NI 43-101 TECHNICAL REPORT ON THE FERGUSSON GOLD PROPERTY, MILNE BAY PROVINCE, PAPUA NEW GUINEA

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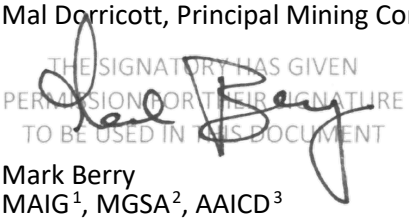
Authorised and signed on behalf of Derisk (for Final Documents):	
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TABLE OF CONTENTS

1 SUMMARY 1
1.1 Introduction 1
1.2 Report Details 1
1.3 Location and Ownership 1
1.4 Geology and Mineralisation 1
1.5 Exploration, Development and Operations 2
1.6 Mineral Resource – Gameta 2
1.7 Mineral Resource – Wapolu 3
1.8 Mineral Reserves 4
1.9 Interpretation and Conclusions 4
1.10 Recommendations 4
2 INTRODUCTION 6
2.1 Scope and Use of Report 6
2.2 Reporting Standard and Currency 6
2.3 Report Authors and Contributors 6
2.4 Site Visits 6
2.5 Statement of Independence 7
2.6 Methodology and Limitations 7
2.7 Reliance 7
2.8 Records and Indemnities 7
3 RELIANCE ON OTHER EXPERTS 8
3.1 Property Ownership and Tenure 8
4 PROPERTY DESCRIPTION AND LOCATION 9
4.1 Location 9
4.2 Ownership and Tenure 9
4.3 Mining Act Requirements 10
4.4 Tenure Conditions 11
4.4.1 Rent and Expenditure Commitments 11
4.4.2 Surface Rights and Permits 11
4.4.3 Agreements, Royalties and Encumbrances 12
4.4.4 Environment Permits 12
4.4.5 Tenure Summary 12
5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY 13
5.1 Access 13
5.2 Climate 13
5.3 Physiography 14
5.4 Local Resources and Infrastructure 14
6 HISTORY 15
6.1 Ownership and Activities 15
6.1.1 Esso and Esso/City Resources JV (1982 – 1989) 15
6.1.2 Union/Macmin JV (1992 – 1997) 15
6.1.3 Union/Yamana JV (1997 – 1998) 15
6.1.4 Gold Aura, GAL, and Crater Gold (2003 – 2017) 16
6.1.5 BGL (2018 – 2020) 16
6.1.6 PAAN (2018 – 2020) 17
6.2 Historical Estimates of Mineral Resources 18
6.2.1 Gameta 18
6.2.2 Wapolu 18
6.3 Production 18

7 GEOLOGICAL SETTING AND MINERALISATION 19
7.1 Regional Geological Setting 19
7.2 Gameta 21
7.2.1 Geology 21
7.2.2 Mineralisation 23
7.3 Wapolu 24
7.3.1 Geology 24
7.3.2 Mineralisation 25
8 DEPOSIT TYPES 26
9 EXPLORATION 28
9.1 Gameta Surface Trenching Program 28
10 DRILLING 29
10.1 2021 Drilling Program 29
10.1.1 Gameta 29
10.1.2 Wapolu 30
10.2 Gameta Drilling Statistics 31
10.3 Wapolu Drilling Statistics 33
10.4 Drillhole Collar Surveys 34
10.5 Core Recovery 35
10.6 Geological Logging 35
10.7 Relationship of Drilling to Mineralisation 35
10.8 Reliability 35
11 SAMPLE PREPARATION, ANALYSES AND SECURITY 36
11.1 Gameta 36
11.1.1 Sampling Methods 36
11.1.2 Sample Preparation 36
11.1.3 Analytical Methods 36
11.1.4 QA/QC Processes 37
11.1.5 Security Arrangements 39
11.1.6 Assessment 39
11.2 Wapolu 39
11.2.1 Sampling Methods 39
11.2.2 Sample Preparation 39
11.2.3 Analytical Methods 40
11.2.4 QA/QC Processes 40
11.2.5 Security Arrangements 40
11.2.6 Assessment 41
12 DATA VERIFICATION 42
12.1 Site Visit 42
12.1.1 Gameta 42
12.1.2 Wapolu 43
12.2 Drillhole Data Review 43
12.2.1 Gameta 43
12.2.2 Wapolu 46
12.3 ITS Lae Inspection 47
12.4 Data Verification Findings 47
13 MINERAL PROCESSING AND METALLURGICAL TESTING 48
13.1 Gameta 48
13.1.1 Union/Yamana JV 48
13.1.2 Gold Aura 48
13.1.3 Adyton 48
13.2 Wapolu 50

13.2.1 Esso/City Resources JV 50
13.2.2 Union/Macmin JV 50
14 MINERAL RESOURCE ESTIMATES 51
14.1 Gameta 51
14.1.1 Methodology 51
14.1.2 Resource Inputs 51
14.1.3 Data Analysis 54
14.1.4 Variography 61
14.1.5 Bulk Density 62
14.1.6 Resource Estimation 63
14.1.7 Mineral Resource Estimate 69
14.1.8 Comparison with Other Estimates 70
14.1.9 Exploration Potential 71
14.2 Wapolu 71
14.2.1 Methodology 71
14.2.2 Resource Inputs 71
14.2.3 Data Analysis 73
14.2.4 Resource Estimation 80
14.2.5 Mineral Resource Estimate 82
14.2.6 Comparison with Historical Estimates 83
14.2.7 Exploration Potential 83
15 MINERAL RESERVE ESTIMATES 84
16 MINING METHODS 84
17 RECOVERY METHODS 84
18 PROJECT INFRASTRUCTURE 84
19 MARKET STUDIES AND CONTRACTS 84
20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL AND COMMUNITY IMPACT 84
21 CAPITAL AND OPERATING COSTS 84
22 ECONOMIC ANALYSIS 84
23 ADJACENT PROPERTIES 85
23.1 Misima Island Gold Project 85
23.2 Woodlark Island Gold Project 85
24 OTHER RELEVANT DATA AND INFORMATION 86
25 INTERPRETATION AND CONCLUSIONS 87
25.1 Interpretation 87
25.2 Risk Assessment 87
25.3 Opportunities 87
25.4 Conclusions 87
26 RECOMMENDATIONS 88
26.1 Proposed Exploration 88
26.1.1 2022 Work Program (Phase 1) 88
26.1.2 2023 Work Program (Phase 2) 88
26.2 Budget 88
27 REFERENCES 90
28 DEFINITIONS AND GLOSSARY 92
29 QUALIFIED PERSON CONSENTS 95
29.1 Mark Berry 95
29.2 Simon Tear 96
29.3 John Horton 97
29.4 Matthew White 98
29.5 Andy Thomas 99

LIST OF FIGURES

Figure 4-1. Property location. 9
Figure 4-2. Gameta and Wapolu tenement location. 10
Figure 5-1. Project location map 13
Figure 6-1. Geochemical summary results from the 2019 exploration program at Gameta. 17
Figure 6-2. PAAN soil sampling results at Wapolu. 18
Figure 7-1. Tectonic setting of the D'Entrecasteaux islands, including Fergusson Island. 19
Figure 7-2. Geology of the D'Entrecasteaux Islands showing the location of the Gameta and Wapolu prospects. 20
Figure 7-3. Interpretive local geology of the Gameta area. 22
Figure 7-4. Interpretive geological cross section of the Gameta prospect. 23
Figure 7-5. Surface geology and mineralised area of the Wapolu prospect. 25
Figure 8-1. Fergusson Island Gold Mineralisation Model 27
Figure 9-1. Location of Gameta surface trenches and results. 28
Figure 10-1. 2021 Gameta drillhole location plan. 29
Figure 10-2. 2021 Wapolu drillhole location plan. 30
Figure 10-3. Wapolu cross section E224914 mE showing drillhole locations and new drilling results. 31
Figure 10-4. Gameta drillhole location and prospect overview plan. 32
Figure 10-5. Gameta drillhole locations and extent of Mineral Resource. 33
Figure 11-1. Scatter plots of 2021 Gameta field CRMs for gold and silver. 38
Figure 11-2. Scatter plots of umpire gold samples vs original ITS assays (LHS) and re-assayed ITS assays (RHS). 38
Figure 12-1. General view of Gameta with cleared drill pads visible along the lower slopes, October 2021. 42
Figure 12-2. General view of Wapolu and hinterland, October 2021. 42
Figure 12-3. Gameta drillhole collar for ADD037 (LHS) and ADD034 (RHS), October 2021. 43
Figure 12-4. Wapolu drillhole collar for ADW001 (LHS) and ADD005 (RHS), October 2021. 43
Figure 12-5. Portion of the Lae core storage facility, October 2021. 44
Figure 12-6. ADD001: 27.6 – 32.5 m, showing sections of silica-rich DFZ, October 2021. 44
Figure 12-7. ADD002: 6.2 – 18.1 m, showing sections of clay-rich DFZ, October 2021. 45
Figure 12-8. ADD006: Close-up of core from 60.2 m showing silica-rich DFZ, October 2021. 45
Figure 12-9. ADW001: Close-up of core from 22.0 m showing veined and brecciated DFZ, October 2021. 46
Figure 12-10. ADW005: 9.6 – 13.2 m showing silica-rich DFZ, October 2021. 46
Figure 12-11. ITS Lae laboratory fire assay area, October 2021 47
Figure 13-1. Gameta surface topography and drillhole locations. 49
Figure 14-1. Gameta surface topography and drillhole locations. 52
Figure 14-2. Gameta plan views of upper (LHS) and lower (RHS) mineralisation domains. 53
Figure 14-3. Gameta cross section showing mineralisation domains. 54
Figure 14-4. Gameta historic drilling – diamond to RC twinned holes comparison. 55
Figure 14-5. Gameta drilling – Adyton 2021 diamond drilling to RC twinned holes comparison. 56
Figure 14-6. Gameta QQ plot of nearest neighbour comparison of diamond vs RC data. 57
Figure 14-7. Gameta drillhole length histogram for samples (LHS) and 1.0 m composites (RHS). 58
Figure 14-8. Gameta log probability plots of composites by domain for gold. 58
Figure 14-9. Gameta log probability plots of composites by domain for silver, arsenic, and sulphur. 59
Figure 14-10. Gameta box plots of composites for gold, silver, arsenic, and sulphur. 60
Figure 14-11. Gameta cross section example showing block model weathering zones. 63
Figure 14-12. Gameta cross section example showing block model geology/mineralisation domains. 64
Figure 14-13. Gameta cross section example showing block model gold grades. 65
Figure 14-14. Gameta cross section example showing block model silver grades. 65
Figure 14-15. Gameta cross section example showing block model arsenic grades. 66
Figure 14-16. Gameta cross section example showing block model sulphu grades. 66

Figure 14-17. Gameta box plot comparing gold grades of composites and block model estimates. 67
Figure 14-18. Gameta plan view of Indicated Resource classification boundaries. 68
Figure 14-19. Gameta plan view of Domain 4/5 (LHS) and Domain 7 (RHS), with Indicated classification extent. 69
Figure 14-20. Wapolu drillhole locations and spacing and resource model domains. 72
Figure 14-21. Wapolu cross section looking west showing interpreted mineralisation envelope for Domain 2. 73
Figure 14-22. Wapolu Esso diamond drilling comparison with nearby different drilling campaigns. 74
Figure 14-23. Wapolu gold grade histogram for background (Domain 1) and mineralisation (Domain 2 – 4). 78
Figure 14-24. Wapolu plan showing distribution and gold grade of drillhole composites. 78
Figure 23-1. Proximity of the Property to other gold deposits. 85

LIST OF TABLES

Table 1-1. Gameta Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au. 3
Table 1-2. Wapolu Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au.3
Table 2-1. Technical Report contributors. 6
Table 4-1. Tenement status. 9
Table 10-1. Wapolu 2021 significant drillhole intersections. 31
Table 10-2. Gameta drilling statistics. 32
Table 10-3. Wapolu drilling details. 34
Table 10-4. Gameta drillhole collar survey details. 34
Table 13-1. Gameta 2021 metallurgical testwork preliminary results. 49
Table 14-1. Gameta drillhole composite statistics by domain, with and without top cutting. 61
Table 14-2. Gameta gold correlogram models. 61
Table 14-3. Gameta dry bulk density measurement summary. 62
Table 14-4. Gameta block model. 63
Table 14-5. Gameta block model estimate as at 14 October 2021 using different cut-off criteria. 69
Table 14-6. Gameta Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au. 70
Table 14-7. Gameta Mineral Resource comparison: 17 December 2020 vs 14 October 2021. 70
Table 14-8. Wapolu Esso diamond drillhole data comparison with other drilling. 75
Table 14-9. Wapolu nearest neighbour drillhole comparison. 76
Table 14-10. Wapolu drillhole composites grouped by drilling phase and domain. 77
Table 14-11. Wapolu drillhole composites gold grade statistics by domain. 77
Table 14-12. Wapolu indicator thresholds and class mean grades. 79
Table 14-13. Wapolu Domain 2 indicator variogram models parameters. 80
Table 14-14. Wapolu block model extents. 80
Table 14-15. Wapolu estimation search criteria. 81
Table 14-16. Wapolu variance adjustment factors. 81
Table 14-17. Wapolu block model estimate as at 14 October 2021 using different cut-off criteria. 82
Table 14-18. Wapolu Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au. 83
Table 26-1. Proposed two-year program and indicative budget. 89
Table 28-1. Definitions and glossary of terms. 92

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 Fergusson Gold Property (the Property) on the D'Entrecasteaux Island 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 a new Mineral Resource estimate for Gameta and an updated Mineral Resource estimate for Wapolu. It is a public report to be filed under Adyton's profile on System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com. It provides descriptions of the gold mineral assets at the Property and Derisk has adopted the CIM Definition Standards[4] as the reporting standard.

This Technical Report has been prepared by Mark Berry, Simon Tear, John Horton, 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 D'Entrecasteaux Island Group, which is part of the Milne Bay Province of PNG, located approximately 900 km northeast of the capital of Port Moresby. Adyton acquired the property from Ballygowan Limited (BGL) and Pacific Arc Aurum (Niugini) Limited (PAAN) in February 2021.

Tenure to the Property is held through two exploration licences (ELs) i.e., Gameta and Wapolu that are in close proximity. The registered tenement holder of Gameta (EL 2546) is BGL, a corporation incorporated under the laws of PNG, and the registered tenement holder of Wapolu (EL 2549) is PAAN, a corporation incorporated under the laws of PNG. Both BGL and PAAN are wholly-owned subsidiaries of Adyton.

1.4 Geology and Mineralisation

Fergusson Island is one of the D'Entrecasteaux Islands, which are in the western end of the Woodlark extension (Woodlark Basin). The geological setting is dominated by Miocene-Recent crustal thinning created by extension (stretching) of the crust.

The D'Entrecasteaux Islands are the continuation of the Owen Stanley Metamorphic Belt and comprise several metamorphic core complexes that form prominent tectonic domes of probable Cretaceous age. The domes consist of a core of high-grade crystalline rocks surrounded by a layered outer zone composed of amphibolite facies gneisses. This layered zone is separated from over-thrusted sub-seafloor oceanic mantle by a decollement (Detachment fault zone or DFZ), overlaying ultramafic rocks of the obducted block. Thick colluvial deposits of landslide and slump debris drape the margins of the domes and are prominent at Wapolu.

Gold mineralisation is hosted in the DFZ and within the footwall dioritic gneiss and appears to be both fracture- and dyke-related, plus sulphide-hosted. The overlying ultramafic plate, though strongly dyked, altered, and fractured, carries only patchy and sporadic low-grade gold mineralisation.

The mineralisation model for Gameta and Wapolu suggests that gold is associated with hydrothermal fluids and is concentrated in shallow-dipping deposits within or immediately adjacent to the DFZ, which bounds the metamorphic core complexes. This general setting is analogous to such deposits as Misima in PNG and Mesquite and Picacho in California. The gold occurs in association with fine sulphides as disseminations and in epithermal quartz veins in lensoid zones parallel to the DFZ.

[4] CIM Definition Standards for Mineral Resources and Mineral Reserves, 2014

1.5 Exploration, Development and Operations

Exploration over the Property began with work completed by Esso PNG Inc (Esso) in the 1980s, comprising stream, soil, and rock chip sampling, trenching, mapping, and ground geophysics prior to drilling. Wapolu was discovered during this program, plus other prospects.

A joint venture (JV) between Union Mining NL (Union) and Mac Mining NL (Macmin) in the early-mid 1990s explored the Property comprising geochemistry, mapping, ground geophysics and drilling. Gameta was discovered during this program. Further exploration and technical studies led to a limited mining and processing operation at Wapolu, but operations were stopped due to poor performance.

A subsequent JV between Union and Yamana Resources Inc (Yamana) in the late 1990s completed further exploration, mostly at Gameta. From 2003 through to 2017, the Property was held by a series of related companies – Gold Aura Limited (Gold Aura) then Gold Anomaly Limited (GAL) then Crater Gold Mining Limited (Crater Gold). Work included a limited drilling program and further technical studies.

BGL was granted tenure over Gameta 2018 and completed geochemical sampling and geological mapping in its initial exploration program in 2019. PAAN was granted tenure over Wapolu in 2018 and completed a desktop review and a geochemical sampling program in 2019.

In 2021 at Gameta, Adyton has completed a surface trenching program with associated geological mapping and sampling, a 38-hole diamond drilling program to infill and extend the Mineral Resource, commenced a geometallurgical testing program, check-surveyed the collar positions of many historical drillholes, and prepared a new Mineral Resource estimate.

In 2021 at Wapolu, Adyton has completed a five-hole diamond drilling program to validate results from previous drilling at selected locations within the Mineral Resource, check-surveyed the collar positions of some historical drillholes and updated the existing Mineral Resource estimate.

At the present time, there are no mining or processing operations at the Property.

1.6 Mineral Resource – Gameta

In 2021, Derisk was engaged to prepare a Mineral Resource estimate for Gameta, prepared using the following approach:

1. Digital drillhole data were supplied in a Microsoft Access software directly from an independent database specialist.
2. Data validation checks were completed, focused on updated drillhole collar coordinates.
3. A topographic surface was created from 10 m regional contour data and drillhole collar survey data.
4. A 3D interpretation of the DFZ was undertaken based on geological logging and mineralisation interpretation. The base of colluvium was interpreted from geological logs. Localised footwall and hangingwall mineralisation structures were also interpreted.
5. Oxidation logging was collated and assessed, resulting in interpretations of the base of total oxidation and the base of partial oxidation.
6. Statistical analysis of drillhole assay data was completed and used to establish the optimum composite sample length.
7. Drillhole composites were generated for gold, silver, arsenic and sulphur, followed by composite statistics and a variogram analysis.
8. A 3D block model was created in Vulcan software.
9. Estimation search parameters were developed for each mineralised or waste domain, with estimation using ordinary kriging (OK).
10. Dry bulk density was assessed and compared with assaying by geology, domain, and oxidation.
11. 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.
12. A grade-tonnes tabulation was prepared to illustrate the sensitivity of the estimate to different cut-off criteria.
13. 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 Gameta Mineral Resource estimate is reported using the 2014 CIM Definition Standards at an effective date of 14 October 2021 (Table 1-1). Adyton has undertaken a conceptual mining study to investigate project viability and economics at Gameta that supports a reporting cut-off criterion of 0.5 g/t Au.

Table 1-1. Gameta Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au.

Classification	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
Measured	-	-	-
Indicated	4.0	1.33	175
Measured plus Indicated	4.0	1.33	175
Inferred	10.5	1.01	340

Notes: 1. In situ resource 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.

1.7 Mineral Resource – Wapolu

In 2010, Hellman & Schofield Pty Ltd (Hellman & Schofield) was engaged to prepare a Mineral Resource estimate for Wapolu, prepared using the following approach:

1. Digital and hardcopy drillhole data were extracted from a master database then imported into Microsoft Access software for checking and validation.
2. 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.
3. A topographic surface was created.
4. Three-dimensional interpretations of unmineralised versus mineralised zones were created in Gemcom, 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.
6. Drillhole composites were generated for gold, followed by composite statistics and a variographic analysis of the drillhole data using the Hellman & Schofield in-house GS3M software.
7. A three-dimensional block model was created in Gemcom, with no sub-celling of parent blocks.
8. Estimation search parameters were developed for the mineralisation domain, and estimates were generated using the multiple indicator kriging (MIK) method.
9. Variance adjustment factors were applied to report recoverable resources assuming plausible mining and grade control parameters for an open pit mining operation.
10. Block model validation comprised visual checking of block grades against composite values and other statistical checks.
11. 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.
12. A grade-tonnes tabulation was prepared to illustrate the sensitivity of the estimate to different cut-off criteria.
13. 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 Wapolu and re-reported the Mineral Resource using the 2014 CIM Definition Standards at an effective date of 14 October 2021 (Table 1-2). 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 Wapolu and this work has led to a lowering of the reporting cut-off criterion to 0.5 g/t Au.

Table 1-2. Wapolu Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au.

Classification	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
Measured	-	-	-
Indicated	-	-	-
Measured plus Indicated	-	-	-
Inferred	5.8	1.06	200

Notes: 1. In situ resource reported at a cut-off criterion of 0.5 g/t Au and vertical depth of 40 m below surface.
2. Figures have been rounded to reflect the relative uncertainty in the estimate.

1.8 Mineral Reserves

There are no estimates of Mineral Reserves for the Property.

1.9 Interpretation and Conclusions

The relevant Qualified Persons consider that the Property is prospective for the discovery of new 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 estimates at Gameta and Wapolu because they are open in several directions, and there are opportunities to define zones of higher-grade mineralisation within the broader lower-grade envelope.

Exploration by Adyton at Gameta has been successful in adding new mineralisation to the resource base and upgrading the confidence in substantial areas of the prospect to allow reporting of a significant Indicated Resource. At Wapolu, a small drilling program has validated the tenor of mineralisation drilled by previous tenement holders. Elsewhere across the Property, Adyton has identified geological and geochemical targets that are prospective for gold mineralisation that require systematic exploration and evaluation.

The Fergusson 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. At Gameta, this risk has been significantly reduced by the 2021 infill drilling program undertaken by Adyton and the quality assurance and quality control (QA/QC) program to improve the confidence in the drillhole locations of the historical drilling. At Wapolu, there is a moderate level of uncertainty over the veracity of the inputs into the Mineral Resource estimate, which 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 both Gameta and Wapolu is open in several directions. Resource modelling to date has defined a large low-grade mineralised zone, however more detailed geological assessment may establish there are higher-grade zones within the low-grade envelope that make the prospects more attractive.
- Elsewhere on the tenement, there are prospective gold targets with limited or no drill testing undertaken to date that demonstrate the potential for discovery of new Mineral Resources at the Property.

1.10 Recommendations

The relevant Qualified Persons recommend a methodical and systematic exploration program at the Property focused at the two main prospects of Gameta and Wapolu. This program should be aimed at expanding and upgrading the confidence in the current Mineral Resource at each prospect and commencement of technical studies to enable conversion of Mineral Resources to Mineral Reserves.

Adyton proposes the following (Phase 1) work program for calendar year 2022 at the Property:

- At Gameta:
  - Complete a drilling program (nominally 12,500 m) aimed at expanding the current Mineral Resource and converting more of the Inferred Resource to Indicated Resource to facilitate detailed technical studies at the prospect.
  - Prepare a new Mineral Resource estimate.
  - Complete a technical study to detail the geotechnical, mining, processing, economic, infrastructure, environmental, social and community factors to enable preparation of a Mining Lease application.
- At Wapolu:
  - Complete a drilling program (nominally 2,000 m) aimed at expanding the current Mineral Resource and converting some of it from Inferred Resource to Indicated Resource.
  - Prepare a new Mineral Resource estimate.
  - Commence a technical study, initially focused on metallurgical testwork.

Adyton proposes the following (Phase 2) work program for calendar year 2023 at the Property:

- At Gameta:
  - There will be little physical work undertaken while the MRA reviews the Mining Lease application. Pending approval of the Mining Lease, Adyton plans to commence pre-development activities.
- At Wapolu:
  - Complete a second drilling program (nominally 2,000 m) aimed at converting some of the Inferred Resource to Indicated Resource, collect samples for additional metallurgical testwork, and complete preliminary geotechnical drilling.
  - Prepare a new Mineral Resource estimate.
  - Continue with the technical study, focused on metallurgical testwork and geotechnical analysis.

The budget proposed by Adyton for a two-year exploration program at the Property, commencing in the first quarter of 2022, totals CAD 5.35 million. The Phase 1 budget is CAD 5.00 million and the Phase 2 budget is CAD 0.35 million. The budget estimate for 2023 may vary depending on results achieved in 2022.

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 D'Entrecasteaux Island Group in PNG.

This Technical Report presents results of exploration completed at the Property since February 2021 together with a new Mineral Resource estimate for Gameta and an updated Mineral Resource estimate for Wapolu. It is a public report to be filed under Adyton's profile on SEDAR at www.sedar.com. It provides descriptions of the gold mineral assets at the Property. Derisk has adopted the CIM Definition Standards[5] 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, John Horton, 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.

Table 2-1. Technical Report 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, 14 (Gameta), 15 – 29
Simon Tear	Associate Principal Geologist	37	MIGI (PGeo)	Qualified Person responsibility for Section 14 (Wapolu)
John Horton	Associate Principal Geologist	36	FAusIMM CP MAIG	Qualified Person contributing to Sections 10 – 12, 14 (Gameta)
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

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, Simon Tear, John Horton, Matthew White, 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

[5] CIM Definition Standards for Mineral Resources and Mineral Reserves, 2014

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.

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 director and principal geologist Mark Berry accepts Qualified Person responsibility for the Mineral Resource estimate at Gameta, and Derisk associate consultant Simon Tear accepts Qualified Person responsibility for the Mineral Resource estimate at Wapolu.

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 third-party claims) howsoever arising, whether directly or indirectly out of this Agreement or the provision or non-provision 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).

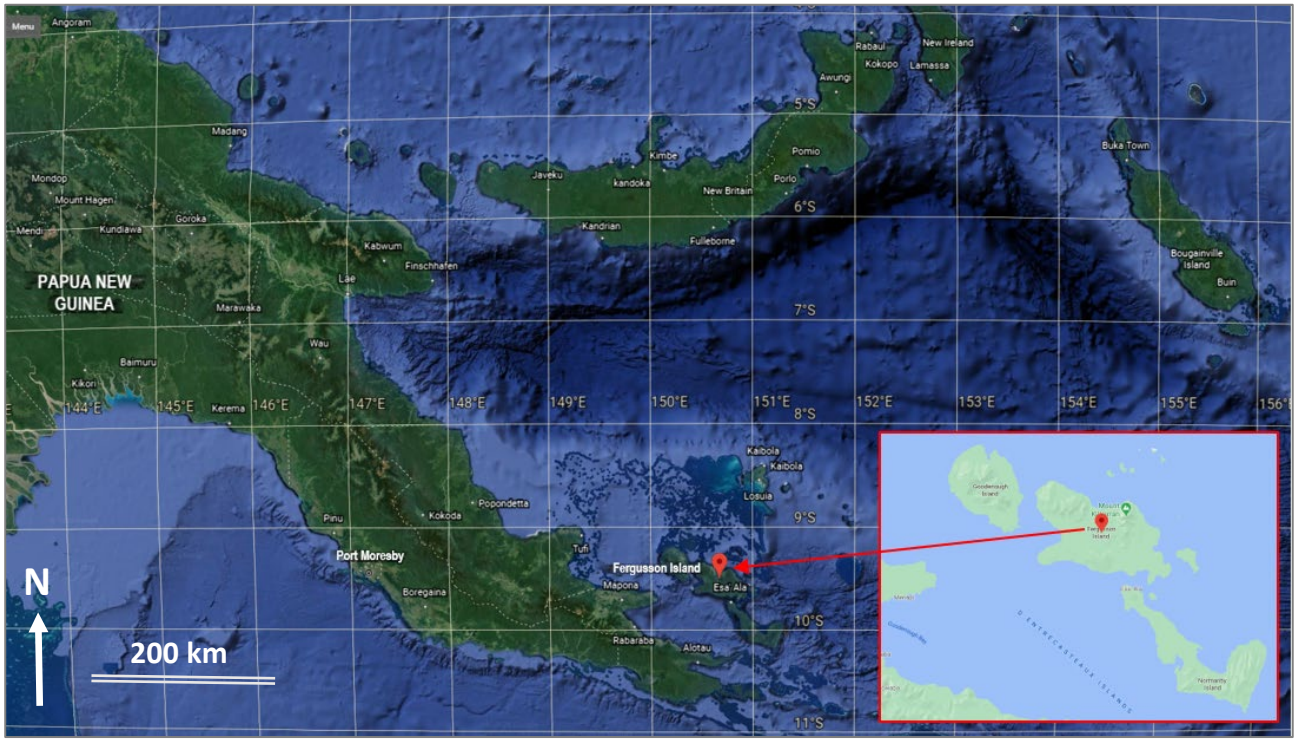
This information is used in Section 4 of the Report. It is also used in support of the Mineral Resource statement in Section 14.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Property is located at approximately 9°23'59" S latitude, 150°36'24" E longitude on Fergusson Island, D'Entrecasteaux Island Group, Milne Bay Province, PNG (Figure 4-1). The Property consists of two advanced-stage exploration gold prospects i.e., Gameta and Wapolu, located in close proximity along the coast on the northeast side and the northwest side of Fergusson Island, respectively. Fergusson Island is located approximately 375 km east 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 two tenements that make up the Property and shown in Figure 4-2. Tenure is held through ELs administered by the Mineral Resources Authority (MRA) under the Mining Act 1992 of PNG (Mining Act). The registered tenement holder of Gameta (EL 2546) is BGL and the registered tenement holder of Wapolu (EL 2549) is PAAN. Both BGL and PAAN are wholly-owned subsidiaries of Adyton.

Table 4-1. Tenement status.

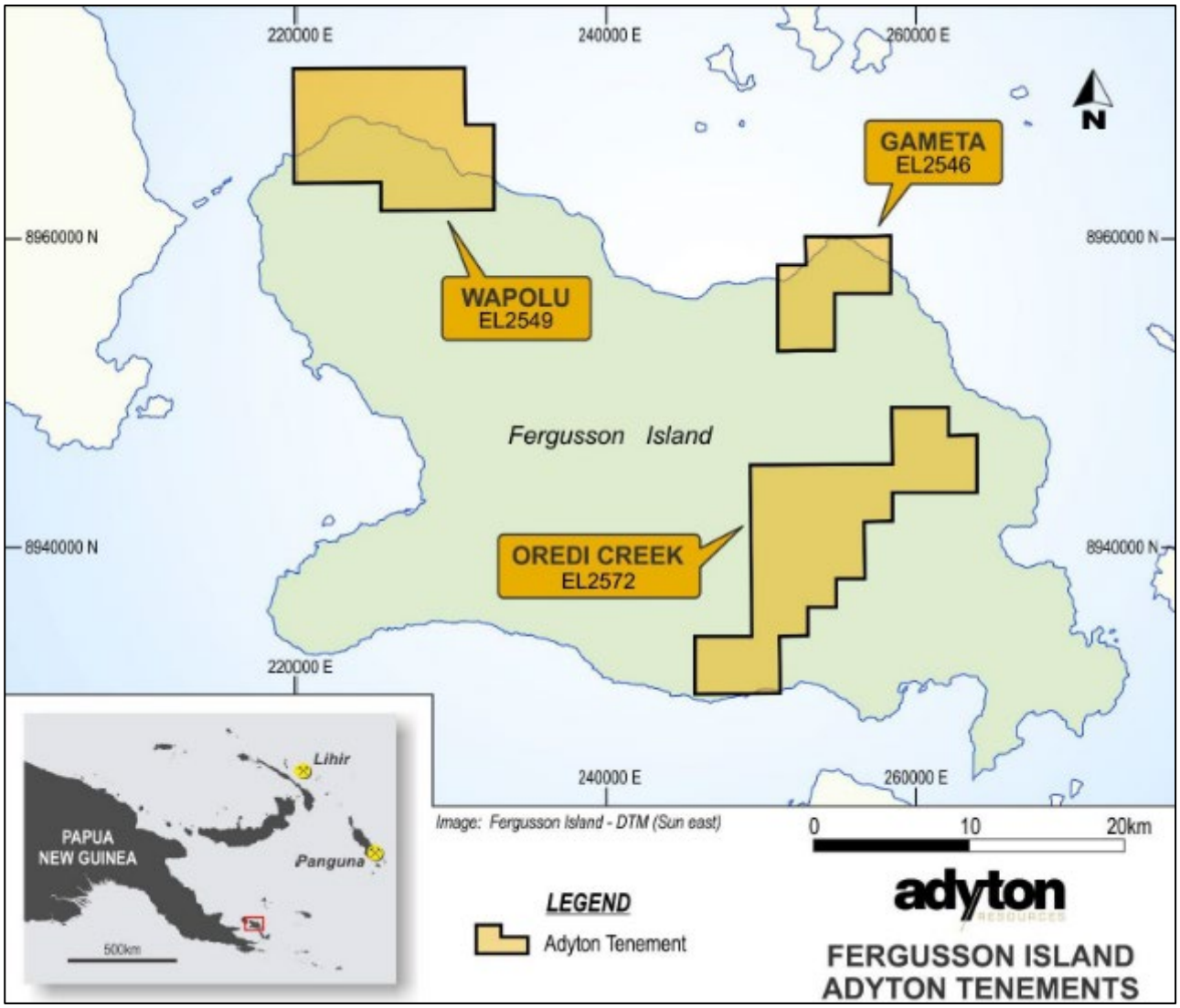
Exploration Licence and Holder	Location	Originally Granted	Current Term Start	Current Term End	Status	Size (sub-blocks and km^2)
2546 BGL	Gameta, Fergusson Island, Milne Bay Province	29-08-2018	29-08-2020	28-08-2022	Granted	11 sub-blocks 37.1 km^2
2549 PAAN	Wapolu, Fergusson Island, Milne Bay Province	04-04-2018	04-04-2020	03-04-2022	Granted	30 sub-blocks 101.4 km^2

Source: Ashurst, 2020 and 2021

The relevant Qualified Persons note that the current term of both ELs expires in 2022, with EL 2549 expiring in March and EL 2546 expiring in August. Both tenements can be renewed and applications will be due to be

lodged three months prior to the expiry date. Adyton has advised Derisk that the Company will be seeking to renew both tenements.

Figure 4-2. Gameta and Wapolu tenement location.



Source: Adyton, 2021c

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 program 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 exploration licence; 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 2546 and EL 2549 in the register maintained by the Registrar of Tenements under the Mining Act:

- For EL 2546, annual rents have been paid on time and for year 1 of the current renewal term (to the 28 August 2021), prescribed expenditure was set at Papua New Guinea Kina (PGK) 120,000. Adyton has exceeded this amount, with expenditure for the year of nearly PGK 5,636,700 and were compliant as per Section 25 of the Mining Act.
- For EL 2549, annual rents have been paid on time and for year 1 of the current renewal term (to the 3 April 2021), prescribed expenditure was set at Papua New Guinea Kina (PGK) 170,000. Adyton has exceeded this amount, with expenditure for the year of over PGK 379,100 and were compliant as per Section 25 of the Mining Act.

4.4.2 Surface Rights and Permits

Tenure conditions related to surface rights and legal access under Section 23 of the Mining Act allow for BGL and PAAN 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.

4.4.3 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 tenements.

4.4.4 Environment 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 Gameta will constitute a Level 2A Activity and that an Environmental Permit will be applied for as per the work program outlined in Section 26 of this Report. At Wapolu, the proposed activities do not require an Environment Permit. Further, Adyton has advised the relevant Qualified Persons that the Property is not subject to any environmental liabilities.

4.4.5 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

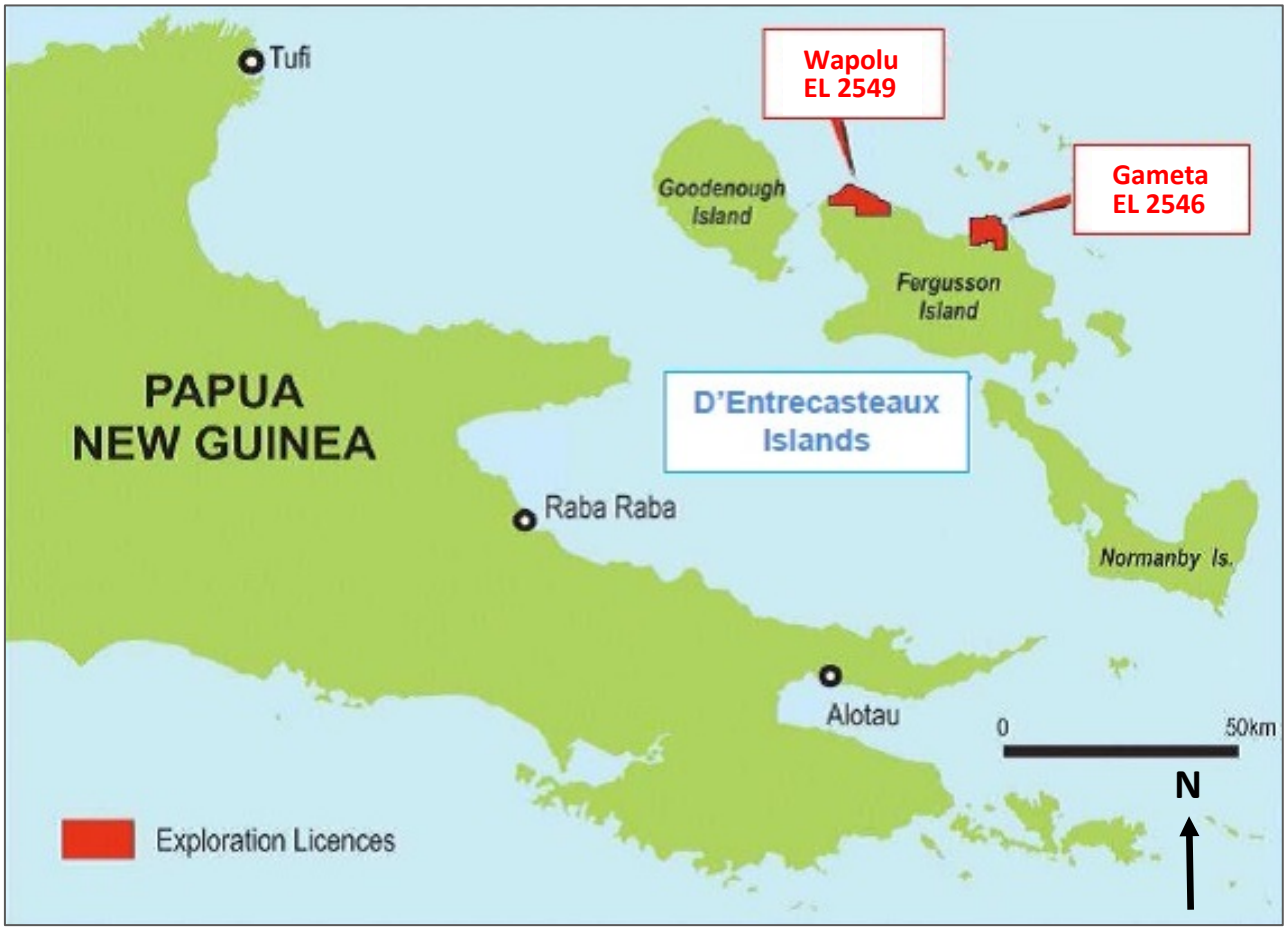
Fergusson Island is situated around 100 km north of Alotau, which is located on the PNG mainland approximately 350 km east-southeast of the PNG capital, Port Moresby (Figure 5-1). Access to the Property from Port Moresby to Alotau, which is the regional capital of Milne Bay Province, is via commercial flight that takes approximately one hour. There is no direct road access from Port Moresby to Alotau.

Access from Alotau to Fergusson Island is by boat (approximately 7 – 12 hours by charter boat). There is also a regular passenger boat service that travels from Alotau to some of the small villages on Fergusson Island.

The Gameta prospect is centred at latitude 09°26' S, longitude 150°45' E, and the Wapolu prospect is centred at latitude 09°21' S, longitude 150°30'. The Property is covered by the Fergusson Island 1:250,000 scale Topographic Map Sheet (CS56-05) and the Koitabu 1:100,000 scale Topographic Map Sheet (9079). Both prospects are a short distance inland of the shoreline. Alotau is approximately 100 kilometres south of Gameta, or around 150 kilometres by boat.

Heavy equipment such as drilling rigs can be transported by barge, and either dragged on skids or flown to site by helicopter.

Figure 5-1. Project location map



Source: Derisk, 2021

5.2 Climate

Like much of PNG, the Fergusson Island climate is tropical with high temperatures and humidity throughout the year. Average rainfall for this region is between 1,500 mm and 2,500 mm per annum. Moderate to heavy rainfall generally occurs on the northern side of Fergusson Island where both prospects are located, during the northwest monsoon season from December to March. From May to October, southeasterly winds are cooler and gentler. Daytime average temperatures reach 34°C in summer and 20°C in winter. Tropical

cyclones are infrequent. Rivers and streams with waterfalls drain water from the central mountain ranges of the island. Rainforest covers the higher elevations with secondary forest, grassland, and native gardens on the lower slopes and coastal plains.

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

Fergusson Island consists of narrow coastal plains rising to higher elevations towards its centre. The elevations reach in excess of 1,000 m within 2 – 3 km of the coast and in excess of 1,500 m within 5 km of the coast. The Island has three volcanic peaks over 1,800 metres high. The steep slopes are covered by relatively open rainforest and the foothills along the narrow coastal plain are covered by grasses and scattered trees. The prospect areas are relatively easy to traverse due to the general lack of undergrowth.

5.4 Local Resources and Infrastructure

Fergusson Island is sparsely populated with a total of around 30,000 local inhabitants, who subsist mainly on fishing and agriculture. Wapolu Village is located close to the Wapolu prospect and Gameta Village is located close to the Gameta prospect. Both villages are small and have provided local workers for exploration activities in the past. There are no major population centres or towns on the northern part of the island. There are no vehicular roads on Fergusson Island and access to the various gold prospects is via a network of local foot tracks. Some tracks that were prepared by bulldozers and excavators during the early 1990s exploration campaigns still exist on the island.

There is no central power supply on the island and local power supply for small electrical appliances is generated using fuel-powered generators and solar panels. Local streams are used for fresh drinking water.

There is an airstrip at Wapolu that will require restoration to become serviceable, as it has not been used for over 10 years. There is a sealed serviceable ex-World War 2 airstrip at Bolu Bolu on nearby Goodenough Island, to the west of Fergusson Island that is serviced by intermittent commuter flights from Alotau.

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 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 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 Misima 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 Esso and Esso/City Resources JV (1982 – 1989)

Modern exploration commenced in 1982 with Esso. In 1986 Esso formed a JV with City Resources (PNG) Pty Ltd (City Resources) to continue exploration over the D'Entrecasteaux Island Group. The following work was completed during this phase:

- 1983: Stream sediment sampling, rock chip and float sampling, reconnaissance geological mapping, and diamond drilling of 3 holes at Wapolu (404 m, WPD001-003) was completed.
- 1984: Soil sampling, mapping, trenching, and diamond drilling of 7 holes (793 m, WPD004-010) at Wapolu was completed.
- 1985: Trenching (9,060 m), airborne and ground geophysics, aircore drilling of 138 holes (2,828 m, WPA001-138), and diamond drilling of 12 holes at Wapolu (1,358 m, WPD011-022) was completed.
- 1986: At Wapolu, aircore exploration drilling of 111 holes (1,230 m, WPA139-249), aircore metallurgical drilling of 15 holes (375 m, WPM001-015), diamond drilling of 10 holes (703 m, WPD023-032), reverse circulation (RC) drilling of 10 holes (384 m, WPR001-010), RC metallurgical drilling of 3 holes (WPM016-018) and trenching (2,710 m) was completed.
- 1986: At other prospects, soil sampling, scout aircore drilling of 8 holes (66 m, LMA001-008), trenching (4,710 m), and mapping was completed.
- 1987: At Wapolu, metallurgical testwork, RC drilling of 104 holes (3,037 m, WPR011-114), RC metallurgical drilling of 8 holes (146 m, WPM019-026), diamond drilling of 61 holes (2,978 m, WPD033-093), trenching (3,620 m), and further soil sampling was completed.
- 1987: At other prospects, RC drilling of 59 holes (1,720 m, LMR001-046, LVR001-013), trenching (2,047 m), diamond drilling of 4 holes (231 m, LVD001-004), soil sampling, and mapping was completed.
- 1989: An economic assessment was completed.

6.1.2 Union/Macmin JV (1992 – 1997)

Between 1992 and 1997, a JV between Union and Macmin explored the Wapolu and Gameta projects, including RC and limited diamond drilling at Gameta. During this period, the JV mined a small open pit at Wapolu. The following work was completed during this phase:

- 1993-94: Metallurgical testwork on Wapolu mineralisation samples was completed.
- 1994: RC drilling of 36 holes (805 m) in the Wapolu mineralised area was completed.
- 1994(?): Ground magnetics survey (30.6 line km) over the Wapolu prospect was completed.
- 1993-94: Wapolu Mineral Resource estimation and feasibility study was completed.
- 1995(?): Chip sampling of outcrop, trenches, and preparation of drill access roads in the Bilu Bilu area (EL 1070) was completed. Union (alone) discovered the Gameta prospect in 1995.
- 1995-96: RC drilling of 116 holes (4,678.5 m) and one diamond drillhole in the Gameta prospect was completed.
- 1996(?): Ground magnetics (33.2 line km) in the Bilu Bilu area.
- 1996-97: Small-scale mining extraction of 603,000 t yielding 11,000 oz gold from the Dagwalala and Didigayagaya pits in the Wapolu area was completed.
- 1997(?): Reconnaissance rock chip, soil, and drainage sampling at the Duduwe and Wadelei prospects (EL 1070) was completed.

6.1.3 Union/Yamana JV (1997 – 1998)

During 1997 and 1998, a JV between Union and Yamana completed several drill programs at Gameta, including shallow air track drilling, RC, and diamond drilling. The following work was completed:

- 1997: A helicopter-borne magnetic-radiometric survey of EL 1025 and EL 1070 as part of a 2,500 km2 survey over the whole area of Fergusson, Goodenough and Sanaroa Islands and the northern part of Normanby Island, comprising 15,700 line km on north – south lines at 200 m line spacing and 60 m sensor clearance. Infill lines were flown over the Wapolu and Gameta areas to achieve a line spacing of 100 m.

- 1997: High-resolution colour aerial photography of EL 1025 and EL 1070, as part of a coverage of Union's entire ground holding in the D'Entrecasteaux Islands, at an overall scale of 1:20,000 and a more detailed 1:10,000 scale over the Gameta area.
- 1997: Geological interpretation and target identification by consultants SRK Australia Inc in EL 1025 and EL 1070 based on the airborne magnetics/radiometrics, aerial photography and geological data. The study was undertaken as part of a review of Union's entire D'Entrecasteaux Islands ground holding.
- 1997: Metallurgical testwork on core samples from Gameta was completed.
- 1997: Drilling of 41 RC holes (2,371 m) at Wapolu.
- 1997: Resource estimation at the Wapolu and Gameta prospects was done by The Winters Company (Tucson, Arizona).
- 1997-98: Drilling at Gameta, comprising 76 RC holes (5,738 m), 5 diamond core holes (407 m) and 77 air track holes (1,145 m) was completed.
- 1997-98: Revisions were made to the Wapolu and Gameta resource estimates, incorporating the results of drilling in 1997 and 1998.
- 1998: Rock chip sampling of outcrop, float, and road cut exposures in and around the vicinity of Gameta.

6.1.4 Gold Aura, GAL, and Crater Gold (2003 – 2017)

From 2003 through to 2017, the Property was held by a series of related companies. Gold Aura held the Property from 2003 and merged with another company to form GAL in 2009. GAL was renamed Crater Gold in 2017. Work completed included:

- 2003: Gold Aura drilled four diamond holes (875 m) at Gameta, designed to test the prospective detachment fault zone at depths of up to 400 m down dip of the known extent of gold mineralisation.
- 2004: A scoping study was completed on the economic viability of exploiting the Gameta and Wapolu prospects. The results of this scoping study were positive, and a prefeasibility study was subsequently completed that was also positive, with the recommendation that the prospects be brought up to bankable feasibility status.
- 2006: A drilling program of 4 diamond core holes was completed at Wapolu by Gold Aura (total 165 m).
- 2007-08: A program of 23 diamond core holes was completed at Gameta (2,870 m). This was the last drilling program completed at the Property prior to the 2021 Adyton program.
- 2010: A mineral resource estimate was completed at Gameta.
- 2010-13: No activity.
- 2013: GAL re-applied for new ELs over the Gameta and Wapolu prospects and were issued a new EL 1972 over Gameta and a new EL 2180 over Wapolu.
- 2013-17: No activity.
- 2017: The Gameta EL was not renewed and the Wapolu EL was relinquished.

6.1.5 BGL (2018 – 2020)

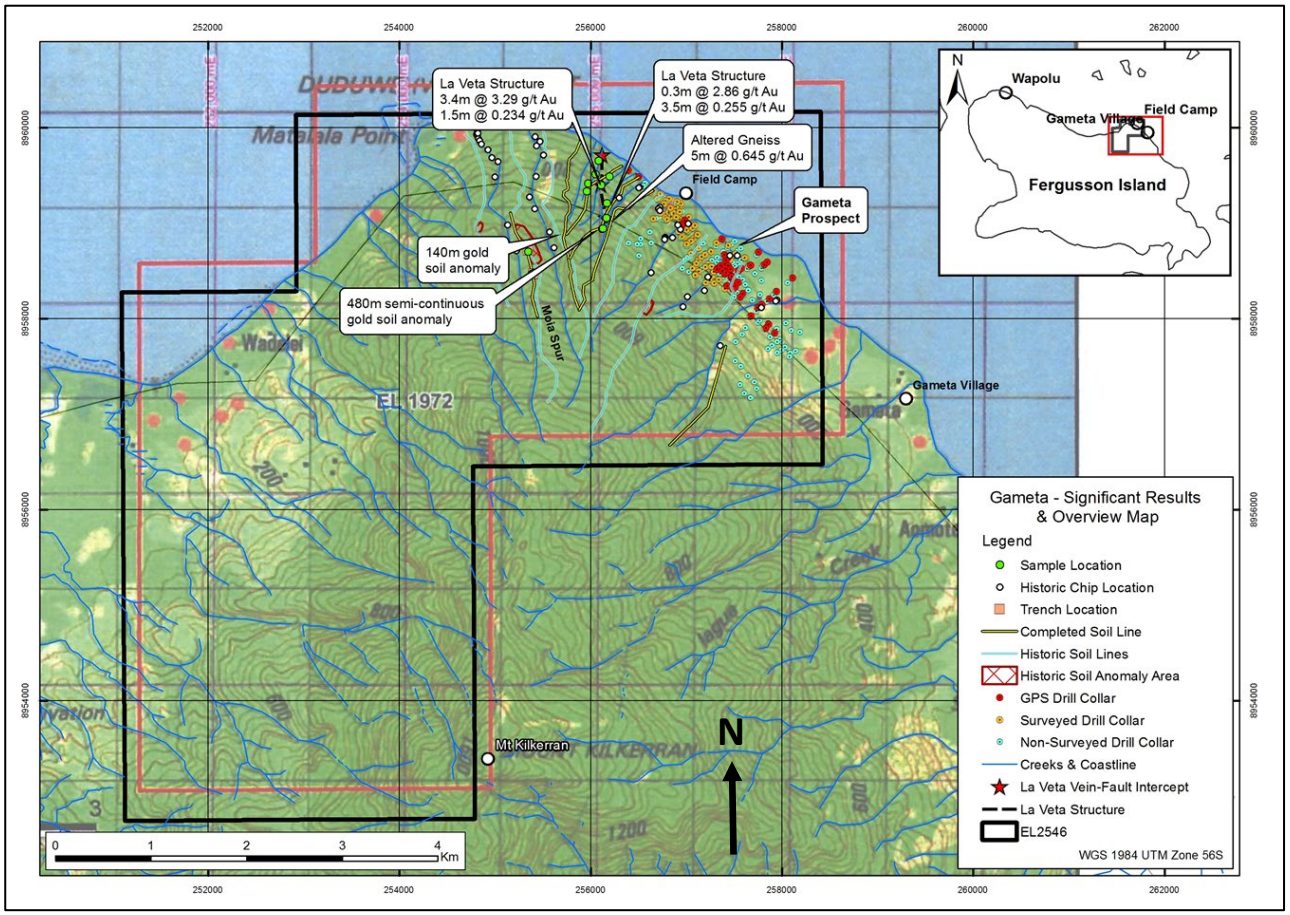
BGL applied for tenure over the Gameta prospect and was granted EL 2546 in August 2018. BGL initially completed geochemical sampling and geological mapping in its initial exploration program in 2019. Field work included:

- Collection of 202 ridge and spur soil samples (40 m spacing).
- Mapping/sampling of La Veta Vera vein/fault structure.
- Collection of 15 chip, 2 float and 2 trench channel samples.
- Locating, marking up and recording 50 historical drillhole collars.

The soil sampling tested several key areas identified by BGL. These areas included following-up one of the historical soil anomalies from the 1980s and another area around 1 km northwest of the Gameta resource area where geochemical samples are sparse. BGL also mapped the La Veta Vera fault/vein structure for a strike length of approximately 750 m. This structure was sampled at two new locations in Obuwai and Getukona Creeks. Results were encouraging and the highlights from the geochemical sampling program are illustrated in Figure 6-1.

Following the results from this program, the company planned to undertake further exploration work at several prospects, including trenching, but no further field work was completed.

Figure 6-1. Geochemical summary results from the 2019 exploration program at Gameta.



Source: Derisk, 2021

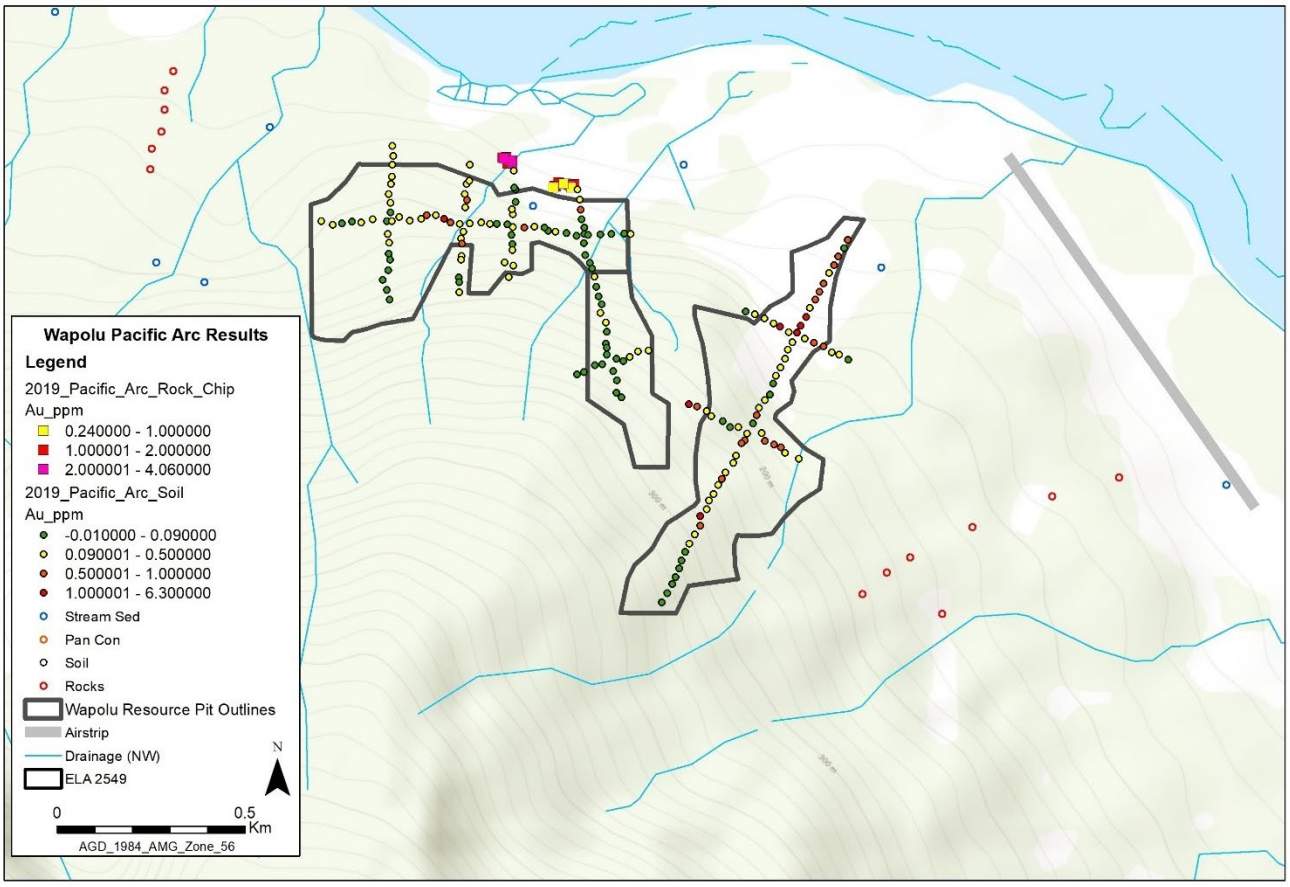
6.1.6 PAAN (2018 – 2020)

PAAN applied for tenure over the Wapolu prospect and was granted EL 2549 in April 2018. Upon being issued EL 2549, PAAN completed a desktop review, which involved compiling and reviewing the project's technical aspects, including previous work, regional geological setting, local geology, mineralisation, exploration potential and planned exploration.

A field work program was conducted in October 2019 as part of a due diligence study, following the literature review program. Soil sampling lines were completed across three historical open pits at Dagwalala, Didigayagaya and Nemwa (Figure 6-2). The objective of the soil sampling program was to validate these historical results. Three base lines and eight cross lines were cut and surveyed using a hand-held global positioning system (GPS) device. These lines were sampled at 25 m spacing. At each sample station a pit was dug down to 20-30 cm depth. The soil samples were then collected from B and C horizons of the soil profile using a hand auger bored down to depths ranging from 30 cm to 1 m. A total of 186 soil samples and 18 rock chip samples were collected for geochemical analysis. However, the analytical results are not included in the report by PAAN and cannot be located.

PAAN concluded that there was potential for more high-grade gold mineralised zones being present in the old pit areas and/or their perimeters and/or at depth, but completed no further field work.

Figure 6-2. PAAN soil sampling results at Wapolu.



Source: Derisk, 2021

6.2 Historical Estimates of Mineral Resources

6.2.1 Gameta

Internal company reports document that five historical estimates of Mineral Resources have been prepared for Gameta during the period from 1997 to 2005. The relevant Qualified Persons have been unable to locate detailed descriptions of the inputs and estimation methods used for any of these estimates and therefore cannot comment on the relevance or reliability of any of these estimates. As such, the relevant Qualified Persons have not done sufficient work to classify the historical estimates as current Mineral Resources and the Issuer is not treating the historical estimates as current Mineral Resources.

6.2.2 Wapolu

Internal company reports document that six historical estimates of Mineral Resources have been prepared for Wapolu during the period from 1988 to 2005. The relevant Qualified Persons have been unable to locate detailed descriptions of the inputs and estimation methods used for any of these estimates and therefore cannot comment on the relevance or reliability of any of these estimates. As such, the relevant Qualified Persons have not done sufficient work to classify the historical estimates as current Mineral Resources and the Issuer is not treating the historical estimates as current Mineral Resources.

6.3 Production

A Mineral Resource estimate was prepared for the Wapolu area in 1993, followed by a feasibility study to assess mining and processing options. The relevant Qualified Persons have not been able to locate the original reports documenting this work but have sighted references to this work in later reports.

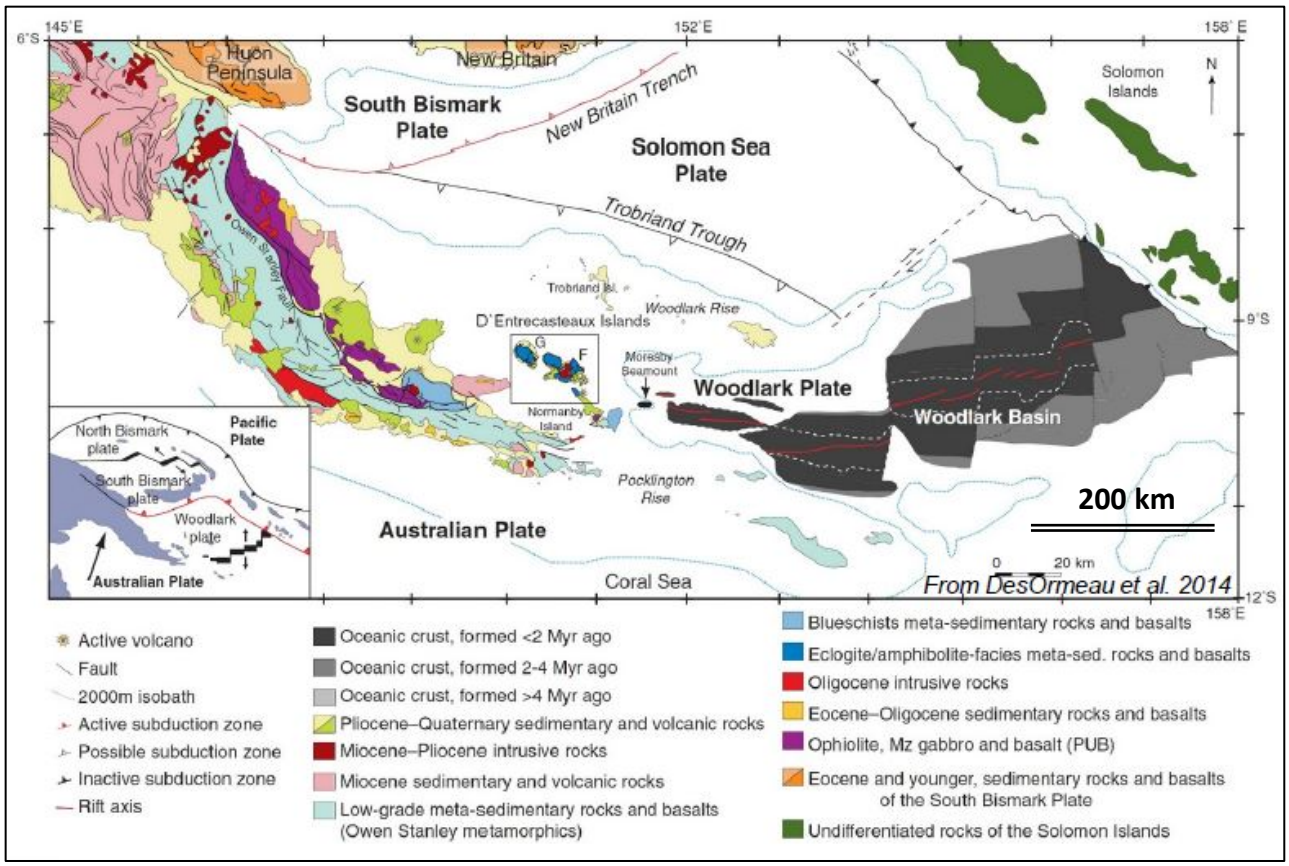
In 1996 and 1997, small-scale mining extraction of 603,000 t yielding 11,000 oz gold was reported from the Dagwalala and Didigayagaya pits in the Wapolu area. The relevant Qualified Persons have not been able to locate the original production reports documenting the mining and processing operation.

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 Regional Geological Setting

Fergusson Island is one of the D'Entrecasteaux Islands, which are located in the western end of the Woodlark extension (Woodlark Basin) as shown in Figure 7-1. The geological setting is dominated by Miocene-Recent crustal thinning created as a result of extension (stretching) of the crust. In the Woodlark Basin, new oceanic crust has been formed. At Fergusson and Goodenough Islands the extension has resulted in isostatic rebound of the deeper crust that has been brought closer to the surface. This process has been assisted by several shallow-dipping normal faults that juxtapose deeper crust of high metamorphic grade against shallower crust of lower metamorphic grade.

Figure 7-1. Tectonic setting of the D'Entrecasteaux islands, including Fergusson Island.



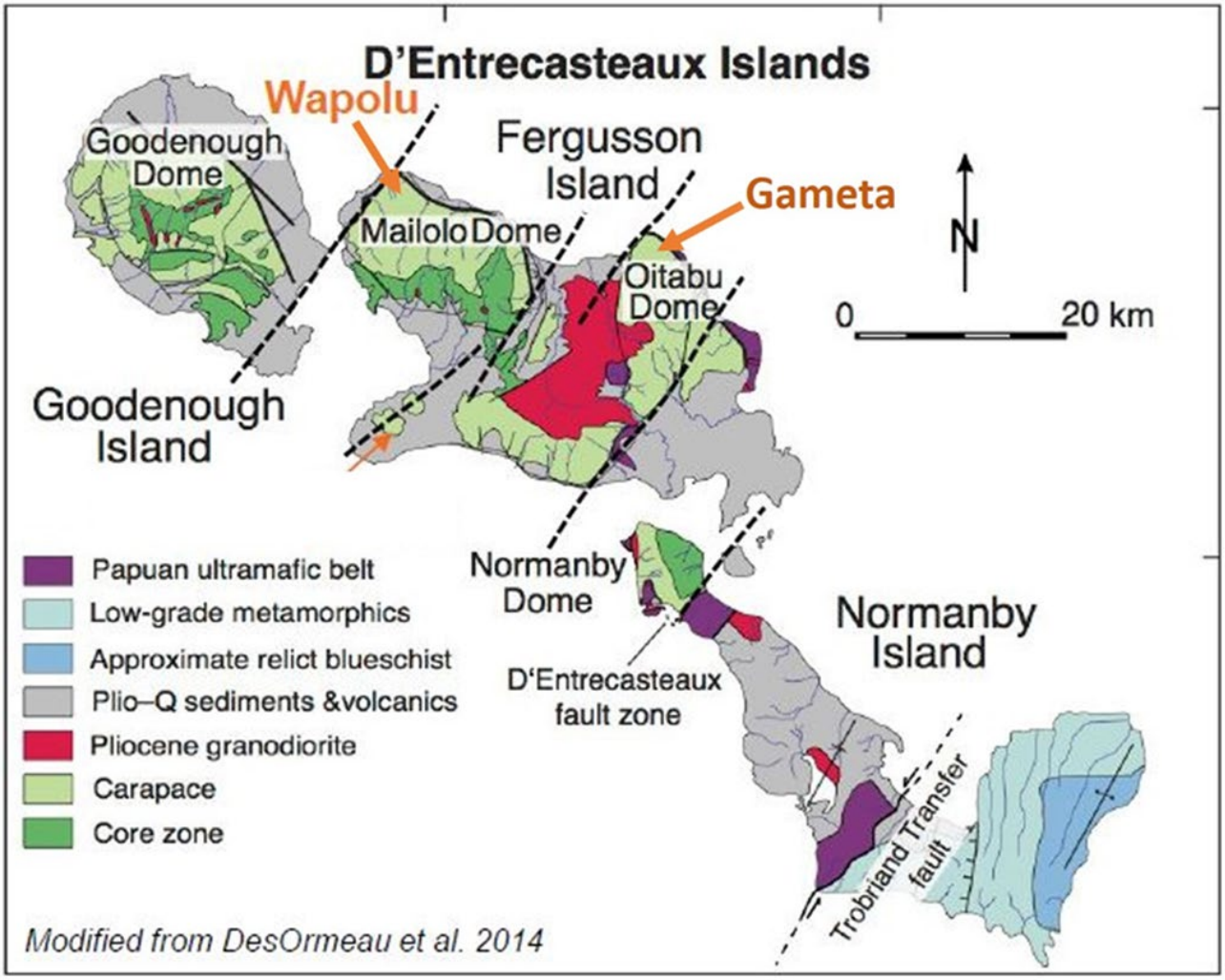
Source: Derisk, 2021

The D'Entrecasteaux Islands are the continuation of the Owen Stanley Metamorphic Belt, although sinistrally offset by about 100 km to the north. They comprise a number of metamorphic core complexes that form prominent tectonic domes of probable Cretaceous age. The domes consist of a core of high-grade crystalline rocks surrounded by a layered outer zone, between 1 and 2 km thick, composed of amphibolite facies gneisses. This layered zone is separated from over-thrust sub-seafloor oceanic mantle by a decollement (DFZ), overlaying ultramafic rocks of the obducted block composed of largely serpentinised dunites, harzburgites, and pyroxenites. Thick colluvial deposits of landslide and slump debris drape the margins of the domes and are prominent at Wapolu.

Mineralisation at Wapolu and Gameta is hosted in the DFZ and within the footwall dioritic gneiss and appears to be both fracture and dyke-related, plus sulphide-hosted. The overlying ultramafic plate, though strongly dyked, altered, and fractured, carries only patchy and sporadic low-grade gold mineralisation.

Across the D'Entrecasteaux Islands, remnants of the previously overthrust seafloor plate can commonly be observed in serpentinised exposures close to the coast and as serpentinite debris within the thick coastal and near-coastal colluvial deposits. Figure 7-2 shows the Oitabu dome on the northeast margin of Fergusson Island, which hosts the Gameta prospect and the Mailolo dome on the northwest coast of Fergusson Island, which hosts the Wapolu prospect.

Figure 7-2. Geology of the D'Entrecasteaux Islands showing the location of the Gameta and Wapolu prospects.



Source: Derisk, 2021

The domes on Fergusson Island consist of a core of medium to high-grade crystalline metamorphic rocks (eclogite, mafic granulite and migmatite) surrounded by a layered outer zone, between 1 and 2 km thick, composed of amphibolite facies gneisses and mylonitic gneiss, which in turn is separated from over-thrusted (obducted) sub-seafloor mantle rocks by the shallow-dipping (30° to 40°) DFZ.

Thick colluvial deposits and landslide and slump debris are present along the coastal margins of the domes, and presumably the interior margins as well. A recent landslide that exposed the discovery outcrop at Gameta was estimated to be 30 m thick. More significant slumps and slides have occurred in the past. Thick colluvium is prominent at Wapolu.

The DFZ exhibits both brittle and ductile textures and is composed variably of weakly to intensely schistose rocks, variably altered mafic dykes, fault gouge, milky quartz cobbles and boudinage veins (probably metamorphic), continuous quartz veining and silicified breccias. The obducting mantle rocks are composed of largely serpentinised dunites, harzburgites and pyroxenites and form rounded hills, often with only poor forest cover. Remnants of the over-thrust oceanic plate form serpentinised exposures close to the coast and common serpentinite debris within the thick coastal and near-coastal colluvial deposits.

The obduction event is interpreted as having occurred during the Cretaceous as the result of the oblique collision between the north-northeast moving Australian Cratonic Plate and the west-northwest moving Pacific Oceanic Plate. After the obduction there was substantial removal of the obducting plate before the formation, in the last 6 million years or so, of the D'Entrecasteaux metamorphic core complexes.

Broadly speaking both the Gameta and Wapolu deposits display the following features:

- They form a thin layer or blanket dipping seaward, controlled and hosted by a major fault zone (the DFZ) that separates an underlying metamorphic basement (Lower Plate) from an overlying ultramafic/mafic sequence (Upper Plate).
- The DFZ mineralisation is exposed only sporadically in outcrop; most of the down-dip portions of the deposits are covered by colluvium. At Gameta the colluvium is described as averaging 50 – 60 m in thickness (and is shown as much thicker on some sections); at Wapolu the colluvium is much thinner.

7.2 Gameta

7.2.1 Geology

The detachment fault within the Gameta area parallels the shoreline striking at 310° magnetic and dips northeast into the sea at around 38°. There is a kink in the Oiatabu Dome margin at the northwestern end of the Bilu Bilu area. This northerly segment trends 300° magnetic and whilst the dip remains at about 40° northeast, only unaltered foliated gneiss is exposed above a very narrow slip of coastal breccia colluvium and there is no sign of any DFZ material.

Views from the sea of the coast of Gameta and from aerial photos, both clearly show the sawtooth like torn nature of the various underthrust basement sheets. The DFZ fault gouge was mapped in outcrops, drill pads and access track exposures on the uppermost of these torn basement sheets. No fault gouge has been located to date, nor is expected, in between these tooth-like segments of the uppermost sheet of basement material. Slickensides at the base of the gouge in several areas of the DFZ all have the same sense of oblique-slip movement, i.e., upper block relatively downwards as well as laterally to the northwest. Slickensides plunge at 50° to the northwest within the fault plane, giving a plunging apparent lineation of 27° to the north.

The Gameta area has only a few exposures of remnant ultramafic rocks, coincident with magnetic highs. However extensive areas of ultramafics have been mapped farther down the coast to the southeast from Gameta, as well as on the other side of the Oiatabu Dome in the Wadelei area. Whilst ultramafic exposure is very limited, drilling has indicated an apparent sheet of debris within the coastal colluvial, a deposit that is derived largely from serpentinised ultramafic.

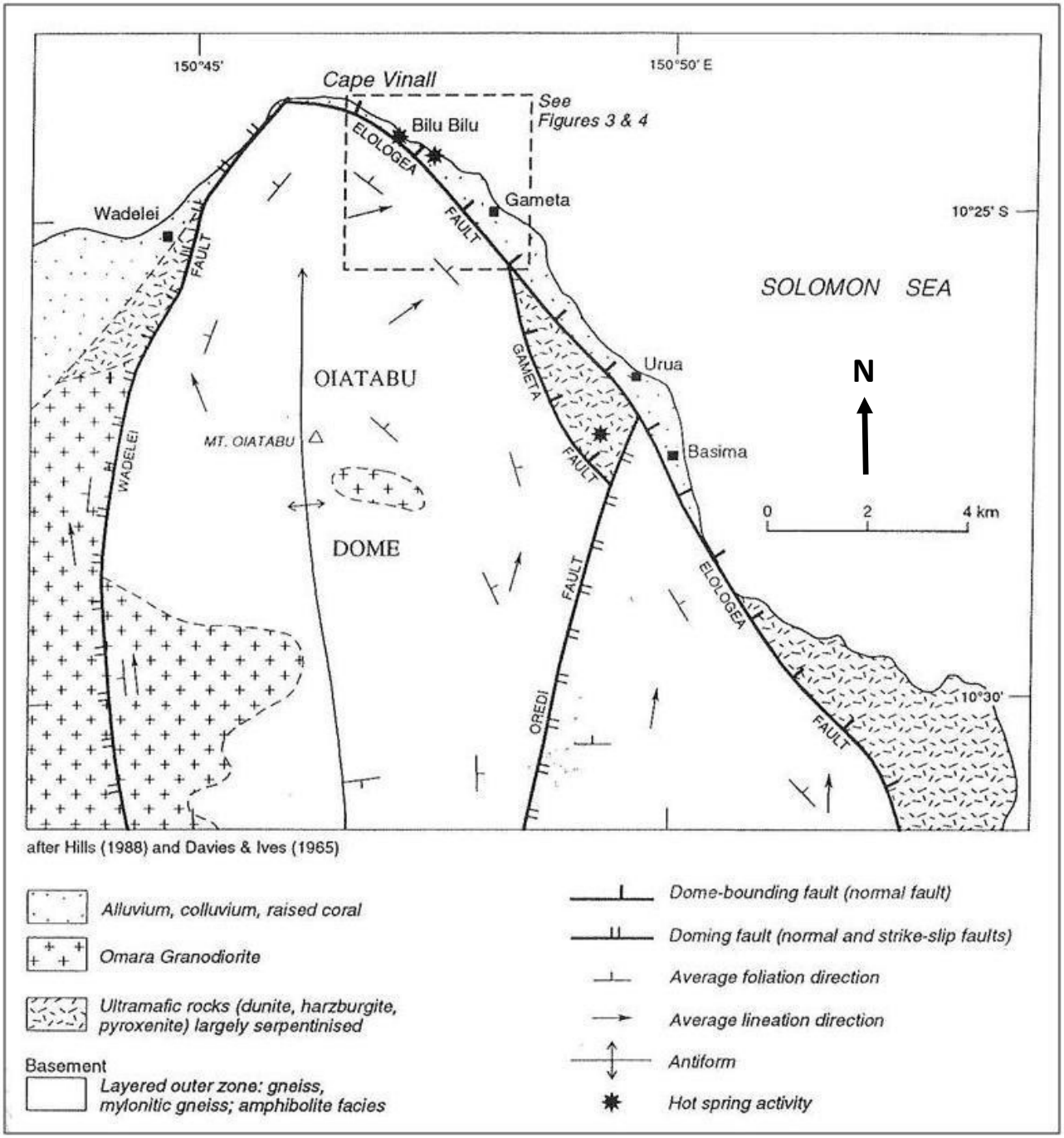
Minor clay alteration and patches of silicification have been noted within lower sheets of basement gneiss higher up the mountain side, but these have not yet been associated with any significant alteration.

The stratigraphic sequence at Gameta from top to bottom is summarised below:

- Late large fresh boulder colluviums.
- Largely decomposed boulder colluviums.
- Generally oxidised clay-altered ultramafic debris, often containing strongly fractured dyke material, sometimes auriferous. This unit thickens seawards.
- A highly variable DFZ zone.
- An underlying mineralised dolerite sill (DFZ Dyke) intimately associated with the DFZ zone over most of the deposit area.
- A sheet of foliated to weakly gneissic diorite. This sheet is cut by numerous, generally thin mafic dykes and sills, dykelets and fingers at all orientations and dips, zones of silicification and several fracture sets.
- A talcose-altered, highly magnetic gabbroic dyke that appears to crosscut the topography at a low angle. This dyke is in turn heavily intruded by numerous thin, variously altered, and mineralised basaltic dykes/sills.
- A unit of fine-grained gneissic amphibolite that may originally have been a volcanic unit.
- Dykes and sills that occur at all angles within the basement units.

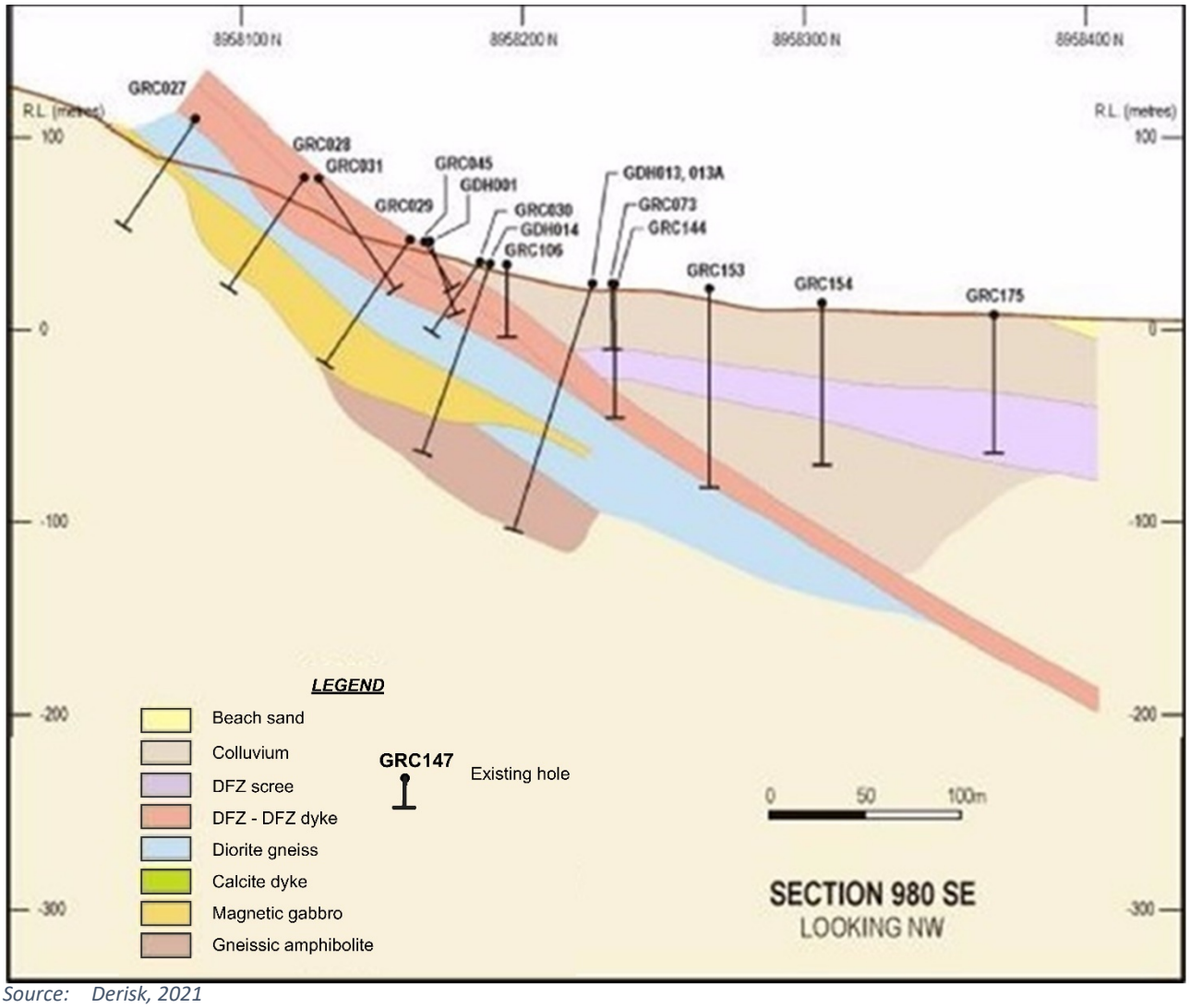
The interpreted geology map for Gameta is shown in Figure 7-3 and a cross-section is shown in Figure 7-4.

Figure 7-3. Interpretive local geology of the Gameta area.



Source: N H Cole and Associates, 2015

Figure 7-4. Interpretive geological cross section of the Gameta prospect.



Source: Derisk, 2021

7.2.2 Mineralisation

Gold mineralisation occurs predominantly within the DFZ and the underlying metamorphic rocks. It consists almost entirely of primary sulphides with only minor oxide development in places.

Mineralisation is hosted in the thin remnant of DFZ fault gouge (usually no more than about 7 m in thickness) and within the underlying dioritic gneiss and to a lesser degree the ultramafic rocks. Mineralisation appears to be both fracture and dyke-related and sulphide-hosted, with both types to date appearing to be overwhelmingly hosted within the apparently more brittle and definitely more strongly leached diorite gneiss unit. The overlying Ultramafic plate, though strongly dyked, altered, and fractured and locally pyritic, carries only patchy and sporadic low-grade gold mineralisation. The DFZ itself is irregularly mineralised, with some barren intervals, other intervals are mineralised only in the footwall section, whilst other intervals, particularly those that are heavily silicified, are well mineralised.

The main mineralisation features appear to be as follows:

- Brittle fractures comprising vuggy pyrite ±stibnite ±molybdenite containing significant carbonate, which is now leached out in the gneiss and generally only present in the doleritic dykes or at depths well over 100 m.
- Marcasite, pyrite, silica, ±realgar ±orpiment occurring dominantly as sulphidation of mafics within metamorphosed basalt dykes (mainly in the DFZ Dyke), and as coatings within the early fracture set.
  - Brown rock alteration consisting of chloritisation or pyritisation of mafics, generally in the younger visibly unmetamorphosed dykes.
  - Massive silicification with either chloritisation or pyritisation of mafics.

- Late massive pyrite-silica veinlets, occasionally vuggy and sometimes banded.
- Rare banded epithermal quartz veins (some with pyrite bands), usually in more siliceous lenses at depth within the gneissic amphibolite. These are believed to be barren or low grade.
- Banded carbonate veinlets (some with black ultra-fine pyrite bands), usually at depth in the gneissic amphibolite (barren).

To date, mineralisation at Gameta has been identified over an areal extent of 1,500 m in a northwest – southeast direction, 500 m in a northeast – southwest direction, and over 180 m in depth extent.

7.3 Wapolu

7.3.1 Geology

The basement rocks at Wapolu are considered to represent domes of metamorphosed and highly deformed sialic continental crust belonging to the leading edge of the Australian Plate. They are thought to be Cretaceous in age.

Rock types present within the basement complex include quartz-feldspathic schists and gneisses, metabasalts, basic schists, calcic schists, amphibolites, contorted laminated limestones, eclogites, granulites and migmatites. The basement metamorphics have been subdivided into an outer zone of regularly layered commonly mylonitic gneiss, and a core zone of extremely high-grade metamorphic rocks that are complexly deformed.

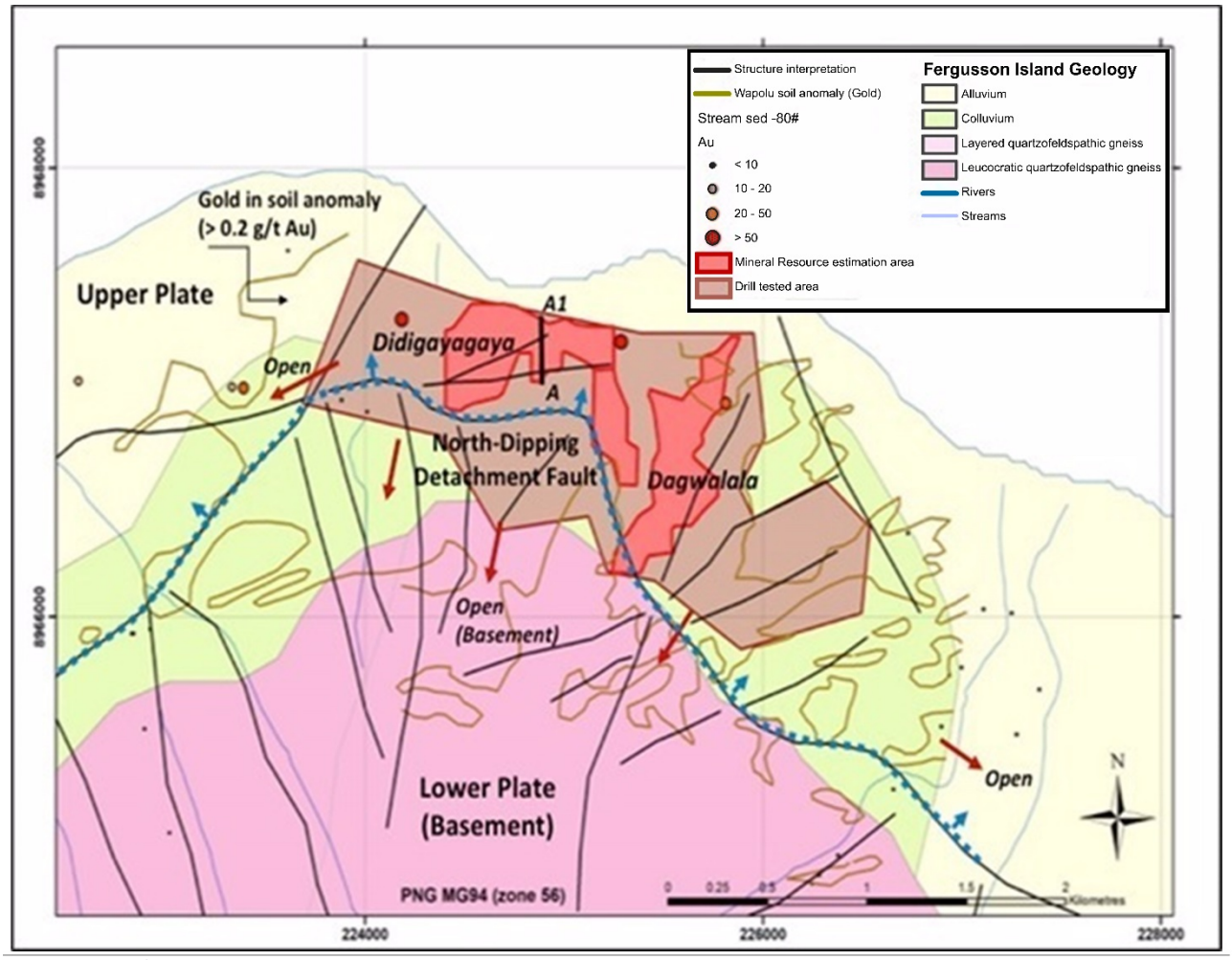
The outer zone consists of green schist to amphibolite grade gneissic rock of mainly felsic to mafic composition, with some pelitic and calcareous units. Narrow zones of lower amphibolite to green schist facies biotite-rich schist also occur in the outer-layered zone. The core zone is dominantly migmatitic with bands and blocks of mafic granulite and eclogite.

The ultramafics are unmetamorphosed and overly the deformed basement gneisses, mainly in faulted contact. They comprise dunites, harzburgite wehrlites, enstatite pyroxenites and websterites, and form rounded convex hills with poor forest or bracken cover. The rocks are olivine-orthopyroxene-chromite (±clinopyroxene) rocks that are variably serpentinised. It is considered that the ultramafic rocks represent sea floor units through which the core complexes have been thrust.

Due to the steepness of the slopes around the metamorphic domes, gravity tectonics has been a significant force, resulting in thick colluvial deposits and landslides of varying size and extent. It is suspected that large slabs of basement rock have slipped downwards and are variably fragmented. The presence of such landslips may not be easily identified in drill core alone. Small-scale mining at Wapolu indicated that the colluvium is both thicker and more extensive than previously thought.

A geology map of the Wapolu area is presented in Figure 7-5. The map also shows historical drill limits, Mineral Resource domains and the >0.2 g/t Au soil anomalies.

Figure 7-5. Surface geology and mineralised area of the Wapolu prospect.



Source: Derisk, 2021

7.3.2 Mineralisation

Mineralisation occurs as two lodes located mainly within shallow-dipping normal faults of the DFZ and in the overlying ultramafics. The main bodies of mineralisation are hosted in breccia and veins (Didigayagaya lode) and in secondary debris/talus (Dagwalala lode). Intrusions mapped throughout the island formed in response to the thinning crust and hydrothermal fluid movement created in response to the steeper geothermal gradient may have been involved in the transport and deposition of gold in the faults and veins. It is not clear from the deposits whether the Dagwalala lode is in situ or talus or an accumulation of previously mineralised rocks.

Relatively little is known about the formation of the gold at Wapolu. Gold is reportedly very fine-grained and associated with silicification and epithermal-textured quartz veins with sulphides (pyrite, arsenopyrite, rare stibnite).

Geochemical analyses also show silver and mercury to be anomalous. Gold is reportedly partially refractory in the primary unoxidised zone, suggesting deposition was closely associated with sulphides (pyrite, marcasite, arsenopyrite). Some gold is possibly later and may be less refractory. The distribution of weathered oxide mineralisation, secondary colluvial/talus debris mineralisation, and primary sulphide mineralisation is not clear.

To date, mineralisation at Wapolu has been identified over an areal extent of 1,400 m in an east – west direction, 1,200 m in a north – south direction, and approximately 80 m in depth extent.

8 DEPOSIT TYPES

The mineralisation model developed by Esso from their work at Wapolu, which was later adopted by subsequent explorers, was that of an epithermal gold system with upflow along the dome-bounding detachment faults and high-angle cross faults within the metamorphics. The heat engine was provided by the Pliocene to Holocene volcanic activity. Esso considered that the ultramafics acted as a lid to the system with a complete loss of permeability that resulted in over-pressuring, followed by rupture, fluid boiling and deposition of gold. Some of the gold was thought to have been derived from the widespread serpentinisation and carbonisation of the ultramafics.

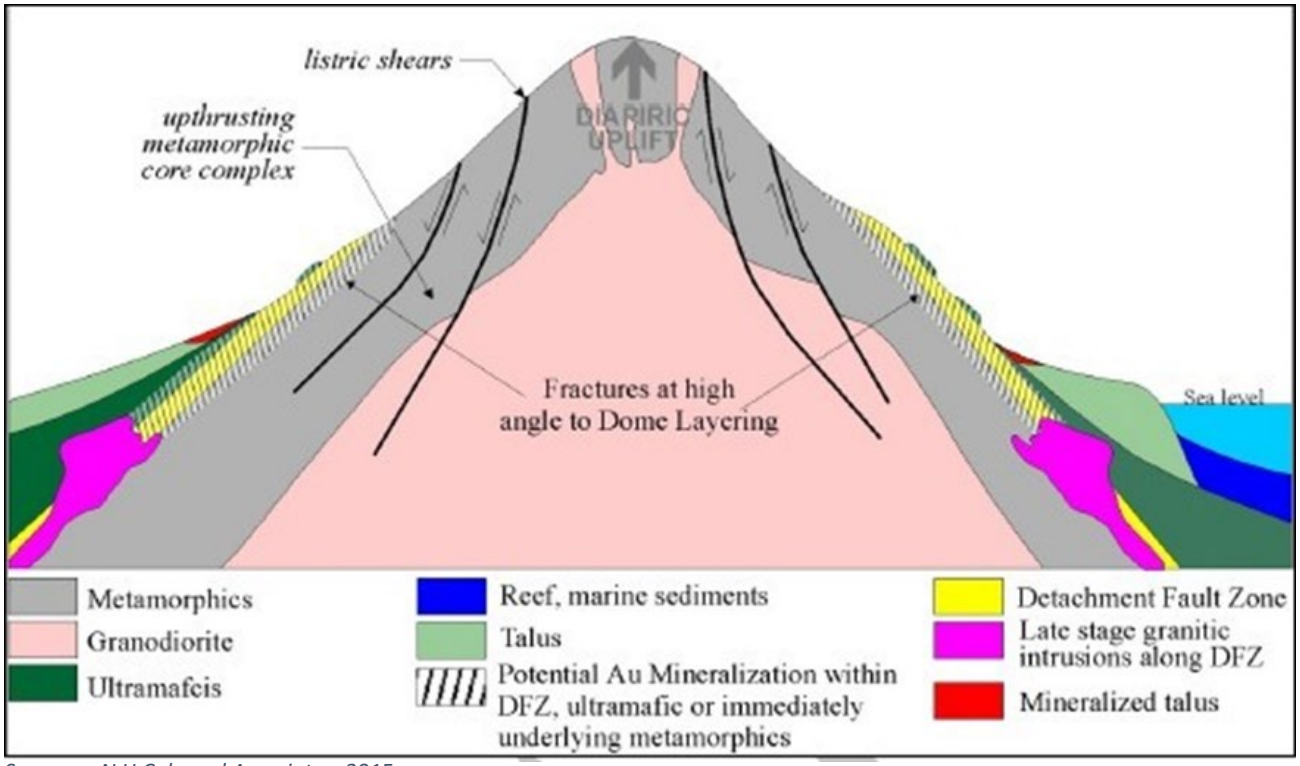
The style of mineralisation is similar to the detachment fault-related mineralisation associated with the Cordilleran metamorphic core complexes in the United States. Deposit examples from the United States include Mesquite, Picacho, American Girl and Padre y Madre in California; Copperstone in Arizona; and Bullfrog and Montgomery-Shoshone in Nevada. Since most of the mineralisation at Wapolu (and presumably as eroded off at Gameta) was hosted in ultramafics, some similarities may exist with the listwanite type of deposit described from California, the Urals and smaller deposits in Saudi Arabia and Morocco.

A modified model (McNeil, 1993) suggests that the mineralisation was developed by fluid flow along steeper structures cross-cutting the basement metamorphics and ponding along the DFZ prior to over-pressuring and mineralising the overlying ultramafics. This fluid eventually outflowed as hot springs. This is similar to the preferred model for Gameta, except that at least some of the mineralisation is provided by mineralising dykes, either concordant to or cross-cutting the stratigraphy. Fracture hosted mineralisation within the more brittle diorite gneiss underlying the DFZ may be associated with a warping of the gneiss, which may also have helped localise cross-cutting dykes.

The Yamana company in JV with Union invoked a model in which there were multiple stacked shear zones below the DFZ, each separated by a few metres. Whilst this interpretation now appears to be unlikely (with respect to the scale the interpretation was applied to), it is considered to be more likely when applied on a broader scale. The edges of the dome complexes are readily observed to be composed of multiple sheets of rock, each having had the underlying sheet pushed up underneath it, stretching and tearing the overlying layer to produce the characteristic saw-tooth pattern, as seen in the D'Entrecasteaux dome margins. Each of these sheets, whilst unlikely to be separated by any significant brittle deformation, might possibly be separated by more mylonitic shear zones. Whilst most sheets are apparently similar to the others, some sheets might also have sheared along compositional boundaries. It is considered possible that dyking and fluid flow may have locally been re-directed along these structures whilst retaining their overall crosscutting of the stratigraphy. To date, no mylonitic sheet boundaries have been identified in drilling below the DFZ and the change from the diorite gneiss unit to the underlying fine-grained gneissic amphibolite and mafic diorite gneiss is purely a gradational compositional one. It does, however, appear that mineralisation and dyking may have in part followed this compositional contact before cross-cutting the diorite gneiss and continuing along the DFZ into the now eroded overlying ultramafics.

A mineralisation model for Gameta and Wapolu is presented in Figure 8-1, where gold mineralisation is concentrated in shallow-dipping deposits within or immediately adjacent to the DFZ, which bounds the metamorphic core complexes. This general setting is analogous to such deposits as Misima in PNG and Mesquite and Picacho in California. The gold occurs in association with fine sulphides as disseminations and in epithermal quartz veins in lensoid zones parallel to the DFZ.

Figure 8-1. Fergusson Island Gold Mineralisation Model



Source: N H Cole and Associates, 2015

9 EXPLORATION

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

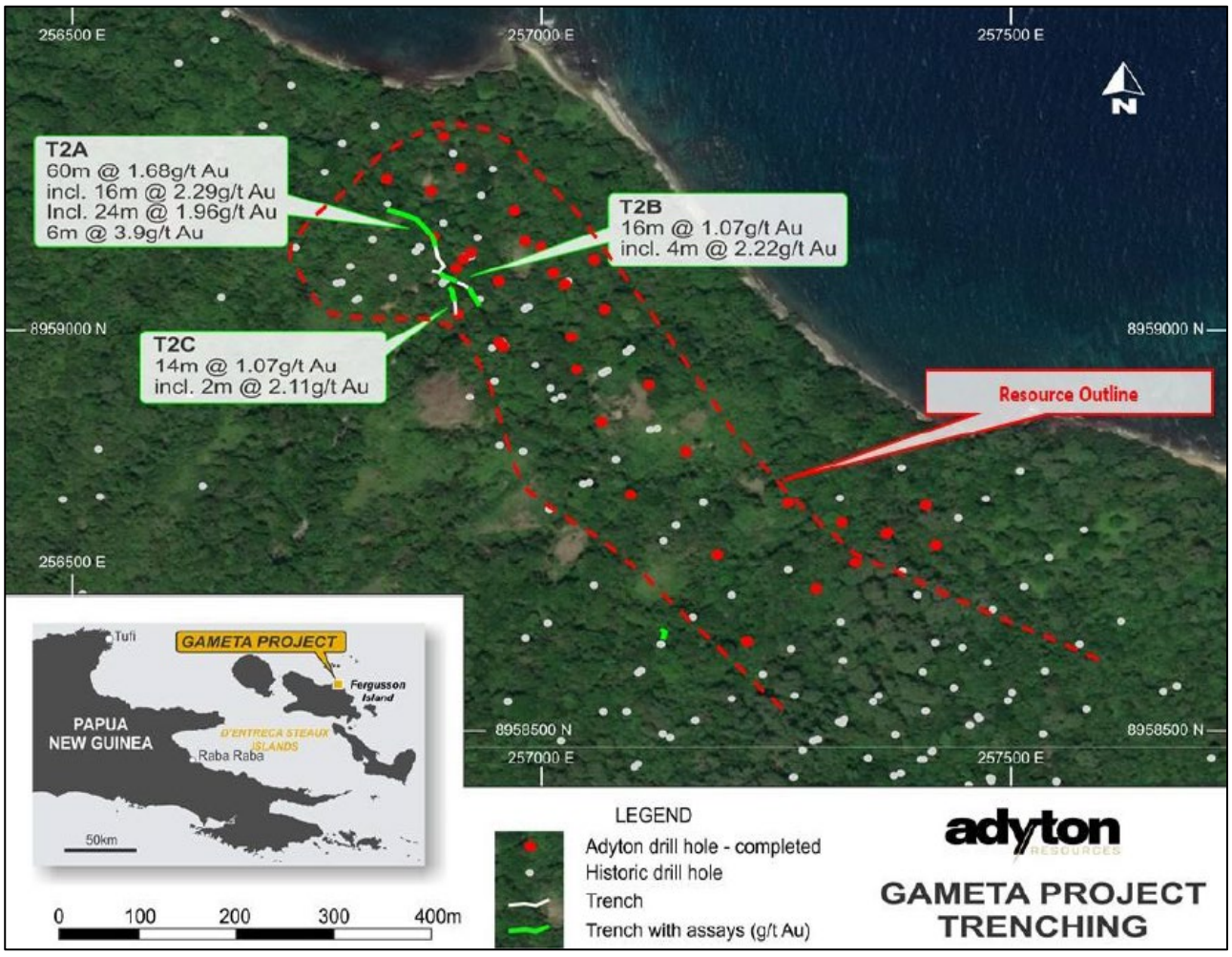
- Interpretation of historical geochemical and drilling data.
- A surface trenching program at Gameta, with geological mapping and geochemical sampling.
- Location and survey verification of historical drillhole collars at Gameta and Wapolu (refer to Section 10).
- Drillhole targeting and drilling at Gameta, consisting of 38 diamond drillholes (refer to Section 10).
- A geometallurgical testwork program using drill core from Gameta (refer to Section 13).
- Drillhole targeting and drilling at Wapolu, consisting of five diamond drillholes (refer to Section 10).
- Preparation of a new Mineral Resource estimate at Gameta (refer to Section 14).
- Update of the 2020 Mineral Resource estimate at Wapolu based on the results of a conceptual mining study to investigate project viability and economics (refer to Section 14).

9.1 Gameta Surface Trenching Program

Adyton completed a surface trenching program at the northwest end of the main mineralised zone at Gameta. The trenches were machine dug with an excavator, then geologically mapped, and sampled over 1 m and 2 m intervals. The trenches were sited to follow the mineralised zone (the DFZ) along with hanging wall colluvium and basement metamorphics within the existing Mineral Resource envelope to support the 2021 drilling program.

Results confirmed widespread gold mineralisation at surface associated with the DFZ. Trench T2A intersected a 60 m zone averaging 1.68 g/t Au, Trench T2B intersected a 16 m zone averaging 1.07 g/t Au, and Trench T2C intersected a 14 m zone averaging 1.07 g/t Au (Figure 9-1).

Figure 9-1. Location of Gameta surface trenches and results.



Source: Adyton, 2021b

10 DRILLING

Historical drilling was carried out at the Wapolu and Gameta prospects by a number of previous exploration companies between 1983 and 2008. In 2021, Adyton completed a 38-hole diamond drilling program at Gameta and a five-hole diamond drilling program at Wapolu.

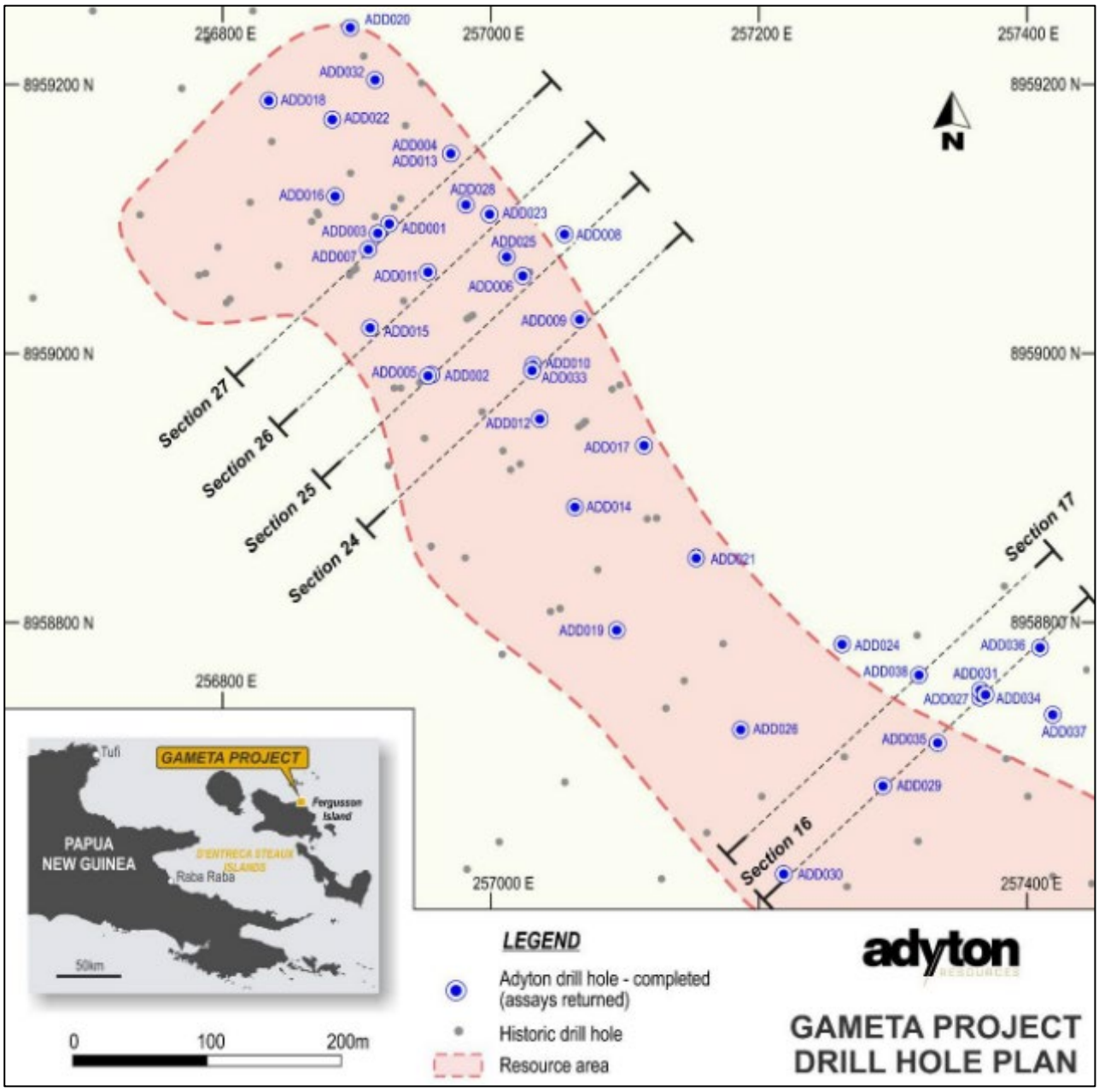
10.1 2021 Drilling Program

10.1.1 Gameta

Adyton completed a 38-hole diamond drilling program at Gameta totalling 3,381 m in 2021. This drilling has been integrated into the master database to create a new geological interpretation and resource model.

The program was focussed on the northwestern ore zone of the known resource with a strike extent of over 700 m being tested (Figure 10-1). Drilling mostly targeted the shallower material with drilling generally less than 120 m in depth. Some extensional drilling was also part of the program, testing below and down dip from known mineralisation.

Figure 10-1. 2021 Gameta drillhole location plan.



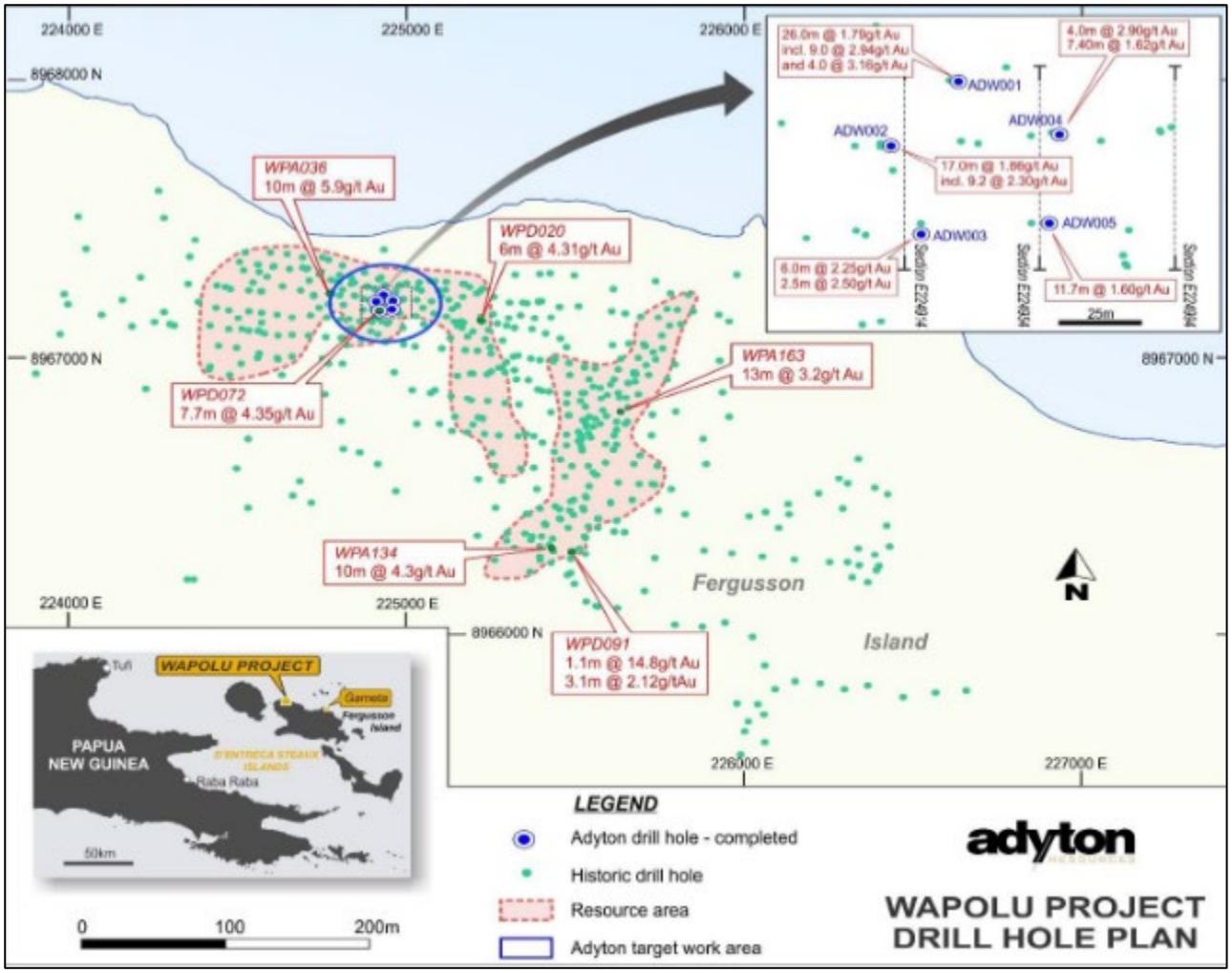
Source: Adyton, 2021a

The primary aims of the drilling were to infill key areas of the previously defined Inferred Resource area to assess the potential to upgrade parts of this area to Indicated Resource category, assess options to extend the Inferred Resource area downdip of previous drilling, and to collect material suitable for geometallurgical testing.

10.1.2 Wapolu

Adyton completed a five-hole diamond drilling program at Wapolu totalling 321 m in 2021. The program was focussed on the northwestern ore zone of the known resource (Figure 10-2). The aim of the drilling was to confirm results of previous drilling, test continuity of the mineralisation, and collect drill core for preliminary geometallurgical testing.

Figure 10-2. 2021 Wapolu drillhole location plan.



Source: Adyton, 2021c

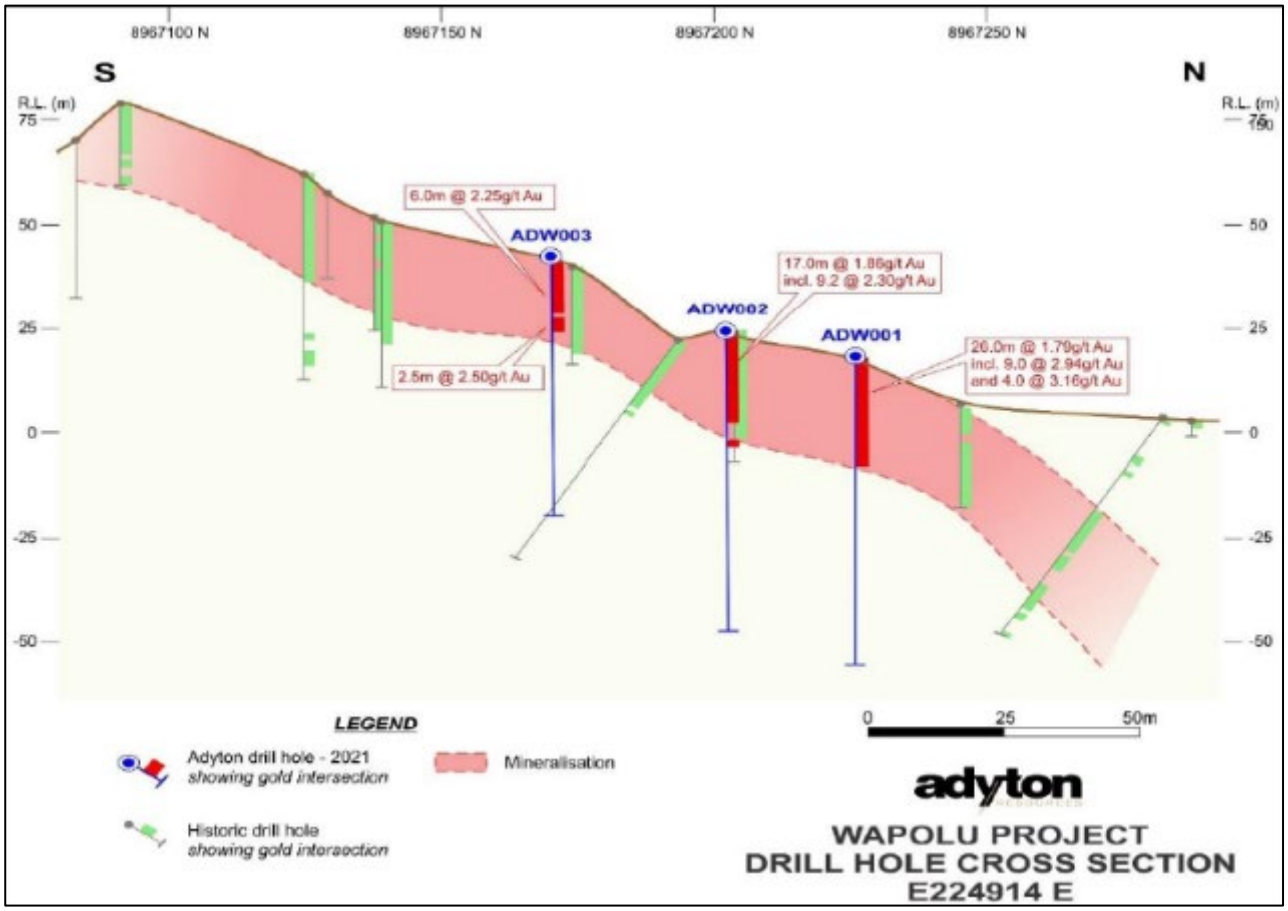
All five drillholes intersected significant gold mineralisation (Table 10-2) and confirmed the spatial extent and continuity of mineralisation intersected in historical drilling (Figure 10-3 and Table 10-1). Due to the small drilling metreage and limited spatial coverage of the 2021 Wapolu drilling program, an updated geological interpretation and new Mineral Resource model has not been generated at this time.

Table 10-1. Wapolu 2021 significant drillhole intersections.

Hole ID	From (m)	To (m)	Interval (m)	Gold Grade (g/t)
ADW001	0.0	26.0	26.0	1.79
ADW002	4.0	21.0	17.0	1.86
ADW003	1.0	7.0	6.0	2.25
	17.5	20.0	2.5	2.50
ADW004	8.0	12.0	4.0	2.90
	14.6	22.0	7.4	1.62
ADW005	10.0	21.7	11.7	1.60

Source: Adyton, 2021c

Figure 10-3. Wapolu cross section E224914 mE showing drillhole locations and new drilling results.



Source: Adyton, 2021c

10.2 Gameta Drilling Statistics

A total of 195 RC and 71 diamond drillholes were drilled at Gameta to 2021. In addition, 60 shallow air track holes (average of a few metres deep) were completed in the early stages of exploration by Union-Macmin but are not included in the drilling statistics because they are not included in resource estimates.

Adyton added 38 diamond drillholes in 2021 to supplement the historic drilling data. Recent drilling now comprises 19% of the drilled meterage. Drillhole statistics are presented in Table 10-2 and all drillhole locations are shown in Figure 10-4 in an overview map. Figure 10-5 displays the Mineral Resource area in more detail with the recent Adyton drilling highlighted.

Table 10-2. Gameta drilling statistics.

Company	Year	Type	Holes	Total (m)	Average Depth (m)
Union/Macmin JV	1995-96	RC	116	47,721.5	40.7
Union/Yamana JV	1997-98	RC	79	5,459.0	69.0
Subtotal			195	10,180.5	
Union/Yamana JV	1997-98	Diamond	6	436.0	72.7
Gold Aura	2003	Diamond	4	875.4	218.9
Gold Aura	2007-08	Diamond	23	2,870	124.8
Subtotal			33	4,181.8	
Adyton	2021	Diamond	38	3,381.7	89.0
TOTAL			**266**	**17,744.3**	

Figure 10-4. Gameta drillhole location and prospect overview plan.

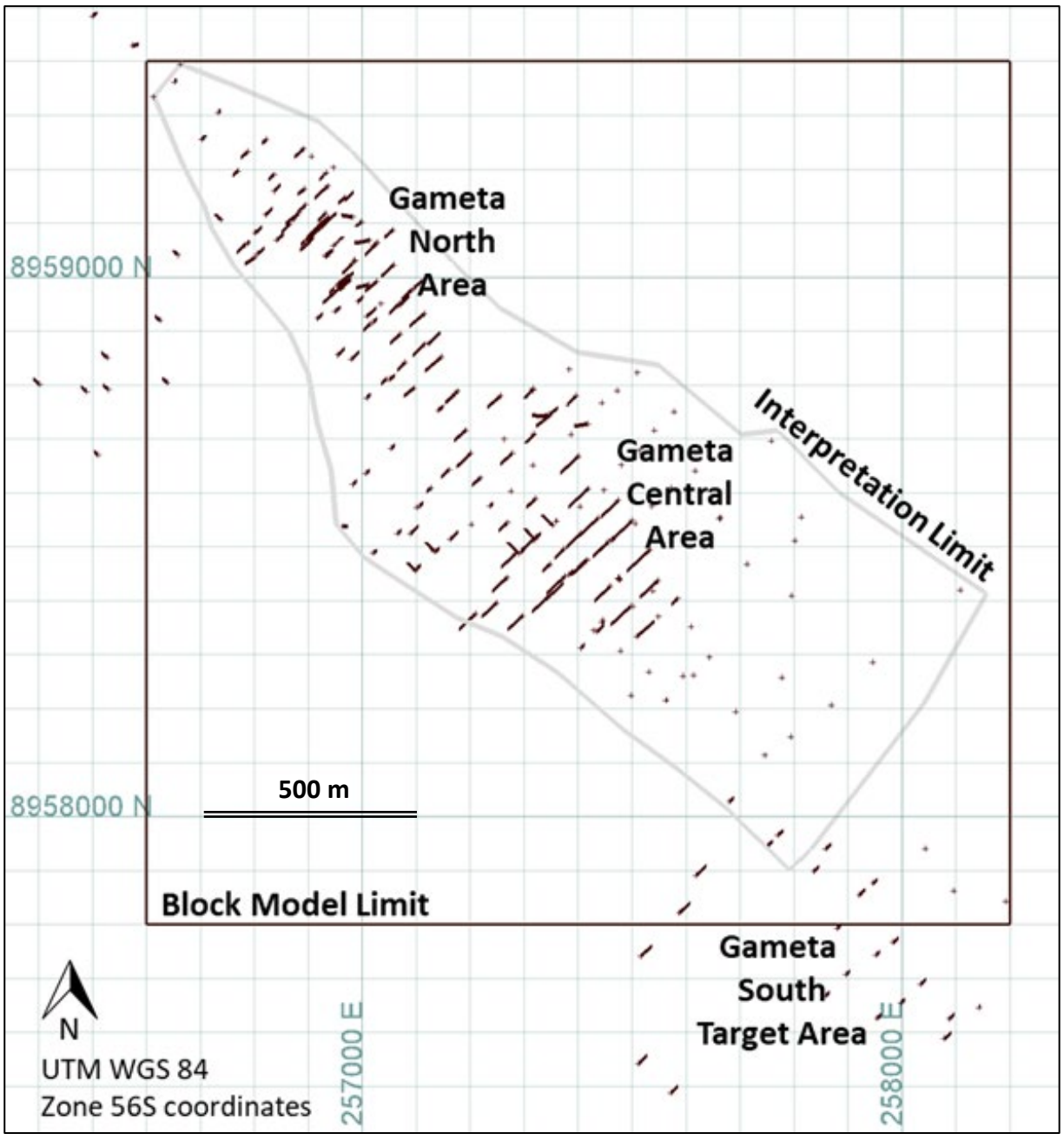
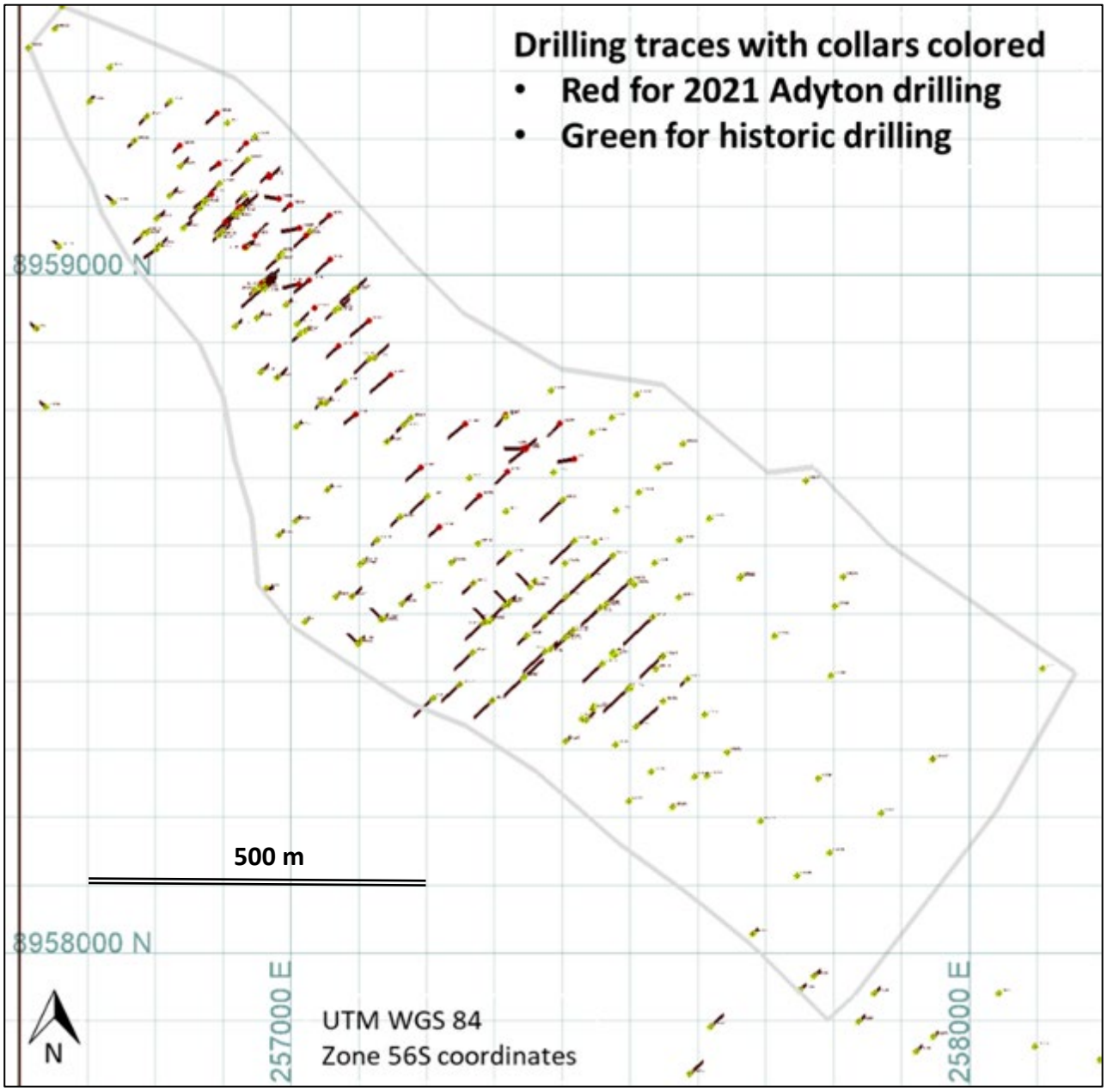


Figure 10-5. Gameta drillhole locations and extent of Mineral Resource.



10.3 Wapolu Drilling Statistics

A total of 264 aircore, 186 RC and 94 diamond drillholes have been drilled at Wapolu to 2021. A total of 202 shallow surface holes (average 2.4 m depth) were also completed prior to 1997, however details are not well known and therefore these shallow holes are not included in the drilling statistics because they are not included in resource estimates.

Adyton added 5 diamond drillholes in 2021 to supplement the historical drilling data. This drilling comprises less than 2% of the drilled meterage. Drillhole statistics are presented in Table 10-3 and all drillhole locations are shown in Figure 10-2.

Table 10-3. Wapolu drilling details.

Company	Year	Type	Holes	Total (m)	Average Depth (m)
Esso/City Res JV	1983-88	Aircore	264	5,106.0	19.3
Esso/City Res JV	1983-88	RC	107	3,149.0	29.4
Esso/City Res JV	1983-88	Diamond	90	6,661.0	74.0
Subtotal			461	14,916.0	
Union/Macmin JV	1994	RC	36	805.0	22.4
Union/Yamana JV	1997	RC	43	2,456.0	57.1
Subtotal			79	3,261.0	
Gold Aura	2006	Diamond	4	165.0	41.3
Adyton	2021	Diamond	5	320.9	64.2
TOTAL			**549**	**18,661.9**	

10.4 Drillhole Collar Surveys

The drillhole collar information was formerly in the AGD 1966 Zone 56 grid coordinate system. At Gameta, Adyton has converted these surveys to UTM WGS 84 Zone 56S and this system was used for all 2021 drilling and evaluation.

For Gameta, all RC holes were drilled without downhole surveying. Diamond cored holes drilled prior to 2006 were not downhole surveyed, but some of the recent drillholes were downhole surveyed and show little deviation with depth.

A program of re-surveying the historical collars in the field was initiated at Gameta during the 2007 – 2008 diamond drilling program by Gold Aura. This program revealed some differences between re-surveyed and database locations. This program was not fully completed. The 2008 survey co-ordinates have been re-assessed by Adyton and converted to UTM WGS 84 coordinates and integrated into the collar database.

In June 2021 Adyton engaged PNG Land Surveys from Port Moresby to establish a new survey control station at Gameta and survey all 38 new and 67 previous drillholes. The survey used RTK GPS with radio control and local base stations. In some instances, dense canopy required survey by total station.

Historical and recent drilling and survey data for Gameta were compiled in a Microsoft Access database. The compilation included a review of historical collar locations, past survey results, and the 2008 and 2021 re-surveys for previous drilling. Table 10-4 summarises the compiled survey source and indicates that 48% of the drilling has been recently surveyed or verified with handheld GPS. A further 33% was surveyed previously. The remaining 20% with original coordinates with uncertain source is dominated by drilling at or beyond the resource limit in outlying areas.

Table 10-4. Gameta drillhole collar survey details.

Drilling	Survey Source	Year Surveyed	Number of Drillholes Surveyed	% of Total Drillholes
Adyton 2021	PNG Land Surveys	2021	38	14%
Drilling prior to 2021	PNG Land Surveys	2021	67	25%
	Handheld GPS	2019	24	9%
	Arman Larmer Surveyors	2008	64	24%
	CCS Surveys	1997	23	9%
	Original Coordinates	?	50	19%

Considerable effort has been undertaken by Adyton to improve the confidence in drillhole collar coordinates with application of the 2008 surveys and a significant re-survey program completed in 2021.

10.5 Core Recovery

At Gameta during the 2007 – 2008 drilling program, core recovery measurements are available for 2,839 intervals with lengths ranging from 0.09 to 2.79 m, averaging 0.99 m, representing 98% of the sampling program. Overall, the core recovery for this program was good, with an average of 94% for assayed composites, and relatively few low-recovery intervals noted.

Drillhole recovery data is not available for any of the earlier diamond drilling programs, or for the RC drilling completed at Gameta and Wapolu.

In 2021, Adyton measured and recorded core recovery for all diamond drilling at Gameta and Wapolu. At Gameta, core recovery averaged 88.7%. At Wapolu, core recovery was mostly >95%.

10.6 Geological Logging

Detailed logs for historic drilling are limited or not yet converted to digital format. Most historic drilling has digital summary lithology logging for both RC and diamond core drilling. Adyton geologists converted the previous logging codes into the current lithology logging codes allowing all drilling to contribute to the geological interpretation. All Adyton drilling was logged for lithology, oxidation, recovery, minerals, alteration, structural measurements, and veins.

Limited logging for the latter half of the historical diamond core drilling was sourced for oxidation and weathering codes. RC logs were limited and did not include oxidation.

10.7 Relationship of Drilling to Mineralisation

The broad zone of gold mineralisation identified at both Gameta and Wapolu is interpreted to be shallow dipping. Most drillholes at both prospects 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 both deposits 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.

10.8 Reliability

The relevant Qualified Persons have reviewed the historical records available documenting drilling methods and procedures used for the drilling programs completed at Gameta and Wapolu. Recent drilling has largely verified the previous work with infill drilling intersecting similar lithology, structure, and grade.

Historical drilling 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

Samples for chemical analysis taken from Gameta and Wapolu have been obtained from a combination of diamond, RC and aircore drilling, and trenching techniques. Both aircore drilling and trenching are not considered for resource evaluation and are not further described.

11.1 Gameta

11.1.1 Sampling Methods

Sampling details for Gameta were as follows:

- **Union/Macmin JV and Union/Yamana JV.** RC drillhole samples were collected and sampled in one metre intervals and sub-sampling of dry material was via a riffle splitter. Wet samples were sub-sampled by using a plate (with holes the size of a drillhole) fitted to the base of the cyclone over which the sample was fed.
- **Union/Yamana JV and Gold Aura.** Samples from diamond core were collected as half core samples, using a core saw in most instances or a knife when the material was soft and friable. Sample intervals were nominally one metre.
- **Adyton.** Recent diamond core drilling was collected as half core samples, using a core saw in most instances or a knife when the material was soft and friable. Sample intervals targeted one metre intervals.

The relevant Qualified Persons note that wet RC samples are typically difficult to sample and are likely to be less reliable than dry samples.

11.1.2 Sample Preparation

Sample preparation details for Gameta were as follows:

- **Union/Macmin JV and Union/Yamana JV.** At the laboratory, the entire RC drillhole sample was crushed and pulverised in preparation for analysis. No information is available on the crushing, sub-sampling, and pulverising details.
- **Union/Yamana JV and Gold Aura.** Diamond core samples were crushed and pulverised in preparation for analysis. No information is available on the crushing, sub-sampling, and pulverising details.
- **Adyton.** Half core diamond samples nominally 1.0 m in length were crushed and pulverised at ITS (PNG) Ltd (ITS) in Lae, in preparation for analysis, as follows:
  - 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 (approximately 3.5 kg assuming a 1.0 m sample interval).
  - Sub-samples are pulverised using a LM2 mill to 95% passing 75 microns.
  - A 150 g split is taken for fire assay, a 50 g split is taken for inductively coupled plasma (ICP) analysis, and the remaining pulp is retained.

11.1.3 Analytical Methods

Records indicate that 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.

Primary analyses for Gameta samples were as follows:

- **Union/Macmin JV and Union/Yamana JV**. Initially samples (GRC001-055) were assayed for gold using an aqua regia digest with atomic absorption spectroscopy (AAS) finish (method GG329) at Pilbara Laboratories (Niugini) Pty Ltd (Pilbara Laboratories) in Lae. This method was then replaced by fire assay (30 g charge).
- **Union/Yamana JV and Gold Aura.** Diamond core samples were analysed for gold by fire assay (30 g charge) for gold (method AA25) at ALS-Chemex (ALS) in Brisbane and Townsville. The last 21 diamond drillholes included assays for Ag, As, Cr, Cu, Fe, Mo, Ni, Pb, Sb, V by ALS using ICP (method ICP41s).
- **Adyton.** Diamond core samples were analyses for gold by fire assay (50 g charge, method FA50) and multielement analysis of 47 elements by ICP-MS (method 4A/MS) by ITS in Lae and Townsville respectively.

The relevant Qualified Persons note that aqua regia digest and AAS finish may result in incomplete digestion of gold when refractory, and therefore there is a possibility that samples analysed this way may understate the gold content at Gameta.

11.1.4 QA/QC Processes

11.1.4.1 Union/Macmin JV and Union/Yamana JV

The RC and diamond drilling sampling program at Gameta did not incorporate the inclusion of independent standards. However, Yamana completed a series of check assays of 140 samples, with analysis of the data indicating precision at ±30-40%. The original data had a mean value 12% less than the check results and the correlation coefficient between the original and check data was 0.84. This may be consistent with the use of aqua regia digest used for the original samples.

11.1.4.2 Gold Aura

For diamond drillholes, a QA/QC program was implemented for the 2008 drilling program (GDH011 to GDH032). This involved the use of independent standards, blanks, and crusher duplicate sampling (not half core duplicates).

Four commercially supplied certified reference material (CRM) samples were used in the program. The reported means were within acceptable levels for the four CRMs, with average differences of 1.63%, 1.56%, 0.85% and -5.02% for 37, 43, 33 and 29 data samples, respectively.

The results of each standard show considerable scatter although genuine outliers are few and there are no consistent trends indicative of potential problems.

Crusher duplicate samples showed reasonably good correlation, with a correlation coefficient of 0.88 and a precision of about ±20% after two spurious results and one high-grade sample pair were removed.

Several other assay checks were also carried out, including:

- Original pulp check sampling (75 samples using the same pulp bag as original).
- Reject pulp check sampling (9 samples from pulverised core reject material).
- Crushed core reject checks (16 samples of crushed core reject material).

Results for the two pulp assay checks show good correlation between original and check results, as would be expected. The crushed core duplicates show a poorer agreement between the original and check assays. The data set is very small and possibly unrepresentative but may be indicative of increased variance in sample populations from diamond drill holes compared to RC drill holes.

11.1.4.3 Adyton

QA/QC procedures adopted by Adyton comprised:

- 1 in 40 insertion of one of four commercial CRMs (OREAS 216B, 238, 348, 504).
- 1 in 40 insertion of a coarse blank sourced locally from coral sands.
- Post program 162 umpire samples were analysed by ALS Laboratories in Townsville for gold analysis. The same samples were also re-assayed by ITS Lae for gold.

Field duplicates were not considered to preserve the remaining core and avoid quarter core sampling.

ITS routinely performed internal QA/QC checks that were also reviewed and included from 3,669 primary samples:

- 628 internal standards and CRMs.
- 566 assay repeats.
- 232 duplicate samples.
- 644 internal check samples.

Derisk assessed the QA/QC data for gold by fire assay as well as QA/QC for silver from ICP (Figure 11-1). Field QA/QC indicated CRMs were consistently under reported by an average of 10%. These results were not replicated by ITS internal CRM values, which indicated no evident bias.

Field blanks indicated some elevated values that could be a result of sample preparation cross contamination. The results are generally around 0.02 g/t Au range up to 0.13 g/t Au. These are acceptable for the purposes of resource evaluation but should be an area of improvement going forward.

The 162 umpire samples submitted to ALS resulted in an average of 14% higher gold grade compared to the primary ITS Lae gold analysis (Figure 11-2 LHS plot) after exclusion of two outliers. The same assays were resubmitted to ITS Lae for re-analysis and these reported 7% higher gold grades after exclusion of the same outliers (Figure 11-2 RHS plot). Comparing the ALS to ITS re-assays results in a 9% higher grade with no outliers.

Figure 11-1. Scatter plots of 2021 Gameta field CRMs for gold and silver.

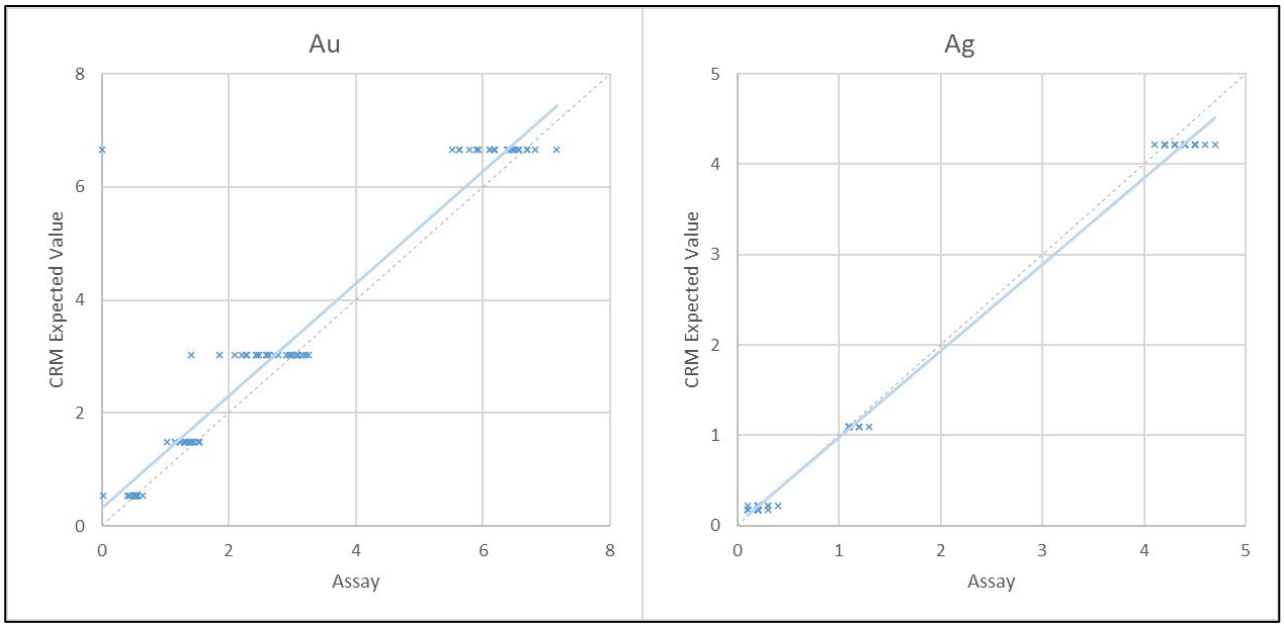
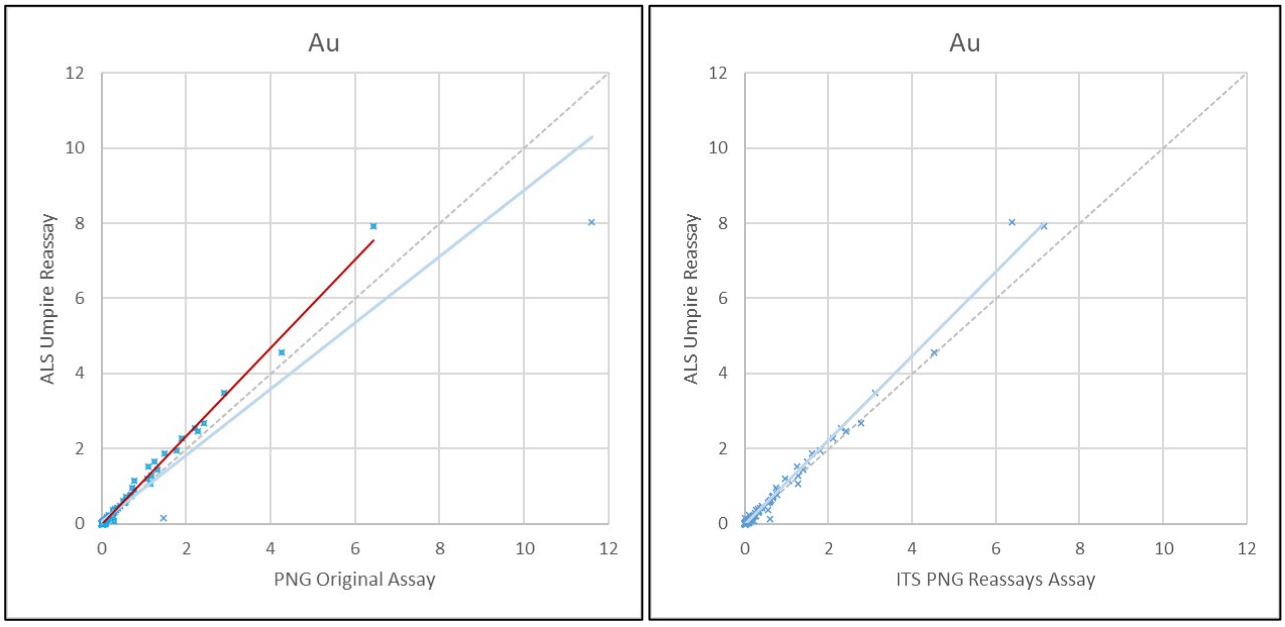


Figure 11-2. Scatter plots of umpire gold samples vs original ITS assays (LHS) and re-assayed ITS assays (RHS).



These results indicate potential bias in the original ITS assays and given the consistent under reporting for the field CRMs this may affect the entire drilling program. Since the umpire samples were drawn from batches with known CRM failures, the likely bias is suspected to be as indicated by the CRM at around a 10% undercall.

As at the effective date of this Report, Adyton is following up to further confirm the issue prior to any further re-assaying. In the interim, Derisk considers that the new drilling results are likely to be conservative for the 19% of the total drilling affected but are deemed to be acceptable.

11.1.5 Security Arrangements

For historical drilling and sampling, no descriptions have been located of sample security protocols during sample collection and preparation, storage, or transport to the laboratory. Samples were prepared on site then transported to commercial labs in PNG.

For the 2021 drilling program, Adyton staff sampled half core 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 dedicated 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.

11.1.6 Assessment

The relevant Qualified Persons consider that the documentation sighted describing sample preparation procedures, analytical procedures and security arrangements used in the various drilling programs completed at Gameta were typical of procedures used generally within the exploration industry.

However, for historical work the records over the period from 1995 to 2008 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. Recent infill drilling by Adyton has helped to verify the past work and improve the overall confidence in the historical data since the last assessment.

11.2 Wapolu

11.2.1 Sampling Methods

Sampling details for Wapolu were as follows:

- **Esso/City Resources JV.** Diamond core samples were collected as half core samples, using a core saw in most instances or a knife when the material was soft and friable. Sample intervals were highly variable, indicating that sample intervals were based on geological controls. RC and aircore samples were collected as one metre drilling intervals but combined and sampled as two metre composites, nominally 2 – 3 kg.
- **Union/Macmin JV and Union/Yamana JV.** RC drillholes at Wapolu were collected and sampled as one metre intervals. Sub-sampling details were not recorded.
- **Gold Aura.** Samples from diamond core were collected as half core samples, using a core saw in most instances or a knife when the material was soft and friable. Sample intervals were nominally one metre.
- **Adyton.** Recent diamond core drilling was collected as half core samples, using a core saw in most instances or a knife when the material was soft and friable. Sample intervals targeted one metre intervals.

11.2.2 Sample Preparation

Sample preparation details for Wapolu were as follows:

- **Esso/City Resources JV.** At the laboratory, the entire RC or aircore drillhole sample was crushed and pulverised in preparation for analysis. Diamond core samples were also crushed and pulverised in preparation for analysis. No information is available on the crushing, sub-sampling, and pulverising details.
- **Union/Macmin JV and Union/Yamana JV.** At the laboratory, the entire RC drillhole sample was crushed and pulverised in preparation for analysis. No information is available on the crushing, sub-sampling, and pulverising details.
- **Gold Aura.** Diamond core samples were crushed and pulverised in preparation for analysis. No information is available on the crushing, sub-sampling, and pulverising details.
- **Adyton.** Half core diamond samples are crushed and pulverised in preparation for analysis, as follows:
  - 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 (approximately 3.5 kg assuming a 1.0 m sample interval).
  - Sub-samples are pulverised using a LM2 mill 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

Records indicate that 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.

Primary analyses for Wapolu samples were as follows:

- **Esso/City Resources JV.** Diamond, aircore and RC samples were analysed for gold by fire assay (50 g charge) at Pilbara Laboratories in PNG.
- **Union/Macmin JV and Union/Yamana JV**. RC samples were analysed for gold using aqua regia digest with AAS finish (method GG329) at Pilbara Laboratories in PNG.
- **Gold Aura.** Diamond core samples were analysed for gold by fire assay (30 g charge) using method AA25 at ALS in Brisbane and Townsville.
- **Adyton.** Diamond core samples were analyses for gold by fire assay (50 g charge, method FA50) and multielement analysis of 47 elements by ICP-MS (method 4A/MS) by ITS in Lae and Townsville respectively.

The relevant Qualified Persons note that aqua regia digest and AAS finish may result in incomplete digestion of gold when refractory, and therefore there is a possibility that samples analysed this way may understate the gold content at Wapolu.

11.2.4 QA/QC Processes

Some analytical QA/QC procedures have been carried out to various extents in the drilling programs at Gameta and Wapolu. The early Esso drillholes used a series of in-house standards but no details of the results or useful analysis of the results was provided in the reports made available to Derisk. Duplicate samples were taken regularly (1 in 20) but it is unclear whether these samples were field duplicates or laboratory pulp duplicates. The results from several suites of check assays were presented in a summary 1992 report by Macmin, comparing original data and check data obtained from an alternate laboratory. The data was not re-evaluated subsequently because of the uncertainty as to the exact type of duplicate sample involved.

For the Union/Macmin and Union/Yamana RC drillholes at Wapolu, these JV parties relied on the assaying laboratory's own internal QA/QC checks. Such methods do not constitute an independent check of analytical accuracy.

Yamana completed a series of check assays of 140 samples, with analysis of the data indicating precision at ±30-40%. The original data have a mean value 12% less than the check results and the correlation coefficient between the original and check data is 0.84. This may be consistent with the use of aqua regia digest used for the original samples.

For the Gold Aura diamond drilling (4 holes) at Wapolu, the QA/QC sampling procedures are not known.

QA/QC procedures adopted by Adyton comprised:

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

Field duplicates were not considered to preserve the remaining core and avoid quarter core sampling.

ITS routinely performed internal QA/QC checks that included internal standards and CRMs, assay repeats, duplicate samples, and internal check samples.

As at the effective date of this Report, Adyton has not collated or assessed the QA/QC data for Wapolu. Derisk has not assessed this data because the 2021 drilling has not been used in the updated Wapolu Mineral Resource estimate.

11.2.5 Security Arrangements

For historical drilling and sampling, no descriptions have been located of sample security protocols during sample collection and preparation, storage, or transport to the laboratory. Samples were prepared on site then transported to commercial labs in PNG.

For the 2021 drilling program, Adyton staff sampled half core 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 sighted describing sample preparation procedures, analytical procedures and security arrangements used in the various drilling programs completed at Wapolu were typical of procedures used generally within the exploration industry.

However, for historical work the records over the period from 1983 to 2006 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. The limited recent infill drilling by Adyton has helped to verify some of the past work and improve the overall confidence in the historical data since the last assessment.

12 DATA VERIFICATION

12.1 Site Visit

The relevant Qualified Person visited the Gameta (Figure 12-1) and Wapolu (Figure 12-2) prospects on Fergusson 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 GPS instrument.

Figure 12-1. General view of Gameta with cleared drill pads visible along the lower slopes, October 2021.

Figure 12-2. General view of Wapolu and hinterland, October 2021.

12.1.1 Gameta

At Gameta, the Qualified Person visited all 38 drillhole collars completed by Adyton in 2021 (Figure 12-3) as well as nine historical 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 12-3. Gameta drillhole collar for ADD037 (LHS) and ADD034 (RHS), October 2021.

12.1.2 Wapolu

At Wapolu, the Qualified Person visited all five drillhole collars completed by Adyton in 2021 (Figure 12-4). No historical drillhole collars were sighted at Wapolu. Handheld GPS collar coordinate checks for the 2021 drillholes showed an accuracy of ±3-10 m with the survey coordinates provided by Adyton.

Figure 12-4. Wapolu drillhole collar for ADW001 (LHS) and ADD005 (RHS), October 2021.

12.2 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 12-5). Cores from ADK001 and ADK004 were viewed to verify the logging completed by Adyton.

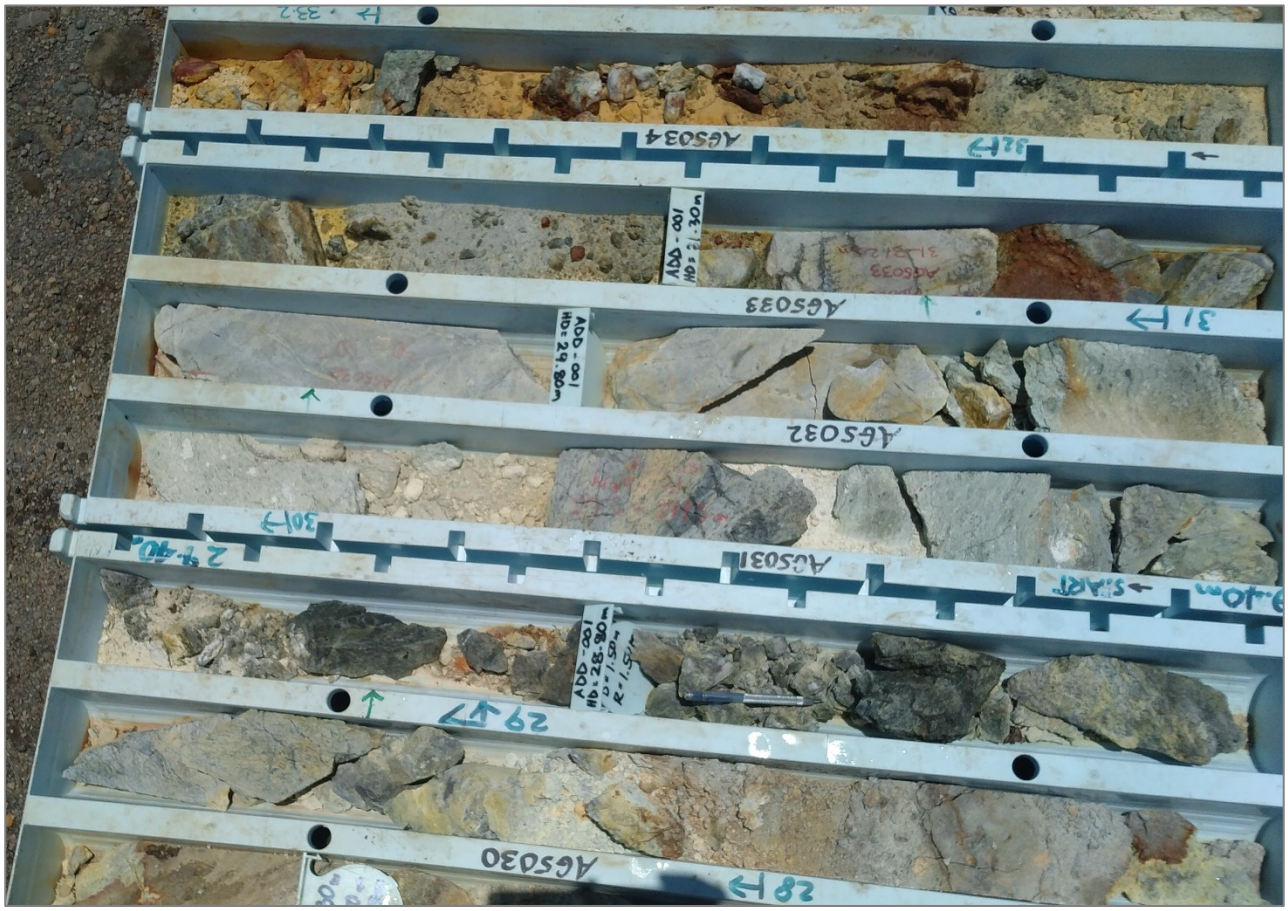
12.2.1 Gameta

Cores from ADD001, ADD002, ADD006, and ADD027 were viewed to verify the logging completed by Adyton.

ADD001 collared in hangingwall rocks and intersected the DFZ from 9 – 37 m before ending in footwall metamorphics at 75.7 m. The most significant intersection was an interval of 18.3 m @ 2.65 g/t Au from 20.0 – 38.3 m (Figure 12-6).

Figure 12-5. Portion of the Lae core storage facility, October 2021.

Figure 12-6. ADD001: 27.6 – 32.5 m, showing sections of silica-rich DFZ, October 2021.



ADD001 is located 80 m to the south of ADD001 and intersected the DFZ from 5.2 – 31.5 m before ending in footwall mafic and felsic gneiss at 75.7 m. The most significant intersection was an interval of 27.2 m @ 4.38 g/t Au from 5.0 – 32.2 m. Figure 12-7 shows a section of clay-rich DFZ mineralisation.

Figure 12-7. ADD002: 6.2 – 18.1 m, showing sections of clay-rich DFZ, October 2021.

ADD006 was drilled 80 m down-dip of ADD002 and intersected the DFZ from 55.6 – 76 m before ending in footwall mafic and felsic gneiss at 99.4 m. The most significant intersection was an interval of 18.1 m @ 4.88 g/t Au from 60.7 – 78.8 m. Figure 12-8 shows a close-up of silica-rich DFZ mineralisation at 60.2 m.

Figure 12-8. ADD006: Close-up of core from 60.2 m showing silica-rich DFZ, October 2021.

ADD027 was sited in the central part of the deposit nearly 500 m southeast of ADD002. This hole intersected a zone of hangingwall mineralisation (27.0 – 28.0 M) before intersecting the DFZ from 76 – 96 m, then ending in footwall mafic and felsic gneiss at 131.0 m. The most significant intersection was an interval of 18.1 m @ 4.88 g/t Au from 60.7 – 78.8 m. Figure 12-8 shows a close-up of silica-rich DFZ mineralisation at 60.2 m.

12.2.2 Wapolu

Core from ADW001, ADW002, and ADW005 were viewed to verify the logging completed by Adyton. All holes were located in the northwest part of the Wapolu Mineral Resource area.

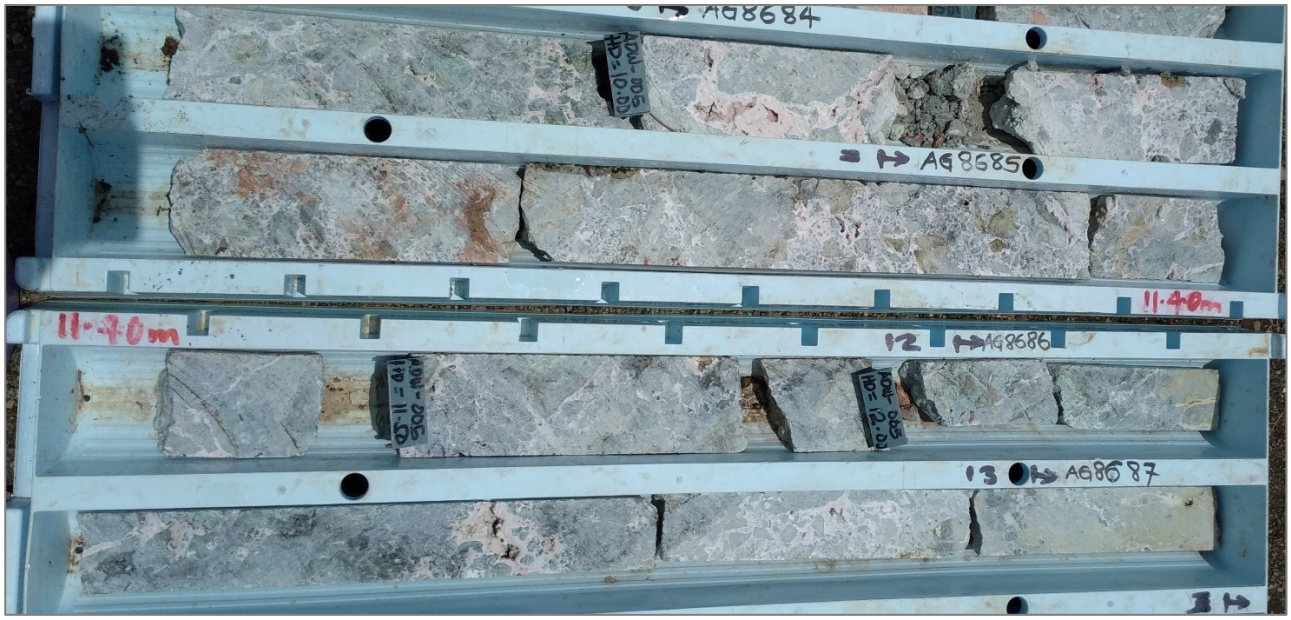
ADW001 collared in the DFZ before ending in footwall rocks at 70.0 m. The most significant intersection was an interval of 26.0 m @ 1.79 g/t Au from 0.0 – 26.0 m (Figure 12-9).

Figure 12-9. ADW001: Close-up of core from 22.0 m showing veined and brecciated DFZ, October 2021.

ADW002 was located 40 m to the southwest of ADW001 and collared in colluvium before drilling through the DFZ, ending in footwall rocks at 70.0 m. The most significant intersection was an interval of 17.0 m @ 1.86 g/t Au from 4.0 – 21.0 m.

ADW005 was located 60 m to the southeast of ADW001 and collared in colluvium before drilling through the DFZ, ending in footwall rocks at 64.2 m. The most significant intersection was an interval of 11.7 m @ 1.60 g/t Au from 10.0 – 21.7 m (Figure 12-10).

Figure 12-10. ADW005: 9.6 – 13.2 m showing silica-rich DFZ, October 2021.



12.3 ITS Lae Inspection

The Qualified Person also visited the ITS Lae laboratory as part of a general inspection of the sample preparation and fire assay facilities (Figure 12-11). The laboratory was set up in an orderly fashion and staff were processing samples for another client (pulverising and fire assaying).

Figure 12-11. ITS Lae laboratory fire assay area, October 2021.

12.4 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."*

For the exploration undertaken by Adyton in 2021, the relevant Qualified Persons believe that the database is adequate for the estimation of all categories of Mineral Resources according to CIM Definition Standards.

At Gameta, the relevant Qualified Persons believe that the overall database is now adequate for the estimation of Inferred and Indicated Mineral Resources according to CIM Definition Standards. Significant improvements have been completed by Adyton that include:

- 38 new diamond drillholes that infill and largely verify the tenor of mineralisation.
- Independent survey of all new drillholes and many historical drillholes to improve the confidence in the collar locations.
- Independent compilation of the new and historical drilling data in a database.

However, Derisk maintains that more compilation of all past exploration activity is needed at Gameta, particularly the procedures used in the previous drilling campaigns, to raise the confidence in the quality of this data.

At Wapolu, the conclusions made by Derisk (2021) remain valid because Adyton has not completed widespread drilling at the prospect or independently verified the location of historical drillhole collars.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Gold at Gameta and Wapolu is predominantly disseminated in pyrite, and to an extent in associated arsenopyrite and marcasite, and there is evidence of gold in free form. Little oxide mineralisation has been observed at either prospect.

13.1 Gameta

Prior to 2021, two separate programs of geometallurgical testwork have been completed at Gameta – firstly in 1997-98 by the Union/Yamana JV, then in 2004 by Gold Aura. In 2021, Adyton commenced a new study using drill core samples collected from the 2021 diamond drilling program.

13.1.1 Union/Yamana JV

The Union/Yamana JV completed preliminary metallurgical testwork on Gameta drill core samples used to make up two composites i.e., Project Samples 009 and 007 of uncertain origin. The samples averaged 4.55 g/t Au and 2.96 g/t Au respectively. The testwork included flotation, bacterial oxidation (BIOX) of the flotation concentrate, and cyanidation of the BIOX residue. Results were generally inconclusive, mainly due to the preliminary nature of the work. Cyanide leaching extraction of gold from the BIOX flotation concentrate product was 47%.

13.1.2 Gold Aura

Gold Aura completed two programs of metallurgical testwork. Approximately 100 kg of drill core and drill chip material was collected, including 20 kg of coarse rock and 80 kg comprising a mixture of RC chip samples, drill core and sample pulps. The rock sample averaged 0.9 g/t Au and was used for Bond Work Index (BWI) tests. The second sample averaged 2.6 g/t Au. Testwork comprised:

- BWI determination and grind establishment.
- Cyanidation leaching at three different grind sizes.
- Preliminary flotation testwork at three different grind sizes.
- Gravity concentration testwork at two different grind sizes.
- Mineralogical examination of RC drill chip material.

The samples used in the 2004 program are reported to have been collected from holes drilled in 1997 and therefore there is some concern about oxidation of this material prior to the testwork. Results from the testwork were as follow:

- The BWI was 13.6 kilowatt hours per tonne, which is medium/low for grinding purposes.
- The samples tested were highly refractory, with direct cyanidation leach gold recoveries around 4.5% for all three grind sizes.
- The initial flotation testwork produced bulk sulphide mineral (mainly pyrite, with gold and silver) concentrate recoveries, after a relatively brief residence time, of 83 – 84% for gold, 74 – 79% for silver and 84 – 86% for sulphur, with a mass pull of 7 - 8% to a bulk concentrate. Feed grades were 2.8 g/t Au, 3.9 g/t Ag and 1.6% S. Concentrate grades were 30 – 33 g/t Au, 39 – 42 g/t Ag and 18 – 20% S. Tailings grades were 0.46 – 0.51 g/t Au.
- The gravity concentration was unsuccessful, recovering 53 – 67% of the gold, and 65 – 75% of the sulphur, with a relatively high mass pull to the gravity concentrate and high tailings grades i.e., 1.49 – 1.61 g/t Au. Quite different gravity testwork results might arise with fresh ore samples.

The work concluded that there is a high correlation between the sulphur levels and gold and silver assays, indicating good scope for producing a sulphide concentrate suitable for roasting; however, no roasting testwork for flotation concentrates was undertaken.

The testwork also indicated that the Gameta mineralisation does not appear to have any major concentrations of elements problematic to BIOX and subsequent cyanidation to recover gold.

13.1.3 Adyton

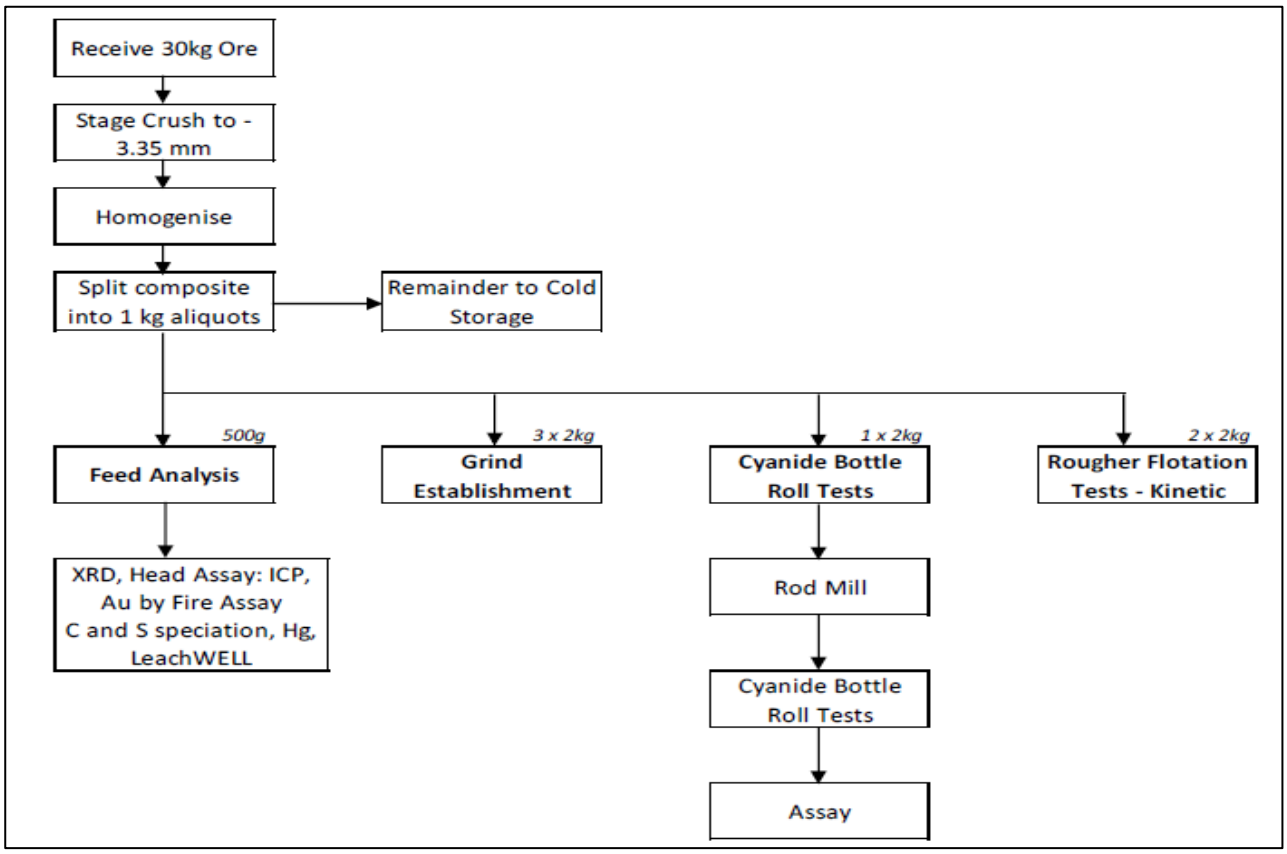
Adyton has commenced a metallurgical testwork program using samples from the 2021 diamond drilling program. Three composite samples of 30 kg each comprising coarse crushed reject material from the drill core sample preparation process were prepared from:

- Silica-rich mineralised material from the DFZ.
- Clay-rich mineralised material from the DFZ

- Metamorphic gneissic mineralised material from below the DFZ.

Core Metallurgy Pty Ltd (Core) were engaged to do this work comprising characterisation studies, cyanide-leach tests, and flotation tests (Figure 13-1).

Figure 13-1. Gameta surface topography and drillhole locations.



Source: Core, 2021.

As at the effective date of this report, the testwork was in progress. Preliminary results are summarised in Table 13-1. As expected, results suggest that gold is refractory and will not be amenable to cyanide-leach processes. Initial flotation tests are in progress, but no analytical results were available as at the effective date of this report.

Table 13-1. Gameta 2021 metallurgical testwork preliminary results.

Test	Silica-rich DFZ	Clay-rich DFZ	Footwall
Head grade – gold (g/t)	2.76	1.47	1.45
Head grade – copper (ppm)	27	33	47
Total sulphur (%)	1.92	1.82	1.84
Sulphide sulphur (%)	1.72	1.70	1.80
Inorganic carbon (%)	6.22	1.28	0.65
Major minerals >10% (derived by XRD)	Dolomite, quartz, magnesite	Dolomite, quartz, orthoclase, phengite/illite	Albite, orthoclase, quartz, dolomite
Indicative Leachwell gold extraction (%)	5.1	22.6	5.9
Preliminary cyanide gold extraction (%)	4.3	19.3	3.8
Preliminary flotation gold extraction (%)	In progress	In progress	In progress

13.2 Wapolu

Two separate programs of metallurgical testwork have been completed at Wapolu – firstly in 1986 by the Esso/City Resources JV, then in the mid-1990s by the Union/Macmin JV. Adyton has not yet commenced any new studies.

13.2.1 Esso/City Resources JV

In 1986, Esso and City Resources completed drilling program to provide samples for metallurgical testwork, comprising 15 aircore drillholes (WPM001 to 015) plus three RC drillholes (WPM016 to 018). In 1987, an additional eight RC drillholes were completed (WPM019 to 026). No information is available on the nature and results of this testwork.

13.2.2 Union/Macmin JV

In the mid-1990s, the Union/Macmin JV completed metallurgical testwork on Wapolu mineralised samples, as part of the Wapolu project development, prior to the commencement of mining and processing operations in 1995.

Testwork comprised:

- Agitation and column leach tests.
- Gravity testwork and agitation leach tests.
- Refractory ore tests and carbon kinetics tests.
- On-site testwork at Wapolu.

Testwork results indicated gold recoveries of 80 – 90% for much of the mineralisation, although there were poorer results from some tests. Some leach and column tests had low recoveries due to refractory material, whilst in other tests a high percentage of swelling clays reduced percolation.

Clays were identified as montmorillonite and smectite. In further tests, feed material was separated into two size fractions, +500 µm and -500 µm and treated in different processing circuits, with fine material treated by cyanidation without further grinding and coarse material by heap leaching. Testwork indicated a cyanidation recovery of 91% and a heap leach recovery of 88%.

In 1994, bacterial oxidation testing on refractory sulphide samples was completed. Two tests were undertaken on a single sample. One test was taken to complete arsenic release and the second test to maximise iron release. The recoveries calculated from these two tests were 91% and 94% Au compared to recovery from un-oxidised material of 8%. This indicates that most of the refractory gold was associated with sulphides. Results indicate that the refractory material is amenable to bacterial oxidation and that recoveries over 90% can be expected from complete sulphide oxidation.

14 MINERAL RESOURCE ESTIMATES

14.1 Gameta

14.1.1 Methodology

The process used by Derisk to prepare the Gameta Mineral Resource estimate comprised the following steps:

1. Digital drillhole data were supplied in a Microsoft Access software directly from an independent database specialist.
2. Data validation checks were completed, focused on updated drillhole collar coordinates.
3. A topographic surface was created from 10 m regional contour data and drillhole collar survey data.
4. A 3D interpretation of the DFZ was undertaken based on geological logging and mineralisation interpretation. The base of colluvium was interpreted from geological logs. Localised footwall and hangingwall mineralisation structures were also interpreted.
5. Oxidation logging was collated and assessed, resulting in interpretations of the base of total oxidation and the base of partial oxidation.
6. Statistical analysis of drillhole assay data was completed and used to establish the optimum composite sample length.
7. Drillhole composites were generated for gold, silver, arsenic and sulphur, followed by composite statistics and a variogram analysis.
8. A 3D block model was created in Vulcan software.
9. Estimation search parameters were developed for each mineralised or waste domain, with estimation using OK.
10. Dry bulk density was assessed and compared with assaying by geology, domain, and oxidation.
11. 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.
12. A grade-tonnes tabulation was prepared to illustrate the sensitivity of the estimate to different cut-off criteria.
13. 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 Gameta and re-reported the Mineral Resource using the 2014 CIM Definition Standards at an effective date of 14 October 2021.

14.1.2 Resource Inputs

14.1.2.1 Drillhole Data

Drilling at Gameta comprises a mixture of RC and diamond drilling completed by various companies since the mid-1990s and a verification and infill program completed by Adyton in 2021. A total of 266 drillholes (17,744 m) have been used in the resource estimate (Table 10-2).

The historical drilling information was recorded in the AGD84 Zone 56 grid coordinate system for the easting and northings. These were converted to UTM WGS 84 Zone 56S coordinates by Adyton. All recent exploration and re-surveying was completed using UTM WGS 84.

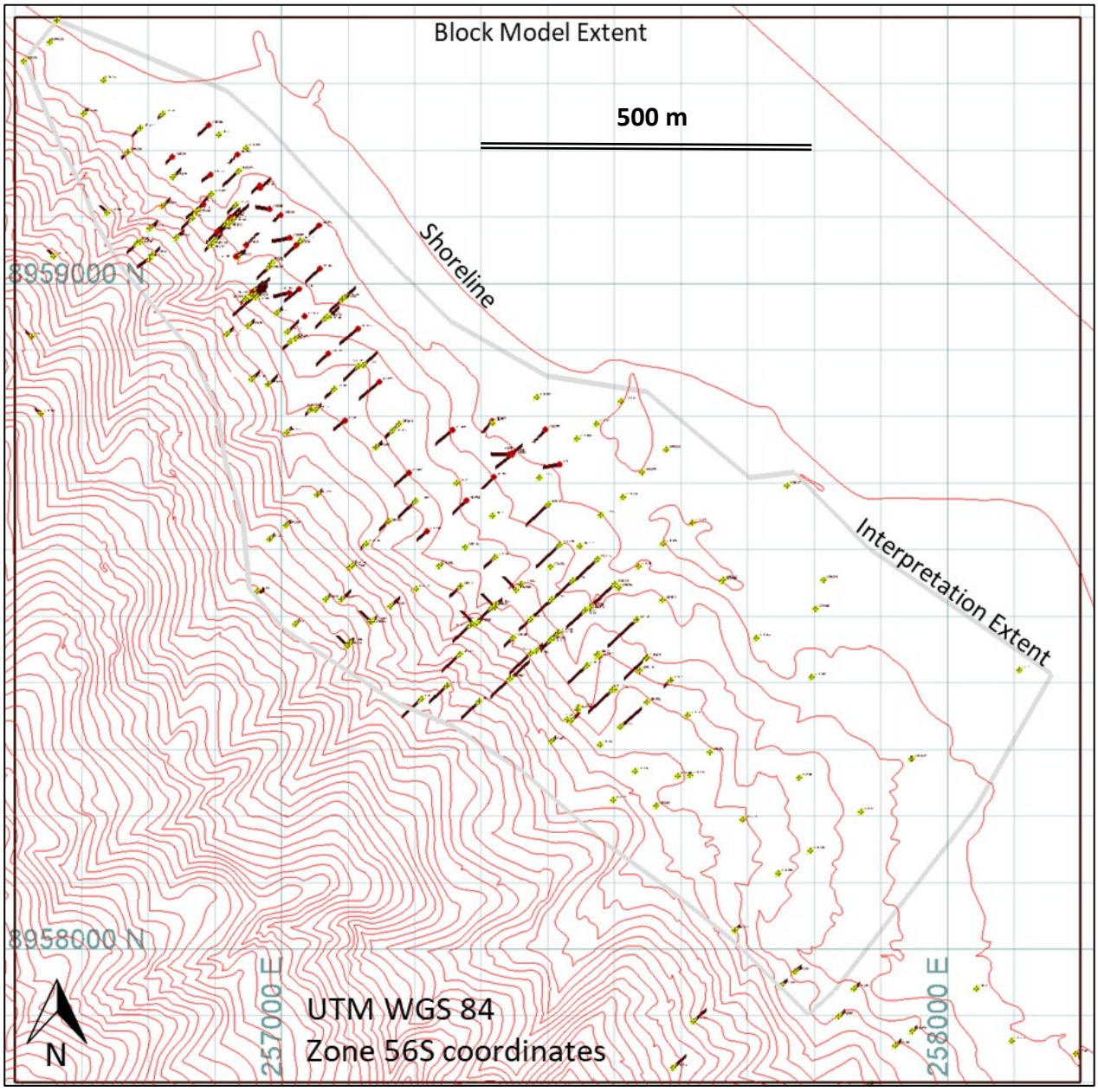
Drilling has tested the mineralisation along generally 40 to 50 m spaced lines stepping out to 100 m in places. The lines are oriented to cross the global southeast – northwest trend. Hole spacing along the traverses is variable, ranging from locally less than 25 m to up to 100 m (Figure 10-5)

Most holes were angled from 55° to 85° either to the northeast or southwest (295 drillholes), although 17 holes were angled and oriented to the northwest. The remaining 70 drillholes were drilled vertically.

14.1.2.2 Topography and Drillhole Surveys

Regional topography 10 m contours (Figure 14-1) were used as the topography base and supplemented with drillhole collars. The accuracy of the topography data is uncertain but likely to be derived from government regional photogrammetry.

Figure 14-1. Gameta surface topography and drillhole locations.



14.1.2.3 Drillhole Surveys

Adyton has put considerable effort into improving the confidence in historical drillhole collar locations. This has included collating the best location source data and incorporating re-surveys completed in 2018 and 2021, with the 2008 survey not previously considered. Further details are provided in Section 10.4 and Table 10-4. This has resulted in significant adjustments to a few holes from previous work and significantly improved confidence in the collar locations, with 48% of the collars surveyed or verified recently and a further 43% surveyed in one of two previous periods.

Methods used to survey drillhole collar coordinates for the historical work are not well-documented. Recent surveying was by independent surveyors using RTK GPS or total station and newly established control stations. Though further verification work and re-surveying is recommended, the current database is fit for purpose for the current level of assessment and classification.

There are no downhole surveys for historical drilling. All Adyton drilling included downhole surveys with a total of 116 downhole measurements in addition to setup coordinates. These average every 29 m downhole.

14.1.2.4 Geological and Mineralisation Interpretation

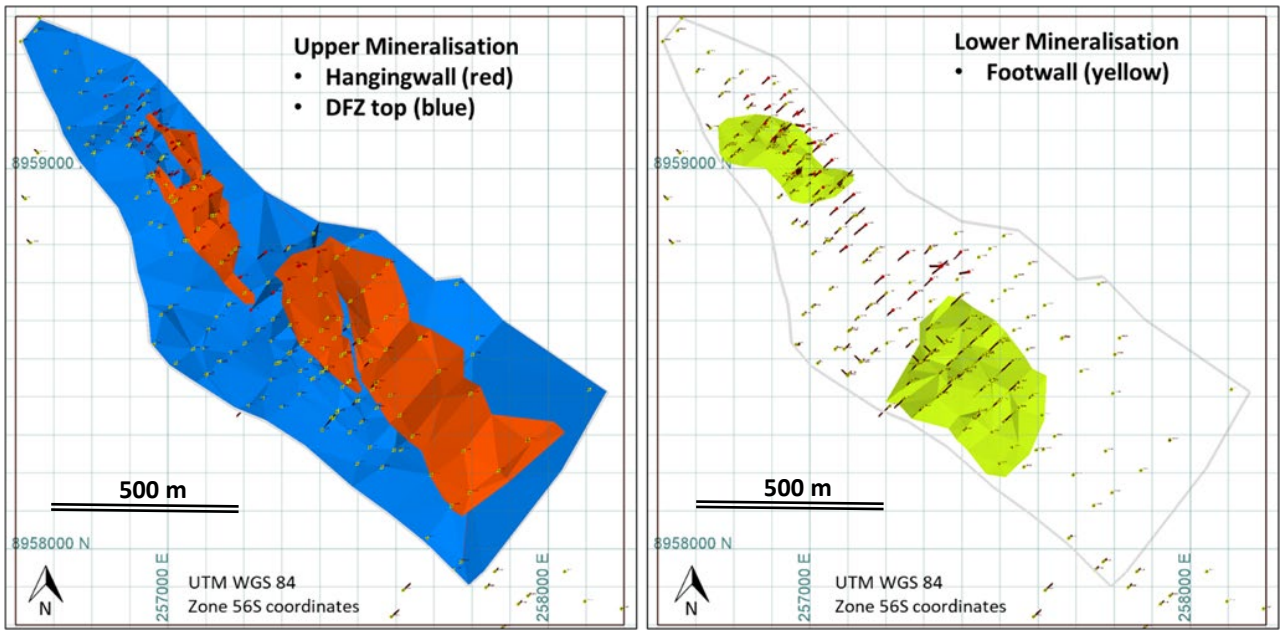
Resource domaining is based on both geological and grade interpretations. The geological domaining defines the base of colluvium based on geological logs and above a mixed package of metamorphics and dykes.

The main mineralised package occurs along the DFZ. This was interpretated principally from geological logging of clayey or siliceous breccia. Mineralisation can be within the DFZ, though more commonly towards the base of the DFZ in siliceous breccia and at times mineralisation extends downwards into the mixed metamorphic package. Where the lower extension is contiguous and with some lateral continuity, a lower transition to the DFZ was interpreted in a few small discrete areas.

The lower metamorphic package includes some mineralisation. Two defined footwall domains were identified as relatively continuous and situated around 20 – 30 m below the DFZ and parallel to the DFZ, at a shallow 30˚ dip (Figure 14-2).

Above the DFZ five separate hanging wall mineralised domains were identified as thinner shallower dipping zones between 0 and 10˚ dip (Figure 14-3).

Figure 14-2. Gameta plan views of upper (LHS) and lower (RHS) mineralisation domains.

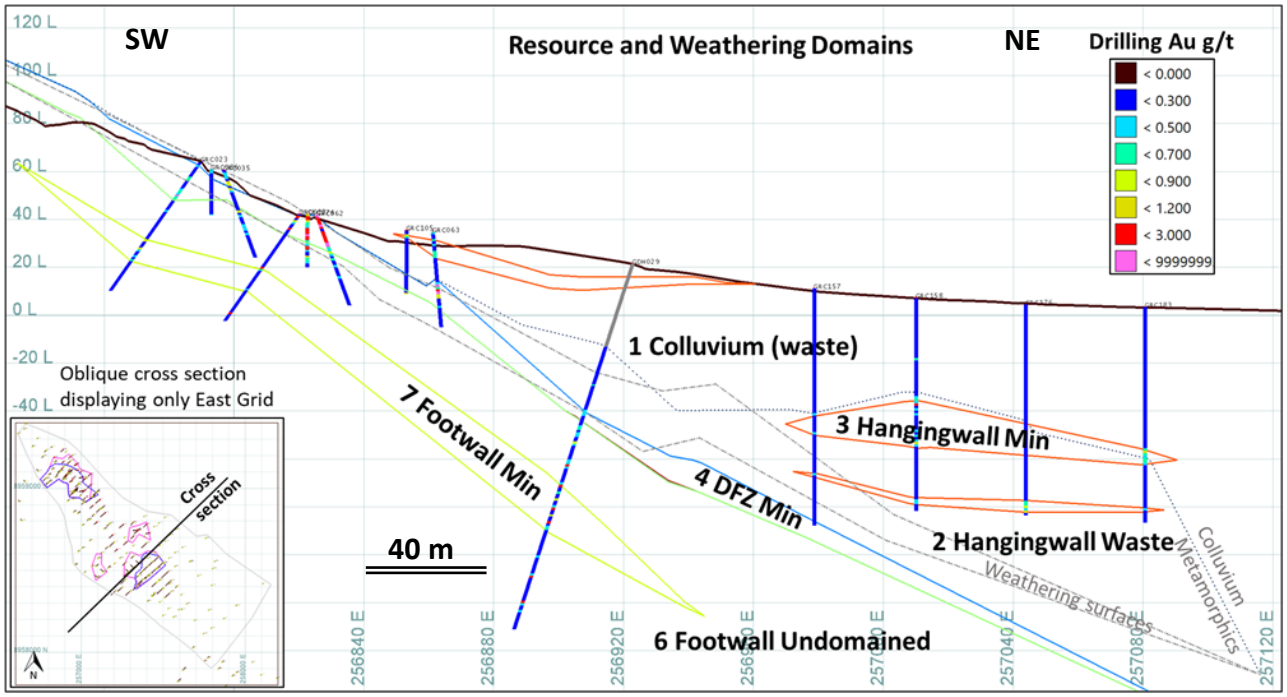


Resource domains were established as follows and illustrated in Figure 14-3:

1. Colluvium waste
2. Metamorphic hangingwall waste
3. Metamorphic hangingwall mineralisation
4. DFZ mineralisation
5. DFZ transition mineralisation
6. Metamorphic footwall unconstrained (minor mineralisation)
7. Metamorphic footwall mineralisation

The main mineralised domain dips at approximately 30° towards the northeast and extends over a strike length of 1.5 km with widths of generally 300 m and up to 600 m. The main mineralisation extends to a maximum depth of approximately 150 m below surface. Mineralisation generally outcrops in the upper southwest portions of each drill traverse and is overlain by up to approximately 100 m of barren, mostly colluvial material in the northwest of each traverse.

Figure 14-3. Gameta cross section showing mineralisation domains.



14.1.3 Data Analysis

14.1.3.1 RC vs Diamond Drillhole Assay Data

Drillhole data is dominated by RC drilling completed in the 1990s (58%). The contribution of the six drilling campaigns by meterage is as follows:

- 1995-96 RC program: 27% of the drillhole data inside the interpreted mineralisation domain.
- 1997-98 RC program: 31% of the drillhole data.
- 1997-98 diamond program: 2% of the drillhole data.
- 2003 diamond program: 5% of the drillhole data.
- 2007-08 diamond program: 16% of the drillhole data.
- 2021 diamond program: 19% of the drillhole data.

QA/QC methods used for the RC drilling programs were rudimentary. Previous workers have compared the RC and diamond drilling where close together and determined a 30% high gold bias for RC data compared to diamond data.

Updated drillhole collar survey data has changed some of the collar locations and hence the previous data spacing. Previous work also did not recognise that several existing twin drillholes targeted the highest-grade RC drilling. Since the twin holes would have dominated the previous sample comparisons and the twins were biased to the highest-grade RC drilling, some apparent bias would be expected.

Derisk initially reassessed those holes drilled specifically as twin drillholes both from previous and recent drilling programs and which were confirmed as twins from previous exploration reports. These included:

- Historic twin holes confirmed from Gold Aura ASX announcements (Gameta Central):
  - GDH016, GDH011, GRC191, and GRC180.
  - GDH017 and GRC145.
  - GDH002 and GRC037.
- Recent twin holes completed by Adyton in 2021 (Gameta North):
  - ADD002, GRC037, and GDH002.
  - ADD005 and GRC005.
  - ADD001, GRC097, and GDH003.

After completing this initial review Derisk discounted the following:

- GDH003 diverges from the other two holes and drills down dip, failing to intersect any mineralisation.
- GRC114 also twins ADD002 in part but is too short to be indicative.
- GDH002 is too dissimilar to ADD002 and GRC037 to provide a reasonable comparison.
- GDH017 and GRC145 diverge from each other at the collar and are not strict twins according to the available downhole survey information.

Wireline comparison plots of gold grade and thumbnail quantile-quantile (QQ) plots for each diamond-RC twin hole are presented in Figure 14-4 and Figure 14-5. Historical twins in Figure 14-4 indicate a similar profile of mineralisation with the RC holes delivering generally higher grades and in cases longer downhole lengths of high grade. New twins in Figure 14-5 suggest a similar trend with GRC037 and GRC097. Countering these trends is the twin for GRC005, the fifth highest grade RC hole, where the diamond hole reported higher grade.

These comparisons must be tempered by the knowledge that GRC191 and GRC037 are the highest-grade drillholes with three or more times the metal content of most (90%) other holes. GRC97 is also the third highest grade RC hole and seventh highest overall. Derisk notes that the choice of targeting the highest-grade RC holes for twining could be expected to result in lower average grades for the twin holes due to natural gold variability and the biased hole selection for twinning.

On average, the twin holes support evidence of higher grades for RC holes compared to diamond holes and a potential bias, however the RC holes selected for twinning are also heavily biased, clouding any conclusion.

Figure 14-4. Gameta historic drilling – diamond to RC twinned holes comparison.

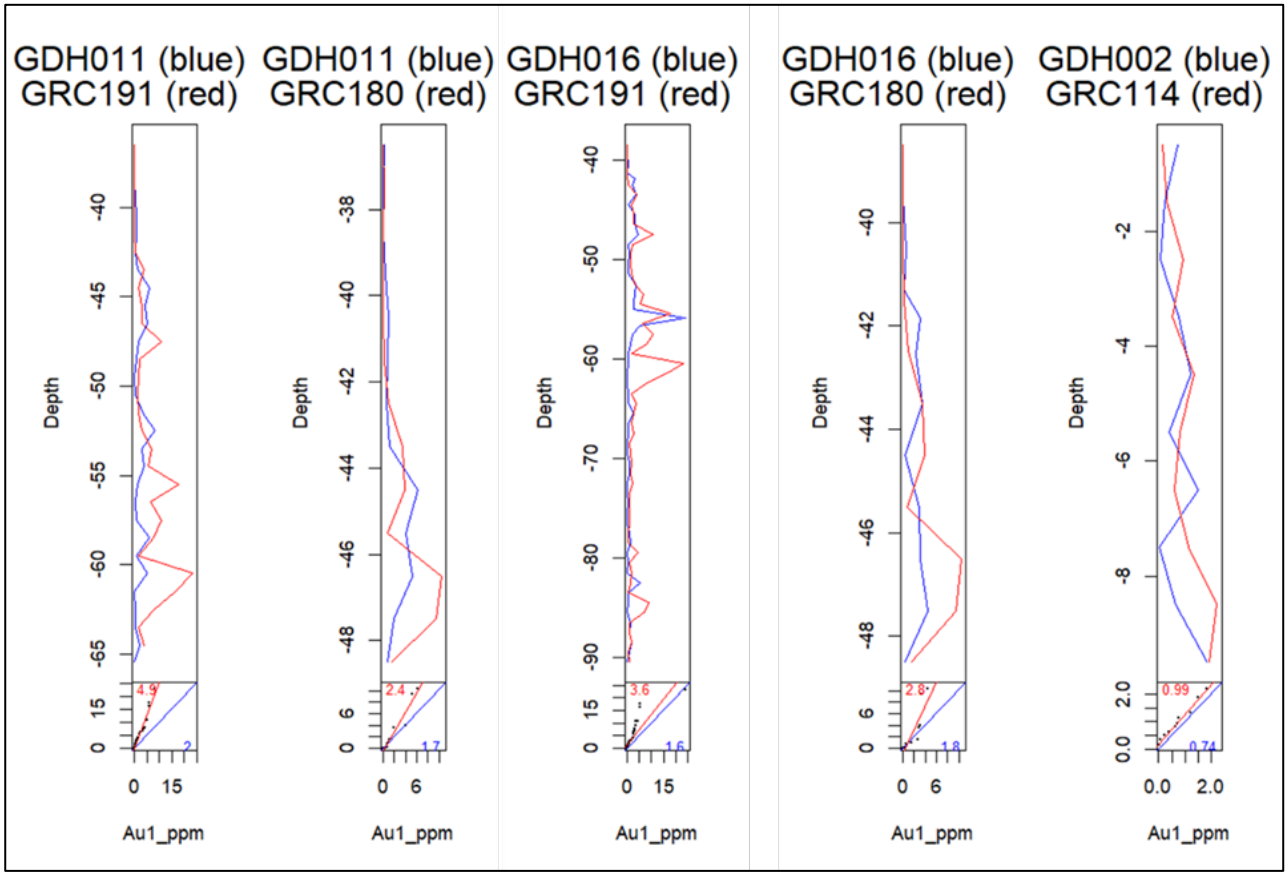
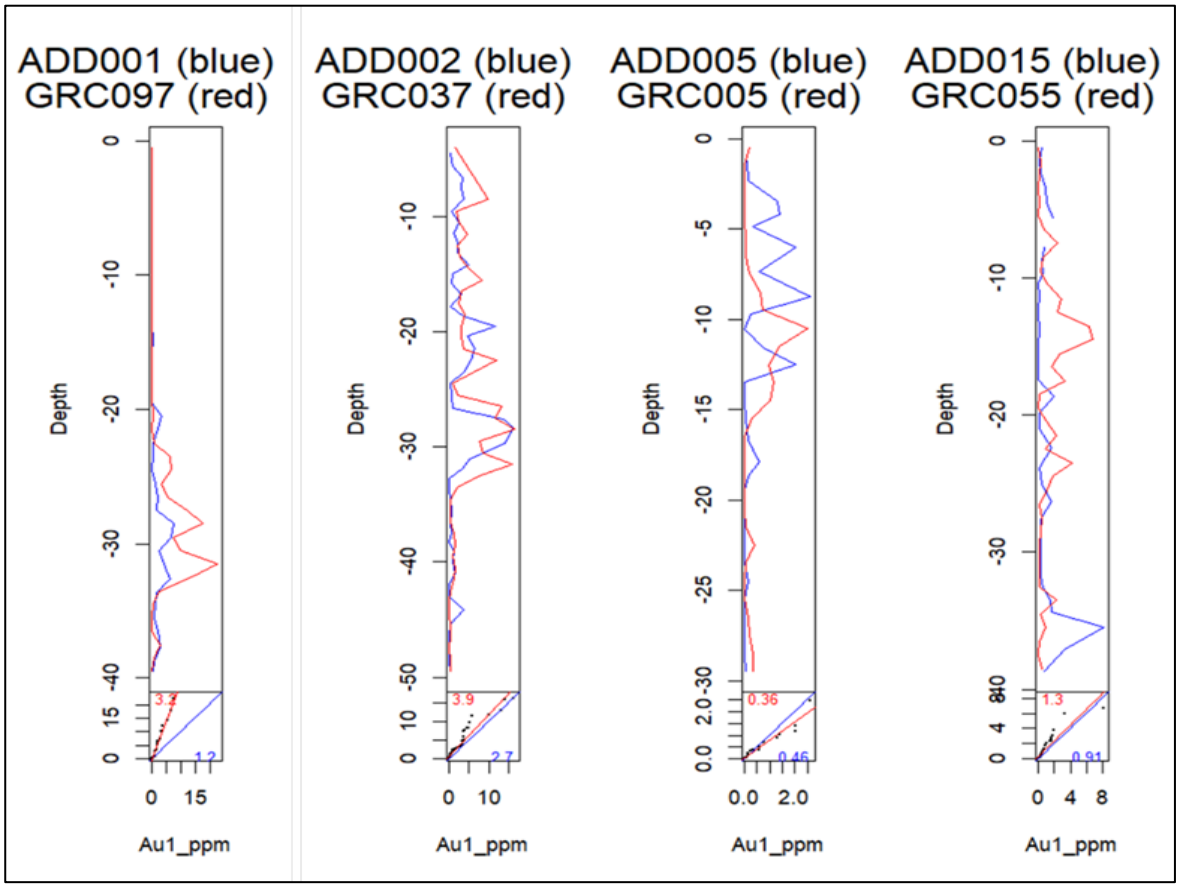


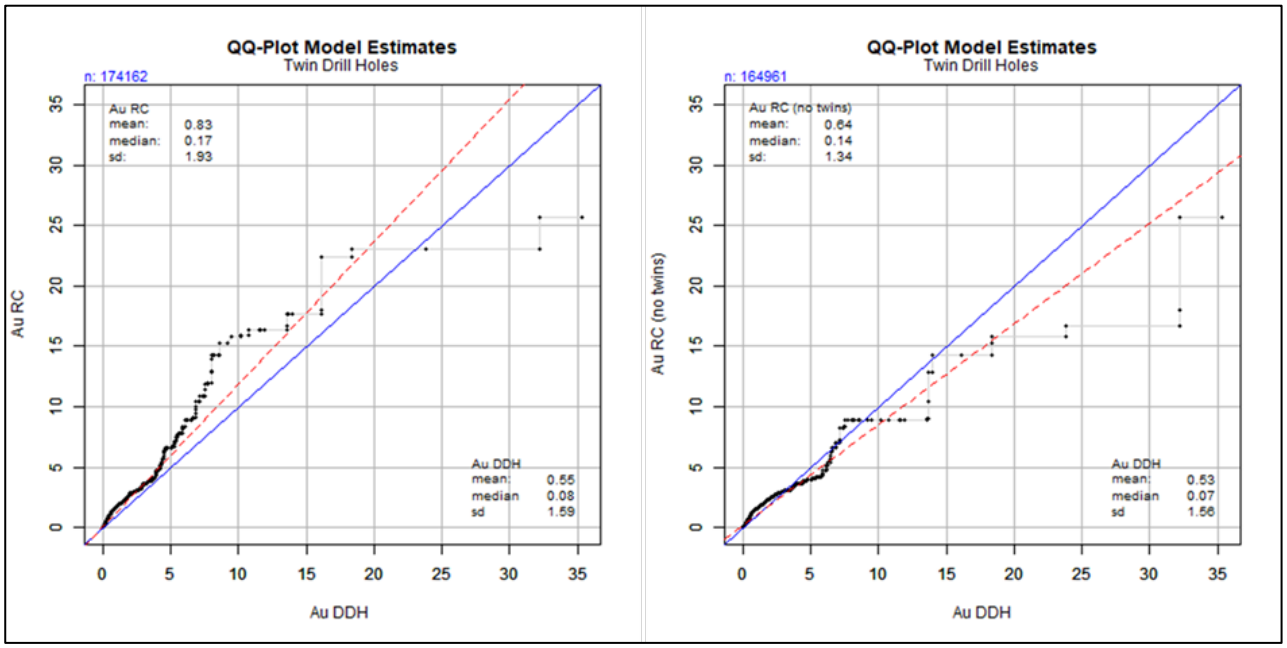
Figure 14-5. Gameta drilling – Adyton 2021 diamond drilling to RC twinned holes comparison.



To provide a larger comparison a 3D block model below the colluvium was populated with gold sample assays using a nearest neighbour approach for RC and diamond drill hole (DDH) samples with a fine sized block model and a search zone of 50 m by 50 m by 5 m. Blocks with both a gold grade assigned from an RC data point and a diamond data point were compared in QQ-plots (Figure 14-6). When all data is allowed to contribute to the estimate there is a similar apparent bias with high RC grades. When the twinned diamond and RC holes are excluded, the apparent bias is reduced substantially. The change when the twinned holes are removed suggests the previously identified bias is strongly associated with a bias in the selection of the twin holes drilled. This conclusion should be reviewed if Adyton diamond drilling is adjusted after the QA/QC follow-up.

To further complicate this assessment, the review of QA/QC data for the 2021 Adyton diamond drilling indicates this data is biased low by approximately 10% (refer to Section 11.1.4.3). This further reduces the apparent bias in the RC data. Derisk concludes that the previous assumption of bias in the RC data does not fully account for by the biased selection of holes for twinning, and that the underlying data suggests only a small to moderate potential bias of the RC data. At present, there is no firm evidence that warrants either exclusion of or adjustment to the RC and diamond analyses.

Figure 14-6. Gameta QQ plot of nearest neighbour comparison of diamond vs RC data.



Notes: LHS plot compares all diamond data vs all RC data where a block has been estimated using both data types. RHS plot is the same, but where twin hole diamond and RC holes are excluded.

14.1.3.2 Sample Recovery

No statistical analysis of sample recovery was undertaken on samples collected prior to 2007 because drilling records documenting recovery for diamond and RC drilling were incomplete.

Core recovery measurements for the 2007-08 drilling program are available for 2,839 intervals with lengths ranging from 0.09 to 2.79 m, representing 98% of the sampling program. Core recovery is generally good, with an average of 94% for assayed composites, and relatively few low recovery intervals. Previous analysis shows that there is no notable relationship between low core recovery and higher gold grades.

Adyton 2021 drilling recorded recovery for all diamond drilling. Core recovery averaged 88.7%.

14.1.3.3 Compositing

Assessments and estimation used 1 m composite intervals. This is consistent with the predominant sampling interval and provides the greatest selectivity for block estimation. Figure 14-7 illustrates histograms of drillhole sample lengths before and after compositing.

No adjustments to grades were applied other than the resetting of below detection limit values to half the detection limit value or 0.005 if not recorded.

Gold grade distributions of composites are presented in Figure 14-8 for each of the seven resource domains. Assay data for silver, arsenic, and sulphur are only available for the latter half of the historical diamond drilling and the recent Adyton diamond drilling. Composite data is presented in Figure 14-9 for these three metals. This data has been estimated and carried in the block grade estimates for reference, but Derisk notes that there are parts of the model that are unestimated for these metals in some areas.

Figure 14-10 presents box plots for gold, silver, arsenic, and sulphur by domain. The cumulative probability plots and box plots illustrate that Domains 4 (DFZ mineralisation), 5 (DFZ transition mineralisation) and 7 (Metamorphic footwall mineralisation) host the highest-grade gold, silver, arsenic, and sulphur as expected.

Figure 14-7. Gameta drillhole length histogram for samples (LHS) and 1.0 m composites (RHS).

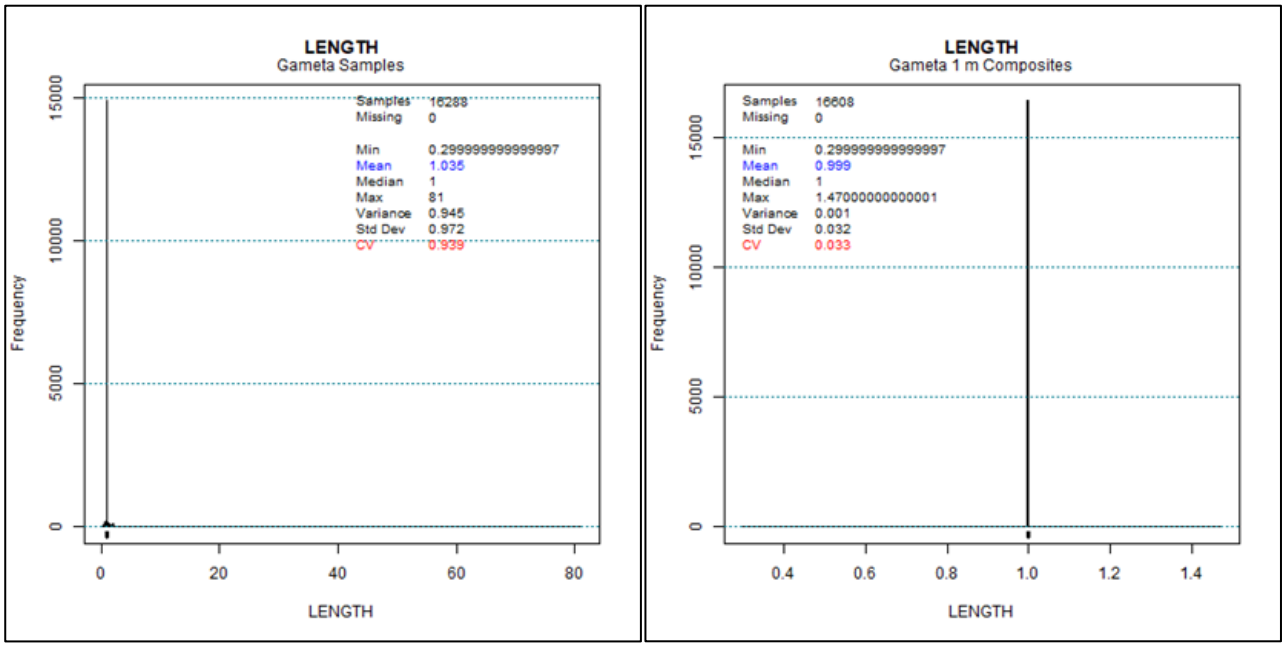


Figure 14-8. Gameta log probability plots of composites by domain for gold.

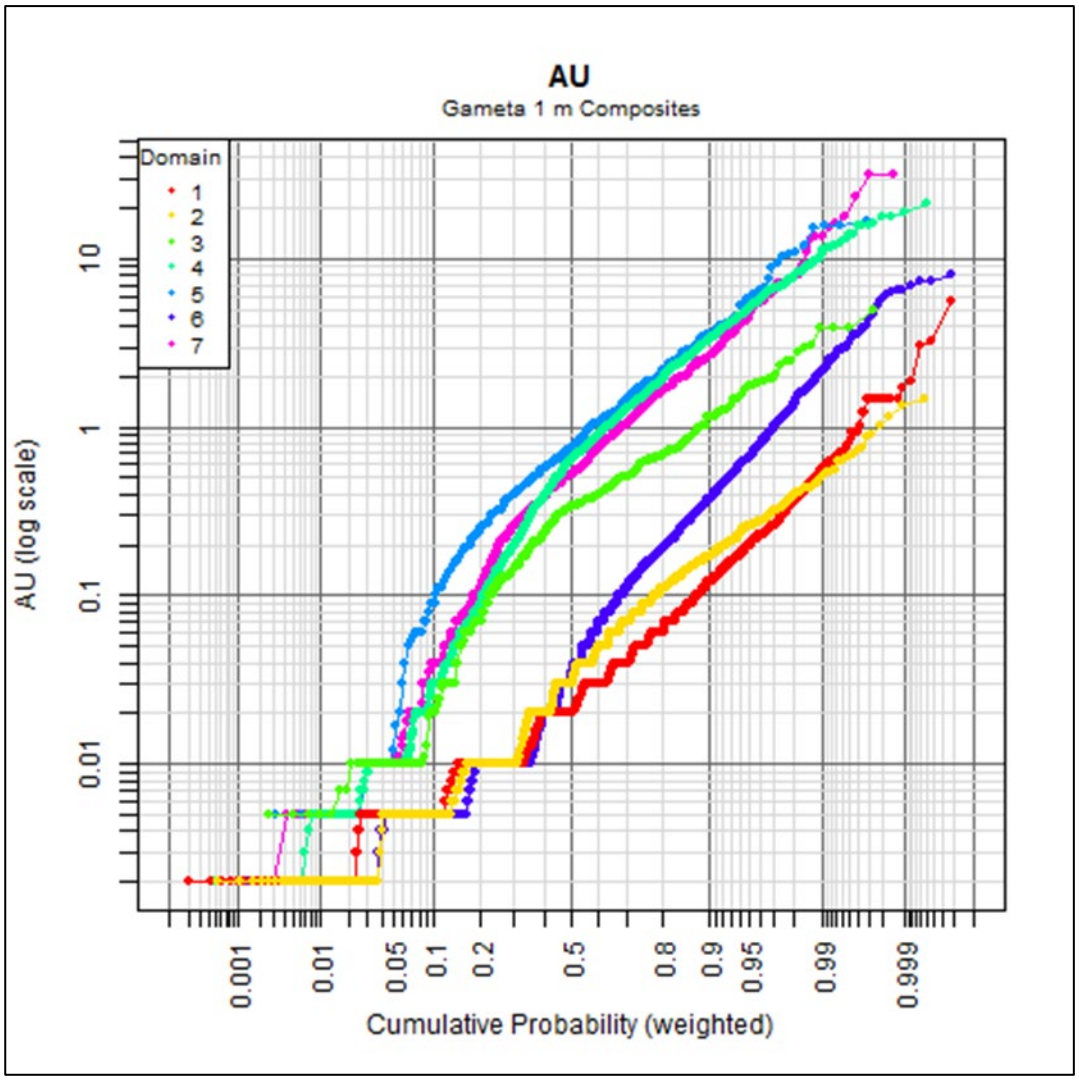


Figure 14-9. Gameta log probability plots of composites by domain for silver, arsenic, and sulphur.

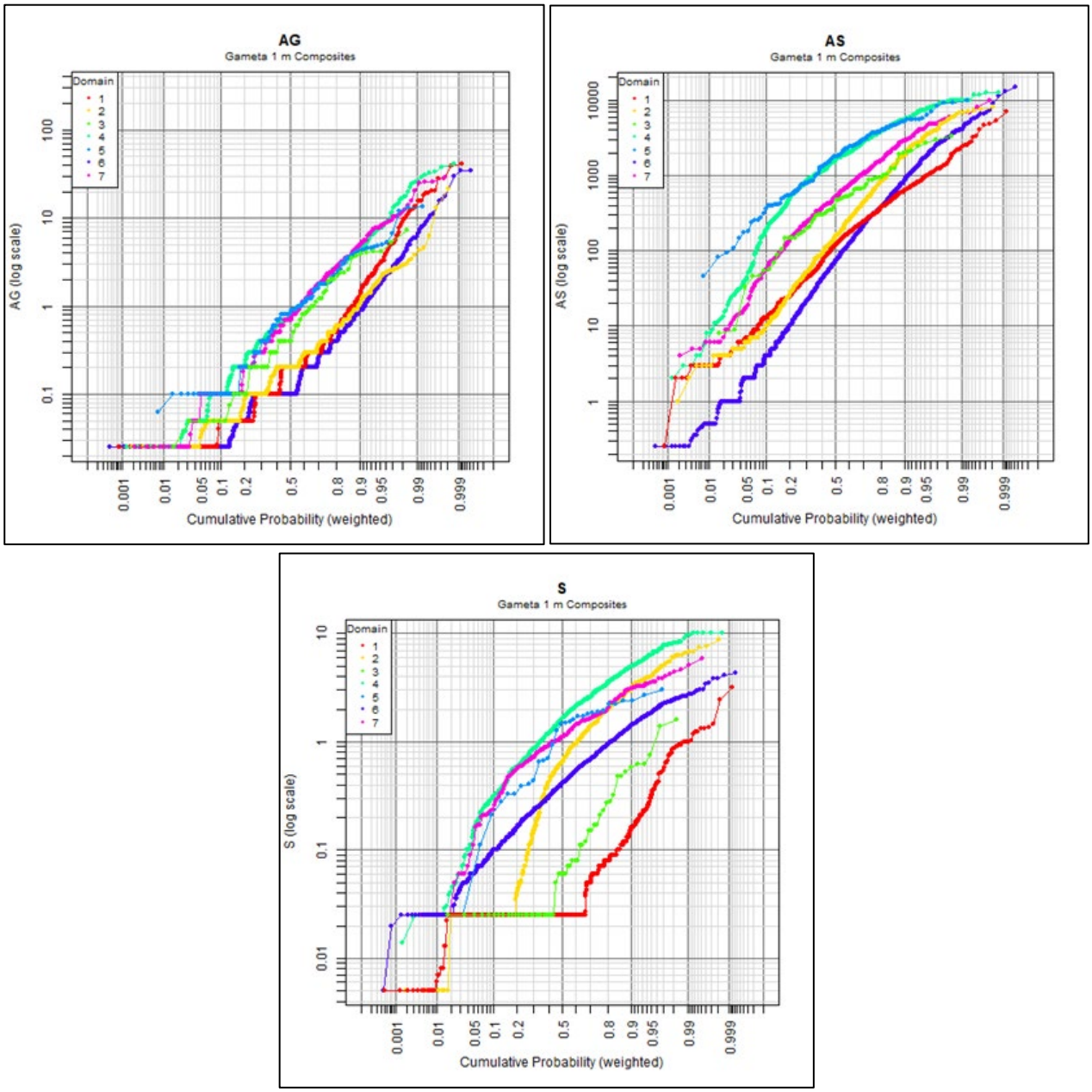
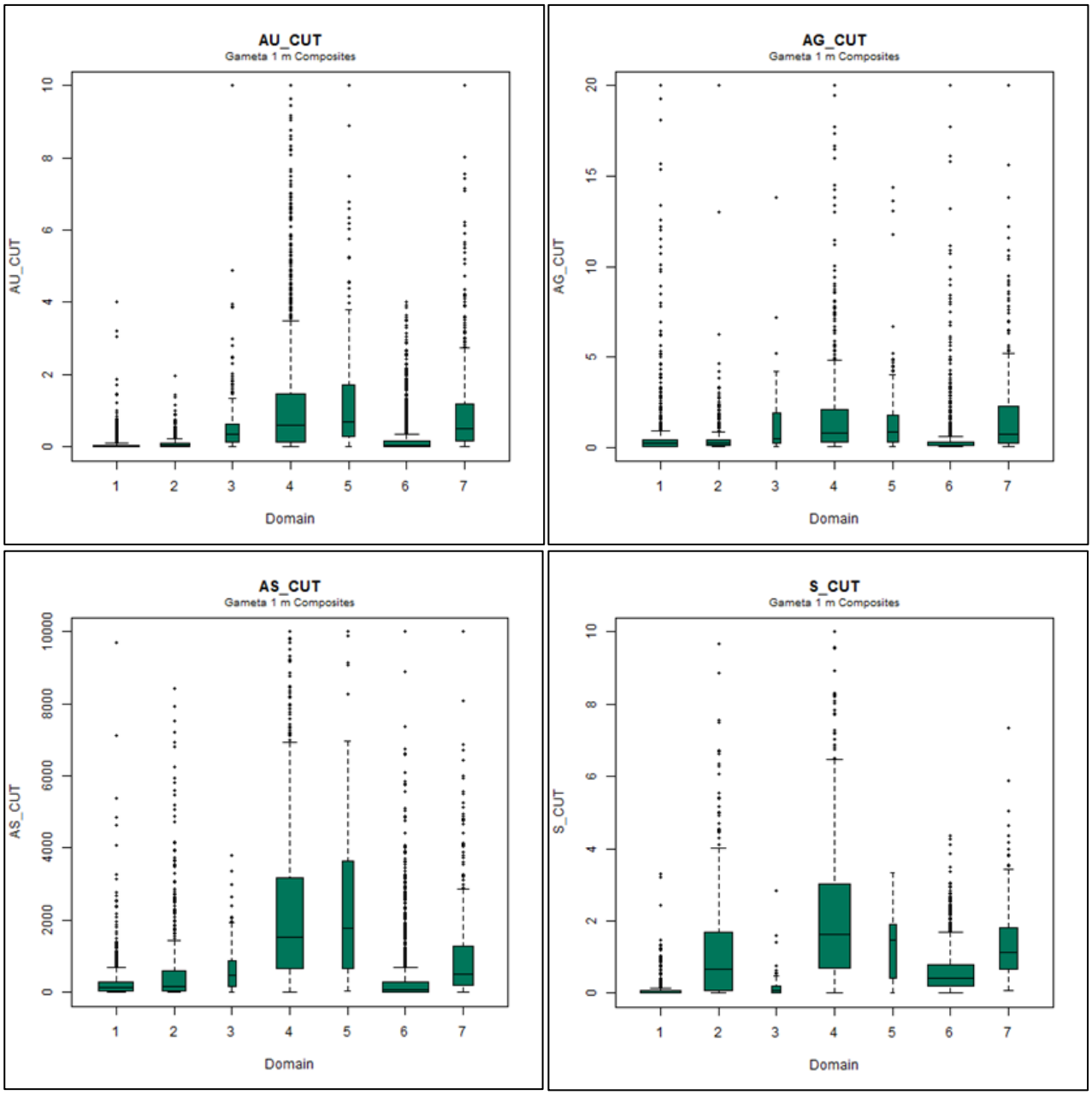


Figure 14-10. Gameta box plots of composites for gold, silver, arsenic, and sulphur.



14.1.3.4 Grade Capping

High grade caps were applied for estimation to remove undue effects from outliers and skewed grade distributions. Gold grades are not particularly high or nuggety at Gameta and the mineralised domain interpretations include significant internal dilution. Most cuts relate to the 99.5th percentile of the distributions but are relatively low for gold. Derisk applied the following caps:

- 12 g/t Au for mineralised domains (3, 4, 5, and 7).
- 6 g/t Au for the undomained zones (1, 2, and 6).
- 20 g/t Ag.
- 10,000 ppm As.
- 10% S.

The effect of the high-grade caps is presented in Table 14-1 and indicates that in the main domain (4) the metal cut is relatively modest despite being a low value of 12 g/t Au. The coefficient of variation (CoV)

remains high after cutting due to the significant proportion of dilution within the domain. Improving the structural and domain control on the deposit will be required to improve estimates for future studies.

Table 14-1. Gameta drillhole composite statistics by domain, with and without top cutting.

Element	Domain	Composites	Min	Max	Mean	CoV	Cut Max	Cut Mean	Cut CoV	Cut Metal
Au g/t	1	4,725	0.002	8.3	0.06	3.4	6	0.06	3.1	2%
	2	1,880	0.002	2.0	0.07	1.7	1.95	0.07	1.7	0%
	3	385	0.005	11.6	0.51	1.6	11.6	0.51	1.6	0%
	4	2,001	0.002	22.4	1.32	1.6	12	1.29	1.5	2%
	5	319	0.005	25.7	1.63	1.7	12	1.54	1.5	6%
	6	4,730	0.002	14.3	0.17	3.0	6	0.17	2.8	2%
	7	693	0.002	35.3	1.30	2.3	12	1.17	1.6	10%
Ag g/t	1	1,240	0.025	121.3	0.90	4.9	20	0.77	3.1	14%
	2	549	0.025	65.7	0.61	5.0	20	0.53	2.8	14%
	3	62	0.025	13.8	1.36	1.6	13.8	1.36	1.6	0%
	4	755	0.025	41.5	2.13	2.1	20	1.96	1.7	8%
	5	129	0.063	14.4	1.69	1.5	14.4	1.69	1.5	0%
	6	2,197	0.025	317.0	0.63	11.2	20	0.47	3.2	25%
	7	452	0.025	31.4	2.01	1.8	20	1.93	1.6	4%
As ppm	1	1,240	0.25	9,717	267	2.1	9,717	267	2.1	0%
	2	549	1	8,435	651	1.9	8,435	651	1.9	0%
	3	62	8	3,808	722	1.2	3,808	722	1.2	0%
	4	755	2	13,160	2,316	1.0	10,000	2,300	1.0	1%
	5	129	46	10,684	2,388	0.9	10,000	2,382	0.9	0%
	6	2,197	0.25	15,200	360	2.7	10,000	353	2.5	2%
	7	452	5	10,000	1,077	1.4	10,000	1,077	1.4	0%
S %	1	1,185	0.005	3.3	0.09	2.5	3.3	0.09	2.5	0%
	2	535	0.005	9.7	1.17	1.3	9.7	1.17	1.3	0%
	3	57	0.025	2.8	0.23	2.0	2.8	0.23	2.0	0%
	4	669	0.014	10.0	2.19	0.9	10.0	2.19	0.9	0%
	5	31	0.025	3.3	1.34	0.7	3.3	1.34	0.7	0%
	6	1,539	0.005	4.4	0.60	1.0	4.4	0.60	1.0	0%
	7	213	0.06	7.3	1.44	0.8	7.3	1.44	0.8	0%

14.1.4 Variography

Variogram models were based on inverted correlograms after reviewing the stability of several variogram types. Correlogram maps were also used to assess the drilling continuity, and these indicated no preferred structural orientations except for the 30˚ dipping plane for most domains and a shallower 10˚ dip for the upper hangingwall domains (1, 2, and 3).

Correlogram modelling was undertaken for each domain using unfolding for most domains for lateral orientations and down hole correlograms for the cross-strike orientations. Some domains were combined but effectively separated by the unfolding surface. A consistent 30% nugget was indicated and applied for all domains with a two-structure spherical model in all cases. The correlograms did not present any consistent preferred structure within the unfolding planes and omni-planar models were assumed using all data pairs within the plane to provide the most robust model. Total ranges were between 50 – 60 m with a strong short range inner structure of around 10 m. Table 14-2 documents the parameters of the correlogram models.

Table 14-2. Gameta gold correlogram models.

Domain	Nugget	First Structure Exponential		Second Structure Spherical	
		Sill	Range (x, y, z)	Sill	Range (x, y, z)
4 & 5	0.3	0.3	10, 15, 3	0.4	50, 40, 22
7	0.3	0.4	15, 15, 3	0.3	60, 60, 8
1, 2, 3	0.3	0.4	10, 10, 2	0.3	50, 50, 10
6	0.3	0.4	10, 10, 2	0.3	50, 50, 10

14.1.5 Bulk Density

Gold Aura measured the bulk density of 108 drill core samples in its 2007 drilling program using several water immersion and volumetric methods with a total of 428 measurements.

Adyton measured the bulk density of 729 drill core samples in its 2021 drilling program using a water immersion method that was adjusted during the program. Initially Adyton measured half core samples and vacuumed packed clay-rich core samples, then moved to larger 1 m interval core measurements later in the program.

The data for each domain and weathering profile type were assessed for each method. Fresh rock samples are reasonably consistent, but some weathered and clay-rich samples displayed some variation in measurements. After considering the potential issues associated with each measurement method, Derisk elected to combine all the data to minimise risk. However, the upper domains are discounted more heavily as the samples will underrepresent clay-rich and broken material. Further work remains to derive more reliable density measurements for oxide, clay-rich or highly broken samples.

The results summarised in Table 14-3 provide the best basis to date for bulk density and the new Adyton data has progressed the project understanding for density variation beyond a single constant value for all material (used previously). Table 14-3 also summaries the bulk densities for each domain and each weathering material. Oxidation profiles roughly mirror the top of the DFZ and to some extent split hangingwall geology including colluvium from breccia and footwall units.

Table 14-3. Gameta dry bulk density measurement summary.

Material	Domain	Mean DBD	measurements	Mean DBD	measurements	Mean	Assumption
1. Oxide	1	2.56	82	1.68	6	2.46	2.0
	2	2.32	5	-	-		
	3	2.28	2	1.74	2		
	4	2.47	1	2.33	6		
2. Transitional (partially oxidised)	1	2.57	30	1.92	6	2.51	2.4
	2	2.57	10	2.57	12		
	3	2.49	3	-	-		
	4	2.37	2	2.44	18		
	5	-	-	2.63	16		
3. Fresh	1	2.52	3	-	-	2.51	2.4
	2	2.54	38	-	-		
	3	-	-	-	-		
	4	2.53	147	2.51	10		
	5	2.43	7	2.46	54		
	6	2.66	372	2.66	219		
	7	2.65	26	2.60	70	2.65	2.6

Based on this summary dry bulk densities applied to the resource block model were:

- 2.0 t/m^3 for all oxide material.
- 2.4 t/m^3 for all partial oxide and fresh material, for domains 1 to 6.
- 2.6 t/m^3 for all partial oxide and fresh material, for the footwall mineralised domain 7.

At present there is insufficient evidence to assume any difference between partially oxidised and fresh material, possibly because density variations are more probably related to the lithology, which can vary from metamorphic, dykes, or siliceous/clay breccia.

In-situ moisture content is not currently understood as there is no analytical data available. This does not impact the resource estimate.

14.1.6 Resource Estimation

14.1.6.1 Block Model Set-up

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

The block model is in the WGS 84 Zone 56S grid with dimensions listed in Table 14-4. A flat square block arrangement was adopted to fit the northeast shallow dip of the domains and mineralisation. The parent block size is one quarter the size of the general drill spacing for the central areas and suitable for estimation for the current drill spacing.

Table 14-4. Gameta block model.

Parameter	Easting	Northing	RL
Origin	256,600	8,957,800	-150
Limit	258,200	8,959,400	300
Extent (m)	1,600	1,600	450
Parent Block Size (m)	10	10	2.5
Sub-block size (m)	5	5	1.25

Blocks above topography or outside the limit of interpretation were discarded, with model extents displayed in Figure 14-11. Surface models for weathering (Figure 14-11) and surface and solid wireframe models for geology and mineralisation domains (Figure 14-12) were used to block and sub-block the model.

Figure 14-11. Gameta cross section example showing block model weathering zones.

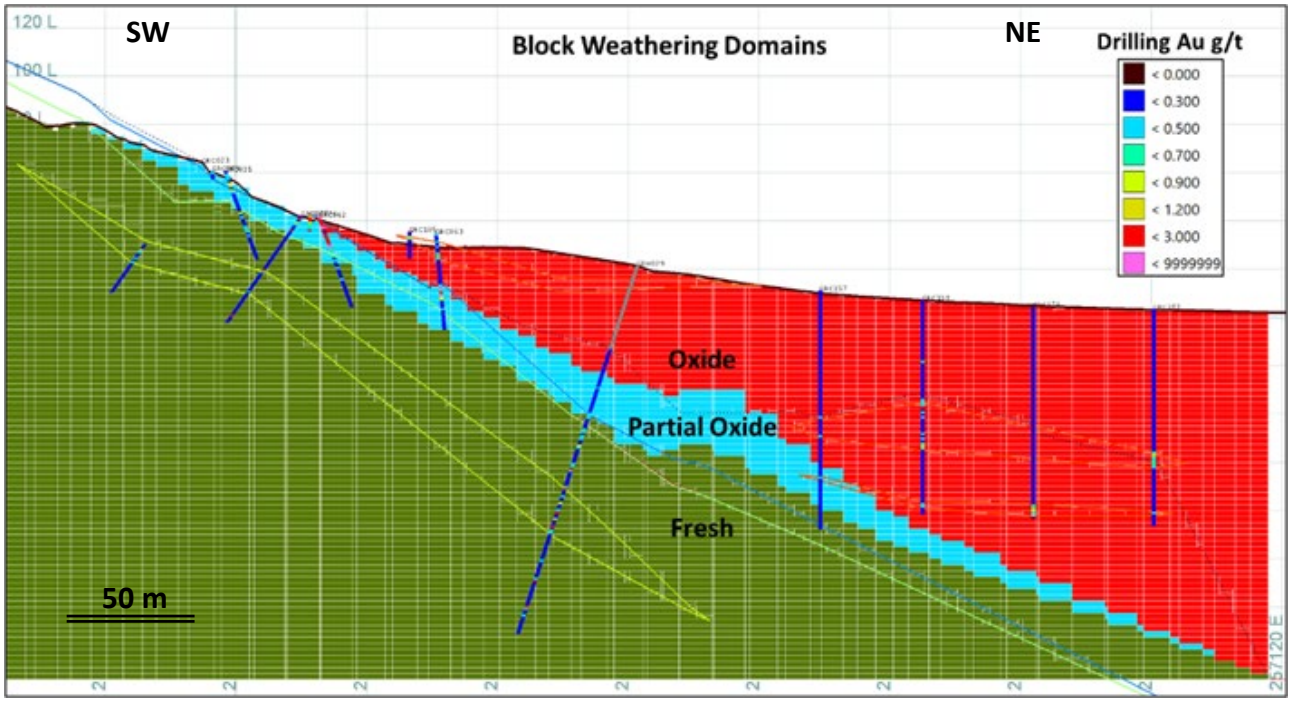
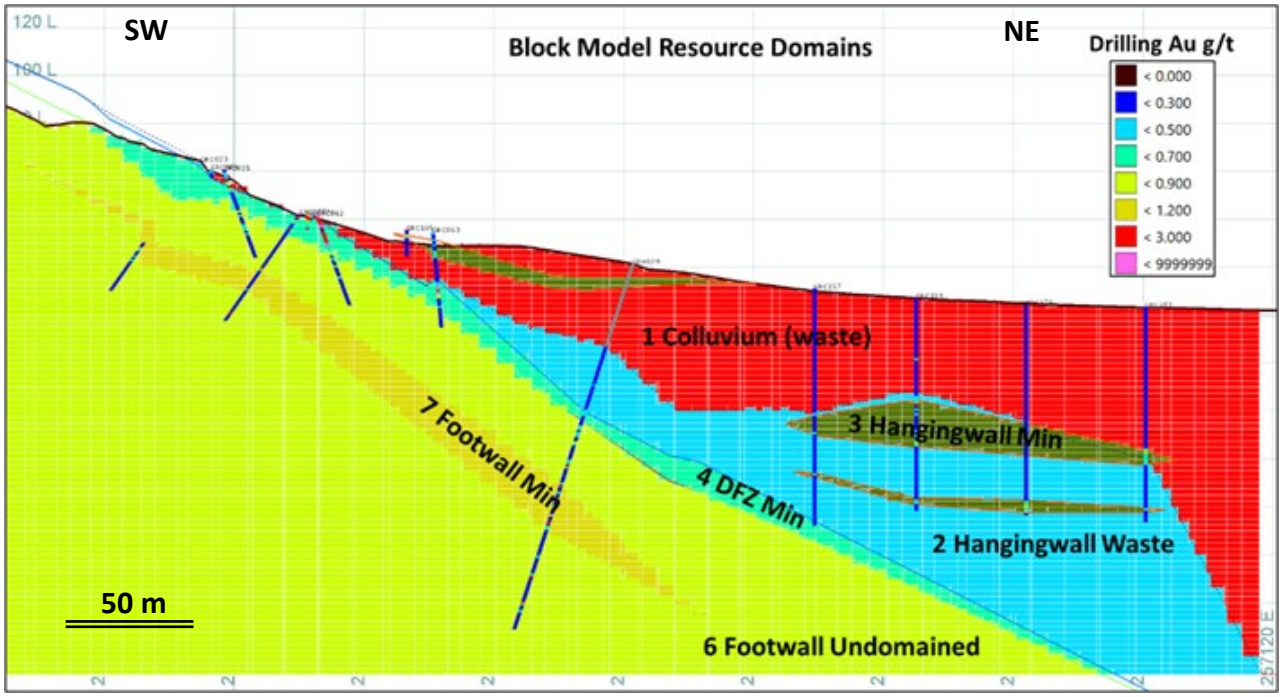


Figure 14-12. Gameta cross section example showing block model geology/mineralisation domains.



14.1.6.2 Grade Estimation

Gold grades were estimated by OK for blocks within each domain using the following search criteria and parameters:

- Parent block estimation with 4 by 4 by 2 discretisation points.
- Variogram models in Table 14-2
- Dynamic search anisotropy to unfold each domain except domain 3 where an average 10° northeast dip was applied.
- Maximum of 4 composites per drill hole and a maximum 20 composites.
- Three search passes comprising:
  - First pass: 50 m by 50 m by 20 m with a minimum of 5 composites, a maximum of 4 composites per octant, and a minimum of 4 drillholes.
  - Second pass: 100 m by 100 m by 30 m with a minimum of 5 composites, and a minimum of 3 drillholes.
  - Third pass: 150 m by 150 m by 40 m with a minimum of 1 composite.

To account for estimation of undomained waste and mineralised zones that are thin in places, the search strategy concentrated on ensuring sufficient nearby drilling was included rather than relying on only numbers of composites. The majority of blocks estimated used 4 – 5 drillholes and 16 – 20 one metre composites for estimation of the parent blocks.

Grades were also estimated for silver, arsenic, and sulphur with similar search parameters but using inverse distance squared estimation. These were completed to assist future mine development studies. Due to incomplete assaying of these metals not all blocks were estimated. Though not further discussed, example sections provide indications of some variation in occurrence. These are evidently affected by weathering and domains that are not necessarily associated directly with gold occurrence.

Figure 14-13 to Figure 14-16 show cross sections through the block model and examples of the gold, silver, arsenic, and sulphur estimates respectively.

Figure 14-13. Gameta cross section example showing block model gold grades.

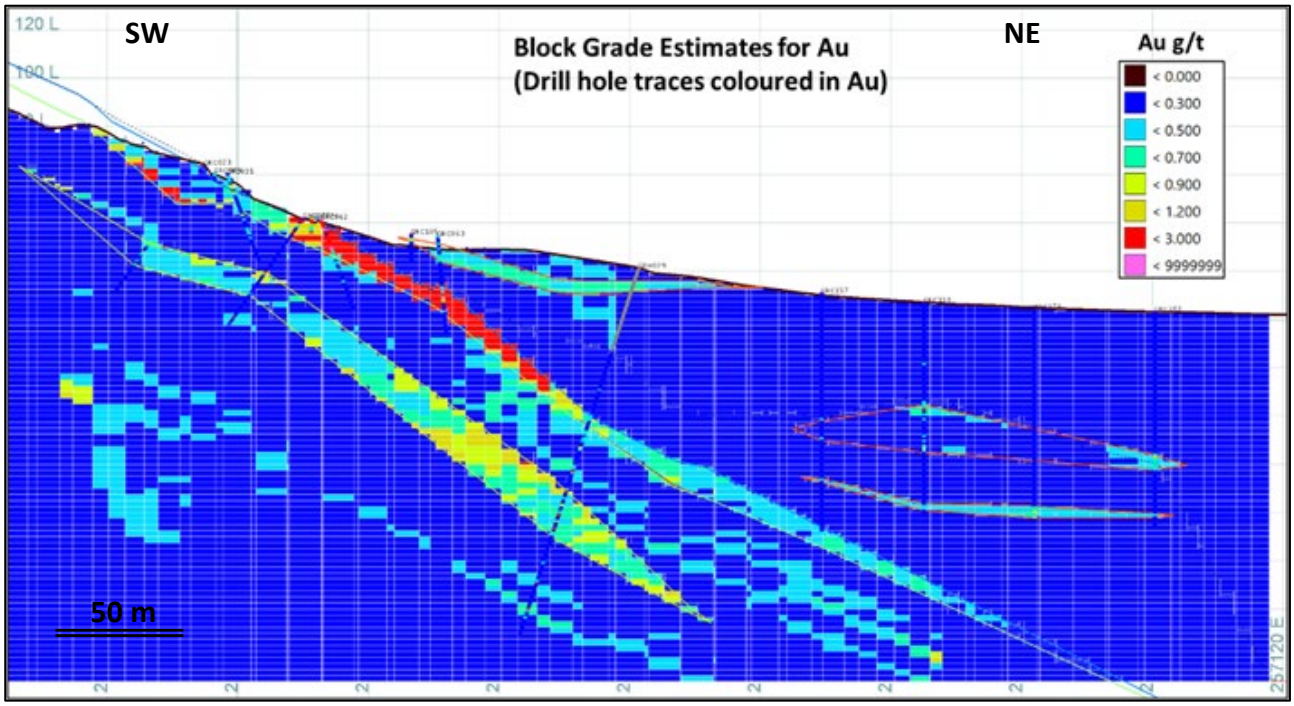


Figure 14-14. Gameta cross section example showing block model silver grades.

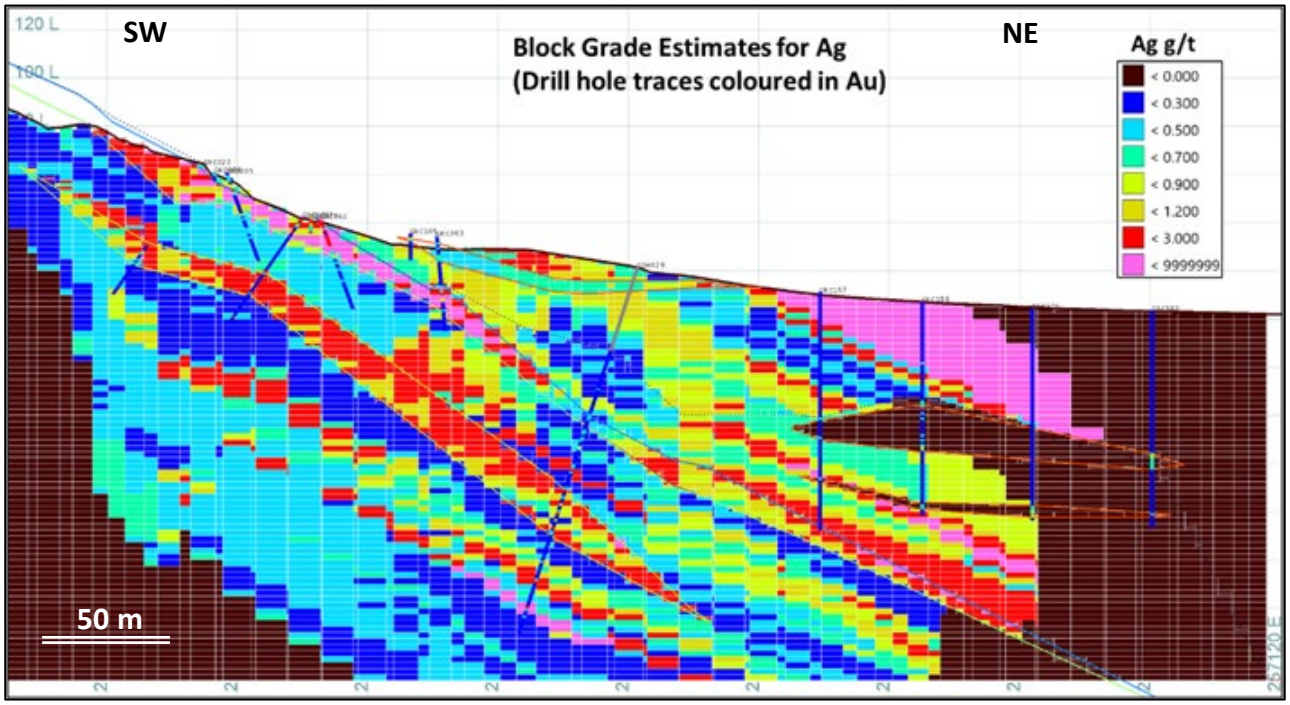


Figure 14-15. Gameta cross section example showing block model arsenic grades.

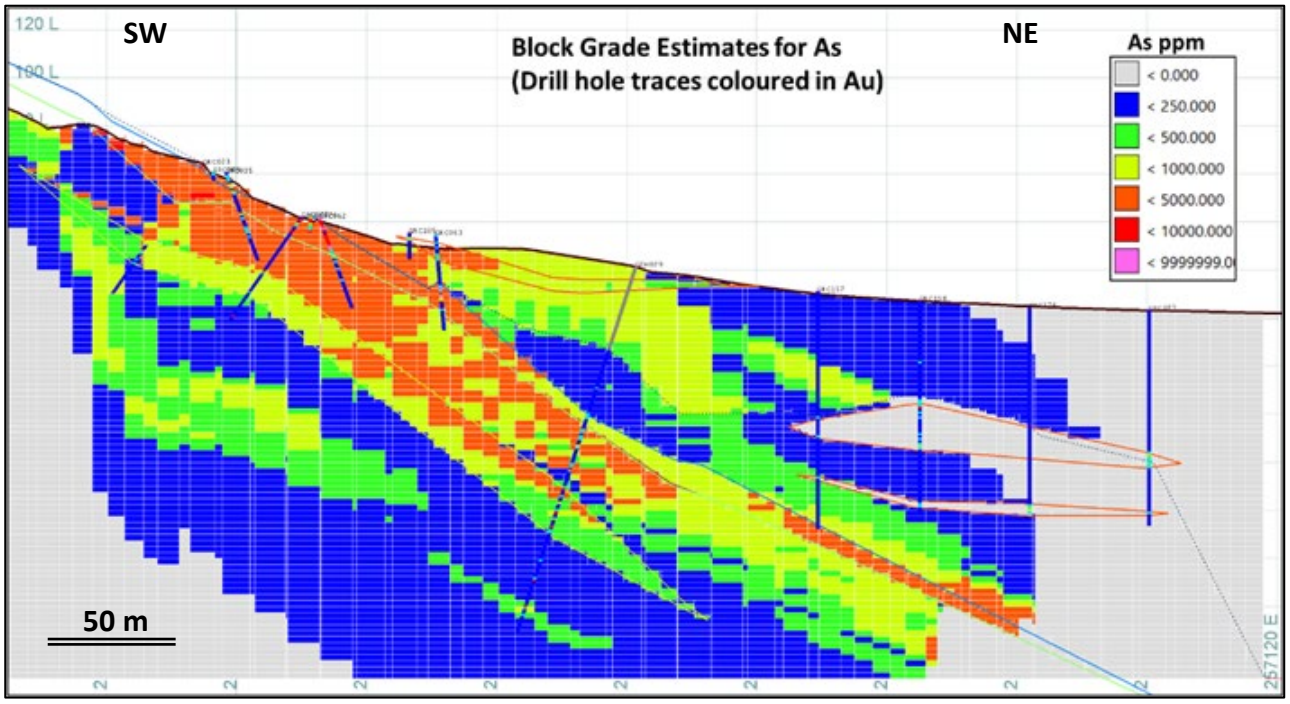
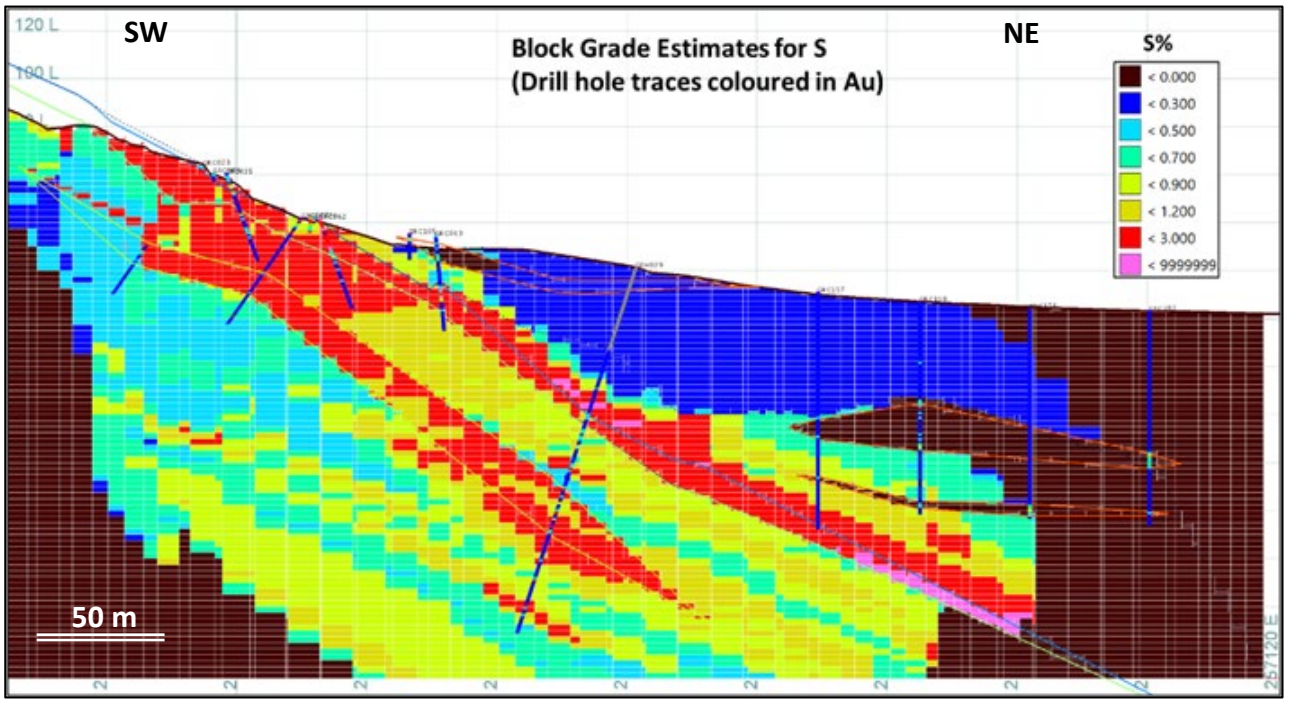


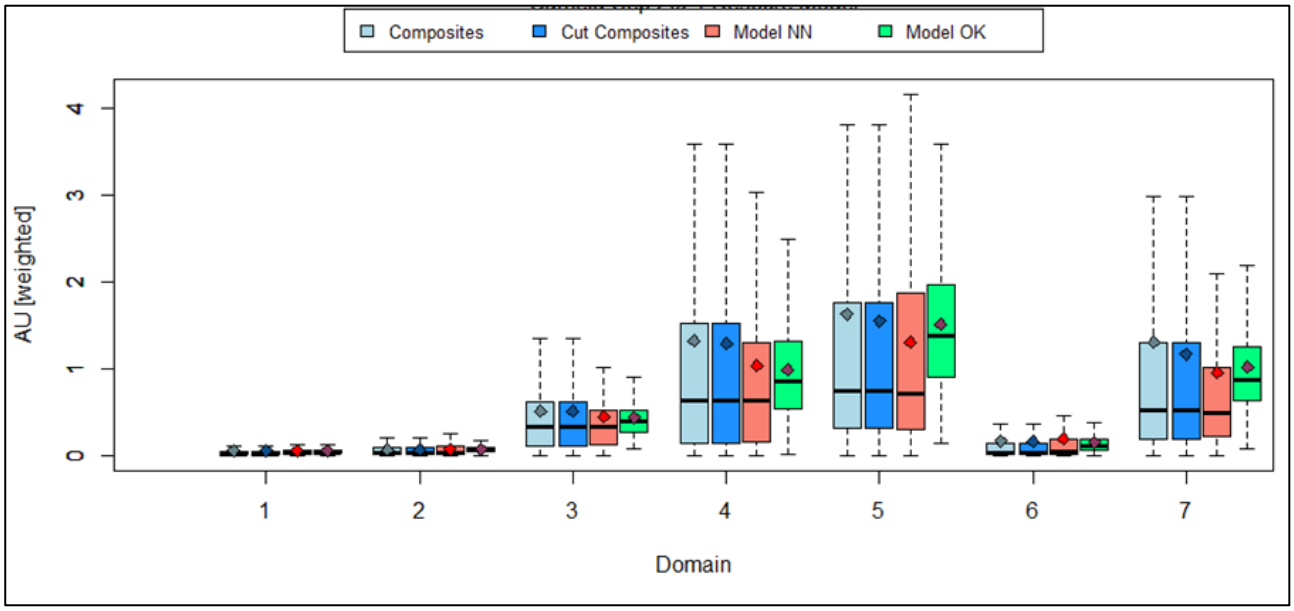
Figure 14-16. Gameta cross section example showing block model sulphu grades.



14.1.6.3 Model Validation

Validation of the estimation was undertaken by visual checks of the model block grades versus drillhole composite grades, analysis of model versus composite statistics, and by swath plot analysis. Figure 14-17 presents a visual summary of the drillhole composites and block model grade distributions for gold.

Figure 14-17. Gameta box plot comparing gold grades of composites and block model estimates.



Notes: Central horizontal is the median value, diamond symbol is the mean value.

14.1.6.4 Classification

Drilling was completed on sections perpendicular to the shallow dip. Drill spacing in the northern and central Gameta areas is reasonably regular with the new Adyton drilling now infilling previous areas to a spacing of roughly 40 m square. The spacing increases up to 50 and 60 m in between the two areas and on the southern margin. Drilling elsewhere is more variable and up to 100 m spacing.

Based on the correlogram ranges of 50 – 60 m, the core areas drilled to 40 m spacing were considered sufficient for Indicated Mineral Resource classification. In part, the CIM Definition Standards require Indicated Mineral Resources to display *"Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation."*. The relevant Qualified Persons consider that the most closely drilled out sections of the three main mineralised domains i.e., Domain 4, 5 and 7 meet this requirement.

The remaining areas are classified as Inferred Mineral Resource with up to 50 m extrapolation away from drilling and within the shallow dipping structural plane of the mineralisation (30˚ towards the northeast). Beyond 50 m from any drillholes estimated blocks are not reported but retained to assist exploration targeting.

Indicated classification was restricted to interpreted mineralisation domains and interpreted separately for the DFZ and DFZ transition zones (Domain 4 and 5) and the footwall metamorphic zone (Domain 7) as the drill spacing changes with depth and drillhole orientation (Figure 14-18).

Tighter drilling has concentrated on known mineralisation such that the remaining Inferred areas are generally lower grade. In addition, Inferred classification areas with wider drill spacing will incur greater estimation smoothing due to the wide sample spacing. Figure 14-19 displays the grade correlation as well as the effective extent of Indicated and Inferred classifications in the main mineralisation zones.

The overall classification is considered reasonable, though there are some unresolved QA/QC issues that should be dealt with to improve confidence levels:

- A potential 10% or more understatement of gold assays for the recent Adyton drilling. Derisk understands that Adyton is conducting further assays to better understand the concerns associated with under reporting the CRM and umpire sample results. The relevant Qualified Persons recommend that Adyton liaises with ITS to further investigate the systematic undercall in the CRM results. This may require the re-assay of a selection of drillhole samples initially to quantify the undercall, and potentially a need to re-assay all mineralised drillhole samples if the quantum of the bias is demonstrated to be material.
- The potential for historical RC assays to overstate the gold grade suggested by the existing data, but this potential bias may not persist if the Adyton diamond drilling is re-assayed.

Figure 14-18. Gameta plan view of Indicated Resource classification boundaries.

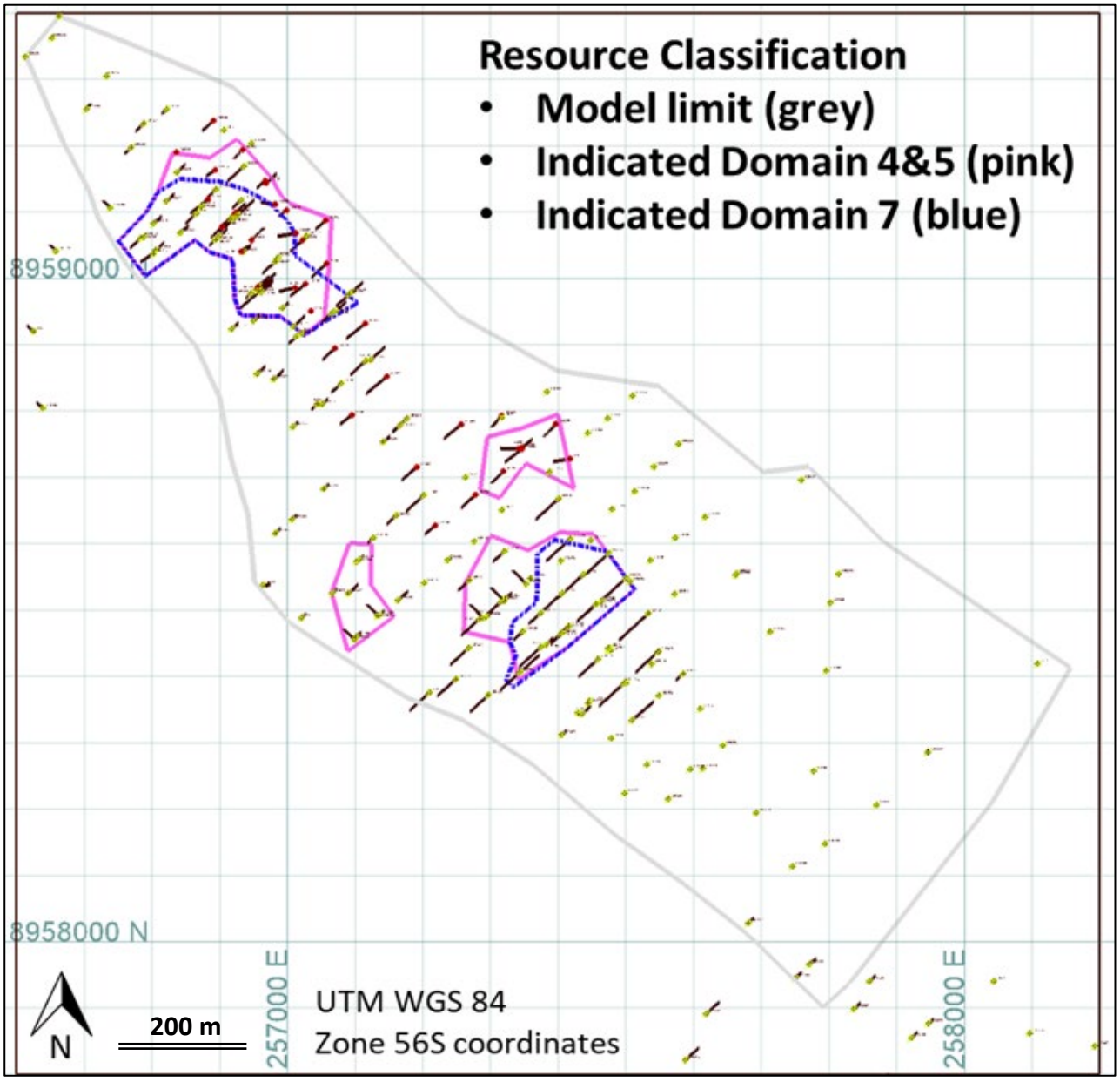
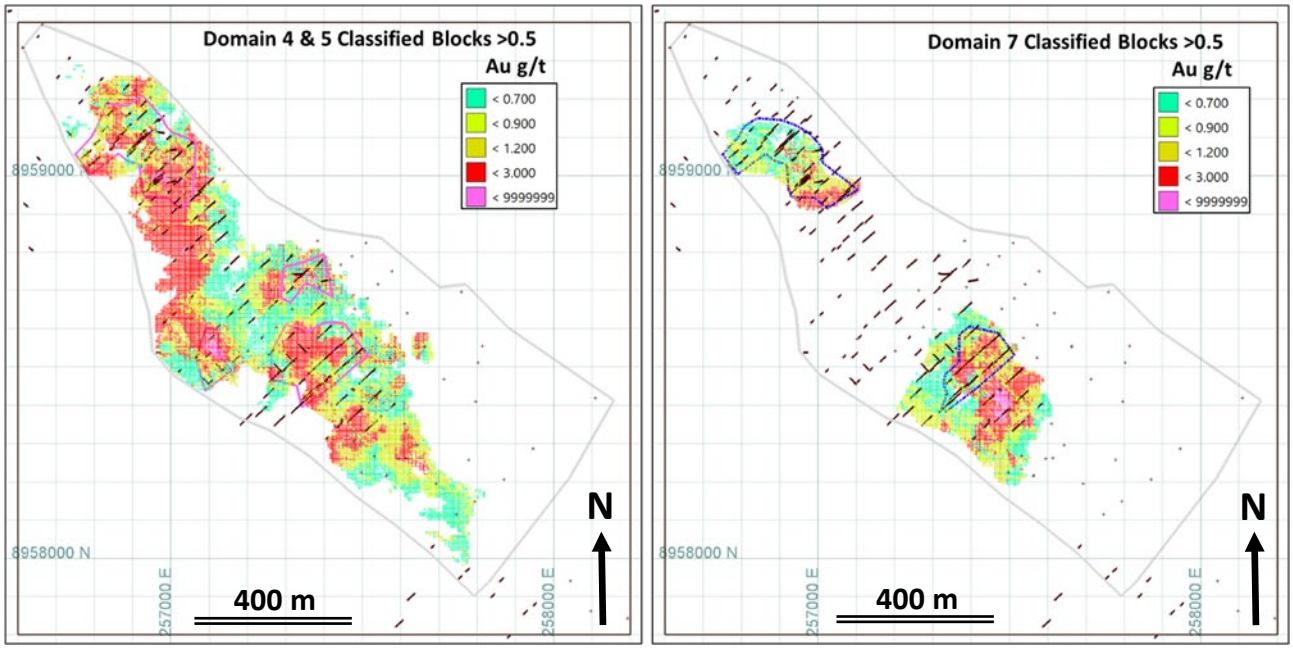


Figure 14-19. Gameta plan view of Domain 4/5 (LHS) and Domain 7 (RHS), with Indicated classification extent.



14.1.7 Mineral Resource Estimate

14.1.7.1 Grade – Tonnes Relationship

The Gameta Mineral Resource has been estimated using a constrained methodology within the interpreted mineralisation domains that hosts gold mineralisation. This approach means that it is possible to create a grade-tonnes table (Table 14-5) showing 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 Indicated Resource falls from 4.5 Mt to 2.5 Mt and the Inferred Resource falls from 16.9 Mt to 4.0 Mt.

Table 14-5. Gameta block model estimate as at 14 October 2021 using different cut-off criteria.

Cut-off Criterion (g/t Au)	Indicated Mineral Resource			Inferred Mineral Resource		
	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
0.3	4.5	1.24	180	16.9	0.78	425
0.4	4.3	1.29	180	13.1	0.90	380
0.5	4.0	1.33	175	10.5	1.01	340
0.6	3.8	1.39	170	8.5	1.12	305
0.7	3.4	1.46	160	7.0	1.22	275
0.8	3.1	1.54	155	5.8	1.32	245
0.9	2.8	1.63	145	4.8	1.42	220
1.0	2.5	1.71	135	4.0	1.51	195

14.1.7.2 Cut-off Criterion for Reporting

The relevant Qualified Persons have reviewed the Gameta 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 Gameta 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 indicated that a resource cut-off criterion of 0.41 g/t Au could be feasible for a mining operation at Gameta.

Similar styles of mineralisation occur at Woodlark, Simberi and Lihir in PNG. The relevant Qualified Persons assessed the reporting cut-off criteria that Geopacific Resources Limited (Geopacific) has used to publicly report its Mineral Resources at Woodlark (in accordance with the JORC Code), which represents a similar style of mineralisation in a very similar setting less than 200 km from Fergusson Island. In 2020, Geopacific applied a reporting cut-off criterion of 0.4 g/t Au for its oxide gold Mineral Resource estimate.

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

14.1.7.3 Mineral Resource Statement

Table 14-6 presents the Gameta 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.

Table 14-6. Gameta Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au.

Classification	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
Measured	-	-	-
Indicated	4.0	1.33	175
Measured plus Indicated	4.0	1.33	175
Inferred	10.5	1.01	340

Notes: 1. In situ resource 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 Gameta.

14.1.8 Comparison with Other Estimates

The most recent publicly reported estimate for Gameta, reported as at 17 December 2020 at a cut-off criterion of 0.8 g/t Au is reproduced in Table 14-7 and compared with the October 2021 estimate reported using the same cut-off.

Table 14-7. Gameta Mineral Resource comparison: 17 December 2020 vs 14 October 2021.

Classification	17 December 2020			14 October 2021		
	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
Measured	-	-	-	-	-	-
Indicated	-	-	-	3.1	1.54	155
Measured plus Indicated	-	-	-	3.1	1.54	155
Inferred	7.2	1.55	360	5.8	1.32	245

Notes: 1. In situ resource 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.

The previous estimate used multiple indicator kriging (MIK) with a selective mining unit (SMU) adjustment for a 6 m by 4 m by 2.5 m mining block. Both the previous resource estimation method and the previous block size are more selective than the current OK approach using 10 m by 10 m by 2.5 m parent blocks.

Consequently, it is anticipated that the OK approach will deliver some increase in tonnes and some decrease in grade compared to a MIK approach as a result of the larger effective block size and assumption of selectivity.

Also, the October 2021 estimate has resulted in a significant amount of Indicated Resources compared to the previous December 2020 estimate, as a direct result of the 2021 infill drilling program, drillhole collar resurveys, and additional QA/QC work undertaken by Adyton.

14.1.9 Exploration Potential

Mineralisation remains open in several directions and at depth, particularly in places where historical drillholes have ended whilst still in mineralisation.

14.2 Wapolu

14.2.1 Methodology

The process used by Hellman & Schofield (2010b) to prepare the Wapolu 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. 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.
3. A digital topographic surface was provided and used to cross check the elevations of drillhole collar surveys.
4. Three-dimensional interpretations of unmineralised versus mineralised zones were created in Gemcom, 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.
6. Drillhole composites were generated for gold, followed by composite statistics and a variographic analysis of the drillhole data using the Hellman & Schofield in-house GS3M software.
7. A three-dimensional block model was created in Gemcom, with no sub-celling of parent blocks.
8. Estimation search parameters were developed for the mineralisation domain, and estimates were generated using the MIK method.
9. Variance adjustment factors were applied to report recoverable resources assuming plausible mining and grade control parameters for an open pit mining operation.
10. Block model validation comprised visual checking of block grades against composite values and other statistical checks.
11. 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.
12. A grade-tonnes tabulation was prepared to illustrate the sensitivity of the estimate to different cut-off criteria.
13. 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 Wapolu 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 Wapolu and this work has led to a lowering of the reporting cut-off criterion.

14.2.2 Resource Inputs

14.2.2.1 Drillhole Data

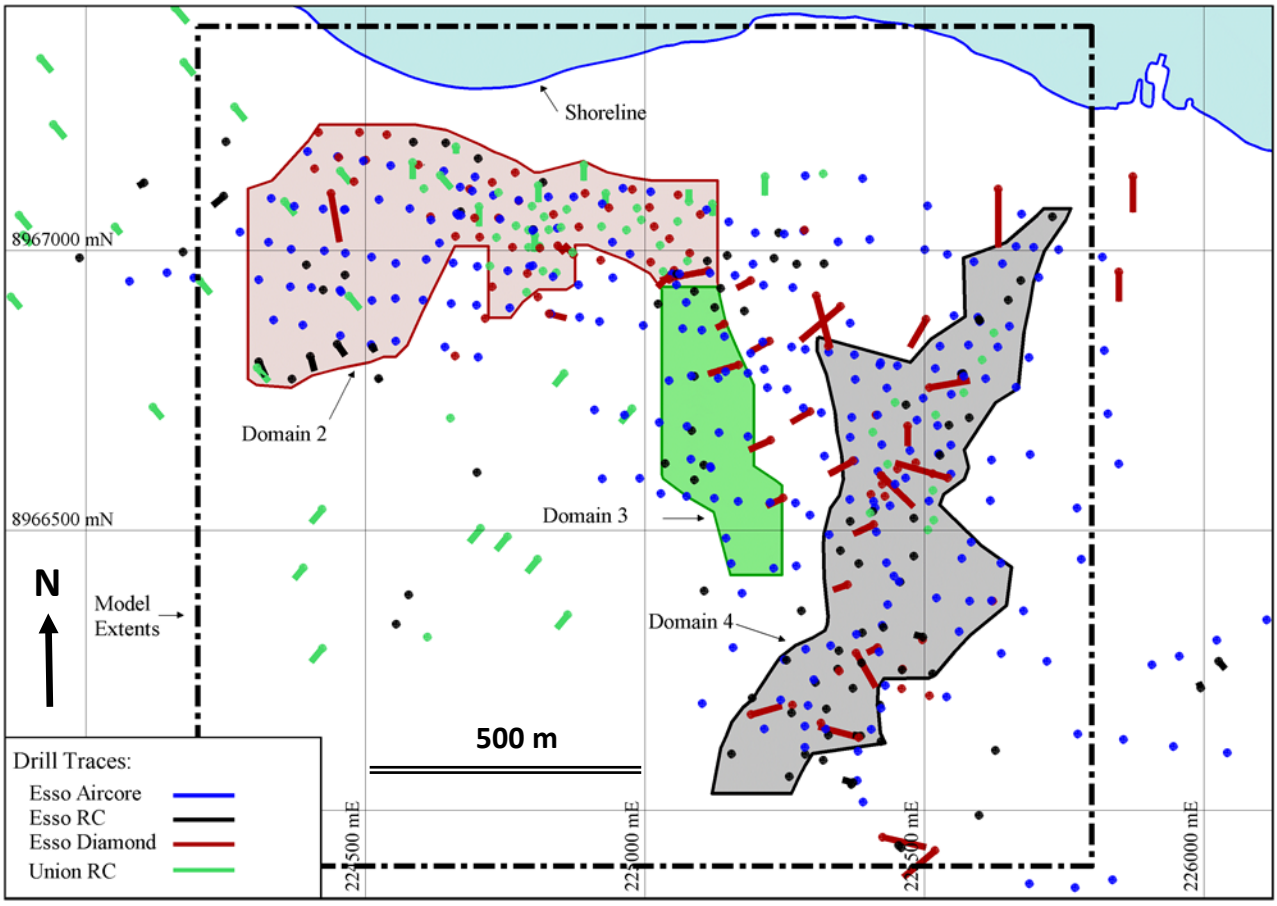
Drilling at Wapolu comprises a mixture of aircore, RC and diamond drilling completed by various companies since the early 1980s. For this Mineral Resource estimate a total of 544 drillholes (18,341 m) have been used

at the prospect (Table 10-3). All holes except for those drilled in 2006 and 2021 were used in the resource estimate.

The drilling information is recorded in the AGD84 Zone 56 grid coordinate system for the easting and northings. There are several mineralisation zones at Wapolu, and drilling does not consistently sample the mineralised areas on a regular pattern. In some areas the drill spacing approximates to a 25 m by 25 m but for most of the prospect it is considerably broader and less regular (Figure 14-20).

Most holes were vertical (452 of 540 drillholes). The inclined holes, which represent 16% of the database used for the estimate were drilled at a range of orientations – inclinations varied from 45° to 75°, and azimuth was generally either to the northeast or southwest.

Figure 14-20. Wapolu drillhole locations and spacing and resource model domains.



Source: Derisk, 2021

14.2.2.2 Topography and Drillhole Surveys

Methods used to survey drillhole collar coordinates for the various drilling programs are not well-documented. The relevant Qualified Persons understand that surveys of collar positions have been completed in different grid systems by different tenement holders. Some re-surveying has been completed, but not all of this re-surveyed data has been used to validate the collar coordinates in the master database.

Topographic survey information was generated from an aerial survey. Drillhole collars were draped over the surface to check for irregularities, with most holes showing a good correlation. Some localised drillhole collar elevations were different to the digital topography because of post-drilling land disturbance.

There are no downhole surveys, except for eight diamond drillholes completed by Esso that each have a single downhole survey.

14.2.2.3 Geological and Mineralisation Interpretation

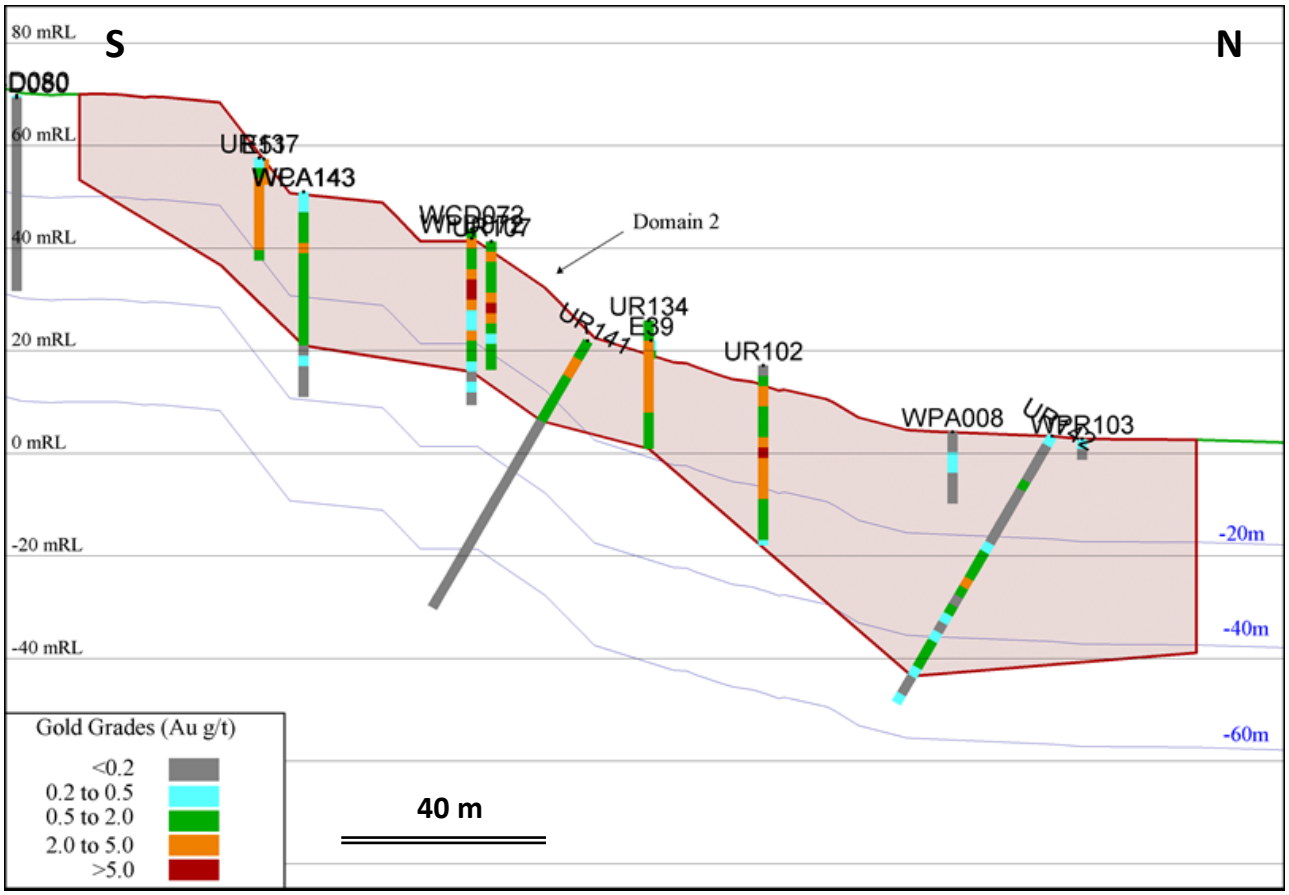
Hellman & Schofield reviewed the geological interpretation and elected to create continuous mineralisation domains using a nominal cut-off criterion of 0.2 g/t Au. Four domains were created:

- Domain 1: Background, poorly mineralised domain.
- Domain 2: Western, east – west trending mineralisation domain.
- Domain 3: Central north – south trending mineralisation domain.
- Domain 4: Eastern, north-northeast trending mineralisation domain.

The three mineralised domains lie within an area approximately 1.4 km east – west by 1.2 km north – south and extend to a maximum depth of approximately 70 m, with an average thickness of 16 m. Each mineralised domain outcrops and does not include an overlying barren zone (Figure 14-21).

Based on a review of the nature and distribution of the gold mineralisation, a MIK estimation method was adopted because this method has been demonstrated to provide reliable estimates of recoverable open pit resources in gold deposits of diverse geological styles.

Figure 14-21. Wapolu cross section looking west showing interpreted mineralisation envelope for Domain 2.



Source: Derisk, 2021

14.2.3 Data Analysis

Several checks of the different data sets available to inform the resource estimate at Wapolu were made to determine the appropriateness of all data.

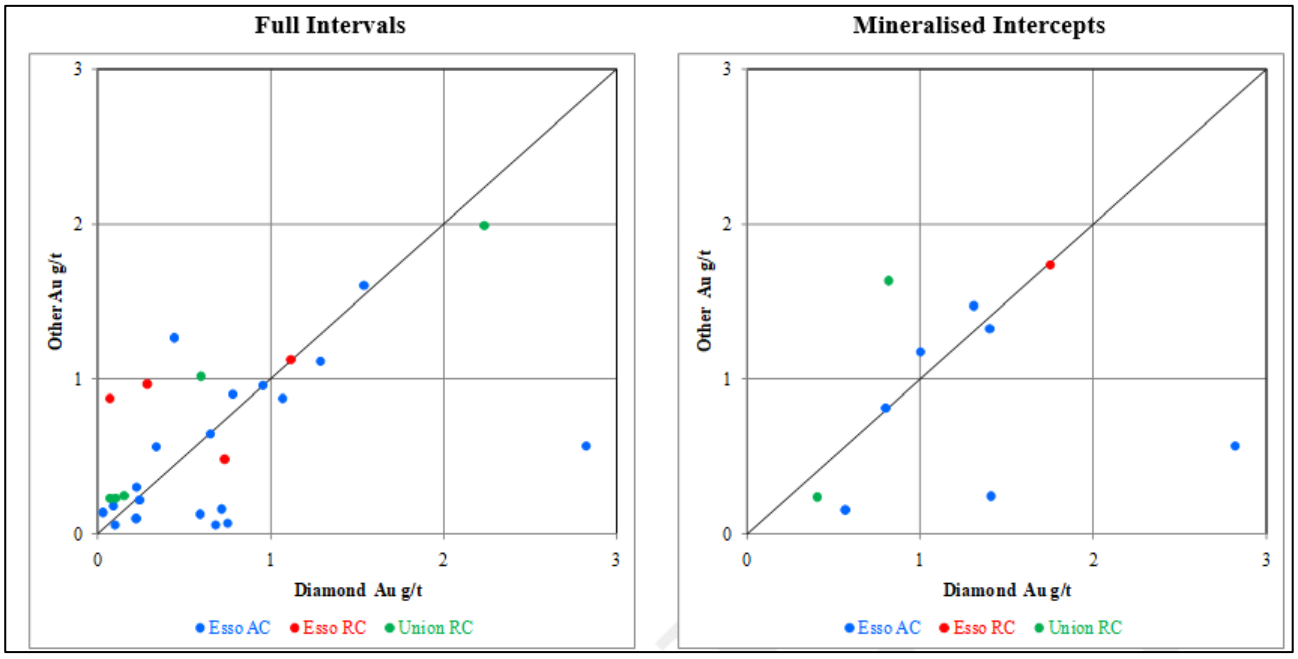
14.2.3.1 Diamond Drillhole Assay Data vs Other Data Sets

None of the diamond drillholes completed by Esso are located close to any other diamond drillholes, however several holes are in reasonable proximity to aircore and RC drillholes completed by Esso and other explorers. Although the data set is small and not definitive, this allows a comparison of the average gold grades for approximately the same intercepts by different drilling and sampling methods.

Figure 14-22 and Table 14-8 compare average gold grades for intervals from Esso diamond drillholes that are in proximity to three different drill types i.e. Esso aircore drilling, Esso RC drilling, and RC drilling completed by the Union/Macmin and the Union/Yamana JVs. There are 28 diamond drillholes, of which 18 are located less than 10 m away from another hole drilled by a different method.

The individual drillhole pair correlations suggest there is no systematic bias in the data. Table 14-8 also presents the average differences for each drilling comparison with all available data and excluding outliers (four drillhole comparisons show poor correlations and were removed from these summaries). No systematic bias is evident in the combined data sets either.

Figure 14-22. Wapolu Esso diamond drilling comparison with nearby different drilling campaigns.



Source: Derisk, 2021

Table 14-8. Wapolu Esso diamond drillhole data comparison with other drilling.

Comparison	Drill Holes		Collar Sep Dist (m)	Mineralised Interval Au g/t DDH	Mineralised Interval Au g/t Other	Full Length Au g/t DDH	Full Length Au g/t Other
Esso Aircore	WPD006 & WPM005		7.3	-	-	0.44	1.27
	WPD012 & WPA093		0.7	1.31	1.47	0.96	0.96
	WPD013 & WPA094		0.6	-	-	0.59	0.13
	WPD014 & WPA095		0.6	-	-	0.22	0.30
	WPD018 & WPA052		10.3	0.57	0.15	0.22	0.10
	WPD019 & WPA062		2.8	1.41	0.24	0.71	0.16
	WPD020 & WPA042		5.5	-	-	**0.75**	**0.07**
	WPD022 & WPA124		2.0	2.82	0.57	**2.82**	**0.57**
	WPD025 & WPA171		2.9	-	-	0.03	0.14
	WPD026 & WPA099		13.2	-	-	**0.68**	**0.06**
	WPD035 & WPM012		13.4	-	-	1.54	1.60
	WPD055 & WPA013		13.7	-	-	0.09	0.18
	WPD060 & WPA002		2.9	-	-	0.24	0.22
	WPD062 & WPA003		4.9	-	-	0.34	0.56
	WPD063 & WPA010		14.1	-	-	0.10	0.05
	WPD067 & WPA140		5.2	0.80	0.81	0.65	0.64
	WPD078 & WPA143		16.7	1.00	1.18	0.78	0.90
	WPD078 & WPM006		13.3	-	-	1.07	0.87
	WPD090 & WPA170		9.8	1.40	1.32	1.29	1.11
Esso RC	WPD041 & WPR012		14.1	-	-	0.29	0.97
	WPD043 & WPR017		4.1	-	-	0.73	0.48
	WPD045 & WPR024		1.6	-	-	**0.07**	**0.87**
	WPD049 & WPR089		1.4	1.75	1.74	1.12	1.12
Union RC	WPD014 & UR144		11.3	0.40	0.24	0.15	0.25
	WPD028 & UR120		21.7	0.82	1.63	0.60	1.02
	WPD071 & UR106		3.1	-	-	0.07	0.23
	WPD072 & UR107		3.9	-	-	2.23	1.99
	WPD084 & UR106		3.7	-	-	0.10	0.23
Subtotal Esso Aircore	Full set	Average	7.4	1.33	0.82	0.71	0.52
		Difference			-38%		-27%
	Less Anomalous	**Average**	**7.7**	**1.08**	**0.86**	**0.58**	**0.57**
		Difference			**-20%**		**-1%**
Subtotal Esso RC	Full set	Average	5.3	1.75	1.74	0.55	0.86
		Difference			-1%		56%
	Less Anomalous	**Average**	**5.3**	**1.75**	**1.74**	**0.71**	**0.86**
		Difference			**-1%**		**20%**
Subtotal Union RC	Full set	Average	8.8	0.61	0.93	0.63	0.74
		Difference			53%		18%
	Less Anomalous	**Average**	**8.8**	**0.61**	**0.93**	**0.63**	**0.74**
		Difference			**53%**		**18%**
Combined Total	Full set	Average	7.3	1.23	0.93	0.67	0.61
		Difference			-24%		-10%
	Less Anomalous	**Average**	**7.5**	**1.05**	**0.98**	**0.61**	**0.64**
		Difference			**-7%**		**6%**

Source: Derisk, 2021

14.2.3.2 Nearest Neighbour Composite Comparison

Assay results from each phase of sampling were compared by analysing composited gold grades for 2 m downhole intervals from each sampling phase separated by less than 15 m in plan view and 2 m vertically. Although it is reasonable to expect that these comparisons show considerable scatter for individual pairs, reviewing the average grades of closely spaced composites can provide an indication of consistent grade differences between different sampling types.

Nearest neighbour analyses included comparing the gold grades from Esso diamond holes to all other sampling phases, comparing Esso aircore and Esso RC holes, and comparing Esso aircore holes with the RC holes drilled by the Union/Macmin and the Union/Yamana JVs. No Esso RC holes were drilled close to RC holes drilled by the Union/Macmin and the Union/Yamana JVs, so direct comparisons between these two sampling types was not possible.

Table 14-9 presents the results of this comparison. Each dataset of nearest neighbour composites includes a small number of high-grade pairs that significantly affect comparative statistics. Excluding these pairs provides a more robust indication of the general differences between sampling phases. This comparison reveals negligible differences in the different data sets.

Table 14-9. Wapolu nearest neighbour drillhole comparison.

Esso DDH vs	Full Set			<8 g/t		
Other	Sep. Dist (m)	DDH Au g/t	Other Au g/t	Sep. Dist (m)	DDH Au g/t	Other Au g/t
Number	**365**			**361**		
Average	**8.54**	**0.57**	**0.56**	**8.54**	**0.52**	**0.51**
Difference		**-2%**			**-2%**	
Variance	17.9	1.17	1.49	18.0	0.76	0.84
Coef. Var.	0.50	1.88	2.18	0.50	1.69	1.80
Minimum	0.45	0.00	0.00	0.45	0.00	0.00
1st Quartile	5.49	0.03	0.05	5.48	0.03	0.05
Median	8.27	0.17	0.19	8.27	0.16	0.19
3rd Quartile	12.2	0.59	0.61	12.3	0.52	0.61
Maximum	15.0	8.78	14.9	15.0	5.50	7.91
Esso AC vs	**Full Set**			**<8 g/t**		
Esso RC	**Sep. Dist (m)**	**AC Au g/t**	**Other Au g/t**	**Sep. Dist (m)**	**AC Au g/t**	**Other Au g/t**
Number	**376**			**375**		
Average	**9.31**	**0.53**	**0.51**	**9.31**	**0.51**	**0.51**
Difference		**-4%**			**0%**	
Variance	16.5	1.01	0.76	16.5	0.85	0.77
Coef. Var.	0.44	1.88	1.71	0.44	1.79	1.71
Minimum	0.45	0.00	0.00	0.45	0.00	0.00
1st Quartile	6.28	0.04	0.02	6.28	0.04	0.02
Median	10.0	0.19	0.17	10.0	0.18	0.17
3rd Quartile	12.9	0.61	0.59	12.9	0.61	0.60
Maximum	15.0	8.47	6.61	15.0	7.91	6.61
Esso AC vs	**Full Set**			**<4 g/t**		
Union RC	**Sep. Dist (m)**	**RC Au g/t**	**Other Au g/t**	**Sep. Dist (m)**	**RC Au g/t**	**Other Au g/t**
Number	**93**			**92**		
Average	**11.4**	**0.65**	**0.59**	**11.4**	**0.57**	**0.57**
Difference		**-10%**			**0%**	
Variance	4.32	1.14	0.65	4.32	0.60	0.64
Coef. Var.	0.18	1.64	1.38	0.18	1.34	1.40
Minimum	7.59	0.00	0.01	7.59	0.00	0.01
1st Quartile	9.35	0.03	0.02	9.35	0.03	0.02
Median	11.8	0.30	0.23	11.8	0.29	0.23
3rd Quartile	13.0	0.78	0.81	13.0	0.74	0.74
Maximum	14.9	7.78	4.43	14.9	3.73	4.43

Source: Derisk, 2021

As a result of this work, Hellman & Schofield concluded that there were no systematic biases evident in the different data sets available for the resource estimate.

14.2.3.3 Sample Recovery

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

14.2.3.4 Compositing

The estimate was based on 2 m downhole composited gold grades from aircore, RC, and diamond drill holes. Table 14-10 presents the breakdown of composites by drilling campaign and Table 14-11 documents gold grade statistics by domain. Figure 14-23 presents histograms of gold grade, illustrating the highly skewed distribution in both the background and mineralised populations. Figure 14-24 shows the composite locations and gold grade.

Table 14-10. Wapolu drillhole composites grouped by drilling phase and domain.

	Number composites						Proportion	
	Dom 1	Dom 2	Dom 3	Dom 4	Dom 2- 4	Total	Dom2-4	Total
Esso Aircore	1,093	499	138	402	1,039	2,132	37%	34%
Esso RC	636	131	51	224	406	1,042	14%	17%
Esso Diamond	1,428	553	18	271	842	2,270	30%	36%
Subtotal	3,157	1,183	207	897	2,287	5,444	81%	87%
Union/Macmin RC	65	257	-	90	347	412	12%	7%
Union/Yamana RC	195	201	-	-	201	396	7%	6%
Subtotal	260	458	-	90	548	808	19%	13%
Total	**3,417**	**1,641**	**207**	**987**	**2,835**	**6,252**	**100%**	**100%**

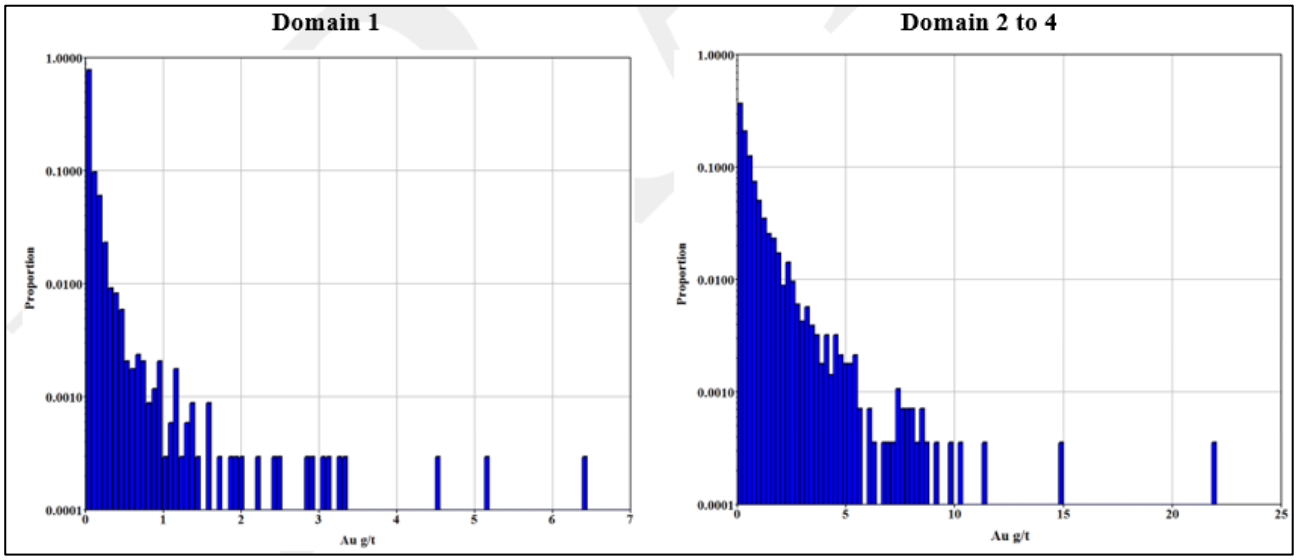
Source: Derisk, 2021

Table 14-11. Wapolu drillhole composites gold grade statistics by domain.

	Domain 1	Domain 2	Domain 3	Domain 4
Number	3,417	1,641	207	987
Average	0.08	0.70	0.40	0.86
Variance	0.07	1.27	0.28	1.84
Coef. Var.	3.28	1.62	1.34	1.58
Minimum	0.003	0.005	0.005	0.005
1st Quartile	0.007	0.13	0.06	0.18
Median	0.020	0.33	0.22	0.44
3rd Quartile	0.06	0.80	0.47	0.92
Maximum	6.42	22.0	3.48	14.90

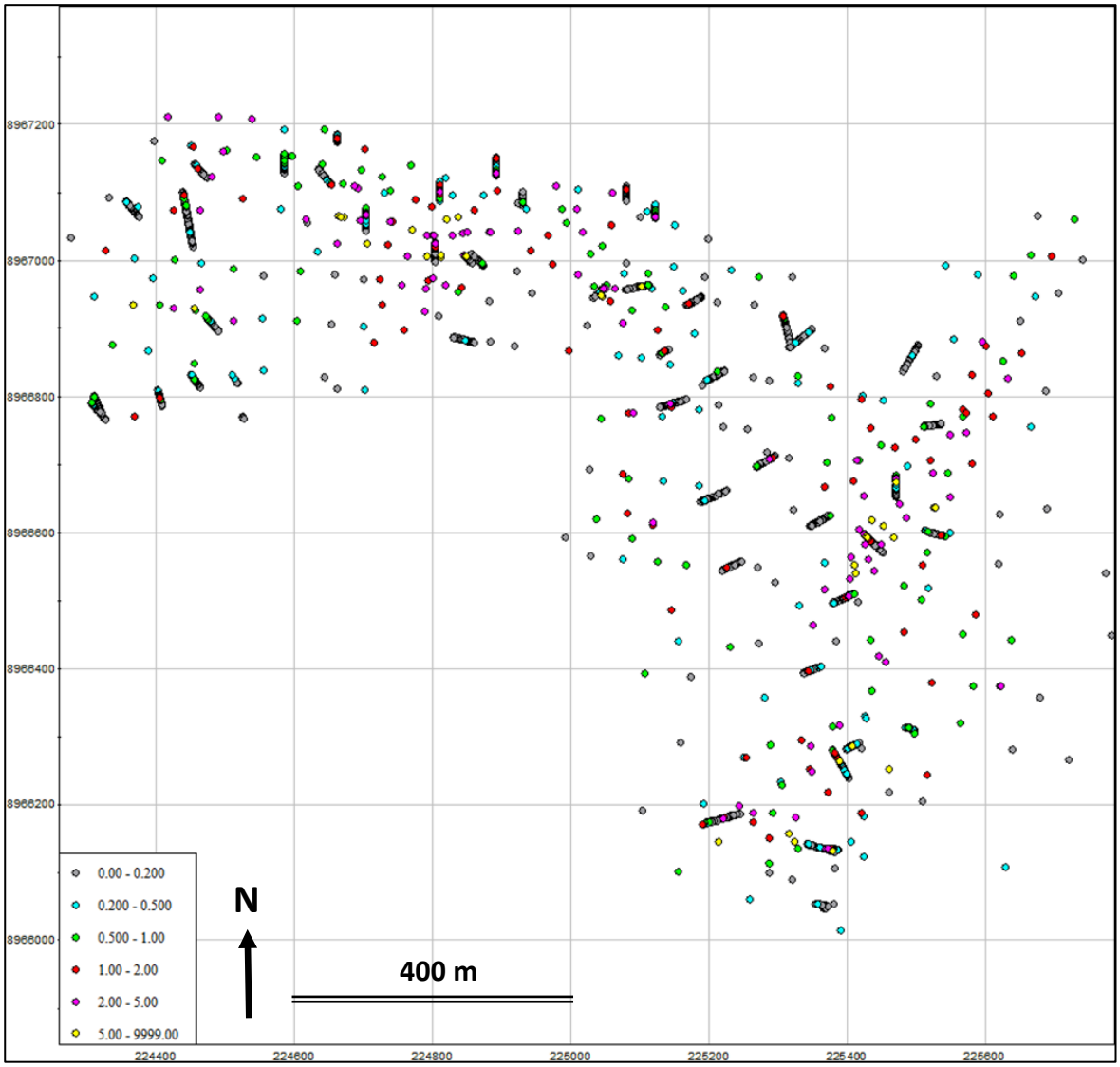
Source: Derisk, 2021

Figure 14-23. Wapolu gold grade histogram for background (Domain 1) and mineralisation (Domain 2 – 4).



Source: Derisk, 2021

Figure 14-24. Wapolu plan showing distribution and gold grade of drillhole composites.



Source: Derisk, 2021

14.2.3.5 Indicator Thresholds and Class Grades

Grade thresholds and class means used for the MIK modelling of gold grades for each mineralised domain are shown in Table 14-12. In this table the median of the upper class is presented below the class mean grade. For each domain, indicator thresholds were defined using a consistent set of probability thresholds (0.1,0.2,.0.3,0.4,0,0.5,0.6,0.7,0.75,0.8,0.85,0.9,0.95,0.97 and 0.99).

All class grades were derived from the class mean grades with the exception of the upper bin of Domain 1 (background), which was assigned the bin threshold value to reduce the impact of a small number of isolated mineralised composites on estimated resources.

Table 14-12. Wapolu indicator thresholds and class mean grades.

	Domain 1		Domain 2		Domain 3		Domain 4	
	T'hold	Mean	T'hold	Mean	T'hold	Mean	T'hold	Mean
10%	0.005	0.005	0.030	0.015	0.010	0.007	0.060	0.029
20%	0.005	0.005	0.090	0.059	0.040	0.024	0.136	0.096
30%	0.010	0.007	0.160	0.125	0.100	0.066	0.230	0.184
40%	0.010	0.010	0.240	0.197	0.175	0.138	0.330	0.281
50%	0.020	0.013	0.330	0.281	0.220	0.199	0.440	0.388
60%	0.030	0.024	0.458	0.392	0.280	0.252	0.580	0.505
70%	0.050	0.039	0.665	0.551	0.410	0.353	0.755	0.658
75%	0.062	0.055	0.800	0.735	0.470	0.445	0.920	0.832
80%	0.090	0.076	0.990	0.896	0.580	0.524	1.150	1.022
85%	0.125	0.106	1.270	1.133	0.740	0.677	1.460	1.299
90%	0.170	0.147	1.676	1.476	0.950	0.848	1.910	1.698
95%	0.265	0.209	2.590	2.122	1.400	1.149	3.110	2.391
97%	0.400	0.325	3.265	2.898	1.700	1.568	4.450	3.703
99%	0.980	0.615	5.120	4.029	2.030	1.810	7.490	5.452
100%	6.417	2.096	22.000	7.438	3.475	3.275	14.900	9.563
-	-	1.570	-	6.610	-	3.230	-	9.165

Source: Derisk, 2021

14.2.3.6 Variography

The variogram models used for the estimates were modelled from Domain 2 composites, which represents the mineralised domain dataset with the closest and most regularly spaced drilling. The other mineralised domains include too few closely spaced data and/or regularly gridded composites to provide robust variogram models.

Although grade continuity within the mineralised domains is not well defined by the current sample spacing, the available data does show strongest grade continuity as dipping gently towards the north, consistent with trends shown in the raw data. Table 14-13 documents the parameters of the variogram models.

Table 14-13. Wapolu Domain 2 indicator variogram models parameters.

Rotation Relative to block model axes: Z+0,Y+0,X-11							
Percentile	Nugget	First Structure Exponential		Second Structure Spherical		Third Structure Spherical	
		Sill	Range (x,y,z)	Sill	Range (x,y,z)	Sill	Range (x,y,z)
10%	0.28	0.29	12.5,5,5	0.17	26,27.5,19.5	0.26	133,137,272
20%	0.24	0.15	13.5,16,6.5	0.26	49,16.5,7	0.35	130,100,177
30%	0.23	0.15	47,34.5,5	0.26	55,36,8	0.36	138,111,1113
40%	0.23	0.18	60.5,39,6	0.23	68,61.5,7	0.36	113,112,1122
50%	0.25	0.18	37,50,5	0.23	90.5,56,9	0.34	118,148,232
60%	0.27	0.22	7.5,55,5.5	0.19	101,61,10	0.32	122,183,123
70%	0.28	0.17	28,38,6	0.24	37.5,51.5,10.5	0.31	175,235,101
75%	0.29	0.17	7.5,27.5,8	0.24	26,51.5,10.5	0.30	183,241,65
80%	0.30	0.23	8,12.5,8.5	0.18	27.5,43.5,9	0.29	130,205,36
85%	0.32	0.21	8.5,11,8	0.20	21.5,17,8.5	0.27	147,197,28
90%	0.34	0.07	6,5,5	0.35	10.5,5.5,6.5	0.24	127,124,27
95%	0.40	0.09	9,27,5	0.42	13.5,32.5,11.5	0.09	203,271,27
97%	0.43	0.06	10.5,7.5,6.5	0.27	12,34,7.5	0.24	24,43,9
99%	0.60	0.38	27.5,5,5	0.01	34.5,7.5,6	0.01	664,435,66
Au	0.28	0.12	13,12,5.5	0.46	32.5,49,7	0.14	243,312,848

Source: Derisk, 2021

14.2.3.7 Bulk Density

No direct bulk density determinations have been measured for any samples at Wapolu.

For this resource estimate a default bulk density of 2.10 t/m^3 was applied to convert volume estimates to tonnes estimates. This value was assigned on the assumption that the Wapolu mineralisation comprises 50% oxide mineralisation and 50% sulphide mineralisation. A bulk density of 1.80 t/m^3 was applied to oxide mineralisation and a bulk density of 2.50 t/m^3 was applied to sulphide mineralisation (based on the average bulk density determined from direct measurements taken at Gameta).

The default value was assigned to individual blocks within the model because there was no interpretation to separate oxide mineralisation from sulphide mineralisation. The relevant Qualified Persons note that, even if the average bulk density value proves to be reasonable, it is likely that it will overestimate the tonnes of oxide mineralisation and underestimate the tonnes of sulphide mineralisation.

14.2.4 Resource Estimation

14.2.4.1 Block Model Set-up

The Mineral Resource estimate for Wapolu 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 14-14. The plan view panel dimensions of 25 m by 25 m were based on sample spacing in the more closely drilled portions of the deposit. The vertical block size dimension is based on a plausible bench height for any mining.

Table 14-14. Wapolu block model extents.

	X Axis	Y Axis	RL
Southwest Corner of Model	224,200	8,965,900	-70 to 300
Northeast Corner of Model	225,800	8,967,400	-70 to 300
Parent Block Size (m)	25	25	5
Number of Blocks	64	60	74
Length (m)	1,600	1,500	370
Selective Mining Unit Block Size (m)	5	5	2.5

Source: Derisk, 2021

The block model dimensions were restricted by the topographic surface based on block centroids below this surface. No oxidation zone was assigned to the block model as drilling information was incomplete.

14.2.4.2 Estimation Search Criteria

Search criteria (Table 14-15) was adopted for the estimate representing a compromise between providing reasonably robust local estimates and estimating a reasonably large proportion of the potentially mineralised areas. Uncertainty in the estimates related to the use of broad search passes relative to mineralisation continuity and panel dimensions is captured by the classification criteria.

Boundaries between the background and the mineralised domains were treated as hard, but boundaries separating mineralised domains were treated as soft.

Table 14-15. Wapolu estimation search criteria.

Search Pass	Radii (x,y,z)	Minimum Data	Minimum Octants	Maximum Data
1	25,25,5	16	4	48
2	50,50,10	16	4	48
3	50,50,10	8	2	48

Source: Derisk, 2021

14.2.4.3 Variance Adjustment

Variance adjustment factors were applied to the recoverable resource estimates (Table 14-16). These adjustments were applied using the direct lognormal method and were estimated on the basis of the variogram model parameters (Table 14-13), assuming an SMU of 5 m across strike, 5 m along strike and 2.5 m vertically, with grade control sampling on an 8 m x 8 m x 1 m pattern. The mining and grade control parameters were assumed on the basis of experience with deposits of comparable mineralisation.

Table 14-16. Wapolu variance adjustment factors.

	Panel to Block Adjustment	Information Effect	Total Adjustment
All domains	0.308	0.816	0.251

Source: Derisk, 2021

14.2.4.4 Model Validation

Validation of the estimation was undertaken by visual checks of the block model grades versus drillhole composite grades, analysis of model versus composite statistics, and by comparing the model outputs with previous resource estimates. These checks indicate that the block model fairly represents the grades observed in the drillhole composites.

14.2.4.5 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:

- Accuracy of drillhole collar locations.
- Data collection protocols for some drilling campaigns.
- QA/QC protocols and systems used for some drilling campaigns.
- Limited geological input into the mineral domaining and no definition of an oxidation surface.

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 Wapolu, 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.

14.2.5 Mineral Resource Estimate

14.2.5.1 Grade – Tonnes Relationship

The resource model includes gold grade estimates to a vertical depth of approximately 90 m, however, below a depth of 40 m, the drillhole coverage is sporadic and estimates from below 40 m depth generally comprise isolated, discontinuous zones. The relevant Qualified Persons have elected to constrain the reported Mineral Resource to a depth of 40 m below the surface.

The Wapolu Mineral Resource has been estimated using a constrained methodology within interpreted mineralisation domains that host gold mineralisation. This approach means that it is possible to create a grade-tonnes table (Table 14-17) showing 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 9.3 Mt to 2.1 Mt.

Table 14-17. Wapolu block model estimate as at 14 October 2021 using different cut-off criteria.

Cut-off Criterion (g/t Au)	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
0.3	9.3	0.81	240
0.4	7.3	0.93	220
0.5	5.8	1.06	200
0.6	4.7	1.18	180
0.7	3.8	1.30	160
0.8	3.1	1.42	140
0.9	2.6	1.55	125
1.0	2.1	1.67	115

Source: Derisk, 2021

14.2.5.2 Cut-off Criterion for Reporting

The relevant Qualified Persons have reviewed the Wapolu 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 Wapolu 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 indicated that Wapolu was uneconomic as a standalone project due to its small resource base, but when combined with Gameta was potentially economic. A resource cut-off criterion of 0.41 g/t Au could be feasible for a mining operation if Gameta and Wapolu were mined and processed at a single processing plant..

Similar styles of mineralisation occur at Woodlark, Simberi and Lihir in PNG. The relevant Qualified Persons assessed the reporting cut-off criteria that Geopacific has used to publicly report its Mineral Resources at Woodlark (in accordance with the JORC Code), which represents a similar style of mineralisation in a very similar setting less than 200 km from Fergusson Island. In 2020, Geopacific applied a reporting cut-off criterion of 0.4 g/t Au for its oxide gold Mineral Resource estimate.

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

14.2.5.3 Mineral Resource Statement

Table 14-18 presents the Wapolu 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.

Table 14-18. Wapolu Mineral Resource as at 14 October 2021 reported using a cut-off criterion of 0.5 g/t Au.

Classification	Tonnes (million)	Gold Grade (g/t)	Contained Gold (koz)
Measured	-	-	-
Indicated	-	-	-
Measured plus Indicated	-	-	-
Inferred	5.8	1.06	200

Notes: 1. In situ resource reported at a cut-off criterion of 0.5 g/t Au and vertical depth of 40 m below surface.
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 Wapolu.

14.2.6 Comparison with Historical Estimates

Six previous resource estimates have been reported from 1988 to 2005. At a reporting cut-off criterion of 0.8 g/t Au, the previous estimates report tonnes ranging from 1.7 – 7.4 Mt and grades ranging from 1.00 – 2.32 g/t Au. This compares with an estimate of 3.1 Mt @ 1.42 g/t Au when the current block model is reported at a cut-off criterion of 0.8 g/t Au. Both the tonnage estimate, and the grade estimate fall within the range of previous estimates.

14.2.7 Exploration Potential

Mineralisation remains open in several directions and at depth, particularly in places where drillholes have ended whilst still in mineralisation.

15 MINERAL RESERVE ESTIMATES

There are no Mineral Reserves at the Property.

16 MINING METHODS

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

There has been previous mining at Wapolu from December 1995 to June 1997. An open pit operation was planned to extract 2.0 Mt averaging 2.4 g/t Au over a four-year period but mining and processing ceased earlier than planned after extraction of 603,000 t yielding 11,000 oz gold. Problems cited included a combination of lower processing throughput, lower head grade and lower recovery than planned. Some of these problems were reportedly caused by higher clay contents in the colluvium than expected, and less oxide-hosted gold than expected.

17 RECOVERY METHODS

Limited metallurgical testwork completed to date indicates that both Gameta and Wapolu should be amenable to conventional crushing, grinding and flotation to produce a gold-rich concentrate. The concentrate could be sold as is or further treated by roasting and cyanidation, or by BIOX processes.

The process route used at Wapolu in the mid-1990's did not use this approach. Mineralisation was treated by a combination of carbon-in-pulp and cyanide vat leach methods, targeting an overall gold recovery of 80%. Records suggest that the plant did not achieve this recovery. Further metallurgical testwork will need to be completed prior to any project development decision.

18 PROJECT INFRASTRUCTURE

Fergusson Island is sparsely populated with a total of around 30,000 local inhabitants. The island is largely undeveloped and there is little infrastructure. There are no vehicular roads on Fergusson Island and there is no central power supply on the island, with local power supply generated using fuel-powered generators and solar panels. Local streams are used for fresh drinking water. There is an airstrip at Wapolu that will require restoration to become serviceable, as it has not been used for over 10 years. 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. Gold is an openly traded commodity, and the relevant Qualified Persons consider that there will be opportunities to sell any product generated from a viable mining operation at the Property.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL AND COMMUNITY IMPACT

No baseline environmental studies have been completed to date at the Property. 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 are no Mineral Reserves at the Property, and no technical study has been undertaken to assess the likely capital and operating costs to establish and operate a mining operation.

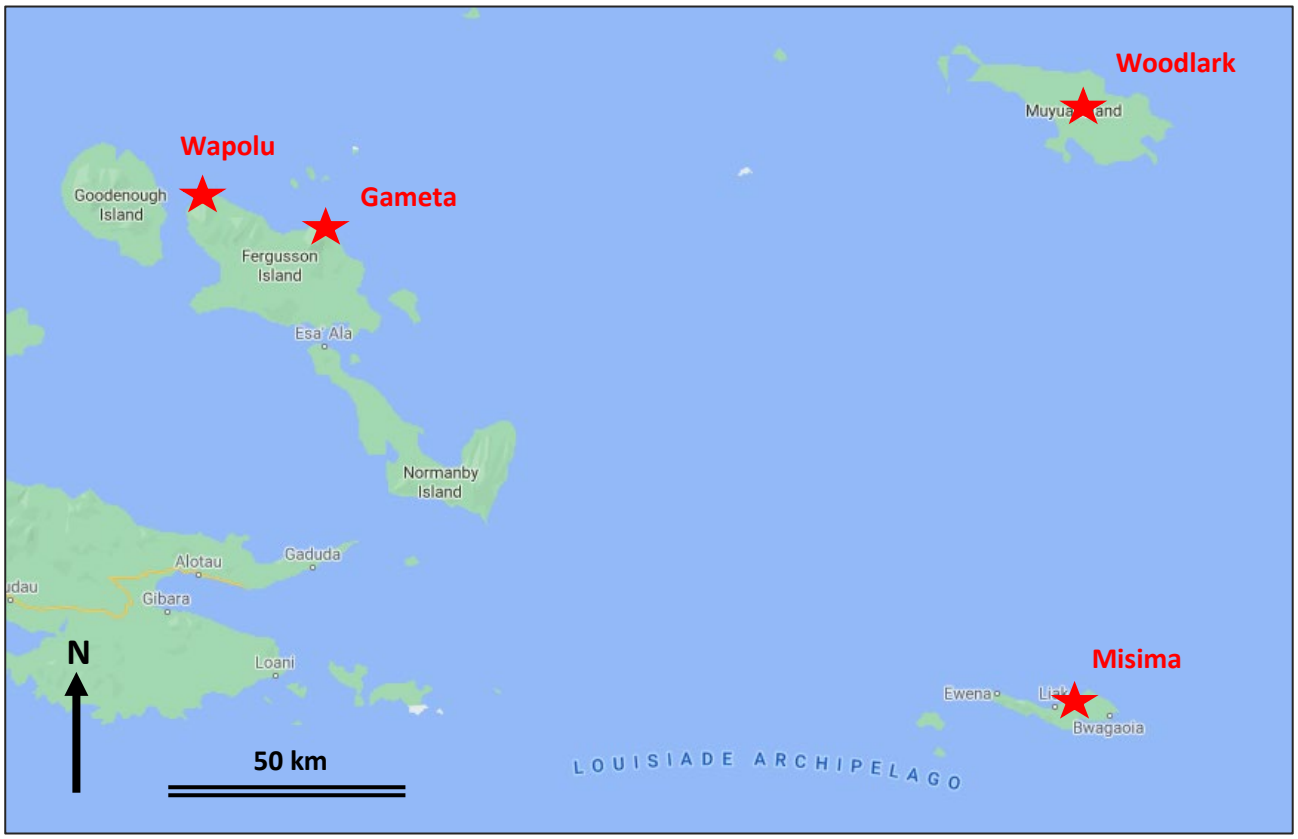
22 ECONOMIC ANALYSIS

There are no Mineral Reserves at the Property, and no economic analysis has been undertaken.

23 ADJACENT PROPERTIES

The D'Entrecasteaux Islands are in the Solomon Sea, which is also host to two substantial gold deposits at Misima Island and Woodlark Island (Figure 23-1).

Figure 23-1. Proximity of the Property to other gold deposits.



Source: Derisk, 2021

23.1 Misima Island Gold Project

Misima Island lies approximately 250 km to the southeast of Fergusson Island. Gold was discovered on the island in 1888 with small-scale underground mining continuing until World War II. Placer Dome Inc commenced exploration in 1977 and operated an open pit gold operation from 1989 to 2004, producing 3.7 Moz (Kingston Resources, 2020). The project is currently owned by Kingston.

The main deposit is hosted by Cretaceous sediments intruded by Miocene-aged porphyry sills, dykes, and stocks. Epithermal gold and silver mineralisation occurs in fractures and fault zones in the schists, porphyries, and greenstones. The Umuna Lode Zone formed the basis for past mining and is fractured and infilled with epithermal quartz grading into hydrothermal breccia at depth.

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

23.2 Woodlark Island Gold Project

Woodlark Island lies approximately 230 km to the east-northeast of Fergusson Island and is owned by Geopacific. Gold mineralisation is predominantly hosted by Miocene andesites and their subvolcanic equivalents. Mineralisation is mostly associated with lodes, quartz veins, stockwork zones, and breccias developed within proximal phyllic and marginal propylitic alteration envelopes regionally associated with intrusive breccia complexes (Geopacific Resources Limited, 2020).

The relevant Qualified Persons have been unable to verify the information described for Woodlark 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 Property.

25 INTERPRETATION AND CONCLUSIONS

25.1 Interpretation

Exploration to date at the Fergusson Property has identified many separate gold prospects and/or anomalies. The Gameta and Wapolu prospects have received the most exploration work to date. Based on the historical and recent drilling completed by Adyton at Gameta there is an Indicated Mineral Resource of 4.0 Mt @ 1.33 g/t Au (173 koz Au), and an Inferred Mineral Resource of 10.5 Mt @ 1.01 g/t Au (340 koz Au). Based on the historical drilling at Wapolu, there is an Inferred Mineral Resource of 5.8 Mt @ 1.06 g/t Au (200 koz Au). All estimates are reported in accordance with the CIM Definition Standards.

The main style of gold mineralisation identified to date at the Property is concentrated in shallow-dipping deposits within or immediately adjacent to the DFZ, which bounds the metamorphic core complexes on the island. This general setting is analogous to such deposits as Misima in PNG and Mesquite and Picacho in California. The gold occurs in association with fine sulphides as disseminations and in epithermal quartz veins in lensoid zones parallel to the DFZ.

The relevant Qualified Persons consider that the Property is prospective for the discovery of new 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 estimates at Gameta and Wapolu because they are open in several directions, and there are opportunities to define zones of higher-grade mineralisation within the broader lower-grade envelope.

25.2 Risk Assessment

The Fergusson 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. At Gameta, this risk has been significantly reduced by the 2021 infill drilling program undertaken by Adyton and the QA/QC program to improve the confidence in the drillhole locations of the historical drilling. At Wapolu, there is a moderate level of uncertainty over the veracity of the inputs into the Mineral Resource estimate, which 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 opportunities associated with the Property as follows:

- Gold mineralisation identified at both Gameta and Wapolu is open in several directions. Resource modelling to date has defined a large low-grade mineralised zone, however more detailed geological assessment may establish there are higher-grade zones within the low-grade envelope that make the prospects more attractive.
- Elsewhere on the tenement, there are prospective 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 mineralisation was first identified at Fergusson in the 1980s. The Property has been held by several companies, with most exploration completed during the period from 1983 to 2008. Little work was completed from 2008 to 2021. Gameta and Wapolu are the most advanced prospects, both with Mineral Resource estimates.

Exploration in 2021 by Adyton at Gameta has been successful in adding new mineralisation to the resource base and upgrading the confidence in substantial areas of the prospect to allow reporting of a significant Indicated Resource. At Wapolu, a small drilling program has validated the tenor of mineralisation drilled by previous tenement holders. Elsewhere across the Property, Adyton has identified geological and geochemical targets that are prospective for gold mineralisation that require systematic exploration and evaluation.

26 RECOMMENDATIONS

26.1 Proposed Exploration

The relevant Qualified Persons recommend a methodical and systematic exploration program at the Property focused at the two main prospects of Gameta and Wapolu. This program should be aimed at expanding and upgrading the confidence in the current Mineral Resource at each prospect and commencement of technical studies to enable conversion of Mineral Resources to Mineral Reserves.

At Gameta, the key targets for drilling are:

- Potential extensions to the southeast of the Mineral Resource.
- Potential extensions to the northeast margin of the Mineral Resource.
- Infill drilling around the margins of the existing Indicated Resource limits to upgrade Inferred Resource to Indicated Resource.

At Wapolu, the key targets for drilling are:

- Potential shallow extensions to the immediate west of the Mineral Resource.
- Potential down-dip extensions to the northern and eastern margins of the Mineral Resource.
- Infill drilling in the vicinity of selected higher-grade areas of the Inferred Resource to upgrade some amount of Inferred Resource to Indicated Resource.

26.1.1 2022 Work Program (Phase 1)

Adyton proposes the following (Phase 1) work program for calendar year 2022 at the Property:

- At Gameta:
  - Complete a drilling program (nominally 12,500 m) aimed at expanding the current Mineral Resource and converting more of the Inferred Resource to Indicated Resource to facilitate detailed technical studies at the prospect.
  - Prepare a new Mineral Resource estimate.
  - Complete a technical study to detail the geotechnical, mining, processing, economic, infrastructure, environmental, social and community factors to enable preparation of a Mining Lease application to the MRA prior to yearend.
- At Wapolu:
  - Complete a drilling program (nominally 2,000 m) aimed at expanding the current Mineral Resource and converting some of it from Inferred Resource to Indicated Resource.
  - Prepare a new Mineral Resource estimate.
  - Commence a technical study, initially focused on metallurgical testwork.

26.1.2 2023 Work Program (Phase 2)

Adyton proposes the following (Phase 2) work program for calendar year 2023 at the Property:

- At Gameta:
  - There will be little physical work undertaken while the MRA reviews the Mining Lease application. Pending approval of the Mining Lease, Adyton plans to commence pre-development activities.
- At Wapolu:
  - Complete a second drilling program (nominally 2,000 m) aimed at converting some of the Inferred Resource to Indicated Resource, collect samples for additional metallurgical testwork, and complete preliminary geotechnical drilling.
  - Prepare a new Mineral Resource estimate.
  - Continue with the technical study, focused on metallurgical testwork and geotechnical analysis.

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 5.35 million. The Phase 1 budget is CAD 5.00 million and the Phase 2 budget is CAD 0.35 million. The budget estimate for 2023 may vary depending on results achieved in 2022.

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

Year	Activity	Schedule	Indicative Budget (CAD)
2022	Gameta: Drilling program to expand and increase confidence in the Mineral Resource estimate. The nominal program will comprise both diamond and RC drilling totalling 100 drillholes (12,500 m).	First and second quarter	2,250,000
	Gameta: Prepare a new Mineral Resource estimate.	Third quarter	100,000
	Gameta: Complete a technical study and prepare a Mining Lease application.	Third and fourth quarter	2,150,000
	Wapolu: Drilling program to expand and increase confidence in the Mineral Resource estimate. The nominal program will comprise RC drilling totalling 30 drillholes (2,000 m).	Second and third quarter	200,000
	Wapolu: Prepare a new Mineral Resource estimate.	Third quarter	100,000
	Wapolu: Commence a technical study.	Fourth quarter	200,000
Total – Year 1 (Phase 1)			**5,000,000**
2023	Wapolu: Drilling program to expand and increase confidence in the Mineral Resource estimate. The nominal program will comprise RC drilling totalling 30 drillholes (2,000 m).	Second and third quarter	200,000
	Wapolu: Prepare an updated Mineral Resource estimate.	Third quarter	50,000
	Wapolu: Continue the technical study started in 2022.	First to third quarter	100,000
Total – Year 2 (Phase 2)			**350,000**

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.

27 REFERENCES

Adyton Resources Corporation, 2021a. Adyton Discovers New High Grade Ore Zone at Gameta. News release dated 5 August 2021.

Adyton Resources Corporation, 2021b. Adyton Reports Fergusson Island Gameta Trenching. News release dated 24 August 2021.

Adyton Resources Corporation, 2021c. Adyton Reports Fergusson Island Wapolu Deposit initial results. News release dated 8 September 2021.

Adyton Resources Corporation, 2021d. Adyton reports 88% increase in total gold resources. News release dated 14 October 2021.

Ashurst PNG, 2020. Mayur Exploration PNG Limited, Ballygowan Limited and Pacific Arc Arum (Niugini) Limited – Report on tenements under the Mining Act and Corporate Status. Dated 7 September 2020.

Ashurst PNG, 2021. Results of tenement searches undertaken on 3 November 2021.

Ballygowan Limited, 2019. Gameta Prospect exploration report and results. Internal report.

Ballygowan Limited, 2020. Application for renewal of exploration licence EL 2546. 6 May 2020.

Ballygowan Limited and Pacific Arc Aurum (Niugini) Limited, 2018. Fergusson Island Project – Proposed JV strategy. Unpublished report.

CIM Standing Committee on Reserve Definitions, 2014. CIM Definition Standards for Mineral Resources and Mineral Reserves. Canadian Institute of Mining, Metallurgy and Petroleum.

Core Metallurgy Pty Ltd, 2021. Adyton Resources Metallurgical Testwork (Gameta). Proposal submitted 23 June 2021.

Crater Gold Mining Ltd. 2017. Fergusson Island project.

Derisk Geomining Consultants Pty Ltd, 2021. NI 43-101 Technical Report on the Fergusson Gold Property, Milne Bay Province, Papua New Guinea (Technical Report), with an effective date of 17 December 2020.

DesOrmeau, J.W., Gordon, S.M., Little, T.A. and Bowring, S.A., 2014. Tracking the exhumation of a Pliocene (U)HP terrane: U-Pb and trace-element constraints from zircon, D'Entrecasteaux Islands, Papua New Guinea. American Geophysical Union Geochem, Geophys Geosyst Vol 15, Issue 10, pp 3945 – 3964.

Geopacific Resources Limited, 2020. Annual report for the year ended 31 December 2019.

Gold Aura (PNG) Limited, 2011. EL 1070 Gameta Annual Report for the period 26 April 2009 to 25 April 2010.

Hellman & Schofield Pty Ltd, 2008. Technical Report – Review of the Fergusson Island Mineral Projects, PNG. Report prepared for BacTech Mining Corporation, October 2008.

Hellman & Schofield Pty Ltd, 2010a. Resources estimation for the Gameta Gold Deposit, Fergusson Island, PNG. Report prepared for Gold Anomaly Limited, November 2010.

Hellman & Schofield Pty Ltd, 2010b. Resources estimation for the Wapolu Gold Deposit, Fergusson Island, PNG. Draft report prepared for Gold Anomaly Limited, December 2010.

JORC Code, 2012. Australasian code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia. December 2012.

Kingston Resources, 2020. Misima Resource increases to 3.21 Moz of gold, 18.2 Moz of silver. Published 21 May 2020.

Lycopodium Pty Ltd, 2018. Woodlark Gold Project Definitive Feasibility Study. Report prepared for Geopacific Resources Limited, November 2018.

McNeil Associates, 1992. A review of the gold potential of the Goodenough and Fergusson Islands PNG. Report to Union Mining. Unpublished

Mineral Resource Authority, 2021a. Extension of Term of an Exploration Licence. EL 2546. 29 January 2021.

Mineral Resource Authority, 2021b. Extension of Term of an Exploration Licence. EL 2549. 29 January 2021.

Mining Technology, 2020. https://www.mining-technology.com/projects/woodlark-gold-project/

N H Cole and Associates Pty Ltd, 2015. Technical Report Fergusson Island Gold Project EL 1972 Gameta, EL 2180 Wapolu. Compiled for Crater Gold Mining Ltd.

Pacific Arc Aurum (Niugini) Limited, 2020. Application to renew exploration licence EL 2549 Wapolu. 24 March 2020.

Prowse, T., 2004. Fergusson Island Pre-feasibility Study. Report prepared for Gold Aura Limited, September 2004.

Resource Engineers Pty Ltd, 2006. Review of Fergusson Island Pre-feasibility. Report prepared for Gold Aura Limited

SRK Consulting (Australasia) Pty Ltd, 2018. Critical technical review of gold projects. Report prepared for Arc Gold Projects.

Williamson, A., 2018. Technical Review of Ballygowan's Fergusson Island Tenements. Report prepared for Arc Gold Projects.

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.

Term	Description
AAS	atomic absorption spectroscopy
Adyton	Adyton Resources Corporation
Ag	silver
ALS	ALS Laboratories
Ashurst PNG	Ashurst
Au	gold
BGL	Ballygowan Limited
BIOX	bacterial oxidation
BWI	Bond Work Index
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
Core	Core Metallurgy Pty Ltd
CoV	coefficient of variation
Crater Gold	Crater Gold Mining Limited
CRM	certified reference material
DBD	dry bulk density
DDH	diamond drill hole
Derisk	Derisk Geomining Consultants Pty Ltd
DFZ	Detachment fault zone
EL	Exploration Licence
Esso	Esso PNG Inc
g	grams
FAusIMM	Fellow of the Australasian Institute of Mining and Metallurgy
FAusIMM CP	Fellow of the Australasian Institute of Mining and Metallurgy and Chartered Professional
GAL	Gold Anomaly Limited
Geopacific	Geopacific Resources Limited
Gold Aura	Gold Aura Limited
GPS	global positioning system
g/t	grams per tonne
ha	hectare(s)
Hellman & Schofield	Hellman & Schofield Pty Ltd
HQ	diamond core with standard diameter of 63.5 mm
hr	hour(s)
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.
ICP	inductively coupled plasma
ITS	ITS (PNG) Ltd

Term	Description
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)
Kingston	Kingston Resources Limited
km	kilometre(s)
kt	kilotonne
l	litre
LHS	left hand side
m	metre(s)
m^2	square metre(s)
m^3	cubic metre(s)
M	million
Mayur	Mayur Resources Limited
MEPL	Mayur Exploration PNG Ltd.
Macmin	Mac Mining NL
MAIG	Member of the Australian Institute of Geoscientists
MIGI (PGeo)	Member of the Institute of Geologists of Ireland (Professional Member)
MIK	multiple indicator kriging
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)	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. 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. 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.
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.
Moz	million ounces
MRA	Mineral Resources Authority
Mt	million tonnes
Mt/yr	million tonnes per year
NI 43-101 *or* the Instrument	National Instrument 43-101 Standards of Disclosure For Mineral Projects
NQ	diamond core with standard diameter of 47.6 mm
OK	Ordinary Kriging
PAAN	Pacific Arc Aurum (Niugini) Limited

Term	Description
PFS	prefeasibility study
PGK	Papua New Guinean Kina
Pilbara Laboratories	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	Fergusson Gold Property
QA/QC	quality assurance and quality control
QQ	quantile-quantile
Qualified Person (as defined by NI 43-101)	An individual who is: 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; 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; c) has experience relevant to the subject matter of the mineral project and the technical report; d) is in good standing with a professional association; and e) in the case of a professional association in a foreign jurisdiction, has a membership designation that i. requires attainment of a position of responsibility in their profession that requires the exercise of independent judgment; and ii. requires: A. favourable confidential peer evaluation of the individual's character, professional judgement, experience, and ethical fitness; or B. recommendation for membership by at least two peers, and demonstrated prominence or expertise in the field of mineral exploration or mining.
RC	reverse circulation
RHS	right hand side
RL	reduced level
RQD	rock quality designation
S	sulphur
SEDAR	System for Electronic Document Analysis and Retrieval
SMU	selective mining unit
std dev.	standard deviation
t	tonne(s)
t/m^3	tonnes per cubic metre
Technical Report	NI 43-101 Technical Report on the Fergusson Gold Property, Milne Bay Province, Papua New Guinea
TSXV	Toronto Stock Exchange TSX Venture Exchange
Union	Union Mining NL
XRD	x-ray diffraction
XRF	x-ray fluorescence
Yamana	Yamana Resources Inc
yr	year(s)
YTD	year-to-date
>	greater than
<	less than
%	percent
°	degree(s)

29 QUALIFIED PERSON CONSENTS

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 Fergusson Gold Property, Milne Bay 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 Fergusson 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, Section 14 (Gameta), and 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 Fergusson Property before my contribution to the report titled NI 43-101 Technical Report on the Fergusson Gold Property, Milne Bay 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

29.2 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), which originally traded as Hellman & Schofield Pty Ltd.

b) This certificate applies to the report titled NI 43-101 Technical Report on the Fergusson Gold Property, Milne Bay 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 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 Fergusson Property because international travel restrictions associated with the Coronavirus pandemic have precluded a site inspection.

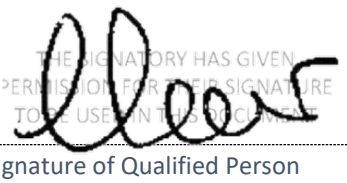
e) I am responsible for Section 14 (Wapolu) of the Technical Report.

f) I am independent of Adyton, its subsidiaries, and the Property as described in Section 1.5 of the Instrument.

g) As an employee of Hellman & Schofield Pty Ltd, I had some prior involvement with the Fergusson Property, being in part responsible for the resource estimates completed by Hellman & Schofield Pty Ltd.

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

Signature of Qualified Person — Date

29.3 John Horton

I, John Horton, 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 Fergusson Gold Property, Milne Bay 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 Queensland with a Bachelor of Science Honours (Geology) in 1985.
   - I am a graduate from Edith Cowan University with a Post Graduate Certificate (Geostatistics) in 2006.
   - I am a Fellow and Chartered Professional (CP) in good standing of the Australasian Institute of Mining and Metallurgy (Member #107320].
   - I am a Member in good standing of the Australian Institute of Geoscientists (Member #1844].
   - My relevant experience after graduation for the purpose of the Technical Report includes 36 years of mineral exploration and mining, with practical experience in greenfield and mine-based exploration, technical reviews, mineral resource evaluation, and consulting.
   - I have been a consultant specialising in Mineral Resource evaluation for over 25 years with extensive gold experience in the Asia Pacific region, including PNG.
   - I have two years of direct experience working at the Ok Tedi mine in PNG.

d) I have not visited the Fergusson Property because international travel restrictions associated with the Coronavirus pandemic have precluded a site inspection.

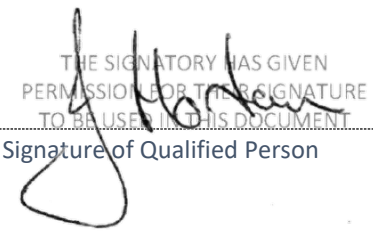
e) I have contributed to Sections 10 – 12, and 14 (Gameta) of the Technical Report.

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 Fergusson 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

29.4 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 Fergusson Gold Property, Milne Bay Province, Papua New Guinea (Technical Report), with an effective date of 14 October 2020.

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 Fergusson Property because international travel restrictions associated with the Coronavirus pandemic have precluded a site inspection.

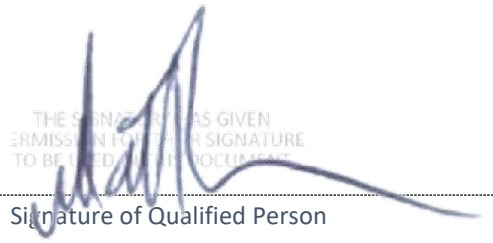
e) I am responsible for Sections 5 – 8 and contributing to Sections 10 – 11 of the Technical Report.

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 Fergusson Property before my contribution to the report titled NI 43-101 Technical Report on the Fergusson Gold Property, Milne Bay 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

29.5 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 Fergusson Gold Property, Milne Bay 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 Fergusson 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.

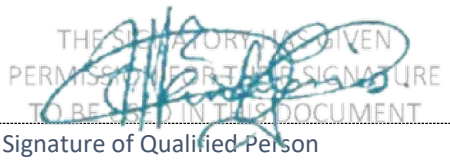
e) I am responsible for the site visit and contributing to Sections 7, 9, 10, and 12 of the Technical Report.

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 Fergusson 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

derisk
GEOMINING CONSULTANTS

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