

Bilboes Gold Project

Preliminary Economic Assessment

June 2024

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Refer to the preliminary economic assessment entitled “Bilboes Gold Project Preliminary Economic Assessment” with effective date May 30, 2024 prepared by DRA Projects (Pty) Ltd (“PEA”) which is available on Caledonia’s website and on SEDAR+ for the mineral resources and economic analysis stated in this presentation.

Craig James Harvey, MGSSA, MAIG, Caledonia Vice President Technical Services, has reviewed and approved the scientific and technical information contained in this document. Craig James Harvey is a “Qualified Person” as defined by the Canadian Securities Administrators’ National Instrument 43-101 - Standards of Disclosure for Mineral Projects.

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Bilboes Video



Publication of PEA for the single-phase development



100% owned
fully permitted
gold project



Robust PEA:
large scale, high
grade, open pit



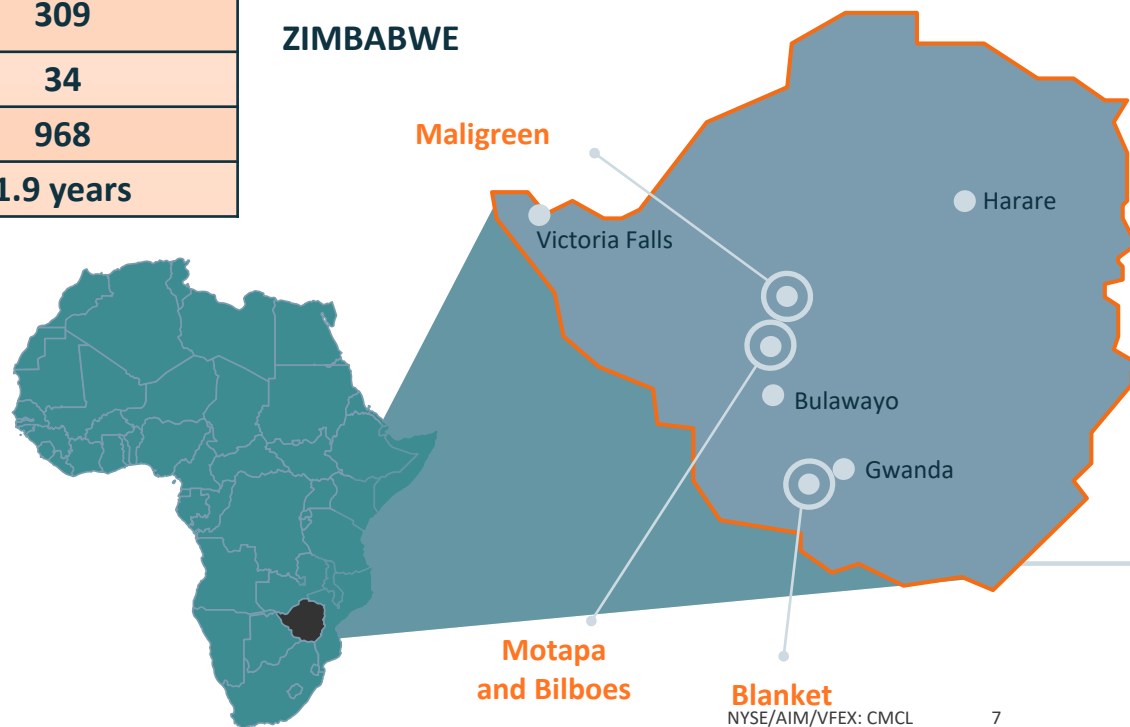
Strong management
team with proven track
record of operating in
Zimbabwe

PEA Highlights

1.5 million ounces of gold over 10 years

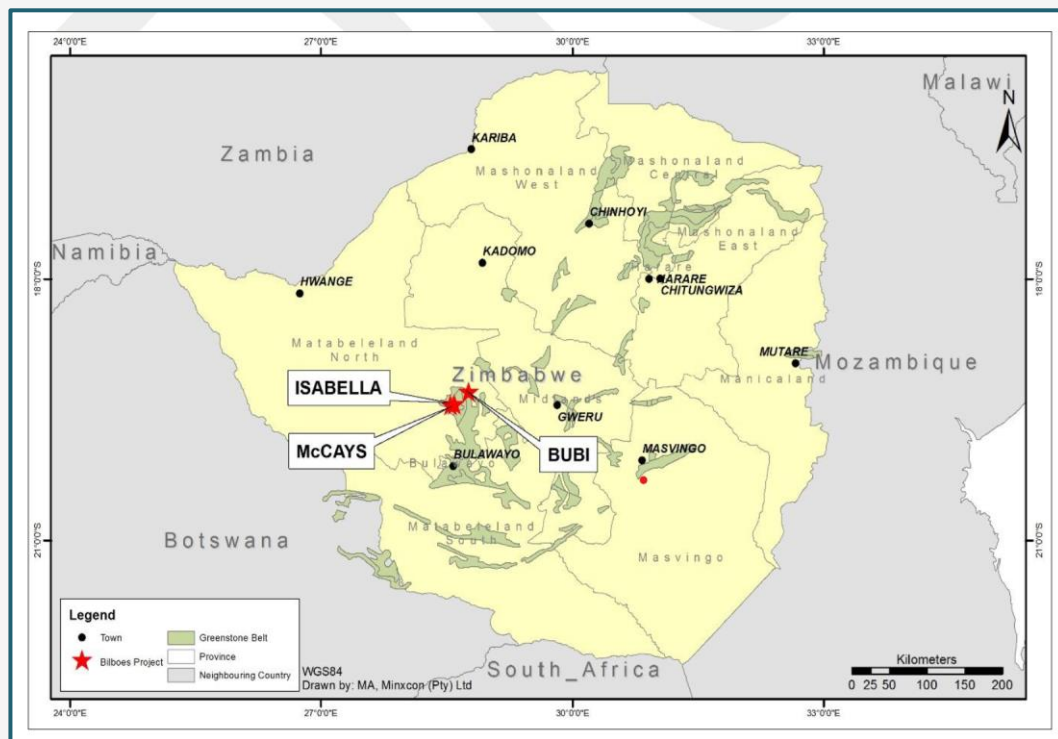
	PEA
Total production (m.oz)	1.518
Life of Mine (years)	10
Total capital cost (\$'m)	403
Peak Funding (\$'m)	309
Net Present Value (10%) (\$'m)	309
IRR (%)	34
AISC (\$/oz)	968
Payback period	1.9 years

• PEA Highlights calculated at a gold price of \$1,884 /oz



Introduction

- Located in the Matabeleland, in an underexplored greenstone belt
- Acquired in January 2023 for U\$65.7m in shares plus a 1% net smelter royalty
- Bilboes claims cover 10.5 sq mi that consist of four open-pit properties: Isabela North; Isabela South; McCays and Bubi
- Historical production of 294 koz from oxides via heap leach process
- NI 43-101 M&I resource of 2.47Moz @ 2.30 g/t and an Inferred mineral resource of 560koz @ 1.99g/t
- Management reviewed several options to optimise capital allocation and maximise NPV per share



Bilboes - strong economics, a short payback period and leverage to the gold price

- Publication of PEA for the **single-phase development** of the Bilboes sulphide gold project
- Single-phase development **provides optimal returns and a more attractive financing** structure than phased development alternatives
- **Project economics have improved** slightly: higher gold price and re-phasing of capital expenditure outweigh the effect of higher capital and operating costs
- **New feasibility study** reflecting the PEA is expected to be delivered during H1 2025
- **Payback period** of 1.9 years based on a gold price of \$1,884
- **Funding solutions** and finalisation of the feasibility study are being progressed in tandem

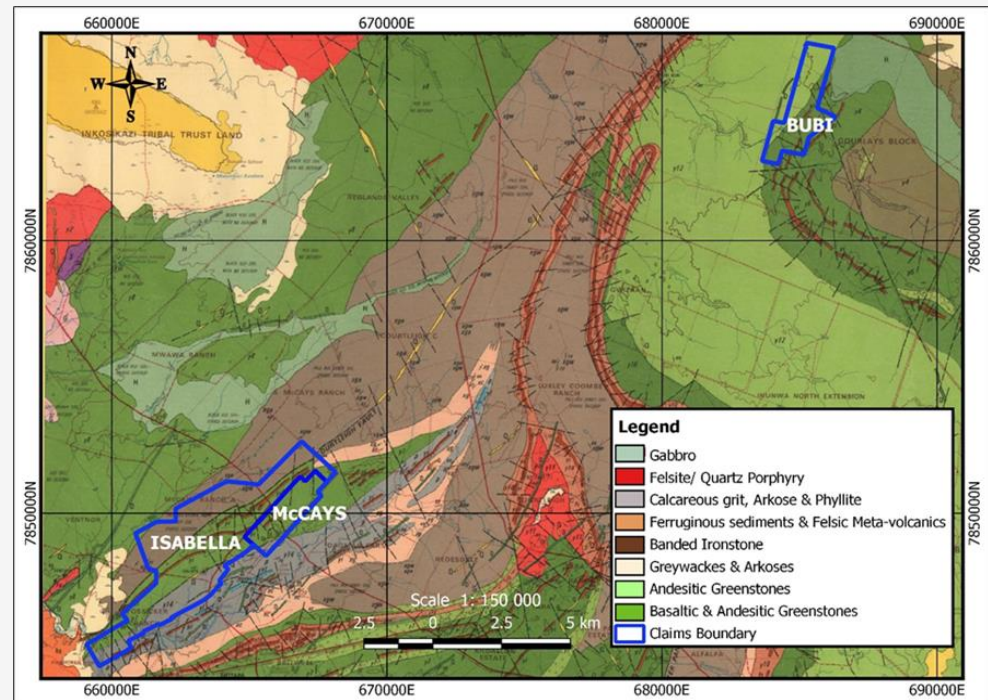
Summary of the changes made to the single-phase development approach

The Company has made several changes to the pre-existing single-phase development approach:

- Revised designs for the TSF to incorporate a modular construction to reduce upfront capital
- Revised pit designs to reduce upfront capital
- The cost of the process plant and infrastructure, in particular sourcing major equipment and steelwork from alternative suppliers
- Re-assess the phasing of the mine village establishment
- The operating expenses and general and administrative expenses with the availability of shared resources now that the Project is part of the Caledonia group
- The PEA also recognises the effect of the 1% NSR which was granted to one of the Bilboes vendors

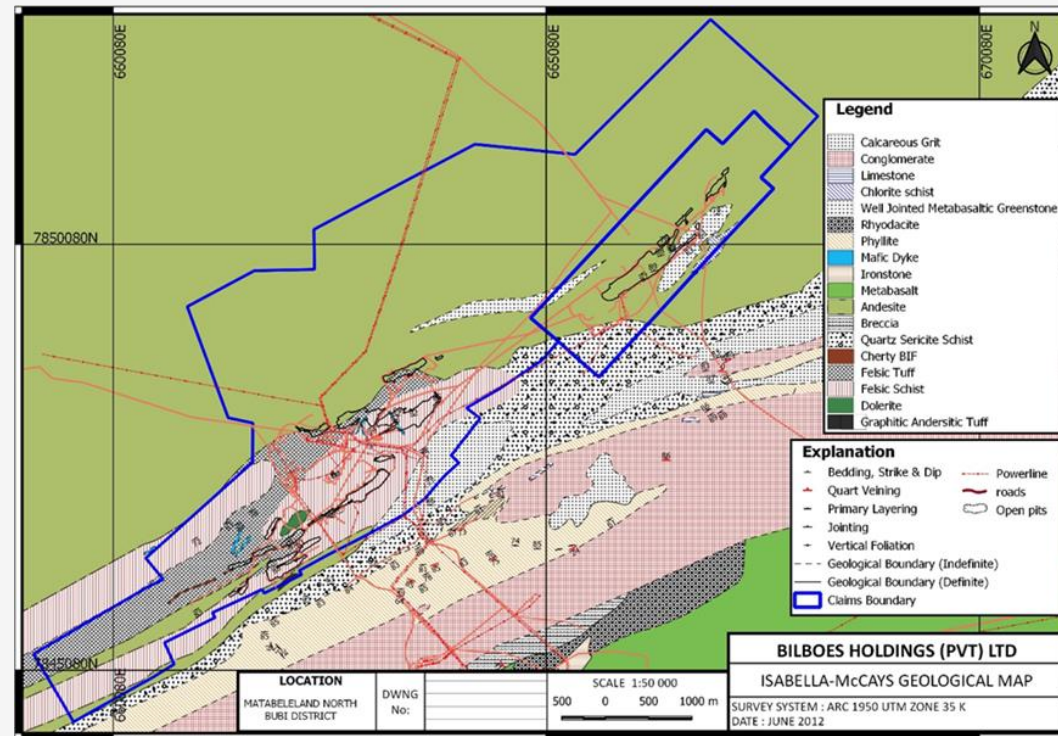
Regional Geological Setting

- Geology in Zimbabwe comprises three main areas: Archean, Proterozoic, and Phanerozoic.
- Rocks from the Archean era 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, which are renowned for their rich variety of mineral endowment, cover approximately 60% of the land surface of Zimbabwe.
- Mineralization at Bilboes' four properties is Archean 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.



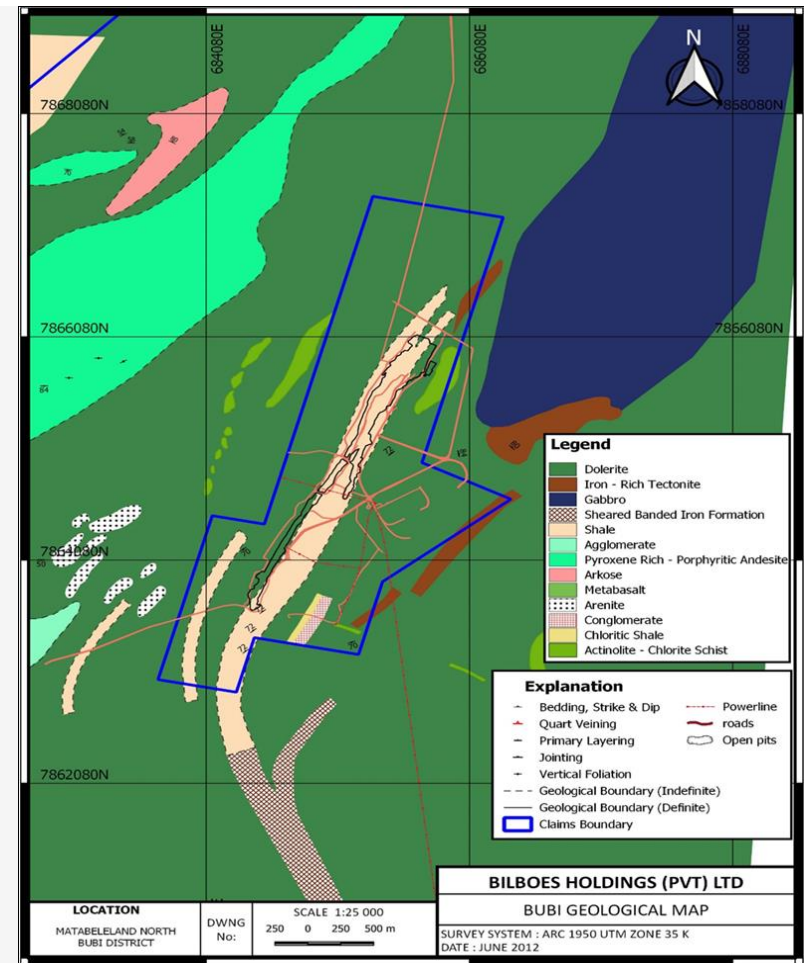
Local Geology : Isabella – McCays (IM)

- Mineralisation is hydrothermal in origin consisting of silicified stockworks and veins.
- The mineralisation is structurally controlled with individual zones of veining and shearing typically sub-parallel to each other.
- Mineralisation within the veins comprises pyrite and arsenopyrite with arsenopyrite the more dominant
- Mineralisation widths at IM range between 5m – 20m and range in strike lengths from 75m – 500m.
- The overall strike length is 4,400m.
- Mineralised zones follow an en-echelon pattern in north-east to south-west direction.



Local Geology : Bubi

- Mineralisation within the veins comprises pyrite and arsenopyrite, with pyrite the more dominant sulphide.
- Mineralisation widths at Bubi range from 10m in the southwestern portion up to as wide as 100m in the central portion of the project area.
- The overall mineralised strike length at Bubi is 3,000m in a north-easterly direction.



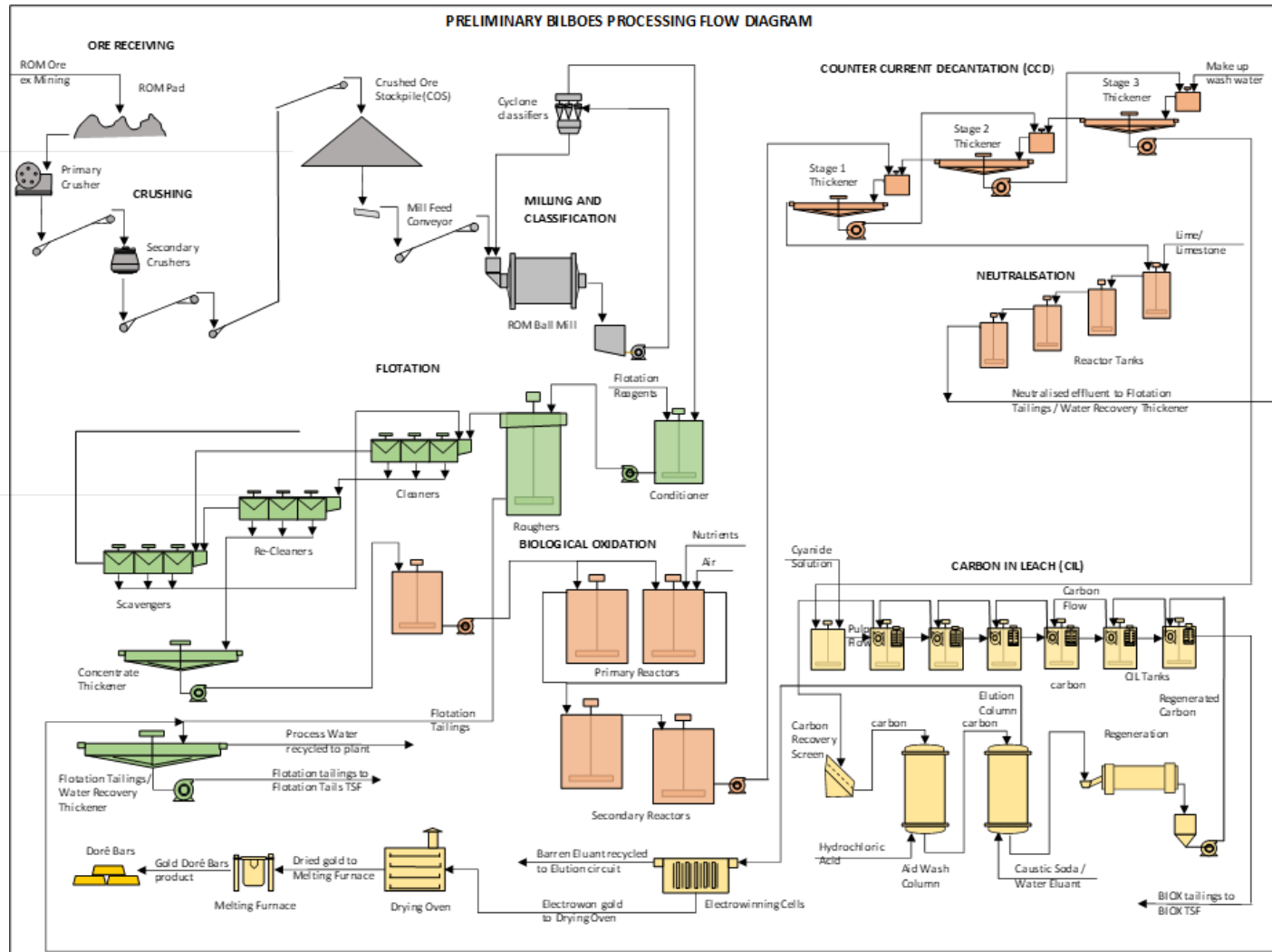
Processing – Metallurgical Testwork

- Multiple metallurgical test work phases from 2013 – 2019, including a pilot plant
- Conducted grinding and conventional milling tests to generate sulphide flotation concentrates
- Tested Ultra fine grinding, Pressure oxidation, Biological oxidation ("BIOX") of flotation concentrates
- Direct cyanidation of flotation concentrate after ultrafine grinding results in 20-30% gold recovery and Pressure oxidation results in high amounts of arsenic in the filtrate
- Biological oxidation of the concentrate results in expected overall recoveries of 83.7 - 90.3% at expected mass pull of 5% for IM and 10% for Bubi in the Bilboes BIOX pilot plant.
- The BIOX pilot plant ran for a period of 235 days achieving 88.8% gold dissolution of the concentrate at IM and 95.7% at Bubi.

Processing – Design

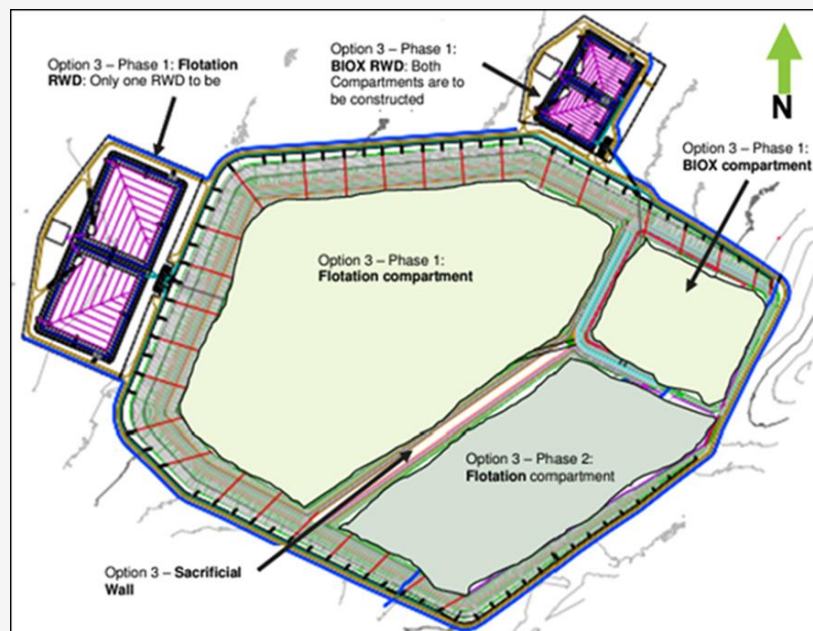
- The processing plant is designed to process 2.88Mtpa from years 1 – 6. Thereafter the plant is capable of processing 2.16Mtpa from years 6 – 10.
 - Bubi ore is harder resulting in a drop in throughput in the crushing section.
- IM material has a mass pull of 5% and Bubi has a mass pull of 10%.
 - Bubi material has a higher mass pull because of higher amounts of sulphur
- The processing plant will comprise the following;
 - Comminution (crushing & milling)
 - Sulphide flotation (flotation of gold bearing sulphide particles)
 - BIOX (biological oxidation of sulphide flotation concentrate)
 - Carbon in Leach (recovery of gold onto carbon from leaching BIOX residue)
 - Carbon treatment
 - Electrowinning and Smelting
 - Tailings storage and handling

Processing – Design



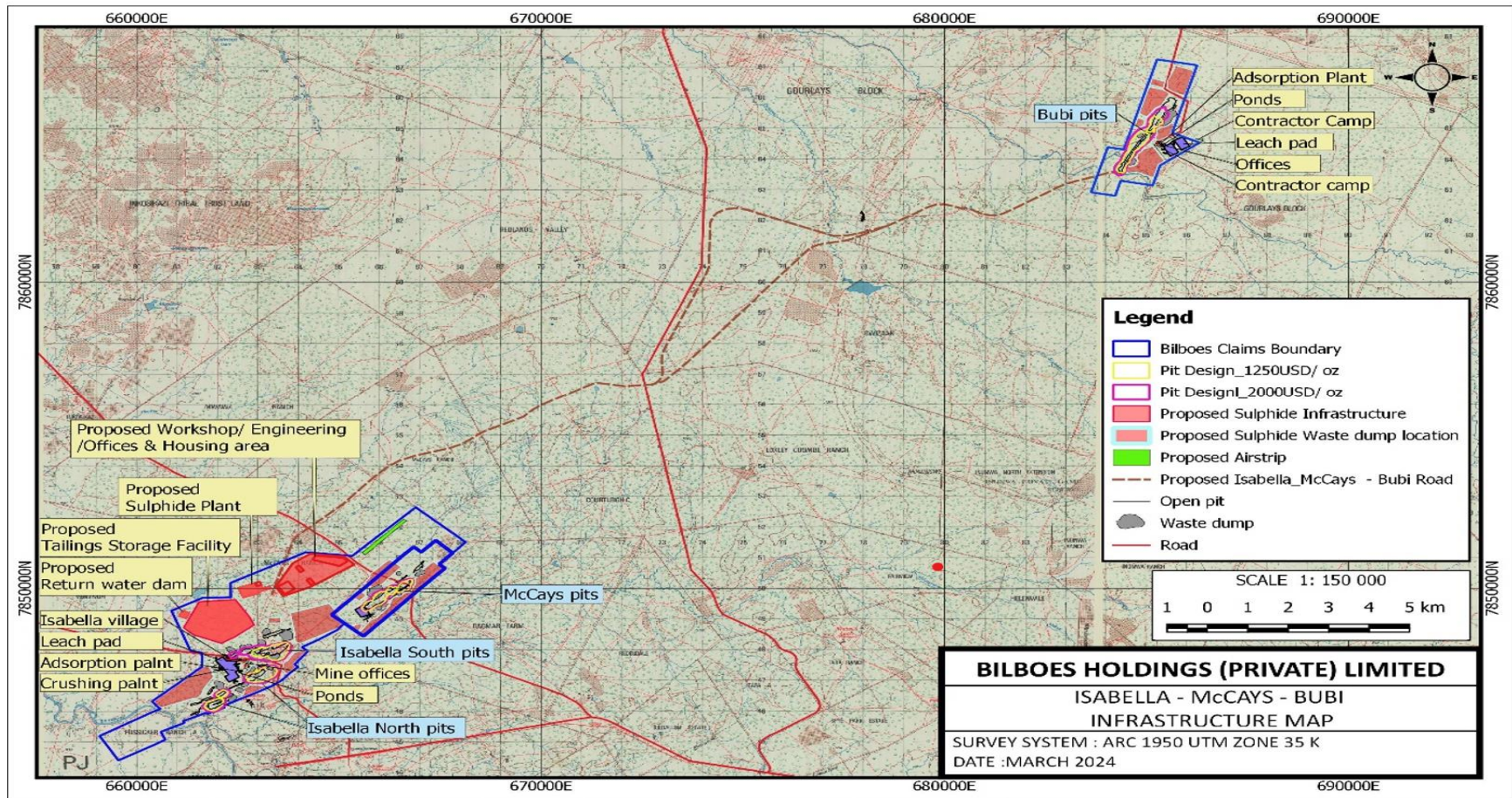
Tailings

- Tailings Storage Facility ("TSF") design and costing assigned to SLR Consulting (South Africa) (Pty) Ltd ("SLR")
- The TSF is sized as follows
 - 22.9Mt for the flotation tailings (240Ktpm deposition rate)
 - 1.7Mt for the BIOX tailings (12Ktpm deposition rate)
 - Maximum Rate of Rise of 2.5m / year at a slurry density of 1.35 t/m³
- The TSF construction / deposition is currently planned in 3 phases aligned to production schedule
 - Phase 1 : Startup – Year 3 of production
 - Phase 2 & 3 : Year 4 – 10 of production
- The TSF will be aligned to industry best practice (GISTM, SANS 10286 and ANCOLD 2012) .
 - Monitoring programs include both dust and groundwater monitoring practices
 - Concurrent rehabilitation will take place as appropriate



Mine Layout

Image includes major facilities of the Project including the Isabella North and South, McCays and Bubi open pit mines



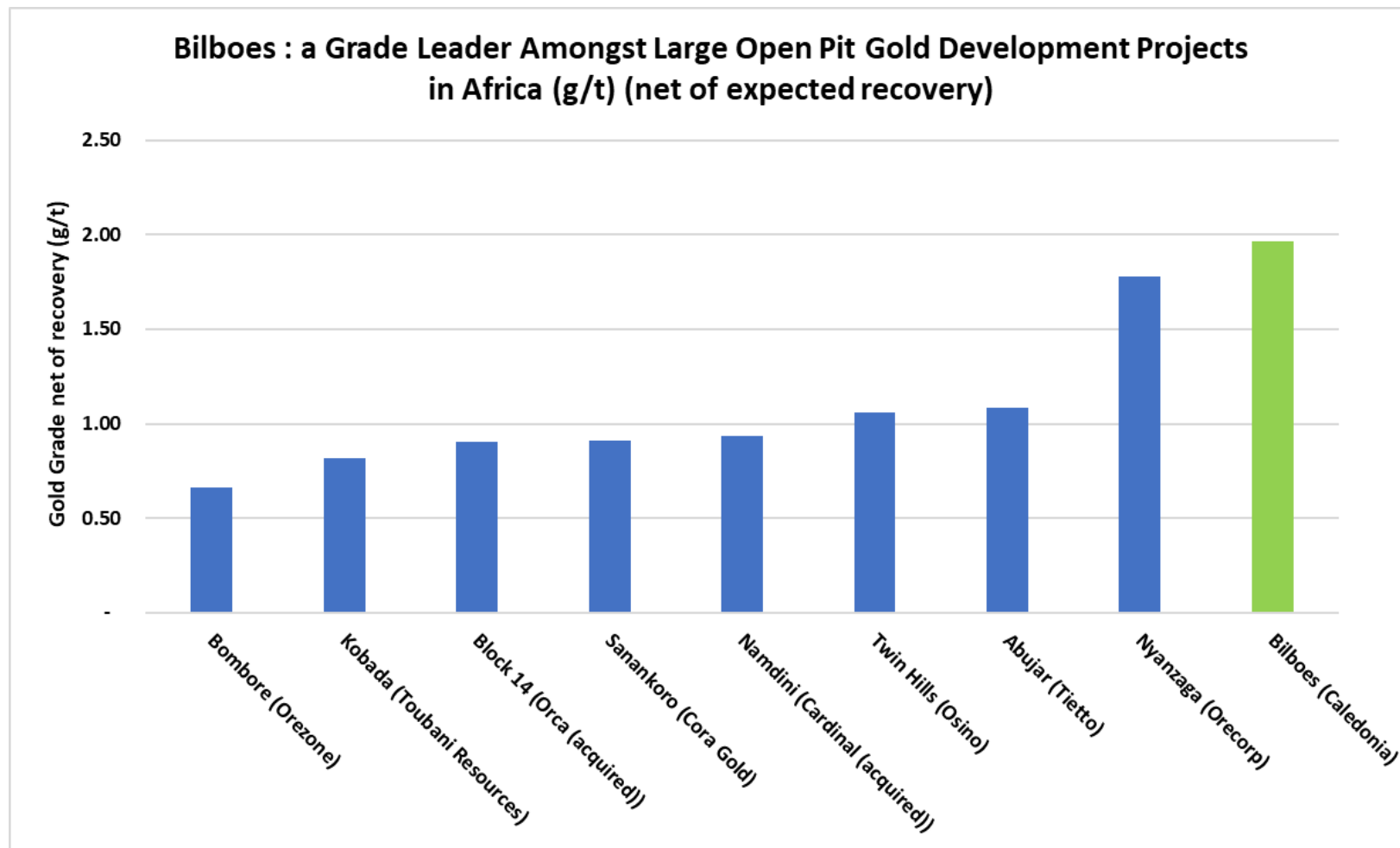
Sensitivity analysis in the PEA - NPV

PEA calculated at a gold price of \$1,884 and 10% discount rate

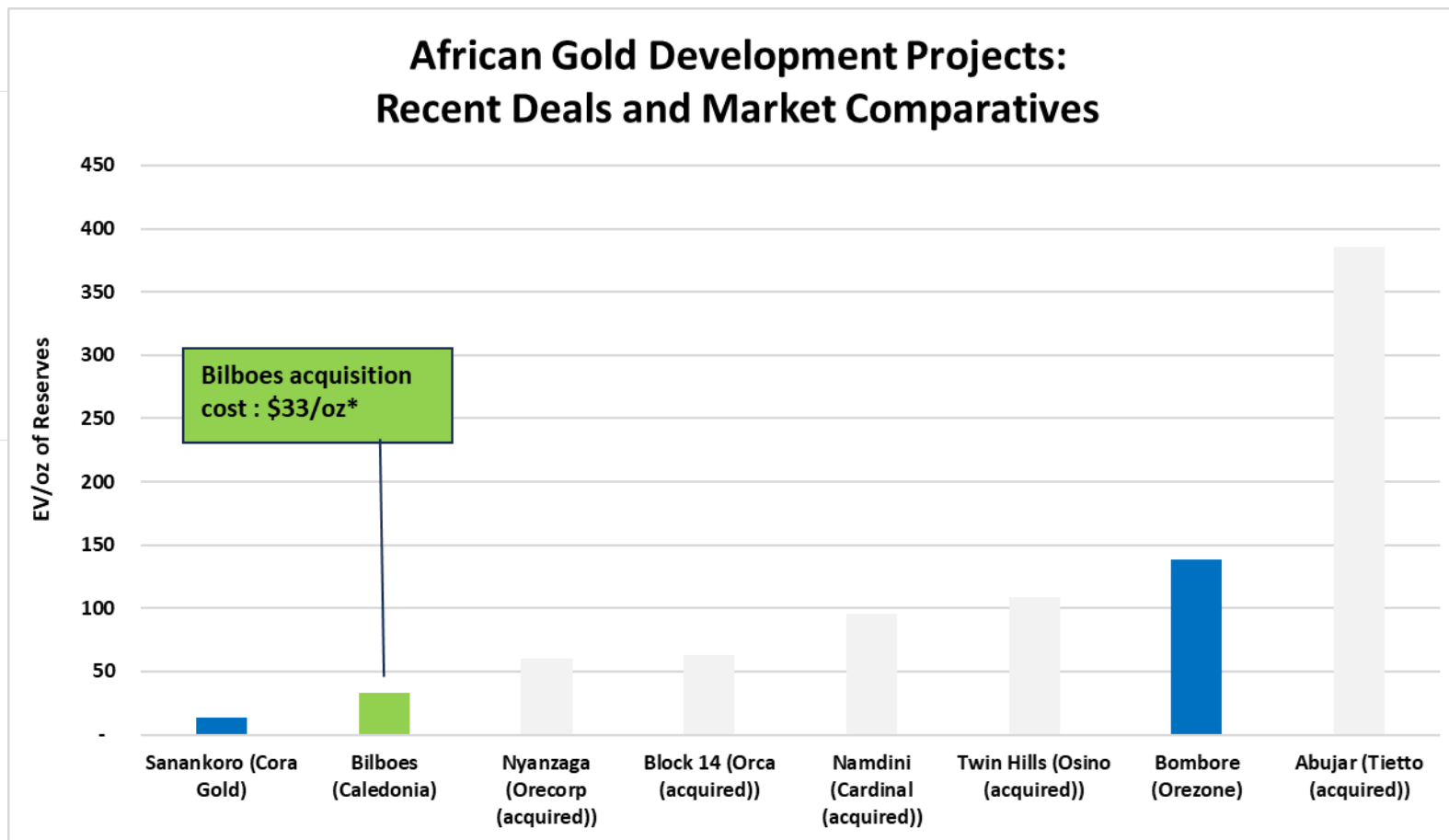
		Discount Rate				
		15%	12.50%	10%	7.50%	5%
Gold Price	\$1,500	31	59	94	137	191
	\$1,700	116	157	206	267	342
	\$1,884	194	246	309	385	480
	\$2,000	243	302	373	460	567
	\$2,200	327	398	484	588	717
	\$2,400	411	494	594	717	867
	\$2,600	495	590	705	845	1,016



A Grade Leader

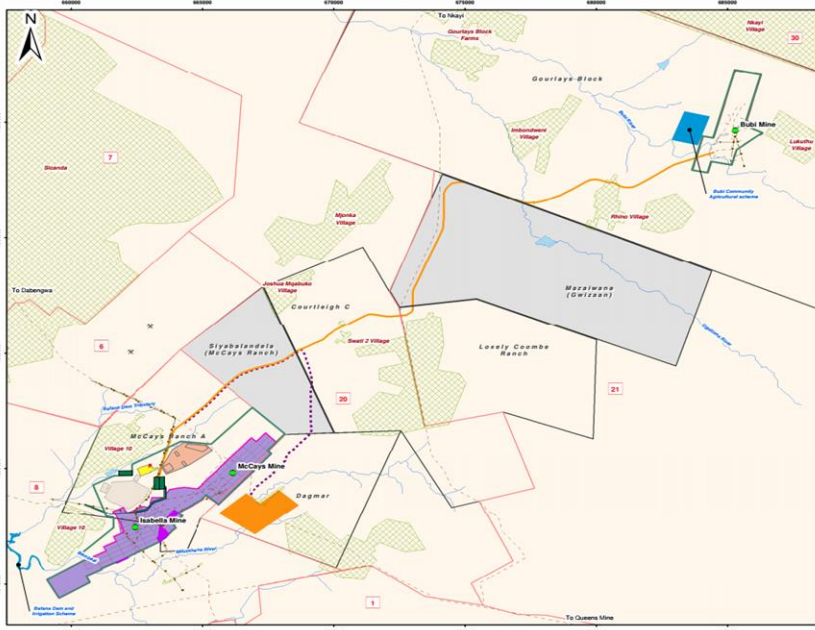


Recent Deals



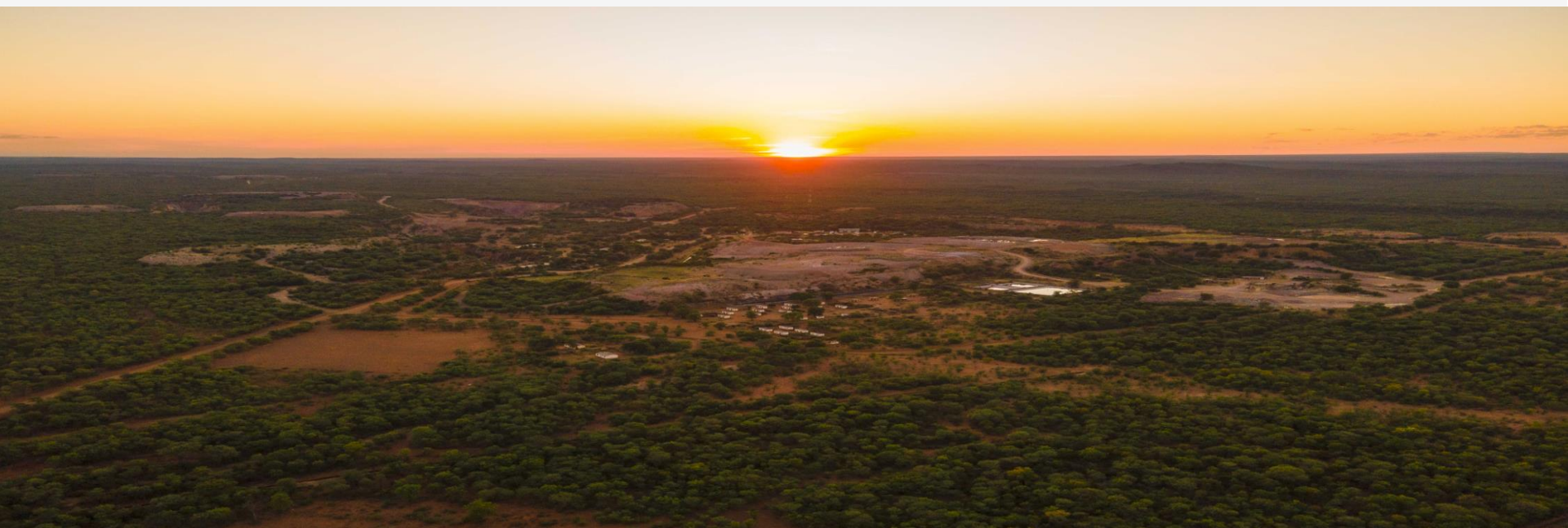
Environmental and Social

- The **Environmental and Social Impact Assessment (ESIA) Study** was completed in 2020 by SLR and GriynOva Environmental Consultancy (in-country partner) for submission to EMA.
- An **Environmental Impact Assessment (EIA) Certificate** was granted by Environmental Management Agency (EMA) in January 2020.



Summary

- Publication of PEA for the single-phase development
- NPV = \$309m (10% discount rate and gold price of \$1,884)
- New feasibility study reflecting the PEA expected to be delivered H1 2025
- Payback period of 1.9 years (based on a gold price of \$1,884)
- Funding solutions being progressed in tandem with completion of the new feasibility study





Q&A