



# Roscan Gold Corporation

Technical Report on the Kandiole Project  
Mali

Ivor Jones, FAusIMM, P.Geo

David Reading, Fellow SEG, Fellow IOM3

land Ward, P.Eng

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# 1 SUMMARY

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This technical report describes the Kandiole Project of Roscan Gold Corporation. The project area is situated in West Africa and located in Western Mali south of the town of Kenieba.

Aurum Consulting was retained by Roscan Gold Corporation to prepare an initial Mineral Resource estimate and a supporting independent Technical Report on the Kandiole project.

The purpose of this report is to document the initial Mineral Resource Estimate conforming to NI 43-101 Standards of Disclosure for Mineral Projects.

Aurum's principal, Ivor Jones and another independent consultant working for Aurum undertook visits to the project during Q3 and Q4 2021.

## 1.1 PROPERTY DESCRIPTION AND OWNERSHIP

The Kandiole Project is comprised of ten contiguous gold exploration permits, encompassing approximately 401.8 sq. kilometres and located within the Kéniéba "Cercle", an administrative sub-area of the Kayes Region, some 420 km west of Bamako, the capital of Mali in West Africa.

The Kandiole Project permits all locate within volcano-sedimentary sequences of the Paleoproterozoic, Birimian Supergroup and are situated within the Kenieba - Kedegou Inlier (KKI) covering western Mali and eastern Senegal. The KKI hosts multiple gold mining operations in western Mali which include those of the Loulo Project (Barrick), Fekola (B2 Gold) and Sadiola (currently Allied Gold corporation and previously AngloGold Ashanti and lamgold).

As of the date of this report, the Company has exercised various option and purchase agreements and holds a 100% interest in eight exploration permits. Two agreements are active and once exercised will facilitate a 100% interest in the permits of Segando West and Bantanko East. An independent legal opinion indicates that all permits are in good standing and valid under the provisions of the mining code of the Republic of Mali.

## 1.2 SUMMARY OF GEOLOGY AND MINERALIZATION

The Kandiole Project locates within the Birimian Supergroup portion of the West African craton. The Paleoproterozoic Birimian terranes include shear bounded, linear and arcuate volcano-sedimentary belts, younger sedimentary basins, and granitoid-dominated terranes. The Birimian constitutes the largest Paleoproterozoic gold-producing region for Orogenic style gold deposits within the world, and one of the world's leading gold provinces. It is reported to have an overall endowment of more than 460 million ounces including past production and 2017 Resource inventories (GoldFarb et al, 2017).

The Kedougou-Kenieba inlier (KKI) in western Mali and eastern Senegal represents the westernmost exposure of the Birimian Supergroup within the West African Craton. The Birimian domains of the Kédougou-Kéniéba inlier have been subdivided into a various series, the easternmost of which, the Kofi series, hosts the principal package of metasediments and minor volcanoclastics covering the Kandiole project area. The Kofi series is interpreted to represent a fore-arc environment with a sequence of shelf carbonates, calcareous and clastic units as well as turbiditic sedimentary sequences. The Kofi metasedimentary sequence hosts multiple peraluminous diorite, monzogranite and granite intrusive bodies. The Kofi series rock packages are subject to at least two, Birimian aged, deformation events. An early period of contractional deformation with associated reverse faulting and folding (D1), and a subsequent period of transcurrent deformation during which a second episode of folding was followed by sinistral displacement on N-striking shear zones (D2). The Transcurrent deformation event is thought to be synchronous with gold mineralization and the emplacement of various peraluminous intrusive bodies. All the rock packages of the Kofi series are subject to greenschist facies metamorphism.

The Malian portion of the KKI represents one of the largest orogenic gold districts within the Birimian of West Africa and includes the mines of Loulo-Goukoto complex (Gara, Yalea, Goukoto and various satellites), the Fekola deposit, The Tabakoto Mines, Sadiola and various recently discovered deposits locating on the eastern side of the Kofi Series such as those described in this report. There is a spatial relationship between the western deposits (Fekola and the Loulo-Goukoto complex) and the Senegal-Malian shear zone corridor. A new structural corridor, referred to in this report as the Siribaya Mankouke-Kabaya-Seko Structural Corridor (SMKS) spatially links the deposits of Siribaya (lamgold), Roscan's new deposits (Mankouke South, Mankouke Central, KN2 and 4 and Kabaya) and the Seko deposits (Oklo). The corridor has been identified through interpretation of the Electromagnetic and magnetic geophysical data sets.



The Kandiole project area has limited outcrop and is characterized by low relief and a heavily lateritised terrane with surface gravels, saprolite and various elevations of Ferricrete plateau. Roscan has undertaken extensive geophysical surveys and various drilling programs to assist in understanding the geology of the project area. The principal geological features are the Gamaye granite pluton in the west, the metasedimentary sequences of the Kofi series and a diorite sill covering most of the Niala permit in the east. The various lithologies identified during the drilling programs include western, predominantly finer grained (mudstone-siltstone) package and a central-eastern package containing a combination of siltstone-shale-calcareous marls, limestones, greywackes (volcanic component), some sandstones and conglomerate-breccia (diamictite) units. Various diorite and dacite porphyry bodies have intruded the metasedimentary packages. A steeply dipping regional foliation is well developed in the area and shows a north-northeast to south-southwest orientation. Individual rock formations are strongly sheared and folding, faulting and brecciation are locally developed.

The deposits of Mankouke South, Mankouke Central, KN2 and 4 and Kabaya locate within the SMKS corridor and the other deposits of KN1 and MOU1 locate within northerly splays linked to this structural corridor.

The principal deposits identified by Roscan to date are Mankouke South, Kabaya and KN1 with satellites outlined at Mankouke Central, KN2-4 and MOU1.

At Mankouke South the lithostratigraphy consists of impure, rhythmically bedded marl/mudstone packages (MSCA) and sequences of clastic and carbonate sedimentary rocks, including sedimentary breccia (debris flow), arenite, wacke, shale/pelite and limestone. A dacite porphyry unit has intruded the clastic sequence. Gold mineralization in the main deposit, MS1, is located within the clastic sequence and a dacite porphyry unit and bounded in the east and west by two sheared zones in contact with the carbonaceous mudstone-marl (MSCA) footwall and the limestone of the hanging wall. MS3 mineralization is associated with the nose of a dacite intrusive body and MS2 locates within a structural wedge in the clastic sediments in contact with the MSCA and due west of MS1.

At Kabaya there are two principal mineralization zones, eastern (KB1) and western bodies (KB2) which relate to NNE-SSE brittle shear structures at the contact with the MSCA and clastic units. KB1 and KB2 locate within the western and eastern limbs of a NNE trending, anticlinal fold axis.

At the KN1 deposit, the mineralization is related to NE-SW and east-west orientated quartz and sulphide veins which spatially associated with a NE-SW orientated shear zone at the contact between a greywacke unit and the MSCA.

In the principal deposits (Mankouke South, Kabaya and KN1) the weathered profile is generally well developed. The lateritic crust reaches up to 17 m, with the maximum saprolite depth of approximately 160 m recorded within the mineralized zones. The thicker saprolite in the mineralized areas is interpreted to relate to more intense weathering of these zones due to the presence of alteration minerals and the inflow of groundwaters within the associated shear structures.

Examination of cores within the principal deposits indicates that gold mineralization in fresh bedrock is associated with albite-silica-carbonate-sericite alteration, sometimes with magnetite and locally tourmaline. Gold locates with disseminated sulphides (pyrite, arsenopyrite and pyrrhotite) in association with quartz and some carbonate veins, veinlets and sulphide stringers which can be foliation parallel (N15-20) or tensional and locating within more competent zones at various EW to NE orientations.

In summary, the deposits of the Kandiole project display geological, structural, alteration and mineralization characteristics which are typical of the main deposits discovered to date in this region of Western Mali

### 1.3 SUMMARY OF EXPLORATION WORK UNDERTAKEN ON THE KANDIOLE PROJECT

Historical exploration work over the Kandiole project area involved regional programs and permit exploration. Regional work was historically undertaken by BRGM/DNGM and the Sysmin funded program, in collaboration with DNGM. All of western Mali was covered with multi-element soil (1600 m by 500 m) and an airborne magnetic and radiometric survey at a 200 m line spacing. Interpretation of this work resulted in the identification of a number of the major deposits (ie Sadiola and Gara) and the regional structures.

Historical, permit scale exploration has been undertaken by Ashanti Mali SARL, Robex, Komet and various groups on the two, recently acquired permits in the NW. The Ashanti programs involved soil sampling for gold and arsenic at various grids covering a large portion of the Kandiole project area but excluding the southern Mankouke permits. Robex followed up on this work with detailed soil grids for gold which outlined the Kabaya deposit. A detailed gravity survey, trenching and drilling was then undertaken at Kabaya. Komet Resources then acquired the same permit area (Dabia Sud) in 2017 and undertook further RC drilling. In total, AC and RC drilling undertaken at Kabaya by Robex and later by Komet totals 82 holes (12,530m) and this data has been included in the current Mineral Resource Estimate ("MRE").



Roscan has been active on the Kandiole project since 2016 until present and has undertaken various exploration programs which include: extensive soil and termite geochemistry grids for gold; a detailed, hi resolution, helicopter, electromagnetic and magnetic geophysical survey; various ground geophysical surveys (Induced polarization and magnetics) and extensive drilling which as at 25<sup>th</sup> March 2022 included 8,415 AC holes (338,374m), 328 RC holes (38,179m) and 185 diamond holes (35,559m).

Roscan has covered all the licence areas with soil and /or termite geochemistry and then followed up on anomalous zones with AC drilling to outline saprolite mineralization. This work has been effective in highlighting multiple gold targets. Priority areas were then selected for follow up RC and DD drilling which has led to new discoveries at Mankouke South, Mankouke Central, KN1, KN4 and 4 and MOU1. Up until 25<sup>th</sup> March 2022 over 92% of the RC drilling and 96% of the diamond drilling has been focused in these specific targets and has resulted in the deposit resources outlined in this report.

A target generative study was undertaken on the Kandiole project by Roscan in H1, 2021 and involved integration of all geochemical and drilling data with geophysical interpretations and surface geology and regolith mapping. A final litho-structural interpretation was produced and outlined the main geology domains and structural corridors. This work highlighted the SMKS structural corridor and potentially linking structures. The Mankouke, Kabaya and KN deposits are spatially associated with SMKS corridor and related second order structures. The generative study resulted in the production of a target map which highlights the presence of multiple additional targets which remain, at the date of this report, untested by RC and DD drilling programs.

## 1.4 METALLURGICAL TESTWORK

A detailed metallurgical testing program of a representative number of samples from the Kandiole group of deposits was undertaken at Base Metallurgical Laboratories (BML) in Kamloops, British Columbia in late 2021. The sampling covered both saprolite and fresh rock or bedrock zones from Mankouke South, Mankouke Central, KN1 and Kabaya.

The testing program was designed to determine comparative metallurgical parameters for the various zones and to verify that the gold could be extracted by basic processing techniques. The results of the various metallurgical tests demonstrate that the mineralization is free milling, meaning that the gold (and silver), can yield high extraction using gravity recovery plus cyanide leaching under conditions typical to the industry.

Some of the composite samples were somewhat higher in gold content than may be expected from the resource model and potentially mineable material, but from the testing results a lower grade feed does not appear to significantly impact the recovery. Gold recovery total of 95% for saprolite and 90% for saprock and bedrock are reasonable estimates for the lower grade feeds based on the test results attained.

Further metallurgical testing is recommended in order to optimize grind size, reagent addition and leach time in support of feasibility level studies and process design.

## 1.5 MINERAL RESOURCE ESTIMATION

Aurum Consulting, on behalf of Roscan Gold Corporation, has completed the estimation of a mineral resource as documented in this report (Table 1.1). Resource estimation was prepared using ordinary kriging and standard estimation practices.

The Mineral Resources are derived from six deposit areas, including, in order of size, Mankouke South, Kabaya, Kandiole 1, Mankouke Central, Kandiole 2 4 and Moussala. The input data for the resource estimate comprises information from 1,789 drill-holes totaling 135,045 metres, including 38,357 metres of diamond drill holes (DD and RCDD), 35,634 metres of reverse circulation holes (RC) and 61,054 metres of air core holes (AC).

A marginal cutoff grade (COG) of 0.30 g/t Au has been applied for oxide mineralization, and 0.42 g/t for fresh and using a pit optimization based on a gold price of US\$1500/oz. The Mineral Resource (MR) is reported with only the blocks within a conceptual open pit shell, developed using the following assumptions:

- Gold Price: \$1500 /oz
- Mining Cost: \$1.75 /t for laterite and saprolite, \$2.50 /t for saprock, \$2.75 /t for fresh rock
- Mining Recovery: 95%
- Dilution: 5%
- Geotechnical slope angles: 35° for laterite and saprolite, 40° for saprock and fresh rock.



The Mineral Resource classification resulted in Indicated Resources of 27.4 Mt at 1.2 g/t Au for 1,018 koz, and Inferred resource of 5.2 Mt at 1.2 g/t Au for 199 koz. Approximately 70% of all the classified Resources locate within the oxide zone (laterite, saprolite and saprock).

Validation of the grade estimation showed good predictability of the model and generally good model validation. It is the QP's opinion that the Mineral Resource is robust and the confidence in the estimates is adequately reflected in the resource classification.

Table 1.1 Detailed Summary of the Mineral Resources for the Kandiole Gold Project, 31 March 2022\*\*

Mineral Resource Category	Target Area	Mineral Resource (0.3/0.42 g/t Au cut-off)			Sensitivity (0.5 g/t Au cut-off)		
		Tonnes (In Situ)	Gold Grade	Gold Content	Tonnes (In Situ)	Gold Grade	Gold Content
		mt	g/t	koz	mt	g/t	koz
Indicated	Mankouke South	15.2	1.3	657	11.9	1.6	613
	Mankouke Central	0.9	1.7	47.5	0.7	2.0	45.1
	Kandiole	2.8	0.9	79.7	1.8	1.2	67.2
	Kabaya	8.5	0.9	234	5.6	1.1	197
	<b>Total Indicated</b>	<b>27.4</b>	<b>1.2</b>	<b>1,018</b>	<b>20.0</b>	<b>1.5</b>	<b>923</b>
Inferred	Mankouke South	2.8	1.4	124	2.2	1.6	116
	Mankouke Central	0.1	0.8	1.4	0.0	1.2	1.0
	Kandiole	0.7	1.1	23.1	0.4	1.5	20.2
	Kabaya	1.2	0.8	32.7	0.8	1.0	28.0
	Kandiole North 2 and 4	0.3	0.9	8.7	0.2	1.1	7.6
	Moussala	0.2	1.4	8.5	0.2	1.2	8.0
<b>Total Inferred</b>	<b>5.2</b>	<b>1.2</b>	<b>199</b>	<b>3.8</b>	<b>1.4</b>	<b>181</b>	

1. The effective date of the Mineral Resource Estimate is 31 March, 2022.
2. A marginal Cutoff-Grade of 0.30 g/t Au is applied for oxide mineralization, and 0.42 g/t for fresh.
3. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues. The Mineral Resources in this Technical Report were estimated using CIM (2014) Standards on Mineral Resources and Reserves, Definitions and Guidelines.
4. A test to determine whether or not there is a Reasonable Expectation of Economic Extraction of Mineral Resources was completed using a pit optimisation based on a gold price of US\$1500/oz.
5. The quantity and grade of reported the Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define this Inferred Resource as an Indicated or Measured Mineral Resource. It is uncertain if further exploration will result in upgrading the Inferred Resource to an Indicated or Measured Mineral Resource category.
6. Contained metal and tonnes figures in totals may differ due to rounding.

During the technical work to define the mineral resource, each of the resource models was tested to check for a Reasonable Expectation of Economic Extraction (REEE). As part of the REEE, the model was tested at various gold prices.

Table 1.2 Pit Optimisation Results for the Kandiole Gold Project, 31 March 2022\*\*

	\$1500 /oz	\$1800 /oz	\$1900 /oz	\$2000 /oz
Tonnes (mt)	38.2	42.3	47.2	50.1
Grade (g/t Au)	1.04	0.94	0.92	0.89
Metal (mOz)	1.28	1.37	1.40	1.43
Strip Ratio	2.70:1	2.52:1	2.45:1	2.44:1

1. These results are pit evaluation results and differ to the mineral resource.
2. The cut-off grade varies according to the area being tested and is defined by the strip ratio and applied mining costs. The effective cut-off grade also varies by gold price and state of weathering.
3. These results also include mineralization as dilution which is below the cut-off grade for the mineral resource, but is above the marginal cut-off grade.

In the areas modelled to define the Mineral Resource, there remains exploration potential to the north and south of the pits, but also below the pits in plunging mineralization. To define the Mineral Resource, a test for reasonable expectation of



economic extraction was applied by doing a pit evaluation at a gold price of \$1500 per ounce. The gold price at the time of writing this report was approximately \$1830 per ounce. In addition to the pits being defined on a low metal price, exploration has not fully defined the mineralization below the pits. The incomplete exploration and the low metal price provide an opportunity for additional exploration to try and define additional resources.

The QP therefore decided it was appropriate to consider this modelled material as a reasonable basis to define an exploration target. In addition to the higher confidence resource estimates the model also included lower confidence grade estimates that did not meet the company's criteria for defining the Mineral Resource.

An Exploration Target must be reported using a range of tonnes and a range of grades as per 43-101 specifications. The exploration target defined in this report is derived from the grade-tonnage model used to define the mineral resource. The tonnage and Au grade estimates outside of the pit shells have been reported using a cut-off grade of 0.3 g/t Au (oxide) and 0.42 g/t Au (fresh) for the Upper Tonnage Range of the estimates and 0.5 g/t for the Lower Tonnage Range estimates. The 0.3 g/t report also includes lower confidence estimates than those for the 0.5 g/t cut-off.

Table 1.3 Exploration Target for the Kandiole Gold Project, 31 March 2022\*\*

Exploration Areas (*)Total	Tonnes (mt)	Au (g/t)
Lower range (*)	8.0	1.0
Upper Range (**)	30.0	0.8

(\*) Upper range from 0.3/0.42 cut-off includes lowest confidence estimates

(\*\*) Lower range from 0.5/0.5 cut-off

Note: the aforementioned "Exploration Target" is reported as a range of quantities and grades. They are conceptual in nature and there has not been sufficient exploration to define a mineral resource. It is uncertain if future exploration will result in the target being delineated as a mineral resource.

## 1.6 LEACHWELL

The Gold mineralization within the Kandiole Project contains a coarse gold component which cannot always be effectively analysed with a 50-gram aliquot used in traditional fire assaying. Furthermore, the fire assay results showed a relatively high degree of variability. Under the supervision of Aurum Consulting a bulk sampling program for LeachWELL analysis was undertaken on 18% of the drilling inventory used in the Resource estimates. Comparison between between 50 g Fire Assay and the larger samples using one-kilogram LeachWELL with atomic absorption finish including tail analysis. The results showed that the grade of mineralized samples with an initial fire assay grade of less than 1.5 g/t Au increased, on average, between 10% and 40%. Furthermore, LeachWELL work enabled better interpretation of mineralized zones due to better definition of continuity. Based on these results it is recommended that further LeachWELL sampling and assaying be undertaken on future drilling programs.

## 1.7 CONCLUSIONS AND RECOMMENDATIONS

This 43-101 Aurum Consulting, on behalf of Roscan Gold Corporation has completed an estimation of a mineral resource, an assessment of various metallurgical sample results, a review and analysis of all exploration data and geology and verification of property ownership as documented in this report. The following conclusions and summarized below:

- The Mineral Resource is robust and the confidence in the estimates is adequately reflected in the resource classification. The classification of resources for all deposits evaluated in this report resulted in Indicated Resources of 27.4 Mt at 1.2 g/t Au for 1,018 koz, and Inferred resource of 5.2 Mt at 1.2 g/t Au for 199 koz. Eighty four percent of the Mineral Resource is classified as Indicated within a US\$1500 pit shell and approximately 70% of all the classified resources locate within the oxide zone (laterite, saprolite and saprock).
- At the current gold price of over US\$1800 /oz, there remains exploration potential to the north and south of the pits, but also below the pits in plunging mineralization. This potential has been defined as an exploration target with a range of quantities and grades as in conceptual in nature. At the various prescribed cut-off this target ranges from 8 Mt at 1.0 g/t Au to 30 Mt at 0.8 g/t Au.



- A review of all the available fire assay data within the Resource database highlights considerable variability in grade populations due to a coarse gold component. Under the supervision of Aurum Consulting a bulk sampling program for LeachWELL analysis was undertaken on 18% of the drilling inventory. Mineralized samples with an initial fire assay grade of less than 1.5 g/t Au increased, on average, between 10% and 40% with the LeachWELL methodology. There was also greater continuity of grade enabling more effective wireframing of the mineralized zone.
- The results of the various metallurgical tests demonstrate that the mineralization is free milling, meaning that the gold (and silver), can yield high extraction using gravity recovery plus cyanide leaching under conditions typical to the industry.
- Roscan has undertaken comprehensive exploration programs including extensive soil and termite geochemistry for gold; a detailed, hi resolution, helicopter, electromagnetic and magnetic geophysical survey; various ground geophysical surveys (Induced polarization and magnetics) and extensive drilling which as at 25<sup>th</sup> March 2022 included 8,415 AC holes (338,374m), 328 RC holes (38,179m) and 185 diamond holes (35,559m). Aurum has conducted a comprehensive review of all exploration data and is of the opinion that the work conducted was in accordance with Industry standards.
- The Roscan exploration methodology includes soil-termite geochemistry with geology interpretation to highlight priority areas for follow up air core drilling. Results from the AC drilling identified areas with saprolite gold mineralization. Areas were then identified for phased RC and diamond drilling. This work led to the discovery of Mankouke South, Mankouke Central, KN1, 2 and 4 and Moussala (MOU). The Kabaya deposit was acquired from Komet Resources. Over 92% of the RC drilling and 96% of the diamond drilling has been focused in these specific targets and has resulted in the deposit mineral resources outlined in this report.
- The target generative study of Roscan was reviewed by Aurum. This work highlighted the principal geological domains and major gold bearing structures such as SMKS corridor and its potentially linking structures. The deposits with Resources, as defined in this report are all spatially associated with SMKS corridor and related second order structures. The generative study resulted in the production of a target map which highlights the presence of multiple additional targets which remain, at the date of this report, untested by RC and DD drilling programs.

Based on the above conclusions the following recommendations are outlined for the Kandiole Project area:

1. Replacement of the air core holes with RC and DD as further drilling is undertaken within the Resource deposits.
2. Maintain the current QA\QC protocols and policy regarding frequency of insertions as historical data highlighted lower insertion frequencies and more variable results.
3. Continue to use RC drilling for sampling where reasonable in future exploration programs as this will increase the sample size and help reduce grade variability and improve precision.
4. Continue to use LeachWELL methodology for assaying in future exploration programs as this will reduce grade variability/improve precision.
5. Further metallurgical testing is recommended in order to optimize grind size, reagent addition and leach time in support of feasibility level studies and process design. Samples from any parts of the deposits, and within probable pit limits, which show different mineralogical characteristics should also be tested to ensure that gold recovery estimates are based on adequate data.
6. All of the work completed to date needs to be assessed with the objective of determining what would be the minimum threshold required for a standalone mining operation within the Kandiole project area.
7. A two-phase exploration and project development program and budget is recommended, as outlined by Roscan and reviewed by Aurum.
  - a. The phase one program is designed to find potentially economic, additional resources mainly within the existing Resource areas either at depth or laterally. The program will also involve drill testing of new targets such as Disse and Walia and termite geochemistry in the NW permits to complete 100% coverage of all of the whole Kandiole project area. A budget of US\$9 million is allocated and includes provision for 20,000m RC+DD drilling with additional AC drilling and geochemical programs. At the time of writing this report the phase one program was in progress and had commenced in March 2022.
  - b. The second phase will involve various technical studies designed to complete a detailed Preliminary Economic Assessment ("PEA"). This will include variability metallurgical testwork, environmental base line and social studies, an updated Resource estimate, geotechnical studies, pit optimisation studies, preliminary process design, preliminary tailings storage facility design and opex and capex estimation. A budget of US\$1.0 million is allocated to achieve the various technical studies.

Note that at the time of completion of this report, approximately 70% of the phase 1 program has been completed.



## 2 INTRODUCTION

Aurum Consulting (“Aurum”) was retained by Roscan Gold Corporation (“Roscan”) to prepare an independent Technical Report on the Kandiole Project located within Kayes Region in western Mali.

The purposes of this NI43-101 Technical Report are to:

- Prepare a mineral resource estimate for the Kandiole Project;
- Provide an independent assessment of the exploration work completed on the Kandiole permits;
- Document the exploration work undertaken and exploration data relating to the Kandiole permits; and
- Provide a recommended work program for the next phase of the Kandiole Project.

This Technical Report is prepared by Aurum in accordance with the reporting requirements set forth in National Instrument 43-101, Standards of Disclosure for Mineral Projects (NI 43-101), Companion Policy 43-101CP and Form 43-101F1.

The effective date of this Technical Report is 31 March 2022, and information in this Technical Report is current as of that date unless otherwise specified.

In August 2021 Roscan contracted Aurum and David Reading to complete an independent review of the Kandiole Project and consider various matters including a geology critique, mineral inventory, potential resources, QA/QC, exploration potential as well as paths the publication of a maiden resource estimate.

Aurum and David Reading used the Roscan database and other Roscan data to confirm the Roscan mineral interpretations and prepare the maiden Mineral Resource presented in this report.

The Qualified Persons for preparation of the report are Mr Ivor Jones, Mr David Reading and Mr Ian Ward (Table 2.1). Mr Ward has not made a current site visit.

The responsibilities of each author, and dates of the site visit are provided in Table 2.1.

Table 2.1 Responsibilities of each co-author

Author	Site Visit	Responsible for section/s
Ivor W.O. Jones		2, 3, 11, 12, 14, 24, and parts of 1, 26 and 27
David Reading		1, 4, 5, 6, 7, 8, 9, 10, 23, 25, 26 and parts of 27
Alan Riles	Not visited	13 and parts of 1, 26 and 27

Unless otherwise stated, all currencies are expressed in [US dollars (\$)].



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### 3 RELIANCE ON OTHER EXPERTS

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The information, conclusions, opinions, and estimates contained herein are based on:

- Information and technical data provided by Roscan Gold Corporation made available to Aurum at the time of preparation of this report;
- Observations made by Qualified Persons on site, and who are signing off on this report;
- Review and assessment of previous investigations.
- Assumptions, conditions, and qualifications as set forth in the report;
- Review and assessment of data, reports, and conclusions from other consulting organizations and previous property owners;
- The authors have made every possible effort to validate the data provided.

Aurum has not performed an independent verification of the land title and tenure information as summarized in Section 4 of this report.

Aurum has relied on Roscan Gold Corporation for guidance on permitting, applicable taxes, royalties, and other government levies or interests, applicable to the Kandiole Project. Aurum understands that the Mali fiscal regime is well understood by Roscan Gold Corporation and its legal and fiscal advisors in Mali and externally.

Aurum has reviewed documents provided by Roscan Gold Corporation and has accepted as accurate and correct the information contained in them.

In preparing this Technical Report, the authors have assumed that all of the information and technical documents reviewed and listed in the References Section are accurate and complete in all material aspects. While Aurum has carefully reviewed all this information, Aurum has not completed any extensive independent investigation to verify their accuracy and completeness.

Roscan Gold Corporation has warranted that a full disclosure of all material information in its possession or control has been made to the authors.

Roscan Gold Corporation has reviewed draft copies of this report for factual errors. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence the statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this report.



## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 KANDIOLE PROJECT PERMITS - LOCATION

The Kandiole Project is comprised of ten contiguous gold exploration permits, encompassing approximately 401.8 sq. kilometres and located within the Kéniéba “Cercle”, an administrative sub-area of the Kayes Region, some 420 km west of Bamako, the capital of Mali in West Africa (Figure 4.1 and Figure 4.2). The centre point of the project area is at approximately 262,000 mE, 1,389,000 mN (WGS84, UTM Zone 29 N) and locates approximately 24km east of the Faleme River (Senegal-Mali border) and 191 km due south of the regional capital, Kayes.

The Kandiole Project permits all locate within volcano-sedimentary sequences of the Paleoproterozoic, Birimian Supergroup and are situated within the Kenieba - Kedegou Inlier (KKI) covering western Mali and eastern Senegal. The KKI in western Mali hosts multiple gold mining operations which include those of the Loulo Project (Barrick), Fekola (B2 Gold) and Sadiola (currently Allied Gold corporation and previously AngloGold Ashanti and Iamgold).

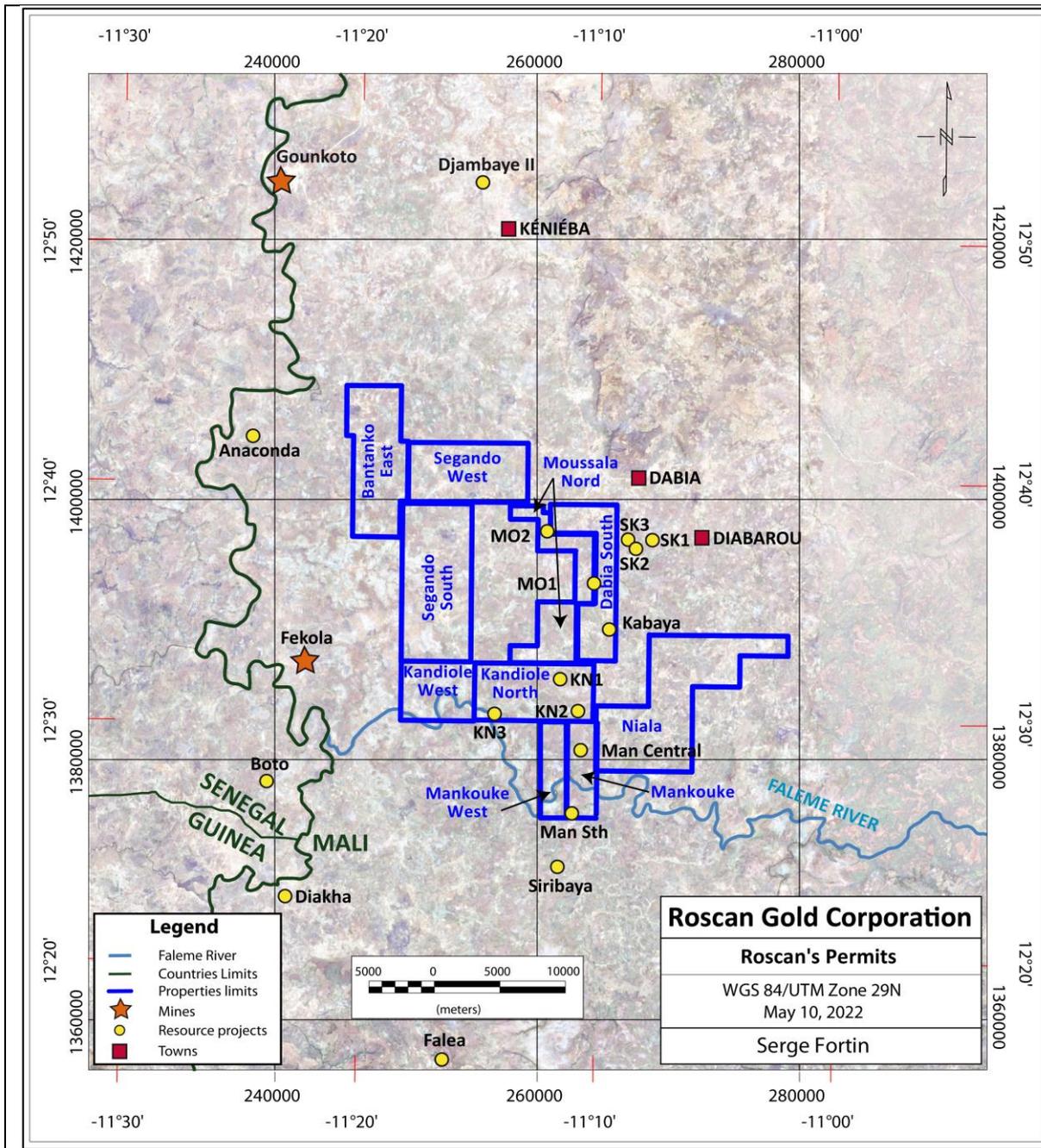
Figure 4.1 Location of Kandiole Project in West Africa and Mali



(Source: Google Maps, 2022 )



Figure 4.2 Location of Kandiole Project Permits in Western Mali



(Source: Diagram provided by Roscan, 2022 )

## 4.2 ISSUER'S INTEREST

Roscan interest in the ten exploration permits which comprise the Kandiole project is summarized in table 4.1. As of the date of this report, the Company has exercised various option agreements, purchased the previous holding Company (Komet) of the Dabia Sud permit and now holds a 100% interest in eight exploration permits. Two agreements are active and once exercised through various payments, will facilitate a 100% interest in the permits of Segando West and Bantanko East.

The Company has eight royalty agreements in place, in the case of future production, with various options to buy back all or a portion of the royalty.

### 4.2.1 Permits' Tenure

In accordance with the 2012, 2019 and 2020 mining codes of Mali an Exploration Permit (permis de Recherche) covers an area of up to 250 km<sup>2</sup> for specified commodities with an initial period of up to three years (first period). The permit may be



renewed twice for three years (second and third periods). In summary the total duration of an exploration permit is nine years.

On completion of the third period the owner must relinquish the permit and reapply or convert to an exploitation license if supported by a feasibility study outlining an economically exploitable deposit with endorsements to outline that the company has the technical and financial capacity to develop a mine.

Roscan currently has five permits in the first period of validity, three in the second period, and two in the final period (Mankouke and Dabia Sud). Dabia Sud will expire on February 3, 2025 and Mankouke on April 3, 2023 (Table 4.1).

SCP Professional Civil Society on notaries (“ZOUBOYE”) provided an independent legal opinion on all permits as at 1.4.2022. According to this opinion, none of the ten permits are subject to any legal disputes and are in good standing and valid under the provisions of the mining code of the republic of Mali. Roscan will retain its exclusive rights to these permit areas as long as it respects all legal provisions of the mining code. In the case of the Mankouke permit the legal opinion states that this area can be converted to an exploitation permit if supported by a feasibility study outlining an economically exploitable deposit with additional endorsements to outline that the company has the technical and financial capacity to develop a mine.

#### 4.2.2 Mining Regulations & Permit Information

The Malian State is the owner of all mineral rights in the country and grants Companies permits for exploration and exploitation (Table 4.2). The Minister of Mining is responsible for all mining activity in Mali and delegates to administration certain powers to the Direction Nationale de la Géologie et des Mines (DNGM). The DNGM manages all exploration permits and monitors company exploration programs and expenditure.

The main statutes governing mining activities in Mali are Ordinance 2019-022/P-RM dated 27 September 2019 (the Mining Code) and its implementing decree. The new mining code was approved by the Malian parliament on 28th April 2020 and is active. The main changes from the 2012 mining code are summarized as follows:

- Reduction of the cut-rate corporate tax period from 15 years to 3 years.
- Removal of VAT exemptions during mining production.
- Introduction of a new windfall tax.
- Reduction in stability period, exempting mining companies from mining code changes after they have committed investment in Mali, from 30 years to 10 years.
- Exploitation permit can be granted for 12 years and renewed for two further ten year periods, subject to review, by DNGM.

The majority of Roscan’s permits were granted under the 2012 Mining Code and this is the same as the 2019 code save for the main changes highlighted above. The general conditions relating to exploration permits are summarized in Table 4.2.



Table 4.1: Roscan interest in the ten exploration permits which comprise the Kandiole project

Permit Name	Area (sq Kms)	Permit Owner	Permit Number	Permit type	Next Renewal Date	Renewal Costs	Validity period	Option arrangement	Transfer status	Roscan Interest in the permit	Royalties
Bantanko East	55	Harmattan Consulting SARL	2021-0592/MMEE-SG 2.3.21	Exploration Permit	2.3.24	5 million CFA (~ CAD \$11k)	First Period	Under option, See Text	NA	10%	2% NSR, Right to buy back 1% for US\$1 million
Dabia South	35	Komet Mali SARL	2020-1045/MMEESG-SG 16.3.22	Exploration Permit			Expiry 3.2.25	Company Purchased	Roscan now owns Komet following purchase	100%	None
Kandiole North	40	Ouani-Or SARL	2021-4589/MMEE-SG 5.11.21	Exploration Permit	1.3.2024	5 million CFA (~ CAD \$11k)	Second Period	Option exercised	Pending	100%	Touba Mining Jr assigned its option rights with Ouani-or to Roscan in exchange for a 5% NPI and 2% NSR. Roscan can buy back 1% of NSR for CAD \$1 million
Kandiole West	25	Kara Mining SARL	2021-5405 MMEE-SG 22.12.2021	Exploration Permit	13.03.2024	5 million CFA (~ CAD \$11k)	Second Period	Option exercised	Pending	100%	Touba Mining Jr assigned its option rights with Kara to Roscan in exchange for a 5% NPI and 2% NSR. Roscan can buy back 1% of NSR for CAD \$1 million
Mankouke	16.8	Minex SARL	2020-2884/MMEE-SG 7.12.20	Exploration Permit	3.4.23	5 million CFA (~ CAD \$11k)	Expiry 3.4.2023	Option exercised	Pending	100%	3% NSR with right to buy back 2% for US\$1 million
Mankouke West	16	Touba Mining Junior SARL	2021-1126/MMEE-SG 25.3.21	Exploration Permit	25.3.24	5 million CFA (~ CAD \$11k)	First period	Option exercised	Pending	100%	1% NSR with right to buy back for CAD\$1 million
Moussala North	32	Roscan Gold Mali SARL	2020-1366/MMP-SG 6.4.20	Exploration Permit	6.4.23	5 million CFA (~ CAD \$11k)	First period	NA	NA	100%	2% NSR for KL Mining SARL/KA Gold Mining SARL with right to buy back 1% for US\$1.2 million
Niala	75	La Societe Lassine Fane SARL (SOLF)	2021-6046/MMEE-SG 31.12.21	Exploration Permit	23.5.24		Second Period	Option exercised	Pending	100%	2% NSR for SOLF with the right to buy back 1% for CAD\$500k
Segando South	65	Roscan Gold Mali SARL	2022-0014/MMEE-SG 21.1.2022	Exploration Permit	21.1.25	5 million CFA (~ CAD \$11k)	First Period	Option exercised	NA	100%	2% NSR for KL Mining SARL/KA Gold Mining SARL with right to buy back 1% for US\$1.2 million
Segando West	42	Fily Sissoko Mining SARL	2020-1101/MMP-SG 20.3.20	Exploration Permit	20.3.2023	5 million CFA (~ CAD \$11k)	First period	Under option, See Text.	NA	10%	2% NSR for Fily Sissoko With right to buy back1% for 450 million CFA or CAD\$1 million. Option fully exercised when CFA55 million paid. To date 35 million CFA paid



Table 4.2: General Conditions relating to Exploration Permit

Conditions	Explanatory Notes
Work Program	A program of work for exploration must be submitted to the DNGM at the start of each year and for each renewal period.
Work Requirements	Exploration Permit holders are required to commence work within six (6) months from the date of issue of the Permit and must pursue works with diligence.
Reporting Requirements	An annual report on exploration activities and results must be submitted in digital and hard copy.
Expenditure Conditions	Minimum expenditure requirements apply to Exploration Permits. To maintain the Exploration Permit, the minimum work expenditure requirements must be met, and the work program complied with.
Surface Fees	Exploration Permit holders are required to pay annual surface fees based on the area and period for which the Permit has been held.
Domicile / Agent Requirements	An Exploration Permit holder which is not a citizen of Mali, or a company incorporated in Mali must have election of domicile and notify the DNGM of the identity and qualifications of its Mali <del>Faso</del> representative.
Customs and Tax Terms	Certain tax and customs breaks / exemptions apply during the exploration phase.
Transactions	Transactions relating to the Exploration Permits are permitted. All documents must be submitted to the Minister of Mines and the Tax Administration must be notified where a capital gain occurs because of any transaction.
Additional Information	The Permit holder must also provide: all exploration information obtained under the Permit; a summary report of all work carried out at the end of each permit term; and all geological and minerals samples requested by the DNGM.
Prohibitions and Sanctions	Development / Exploitation activities are prohibited. Failure to comply with the Mining Regulations can result in sanctions as provided for under the law and regulations.
Renewal/Duration	The Exploration Permit is issued for an initial period of 3 years and is renewable by right for two subsequent 3-year periods each provided the holder has complied with the terms and conditions of the Permit and the general provisions of the Mining Regulations. Title remains valid during the renewal process.
Transfer Restrictions	Transfer is as of right providing the conditions of the Mining Regulations have been met, and subject to transfer request approval by the Minister of Mines
Exploitation Permit Rights	An Exploration Permit confers on the holder the exclusive right to request an Exploitation Permit where a discovery of one or more minerals reserves is made within the permit area based on the submission of a feasibility study. Note that this right extends only to the request for an Exploitation Permit and does not guarantee the issuance of the Permit to the holder of exploration rights.
Land Access Rights	<p>The holder of an Exploration or Mining Permit is not automatically granted surface rights. If it is not possible to obtain consent from the landowner, then access can be legally granted subject to adequate and prior compensation. After the completion of exploration and mining activities, the permit holder is required to return the land to its previous state by restoring topsoil and the road network.</p> <p>Land access should be done in compliance with environmental preservation standards.</p>

An Exploration Permit (permis de recherche) may be granted under the 2019 Mining Code by order of the Minister for Mines and covers an area of up to 100 km<sup>2</sup> for specified commodities with an initial period of up to three years. The permit may be renewed twice for three years, (nine years in total). Permit holders are obliged to report regularly to the Department of



Mines on their exploration programs. An Exploration Permit grants its holder the exclusive right to explore for the commodity group specified within the boundary of the permit and to unlimited depth. In the event of the discovery of minerals not specified on the permit, the holder may request the extension of the permit providing it is free of any mining permit relating to this mineral. An Exploration Permit may be awarded to any applicant that can provide proof of the technical and financial capacity to complete the exploration and meet with health, safety and environmental standards. The application must include the commodities to be explored for and a report detailing the proposed exploration program and budget.

A Mining Permit (permis d'exploitation) may be granted for 12 years and is renewable for further periods of ten years until the mineral reserves have been exhausted. A Mining Permit may be granted to the holder of an Exploration authorisation. Holders of a Mining Permit are required to enter an agreement referred to as a "Convention d'Établissement" or "Mining Convention Agreement" with the Malian government prior to the commencement of exploration or mining activities and must begin work within three years. A non-dilutable 10% share is owned by the Malian State, and the State reserves the right to acquire an additional 10% in the future. The permit grants the holder the exclusive right to mine the specified commodities within the perimeter of the permit and to an unlimited depth. Proof of a mineable deposit must be provided by submission of a feasibility study. In addition, community development and mine closure plans must be submitted. A license can be transferred to third parties by inheritance or cession under certain conditions established by the Code.

The holder of an Exploration or Mining Permit is not automatically granted surface rights. If it is not possible to obtain consent from the landowner, then access can be legally granted subject to adequate and prior compensation. After the completion of exploration and mining activities, the permit holder is required to return the land to its previous state by restoring topsoil and the road network.

No mining development may be opened on the surface or drill holes drilled to a depth more than 50 m within a radius of 50 m from:

- Villages, groups of dwellings or wells without consent of the landowner.
- Waterways, public works and works of art without the consent of the relevant authorities.

If a permit holder affects the quality or quantity of water supply, they will be obliged to make additional supplies available. The 2019 Mining Code requires that an exploration permit holder obtains consent to work the ground from local landholders, provides access to local communities to communications lines, and contributes to the improvement of sanitary and educational infrastructure, as well as implementing recreational facilities for community and employee use.

#### 4.2.3 Exploration Permit Fiscal Conditions

Exploration Permit holders are subject to registration fees, plus taxes on salaries, annual surface charges and social contributions payable for employees. However, they are not required to pay any other taxes, including VAT.

Table 4.3: General Conditions relating to Exploration Permit

	Timeframe	Fiscal requirements
Surface Tax	Years 1-3	5,000 CFA (US\$ 8.7) per km <sup>2</sup> per year
	Years 4-6	8,000 CFA (US\$13.9) per km <sup>2</sup> per year
	Years 7-9	10,000 CFA (US\$17.3) per km <sup>2</sup> per year
Permit Fees	Initial Grant	10,000,000 CFA (US\$ 17,320)
	First Renewal	5,000,000 CFA (US\$ 8,661.6)
	Second Renewal	5,000,000 CFA (US\$ 8,661.6)

Mining Permit holders are required to pay annual surface royalties, flat rate contribution, charges and social contributions for employees, capital yields taxes and statistical royalties. Mining Permit holders are not required to pay VAT until the end of the third year after commencement of the mining operation.

Gold explorers and miners are subject to a tax called "Impôt Spécial sur Certains Produits (ISCP)" (Special Tax on Certain Products)". The tax base of ISCP is turnover excluding VAT. An additional tax called "taxé ad Valorem" has a taxable base equal to the starting value of the tonnage extracted minus intermediary fees and expenses. Gold and other precious metals are levied at a 3% royalty rate.

### 4.3 ENVIRONMENTAL LIABILITIES

The Exploration Permits are subject to the environmental guidelines of the 2012 Mining Code, which includes requirements regarding the Environmental and Social Impact Assessment (ESIA) and a community development plan. The DNGM must



ensure the existence of a Technical Committee for Community and Local Development to approve, monitor and control the implementation of the community development plan and provide periodical reports to the Minister of Mines.

Under Article 20 of Decree 08-346, the Minister of Environment issues an environmental permit if the ESIA report is satisfactory.

To the extent known, the Kandiole Project permits are not subject to any current environmental liabilities.

#### 4.4 PERMITS

The Exploration Permits are the key permits required to conduct the proposed work program. Certain other routine work permits need be obtained as and when required, for example for airborne surveys.

#### 4.5 OTHER SIGNIFICANT FACTORS

To the extent known, and other than disclosed herein, the Kandiole Project is not affected by any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Kandiole project.

#### 4.6 ARTISANAL MINING

There are multiple areas of artisanal mining activity within the Kandiole project area, namely at Mankouke Central, Kabaya, KN1, the Mougni-Banko alluvial workings and various other sites as outlined in figure 4.3. Today Chinese alluvial miners continue to dredge for gold west of the ford, which crosses the Falémé River in the south portions of the Mankouke and Mankouke West permits.

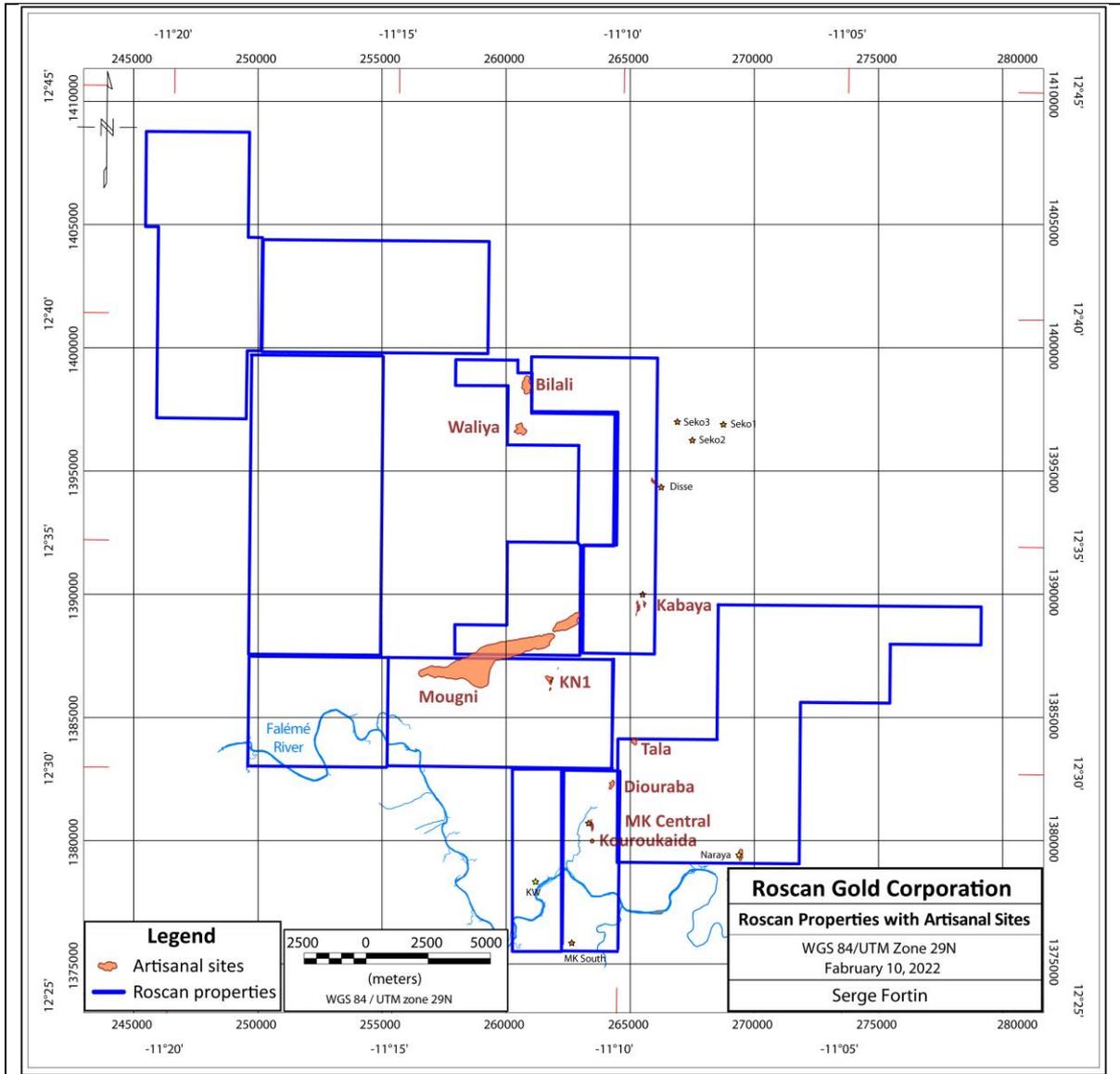
Surface artisanal operations are focused on individual quartz veins, concentrations of gold within saprolite beneath laterite surfaces or in some cases hard rock mining following pay shoots within quartz veins or disseminated shear systems. In general, artisanal mining is shallow at between 0 m and 15 m depth and most operations are haphazard and not well organized.

The Company has commenced a liaison program with the local communities to understand the social dynamics. The current planned program includes initial preparation of a community and social requirement plan including liaison with provincial and local authorities, religious leaders and community representatives to consider inter alia:

- Establishing community consultation committees.
- To review possible compensation and resettlement, when required in the future.
- Land access; and
- Effects of operations on community e.g. crops, farmland, dust.



Figure 4.3 Artisanal sites within the Kandiole Project area



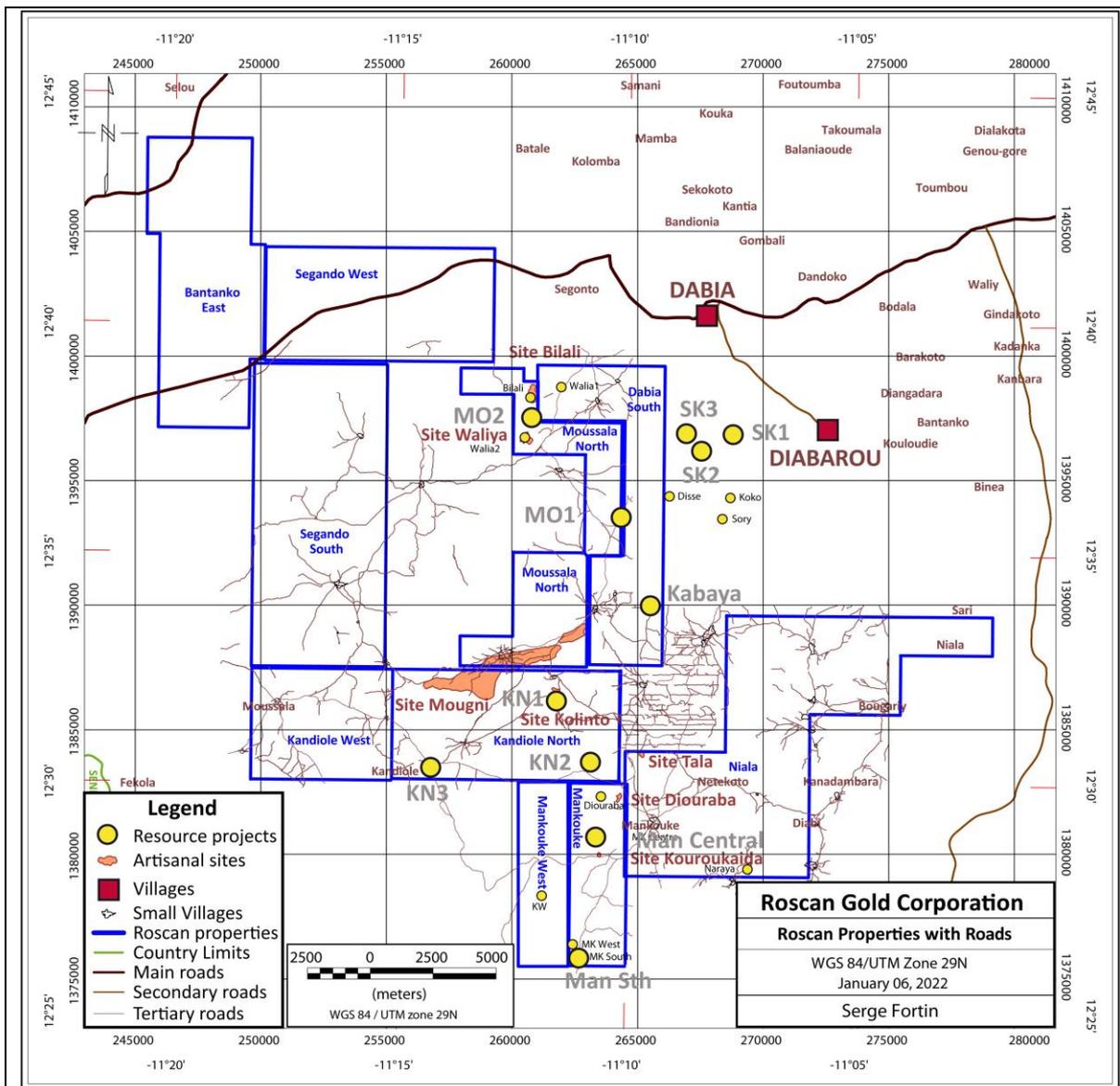
(Source: Diagram provided by Roscan, 2022 )

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

## 5.1 ACCESS AND INFRASTRUCTURE

The Kandiole Project Permits form a relatively contiguous block of 401.8 km<sup>2</sup> and are situated west and southwest of Dabia village and due south of the village of Diabarou (Figure 5.1). Dabia and the western permits of Bantanko East and Segando West locate on the paved highway Route Nationale 24 (RN24), one of the main arterial routeway from Bamako to western Mali. The Roscan Exploration office is in the town of Diabarou, 6.5 km southeast of Dabia on a laterite road. The nearest large town is Kéniéba, a further 26 km along the RN24. Kéniéba has its own regional airport while a private airstrip, which can be used for emergency purposes, lies mid-way between Dabia and Diabarou. From Bamako, Dabia can be reached approximately 7 hours. The principal road routes and the location of Mali airstrips are illustrated in Figure 5.2.

Figure 5.1 Major and Minor roads within and in close proximity to the Kandiole Project area



(Source: Diagram provided by Roscan, 2022 )

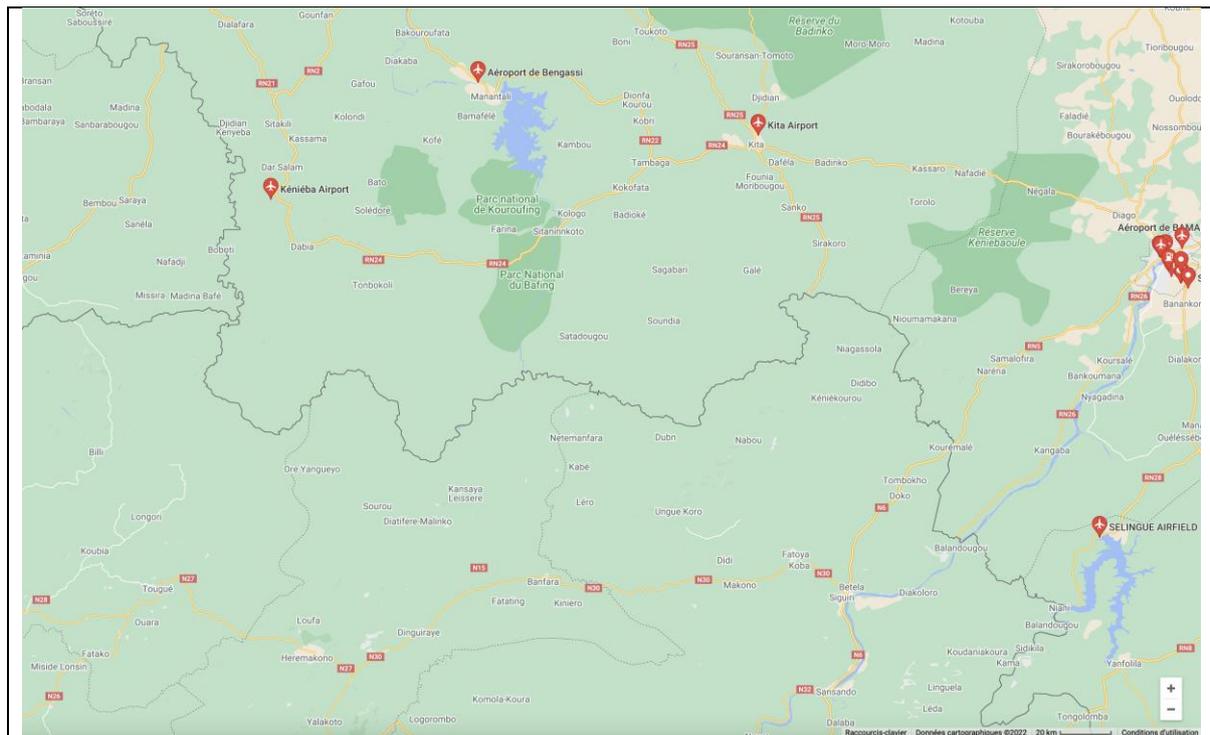
The project area is accessible by various bush and gravel roads passable to 4WD vehicles. The Falémé River separates the southernmost parts of the Kandiole West and Mankouke permits and is passable by local boat (piroque) during the rainy

season. All rivers are passable by 4WD vehicles outside the rainy season. The smaller rivers, which drain the exploration licences to the north are passable all year.

A 2 km long, private lateritic airstrip lies about 2.5 km northeast of Diabarou and adjacent to Roscan's field camp and may be used for emergency services.

Roscan has established a permanent, well-equipped Exploration and field camp at Diabarou village with a diesel generator set power supply and WiFi communications. A covered core-logging area has been constructed and includes buildings with excess capacity for core storage. Bagged samples are stored temporarily in a nearby rented building prior to dispatch to the assay laboratory. Roscan has recently constructing an indoor core store where drill core will be stored on completion.

Figure 5.2 Civil Aviation airports in Mali between Bamako and the Mali-Senegal border.



(Source: Diagram provided by Roscan, 2022)

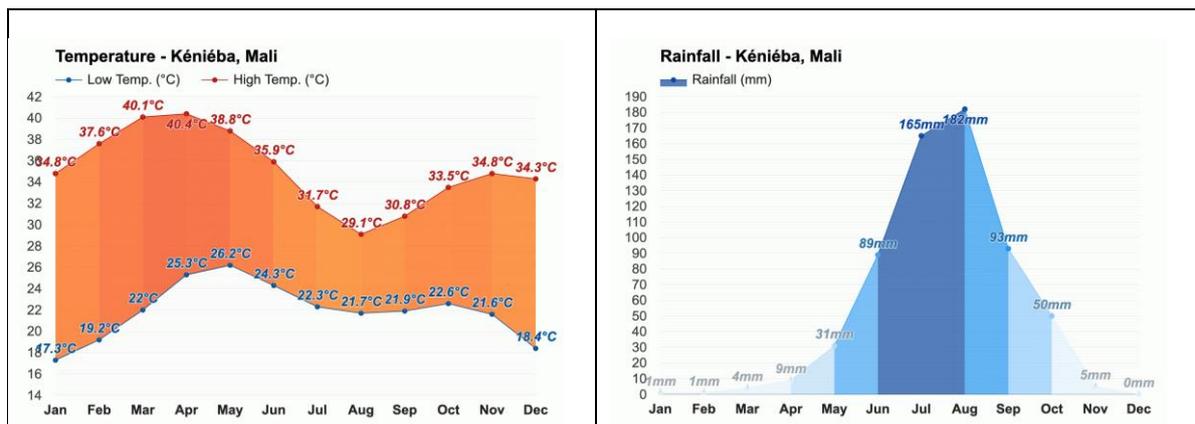
## 5.2 CLIMATE, VEGETATION AND FIELD SEASON

The Kandiole Project is within the southern part of the Sahel region of West Africa and has a continental subtropical climate with relatively high temperatures all year (mean annual temperature 28°C). The region has two distinct seasons: a rainy season from June to September and a dry season from October to May. Annual rainfall ranges from 1,000 mm to 1,500 mm, the bulk of which forms in the rainy season (Figure 5.3). Peak high temperature periods are generally in the hot and dry months of March to June (35-45°C), from July to November is generally hot and humid (30- 40°C) with most rain in August to September, while it is relatively mild and dry (20-25°C) in December to February. The hot, dry, dust laden Harmattan wind can blow from the north during the period of December to March. The project area is generally accessible all year and the Roscan field teams have been able to drill during the rainy season.

The predominant vegetation is tropical savannah. Vegetation is generally sparse, consisting of grass and relatively few thorny and deciduous trees, which are more common along water courses. The natural vegetation comprises low-density woodland slopes and savannah plateau (Figure 5.4). The savannah grasses die back in the dry season and the local inhabitants burn the countryside to encourage new grass and leaf growth prior to the rains.



Figure 5.3 Average Temperatures and Rainfall for Kenieba in Western Mali



(Source: Weather Atlas: <https://www.weather-atlas.com>)

### 5.3 PHYSIOGRAPHY

The physiography is generally characterised by the lower lying river valley areas of the Faleme and its tributaries surrounded by laterite plateaux. On the eastern permit of Nyala there is a Paleo-Proterozoic diorite sill with a maximum elevation of +300 m (max 400 m) but most of the area is relatively low-lying and gently rolling countryside ranging in elevation from 130 to 200 m. The surface topography is generally characterised by strands of river alluvium, saprolite clays in erosional neplains and some eroded laterite gravels which locate between elevated lateritic crusts or carapaces.

Termite mounds of differing types are common and occur in areas of laterite caps. The larger mounds (+1 m tall) provide an excellent exploration sampling medium as the ants' activities penetrate the lateritic carapace. The high clay content of the termite mounds provides a suitable substrate for retaining any gold that may be present in the soil profile.

The Falémé river flows from east to west at, or close to the boundary with the southern permits and drains to the northwest where it forms a natural border with Senegal. Numerous moderately well-developed rivers and drainage channels are fed in the wet season by run-off from the lateritic plateaus.

### 5.4 LOCAL RESOURCES

The local population are essentially "orpailleurs" (gold panners), shopkeepers, motorcycle repair mechanics and subsistence farmers who raise cattle and goats and carry out dry land grain, vegetable (including gourds) and fruit tree (mango) farming. The cultivation of gourds is for both cooking and gold panning activities, which is the principal economic activity in west and southwest Mali.

A team of experienced local geologists and assistant geologists work for Roscan. A large, experienced pool of local labour and a certain amount of heavy equipment is available in the nearby Dabia village. Heavy equipment such as bulldozers and trucks are available in Kéniéba, a further 27 km northwest along the RN24 and modern telephone communications, government offices, wholesalers and a small regional airport are also available there.

Locally, Diabarou village hosts two mobile phone mast stations (Orange and Malitel), a primary school, a Community Health Centre (Centre de Santé Communautaire de Diabarou) and a pharmacy plus many mechanical workshops and several small trader stalls. Roscan also purchases diesel in Diabarou.

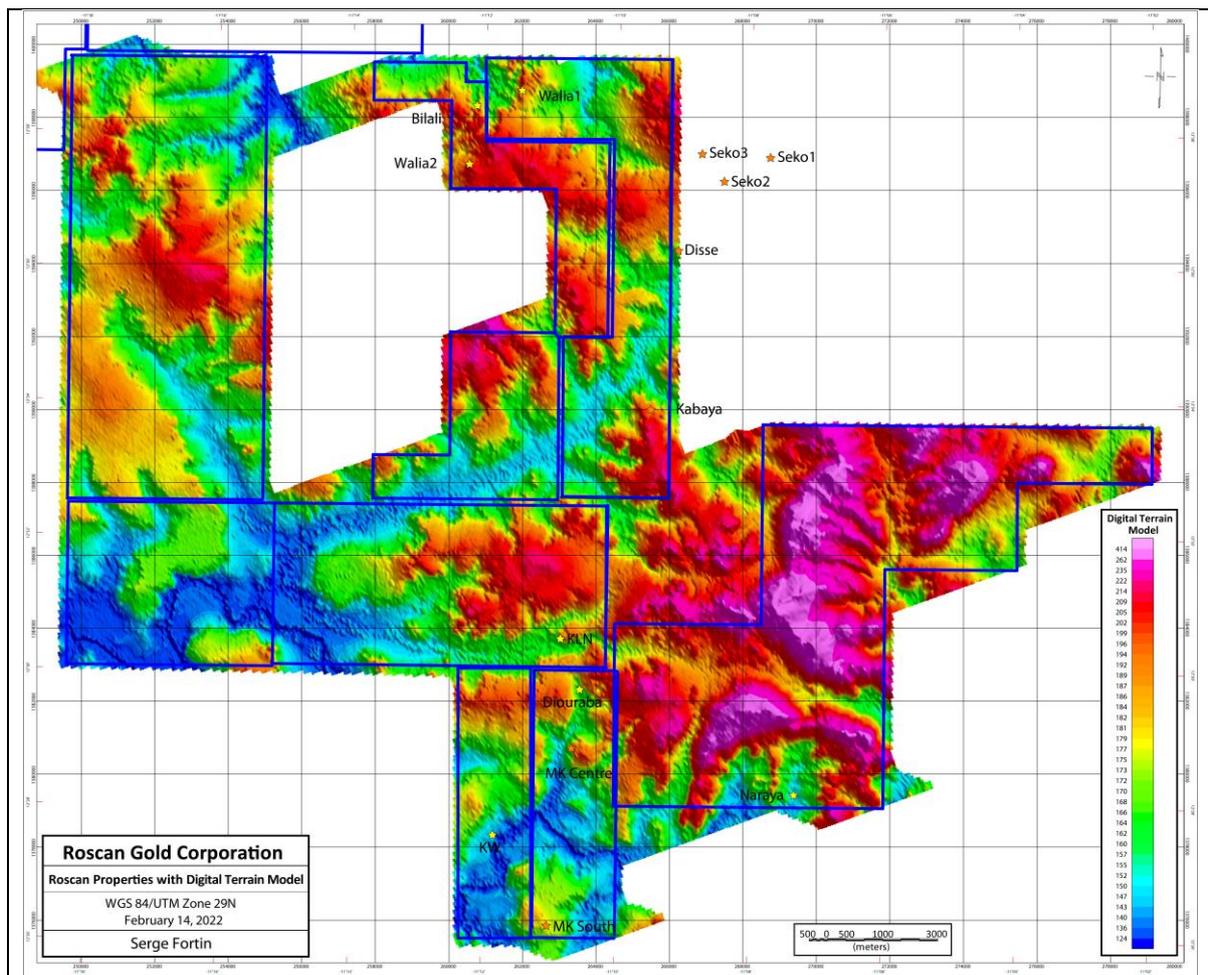
The permits themselves are primarily north of the Falémé River, which provides locals with water for gold panning, and which may be used for general exploration activities. Any of the ephemeral stream tributary valleys that drain to the Falémé could potentially be used to drill for water supply for mining purposes (upon a favourable Environmental Impact Study).

Figure 5.4 Aerial views of the Project Area



(Source: Photographs provided by Roscan, 2022 )

Figure 5.5 Digital terrain model for Kandiole project area.



(Source: NRG geophysics, Provided by Roscan, 2022 )

## 5.5 THE SUFFICIENCY OF SURFACE RIGHTS, INFRASTRUCTURE, AND PERSONNEL FOR FUTURE NEEDS

Ample area is available for potential mine infrastructure such as tailings storage areas, waste disposal areas, heap leach pads, and processing plant sites, although given the stage of the project no detailed studies have been completed. Mines in the region are responsible for the generation of their own electricity through diesel generators.

The holder of an Exploration or Mining Permit is not automatically granted surface rights. If it is not possible to obtain consent from the landowner, then access can be legally granted subject to adequate and prior compensation. In the Kandiole area there are no competing land rights which could potentially interfere with a mining operation and to date, the Government of Mali has been supportive and enabling in mine development and facilitation of purchase of land rights.

There are now several large operating gold mines in the region, in particular Barrick's Loulo-Gounkotou Complex, the Tabakoto mines and B2 Gold's Fekola operations. The Loulo project has been in operation since 2005 as has Tabakoto and Fekola commenced operation in 2017. These mines employ thousands of people directly and train Malian personnel in various engineering and maintenance skills as well as mining, operation of mining equipment, plant operation and maintenance as well as all indirect employment related to support services for the mining workforce. In summary there is a strong mining culture in the region and a developing skilled and semi- skilled workforce related to all direct and indirect services that are required to operate a mine and sustain a mining community.



## 6 HISTORY

### 6.1 OVERVIEW

Historical exploration work over the Kandiole project area can be subdivided into regional programs and permit exploration and is summarized in Table 6.1.

Regional exploration work includes programs undertaken by the BRGM and DNGM and later initiatives involving EU development funding (Sysmin program) for the Malian government involving airborne geophysics and interpretations under the supervision of the DNGM.

Company exploration covering the Kandiole project permits has been mainly focused on various soil surveys and reconnaissance surface work by numerous companies (the historical soil sampling data is presented in Section 9). The only historical drilling undertaken was on the Kabaya target within the Dabia Sud permit by the Robex Resources and the Komet Exploration Company and this resulted in a Resource estimate which is summarized in Section 6.3.

Table 6.1: Summary of Historical Exploration carried out within the Kandiole Project .

Year	Company	Area Covered	Survey undertaken	Units	Comments
1960-1984	BRGM and DNGM	<b>Mali West</b>	Regional Mapping, Landsat, outcrop sampling, trenching and soil geochemistry	Grid 1600m x 500m for soil samples - multi-element	Regional soil sampling identified Sadiola Deposit, Medinandi, Tabokoto and Segala. Early BRGM work outlined the mineralised tourmaline bearing units of the Gara deposit and Loulo 3
1997-2000	Ashanti Mali SA	<b>Large area covering all or portions of Moussala N, Dabia Sud, Kandiole Nth, Segando south and Kandiole West</b>	Regional and detailed soil sampling and geological mapping	4122 soil samples for Au and As at grids of 500m x 250m with follow up on 100m x 200m on 8 (1,221 soil samples) targets (M1-M8)	Soil sampling identified Walia, Waliya artisanal site and targets in the Dabia South and Kandiole North areas
2000-2004	Sysmin Geophysical survey	<b>Mali West</b>	Airborne magnetic and radiometric survey	200m line spacing, 3km tie lines, 100m flight height	In collaboration with DNGM undertook geology mapping and interpretation, interpretation of multi-element geochemistry, photo-geology and geophysical interpretations
2005-2014	Robex Resources	<b>Moussala permit (134km<sup>2</sup> eventually reduced to 34km<sup>2</sup>) covering current Moussala N and Dabia Sud and area west of these permits</b>	Permit scale soil sampling, Regolith Mapping, Trenching, Air Core drilling, Gravity Geophysical survey	400m x 200m soil grid for Au (n=5000), 5 trenches at Walia (777m), 6 trenches at Kabaya (665m), 91 AC holes (5256m) and gravity survey at 800m x 100m grid with 200m x 50m over Kabaya	Soil sampling confirmed large footprint at Walia and generated new and large footprint at Kabaya. Best trench results at Kabaya with 60m @ 3.92 g/t and 50m @ 1.8 g/t Au. Gravimetric survey identified major northerly structure with NE splays - one thru Kabaya
2010-2015	Great Quest Mali SA	<b>Dabia West licence covering a portion of Segando West permit</b>	Soil and termite sampling, pitting, one trench, rock sampling and landsat interpretation	Soil/termite grids of 500m x 50m and 250m x 50m, 173 rock samples, 29m trench and 11 pits	Soil grid covers two thirds of the Segando West permit, two soil anomalies of +69ppb identified
2012-2018	Songoi Resources Sarl (SORES) owned by Papillon and later acquired by B2 Gold in 2014	<b>Exploration over a larger area and including Bantanko East - summary covers this area</b>	Soil sampling, rock sampling and drilling. Geology and Geomorphology mapping	80mx 160m soil grid (n=5033), 83 auger holes for sampling below transported regolith	Highly anomalous soil zone in centre of licence area was the focus of subsequent auger drilling (detailed results not known). Exploration during auger phase interrupted by invasion of artisanal workers prospecting for gold
2017-2020	Komet Mali SARL	<b>Dabia Sud permit of 35 km<sup>2</sup></b>	No surface exploration, Shallow RC drilling at Kabaya	91 holes (7274m) drilled at -50 degree to the West	98% of drilling <100m, SGS 43-101 Resource: Indicated = 105Koz @ 1.03 g/t and Inferred = 35 Koz @ 1.14 g/t



## 6.2 REGIONAL EXPLORATION

From 1960 to 1996, regional exploration programs were carried out over the whole Kéniéba area by the French Bureau de Recherches Géologiques et Minières (BRGM) in cooperation with the DNGM, a department of the Ministry of Mines. These programs targeted gold and base metal mineralization in the Paleoproterozoic and consisted of satellite image interpretation (Landsat) and regional geological field mapping and outcrop sampling, often combined with regional soil geochemistry surveys using a grid of 1600 m by 500 m. The regional soil sampling work identified the deposits of Sadiola Hill, Tabakoto, Segala and Medinandi as well as the identification of the tourmaline bearing and gold mineralized sandstone units of the Gara and Loulo 3 deposits in the Loulo area. The regional work was not particularly successful, due to broad line spacing and regolith, in delineating the main Resource targets within the Roscan portfolio, as outlined in this report.

A regional airborne geophysical survey (SYSMIN survey) was conducted by the Malian government between 2000 and 2004, producing a series of maps which demonstrate the major geological features of the Birimian window of Kéniéba region. This aeromagnetic and radiometric survey covered the whole of the Birimian Kenieba window in Mali with 200 m line spacing and a nominal flying height of 100 m. The magnetic gradient survey image illustrated in Section 9 of this report outlines the Senegal-Mali Shear Zone (SMSZ); a major structural coincident with the NS trending portion of the Faleme River where it defines the border with Senegal. The SMSZ is a major first order structure and its second and third order splays and parallel structures have been responsible for the development of all the gold deposits within the Loulo-Goukoto complex. Another major structural corridor is also highlighted in the same image and outlines a pronounced northeast-southwest trending structure east of the Senegal-Mali Shear Zone and extending through the Roscan permit area. A strong magnetic lineament extends from Siribaya (IAMGOLD) to the south of the Kandiole Project through Mankouke South, Mankouke Central and Kabaya, to the Seko Project (Oklo Resources) to the north. The significance of this structure is now attested to by the multiple new resource discoveries and has been emphasised by the Roscan team and is discussed in more detail in Section 7.

### 6.2.1 Company Exploration

#### Ashanti Mali SA 1997-2000

During the period 1997 to 2000 Ashanti Mali SA was the first company to obtain an exploration licence for gold and related metals in the Dabia–Moussala area. The permis d'exploration de Moussala covered 232 km<sup>2</sup> (Ashanti Mali SA, 2000). In 1997-1998, geologists from the DNGM and Ashanti Mali geologists completed soil sampling surveys totalling 4122 samples (analysed for gold and arsenic) on a 500 x 250 m grid. Eight gold targets were identified (M1 to M8) and subsequently followed up with a further 1,221 soil samples on grids of 200 x 100 m. The soil sample results of Ashanti are presented in Figure 6.1.

The M1 and M2 anomalies are the most significant in terms of magnitude and scale.

Target area M1, in the north of the Dabia Sud Permit, is known as Walia and coincides with orpailleur workings. The M1 target is referred to as Walia and includes anomalous soil samples taken by Ashanti Mali over an area of 1,600 m by 1,000 m with gold grades up to 4,919 ppb Au, along with arsenic anomalism on a northeast orientation. Geology of Walia consists of Birimian meta- sediments (meta-greywacke and schist) intruded by granite. Quartz veins in the meta-sediments trend to the north-northwest and are cut by quartz veinlets on an easterly trend. One of the gold bearing vein sets has a very shallow dip which may account for the wide gold anomaly. Structurally, the target is associated with a north- northeast trending structural zone crosscut by a north-westerly structure.

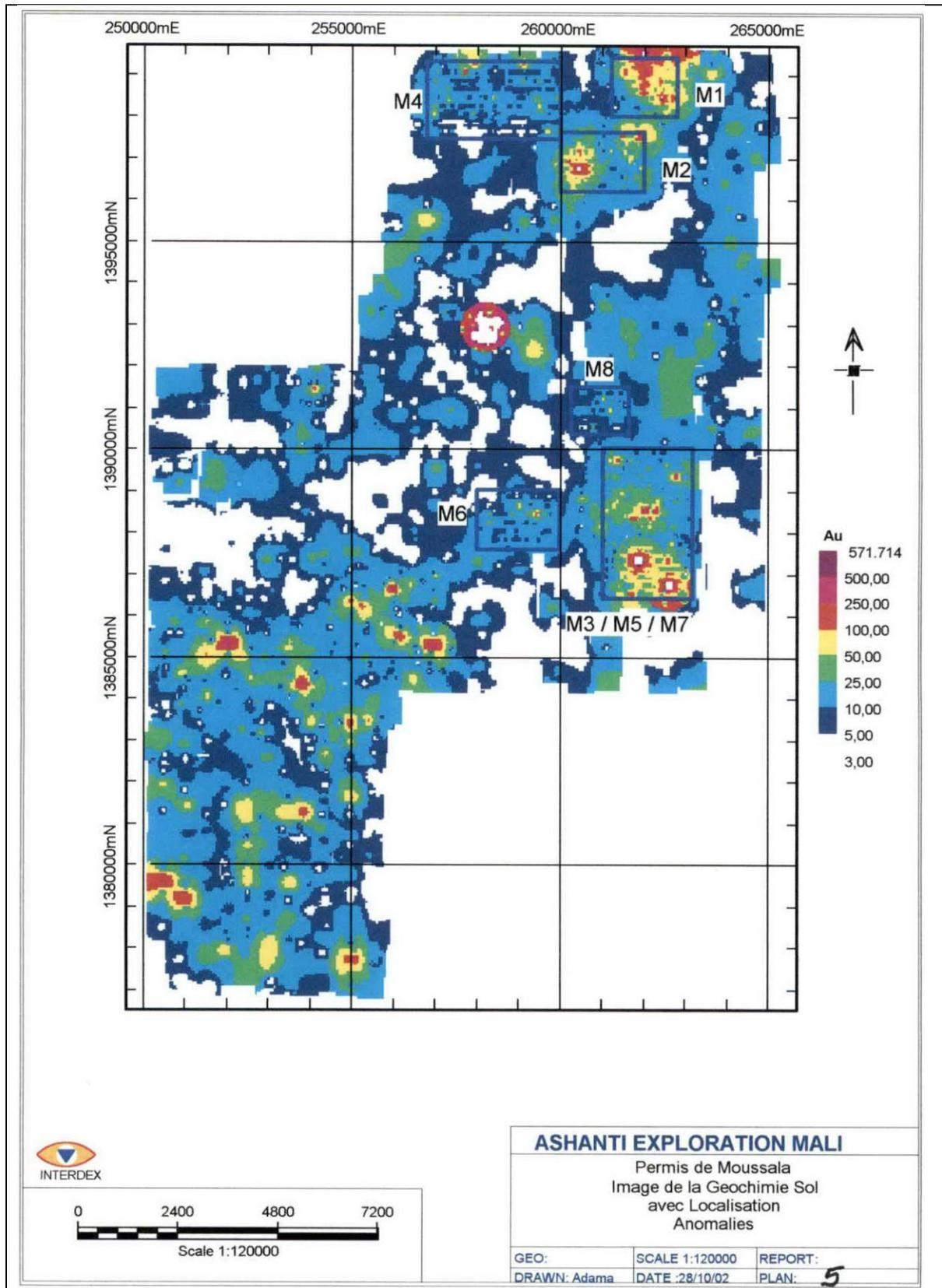
Target area M2 correlates with the Waliya artisanal site and is also an anomalous area identified in Roscan's termite and soil sampling programs. The M2 target located SW of Walia, includes the Waliya orpailleur site and also appears to relate to a NNE structure.

The M3, M5 and M7 target areas are concurrent with anomalism in Roscan's soil and termite sampling surveys within the Dabia Sud and Kandiole North permits.

A geological and geochemical compilation map for the Moussala area was produced by E Bessogonov in 2004, showing data produced by EAG in 1996 to 1997 (no results of this work available) and Ashanti Mali SA from 1997 to 2000 (Figure 6.2). The map shows gold anomalies, which are often aligned with fault zones and arsenic anomalies trending to the northeast. In addition, a northeast trending shear zone is mapped near the more recently discovered Kabaya Deposit in Roscan's Dabia Sud permit.



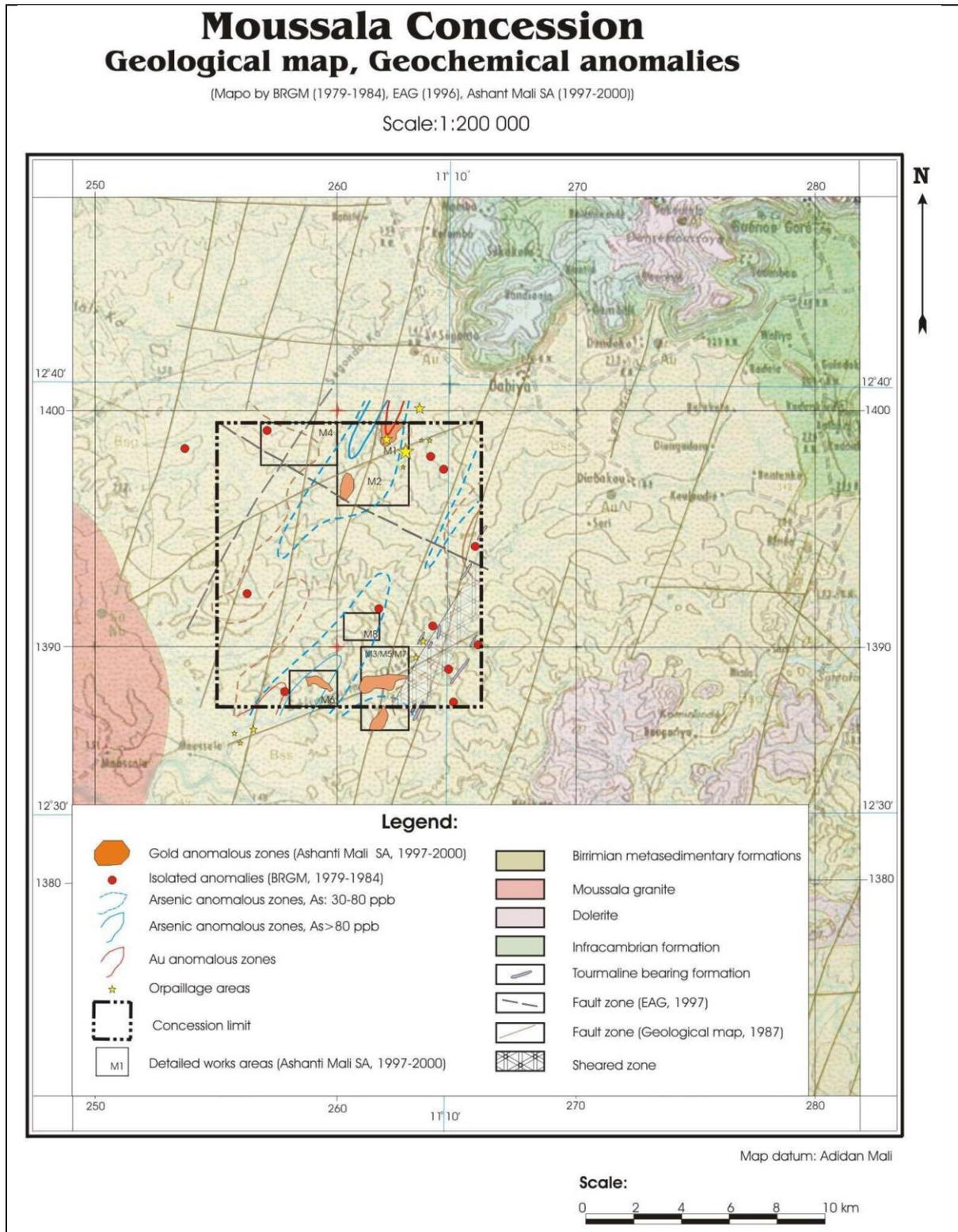
Figure 6.1 Ashanti Mali soil sample results incorporating regional and detailed grids and outlining targets M1-M8.



(Source: Map provided by Roscan, 2022 )



Figure 6.2 Compilation Map of the Dabia Moussala Area.



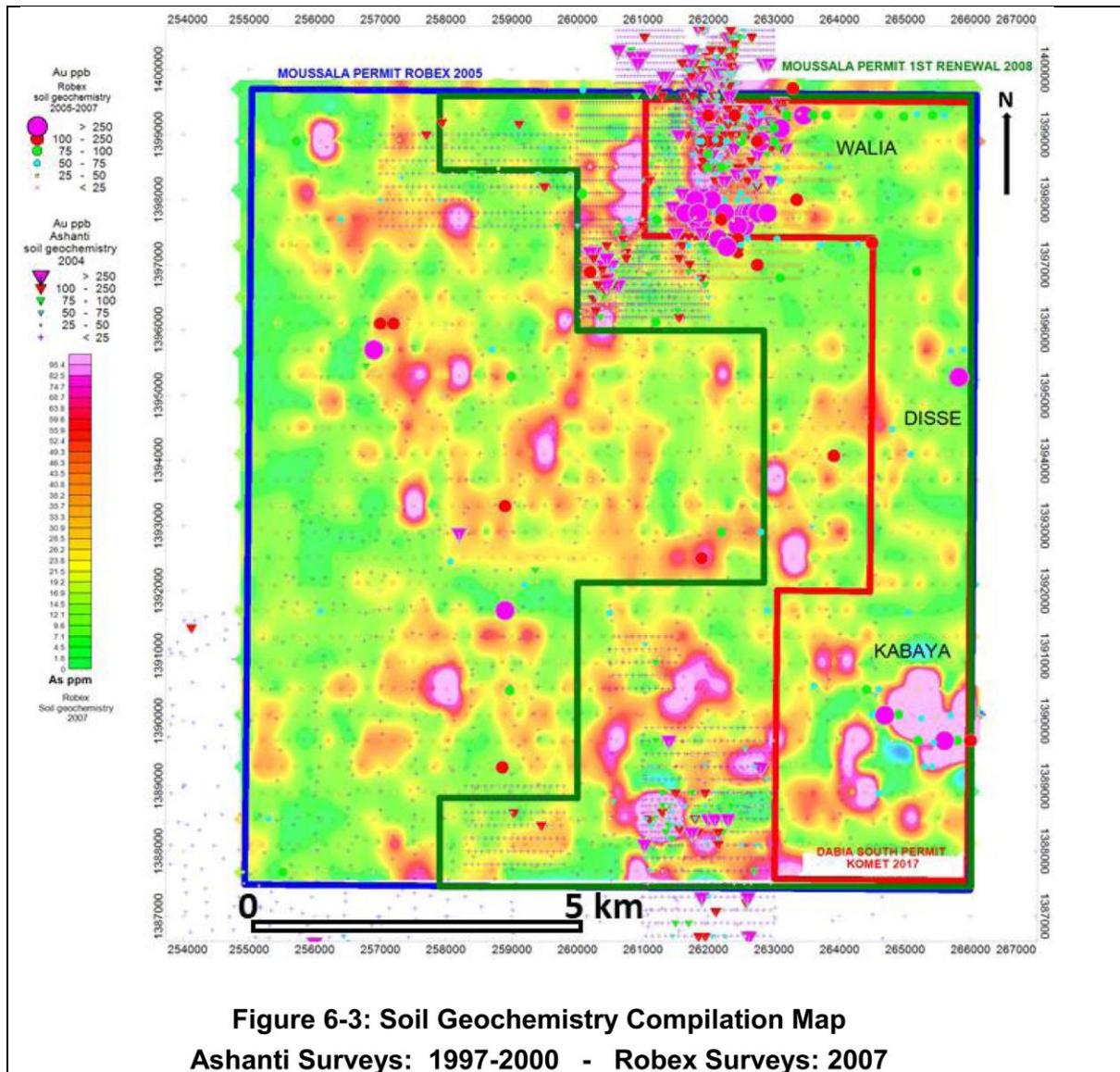
(Source: Map provided by Roscan, 2022 )

#### Robex 2005-2014

Canadian company Robex Resources was granted the 134 km<sup>2</sup> Moussala exploration licence in July 2005. This permit, valid for 3 years, was renewed twice and each time the area was reduced by 50% to 67 km<sup>2</sup> and 33.9 km<sup>2</sup>. The permit expired in September 2014 (Robex, 2014).

In 2007, Robex completed a permit-scale soil sampling program on a grid of 400 m by 200 m and this was combined with the historical Ashanti data as illustrated in Figure 6.3.

Figure 6.3 Soil Geochemistry Compilation Map Ashanti Surveys (1997 - 2000) and Robex Surveys (2007).



(Source: Map provided by Roscan, 2022 )

Robex’s soil sampling results generally confirm the results reported by Ashanti Mali but in addition to those anomalies the survey identified an anomalous area of 1600 m NS by 1200 m EW over the previously undiscovered Kabaya Deposit. The Robex work also expanded the size of the Walia target and identified the Dissé prospect, where three anomalous soil sample results were returned from an EW structural zone that can be extended westwards onto Oklo’s Dissé target. Roscan’s Disse prospect has recently been drilled and will be discussed in Section 10.

In 2007, Robex excavated 5 trenches at Walia with a total length of 777 m. The trenches aimed to follow-up on anomalism identified in the soil sampling programs. The most significant intercept was 18 m grading 0.25 g/t.

Three trenches were dug by Robex in 2012 in the Kabaya area for a total length of 450 m. Intersections of 106 m at 0.46 g/t and 4 m at 1.16 g/t were reported. A further three trenches were dug in the same area in 2013 for a total length of 215 m. Results reported include 60 m at 3.92 g/t Au and 50 m at 1.80 g/t Au.

During 2013 to 2014, Robex drilled 5,256 m in 91 aircore drill holes. The holes were drilled at an azimuth of 270° with a dip of -50° and had an average depth of 58 m. The results of these holes are included in the Mineral Resource documented in the SGS NI 43-101 for Kabaya and will be discussed in Section 6.4.



in 2014, a gravimetric survey was completed by Stewart Geophysical Consultants Pty Ltd on behalf of Robex. A regional grid of 800 m by 100 m was used in the wider permit area, with a closer spaced grid of 200 m by 50 m in the Kabaya area. The results of this survey and a recent reinterpretation by Roscan are described in Section 9.

#### Great Quest Mali SA 2010-2015

Great Quest undertook soil and termite sampling (500 m x 50 m and 250 m x 50 m), pitting, rock sampling, landsat interpretation and one trench over their Dabia West permit. The geochemistry grids incorporate a portion of Roscan's, recently acquired, Segando West permit. Only two soil anomalies of +69 ppb Au were identified and follow up pitting and rock sampling did not identify any significant results.

#### Papillon Resources Ltd 2012-2018

Papillon held or owned several permits in the Bakolobi area which included the Bantanko Est license; currently under option to Roscan Gold Corporation. Soil sampling was undertaken over the Bantanko Est area utilising an 80 m x 160 m grid which highlighted several highly anomalous samples in the central area of the license. B2 Gold acquired Papillon Resources in 2014 and undertook follow up auger work on the property in 2017 and 2018. The 2017 auger program was designed to obtain samples below regolith cover but was interrupted by an invasion of local artisanal workers prospecting for gold. During the second quarter of 2018, 25 new Auger holes were drilled and B2 announced that "the results, including those of 2017, are disappointing with an average below 10 ppb Au and, just few holes with results a bit below the anomalous limit of 20 ppb Au". Roscan is currently undertaking follow up work involving regolith mapping, termite sampling and surface reconnaissance. The NW portion of the permit hosts the SMSZ structure.

### 6.3 HISTORICAL MINERAL RESOURCE ESTIMATE

The Dabia Sud permit of 35 km<sup>2</sup> was issued to Komet Mali Sarl, a fully owned subsidiary of Komet Resources Inc (Komet), in February 2017. During 2017 and 2018, Komet completed 91 RC drill holes in the Kabaya area for a total of 7,274 m. Details of this drilling data is outlined in chapter 10 of this report as the information has been utilized in the updated Kabaya Resources.

In 2019, a mineral resource estimate (Table 6.2) was announced in Komet's news releases and the document "Dabia Sud Property, Kabaya Resource NI 43-101 Technical Report, Mali" by SGS Geological Services (SGS) (Qualified Person Yann Camus) was posted on their website and filed on SEDAR. The effective date for this historical mineral resource estimate was 7<sup>th</sup> January 2019 (See Figure 6.4).

Table 6.2: SGS Historical Mineral Resource for Kabaya (7<sup>TH</sup> January, 2019).

Classification	Tonnage (Mt)	Au (g/t)	Ounces (koz)
Indicated	3.17	1.03	105
Inferred	0.96	1.14	35

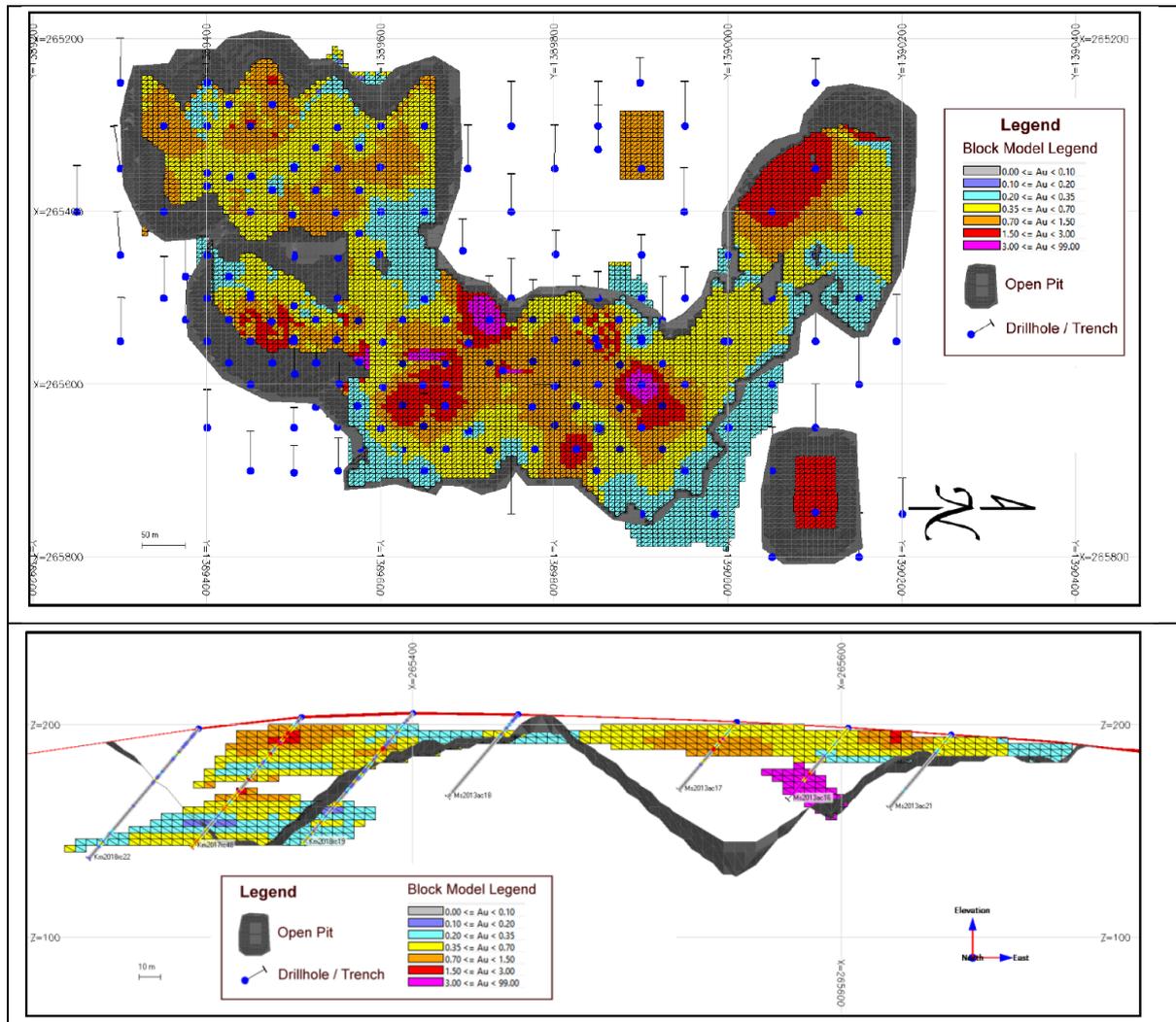
*The historical mineral resource was estimated using a cut-off grade of 0.4 g/t Au and a bulk density of 1.7 t/m<sup>3</sup>.*

Grades were capped at 30 g/t Au. The assays inside the mineralized volumes were composited to approximately 2 m lengths, though the vast majority of the original samples (97%) had a length of 1 m. Grade interpolation was completed using the Inverse Distance Squared method with block sizes of 5 m x 6.25 m x 3 m. Aircore data was included in the historical estimate from the previous work completed by Robex. Robex submitted sufficient QA/QC samples (15% of the total) to the laboratory and SGS stated that there were few or no failures. Due to the shallow drilling, mainly in oxides, SGS stated that "there is not enough reliable information to design a geological model for the Kabaya gold mineralization system" However the permit is now held by Roscan and extensive additional drilling has been undertaken with new geological and Resource models included in this report.

Whilst the historical resource covers the Dabia Sud part of the Kandiole Project, the historical resource has been replaced by the mineral resource reported in this technical report and cannot now be considered a reliable estimate. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves and the issuer is not treating the historical estimate as current mineral resources or mineral reserves.



Figure 6.4 Plan and section (section 1,389,600 mN) views of the Resource Block model.



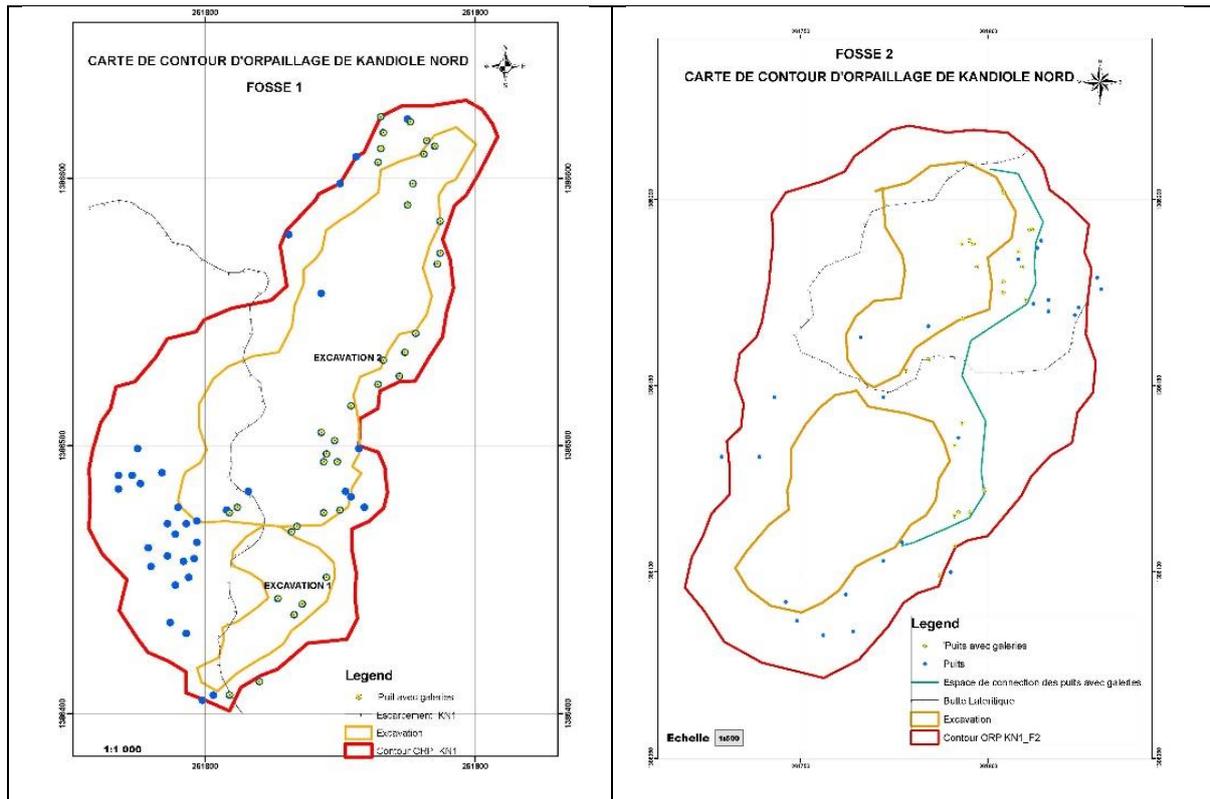
(Source: SGS 43-101. 2019)

## 6.4 PRODUCTION HISTORY

There has been no formal mining on the Kandiole leases.

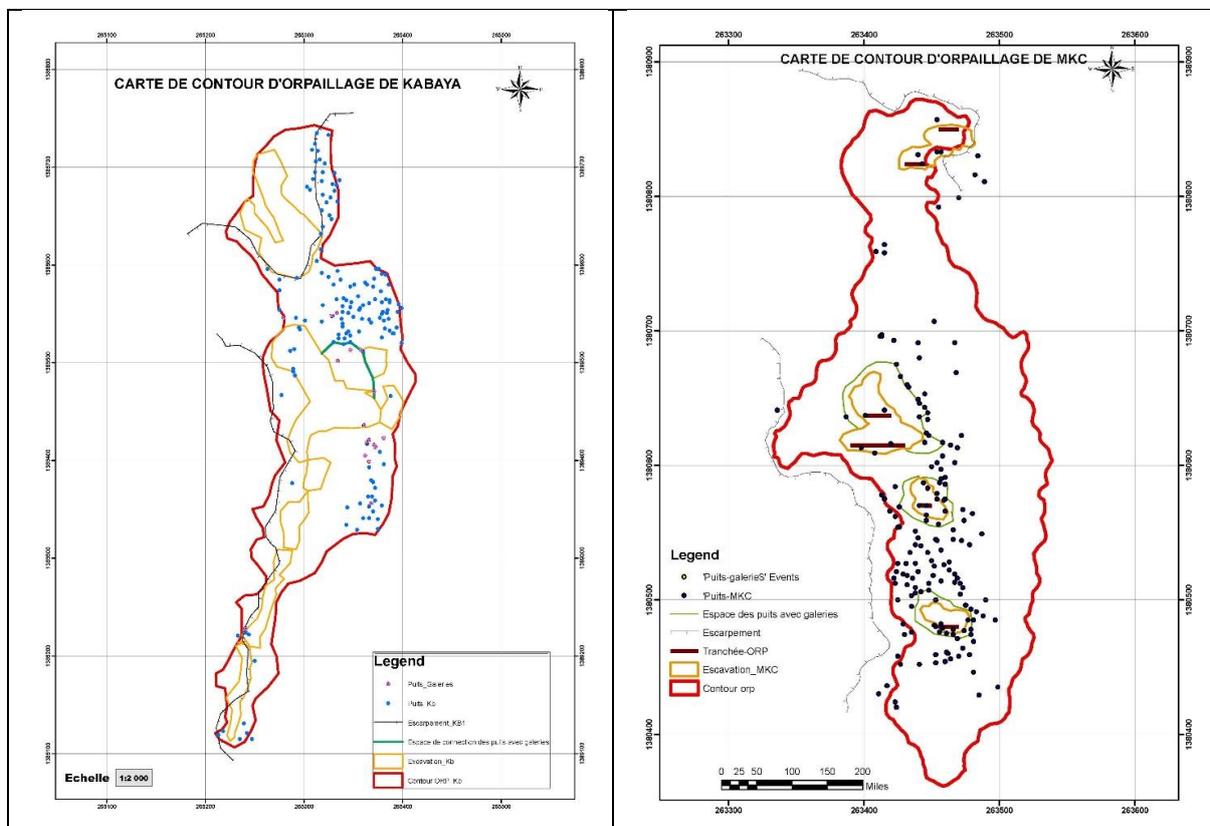
There are numerous artisanal workings within the Kandiole project (see Figure 4.3) but no records of historical production from these areas. The Roscan exploration team has undertaken some preliminary investigations, based on survey measurements and sampling, of the artisanal activities that have taken place within the areas where Resources have been estimated for this report; namely Kabaya, Mankouke Central and KN1. Diagrams of these excavations are outlined below:

Figure 6.5 Artisanal excavations at KN1.



(Source: Map provided by Roscan, 2022 )

Figure 6.6 Artisanal excavations in Kabaya (LHS) and Mankouke Central (RHS).

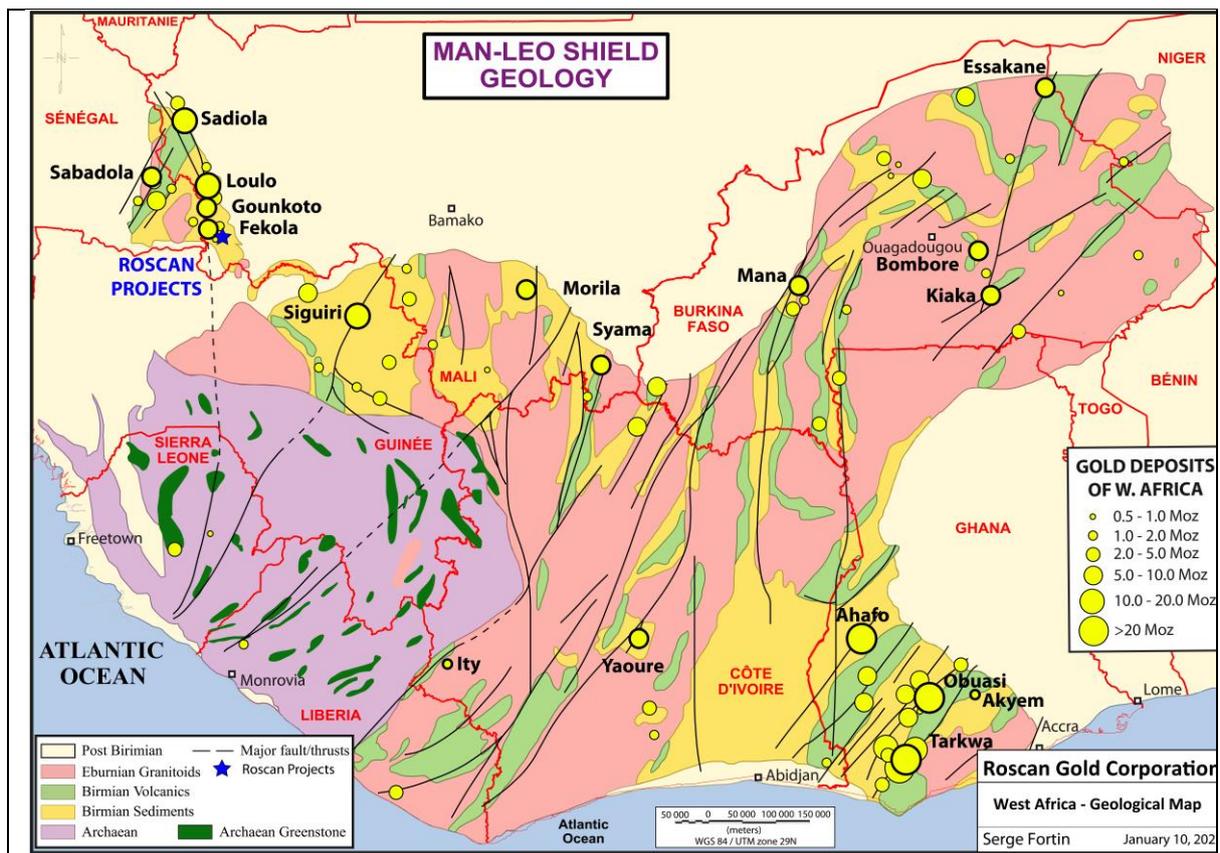


(Source: Map provided by Roscan, 2022 )

## 7 GEOLOGICAL SETTING AND MINERALIZATION

The West African Craton consists of the Archaean Kenema-Man domain (referred to as the Man Shield) in the west and the Birimian Baoule-Mossi, Palaeoproterozoic, domain in contact with and east of the Man Shield (Figure 7.1). The Archaean Kenema-Man domain comprises granite-gneiss units associated with discrete greenstone belts and subject to greenschist to granulite facies metamorphism (Beziat et Al., 2008). The Archean domain contains 3.26 to 2.85 Ga dated, tonalite-trondhjemite-granodiorite (TTG) gneisses. (Rollinson, 2016).

Figure 7.1 Geology of the West African Craton with major gold deposits



(Source: Map provided by Roscan, 2022)

The Paleoproterozoic Birimian terranes of West Africa include shear bounded, linear and arcuate volcano-sedimentary belts ca. 2270-2150 Ma (Baratoux et al., 2011), younger sedimentary basins ca. 2135-2095 Ma (Taylor et al., 1992; Lebrun et al., 2016), and granitoid-dominated terranes ca.2190-2060 Ma ( Hirdes et al., 1992; Parra-Avila et al.,2018). The volcano-sedimentary belts largely comprise lavas of tholeiitic and calc-alkaline affinity, volcanoclastic rocks, and epiclastic sedimentary rocks. The basins are filled with siliciclastic rocks, including arkoses, greywackes, sandstones, argillites, arenites, conglomerates, limestones, marls and other chemical sediments. Multiple suites of granitoid rocks intrude both the belts and the basins.

The following extract from Lambert-Smith et al., 2020, best describes the geological evolution of the Birimian terranes of West Africa. "The Paleoproterozoic terranes formed, accreted, and were deformed over ~200 m.y. (White et al., 2014; Parra-Avila et al., 2016; Grenholm et al., 2019) during the 2266–2140 Ma Eoeburnean and 2135–2050 Ma Eburnean periods (Allibone et al., 2002a & b; Gueye et al., 2007; Hein, 2010; De Kock et al., 2011; Baratoux et al., 2011; Tshibubudze et al., 2015). Initial volcanism, granitoid emplacement, fold and thrust tectonics, and metamorphism took place during Eoeburnean crustal growth and accretion. The ages of the youngest detrital zircon populations indicate that the sedimentary basins developed from 2135 to 2095 Ma (Hirdes and Davis, 2002; Vidal et al., 2009; Lebrun et al., 2016). Emplacement of younger granitoid plutons (Masurel et al., 2017a; Parra-Avila et al., 2018), further contractional deformation and metamorphism, late strike-slip deformation, and widespread Au mineralization occurred during the subsequent Eburnean orogeny (Oberthür et al., 1998; Parra-Avila et al., 2015; Fontaine et al., 2017; Fougrouse et al., 2017; Masurel et al., 2017b). Greenschist facies mineral assemblages dominate in most Paleoproterozoic rocks across West Africa, but amphibolite and granulite facies assemblages are present locally within both the Eoeburnean belts and Eburnean sedimentary basins (White et al., 2014;



MacFarlane et al., 2019). Particularly low geothermal gradients of 10° to 12°C km<sup>-1</sup> are consistent with modern subduction processes during Eburnean time in some parts of the craton (Ganne et al., 2011; Block et al., 2015)".

The Birimian of West Africa constitutes the largest Paleoproterozoic gold-producing region for Orogenic style gold deposits within the world, and one of the world's leading gold provinces. It has an overall endowment of more than 460 million ounces including past production and 2017 Resource inventories (GoldFarb et al, 2017).

## 7.1 REGIONAL GEOLOGY

The Kedougou-Kénieba inlier (KKI) in western Mali and eastern Senegal represents the westernmost exposure of the Birimian Supergroup within the West African Craton. The KKI is bounded on its western margin by the Hercynian Mauritanide orogenic belt (Villeneuve, 2008) and is unconformably overlain by flat-lying Neoproterozoic sandstones of the Taoudeni intracratonic basin on all other sides (Villeneuve and Cornée, 1994).

The Birimian domains of the Kédougou-Kéniéba inlier have been subdivided into a various series. The westernmost Mako Series is followed eastwards by the Dialé-Daléma Series, the Falémé Series and finally the Kofi Series. The stratigraphy of the KKI from west to east consists of: (1) bimodal volcanics intruded by numerous plutonic complexes in the Mako Series, (2) detrital sedimentary and epiclastic rocks of the Dialé-Daléma basin, which are intruded by the Saraya batholith; (3) calc-alkaline volcanoclastic rocks of the Faleme Series and; (4) siliciclastic and turbiditic sedimentary rocks of the Kofi Series, unconformably overlain by Neoproterozoic sedimentary rocks to the east (Lambert Smith et al 2016a).

The Mako Series is separated from the Dialé-Daléma ("DD") by a regional-scale shear zone known as the Main Transcurrent zone (MTZ). The Faleme series is bordered in the east by the Senegal-Mali Shear zone which separates it from the Kofi Series within Mali (Lawrence et al 2013a).

The Kofi Series is the principal package of metasediments covering the Kandiole project area and is interpreted to represent a fore-arc environment with a sequence of shelf carbonates and calcareous clastic rocks to the west, and deeper water argillites and turbiditic sedimentary rocks towards the east. This broad classification is complicated by a series of D1 thrusts that caused stacking and repetition of the strata during early Birimian orogenesis. Furthermore, recent work by exploration geologists in the east has highlighted those alternating changes in sea level during basin development probably resulted in the development of shelf packages and shallower water sediments in the east.

The KKI demonstrates a complex sequence of pre and syn-tectonic plutons which are mainly diorite-granodiorite or granite in composition and include metaluminous calc-alkaline plutonic rocks, locating principally in the Mako and Faleme series and peraluminous monzogranite and granite within the sedimentary packages (ie Saraya Batholith and Gamaye Pluton).

Allibone et al (2020) give an excellent summary of the key deformation events in the Mali portion of the KKI and are quoted here "Two region-wide deformation events are generally recognized in the eastern Kédougou-Kéniéba inlier, an early period of contractional deformation with associated reverse faulting and folding (D1), and a subsequent period of transcurrent deformation during which a second episode of folding was followed by sinistral displacement on N-striking shear zones (D2). Inversion of the Dialé-Daléma and Kofi series sequences into their steeply dipping orientations occurred during the earlier contractional phase, whereas later transcurrent deformation broadly coincided with widespread plutonism across the Kédougou-Kéniéba inlier between ca. 2090 and 2050 Ma. Locally, some workers infer the influence of one or more additional minor deformation events, within or after D2". The Transcurrent deformation event (D2) is thought to be synchronous with gold mineralization and the emplacement of several granitoids (e.g. the Saraya, Yatia, Gamaye peraluminous granites). Regional greenschist facies metamorphism is associated with both compressive and transcurrent phases of deformation.

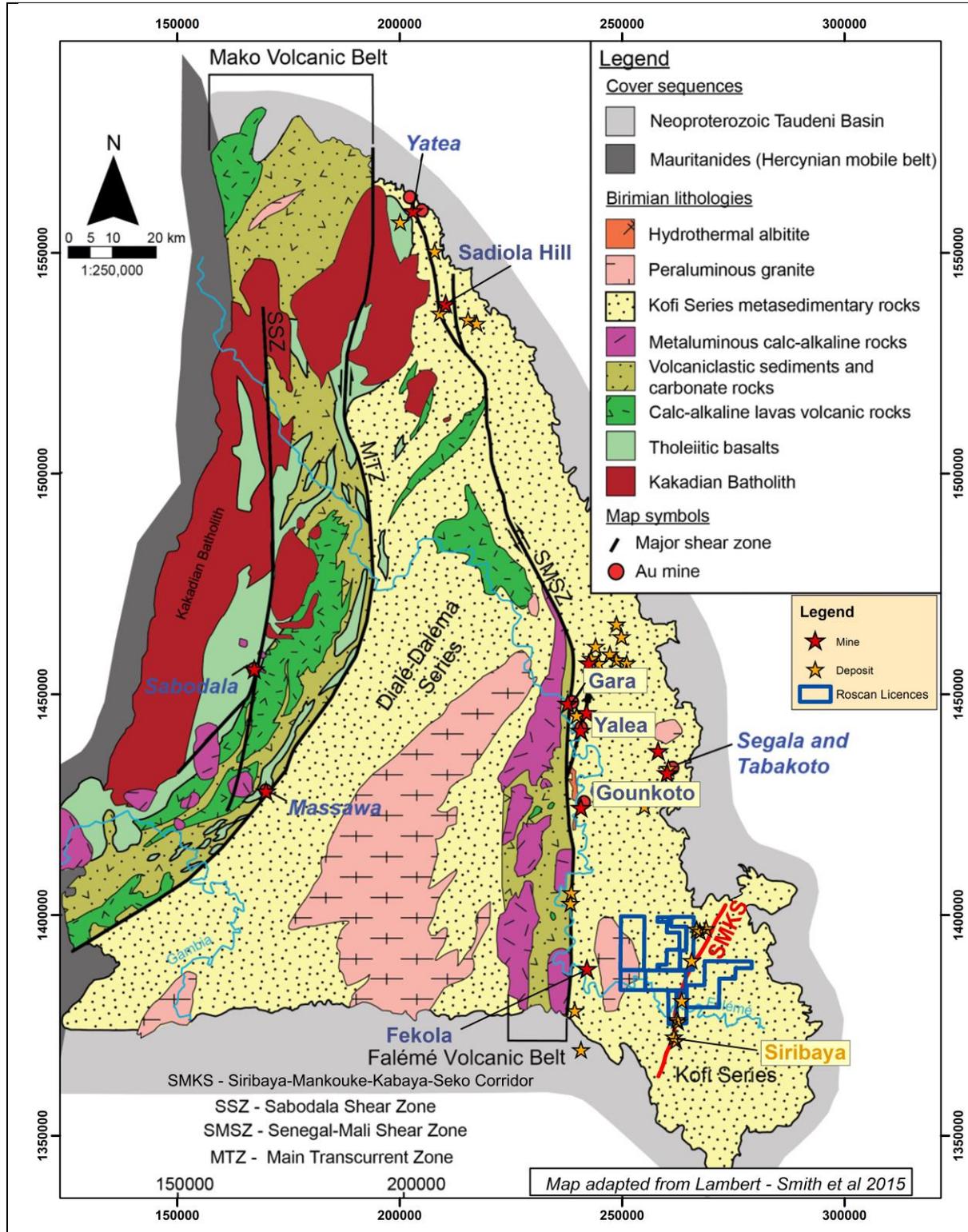
Age dating within the KKI is well summarized in the Lambert-Smith et al paper (2016a). In general terms the crustal rocks young eastwards with the oldest protolith gneisses (+/-2200 Ma) locating within the Kakadian batholith in the west and younger dates relating to formation of the various metasediments (~2120 Ma for the Kofi sediments at Loulo and 2071-85 Ma for the Bambadji Formation (Allibone et al 2020)). Youngest events are represented by the Gamaye pluton (~2050 Ma) and the gold mineralising events at Loulo (Gara deposit at ~2028 Ma).

Lambert-Smith et al (2016a) state that "The tectonic setting in the KKI evolved from a volcanic island arc (Mako) and back arc (DD) environments to an active continental margin. Crustal thickening, because of a shift to collisional tectonic setting, combined with magmatic differentiation, led to the generation of peraluminous, granitic melts with a significant crustal component".

The Malian portion of the KKI represents one of the largest orogenic gold districts within West Africa and includes the mines of Loulo-Goukotou complex (Gara, Yalea, Goukoutou and various satellites), the Fekola deposit, The Tabakoto Mines, Sadiola and various newly discovered deposits locating on the eastern side of the Kofi Series. The Gold endowment of this area,

including previous production and current Resources is in excess of 50Moz. Figure 7.2 illustrates the spatial relationship between the western deposits and the Senegal-Malian shear zone. A new structure, referred to in this report as the Siribaya Mankouke-Kabaya-Seko Structural Corridor (SMKS) spatially links the deposits of Siribaya (Iamgold), Roscan's deposits (South Mankouke, Mankouke Central, KN2 and Kabaya) and the Seko deposits (Oklo).

Figure 7.2 Geology map of the Kedegou-Kenieba Inlier after Lambert-Smith et al 2015



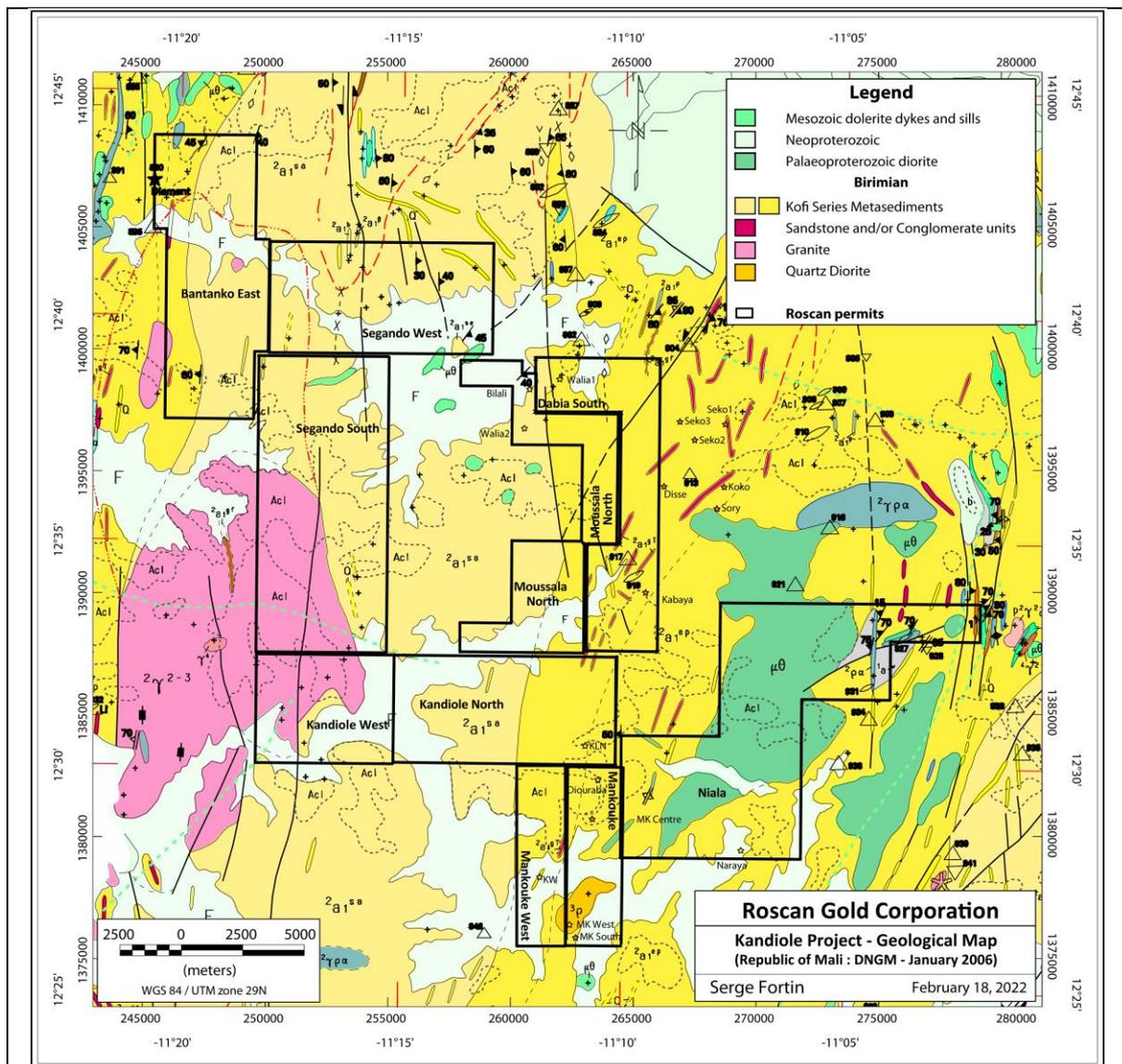
(Source: Diagram provided by Roscan, 2022, modified after Lambert-Smith et al 2015)

## 7.2 GEOLOGY OF THE KANDIOLE PROJECT AREA

The Kandiole project area is poorly outcropped, the geological descriptions of the properties are therefore based on observations from historical exploration reports and maps, the currently available diamond drill core, mapping of artisanal shafts and pits as well as reference to high resolution satellite imagery, airborne and ground geophysical data and the generative study of Xpotential (2021).

The Geology of the Kandiole area is summarized in Figure 7.3 and Figure 7.4. Figure 7.3 is an excerpt from the geology map of DNGM covering the Kenieba-Bafing-Makana area with Roscan Permits superimposed. The principal geological features within the project area are the Gamaye granite pluton in the west (pink colour), the Birimian Metasediments of the Kofi series (principally the yellow colours), the diorite sill covering the Niala permit in the east and the various fluvial, alluvium floodplains (signified as “F” on the map) of the Faleme river and its tributaries in the south-central area plus another floodplain covering Segando West-Bantanko East in the North. The Kofi formation metasediments were subdivided by the DNGM into a western, predominantly finer grained (mudstone-siltstone) package and a central-eastern package containing a combination of siltstone-shale-calcareous marls, limestones, greywackes (volcanic component), some sandstones and conglomerate-breccia units. A steeply dipping regional foliation is well developed in the area and shows a north-northeast to south-southwest orientation. Individual rock formations are strongly sheared and folding, faulting and brecciation are locally developed.

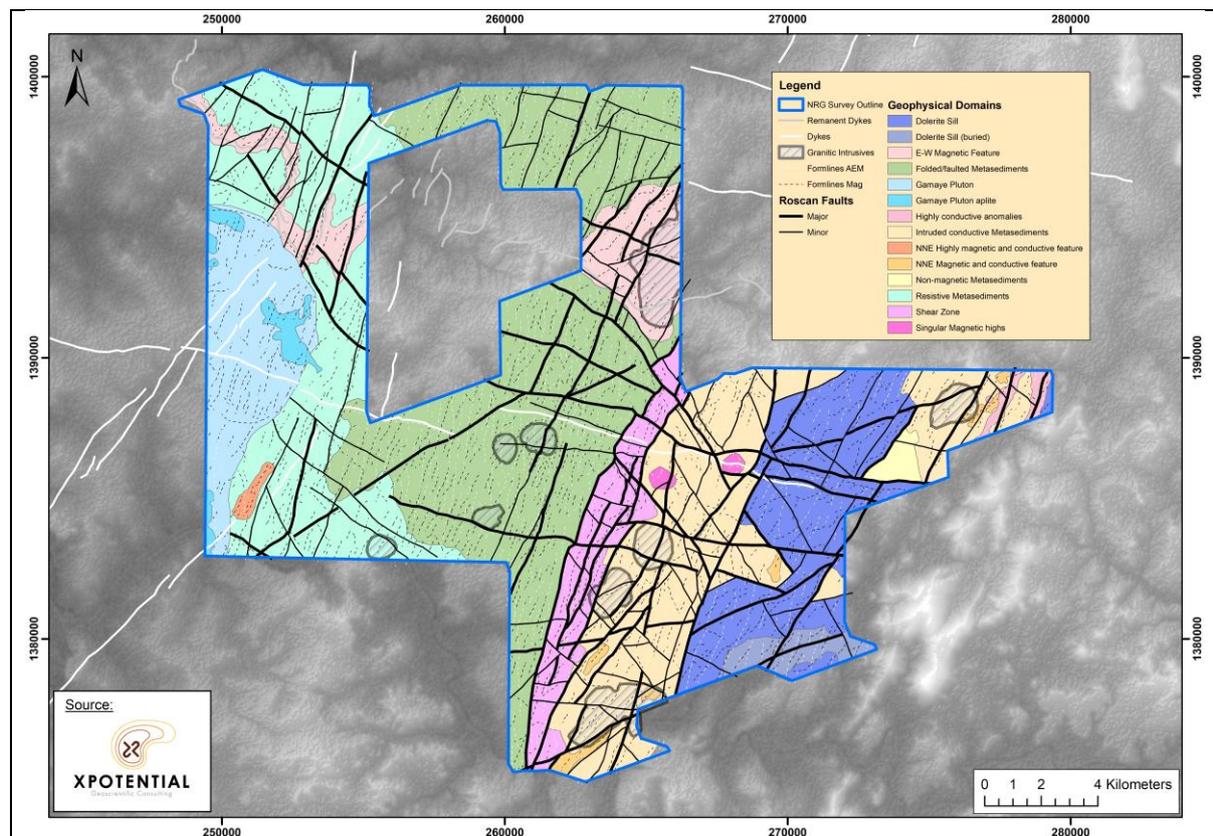
Figure 7.3 Excerpt from DNGM geology map of the Kenieba-Bafing-Makana area



(Source: Diagram provided by Roscan, 2022)

Figure 7.4 was produced by Xpotential, is the final map from a generative study undertaken on behalf of Roscan which includes interpretation of historical geophysics and a low flying, helicopter borne and hi resolution aeromagnetic-radiometric-electromagnetic survey completed over the permit portfolio in 2021. The Gamaye pluton in the west and the eastern sill remain as previously mapped but the Birimian metasediments have been subdivided into various packages based on their geophysical properties (magnetic vs conductive vs resistive). The general structural grain of the Birimian has been outlined and is N-NE with variable steep dips to the west and east and relating to the D1 folding event. A central structural corridor (referred to as shear zone in pink and outlined on Figure 7.2 as the SMKS) has been outlined and spatially links the Roscan deposits of South Mankouke, Mankouke Central and Kabaya. The SMKS is a major structural corridor transecting the permit in a NNE direction (N10-N20) and hosting several mineralized zones. This corridor has a strike length of 30km from Siribaya to Seko deposits, and a width of +5km km based the EM data. The KN1 and Walia deposits may also be related to a Northerly splay linked to this structural corridor. Numerous granitic stocks have been interpreted in association with the central structural corridor or immediately to the west and east of this structure. The map also demonstrates that the NNE and NE Birimian structures are displaced by younger WNW-ESE trending structures.

Figure 7.4 Xpotential Geology map of Roscan permit portfolio as at September 2021.

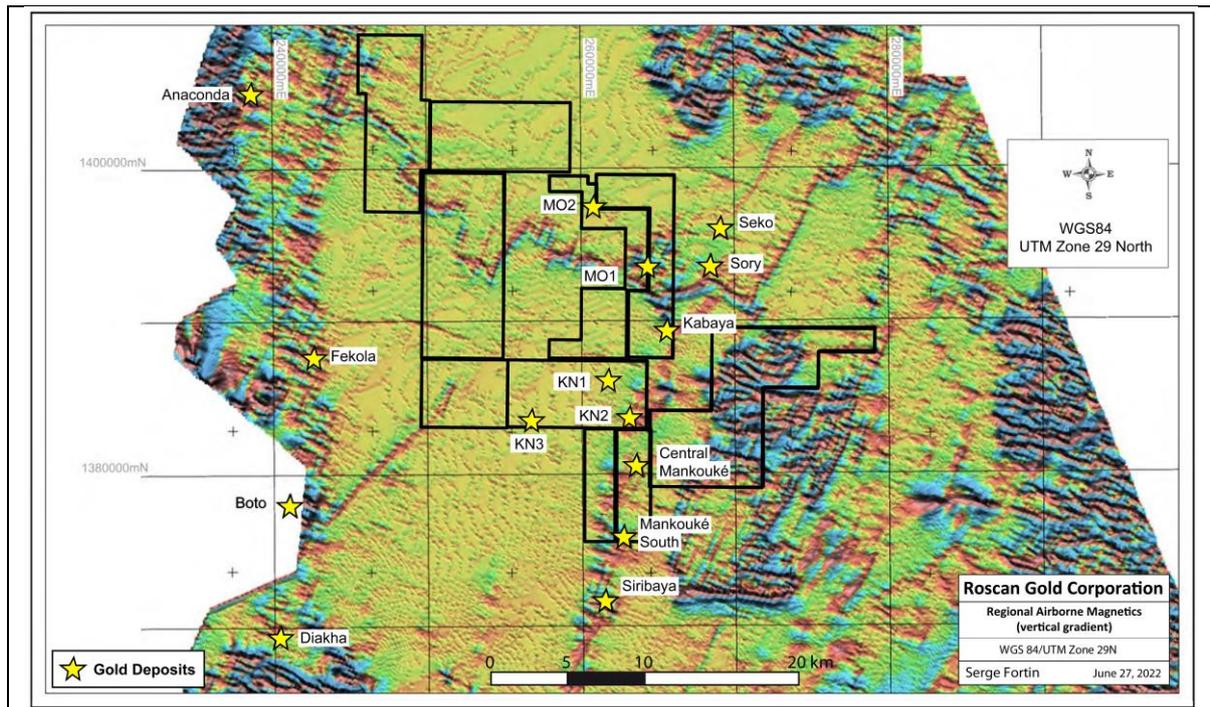


(Source: Xpotential, 2021)

The central structural corridor, the SMKS, as depicted on Figure 7.2 is also well illustrated on a vertical derivative of the Sysmin aeromagnetic (Figure 7.5) data which highlights that the SMKS structural corridor is spatially linked to the gold deposits of Mankouke South, Mankouke Central, KN2 and Kabaya as defined in this report and extends SSW to the Siribaya deposit (Iamgold) and NNE to the Seko Deposits (Oklo Resources). The aeromagnetic image also highlights the SMSZ separating the western magnetic domain of the Faleme series from the eastern Kofi domain. The edge of the SMSZ locates in the NW portion of the Bantanko Est permit.

Roscan recently undertook some petrographic work on cores from their various deposits to look at representative lithologies. This work and supporting descriptions from core logging are summarized in Table 7.1. The main lithologies encountered are various metasediments including shales, limestone-siltstone-shale rhythmically bedded units (MSCA or dirty marble), various polymictic breccia, greywacke, volcanoclastic units (ie Tuff) a quartz-feldspar intrusive (referred to as the Dacite Porphyry) and dykes of micro-diorite. Observations from drill cores include additional lithologies such as marble, phyllite (deformed mudstone) and metapelite. The breccia units are interpreted to be formed from mass flow processes related to debris flows or slumping and are often seen at the transition from shallow shelf to deeper water sedimentation where turbidity currents are developed.

Figure 7.5 Vertical gradient of Symin Regional Airborne Magnetics with gold deposits and Roscan Permits.



(Source: Diagram provided by Roscan, 2022)

The Kandiole project Land permit area has limited outcrop and is characterised by low relief and a heavily lateritised terrane with surface gravels, saprolite and various elevations of Ferricrete plateau. The laterite terrane has been incised and eroded by the large Faleme riverbed and its tributaries as depicted by several alluvial terraces. The geomorphology map of the project area is illustrated in Figure 7.6.

Table 7.1: Descriptions from principal lithologies found within the Kandiole Project.

Lithology (petrography)	Field name/hole sampled	Description	Photo
<b>Polymictic breccia</b>	Polymictic breccia DDMAN21-92 DDMAN20-41 DDMAN20-30	Mixite of sub-rounded fragments of different size and nature, mostly carbonate and plagioclase (albitite-altered), within a poorly define hydrothermally altered matrix. The matrix is made of carbonate, albite, quartz, trace of rutile and various alteration minerals including magnetite, sulfides, and sericite. Size, nature, and proportion of fragments varies from places to place within the area giving the rock a broad tint of colors	
<b>Dacite porphyry</b>	QFP DDMAN21-116 DDDBS21-18	Pale grey/white, fine-grained rock, with siliceous-looking and exhibiting white relicts of plagioclase phenocrysts within a glassy groundmass that contains quartz and plagioclase. modal mineralogy indicates that Plagioclase account for 80% and quartz for about 10%. Alteration may hinder plagioclase so that at places only relicts of plagioclase phenocrysts are visible on microscope.	
<b>Microdiorite</b>	Microdiorite DDMAN21-116	Occurs as small dykes consisting of fine-grained relicts of plagioclase (+/- albitised), and relicts of mafic sub-phyric, sometimes with relict-core of biotite. Chlorite is present and may originate from biotite.	
<b>Meta-volcaniclastic sediment</b>	Tuff DDDBS21-021	This consists usually of bands of pinkish carbonate-quartz-albite-sericite. It is readily scratched than the greywacke sediments. Sometimes thin layers of flames are seen within very fine-grained material (volcanic ash?)	



Table 7.1 continued.

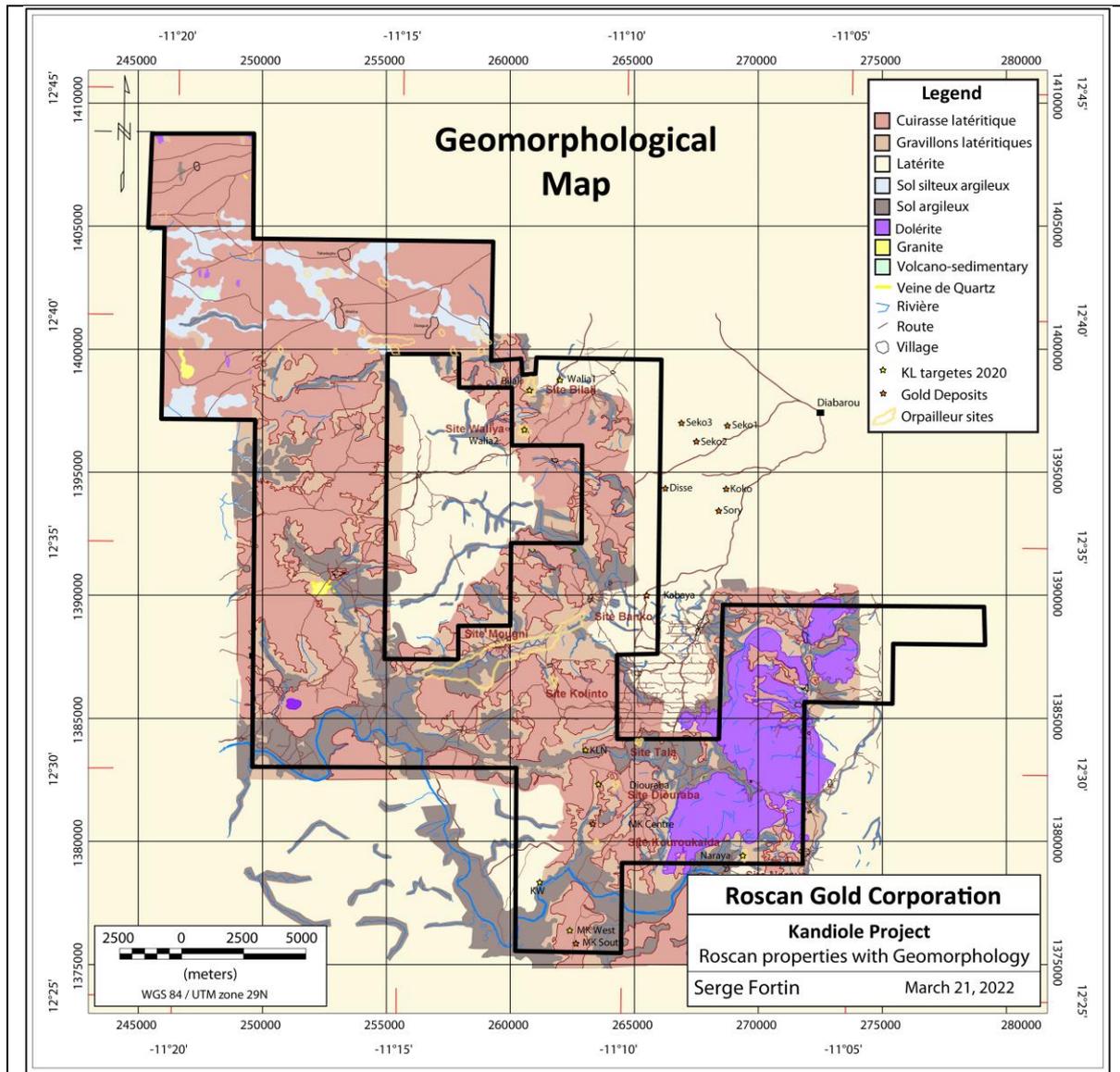
<b>Metagraywacke</b>	Metagraywacke DDDBS21-017 DDDBS20-02 DDDBS21-29 DDMAN21-130	Sedimentary dark grey colored rock made of various detrital minerals including albite, carbonate, quartz in matrix of plagioclase, quartz, carbonate, chlorite, and minor relicts of mafic minerals, and sometimes ilmenites. At places it shows faintly bedded structure. this rock in generally dark colored by alteration may turn it pale pinkish.	
<b>Shale</b>	Shale DDKAN21-06	Very fine grained and dark colored rock usually foliated with sericite-chlorite	
<b>Dirty marble</b>	MSCA DDMAN21-99 DDDBS20-05	Dirty marble composed of interbedded paler-colored carbonate layer alternating with darker-colored pelite rich layer. Minor quartz is usually present in both layers. this rock is generally not altered but may be recrystallize.	

In the mineralized zones, the lateritic profile is generally well developed, lateritic crust reaches 15 to 17 m and the saprolite 120 m to 160 m maxima recorded in the mineralized zone (particularly Mankouke south, Kabaya and KN1). Underneath the lateritic crust and the 1 m average mottled zone, the recognition of primary features related to the protolith is hampered by the oxidation process and in particular the intense kaolinization. The transition between the saprolite and the fresh rock is in average 8 m thick. The thicker saprolite in the mineralized areas is interpreted to relate to more intense weathering of these zones due to the presence of alteration minerals and the inflow of groundwaters within the associated shear structures. This feature is well illustrated in the depth of saprolite seen on the various cross sections of individual deposits (Mankouke South, Mankouke Central, KN1 and Kabaya) and regionally in Figure 9.3 which defines the depth of saprolite from the EM profiles.

### 7.3 DEPOSIT GEOLOGY AND MINERALIZATION

The exploration methodology utilized by Roscan to define the major deposits was termite geochemistry followed by air core drilling of geochemical anomalies and then RC and diamond drilling. This approach has resulted in the discovery of the major deposits of Mankouke South, Kabaya and KN1, and the saprolite and shallow mineralization outlined in Mankouke Central, MOU1, and KN2 and 4.

Figure 7.6: Geomorphology map of the Kandiole project area.



(Source: Map provided by Roscan, 2022).

### 7.3.1 Mankouke South

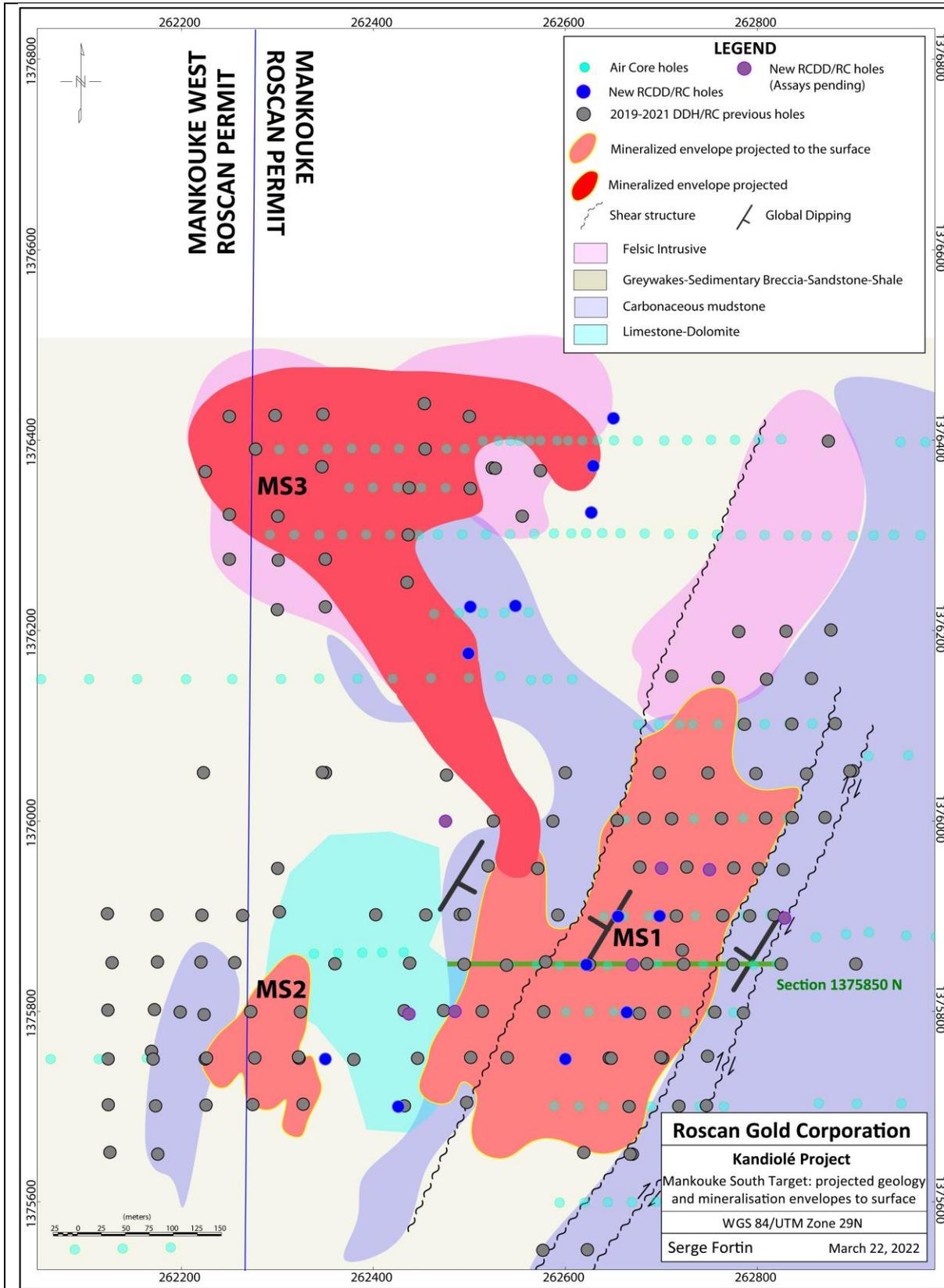
Mankouke South is the most documented area due to the drilling density and core from diamond drillholes into the fresh rock. The lithostratigraphy consists of impure limestones/mudstones (MSCA) and sequences of clastic and carbonate sedimentary rocks, including sedimentary breccia (debris flow), arenite, wacke, shale /pelite and limestone. These sedimentary sequences have been intruded by a dacite porphyry and several other intermediate dykes and sills. The geology and distribution of mineralization is well summarized in Figure 7.7 and Figure 7.8.

The mudstone-marl package (carbonaceous bedded mudstones with calcareous siltstones or MCSA) represents a quieter and deep-water environment. In discordance, the sedimentary package above is marginal marine sediment at the edge of a basin, with more proximal depositional facies such as coarse debris flow, greywackes, sandstone, shales, and limestone.

The eastern side of the deposit the MSCA unit forms the foot wall (FW) to the mineralization and is in structural contact with a clastic sedimentary sequence that includes diamictite (breccia), arenites and limestones. A Dacite porphyry body has intruded into the clastic sequence and its emplacement was probably facilitated by the fault zone/s. The western contact with the porphyry body is also a sheared/faulted contact and gives way to a hanging wall (HW) limestone package locating below another MSCA unit.

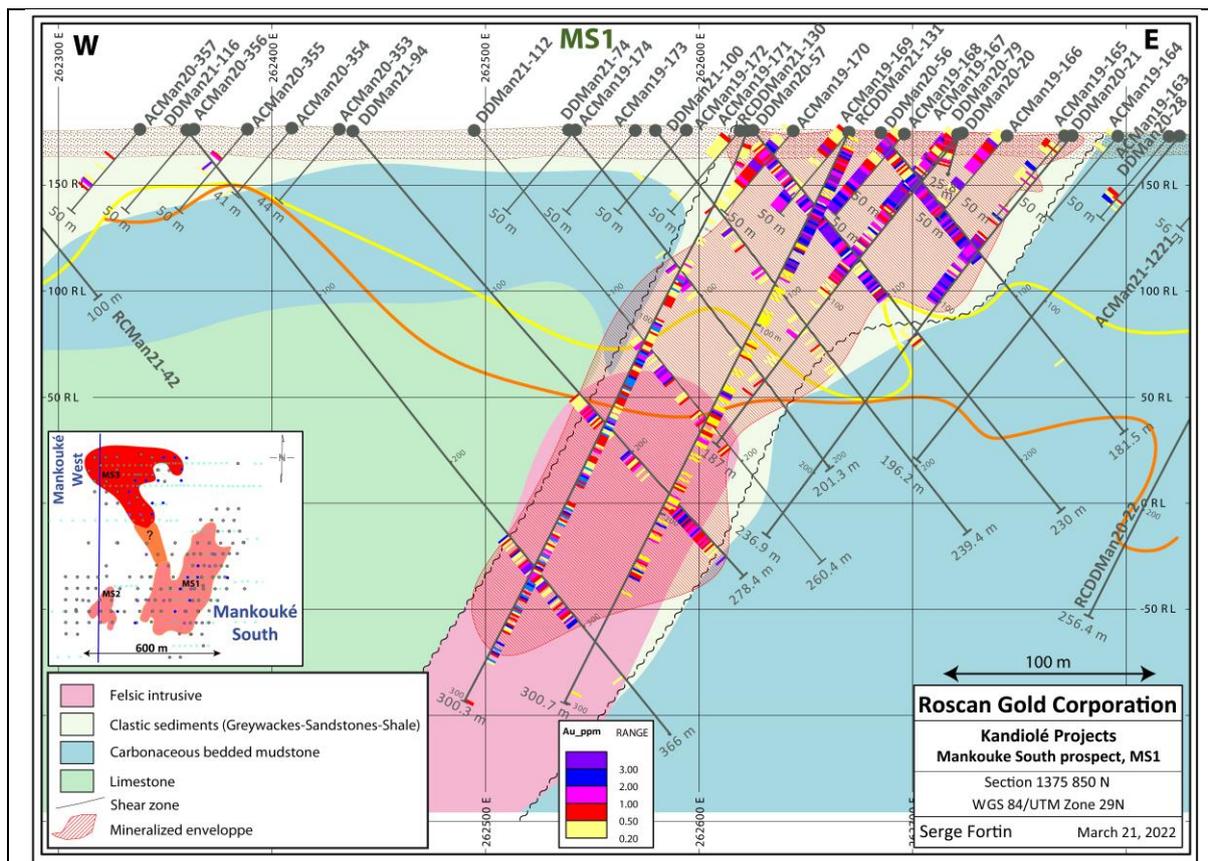


Figure 7.7: Plan View of projected geology and mineralization zones for Mankouke South.



(Source: Diagram provided by Roscan, 2022).

Figure 7.8: Mankouké South (MS1) Geology Section 1,375,850 mN.



(Source: Diagram provided by Roscan, 2022).

Gold mineralization is located within the clastic sequence and the dacite porphyry unit and bounded in the east and west by two sheared zones in contact with the MSCA FW and the limestone of the HW. In general, the gold mineralization envelope has an NNE-SSW orientation. At depth the geometry of the mineralization is controlled by the shear zones and brittle deformation in the porphyry unit and overall, the body dips to the west ( $\pm 70^\circ$ ). The dominant structural measurements at Mankouké South are the bedding which is N-S in average,  $60^\circ$  West and East dipping. The shear measurements ( $185^\circ$  strike,  $82^\circ$  West dipping) are globally parallel to the bedding direction but subvertical. There is a second shear direction around  $220^\circ$  strike,  $75^\circ$  West dip. The mineralized quartz veins are mainly NE-SW and subvertical.

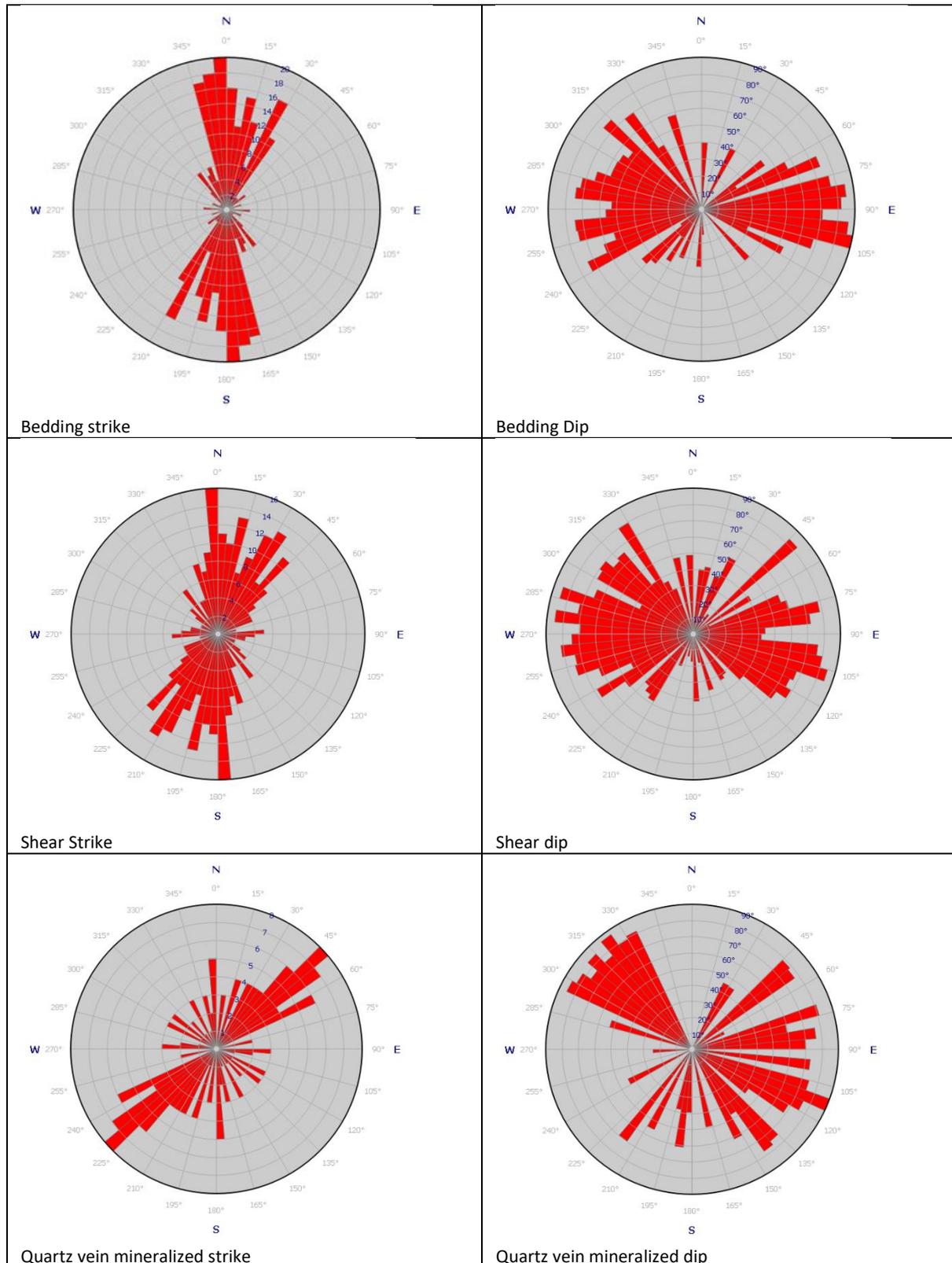
At shallow levels and within the weathered saprolite the mineralization appears to be horizontal or dipping at shallow angles to the East. The shallow easterly dips could relate to deflation, volume loss and concentration during the previous hot and humid weathering process which was responsible for laterization and extensive oxidation to deeper levels. This intense oxidation and deflation process has resulted in decarbonatization of the limestone units and strong hematite development at shallow levels.

Gold mineralization in bedrock is associated albite-silica-carbonate-sericite alteration, sometimes with magnetite and locally tourmaline. Gold locates with disseminated sulphides (pyrite, arsenopyrite and pyrrhotite) in association with quartz and some carbonate veins, veinlets and sulphide stringers which are foliation parallel. Strong albitization is often associated with high sulphide content and better gold grades. The gold mineralization envelope corresponds very well with the alteration envelope where it can be identified in the fresh rock and saprock.

The gold mineralization is mainly controlled in distribution by the HW and FW shear zones and is not prevalent in the carbonaceous mudstone FW and the HW limestone. Brecciation is associated with the shear zones. Mineralization in the porphyry body locates principally in the contact zones associated with fracturing and a stockwork of veinlets.



Figure 7.9: Mankouke South: Rose diagrams of strike and dip directions for bedding, shear zones and quartz veins.



(Source: Diagrams provided by Roscan, 2022).

The most prominent mineralized body is MS1 and is displayed in the east-west section referred to as 1,375,850 mN (Figure 7.8). The full mineralized system is preserved in this area and most of the descriptions outlined above refer to MS1. Thickness of saprolite in MS1 can be up to 160 m vertical depth below surface. MS3 mineralization is associated with the nose of a dacite intrusive body and MS2 locates within a structural wedge in the clastic sediments in contact with the MSCA to the



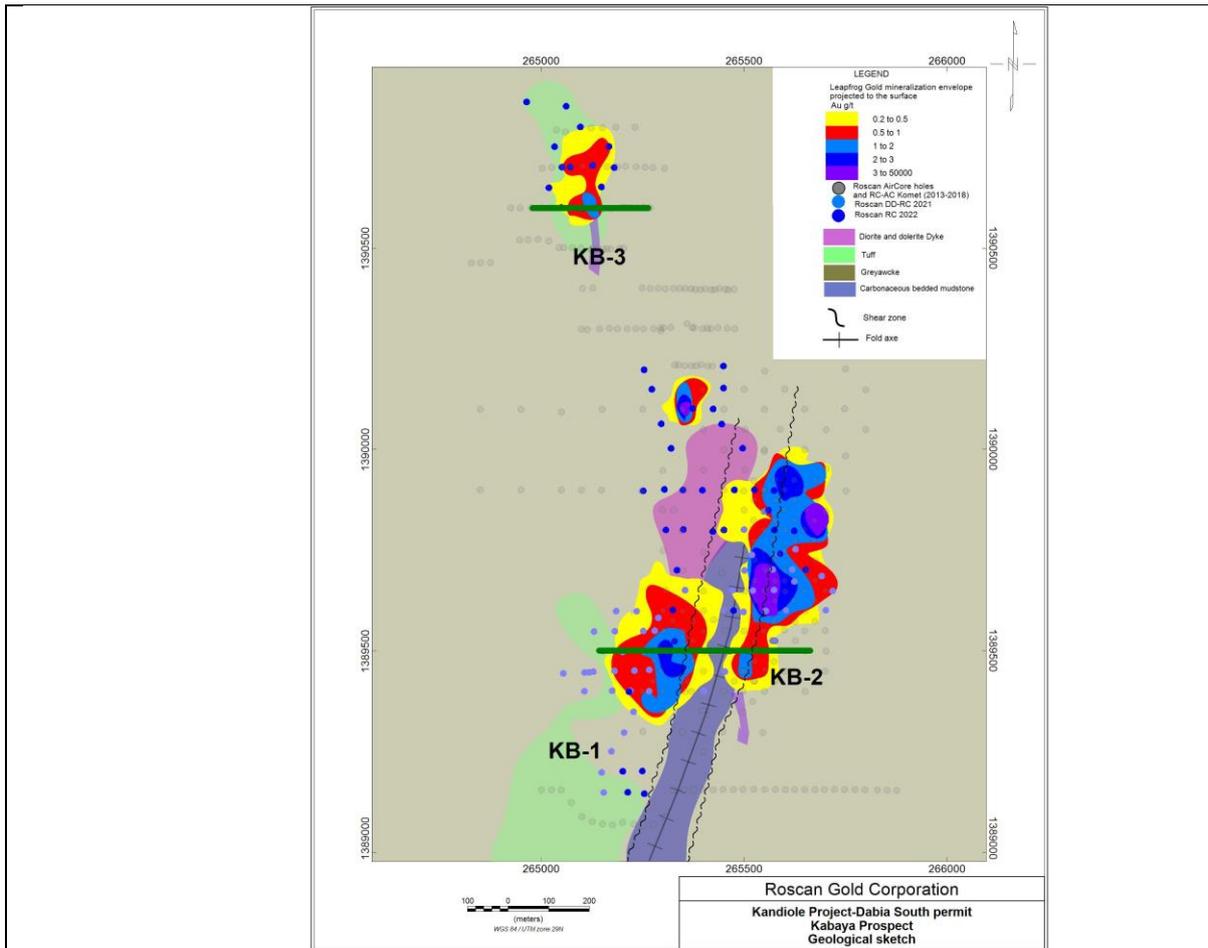
west of MS1. Saprolite depths are much shallower in MS2 and MS3. Further drilling is required between MS1 and MS3 and represents an exploration opportunity.

Figure 7.10: Core from Mankouke RCDDMan22-130 (250.8 to 251.2 m). Pyrite veins with chlorite halo in Quartz Feldspar Porphyry. Thin veinlets with arsenopyrite (silver) and tourmaline (black).



(Source: Photograph provided by Roscan, 2022).

Figure 7.11: Plan Geology of Kabaya deposits with grade distribution, shear zones and drilling.



(Source: Diagram provided by Roscan, 2022).

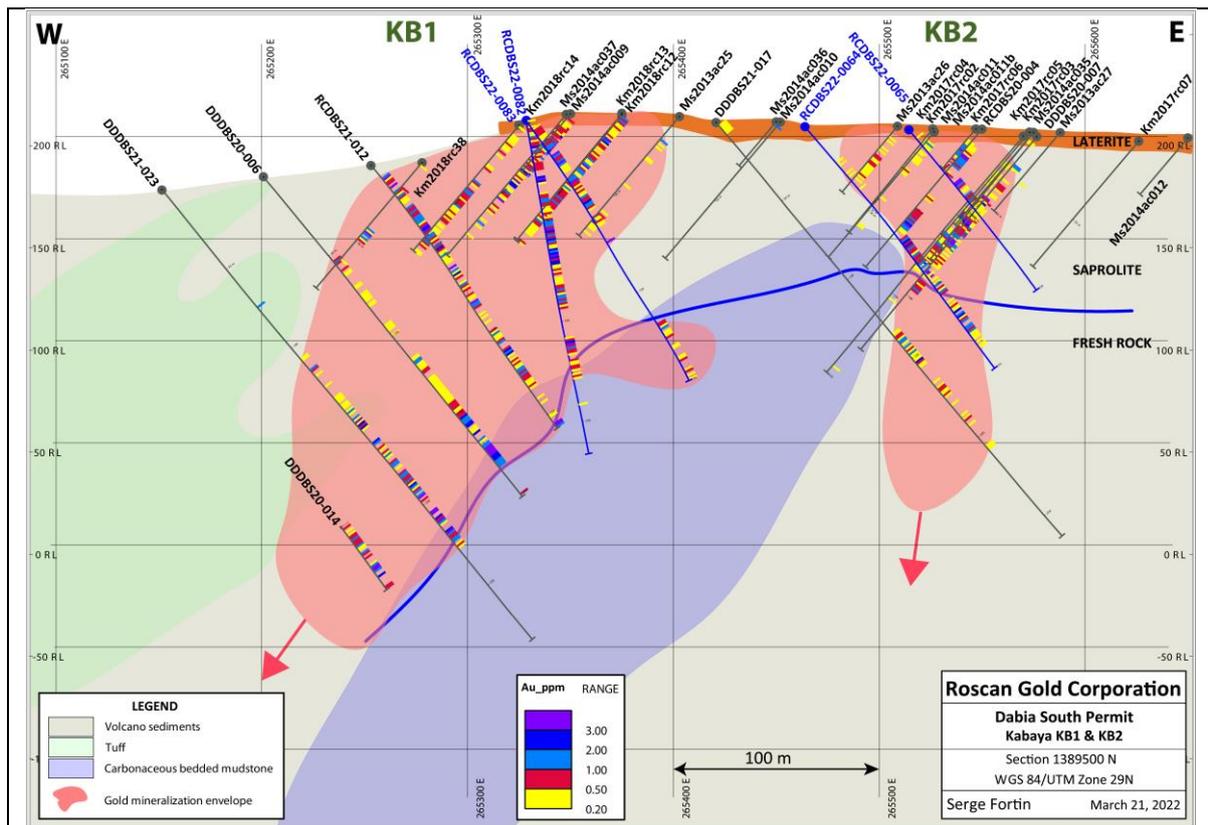
### 7.3.2 Kabaya

The saprolite profile is deep (up to 250 m in KB1) and there are only a few, deep diamond holes to assist with lithological interpretation, understanding of structures and mineralization. As at Mankouke, the lithostratigraphy consists of impure

limestones/mudstones (MSCA) overlain by a volcano-sedimentary sequence (tuff to greywackes) with some breccia intercalations. The sedimentary package has been intruded by an intermediate intrusive body and several intermediate dykes and sills. The geology and distribution of mineralization is well summarized in Figure 7.9 and Figure 7.10. There are three mineralized areas, as defined by drilling; a western zone referred to as KB1, an eastern zone KB2 and a northern zone KB3. KB1 and KB2 locate within the western and eastern limbs of a NNE trending, anticlinal fold axis. The axial plane of the fold locates within the MSCA.

The MSCA represents a deep-water environment. In discordance, the sedimentary package above this represents more proximal depositional facies with a volcanic component (tuff, and greywackes). A coarse grained and poorly sorted, debris flow unit (diamictite) was intersected in the eastern mineralized zone (KB2).

Figure 7.12: Geology and Grade section (1,389,500 mN) of Kabaya Deposit.



(Source: Map provided by Roscan, 2022).

Figure 7.12 illustrates strike and dip directions of bedding and shear zones for the Kabaya deposit. The bedding measurements were taken mainly in the carbonaceous bedded mudstone and indicate a steep and tilted, anticline fold with a NNE axes. The shear zones trend is N 15° with 60° to 80° dip West. The quartz veins mineralized has a ENE-WSW overall strike dipping 60°-70° to the West while the barren veins are NE-SW dipping West with a lower angle around 50°.

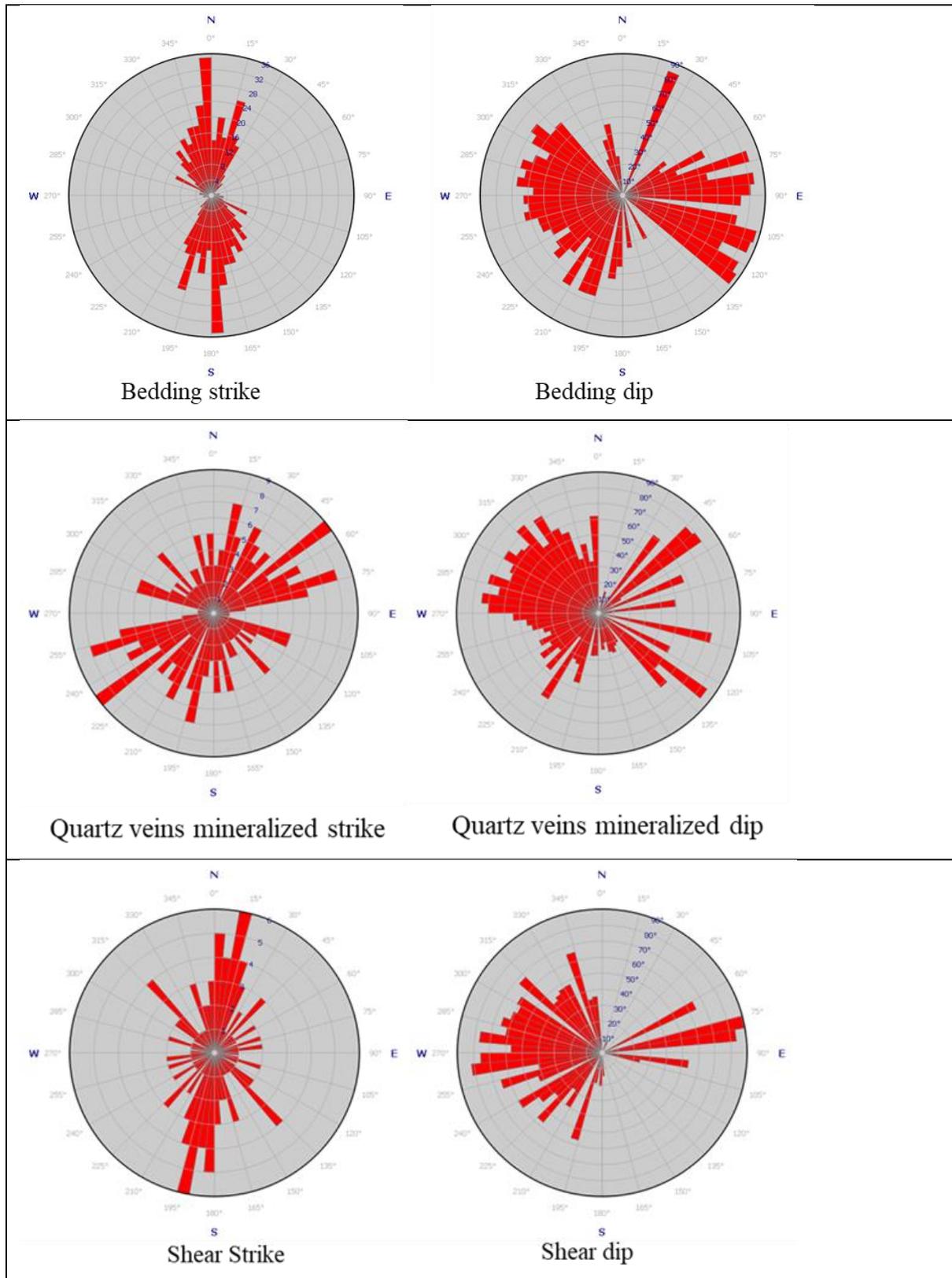
The principal mineralization zone (KB1 and KB2) relates to NNE-SSE brittle structures at the contact with the MSCA unit. The bulk of the Kabaya mineralization locates within intensely kaolinized saprolite. This kaolinization is oxidation of the alteration mineral assemblages and corresponds at depth with the albite/ankerite, sericite, chlorite-biotite and carbonatization. The alteration assemblage is associated with a higher percentage of sulphides (pyrite+ Arsenopyrite +pyrrhotite), magnetite (minor) and the occurrences of grey quartz veinlets.

At Kabaya West, the gold mineralization is associated with fine to coarse disseminated pyrite and arsenopyrite with locally pyrrhotite as a secondary sulphide in sheared greywackes and tuff with albite alteration. The MSCA-clastic sediment contact zone is brecciated and often mineralized at Kabaya.

At Kabaya East the mineralization is also associated with higher percentage of sulphides (mainly pyrite) at the fractured and brecciated contact between greywacke and the MSCA.



Figure 7.13: Kabaya Deposit: Rose diagrams of strike and dip directions for bedding, shear zones and quartz veins.



(Source: Diagrams provided by Roscan, 2022).

Figure 7.14: Kabaya. Core from DDBS20-002 (162.5 m-162.8m). Typical alteration in breccia with albite, tourmaline, magnetite, calcite and pyrite. Sample grades 1.08 g/t Gold.

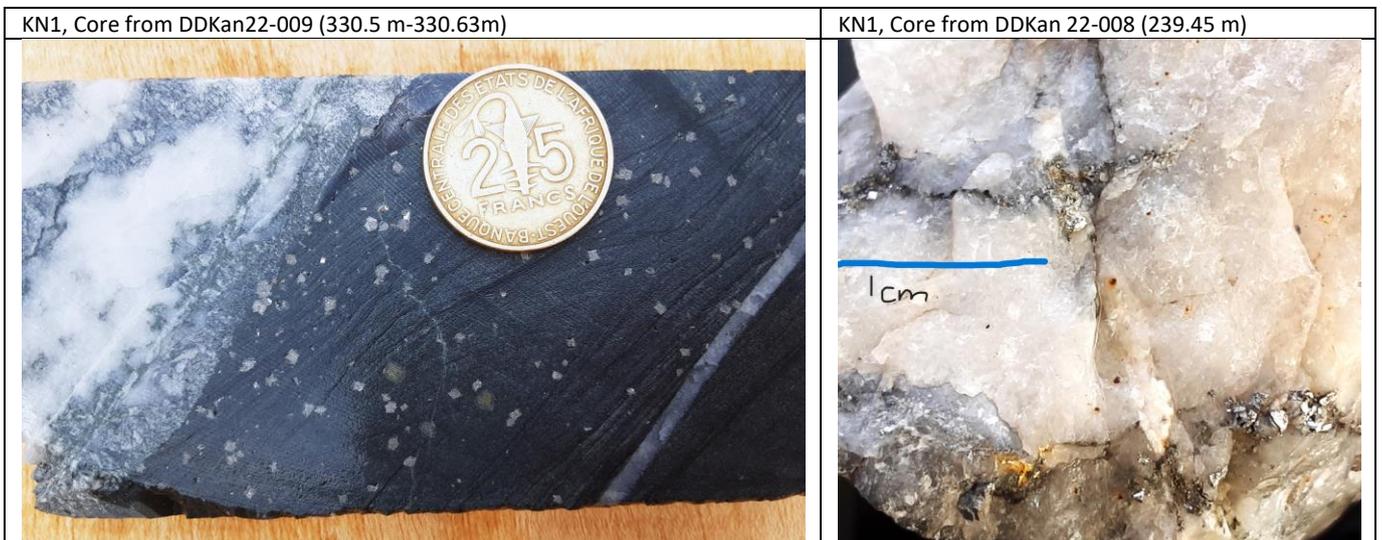


(Source: Photograph provided by Roscan, 2022).

### 7.3.3 KN1

Deeper saprolite (up to 150 m) also occurs at the KN1 deposit and is spatially associated with a NE-SW orientated shear corridor hosting East-West and NE-SW trending quartz and sulphide veins. The host rock is clastic sediment from fine grain shale to coarser greywacke strongly weathered and the quartz veining gold bearing system is associated with disseminated pyrite and arsenopyrite (Figure 7.15). The NE-SW shear veins do not host significant quantities of gold but the E-W smoky centimetric to pluri-centimetric veins carry most of the gold mineralization which is often associated with pyrite and arsenopyrite. A plan view of the shear zone corridor and its relationship to the gold grade envelope is illustrated in Figure 7.16. The rose diagrams of dip and strike of veining and shearing highlight the importance of the east-west vein sets. A section of KN1 (Figure 7.17) illustrates the linear gold zone.

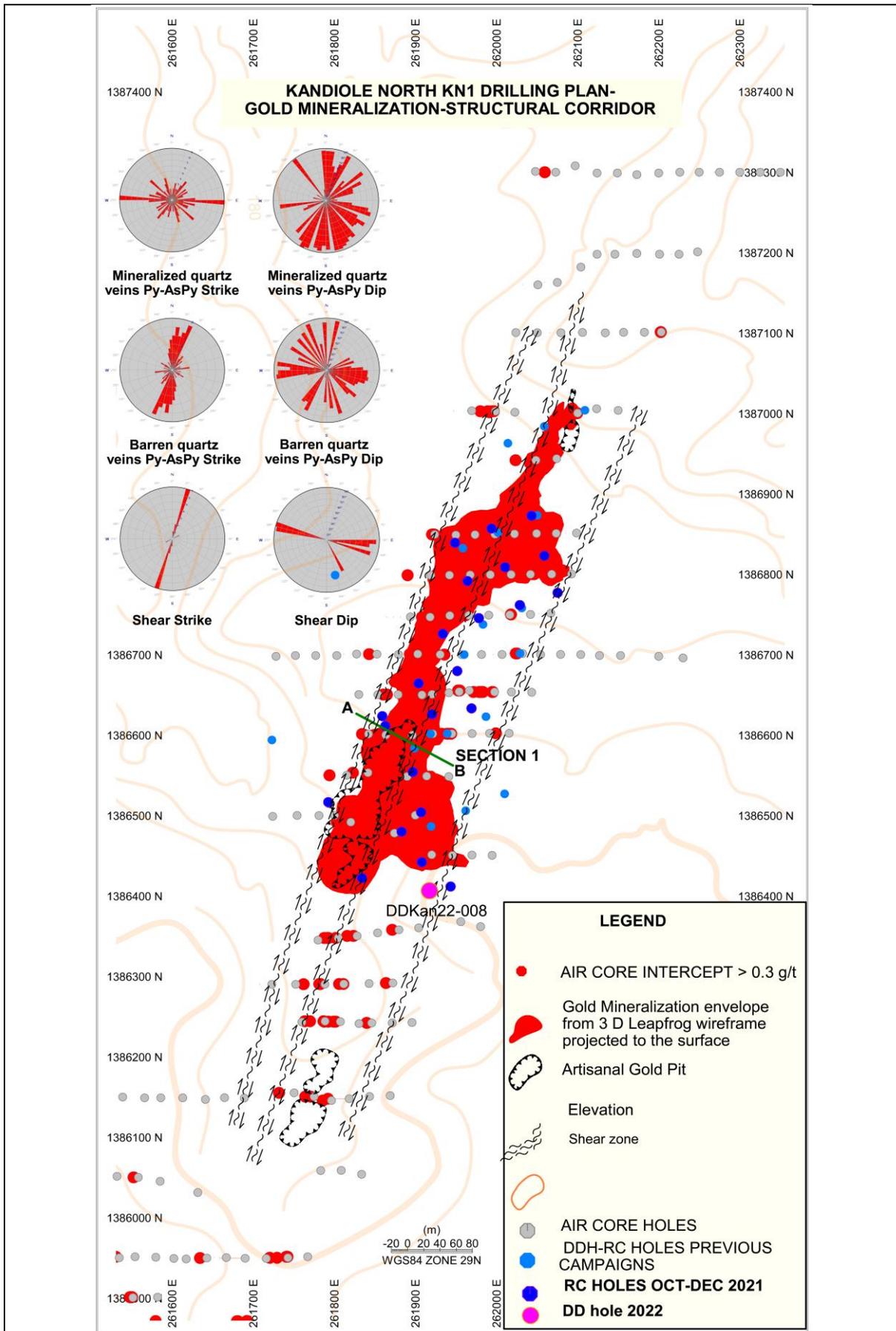
Figure 7.15: Left - Shale unit with disseminated pyrite and arsenopyrite in contact with quartz veins (left); and Visible gold in association with arsenopyrite and pyrite in veinlets with a larger quartz vein (right).



(Source: Photographs provided by Roscan, 2022).

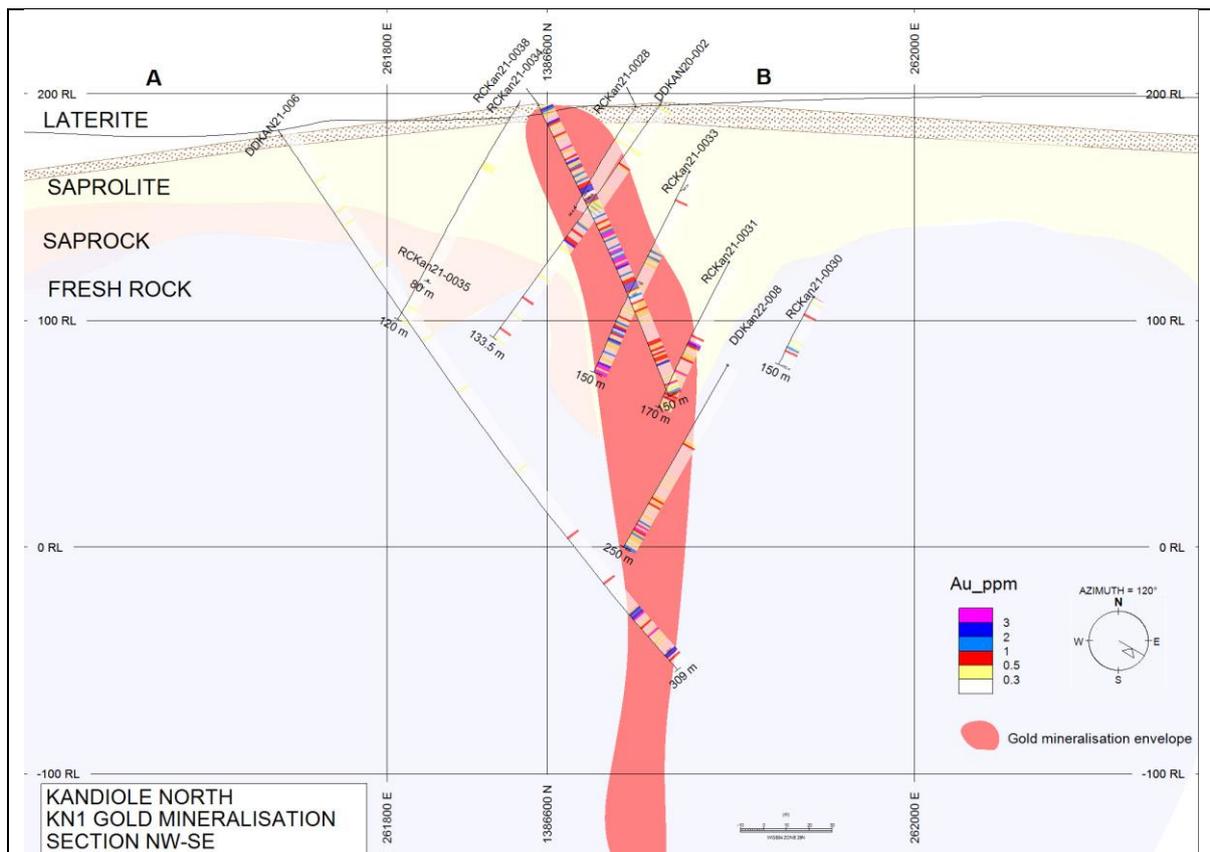


Figure 7.16 Plan View of KN1 Deposit



(Source: Diagram provided by Roscan, 2022)

Figure 7.17 Geology and Grade section of KN1 Deposit (1,386,586 mN)



(Source: Diagram provided by Roscan, 2022)

### 7.3.4 Mankouke Central – A shallow satellite deposit

Gold mineralization at the Mankouke Central target (Figure 7.18 and Figure 7.19) locates exclusively within the saprolite horizon down to a vertical depth of 60 m below surface. Gold mineralization is associated with polymictic breccia and an overprinting kaolinite stockwork which likely replaced primary calcite veins. Toward West, the gold zone is flat and probably relates to supergene enrichment in and just below the lateritic crust.

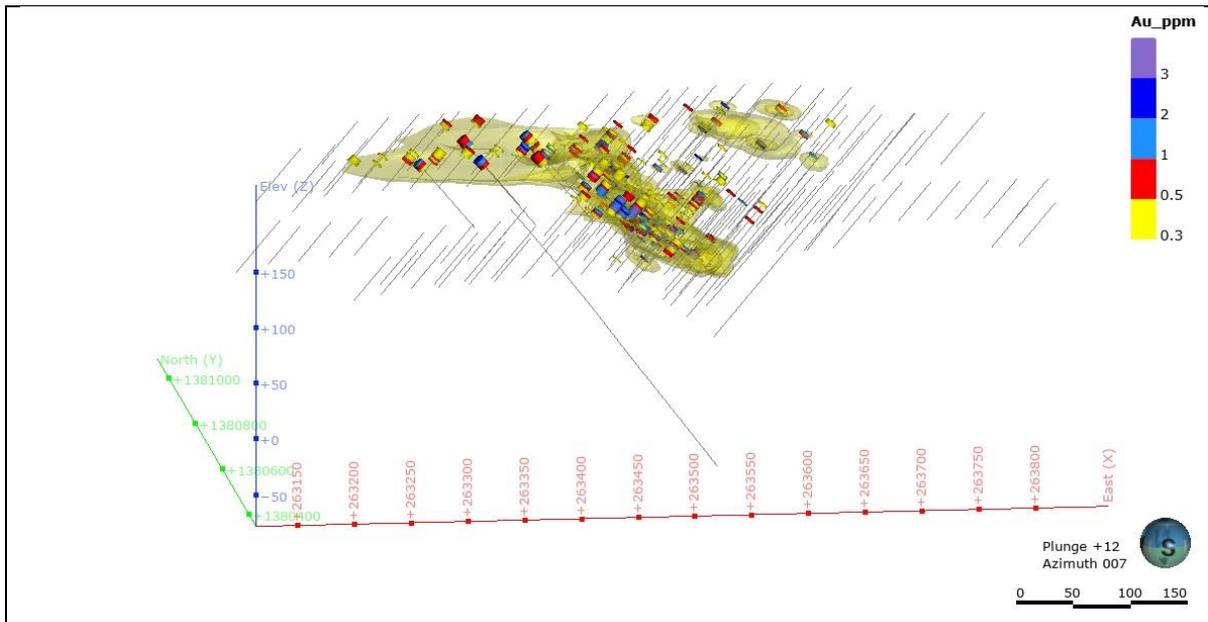
### 7.3.5 KN2 and 4 – Shallow satellite deposits

The KN2 and KN4 targets (Figure 7.20 and Figure 7.21) locate SW of KN1 and have only been intersected with air core drilling into the saprolite horizon. A review of airborne magnetic data and Landsat imagery indicates that both targets locate within subparallel structures to the KN1 deposit and are associated with the SMKS structural corridor. KN4 displays anomalous Arsenic and Antimony signatures from the termite mound geochemistry and is open both at depth and laterally. Similarly the KN1 structure is associated with a strong Arsenic anomaly from termite geochemistry. KN2 gold mineralization is limited to the saprolite and is probably related to supergene gold enrichment.

### 7.3.6 Moussala North (MOU1) – Shallow satellite deposits

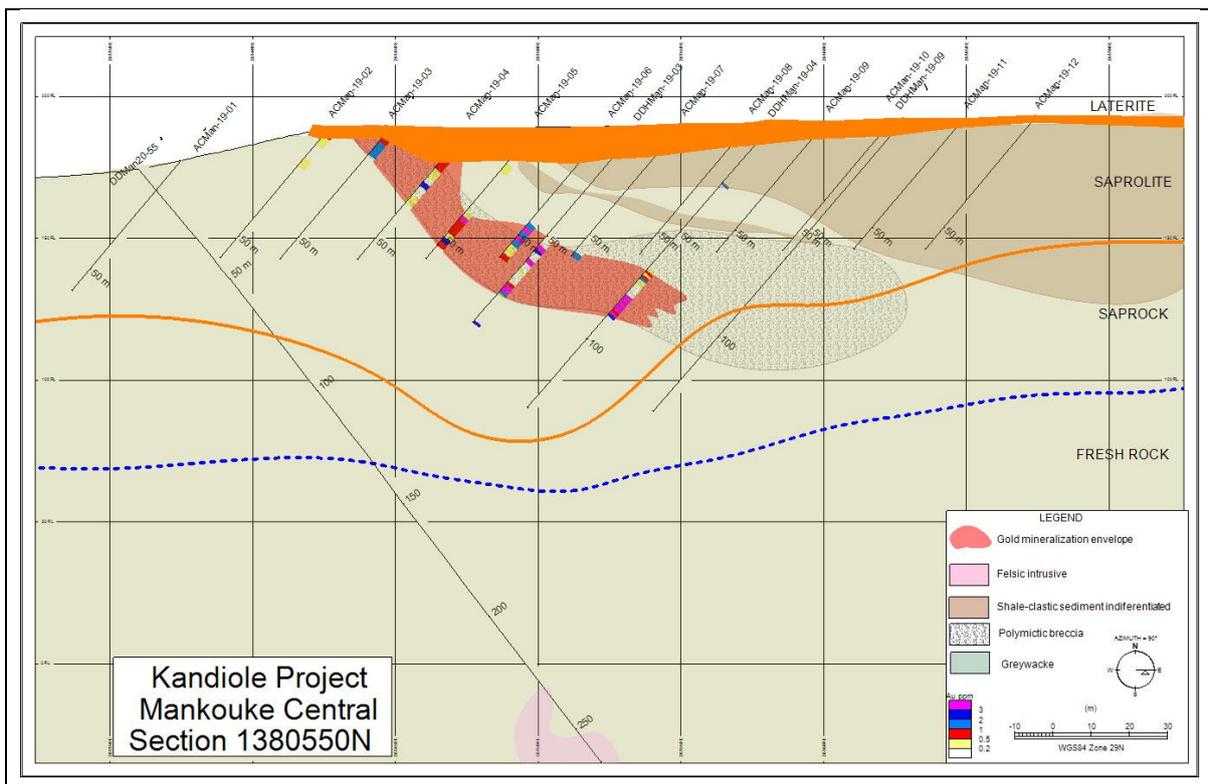
Gold mineralization at MOU1 (Figure 7.22) is mainly associated with the polymictic breccia within a clastic sedimentary package of predominantly greywackes. A dolerite sill crosscuts the clastic sediment sequence and is a post mineralization event. Mineralization occurs in saprolite, and fresh rock and further exploration is warranted as the target is open in all directions.

Figure 7.18 Mankouke Central, gold mineralization envelope and holes with gold grades.



(Source: Diagram provided by Roscan, 2022)

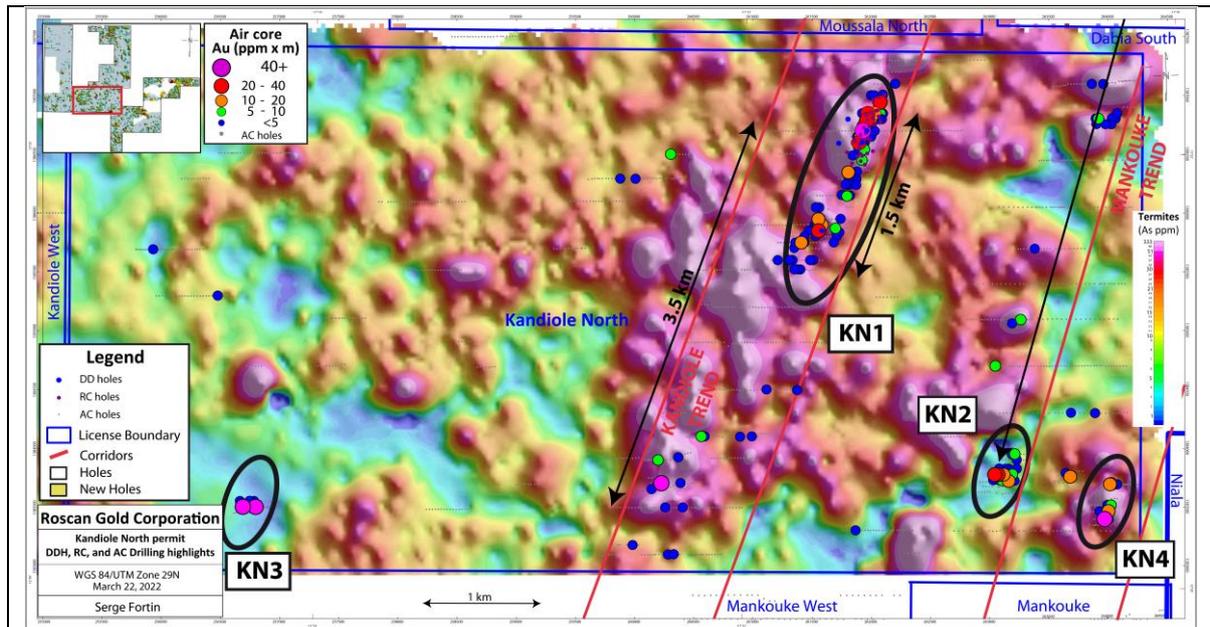
Figure 7.19 Mankouke Central Section 1,380,550 mN



(Source: Diagram provided by Roscan, 2022)

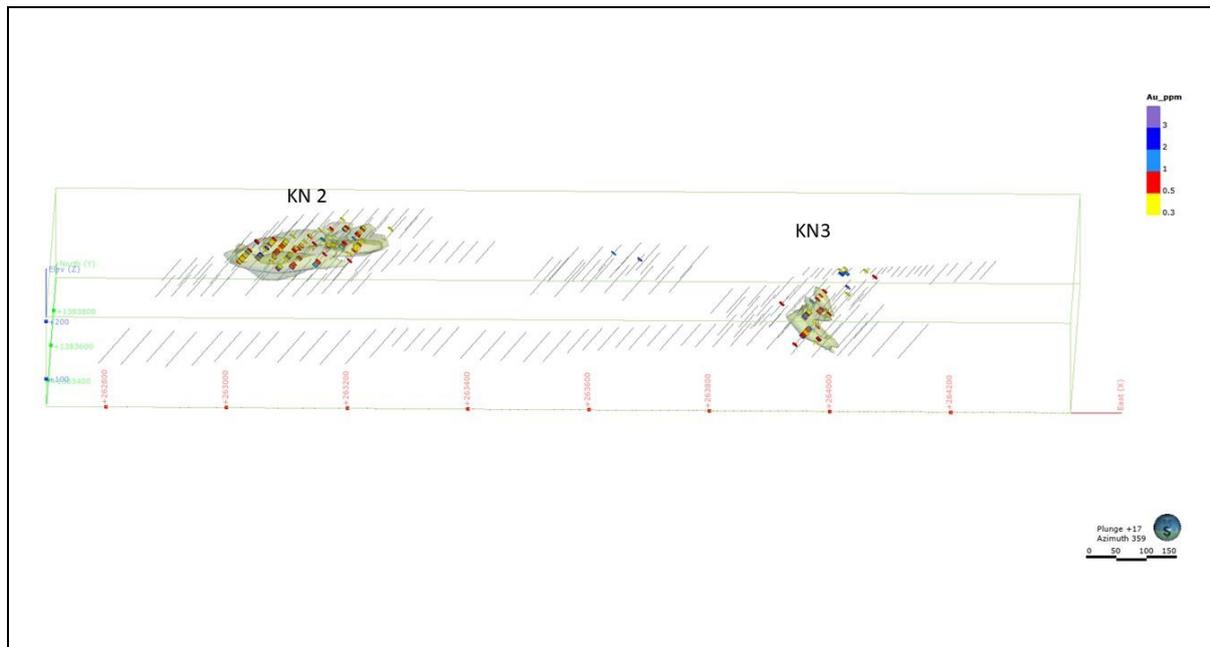


Figure 7.20 Kandiole North permit, target areas KN2 and KN4 in relation to KN1. Background contouring is Arsenic, termite mound geochemistry.



(Source: Diagram provided by Roscan, 2022)

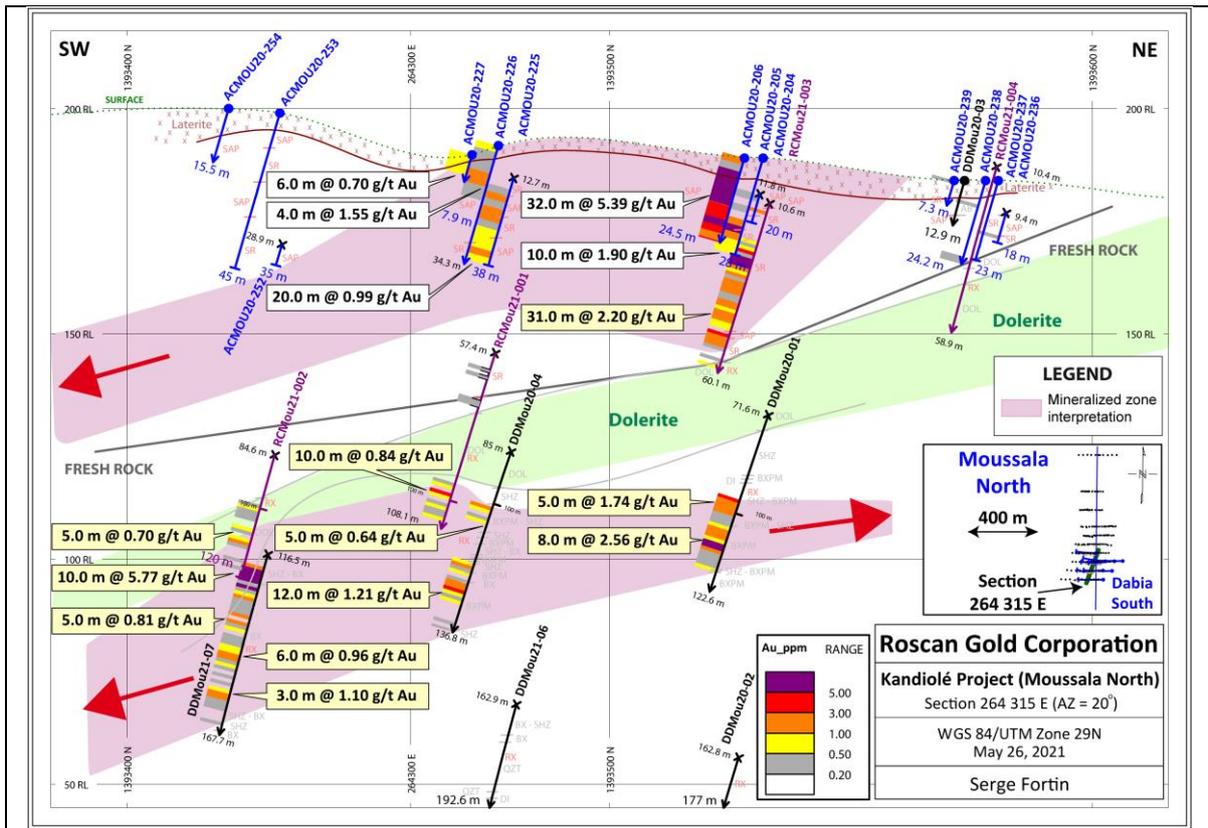
Figure 7.21 KN2 and KN4 gold mineralization envelopes and holes with gold grades.



(Source: Diagram provided by Roscan, 2022)



Figure 7.22 Geology and Grade long-section (Section 264,315 mE) of MOU1.



(Source: Diagram provided by Roscan, 2022)



## 8 DEPOSIT TYPES

Gold mineralization and gold orebodies within Birimian belts of West Africa have been classified as Orogenic gold deposits (Allibone et al., 2002a, b and 2020) and are similar in terms of style of mineralization, structural controls, and geological setting to the Archean auriferous belts of Western Australia, Canada, Brazil, Tanzania, and Scandinavia. Orogenic gold deposits are often characterized as lode gold systems because of the abundance of quartz and carbonate veining in association with sulphides. These deposits typically occur in metamorphosed granite-greenstone terrains formed by accretional and collisional processes. The deposits are hosted within all rock types (volcanic-volcaniclastic-sedimentary and intrusive), have various discrete mineralization styles, and locate within structural traps. These are shear hosted deposits developed along strike-slip fault systems linked to late-stage, nonorthogonal, orogenic crustal growth (Groves et al., 1998, Hagemann and Cassidy, 2000). The general characteristics of orogenic gold deposits are summarized in Groves et al. (1998) and Ridley and Diamond (2000).

The Birimian of West Africa constitutes the largest Paleoproterozoic gold-producing region for Orogenic style gold deposits within the world. The Birimian has an overall endowment of more than 460 million ounces including past production and 2017 Resource inventories (Goldfarb et al, 2017). The ca. 2250 to 2000 Ma greenstone belts hosting the most important Birimian gold deposits are best recognized in southwest Ghana, northeast and westernmost Burkina Faso, southern Mali to northeast Guinea, and along the Senegal/Mali border (western Mali and Eastern Senegal). Goldfarb et al (2017) in reviewing the gold endowment of the Birimian, posed the question “What is special about West Africa”? Several features were distinguishing in relation to the setting and mineralization in these greenstone belts. Favorable factors (Yardley and Cleverley, 2015; Goldfarb and Groves, 2015; Wyman et al., 2016; Groves et al., 2019) included the accretion of juvenile oceanic crust with basalts and abundant oceanic sediments (carbonaceous shales, evaporites etc.); transpressional and transtensional movements along major crustal sutures for over a 100 My period; at least two but possible multiple gold mineralization events during the Eburnean orogeny (2.1 Ga and 2.0 Ga), mineralization which is coeval with extensive and overlapping intrusive magmatism; near neutral, low salinity, aqueous-carbonic (CO<sub>2</sub> rich) fluids formed at 200-400C and 1-3 Kbar during metamorphic devolatilization of oceanic sediments-volcanics and the mixing of these fluids with a hypersaline brine formed from metamorphism of evaporite units in the sedimentary package, and finally possible magmatic fluid influence for those deposits spatially associated with coeval felsic intrusive (Lambert-Smith et al, 2020; Lawrence et al. 2013b; Masurel et al. (2017c) ).

The Malian portion of the KKI hosts multiple multi-million-ounce gold deposits and represents the largest west African orogenic gold district outside of Ghana. Table 8.1 summarizes the main deposits defined to date in Mali West and these include the tier one assets of the Loulo-Gounkoto complex (Gara, Yalea and Gounkoto) of Barrick, the Fekola deposit of B2 Gold and the Sadiola deposits (formerly Anglogold-Ashanti and now Allied Gold). Other deposits discovered in the district include those of the Tabakoto gold camp (formerly Endeavour Mining and now Algom Resources), Boto (Iamgold), Siribaya and Diakha (Iamgold), Anaconda deposits (B2 Gold) and the Seko deposits (Oklo Resources). Previous mining and current Resources from these deposits including the MRE announced in this report, collectively give a gold inventory of approximately 50 million ounces. Up until the end of 2021 the tier one assets of the Loulo-Gounkoto complex, Fekola and Sadiola have produced over 17 million ounces of gold at recovered grades of 2.3 to 4.0 g/t. The gold endowment and previous production of this region attests to the prospectivity of Western Mali.

Academic studies and numerous 43-101 reports (Lambert-Smith et al, 2020; Lambert-Smith et al, 2016a, 2016b; Lawrence et al, 2016, 2013a, 2013b; Masurel et al, 2017a, 2017b, 2017c; Treloar et al, 2015; Thebaud et al, 2020; NI 43-101 Technical Report on Loulo-Gounkoto complex by Randgold, 2018; NI 43-101 Technical Report on Fekola Mine by B2 Gold, 2020; NI 43-101 Technical Report on Boto Optimization study by Iamgold, 2020; NI 43-101 Technical Report on Sadiola Sulphide Project, 2015; NI 43-101 Technical Report on Tabakoto Reserves and Resources by Endeavour Mining, 2015.) highlight important similar geological features and characteristics to many of the deposits and these are summarized in point form below:

- Western Mali hosts the metasedimentary sequences of the Kofi formation which include shallow shelf sequences of carbonates and detrital sedimentary rocks (arenites, wackes, siltstones (often calcareous), diamictites and minor conglomerates) as well as deeper water, rhythmic bedded, turbidites and carbonaceous mudstone units. Historically it was believed that the shallow water and shelf sediments located exclusively in the western portion of the Mali next to the Faleme river and that the sedimentary sequences became progressively deeper water units (mudstones, shales, siltstones and turbidites) to the east. Recent exploration by Roscan and Oklo have highlighted shallow, chemical and detrital sequences in the east which may reflect repetition by thrusting and folding, alternating shallow water and deeper sedimentary cycles or a combination of both factors. One of the relatively unique features of the Kofi formation is the ubiquitous abundance of limestone and calcareous siltstone units within the sedimentary sequence. The authors of his report believe these are important host rocks for dissolving and chemically trapping the gold bearing hydrothermal fluids. Furthermore, the intercalated



sedimentary units of the Kofi formation have formed good loci for the various and multiple, gold bearing structures.

- Numerous structural studies have resulted in good documentation of the major tectonic events in western Mali. The polyphase deformation events include early-stage accretion involving thrusting and recumbent folding (D1) followed by variably plunging upright folds (D2) during further compression and finally strike slip faulting and the development of complex shear systems (often sinistral) creating localized compressional and tensional settings. Gold mineralization was deposited by hydrothermal fluids during the D3 event.
- All the deposits in the KKI region demonstrate the interplay between intersecting structures (NW to N and NE) and lithological units. This interplay is particularly localized within the major structural corridors which include the Senegal Malian Shear zone (SMSZ) and the recently discovered Siribaya-Mankouk-Kabaya-Seko (SMKS) corridor. The SMSZ corridor is spatially linked with the deposits of the Loulo-Goukoto complex, Fekola, Sadiola and Boto. The SMKS corridor hosts the Roscan, Oklo and Siribaya deposits.
- The SMSZ, SMKS and various other structural corridors host deformation zones with brittle, brittle-ductile and ductile deformation styles which are associated with various rock competencies. The D2 folding event has also influenced the localization of gold bearing structures. Most of the major deposits have shallow plunges to the north or south relating to intersecting structures or the interplay between a structure and a fold hinge. All the principal deposits show the intersection of at least two structural directions and multiple injections of hydrothermal fluids. This has been well documented at Yalea, Goukoto, Gara and Sadiola deposits.
- In many cases there is a spatial association between the gold deposits and the occurrence of various felsic stocks, sills and dykes and this is well demonstrated in Fekola, Tabakoto deposits, Sadiola, the Loulo-Goukoto complex and the Mankouke South deposit. The Kofi formation host various peraluminous granite bodies related to collisional magmatism. Intrusive contacts with sedimentary sequences also provide good loci for shear zones. The competent intrusive bodies have also undergone brittle deformation. Geochemical and isotopic studies in the Sadiola and Gara deposits highlight a magmatic component within the hydrothermal fluids. Field and core logging observations have also highlighted the presence of tourmaline as well as alteration overprints which include potassium and sodium components.
- Alteration studies show common characteristics between the deposits which include albitization, sericitization, carbonation and silicification. Hematite, magnetite, and tourmaline are often present in minor amounts. The Sadiola deposits display calc-silicate alteration and in places, the formation of retrograde skarns. In the Gara deposit tourmaline altered sandstone and greywacke units exclusively host brittle, quartz carbonate veins with gold in a stratabound setting.
- Gold mineralization is associated with disseminated sulphides (mainly pyrite but arsenopyrite and chalcopyrite also occur), sulphide and quartz-carbonate veins, massive sulphide lenses and various breccia which can include hydraulic, hydrothermal and sedimentary (diamictite).

All the deposits of the Kandiole project area discovered to date principally locate along various shear structures within or directly linked to the Siribaya-Mankouke-Kabaya-Seko structural corridor (see figures 9.11, 9.14, 9.23 and 9.24). Observations within the fresh rock cores highlight many of the characteristics listed above and the Kandiole deposits are therefore typical of the mineralized bodies discovered in this region. All the of main deposits (Mankouke South, KN1 and Kabaya) demonstrate the presence of the shallow shelf chemical (limestone-marble-calcareous siltstone) and detrital (wackes, sandstones, siltstones and diamictite) sediments in contact with the deeper rhythmic sequences (Siltstone, marls, mudstone-carbonaceous units of the MSCA). Mineralization is often localized within shears exploiting the contacts between these folded packages and includes associated felsic intrusive. All the deposits display characteristic alteration (albite-silica-carbonate-sericite) in association with disseminated sulphides and sulphide lenses. Sedimentary (diamictite), hydraulic and hydrothermal brecciation is also observed.

### 8.1.1 Exploration Strategy

Gold targets and their structural associations within the Kandiole project have been effectively outlined through the use of geochemistry for gold and arsenic in soil, termite and air core drilling and integration of this information with geophysical data (Magnetics and EM). This work has resulted in the identification of the SMKS structural corridor and enabled follow up drilling programs resulting in the definition of Resources and identification of the various mineralization styles and settings.



Table 8.1 Gold Deposits of SW Mali

	Company	Total Previous Production	Total Current Gold Resources (M+I and Inferred)	Current Reserves (Proven and Probable)	Mineralization style/s	Source
Loulo-Goukoto Mine Complex	Barrick Gold	8.4 Moz @ 4.0 g/t (Dec 2021)	Measured and Indicated = 69 Mt @ 4.2 g/t for 9.3 Moz Inferred = 12 Mt @ 2.8 g/t for 1 Moz (Dec 2021)	64.1 Mt @ 4.06 for 8.37 Moz (Dec 2021)	Deposits locate along the SMSZ (Gara) or along sub-parallel structures, splays or intersections east of the SMSZ. Disseminated and massive sulphide sones (Yalea), Vein stockwork in tourmalinised greywacke and various sulphide dilational zones in Rose Quartzite (Goukoto) massive sulphide sones (Yalea), Vein stockwork in tourmalinised greywacke (Gara) and various sulphide bearing dilational zones in Rose Quartzite (Goukoto)	Barrick Gold Annual Reports up until December 2021 and 43-101 Technical Report on Loulo-Goukoto Mine Complex (RRL 2018)
Sadiola Mine	Allied Gold Corporation previously AngloGold-Ashanti and lamgold	6.7 Moz @ 2.9 g/t (Dec 2018)	Inclusive M,I and Inf = 135.4 Mt @ 1.8 g/t for 7.9 Moz (Dec 2018)	63.8 Mt @ 1.94 g/t for 4 Moz (Dec 2018)	Sadiola fracture zone (SFZ) - lithological contact between greywacke and carbonate. Intersecting N-NE structures. Au-Sb-As in disseminations, veins and accumulations. FE pits show structural and lithology contracts with a younger karstification event resulting in a gold residuum.	Anglogold Ashanti 2019 Annual report for Reserves and Resources. Wikipedia for Sadiola production from 2003 to 2018, lamgold reports for Sadiola production from 2002 to 1997. No information relating to Allied Gold Production, Reserves and Resources
Fekola	B2 Gold	2.2 Moz @ 2.3 g/t (Dec 2021)	Indicated Resource = 117.1 Mt @ 1.51 g/t for 5.700 Moz Inferred Resource = 48.5 Mt @ 1.23 g/t for 1.92 Moz Includes Anaconda and Cardinal (Dec 2021)	69.5 Mt @ 1.89 g/t for 4.22 Moz (Dec 2021)	Disseminated pyrite associated with intersecting NW, N and NE structures in folded metasediments. Shallow dipping (14-5 degrees) NNW plunge. Mineralization associated with and overprinted by Fekola High Strain Zone (FSZ). FSK and metasediments sandwiched in between diorite intrusive	B2 Gold Annual Reports and AIF up until December 2021
Anaconda Deposits (Resources also included under Feloa as they will be trucked there)	B2 Gold		Indicated Resource = 32.4 Mt @ 1.08 g/t for 1.03 Moz Inferred Resource = 63.7 @ 1.12 g/t for 2.28 Moz (March 2022)		Deep saprolite bodies in multiple deposits (Adder, Cascabel, Viper and Mamba) with shallow, south plunging sulphide bodies (Fekola style) below these.	B2 gold March 23, 2022 press announcement
Tabakoto, Segala and satellites	Algom Resources (Subsidiary of BCM International)	1.3 Moz @ 2.6 g/t (Dec 2018)	Indicated Resource = 19.9 Mt @ 3.01 g/t for 1.925 Moz Inferred Resource = 7.4 Mt @ 3.4 g/t for 0.8 Moz (Dec 2017)	4.8 Mt @ 3.36 g/t for 0.52 Moz (Endeavour 2017)	Shear zone (Segala) and brittle-fracture zone hosted in anticline (Tabakoto and Dioulafoundou and Kofi C Deposits) associated with QFP dykes. Disseminated sulphide and quartz carbonate veins with alteration envelopes	Historical Records from Nevsun Resources, Avion Resources and Endeavour Mining using annual reports and MD&A announcements. No Records since Algom Resources purchase in Dec 2018. Annual Report Dec 2017



Diakha - Siribaya Deposits	Iamgold		<p>Indicated Resource = 18 Mt @ 1.28 g/t for 0.744 Moz and</p> <p>Inferred Resource = 23.18 Mt @ 1.58 g/t for 1.18 Moz</p>		<p>Zone 1B and Taya Ko mineralization on SMKS structure in vein stockwork and breccia bodies trending NNE and containing disseminated sulphides. Diakha deposit occurs on souther continuation of SMSZ below Boto and Fekola). Disseminated sulphides in albitised sandstones</p>	<p>RPA Technical Report on the Siribaya Project Mineral Resource Estimate Feb 2019</p>
Seko Deposits	Oklo		<p>Indicated Resource = 8.7 Mt @ 1.95 g/t for 0.528 Moz</p> <p>Inferred Resource = 2.6 Mt @ 1.67 g/t for 0.141 Moz (March 2021)</p>		<p>SK1-3 locating on NNE trending zones within SMKS structural corridor - 65% in soft oxides. Shear and breccia zones within albitised and carbonated sandstones\greywackes with disseminated sulphides</p>	<p>Oklo Resources Ltd ASX MRE announcement of 30.3.21 with Resource prepared by Competent person Mr Malcolm Tittley of Maja Mining ("Maja").</p>



## 9 EXPLORATION

Historical exploration with the Kandiole project area is summarized in Section 6 and table 6.1. The relevant soil, rock and geophysical data related to historical data has been summarized here for completeness as all of this information and the subsequent work completed by Roscan has been utilized in a target generative study. This technical report principally deals with the new Resources defined by focused drilling programs. However, the Resource targets have resulted from the geochemical data, geology and geophysics generated by the Roscan exploration teams during the various multidisciplinary work programs. The work completed and summarized in this section outlines multiple additional targets which present opportunities to define new mineralized systems with future work.

### 9.1 TOPOGRAPHIC SURVEYS, GRIDS, DEM/DTM

All digital data in the Kandiole project has been coordinated using WGS84 UTM zone 29N.

New Resolution Geophysics completed a high resolution Xcite™ time domain electromagnetic, magnetic & radiometric survey for Roscan Gold Corporation between the 30<sup>th</sup> of October and 17<sup>th</sup> of November 2020. As part of this survey a digital terrane model (“DTM”) was developed using all the elevation and coordinate data from the survey with data recorded on UTM zone 29N (WGS84). The data was collected at a survey altitude of between 30 m and 40 m on a 100 m line spacing (line direction N70) and 1 km tie lines for total of 3,917 line km. The area covered excludes the new permits of Segundo West and Bantanko Est as these were acquired after completion of the survey. The DTM is illustrated in Figure 9.1 and supersedes the DTM reported in the previous 43-101 as this used the Sysmin DTM data (200 m line spacing and 100 m flight height).

Regional air core drilling, soil, termite, and rock sample work have all been coordinated using handheld GPS Garmin Map 64S and 62S, 2-3m precision in E and N and inaccurate in elevation.

Specific drilling grids for Mankouke Central (164 AC, 8 RCDD, 3RC and 5DD), Mankouke South (284AC, 25 RC DD, 84 RC and 118 DD), Kabaya (65 AC, 91 RC, 26 DD) and Kandiole North (235 AC, 8 DD, 1 RCDD 33 RC were surveyed by the PDRM contractor until the end of 2021 using a Leica DGPS and SER-TOPO contractor using a DGPS STONEX since the beginning of 2022. Both surveyors provided the hole coordinates in WGS 84 UTM ZONE 29 with EGM 96 geoid.

At Kabaya, 72 Komet/Robex RC/AC holes have been surveyed by the PDRM with a DGPS. 109 reaming Komet/Robex RC/AC holes were only located by handheld Garmin GPS 60C (Robex 2013-14) and Garmin 62S (Komet 217-18), with z elevation corrections from the gravity survey (The gravity survey used a Trimble 4000 series receivers along a grid of 50 m x 100 m in the Kabaya area with a horizontal and vertical precision of approximately 2 cm).

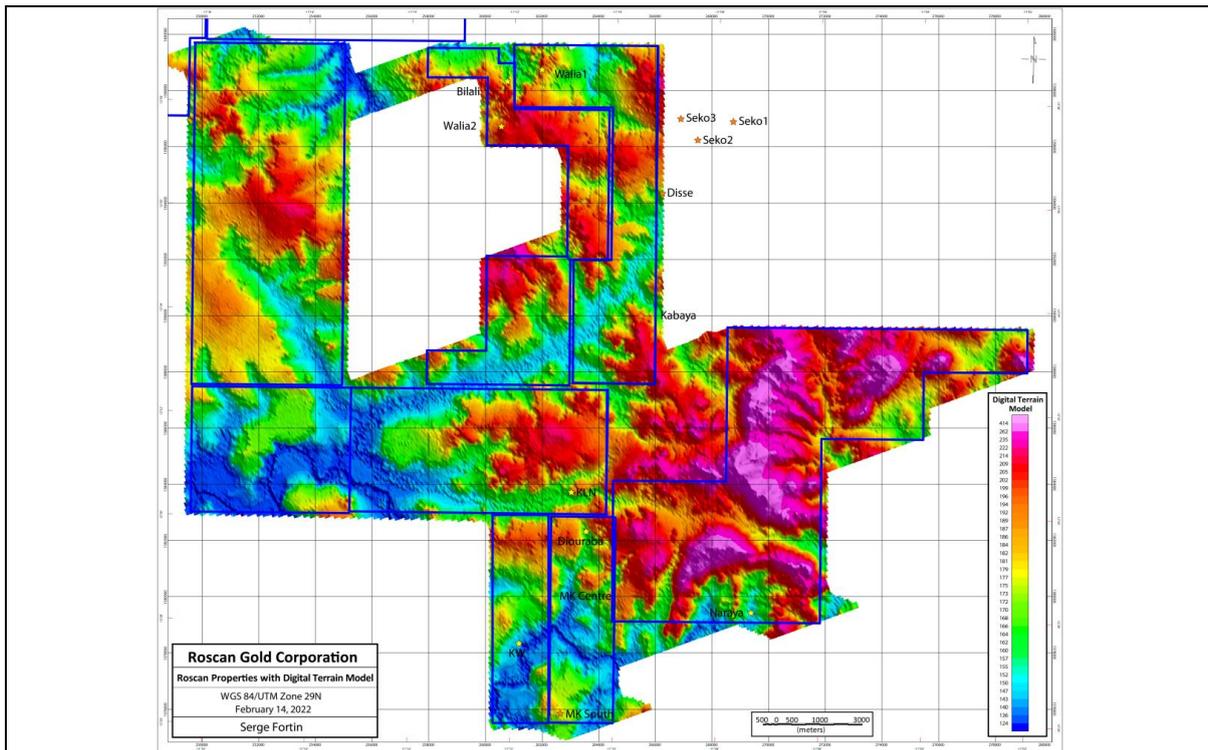
### 9.2 GEOLOGICAL AND REGOLITH MAPPING & ARTISANAL MINING ACTIVITY

A geomorphology and outcrop geology map were recently updated by Roscan Geologists and is presented below as Figure 9.2. The Kandiole project area has very limited outcrop (<5%) and is characterised by low relief and a heavily lateritised terrane with surface gravels, saprolite and various elevations of Ferricrete plateau. The laterite terrane has been incised and eroded by the large Faleme riverbed and its tributaries as depicted by several alluvial terraces. This is well illustrated on Figure 9.1 and Figure 9.2. Most surface exposures of rock are heavily saprolitised.

Xpotential undertook some resistivity profiling (Galei profiling) with the EM data utilizing software generated by Geoscience Australia. This profiling work was successful in defining thickness and base of saprolite and distinguishing this from deeper conductive-resistive anomalies related to bedrock. These thicker saprolite areas have subsequently been verified by AC, RC and DD drilling. The depth to base of saprolite contouring is summarized in Figure 9.3. The map highlights that the thicker areas of saprolite development are predominantly coincident with the more epiclastic and chemical sedimentary rock packages (arenites-wackes-diamictite-limestones) in the central portion of the project area. The thicker saprolite zones are also coincident with and proximal to the SMKS structural corridor as described in Section 7.

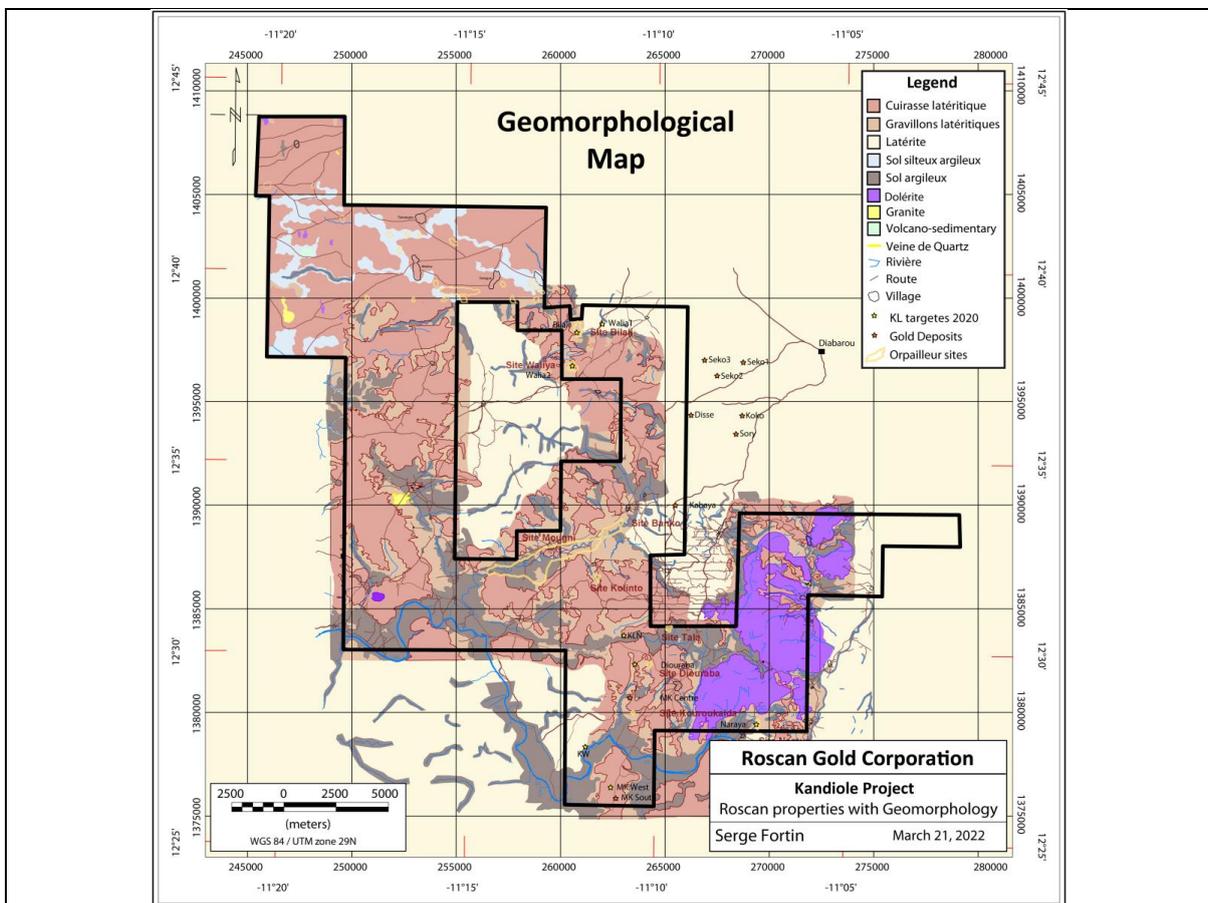


Figure 9.1 DTM Model of the Kandiole Project area.



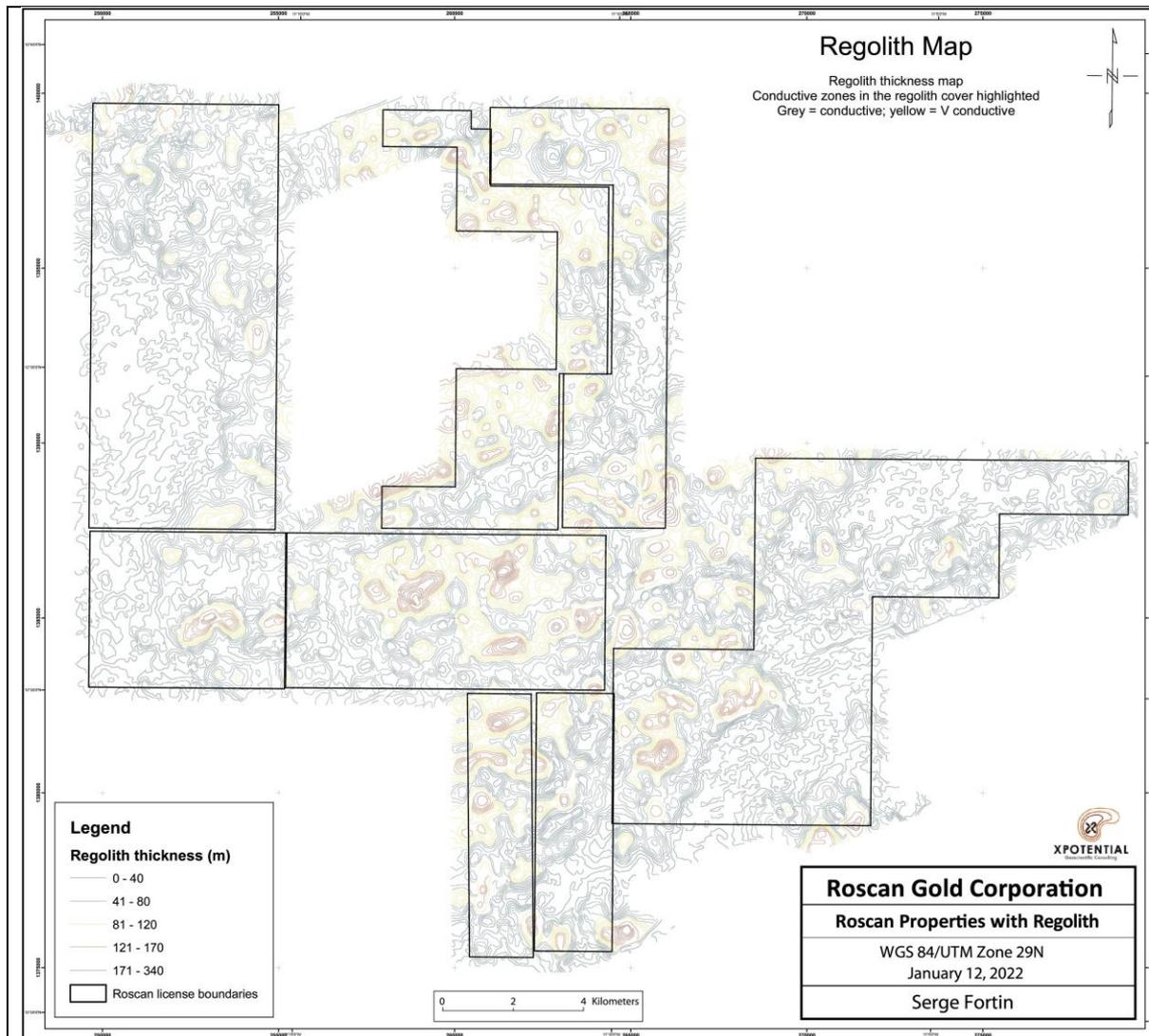
(Source: Diagram provided by Roscan, 2022)

Figure 9.2 Geomorphology map of Kandiole project area.



(Source: Diagram provided by Roscan, 2022)

Figure 9.3 Depth to base of saprolite using EM resistivity profiles (Galei) created by Xpotential from inversion modelling of the electromagnetic data.



(Source: Diagram provided by Roscan, 2022)

### 9.3 PETROGRAPHY

20 samples submitted in 2021 may be roughly divided into metagreywacke, metapelite, breccia, conglomerate, dacite porphyry, microdiorite, and volcanoclastic as follows:

- Breccia/conglomerate: mixed heterolithic clasts of variably carbonate, albite, or less commonly quartz or sericite rich altered volcanoclastic/sedimentary rocks in poorly defined matrix variably rich in carbonate, albite, magnetite-minor quartz-sericite-sulfides-trace rutile.
- Metagreywacke: fine (sand sized) to very fine (silt sized) detrital albite, quartz, minor relict mafic material altered to biotite-chlorite-sericite-carbonate ±sulfide or rutile, in variable matrix of finer albite-quartz-sericite-chlorite-trace sulfides-rutile. Local graded beds, or interbedded with pelitic beds.
- Metapelite: mainly very fine-grained, sericite-rich or carbonate-minor quartz sericite-chlorite after biotite? beds or laminae.
- Dacite porphyry: albite-relict (biotite-carbonate-sulfides-rutile altered) mafic phyrlic in fine grained albite-quartz groundmass, cut by local fractures of secondary biotite.
- Microdiorite: small sub-phyric/seriate albite and relict (chlorite-carbonate ±quartz-pyrite-rutile altered) mafics with relict microdioritic texture.



- Volcaniclastic: interbedded bands of pinkish carbonate-quartz-albite-sericite and pale greenish sericite-carbonate-quartz-albite-chlorite-accessory blastic hematite-trace rutile.

Alteration assemblages mainly comprise albite, carbonate, sericite, quartz, biotite (partly retrograded to chlorite), local significant magnetite (part replaced by pyrite), sulfides, and rutile (trace tourmaline). The alteration/mineralization is variably associated with veins and veinlets of carbonate, albite, local quartz-minor sericite or muscovite, and sulfides. The sulfides are predominantly pyrite, but also with lesser, local arsenopyrite, trace chalcopyrite, and pyrrhotite.

## 9.4 SOIL AND TERMITE GEOCHEMISTRY

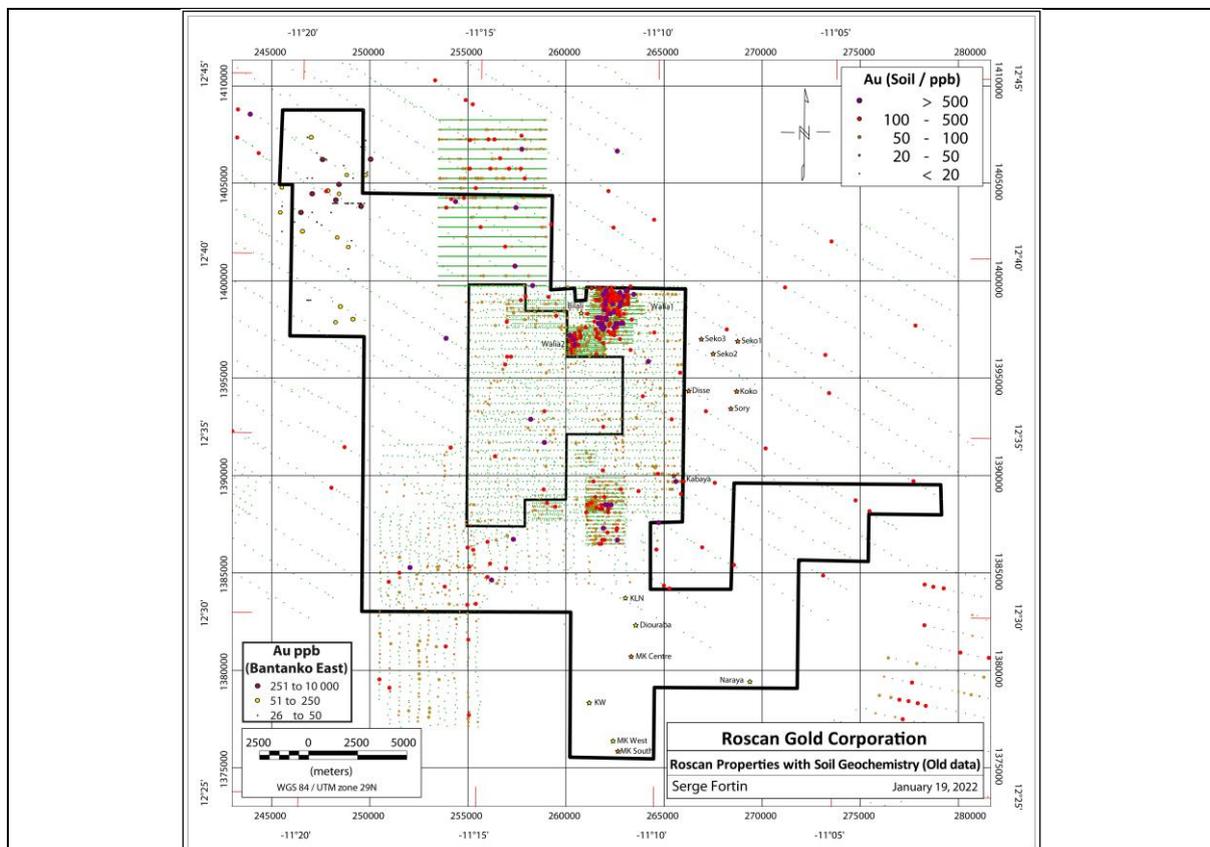
### 9.4.1 Historical Data

Historical soil sampling work is summarized in Section 6 and Table 6.1. All historical soil sampling work is illustrated in Figure 9.4 and Figure 9.5. The main historical surveys were as follows:

- DNGM regional sampling in early '80s using a broad grid of 1600 m by 500 m, orientated WNW-ESE and analysed for multi-element
- Ashanti regional and detailed soil programs covering a large area which included the current Roscan permits of Moussala North, Dabia Sud, Kandiole North, Segando South and Kandiole West. Grids were at 500 m x 250 m and 200 m by 100 m. Samples were analyzed for gold and Arsenic (Figure 9.5) and clearly highlight hi levels of anomalism in the Walia-Waliya and KN1 areas.
- Robex soil grids (400 x 200) covering the Moussala North permit and analyzed for gold.
- Great Quest Mali SA soil grids (500 and 250 by 50 m) covering a portion of Segando West Area and analysed for gold
- Songoi Resources grid (180 m x 60 m) covering Bantanko East area and analysed for gold.

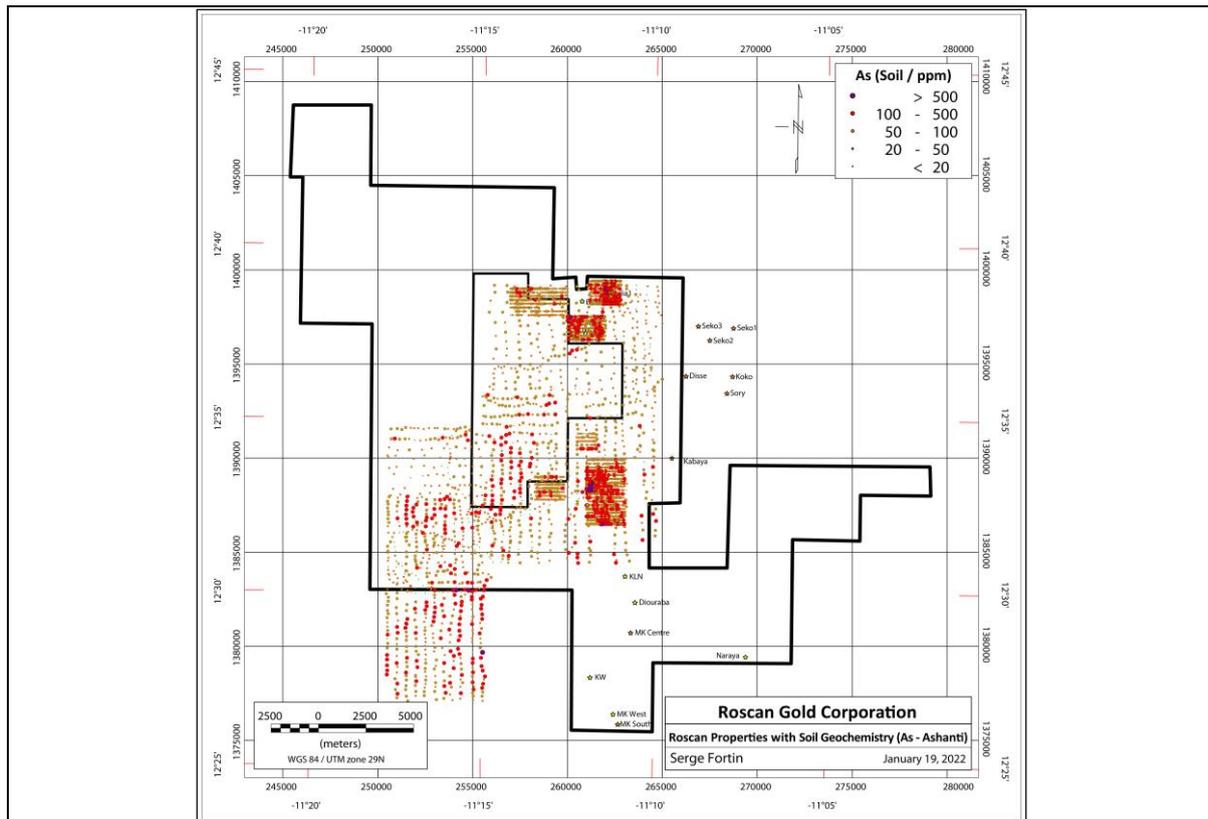
This work is summarized here to give a broad view of soil anomaly targets and has been utilized selectively and specifically by Roscan for follow up exploration geochemistry. Roscan has completed its own comprehensive regional and detailed soil, termite and Air core drill programs to define exploration targets for follow up, focused drilling.

Figure 9.4 Historical Soil (Gold) sampling undertaken over the Kandiole Project area.



(Source: Diagram provided by Roscan, 2022)

Figure 9.5 Historical soil sampling (Arsenic) undertaken over the Kandiole Project area.



(Source: Diagram provided by Roscan, 2022)

#### 9.4.2 Roscan Soil sampling

Roscan soil sampling work covers an area of 52km<sup>2</sup> and 5906 samples (Figure 9.6). Soil samples were collected on lines 100 to 200 m apart with sample stations every 50 m. Soil samples were taken at pre-planned sites, located in the field using a handheld GPS. If a planned site was considered unsuitable then the sample was taken at the nearest suitable location and the new location was recorded using handheld GPS. Samples were taken between 30 cm and 40 cm below the surface to avoid influence from any surface disturbance and to ensure natural in-situ soil samples. Sample material was quartered successively until sample weights were around 2 to 2.5 kg. The material was then placed in plastic bags with a tag with a pre-printed sample ID. A reference ID tag was kept in the ticket book with the actual coordinates and a short description of the sample material. It is the QP's opinion that the procedures described by Roscan are consistent with industry standards, and concludes that the samples are fair. The QP is not aware of any factors that may have resulted in sample bias.

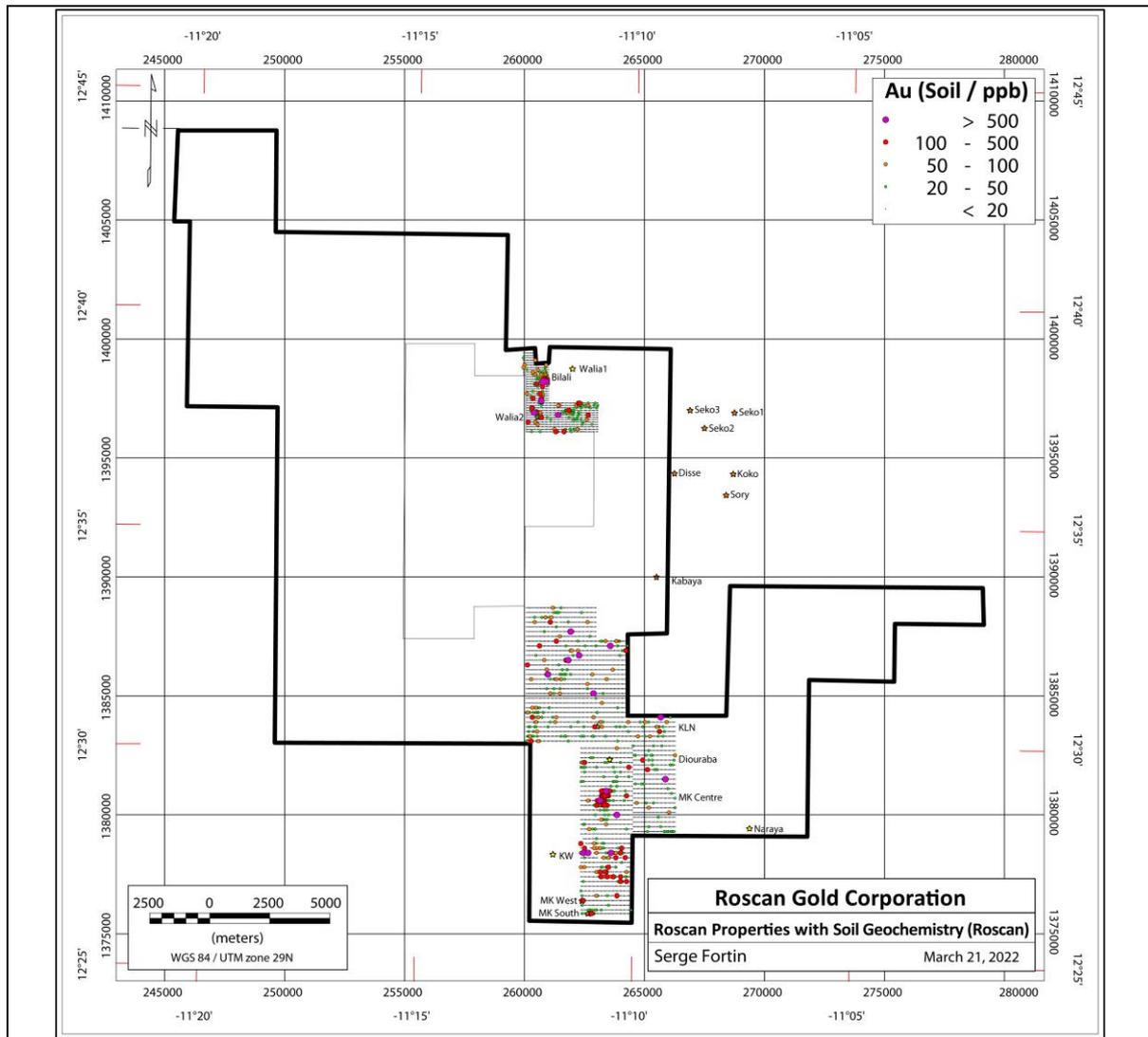
The Roscan soil sample results highlight anomalies at KN1, Mankouke Central and within the Walia-Waliya area. All these areas have been subsequently followed up with termite and air core drilling programs.

#### 9.4.3 Termite sampling

Termite mound sampling is now an established bioindicator of gold mineralization in this part of West Africa. Termite sample locations are governed by the presence of termite mounds. The termite sampling programs completed between 2018 and present cover approximately 330 km<sup>2</sup> of the Kandiole Project, are illustrated in Figure 9.7 and outline several significant anomalous areas.

A theoretical grid for the termite sampling was planned prior to the program and locations were identified using handheld GPS. At each location an assessment of the termite mounds within a 25 m radius was completed in order to find the most suitable. Only "cathedral" mounds were sampled and where there were several mounds within the area the largest active mound was selected. If no termite mound was found within a 25 m radius of the planned location then the team moved to the next site. The location of the sample was measured using a handheld GPS reading taken at the centre of the mound.

Figure 9.6 Roscan soil sample grids and results.



(Source: Diagram provided by Roscan, 2022)

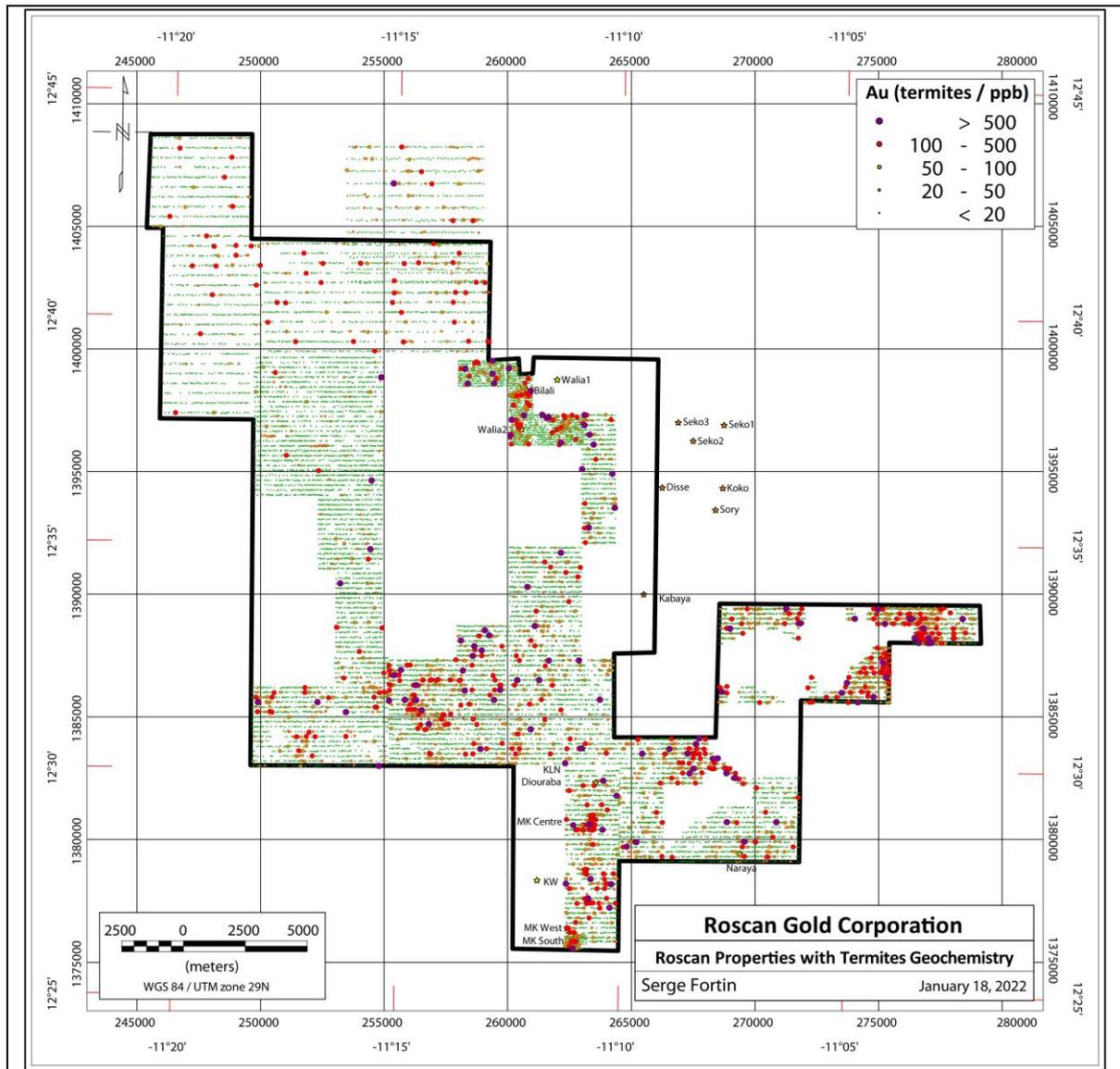
Termite mounds were channel-sampled vertically using a small pick on four sides of the mound to ensure sample representativeness. The material from each channel sample was combined and then quartered successively to achieve sample weights of 2 to 2.5 kg. Samples were then placed in plastic bags with a tag with a pre-printed sample ID. A reference ID tag was kept in the ticket book with the actual coordinates and information such as topography, height and size of the mound, the colour of the mound and whether the mound was active.

It is the QP's opinion that the procedures described by Roscan are consistent with industry standards and concluded that the samples are fit for purpose. The author is not aware of any factors that may have resulted in sample bias. The similarity of the initial soil and termite sampling results led Roscan to use termite sampling for the subsequent geochemical surveys rather than soil sampling as it is considered that it is easier to obtain a representative sample.

The comprehensive termite sampling program of Roscan has clearly been effective in outlining multiple gold targets for follow up exploration which include Mankouke South, Mankouke Central, the KN1 structural corridor, the Bilali-Waliya 2 corridor and numerous anomalies within the central portion of the Kandiole North permit and within the Niala permit.



Figure 9.7 Roscan Termite sampling grids and results.



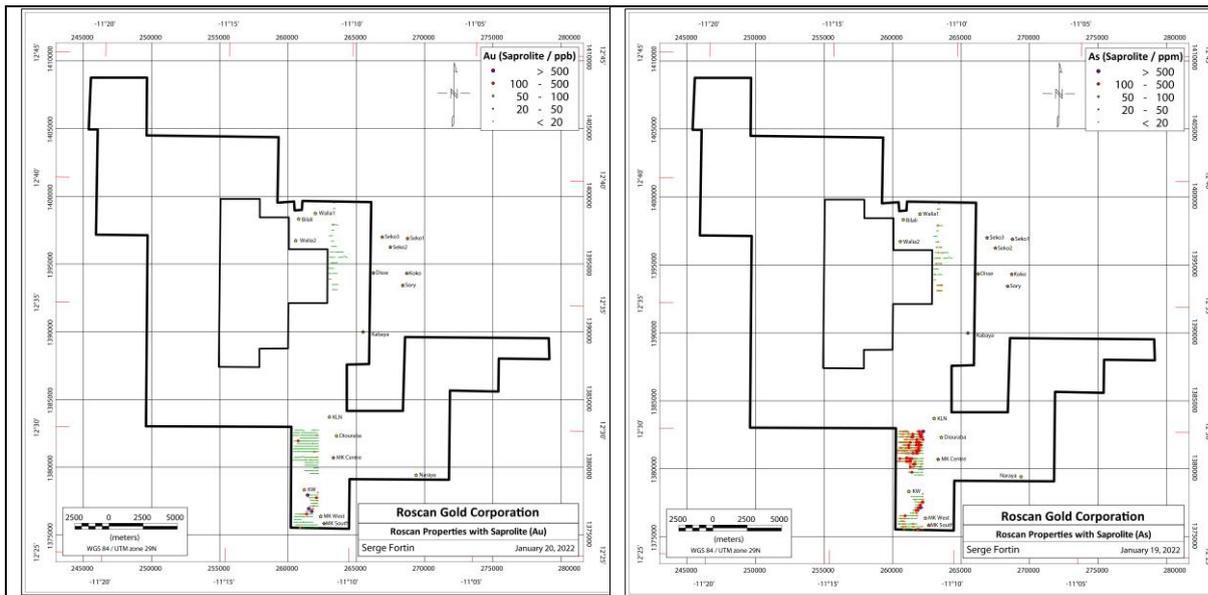
(Source: Diagram provided by Roscan, 2022)

#### 9.4.4 Roscan shallow saprolite sampling

Reconnaissance work in the Mankouke West permit (Figure 9.8) highlighted potential transported regolith issue and areas with thick laterite duricrust. Sub surface soil sampling was therefore undertaken over the Mankouke West permit and a portion of the Moussala north and Dabia Sud permits to test the efficacy of this sampling method. Air core drilling penetrated below laterite or transported materials and took a saprolite sample below the mottled zone and these were analyzed for gold, arsenic and multiple other elements. These results generated NNE trending As, Sb and Au anomalies for follow up exploration within the Mankouke West permit area.



Figure 9.8 Roscan Shallow saprolite sampling for Gold and Arsenic.

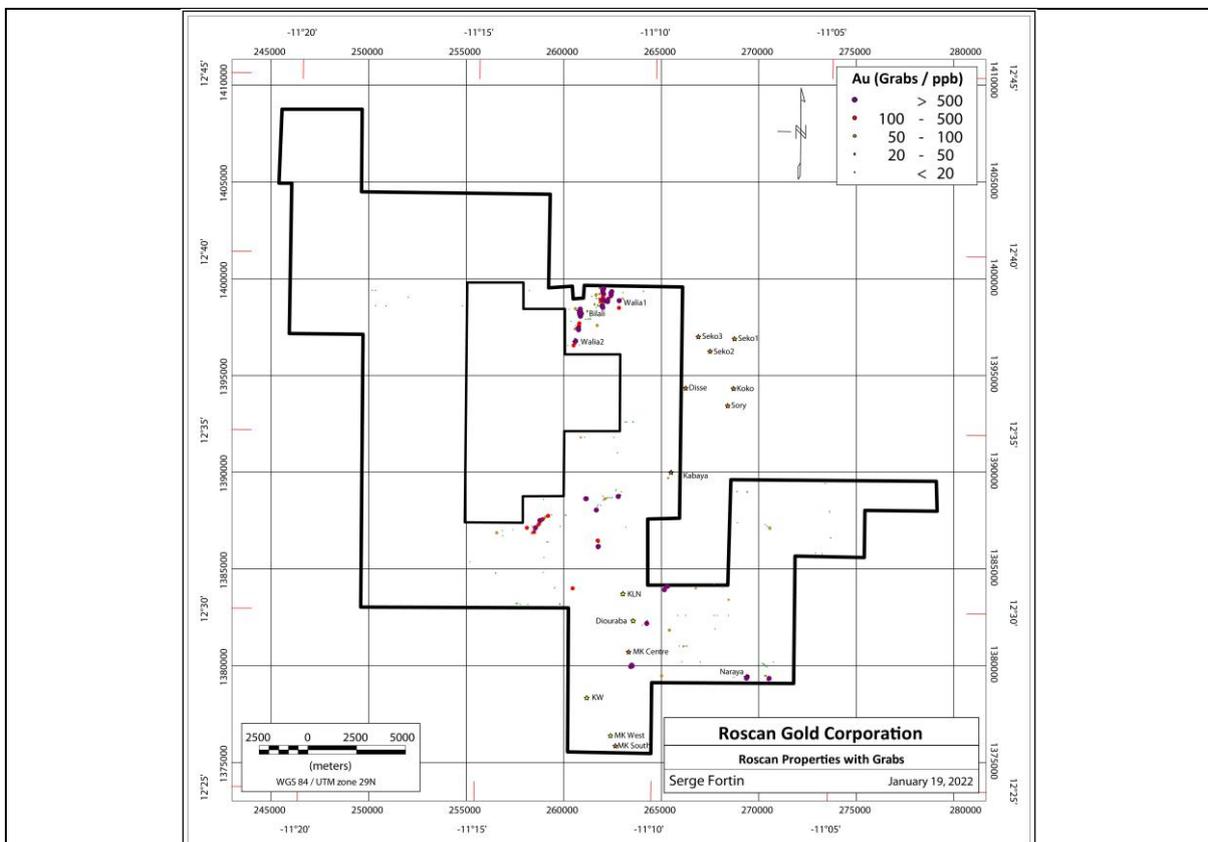


(Source: Maps Provided by Roscan, 2022)

## 9.5 ROCK GEOCHEMISTRY- ROCK SAMPLES AND TRENCHING

233 grab samples were taken predominantly at orpillage sites as well as 84 grab samples were collected in the surrounding and more remote areas of the permits (Figure 9.9). Grab samples were taken as rock chips from areas with veining, with samples also including vein selvage and adjacent saprolite. The highest-grade grab samples are concentrated around the orpilleur workings, in particular Site de Naraya in the Niala permit, with grades including 18.6, 24.4 and 41.0 g/t Au.

Figure 9.9 Roscan Grab samples.



(Source: Diagram provided by Roscan, 2022)

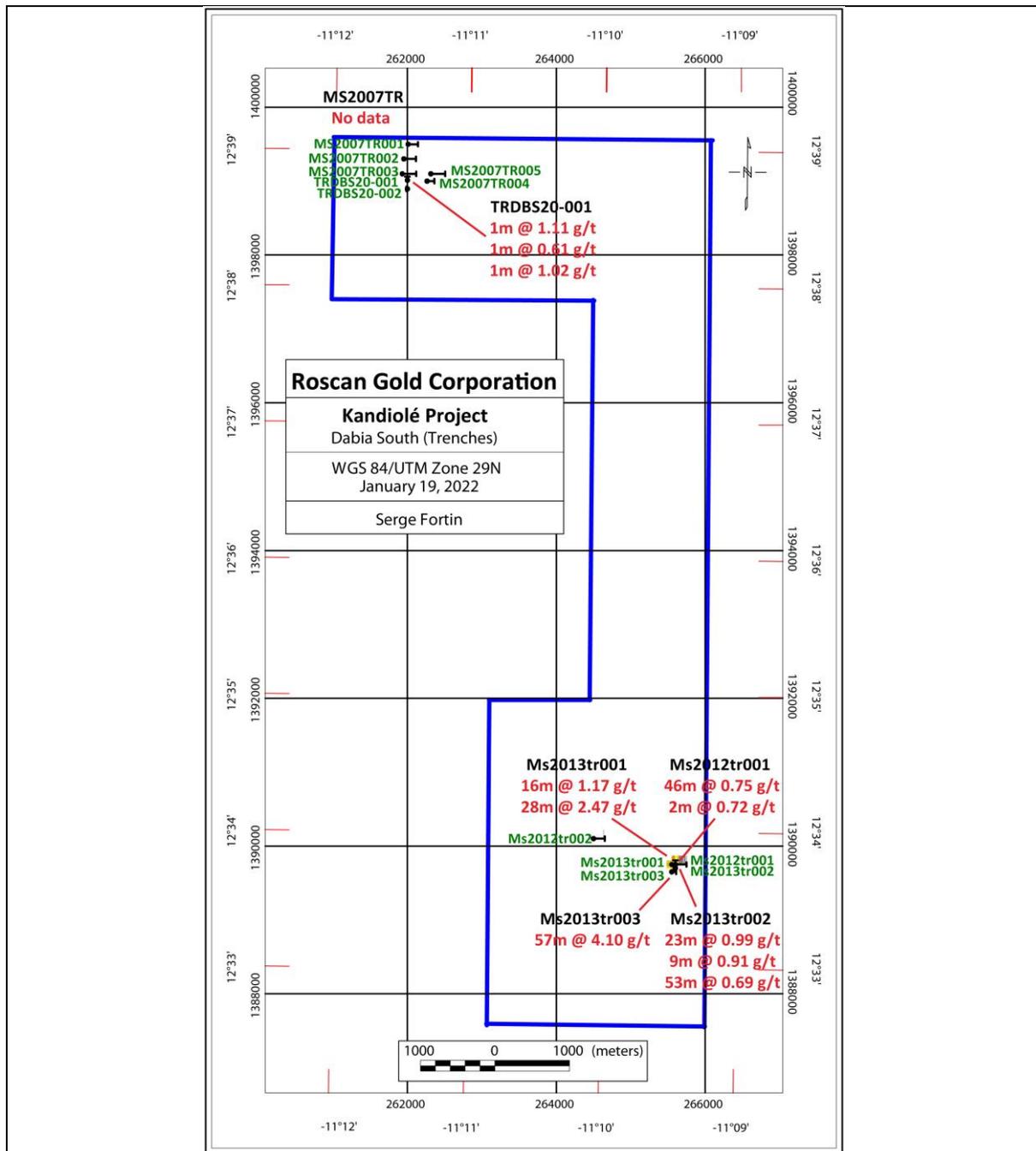


Previously, 5 trenches (777m) were dug in 2007 by Robex in the north of the Dabia Sud permit, on the prospect called Walia, over a historical soil geochemistry anomaly and returned only metre length intercepts ranging from 0.5 to 1.0 g/t and related to small quartz veins. Over the period 2012-2013, Robex excavated a further five trenches (515 m) at the Kabaya target within saprolite which returned higher and more continuous gold grades ranging from 0.7 to 4.1 g/t over intercept lengths of between 15 m and 57 m. These areas have subsequently been extensively drilled by Robex, Komet and Roscan.

In the case of Walia and Kabaya the trenching work demonstrated that the soil geochemical anomalies are caused by underlying gold mineralization structures.

An excavator was used to dig all the historical trenches, in general 1 m wide and realizing average depths of between 5 m and 6 m. Samples were taken close to the bottom of the trenches: horizontal channel samples at 1 m intervals. These historical trench intercepts are presented in Figure 9.10.

Figure 9.10 Historical Trenching on the Dabia Sud Permit.



(Source: Diagram provided by Roscan, 2022)

## 9.6 GEOPHYSICS

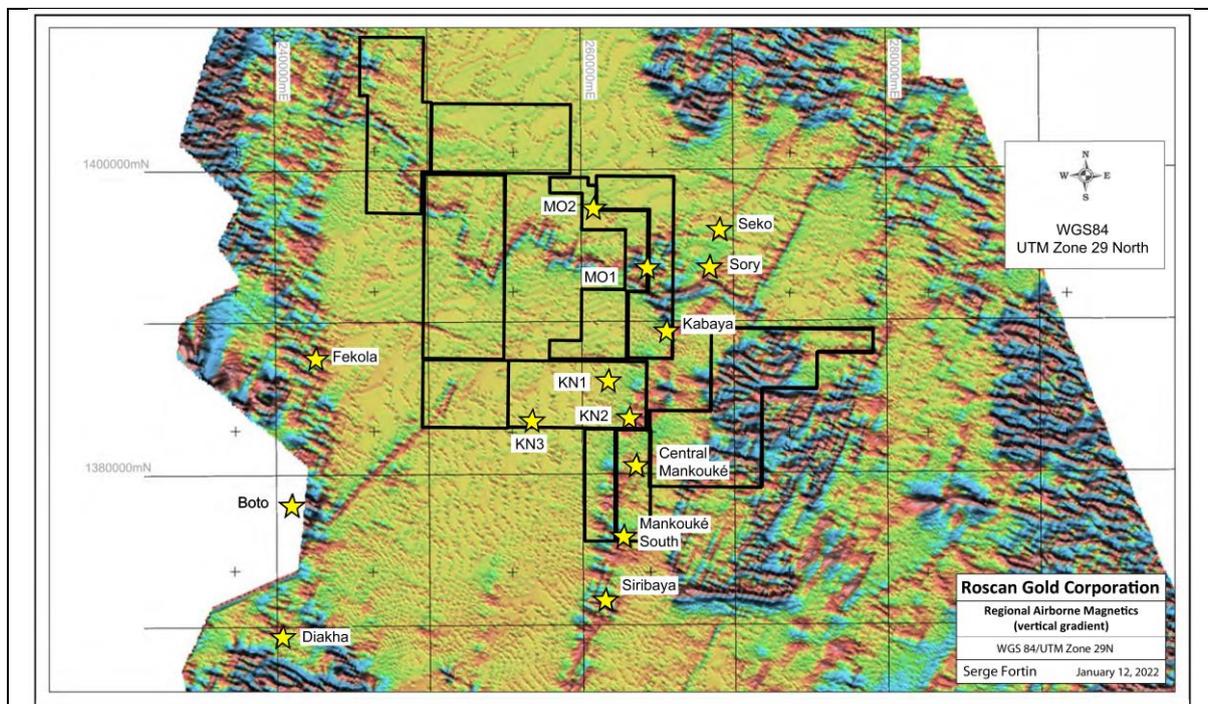
### 9.6.1 Historical Airborne Survey - Sysmin

During the period 2000 to 2004, the European Development Fund (EDF) funded an airborne geophysical survey (Sysmin program) over the Mali West area covering the Birimian Supergroup and a portion of the Taoudeni Basin. Roscan purchased the airborne magnetic and radiometric data covering the Kandiole project from the DNGM and has completed reprocessing, inversion modelling and integration of this information with its own airborne magnetic survey (see Section 9.6.2).

The Sysmin, magnetic and radiometric, airborne survey was flown by various contractors with a fixed wing planes at a height of 100 m, a line spacing of 200 m and undertaken in collaboration with the DNGM. It forms a major contribution in understanding the geology of the region and assisted in the definition of the Senegal-Malian shear corridor.

The airborne magnetic image, shown in Figure 9.11 highlights another the prominent north-northeast/south-southwest trending magnetic lineament which appears to be the dominant structural corridor controlling mineralization from Siribaya in the south, progressing through Mankouké South, Mankouké Central, Kabaya and on through Oklo Resources' Sory and Seko deposits. This corridor and its associated structural splays has been the primary focus of Roscan exploration drilling and has yielded multiple Resource bodies as outlined in this report.

Figure 9.11 Vertical gradient of Sysmin airborne magnetic data.



(Source: Diagram provided by Roscan, 2022)

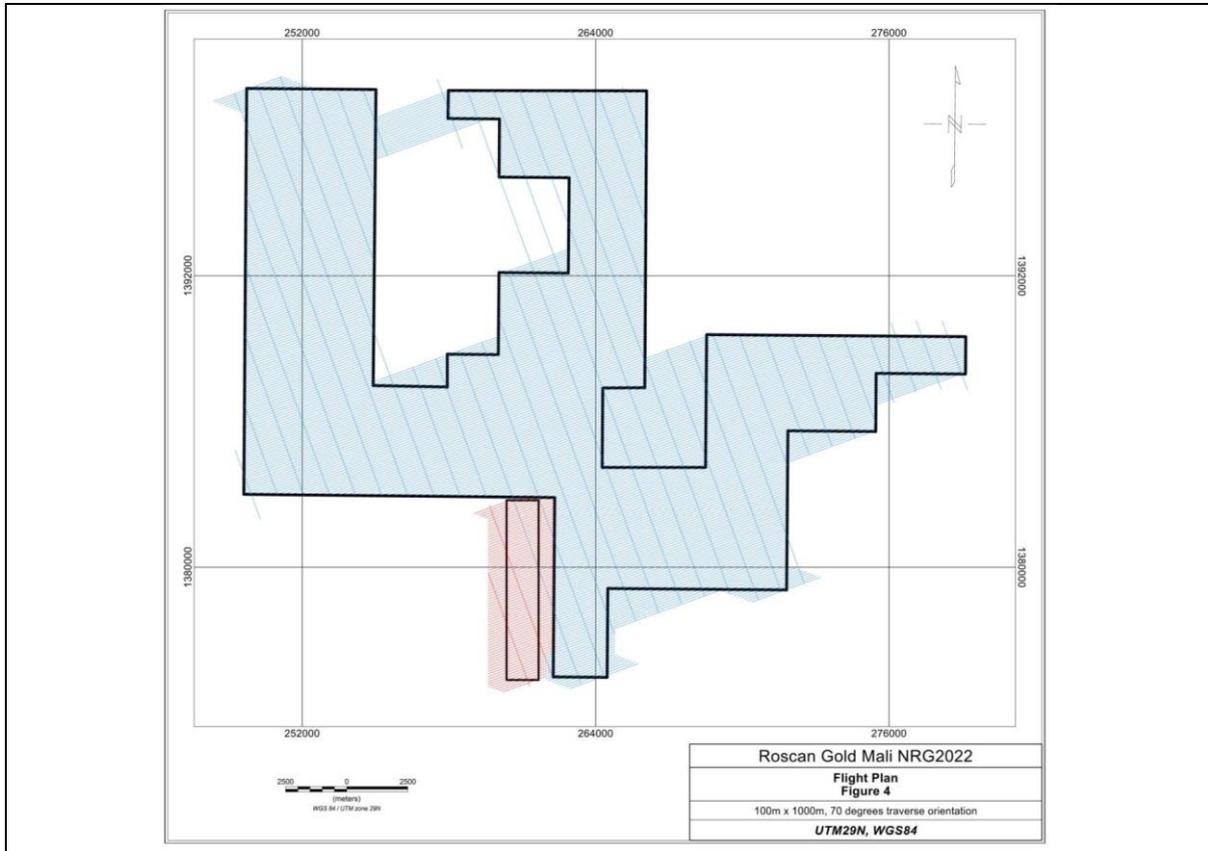
### 9.6.2 New Resolution Geophysics (NRG) survey for Roscan

New Resolution Geophysics completed a high resolution, Xcite™ time domain electromagnetic, magnetic & radiometric survey for Roscan Gold Corporation between the 30<sup>th</sup> of October and 17<sup>th</sup> of November 2020. The data was collected at a survey altitude of between 30 m and 40 m on a 100 m line spacing (line direction N70) and 1 km tie lines for total of 3,917 line km (Figure 9.12). The area covered excludes the new permits of Segando West and Bantanko Est as these were acquired after completion of the survey. Following completion of the survey, calibration of all data and reprocessing the data was given to Xpotential and utilized in a generative study. Figures 9.13 to 9.15 below outline various geophysical images dealing with radiometric, magnetic and electromagnetic data. The Thorium radiometric image highlights the various laterite surfaces in red, the Gamaye granite pluton in pink and the magnetic, Palaeo-Proterozoic sill locating on the Niala permit in blue. The reduced to the pole (RTP) and Analytical Signal (AS), magnetic images outline the central, concealed magnetic body associated with the SMKS structure as well as the Niala diorite sill, a sill body on the eastern side of the Dabia Sud permit and a folded dyke transecting the Segando permit area. The EM, late time image (dB/dt, Z = channel 30) clearly illustrates the conductive bodies associated with the central and eastern sedimentary packages of the Kofi formation as well as clearly outlining the Gamaya pluton. Finally, Xpotential undertook inversion modelling of the magnetic susceptibility data which



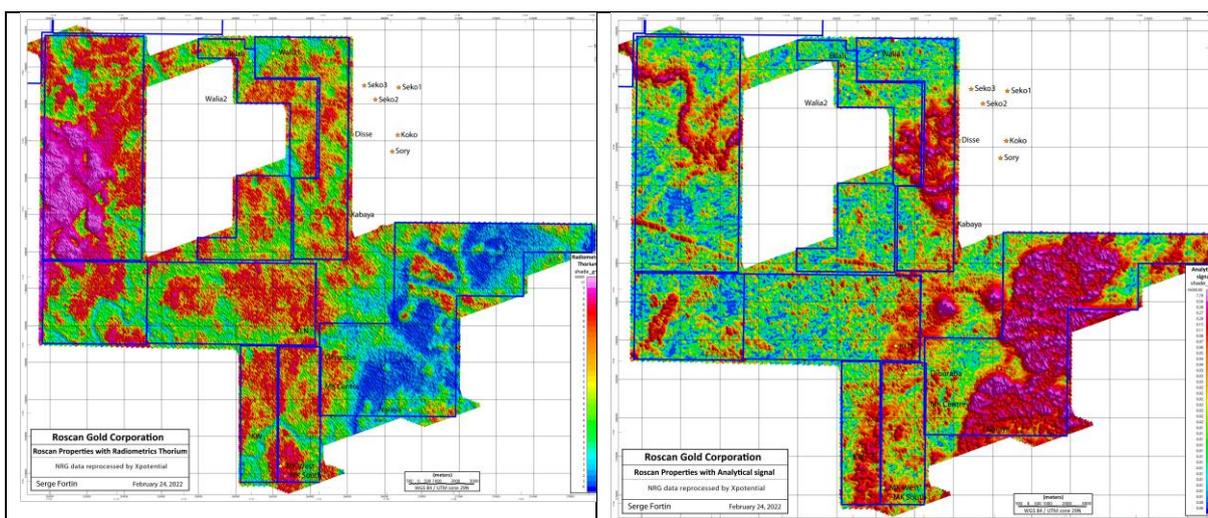
highlights the central, magnetic intrusive body locating below the SMKS structure and below the central, conductive sedimentary package within the Kofi formation (Figure 9.15, depth slice of MVI at -500 m below surface). All this information has been utilized in the target generative study undertaken by Xpotential on the Kandiole project which is summarized in Section 9.9 below.

Figure 9.12 Flight Plan for NRG airborne survey.



(Source: Diagram provided by Roscan, 2022)

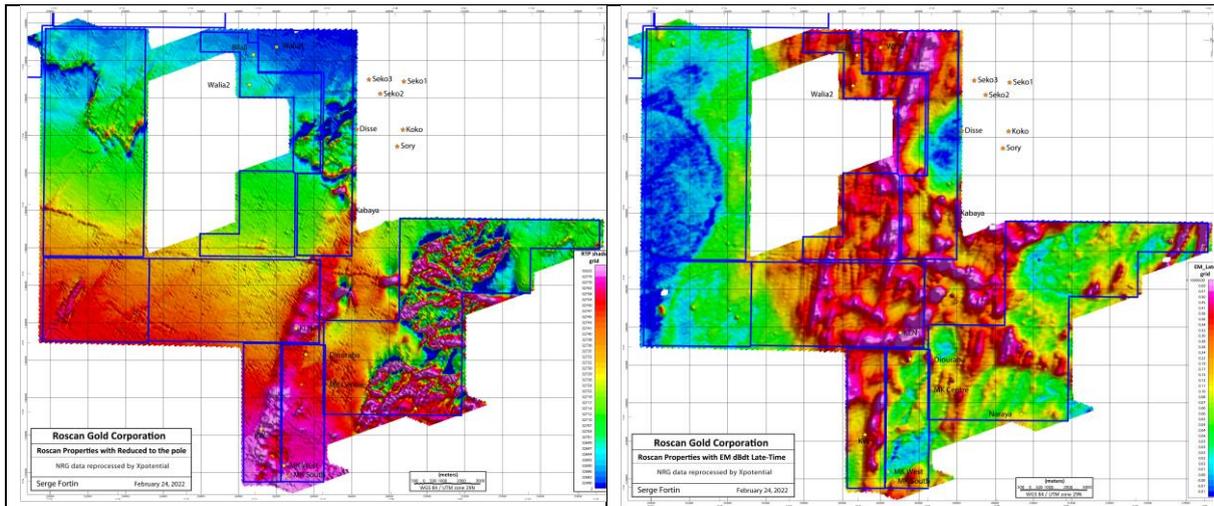
Figure 9.13 Radiometric Thorium Image (LHS), Magnetic Analytical Signal (RHS). NRG data reprocessed by Xpotential.



(Source: Diagram provided by Roscan, 2022)

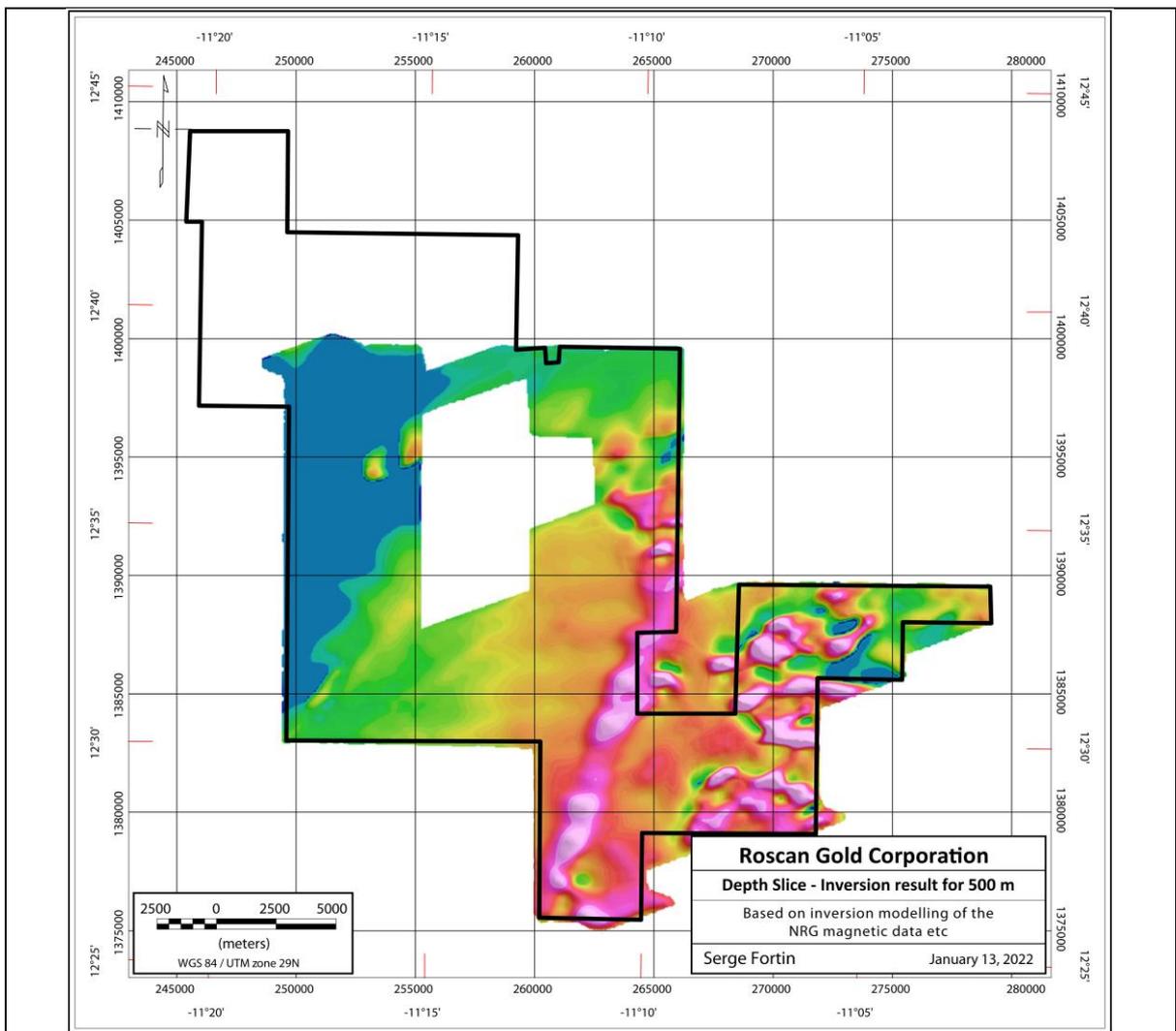


Figure 9.14 a and b. a: Magnetic Reduced to the Pole (LHS), b: Electromagnetic, late time, dB/dt (Z= channel 30 image. NRG data reprocessed by Xpotential.



(Source: Diagram provided by Roscan, 2022)

Figure 9.15 Depth slice at 500 m for MVI inversion model of magnetic data. Xpotential modelling of NRG magnetic data.



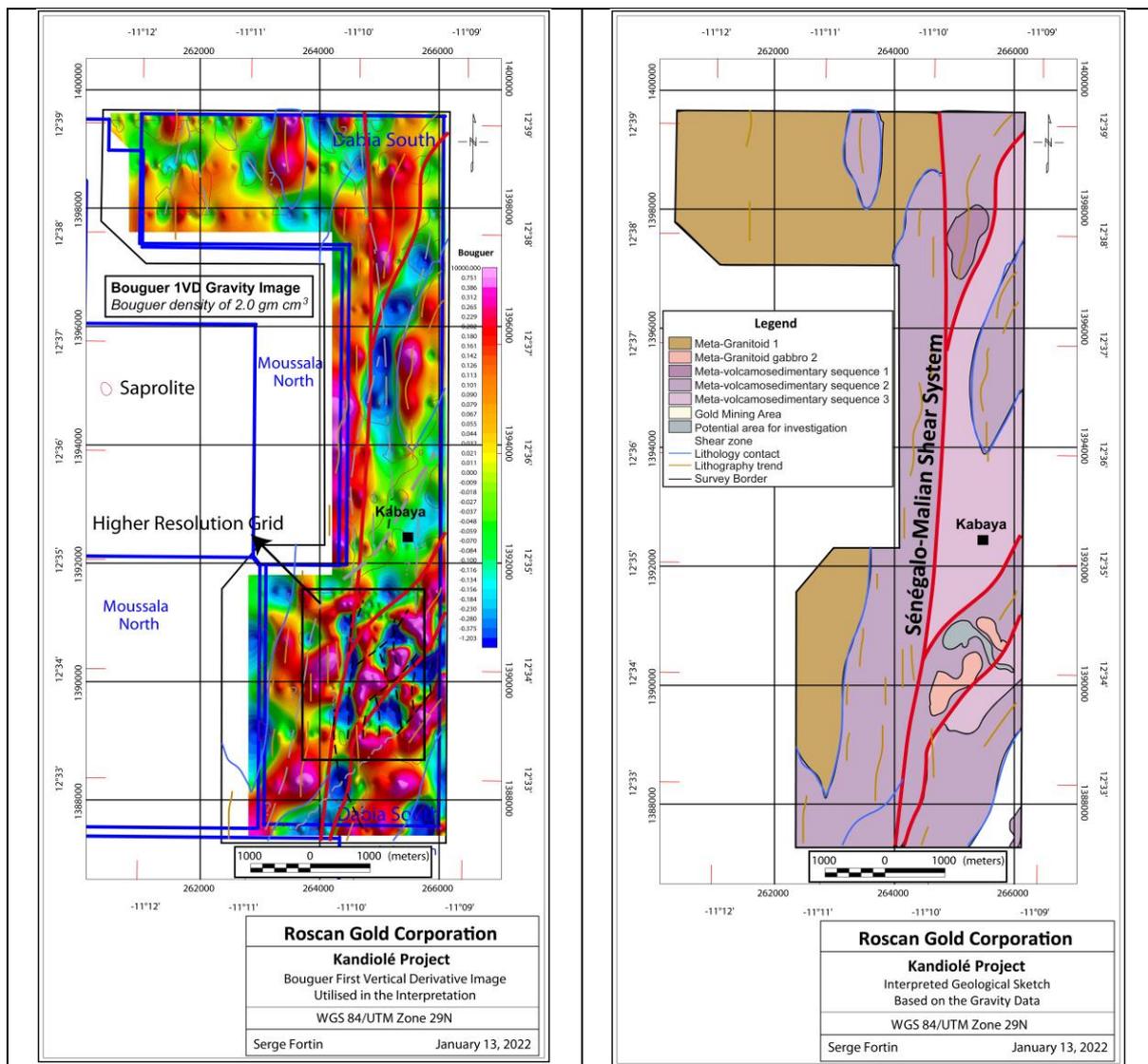
(Source: Diagram provided by Roscan, 2022)

### 9.6.3 Ground Geophysics

#### Robex Historical gravity survey at Dabia Sud

In 2014, a gravimetric survey was completed by Stewart Geophysical Consultants Pty Ltd on behalf of Robex Resources. A regional grid of 800 m by 100 m was used for the permit, with a closer spaced grid of 200 m by 50 m on the Kabaya target area. Robex commissioned Haines Surveys to undertake processing and interpretation of the gravity data as illustrated on Figure 9.16. A north-south trending break is visible in the central part of the area; with a banded/layered response in the east and a more homogenous response in the west. Several northeast-southwest trending shear zones splaying of the main north-south trend are also interpreted. In the Kabaya area, surveyed at a higher resolution, a concave feature is interpreted which is bounded by NE trending shear zones. The gravity interpretation of the Kabaya area appears to be incongruent with the more recent interpretative work undertaken by Roscan and based upon the new and detailed drilling information.

Figure 9.16 Dabia sud, First vertical derivative image of Bouguer gravity data using 2.67 g/cm<sup>3</sup> (LHS). Geological interpretation of gravity modelling (RHS).



(Source: Map provided by Roscan, 2022 after Haines surveys 2014, modelling International Geoscience 2014)

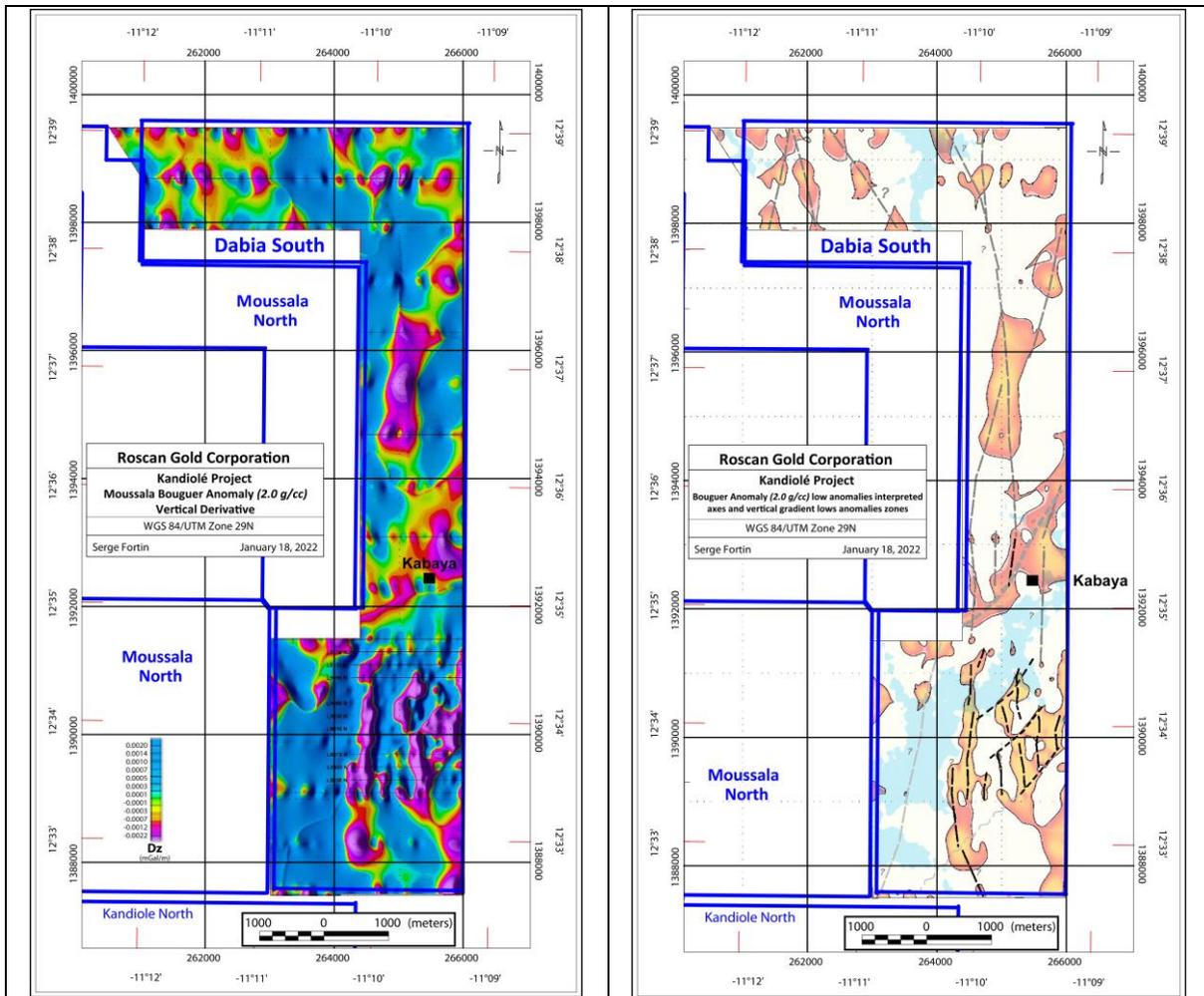
#### Sagax Afrique SA re-interpretation of gravity data for Roscan

In 2021 Roscan commissioned Sagax to review and reinterpret the gravity data looking specifically at zones of thicker saprolite that may be associated with faults or shear zones. An average density of 2.0 g/cm<sup>3</sup> was used to reflect the total saprolite horizon (gravity low areas) rather than the original density interpretation of Haynes for all rock units averaging 2.67 g/cm<sup>3</sup>. The results and interpretation are presented in Figure 9.17 and reflect potential structural zones trending N-S to



NNE. In the Kabaya area the thicker saprolite zones coincide with the West and East mineralized structural zones as drilled previously by Robex/Komet and currently by Roscan.

Figure 9.17 Dabia Sud, first vertical derivative image of Bouguer gravity data using 2.0 g/cm3 (LHS). Interpretation of gravity lows based on 2.0 g/cm3 gravity model (RHS).



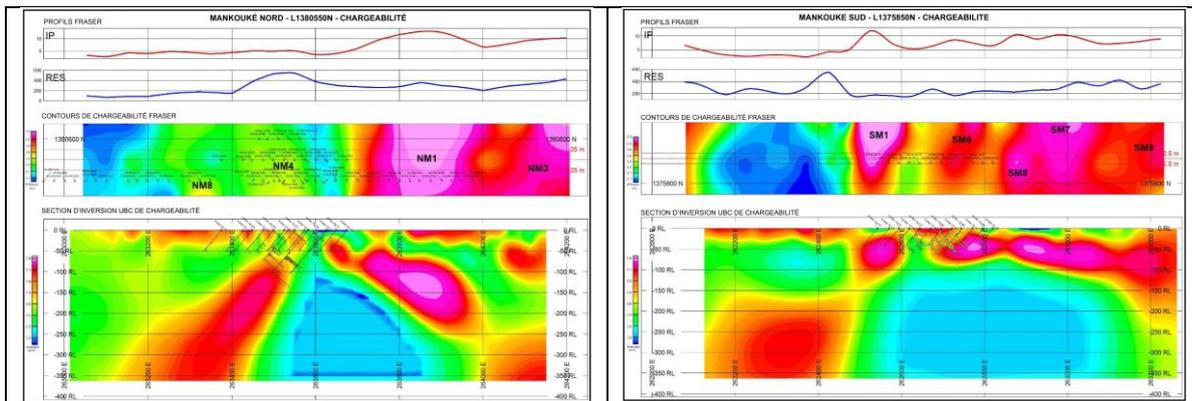
(Source: Maps provided by Roscan, after Sagax Afrique SA.)

### Roscan Ground Geophysics (Induced Polarisation and Magnetics) and Interpretations

Between 25<sup>th</sup> December 2019 and 14<sup>th</sup> February 2020, SAGAX AFRIQUE SA (SAGAX) completed a geophysical survey using induced polarisation (IP) / resistivity and magnetometry on behalf of Roscan. The survey was completed on two grids in the Mankouke permit covering the Mankouke Central and Mankouke South mineralized zones. For the IP / resistivity survey, the grids in both locations consisted of eleven lines at a spacing of 100 m, with 50 m between each station. Ground magnetometry lines were completed at a spacing of 50 m, with continuous readings along the lines. A total of 26.4-line km were surveyed using the pole-dipole system and 50.4 km were surveyed by ground magnetometry. (Both split evenly between Mankouke Central and Mankouke South). It is noted by SAGAX that the presence of lateritic crusts and argillaceous alteration made the implementation of the IP survey difficult in certain areas and this is reflected in the type of anomalies produced and what was found with subsequent detailed drilling programs. A summary of the typical plan and section profiles produced from an inversion of the IP data by Aussiecan Geoscience Inc (GSI) is illustrated in Figure 9.18 with the left section reflecting Mankouke Central and the right section, Mankouke South. Targeting mineralization zones was challenging due to the presence of pyritic aureole related to QFP intrusive, the depth of oxidation and the presence of clay zones and redox fronts within both deposits.

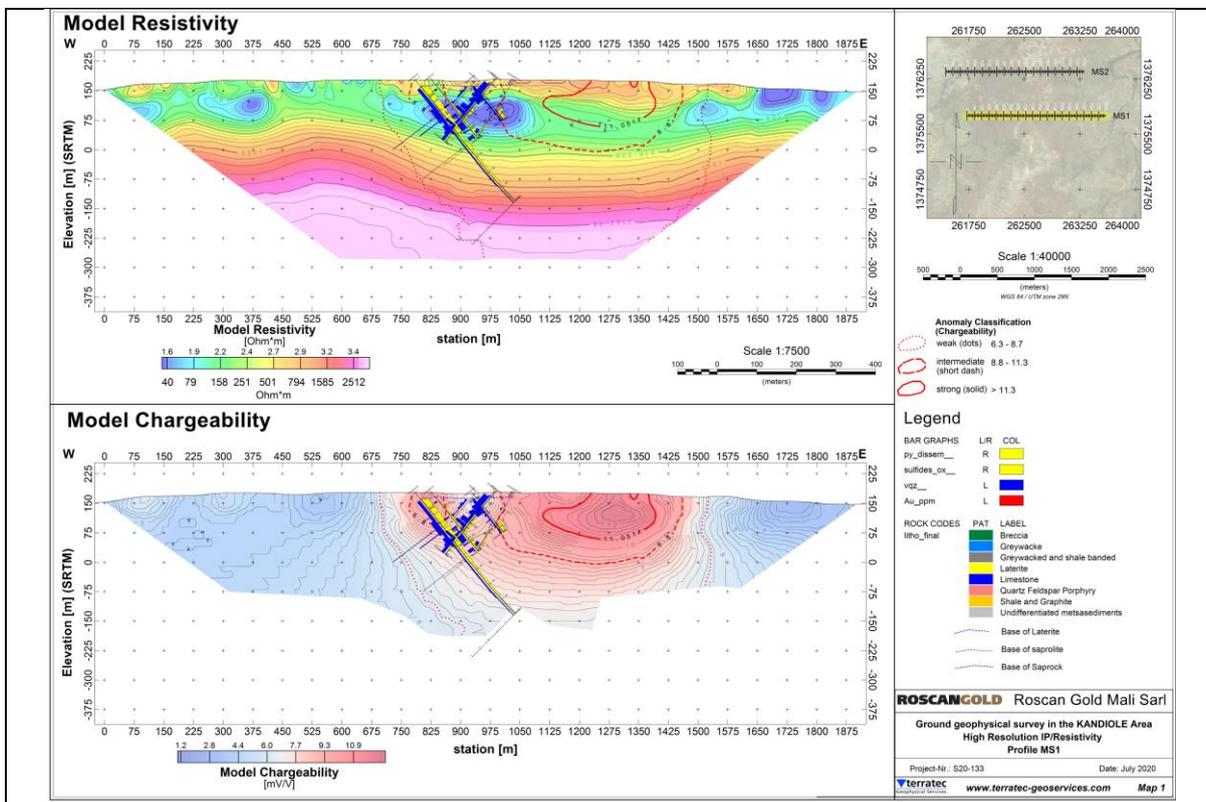
At Mankouke South the saprolitised horizon is up to 160 m vertical depth from surface. This factor is well illustrated in the follow up, IP work undertaken by Terratec utilising their proprietary equipment and inversion software (Figure 9.19) with the results clearly reflecting depth of oxidation in both the resistivity and chargeability profiles.

Figure 9.18 Plan and section chargeability inversion profiles from Induced Polarization ground survey. LHS: Mankouke Central Line 1,380,550 mN; RHS: Mankouke South Line 1,375,850 mN.



(Source: Diagram provided by Roscan, 2022. After Sagax, Inversion modelling AussieGeocan Inc (AGI))

Figure 9.19 Hi resolution IP survey for line 1,375,850 mN derived and modelled by Terratec Geoservices.



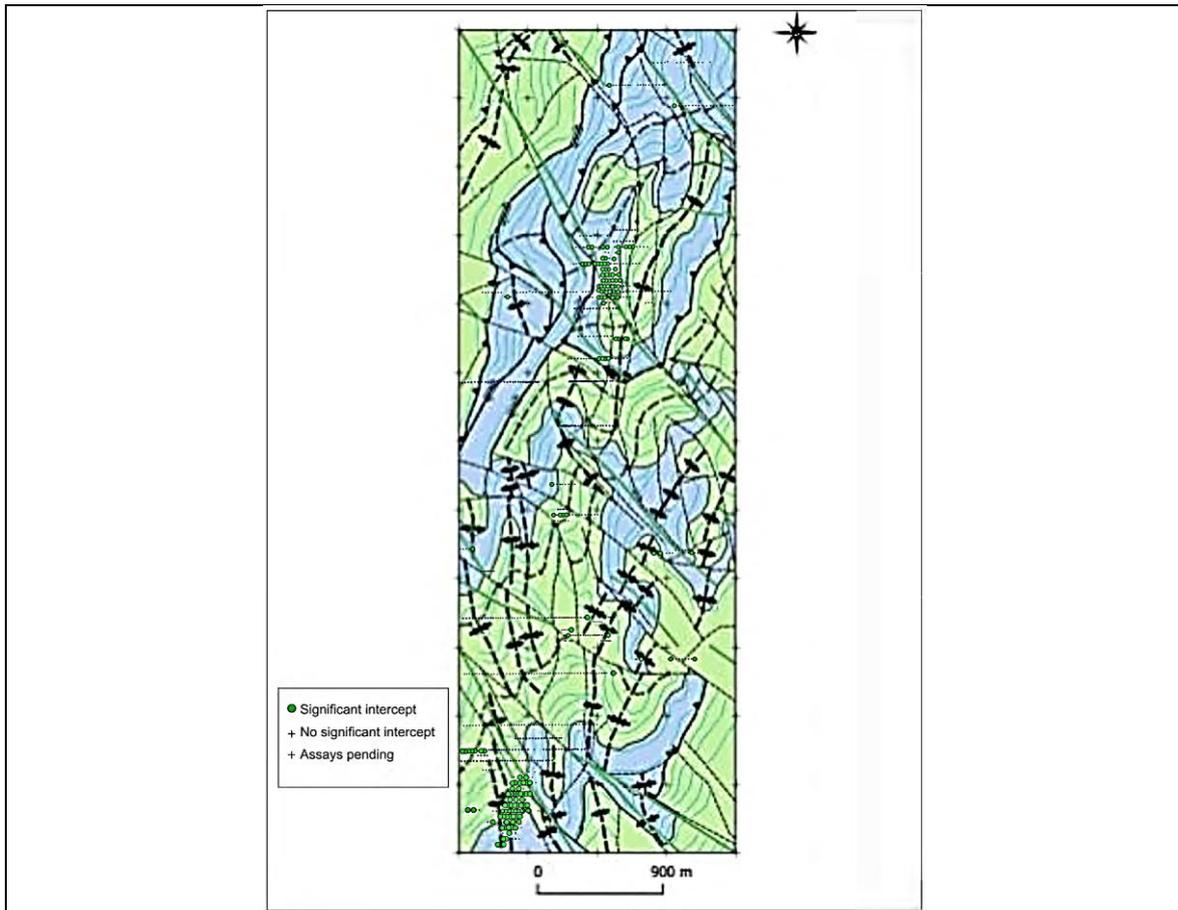
(Source: Diagram provided by Roscan, 2022)

### Geokincern Modelling of Ground Magnetic and Sysmin data

Geokincern Ltd (Geokincern) undertook a geophysical and geological interpretation of the Mankouke permit area utilising the Sagax ground magnetic survey and the Sysmin airborne data. The datasets and the interpretation are illustrated in Figure 9.20. This work differentiated between magnetic (blue) and non-magnetic (green) horizons and interpreted a heavily folded terrane cut by NW structures. At Mankouke South and Central, anticlinal structures were outlined and thought to be associated with mineralization and this has been confirmed by subsequent drilling.

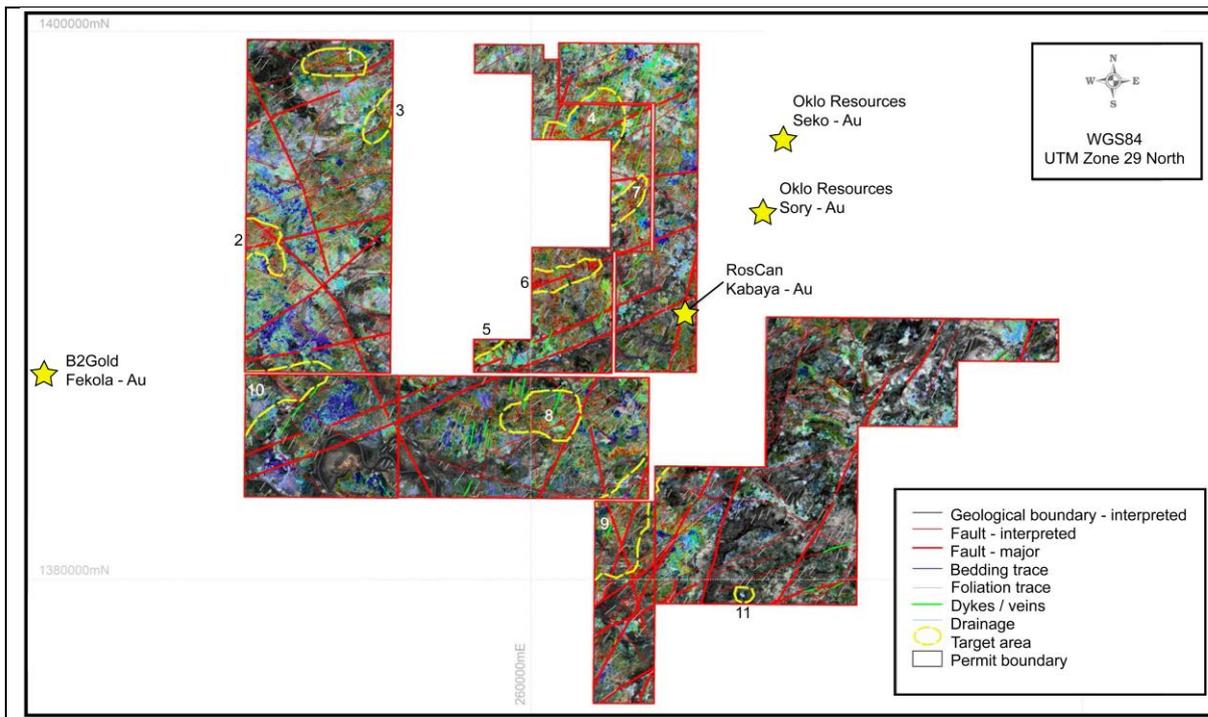


Figure 9.20 Geokincern interpretation of sysmin magnetic data and ground magnetic data highlighting magnetic rocks in blue and less magnetic in green. Faults outlined with green lines and folds with black lines.



(Source: Diagram provided by Roscan, 2022)

Figure 9.21 Sentinel Image data with superimposed litho-structural interpretation, target areas and deposits.



(Source: ACA Howe, 2021)



## 9.7 SATELLITE IMAGERY

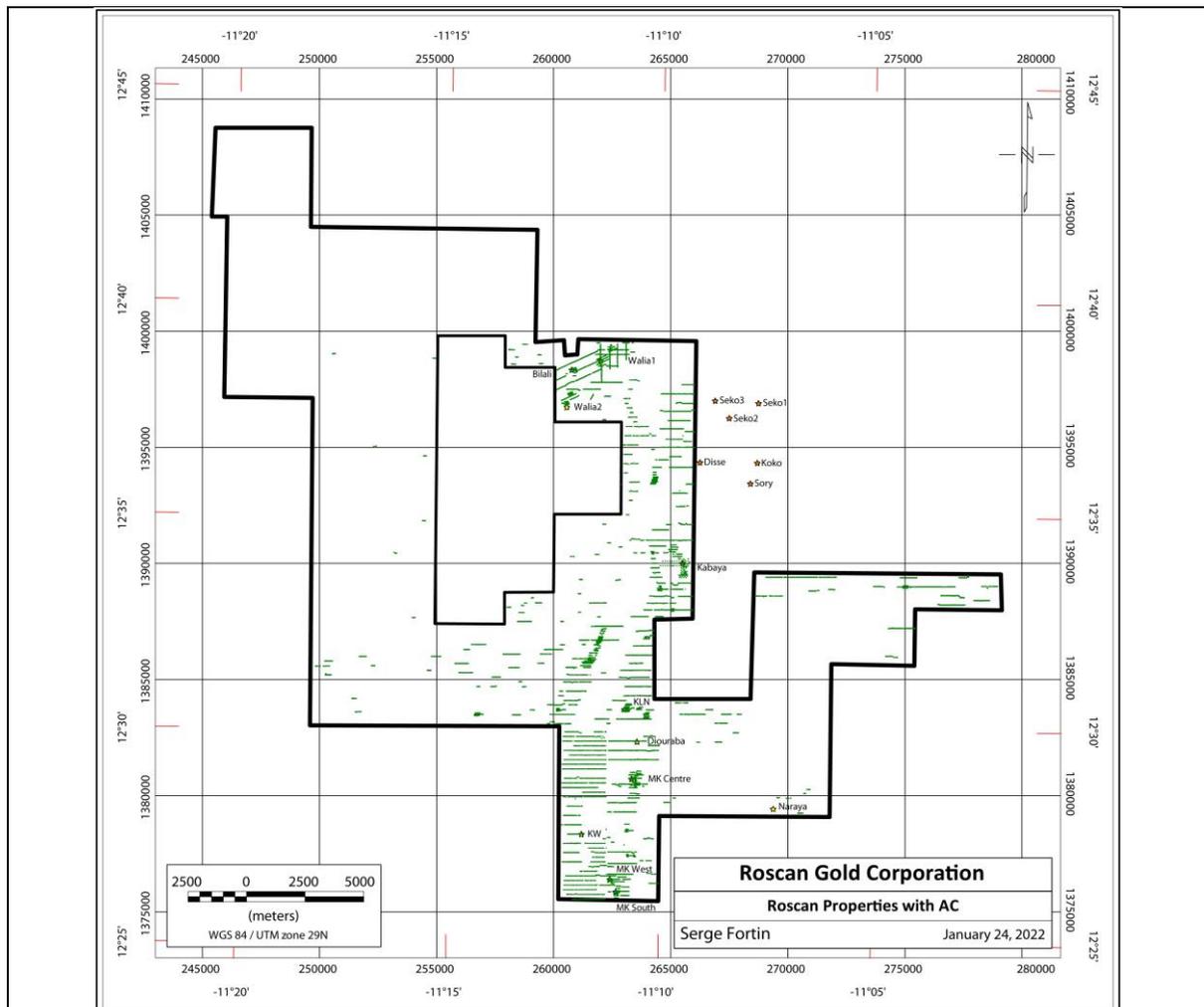
In May 2019, ACA Howe completed a satellite image interpretation on the Kandiole Project and surrounding area (Figure 9.21) utilising VHR satellite data and freely available Landsat, ASTER and Sentinel data in the remaining area. The interpretation covered the majority of Roscan’s permits. Twelve targets were selected as possible locations for follow-up exploration on the ground and were based on both the satellite structural interpretation and the location of similar clay/iron features. Most of these targets have been subsequently tested by AC drilling with follow up RC and/or DD drilling where significant mineralization has been intersected.

## 9.8 GOLD DISTRIBUTION FROM REGIONAL AIR CORE DRILLING

Roscan has undertaken follow up air core drilling in areas with soil and/or termite gold and arsenic anomalies with the distribution of holes outlined in Figure 9.22 and Figure 9.23. This methodology has been the primary approach for generating bedrock gold targets, but the company has also incorporated data and ideas for geophysical surveys and the recently completed generative study of Xpotential. This work has been successful in exclusively delineating Resource targets at Mankouke South, KN2 and 3 and MOU1. Artisanal workings for gold are prevalent in the Resource areas of Kabaya, Mankouke Central and KN1 and the AC follow up drilling has subsequently outlined the full extent of these mineralization systems at shallow depths.

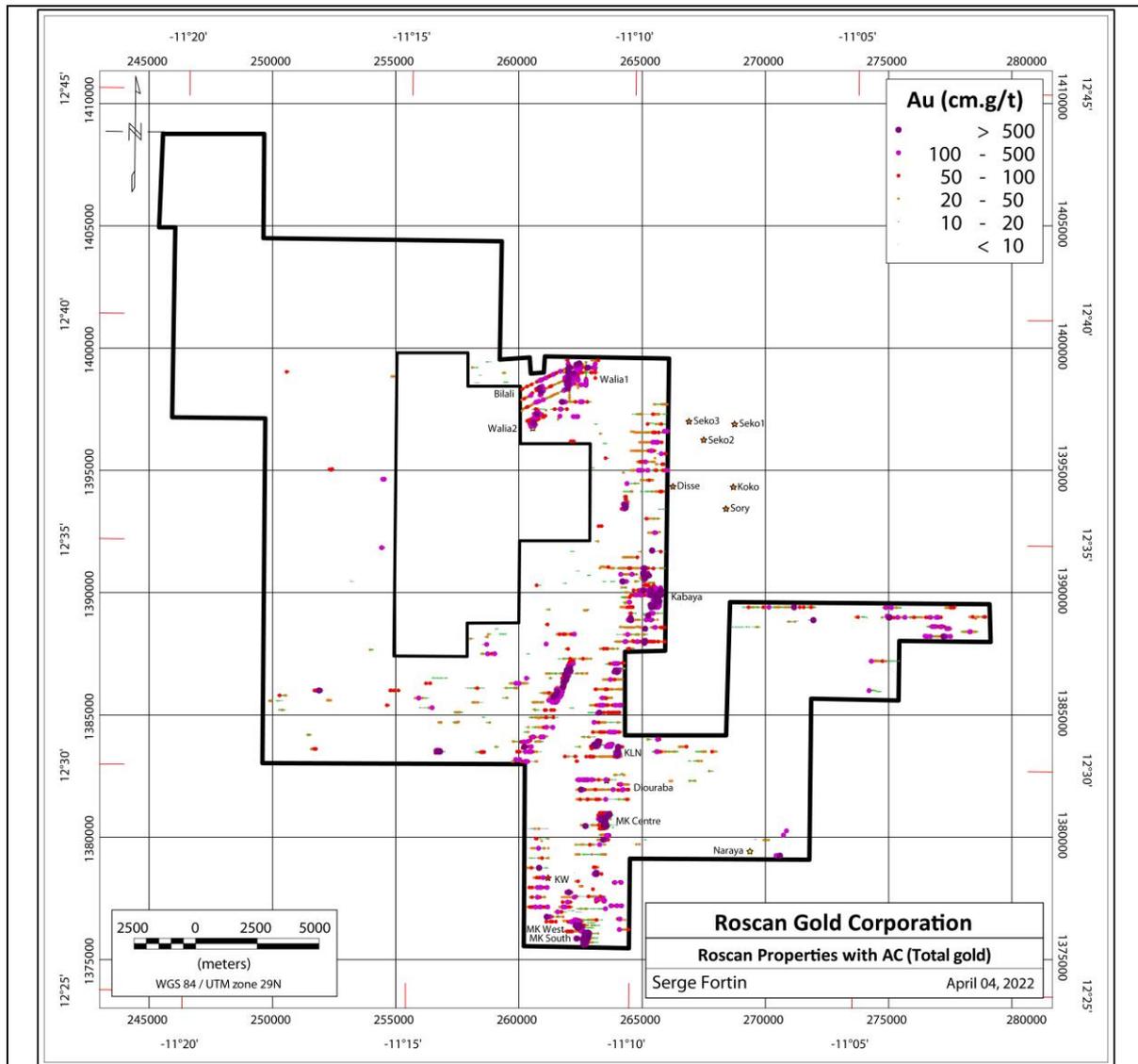
A gold accumulation (cm.g/t) plot of downhole results from the air core drilling is presented in figure 9.23 and attests to the efficacy of this method in outlining the major Resource areas and multiple other targets for follow up exploration.

Figure 9.22 Distribution of Air Core drilling within the Kandiole Project.



(Source: Diagram provided by Roscan, 2022)

Figure 9.23 Gold accumulation (cm.g/t) Plot for air core drilling results.



(Source: Diagram provided by Roscan, 2022)

## 9.9 TARGET GENERATION

In March 2021, Xpotential completed a generative study of the Kandiole project area. The study involved:

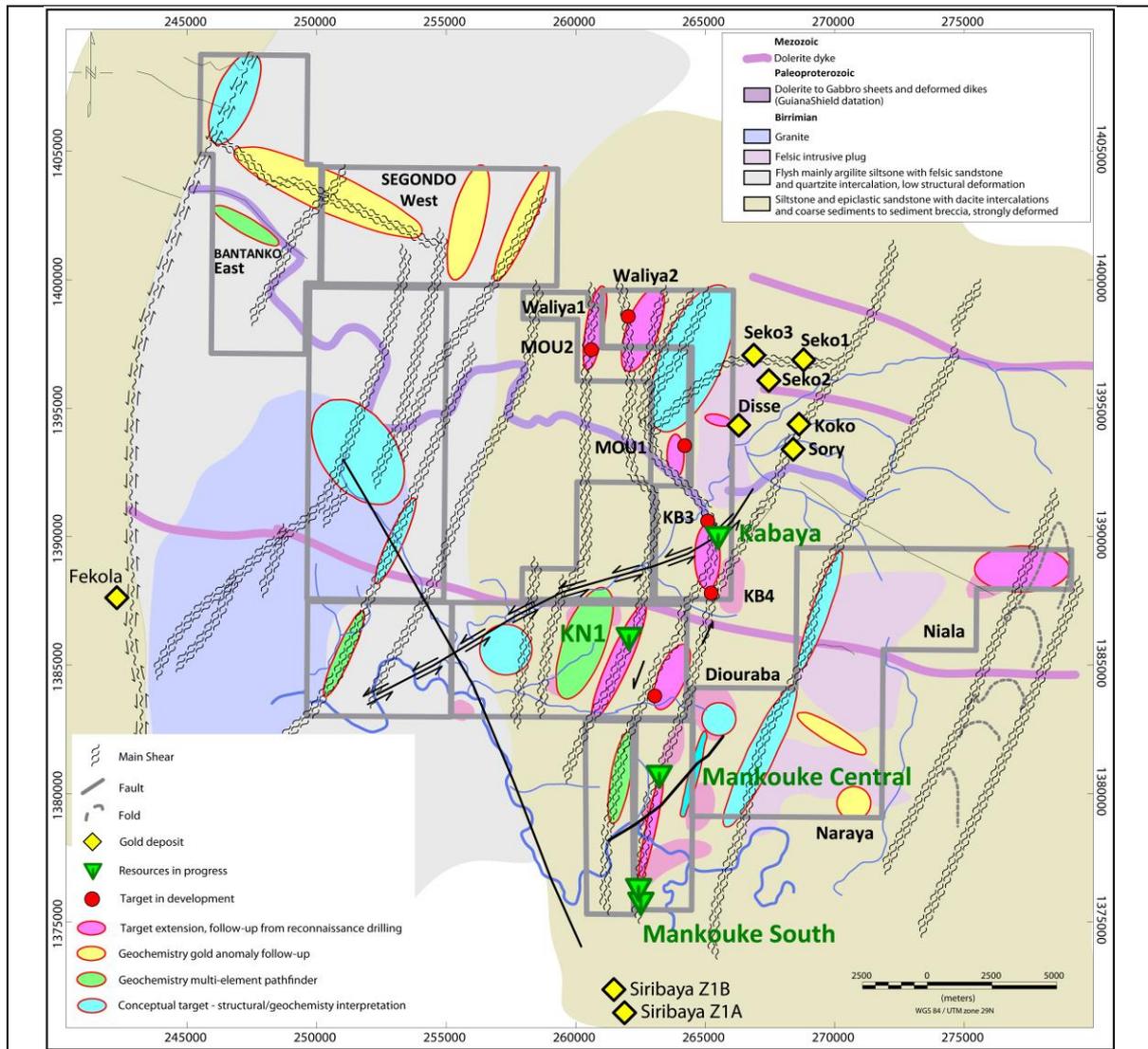
- Processing, inversion, filtering, and interpretation of the NRG detailed geophysical survey for electromagnetic, magnetic and radiometric data as well as the historical Sysmin magnetic data; all within the project area.
- Integration and interpretation of all soil, termite and drilling data.
- Integration and interpretation of all available geological data from cores, maps, and published literature for the KKI region.
- Development of appropriate models based on known gold deposits from the region (Yalea, Gara, Goukoto, Sadiola, Tabakoto deposits, Siribaya, Oklo etc)
- Outlining of principle geological and geophysical domains and the structural framework of the project area.
- Development of targets (new and known) utilizing a Mineral Systems approach and based on integration of information layers and development of appropriate mineralization vectors. Two approaches were utilized: geological knowledge driven and weights of evidence techniques to provide independent verification of the targets



This work resulted in the production of a litho-structural interpretation which was integrated with the various other important data sets to produce more than 150 targets including 29 priority target areas.

Roscan has subsequently taken all this generative work plus additional information and produced a target map (Figure 9.24) which highlights principal lithologies, major shear corridors and a series of targets and target areas reflecting all the generative information and the major geochemical indicators. Resource sites and targets in development are highlighted as symbols, extensions to know mineralization for follow up exploration are in pink, gold anomaly areas in yellow, pathfinder anomaly areas (ie As) in green, and conceptual targets in blue. Current drilling programs outside of the resource definition sites are focused on extension areas.

Figure 9.24 Roscan Geology and Target map highlighting Principal shear corridors, gold deposits, resource deposits and targets (pink, yellow, green and blue) for follow up exploration.



(Source: Diagram provided by Roscan, 2022)

### 9.10 QP COMMENTS ON EXPLORATION DATA AND TARGET GENERATION

The QP has conducted a comprehensive review of all exploration data and is of the opinion that the work conducted was in accordance with Industry standards, and that the multidisciplinary approach has generated multiple high-quality datasets which have now been integrated in the Xpotential generative study. All of this work has resulted in the generation of multiple gold targets which warrant further, focused exploration work, and are likely to lead to the generation of new mineralized areas with the potential for further resource expansion.



## 10 DRILLING

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In this section, drilling is subdivided into historical drilling and the Roscan drilling. The main focus of all drilling reporting relates to the information utilized in the resource estimation work. Drilling outside of the resource areas was covered in Section 9 and utilized the same protocols as per the resource areas.

The only historical drilling of relevance is the work undertaken by Robex Resources and Komet Resources on the Kabaya deposit and was exclusively RC drilling.

Roscan drilling relates to all drilling undertaken and utilized in the estimation of the mineral resources in this report, namely for the targets referred to as Mankouke South, Mankouke Central, Kandiole North (KN1), Kandiole North permit satellite deposits (KN2 and 4), Moussala North (MOU1) and Kabaya. In each target Roscan has undertaken a combination of various drilling techniques including AC, RC and DD drilling.

### 10.1 HISTORICAL DRILLING

At the Kabaya target, RC drilling was undertaken by Robex and Komet. Robex drilled 91 holes in 2013 and 2014 and Komet drilled another 91 holes in 2017 and 2018. All drilling was performed along east-west oriented lines with shallow drill holes inclined 50° to the west. It consisted of 91 Robex holes totalling 5,256 m and 91 Komet holes totalling 7,274 m. Drilling was all shallow and focused within saprolite with 98% of drillholes at 100 m or less in depth (most are 70-90 m). The average depth of the drilling was 52 m in 2013 and 61 m in 2014. In 2017 and 2018, the hole length was systematically 80 m or less where there was a problem with the drilling. The exceptions to this were in 2017 where two holes were drilled to 100 m depth and two others to 120 m depth. Robex contracted KLEMM Bohrtechnik of Drolshagen, Germany to complete the tri-blade 4" (101.6 mm) drilling during the 2013 and 2014 campaigns. DCS Mali and C.C.M.Eng. Corp. were the RC drill contractors in 2017 and then DCS Mali in 2018. The drill equipment used was a Schramm T685w, down the hole hammer with a 4" bit size and 6 m drill rod lengths. The Kabaya historical drill plan is presented in Figure 10.1.

Drilling procedures and protocols are detailed in the NI 43-101 Report on the Kabaya Resource published by SGS Geological Services on March 5, 2019 (Camus and Ouedraogo, 2019). The drilling protocols and procedures are summarized briefly in this report.

#### 10.1.1 Drill Procedures – Historical Drillholes

##### *Collar Surveys*

The Robex and Komet hole locations have been located by a handheld GPS in UTM using the WGS84 datum Zone 29N and the drill setup (azimuth and dip) with a Brunton compass with a correction of 5° West declination. The handheld GPS elevations were subsequently corrected to the elevation of the ground gravity survey as the latter was considered much more accurate. The gravity survey used Trimble 4000 series receivers along a grid of 50 m x 100 m in the Kabaya area with a horizontal and vertical precision of approximately 2 cm. All RC holes were moved to fit with the gravity topographic surface.

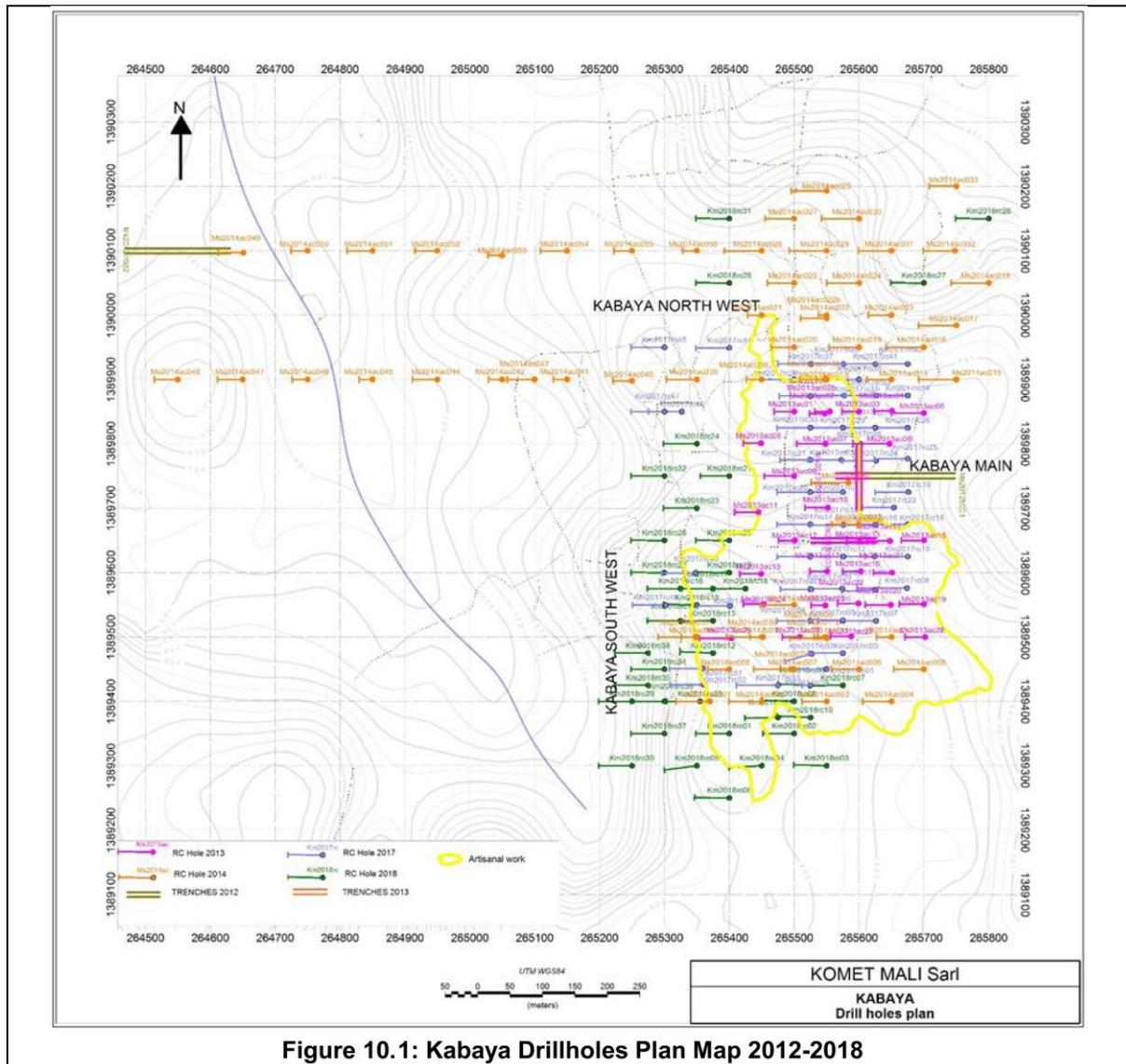
##### *Downhole Surveys*

All drillhole collars and orientation were drilled at 270° azimuth and -50° dip. During the 2013 and 2014 drilling campaigns, the holes were drilled until the tri-blade stopped penetrating. Downhole surveys using a reflex (EZ-track) instrument were conducted at the bottom of only twelve holes drilled in 2018 to monitor the dip and drift. No significant deviation was observed in these holes.

##### *Geological Logging*

AC and RC drill chips were collected for every metre interval and placed in chip trays. Trays are labelled with the drillhole number and the depth intervals. RC chips are stored in lidded, plastic core trays. A quantity from the raw sample was collected at 1 m intervals during drilling, sieved and then washed to obtain cuttings. The recovered cuttings were arranged in order on a numbered wood board for photographing and geological description (lithology, colour, structures, alteration, etc).

Figure 10.1 Plan Map of Kabaya Historical drill holes (2012 to 2018)



(Source: Diagram provided by Roscan, 2022)

### 10.1.2 SGS QP statement on historical drilling

Based on the QP’s site visit by SGS in late 2018 (SGS, 2019), the following was summarized:

The opinion of the SGS QP, was that the quantity and quality of the lithological, collar, and downhole survey data collected in the exploration and infill drill programs completed, was sufficient to support Mineral Resource estimation and mine planning as:

- Reverse Circulation logging met industry standards for gold exploration.
- Collar surveys had been performed using industry standard instrumentation.
- The lack of Downhole surveys with the Reverse circulation drilling type at the shallow drilling depths usually doesn’t show any significant deviation.
- Drill orientations were generally appropriate for the mineralization style, and had been drilled at orientations that were optimal for the orientation of mineralization for the bulk of the deposit area.
- Drill orientations were seen to appropriately test the mineralization.



## 10.2 ROSCAN DRILLING OVERVIEW

Roscan drilling campaigns have been conducted from 2018 up until the completion date of this report and continues at the time of this report. Roscan has followed-up on the surface geochemical anomalies described in Section 9.1 using AC, RC and DD drilling to define areas of significant and continuous mineralization. To date six deposit areas, referred to as Mankouke South, Mankouke Central, KN1, KN2 and 4, MOU1 and Kabaya have been the subject of follow up programs and are included in the Mineral Resource. Table 10.1 summarizes the drilling statistics for each deposit area. The input data for the resource estimate comprises information from 1,789 drill-holes totalling 135,045 metres, including 38,357 metres of diamond drill holes (DD and RCDD), 35,634 metres of RC holes and 61,054 metres of AC holes.

In addition to the drilling within the resource areas Roscan has undertaken prospect drilling using principally air core over the ten permit areas to follow up on termite anomalies. This work totals 7,112 AC holes totalling 277,320 metres with 21 RC holes (3085 metres) and 6 diamond holes (1202 metres) of follow-up drilling.

The AC hole diameters range from 8-13 cm depending on the drill rig.

DD drill holes were drilled at PQ (85 mm core diameter) and HQ size (63.5 mm core diameter) in saprolite and saprock and either continued at HQ size or changed to NQ2 size (50.6 mm core diameter) in fresher rock, depending on the drilling contractor and hole conditions.

The standard RC rod size was 114.3 mm and AC rod size was 88.9 mm.

Table 10.1 Drilling statistics for each resource area

Target	Type of hole	Number of holes drilled	Total Meterage drilled
Mankouke South	AC	241	11,369
	RC	83	10,282
	DD-RCDD	114	25,679
Mankouke Central	AC	163	8,622
	RC	3	370
	DD-RCDD	23	3,023
Kabaya	AC Komet	86	5,002
	RC Komet	80	7,274
	AC	168	6,983
	RC	88	11,203
	DD	26	5,894
Kandiole (KN1)	AC	289	14,641
	RC	38	4,816
	DD	9	2,117
Kandiole (KN2-4)	AC	213	10,944
	RC	0	0
	DD	0	0
Moussala North (MOU1)	AC	143	3,493
	RC	15	1,689
	DD	7	1,644
<i>Outside the resource zones</i>	AC	7,112	277,320
	RC	21	3,085
	DD	6	1,202

### 10.2.1 Mankouke South

In 2019, several lines of AC drilling at 50 m line spacings were completed to cover Mankouke South. Holes were drilled at 50° to the West with an average depth of 44 m and maximum of 80 m. During 2020 and 2021, some of the high grades seen in



the AC holes near the surface were confirmed by RC holes drilled mostly at 50° to the West and staying within the saprolite. To understand the geology, the mineralization and the structure, some DD holes were drilled in 2021 to the fresh rock. These holes displayed the continuity of the gold mineralization dipping the West and East and continuing at depth. At the end of 2021 and the beginning of 2022, some RCDD and RC holes were drilled in the main body (MS1) but also in the NW satellite called MS3. The aim of these holes was to expand the known footprint of the mineralization and provide additional additional information for resource evaluation.

DD/RCDD and RC holes: Maximum depth for DD was 528 m (average 220 m), for RCDD the maximum depth was 350 m (average 242 m) and for RC the maximum depth was 180 (average 125 m). Most of the holes were drilled at 50°, but during the latter phase, the dip was variable at between 50° and 75° toward either due east or due west.

Between October and December 2021, DD holes were drilled with a RC pre-collar to 120 m or more in the saprolite when it was possible, and continuing by DD PQ in the saprolite. The hole size was reduced to HQ in the saprock-fresh rock. The maximum depth reached by RC was 180 m. Azimuths of 90° and 270° depending on the target.

The total number of holes used in the resource estimate (Figure 10.2) include 241 AC, 83 RC and 114 DD core holes.

### 10.2.2 Kabaya

In July 2020 Roscan acquired the Dabia Sud Permit from Komet (historical drilling covered in section 10.1). From October 2020 Roscan drilled:

- a total of 168 AC (azimuth 270°, dip-50°, maximum depth 80m, 41 m average depth),
- 85 RC (azimuth 90°-270°, dip-50° to -80°, average length 128m, maximum length 200m), and
- 26 DD (90°-270° azimuth, -50° dip, maximum length 425m, average 227m) holes within the mineralized areas KB1-3 (Figure 10.3 and Figure 10.4).

This drilling is in addition to the previous holes drilled by Robex and Komet during the periods 2013 to 2014 and 2017 to 2018 as described in section 10.1 above. All holes drilled within the Kabaya Resource areas are depicted on Figure 10.3 and Figure 10.4. The total drilling used in the resource estimate, including historical drilling, is 255 AC holes, 176 RC holes and 26 DD holes.

### 10.2.3 Kandiole North (KN1)

In 2019, 28 AC drillings were completed on a few anomalous values outlined from termite mound geochemistry.

In 2020, a further 1,370 AC holes totalling 67,775 m covered all anomalous zones. A particular focus is the lineament which includes deposit KN2 and 4 and extends over more than 4 km in strike length in a NE-SW direction.

Some good intersections in several AC holes defined three target zones KN1, KN2, and KN4. During the last quarter of 2020, three DD holes totalling 494.7 m were completed to the north of the KN1 zone, the results display patchy mineralization.

At the beginning of 2021, 14 RC holes and 241 AC holes were completed at KN1 which provided significant intercepts in several holes. A further three DD holes and one RCDD hole were drilled to demonstrate the gold occurrence at depth. The best intersection was obtained in hole DDKan21-006 in the fresh rock between 274 m and 279 m. Following field observations of the mineralization, the drilling direction was changed from 270° and 090° from the previous drilling campaigns to N 245° to incorporate the higher grade, E-W trending pyrite and quartz veins.

During the last quarter of 2021, 24 RC holes totalling 3,136 m were drilled with 340°-160° azimuth to get a better intersection angle with a possible E-W quartz vein network. The goal of this phase was the consolidate the mineralization knowledge and continuity underneath the AC coverage 60 m vertical depth and the few RC holes to get the mineralization envelope at the resources level.

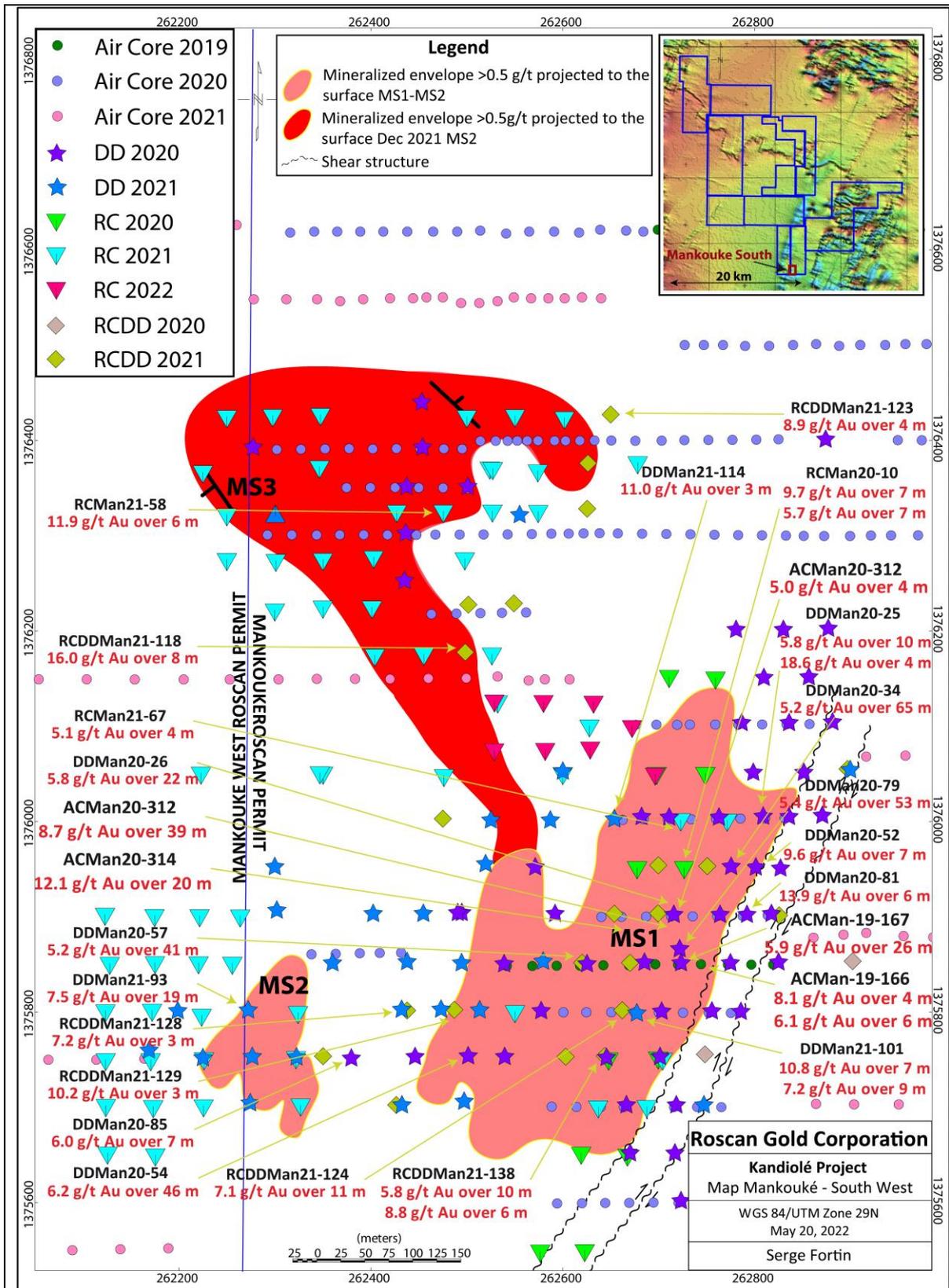
From the previous phase, an RC and DD program was designed at the beginning of 2022 to grow the mineralization estimation up underneath the resources defined from the previous RC holes.

Within the KN1 resources area, Roscan drilled:

- 289 AC (azimuth 270°, dip-50° max depth 60m, average 50m),
- 38 RC (126m average max length 170m, azimuth 245°-340°-160°, dip -50° to -60°), and
- 9 DD (average length 243m, max length 356m, dip-50° azimuth 90°-270°-340°).



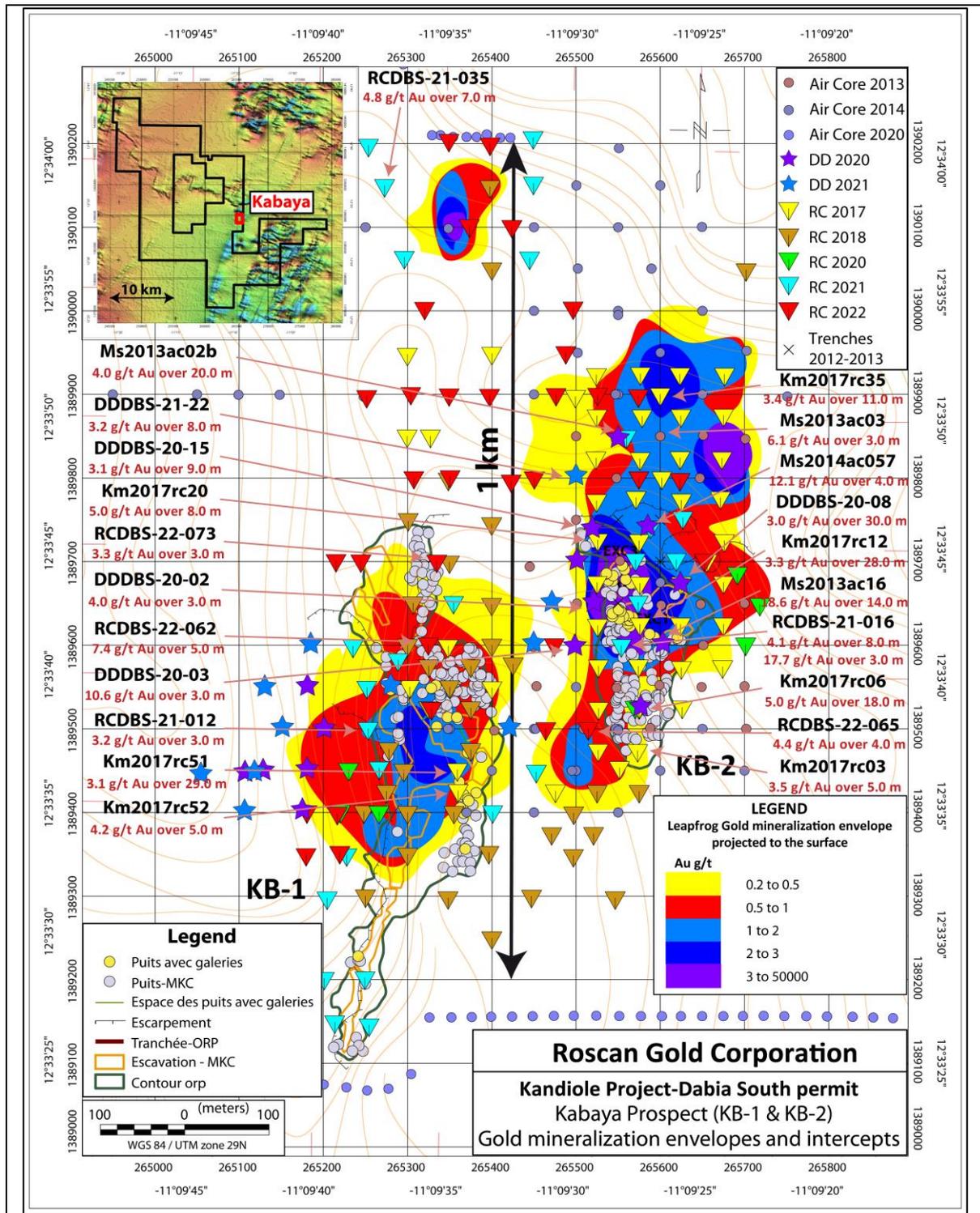
Figure 10.2 Best Intersections from Mankouke South Area



(Source: Diagram provided by Roscan, 2022)

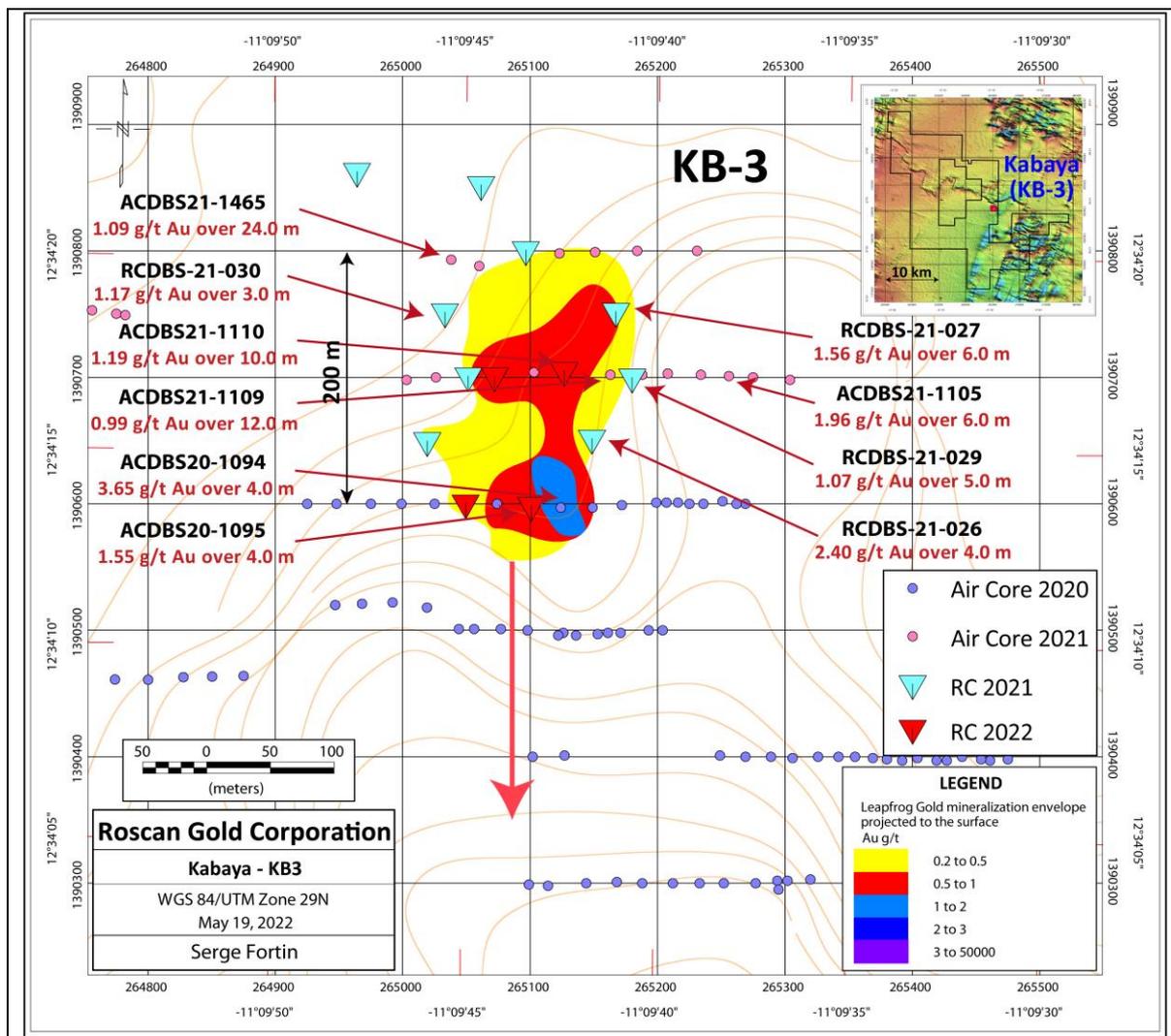


Figure 10.3 Distribution of drill holes and best intersections from KB1 and KB2 deposits.



(Source: Diagram provided by Roscan, 2022)

Figure 10.4 Distribution of drill holes and best intersections from KB3 deposit.



(Source: Diagram provided by Roscan, 2022)

### 10.2.4 Satellite deposits (Mankouke C, Moussala, KN2 and KN4.

In the satellite deposits (Figure 10.6 to Figure 10.8), AC holes have been drilled at a dip of  $-50^\circ$  to the west to follow up on termite geochemical anomalies. Roscan subsequently undertook RC and Diamond drilling at the MOU1 and Mankouke Central deposits to understand the mineralization and geology in these areas.

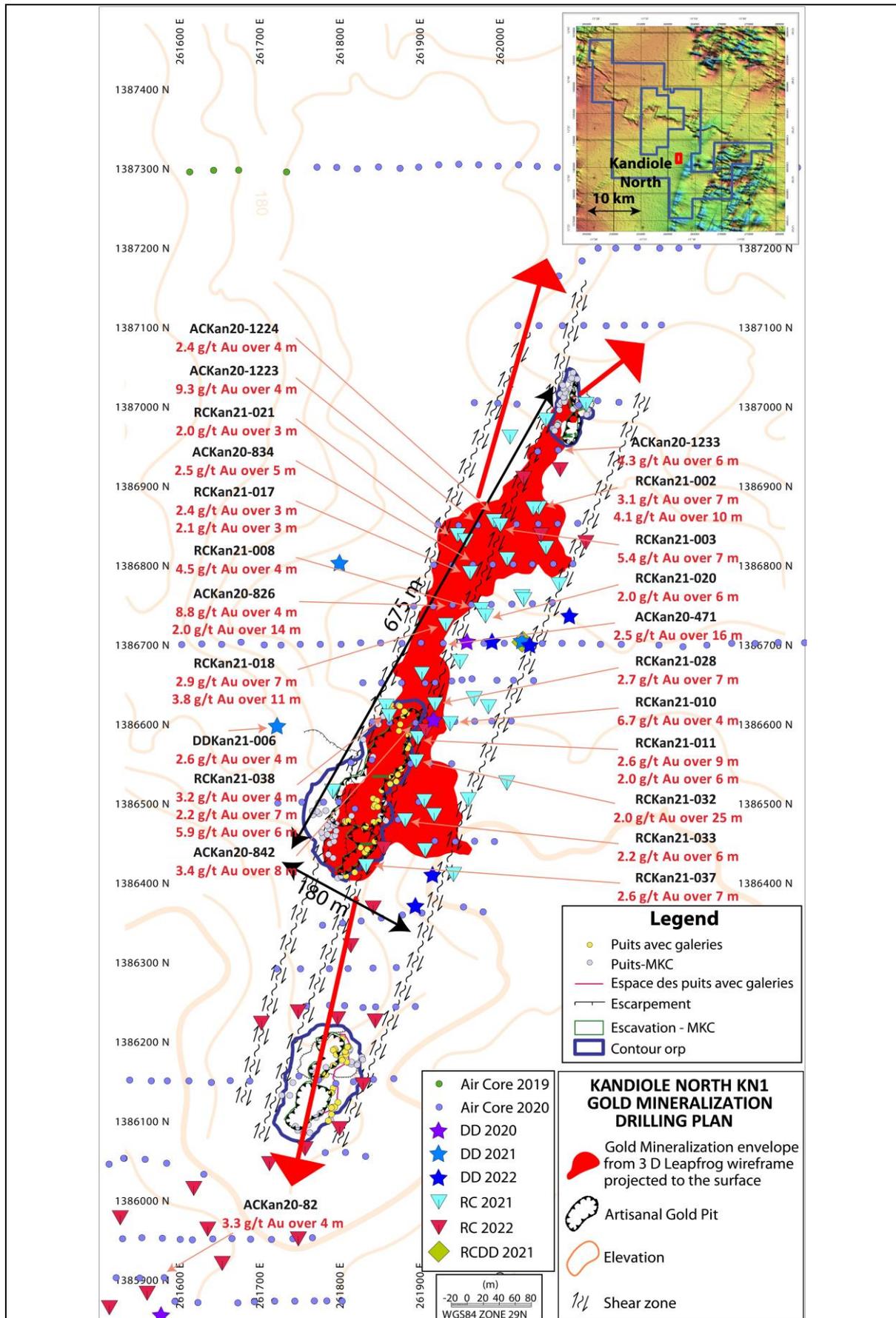
Between 2018 and 2021 Roscan drilled 163 AC holes, 3 RC holes, 23 RCDD holes and 5 deep DD holes in Mankouke Central. All Holes were drilled toward the West ( $270^\circ$ ), except the five deep DD holes which were drilled at  $50^\circ$  toward  $90^\circ$  azimuth to specifically test IP anomalies.

In the KN2 and KN4 satellite deposits, Roscan drilled 213 AC (80 m maximum length, 51 m average length, with an azimuth  $270^\circ$ , dip  $-50^\circ$ ).

Between 2020 and 2021 Roscan drilled in MOU1:

- 143 AC (average length 24 m, max length 50 m, azimuth  $270^\circ$ , dip  $-50^\circ$ ),
- 15 RC (average length 112 m, max length 150 m,  $-50^\circ$  to  $-70^\circ$  dip,  $90^\circ$ - $270^\circ$  azimuth), and
- 7 DD (azimuth  $270^\circ$ , dip  $-50^\circ$ , 234 average length, max 342 m).

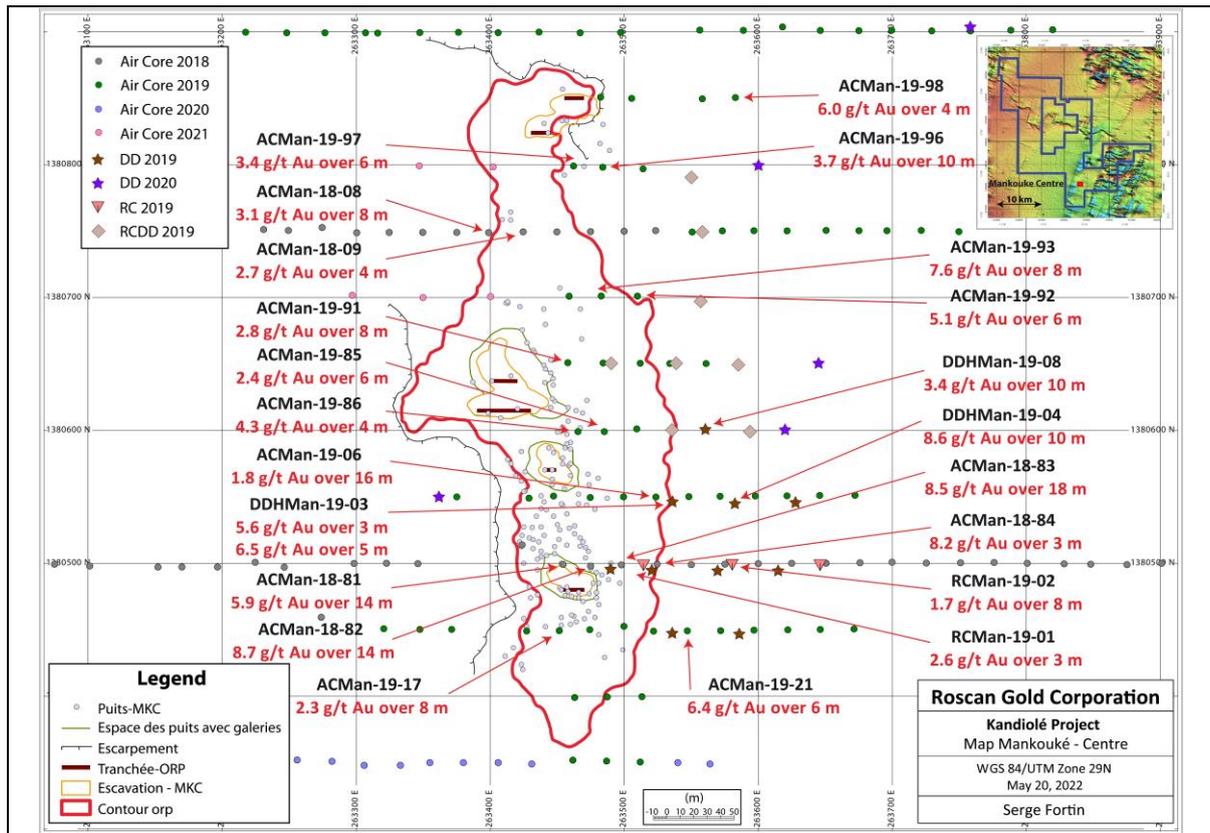
Figure 10.5 Distribution of drill holes and best intersections from Deposit KN1



(Source: Diagram provided by Roscan, 2022)

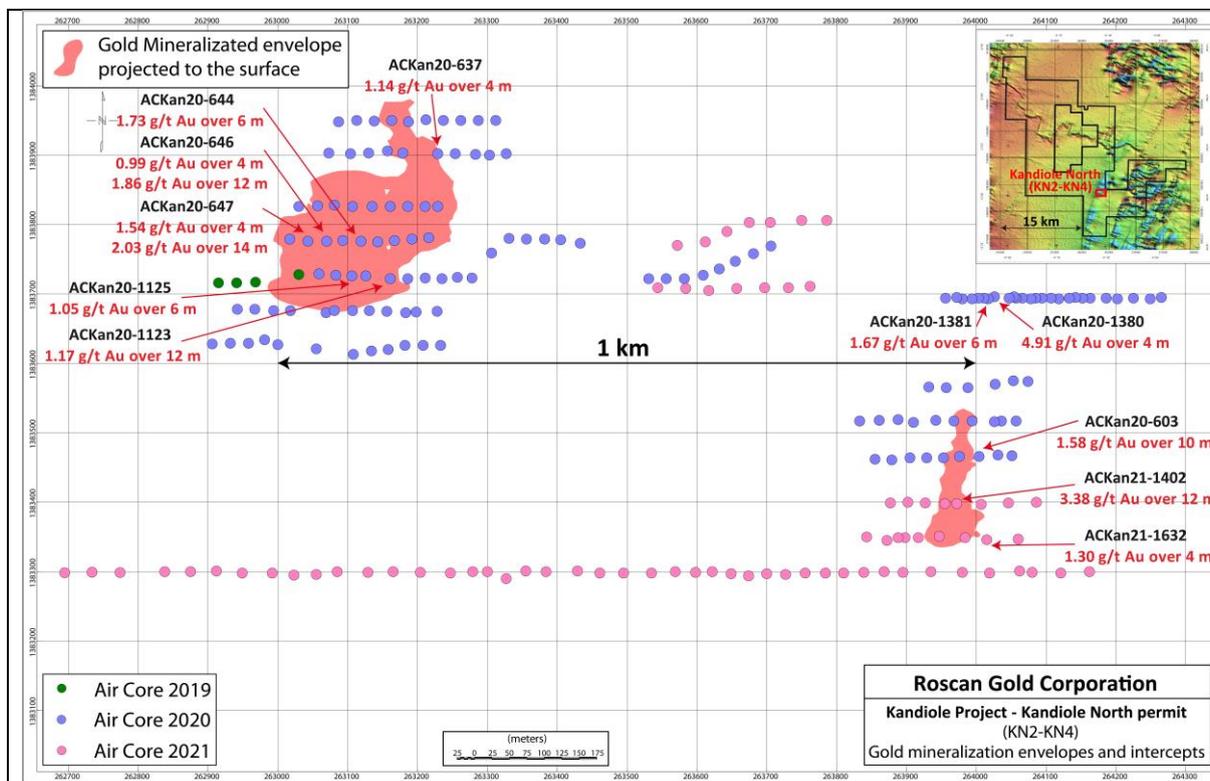


Figure 10.6 Distribution of drill holes and best Intersections for Mankouke Central Deposit



(Source: Diagram provided by Roscan, 2022)

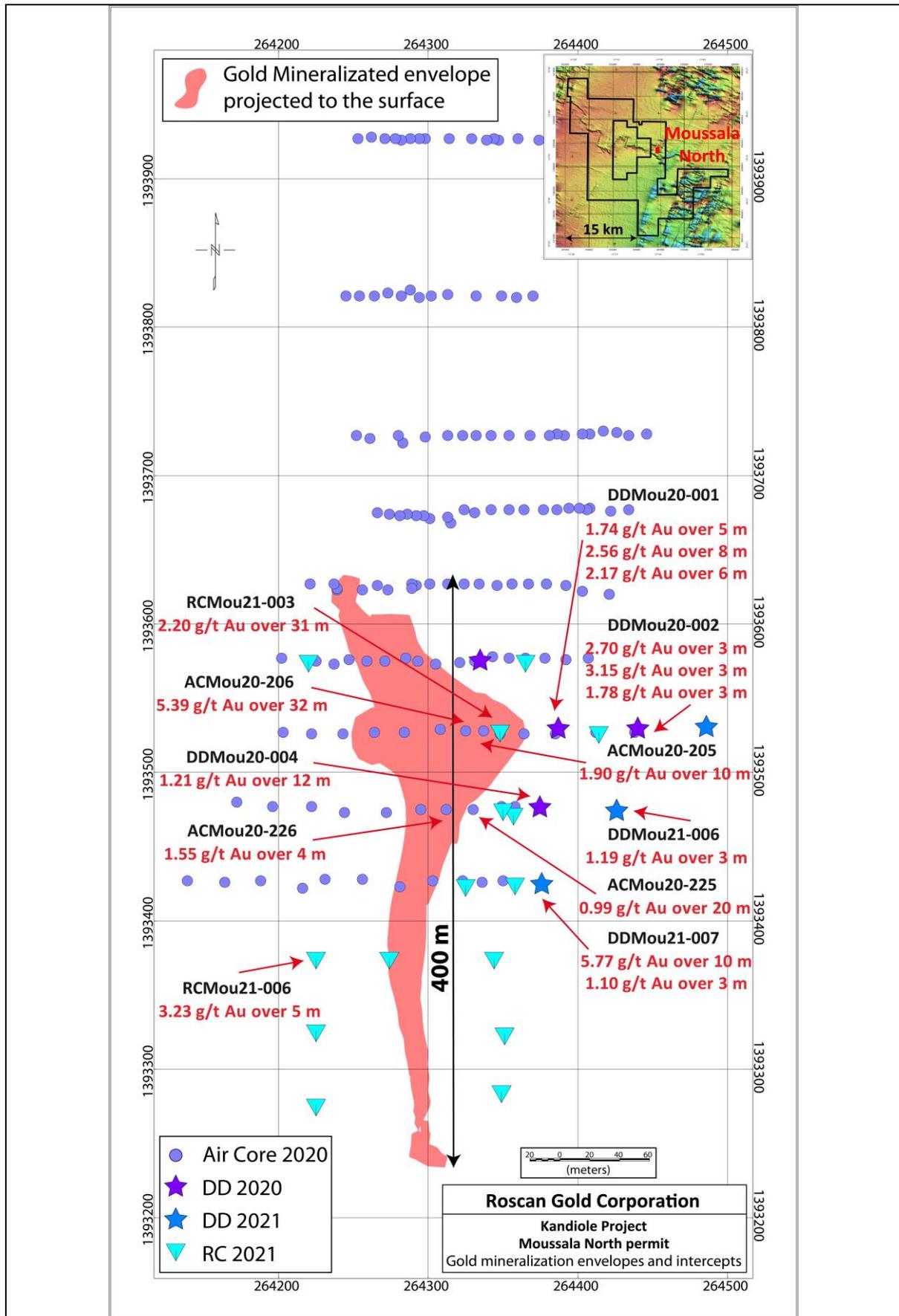
Figure 10.7 Distribution of drill holes and best intersections for KN2 and KN4 deposits.



(Source: Diagram provided by Roscan, 2022)



Figure 10.8 Distribution of drill holes and best Intersections for MOU1 Deposit.



(Source: Diagram provided by Roscan, 2022)



## 10.3 DRILL PROCEDURES – ROSCAN DRILLHOLES

### 10.3.1 Collar Surveys

All DD and RC holes and a large portion of the AC holes in the resource target areas have been surveyed using Digital GPS except for the satellites as KN2-4 and Moussala. The majority of holes in the other resource areas (Mankouke South and Central, KN1 and Kabaya) have been identified and surveyed except in cases where previous RC and DD concrete blocks and markings were destroyed. When the hole wasn't surveyed by DPGS, the handheld Garmin measurement after drilling have been recorded. All 2018 to 2021 holes inside the resource areas have been surveyed by the PROGRAMME POUR LE DÉVELOPPEMENT DES RESSOURCES MINÉRALES (PDRM) by DGPS Trimble with a base station. Holes from the end of 2021 and in 2022 were surveyed by SOCIETE D'ETUDES ET DE REALISATIONS TOPOGRAPHIQUES (SER-TOPO) SARL which used a DGPS STONEX with base station. All coordinates are in WGS 84 UTM ZONE 29 with an EGM 96 Geoid.

### 10.3.2 Downhole Surveys

In the RC and DD holes, downhole single-shot surveys were completed by the drill contractors using a REFLEX EZ-TRAC XTF instrument. After the first reading at 15 m, the next readings were taken every 30 m and at the bottom of the hole.

For RC holes, readings were made inside a stainless drill rod mounted above the hammer in the drill string.

For DD holes, the reading was done during the hole progress using 6 m aluminium rods going through the core bit. A review of drill hole survey's does not highlight many significant deviations, and these occur only in exceptional cases and have been recorded.

In average the RC azimuth and dip deviations are around 3° with maximum deviation for the azimuth of 15° at the end of the hole and 10.5° in dip. DD holes display an average azimuth deviation of 3.6° and 2.1° in dip, with maximum 21.9° off in azimuth and 11.4° in dip.

### 10.3.3 Core Orientation

Core orientation surveys were conducted where possible only in fresh rock. To orient and marking the bottom of the cores, an ACT III apparatus from reflex is used. The downhole tools are handled by the driller under the control of a geological technician and the marking is done at every drill rod-end. Core was removed from the core barrel, packed into a V-shaped, six-metre-long angle iron and rebuilt to get as much as we can the in-situ rock position. From the bottom mark, a red line is drawn to get the core bottom visible. At the camp, the core is assembled against into a V-shaped, six-metre-long angle iron to adjust, if necessary, the bottom line with the orientated core above and below and get a bottom line matching each other.

The structures (bedding, fault, fractures, veins etc) were measured with a keneometer providing alpha and beta angle converted to dip direction and real dip by utilising Geosoft Target software. Since October 2021, the structural measurement has been recorded with a laser IQlogger tool with its software providing in real time the true dip and dip direction with a stereograph displaying all structures measured.

The drilling of oriented core is best practice when exploring structurally controlled gold mineralization as it allows for accurate logging of the orientation of structural elements and Roscan has made every effort to collect orientated information, where possible, in fresh rock. This work is challenging due to the depth of weathering at the major deposits of Mankouke South, Kabaya and KN1.

A total of 4,075 structural measurements were recorded from Mankouke South holes, 1,168 at Kabaya, 410 at Kandiole and 677 at MOU1. These are all summarized in section 7.

### 10.3.4 Core Handling

DD drilling was completed in runs of 1 m in saprolite and saprock and 3 m in fresh rock to maximise recovery. Core handling procedures at the drilling site included core being directly transferred from the core barrel to a core tray close to the rig. The core was cleaned with water to remove all residual drill-related material that may have contributed to possible contamination. Core was arranged in the core box in such a way as to ensure that the core was consistently joined well by aligning features like bedding and foliation and by using the marked core orientation line. The core writer also marked all core box with the hole identification, depths and recovered core lengths on the depth blocks.

Core boxes were then transported to the core yard at the Camp site where depth block positions were recorded and checked for possible depths discrepancies. The orientation line was verified and the core metre-marked before photography and detailed logging commenced.



### 10.3.5 Geological Logging of Samples and Sampling

#### *Air Core Holes*

Samples were collected in plastic bags or rice sacks at the base of the cyclone every 1-2 m downhole. Each sack was pre-labelled with the drill hole ID and depth. To limit contamination, the cyclone was blown clean by the drill operator between each rod. Drilling as per each single rod, the sampling was continuous until the next rod change. Samples were then weighed and split using a one tier riffle splitter until 2 to 4 kg of material was obtained (until October 2021). From October 2021 a single tier riffle splitter was used. For AC drilling, composite samples of 2 m were made by pouring each sample into a single tier riffle splitter until two samples weighing 2 to 4 kg were produced. One of these samples was sent for analysis and the other was kept in reserve until assay results were received. After October 2021, the reject was entirely re-collected into the poly-wave bag to be stored for future reference.

The sub-sample intended for laboratory assay was collected in a small transparent plastic bag, to which a samples tag with a unique samples ID was wrapped on the edge and stapled secured. Both samples, the original collected from the cyclone and the sub-samples obtained after splitting, were weighted and the weights registered in the database. The former provided a means to estimate drilling recovery, whereas the second provided a means to ensure the minimum weight for the intended laboratory assay-analysis was met.

A small sub-sample of reject from each sample interval was washed and used for geological logging, and later placed in a plastic chip-tray for storage and future reference.

From the chips tray material, geological logging was completed and included sample colour, % quartz, level of alteration, rock type and a description of the interval. Until October 2021, the hole information was recorded on paper but from October 2021 onwards, all hole information was directly entered in Seequent MxDeposit database software via a tablet.

#### *RC Holes*

Samples were collected every 1 m downhole using the same procedures as those for the AC drilling. Each RC sample was described in geological logs including colour, alteration, % quartz, % pyrite, % arsenopyrite, rock type and a description of the interval. Until October 2021, the hole information was recorded on paper but since October 2021, all hole information has been directly entered in Seequent MxDeposit database software via a tablet.

#### *Diamond Drill Holes*

At Roscan field camp, the core was cleaned again, photographed and a quick log was completed by a geologist. Detailed logging was completed on hard copy logging sheets and then entered to Excel until October 2021, after the log is directly enter in a tablet using Seequent Mxdeposit software. Data recorded included rock type, the interpreted original rock type, colour, and the presence of structures and various minerals.

Sample intervals were selected and marked on the core boxes during logging and are generally approximately 1.0 m in length regardless of geological boundaries. However, where the recovery was low the interval may be lengthened to 1.5m so that the minimum quantity of required material was obtained.

Samples generally cross geological boundaries as there are only subtle variations in places. Core was split in half using a diamond core saw or a knife in the soft saprolite. Both halves of the core were placed back into the core tray for sampling. The core saw or knife was washed between samples to limit contamination. Sampling was completed by Roscan technicians under the supervision of a geologist. Half core samples were placed in a plastic bag with a unique ID. Rubbly intercepts were sampled by placing grab samples of approximately half the material along the intercept into the sample bag.

### 10.3.6 Core and Sample Recoveries

The recovery measurements of the diamond holes are accurate except in the strongly weathered zones where groundwaters have caused muddy saprolite and the core has been washed out making the accurate estimation of recovery estimation difficult. The AC and RC recovery estimation was based on weight only and rock density needs to be taken into account as well as variations due to the older laterization processes within the saprolite horizons. The recovery average was also a relative recovery estimate taking account the different hole diameter sizes as with some of the historical drilling these were not recorded in the old logging. The database was also edited and cleaned to filter out clearly overweight sample recording reflecting human error. In summary, the overall recoveries given in table 10.3 are a broad overview and reflect assumptions on RC and AC hole diameters and average weights in different weathering horizons.



The overall diamond core recovery is, on average 93%. The RC relative recovery was in the order of 82% and the AC recovery was 74%. The QP's review noted that there was no significant relationship between grade and recovery (or sample loss). Given that the RC and AC recoveries are based on sample weight, the QP considers that this is a pessimistic view of potential recoveries and expects the actual sample recoveries were probably higher than those estimated as a part of this study.

Table 10.2 Recovery averages for resource drill holes

Resource Area	DD	Recovery Average	
		RC	AC
Kabaya	94.2%	83%	73%
Mankouke South	93.7%	81%	75%
KN1	91.6%	80%	74%

### 10.3.7 Core Photography

Core photography was only conducted in direct sunlight. Digital photographs were downloaded, labelled with the hole identifier and depths intervals. Roscan undertakes core photos for both full and half core after saw blade cutting.

### 10.3.8 Density Measurements

A total of 6,859 density measurements have been found in the Roscan database for the resource deposits (Table 10.3).

Table 10.3 Quantity of density measurements per target and medium

Resource Area	Laterite	Saprolite	Saprock	Fresh Rock
Mankouke South	88	1144	78	3439
KN1	4	82	39	193
Kabaya	2	444	0	669
Moussala	1	56	0	496
Mankouke Central	8	113	0	3

The method used was the Archimedes principle (water displacement method). Core density measurements were completed in-house using the water immersion method. Approximately 10 cm-long pieces of HQ core or 15 cm-long pieces of NQ core were collected at 2 to 4 m intervals depending on the quality of the core. Those of laterite and saprolite were sun-dried before immersion in melted candle wax. Samples were selected in a way to allow for all types of rock to be represented.

Samples were successively weighed in air and in water in a closed room using an electronic scale with milligram precision. Immersion water was kept clean and free of debris. When reading the weight in water, the operator made sure water was still.

Both weights were entered in a pre-set database spreadsheet that computes automatically the density using the following formula:

$$\text{density} = \text{weight in air} / (\text{weight in air} - \text{weight in water})$$

### 10.3.9 Geotechnical Logging

Roscan geological staff recorded information such as core recovery, rock quality designation (RQD). The data was captured on customized geotechnical paper log sheets until October 2021. From October 2021, geotechnical data has been captured electronically and entered in a tablet on Seequent MxDeposit database software.

## 10.4 AURUM STATEMENT OF OPINION ON THE ROSCAN DD, RC AND AC DRILLING

The QP has concluded that:

- Collar surveys were performed using industry-standard practices and instrumentation
- Downhole surveys were performed using industry-standard practices and instrumentation
- Geological core logging of RC and AC drill samples meets industry standards for the targeted type of gold mineralization
- Recovery data from the various drill types are acceptable within the given constraints



- Drill-hole orientations are generally appropriate (with only minor exceptions) for the sub-vertical auriferous structures and adequately tested the mineralization
- No material issues were identified in the overall data collection process during the site inspection.

Based on the review work completed by Aurum, the QP is of the opinion that the quantity and quality of the data are sufficient and could be used for the estimation and reporting of a code-compliant mineral resource.



## 11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

For the purposes of the documentation on sampling at the Kandiole properties, this review has been broken down into historical drilling, and drilling by Roscan and confined to the three major project and Resource areas. Of the three major project areas, exploration drilling has been completed by Roscan at Kandiole, Mankouke and Kabaya. Historical drilling by earlier companies (Table 11.1) has only been completed at Kabaya (formerly Dabia Sud) by Robex (2007 to 2014) and Komet (2017).

Table 11.1 Summary of samples by company for the total Kandiole project

Permit	# Samples			Total
	Roscan	Robex	Komet	
<b>Mankouke (South and Central)</b>	74,916			<b>74,916</b>
<b>Kabaya (Kabaya and Moussala)</b>	64,605	5,942	8,514	<b>79,061</b>
<b>Kandiole (KN1, KN2 and 4)</b>	50,327			<b>50,327</b>
<b>Total</b>	<b>189,848</b>	<b>5,942</b>	<b>8,514</b>	<b>204,304</b>

# Note the number of samples is for the total of the leases and exceeds the resource areas

Table 11.2 Summary of samples within the resource areas

Permit	# Samples			Total
	AC	RC	DD	
<b>Mankouke South</b>	7,090	9,999	23,692	<b>40,781</b>
<b>Mankouke Central</b>	4,328	333	2,953	<b>7,614</b>
<b>Kabaya</b>	8,388	16,903	5,689	<b>30,980</b>
<b>Moussala North (MOU1)</b>	2,964	1,653	1,613	<b>6,230</b>
<b>Kandiole (KN1)</b>	8,121	4,767	1,992	<b>14,880</b>
<b>Kandiole (KN2 &amp; 4)</b>	6,345	0	0	<b>6,345</b>
<b>Total</b>	<b>37,236</b>	<b>33,655</b>	<b>35,939</b>	<b>106,830</b>

The samples are largely RC and diamond drill samples, with 303 samples from historical trenches at Kabaya. The historical trench data has not been used in the resource estimate.

### 11.1 HISTORICAL SAMPLES

The information in the section on historical samples, with the exception of the QAQC analysis, has been copied and edited from SGS (2019), a report titled "Dabia Sud Property, Kabaya Resource, NI 43-101 Technical Report, Mali".

#### 11.1.1 Historical RC Sampling Procedures

During RC drilling, a 1-meter interval sample (around 10-15 kg) was collected in a large plastic bag or white rice bag from the sample cyclone. Each bag was named by the hole number and the "from-to" depth. A smaller plastic sample bag with a written sequential sample number was attached to the large bag.

The raw samples in plastic bags with the small sample plastic bags inside were then brought to the Dabia camp. RC sample bags were then placed in downhole order. The samples were then split at the Dabia camp sample yard using a riffle splitter (simple riffle splitter during 2013-14 campaigns and a three-tier split in 2017). The riffle width was at least three times the maximum particle size (95% passing) and it was ensured the full sample fitted in a tray. The target sample weight was between 1.5 kg and 2 kg. If the resultant sample material was under the target weight, the technicians collected whatever available sample there was from the split and recombined the sample prior to dispatch to the laboratory.

After each sample splitting, the splitter was cleaned with air pressure and a brush. Where the cuttings were moist or wet, they were collected into a large bag and dried in the sun before splitting. Reference samples (the remainder of the split sample) were collected at the riffle splitter. The reference samples of the mineralization intercepts were kept as a permanent



record of the original sample and stored in the containers located in the Kabaya camp. However, at the time of writing, most of these historical samples were hard to identify or were unrecognizable.

Samples outside the mineralization zones were stored outside and the plastic bags conservation was limited. The reference samples were kept after splitting as a reference source if any repeat analytical work was needed.

After division, the quantity obtained was about 2 kg of collected material. The reduced and properly labelled sample (company name and address, project name and sample number) was placed in a large jute bag in a batch of 15 for shipping to the laboratory in Bamako. Samples were handled and transported by Komet personnel using a 4X4 vehicle to ALS (2013-2014) or SGS (2017-2018) Bamako laboratories. A submission form was attached to the shipment which included the sequence of sample numbers sent, the preparation and analysis required, the recipients to send the results and the signature of the geologist responsible. On arrival, the laboratory manager received and verified the submission form with the numbers and number of samples, and an approved copy was returned to the geologist of Komet.

### 11.1.2 Historical Sample Analysis

The laboratory used during 2013-2014 drilling campaigns was the ALS Mali SARL Laboratory Group, with certification ISO 9001:2015 (survey/inspection activity) and ISO 17025:2005 UKAS ref 4028 (laboratory analysis). The samples were analyzed by Fire Assay/AAS finish on a 50g pulp for gold.

The laboratory used during the 2017-2018 campaigns was SGS SARI Laboratory Group and were analyzed by Fire Assay/AAS finish on a 50g pulp.

### 11.1.3 Historical Quality Assurance and Quality Control Programs

Certified reference materials standards, blanks, and duplicates were inserted in the sample sequence at regular intervals to monitor laboratory accuracy and precision and sampling sequencing. In every 20 samples, one blank sample, one certified standard, and one field duplicate were inserted. Field duplicates were a second split of the original 2 kg sample. Table 11.3 summarizes the insertion frequency within the assay population employed for the historical drilling of Komet and Robex..

Table 11.3 Summary table showing the laboratory performance for CRMs used in historical QAQC programs

Standard	Best value (g/t Au)	No. of samples	No. in good range	No. in caution range	No. in check range	Good (%)	Caution (%)	Check (%)	Bias (%)
2018	RC	3,563	178	178	178	534	15%	438	12%
2017		4,879	249	247	249	745	15%	438	9%
2014		4,358	218	218	218	653	15%		
2013	RC / Trenches	1,954	98	98	98	294	15%		
2012	Trenches	224	8	18	8	34	15%		

# Note this data includes data for the whole permit. The analysis of data by the QP considers a more select area. (Source: SGS, 2019)

### 11.1.4 QA/QC data for the Historical Drill Sampling Programs

QAQC data from the various exploration programs were evaluated by Komet at the time of the exploration. SGS's opinion was that the data indicated the performance of the assaying was good.

#### *Historical Blanks*

Blank samples were a non-commercial sand taken from the Upper Proterozoic sandstone in the Kenieba area.

The Roscan drilling database has assay data for 729 individual Blank samples from the Historical drill assay programs within the resource area. The maximum fire assay grade for the blank samples was 0.05 g/t Au and the average grade was 0.01 g/t Au.

#### *Standards*

Four different certified standards were used: OXJ80 et OXA89 during 2013 and 2014 and OXI96 and OXC109 during 2017 and 2018. A total of 726 standards were inserted in the different batches transmitted to the laboratories for the resource areas.

118 of the CRM samples inserted were for the OXJ80 CRM, a standard with a certified grade of 2.33 g/t Au, and were consistently higher grade than 2 standard deviations of the certified values. A second CRM with a value of 1.80 g/t (OXI96) showed much better results. The other two standards were relatively low grade at 0.08 g/t Au and 0.20 g/t Au and the results

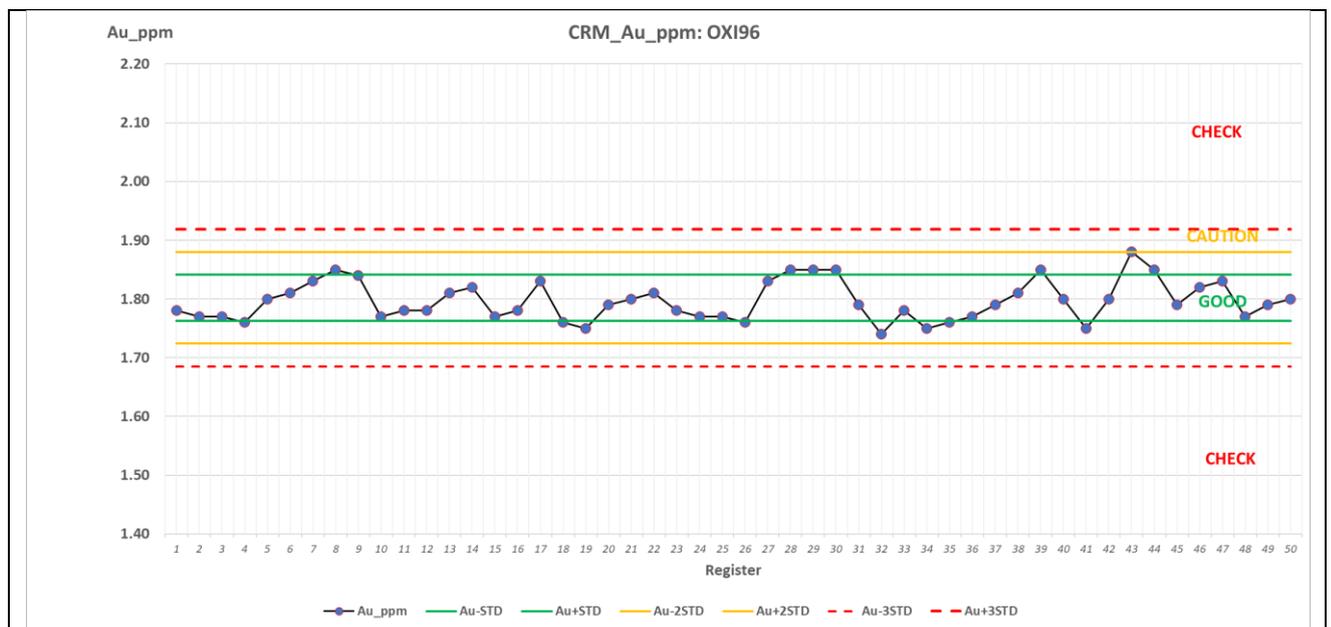


of these standards were generally within expected limits. Excluding OXJ80, there were four results which fell outside of the expected limits. Three of these were reported to probably be documentation errors with the wrong CRM being recorded, whilst the fourth was anomalous with respect to the other standards submitted around the same time.

Table 11.4 Summary table showing the laboratory performance for CRMs used in historical QAQC programs

Standard	Best value (g/t Au)	No. of samples	No. in good range	No. in caution range	No. in check range	Good (%)	Caution (%)	Check (%)	Bias (%)
OXA89	0.08	181	145	33	3	80.1	18.2	1.7	1.0
OXC109	0.20	214	127	87	0	59.3	40.7	0.0	2.1
OXI96	1.80	213	154	58	1	72.3	27.2	0.5	0.0
OXJ80	2.33	118	2	15	33	1.7	12.7	28	5.5

Figure 11.1 Laboratory performance for the OXI96 CRM for the Komet sampling

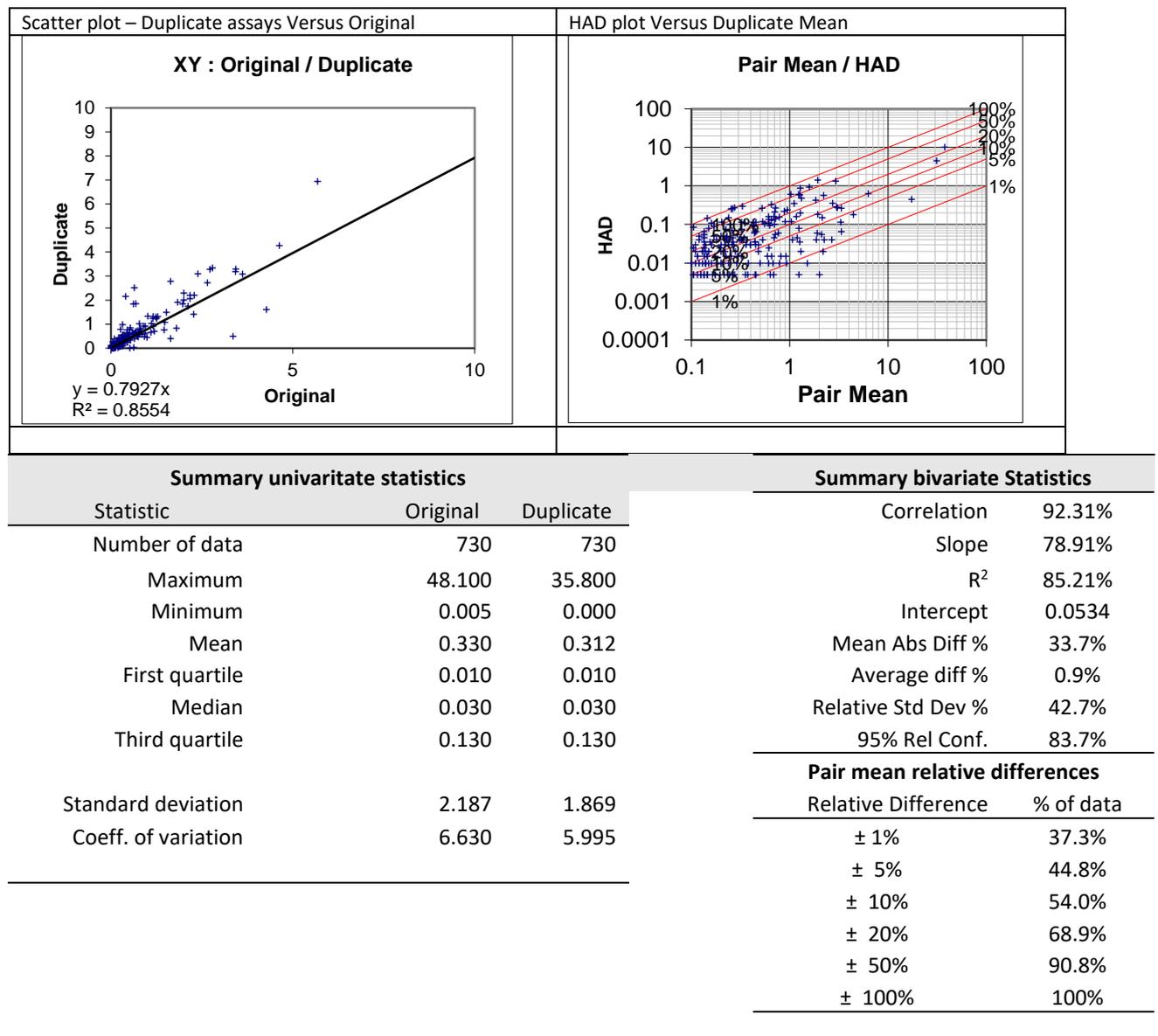


**Historical Duplicates**

The Roscan drilling database has assay data for 60 primary drill sample/field duplicate assay pairs from the Historical drilling database. Data for the assay pairs are plotted in Figure 11.2. The results show moderately high variability with only 54% having a relative mean difference better than 10%.



Figure 11.2 Primary gold assays versus Field Duplicate gold assays from the Historical Gold drilling database



### 11.1.5 Historical Security Protocols

The QP is not aware of the security protocols put in place during the historical sampling campaigns. However, these security procedures were audited by SGS in the Kabaya NI43-101 of 2019 and no issues were highlighted in their technical report.

### 11.1.6 SGS Comments on the Historical Samples (SGS, 2019)

Following its review, SGS noted:

- Sample collection, preparation, analysis and security for the RC sampling were in line with industry-standard methods for gold deposits.
- Drill programs included appropriate insertion of blank, duplicate, and standard reference material samples.
- QAQC program results did not indicate any problems with the analytical programs.
- Data was subject to validation, which includes checks on surveys, collar co-ordinates, lithology data, and assay data. SGS considered that the checks were appropriate, and consistent with industry standards.

SGS’s opinion was that the quality of the gold analytical data was sufficiently reliable to support Mineral Resource estimation.



### 11.1.7 QP comments on Historical QA/QC data

The Historical drilling database acquired by Roscan is a database where contamination and precision fall within generally acceptable performance levels for this style of mineralization. However, the accuracy of one of the CRMs (OXJ80) shows a 5% bias (average) for the grades around 2.33 g/t Au. This contrasts with the Oxi96 CRM with a value of 1.80 g/t Au where the results are more consistently within the expected limits, with only 1 value outside those limits. In respect to the results of the historical duplicates indicate that the variability of the results is a little high. This is likely to be the result of several factors:

- The low grade nature of the majority of the samples (50% of the data is 0.03 g/t or less),
- Relatively small samples,
- fire assaying, and
- the coarse gold nature of the mineralization.

It is the QP's opinion that these results can be used in the grade estimation but used with caution.

## 11.2 ROSCAN SAMPLES

### 11.2.1 AC Drill Samples

Samples from Roscan's AC drilling were collected in plastic bags or rice sacks at the base of the cyclone every 1 m to 2 m downhole. Each sack was pre-labelled with the drill hole ID and depth. To limit contamination, the cyclone was blown clean by the drill operator between each sample. Each sample was then split at the drill rig keeping two samples of approximately 2 kg each. For some of the drilling, composite samples of 2 m were made by pouring each sample into a one tier riffle splitter until two samples weighing 2 to 2.5 kg were produced.

One sample was sent to the laboratory for Fire Assay ("FA"), and the second was stored as a back-up sample.

Geological logging was completed on the excess material and included sample colour, % quartz, sample recovery (calculated from the weight of the original sample), level of alteration, rock type and a description of the interval. All samples were photographed, and 5 kg was extracted as reference material (ACA Howe, 2020).

### 11.2.2 RC Drilling prior to July 2021

Samples were collected every 1 m downhole using the same procedures as for the AC drilling. Each RC sample was described in geological logs including colour, alteration, % quartz, % pyrite, % arsenopyrite, rock type and a description of the interval (ACA Howe, 2020).

### 11.2.3 RC Drilling July 2021 to March 2022

Samples from Roscan's RC drilling between July 2021 and March 2022 were collected in plastic bags or rice sacks at the base of the cyclone every 1 m downhole. Each sack was pre-labelled with the drill hole ID and depth. Each sample was then split at the drill rig keeping two samples of approximately 5 kg, and one sample of approximately 2 kg.

For all samples, each sample bag was clearly labelled with hole name and sample ID written using black marker pencil. For each sample, two sample tickets were inserted in the bag to be sent to the laboratory with one ticket stapled and clearly visible and adjacent to the marker label. Sample bags were then placed in a numerical order and checked by the site geologist. At the end of each day shift all LW, FA and back up samples were transported to the camp and stored under lock and key with a security guard. Hole ID, sample type, sample interval, and sampling date were written in a sampling book and were also recorded on a field printed sampling sheet.

### 11.2.4 DD Core Drilling

Information in this section was copied and edited from ACA Howe (2020).

Drilling was completed in runs of 1 m in saprolite and saprock and 3 m in fresh rock. Drill core was carefully cleaned using water at the drill site and then placed in core boxes with core blocks indicating the hole depth every metre. At Roscan's field camp, the core was cleaned again, photographed and a quick log completed by a geologist. Detailed logging was completed on hard copy logging sheets and then entered into Excel. Data recorded included rock type, the interpreted original rock type, colour, and the presence of structures and various minerals. On completion of the geological logging, the log was reviewed with respect to the drill core by a Senior Geologist and any additional details were added to the log.

Sample intervals were then selected and marked on the core boxes during logging. Sample intervals were generally 1 m in length, but ranged from 0.4 m to 3 m. Longer intervals (rare) were only sampled where core loss meant that it was not



possible to sample narrower intervals. Geological boundaries were generally not used as a criteria for sample boundaries as there are only subtle geological variations in most places. Core was split in half using a diamond core saw or a knife in the soft saprolite. Both halves of the core were placed back into the core tray for sampling. The core saw or knife was washed between samples to limit contamination. Sampling was completed by Roscan technicians under the supervision of a geologist. Half core samples were placed in a plastic bag with a unique ID. Rubbly intercepts were sampled by placing grab samples of approximately half the material along the intercept into the sample bag.

### 11.2.5 Sample submission and insertion of QAQC

QA/QC samples were inserted to the sample sequence at a frequency of one blank, one coarse reject duplicate and one standard in every 20 samples.

Prior to dispatch to the laboratory, up to ten samples were placed in a rice sack and stored inside at Roscan's field camp. Details of the samples stored in each rice sack were added to a spreadsheet which was provided to the laboratory when the samples were handed over.

For each sampling batch the site geologist completed sample submission forms indicating dispatch date, number of bags, total number of samples submitted, required analytical codes, laboratory contact person and Roscan contact person for forwarding results. Samples and submission forms were then entrusted to the laboratory who collected the samples from the camp and delivered them to the relevant laboratory. Upon arrival at the laboratory, the laboratory representative completed a verification procedure to ensure that delivered samples corresponded to the declaration on the submission form. The final and verified submission form was then signed by the laboratory representative and a copy transmitted to the Senior Geologist at Roscan.

### 11.2.6 Laboratory Procedures

All drill hole samples from the 2018-19 exploration program were prepared by Bureau Veritas Mineral Laboratories (Bureau Veritas) in Bamako and then sent to Bureau Veritas in Abidjan, Ivory Coast for analyses. Samples from the 2020 exploration program were prepared and assayed at Bureau Veritas, SGS Mali and ALS Bamako (preparation) and ALS Ouagadougou (analysis). The 2021 and 2022 samples were prepared and assayed at ALS in Bamako.

#### *BUREAU VERITAS*

The information with respect to Bureau Veritas was copied and modified from ACA Howe (2020).

Bureau Veritas in Abidjan is accredited to ISO 9001:2015 – this relates to the laboratory's quality management system. The laboratory is not yet accredited to ISO/IEC 17025 standard, a laboratory standard about competency in the reporting of valid results.

All samples were logged into the Bureau Veritas system. In the 2018-19 program, all samples were dried and then crushed to passing 2 mm, and a 250 g split was taken and pulverized to 200 mesh. From January 2020, a 1 kg split was taken and pulverized to 200 mesh.

All samples were analyzed by 50 g fire assay with an atomic absorption (AAS) finish. The detection limit for the method is 0.005 ppm with an upper limit of 10 ppm. Samples assaying above the upper detection limit were re-assayed by 50 g fire assay with a gravimetric finish.

#### *SGS*

The information with respect to SGS was copied and edited from ACA Howe (2020).

SGS Mali is accredited to ISO/IEC 17025. Samples of drill core and cuttings assayed at SGS were prepared in the following sequence:

All samples were dried and then crushed to 75% passing 2 mm. A 1.5 kg split was then taken using a riffle splitter and pulverized to 200 mesh. From January 2020, a 1 kg split was taken and pulverized to 85% passing 75 microns in a ring and puck pulverizer.

Sample results received from SGS until 14th June 2020 were analyzed using a 50 g fire assay with an AAS finish. The lower detection limit was 0.01 ppm Au. Results received after 14th June 2020 were analyzed with a lower a detection limit of 0.001 ppm Au.

#### *ALS – Cyanide Leach Tests (2019, 2020)*

The information with respect to ALS on Cyanide Leach Tests in 2019 and 2020 was copied and edited from ACA Howe (2020).



The cyanide leach tests on material from Mankouke Central, completed in 2019, were conducted by ALS Global in Ouagadougou, Burkina Faso. The sample was pulverized and split into two samples of 2 kg on receipt by the laboratory. The samples were rolled for 24 hours and then allowed to stand for 1-2 hours. The solutions were then extracted with DIBK and analyzed by AAS.

The cyanide leach tests completed in 2020, were also completed by ALS. Samples were pulverized at ALS Bamako. 1 kg splits of the pulverized subsamples were then sent from to ALS Ouagadougou where the subsamples were analyzed using LeachWELL with an AAS finish.

**ALS – LeachWELL assaying (2021, 2022)**

Samples with fire assays showing elevated gold from the 2021 and 2022 drilling or available existing samples were re-assayed using LeachWELL assaying at ALS in Bamako. Samples delivered to ALS for assaying underwent further splitting at the laboratory until the reduced sample approximated 5 kg. The resulting 5 kg would then be split into three sub-samples:

- a split of 2 kg LeachWELL bottle roll analysis
- a split of 2 kg as an emergency back-up sample
- a split of 1 kg for fire assay.

Samples thought to belong to a mineralized zone, based on previous drilling, were then assayed using the LeachWELL method. 1 kg samples were split from the original sample, then pulverized and analyzed using LeachWELL with an AAS finish. The tails from the LeachWELL analysis were also washed and assayed using fire assay. Another one kilogram sample was split from the original sample, pulverized and then analyzed using a 50 g fire assay with an AAS finish.

**11.2.7 Roscan QA/QC Procedures**

Roscan’s Quality Assurance (QA) and Quality Control (QC) program was implemented to ensure the reliability and trustworthiness of its exploration data. It consisted of 1) periodic verification of various aspects of the drilling program such as and including surveying, sampling, and assaying, data management and database integrity and of 2) the insertion of analytical control measures such as blanks, field duplicates and certified reference materials (CRMs) within routine samples sent to the laboratories. The insertion of control samples aimed to address the following:

- Monitor the precision and accuracy of the sampling and assaying,
- Monitor potential sample contamination,
- Prevent sample mix-up.

Quality Assurance samples were inserted as summarized in Table 11.5.

Table 11.5 Summary of QC sample insertion rates for Roscan’s drill samples.

	2020			2021			2022		
	Blank Samples	CRM standards	Field Duplicates	Blank Samples	CRM standards	Field Duplicates	Blank Samples	CRM standards	Field Duplicates
<b>Mankouke</b>									
AC	1/60	1/60	1/30	1/30	1/30	1/30	None drilled		
RC	1/30	1/20	1/30	1/30	1/20	1/30	1/20	1/20	1/30
DD	1/20	1/20	0	1/20	1/20	0	1/20	1/20	0
<b>Kandiole</b>									
AC	1/60	1/60	1/60	None drilled			None drilled		
RC	1/30	1/30	1/30	1/30	1/30	1/30	None drilled		
DD	1/20	1/20	0	1/20	1/20	0	1/20	1/20	0
<b>Kabaya</b>									
AC	1/60	1/60	1/60	1/60	1/60	1/60	None drilled		
RC	1/30	1/30	1/30	1/30	1/30	1/30	1/20	1/20	1/30
DD	1/20	1/30	0	1/20	1/20	0	1/20	1/20	1/30

**Roscan Blanks**

To check for sample contamination in the sample preparation process, blank samples were inserted (Table 11.5). Contamination was assessed with a threshold (0.05 g/t Au) of ten times the limit of detection for the assay (0.005 g/t Au).

**Roscan CRMs**

To check for accuracy in the assay process, CRM samples were inserted (Table 11.5). Performance of the assaying was checked by comparing the returned analytical values for the CRM assays and comparing those values with the certified values. In this program, Roscan checked that the results fell within threshold limits corresponding to “less than two”, “two to three”, and “more than three” of the certified standard deviations, and described to represent successively a good, caution and check criteria.

It is standard industry practice to evaluate the performance of standards with respect to the certified values (certified grade and standard deviation). However, the laboratories that manufacture the CRMs recommend that the analysis of CRMs is based on the average grade of the assay values and two to three standard deviations of the results around the average. Using the laboratory recommended method, CRMs that did not perform well using the Certified values appeared to have a more acceptable performance.

**Roscan Field Duplicates**

To check the precision in the sampling process, field duplicate samples were inserted (Table 11.5). Performance of the sampling was checked by comparing the returned analytical values for the duplicate assays with those of the original values (pair analysis).

**11.2.8 QA/QC data - Roscan’s Mankouke Drilling (South and Central)****Roscan Blanks – Mankouke**

1,848 blank samples were inserted in the samples sent to the laboratory. All blanks sent to the laboratory returned gold concentration less than 0.01 ppm. Table 11.6 shows a summary of count of Blank sample analyses.

The level of possible contamination within and between batches appears very low for all samples analyzed.

Table 11.6 Summary of Laboratory performance for QA/QC Blank samples for Roscan’s Mankouke data

Summary	Count	Min	Max	CAUTION	CAUTION %	CHECK	CHECK %
Total	1,848	0.001	0.009	0	0	0	0

**Roscan Standards - Mankouke**

1,974 CRMs were inserted in all Mankouke sample batches sent for assay. A 100% pass rate was observed for 15 of the 19 CRMs used. The oxide CRMs performed better than the sulphide CRMs, with the sulphide CRMs contributing to all of the failures and the majority of cautions (Table 11.7). Approximately 30% of the sulphide CRMs were either in the Caution or Check category (particularly SE58 - 0.607 g/t where 38% of the 58 results were in the Check category, and SJ111 where 35% of the 215 results were in the check range, and both sets of results biased low). The oxide CRMs had only 7% results in the Caution or Check zone out of the 1,559 CRM oxide CRM samples submitted (eg Figure 11.3). There is a strong correlation between the performance of the CRM results with respect to the certified values and the sulphide/oxide nature of the CRM. There is also a strong correlation between the failures and bias of the sulphide CRMs and the LeachWELL data.

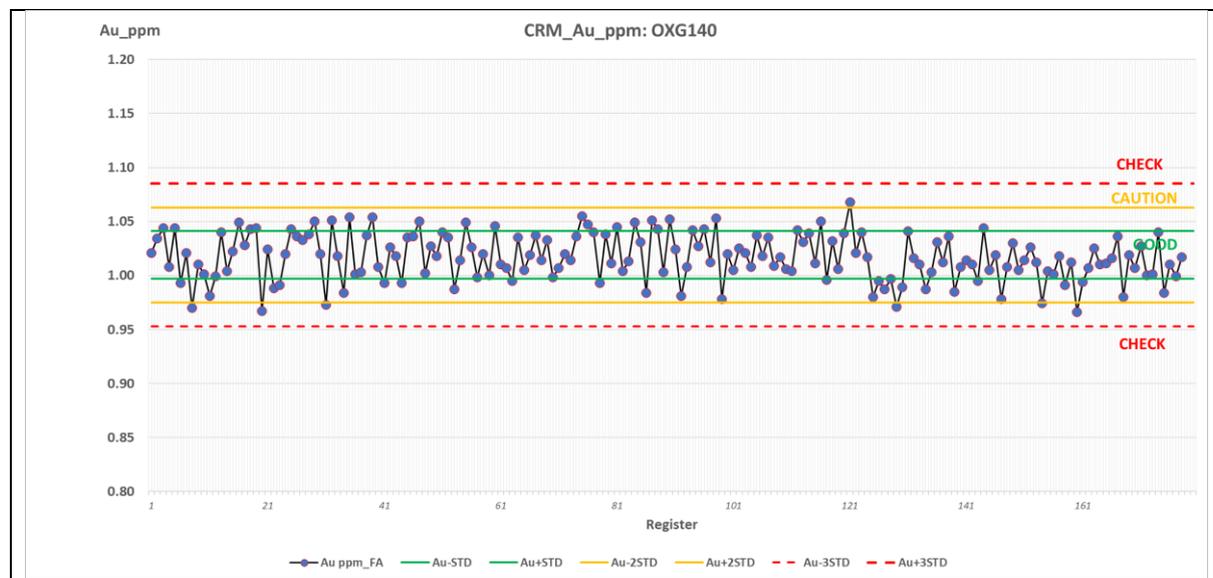


Table 11.7 Summary table showing the laboratory performance for the 19 CRMs used by Roscan at Mankouke

Standard	Best value (g/t Au)	No. of samples	No. in good range	No. in caution range	No. in check range	Good (%)	Caution (%)	Check (%)	Bias (%)
OREAS 231	0.52	2	2	0	0	100%	0%	0%	3.5%
OREAS 252b	0.79	18	18	0	0	100%	0%	0%	2.5%
OREAS 254b	2.50	20	20	0	0	100%	0%	0%	1.6%
OREAS 255b	4.08	17	17	0	0	100%	0%	0%	-0.2%
OxE150	0.66	316	284	32	0	90%	10%	0%	0.0%
OxE166	0.65	172	171	1	0	99%	1%	0%	-0.5%
OxG123	1.01	255	231	24	0	91%	9%	0%	-0.1%
OxG140	1.02	178	171	7	0	96%	4%	0%	-0.2%
OxJ137	2.42	129	112	17	0	87%	13%	0%	0.9%
OxJ161	2.50	56	49	7	0	88%	13%	0%	1.0%
OxL135	5.59	25	21	4	0	84%	16%	0%	-0.2%
OxL159	5.85	238	223	15	0	94%	6%	0%	-1.0%
OxN155	7.76	133	132	1	0	99%	1%	0%	-0.2%
SE58	0.61	58	28	8	22	48%	14%	38%	-3.6%
SE114	0.63	46	32	12	2	70%	26%	4%	3.7%
SG84	1.03	68	59	9	0	87%	13%	0%	-1.5%
Si81	1.79	11	8	3	0	73%	27%	0%	0.2%
SJ95	2.79	17	10	6	1	59%	35%	6%	-0.2%
SJ111	2.81	215	90	50	75	42%	23%	35%	-2.7%

# Note the poor performance of the Sulphide CRMs (highlighted) with respect to the Certified Value.

Figure 11.3 An example of CRM plots of assays for QC purposes - CRM OXG140 - Mankouke



**Roscan Fire Assay duplicates - Mankouke**

463 field duplicate samples were inserted for the fire assay data. The results (Figure 11.4) show an acceptable reproducibility. The performance of the duplicate program is acceptable considering the coarse gold nature of the mineralization.



Figure 11.4 Scatter plot and HAD plot statistics of original fire assay versus Roscan field duplicates – Mankouke

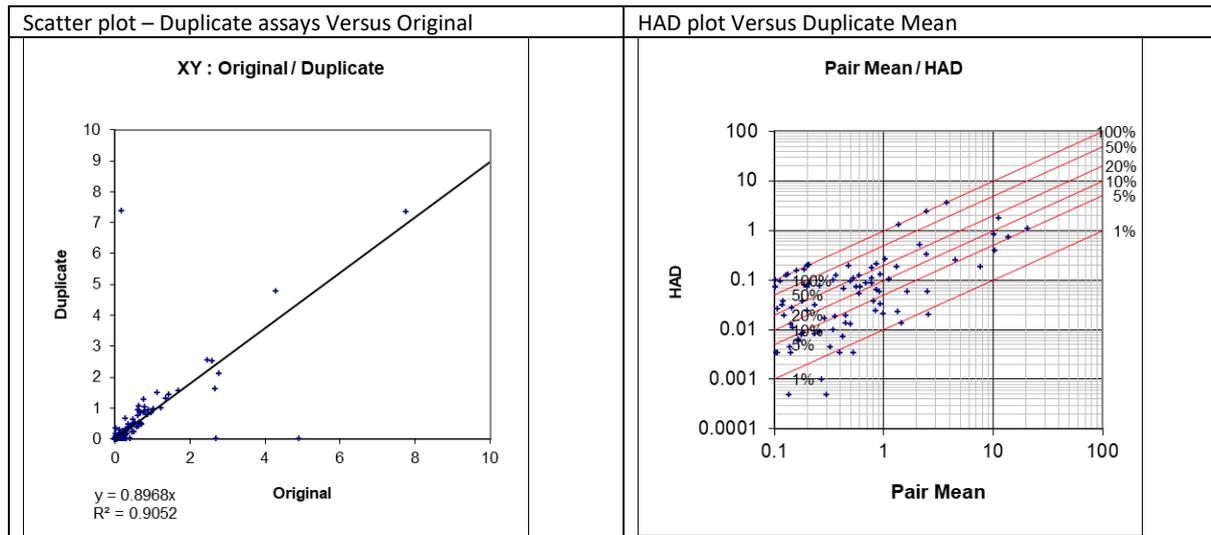


Table 11.8 Statistics of original fire assay versus Roscan field duplicates –Mankouke

Summary univariate statistics			Summary bivariate Statistics	
Statistic	Original	Duplicate		
Number of data	463	463	Correlation	94.96%
Maximum	21.50	19.30	Slope	89.55%
Minimum	0.001	0.001	R <sup>2</sup>	90.18%
Mean	0.302	0.282	Intercept	-0.0112
First quartile	0.005	0.003	Mean Abs Diff %	47.7%
Median	0.014	0.010	Average diff %	1.0%
Third quartile	0.061	0.046	Relative Std Dev %	24.6%
Standard deviation	1.572	1.482	95% Rel Conf.	48.3%
Coeff. of variation	5.204	5.261	Pair mean relative differences	
			Relative Difference	% of data
			± 1%	17.3%
			± 5%	37.8%
			± 10%	50.3%
			± 20%	61.8%
			± 50%	82.5%
			100%	100%

### 11.2.9 QA/QC data - Roscan's Kandiole (KN1, KN2 and KN4) Drilling

#### Roscan Blanks - Kandiole (KN1, KN2 and KN4)

630 blank samples were inserted in the samples sent to the laboratory. All blanks sent returned gold concentration with a grade less than the detection limit of the assay method for the fire assays and were assigned a value of 0.0025 g/t Au. Assay results from blank samples for the LeachWELL data provided more variable results with a maximum grade of 0.012 g/t Au. The level of possible contamination between samples appears very low for all samples analyzed (Table 11.9).

Table 11.9 Summary of Laboratory performance for QA/QC Blanks for Roscan's RC 2021 drilling program at Kandiole

Summary	Count	Min	Max	CAUTION	CAUTION %	CHECK	CHECK %
Total	630	0.0005	0.012	0	0	0	0



**Roscan Standards - Kandiole (KN1, KN2 and KN4)**

623 CRM samples were inserted in all Kandiole sample batches sent for assay. The gold ranges of the standards are outlined in below (Table 11.10). A 100% pass rate was observed for 10 of the 12 CRMs used. The oxide CRMs performed better than the sulphide CRMs. Nearly 20% of the sulphide CRMs were either in the Caution or Check category and biased slightly low, whereas the oxide CRMs had only 4% of the results in the Caution zone. There is a strong correlation between the performance of the CRM results and the sulphide/oxide nature of the CRM.

The oxide CRMs show generally acceptable accuracy of the assaying completed.

Table 11.10 Summary table showing the laboratory performance for CRMs used by Roscan in its QAQC program for drilling at Kandiole

Standard	Best value (g/t Au)	No. of samples	No. in good range	No. in caution range	No. in check range	Good (%)	Caution (%)	Check (%)	Bias (%)
OREAS 231	0.521	6	4	1	1	67%	17%	17%	6%
OREAS 252b	0.793	4	4	0	0	100%	0%	0%	2%
OREAS 254b	2.5	10	9	1	0	90%	10%	0%	1%
OREAS 255b	4.08	8	8	0	0	100%	0%	0%	0%
OxE150	0.658	82	79	3	0	96%	4%	0%	-0.4%
OxE166	0.652	48	48	0	0	100%	0%	0%	-0.5%
OxG123	1.008	23	19	4	0	83%	17%	0%	0.0%
OxG140	1.019	107	101	6	0	94%	6%	0%	-0.4%
OxJ137	2.416	7	6	1	0	86%	14%	0%	0.0%
OXL135	5.587	3	3	0	0	100%	0%	0%	0.0%
OxJ161	2.501	27	27	0	0	100%	0%	0%	0.5%
OxL159	5.849	45	45	0	0	100%	0%	0%	-0.7%
OxN155	7.762	11	11	0	0	100%	0%	0%	0.0%
SE58	0.607	39	31	2	6	79%	5%	15%	0.0%
SE114	0.634	9	8	0	1	89%	0%	11%	2.4%
Si81	1.79	88	73	15	0	83%	17%	0%	-0.7%
SJ53	2.604	28	28	0	0	100%	0%	0%	-1.1%
SJ95	2.789	11	6	3	2	55%	27%	18%	2.3%
SJ111	2.812	67	32	12	23	48%	18%	34%	-3.0%

# Note sulphide CRMs are high-lighted by shading.

**Roscan Fire Assay duplicates - Kandiole (KN1, KN2 and KN4)**

388 duplicates were inserted for the Kandiole fire assay data. Graphs of the duplicates (Figure 11.5) show some variability in the higher grades of the duplicates, but the statistics are distorted by a few high grade values which is interpreted to be caused by coarse gold in the higher grades. The performance of the duplicate program is reasonable, especially considering the coarse gold nature of the mineralization.



Figure 11.5 Scatter plot and HAD plot statistics of original fire assay versus Roscan field duplicates – Kandiole (KN1, KN2 and KN4)

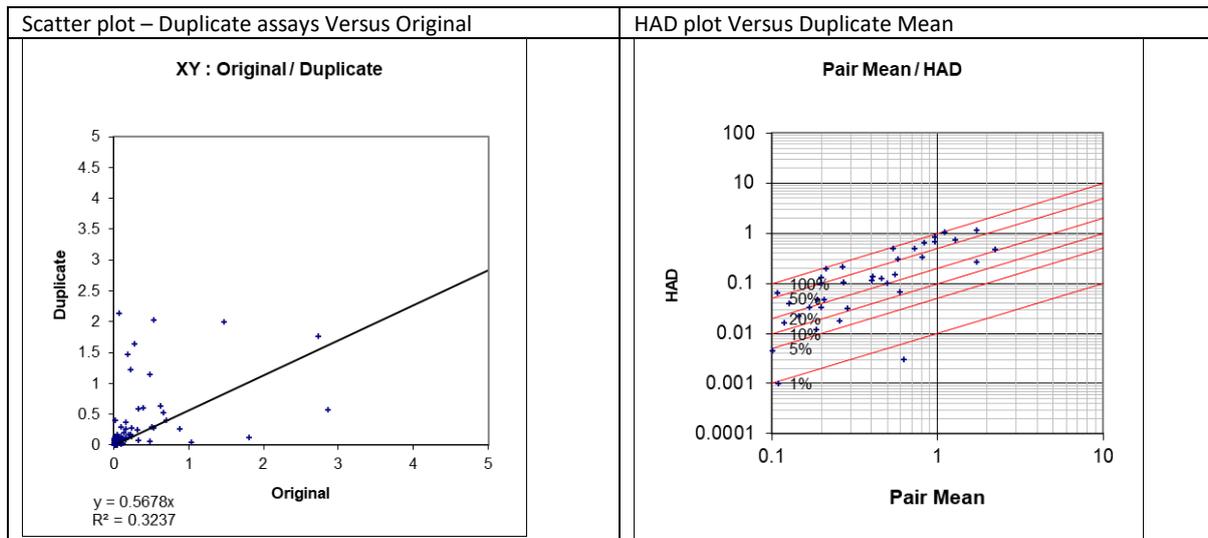


Table 11.11 Statistics of original fire assay versus Roscan field duplicates –Kandiole (KN1, KN2 and KN4)

Summary univariate statistics			Summary bivariate Statistics	
Statistic	Original	Duplicate		
Number of data	388	388	Correlation	53.80%
Maximum	2.858	2.142	Slope	53.40%
Minimum	0.003	0.003	R <sup>2</sup>	28.95%
Mean	0.066	0.071	Intercept	0.0355
First quartile	0.005	0.003	Mean Abs Diff %	43.3%
Median	0.012	0.012	Average diff %	-0.2%
Third quartile	0.029	0.030	Relative Std Dev %	12.2%
Standard deviation	0.255	0.253	95% Rel Conf.	23.9%
Coeff. of variation	3.882	3.585	Pair mean relative differences	
			Relative Difference	% of data
			± 1%	24.5%
			± 5%	32.7%
			± 10%	46.1%
			± 20%	60.3%
			± 50%	85.6%
			100%	100%

### 11.2.10 QA/QC data – Roscan’s Kabaya and Moussala Drilling

#### Roscan Blanks – Kabaya and Moussala

1065 blank samples were inserted in Roscan’s drill samples sent to the various laboratories. All blanks sent to the laboratories returned gold concentration less than 5 ppb Au. Table 11.12 shows a summary of count of Blank sample analyses.

The level of possible contamination within and between batches appears very low for all samples analyzed.

Table 11.12 Summary of Laboratory performance for QA/QC Blanks for Roscan’s drilling at Kabaya

Summary	Count	Min	Max	CAUTION	CAUTION %	CHECK	CHECK %
Total	1065	0.0005	0.005	0	0	0	0

#### Roscan Standards – Kabaya and Moussala

1057 CRM samples were inserted in the samples sent for fire assay and LeachWELL analyses. A 100% pass rate was observed for 12 of the 18 CRMs used. The CRMs show generally fair accuracy of the assaying with failures recorded predominantly in



the earlier drilling. The results for the CRM SJ95 were poor when compared to the certified values, consistent with the results for Mankouke and Kandiole areas.

Table 11.13 Summary table showing the laboratory performance for CRMs used by Roscan in its QAQC program for drilling at Kabaya and Moussala.

Standard	Best value (g/t Au)	No. of samples	No. in good range	No. in caution range	No. in check range	Good (%)	Caution (%)	Check (%)	Bias (%)
OREAS 231	0.521	6	6	0	0	100%	0%	0%	3.3%
OREAS 250b	0.31	35	35	0	0	100%	0%	0%	1.9%
OREAS 252b	0.793	48	48	0	0	100%	0%	0%	2.2%
OREAS 254b	2.5	52	45	7	0	87%	13%	0%	1.4%
OREAS 255b	4.08	18	18	0	0	100%	0%	0%	-0.4%
OxG123	1.008	11	8	3	0	73%	27%	0%	0.7%
OxE150	0.658	104	99	5	0	95%	5%	0%	-0.4%
OxE166	0.652	74	69	5	0	93%	7%	0%	1.1%
OxG140	1.019	143	139	4	0	97%	3%	0%	-0.3%
OxJ161	2.501	91	71	19	1	78%	21%	1%	0.7%
OxL159	5.849	127	115	11	1	91%	9%	1%	-1.4%
OxN155	7.762	121	118	1	2	98%	1%	2%	-1.4%
SE114	0.634	1	0	1	0	0%	100%	0%	6.0%
SE58	0.607	59	46	11	2	78%	19%	3%	3.1%
SG84	1.026	20	18	2	0	90%	10%	0%	-0.4%
Si81	1.79	95	85	9	1	89%	9%	1%	-0.3%
SJ95	2.789	26	13	5	8	50%	19%	31%	-1.3%
SJ111	2.812	26	22	4	0	85%	15%	0%	1.9%

# Note sulphide CRMs are high-lighted by shading.

***Roscan duplicates - Kabaya and Moussala***

387 field duplicates were inserted within the samples sent for analysis. The results (Figure 11.6) show an acceptable reproducibility with a reasonable correlation and no apparent bias toward the original values. The performance of the duplicate program is reasonable considering this style of mineralization.



Figure 11.6 Scatter plot and HAD plot statistics of original fire assay versus Roscan field duplicates – Kabaya

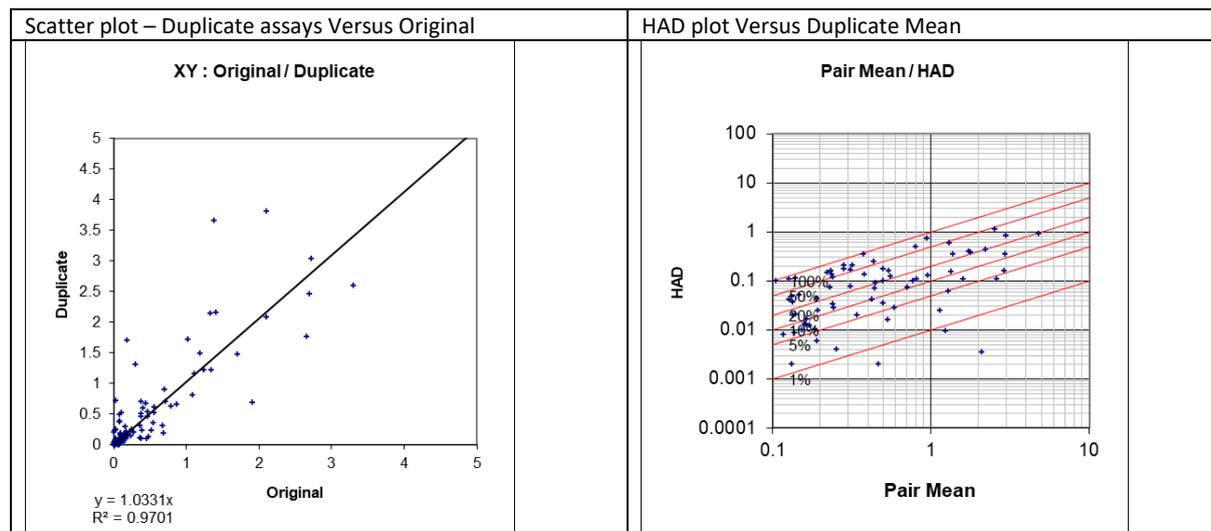


Table 11.14 Statistics of original fire assay versus Roscan field duplicates – Kabaya

Summary univariate statistics			Summary bivariate Statistics	
Statistic	Original	Duplicate		
Number of data	387	387	Correlation	98.39%
Maximum	24.00	26.00	Slope	105.72%
Minimum	0.003	0.003	R <sup>2</sup>	96.80%
Mean	0.243	0.259	Intercept	0.0096
First quartile	0.007	0.008	Mean Abs Diff %	42.5%
Median	0.016	0.018	Average diff %	-1.3%
Third quartile	0.058	0.063	Relative Std Dev %	15.0%
Standard deviation	1.432	1.501	95% Rel Conf.	29.4%
Coeff. of variation	5.9	5.8	Pair mean relative differences	
			Relative Difference	% of data
			± 1%	16.8%
			± 5%	28.1%
			± 10%	44.2%
			± 20%	62.7%
			± 50%	86.0%
			100%	100%

### 11.2.11 LeachWELL duplicates – all areas

Roscan inserted field duplicate samples for all batches sent for LeachWELL analysis at a frequency of one 5 kg sample duplicate in every 20 samples. A total of 647 duplicate samples were inserted and sent for LeachWELL analysis. The results of the duplicate program (Table 11.15) show a strong level of reproducibility and precision with superior results when compared to the fire assays. For example, the best precision for +/-10% in the fire assay data was for Kabaya (56%) whereas the minimum LeachWELL precision for the three areas was for Kabaya (65.1% at +/-10%) with average LeachWELL precision for all results being 70% at +/-10%.

### 11.2.12 Comparison of LeachWELL results with Fire Assay results

As noted and confirmed in work completed in 2021 (The reader is referred to Section 12.3.4 on check assays), Aurum had recommended that a bulk assay technique such as LeachWELL be used because of the heterogeneity and coarse gold nature of the gold distribution. Roscan adopted the LeachWELL technique for assaying in its late 2021 and early 2022 drilling using 1 kg samples.

Roscan’s resampling and re-assaying program as well as the drilling in late 2021 and 2022 has shown some consistent trends in the comparison between the fire assay analyses and the LeachWELL analyses for the three project areas (Table 11.16). In all, there were 5188 pairs of LW and FA assays; 2,492 from Mankouke South, 1,689 from KN1, and 1,007 from Kabaya.



Analysis of the data showed that the LeachWELL assays in the lower grade ranges were higher than the fire assays (on average), but there was variability at the higher grade ranges between the fire assays and the LeachWELL assays. This is consistent with our evaluation, in that lower grades are likely to increase when there is visible gold in the system as the chance of getting the free gold into the assay is better represented, and the differences in the higher grades are more variable. This also supports the practice in ordinary kriging of cutting the top grades.

Table 11.15 Summary table showing the summary statistics for duplicate field samples for LeachWELL analyses.

	Mankouke South	KN1	Kabaya	All LeachWELL
<b>Summary bivariate Statistics</b>				
Number of Duplicates	252	264	131	647
Correlation	99.61%	55.69%	99.78%	93.36%
Slope	127.43%	22.95%	92.77%	109.02%
R <sup>2</sup>	99.21%	31.02%	99.57%	87.16%
Mean Abs Diff %	22.8%	23.5%	8.3%	20.2%
Average diff %	-2.5%	3.6%	0.3%	0.6%
Relative Std Dev %	39.2%	49.0%	4.6%	39.8%
95% Rel Conf.	76.9%	96.0%	9.0%	78.0%
<b>Pair mean relative differences</b>				
Relative Difference	% of data			
± 1%	21.4%	27.7%	34.4%	26.6%
± 5%	40.1%	49.6%	75.6%	51.2%
± 10%	65.1%	66.3%	87.8%	70.2%
± 20%	83.3%	83.0%	98.5%	86.2%
± 50%	97.2%	95.1%	99.2%	96.8%
100%	100%	100%	100%	100%

Figure 11.7 Scatter plots and statistics of original versus field duplicates – LeachWELL data for all areas

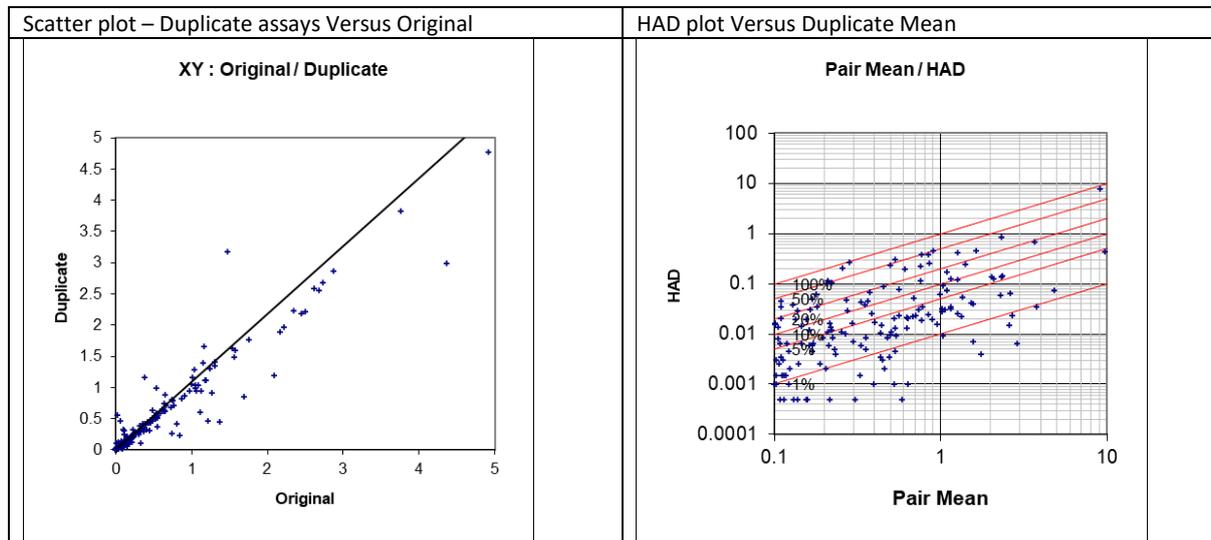


Table 11.16 Variations in Fire Assay to LeachWELL analysis from Roscan drilling

Lower Percentile	Upper Percentile	Mankouke South		KN1		Kabaya	
		FA Grade	Grade increase in decile	FA Grade	Grade increase in decile	FA Grade	Grade increase in decile
20	30	0.01	-12%	0.03	22%	0.04	25%
40	50	0.04	3%	0.06	58%	0.09	27%
60	70	0.10	11%	0.13	57%	0.22	29%
70	80	0.20	18%	0.21	44%	0.33	27%
80	90	0.42	13%	0.37	27%	0.51	24%
90	100	1.23	0%	0.79	-8%	1.00	12%

# Note the two highest grades were removed as anomalies from the KN1 data



Overall, the LeachWELL process has shown that the previous practice of taking small samples and using fire assay on small sample charges has led to under-reporting of the grades (on average), particularly in the lower grade ranges. However, a large part of the Kandiole database comprises data from small samples and fire assays, and whilst it is recognized that the fire assays are in general under-reporting grade, it gives us some confidence that the fire assays are in general, a little conservative.

### 11.2.13 Roscan security protocols

During Roscan's drilling prior to the 2021 drilling, that is the drilling that used fire assay only, RC samples were split in the field at the drill rig, whilst core samples were transported directly to the core shed at the camp. The splitting of RC samples resulted in two samples of approximately 5 kg each. The first was sent to the laboratory for Fire Assay ("FA"), and the second was stored as a back-up sample. Core was cut in half and sampled at the core shed at the camp. During Roscan's 2021 and 2022 drilling that used LeachWELL assaying, two samples of between five and seven kilograms were collected. The first was sent to the laboratory for LeachWELL ("LW") assaying, and the second stored as a back-up sample.

For all samples, each sample bag was clearly labelled with hole name and sample ID written using black marker pencil. For each sample, two sample tickets were inserted in the bag with one ticket stapled and clearly visible and adjacent to the marker label. Sample bags were then placed in a numerical order and checked by the site geologist. At the end of each day shift all LW, FA and back up samples were transported to the camp and stored under lock and key with a security guard. Hole ID, sample type, sample interval, sampling date were written in a sampling book and were also recorded on a field printed sampling sheet.

For each sampling batch the site geologist completed sample submission forms indicating dispatch date, number of bags, total number of samples submitted, required analytical codes, laboratory contact person and Roscan contact person for forwarding results. Samples and submission forms were then entrusted to the laboratory who collected the samples from the camp and delivered them to the relevant laboratory. Upon arrival at the laboratory, the laboratory representative completed a verification procedure to ensure that delivered samples corresponded to the declaration on the submission form. The final and verified submission form was then signed by the laboratory representative and a copy transmitted to the Senior Geologist at Roscan.

### 11.2.14 QP comments on Roscan QA\QC

The QA/QC data obtained from the Roscan Project results show fair to good quality data from the Roscan data with the lowest quality in the Historical data.

The QP has reviewed the field procedures, chain of custody and analytical quality control measures used by Roscan. The QP is of the opinion that Roscan personnel have used care in the collection and management of field and assaying exploration data.

The QP also considered that the sampling, sample preparation and data collection by Roscan for its drilling program had been carried out in an acceptable and systematic manner. Blanks, CRMs, and laboratory duplicates were used at an appropriate rate and closely monitored by Roscan geologists. Furthermore, sample preparation, sample security, and analytical procedures used by Roscan are consistent with generally accepted industry best practices and the results are suitable for mineral resource estimation. The on-site sample preparation facility inspected by Aurifer during the site visit was found to be acceptable for purpose.

The QP did note that the results for the early blank samples all came back at below the detection limit (5 ppb Au). This seemed anomalous given that the later results showed more variable results, but only slightly elevated grades and nothing of any concern. The QP also noted some variability in the analysis of the CRM samples, with higher variability in the sulphide CRMs than the oxide CRMs.

The QP also noted some moderate variability in the results of the field duplicates. The FA duplicates have around 50% of the duplicates show a half absolute difference of less than 10%, whereas the LeachWELL data has between 65% and 90% of the duplicates with a half absolute difference of less than 10%. Whilst the FA data has lower precision than the LeachWELL data, there is nothing to suggest that the data is not suitable for resource estimation. However, in consideration of the latest LeachWELL data, it is the QP's opinion that the LeachWELL assays are more robust and more appropriate, with better precision than the 50 g fire assay.

All of this considered and based on the analysis of the results from the QA/QC, the QP concluded that sample and assay accuracy and precision is within accepted industry standards, and that contamination during sample preparation was not an issue. Accuracy, contamination and precision generally fall within industry standard performance levels for this style of mineralization.



Notwithstanding this, comparisons between fire assay and LeachWELL data, bias studies comparing assay data between different drill types, and assays from field duplicates all show good reproducibility of the results with limited bias.

The Historical and Roscan data was therefore taken as sufficiently accurate to be used in resource estimation for Roscan.



## 12 DATA VERIFICATION

### 12.1 DATABASE VERIFICATION

#### 12.1.1 Database Verification – SGS (2019)

The information in this section on Data Verification – SGS has been copied and modified from SGS (2019), a report titled “Dabia Sud Property, Kabaya Resource, NI 43-101 Technical Report, Mali”.

SGS researched the 128 highest assays by finding them in the assay certificates (Table 12.1).

Table 12.1 Summary of the number of samples selected for database checking by SGS

Drilling Campaign	Samples selected	Certificates found by SGS
2013	33	2
2014	23	23
2017	54	54
2018	18	18
<b>Total</b>	<b>128</b>	<b>97</b>

No errors were found in the database when compared to the certificates. The 97 samples successfully verified and according to SGS represented more than 19% of the total gold in the database.

SGS also reported that it verified the QAQC for the 2013 data, the 2014 data, the 2017 data and the 2018 data. In each case and for both the standards and the blanks, there were few or no failures. Each failure was documented, and counter verified with the lab QAQC results to make sure of the reliability of the data.

#### 12.1.2 Database Verification – Aurum Consulting (2021)

In December 2021, Aurum Consulting completed a database audit under the supervision of the QP.

Aurum randomly selected records from 4415 sample intervals from a total of 87 894 sample intervals available at the time (Table 12.2). All samples selected were represented by assay certificates. One error was identified where a sample interval was recorded at 0.6 g/t whereas the assay certificate showed 0.64 g/t Au. Roscan corrected the database for this intersection, and with such a low error rate, Aurum considered the data as suitably robust for grade estimation.

Table 12.2 Summary of the number of samples selected for database checking by Aurum Consulting

Project Area	Total Samples	Samples selected	Percentage
Mankouke South	29 092	1730	6%
Mankouke Central	7 294	926	13%
KN1	11 192	405	4%
KN2 and 4	6 344	46	1%
Kabaya	27 745	1170	4%
Moussala	6 227	138	2%
<b>Total</b>	<b>87 894</b>	<b>4415</b>	<b>5%</b>

### 12.2 SITE VISITS BY INDEPENDENT CONSULTANTS

Site visits have been completed by at least four independent consultants, two of whom have acted as QPs for either Kabaya or Roscan previously, the QP responsible for this report, and a further consultant who did some work on the project under the management of the QP, and has the qualifications, experience and membership of an organization to act as a QP. These include:

- Mr Yann Camus P.Eng, Mineral Resource Engineer of SGS Canada Inc. visited the Dabia Sud property on 12<sup>th</sup> and 13<sup>th</sup> November 2018;
- Mr Patrick O’Sullivan MAIG, Senior Associate Geologist of ACA Howe visited the Kandiole Project from 15<sup>th</sup> to 17<sup>th</sup> August 2019;



- Mr Ivor Jones FAusIMM P.Geo, Principal Consultant of Aurum Consulting visited the Kandiole Project from 15<sup>th</sup> to 17<sup>th</sup> July 2021;
- Mr William Tetteh Botchway, Resource Geologist of Aurifer Resources site visit between the 17<sup>th</sup> and 22<sup>nd</sup> of November 2021.

### 12.2.1 Site Visit - SGS

The information in this section on Site Visit – SGS has been copied and modified from SGS (2019), a report titled “Dabia Sud Property, Kabaya Resource, NI 43-101 Technical Report, Mali.

Mr Yann Camus P.Eng of SGS visited the Dabia Sud property on November 12 and 13 of 2018. Mr Camus was accompanied by Mr Pascal Van Osta, VP Exploration and COO of Komet Resources.

Many subjects were discussed including but not limited to:

- Structural geology;
- Known mineralized structures and available data;
- Past work by Robex and Komet;
- Procedures in place for drilling, logging, sampling, QAQC, etc.;
- Potential new targets;
- Availability of material for independent sampling by SGS.

During the SGS visit at the Kabaya project site, the following actions were taken:

- Independent sampling of 94 witness RC samples including 60 raw samples, 17 rejects and 17 pulps;
- The fieldwork included some verification of collar locations by GPS readings.

While not all drillholes collars were found on site, eight drillholes were found and measured by Garmin handheld GPS. Table 12.3 shows the list of the 8 collars with position comparisons that match very well each time.

Table 12.3 List of Independently Measured Collar Locations and Validation by SGS at Dabia Sud (Kabaya)

Hole Name	Garmin GPS measurement			Database coordinates			Distance XY (m)
	Easting (mE)	Northing (mN)	Elevation (m)	Easting (mE)	Northing (mN)	Elevation (m)	
KM2017rc20	265,524	1,389,724	202	265,525	1,389,725	198.0	1
KM2017rc21	265,526	1,389,774	194	265,525	1,389,775	193.7	1
KM2017rc29	265,576	1,389,824	188	265,575	1,389,825	190.5	1
KM2017rc28	265,602	1,389,802	191	265,602	1,389,800	191.8	2
KM2017rc27	265,625	1,389,823	190	265,625	1,389,825	190.3	2
KM2017rc32	265,527	1,389,875	187	265,525	1,389,874	186.1	2
Ms2014ac022	265,550	1,390,000	182	265,550	1,390,000	182.8	0
Ms2014ac022b	265,549	1,389,995	182	265,550	1,389,995	182.9	1

### 12.2.2 Site Visit – ACA Howe

The information in the section on Data Verification – ACA Howe has been copied and modified from ACA Howe (2020).

Mr Patrick O’Sullivan of ACA Howe visited the Kandiole Project from 15<sup>th</sup> to 17<sup>th</sup> August 2019 and the administration office and sample storage location on 18<sup>th</sup> August 2019. Although no drilling, geological logging or sampling was ongoing at the time of the visit, the following areas were reviewed with Roscan’s geologist:

- Core logging facility and core logging procedures;
- AC chips at the drill sites and in storage;
- A number of drill lines traversing the Mankouke permit and to the north of MOU1 were inspected during the site visit; and
- Orpillage sites.

Roscan acquired the adjacent Dabia Sud permit in July 2020. This area was not visited by Mr O’Sullivan, and no data verification was completed by ACA Howe.

### 12.2.3 Site Visit by the QP

Mr Ivor Jones of Aurum Consulting (the QP) visited the Kandiole Project from 26<sup>th</sup> to the 30<sup>th</sup> July 2021.



The QP completed several traverses with Roscan's onsite geologist to key areas within the permit area. The aim was to observe the evidence of historical work completed in the form of historical drill hole collars and review the extent of artisanal activity within the project area.

#### *Observations on Artisanal Activity*

Artisanal mining activity includes open stopes, collapsed workings and open cut manual workings and shafts (Table 12.4).

Table 12.4 Summary of Artisanal Activity at the Kandiole Project

Resource Area	Comments on Artisanal Activity
Mankouke South	There is no artisanal activity at Mankouke South, and the area is untouched by artisanal mining. Only some inconsequential Chinese dredging for alluvial gold in the nearby river.
Mankouke Central	Mankouke Central has an artisanal open cut measuring 200 metres by 50 metres. There is also evidence of underground artisanal mining activity.
KN1	Kandiole 1 also has an artisanal open cut measuring 250 metres by 70 metres, a second 150 metres by 70 metres and a third 80 metres by 30 metres. There is also evidence of underground artisanal mining activity with artisanal stopes going east-west in contrast to the north-south orientation of the overall zone.
KN2 & KN4	KN2 and 4 was not visited, but it is understood that it includes some underground artisanal mining at KN4.
Kabaya	Kabaya has an artisanal open cut measuring 650 m by 90 m and another measuring 300 m by 80 m. Kabaya also includes underground artisanal workings.
Moussala	Moussala was not visited, but it is understood that it includes some underground artisanal mining, but no open cut mine.

#### *Drilling*

There was no ongoing drilling at the time of the site visit. However, the QP was able to view core that was prepared and laid out in the core shed and to sample mineralized intersections as well as the after effects of the core sampling (sawn core, core breaks and sample marking).

The core was stored in and around the core shed in the company's compound with onsite security. Core boxes from selection of Roscan's drillholes were inspected. The mineralization observed was mainly saprolite with gold hosted in rock that included silicic and sulphidic alteration. Because of the degree of weathering, it was difficult to tell the original rock type, but given the nature of the rock in the fresh rock it appears likely that the host rocks were metasediments.

#### *Collar locations*

The QP reviewed many collar locations, and whilst GPS measurements were taken, they were not processed because of the amount of other independent data and independent measurements by the companies surveyor to record the accurate collar coordinates.

#### 12.2.4 Site Visit – Aurifer Resources

In November 2021, because of the unavailability of the QP at the time of drilling, Mr William Tetteh Botchway, a consulting geologist for Aurifer with over 14 years' experience in exploration geology attended site to review the drilling at the request of the QP. Mr Botchway was commissioned to undertake a site visit to review the on-going drilling with direct reporting to the QP. Mr Botchway visited the drilling sites between the 17<sup>th</sup> and 22<sup>nd</sup> of November 2021.

The site visit was requested with the main aim of reviewing the ongoing RC drilling and sampling, and the sample security and sample custody procedures implemented.

Mr Botchway also took a further 10 independent drill collar measurements were taken to verify the location of the Roscan holes (Table 12.5).



Table 12.5 List of Independently Measured Collar Locations and Validation by Mr Botchway at Mankouke South

Hole Name	Garmin GPS measurement			Database coordinates			Distance XY (m)
	Easting (mE)	Northing (mN)	Elevation (m)	Easting (mE)	Northing (mN)	Elevation (m)	
RCDDMAN21-118	262,500	1,376,174	Not used.	262,498	1,376,175	172.8	1
RCDDMAN21-124	265,660	1,375,799	Not used.	265,662	1,375,799	171.5	2
RCDDMAN21-126	262,350	1,375,747	Not used.	262,350	1,375,751	170.5	4
RCDDMAN21-127	262,601	1,375,751	Not used.	262,603	1,375,751	171.2	2
RCDDMAN21-129	262,488	1,375,799	Not used.	262,487	1,375,800	171.3	1
RCDDMAN21-131	262,671	1,375,848	Not used.	262,671	1,375,849	171.5	1
RCDDMAN21-132	262,654	1,375,900	Not used.	262,654	1,375,901	172.0	1
RCDDMAN21-133	262,700	1,375,900	Not used.	262,699	1,375,901	171.4	1
RCDDMAN21-134	262,825	1,375,898	Not used.	262,826	1,375,899	169.4	1
RCDDMAN21-138	262,643	1,375,750	Not used.	262,644	1,375,752	171.2	2

The handheld GPS measurements can be considered to accurately reflect the collar coordinates represented in the database. The handheld GPS has an expected accuracy of +/- 2.5m.

Mr Botchway observed a Geodrill reverse circulation rig undertaking drilling operations at the Mankouke South deposit. His observations were:

- The rig appeared to be adequately resourced.
- Wet samples were placed in the sun to dry after collection.
- The sample obtained per meter generally ranged between 20 kg and to 40 kg depending on the recovery attained.
- Splitting was completed using a riffle splitter.
- The samples were spilt at the rig under the supervision of a geologist until a sample of between 4 kg and 5 kg of material was obtained.
  - One portion of the split material was weighed and put in a plastic sample bag marked with the sample number corresponding with a sample tag in the sample booklet.
  - The other half of the split material (the reject sample) is placed in a labelled polyweave sack. The reject sample is stored at a dedicated location near the drill site. A portion of the sample is collected from the reject and processed for storage in chip boxes.
- There is no formal written sampling procedure.
  - It was also noted that the geologists and technicians were well versed in the expected sampling methodology, and the lack of formal documentation is not expected to have resulted in a risk to this program.
- Chain of custody documents that record the transfer of material from drilling, through sampling to bagging and dispatch were not observed. He also stated that “lab dispatch sheet for the samples” were prepared by the most senior geologist at the time.
  - Mr Botchwell commented that “the actual risk of loss of samples or a compromise of the sample validity is low”.
  - The sample preparation procedure at Roscan was generally clean and secure.
  - After splitting the sample, the technicians ensured the splitter was cleaned using an air compressor.
  - The small sample bags were neatly labelled, tagged and clipped with an office stapler.
- The small samples were bagged into polyweave sacks in groups of five samples each under the supervision of a geologist.
  - The sacks were then transported back to the camp at the end of each shift.
- The reject samples were collected and taken to a designated area in the field (within the project area) where they were stored.
- There was always a geologist present when samples were being processed.
- There was a security post at the entrance of the core shed which was manned at all material times to ensure the safety of the samples and core.
- Samples were dispatched from the core shed to the laboratory. At the time of the site visit, an ALS vehicle arrived from Bamako upon request by Roscan. A senior geologist filled out the sample submission form for the samples to be dispatched. The samples were loaded into the ALS vehicle and transported to the ALS lab in Bamako under the supervision of ALS.
- Sampling was completed in a manner consistent with industry standards.



## 12.3 CHECK SAMPLES AND RE-ASSAYS OF SAMPLES

### 12.3.1 Re-Assay of Samples – SGS

The information in this section on Data Verification – SGS Dabia Sud has been copied and modified from SGS (2019), a report titled “Dabia Sud Property, Kabaya Resource, NI 43-101 Technical Report, Mali.

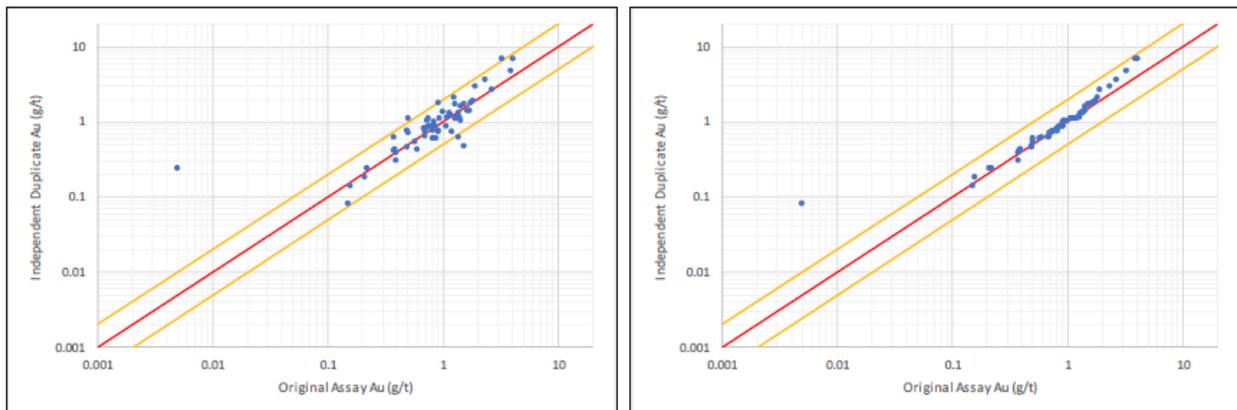
SGS in 2019 had access to witness samples from Dabia Sud, Kabaya Project including:

- Raw sample rejects.
- laboratory coarse rejects; and
- laboratory pulps.

The raw witness samples were well organized, and some continuous sequences were tested. SGS sampled 60 raw samples, 17 coarse laboratory rejects and 17 pulps. The raw samples come from 3 holes, the rejects from 17 holes and the pulps also from 17 holes. The weights of the raw samples were between 1 kg and 45 kg with an average of 14 kg.

The average grade of the 60 raw independent samples was 1.12 g/t for the original sample and 1.27 g/t for the witness sample. No bias was identified. The scatter and Q-Q plots are shown in Figure 12.1.

Figure 12.1 Scatter Plot (left) and Q-Q Plot (right) for the 60 Independent Raw Samples



The average grade of the 17 independent samples of the laboratory rejects was 1.18 g/t for the original sample and 1.24 g/t for the witness sample. The average grade of the 17 independent samples of the laboratory pulps was 1.61 g/t for the original sample and 1.77 g/t for the witness sample. No bias was identified in either the pulps or the reject samples.

### 12.3.2 Check Samples - ACA Howe

Verification samples from the Mankouke permit were taken for comparison with Roscan’s own sample results. Mineralized zones of the diamond core were resampled in quarter-core size. The saprolite material was soft enough that the remaining half-core could be split using a hammer and cleaver knife, which was cleaned between each sample. This prevented core-loss from the thicker core-saw blade and meant that the core could be split directly in the box and the sample removed using a spoon (also cleaned between samples) to place it in a sample bag. There was limited scope for contamination within the box as the core was split in-situ and removed without disturbance to the remaining quarter core. The intervals sampled depended on the amount of core available to provide approximately 2 kg of sample material for analysis.

The verification samples were bagged onsite, labelled and transported by Mr O’Sullivan to SGS in Bamako on the following day for independent analysis. The author of this report, Ivor Jones, has dismissed this data as:

- A quarter core sample of coarse gold mineralization is not a true duplicate of an original half core sample;
- Sample selection using a knife is not ideal;
- There was no evidence of QC samples inserted; and
- The presentation of results was not clear.
- The results were higher than those of the Roscan data.

Based on these results, Roscan instigated a program of re-assaying. The new assays were completed on samples from 141 Air Core reject samples, 141 Air Core pulps, 46 DD core reject samples, 46 DD core pulps, 5 DD ¼ core samples, 6 RC reject



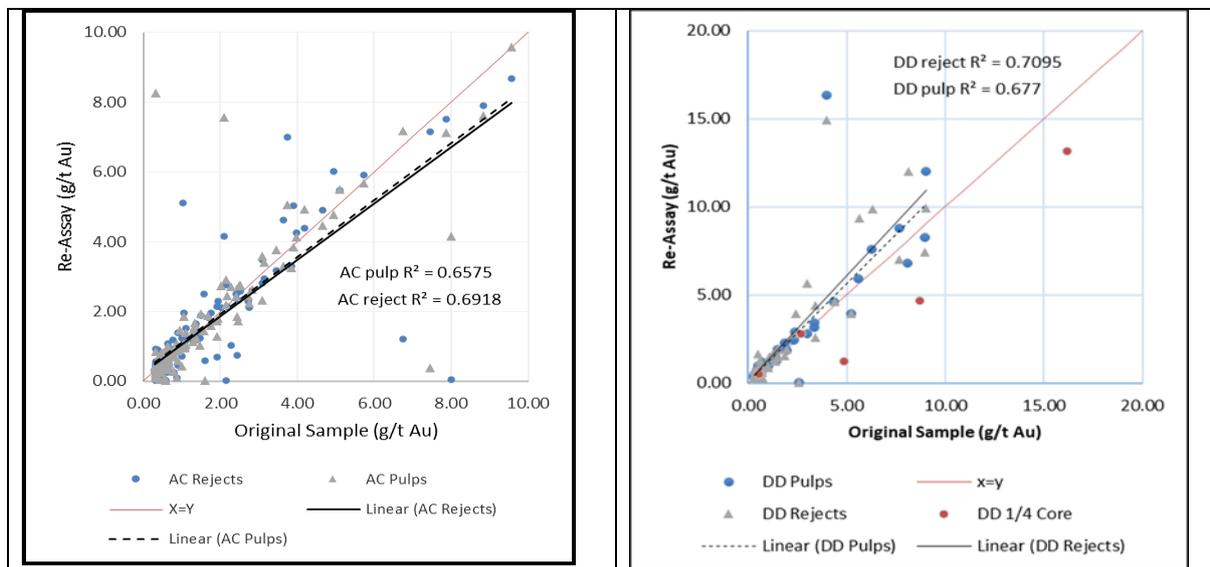
samples, 6 RC pulp samples, 14 RC-DD reject samples and 14 RC-DD pulps. It is unclear to this author what type of sample is an RC-DD sample.

The new assays were completed by ALS in Bamako. Not all of the results in the ACA Howe report were not presented in a clear manner to this author, but the important conclusions from this work are presented in

The correlation of the results for the Air Core and DD samples is shown in Figure 12.2 Scatter Plots of Original AC Pulp and Reject Re-Assay (left) and DD core Pulp, Reject and Quarter Core (right). Note that the trendlines shown on Figures 74 and 75 are influenced by outliers and should not be considered as robust. ACA Howe (2020) noted that when these outliers were removed, the trendlines were closer to the expected results ( $x=y$  line), though for the DD samples the trendline still showed that the re-assays tend to be slightly higher grade than the original assays. In contrast to this, the results of the AC re-assays tend to be slightly lower grade than the original assays.

ACA Howe (2020) also noted that variation in the grade of the original samples and the re-assays of pulps and rejects was evident in samples from all drill types. It was concluded that this was likely to be due to the distribution of gold grains in the original sample rather than laboratory error.

Figure 12.2 Scatter Plots of Original AC Pulp and Reject Re-Assay (left) and DD core Pulp, Reject and Quarter Core (right)



### 12.3.3 Check Assays – Fire Assays – Aurum Consulting

The Qualified Person completed a site visit to the Roscan Kandiole Project in late July 2021 and collected 8 samples for the purposes of sample assay verification (Table 12.6).

Table 12.6 Independent drill core samples collected and re-assayed as a part of the Roscan work program

Hole name	Sample n°	From (m)	To (m)	Interval (m)	Au (original) ppm Au	Au (re-assay) Ppm Au	Permit
DDMAN19-04	KNDD-30042	83.1	84.1	1	3.4	3.68	MANKOUKE CENTRAL
	KNDD-30044	85.1	86.1	1	16	14	
DDMAN21-104B	KNDD-249056	335.3	336.3	1	5.42	5.04	MANKOUKE SOUTH
	KNDD-249057	336.3	337.3	1	1.86	0.63	
DDMAN20-29	KNDD-48376	50.1	51.2	1	1.07	0.28	MANKOUKE SOUTH
DDKAN20-02	KNDD-129726	56.5	57.5	1	2.52	1.27	KN1
DDDBS21-23	KNDD-232946	151.6	152.6	0.8	2.11	0.66	KABAYA
DDDBS20-06	KNDD-128697	171.2	173.2	2	7.45	0.5	KABAYA



Review of the results showed comparable results for the Mankouke deposits but were all lower for the Kandiole and Kabaya projects. This is not unusual for the results of re-assaying higher-grade samples assayed by fire assay in deposits characterized by coarse gold. However, because of the small number of samples and the lack of lower-grade mineralized samples being assayed, the results inferred a bias. The author considered this carefully and agreed with Roscan to complete a more significant re-assay program using a more appropriate assay method for coarse gold.

### 12.3.4 Resampling and LeachWELL assaying – Aurum Consulting / Roscan

Roscan carried out a limited re-sampling program of drill samples in 2021. Samples included:

- 138 DD core samples from Mankouke South;
- 424 DD core samples from Kabaya;
- 670 RC samples from Kabaya; and
- 419 RC samples from KN1.

#### Mankouke South – 138 DD samples

Analysis of the LeachWELL data from Mankouke South shows that whilst there is some variability in the LeachWELL assays with respect to the fire assays, the summary statistics show that there is generally an overall increase in grade throughout the grade range (Table 12.7). Using LeachWELL gives an overall increase in grade of 110% with the highest increase coming from grades less than 1.5 g/t. This is attributed to the presence of visible gold, and the chance of getting free gold in the final sample being assayed (50 g in a fire assay versus 1000 g in a LeachWELL assay).

Table 12.7 Summary statistics of the LeachWELL assays and fire assay for the same samples from Mankouke South

Summary Statistics		
	F.A.	B.Roll
<b>Average</b>	<b>1.68</b>	<b>1.86</b>
Maximum	22.20	26.56
Percentiles		
0.25	0.40	0.43
<b>0.50</b>	<b>0.86</b>	<b>1.15</b>
0.75	1.84	1.36
0.90	3.43	2.94
0.95	4.90	5.28
Maximum	<b>22.20</b>	<b>26.56</b>

#### Kabaya – 1094 Samples (424 DD samples and 670 RC samples)

Analysis of the LeachWELL data from Kabaya also shows that whilst there is some variability in the LeachWELL assays with respect to the fire assays, the summary statistics show that there is generally an increase in grade throughout the grade range in both the DD and RC data (Table 12.8). For the Kabaya samples, 95% of the LeachWELL assays are higher grade than the corresponding fire assays.

Table 12.8 Summary statistics of the LeachWELL assays and fire assay – Kabaya (DD on left, RC on right)

Summary Statistics			Summary Statistics		
	F.A.	B.Roll		F.A.	B.Roll
<b>Average</b>	<b>0.56</b>	<b>0.69</b>	<b>Average</b>	<b>0.69</b>	<b>0.72</b>
Maximum	24.60	30.00	Maximum	11.90	7.90
Percentiles			Percentiles		
0.25	0.09	0.11	0.25	0.15	0.21
<b>0.5</b>	<b>0.22</b>	<b>0.26</b>	<b>0.5</b>	<b>0.34</b>	<b>0.48</b>
0.75	0.52	0.57	0.75	0.82	0.91
0.9	1.18	1.30	0.9	1.54	1.65
0.95	1.82	2.18	0.95	2.34	2.28
<b>Maximum</b>	<b>24.60</b>	<b>30.00</b>	<b>Maximum</b>	<b>11.90</b>	<b>7.90</b>



**KN1 – 419 RC samples**

Analysis of the LeachWELL data from KN1 shows that again there is some variability in the LeachWELL assays with respect to the fire assays, but particularly with the higher grades. The summary statistics are heavily influenced by the higher grades and removal of the 8 highest grades from both the fire assays and LeachWELL assays shows an overall increase in the grade (Table 12.9).

Table 12.9 Summary statistics of LeachWELL assays and fire assays for the same samples from KN1 (uncut and cut).

Summary Statistics			Summary Statistics - cut		
	F.A.	B.Roll		F.A.	B.Roll
<b>Average</b>	<b>0.61</b>	<b>0.11</b>	<b>Average</b>	<b>0.40</b>	<b>0.11</b>
Maximum	25.80	4.19	Maximum	6.61	4.19
Percentiles			Percentiles		
0.25	0.04	0.07	0.25	0.04	0.07
<b>0.50</b>	0.11	0.19	<b>0.50</b>	0.11	0.19
0.75	<b>0.40</b>	<b>0.64</b>	0.75	<b>0.40</b>	<b>0.65</b>
0.90	1.28	1.71	0.90	1.28	1.75
0.95	2.08	3.12	0.95	2.11	3.27
Maximum	25.80	57.49	Maximum	6.61	7.64

**Comments on LeachWELL results**

Overall, the LeachWELL assaying provided higher grades than the corresponding fire assays. The majority of the distributions showed that the grades in the lower grade ranges had a tendency to increase more in percentage terms than those in the higher-grade ranges. However, the higher-grade assays, particularly in the fire assays, distorted the statistics significantly.

It's noted that this is a function of the distribution of coarse gold grains – here defined as anything that is easily visible with the naked eye. If a coarse gold grain ends up in a 50 g sample being assayed by fire assay, it is likely it will show an elevated grade. However, it is more likely that if the mineralization is relatively low grade, coarse gold grains will not be found in the sample being assayed and the sample assay will be lower grade than for the mineralization being sampled. It is also noted that the distribution of gold grains is not homogeneous, so a larger sample at collection is preferred over a smaller sample from the point of view of understanding grade. LeachWELL and other bulk assay techniques deal with the assaying of coarse gold mineralization by using a much larger sample, typically between 500 g and 2000 g. At Roscan, 1000 g samples were assayed using LeachWELL.

**12.3.5 Check Samples – LeachWELL Assays– Aurum Consulting / Aurifer Resources**

Under the direction of the QP, 19 RC samples (2 kg each) were collected by Mr Botchwell and submitted as duplicates from selected drilled intervals (Table 12.10). The samples were submitted to the ALS Laboratory in Bamako for LeachWELL Au analysis. These samples were split off from their rejects using the Jones riffle splitter during drilling. The samples remained in the custody of the author right from sample collection until submission at the Bamako lab. Samples submitted included one standard and one blank sample. The duplicate results were consistent with the primary sample with the exception being RCDD MAN 21\_124 from 10 to 11 m downhole where the primary sample was higher grade than the duplicate sample. This is interpreted to be the result of a piece of coarse gold in the primary sample. The result can be considered anomalous, but not surprising given the elevated grade of both samples and the presence of coarse gold.



Table 12.10 Details of Independent collected samples.

Hole Name	Sample Type	Depth From (m)	Depth To (m)	Sample Number	Primary Au (g/t)	Duplicate Au (g/t)
RCDD MAN 21_124	RC	8	9	189351	2.213	2.572
RCDD MAN 21_124	RC	9	10	189352	4.953	5.564
RCDD MAN 21_124	RC	10	11	189353	9.164	5.704
RCDD MAN 21_124	RC	11	12	189354	1.504	1.621
RCDD MAN 21_124	RC	12	13	189355	0.726	0.964
RCDD MAN 21_124	RC	13	14	189356	0.282	0.298
RCDD MAN 21_132	RC	6	7	189357	0.159	0.176
RCDD MAN 21_132	RC	7	8	189358	0.235	0.243
RCDD MAN 21_132	RC	8	9	189359	0.585	0.757
RCDD MAN 21_132	RC	9	10	189361	0.51	0.5
RCDD MAN 21_132	RC	10	11	189362	0.643	0.662
RCDD MAN 21_138	RC	41	42	189363	0.168	0.172
RCDD MAN 21_138	RC	42	43	189364	0.468	0.472
RCDD MAN 21_138	RC	43	44	189365	0.227	0.195
RCDD MAN 21_138	RC	44	45	189366	0.084	0.12
RCDD MAN 21_138	RC	46	47	189367	0.329	0.383
RCDD MAN 21_138	RC	47	48	189368	0.57	0.675
RCDD MAN 21_138	RC	48	49	189369	0.213	0.235
RCDD MAN 21_138	RC	49	50	189371	0.115	0.122

## 12.4 TWIN DRILLING / SAMPLES

In December 2021, Aurum Consulting completed an analysis of twin drilling for Roscan to look for bias between DD and RC holes as well as with AC holes (Table 12.11). Samples results were all fire assay data and coded separately by drill type. Holes were selected where one hole was within 10 m of another hole of the same type. Where samples were more than 10 m apart, the samples pair was excluded from the evaluation.

Table 12.11 Summary of twinned holes and number of pairs of samples by project area.

Project Area	Twin holes drill type	Number of pairs of holes	Number of pairs of samples
Mankouke South	RC - DD	10	709
Mankouke South	AC - DD	25	1554
KN1	RC - DD	1	159
KN1	AC - DD	4	158
Kabaya	RC - DD	8	347
Kabaya	AC - DD	10	265

Because of the nature of gold mineralization and the drill spacing of as much as 10 m, the comparison of individual pairs was not considered. Summary statistics looking at percentile values was considered the best approach.

The results (Table 12.12, Table 12.13 and Table 12.14) show consistent trends and some anomalies:

- At Mankouke South, the grade ranges are consistent except for the higher grades.
  - DD tends to get higher grades than the RC, but only where there is elevated grade.
  - AC and DD grades are similar throughout the entire grade range.
- There are only two samples in the Kandiole analyses where the DD is above 0.5 g/t when compared to either the RC data or the AC data. There is insufficient data for a reasonable comparison.
- At Kabaya, the RC and DD results are similar, but the DD and AC results in the elevated grades show some differences with the AC having slightly higher grades throughout than the DD holes.
- The differences are easily accounted for because of the coarse gold nature of the mineralization.



Table 12.12 Summary statistics of twin drilling pairs for Mankouke South.

Mankouke South	DD data Versus RC data			DD data Versus AC data		
		AU_DD	AU_RC		AU_DD	AU_AC
Count	709	709		Count	1548	1548
Average	0.27	0.21		Average	0.75	0.74
Std.Dev.	0.88	0.44		Std.Dev.	2.25	2.13
Percentiles			Percentiles			
0.25	0.01	0.01		0.25	0.02	0.02
0.5	0.02	0.03		0.5	0.06	0.08
0.75	0.12	0.14		0.75	0.37	0.39
0.9	0.69	0.72		0.9	1.98	1.78
0.95	1.67	1.05		0.95	3.77	3.84
Maximum	<b>12.24</b>	<b>4.43</b>		Maximum	27.98	25.00

Table 12.13 Summary statistics of twin drilling pairs for KN1.

KN1	DD data Versus RC data			DD data Versus AC data		
		AU_DD	AU_RC		AU_DD	AU_AC
Count	159	159		Count	158	158
Average	0.07	0.00		Average	0.09	0.10
Std.Dev.	0.45	0.00		Std.Dev.	0.45	0.32
Percentiles			Percentiles			
0.25	0.01	0.00		0.25	0.02	0.01
0.5	0.02	0.00		0.5	0.03	0.02
0.75	0.03	0.00		0.75	0.04	0.05
0.9	0.05	0.00		0.9	0.08	0.14
0.95	0.10	0.00		0.95	0.20	0.18
0.99	0.57	0.02		0.99	<b>0.57</b>	<b>1.69</b>
Maximum	<b>5.55</b>	<b>0.02</b>		Maximum	<b>5.55</b>	<b>2.10</b>

Only 2 samples with reasonable grade

Table 12.14 Summary statistics of twin drilling pairs for Kabaya.

Kabaya	DD data Versus RC data			DD data Versus AC data		
		AU_DD	AU_RC		AU_DD	AU_AC
Count	347	347		Count	265	265
Average	0.60	0.63		Average	0.32	<b>1.64</b>
Std.Dev.	1.43	2.48		Std.Dev.	0.66	7.28
Percentiles			Percentiles			
0.25	0.03	0.05		0.25	0.02	0.03
0.5	0.16	0.15		0.5	0.05	0.09
0.75	0.50	0.50		0.75	0.29	0.38
0.9	1.78	1.32		0.9	0.82	1.6
0.95	2.42	1.88		0.95	1.51	5.06
Maximum	<b>18.00</b>	<b>33.60</b>		Maximum	<b>3.35</b>	<b>70.50</b>

The summary statistics show that more than 75% of the samples selected fall below the cut-off grade, with a small percentage representing the mineralized zones of economic interest. The summary statistics show that:

- the grade ranges are reasonably consistent between the drill types with the exception of the Kabaya AC-DD comparison;
- the summary statistics are heavily influenced by the few samples in the higher grade ranges.
- Removal of the top values makes all of the analyses more comparable.



These results indicate sufficient consistency in the data between the drill types for use in grade estimation but taking into consideration that care is required for estimates based on the Kabaya AC data.

#### 12.4.1 Nearest Neighbour Evaluation of all holes – Roscan versus Historical

Roscan did not set out to deliberately twin drill holes, but because of the nature of the re-drilling and extension of the existing drilling, some of the new drilling was drilled close to existing drillholes. Aurum took the opportunity to look for any potential biases between different types of drillholes, namely DD, RC and AC. Pairs of samples were selected where a mineralized sample from one drill type was recorded to be within 10 m of another drill type. Summary statistics were then prepared and used to compare the distributions noting that pairs of samples are up to 10 m apart and likely to be quite different. The statistics were also strongly affected by anomalies, partly because the samples were not constrained to a mineralization envelope, partly because of the erratic nature of the mineralization, and partly because of the sampling and assaying with fire assays.

##### *Mankouke South twin samples*

At Mankouke South, 709 sample pairs were found for RC and DD, and 1548 for DD and AC, but none for RC and AC (Table 12.15).

For the DD and RC sample pairs there were two high grades which distorted the summary statistics. These two pairs were removed from the analysis. The results were sufficiently similar so as to consider that the RC drill results were consistent with the DD results.

The results were sufficiently similar for DD and AC as to consider that the RC drill results were consistent with the DD results.

Table 12.15 Summary of statistics of pairs from different drill types at Mankouke South

	DD	RC	DD	AC
Count	707		1548	
Average	0.24	0.21	0.75	0.74
Std.Dev.	0.62	0.44	2.25	2.13
Percentiles				
25	0.01	0.01	0.02	0.02
50	0.02	0.03	0.06	0.08
75	0.11	0.14	0.37	0.39
90	0.67	0.71	1.98	1.78
95	1.62	1.05	3.77	3.84
Maximum	5.25	4.43	27.98	25.00

##### *KN1 twin samples*

At KN1, 159 sample pairs were found for RC and DD, and 158 for DD and AC, but none for RC and AC (Table 12.16).

Only three of the sample pairs for DD and RC drill types had DD grades better than 0.3 g/t Au. Because of the distance between samples, a comparison between the results was not considered valid.

For DD and AC drill types, the results were encouragingly similar considering the style of mineralization and the distance between samples, but there is still insufficient data in the grades of economic interest to form a decent opinion.

Table 12.16 Summary of statistics of pairs from different drill types at KN1.

	DD	RC	DD	AC
Count	159		158	
Average	0.07	0.00	0.09	0.10
Std.Dev.	0.45	0.00	0.45	0.32
Percentiles				
25	0.01	0.00	0.02	0.01
50	0.02	0.00	0.03	0.02
75	0.03	0.00	0.04	0.05
90	0.05	0.00	0.08	0.14
95	0.10	0.00	0.20	0.18
Maximum	5.55	0.02	5.55	2.10

***Kabaya twin samples***

At Kabaya, 347 Sample pairs were found for RC and DD, and 265 for DD and AC, but none for RC and AC (Table 12.17).

For the sample pairs for DD and RC drill types, the assay results are similar up to about 1 g/t, and the average grades are similar. The results were sufficiently similar as to consider that the RC drill results were consistent with the DD results.

For the DD – AC twin sample pairs, the AC results were higher in all grade ranges (an apparent high bias), and the average grade of the assays affected by high grade samples. 12 high grade samples were removed from the analysis as they were distorting the summary statistics, leaving 253 pairs (Table 12.17). The average grades were still affected by few high-grade samples, and overall a slightly higher grade than the DD results. The overall conclusion was that there is a slight bias, with the AC more likely to have high grades reported. This is likely to be the product of three factors: the DD samples being smaller than the AC samples, coarse gold in the near surface mineralization, and the randomness of this mineralization.

Table 12.17 Summary of statistics of pairs from different drill types at Kabaya

	DD	RC	DD	AC
Count	347		253	
Average	0.60	0.63	0.33	0.38
Std.Dev.	1.43	2.48	0.67	0.92
Percentiles				
25	0.03	0.05	0.03	0.03
50	0.16	0.15	0.06	0.07
75	0.50	0.50	0.31	0.34
90	1.78	1.32	0.85	0.80
95	2.42	1.88	1.55	2.03
Maximum	18.00	33.60	3.35	7.28

## 12.5 QUALIFIED PERSON'S OPINION ON THE ADEQUACY OF THE DATA FOR THE PURPOSES USED IN THE TECHNICAL REPORT

The author has completed and overseen both onsite and desk-based verification of Roscan's data on the Kandiole Project.

It is the opinion of the Qualified Person that the Roscan data is in general good quality and has suitable robustness for use in the estimation of a mineral resource to a good level of confidence.



## 13 MINERAL PROCESSING AND METALLURGICAL TESTING

Drilling of the several Kandiole deposits by Roscan commenced in late 2018. Very preliminary testing to examine gold extraction was conducted in 2020 and only investigated 8 samples from Mankouke Central and 137 intervals from two drill holes at Mankouke South.

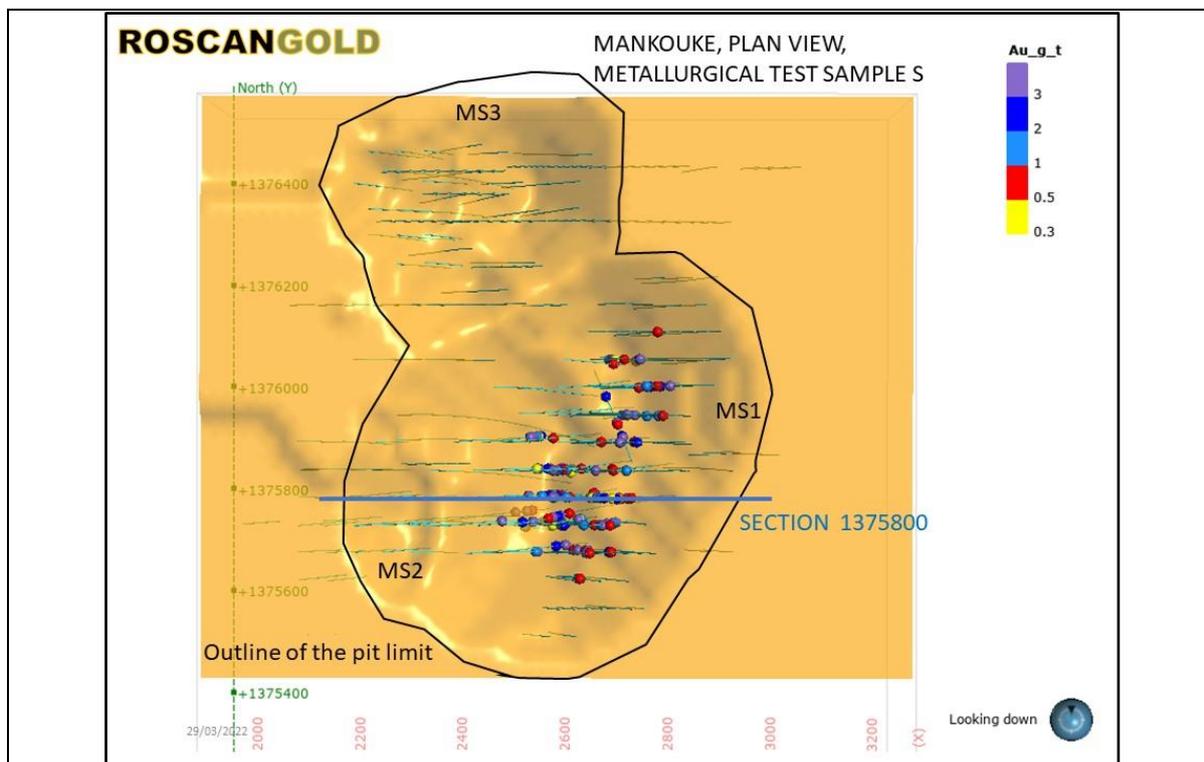
The eight Mankouke Central samples after fine grinding to 75 microns were cyanide leached in bottles and five samples indicated above 90% extraction while three samples (generally the lower grade samples) showed less than 90%. The 137 Mankouke South samples were finely ground to 75 microns and subjected to Bulk Leach Extractable Gold testing (BLEG, achieved with agitated bottle leaching) and with LeachWELL as lixiviant. No assaying of the tailings was completed. The 137 samples averaged 89% gold extraction and the lowest values were from samples with evident pyrite present. (Dowrick et al., 2020).

The 2021 testing program used samples from more recent drilling by Roscan, mainly Diamond Drill (DD) core but a few samples from Reverse Circulation (RC) holes, and representative of five deposits- Mankouke South, Mankouke Central, Kandiole North (KN1), Kabaya (KB1 and KB2). From a large set of sample intervals, 12 composite samples representing the deposits were prepared for variability testing by gravity recovery and cyanide extraction. Other testing conducted included coarse sample leaching, comminution tests and grind size selection. All testwork was conducted by Base Metallurgical Laboratories (BML) in Kamloops, British Columbia in late 2021 and summarized in the BML report (BML, 2022). Details of the sample selection, testing program and results are presented in the following sections 13.1 and 13.2.

### 13.1 METALLURGICAL SAMPLES FROM THE KANDIOLE DEPOSITS

From recent drilling and interval assaying of the main deposits of the Kandiole project of Roscan, representative samples for metallurgical testing were selected by the Vice President, Exploration for Roscan and packaged for shipment to the BML laboratory in mid- 2021. The sample locations are shown for each deposit, by plan and section, in the following Figures 13.1 to 13.9. The colour of the sample intervals refers to the gold assay received for each of the intervals sampled during the geological logging program. In each deposit samples were selected to represent a range of gold content based on what was considered as low, medium and high grades, plus to compare saprolite mineralization with non-weathered or bedrock mineralization.

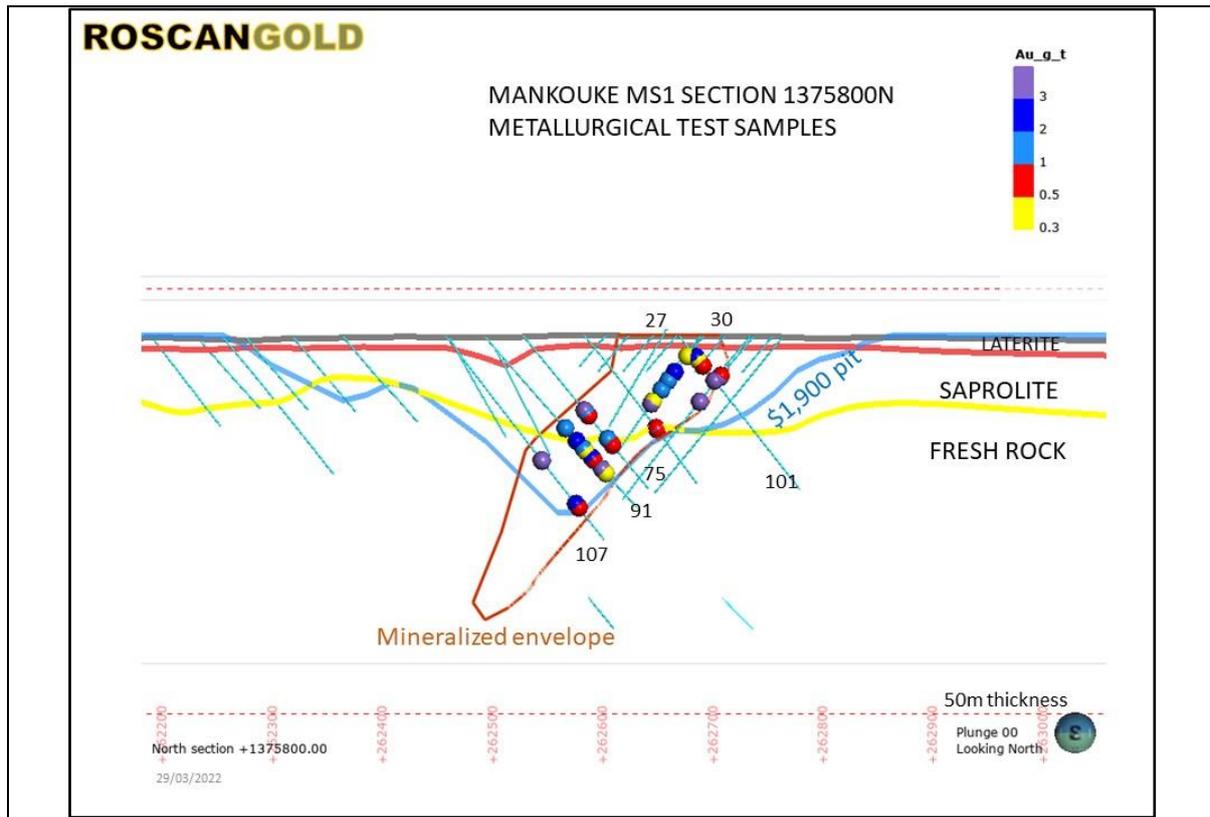
Figure 13.1 Mankouke (MS1) samples selected for metallurgical test work.



(Source: Diagram Provided by Roscan, 2022)

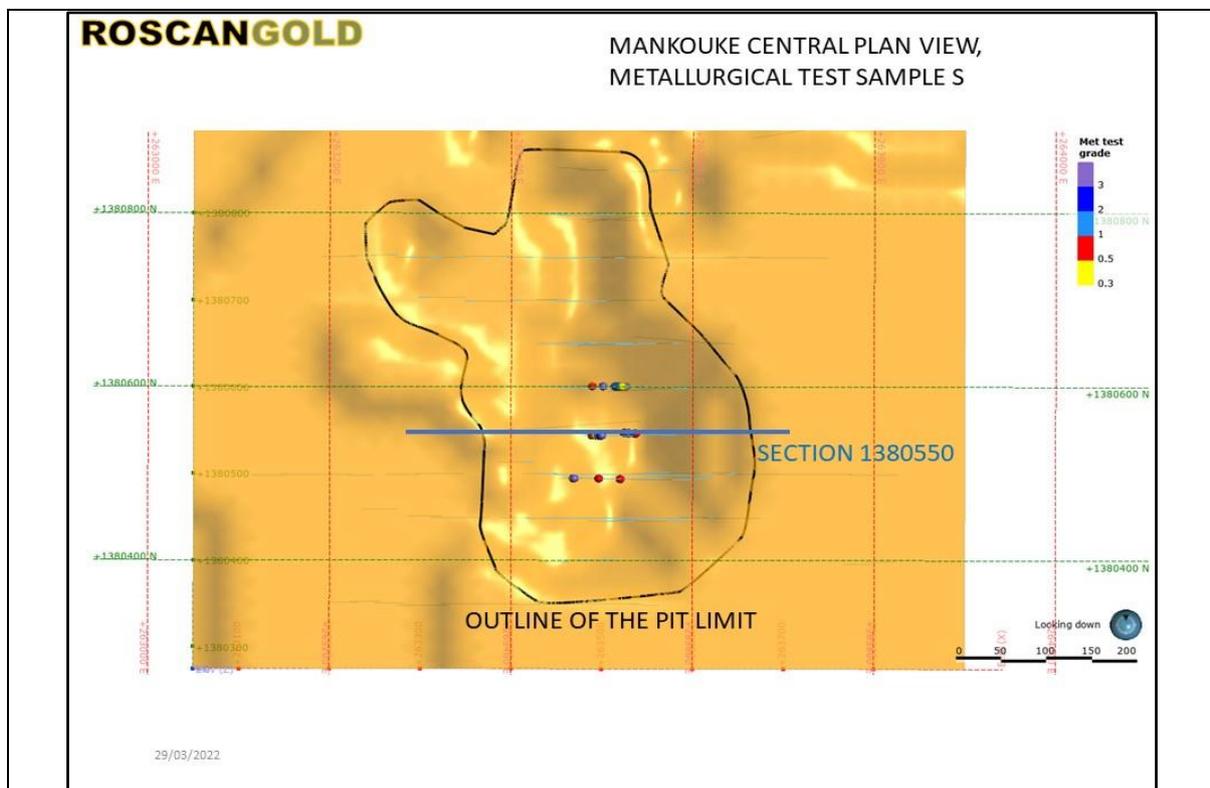


Figure 13.2 Mankouke (MS1) section.



(Source: Diagram Provided by Roscan, 2022)

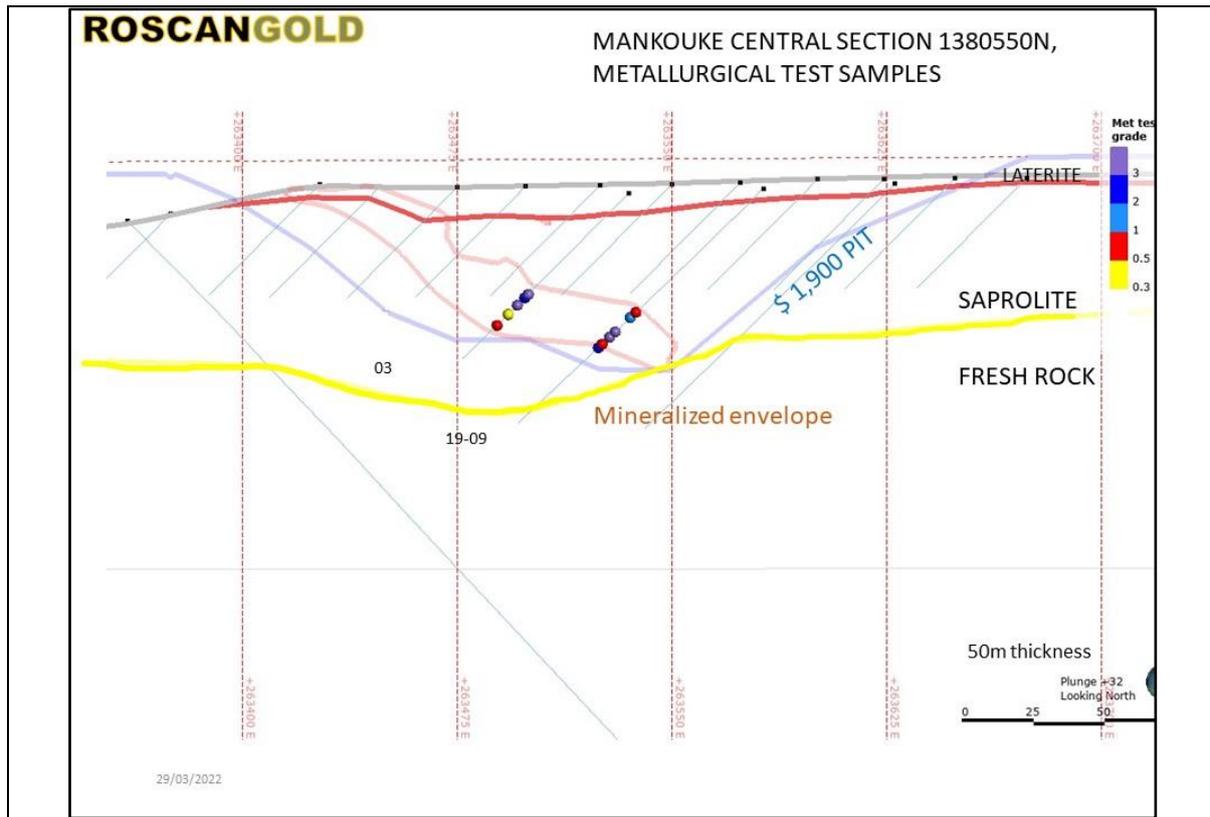
Figure 13.3 Mankouke Central samples.



(Source: Diagram Provided by Roscan, 2022)

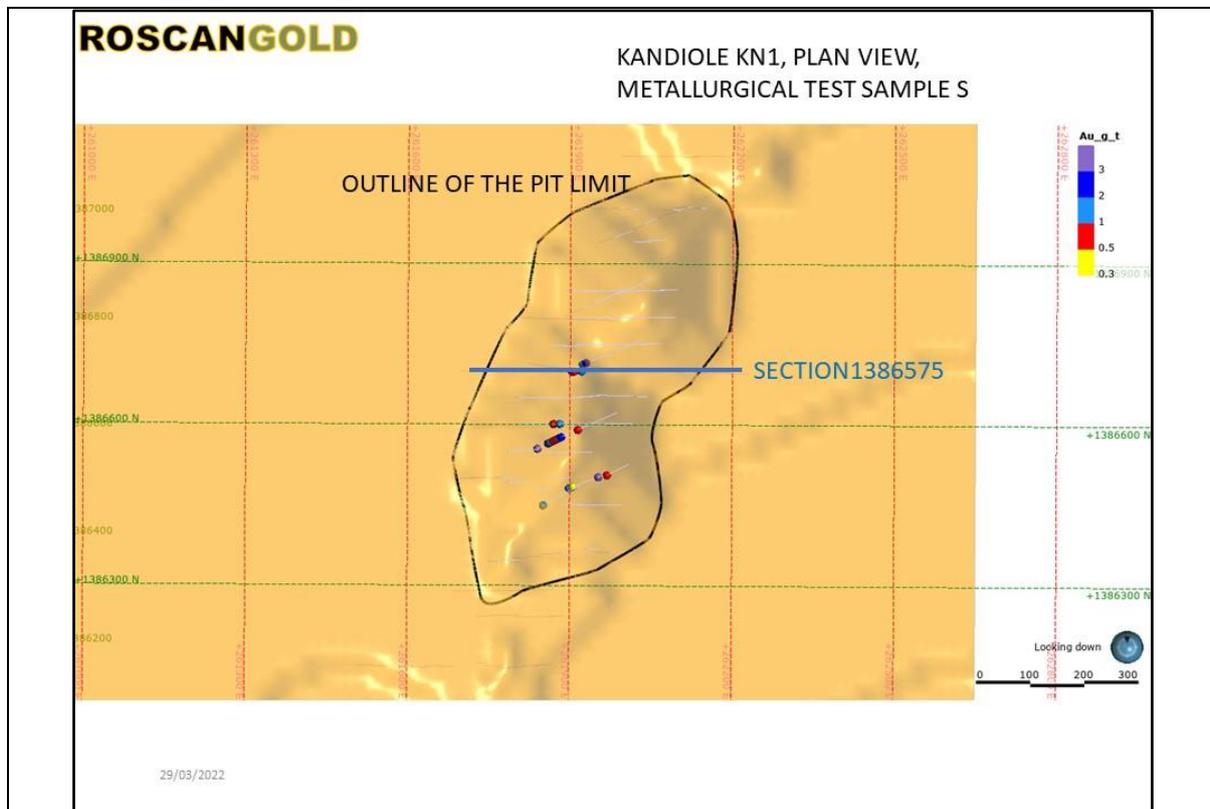


Figure 13.4 Mankouke Central section.



(Source: Diagram Provided by Roscan, 2022)

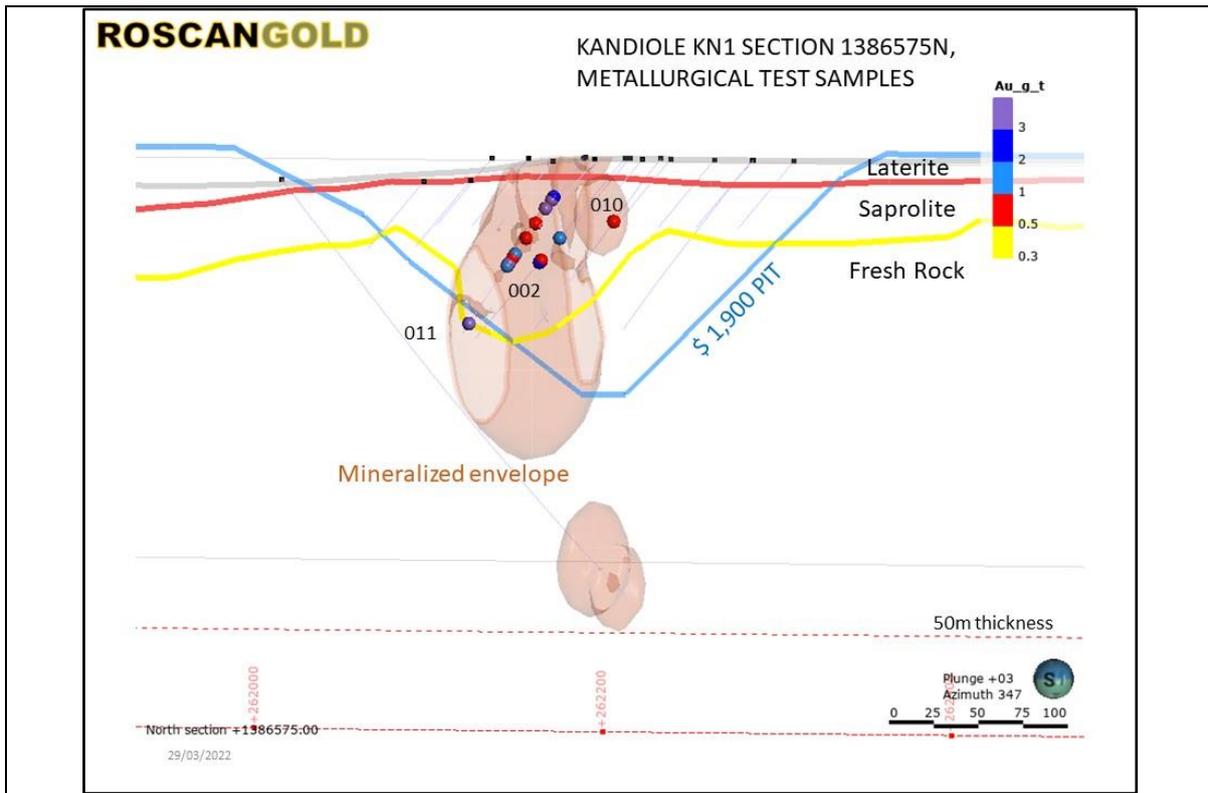
Figure 13.5 Kandiole samples.



(Source: Diagram Provided by Roscan, 2022)

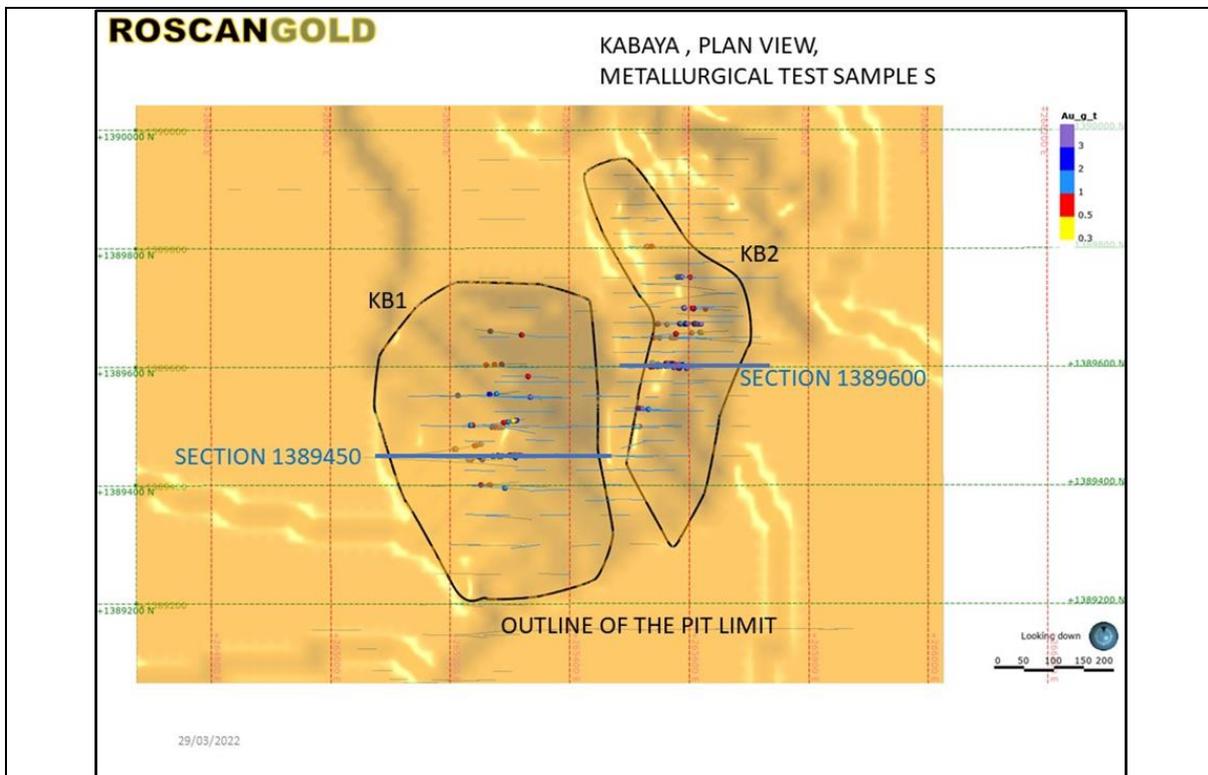


Figure 13.6 Kandiole section.



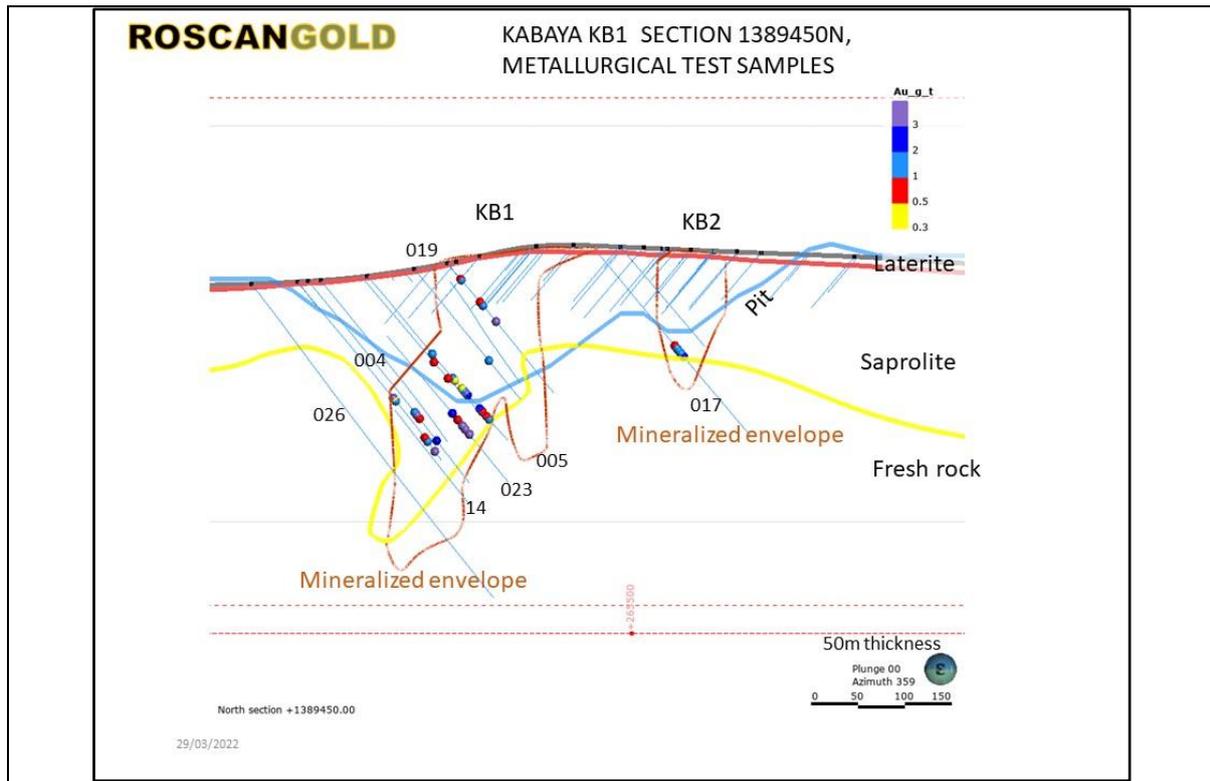
(Source: Diagram Provided by Roscan, 2022)

Figure 13.7 Kabaya samples KB1 and KB2.



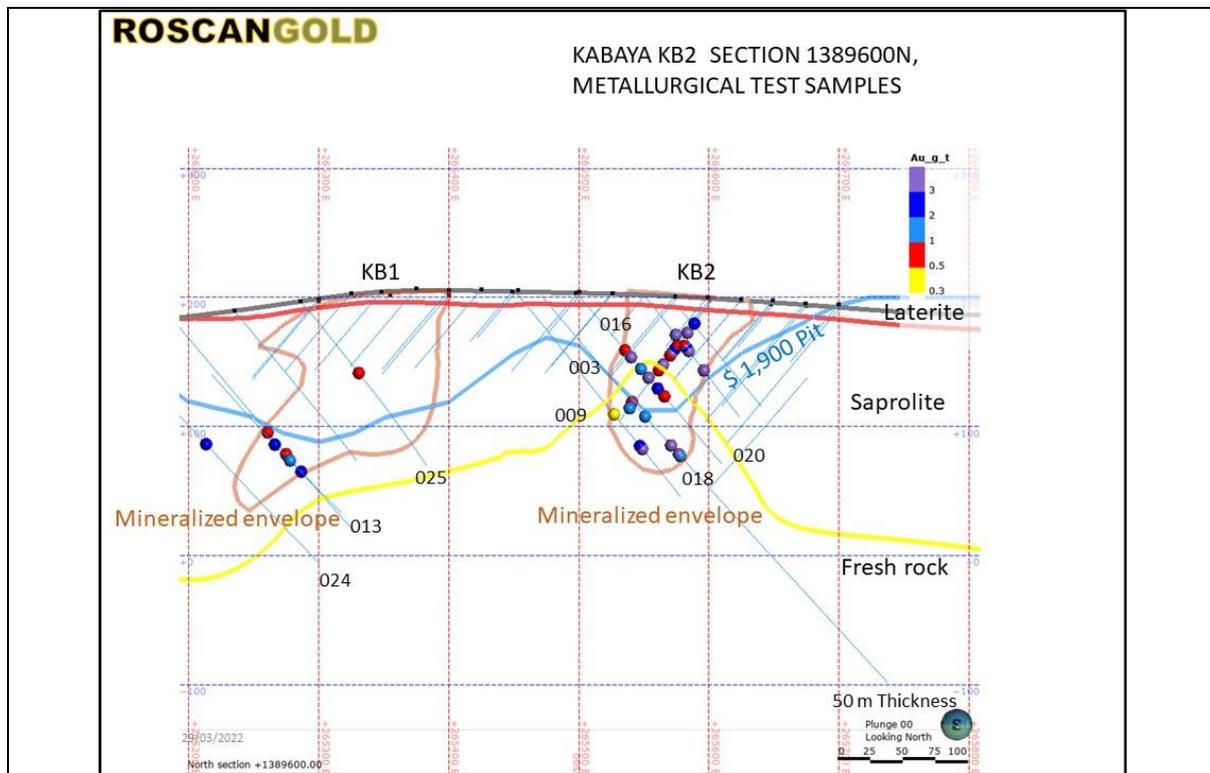
(Source: Diagram Provided by Roscan, 2022)

Figure 13.8 Kabaya KB1 section 1389450 mN.



(Source: Diagram Provided by Roscan, 2022)

Figure 13.9 Kabaya KB@ Section 1,389,600 mN.



(Source: Diagram Provided by Roscan, 2022)

In total, 318 interval samples were shipped in separate packages to BML where the samples were combined to make a total of 12 variability composites (VC1-VC12). Prior to final crushing to the target of passing 3.4 mm (-6 mesh), two coarse



composites of VC8 and VC10 were crushed only to 12.7 mm (-1/2 inch). Master composites were also made using equal portions of the initial composites, MS1 using VC1 and VC2, and KB using VC-8, 9, 10, 11 and 12. The designated composites plus the individual 318 sample interval descriptions are included in the report of testing by BML. A summary of the composites, including the mass of the sample, as prepared by BML is included in Table 13.1.

Table 13.1 Summary of the Composite Samples prepared for Metallurgical Testing.

Comp No.	Name	Deposit	Weathering	Lithology	Samples included	Mass kg
VC1	MS1	MANKOUKE SOUTH	Saprolite	Greywacke	30	32.4
VC2	MS1	MANKOUKE SOUTH	Saprolite	Greywacke	30	35.9
VC3	MS1	MANKOUKE SOUTH	Saprock	Greywacke	32	41.5
VC4	MS1	MANKOUKE SOUTH	Bedrock	Greywacke/Felsic Intrusive	29	24.1
VC5	MS1	MANKOUKE SOUTH	Bedrock	Felsic Intrusive	33	40.3
VC6	MK C	MANKOUKE CENTRAL	Saprolite	Breccia	26	28.6
VC7	KN1	KANDIOLE	Saprolite	Meta-sediment	17	23.3
VC8	KB1	KABAYA-DABIA SOUTH	Saprolite	Meta-sediment	30	36.8
VC9	KB1	KABAYA-DABIA SOUTH	Saprolite	Meta-sediment	19	22.2
VC10	KB2	KABAYA-DABIA SOUTH	Saprolite	Meta-sediment	23	25.8
VC11	KB2	KABAYA-DABIA SOUTH	Saprolite	Meta-sediment	20	23.9
VC12	KB2	KABAYA-DABIA SOUTH	Bedrock	Greywacke	29	37.2

The head sample analyses for the composites, as listed in Table 13.2, show significant gold content in all, silver variable and generally low, and mostly low carbon content, particularly graphitic carbon (Cg). Sulphur content varies according to the sample origins in saprolite or bedrock (fresh) except for composites VC8 and VC9 which have high sulphur content in saprolite samples.

Table 13.2 Metallurgical test composites analyses.

COMP ID	Au g/t	Ag g/t	S %	C %	TOC %	Cg %
VC1	2.46	0.4	1.18	0.18	0.03	<0.01
VC2	3.67	0.3	0.40	0.03	0.02	<0.01
VC3	2.99	1.3	1.94	0.49	0.04	<0.01
VC4	2.99	0.8	1.36	1.65	0.02	<0.01
VC5	2.49	0.3	1.16	1.08	0.02	<0.01
VC6	6.42	0.6	<0.01	0.07	0.05	<0.01
VC7	0.76	<0.1	<0.01	0.08	0.08	0.02
VC8	3.22	40.3	6.44	0.05	0.04	<0.01
VC9	1.66	3.4	5.13	0.12	0.09	<0.01
VC10	2.29	5.2	0.12	0.05	<0.01	<0.01
VC11	3.27	0.8	0.18	0.37	0.03	<0.01
VC12	2.78	1.1	1.13	3.43	0.04	0.01
MS1	2.97	0.2	0.56	0.33	0.03	<0.01
KB	2.15	3.0	4.04	0.31	0.03	<0.01

The 12 VC composites were submitted for mineralogical examination using QEMSCAN technique (quantitative mineralogy) and Bulk Mineralogical analysis (BMA). Results are shown in Table 13.3 with mineral quantity shown as mass %pyrite accounts for most of the sulphides present, and arsenopyrite is present at low levels in some composites.



Table 13.3 Mineralogical abundance as mass % in composites in metallurgical composites.

Comp	Chalcopyrite	Arsenopyrite	Pyrite	Quartz	Plagioclase	K-Feldspar	Biotite/Phlogopite	Sericite/Muscovite	Chlorite	Clays	Other Silicates	Calcite	Dolomite	Other Carbonates	Fe-Oxides	Other Oxides
VC1	0.03	0.56	2.22	57.4	0.72	0.01	0.01	0.72	2.46	30.1	0.12	0.02	0.00	0.12	3.66	1.75
VC2	0.01	0.18	0.82	57.2	1.22	0.01	0.01	0.49	3.70	30.4	0.14	0.03	0.01	0.16	3.61	2.02
VC3	0.05	0.44	3.64	30.5	41.6	0.16	0.82	1.09	5.14	9.29	0.33	0.46	1.13	0.76	3.66	0.84
VC4	0.05	0.44	3.38	23.0	59.7	0.22	0.07	0.73	2.29	0.90	0.59	1.73	3.75	1.94	0.59	0.49
VC5	0.03	0.67	2.31	22.5	64.8	0.15	0.09	1.01	1.90	0.82	0.48	2.21	1.84	0.71	0.07	0.28
VC6	0.01	0.00	0.18	19.3	1.01	0.00	0.01	0.07	21.0	48.5	0.15	0.08	0.00	0.38	6.54	2.67
VC7	0.00	0.19	0.06	55.9	0.84	0.34	0.68	22.7	7.87	4.98	0.03	0.02	0.00	0.29	4.26	1.82
VC8	0.08	0.14	12.5	48.8	0.66	0.58	0.06	27.2	2.24	5.74	0.07	0.03	0.01	0.03	1.02	0.76
VC9	0.04	0.03	9.78	49.0	0.92	0.51	0.11	26.2	3.41	7.74	0.05	0.02	0.04	0.06	1.04	0.98
VC10	0.02	0.00	0.08	24.8	1.16	0.01	0.04	1.54	8.57	55.8	0.07	0.07	0.01	0.17	5.25	2.28
VC11	0.01	0.34	0.66	39.1	5.48	0.07	0.56	2.70	5.06	37.5	0.65	0.54	0.10	2.06	3.61	1.44
VC12	0.03	0.20	1.63	15.7	46.3	0.17	2.42	1.35	1.56	2.55	4.38	5.17	7.58	7.63	2.36	0.72

Further mineralogical studies to observe gold deportment were also completed. A sample from each composite was ground to 80% passing 100 µm and submitted to gravity concentration in a Knelson concentrator and Mozley table. Polished sections for all products (10 per composite) were examined using QEMSCAN and Trace Mineral Search (TMS) technique. The results are listed in Table 13.4. For each category of gold presence shown, the value shown is the % of the total gold observed as present in each composite. In the Combined section of the table, the liberated plus locked gold amounts to 100% of the total gold observed. Visible gold liberation in some samples was high, to a maximum of 79%. Low liberation of gold was attributed to association with silicates (composites VC3 and VC9) or with pyrite (VC4 and VC12). However, as seen in the following gravity concentration and leaching tests, gold recovery from these low liberation composites was still high.

Table 13.4 Gold deportment summary.

Association	VC1	VC2	VC3	VC4	VC5	VC6	VC7	VC8	VC9	VC10	VC11	VC12
Pure Gold	3.12	27.2	20.7	9.75	8.63	29.3	15.6	2.16	0.38	4.83	3.66	2.85
Free Gold	6.94	44.2	11.6	30.4	22.2	40.0	52.7	65.0	1.11	18.5	7.28	19.0
Lib Gold	3.74	7.39	4.12	5.59	6.52	5.25	1.02	5.32	0.62	6.29	0.52	2.95
Gold:Pyrite	8.35	4.49	31.7	23.2	17.5	0.04	4.04	0.50	61.6	0.04	4.71	11.5
Gold:Arsenopyrite	0.20	3.76	0.03	2.60	9.57	0.00	0.02	0.01	0.00	0.00	0.03	0.24
Gold:Silicates	0.55	0.68	28.4	21.9	0.12	1.95	14.9	8.35	7.82	31.6	4.97	6.22
Gold:Fe Oxides	29.5	1.78	0.58	0.00	0.18	6.64	2.92	0.00	0.00	14.1	61.0	47.9
Complex	47.6	10.6	2.95	6.54	35.3	16.7	8.78	18.6	28.5	24.7	17.8	9.29

Combined												
Total Liberated	13.8	78.7	36.4	45.8	37.3	74.6	69.3	72.5	2.11	29.6	11.5	24.8
Locking	86.2	21.3	63.6	54.2	62.7	25.4	30.7	27.5	97.9	70.4	88.5	75.2

<sup>1</sup> Pure: No Associations, Free Gold >95% Gold Particle, Lib >85% Gold Particle

Diagnostic leaching was also applied to all composites. The results indicated that a very high proportion of the gold present in each composite was recoverable using gravity plus cyanide leaching (Table 13.5). The high values noted above for gold locking in some composites did not appear to have significantly impacted the extraction by gravity plus cyanide leaching.



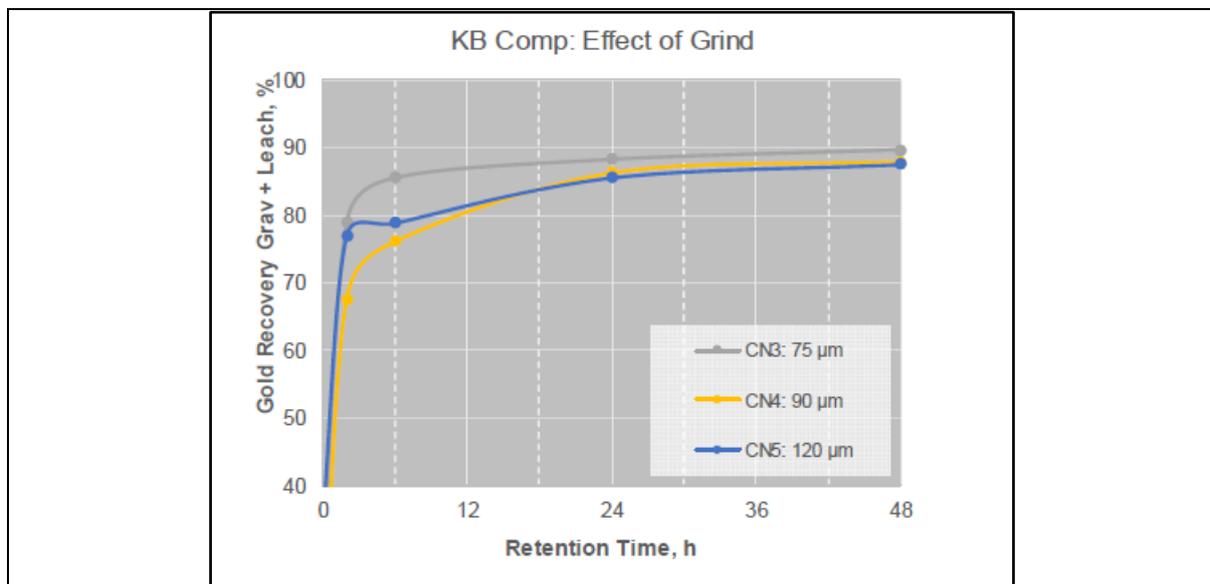
Table 13.5 Diagnostic leaching summary.

Comp	Gold Distribution, as % Feed						
	Gravity	Free Gold		Carbonates	Locked		
		High Int.	Grav/CN		Arsenopyrite	Sulphides	Silicates
VC1	24.9	66.5	91.4	4.1	1.5	2.6	0.4
VC2	37.0	59.6	96.6	1.5	1.1	0.0	0.8
VC3	13.8	76.5	90.3	0.8	4.6	3.4	0.8
VC4	41.6	51.7	93.4	0.0	4.2	0.0	2.4
VC5	24.1	67.2	91.4	0.0	6.5	0.5	1.6
VC6	21.0	78.0	99.0	0.3	0.0	0.3	0.3
VC7	21.8	75.7	97.5	0.0	0.8	0.0	1.7
VC8	23.2	73.9	97.1	0.0	0.0	2.5	0.4
VC9	26.7	69.3	96.0	0.0	1.6	1.6	0.8
VC10	10.8	84.6	95.4	3.7	0.0	0.5	0.5
VC11	10.9	81.3	92.3	1.4	0.0	5.6	0.7
VC12	16.5	69.0	85.5	0.4	0.7	13.0	0.4

### 13.2 METALLURGICAL TEST DESCRIPTION

Initially, gold extraction over a range of feed grind sizes (75 to 120 µm, 80% passing) for composite KB was examined and showed little difference except for leach times below 24 hours (Figure 13.10). Based on the results, a grind of 100 mesh was selected for the ensuing variability tests on each composite.

Figure 13.10 Effect of feed size on leach extraction.



(Source: Diagram Provided by Roscan, 2022)

Comminution testing aimed at a product size of 80% passing 106 µm (150 mesh Tyler) using the standard Bond Ball Mill work index test. This test work was conducted using a range of 6 composites to test expected extremes. Results are shown in Table 13.6. As expected, the saprolite composites had very low work index values and the hardest, though not extreme, were bedrock composites.

Coarse Ore Bottle Roll (COBR) testing to examine possible heap leaching was conducted using two saprolite composites, VC8 and VC10. For each composite a 5 kg sample was crushed to pass 12.7 mm (0.5 inch, a typical heap leach feed size) and the material leached in pails with cyanide solution for up to 8 days. Solids concentration was 25% and cyanide concentration was 0.5 g/L, and the pails were agitated for one minute only each hour. Samples for assay were removed daily except for day 5 and 6.

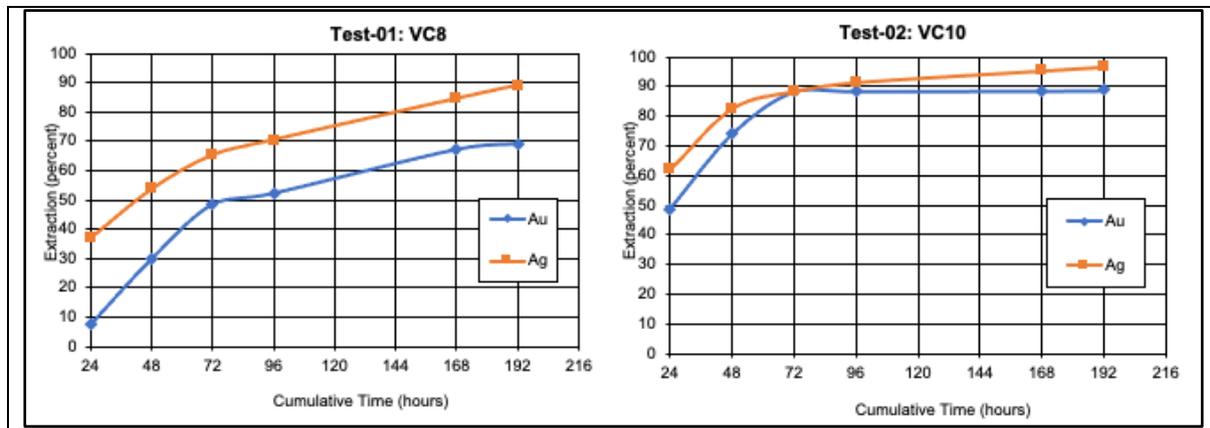


Table 13.6 Bond Work Index determinations.

PROSPECT	PROFILE	Sample ID	Mesh of Grind	F <sub>80</sub> (µm)	P <sub>80</sub> (µm)	g / rev	Work Index (kWh/t)
MANKOUKE SOUTH	SAPROLITE	VC2	150	1,226	83	4.40	6.20
	TRANSITION	VC3	150	1,700	84	2.18	10.40
	FRESH ROCK SEDIMENT	VC4	150	2,114	82	1.12	17.30
	FRESH ROCK INTRUSIVE	VC5	150	2,145	83	0.86	21.50
MANKOUKE CENTER	SAPROLITE	VC6	150	954	36	5.16	3.30
KABAYA	FRESH ROCK SEDIMENT	VC12	150	2,198	79	1.14	16.50

Results of the gold and silver extraction rates are shown in Figure 13.11. Leaching of gold and silver in VC8 did not plateau during 8 days, while in VC10 the maximum gold extraction of 89% was attained in 3 days whilst silver extraction continued to increase. Each test indicated a good potential for heap leaching although the sample feed grades at above 2 g/t gold would generally preclude using a simpler process at the risk of recovery losses.

Figure 13.11 COBR leach extraction.



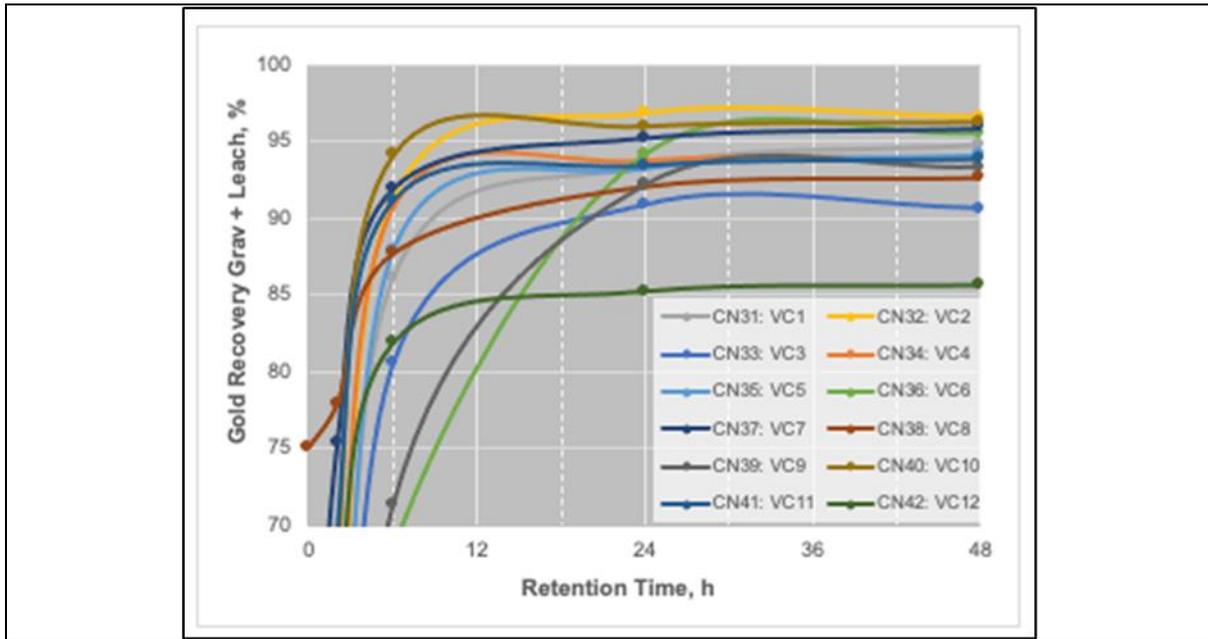
(Source: Diagram Provided by Roscan, 2022)

Each of the variability composites after a common grind size of 100 µm (80 % passing) were submitted for gravity concentration (using a Knelson concentrator and Mozley table) and the gravity tailings leached in bottle rolls with a standard cyanide solution at 0.5 g/L. Initial tests used staged sampling during the leaching to obtain leach extraction results for 2, 6, 24 and 48 hours. Gold recovery to the gravity concentrate was variable but generally showed a reasonable recovery above 20%. The leach tests indicated very little increase in gold extraction for saprolite samples after 24 hours. For the bedrock samples the maximum leach extractions were typically a little lower but again with only a small increase beyond 24 hours. The leach extraction rates are indicated in Figure 13.12.

For each composite sample these tests were repeated with the gravity concentration but the leaching changed to carbon-in-leach (CIL) technique with 0.5 g/L carbon and a continuous leach time of 48 hours before termination and sampling. For this series of tests, the gold recovery by gravity was generally lower than in the first series, perhaps due to a change in technique or apparatus. However, the total extractions, gravity plus leach (CIL), were generally a little higher than the straight cyanide leach tests, by about 1%. Total results from both series of tests are shown in Table 13.7. In this table leach kinetic extractions (2-48 hours) do not include the gravity recovery. OA (overall) column is the total gravity plus 48- hour leach gold extraction.

A summary of those tests that were conducted using the CIL extraction after gravity is shown in Table 13.8. Recovery by gravity, 48 hours CIL and the calculated total recovery are indicated for each deposit and weathering type together with composite name. Where two composites from the same deposit were tested, the recovery values shown are the average obtained from the two samples.

Figure 13.12 Leach Extraction Rates.



(Source: Diagram Provided by Roscan, 2022)

Table 13.7 Gravity plus Leach extraction and kinetics.

Test ID	Sample ID	Grind (µm)	Au Recovery (%)					
			Leach Kinetics (hour)					OA
			Grav	2	6	24	48	
CN03	KB	75	27.5	51.5	58.0	60.7	62.2	89.7
CN04	KB	90	17.7	49.9	58.4	68.5	70.2	87.9
CN05	KB	120	34.8	42.2	44.0	50.7	52.7	87.5
CN06	KB	75	25.4	52.8	58.8	62.6	66.5	91.9
CN31	VC1	100	28.3	16.7	57.8	65.0	66.4	94.7
CN43	VC1	100	17.0	-	-	-	80.7	97.7
CN32	VC2	100	26.7	26.8	64.6	70.1	69.8	96.6
CN44	VC2	100	17.6	-	-	-	79.9	97.5
CN33	VC3	100	17.5	16.0	63.1	73.4	73.2	90.6
CN45	VC3	100	21.8	-	-	-	67.0	88.7
CN34	VC4	100	39.3	18.3	51.5	54.5	54.7	93.9
CN46	VC4	100	20.7	-	-	-	70.5	91.3
CN35	VC5	100	28.3	13.7	59.6	64.9	65.8	94.1
CN47	VC5	100	19.4	-	-	-	75.3	94.7
CN36	VC6	100	18.6	20.6	49.9	75.6	77.0	95.6
CN48	VC6	100	21.4	-	-	-	77.9	99.2
CN37	VC7	100	48.1	27.1	43.8	47.1	47.7	95.9
CN49	VC7	100	58.8	-	-	-	37.8	96.6
CN38	VC8	100	75.1	2.8	12.6	16.9	17.5	92.6
CN50	VC8	100	6.8	-	-	-	88.5	95.3
CN39	VC9	100	3.6	15.9	67.8	88.6	89.7	93.3
CN51	VC9	100	4.2	-	-	-	92.4	96.6
CN40	VC10	100	12.5	55.0	81.6	83.5	83.8	96.3
CN52	VC10	100	6.6	-	-	-	90.3	96.9
CN41	VC11	100	25.3	44.3	65.8	68.1	68.5	93.8
CN53	VC11	100	10.9	-	-	-	82.9	93.8
CN42	VC12	100	15.6	45.9	66.3	69.6	70.0	85.6
CN54	VC12	100	12.4	-	-	-	73.8	86.2

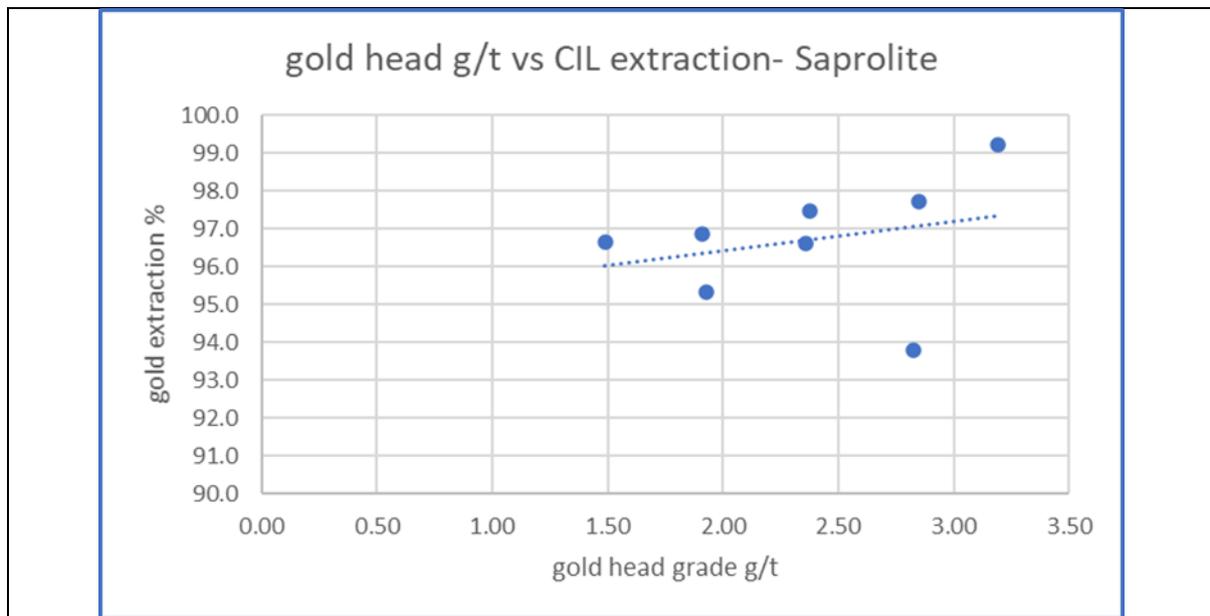


Table 13.8 Summary of gravity plus CIL recovery tests.

DEPOSIT	PROFILE		Grind (µm)	Composites	Consumption (kg/t)		Au g/t	Head (cal) g/t	Tail g/t	Gold recovery %		
	Type	% of mineralization			NaCN	CaO				Gravity	48 h CIL	Total
MANKOUKE SOUTH MS1	SAPROLITE	73%	100	VC1, VC2	1.36	3.47	3.06	2.61	0.09	17.30	80.31	<b>97.60</b>
	TRANSITION	9%	100	VC3	2.19	2.23	2.99	3.01	0.25	21.80	66.96	<b>88.72</b>
	FRESH ROCK	18%	100	VC4, VC5	1.04	0.70	2.90	2.37	0.16	20.10	72.92	<b>92.98</b>
MANKOUKE CENTRE	SAPROLITE	100%	100	VC6	0.97	3.73	6.42	3.19	0.17	21.40	77.86	<b>99.22</b>
KANDIOLE KN1	SAPROLITE	80%	100	VC7	0.96	1.65	0.76	1.49	0.03	58.80	37.82	<b>96.64</b>
KABAYA KB1	SAPROLITE	78%	100	VC8, VC9	1.20	0.82	2.44	2.14	0.08	5.50	90.42	<b>95.97</b>
KABAYA KB2	SAPROLITE	78%	100	VC10, VC11	1.50	1.85	2.78	2.37	0.22	8.70	86.60	<b>95.33</b>
	FRESH ROCK	12%	100	VC12	1.24	1.91	2.78	2.75	0.45	12.40	73.80	<b>86.17</b>

Overall, the testing showed that gold extraction from the saprolite samples was little affected by feed grade and averaged close to 96%. For a lower feed grade of down to about 1.0 g/t, an extraction of approximately 95% would be expected, as shown in Figure 13.3. For the Fresh Rock (bedrock) and saprock composites, an average gold extraction was close to 90% and though the data were limited to 4 tests only, there was no obvious extraction reduction due to feed grade, as shown in Figure 13.14.

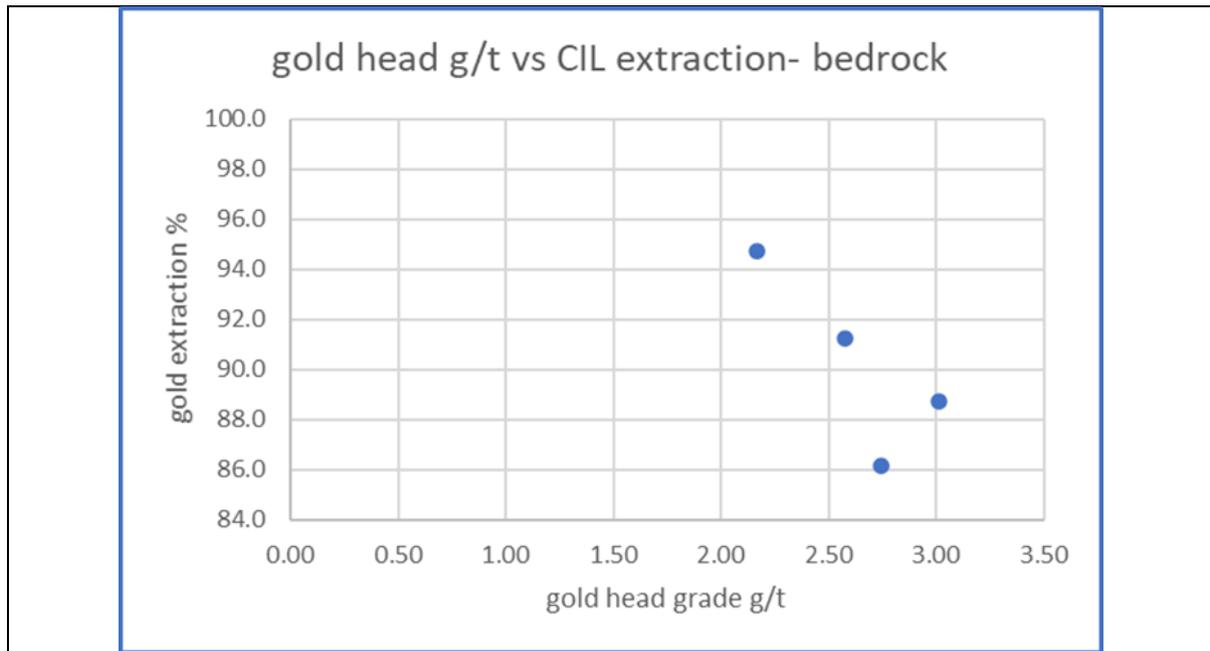
Figure 13.13 Saprolite samples gold extraction vs feed grade.



(Source: Diagram Provided by Roscan, 2022)



Figure 13.14 Bedrock samples gold extraction vs feed grade.



(Source: Diagram Provided by Roscan, 2022)

Carbon modelling and loading tests were conducted using two composites VC1 and VC4 and with pre-attributed carbon. 10 kg of each composite, using the tailings after gravity concentration, were cyanide leached and used for both carbon equilibrium loading and kinetic loading determinations. The results of the equilibrium loading tests are shown in Table 13.9 and Table 13.10, and loading graphs presented in Figure 13.15. The results indicate normal loading is obtained from these samples and generated pregnant leach solutions.

Table 13.9 Carbon equilibrium loading results.

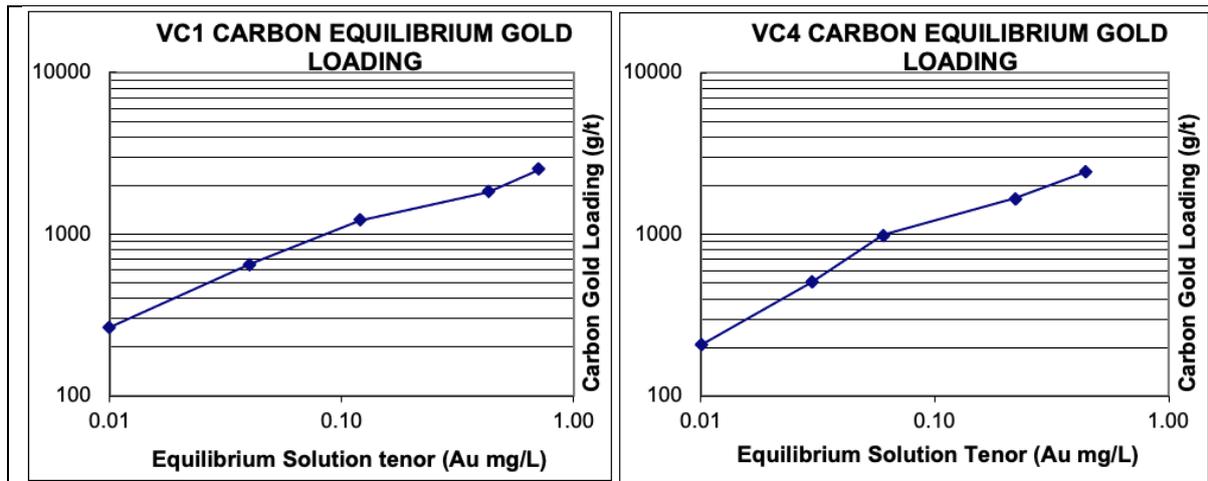
Comp	Test No.	Carbon		Solution mL	Solution Au mg/L		Loading Au g/t (calc)
		Conc. g/L	Added grams		Initial mg/L	Final mg/L	
VC1	CN55-N1	5.00	3.00	600	1.34	0.010	266
	CN55-N2	2.00	1.20	600	1.34	0.040	650
	CN55-N3	1.00	0.60	600	1.34	0.120	1220
	CN55-N4	0.50	0.30	600	1.34	0.430	1820
	CN55-N5	0.25	0.15	600	1.34	0.710	2520
VC4	CN56-N1	5.00	4.00	800	1.05	0.010	208
	CN56-N2	2.00	1.60	800	1.05	0.030	511
	CN56-N3	1.00	0.80	800	1.05	0.060	992
	CN56-N4	0.50	0.40	800	1.05	0.220	1664
	CN56-N5	0.25	0.20	800	1.05	0.440	2446

Table 13.10 Carbon loading capacity.

Comp	Loading Capacity g/L		
	1.0	0.5	0.2
VC1	3,086	2,168	1,360
VC4	4,556	2,933	1,638



Figure 13.15 Carbon loading profiles.



(Source: Diagram Provided by Roscan, 2022)

Testing of carbon loading kinetics used leach solution from the tests and fresh carbon with triple contact periods of 2, 4 and 24 hours. Carbon loading with gold was assayed and the Fleming Kinetic Constants, an industry testing standard, were determined. The results as contained in Table 13.11 are considered to be within the expected and normal range.

Table 13.11 Fleming Kinetic Standard results.

Comp	Fleming Constants	
	k (hr <sup>-1</sup> )	'n'
VC1	14.77	1.232
VC4	35.17	0.923

### 13.3 CONCLUSIONS QUALIFIED PERSON'S CONCLUSIONS ON THE METALLURGICAL WORK COMPLETED

The QP concludes:

1. This testing program at BML was the first detailed metallurgical testing of a representative number of samples from the Kandiole group of deposits and covered both saprolite and fresh rock or bedrock zones.
2. The testing program was designed to determine comparative metallurgical parameters for the zones, to verify that the gold could be extracted by basic processing techniques, but not to try to optimize conditions or results.
3. The tests demonstrate that the mineralization is free milling, meaning that the gold (and silver), can yield high extraction using gravity recovery plus cyanide leaching under conditions typical to the industry.
4. Some of the composite samples were somewhat higher in gold content than may be expected from the resource model and potentially mineable material, but from the testing results a lower grade feed does not appear to significantly impact the recovery. Gold recovery total of 95% for saprolite and 90% for saprock and bedrock are reasonable estimates for the lower grade feeds based on the test results attained.

Further metallurgical testing is recommended in order to optimize grind size, reagent addition and leach time in support of feasibility level studies and process design. Samples from any parts of the deposits, and within probable pit limits, which show different mineralogical characteristics should also be tested to ensure that gold recovery estimates are based on adequate data.



## 14 MINERAL RESOURCE ESTIMATES

The March 2022 estimate of the Mineral Resource for the Roscan gold deposits (Kandiole Project), as documented in this report, used data provided by Roscan.

### 14.1 DISCLOSURE

Mineral Resources were prepared by the the Author, Mr. Ivor Jones. Mr. Jones is an employee of Aurum Consulting, a Cayman Islands based company. The Author is a Qualified Person as defined by NI 43-101. This is by way of his experience, membership of a recognized professional organization and qualifications. Both Mr. Jones and Aurum Consulting are independent of the Issuer.

### 14.2 KNOWN ISSUES THAT MATERIALLY AFFECT MINERAL RESOURCES

At the time of this report, the Author was not aware of any permitting, legal, title, taxation, socio-economic, and marketing that could materially affect the Mineral Resource.

### 14.3 THE APPROACH USED FOR MODELLING

The basis of the resource estimates for the Labola gold deposit was prepared in the following steps:

- digital data validation.
- data preparation.
- exploratory data analysis of Au.
- geological interpretation and modelling (wireframing).
- establishment of block models.
- coding and compositing of assay intervals.
- consideration of grade outliers.
- derivation of kriging plan.
- variogram analysis and selection of kriging parameters.
- grade interpolation of Au using ordinary kriging.
- validation of Au grade estimates and models.
- classification of estimates.
- deduction for prior mining (artisanal).
- resource tabulation and resource reporting.

The ordinary kriging grade estimation method was chosen as there is well recognized and demonstrated continuity of the mineralization, which exceed the average drill spacing for the vein interpretations used in the resource estimate. In this context, the interpretation of the mineralization is relatively well defined by the drilling.

All grade modelling was completed using Datamine's Studio 3 software.

### 14.4 DATA PROVIDED FOR ESTIMATION

The drillhole database used for the resource estimate was provided by Roscan and audited by Aurum Consulting without any significant issues identified. The data was provided as Excel format "xlsx" files from the Issuer database and contained collar, survey, assay, geological codes and specific gravity data. Assay data included Fire Assay data as well as LeachWELL data. Where Fire Assay and LeachWELL assay data were both present, the LeachWELL data was used in preference to the Fire Assay data. Cut-off dates for the resource data were:

- |                        |                 |
|------------------------|-----------------|
| • Mankouke South       | 17 March 2022   |
| • Mankouke Central     | 20 July 2021    |
| • Kandiole (KN1)       | 23 January 2022 |
| • Kandiole (KN2 and 4) | 20 July 2021    |
| • Kabaya:              | 25 March 2022   |
| • Moussala (MOU1)      | 20 July 2021    |



A digital terrain model (DTM) was provided for each area for the topographic elevation.

Interpretations of the geology completed by Roscan were available and considered in modelling for Mankouke South. Geological interpretations for the other areas, being dominantly in the saprolite and for rock types that were not considered important in the resource evaluation at Mankouke South, were reviewed and considered but not used for resource modelling with the exception of the laterite horizon. In these other areas, the mineralization is shear hosted and the QP decided that the observable differences were insignificant with respect to the current resource evaluation.

The sample database and the topographic surface were reviewed and validated prior to being supplied for grade estimation.

#### 14.4.1 The assay data used for grade estimation

Sample data available for modelling is summarized in Table 14.1.

Table 14.1 Summary of drilling sample data for the different models

	Mankouke South	Mankouke Central	KN1	KN2 and 4	Kabaya	Moussala
Number of samples	40 778	5 768	14 877	6 369	31 187	6 319
Number of AC samples	6 966	2 652	8 120	6 369	9 330	2 963
Samples >0.5g/t	4 187	189	746	24	2 923	190
Av. Grade >0.5 g/t	2.86	3.36	2.06	9.30	1.72	2.16

The number of AC samples with respect to the total number of samples has been broken out in this table because of the lower confidence in this data. The dominance of AC data has been used to assist in defining confidence for the resource classification.

For the purposes of this work, the LeachWELL assay where available was taken as the primary assay. If there was no LeachWELL assay, then the fire assay was used. 18% of the data had LeachWELL assays. There were few intervals with no recovery. No default value was applied to unsampled intervals in the drilling.

## 14.5 GEOLOGICAL INTERPRETATION AND MODELLING

The lithology at Mankouke South has been mapped (and interpreted) to fall into three geological categories, intrusive, clastics and calcareous sediments, and a limestone unit (MSCA). However, the weathering profile is quite deep at Mankouke South (up to 180m deep) and much of the original lithology in shallow areas cannot be recognized with any certainty. Mankouke South also has a deeper feldspar porphyry unit, with a surrounding halo containing seemingly enriched mineralization (Figure 14.1).

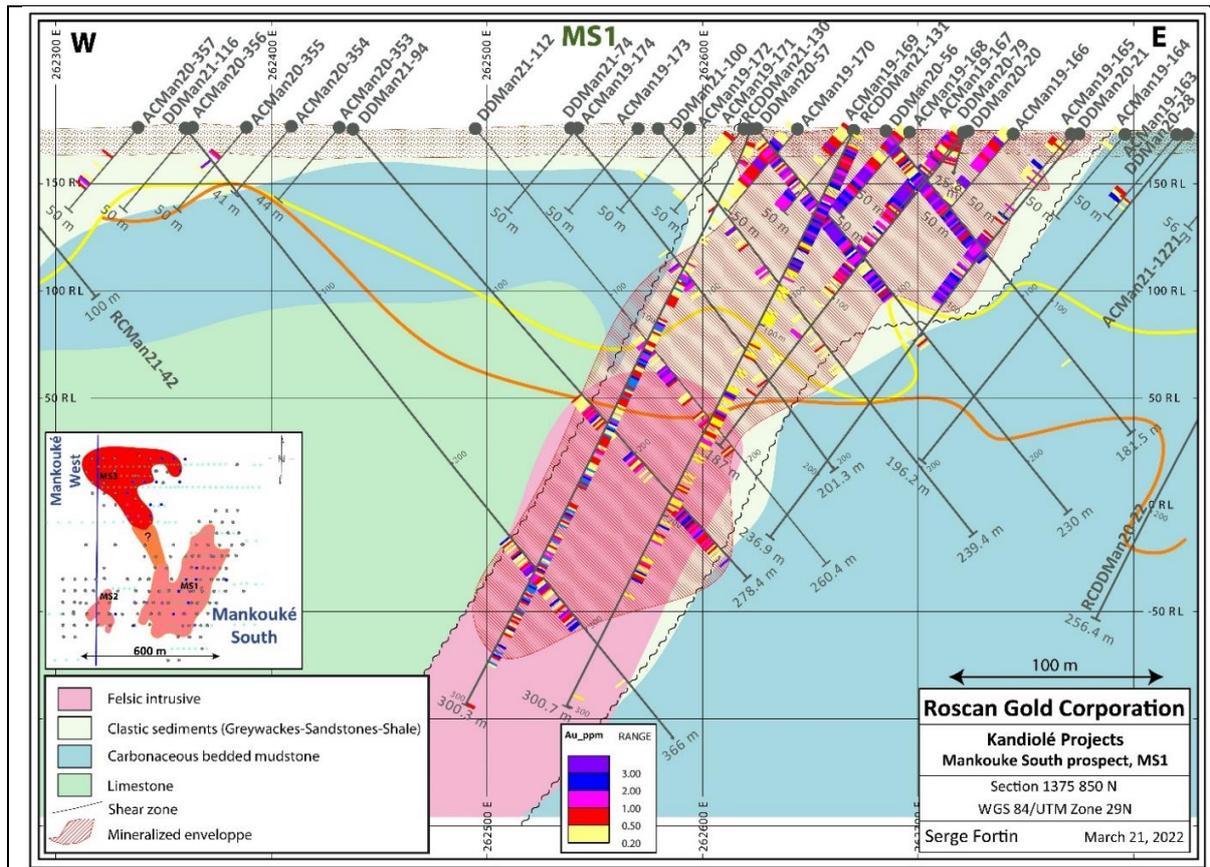
An MSCA unit was also identified at Kabaya. All interpreted MSCA units were used to control the mineralization as they are only weakly mineralized.

Geological units for the remaining areas of mineralization were generally not defined, primarily because of the texture destructive nature of the weathering. The units that were defined and used for the modelling included the porphyritic unit, the halo, undifferentiated rock (primarily sediments) and the MSCA (limestone) units.

## 14.6 COMPOSITING OF ASSAY INTERVALS

The composite sample length selected for each area was 1.0 m based on the most common sample length. Compositing was completed in Datamine's COMPDH process, with the parameter MODE=1 selected so as to avoid small samples as residuals, and to provide composites as close to the same sample support as possible. The data was coded according to the relevant mineralized zone prior to compositing in preparation for modelling.

Figure 14.1 Definition Geological Domains – Mankouké South - Cross-Section view at 1,375,850 mN



Source: Roscan, 2022

### 14.6.1 Summary statistics

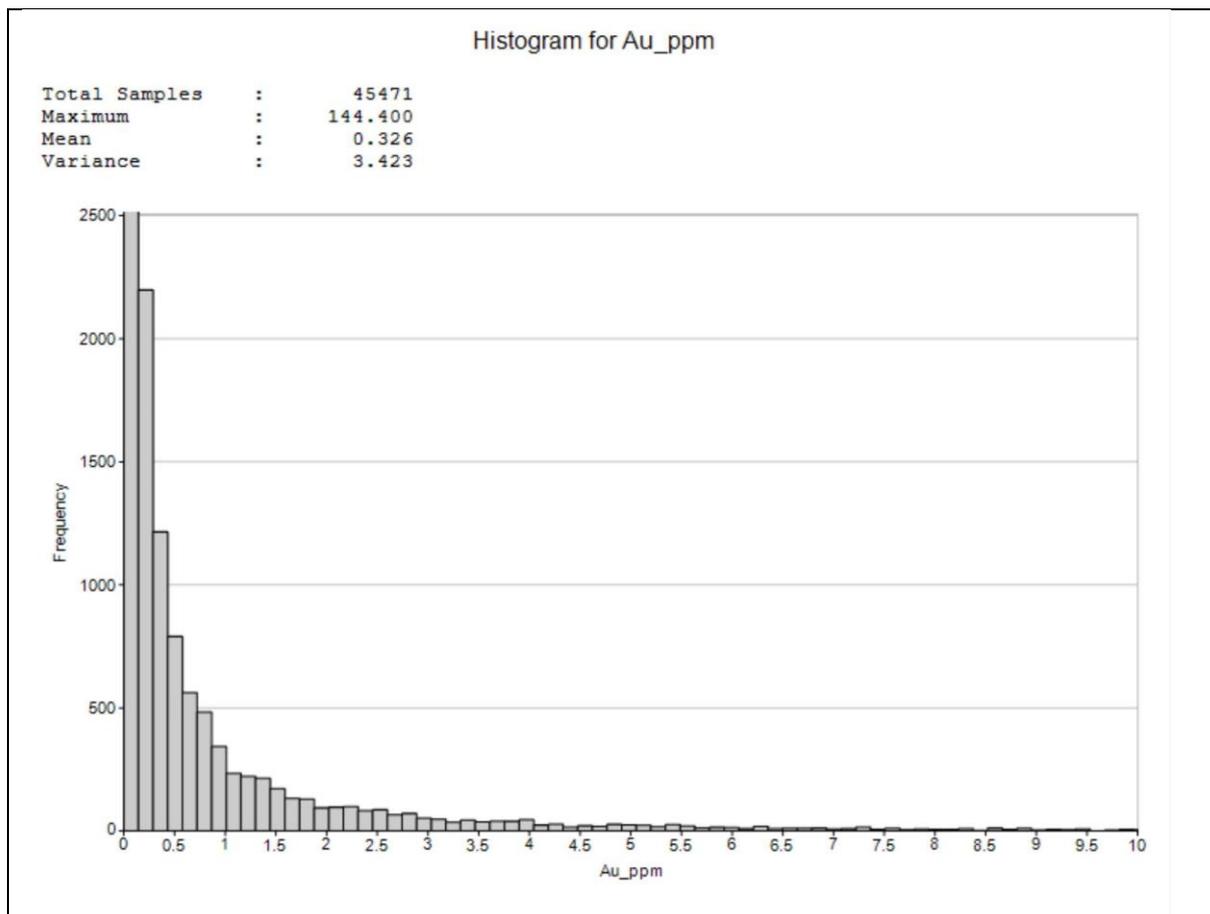
Histograms of the composited data exhibit a moderate positive skew with a moderate coefficient of variation (CV), with some grades that are considerably higher than the average grades (Table 14.2).

Table 14.2 Summary statistics for Au of all composited data for the mineralized zones

	Mankouké South	Mankouké Cen	KN1	KN2 & 4	Kabaya	Moussala
<b>Number composites</b>	45,471	11,557	21,418	10,980	34,940	6,738
<b>Minimum (g/t Au)</b>	0.00	0.00	0.00	0.00	0.00	0.00
<b>Maximum (g/t Au)</b>	144.4	41.50	34.73	9.79	87.00	23.50
<b>Number &gt;0.3 g/t</b>	6,055	638	1,375	357	4,625	304
<b>Mean &gt;0.3 g/t</b>	2.24	2.10	1.41	1.07	1.25	1.80
<b>Std Dev &gt;0.3 g/t</b>	4.63	4.62	2.72	1.30	2.80	2.87
<b>Coeff. Var. &gt;0.3</b>	2.1	2.2	1.9	1.2	2.2	1.6



Figure 14.2 Histogram of composited data - Mankouke South



### 14.6.2 The higher-grade values and grade-capping

The histogram of the grades of composite samples in the mineralized domains is positively skewed with a small proportion of the higher grades amongst a large number of lower grade mineralization samples. There is also clustering of high grades locally within the Mankouke South gold deposit, so the spatial relationships between high grades was considered during the capping strategy.

The value selected as cap was defined based on visual inspection of the higher grade values and their surrounding values, as well as an inspection of the continuity of the higher grades in the histogram. The mineralization was considered as a whole.

Table 14.3 Capping values and Summary statistics for Mankouke South domains

	Feldspar Porphyry	Halo	Undifferentiated Sediments	MSCA	MSCA in Halo	Laterite
Composites	8 245	4 780	18 709	6 588	714	6 348
Mean pre-capping	0.31	0.34	0.48	0.06	0.06	0.19
Max pre-capping	35.83	51.64	144.40	20.90	5.20	34.60
Capping value	18.0	17.5	45.0	8.5	0.50	17.0
Mean post-capping	0.30	0.32	0.47	0.06	0.05	0.18

Table 14.4 Capping values and Summary statistics for Au by project area

	Mankouke South	Mankouke Cen	KN1	KN2 & 4	Kabaya	Moussala
Composites	45 471	11 335	21 419	10 980	34 940	6 738
Mean pre-capping	0.33	0.14	0.12	0.05	0.20	0.11
Max pre-capping	144.4	41.5	34.7	9.79	87.0	23.5
Max Capping value	45.0	30.0	12.0	4.25	18.0	7.85
Mean post-capping	0.32	0.14	0.11	0.05	0.19	0.09



## 14.7 ORIENTATIONS USED FOR MODELLING

Each of the areas has different characteristics with respect to the orientation, and the orientations of the anisotropy as adopted for grade modelling was adjusted according to the observed characteristics of the modelling.

### **Laterite**

All laterite estimates have been modelled with a horizontal anisotropy with stronger grades being observed laterally rather than down-dip.

### **Mankouke South and Mankouke Central**

The mineralization at Mankouke South can be seen to have a clear strike orientation of 20 degrees east of north. Whilst the overall trend of the mineralization dips steeply to the west, the individual zones of mineralization consistently dip at 40 degrees to the east. Variograms and grade estimation has been prepared using the easterly dip orientation within the steep western zone.

### **KN1**

The mineralization at KN1 has a vertical nature with a clear strike orientation of 20 degrees east of north.

### **KN2 and 4.**

The mineralization at KN2 and 4 has a clear orientation of 20 degrees east of north, with the majority of mineralization having a vertical dip. There is a small zone with a 50 degrees dip to the west.

### **Kabaya and Moussala.**

The mineralization at Kabaya and Moussala has a strike orientation of 25 degrees east of north. The eastern part of the mineralization at Kabaya has a vertical dip, with zones of mineralization in the west dipping at 50 degrees to the west. The mineralization at Moussala has been modelled with a vertical dip.

## 14.8 VARIOGRAM ANALYSIS

Experimental semi-variograms for gold were calculated and modelled for domains which contained enough data to make a reasonable interpretation. Otherwise variogram models were adopted from either a nearby similar mineralization. Orientations were chosen based on the continuity from visual inspection of the available data.

There were no cases where a reasonably robust set of directional-variograms could be prepared for creating variogram models. Instead, traditional omni-variograms were calculated, modelled and variogram estimation parameters (Table 14.5) were defined for the plane parallel to the structural trend. Downhole variograms were used to help define the across-strike variogram.



Table 14.5 Variogram parameters (Au)

Domain	Orientation	Nugget	Structure 1		Structure 2	
			Sill	Range (m)	Sill	Range (m)
Mankouke South Laterite	In-plane	0.50	1.10	65		
	Across-mineralization			10		
Mankouke South Undifferentiated	In-plane	0.60	6.0	20	3.4	65
	Across-mineralization			5		20
Mankouke South Porphyry	In-plane	0.70	0.25	10	0.55	65
	Across-mineralization			5		30
Mankouke Central Undifferentiated	In-plane	10.0	4.0	20	1.0	70
	Across-mineralization			5		20
Kandiole Undifferentiated	In-plane	0.32	0.3	20	0.25	70
	Across-mineralization			5		20
Kabaya Undifferentiated	In-plane	0.28	1.26	40	1.26	90
	Across-mineralization			5		20

Notes: - Variograms for MOU1 and KN2 & 4 were copied from Mankouke Central  
 Variograms for Kandiole laterite were taken from Mankouke South

## 14.9 BLOCK MODEL SET UP

A Datamine block model with parent cell dimensions of 25 mE by 25 mN by 25 mRL was created and coded to reflect the surface topography, weathering profile and known lithological boundaries.

Zones around the mineralization were defined using 2.5 m subcells. Sub-celling was used so that grade definition could be preserved using 2.5 m sub-cells in the X and Y directions where the mineralization was narrow.

The weathering as coded in the model was derived from logging by Roscan. The weathering codes were then used by Roscan to define surfaces that reflect the characteristics of the weathering profile. The QP checked these surfaces and concluded that they reflect a reasonable representation of the weathering profile.

### 1.1.1 Volumetric Mass Density & Specific Gravity

Specific Gravity values for modelling were based on the measurements described in Section 11. These values were summarized using statistics according to the state of the weathering and applied in the model based on the same zones (Table 14.6).

Table 14.6 Density values ( t/m<sup>3</sup>) used in the models

	Mankouke South	Mankouke Cen	KN1	KN2 & 4	Kabaya	MOU1
Laterite	2.11	2.1	2.11	2.1	2.1	2.1
Saprolite	1.76	1.70	1.76	1.70	1.70	1.70
Saprock	2.43	1.90	2.43	1.90	1.90	1.90
Fresh	2.70	2.70	2.70	2.70	2.70	2.70
Feldspar Porphyry	2.65					

Note: Density values from Mankouke Central, KN2 and 4 from KN1, Kabaya and MOU1 were defined from earlier work.



## 14.10 GRADE ESTIMATION

The composite data for each deposit is summarized by a moderately skewed gold grade population in a histogram of the composite grades. For example, the histogram of Mankouke South exhibits a moderately skewed gold grade population where the grades are represented in a skewed histogram with individual raw gold grades of up to 144.0 g/t Au.

Ordinary kriging (OK) with capped high grades was selected for estimation of the grade.

### 14.10.1 Assumptions in the grade estimation

The key assumption used for the grade modelling is that the mineralized zones, and the grades in the mineralized zones are relatively continuous. This has been demonstrated through drilling as well as the artisanal mining activity.

### 14.10.2 Grade estimation in steps

The grade estimation has been completed in several steps to optimize evaluation of the resource. These were:

1. An empty block model was prepared at the parent block size using sub-cells to honour the volume locally and allow the trends of the mineralization to be preserved, with blocks coded by lithological unit and weathering code.
2. Variograms were prepared for the composite gold grades;
3. Compositing data was analyzed, and top-cap values selected;
4. Grade estimation was completed using ordinary kriging ("OK") of the capped grades;
5. Estimates were checked/validated against the compositing data.

### 14.10.3 Grade estimation parameters

Variogram models (**Error! Reference source not found.**) were used as input parameters to the ordinary kriging. Search parameters were selected so that the search would select enough data to make an estimate. Search parameters were applied as is shown in Table 14.7.

Grade estimation was then completed using the parent subcell dimensions as the base.

Table 14.7 Search parameters used for grade modelling

	Mankouke South	Mankouke Cen	KN1	KN2 & 4	Kabaya	Moussala
Laterite						
Search Distances (m)	80 x 80 x 80	80 x 80 x 80	80 x 80 x 80	80 x 80 x 80	80 x 80 x 80	80 x 80 x 80
Min & Max number	7, 12	7, 12	7, 12	7, 12	7, 12	7, 12
Undifferentiated						
Search Distances (m)	80 x 80 x 10	80 x 80 x 10	80 x 80 x 10	80 x 80 x 10	80 x 80 x 10	80 x 80 x 10
Min & Max number	7, 12	6, 12	7, 12	6, 12	7, 12	6, 12
Porphyry						
Search Distances (m)	80 x 80 x 30					
Min & Max number	7, 12					

## 14.11 MODEL VALIDATION

In addition to conducting validation checks on all stages of the modelling and estimation process, final grade estimates and models were checked / validated by comparing global grades with the input drillhole composites, by visual validation of block model cross sections against drilling and channel sampling information, and by grade trend plots.

### 14.11.1 Global comparisons

The final grade estimates were validated statistically against the input drillhole composites. Table 14.8 provides comparisons between the estimated grades and the input grades for the global estimate of each of the domains. This statistical comparison shows that the grade estimates are lower in grade than the uncut composite assay grade. If only the higher confidence estimates are used, the uncut composite grade and the model grade are closer. For example, the Mankouke South model grade for the higher confidence level (closer to the data) is 0.25 as opposed to 0.21 when only the moderate confidence data were used.



Table 14.8 Comparison of the mean composites grade with the mean block model grade

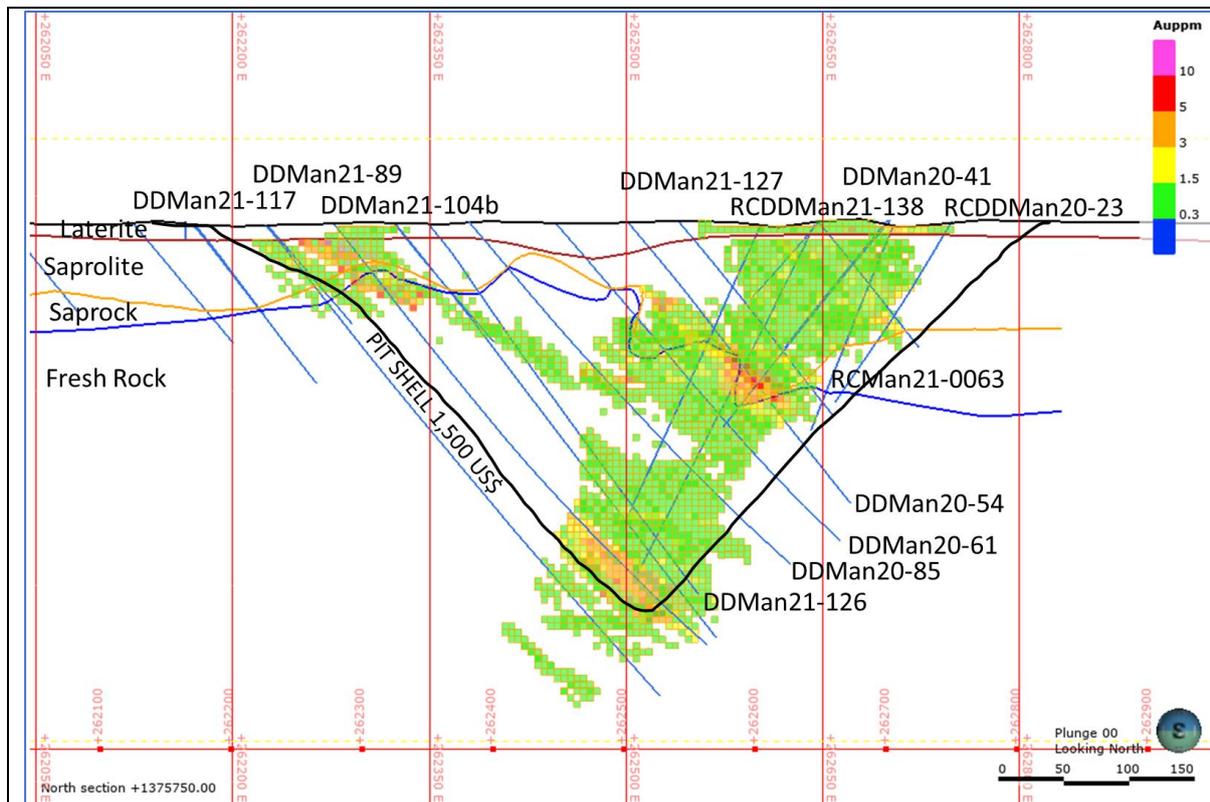
Domain	Composite (g/t Au)	Block Model (g/t Au)
Mankouke South	0.33	0.21
Mankouke Central	0.14	0.09
KN1	0.12	0.07
KN2 and 4	0.05	0.04
Kabaya	0.20	0.14
MOU1	0.11	0.06

Note - only the moderate confidence estimates (first search volume) were included in this summary of the model grades.  
 - Composite grades are uncut and this creates a disparity with the model grades.

### 14.11.2 Visual validation

The gold estimates show a good visual correspondence with the input composite grades. An example cross-section of the discretized model as used for validation is illustrated in Figure 14.3.

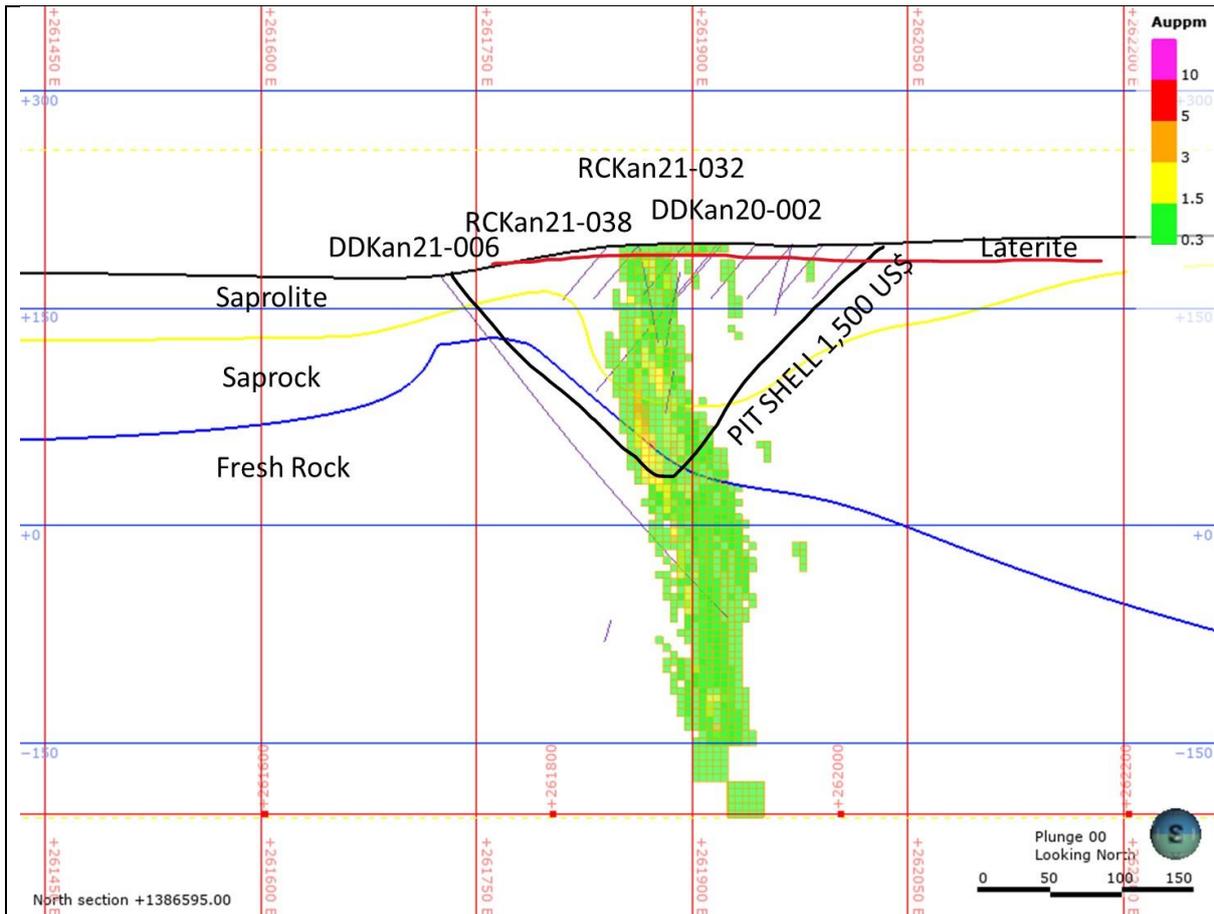
Figure 14.3 West-East Cross-section view of Mankouke South model at 1,375,750 mN



Note: Only blocks with a grade higher than 0.3 g/t are shown

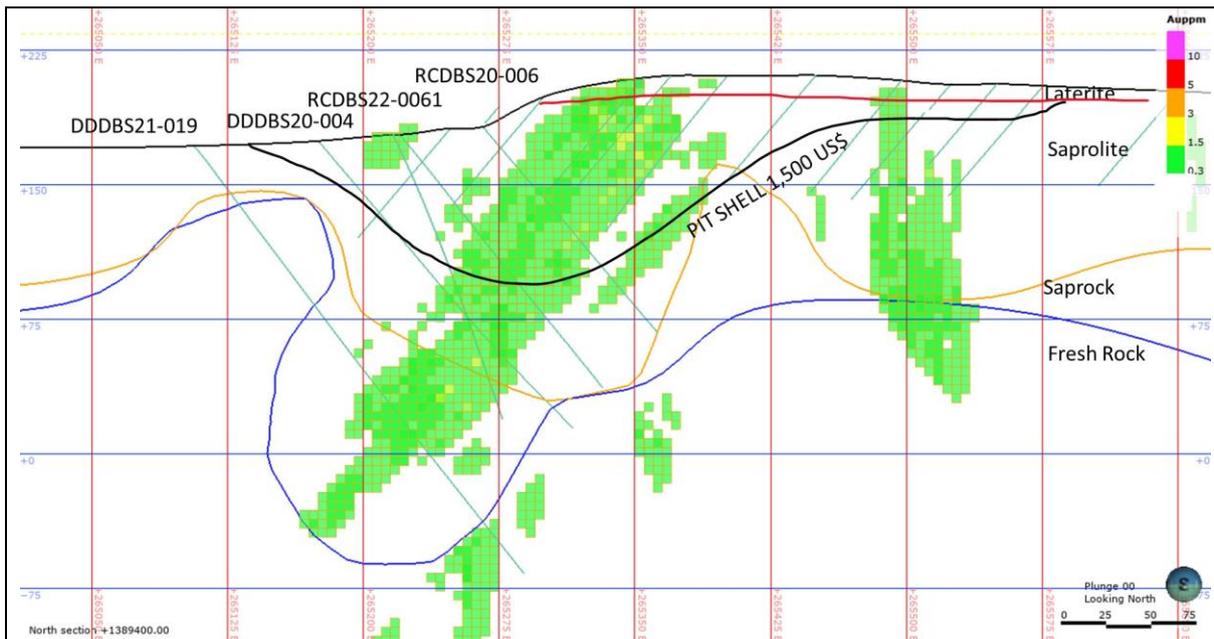


Figure 14.4 West-East Cross-section view of KN1 model at 1,386,595 mN



Note: Only blocks with a grade higher than 0.3 g/t are shown

Figure 14.5 West-East Cross-section view of Kabaya model at 1,389,400 mN



Note: Only blocks with a grade higher than 0.3 g/t are shown



### 14.11.3 Grade trend plots

Sectional validation graphs otherwise known as grade trend plots were created to assess the reproduction of local means and to validate the grade trends in the model. A grade trend plot is a moving window average where the average of the estimated grades in the model in a slice of the model is compared to the average grade of the input grades for the same slice. The graphs also show the number of input samples on the right axis to give an indication of the support for each bin.

The graphs indicate that there is generally good local reproduction of the input grades and proportions of mineralization. Examples are shown in Figure 14.6 to Figure 14.8 for Mankouke South, KN1 and Kabaya. The grade of the model for Mankouke South appears significantly lower than that of the composite data, however this is attributed to the clustering of the data in high grade areas, orientation of some of the drilling, and capping of the data for grade estimation. Otherwise, the mineralized population estimate generally shows a good reproduction of the input grades with some smoothing evident, even though at this scale the detail is not evident. Departures noted in these graphs were checked and generally found to represent clustering of data relative to the model, and not an issue with the model.

Figure 14.6 Example of a Grade trend plot of composite data vs average model grade – Mankouke South

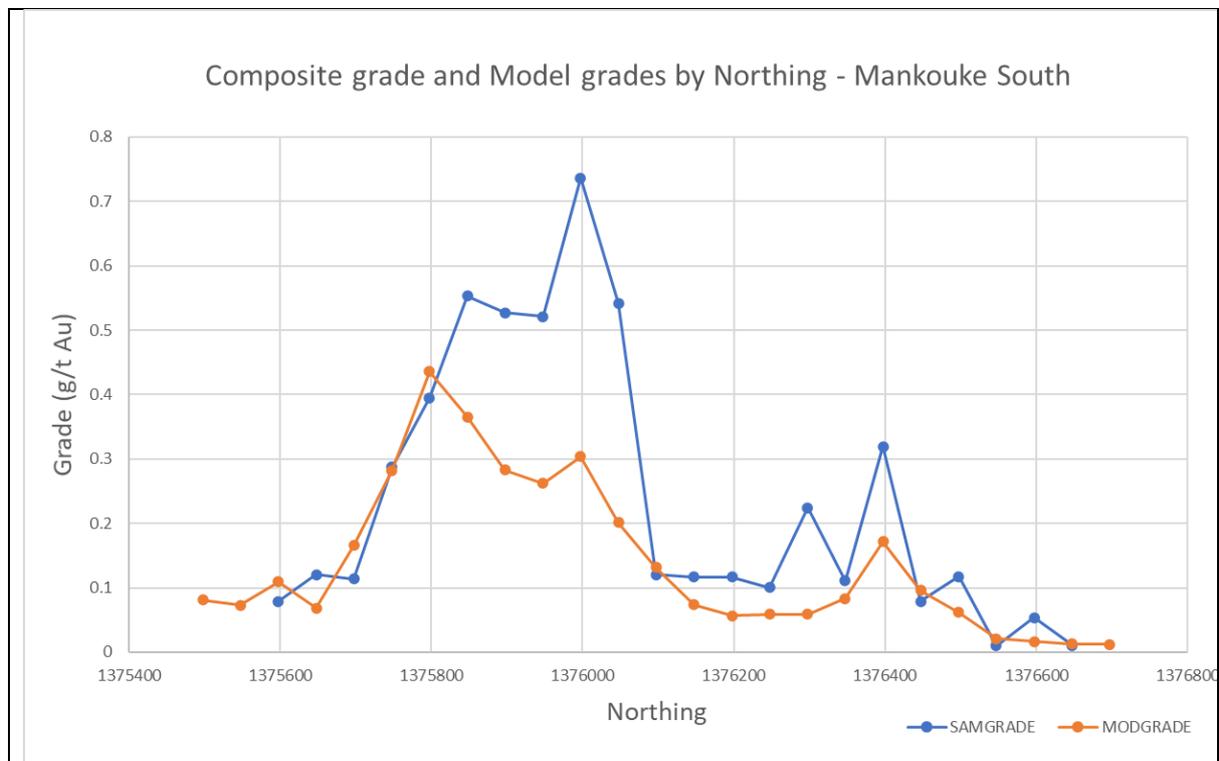




Figure 14.7 Example of a Grade trend plot of composite data vs average model grade – KN1

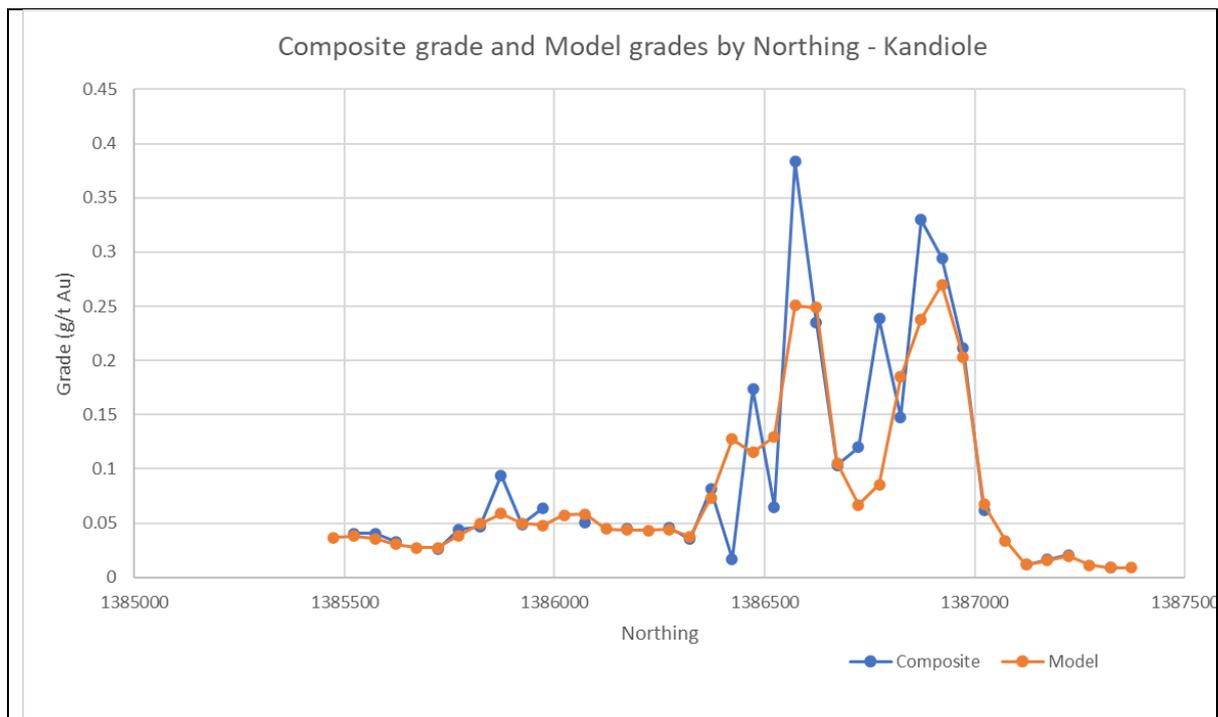
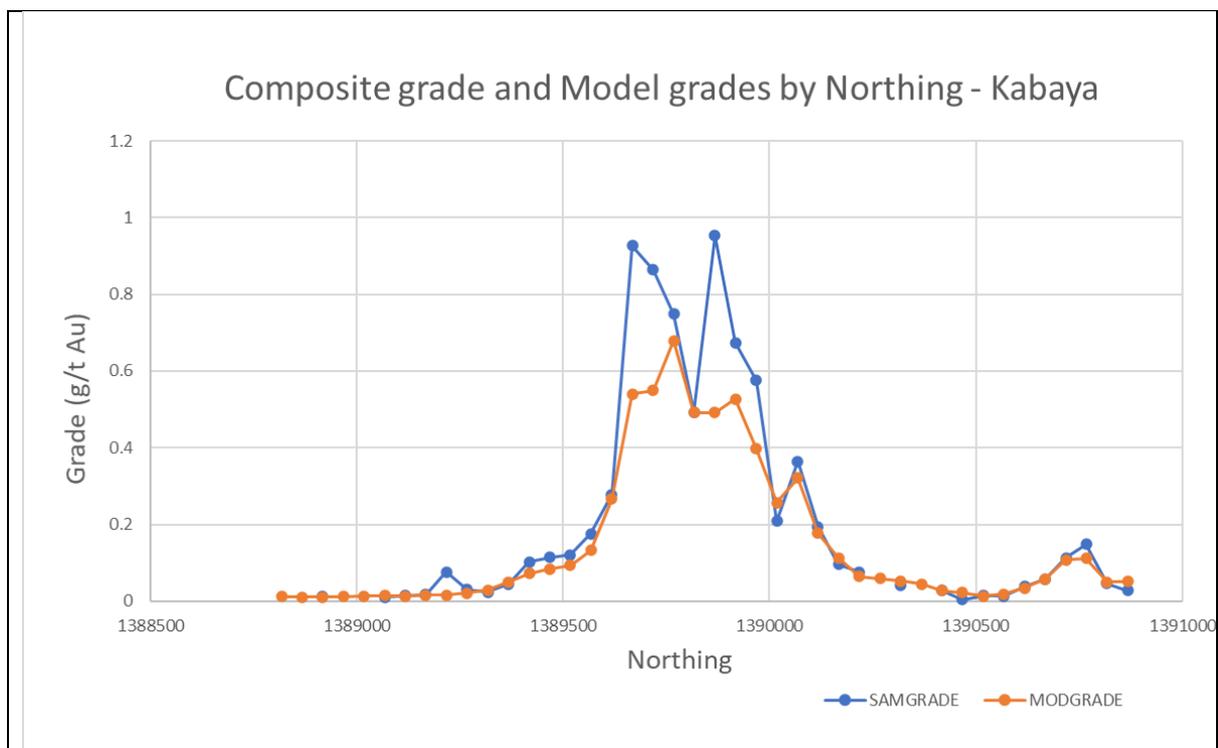


Figure 14.8 Example of a Grade trend plot of composite data vs average model grade – Kabaya



### 14.12 REASONABLE EXPECTATION OF ECONOMIC EXTRACTION

The Mineral Resource classification definitions used for this estimate are those published by the CIM Definition Standards (2014) and includes Measured, Indicated and Inferred Mineral Resource.



The CIM requirements for a Mineral Resource are that there must be reasonable prospects for eventual economic extraction. Roscan therefore commissioned Aurum to complete a pit optimization exercise using the parameters provided in Table 14.9. The work was completed by a qualified engineer with the sufficient experience, so as to ensure the robustness of the parameters used. Notwithstanding the pit optimization study, it did not result in a detailed engineered or operational open pit mine design.

At the time of preparation of the March 2022 Mineral Resource, the gold price was US\$1,922/oz Au, and the average three year trailing gold price was approximately US\$1,683 /oz Au. The gold price forecast used for estimating the prospects for eventual economic extraction, as requested by Roscan, was US\$1,500/oz Au. The results of the optimization provided a pit shell, which was used to constrain the limits of the Mineral Resource.

Table 14.9 Parameters for testing prospects for economic extraction

Parameter	Unit	Laterite	Saprolite	Saprock	Fresh
Gold price	US\$/oz	1,500	1,500	1,500	1,500
Royalties	%	0	0	0	0
Mining Cost	US\$/t	1.75	1.75	2.50	2.75
Processing cost (including admin and haulage)	US\$/t	8.10	8.10	13.00	15.00
Au Metallurgical Recovery (Saprock/Fresh Rock)	%	95	95	90	90
G & A	US\$/t	2.75	2.75	2.75	2.75
Mining Recovery	%	95	95	95	95
Mining dilution	%	5	5	5	5
Geotechnical slope angles	degree	35	35	40	40
Effective Cut-off grade	g/t Au	0.244	0.244	0.421	0.421

Note - Optimization assumes sunk processing and infrastructure capex, and no exclusion areas

Overall, the QP was of the opinion that these assumptions were fair for the purpose of determining reasonable prospects for eventual economic extraction for the Mankouke Project. However, the QP did not demonstrate that the mineralization is economic, as this pit optimization study was not at the level of at least a PEA or prefeasibility study (PFS) and did not conform to the studies required for a PFS.

### 14.13 MINERAL RESOURCE CLASSIFICATION

The Mineral Resource classification definitions used for this estimate are those published by the CIM Definition Standards (2014) and includes Measured, Indicated and Inferred Mineral Resource.

- Measured Mineral Resource:** that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough to confirm both geological and grade continuity.
- Indicated Mineral Resource:** that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
- Inferred Mineral Resource:** that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes.



The Author and Qualified Person for the Mineral Resource is satisfied that the information which was used to define the Mineral Resource is of a good quality and suitable for the estimation of resources at a reasonable level of confidence. The Author is also satisfied that the confidence in the geological framework as defined by the geological interpretation is adequately reflected in the classification of the resource, and that any changes to the interpretation following the acquisition of new data would have minimal impact on the Mineral Resource.

Once the Author was satisfied that the data and geological interpretation met the confidence required for the classification, the confidence in the estimation became more the confidence in the grade estimation, particularly the estimation of the gold grade which carries the most value. The remaining part of the classification was thus based on the following:

#### 14.13.1 Application of Classification

The general criteria used during the resource classification are presented below.

- Mineral Resource:
  - For an estimate to be considered as a part of the Mineral Resource, it needed to fall within the limits of the open pit evaluation used to define the Reasonableness of Eventual Economic Extraction.
- Measured:
  - The Measured classification was not used for this estimate.
- Indicated:
  - For an estimate to be classified as Indicated, it needed to have samples within a search range of approximately 30 m drill spacing, been estimated using the information from two holes, and have been estimated in the first search pass of the grade estimation.
  - Estimates based purely on AirCore drilling were not classified in the Indicated category.
- Inferred:
  - For an estimate to be classified as Inferred, it needed to have samples within a search range of 65 m drill spacing, be estimated using the information from two holes, and have been estimated in the first search pass of the grade estimation.

#### 14.13.2 Mineral Resource Tabulation

The summarized results are shown in Table 14.10.

Table 14.10 Mineral Resource for the Roscan Gold Project, March 31, 2022\*\*

Category	Mineralization (Mt)	Gold grade (g/t Au)	Contained gold (koz)
Measured Resource	0.00	N/A	0.00
<b>Indicated Resource</b>	<b>27.4</b>	<b>1.16</b>	<b>1 018</b>
Inferred Resource <sup>^</sup>	5.2	1.18	199

Note: Cut-off grade of 0.3 g/t Au (oxide) and 0.42 (fresh). Contained metal and tonnes figures in totals may differ due to rounding.

\*\* Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues. The Mineral Resources in this Technical Report were estimated using CIM (2014) Standards on Mineral Resources and Reserves, Definitions and Guidelines.

<sup>^</sup> The quantity and grade of reported the Inferred Resources in this estimation are uncertain in nature and there has been insufficient exploration to define this Inferred Resource as an Indicated or Measured Mineral Resource. It is uncertain if further exploration will result in upgrading the Inferred Resource to an Indicated or Measured Mineral Resource category.

#### 14.13.3 Grade and tonnage by Project Area

Grade and tonnage estimate results by project area (Table 14.11). The cut-off grade applied was 0.3 g/t Au for the oxide, and 0.42 g/t Au for the fresh rock.



Table 14.11 Grade and tonnage tabulation by project area for the Roscan Gold Project, March 31, 2022\*\*

Resource Category	Deposit	Tonnes (million)	Grade (g/t Au)	Metal (kOz)
<b>Indicated</b>				
	Mankouke South	15.2	1.34	657
	Mankouke Central	0.9	1.66	48
	KN1	2.8	0.90	80
	KN23	0.0		0
	Kabaya	8.5	0.90	234
	Moussala	0.0		0
	<b>Total Indicated</b>	<b>27.4</b>	<b>1.16</b>	<b>1,018</b>
<b>Inferred</b>				
	Mankouke South	2.8	1.38	124
	Mankouke Central	0.1	0.83	1
	KN1	0.7	1.09	23
	KN23	0.3	0.90	9
	Kabaya	1.2	0.84	33
	Moussala	0.2	0.94	8
	<b>Total Inferred</b>	<b>5.2</b>	<b>1.18</b>	<b>199</b>

Note: Footnotes as per Table 14.10.

## 14.14 EXPLORATION TARGET

In the areas modelled to define the mineral resource, there remains exploration potential to the north and south of the pits, but also below the pits in plunging mineralization. To define the mineral resource, a test for reasonable expectation of economic extraction was applied by doing a pit evaluation at a gold price of \$1500 per ounce. The gold price at the time of writing this report was approximately \$1860 per ounce. In addition to the pits being defined on a low metal price, exploration has not fully defined the mineralization below the pits. The incomplete exploration and the low metal price provide an opportunity for additional exploration to try and define additional resources.

The QP then decided it was appropriate to consider this modelled material as a reasonable basis to define an exploration target. In addition to the higher confidence resource estimates the model also included lower confidence grade estimates that did not meet the company's criteria for defining the mineral resource.

An Exploration Target must be reported using a range of tonnes and a range of grades. The tonnage and Au grade estimates outside of the pit shells have been reported using a cut-off grade of 0.3 g/t Au (oxide) and 0.42 g/t Au (fresh) for the Upper Tonnage Range of the estimates and 0.5 g/t for the Lower Tonnage Range estimates. The 0.3 g/t report also includes lower confidence estimates than those for the 0.5 g/t cut-off.

Table 14.12 Exploration Target Grade and tonnage tabulation - March 31, 2022\*

Exploration Areas (*)	Tonnes (mt)	Au (g/t)
Lower range (*)	8.0	1.0
Upper Range (**)	30.0	0.8

Note: the aforementioned "Exploration Target" is reported as a range of quantities and grades. They are conceptual in nature and there has not been sufficient exploration to define a mineral resource. It is uncertain if future exploration will result in the target being delineated as a mineral resource.



## 15 MINERAL RESERVE ESTIMATES

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No Mineral Reserves are reported for the Kandiole Project.

## 16 MINING METHODS

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Not reported.

## 17 RECOVERY METHODS

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Not reported.

## 18 PROJECT INFRASTRUCTURE

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Not reported.

## 19 MARKET STUDIES AND CONTRACTS

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Not reported.

## 20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

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Not reported.

## 21 CAPITAL AND OPERATING COSTS

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Not reported.

## 22 ECONOMIC ANALYSIS

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Not reported.

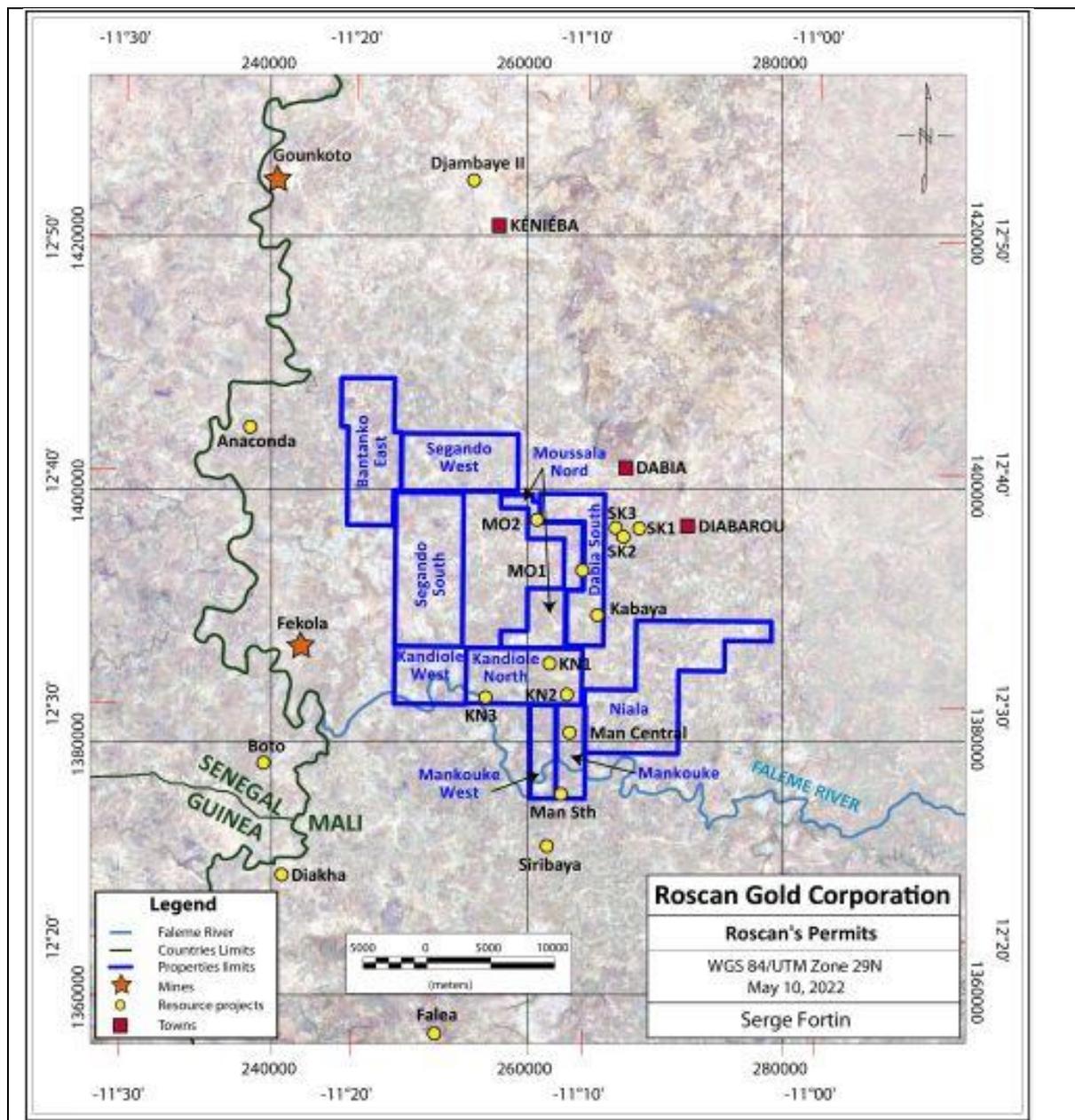


## 23 ADJACENT PROPERTIES

The information in this section has been sourced from publicly available information on the relevant company websites and published NI 43-101 technical reports. The QP has not been able to verify the information as sourced and provided here and therefore the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report. The information reported here is for context purposes only.

Roscan's Kandiole West permit is located 8 km due east of the Fekola mine (B2 Gold). The Kandiole project area also has permit boundaries with the properties hosting Oklo's Seko deposits in the North East (Dabia Sud permit boundary), B2 Gold's Anaconda deposits in the NW (Bantanko East Permit boundary) and the Siribaya deposits (Zone IB and Taya Ko) of Iamgold in the south (Mankouke South and West permit boundaries).

Figure 23.1 Location of Fekola Mine and the deposits of Siribaya, Seko and Anaconda in relation to Kandiole Project.



(Source: Diagram provided by Roscan, 2022)



## 23.1 FEKOLA MINE (B2 GOLD)

The Fekola Mine is located on the border between Mali and Senegal, about 40 km south of the town of Kéniéba and 8 km due west of Roscan's Kandiole West permit. The mine has been in commercial production since November 2017, and in September 2021 it produced its two millionth ounce of gold. As at end December 2021, Fekola had produced 2.2 million ounces of gold at an average grade of 2.3 g/t from open pit mining.

The Fekola deposit is an example of a disseminated orogenic gold deposit. The deposit has been outlined along strike for approximately 3 km, can be as much as 200 m in width and extends to a depth of at least 500 m. Gold mineralization at Fekola is dominantly hosted within metasedimentary bedrock and occurs with fine-grained disseminated pyrite, commonly in association with high strain zones and fold hinges. High-grade mineralization is concentrated in a high-grade shoot (>2 g/t Au) that plunges shallowly to the north-northwest at 14° in the south end, flattening to about 5° around the Fekola North Extension area. The Fekola deposit remains open along strike and down plunge.

The Fekola deposit, including the Cardinal zone has Indicated Resources of 102.3 Mt grading 1.56 g/t for 5.14 million ounces and reserves of 3.71 million ounces grading 1.86 g/t. All mining will be from open pit. The ultimate pit is planned for development in a sequence of nine pit phases. In 2022 at the time of writing this report, the operation was in phase 6 and progressing into the higher grade, shallow plunging, pay shoot. The ultimate pit will be approximately 2.7 km long, 1.0 km wide and 430 m deep, with an overall strip ratio (waste to ore) of 9 to 1. Overall pit slopes vary by geotechnical domain, between 22° and 34° in saprolite and transition zones near surface, and between 41° - 47° in fresh rock.

The process plant at Fekola is commenced throughput at 6 Mt per annum, has been modified to produce at up to 9 Mt p.a. The process flowsheet consists of the following: single-stage primary crushing; grinding consisting of a SABC circuit; carbon columns (CIC); leach circuit; cyanide destruction; tailings disposal; acid wash and elution; electrowinning and gold room. In 2021 the Fekola mine produced 567,795 ounces of gold.

## 23.2 ANACONDA DEPOSITS (B2 GOLD)

The Anaconda deposits locate approximately 20 kilometres north of the Fekola Mine on the Menankoto and the Bantako North permits which are adjacent to and immediately west of Roscan's Bantanko East permit. On March 23, 2022 B2 Gold announced updated Mineral Resources within a pit constrained shell at a gold price of US\$1,800 per ounce that includes an Indicated Mineral Resource estimate of 32,4 Mt grading 1.08 g/t gold for a total 1,13 million ounces of gold, and Inferred Mineral Resource estimate of 63,7 Mt grading 1.12 g/t gold for 2,280,000 ounces of gold. Approximately 50% of the cumulative Resources are within oxidised material. B2 gold envisages, based on preliminary planning, that an open pit situated on the Anaconda area could provide selective saprolite material (average grade of 2.2 grams per tonne) to be trucked to and fed into the Fekola mill commencing as early as late 2022.

The Mineral Resource estimate for the Anaconda Area includes the Anaconda, Adder, Cobra, Cascabel, Mamba and Boomslang zones which occur as flat lying to slightly dipping mineralized zones within saprolite, saprock and fresh rock. Deeper drilling within the Mamba deposit provides a strong indication of the potential for Fekola-style south plunging bodies of sulphide mineralization, which remains open down plunge below the saprolite and these zones have been traced over a strike of 2.2 km.

## 23.3 SEKO DEPOSITS (OKLO RESOURCES)

The Seko deposits (SK1-3, Disse, Koko and Diabarou all locate on Oklo's Dandoko permit which is situated contiguously and immediately east of the Roscan Dabia Sud permit. These deposits all locate within the SMKS (Siribaya-Mankouke-Kabaya-Seko) structural corridor.

Oklo announced, in March 2021, maiden JORC compliant Resources of 8.7 Mt at 1.95 g/t gold for 528Koz in the Indicated category and 2.6 Mt at 1.67 g/t gold for 141Koz in the Inferred category from the Seko deposits. Five of the six deposits locate within the main SMKS (see chapter 7) structural corridor covering an area of 3km EW by 3km NS and were pit shell constrained using a \$2000 gold price. Over 93% of the Resources locate within the SK1 to SK3 deposits and relate to major NNE trending structures within the corridor. Sixty-five per cent of the Resources are in oxide material



Unfortunately, very little information is available on the Oklo deposits except for ASX compliant press releases. Deeper drilling outlines the typical metasedimentary packages comprised of diamictite, sandstone, argillite and carbonates, which have been regionally deformed and undergone greenschist facies metamorphism. Within fresh mineralization, gold is associated with alteration assemblages characterised by albite, silica, sericite, ankerite-pyrite with minor tourmaline, chalcopyrite and pyrite, typical of other gold deposits along the SMKS structure such as Kabaya and Mankouke South. Oklo note that structurally mineralization is seen to be controlled by polyphase hydrothermal fluids migrating along reactivated northeast orientated shears with high grade shoots created by dilation along either intersection with early north-northeast shears or along preferential stratigraphic units providing a rheological contrast.

## 23.4 SIRIBAYA DEPOSITS (IAMGOLD)

The Siribaya deposits (Zone 1B and Taya Ko) locate approximately 5km SSE of the Mankouke South deposit on the Siribaya II exploration permit, a license area which is south of and contiguous to the Mankouke South and West permits of Roscan. A whittle pit constrained, Resource estimate was undertaken by Roscoe Postle Associates on behalf of Iamgold Corporation and published in January 25, 2016. The Indicated Resource is stated as 2.1 Mt grading 1.9 g/t for 128.6 Koz and the cumulative Inferred Resources are 4.98 Mt grading 1.43 g/t for 228.6 Koz.

Zone 1B and Taya Ko deposits locate within the southern continuation of the SMKS structural corridor; a major regional structure that can be traced with geophysics and geochemistry over a NNE-SSW strike length of +30km from the Seko deposits in the North and southward through Kabaya, Mankouke South and Siribaya. The corridor is defined as +1.5 km wide in Siribaya with mineralization traced over a +10km strike length in a NNE-SSW orientation.

Drilling has exposed Birimian volcano-sedimentary units beneath the lateritic profile comprised of intercalated calcareous metasediments, metasiltsstones, and metagreywackes with interbedded andesite and lapilli tuffs. Minor quantities of pure marbles, dolomites with stylolites, and graphitic metasediments also occur. Carbonaceous sediments, similar to those identified as the MSCA in this report, are exposed in the HW and FW.

Gold mineralization is associated with disseminated sulphides (pyrite with some arsenopyrite and minor chalcopyrite), quartz-carbonate vein stockwork and breccia enveloped by carbonated and silicified metasediments hosting some magnetite and hematite. Mineralization is focused within the breccia bodies and greywacke units and related to the interplay between NS and NE structures. Based on stratigraphic facing directions a synclinal structure is thought to be coincident with the Siribaya structural corridor.

## 24 OTHER RELEVANT DATA AND INFORMATION

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There is no other relevant data and information to disclose that makes the Technical Report not misleading.



## 25 INTERPRETATION AND CONCLUSIONS

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This 43-101 Technical Report compiled by Aurum Consulting, on behalf of Roscan Gold Corporation has completed an estimation of a mineral resource, an assessment of various metallurgical sample results, a review and analysis of all exploration data and geology and verification of property ownership as documented in this report. The conclusions are summarized below:

- The Mineral Resource is moderately robust and the confidence in the estimates is adequately reflected in the resource classification.
- The total Mineral Resource classification of all deposits evaluated in this report resulted in:
  - Indicated Resources of 27.4 Mt at 1.2 g/t Au for 1,018koz, and
  - Inferred resource of 5.2 Mt at 1.2 g/t Au for 199koz.
- Eighty four percent of the Resource is classified as Indicated within a US\$1500 pit shell and approximately 70% of all the classified resources locate within the oxide zone (laterite, saprolite and saprock).
- At the gold price at the time of this report of over US\$1800 /oz, there remains exploration potential to the north and south of the pits, but also below the pits in plunging mineralization. This potential has been defined as an exploration target with a range of quantities and grades as in conceptual in nature. At the various prescribed cut-off this target ranges from 8 Mt at 1.0 g/t Au to 30 Mt at 0.8 g/t Au.
- A review of all the available fire assay data within the Resource database highlights considerable variability in grade populations due to a coarse gold component. Under the supervision of Aurum Consulting a bulk sampling program for LeachWELL analysis was undertaken on 18% of the drilling inventory. Mineralized samples with an initial fire assay grade of less than 1.5 g/t Au increased, on average, between 10% and 40% with the LeachWELL methodology. There was also greater continuity of grade enabling more effective wireframing of the mineralized zone.
- The results of the various metallurgical tests demonstrate that the mineralization is free milling, meaning that the gold (and silver), can yield high extraction using gravity recovery plus cyanide leaching under conditions typical to the industry.
- Roscan has undertaken comprehensive exploration programs including extensive soil and termite geochemistry for gold; a detailed, hi resolution, helicopter, electromagnetic and magnetic geophysical survey; various ground geophysical surveys (Induced polarization and magnetics) and extensive drilling which as at 25<sup>th</sup> March 2022 included 8,415 AC holes (338,374m), 328 RC holes (38,179m) and 185 diamond holes (35,559m). Aurum has conducted a comprehensive review of all exploration data and is of the opinion that the work conducted was in accordance with Industry standards
- The Roscan exploration methodology includes soil-termite geochemistry with geology interpretation to highlight priority areas for follow up air core drilling. Results from the AC drilling identified areas with saprolite gold mineralization. Areas were then identified for phased RC and diamond drilling. This work led to the discovery of Mankouke South, Mankouke Central, KN1, 2 and 4 and Moussala (MOU). The Kabaya deposit was acquired from Komet Resources. Over 92% of the RC drilling and 96% of the diamond drilling has been focused in these specific targets and has resulted in the deposit mineral resources outlined in this report.
- The target generative study of Roscan was reviewed by Aurum. This work highlighted the principal geological domains and major gold bearing structures such as SMKS corridor and its potentially linking structures. The deposits with Resources, as defined in this report are all spatially associated with SMKS corridor and related second order structures. The generative study resulted in the production of a target map which highlights the presence of multiple additional targets which remain, at the date of this report, untested by RC and DD drilling programs.



## 26 RECOMMENDATIONS

Based on the above conclusions, the following recommendations are outlined for the Kandiole Project:

1. Replacement of the air core holes with RC and DD as further drilling is undertaken within the Resource deposits. AC provides a suboptimal sample with a potential bias in areas with problematic ground conditions or containing water.
2. Maintain the current QA\QC protocols and policy regarding frequency of insertions. Historical data highlighted lower insertion frequencies and more variable results.
3. Continue to use RC drilling for sampling where reasonable in future exploration programs as this will increase the sample size and help reduce grade variability and improve precision.
4. Continue to use LeachWELL methodology for assaying in future exploration programs as this will reduce grade variability/ improve precision.
5. Further metallurgical testing is recommended in order to optimize grind size, reagent addition and leach time in support of feasibility level studies and process design. Samples from all parts of the deposits, and within probable pit limits, which show different mineralogical characteristics should also be tested to ensure that gold recovery estimates are based on adequate data.
6. All of the work completed to date needs to be assessed with the objective of determining what would be the minimum threshold required for a standalone mining operation within the Kandiole project area.
7. A two-phase exploration and project development program and budget is recommended, as outlined by Roscan and reviewed by Aurum.
  - a. The phase one program is designed to find potentially economic, additional resources mainly within the existing Resource areas either at depth or laterally. The program will also involve drill testing of new targets such as Disse and Walia and termite geochemistry in the NW permits to complete 100% coverage of all of the whole Kandiole project area. A budget of US\$9 million is allocated and includes provision for 20,000m RC+DD drilling as well as AC drilling and geochemical programs. At the time of writing this report the phase one program was in progress and had commenced in March 2022.
  - b. The second phase will involve various technical studies designed to complete a detailed Preliminary Economic Assessment ("PEA"). This will include variability metallurgical testwork, environmental base line and social studies, an updated Resource estimate, geotechnical studies, pit optimisation studies, preliminary process design, preliminary tailings storage facility design and opex and capex estimation. A budget of US\$1.5 million is allocated to achieve the various technical studies.

The details of the phase one and two programs are outlined below:

**Phase One Budget: US\$ 9.0 million.** Reconnaissance drilling to test for immediate expansion opportunities adjacent to current pit shells to include:

- In Mankouke South, Kabaya and KN1 the drilling program planned 14,300 m of RC drilling, 6,300 m DD. The RC drilling program was designed to focus on resource expansion opportunities and DD conversion of more resources at depth, in the fresh rock to the Indicated category. The DD program was designed to include obtaining core for the variability metallurgical test work and geotechnical studies.
- 3,000 m of RC and 1,500 m of DD are planned in other smaller resources that are in development. These include MOU1, KN2 and 4, and Mankouke Central, but also Disse. .
- 30, 000 m of AC drilling and around 6,000 termite mound geochemical samples are budgeted and will be designed to test new, unexplored zones like Mankouke West, Segondo, Bantanko, Niala, NE of Dabia Sud. The plan is to then follow-up the exploration results with 2,000 m RC drilling.
- Sampling and analysis will include LeachWELL analysis of 2 kg for the RC and AC drill samples and 1 kg for DD samples.
- Gradient IP Induced polarisation surveys will be conducted to trace the narrow structures and the high chargeability and high resistivity signatures very effective to define the mineralized zones. In addition, the gradient could map the felsic intrusion plugs which are related with the gold occurrences. Mineralization at Mankouke South, Kabaya and Kandiole are associated to disseminated sulphides, shearing and hydro fractures quartz veining plus alteration.



Note that at the time of the finalisation of this report, Roscan has commenced and completed approximately 70% of this Phase 1 exploration program.

**Phase Two Budget: US\$ 1.0 million.** Preliminary Economic Assessment (PEA):

- Updating of the geological wireframes and an assessment of extension opportunities.
- Complementary metallurgical test work studies based on sample composites to review possible variability between the various mineralized areas (in both oxide and sulphide zones) culminating in a recommended process design. The studies are planned to include Flotation, CIL and gravity recoveries.
- Initial capex and opex estimates for all relevant mine operations and infrastructure including tailings and plant with preliminary designs for TSF and Process plant.
- Various Infrastructure studies.
- Social and environmental baseline studies within the Kandiole project area.
- Undertake geotechnical studies on each mineralized zone.
- Pit Optimisation studies.
- Update of the resource models and the subsequent Mineral Resource based on the phase one drilling results.
- Complete a preliminary economic assessment (“PEA”) based on metallurgy, geotechnical studies, preliminary opex and capex estimates, and pit optimisation work.



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## Appendix A Certificates



## CERTIFICATE of QUALIFIED PERSON

**Ivor W.O. Jones, M.Sc., P.Geo, FAusIMM**

I, Ivor W.O. Jones, M.Sc., P.Geo, FAusIMM of Georgetown, Cayman Islands, do hereby certify:

- I am a Principal Consultant with Aurum Consulting with a business address at Block OPY, Parcel 45, Genesis Close, Genesis Building, George Town, Cayman Islands.
- This certificate applies to the technical report entitled “Technical Report on the Kandiole Project, Mali” with effective date of 31 March 2022 (the “Technical Report”).
- I am a graduate of Macquarie University (B.Sc. Geology, 1984, (Honours), 1986) and the University of Queensland (M.Sc. Resource Estimation, 2001). I am licensed as a Professional Geoscientist with Engineers and Geoscientists British Columbia (Licence No. 197172), and I am a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) (Member No. 111429). I have worked as a geologist continuously for a total of 35 years since graduation. I have been involved in resource evaluation for 30 years and consulting for more than 20 years, including resource estimation of different gold deposit types for at least 15 years. I have been involved in gold exploration and mining operations for at least 20 years. I am a “Qualified Person” for the purposes of National Instrument 43-101 (the “Instrument”).
- I completed a personal inspection of the Property that is the subject of the Technical Report between xx date and yy date.
- I am independent of Roscan Gold Corporation as defined by Section 1.5 of the Instrument.
- I have only had involvement with the Property that is the subject of this Technical Report since mid 2021. I have not had any prior involvement with the property.
- I am responsible for Sections 2, 3, 11, 12, 14 and parts of 24, 25, 26 and 27 of this Technical Report.
- I have read the Instrument and the sections of the Technical Report that I am responsible for and it has been prepared in compliance with the Instrument.
- As of the date of this certificate, to the best of my knowledge, information and belief, the sections of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 30 day of June 2022, in El Cangrejo, Panama.

*“original document signed and sealed”*

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Ivor W.O. Jones, M.Sc., P.Geo, FAusIMM  
Director & Principal Consultant

Aurum Consulting



## CERTIFICATE of QUALIFIED PERSON

**David J.R. Reading, M.Sc., Fellow SEG, Fellow IOM3**

I, David J.R. Reading, M.Sc., FSEG, FIOM3 of Sevenoaks, United Kingdom do hereby certify:

- I am a Principal Consultant with David Reading Consulting Ltd with a business address at The Sandown, Ashgrove Road, Sevenoaks, Kent, United Kingdom. TN13 1SX.
- This certificate applies to the technical report entitled “Technical Report on the Kandiole Project, Mali” with effective date of 31 March 2022 (the “Technical Report”).
- I am a graduate of Waterloo University (M.Sc. Economic Geology, 1982) and I am a Fellow of the Society of Economic Geologists (F.SEG, USA, member number 658992) and a fellow of the Institute of Materials, Minerals and Mining (IOM3, UK, Member number 440513). I have worked as a geologist continuously for a total of 40 years since graduation. I have been involved in mining, exploration and project development of gold and base metal deposits for more than 30 years in Africa, North America, South America, Europe and Australasia. I have extensive knowledge in orogenic gold deposit types for at least 40 years. I am a “Qualified Person” for the purposes of National Instrument 43-101 (the “Instrument”).
- I completed a personal inspection of the Property that is the subject of the Technical Report in November 2020 from 2 to 9 November and again for 6 days in March 2021.
- I am independent of Roscan Gold Corporation as defined by Section 1.5 of the Instrument.
- I have only been involved with the Property that is the subject of this Technical Report since March 2020. I have not had any involvement with the property prior to this date.
- I am responsible for all or part of Sections 1, 4, 5, 6, 7, 8, 9, 10, 23, 25, 26 and 27 of this Technical Report.
- I have read the Instrument and the Sections of the Technical Report that I am responsible for and it has been prepared in compliance with the Instrument.
- As of the date of this certificate, to the best of my knowledge, information and belief, the sections of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 30 day of June 2022, in Sevenoaks, United Kingdom.

*“original document signed and sealed”*

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David J.R. Reading, M.Sc., FSEG and FIOM3  
Director & Principal Consultant

David Reading Consulting Ltd



## CERTIFICATE of QUALIFIED PERSON

**Ian Ward, B.Sc.(Hons), P.Eng.**

I, Ian R. Ward, P. Eng., of 15 Herbert Avenue, Toronto, Ontario, Canada, do hereby certify that:

- I am an independent consulting metallurgist.
- This certificate applies to the technical report entitled “Technical Report on the Kandiole Project, Mali” with effective date of 31 March 2022 (the “Technical Report”).
- I am a graduate of the University of Birmingham, UK in 1968 with the degree of B.Sc. (Hons) Minerals Engineering. I am registered as a Professional Engineer in the Province of Ontario (Reg. #48869010). I have worked continuously as a Professional Engineer/ metallurgist in the minerals industry, for consulting engineering companies, and as an independent consultant, for the last 45 years since initial registration in 1977. My work experience includes management of technical and feasibility studies, processing plant audits and evaluations, management of metallurgical testing programs and the design plus start-up of numerous processing plants. I have extensive experience in gold ore processing plants design and evaluation, for plants in Canada, USA, South America, Russia, West Africa and Saudi Arabia.
- I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- I have not completed a personal inspection of the Property that is the subject of the Technical Report.
- I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- I have only been involved with the Property that is the subject of this Technical Report since July 2021.
- I am responsible for Section 13 and parts of Sections 1, 25, and 26 of the Technical Report.
- I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Section 13 and parts of Sections 1, 25, and 26 for which I am responsible, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 30 day of June 2022, in Toronto, Canada.

*“original document signed and sealed”*

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Ian R.Ward, B.Sc.(Hons), P.Eng.