

# NI 43-101 TECHNICAL REPORT ON THE FENI GOLD-COPPER PROPERTY, NEW IRELAND PROVINCE, PAPUA NEW GUINEA

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### **1 SUMMARY**

#### 1.1 Introduction

**Derisk** Geomining Consultants Pty Ltd (Derisk) was engaged in October 2021 by Adyton Resources Corporation (Adyton), a TSX Venture Exchange (TSXV) listed Capital Pool Company formed under the laws of British Columbia, Canada, to prepare this Technical Report complying with National Instrument 43-101 Standards of Disclosure for Mineral Projects within Canada (NI 43-101) for the Feni Gold-Copper Property (the Property) on the Feni Islands Group in Papua New Guinea (PNG).

### **1.2** Report Details

This Technical Report presents results of exploration completed at the Property since February 2021 together with an updated Mineral Resource estimate. It is a public report to be filed under Adyton's profile on the System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com. It provides descriptions of the gold and copper mineral assets at the Property and Derisk has adopted the CIM Definition Standards<sup>4</sup> as the reporting standard.

This Technical Report has been prepared by Mark Berry, Simon Tear, Matthew White, and Andy Thomas, who are all Qualified Persons in accordance with NI 43-101.

The effective date of the Exploration Results and Mineral Resource estimates presented in this Technical Report is 14 October 2021. All values in this Report are in nominal Canadian dollars (CAD or \$) unless otherwise stated.

### **1.3** Location and Ownership

The Property is in the Feni Island Group, which is part of the New Ireland Province of PNG, located approximately 900 km northeast of the capital of Port Moresby. Adyton acquired the property from Mayur Resources Limited (Mayur) in February 2021.

Tenure covers an area of 96 km<sup>2</sup> and is held through an exploration licence (EL) 2096 by Mayur Exploration PNG Limited (MEPL), which is a wholly-owned subsidiary of Adyton and a corporation incorporated under the laws of PNG. The relevant Qualified Persons note that the current term of EL 2096 has expired and that renewal is pending as at the effective date of this Technical Report. Advice from Adyton's independent legal advisors is that when an application for renewal of a tenement has been lodged, the tenement continues in force pending the Minister's decision on renewal.

#### **1.4 Geology and Mineralisation**

The Feni Island Group lies at the southeast end of the 250 km long Tabar-Lihir-Tanga-Feni alkalic volcanic island chain, which is largely Pliocene-Pleistocene in age. The chain lies 40 – 60 km off the east coast of New Ireland, PNG.

Ambitle Island is the larger of the two islands comprising the Feni Island Group. It is dominated by Ambitle volcano, which is a collapsed stratovolcano (2 - 8 million years old) built on a basement of early Tertiary sediments. The crater rim is interpreted as a collapse-structure, of gravity-induced failure of the southwest flanks of the Ambitle crater, as opposed to a large caldera structure. It is composed of alkalic mafic to intermediate volcano is comprised mainly of vesicular lavas, pyroclastic and epiclastic rocks. The lavas are intermediate in composition and strongly undersaturated, including phonolites, alkali basalts, basanite, trachybasalt and trachyandesite.

The main style of mineralisation on Ambitle Island is low-sulphidation epithermal gold mineralisation associated with quartz veining and sulphide mineralisation (e.g., pyrite, chalcopyrite, arsenopyrite). The gold mineralisation is associated with the Matangakaka Intrusive Complex, which lies at the southern margin of the Ambitle volcanic crater.

Many authors have indicated that the epithermal gold mineralisation has overprinted an earlier porphyry copper style mineralisation episode. The presence of classic porphyry-style alteration mineralogy (potassic, phyllic, argillic and advanced argillic alteration zones) supports the occurrence of an intrusive-related porphyry-style system at depth.

<sup>&</sup>lt;sup>4</sup> CIM Definition Standards for Mineral Resources and Mineral Reserves, 2014



### **1.5** Exploration, Development and Operations

The first report of modern exploration over the Feni Islands Group was in the mid-1960s, but serious exploration commenced in the 1980s and has continued intermittently to the present.

Detailed exploration began with work completed by Esso PNG Inc (Esso) in the early 1980s. This included reverse circulation (RC) drilling, diamond drilling and aircore drilling over a range of prospects, including the discovery of the Kabang Prospect. More drilling, mainly RC and diamond, was completed by Ingold Holdings Pty Ltd (Ingold) and City Resources (PNG) Pty Ltd (City Resources) in the late 1980s and early 1990s. Further drilling was completed by Mac Mining NL (Macmin) in the late 1990s and with joint venture partners New Guinea Gold NL (NGG) and Pacific Vangold Mines Ltd (Vangold).

Mayur through MEPL, acquired the Property in 2014 and completed follow-up site reconnaissance, mapping and a sediment and stream sampling program to refine proposed drill targets. This program confirmed significant anomalous stream sediment samples. Mayur engaged H&S Consultants Pty Ltd (H&S Consultants) to prepare a new Mineral Resource estimate for the Kabang Prospect in 2015.

Prior to 2021, drilling was carried out on Feni Island over a 22-year period from 1985 to 2007 by several previous tenement owners. Data from a total of 212 historical drillholes was captured by Mayur, which amounts to a total of 18,893.3 m of drilling. This includes a mix of shallow aircore, RC and diamond drilling (largely HQ core size). There has been no development or mining/processing operations to date over the Property.

In 2021, Adyton has reprocessed geophysical data from 1998 and completed a five-hole drilling program at Kabang to confirm gold mineralisation and test two geophysical anomalies interpreted to represent deeper porphyry copper targets below the gold mineralisation. Drilling intersected substantial gold mineralisation and confirmed the presence of an intrusive-related porphyry-style system, enhancing the prospectivity of the prospect.

#### **1.6** Mineral Resource

The process used by H&S Consultants to prepare the Kabang Mineral Resource estimate comprised the following steps:

- 1. Digital and hardcopy drillhole data were extracted from a master database then imported into Microsoft Access software for checking and validation.
- 2. Digital topographic survey data collected by light detection and ranging (LIDAR) technology was reviewed and imported into the Surpac software package.
- 3. Data validation checks were completed, focused on drillhole collar coordinates and sampling/analysis data. Once source data was checked, modifications were applied to the master data sets accordingly.
- 4. Three-dimensional interpretations of lithology and alteration zones were created in Surpac, based on the drillhole logs and assays.
- 5. Statistical analysis of drillhole assay data was completed and used to establish the optimum composite sample length and the creation of mineralisation domains for estimation based on lithology.
- 6. Drillhole composites were generated for gold, followed by composite statistics and a variographic analysis of the drillhole data using the H&S Consultants in-house GS3M software.
- 7. A three-dimensional block model was created in Surpac, with no sub-celling of parent blocks.
- 8. Estimation search parameters were developed for each area, and estimates were generated using the ordinary kriging (OK) method.
- 9. Block model validation comprised visual checking of block grades against composite values and other statistical checks.
- 10. Assignment of the mineral resource classification was completed, considering the confidence in the geological interpretation of the mineralisation, drillhole spacing, sample density, assessments of the integrity and robustness of the sample database, and estimation quality.
- 11. A grade-tonnes curve was produced to illustrate the sensitivity of the estimate to different cut-off criteria.
- 12. Criteria to support the reasonable prospects for eventual economic extraction were assessed and an appropriate cut-off criterion was selected for reporting Mineral Resources.

The relevant Qualified Persons have reviewed and reassessed the data inputs, estimation parameters and reporting criterion for Kabang and re-reported the Mineral Resource using the 2014 CIM Definition Standards at an effective date of 14 October 2021 (Table 1-1). None of the 2021 drilling data has been included in the

updated Mineral Resource estimate. Adyton has undertaken a conceptual mining study to investigate project viability and economics at Kabang and this work has led to a lowering of the reporting cut-off criterion to 0.5 g/t Au.

Table 1-1. Kabang Mineral Resource as at 14 October	r 2021 reported using a cut-off criterion of 0.5 g/t Au.
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Classification	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
Measured	-	-	-
Indicated	-	-	-
Measured plus Indicated	-	-	-
Inferred	60.4	0.75	1,450

*Notes:* 1. In situ resources reported at a cut-off criterion of 0.8 g/t Au.

2. Figures have been rounded to reflect the relative uncertainty in the estimate.

#### **1.7** Mineral Reserve

There is no estimate of a Mineral Reserve for Kabang.

#### **1.8** Interpretation and Conclusions

The relevant Qualified Persons consider that the Property is prospective for the discovery of new gold and copper-gold mineralisation because there are many targets and anomalies that have been defined by previous tenement holders that have not been adequately followed up. In addition, the relevant Qualified Persons consider that there are opportunities to extend the Mineral Resource estimate at Kabang because it is open in all directions, and there are opportunities to define zones of higher-grade mineralisation within the broader lower-grade envelope.

Exploration completed by Adyton in 2021 has confirmed the potential for extensions to the Kabang Mineral Resource and drilling of a geophysical target below the gold mineralisation at Kabang has confirmed the presence of an intrusive-related porphyry-style system, enhancing the prospectivity of the prospect.

The Feni property is in a remote and undeveloped part of PNG. The relevant Qualified Persons have identified the key risks associated with the Property as follows:

- The possibility that future exploration programs are unsuccessful in discovering additional mineralisation at the Property.
- There is technical risk associated with inadequate documentation describing data collection methods used by previous tenement holders. This results in a moderate level of uncertainty over the veracity of the inputs into the Mineral Resource estimate for Kabang. This uncertainty has been considered by classifying the Mineral Resource as Inferred.
- There is financial risk if technical studies evaluating the economic viability of establishing a mining operation at the Property are not positive.
- There is social risk if the local community does not support future exploration programs at the Property or opposes the potential development of a mining operation if exploration is positive.

The relevant Qualified Persons have identified opportunities associated with the Property as follows:

- Gold mineralisation identified at Kabang is open in all directions.
- There is the potential for a deeper copper-gold mineralised system below the gold mineralisation identified to date at Kabang.
- Elsewhere on the tenement, there are many prospective gold and copper-gold targets with limited or no drill testing undertaken to date that demonstrate the potential for discovery of new Mineral Resources at the Property.

#### **1.9** Recommendations

The five-hole diamond drilling program at Kabang completed by Adyton in 2021 has reinforced the potential of the Kabang mineralised corridor to host a substantial "Lihir-style" gold deposit with all five holes intersecting epithermal gold mineralisation. The drilling has also confirmed that porphyry-related copper mineralisation is a legitimate exploration target on the island.



The relevant Qualified Persons recommend a methodical and systematic exploration program at the Property focused within the central target area on Ambitle Island, including Kabang. This program should be aimed at better understanding the structural controls, targeting the higher-grade zones, testing the depth extent of the epithermal gold zones, and understanding the distribution of the deeper porphyry copper potential.

For the 2022 calendar year (Phase 1), the recommended work program includes:

- Detailed petrology and petrography investigation of selected drill core from the 2021 drilling program to understand the nature of the epithermal mineralisation system, alteration, temperature regime, and sulphide mineralogy.
- Undertake a new induced polarisation (IP) survey over the central Kabang Corridor comprising 18 linekm across 12 lines to cover an area of approximately 1.5 km<sup>2</sup>, then 3D modelling of conductive/resistive bodies at depth to define drill targets.
- Prepare a drilling program focused on testing the main targets identified from the IP survey.

For the 2023 calendar year (Phase 2), the recommended work program is drilling to test the main IP targets defined in 2022. The budget for this phase of work is not contingent on the outcomes of the 2021 exploration program. At the completion of drilling Adyton will undertake a detailed review of the outcomes of the drilling program and assess future exploration options.

The budget proposed by Adyton for a two-year exploration program at the Property, commencing in the first quarter of 2022, totals CAD 1.35 million. The Phase 1 budget is CAD 0.35 million and the Phase 2 budget is CAD 1.00 million.

The relevant Qualified Persons have reviewed the exploration program and budget proposed by Adyton for the Property and consider them to be technically appropriate and feasible.

### 2 INTRODUCTION

#### 2.1 Scope and Use of Report

Derisk was engaged in October 2021 to prepare this Technical Report for Adyton, a TSXV listed Capital Pool Company formed under the laws of British Columbia, Canada, complying with NI 43-101 for the Property on the Feni Islands Group in PNG.

This Technical Report presents results of exploration completed at the Property since February 2021 together with an updated Mineral Resource estimate. It is a public report to be filed under Adyton's profile on SEDAR at www.sedar.com. It provides descriptions of the gold and copper mineral assets at the Property. Derisk has adopted the CIM Definition Standards<sup>5</sup> as the reporting standard.

The effective date of the Exploration Results and Mineral Resource estimates presented in this Technical Report is 14 October 2021.

#### 2.2 Reporting Standard and Currency

For this Technical Report, Derisk has adopted the CIM Definition Standards as the reporting standard. All values in this Report are in nominal CAD or \$ unless otherwise stated.

#### 2.3 Report Authors and Contributors

This Technical Report has been prepared by Mark Berry, Simon Tear, Matthew White, and Andy Thomas, and has been peer reviewed by Mal Dorricott. Table 2-1 presents details of the role and qualifications of each of the contributors.

Name	Title	Years of Experience	Professional Membership	Role and Responsibility
Mark Berry	Director and Principal Geologist	40	MAIG	Project manager and Qualified Person responsible for the overall report compilation, and Sections $1 - 4$ , $12 - 13$ , $15 - 29$
Simon Tear	Associate Principal Geologist	37	MIGI (PGeo)	Qualified Person responsibility for Section 14
Matthew White	Associate Principal Geologist	25	MAIG	Qualified Person responsibility for Sections 5 – 8 and contributing to Sections 10 – 11
Andy Thomas	Associate Senior Geologist	12	MAIG	Qualified Person responsibility for the site visit and contributing to Sections 7, 9, 10, 12
Mal Dorricott	Principal Mining Consultant	50	FAusIMM	Internal peer review

Table 2-1. Technical Report contributors.

Notes: Professional membership details are provided in Section 28 (Definitions and Glossary).

NI 43-101 and the CIM Definition Standards require that a public report describing a company's Exploration Results, Mineral Resources and Mineral Reserves must be based on, and fairly reflect, the information and supporting documentation prepared by a Qualified Person. Qualified Person certificates for Mark Berry, Matthew White, Simon Tear, and Andy Thomas are provided in Section 29 of this Technical Report.

#### 2.4 Site Visits

The global Coronavirus pandemic has restricted the opportunity to undertake international travel for much of 2020 and 2021, and consequently it has not been possible for most of the Qualified Person's contributing to this Technical Report to visit site. However, PNG-based Derisk Associate Senior Geologist, Andy Thomas visited the Property in October 2021 and inspected the general site conditions and local infrastructure, drilling sites and surface exposures of mineralisation and host rocks. He subsequently visited the Company's drill core storage facility in Lae to inspect some of the drill core from the 2021 exploration drilling program.

<sup>&</sup>lt;sup>5</sup> CIM Definition Standards for Mineral Resources and Mineral Reserves, 2014



### 2.5 Statement of Independence

Derisk confirms that its Directors, staff, and all contributors to this Report are independent of Adyton, its subsidiaries, and have no interest in the outcome of the work to be completed in this engagement. Fees paid to Derisk are on a fee-for-service basis plus reimbursement of project-related expenses. Our agreement with Adyton excludes the provision for a success fee or related incentive.

#### 2.6 Methodology and Limitations

Derisk was engaged in October 2021 by Adyton to prepare this Technical Report for Adyton. Derisk has reviewed documentation describing work undertaken at the Property prior to Adyton and work completed by Adyton, including all data and information supplied by the Company. We have exercised due care in reviewing the supplied information and believe that the inputs into and estimates of the Mineral Resource are reasonable. Derisk associate consultant Simon Tear accepts Qualified Person responsibility for the Mineral Resource estimate.

Whilst Derisk has independently analysed the data provided by Adyton, the accuracy of the conclusions of this Technical Report relies on the accuracy of the supplied data. The relevant Qualified Persons have made enquiries and exercised judgement on the reasonable use of such data and information and have no reason to doubt the accuracy or reliability of the information provided, but we do not accept responsibility for any errors or omissions in the information supplied, and do not accept any consequential liability arising from investment or other financial decisions or actions by others.

#### 2.7 Reliance

All advice, reports and deliverables prepared by Derisk are for the benefit of Adyton. Derisk understands that this Technical Report is a public report to be filed under Adyton's profile on SEDAR at www.sedar.com and made publicly available.

Derisk requires that all public reports containing references to Derisk and/or Derisk advice, and all information provided by Derisk for the public report will be reviewed and approved by Derisk prior to publication – in the form and context that it will appear in the public report.

#### 2.8 Records and Indemnities

Adyton has been provided with all digital data files produced by Derisk during this engagement. Derisk is entitled to retain a copy of all material information upon which our report is based.

Adyton has agreed to indemnify, defend, and hold Derisk harmless against any and all losses, claims, damages, costs, expenses, actions, demands, liabilities, or proceedings (including but not limited to thirdparty claims) howsoever arising, whether directly or indirectly out of this Agreement or the provision or nonprovision of the services, other than losses, claims, damages, costs, expenses, actions, demands, liabilities, or proceedings that are determined by a final judgement of a court of competent jurisdiction to have resulted from actions taken or omitted to be taken by Derisk illegally or in bad faith or as a result of Derisk's gross negligence.



## **3** RELIANCE ON OTHER EXPERTS

### 3.1 Property Ownership and Tenure

The relevant Qualified Persons have not reviewed the Property ownership in detail, nor independently verified the legal status of the mineral tenure, underlying property agreements or permits. The relevant Qualified Persons have fully relied upon information provided by Adyton and information provided by Adyton experts Ashurst PNG (Ashurst).

This information is used in Section 4 of the Report. It is also used in support of the Mineral Resource statement in Section 14.

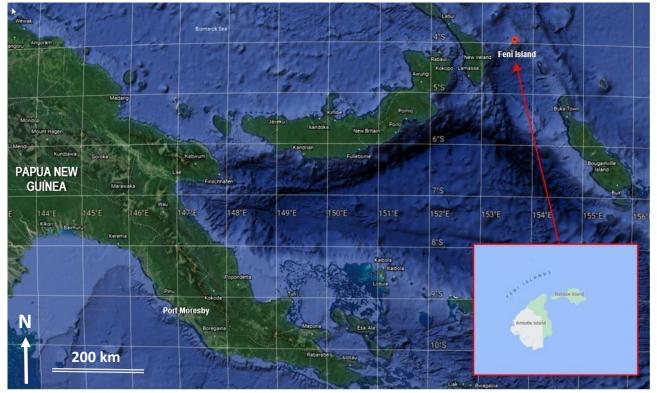


## 4 PROPERTY DESCRIPTION AND LOCATION

#### 4.1 Location

The Property is located at approximately 4°05′05″ S latitude, 153°37′40″ E longitude in the Feni Island Group, which is part of the New Ireland Province of PNG (Figure 4-1). The licence is situated within the Namatanai district of New Ireland Province and within the Tanir Local Level Government (LLG). The Feni Islands Group is located approximately 900 km northeast of the PNG capital of Port Moresby.

Figure 4-1. Property location.



Source: Derisk, 2021

#### 4.2 **Ownership and Tenure**

Table 4-1 documents the status of the Property. Tenure is held through an EL administered by the Mineral Resources Authority (MRA) under the Mining Act 1992 of Papua New Guinea (Mining Act). The registered tenement holder is MEPL, a wholly-owned subsidiary of Adyton.

Table 4-1. Tenement status.

Exploration Licence	Location	Originally Granted	Current Term Start	Current Term End	Status	Size (sub-blocks and km²)
2096	Feni, New Ireland Province	05-08-2014	05-08-2018	04-08-2020	Renewal is pending, but licence remains in force until a decision is made	28 sub- blocks, 95.5 km <sup>2</sup>

Source: Ashurst, 2020 and 2021

The relevant Qualified Persons note that the current term of EL 2096 has expired and that renewal is pending as at the effective date of this Technical Report (14 October 2021). The relevant Qualified Persons have sighted a copy of an application for renewal of the tenement to 4 August 2022, together with a renewal application acknowledgement issued by MRA. In accordance with Section 112 of the Mining Act, in this situation the tenement continues in force pending the Minister's decision on renewal.

Ashurst has advised that, provided the holder has met ongoing work and reporting obligations, tenements are renewable and normally renewed within 6 to 12 months of the expiry date. While a decision to refuse renewal could in some circumstances occur (e.g., where work and reporting requirements are outstanding),



this would be subject to judicial review in the Courts if there was no rational basis for the refusal to renew. Ashurst also advises that the renewal process has been delayed due to the Coronavirus pandemic, which has resulted in reduced workforce availability within the MRA.

Based on this advice the relevant Qualified Persons conclude that there are no reasons to believe that EL 2096 will not be renewed in due course.

#### 4.3 Mining Act Requirements

The Mining Act sets out the rules, requirements and conditions associated with an EL issued in PNG. Some of the salient requirements are as follows:

- Section 21 of the Mining Act states that an EL may be granted for a term not exceeding two years, which may be extended under Section 28.
- Section 22 states that an EL application cannot exceed 750 sub-blocks in area and provides guidance on requirements for partial relinquishment if renewals of the EL are requested.
- Section 23 details the rights conferred by an EL.
- Section 24, in part, requires new applications and renewals of ELs to contain a proposed program of work.
- Section 25, in part, states that the minimum expenditure required to be spent annually in connection with an approved programme shall be as prescribed and sets out the activities that can be included in acceptable expenditures.
- Section 26 sets how proposed works programs will be assessed and approved.
- Section 27 deals with proposed variations to approved programs.
- Section 28 sets out the conditions associated with requests for extensions to the term of an EL.
- Section 29 sets out the conditions associated with an application for and grant of a special mining lease or mining lease over an EL.
- Section 30 sets out the restrictions on applications for certain tenements over land surrendered or relinquished from an EL.
- Section 31 documents the restrictions in dealing with an EL during first two years.
- Section 32 details the reporting requirements for an EL and includes, in part:
  - Every six months calculated from the date of grant, on expiry, on cancellation and on making an application to surrender the EL; a report summarising all works undertaken on or in connection with the EL since lodging the previous report is required. In addition, a report detailing acceptable expenditure incurred under Section 25(2) on or in connection with the EL since lodging the previous report.
  - Every year calculated from the date of grant of the EL, a report giving full details of all work undertaken on or in connection with the EL conveying accurately and comprehensively the aims of the works, the procedures adopted, and the conclusions reached, and containing all data that may be of relevance to the geology and mineral resources of the State.
  - Upon relinquishment or surrender of the whole or any portion of an EL or on expiry or cancellation
    of the EL, a report summarising all work undertaken on or in connection with the whole or (as
    applicable) that portion of the relevant EL since the date of grant.
- Section 105 sets out the timeframes for a Warden's Hearing, which is required for all new applications and renewals, and lodgement of objections to the application or renewal.
- Sections 108 and 109 set out the requirements for conducting a Warden's Hearing and subsequent submission of a written report by the Warden.
- Section 110 sets out the process used by the Mining Advisory Board to assess applications and renewals.

#### 4.4 Tenure Conditions

#### 4.4.1 Rent and Expenditure Commitments

Adyton provided Derisk with results of searches of the MRA portal for EL 2096 in the register maintained by the Registrar of Tenements under the Mining Act:

- All annual rents have been paid on time for the previous (expired) period.
- In its renewal application for EL 2096, Adyton committed to expenditure of Papua New Guinea Kina (PGK) 200,000 in each of year of the extension. Adyton has exceeded this amount, with expenditure for the

first year of the renewal to 4 August 2021 of nearly PGK 4,309,000 and were compliant as per Section 25 of the Mining Act.

4.4.2 Renewal Application and Status

The relevant Qualified Persons have sighted the most recent renewal application for EL 2096 lodged by MEPL dated 5 May 2020. The application included a proposed minimum budget commitment of PGK 200,000 for each year of the two-year renewal. MEPL proposed no relinquishment of its tenement holding for the renewal period (Figure 4-2). The relevant Qualified Persons have also sighted an acknowledgement of receipt of the renewal application from MRA, dated 6 May 2020.

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Figure 4-2. EL 2096 renewal application area.

Source: Mayur Exploration, 2020

#### 4.4.3 Surface Rights and Permits

Tenure conditions related to surface rights and legal access under Section 23 of the Mining Act allow for MEPL to:

- Enter and occupy the land that comprises the EL for the purpose of carrying out exploration for minerals on that land.
- Subject to Section 162 of the Mining Act, extract, remove and dispose of such quantity of rock, earth, soil, or minerals as may be permitted by the approved program.
- Take and divert water situated on or flowing through such land and use it for any purpose necessary for the exploration activities subject to and in accordance with the provisions of the Water Resources Act 1982.
- Do all other things necessary or expedient for the undertaking of exploration on the land.
- Be entitled to the exclusive occupancy for exploration purposes of the land in respect of which the EL was granted.

Sections 154 to 160 detail the requirements associated with landowner access and compensation principles, which are ongoing obligations throughout both exploration and any subsequent development phase. For



the Property at the current stage of exploration, it is usual for this to be done in compliance with compensation rates published by Government authorities, rather than formal compensation agreements. Formal compensation agreements are required as part of formal development leading up to mining tenure application, and at that point formal compensation agreements must be entered into with the approval of the Mining Warden and be registered. This requirement has not arisen for the Property.

#### 4.4.4 Agreements, Royalties and Encumbrances

The conditions of the EL provide for the State to reserve the right to elect at any time prior to the commencement of mining to make a single purchase up to 30% equitable interest in any mineral discovery arising from the licence. The purchase price will be pro rata to the accumulated exploration expenditure and then to contribute to further exploration and development on a pro rata basis, unless otherwise agreed.

Adyton has no other agreements, royalty arrangements or encumbrances in place over the tenement.

#### 4.4.5 Environmental Permits

In accordance with the Environment (Prescribed Activities) Regulation 2002, exploration activities are designated as a Level 1 Activity, except where a drilling program at a defined prospect exceeds an aggregate depth of 2,500 m in all holes drilled, which is defined as a Level 2A Activity.

Level 1 activities do not require an Environment Permit to proceed, but Level 2A activities do require a permit. Adyton has advised the relevant Qualified Persons that the recommended exploration program at the Property will constitute a Level 1 Activity and does not require an Environment Permit. Further, Adyton has advised the relevant Qualified Persons that the Property is not subject to any environmental liabilities.

#### 4.4.6 Tenure Summary

To the extent known and notwithstanding the requirements noted elsewhere in Section 4.4, the relevant Qualified Persons are not aware of any significant factors and risks that may affect access, title, or the right or ability of the Company to perform work at the Property.



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

#### 5.1 Access

Access to the Feni Island Group is firstly made via a flight from Port Moresby (capital of PNG) to Kavieng, (capital of New Ireland), then by road from Kavieng to the southeast to Muliama (350 km, 7-hour drive) which lies on the east coast of New Ireland. From Muliama, a local supply boat is used to travel approximately 50 km (2-4 hours) to the Feni Island Group (Figure 5-1).

Figure 5-1. Project location map.



Source: Derisk, 2021

The Feni Islands Group comprises two islands, Ambitle (larger western island) and Babase (Figure 5-2). Ambitle is the main island and contains EL 2096.

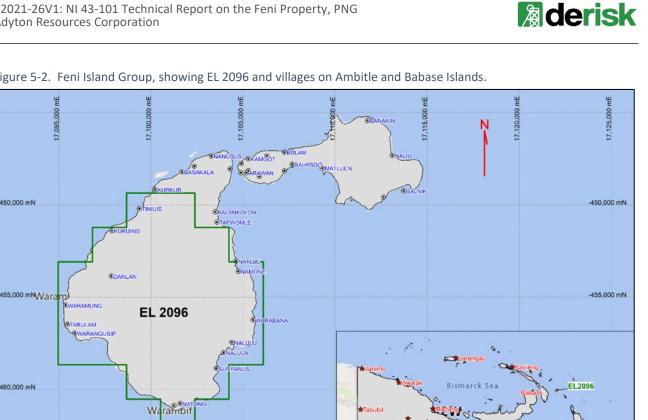


Figure 5-2. Feni Island Group, showing EL 2096 and villages on Ambitle and Babase Islands.

Adyton, 2021c Source:

#### 5.2 Climate

450,000 mN

460.000 mN

465.000 mN

The average year-round temperature for the Feni Island region varies from 22 – 24°C at night and from 28 – 31°C during the daytime. The average annual temperature in nearby Namatanai, located on New Ireland, is 26.8°C. The annual rainfall averages 2,960 mm. Monthly rainfall for Namatanai varies between 139 mm in June to 398 mm in March. The Feni islands have their own micro-climate because the mountains are high enough (up to 450 m above sea level), to attract local clouds and local rainfall.

Micro Bing

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Exploration activities can be conducted year-round but may be temporarily restricted during periods of heavy rainfall if access tracks become untrafficable.

#### 5.3 **Physiography**

Ambitle Island is approximately 14 km long and a maximum of 10 km wide. Babase Island is 9.5 km long and a maximum of 4.5 km wide. The highest points on Ambitle and Babase Islands are 450 m and 165 m elevation, respectively. The relief is rugged, and the islands are covered in tropical rainforest. The topography on Ambitle Island is rugged, and it is difficult to traverse across the whole island. Some areas of hot springs and fumaroles that occur on the island have resulted in stunted vegetation in places.

#### 5.4 Local Resources and Infrastructure

Ambitle Island comprises the villages of Warambana, Basakla, Natong, Verambif, Pikantubulam and Fatkasang. Babase Island comprises the old Anir Government Station, Bulam, Balingut and Naliu villages. Several small stores are situated throughout the islands.

There are no vehicular roads on the Feni Islands and access to the various gold prospects within EL 2096 is via a network of local foot tracks that link a number of coastal villages across the island (Figure 5-2). The two islands are home to approximately 4,000 people who subsist mainly on fishing and local agriculture.



Digicel has recently installed a mobile phone tower on Ambitle Island, however reception is only available at certain high vantage points across the two islands. There is no central power supply on the islands and local power supply for small electrical appliances is generated using fuel-powered generators and solar panels.

Some resources and infrastructure to support exploration activity at the Property can be sourced locally i.e. water, fuel-powered generators, and non-technical personnel. Other exploration-related support will need to be sourced from New Ireland or the PNG mainland, including experienced exploration personnel, drill rigs and drilling consumables, heavy equipment if required for construction of access tracks, and construction materials for project infrastructure such as offices, core sheds and stores.

Almost all of the resources required to support a mining operation at the Property will need to be sourced from New Ireland, the PNG mainland, and internationally. Local infrastructure will need to be constructed to provide power and water to service the mining operation. Provision will need to be made to construct the open pit, processing plant, waste disposal sites (waste rock and tailings) and associated infrastructure. The relevant Qualified Persons note that the island is rugged and covered in tropical rainforest that will provide challenges for development of a mining operation. Operations developed at both Simberi and Lihir in the local region demonstrate that it will be feasible to establish mining operations at the Property.

The relevant Qualified Persons consider that the tenement is sufficient for the contemplated exploration activities and potential development.



## 6 **HISTORY**

Exploration across the Property has been undertaken by numerous tenement holders from the early 1980s and is summarised below.

#### 6.1 **Ownership and Activities**

#### 6.1.1 Prior to 1983

The Lihir and Feni Islands were visited in 1956 by the Chief Geologist (M A Reynolds) of the Australian Bureau of Mineral Resources (BMR) to review the thermal activity (BMR Record 1956/25). Early small-scale alluvial gold mining by local prospectors has also been reported.

In 1965, Conzinc Riotinto Australia (CRA) completed a cursory evaluation of the Feni Islands using stream sediment sampling, but their attention in the 1960s was focused towards Bougainville, which resulted in the discovery of the copper-gold deposit at Panguna.

#### 6.1.2 Esso and Esso/City Resources JV (1983 – 1988)

In the early 1980s, the Lihir gold deposit, located approximately 150 km to the northwest of Feni Islands, was discovered by a joint venture (JV) between Kennecott and Niugini Gold. Following this major discovery, Esso began detailed exploration on the nearby Feni Islands in 1983. After three years' exploration work, Esso formed a JV with City Resources in 1986 to continue exploration on the Feni Islands.

Early geological, geochemical, and geophysical surveys led to an RC drill program at several gold-copper prospects at the Lacey, Kabang, Saddle, Natong, and Dome prospects in 1985. An airborne magnetic/radiometrics survey was also flown in 1985. Diamond drilling started in 1986, with several holes completed in the Kabang, Saddle and Natong prospects.

6.1.3 Esso/City Resources/Ingold JV (1989 – 1991)

In 1989 Ingold farmed into the project and in 1989 completed additional soil sampling, trenching, RC and diamond drilling before terminating the JV in 1991. The tenement was allowed to lapse in early 1992.

From 1983 to 1992, Esso, in combination with its JV partners City Resources and Ingold funded exploration expenditure of approximately Australian (AUD) 10.5 million (Roth, 1993).

#### 6.1.4 Macmin and Macmin/Union JV (1992 – 1997)

Macmin was formed in 1992 to acquire the Feni tenement. Union Mining NL (Union) formed a JV with Macmin from 1992 to 1994. Work included data compilation and drill planning, but little fieldwork was completed. The project was returned to Macmin in 1994. Macmin planned a drilling program for 1994, but field plans were interrupted by the Rabaul volcanic eruption, 100 km to the west of the Feni Islands.

In 1995 Macmin completed a diamond drill program of 989 m in four holes on the Natong prospect to follow up significant drill results by Ingold in 1989. The 1995 drilling targeted high-grade trench results and extensions of Ingold drillholes that contained intervals of gold mineralisation. The drilling returned long intervals of anomalous and low-grade gold.

In 1996 and 1997, a soil geochemical survey (1,840 soil samples) was completed by Macmin over a 9 km<sup>2</sup> grid area over the Ambitle intrusive complex. The samples were collected at 25 m intervals along lines spaced mostly at 200 m intervals. Samples were obtained with a hand-held auger that allowed penetration of up to 2 m and sampling below the surface organic layer.

#### 6.1.5 Macmin/NGG/Vangold JV (1998 – 2007)

Macmin joint ventured the project to NGG and Vangold in 1998.

In 1998 to 1999, Vangold completed an IP survey (dipole-dipole array) over the Kabang prospect covering 20.05-line km. Vangold also completed trenching plus four diamond holes for 618.7 m. These drillholes tested coincident IP and geochemical anomalies within the Kabang prospect area. The holes (MAD001 to 004) encountered an active hydrothermal system. MAD001 was drilled to the northeast of Kabang and intersected a wide interval of low-grade gold mineralisation. Holes MAD002 – 004 failed to test the target zone. Five additional diamond holes were drilled in 2004. In 2007, a further six diamond holes were completed for 691.6 m, over four prospects (VDH001 to 006). The Vangold – Macmin JV continued from 1989 to 2007.



### 6.1.6 Macmin (2008 – 2014)

Between 2008 and 2014, the Feni Islands received only minor exploration with little field work completed. Mayur acquired the property in 2014. A summary of the exploration prior to Mayur is presented in Table 6-1.

6.1.7 Mayur (2014 – 2021)

Mayur acquired the Property in 2014 and completed the following work at Feni:

- Digital compilation of historical geochemical and drilling data.
- Resource modelling and Mineral Resource estimation.
- Survey of 78 historical drill collars in the field using differential global positioning system (DGPS).
- Orientation rock chip sampling for an epidote study (7) and other sampling (3).
- Visit by David Lindley, who collected 19 rock chips and 1 panned concentrate sample as part of an orientation survey targeting an area with manganese enrichment.
- Drillhole targeting and exploration program planning.

In 2015, Mayur engaged H&S Consultants to complete a Mineral Resource estimate for Kabang, located in the central part of Ambitle Island. The company also commenced pre-mobilisation activities including drilling, contract negotiations, and planning for a drilling program in conjunction with land holder access negotiations, however no drilling was completed.

In 2017, seven rock chip samples were collected from surface outcrops and subcrops in the vicinity of the Kabang prospect as part of an orientation geochemistry program to assess if epidote could be used as a pathfinder to copper mineralisation associated with a porphyry system. Samples were collected across an irregular area of approximately 1 km<sup>2</sup> and were not representative. The individual epidote crystals in each sample were analysed to indicate where the sample is in the system relative to the core of the porphyry. This orientation work was inconclusive.

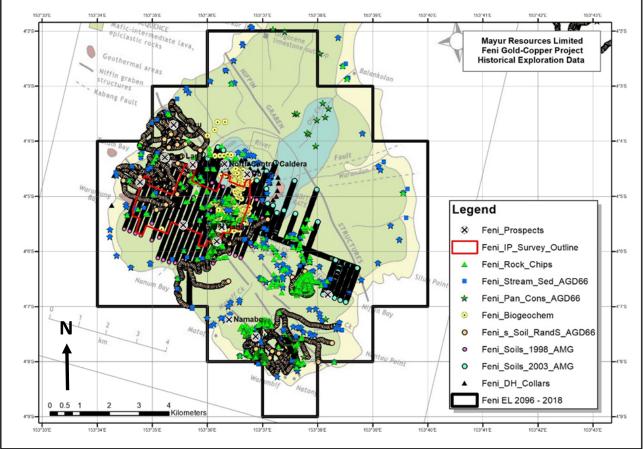
In conjunction with the epidote sampling program, three rock chip samples containing visible traces of pyrite were collected. All samples returned grades of less than 0.1 g/t Au.

In 2018, Mayur completed a separate orientation geochemistry program targeting the potential for gold mineralisation associated with stratabound manganese enrichment. A total of 20 samples, comprising 19 rock chip samples from surface outcrops and subcrops in the Matangkaka area, and one panned concentrate sample were collected. Samples were collected across an irregular area of approximately 0.5 km<sup>2</sup> and were not representative. Samples were analysed for a multi-element suite and identified areas of elevated gold, silver, arsenic, antimony, molybdenum, and copper. Mayur concluded that further exploration in this area was warranted, but no further work was undertaken.

Mayur's geochemical data capture is illustrated in Figure 9-1 and included:

- 1,854 rock chip and trench samples (Esso, City Resources, Macmin, Mayur).
- 341 stream sediment samples (CRA, Esso, City Resources).
- 284 pan concentrates (Esso, City Resources, Macmin, Mayur).
- 251 biogeochemical samples (2004 NGG/Vangold).
- 2,166 ridge and spur soil samples (Esso, City Resources).
- 2,243 grid-based soil samples (1998, NGG/Vangold).
- 1,053 grid-based soil samples, eastern extension (2003, NGG/Vangold).
- 212 drillholes, including 8,701 assays (Esso, City Resources, Ingold, Macmin, NGG/Vangold).





Source: Derisk, 2021

### 6.2 Historical Estimates of Mineral Resources

Internal company reports document that a historical estimate of the Mineral Resource was prepared for Kabang in 1993. The relevant Qualified Persons have been unable to locate detailed descriptions of the inputs and estimation methods used for this estimate and therefore cannot comment on the relevance or reliability of this estimate. As such, the relevant Qualified Persons have not done sufficient work to classify the historical estimate as a current Mineral Resource and the Issuer is not treating the historical estimate as a current Mineral Resource.

In 2015, Mayur engaged H&S Consultants to complete a Mineral Resource estimate for Kabang, located in the central part of Ambitle Island. This estimate forms the basis of the current Mineral Resource for Kabang and is described in Section 14 of this report.

#### 6.3 **Production**

There has been no development or mining/processing operations to date over the Property.



### Table 6-1. Summary of exploration on Feni Islands prior to Adyton.

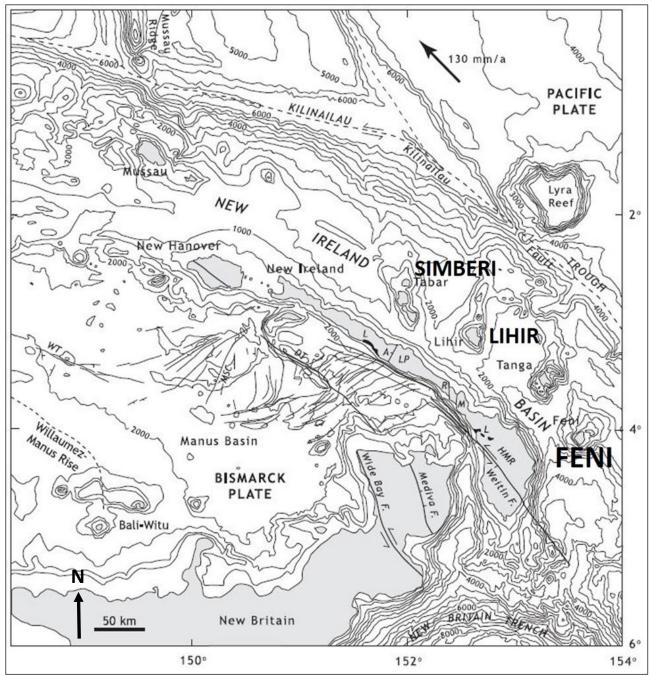
Year	Company	Work Completed	Drillhole Data held by Adyton
1983	Esso	Esso was granted EL 1021 and commenced exploration.	
1984	Esso/City Resources	Surface mapping and geochemical sampling.	
1985	Esso/City Resources	Geological mapping, geochemical surveys, geophysical surveys (airborne magnetics and radiometrics). Scout RC drilling at Lacey, Kabang, Saddle, Natong and Dome prospects.	BA-001 to 014 (14 RC holes, Nansau, Ebor prospects). CC-001 to 0505 (50 aircore holes, Central Caldera prospect). ESSO-006 to 029 (17 RC holes, various prospects). KA-001 to 012 (12 aircore holes, Kabang prospect). LA-001 to 004 (4 aircore holes, Lacey prospect). NA001 to 010 (10 aircore holes, Natong prospect). SL-001 to 011 (11 aircore holes,Saddle prospect).
1986	Esso/City Resources	Diamond drilling at Kabang, Saddle and Natong prospects.	AMD-001 to 012. (12 diamond holes, Kabang, Saddle, Dome, Central Caldera prospects). BBD-001 to 002 (2 diamond holes, Nansau prospect).
1989	Esso/City Resources/Ingold	Further RC/diamond drilling	CCR-001 to 030 (31 RC holes, Central Caldera Prospect). DOD-001 to 006 (6 Diamond holes, Dome prospect). KAD-001 to 006 (6 diamond holes, Kabang prospect). NSD-001 to 009 (9 diamond holes, Natong prospect). NSR-001 (1 RC hole, Natong prospect). NTD-001 to 009 (9 diamond holes, Natong Breccia). SLR-001 to 002 (2 RC holes Saddle prospect).
1991	Esso/City Resources/Ingold	JV terminated. EL lapsed.	
1992	Macmin/Union	Macmin acquired EL. JV with Union and review work to 1994.	
1994	Macmin	Rabaul eruption.	
1995	Macmin	Four diamond holes.	MAD-001 to 004 (4 diamond holes. Kabang prospect)
1996	Macmin	Soil sampling at Kabang. Mud sampling at Kapkai Hot Spring.	
1997	Macmin	Airborne geophysical survey in 1985 re-interpreted. Grid soil sampling at Kabang – Kapkai. Rock chip sampling.	
1998	Macmin/NGG/Vangold	IP survey 20.5-line km. Trenching, soil sampling, 2 diamond holes at Kabang, petrology.	
1999	Macmin/NGG/Vangold	2 km of trenching. 4 diamond holes to test IP and geochemistry at Kabang.	
2001	Macmin/NGG/Vangold	Airborne geophysical survey (1985) re-interpreted.	
2003	Macmin/NGG/Vangold	Surface mapping and biogeochemical sampling.	
2004	Macmin/NGG/Vangold	Six diamond holes.	MAD-005 to 010 (6 diamond holes, Kabang prospect).
2006	Macmin/NGG/Vangold	Surface mapping by David Lindley.	
2007	Macmin/NGG/Vangold	Review previous work. Channel sampling, 6 diamond holes.	VDH-001 to 006 (6 diamond holes, Dome and Danmagal prospects)
2017	Mayur	Mapping and rock chip sampling of epidote as a pathfinder for copper mineralisation.	
2018	Mayur	Mapping and rock chip sampling for gold associated with stratabound manganese enrichment.	

## 7 GEOLOGICAL SETTING AND MINERALISATION

### 7.1 Geological Setting

The Property covers much of Ambitle Island, which lies on the Pacific Ring of Fire. The Feni Island Group lies at the southeast end of the 250 km long Tabar-Lihir-Tanga-Feni alkalic volcanic island chain, which is largely Pliocene-Pleistocene in age. The chain lies 40 – 60 km off the east coast of New Ireland, PNG (Figure 7-1). The Tabar-Lihir-Tanga-Feni island chain hosts operating gold mines at Lihir (Newcrest, 2020) and Simberi (St Barbara, 2020).

Figure 7-1. Regional geological setting and bathymetric contours of the Tabar-Lihir-Tanga-Feni alkalic island chain.



Source: Lindley, 2015

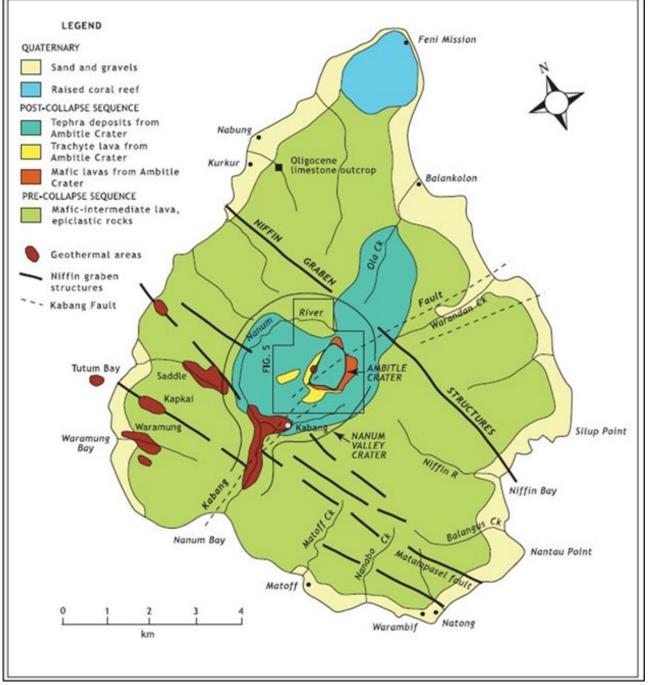
Feni Islands is located above an interpreted slab tear, as postulated by several authors (Lindley, 2015). The tip of the tear terminates beneath southern New Ireland and is considered to provide a window into the deeper asthenosphere. The slab tear is important as it allows penetration of mantle plume up into the mantle wedge, where alkaline magmas form.



Prospective settings for gold deposits are interpreted to be related to the localisation of mineralised corridors above tearing of a subducted slab and development of slab windows, or upper plate structures related to extension or shortening that promote magma-flux from the underlying mantle and act as an upper plate conduit for fluid flow (Holm et al, 2019).

Ambitle Island is dominated by Ambitle volcano, which is a collapsed stratovolcano (2 – 8 million years old) built on a basement of early Tertiary sediments (Figure 7-2). The crater rim is interpreted as a collapse-structure of gravity-induced failure of the southwest flanks of the Ambitle crater, as opposed to a large caldera structure (Lindley, 2006). It is composed of alkalic mafic to intermediate volcanics and high-level alkalic intrusives, such as monzonites and syenites of the Matangkaka Intrusive Complex. The cone of Ambitle volcano is comprised mainly of vesicular lavas, pyroclastic and epiclastic rocks. The lavas are intermediate in composition and strongly undersaturated, including phonolites, alkali basalts, basanite, trachybasalt and trachyandesite. The highest peak of the volcanic structure is 479 m above sea level.





Source: Lindley, 2015



The centre of the island is an eroded volcanic crater 3 km in diameter that contains resurgent trachyte domes. The youngest volcanic feature is an explosion crater (maar), which erupted about 2,000 years ago. This eruption deposited trachyte tephra over the middle part of the island, forming a mantle up to 50 m thick. The occurrence of extensive anhydrite-gypsum sealed volcaniclastic sequences within the crater (also seen at Lihir) is interpreted as a consequence of rapid de-pressurisation and crackle brecciation that followed the summit collapse (Lindley, 2006). An interpreted cross section of Ambitle volcano showing pre- and post-collapse surfaces is shown in Figure 7-3.

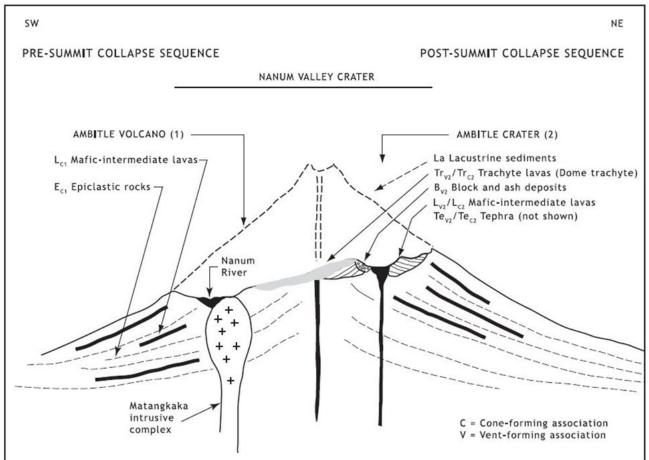


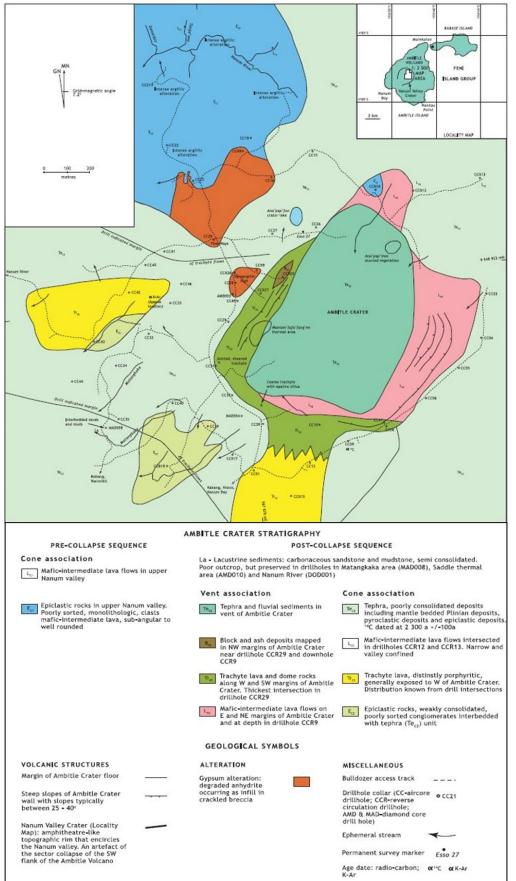
Figure 7-3. Diagrammatic cross section of Ambitle volcano showing pre- and post-collapse surfaces.

Source: Lindley, 2015

Numerous active geothermal areas occur on Ambitle, mostly aligned along young faults or on caldera ring fracture zones. Numerous structures also dissect the crater including the northwest trending Matampasel Fault and Niffen Graben structures, and the northeast trending Natong and Kabang Faults. Polymictic altered volcaniclastic breccias occur along the Natong structure. These breccias have been interpreted to be diatreme breccias (Lindley, 2006). Silicified clasts within the breccia are reported to have gold values up to 75 g/t Au (Lindley, 1994; Christopher, 2002). The geology of the Ambitle crater area is shown in Figure 7-4.



#### Figure 7-4. Geology of Ambitle Crater.



Source: Lindley, 2015



### 7.2 Mineralisation

Previous explorers have identified around 30 separate gold and gold-copper prospects and/or anomalies on the Feni Islands (e.g., Christopher, 2002). A total of 13 key gold prospects have been highlighted by Adyton within EL 2096 on Ambitle Island (Figure 7-5). The Kabang gold prospect has received the most exploration work to date.

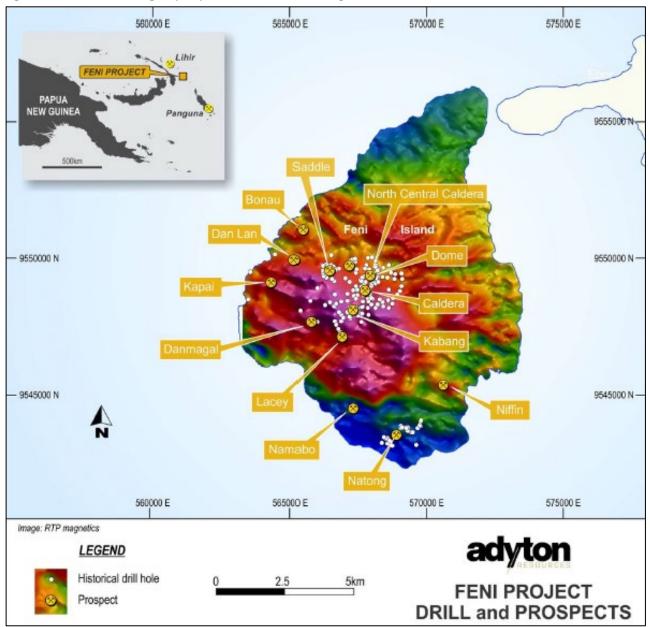


Figure 7-5. Ambitle Island gold prospects and historical drilling.

Source: Adyton, 2021b

The main style of mineralisation on Ambitle Island is low-sulphidation epithermal gold mineralisation associated with quartz veining and sulphide mineralisation (e.g., pyrite, chalcopyrite, arsenopyrite). The gold mineralisation is associated with the Matangakaka Intrusive Complex, which lies at the southern margin of the Ambitle volcanic crater.

Many authors have indicated that the epithermal gold mineralisation has overprinted an earlier porphyry copper style mineralisation episode (Lindley, 1996; Christopher, 2002). The presence of classic porphyry-style alteration mineralogy (potassic, phyllic, argillic and advanced argillic alteration zones) supports the occurrence of an intrusive-related porphyry-style system at depth.



Altered volcanic rocks have been reported at several prospects by previous companies such as Vangold, including phyllic alteration (sericite-quartz-pyrite), argillic alteration (illite-smectite-pyrite) and advanced argillic alteration (opal-kaolinite-pyrite). Epidote was also reported by Lindley (Charlton 2018 – Mayur Annual Report, 2018).

The gold-copper mineralisation at Kabang was described in detail (Lindley, 1996). Based on geological mapping, alteration mineralogy studies and fluid inclusion work, Lindley interprets the following stages of mineralisation at Kabang:

- **Structural preparation.** Northeast and northwest-trending (Niffen Graben) structures across the island created structural weakness within an extension rift graben setting.
- Late intrusions and local ground preparation. Emplacement of syenite intrusions caused overpressuring of the intrusive carapace resulted in brecciation and fracturing.
- **Porphyry-style mineralisation and alteration.** Potassic alteration of the syenite intrusions, plus lowgrade copper-gold mineralisation. Phyllic alteration overprint due to meteoric fluid influx and further gold mineralisation in areas of high fluid flow (e.g., breccias).
- **Epithermal gold overprint**. Initially a low-sulphidation epithermal argillic overprint (smectite-chloriteillite-gold) with influx of lower temperature epithermal fluids. Adularia, (commonly associated with fluid boiling zones) is restricted to the western areas only and this remains open to the west for further exploration. This was followed by an advanced argillic overprint (kaolinite, alunite).

Lindley (1996) reported a suite of alteration minerals from x-ray diffraction (XRD) analytical work including quartz, opal, cristobalite, alunite, kaolinite, smectite, illite, adularia, chlorite, calcite, rhodochrosite, dolomite and gypsum. The suite of clay minerals indicates a low-temperature and a near neutral to low-pH environment for the low-sulphidation epithermal gold mineralisation.

To date, mineralisation at Kabang has been identified over an areal extent of 1,000 m in a northeast – southwest direction, 400 m in a northwest – southeast direction, and over 100 m in depth extent.



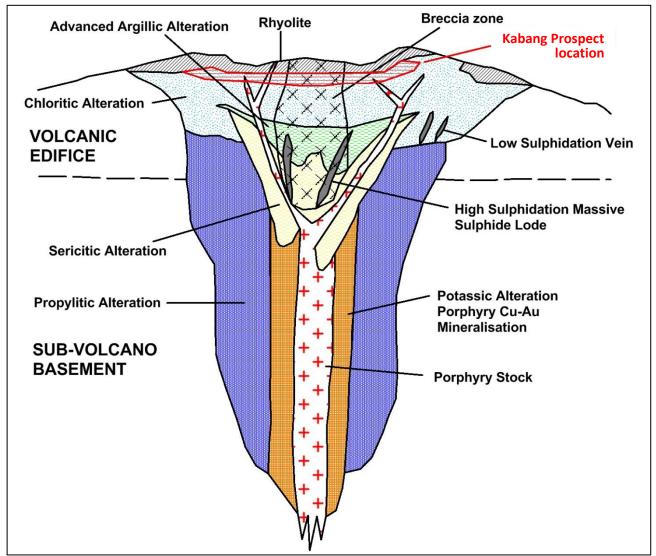
## 8 DEPOSIT TYPES

The main ore deposit types identified to date across the Property include:

- Low-sulphidation epithermal gold mineralisation associated with active hot springs (e.g., Lihir style).
- Intrusive-related porphyry-style copper-gold mineralisation (e.g., Panguna style).

An ore deposit model (based on the Sillitoe 1995 model) was included in the Mayur 2017 presentation and is shown below as Figure 8-1.

Figure 8-1. Ore Deposit Model for Feni (modified after Sillitoe 1995).



Source: Mayur, 2017

Other intrusive-related gold-copper mineralisation styles are also possible at depth, including:

- High-sulphidation epithermal gold-copper mineralisation (e.g., Wafi-Golpu, PNG).
- Breccia pipe gold-copper mineralisation (e.g., Mount Leyshon, Australia).

Also, alluvial gold has been mined on a small scale by local prospectors and represents a secondary target, but the total quantities are likely to be small.

The main style of mineralisation identified to date at the Kabang prospect displays many similarities to that of the large Lihir deposit, located 150 km to the northwest of the Feni Islands Group. The alteration and mineralisation at Lihir is also reported to have occurred in two phases i.e., an earlier porphyry-style, deeper level event followed by a later, higher-level, lower temperature epithermal stage. The early porphyry alteration includes potassic and propylitic styles related to the emplacement of intrusive stocks at depth. The



epithermal stage includes advanced argillic, argillic and phyllic alteration in the higher levels (Robinson, 2005). In a report prepared for Macmin in 1999, Leach reports:

"The geological evolution of the Kabang mineralisation revolves around the formation of a stratovolcano built of alkalic volcanics and intruded by high level alkalic intrusions such as monzonites and syenites. This resulted in the formation of zoned alteration. This included widespread potassic alteration, and with cooling the overprint of phyllic assemblages.

In the absence of dating, but based on analogy with Lihir, there could have been the emplacement of a later intrusion possibly controlled by the regional graben-like structures. This may have introduced a second alteration and mineralisation and could account for much of the adularia as opposed to orthoclase in the rocks. It is proposed that this second event triggered the eruption of the diatreme breccias and introduced sulphide mineralisation in response to the mixing of cool surficial with deep hot hydrothermal fluids. This is the main sulphide depositional phase and introduced the pervasive low order gold into the system.

In cooler parts of this second system, drawdown telescoped CO2 rich fluids down from shallow condensate reservoirs into the hot reservoir, depositing zoned carbonates and possibly gold and base metals. Later alteration with cooling saw the deposition of interlayered clays including chlorites and illites. A stage of chalcedonic quartz accompanies this stage, and the acid cap alteration at Kabang is probably a recent past product of this system.

It is clear that on Feni Island there are several distinct styles of mineralisation that need to be identified spatially and tested in accordance with the target type. In structures on the margins of intrusions, or at depth in the carapaces of stocks, there is the potential for porphyry Cu-Au deposits, especially where the phyllic event descends to the environment close to the intrusion itself. Secondly there are significant base metal intercepts, and several varieties of possibly zoned carbonates have been recognised; this suggests there may be potential for carbonate-gold base metal styles of mineralisation on Feni. Lastly, it is clear that there is a well-developed epithermal overprint on Feni; this suggests that there may be high grade gold zones perhaps associated with late stage chalcedonic quartz veining."



### 9 EXPLORATION

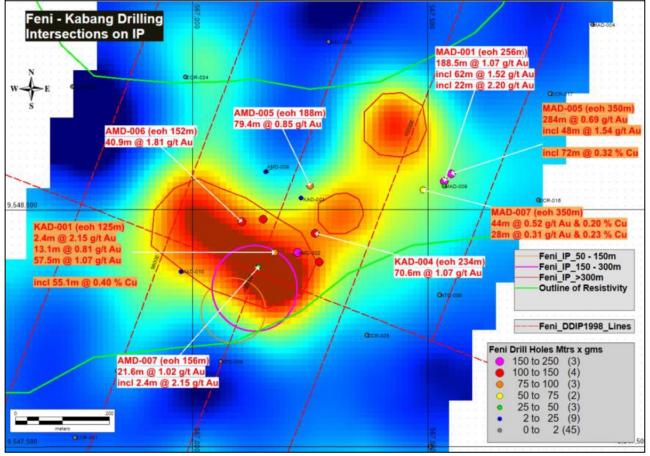
Adyton acquired the Property in 2021 and since acquisition has completed the following work at Feni:

- Interpretation of historical geochemical and drilling data.
- Reprocessing of IP survey data originally collected in 1998.
- Drillhole targeting and drilling program (refer to Section 10).
- Update of the 2020 Mineral Resource estimate based on the results of a conceptual mining study to investigate project viability and economics (refer to Section 14).

#### 9.1 Reprocessing of Historical IP Geophysics

Adyton has reprocessed IP survey data originally completed in 1998. This work has highlighted a significant and largely untested porphyry copper target in the Kabang prospect area. The main phase anomaly models as a sub-vertical pipe in the order of 150-200 m across and with significant depth extent. Subsidiary IP anomalies lie to the northeast of the main anomaly (Figure 9-1).

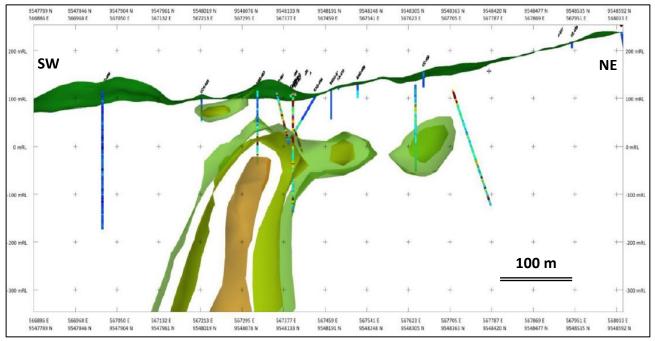




Source: Adyton, 2021a

The main pipe-like feature is located within the area where near-surface gold mineralisation has been defined and which forms part of the current Kabang Mineral Resource estimate. However, the main IP anomaly is interpreted to have substantial depth extent that has not been tested by previous drilling (Figure 9-2).





#### Figure 9-2. Cross section through Kabang showing the interpreted IP anomaly and drilling extent.

Source: Adyton, 2021a

### 9.2 Historical Drillhole Collar Survey Validation

During the 2021 drilling program, Adyton geologists located some drillhole collars from previous drilling campaigns as part of a survey validation exercise. This data is being collated by Adyton and will be used to validate drillhole collars in readiness for the next Mineral Resource estimate.

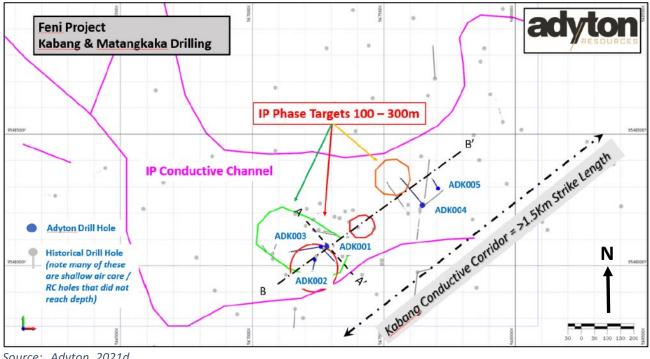


### **10 DRILLING**

### 10.1 2021 Drilling Program

Adyton completed a diamond drilling program (Figure 10-1) comprising five drillholes (1,962.2 m) testing the main IP target identified in the IP reprocessing (three holes) and a second IP target located 500 m northeast of the main target (two holes). Drillhole location details are presented in Table 10-1.

Figure 10-1. Plan of Kabang prospect showing 2021 drillhole locations and IP anomalies.



Source: Adyton, 2021d

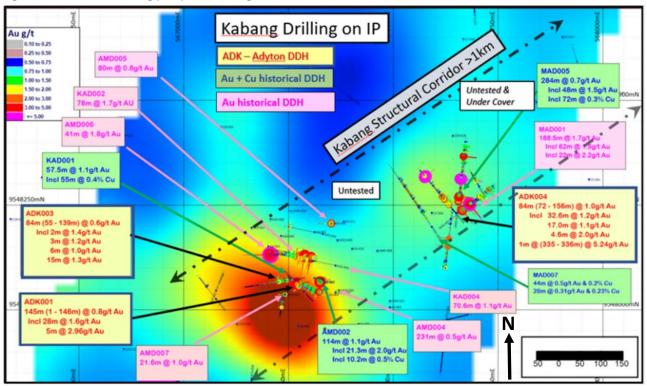
Hole ID	Easting (m)	Northing (m)	RL (m)	Length (m)	Azimuth (° magnetic)	Dip (°)
ADK001	567,260	9,548,072	92	432.0	130	-80
ADK002	567,236	9,548,023	97	452.4	185	-85
ADK003	567,260	9,548,072	92	449.2	255	-75
ADK004	567,650	9,548,230	151	394.6	313	-75
ADK005	567,704	9,548,293	162	234.0	323	-80
TOTAL				1,962.2		

Source: Adyton, 2021d

All drillholes were sited in or adjacent to the footprint of the existing Kabang Mineral Resource extent and most drilled through gold mineralisation and tested depth extensions for evidence of porphyry copper style mineralisation (Figure 10-2).

Holes ADK001, ADK002, and ADK003 were drilled at the southern end of the Kabang corridor testing for shallow epithermal gold in the top 200 m and deeper copper-gold porphyry potential. All three holes intersected significant pyrite that likely explains the IP remodelling, with strongest mineralisation being encountered in the brecciated margins to the intrusive (Table 10-2).

Holes ADK004 and ADK005 were drilled to test continuity of mineralisation to the northeast of the first three holes. This area is covered by 70 m of younger cover (volcanics, epiclastics and tephra). Beneath the younger cover from 72 m depth, ADK004 intersected strong gold mineralisation within hydrothermal breccia. The breccias are phyllic altered, silicified, with strong sulphide (pyrite and arsenopyrite) mineralisation up to 10% as breccia fill, stockworks and veining (Table 10-2 and Figure 10-3).





Source: Adyton, 2021d

Table 10-2. Kabang 2021 significant mineralisation.

Hole ID	From (m)	То (m)	Interval (m)	Gold Grade (g/t)	Copper Grade (%)
ADK001	1.0	145.8	144.8	0.81	-
including	7.0	23.0	16.0	-	0.28
including	63.0	91.0	28.0	1.60	-
including	112.0	130.0	18.0	1.21	-
ADK002	45.0	55.0	10.0	0.60	-
	203.0	204.0	1.0	-	1.08
ADK003	10.5	24.0	13.5	-	0.20
	55.0	139.0	84.0	0.60	-
including	55.0	57.0	2.0	1.36	-
including	61.0	64.0	3.0	1.16	-
including	93.0	99.0	6.0	0.96	-
including	124.0	139.0	15.0	1.26	-
ADK004	72.0	156.1	84.1	0.96	-
including	74.0	84.0	10.0	1.41	-
including	91.0	106.6	15.6	1.20	-
including	120.0	126.0	6.0	1.40	-
including	151.5	156.1	4.6	2.00	-
	329.0	336.0	7.0	1.41	-
ADK005	89.0	92.3	3.3	1.27	-
	168.0	173.0	5.0	0.81	-

Source: Adyton, 2021d

Note: Copper assay data available for ADK001, ADK002, and ADK003 to 293.2 m at the effective date.

**Aderisk** 



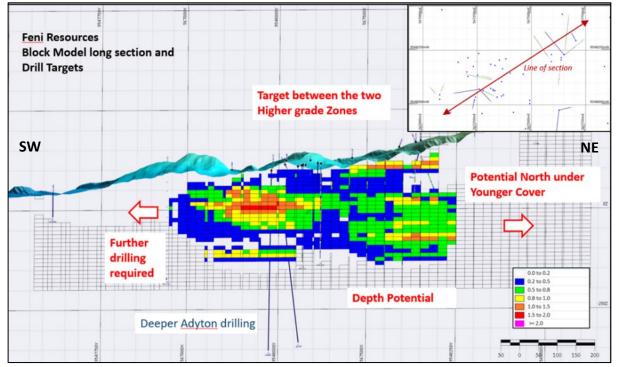
Figure 10-3. Massive sulphide interval from ADK004 at 155.0 m.



Source: Adyton, 2021d

The five-hole diamond drilling program at Kabang completed by Adyton in 2021 has reinforced the potential of the Kabang mineralised corridor to host a substantial "Lihir-style" gold deposit with all five holes intersecting epithermal gold mineralisation. The spatial distribution of gold is limited by the existing drilling and remains open in several directions (Figure 10-4).

Figure 10-4. Long section through the Kabang resource model showing target areas for exploration.



Source: Adyton, 2021e

The drilling has also confirmed that porphyry-related copper mineralisation is a legitimate exploration target on the island. At Kabang, the copper potential at depth remains to be adequately tested and 3D IP modelling suggests the presence of a chargeable and conductive intrusive body at depth.

## **10.2** Drilling Statistics

Drilling was carried out on Feni Island over a 22-year period from 1985 to 2007 by several previous tenement owners. Data from a total of 212 historical drillholes have been captured by Adyton, which amounts to a total of 18,893.3 m of drilling. This includes a mix of aircore, RC and diamond drilling (largely HQ core size). Adyton completed a drilling program in 2021 as described above. A summary of all of the drilling programs is shown in Table 10-3.

Company	Year	Prospects Drilled	Туре	Holes	Metres	Average Depth (m)
Esso/City Resources	1985	Nansau, Ebor, Central Caldera	RC	31	1,793.1	57.8
Esso/City Resources	1985	Central Caldera, Kabang, Lacay, Natong, Saddle	Aircore	87	3,693.1	42.5
Esso/City Resources	1986	Kabang, Saddle, Dome, Central Caldera, Nansau	Diamond	14	2,713.8	193.8
Esso/City Resources/Ingold	1989	Kabang, Central Caldera, Natong, Saddle	RC	34	3,620.0	106.5
Esso/City Resources/Ingold	1989	Kabang, Dome, Natong	Diamond	30	4,239.8	141.3
Macmin	1995	Kabang	Diamond	4	618.7	154.7
Macmin/NGG/Vangold	2004	Kabang, Central Caldera	Diamond	6	1,513.0	252.2
Macmin/NGG/Vangold	2007	Dome, Central Caldera	Diamond	6	701.8	117.0
Adyton	2021	Kabang	Diamond	5	1,962.2	392.4
TOTAL				217	20,855.5	

Table 10-3. Feni Islands drilling summary.

# **10.3** Drilling Conditions

There are some areas of the island where hot springs and fumaroles occur that are associated with the recent volcanism. Drilling in the Kabang area has the potential to intersect zones of high temperature and hot water and steam emissions are possible. Drill rigs need to be fitted with blow-out prevention equipment to minimise the hazards associated with drilling through a zone of hot water and/or steam.

## **10.4 Drillhole Collar Surveys**

Drillhole collar surveys have been recorded in the AGD 1966 Zone 56 grid coordinate system. The collar coordinates include Easting, Northing, RL, azimuth and dip. The specific collar survey location methods used by most of the companies are unknown, but for the drilling completed by Macmin it is believed that handheld global positioning system (GPS) instruments were used to survey the drillhole collars. The accuracy of the East and North co-ordinates is estimated to be around 10 m, but it could be less accurate for the older holes drilled in the 1980s and 1990s.

Some of the historical drillhole collars were located by Mayur staff in the field in 2015, who were able to survey the collar position using a DGPS instrument. A total of 69 holes in and around the Kabang deposit area, and 11 holes from the Natong prospect were surveyed with this method. The new survey co-ordinates have not yet been reconciled by Adyton and compared with the historical co-ordinates quoted by the previous companies.

Drillhole collars for the 2021 drilling program were surveyed using handheld GPS instruments configured using the AGD66 Zone 56 grid coordinate system for the easting and northings.

## **10.5** Downhole Surveys

There are no downhole surveys included in the historical drillhole database provided by Adyton. Most of the drillholes are vertical, or steep near-vertical holes. Some angled holes were drilled in a variety of directions, but typically drillholes are less than 300 m in length. For the 2021 drilling, Adyton did not undertake downhole surveys because ground conditions and downhole temperature were too high to run conventional downhole survey instruments.

## **10.6 Core Recovery**

No drilling recovery data for historical drillholes in digital format has been supplied by Adyton. Recovery data for some of the historical drilling programs is recorded in some of the original drilling logs. Some zones of poor recovery were noted, but these were largely within the barren tephra zones, overlying the zones of mineralisation. Core recovery logs are provided in the 1988 Feni Annual Report by City Resources (City Resources, 1989) for several AMD-series holes. A large proportion of the recoveries are over 80%.

Overall recovery has been reported by some of the previous companies as good. However, the relevant Qualified Persons cannot verify this statement. The lack of drilling recovery records reduces the reliability of the drilling data and contributes to the assessment and classification of the Kabang Mineral Resource estimate.

For the 2021 diamond drilling program, Adyton measured core recovery. Average core recovery was better than 95% except in areas of broken ground. Adyton has not completed an assessment of whether there is a relationship between core loss and gold grade – this will be done prior to the next Mineral Resource estimate.

## **10.7** Geological Logging

Detailed hard-copy lithological logging of all holes was converted into digital soft-copy logs using Microsoft Excel, then loaded into a Microsoft Access database by H&S Consultants (2015). The drillhole database for the 212 drill holes includes 1,692 geological interval descriptions.

For the 2021 diamond drilling program, Adyton geologically logged all intervals using hard-copy then transferred this data into digital format.

## **10.8** Relationship of Drilling to Mineralisation

The broad zone of gold mineralisation identified at Kabang is interpreted to be flat lying. Most drillholes in the Kabang prospect are either vertical or steeply dipping and therefore the drillholes are approximately perpendicular to mineralisation. There is a possibility that higher-grade gold mineralisation at Kabang is structurally controlled but exploration to date has not confirmed or defined the orientation of these structural controls.

Elsewhere on the Property, drilling has not been detailed enough to determine the orientation of mineralisation intersected.

## 10.9 Reliability

The relevant Qualified Persons have reviewed the historical records available documenting drilling methods and procedures used for the drilling programs completed at the Property. Records are incomplete and some documentation is missing. Therefore, it is not possible to independently validate some drilling data. Where the relevant Qualified Persons have identified specific concerns associated with drilling, sampling and recovery information relating to estimation of Mineral Resources, these are specifically addressed in Section 14 of this Report.

# **11 SAMPLE PREPARATION, ANALYSES AND SECURITY**

# 11.1 Historical Drilling – Pre-2021

Drilling has been carried out on Feni Island over a 22-year period from 1985 to 2007 by several previous tenement owners. Data from a total of 212 historical drillholes have been captured by Mayur, which amounts to a total of 18,893.3 m of drilling. This includes a mix of aircore, RC and diamond drilling (largely HQ core size). Records describing sampling, sample preparation methods and analytical methods used by the previous tenement owners are incomplete.

#### **11.1.1 Sampling Methods**

For diamond drill core, sampling consisted of collecting sawn half or quarter drill core that was cut on site, then bagged for despatch to a commercial laboratory. Important geological contacts were used to control sampling intervals.

For RC and aircore drilling, 1 m samples were placed in a bag that allowed dewatering by overflow, and diffusion through the bag surface. Samples were dried, weighed and riffle split using a splitter with 25 mm apertures on site with a one quarter/three quarter ratio split. Consecutive 1 m quartered samples were commonly combined to make a 2 m composite sample. The samples generated 2 - 3 kg samples that were bagged and sent to a commercial laboratory for analysis.

#### **11.1.2 Sample Preparation**

The sample preparation method used at the commercial laboratories is not documented in detail, but samples were dried, crushed and pulverised to -150 mesh prior to analysis. Core samples were subject to jaw crushing. Core and RC samples were further crushed to -40 mesh by roll mill, then to -60 mesh by a Keegor mill. The sample was then pulverised to -150 mesh.

#### **11.1.3** Analytical Methods

Records indicate that most drill samples were analysed at commercial laboratories located in PNG. There was no relationship between the laboratories and the tenement holders other than a fee-for-service commercial agreement to analyse samples supplied by the tenement holder. The relevant Qualified Persons have not been able to verify what certification or accreditation that each laboratory had at the time the work was completed.

During the Esso/City Resources drilling in the 1980s (AMD-series holes), cores were analysed by Pilbara Laboratories (Niugini) Pty Ltd (Pilbara Labs), for gold and copper using the FA50 analytical technique, involving a 50 g fire assay technique with 0.01 ppm detection limit. If assays of >0.5 g/t Au were obtained, a second quarter split on an individual metre basis was submitted for analysis. Base metals (copper, lead, zinc, manganese) were analysed using an atomic absorption spectrometry (AAS) technique. Other elements such as arsenic and antimony were also analysed using a "HYD" technique, but there are no details provided in the company reports on this method.

For the Esso/City Resources percussion drilling programs in the 1980s, drill chip samples were dispatched to Pilbara Labs and analysed for gold using the FA50 technique, involving a 50 g fire assay technique with 0.005 ppm detection limit. Base metals were analysed using an AAS technique, and arsenic and antimony were analysed using the HYD technique.

For the Macmin JV with Vangold, core was analysed at ALS Townsville laboratory (ALS). Two analytical methods were used for gold and copper (Au-AA24 and Cu-AA47). The Au-AA24 is a fire assay fusion method with AAS finish and uses a 50 g sample with a lower detection limit of 0.005 ppm Au and an upper detection limit of 10 ppm Au. The Cu-AA47 method utilises an aqua regia digest followed by an AAS finish (detection limits from 2 to 10,000 ppm Cu).

## 11.1.4 QA/QC Processes

Records describing quality assurance and quality control (QA/QC) processes used by the previous tenement owners are incomplete and provide very little information about QA/QC procedures. In a technical report prepared in 2002 (New Guinea Gold, 2002), the authors report that:

- "the writer has taken personal samples to verify Feni results and has viewed a number of analytical results that indicate regular reruns by the lab and checks of high or unusual results".
- "check assaying was undertaken on a separate split of every tenth sample with the results showing acceptable variation".
- "the writer of the opinion that previously generated data (prior to 2002) is of excellent quality".



## 11.1.5 Security

Records describing security arrangements implemented by the previous tenement owners are incomplete.

#### 11.1.6 Assessment

The relevant Qualified Persons consider that the documentation sighted describing sample preparation procedures, analytical procedures and security arrangements used in the drilling programs completed at the Property were typical of procedures used generally within the exploration industry. However, the records of this activity over the period from 1985 to 2007 are incomplete. The relevant Qualified Persons consider that the sample preparation procedures, analytical procedures, and security arrangements are adequate to support Mineral Resource estimation, but the incomplete nature of records contributes to a lower level of confidence.

## **11.2** Drilling Completed by Adyton

### 11.2.1 Sampling Methods

All drilling completed by Adyton in 2021 was done using diamond drilling. Drill core sampling consisted of collecting sawn half drill core that was cut on site, then bagged for despatch to ITS (PNG) Ltd (ITS) laboratory in Lae for sample preparation and analysis. Important geological contacts were used to control sampling intervals but elsewhere a nominal 1.0 m sampling interval was applied.

### **11.2.2** Sample Preparation

The sample preparation method used at ITS Lae comprises the following steps:

- Samples are weighed on arrival, dried, then weighed again.
- Samples are crushed to <2 mm, then split using a rotary splitting device to retain 1.5 kg. The coarse reject is retained (nominally approximately 3.5 kg).
- Sub-samples are pulverised using a LM2 to 95% passing 75 microns.
- A 150 g split is taken for fire assay, a 50 g split is taken for ICP analysis, and the remaining pulp is retained.

## **11.2.3** Analytical Methods

Diamond core samples were analysed for gold by fire assay (50 g charge, method FA50) and multi-element analysis of 47 elements by ICP-MS (method 4A/MS) by ITS Laboratories in both Port Moresby and Townsville respectively.

#### 11.2.4 QA/QC Processes

QA/QC procedures adopted by Adyton comprised:

- 1 in 40 insertion of one of four commercial certified reference materials (CRMs) OREAS 216B, 238, 348, 504.
- 1 in 40 insertion of a coarse blank sourced locally.

Field duplicates were not considered to preserve the remaining core and avoided quarter core sampling. ITS routinely performed internal QA/QC checks that were also reviewed and included internal standards and CRMs, assay repeats, duplicate samples, and internal check samples.

#### 11.2.5 Security

Adyton staff sampled half core from the 2021 drilling program at site. Each sample was packed into a calico bag and 5 - 6 samples were placed into secured plastic bags for transport. Adyton used a charter boat to transport samples directly to Lae and offloaded these onto the wharf where they were picked up by ITS laboratory staff. Sometimes, Adyton staff travelled with the charter boat. These security arrangements are typical of normal industry practice.

### 11.2.6 Assessment

The relevant Qualified Persons consider that the documentation provided by Adyton describing sampling, sample preparation procedures, analytical procedures and security arrangements used in the 2021 drilling program is typical of procedures used generally within the exploration industry. The relevant Qualified Persons consider that these procedures are adequate to support Mineral Resource estimation.



# **12 DATA VERIFICATION**

# 12.1 Site Visit

The relevant Qualified Person visited the Kabang prospect (Figure 12-1) on Ambitle Island in October 2021 to inspect a selection of 2021 and historical drill sites, identify any drillhole collars if preserved, and collect spatial co-ordinates using a handheld GPS instrument.

Figure 12-1. Aerial view of 2021 drill pads for ADK004 and ADK005, October 2021.



All five drill collars from the 2021 drilling program were sighted (Figure 12-2) plus two historical unlabelled drillhole collars. Handheld GPS collar coordinate checks for the 2021 drillholes showed an accuracy of +/- 3-10 m with the survey coordinates provided by Adyton.

Figure 12-2. Drillhole collar for hole ADK005, October 2021.





# **12.2 2021** Drillhole Data Review

The Qualified Person visited the Adyton drill core storage facility in Lae in October 2021 to inspect a selection of drill core from the 2021 program (Figure 12-3). Core from ADK001 and ADK004 were viewed to verify the logging completed by Adyton.

Figure 12-3. Portion of the Lae core storage facility, October 2021.



From surface to 200 m, ADK001 intersected a fractured and brecciated intrusive with pervasive phyllic alteration containing fine grained disseminated and fracture-fill pyrite–arsenopyrite–silica–sericite mineralisation, with an interpreted late injection of silica–pyrite infilling. Adyton reported an interval of 144.8 m @ 0.8 g/t Au from 1.0 m. Figure 12-4 illustrates core from a section of the hole that averaged over 2 g/t Au. From 200 m to the end of the hole at 432 m, Adyton logged phyllic altered intrusive with zones of potassic alteration.

Figure 12-4. ADK001: 73.5 – 82.5 m, with inset showing close-up of breccia, October 2021.





ADK004 was sited 500 m northeast of ADK001 and intersected 70 m of younger cover rocks before drilling through phyllic altered, silicified hydrothermal breccia, with pyrite and arsenopyrite mineralisation up to 10% as breccia fill, stockworks and veining. This hole intersected 84.1 m @ 0.96 g/t Au from 72.0 – 156.1 m. Figure 12-5 shows an example of the sulphidic breccia at around 103 m depth.

Figure 12-5. ADK004: 103.0 – 103.3 m, showing close-up of hydrothermal breccia, October 2021.



Based on the core inspected, Derisk considers that the logging undertaken by Adyton is high quality. Core trays are well marked to show sampling intervals and core block markings are legible.

The Qualified Person also visited the ITS Lae laboratory as part of a general inspection of the sample preparation and fire assay facilities. The laboratory was set up in an orderly fashion and staff were processing samples for another client (pulverising and fire assaying).

Figure 12-6. ITS Lae laboratory sample receipt area, October 2021.





# **12.3** Data Verification Findings

In its review of the historical exploration data, Derisk (2021) concluded "The relevant Qualified Persons believe that the database is adequate for the estimation of Inferred Mineral Resources according to CIM Definition Standards. However, a more thorough compilation of all past exploration activity, including the documentation describing procedures used in the drilling campaigns is required to raise the confidence in the quality of this data." This assessment remains valid for work completed prior to Adyton.

For the exploration undertaken by Adyton, the relevant Qualified Persons believe that the database is adequate for the estimation of all categories of Mineral Resources according to CIM Definition Standards.



# **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

No formal metallurgical testing has been completed at the Property. Sulphide mineralisation has been identified as comprising pyrite with subsidiary chalcopyrite ±arsenopyrite ±galena. No studies have been undertaken to identify the nature of the gold at Kabang. Limited weathering has been interpreted from the drilling completed to date and there is no evidence of any supergene enrichment of either copper or gold.

The relevant Qualified Persons assume that the gold mineralisation identified at Kabang will be able to be treated by conventional crushing and grinding followed by either a gravity/cyanide leach process to produce a doré product, or by gravity/flotation to produce a gold-rich concentrate.



# **14 MINERAL RESOURCE ESTIMATES**

## 14.1 Methodology

The process used by H&S Consultants (2015) to prepare the Kabang Mineral Resource estimate comprised the following steps:

- 1. Digital and hardcopy drillhole data were extracted from a master database then imported into Microsoft Access software for checking and validation.
- 2. Digital topographic survey data collected by LIDAR technology was reviewed and imported into the Surpac software package.
- 3. Data validation checks were completed, focused on drillhole collar coordinates and sampling/analysis data. Once source data was checked, modifications were applied to the master data sets accordingly.
- 4. Three-dimensional interpretations of lithology and alteration zones were created in Surpac, based on the drillhole logs and assays.
- 5. Statistical analysis of drillhole assay data was completed and used to establish the optimum composite sample length and the creation of mineralisation domains for estimation based on lithology.
- 6. Drillhole composites were generated for gold, followed by composite statistics and a variographic analysis of the drillhole data using the H&S Consultants in-house GS3M software.
- 7. A three-dimensional block model was created in Surpac, with no sub-celling of parent blocks.
- 8. Estimation search parameters were developed for each area, and estimates were generated using the OK method.
- 9. Block model validation comprised visual checking of block grades against composite values and other statistical checks.
- 10. Assignment of the mineral resource classification was completed, considering the confidence in the geological interpretation of the mineralisation, drillhole spacing, sample density, assessments of the integrity and robustness of the sample database, and estimation quality.
- 11. A grade-tonnes curve was produced to illustrate the sensitivity of the estimate to different cut-off criteria.
- 12. Criteria to support the reasonable prospects for eventual economic extraction were assessed and an appropriate cut-off criterion was selected for reporting Mineral Resources.

The relevant Qualified Persons have reviewed and reassessed the data inputs, estimation parameters and reporting criterion for Kabang and re-reported the Mineral Resource using the 2014 CIM Definition Standards at an effective date of 14 October 2021.

None of the 2021 drilling data has been included in the updated Mineral Resource estimate. Adyton has undertaken a conceptual mining study to investigate project viability and economics at Kabang and this work has led to a lowering of the reporting cut-off criterion.

## 14.2 Resource Inputs

#### 14.2.1 Drillhole Data

Drilling at Kabang comprises a mixture of aircore, RC and diamond drilling completed by various companies since the 1970s. A total of 45 drillholes (5,289 m) have been used in the current resource estimate (Table 14-1). The 2021 drilling completed by Adyton has not been used in the current estimate.

Compony	Diamond Drilling		RC Drilling		Aircore Drilling	
Company	No	Metres	No	Metres	No	Metres
Esso	7	1,169.2	-	-	13	371.8
Ingold	6	703.1	10	1,093.0	-	-
Macmin	5	968.7	-	-	-	-
Macmin/NGG/Vangold	4	982.9	-	-	-	-
Totals	22	3,823.9	10	1,093.0	13	371.8

Table 14-1. Kabang Drilling Statistics.

Source: Derisk, 2021



The drilling information is recorded in the AGD66 Zone 56 grid coordinate system for the easting and northings. Drill spacing is irregular, at a nominal spacing of 50 - 100 m in the central part of the deposit increasing to 150 - 200 m at the margins. Twelve of the holes are inclined at 50° to 60° whilst the remaining 33 holes were drilled vertically.

#### **14.2.2** Topography and Drillhole Surveys

A subset of 2.5 m and 5.0 m contours from a LIDAR survey for the Feni Islands was used to create a topographic surface for the greater Kabang area.

Drillhole collars were draped over the 2.5 m surface to provide more accurate collar elevations. Peripheral holes were draped over the 5.0 m contoured LIDAR surface. There are no downhole surveys.

#### 14.2.3 Geological and Mineralisation Interpretation

H&S Consultants created two lithological domains that were also considered important in modelling mineralisation. A base-of-tephra surface was created to separate an upper tephra domain (Domain 1), which is very low grade and is not considered to contain potentially economic mineralisation, from a lower domain (Domain 2), which hosts the gold mineralisation. No other surfaces were created for the mineralisation as H&S Consultants considered the deposit to be open in all horizontal directions and at depth.

In addition, alteration surfaces were created to represent a potassic alteration zone and an overprinting argillic/phyllic alteration zone. Whilst these surfaces provided additional geological understanding of the deposit, they were not used in the resource modelling. No oxidation surfaces were created.

## 14.3 Data Analysis

#### 14.3.1 Drillhole Assay Data and Sampling Intervals

The assay database for the entire Feni Islands area was provided by Mayur, containing 8,701 intervals. Of these, 4,356 samples have gold and copper assays, 3,772 samples have gold-only assays, 231 samples have copper-only assays, 265 samples have an allocated sample number, but no assays and 77 intervals have no sample numbers or assays. Most of the missing assays are outside the immediate Kabang area, although a substantial number of copper assays are missing for two drillholes at Kabang (MAD002 and MAD009).

At Kabang, there are 45 drillholes containing 2,594 gold assays, predominantly diamond coring with some RC and aircore drilling samples. The sampling length generally varies between approximately 0.1 –15 m. A histogram of the sample lengths (Figure 14-1) indicates a dominant sample length of 2.0 m. The variable sample lengths are the result of drilling campaigns by different companies, the mix of drilling techniques and the use of geological control for sampling of the diamond drilling.

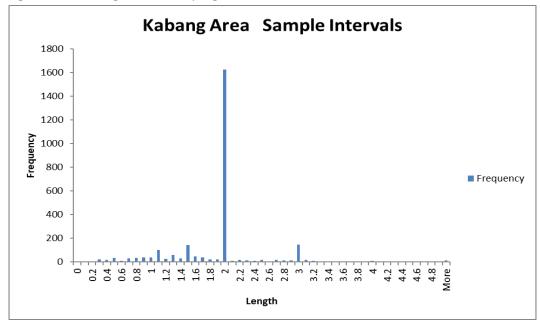


Figure 14-1. Kabang drillhole sampling intervals.

Source: Derisk, 2021



A review of the drillhole assay intervals was undertaken prior to compositing to check for extreme or unusual values. Assays below the lower detection limit (<LDL) were set to half the detection limit. One sample in drillhole MAD006 (42 - 44 m with an analysis of 16.3 g/t Au) is believed to be suspicious and was removed from the assay database.

#### 14.3.2 Sample Recovery

No statistical analysis of sample recovery was undertaken because drilling records documenting recovery for diamond and RC drilling were incomplete.

#### 14.3.3 Compositing

Based on the sampling interval statistics, a compositing interval of 2.0 m was chosen, with a minimum composite length of 1.0 m. Composites were created for the mineralised unit as well as the tephra unit, honouring the lithological contact.

A total of 2,359 two metre drillhole composites were created within the mineralised bedrock (Domain 2) and 551 composites were created in the tephra unit (Domain 1).

Univariate gold statistics for the composites for the two domains are presented in Table 14-2. A review of the coefficients of variation (CoV) for both domains indicates single populations. The relatively modest CoV for gold suggests that OK can be used as an appropriate grade estimation method.

Gold	All Data	Tephra (Domain 1)	Mineralised Bedrock (Domain 2)
Number of composites	2,910	551	2,359
Mean	0.282	0.04	0.339
Variance	0.252	0.002	0.293
Coefficient of variation	1.778	0.978	1.599
Minimum	0	0.005	0
First quartile	0.028	0.021	0.032
Median	0.06	0.032	0.11
Second quartile	0.339	0.047	0.429
Maximum	5.6	0.58	5.6
Intra-quartile range	0.311	0.026	0.397

Table 14-2. Composite statistics.

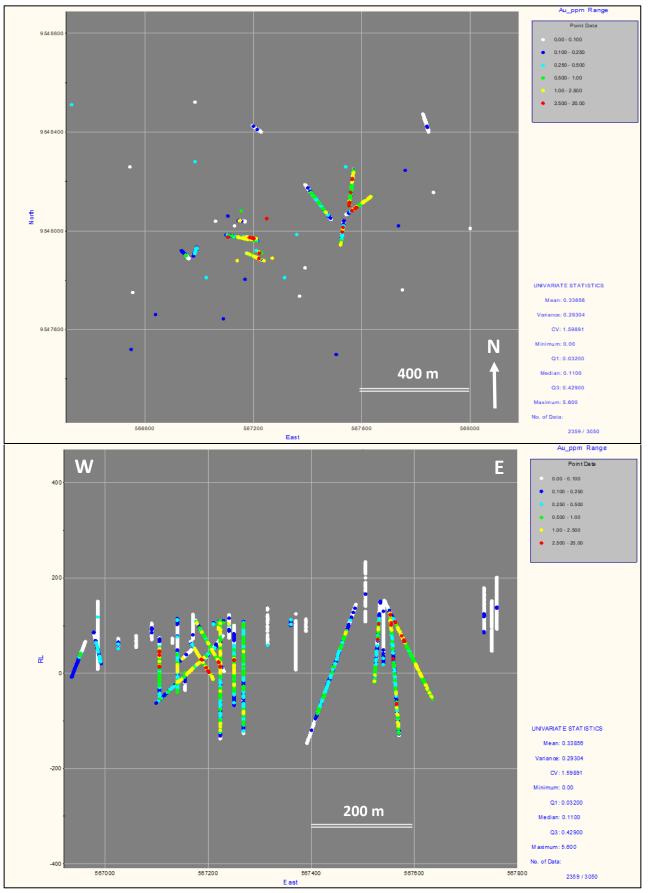
Source: Derisk, 2021

A plan view of the Kabang composites for Domain 2 is illustrated in Figure 14-2, which shows a central mineralised zone. Many of the peripheral drillholes are vertical aircore holes that appear to have not been drilled deep enough to intersect mineralisation, assuming the gold mineralisation in the central Kabang area is sub-horizontal in nature.

Figure 14-2 also illustrates the gold composite distribution in long section. There is no obvious zonation to the gold mineralisation and some drillholes stopped in mineralisation, particularly in the eastern half of the deposit.

## 14.3.4 Grade Capping

A review of the gold analyses at Kabang was undertaken to determine if grade capping of high gold grades was warranted. Based on this review, and in the absence of any extreme gold grades, no grade capping was applied to the composite data.





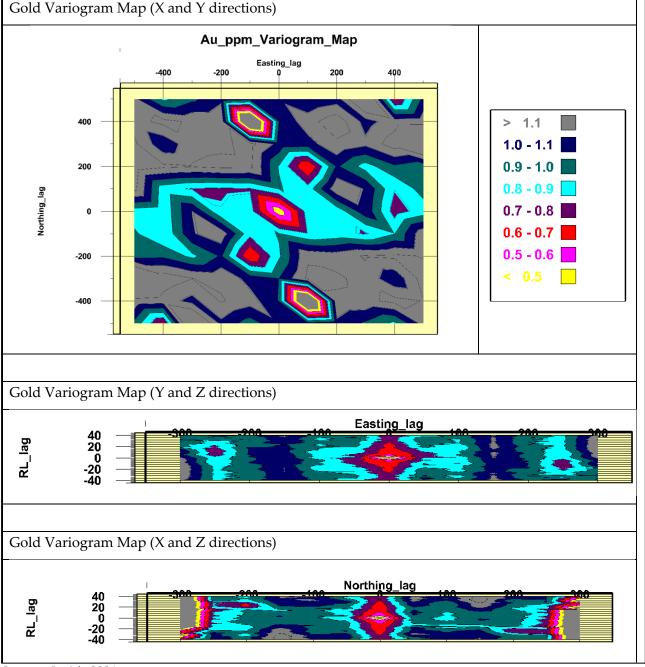
Source: Derisk, 2021



## 14.3.5 Variography

A variography assessment was completed using GS3M software on the 2.0 m composite data. Examples of variogram maps are presented in Figure 14-3. The XY map indicates a broad east – west structure to the data but with the suggestion of a northwest – southeast structure as well. This may reflect the interpreted dominant structural grain associated with the graben formation, linked to island arc development, and provides a suggestion that these structures might provide a control to mineralisation. Otherwise, the gold mineralisation appears to be relatively flat lying, as seen in the YZ and XZ maps, but this could be an artefact of the drilling data.



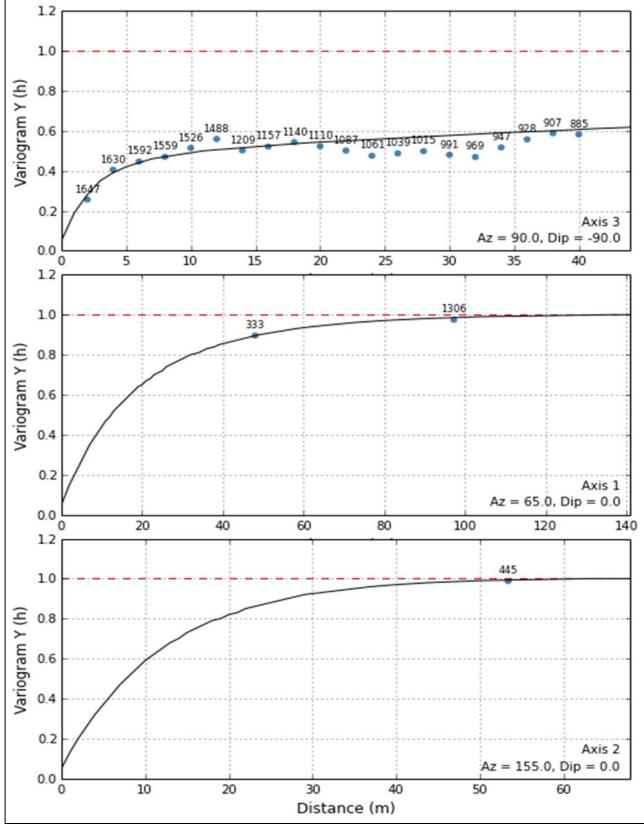


Source: Derisk, 2021



Variography indicated good ranges for the downhole variogram (Figure 14-4 top plot) but poor continuity for the directional variograms (Figure 14-4 middle and bottom plots). The poor continuity is potentially due to either a lack of drilling or there is no structure to the data.





Source: Derisk, 2021

### Variogram model parameters for grade estimation for both domains are summarised in Table 14-3.

Table 14-3. Variogram model parameters.

Metal		Nugget	c1	c2	c3	
Gold			exp	exp	ехр	
Domain 1	variance	0.05	0.38	0.07	0.50	
& Domain 2	range – X		38	40	88	
	range – Y		36	36	36	
	range – Z		7	43	500	
	Z Rotation *					25°
	Y Rotation *					0°
	X Rotation *					0°

Source: Derisk, 2021 Note: Rotations are in the trigonometric convention

#### 14.3.6 Bulk Density

No direct bulk density determinations have been measured from any samples at Kabang. For this resource estimate a default dry bulk density of 2.30 t/m<sup>3</sup> was applied to Domain 1, and 2.60 t/m<sup>3</sup> was applied to Domain 2 to convert volume estimates to tonnes estimates. The relevant Qualified Persons consider that these density estimates are adequate in the absence of measured data and reflect the observations that the upper tephra horizon is less dense than the lithologies that host mineralisation. Bulk densities values were assigned to individual blocks based on the domain coding within the model.

## 14.4 Resource Estimation

#### 14.4.1 Block Model Set-up

The Mineral Resource estimate for the Kabang deposit was prepared on the assumption that the mineralisation will be amenable to open pit mining methods.

The block model is in the AGD66 Zone 56 grid with dimensions listed in Table 14-4. The east and north block size dimensions were chosen based on being a quarter of the nominal drillhole spacing. The vertical block size dimension is based on a plausible bench height for any mining.

	East	North	RL
Minimum Extent	566,587.5	9,547,562.5	-195.0
Maximum Extent	568,112.5	9,548,587.5	395.0
Block Size (m)	25.0	25.0	10.0
Number of Blocks	62	42	60
Length (m)	1,525	1,025	590

Table 14-4. Block model extents.

Source: Derisk, 2021

The block model dimensions were restricted by the topographic surface based on block centroids below this surface. Definition of the tephra unit (Domain 1) was assigned to the block model based on block centroids above this surface. No oxidation zone was assigned to the block model as drilling information was incomplete.

Figure 14-5 shows a plan view of the extent of the block model, showing drillhole collars and blocks with an interpolated grade. Blocks with colour show where the mineralisation outcrops at surface.



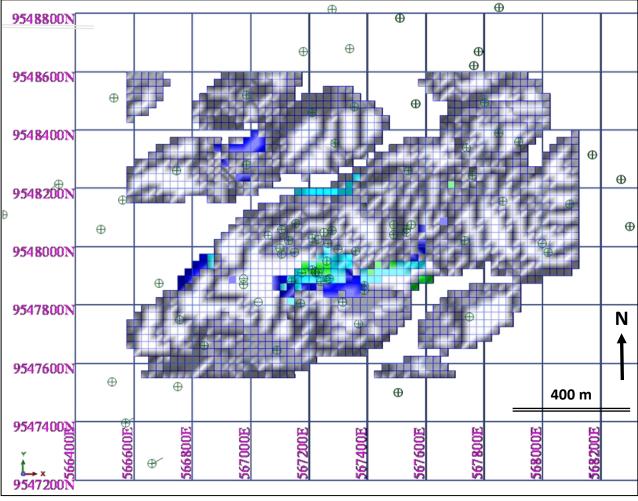


Figure 14-5. Plan view of the extent of the block model.

Source: Derisk, 2021

## 14.4.2 Estimation Parameters

Interpolated gold grades were estimated into the block model by OK using Micromine v2014 software. Gold was estimated into Domains 1 and 2 in three search passes employed with progressively larger search radii and decreasing search criteria (Table 14-5). The search ellipse used to control the estimation was flat (Table 14-6). Both domains were modelled using a hard estimation boundary. Modelling was unconstrained with the maximum extrapolation being 200 m beyond the drilling limits.

Table 14-5	Gold grade	estimation	search	parameters.
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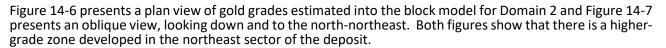
Pass Number	Maximum Composites Per Sector	Minimum Composites in Total	X Search (m)	Y Search (m)	Z Search (m)	Minimum No. of Holes	Minimum Composites Per Hole	Maximum Composites Per Hole
1	8	17	100	50	25	3	1	8
2	8	12	200	100	50	2	1	8
3	8	8	200	100	50	1	1	8

Source: Derisk, 2021

### Table 14-6. Search ellipse orientation.

Axis 1 Azimuth	Axis 1 Dip	Axis 2 Azimuth	Axis 2 Dip	Axis 3 Azimuth	Axis 3 Dip
65°	0	155	0	235	90

Source: Derisk, 2021



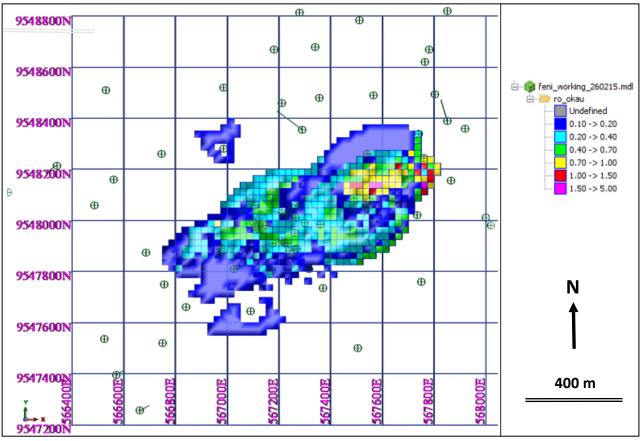


Figure 14-6. Plan view of gold grades in Domain 2 of the block model.

Source: Derisk, 2021

#### 14.4.1 Model Validation

Validation of the estimation was undertaken by visual checks of the model versus drillhole composite grades, analysis of model versus composite statistics, and by completing several check estimates using variations in search parameters. These checks indicate that the block model fairly represents the grades observed in the drillhole composites.

Figure 14-8 and Figure 14-9 present two cross sections through the model comparing block model gold grades and drillhole composite gold grades.

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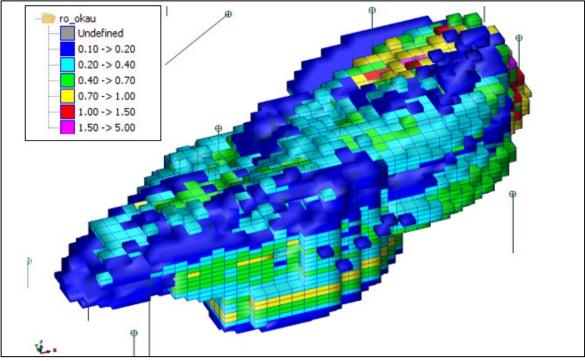


Figure 14-7. Oblique view looking down and to the north-northeast of gold grades in the block model.

Source: Derisk, 2021

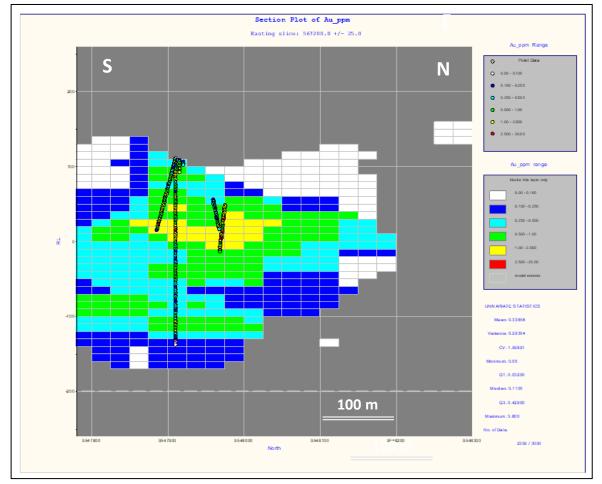
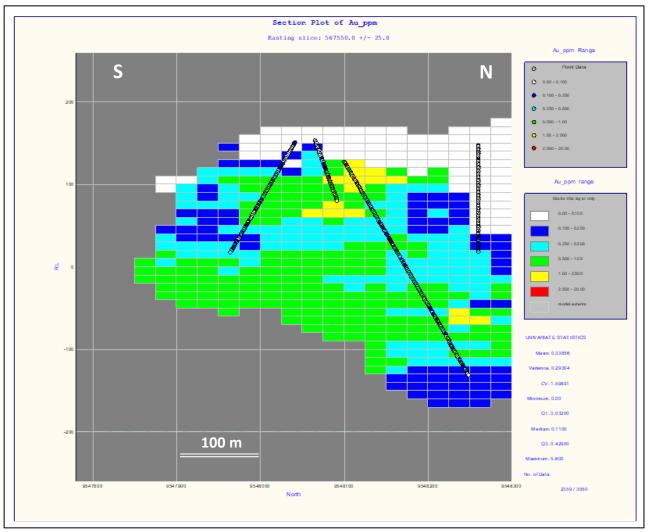


Figure 14-8. Cross section 567,200 mE showing drillhole gold composite grades versus block model grades.

Source: Derisk, 2021







Source: Derisk, 2021

Table 14-7 presents a statistical comparison of model and drillhole composite gold grades. For both domains, the mean of the block model grades is lower than the mean of the drillhole composites. The maximum extrapolation of model grades is 200 m from any drillhole.

Table 14-7. Comparison of the mean of the block model grades and drillhole composite grades.

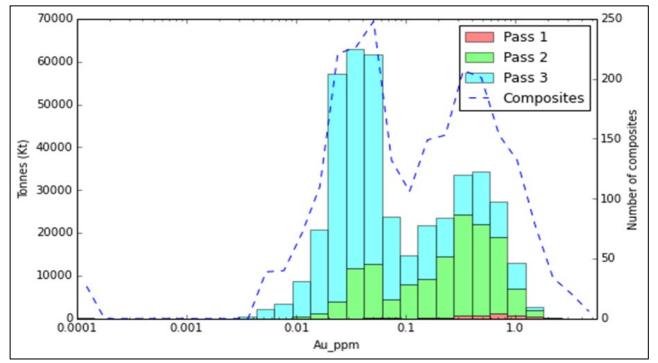
Domain	Data Type	Mean Au Grade (g/t)		
1	Drillhole Composites	0.040		
	Global Block Model	0.037		
2	Drillhole Composites	0.34		
2	Global Block Model	0.20		

Source: Derisk, 2021

A comparison of the composite and global block grades for Domain 2 (Figure 14-10) shows consistency between the two data sets, particularly in representing the bimodal population. The low-grade population represents the peripheral low-grade samples used to buffer the grade interpolation, whilst the higher-grade population represents the main mineralisation. At this stage there is insufficient drilling to adequately define the boundaries to the mineralised zone.







Source: Derisk, 2021

## 14.4.2 Classification

Classification of the estimate considered a range of factors including geological and mineralisation controls and interpretation, drilling density, and data input quality. Some of the deficiencies associated with data inputs include:

- Uncertainties associated with the accuracy of drillhole collar locations and surface topography.
- Uncertainties associated with data collection protocols for some drilling campaigns.
- Uncertainties associated with QA/QC protocols and systems used for some drilling campaigns.
- Lack of bulk density measurements.

The relevant Qualified Persons consider that the estimate should be classified as Inferred to take these concerns into account. The CIM Definition Standards define Inferred Mineral Resources as "that part of a Mineral Resource for which the quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity."

The relevant Qualified Persons conclude that for Kabang, the geological evidence is sufficient to imply geological and grade continuity and therefore the Inferred category is appropriate. This assessment is based on the relevant Qualified Persons experience with similar epithermal gold deposits elsewhere.

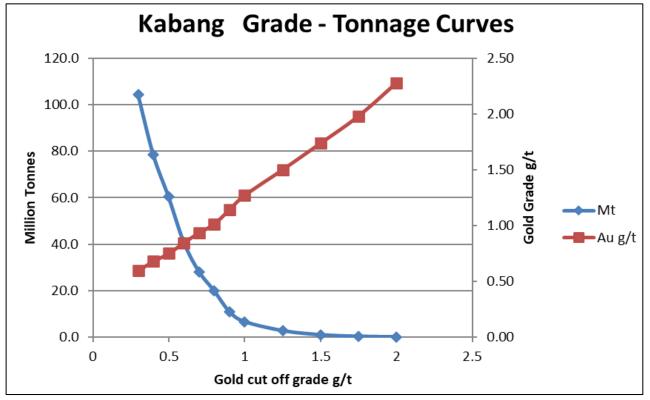
## 14.5 Mineral Resource Estimate

## 14.5.1 Grade – Tonnes Relationship

The Kabang Mineral Resource has been estimated using an unconstrained methodology within the main rock type that hosts gold mineralisation. This approach means that it is possible to create grade-tonnes curves (Figure 14-11 and Table 14-8), which shows the sensitivity to changes in the cut-off criterion used to report the Mineral Resource estimate. As the cut-off criterion changes from 0.3 g/t Au to 1.0 g/t Au, the resource falls from 104 Mt to 7 Mt.



Figure 14-11. Grade-tonnage curve.



Source: Derisk, 2021

Table 14-8.	Block model esti	mate as at 14 Octobe	r 2021 reported	using various cut-off crite	eria.
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Cut-off Criterion (g/t Au)	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
0.3	104.2	0.60	2,000
0.4	78.4	0.68	1,715
0.5	60.4	0.75	1,450
0.6	40.9	0.85	1,100
0.7	28.2	0.94	850
0.8	19.9	1.01	650
0.9	11.0	1.14	400
1.0	6.7	1.27	270

Source: Derisk, 2021

# 14.5.2 Cut-off Criterion for Reporting

The relevant Qualified Persons have reviewed the Kabang Mineral Resource estimate in the context that there must be reasonable prospects for eventual economic extraction. Based on available information, mining will be by open pit mining methods and there is likely to be both oxide-hosted and sulphide-hosted gold mineralisation available for processing.

In April 2021, Adyton completed a conceptual mining study for Kabang where it was assumed that if the prospect was developed, it would be mined using conventional open pit mining methods and the ore would be processed using conventional gold recovery processes. Whilst very little technical data exists for the prospect, input parameters from the Definitive Feasibility Study for Geopacific Resources Ltd's Woodlark Gold Project in PNG (Lycopodium, November 2018) were used as a guide where appropriate.

Preliminary pit optimisations were done using Whittle software and a simplified financial model was constructed using the data from the pit optimisations. Capital expenditures and corporate overheads were



estimated by scaling the values for the Woodlark project using the "0.6 rule-of-thumb". Taxation was scaled pro rata from the Woodlark value. The study assumed a gold price of USD 1,800 per ounce and a discount rate of 10%. The results from this work generated a small negative net present value at a gold price of USD 1,800/oz and breakeven at USD 1,900/oz. The work indicated that a resource cut-off criterion of 0.41 g/t Au could be feasible for a mining operation at Kabang depending on the assumptions used.

Similar styles of mineralisation occur at both Simberi and Lihir. The relevant Qualified Persons assessed the reporting cut-off criteria that St Barbara Limited (SBL) has used to publicly report its Mineral Resources at Simberi (in accordance with the JORC Code), which represents a similar style of mineralisation in a very similar setting. For 2020, SBL applied a reporting cut-off criterion of 0.4 g/t Au for its oxide gold mineralisation and a reporting cut-off criterion of 0.6 g/t Au for its sulphide gold mineralisation.

Based on the results of the conceptual mining study and supported by the cut-off grade reported for Simberi, the relevant Qualified Persons consider it is appropriate to apply a cut-off criterion of 0.5 g/t Au for reporting at Kabang.

#### 14.5.3 Mineral Resource Statement

Table 14-9 presents the Kabang Mineral Resource estimate reported at a cut-off criterion of 0.5 g/t Au. The relevant Qualified Persons conclude that the factors assessed and documented in the preceding sections demonstrate that there are reasonable prospects for eventual economic extraction.

Classification	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
Measured	-	-	-
Indicated	-	-	-
Measured plus Indicated	-	-	-
Inferred	60.4	0.75	1,450

Table 14-9. Kabang Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au.

Notes: 1. In situ resources reported at a cut-off criterion of 0.5 g/t Au.

2. Figures have been rounded to reflect the relative uncertainty in the estimate.

Furthermore, the relevant Qualified Persons are not aware of any non-technical issues such as environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that are likely to prevent the reporting of a Mineral Resource for Kabang.

## **14.6** Comparison with Previous Estimates

An estimate prepared in 1993 and documented by Macmin in accordance with the prevailing JORC Code reports a Mineral Resource of 7.0 Mt @ 1.3 g/t Au, 4.0 Mt @ 1.4 g/t Au and 2.5 Mt @ 2.0 g/t Au – all at unknown reporting cut-off criteria. Some additional drilling has been completed since that time at Kabang, but broadly, these numbers compare favourably with the current estimate, as illustrated in Table 14-8, which presents the current estimate at different cut-off criteria.

## 14.7 Comparison with 2021 Drilling

The 2021 Adyton drilling program was primarily designed to test the deeper remodelled IP geophysical targets rather than specifically testing the Kabang Mineral Resource. Whilst the five drillholes were all within the resource model extent, Adyton considered there was insufficient new data to warrant the generation of a new Mineral Resource estimate.

The Qualified Persons have reviewed the results of the 2021 drilling against the block model and commentary is presented in Table 14-10. The gold grade reported for four of the five 2021 drillholes compares reasonably with the estimated grades in the block model. For ADK002, the auriferous mineralised zone is reasonably consistent with surrounding holes but the gold grade is significantly lower than the block model estimate and surrounding drillholes.

Figure 14-12 presents a scatter plot of 10 m drillhole composites of the 2021 drilling versus the nearest 10 m block grade in the existing Mineral Resource model. Most points plot around the 1:1 line except for those within the red ellipse and the green ellipse. In hole ADK002, most 10 m composites average <0.5 g/t Au but are located close to blocks in the model that estimate grades >0.5 g/t Au. Consequently, there will be blocks in the next resource model in the vicinity of ADK002 that will no longer be reported at a cut-off criterion of 0.5 g/t Au.



2021 Drillhole	Comment on Gold Mineralisation	Impact on Block Model Estimate
ADK001	The tenor and thickness of the auriferous zone is consistent with both the block model and the surrounding drillholes (AMD005 and ADK003).	Likely to have no significant impact on the existing block model estimate.
ADK002	Overall, the auriferous zone is reasonably consistent with surrounding holes but the gold grade is significantly lower than the block model and surrounding drillholes.	Likely to have a significant impact on the existing block model estimate in the local vicinity of ADK002.
ADK003	The tenor and thickness of the auriferous zone is consistent with both the block model and the surrounding drillholes (AMD005 and ADK001).	Likely to have no significant impact on the existing block model estimate.
ADK004	Located on the margin of the Mineral Resource and intersected a broad auriferous zone generally consistent with the block model estimate.	Likely to have some impact on the existing block model estimate in the local vicinity of ADK004. Likely to extend the Mineral Resource in part whilst also reducing it in part.
ADK005	Hole is outside the existing Mineral Resource area.	Likely to have no impact on the existing Mineral Resource estimate.

Table 14-10. 2021 drilling results comparison with the existing Mineral Resource model.



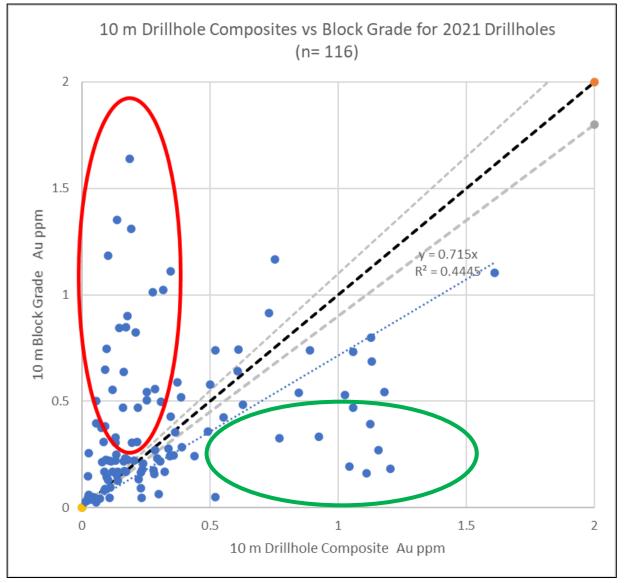




Figure 14-12 also shows that there are a number of drillhole composites that are significantly higher grade than the local block model grades (green ellipse). These composites will have the effect of increasing the tonnes above a cut-off criterion of 0.5 g/t Au in the next resource estimate.

The new drilling has provided a mix of confirmation of mineralisation at Kabang with the resource model – three holes provide a reasonable match with the model (ADK001, ADK003, ADK005), one hole has returned somewhat better grades than the model (ADK004), and one hole has returned lower grades than the model (ADK002). The relevant Qualified Persons note that the current resource is classified as Inferred and therefore is at a lower level of confidence than an Indicated or Measured Resource. At a global scale, the impact of the additional drilling at Kabang is not considered material. However, as expected in many gold deposits, new drilling can result in significant changes to tonnes and grade on a local scale, particularly at an Inferred confidence level.

# 14.8 Exploration Potential

Mineralisation remains open in all directions and three specific opportunities have been identified to define more mineralisation at Kabang:

- Northern Kabang Target. This target lies within Domain 2 immediately north of the Mineral Resource and is concealed under cover that is 18 to 70 m thick. Previous drilling to a maximum of 171 m depth is not considered deep enough to test this target area.
- **Northeast Extension Target.** Historical drilling has not closed out the mineralisation to the northeast. The Kabang mineralisation coincides with a resistivity low, which continues to the northeast.
- **Southern Extension Target.** The Kabang mineralisation is open to the south. In addition, the gold target zone coincides with the potential to define copper mineralisation in this area.

Drilling completed in 2021 has reinforced the prospectivity of the Kabang prospect.



# **15 MINERAL RESERVE ESTIMATES**

An Inferred Mineral Resource is reported for Kabang and therefore there is no Mineral Reserve.

# **16 MINING METHODS**

If a viable mining project can be established at Kabang, mining will be by open pit methods unless further exploration discovers deeper high-grade mineralisation that may be possible to extract by underground mining methods.

# **17 RECOVERY METHODS**

There has been no detailed metallurgical test work to assess what recovery methods may be best suited to treat the mineralisation identified to date.

# **18 PROJECT INFRASTRUCTURE**

Kabang is located on the larger of two islands (Ambitle) that constitute the Feni Islands. Ambitle is largely undeveloped and there is little infrastructure. There are no roads or reticulated power on the island, and telecommunications is basic. All project infrastructure required to support a mining operation will need to be established.

# **19 MARKET STUDIES AND CONTRACTS**

No market studies or discussions about potential sales of mineral products have been undertaken to date. Both gold and copper are openly traded commodities, and the relevant Qualified Persons consider that there will be opportunities to sell any product generated from a viable mining operation at Kabang.

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

No baseline environmental studies have been completed to date at Kabang. Previous and current tenement holders have liaised with the local community to manage exploration activities completed to date.

Sections 154 to 160 of the Mining Act detail the requirements associated with landowner access and compensation principles, which are ongoing obligations throughout both exploration and any subsequent development phase. For the Property at the current stage of exploration, it is usual for this to be done in compliance with compensation rates published by Government authorities, rather than formal compensation agreements. Formal compensation agreements are required as part of formal development leading up to mining tenure application, and at that point formal compensation agreements must be entered into with the approval of the Mining Warden and be registered. This requirement has not arisen for the Property.

# 21 CAPITAL AND OPERATING COSTS

There is no Mineral Reserve at Kabang, and no technical study has been undertaken to assess the likely capital and operating costs to establish and operate a mining operation.

# **22 ECONOMIC ANALYSIS**

There is no Mineral Reserve at Kabang, and no economic analysis has been undertaken.

# **23 ADJACENT PROPERTIES**

The Feni Islands are part of the arcuate chain of volcanic islands known as the Tabar-Feni-Bougainville chain. The Lihir gold deposit (Lihir Island Group) and the Simberi gold deposit (Tabar Island Group) lie along this chain approximately 150 km and 240 km to the northwest of Feni Islands Group respectively (Figure 23-1). The Panguna porphyry copper deposit on Bougainville Island lies approximately 300 km to the southeast of the Feni Island Group.

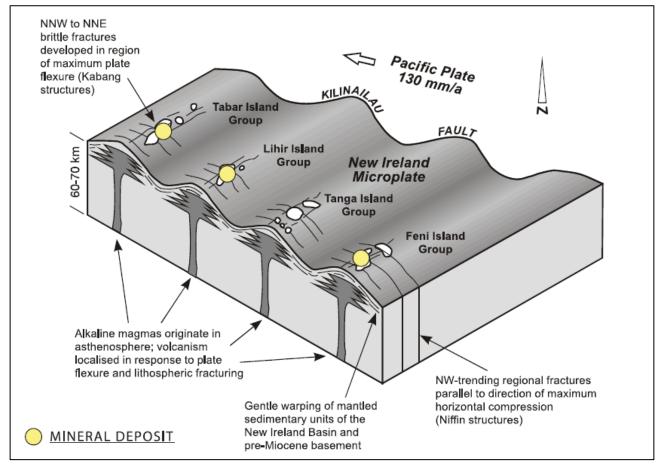


Figure 23-1. Mineral occurrences along the Tabar-Feni-Bougainville chain of islands in PNG.

Source: Derisk, 2021

## 23.1 Lihir Gold Mine

The Lihir gold mine, owned by Newcrest Mining Limited (NML), is located on the island of Lihir, approximately 150 km to the northwest of the Feni Islands. The gold deposit at Lihir lies within the Luise Caldera, an extinct volcanic crater that is geothermally active, and is one of the largest known gold deposits in the world (NML, 2020). The alteration and mineralisation at Lihir is reported to have occurred in two phases i.e., an earlier porphyry-style, deeper level event followed by a later, higher-level, lower-temperature epithermal stage. Most of the gold mineralisation is sulphide-hosted. Much of the ore is refractory and is treated using pressure oxidation before the gold is recovered by a conventional leach process.

The relevant Qualified Persons have been unable to verify the information described for Lihir and the information is not necessarily indicative of the mineralisation on the Property that is the subject of this Technical Report.

## 23.2 Simberi Gold Mine

The Simberi gold mine, owned by SBL, is located on the northwestern end of the Tabar group of islands approximately 60 km northwest of Lihir and 240 km northwest of Feni Islands (SBL, 2020).

Gold mineralisation at Simberi is associated with sulphides and iron oxides occurring within hydraulic fractures. In the oxidised zone, high-grade gold occurs as rare vuggy and chalcedonic quartz. Gold



mineralisation in the sulphide zone consists of refractory gold hosted by pyrite or marcasite containing minor arsenopyrite at depth. The mine comprises seven deposits namely Bekou, Samat, Botlu, Pigibo, Pigiput, Pigicow, and Sorowar.

The Simberi mine started production in February 2008. In 2013/2014 the plant was expanded with installation of a semi-autogenous mill increasing production capacity to over 100,000 oz per annum. Current mining occurs on the eastern half of the island. Ore at Simberi is sourced from a number of open pits and delivered to the run-of-mine stockpile, where it is crushed and conveyed to the processing plant.

The relevant Qualified Persons have been unable to verify the information described for Simberi and the information is not necessarily indicative of the mineralisation on the Property that is the subject of this Technical Report.

# **23.3** Panguna Copper Deposit

The Panguna copper deposit is located in the Autonomous Region of Bougainville, approximately 300 km southeast of the Feni Islands. Copper-gold mineralisation at Panguna was discovered in the 1960s and mining took place from 1972 to 1989 when it was forced to close due to civil unrest.

Bougainville Island is part of the Melanesian volcanic arc, built up from Eocene calc-alkaline island arc subduction-related magmatism, and interrupted by deposition of the Miocene Keriaka Limestone. The Panguna deposit represents a classic porphyry-style hydrothermal alteration system and is related to multiphase intrusions developed on the southeast margin of a larger parent intrusion of quartz diorite. The porphyry-style mineralisation is developed where the multiphase intrusive bodies have intruded into the Late Miocene andesitic volcanic host rocks (RTG Mining Inc, 2016).

The relevant Qualified Persons have been unable to verify the information described for Panguna and the information is not necessarily indicative of the mineralisation on the Property that is the subject of this Technical Report.



# 24 OTHER RELEVANT DATA AND INFORMATION

There is no other technical information relevant to the Feni property.

# **25 INTERPRETATION AND CONCLUSIONS**

## 25.1 Interpretation

Exploration to date at the Feni Property has identified around 30 separate gold prospects and/or anomalies. The Kabang prospect has received the most exploration work to date. Based on the historical drilling, an Inferred Mineral Resource of 60.4 Mt @ 0.75 g/t Au (1,450 koz Au) is reported in accordance with the CIM Definition Standards. Drilling by Adyton in 2021 has confirmed the potential for extensions to the Kabang Mineral Resource.

The main style of mineralisation identified to date on Ambitle Island is low-sulphidation epithermal gold mineralisation associated with quartz veining and sulphide mineralisation (e.g., pyrite, chalcopyrite, arsenopyrite). The gold mineralisation is associated with the Matangakaka Intrusive Complex, which lies at the southern margin of the Ambitle volcanic crater.

Previous tenement holders have indicated that the epithermal gold mineralisation has overprinted an earlier porphyry copper style mineralisation episode. The presence of classic porphyry-style alteration mineralogy (potassic, phyllic, argillic, advanced argillic alteration zones) supports the occurrence of an intrusive-related porphyry-style system at depth. Drilling by Adyton in 2021 of an IP target below the gold mineralisation at Kabang has confirmed the presence of an intrusive-related porphyry-style system.

Altered volcanic rocks have been reported at several prospects by previous companies, including phyllic alteration (sericite-quartz-pyrite), argillic alteration (illite-smectite-pyrite) and advanced argillic alteration (opal-kaolinite-pyrite). Epidote was also reported.

The relevant Qualified Persons consider that the Property is prospective for the discovery of new gold and copper-gold mineralisation because there are many targets and anomalies that have been defined by previous tenement holders that have not been adequately followed up. Also, the relevant Qualified Persons consider that there are opportunities to further extend the Mineral Resource at Kabang because it is open in all directions, and there are opportunities to define zones of higher-grade mineralisation within the lower-grade envelope.

## 25.2 Risk Assessment

The Feni property is in a remote and undeveloped part of PNG. The relevant Qualified Persons have identified key risks associated with the Property as follows:

- The possibility that future exploration programs are unsuccessful in discovering additional mineralisation at the Property.
- There is technical risk associated with inadequate documentation describing data collection methods used by previous tenement holders. This results in a moderate level of uncertainty over the veracity of the inputs into the Mineral Resource estimate for Kabang. This uncertainty has been considered by classifying the Mineral Resource as Inferred.
- There is financial risk if technical studies evaluating the economic viability of establishing a mining operation at the Property are not positive.
- There is social risk if the local community does not support future exploration programs at the Property or opposes the potential development of a mining operation if exploration is positive.

## 25.3 Opportunities

The relevant Qualified Persons have identified exploration-related opportunities at the Property as follows:

- Gold mineralisation identified at Kabang is open in all directions.
- There is the potential for a deeper copper-gold mineralised system below the gold mineralisation identified to date at Kabang.
- Elsewhere on the tenement, there are many prospective gold and copper-gold targets with limited or no drill testing undertaken to date that demonstrate the potential for discovery of new Mineral Resources at the Property.

## 25.4 Conclusions

Gold and copper mineralisation was first identified at Feni in the 1960s. The Property has been held by several companies, with most exploration completed during the period from 1983 to 2007. Little work was



completed from 2007 to 2021. Kabang is the most advanced prospect, with an Inferred Mineral Resource comprising 1,450 koz of contained gold.

Elsewhere across the Property, Adyton has identified many geological, geochemical, and geophysical targets that are prospective for gold and copper-gold mineralisation that require systematic exploration and evaluation. Drilling by Adyton in 2021 has confirmed the potential for extensions to the Kabang Mineral Resource and tested an IP target below the gold mineralisation at Kabang, which confirmed the presence of an intrusive-related porphyry-style system.



# **26 RECOMMENDATIONS**

## 26.1 Proposed Exploration

The five-hole diamond drilling program at Kabang completed by Adyton in 2021 has reinforced the potential of the Kabang mineralised corridor to host a substantial "Lihir-style" gold deposit with all five holes intersecting epithermal gold mineralisation. The drilling has also confirmed that porphyry-related copper mineralisation is a legitimate exploration target.

The relevant Qualified Persons recommend a methodical and systematic exploration program at the Property focused within the central target area on Ambitle Island, including Kabang (Figure 26-1). This program should be aimed at better understanding the structural controls, targeting the higher-grade zones, testing the depth extent of the epithermal gold zones, and understanding the distribution of the deeper porphyry copper potential.

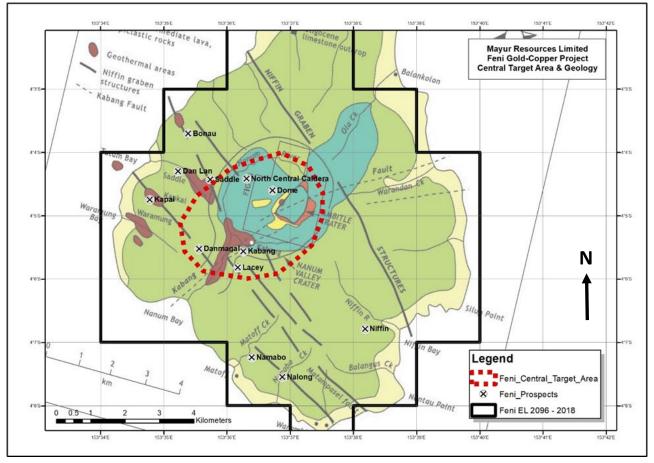


Figure 26-1. Central Target area.

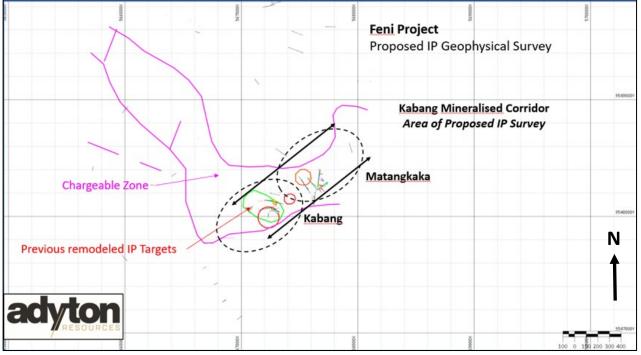
Source: Derisk, 2020

26.1.1 2022 Work Program (Phase 1)

Adyton proposes the following work program for calendar year 2022 at the Property:

- Complete a detailed petrology and petrography investigation of selected drill core from the 2021 drilling program to understand the nature of the epithermal mineralisation system, alteration, temperature regime, and sulphide mineralogy.
- Undertake a new IP survey over the central Kabang Corridor (Figure 26-2) comprising 18 line-km across 12 lines to cover an area of approximately 1.5 km<sup>2</sup>, then 3D modelling of conductive/resistive bodies at depth to define drill targets.
- Interpret the IP survey and design a drilling program focused on testing the main targets identified from the IP survey.





Source: Adyton, 2021f

# 26.1.2 2023 Work Program (Phase 2)

Adyton proposes that drilling will be the main focus of the 2023 exploration program testing the main IP targets defined in 2022. The budget for this phase of work is not contingent on the outcomes of the 2021 exploration program. At the completion of drilling Adyton will undertake a detailed review of the outcomes of the drilling program and assess future exploration options.

## 26.2 Budget

Table 26-1 sets out the budgets proposed by Adyton for a two-year exploration program at the Property, commencing in the first quarter of 2022, totalling CAD 1.35 million. The Phase 1 budget is CAD 0.35 million and the Phase 2 budget is CAD 1.00 million.

Year	Activity	Schedule	Indicative Budget (CAD)
	Petrology and petrography of samples from the 2021 drilling program	First quarter	50,000
2022	Ground IP geophysics survey at the Kabang prospect and immediate extensions to define new drilling targets	Second quarter	250,000
	Design and plan drillhole program for 2023 to test the highest priority exploration targets identified from the IP program	Third quarter	50,000
Total – '	Year 1 (Phase 1)		350,000
2023	Drilling program to test the main targets identified from the Year 1 geophysics program. The nominal program will comprise 12 RC and diamond drillholes, from 250 – 400 m in length (4,000 m). At the completion of the drilling, a review of results will be done to assess future exploration options		1,000,000
Total – `	Year 2 (Phase 2)		1,000,000

Table 26-1. Proposed two-year program and indicative budget.

The relevant Qualified Persons have reviewed the exploration program and budget proposed by Adyton for the Property and consider them to be technically appropriate and feasible.



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# **28 DEFINITIONS AND GLOSSARY**

Table 28-1 provides a list of the definitions used in this report together with a glossary of relevant terms and abbreviations.

Table 28-1.	Definitions	and	glossary	of terms.
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Term	Description	
AAS	atomic absorption spectroscopy	
Adyton	Adyton Resources Corporation	
ALS	ALS Townsville laboratory	
Ashurst	Ashurst PNG	
Au	gold	
AUD	Australian Dollar	
BMR	Australian Bureau of Mineral Resources	
CAD	Canadian Dollar	
CIM	Canadian Institute of Mining, Metallurgy and Petroleum	
CIM Definition Standards	CIM Definition Standards for Mineral Resources and Mineral Reserves, 2014	
City Resources	City Resources (PNG) Pty Ltd	
CoV	coefficient of variation	
CRA	Conzinc Riotinto Australia	
CRM	certified reference material	
Cu	Copper	
Derisk	Derisk Geomining Consultants Pty Ltd	
DGPS	differential global positioning system	
EL	Exploration Licence	
Esso	Esso PNG Inc	
FAusIMM	Fellow of the Australasian Institute of Mining and Metallurgy	
g	grams	
GPS	global positioning system	
g/t	grams per tonne	
H&S Consultants	H&S Consultants Pty Ltd	
ha	hectare(s)	
HQ	diamond core with standard diameter of 63.5 mm	
Inferred Mineral Resource (as defined by CIM Definition Standards)	That part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.	
Ingold	Ingold Holdings Pty Ltd	
IP	induced polarisation	
ITS	ITS (PNG) Ltd	
JORC	Joint Ore Reserves Committee	
JORC Code	Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 edition, effective December 2012	
JV	joint venture	
kg	kilogram(s)	
km	kilometre(s)	
kt	kilotonne	
1	litre	
LDL	lower detection limit	



Term	Description
LIDAR	light detection and ranging
LLG	Local Level Government
m	metre(s)
m <sup>2</sup>	square metre(s)
m <sup>3</sup>	cubic metre(s)
M	million
Macmin	Mac Mining NL
Mayur	Mayur Resources Limited
MEPL	Mayur Exploration PNG Ltd.
Moz	million ounces
MAIG	Member of the Australian Institute of Geoscientists
MIGI (PGeo)	Member of the Institute of Geologists of Ireland (Professional Member)
Mineral Reserve (as defined by CIM Definition Standards)	The economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. Mineral Reserves are sub-divided in order of increasing confidence into Probable Mineral Reserves and Proven Mineral Reserves. A Probable Mineral Reserve has a lower level of confidence than a Proven Mineral Reserve. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.
Mineral Resource (as defined by CIM Definition Standards)	<ul> <li>A concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.</li> <li>The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated, or interpreted from specific geological evidence and knowledge, including sampling.</li> <li>Mineral Resources are sub-divided, in order of increasing geological confidence, into inferred, indicated and measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.</li> </ul>
Mm	millimetre(s)
Modifying Factors (as defined by CIM Definition Standards)	Considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social, and governmental factors.
MRA	Mineral Resources Authority
Mt	million tonnes
Mt/yr	million tonnes per year
NGG	New Guinea Gold NL
NI 43-101 <i>or</i> the Instrument	National Instrument 43-101 Standards of Disclosure For Mineral Projects
NML	Newcrest Mining Limited
NQ	diamond core with standard diameter of 47.6 mm
ОК	ordinary kriging
PGK	Papua New Guinean Kina
рН	Quantitative measure of the acidity or basicity of aqueous or other liquid solutions.
Pilbara Labs	Pilbara Laboratories (Niugini) Pty Ltd
PNG	Papua New Guinea
ppm	parts per million
PQ	diamond core with standard diameter of 85.0 mm
the Property	Feni Gold-Copper Property



Term	Description	
QA/QC	quality assurance and quality control	
Qualified Person (as defined by NI 43-101)	<ul> <li>An individual who is:</li> <li>a) is an engineer or geoscientist with a university degree, or equivalent accreditation, in an area of geoscience, or engineering, relating to mineral exploration or mining;</li> <li>b) has at least five years of experience in mineral exploration, mine development or operation, or mineral project assessment, or any combination of these, that is relevant to his or her professional degree or area of practice;</li> <li>c) has experience relevant to the subject matter of the mineral project and the technical report;</li> <li>d) is in good standing with a professional association; and</li> <li>e) in the case of a professional association in a foreign jurisdiction, has a membership designation that <ol> <li>requires attainment of a position of responsibility in their profession that requires the exercise of independent judgment; and</li> <li>requires:</li> <li>favourable confidential peer evaluation of the individual's character, professional judgement, experience, and ethical fitness; or</li> <li>recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining.</li> </ol> </li> </ul>	
RC	reverse circulation	
RL	reduced level	
RQD	rock quality designation	
SBL	St Barbara Limited	
SEDAR	System for Electronic Document Analysis and Retrieval	
std dev.	standard deviation	
t	tonne(s)	
t/m <sup>3</sup>	tonnes per cubic metre	
t/yr	tonnes per year	
Technical Report	NI 43-101 Technical Report on the Feni Gold-Copper Property, New Ireland Province, Papua New Guinea	
TSXV	Toronto Stock Exchange TSX Venture Exchange	
Union	Union Mining NL	
Vangold	Pacific Vangold Mines Ltd	
XRD	x-ray diffraction	
XRF	x-ray fluorescence	
yr	year(s)	
YTD	year-to-date	
>	greater than	
<	less than	
%	percent	
0	degree(s)	

# **29 QUALIFIED PERSON CERTIFICATES**

## 29.1 Mark Berry

I, Mark Berry, state that:

- a) I am a Director and Principal Geologist of Derisk Geomining Consultants Pty Ltd, whose business address is Post Office Box 264, Red Hill Queensland 4059, AUSTRALIA.
- b) This certificate applies to the report titled NI 43-101 Technical Report on the Feni Gold-Copper Property, New Ireland Province, Papua New Guinea (Technical Report), with an effective date of 14 October 2021.
- c) I have read the definition of a Qualified Person for the purposes of National Instrument 43-101 (the Instrument), and certify that, by reason of my education, affiliation with a professional association as defined in the Instrument, and past relevant work experience, I fulfil the requirements to be a Qualified Person. My qualifications and experience as a Qualified Person are as follows:
  - I am a graduate from the University of Melbourne with a Bachelor of Science (Geology) in 1979.
  - I am a graduate from Macquarie University with a Graduate Diploma (Mineral Economics) in 1990.
  - I am a Member in good standing of the Australian Institute of Geoscientists (Member #1352].
  - My relevant experience after graduation for the purpose of the Technical Report includes 40 years of mineral exploration and mining, with practical experience in greenfield and mine-based exploration, resource and reserve estimation, feasibility studies, mine development, operations, management, and consulting.
  - I have more than ten years of direct experience in copper, gold, and copper-gold mineral deposit styles in exploration, Mineral Resource estimation and assessment, and in mining.
  - I have more than three years of direct experience working on gold-copper projects in PNG, including Ok Tedi, Porgera, Lihir, Simberi, Frieda River, Hidden Valley, Wafi-Golpu and Tolukuma.
- d) I have not visited the Feni Property because international travel restrictions associated with the Coronavirus pandemic have precluded a site inspection.
- e) I am responsible for the overall compilation of the Technical Report. I am responsible for Sections 1-4, 12-13, 15-29. I have contributed to all other Sections.
- f) I am independent of Adyton, its subsidiaries, and the Property as described in Section 1.5 of the Instrument.
- g) I have not had any prior involvement with the Feni Property before my contribution to the report titled NI 43-101 Technical Report on the Feni Gold-Copper Property, New Ireland Province, Papua New Guinea (Technical Report), with an effective date of 17 December 2020.
- h) I have read the Instrument. The part of the Technical Report for which I am responsible has been prepared in compliance with this Instrument.
- i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the part of the Technical Report for which I am responsible, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

**FIR PIGNATLIRE** FNT

Signature of Qualified Person

15 November, 2021 Date



## 29.2 Simon Tear

I, Simon Tear, state that:

- a) For this engagement, I am an Associate Principal Geologist of Derisk Geomining Consultants Pty Ltd, whose business address is Post Office Box 264, Red Hill Queensland 4059, AUSTRALIA. I am also a Director and Consulting Geologist of H&S Consultants Pty Ltd (H&S Consultants).
- b) This certificate applies to the report titled NI 43-101 Technical Report on the Feni Gold-Copper Property, New Ireland Province, Papua New Guinea (Technical Report), with an effective date of 14 October 2021.
- c) I have read the definition of a Qualified Person for the purposes of National Instrument 43-101 (the Instrument), and certify that, by reason of my education, affiliation with a professional association as defined in the Instrument, and past relevant work experience, I fulfil the requirements to be a Qualified Person. My qualifications and experience as a Qualified Person are as follows:
  - I am a graduate from the Royal School of Mines, Imperial College, London with a Bachelor of Science Honours (Mining Geology) in 1983.
  - I am a Professional Member (PGeo) in good standing of the Institute of Geologists of Ireland (Member #17) and a professional member of the European Federation of Geologists (Member #26).
  - I have extensive experience with a variety of different commodities and types of mineral deposits in Europe, Africa, South America, Asia, and Australia.
  - I have over 21 years' experience in Mineral Resource estimation, including 3.5 years mine-site experience (open pit and underground) and have worked on feasibility studies. I have also been engaged to undertake property assessments on more than 20 projects.
  - I have completed over 130 resource estimates on a variety of deposit types including hard rock deposits for precious and base metals.
  - I have completed over 45 reports that have been prepared in accordance with either NI 43-101 or the JORC Code.
- d) I have not visited the Feni Property because international travel restrictions associated with the Coronavirus pandemic have precluded a site inspection.
- e) I am responsible for Section 14 of the Technical Report.
- f) I am independent of Adyton, its subsidiaries, and the Property as described in Section 1.5 of the Instrument.
- g) In 2015, as a Director of H&S Consultants, I prepared a Mineral Resource estimate for the Kabang prospect for Mayur Resources Limited.
- h) I have read the Instrument. The part of the Technical Report for which I am responsible has been prepared in compliance with this Instrument.
- i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the part of the Technical Report for which I am responsible, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.



15 November, 2021 Date

Signature of Qualified Person



## 29.3 Matthew White

I, Matthew White, state that:

- a) I am an Associate Principal Geologist of Derisk Geomining Consultants Pty Ltd, whose business address is Post Office Box 264, Red Hill Queensland 4059, AUSTRALIA.
- b) This certificate applies to the report titled NI 43-101 Technical Report on the Feni Gold-Copper Property, New Ireland Province, Papua New Guinea (Technical Report), with an effective date of 14 October 2021.
- c) I have read the definition of a Qualified Person for the purposes of National Instrument 43-101 (the Instrument), and certify that, by reason of my education, affiliation with a professional association as defined in the Instrument, and past relevant work experience, I fulfil the requirements to be a Qualified Person. My qualifications and experience as a Qualified Person are as follows:
  - I am a graduate from the University of Technology Sydney with a Bachelor of Science Honours (Applied Geology) in 1988.
  - I am a graduate from the University of Tasmania with a Doctor of Philosophy (Volcanology) in 1996.
  - I am a Member in good standing of the Australian Institute of Geoscientists (Member #2629].
  - My relevant experience after graduation for the purpose of the Technical Report includes 25 years of mineral exploration and mining, with practical experience in greenfield and mine-based exploration, technical reviews, mineral resource evaluation, and consulting.
  - I have more than ten years of direct experience in copper, gold, and copper-gold mineral deposit styles in exploration, Mineral Resource estimation and assessment, and in mining.
  - I have more than three years of direct experience working on gold-copper projects in PNG.
- d) I have not visited the Feni Property because international travel restrictions associated with the Coronavirus pandemic have precluded a site inspection.
- e) I am responsible for Sections 5 8 and contributing to Sections 10 11 of the Technical Report.
- f) I am independent of Adyton, its subsidiaries, and the Property as described in Section 1.5 of the Instrument.
- g) I have not had any prior involvement with the Feni Property before my contribution to the report titled NI 43-101 Technical Report on the Feni Gold-Copper Property, New Ireland Province, Papua New Guinea (Technical Report), with an effective date of 17 December 2020.
- h) I have read the Instrument. The part of the Technical Report for which I am responsible has been prepared in compliance with this Instrument.
- i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the part of the Technical Report for which I am responsible, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signature of Qualified Person

15 November, 2021

Date



## 29.4 Andy Thomas

I, Andy Thomas, state that:

- a) I am an Associate Senior Geologist of Derisk Geomining Consultants Pty Ltd, whose business address is Post Office Box 264, Red Hill Queensland 4059, AUSTRALIA.
- b) This certificate applies to the report titled NI 43-101 Technical Report on the Feni Gold-Copper Property, New Ireland Province, Papua New Guinea (Technical Report), with an effective date of 14 October 2021.
- c) I have read the definition of a Qualified Person for the purposes of National Instrument 43-101 (the Instrument), and certify that, by reason of my education, affiliation with a professional association as defined in the Instrument, and past relevant work experience, I fulfil the requirements to be a Qualified Person. My qualifications and experience as a Qualified Person are as follows:
  - I am a graduate from the University of Papua New Guinea with a Bachelor of Earth Sciences (Geology) in 2009.
  - I am a Member in good standing of the Australian Institute of Geoscientists (Member #8027].
  - My relevant experience after graduation for the purpose of the Technical Report includes twelve years of mineral exploration and mining/geotechnical roles, with practical experience in greenfield and mine-based exploration, geotechnical, and contracting/consulting.
  - I have twelve years of direct experience working in PNG, including six years in copper, gold, and copper-gold mineral deposit styles (Ok Tedi, Yandera, Simberi, Wabag).
- d) I have visited the Feni Property in October 2021 and inspected the general site conditions and local infrastructure, drilling sites and surface exposures of mineralisation and host rocks. I also visited the Company's drill core storage facility in Lae and inspected several drill holes from the 2021 drilling program.
- e) I am responsible for the site visit and contributing to Sections 7, 9, 10, and 12 of the Technical Report.
- f) I am independent of Adyton, its subsidiaries, and the Property as described in Section 1.5 of the Instrument.
- g) I have not had any prior involvement with the Feni Property before my contribution to the Technical Report.
- h) I have read the Instrument. The part of the Technical Report for which I am responsible has been prepared in compliance with this Instrument.
- i) At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the part of the Technical Report for which I am responsible, contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signature of Qualified Person

15 November, 2021 Date



"Delivering Tier One advice and services without the Tier One price tag"

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