BILBOES GOLD PROJECT TECHNICAL REPORT SUMMARY

Feasibility Study

Effective Date: 31 October 2025

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DATE AND SIGNATURE PAGE

This technical report summary titled "Bilboes Gold Project Technical Report Summary" was prepared for Caledonia Mining Corporation Plc, in accordance with Subpart 1300 and Item 601(b)(96) of Regulation S-K, as adopted by the United States Securities and Exchange Commission. Its effective date is 31 October 2025.

The Qualified Person ("QP") responsible for this Report is:

DRA Projects (Pty) Ltd

By: Alistair Hodgkinson

Title: Chief Operating Officer

ABBREVIATIONS, TERMS AND DEFINITIONS

Abbreviations/Terms	Definition
°C	Degrees
AACE	American Association of Cost Engineers
AMIS	African Mineral Standards
amsl	above mean sea level
AMZIM	Anglo American Corporation of Zimbabwe Ltd
ANCOLD	Australian National Committee on Large Dams
Archean	Bubi Greenstone Belt
Au	Native Gold
Baker Steel	Baker Steel Resources Limited
BBWi	Bond Ball Work Index
BFS	Basic Ferric Sulphate
Bilboes	Bilboes Holdings (Private) Limited
BIOX®	Biological Oxidation
BoQ	Bill of Quantities
Caledonia	Caledonia Mining Corporation Plc
CAPEX	Capital Expenditure
CCD	Counter Current Decantation
CCE	Capital Cost Estimate
CIL	Carbon in Leach
CIM	Canadian Institute of Mining
CMCL	AIM of the London Stock Exchange plc
COS	Crushed Ore Stockpile
CRM's	Certified Reference Materials
CSR	Corporate Social Responsibility
Datamine	Datamine Studio™
DD	Diamond Drilling
DEM	Digital Elevation Model
DRA	DRA Projects (Pty) Ltd
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
ECI	Electrical, Control and Instrumentation
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EMA	Environmental Management Agency
EMC	Eurus Mineral Consultants
EMP	Environmental Management Plans
EPCM	Engineering, Procurement, Construction Management
EPOs	Exclusive Prospecting Orders

Abbreviations/Terms	Definition
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESSMS	Environmental, Social and Safety Management System
EW	Electrowinning
FEED	Front End Engineering Design
FGR	Fidelity Gold Refinery
FS	Feasibility Study
GEV	Generalized Extreme Value
IA	Initial Assessment
ICMM	International Council of Mining and Metallurgy
IFC	International Finance Commission
ILO	International Labour Organization
IMTT	Intermediated Money Transfer Tax
Infinite Treasure	Infinite Treasure Limited
IRR	Internal Rate of Return
ISBM	Isabella McCays
ISBN	Isabella North
ISBS	Isabella South
koz	Kilo ounces
LBMA	London Bullion Market Association
LCR	Lab Coarse Duplicates
LG	Lerchs-Grossman
LoM	Life of Mine
LPR	Lab Pulp Duplicates
LRP	Livelihoods Restoration Plan
ma	mega annum
mbs	Metres below surface
masl	Meter above sea level
MAP	Mean Annual Precipitation
MCC	Motor Control Centre
MEL	Mechanical Equipment List
Mtpa	Million tonnes per annum
MRE	Mineral Resource Estimate
MSD-Z	Meteorological Services Department of Zimbabwe
NPV	Net Present Value
NI 43-101	National Instrument 43-101
OPEX	Operating Expenditure
P & G	Preliminary and General
PCD	Pollution Control Dam
PDC	Process Design Criteria

Abbreviations/Terms	Definition
PERC	Percussion Drill hole
PFD	Process Flow Diagram
PFS	Pre-Feasibility Study
PGM	Platinum Group Metals
PLZ	Performance Laboratories Zimbabwe Limited
POX	Pressure Oxidation
RPFEE	Reasonable prospects for eventual extraction
PSD	Particle Size Distribution
PV	Prospecting Ventures
QA/QC	Quality Assurance / Quality Control
QP	Qualified Person as defined in S-K 1300
RC	Reverse Circulation
RQD	Rock Quality Designation
RMR	Rock Mass Rating
RoM	Run of Mine
RoR	Rate of Rise
RWD	Return Water Dam
SANAS	South African National Accreditation System
SEX	Sodium Ethyl Xanthate
SIB	Stay in Business
S-K 1300	Subpart 1300 and Item 601(b)(96) of Regulation S-K
SLR	SLR Consulting (Africa) (Pty) Ltd
TRS	Technical Report Summary within the meaning of S-K 1300
TSF	Tailings Storage Facility
US$	United States Dollar
VAT	Value Added Tax
WGC	World Gold Council
WRD	Waste Rock Dumps
RWD	Return Water Dan
ZETDC	Zimbabwe Electricity Transmission and Distribution Company
ZiG	Zimbabwe Gold (Zimbabwe local currency)
ZINWA	Zimbabwe National Water Authority

SYSTEM OF UNITS

The international metric system of units (SI) will be used throughout the design in all documentation, specifications, drawings, reports, and all other associated documents.

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1.1 Introduction

This technical report summary titled “Bilboes Gold Project Technical Report Summary” was prepared for Caledonia Mining Corporation Plc, in accordance with Subpart 1300 and Item 601(b)(96) of Regulation S-K (SK-1300), as adopted by the United States Securities and Exchange Commission. Its effective date is 31 October 2025.

This Technical Report Summary (TRS) has been prepared for Caledonia Mining Corporation Plc (Caledonia) on the Bilboes Gold Project, Zimbabwe which Caledonia acquired with the acquisition of Bilboes Gold Limited (Bilboes) on 6 January 2023. Caledonia is a Zimbabwean focused exploration, development, and mining corporation. Caledonia shares are listed on the NYSE American LLC and depositary interests in the shares are traded on the AIM of the London Stock Exchange plc (symbol: CMCL). Caledonia listed depositary receipts on the Victoria Falls Stock Exchange, a subsidiary of the Zimbabwe Stock Exchange, on December 2, 2021.

1.2 Report Purpose

Caledonia mandated DRA Projects (Pty) Ltd (DRA) to complete this TRS to report a Feasibility Study (FS) on the Bilboes Gold Project, Zimbabwe. The purpose of this report is to report Mineral Resources and Mineral Reserves in accordance with S-K 1300, and to present the results of an FS for the implementation of open pit mining to recover the gold mineralization.

1.3 Project Location

The Bilboes properties are located in the Matabeleland North Province of Zimbabwe. The Isabella-McCays properties are situated approximately 80 km north of Bulawayo while Bubi is situated approximately 100 km north of Bulawayo. Bubi is 32 km due north-east of Isabella.

Bilboes has rights to three groups of claims covering an area of 2,731.6 ha that consist of four open-pit mining properties in Matabeleland North Province of Zimbabwe. These open pits are referred to as Isabela North; Isabela South; McCays and Bubi (Figure 1-1).

Figure 1-1: Regional Location of the Bilboes Project

1.4 Permits

Bilboes has been operating in Matabeleland since 1989. It holds the necessary mining permits and complies with the terms of the Mines and Minerals Act and allied regulations with respect to all of their claims and in particular that all of the registration certificates are valid, and the protection certificates are up to date. Bilboes thus requires no further permits to explore or produce from the current operational areas, but further permits will be required for the proposed haul road between Bubi and Isabella plant.

A water usage study for the utilization of the Bafana dam as a water source will have to be included in an updated Environmental Impact Assessment (EIA) and water use license.

1.5 History

Initial exploration by Anglo American Corporation of Zimbabwe Ltd (AMZIM) at Isabella allowed the estimation of a small oxide Resource and an open-pit and heap-leach mine was commissioned in 1989. Subsequent exploration extended life at Isabella and new discoveries were made at Bubi and McCays, which has yielded production of 9,191 kg of gold (295,500 oz) to December 2024. All mining has been from open pit oxide ore utilizing the heap leach extraction processing method.

Exploration for sulphide Mineral Resources began in 1994/95, with 17,650 m of exploratory drilling being completed by 1999, covering a strike length of 3,440 m.

A maiden Mineral Resource estimate for the sulphide Mineral Resources was completed by SRK Consulting (SRK) in 2009, containing 4.75 Mt of Inferred Mineral Resources grading 3.49 g/t. This estimate used a 2.0 g/t cut-off for delineation of the mineral Resource estimation domains.

1.6 Geology and Resource Estimate

1.6.1 Geological Setting and Mineralization

The Bubi Greenstone Belt (Archean) which consists of volcanic rocks of the Upper Bulawayan Group and capped by sedimentary sequences of the Shamvaian Group, all of which have been metamorphosed into felsic and mafic schists, underlies the Bilboes Properties. Gold deposits are concentrated at the interface between these two groups, where major structural breaks and splays provide pathways for hydrothermal vein mineralization.

Gold is associated with sulphides that is commonly found in hydrothermal systems. These include pyrite and arsenopyrite as major components, but copper, lead, zinc, antimony, are also present in some deposits. Common alteration associated with gold mineralization is silicification, with lesser sericite and chlorite alteration.

1.6.2 Deposit Types

Mineralization is hydrothermal and consists of silicified stockworks that host pyrite and arsenopyrite. The stockworks are characterized by a series of subparallel echelon zones. The gold is very finely dispersed within the sulphides and is refractory. All the deposits are oxidized with the sulphide interface occurring between 6 m and 50 m below surface.

1.7 Exploration

Soil sampling, trenching and geological mapping have been progressively conducted since exploration and oxide mining commenced in 1982. Soil sampling was used to identify areas for trenching and mapping. Trenches were sampled at 1 m to 2 m intervals. The assays were used to guide the interpretation and projection of oxide mineralization along strike and at depth. The assays from trench sampling were not used in grade estimation.

Ground Magnetics and Induced Polarization geophysical surveys have been conducted at Isabella, as part of the oxide ore exploration since 1996.

Drilling of the sulphides to provide data for the mineral resource estimate was done in three phases totalling 93,400 m. The first phase by AMZIM was between 1994 and 1999 and the second phase by Bilboes from 2011 to 2013. The latest drilling was from December 2017 to November 2018.

The third campaign focused on upgrading of the mineral resources from the Inferred and Indicated to Indicated and Measured categories.

1.8 Sample Preparation, Analysis and Security

During the drilling campaigns, all geological logging and sampling was conducted in accordance with Bilboes standard operating procedures which were adopted from (AMZIM) and enhanced over time to keep up with industry best practices.

Independent South African National Accreditation System (SANAS) accredited laboratories were used in the analyses of samples.

Performance Laboratories Zimbabwe Limited (PLZ) in Harare was selected as the primary laboratory. ZIMLABS and Antech Laboratories (Antech) in Zimbabwe were used for check analyses.

Certified Reference Materials (CRMs), blanks, field duplicates, coarse and pulp repeats were used for Quality Assurance Quality Control (QA/QC) purposes.

The Qualified Person (QP) has assessed the standard operating procedures together with the results of the QA/QC program and is of the view that these are adequate for the purposes of this TRS.

1.8.1 Data Verification

Before commencement of the 2017/2018 drilling campaign in addition to the Datamine™ software already in place, Bilboes acquired Fusion database software for the capture, storage and management of drill hole information. This software has built in data verification tools to minimize transcription errors. Bilboes standard operating procedure involves a thorough audit by a senior geologist of all drillholes geology and sampling logs, from data logging through to capturing into the database and QA/QC checks.

Each hardcopy log is audited and signed-off by a senior geologist prior to being used in modelling and estimation.

DRA visited the site during drilling and performed various checks to verify the integrity of the collar co-ordinates, logging and sampling procedures, and assay results and concluded that the data collection was consistent with industry standards.

1.8.2 Metallurgical Test Work

The metallurgical test work campaign was concluded in different phases over a period extending from September 2013 to March 2019 and involved various laboratories and consultants as outlined in Table 1-1. The outcomes from the test work have been used to define the processing route, process design basis and gold recoveries.

Table 1-1: Test work Program Outline

Phase	Test work Description	Done By	Supervision and Oversight	Date
1A	Sample characterization detailing mineralogical and chemical analysis	Mintek, South Africa	Bilboes, MMC and MDM Engineering	September 2013 to December 2013
1B	Comminution test work done on the two composites namely Composite 1 (Bubi ore) and Composite 2 (combination of Diana, Calcite, Castile, Maria and McCays ores)	Mintek, South Africa	Bilboes, MMC and MDM Engineering	January 2014 to April 2014
2	Selection of a process route covering gravity amenability tests, flotation optimisation and treatment of the sulphide flotation concentrates via Pressure oxidation (POX), Bio-Oxidation (BIOX®) and Ultra-fine grinding followed by cyanidation	Mintek and Suntech, South Africa	Bilboes and MMC	May 2014 to September 2014
3	Variability flotation tests and bulk flotation concentrate production for additional BIOX® and gold leach tests	Suntech and SGS, South Africa	Bilboes, Minxcon and MMC	October 2015 to August 2016
4A	Laboratory and Pilot plant test work campaigns on the different ore types to generate additional flotation kinetics and grind data, bulk concentrates for BIOX® pilot	MMC at the client's project site in Zimbabwe	Bilboes and DRA	April 2018 to September 2018

Phase	Test work Description	Done By	Supervision and Oversight	Date
	plants, flotation design parameters and validate flowsheet			
4B	Review, modelling and simulation of laboratory and pilot plant test results	EMC, South Africa	Bilboes, MMC and DRA	October 18 to March 19

1.8.3 Process Route Identification

Gravity amenability tests indicated poor gold recoveries and varied from 14% to 22% at 0.5% mass pull. Initial milling and flotation results indicated high gold recoveries of 89 - 97% with high mass pulls ranging 10 - 15%, low concentrate grades of 12 - 20 g/t Au and unacceptable high levels of carbonates in the range of 7 - 13% which were bound to negatively affect the down-stream gold recovery process. Gold dissolution from flotation concentrates using Biological Oxidation (BIOX®) provided 99% sulphide decomposition with 97% gold dissolution by cyanidation of the bio-residue.

Based on the test work and consideration of environmental impacts and risk minimization by adopting commercially established and proven processes, the process route identified for additional evaluation was flotation, pre-treatment of the concentrate by BIOX® followed by cyanidation.

1.8.4 Pilot Plant Test Work

The pilot plant test work was conducted over a period of six months from April 2018 to September 2018, utilizing 20t of the Isabella McCays ore and 15t of Bubi ore. The Isabella McCays ores gold recoveries ranged from 85.9% to 91.0% and the mass pulls ranged from 3.8% to 6.0% with a weighted average of 88.4% recovery and 5.0% mass pull. The Bubi ore recoveries ranged from 85.9% to 88.8% and mass pulls ranged from 7.8% to 15.2% with average of 87.5% recovery and 10.0% mass pull.

1.8.5 BIOX®

Test work was conducted in 2019 on ore samples from Isabella McCays and Bubi deposits to develop test work data to design a gold processing plant.

The BIOX® test work indicated the following:

- An average BIOX® sulphide oxidation of 90% was achieved at a 6.5-day retention time and a feed slurry solids concentration of 20%,
- This resulted in an average CIL gold dissolution of 95.7% on the BIOX® product solids,
- The Batch amenability tests completed on the Bubi concentrate sample achieved sulphide oxidation levels in the range 97 – 98% and yielded gold dissolutions in the range 92.3% to 96.8%.

1.9 Mineral Resource Estimate

The Mineral Resource Estimate (MRE) has been declared in terms of S-K 1300 (Table 1-2). The previous MRE was effective 31 December 2023. The December 2023 MRE was constrained to a Lerchs-Grossmann pit shell using 0.9 g/t Au as the cut-off grade. Since then, there has been start-up mining and grade-control drilling at Isabella North, Isabella South and McCays. This October 2025 MRE therefore reflects an update of the additional geological data, and mining, as well as to reflect current metal prices and updated operational (mining and processing) parameters derived from the FS. The geological and mineral resource block models have been updated.

The Mineral Resource Estimate is summarized in Table 1-2 using a cut-off grade of 0.5 g/t Au and constrained inside a Lerchs-Grossman (LG) optimized pit shell using US$ 3,000 per ounce gold price. Mineral Resources exclude Mineral Reserves.

Table 1-2: Mineral Resource based on a 0.5g/t Au Cut-Off Grade

Property	Classification	Tonnes (Mt)	Au (g/t)	Ounces (koz)
Isabella South (ISBS)	Measured	0.1	1.42	2
	Indicated	1.4	1.68	78
	Total Measured and Indicated	1.5	1.67	80
	Inferred	2.0	1.76	113
Isabella North (ISBN)	Measured	0.2	1.07	6
	Indicated	1.6	1.68	88
	Total Measured and Indicated	1.8	1.63	93
	Inferred	4.3	1.86	255
Bubi	Measured	0.1	1.06	3
	Indicated	7.3	1.23	290
	Total Measured and Indicated	7.4	1.23	293
	Inferred	10.3	1.40	465
McCays	Measured	0.1	1.33	3
	Indicated	1.3	1.46	62
	Total Measured and Indicated	1.4	1.46	66
	Inferred	2.4	1.99	151
Totals (ISBS +ISBN+ Bubi + McCays)	Total Measured	0.4	1.16	15
	Total Indicated	11.7	1.37	517
	Total Measured and Indicated	12.1	1.37	532
	Total Inferred	18.9	1.62	984

S-K 1300 definitions observed for classification of Mineral Resources.

Mineral Resources are reported in-situ.

Resources are constrained by a Lerchs-Grossman (LG) optimized pit shell using Whittle software.

Pit shells parameters assumed gold price at US$3,000 /oz, Recovery 83.6 % Isabella and McCays, 88.9%, Bubi. Ore cost, US$ 2.60/t for Isabella, McCays and Bubi. Waste US$2.00/t Isabella, McCays and Bubi. Processing cost US$ 22.26/t for Isabella & McCays and US$ 42.25/t for Bubi.

Mineral Resources are not Mineral Reserves and have no demonstrated economic viability. The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social, and governmental factors (Modifying Factors).

Inferred mineral resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the inferred mineral resources will be upgraded to indicated or measured mineral resources, with further exploration.

Numbers may not add due to rounding.

Effective Date of Resource Estimate is 31 October 2025.

1.10 Mineral Reserve

The process to develop the Mineral Reserve estimate was as follows:

Open pit optimisation was undertaken on the measured and indicated mineral resources only.

The grades and tonnes of the mineral resource model have been modified by a mining / geological recovery and a mining dilution based on ore body geometry and mining methodology. The Mining Model contains undiluted ore tonnes and ore grade. An ore recovery of 92.5% and fixed dilution parameters of 20 cm of hanging wall and 20 cm of footwall (4% in Whittle) were applied in the Optimisations.

The Whittle optimisation software was used to perform the pit Optimisations. A range of operating costs and production parameters were applied. These are summarised below, along with the source of the information:

- A two-year trailing gold price of $2,190/oz. A government royalty of 6.5% of revenue and a Refining/Selling Cost of 1% of revenue were then applied. This resulted in a Net Gold Price of $2,025.75/oz.
- Pit slopes inter-ramp angles ranging from 30° to 55°. Resulting overall pit slopes account for access ramps where applicable.
- Gold recovery ranging from 83.6% to 88.9% dependent on mining area and ore type being processed.
- Processing throughput of 2.88 Mtpa for Phase 1 and 2.16 Mtpa for Phase 2.
- Mining contractor costs based on budget submissions from Southern African based mining contractors.
- Average annual processing cost per tonne of ore, inclusive of general / administration costs range from $22.26/t to $42.25/t for all oxides, transitional and fresh ores depending on processing parameters.

A sensitivity assessment was performed using gold prices of $2,409/oz and $1,971/oz. A gold price of $3,000/oz scenario assessment was also used to determine surface infrastructure boundaries to ensure that no potential future resource is sterilised. This indicated the optimal shell inventory (i.e., the size and shape of the optimal shell and therefore the ore and waste generated) was relatively robust for all mining areas.

Optimal shells (maximum profit) were selected for each deposit area based on a $ 2,190/oz gold price that were then used as the basis for pit designs. These shell selection criteria are relatively conservative.

A cut-off grade of 0.56 g/t (McCays, Isabella South and Isabella North) and 1.05 g/t (Bubi) based on project specific projected revenue and cost was applied to all Project resources to ensure tonnes milled generate enough revenue to cover costs.

Table 1-3 summarises the Mineral Reserve Statement based on the work detailed above, undertaken as part of the Bilboes Gold Project.

Table 1-3: Bilboes Gold Project Mineral Reserve Statement

Deposit	Classification	Tonnage (Mt)	Au Grade (g/t)	Ounces (koz)
McCays	Proven	0.5	2.80	44
	Probable	3.5	2.39	266

Deposit	Classification	Tonnage (Mt)	Au Grade (g/t)	Ounces (koz)
Isabella South	Proven	0.7	2.11	45
	Probable	3.2	2.24	233
Isabella North	Proven	1.2	2.30	89
	Probable	3.5	1.95	217
Bubi	Proven	1.2	1.92	73
	Probable	10.4	2.34	783
Total	Proven	3.5	2.21	251
	Probable	20.6	2.26	1,499
Grand Total	Probable + Proven	24.1	2.26	1,749

Note: All tonnes quoted are in-situ dry tonnes. Differences in the addition of deposit tonnes to the total displayed is due to rounding to one decimal place.

A cut-off grade of 0.56 g/t (McCays, Isabella South & Isabella North) and 1.05 g/t (Bubi) was applied based on project specifics. Pit shells parameters assumed gold price at US$2,190 /oz, Recovery 83.6 % Isabella and McCays, 88.9%, Bubi. Ore cost, US$ 2.60/t for Isabella, McCays and, Bubi. Waste US$2.00/t Isabella, McCays, and Bubi. Processing cost US$ 22.26/t for Isabella & McCays and US$ 42.25/t for Bubi.

The Mineral Reserve estimate has been classified and reported in accordance with U.S. Securities and Exchange Commission (SEC) S-K 1300.

The estimate of Mineral Reserves for the Bilboes Gold Project is not at this stage materially affected by any known environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant issues. Furthermore, the estimate of Mineral Reserves is not materially affected by any known mining, metallurgical, infrastructure, or other relevant factors.

Effective date for mineral reserves is 31 October 2025.

1.10.1 DRA Comments

DRA is confident that enough geological work has been undertaken, and sufficient geological understanding gained to enable the construction of an ore body model suitable for the derivation of Mineral Resource and Mineral Reserve estimates. DRA considers that both the modelling and the grade interpolation have been carried out in an unbiased manner and that the resulting grade and tonnage estimates should be reliable within the context of the classification applied. In addition, DRA is not aware of any metallurgical, infrastructural, environmental, legal, title, taxation, socio-economic, or marketing issues that would impact on the mineral resource, or reserve statements as presented.

1.11 Mining Methods

The Bilboes Gold Project consists of four mining areas containing between one to three pits each. These areas are McCays, Isabella South, Isabella North and Bubi (Figure 1-2).

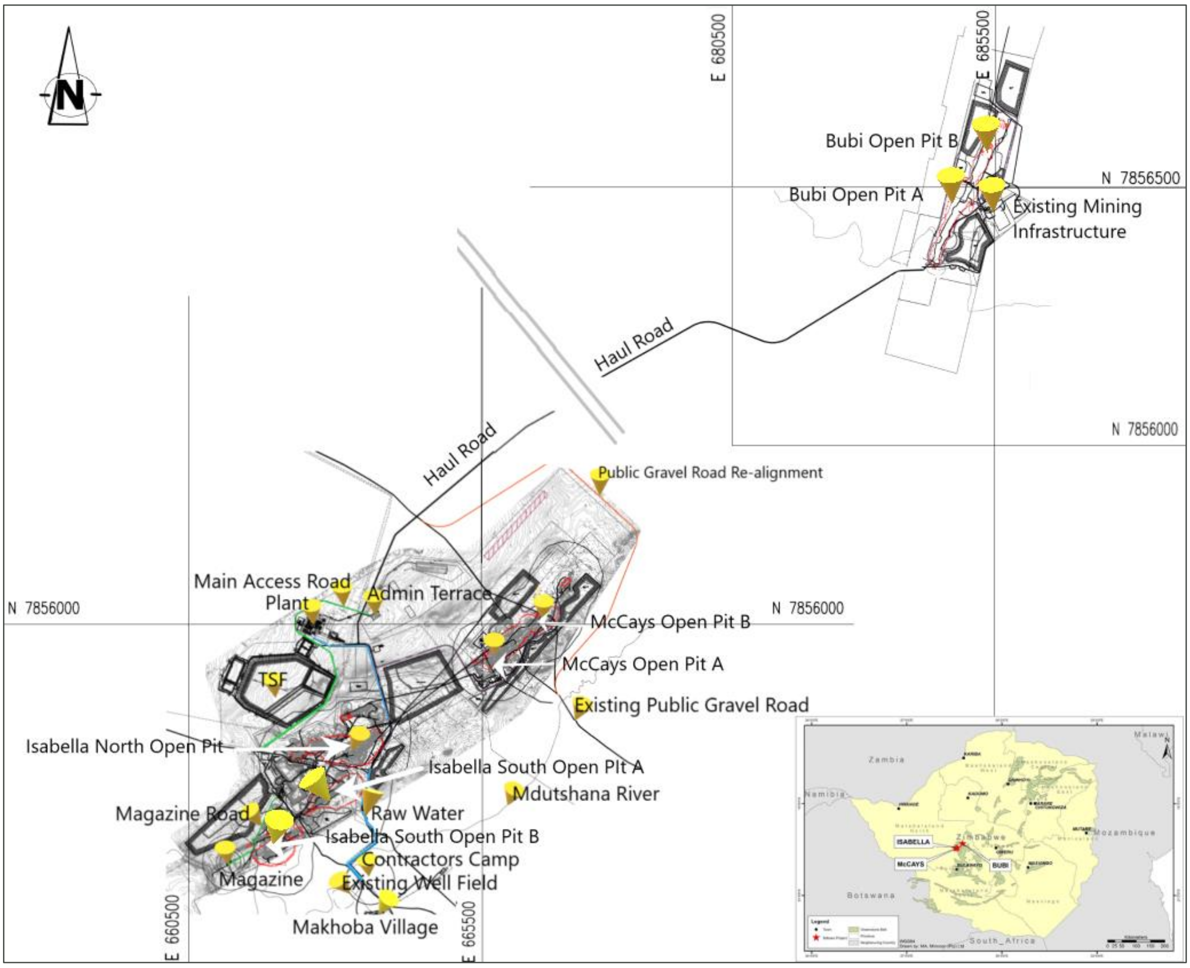


Figure 1-2: Bilboes Pits and Infrastructure

Based on the analysis of the engineering geological aspects of the investigated deposits which included rock mass characterization, hydrogeology, intact rock properties and structural geology, a geotechnical model comprising design parameters was developed. Using these design parameters; kinematic, empirical and limit equilibrium analysis was conducted to determine the optimal slope configuration for the various deposits.

Based on the analysis conducted, it is understood that the capacity of the slopes should be affected by the following:

- Completely weathered benches should be a maximum of 3 m in height, and it is recommended that the material is pushed back from the crest,
- For the transitional rock (highly to moderately weathered), by a combination of rock mass strength and adverse structural orientation. Inter-ramp heights of 60 m are achievable with inter-ramp angles between 45°and 50°,
- For the unweathered rock benches adverse structural orientation should determine the slope angle which is achievable. Inter-ramp heights of 90 m are achievable with inter-ramp angles of between 50° and 55°, depending on the wall direction.

In this FS the previous Base Case was revalidated with Phase 1 being a 240 ktpm gold processing plant treating Run of Mine (RoM) material from Isabella and McCays (after a short ramp-up period) before being upgraded for a Phase 2 to treat RoM material from the Bubi pit at 180 ktpm.

The inputs to the whittle optimisation include revenue related financial parameters, geotechnical parameters, various waste mining costs and the process plant throughput.

Geological losses of 2.5%, dilution of 4% and mining losses of 5% were used as input parameters.

The Life of Mine (LoM) schedule considers the blending requirement that a maximum of 50% of feed to be sourced from Isabella North and the remainder from Isabella South (preferred blend) or McCays. Irregular waste production profiles were smoothed to ensure the production profile is practically implementable.

1.12 Recovery Methods

Plant feed will be derived from two main mining areas, namely Isabella McCays and Bubi, with production throughput to be phased over LoM as described in each scenario.

Operations in the process plant can essentially be divided into the following sections:

- Comminution (plant feed size reduction by crushing and milling to facilitate liberation of the mineral particles for subsequent downstream concentration),
- Flotation (concentration of sulphides and gold into a small concentrate mass),
- Biological oxidation - BIOX® (destruction of the sulphides in the concentrate using oxidizing bacteria to expose the gold particles for downstream recovery),
- Carbon in leach (cyanidation leach of the BIOX® residue and recovery of the solubilized gold onto activated carbon),
- Carbon treatment,
- Electrowinning and smelting,
- Tailings handling.

Further detail covering the test work and processing route can be found in the historical feasibility study reports. A simplified schematic flow diagram is presented in Figure 1-3.

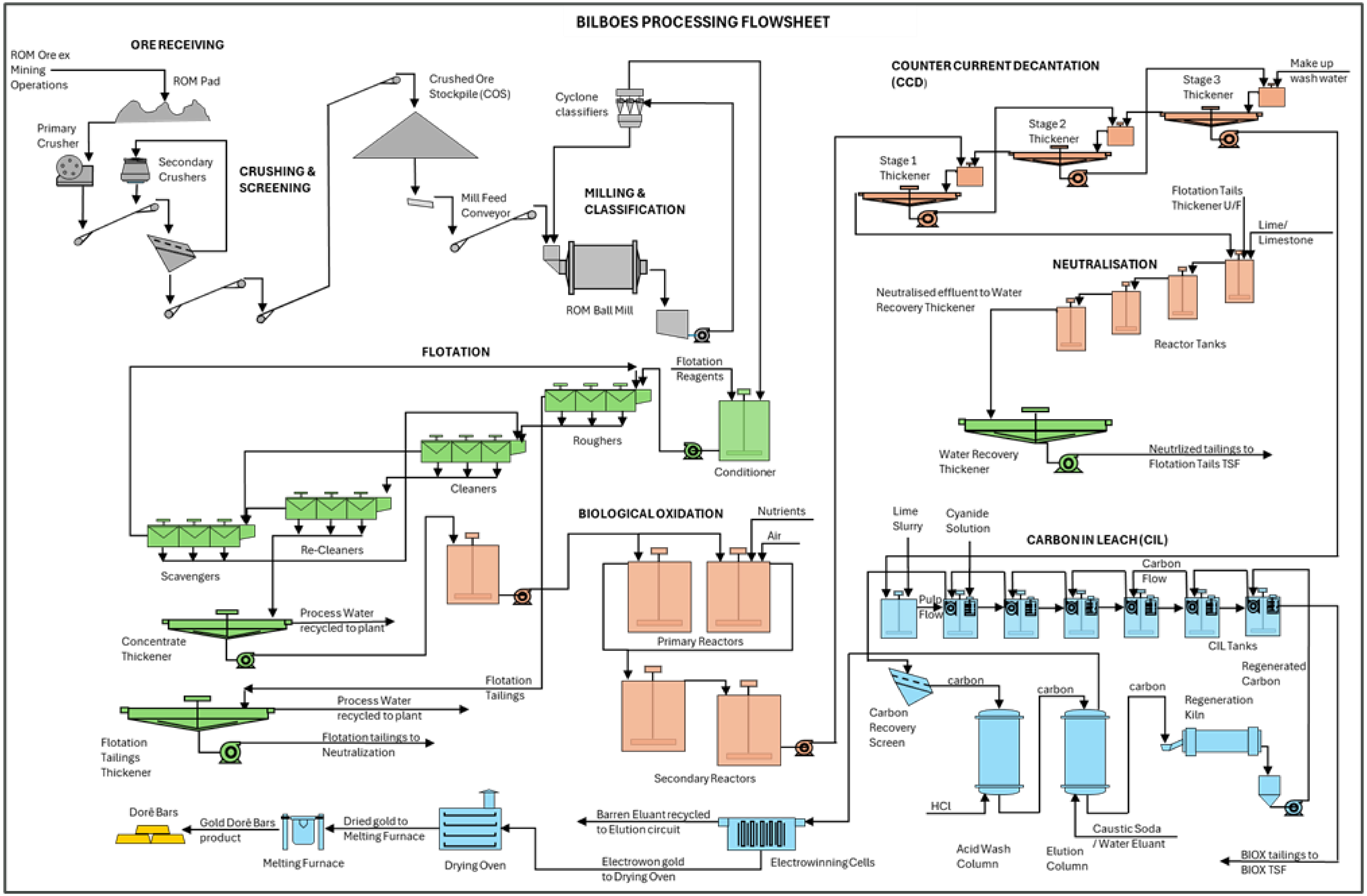


Figure 1-3: Simplified Process Flow Diagram

SLR Consulting (Africa) (Pty) Ltd (SLR) were engaged to optimize the Tailings Storage Facility (TSF) as a follow on to investigate a new concept design and associated costing based on a phased paddock approach. The objectives were to minimize initial capital outlay and delay further expenditure according to two stage build programme that aligned with the LoM production schedule.

1.13 Project Infrastructure

The overall site plan is presented in Figure 1-2. and includes major facilities of the Project including the Isabella North and South, McCays and Bubi open pits, gold processing plant, TSF, Waste Stockpiles, demarcated areas for mine buildings and accommodation facilities, main power line, and internal access and public roads.

Grid power will be supplied from the Zimbabwe National Grid by constructing a 70 km 132 kV Lynx line from Shangani Substation. To feed the line, a line bay will be constructed at Shangani. A mine substation will be constructed at Isabella.

The cost estimate received is for a 132 kV substation, equipped with a 40 MVA 132/33 kV step-down transformer.

Raw water will be provided from Bafana dam and the wellfield boreholes located across the mine license area. The Bafana dam water use will have to be included in an updated EIA and water use license application prior to project execution and prior operations.

1.14 Environmental

The Environmental and Social Impact Assessment (ESIA) and accompanying specialist studies were conducted in conformance with the relevant International Finance Corporation (IFC) Performance Standards and associated guidelines and in compliance with the legal framework of Zimbabwe. The Environmental Impact Assessment (EIA) (SLR, 2019) identified the following potential environmental impacts:

The EIA (SLR, 2019) concluded that the proposed project presents several potential positive and negative impacts associated with the unmitigated scenario. With mitigation (in the residual impact scenario) some of the identified potential impacts can be prevented and the remainder can be managed and mitigated to remain within acceptable environmental limits so long as the mitigation set out in the Environmental and Social Management Plan (ESMP) is implemented and Bilboes develops, implements, and annually reviews the Environmental, Social and Safety Management System (ESSMS). Positive impacts can be enhanced by developing and implementing a Community Development Plan as set out in the ESMP.

Bilboes is committed to implementing mitigation measures within the ESMP together with the ESSMS which will be implemented as part of Bilboes on-going efforts to achieve continuous environmental improvement. The management system will contain plans and procedures to help manage environmental aspects and impacts and help ensure legal compliance. Requirements for post-closure monitoring to determine whether the mitigation and rehabilitation measures are effective would be incorporated into a final Closure Plan to be compiled for the operations prior to the commencement of decommissioning.

1.15 Project Permitting

An approved EIA is required in terms of the Environmental Management Act (Chapter 20:27) No. 13 of 2002 and the Mines and Minerals Act (Chapter 21:05) of 1996. The ESIA was undertaken for the project to satisfy the requirement and an ESIA Report was completed for submission to EMA within the first quarter of 2020. Thereafter, SLR held a public feedback meeting to disclose the findings of the ESIA Report to the identified stakeholders. A record of this disclosure process was compiled and submitted to EMA. An EIA certificate was issued to Bilboes for the project in February 2021 and was valid for two years to February 2023. From there after the EIA certificate has been renewed annually subject to conditions which include project update reports, compliance to Environmental Management Plans (EMP) outlined in the ESIA Report and notification to EMA for any changes in the project likely to alter the project as stipulated in the ESIA Report. The current EIA certificate is valid until February 2026, and the renewal process will continue annually for the duration of the operations.

Other project related licenses/permits currently in use include explosives (purchase and storage), firearms, medicines control, public health (medical examination), water abstract and hazardous substances (importation, transportation, storage and use), solid waste disposal which are renewed quarterly or annually when become due. The conditions of renewal are limited to payment of applicable fees to the relevant statutory bodies.

1.16 Social and Community Related Requirements and Plans

An ESMP has been developed which contains the environmental, social and safety management and monitoring commitments that Bilboes will implement to manage the negative impacts and enhance the positive impacts identified in the EIA. This will include:

- A Livelihoods Restoration Plan (LRP),
- Several Corporate Social Responsibility (CSR) programmes,
- Develop a fair and transparent Labour, working conditions and recruitment policy,
- A local procurement policy will be developed and implemented,
- Develop a Stakeholder Engagement Plan,
- Addressing the social or community impacts.

1.17 Mine Closure

Generally accepted “good international practice” mine closure methods were used as the basis for the conceptual closure plan, as well as for determining the unit rates for the various closure components used in the LoM liability calculation. The mine closure methods also conform to the statutory requirements of Zimbabwe EMA, who are the regulatory body.

1.18 Capital Costs

DRA has developed two distinct project phases which are delineated as follow:

- Phase 1: Processing 240 ktpm of milled plant feed from the Isabella McCays mining area, scheduled for years 1 to 6,
- Phase 2: Processing 180 ktpm of milled plant feed from the Bubi mining area, scheduled for years 6 to 10.

The estimate assumes that the project will be executed on an Engineering, Procurement, and Construction Management (EPCM) basis. Phase 2 of the study is presumed to be executed by the Owners team and EPCM costs have been excluded.

The mining peak funding costs are a combination of site establishment and pre-development during the production ramp up which consists of the first four months of production.

The capital estimate related to a C4 commission date is summarized in Table 1-4.

Table 1-4: Capital Summary per Project Phase

Description	Grand Total (Million US$)	Sub Total Phase 1 (Million US$)	Sub Total Phase 2 (Million US$)
Mining	31.60	24.14	7.46
Process	221.21	182.83	38.38
Infrastructure	123.62	117.15	6.47
Tailings Storage Facility	**89.44**	**61.66**	**27.78**
Indirect Costs	68.05	64.62	3.43
Contingency	49.53	41.78	7.75
Total Project Costs	583.44	492.18	91.27

1.19 Operating Costs

The operating cost estimate has been completed from a zero base and presented in United States Dollar (US$). Costs associated with Labour, materials and consumables have been included in this estimate. The base date for the Capital Cost Estimate (CCE) and Mining Contractor budget pricing is August 2025. The costs outlined below exclude any contingency allowances and are presented with an estimated accuracy range of ±15%.

1.19.1 Mining Contractor Costing

The average mining cost based on pricing received is US$ 2.83/t including the plant feed transport cost from all mining areas. The cost is market related and based on contract mining. The total average unit cost per annum related to all mined tonnes is illustrated in Figure 1-4.

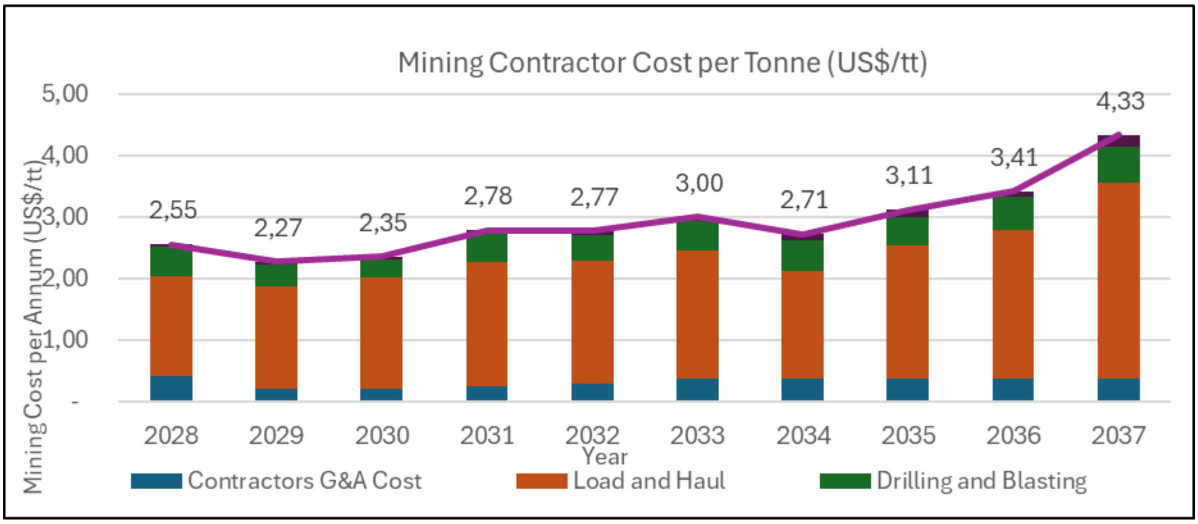


Figure 1-4: Unit Cost per Total Tonne Mined

1.19.2 Process Plant Operating Cost

Operating costs have been estimated and based on the production profile for LoM. Steady state costs are presented for Phase 1 and Phase 2 in Table 1-5. Main drivers in costs include reagents and power which collectively account for more than 70% of total plant operating costs.

Table 1-5: Plant OPEX

Description	Unit	Phase 1: 240 ktpm	Phase 2: 180 ktpm
RoM	t/a	2,880,000	2,160,000
Total variable	US$/t	16.78	30.19
Total fixed	US$/t	5.21	7.59
Unit cost	US$/t processed	21.99	37.78

1.19.3 General and Administration Cost

The General and Administration Cost (G&A) cost includes administrative personnel, general office supplies, safety and training, travel (both on site and off site), independent contractors, insurance, permits, fuel levies, security, camp power, camp costs, Information and Communication Technology (ICT), relocation, and recruitment.

Total G&A costs amount to US$6.5 M per annum in Phases 1 and 2.

1.19.4 Total Operating Costs Summary

The total operating costs have been estimated and based on the production profile over LoM. A summary of LoM operating costs are presented in Table 1-6 with AISC (all in sustaining cost) totalling US$1,061/oz Real.

Table 1-6: LoM Operating Cost Summary

Area	LoM Total (US$ M Real)	LoM Average (US$ M p.a)	Unit Cost (US$ / oz)
Open-Pit Mining	564	52.5	373
Processing & Infrastructure	716	66.6	474
General & Administrative	70	6.5	46
Subtotal: Minesite Costs	1,349	126	893
Royalties (Government & Other)	153	14.1	101
Selling Expenses	57	5.2	37
Subtotal: Cash Cost	1,559	145	1,032
Sustaining Capital	12	1.1	8
Reclamation & Closure Cost	32	3.0	21
Other (Corporate G&A, Exploration, *etc.*)	0	0.0	0
TOTAL: AISC	**1,603**	**149**	**1,061**

The LoM average Total Cash Cost is US$1,032/oz (real 2025), which places the Project on the 50th percentile of primary gold producers globally[1].

The Project's AISC peaks in the years where there is a noticeable decrease in annual ounce production observed (2030, 2034-36, 2038-39) with the AISC breaking through the US$1,100/oz level in those years.

[1] As per data from S&P Global's Market Intelligence platform.

1.20 Market Studies

The Gold Trade Act empowers the Minister responsible for Finance to issue a Gold Dealers License which entitles entities to export and sell gold from Zimbabwe to customers of their choice. Prior to 1 June 2021, only Fidelity Gold Refinery (Private) Limited (FGR) had the Gold Dealership License and therefore all gold bullion was sold to FGR. With effect from 1 August 2021, all gold producers can directly sell any incremental production to customers of their choice using FGR's license to export. Caledonia's Blanket Mine is currently selling 70% of its gold to a customer of its choice outside Zimbabwe by exporting the gold using FGR's license.

Sales proceeds from the exported gold are received directly into Blanket's bank account in Zimbabwe. Bilboes will be able to sell its gold directly to customers of its choice or to continue selling to FGR.

Bilboes is confident that it will be able to export and sell its gold production on similar terms as those currently in place between FGR and Blanket.

1.21 Economic Outcomes

The Project's economic analysis is underpinned by information generated during the Feasibility Study, together with supporting technical and economic data from recognized external sources. Primary inputs include mineral resource and reserve estimates, mine designs, production schedules, metallurgical testwork, capital and operating cost estimates, as well as supporting infrastructure studies, which have been prepared by DRA.

In addition to project-specific data, macroeconomic assumptions have been developed with reference to widely recognized independent sources, including consensus gold price forecasts, consensus inflation rate and exchange rate projections, and published fiscal and regulatory frameworks applicable in Zimbabwe.

The valuation is based on the income approach, which integrates all technical, operational, and financial inputs to produce a life-of-mine discounted cash flow (DCF) model to derive the Project's value. No other valuation methods have been employed in this analysis. A summary of the basis of value assumptions is provided in Table 1-7.

Table 1-7: Basis of Valuation

Parameter	Disclosure
Effective Date	August 2025
Valuation Methodology	Income approach (DCF)
Reporting Currency	United States Dollar (US$)
Cash Terms	Real
Discount Rate	8% (US$ real, post-tax)
Gearing	100% equity-financed (unlevered)
Shareholding	100% project-based
Salvage Value / Terminal Value	None

In addition to government mineral royalties, the Project has two royalty obligations to fulfil, relating to a 1% Net Smelter Return (NSR) royalty payable to the previous owners of the Project (Baker Steel Resources Limited) as well as a 0.5% NSR royalty payable to processing technology providers of the Project.

The Project generates a value accretive business case in all three of the gold price scenarios evaluated. Key financial outcomes are shown in Table 1-8.

Table 1-8: Project Economics Summary

Metric	Unit	Consensus Forecast Price	3-Year Trailing Average Price	Spot Price
Gold Price (Ave)	US$ / oz (Real)	2,548	2,350	3,648
Post-Tax $NPV_{8\%\ Real}$	US$ M	582	454	1,234
Post-Tax IRR	% Real	32.5	27.4	50.4
Payback Period[2]	Years	1.7	2.8	1.1
Peak Funding Required	US$ M (Real)	484	484	484
Value-Investment Ratio	Ratio	1.2x	0.9x	2.6x
Life of Mine (Active Years)	Years	10.8	10.8	10.8
Operating Margin	% Real	59.5	56.5	70.2

The pricing scenario, evaluated on a LoM average realised gold price of US$2,548/oz, yields the following key results:

- Post-tax $NPV_{8\%\ Real}$ of US$582 M at a post-tax IRR of 32.5%.,
- Payback period of 1.7 years, as measured from the date of first production,
- Robust Value-Investment Ratio of 1.2X[3],
- Peak funding requirement of US$484 M (real),
- Healthy operating margin of 59.5%.

1.22 Conclusions

1.22.1 Mineral Resource Estimate

- The data collected during the exploration, drilling and sampling programmes, including surveying, drill hole logging, sampling, geochemical analysis, and data quality assurance, was done in a professional manner and in accordance with appropriate industry standards by suitably qualified and experienced personnel.
- The geological modelling and Mineral Resource estimate were undertaken utilizing recognized deposit and industry strategies/methodologies for the type of deposit of the Bilboes Gold Project.
- The Mineral Resource is constrained in an optimized pit shell. This together with the assumptions relating to mining, processing, infrastructure, and market factors supports the “reasonable prospects for eventual economic extraction”.
- Based on an assessment including: data quality and integrity, data spacing, confidence in the grade interpolation, confidence in the geological interpretation and confidence in the estimate the relevant Qualified Person (QP) believes the Mineral Resource estimate is robust.

[2] As measured from the date of first ore processed / first revenue.
[3] Defined as post-tax NPV / Peak Funding required.

1.22.2 Mining Engineering

- Both the modelling and the grade interpolation have been conducted in an unbiased manner and the resulting grade and tonnage estimates should be reliable within the context of the classification applied.
- The open pit modelling is based on suitably supported assumptions and parameters and completed utilizing appropriate industry standards suitable for the Bilboes Project.
- The economic modelling is supported by technical studies in mining, processing, infrastructure, environmental, social, and marketing. Based on the inputs from these disciplines, the financial model demonstrates an economically viable project.

1.22.3 Risk

A comprehensive quantitative risk assessment (QRA) highlighted specific elements to be managed closely at the beginning of the project phase and mainly include the following:

Project services – Onboarding of Contractors to be timeously executed and ensuring that the Owners team and Engineering Procurement Construction Management (EPCM) are managing this process meticulously through dedicated personnel.

Procurement – Ensuring the Contractors appointed are competent and or Suppliers are reliable and paid according to performance and contract. This must also be managed closely by the EPCM logistics and procurement team with support from the Owners team.

The QRA further highlighted a capital contingency of 9.72% which is modelled as part of the sensitivity analysis.

The QRA process, consisting of the Project Definition Rating Index (PDRI), a Systemic Risk Assessment, an assessment of estimate and schedule variability, and a quantitative assessment of the risks identified in the risk register, which are then simulated using a Monte Carlo model. Based on the risks and variability identified in the QRA, the confidence level of the project's cost estimates falls within the 15% range required for a FS.

1.22.4 Economic analysis

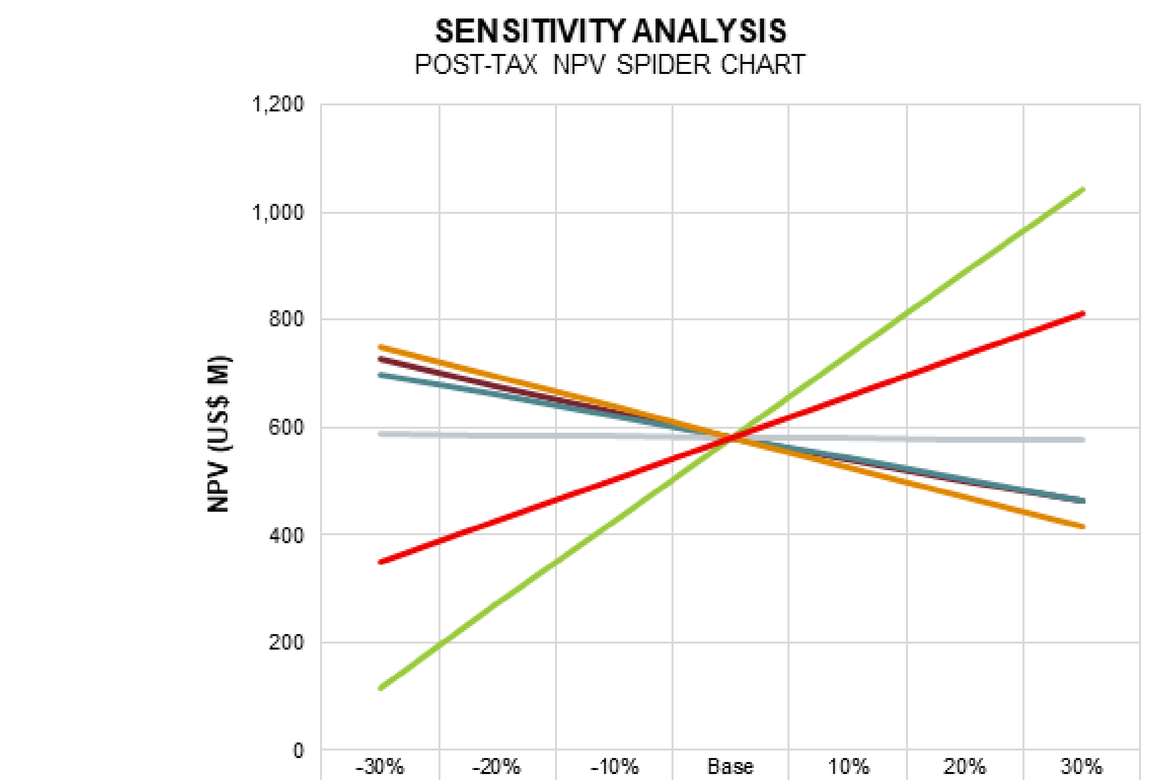
The FS demonstrates that the Project delivers strong economics across all tested gold price scenarios. At long-term consensus forecast prices, the project achieves a post-tax $NPV_{8\%Real}$ of US$582 M, a post-tax IRR of 32.5%, and a rapid payback of 1.7 years.

Under the more conservative three-year trailing average price of US$2,350/oz, the project remains economically viable, with an $NPV_{8\%Real}$ of US$454 M, an IRR of 27.4%, and a payback period of less than three years

1.22.5 Sensitivity Analysis

The sensitivity analysis highlights variables that are most likely to influence project value, namely discount rate, gold price, gold recovery, capital cost, and operating cost. The spider chart (refer to Figure 1-5) shows the NPV distributions associated with these six key variables. Each variable is independently adjusted by +/- 30% (from the point estimate adopted in the FS) and the corresponding NPV is plotted to identify those variables for which the Project's value is most sensitive.

It is evident the Project's $NPV_{8\%Real}$ is most sensitive to movements in gold price and recovery, followed by mine-site OPEX, discount rate, project CAPEX and then Sustaining CAPEX. It is also evident that the Project remains value accretive (NPV > 0) even at a 30% gold price reduction, with the breakeven gold price estimated at US$1,600/oz (real).



	-30%	-20%	-10%	Base	10%	20%	30%
Gold Price	115	272	428	582	736	890	1,044
Discount Rate	728	676	627	582	540	501	464
Project CapEx	699	660	621	582	543	503	463
Sustaining CapEx	587	586	584	582	580	579	577
Minesite OpEx	749	693	638	582	527	471	415
Au Recovery (+/- 15%)	350	428	505	582	659	736	813

Figure 1-5: Sensitivity Analysis: NPV Spider Chart

An additional analysis was performed to assess the impact of execution schedule delays on the Project's value, based on the results of the probabilistic quantitative risk assessment (QRA) conducted during the FS. The QRA indicated that there is a 20% probability that the execution schedule will be delayed by five months, which would result in an NPV and IRR reduction of US$63 M and 5.1% respectively. This necessitates the requirement for excellent planning and project management capability during the 33-month project C4 target date and execution window.

1.23 RECOMMENDATIONS

The following recommendations are meant to provide enhancements, cover the gaps and mitigate risks identified during the feasibility study. The costs associated with these recommendations will be incurred during the operational phase of the project and are included in the operational budget.

1.23.1 FS Geology and Resources

Develop an advanced grade control model prior to mining to enable a more accurate estimation of tonnage and grade and to get a better definition of oxide, transitional and sulphide oxidation boundaries for mine planning.

Develop a Geo-metallurgical model which include critical elements and compounds that affect the Bio-oxidation process which will be important for ore blending regimes.

Conduct further exploration during the operational phase to test the strike and depth extensions of mineralization.

Develop a regional geological model to enable targeting of new deposits in the rest of the Bilboes claims.

1.23.2 Mining

Conduct Whittle optimisation studies at higher gold prices than used in the FS, to investigate potential for additional Mineral Reserves.

On-going geotechnical analysis is recommended during the operational phase for pit design optimisation to improve overall business economics.

1.23.3 Processing

Conduct further comminution testwork to optimise the crushing and milling layout and equipment selection during the FEED phase.

Conduct flotation testwork optimisation to validate recovery upsides.

Develop the skills base to effectively run the BIOX® operations.

Continuously monitor sulfur content during the operational phase for gold recovery optimisation.

1.23.4 Infrastructure and Civils

Optimise the Infrastructure and Civil designs with additional geotechnical information.

1.23.5 TSF

All tailings parameters and characteristics must be verified, assessed, and optimised prior to incorporation into the Detailed Design. A plan and schedule are in place to produce a representative tailings sample to confirm the waste classification of the tailings streams.

TSF stage capacities and starter wall heights will need to be optimised and aligned to the LoM production profile if it changes.

It is recommended that the Water Balance Model (WBM) be actively maintained and updated throughout the project lifecycle.

1.23.6 Risks

Project services – Onboarding of Contractors to be timeously executed and ensuring that the Owners team and EPCM are managing this process meticulously through dedicated personnel.

Procurement – Ensuring the Contractors appointed are competent and or Suppliers are reliable and paid according to performance and contract. This must also be managed closely by the EPCM logistics and procurement team with support from the Owners team.

1.23.7 Economic Analysis

TEM Maintenance: Periodic updates to the Techno-Economic Model (TEM) should be performed to maintain its integrity and assist with future options analysis.

Ore Blending & Metallurgical Recovery: The current TEM is based on a stockpiling strategy that only prioritizes gold grade from the various pits. However, the processing plant's performance (i.e. recovery and throughput) is sensitive to movements in both deleterious element concentrations (e.g. sulfur) and physical ore properties (e.g. ore hardness) which is expected to vary month-to-month and by pit. A more sophisticated blending strategy should be developed and tested in the TEM to better manage these properties.

Operational Synergies: Together with the Blanket operation, approach key vendors to explore the potential benefit of, for example, bulk purchasing of reagents and consumables to drive down costs for the Project.

Refine Fiscal and Exchange Control Assumptions: Alternative fiscal terms (e.g. government free-carried interests) that might come into force and effect, should be proactively managed in the financial model as part of the ongoing scenario analyses employed by the management team. Furthermore, engagement with the Reserve Bank of Zimbabwe and relevant authorities should be prioritized to clarify the foreign-exchange surrender requirements and repatriation mechanisms applicable to gold exporters.

Closure and Rehabilitation: It is advisable to evaluate the potential cashflow implication to the Project if the Government of Zimbabwe adopts a similar policy position on closure costs to South Africa, i.e. requiring mining right holders to provide financial guarantees on day one sufficient to cover premature closure. Closure and rehabilitation costs will be evaluated on an annual basis, to ensure that the contingent liability associated with premature and LoM closure is kept current.

1.23.8 Environmental, Social, and Governance

Environmental and social issues are an integral part of the business and it is recommended that the company takes a proactive approach in mitigating the risks and impacts by adhering to regulatory compliance as well as relevant best practice requirements, and continually engaging the local community and key stakeholders prior to construction, and through operation and closure as recommended in the ESIA study.

2 INTRODUCTION

2.1 Report Purpose

Caledonia mandated the completion of this Technical Report Summary (TRS) to report the Feasibility Study on the Bilboes Gold Project effective as of 31 October 2025 in compliance with S-K 1300.

DRA previously issued an S-K 1300 pre-feasibility study for the Project entitled "Bilboes Gold Project Technical Report Study", with an issue date of May 15, 2024 and an effective date of December 31, 2023.

On June 3, 2024, Caledonia published a new technical, report for Bilboes, which superseded prior technical reports and technical report summaries for Bilboes. The new Bilboes technical report was a Preliminary Economic Assessment (PEA) prepared in accordance with Canada's National Instrument 43-101 and did not comply with S-K 1300.

Subsequently, an updated Initial Assessment with an effective date May 30, 2024 was issued in December 2024 in accordance with S-K 1300.

The purpose of this TRS is to report the Feasibility Study completed for the Project in accordance with S-K 1300, for the implementation of open pit mining to recover the gold mineralization. This TRS updates and supersedes the previous S-K 1300 report, which was the Initial Assessment issued in December 2024.

2.2 Sources of Information

The sources of information include historical data and reports compiled by previous consultants and researchers of the Project and supplied by Caledonia, as well as other documents cited throughout the report and referenced in Section 21.

- All exploration and mining permit information was supplied by Bilboes,
- All input drilling data used for the generation of the geological and resource models were supplied by Bilboes who also supplied all historical information including geological data, reports, and maps. The Whittle shells used to define the Mineral Resource were created by DRA, using the latest block models supplied by DRA.
- Information on the process was obtained from the pilot plant test work,
- The rest of the technical information was obtained by the various consultants engaged by Bilboes.

2.3 Personal Inspections / Site Visits

Relevant personal inspections / site visits were conducted on the Bilboes properties by the Qualified Person (QP) on 21 and 22 February 2018, from 20 to 22 March 2018, and 26 September 2018 and from 17 to 19 July 2024.

2.4 Qualified Person Responsibilities and Relationships

The QP is not affiliated with Caledonia or any other entity that has an ownership, royalty or other interest in the Bilboes properties.

3 PROPERTY DESCRIPTION

3.1 Project Location

The Bilboes properties are located in the Matabeleland North Province of Zimbabwe. The Isabella-McCays properties are situated approximately 80 km north of Bulawayo while Bubi is situated approximately 100 km north of Bulawayo. Bubi is 32 km due north-east of Isabella (See Table 3-1 for coordinates).

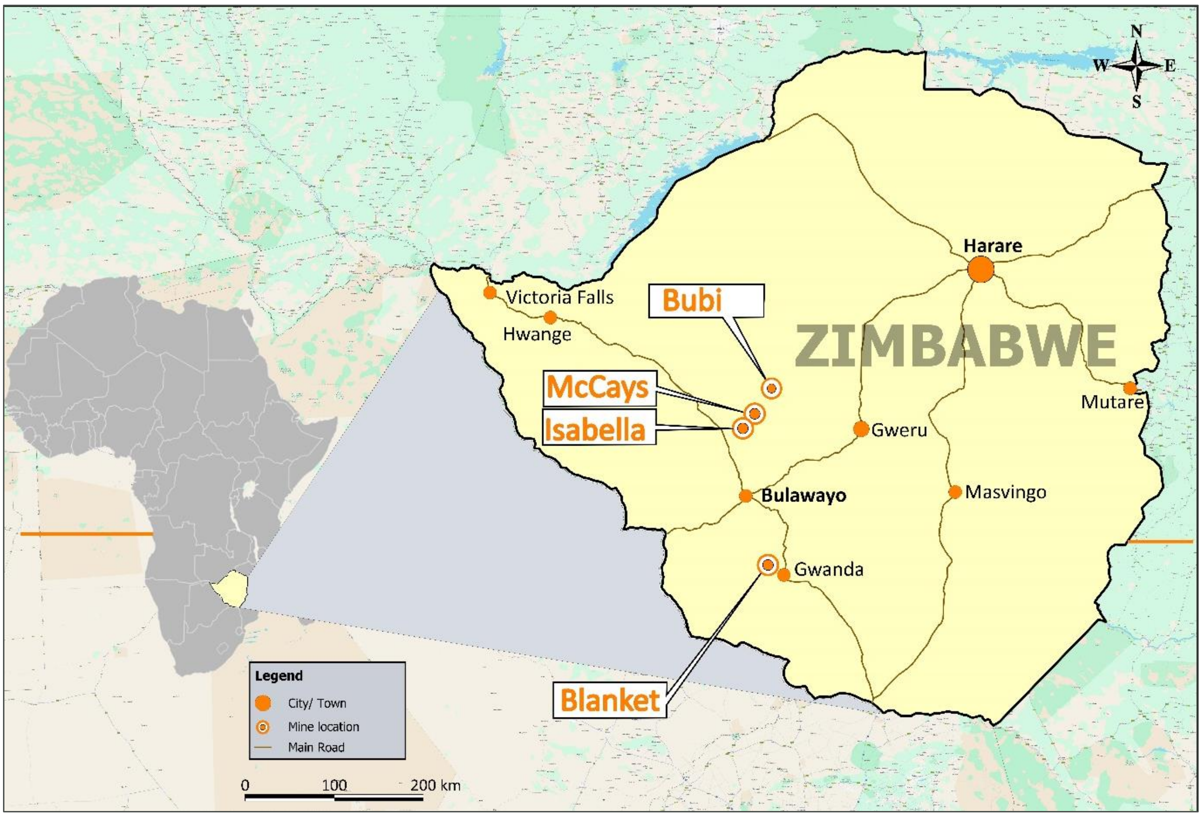


Figure 3-1: Regional Location of the Bilboes Project[4]

3.2 Property Area

The Isabella-McCays-Bubi properties comprise 130 claim blocks covering an area of 2,731.6 ha as shown in Table 3-1.

Table 3-1: Bilboes Claims

Group of Claims	Mining District	Province	No. of Blocks	Area (ha)	Coordinate X1	Coordinate Y1
Calcite and Kerry (Isabella Mine)	Bulawayo	Matabeleland North	49	1,894.4	662,106	7,846,712
Ruswayi (McCays Mine	Bulawayo	Matabeleland North	33	330.0	666,339	7,849,975
Chikosi (Bubi Mine)	Bulawayo	Matabeleland North	48	507.2	684,838	7,865,515
Total			**130**	**2,731.6**		

[4] Source: Burger et al, 2017

Coordinates are in UTM Arc 1950 Zone 35K, Clarke 1880 spheroid format.

3.3 Mineral Tenure and Title

Bilboes claims which are wholly owned by Bilboes, consists of 130 blocks, are of mineral interest ownership type and includes the full rights to explore, develop, and produce the minerals. Of the 130 blocks, 49 gold and base metal blocks and a Special Mine site belong to the Isabella mining area while McCays comprise of 33 gold blocks (Figure 3-2) and Bubi consisting of 48 gold blocks (Figure 3-3). The rights were obtained through certificates of Registration After Transfer from Prospecting Ventures, an exploration entity owned Anglo American which had pegged these claims after carrying out exploration work. Bilboes also thereafter registered additional claims in the surrounding area. The claims are protected annually against forfeiture through gold production and exploration work and the Company has exclusive rights to subsurface areas to produce gold from these properties. These rights which are also transferable do not expire if the annual protection fees (US$56,062) are paid when they become due.

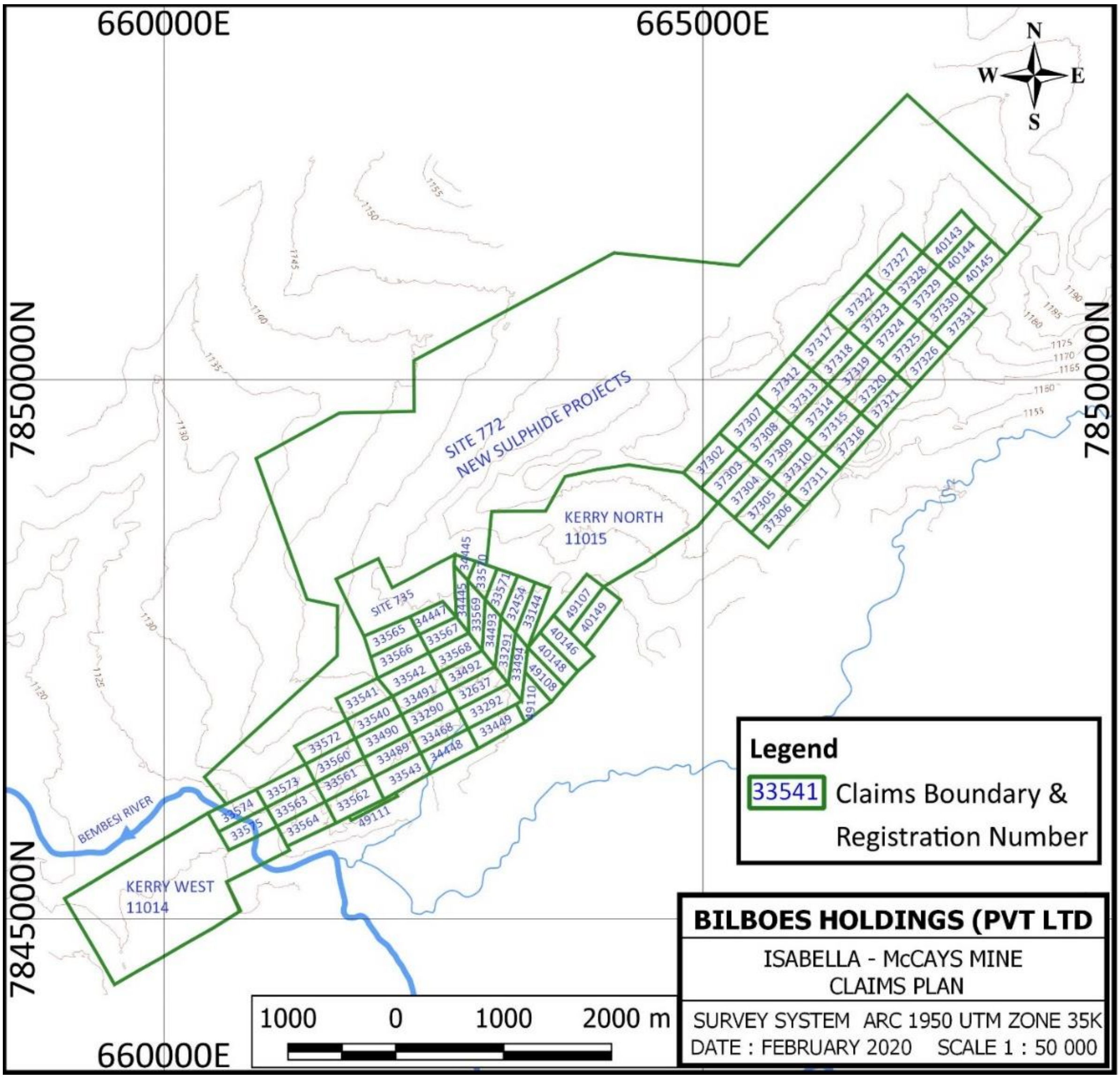


Figure 3-2: Isabella-McCays Mine Claims Map

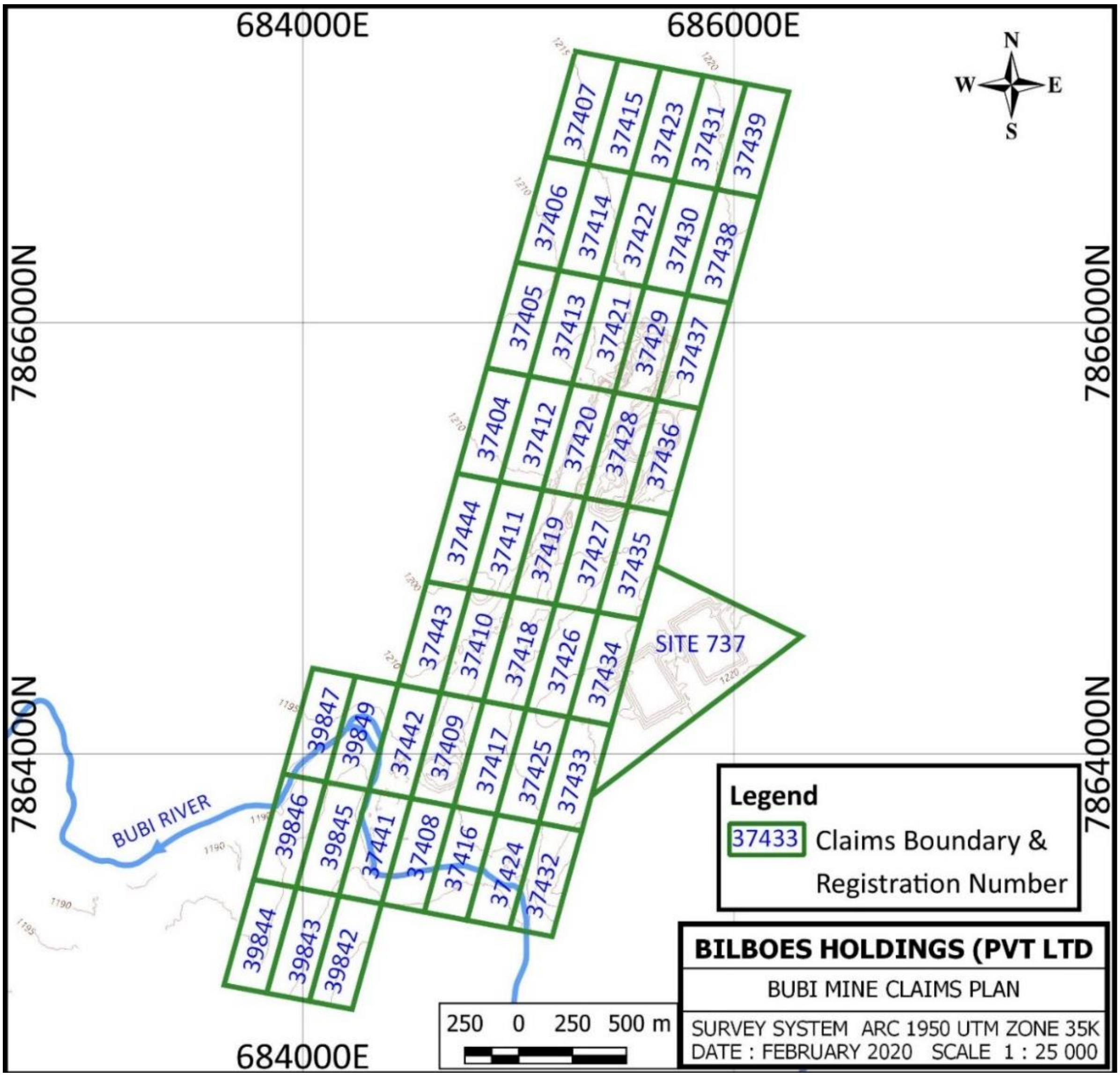


Figure 3-3: Bubi Mine Claims Map

3.4 Permits

Bilboes has been operating in Matabeleland since 1989. It holds the necessary mining permits and complies with the terms of the Mines and Minerals Act and allied regulations with respect to all of their claims and in particular that all of the registration certificates are valid, and the protection certificates are up to date. Bilboes thus requires no further permits to explore or produce from the current operational areas, but further permits will be required for the proposed haul road between Bubi and Isabella plant.

Further exploration outside the current claims will require approvals by the EMA who may request an EIA study.

SLR Consulting (SLR) based in South Africa in partnership with the local GryinOva Environmental Consultants conducted an ESIA study for the project and an EIA certificate of approval was issued by EMA in February 2021 and the certificate was valid for 2 years and subject to renewal on an annual basis for the duration of the operations.

The current EIA certificate expires in February 2026. The conditions of renewal are notification to the agency of any changes in the project, compliance to the approved environmental plan and submission of progress report on the project. There is no reason that the renewal will not be granted.

Other project related licenses include air emissions (generators, smelter, incinerator), explosives (purchase and storage), firearms, medicines control, public health (medical examination), water abstract and hazardous substances (importation, transportation, storage and use), solid waste disposal which are renewed when they become due either quarterly or annually. The conditions of renewal involve payment of applicable fees to the regulatory bodies for an amount of $70,000 per annum. Bilboes also holds 3,935 ha of additional claims and has applied for 59,100 ha of exploration licenses referred to as Exclusive Prospecting Orders (EPOs) around Isabella-McCays-Bubi and the Gweru area. These claims and EPOs have highly prospective targets which offer Bilboes excellent prospects for organic growth. The decision on the EPO applications is pending.

3.5 Political Risks

Political uncertainties are risks, which may lead to unfavorable legislative and taxation framework changes, exchange control restrictions, international monetary fluctuations, civil unrest, or any other political instability. However, the current political environment is looking favorable due to the recent reforms by the Government under the new dispensation. It is expected that this or any other politically related risks will not affect Bilboes now or in the foreseeable future.

All the properties belonging to Bilboes are protected in respect of the Mines and Minerals Act. All the blocks of claims are registered with the Mining Commissioner’s office and are regularly inspected in compliance with the mining regulations and preserved against forfeiture.

3.6 Indigenization and Economic Empowerment

The Indigenization and Economic Empowerment Act has since been amended and it now allows foreign entities to own 100% mining rights. Foreign shareholding will now be negotiated with investors.

All new foreign investment into Zimbabwe requires an investment license issued by the Zimbabwe Investment Authority in terms of the Zimbabwe Investment Authority Act.

Moreover, in the mid-term budgetary review statement of 2019 the Indigenization and Economic Empowerment Act was repealed and replaced by the Economic Empowerment Act, which is consistent with the current thrust “Zimbabwe is Open for Business".

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 Access

Isabella McCays and Bubi are approximately 80 km and 100 km directly north and northeast of Bulawayo, the second largest city of Zimbabwe with an approximate population of 655,675 (2013). All the mines are accessed via public roads and although these are of variable quality, they are accessible by all types of vehicles. Isabella is 110 km (1.5 hours) whilst Bubi is 140 km (2 hours) by road from Bulawayo. Bubi can also be accessed by road from Isabella (70 km in 1 hour).

4.2 Physiography

The properties lie between 1,150 m and 1,200 m above mean sea level (amsl). The area is covered by red and grey soils characteristic of greenstone rocks in Zimbabwe. Vegetation is dominated by scrubby Colophospermum Mopane, Acacia, and Combretum woodlands and minor occurrences of miombo with no extensive grasslands. Agricultural activities are restricted to ranching.

4.3 Climate

Despite lying in the tropics, the climate is subtropical due to its relatively high altitude. The mean annual temperature is 19°C. Three broad seasons are prevalent: a dry, cool winter season from May to August; a dry, hot early summer from late August to early November and a wet, warm summer from early November to April. Rainfall during the wet season averages 594 mm. The climatic conditions allow for a year-round exploration and mining activities.

4.4 Local Resources and Infrastructure

The terms of the claims tenure system in Zimbabwe confer rights to use of the land surface for mining and construction of all related infrastructure such as housing, offices, plant, and tailings/waste disposal facilities subject to adherence to the environmental legislation. In 2019, Bilboes obtained rights for an additional 1,128 ha for a mine site at Isabella which will be adequate to cater for the additional sulphide mine infrastructure such as the sulphide plant, tailing's storage facility, waste dumps, housing, and additional office infrastructure.

There is sufficient underground water around the mines to run the current heap-leach operations, but additional drill holes and pumping capacity will be required for the proposed sulphide-mining project. A high level water study was concluded at FS phase which indicates sufficient water as a source from the Bafana dam.

There are 33 kV power lines within 5 km and 25 km of the Isabella McCays and Bubi deposits respectively, that form part of the national grid, but the present network configuration is fully loaded with no room for additional load.

A new 70 km 132 kV Lynx line will have to be constructed from Shangani Substation to Isabella McCays to meet the processing plant load.

The mines have cell phone and internet connectivity and utilize a two-way radio system.

Generators at all mines allow continued production during load shedding. The capacity will need to be upgraded to cater for the sulphide operation.

4.5 Personnel

Zimbabwe continues to boast the highest literacy rate (89.95% (World Bank, 2022)) in sub-Saharan Africa. National examinations are written during the third term in November, with "O" level and "A" level subjects (UK based qualification for students aged 16 and above). Currently, there are several public universities as well as four church-related universities in Zimbabwe that are fully internationally accredited. Zimbabwean culture places a high premium on education. Various mining related qualifications such as geology, mining engineering and mineral processing are offered at tertiary level. As a result there is a pool of well qualified and experienced mining personnel.

4.6 Supplies

Mining supplies, including mining and processing equipment, are readily available in Zimbabwe.

5 HISTORY

5.1 Holdings

AMZIM, the company that formed Bilboes Holdings (Pvt) Ltd, and was later taken over by GAT investments (Private) Limited (GAT Investments) in 2003 and held the Isabella, McCays and Bubi claims. AMZIM acquired the Isabella claims in 1982.

The Bilboes Properties are wholly owned by Bilboes Holdings (Pvt) Ltd (Bilboes), which is 100% owned by Bilboes Gold Limited (Bilboes Gold), which was acquired by Caledonia on 6 January 2023. Prior to its acquisition by Caledonia, Bilboes was a private company owned by three shareholders, GAT Investments, Baker Steel Resources Limited (Baker Steel), and Infinite Treasure Limited (Infinite Treasure).

5.2 Historical Sulphide Mineral Resource Estimates

In 2009, SRK Consulting (SRK) undertook a NI 43-101 Mineral Resource Estimate (MRE) for the sulphide Properties based on the drill holes and geological interpretations supplied by Bilboes.

Geological models were created for all these deposits, excluding the oxide portions, to a depth of up to 150 m. Solid models were created from the wireframes generated and assays for gold within these were used for geostatistical modelling and resource estimation. The Mineral Resource of 5.2 Mt containing 533,000 oz was declared to 100 mbs with mineralization from 3.5 Mt containing 240,000 oz being declared from 100 – 150 mbs.

The grade estimation for the Sulphide Project was based on a 2.0 g/t cut-off mineralized envelope. In general, the drill coverage was poor, with drill spacing ranging from 25 m (Bubi) to up to 100 m for McCays. In most cases there was only one drill hole per drill line.

Classification of the anomalies was based on the quality of the estimate, which in turn was based on grade continuity and data spacing and was done according to the guidelines contained within the NI 43-101.

Estimates were validated by visually comparing the drill hole grades to the block model grades for each section line in Datamine Studio™ (Datamine).

The results of the estimation for the classification is an Inferred Mineral Resource (Table 5-1).

Table 5-1: Sulphide Inferred Mineral Resource as of 2009

Deposit	Cut-Off (g/t)	Tonnes (Mt)	Au (g/t)	Content (koz)
Bubi	2.00	1.435	2.68	124
Calcite	2.00	0.500	4.96	80
Castile	2.00	0.902	4.32	125
Diana	2.00	0.915	3.49	103
Maria	2.00	0.177	3.10	18
McCays	2.00	0.821	3.20	84
Total / Average		**4.750**	**3.49**	**534**

Subsequent to the 17,650 m diamond drill holes by Anglo of 1994 - 1999, additional exploration work under Bilboes resumed in 2011 through to 2016 where an additional 20,527 m of diamond drill and 20,235 m of RC drilling was completed bringing the total metreage to 58,412 m. The drilling culminated in an interim NI 43-101 Mineral Resource update by Mr. Arimon Ngilazi and Dr Anthony Martin in 2017 (Table 5-2 and Table 5-3).

During the period December 2017 to November 2018, an additional 34,987 m of drilling (17,015 m from 129 diamond drill holes, 17,972 m from 178 RC drill holes) were completed. This was largely an infill drilling programme for a Mineral Resource upgrade across all deposits at Isabella, McCays and Bubi and achieved a vertical depth of 200 m. The total project drilling conducted over the three phases consists of 93,400 m of diamond drilling and RC drill holes with an additional 2,500 m of diamond drill holes drilled for geotechnical work.

The MRE summarized in Table 5-4, completed in December 2023, was based on a cut-off grade of 0.9 g/t Au and constrained inside a Lerchs-Grossman (LG) optimized pit shell adopting a US$ 2,400 per ounce gold price. The declared Mineral Resources, which were part of an Initial Assessment Study (which was published in December 2024), exclude Mineral Reserves.

Table 5-2: Sulphide Mineral Resource (31 March 2017) 0.0 g/t Au Cut-Off Grade

Property	Indicated				Inferred			
	Mass (Mt)	Au Grade (g/t)	Au (kg)	Au (Moz)	Mass (Mt)	Au Grade (g/t)	Au (kg)	Au (Moz)
BUBI	29.96	2.20	65,912	2.12	9.05	1.90	17,195	0.55
ISBN	12.07	2.19	26,433	0.85	1.55	2.01	3,116	0.10
ISBS	7.90	2.43	19,197	0.62	0.51	2.62	1,336	0.04
MCCAYS	3.48	2.44	8,491	0.27	7.07	1.97	13,928	0.45
Total	**53.41**	**2.25**	**120,034**	**3.86**	**18.17**	**1.96**	**35,575**	**1.14**

Table 5-3: Sulphide Mineral Resources (31 March 2017) 0.9 g/t Au Cut-Off Grade

Property	Indicated				Inferred			
	Mass (Mt)	Au Grade (g/t)	Au (kg)	Au (Moz)	Mass (Mt)	Au Grade (g/t)	Au (kg)	Au (Moz)
BUBI	28.05	2.27	63,674	2.05	8.66	1.93	16,714	0.54
ISBN	9.94	2.53	25,148	0.81	1.29	2.27	2,928	0.09
ISBS	7.05	2.60	18,330	0.59	0.44	2.86	1,258	0.04
MCCAYS	2.55	3.19	8,135	0.26	5.58	2.38	13,280	0.43
Total	**47.60**	**2.42**	**115,286**	**3.71**	**15.97**	**2.14**	**34,181**	**1.10**

Table 5-4: Mineral Resources (0.9 g/t Au) Reference Point: In Situ (31 December 2023)5

Property	Classification	Tonnage (Mt)	Au (g/t)	Ounces (koz)
Isabella South (ISBS)	Measured	1.3	2.34	100
	Indicated	5.2	2.17	363
	Total Measured and Indicated	6.5	2.20	463
	Inferred	1.3	1.80	77
Isabella North (ISBN)	Measured	2.6	2.68	223
	Indicated	4.4	2.31	329
	Total Measured and Indicated	7.0	2.45	553
	Inferred	1.6	2.18	113
Bubi	Measured	1.3	1.95	81
	Indicated	14.0	2.19	987
	Total Measured and Indicated	15.3	2.17	1,068
	Inferred	5.1	1.80	296
McCays	Measured	0.9	3.05	91
	Indicated	3.9	2.37	296
	Total Measured and Indicated	4.8	2.50	386
	Inferred	1.1	2.16	73
Totals (ISBS + ISBN + Bubi + McCays)	Total Measured	6.1	2.51	495
	Total Indicated	27.5	2.260	1,976
	Total Measured and Indicated	33.7	2.30	2,470
	Total Inferred	9.1	1.99	560

S-K 1300 definitions observed for classification of Mineral Resources.

Mineral Resources are reported in-situ.

Resources are constrained by a Lerchs-Grossman (LG) optimized pit shell using Whittle software with an assumed gold price of US$2,400 /oz.

Mineral Resources are not Mineral Reserves and have no demonstrated economic viability. The

estimate of Mineral Resources may be materially affected by mining, processing, metallurgical,

infrastructure, economic, marketing, legal, environmental, social, and governmental factors (Modifying

Factors).

Resources reported as part of an IA which is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the IA will be realized

Numbers may not add due to rounding.

Effective Date of Resource Estimate is 31 December 2023.

5.3 Production

5.3.1 Oxide Mineralization

5.3.1.1 Isabella

There are early records of insignificant gold production for the Isabella Mine prior to 1982. In its first year of operation the Isabella open pit operation produced 170 kg of gold from a monthly rate of 15,000 t of ore. At start of production there were three pits with a Mineral Reserve life of 18 months and as of 31 December 2024, the Mine had treated 6.6 Mt of oxides at 1.15 g/t (243 koz) and recovered 151 koz of gold inclusive of re-leached gold from the old heap leach pads. The bulk of the production from Isabella was from uncrushed ore with only 38 koz of gold being recovered from 2.5 Mt of crushed oxide ore after the installation of a crushing plant in 2007.

5.3.1.2 Bubi

Bubi was commissioned in 1997 at 25,000 t per month of oxide ore and produced 9.5 koz of gold in its first year. Mining activities were suspended at Bubi Mine in 2007 after running out of oxide ore. Gold production from that period to 2013 has been from re-leaching of the old heaps. Progressively inclusive of re-leached gold from the old heap leach pads, the mine has produced 85 koz of gold as at end of December 2024 from 4.3 Mt of oxide ore at 1.00 g/t (138 koz). All the ore at Bubi Mine was treated without crushing. There has not been any mining at Bubi from 2005 after the exhaustion of oxides.

5.3.1.3 McCays

As a result of regional exploration by Prospecting Ventures (PV), an AMZIM exploration company based in Zimbabwe at the time, a new gold deposit was discovered at McCays in 1997. In 1998 production from an open pit, heap-leach mine started. Further exploration work within the claims area during the operational phase of the mine was added to the Reserves until depletion and temporary closure in 2002. No mining activities took place between 2002 and 2012 at McCays. Gold production was through re-leaching from the year 2004 until 2009. No gold production occurred from 2010 to 2012. Activities commenced after the recapitalization of Bilboes in 2013. Cumulative gold production from inception at McCays was 57.5 koz) as of 31 December 2024. This included the re-leached gold from the old heap leach pads from treating 2.2 Mt of oxide ore at 1.15 g/t (80 koz). Inclusive of this, an estimated 24 koz of gold was recovered from 1.0 Mt of crushed oxide ore after the installation of a crushing plant in 2013. The oxides at McCays are finished and only re-leaching activity is taking place.

5.3.2 Production Summary

Prior to the open-pit exploitation of the Isabella Mineral Resource by Bilboes, the Calcite Mine (underground and now part of the Isabella strike) produced 559 kg of gold at an average recovered grade of 8.2 g/t.

The production from Bilboes mines including from inception to 31 December 2024 is presented in Table 5-5. Bilboes has produced some 97,521 oz of gold from the four mines since the takeover of the company in 2003 to 31 December 2024.

Table 5-5: Production Data from Bilboes Mines to 31 December 2024

	Start-up Date	Ore Treated (kt)	Grade (g/t)	Au Recovered (koz)
Isabella	1989	1989	1.15	151.5
Bubi	1997	1997	1.00	84.6
McCays	1998	1998	1.15	57.5
When	2005	2005	0.78	1.9
Total		**1989**	**1.09**	**295.5**

6 GEOLOGICAL SETTING, MINERALIZATION AND DEPOSIT

6.1 Regional Geology

Geology in Zimbabwe can be divided into three main areas, the Archean, the Proterozoic, and the Phanerozoic (Figure 6-1).

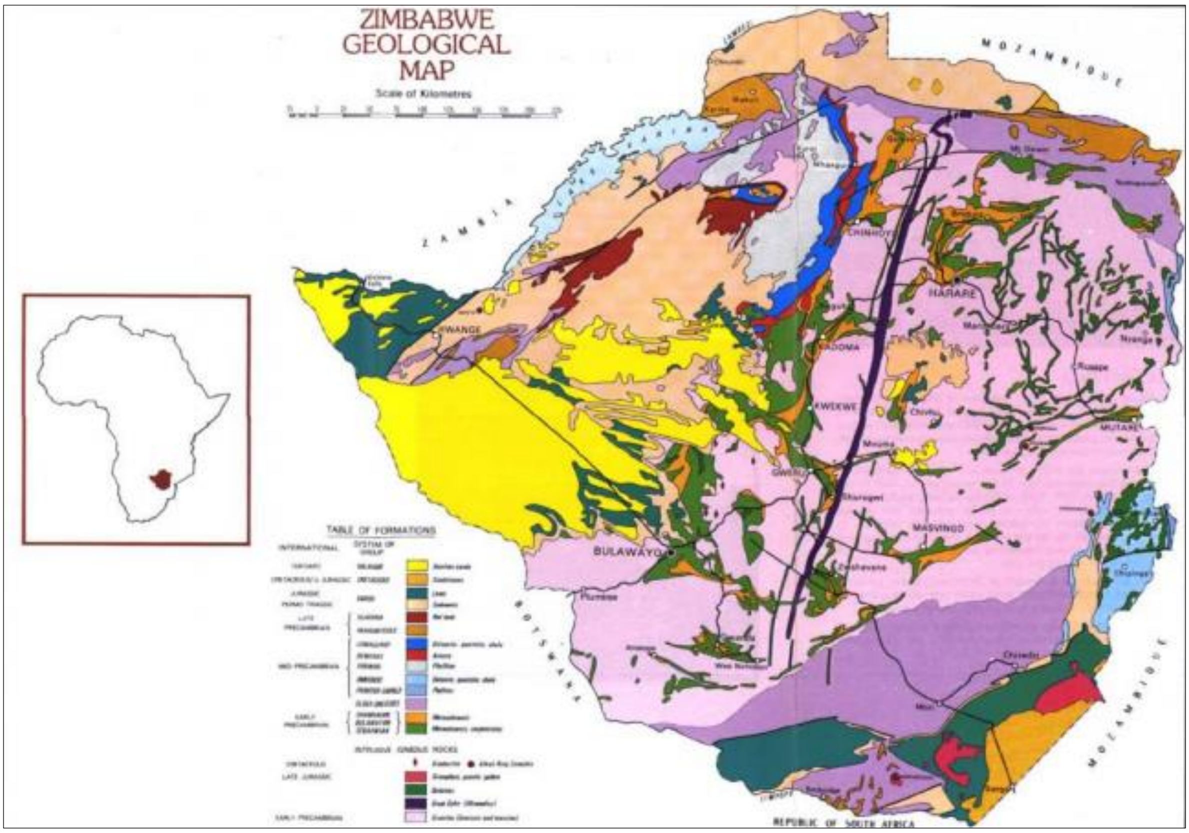


Figure 6-1: Greenstone Belts and known Gold Deposits in Zimbabwe[5]

6.1.1 The Archean

Rocks from the Archean era in Zimbabwe occupy most of the Zimbabwe Craton, an ancient stable continental block. This is the basement and primarily comprises granites and gneisses with remnants of volcano-sedimentary piles known as Greenstone Belts. Greenstone Belts cover approximately 60% of the land surface of Zimbabwe. The Greenstone Belts are renowned for their rich variety of mineralization as shown in Figure 6-1.

6.1.2 The Proterozoic

In Zimbabwe, the Proterozoic era followed immediately after the emplacement of the Great Dyke intrusion at the end of the Archean era. The Great Dyke is a layered mafic to ultramafic intrusion akin to the Bushveld Complex in South Africa. It was emplaced at the end of the Archaean era at approximately 2,500 mega annum (ma). It has a strike length of 550 km and ranges in width from 4 km to 11 km. It cuts across the entire Zimbabwe Craton in a roughly N-S direction as shown in Figure 6-2. The Great Dyke hosts world-class reserves of Platinum Group Metals (PGMs) and chrome ore.

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[5] Source: Mugumbate, unknown year

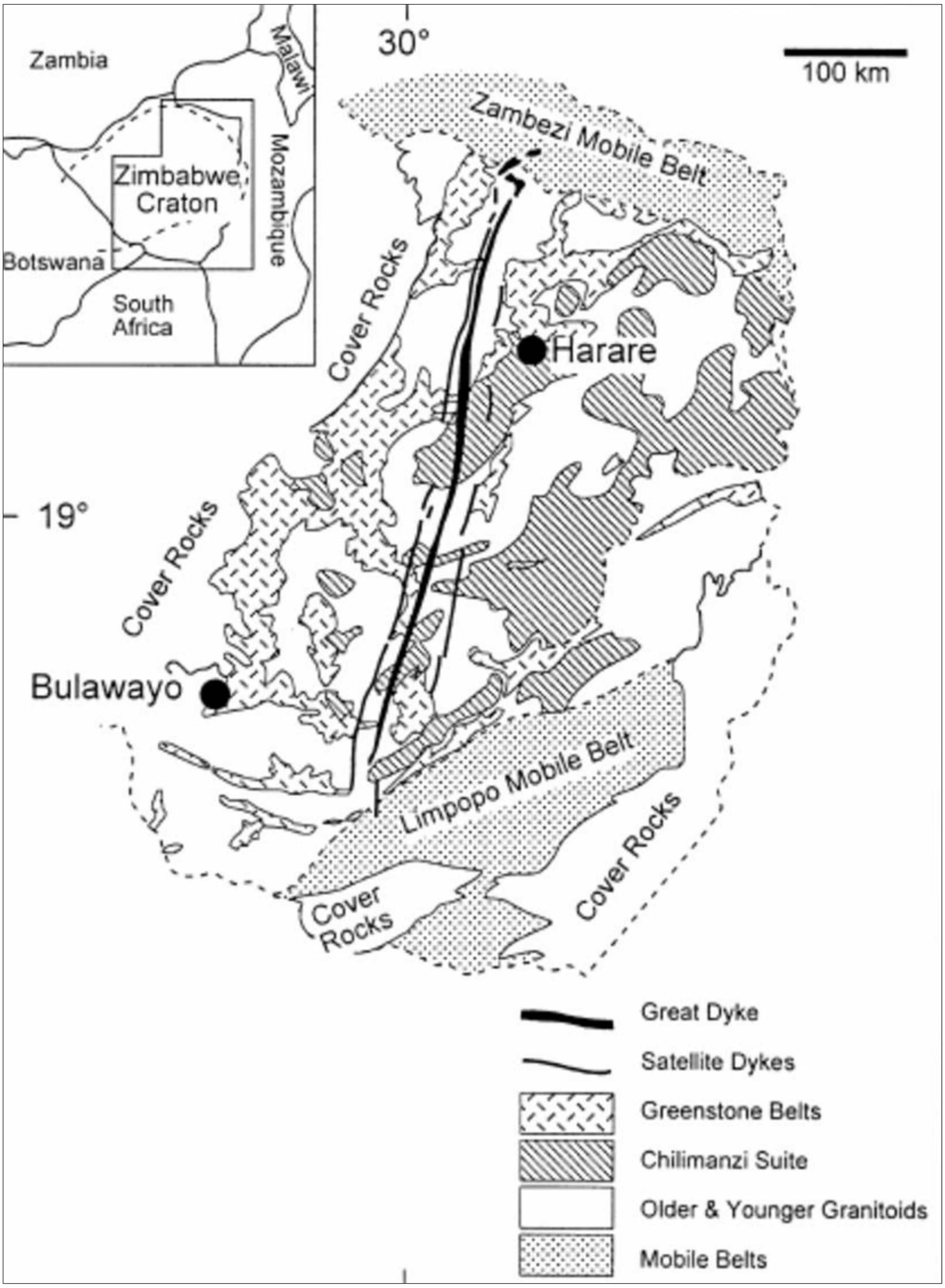

Figure 6-2: NNE Trending Great Dyke Cutting Across the Zimbabwe Craton[6]

[6] Source: Mukaka et al 1998

There are three metamorphic mobile belts that border the Craton to the north-east, south, and north-west. The neo-Archaean Limpopo mobile belt borders the Craton on the southern boundary. The paleo-Proterozoic Magondi mobile belt borders the Craton to the north-west while the neo-Proterozoic Zambezi mobile belt borders the Craton to the north (Figure 6-3). These metamorphic belts are hosts to economic metamorphic minerals. They also host several gemstones, precious, and base metals. To the east are the Umkondo group sediments which were deposited in a large basin and are capped by younger dolerite sills and basaltic flows. The Umkondo sediments host the Chiadzwa placer diamond deposits.

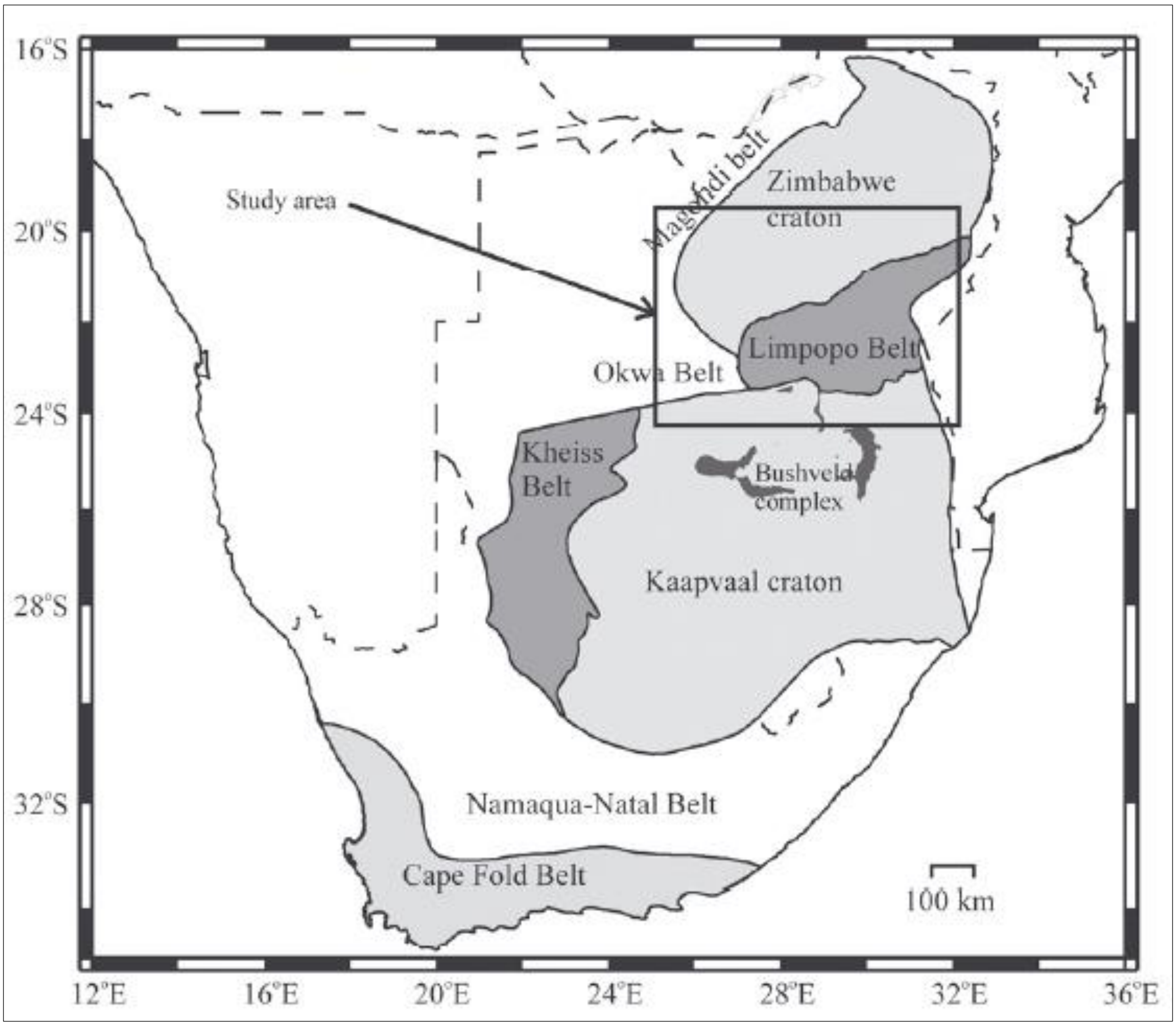

Figure 6-3: Geological Map showing the Zimbabwe Craton and Mobile Belts[7]

6.1.3 The Phanerozoic

The Phanerozoic consists of several sequences of sedimentary rocks covering the peripheries of the Craton. Included in the Phanerozoic are sedimentary basins: the Permian - Triassic Jurassic Karoo Supergroup, Cretaceous sediments, and Tertiary to recent sand of the Kalahari.

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[7] Source: Gore et al 2009

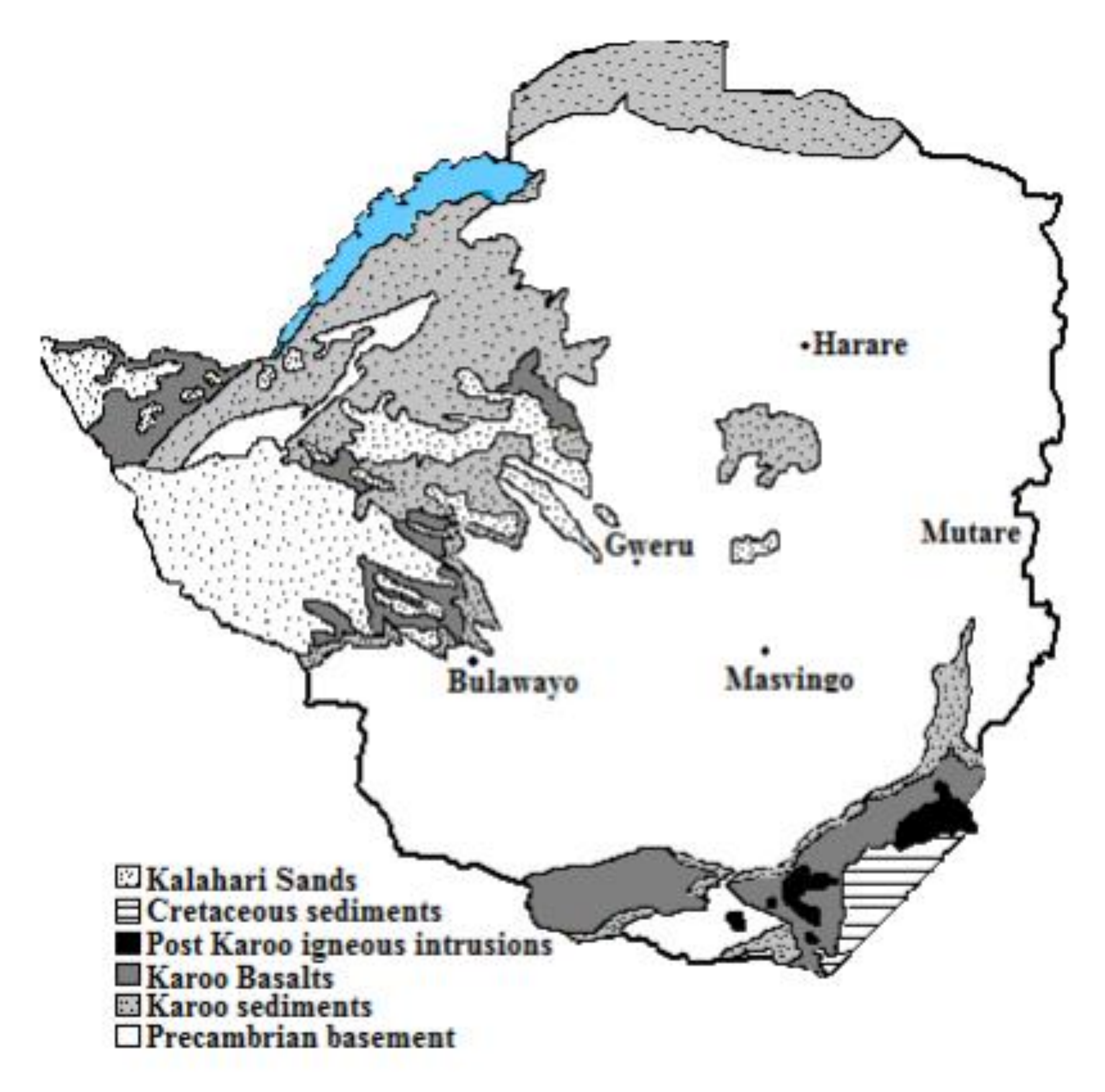


Figure 6-4: Sedimentary Basins of Zimbabwe[8]

6.2 Regional Geology as it Relates to the Bilboes Properties

The Bubi Greenstone Belt covering the Bilboes Properties consists of volcanic rocks of the Upper Bulawayan Group capped by sedimentary sequences of the Shamvaian Group locally represented by Mdutjana and Dagmar Formations respectively (Figure 6-5). The deposits occur within the meta-volcanic and meta-sediments close to the contact between these two stratigraphic units.

[8] Source: Mugumbate, unknown year

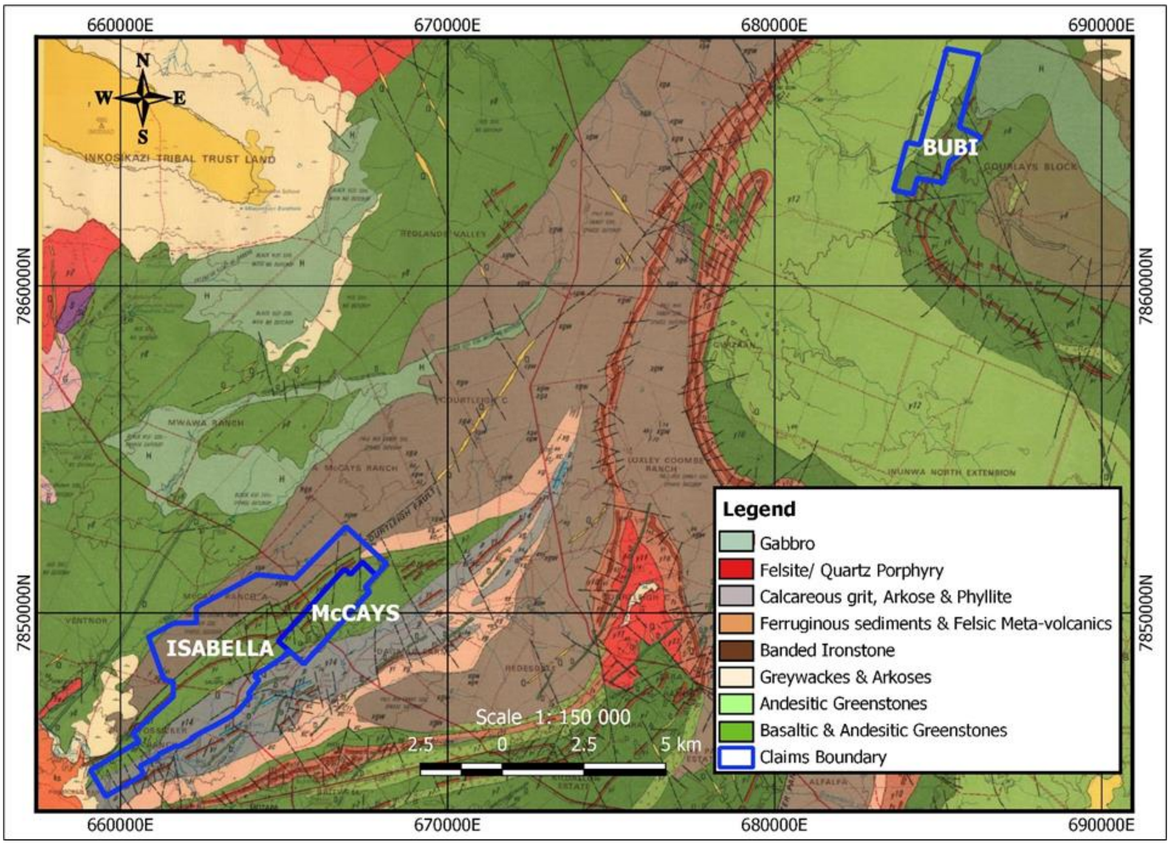


Figure 6-5: Regional Geological Map showing Bilboes Properties[9]

6.3 Stratigraphy

The Bilboes stratigraphic presentation is depicted in Figure 6-6.

[9] Source: Ngilazi and Martin 2017

Time (Ga)	Greenstone Sequences and associated Granitoids	Formations	lithologies
2.5–2.6	Granitoid Suits		Felsite, granodiorite, gneiss
2.6–2.65	Shamvaian Group	Ndutjana Fm	Arkose, greywacke, grit, conglomerate
2.65–2.7	Upper Bulawayan Group	Dagmar Fm	Calcareous grit, arkose, phyllite, BIF's, crystalline limestone
		Ednovean & Dollar Block Fm	Andesite, dacite, pyroclastics
		Courtleigh Volcanic Fm	Dacite, chert, tuff, agglomerate felsic intrusives
		Lonely Mine Fm	Basalt, andesite, Ferr. Shale, BIF's
		Isnagene, Ventnor, Bembesi River & Zwankendaba FMs	Basalt, andesite, dacite, rhyodacite, agglomerate BIF's, chert, crystalline limestone
		Sweetwater & Inyati Fms	Basalt, rhyodacite, pyroclastics
2.7–2.8	Lower Bulwayan Group	Eubi Source Fm	Mafic and ultramafic metavolcanics, tuffs
		Goodwood Fm	Felsic metavolcanics
		Kenilworth Fm	Epidiorite, amphibolite schists

Adapted from Marwitz et al. (2010), Nisbet et al. (1981), Mhlanga, G. (2002), and Muirhead, JDG and Van Blerk, W.N. (1977)

Figure 6-6: Bilboes Site Stratigraphy

6.4 Deposit Types

Mineralization at Bilboes' four properties are Archaean lode, structurally controlled deposits. It consists of silicified stock-works/veins. The veins comprise pyrite and arsenopyrite. Gold is disseminated within the sulphide mineralization and is refractory. Pyrite is the dominant sulphide mineral, with minor arsenopyrite at Isabella and McCays, with the exception of the Isabella North orebodies where an equal proportion of pyrite to arsenopyrite is evident. At Bubi the dominant sulphides is pyrite with minor arsenopyrite. The mineralized zones are often subparallel to each other and are hosted in a much broader shear zone. The best mineralized zones are associated with brecciation and silicification.

The sulphide tends to weather readily and all of the deposits are covered by oxide caps to a depth of 12 m to 50 m which are readily amenable to heap-leach extraction.

Orebody widths at Isabella and McCays range from 5 m to 20 m and are wider near surface. Individual orebodies have strike ranges from 75 m to 500 m and are typically in en echelon pattern in a northwest to south-eastern pattern (Figure 6-7). The oxide cap is deepest at Isabella where the range is 12 m to 50 m. The overall mineralized strike is 4,400 m.

The oxide-sulphides interface at Bubi is shallow in the southwest at about 10 m to 12 m below surface and increases to 30 m in the central parts and to 40 m in the northeast (Figure 6-8). Orebody widths vary from 10 m in the southwest to as wide as 100 m in the central portions of the claims. The overall mineralized strike is 2,950 m.

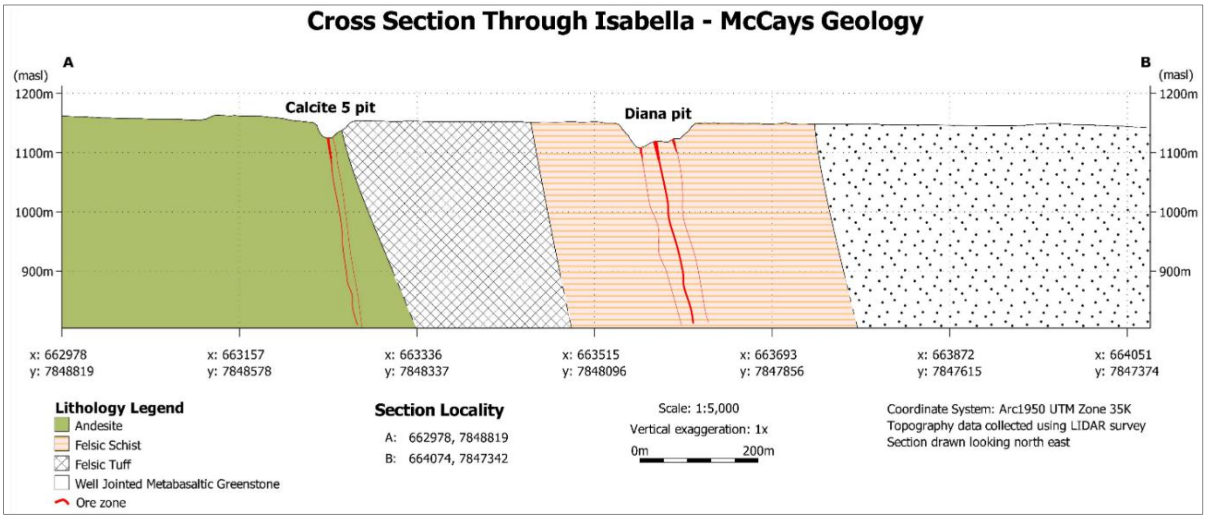


Figure 6-7: Geological Cross Section through the Isabella and McCays Deposit

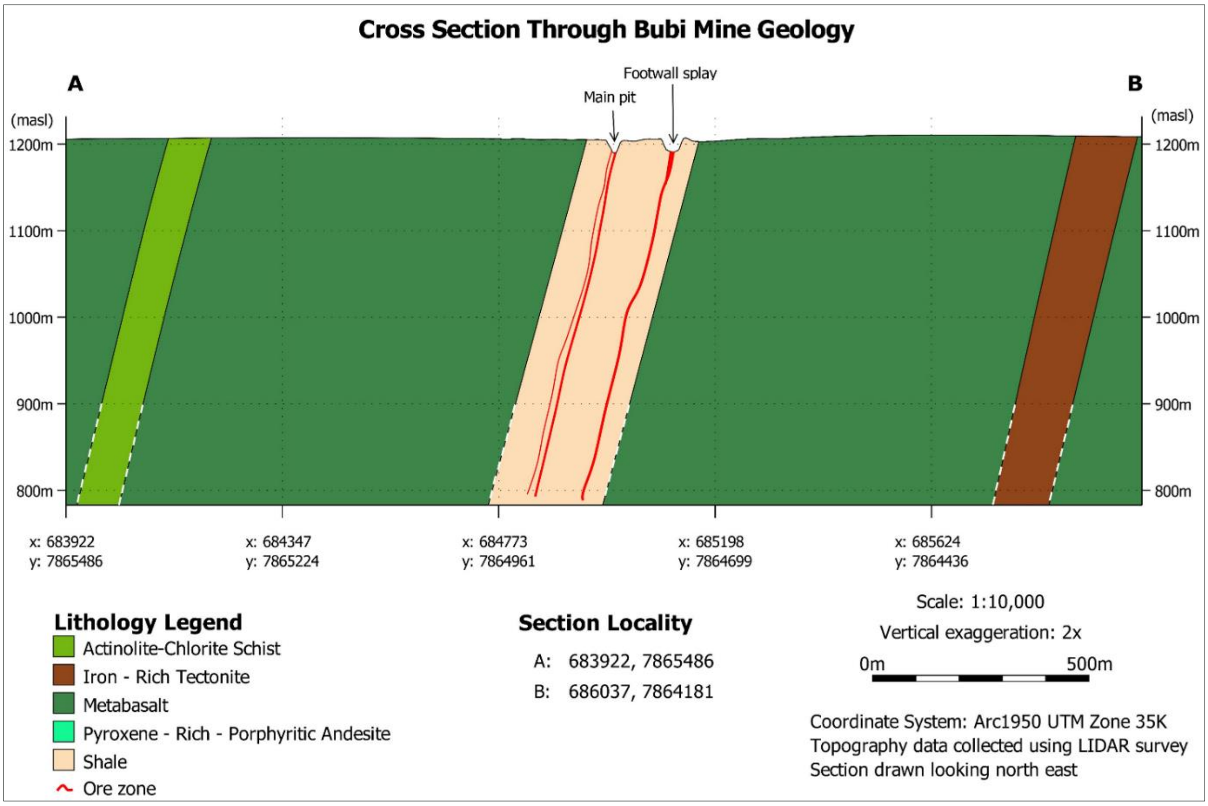


Figure 6-8: Geological Cross Section through the Bubi Mine

7 EXPLORATION

7.1 Geological Mapping

Mapping has been conducted progressively at the Bilboes mines since commencement of oxide gold operations, with the latest exercise being conducted between January and September 2018. Below are some of the maps produced for Isabella McCays area (Figure 7-1). Mapping was done to decipher surface and in-pit geological and geotechnical information, critical for structural and alteration interpretation of mineralized units and in aiding pit geotechnical slope stability studies.

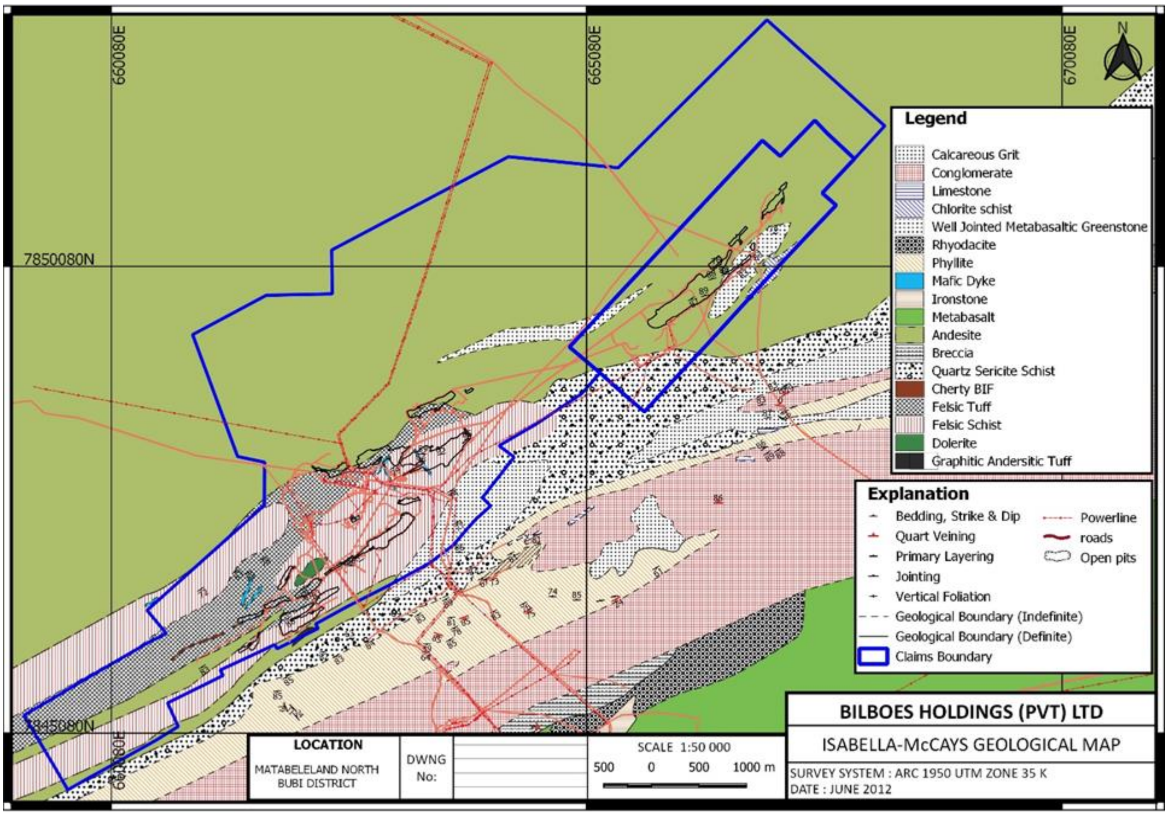


Figure 7-1: Map of the Surface Geology at Isabella McCays

7.2 Trenching

Trenching was conducted across all deposits as part of exploration work for the purposes of defining near surface geology and mineralization envelopes within the oxide horizons. The trenches were sampled generally on a 1 m to 2 m interval and analysed by the bottle roll method (excluded fire assay of the residual tails). These assays were used to help in the projection of oxide ore envelopes and excluded from any Mineral Resource estimation. Channel sampling was also done in all accessible sections of the pits during 2017, which also assisted in the projection of mineralized envelopes in the oxide and transition ore horizons, but the assays were also not used for Mineral Resource estimation.

7.3 Ground Geophysical Surveying

Ground Magnetics and Induced Polarization Geophysical surveys were conducted at the Isabella North deposit by PV as part of the oxide ore exploration in 1996. The anomalies were followed up with oxide trenching and drilling. The oxide drilling data forms part of the depth interpretation of the Bilboes deposits from oxide through transitional and sulphide horizons. Further geophysical surveys were conducted in the Kerry West claims located west of the Isabella South claims and Kerry North claims, between Isabella North and McCays. Further drilling is outstanding on these targets and these offer potential for oxide and sulphide resources.

7.4 Prospecting and Sampling

Early exploration works targeted oxide mineralization and includes soil sampling, trenching, and drilling. Assays from this work were not used in the sulphide Mineral Resource estimate but were used to guide the interpretation of the ore outlines at depth.

7.5 Drilling

7.5.1 Sulphide Exploration

Drilling of the sulphides to provide data for the Mineral Resource estimate was completed in three phases:

- Phase 1: AMZIM between 1994 and 1999,
- Phase 2: Bilboes between 2011 and 2013,
- Phase 3: Bilboes between December 2017 and November 2018.

Phase 1: Anglo explored the sulphide potential beneath the oxides between 1994 and 1999. The results of widely spaced diamond drill holes of the sulphides were used by Anglo American to estimate a non-compliant Mineral Resource for this mineralization and delineated 4.7 Mt at a grade of 3.49 g/t and containing 533,000 oz of gold over a 3,400 m strike to a vertical depth of 120 m from 17,650 m of diamond drill holes.

Phase 2: Between 2011 and 2012, Bilboes completed further exploration on the sulphides with 16,230 m from 69 diamond drill holes and 14,021 m from 101 Reverse Circulation (RC) holes in 2013 and extended the strike to 7,000 m and achieved a vertical depth of 160 m for the mineralization.

Phase 3: An additional 34,987 m of drilling, split as 17,015 m from 129 diamond drill holes and 17,972 m from 178 RC drill holes was completed between December 2017 and November 2018. This was largely an infill drilling programme for a Mineral Resource upgrade across all deposits at Isabella, McCays and Bubi and achieved a vertical depth of 200 m. The total project drilling conducted over the three phases is 93,400 m of diamond drill and RC drill holes with an additional 2,500 m of diamond drill drilled for geotechnical work.

Sulphide mineralization underlies all the oxide deposits at variable depths from 15 mbs to 50 mbs. Two exploration campaigns account for historical exploration of sulphide gold deposits at Bilboes. Both exploration campaigns were headed by PV. The first drilling campaign occurred in 1994/5. During this campaign 24 drill holes were completed. In the second drilling campaign which took place in 1997/9, 99 drill holes were completed. A total of 123 drill holes totaling 17,650 m (12,650 m diamond drill, 5,000 m percussion drilling) were drilled at Isabella, McCays and Bubi covering a strike of 3,440 m.

Drill holes depths varied between 70 m and 350 m for the diamond drill holes, with the drill holes being collared through percussion drilling to a depth of 50 m. The percussion drill holes were largely used to estimate the oxide Mineral Resource and to define the oxide / sulphide interface. Only diamond drill holes were included in the sulphide databases. The drill line spacing varied between 25 m and 100 m with 25 m between drill holes along these lines.

The initial drill holes drilled by PV before 1995 targeted the Calcite (five), Castile (nine) and McCays (10) deposits. The majority of these were drilled at 45° inclinations and from hanging wall positions of the mineralized zone. A few exceptions resulted from unavailability of a suitable collar position due to the open pits. Sampling was limited to the visually recognizable alteration zones resulting in approximately 30% of the total drill hole length being sampled.

At the Diana pit (Isabella Mine), 14 drill holes were drilled, two spaced at 10 m and two at 50 m with the rest spaced at approximately 25 m intervals. One drill hole was drilled on each line; all from the hanging wall with one from the footwall. The mineralized intersections occurred at 45 m to 95 m with one intersection at 125 m (DE15-530S). The footwall of the mineralization intersected was at 169 m to 182 m.

At Maria pit (Isabella) all six drill holes (1998-9) were drilled from the hanging wall with five drill holes spaced at 25 m and the rest at 50 m. The average intersection depths occurred at 45 m from surface and geological envelopes were modelled down to 100 m from surface. Two parallel, mineralized zones steeply dip at 70° to SE and the hanging wall ore body stretches along the entire length of the pit, but the footwall zone is restricted to the eastern end of the strike.

A total of 15 drill holes were drilled along the Calcite strike from the footwall and two from the hanging wall at 5 m to 120 m line spacing. The deepest intersection occurred at 130 m from surface and the intersection depths ranged from 50 m to 120 m. The eastern end of the strike remains open.

The Castile drilling intersected two mineralized zones that were modelled to 110 m from surface, but the mineralization remains open on all sides. Two drill holes intersected a significant parallel mineralization (6.68 g/t over 10.59 m and 4.90 g/t over 9 m) in the footwall of the two main zones. Both drill holes ended in mineralization and require further investigation in future. These drill holes have not been investigated in the 2017/8 drilling campaign because they lie outside of the proposed open pit.

The 25 drill holes at Bubi covered a strike of 900 m on lines 25 m apart except for two drill holes which were spaced at 50 m and 100 m. All the drill holes (but one) were drilled from the hanging wall in the same SE direction inclined at 45°. Three distinct, parallel zones were identified but these were discontinuous along strike and the mineralization remained open ended towards the southern strike of 1,500 m. The oxide cap is at 15 m to 30 m from surface and only 10 m in the southern strike. Drilled intercepts start at 20 m to 80 m and the deepest occurs at 130 m. The geological models were done to a vertical depth of 170 m from surface.

At McCays 23 drill holes were drilled in the pit and two mineralized zones were defined along strike but broken up mid-way. Drill spacing was at 50 m to 100 m with a few lines having two drill holes each. All drill holes were drilled from the hanging wall but at varying inclinations from 45° to 60°. The geological models were created to 160 m vertical depth with average intersections occurring at 75 m. Two of the drill holes at McCays had deep (but low grade) intersections that do not form part of the established pattern of mineralization.

A summary of the drilling completed is presented as Table 7-1 with the drill hole distribution being presented in Figure 7-2 to Figure 7-4.

Table 7-1: History of Sulphide Project Diamond drill holes 1994 - 1999[10]

Mine	Deposit	Pit	No. of drill holes	Total Strike (m)	Drilled Length (m)	Depth Achieved (m)
Isabella	Isabella North	Diana	14	315	2,200	150
		Calcite	17	575	2,600	150
	Isabella South	Castile	37	450	5,100	100
		Maria	7	200	550	70
McCays	McCays	Central / Eastern	23	1,000	4,000	100
Bubi	Bubi	North	25	900	3,200	120
Total			**123**	**3,440**	**17,650**	

Figure 7-2, Figure 7-3, Figure 7-4 and are plan views showing drilling at ISBS, ISBN, Bubi, and McCays, respectively. Blue, green and red represent diamond, percussion, and reverse circulation drilling holes. Most of the percussion drilling occur within the oxidised zone, the majority of which is mined out.

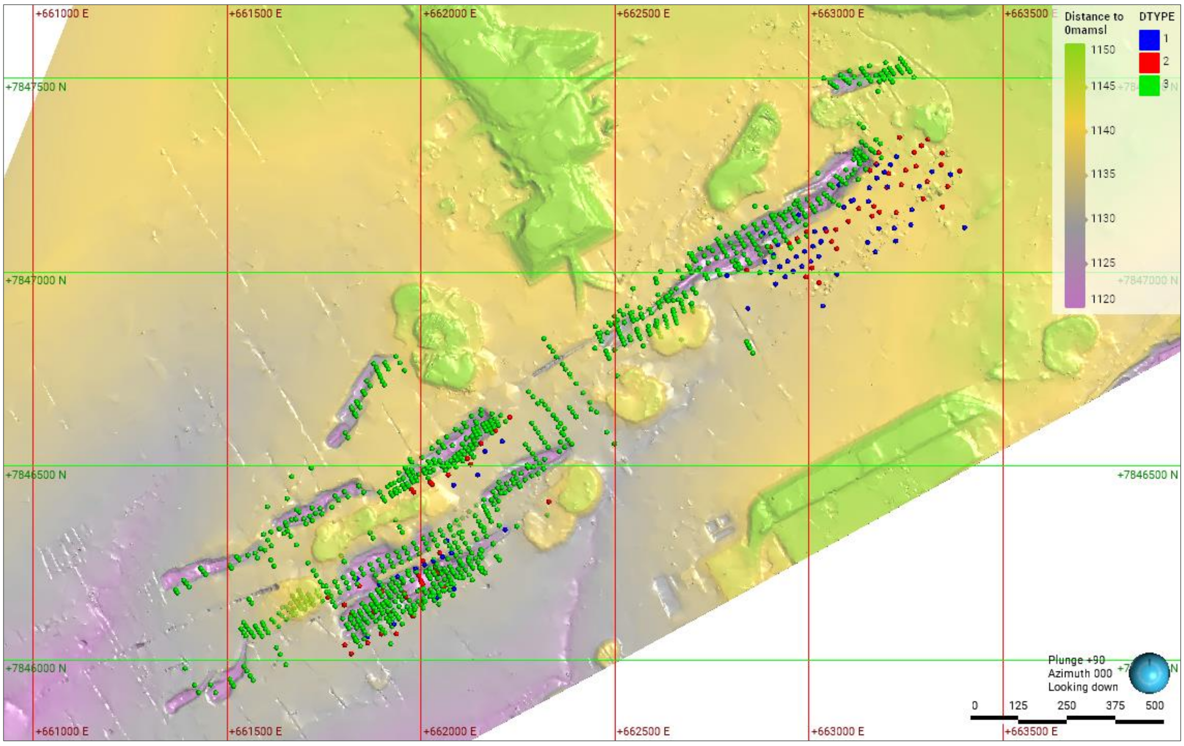


Figure 7-2: Plan View showing Drilling at ISBS (green = perc; blue = DD; red = RC

[10] Source: Ngilazi and Martin, 2017

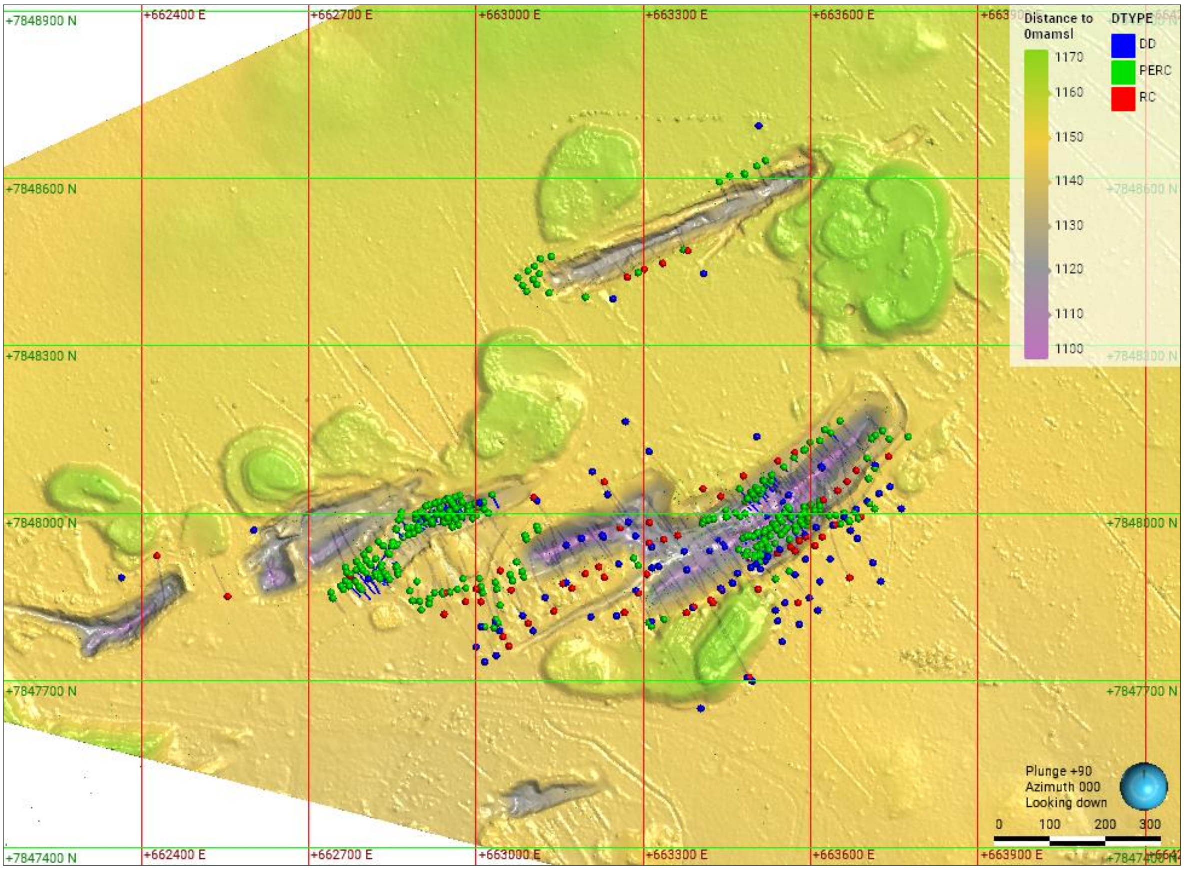


Figure 7-3: Plan View showing Drilling at ISBN (green = perc; blue = DD; red = RC)

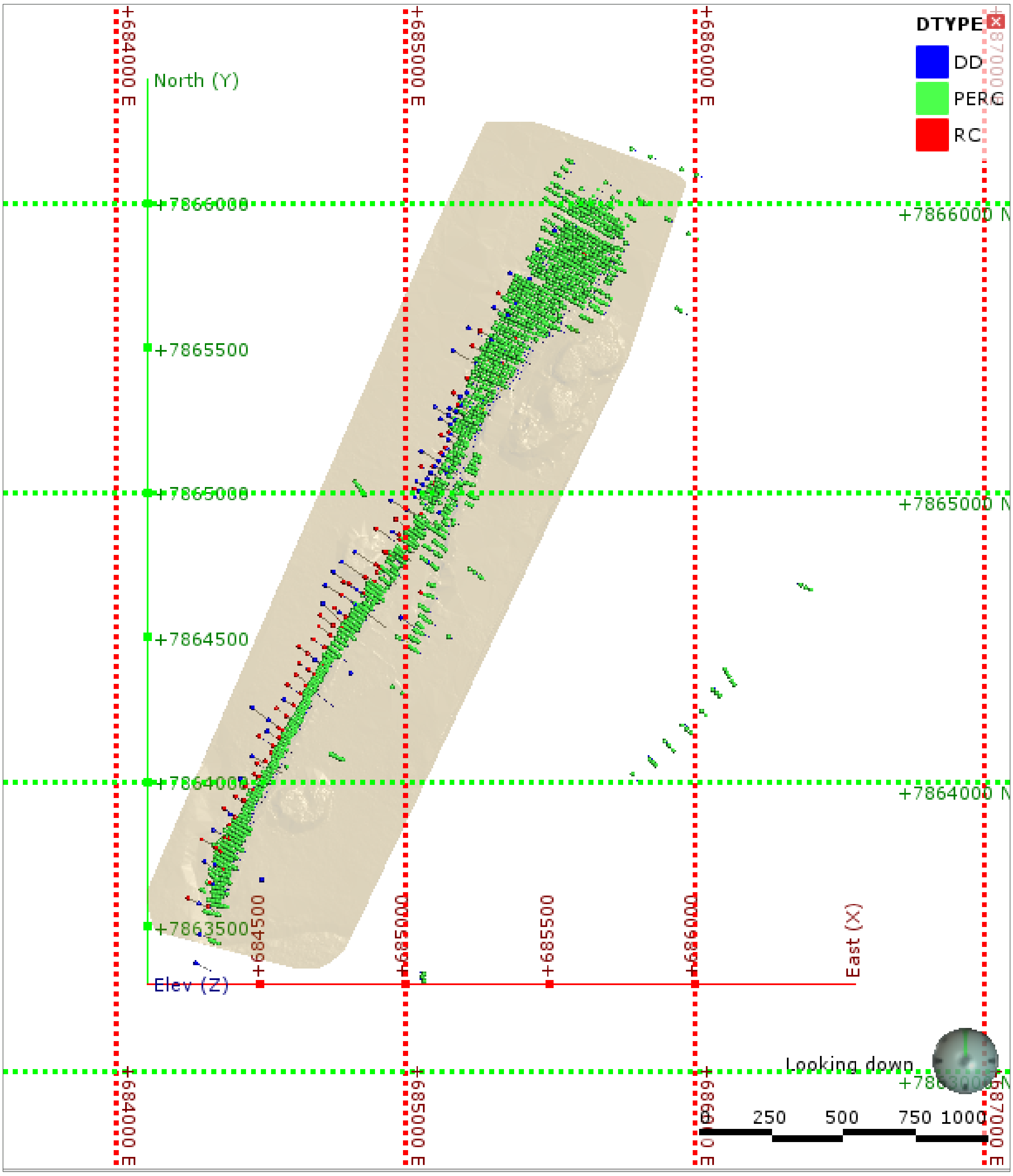


Figure 7-4: Plan View showing Drilling at Bubi (green = perc; blue = DD; red = RC)

7.5.2 Logging and Sampling Procedure

There are no written accounts of the historic sampling procedures, but Mr. Chimedza, who has been employed by Bilboes since 1996, was closely involved with the exploration of the sulphide deposits. He confirms that the sampling of the core followed AMZIM standard procedures. This was considered to have been sufficiently accurate for the purpose of reporting of Inferred Mineral Resource estimates contained in the 2009 Mineral Resource declaration.

The geological logging included descriptions of lithologies, structures, alteration, and visible sulphide mineralization. The information was entered into core logging sheets and mineralized zones were identified. All geological boundaries were defined with reference to the drill length.

On completion of assaying, the gold results for each sample were recorded on the log sheets for easy reference. Core recoveries were recorded, and any depth discrepancies were checked and corrected. Geotechnical logging, including the RQD index and fracture spacing, was also undertaken.

Bilboes has hardcopy and digital datasets of all information except for the geotechnical logs for which only hard copies are available.

Core was fitted together, and a longitudinal line drawn to guide splitting. Within the mineralized zones sample intervals were marked between 0.5 m and 1.0 m, taking cognizance of geological and structural boundaries, and sampling was continued at 1 m intervals to 5 m on either side of the mineralization.

All the visually recognizable mineralized portions of the drill holes were cut, half core sampled, and assayed with well over 10,000 samples being assayed for gold.

7.6 Hydrology and Hydrological Drilling

The project site falls within the Bembezi river sub-catchment which drains north towards the Zambezi River. The Gwayi catchment largely comprises the Northern Matabeleland area of hydrological zone A.

Daily and monthly rainfall were obtained from the Nkayi station from the Meteorological Services Department of Zimbabwe (MSD-Z) for 38 hydrological years (from 1980 to June 2018) and were analysed to determine the long-term monthly averages, minimum and maximum monthly rainfall. The Mean Annual Precipitation (MAP) is 657.0 mm, the wettest hydrological year saw 53% more rainfall than the MAP and the driest hydrological year saw only 60% of the MAP. The driest period was associated with the drought experienced in the 1990s.

Data from the Nkayi station was adopted as the design data owing to the weather station having an acceptable length of record of monthly rainfall data and being located closest to the site and at a similar altitude.

Ten years of monthly pan evaporation measurements for Bulawayo Goertz were provided by the MSD-Z. A pan coefficient of 0.75 was adopted for the conversion of Epan measurements to a reference evapotranspiration.

The annual maximum rainfall analysis for various duration storm events (from 24 hours up to 7 days) was undertaken on the 38 years of daily rainfall records supplied by the MSD-Z.

The Generalized Extreme Value (GEV) distribution was then fitted to the annual maximum series to estimate storm depths for events with an annual probability of occurrence of up to 1:10,000 (0.01%).

No hydrological drilling has been undertaken. For pits that contained water ingress, a bathymetric survey was done to determine pit bottom.

7.7 Geotechnical Drilling

A total of 18 geotechnical drill holes: ten at the Isabella McCays and five at Bubi, varying in depth from a minimum of 120 m to a maximum of 260 m were logged. The cumulative length of the drill holes at Isabella McCays was about 1.67 km; and those at the Bubi was about 0.88 km.

SLR Consulting (Africa) (Pvt) Ltd, from South Africa was contracted by DRA to conduct a detailed geotechnical study across all the sulphide deposits. SLR Rock Engineers visited site at various stages of the geological drilling campaign during 2018 with the following tasks being conducted; review of geological and geotechnical data; geotechnical logging of core and the collection of intact rock samples for testing. Structural data was collected by both the Acoustic and Optical Televiewer from the geotechnical boreholes. Packer testing was also conducted in each borehole to determine the hydrogeological parameters of the rock mass, for groundwater modelling. Based on the analysis of the geological aspects of the deposits which included rock mass characterization, hydrogeology, and structural geology, a geotechnical model was developed for pit design parameters. Using these design parameters, kinematic, empirical and limit equilibrium analysis was conducted to determine the optimal slope configuration for the various deposits.

8 SAMPLE PREPARATION, ANALYSES AND SECURITY

8.1 Sampling

The recovery of samples from the RC and core drill rigs was done in accordance with laid down procedures adequate for the purposes of this TRS. Once field measurements, markings and numbering and recording of critical information were completed, the core samples were transported daily from the drill site to the core yard and RC samples to secure metal containers to ensure security and avoid tampering, damage, loss, or contamination. The core was adequately secured to prevent damage, loss, or mix-up during transportation. Wet RC samples were collected in calico bags to allow water to drain out and minimize sample loss prior to sun drying in metal trays in a securely fenced section of the core shed which was free from dust ingress and other forms of contamination. Core samples were half split using a core saw and the samples averaged 2 - 3 kg. The core sizes were largely NQ with a few HQ cores being encountered at the start of drill holes. RC samples were collected by way of a Jones riffle splitter and the aliquots also averaged 2 - 3 kg. After sampling, excess cores and RC samples have been stored at the mine in secure sample containers and the core shed and have been retained for future use. All samples were labelled appropriately prior to dispatch. No further sample preparation was done at site and the half cores and riffle split RC samples were transported to the external accredited Laboratory. Transportation of samples to the Assay Laboratories was done utilizing Bilboes vehicles accompanied by a senior member of the technical team followed the laid down chain of custody procedure between the company and the Lab to ensure sample security in transit and proper handover-takeover. Transportation of samples to the Lab was done on the same day within working hours with no unnecessary stopovers along the way to reduce risk of loss, contamination, or damage.

DRA reviewed the procedures for sampling, sample preparation protocol, sample handling and storage and are of the view that these are adequate for the purposes of this TRS. Bilboes and an Independent SRK Consultant also visited and inspected the laboratories used in the analyses and can confirm that these also followed the correct procedures for sample preparation.

8.2 Analysis

Independent SANAS accredited laboratories were used in the analyses of samples. Samples were analysed for gold by Fire Assay on 50 g pulp aliquots and completed by Atomic Adsorption spectrophotometry method. Samples with grades at 3 g/t and above were repeated by the gravimetric finish.

Performance Laboratory (PLZ) in Harare, was selected as the primary laboratory (accreditation number T0533). ZIMLABS Laboratory located in Harare (accreditation number T0339), and Antech Laboratories (Antech) located in Kwekwe (accreditation number T0411) were used for check analyses. All Laboratories are in Zimbabwe and have all since migrated to the Southern African Development Community Accreditation Service “SADCAS” which accreditation is in accordance with ISO/IEC 17025 system. Current accreditation are:

- Performance Laboratory - TEST-500070 issued on 3 June 2022,
- ZIMLABS - TEST-50010 issued on 20 February 2015,
- Antech - TEST-50030 issued on 1 June 2023.

8.3 Sample Security

At all times during sample collection, storage, and shipment to the laboratory facilities, the samples were in the control of Bilboes. The samples were then trucked to Performance Laboratories in Harare for geochemical analysis.

During the 2018 drilling and sampling campaign, all analytical results were emailed by Performance Laboratories to Bilboes. Comparisons were done between the drilling database received from Bilboes and the assay results received from Performance Laboratories to verify the database.

All the laboratories that conducted the sampling and analytical work were independent of Bilboes. Performance Laboratories in Zimbabwe is an entity of SGS. SGS produces impartial results that are considered suitable for Mineral Resource estimation.

8.4 Quality Control

As part of their QA/QC protocols to test for the precision of the analytical process, Bilboes inserted CRMs, blanks into their sampling stream, and created duplicates for re-analysis. During the 2017 Mineral Resource review of the Bilboes properties, DRA did a thorough review of the QA/QC protocols. The findings of that review concluded that the protocols employed at Bilboes were adequate and the database was deemed fit for the purposes of geological modelling and Mineral Resource estimations. The review was in respect of all protocols from commencement of drilling campaigns by Bilboes in 2011 till completion in 2018.

CRMs were sourced from AMIS in South Africa, Geostats in Australia, and Rocklabs in New Zealand. Silica powder from AMIS and local dolerite were used as blanks. Bilboes utilized two types of duplicate materials: a Pulp Duplicate (LPR) and a Coarse Duplicate (LCR). In a batch of twenty samples, at least four out of the twenty samples were control samples. This represents an insertion ratio of at least 20%. If more than 20% of CRM results in a batch returned results that fell outside the allowable deviation of the recommended value; all results from that batch were failed and re-analysed.

8.4.1 Blanks

For the 2018 sampling campaign, Silica powder and local dolerite were used as blank material. AMIS0415, AMIS0439, and AMIS0484 were used as silica blanks. During the 2017 review by DRA, 272 blanks were present in the database. An additional 859 blanks were added to the database for the 2018 campaign, taking the total number of blanks to 1,131.

A detection limit of 0.02 g/t was set for the exercise while the upper acceptable limit was set at 0.1 g/t for the silica blanks and 0.15 g/t for the field blank. All samples for AMIS0415 and AMIS0439 plotted the allowable upper limit of 0.1 g/t. Only one sample returned a gold value more than the 0.1 g/t allowable upper limit for AMIS0484. Similarly, with the field blank, only one sample returned a gold value more than the allowable 0.15 g/t upper limit.

8.4.2 Standards

CRMs were sourced from African Mineral Standards (AMIS) in South Africa and Geostats Pty Ltd in Australia for the previous drilling campaign.

For the 2018 drilling campaign, CRMs were sourced from AMIS - AMIS0440, AMIS0441, AMIS0473, AMIS0525, and AMIS0526. These represent the grade distribution observed at

Bilboes. AMIS0473 has a recommended grade of 0.41 g/t, for AMIS0526 the recommended grade is 1.03 g/t, 1.74 g/t for AMIS0440, 2.44 g/t for AMIS0441, and 8.04 g/t for AMIS0525.

Most of the control samples of AMIS0440 plot within three standard deviations of the recommended mean value of 1.74 g/t. some seventeen samples plot outside the allowable three standard deviations limit. This is to be expected of a low/middle grade CRM.

All the control samples representing CRM AMIS0441 plot within three standard deviations of the recommended mean value of 2.44 g/t with most samples lying within two standard deviations.

For AMIS0473 all the control samples lie within one standard deviation of the mean of 0.41 g/t. For AMIS0525 all the control samples, bar one, plot within two standard deviations of the mean value of 8.04 g/t. However, a slight positive bias is observed for AMIS0525 with a majority of the samples lying above the recommended mean value. Five samples lie outside three standard deviations of the recommended mean value of 103 g/t for CRM AMIS0526

8.4.3 Duplicates

Two types of duplicates were employed in the 2011 to 2018 drilling and sampling campaigns i.e., Lab repeats and field duplicates. The former is made up of LPR and LCR. There were 721 LPRs and 875 LCRs in the database for the 2018 campaign. The majority of samples were within a 15% margin. Samples that fell outside of the 15% margin could be attributed to the inherent nugget effect of the deposit.

8.4.4 Umpire Labs

Performance Laboratories was used as the primary laboratory for analysis in the recent drilling campaigns from 2011 to 2018. To check the reliability of the results obtained from Performance Laboratories, ZIMLABS and Antech Lab were used as umpire laboratories. The results show the acceptable correlation between the primary laboratory and the umpire laboratories.

8.5 QP Commentary

The QP is of the opinion that sample preparation, security and analytical procedures were adequate.

9 DATA VERIFICATION

9.1 Historical Data

DRA engagement with Bilboes began with a review of the previous Mineral Resource estimate. During the review process, rigorous tests were conducted to verify the integrity of the Bilboes database. A recommendation from the review process by DRA was to implement a commercial data management software, to which Bilboes complied by acquiring Datamine™ Fusion database software for the capture, storage, and management of drill hole information. This Fusion database was implemented prior to the start of the 2018 drilling campaign.

9.2 2017/2018 Drilling Campaign

Before commencement of the 2017/2018 drilling campaign in addition to the Datamine™ software already in place Bilboes utilized Fusion database software for the capture, storage and management of drill hole information.

The 2018 drilling programme contained 41 RC and 55 DD drill holes for ISBN, 27 RC and 20 DD drill holes for ISBS, 76 RC and 55 DD drill holes for McCays, and 40 RC and 13 DD drill holes for Bubi. With regards to the 2018 data, DRA visited the site during drilling and performed various checks to verify the integrity of the collar co-ordinates, logging and sampling procedures, and assay results. Collar locations in the field were clearly marked. The mineralisation zones were observed in the cores as well as from outcrops in the surface mining pits.

The core logging and sampling processes at the core storage facility were observed to be consistent with industry standards. Each hardcopy log is audited and signed-off by a senior geologist prior to being used in modelling and estimation.

9.3 QP Commentary

The data collected during the exploration, drilling and sampling programmes, including surveying, drill hole logging, sampling, geochemical analysis, and data quality assurance, was collected in a professional manner and in accordance with appropriate industry standards by suitably qualified and experienced personnel.

The data was reviewed and validated by the QP who concluded that the data is suitable for the construction of the geological model and for the purposes used in this TRS.

10 MINERAL PROCESSING AND METALLURGICAL TESTING

10.1 Test Work Programme Overview

The metallurgical test work was concluded in different phases over a period extending from September 2013 to March 2019 and involved various independent laboratories and consultants as outlined in Table 10-1.

Table 10-1: Test work Program Outline

Phase	Test work Description	Done By	Supervision and Oversight	Date
1A	Sample characterization detailing mineralogical and chemical analysis	Mintek, South Africa	Bilboes, MMC and MDM Engineering	September 2013 to December 2013
1B	Comminution test work done on the two composites namely Composite 1 (Bubi ore) and Composite 2 (combination of Diana, Calcite, Castile, Maria and McCays ores)	Mintek, South Africa	Bilboes, MMC and MDM Engineering	January 2014 to April 2014
2	Selection of a process route covering gravity amenability tests, flotation optimisation and treatment of the sulphide flotation concentrates via POX, Bio-Oxidation and Ultra-fine grinding followed by cyanidation	Mintek and Suntech, South Africa	Bilboes and MMC	May 2014 to September 2014
3	Variability flotation tests and bulk flotation concentrate production for additional BIOX® and gold leach tests	Suntech and SGS, South Africa	Bilboes, Minxcon and MMC	October 2015 to August 2016
4A	Laboratory and Pilot plant test work campaigns on the different ore types to generate additional flotation kinetics and grind data, bulk concentrates for BIOX® pilot plants, flotation design parameters and validate flowsheet	MMC at the client's project site in Zimbabwe	Bilboes and DRA	April 2018 to September 2018
4B	Review, modelling and simulation of laboratory and pilot plant test results	EMC, South Africa	Bilboes, MMC and DRA	October 2018 to March 2019

Phases 1 to 3 constituted preliminary test work and Phase 4 (Pilot plant), supplementary laboratory test work, modelling, and simulation of definitive test work.

10.2 Discussion of the Results

10.2.1 Chemical Analyses

The mineralogical and chemical analyses of the ores conducted on the individual and composite samples is summarized as follows:

- Gold content in the samples varied from 1.8 mg/kg to 6.8 mg/kg.
- All samples contained high concentrations of Si, Al, Ca, Fe and As. Total sulfur concentrations in the samples varied from 1.2% to 5.3% and significant amounts of it were sulphide species.
- The Total carbon in the ores was detected at 1.3% - 5.3% and was mainly present as carbonate. Organic carbon was low for all samples tested, indicating low potential for preg-robbing. Carbon (as carbonate) content was high, especially for Bubi and McCays pits (in

some cases double the amount in comparison to other composite samples). Carbonate concentrations of between 7.4% and 18.4% were detected in some samples of the ore body.

- The Total sulfur content in the samples was found to be mainly in the sulphide form with the lowest content of 0.69% in the McCays ore and the highest content of 2.65% in the Bubi ore. The concentration of elemental sulfur and sulphate was very low. High As content was detected in all samples which highlighted the importance of investigating as behavior during the processing steps and to consider possible environmental issues in deciding on process route and economics. The As content in the McCays ore was disproportionately higher than the other pits.

10.2.2 Mineralogical Characterization

- Diagnostic leach results showed that gold recovery via direct cyanidation was low, varying from 25% to 50% and Au locked in sulphides and carbonate minerals varied from 46% to 72%.
- Bulk Modal Analysis (BMA) showed that quartz, feldspar, and mica were present in major to intermediate amounts in all the samples, followed by major to minor amounts of carbonates. Sulphide minerals, pyrite and arsenopyrite, were present in minor to trace amounts throughout all samples. All other mineral phases are present in trace amounts in all samples.
- The Au bearing minerals identified in this study were electrum (AuAg) and native gold (Au). Native gold and electrum are variably distributed throughout all samples.
- Most Au-bearing grains reported to the 0 µm -10 µm size class fraction and a smaller quantity in the 10 µm -15 µm size class fraction.
- Pyrite was the dominant BMS mineral present as majority of the samples followed by arsenopyrite (from 5 to 58%) and trace amounts of other sulphides (sphalerite, pentlandite, chalcopyrite, chalcostibnite, ullmannite, gersdorfiite and galena)
- The majority of all BMS mineral grains (>50 mass%) in all samples reported to the finer, 0 µm -21 µm size classes, with lesser amounts reporting to the coarser size classes.
- The majority (>80 mass%) of pyrite, arsenopyrite and other sulphides had free surface with lesser amounts being associated with other mineral phases in all the samples examined.

10.2.3 Comminution

Comminution test work showed that Isabella and McCays samples with Bond Ball Work Index (BBWi) values ranging from 15.70 kWh/t to 17.81 kWh/t and A*b values ranging 27.50 to 32.80 could be classified as being hard, while Bubi ore with a BBWi value of 21.45 kWh/t and A*b value of 19.0 was very hard. All samples were characterized as being moderately abrasive with Ai indices ranging from 0.22 to 0.42.

10.3 Process Route Identification

10.3.1 Gravity Tests

Gravity amenability tests indicated poor gold recoveries and varied from 14% to 22% at 0.5% mass pull. Gravity separation at higher mass pull provided higher gold recovery but still was not a feasible option.

10.3.2 Preliminary Flotation

Initial milling and flotation results indicated high gold recoveries of 89% - 97% with high mass pulls ranging from 10%- 15%, low concentrate grades of 12 g/t - 20 g/t Au and significantly high levels of carbonates in the range of 7% - 13% which were bound to negatively affect the down-stream gold recovery process. The test work established that the ores can be easily floated with good recoveries at grinds ranging from 80% of 106 µm - 75 µm and that flotation optimisation with respect to mass pulls, concentrate grade and other concentrate quality metrics was required.

10.3.3 Flotation Optimisation

Subsequent flotation optimisation tests involving the addition of depressant as well as 1 and 2 cleaning stages improved the overall flotation performance with recoveries ranging from 88% to 94%, with mass pulls ranging from 4% - 12%, concentrate grades of 50 g/t – 120 g/t Au and acceptable carbonates levels in the range of 4% - 10%.

The optimum flotation conditions determined are presented in Table 10-2.

Table 10-2: Optimum Flotation Conditions

Description	Value
Grind	80% - 75 µm
Reagents Dosages – g/t	-
Copper Sulphate	80 g/t
Sodium Ethyl Xanthate	100 g/t
Sodium Carbonate	200 – 350 g/t
Starch	70 – 125 g/t
XP200 Frother	35 – 60 g/t

10.3.4 Gold Dissolution from Flotation Concentrates

- Direct cyanidation of the flotation concentrate resulted in a 27% gold dissolution,
- Ultra-fine grinding (80% -20 µm) followed by cyanidation and oxygenation resulted in a marginal improvement in gold dissolution from 27% to 30%,
- A single Pressure Oxidation (POX) test was done on concentrate with the main objective to oxidize 100% of the sulphide which then resulted in a further 98% gold dissolution by cyanidation of the POX leach residue. Formation of Basic Ferric Sulphate (BFS) resulting in high lime and cyanide consumption in the downstream processing (cyanidation) was observed. A significant amount of arsenic was also detected in the POX filtrate.
- BIOX® of the concentrate provided 99% sulphide decomposition with 97% gold dissolution by cyanidation of the bio-residue. Formation of iron and cyanide complexes was observed. The solid residue after cyanidation was of the bioleach product was stable with respect to arsenic.

Based on the above results, historical test work and consideration of environmental impacts and risk minimization by adopting commercially established and proven processes, the process route identified for additional evaluation was flotation, pre-treatment of the concentrate by Bio-oxidation followed by cyanidation.

10.4 Variability Testing

Variability flotation test work on the ores indicated an average recovery of 89.2%, a recovery range of 83.4% - 95.9% and recovery standard deviation of 3.4% for Isabella McCays ore and average recovery of 86.6%, a recovery range of 80.5% - 94.2% and recovery standard deviation of 4.4% for Bubi ore.

10.5 Pilot Plant Test Work

The pilot plant test work was conducted over a period of three months from July 2018 to September 2018, with the follow up laboratory test work being conducted between September 2018 and January 2019.The pilot plant utilized a total of 20 t of the Isabella McCays ore and 15 t of Bubi ore.

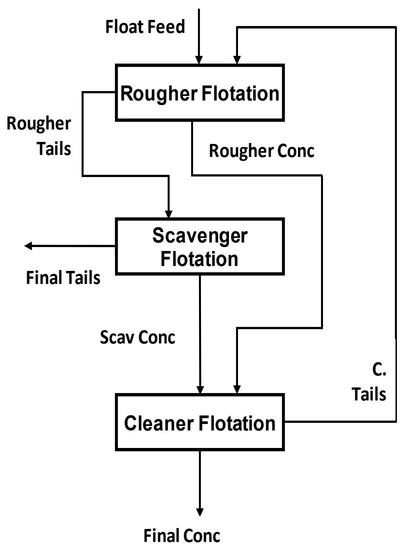
10.5.1 Pilot Plant Operation and Flowsheets

The flowsheets evaluated during the pilot plant campaigns are shown Figure 10-1.

Flowsheet 2 was ultimately adopted as the preferred flowsheet based on better recoveries and concentrate grades.

Reagent addition was as per optimum flotation conditions outlined above.

Flowsheet 1



Flowsheet 2

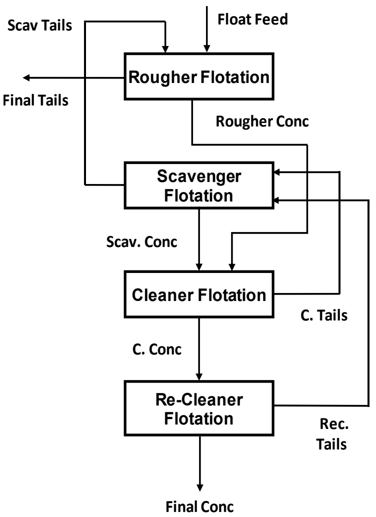


Figure 10-1: Pilot Plant Campaign Flowsheets

10.6 Pilot Plant Results

10.6.1 Recoveries and Mass Pulls

The Isabella McCays ores gold recoveries ranged from 85.9% to 91.0% and the mass pulls ranged from 3.8% to 6.0% with a weighted average of 88.4% recovery and 5.0% mass pull. The Bubi ore recoveries ranged from 85.9% to 88.8% and mass pulls ranged from 7.8% to 15.2% with averages of 87.5% recovery and 10.0% mass pull.

10.6.2 Chemical Analyses of Bulk Concentrates

The analyses of the individual and blended concentrates produced from the pilot plant operation for the BIOX® process piloting was within the limits of the BIOX® process requirements.

10.6.3 Additional Laboratory Test Work and Simulation

Due to constraints on the classification circuit, the grind on the flotation feed ranged from 63% to 68% - 75 µm against a targeted grind of 80% - 75 µm. This outcome was addressed by conducting additional comparative laboratory flotation tests at these grinds to validate the effect of grind with modelling and simulation applied to the actual pilot plant recoveries to derive expected recoveries at the target grind as explained in the latter section.

10.6.4 Flotation Rate and Comparative Grind Tests

To determine the expected pilot plant recoveries at the target grind of 80% - 75 µm, comparative flotation rate tests were conducted on the individual ores at the pilot plant grind of 65% - 75 µm and the target grind.

The results showed that the target finer grind of 80% - 75 µm consistently resulted in higher recoveries in comparison to the pilot plant grind of 65% - 75 µm with recovery increments ranging from 0.2% - 4.7% on all ore types.

10.6.5 Modelling and Simulation

10.6.5.1 Grind and Recoveries

Eurus Mineral Consultants (EMC) were engaged to review and conduct modelling and simulation on the laboratory and pilot plant test work results.

The comparative results of the simulated pilot plant recoveries at 80% - 75 µm and the actual recoveries at 65% - 75 µm are presented in Table 10-3. The results indicate an expected recovery improvement of 3.1% and 4.2% on the Isabella McCays and Bubi ores with grind improvement from 65% - 75 µm to 80% - 75 µm respectively.

Table 10-3: Comparative Pilot Plant Simulated Recoveries

Ore Source	Head g/t	65% - 75 µm (Pilot Plant)			80% - 75 µm (Simulation)			Var:(80% - 75 µm) -(65% - 75 µm)		
		% Mass Pull	Conc g/t	% Rec	% Mass Pull	Conc g/t	% Rec	% Mass Pull	Conc g/t	% Rec
Isabella North	2.00	4.2	41.3	86.1	4.4	40.5	89.2	0.2	-0.8	3.1
Isabella South	2.54	5.1	45.4	90.3	5.2	44.6	92.0	0.2	-0.8	1.7
McCays	2.20	5.5	33.7	83.7	5.9	33.3	88.8	0.4	-0.4	5.1
Isabella McCays Total*	2.20	4.7	41.0	86.9	4.9	40.3	90.0	0.3	-0.7	3.1
Bubi	2.59	8.7	26.0	86.9	9.2	25.6	91.1	0.6	-0.4	4.2

*Based on ISBN-50%, ISBS-30%, McCays-20%

10.6.5.2 Flotation Residence Times

The modelling and simulation were also applied to derive requisite flotation residence times for the proposed Flowsheet 2 (Table 10-4).

Table 10-4: Flotation Residence Times

Flotation Stage	Residence Time-Mins
Rougher	84
Cleaner	68
Re-Cleaner	46
Cleaner and Re-Cleaner Scavenger	55

10.6.6 Projected Operational Gold Recovery

The following observations from the test work programme results provide evidence of expected higher operational recoveries than the average expected 90.0% and 91.1% derived for the Isabella McCays and Bubi ores, respectively.

- Both Isabella McCays and Bubi ores indicated a positive correlation of head grade and recoveries. With pilot plant head grades being slightly lower than the planned LoM grades, actual plant recoveries can be expected to be better than pilot and simulated recoveries at the same grind.
- Laboratory test work and plant simulation results showed marginal improvement in recoveries ranging from 0.3% to 0.9% with finer grinding from 80% - 75 µm to 90% - 75 µm. Although marginal and subject to further validation and analysis of economic benefits, the trend provides a basis for additional optimisation prior to implementation or continuous improvement during the operational phase.
- Comparative simulation of the proposed flotation circuit comprised of a Rougher, Cleaner Scavenger and a common 2-stage cleaning and a flowsheet comprising a Rougher, Cleaner Scavenger and separate 2 -stage showed marginal recovery improvement of 0.5% to 0.8% with the latter indicating potential to improve recoveries with flowsheet reconfiguration subject to validation and analysis of economic benefits.
- Statistical analysis of results from all laboratory and pilot plant test work results showed expected recoveries of 90.2% and 92.1% and recovery ranges of 85.4% - 95.1% and 89.2% - 95.0% at one standard deviation for the Isabella McCays and Bubi ores, respectively.

10.6.7 Improvements in Gold Flotation Recovery

It is anticipated that with better knowledge of the recovery relationships, optimal milling and flotation design, steady state operation, higher head grades with continuous improvement and the benefits of the economies of operating experience, the downside recoveries can be avoided and that the operational recoveries ranging from a minimum of the expected values of 90.0% and 91.1% for Isabella McCays and Bubi respectively to a maximum of 95.0% for both ores may be realized.

10.7 BIOX®

10.7.1 Test work

The test work was conducted on ore samples from Isabella McCays and Bubi deposits to develop test work data to design a gold processing plant. Test Work Results Summary of the test work results is presented in Table 10-5.

Table 10-5: Summary of the Test Work Pre-Feasibility Results

BIOX® Test work on Sulphide Concentrate			
		Isabella McCays	Bubi
Sulphide oxidation	%	89.6	90.0
Gold recovery	%	88.8	95.7
NaCN consumption	kg/t_{conc}	16 - 18	18 - 20
Lime consumption	kg/t_{conc}	5 - 15	5 - 15

BIOX® pilot plant test work programs were completed on composite Isabella McCays and Bubi concentrates produced during the on-site flotation test work programs. The pilot plant programs have provided details of sulphide oxidation performance under various operating conditions for each concentrate, as well as the relationship between gold dissolution and sulphide oxidation. This data has been used to specify certain design criteria for a full-scale BIOX® plant treating both concentrates. Associated metallurgical test work programs focusing on unit processes such as liquid – solids separation, neutralization and BIOX® product CIL were also completed on slurries generated during each pilot plant campaign.

10.7.1.1 Isabella McCays

The Isabella McCays bulk concentrate sample had a gold grade of 49.9 g/t and a sulphide sulfur grade of 18%. The mineralogical assemblage comprised of 28.5% pyrite, 22.2% arsenopyrite and 0.02% stibnite. The continuous BIOX® pilot plant operated on this sample for a period of 103 days and the run included detailed sampling phases at 6.5 and 6-day retention times.

The BIOX® test work indicated the following:

- An average BIOX® sulphide oxidation of 89.6% was achieved at a 6-day retention time and a feed slurry solids concentration of 20%,
- This resulted in an average CIL gold dissolution of 88.8% on the BIOX® product solids,
- The lower-than-expected sulphide sulfur oxidation levels in the pilot plant overflow product slurry are believed to be due to short-circuiting of unoxidized/partially oxidized solids between the reactors,
- The Batch amenability BIOX® tests completed on the various Isabella McCays concentrate samples achieved sulphide oxidation levels in the range 86.4 to 99.3% and yielded gold dissolutions in the range 92.3 to 97.9%.

The continuous neutralization pilot run conducted on an Isabella McCays BIOX® liquor sample produced a suitable effluent since the As(T) concentration in the neutralized solution was at 0.5 ppm and the TCLP testing of the residue showed a final As(T) leachate of <3 ppm, below the stipulated 5 ppm requirement. Continuous neutralization tests are recommended to optimize the use of the Isabella McCays float tails for Stage 1 pH control with respect to high Fe concentration in TCLP extract for the batch neutralization tests.

The settling behaviour and flocculent requirement for the various Isabella McCays process slurries were found to be comparable to projects with a similar concentrate mineralogy previously evaluation during BIOX® test work programs.

10.7.1.2 Bubi

The Bubi bulk concentrate sample had a gold grade of 28 g/t and a sulphide sulfur grade of 27.1%. The mineralogical assemblage comprised of 57.2% pyrite and 9.00% arsenopyrite. The continuous BIOX® pilot plant operated on this sample for a period of 235 days and the run included detailed sampling phases at 6.5 and 6-day retention times.

The BIOX® test work indicated the following:

- An average BIOX® sulphide oxidation of 90% was achieved at a 6.5-day retention time and a feed slurry solids concentration of 20%,
- This resulted in an average Carbon in Leach (CIL) gold dissolution of 95.7% on the BIOX® product solids,
- The Batch amenability tests completed on the Bubi concentrate sample achieved sulphide oxidation levels in the range 97 – 98% and yielded gold dissolutions in the range 92.3 to 96.8%.

The continuous neutralization pilot run conducted on a Bubi McCays BIOX® liquor sample produced a suitable effluent since the As(T) concentration in the neutralized solution was at 0.5 ppm and the TCLP testing of the residue showed a final As(T) leachate of < 0.4 ppm, below the stipulated 5 ppm requirement. Continuous neutralization tests are recommended to optimize the use of Bubi / Isabella McCays float tails for Stage 1 pH with respect to high Fe concentration in TCLP extract for the batch neutralization test.

The settling behavior and flocculent requirement for the various Bubi process slurries were found to be comparable to that achieved on the Isabella McCays process slurries. The test work indicated higher settling area requirement of 4,00 m²/t/h for the Bubi BIOX® product compared the 2,90 m²/t/h for the Isabella McCays BIOX® product.

10.8 QP Commentary

The QP is of the opinion that the mineral processing and metallurgical testing data is adequate for the purposes used in this FS study phase and Technical Report Summary (TRS).

11 MINERAL RESOURCE ESTIMATES

The MRE was prepared by DRA in terms of the definitions of S-K 1300.

Leapfrog Geo™ and Datamine Studio RM™ software were used to construct volumetric solids for the zones of weathering, structural discontinuities, and mineralization. Three-dimensional (3D) resource modelling, using geostatistical techniques for grade estimation, was done in Datamine Studio RM. The key assumptions and methodologies used for the mineral resource estimates are outlined.

11.1 Topography

A 3D Digital Elevation Model (DEM) was provided by Bilboes Gold. The points were generated from an updated airborne photogrammetric survey conducted in November 2023 incorporating the existing rock dumps, heap leach pads, and mining pits. For pits that contained water ingress, a bathymetric survey was done to determine pit bottom.

11.2 Geological Database

The database comprised of DD, RC and Percussion (PERC) drill holes, summarized in Table 11-1. At Isabella South (ISBS), drill holes dip between 40° and 60° towards the NW. At Isabella North (ISBN), drill holes dip between 45° and 60° towards the NW/SE while at McCays, they dip at 60°towards the SE. At Bubi, the majority of drill holes dip at approximately 60° towards the SE.

Table 11-1: Summary of Drill Holes

Property	DD drill holes		RC drill holes		Perc drill holes		Total	
	No. of drill holes	Meters	No. of drill holes	Meters	No. of drill holes	Meters	No. of drill holes	Total Meters
ISBS	76	11,291.99	72	9,623	1,230	43,061	1,378	63,975.99
ISBN	99	18,691.11	62	8,466	982	40,225	1,143	67,382.11
BUBI	68	11,500.02	90	10,376	1,663	65,532	1,821	87,408.02
McCays	90	10,159.63	88	8,637	537	20,202.5	715	38,999.31

11.3 Bulk Density

For drilling campaigns prior to 2011, density measurements were taken at irregular intervals. During the 2011 to 2018 drilling campaigns, every metre of core was sampled, and submitted for density measurements. The Archimedes method of density measurement was used. A summary of these measurements per project area are presented in Table 11-2.

Table 11-2: Summary of Density Measurement per Resource Area

Resource Area	No of Measurements	Minimum (g/cm^3)	Maximum (g/cm^3)	Mean (g/cm^3)
ISBS	2,599	2.01	3.39	2.76
ISBN	3,604	2.00	3.94	2.78
McCays	3,967	2.18	3.93	2.8
Bubi	7,152	2.25	4.65	2.83

To check the reliability of the density measurements that were done in-house, 36 samples from Bubi, 25 from ISBS, 25 from ISBN and 15 from McCays were submitted to an independent third-party laboratory at the Institute of Mining Research, University of Zimbabwe. The in-house measurements compare well with the check analysis.

11.4 Geological Model

Mineralization at Bilboes is classified as Archaean hydrothermal alteration within broad shear zones. Discrete mineralized zones have been observed from the oxide open cast mining. A summary of the mineralized zone is presented in Table 11-3.

Table 11-3: Summary of the Geological Parameters for the Geological Models

Resource Area	Strike	Dip (°)	No of Mineralized zones
ISBS	NE	~65° to 75° towards the SE	15
ISBN	NE	79° to 85° towards the SE	18
Bubi	NE-SW	SE at approximately 75°	10
McCays	NE-SW	73° towards the NW	13

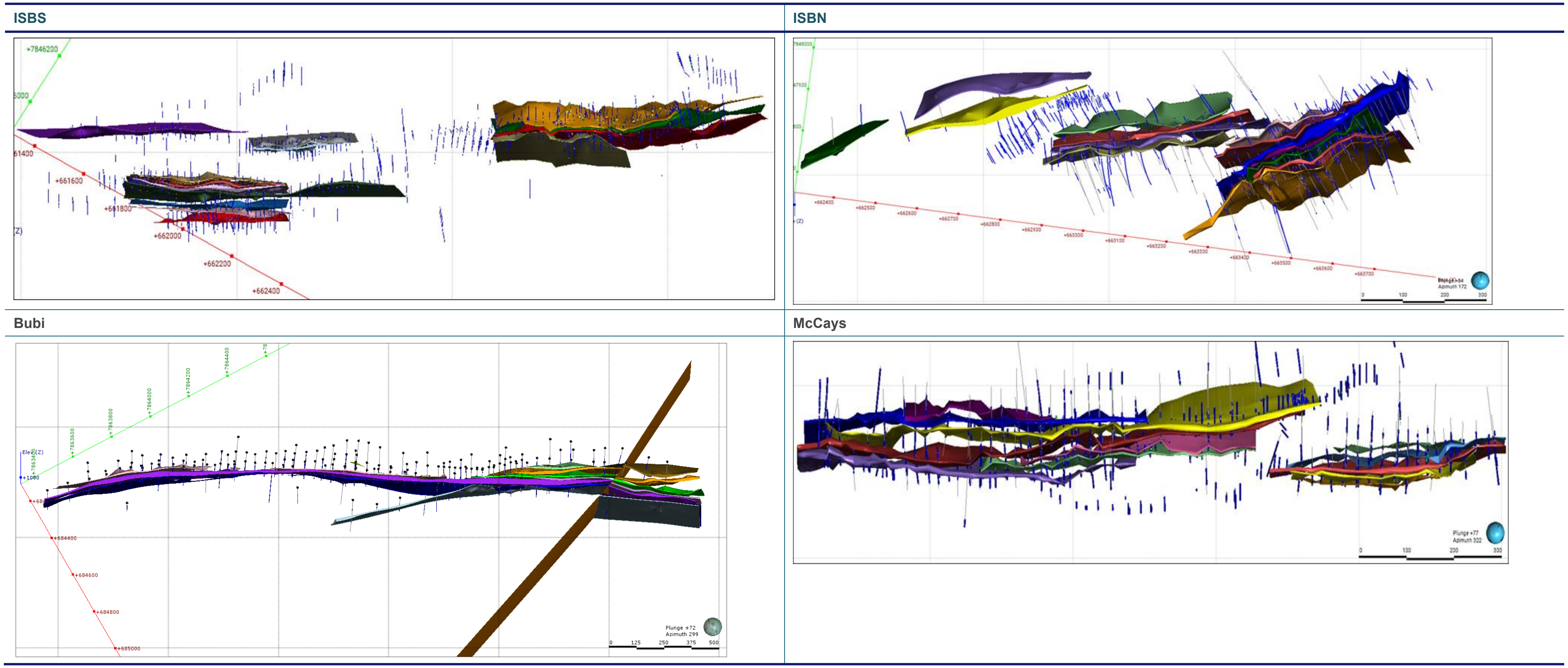


Figure 11-1: Geological Resource Modelling

11.5 Weathering and Oxidation

Oxidation profiles are important in determining the different rock mass densities of 'ore' and 'waste' and the metallurgical processing method, costs, and recoveries important during mine planning. The geological models included a transitional zone, as illustrated in purple in Figure 11-2.

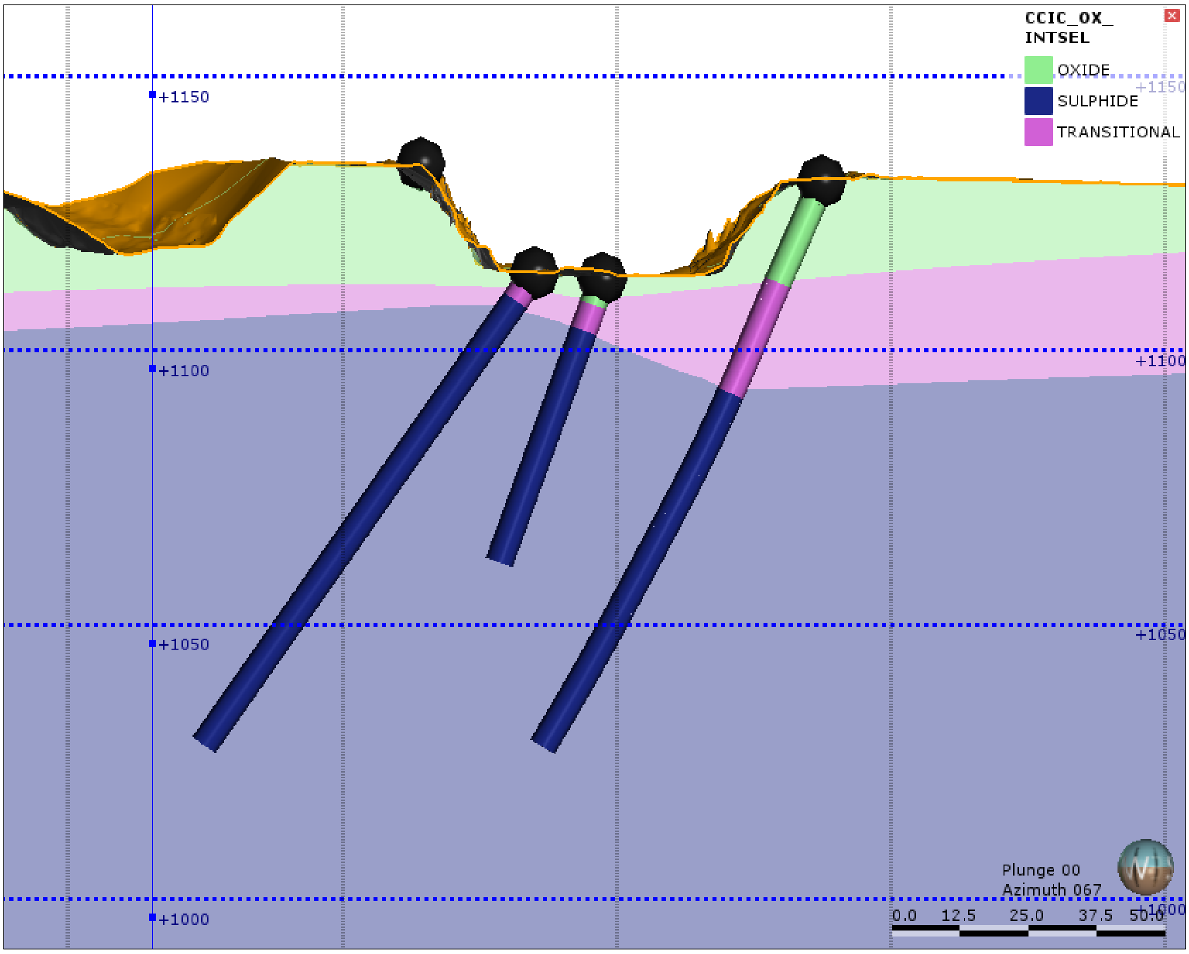


Figure 11-2: Section View showing Oxidation Profile at ISBS

In areas with limited DD or RC drilling, percussion drilling data was used to inform the mineralized zones during the geological modelling process. Where percussion drill holes were used for geological modelling, they were also included in the estimation.

Oxidation of the "ore zones" is a result of chemical alteration that postdates mineralization. The moderately weathered part of the Transitional Zone was historically mined as part of Oxide Zone because the two zones were considered economically viable by heap leaching. The weakly weathered material was mined together with the fresh sulphide ore. For these reasons, the moderately weathered Transitional Zone was estimated together with the Oxide Zone.

All DD and RC samples that occur within a mineralized zone, irrespective of whether they are located in the Oxide, Transitional, or Sulphide Zone, were used to estimate grade in all three zones. Percussion samples that occur in the Transitional and Oxide parts of the model, were used to estimate grade in the moderately weathered Transitional and Oxide parts of the model.

11.6 Compositing

For all four properties, the predominant sampling interval was 0.5 m and 1.0 m; hence a composite length of 1.0 m was used. The statistics for the Au grade before and after compositing were reviewed to ensure that a bias had not been introduced into the database.

11.7 Variography

For ISBS, a reliable semi-variogram was obtained for the Castile Main mineralized zone, because this zone contained the most samples. These variogram model parameters were used for all other zones in the Castile area (northern part of the project).

For the southern part of the project (Maria area), samples from these zones were grouped together to increase the number of sample pairs, while paying attention to the across strike direction to ensure that samples from one zone do not form pairs with samples from another zone.

At Bubi, the Main zone produced a reliable semi-variogram. All the other zones used these variogram parameters for estimation.

For McCays, a reliable semi-variogram was obtained for Main-1 and footwall West mineralized zones, which occur in fault block 2 and fault block 3, respectively. The variogram obtained within fault block 2 was applied to all mineralized zones within block 2, similarly the variogram obtained within fault block 3 was used for zones within that block. For the remaining mineralized zones, the variogram for the mineralized zone with a similar orientation was selected.

Diana Main was the zone that produced a robust semi-variogram in ISBN and was used for all other mineralized zones within ISBN. Table 11-4 contains the normalized variogram parameters used for the estimation.

Table 11-4: Variogram Parameters used for Grade Estimation

Property	Zone	Normalized Variogram Parameters								
		Nugget (Co)	Spherical Range 1				Spherical Range 2			
			X1	Y1	Z1	C1	X2	Y2	Z2	C2
ISBS	Castile Main	0.26	4.1	4.1	4.1	0.56	42	42	14.2	0.19
	Maria Area	0.44	3.2	3.2	3.2	0.28	20.8	20.8	6.3	0.28
ISBN	Diana Main-1	0.31	17.0	17.0	4.0	0.32	36	36.0	7.0	0.38
Bubi	Main Zone	0.32	10.6	10.6	4.1	0.41	70	70.0	12.3	0.27
McCays	Main-1	0.26	4.0	4.0	4.0	0.51	30	30.0	5.0	0.23
	FW West	0.19	8.0	8.0	1.0	0.20	30	30.0	6.0	0.61

11.8 Top Capping

The top capping strategy considered various criteria to determine the optimum values.

- Histograms of sample distributions,
- Sample percentiles,
- Spatial locations of “outlier” samples,

- Validation of model estimates against samples.

Based on the above criteria, it was determined that Au values should remain uncapped. Top and bottom capping for density values was however necessary.

11.9 Grade Estimation

11.9.1 Krige Neighborhood Analysis

The aim of Krige Neighborhood Analysis is to determine the optimal theoretical search and estimation parameters during Kriging to achieve an acceptable Kriging Variance and Slope of Regression whilst ensuring that none or a minimal number of samples are assigned negative Kriging Weights.

The search parameters used are presented in Table 11-5.

11.9.2 Estimation Method

The method of estimations for Au was Ordinary Kriging while density was estimated using Inverse Power of Distance with a Power of 2. Estimations were undertaken using the Estimate process in Datamine. The boundaries between the waste / ore were treated as hard boundaries. Parental cell estimation was used.

Dynamic Anisotropy was used to search for samples during estimation to account for the change in dip of the mineralized zones.

Table 11-5: Summary of Search Parameters

Project	Search Method	Search Distance Along Axis (M)			3-1-3 Rotation Around Axis (°)			Search Volume Factor		Number of Samples					
										S vol 1		S vol 2		S vol 3	
		X (Strike)	Y (Down-Dip)	Z (Across Strike)	Z (3)	X (1)	Z (3)	S vol 2	S vol 3	Min	Max	Min	Max	Min	Max
ISBS	Dynamic Anisotropy (Rectangular)	60	40	6	150	62	0	2	50	24	48	12	60	12	72
ISBN	Dynamic Anisotropy (Rectangular)	70	50	20	140	80	0	1.5	5	24	54	20	60	2	72
Bubi	Dynamic Anisotropy (Rectangular)	100	40	20	300	80	0	2	50	24	60	12	60	12	72
McCays	Dynamic Anisotropy (Rectangular)	60	60	20	320	78	0	1.5	5	6	30	6	30	1	70

11.9.3 Block Model Parameters

The block model parameters are presented in Table 11-6. Sub-cell splitting was used to ensure that the volumes are adequately represented in the block model. Zonal control was applied during grade estimation to ensure that samples from one zone were not used to estimate in another zone.

Table 11-6: Block Model Configuration

Field	Description	ISBS	ISBN	Bubi	McCays
XMORIG	Block Model Origin X Coordinate	661,200	662,100	684,150	665,100
YMORIG	Block Model Origin Y Coordinate	7,845,850	7,847,600	7,863,300	7,849,200
ZMORIG	Block Model Origin Z Coordinate	750	690	900	730
XINC	Parent Block Dimension in the X direction	20	20	20	10
YINC	Parent Block Dimension in the Y direction	10	10	10	10
ZINC	Parent Block Dimension in the Z direction	5	5	5	5
NX	Number of Parent cells in the X direction	115	92	98	220
NY	Number of Parent cells in the Y direction	180	118	300	190
NZ	Number of Parent cells in the Z direction	90	112	70	100

11.10 Model Validations

Model validation included the following:

- Visual comparisons of the estimated grades against the composite sample grades,
- Statistical comparisons for the mean of estimated grades against the mean of the composited samples,
- Trends (or swath analysis checking) to ensure that the regional grade trends from the drill holes were preserved in the model. The ordinary kriging algorithm calculates the best estimate by minimizing the estimation error (kriging variance). This results in smoothing of the block estimates, compared to the samples. The objective of this exercise was therefore to ensure that both regional and local trends were best preserved,
- Filtering out the upper and lower deciles of the sample distribution and comparing that to the same for the estimated blocks. This was to assess whether there was over or under extrapolation.

The means between sample and model estimates compared favorably.

Block on block analysis (Swath plots) compares local trends in the samples against model estimates. The approach was to divide the study areas into 50 m* 50 m* 20 m blocks in the X, Y and Z direction respectively, and to select samples within each block, and compare their mean against the mean of the model. Sample and model mean compared favorably.

11.11 Mineral Resource Classification

Mineral Resource classification used a “Checklist” approach, where various criteria were considered and rated. These included:

- Data quality and integrity,
- Data spacing for confidence in geological interpretations and grade interpolation,

- Confidence in the geological interpretation from a regional and local perspective, and how that interpretation influences the controls for Au mineralization,
- Reliability of the estimate in the mined-out areas,
- Geostatistical confidence in grade continuity,
- Geostatistical parameters such as kriging variance, kriging efficiency and search distances, to measure the relative confidence in the block estimates.

All the above criteria were linked to drill hole spacing as the minimal qualifier for consideration. Areas with drill holes spacing less than 25 m, blocks estimated with at least six drill holes and with a relative ordinate kriging variance of less than 0.20 were considered for classification of Measured Mineral Resources; areas with drill holes spacing less than 50 m: blocks estimated with less than 4 drill holes and with a relative ordinary variance of less than 0.3 were considered for classification of Indicated Mineral Resources. Areas with drill hole spacing less than 100 m were considered for Inferred Mineral Resources. The drill spacing distance buffer was created in Leapfrog Geo™. A checklist used for the assessment of the Mineral Resources classification criteria is summarized in Table 11-7.

To determine what qualifies as surface mineable resources, whittle shells provided by DRA using a gold price of US$3,000/oz were used. The gold price chosen was based on the expectation for the gold price in 2025. See Table 11-7. Details of the additional Whittle parameters are presented in Table 11-8. Mineral Resources within these shells were considered to have the potential for eventual economic extraction by open cast mining methods.

Table 11-7: Checklist Criteria for Resource Classification

Items	Discussion	Confidence
Drilling Techniques	Diamond drill holes	High
	Reverse Circulation drilling	Medium
	Percussion drilling (predominantly in the oxidized zone)	Low
Logging	All drill holes were logged by qualified geologists using standardized codes. Completed logs are checked and signed off by the senior geologist prior to capture into the database. The logging was of an appropriate standard for mineral resource estimation.	High
Drill Sample Recovery	Recoveries recorded for every core run.	High
Sampling Methods	Half core sampled at 1 m intervals for diamond drilling. Sampling occurs wherever there is evidence of alternation.	High
	Portion of the rock chips collected at 1 m intervals sampled for RC drilling and Percussion drilling.	Medium
Quality of Assay Data and Laboratory Tests	An external independent commercial laboratory has been used for all analytical test work for diamond and RC drilling. Appropriate sample preparations and assaying procedures have been used. Duplicate samples and industry CRMs were inserted within the sampling stream. The data has been declared fit for the purposes of geological and mineral resource modelling.	High
	Percussion drilling used Bottle-Roll Analysis that was performed in-house. Analytical results are considered of low reliability because the method can only measure acid soluble gold.	Low
Verification of Sampling and Assaying	Data integrity checks performed by DRA and Bilboes have confirmed data reliability.	High

Items	Discussion	Confidence
Location of Data Points	Drill hole collar location and orientation were surveyed by a qualified surveyor.	High
Tonnage Factors (Density)	The Archimedes method of density determination was used in-house. Verification analysis was performed at the University of Zimbabwe and. The comparison of the in-house density determination and the check analysis compare favorably.	High
Data Density and Distribution	Diamond and RC drilling was done at 25 m X 25 m on well informed areas, 50 m X 50 m on moderately informed areas, and 100 m X 100 m on less informed areas. The level of data density is sufficient to place Mineral Resources into the Measured, Indicated, and Inferred categories, respectively.	High
Database Integrity	Data is stored in Datamine™ Fusion Database.	High
Geological Controls on Mineralization	Geological setting and mineralization are very well understood. Mineralization is constrained to shear zones within a broad hydrothermal alteration halo.	High
Statistics and Variography	Anisotropic spherical variograms were used to model the spatial continuity for the main mineralization domains.	Medium
Top or Bottom Cuts	No cutting was applied to the Au estimation. Top and bottom cuts were applied to the density during estimation.	High
Data Clustering	Drill holes were drilled on an approximately regular grid, with decreasing regularization at depths.	Medium
Block Size	Determined by QKNA. 20 mE x 10 mN x 20 mRL 3D block model constructed for ISBS, ISBN, and Bubi. For McCays the blocks were 10 mE x 10 mN x 5 mRL.	High
Search Distance	Determined with the aid of QKNA as well as drilling spacing.	High
Grade Estimation	Au estimated using Ordinary Kriging. Density estimated using Inverse Distance to the power if two.	High
Resource Classification	Reported on a checklist bases with the drilling space.	High
Metallurgical Factors	Metallurgical parameters were considered during the whittle optimisation process, based on comprehensive test work and pilot plant.	High
Block Cut-offs	0.5 g/t Au is used for block cut-offs. Other sensitivities at 0.0 g/t, 0.9 g/t and 1.5 g/t Au cut-off have also been presented.	High

This MRE was constrained to a Lerchs-Grossmann pit shell using 0.5 g/t Au as the cut-off grade (Table 11-8). A gold price of US$3,000/oz scenario assessment was also completed to determine surface infrastructure boundaries to ensure that no potential future resource is sterilized through siting of future infrastructure.

Table 11-8: Optimisation Parameters used for the Lerchs-Grossmann Shells

Parameter	Description	Unit	Bubi	Isabella	McCays
Optimisation Parameters	Oxide Slope Angle - Weathered	Degrees	30	30	30
	Trans Slope Angle	Degrees	48	48	48
	Fresh Slope Angle	Degrees	51/55	51/55	48/51/55
	Production Rate	Ktpm	180	240	240
	Gold Price	US$/Oz	3,000	3,000	3,000
	Discount Rate	%	10.0%	10.0%	10.0%

Parameter	Description	Unit	Bubi	Isabella	McCays
Mining Costs	Ore Cost	US$/t Mined	2.60	2.60	2.60
	Waste Cost	US$/t Mined	2.00	2.00	2.00
Processing Costs	Processing Cost (Sulphide)	US$/t Treated	42.25	22.26	22.26
	Recovery - Sulphides	%	88.90%	83.60%	83.60%
Financial Parameters	Royalties	%	6.5%	6.5%	6.5%
	Refining Cost	%	1%	1%	1%

11.12 Declaration

The Mineral Resource Estimate is summarized in the following table using a cut-off grade of 0.5 g/t Au and constrained inside a Lerchs-Grossman (LG) optimized pit shell using US$ 3,000 per ounce gold price (Table 11-9). Mineral Resources exclude Mineral Reserves.

Table 11-9: Mineral Resource based on a 0.5g/t Au Cut-Off Grade

Property	Classification	Tonnes (Mt)	Au (g/t)	Ounces (koz)
Isabella South (ISBS)	Measured	0.1	1.42	2
	Indicated	1.4	1.68	78
	Total Measured and Indicated	1.5	1.67	80
	Inferred	2.0	1.76	113
Isabella North (ISBN)	Measured	0.2	1.07	6
	Indicated	1.6	1.68	88
	Total Measured and Indicated	1.8	1.63	93
	Inferred	4.3	1.86	255
Bubi	Measured	0.1	1.06	3
	Indicated	7.3	1.23	290
	Total Measured and Indicated	7.4	1.23	293
	Inferred	10.3	1.40	465
McCays	Measured	0.1	1.33	3
	Indicated	1.3	1.46	62
	Total Measured and Indicated	1.4	1.46	66
	Inferred	2.4	1.99	151
Totals (ISBS +ISBN+ Bubi + McCays)	Total Measured	0.4	1.16	15
	Total Indicated	11.7	1.37	517
	Total Measured and Indicated	12.1	1.37	532
	Total Inferred	18.9	1.62	984

S-K 1300 definitions observed for classification of Mineral Resources.

Mineral Resources are in situ.

Block bulk density interpolated from bulk density measurements taken from core samples.

Resources are constrained by a Lerchs-Grossman (LG) optimized pit shell using Whittle software.

Pit shells parameters assumed gold price at US$3,000 /oz, Recovery 83.6 % Isabella and McCays, 88.9%, Bubi. Ore cost, US$ 2.60/t for Isabella, McCays and Bubi. Waste US$2.00/t Isabella, McCays and Bubi. Processing cost US$ 22.26/t for Isabella & McCays and US$ 42.25/t for Bubi.

Mineral Resources are not Mineral Reserves and have no demonstrated economic viability. The estimate of Mineral Resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social, and governmental factors (Modifying Factors).

Numbers may not add due to rounding.

Effective Date of Mineral Resource Estimate is 31 October 2025

11.13 Reconciliation

Compared to the December 2023 MRE for the Measured and Indicated categories, there is a 7.9 % increase in tonnage and 11.2 % decrease in grade. Reasons for the change are:

- Reinterpretation of the shallow resources at Isabella North and South, a result of mining and grade control drilling. This resulted in a decrease in tonnage at Isabella South, and a decrease in tonnage and grade at Isabella North.
- The higher gold price of US$ 3,000 per ounce produced in a deeper and wider “reasonable prospects for eventual extraction” (RPFEE) resource shell, resulting in an inclusion of more tonnage at a lower grade.
- The higher gold price also resulted in a decrease in the cut-off grade from 0.9 g/t to 0.5 g/t, resulting in an increase in tonnage and decrease in grade.

Tonnage for the Inferred category has increased by 107.7 %, and the grade has decreased by 15.4 %. Reasons for the change is due to a wider and deeper RPFEE resource shell, as a results of the higher gold price, and a lower cut-off grade.

11.14 QP Commentary

The QP is of the opinion that all issues relating to technical and economic factors likely to influence the prospect of economic extraction can be resolved with further work.

12 MINERAL RESERVE ESTIMATE

12.1 Basis of Estimate

The process to develop the Mineral Reserve estimate was as follows:

- Open pit optimisation was undertaken on the measured and indicated resources only.
- The grades and tonnes of the mineral resource model have been modified by a mining / geological recovery and a mining dilution based on ore body geometry and mining methodology. The mining model contains undiluted ore tonnes and ore grade. Ore recovery of 92.5% and fixed dilution parameters of 20 cm of hanging wall and 20 cm of footwall (4% in Whittle) were applied in the optimisations.
- The Whittle optimisation software was used to perform the pit optimisations. Whittle is an accepted industry optimisation tool. A range of operating costs and production parameters were applied. The parameters are summarised below, along with the source of the information:
  - A two-year trailing gold price of $2,190/oz. A government royalty of 5.0% of revenue and a Refining/Selling Cost of 1% of revenue were then applied. This resulted in a Net Gold Price of $2,025.75/oz.
  - The Project has two additional royalty obligations to fulfil, relating to a 1% Net Smelter Return (NSR) royalty payable to the previous owners of the Bilboes (Baker Steel) as well as a 0.5% NSR royalty payable to processing technology providers of the Project."
  - Pit slopes inter-ramp angles ranging from 30° to 55°. Resulting overall pit slopes account for access ramps where applicable.
  - Gold recovery ranging from 83.6% to 88.9% dependent on mining area and ore type being processed.
  - Processing throughput of 2.88 Mtpa for Phase 1 and 2.16 Mtpa for Phase 2.
  - Mining contractor costs based on budget submissions from Southern African based mining contractors.
  - Average annual processing cost per tonne of ore, inclusive of general / administration costs range from $22.26/t to $42.25/t for all oxides, transitional and fresh ores depending on processing parameters.
  - A sensitivity assessment was done on gold prices of $2,409/oz and $1,971/oz. A gold price of $3,000/oz scenario assessment was also done to determine surface infrastructure boundaries only to ensure that no potential future resource is sterilised. This indicated the optimal shell inventory (i.e., the size and shape of the optimal shell and therefore the ore and waste generated) was relatively robust for all mining areas.
  - Optimal shells (maximum profit) were selected for each deposit area based on a $ 2,190/oz gold price that were then used as the basis for pit designs. These shell selection criteria are relatively conservative.
  - A cut-off grade of 0.56 g/t (McCays, Isabella South and Isabella North) and 1.05 g/t (Bubi) based on project specific projected revenue and cost was applied to all Project resources to ensure tonnes milled generate enough revenue to cover costs.
  - Table 12-1 summarises the Mineral Reserve Statement based on the work detailed above, undertaken as part of the Bilboes Gold Project.

Table 12-1: Bilboes Gold Project Mineral Reserve Statement

Deposit	Classification	Tonnage (Mt)	Au Grade (g/t)	Ounces (koz)
McCays	Proven	0.5	2.80	44
	Probable	3.5	2.39	266
Isabella South	Proven	0.7	2.11	45
	Probable	3.2	2.24	233
Isabella North	Proven	1.2	2.30	89
	Probable	3.5	1.95	217
Bubi	Proven	1.2	1.92	73
	Probable	10.4	2.34	783
Total	Proven	3.5	2.21	251
	Probable	20.6	2.26	1,499
Grand Total	**Probable + Proven**	**24.1**	**2.26**	**1,749**

Note: All tonnes quoted are in-situ dry tonnes. Differences in the addition of deposit tonnes to the total displayed is due to rounding to one decimal place.

Pit shells parameters assumed gold price at US$2,190 /oz, Recovery 83.6 % Isabella and McCays, 88.9%, Bubi. Ore cost, US$ 2.60/t for Isabella, McCays and Bubi. Waste US$2.00/t Isabella, McCays, and Bubi. Processing cost US$ 22.26/t for Isabella & McCays, and US$ 42.25/t for Bubi.

The Mineral Reserve has been determined by applying the modifying factors and pit optimisation parameters described in Section 13.4 to the resource model. The optimal pit shell from this optimisation was selected on the basis of the required project financial performance indicators and subsequently used to develop the final pit and pushback designs. Following completion of the pushback designs, the pushbacks were scheduled in Deswik Sched using all applicable modifying factors, resulting in the final Mineral Reserve tonnages and contained metal reported above.

The Mineral Reserve estimate has been classified and reported in accordance with U.S. Securities and Exchange Commission (SEC) S-K 1300.

The estimate of Mineral Reserves for the Bilboes Gold Project is not at this stage materially affected by any known environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant issues. Furthermore, the estimate of Mineral Reserves is not materially affected by any known mining, metallurgical, infrastructure, or other relevant factors.

A cut-off grade of 0.56 g/t (McCays, Isabella South and Isabella North) and 1.05 g/t (Bubi) was applied based on project specifics.

Effective Date of Mineral Reserve Estimate is 31 October 2025.

12.2 DRA Comments

DRA is confident that enough geological work has been undertaken, and sufficient geological understanding gained to enable the construction of an ore body model suitable for the derivation of Mineral Resource and Mineral Reserve estimates. DRA considers that both the modelling and the grade interpolation have been carried out in an unbiased manner and that the resulting grade and tonnage estimates should be reliable within the context of the classification applied. In addition, DRA is not aware of any metallurgical, infrastructural, environmental, legal, title, taxation, socio-economic, or marketing issues that would impact on the mineral resource, or reserve statements as presented.

13 MINING METHODS

13.1 Mining Pit Locations

The Bilboes Project consists of four mining areas containing between one to three pits each. These areas are McCays, Isabella South, Isabella North and Bubi as shown in Figure 13-1 as well as lease areas.

Motapa does not form part of the Feasibility Study.

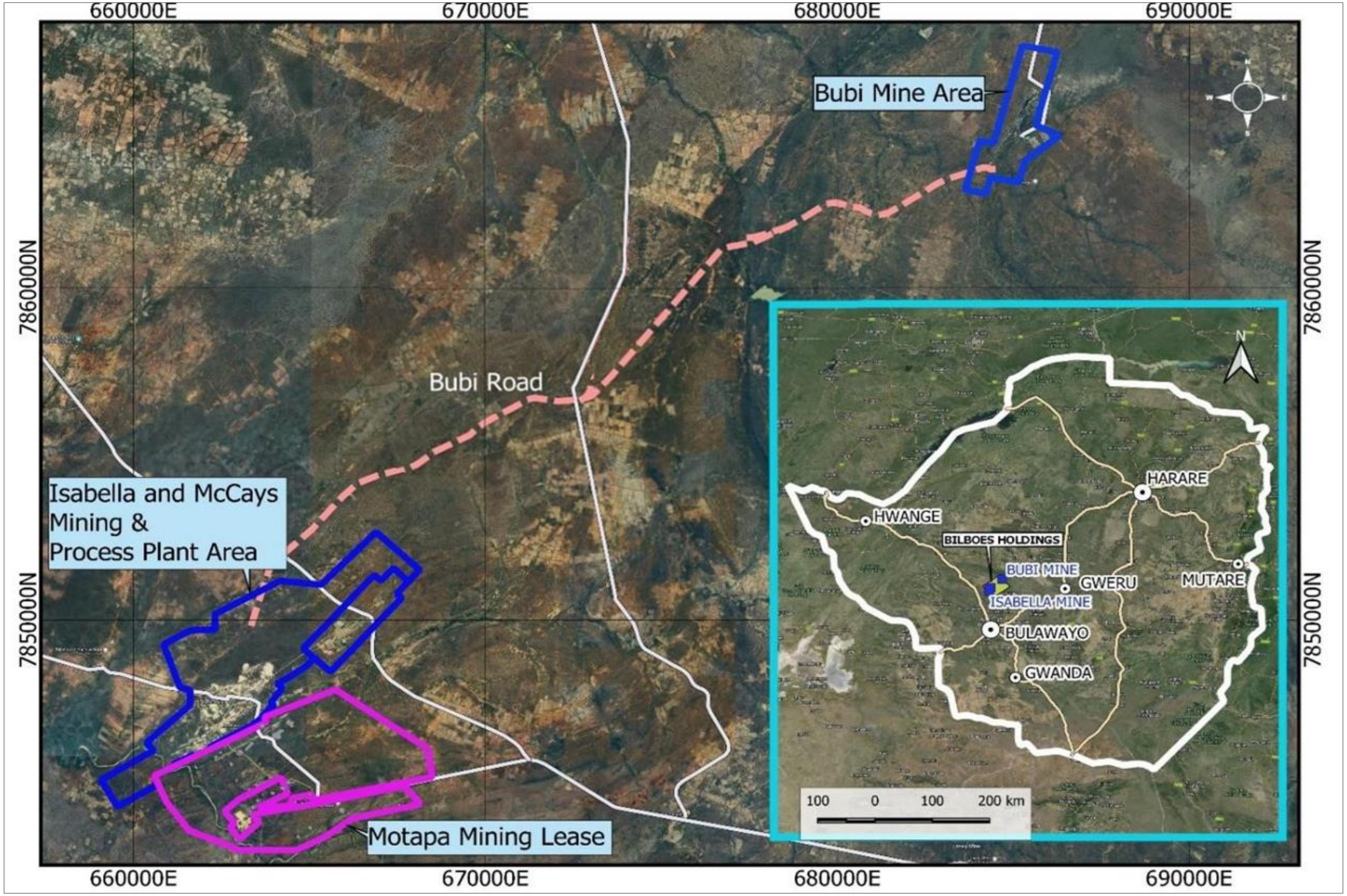


Figure 13-1: Bilboes Pits Location

13.2 Hydrological and Geotechnical Investigation

13.2.1 Hydrogeology

Little was known of the hydrogeology for either the Isabella-McCays or Bubi Mines. There are some hydrogeological boreholes drilled around the Isabella-McCays pits, however there are no existing records for these boreholes, therefore no historical water levels or groundwater quality baseline could be determined.

The only levels measured and recorded are related to the geotechnical boreholes drilled around the Isabella-McCays and the Bubi open pits, where packer-testing was performed.

The estimation of an initial general hydraulic head over the entire area was done using the correlation between the elevation and hydraulic head values measured in each of the geotechnical boreholes.

Nine geotechnical boreholes were selected for packer testing. The interval selection was based on the presence of discontinuities determined on the televiewer log along the borehole interval.

The results of the packer testing have been incorporated in the numerical model.

13.2.2 Conclusion and Recommendations

The numerical simulation for Isabella – McCays Mines and Bubi Mine lead to the following conclusion that each model indicates that a cone of drawdown will develop as a result of the mining activities. The open pits simulated act as hydrogeological sinks and groundwater inflows into the open pits will need to be pumped out for the duration of mining. After mining activities stop, the groundwater levels start to recover due to the formation of the pit lakes and the decrease of the hydraulic gradients towards the open pits.

The following shows the maximum drawdown at the end of mining and the recovery of the groundwater levels vs. time (Table 13-1)

Table 13-1: Isabella – McCays – Bubi – Predicted drawdown vs. time

Isabella - McCays drawdown vs. time			Bubi drawdown vs. time
Year	Max. Drawdown (m)	Year	Max. Drawdown (m)
7	112	6	85
25	43	25	77
50	33	50	45
75	21	75	10
100	13	100	9

13.2.3 Major Rock Domains

Following the geotechnical logging of 18 drill holes, the following major rock domains were encountered (Table 13-2)

Table 13-2: Percentage Rock Types at Different Mining Pits

Rock Type	Percentage Rock (%)			
	Isabella South	Isabella North	McCays	Bubi
Arkose	26	14	-	-
Chlorite Schist	23	-	-	-
Schist	16	-	-	-
Felsic Schist	35	83	-	-
Mafic Schist	-	2	21	13
Meta-Basalt	-	1	65	28
Banded-Iron Formation (BIF) / Chert	-	-	4	-
Meta-Andesite	-	-	10	55
Saprock	-	-	-	4

13.2.4 Rock Mass Classification

The rock mass quality for the different Bilboes pits (Isabella South, Isabella North, McCays and Bubi) was assessed using the Rock Mass Rating (RMR) RMR89 classification system developed by Bieniawski (1976, 1989). The results of the rock assessments show that the rock mass for all the four mining pits is considered to be fair to good.

13.2.5 Geotechnical Conclusions and Recommendations

Based on the analysis of the engineering geological aspects of the investigated deposits which included rock mass characterization, hydrogeology, intact rock properties and structural geology, a geotechnical model comprising design parameters was developed. Using these design parameters; kinematic, empirical and limit equilibrium analysis was conducted to determine the optimal slope configuration for the various deposits.

Based on the analysis conducted, it is understood that the capacity of the slopes should be affected by the following:

- Completely weathered benches should be a maximum of 3 m in height, and it is recommended that the material is pushed back from the crest,
- For the transitional rock (highly to moderately weathered), by a combination of rock mass strength and adverse structural orientation. Inter-ramp heights of 60 m are achievable with inter-ramp angles between 45° and 50°,
- For the unweathered rock benches adverse structural orientation should determine the slope angle which is achievable. Inter-ramp heights of 90 m are achievable with inter-ramp angles of between 50° and 55°, depending on the wall direction.

The controls on slope design are listed for the Bilboes pits with comments on the reliability of the data and descriptions of how the design issues were addressed for the purposes of the slope design (Table 13-3).

Table 13-3: Slope Design

Slope Design Issue	Confidence	Mitigation
Faulting Faults were inferred to be sub-vertical; however, the width of fractured / disturbed ground either side of the faults is not understood.	Moderate	Kinematics was used to assess the stability of inter-ramp and overall slope. Inter-ramp and slope angles are restricted to between 50 and 55° and 45 to 50° respectively to ensure subvertical faults do not daylight
Rock Fabric Large amounts of structural data were collected, defining the local occurrence, intensity, and orientation (dip and dip direction) of the structures	High	Good practice to collect and expand on the structural data collected to ensure that unknown structures are defined
Soil and Intact Rock Properties Intact samples of rocks were collected and tested.	Moderate	Good practice to have an ongoing soil and rock testing program to build on the database
Rock Mass Characterization Rock mass characterization was conducted and generally is representative of rock mass conditions.	High	Rock mass characterization should be ongoing to expand on the rock mass database.
Groundwater The groundwater studies were conducted by SLR and included in the limit equilibrium analysis	High	All excess water inflows can be sent to local PCDs and then used as process water make up.

The detailed pit slope design should require the following phasing once a final pit shell and pit stages are defined and inter-related.

- Additional intact strength testing is required for the rock and soil formations,
- Additional structural data needs to be collected from the pits using a televiewer,
- Continual collection of rock mass data from drilled core,
- Conducting of additional stability analysis using the new pit shells, generated from with recommended slope angles recommendations presented on this document, and the revised geological and geotechnical models,
- Developing the Ground Control Management Plan,
- Projecting major structures onto the pit Phases and final pit for geotechnical review and development of remedial measures and the timing of their implementation as required,
- Defining the locations of the initial vibrating wire piezometers, the initial prisms, survey stations and trial horizontal drains and their specifications and the target dates for their installations.

13.3 Mining Strategy

The premise for the mining strategy is the following

- A mining contractor will be used for all open pit mining related earthmoving activities.
- All deposits will be mined utilizing conventional truck and shovel method.
- Transitional and fresh materials and waste will be drilled and blasted.

- Free dig and blasted waste will be loaded, hauled with 60 tonne haul trucks and dumped to designated waste dump locations which will be systematically dozed and levelled to allow dump to be raised to design heights.
- Free dig and blasted materials will be loaded and hauled with 40 or 60 tonne haul trucks to the plant feed RoM pad. There it will either be directly tipped into the crushing facility or placed on the RoM pad stockpile areas.

A Life of Mine (LoM) schedule has been developed to supply two processing phases.

Phase 1: Processing capacity of 2.88 Mtpa (240 ktpm) for McCays, Isabella North and South.

The LoM schedule considers the blending requirement that a maximum of 50% of feed to plant be sourced from Isabella North and the remainder from Isabella South (preferred blend) or McCays.

Phase 2 Processing capacity of 2.16 Mtpa (180 ktpm) for Bubi.

The Bubi ore will be dumped on the pit RoM stockpiles before being loaded and hauled with a fleet of road trucks to the central processing facility at north of the Isabella North pit. There it will either be direct tipped into the crushing facility or placed on the RoM pad stockpile areas.

13.4 Whittle Optimisation Input Parameters

A summary of the input parameters for the Whittle Pit optimisation is discussed in the following section. This will define the ultimate pit limit and optimize the scheduling of the mining sequence, ensuring the economic viability of the pit.

13.4.1 Financial Parameters

The two-year trailing average gold prices and discount rate used in the whittle optimisations are summarized in Table 13-4

Table 13-4: Whittle Optimisation Input Parameters: Financial Parameters

Financial Parameters for Net Commodity Price	Unit	$3 000	$2 409	$2 190	$1 971
Date of Information:	**Feb 2025**	**Resource**	**High**	**Base Case**	**Low**
Base Currency	US$				
Annual Discount Rate (%)	(%)	10.0%	10.0%	10.0%	10.0%
Commodity Price	US$/Oz	3 000	2 409	2 190	1 971
Royalties	(%)	6.5%	6.5%	6.5%	6.5%
Refining Cost	US$/Oz	1%	1%	1%	1%
Total Selling Cost	US$/Oz	225.00	180.68	164.25	147.83
Net Commodity Price	US$/g	89.22	71.64	65.13	58.62

13.4.2 Geotechnical and General Parameters

The geotechnical and general input parameters used in the pit optimisation are summarized in Table 13-5.

Table 13-5: Whittle Optimisation Input Parameters: Geotechnical and General Parameters

Geotechnical Parameters	Unit	Value	Value	Value	Value
Primary Zone		**ISBN**	**ISBS**	**McCays**	**Bubi**
Inter-Ramp Slope Angle					
Oxide	degrees	30	30	30	30
Trans	degrees	48	48	48	48
Fresh	degrees	51/55	51/55	48/51/55	51/55
Bench Face Slope Angle					
Oxide	degrees	55	55	55	55
Trans	degrees	90	90	90	90
Fresh	degrees	90	90	90	90
Ramp Specifications – 70t truck					
Single Lane Width	m	12.5	12.5	12.5	12.5
Dual Lane Width	m	18.6	18.6	18.6	18.6
Design gradient (%)	(%)	10%	10%	10%	10%
Dilution and Mining Recovery	**Unit**	**Value**	**Value**	**Value**	**Value**
Geological Losses	(%)	2.5%	2.5%	2.5%	2.5%
Mining Losses	(%)	5%	5%	5%	5%
Mining Dilution	(%)	4%	4%	4%	4%
Total Mining Recovery	(%)	92.5%	92.5%	92.5%	92.5%
Distance ex-pit to Plant	km	2.5	3.5	2.6	26
Mining Cost Parameters	**Unit**	**Value**	**Value**	**Value**	**Value**
Reference Level Elevation	RL	1,151	1,135	1,163	1,195
Mining Cost Adjustment Factor (MCAF)	US$/vert. meter	0.006	0.006	0.006	0.006

13.4.3 Waste Rock Cost - Mining

Different waste mining costs were used in Whittle for each production tonnage scenario. This was done to emulate the impact of fixed G&A costs on the overall cost per tonne of rock mined.

The waste mining cost for is presented in Table 13-6.

Table 13-6: Whittle Optimisation Input Parameters: Waste Mining Cost

Waste Mining Cost - Primary Zone	Unit	ISBN	ISBS	McCays	Bubi
Oxide - free dig	US$/tonne	1.78	1.78	1.78	1.78
Trans and Fresh - including drill and blast – 240 (180) ktpm	US$/tonne	2.00	2.00	2.00	2.00

13.4.4 Process Plant Throughput

Similarly to the waste mining cost, different costs were used for rock fed to plant (PF). Due to the reduced confidence by the Bilboes Owner's team, all oxide mineralized material was reclassified as waste rock, mined, and discarded as such. The Whittle input parameters are presented in Table 13-7.

Table 13-7: Process Plant Throughput

Mining Cost Parameters	Unit	ISBN	ISBS	McCays	Bubi
Total Ore Mining Cost	**US$/tonne ore**				
Oxide - free dig	US$/tonne	1.78	1.78	1.78	1.78
Trans and Fresh - including drill and blast	US$/tonne	2.60	2.60	2.60	2.60
Mill throughput Requirement					
LoM throughput Requirement	Mtpa	2.88	2.88	2.88	2.16
Processing Cost Parameters	**Unit**	**Value**	**Value**	**Value**	**Value**
Processing Cost Base					
Trans-Fresh - 240(180) ktpm	US$/tonne ore	21.41	21.41	21.41	37.44
Additional Ore Costs	US$/tonne ore	0.67	0.67	0.67	0.67
Bubi Haulage	US$/tonne ore				3.90
GA's Mining Contractor	US$/tonne ore	0.18	0.18	0.18	0.25
GA's Client	US$/tonne ore	In Process	In Process	In Process	In Process
Whittle Processing Cost - 240(180) ktpm	US$/tonne ore	22.26	22.26	22.26	42.25
Whittle Processing Cost					
Fresh - CIL 240(180) ktpm	US$/tonne ore	22.26	22.26	22.26	42.25
Process Recovery					
Trans & Fresh - BIOX® & CIL Mean Recovery	(%)	83.6	83.6	83.6	88.9

13.5 Plant Feed Dilution and Plant Feed Loss

The Bilboes team has many years of experience in mining these various pits and oxide ores and believes that the transitional and fresh ores will be easily visually distinguishable from waste for the purpose of grade control drilling and selective mining. Therefore 2.5% geological losses, 4% dilution and 5% loss were assumed because the ore domains are relatively narrow but continuous and can be clearly delineated and marked.

Sampling of blast holes would be the basis for grade control in this analysis. The accuracy of the resulting plant feed/waste boundary is limited by the resolution of the grade control, which is a function of the density of the drilling pattern. The lower the flitch height, the smaller the pattern, the smaller the distance between “plant feed holes” and “waste holes” and hence the smaller the potential for plant feed loss/ plant feed dilution. These dilution and loss percentages are accepted as being in line with smaller flitch heights, such as the 5 m flitches associated with this mining operation. The Bilboes team has many years of experience in mining the various pit oxide rocks and believes that the transitional and fresh plant feed will be more easily visually identifiable for grade control drilling and selective mining.

13.6 Whittle Optimisation Results

The Whittle Optimisation results of the median process recovery case are presented in

Table 13-8 for the selection of the $2,190/oz shell number 36 (revenue factor 1).

Table 13-8: Whittle Optimisation Results

All Run Results Max Profit	Abb	Unit	$3 000	$2 409	$2 190	$1 971
Parameter			**2.5% Geological, 5% Mining loss & 4% dilution**			
Discounted Cashflow		US$M	2,602.4	1,834.1	1,555.7	1,280.1
Mine Life		Year	13.2	12.5	11.9	11.1
Ore Tons	Ore	Mt	32.5	30.7	29.5	27.5
Strip Ratio		t:t	8.53	8.12	7.88	7.71
Head grade		g/t	1.99	2.04	2.07	2.13
Au Recovery		%	86.2%	86.2%	86.2%	86.2%
Au Metal Recovered	Au	g	55,836,588	54,067,529	52,813,319	50,623,892
Measured & Indicated	Au	g	55,836,588	54,067,529	52,813,319	50,623,892
Inferred not valued	Au	g	-	-	-	-
Unclassified not valued	Au	g	-	-	-	-
Au Metal Recovered		oz	1,795,188	1,738,311	1,697,988	1,627,596
EBIT before CAPEX		US$M	3,155	2,186	1,841	1,500

13.7 Whittle Optimisation Sensitivities

To gauge the project sensitivity to the gold price fluctuations, three scenarios were run at $1,971, $2,409, and $3000, with the base case set at $2,190.

The influence of these variations was tested on the following key project performance indicators:

- Indicative Project Discounted Cashflow (Specified Case),
- Gold Metal Mined,
- Mine Life in Years,
- Ore Tons Mined.

Predictably, the project value indicates linear sensitivity behavior as a result of commodity price variation. The Metal Mined, Mine Life and Ore Tons Mined sensitivities indicate that the resource is relatively robust and insensitive to commodity prices.

The analysis confirms the robustness of the optimal shells. Predictably, all Discounted Cash Flow (DCF) sensitivities to gold price fluctuations exhibit similar linear behavior.

13.8 Pit Shell selection Optimisation

After presenting the initial designs the requirement was identified to further optimize the designs and schedule by moving higher grade and lower stripping ratio pit shells as early in the mine life as possible, thereby optimizing the early part of the resources, and improving the Net Present Value (NPV) and IRR marginally. The following strategy was followed to optimize the pit designs and schedule further:

As first step in this high-grading optimisation, smaller pit shells than the revenue factor 1 pit 36 (for all resources) were selected. The following pit shells were selected for the selective resources as basis for final design and scheduling are shown in Table 13-9.

Table 13-9: Pit Selection

	Pit-Shell Selection	Ore Tons (Mt)	Strip Ratio	Gold Mined (k.Oz)
McCays	17	3.89	8.04	307
Isabella North	26	4.59	7.97	301
Isabella South	15	3.87	8.92	276
Bubi	30	7.41	6.22	389

13.9 Mine Design

All the pit designs were developed using the Deswik CAD software package. They were based on the selected pit shells and utilised the latest resource block models.

The models were coded with appropriate batter angles, berm widths, bench, and stack heights for different rock / material types for each deposit. These slope design parameters, were based on geotechnical design criteria.

The various pits at Isabella, McCays and Bubi is illustrated in Figure 13-2. These illustrate the pits shells and associated dump positions next to the pits.

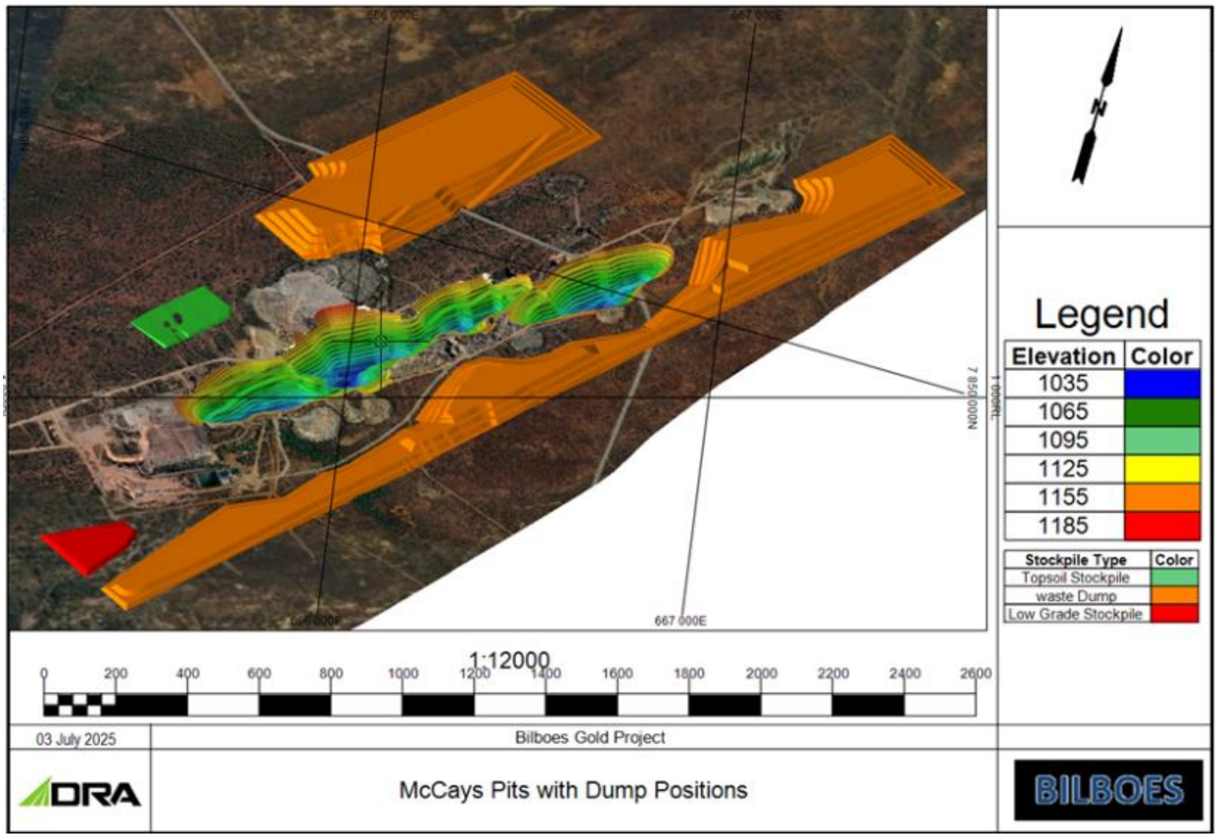


Figure 13-2: McCays Pits and Waste Rock Dump

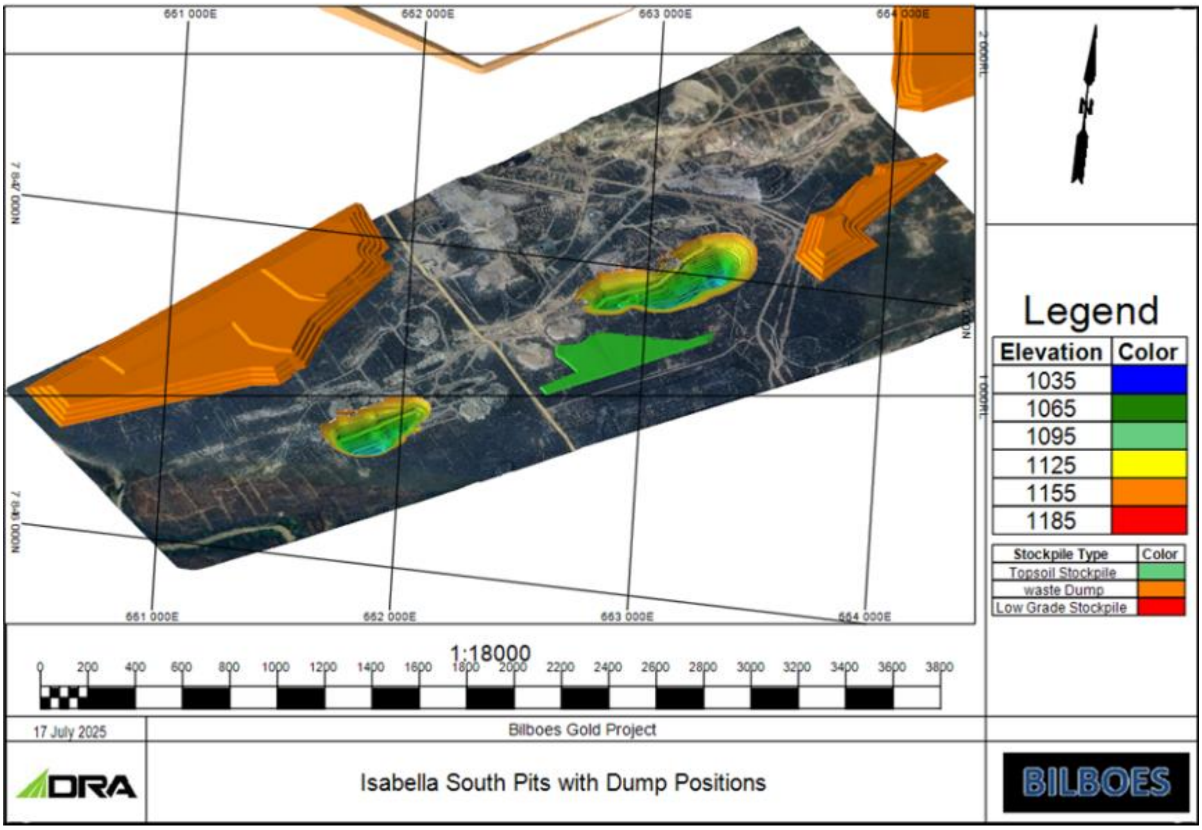


Figure 13-3: Isabella South Pits and Waste Rock Dump

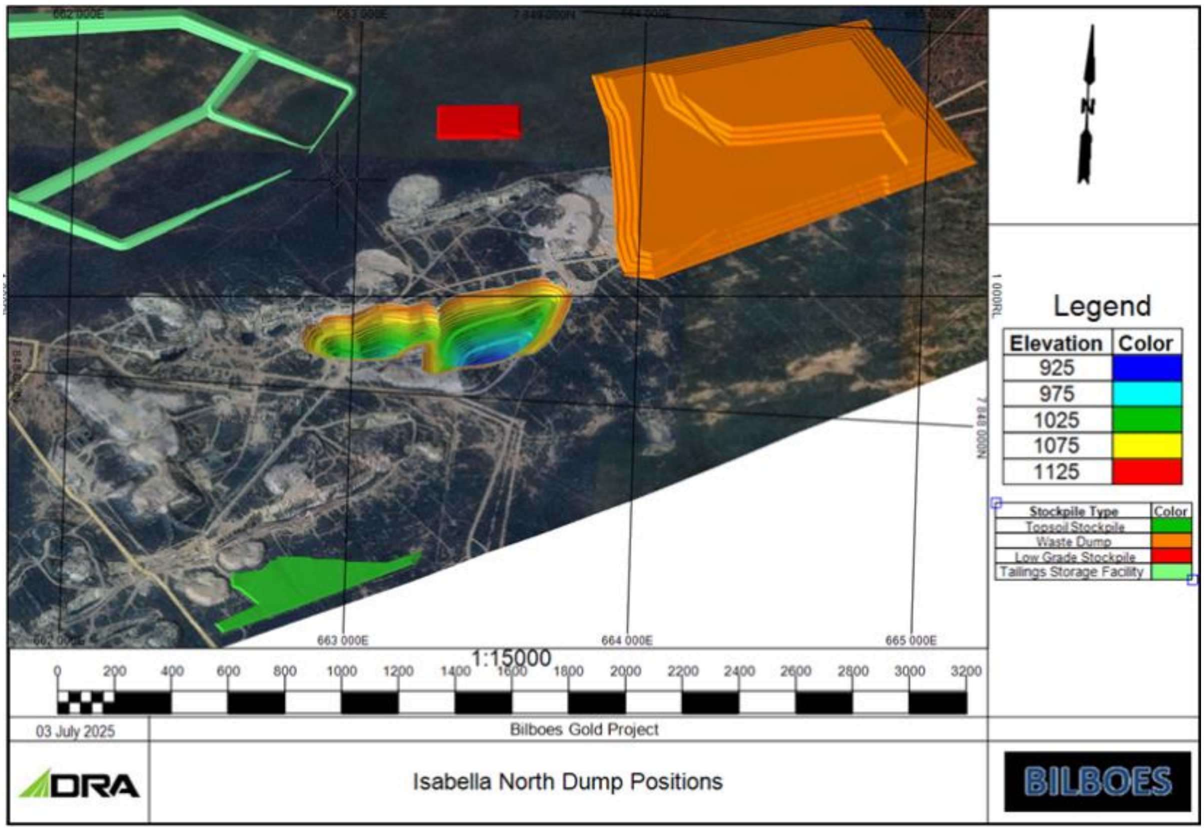


Figure 13-4: Isabella North Pits and Waste Rock Dump

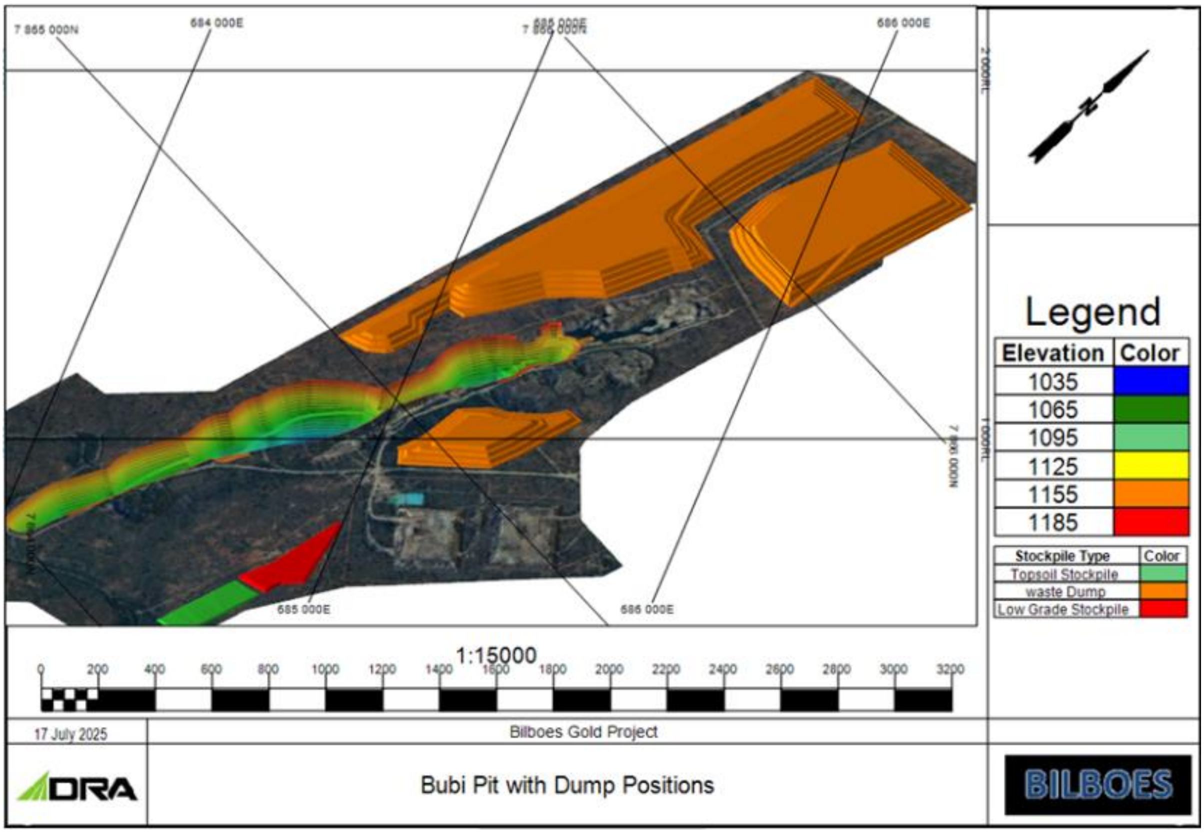


Figure 13-5: Bubi Pit and Waste Rock Dump

13.10 Mine Production

13.10.1 Basis for Mine Scheduling

The mine scheduling is based on the ore and waste inventory for each of the pit designs. The aim of the scheduling component was to ensure that the mining process allowed for:

- Pre-stripping and stockpiling of sufficient ore in time for commissioning of the processing plant and then reaching the annual processing plant feed rate,
- A practical and realistically achievable schedule in terms of fleet deployment, equipment productivity and bench turnover rates.

The mining schedule aims to maximise value by:

- Reducing waste mining during the early years as much as possible,
- Mining shallow higher-grade materials during early years of mine life is prioritized,
- Delaying mining of deposits with higher ore mining cost,
- Limit the waste excavator fleet to four excavators.

Further requirements for the mining schedule were:

- McCays to be mined first due to highest average grade,
- Isabella North ore must be blended with that of Isabella South with maximum of 50% of the feed to plant coming from Isabella North,
- Bubi mined last due to long transport distance to plant.

13.10.2 Results of Mine Scheduling

The results show that the schedule is a practical solution that targets value and meets all mining and processing goals monthly. The key features of the final schedule includes:

- The need for pre-strip material movement over four months of pre stripping in the McCays and Isabella mining area will allow the process plant to commence its throughput ramp up,
- Both Isabella South and North need to be pre-stripped while producing ore from McCays,
- Targeting a maximum annual materials movement of 30 Mtpa,
- The initial production ramp up needs three to four waste excavators and two ore excavators during the production ramp up and first 5-years for McCays, Isabella North and South. During the steady state mining of Bubi this tapers off to two waste excavators and two ore excavators,
- The ore excavators are never fully utilized mining ore only and are used to mine the waste partings between the various reefs.

13.11 Fleet Requirements

For scheduling purposes, it was assumed that 100 t excavators with 7m^3 buckets will be deployed on waste and 70 t excavators (4m^3 bucket) on ore. These excavators will be loading trucks with a payload capacity of 60 t and 40 t respectively. The projected Mining Contractor production and support fleet number are shown in Table 13-10.

Table 13-10: Projected Mining Contractor production and support fleet number

Projected Contractor Equipment	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Waste Excavator 7m³	3	4	4	4	3	2	2	2	2	1
Ore Excavator 4m³	2	2	2	2	2	2	2	2	2	2
Front End Loader 6m³	2	2	2	2	2	2	2	2	2	2
Truck 60t	12	16	16	16	12	8	8	8	8	4
Truck 40t	8	8	8	8	8	8	8	8	8	8
Waste Drills	3	4	4	4	3	3	3	3	3	2
Ore Drills	2	2	2	3	2	2	1	1	2	2
Dozer 30t	3	4	4	4	3	3	3	3	3	2
Grader 26t	2	2	2	2	2	2	2	2	2	2
Water Truck 30kL	2	2	2	2	2	2	2	2	2	2
Fuel Bower 20kL	2	2	2	2	2	2	2	2	2	2
Total Production & Support Equipment	41	48	48	49	41	36	35	35	36	29

13.12 Mining Costs

Mining costs are based on May 2025 contractor price estimates. The cost estimates comprise the following elements:

- Mobilisation, establishment, and demobilization,
- Provision and maintenance of all equipment necessary to carry out the work,
- Short term planning of the works,

- Clearing and grubbing, topsoil stripping and stockpiling,
- Drill and blast of all relevant ore and waste material, including pre-splitting,
- Excavate and load of all materials,
- Hauling, dumping, and stockpiling of all materials to the designated destinations,
- Construction, or reconstruction and maintenance of all necessary haul roads,
- Grade control drilling and sampling from dedicated drill rigs as per Bill of Quantities (BoQ),
- Re-handle of RoM stockpile to the RoM tip as per the plant feed schedule,
- The provision and control of surface drainage,
- The management and removal of all water within the open pit area and associated surface activities, including removal of storm water and ground water,
- Provision of all pit and dump lighting facilities if required,
- Profiling of final dumps and other disturbed areas as directed by the superintendent,
- Carry out secondary breaking of ore as required,
- Provision and management of all personnel for the mining activities,
- Provision of safety, environmental and quality assurance plan,
- Attend meetings and report progress of the works.
- Waste Rock Dumps.

The Waste Rock Dumps (WRD) were staged appropriately to minimize haul distances throughout the LoM. The placement of the waste rock dumps was used to determine the hauling distances over LoM.

The ore haul distances for McCays, Isabella South and Isabella North is the direct haul to the processing plant. The ore haul distances for Bubi only reflect the distance to the Bubi Ore stockpiles which will be strategically placed 1 km from the respective pit exit ramps where the ore will be re-handled onto on-road trucks for transport to the processing plant.

The WRD construction and final landform are based on the following criteria:

- The maximum height of waste dumps is set at 40 m above ground level.
- A swell and re-compaction factor of 30% was utilized to calculate a material placement density of waste on the waste dumps.
- Dump bench face angle is designed at 30° during construction, with 10 m berms separating benches. During the rehabilitation Phase, the WRD side slopes will be progressively dozed down into continuous slopes without benches, as required for agricultural use. After rehabilitation, the final landform slope will not exceed 19° overall slope angle.
- The waste dumps will be built with a minimum 1:100 gradient on the top surface to ensure effective water shedding.
- All dump locations were selected outside the boundaries as indicated by the Whittle gold price scenario of US$ 2400/oz. Future prospecting zones were also considered so as not to sterilize any potential resource.
- The minimum operating width on the waste dump is 40 m.

- All the waste dumps were designed with ramps of 10% gradient.
- It has been assumed that all waste is benign and does not require any neutralizing treatment, or containment.
- The waste dumps were staged appropriately to minimize haul distances throughout the LoM.
- The waste dump construction and final landform are based on the following criteria:
- The maximum height of waste dumps is currently set at 30 - 40 m above ground level,
- A swell and re-compaction factor of 50% was utilized to calculate a material placement density of waste on the waste dumps,

Dump bench face angle is designed at 30 degrees during construction, with 10 m berms separating benches. During the rehabilitation phase, the WRD side slopes will be progressively dozed down into continuous slopes without benches, as required for agricultural use. After rehabilitation, the final landform slope will not exceed 19 degrees overall slope angle,

- The waste dumps will be built with a minimum 1:100 gradient on the top surface to ensure effective water shedding,
- All dump locations were selected outside the boundaries as indicated by the Whittle gold price scenario of US$3,000/oz. Future prospecting zones were also considered so as not to sterilize any potential resource,
- The minimum operating width on the waste dump is 40 m,
- All the waste dumps were designed with ramps of 10% gradient,
- It has been assumed that all waste is benign and does not require any neutralizing treatment, or containment,
- These dumps have been designed for the full revenue factor 1 waste inventor and if executed as currently planned their sizes and heights could be optimised.

The Waste Dump requirement vs. Capacity is presented Table 13-11.

Table 13-11: Waste Dump Requirement vs. Capacity

	Mined Waste (swollen BCM)	Dump Capacity (BCM)	% Contingency
McCays	15,849,663	22,634,176	43%
Isabella South	17,325,403	27,845,124	61%
Isabella North	18,693,672	36,068,418	93%
Bubi	32,893,831	35,403,269	8%

14 PROCESSING AND RECOVERY METHODS

14.1 Process Test work Results

Extensive test work has been undertaken. The plant feed (fresh sulphide) is refractory to normal free milling processing due to the ultrafine gold particles being largely encapsulated (and generally appearing in solid solution) within the sulphide minerals. As a result, the selected process encompasses a biological sulphide destruction step (Metso proprietary BIOX® process) to liberate the gold particles and allow dissolution by a cyanide solution in the CIL circuit. The test work results were used to derive the Process Design Criteria (PDC) for the processing plant as depicted in Table 14-1.

Table 14-1: Process Plant Design Criteria

Description	Unit	Design	Remarks
Plant Annual RoM Throughput			
Phase 1 Isabella McCays	tpa	2,880,000	Years approx. 1-6
Phase 2 Bubi	tpa	2,160,000	Years approx. 6-11
Head Grade Analysis			
Au			
Isabella McCays	g/t	2.54	Average
Bubi	g/t	2.43	Average
Sulphides			
Isabella McCays	%	0.77	Average
Bubi	%	2.64	Average
Ore Characteristics			
SG (specific gravity)			
Isabella McCays	t/m³	2.78	Average
Bubi	t/m³	2.85	Average
BBWi (Bond ball work index)			
Isabella McCays	kWh/t	16.82	Average
Bubi	kWh/t	21.67	Average
Ore Product Sizes			
Crushed Ore (P80) (80% passing size)	mm	20	Updated to 2-stage crushing
Flotation Mass Pull			
Isabella McCays	%	5	
Bubi	%	10	

14.2 Process Flow Description

Plant feed will be derived from two main mining areas, namely Isabella McCays and Bubi, with production throughput to be Phased over the LoM based on tonnage, proximity to the process plant and metallurgical characteristics. Bubi plant feed, destined to be processed over the latter part of the LoM, will be trucked approximately 23 km to the processing plant which will be situated at the Isabella McCays complex. The envisaged phasing is as depicted in Figure 14-1

Operations in the process plant can essentially be divided into eight main sections.

- Comminution (ore size reduction by crushing and milling to facilitate liberation of the mineral particles for subsequent downstream concentration),
- Flotation (concentration of sulphides and gold into a small concentrate mass),
- Biological oxidation - BIOX® (dissolution of the sulphides in the concentrate using oxidising bacteria to expose the gold particles for downstream recovery),
- Carbon-in-leach (cyanidation leach of the BIOX® product and recovery of the solubilised gold onto activated carbon),
- Carbon treatment (Caustic elution for recovery of adsorbed gold into an eluant solution, with eluted carbon reactivated utilizing a regeneration kiln),
- Electrowinning and smelting,
- Tailings handling (Free cyanide destruction prior to tailings pumping to the tailings storage facility),
- Water services (Raw and process water reticulation, as well as complete cyanide destruction of the tailings return water from the BIOX® TSF).

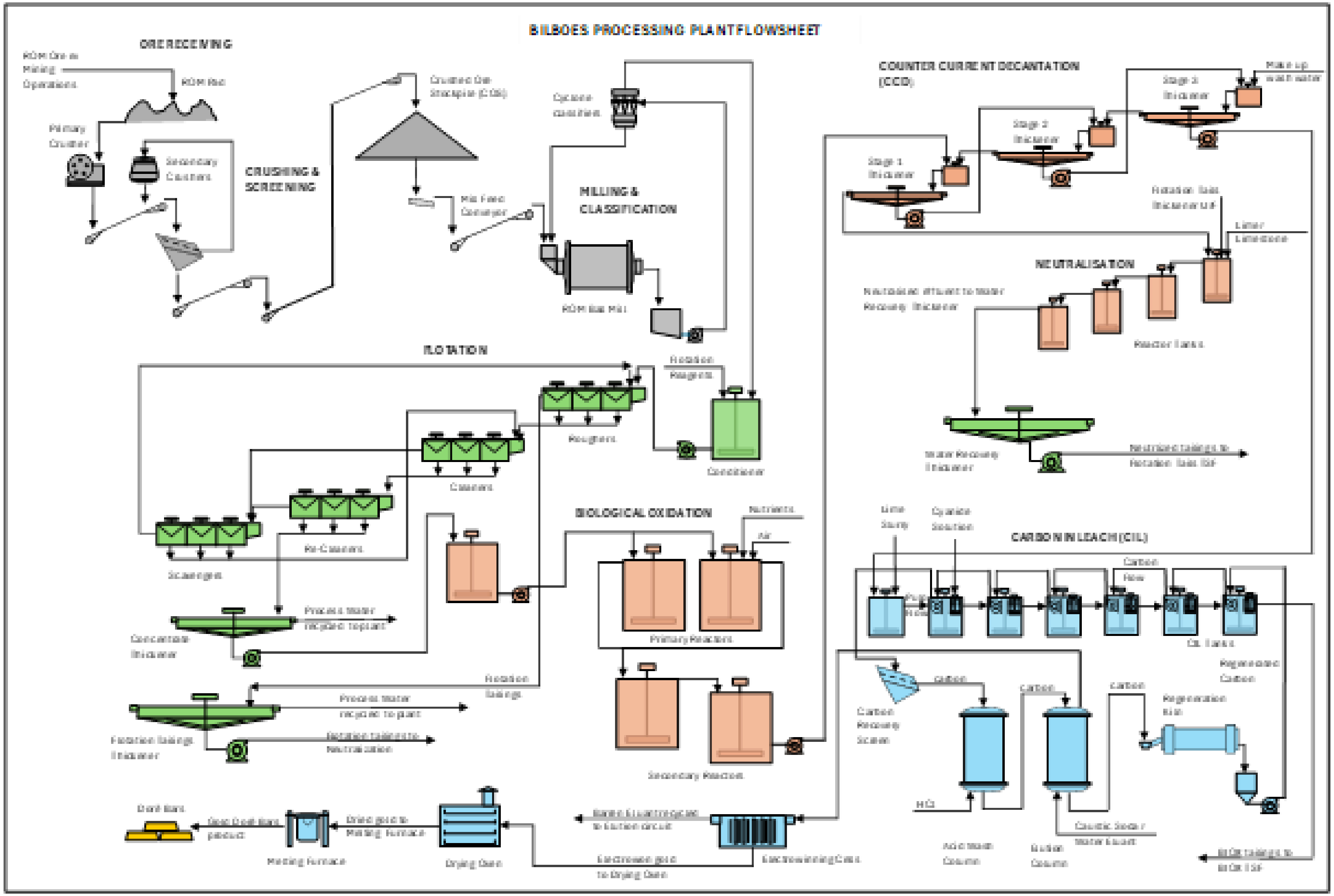


Figure 14-1: Bilboes Simplified Process Flow Diagram

14.3 Process Plant – Layout and Infrastructure

The Bilboes plant layout was developed to a level of detail supporting the FS cost estimate. The overall approach was to include the plant and site infrastructure into this iterative process to have an overall, most effective design, within the limitations set by various external factors.

The plant design considers the existing design of various projects, lessons learnt from DRA legacy projects, peer reviews and DRA discipline lead experience.

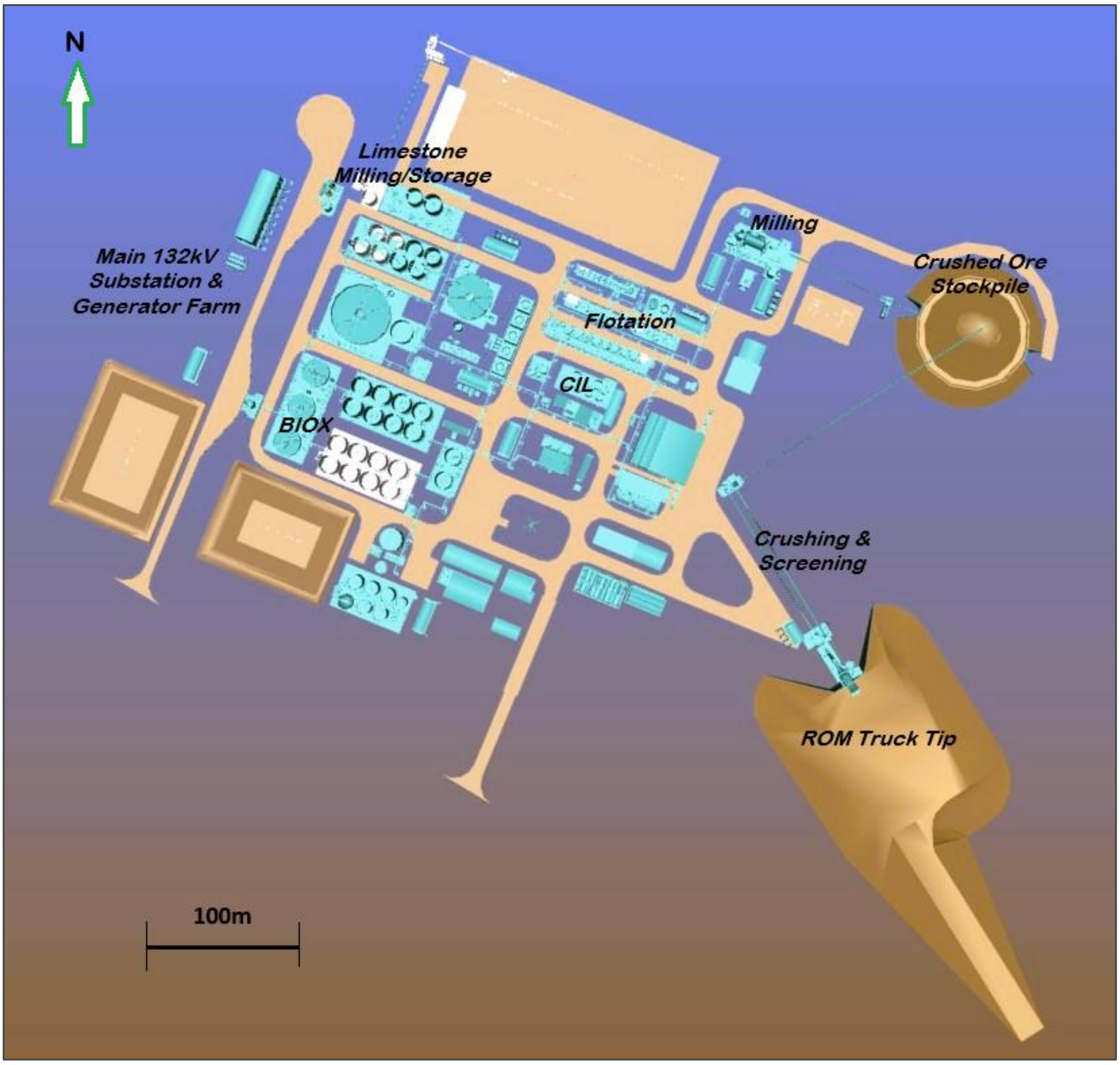


Figure 14-2 Bilboes Process Plant Schematic

The process plant has the following main sections:

- ROM tip
- Primary and secondary crushing and screening
- Crushed Ore Stockpile
- Milling section
- Flotation section

- BIOX® section
- CIL section
- Limestone milling and storage section
- Water service section
- Main 132kV substation and generator farm
- A 132 kV Overhead line will have to be constructed to ensure sustainable power to the Bilboes site.

14.3.1 Comminution

14.3.1.1 Crushing

The crusher circuit has been designed to process the full LoM design monthly tonnage (240 ktpm Isabella-McCays). When processing Bubi plant feed to the crushing circuit monthly throughput will reduce to approximately 180 ktpm due to the harder nature of the Bubi plant feed. Plant feed, with a top size of approximately 650 mm, is received from the open pit mining operations at the RoM Pad by haul truck. The plant feed may be stockpiled on the RoM Pad (for blending or delayed feeding purposes) or directly tipped into the primary jaw crusher. The bin discharges onto an inclined apron feeder which feeds into a scalping vibrating grizzly feeder (VGF), with the minus 150mm particles passing through. The oversize of the VGF is fed into the jaw crusher with the crusher product combining with the VGF undersize and feeds onto the double deck sizing screen. The oversize from the screen is conveyed to the secondary cone crushers which discharges back onto the screen feed conveyor, ensuring a closed-loop crushing circuit. The screen removes the finer material, namely minus 30 mm particles, and conveys that product to the crushed ore stockpile (COS). The size of the COS allows for a live capacity of 24 hours and a total capacity of approximately 26,000 tonnes.

14.3.1.2 Milling and Classification

The crushed ore is withdrawn from beneath the COS and fed onto the mill feed conveyor by belt feeders. The mill feed conveyor discharges directly into the Ball Mill feed hopper.

The conveyor is fitted with a weightometer to measure the throughput as well as control the speed of the belt feeder to give the set tonnage to the mill. The ball mill is specified and design as a grated discharge mill with steel liners and utilising steel balls as the grinding media. The grated discharge allows for higher mill operating loads and higher circulating loads compared to an overflow mill configuration.

Milled slurry discharges via a trommel screen into the mill discharge sump and is pumped to the cyclone classification circuit. The cyclone overflow, containing the fine particles, gravitates through an automatic slurry sampler followed by a linear screen to remove any contaminants or debris (such as wood chip and plastics) before discharging into the flotation conditioning tank in the flotation section. The coarse particles exit in the cyclone underflow stream and return to the ball mill feed for re-grinding. Product size from the milling section is designed for 80% passing 75 microns. In the latter parts of the LoM, when processing of the Bubi ore in the same circuit configuration, the monthly milling throughput will reduce to 180 ktpm due to the harder properties of the Bubi ore.

14.3.2 Flotation

Cyclone overflow from the milling section discharges into the flotation conditioning tank where it is adjusted with process water to the set flotation feed density. Flotation reagents are also added in this tank and the slurry is allowed to condition for a set period prior to being pumped to the flotation cells. The circuit will operate at the ores natural pH and be configured in a rougher, cleaner, recleaner and cleaner scavenger format to facilitate maximum gold and sulphide recoveries to the concentrate while minimising the carbonate recovery to the concentrate. Sodium Ethyl Xanthate (SEX) is used as the collector for the sulphide minerals, copper sulphate as an activator for the sulphide minerals while starch and sodium carbonate are used as depressants for the carbonates. The rougher tails, which forms the overall flotation section tailings product, is pumped to the neutralisation section situated near the BIOX® area and assists in reducing the reagent consumption for neutralisation. The recleaner concentrate is removed as the overall flotation concentrate product and is pumped to the concentrate thickener for dewatering ahead of processing in the biological oxidation section. Water recovered from the thickener is pumped to the process water pond for re-use in the milling and flotation circuits.

14.3.3 Biological Oxidation (BIOX®)

In the BIOX® section bacterial oxidation of the sulphide minerals occurs, (by mesophilic bacteria, operating in the range of 40°C – 45°C) resulting in liberation of the included gold particles for further downstream recovery.

14.3.3.1 Biological Leaching

Thickened flotation concentrate is pumped to the two BIOX® surge tanks where it is diluted to the required density of approximately 18% solids. The slurry is then pumped to the primary reactors (in parallel), with slurry overflowing to the secondary reactors (in series). Oxygen and carbon dioxide (through compressed air blowers), nutrients, defoamer and sulfuric acid are added to the reactors, with the required bacteria cultures contained within the reactors. To ensure the bacterial activity level is maintained, control of the correct oxygen, solids feed rate, pH and temperature is essential. Bacterial oxidation of the sulphides optimally takes place at a pH of 1.2 – 1.6 and a temperature of approximately 42°C. As the concentrate contains some carbonates, the addition of sulfuric acid may be required to maintain the required pH. The oxidation of the sulphide particles produces a significant amount of heat through the exothermic reactions taking place in these operating conditions, therefore the temperature is maintained by the circulation of cooling water via cooling coils within the reactors. Aeration of the tanks is achieved through medium pressure air blowers (250 kPa) with monitoring of the dissolved oxygen levels. Air hold-up in the tanks is approximately 15% of live volume.

The total required residence time based on testwork conditions is 6.5 days for the slurry to pass through the reactors. The oxidized slurry product exits the final secondary reactor and is pumped to the counter current decantation (CCD) section for separation of the acidic liquid and oxidized solids.

14.3.3.2 Counter Current Decantation

A 3-stage CCD circuit allows for adequate separation of the acidic solution components from the oxidised solids. The thickener underflow solids are progressively washed to remove excess acidic solution in an up-flow manner from thickener 1 to 3, exiting as thickener 3 underflow, while the acidic solution is progressively concentrated in a down flow manner exiting as thickener 1 overflow. Make-up water is added to the feed of thickener 3 to maximise the washing efficiency. The thickener 3 underflow slurry (washed oxidised product) is pumped to the Carbon-in-Leach (CIL) section for gold leaching, while the thickener 1 overflow acidic solution is pumped to the neutralisation section for precipitation of the acidic components.

14.3.3.3 Neutralisation

The neutralisation circuit comprises 8 stages allowing 1.5 hours per stage thereby resulting in a circuit residence time of 12hrs. The acidic solution is combined with the flotation tailings thickener underflow slurry, and then neutralised to a pH of approximately 4.5 with limestone and then to a pH = 7 with lime slurry. With the Bubi ore containing a significantly larger sulphide content, and therefore larger BIOX® requirements, there is also a much larger demand for neutralising reagents and will require a limestone milling circuit. Therefore for Phase 1, while processing the Isabella and McCays ore bodies, only lime slurry will be used for neutralisation prior to installing the limestone mill for Phase 2. The acidic components and solubilised arsenic are precipitated to various sulphates with the arsenic fixed insolubly as basic ferric arsenate. The slurry is pumped to the water recovery thickener where the solids are thickened and thereafter pumped to the flotation tailings storage facility (TSF). The thickener overflow solution is re-used inside the BIOX® section for feed dilution, with excess water pumped to the process water dam.

14.3.4 Carbon in Leach

Washed oxidised slurry the CCD underflow in the BIOX® section is pumped to the first CIL tank where the slurry will be subjected to the pH adjustment with lime slurry and additional aeration to ensure complete oxidation of cyanide consumers. The slurry will then overflow to CIL tank 2 where cyanide is added and flows through the circuit to the final CIL tank. Tanks 2 to the final tank all contain activated carbon, retained within the tank by an interstage screen. Slurry residence time in the circuit is set at 36 hours, by which time maximum gold dissolution will have occurred and the carbon will have adsorbed approximately 99% of the soluble gold. The exiting slurry from the final CIL tank will pass over a carbon safety screen to ensure no loss of carbon due to possible interstage screen perforations, before gravitating to the tailings surge tank. From here the slurry is pumped to the detoxification circuit for cyanide destruction before being pumped to the BIOX® tailings storage facility. The carbon within the CIL tanks is pumped counter-currently to the slurry flow, upstream from the last CIL tank to the CIL tank 2. The Au loading on the carbon increases as it progresses upstream in the circuit while the Au on solids decreases as the slurry flows downstream in the circuit. Loaded carbon is recovered from CIL tank 2 by pumping the carbon / slurry to the loaded carbon screen situated in the elution circuit. The slurry passes through the screen as underflow and returns to CIL tank 2. The loaded carbon remains on the screen and discharges as oversize into a loaded carbon hopper from where it is transferred to the acid wash column.

14.3.5 Carbon Treatment

A loaded carbon batch, sized as a 5 tonne elution column, is dropped into the acid wash column prior to treating the carbon at ambient temperatures with a 3% hydrochloric acid solution for approximately 1 hour to remove inorganic foulants, predominantly calcium, ahead of the elution process. After acid treating, wash water is pumped through the carbon in the column to remove excess acid and pumped to the BIOX® tailings tank and ultimately sent to the BIOX® tailings storage facility.

The acid washed carbon is transferred by water eduction to the elution column ahead of desorption of the Au. The elution process is the split AARL (Anglo American Research Laboratory) configuration. This process separates the elution cycle from the electrowinning (EW) cycle thereby adding flexibility to the process, with an intermediate tank allowing less dilution of the eluate prior to EW. Once the carbon is in the elution column, a solution comprising 1% cyanide and 2% caustic soda is heated to approx. 110-120°C before allowing the carbon to soak in the solution for approximately 1 hour. After this the carbon is eluted with high quality water (low impurity/potable water) at 125°C for a period of approximately 4 hrs. The gold bearing eluate (preg solution) is stored in the Preg Solution Tank as the feed tank for the electrowinning section. To allow for flexibility as the electrowinning process commences and circulates the solution from the preg solution tank, a second preg solution tank is installed to allow fully independent electrowinning to take place. The total elution cycle (including acid treatment) takes approximately 10 hours. The barren carbon is transferred by water eduction from the elution column to the regeneration kiln feed hopper.

The regeneration kiln is an electrically operated horizontal retort type, operating at a temperature of 750°C (hot zone) in a non-oxidising atmosphere to prevent ignition of the carbon. In this process organic foulants, such as oils, greases and flotation reagents, are removed thus returning the carbon close to its original activity in readiness for re-use in the CIL circuit. Carbon discharges from the kiln into a cold water quench tank, then recycled by eductor back to the CIL circuit.

14.3.6 Electrowinning and Smelting

The eluate solution is pumped to the electrowinning circuit (situated in the Gold Room), comprising of 2 electrowinning (EW) cells, each with 16 cathodes and 18 anodes. The cathode is stainless steel mesh wrapped around a stainless-steel frame, connected to the negative terminal, and encapsulated in a non-conducting, perforated cathode box. The anode comprises of a stainless-steel perforated plate connected to the positive terminal. DC power to each cell is supplied by a dedicated rectifier (capable of running up to 2,000 amps). The eluate solution is circulated through the electrowinning circuit over 12 hours. Au in the eluate deposits onto the stainless-steel mesh in the cathode box with the generation of hydrogen gas (resulting in localised acidic conditions in the cell). The pH in the eluate must be maintained at approximately 13 to prevent excessive corrosion of the stainless-steel anode due to localised low pH. The pH inside the eluate tank is measured with caustic solution added as required to maintain that pH prior to EW. During this process oxidation reactions occur at the anode resulting in the generation of ammonia and hydrogen amongst others. These gases are vented off in a very diluted form to the atmosphere via an extraction system. Once the residual Au value in the eluate drops below the required setpoint the EW process is stopped, with the barren solution pumped back to the CIL circuit ensuring that any small quantities of dissolved Au being readily capture by activated carbon in the CIL.

The cathode boxes are removed periodically from the electrowinning cell and the gold recovered from the stainless-steel mesh by high pressure water jets. The gold, along with other electroplated impurities, is then filtered and dried in a drying oven. The dried gold is mixed with fluxes (generally borax, silica and sodium carbonate) and melted in a single pot electric fired furnace at a temperature of approximately 1,100°C. Once molten the gold is poured into molds, cooled, cleaned, stamped and stored in the vault awaiting dispatch to the refinery.

14.3.7 Tailings Handling

Tailings from the CIL circuit are detoxified to reduce the Weak Acid Dissociable (WAD) Cyanide levels to below 50 ppm prior to discharge to the BIOX® tailings TSF. This is accomplished using the INCO SO_2 /Air-process. The SO_2 source is sodium meta bi-sulphite (SMBS), while oxygen is generally sourced from compressed air with sparging into the detox tanks. The process requires a copper catalyst, added as $CuSO_4$ (copper sulphate). This process results in the generation of sulfuric acid and thus requires the addition of lime to maintain the pH at the optimum level (between 8 and 10).

14.4 Plant Water Requirements

Raw water will be supplied to the raw water storage tank, with a live capacity of 2,568 m³, from the nearby Bafana dam. The raw water is used for gland service, carbon transfer duties, elution, gravity concentrator circuit water, reagent make-up and fire service duties. The raw water storage tank will have a reserve for firefighting purposes. This reserve will be maintained by suitability positioned fire water and raw water pump suctions. Raw water requirement under Phase 1 conditions is approximately 5,300 m³/day.

Process water is stored in the process water dam, an earthen lined structure with a live volume of 10,400 m³. The process water dam collects water from the water recovery thickener, flotation tailings TSF and any plant run-off from pollution control dams. Process water is supplied to all sections of the plant for hosing and screen spraying and specifically to the milling and flotation sections for slurry dilution purposes. The process water balance is negative and relies on a make-up volume (from raw water) of approximately 3,300 m³/day under Phase 2 conditions.

14.5 Reagent Services

The Bilboes plant will use a substantial number of chemical reagents / commodities due to its complexity (Table 14-2). Limestone will be sourced locally; all the other reagents will require importation into Zimbabwe.

Table 14-2: Process Plant Major Reagents / Commodities

Reagent / Commodity	Delivery Form	Area(s) of Use	Make up Facilities
Quick / Burnt lime CaO (85%)	Bulk powder, -1 mm solids	Milling, BIOX® Neutralisation, CIL, Cyanide Detoxification	Bulk Slaking (Hydration) plant supplying hydrated lime – $Ca(OH)_2$ - via a ring main system
Limestone ($CaCO_3$) (45%)	Bulk crushed, -40 mm solids	BIOX® Neutralisation	Milling plant with dedicated supply to neutralisation area
Flocculant (various)	Dry powder, 25 kg bags	Flotation tails and conc thickeners, BIOX® CCD thickeners, Water recovery thickener	Dedicated batch make up plants at each relevant site supplying liquid flocculant
Flotation Collector: Sodium Ethyl Xanthate (SEX)	Dry pellets, 850 kg bulk bags	Flotation	Dedicated batch make up plant supplying liquid reagent
Flotation Activator Copper Sulphate ($CuSO_4$)	Dry powder, 25 kg bags	Flotation	Dedicated batch make up plant supplying liquid reagent
Flotation Frother	Dry powder, 200 kg drums	Flotation	Dedicated batch make up plant supplying liquid reagent
Flotation Depressant 1 Sodium Carbonate (Na_2CO_3)	Dry powder, 25 kg bags	Flotation	Dedicated batch make up plant supplying liquid reagent
Flotation Depressant 2 Starch	Dry powder, 25 kg bags	Flotation	Dedicated batch make up plant supplying liquid reagent

Reagent / Commodity	Delivery Form	Area(s) of Use	Make up Facilities
Sulphuric Acid	Bulk tanker liquid 93% H_2SO_4	BIOX®	Ring main system feeding from storage tank to BIOX® circuit.
BIOX® Nutrients	Dry powder, 25 kg bags	BIOX®	Dedicated batch make up plant supplying liquid reagent
Sodium Cyanide NaCN	Briquettes, 1 Tonne bulk bags	CIL, Elution	Solution make-up and storage facility
Caustic Soda NaOH	Pellets, 1 Tonne bulk bags	Carbon Treatment, Cyanide make-up facility	Solution make-up, storage and distribution facility
Hydrochloric Acid HCl	33% Liquid, IBC	Carbon Treatment Acid Wash	Direct pumping from drum into Acid Wash solution make up tank
Sodium Metabisulphite $Na_2S_2O_5$	Powder, 1 Tonne bulk bags	Cyanide Detoxification	Solution make-up, storage and distribution facility
Diesel	Bulk Tanker	Fire water system, Elution and Gold Room	Local diesel storage tank for distribution
Milling grinding media 80 mm dia. forged Cr-Mo steel	200 L steel drums	Milling	Ball loader onto Mill feed conveyor

15 INFRASTRUCTURE

The mine layout is presented in Figure 15-1. It illustrates the McCays/Isabella infrastructure as well as the Bubi Infrastructure with associated Haul road between these areas.

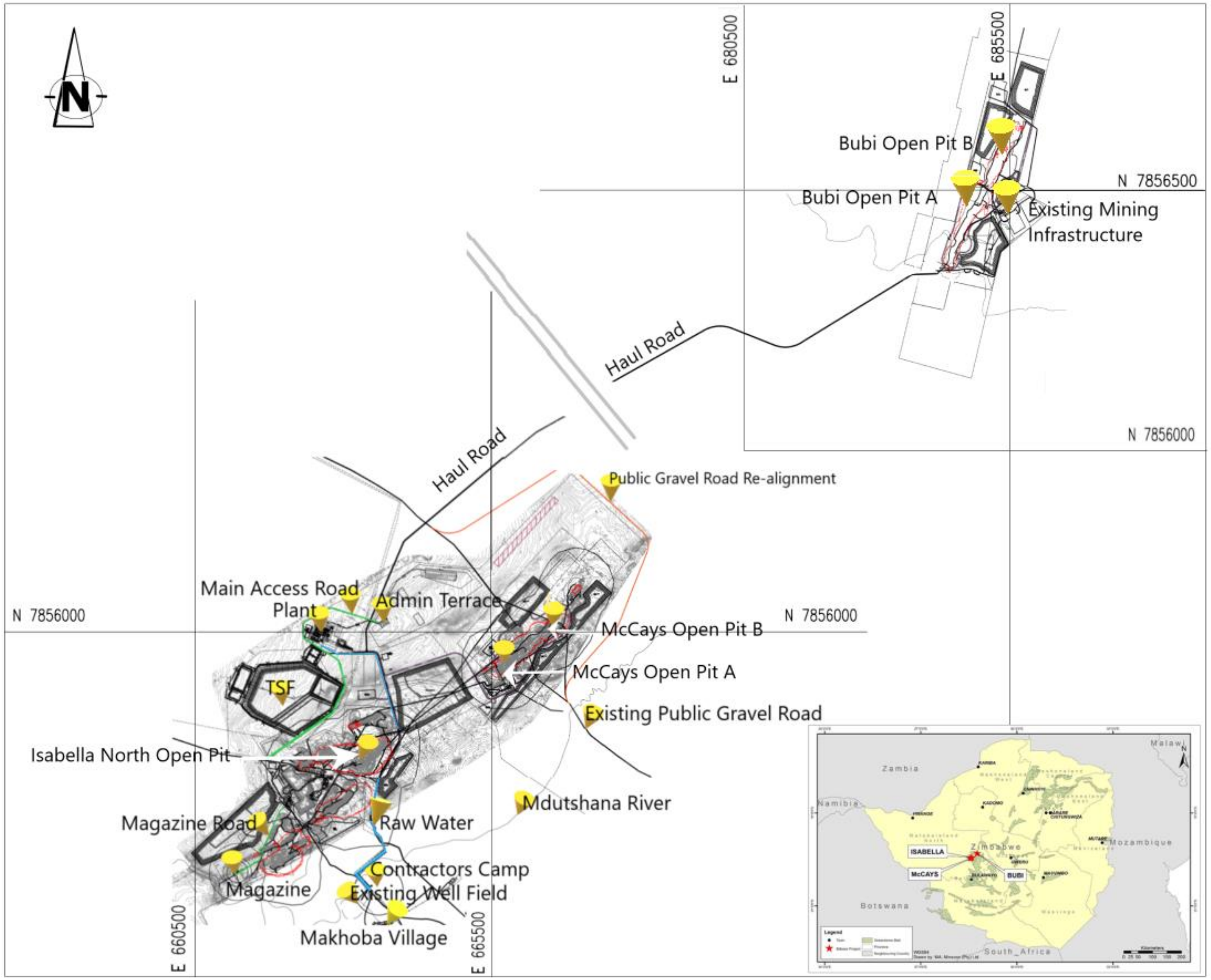


Figure 15-1: Project Layout

15.1 Geotechnical Investigation and Design

The Bilboes Project geotechnical engineering investigation involved the investigation for the Open Pit, TSF, the Process Plant (Plant) and WRD foundation material analysis.

15.1.1 Field Investigation and Data Collation

SLR Rock Engineers visited the site at various stages of the geological drilling campaign during 2018 which included, review of geological and geotechnical data, geotechnical logging of core and the collection of intact rock samples for laboratory testing.

Prior to the field investigation, a site reconnaissance study was conducted, during which the site was assessed with a view to planning the investigation methodology. This was followed by a desktop study investigation which involved the compilation and assessment of available information on the site including geology, aerial photography, and previous investigations on the site, where available.

A total of 18 geotechnical drill holes: ten at Isabella McCays and five at Bubi, varying in depth from a minimum of 120 m to a maximum of 260 m were logged. The cumulative length of the boreholes at Isabella McCays was about 1.67 km; and those at the Bubi was about 0.88 km.

The test pit locations were selected based on early conceptual site layouts of the TSF, RWD and Plant Site to gain maximum coverage of the area.

Selected soil samples were retrieved from the test pits and were submitted to the Contech Geotechnical Testing laboratory in Harare, Zimbabwe. The samples were chosen to determine the design parameters of each material units encountered at the site.

An updated Geotechnical Investigation for the current Process Plant layout, the Haul Road and river diversion was commissioned during the latter stages of the FS. Updated Geotechnical information will be available for the detail design phase.

15.1.2 Tailings Storage Facility Site

The following soil and rock properties were derived from the investigation and are recommended for use in design, slope stability analysis and seepage modelling (Table 15-1).

Table 15-1: Proposed Soil and Rock Properties for Foundation Modelling on the TSF

Geotechnical Domain	Depth (m) [mean values]	USCS	Dry Density (kg/m3)	v	Confined Modulus (MPa)	Effective Cohesion (KPa)	Effective Friction Angle (Degrees	Ksat (m/s)
Topsoil	0.0 - 0.6	CL	1,700	0.3	4	0	27	1×10^{6}
Residual Arkose	0.6 - 1.0	CL/SC/GC	1,700	0.3	8	0	27	1×10^{6}
Residual Andesite	0.4 - 1.0	CL/SC	1,800	0.3	15	0	30	1×10^{6}
Residual Meta-Basalt	0.1 - 0.6	CL/SC/GC	1,800	0.3	8	0	30	1×10^{6}
Rock Type	Depth (m) [mean values]	Rock Classification	Dry Density (kg/m^3)	v	GSI	Rock Strength (MPa)	Confined Modulus (KPa)	Ksat (m/s)
Arkose / Andesite / Meta-Basalt	1.0 - 2.0	Poor Quality Rock Mass	2,600	0.4	25 - 35	1 - 5	50	1×10^{8}

15.1.3 Process Plant Site

The following soil and rock properties were derived from the investigation and are recommended for use in plant siting and foundation design (Table 15-2).

Table 15-2: Proposed Soil and Rock Properties for Foundation Modelling on Process Plant Site

Geotechnical Domain	Depth (m) [mean values]	USCS	Dry Density (kg/m3)	v	Confined Modulus (MPa)	Effective Cohesion (KPa)	Effective Friction Angle (Degrees)
Topsoil	0.0 - 0.4	Not considered suitable for founding					
Residual Arkose	0.4 - 1.0	CL	1,700	2		0	27
Residual Arkose - Medium Dense to Dense	1.0 - 1.3	CL/SC/GC	1,800	0.3	8	0	30
Rock Type	Depth (m) [mean values]	Rock Classification	Dry Density (kg/m3)	v	GSI	Rock Strength (MPa)	Confined Modulus (KPa)
Arkose	1.3	Poor Quality Rock Mass	2,600	0.4	25 - 35	1-5	50

15.1.4 Waste Rock Dump Sites

The Waste Rock Dumps classifies geotechnically as a Class II Low Hazard.

- Waste Rock Dump lift heights should be limited to 10 m with a minimum of a 10 m berm, with an overall height of 40 m.

15.2 Civil Engineering and Earthworks

The general approach adopted was to design/measure and quantify elements, identified as major capital expenses, from the compiled infrastructure layout drawings, and to make the necessary estimation for the following items.

- The main access roads to the proposed mining infrastructure including road to the Plant, Administration and Mining Contractor’s terraces, Lime terrace and Substation terrace
- Service roads to the PCD, RWD and the Explosive Magazines,
- Re-alignment of a public gravel road around the McCays extension,
- Internal Process plant roads,
- Explosives Magazine Terrace at Isabella,
- Raw Water (make-up water) pipeline from Bafana and Hauke dams,
- Water pipeline from the wellfields,
- Return water pipelines from the TSF to Plant PCD,
- Bulk earthworks for terraces at Isabella including the Plant, RoM tip ramp and blending platform,

- Substation, Administration, Lime stockpile, Contractor's Laydown, fit for purpose Construction Accommodation camp terrace,
- Haul Road (± 26 km) between Isabella and Bubi, Haul Road based on previous study, however road width updated to suit revised haulage vehicles.
- Sewer reticulation and Wastewater Treatment Works for the Plant, Administration and Village,
- Fire and Potable water reticulation for the Plant Area and Fire water to the Contractor's Accommodation Camp,
- Stormwater channels in the Plant, Administration area and Village
- Process Water Dam at the Plant,
- Contact Water Control Dams (PCD), provided for the Plant and Administration, as well as the Contractors Laydown,
- Process Plant including the RoM tip, Primary Crusher, Secondary Crusher, Screening building, Transfer Towers, Floatation Concentrates Thickener, Cooling Towers, Neutralization Tanks, Reactors, BIOX® Area, Flotation, Reagents Area, Gold Room,
- Leaching Area, Mill Structure, Tailing's area, Conveyors, Water reticulation, Sewer reticulation, Services support Buildings and weighbridge.

Note the design and construction of all internal mining haul roads for Isabella and Bubi, between the proposed open pit mining access and RoM handling facilities and internal access roads to be used by the mining contractor was included under Mining Contractor Scope

15.3 Mechanical Engineering

The mechanical design criteria cover the process plant and mining related equipment and is based on established technology and practices in the gold mining and processing industry.

Engineering aspects will be developed and optimized for clear definition of scope for the project. Mechanical equipment design is based on the application of established technology and practices in the gold mining and processing industry. Equipment is designed and selected on a "fit for purpose" basis, to carry out required duties over the LoM period.

Mining and process plant equipment and infrastructure is designed for LoM of approximately 15 years.

Mechanized and automated methods shall be implemented where there is a clear contribution to a safer, more productive, and less labour -intensive environment.

Total life cycle costing of equipment and processes over LoM shall be considered during design and equipment selection Phase.

Engineering design will endeavor to address outcomes of risk assessments and HAZOP studies. Resulting designs, selected equipment and processes shall be safe for operating and maintenance by personnel and shall be eco-friendly.

Value improving initiatives will be undertaken through application of practical value engineering techniques and the philosophy of standardization and rationalization of equipment (to reduce spares holding requirements). Design to capacity and process simplification will be applied where possible.

15.4 Electrical Power Supply and Reticulation (including Communications)

15.4.1 Interconnection to National Grid

Power will be supplied from the Zimbabwe National Grid by constructing a 70 km 132 kV Lynx line from Shangani Substation. To feed the line, a line bay will be constructed at Shangani. A mine substation will be constructed at Isabella. The estimate received is for a 132 kV substation, equipped with a 40 MVA 132/11 kV step-down transformer.

Detailed design for the 11 kV voltage will enable the medium voltage (MV) motors to be fed directly from the 132/11 kV transformer. The 1.5 MVA required by Bubi can also be supplied at 11 kV.

Power factor correction will be performed with 11 kV capacitors.

Interfaces with other designs occur at the following battery limits:

- Zimbabwe Electricity Transmission and Distribution Company (ZETDC),
- 132 kV Substation,
- The bulk electricity supply for the project is being planned to cater for a production rate of 508 tph RoM. This corresponds to an electrical load of up to 34 MVA.

15.4.2 Power Requirements

The connected and anticipated running power demand of the mine and plant can be seen in Table 15-3 which compares the installed and anticipated running power and lists the estimated running maximum demand.

Table 15-3: Substation Loading

	Installed Power (kW)	Run Power (kW)	Estimated Maximum Demand (kVA)
Mills and other 11 kV motors	23,066	19,494	19,891
Plant LV Load	28,924	19,165	19,563
Infrastructure	1,700	1,700	2,205
Total	53,690	40,359	41,659

15.4.3 Emergency Power

Four 2.5 MVA emergency power generator sets will be installed and connected to the 11 kV consumer substation. Emergency power is reticulated to downstream substations at 11 kV, where it is distributed to the Motor Control Centre (MCCs).

15.5 General Infrastructure

The table below indicates the building infrastructure list that was considered.

Table 15-4: Building Infrastructure

Building	Type	Size (m^2)
Security and Access Control	Prefabricated building	170
Admin Building	A prefabricated building. Office furniture has been included in the square meter rate	430

Building	Type	Size (m^2)
Plant Laboratory	Prefabricated building	540
Control Room	Prefabricated building	170
Change house/s	Prefabricated building/s	325
Stores	Two conventionally constructed buildings (brick and mortar)	220 and 100
General Workshop	A conventional constructed building (brick and mortar)	520
Crusher Workshop	Conventional constructed building (brick and mortar)	270
Electrowinning and Gold Room	Conventional constructed building (brick and mortar)	220
Crusher MCC	Prefabricated building	302
CIL MCCs	Prefabricated buildings	253
Floatation MCC	Prefabricated building	65
Substation	Prefabricated building	351
Return Water Dam Pumphouses	Two conventionally constructed buildings (brick and mortar)	38

15.6 Water Management Infrastructure

15.6.1 Water Balance

As documented in the Bilboes Site Wide Water Balance Technical Memorandum (SLR, August 2025), a Water Balance Model (WBM) was developed using the GoldSim® simulation platform, to assess the predicted system response over the full 11-year project lifespan considering the full range of potential climatic conditions. The occurrence of significant rainfall events was included in the rainfall sequences simulated at the same frequency as was observed in the historic record.

The predicated average daily flowrates, over the full project lifespan, are presented in Figure 15-2.

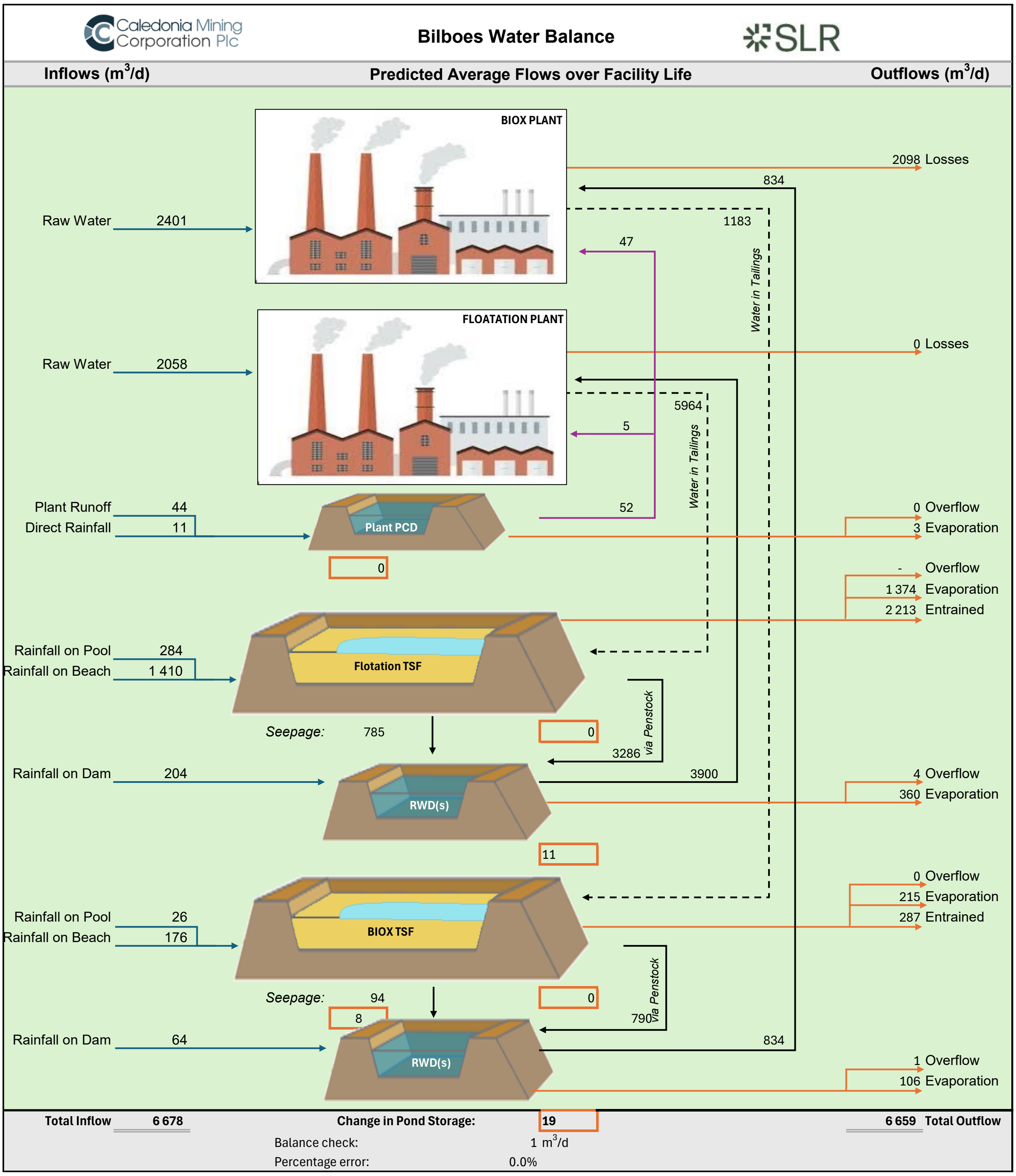


Figure 15-2: Bilboes Water Balance – Average Flows

The WBM indicates that the site is water negative (in deficit), given the large amount of external water (Raw Water) that needs to be supplied, with minimal discharges expected.

The losses within the system can be attributed to water entrained within the tailings (i.e., interstitial storage) as well as evaporative losses across the site. Return rates from the RWDs to the plants of between 60 and 70% have been predicted.

The water balance modelling further indicates that the RWDs and Plant PCD are sufficiently sized to ensure the predicted spill frequencies are less than once in 50 years and is thus compliant with the targeted regulatory requirements.

15.6.2 Water Security

The average make-up water demand at the Flotation and BIOX® plants is estimated to be approximately 2,000 and 2,400 m^3/d respectively over the LoM, as per Figure 15-2. These rates will vary over time depending on the processing rates at the plants as well as the season. The annual average demand is expected to increase from around 4,300 m^3/d to approximately 5,000 m^3/d during year 6. However, during the dry months this demand could exceed 7,500 m^3/d. A reliable water supply source is required to provide these water volumes and ensure the plants can continue operating.

Two regional dams were considered as potential supply sources:

- Bafana Dam (also known as Mbofana), located approximately 5 km south-west of the site on the Bembezi River with a design capacity of 2.5 mm^3 and
- Hauke Dam located approximately 11 km north-west of the site, on a tributary to the Bembezi River with a design capacity of 3.59 mm^3.

The catchment modelling found that the annual firm yield from Hauke Dam is too low to supply the mine requirements in addition to the 40 ha of irrigation area which is currently supplied from this dam. This dam could however function as an offline storage facility, where excess water from the Bembezi River can be transferred during the wet season and drawn from the dam during the dry season to supply the mine, as an option.

If the full design capacity of the Bafana Dam is available for use, and no other local offtakes need to be supplied, the dam is expected to be able to supply the mine's operational requirements throughout the proposed project life approximately 99% of the time, i.e. 1 in 100-year dry conditions will result in a shortfall. This improves to an estimated 99.7% surety of supply (1 in 300-year dry conditions), when considering only the first 3 years of the project life (2026-2029), whereafter the additional storage capacity in the McCays pits become available and additional water can be stored in the pits during the wet season.

Observed conditions at Bafana Dam, based on available Google Earth imagery, however, indicate a likely loss of storage capacity from sediment build-up in the dam. The expected effect of this storage loss on the surety of supply to the mining operations was also assessed, as indicated in Figure 15-3.

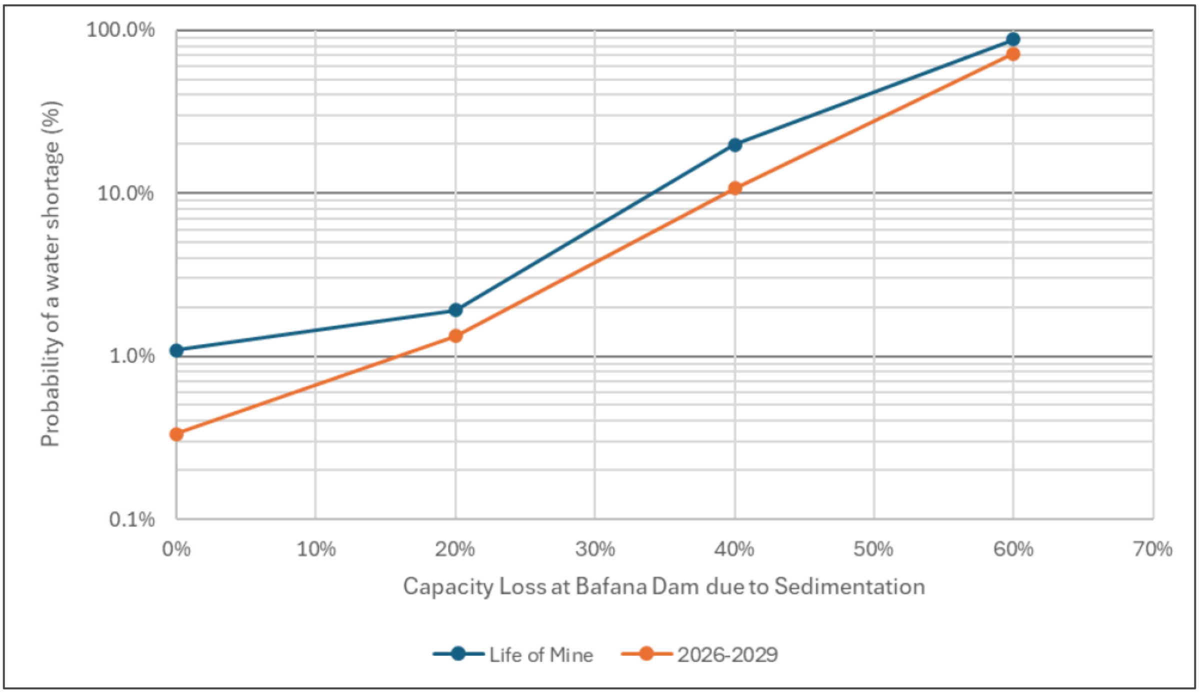


Figure 15-3: Bafana Dam Surety of Supply: Storage Loss Sensitivity Analysis Results

The analysis results indicate that the surety of supply declines significantly as storage capacity is lost, with the probability of a shortfall increasing from 1% to 20% (1 in 5 years) with a storage capacity loss of 40%, with comparative declines observed when considering only the first 3 years.

Due to the absence of monitoring data, neither the site water balance nor the catchment hydrological model could be calibrated, and the results are based on theoretical hydrological input parameters. Given the uncertainty in the accuracy of the modelling and subsequently the ability of Bafana Dam to supply the full water demand over the project life, additional measures have been included in the project planning to offset potential shortfalls. These include the ability to pump excess water from Bafana Dam to Hauke Dam and/or to the McCays pits, as well as potentially extending the wellfield supply capacity.

15.6.3 Ground Water

Numerical Groundwater modelling was undertaken to simulate the mining operation at Bubi Isabella McCays and the related establishment of the TSF at Isabella McCays. The objective of the modelling is to determine the potential impact on the groundwater flow and groundwater quality during and post mining, for Isabella McCays and Bubi.

Isabella McCays and Bubi are located 32 km apart, and therefore a separate groundwater model was developed for each site.

15.7 Sewage Management

A Sewage Treatment Plant (STP) has been allowed to service the Process plant, Admin area, and Contractor area based on the Labour complement numbers at Isabella McCays. Another STP was sized and allowed for at the Construction Camp.

All required pipe networks from the terraces to the relevant package plants are included and the design is based on a gravitational flow.

Table 15-5: STP Sizing based on the estimated labour complement

Sewage system	Process Plant Area	Construction Camp
Number of people (PE)	450	1000
Flow / person, litre /day	150	150
Capacity, m^3/day	67,5	150
Unit	CAP 100	CAP 150

15.8 Tailings Storage Facility

SLR Consulting (Africa) (Pty) Ltd (SLR) were appointed to design and cost a new TSF and the associated sundry infrastructure which include RWD, silt traps, pollution control system, access roads and perimeter fencing.

15.8.1 Design Standards

It is understood that there are no specific Zimbabwean regulations or standards that are applicable to TSF designs. The Bilboes TSF design complies with various international regulations, standards, and guidelines as well as the necessary supplementary Zimbabwean regulations e.g., the environmental protection associated with the disposal of mining waste, the Zimbabwe Statutory Instrument 6 of 2007 applied and The Zimbabwe Standard Specification for Hazardous Waste Management (ZWS 806:2012).

Caledonia Mining is not a member of the International Council of Mining and Metallurgy (ICMM), or an official signatory of the Global Industry Standard on Tailings Management (GISTM) but has taken the decision to align its tailings design and management with the principles of the GISTM. As such, the GISTM principles, as well as other tailings dam standards such as SANS 10286 and ANCOLD (2012) will be taken into consideration in the project development process.

15.8.2 Design Criteria

It is understood that the flotation and BIOX® CIL tailings streams are chemically and physically diverse, and as a result, it was considered appropriate to design a facility with two separate compartments.

The general area for a TSF site was preselected by Bilboes. SLR conducted a trade-off study that compared various TSF construction, development, and deposition techniques over several TSF layout options on the pre-selected site area. The trade-off costing exercise demonstrated that the lowest start-up and sustaining capital costs were associated with a hybrid development system that incorporated full containment of tailings during the initial high Rate of Rise (RoR) deposition phases, followed by upstream development in the latter phases of development when the RoR reduces to the permissible 2.5 m/year.

Conventional tailings slurry disposal by way of spigotting with a maximum allowable RoR of 2.5 m/year above the containment wall crest was adopted for the project.

DRA supplied the tailings production profile indicating three distinct phases of production as presented in Table 15-6: Production Profile.

Table 15-6: Production Profile

No	Period at deposition rate	Deposition Rate (tpm)		Annual Tonnage (t)	
		Flotation Tailings (tpm)	BIOX® Tailings (tpm)	Flotation Tailings (tPA)	BIOX® Tailings (tPA)
1	3 months	145,667	7,667	437,000	23,000
2	4 Years	228,000	12,000	2,736,000	144,000
3	1 Year	206,000	16,409	2,472,000	196,912
4	6 years	162,000	25,228	1,944,000	302,736
5	4 months	162,000	25,228	648,000	100,912
Total	**~ 12 years**		**TOTAL**	**26,165,000**	**2,390,000**

Based on the production profile and plant process data supplied by DRA, the TSF was sized to accommodate a deposition rate of 26.17 Mt for the flotation tailings compartment, and 2.39 Mt for the BIOX® compartment totaling to 28.5 Mt.

TSF sizing was further based on an overall downstream (outer) embankment slope of 1V:3.5H which is considered an environmentally stable slope to encourage indigenous vegetation growth.

The properties derived from the geotechnical site investigation and were used for stability analysis and TSF foundation design are summarized in Table 15-7.

Table 15-7: Summary of Design Criteria for the TSF

Descriptions	
Selected embankment fill material friction angle (Φ’)	25°
Selected embankment fill material cohesion (C’)	25°
Selected embankment fill material unit weight	20 KPa
Waste Rock friction angle (Φ’)	1,600 kg/m³
Waste Rock friction angle (Φ’)	35°
Waste Rock cohesion (C’)	5 KPa
Waste Rock unit weight	2,100 kg/m³
Foundation material (residual arkose / andesite) friction angle (Φ’)	30°
Foundation material (residual arkose / andesite) cohesion (C’)	12.5 KPa
Foundation material (residual arkose / andesite) unit weight	1,700 kg/m³
Bedrock friction angle (Φ)	50°
Bedrock cohesion (C’)	50 KPa
Bedrock unit weight	2,600 kg/m³

15.8.3 Tailings Physical Characterization

A full suite of geotechnical laboratory tests including foundation indicator tests, consolidated undrained triaxial tests, slurry settling tests, volumetric shrinkage tests, dispersiveness tests, evaporation/air-drying tests were conducted on representative Isabella McCays composite and the Bubi flotation tailings samples provided by Bilboes from the on-site pilot plant. The Isabella McCays composite sample was blended at the Isabella-North: Isabella-South: McCays ratio of 50%: 30%: 20% in line with the mining plan.

The following tailings physical properties were derived from the geotechnical site investigation and were used in the design of the Bilboes TSF (Table 15-8).

Table 15-8: Summary of Tailings Physical Properties of the TSF

Description	
Flotation tailings solids concentration in slurry (by mass)	40%
BIOX® tailings solids concentration in slurry (by mass)	20%
Flotation tailings specific gravity	2,70
BIOX® tailings specific gravity	2,75
Flotation tailings slurry	1,337 t/m³
BIOX® tailings slurry density	1,144 t/m³
Flotation and BIOX® tailings effective friction angle (Φ')	31°
Flotation and BIOX® tailings cohesion (C' (KPa)	0
Flotation and BIOX® tailings unit weight (kg/m³)	1,500
Description	

Against expectation, the Isabella McCays BIOX® tailings foundation indicator tests results showed a very fine uniformly graded material (99% passing 0.075 mm sieve).

Based on preliminary discussions with Bilboes regarding the tailings Particle Size Distribution (PSD), the design envisaged a hybrid system of TSF construction incorporating full wall containment using waste rock material during the initial stages of deposition (up to Year 7), together with upstream wall raises using dried consolidated tailings from Year 7 onwards. However, safe upstream construction will not be achievable using such fine tailings, and as such BIOX® tailings may require full containment. The Isabella McCays BIOX® tailings PSD will therefore need further testing and confirmation during the detailed design phase.

15.8.4 Liner Selection

Based on the XRF results for the Isabella McCays BIOX® material, the Zimbabwe Standard Specification for Hazardous Waste Management (ZWS 806:2012) prescribes the following liner system as the minimum liner required for the Bilboes BIOX® tailings:

- Flotation TSF Compartment

The entirety of the Flotation TSF will be lined with a Class C Barrier system which comprises of the following:

- Substrate preparation layer: The substrate will be ripped and re-compacted.
- Primary impermeable layer: a suitable Geosynthetic Clay Liner (GCL) layer with a minimum permeability of $1x10^{-9}$.
- Primary geomembrane layer: 1.5 mm HDPE geomembrane layer.

The design presented in this report is based on the following selected liner systems (Table 15-9.

Table 15-9: Liner System

Layer Description	Flotation Tailings		BIOX® Tailings	
	TSF	RWD	TSF	RWD
HDPE geomembrane thickness	1.5 mm	1.5 mm	2 mm	2 mm
Base layers	Geosynthetic Clay Liner (GCL)	Geosynthetic Clay Liner (GCL)	Geosynthetic Clay Liner (GCL) 300 mm compacted clay liner compacted in 2x150 mm thick layers)	Geosynthetic Clay Liner (GCL) 300 mm compacted clay liner compacted in 2x150 mm thick layers)
In-situ base preparation	Rip and re-compact 150 mm in-situ layer	Rip and re-compact 150 mm in-situ layer	Rip and re-compact 150 mm in-situ layer	Rip and re-compact 150 mm in-situ layer

15.8.5 Seepage / Leakage Quality

The geochemical assessment report also provides expected seepage and liner leakage water qualities following source term modelling.

The geochemical assessment indicated that the BIOX® tailings are likely to be Potentially Acid Generating (PAG) whilst the flotation tailings are non-PAG.

15.8.6 Contaminant Plume Modelling

Using the results of the geochemical assessment and source term modelling of tailings, SLR further conducted contaminant plume modelling to determine plume extents because of seepage or leakage from the TSF and associated RWDs.

The composite liner option is expected to confine plume migration to the TSF site with the plume not expected to exceed 200 m from the source over a 100-year period.

15.8.7 TSF Infrastructure

The TSF complex development incorporates an outer containment wall, constructed in stages using approved available mine waste and developed in a downstream manner and sized to fully contain all deposited tailings up to the 1,159 masl when the tailings deposition rate reduces from 240 ktpm to 180 ktpm. The remainder of the facility up to the LoM will then be raised progressively with upstream wall raises using compacted tailings.

15.8.8 TSF Hazard Classification

The Bilboes TSF hazard classification was conducted in accordance with both SANS 10286:1998 and ANCOLD (2012). Based on the assessment, the Bilboes TSF can be classified as follows:

- A “High” hazard facility per the SANS 10286:1998 safety classification criteria,
- A “High B” consequence category per ANCOLD (2012).

A complete dam break assessment will be done as part of the feed phase of the project.

15.8.9 TSF Operation and Monitoring

During the life of the TSF, various elements should be monitored to ensure the integrity of the TSF complex. Monitoring elements will typically include:

- TSF engineering parameters,
- Groundwater monitoring program,
- Dust monitoring program.

15.8.10 TSF Closure Concept

The closure concept provides a comprehensive approach to managing the closure of the new tailing's facility in the event of an unexpected cessation of operations. By implementing these measures, we aim to protect the environment, ensure public safety, and comply with all regulatory requirements, thereby facilitating a smooth transition to long-term closure and site rehabilitation.

The closure concept is envisaged to include a covering of the mine waste with a low hydraulic conductivity layer such as a clay or geosynthetic membrane. There will be on-going rehabilitation of the TSF complex through on-going vegetating of the embankment slopes.

15.8.11 TSF Optimisation

An optimisation of the previous TSF was undertaken by SLR Consulting. All previously determined design criteria, including site location, plant processes, tailings production, deposition methodology, tailing material characteristics as well as earthworks and embankment construction methodology were assumed.

- The assumption is that the currently selected site is fixed. Due to the topographical constraints of the current site, a large volume sacrificial wall needs to be constructed for the TSF Stage 1 deposition, which could be reduced if an alternative site is found.
- The FS LoM production profiles were provided by DRA (240 ktpm):
  - The total tonnes expected are 28.5 Mt.
  - Flotation TSF compartment: 26.17 Mt.
  - BIOX® TSF compartment: 2.39 Mt.
  - The total LoM is ~12 years.
- The maximum allowable RoR, for this FS, was assumed to be 2.5 m/year, to lower the starter wall embankment heights, thereby reducing the overall construction and material costs of the Flotation and BIOX® TSF starter wall embankments.
- The annual RoR is the highest during the first few years after deposition commences.
- The starter wall heights, for the Flotation and BIOX® TSF compartments for the proposed deposition are recommended as follows:
  - Flotation TSF compartment Phase 1 and Phase 2: 1,158.0 masl.
  - BIOX® TSF compartment: 1,158.0 masl.
- The footprint of the TSF is to be (Figure 15-1: Project Layout):

– The BIOX® TSF constructed without being divided and therefore as a complete compartment, while the Flotation compartment is to be divided into two stages.

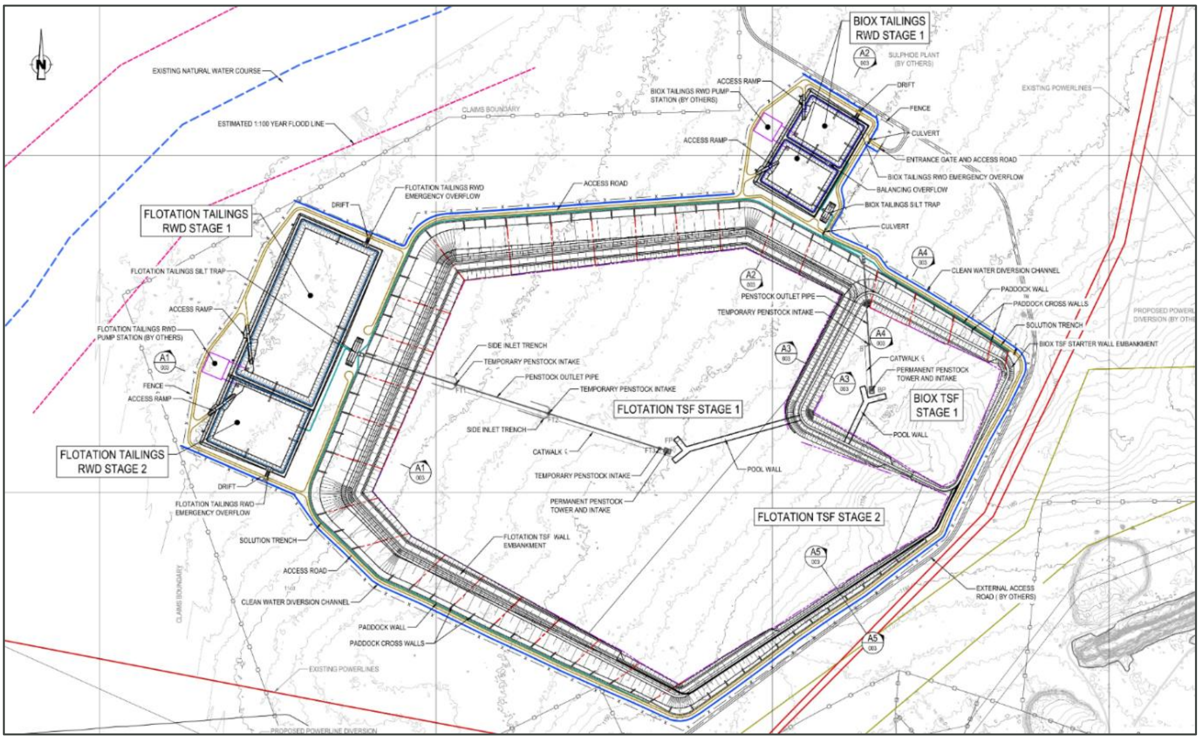


Figure 15-4: Flotation and BIOX® TSF – 240 ktpm

- The following phasing of the Flotation TSF compartment is suggested:
  - Stage 1 – Stage 1 has been designed to cater for a year of storage until the elevation of 1,147masl.
  - Stage 2 – Stage 2 will commence right after the first deposition into stage 1 of the facility in order to allow for continuity in the basin.
  - Stage 3 - the tailings elevation is above the Phase 3 wall height and the TSF is "self building" with tailings, up to the final design elevation.
- For the Flotation Stage 1 compartment, it is recommended that the temporary penstocks as well as the final permanent penstock intake be constructed for operational use during Stage 1 deposition. Two additional temporary penstocks will be required within the BIOX®.
- Flotation stage 2 compartment to allow decant water to drain sufficiently from the compartment. The final permanent penstock will be utilized during the end of deposition on the Stage 1 compartment, as well as after the Stage 1 and 2 compartments are merged into one (Stage 3 operation).
- The solution trench, around the perimeter of the facilities is to be partially concrete lined, as it was agreed that the "worst case" option in terms of tailings type and classification would be adopted as part of this assessment.
- The siting of the Flotation and BIOX® RWDs and silt traps are to remain as per the 2019 FS.

- As the catchment area of Stage 1 is less than the overall TSF, only one of the Flotation RWDs needs to be constructed as part of Stage 1, while the second will need to be constructed during stage 2. The BIOX® RWDs should be constructed during Stage 1.

The outer containment walls for the Flotation and BIOX® TSF compartments are to be constructed in stages using approved available mine waste, developed in a downstream manner to fully contain all deposited tailings up to the point when the tailings RoR is below 2.5 m/year. The waste rock material is assumed to have a friction angle of 1v:3h, slightly steeper than the conventional industry guideline of 1v:3.5h, due to the material properties of the waste rock.

- The tailings sample is not considered representative of the tailings material as it was treated prior to the geochemical analysis. The high leachable and total arsenic concentrations need to be verified by a repeat test. The treated tailings also need to be verified that they will indeed classify as a Type 2 waste. Confirmatory testing is currently taking place at the time of writing this report to confirm the waste classification.
- At this level of design (Optimized FS) there are uncertainties that will only become clear as the next project Phase commences, and design parameters are fixed and/or investigated further at more detailed design/feed stages due to further tests that are currently taking place.

15.9 Project Execution

15.9.1 Execution Strategy

Phase 1 of the project is to be executed initially mostly at Isabella McCays and will involve the engineering, detailed design, procurement, construction, and commissioning of a 240 ktpm gold plant and associated infrastructure.

Phase 2 of the project involves mining at Bubi and a step change in production to 180 ktpm, due to the higher mass pull expected from the different type of ore. Phase 2 will only commence later to suit the life of mine production schedule.

15.9.2 Engineering and Design

It has been advocated that a short Front End Engineering Design (FEED) Phase be implemented to bridge any gaps arising from the Prefeasibility Study (PFS) and Detailed Engineering period. The FEED Phase will allow detailed design scoping to be done and focus on the key requirements for procurement planning and management.

15.9.3 Construction Philosophy

The Engineering Procurement Construction Management (EPCM) Contractor will mobilize a Project Construction Management Team who, under the overall direction of the EPCM Project Manager, though the EPCM Construction Manager will manage and co-ordinate the activities of the appointed construction contractors.

These appointed construction contractors will perform the construction operations for the duration of the construction Phase.

15.9.4 Schedule

The schedule is used for long term planning, including cash flow. The schedule will be revised to be aligned with the latest information available before the project can progress from the planning Phase to the execution Phase. Detailed engineering designs commence in January

2026 with procurement activities starting as early as April 2026. Long lead items include the procurement of the Mills and Flotation components.

The Earthworks and TSF contractors are some of the first appointed Contractors and must be appointed timeously. Site establishment for EPCM will commence as early as August 2026.

JZWEBR8529 - Bilboes Gold Project Execution 20251117

ID	Task Name	Dur	Dur (d)	Dur (w)	Dur (mo)	Start	Finish
1	JZWEBR8529 - Bilboes 2024 Optimised FS Execution Schedule	1598 d	1598	319.6	79.5	05 January 2026	15 March 2032
2	240 ktpm - Phase 1	731 d	731	146.2	36.37	05 January 2026	16 November 2028
3	240 ktpm PROJECT MILESTONES	731 d	731	146.2	36.37	05 January 2026	16 November 2028
13	EPCM PROJECT TEAM SET-UP	17 d	17	3.4	0.85	05 January 2026	27 January 2026
18	GEOLOGY & HYDROGEOLOGY	0 d	0	0	0	05 January 2026	05 January 2026
24	DETAILED ENGINEERING AND DESIGN	321 d	321	64.2	15.97	05 January 2026	22 April 2027
25	FRONT END ENGINEERING DESIGNS (FEED)	200 d	200	40	9.95	27 January 2026	11 November 2026
64	B.00.00.00.0 - CONSULTANT ENGINEERING	258 d	258	51.6	12.84	05 January 2026	25 January 2027
82	B.01.00.00.0 - MINING	230 d	230	46	11.44	28 January 2026	08 January 2027
88	B.02.00.00.0 - MINING SERVICES AND INFRASTRUCTURE	80 d	80	16	3.98	25 February 2026	23 June 2026
100	B.03.00.00.0 - GENERAL SITE INFRASTRUCTURE	236 d	236	47.2	11.74	28 January 2026	18 January 2027
219	B.04.00.00.0 - PROCESS	247 d	247	49.4	12.29	24 March 2026	29 March 2027
712	B.05.00.00.0 - PROCESS PLANT INFRASTRUCTURE	210 d	210	42	10.45	10 February 2026	09 December 2026
798	B.00.00.00.0 - EC&I DESIGN	313 d	313	62.6	15.57	05 January 2026	12 April 2027
853	B.00.00.00.0 - CONTROL & INSTRUMENTATION (C&I) DESIGN	155 d	155	31	7.71	02 September 2026	22 April 2027
870	PROCUREMENT	506 d	506	101.2	25.17	05 January 2026	07 January 2028
871	CONSULTANT PACKAGES	108 d	108	21.6	5.37	05 January 2026	09 June 2026
936	LOGISTICS SERVICE PROVIDER (LSP)	86 d	86	17.2	4.28	28 January 2026	02 June 2026
955	TAILINGS STORAGE FACILITY (TSF) PACKAGE - CONSTRUCTION	101 d	101	20.2	5.02	28 January 2026	24 June 2026
974	OVERHEAD POWER LINE (OHL) CONSTRUCTION & EQUIPMENT PACKAGES	160 d	160	32	7.96	03 February 2026	22 September 2026
980	MINING	135 d	135	27	6.72	28 January 2026	12 August 2026
1019	EARTHWORKS & CIVIL - CONSTRUCTION	163 d	163	32.6	8.11	28 January 2026	21 September 2026
1157	STEELWORK, MECHANICAL & PLATEWORK (SMP) - SUPPLY & INSTALL	109 d	109	21.8	5.42	28 January 2026	06 July 2026
1176	MECHANICAL & PROCESS PACKAGES	287 d	287	57.4	14.28	28 January 2026	30 March 2027
2277	ELECTRICAL PACKAGES	227 d	227	45.4	11.29	03 February 2026	11 January 2027
2557	PIPING - SUPPLY AND INSTALL	86 d	86	17.2	4.28	07 July 2026	05 November 2026
2576	MAJOR ELECTRICAL, CONTROL & INSTRUMENTAION (EC&I) PACKAGE	131 d	131	26.2	6.52	07 July 2026	22 January 2027
2595	INSTRUMENTATION PACKAGES	151 d	151	30.2	7.51	05 August 2026	22 March 2027
2836	OVERHEAD POWER LINE (OHL) COMMISSIONING PACKAGE	100 d	100	20	4.98	20 August 2027	07 January 2028
2838	FABRICATION AND MANUFACTURING	367 d	367	73.4	18.26	18 June 2026	01 December 2027
3188	LOGISTICS	307 d	307	61.4	15.27	09 October 2026	13 December 2027
3269	SITE ESTABLISHMENT	252 d	252	50.4	12.54	17 June 2026	06 August 2027
3282	CONSTRUCTION	375 d	375	75	18.66	26 August 2026	17 May 2028
4450	COMMISSIONING	136 d	136	27.2	6.77	28 March 2028	31 October 2028
4458	PLANT RAMP UP - START	0 d	0	0	0	14 August 2028	14 August 2028
4461	PROJECT CONTINGENCY	10 d	10	2	0.5	01 November 2028	16 November 2028
4464	180 ktpm - Phase 2	641 d	641	128.2	31.89	01 October 2029	15 March 2032
4465	180 ktpm PROJECT MILESTONES	40 d	40	8	1.99	01 October 2029	23 November 2029
4467	PROCUREMENT	386 d	386	77.2	19.2	26 November 2029	19 May 2031
4812	FABRICATION AND MANUFACTURING	351 d	351	70.2	17.46	26 March 2030	29 July 2031
4887	LOGISTICS	270 d	270	54	13.43	18 June 2030	30 June 2031
4901	SITE ESTABLISHMENT	293 d	293	58.6	14.58	17 May 2030	01 July 2031
4909	CONSTRUCTION	361 d	361	72.2	17.96	16 August 2030	05 January 2032
5162	COMMISSIONING	90 d	90	18	4.48	11 November 2031	15 March 2032

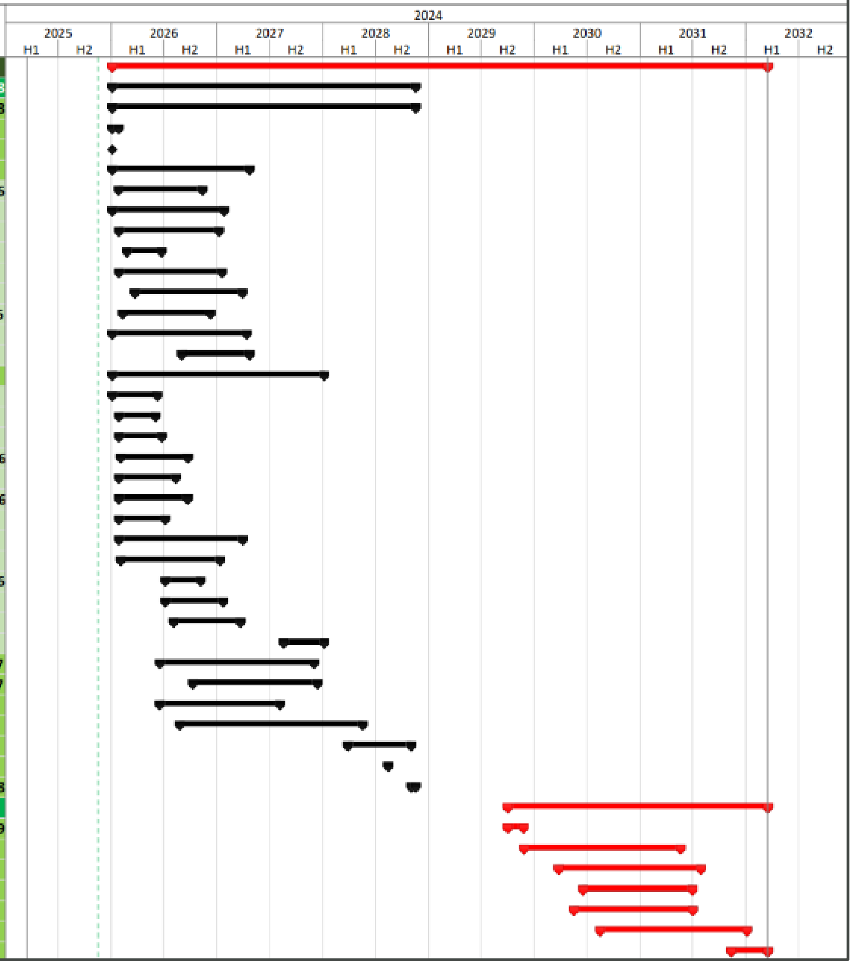


Figure 15-5: High Level Execution Schedule

16 MARKET STUDIES

16.1 Historical Supply and Demand

Gold is a precious metal refined and sold as bullion on the international market. Aside from the gold holdings of central banks, current uses include jewelry, private investment, dentistry, medicine, and technology (Figure 16-1).

Gold is mined in many countries around the globe:- China, India, Middle East and the America are major gold producers providing 72% of world gold supply with recycled gold being a significant part of global supply (Figure 16-2). Globally jewelry is the main application sphere of this precious metal accounting for over 44% of total demand.

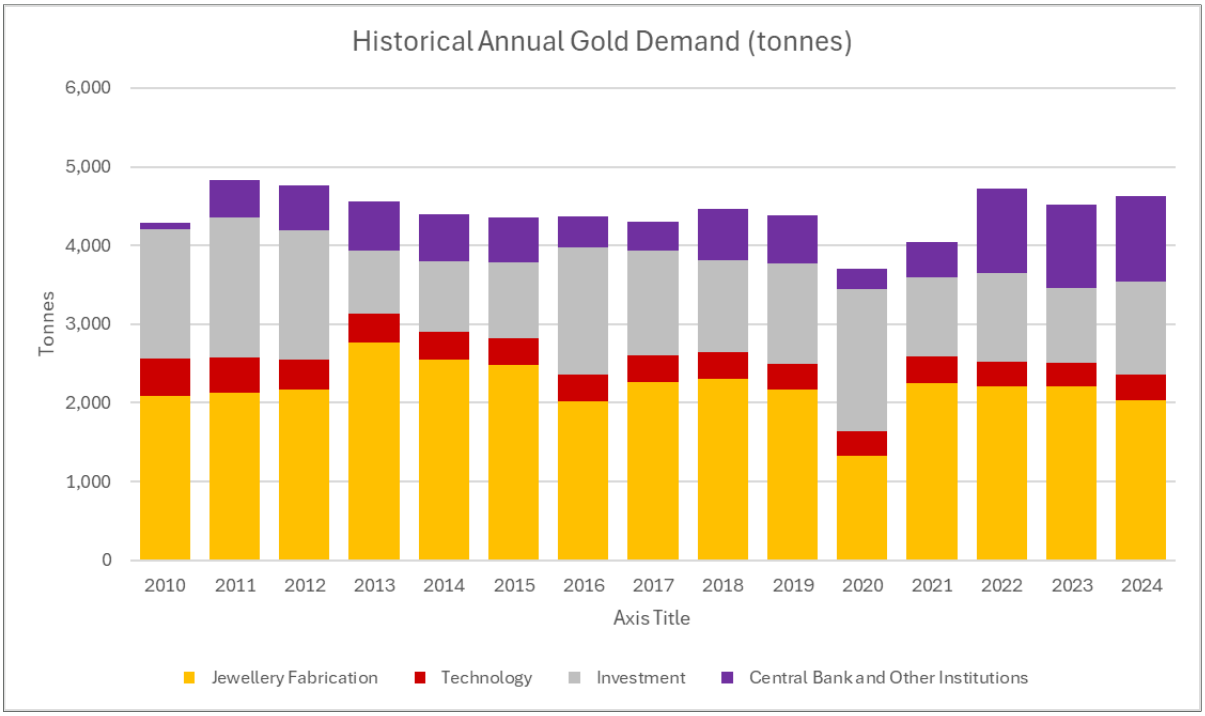


Figure 16-1: Historical Gold Demand (2010 - 2024)

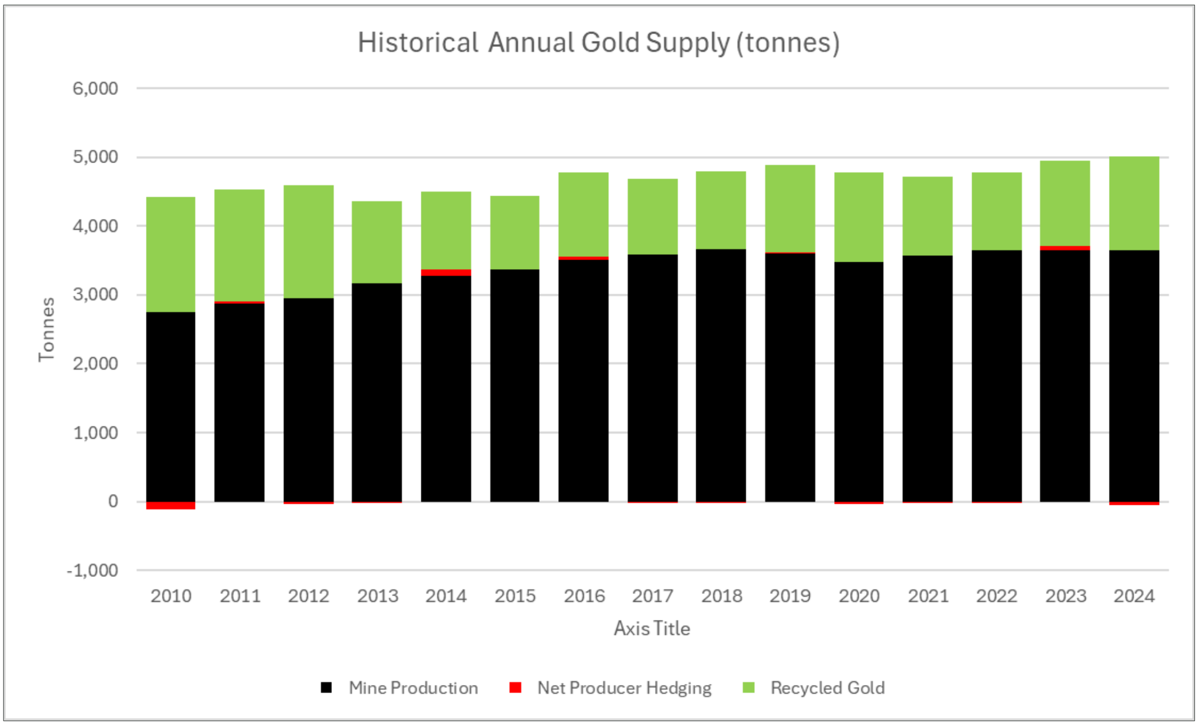


Figure 16-2: Historical Gold Supply (2010 - 2024)

Approximately half of gold jewelry consumption is in India and China and these markets' trends greatly influence the overall gold industry. Investment in gold is another important application sphere and its share is about 29%. Demand from national central banks has also been growing especially from banks of developing countries in Latin America, the Middle East and Asia.

The supply and demand of gold does not follow typical supply and demand logic as gold is indestructible and can easily be recycled and is stored in vaults of banks. Gold is therefore relatively liquid and subject to the vagaries of global economics. These characteristics of the gold market make it challenging to forecast the gold price.

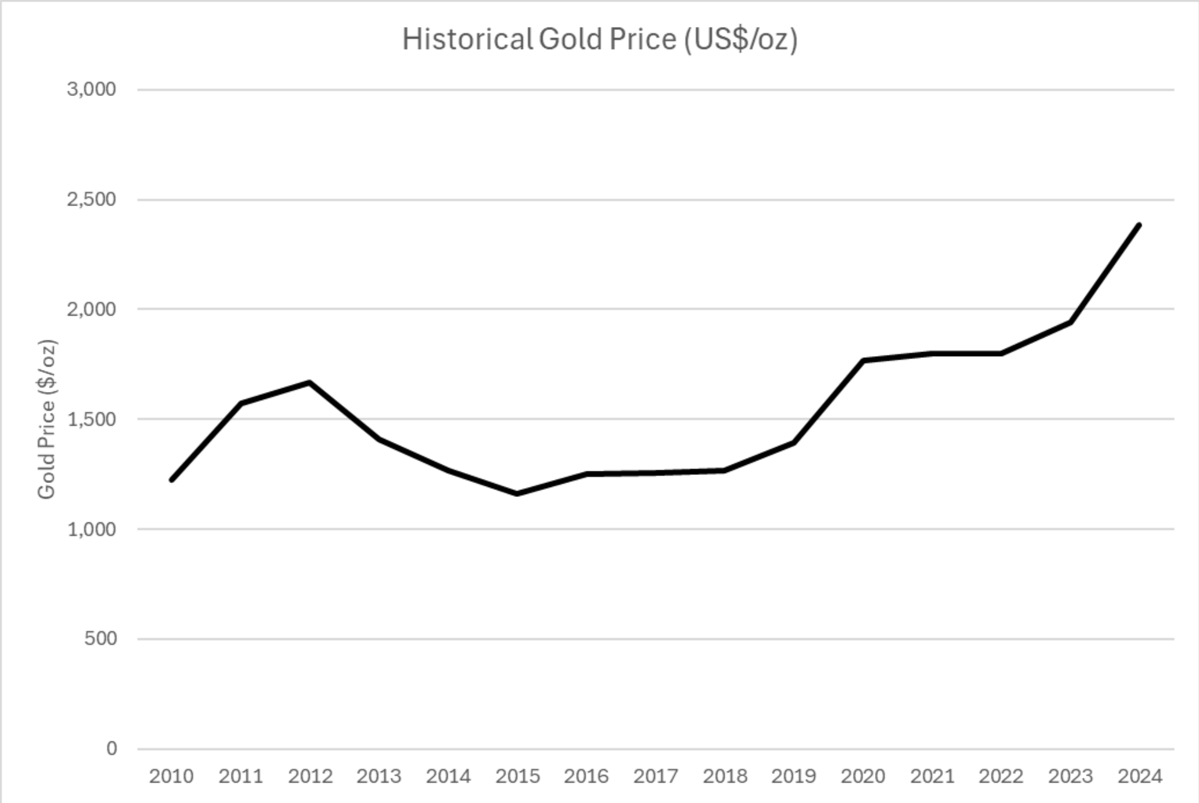


Figure 16-3: Gold Price (2010 - 2024)[11]

Over the past century, gold has consistently shown as both a beacon of potential stability and a mirror reflecting global economic fluctuations. Gold's value over time is marked by significant fluctuations influenced by economic policies, global crises, and shifts in demand.

With a backdrop of financial and geopolitical uncertainties, the outlook for gold prices suggests a continued appeal of the precious metal as a so-called safe-haven asset. In recent years, gold has demonstrated resilience in the face of global economic challenges, including inflationary pressures and currency fluctuations. Several macroeconomic factors could shape the gold projections in the future:

- Inflation: While many assume a direct correlation between inflation and gold, the relationship is complex and not as straightforward. Inflation can impact the metal, but other factors often mitigate its effects,
- Currency Fluctuations: Gold and the US dollar share an inverse relationship. As the dollar weakens, gold often rises, becoming more attractive to investors holding other currencies,
- Geopolitical Tensions: Conflicts and political instability historically drive investors towards gold as a so-called safe haven, potentially boosting its price during periods of heightened uncertainty.
- Interest Rates: Gold's appeal can diminish with the expectation of rising interest rates, as higher yields on bonds and savings accounts compete with the non-yielding metal.

[11] Source: World Gold Council

16.2 Gold Sales in Zimbabwe

The Gold Trade Act empowers the Minister responsible for Finance to issue a Gold Dealers License which entitles entities to export and sell gold from Zimbabwe to customers of its choice. Prior to 1 June 2021, only FGR had the Gold Dealership License and therefore all gold bullion was sold to FGR. With effect from 1 August 2021, all gold producers can directly sell any incremental production to customers of their choice using FGR's license to export. Caledonia's Blanket Mine is currently selling 70% of its gold to a customer of its choice outside Zimbabwe by exporting the gold using FGR's license. Sales proceeds from the exported gold are received directly into Blanket's bank account in Zimbabwe. Bilboes will be able to choose to sell its gold directly to customers of its choice or to continue selling to FGR.

Bilboes is confident that it will be able to export and sell its gold production on similar terms as those currently in place between FGR and Blanket.

The Blanket toll arrangement which will be similar to Bilboes is outlined below:

- Melting and assaying charges of US$ 21/kg gross bullion weight applies.
- The applicable Government royalty of 5% is deducted from proceeds due to the customer. FGR collects half of the 5% royalty which is payable to the Government of Zimbabwe in physical gold.
- 30% of the Blanket gold ounces is sold to FGR and settled in ZiG. Pricing is based on the previous day's London Bullion Market Association (LBMA) PM fix of the day of packing for export.
- The ZiG portion is settled within 7 days.
- 70% per cent of the gold ounces are refined at FGR and exported by Caledonia using Fidelity's gold dealing license to a refiner outside Zimbabwe which undertakes further refining.
- The refiner outside Zimbabwe pays 90% of the value on the day of lodgment and 10% after further refining. Pricing is based on the LBMA AM fix price on date of lodgment.
- FGR charges a 1.24% toll refining fee of the gross value of the export proceeds.

16.3 FGR Gold Price Predictions

A summary of the predicted gold prices by various entities are presented in Table 16-1.

Table 16-1: Predicted Gold Price[12]

Analyst/Firm	Gold Price Forecast			
	2026	2027	2028	2029
Bank of America Merrill Lynch	3,750	3,300	3,143	2,986
Barclays PLC	3,250	3,000	2,500	2,500
Berenberg	3,300	3,200	3,000	2,200
Bloomberg Mean Consensus	2,685	2,682	2,368	2,331
BMO Capital Markets Corp/Toronto	3,250	2,800	1,500	-
Citigroup Inc	3,250	2,600	-	-

[12] 2024 Gold Price Prediction, Trends, & 5-Year Forecast (goldsilver.com)

Analyst/Firm	Gold Price Forecast			
Deutsche Bank AG	3,069	3,000	3,533	-
Goldman Sachs Group Inc/The	4,025	-	-	-
HSBC Holdings PLC	3,125	2,925	2,751	2,752
Incrementum AG	3,350	3,600	3,800	4,100
JPMorgan Chase & Co	4,193	3,576	3,715	3,614
Julius Baer	3,954	3,300	3,300	3,300
Macquarie Group Ltd	2,850	2,550	2,650	2,775
Morgan Stanley	3,313	2,625	2,500	2,200
RBC	3,195	1,600	1,600	
Standard Chartered Bank	3,875	3,525		
Westpac Banking Corp	3,300	3,200	3,200	3,200

17 ENVIRONMENTAL STUDIES, PERMITTING, AND PLANS, NEGOTIATIONS, OR AGREEMENTS WITH LOCAL INDIVIDUALS OR GROUPS

17.1 Environmental Issues

The natural environment within the project site has been significantly transformed by existing mining operations. The surrounding environment is more natural with disturbances from communities and subsistence farming activities. Other mining operations do occur in the region, however over time several mines in the area have been closed. The EIA (SLR, 2019) identified a number of potential environmental impacts as shown in Table 17-1.

Table 17-1: Potential Environmental Impacts

Potential Environmental Impacts	Mitigation	Significance After Mitigation
Potential loss of soil and related grazing land capability within the proposed project footprint	Soil can be conserved and reused during rehabilitation	Low
Potential contamination of soils, surface water and/or groundwater features	Design of potentially contaminating facilities and managing the storage and handling of polluting substances and related clean-up of spills reduces the Intensity of these potential impacts	Medium to High
Alternation of drainage patterns and related downstream functionality of aquatic habitat due to encroachment of the Bubi open pit into the nonperennial Bubi River	The Bubi River can be diverted to ensure that the Hydraulic connectivity of the river is retained, and pollution, sedimentation and erosion impacts are generally avoided.	Medium
Potential contamination of surface and groundwater resources from various operational activities and contamination from the new TSF and WRDs	Implementation of industry-aligned surface water management measures and a composite lining for the floatation compartment and full HDPE liner for the BIOX® compartment of TSF	Surface water = Medium Groundwater = High
Lowering of groundwater levels potentially affecting third party water supply should third party boreholes be located within the dewatering cone of depression	Any third-party water sources that have a proven decrease in yield or dry up because of the proposed operations would be compensated with an alternative water supply of equivalent quality and quantity	Medium
Potential reduction in ambient air quality due to particulate emissions	Implementation of an air quality and dust management plan during the implementation and operation of the proposed project lowers the intensity, and probability of such impacts occurring	Medium (operational Phase) to Very Low (construction and decommissioning Phases)
Elevation in ambient noise levels creating a potential disturbance to nearby receptors.	Incorporating mitigation into the site design, as well as adopting sound management practices (e.g., maintaining machinery and equipment in good working order).	Medium (operational Phase) to Low (construction and decommissioning Phases)
Potential Environmental Impacts	Mitigation	Significance After Mitigation
Visual disturbance to nearby local communities	Undertaking rehabilitation throughout the course of the proposed operations,	Low

Potential Environmental Impacts	Mitigation	Significance After Mitigation
Physical destruction and general disturbance of terrestrial and/or aquatic biodiversity	By ensuring that the project footprint for planned clearing and infrastructure establishment is clearly demarcated and all areas of increased ecological sensitivity, outside of the mining footprint are designated as No-Go areas would limit the associated significance of these impacts	Medium

The EIA (SLR, 2019) concluded that the proposed project presents several potential positive and negative impacts associated with the unmitigated scenario. With mitigation (in the residual impact scenario) some of the identified potential impacts can be prevented and the remainder can be managed and mitigated to remain within acceptable environmental limits so long as the mitigation set out in the ESMP is implemented and Bilboes develops, implements, and annually reviews the ESSMS. Positive impacts can be enhanced by developing and implementing a Community Development Plan as set out in the ESMP.

Bilboes is committed to implementing mitigation measures within the ESMP together with the ESSMS which will be implemented as part of Bilboes on-going efforts of continuous environmental improvement. The management system will contain plans and procedures to help manage environmental aspects and impacts and help ensure legal compliance.

17.2 Waste, Tailings, Monitoring and Water Management

17.2.1 Tailings Management and Disposal

Gold recovery at Bilboes would entail a two-stage process that would result in the generation of two different tailings streams - Flotation and BIOX® tailings. The TSF would be developed with two separate compartments to accommodate each tailings stream.

The proposed liner system for each compartment would incorporate (from top down):

Flotation Compartment – A 1.5 mm HDPE geomembrane, a base layer of 300 mm selected clayey material (compacted in 2 x 150 mm thick layers),

BIOX® Compartment – A 2 mm HDPE geomembrane, A geosynthetic clay layer, a base layer of 300 mm selected compacted clay liner (compacted in 2 x 150 mm thick layers),

Both compartments would have a ripped and re-compacted 150 mm in-situ base layer,

The TSF would incorporate a filter drainage system comprising an 8.5 m wide, 500 mm deep toe drain located immediately adjacent to the upstream toe of the starter wall for the Flotation compartment and a 7.5 m wide, 500 mm deep toe drain located immediately adjacent to the upstream toe of the starter wall for the BIOX® compartment,

Both compartments would have a reticulation of above-liner finger drains consisting of a configuration of 160 mm and 110 mm diameter slotted seepage collector pipes in the basin discharging to the solution trench independently of the toe drains to allow monitoring. The proposed decant systems consist of temporary intake structures (designated FT) and permanent intakes (designated FP). The intake structures have both top and side inlets.

There would be on-going rehabilitation of tailings through the application of the rising green wall. The TSF design slopes adopted (1V:3.5H) are considered environmentally stable to allow for indigenous vegetation growth with minimal ongoing maintenance. To assist with the vegetation establishment, the vegetation will be manually planted and irrigated during the initial stages. A cover involving topsoil and subsoil (in combination with the rocky waste rock material placed during construction protruding) will be progressively placed onto the side slopes of the TSF as the same is developed. These protrusions are advantageous as they mimic natural slopes and dissipate the kinetic energy of rain drops as they strike the surface.

The tops surface will be covered with topsoil mixed into tailings. The top surface will then be paddocked into smaller catchments to reduce water flow lengths.

The Bilboes TSF is classified as a Medium Hazard to High Hazard facility due to the number of residents in zone of influence estimated to be between 8 and 16 (determined in accordance with terms of the South African Code of Practice for Mine Residue Deposits (SABS 0286:1998) and the requirements of Mineral Regulation 527 of 23 April 2004). The classification considered the two compartments as one facility.

17.2.2 Waste Rock Management and Disposal

The planned WRD construction method would entail the following:

- A nominal wall of waste material would initially be constructed to confine the extent of the dumping area within the planned WRD footprint.
- Waste material will be delivered to WRD by truck and tipped from the leading edge of the WRD towards the inside of the WRD footprint. The waste will then be spread and shaped as necessary by earthmoving equipment.
- The WRD would then be developed in successive lifts of up to 10 m in height, with each lift being completed before commencement of the subsequent lift.

The WRD will be constructed at an angle of repose slopes of approximately 35°.

In principle, the WRD lift heights shall be limited to 10 m with a minimum of a 10 m berm, with an overall height of 40 m. Seepage from the toe of the WRD, as well as runoff from the slopes, would be controlled by the construction of an outer containment wall. The containment wall will be the boundary between the clean and potentially contaminated water systems for the purposes of stormwater management.

Some compaction of the waste is expected to take place during placement as trucks pass repeatedly over previously placed material on their way to and from the advancing faces of the WRDs. While compaction of waste is desirable to maximize density and storage capacity, it is not a requirement for structural stability. Compaction will assist in reducing differential settlements with time, which will assist in ensuring the longer-term integrity of surface water management measures.

17.2.3 Non-Mineralized Waste Management

Non-mineralized waste (including general industrial waste, medical clinic waste, hazardous industrial and domestic waste) would be temporarily handled and stored on site before being removed for recycling by suppliers, reuse by scrap dealers or final disposal at the existing waste disposal area located at Isabella. Bilboes has a designated burning site for all waste materials associated with cyanide packaging and hazardous waste on the heap leach pad where all leachate goes into the heap leach cyanide circuit as recommended by the cyanide suppliers. An internal waste management procedure will be developed for waste generated by the project.

With respect to sewage, it is proposed that the existing sewage treatment facility located at Isabella would handle the sewage generated. It is proposed that a sewage treatment plant would be established at Bubi.

17.2.4 Site Environmental Monitoring

The proposed monitoring programme is detailed in the ESMP for the proposed project. The aspects for which monitoring is proposed includes:

- Annual monitoring (physical observation) for erosion, as well as slope / TSF failure,
- Monthly surface and groundwater monitoring (of parameters including water quality, volumes, levels, spillages, and management infrastructure),
- Monthly updating of the site-wide water balance (including biennial updates of the water balance model),
- Air and noise monitoring to establish baseline constituent concentrations / ambient noise levels, as well as regular monitoring during construction and operations, as applicable.

Requirements for post-closure monitoring to determine whether the mitigation and rehabilitation measures are effective would be incorporated into a final Closure Plan to be compiled for the operations prior to the commencement of decommissioning. Water Management

There is evidence that the Bembezi, Mdutshane and Bubi Rivers have been impacted upon by various anthropogenic activities in the broader area. Furthermore, the planned widening of the open pits at Bubi would encroach directly on the Bubi River and the tributary located within Bubi claims area. This would have a material impact on this feature and may have an impact on downstream water users. It is thus recommended that the Bubi River be diverted around the proposed expansion of the southern open pit to ensure that the hydraulic connectivity of the river is retained, and that pollution, sedimentation and erosion impacts are avoided.

The following measures could be implemented to allow improved water management and limit the risk of flooding the southern open pit during a high flow event in the Bubi River.

The measures to be implemented by Bilboes to address potential adverse water quality effects and to ensure that the planned infrastructure is constructed, operated, and maintained to comply with the provisions of the IFC guidelines, include:

- Separating clean water systems from dirty water systems, Minimizing the size of dirty areas and divert clean run-off and rainfall water around dirty areas and back into its normal flow in the environment,
- Locating all activities and infrastructure outside of the specified zones and/or flood lines of watercourses, as far as possible. Where this is not possible, the affected area should be remediated/rehabilitated to restore the original ecological function post-closure,
- Maintaining specified zones around surface water features in instances where flood lines are unknown or un-surveyed,
- Incorporating suitable erosion protection measures at all discharge points, should any discharge be required. Furthermore, all discharges from the mine into the environment will comply with the IFC Effluent discharge standards.

17.3 Project Permitting

An approved EIA is required in terms of the Environmental Management Act (Chapter 20:27) No. 13 of 2002 and the Mines and Minerals Act (Chapter 21:05) of 1996. The ESIA was undertaken for the project to satisfy the requirement and an ESIA Report was completed for submission to EMA within the first quarter of 2020. Thereafter, SLR held a public feedback meeting to disclose the findings of the ESIA Report to the identified stakeholders. A record of this disclosure process was compiled and submitted to EMA. An EIA certificate was issued to Bilboes for the project in February 2021 and was valid for two years to February 2023. From there after the EIA certificate has been renewed annually subject to conditions which include project update reports, compliance to Environmental Management Plans (EMP) outlined in the ESIA Report and notification to EMA for any changes in the project likely to alter the project as stipulated in the ESIA Report. The current EIA certificate is valid until February 2026, and the renewal process will continue annually for the duration of the operations.

Other project related licenses/permits currently in use include explosives (purchase and storage), firearms, medicines control, public health (medical examination), water abstract and hazardous substances (importation, transportation, storage and use), solid waste disposal which are renewed quarterly or annually when become due. The conditions of renewal are limited to payment of applicable fees to the relevant statutory bodies. A total of US$ 70,000 is required to cover all the license fees and permits on an annual basis.

17.4 Social and Community Related Requirements and Plans

An ESMP has been developed which contains the environmental, social and safety management and monitoring commitments that Bilboes will implement to manage the negative impacts and enhance the positive impacts identified in the EIA.

To mitigate against the loss of, or reduced access to, land for livelihood activities, a LRP will be compiled and implemented prior to the commencement of construction.

As part of the existing operations Bilboes have undertaken several CSR programmes. These include the supply of various community boreholes at communities and local schools, building and repairs of school blocks, the repair of various local roads, excavation and scooping of dams and provision of various other services including access to health facilities at the mines and transport in cases of emergency.

To address potential issues related to employment, Bilboes will develop a fair and transparent Labour , working conditions and recruitment policy. The policy will comply with local law, IFC Performance Standard 2: Labour and Working Conditions, and International Labour Organization (ILO) conventions.

To optimize local small business development, a local procurement policy will be developed and implemented and communicated to all local stakeholders.

The Stakeholder Engagement Plan developed for the project will be maintained and updated to provide a formal procedure for communications with the regulatory authorities and communities.

17.5 Social/Community Issues

Based on the EIA undertaken for the proposed project, social or community impacts that were identified and assessed include the following:

Table 17-2: Potential Social Impacts

Potential Environmental Impacts	Mitigation	Significance After Mitigation
Positive economic impact because of the direct construction and operational project expenditure, direct and indirect business opportunities		Very High Positive
Potential reduction of access to land for livelihood activities (e.g., cattle ranching and subsistence agriculture) undertaken within the mine claims area.	A key recommendation to ensure that these land users are appropriately identified, engaged, and compensated.	Medium
Inward migration due to the expectation of employment.	Bilboes should aim to source most employees from the surrounding local communities, as far as possible.	High to Medium
Various health and safety risks for third parties are associated with the proposed project.	While the likelihood of incidents is deemed to be low (with mitigation) any injuries or fatalities of third parties would be of high intensity.	Medium
No cultural-heritage resources were found to be located within the proposed project footprint.		Very Low

17.6 Mine Closure

A conceptual closure plan and LoM closure liability estimate, based on the environmental, social, and economic risks identified in the EIA, is included in the EIA. Furthermore, the closure issues and concerns raised by stakeholders were also incorporated, where applicable.

Generally accepted "good international practice" mine closure methods were used as the basis for the conceptual closure plan, as well as, for determining the unit rates for the various closure components used in the LoM liability calculation. The mine closure methods also conform to the statutory requirements of Zimbabwe EMA who are the regulatory body.

Mine closure planning is a dynamic process that is integrated with LoM planning to ensure a seamless transition from the operational to the decommissioning Phases in the mine life cycle. The environmental objective for closure is to minimize the impacts associated with the decommissioning and closure of the mine and to achieve post closure land use as outlined.

The conceptual closure plan objectives include the following:

- Environmental damage is minimized to the extent that it is acceptable to all parties involved.
- The land is rehabilitated to achieve a condition approximating its natural state (as far as practicable), or so that the envisaged post closure land use/land capability is achieved.
- Some of the smaller open pits shall be completely backfilled with material from the overburden/WRDs. Inert building rubble from the decommissioning activities can also be buried in the pit voids. The remaining open pits would not be backfilled and remain open. The pit sidewalls and end-walls will only be 'made safe'.
- All surface infrastructure, excluding the TSF and any other surface infrastructure that will support the envisaged post-closure end use, will be removed from site after rehabilitation.
- Contamination beyond the mine site by wind, surface run-off or groundwater movement will be prevented through appropriate erosion resistant covers, containment facilities (i.e., stormwater ponds) and drainage controls.

- Mine closure is achieved efficiently, cost effectively and in compliance with the law.
- The social and economic impacts resulting from mine closure are managed in such a way that negative socio-economic impacts are minimized.

Based on the above, the closure outcomes for the mine site are assumed to be as follows:

- To achieve chemical, physical, and biological stability for an indefinite, extended time period over all disturbed landscapes and residual mining infrastructure
- To protect surrounding surface water, groundwater, soils, and other natural resources from loss of utility value or environmental functioning
- To limit the rate of emissions to the atmosphere of particulate matter and salts to the extent that degradation of the surrounding properties' land value and land capability does not occur.
- To create a final land use that has economic, environmental, and social benefits for future generations that outweigh the long-term aftercare costs associated with the facility.
- These broad closure objectives and outcomes will be continually refined as operations continue.

17.7 Estimated Environmental Costs for Closure

The quantities used in the closure liability calculations were derived from the layout plans and general arrangements for the project; the project infrastructure details within the feasibility study report; and the proposed mining and deposition schedule. The closure liability calculation has been determined for the LoM (end of year 10) and is calculated to be US$ 32 M (excl. VAT). The closure liability calculations will be regularly reviewed and updated during the project up and until the commencement of closure activities (i.e., final closure plan). Ongoing environmental rehabilitation is based on a unit rate of US$ 0.35 /t plant feed.

17.8 QP Commentary

The QP is of the opinion that the current plans to address issues related to environmental compliance, permitting and local individuals and groups are adequate.

18 CAPITAL AND OPERATING COSTS

18.1 Capital Cost Estimate

The capital cost estimate falls within the accuracy criteria of -15% +20%, with an expected accuracy range of: L: -15% to -5% H: +5% to +20%, for a Class 2 Estimate as defined by the American Association of Cost Engineers, (AACE).

The QRA process, consisting of the Project Definition Rating Index (PDRI), a Systemic Risk Assessment, an assessment of estimate and schedule variability, and a quantitative assessment of the risks identified in the risk register, have been simulated using a Monte Carlo model. Based on the risks and variability identified in the QRA, the accuracy level of the project's cost estimates falls within the 15% range required for a FS.

18.1.1 Estimate Scope

The basis of the Capital Cost Estimate (CCE) covers the process plant, associated infrastructure, and indirect costs for the optimised FS for which DRA developed the estimate.

The CCE for the process plant and associated infrastructure was prepared by DRA and Others (i.e. Metso for the BIOX® plant and SLR for the Tailings Storage Facility) based on the PFD's, MEL, GA drawings and layout drawings. These drawings were developed per process plant area.

Mining associated Capital commences four months prior to the C4 commissioning date which forms part of the Peak Capital funding.

Total Mining Areas targeted during LOM are the following:

- Area 1: 240 ktpm milled ore originating from the Isabella McCays (ISBM) mining area (years 1 - 6).
- Area 2: 180 ktpm milled ore originating from the Bubi mining area (years 6 - 10).

The base date for the CCE is August 2025. This is based on revalidated and escalated costs based on the original CCE of September 2024.

The estimate has been presented in US Dollar (US$). Currency in is based on forecast Forex information obtained (January 2025), provided by the appointed Financial Modelers.

18.1.2 Capital Costs Summary

Total cost summary required for the first phase and second phase of the project is illustrated in Table 18-1.

Table 18-1: Capital Costs Summary by WBS and Phase

Description	Grand Total (Million US$)	Sub Total Phase 1 (Million US$)	Sub Total Phase 2 (Million US$)
Mining	31.60	24.14	7.46
Process	221.21	182.83	38.38
Infrastructure	123.62	117.15	6.47
Tailings Storage Facility	89.44	61.66	27.78
Indirect Costs	68.05	64.62	3.43
Contingency	49.53	41.78	7.75

Description	Grand Total (Million US$)	Sub Total Phase 1 (Million US$)	Sub Total Phase 2 (Million US$)
Total Project Costs	583.44	492.18	91.27

18.2 Stay in Business Operating Cost Estimate

All required Stay-in Business (SIB) costs have been scheduled accordingly.

With regards to mining, SIB costs are included in the mining contractor's costs.

SIB for the processing plant benchmarked against similar projects and is mainly focused upon replacement of major equipment. Depending on the type of equipment it is between 5 and 8 years .

18.3 Operating Cost Estimate

The operating cost estimate has been completed from a zero base and presented in US$. Costs associated with Labour , materials and consumables have been included in this estimate. The costs outlined below exclude any contingency allowances and are presented with an estimated accuracy range of ±15%.

18.3.1 Mining Contractor Costing

Open market rates were obtained from several mining contractors, and this formed the basis for the Bilboes Project production schedule. The average mining cost based on pricing received is US$ 2.83 /t including the ore transport cost from all mining areas to the process plant. The cost breakdown is presented in Table 18-2.

A diesel price of US$1.36 /l was used in all cost modelling.

Table 18-2: Life of Mine Mining Contractor Operating Cost Summary

Area	Cost per Total Tonne Mined (Ore and Waste)
G&A	0.28
Drill and Blast	0.43
Load and Haul Incl. Rehandle and Services	2.12
Total	2.83
Diesel Cost (US$/l)	1.36

18.3.2 Process Plant Operating Cost

Operating costs have been estimated based on the steady state production profile over life of mine (LoM). All Labour ; energy costs, materials and consumables have been included in this estimate inclusive of G&A's. The static costs are presented for Phase 1 and Phase 2 in Table 18-3 and Table 18-4.

Main drivers in costs include reagents, consumables and power which collectively account for more than 70% of total plant operating costs.

Table 18-3: Phase 1 Plant OPEX (240 ktpm IM)

Description	Unit	Value	% of Total
RoM	tpa	2,880,000	
Fixed Cost	US$/t ore	5.21	23.7 %
Variable Cost	US$/t ore	16.78	76.3 %
Total Cost	US$/t ore	21.99	100.0%

Table 18-4: Phase 2 Plant OPEX (180 ktpm Bubi)

Description	Unit	Value	% of Total
RoM	t/a	2,160,000	
Fixed Cost	US$/t ore	7.59	20.1 %
Variable Cost	US$/t ore	30.19	79.9%
Total Cost	US$/t ore	37.78	100.0%

19 ECONOMIC ANALYSIS

19.1 Introduction

The purpose of the economic analysis is to evaluate the financial viability of the Bilboes Gold Project located in Matabeleland North Province of Zimbabwe.

The Project's economic analysis is underpinned by information generated during the Project Feasibility Study, together with supporting technical and economic data from recognized external sources. Primary inputs include mineral resource and reserve estimates, mine designs, production schedules, metallurgical testwork, capital and operating cost estimates, as well as supporting infrastructure studies, which have been prepared and approved by Qualified Persons.

In addition to project-specific data, macroeconomic assumptions have been developed with reference to widely recognized independent sources, including consensus gold price forecasts, consensus inflation rate and exchange rate projections, and published fiscal and regulatory frameworks applicable in Zimbabwe.

19.2 Basis of Valuation

For the purpose of this economic analysis, the exposure to ZiG has been omitted, and all costs and revenues are modelled in US$ terms on the basis that revenues are denominated in US$ and a significant portion of costs can be settled in US$. The US$ is an accepted legal tender in Zimbabwe and remains the settlement currency for mineral exports under current policy. See Table 19-1.

Table 19-1: Basis of Valuation

Parameter	Disclosure
Effective Date	August 2025
Valuation Methodology	Income approach (DCF)
Reporting Currency	United States Dollar (US$)
Cash Terms	Real
Discount Rate	8% (US$ real, post-tax)
Gearing	100% equity-financed (unlevered)
Shareholding	100% project-based
Salvage Value / Terminal Value	None

19.3 Project Description

The Project will be developed in two phases:

- Phase 1: 240 ktpm of ore feed from the Isabella–McCays pits (Years 1–6),
- Phase 2: 180 ktpm of ore feed from the Bubi pit (Years 6–10).

The reduction in ore production rate during phase 2 is primarily due to the ore hardness associated with the Bubi pit, which reduces the efficacy of the comminution circuit.

The processing plant employs carbon-in-leach (CIL) technology treating fresh and transitional ore only, with oxide ore classified as mineralised waste. The processing plant produces gold doré for sale into the local and export market for further refining.

19.4 Inputs and Assumptions

19.4.1 Gold Price

The following gold price scenarios have been included as part of the economic analysis (refer Table 19-2), with the consensus forecast price supplied by S&P Global Market Intelligence as of 1 September 2025.

Table 19-2: Gold Price Scenarios

Pricing Scenario	Y2027	Y2028	Y2029	Y2030	Y2031	Y2032	LT Real
Consensus Forecast	2,937	2,785	2,633	2,570	2,709	2,491	2,491
Three-Year Trailing Average	2,350	2,350	2,350	2,350	2,350	2,350	2,350
Spot (Sep 2025)	3,648	3,648	3,648	3,648	3,648	3,648	3,648

19.4.2 Selling Expenses

All gold sales are made to Fidelity Gold Refinery (FGR) the officially buyer, refiner, and exported of gold on behalf of the Government of Zimbabwe. In the economic analysis, 70% of the gold sales are assumed to be exported, with the balance (30%) sold locally.

FGR charges a tolling fee and a gold refining charge on all gold sales from the Project. An additional market agency fee is levied on export sales (refer Table 19-3). No payable metal deductions or contractual price discounts apply. The selling expenses were provided by Caledonia and largely based on the existing agreements in place at their Blanket mining operation.

Table 19-3: Selling Expense Assumptions

Cost Item	Unit	Result
Tolling Charge (FGR)	% of gold price	1.24
Gold Refining Charge (RC)	US$ / oz (Real)	0.65
Market Agency Fee (export only)	US$ / oz (Real)	7.00

19.4.3 Corporate Tax

The corporate income tax rate for mining license (ML) holders is 25% of taxable income. Capital redemption allowances (CRA) are governed by the Fifth Schedule, where the ML holder can elect under Section 4(2) to redeem 100% of all mining capital expenditure in the year it is incurred. The CRA can create a net operating loss (NOL) in any year of assessment which can be carried forward indefinitely for offset against future taxable income.

A 3% surcharge on the corporate income tax payable (AIDS levy) applies to all ordinary ML owners, which effectively increases the statutory corporate income tax rate from 25% to 25.75%. The AIDS levy is therefore not a tax-deductible expense and nor does it offset payable tax in any future assessment years (refer Section 14 of the Finance Act [23:04]).

19.4.4 Mineral Royalties

Mineral royalties on gold sales are levied at 5% of the fair market value of the gold. 50% of the royalty obligation is settled in-kind and the balance is payable in cash to the Zimbabwe Revenue Authority (ZIMRA). The royalty obligations are payable seven days after month-end (refer Finance (No.2) Act, 2024, 50).

The Project has two additional royalty obligations to fulfil, relating to a 1% Net Smelter Return (NSR) royalty payable to the previous owners of the property (Baker Steel Resources Limited) as well as a 0.5% NSR royalty payable to processing technology providers of the Project.

19.4.5 Other Regulatory Fees and Levies

Numerous labour-related levies and contributions are applicable to the Project, including workmen's compensation 2 - 11% of gross wage bill (1.77% of basic salary/wage, depending on type of work performed), manpower training levy (1% of gross wage bill), standards development fund (0.5% of the gross wage bill), and national social security (4.5% of basic salary/wage bill). The labour rates adopted in the operating cost estimate were provided by Caledonia, largely based on actual cost-to-company rates (inclusive of statutory charges) at their Blanket gold mining operation in Zimbabwe.

Numerous other regulatory fees apply to the application, maintenance, and renewal of mining leases. These are captured in the Second Schedule (Section 4) of the Mining (General) (Amendment) Regulations of 2022 and included in the general & administrative operating cost estimate for the Project.

19.4.6 Working Capital

Changes in working capital have been included in the economic analysis. Trade receivables on gold doré sales are limited to 3 days, with all gold sales made to the government's local government agent FGR. Trade payables on utilities, stores, and contracted services cost have been assumed at 30 days.

It should be noted that all input costs in the economic analysis have been presented exclusive of value added tax (VAT) and, as such, the economic analysis does not consider the cashflow impact of the VAT return cycle in Zimbabwe.

19.4.7 Contractual Agreements

While no binding contractual agreements have been executed to date, the economic analysis has been undertaken on the assumption that the following key agreements will be successfully negotiated with the appropriate parties:

- Mining: Contractor mining has been assumed in the preparation of the mining cost estimate, with reputable contractors with demonstrable in-country operating experience approached in this regard.
- Processing Technology: The Project will enter into a licensing agreement with Metso for the supply of BIOX® Technology and the provision of ongoing technical support in operating the BIOX® plant. A net smelter return (NSR) royalty payment to Metso has been included in the economic analysis in line with preliminary commercial discussions.
- Project Management: An engineering, procurement, and construction management (EPCM) contractor will manage and co-ordinate the activities of the appointed construction contractors during project execution.

19.4.8 Production Physicals

A summary of the life of mine (LoM) mining and processing physicals are provided in Table 19-4.

Table 19-4: Production Physicals Summary

Item	Unit	Result
Mining		
Total Waste Mined	Mbcm	65.2
Ore Mined (LoM Total)	Mt	26.0
Ore Mined (LoM Average)	Mtpa	2.76
Ore Grade: Au (LoM Average)	g/t	2.15
Contained Gold (LoM Total)	kg	56,013
Contained Gold (LoM Average)	kg p.a	5,948
Strip Ratio (waste to ore)	tw : to	6.92
Processing:		
Recovered Gold (LoM Total)	Moz	1.55
Recovered Gold (LoM Average)	koz per annum	144
Recovery: Au (LoM Average)	%	86.1

19.4.9 Project Capital Expenditure

The Project has two capital development phases:

- Phase 1: Establishment of the initial mine, plant and supporting infrastructure to enable production from the Isabella-McCays mining complex. This includes costs of an operating nature prior to achieving Phase 2 that have been capitalised.
- Phase 2: Costs of a capital nature that have been incurred to enable production from the Bubi mining complex, which includes modifications to the processing plant, expansion of TSF, additional road infrastructure, etc. It should be noted that the pre-strip-mining costs associated with the Bubi pit have been expensed for the purposes of the economic analysis.

A summary of the project capital cost (developed in line with AACE guidelines), is provided in Table 19-5. The Phase 1 capital estimate (US$492 M Real) is the primary driver of the Project's peak funding requirement. Phase 2 capital is largely required to effect changes to the processing plant to enable treatment of the Bubi ore and establishment of additional tailings storage capacity.

Table 19-5: Project Capital Cost Summary

Area Level 1	Phase 1 (US$ M Real)	Phase 2 (US$ M Real)	TOTAL (US$ M Real)
Mining	23	0	23
Mining Services & Infrastructure	1	7	8
General Site Infrastructure	74	6	81
Process Plant	183	38	221
Process Plant Infrastructure	43	0	43
Tailings Storage Facilities	62	28	89

Area Level 1	Phase 1 (US$ M Real)	Phase 2 (US$ M Real)	TOTAL (US$ M Real)
Indirect - Project Facilities	1	0	1
Indirect - Project Services	48	3	52
Owners Cost	15	0	15
Contingency	42	8	50
TOTAL: Project Capex	492	91	583

A total contingency provision of US$50 M (9.3% of the total direct and indirect capital cost) has been derived through a parametric assessment of cost, schedule, systemic, and event-driven risks posed to the Project. No management reserve provision has been included in the estimate or the economic analysis.

Only the initial pre-strip associated with the McCays pit has been capitalised, with all other waste stripping expensed for the purposes of the economic analysis. Minor upside exists in the potential capitalisation of excess waste stripping to enable future production from each pit.

19.4.10 Sustaining Capital Expenditure

Given that the Project is an open-cast, contractor mining operation, with a short LoM, it is not expected to have significant recapitalization requirements. Total sustaining capital equates to US$12.1 M over the LoM.

19.4.11 Operating Expenditure

Minesite operating costs have been developed in line with Feasibility Study requirements and reported per major operating area and key cost elements.

A large proportion of the mining and processing costs were derived from first principles utilising market quotations. The general and administrative costs were provided by Caledonia, based on its Blanket operation, and are ring-fenced to site-based costs with no provision for corporate / head-office allocations.

A summary of the Project's all-in-sustaining cost (AISC) is provided in Table 19-6, with the LoM average AISC totalling US$1,061/oz Real.

Table 19-6: All-in-Sustaining Cost Summary

Area	LoM Total (US$ M Real)	LoM Average (US$ M p.a)	Unit Cost (US$ / oz)
Open-Pit Mining	564	52.5	373
Processing & Infrastructure	716	66.6	474
General & Administrative	70	6.5	46
Subtotal: Minesite Costs	1 349	126	893
Royalties (Government & Other)	153	14.1	101
Selling Expenses	56	5.2	37
Subtotal: Cash Cost	1 559	145	1 031
Sustaining Capital	12	1.1	8
Reclamation & Closure Cost	32	3.0	21

Area	LoM Total (US$ M Real)	LoM Average (US$ M p.a)	Unit Cost (US$ / oz)
Other (Corporate G&A, Exploration, *etc.*)	0	0.0	0
TOTAL: AISC	**1 603**	**149**	**1 061**

The LoM average Total Cash Cost is US$1,031/oz (real 2025), which places the Project on the 50th percentile of primary gold producers globally[13].

The Project's AISC peaks in the years where there is a noticeable decrease in annual ounce production observed (2030, 2034-36, 2038-39) with the AISC breaking through the US$1,100/oz level in those years.

19.4.12 Rehabilitation and Closure Cost

There is currently no legislative requirement in Zimbabwe to secure a closure guarantee or set-aside cash provisions during the operational phase of the Project to ensure sufficient coverage for rehabilitation and final closure of the mine. The closure cost for the Project, estimated at US$32 M Real, has therefore been cashflowed in the immediate 12-months post-production.

19.5 Economic Analysis Results

19.5.1 Key Metrics

The Project generates a value accretive business case in all three of the gold price scenarios evaluated (refer Table 19-7).

Table 19-7: Economic Analysis Results

Metric	Unit	Consensus Forecast Price	3-Year Trailing Average Price	Spot Price
Gold Price (Ave)	US$ / oz (Real)	2,548	2,350	3,648
Post-Tax $NPV_{8\%\ Real}$	US$ M	582	454	1,234
Post-Tax IRR	% Real	32.5	27.4	50.4
Payback Period[14]	years	1.7	2.8	1.1
Peak Funding Required	US$ M (Real)	484	484	484
Value-Investment Ratio	ratio	1.2x	0.9x	2.6x
Life of Mine (Active Years)	years	10.8	10.8	10.8
Operating Margin	% Real	59.5	56.5	70.2

The pricing scenario, evaluated on a LoM average realised gold price of US$2,548/oz, yields the following key results:

- Post-tax $NPV_{8\%Real}$ of US$582 M at a post-tax IRR of 32.5%,
- Payback period of 1.7 years, as measured from the date of first production,

[13] As per data from S&P Global's Market Intelligence platform.
[14] As measured from the date of first ore processed / first revenue.

- Robust Value-Investment Ratio of 1.2X[15],
- Peak funding requirement of US$484 M (real),
- Healthy operating margin of 59.5%.

Adopting the September 2025 LBMA spot price of US$ 3,648/oz materially improves all the key business return metrics resulting in a post-tax $NPV_{8\%Real}$ of US$1,234 M and a post-tax IRR of more than 50%.

The three-year trailing average price of US$2,350/oz, does however result in a reduction of both the NPV and IRR to US$454 M and 27.4% respectively, which is still considered attractive.

19.5.2 Cashflow Profile

A graphical representation of the annual and cumulative free cashflow profile over the LoM (at consensus pricing) is presented in Figure 19-1, with a tabulated summary of both the physicals and major cashflows presented in Table 19-8.

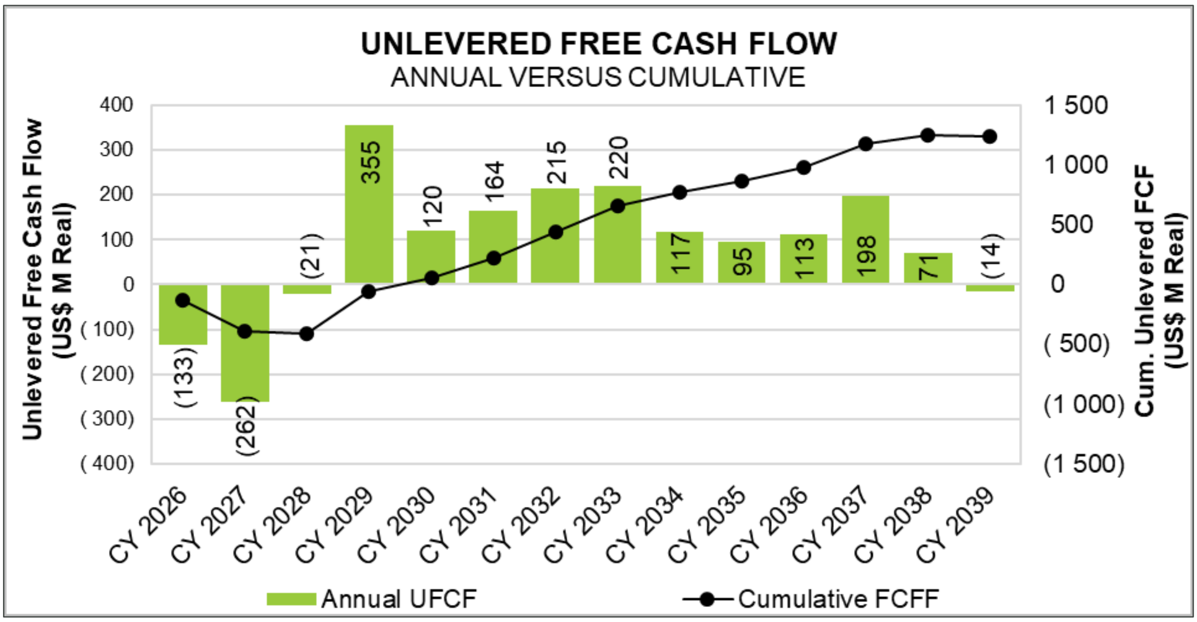


Figure 19-1: Annual versus Cumulative Free Cashflows Post-Tax

The Project generates an annual average gross revenue of US$321 M over the LoM, which translates into an annualized EBITDA of US$191 M. Total unlevered free cashflow (post-tax) equates to US$ 1.22 billion (real 2025) over the LoM.

[15] Defined as post-tax NPV / Peak Funding required.

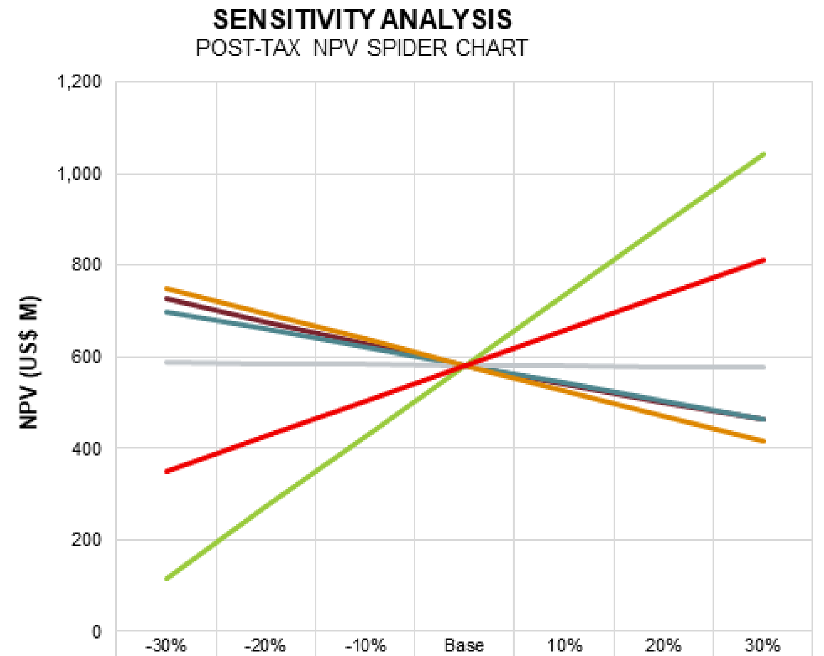
Table 19-8: Summary of Annualised Physicals and Cashflows (100%-Project)

Metric	Unit	TOTAL	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Physicals:																	
Waste Mined	Mt	179.9	-	-	16.3	28.9	27.5	22.5	18.1	14.8	15.6	14.7	13.5	8.1	-	-	-
Ore Mined	Mt	26.0	-	-	2.0	2.6	2.5	4.4	3.0	2.0	1.2	2.1	3.3	2.8	-	-	-
Ore Grade: Au	g/t	2.15	-	-	2.5	2.1	1.8	2.3	1.9	2.9	1.9	1.8	1.7	2.5	-	-	-
Contained Au	kg	56 013	-	-	5,123	5,426	4,432	10,148	5,855	5,947	2,312	3,894	5,687	7,189	-	-	-
Ore Processed	Mt	26.0	-	-	0.7	2.9	2.9	2.9	2.8	2.4	2.2	2.2	2.2	2.2	2.2	0.8	-
Head Grade: Au	g/t	2.15	-	-	2.7	2.6	1.7	2.1	2.4	2.8	2.0	1.9	2.0	2.8	1.3	0.9	-
Recovery: Au	%	86.1%	-	-	78%	84%	84%	84%	84%	88%	89%	89%	89%	89%	89%	89%	-
Recovered Au	kg	48 209	-	-	1,434	6,293	4,148	5,148	5,628	5,789	3,871	3,575	3,915	5,320	2,490	597	-
Gold Sales	koz	1 511	-	-	43.4	197.3	130.5	160.9	176.6	181.3	122.1	112.1	122.3	166.4	79.1	19.2	-
Cashflows:																	
Gross Revenue	US$ M	3 850	-	-	121	520	335	436	440	452	304	279	305	414	197	48	-
less Selling Expenses	US$ M	(56)	-	-	(2)	(8)	(5)	(6)	(6)	(7)	(4)	(4)	(4)	(6)	(3)	(1)	-
less Operating Costs	US$ M	(1 503)	-	-	(47)	(158)	(147)	(158)	(140)	(146)	(138)	(145)	(148)	(142)	(98)	(35)	-
[+] Mining	US$ M	(564)	-	-	(26)	(74)	(70)	(77)	(56)	(50)	(48)	(53)	(55)	(44)	(8)	(3)	-
[+] Processing	US$ M	(716)	-	-	(15)	(56)	(57)	(57)	(60)	(71)	(71)	(75)	(75)	(75)	(75)	(28)	-
[+] G&A	US$ M	(70)	-	-	(2)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(3)	-
[+] Royalties	US$ M	(153)	-	-	(5)	(21)	(13)	(17)	(17)	(18)	(12)	(11)	(12)	(16)	(8)	(2)	-
EBITDA	US$ M	2 292	-	-	72	354	183	272	294	299	161	130	152	266	96	12	-
less Capital Costs (incl. Closure)	US$ M	(613)	(133)	(261)	(98)	-	(39)	(51)	(4)	(3)	(4)	(2)	(0)	(0)	-	(18)	(14)
[+] Project Capex	US$ M	(628)	(133)	(261)	(98)	-	(39)	(51)	(2)	-	-	-	-	-	-	-	-
[+] Sustaining Capex	US$ M	(12)	-	-	-	-	-	(0)	(2)	(3)	(4)	(2)	(0)	(0)	-	-	-
[+] Closure Cost	US$ M	(32)	-	-	-	-	-	-	-	-	-	-	-	-	-	(18)	(14)
[+/-] Working Capital	US$ M	-	-	-	5	0	1	0	(0)	(0)	0	0	0	(0)	(0)	(6)	-
less Corporate Income Tax	US$ M	(441)	-	-	-	-	(26)	(57)	(74)	(76)	(40)	(33)	(39)	(68)	(25)	(3)	-
Post-Tax Free Cashflow	US$ M	1 224	(133)	(262)	(21)	355	120	164	215	220	117	95	113	198	71	(14)	(14)
Note: All cashflows are presented on a US$ M Real basis unless otherwise indicated. Totals may not sum due to rounding.																	

19.6 Sensitivity Analysis

The sensitivity analysis highlights variables that are most likely to influence project value, namely discount rate, gold price, gold recovery, capital cost, and operating cost. The spider chart (refer to Figure 19-2) shows the NPV distributions associated with these six key variables. Each variable is independently adjusted by +/- 30%[16] (from the point estimate adopted in the FS) and the corresponding NPV is plotted to identify those variables for which the Project's value is most sensitive.

It is evident the Project's $NPV_{8\%\ Real}$ is most sensitive to movements in gold price and recovery, followed by mine-site OPEX, discount rate, project CAPEX and then Sustaining CAPEX. It is also evident that the Project remains value accretive (NPV > 0) even at a 30% gold price reduction, with the breakeven gold price estimated at US$1,600/oz (real).



	-30%	-20%	-10%	Base	10%	20%	30%
Gold Price	115	272	428	582	736	890	1,044
Discount Rate	728	676	627	582	540	501	464
Project CapEx	699	660	621	582	543	503	463
Sustaining CapEx	587	586	584	582	580	579	577
Minesite OpEx	749	693	638	582	527	471	415
Au Recovery (+/- 15%)	350	428	505	582	659	736	813

Figure 19-2: Sensitivity Analysis: NPV Spider Chart

An additional analysis was performed to assess the impact of execution schedule delays on the Project's value, based on the results of the probabilistic quantitative risk assessment (QRA) conducted during the FS. The QRA indicated that there is a 20% probability that the execution schedule will be delayed by five months, which would result in an NPV and IRR reduction of US$63 M and 5.1% respectively. This necessitates the requirement for excellent planning and project management capability during the 33-month execution window.

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[16] Gold recovery is only adjusted over a+/- 15% range.

20 ADJACENT PROPERTIES

The information in this section regarding adjacent properties in which Caledonia has no interest is based on information publicly disclosed by the owner or operator of such properties. The QP has been unable to verify the information in this section, which is not necessarily indicative of the mineralization on the Bilboes property that is the subject of this TRS.

Several small mines and two larger ones have operated in the past in the area around the Isabella (Figure 20-1) property, but all of these had been dormant for at least 15 years prior to the renewal of exploration activity in the area in the early 1980s. The productions listed in Table 231 are for the period to 1980. The Calcite Mine is located in the area now covered by the Isabella operation and its production is included in the History section. The Motapa, Fossicker and Jupiter Mines are situated immediately to the south of Isabella and trend in the same general strike of Isabella, McCays and Bubi.

The Isabella -McCays and Bubi properties are surrounded by two EPOs Figure 20-1 whose licenses await approval for renewal from the Government, and these also surround a cluster of other Bilboes exploration claims namely When, Sandy and Ferroro. Several high quality geological and aeromagnetic targets are located within the major northeast-southwest trending deformation zones that transect the EPOs such as along the Peter-Pan, Courtleigh and Gabriella-Mulungwane shear zones. These targets in addition to the existing exploration claims offer potential for organic growth of Bilboes' gold Mineral Resources. Peter Pan mine located 17 km Southwest of Bubi mine which had been lying dormant for several years was revived in recent years and is currently producing as a sizeable open-pit heap leach operation.

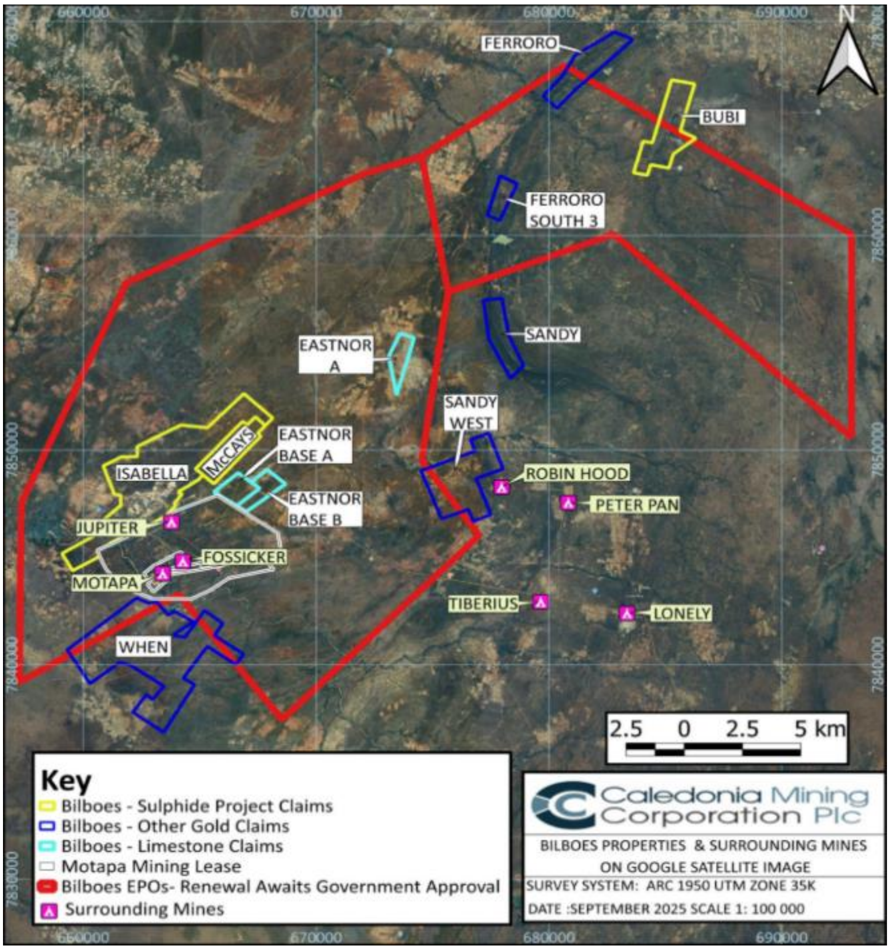


Figure 20-1: Adjacent Properties around Isabella McCays and Bub

Table 20-1: Historic Gold Production from Mines around Isabella McCays and Bubi to 1980[17]

Mine	Au kg	Grade g/t	Coordinates		Locality from Isabella
			Easting	Northing	
Motapa	9,467	4.3	663,613	7,844,250	2 km south
Fossicker	472	3.7	664,953	7,844,803	3 km south-east
Jupiter	201	3.9	663,870	7,846,633	1 km east
Lonely	34,786	17.5	683,276	7,841,837	20 km east
Peter Pan	968	2.9	680,606	7,846,618	18 km east
Robin Hood	248	2.1	677,790	7,848,663	15 km east
Tiberius	263	2.2	679,408	7,842,128	17 km east

[17] Source Bartholomew (1990), Coordinate system: UTM, Arc1950, Zone 35S, Spheroid-Clarke 1880.

21 OTHER RELEVANT DATA AND INFORMATION

None.

22 INTERPRETATION AND CONCLUSIONS

22.1 Mineral Resource Estimate

- The data collected during the exploration, drilling and sampling programmes, including surveying, drill hole logging, sampling, geochemical analysis, and data quality assurance, was collected in a professional manner and in accordance with appropriate industry standards by suitably qualified and experienced personnel.
- The geological modelling and Mineral Resource estimate were undertaken utilizing recognized deposit and industry strategies/methodologies for the Bilboes deposit.
- The Mineral Resource is constrained in an optimized pit shell. This together with the assumptions relating to mining, processing, infrastructure, and market factors supports the "reasonable prospects for eventual economic extraction".
- Based on an assessment including: - data quality and integrity, data spacing, confidence in the grade interpolation, confidence in the geological interpretation and confidence in the estimate the QP believes the Mineral Resource estimate is robust.

22.2 Mining and Reserves

The process to develop the mineral reserve estimates were as follows:

- The open pit optimisation on the measured and indicated resources only and the application of modifying factors (mining recovery, gold recovery and dilution)
- A range of operating costs and production parameters were applied during the Whittle optimisation exercise along with a net gold price of $2,025.75/oz after accounting for government royalty and refining costs.
- Relevant pit slope angles consider the access ramps where applicable.
- Application of a cut-off grade of 1.05 g/t to the Bubi resource and 0.56 g/t to the Isabella/McCays complex resources to ensure tonnes mined generate enough revenue to cover costs
- The mineral reserve estimates are not at this stage materially affected by any known environmental, permitting, legal, title, taxation, socioeconomic, marketing, political, or other relevant factors.
- Grade control drilling before mining and during mining (blast hole sampling) will be critical as with all steeply dipping narrow tabular ore bodies.

22.3 Economic Outcomes

The FS demonstrates that the Project delivers strong economics across all tested gold price scenarios. At long-term consensus forecast prices, the project achieves a post-tax $NPV_{8\%Real}$ of US$582 M, a post-tax IRR of 32.5%, and a rapid payback of 1.7 years. Even under the more conservative three-year trailing average price of US$2,350/oz, the project remains economically viable, with an NPV of US$454 M, an IRR of 27.4%, and a payback period of less than three years.

The analysis highlights the Project's resilience to lower gold prices and its significant leverage to elevated gold prices. With robust operating margins exceeding 55% in all cases, and peak funding requirements stable across scenarios, the Project stands out as a high-return, capital-efficient development.

In addition to the standalone economics presented here, there is potential to capture synergies with the Blanket operation (not yet fully realized), which could enhance project returns. Importantly, while jurisdictional risks remain, the Project benefits from a degree of de-risking given the long-standing and ongoing operations at Caledonia's Blanket mine. This track record provides confidence in approvals, operations, and stakeholder engagement, supporting the case for investment progression.

22.4 Risk Assessment

The project baseline cost estimate capital contingency value is 9.72%, which is within the expected range typically encountered by the QRA team at this stage of development, which may be attributed by the level of engineering and design completed at this stage.

The QRA schedule contingency is approximately 3 months. Based on the results, the largest possible variance in the schedule could be experienced during commissioning.

The AACE makes no recommendation as to a typical industry contingency value as a percentage of the base estimates.

If the project continues with these contingency, the items indicated in the sensitivity analysis of the CAPEX and schedule sections must be managed to ensure that risks are identified and contained should they occur.

22.4.1 Project Cost Risks

Three risks with a direct cost impact were identified and simulated, the variability from other risk impacts were covered when ranging.

Table 22-1: Cost Event Risks

				Impact (USD)		
Risk No.	Description	Single event probability	Frequency	Low	Most Likely	High
R08	Engineered and rock fill	50%	Once	0	2,500,000	5,000,000
R19	Onboarding	95%	Once	1,500,000	1,750,000	2,000,000
R22	Clay availability	50%	Once	3,600,000	4,450,000	5,300,000

22.4.2 Project Schedule Risks

The project risk register was analysed, and the time impact of the risks identified and linked to each relevant network in the schedule. The risk was quantified, and the effect evaluated in terms of impact and severity.

The Quantitative risk scoring is illustrated in Figure 22-1.

Semi-Quantitative Scores

Probability / Likelihood			Risk Matrix	1	2	3	4	5
1	< 10%	Rare	1	1	2	3	4	5
2	10% to 30%	Minor	2	2	4	6	8	10
3	31% to 50%	Possible	3	3	6	9	12	15
4	51% to 70%	Likely	4	4	8	12	16	20
5	71% to 100%	Almost certain	5	5	10	15	20	25

Consequence / Impact			
	Cost (% of total budget)	Schedule (additional days*)	
1	<0.5%	< 5 days	Insignifficant
2	0.5% to 1.5%	5 to 10 days	Minor
3	1.5% to 3%	11 to 15 days	Moderate
4	3% to 6%	16 to 25 days	Large
5	>6%	> 26 days	Major

Figure 22-1: Risk Matrix system

The risk pre and post control are clearly defined in the following tables and highlights mining and geology elements as the most pertinent to have an impact on the overall costing and revenue generation of the life cycle of the project. Post control elements highlighted in the tables will be imperative to follow in order to ensure that these risks are mitigated and controlled.

Reliable and competent contractors appointment and management there off will be essential in the initial stages of the project as this is highlighted as one of the most pertinent risks that can influence the schedule and thus impacting costs and revenue.

See Table 22-2 to Table 22-5 for all the associated risks highlighted.

Table 22-2: Schedule Event Risks Mining

						Pre-Mitigated Assessment				Post-Mitigated Assessment		
Project Area	Risk Identifier	Risk Name	Condition (Because of these conditions...)	Departure (this event that is different from the plan can occur...)	Consequence (which will have this effect on the project)	Likelihood of the event	Impact of the event	Risk Weight	Current and Planned Control Actions	Likelihood of the event	Impact of the event	Risk Weight
Mining	R26	Run of Mine	Unavailability of feed	Not meeting the production ramp up	Schedule & cost impact	2	2	4	1. Early onboarding of mining contractor to extend the mining profile (one month earlier than currently planned - current allowance is 4 months of stockpile - 400,000 tonnes of plant feed) 2. Mining is planned to start in the high grade areas 3. Mining will be from multiple areas (more than one selected area from the start) for flexibility 4. Mining rate planned to exceed the plant throughput rate 5. Working overtime to make up lost time	1	2	2
	R27	Quality of plant feed	Uncertainty of the ore characteristics and possible variations in quality of plant feed / feed blend	Not meeting the production ramp up	Cost impact	3	4	12	1. Robust blending regime (design of the blend) 2. Additional stockpiles of blends / materials in order to optimize feed characteristics 3. Additional test work / Grade control drilling prior to start of mining and on going 4. On site labs provided by ALS / SGS for extra support during first two years - to be on site 2 months in advance of start of mining 5. Procure specialized scanners for quick analysis of ore quality (to enhance the blending / stockpiling programme) 6. Risk allowed for in the recovery assumptions 7. Production plan to be updated with split of transitional vs fresh for plant feed	1	3	3
	R10	Contract management for mining	Inexperience of mining contractors	Delays / quality issues	Schedule & cost impact	2	2	4	1.Appointment of a dedicated Contracts Manager to manage the mining contract 2. Only experienced contractors with proven track record will be considered 3. Terms and conditions to be focussed and aligned, ie. payment terms	1	1	1
	R14	Unavailability of plant feed	Bench high wall failure	Not meeting the production targets	Schedule & cost impact	3	3	9	1. Existing geotechnical information incorporated into mine design 2. During operations ongoing geotechnical investigations will inform and update the geotechnical model and subsequently mine design	1	3	3
	R15	Unavailability of plant feed	Poor grade control	Delays / quality issues	Cost impact	3	3	9	1.Grade control drilling prior to start of mining and on going grade control drilling 2. Additional stockpiles of blends / materials in order to optimize feed characteristics 3. On site labs provided by ALS / SGS for extra support during first two years - on site 2 months in advance 4. Procure specialized scanners for quick analysis of ore quality (to enhance the blending / stockpiling programme) 5. Feed mining planning to update split of transitional vs fresh feed ore	1	3	3

Table 22-3: Schedule Event Risks Mining, Processing

						Pre-Mitigated Assessment				Post-Mitigated Assessment		
Project Area	Risk Identifier	Risk Name	Condition (Because of these conditions…)	Departure (this event that is different from the plan can occur…)	Consequence (which will have this effect on the project)	Likelihood of the event	Impact of the event	Risk Weight	Current and Planned Control Actions	Likelihood of the event	Impact of the event	Risk Weight
Mining	R16	Unavailability of plant feed	Flooding of the Bubi river	Delays	Cost impact	3	3	9	1. Additional stockpiles of blends / materials in order to optimize plant feed 2. Mining rate planned to exceed the plant throughput rate 3. Risk allowed for in the production profile	1	3	3
	R18	Inaccurate geological & resource modelling	Unavailability of quality plant feed	Quality issues	Cost impact	3	3	9	1.Extensive drilling and test work to delineate resource was concluded 2. Grade control drilling prior to start of mining and on going grade control drilling 3. Additional stockpiles of blends / materials in order to optimize feed characteristics 4. On site labs provided by ALS / SGS for extra support during first two years - on site 2 months in advance 5. Procure specialized scanners for quick analysis of ore quality (to enhance the blending / stockpiling programme) 6. Feed mining planning to update split of transitional vs fresh feed ore	1	3	3
Process	R01	Production of concentrate for BIOX®	Production schedule to be set up, 'BIOX® has a long build up sequence	'BIOX® build up sequence could be longer than planned for in schedule	Schedule impact	3	2	6	1.Schedule alignment and plan purchase concentrate for inoculum build up from reliable sources 2. Plan for the generation of flotation feed ore for inoculum build-up concentrate as back up	2	2	4
	R02	Major equipment commissioning	Sequencing of utilities (Power, water etc)	Major pieces of equipment to be commissioned before the plant itself	Schedule impact	3	2	6	1. Provide small make up system (power, process water and other required utilities) during startup 2. Early procurement of equipment	2	2	4
	R03	Transport to and on site	Current conditions of border and roads	Potential delays at ports of entry, damage to equipment & delivery delays	Schedule impact	3	2	6	1. Appointment of a dedicated Procurement team 2. Early procurement of equipment 3. Bolster transport system - specialized packing to cater for harsh route conditions.	3	2	6
	R04	Raw water & process water	Reactors need to be filled with water	Stop process / pumps if work is required in the area	Schedule impact	2	2	4	Small skid mounted system / moveable pumps	1	1	1
	R05	Buffer capacity between flotation and BIOX®	Any delay in concentrate production (beyond two weeks)	Run out of concentrate to feed BIOX®	Schedule & cost impact	2	2	4	Create concentrate bunker - run process facility ahead of time	1	1	1

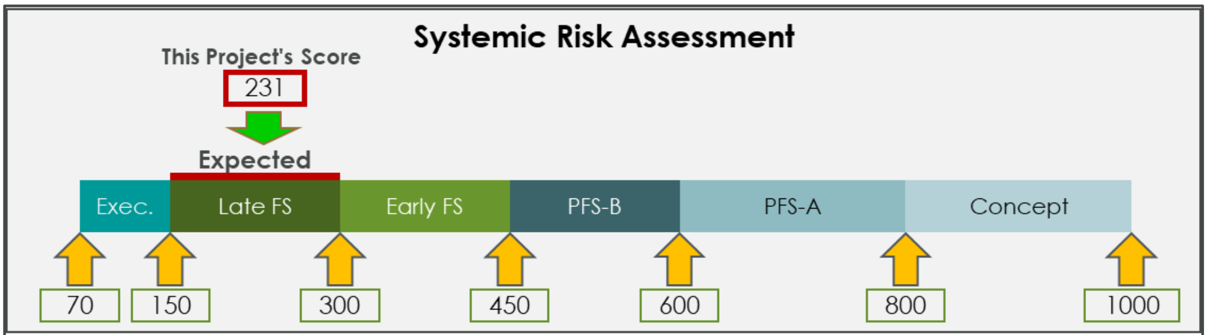
Table 22-4: Schedule Event Risks TSF

						Pre-Mitigated Assessment				Post-Mitigated Assessment		
Project Area	**Risk Identifier**	**Risk Name**	**Condition** (Because of these conditions…)	**Departure** (this event that is different from the plan can occur…)	**Consequence** (which will have this effect on the project)	**Likelihood of the event**	**Impact of the event**	**Risk Weight**	**Current and Planned Control Actions**	**Likelihood of the event**	**Impact of the event**	**Risk Weight**
Process	R06	Electrical risks during commissioning	1. Selection of the blowers - availability & technical efficiency 2. Possible frequent outages in local power supply	1.Contaminated water 2.Risk of blowers going offline 3.Overall electrical stability	Schedule impact	3	2	6	Back-up power (generators) will be available ahead of commissioning.	1	1	1
	R07	Water source	Confirm and identify a suitable process water source (Make-up water)	Possibility that no water source available	Cost impact	2	3	6	Water model needs to confirmed and mitigation actions to be confirmed	1	1	1
TSF	R22	Unavailability of clay material	Specific clay required which has not been identified	May need to be hauled in from further away from the mine	Cost Impact	3	2	6	1. Catered for a distance of 200km for haulage to mine site 2. Investigate for more possible clay sources closer to the mine 3. Waste classification test being conducted as confirmation for the requirement of clay for the BIOX® TSF liner	2	2	4
	R08	Engineered rock fill	Not available on site	Might need to procure additional material	Cost impact	3	3	9	1. Geotechnical investigations around mine site as part of early works 2. Current estimate allows for 50% of fill to be manufactured on site	2	2	4
	R09	Sufficient schedule and cost allowances have been made	Numerous upfront works to be approved / aligned with schedule	Generators might need to be included in early works	Schedule impact	2	2	4	Sufficient schedule and cost allowances have been made	1	1	1
	R11	Liner procurement	1.Delays during construction 2.Warrantees & guarantees after installation	1. Delivery delays 2.Possible damage on site	Schedule & cost impact	2	2	4	1.A dedicated Procurement Manager has been allowed for the Liners to avoid delay 2. Sufficient schedule and cost allowances has been made within the FS study	1	1	1
	R12	Dam break analysis to be done prior to final design	Dam break analysis still to be done	Outcome of study could impact estimate	Cost impact	2	2	4	Test work underway and current designs follow best practices	1	1	1
	R13	Extreme weather event	River relatively close to site	Possible flooding could occur	Schedule impact	2	3	6	1. Continuous update of the water balance for assessment 2. Return Water Dam (RWD) designed to contain the 1 in a 50 year flood event	2	1	2

Table 22-5: Schedule Event Risks Project Services and Procurement

						Pre-Mitigated Assessment				Post-Mitigated Assessment		
Project Area	Risk Identifier	Risk Name	Condition (Because of these conditions...)	Departure (this event that is different from the plan can occur...)	Consequence (which will have this effect on the project)	Likelihood of the event	Impact of the event	Risk Weight	Current and Planned Control Actions	Likelihood of the event	Impact of the event	Risk Weight
Project services	R19	Onboarding	1. Contractors not fully aligned with the process. 2. Possible bottleneck when all contractors want to onboard at the	Onboarding process takes longer than expected	Schedule & cost impact	5	3	15	1. Onboarding & induction procedures to be communicated upfront 2. Dedicated personnel (From both owners team & EPCM team) to assist and liase with contractors 3. All contractors must ensure medicals & security checks are planned for before onboarding commences	3	3	9
	R21	Work permit delays	Contractors assume work permits allowed for	Work permits take longer to apply and approve	Schedule impact	2	2	4	1. Appoint competent local contractors for the early contractors	1	1	1
	R20	Interference between different contractors on site	Many different contractors moving in and around site	Handover between contractors working in the same area can delay the project	Schedule impact	4	1	4	1. Traffic flow analysis 2. Proper execution team managing the risk 3. Contracting to include buffers between handovers	3	1	3
Procurement	R23	Steelwork & Platework rates & availability	Preferred local suppliers	1. Rates on steelwork and platework packages might differ from those estimated 2. Platework might not be available when required	Schedule & cost impact	2	2	4	Project has allowed for purchasing of steel from either local or south African sources	1	1	1
	R25	Contractor / supplier stability	Contractor / supplier incapacity	Contractor / supplier might go out of business	Schedule & cost impact	3	5	15	1. Appointment of a dedicated Procurement team on Client and EPCM side 2. Full vendor evaluation to be completed by a team including vetting against other DRA projects 3. Terms and conditions to be focussed and aligned, ie. payment terms 4. Establish possible JV options between key contractors 5. Short interval controls by EPCM team and Construction Manager	2	4	8
	R28	Supply chain	International imports - shipping, customs, roads to site	1.Procurement is delayed 2.Logistics / supplier delays 3. Equipment is damaged	Schedule & cost impact	2	3	6	1. Regular monitoring on supplier progress and transport plan by dedicated Logistics team as part of procurement process 2. Normal Logistical delays allowed for in the schedule ranges 3. Equipment damage during transport could be a major risk but should be addressed by proper transport plans monitored by logistic team	1	3	3

The risk assessment and scoring do however indicate that the Project is in the late phases of a Feasibility study with good understanding of the business objectives and good definition of Engineering, procurement and costing achieved. The rating and scoring is illustrated in Figure 22-2.



Project Definition Rating Index (PDRI) Scores

Category	% Definition	Score	Min	Max
A. MANUFACTURING OBJECTIVES CRITERIA	78.57%	12	3	45
B. BUSINESS OBJECTIVES	95.05%	21	11	213
C. BASIC DATA RESEARCH & DEVELOPMENT	91.11%	12	4	94
D. PROJECT SCOPE	87.39%	23	9	120
E. VALUE ENGINEERING	74.07%	7	0	27
F. SITE INFORMATION	87.50%	20	8	104
G. PROCESS/MECHANICAL	75.14%	60	15	196
H. EQUIPMENT SCOPE	60.00%	15	3	33
I. CIVIL, STRUCTURAL, & ARCHITECTURAL	82.35%	5	2	19
J. INFRASTRUCTURE	72.73%	9	3	25
K. INSTRUMENT & ELECTRICAL	63.41%	20	5	46
L. PROCUREMENT STRATEGY	80.00%	4	1	16
M. DELIVERABLES	77.78%	2	0	9
N. PROJECT CONTROL	75.00%	5	1	17
P. PROJECT EXECUTION PLAN	69.70%	13	3	36
M. OTHER SYSTEMIC	50.00%	72	18	126

Figure 22-2: Systemic Risks

The QRA process, consisting of the Project Definition Rating Index (PDRI), a Systemic Risk Assessment, an assessment of estimate and schedule variability, and a quantitative assessment of the risks identified in the risk register, which are then simulated using a Monte Carlo model. Based on the risks and variability identified in the QRA, the confidence level of the project falls within the 15% range.

23 RECOMMENDATIONS

The following recommendations are meant to provide enhancements, cover the gaps and mitigate risks identified during the feasibility study. The costs associated with these recommendations will be incurred during the operational phase of the project and are included in the operational budget.

23.1 FS Geology and Resources

During the operational phase, drilling is required to develop an advanced grade control model prior to mining. A drill spacing study will be required to determine the optimum spacing for “grade control” drilling. The closed space drilling will also enable a more accurate estimation of tonnage and grade as well as a better definition of oxide, transitional and sulphide oxidation boundaries for mine planning.

Geo-metallurgical analysis of drill samples to include critical elements and compounds that affect the Bio-oxidation process which will be important for ore blending regimes.

The Mineral Resources remain open on strike and at depth. Further exploration is recommended during the operational phase to extend LoM.

A regional geological model combining all four resource areas to take a mineral systems approach should be developed. This will enable targeting of new deposits in the rest of the Bilboes claims.

23.2 Mining

Conduct Whittle optimisation studies at higher gold prices than the base case used in the FS to investigate potential for additional Mineral Reserves. At time of publication outer pit limits were fixed at $3000/t.

Execution level grade control on a ± 10m grid will be crucial in mapping the ore body and grade bins before mining. Thereafter ore blast hole drill hole sampling will further assist with assigning grade bins and ensuring mining losses and dilution are kept within design parameters.

On-going geotechnical analysis is recommended during future mining operations to assess pit slope angles to investigate if improvements can be made for less waste stripping, reduced operating costs, and improve overall business economics.

23.3 Processing

Further optimisation efforts could be considered during the project execution front-end engineering and design (FEED) phase, by conducting further comminution testwork to optimise the crushing and milling layout and equipment selection.

Conduct further testwork for flotation optimisation (including variability tests) to establish a grade-recovery relationship and validate recovery upsides.

Development of the skills base to effectively run the BIOX® operations is crucial for the business and should be prioritized prior and during the operational phase.

The water balance indicates that the Bafana dam is a suitable water source for the project. As a contingency measure, both Bafana and Hauke dams have been included as water sources. The recommendation further is to have an in-depth field investigation study on current state of siltation of Bafana dam. If this proves to be suitable and sustainable no additional costs need to be spent on a pipeline to Hauke dam.

The BIOX® performance and equipment sizing is based on total expected sulphide content after flotation and with current test work performance the sulfur grade is a majority of the mining plan directly proportional to the gold content. It is recommended during operational phase to continuously monitor sulfur content when having higher gold grades as additional sulfur may impact on total sulfur breakdown resulting in lower gold recoveries.

23.4 Infrastructure and Civils

Review the Infrastructure and Civils designs with additional geotechnical information for possible further optimisation and with special reference to locally available G5; G6 and G7 borrow pit materials present at the process Plant location as well as along the Isabella/Bubi Haul route.

23.5 TSF

The following recommendations are made as part of the TSF FS and are therefore applicable for future work that will be required as part of detailed design:

All tailings parameters and characteristics must be verified, assessed, and optimised prior to incorporation into the Detailed Design. A plan and schedule are in place to produce a representative tailings sample to confirm the waste classification of the tailings streams.

A plan and schedule are in place to produce a tested, representative tailings sample to confirm the waste classification of the tailings streams. Any changes identified must be incorporated into the Detailed Design to ensure the correct and most appropriate liner system is applied.

The Life-of-Mine production profiles were used for this Feasibility Study, to update the storage capacity curves for both the flotation and BIOX facilities. Should any changes arise, the TSF stage capacities and starter wall heights will need to be reassessed and updated accordingly.

It is recommended that the Water Balance Model (WBM) be actively maintained and updated throughout the project lifecycle. Monitoring data collected should be regularly used to recalibrate the model (at least annually) and the predictions and requirements can then be revised to ensure the site, and the operations remain compliant.

23.6 Risks

A comprehensive quantitative risk assessment highlighted specific elements to be managed closely at the beginning of the project phase and mainly include the following:

Project services – Onboarding of Contractors to be timeously executed and ensuring that the Owners team and EPCM are managing this process meticulously through dedicated personnel.

Procurement – Ensuring the Contractors appointed are competent and or Suppliers are reliable and paid according to performance and contract. This must also be managed closely by the EPCM logistics and procurement team with support from the Owners team.

23.7 Economic Analysis

TEM Maintenance: Periodic updates to the Techno-Economic Model (TEM) should be performed to maintain its integrity and assist with future options analysis.

Ore Blending & Metallurgical Recovery: The current TEM is based on a stockpiling strategy that only prioritizes gold grade from the various pits. However, the processing plant's performance (i.e. recovery and throughput) is sensitive to movements in both deleterious element concentrations (e.g. sulfur) and physical ore properties (e.g. ore hardness) which is expected to vary month-to-month and by pit. A more sophisticated blending strategy should be developed and tested in the TEM to better manage these properties.

Operational Synergies: Together with the Blanket operation, approach key vendors to explore the potential benefit of, for example, bulk purchasing of reagents and consumables to drive down costs for the Project.

Refine Fiscal and Exchange Control Assumptions: Alternative fiscal terms (e.g. government free-carried interests) that might come into force and effect, should be proactively managed in the financial model as part of the ongoing scenario analyses employed by the management team. Furthermore, engagement with the Reserve Bank of Zimbabwe and relevant authorities should be prioritized to clarify the foreign-exchange surrender requirements and repatriation mechanisms applicable to gold exporters.

Closure and Rehabilitation: It is advisable to evaluate the potential cashflow implication to the Project if the Government of Zimbabwe adopts a similar policy position on closure costs to South Africa, i.e. requiring mining right holders to provide financial guarantees on day one sufficient to cover premature closure. Closure and rehabilitation costs will be evaluated on an annual basis, to ensure that the contingent liability associated with premature and LOM closure is kept current.

23.8 Environmental, Social, and Governance

Environmental and social issues are an integral part of the business and it is recommended that the company takes a proactive approach in mitigating the risks and impacts by adhering to regulatory compliance as well as relevant best practice requirements, and continually engaging the local community and key stakeholders prior to construction, and through operation and closure as recommended in the ESIA study.

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25 RELIANCE ON INFORMATION PROVIDED BY THE REGISTRANT

In preparing this report, the QP has relied entirely on information provided by the Registrant (Caledonia) in certain key areas that fall outside the QP's direct expertise. These consist of:

Marketing information and plans that are under the Registrant's control (Sections 16, 18, and 19).

Guidance from the Registrant and their tax advisors on applicable taxes, royalties, and other government levies or interests applicable to revenue or income from the Project as presented in Section 3 and Section 19 and used in Section 11 for establishing reasonable prospects of economic extraction (RPEE), Section 12 for establishing the Mineral Reserve cut-off grade, and Section 19 to support the sub-section on tax information and tax inputs to the economic model that provides an after-tax model. The rates comply with the tax regime at the Project location.

Legal interpretations, statutory and regulatory frameworks that influence the mine plan but are beyond the QP's expertise (Section 3).

Environmental matters that require specialist expertise:

- Planned community accommodations and social commitments related to mine development (Section 17).
- Government policies, relationships, and other external factors outside the QP's control (Section 17).
- The status and maintenance of all permits, licenses, and regulatory approvals necessary for current and future operations, including mining, processing, and waste management (Section 3).
- The Registrant's commitment to managing stakeholder relationships in a way that supports ongoing operations (Section 17).

Following a review of the information supplied, the opinion of the QP is that it is reasonable to rely on the information provided by the Registrant as outlined above because a significant amount of work has been conducted for the Project by the Registrant over an extended period, the Registrant and its related entities employ professionals with responsibility in the areas identified and these personnel have the best understanding in these areas