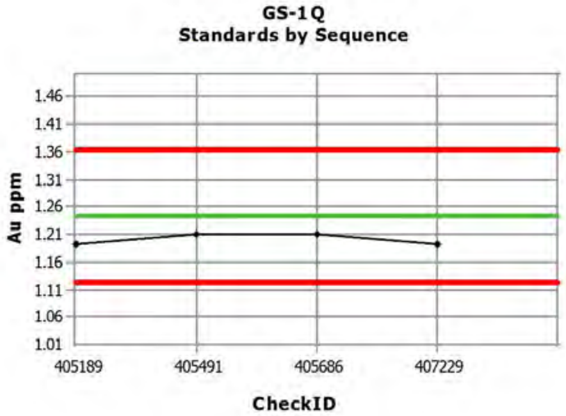


StandardID: BLK-01
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 208
STD Value: 0.005
SD of CRM: -

Outside error limit: 2

GS-1Q (Au_FA50_ppm)

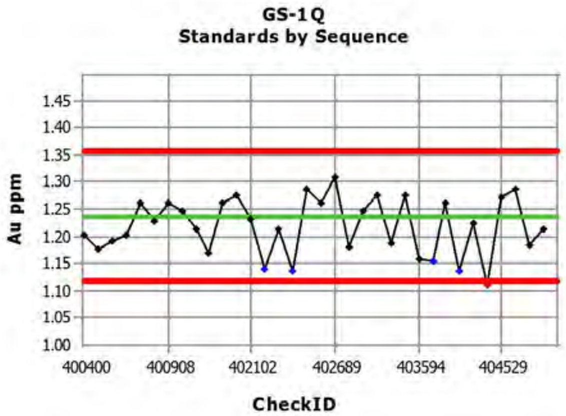


StandardID: GS-1Q
Name: Au_FA50_ppm
LDL: <0.005

No Standards: 4
STD Value: 1.24
SD of CRM: 0.04

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

GS-1Q (Au_FAS121_ppm)



StandardID: GS-1Q
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 34
STD Value: 1.24
SD of CRM: 0.04

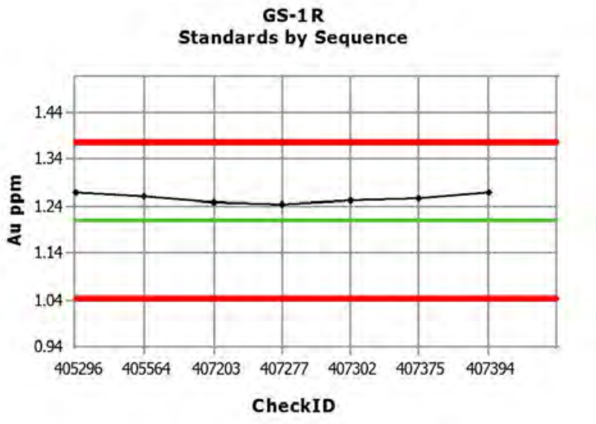
Outside ±2 SD of CRM: 5
Outside ±3 SD of CRM: 1

QAQC - COMPANY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4

Reporting Period: 1-Jan-2018 To 14-Jan-2019

GS-1R (Au_FA50_ppm)

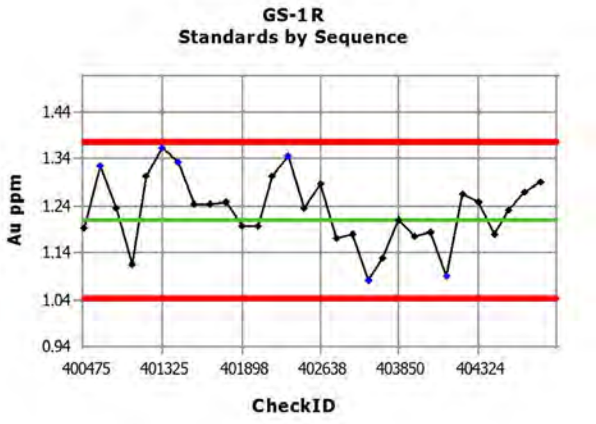


StandardID:GS-1R
Name: Au_FA50_ppm
LDL:<0.005

No Standards:7
STD Value: 1.21
SD of CRM: 0.055

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

GS-1R (Au_FAS121_ppm)

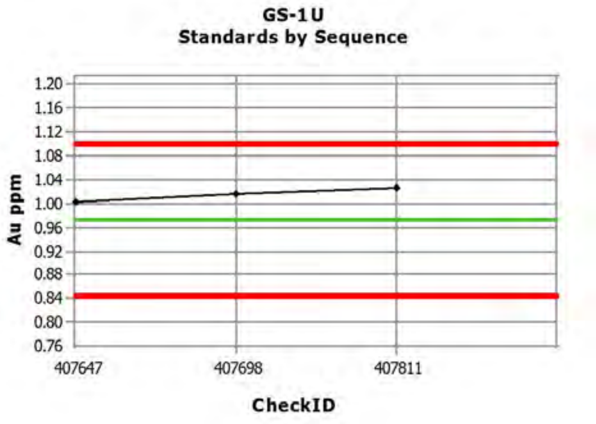


StandardID:GS-1R
Name: Au_FAS121_ppm
LDL:<0.005

No Standards:30
STD Value: 1.21
SD of CRM: 0.055

Outside ±2 SD of CRM: 6
Outside ±3 SD of CRM: 0

GS-1U (Au_FA50_ppm)

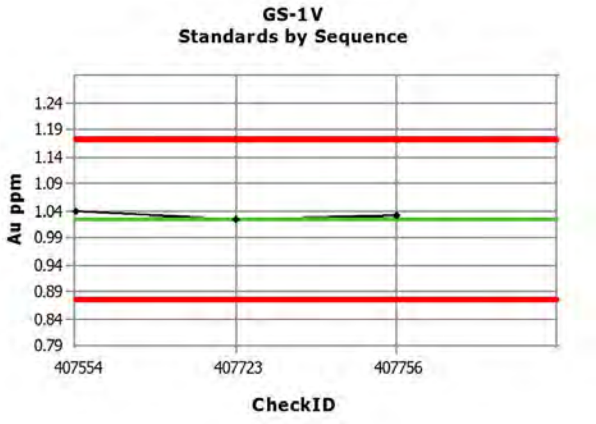


StandardID:GS-1U
Name: Au_FA50_ppm
LDL:<0.005

No Standards:3
STD Value: 0.968
SD of CRM: 0.043

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

GS-1V (Au_FA50_ppm)



StandardID:GS-1V
Name: Au_FA50_ppm
LDL:<0.005

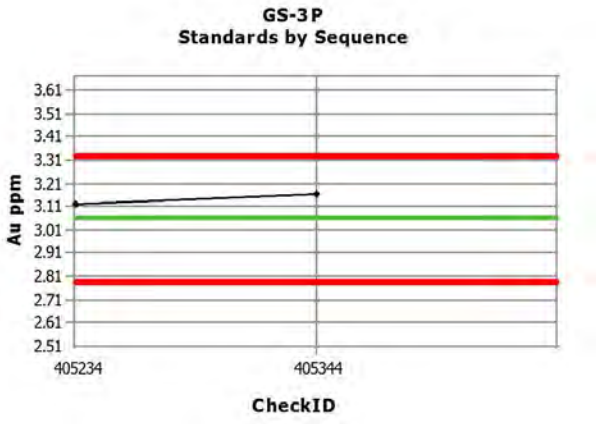
No Standards:3
STD Value: 1.02
SD of CRM: 0.049

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

QAQC - COMPANY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4
Reporting Period: 1-Jan-2018 To 14-Jan-2019

GS-3P (Au_FA50_ppm)

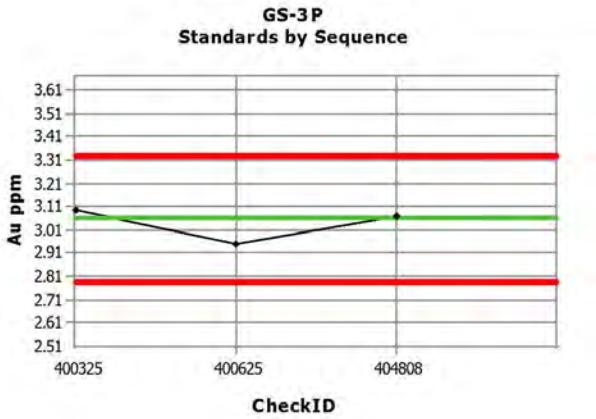


StandardID:GS-3P
Name: Au_FA50_ppm
LDL:<0.005

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

No Standards:2
STD Value: 3.06
SD of CRM: 0.09

GS-3P (Au_FAS121_ppm)

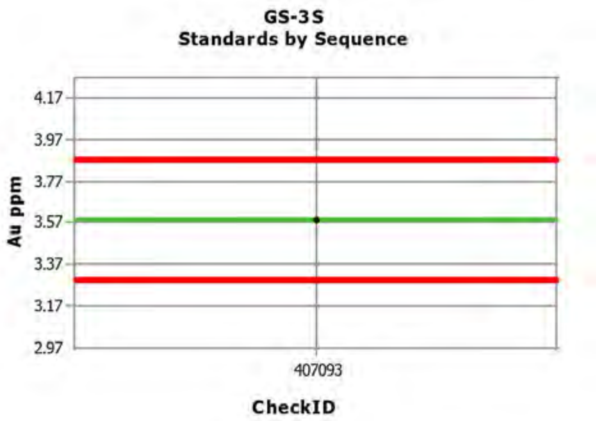


StandardID:GS-3P
Name: Au_FAS121_ppm
LDL:<0.005

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

No Standards:3
STD Value: 3.06
SD of CRM: 0.09

GS-3S (Au_FA50_ppm)

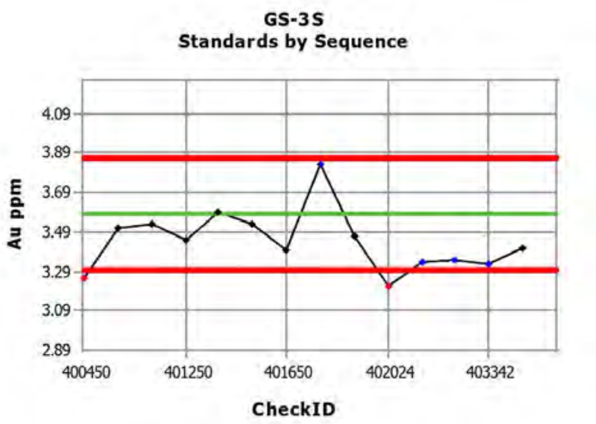


StandardID:GS-3S
Name: Au_FA50_ppm
LDL:<0.005

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

No Standards:1
STD Value: 3.58
SD of CRM: 0.095

GS-3S (Au_FAS121_ppm)

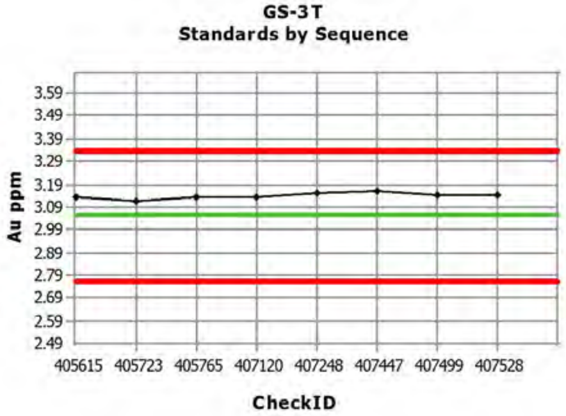


StandardID:GS-3S
Name: Au_FAS121_ppm
LDL:<0.005

Outside ±2 SD of CRM: 6
Outside ±3 SD of CRM: 2

No Standards:14
STD Value: 3.58
SD of CRM: 0.095

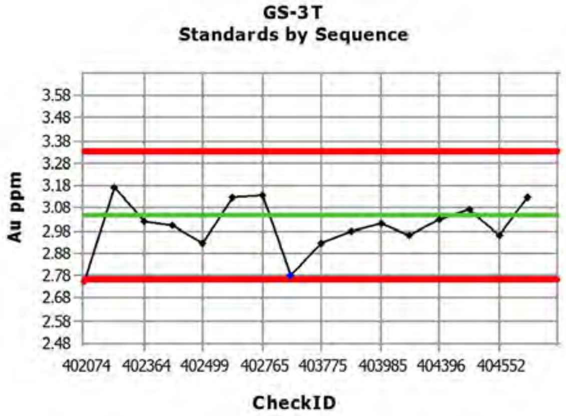
GS-3T (Au_FA50_ppm)



StandardID:GS-3T
Name: Au_FA50_ppm
LDL:<0.005
No Standards:8
STD Value: 3.05
SD of CRM: 0.095

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

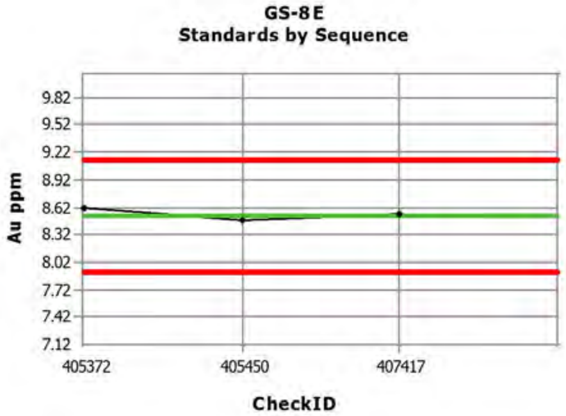
GS-3T (Au_FAS121_ppm)



StandardID:GS-3T
Name: Au_FAS121_ppm
LDL:<0.005
No Standards:16
STD Value: 3.05
SD of CRM: 0.095

Outside ±2 SD of CRM: 2
Outside ±3 SD of CRM: 1

GS-8E (Au_FA50_ppm)



StandardID:GS-8E
Name: Au_FA50_ppm
LDL:<0.005
No Standards:3
STD Value: 8.53
SD of CRM: 0.205

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

GS-8E (Au_FAS121_ppm)

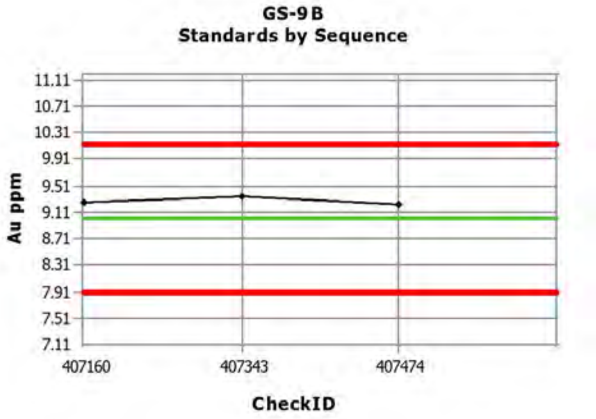
StandardID:GS-8E
Name: Au_FAS121_ppm
LDL:<0.005
No Standards:10
STD Value: 8.53
SD of CRM: 0.205

Outside ±2 SD of CRM: 1
Outside ±3 SD of CRM: 1

QAQC - COMPANY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4 **Reporting Period: 1-Jan-2018 To 14-Jan-2019**

GS-9B (Au_FA50_ppm)

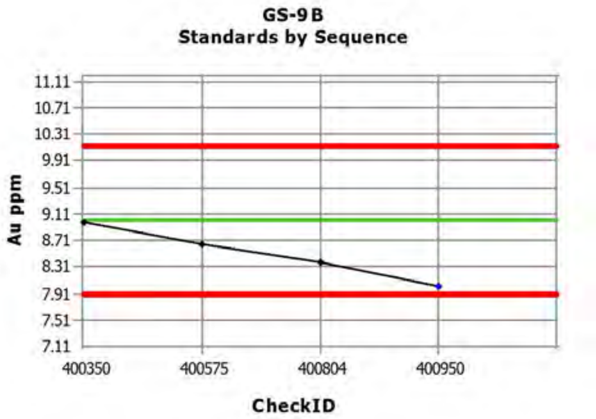


StandardID: GS-9B
Name: Au_FA50_ppm
LDL: <0.005

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

No Standards: 3
STD Value: 9.02
SD of CRM: 0.375

GS-9B (Au_FAS121_ppm)

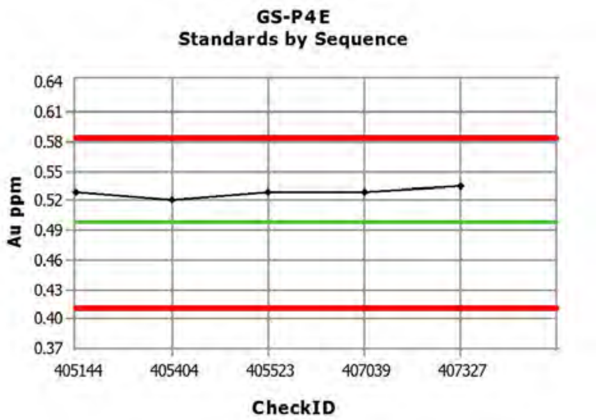


StandardID: GS-9B
Name: Au_FAS121_ppm
LDL: <0.005

Outside ±2 SD of CRM: 1
Outside ±3 SD of CRM: 0

No Standards: 4
STD Value: 9.02
SD of CRM: 0.375

GS-P4E (Au_FA50_ppm)

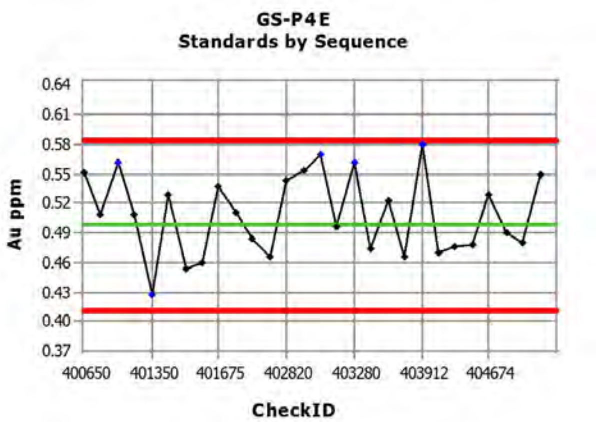


StandardID: GS-P4E
Name: Au_FA50_ppm
LDL: <0.005

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

No Standards: 5
STD Value: 0.493
SD of CRM: 0.029

GS-P4E (Au_FAS121_ppm)

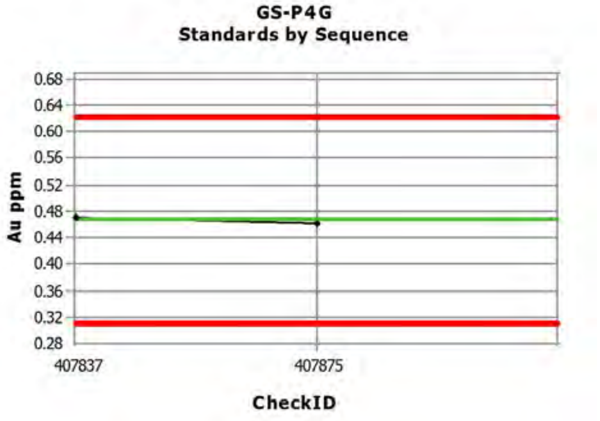


StandardID: GS-P4E
Name: Au_FAS121_ppm
LDL: <0.005

Outside ±2 SD of CRM: 5
Outside ±3 SD of CRM: 0

No Standards: 28
STD Value: 0.493
SD of CRM: 0.029

GS-P4G (Au_FA50_ppm)

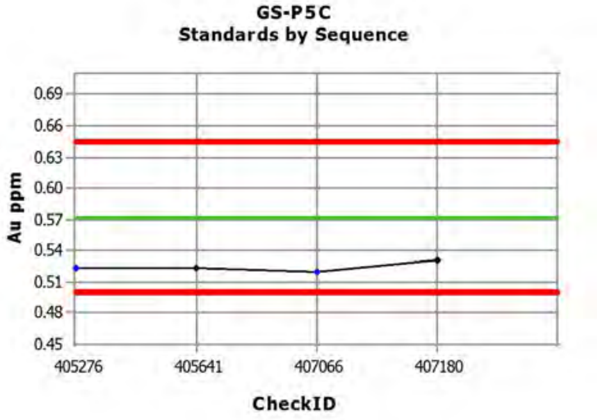


StandardID:GS-P4G
Name: Au_FA50_ppm
LDL:<0.005

No Standards:2
STD Value: 0.468
SD of CRM: 0.052

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

GS-P5C (Au_FA50_ppm)

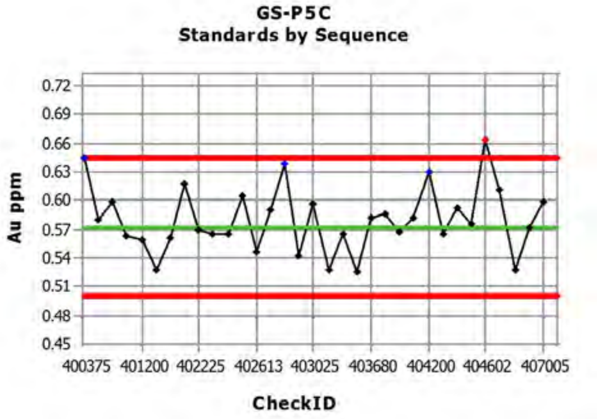


StandardID:GS-P5C
Name: Au_FA50_ppm
LDL:<0.005

No Standards:4
STD Value: 0.571
SD of CRM: 0.024

Outside ±2 SD of CRM: 2
Outside ±3 SD of CRM: 0

GS-P5C (Au_FAS121_ppm)

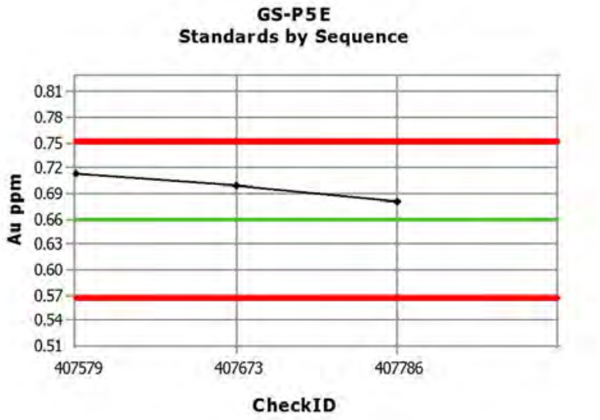


StandardID:GS-P5C
Name: Au_FAS121_ppm
LDL:<0.005

No Standards:33
STD Value: 0.571
SD of CRM: 0.024

Outside ±2 SD of CRM: 4
Outside ±3 SD of CRM: 1

GS-P5E (Au_FA50_ppm)



StandardID:GS-P5E
Name: Au_FA50_ppm
LDL:<0.005

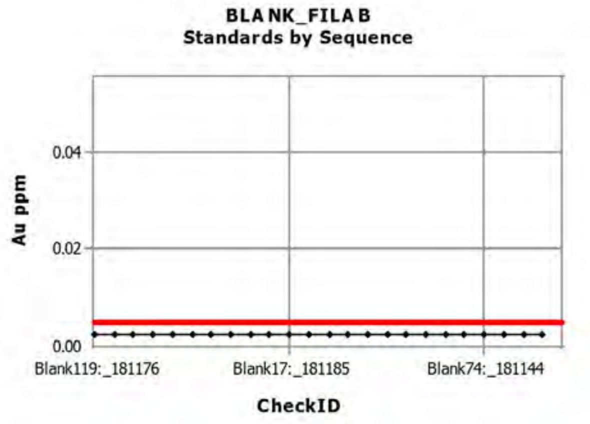
No Standards:3
STD Value: 0.655
SD of CRM: 0.031

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4 **Reporting Period: 1-Jan-2018 To 14-Jan-2019**

BLANK_FILAB (Au_FA50_ppm)

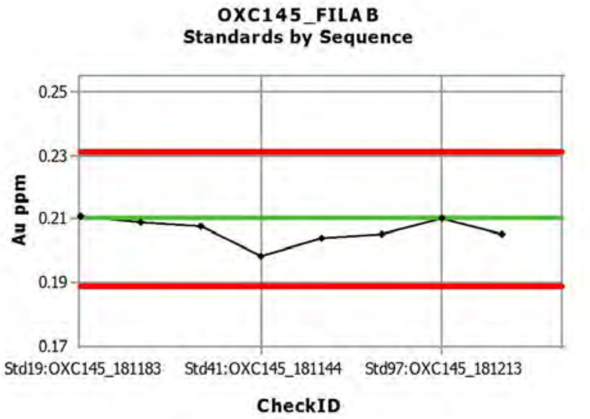


StandardID:BLANK_FILAB
Name: Au_FA50_ppm
LDL:<0.005

No Standards:24
STD Value: 0.005
SD of CRM: -

Outside error limit: 0

OXC145_FILAB (Au_FA50_ppm)

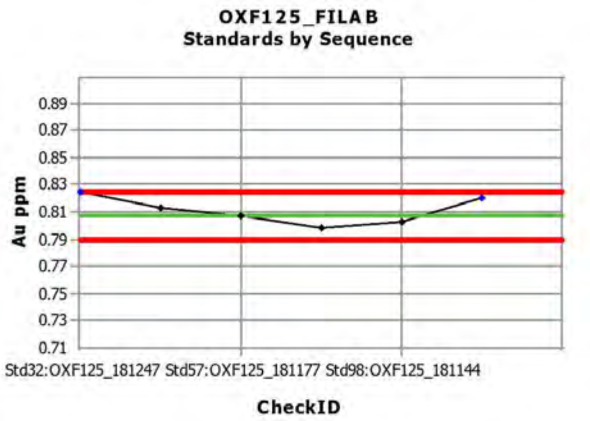


StandardID:OXC145_FILAB
Name: Au_FA50_ppm
LDL:<0.005

No Standards:8
STD Value: 0.212
SD of CRM: 0.007

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

OXF125_FILAB (Au_FA50_ppm)

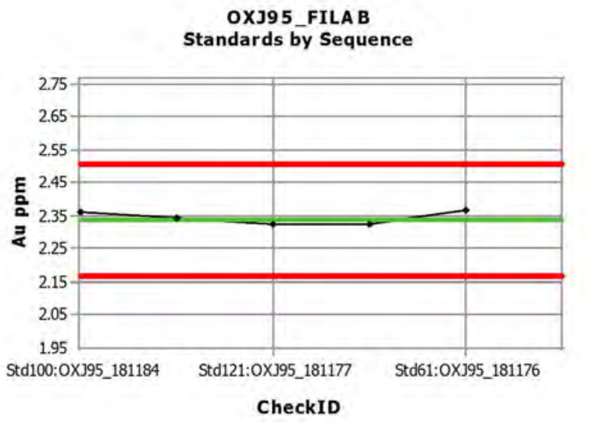


StandardID:OXF125_FILAB
Name: Au_FA50_ppm
LDL:<0.005

No Standards:6
STD Value: 0.806
SD of CRM: 0.006

Outside ±2 SD of CRM: 2
Outside ±3 SD of CRM: 0

OXJ95_FILAB (Au_FA50_ppm)



StandardID:OXJ95_FILAB
Name: Au_FA50_ppm
LDL:<0.005

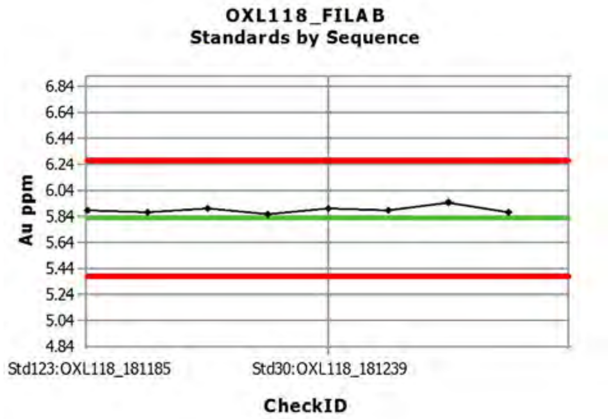
No Standards:5
STD Value: 2.337
SD of CRM: 0.057

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4
Reporting Period: 1-Jan-2018 To 14-Jan-2019

OXL118_FILAB (Au_FA50_ppm)

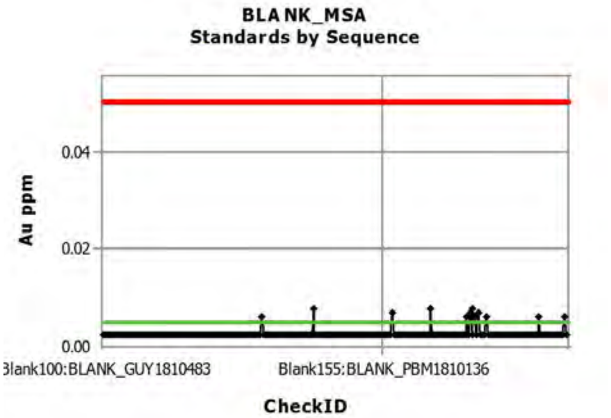


StandardID: OXL118_FILAB
Name: Au_FA50_ppm
LDL: <0.005

No Standards: 8
STD Value: 5.828
SD of CRM: 0.149

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

BLANK_MSA (Au_FAS121_ppm)

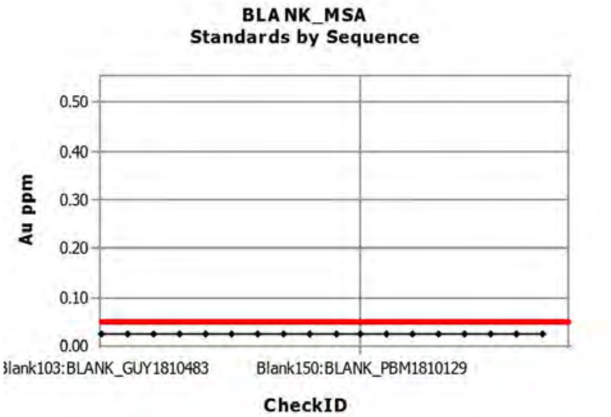


StandardID: BLANK_MSA
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 335
STD Value: 0.005
SD of CRM: -

Outside error limit: 0

BLANK_MSA (Au_FAS425_ppm)

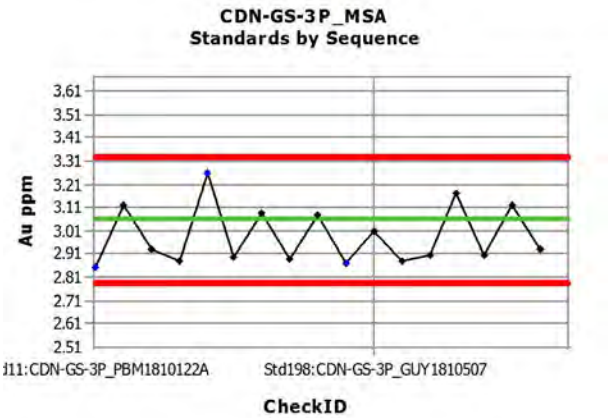


StandardID: BLANK_MSA
Name: Au_FAS425_ppm
LDL: <0.05

No Standards: 18
STD Value: 0.05
SD of CRM: -

Outside error limit: 0

CDN-GS-3P_MSA (Au_FAS121_ppm)



StandardID: CDN-GS-3P_MSA
Name: Au_FAS121_ppm
LDL: <0.005

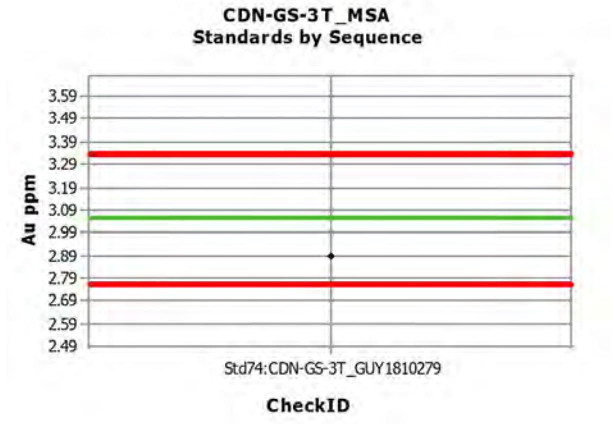
No Standards: 17
STD Value: 3.06
SD of CRM: 0.09

Outside ±2 SD of CRM: 3
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4
Reporting Period: 1-Jan-2018 To 14-Jan-2019

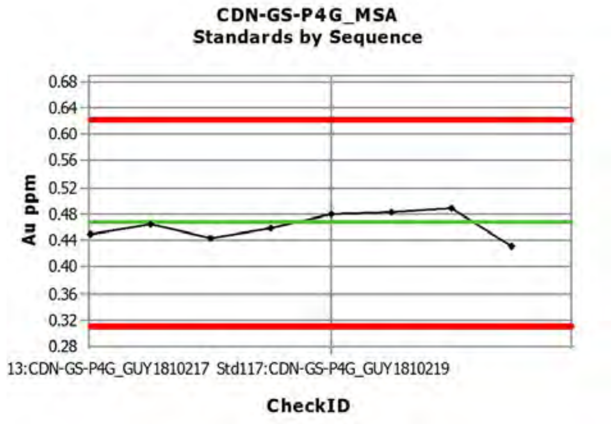
CDN-GS-3T_MSA (Au_FAS121_ppm)



StandardID:CDN-GS-3T_MSA
Name: Au_FAS121_ppm
LDL:<0.005
No Standards:1
STD Value: 3.05
SD of CRM: 0.095

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

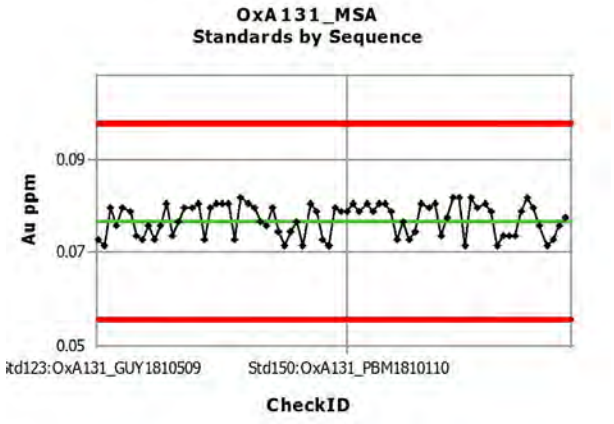
CDN-GS-P4G_MSA (Au_FAS121_ppm)



StandardID:CDN-GS-P4G_MSA
Name: Au_FAS121_ppm
LDL:<0.005
No Standards:8
STD Value: 0.468
SD of CRM: 0.052

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

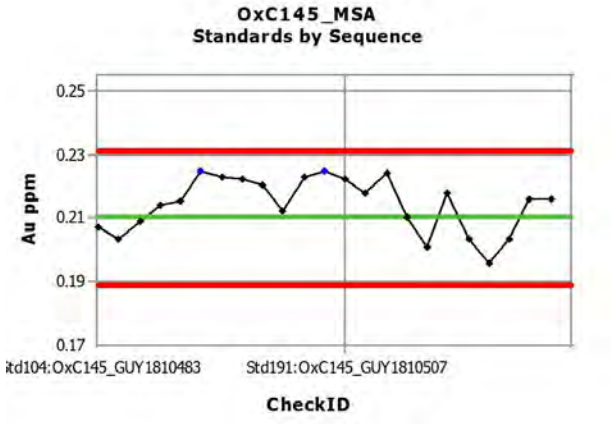
OxA131_MSA (Au_FAS121_ppm)



StandardID: OxA131_MSA
Name: Au_FAS121_ppm
LDL:<0.005
No Standards:76
STD Value: 0.077
SD of CRM: 0.007

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

OxC145_MSA (Au_FAS121_ppm)



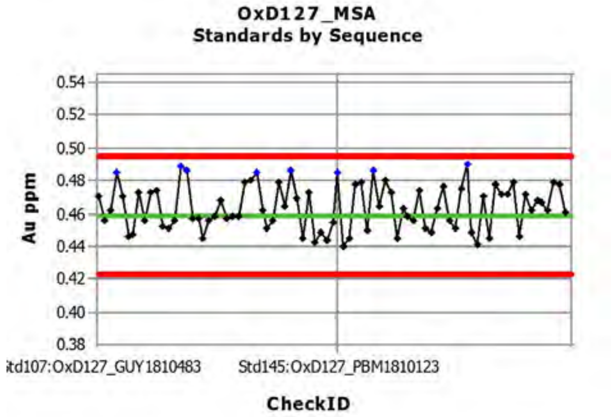
StandardID: OxC145_MSA
Name: Au_FAS121_ppm
LDL:<0.005
No Standards:23
STD Value: 0.212
SD of CRM: 0.007

Outside ±2 SD of CRM: 2
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4 **Reporting Period:** 1-Jan-2018 To 14-Jan-2019

OxD127_MSA (Au_FAS121_ppm)

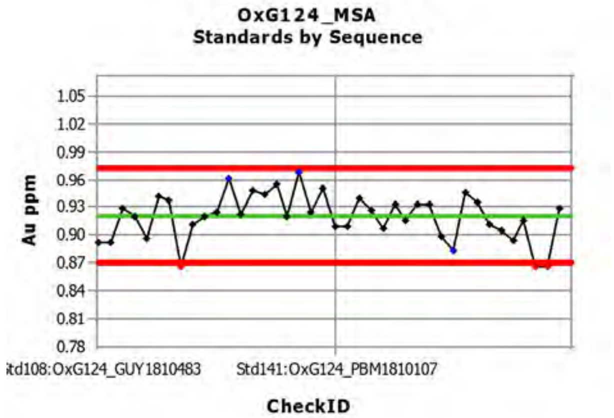


StandardID: OxD127_MSA
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 81
STD Value: 0.459
SD of CRM: 0.012

Outside ±2 SD of CRM: 8
Outside ±3 SD of CRM: 0

OxG124_MSA (Au_FAS121_ppm)

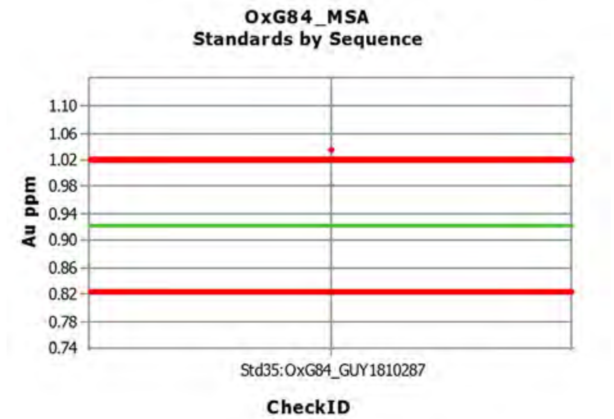


StandardID: OxG124_MSA
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 40
STD Value: 0.918
SD of CRM: 0.017

Outside ±2 SD of CRM: 6
Outside ±3 SD of CRM: 3

OxG84_MSA (Au_FAS121_ppm)

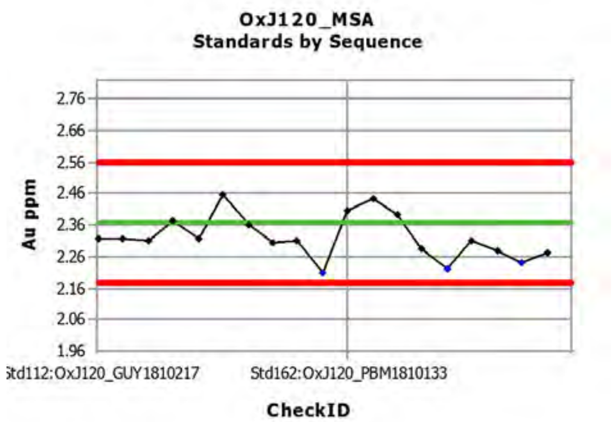


StandardID: OxG84_MSA
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 1
STD Value: 0.922
SD of CRM: 0.033

Outside ±2 SD of CRM: 1
Outside ±3 SD of CRM: 1

OxJ120_MSA (Au_FAS121_ppm)



StandardID: OxJ120_MSA
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 19
STD Value: 2.365
SD of CRM: 0.063

Outside ±2 SD of CRM: 3
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4 **Reporting Period: 1-Jan-2018 To 14-Jan-2019**

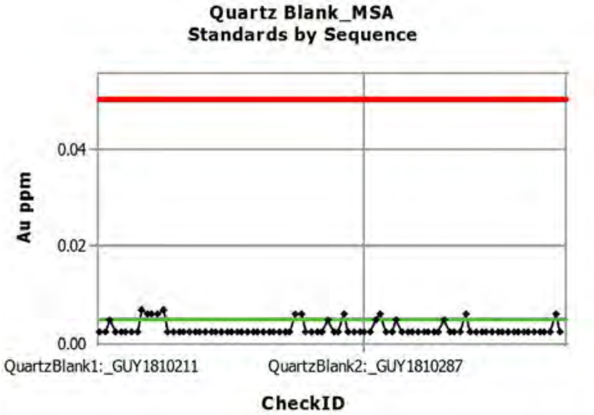
OxK94_MSA (Au_FAS121_ppm)

StandardID: OxK94_MSA
Name: Au_FAS121_ppm
LDL:<0.005

No Standards:1
STD Value: 3.562
SD of CRM: 0.131

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

Quartz Blank_MSA (Au_FAS121_ppm)

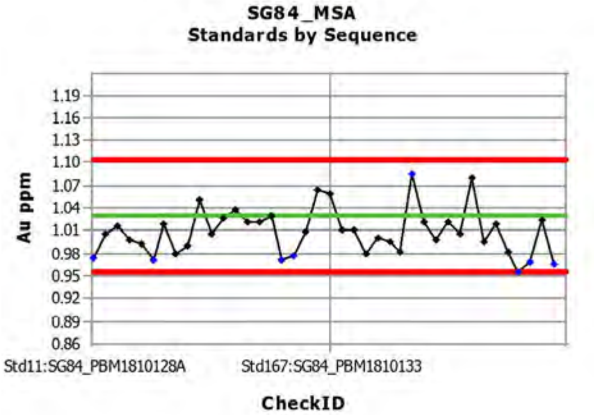


StandardID: Quartz Blank_MSA
Name: Au_FAS121_ppm
LDL:<0.005

No Standards:88
STD Value: 0.005
SD of CRM: -

Outside error limit: 0

SG84_MSA (Au_FAS121_ppm)



StandardID:SG84_MSA
Name: Au_FAS121_ppm
LDL:<0.005

No Standards:40
STD Value: 1.026
SD of CRM: 0.025

Outside ±2 SD of CRM: 8
Outside ±3 SD of CRM: 0

SN50_MSA (Au_FAS121_ppm)

StandardID:SN50_MSA
Name: Au_FAS121_ppm
LDL:<0.005

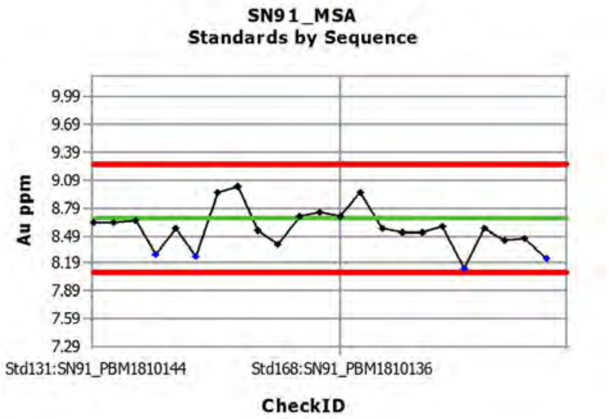
No Standards:5
STD Value: 8.685
SD of CRM: 0.18

Outside ±2 SD of CRM: 1
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4 **Reporting Period: 1-Jan-2018 To 14-Jan-2019**

SN91_MSA (Au_FAS121_ppm)

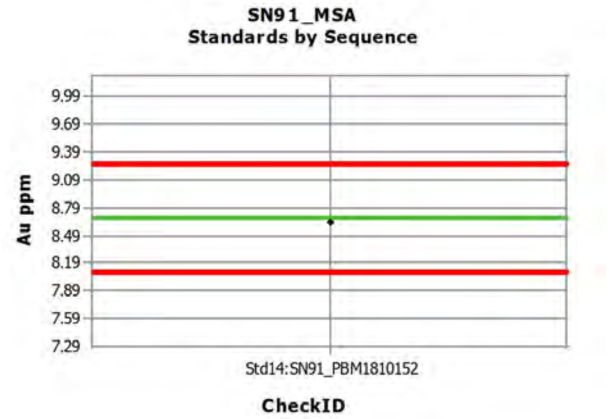


StandardID: SN91_MSA
Name: Au_FAS121_ppm
LDL: <0.005

No Standards: 23
STD Value: 8.679
SD of CRM: 0.194

Outside ±2 SD of CRM: 4
Outside ±3 SD of CRM: 0

SN91_MSA (Au_Minus_MSC550_ppm)

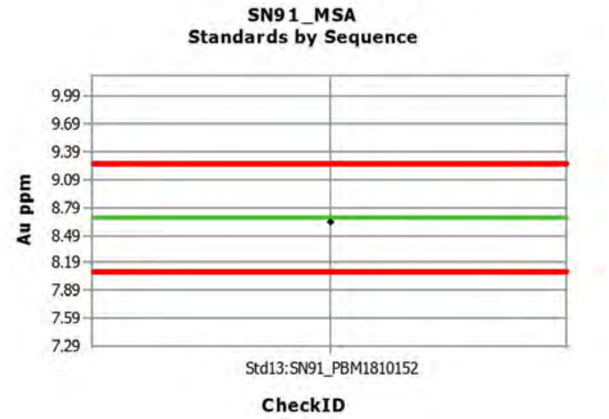


StandardID: SN91_MSA
Name: Au_Minus_MSC550_ppm
LDL: <0.005

No Standards: 1
STD Value: 8.679
SD of CRM: 0.194

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

SN91_MSA (Au_Plus_MSC550_ppm)

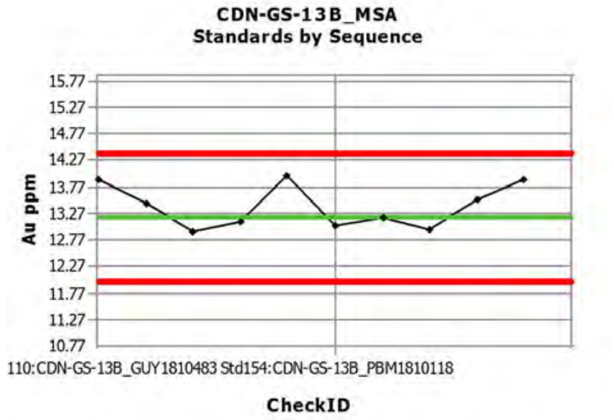


StandardID: SN91_MSA
Name: Au_Plus_MSC550_ppm
LDL: <0.05

No Standards: 1
STD Value: 8.679
SD of CRM: 0.194

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

CDN-GS-13B_MSA (Au_FAS425_ppm)



StandardID: CDN-GS-13B_MSA
Name: Au_FAS425_ppm
LDL: <0.05

No Standards: 10
STD Value: 13.18
SD of CRM: 0.405

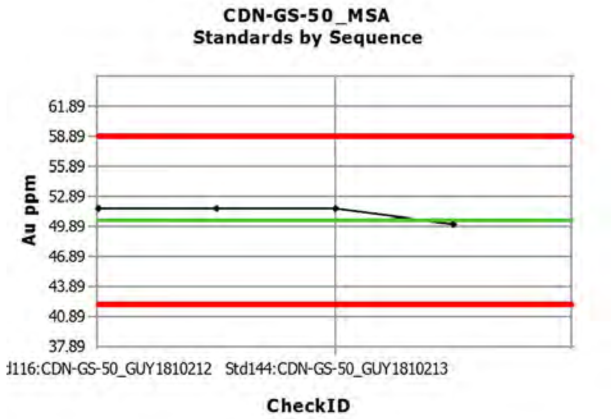
Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4

Reporting Period: 1-Jan-2018 To 14-Jan-2019

CDN-GS-50_MSA (Au_FAS425_ppm)

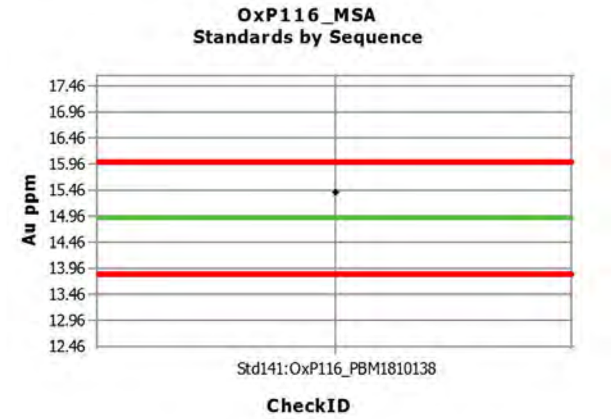


StandardID: CDN-GS-50_MSA
Name: Au_FAS425_ppm
LDL: <0.05

No Standards: 4
STD Value: 50.5
SD of CRM: 2.8

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

OxP116_MSA (Au_FAS425_ppm)



StandardID: OxP116_MSA
Name: Au_FAS425_ppm
LDL: <0.05

No Standards: 1
STD Value: 14.92
SD of CRM: 0.36

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

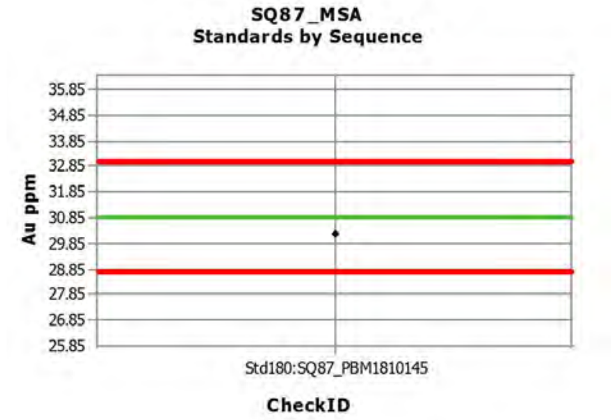
OxQ90_MSA (Au_FAS425_ppm)

StandardID: OxQ90_MSA
Name: Au_FAS425_ppm
LDL: <0.05

No Standards: 2
STD Value: 24.88
SD of CRM: 0.56

Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

SQ87_MSA (Au_FAS425_ppm)



StandardID: SQ87_MSA
Name: Au_FAS425_ppm
LDL: <0.05

No Standards: 1
STD Value: 30.87
SD of CRM: 0.717

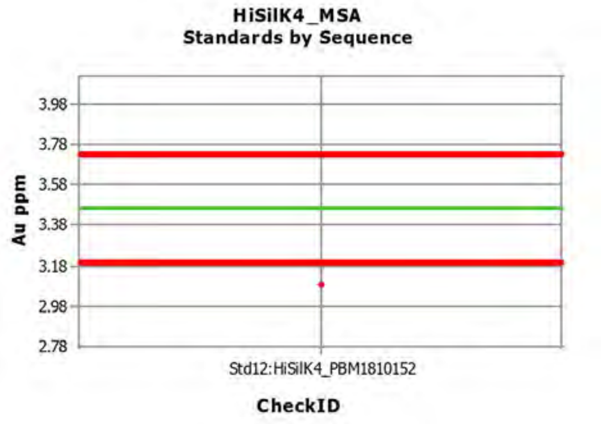
Outside ±2 SD of CRM: 0
Outside ±3 SD of CRM: 0

QAQC - LABORATORY STANDARDS

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4

Reporting Period: 1-Jan-2018 To 14-Jan-2019

HiSilK4_MSA (Au_Minus_MSC550_ppm)

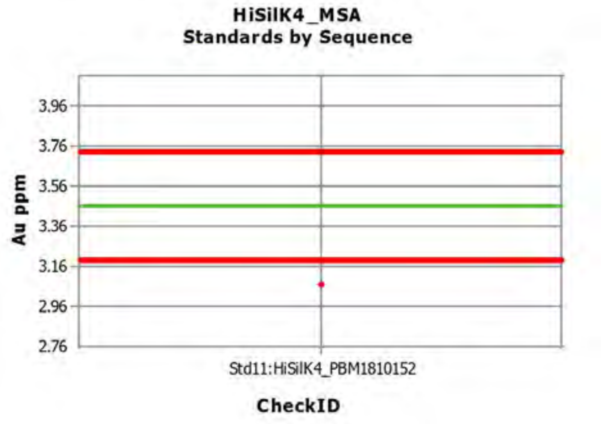


StandardID: HiSilK4_MSA
Name: Au_Minus_MSC550 ppm
LDL: <0.005

No Standards: 1
STD Value: 3.463
SD of CRM: 0.09

Outside ±2 SD of CRM: 1
Outside ±3 SD of CRM: 1

HiSilK4_MSA (Au_Plus_MSC550_ppm)



StandardID: HiSilK4_MSA
Name: Au_Plus_MSC550_ppm
LDL: <0.05

No Standards: 1
STD Value: 3.463
SD of CRM: 0.09

Outside ±2 SD of CRM: 1
Outside ±3 SD of CRM: 1

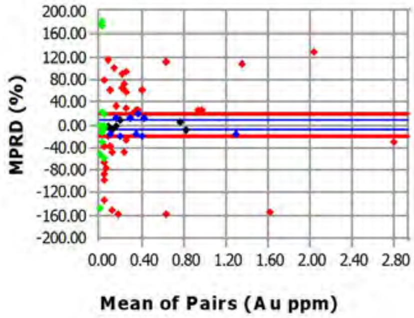
QAQC ON IMPORT - PAIRED DATA

ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4 — **Report Date:** 18-Jan-2019

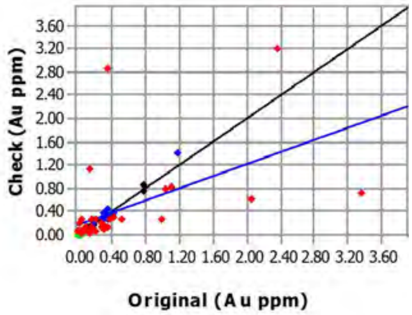
COREDUP (Au_FA50_ppm)

	Original	Check		Original	Check	Pairs					
Min:	0.011	0.023	**Max:**	3.361	3.216	**Total No Pairs:**	65	**No <Threshold:**	14	**No >Threshold:**	51
Mean:	0.43	0.4	**Median:**	0.22	0.2	**LDL:**	<0.005	**CC:**	0.5343	**Outside ±10%:**	45/88.2%
SD:	0.63	0.62	**CV:**	1.47	1.54	**AMPRD %:**	55.7	**Bias:**	-0.07	**Outside ±20%:**	36/70.6%

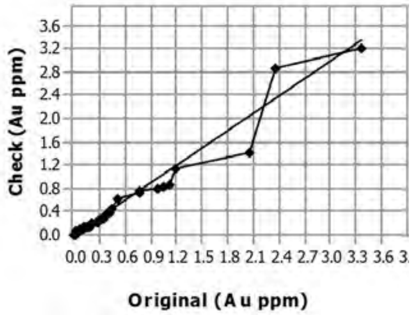
MPRD by Mean Grade (CoreDup)



Correlation Plot (CoreDup)



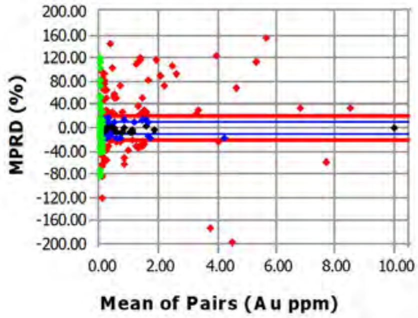
QQ Plot (CoreDup)



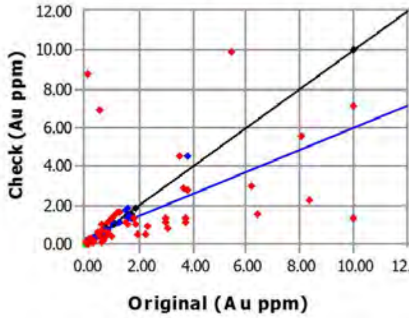
COREDUP (Au_FAS121_ppm)

	Original	Check		Original	Check	Pairs					
Min:	0.022	0.02	**Max:**	10	10	**Total No Pairs:**	206	**No <Threshold:**	66	**No >Threshold:**	140
Mean:	1.21	1.01	**Median:**	0.49	0.39	**LDL:**	<0.005	**CC:**	0.6524	**Outside ±10%:**	107/76.4%
SD:	1.96	1.72	**CV:**	1.62	1.71	**AMPRD %:**	39	**Bias:**	-0.17	**Outside ±20%:**	86/61.4%

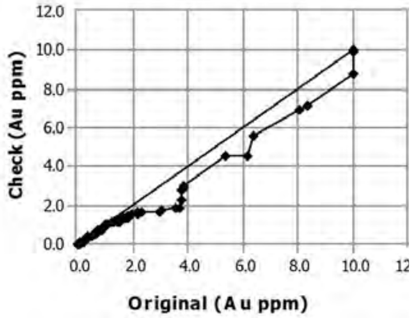
MPRD by Mean Grade (CoreDup)



Correlation Plot (CoreDup)



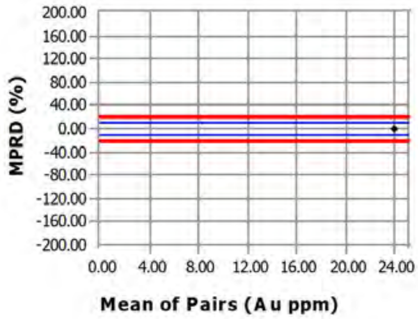
QQ Plot (CoreDup)



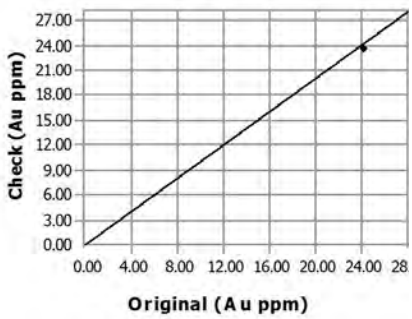
COREDUP (Au_FAS425_ppm)

	Original	Check		Original	Check	Pairs					
Min:	24.1	23.76	**Max:**	24.1	23.76	**Total No Pairs:**	1	**No <Threshold:**	0	**No >Threshold:**	1
Mean:	24.1	23.76	**Median:**	24.1	23.76	**LDL:**	<0.05	**CC:**	0	**Outside ±10%:**	0/0%
SD:	0	0	**CV:**	0	0	**AMPRD %:**	1.4	**Bias:**	-0.01	**Outside ±20%:**	0/0%

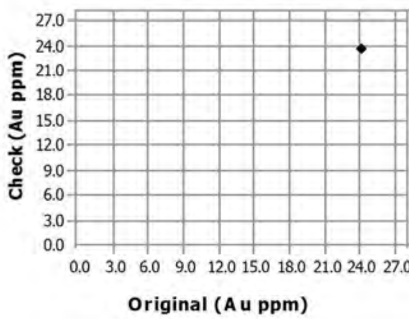
MPRD by Mean Grade (CoreDup)



Correlation Plot (CoreDup)



QQ Plot (CoreDup)

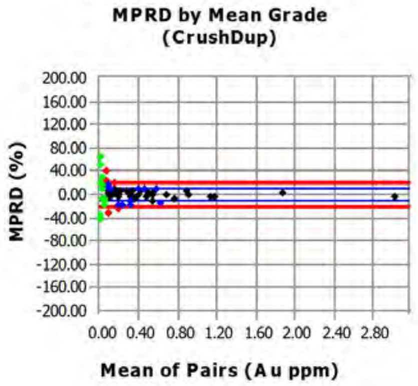


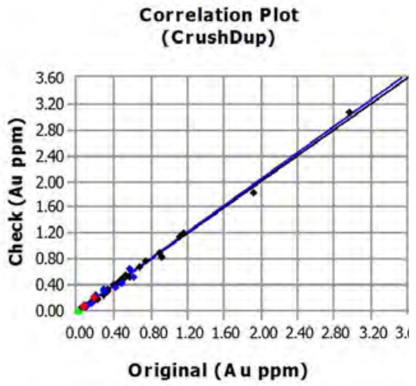
QAQC ON IMPORT - PAIRED DATA

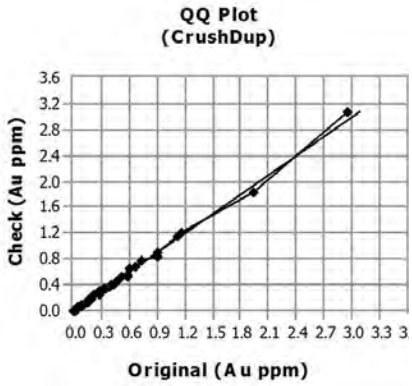
ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4
Report Date: 18-Jan-2019

CRUSHDUP (Au_FA50_ppm)

	Original	Check		Original	Check	Pairs					
Min:	0.054	0.048	**Max:**	2.96	3.08	**Total No Pairs:**	66	**No <Threshold:**	13	**No >Threshold:**	53
Mean:	0.42	0.42	**Median:**	0.28	0.31	**LDL:**	<0.005	**CC:**	0.9976	**Outside ±10%:**	16/30.2%
SD:	0.5	0.5	**CV:**	1.19	1.21	**AMPRD %:**	8.7	**Bias:**	0	**Outside ±20%:**	5/9.4%

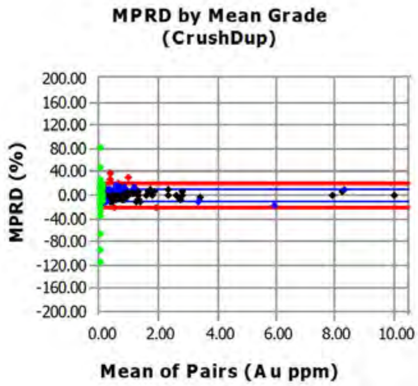


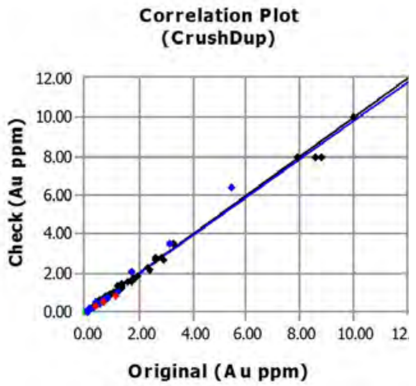


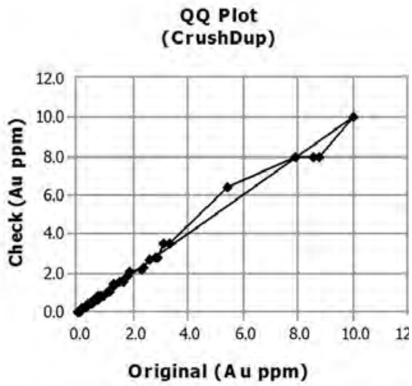


CRUSHDUP (Au_FAS121_ppm)

	Original	Check		Original	Check	Pairs					
Min:	0.047	0.045	**Max:**	10	10	**Total No Pairs:**	199	**No <Threshold:**	71	**No >Threshold:**	128
Mean:	1.01	1	**Median:**	0.4	0.39	**LDL:**	<0.005	**CC:**	0.9968	**Outside ±10%:**	29/22.7%
SD:	1.83	1.81	**CV:**	1.81	1.81	**AMPRD %:**	7.1	**Bias:**	-0.01	**Outside ±20%:**	6/4.7%

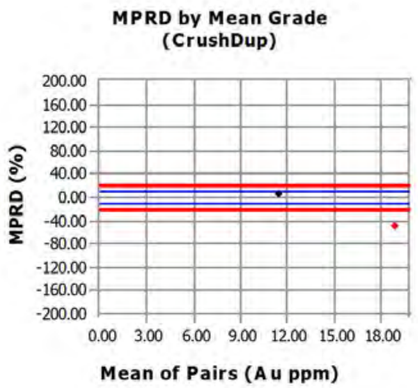


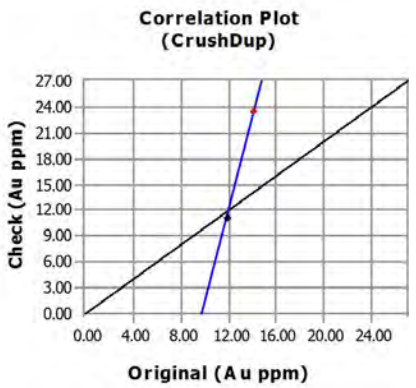


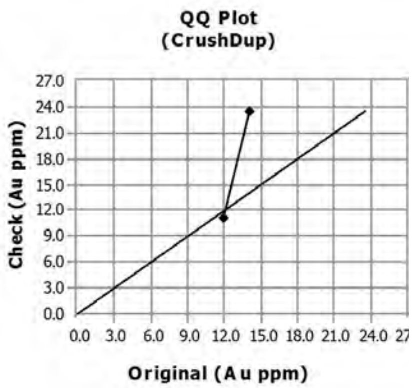


CRUSHDUP (Au_FAS425_ppm)

	Original	Check		Original	Check	Pairs					
Min:	11.89	11.07	**Max:**	14.15	23.52	**Total No Pairs:**	2	**No <Threshold:**	0	**No >Threshold:**	2
Mean:	13.02	17.3	**Median:**	13.02	17.3	**LDL:**	<0.05	**CC:**	1	**Outside ±10%:**	1/50%
SD:	1.6	8.8	**CV:**	0.12	0.51	**AMPRD %:**	28.4	**Bias:**	0.33	**Outside ±20%:**	1/50%





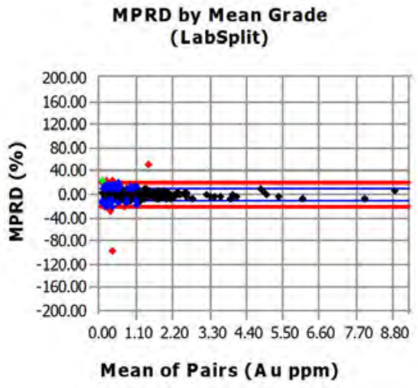


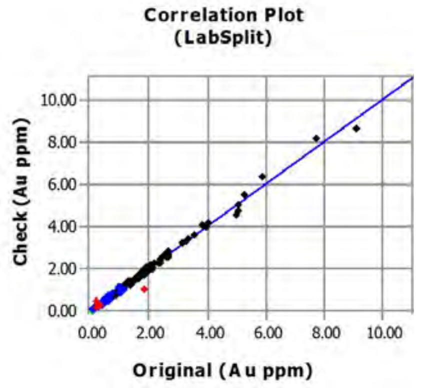
QAQC ON IMPORT - PAIRED DATA

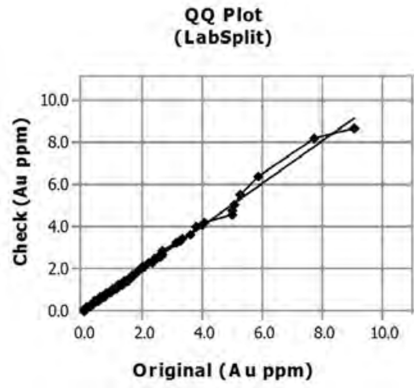
ProjectCode(s): DO
SampleType(s): DD1/2 , DD1/4 **Report Date:** 18-Jan-2019

LABDUP (Au_FA50_ppm)

	Original	Check		Original	Check	Pairs					
Min:	0.061	0.059	**Max:**	9.1	8.601	**Total No Pairs:**	313	**No <Threshold:**	1	**No >Threshold:**	312
Mean:	0.97	0.97	**Median:**	0.63	0.61	**LDL:**	<0.005	**CC:**	0.9965	**Outside ±10%:**	70/22.4%
SD:	1.1	1.11	**CV:**	1.13	1.14	**AMPRD %:**	7	**Bias:**	0	**Outside ±20%:**	14/4.5%

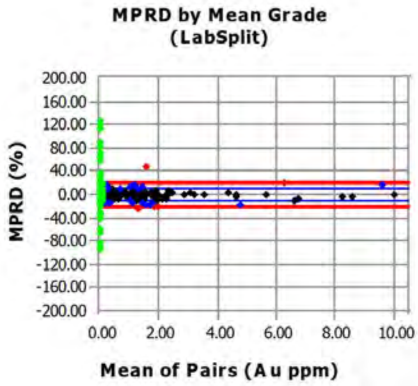


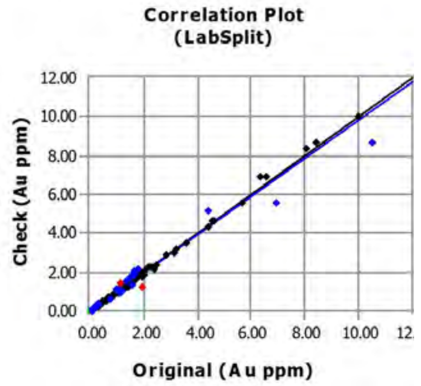


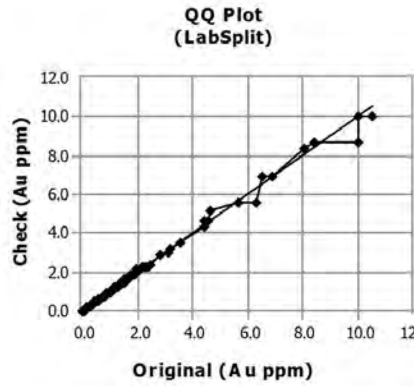


LABDUP (Au_FAS121_ppm)

	Original	Check		Original	Check	Pairs					
Min:	0.044	0.043	**Max:**	10.5093 7876	10	**Total No Pairs:**	340	**No <Threshold:**	105	**No >Threshold:**	235
Mean:	1.08	1.08	**Median:**	0.36	0.37	**LDL:**	<0.005	**CC:**	0.9945	**Outside ±10%:**	46/19.6%
SD:	1.77	1.76	**CV:**	1.64	1.63	**AMPRD %:**	6.4	**Bias:**	0	**Outside ±20%:**	5/2.1%

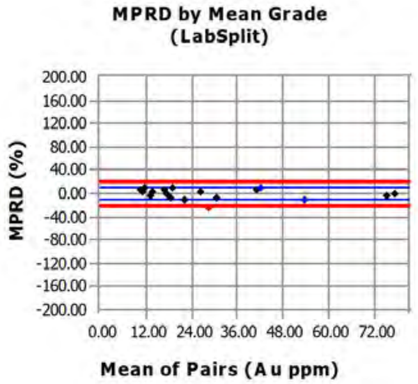


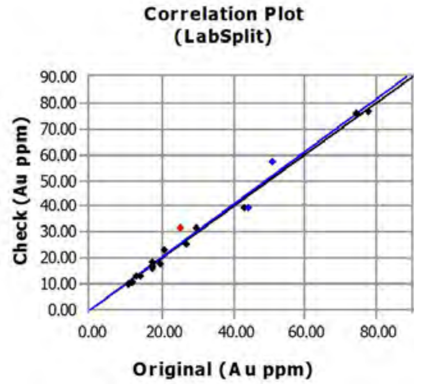


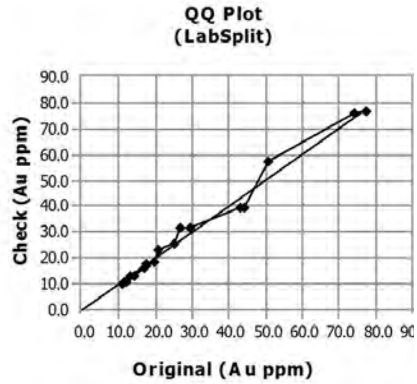


LABDUP (Au_FAS425_ppm)

	Original	Check		Original	Check	Pairs					
Min:	10.732	10.11	**Max:**	77.56	77.131	**Total No Pairs:**	18	**No <Threshold:**	0	**No >Threshold:**	18
Mean:	29.17	29.52	**Median:**	20.37	20.96	**LDL:**	<0.05	**CC:**	0.9914	**Outside ±10%:**	3/16.7%
SD:	20.7	21.22	**CV:**	0.71	0.72	**AMPRD %:**	7.2	**Bias:**	0.01	**Outside ±20%:**	1/5.6%







QAQC - PAIRED DATA

ProjectCode(s): DO

SampleType(s): DD1/2 , DD1/4 **Report Date:** 18-Jan-2019

(CoreDup), non matching assay methods

	Original	Check		Original	Check	Pairs					
Min:	0.003	0.0025	**Max:**	111.5	50.73	**Total No Pairs:**	824	**No <Threshold:**	0	**No >Threshold:**	824
Mean:	1.76	1.64	**Median:**	0.86	0.83	**LDL:**	0.01	**CC:**	0.3593	**Outside ±10%:**	675/81.9%
SD:	5.17	3.91	**CV:**	2.94	2.39	**AMPRD %:**	43	**Bias:**	-0.07	**Outside ±20%:**	524/63.6%