Newcore Gold

NI 43-101 Technical Report, Preliminary Economic Assessment On The Enchi Gold Project, Ghana

5183-GREP-001

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Authors:
Preetham Nayak, P.Eng., Lycopodium Minerals Canada Ltd
Ryda Peung, P.Eng., Lycopodium Minerals Canada Ltd.
Zunedbhai Shaikh, P.Eng., Lycopodium Minerals Canada Ltd.
Kerrine Azougarh, P.Eng., Micon International Limited.
Simon Meadows Smith, P.Eng. / P.Geo., SEMS Exploration.

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DISCLAIMER

1.0 SUMMARY

1.1 Introduction

Newcore Gold Ltd. (Newcore or the Company) commissioned Lycopodium Minerals Canada Ltd. (Lycopodium) to compile a preliminary economic assessment (PEA) of the Enchi Project (Enchi, the Project or Property). The PEA was prepared in accordance with the Canadian disclosure requirements of National Instrument 43-101 (NI 43-101) and in accordance with the requirements of Form 43-101F1.

The responsibilities of the engineering companies who were contracted by Newcore to prepare this report are as follows:

- Lycopodium managed and coordinated the work related to the report and developed PEA-level design and cost estimate for the process plant, general site infrastructure, and economic analysis. Lycopodium also consolidated the metallurgical testwork performed by SGS, Intertek and the University of Mines and Technology in Tarkwa (UMaT) from 2012 to 2023 for investigation of various flowsheet options for the Project.

- Micon International Limited (Micon) designed the open pits based on optimization parameters, developed the mine production schedule, and estimated mining equipment requirements. Micon also reviewed the current permitting status of the Project and reviewed the baseline environmental and social studies undertaken for the Project by Abbakus Geosocial Consult (AGC) in 2023 and Kings Environmental Resource Management Consultancy (KERMC) in 2015.

- SEMS Exploration (SEMS) reviewed the mineral resource estimate for the Project and completed the work related to property description, accessibility, local resources, geological setting, deposit type, exploration work, drilling, sample preparation and analysis, and data verification.

1.2 History

Gold exploration within the Project area dates back to colonial times, with activities completed sporadically and by various individuals and companies.

Alluvial and bedrock gold were prospected and exploited by several generations of galamsey (local artisanal gold miner) workings to the present day. European companies also explored, developed, and mined in several phases dating back to the 1900s. The result is that erratic gold-in-vein quartz mineralization was 'opened up' in a large number of pits, shafts, and drives, notably at the Sewum, Tokosea, Alatakrom, Achimfu, Nkwanta, and Kojina Hill prospects. Only the colonial Sewum and Tokosea mines appear to have any significant development and production history although this is poorly recorded. Most mining activity ceased in the 1940s.

Modern exploration in the form of soil sampling, surface trenching, rotary air blast drilling, reverse circulation (RC) drilling, and diamond core drilling has been completed by various operators, including EQ Resources in the late 1980s, Leo Shield from 1995 to 1998, Red Back from 2003 to 2006, Edgewater from 2011 to 2012, and Newcore (previously known as Pinecrest) from 2014 to present.

1.3 Geology and Mineralization

The Project is located in southwestern Ghana, in a region well known for gold production and one which hosts numerous historical and current operating mines along strike. Located to the southwest of Enchi is the Afema gold project in Cote d'Ivoire (Turaco Gold) and located to the northeast of Enchi are the operating Chirano and Bibiani gold mines (Asante Gold Corporation). In 2021, Ghana became the largest gold producer in Africa and as of 2023 continued to hold that position with approximately 127 tonnes of gold produced (www.gold.org). The Enchi Gold Project covers a 40 km strike length of the Bibiani Shear Zone along the eastern margin of the Sefwi Belt stretching from the Côte d'Ivoire border in the southwest to neighbouring claims to the northeast. The Bibiani Shear is known to host significantly large lode-gold deposits such as Bibiani and Chirano which are operating mines located to the northeast of Enchi.

The Project is situated on the contact between the Sefwi Belt to the west and the Kumasi Basin to the east. The Sefwi Belt is dominated by mafic volcanics, metasediments, and intrusive granitoids. The Kumasi Basin contains wide basins of marine clastic sediments. All the rocks of the region have been extensively metamorphosed to greenschist facies.

Extensive faulting, on local and regional scales, occurs along the margins of the volcanic- sedimentary belts. These northeast-trending structures are fundamentally important in the development of gold deposits in the region. The major shear system within the Project area is located at the boundary of the Sefwi Belt and the Kumasi Basin and is called the Bibiani Shear Zone. Gold deposits are typically located on second or third order structures or splays off the Bibiani Shear.

The Project contains mineralized zones that are characteristic of mesothermal quartz vein-style gold deposits. This type of mineralization is the most important type of gold occurring within West Africa and is commonly referred to as the Ashanti-type.

Mineralization can occur as both sulphide and non-sulphide styles. Sulphide mineralization is characterized by early stage disseminated sulphides of primarily pyrite and/or arsenopyrite, hosting significant gold content, which is overprinted by late-stage quartz veining with minor amounts of visible gold and accessory polymetallic sulphides. Non-sulphide mineralization is characterized by gold not hosted within sulphide minerals, in either the early or later stage- mineralizing event. Extensive oxidation has occurred within the weathered profile throughout the Property.

1.4 Exploration

In addition to drilling, exploration completed on the Property includes line cutting, soil sampling, trenching, auger drilling and drone surveys.

Exploration, consisting of line cutting, soil sampling, trenching, and auger drilling, was completed by Edgewater in 2012–2013 (McCracken, 2014). The principal targets were anomalies generated from airborne geophysical data. The work included both wide-spaced and detailed surveys. Results included anomalous gold in soils, trenches, and auger, which warranted additional follow-up work.

Trenching has been a valuable exploration tool allowing for the definition of gold mineralized structures within the broad gold-in-soil anomalies identified across the Enchi Gold Project. Trenches are sampled by lithology, routinely using 2 m intervals with a minimum interval of 0.5 m. Exploration work at Enchi continues to define near-surface, gold mineralized structures on the Project. Trenching completed in 2021 and 2022 focused on a number of high-priority gold targets that are defined by kilometre-scale gold-in-soil anomalies located across the 248 km^2 Property.

A drone topographic survey was completed in 2022 over the Boin, Sewum, and Nyam Deposits with a total surveyed area of 75.58 km^2. All RC holes, diamond core drillholes and trenches at Boin, Sewum and Nyam were corrected to the drone topographic survey elevations completed in 2022.

1.5 Drilling

A total of 1,573 drillholes and trenches have been completed on the Project for a total of 186,096 m. This includes diamond drilling, reverse circulation (RC) drilling, rotary air blast, and surface trenching. Of the entire dataset, 1,493 drillholes and trenches have been completed within the five Mineral Resource areas.

Newcore completed a large RC and diamond core drill program on 12 May 2022, with that data incorporated into the 2023 Mineral Resource Estimate. A further five diamond core drillholes, for a total of 2,155 metres, were drilled on the Nyam deposit between October 2022 and January 2023 (not included in the 2023 Mineral Resource Estimate).

Industry standard, drilling, logging, and sampling practices were implemented during the various phases.

1.6 Sample Preparation, Analysis and Security

All RC chip samples, diamond drill core samples and trench chip samples were prepared and analyzed at an accredited laboratory.

QA/QC programs in place during the 2012, 2017, and 2020-2023 drilling programs meet industry standard practices.

1.7 Mineral Resource Statement

The 2024 PEA incorporates the Mineral Resource Estimate completed in 2023. The 2023 Mineral Resource Estimate incorporated approximately 34,000 metres of additional infill and resource expansion RC and diamond drilling completed by Newcore between January 2021 and July 2022. The Mineral Resource has an effective date of 25 January 2023, is reported using a constraining resource pit at a gold price of $1,650 per ounce. Indicated Mineral Resource of 743,500 ounces of gold at an average grade of 0.55 g/t Au and totalling 41,736,000 tonnes; and Inferred Mineral Resource of 972,000 ounces of gold at an average grade of 0.65 g/t Au and totalling 46,556,000 tonnes.

Table 1.7.1 Mineral Resource Estimate for the Enchi Gold Project (1)

Zone	Classification	Tonnes	Au Grade (g/t)	Contained Au (oz)
Sewum	Indicated	20,925,000	0.48	323,300
	Inferred	21,798,000	0.53	373,100
Boin	Indicated	13,020,000	0.62	258,200
	Inferred	15,884,000	0.68	349,600
Nyam	Indicated	7,791,000	0.65	162,000
	Inferred	2,681,000	1.21	104,700
Kwak	Inferred	4,244,000	0.72	97,700
Tokosea	Inferred	1,949,000	0.75	46,900
Total Indicated		**41,736,000**	**0.55**	**743,500**
Total Inferred		**46,556,000**	**0.65**	**972,000**

(1) Notes for Mineral Resource Estimate:

1. Canadian Institute of Mining Metallurgy and Petroleum (CIM) definition standards were followed for the resource estimate.
2. The 2023 resource models used ordinary kriging (OK) grade estimation within a three-dimensional block model with mineralized zones defined by wireframed solids and constrained by pits shell for Sewum, Boin and Nyam. Kwakyekrom and Tokosea used Inverse Distance squared (ID^2).
3. Open pit cut-off grades varied from 0.14 g/t to 0.25 g/t Au based on mining and processing costs as well as the recoveries in different weathered material.
4. Heap leach cut-off grade varied from 0.14 g/t to 0.19 g/t in the pit shell and 1.50 g/t for underground based on mining costs, metallurgical recovery, milling costs and G&A costs.
5. CIL cut off grade varied from 0.25 g/t to 0.27 g/t in a pit shell and 1.50 g/t for underground based on mining costs, metallurgical recovery, milling costs and G&A costs.
6. A $1,650/ounce gold price was used to determine the cut-off grade.
7. Metallurgical recoveries have been applied to five individual deposits and in each case three material types (oxide, transition and fresh rock).
8. A density of 2.19 g/cm^3 for oxide, 2.45 g/cm^3 for transition and 2.72 g/cm^3 for fresh rock was applied.
9. Optimization pit slope angles varied based on the rock types.

10. Reasonable mining shapes constrain the deeper mineral resource in close proximity to the pit shell.
11. Mineral Resources that are not mineral reserves do not have economic viability. Numbers may not add due to rounding.
12. The Mineral Resource Estimate is from the technical report titled "Mineral Resource Estimate for the Enchi Gold Project" with an effective date of January 25, 2023, which was prepared for Newcore by Todd McCracken, P. Geo, of BBA E&C Inc. and Simon Meadows Smith, P. Geo, of SEMS Exploration Services Ltd. in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects and is available under Newcore's SEDAR+ profile at www.sedarplus.ca. Todd McCracken and Simon Meadows Smith are independent qualified persons ("QP") as defined by National Instrument 43-101. Simon Meadows Smith, P. Geo, of SEMS Exploration Services Ltd. is responsible for the Mineral Resource Estimate in this NI 43-101 PEA Technical Report.

The 2023 Mineral Resource Estimate was reviewed by SEMS Exploration as part of the PEA. The database used to determine the Mineral Resource Estimate consists of 169,857 metres of diamond drill, RC, rotary-air blast and trenches. The Mineral Resource Estimate is based on the combination of geological modeling, geostatistics and conventional block modeling using the Ordinary Krig methodology of grade interpolation for Sewum, Boin and Nyam. Kwakyekrom and Tokosea used Inverse Distanced squared. The mineral resources were estimated using a block model with parent blocks of 10 m x 10 m x 10 m with sub-blocks to 2.5 m x 2.5 m x 2.5 m. A capping study was made using histograms, probability plots, quantile plots and deciles plots to define the capping values resulting in variable capping values by deposit and zone. The resource includes 5 deposits Sewum, Boin, Nyam, Kwakyekrom and Tokosea, each of which is open along strike and down dip. Numerous additional exploration targets have also been identified outside of the existing resource areas at Enchi that present an opportunity for significant resource growth longer-term across the district scale property.

1.8 Mining Methods

The Enchi Gold project contains several deposits, 5 of which have been evaluated in an open pit mine plan based on conventional truck and shovel mining methods. The deposits with a Mineral Resource Estimate (MRE) that have been assessed are Boin, Sewum, Nyam, Kwakyekrom (Kwak), and Tokosea. A pit optimization analysis was completed for each of the deposits which resulted in 9 open pits with vertical depths ranging from approximately 20 to 200 metres. The open pit parameters utilized for the PEA include 10 metre bench heights, overall slope angles ranging from 28 to 43 degrees for oxide / transition material and 46 to 50 degrees for fresh rock, haul roads / ramp widths of 30 metres at a 10% maximum gradient. Table 1.8.1 presents the subset of mineral resources within the pit shells.

Table 1.8.1 Subset of Mineral Resources Within the PEA and Strip Ratios(1)

Deposit	Tonnes (Mt)	Grade (g/t)	Average Recovery (%)	Gold Produced (oz)(2)	Strip Ratio (t:t)
Sewum	36.6	0.52	82.1%	499,768	1.80:1
Boin	20.8	0.72	81.6%	389,405	3.68:1
Nyam	8.3	0.65	81.5%	141,141	3.21:1

Deposit	Tonnes (Mt)	Grade (g/t)	Average Recovery (%)	Gold Produced (oz)[(2)]	Strip Ratio (t:t)
Kwak	3.1	0.56	80.0%	44,119	2.72:1
Tokosea	1.1	0.79	82.5%	22,119	8.49:1
Enchi Project	**69.8**	**0.60**	**81.8%**	**1,096,553**	**2.67:1**

Note: numbers may not add due to rounding.

(1) Including mining losses of 3% and no mining dilution.

(2) Payable ounces of gold produced.

The mine plan was prepared using pit tonnages and grades exported from Hexagon's Mine Sight 3D (MS3D) mine planning suite. The mine plan resulted in a 9 year mine life which delivers approximately 70 Mt of mineralized material with an average grade of 0.60 g/t Au to the process facility and approximately 186 Mt of waste rock to the storage facilities located near each pit. The LOM plan focuses on achieving consistent feed production rates, mining of the larger deposits (Sewum and Boin) early in the schedule given their proximity to the heap leach facility, and balancing grade and strip ratios. The mine schedule is based on 2, 12-hour shifts, 7 days a week for a total of 360 days per year. Since the mineralization is close to surface, no pre-production waste stripping is required.

Oxide and broken transition material will be free-dug with hydraulic excavators and hauled directly to the sizing and crushing circuit. Competent transition and fresh material will be drilled and blasted. Mining will be completed using local mining contractor services. Newcore will provide supporting technical services and mine management.

1.9 Recovery Methods

Run-of-mine (ROM) material will be fed to the crushing plant using a front-end loader and a local feed bin. Quicklime and cement will be added to the crushed feed for alkalinity control and for improved percolation. The agglomerated crushed feed will be conveyed and stacked onto the leach pad using a series of grasshopper conveyors and a radial stacker. The heap leach pad will be constructed with multiple lifts, allowing the application of cyanide-bearing irrigation solution for approximately 90 days before draining.

Gold-bearing pregnant solution will drain to a pregnant solution pond and be pumped to the ADR process plant. The pregnant solution will undergo processing in six carbon adsorption columns with 18t of carbon capacity each. Loaded carbon will be transported to the desorption (elution) and recovery portion of the ADR process plant for gold extraction. Loaded carbon will be stripped using a hot cyanide-caustic solution in a pressure Zadra elution circuit, and barren carbon will be regenerated in a carbon rotary kiln. Gold sludge from electrowinning will be dried, smelted in a furnace, and poured into gold doré bars.

1.10 Project Infrastructure

The Enchi Gold Project's infrastructure plan outlines vital facilities and systems supporting mining, processing, and construction. The key project infrastructure and processing facility is planned to be located between the Sewum and Boin deposits. The site includes key elements like open mining pits, crushing facilities, heap leach facility (HLF), and a processing plant.

Internal roads connect different areas for smooth movement of material. Important infrastructure includes crushing and feed preparation facilities, HLF, processing plant, security building, assay lab, and maintenance workshops. A gas power station onsite, managed by an Independent Power Producer (IPP), is the chosen power source after careful evaluation of all available alternatives. Water systems involve using borehole water, underground mains for fire water, and treating potable water to local standards. Sewage treatment is done underground with proper disposal. Staff accommodation is planned off-site in rental units available at the nearby town of Enchi.

This plan meets operational needs while considering local conditions and sustainability.

1.11 Environmental, Permitting and Social Considerations

Preliminary baseline environmental and social studies were undertaken for the Project in 2023 by Ghanaian consultants Abbakus Geosocial Consult (AGC) Ltd and in 2015 by Ghanaian consultants Kings Environmental Resource Management Consultancy (KERMC). Site visits undertaken as part of those studies were used to gain a general understanding of field conditions, identify the Project area of influence, and establish the physical, biological, socio-economic and cultural setting.

The preliminary baseline studies did not identify any significant barriers to Project development. A detailed environmental and social impact assessment (ESIA) has not yet been undertaken for the Project and is not yet required. Continued development of the Project will trigger regulatory requirements and processes which may require additional baseline studies, impact assessment, public consultation, in addition to any terms and conditions outlined by the regulatory authorities.

The Project currently comprises 9 Prospecting Licences. Four of the Prospecting Licences (Sewum, Enkye, Nyamebekyere and Yehikwawkrom) expired in 2023, and their extension is pending. Letters from Mincom to the Minister recommending extension had been received for the 4 licences and confirmation letters from the Ministry confirming the 3-year extension would be granted have been received for Enkye and Yehikwawkrom. Extensions for all of the licences are expected. Two of the Prospecting Licenses (Abotia and Omanpe) are valid until April 2026, following confirmation of their renewal in 2023. Three of the Prospecting Licences (Nyame Esa, Nkwanta and Anguzu) are pending initial confirmation.

The Project will be designed to minimize environmental impacts as far as possible and enhance socio-economic opportunities. The main potential risks and impacts identified are related to natural hazards (forest fires, flooding, landslips), air emissions, noise and vibration, water, biodiversity, and heap leach management. Socio-economic impacts will mainly be positive, though it will be important to manage community relations, continue proactive stakeholder engagement, and understand potential legacy issues associated with historic and artisanal mining.

A detailed closure cost estimate has not yet been developed but an indicative amount of $18.4M has been budgeted. Closure objects will be integrated into all activities throughout the life of mine (LOM).

1.12 Capital and Operating Cost Estimate

1.12.1 Capital Cost Estimate

The capital cost estimate conforms to Class 5 guidelines for a preliminary economic assessment level estimate with a +50/-30% accuracy according to the Association for the Advancement of Cost Engineering International (AACE International) standards. The capital cost estimate was developed in Q1 2024 based on Lycopodium's in-house database of projects and studies, experience from similar operations as well as inputs from Micon.

The total initial capital cost for the Enchi Project is $105.8 M and the LOM sustaining cost is $92.4 M. The initial capital cost, LOM sustaining costs and closure capital are summarized in Table 1.12.1.

Table 1.12.1 Summary of Initial Capital, Sustaining and Closure Costs

Description	Initial ($M)	Sustaining ($M)	Closure ($M)	LOM ($M)
Mining Areas & Road Development	$4.2	$4.5	-	$8.7
Heap Leach Facility	$9.9	$14.8	-	$24.7
Earthworks & Pads	$1.6	-	-	$1.6
Mechanical, Equipment & Piping	$39.5	-	-	$39.5
Power, Electrical, Instrumentation	$7.9	-	-	$7.9
Crusher Installation	-	$57.7	-	$57.7
EPCM (Engineering & Procurement)	$9.3	-	-	$9.3
Construction Indirects	$7.8	-	-	$7.8
Owner's Costs	$7.8	-	-	$7.8
Closure Capital	-	-	$18.2	$18.2
Contingency (20.0%)	$17.6	$15.4	-	$33.0
Total Capital Costs	**$105.8**	**$92.4**	**$18.2**	**$216.4**

1.12.2 Operating Cost Estimate

The operating cost estimate conforms to a preliminary economic assessment level estimate with a +50/-30% accuracy. The operating cost estimate was developed in Q1 2024 using data from projects, studies, and previous operations from Lycopodium, Micon, and Newcore. The LOM average unit operating cost is $12.58/t leached including an annual G&A cost of $5.2 M. Table 1.12.2 provides a summary of the operating costs for the Project.

Table 1.12.2 Summary of Operating Cost Estimate

Operating Costs	LOM ($M)	$/tonne Leached	$/oz Au
Mining	$546	$7.83	$498
Processing	$285	$4.09	$260
Mine Site G&A	$47	$0.67	$43
Total Operating Costs	**$878**	**$12.58**	**$801**
Treatment & Refining Charges	$4	$0.06	$4
Royalties	$142	$2.03	$129
Total Cash Costs	**$1,042**	**$14.68**	**$934**
Sustaining Capital [(1)]	$92	$1.32	$84
All-in Sustaining Costs (AISC)	**$1,117**	**$16.00**	**$1,018**

Note: numbers may not add due to rounding
[(1)] Sustaining capital excludes closure cost

1.13 Economic Analysis

The economic analysis was performed assuming a 5% discount rate typical for gold projects. Cash flows have been discounted to the start of construction, assuming that the project execution decision will be made, and major project financing will be carried out at this time.

The pre-tax NPV discounted at 5% is $586M, with a pre-tax IRR of 77% and payback period of 1.4 years. On an after-tax basis, the NPV discounted at 5% is $371M, with an after-tax IRR of 58%, and payback period of 1.6 years. Cumulative after-tax unlevered free cash flow totals $506M. Tax calculations are based on Newcore’s understanding of current Ghana tax regulations as of the effective date of this report.

Readers are cautioned that the PEA 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 PEA will be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

A summary of the project economics is listed in Table 1.13.1, and after-tax free cash flow is shown graphically in Figure 1.13.1.

Table 1.13.1 Economic Analysis Summary

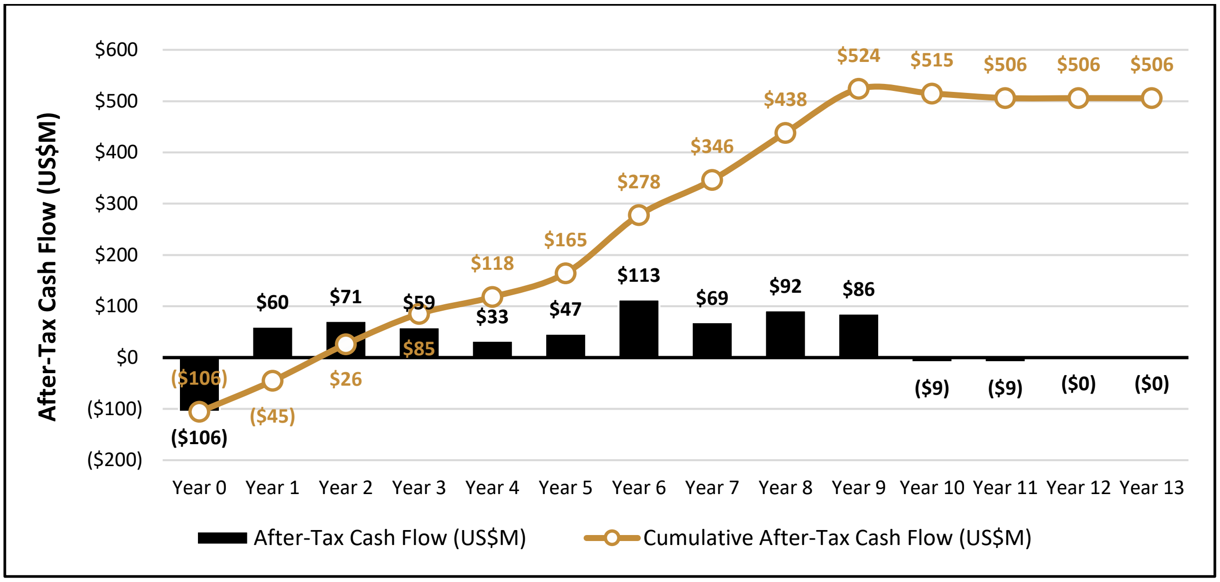
Key Assumptions	
Base Case Gold Price	$1,850/oz
Production Profile	
Total Tonnes Processed (mt)	69.8
Total Tonnes Waste (mt)	186.1
Strip Ratio	2.67
Heap Leach Feed Grade	0.60 g/t Au
Mine Life	9 years
Throughput (Mtpa)	8.1
Gold Recovery	81.8%
LOM Payable Gold Production (ozs Au)	1,096,553
LOM Average Annual Gold Production (ozs Au)	121,839
Peak Gold Production (ozs Au)	155,188
Unit Operating Costs	
LOM Average Operating Cost (1)	$801/oz gold
LOM Average Cash Cost (2)	$934/oz gold
LOM AISC (Cash Cost plus Sustaining Cost) (3)	$1,018/oz gold
Capital Costs	
Initial Capital Cost	$106 million
LOM Sustaining Capital Cost	$92 million
Closure Cost	$18 million

(1) Cash costs consist of mining costs, processing costs, and mine-site G&A.

(2) Cash Costs consist of operating costs plus treatment and refining charges, and royalties.

(3) AISC consists of cash costs plus sustaining capital (excluding closure costs and taxes.)

Figure 1.13.1 After-Tax Project Unlevered Free Cashflow



1.14 Interpretations and Conclusions

The Mineral Resources currently defined for the Enchi Gold Project consist of an Indicated Mineral Resource of 743,500 ounces of gold (41.7 million tonnes at an average grade of 0.55 g/t gold) and an Inferred Mineral Resource of 972,000 ounces of gold (46.5 million tonnes at an average grade of 0.65 g/t gold). The PEA provides a base case assessment for developing the Enchi mineral resource by conventional open pit mining methods, and gold recovery using a standard crushing circuit and heap leach processing.

Readers are cautioned that the PEA 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 PEA will be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

Highlights of the PEA include:

- At a gold price of $1,850/oz: $586M pre-tax $NPV_{5\%}$ and a 77% pre-tax IRR with a 1.4-year payback; $371M after-tax $NPV_{5\%}$ and a 58% after-tax IRR with a 1.6-year payback.
- At a gold price of $2,350/oz: $987M pre-tax $NPV_{5\%}$ and a 127% pre-tax IRR with a 0.8-year payback; $632M after-tax $NPV_{5\%}$ and a 92% after-tax IRR with a 1.1-year payback.
- Average annual gold production of 121,839 oz over LOM, with peak production of 155,188 oz in year 6.

- 1.1M oz of gold recovered over a 9-year LOM.
- Average LOM operating costs estimated at $801/oz, cash costs estimated at $934/oz, and all-in sustaining costs estimated at $1,018/oz gold.
- Initial capital expenditure of $106M (including a 20% contingency), sustaining capital expenditure of $92M.
- Mill capacity of 8.1 Mt per annum with average gold recovery of 81.8%.
- The PEA supports a decision to advance the Project and carry out additional detailed studies.

1.15 Recommendations

The results presented in this technical report demonstrate that the Enchi Gold Project is technically and economically viable. It is recommended to continue advancing the development of the Project towards a construction decision. Table 1.15.1 summarizes the proposed budget to advance the Project through the pre-feasibility stage.

Table 1.15.1 Proposed Pre-Feasibility Study Budget Summary

Description	Cost (USD)
Drilling (RC Infill)	$3,215,000
Labour & Support Costs	$200,000
Access & Compensation	$200,000
Community & Stakeholder Engagement	$200,000
Metallurgical Testwork Program	$200,000
Hydrogeological & Geotechnical Study	$100,000
Geology Model Update & Report	$200,000
Geotechnical Design Support	$80,000
PFS Mining & Processing Design	$760,000
Final Report & Economic Model	$120,000
Total	**$5,275,000**

It is recommended that additional work be completed on the Project with the goal of advancing to a Pre-feasibility Study. Work should include geotechnical investigations aimed at further defining the optimal pit slopes, geochemical analyses providing additional data on the characteristics of both oxidized and fresh material, hydrogeological work to be used to define the site water balance, and further studies required to advance the Project.

Continued metallurgical investigations are recommended to further advance the understanding of the comminution and recovery values for the mineralized material.

Further drilling is required to convert additional inferred ounces into the indicated category for inclusion in the Pre-feasibility Study.

Additional environmental studies are recommended to improve understanding of baseline conditions and potential risks.

Maintain community and stakeholder engagement including ensuring the safety and security of employees, contractors, and neighboring communities.

2.0 INTRODUCTION

This report was prepared and compiled by the QPs under employment contract with Lycopodium Mineral Canada Ltd. (Lycopodium), Micon International Limited (Micon) and SEMS Exploration Services Limited (SEMS) at the request of Newcore Gold Ltd. (Newcore or the Company). The purpose of this report is to provide a technical report of the Enchi Gold Project (Enchi, the Project or the Property) in accordance with the guidelines of the Canadian Securities Administrators National Instrument 43-101 (NI 43-101) and Form 43-101 F1.

2.1 Purpose of Report

The purpose of this report is to publish a technical report on the Enchi Gold Project summarizing the geology, past exploration activities, Mineral Resource Estimate, and preliminary economic assessment completed on the Property.

2.2 Terms of Reference

Newcore engaged the services of the authors on 3 November 2023 to write an independent NI 43-101 Technical Report on the Enchi Property in Ghana.

This report was prepared in accordance with NI 43-101 and Form NI 43-101F1.

2.3 Newcore Gold Ltd.

Newcore's corporate offices are located at 200 Burrard St., Suite 1560, Vancouver, British Columbia, V6C 3L6, Canada. Newcore is a public company listed on the TSX Venture Exchange (TSX-V: NCAU) and also trades on the OTCQX® in the United States (OTCQX: NCAUF).

Newcore and its subsidiaries engage principally in the advancement and development of its Enchi Gold Project in southwest Ghana.

2.4 Qualification of Consultants

The consultants preparing this technical report are specialists in the fields of geology, mining, mineral processing and mine infrastructure.

The consultants or any associates employed in the preparation of this report have no beneficial interest in Newcore. The consultants are not insiders, associates, or affiliates of Newcore. The results of this technical report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Newcore and the consultants. The consultants were paid a fee for the services in accordance with normal professional consulting practice.

2.5 Report Responsibility and Qualified Persons

The following individuals, by virtue of their education, experience, and professional association, are considered Qualified Persons (QPs) as defined in the NI 43-101 and are members in good standing of appropriate professional institutions.

- Preetham Nayak, P.Eng., Lycopodium Minerals Canada Ltd.
- Ryda Peung, P.Eng., Lycopodium Minerals Canada Ltd.
- Zunedbhai Shaikh, P.Eng., Lycopodium Minerals Canada Ltd.
- Kerrine Azougarh, P.Eng., Micon International Limited.
- Simon Meadows Smith, P.Eng. / P.Geo., SEMS Exploration.

The preceding QPs have contributed to the writing of this Report and have provided QP certificates, included at the beginning of this Report. The information contained in the certificates outlines the sections in this Report for which each QP is responsible. Each QP has also contributed figures, tables, and portions of Chapters 1 (Summary), 2, (Introduction), 3 (Reliance on other Experts), 21 (Capital and Operating Costs), 25 (Interpretation and Conclusions), 26 (Recommendations), and 27 (References). Table 2.5.1 outlines the responsibilities for the various sections of the Report and the name of the corresponding Qualified Person.

Table 2.5.1 Qualified Persons and Areas of Report Responsibility

Chapter	Description	Qualified Person	Company	Comments and Exceptions
1.	Summary	P. Nayak	Lycopodium	1.1, 1.2, 1.12.1, 1.13, 1.14, 1.15
		R. Peung	Lycopodium	1.9, 1.12.2
		Z. Shaikh	Lycopodium	1.10,
		K. Azougarh	Micon	1.8, 1.11
		S. Smith	SEMS	1.3-1.7

Chapter	Description	Qualified Person	Company	Comments and Exceptions
2.	Introduction	P. Nayak	Lycopodium	All QPs contributed based on their respective scope of work and the Chapters / Sections under their responsibility.
3.	Reliance on other Experts	P. Nayak	Lycopodium	All QPs contributed based on their respective scope of work and the Chapters / Sections under their responsibility.
4.	Project Property Description and Location	P. Nayak	Lycopodium	All Chapter 4
5.	Accessibility, Climate, Local Resource, Infrastructure and Physiography	P. Nayak	Lycopodium	All Chapter 5
6.	History	P. Nayak	Lycopodium	All Chapter 6
7.	Geological Setting and Mineralization	S. Smith	SEMS	All Chapter 7
8.	Deposit Types	S. Smith	SEMS	All Chapter 8
9.	Exploration	S. Smith	SEMS	All Chapter 9
10.	Drilling	S. Smith	SEMS	All Chapter 10
11.	Sample Preparation, Analyzes and Security	S. Smith	SEMS	All Chapter 11
12.	Data Verification	S. Smith	SEMS	All Chapter 12
13.	Mineral Processing and Metallurgical Testing	R. Peung	Lycopodium	All Chapter 13
14.	Mineral Resource Estimate	S. Smith	SEMS	All Chapter 14
15.	Mineral Reserve Estimate	S. Smith	SEMS	All Chapter 15
16.	Mining Methods	K. Azougarh	Micon	All Chapter 16
17.	Recovery Methods	R. Peung	Lycopodium	All Chapter 17
18.	Project Infrastructure	Z. Shaikh	Lycopodium	All Chapter 18
19.	Market Studies and Contracts	P. Nayak	Lycopodium	All Chapter 19
20.	Environmental Studies, Permitting, and Social or Community Impact	K. Azougarh	Micon	All Chapter 20
21.	Capital and Operating Costs	P. Nayak	Lycopodium	21.1, 21.2.1-21.2.4, 21.2.6-21.2.12
		K. Azougarh	Micon	21.2.5, 21.3.2,
		R. Peung	Lycopodium	21.3.1, 21.3.3, 21.3.4
22.	Economic Analysis	P. Nayak	Lycopodium	All Chapter 22
23.	Adjacent Properties	S. Smith	SEMS	All Chapter 23

Chapter	Description	Qualified Person	Company	Comments and Exceptions
24.	Other Relevant Data and Information	P. Nayak	Lycopodium	All Chapter 24
25.	Interpretation and Conclusions	P. Nayak	Lycopodium	25.1, 25.8, 25.10 - 25.12
		R. Peung	Lycopodium	25.2, 25.5, 25.9
		Z. Shaikh	Lycopodium	25.6
		K. Azougarh	Micon	25.4, 25.7
		S. Smith	SEMS	25.3
26.	Recommendations	P. Nayak	Lycopodium	26.1, 26.5
		R. Peung	Lycopodium	26.3
		K. Azougarh	Micon	26.2, 26.4
27.	References	P. Nayak	Lycopodium	All Chapter 27

2.6 Site Visit

Ms. Kerrine Azougarh, P. Eng., is a qualified person (QP) and co-author of this report. Ms. Azougarh visited the Property for 3 days from 29 January to 1 February 2024. Ms. Azougarh was accompanied by Dan Wilson, Newcore's Country Manager.

Mr. Simon Meadows Smith, Fellow of the Institute of Materials, Minerals and Mining (FIMMM) with registration number: 49627 of SEMS Exploration Services Ltd is a QP and co-author of this report. Mr. Meadows Smith is a professional geologist with over 30 years of experience in mineral exploration. Mr. Meadows Smith visited the Property on 1 December 2022. For the site visit, Mr. Meadows Smith was accompanied by Joe Amanor also of SEMS Exploration Services as well as Greg Smith, Newcore's VP Exploration, Dan Wilson, Newcore's Country Manager and Anthony Asare, Newcore's senior geologist.

Mr. Preetham Nayak, P.Eng., Ryda Peung, P.Eng., and Zunedbhai Shaikh, P.Eng., QPs in this report, did not visit the Property that is the subject of this technical report.

2.7 Effective Date and Declaration

The issue date of this report is 07 June 2024. The effective date of the technical report is 24 April 2024.

As of the date of this report, the authors are not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented herein, or which the omission to disclose could make this report misleading.

2.8 Currency, Units of Measure, and Calculations

Unless otherwise specified or noted, the units used in this report are metric. Every effort has been made to clearly display the appropriate units being used throughout the report.

- Coordinates within this report use WGS 84 UTM Zone 30N, unless otherwise stated.
- Currency is in United States dollars (US$ or $), unless otherwise noted.
- All ounce units are reported in troy ounces, unless otherwise stated: 1 oz (troy) = 31.1035 g.

This report includes technical information that required subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QPs consider them immaterial.

2.9 Acknowledgement

The Project benefited from the specific input of Greg Smith, P. Geo., Branden Fraser, P.Eng., Luke Alexander, Danny Lee, and Mal Karwowska of Newcore.

3.0 RELIANCE ON OTHER EXPERTS

3.1 Introduction

The QPs have relied upon the following other expert reports, which provided information regarding mineral rights, surface rights, property agreements, royalties, environmental, permitting, social licence, closure, taxation, and marketing for sections of this Report.

3.2 Property Agreements, Mineral Tenure, Surface Rights and Royalties

The QPs have not independently reviewed ownership of the project area and any underlying property agreements, mineral tenure, surface rights, or royalties. The QPs have fully relied upon, and disclaim responsibility for, information derived from Newcore used in Section 1.2, Section 4 of the report. Property agreement, mineral tenure, surface rights, and royalty information is also used in the economic analysis (Section 22).

3.3 Environmental, Permitting and Social Considerations

The QPs have relied upon Becky Humphrey, M.Sc., MIMMM, for matters pertaining to environment, permitting, and social impact (Section 20). The QPs believe that it is reasonable to rely on this expert, based on the assumption that the expert has the necessary education, professional designations, and relevant experience on matters relevant to the technical report.

3.4 Taxation

The QPs have fully relied upon, and disclaim responsibility for, information supplied by Newcore related to taxation as applied to the financial model, as received by email titled Newcore - 2024 PEA Cashflow Model for Final Sign-Off from Newcore on 18 April 2024. This information is used in the economic analysis (Section 22).

3.5 Markets

The QPs have fully relied upon, and disclaim responsibility for, information derived from Newcore for use in Section 19 of the Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Project comprises nine prospecting licences, totaling 248 km^2 located in the Enchi and Aowin Suaman Districts, in the southwestern region of Ghana.

The Project covers a 40 km strike length of the eastern margin of the Sefwi Belt stretching from the Côte d'Ivoire border in the southwest to neighbouring claims to the northeast. The Project is located 290 km west of the capital of Accra and 50 km southwest of the Chirano Mine operated by Asante Gold Corporation (Figure 4.2.1). The Project is centered on 5°47’ North latitude and 2°42’ West longitude. The town of Enchi is located 10 kilometres to the west of the Project.

4.2 Mineral Disposition

The nine licences that make up the Project are summarized in Table 4.2.1 and are also displayed in Figure 4.2.1. Lease boundaries are defined by a list of latitude and longitude coordinates of the corners (pillar points) submitted to the Minerals Commission (Mincom). The boundaries are not physically marked on the ground and have not been surveyed by Newcore.

Nyame Esa, Anguzu and Nkwanta are licence applications and are required to proceed through the full application process. These licences were submitted in 2019. The application process for a prospecting licence, which is required for drilling and excavation work, is as follows:

- Application submitted to Mincom.
- Mincom completes paperwork and checks maps.
- Mincom generates a letter that is sent to the local authorities and is posted for 3 weeks; this provides an opportunity for objections to the licence application.
- Local authorities write back to Mincom if no objections are presented.
- Application proceeds to a technical committee for review.
- Upon technical committee approval, the licence is prepared and sent to the Mincom Minister for signature.

The entire process typically takes 2 years or more to complete. Once an application is submitted, work under the licence is allowed to proceed.

Sewum, Enkye, Nyam, and Yehikwawkrom are subject to licence renewal. The renewal process is similar to the application process indicated above yet does not require approval of the district and community. The applications for renewal were submitted in November 2019 and approved 31 May 2020; the licences were in good standing until 31 May 2023 with further renewals submitted 21 February 2023 and extensions for all licences expected. The time frame for extending the licences is variable depending on how busy Mincom is and can take as little as 6 months to as long as 2 years. As of the date of this technical report, letters from Mincom to the Minister recommending extension had been received for the 4 licences and confirmation letters from the Ministry confirming the 3 year extension would be granted have been received for Enkye and Yehikwawkrom. Extensions for all of the licences are expected. The Omanpe and Abotia Licences have been extended for 3 years until April 2026.

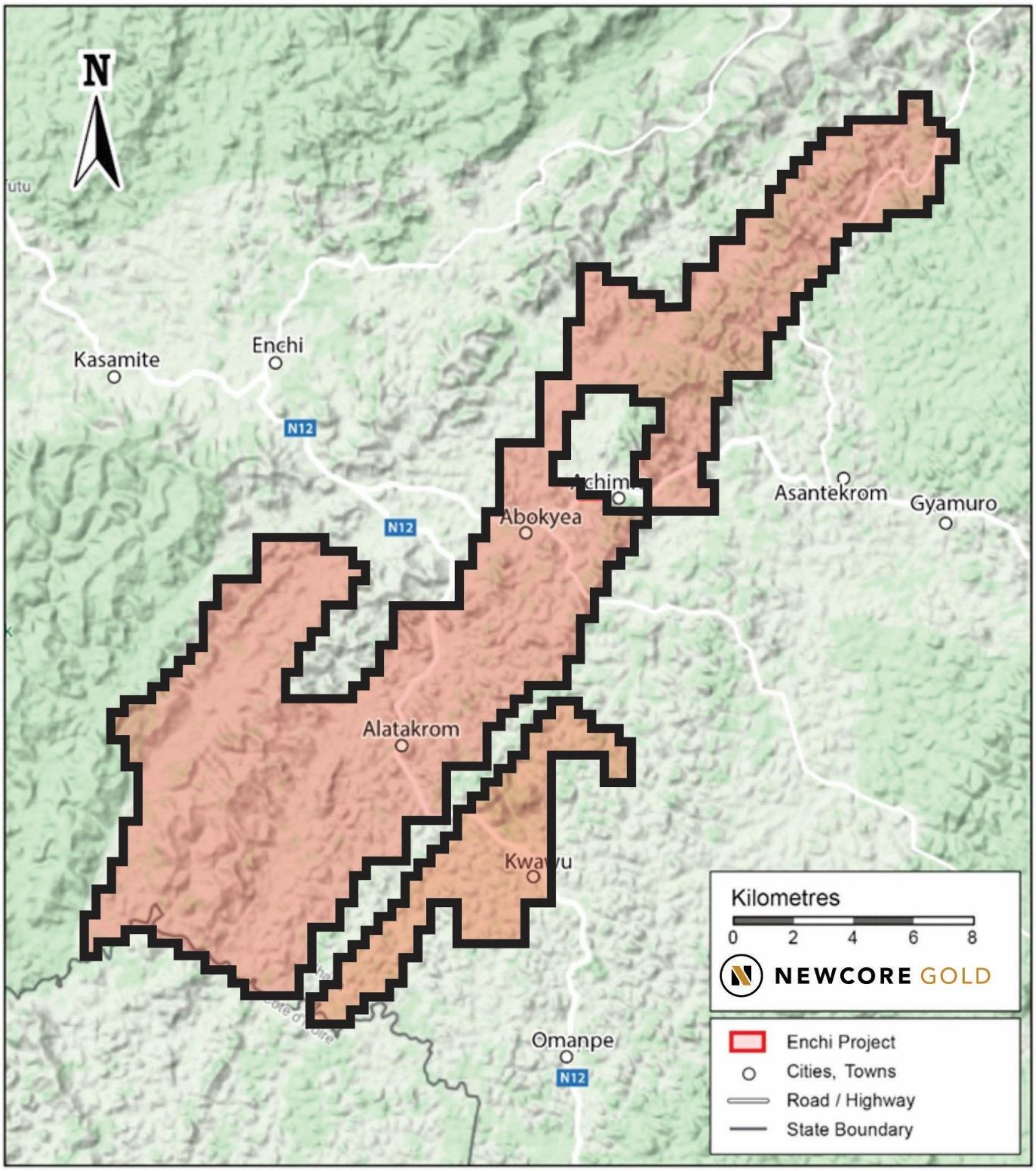
During the renewal process, the licences are not subject to a reduction in land size.

Figure 4.2.1 Location Map (Smith, 2024)

Table 4.2.1 List of Project Licences

Name	Type	Number	Area (Km^2)	Current Holding Company	Status
Sewum	PL	PL 2/424	32.55	Cape Coast Resources Ltd.	50% shed off completed. All maps and application for 3-year extension submitted 03 November 2019. Licence extended to 31 May 2023. Letter from Mincom to Minister recommending extension to 2026 received
Enkye	PL	PL 2/404	34.65	Cape Coast Resources Ltd.	50% shed off completed. All maps and application for 3-year extension submitted 03 November 2019. Licence extended to 31 May 2023. Letter from Mincom to Minister recommending extension to 2026 received. Mineral Commission has forwarded recommendation for extension to Minister for signature. Confirmation letter from Minister approving extension received.
Nyamebekyere	PL	PL 2/406	35.91	Cape Coast Resources Ltd.	50% shed off completed. All maps and application for 3-year extension submitted 03 November 2019. Licence extended to 31 May 2023. Letter from Mincom to Minister recommending extension to 2026 received
Yehikwawkrom	PL	PL 2/405	29.82	Cape Coast Resources Ltd.	50% shed off completed. All maps and application for 3-year extension submitted 03 November 2019. Licence extended to 31 May 2023. Letter from Mincom to Minister recommending extension to 2026 received. Mineral Commission has forwarded recommendation for extension to Minister for signature. Confirmation letter from Minister approving extension received.
Abotia	PL	PL 2/119	25.83	Cape Coast Resources Ltd.	Application for 3-year extension submitted 03 November 2019. Renewal letter confirming 3-year extension received on 11 April 2023 with extension to 2026.
Ompane	PL	PL 2/436	32.13	Cape Coast Resources Ltd.	50% shed off completed. Application for 3-year extension submitted 03 November 2019. Renewal letter confirming 3-year extension received on 11 April 2023 with extension to 2026.
Nyame Esa	PL	not assigned	24.36	Boin Resources Limited	Re-application for portion of 50% shed off from Nyamebekyere PL by BRL. Resubmission of maps after corrections. Documents Gazetted in the Mineral Rights Application Bulletin.
Anguzu	PL	not assigned	1.89	Boin Resources Limited	Re-application for portion of 50% shed off from Nyamebekyere PL by BRL. Resubmission of maps after corrections. Documents Gazetted in theMineral Rights Application Bulletin.
Nkwanta	PL	not assigned	30.87	Boin Resources Limited	Re-application for the 50% shed off from Sewum PL by BRL. Documents Gazetted in the Mineral Rights Application Bulletin.

Figure 4.2.2 Enchi Licence Map



4.3 Tenure Rights

Edgewater Exploration Ltd (Edgewater) executed a definitive Option Agreement dated 5 May 2010 that outlined the terms of an Option-Joint Venture agreement with Red Back, whereby Edgewater at the time could earn a 51% interest in Red Back's ownership interest in the Project.

In order to earn the 51% interest, Edgewater had to spend a total of CAD$5.0 M on work expenditures on the Project within 26 months, including CAD$2.0 M in the first 14 months. Edgewater would be the operator of the Option-Joint Venture agreement and would continue to be the operator of the Joint Venture as long as Edgewater held the larger equity interest in the Joint Venture.

On 17 September 2010, Kinross announced that it had successfully completed the transaction to acquire all outstanding shares of Red Back for CAD$7.1B, and that Red Back would become a wholly owned subsidiary of Kinross.

On 22 May 2012, Edgewater announced that it had completed the earn-in requirements of the 2010 Option Agreement with Kinross. As a result, Edgewater held a 51% interest in the Enchi Gold Project and a joint venture company was to be formed.

On 22 May 2014, Newcore (at the time named Pinecrest Resources Ltd.) announced that it had entered into an agreement to earn 100% interest of the Project from Kinross and Edgewater. The terms of the transaction were as follows.

For Newcore to acquire Kinross' 49% interest:

- Red Back to receive 19.9% of the issued and outstanding common shares of Newcore post closing of the transaction.
- Red Back to retain a 2% net smelter return (NSR) royalty on production from the Project with Newcore retaining the right at any time to buy back 50% (1%) of the NSR for $3.5 million. Newcore's buyback option was subsequently transferred to Sandstorm Gold Ltd. in 2014 while Kinross also sold its 2% NSR to Maverix Metals (now Triple Flag Precious Metals) in 2019.
- Red Back to receive a payment of $10 per ounce of gold on any new NI 43-101 Measured and Indicated Resource estimate included in a Feasibility Study, or any ounce of gold mined, whichever occurs first. Such amount would be payable in cash or, at Newcore's sole discretion, common shares of Newcore provided that, Newcore shall not be entitled to elect to pay in common shares if such issuance would result in Red Back holding more than 20% of the issued and outstanding shares of Newcore.
- Red Back to have first right to process material from the Project at its Chirano Mill if toll processing is considered.

- Red Back to receive 5,000,000 share purchase warrants priced at CAD$0.40 per warrant exercisable for a 5 year term from closing of the transaction. Subsequently expired unexercised.

For Newcore to acquire Edgewater's 51% interest:

- Upon closing of the transaction, Edgewater to receive one Newcore post-consolidated common share (the 'Acquisition Shares') for every 5 common shares of Edgewater issued and outstanding on the closing, which represented approximately 40% of the issued common shares of Newcore post-closing of the transaction.

- Edgewater was to agree to distribute the Acquisition Shares pro-rata to its shareholders as soon as reasonably practicable after the closing of the transaction.

- Newcore was to pay to Edgewater a cash payment of CAD$150,000.

On 5 December 2014, Newcore announced that it had completed the acquisition of a 100% interest in the Enchi Gold Project from Edgewater Exploration Ltd. and Red Back Mining Ghana Limited, an indirect wholly-owned subsidiary of Kinross Gold Corporation at the time. The Government of Ghana is entitled to a 10% free carried interest in the Project.

On 6 August 2020, the company officially announced a company name change from Pinecrest Resources Ltd. to Newcore Gold Ltd.

4.4 Royalties and Related Information

A 2% net smelter returns royalty (NSR) on production from the Project is held by Triple Flag Precious Metals Corp. (with 1% subject to a buy-back option for a lump sum payment of $3.5 million at any time held by Sandstorm Gold Ltd.).

A 5% royalty on revenues is due to the Government of Ghana (calculated based on the international market value of gold) on the revenues from gold production on the Property covered by the exploitation permit.

4.5 Environmental Liabilities

The QP is not aware of any known environmental liabilities on the Property. Newcore is not responsible for small-scale artisanal and alluvial mining that has occurred across the Property and Newcore has good relations with the local communities.

4.6 Permits

All required permits for conducting exploration on the licences have been granted or have been applied for and are awaiting government approval.

4.7 Other Relevant Factors

In areas where there is no existing surface holder, Newcore is not required to pay any compensation or fees. In areas where there is an established surface holder, Newcore is required to pay compensation when properties are disturbed, in most cases this is related to the disturbance of crops during establishment of access for exploration activities.

The risk to the Project would come in the form of the licence applications being denied by Mincom and work needing to be halted although this is not anticipated. Recommendations from Mincom to the minister responsible for extension of the licences covering the mineral resources have been received. Extensions for other areas have been completed and have been extended until 2026.

There are no other significant risk factors which could affect access, title, or the right or ability to perform work. Newcore has completed successive and extensive exploration programs covering the majority of the licences over the last 10 years.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Site Topography, Elevation and Vegetation

The Project area is primarily drained by the Tano River and its tributaries, which flow generally in an easterly direction. Much of the Project area comprises steep topography incised by river tributaries with scattered flat plateaus with an average height of about 300 masl.

A portion of the Project area is covered by subsistence farmland. The main food crops grown locally are cocoa, plantain, maize, cocoyam, cassava, and rice (Figure 5.1.1).

Figure 5.1.1 Cocoa Plantation (Newcore, 2021)

The northern part of the Project lies adjacent to forest reserves, and is covered by tall, primary, semi deciduous rain forest (Figure 5.1.2). Most of this area, which does not form a part of the Project, is reserved for commercial timber production.

Figure 5.1.2 Local Landscape

5.2 Access

The Project is located in the southwestern region of Ghana and is accessed from Accra on sealed roads via the regional port city of Sekondi (Takoradi) or the mining centre of Kumasi. From either of these centres, access to the town of Enchi (population of 11,737), the capital of Aowin-Suaman district, is available by paved road (Elubo-Enchi Road or the Asankragua-Enchi Road). Access through the remainder of the Project area is by dirt and gravel roads (Figure 5.2.1).

Accra has daily international flights to and from Europe, the US, and various African locations. Domestic flight services are available with scheduled flights between Accra and Kumasi, which is located 170 km northeast of the Project. There is no known scheduled air service to the Project area.

Figure 5.2.1 Project Access Map (Smith, 2024)

5.3 Climate

The Aowin District, within which the Project is based, is situated in the Wet Semi Equatorial Climatic Zone. The climate is typically warm and humid with a mean-monthly temperature of 27°C. There are 2 rainy seasons: the major rainy season from May to July, and a shorter rainy season from September to October. The district receives an annual rainfall of between 1,500 and 1,800 mm. During the dry season, predominately December to March, Harmattan winds (dry hot continental fronts from the Sahara) blow over the country resulting in drier warm days and cool nights.

Rainfall data is based on historic government measurements from a weather station located in Enchi and has been confirmed by regional weather station and on-site rainfall measurements from three Newcore rainfall stations at each of the Sewum, Boin, and Nyam Deposits. Standards and guidelines have been applied to the design of the Enchi HLF specifically to take into account the management of the anticipated rainfall.

Distribution of the rainfall at Enchi, as detailed in the recently completed Baseline Study, is such that the higher rainfall months are April to July and September to October, with no month that is excessively higher than average. The overall effect of the rainfall is mitigated by the evaporation rates which are particularly high such that for seven months evaporation exceeds the average rainfall. Annual evaporation in the Enchi area exceeds the annual average rainfall.

Exploration and mining operation can be conducted on the Project year-round.

5.4 Infrastructure

The Project area has limited to moderate infrastructure. A paved highway crosses the central portion of the Project leading to the town of Enchi. The remainder of the Project is serviced by a series of dirt and gravel roads. The district capital of Enchi is located 10 km west of the Project.

Access to the project site is by an existing gravel road that connects the village of Sewum and Alatakrom. The national highway N-12 passes through the village of Alatkrom which is located north-east of the project site. The nearest seaport, Takoradi, is 205 km southeast of the Property by way of the N1 and N12 paved highways. Accra, the capital of Ghana and the main point of entry by sea or air, is 427 km east of the Project by road.

The town of Enchi includes most services including available accommodations, hospital, gas stations, and stores for local supplies, food, etc.

The area has a fixed telephone line and mobile phone service tower. Mobile cell service exists over much of the Project area.

The town of Enchi is located 77 km north of the substation at Elubo, serviced by a 225 kV line, and 122 km southwest of the substation at Asawinso, serviced by a 161 kV line. Ghana’s eight thermal plants have a total generation capacity of 1,684 MW; three of these plants are located 200 km southeast of Enchi in the coastal city of Takoradi. These plants operate on light crude oil or natural gas sourced from Ghanaian producers.

Genser Energy operates four natural gas pipelines totalling 430 km. The pipelines feed power plants containing gas turbines which are built and operated by Genser Energy. Genser Energy currently operates power plants at five separate mines within Ghana. One of these mines include the Chirano Gold Mine, owned by Asante Gold Corporation which is located 50 km northeast of the Project.

Fuel, accommodations, food, and most supplies can be obtained in the town of Enchi. Potable water must either be trucked into the area or supplied through water wells. The region has a long history of mining, and there is a large population base of skilled and unskilled labour to draw upon for exploration and development programs.

Modern seaports at Takoradi and Tema are located 207 km and 447 km southeast of the Project respectively and have been used for the implementation and construction of several gold mines in recent years.

6.0 HISTORY

6.1 History

The exploration activities in the entire Project area date back to colonial times, with activities completed sporadically and by various individuals and companies.

Alluvial and reef gold were prospected and exploited by several generations of galamsey (local artisanal gold miner) workings to the present day. European companies explored, developed, and mined in several phases since 1900. The result is that erratic gold in vein quartz mineralization was 'opened up' in a large number of pits, shafts, and drives, notably at the Sewum, Tokosea, Alatakrom, Achimfu, Nkwanta, and Kojina Hill prospects. Only the colonial Sewum and Tokosea mines appear to have any significant development and production history although this is poorly recorded. Since the 1940s, mining activities have continued in the area on a very limited scale.

Table 6.1.1 summarizes the exploration activities that have taken place within the boundaries of the Project as currently held by Newcore. Due to the scattered nature of the work and the various licence holders, the QP cautions that the history may not be complete. Most of the information prior to 2010 was derived from reports and digital data acquired from EQ Resources, Leo Shield Exploration Ghana NL (Leo Shield), Mutual Ghana Ltd. (Mutual), and Kinross. Trenching and drilling procedures and results are disclosed in Chapter 9 and Chapter 10, respectively. Metallurgical test work is disclosed in Chapter 13.

The extensive work completed by the previous landholders has resulted in the identification of at least 15 gold-bearing prospects. A summary of the results for each prospect is provided in Chapter 7.

Table 6.1.1 Project History

Year	Company	Activities
1987	EQ Resources	• 2,837 soil samples on a 100 m x 25 m spaced grid.
1993	Mt. Edon	• 3,260 soil samples on a 6 km by 3 km, followed by a 100 m x 25 m spaced grid. • 250 rock chip and float samples.
1994-1997	Mutual	• Spot imagery • Helicopter magnetic and electromagnetics on 100 m spaced lines. • Fix wing magnetic and radiometric on 200 m spaced lines. • 2,837 soil samples on 100 m by 25 m grid spacing. • 2,257 soil samples on 200 m x 40 m grid spacing. • 34 trenches totalling 2,396 m. • Six diamond drillholes totalling 464 m. • RC drill program totalling 1,202 m.

Year	Company	Activities
1995-1998	Leo Shield	• 14,470 soil samples in 400 m by 50 m grid. • 89 trenches totalling 10,240 m. • Audit sampling at Kojina Hill and Achimfu. • Stream sediment sampling (76 pits). • 121 RC holes totalling 7,621 m. • 49 RAB holes totalling 2,028 m.
2003	Red Back	• Assess historical data.
2004	Red Back	• 237 regional stream sediment samples. • 16,728 soil samples. • 148 rock chip samples.
2005	Red Back	• 695 soil samples. • 69 trenches totalling 5,750 m. • 102 RAB holes totalling 5,261 m. • 80 RC holes totalling 9,715 m.
2006	Red Back	• Ground magnetic survey. • IP survey. • 2,221 soil samples. • 38 trenches totalling 3,564 m. • 217 RAB holes totalling 7,182 m. • 73 RC holes totalling 7,403 m.
2011	Edgewater	• 9,441 soil samples over 461-line km. • Twelve trenches at Nyam totalling 396 m. • Three trenches at Sewum totalling 781 m. • Eight trenches at Boin totalling 359 m. • Seven trenches at Eradi totalling 1,294 m. • VTEM / magnetic / radiometric survey totaling 3,084-line km. • 182 diamond drillholes and 13 RC holes totalling 23,697 m. • Resource estimation completed on Boin, Sewum and Nyam.
2012	Edgewater	• Completion of 25 RC holes totalling 4,058 m. • Bottle roll tests. • Soil and rock sampling, auger drilling, and trenching.
2014	Pinecrest	• Completed acquisition of the Project from Edgewater and Kinross.
2015	Pinecrest	• Completion of a PEA.
2017	Pinecrest	• Completion of 28 RC holes totalling 3,406 m.

Year	Company	Activities
2020	Newcore	• Company changes name from Pinecrest Resource to Newcore. • 10 RC holes at Sewum totalling 1,375 m. • 26 RC holes at Boin totalling 4,269 m. • 1 DDH at Boin totalling 361 m. • 8 RC holes at Nyam totalling 1,030 m. • 9 RC holes at Kwakyekrom totalling 1,080 m. • 3 trenches at Sewum South totalling 234 m. • Resource estimation completed on Boin, Sewum and Nyam. • Bottle roll tests.
2021	Newcore	• 121 RC holes at Boin totalling 18,177 m. • 17 DDH holes at Boin totalling 4,535 m. • 93 RC holes at Sewum totalling 13,506 m. • 15 DDH holes at Sewum totalling 4,791 m. • 84 RC holes at Nyam totalling 12,799 m. • 12 DDH holes at Nyam totalling 4,258 m. • 59 RC holes at Kwakyekrom totalling 9,714 m. • 2 DDH holes at Kwakyekrom totalling 640 m. • 23 RC holes at Tokosea totalling 2,524 m. • 5 RC holes at Kojina Hill totalling 670 m. • 14 DDH holes at Eradi totalling 2,190 m. • 15 trenches at Sewum South totalling 3,500 m. • 6 trenches at Nkwanta totalling 1,411 m. • 2 trenches at Nyam totalling 26 m. • 1 trench at Eradi totalling 48 m. • Bottle roll and column tests. • Resource estimation on Boin, Sewum, Nyam and Kwakyekrom. • Completion of an updated PEA.

Year	Company	Activities
2022	Newcore	• 7 RC holes at Boin totalling 932 m. • 59 RC holes at Tokosea totalling 7,714 m. • 6 trenches at Nkwanta totalling 1,021 m. • 12 trenches at Kojina Hill totalling 2,125 m. • 8 trenches at Adjeikrom totalling 1,852 m. • 2 trenches at Tokosea totalling 74 m. • Density measurements; oxide, transition, and fresh. • Structural geology review. • Bottle roll and column tests. • Drone Topographic survey over Boin, Sewum, and Nyam. • Updated Mineral Resource Estimate. • Updated Resource Estimate.
2023	Newcore	• 5 DDH holes at Nyam totalling 2155 m. • Trenches at Nkwanta, Agyeikrom, and Tokosea. • Metallurgical trenches at Nyam, Boin, and Sewum. • Density measurements; oxide, transition, and fresh. • Sulphide Metallurgical testing Nyam and Sewum. • Bottle roll and column tests. • Pilot Heap Test (UMaT). • Updated Mineral Resource Estimate.

Resource estimations were previously completed on the Project in 2012, 2014, 2020 and 2021. The resources are considered historic and Newcore is not treating the resource statements in Table 6.1.2 as current. The changes in the resource statements are attributed to additional drilling, the application of lower cut-off grades based on adjustments to the operating costs and a higher gold selling price. The resource statements in 2012 and 2014 were not pit constrained and hence are not disclosed.

Table 6.1.2 Historic Resource Statements

Zone	Cut-off (g/t)	Tonnes	Grade Au (g/t)	Contained Gold (ounces)
2020 (McCracken and Smith, 2020)				
Sewum	0.3	27,600,000	0.60	535,800
Boin		19,837,000	0.84	533,000
Nyam		5,489,000	0.88	155,000
Total		**52,926,000**	**0.72**	**1,223,800**

Zone	Cut-off (g/t)	Tonnes	Grade Au (g/t)	Contained Gold (ounces)
2021 (McCracken et. al., 2021)				
Sewum	**0.2**	41,009,000	0.55	725,200
Boin		21,807,000	0.72	504,800
Nyam		4,892,000	0.82	129,000
Kwakyekrom		2,703,000	0.64	55,600
Total		**70,411,000**	**0.62**	**1,414,600**

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Enchi concession is located within southwest Ghana and straddles the boundary between the Sefwi Volcanic Belt to the west and the Kumasi Sedimentary Basin to the east. The Sefwi Belt and Kumasi Basin are comprised predominantly of Birimian-age rocks (2.17 to 2.18 Ga) (Davis et al., 1994) (Figure 7.1.1).

The Sefwi Belt is dominated by mafic volcanics, metasediments, and intrusive granitoids that are sandwiched between sedimentary basins (Sunyani Basin to the west and the Kumasi Basin to the east). The Sefwi Belt is traceable for 260 kilometres along strike and is usually 30 to 60 km wide. The metavolcanic and metasedimentary sequences are believed to be contemporaneous, with the sediment deposited in basins eroded from the adjacent volcanic terrains (Asiedu et al., 2004).

The Kumasi Basin is characterized by wide sequences of marine clastic sediments (quartzite, conglomerates, and phyllites). Both the Birimian sediments and volcanics have been extensively metamorphosed to greenschist facies, locally to amphibolite facies. The boundary between the volcanic belts and basins can be gradational yet, is typically faulted with the faults most likely representing basin margin growth faults along which basin subsidence occurred (Hirdes and Leube, 1989).

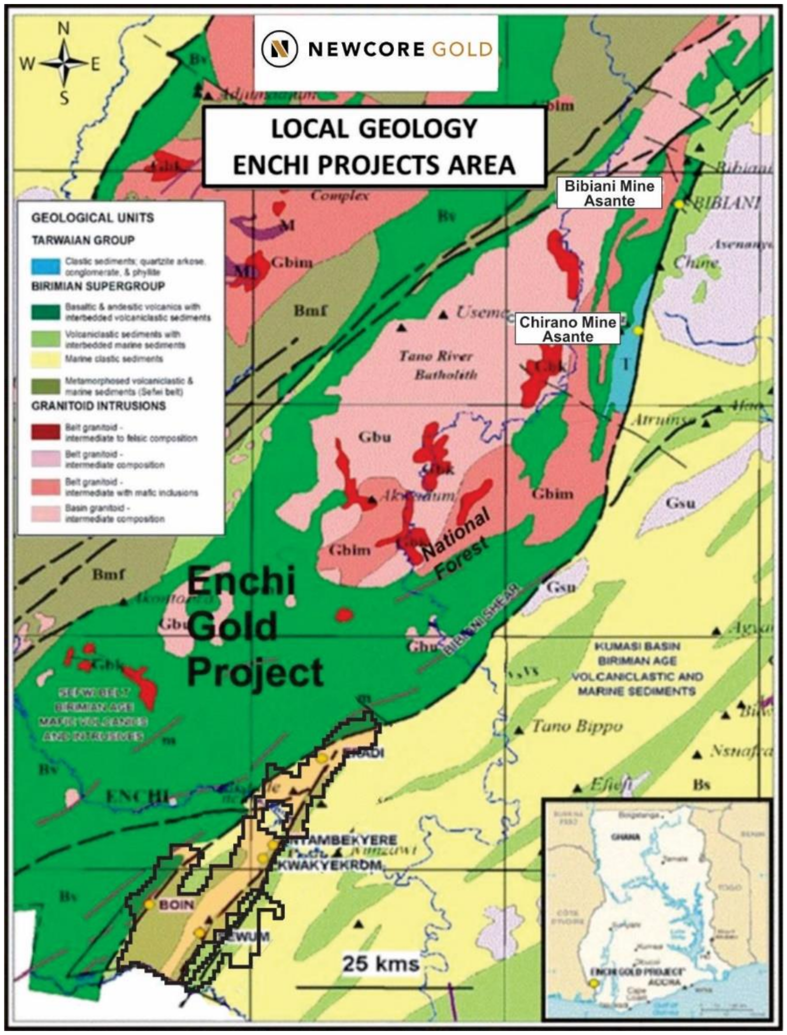
Granitoid intrusions are common within the belt and basin terrains and can be divided into two types: Belt Type (Dixcove) and Basin Type (Cape Coast) granitoids. Belt type granitoids (2,180 Ma) range from tonalite to granodiorite in composition and are confined to the metavolcanic belts. Basin granitoids (approximately 2,116 to 2,088 Ma) are mainly granodiorite in character and contain more potassium and rubidium relative to the belt granitoids and are concentrated in the central portions of the Birimian metasedimentary basins (Hirdes and Leube, 1989).

Extensive faulting occurs along the margins of the volcanic-sediment belts. Observed at local and regional scales, these northeast-trending structures are fundamentally important in the development of gold deposits for the region. The major shear system within the Enchi concession at the boundary of the Sefwi Belt and Kumasi Basin is termed the Bibiani Shear Zone. Gold deposits are located in third-order structures that splay-off the second-order structures and are sub-parallel to the overall trend of the Bibiani Shear Zone. The Bibiani Shear Zone has been traced for 40 km on the Project area. Major structures within the Project are named from west to east, the Bibiani Shear (BS), the West Sewum Shear (WSS), and the Nyam Shear (NS).

The Obuasi-Enchi lineament, a major east-west crustal scale feature, deflects the Bibiani Shear Zone at the north end of the Property in the vicinity of the Eradi gold prospect. This lineament is associated with the major Ashanti and Akyem gold deposits in the Ashanti Belt, 100 to 200 km to the east.

Multiple tectonic events have affected virtually all Birimian rocks. The dominant event is compressional folding and thrusting from the Eburnean Orogeny (2.1 to 2.2 Ga) (Schofield, 2006; Eisenlohr, 1989).

Figure 7.1.1 Regional Geology (Modified from Davie etal, 1994)



7.2 Project Geology

The Project covers 40 km of the belt-basin contact on the east side of the Sefwi Volcanic Belt, north of the Côte d'Ivoire border. The contact is marked by a major fault known as the Bibiani Shear Zone, which also hosts the Chirano and Bibiani gold mines located 50 km and 70 km respectively north of the Enchi licences (Figure 7.2.1).

The Project is characterized by variably degraded laterite to residual soil profiles with minor caps of indurated ferro-duricrust across the main hilltops. Rock outcrops are rare due to the thick tropical weathering and jungle cover. Most rock exposures are found in road cuttings and by trenching.

Numerous other major faults splay off the Bibiani Shear Zone and pass through the licence area, such as the Boin Fault, Sewum Fault, and Nyam Fault. Many gold deposits in the Enchi District are localized along or adjacent to these structures.

The regional scale shears are believed to have been originally formed as thrusts during northwest-southeast compression with later movements dominated by left-lateral strike slip shearing (Griffis, 2002).

The principal rock types found on the Project are defined below:

- Volcanics (MB): massive, very fine-grained, without texture, weathered white to brown, to deep pink and red, igneous rock generally evident as un-deformed rafts, fault-bound, within foliated and sheared volcaniclastics and pelitic sediments.

- Volcaniclastics (SVC): hanging wall, fine to medium-grained, lithic to crystal volcaniclastic wacke, with a characteristic porous, spongy, honeycombed texture. It weathers to light pink and is variably graphitized and foliated to sheared, proximal to the late faults.

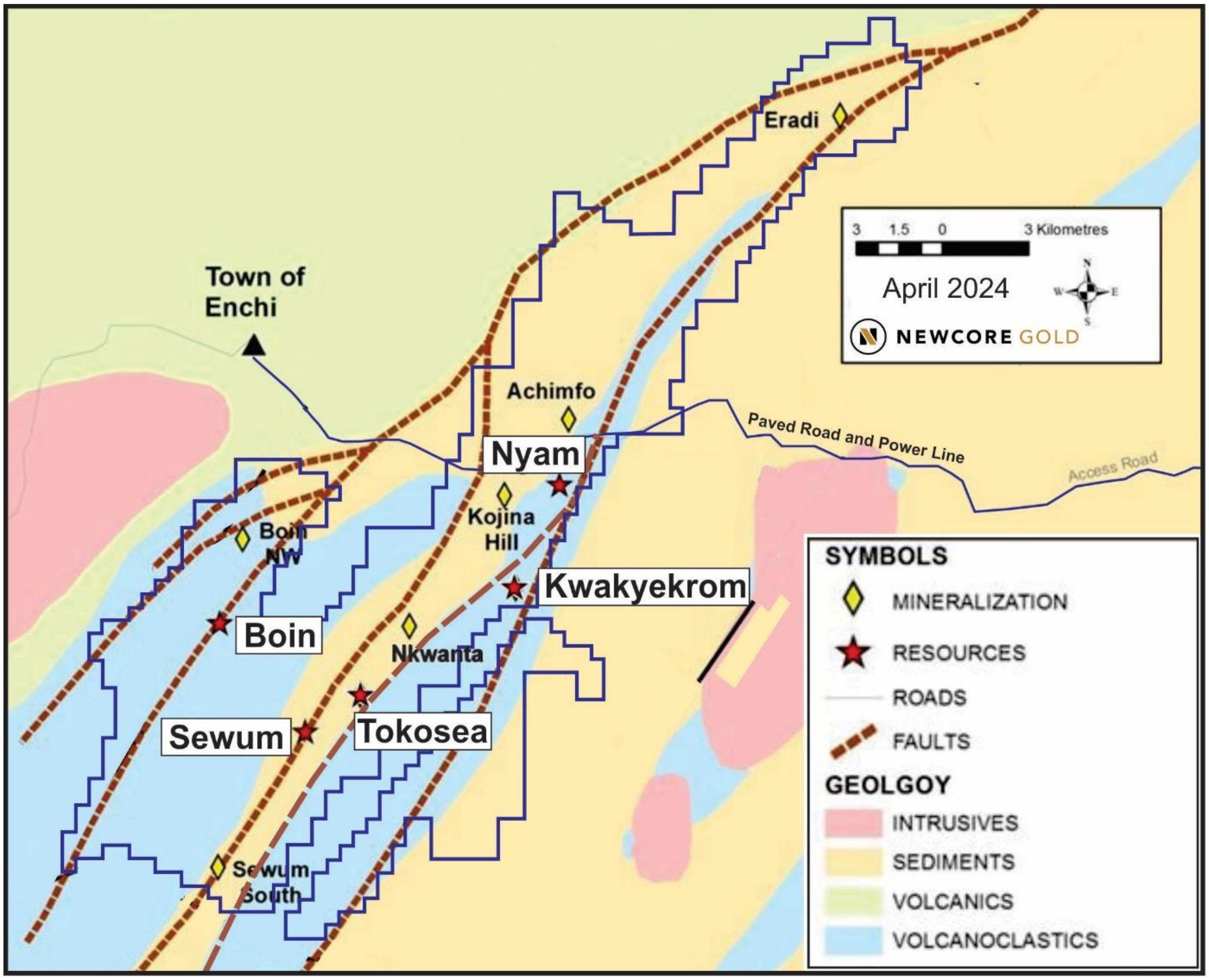
- Turbidites (SPH): footwall, metre-thick, cyclically bedded, turbidite sequence of graded, fine to medium-grained, grey to black, phyllitic pelite-psammite beds. The finer pelite horizons are more preferentially strained and the coarser units are more preferentially fractured.

- Graphitic Phyllites (SPG): black, very fine to fine-grained carbonaceous and graphitic altered phyllites and schists. Each of the host rock-types may be preferentially graphitized ±silicified and sheared proximal to the reactivating faults and shears, becoming increasingly assimilated to SPG. Within and proximal to the main SPG deformation zones, texture was the main discriminating feature used to distinguish and map the SVC-SPH contact.

- Quartz Veins (QV): massive 0.5 to 5 m wide, white to smoky, blue polyphase quartz veins variably faulted and graphitized and mineralized. The major quartz zones represent the main hanging wall deformation zone developed as a result of the progressive movement along the basal contact shear zone.

- Basic, Intermediate and Felsic Dykes and Sills: coarse-grained granodiorite to diorite and finer grained equivalent andesites to dolerites have been logged. The felsic and intermediate dykes tend to be layered parallel, altered, and structurally deformed within the surrounding host volcanics and sediments. The dolerites are generally much later, crosscutting. They were traditionally mapped as post-deformational, though they are often crosscut and displaced by late reactivation. There is evidence for multiple generations of dolerites through to post-Cretaceous times.

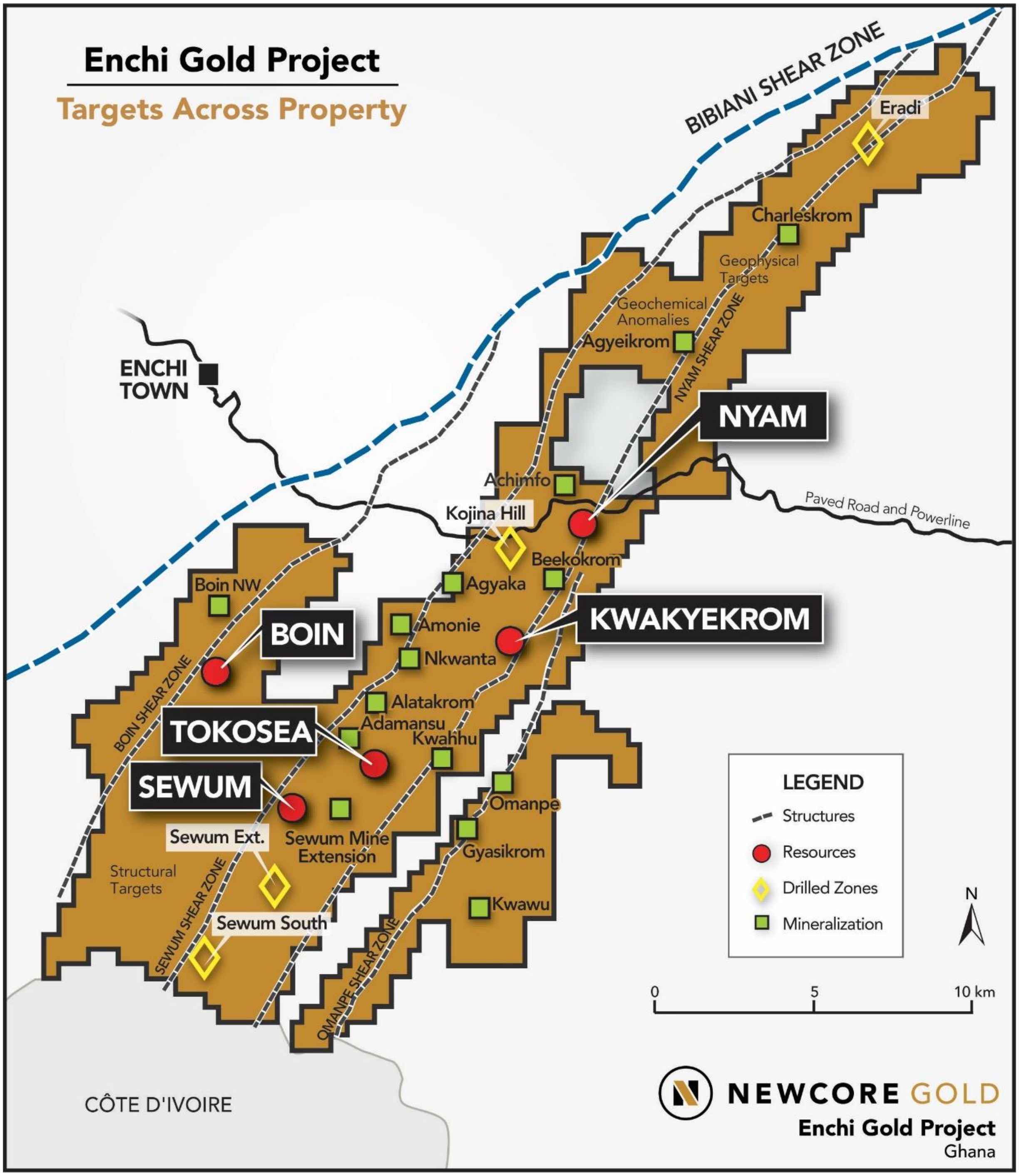
Figure 7.2.1 Project Geology



7.3 Mineralization

Fifteen advanced gold zones or prospects have been identified on the Project to date. The locations of the zones are illustrated in Figure 7.3.1.

Figure 7.3.1 Mineral Zones (Newcore, 2023)



7.3.1 Sewum

The Sewum and Sewum South prospects are found along the eastern contact of a thrust-bounded volcanic sliver, outcropping 6 km to the east of the Boin Zone on the NS. The gold mineralization is associated with late D2 to D4 deformation phases. It is structurally controlled within, and adjacent to, late graphitic faults focused on the margins of poly-phase quartz veins within faults. The veins developed along the axial planes of hinges and limbs of earlier hanging wall D3 drag folds ± intrusives.

The Sewum Gold Prospects form a continuous 40 km strike length of prospects from Sewum South northeast through Kojina Hill and the Nyam Zone up to the Eradi Zone in the north.

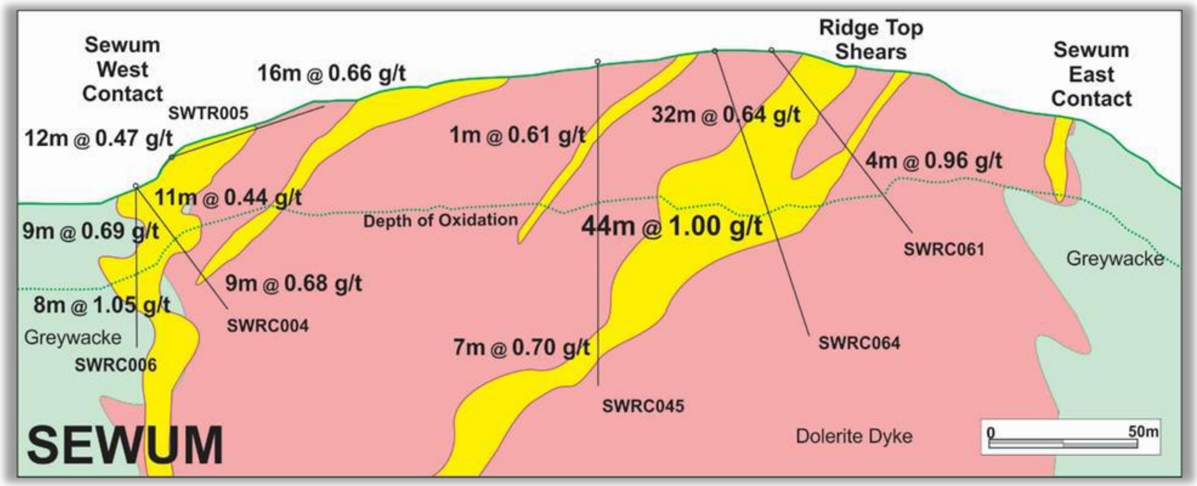
The main relief of Sewum Hill is characterized by a relict indurated, duricrust, or ferricrete plateau along the main hilltop, degraded breakaways forming the slope crests and variably mixed and transported upper-slope soils progressing into residual mid- and lower-slope soils. The duricrust mantle is geochemically subdued and potentially ferricrete bearing. Various surrounding hilltops have similar remnant duricrust caps and should be evaluated with care to understand and develop the regolith model for the region. Sewum Hill has a very significant deep weathering profile.

The Sewum setting differs, however, in the scale of shear zones as compared to those expressed at Boin and has proportionally more volcanic igneous rocks and late-stage, intrusive intermediate and felsic dykes or sills.

The Sewum prospects are situated along several major thrust zones that crop out across the regional 3 km wide north-south corridor, south of Tokosea. The structures comprise (west to east) (Figure 7.3.2):

- Road Zone (SRZ).
- Hilltop Shears (SHS).
- Main Contact Zone (MCZ).
- Sewum Zone (SWZ).
- Sewum-Tokosea Mine Trend (SETO).

Figure 7.3.2 Sewum General Section (Newcore, 2023)



The host rocks at Sewum include interbedded carbonaceous siltstone and sandstone (turbidite). The sediments have been regionally deformed to greenschist facies, are steeply dipping, and typically strike north-northeast (30º) parallel to the regional structural grain. A steeply dipping dolerite dyke 3 km long and up to 500 m wide has been intersected in the drilling and acts as an important host to gold mineralization in the Sewum area.

Three styles of mineralization have been identified at Sewum:

- Quartz – sericite – carbonate replacement of sheared dolerite and sediment localized along moderately (40°) dipping shears hosted within dolerite, e.g., Sewum Ridge Top Shears Zone (SRTSZ).

- Brecciated and stockworked sediment and dolerite developed at the margin of the dolerite dyke and replaced and in-filled by quartz-sericite ankerite and minor sulphides, e.g., Checkerboard Hill, East Contact Zone (ECZ), and West Contact Zone (WCZ).

- Minor disseminated arsenopyrite associated with quartz veining and silicification in sheared sediment, e.g., Sewum Shear Zone.

The Sewum Shear Zone represents a major regional structure that can be traced within Ghana for 25 km south from where the shear branches off the Bibiani Shear Zone and continues across the Ghana border into Côte d'Ivoire. The shear has a complex anastomosing geometry with numerous splays and has played a major role in localizing gold mineralization in the Sewum area (e.g., Sewum and Tokosea goldmines currently operating small-scale mines).

Striking north-northeast, the Sewum Shear is typically vertical to steep west dipping and can be up to 100 m wide. Mylonitic fabric has been observed within the shear zone in places. Gold mineralization within the Sewum Shear is related to a phase of quartz veining with associated arsenopyrite.

Mineralization is discontinuous and appears to be related to an early phase of quartz veining that has been brecciated by later movement along the Sewum Shear.

The dolerite dyke at Sewum has acted as a solid 'node' with the bulk of the regional scale deformation absorbed by the surrounding host fine-grained carbonaceous sediment. Branches of the Sewum Shear have anastomosed around the dolerite dyke and in places mark the contact.

One of the most significant zones of continuous gold mineralization identified in drilling at Sewum is the Ridge Top Shears Zone (RTSZ), related to a series of close-spaced moderately dipping shears up to 20 m thick hosted within the dolerite dyke.

The relationship of these shears with the Sewum Shear Zone is unclear but they are most likely temporally related. The shears within the dolerite may be thrust faults or faults that link between the steep shears that anastomose around the dolerite dyke.

The dolerite intrusive has not been faulted into place as along the dyke's west margin features typical of intrusive contacts such as frictional 'intrusive breccia', hornfelsing of adjacent sediment and chilled margins within the intrusive have been observed. The age of the dolerite dyke is not certain. However, the partially sheared east contact, spatial relationship with gold mineralization and some drill core features indicative of soft sediment deformation at the intrusive contact, indicate the intrusive was probably emplaced during the Eburnean Orogeny similar to most other mafic intrusives in the region. It is also possible the dyke may have been intruded as a sill along bedding planes and later tilted vertical during region deformation along with the host sediment.

The size and composition of the intrusive at Sewum are more akin to the 'belt' style intrusives than the 'basin' style intrusives which tend to be larger, coarser grained, and felsic in composition (Griffis, et al. 2002).

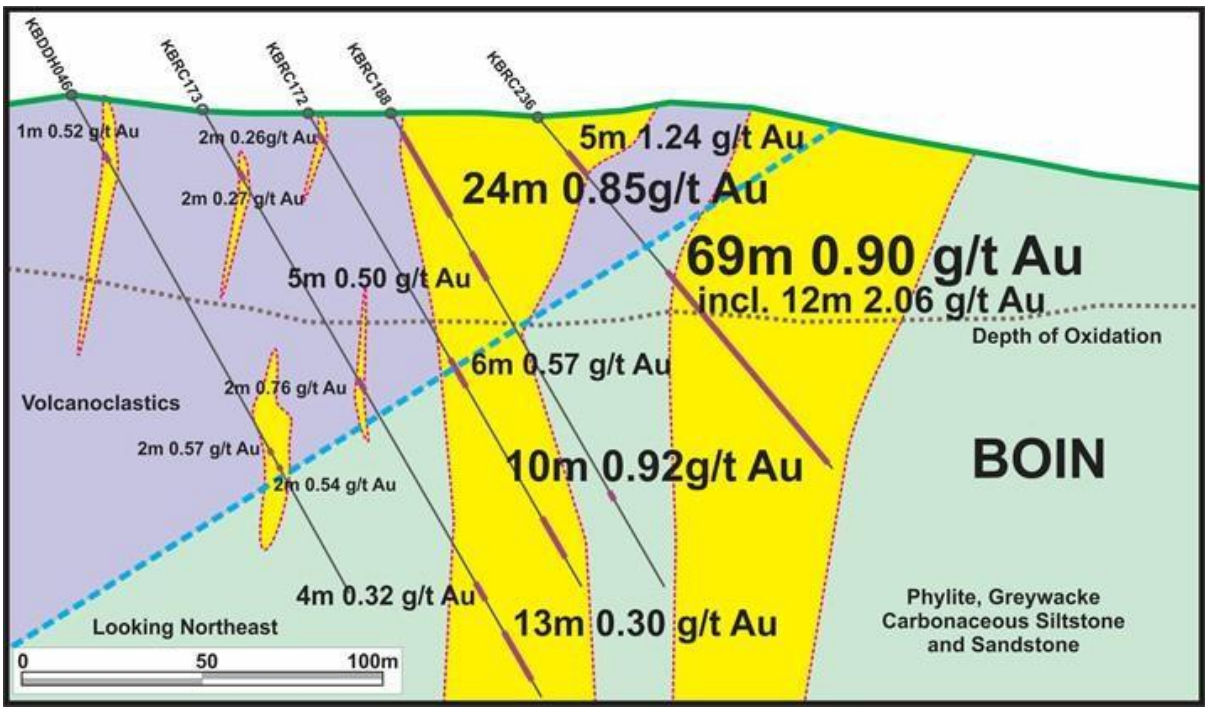
The presence of the dolerite body within the Sewum Shear Zone is significant in that the intrusive represents a more competent rock type compared to the surrounding sediment and is more likely to deform in a brittle manner during faulting and deformation, potentially making a better (more permeable) host to mineralization similar to the Chirano Gold Mine (brecciated granite host).

Mineralized breccia and stockworking are commonly found along the margin of the dolerite dyke (ECZ and WCZ). The breccia is composed of angular clasts of siltstone and dolerite in a clast support fabric cemented by quartz, carbonate, and minor pyrite. The breccia texture indicates very little milling and mixing of fragments have occurred and was formed by hydraulic fracturing, probably in response to fault movement near the intrusive contact.

7.3.2 Boin

The Boin Shear Zone is one of a number of major structures that splay off the Bibiani Shear and pass through the Project. The Boin Shear Zone is interpreted as a thrust fault, dipping moderately west and is responsible for the development of the zone of mineralized quartz veins at Boin. 11 kilometres of the Boin Shear Zone has been drill-tested at shallow depths over regular intervals across the structure. A generalized section is shown in Figure 7.3.3.

Figure 7.3.3 Boin General Section (Newcore, 2023)



The Boin Shear Zone is formed adjacent to this major second order, west-dipping, thrust contact between mafic volcanic ±volcaniclastic sediments which overthrust turbidites to the east. The whole contact is expressed as a 10 to 30 m wide graphitic shear zone, which trends 025° to 040° and dips west 30° to 70°. The Boin thrust is an early, regionally second order splay or replication off the main basin-boundary contact further to the west. Multiple sets of crosscutting fabrics, veins, and faults have been recorded within the core and trench logging. The gold is mostly found in the hanging wall quartz zone and is characterized by massive 20 to 30 m wide zones of intensive quartz veining cut and fractured by late, graphitic faults.

There are multiple generations of pyrite developed within the Boin structures. The early, barren, non-auriferous pyrite tends to be intense, well formed, coarse, and cubic. The later, possibly remobilized, auriferous pyrite tends to form as fine to very fine, disseminated cubic crystals within graphitic fault margins, or amorphous ribbons, rims, or coatings within quartz veins.

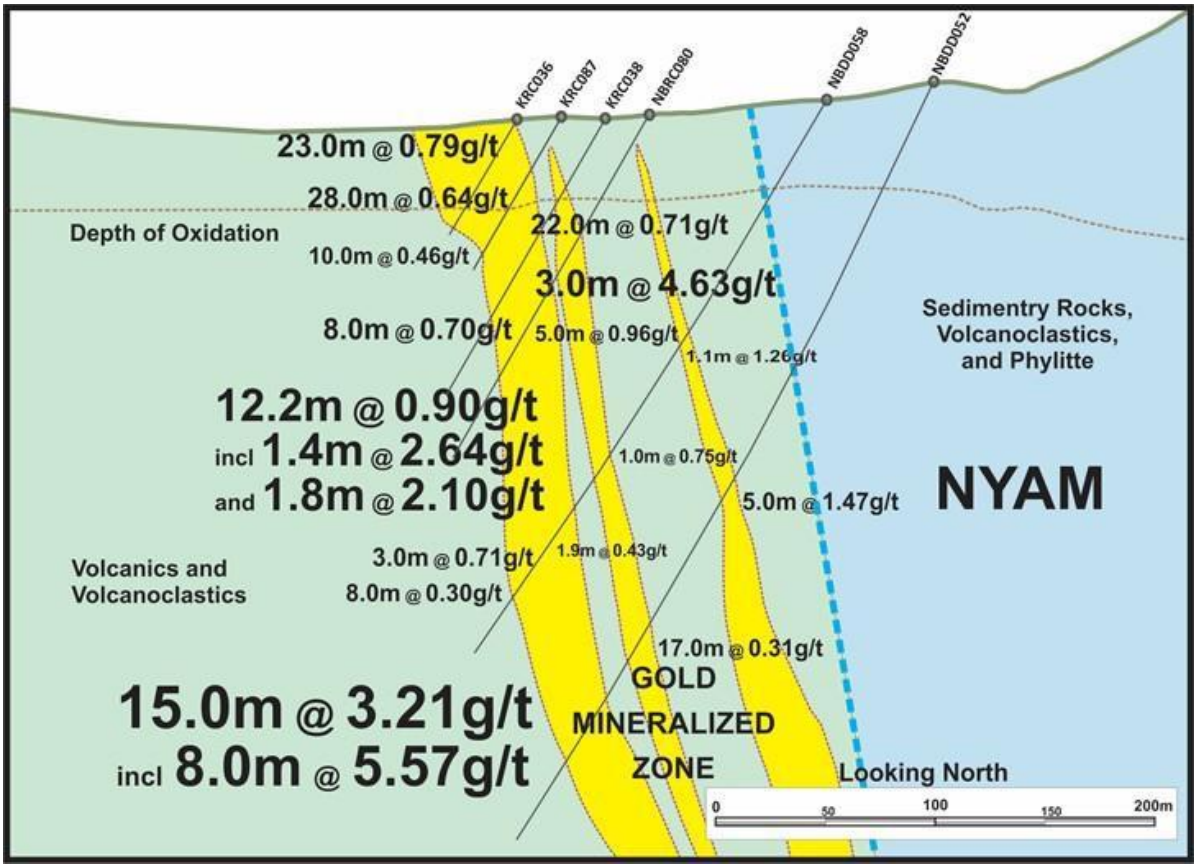
Hydrothermal alteration displays a typical greenschist assemblage (gold + quartz + sericite ± graphite ± chlorite ± epidote ± ankerite). Chlorite + epidote clots are observed within, or proximal to, the gold mineralization within the brecciated quartz veins. These probably result from remobilization associated with regional alteration.

No visible bleaching or other styles of alteration have been observed in the host sediment related to the quartz veining apart from narrow silicified vein selvedges. At the Boin Zone, the depth of intense weathering is up to 100 m in places. Weathering is deepest where the mineralization is best developed suggesting the greater intensity of veining and fracturing may have enhanced the weathering over the deposit.

7.3.3 Nyam

The Nyam Zone strikes over a distance of 2.1 km, hosted by altered phyllite, 200 to 300 m west of the interpreted position of the second order NS structure. The zone of mineralization lies in the hanging wall of a northeast-striking shear that dips 70º east and is up to 30 m thick. Nyam mineralization is part of a continuous 15 km strike length of gold prospects on the Project from Nyam southwest through Kojina Hill to Sewum in the south. An extensive envelope of weak gold mineralization (more than 0.25 g/t) dips sub-vertically and strikes 030° (Figure 7.3.4).

Figure 7.3.4 Nyam General Section (Newcore, 2023)



Mineralization at the Nyam Zone is composed of veined and brecciated sediment, phyllite and lesser intrusive rocks cemented by quartz, carbonate (ankerite), and albite and has been traced continuously in trenching and drilling for over 2 km along strike.

Alteration associated with the zone of veining and brecciation consists of bleaching due to replacement by sericite, quartz, ankerite, albite, rutile, and minor pyrite. Pyrite typically makes up less than 1% of the infill and alteration minerals. No visible gold or arsenopyrite or base metal sulphides have been identified in any core samples to date.

The footwall of the mineralization is marked by carbonaceous shears and a 2 to 3 m wide zone of green coloured fuchsite-magnesium chlorite alteration. The fuchsite is believed to represent an alteration front where chromium leached from the altered volcaniclastic sandstone beds and has been re-deposited in micas, replacing the basal shear adjacent to the quartz-carbonate-sericite alteration zone.

The zone of quartz-sericite-carbonate bleaching has a gradational upper contact and is not always mineralized. Carbonaceous shears cut through the mineralization indicating that the shear zone has continued to move after the mineralization event. Post-mineralization deformation is also supported by petrologic studies that describe stylolites, recrystallization, strained and sutured quartz, and albite grains in the vein material (England, 2011).

Rare sphalerite and anhedral grains of chalcopyrite less than 0.1 mm in size, rimmed by tetrahedrite – tennantite have been observed in the quartz veins during petrological studies (England, 2011).

7.3.4 Kwakyekrom

The Kwakyekrom Zone is located 3 km south of the Nyam Zone and is interpreted to be related to the extension of the same structure. Drilling has tested the Kwakyekrom Zone over a strike distance of 1.3 km and to a depth of approximately 150 m. The zone is hosted by altered phyllite, 700 to 800 m west of the interpreted position of the second order NS structure. The phyllite has been intersected by metre-scale dolerite dykes similar in composition to the larger intrusive bodies encountered at Sewum.

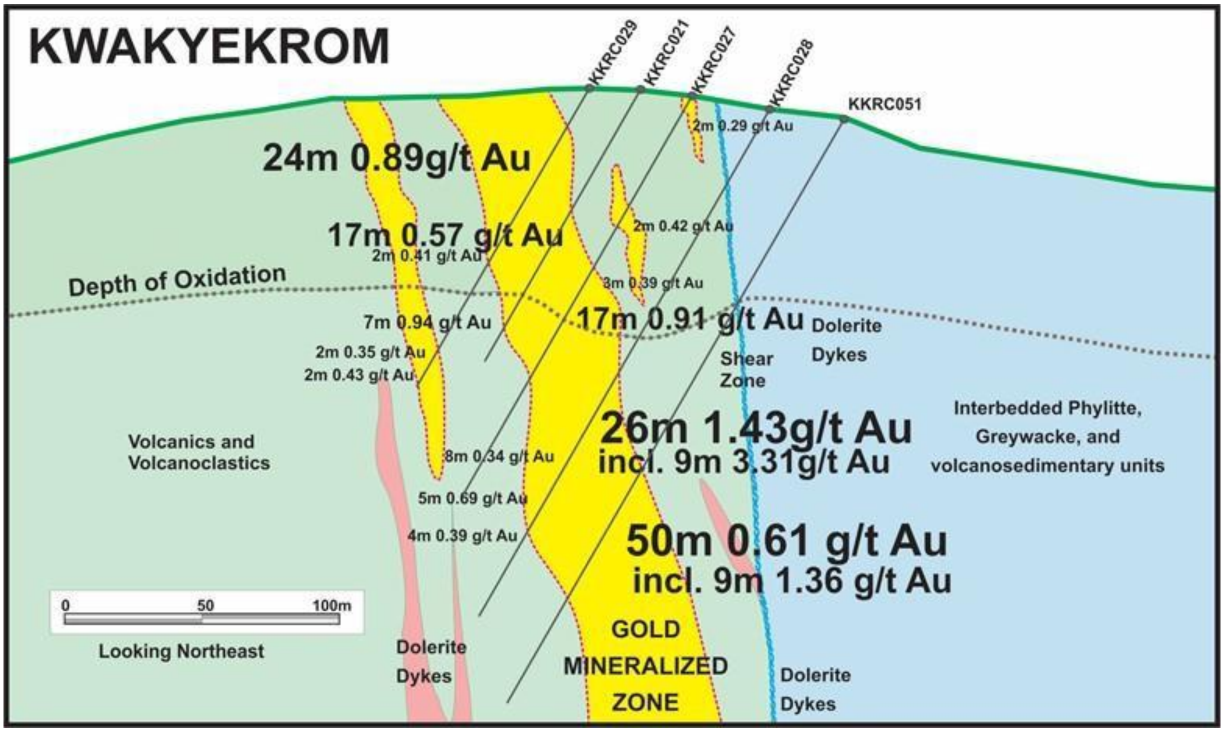
Kwakyekrom mineralization is part of a continuous 15 km strike length of gold prospects on the Project from Nyam southwest through Kwakyekrom to Sewum in the south. Gold mineralization is hosted in a series of sub-parallel zones (more than 0.20 g/t) ranging in width between 5 and 25 m and dipping sub-vertically and striking 030° (Figure 7.3.5).

Kwakyekrom mineralization is associated with sediments showing intense ductile strain, with centimetre to metre-scale quartz veins focused within brittle-ductile deformation zones. Additionally, sediment-dolerite contacts are often the site of quartz veins and variable gold mineralization.

The NNE-SSW-striking metasedimentary package steep to moderate dips consistent with high degrees of ductile strain and possibly the presence of tight folds in the stratigraphy. As with Nyam, the main fabric is overprinted by a moderately developed crenulation that dips to the NW.

The alteration associated with the zone of veining and brecciation consists of bleaching due to replacement by sericite, quartz, ankerite, albite, and minor pyrite but is not as well developed as at Nyam. Fine-grained pyrite is focused around discrete quartz veins ranging in width from <0.1 m to more than 1.5 m. No visible gold or arsenopyrite or base metal sulphides have been identified in any samples to date. A series of crosscutting graphitic sheared structures ranging in width between 0.2 and >1.5 m, are present.

Figure 7.3.5 Kwakyekrom General Section (Newcore, 2023)

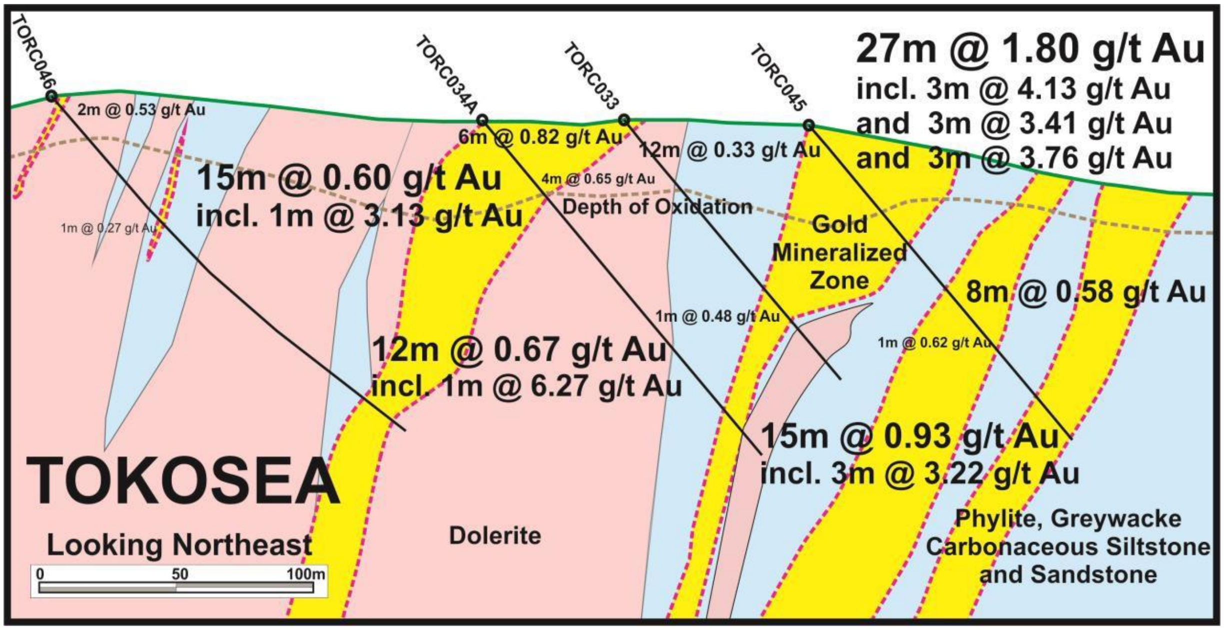


7.3.5 Tokosea

The Tokosea prospect is located on a volcanic / sediment contact similarly to that associated with the Sewum Mine, although offset by faulting south of Adamansu. The prospect includes the workings of the historic Tokosea Mine along with several parallel and en-echelon gold mineralized quartz veined zones some 30 m to the east, including the Tokosea East prospect. The historic mine included a small open pit and underground has development on the 18 m, 27 m, and 45 m levels.

All the significant gold mineralization is hosted by sub-vertical quartz veined structures in phyllite with some gold in quartz veinlets within the sediment and volcaniclastic units. The main structure developed in the Tokosea Mine is a shear hosted, thin (0.3 to 1 m) lenticular quartz veined zone averaging 5-10 m in width, dipping 85° northwest, and following a contact between a dominantly argillaceous (phyllite) footwall (eastern) and a dominantly volcaniclastic hanging wall (western) unit. The immediate host rock is a black carbonaceous phyllite. The general strike is 030°.

Figure 7.3.6 Tokosea General Section (Newcore, 2023)



7.3.6 Kojina Hill

The Kojina Hill Target is located 1 km west of the Nyam deposit. Previous small-scale gold mining has been reported to have occurred in the area but is poorly documented. The zone consists of a closed spaced gold mineralized structures striking NE-SW and dipping west at 80° and which apparently plunges steeply to moderately north. Mineralization is hosted by a zone of deeply weathered quartz-veined phyllite. Fuchsite-altered greywacke is also noted. The central portion is exposed on the side of a prominent hill and has been defined along strike by trenching both to the north and south for more than one kilometre in each direction.

7.3.7 Eradi

The Eradi prospect is located in the north of the Enchi licence area where the regional structures converge and gradually change strike from north-northeast to northeast. Very little outcrop exposure is present at Eradi due to the thick weathering profile and laterite development. All geology mapped comes from trenches and drillholes.

The Nyam Shear Zone (NSZ) is one of a number of major structures that splay off the Bibiani Shear and pass through the Enchi licence area. Mineralization at Eradi is developed within a second order shear that parallels and lies 300 m west of the NSZ. Gold mineralization at Eradi is entirely hosted in quartz veins. The veins are very irregular in shape, size, and orientation, rarely exceeding 1 m in thickness and tend to dip moderately (20° to 60°) east. The intensity of veining varies markedly between drill sections. Quartz in the veins is composed of white, less than 10 mm anhedral grains that are often fractured and recrystallized by later shearing. The quartz veins are generally quite pure, containing rare carbonate minerals and no sulphides.

No visible bleaching or other styles of alteration have been observed in the host sediment related to the quartz veining apart from narrow silicified vein selvedges. No intrusives have been identified in trenches or drill core at Eradi.

The host rocks at Eradi are dominated by interbedded carbonaceous siltstone and sandstone (turbidite). The sediments have been regionally deformed to greenschist facies, are steeply dipping, and typically strike northeast (040°) parallel to the regional structural grain. Gold mineralization at Eradi is hosted in irregular quartz veining localized along northeast striking shear zones with a near vertical dip.

7.3.8 Nkwanta

The Nkwanta prospect is located in the central portion of the Enchi Gold Project where exploration has defined a gold anomalous target 2.5 km by 1.0 km. The area is associated with the same phyllite / volcaniclastic contact as that located near Tokosea.

An adit at the Nkwanta prospect tests a weakly mineralized narrow quartz vein over a strike of 300 m. The quartz vein is hosted by phyllite, within a contact zone, with volcaniclastics to the west. The contact zone is possibly the strike extension of that in the Tokosea Mine 3 km to the south.

7.3.9 Agyeikrom

The Agyeikrom prospect is located in the north-central portion of the Enchi Gold Project where exploration has defined a gold anomalous target 4.5 km by 2.0 km. The area is associated with the same phyllite / volcaniclastic contact as that located near Kojina Hill. Mineralization is hosted by a zone of deeply weathered quartz-veined phyllite and fuchsite-altered greywacke in a series of zones dipping moderately to the west.

7.3.10 Sewum South

The Sewum South Target is located 3 km south of the Sewum deposit. Soil sampling has generated the largest individual anomaly on the Enchi Project measuring 6.0 km by 2.5 km. The anomaly is associated with a wide and complex conductive zone in the airborne electromagnetic survey suggesting structural and geological similarities to the Sewum deposit area. Some of the lower- lying portions of the Sewum South area have been the site of artisanal gold mining activity.

7.3.11 Achimfo

Several thin (less than 1 m wide) quartz veined structures are hosted by phyllite exposed in old workings including small shafts and galamsey workings over strike-lengths of up to 400 m and depths of up to 40 m. Erratic high-grade gold is hosted by quartz veining. The vein hosting structures are considered steep southeast dipping thrusts that juxtaposed folded finer - and coarser-grained metasediments (carbonate altered siltstones, pyrite altered quartzite, and greywacke).

7.3.12 Adamansu

Quartz veining is hosted by phyllite, within a contact zone, with volcaniclastics to the west. The contact zone is possibly the fault displaced strike extension of that at the Sewum mine, and the southern extension of that at the Tokosea Mine.

7.3.13 Alatakrom

The Alatakrom prospect is along strike, northeast of the Tokosea East prospect. Several conformable sub-vertical gold mineralized quartz vein zones are hosted by phyllite, within 50 m of a contact with volcaniclastics to the west.

7.3.14 Beekokrom

The prospect straddles projected strike positions of mineralized structures defined at the Kwakyekrom prospect, 2 km to the southeast.

7.3.15 Sewum Mine

The Sewum Mine developed two narrow (0.5 to 1 m wide) quartz veins, the Main Reef and West Reef, over a strike of 450 m. The veins dip southeast at 45° to 60° within a strongly deformed carbonaceous phyllite near a contact with less deformed volcaniclastics to the west. The Sewum Mine is possibly hosted by a bedding concordant splay from the second order splay.

From 1940 to 1951, the Kwahu Mining Co. deepened the main shaft to 120 m and developed the 45 m and 78 m levels. No production was recorded (Kesse, 1985).

8.0 DEPOSIT TYPES

The Project's mineralized zones have the characteristics of epigenetic, mesothermal quartz vein-style gold deposits with an overlying gold-bearing saprolite. This type of mineralization is the most common style of gold occurrence in West Africa and is commonly referred to as the Ashanti type.

Mesothermal mineralization has a strong structural control and brittle-ductile deformational style that is related to large tectonic corridors (more than 50 km long and several kilometres wide). These deformational zones display evidence of complex multiphase displacement with mineralization typically associated with second and third order structures (Roberts, 1988). Auriferous veins are best developed at dilatational sites where structural or compositional irregularities occur within the shear structure. Favourable sites include conjugate or branching shear zone intersections, major flexures within the shear plane, and compositional variations associated with major lithological contacts or incorporated dyke material.

The most common host rock is usually a fine-grained metasediment in close proximity to graphitic or siliceous chemical sediments. However, in some areas, intrusive rocks are known to host significant gold mineralization such as at the Chirano Gold Mine (owned by Asante Gold Corporation) located 50 km northeast of the Project.

Mesothermal alteration is generally more visible within greenschist facies settings. Alteration usually occurs as chloritization, pyritization, silicification, and tourmalinization, with minor amounts of potassic and alkali feldspar alteration as well as potassic phyllosilicate (sericite, muscovite, and biotite) alteration. Carbonate alteration is pervasive (ankerite and calcite) on regional and deposit scales.

Mineralization can occur as both refractory and non-refractory styles. Refractory mineralization is characterized by early-stage, disseminated sulphides of primarily pyrite, and/or arsenopyrite hosting significant gold content, which is overprinted by late-stage quartz veining with minor amounts of visible gold and accessory polymetallic sulphides. Examples of the refractory-style deposits include Obuasi (AngloGold) and Bogoso-Prestea (Blue Gold International Limited). Non-refractory ore is described as gold not hosted within sulphide minerals of either the early or late-stage mineralization events. Examples of non-refractory mineralization include Chirano (Asante Gold Corporation) and Ahafo (Newmont).

The gold mineralization that occurs in the oxidized zone is released from the hypogene orebody by physical disaggregation and chemical dissolution. Dissolution and reprecipitation of gold in the saprolite appear to take place in situ with little evidence of supergene enrichment. The mineralization can be covered by several metres of kaolinite-mica forest soils. The saprolite zone of leached rock can extend down 60 to 70 m (Bowell, 1992).

9.0 EXPLORATION

Exploration, consisting of line cutting, soil sampling, trenching, and auger drilling, was completed by Edgewater in 2012–2013 (McCracken, 2014). The principal targets were anomalies generated from airborne geophysical data. The work included both wide-spaced and detailed surveys. Results included anomalous gold in soils, trenches, and auger, which warranted additional follow-up work.

The procedures for each exploration method were summaries from the "Geologist's Procedures Manual, Version 1.0, October 1, 2005" generated by Red Back Mining Inc. (Red Back, 2005).

9.1 Soil

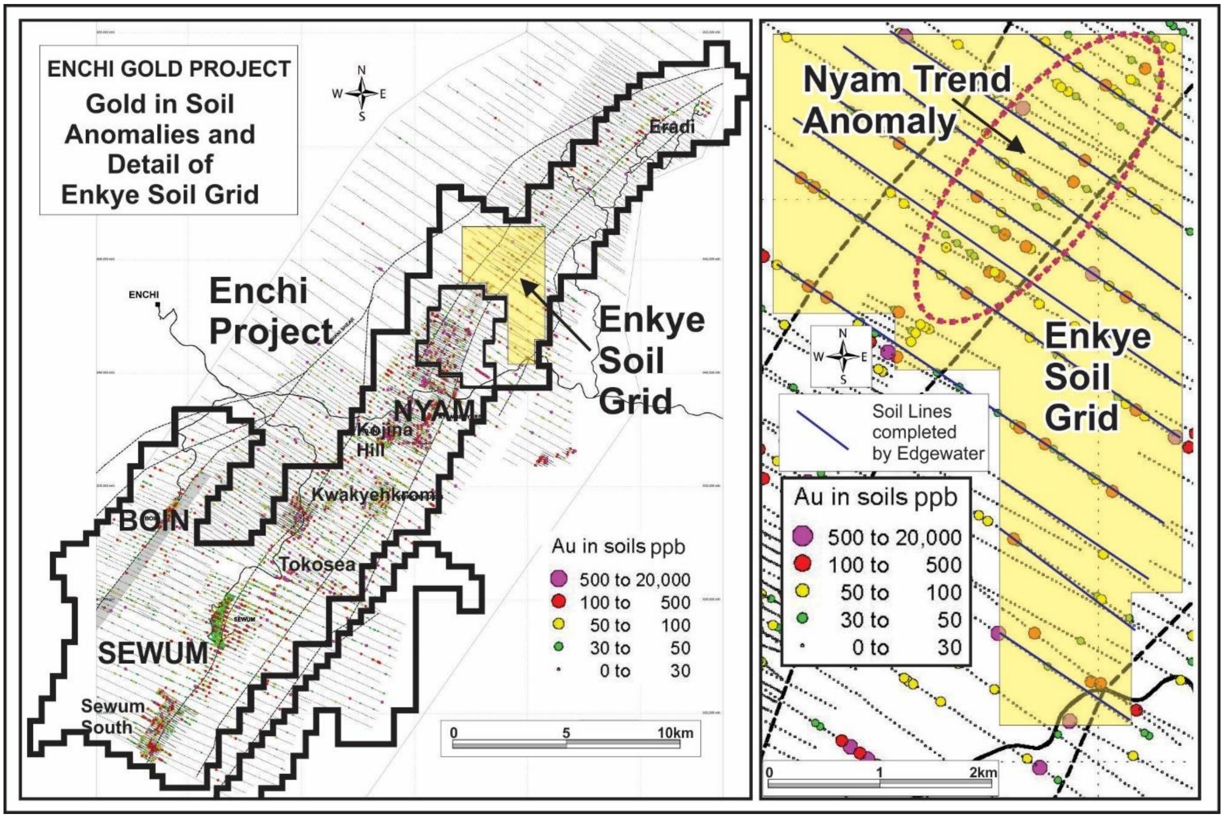
All soil sampling was conducted in the presence of a geologist and was not carried out by technicians alone. Samples were collected from ±50 cm depth and weighed from 2 to 3 kg. Duplicate samples were collected every 25 samples. To collect the duplicate, a larger hole was dug to collect 5 to 6 kg of sample and mixed thoroughly on a plastic sheet. The material was then coned and quartered into 2 samples. The results of the soil survey were disclosed in a previous technical report (McCracken et al., 2016). Table 9.1.1 summarizes the soil work completed.

Table 9.1.1 Soil Survey Summary

Prospect	Area Covered (km^2)	No. of Lines	Grid Spacing	Total Line Length (km)	No. of Samples	Type of Sample
Enkye	35	10	400 m x 50 m	60	986	Soil

The Enkye grid soil sample results defined a moderately anomalous zone 2.5 km long and averaging 1.25 km wide on trend from the Nyam Anomaly located 4 km south, Figure 9.1.1. The anomalous area is defined by a series of results greater than 50 ppb gold, with common results greater than 100 ppb gold, and isolated results greater than 500 ppb gold. The samples are representative of the material tested and generally no sample bias has been identified beyond the normal variability of the weathered and soil profile.

Figure 9.1.1 Significant Soil Results (Newcore, 2020)



9.2 Trenching

Trenching has been a valuable exploration tool allowing for the definition of gold mineralized structures within the broad gold-in-soil anomalies identified on the Enchi Gold Project.

The trenches are dug 1.0 to 1.5 m in width with a maximum depth of 3.5 m. The name of a trench consists of a two-letter prospect prefix, followed by "TR" and then a sequential numbering.

For consistency, trenches start at the western end (collar) and intervals are measured along the surface using slope distance, not horizontal distance. This allows correct plotting of the trench as a three-dimensional entity. To allow routine plotting of the trench as a drillhole, each segment must be considered to be a separate trench, with its own collar, and with its sample intervals starting at zero at its western end. The segments of a trench are identified by suffixes, for example CHTR798A, CHTR798B, from west to east.

Completed trenches are measured by marking out intervals along the surface starting from zero at the western end. Strings may be dropped down the sides of the trench to help the marking of the 1 or 2 m sampling intervals near the base of the trench.

The trenches are surveyed as a three-dimensional entity, and trench data is stored in the standard drilling tables of the database (collar, survey, assay, geology).

The collar coordinates are determined by tape and compass, GPS, DGPS, or EDM survey depending on the stage of the Project.

The surface trace of the trench is surveyed from the collar to the end using tape, compass, and clinometer to produce a 'downhole' survey file. The intervals are chosen to match inflection points in the trench trace.

The 'from and to' measurements are slope measurements along the surface and are not corrected to horizontal distances.

The survey is usually done by a geologist and an assistant. The assistant holds a pole with a mark at the geologist's eye height. The geologist stands at the collar, the assistant at the first inflection point, and the geologist sights on the mark on the pole to record the inclination and azimuth.

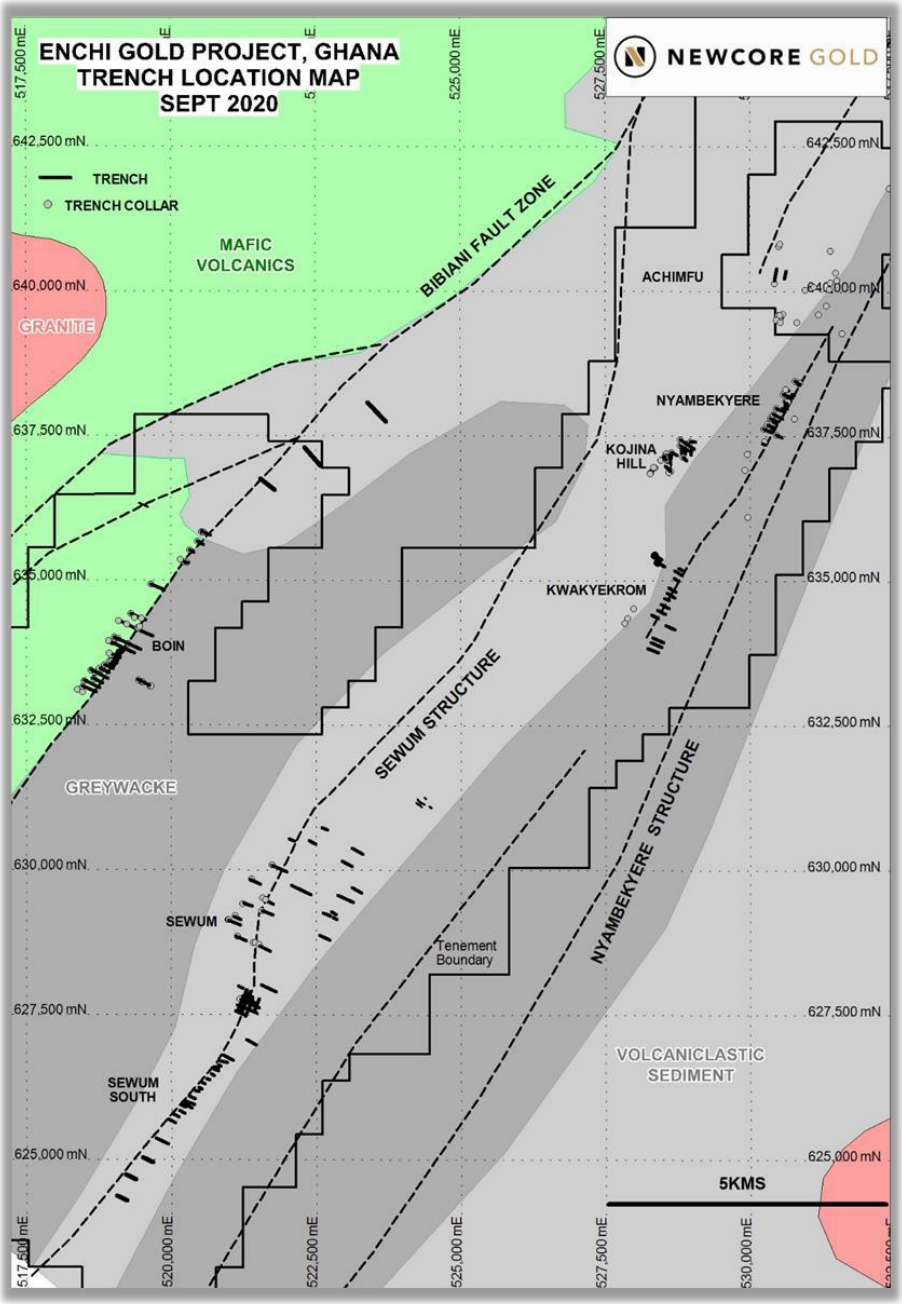
Continuous channel samples are cut from the centre line of the floor of the trench. The trench must be checked by a geologist prior to sampling to ensure saprolite has been reached. The base of the trench must be cleaned by brushing or using a spade prior to sampling. Trenches are sampled by lithology, routinely using 2 m intervals with a minimum interval 0.5 m.

Duplicates were taken every 25 samples. This is a second channel cut either just above or just below the original sample.

9.2.1 2020 Trenching

One hundred and eighty (180) trenches totalling 17,019 m were completed on the Project during 2020. The criteria for reporting trench results were 4 m minimum length and a minimum 0.3 g/t average grade over the interval. Figure 9.2.1 shows the location of the trenches at the Project site.

Figure 9.2.1 Enchi Trench Locations (Newcore, 2020)



9.2.2 2021 – 2022 Trenching

Exploration work at Enchi, including trenching, continued to define near-surface, gold mineralized structures on the Project. Trenching completed in 2021 and 2022 focused on a number of high- priority gold targets that are defined by kilometre-scale gold-in-soil anomalies located across the Project. Trenching intersected high-priority gold mineralization with similar grades and widths to prior trench results associated with the current resource zones. As part of this program, Newcore completed 62 trenches totalling 11,037 m with a total of 49 trenches encountering gold-bearing structures of which 37 encountered multiple gold mineralized zones.

Highlighted intercepts from the 2021 and 2022 exploration are detailed in the following Table 9.2.1.

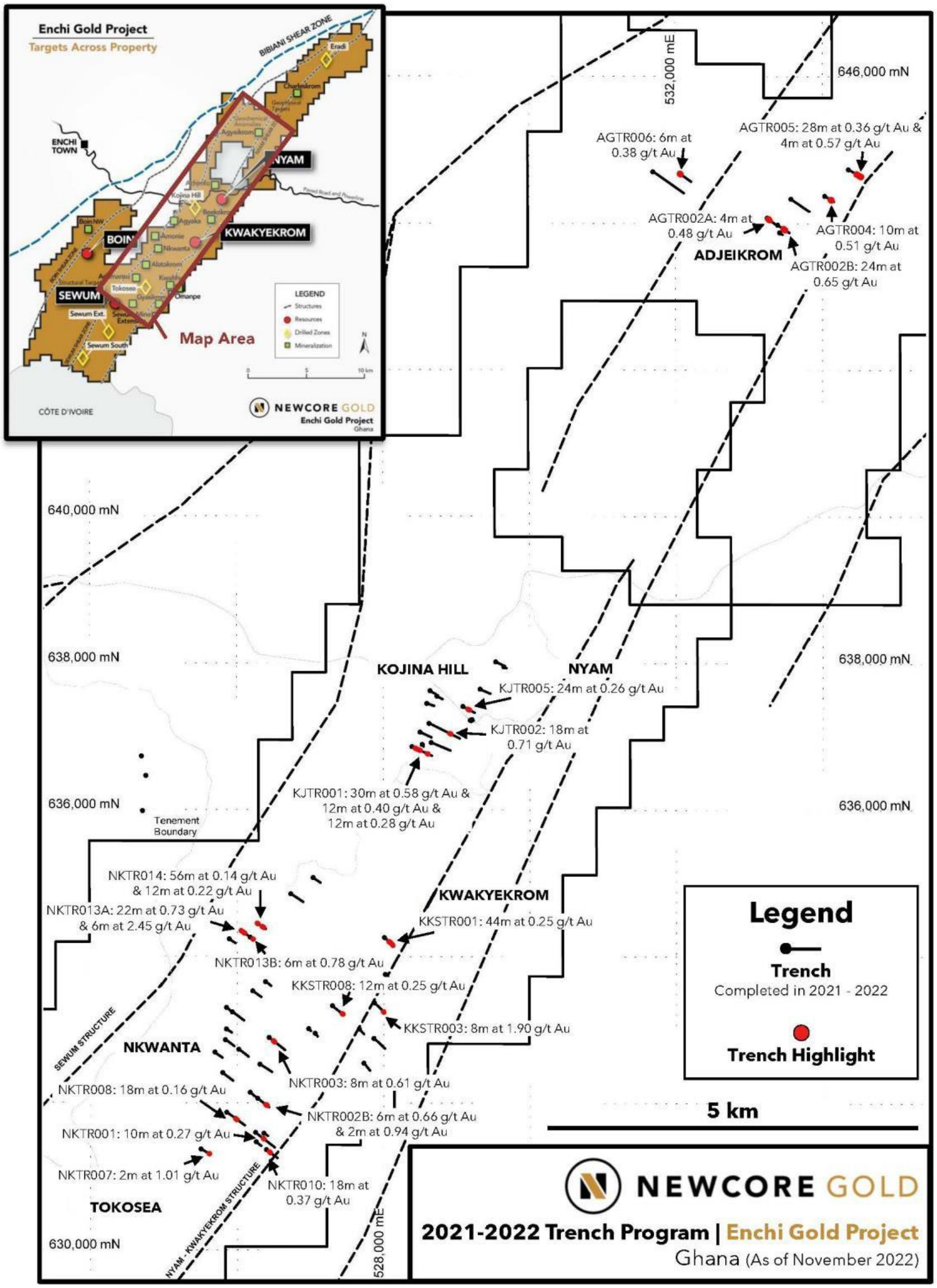
Table 9.2.1 Current Trench Intercept Summary

Trench Id	Target	From(m)	To (m)	Interval (m)	Au g/t
	Agyeikrom	98.0	122.0	24.0	0.65
AGTR005	Agyeikrom	174.0	202.0	28.0	0.36
AGTR004	Agyeikrom	98.0	108.0	10.0	0.51
AGTR006	Agyeikrom	2.0	8.0	6.0	0.38
AGTR005	Agyeikrom	128.0	132.0	4.0	0.57
	Agyeikrom	26.0	30.0	4.0	0.48
AGTR003	Agyeikrom	112.0	114.0	2.0	0.86
AGTR005	Agyeikrom	104.0	106.0	2.0	0.75
AGTR005	Agyeikrom	116.0	122.0	6.0	0.25
KJCH001	Kojina Hill	2.0	24.0	22.0	0.13
KJCH004	Kojina Hill	0.0	9.0	9.0	2.01
KJTR001	Kojina Hill	48.0	78.0	30.0	0.58
KJTR001	Kojina Hill	110.0	122.0	12.0	0.40
KJTR001	Kojina Hill	222.0	234.0	12.0	0.28
KJTR001	Kojina Hill	92.0	98.0	6.0	0.27
KJTR002	Kojina Hill	308.0	326.0	18.0	0.71
KJTR002	Kojina Hill	234.0	276.0	42.0	0.24
KJTR002	Kojina Hill	106.0	110.0	4.0	1.04
KJTR005	Kojina Hill	76.0	100.0	24.0	0.26
KJTR005	Kojina Hill	124.0	126.0	2.0	0.81
KJTR008A	Kojina Hill	42.0	50.0	8.0	0.21
KJTR008B	Kojina Hill	240.0	246.0	6.0	4.59

Trench Id	Target	From(m)	To (m)	Interval (m)	Au g/t
NKTR001	Nkwanta	132.0	142.0	10.0	0.27
NKTR0013A	Nkwanta	38.0	60.0	22.0	0.73
	Nkwanta	46.0	52.0	6.0	2.45
	Nkwanta	2.0	8.0	6.0	0.48
	Nkwanta	46.0	52.0	6.0	0.78
	Nkwanta	80.0	136.0	56.0	0.14
	Nkwanta	0.0	12.0	12.0	0.22
	Nkwanta	140.0	146.0	6.0	0.66
	Nkwanta	160.0	162.0	2.0	0.94
NKTR003	Nkwanta	68.0	76.0	8.0	0.61
NKTR007	Nkwanta	128.0	130.0	2.0	1.01
NKTR008	Nkwanta	148.0	166.0	18.0	0.16
NKTR010	Nkwanta	48.0	66.0	18.0	0.37
NKTR021	Nkwanta	58.0	66.0	8.0	0.25
NKTR026	Nkwanta	108.0	118.0	10.0	0.58
NKTR027	Nkwanta	50.0	64.0	14.0	0.19
KKSTR001	Kwakyekrom	82.0	126.0	44.0	0.25
KKSTR003	Kwakyekrom	174.0	182.0	8.0	1.90
KKSTR008	Kwakyekrom	170.0	182.0	12.0	0.25

The Intervals in the above table are trench lengths, with true width estimated to be 75 - 85%, and length-weighted averages from uncut assays. Health, safety, and the environment are prioritized throughout the trenching process and all trenches are backfilled and reclaimed once sampling and mapping are completed.

Figure 9.2.2 Enchi Trench Locations (Newcore, 2022)



9.3 Auger

Auger holes are vertical (-90º) and therefore no azimuth is required in the collar file. In the survey file, a -90º dip will be required at 0 m and at end of hole in the downhole survey file. The average sample depth was 3 m.

Sampling was carried out on the basis of regolith geology. Lateritic soils, mottled clays, and saprolite were sampled separately. The A soil horizon was not sampled. Duplicates were taken every 25 samples.

The results of the auger survey were disclosed in a previous technical report (McCracken et al., 2016). Table 9.3.1 summarizes the auger work completed.

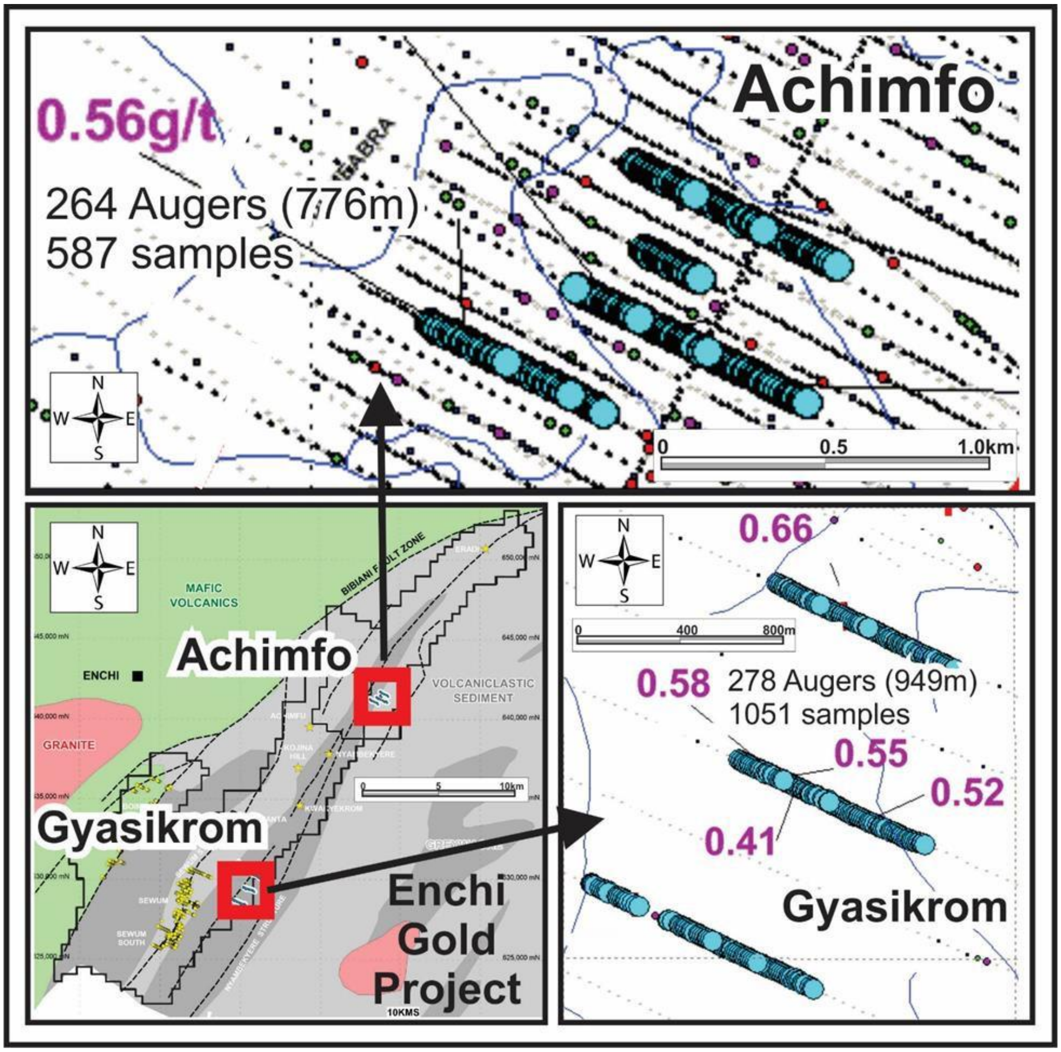
Table 9.3.1 Auger Summary

Prospect	Area Covered (km^2)	No. of Samples	No. of Holes	Total Depth (m)	Significant Results (ppm)	Type of Sample
Achimfo	1.00	587	264	776.0	Assays to 0.5 g/t Au	Auger
Gyasikrom	1.55	1,051	278	949.0	Assays to 0.5 g/t Au	Auger

Figure 9.3.1 is a map summarizing the significant auger results from the Achimfo and Gyasikrom Prospects.

In the Achimfo and Gyasikrom area, individual auger sample results returned irregularly spaced values considered to be anomalous with greater than 500 ppb gold. No anomalous areas of significant size were outlined by the auger drilling.

Figure 9.3.1 Significant Auger Results (Newcore, 2020)



9.4 Drone Topographic Survey

A drone topographic survey was completed in 2022 over the Boin, Sewum, and Nyam deposits with a total surveyed area of 75.58 km^2. To complete the survey a total of 48 ground control points were established at 1 kilometre centres surveyed off existing control beacons within the Project area.

The survey covered an area at Boin of approximately 7 kilometres by 4 kilometres, at Sewum of 8 kilometres by 5 kilometres, and at Nyam of 3 kilometres by 2 kilometres (Figure 9.3.1). The surveys were completed using east-west oriented flight lines spaced 50-100 m apart. The survey employed a DeltaQuad Pro #MAP equipped with a Post-Processing Kinematic (PPK) kit, which is proven to be a more reliable and accurate solution for drone surveys. Drones equipped with PPK solutions offer greater data dependability because of the GPS correction technology incorporated into the units.

All RC holes, diamond drillholes and trenches at Boin, Sewum and Nyam were corrected to the drone topographic survey elevations completed in 2022. A digital terrain model (DTM) was created by flying a drone survey over the resource zones. Orthophotos were also collected during the drone survey. The elevation (Z) data for drill collars was modified to fit the DTM surface (Figure 9.4.1). The Enchi Gold Project database drill collar survey file therefore comprises handheld GPS coordinates (X & Y) and modified elevation (Z) data.

Figure 9.4.1 Topographic Drone Survey Coverage (Newcore, 2020)

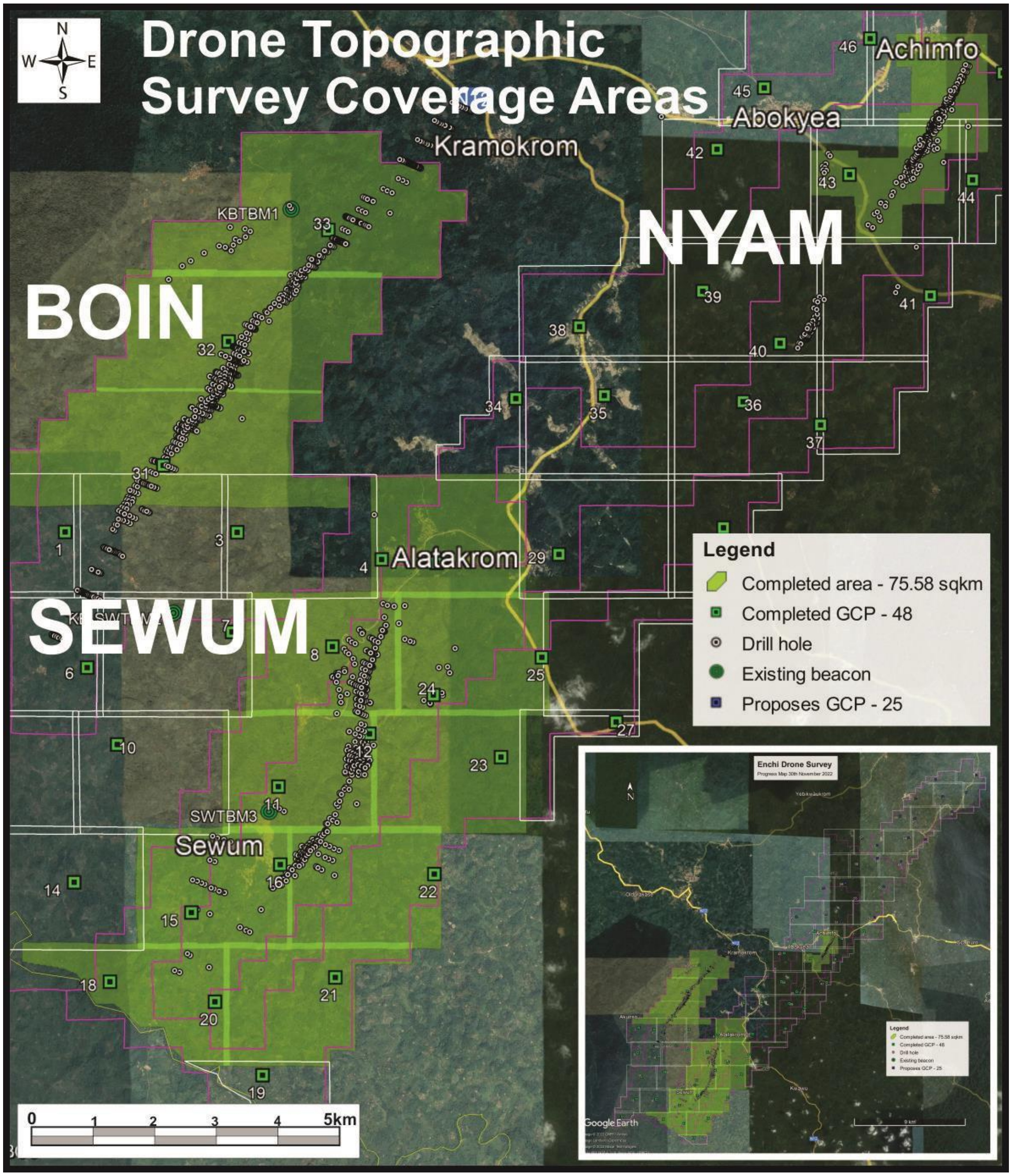
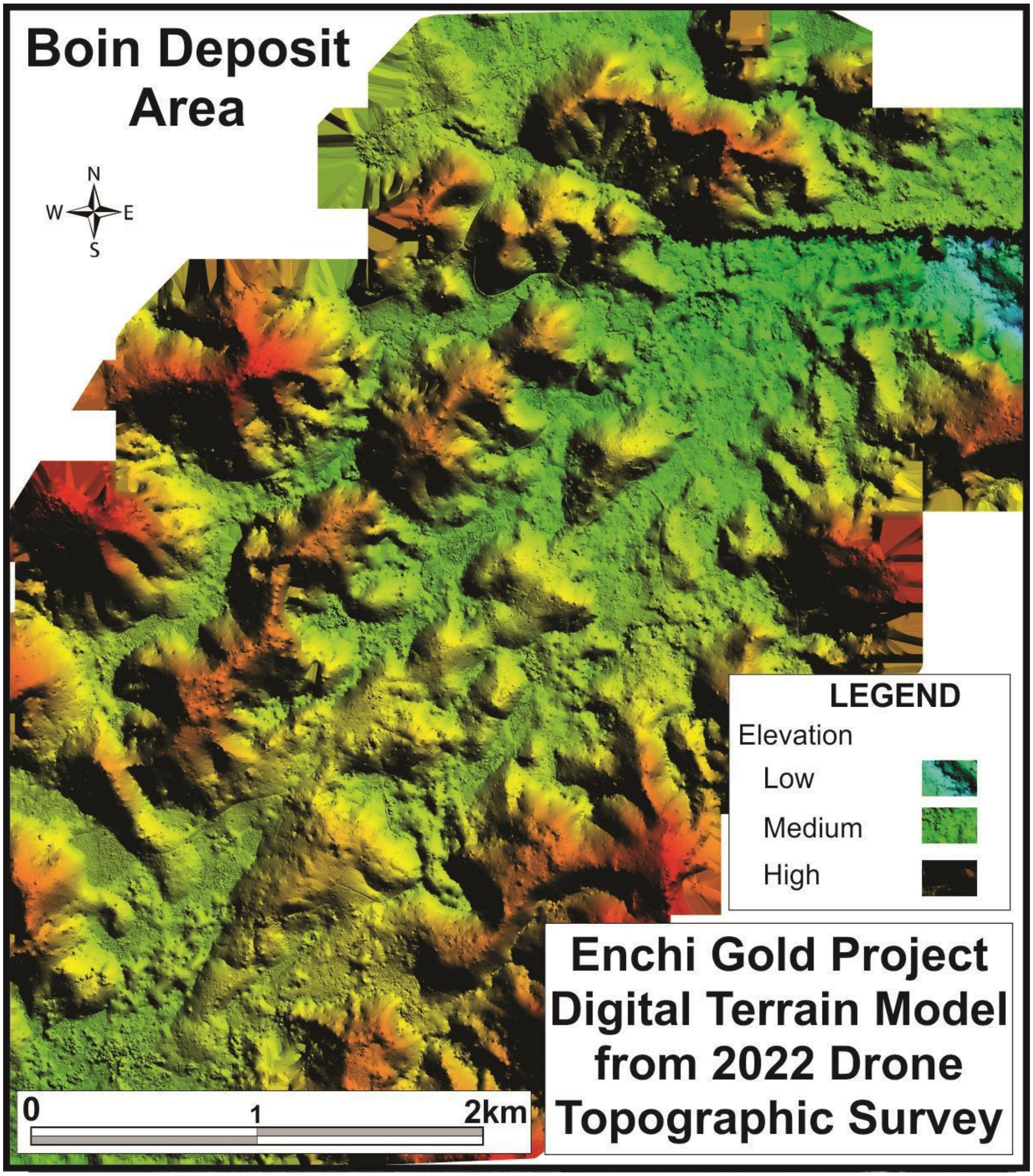


Figure 9.4.2 Digital Terrain Model for Boin from Drone Topographic Survey (Newcore, 2022)



9.5 Exploration Results

9.5.1 Agyeikrom Target

The exploration work in 2021 - 2022 includes first pass trenching on the Agyeikrom Target which is located in the north-central portion of the Enchi Gold Project. The gold-in-soil anomaly at Agyeikrom extends 4.5 km by 2 km with no previous trenching or drilling completed. A total of 8 trenches (1,852 m) tested 1.2 km of strike length with results including 0.65 g/t Au over 24 m and a second interval of 0.20 g/t Au over 4.3 m, 0.36 g/t Au over 28 m and a second interval of 0.57 g/t Au over 4 m, 0.51 g/t Au over 10 m, and 0.48 g/t Au over 4 m.

9.5.2 Kojina Hill Target

At the Kojina Hill Target trenching consisted of 15 trenches (2,168 m) with step-out trenching of the previously drilled area extending the defined gold mineralization more than 500 m north and south of the prior drilling. Trench KJTR008B, located 300 m to the south of previous work intersected eight gold mineralized structures highlighted by 4.59 g/t Au over 6 m. Trench KJCH004, located 100 m to the east on a subparallel structure intersected 2.01 g/t Au over 9 m. Trench KJTR001, located 500 m to the south of previous work and on the southern limited of the currently tested area, intersected multiple gold mineralized structures with results including 0.58 g/t Au over 30.0 m, 0.40 g/t Au over 12.0 m, and 0.28 g/t Au over 12.0 m. Additional trenches intercepted 0.71 g/t Au over 18 m, 0.24 g/t Au over 42 m, 0.26 g/t Au over 24 m, and 1.04 g/t Au over 4 m.

9.5.3 Nkwanta Target

At the Nkwanta Target trenching has defined a series of gold mineralized structures within one of the strongest gold-in-soil anomalies on the Project which stretches for 2.5 km by 1.5 km. A total of 30 trenches (5,610 m) tested multiple structures with results including 0.73 g/t Au over 22 m including 2.45 g/t Au over 6.0 m, 0.14 g/t Au over 56 m, 0.37 g/t Au over 18 m, 0.58 g/t Au over 10 m, 0.61 g/t Au over 8 m, and 0.78 g/t Au over 6 m.

9.5.4 Kwakyekrom Extension

Trenching work on the southern extension of the Kwakyekrom Gold deposit has extended the defined gold mineralization in preparation of additional drilling to be completed. The trenching consisted of a total of 9 trenches (1,407 m) with results including 1.90 g/t Au over 8 m, 0.25 g/t Au over 44 m, 0.25 g/t Au over 12 m, 0.23 g/t Au over 6 m, and 0.22 g/t Au over 6 m.

10.0 DRILLING

The Project is considered an advanced project by definition of NI 43-101. As such, this technical report does not need to meet NI 43-101F1 Item 10(c). Location maps are provided in this Chapter to disclose the collar locations of the drillholes. Generalized cross sections of the drilling and geology for Sewum, Boin, Nyam (Nyamebekyere), Kwakyekrom, and Tokosea are disclosed in Chapter 7 Geological Setting and Mineralization.

Any drill results expressed in Chapter 10 are expressed in downhole length in metres (m). The orientation of the mineralization is still being investigated and the various dips of the holes result in variable true thickness.

10.1 Pre-2011 Drilling

The 2005-06 Red Back Reverse Circulation (RC) and Rotary Air Blast (RAB) drilling program was undertaken on the Project from 6 January 2005 to 4 December 2006. A total of 153 RC holes were completed for a total of 17,120 m. A total of 320 RAB holes (including re-drills) were completed for a total of 12,443 m. The RC holes were completed with a 5.5-inch hole drilled using either a UDR KL900 or SCHRAMM. The RAB holes were completed with a 3.5-inch hole drilled using a UDR KL150RAB. Drilling was completed by GEODRILL Ghana Ltd. or African Mining Services of Ghana.

10.2 2011 Edgewater Drilling

The 2011 Edgewater drilling program undertaken on the Project commenced in January 2011 and was completed in November 2011. A total of 180 diamond drillholes and 13 reverse circulation holes were completed for a total of 23,697 m.

10.2.1 Boin

Edgewater completed 62 diamond and seven reverse circulation drillholes totalling 8,087 m at Boin. The aim of the program was to confirm results from the Red Back RC drilling, reduce the drill section spacing over the main part of the deposit from 100 to 50 m, and expand the gold resources by drill testing along strike and down dip.

Drilling at Boin (KBDDH001 to 033) was completed initially with an Energold Drilling Corp. (Energold) man-portable diamond rig operated by E Global Drilling Corp, a division of Energold based in London England, from February to July 2011. Most holes were completed using thin-walled HQTW (61.1 mm core diameter), reducing to NQTW (50.6 mm core diameter), if necessary.

The second, deeper phase of drilling at Boin (KBDDH034 to 060) completed from September to October 2011 was done using a track mounted LF90 operated by Boart Longyear. To ensure optimum recoveries in the mineralization that was intensely weathered and hosted in clay, all holes in the second phase of drilling were cored from surface using PQ (85 mm core diameter), reducing to HQ (63.5 mm core diameter) when competent ground was reached.

Seven reverse circulation drillholes totalling 524 m were drilled to test mineralization along the Boin Shear Zone north of the main resource area. The first 3 holes had to be abandoned and re-drilled using a diamond drill owing to collapse of the collars due to thick surface clay.

The results of Edgewater's first phase of diamond drilling at Boin confirmed the continuity of the zone of gold mineralization defined by Red Back's reverse circulation drilling in 2005 and 2006. The second phase of diamond drilling, completed in 2011, extended the length of the main zone of mineralization to 1,800 m and proved continuity to a depth of 200 m down dip.

Depth of intense weathering is typically 20 or 30 m in the Enchi area. However, within the zone of mineralization at Boin, intense weathering and complete transformation of the host sediment to clay can reach 100 m depth in places. Low core recoveries were encountered in some drillholes as the mineralized quartz veins broke up into gravel-sized pieces that were spun ahead of the diamond bit, grinding up the host clay which was then flushed out with the drilling fluids. A number of methods were employed to overcome this problem, such as using thin-walled drill rods and bits, larger diameter core, i.e., PQ, increasing the weight on the rod string while reducing the speed of rotation, and using bentonite and thick mixes of high-quality polymers.

10.2.2 Nyam

Edgewater completed two phases of drilling at Nyam. The first phase of drilling was conducted between 24 January and 9 April 2011, and consisted of 42 diamond holes totalling 3,969 m. The aim of the first program was to confirm results from Leo Shield's reverse circulation drilling (1996) by twinning selected holes and conducting infill drilling. The second drill program was conducted from 31 October to 16 November 2001, and consisted of 5 diamond holes totalling 1,164 m and 6 reverse circulation holes totalling 662 m. The second program was designed to test the down plunge extensions of mineralized material shoots identified in the first phase of drilling and to use reverse circulation drillholes to test the southern strike extension to the zone of mineralization.

The first phase of drilling at Nyam (NBDDH001 to 042) was completed with a track-mounted Longyear LM55 diamond drill. No reverse circulation rigs were available in Ghana at the time the decision to commence drilling was made. The longest drilled hole (NBDDH014) was only 129.8 m. HQ sized core was drilled from surface through the weathered zone until competent rock was encountered, the HQ was cased-off and the hole continued in NQ (47.6 mm core diameter). The deepest weathering was typically found on the tops of hills, up to 92 m deep (NBDDH014), whereas the weathering was much shallower in the valleys. Some core recovery issues were encountered in deeply weathered areas.

The second phase of diamond drilling (NBDDH043 to 047) was completed using a track-mounted Longyear LF90. To improve recoveries in the weathered zone and increase the sample size, coring was done in PQ from surface reducing to HQ once competent rock was reached.

The results of Edgewater's first phase of diamond drilling at Nyam confirmed the continuity of the zone of gold mineralization, reinforcing the results of the reverse circulation drilling completed by Leo Shield in 1996 and extending the length of known mineralization to more than 2 kilometres (km).

Generally, the width and grade of the mineralization intersected in the near surface, clayey, weathered zone were better than in fresh rock, suggesting some supergene enrichment has occurred.

The reverse circulation drilling used a track-mounted Schramm HD 450 operated by Boart Longyear. Reverse circulation drilling was designed to test the southern strike extension of the Nyam mineralized zone. All 6 reverse circulation holes drilled to test the southern extension to the Nyam mineralized zone intersected quartz veining and zones of bleaching caused by quartz – sericite – carbonate alteration; however, only two holes intersected anomalous gold results (NBRC001 and NBRC0060).

NBRC001 was drilled 400 m south-southwest of the southern most diamond holes NBDDH040 to 042. This large step-out along strike was due to the presence of a swamp. The reverse circulation rig had a 5.5-inch hammer and a 1,050 cfm at 350 psi compressor. The air was sufficient to keep samples dry to around 90 m. Most reverse circulation holes at Nyam were drilled at -50°.

10.3 2012 Drilling

The 2012 Reverse Circulation (RC) drilling program undertaken on the Project commenced in March and was completed in April 2012. A total of 25 RC drillholes were completed for a total of 4,058 m.

10.3.1 Nyam

Edgewater completed an RC drilling program at Nyam from between 13 and 24 April 2012. The program consisted of RC holes totalling 1,524 m. 7 of the RC holes targeted the known resource area while 2 of the holes were exploration holes, well outside the resource area. The program used a truck-mounted LC 36 operated by Boart Longyear (Figure 10.3.1).

Figure 10.3.1 Reverse Circulation Drill (Newcore, 2012)

Reverse circulation drilling within the resource area was designed to test the eastern shear system and the northern strike extension of the Nyam mineralized zone. All 7 reverse circulation holes drilled to test the Nyam mineralized zone intersected quartz veining and zones of bleaching caused by quartz – sericite – carbonate alteration with anomalous gold results.

The intervals stated in the results table reflect downhole intervals and do not reflect true thickness of the mineralization. Generally, the width and grade of the mineralization intersected in the near-surface, weathered zone were better than in fresh rock, suggesting some supergene enrichment has occurred.

10.3.2 Sewum

Edgewater completed 16 RC holes totalling 2,534 m at Sewum. The aim of the program was to better delineate the mineralization associated with the Ridge Top Shear Zone (RTSZ). Drilling at Sewum was completed using a truck-mounted LC 36 operated by Boart Longyear.

No new drilling was conducted on the Sewum South, East Contact Zone (ECZ), West Contact Zone (WCZ), or Checkerboard areas.

The 2012 RC holes drilled to target the RTSZ were drilled either vertically or dipping east. The RTSZ is hosted within the dolerite intrusive and is situated on top of the main Sewum Ridge. The zone consists of several stacked shallow dipping shears that average 20 m in thickness and has been traced in drilling for over 1 km along strike and remains along strike to the south toward the Checkerboard Zone.

The northern strike extension of the RTSZ appears to be significantly thinner as evident in SWRC056 and SWRC057, with intervals approximately 7 m thick. The down-dip extension of the RTSZ would be limited by the width of the dolerite intrusion.

10.4 2017-2018 Drilling

The 2017-2018 Reverse Circulation (RC) drilling program undertaken by Newcore on the Project commenced in November 2017 and was completed in February 2018. A total of 28 RC drillholes were completed for a total of 3,406 m.

10.4.1 Boin

The 2017-2018 RC drill program targeted infill and expansion drilling along the mineralized zone. The drilling extended the Boin Zone between 25 and 50 m to depth on several sections. The program consisted of 12 holes totalling 1,445 m targeting Boin, intersecting mineralization to a depth of 150 m below surface and successfully extended the main zone of continuous gold mineralization to approximately 2.5 km in length and 150 m depth.

The Boin NW target is located approximately 300 m west of the main Boin structure. Mineralization is interpreted to be associated with a splay off the main Boin structure. The 2017-2018 program consisted of three holes totalling 365 m, intersecting mineralization to a depth of 120 m below surface.

10.4.2 Sewum

In 2017, eleven RC holes totalling 1,396 m were drilled at Sewum to test extensions of known mineralized zones aimed at expanding resources. Wide intervals of gold mineralization were intersected in several holes extending the Ridge Top shear mineralization to depth toward the West Contact Zone and along strike to the south.

10.4.3 Kojina Hill

Drilling completed at Kojina Hill prior to 2017 included eight RC holes and one diamond drillhole. The drilling outlined a steeply dipping, northeast striking gold zone approximately 100 m long and up to 30 m wide. Results included near-surface intercepts of 37 m grading 1.34 g/t Au (11 to 48 m) and a second zone of 13 m grading 1.76 g/t Au (54 to 67 m), and 8 m grading 2.22 g/t Au (36 to 44 m) and a second zone of 17 m grading 0.94 g/t Au (50 to 67 m).

The 2017-2018 program consisted of two holes totalling 200 m, intersecting mineralization to a depth of 80 m below surface. During the 2017-2018 RC drilling program, drillhole KJRC010 intersected 9.0 m of 1.99 g/t Au (0.0 to 9.0 m) and 29.0 m grading 0.87 g/t Au (21 to 50 m) confirming continuity of the mineralized gold zone.

10.5 2020-H1 2021 Drilling

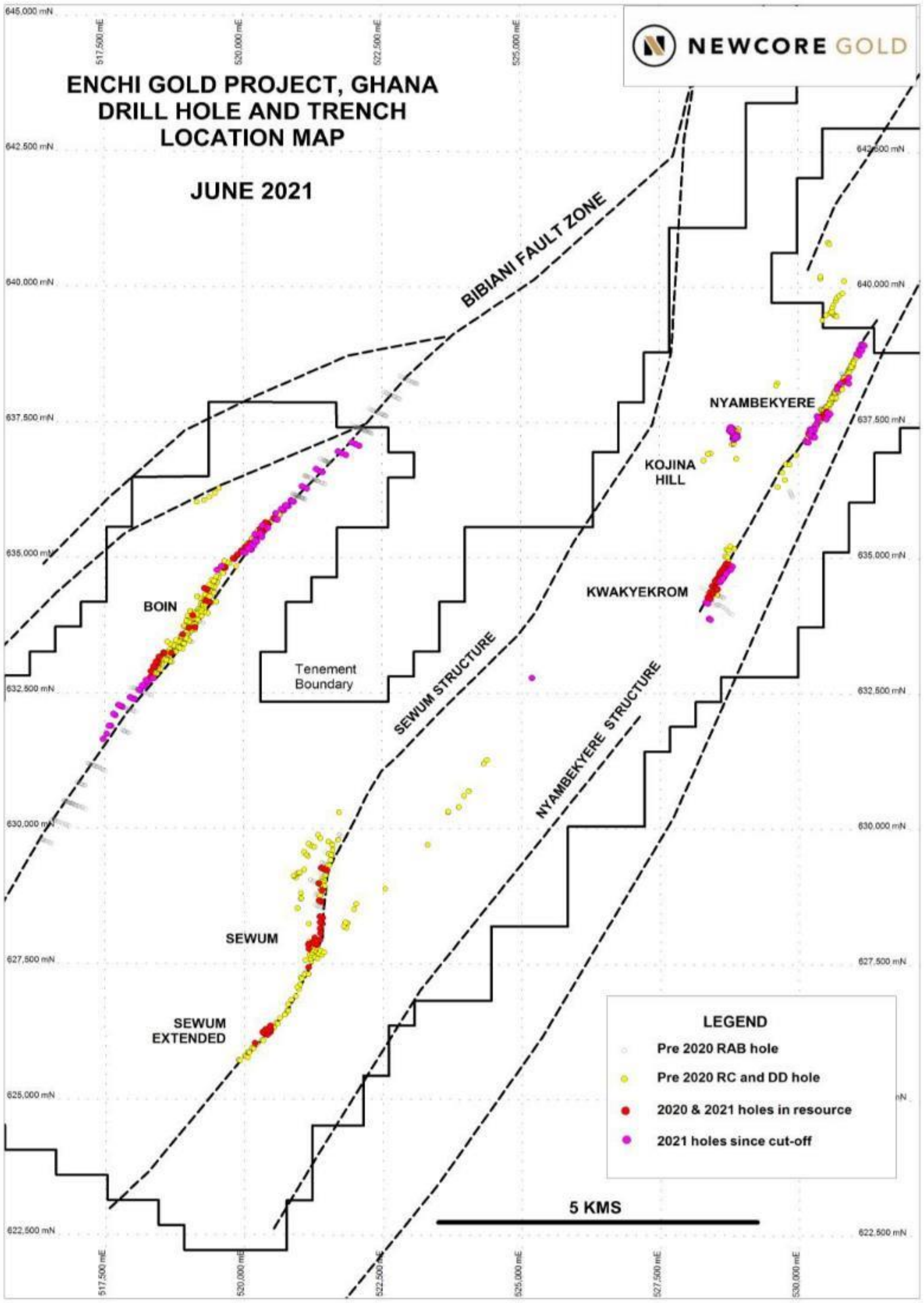
Newcore commenced a RC drill program on the Project on 7 August 2020, and drilling continued to the 8 June 2021. A total of 128 RC drillholes for a total of 20,195 m were incorporated into the 2021 Mineral Resource Estimate (Table 10.5.1) (Figure 10.5.1).

Table 10.5.1 2020-H1 2021 RC Summary

2020-H1 2021		
Deposit	**Holes**	**Metres**
Boin	51	8,219
Sewum	31	5,463
Kwak	38	5,483
Nyam	8	1,030
Total	**128**	**20,195**

Additional drilling completed in 2020 and H1 2021 on exploration targets consisted of 14 holes totalling 2,588 m at Kojina Hill, and one hole of 100 m at Nkwanta.

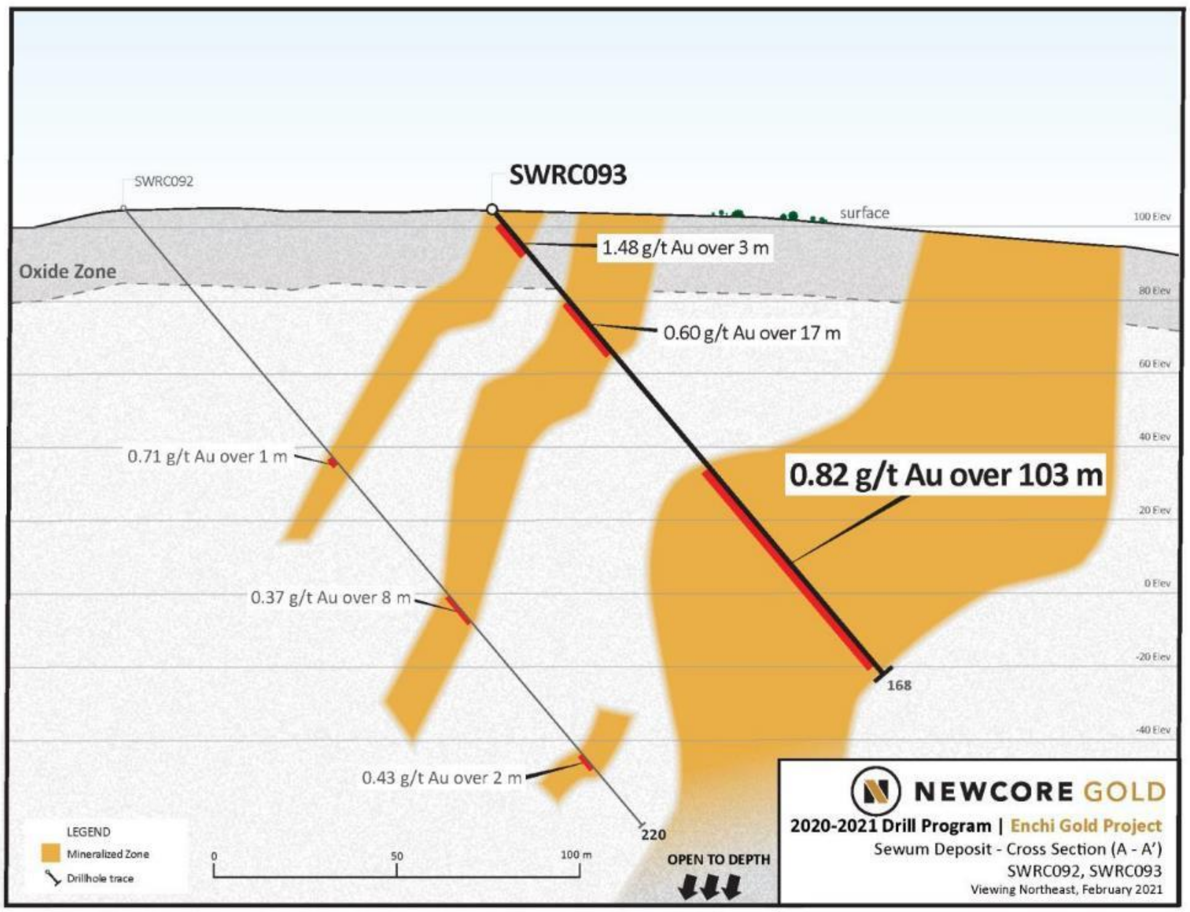
Figure 10.5.1 Drill Locations 2020-2021 (Newcore, 2021)



10.5.1 Sewum

In 2020-H1 2021, 31 RC holes totalling 5,463 m were drilled at Sewum to test extensions of known mineralized zones aimed at expanding resources. Wide intervals of gold mineralization were intersected in several holes extending the Ridge Top shear mineralization to depth toward the West Contact Zone and along strike to the south towards Checkerboard Hill (Figure 10.5.2).

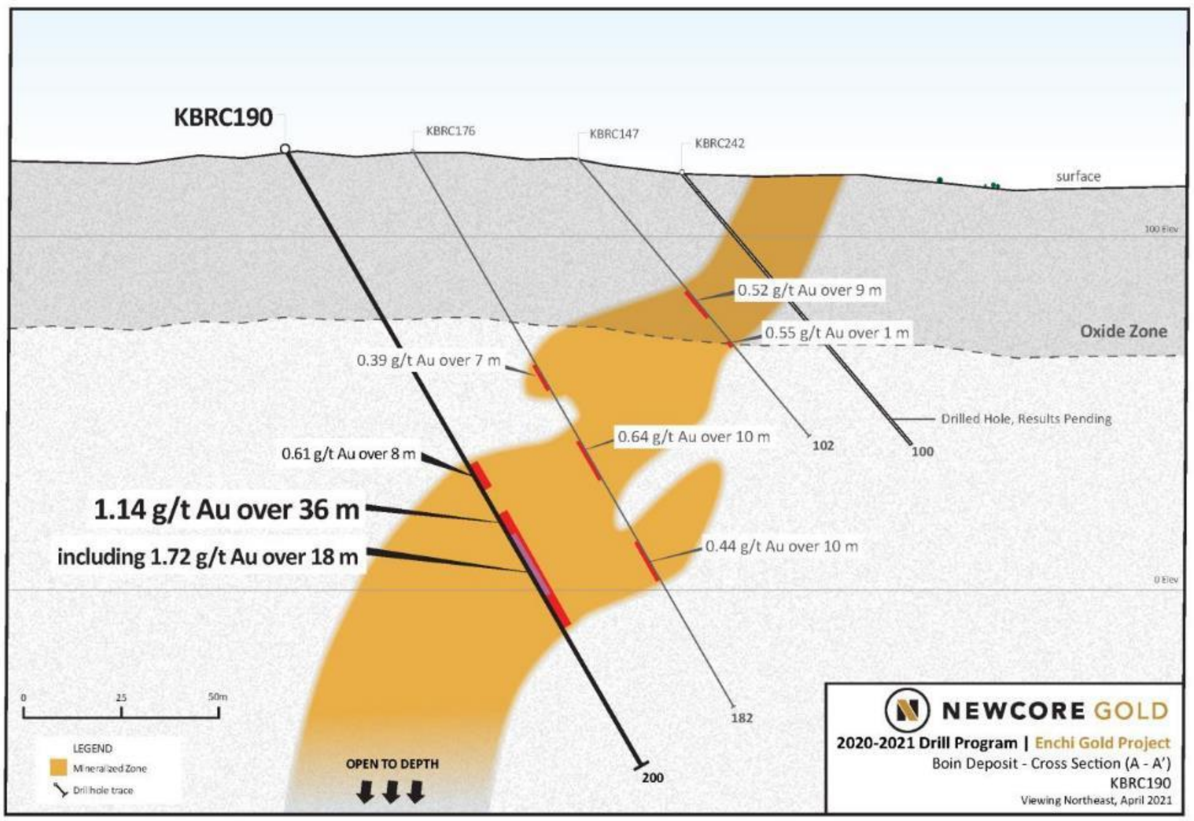
Figure 10.5.2 Sewum General Section (Newcore, 2021)



10.5.2 Boin

The 2020-H1 2021 RC drill program targeted infill and expansion drilling along the mineralized zone. The drilling program consisted of 51 holes totalling 8,219 m that targeted large undrilled gaps within the resource areas and were included in the 2021 Mineral Resource Estimate. The drilling also included 60 holes totalling 8,340 m, which successfully extended the main zone of continuous gold mineralization to approximately 400 m to the north and 1 km to the south (Figure 10.5.3).

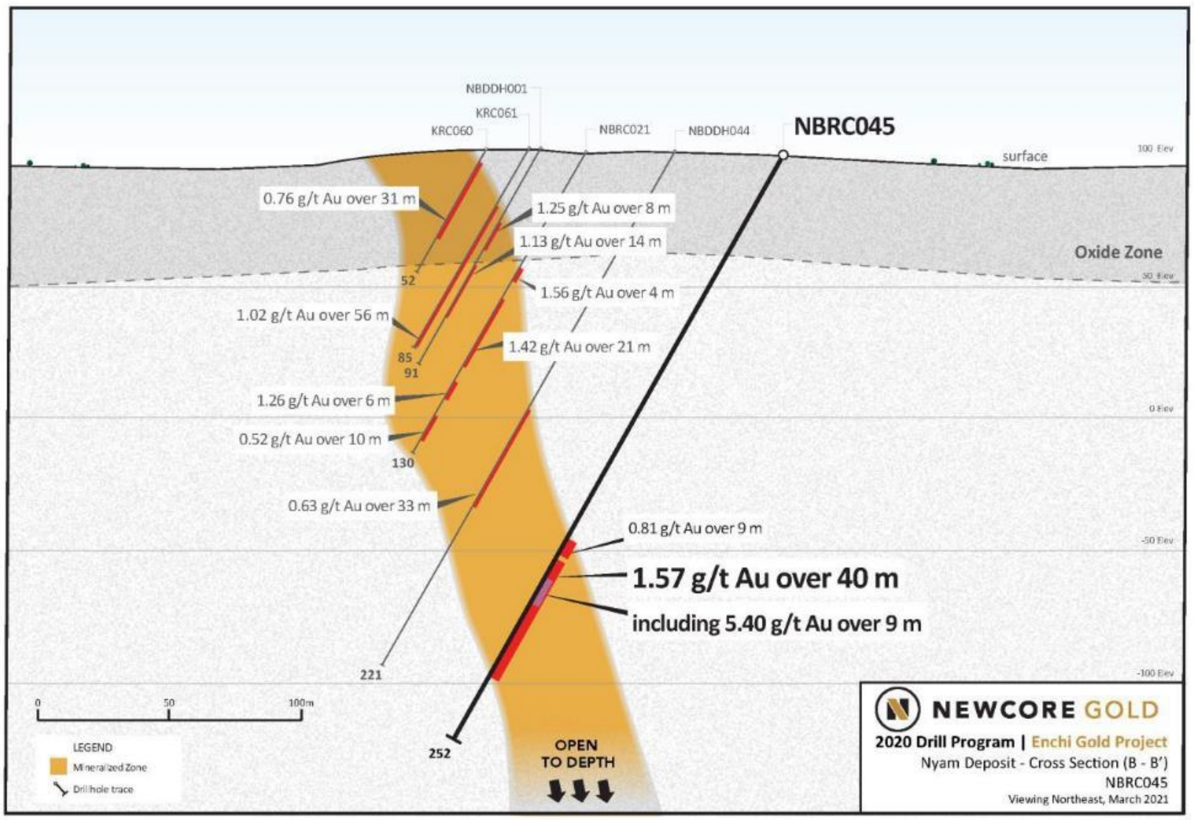
Figure 10.5.3 Boin General Section (Newcore, 2021)



10.5.3 Nyam

The 2020-H1 2021 RC drill program targeted down dip, up-dip, and expansion drilling along the mineralized zone. This drilling consisted of 8 holes totalling 1,030 m that stepped out on the resource areas and was included in the 2021 Mineral Resource Estimate (Figure 10.5.4).

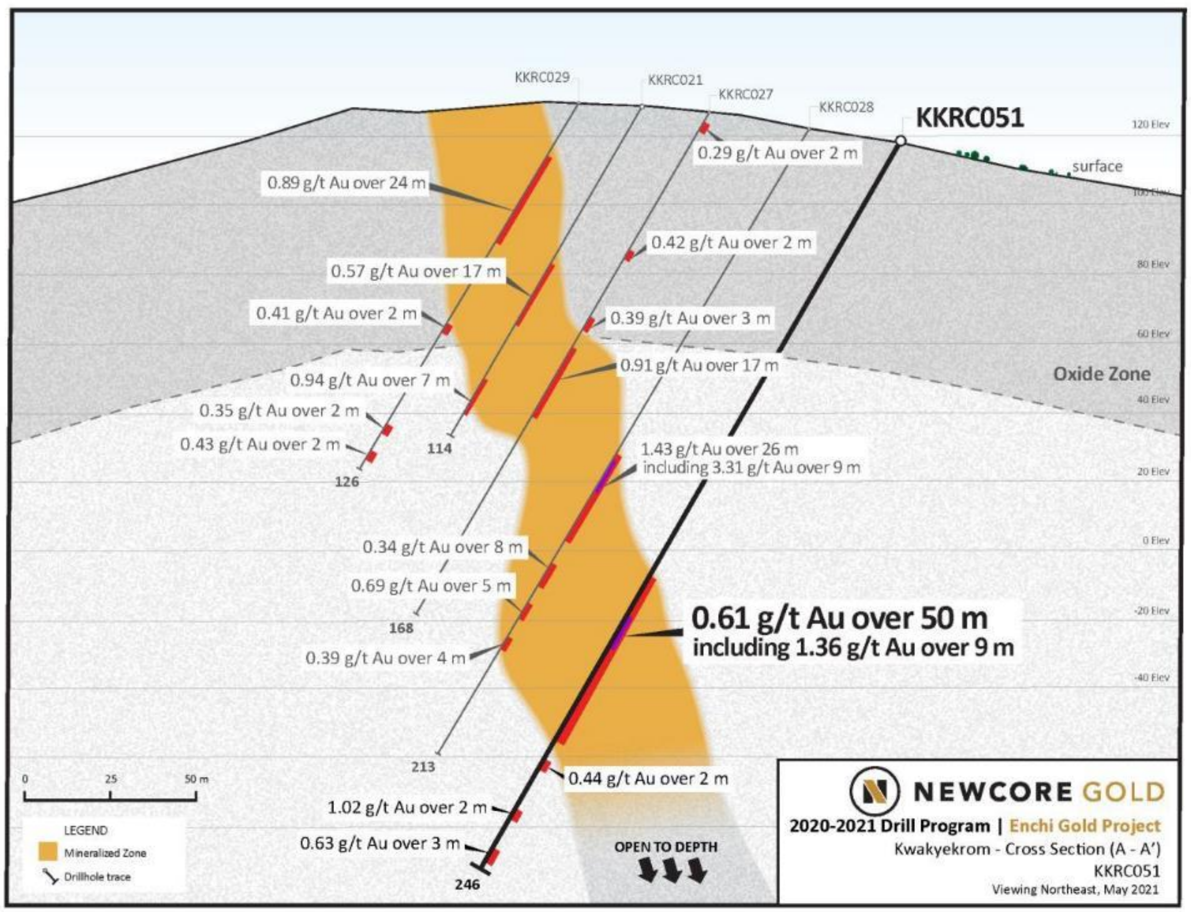
Figure 10.5.4 Nyam General Section (Newcore, 2021)



10.5.4 Kwakyekrom

The 2020-H1 2021 RC drill program at Kwakyekrom targeted down dip, up-dip, and expansion drilling along the mineralized zone. This program consisted of 38 holes totalling 5,483 m that stepped out on the mineralized areas and was included in the 2021 Mineral Resource Estimate which was also the inaugural estimate at Kwakyekrom. The program successfully extended the zone of continuous gold mineralization (Figure 10.5.6).

Figure 10.5.6 Kwakyekrom General Section (Newcore, 2021)



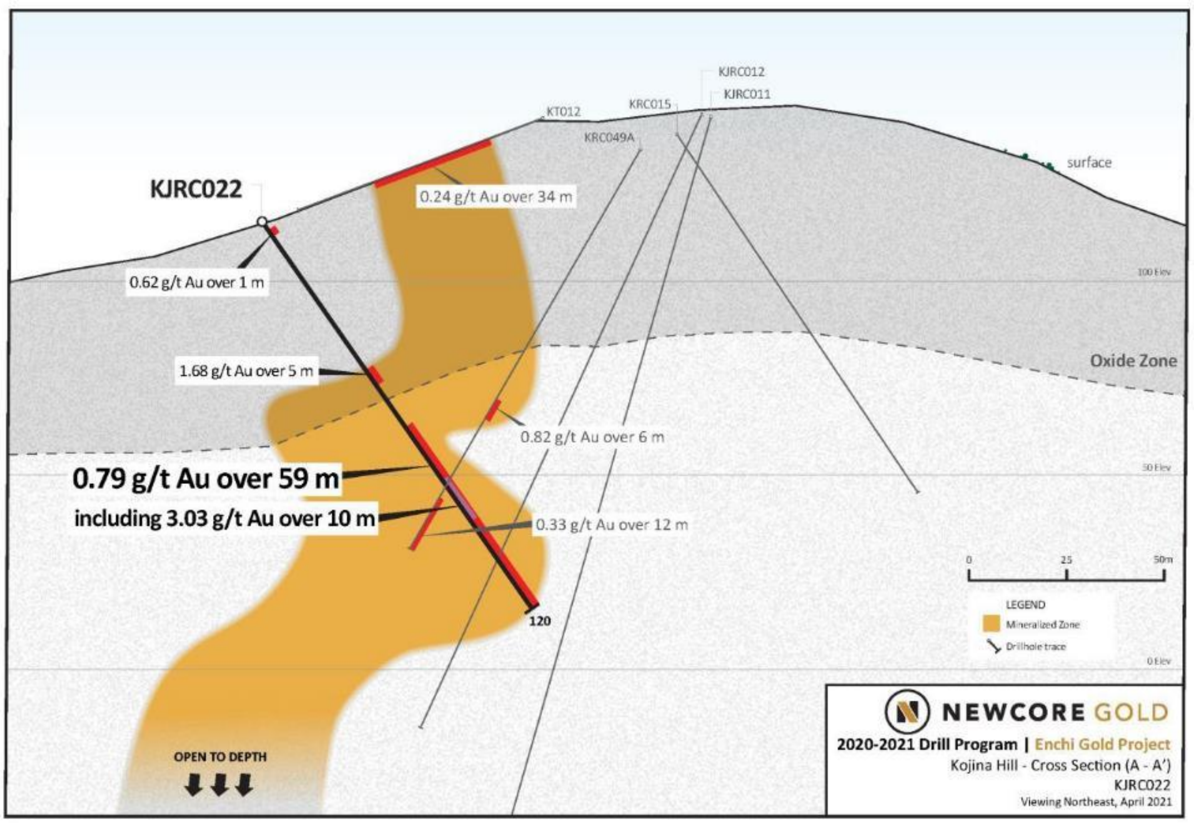
10.5.5 Kojina Hill

Kojina Hill is an advanced target on the Property that is outlined on the surface by a 2 km long by 1 km wide gold-in-soil anomaly. It is related to a structure sub-parallel to the Nyam Shear Zone and is located approximately 1.5 km northwest of the Nyam Zone. No Mineral Resource Estimate has been defined at Kojina Hill. Mineralization outlined to date is associated with a structurally complex zone with multiple sub-parallel structures.

Kojina Hill is accessed by drill roads leading off the main local access road situated 300 m to the east.

The 2020-H1 2021 program consisted of 14 holes totalling 2,588 m, intersecting mineralization to a depth of approximately 100 m below surface (Figure 10.5.7).

Figure 10.5.7 Kojina Hill General Section (Newcore, 2021)



10.5.6 Nkwanta

The 2020-H1 2021 program included one hole at Nkwanta totalling 100 m testing a 1.5 km by 2 km soil anomaly. The hole intersected a sequence of variably altered intermediate volcanics, yet no anomalous gold values.

10.6 H2 2021-2022 Drilling

Newcore continued an RC and DDH drill program in H2 2021 which was completed on 12 May 2022. This sub-section discusses the drilling that was completed after the cut-off date for the 2021 Mineral Resource Estimate. This drilling consisted of a total of 342 RC drillholes (49,805 m) and 47 DDH drillholes (14,585 m) which were completed post the 2021 Mineral Resource Estimate and were included in the 2023 Mineral Resource Estimate (Table 10.6.1) (Figure 10.6.1a and b).

Table 10.6.1 H2 2021 - 2022 RC and DDH Summary

Deposit	RC Holes	Metres	DDH Holes	Metres
Boin	103	15,159	18	4,896
Sewum	43	6,298	15	4,791
Nyam	84	12,799	12	4,258
Kwakyekrom	30	5,311	2	640
Tokosea	82	10,238	0	0
TOTALS	**342**	**49,805**	**47**	**14,585**

Figure 10.6.1a Drill Locations H2 2021-2022 (Newcore, 2023)

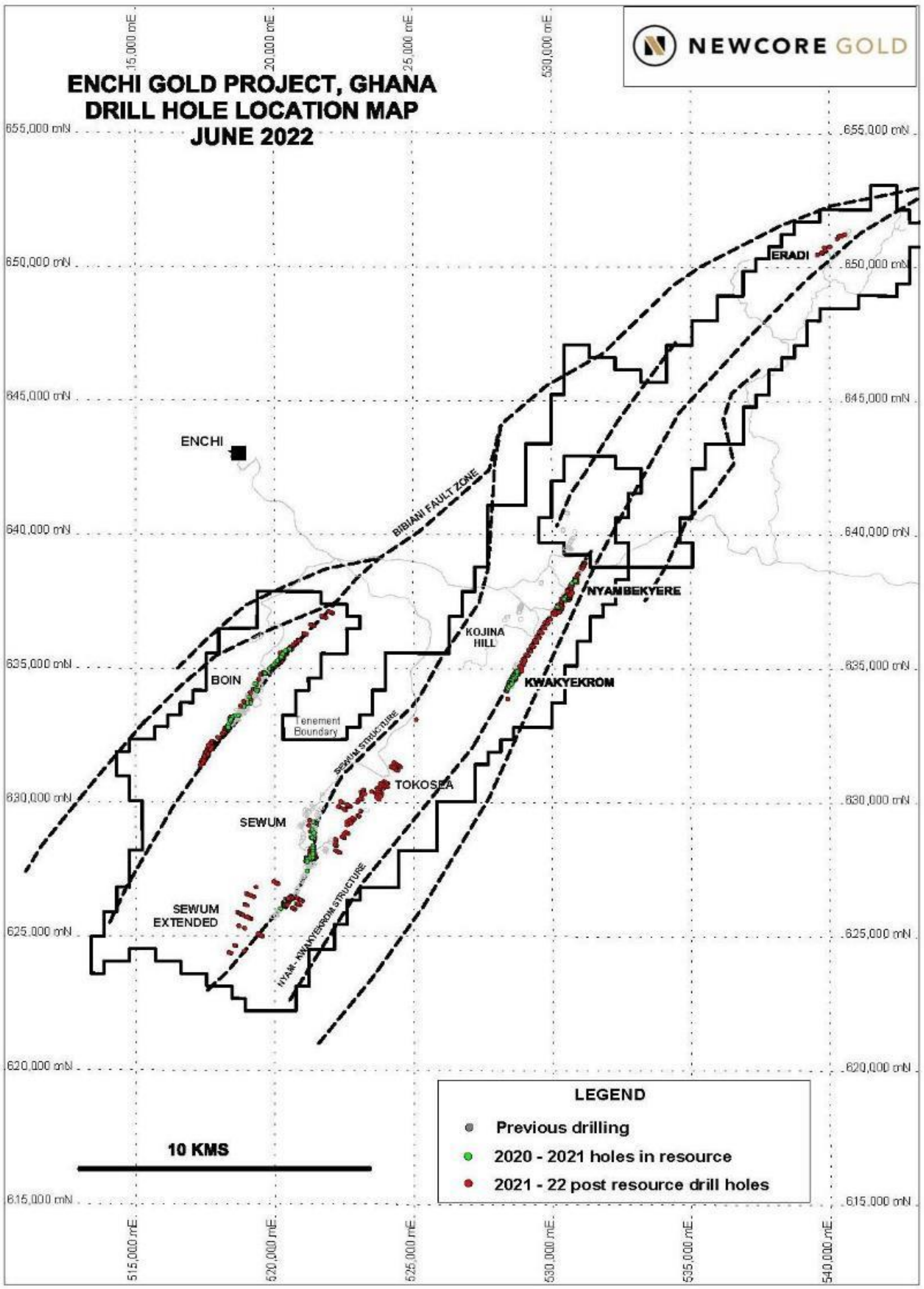
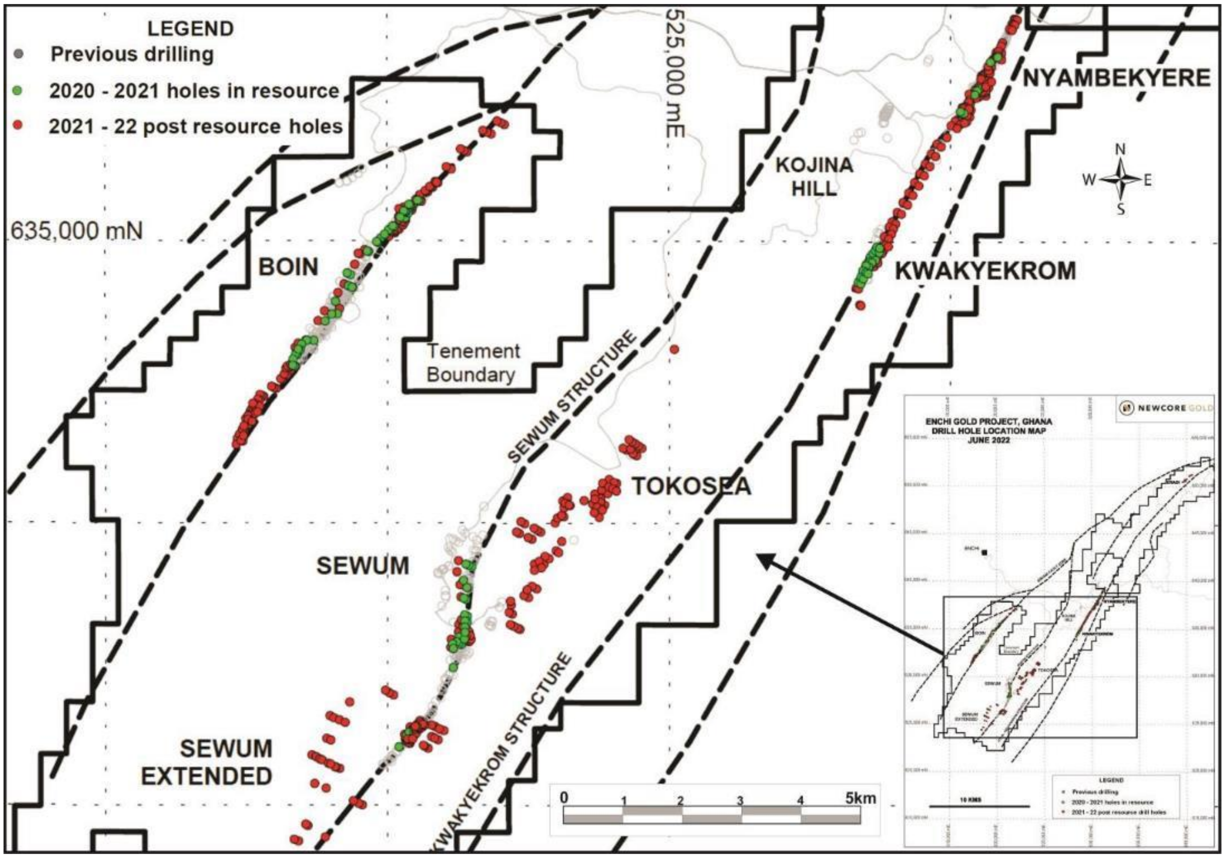


Figure 10.6.1b Detailed Drill Locations H2 2021-2022 (Newcore, 2023)



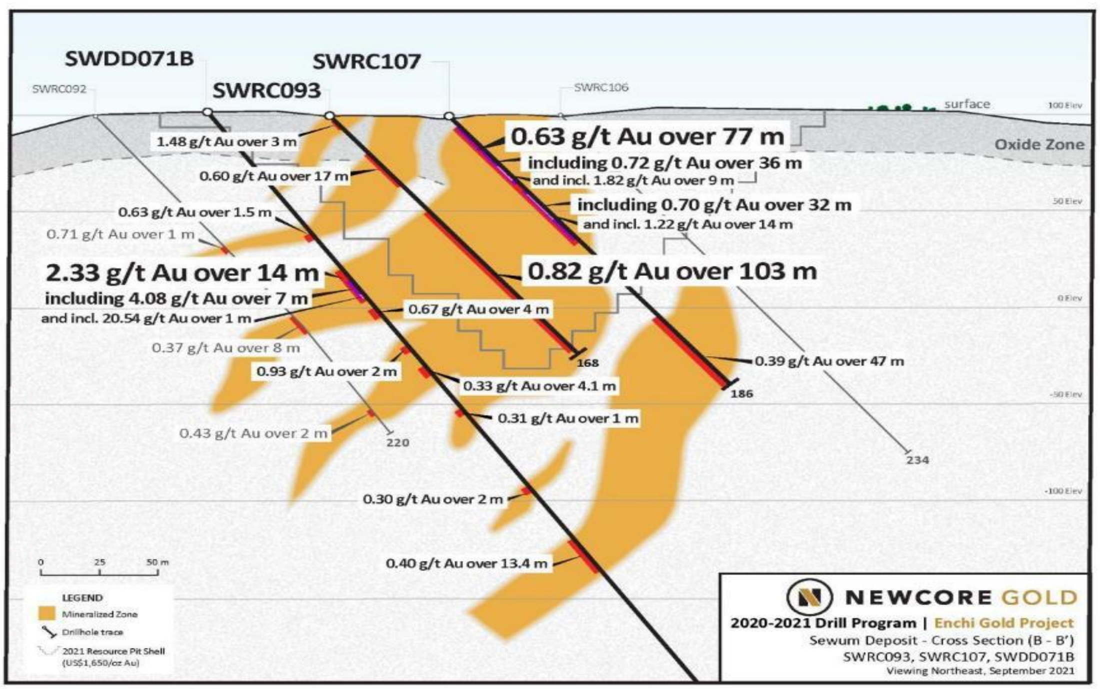
10.6.1 Sewum

Sewum is located 15 km south of the town of Enchi and four km southeast of the other major gold resource identified at Boin. A local access road passes through the Sewum Zone with further access provided by drill roads.

Gold mineralization at Sewum can be traced continuously for over 3.5 km and is contained within broad (up to 80 m thick) steep to moderate dipping, gold-bearing shear zones. The mineralized shears occur within a centrally located dolerite intrusion (Ridge Top shears) and at the contact zone of the intrusion with adjacent sedimentary rock units most notably at the Sewum West Contact Zone. Additional shears are interpreted to the east based on linear gold in soils anomalies and to the south where a strong gold in soil anomaly extends along the trend of the main Sewum shear for a further 3 km.

In H2 2021-2022, 72 RC holes totalling 9,418 m and 15 DDH holes totalling 4,791 m were drilled at Sewum to test extensions of known mineralized zones aimed at expanding resources and testing up-dip and down-dip portions of the deposit. Wide intervals of gold mineralization were intersected in several holes extending at the Ridge Top shear mineralization, along strike to the north at Checkerboard Hill and at the Sewum Extension (Figure 10.6.2). Drilling in some areas at Sewum notably in portions of the structure below the modelled pits and at Sewum South, was completed at wide spacings, and further drilling is required in order to potentially expand the current Mineral Resources.

Figure 10.6.2 Sewum General Section (Newcore, 2023)



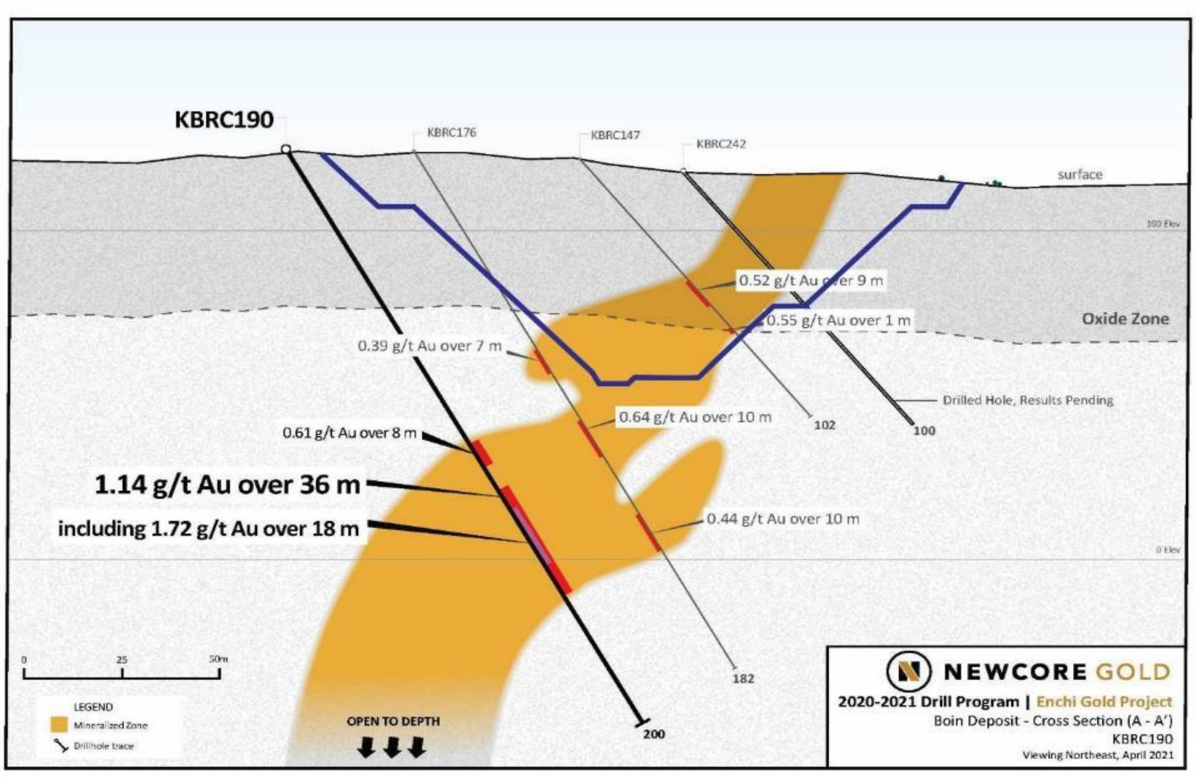
10.6.2 Boin

Boin is accessible by a series of drill roads, located near a paved road and powerline and 10 km south of the town of Enchi.

Boin is outlined on the surface by an 8 km long and 0.5 km to 1.0 km wide gold in soil anomaly. The response of the airborne electromagnetic along the structure is a highly conductive trend interpreted to be associated with the shallow dipping graphitic shear that occurs in the footwall to the gold mineralization. The geophysical anomaly extends for a further 1 km north and 5 km south beyond the current drill tested section.

The H2 2021-2022 RC and DDH drill program targeted infill and expansion drilling along the mineralized zone. The program consisted of 103 RC holes totalling 15,159 m and 18 DDH holes totalling 4,896 m that targeted undrilled gaps and extensions to the resource areas that were included in the 2021 Mineral Resource Estimate. The program also included deeper holes successfully extending the main zone of continuous gold mineralization down dip to 250 m vertically below the surface. Step out holes on the southern end of the deposit extended drill tested strike extent at Boin to over 6 km (Figure 10.6.3). Drilling on some segments of the Boin structure and in areas below the modelled pits, was completed at wide spacings, and further drilling is required in order to potentially define additional Mineral Resources.

Figure 10.6.3 Boin General Section (Newcore, 2023)

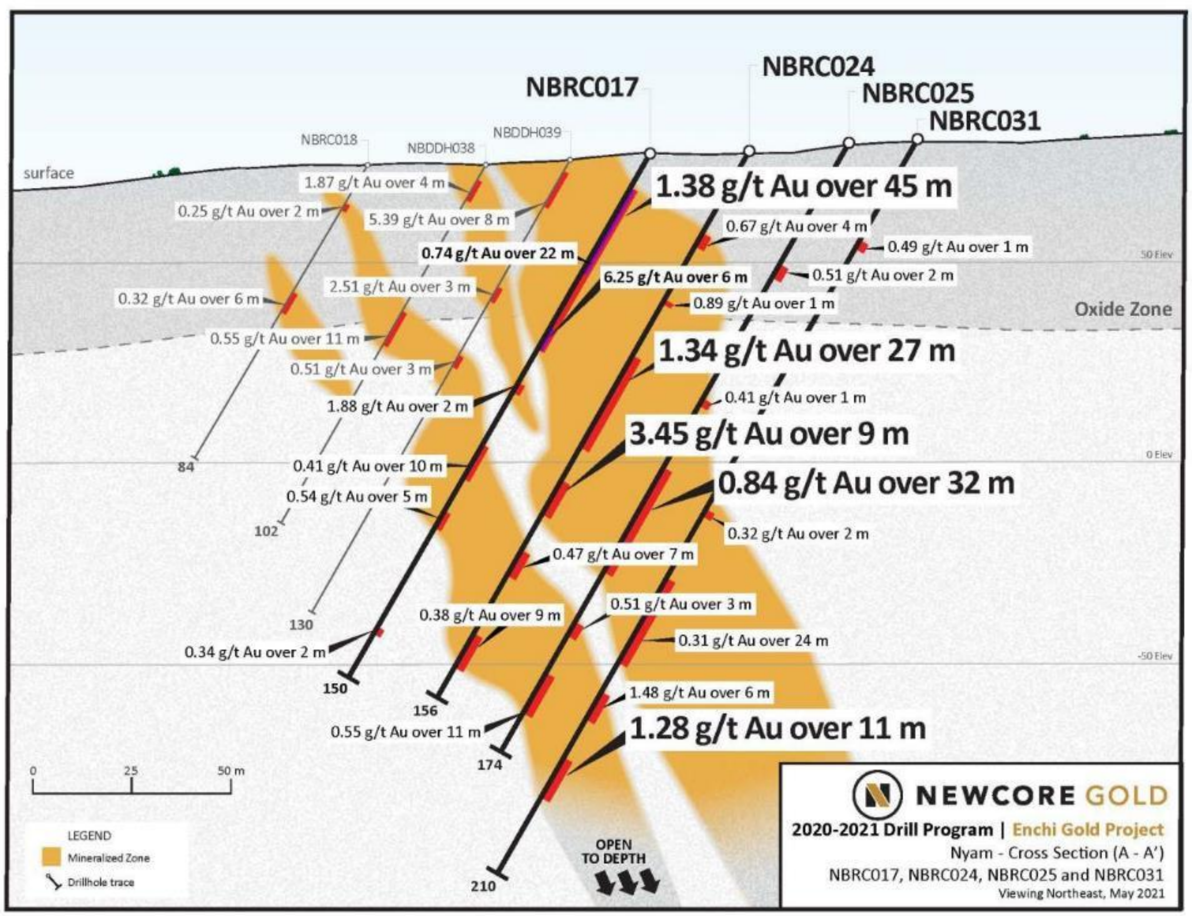


10.6.3 Nyam

The Nyam deposit is located 7 km northeast of Sewum. Mineralization at Nyam occurs along a linear zone associated with a contact between sedimentary and volcanics rocks.

The H2 2021-2022 RC and DDH drilling at Nyam continued to target down dip, up-dip, and expansion drilling along the mineralized zone. This drilling consisted of 84 RC holes totalling 12,799 m and 12 DDH holes totalling 4,258 m that stepped out on the resource areas and were included in the Mineral Resource Estimate. Drilling has successfully expanded the drill tested strike extent at Nyam to 2.5 km as well as below extending mineralization below the existing resources (Figure 10.6.4). Drilling in the area between Nyam and Kwakyekrom was completed at wide spacings, and further drilling is required in order to potentially define further Mineral Resources.

Figure 10.6.4 Nyam General Section (Newcore, 2023)

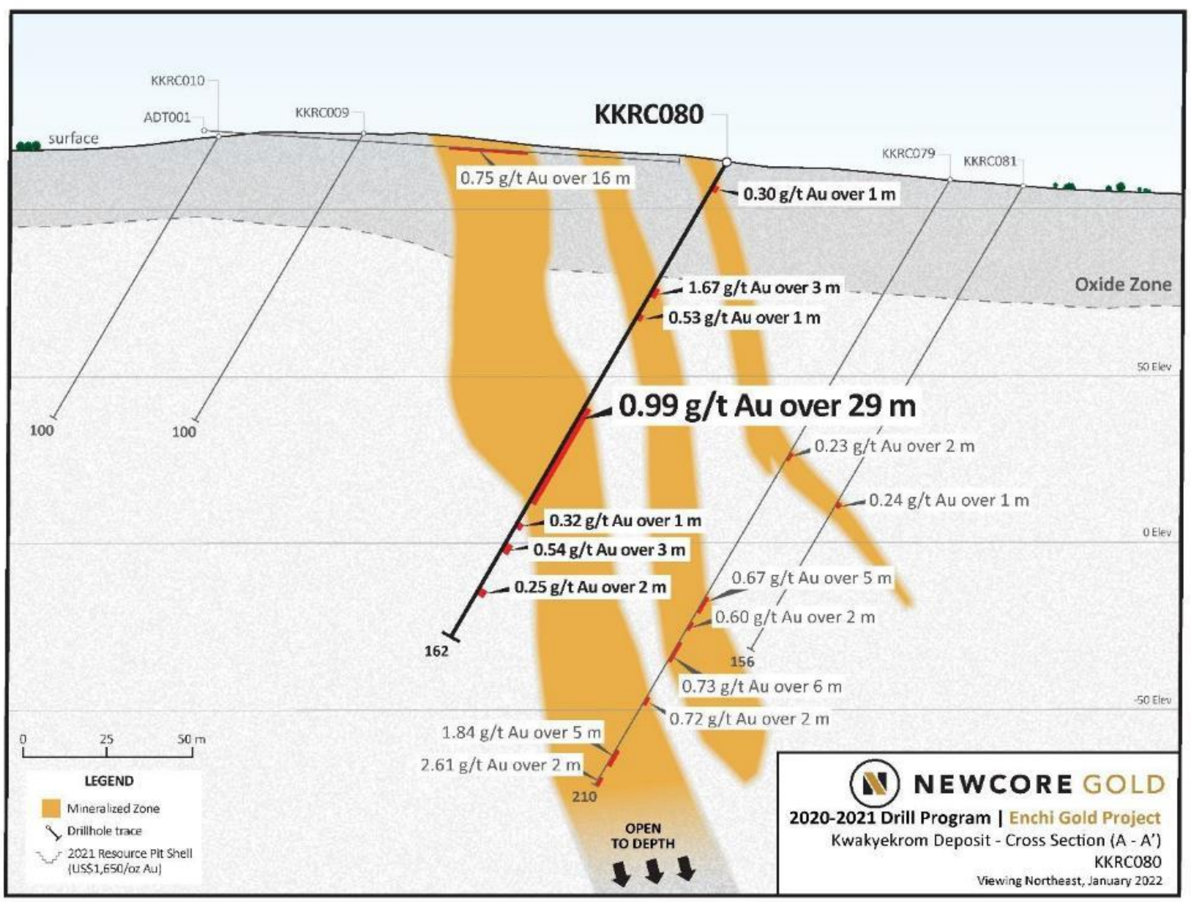


10.6.4 Kwakyekrom

The Kwakyekrom Zone is located 3 km south of the Nyam Zone and is interpreted to be related to the extension of the same structure that runs north-south through the 40-km long property. Drilling has tested the Kwakyekrom Zone over a strike distance of 1.5 km and to a depth of approximately 150 m. The zone is hosted by altered phyllite, 700 to 800 m west of the interpreted position of the second order NS structure. The phyllite has been intersected by metre-scale dolerite dykes similar in composition to the larger intrusive bodies encountered at Sewum.

The H2 2021-2022 RC and DDH drill program targeted down dip, up-dip, and expansion drilling along the mineralized zone. This drilling consisted of 30 RC holes totalling 5,311 m and 2 DDH holes totalling 640 m that stepped out on the mineralized areas. Drilling successfully extended the zone of continuous gold mineralization (Figure 10.6.5). Drilling in the area between Nyam and Kwakyekrom was completed at wide spacings, and further drilling is required in order to potentially define Mineral Resources in those areas.

Figure 10.6.5 Kwakyekrom General Section (Newcore, 2023)

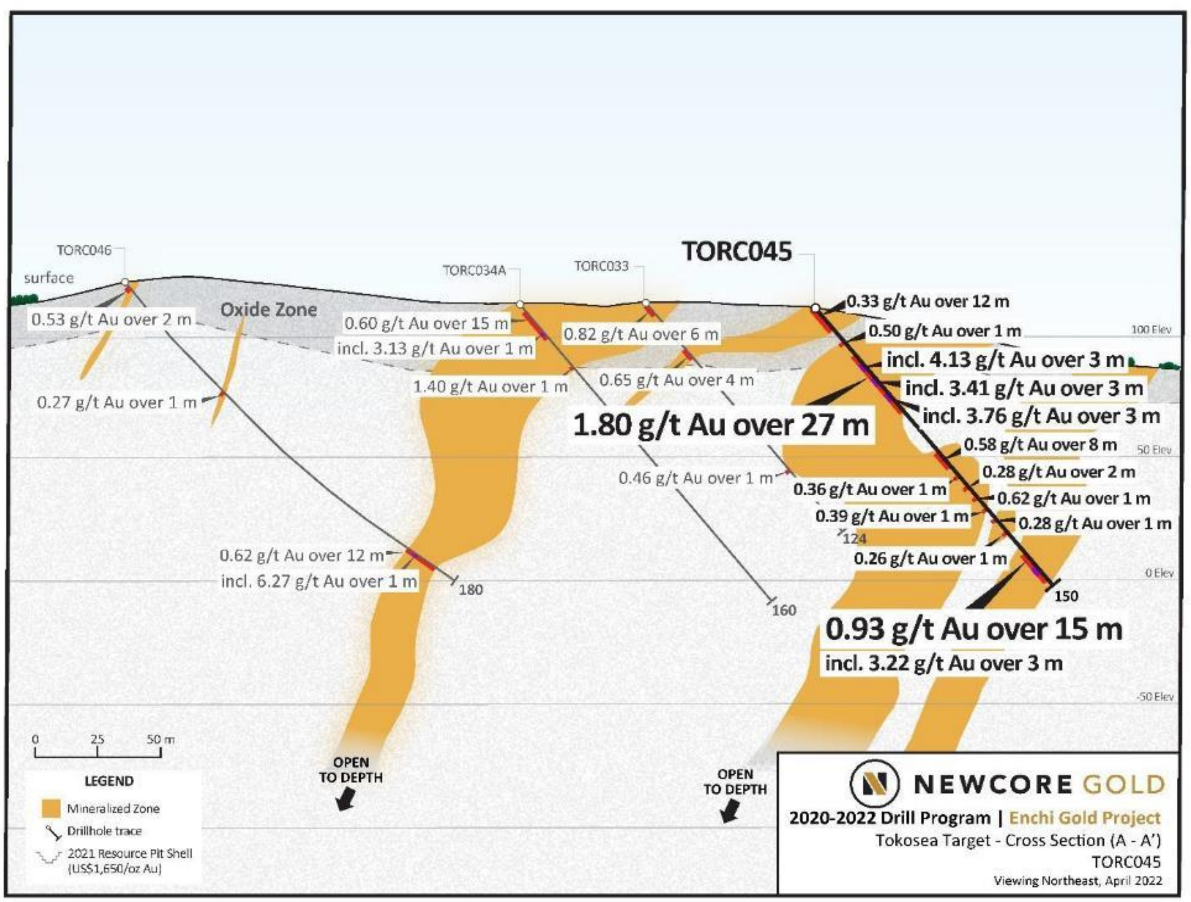


10.6.5 Tokosea

The Tokosea Zone is located 3 km north-northeast of the Sewum Zone and is interpreted to be related to the extension of the same structure that runs north-south through the 40-km long property. The first pass RC drilling completed as part of the H2 2021-2022 RC drill program tested the Tokosea Zone over a cumulative strike distance of 3 km across 5 subparallel structures and to a depth of approximately 100 m. The zone is hosted by altered phyllite and volcanic rocks. The phyllite has been intersected by metre-scale dolerite dykes in the eastern portion with a larger intrusive body of similar composition encountered in the western portion of the zone, possibly related to identical rocks at the northern end of the Sewum deposit.

The H2 2021-2022 RC drill program consisted of 82 RC holes totalling 10,238 m and was successful in outlining a series of sub-parallel zones of continuous gold mineralization (Figure 10.6.6). Drilling in some portions of the Tokosea area was completed at wide spacings, and further drilling is required in order to potentially define additional Mineral Resources.

Figure 10.6.6 Tokosea General Section (Newcore, 2023)



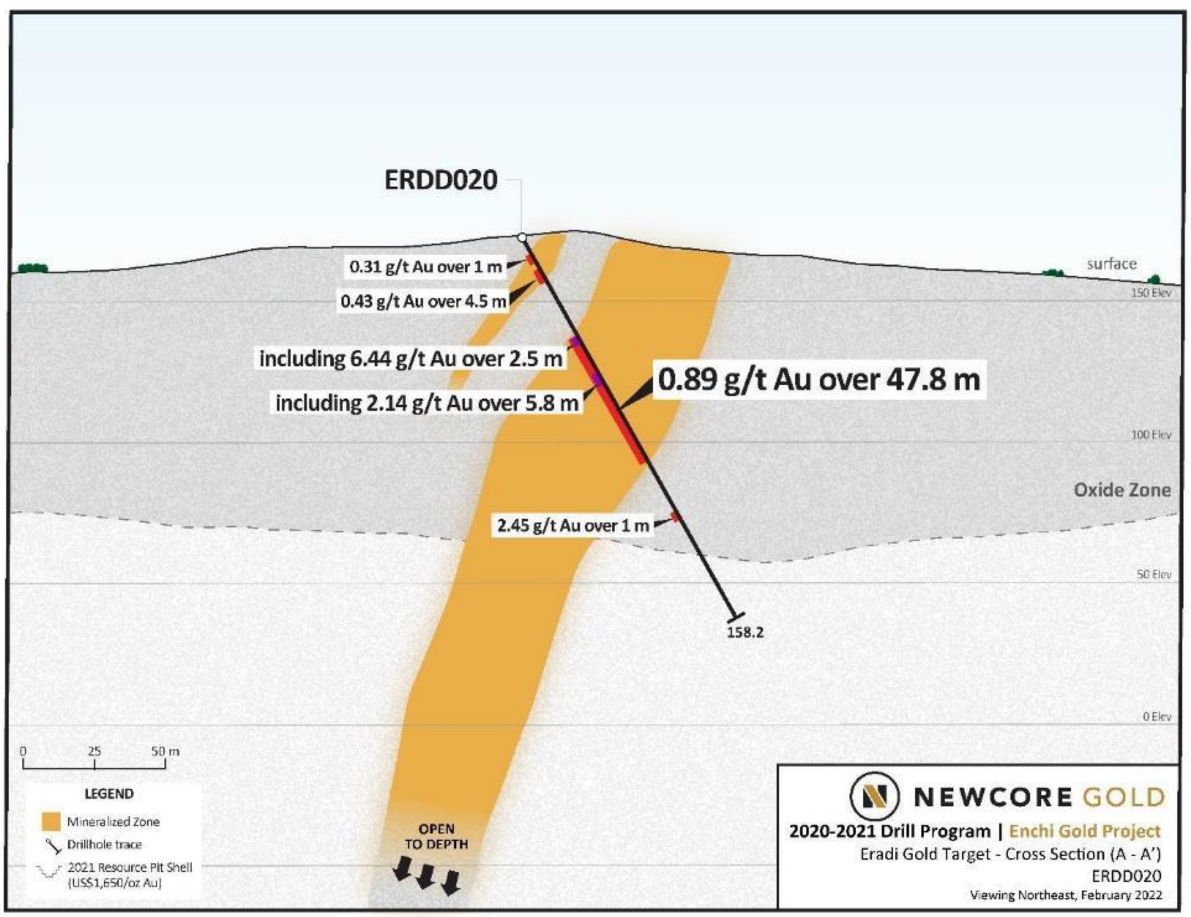
10.6.6 Eradi

The Eradi Zone is an advanced target in the northern portion of the Property that is outlined on the surface by a 2 km long by 1 km wide gold-in-soil anomaly. It is related to an extension of the Nyam Shear Zone and is located approximately 20 km north-northeast of the Nyam Zone. No Mineral Resource Estimate has been defined at Eradi. Mineralization outlined to date is associated with a structurally complex zone with at least 2 sub-parallel structures.

Eradi is accessed by gravel roads leading off the main local access road and a series of drill roads.

The 2020 - H1 2021 program consisted of 14 DDH holes totalling 2,189.5 m, intersecting mineralization to a depth of approximately 75 m below surface (Figure 10.6.7).

Figure 10.6.7 Eradi General Section (Newcore, 2023)



10.7 Q4 2022-2023 Drilling

The Q4 2022-2023 Diamond Drilling (DD) drilling program on the Enchi Gold Project was completed at the Nyam Deposit.

10.7.1 Nyam

The Nyam deposit is located 7 km northeast of Sewum. Mineralization at Nyam occurs along a linear zone associated with a contact between sedimentary and volcanics rocks.

Drilling commenced on 20 October 2022 and was completed on 20 January 2023, with a break in drilling between 22 December 2022 and 8 January 2023. The program included 5 holes totalling 2,155 m (Table 10.7.1).

All holes were completed on the Nyam Deposit, stepping out along strike and down dip from previous drilling. None of the Q4 2022-2023 DD drillholes have been included in the 2023 Mineral Resource Estimate which is used as the basis for the PEA study in this technical report.

Table 10.7.1 Q4 2022 - 2023 Enchi DD Collar Locations

Hole ID	UTM East	UTM North	Elevation	Azimuth °	Dip °	Length (m)
NBDD060	530429	637176	99	300	-55	425.2
NBDD061	530496	637216	121	300	-50	469.8
NBDD062	530653	637504	120	300	-53	449.4
NBDD063	530818	637672	159	300	-62	532.5
NBDD064	530550	637597	124	300	-56	278.1

Drilling was completed by a track-mounted Boart Longyear LF90D rig operated by Boart Longyear, an independent drill company. Holes were collared using PQ sized core and reduced to HQ sized core below the level of oxidation. All holes were oriented using the Boart Longyear TruShot device to allow for the collection of structural data.

The drill intercepts include gold-bearing intervals within the upper portions of the unoxidized primary gold mineralization. A series of holes tested the down dip and lateral extensions to previously identified high-grade gold mineralization. Holes NBDD060 and NBDD061 tested the southern high-grade shoot. Holes NBDD062, NBDD063 and NBDD064 tested extensions to the central high-grade shoot located 200 to 500 m to the north. To date, the deposit has only been tested to a maximum vertical depth of 350 m and remains open to depth and along strike.

Hole NBDD063, which tested the central high-grade shoot, stepped out 75 m down dip from previously drilled hole NBDD052 which intersected 3.21 g/t Au over 15.0 m from 321.0 m. NBDD063 intersected 1.58 g/t Au over 26.3 m from 482.5 m, including 3.28 g/t Au over 11.0 m from 489.0 m. Hole NBDD064 is a lateral step out extending the high-grade zone intersected in previously drilled hole NBRC045 (1.57 g/t Au over 40.0 m from 179.0 m), intersecting 1.16 g/t Au over 36.4 m from 217.2 m, including 2.03 g/t Au over 17.4 m from 219.2 m.

Hole NBDD060 is a down dip step out on the southern high-grade shoot and was drilled 90 m down dip of previously drilled hole NBDD048 which intersected 4.51 g/t Au over 13.0 m from 236.0 m. NBDD060 intersected 0.70 g/t Au over 19.7 m from 358.3 m, including 1.30 g/t Au over 9.4 m from 359.2 m.

Table 10.7.2 summarizes the significant results from the Q4 2022 - 2023 drilling completed. The intervals stated in the results table are weighted averages using uncut assays and represent downhole intervals and do not reflect true thickness of the mineralization.

Table 10.7.2 Q4 2022 - 2023 DD Results

Hole ID	Deposit	From (m)	To (m)	Length (m)	Au (g/t)
NBDD060	Nyam	358.3	378.0	**19.7**	**0.70**
including		359.2	361.0	**1.8**	**2.28**
or		359.2	368.6	**9.4**	**1.30**
NBDD061	Nyam	391.0	426.6	**35.6**	**0.28**
including		400.4	406.7	**6.3**	**0.56**
NBDD062	Nyam	350.5	373.6	**23.1**	**0.36**
and		396.2	405.4	**9.2**	**0.74**
including		396.2	398.0	**1.8**	**3.21**
NBDD063	Nyam	395.2	407.0	**11.8**	**0.84**
and		482.5	509.3	**26.3**	**1.58**
including		489.0	500.0	**11.0**	**3.28**
including		496.0	500.0	**4.0**	**6.57**
NBDD064	Nyam	217.2	253.6	**36.4**	**1.16**
including		219.2	236.6	**17.4**	**2.03**

10.8 Drilling Procedures

10.8.1 Surveying

Collar Survey

Prior to drilling a hole, the proposed collar position is located by tape and compass survey from the nearest point whose coordinates are accurately known, or by handheld GPS. When there is a surveyor on site, the collar is located by electronic distance measurement (EDM) survey (Figure 10.8.1).

The inclination is set using a clinometer attached to the rod tracks while the mast is tilted and is checked and approved by the geologist prior to the start of drilling. Comparison of the first downhole surveys with the nominal collar dip and azimuth should be checked by the geologist.

Prior to 2017, all holes drilled were accurately surveyed for collar locations. The survey is by EDM, operated by qualified and experienced surveyors.

It was the responsibility of the geologist to enter all collar details from each day of drilling into the relevant computer file.

Collar coordinates during drilling completed from 2020 to 2023 have been determined by hand-held GPS. Under normal conditions, the Garmin 64 handheld unit can attain a 3 m accuracy in the X & Y coordinates. After a drill hole has been completed, the geologist will record the position of the drill collar using a handheld GPS. This XYZ data is entered into the Project database.

Drill collars are well preserved with PVC pipes encased in concrete pillars with drill hole details displayed (Figure 10.8.2).

Figure 10.8.1 Collar Survey (McCracken, 2012)

Figure 10.8.2 Preserved Drill Collar (Newcore, 2022)

Downhole Survey

A minimum of 2 surveys were completed on each hole. For holes less than 100 m, the survey was completed at half-depth and at the end of hole. Holes over 100 m were surveyed at 50 m intervals and at the end of the hole.

All surveys were completed during the drilling process.

For diamond drilling completed from 2020 until 2022, drillholes were surveyed using a TruShot (BLY in-house design) downhole survey instrument. This is not a gyroscope, so azimuth readings are liable to interference from iron / magnetic substances. The TruShot tool is therefore attached to 3 m aluminium rods that protrude through the drill bit. Surveys are taken at 12 m and 30 m downhole and then at 30 m intervals. Newcore's technician supervising the drilling contractor photographed each downhole survey reading and texted it to the Project Geologist for approval before drilling was able to proceed. These photographs are archived to act as a record of downhole survey data for each hole.

Drill core was orientated by the drillers using a TruCore (BLY in-house design) orientation tool. In competent rock, drill core was orientated each 3 m drill run. If the ground was broken, the drillers used shorter drill runs and the core was orientated each run. The drillers placed a wax pencil mark on the bottom of the core. Newcore technicians placed the core on an 'angle iron' bench beside the drill rig. The individual core pieces were aligned, and the orientation mark traced along the base of the core as a solid black line. Downhole direction tick marks were drawn at regular intervals along the orientation line. If the technician was not certain of the core alignment, a dashed line was drawn.

Digital Terrain Model

A digital terrain model (DTM) was created by flying a drone survey over the resource zones. Orthophotos were also collected during the drone survey. The elevation (Z) data for drill collars was modified to fit the DTM surface. The Enchi Gold Project database drill collar survey file therefore comprises handheld GPS coordinates (X & Y) and modified elevation (Z) data.

10.8.2 Drilling

Rotary Air Blast

A downhole hammer was used to penetrate the ground with compressed air used to lubricate and cool the bit and carry drill cuttings to the surface. The drill cuttings were carried up the hole outside of the drill steel by compressed air. The drill cuttings were collected from the collar at 1 m intervals. The hole was flushed with compressed air after each 1 m interval to minimize downhole contamination.

Reverse Circulation

Only face-sampling hammers were used. A length of PVC casing was inserted into the top of the hole at a sufficient depth to create a secure seal at the top of the hole.

The hole was cleaned out at the end of each rod by blowing the hole in order to reduce any potential contamination (Figure 10.8.3).

The cyclone was cleaned after every hole to minimize contamination between holes.

Figure 10.8.3 Reverse Circulation Drill (Newcore, 2021)

Diamond Drill

Diamond drilling was completed using a wireline system, drilling PQ-HQ-NQ sized core (Figure 10.8.4). Holes were converted to HQ when poor ground was encountered. Core was retrieved at 3 m runs and the core was placed in the core box by the drillers. Geotechnicians monitored the drill rig operation 24 hours per day. Forms were filled out during each shift recording the type of work completed and the time taken, such as rig shifts, pulling rods, changing the bit, drilling, breakdowns, and downhole survey.

Figure 10.8.4 Diamond Drill (Newcore, 2022)

10.8.3 Logging Procedures

Chip Logging

RC and RAB drill logs were completed manually on standard logging forms. All necessary fields were completed, and a standard set of codes was documented. The geological log recorded the percentage sample recovery for each 1 m interval estimated by visual comparison.

Samples were examined and logged on site and washed chips were glued to a chip boards (prior to 2017) or placed in chip trays (since 2017) for future reference (Figure 10.8.5, Figure 10.8.6, and Figure 10.8.7). Chip boards or chip trays are stored at the Newcore field warehouse facility in Enchi.

Figure 10.8.5 RC Chip Logging (Newcore, 2017)

Figure 10.8.6 Chip Board Preparation (Newcore, 2017)

Figure 10.8.7 Chip Tray (Newcore, 2022)

Diamond Drill Core Logging

Full-core boxes were collected at the end of each shift and taken to the Enchi site office. All drill core is systematically marked out, logged by geologists using geotechnical and geological logs, photographed, sawn with a core saw and sampled at approximately 1.0 to 1.5 m intervals taking into account lithological contact and boundaries to visible mineralization. Very soft, clayey core was halved using a broad-bladed steel spatula (paint scraper). The following is a detailed description of the logging procedure that was carried out on the Project:

- Prior to logging, all drill core trays are laid out on logging shelves for geologists to check the mark ups made by the technicians and label the 1 m intervals on the core trays. All core is then photographed on a stand with a digital camera, a single box at a time together with a white board describing the date, borehole number, box number, and interval.

- After the entire core has been photographed, the core is laid out to be logged by geologists. 2 logging forms are used: a descriptive geological form and a geotechnical form. The descriptive logs are used to record core recoveries, intensity of weathering, rock types, alteration styles and intensities, percentage and types of sulphides and other general information that cannot be recorded on the geotechnical logs. The geotechnical forms are mainly used to record detailed structural information (alpha - beta measurements) from the oriented drill core but also contain rock quality designation (RQD), fracture and joint data, core hardness, etc.

- Structural measurements are recorded for veins, bedding and cleavages on a paper logging sheet. These readings are taken twice for each feature. Firstly, using a Konometer to record Alpha & Beta angles and secondly using a 'rocket launcher' core mount to record dip, dip direction and strike. Structural measurements are recorded for veins, bedding and cleavages on a paper logging sheet. These readings are taken twice for each feature. Firstly, using a Konometer to record Alpha & Beta angles and secondly using a 'rocket launcher' core mount to record dip, dip direction and strike.

- Once completed, all the logging data is entered into a drillhole database.

10.8.4 Sampling Approach

Reverse Circulation Sampling

Sampling was done at the rig. The standard form and ticket books were completed by a technician and signed off by the project geologist.

A 1 m sampling interval was used in all holes with the entire hole being sampled.

Dry Samples

Each sample was collected in a large plastic bag clamped tightly onto the base of the cyclone.

In 2012, each sample was weighed, then a split was taken for analysis using a four-inch polyvinyl chloride (PVC) tube splitter (Figure 10.8.8). Care was taken to ensure the tube was speared down the centre of the bag to the base of the plastic. Between 2017 and 2022, samples were passed through the riffle and an approximate 3 kg split collected for submittal to the assay lab (Figure 10.8.9).

The sample split was placed in pre-numbered calico sample bags for dispatch to the geochemical laboratory. A record was made on the geological log and in the ticket books, at the drill site, of the sample identity numbers and corresponding intervals.

The splitter was thoroughly cleaned between samples.

Figure 10.8.8 Reverse Circulation Sampling Using Tube Splitter (Newcore, 2012)

Figure 10.8.9 Reverse Circulation Sampling Riffle Splitter (Newcore, 2017)

Wet Samples

Wet samples were collected in Fabrene bags and placed in the sun to allow the excess water to drain, and whenever possible, left to settle before subsequent sampling using the same procedure as with the dry samples (Figure 10.8.10).

The samples were transported each day to Newcore's core storage facility to await shipment to the analytical laboratory. The core storage facility maintained a night watch person on the Property to ensure samples and equipment were not tampered with.

Figure 10.8.10 Drying Wet RC Samples (Newcore, 2017)

Diamond Drill Core Sampling

The following is the diamond drill core sampling procedure carried out on the Project:

- Once geologists have completed logging, the core is ready to be sampled and two aluminium tags are placed at each 1 m interval; 1 tag stating the depth down the hole, the other with the sample number for the 1 m interval.

- All diamond drill core is sampled at approximately 1 m intervals. When the core is too soft to be sawn using a diamond saw, the samplers use chisels or paint scrapers to halve the core. When cut using a saw (Figure 10.8.11), the core is cut in half (Figure 10.8.12) following the markings made by the Geotechnicians at the rig site.

- The half-core not sampled is retained in the core boxes and stored for future reference, petrological work, further geochemical sampling, specific gravity (SG), or other engineering tests.

- All sampling is monitored by geologists. The half-core samples are placed in a numbered clear plastic bag and the numbered aluminium tag for that specific interval placed in the bag with the sample. During sampling, forms are completed recording the hole number, sample interval, sample number, and core loss.

- Every 10th sample is a QA/QC sample. These samples are prepared prior to core sampling and are placed in the sample stream. Every 20th sample is a duplicate, and between the duplicates either a standard or a blank is used. Duplicate samples are prepared at the laboratory. The entire sample is crushed to -2 mm and 2 splits (more than 1.5 kg) are collected from the 1 sample using a Jones Splitter and the splits are then processed as separate samples.

Figure 10.8.11 Core Cutting Area (Newcore, 2022)

Figure 10.8.12 Cut Drill Core (Newcore, 2022)

- Once sampling of an entire drillhole is complete, the 1 m samples are placed into nylon rice sacks, 10 samples per sack. Each sack is tied and labelled with the company name and sample numbers the sack contains. All samples from a single drillhole are delivered to independent comercial laboratories (Intertek or SGS) as a single batch. If the samples are not sent the same day to the lab, they are stored in a room inside the Enchi site office until ready to be transported.

- Each batch of samples is delivered using the company's vehicles and drivers directly from site to the SGS or Intertek labs in Tarkwa, approximately a 4-hour drive from the Project. Each batch of samples is submitted to SGS or Intertek with a sample submission form outlining the method of preparation and analysis. Once the samples are delivered, the laboratory staff sign and date Newcore's copy of the sample submission form acknowledging receipt of the samples.

- Each time a delivery is made to the laboratory, any pulps available are collected and brought back to the Enchi site office for storage. The pulps from selected drillholes are regularly sent for umpire assaying at different laboratories as a check on the results from SGS or Intertek.

- Assay results are received both electronically and in hard copy form.

10.9 QP’s Opinion

It is the QP’s opinion that the drilling and logging procedures put in place by Newcore meet acceptable industry standards and that the information can be used for geological and resource modelling.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Rotary Air Blast

11.1.1 Sample Preparation

The following is summarized from the Red Back Geologist's Procedures Manual (Red Back, 2005).

Red Back drivers delivered the samples to the Intertek Tarkwa facility, which operates under the umbrella of Intertek / Genalysis Services Pty Ltd. The facility is certified with the following credentials: ISO 17025 and NATA certificate 3244.

All RAB chip samples were prepared at the Intertek laboratory in Tarkwa using preparation code PT01/SP02.

Below is a brief description of the sample preparations procedure:

- Samples are sorted and dried at 105°C.
- Once dried, the entire sample is crushed to a 75% passing at 2 mm.
- The sample is then split to get a sample up to 2 kg in weight for pulverizing.
- The entire split sample is then pulverized to allow a 95% passing of 75 microns (µm).
- The pulp is split to 150 g for analysis.

At no time was an employee, officer, director, or associate of Newcore involved in the preparation of the samples.

11.1.2 Analytical Procedure

The following is summarized from the Red Back Geologist's Procedures Manual (Red Back, 2005).

A 30-g portion of pulverized sample is weighed, mixed with a fluxing reagent containing litharge (PbO) and then placed into a fusion furnace and fused at approximately 1,100°C. During this stage, the reduced lead collects the precious metals and forms a button. The sample is then removed from the furnace and cooled. The lead button is separated from the silicate slag.

The second stage of fire assay is called cupellation. During the cupellation process, at approximately 950°C the lead in the button oxidizes and is absorbed into the cupel leaving a precious metal bead known as a prill. The resultant prill is digested with Aqua Regia, first by adding nitric acid to dissolve the silver, and then hydrochloric acid. Gold content is determined by Atomic Absorption Spectrometer (AAS). The detection threshold limits are in the range of 0.01 ppm to 100 ppm.

At no time was an employee, officer, director, or associate of Newcore involved in the analysis of the samples.

11.2 Reverse Circulation

11.2.1 Sample Preparation

Each batch of samples is delivered using the Newcore vehicles and drivers directly from site or picked up on site by representatives of the independent commercial lab operated by Intertek laboratory in Tarkwa, approximately 130 km from Enchi. Each batch of samples is submitted to Intertek with a sample submission form outlining the method of preparation and analysis. Once the samples are delivered, the laboratory staff sign and date Newcore's copy of the sample submission form acknowledging receipt of the samples.

The Intertek Tarkwa facility operates under the umbrella of Intertek / Genalysis Services Pty Ltd. and is independent of Newcore. The facility is certified with the following credentials: ISO 17025 and NATA certificate 3244.

Of the samples sent to the laboratories, 10% were either a duplicate sample, blank, or standard.

All RC chip samples were prepared at the Intertek laboratory in Tarkwa using preparation code PT01/SP02.

Below is a brief description of the sample preparations procedure.

- Samples are sorted and dried at 105 °C.
- Once dried, the entire sample is crushed to a 75% passing at 2 mm.
- The sample is then split to get a sample up to 2 kg in weight for pulverizing.
- The entire split sample is then pulverized to allow a 95% passing of 75 µm.
- The pulp is split to 150 g for analysis.

At no time was an employee, officer, director, or associate of Newcore involved in the preparation of the samples.

11.2.2 Analytical Procedure

A 50-g portion of pulverized sample is weighed, mixed with a fluxing reagent containing litharge (PbO) and then placed into a fusion furnace and fused at approximately 1,100°C. During this stage, the reduced lead collects the precious metals and forms a button. The sample is then removed from the furnace and cooled. The lead button is separated from the silicate slag.

The second stage of fire assay is called cupellation. During the cupellation process, at approximately 950°C the lead in the button oxidizes and is absorbed into the cupel leaving a precious metal bead known as a prill. The resultant prill is digested with Aqua Regia, first by adding nitric acid to dissolve the silver, and then hydrochloric acid. Gold content is determined by AAS. The detection threshold limits are in the range of 0.01 ppm to 100 ppm.

At no time was an employee, officer, director, or associate of Newcore involved in the analysis of the samples.

11.3 Diamond Drill

11.3.1 Sample Preparation

Each batch of samples is delivered using company vehicles and drivers directly from site or picked up on site by representative of the independent commercial labs operated by Intertek Minerals or SGS in Tarkwa, approximately a 4-hour drive from Enchi. Each batch of samples is submitted to SGS or Intertek with a sample submission form outlining the method of preparation and analysis. Once the samples are delivered, the laboratory staff sign and date Newcore's copy of the sample submission form acknowledging receipt of the samples. Of the samples sent to the laboratories, 10% were either a duplicate sample, blank, or standard.

All drill core samples were prepared at the SGS or Intertek laboratory in Tarkwa using preparation code PRP89 or SP12 respectively:

- Samples are sorted and dried.
- Once dried, less than 3 kg of the sample is crushed to a 75% passing at 2 mm.
- Sample is split to get a 250-g sample for pulverizing.
- 250 g of the crushed sample is then pulverized to allow an 85% passing of 75 µm.

Each time a delivery is made to the SGS or Intertek laboratory, any pulps available are collected and brought back to the Enchi site office for storage. The pulps from selected drillholes are sent regularly for umpire assaying and are sent to Intertek laboratories to check for gold fire assay and ICP multi trace element analysis.

At no time was an employee, officer, director, or associate of Newcore involved in the preparation of the samples.

11.3.2 Analytical Procedure

Samples were assayed for gold using a 50-g charge fire assay code FAA505 (SGS or FA51 (Intertek) using the following criterion:

- Gold 0.01 ppm – 100 ppm 50 g, fire assay, AAS finish.

A few selected holes were analysed for trace elements using the ICP12B method, which is based on a two-acid digest (a combination consisting of nitric acid and hydrochloric acid). Once the material is digested, the solution is analysed either by inductively coupled plasma-atomic emission spectroscopy (ICP-AES) or by inductively coupled plasma-mass spectrometry (ICP-MS) or by both. Two-acid digestion methods are the weakest of the digestions and silicate material is not affected, resulting in partial results for most elements (SGS, 2012).

The ICP12B method used is based on a combination of 2:1 nitric acid to hydrochloric acid and is recommended for samples with organic or high sulphide content.

SGS has geochemical accreditation that conforms with the requirements of CAN-P-1579 and CAN-P-4E (International Organization for Standardization / International Electrotechnical Commission (ISO/IEC) 17025:2005). The Intertek Tarkwa facility is certified with the following credentials: ISO 17025 and NATA certificate 3244.

At no time was an employee, officer, director, or associate of Newcore involved in the analysis of the samples.

11.4 Soil Sample Preparation and Analysis

Sample preparation and analyses were completed at the independent analytical facility of SGS in Tarkwa, Ghana.

Soil samples were dried and pulverized to 90% -75 µm.

The analysis was completed with a 50-g fire assay with aqua regia digest and di-isobutyl ketone (DIBK) extraction with AAS finish at a detection limit of 1 ppb.

11.5 Trench Sample Preparation and Analysis

Trench samples were dried and pulverized to 90% -75 µm.

The analysis was completed with a 50-g fire assay with aqua regia digest with AAS finish at a 10 ppb detection limit.

11.6 Auger Sample Preparation and Analysis

Sample preparation and analysis was completed at the independent analytical facility of SGS in Tarkwa, Ghana.

Auger samples were dried and pulverized to 90% -75 µm.

The analysis was completed with a 50-g fire assay with aqua regia digest and DIBK extraction with AAS finish at a detection limit of 10 ppb.

11.7 QA/QC

QA/QC programs were carried out during each drilling and trenching program. The QP generated and reviewed QA/QC charts for each program.

11.7.1 Soil

Blanks were inserted at a frequency of one every 50 samples with a minimum of one per batch. The material consisted of red-brown soils (2.5 kg) collected in Accra. Commercial standards were inserted at a frequency of one every 50 samples with a minimum of one per batch.

The QP has not reviewed the QA/QC results for the soil survey program. The soil results are not material to the Mineral Resource Estimate.

11.7.2 Auger

Blanks were inserted at a frequency of one every 50 samples with a minimum of one per batch. The material consisted of red-brown soils (2.5 kg) collected in Accra.

Commercial standards were inserted at a frequency of one every 50 samples with a minimum of one per batch.

The QP has not reviewed the QA/QC results for the auger survey program. The auger results are not material to the Mineral Resource Estimate.

11.7.3 Trench

Blanks were inserted at a frequency of one every 50 samples with a minimum of one per batch. The material consisted of oxide rock fragments supplied from Accra.

Commercial standards were inserted at a frequency of one every 50 samples with a minimum of one per batch.

The results of the trench QA/QC samples were incorporated with the drill results and charted accordingly.

11.7.4 Pre-2011 Rotary Air Blast

Red Back inserted a blank and duplicate QA/QC sample into the sample stream. There was no set interval for insertion. Blanks were typically inserted approximately every 50th sample. Duplicates are inserted approximately every 20th sample. Reports indicate that standards are also inserted into the sample stream, yet there is no digital data available for the QP to review.

Blanks

A total of 69 blank samples were submitted to test for preparation contamination or carry over. A failure was considered to be ten times the detection limit. The high threshold for blanks is due to the drilling process, where the chips are transported to the outside of the drill steel and will likely result in downhole contamination. A single sample, or 1% of the samples failed. There is more variability in the results in the later part of the program.

Duplicates

A total of 180 duplicate samples were submitted. The control limit of ±20% is typically considered a failure by industry standards. A total of 7 samples, or 4%, failed. If the samples below 0.1 g/t are not considered in the dataset, the failure rate increases to 8%.

This is a high failure rate. Due to the nature of gold mineralization, and the type of drilling, it is not uncommon to have a high failure rate.

11.7.5 Pre-2011 Reverse Circulation

Red Back inserted a blank and duplicate QA/QC samples into the sample stream. There was no set interval for insertion. Blanks were typically inserted approximately every 50th sample. Duplicates were inserted approximately every 20th sample. Reports indicate that standards were also inserted into the sample stream, yet there is no digital data available for the QP to review.

Blanks

A total of 198 blank samples were submitted to test for preparation contamination or carry over. A failure was considered to be 10 times the detection limit. 12 samples, or 2% of the samples failed. There are more variations in the results at the beginning of the program.

Duplicates

The control limit of ±20% is typically considered a failure by industry standards. A total of 21 samples, or 2%, failed. If the samples below 0.1 g/t are not considered in the dataset, the failure rate increases to 9%. This is a high failure rate. Due to the nature of gold mineralization, and the type of drilling, it is not uncommon to have a high failure rate.

11.7.6 2012 Reverse Circulation

Every 10th sample submitted was a QA/QC sample. These samples were prepared prior to core sampling and were placed in the sample stream. There was a duplicate every 20th sample and between the duplicates was either a standard or a blank. Duplicate samples were prepared at the laboratory. The entire sample was crushed to -2 mm and two splits (less than 1.5 kg) were collected from the one sample using a Jones Splitter and were then processed as separate samples.

Blanks

A total of 108 blank samples were submitted to test for preparation contamination or carry over. A failure was considered to be three times the detection limit. A total of three samples, or 2% of the samples, failed. A single sample was removed from the blank dataset as it returned the same value as one of the standards.

Duplicates

A total of 211 course rejects of duplicate samples were submitted. The control limit of ±20% is typically considered a failure by industry standards. A total of 13 samples, or 6%, failed. If the samples below 0.1 g/t are not considered in the dataset, the failure rate increases to 50%.

This is a high failure rate. Due to the nature of gold mineralization, it is not uncommon to have a high failure rate. Efforts have been made to minimize the variation of the grades within the samples by using a larger sample size.

Standards

The charts generated for the Standard Reference Materials (SRM) have two components. The top portion of the chart displays the accuracy, which is how close the result comes to the expected value. The bottom portion of the chart displays the precision to the results, which is how repeatable the results are from one sample to the next.

Five separate SRM were used during the drilling program, with gold grades ranging from 0.36 g/t up to 6.75 g/t. The SRM GLG904-6, with an expected value of 0.36 g/t, had 20 samples submitted and returned an average of 0.361 g/t. The SRM G909-10, with an expected value of 0.52 g/t, had 20 samples submitted and returned an average of 0.508 g/t. There is a significant amount of variability in the results, specifically samples 13 and 14 which are considerably lower than the rest of the dataset.

SRM G901-7, with an expected value of 1.52 g/t, had 22 samples submitted and returned an average of 1.507 g/t. The SRM G995-1, with an expected value of 2.75 g/t, had 22 samples submitted and returned an average gold grade of 2.736 g/t. The SRM G905-10, with an expected value of 6.75 g/t, had 16 samples submitted and returned an average grade of 6.89 g/t.

11.7.7 2017-2018 Reverse Circulation

Every 10th sample submitted was a QA/QC sample. These samples were prepared prior to sampling and were placed in the sample stream. There was a duplicate every 20th sample and between the duplicates was either a standard or a blank. Duplicate samples were prepared at the laboratory. The entire sample was crushed to -2 mm and two splits (less than 1.5 kg) were collected from the one sample using a Jones Splitter and were then processed as separate samples.

Blanks

A total of 87 blank samples were submitted to test for preparation contamination or carry over. A failure was considered to be 3 times the detection limit. No failures were recorded.

Duplicates

A total of 211 course rejects of duplicate samples were submitted; 148 of the duplicates were above detection limit. The control limit of ±20% is typically considered a failure by industry standards. A total of 6 samples, or 3%, failed.

Efforts have been made to minimize the variation of the grades within the samples by using a larger sample size. Newcore has worked with the laboratory to determine what preparation and analytical methodology should be used to minimize the variation of the assays.

Standards

Two separate SRM were used during the drilling program. Table 11.7.1 summarized the results of the SRMs.

Accuracy is measured by the difference between the average of all laboratory results (after the out-of-control results have been excluded) and the assigned value, as provided in the Certificate of Analysis that accompanies the SRM. The difference is expressed as a percentage of the assigned value.

Precision is a measure of how variable the laboratory analytical procedure is. This is expressed as a median moving range standard deviation (RSD) in percentage. The laboratory aim should be to produce results that are both accurate and precise.

Table 11.7.1 2017 – 2018 SRM Samples and Results

Standard	No. of Samples	Expected Value (g/t)	Accuracy (%)	Precision (%)	Outlier	Comments
OREAS 403	41	1.99	3.05	3.30	0	
OREAS 452	42	1.03	3.35	3.47	0	

The SRMs was prepared by Ore Research & Exploration (OREAS) of Australia - ISO 9001:2015 certified for Quality Management System including development, manufacturing, certification, and supply of standards.

11.7.8 2020-H1 2021 Reverse Circulation

All RC drill samples from the Enchi 2020-H1 2021 RC Drilling Program were analysed at the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish.

Analytical QA/QC procedures include the systematic insertion of blanks, standards, and duplicates into the sample stream.

Blanks

A total of 560 blanks were inserted into the Enchi 2020-H1 2021 RC Drilling Program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish. 76% of the results were below detection limits with the highest assay being 0.04 g/t.

Duplicates

A total of 1,112 pairs of duplicates were inserted into the Enchi 2020-H1 2021 RC Drilling Program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish. Of the duplicates, 658 were above detection limit. The control limit of ±20% is typically considered a failure by industry standards.

Three outliers in the dataset results in a R2 of 0.81 for the data set. Removal of the 3 outliers from the data set resulted in a R2 of 0.95, indicating a good correlation between original and duplicate.

Standards

A total of 560 SRM were inserted into the Enchi 2020-H1 2021 RC drilling program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish.

Accuracy is measured by the difference between the average of all laboratory results (after the out-of-control results have been excluded) and the assigned value, as provided in the Certificate of Analysis that accompanies the SRM. The difference is expressed as a percentage of the assigned value.

Precision is a measure of how variable the laboratory analytical procedure is. This is expressed as a median moving range standard deviation (RSD) in percentage.

The laboratory aim should be to produce results that are both accurate and precise. Several SRM were used for the 2020-H1 2021 program as summarized in Table 11.7.2.

Table 11.7.2 2020-H1 2021 SRM Samples and Results

Standard	No. of Samples	Expected Value (g/t)	Accuracy (%)	Precision (%)	Outlier	Comments
OREAS 152	24	0,016	-	-	-	Too few samples to chart
OREAS 251	102	0.504	3.97	4.77	0	
OREAS 528	64	0.51	-2.27	5.62		
OREAS 452	38	1.03	-1.36	4.04	1	
OREAS 253	103	1.22	5.05	2.90	0	
OREAS 403	77	1.99	0.93	4.12	0	
OREAS 224	80	2.15	3.50	3.90	0	
OREAS 434	9	3.84	-	-	-	Too few samples to chart
OREAS 398	1	4.87	-	-	-	Too few samples to chart
OREAS 552	62	4.93	1.62	2.46	0	

The SRMs was prepared by Ore Research & Exploration (OREAS) of Australia - ISO 9001:2015 certified for Quality Management System including development, manufacturing, certification, and supply of standards.

11.7.9 H2 2021 - 2022 Reverse Circulation

All RC drill samples from the Enchi 2021-H2 2022 RC drilling program were analysed at the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish.

Analytical QA/QC procedures include the systematic insertion of blanks, standards, and duplicates into the sample stream.

Blanks

A total of 1,390 blanks were inserted into the Enchi 2021-H2 2022 RC drilling program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish. One sample exceeded the failure threshold.

Duplicates

A total of 2,760 pairs of duplicates were inserted into the Enchi 2021-H2 2022 RC drilling program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish. Of the duplicates, 1,326 were above detection limit. The control limit of ±20% is typically considered a failure by industry standards.

Thirty-nine or 3% of the duplicates above detection limit are outliers in the dataset results in a R2 of 0.88 for the data set. Removal of the outliers from the data set resulted in a R2 of 0.98, indicating a good correlation between original and duplicate.

Standards

A total of 1,377 SRM were inserted into the Enchi 2021-H2 2022RC drilling program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish.

Accuracy is measured by the difference between the average of all laboratory results (after the out-of-control results have been excluded) and the assigned value, as provided in the Certificate of Analysis that accompanies the SRM. The difference is expressed as a percentage of the assigned value.

Precision is a measure of how variable the laboratory analytical procedure is. This is expressed as a median moving range standard deviation (RSD) in percentage. The laboratory aim should be to produce results that are both accurate and precise. Several SRM were used for the 2021-H1 2022 RC program as summarized in Table 11.7.3.

Table 11.7.3 H2 2021 – 2022 SRM Samples and Results

Standard	No. of Samples	Expected Value (g/t)	Accuracy (%)	Precision (%)	Outlier	Comments
OREAS 44	44	13.650	0.99	3.67	2	
OREAS 81	32	1.790	2.95	5.43	0	
OREAS 98	134	1.400	-0.34	4.36	1	
OREAS 100	66	0.860	-0.72	7.8	0	
OREAS 109	21	4.102	-2.52	7.01	0	
OREAS 111	97	2.812	0.74	4.9	0	
OREAS 114	72	0.634	1.38	6.45	0	
OREAS 141	61	0.930	2.87	5.42	1	
OREAS 152	16	0.016				Too few samples to chart
OREAS 160	67	3.674	-3.56	5.34	1	
OREAS 163	88	1.313	-0.41	6.01	1	
OREAS 165	63	0.875	-0.12	7.33	0	
OREAS 168	12	0.213				Too few samples to chart
OREAS 398	44	4.870	3.29	2.17	0	
OREAS 403	274	1.990	0.92	4.58	0	
OREAS 428	2	0.510				Too few samples to chart
OREAS 434	8	3.840				Too few samples to chart
OREAS 452	85	1.030	1.55	4.69	0	
OREAS 528	52	0.510	-0.57	4.52	0	
OREAS 552	139	4.930	1.55	2.53	1	

The SRMs was prepared by Ore Research & Exploration (OREAS) of Australia - ISO 9001:2015 certified for Quality Management System including development, manufacturing, certification, and supply of standards.

11.7.10 2021-H2 2023 Diamond Drill

All diamond drill samples from the Enchi 2021-H2 2023 drilling program were analysed at the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish.

Analytical QA/QC procedures include the systematic insertion of blanks, standards, and duplicates into the sample stream.

Blanks

A total of 729 blanks were inserted into the Enchi 2021-H2 2022 RC drilling program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish. One sample exceeded the failure threshold.

Duplicates

A total of 699 pairs of duplicates were inserted into the Enchi 2021-H2 2022 Diamond drilling program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish. Of the duplicates, 257 were above the detection limit. The control limit of ±20% is typically considered a failure by industry standards.

Seventeen or 7% of the duplicates above detection limit are outliers in the dataset results in a R2 of 0.74 for the data set. Removal of the outliers from the data set resulted in a R2 of 0.98, indicating a good correlation between original and duplicate.

Standards

A total of 702 SRM were inserted into the Enchi 2021-H2 2022 diamond drilling program and were analysed in each batch submitted to the independent analytical facility of Intertek laboratory located in Tarkwa, Ghana. Samples were analysed with a 50-g fire assay for gold with an AAS finish.

Accuracy is measured by the difference between the average of all laboratory results (after the out-of-control results have been excluded) and the assigned value, as provided in the Certificate of Analysis that accompanies the SRM. The difference is expressed as a percentage of the assigned value.

Precision is a measure of how variable the laboratory analytical procedure is. This is expressed as a median moving range standard deviation (RSD) in percentage. The laboratory aim should be to produce results that are both accurate and precise.

Several SRM were used for the 2021-H1 2022 diamond drilling program as summarized in Table 11.7.4.

Table 11.7.4 H2 2021 – 2022 Diamond Drilling SRM Samples and Results

Standard	No. of Samples	Expected Value (g/t)	Accuracy (%)	Precision (%)	Outlier	Comments
OREAS 81	27	1.790	0.31	4.58	0	
OREAS 98	18	1.400				Too few samples to chart
OREAS 100	17	0.860				Too few samples to chart
OREAS 111	44	2.812	0.73	4.24	0	
OREAS 114	104	0.634	-0.28	5.96	2	
OREAS 141	22	0.930	2.3	5.19	0	
OREAS 160	29	3.674	-1.66	3.75	0	
OREAS 163	33	1.313	0.12	4.91	0	
OREAS 165	58	0.875	1.78	6.93	2	
OREAS 168	101	0.213	-0.6	8.2	2	
OREAS 398	50	4.870	2.56	1.88	0	
OREAS 403	131	1.990	1.54	3.96	2	
OREAS 452	24	1.030	1.25	3.22	0	
OREAS 528	15	0.510				Too few samples to chart
OREAS 552	29	2.640	2.64	3.25	0	

The SRMs was prepared by Ore Research & Exploration (OREAS) of Australia - ISO 9001:2015 certified for Quality Management System including development, manufacturing, certification, and supply of standards.

11.8 QP's Opinion

It is the QP's opinion that the sample preparation, analytical procedures, and security measures put in place for the trenches, reverse circulation, and diamond drill programs met acceptable industry standards at the time and that the information can be used for geological and mineral resource modelling.

12.0 DATA VERIFICATION

12.1 Site Inspections

12.1.1 2010

Mr. Todd McCracken, P.Geo., is a qualified person (QP) and co-author of the Enchi Project NI 43-101 compliant Technical Report, dated 19 April 2023. Mr. McCracken is a professional geologist with 30 years of experience in exploration, mine operations and consulting, including several years working in shear hosted lode gold deposits and 20 years completing resource estimation and block models. Mr. McCracken visited the Property and the Accra offices of Red Back between 18 and 22 March 2010 inclusive. Mr. McCracken inspected drill collar locations, trench locations, property geology, drill core and chip boards.

The QP is not treating the 2010 site inspection as a current inspection.

12.1.2 2011

Mr. McCracken visited the Property for four days from 11 to 16 December 2011. Mr. McCracken inspected drill collar locations, property geology and chip boards.

The QP is not treating the 2011 site inspection as a current inspection.

12.1.3 2014

Mr. McCracken visited the Property for three days from 28 April to 1 May 2014. Mr. McCracken inspected drill collar locations, property geology and chip boards.

The QP is not treating the 2014 site inspection as a current inspection.

12.1.4 2017

Mr. Joe Amanor, MAusIMM (CP), was a qualified person (QP) and co-author of the 2021 report. Mr. Amanor is a professional geologist with over 40 years of experience in exploration and operations, including several years working in shear hosted lode gold deposits. Mr. Amanor visited the Property for 2 days from 6 to 7 June 2017, and 2 days from 5 to 6 September 2017. Drilling was confirmed through a site inspection, which included review of chip trays of representative material and original logs from the 2017-18 RC drilling, as well as field inspections of the locations for the drillholes which are clearly marked by concrete monuments.

The QP is not treating the 2017 site inspection as current.

12.1.5 2020 and 2021

Mr. Amanor visited the Property from 5 to 8 November 2020 as well as from 2 to 6 June 2021 (inclusive). For the 2021 visit, Mr. Amanor was accompanied by Mr. Daniel Adusei, the SEMS Exploration Services project geologist on site and Mr. Dan Wilson, Newcore's Country Manager. Drilling was confirmed through a site inspection, which included review of chip trays of representative material and original logs from RC drilling completed in 2020 and 2021, as well as field inspections of the locations for the drillholes, which are clearly marked by concrete monuments. Locations were confirmed through verification with adjacent drillholes and with GPS checks. Additionally, the field inspection did not reveal any active or recent artisanal mining affecting the areas of the Mineral Resources. Mr. Amanor was able to determine that there were no additional interferences, risks, or cultural effects on the Project through discussions with local hereditary chiefs and community leaders.

The QP is not treating the 2020 and 2021 site inspection as current.

12.1.6 2022

Mr. Simon Meadows Smith, Fellow of the Institute of Materials, Minerals and Mining (FIMMM) with registration number: 49627 of SEMS Exploration Services Ltd is a QP and co-author of this report. Mr. Meadows Smith is a professional geologist with over 30 years of experience in mineral exploration. Mr. Meadows Smith visited the Property on 1 December 2022. For the site visit, Mr. Meadows Smith was accompanied by Joe Amanor also of SEMS Exploration Services as well as Gregory Smith, Newcore's VP Exploration, Dan Wilson, Newcore's Country Manager, Moses Appiah and Anthony Asare, Newcore's senior geologists.

The QP site visit included a field inspection of the 5 resource areas: Boin, Sewum, Nyam, Kwakyekrom, and Tokosea. The field inspection included confirmation of selected holes from the 2021-H2 2022 drilling program, confirming the locations for the drillholes which are clearly marked by concrete monuments. Locations were confirmed through GPS checks and included 8 holes on the 5 deposit areas. Coordinates in UTM WGS84 zone 30n were recorded for 8 drill collars using a GARMIN GPSMAP 64x handheld GPS. Downhole information, etched into the concrete pillars, was also recorded for each of the 8 holes. A comparison of drillhole survey data recorded by the QP and presented in the Enchi Gold Project database confirmed the data.

A visit was completed to the diamond drill on site (on a scheduled day off during the visit) consisting of a Boart Longyear (BLY), track mounted LF 900 diamond core rig was found to be relatively new, and in good working condition. Discussions were held on drilling techniques, downhole surveying, and core orientation process.

The Newcore core yard was inspected which includes core handling, logging, cutting, sampling, and storage facilities. Additionally, the site inspection included a review of chip trays of representative material and original logs from the 2021- H2 2022 RC drilling, as well as an inspection of diamond drill core from the 2021-H2 2022 diamond drilling. The site visit also included an inspection of the geological office and designated density measurement room, both found to be in good condition.

The field inspection did not reveal any active or recent artisanal mining directly affecting the areas of the Mineral Resources. Mr. Meadows Smith was able to determine that there were no additional critical interferences, risks, or cultural effects on the Project.

Figure 12.1.1 2022 QP Site Visit (Meadows Smith, 2022)

12.1.7 2023

Mr. Amanor visited Enchi for 2 days from 16 to 18 November 2023. During his visit to the Project, Mr. Amanor inspected 5 additional diamond drill holes that had been completed at the Nyamebekyere Prospect namely, NBDD060 to NBDD064.

Tony Asare, the Senior Project Geologist, accompanied Mr. Amanor to inspect the 5 holes. Drill collar locations were confirmed through GPS checks on each hole. Coordinates in UTM WGS84 zone 30n were recorded using a GARMIN GPSMAP 64x handheld GPS. Downhole information, etched into the concrete pillars, was also recorded for each hole. A comparison of drillhole survey data recorded by the QP and presented in the Enchi Gold Project database confirmed the data.

12.2 Drill Collar

12.2.1 Pre-2011 Drill Collar

A validation of the Red Back reverse circulation drill collars was conducted during the 2010 site visit. Seventeen collars representing 11% of the reverse circulation drilling completed by Red Back were surveyed using a handheld Garmin GPSMAP 60CSx. GPS readings were collected in UTM WGS 84 coordinate system. Two of the Boin Zone collars have substantial errors, which are likely due to the collar number being incorrectly recorded in the field. The accepted error for the handheld GPS is typically 3 m to 5 m of which all but one collar passed (SWRC005).

Validation of the RAB holes could not be completed during the site visit as there were no monuments marking the location of the RAB holes.

12.2.2 2011 Drill Collar

A validation of the Edgewater diamond and reverse circulation drill collars was conducted during the 2011 site visit. Twenty-one collars representing 2% of the drilling completed on the Project were surveyed using a handheld Garmin GPSMAP 60CSx. GPS readings were collected in Universal Transverse Mercator (UTM) World Geodetic System (WGS) 84 coordinates system.

The accepted error for the handheld GPS is typically 3 m to 5 m in the X and Y coordinates. There appears to still be issues with the Z coordinates in the database relative to the GPS.

12.2.3 2012 Drill Collar

A validation of the Newcore 2012 reverse circulation drill collars was conducted during the 2014 site visit. Twenty-one collars, representing 2% of the drilling completed on the Project, were surveyed using a handheld Garmin GPSMAP 62. GPS readings were collected in Universal Transverse Mercator (UTM).

The accepted error for the handheld GPS is typically 3 m to 5 m in the X and Y coordinates. Three collars are outside the customary error range. There appears to be issues with the Z coordinates in the database relative to the GPS. Although the Z coordinates from a handheld GPS tend to have a large error, the elevation of the drill collars did not match the topographic file provided.

12.2.4 2017 Drill Collar

A validation of the Newcore 2017 reverse circulation drill collars was conducted during the 2017 site visits. Locations were confirmed through verification with adjacent drillholes. While no GPS readings were conducted, 24 of the 28 collars are in close proximity to previous drill collars, which remained clearly marked in the field. Likewise, the 2017 drill collars are clearly marked by concrete monuments. A total of 26 of the 28 drill collars were inspected during the site visits.

12.2.5 2020 - 2021 Drill Collar

A validation of the Newcore 2018 and 2020-2021 reverse circulation drill collars was conducted during the 2020 and 2021 site visits. Forty-two collars were surveyed using a handheld Garmin Etrex-10. GPS readings were collected in Universal Transverse Mercator (UTM) World Geodetic System (WGS) 84 coordinate system.

12.2.6 H2 2021 – 2022 Drill Collar

A validation of the Newcore 2021-H2 2022 reverse circulation and diamond drill collars was conducted during the 2022 site visit. Locations were confirmed through GPS checks and included 8 holes on the 5 deposit areas. Coordinates in UTM WGS84 zone 30n were recorded for 8 drill collars using a GARMIN GPSMAP 64x handheld GPS. (Figure 12.2.1). Table 12.2.1 contains the results of the collar checks.

Figure 12.2.1 H2 2021 – 2022 Collar Validation (Meadows Smith 2022)

Table 12.2.1 H2 2021 – 2022 Collar Validation

Prospect	Hole	QP Visit			Database		
		East (m)	North (m)	Dip (°)	East (m)	North (m)	Dip (°)
Boin	KBRC275	520,242	635,366	-55	520,245	635,365	-55
Boin	KBDD064	519,240	634,233	-57	519,239	634,235	-60
Boin	KBRC271	517,380	631,564	-50	517,381	631,566	-50
Sewum	SWRC164	520,403	626,142	-60	520,402	626,147	-60
Sewum	SWRC107	521,408	62,7916	-50	521,408	627,918	-50
Tokosea	TORC045	523,739	630,276	-50	523,739	630,276	-50
Nyam	NBRC024	530,262	637,266	-60	530,262	637,265	-60
Kwakyekrom	KKRC080	528,824	635,094	-60	528,825	635,093	-60

Prospect	Hole	Difference		
		East	North	Dip
Boin	KBRC275	-3	1	0
Boin	KBDD064	1	-2	3
Boin	KBRC271	-1	-2	0
Sewum	SWRC164	1	-5	0
Sewum	SWRC107	0	-2	0
Tokosea	TORC045	0	0	0
Nyam	NBRC024	0	1	0
Kwakyekrom	KKRC080	-1	1	0

12.2.7 H2 2021 – 2023 Drill Collar

A validation of the Newcore 2021-H2 2023 diamond drill collars was conducted in November 2023. Locations were confirmed through GPS checks and included all 5 holes drilled at Nyam Coordinates in UTM WGS84 zone 30n were recorded using a GARMIN GPSMAP 64x handheld GPS (Figure 12.2.2).

Figure 12.2.2 2023 Collar Validation (J.Amanor 2023)

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

Newcore conducted a number of testwork programs at SGS, Intertek, University of Mines and Technology in Tarkwa (UMaT) from 2012 to 2023. The test programs were conducted on diamond drill holes (DDH), reverse circulation (RC), composite samples, and on trench samples and included material in a range of weathering profiles and from various deposits.

The sections to follow will summarize previous testwork results and describe in greater details the testwork relevant to heap leach processing for the Project.

13.2 Summary of Testwork Programs

A summary list of the testwork programs conducted to date is shown in Table 13.2.1.

Table 13.2.1 Summary Table of Testwork Programs

Program	Size Dist. Analysis	Cyanide Assays	Bottle Rolls (BR)	Gravity Gold Recovery	24-hr Dissolution BR	Diagnostic Leach BR	48-Hr Kinetic Leach BR	Optimized Leach BR	5-10 Day BR	Column Tests	Pilot Heap	Comminution
SGS 2012		✓	✓									
Intertek 2020-2021	✓		✓		✓	✓			✓	✓		
Intertek 2022	✓								✓	✓		
UMaT 2022-2023									✓	✓		
Intertek 2023	✓		✓	✓		✓	✓	✓		✓		
UMaT 2023											✓	
Jet-Rom Engineering Ltd. 2023												✓
Odeleb Ltd. 2023												✓

A summary of the metallurgical testwork per zone is shown in Table 13.2.2.

Table 13.2.2 Summary of Metallurgical Tests vs. Zone

Metallurgical Test	Boin	Sewum	Nyam	Kwakyekrom	Tokosea	Total
Cyanide Assays	21					21
Bottle Rolls	74	50	30	45	4	203
Gravity Gold Recovery	2	6*				8
Size Distribution Analyses	5	7		1		13
24-hr Dissolution Bottle Roll	5	5				10
Diagnostic Leach Bottle Roll	7		6*	4		17
48-hr Kinetic Leach Bottle Roll			27			27
Optimized leach Bottle Roll		26*	14			40
5-10 Day Bottle Roll	5.5	16.5*	2*	1		25
30-90 Day Column Tests	7	18*	2*	1		28
Pilot Heap	1	1				2
Total	**127.5**	**129.5**	**81**	**52**	**4**	**394**

* Denotes tests that are still under progress, and decimal values denote partial samples for that test.

For comminution testwork, 10 samples were tested with Jet-Rom Engineering Ltd. in May 2023, and another 20 samples were tested with Odeleb Ltd. in October 2023.

Figure 13.2.1 to Figure 13.2.3 illustrate the sampling locations for all the metallurgical testwork completed thus far.

The drill holes / trenches where comminution samples were sourced from are as follows:

- Oxide samples from trenches SWMETTR01 (3 samples) and BNMETTR01 (2 samples).
- Nyambekyere (Nyam) samples from NBDD060, 061, 063 and 064.
- Sulphide samples for Sewum from SWDD071B, 072, 073, 075, 076, 078, 079A, 081, 082 and 083.

Figure 13.2.1 Overall Map of Metallurgical Sampling Locations

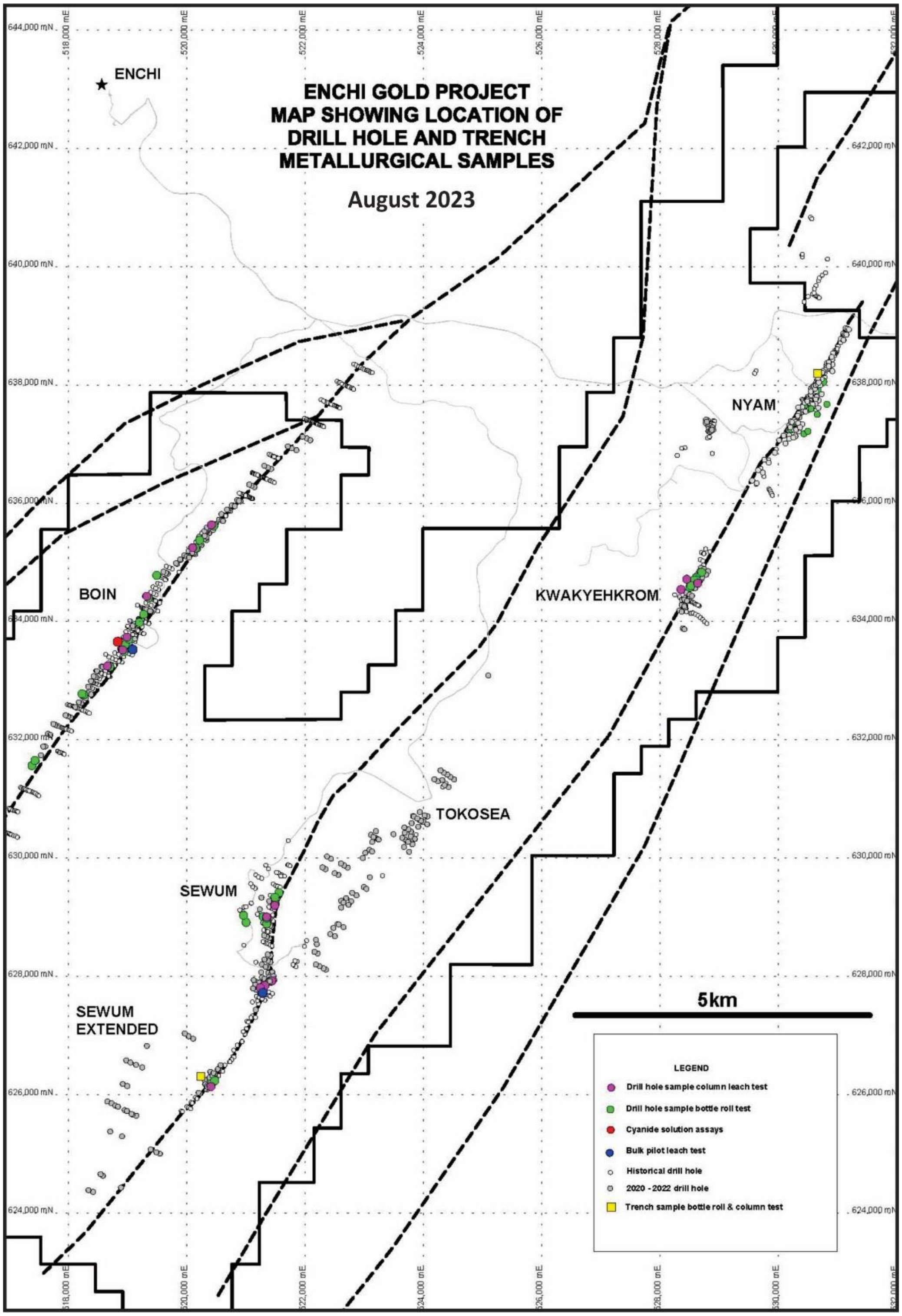


Figure 13.2.2 Sewum Metallurgical Sampling Locations

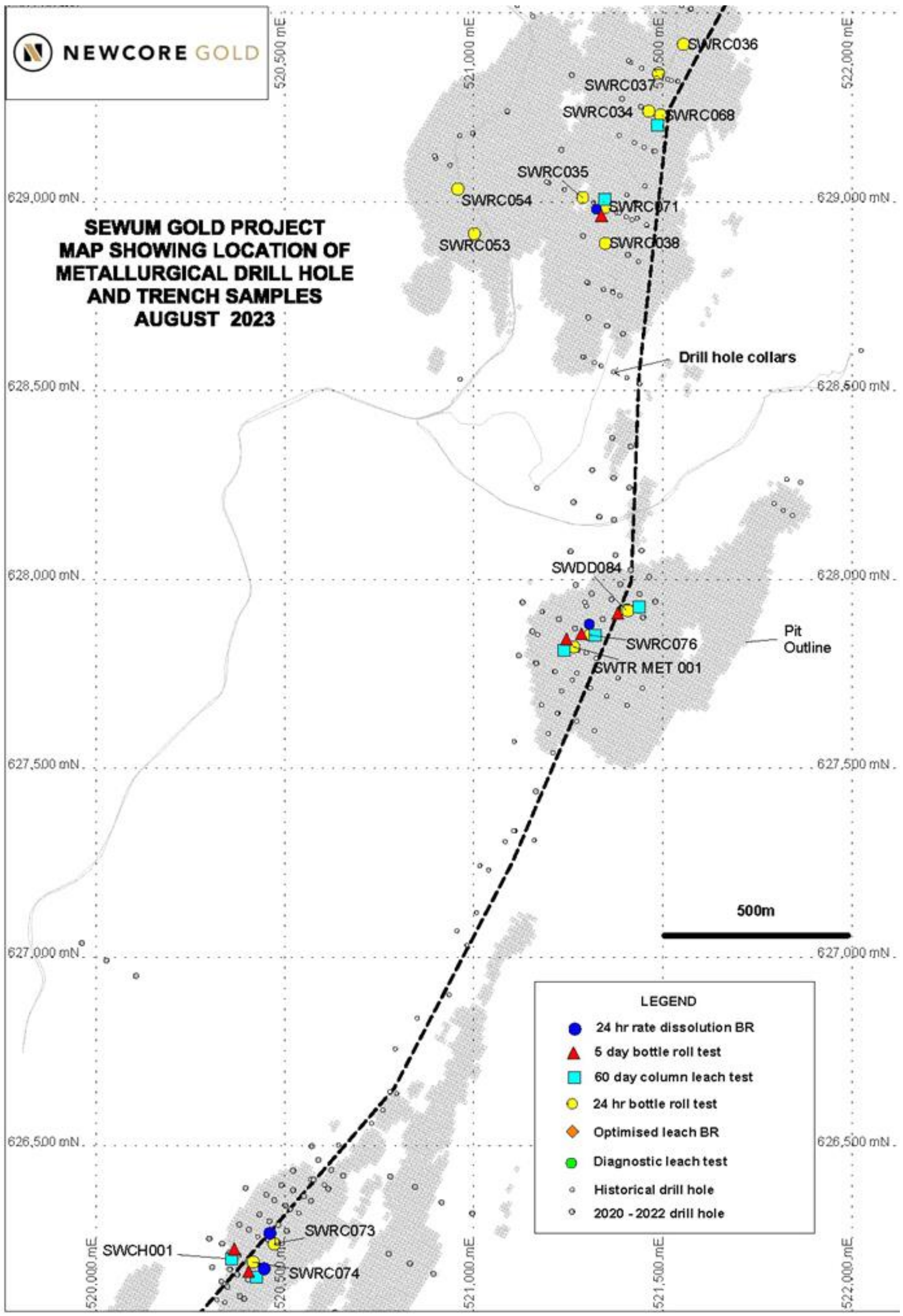
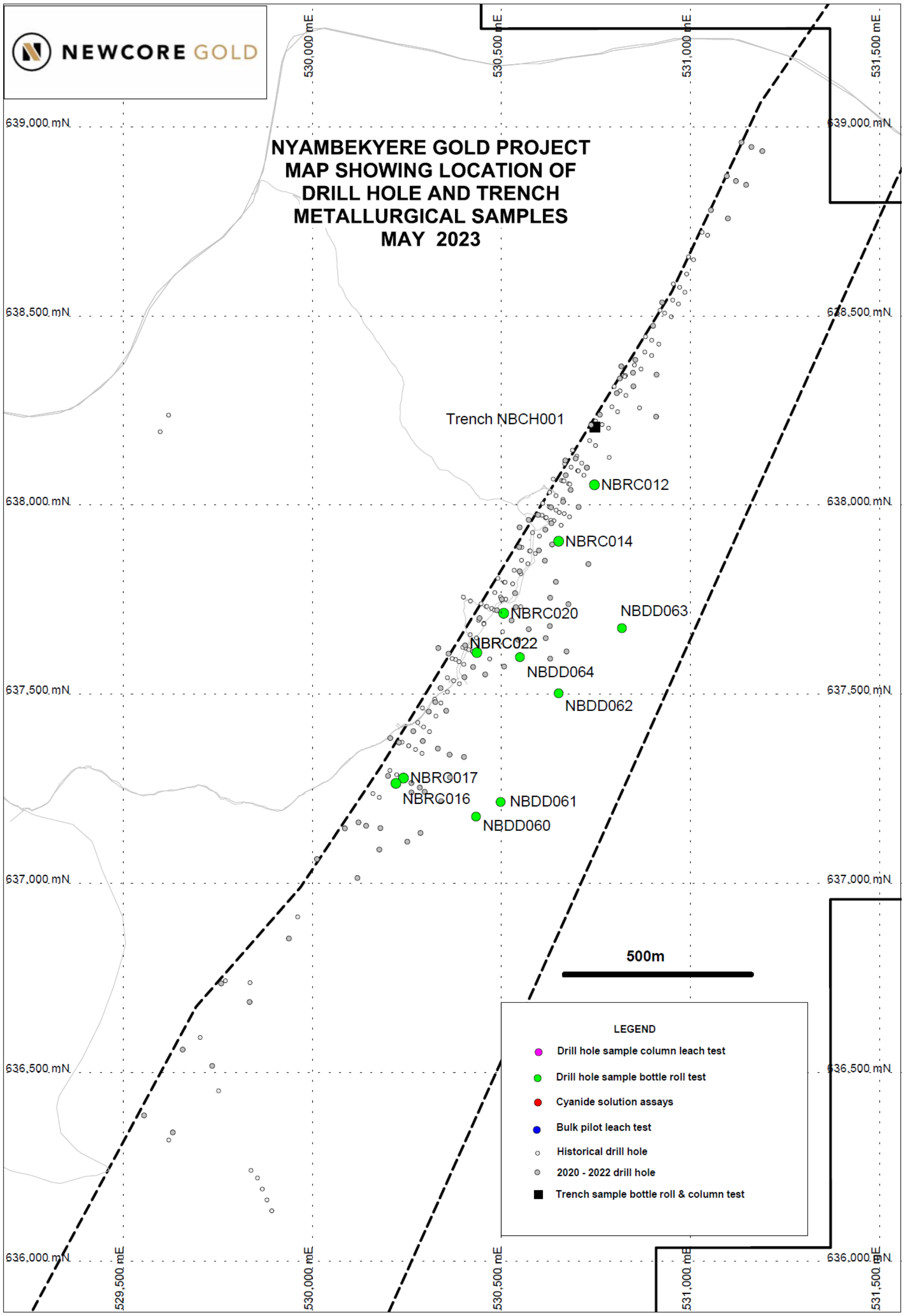


Figure 13.2.3 Nyam Metallurgical Sampling Locations



13.2.1 SGS 2012 Program

In 2012, SGS conducted initial test work for Edgewater, focusing on 24-hour bottle roll leach tests on samples from the Sewum, Boin, and Nyam deposits. A summary of the results is as follows:

- The first stage involved 23 highly oxidized samples from one drillhole in the Boin deposit.
- The second stage included samples from Boin (4 highly oxidized), Sewum (11 mildly oxidized), and Nyam (5 slightly oxidized).
- Boin and Nyam showed metallurgical recoveries, averaging 87% and 70% respectively. However, Sewum exhibited lower recoveries, with an average of only 18.7%, despite one sample achieving 67% recovery as the 24 hour leach did not provide sufficient time to completed gold recovery for these samples.

13.2.2 Intertek 2020-2021

Newcore continued a reverse circulation (RC) drilling campaign on the Enchi deposit to expand mineral resources and more metallurgical testwork was performed on chip samples by Intertek in 2020 and 2021 on chip samples from the 2020 to 2021 RC drill program. Additional metallurgical testwork was also conducted on a variety of samples from the Sewum, Boin and Kwakyekrom deposits covering a range of gold grades, weathering intensities and different portions of each deposit. The sections to follow describe the various testing campaigns conducted with Intertek during this time.

First Set of Metallurgical Results (Boin / Sewum) - January 2021

Analysis and testing of 50 RC drill samples from the Sewum (30) and Boin (20) deposits included:

- Fire assay for head grade.
- Bottle roll cyanide assay (24 hours, 1 kg material).
- Fire assay of bottle roll tails.

Results showed an average 89.4% gold extraction, with Boin samples at 86.4% and Sewum at 91.4%. One Sewum sample was excluded due to erratic head assays.

Additionally, 10 samples underwent leach rate dissolution tests, showing an average of 73.15% recovery after 6 hours with an additional 6.2% (79.38%) after 12 hours, and a further 1.8% after 24 hours for a total average recovery of 82.18%.

Observations:

- W3 and W4 weathered profile samples had the highest extraction (91.5%).
- W2 and W5 samples had slightly lower gold extraction from 80.0% and 84.6%.
- No significant relationships found between head grade, depth, and extraction.
- Sewum samples showed better extraction at 91.4% compared to the 2012 SGS testing at 18.7%.
- Lime consumption appeared to vary from 2.5 to 7.5 kg/t based on ore weathering, however, it was noted that additional testing would be required.
- Evidence of coarse and encapsulated gold in some samples.

Second Set of Metallurgical Results (Kwakyekrom) - April 2021

Twenty-five oxide samples from the Kwakyekrom Zone 2020-2021 RC drilling program underwent analysis at Intertek Lab in Tarkwa, Ghana. Tests included head grade fire assay, bottle roll cyanide assay (24 hours, 1 kg material), and fire assay of bottle roll tails. The average gold extraction from bottle roll leach tests was 79.8%, ranging from 66.1% to 90.3%. Refer to Table 13.2.3 for details.

Table 13.2.3 Summary of Kwakyekrom Bottle Rolls Testwork - 2021

Hole	Count	Au Ext'n	Au g/t Avg.	Depth Avg.	W3	W4
KKRC017A	3	90.3%	0.56	45.7	3	0
KKRC019	2	84.8%	0.43	5.0	2	0
KKRC025	5	84.0%	0.93	13.2	5	0
KKRC026	3	85.9%	2.19	21.7	0	3
KKRC029	7	66.1%	1.04	28.9	5	2
KKRC034	5	82.8%	0.92	18.0	5	0
Total	**25**	**79.8%**	**1.02**	**22.8**	**20**	**5**

Other observations:

- All samples were from the W3 and W4 weathered profile categories.
- Moderately weathered W3 samples had an average extraction of 81.0%, while highly weathered W4 samples averaged 74.9%.
- As seen in Table 13.2.3, no strong relationships were found between gold head grade, sample depth, and extraction percentage.

Column Tests of Boin & Sewum Composite Samples - May 2021

Remaining samples from the 2020 RC drill program at Boin and Sewum deposits were used to create four composite samples for preliminary column leach tests at Intertek Lab in Tarkwa, Ghana. Each composite comprised 6 reject samples from different zones of the deposits, as detailed in Table 13.2.4, along with the average bottle roll gold extraction for each sample.

Table 13.2.4 Summary of Initial Small Column Leach Tests for Boin & Sewum in 2021

Composite	Deposit / Zone	Avg. Bottle Roll Au Ext'n %
#1	Boin Central	98.1
#2	Boin North & South	92.7
#3	Sewum Ridge	98.1
#4	Sewum CH and Ext	97.8
Average		**96.7**

A size analysis revealed that each of the four composites had an average size distribution of approximately 80% passing 2 mm (P_{80} = 2 mm). Due to the fine size of the composite materials, they were agglomerated with 20 kg/t of Portland cement before being placed into small test columns. The average weight of each composite available for the column tests was 16.3 kg.

Additionally, coarse subsamples were prepared from each composite and subjected to a five-day coarse bottle roll. The extraction results from both the coarse bottle roll tests and the column leach tests conducted after 15, 30, and 60 days are summarized in Table 13.2.5.

Table 13.2.5 Coarse Bottle & Column Leach Results for Boin & Sewum Composites in 2021

Composite	Coarse Bottle Roll Au Ext'n %	Column Test 15 Day Au Ext'n %	Column Test 30 Day Au Ext'n %	Column Test 60 Day Au Ext'n %
#1	88.0	55.0	59.1	92.0*
#2	80.6	64.0	77.8	97.5
#3	84.7	69.7	75.1	97.7
#4	87.9	66.4	73.8	91.7
Average	**85.3**	**63.8**	**71.4**	**94.7**

*Extended to 70 Days.

Gold extraction from the 60-day leaching of 4 composite samples ranged from 92.0% to 97.7% with an average of 94.7% (with one test extended to 70 days). Kinetic leach profile showed rapid leaching for first 15 days (averaging at 63.8% extraction), followed by slower leaching from day 15 to 30 (averaging at 71.4% extraction), and gradual leaching thereafter.

Column Test Results for Kwakyekrom Deposit – September 2021

Composite material from Kwakyekrom deposit underwent column leach testwork in September 2021. The composite was sourced from samples from the 3 RC drill holes, representing approximately 0.5 km of strike length, with varied oxidation levels. Sample preparation included homogenization and splitting for various analyzes.

The metallurgical results are as follows:

- Initial head assays averaged 1.07 g/t Au, with bottle roll recoveries ranging from 84.82% to 91.67%.
- Five-day coarse bottle roll on 1 kg subsample achieved 70.5% recovery.
- Seventy-day column test on 10 kg sample exhibited 89.6% gold recovery, with low cyanide consumption (0.84 kg/t) and lime addition (3 kg/t).
- High slump indicated low binder concentration, likely due to fine material nature.
- Screening and grading of leach residue indicated strong heap leach amenability, especially in finer fractions.
- Sample demonstrated good response to percolation rate (10 L/m^2/h), with minimal flooding, but further optimization is warranted.

13.2.3 Intertek 2022

Individual samples from Boin and Sewum drill holes were selected to reflect gold grades and weathering intensities. Three composite samples were prepared from the diamond drill core material representing oxide and transitional material to conduct a second set of column leach testwork. The composite samples were homogenized, crushed, and split for various analyzes.

Metallurgical results for the column tests are as follows:

- Head sample analysis showed consistent gold grades across all size fractions.
- Five-day coarse bottle roll leach tests indicated increasing recovery over time for all composites.
- Column leach tests on the 3 samples conducted for 90 days showed amenability to heap leaching, with recovery ranging from 89.0% to 98.6% and an average of 92.4%.
- Cyanide consumption was low at 0.63 kg/t on average and lime addition was also low at 1.4 kg/t to maintain pH.

- Slumping was within acceptable industry standards at 9.1% on average, indicating good binder concentration.

- Screening and grading analysis of the tail samples showed consistently low gold grades across size fractions.

13.2.4 UMaT 2022-2023

From 2022 to 2023, Boin and Sewum diamond drill core samples were submitted to University of Mines and Technology (UMaT) in Tarkwa, Ghana for 5-day bottle rolls and column leach testwork.

Results from the UMaT testwork confirmed positive recoveries from previous tests. A summary of the results is as follows:

- A 5-day bottle roll test showed consistent results for the first four days but no additional recovery on the fifth day, resulting in 68% as the final recovery, possibly due to sampling error.

- Three of the 4 column tests with varying cement additions, 4 kg/t, 6 kg/t and 8 kg/t, showed recoveries of 68.4%, 70.5%, and 76.1%, respectively, after 30 days, which is higher than previous tests at the same point in time.

- The column prepared with 8 kg/t of cement showed the highest recovery at 76.1% after 30 days. Further testing was recommended.

- The fourth column with cement addition of 8 kg/t had a recovery of 86.8% after 60 days when coarse material was added to the agglomerated sample.

13.2.5 Intertek 2023

Metallurgical Testwork for Boin and Sewum Trench Samples – May to August 2023

Metallurgical investigations continued for 5 composite samples of representative oxide material collected from trenches at Boin and Sewum. The testwork included the following analyzes:

- Head Grade Size Analyzes.

- 10-Day Bottle Rolls.

- Gravity Gold Recovery.

- Comminution Testing (see section 13.2.7).

- Column Tests.

- Pilot Heap Tests at UMaT (see section 13.2.6).

Head Grade Size Analyzes

Gold assays conducted on the composite samples revealed consistent gold distribution across various size fractions, with average grades ranging from 0.74 g/t Au to 1.61 g/t Au. A portion of material (5.9% to 38.9%, averaging 20.5%) passed through the 150 µm sieve, indicating the presence of fine particles. Agglomeration is recommended to optimize gold recovery, especially for the finer fractions.

Ten-Day Bottle Rolls

The 10-day bottle roll tests conducted on all five samples from the Boin and Sewum deposits exhibited rapid recoveries during the initial 1-3 days, followed by moderate recoveries until day 8, and slower recoveries from days 8 to 10. The average gold recovery for the 2 Boin samples was 82.6%, while the 3 Sewum samples showed a moderately higher average recovery of 89.1%. However, the data suggested that the tests likely did not reach completion as the recovery curves plateaued at 82-90% for initial gold recoveries, with ultimate recoveries projected to exceed 90%.

Gravity Recoverable Gold

The results of the Gravity Recoverable Gold (GRG) tests were consistent with expectations, considering the absence of coarse gold in the deposits. The average gravity gold recovery value was 22.1%, ranging between 8.4% and 39.1%. The 2 samples from the Boin deposit exhibited generally low gravity gold recoveries, with values of 17.3% and 8.4%, reflecting the fine nature of the gold in this deposit. Conversely, the 3 samples from the Sewum deposit returned higher results, with 2 samples yielding 39.1% and 35.0%, indicative of the presence of some coarser gold in these samples.

Column Tests

Five closed-cycle column leach tests were conducted on 30 kg samples of the ore. The samples were agglomerated with Portland cement and air-dried before being loaded into PVC columns. Leaching parameters included lime addition and cyanide concentration, with tests lasting 60-90 days.

Metallurgical results for the column tests are as follows:

- All samples demonstrated suitability for heap leaching, with recoveries averaging 91.7% after 60 to 90 days.
- Cyanide consumption averaged 1.1 kg/t, with a lime addition of 1.3 kg/t to maintain pH >10.5.
- Slumping, though moderately above industry standards, averaged at 15.4%.
- Some flooding occurred at a percolation rate of 10L/m^2/h, requiring further optimization.
- Gold dissolution results indicated strong amenability to heap leaching.
- Maximum gold recovery was observed in finer fractions compared to coarser size fractions, as evidenced by the size-by-size analysis.

Bottle Roll Results for Sulphide Material from the Nyam Deposit - August 2023

Twenty-seven composites of coarse rejects, from Nyam sulphide diamond drill core, were submitted to Intertek lab for 48-hour bottle rolls and multi-element analyses in 2023. Diagnostic leaching was conducted on 14 of the samples and optimization leaching tests were also conducted on 5 samples. Five samples were sent to Jet-Rom Engineering Ltd. (Jet-Rom) for Bond work index determination (summarized under section 13.2.7). Metallurgical results are as follows.

<u>48-Hour Bottle Rolls:</u>

- Seven coarse reject samples showed consistent and positive results, with an average gold recovery of 79% after 48 hours, ranging from 63% to 90%.
- Recovery curves indicated increasing trends, with estimated final recoveries of >90% - 95% under optimized conditions.

<u>Diagnostic Leach:</u>

- Five samples underwent diagnostic leach, yielding consistent results with total recoveries averaging 94.9%.
- Direct cyanidation with and without carbon averaged 71.0% and 69.8%, respectively.
- Mild oxidative pre-leach added an average of 4.6% of recovery.
- Sulphuric acid treatment added an average of 2.7% of recovery.
- Pre-treatment with HNO_3 resulted in an additional 7.1% Au solubility.
- Complete oxidation by roasting extracted an average of 3.5% of Au.

<u>Optimization Leach:</u>

- 14 samples underwent optimization testing, incorporating finer grinding, lead nitrate addition, and oxygen introduction.
- Total recoveries increased by an average of +10% to reach 92%.
- Finer grinding and oxygen introduction were most impactful, with average recoveries of 93.5% and 93%, respectively.
- Samples with all three optimizations achieved the highest recoveries of 97.2% and 98.0%, indicating a 12% increase.

33 Element Four Acid Digestion ICP:

- Gold mineralized samples contained no silver and generally low metal values, with slightly elevated arsenic levels unrelated to gold values.

Bottle Roll Tests on Tokosea Trench Samples – August 2023

Four oxide trench samples with an average head grade of 0.53 g/t from the Tokosea deposit were submitted to Intertek for 24-hour bottle rolls.

Comparing the recovered gold to the average of all the head grade fire assays, recoveries in the bottle rolls ranged between 48% to 136%, averaging 99.7%.

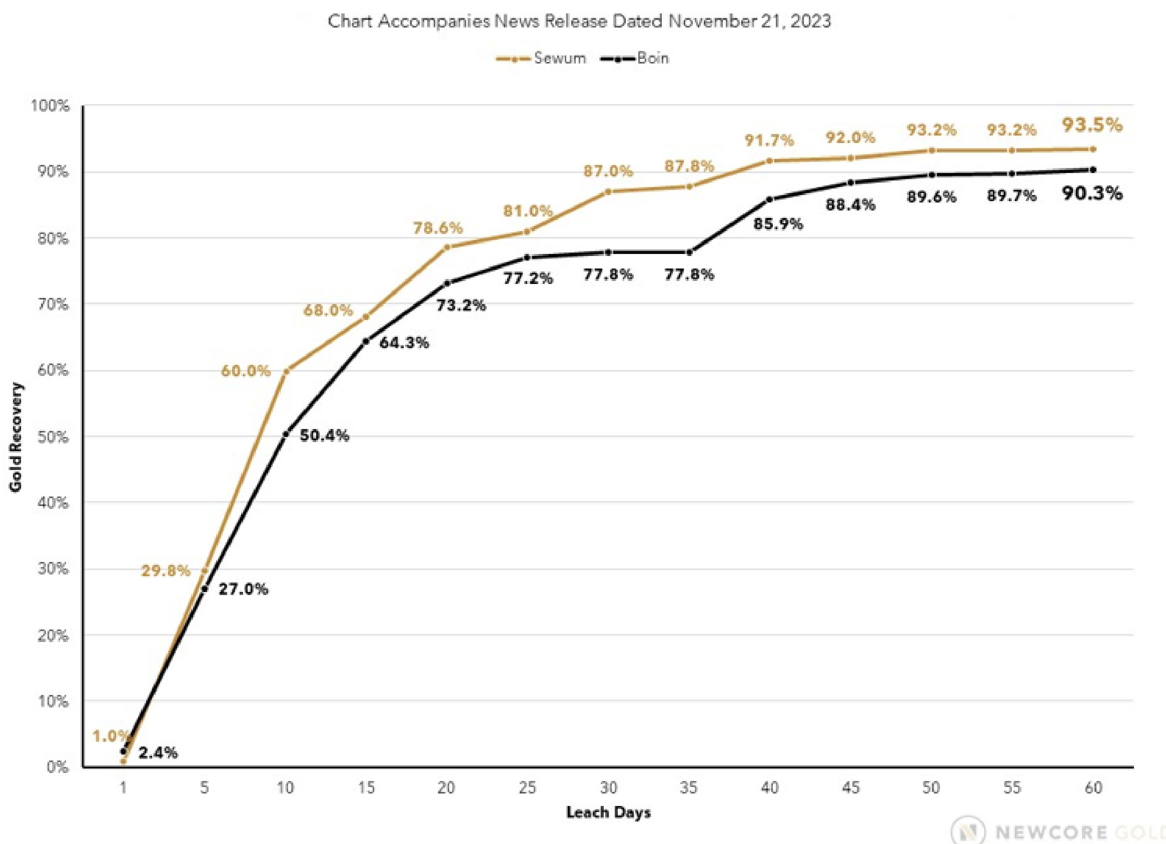
The greater than 100% recoveries are believed to be related to the variability in the sampling and fire assay results related to the asymmetrical distribution of gold in this near surface material. Nonetheless, the results confirmed that the oxide material from Tokosea is amenable to direct cyanidation and heap leaching for gold recovery.

13.2.6 UMaT 2023 – Pilot Tests

Trench samples, 15-tonnes each, from Boin and Sewum (2 of the largest deposits on the project) were selected for bulk-scale pilot heap tesitng over a 60-day period. The samples consisted of blended oxide material with individual samples and composites covering a range of gold grades.

Each sample underwent an agglomeration process using Portland cement. Cyanide solution at 1,000 ppm NaCN was added with 2.28 kg/t lime. The prepared agglomerates were then placed on platforms, and after a curing period of 72 hours, irrigation began and was completed for 60 days. The heap leach pad was prepared with compacted ground and impermeable clay layers, with primary berms constructed around each pad. Dripper tubes were used to distribute cyanide solution evenly. Solution samples were analyzed for gold content before and after adsorption. The pilot heap tests were aimed to simulate leaching response, showing amenability to heap leaching. Gold recovery rates for Sewum and Boin heaps increased rapidly in the first 20 days, reaching 78.6% and 73.2% respectively, then continued at a moderate pace until day 40, achieving 91.7% for Sewum and 85.6% for Boin. After 60 days, ultimate recoveries were 93.5% for Sewum and 90.3% for Boin. Two composite tailings samples were collected from each heap, averaging 0.06 g/t and 0.12 g/t for Sewum and Boin, respectively, confirming overall recoveries of over 90%.

Figure 13.2.4 Enchi Gold Project – Pilot Heap Leach Tests – Gold Recovery Versus Leach Days



13.2.7 Comminution Testwork (Jet-Rom Engineering & Odeleb 2023)

Table 13.2.6 and Table 13.2.7 summarize the bench-scale comminution test results for the project on oxide and sulphide material. No tests were conducted on transition material. The overall dataset includes 30 Bond ball mill work index tests (BWi) and 20 unconfined compressive strength (UCS) tests. The Bond BWi tests were conducted at a closing screen of 106 µm.

Table 13.2.6 Bench-Scale Comminution Testwork at Jet-Rom Engineering Ltd.

Lab	Sample ID	Weathered State	BWi, kWh/t	F_{80}, µm	P_{80}, µm	Gpr	BWi, Closing µm
Jet-Rom	SWMETTRO1	Oxide	10.3	1,499	53.1	1.59	106
Jet-Rom	SWMETTRO2	Oxide	11.7	2,006	57.7	1.39	106
Jet-Rom	SWMETTRO3	Oxide	10.3	2,256	54	1.54	106
Jet-Rom	BNMETTRO1	Oxide	9.8	1,430	54.4	1.73	106
Jet-Rom	BNMETTRO2	Oxide	10.8	1,638	43.6	1.29	106
Jet-Rom	2001228	Sulphide	10.8	1,794	82.4	2.04	106

Lab	Sample ID	Weathered State	BWi, kWh/t	F_{80}, µm	P_{80}, µm	Gpr	BWi, Closing µm
Jet-Rom	2001229	Sulphide	11.5	2,356	84.3	1.85	106
Jet-Rom	2001238	Sulphide	10.5	2,005	77.2	1.97	106
Jet-Rom	2001246	Sulphide	10.6	2,031	72.6	1.85	106
Jet-Rom	2001248	Sulphide	11.6	2,184	80.4	1.78	106

Table 13.2.7 Bench-Scale Comminution Testwork at Odeleb Ltd.

Lab	Sample ID	Weathered State	BWi, kWh/t	F_{80}, µm	P_{80}, µm	Gpr	BWi, Closing, µm	Ave, UCS MPa
Odeleb	1176698	Sulphide	24.6	2,312	74.2	0.67	106	168.5
Odeleb	1176699	Sulphide	16.1	2,224	69.1	1.06	106	144
Odeleb	1176700	Sulphide	17.1	2,564	72.5	1.00	106	152.4
Odeleb	1176701	Sulphide	16.5	2,501	68.6	1.01	106	118.9
Odeleb	1176702	Sulphide	16.9	2,561	68.1	0.97	106	205.2
Odeleb	1176703	Sulphide	19.1	2,516	68.5	0.85	106	145.3
Odeleb	1176704	Sulphide	28	2,233	74.6	0.57	106	218.2
Odeleb	1176705	Sulphide	17.3	2,204	62.6	0.91	106	181.7
Odeleb	1176706	Sulphide	18.2	2,213	64.9	0.87	106	216.9
Odeleb	1176707	Sulphide	18.1	2,251	68.4	0.91	106	113.7
Odeleb	1176708	Sulphide	17.1	2,189	75.2	1.06	106	175.8
Odeleb	1176709	Sulphide	14.1	2,150	67.8	1.24	106	51.3
Odeleb	1176710	Sulphide	19.4	2,187	54.0	0.71	106	168.6
Odeleb	1176711	Sulphide	20.2	2,288	68.8	0.80	106	187.1
Odeleb	1176712	Sulphide	16.3	2,099	74.3	1.11	106	73.3
Odeleb	1176713	Sulphide	11.6	2,045	66.6	1.56	106	25.5
Odeleb	1176714	Sulphide	17.4	1,991	61.4	0.90	106	68.3
Odeleb	1176715	Sulphide	16.3	1,995	55.5	0.91	106	69.2
Odeleb	1176716	Sulphide	18.4	2,059	65.7	0.88	106	47.6
Odeleb	1176717	Sulphide	18	1,925	64.2	0.90	106	68.1

13.3 Results Interpretation

This section will describe how the results in section 13.2 are interpreted to apply to a heap leaching process. Orway Minerals Consultants (OMC), a subsidiary of Lycopodium, provided the design for the comminution circuit.

Comminution Design

Table 13.3.1 summarizes the ore interpretation by weathering zone. OMC used database to infer assumed ore properties for missing parameters. For this PEA, the design basis for equipment sizing is oxide ore properties for the mineral sizer, and fresh ore properties for the 2-stage crushing circuit, respectively.

No comminution testwork was available for transition ore. In this project, sulphide samples from Jet-Rom Engineering Ltd. (Jet-Rom) testwork were assumed to be transition ore. Assumed ore properties are similar to those of oxide ore; however, there is a noticeable difference in drill core appearance as the transition W2/3 cores are more intact with presumed higher rock quality designation (RQD).

Table 13.3.1 Summary of Comminution Test Results – Statistic by Ore Type

Parameter	Units	Oxide	Trans	Fresh	Comment
UCS	MPa	*50*	*<100*	189.8	Assumed / 85th %
CWi	kWh/t	*7.5*	*7.5*	*18.4*	Assumed
Axb	-	*478*	*478*	*34*	Assumed
BWi	kWh/t	12.1	*11.5*	19.5	85th percentile
Ai	g	*0.069*	*0.069*	*0.288*	Assumed
Ore SG	-	2.19	2.45	2.72	Client

Note: Italicized is assumed value.

Heap Leach Irrigation and Recovery

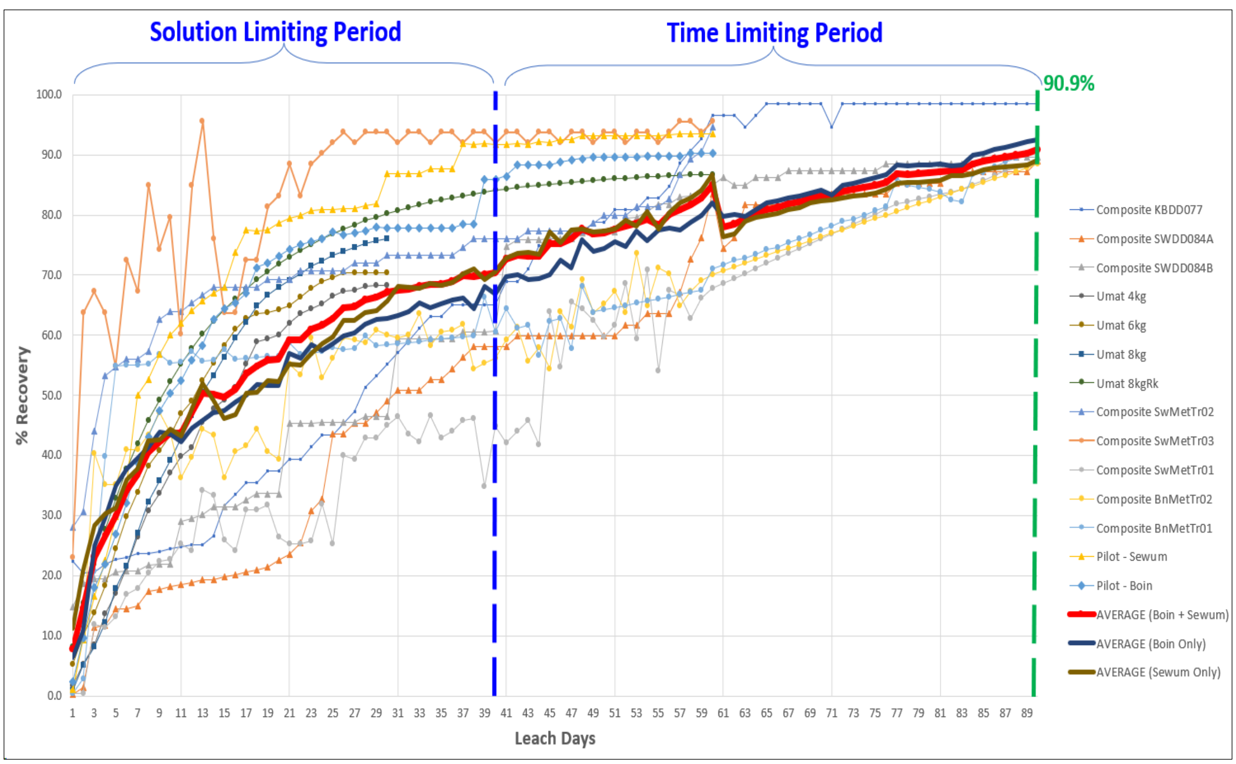
Table 13.3.2 and Figure 13.3.1 summarizes all the column leach testwork conducted thus far for the Enchi gold project, excluding any samples that were very fine such as the RC samples, Composites 1 to 4, and Composite 1076919-1076904. Only Boin, Sewum, and Kwakyekrom deposits underwent column leach testwork. Other deposits only had bottle rolls conducted. Also, no column leach tests have been completed for any sulphide samples.

Table 13.3.2 Summary of Oxide / Transition Column Test Results & Reagent Consumption

Sample	Particle Top Size	Leach Days	Sample Size (kg)	Au Ext'n	Lime Cons., kg/t	Cyanide Cons., kg/t	Cement, kg/t
Composite KBDD077		90	30	98.57%	1.40	0.62	10
Composite SWDD084A	+9.5mm	90	30	88.97%	1.40	0.65	10
Composite SWDD084B		90	30	89.70%	1.40	0.62	10
UMaT 4kg	As-is Trench Samples	30	40	68.40%	2.00	0.42	4
UMaT 6kg		30	40	70.50%	2.00	0.44	6
UMaT 8kg		30	40	76.10%	2.00	0.61	8
UMaT 8kgRk		60	40	85.80%	2.00	0.61	8

Sample	Particle Top Size	Leach Days	Sample Size (kg)	Au Ext'n	Lime Cons., kg/t	Cyanide Cons., kg/t	Cement, kg/t
BnMeTTr01	+10mm	90	30	90.85%	1.56	0.77	10
BnMeTTr02		90	30	88.42%	1.88	1.39	10
SwMeTTr01		90	30	88.62%	1.08	1.09	10
SwMeTTr02		60	30	94.67%	0.86	0.82	10
SwMeTTr03		60	30	95.58%	1.16	1.51	10
Pilot - Sewum	As-is Trench Samples	60	15,000	93.50%	2.28	0.77	8
Pilot - Boin		60	15,000	90.30%	2.28	0.71	8
Overall Average				**87.14%**	**1.66**	**0.79**	**8.71**
60 – 90 Day Average				**91.24%**	**1.42**	**0.90**	**9.78**
Pilot Heaps Average				**91.90%**	**2.28**	**0.74**	**8.00**

Figure 13.3.1 Oxide / Transition Column Leaching – Gold Extraction % vs. Leach Days



As seen in Figure 13.3.1, heap leaching for the Enchi Gold Project can be broken down into 2 periods. The first 40 days is considered the 'transition period' where recoveries are limited by solution. The remaining days are considered as the 'time limiting period' during which the progression towards ultimate recovery is related to length of time. Some samples appeared to have reached ultimate recovery by 60 days, while others appeared to be progressing even after 90 days. For the PEA, a typical solution application rate of 10 L/m^2/h is applied during the first 40 days, with that rate reduced to 7 L/m^2/h during the time limiting period.

Gold recoveries for the different deposits and ore weathering were estimated as follows based on Lycopodium's experience:

- Column and pilot heap testwork results, where available, had a lab to field scale-up discount of 2% applied to the % gold extraction.
- Bottle roll results had a lab to field scale-up discount of 5% applied to the % gold extraction.
- For the Tokosea deposit, where some of the recoveries were greater than 100% due to variability in fire assays, a higher lab to field scale-up discount of 10% was applied to the bottle rolls % gold extraction.
- For the Kwakyekrom deposit, where the column test sample had a finer grind size, a higher lab to field scale-up recovery discount of 10% was applied to the % gold extraction.
- For sulphide ore where historical bottle rolls were conducted under non-optimal conditions, only the latest optimized results from Nyam deposits was used.
- A calculated discount of ~0.3% was applied to account for losses to carbon fines.

The estimated recoveries for oxide / transition material are shown in Table 13.3.3.

Table 13.3.3 Heap Leach Recoveries for Oxide / Transition Material

Zone	Oxide / Transition			Comments
	Au Ext'n	After Discount	After Losses	
Boin	92.6%	90.6%	90.3%	Average of column & pilot heap tests with a 2% discount for lab to field scale-up, and 0.3 % losses to carbon fines.
Sewum	89.1%	87.1%	86.8%	Average of column & pilot heap tests with a 2% discount for lab to field scale-up, and 0.3% losses to carbon fines.
Nyam	94.1%	89.1%	88.8%	From 1 bottle rolls on oxide sample with a 5% discount for lab to field scale-up, and 0.3% losses to carbon fines.
Kwakyekrom	98.6%	88.6%	88.3%	From 1 column test with a 10% discount for lab to field scale-up due to sample having a fine grind, and 0.3% losses to carbon fines.
Tokosea	99.7%	89.7%	89.4%	Average of bottle roll tests with a 10% discount for lab to field scale-up due to higher variability, and 0.3% losses to carbon fines.
AVERAGE	**94.8%**	**89.0%**	**88.6%**	

The estimated recoveries for the sulphide material are shown in Table 13.3.4. The latest results for the Nyam bottle rolls were used for estimating the recoveries for sulphide material.

Table 13.3.4 Heap Leach Recoveries for Sulphide Material

Zone	Sulphide			Comments
	Au Ext'n	After Discount	After Losses	
Nyam	91.7%	86.7%	86.4%	Average of latest optimized bottle rolls on Nyam sulphide samples with a 5% discount for lab to field scale-up.
Boin, Sewum, Kwakyekrom and Tokosea	N/A	N/A	N/A	Historical bottle rolls on sulphide material were not conducted under optimal conditions, and hence, the results will not be used for the recovery model.

A conservative approach has been taken for the cash flow model by applying additional discounts to the recoveries from the testwork results. Oxide / Transition recovery was lowered to 85% and sulphide recovery was lowered to 75%. As additional testwork is completed, the recoveries will be re-evaluated and higher values may be considered for the cash flow model in the next project phase.

Selected 80% Passing Crush Size

An effort has been made to maintain coarser crush size for this project to minimize fines generation that will lead to slumping issues.

For soft oxide and transition material, trench samples that have been tested as is had recoveries in the high 80s to 90% range. Based on this, the recommendation is to process the material through a mineral sizer, instead of a crusher, to generate material with a P_{80} of approximately 40 mm for heap leaching.

A P_{80} of 19 mm has been selected as the crush size for sulphide material. All the testwork conducted for sulphide has been on finer grind size via bottle rolls, however, based on the fine nature of the Enchi deposits, Lycopodium and Newcore both agreed that the selected P_{80} of 19 mm for sulphide material is suitable for heap leach processing. Column leach testwork on sulphide samples at this P_{80} size range will be required to confirm this selection in the next phase.

Major Reagents Consumption

Reagents consumption for this project has been estimated based on the consumption observed for the pilot heaps. As seen in Table 13.3.2, the lime, cyanide and cement consumption averaged at 2.28 kg/t $Ca(OH)_2$, 0.74 kg/t NaCN, and 8.00 kg/t Portland cement, respectively.

The lime used in the lab is hydrated lime ($Ca(OH)_2$), therefore, converting to quicklime (CaO) that is typically supplied at 90% purity will result in 1.9 kg/t of lime addition for the design.

Cyanide consumption will typically be 25% to 50% of the lab's consumption rate for the field, hence, it is expected that actual cyanide consumption will be 0.37 kg/t.

13.4 Metallurgical Conclusions

The following conclusions can be drawn from the metallurgical and comminution testwork thus far:

- Material from Enchi's deposits is amenable to heap leach processing with moderate to high gold recovery expected, between mid-80 to 90%.
- Oxide material is soft and sulphide material is competent based on the CWi, BWi and SMC data available.
- No comminution data is available for the transition material and comminution parameters have been assumed for design.
- A P_{80} size of ~40mm is selected for the oxide / transition material that is soft.
- A P_{80} size of ~19mm is selected for the sulphide and transition material that is competent.
- Heap leach processing for Enchi project can be broken down into two periods – the first 40 days as the solution limiting period, and the remaining 50 days as the time limiting period.
- Solution application rate of 10 L/m^2/h will be applied during the first 40 days, with that rate reduced to 7 L/m^2/h during the time limiting period.
- Quicklime, cyanide, and cement consumption, based on the pilot heaps consumption, averaged at 1.9 kg/t at 90% CaO purity, 0.74 kg/t NaCN, and 8.00 kg/t Portland cement, respectively.

13.5 Future Testwork Recommendations

The following testwork is recommended to progress the design in the next phase (i.e., PFS):

Sample Requirement:

- Minimum one master composite sample for each mineralization type using interval composite samples from drill cores.
- Number of representative samples to be determined by Newcore.

Comminution Testwork:

- Crushing work index testwork (CWi) for fresh and oxide material.

- SMC testwork for BWi, Ai, A x b for fresh and transition material.
- UCS testwork for oxide and transition material to verify with mineral sizer requirement.

Ore Characterization Testwork:

- Size-by-size head assay analysis for gold with top size in the +40mm.
- Quantitative and semi-quantitative analyzes (ICP scan) for other elements (Ag, As, Hg, Ca, carbon, Cu, and sulphur species, etc.).
- True S.G.
- Moisture content.
- Bulk density.

Heap Leach Testwork:

- Recovery analysis via bottle rolls for coarse oxide and early transition material at P_{80} 40-50mm by screening out -40mm from oxides and crushing the +50mm material to sieve to 40-50mm.
- Recovery analysis via bottle rolls for sulphide and harder transition material at P_{80} 19mm.
- Depending on results, additional recovery analysis on other crush size may be required prior to proceeding with remainder of testwork.
- Agglomeration tests at varying cement dosage.
- Percolation tests.
- Column leach tests:
  - Conduct on agglomerated oxide / transition that are fine (i.e., -50mm).
  - Conduct on un-agglomerated hard sulphide / transition material to confirm if agglomeration is required for that material.
- Mineralogical examination of samples tails as necessary.
- Acid base testing to verify if sulphide material is acid generating.

14.0 MINERAL RESOURCE ESTIMATION

14.1 2023 Mineral Resource Estimate

BBA E&C Inc (BBA) completed a Mineral Resource Estimate of the Enchi Gold Project, under the supervision of Todd McCracken, in 2023. The BBA Mineral Resource Estimate was reported as an NI 43-101 Technical Report titled Mineral Resource Estimate for the Enchi Gold Project with an Effective Date of 25 January 2023.

In the first quarter of 2024, SEMS Exploration Services Ltd (SEMS), under the supervision of Simon Meadows Smith, reviewed the BBA Mineral Resource estimation for the Sewum, Boin, Nyam, Kwakyekrom and Tokosea Deposits in accordance with CIM Definition Standards (2019). SEMS is not aware of any environmental or social factors which would preclude the reporting of Mineral Resources at the present time.

SEMS has confirmed the Enchi Gold Project Mineral Resource as estimated by BBA. A summary is presented in Table 14.1.1. The Mineral Resource review and accompanying Statement is the responsibility of the Qualified Persons, Simon Meadows Smith (FIMMM), Andrew Netherwood (MAusIMM) and Joe Amanor (MIMMM).

Table 14.1.1 Enchi Mineral Resource Statement

Mineral Resource Statement				
Deposit	**Classification**	**Tonnes**	**Grade (g/t Au)**	**Contained Au (oz)**
Sewum	Indicated	20,925,000	0.48	323,300
Boin	Indicated	13,020,000	0.62	258,200
Nyam	Indicated	7,791,000	0.65	162,000
Total Indicated		**41,736,000**	**0.55**	**743,500**
Sewum	Inferred	21,798,000	0.53	373,100
Boin	Inferred	15,884,000	0.68	349,600
Nyam	Inferred	2,681,000	1.21	104,700
Kwakyekrom	Inferred	4,244,000	0.72	97,700
Tokosea	Inferred	1,949,000	0.75	46,900
Total Inferred		**46,556,000**	**0.65**	**972,000**

This chapter describes the methodology used to review the Enchi Gold Project Mineral Resource and summarizes the key assumptions employed. SEMS considers that the Mineral Resource reported herein, is an accurate representation of the grade and tonnage of the Enchi Gold Project deposits at the current level of sampling.

Datamine™ mining software was used to review and model the Mineral Resource estimation domains, prepare assay data for geostatistical analysis, construct the block model, estimate metal grades, and tabulate Mineral Resources.

SEMS completed an analysis of the following steps undertaken by BBA to review the MRE:

- Database compilation and review.
- Construction of wireframe geological models.
- Statistical analysis and definition of domains.
- Geostatistical analysis (variography) within estimation domains.
- Block modelling and grade interpolation.
- Model validation.
- Mineral Resource classification.
- Consideration of reasonable prospects for eventual economic extraction (RPEEE).
- Reporting of Mineral Resources.

14.2 Database

Newcore maintains all drill hole data in a Microsoft® Access® database. Header, survey, assays, and lithology tables are saved on individual tabs in the database. Individual Excel® files exported from the database for each of the deposits were provided to the QP by Newcore.

The following drill hole data was included:

- Collars, including collar co-ordinates, drilling type, hole lengths.
- Downhole surveys.
- Sample assay intervals.

- Lithology.
- Density.
- Mineralization intervals.
- Alteration.
- Structures.
- Weathering.
- Oxidation.

The Enchi Gold Project database used to determine the Mineral Resource contains a total of 1,488 drill holes (diamond drill, reverse circulation, and reverse air blast) and trenches. Table 14.2.1 summarizes the drill hole database.

Table 14.2.1 Enchi Borehole Summary

Hole type	No.	Total Metres	% Holes	% Metres
Sewum				
Diamond Drill	85	14,645	22	29
RC	172	23,499	44	47
RAB	44	3,086	11	6
Trench	88	8,546	23	17
Boin				
Diamond Drill	79	12,431	11	18
RC	301	40,015	42	59
RAB	275	9,338	38	14
Trench	63	5,729	9	8
Nyam				
Diamond Drill	56	8,443	31	33
RC	107	16,015	59	62
Trench	18	1,303	10	5
Kwakyekrom				
Diamond Drill	3	741	3	4
RC	97	13,132	82	79
Trench	18	2,684	15	16
Tokosea				
RC	82	10,250	100	100
Total	**1,488**	**169,857**	**100**	**100**

The non-assayed intervals within the database were assigned a value equal to the detection limit. Sample intervals with values below detection limit (<) in the database were assigned the detection limit.

The Mineral Resource database was validated before proceeding to the Mineral Resource estimation. The validation steps are detailed in Chapter 12 of this report. Minor variations have been observed during the validation process but have no material impact on the Mineral Resource estimation.

14.3 Specific Gravity

Specific gravity (SG) data was collected on site in a dedicated room within the Newcore field camp. A total of 3,643 samples were measured for specific gravity. A summary of the SG results is presented in Table 14.3.1.

Drill logs recorded the weathering profile from W1 (fresh) to W6 (strongly weathered). Surface models were generated in Datamine using data from drill logs for the base of oxidized zones (W6, W5 and W4) and base of fresh to partially oxidized zones (W1, W2 and W3) for the five deposits.

Diamond drill core samples were selected for SG measurement from the Sewum, Boin, Nyam and Kwakyekrom deposits for inclusion in the mineral resource estimation. SG measurements were also collected from the Eradi prospect. No diamond drilling has been undertaken on the Tokosea deposit. A summary of the drill holes and number of SG samples collected is presented in Table 14.3.1.

Table 14.3.1 Enchi Specific Gravity, Summary of Source Material

Deposit	Holes	Samples
Sewum	84	1,683
Boin	77	1,083
Nyam	38	620
Kwakyekrom	1	27
Eradi	19	230
TOTAL	**219**	**3,643**

SG samples were selected at regular intervals through the weathered, transition and fresh zones of diamond drill holes. These samples were weighed in air and then weighed while submersed within a bucket of water. The measurements were completed using a Mettler – Toledo Gold Balance JE3002GE. SG values were calculated using the following formula: SG = weight in air / (weight in air – weight in water).

The SEMS QP observed the weighing of SG samples by Newcore personnel and can confirm that the process was undertaken in a sterile environment, with calibrated weighing scales and followed an appropriate methodology.

Blocks within the fresh (W1) zone were assigned a SG of 2.72 and blocks within the weathered zones (W6, W5 & W4) were assigned a SG of 2.19. Blocks within the transitional zone were assigned a SG of 2.45 as displayed in Table 14.3.2.

Table 14.3.2 Enchi Specific Graveity, Summary of Reported Values

Type	Count	Mean	Minimum	Maximum
Oxide	98	2.19	1.44	3.46
Transition	794	2.45	1.62	3.51
Fresh	2751	2.72	1.79	3.90

SEMS considers the mean SG value calculated for oxide material to be on the higher end of the range of expected values, however, it is similar to that used for mineral resource estimations at the Bibiani mine which is located approximately 90 km along strike to the north of the Enchi Gold Project, Table 14.3.3.

SEMS accepts that the number of SG measurements collected from the Enchi Gold Project saprolite zone and the use of a similar SG value at Bibiani is sufficient justification for the use of the SG values reported in Table 14.3.2 to be used in the Enchi Gold Project Mineral Resource estimation.

Table 14.3.3 Enchi Specific Gravity Values Compared to Bibiani

Company	Newcore	Asante
Project	**Enchi**	**Bibiani**
Saprolite	2.19	2.00
Transition	2.45	2.50
Fresh	2.72	2.75

14.4 Topography

The topographic surface used in the Mineral Resource Estimate is a Digital Terrain Model (DTM) based on drone surveys at Sewum, Boin and Nyam as disclosed in 9.4. The topography at Kwakyekrom and Tokosea is based on an older and larger digital topographic file with a lower resolution.

14.5 Mineralization Modelling

A simple lithological model was created by refining logged lithology codes from dill holes into 4 lithological domains (phyllite, greywacke, granite and dolerite) with an overlying saprolite domain. Lithology was not incorporated into the mineral resource models.

Mineralized wireframe outlines for each of the deposits were created by sectional digitizing of mineralization on 25 m to 200 m intervals. Drillhole spacing is variable with most of the surface drilling collared on 25 m to 75 m sections. Three-dimensional wireframe models of mineralization were developed in Leapfrog and Datamine™ by BBA and approved by Newcore. The wireframes for each mineralized zones were designed using criteria that included a minimum downhole width of 1 m and a minimum grade of 0.2 g/t gold (based on average derived economic cut-off grades for a gold price of US$1,650). However, due to the variable geometry of mineralization and to provide continuity there are portions within some wireframes that have grades less than 0.2 g/t Au.

SEMS has reviewed the mineralization wireframes created by BBA and approved their outlines for use in the mineral resource estimation.

A smaller, secondary mineralized model was developed in places where a) mineralization had not been fully closed off through drilling and was deemed open in certain directions, or where b) there were grounds to assume extrapolation of mineralization into certain undrilled areas. This modelling was completed using an unconstrained method under a controlled search estimation. The resultant model is wholly classified as inferred.

14.5.1 Sewum

The Sewum Deposit comprises 6 different zones spread over three different geographic areas and covering a total strike length of 4.8 km, with zones being further divided into a number of sub-parallel domains, as displayed in Table 14.5.1.

Table 14.5.1 Sewum Zones and Domains

Sewum Resource Zones		Domains
Name	Number	
Sewum South	Z01	3
Checkerboard Hill	Z02	1
Sewum Shear	Z03	1
Ridge Top	Z04	9
Gap	Z05	14
Sewum Southwest	Z06	2

Sewum South consists of 3 parallel north-east trending, steeply dipping, predominantly narrow but occasionally wider width lenses, each with a strike length varying between 500 m and 1.6 km. Sewum South-west is similar and lies parallel 250 m distant with a strike length of 350 m.

Checkerboard Hill, 700 m north of Sewum South, consists of a single large bowl-like structure of 400 m x 300 m dimensions and up to 300 m depth. This is partially intercut / intersected by north-northeast trending multiple steeply dipping sub-parallel narrow lenses of the Gap zone, which also extend up to 400 m further north.

Sewum Shear is a narrow sub-vertical zone that sits on the north-western periphery of the Sewum deposit, with a 1.4 km strike varying from north-northwest in the south to north-northeast further north. It is contiguous with and truncates the western side of the Ridge Top zone, the northern-most of the Sewum zones, which is a series of narrow to moderate width north-northeast trending, moderately flat to flat, sub-parallel lenses dipping west-northwest, over a strike length of 1.5 km.

14.5.2 Boin

The Boin Deposit comprises 10 zones relating to three different geographic areas. Zones 1, 2, 3, 5, 6, 7, 8, 9, and 10 are sub-parallel.

Southern-most zones 7-10 consist of 4 vertical lodes of narrow to moderate widths, with a north-northeast strike over 1.2 km strike length. Zones 1,2, 3, 5 and 6 commence 350 m to the northeast, and consist of north-northeast striking and steeply west dipping, narrow, moderate and wide sub-parallel lodes over a strike of 4.5 km. Zone 5 especially contains significant widths. Zone 4 is located 1 km to the northwest of the main Boin system and has a northeast strike over 1.2 km and consists of 1-2 vertical moderate width lodes.

14.5.3 Nyam

The Nyam Deposit comprises 6 sub-parallel zones.

All the Nyam zones consist of north-northeast striking, steeply east-southeast dipping narrow to moderate width lodes with up to 5 of the 6 zones occurring on any one section and covering a total strike length of 2.5 km.

14.5.4 Kwakyekrom

The Kwakyekrom Deposit comprises 5 sub-parallel zones.

Similar to Nyam, all the Kwakyekrom zones consist of north-northeast striking, steeply east-southeast dipping narrow to moderate width lodes, with up to 6 occurring on any one section, covering a total strike length of 2.5 km.

14.5.5 Tokosea

The Tokosea Deposit comprises five geographic zones all having a north-northeast orientation, slightly offset laterally and along strike from each other over a lateral distance 1.2 km east to west. Four have steep westerly dips while the northeastern zone has flatter 45-degree westerly dip. Combined they span a total strike length of almost 3 km.

14.6 Data Analysis

14.6.1 Assays

The Mineral Resource contains 49,873 gold assays from 1,488 drill holes. All borehole files were reviewed to ensure that the correct assay intervals were captured. Table 14.6.7 summarizes the statistics for selected assays within the wireframe models at Enchi.

Table 14.6.1 Enchi Drill Statistics by Deposit

Deposit	Field	No. Samples	No. Missing	Minimum	Maximum	Mean	Variance
Sewum	Length	8727	0	0.1	22.5	1.20	0.58
Boin	Length	10586	0	0.2	3.4	1.07	0.10
Nyam	Length	3940	0	0.3	2.0	1.16	0.13
Kwakyekrom	Length	2085	0	1.0	1.0	1.10	0.24
Tokosea	Length	3246	0	1.0	1.0	1.00	-
Total All Deposits	**Length**	**28584**	**0**	**0.1**	**22.5**	**1.11**	**0.25**
Sewum	Au (ppm)	8505	531	0.01	24.75	0.40	0.86
Boin	Au (ppm)	10,584	85	0.01	17.61	0.40	1.04
Nyam	Au (ppm)	3920	43	0.01	44.20	0.68	1.77
Kwakyekrom	Au (ppm)	2084	23	0.01	13.18	0.47	0.74
Tokosea	Au (ppm)	3228	18	0.01	18.17	0.21	0.51
Total All Deposits	**Au (ppm)**	**28321**	**700**	**0.01**	**44.20**	**0.42**	**1.00**

14.6.2 Composites

Selected assay intervals within the mineralized zones were composited to remove unequal length bias prior to statistical analysis. Compositing length was either 1 m intervals (Sewum and Boin) or 2 m intervals (Nyam, Kwakyekrom and Tokosea). Table 14.6.8 summarizes the statistics for drill holes assays after compositing.

Table 14.6.2 Enchi Selected Composite Statistics by Deposit

Deposit	Field	No. Samples	No. Missing	Minimum	Maximum	Mean	Variance
Sewum	Length	15509	0	0.8	1.2	1.00	0.00
Boin	Length	18007	0	0.0	24.2	1.05	0.15
Nyam	Length	4763	0	1.0	2.2	1.95	0.01
Kwakyekrom	Length	2453	0	1.0	2.2	1.94	0.01
Tokosea	Length	1664	0	1.0	2.0	2.00	0.01
Total All Deposits	**Length**	**42396**	**0**	**0.0**	**24.4**	**1.22**	**0.07**
Sewum	Au (ppm)	15253	0	0.01	24.8	0.32	0.66
Boin	Au (ppm)	17,975	0	0.01	133.0	0.34	1.96
Nyam	Au (ppm)	4761	0	0.01	22.5	0.52	0.84
Kwakyekrom	Au (ppm)	2452	0	0.01	7.0	0.31	0.31
Tokosea	Au (ppm)	1656	0	0.01	9.7	0.21	0.32
Total All Deposits	**Au (ppm)**	**42097**	**0**	**0.01**	**133.0**	**0.35**	**1.20**

14.6.3 Grade Capping

Composite gold assays were examined individually to assess the requirement to apply a grade cap on potentially high-grade outliers that could otherwise have adverse effects on results.

Decile analysis (Parrish, 1997) along with log-probability graphs were used to assist in the determination if grade capping was required. A review of the 3D spatial distribution of the capped samples was also completed to determine if the samples are spatially close and potentially a higher-grade sub- domain. This was not observed in any of the zones with the Enchi Gold Project.

Capping was set for individual zones within each deposit (Table 14.6.3) as derived from the above methods.

Table 14.6.3 Enchi Grade Capping Value by Zone

Zone	Grade Cap (g/t)
Sewum	
Z1 to Z6	8
Z99	3
Boin	
All Zones	**8**
Nyam	

Zone	Grade Cap (g/t)
All Zones	**10**
Kwakyekrom	
Z1, Z2, Z3	5
Z5	4
Z6	no cap
Z99	2
Tokosea	
All Zones	**1.308**

Table 14.6.4 is a summary of the drillhole composites after grade capping has been applied.

Table 14.6.4 Enchi Capped Composite Statistics by Zone

Zone	Field	No. Samples	No. Miss	Minimum	Maximum	Mean	Variance
Sewum							
Z1_1	Length (m)	649	0.00	0.83	1.20	1.00	0
Z1_2	Length (m)	200	0.00	0.85	1.10	1.00	0
Z1_3	Length (m)	215	0.00	1.00	1.03	1.00	0
Z_2	Length (m)	6,431	0.00	0.96	1.20	1.00	0
Z_3	Length (m)	277	0.00	0.99	1.00	1.00	0
Z4_1	Length (m)	1,675	0.00	0.99	1.01	1.00	0
Z4_2	Length (m)	1103	0.00	0.99	1.01	1.00	0
Z4_3	Length (m)	832	0.00	0.99	1.03	1.00	0
Z4_4	Length (m)	851	0.00	0.88	1.13	1.00	0
Z4_5	Length (m)	1243	0.00	0.98	1.02	1.00	0
Z4_6	Length (m)	402	0.00	0.95	1.00	1.00	0
Z4_7	Length (m)	203	0.00	0.95	1.00	1.00	0
Z4_8	Length (m)	102	0.00	1.00	1.00	1.00	-
Z4_9	Length (m)	518	0.00	1.00	1.00	1.00	-
Z5_1	Length (m)	11	0.00	1.00	1.00	1.00	-
Z5_2	Length (m)	13	0.00	1.00	1.07	1.05	0.001
Z5_3	Length (m)	24	0.00	0.94	1.00	0.99	0
Z5_4	Length (m)	61	0.00	0.93	1.01	0.99	0
Z5_5	Length (m)	40	0.00	0.92	1.00	0.97	0.001
Z5_6	Length (m)	62	0.00	0.96	1.03	1.00	0
Z5_7	Length (m)	40	0.00	0.90	1.00	0.99	0.001

Zone	Field	No. Samples	No. Miss	Minimum	Maximum	Mean	Variance
Z5_8	Length (m)	43	0.00	1.00	1.00	1.00	-
Z5_9	Length (m)	32	0.00	1.00	1.04	1.01	0
Z5_10	Length (m)	35	0.00	1.00	1.00	1.00	-
Z5_11	Length (m)	22	0.00	1.00	1.00	1.00	-
Z5_12	Length (m)	27	0.00	1.00	1.05	1.01	0.001
Z5_13	Length (m)	145	0.00	1.00	1.00	1.00	0
Z5_14	Length (m)	193	0.00	0.99	1.00	1.00	0
Z6_1	Length (m)	27	0.00	1.00	1.00	1.00	-
Z6_2	Length (m)	33	0.00	1.00	1.00	1.00	-
z99	Length (m)	33,065	0.00	0.75	1.07	1.00	0
Boin							
Z1	Length (m)	926	0.00	1.50	2.20	1.97	0.002
Z2	Length (m)	579	0.00	1.50	2.10	1.97	0.004
Z3	Length (m)	349	0.00	1.50	2.05	1.94	0.012
Z4	Length (m)	155	0.00	1.92	2.00	1.97	0.001
Z5	Length (m)	6,962	0.00	1.50	2.05	1.98	0.001
Z6	Length (m)	54	0.00	1.00	2.00	1.85	0.028
Z7	Length (m)	189	0.00	1.50	2.00	1.92	0.012
Z8	Length (m)	185	0.00	1.50	2.00	1.92	0.014
Z9	Length (m)	126	0.00	1.50	2.00	1.92	0.016
Z10	Length (m)	72	0.00	1.67	2.00	1.86	0.011
Nyam							
Z1	Length (m)	2,544	0.00	1.00	2.17	1.97	0.002
Z2	Length (m)	94	0.00	1.00	2.15	1.81	0.026
Z3	Length (m)	1115	0.00	1.00	2.60	1.93	0.013
Z4	Length (m)	683	0.00	1.00	2.00	1.90	0.021
Z5	Length (m)	181	0.00	1.55	2.00	1.95	0.006
Z6	Length (m)	146	0.00	1.50	2.04	1.94	0.011
Z99	Length (m)	10,791	0.00	1.00	2.15	1.98	0.006
Kwakyekrom							
Z1	Length (m)	250	0.00	1.50	2.00	1.95	0.011
Z2	Length (m)	1104	0.00	1.00	2.00	1.94	0.012
Z3	Length (m)	824	0.00	1.00	2.00	1.96	0.007
Z5	Length (m)	196	0.00	1.50	2.00	1.90	0.009
Z6	Length (m)	79	0.00	1.50	2.00	1.90	0.017
Z99	Length (m)	5,230	0.00	1.00	2.18	1.98	0.004

Zone	Field	No. Samples	No. Miss	Minimum	Maximum	Mean	Variance
Tokosea							
Z11	Length (m)	84	0.00	1.00	1.00	1.00	-
Z12	Length (m)	138	0.00	1.00	1.00	1.00	-
Z13	Length (m)	109	0.00	1.00	1.00	1.00	-
Z14	Length (m)	52	0.00	1.00	1.00	1.00	-
Z15	Length (m)	22	0.00	1.00	1.00	1.00	-
Z16	Length (m)	34	0.00	1.00	1.00	1.00	-
Z21	Length (m)	115	0.00	1.00	1.00	1.00	-
Z23	Length (m)	240	0.00	1.00	1.00	1.00	-
Z24	Length (m)	331	0.00	1.00	1.00	1.00	-
Z25	Length (m)	355	0.00	1.00	1.00	1.00	-
Z26	Length (m)	425	0.00	1.00	1.00	1.00	-
Z27	Length (m)	169	0.00	1.00	1.00	1.00	-
Z31	Length (m)	587	0.00	1.00	1.00	1.00	-
Z32	Length (m)	260	0.00	1.00	1.00	1.00	-
Z41	Length (m)	11	0.00	1.00	1.00	1.00	-
Z42	Length (m)	90	0.00	1.00	1.00	1.00	-
Z44	Length (m)	110	0.00	1.00	1.00	1.00	-
Z45	Length (m)	15	0.00	1.00	1.00	1.00	-
Z51	Length (m)	21	0.00	1.00	1.00	1.00	-
Z52	Length (m)	52	0.00	1.00	1.00	1.00	-
Z53	Length (m)	26	0.00	1.00	1.00	1.00	-
Sewum							
Z1_1	Au_ppm	648	1	0.01	8	1.02	1.681
Z1_2	Au_ppm	200	0	0.01	3.25	0.25	0.15
Z1_3	Au_ppm	214	1	0.01	8	0.65	0.783
Z_2	Au_ppm	6,231	200	0.01	8	0.26	0.385
Z_3	Au_ppm	260	17	0.01	5.58	0.17	0.168
Z4_1	Au_ppm	1,668	7	0.01	8	0.28	0.295
Z4_2	Au_ppm	1099	4	0.01	2.84	0.17	0.076
Z4_3	Au_ppm	827	5	0.01	8	0.18	0.175
Z4_4	Au_ppm	851	0	0.01	8	0.31	0.326
Z4_5	Au_ppm	1243	0	0.01	8	0.43	0.517
Z4_6	Au_ppm	402	0	0.01	3.29	0.2	0.117
Z4_7	Au_ppm	203	0	0.01	2.47	0.24	0.132
Z4_8	Au_ppm	102	0	0.01	2.67	0.44	0.234

Zone	Field	No. Samples	No. Miss	Minimum	Maximum	Mean	Variance
Z4_9	Au_ppm	501	17	0.02	4.65	0.4	0.211
Z5_1	Au_ppm	11	0	0.12	0.95	0.33	0.07
Z5_2	Au_ppm	13	0	0.08	0.73	0.26	0.031
Z5_3	Au_ppm	24	0	0.01	1.01	0.24	0.049
Z5_4	Au_ppm	61	0	0.01	3.32	0.45	0.485
Z5_5	Au_ppm	40	0	0.02	2.51	0.47	0.447
Z5_6	Au_ppm	62	0	0.01	1.79	0.3	0.171
Z5_7	Au_ppm	40	0	0.01	2.49	0.13	0.152
Z5_8	Au_ppm	40	3	0.01	2.7	0.26	0.221
Z5_9	Au_ppm	32	0	0.01	2.57	0.44	0.409
Z5_10	Au_ppm	35	0	0.01	0.72	0.14	0.031
Z5_11	Au_ppm	22	0	0.01	0.79	0.19	0.063
Z5_12	Au_ppm	27	0	0.01	0.84	0.24	0.052
Z5_13	Au_ppm	145	0	0.01	6.38	0.46	0.453
Z5_14	Au_ppm	192	1	0.01	3.27	0.39	0.154
Z6_1	Au_ppm	27	0	0.02	4.67	0.84	1.118
Z6_2	Au_ppm	33	0	0.03	1.58	0.71	0.213
z99	Au_ppm	32,292	773	0.01	3	0.04	0.013
Boin							
Z1	Au_ppm	926	0	0.01	8	0.36	0.428
Z2	Au_ppm	570	9	0.01	6.93	0.16	0.18
Z3	Au_ppm	348	1	0.01	4.21	0.33	0.32
Z4	Au_ppm	155	0	0.01	4.73	0.43	0.539
Z5	Au_ppm	6,941	21	0.01	8	0.34	0.584
Z6	Au_ppm	54	0	0.01	1.01	0.17	0.042
Z7	Au_ppm	188	1	0.01	3.68	0.29	0.184
Z8	Au_ppm	185	0	0.01	2.53	0.34	0.159
Z9	Au_ppm	126	0	0.01	2.93	0.35	0.269
Z10	Au_ppm	72	0	0.01	1.4	0.26	0.063
Nyam							
Z1	Au_ppm	2,542	2	0.01	10	0.59	0.74
Z2	Au_ppm	94	0	0.01	1.83	0.31	0.106
Z3	Au_ppm	1115	0	0.01	10	0.42	0.576
Z4	Au_ppm	683	0	0.01	8.65	0.46	0.723
Z5	Au_ppm	181	0	0.01	10	0.71	2.335
Z6	Au_ppm	146	0	0.01	1.31	0.16	0.058

Zone	Field	No. Samples	No. Miss	Minimum	Maximum	Mean	Variance
Z99	Au_ppm	10,764	27	0.01	10	0.04	0.041
Kwakyekrom							
Z1	Au_ppm	249	1	0	1.09	0.12	0.026
Z2	Au_ppm	1104	0	0	5	0.31	0.292
Z3	Au_ppm	824	0	0	5	0.38	0.395
Z5	Au_ppm	196	0	0.01	4	0.27	0.259
Z6	Au_ppm	79	0	0.01	1.08	0.19	0.052
Z99	Au_ppm	5,072	158	0	2	0.03	0.007
Tokosea							
Z11	Au_ppm	83	1	0.01	3.19	0.4	0.552
Z12	Au_ppm	137	1	0.01	6.23	0.27	0.376
Z13	Au_ppm	109	0	0.01	6.81	0.26	0.484
Z14	Au_ppm	52	0	0.01	0.96	0.21	0.051
Z15	Au_ppm	22	0	0.01	0.46	0.09	0.024
Z16	Au_ppm	34	0	0.01	1.81	0.15	0.13
Z21	Au_ppm	115	0	0.01	3.79	0.21	0.316
Z23	Au_ppm	232	8	0.01	10.44	0.26	0.779
Z24	Au_ppm	331	0	0.01	18.17	0.21	1.118
Z25	Au_ppm	353	2	0.01	9.07	0.3	0.742
Z26	Au_ppm	423	2	0.01	14.8	0.16	0.781
Z27	Au_ppm	169	0	0.01	6.86	0.23	0.586
Z31	Au_ppm	587	0	0.01	5.79	0.15	0.19
Z32	Au_ppm	256	4	0.01	2.28	0.09	0.045
Z41	Au_ppm	11	0	0.05	0.99	0.33	0.094
Z42	Au_ppm	90	0	0.01	1.85	0.21	0.067
Z44	Au_ppm	110	0	0.01	1.35	0.2	0.052
Z45	Au_ppm	15	0	0.01	0.8	0.13	0.059
Z51	Au_ppm	21	0	0.01	4.17	0.45	0.829
Z52	Au_ppm	52	0	0.01	5.64	0.39	0.871
Z53	Au_ppm	26	0	0.01	1.58	0.13	0.095

14.7 Spatial Analysis

Variography, using Snowden Supervisor™ (v.2020) software, was completed for gold within the Sewum, Boin, and Nyam deposits. No variograms were created at Kwakyekrom or Tokosea as there was insufficient data.

Downhole variograms were used to determine nugget effect and then correlograms were modelled with two structures to determine spatial continuity in each of the zones. The variograms are not normalized. Table 14.7.1 summarizes results of the variography and shows the parameters used in the kriging estimations.

Zones with similar variograms within a deposit were assigned the same parameters.

Table 14.7.1 Enchi Variogram Parameters

Zone	Angle 1	Angle 2	Angle 3	Nugget	ST1 PAR1	ST1 PAR2	ST1 PAR3	ST1 PAR4	ST2 PAR1	ST2 PAR2	ST2 PAR3	ST2 PAR4
Sewum												
Z5 & Z6	145	20	-10	0.05	22	14	7	0.43	38	25	15	0.52
Z1	-60	80	80	0.05	47	30	3	0.09	60	39	15	0.86
Z2	-50	50	90	0.14	10	15	3	0.17	30	30	10	0.69
Z3	-90	20	55	0.09	55	10	24	0.27	60	40	37	0.64
Z4	-60	45	-10	0.08	50	25	4	0.37	130	40	10	0.55
Boin												
All Zones	-60	60	20	0.2	30	25	10	0.2	50	30	15	0.6
Nyam												
Z1, Z2, Z4,	120	80	180	0.32	41	12	7	0.12	52	27	16	0.56
Z3	120	80	180	0.1	40	30	10	0.45	55	45	15	0.45
Kwakyekrom												
No	-	-	-	-	-	-	-	-	-	-	-	-
Tokosea												
No	-	-	-	-	-	-	-	-	-	-	-	-

14.8 Mineral Resource Block Model

Individual block models were established in Datamine Studio RM for each of the 5 deposits. Within a deposit, each separate zone or domain was separately modeled. The models were rotated to improve the efficiency of filling the solids with blocks. A block size of 10 m x 10 m x 10 m was selected to accommodate the nature of the mineralization and to be amenable for potential open pit mining.

The block model was sub-celled on a 2.5 m x 2.5 m x 2.5 m pattern allowing the parent block to be split in each direction to more accurately model the volume of the wireframes.

Table 14.8.1 summarizes details of the parent block model.

Table 14.8.1 Enchi Parent Block Model

	Sewum	Boin	Nyam	Kwakyekrom	Tokosea
Origin X	518100	515445	529000	527800	521060
Origin Y	625200	632125	637200	634200	629290
Origin Z	-300	-220	-400	-400	-500
Rotation (Z axis)	31	36	29	31	43
Block Size (m)	10 x 10 x 10	10 x 10 x 10	10 x 10 x 10	10 x 10 x 10	10 x 10 x 10
Sub-Cell (m)	2.5	2.5	2.5	2.5	2.5
No. Block (X)	300	264	200	80	210
No. Block (Y)	680	693	300	290	365
No. Block (Z)	80	51	65	59	125

A comparison of the volume of the wireframe solids to the volume of the block model was undertaken on a zone by zone basis. This showed that most model volumes have less than 1% variance from the solid volumes with the exception of Nyam where the model volume is 1.6% less, which is on the conservative side.

14.8.1 Estimation Parameters

The interpolations of mineralized zones were completed using the estimation methods: NN, ID^2, and OK. The estimations were designed for 2 or 3 passes. Blocks that fell outside of the first pass ellipsoid were re-estimated in either 1 or 2 further passes each with successively relaxed search ellipsoids. In each pass, a minimum and maximum number of samples were required as well as a maximum number of samples from a drill hole to satisfy the estimation criteria. Table 14.8.2 summarizes the interpolation criteria for the zones.

Table 14.8.2 Enchi Estimation Parameters

Estimation No.	Search Pass	Min No. of Comp	Max No. of Comp	Max No. of Comp per Hole
Sewum Z1, Z2, Z3, All Z4, All Z5				
1	1	4	12	2
2	2	3	12	2
3	5	2	10	2
Sewum Z6				
1	1	4	10	2
2	2	3	10	2

3	5	2	10	2
Boin Z1-Z10				
1 2 3	1 2 3	4 3 3	15 12 15	2 2 2
Boin Z4				
1 2	1 2	4 3	15 12	2 2
Nyam All				
1 2 3	1 1.75 3	4 3 3	12 12 12	3 3 3
Kwakyekrom All Zones				
1 2 3	1 2 3	4 3 4	12 12 12	3 3 3
Tokosea				
1 2	1 2	3 3	12 12	2 2

Search ellipses for grade interpolation were orientated according to the main trends of mineralization, along strike and down dip. Table 14.8.3 summarizes the search ellipse size and rotations for each of the zones.

Table 14.8.3 Enchi Search Ellipse Parameters

Zone	SDIST 1 (m)	SDIST 2 (m)	SDIST 3 (m)	Axis 3 Rotation Strike	Axis 1 Rotation Dip	Axis 3 Rotation Plunge
Sewum						
Z1	30	20	7	121	-80	180
Z2	15	15	5	125	-80	180
Z3	30	20	20	Dynamic Anisotropy		
Z4	65	20	10	110	-47	180
Z5	25	15	10	110	-84	180
Z6	25	15	10	125	85	180

Boin						
Z1-Z10	25	15	7.5	129	-75	0
Z4	50	30	15	145	90	0
Nyam						
All Zones	55	45	15	120	80	180
Kwakyekrom						
All Zones	55	45	7.5	120	75	180
Tokosea						
Z11	55	55	10	-72	90	0
Z12-Z16	55	55	10	-55	70	0
Z21-Z27	55	55	10	-62	40	0
Z31-Z32	55	55	10	-68	80	0
Z41-Z45	55	55	10	-67	70	0
Z51	55	55	10	-35	60	0
Z52	55	55	10	-50	65	0
Z52	55	55	10	-45	45	0

14.8.2 Grade Estimation

The wireframe model was used to select composited samples for grade interpolation. Grade capping was applied to any composite grade which exceeded the threshold. Model blocks were interpolated using zonal interpolation to prevent cross-sampling of adjacent zones. In other words, only those composites falling into the same zone as the model blocks were used to interpolate the grade of the block.

Ordinary Kriging methodology was used to estimate block grades for Sewum, Boin, and Nyam, however for Kwakyekrom and Tokosea (where no variograms were obtained) ID^2 was used.

14.9 Mineral Resource Classification

Several factors are considered in the definition of a Mineral Resource classification:

- NI 43-101 requirements.
- Canadian Institute of Mining, Metallurgy and Petroleum (CIM) guidelines, 2019.
- Author's experience with shear-hosted gold deposits and in particular the Enchi Gold Project.
- Spatial continuity based on variography of the assays within the drillholes.
- Drillhole spacing and estimation runs required to estimate the grades in a block.
- Any uncertainty in the drillhole database.

A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction (CIM, 2019).

After consideration of the factors above, wireframe solids are generated to encompass similar blocks and coded as indicated. All blocks outside the solids were coded as Inferred.

Currently, based on the factors listed above and the definitions provided by CIM, the Mineral Resources at Sewum, Boin and Nyam have Indicated and Inferred Resources. Kwakyekrom and Tokosea are classified as Inferred.

No environmental, permitting, legal, title, taxation, socio-economic, marketing, or other relevant issues are known to the QP that may affect the estimation of Mineral Resources on the Enchi Gold Project.

14.10 Mineral Resource Statement

The Mineral Resource Statement for the Enchi Gold Project, effective as of 25 January 2023, has been tabulated in terms of a gold cut-off grade. Each open pit Mineral Resource is constrained within a pit using Deswik software (2020.01), which runs the pseudoflow algorithm to determine the potential economic pit limits. Table 14.10.1 summarizes the input parameters for the pit shells.

Table 14.10.1 Enchi Pit Parameters by Deposit

Item	Unit	Value
Mining Cost (contractor)		
Variable Mining Cost:		
Mining cost oxide	$/t mined	1.4
Mining cost transition	$/t mined	2.1
Mining cost fresh rock	$/t mined	2.6
Incremental haulage cost	$/t mined / bench	0.05
Reference level for incremental haulage cost:		
Sewum	m	110
Boin	m	70
Nyam	m	30
Kwakyekrom	m	30
Fixed Mining Cost:		
Allowance for contractor and owner fixed costs	$/t milled	1
Processing Cost		
Processing cost	$/t milled	5.18
General and administration cost	$/t milled	0.65

Item	Unit	Value		
Gold Price Model				
Gold price	$/oz	1,650		
Royalties (Ghana and Triple Flag)	% of metal price	7		
Refining Charges, Doré Transport and Insurance	$/oz	4		
Discount rate	%	8		
Overall Pit Slopes Angle		**Oxide**	**Transition**	**Fresh rock**
Sewum	degree	33	35	48
Boin	degree	28 - 40	35 - 43	50
Nyam	degree	30	32	48
Kwakyekrom	degree	30	35	46
Tokosea	degree	30	35	46
Recovery		**Oxide**	**Transition**	**Fresh rock**
Sewum				
Sewum Extension.	%	72	82	75
Sewum Checkerboard Hill.	%	70	80	70
Sewum Ridge Top	%	75	85	75
Boin				
Boin South	%	67	72	62
Boin Central	%	80	85	75
Boin North	%	75	85	65
Nyam				
Nyam	%	60	65	55
Kwakyekrom				
Kwakyekrom	%	70	80	65
Tokosea				
Tokosea	%	70	80	65

The underground Mineral Resource was determined by evaluating blocks within contiguous shapes in close proximity to the pit shells based on the parameters summarized in Table 14.10.2.

Table 14.10.2 Enchi Underground Parameters

Item	Value	Unit
Minimum width	2.5	m
Gold Price	1650	$/oz
Selling price	120	$/oz
Recovery	85	%
Dilution	5	%

Mining cost	50	$/t
Process	10	$/t
G&A	0.65	$/t

Cut-off grades by deposit and by material are summarized in Table 14.10.3.

Table 14.10.3 Enchi Cut-off Grades

Zone	Ox	Trans	Fresh	U/G
Sewum	0.18	0.15	0.17	1.5
Boin	0.15	0.14	0.25	1.5
Nyam	0.17	0.15	0.25	1.5
Kwak	0.19	0.17	0.27	1.5
Tokosea	0.19	0.17	0.27	1.5

The sensitivity of the pit constrained Mineral Resource statement for all the zones at Enchi is tabulated in Table 14.10.4 for the Indicated and Inferred Mineral Resources using fixed cut-off grades.

Table 14.10.4 Pit Constrained Mineral Resource Cut-off Table

Classification	g/t CoG	Tonnes	Grade	Ounces
Indicated	0.1	47,702,000	0.50	768,000
	0.15	41,600,000	0.56	743,800
	0.2	36,549,000	0.61	716,700
	0.25	32,317,000	0.66	685,700
	0.3	28,258,000	0.72	650,600
	0.4	21,240,000	0.84	571,600
	0.5	15,838,000	0.97	493,700
Inferred	0.1	55,202,000	0.50	881,000
	0.15	45,643,000	0.57	843,600
	0.2	38,924,000	0.64	805,000
	0.25	32,964,000	0.72	762,500
	0.3	28,950,000	0.78	726,000
	0.4	22,348,000	0.91	652,900
	0.5	17,307,000	1.04	580,900

Based on Table 14.10.3 and Table 14.10.5, a variable gold cut-off is deemed suitable for the Enchi Gold Project Mineral Resource statement depending on the material being evaluated.

Table 14.10.5 Enchi Mineral Resource Statement

Mineral Resource Statement				
Deposit	**Classification**	**Tonnes**	**Grade (g/t Au)**	**Contained Au (oz)**
Sewum	Indicated	20,925,000	0.48	323,300
Boin	Indicated	13,020,000	0.62	258,200
Nyam	Indicated	7,791,000	0.65	162,000
Total Indicated		**41,736,000**	**0.55**	**743,500**
Sewum	Inferred	21,798,000	0.53	373,100
Boin	Inferred	15,884,000	0.68	349,600
Nyam	Inferred	2,681,000	1.21	104,700
Kwakyekrom	Inferred	4,244,000	0.72	97,700
Tokosea	Inferred	1,949,000	0.75	46,900
Total Inferred		**46,556,000**	**0.65**	**972,000**

Notes for Mineral Resource Estimation:

1. Canadian Institute of Mining Metallurgy and Petroleum (CIM) definition standards were followed for the mineral resource estimate.
2. The 2023 resource models used ordinary kriging (OK) grade estimation within a three-dimensional block model with mineralized zones defined by wireframed solids and constrained by pits shell for Sewum, Boin and Nyam. Kwakyekrom and Tokosea used Inverse Distance squared (ID^2).
3. Open pit cut-off grades varied from 0.14 g/t to 0.25 g/t Au based on mining and processing costs as well as the recoveries in different weathered material.
4. Heap leach cut-off grade varied from 0.14 g/t to 0.19 g/t in the pit shell and 1.50 g/t for underground based on mining costs, metallurgical recovery, milling costs and G&A costs. CIL cut-off grade varied from 0.25 g/t to 0.27 g/t in a pit shell and 1.50 g/t for underground based on mining costs, metallurgical recovery, milling costs and G&A costs.
5. A $1,650/ounce gold price was used to determine the cut-off grade.
6. Metallurgical recoveries have been applied to five individual deposits and in each case three material types (oxide, transition, and fresh rock).
7. A density of 2.19 g/cm^3 for oxide, 2.45 g/cm^3 for transition, and 2.72 g/cm^3 for fresh rock was applied.
8. Optimization pit slope angles varied based on the rock types.
9. Reasonable mining shapes constrain the mineral resource in close proximity to the pit shell.
10. Mineral Resources that are not mineral reserves do not have economic viability.
11. Numbers may not add due to rounding.

Table 14.10.6 Enchi Mineral Resource by Oxidation State

Indicated Mineral Resource Estimate by Mineralization Type			
Deposit	**Tonnes**	**Grade (g/t Au)**	**Contained Au (oz)**
Oxide	14,365,000	0.52	241,000
Transition	19,046,000	0.50	306,000
Fresh	8,325,000	0.73	196,500
Total Indicated	**41,736,000**	**0.55**	**743,500**
Inferred Mineral Resource Estimate by Mineralization Type			
Deposit	**Tonnes**	**Grade (g/t Au)**	**Contained Au (oz)**
Oxide	15,913,000	0.44	224,300
Transition	14,894,000	0.50	237,600
Fresh	15,749,000	1.01	510,000
Total Inferred	**46,556,000**	**0.65**	**972,000**

Table 14.10.7 Enchi Mineral Resource by Source

Indicated Mineral Resource Estimate by Source				
Category / Zone	**Source**	**Tonnes**	**Au Grade (g/t)**	**Contained Au (ounces)**
Sewum	Open Pit	20,925,000	0.48	323,300
Boin	Open Pit	13,020,000	0.62	258,200
Nyam	Open Pit	7,791,000	0.65	162,000
Total Indicated		**41,736,000**	**0.55**	**743,500**
Inferred Mineral Resource Estimate by Source				
Category / Zone	**Source**	**Tonnes**	**Au Grade (g/t)**	**Contained Au (ounces)**
Sewum	Open Pit	21,154,000	0.47	317,600
Boin	Open Pit	15,884,000	0.68	349,600
Nyam	Open Pit	1,852,000	0.68	40,600
Kwakyekrom	Open Pit	3,970,000	0.64	81,000
Tokosea	Open Pit	1,949,000	0.75	46,900
Total Inferred		**44,809,000**	**0.58**	**835,700**

Inferred Mineral Resource Estimate by Source				
Category/Zone	**Source**	**Tonnes**	**Au Grade (g/t)**	**Contained Au (ounces)**
Sewum	Underground	644,000	2.68	55,500
Nyam	Underground	829,000	2.41	64,000
Kwakyekrom	Underground	274,000	1.86	16,300
Total Inferred		**1,747,000**	**2.42**	**135,800**

14.11 Validation

14.11.1 Visual Inspection

The visual comparison of the block model grades against composite grades for each of the zones in each deposit show a reasonable correlation between the values. No significant discrepancies were apparent from the sections reviewed, yet grade smoothing is apparent in some locations due to the distance between drill samples being broader in some areas. Figure 14.11.1 to 14.11.9 compared the Mineral Resource block model to drillholes.

Figure 14.11.1 Sewum South Visual Validation

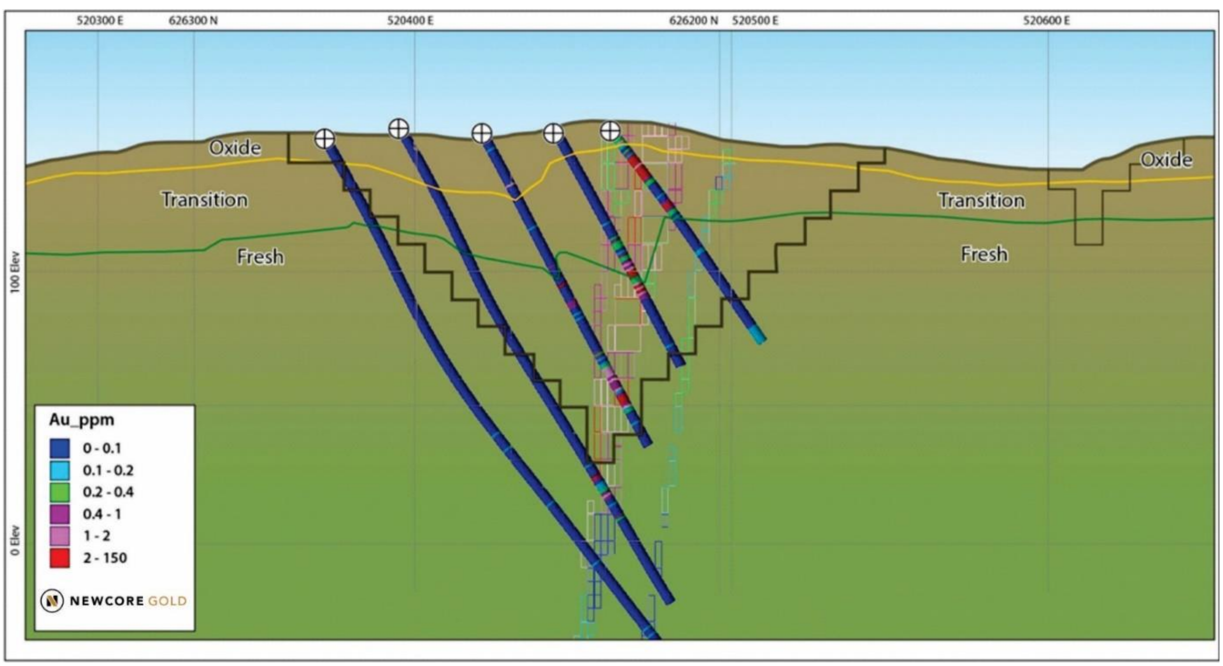


Figure 14.11.2 Sewum Checkerboard Hill Visual Validaion

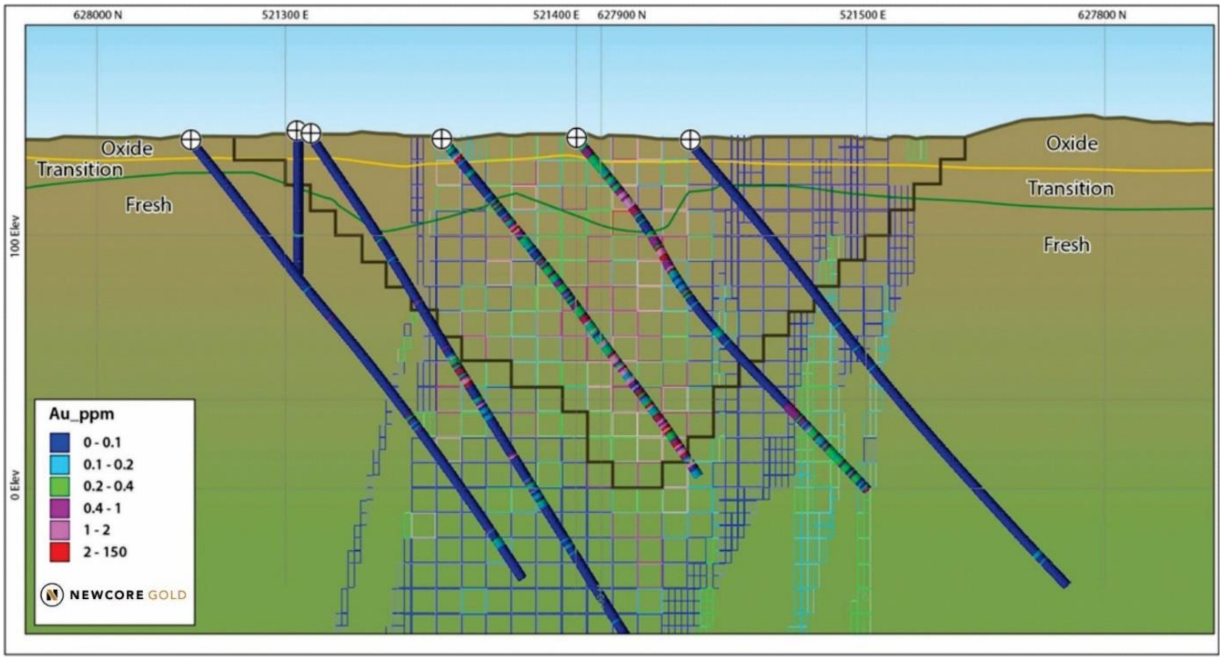


Figure 14.11.3 Sewum Ridgetop Visual Validaion

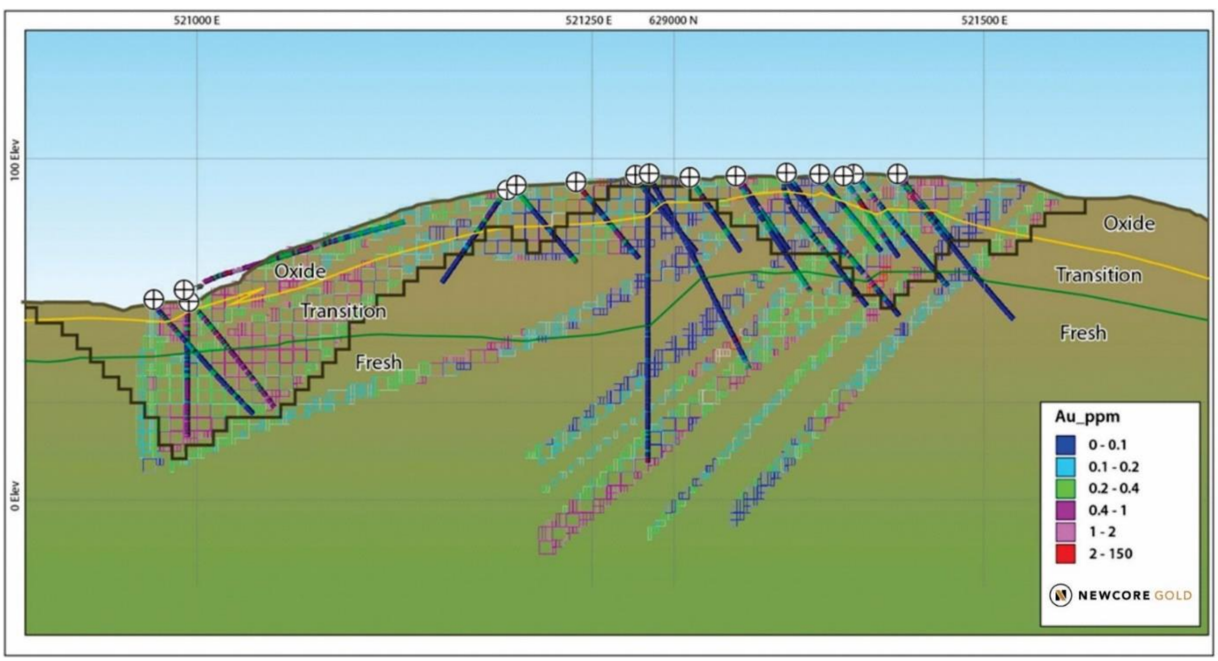


Figure 14.11.4 Boin South Visual Validation

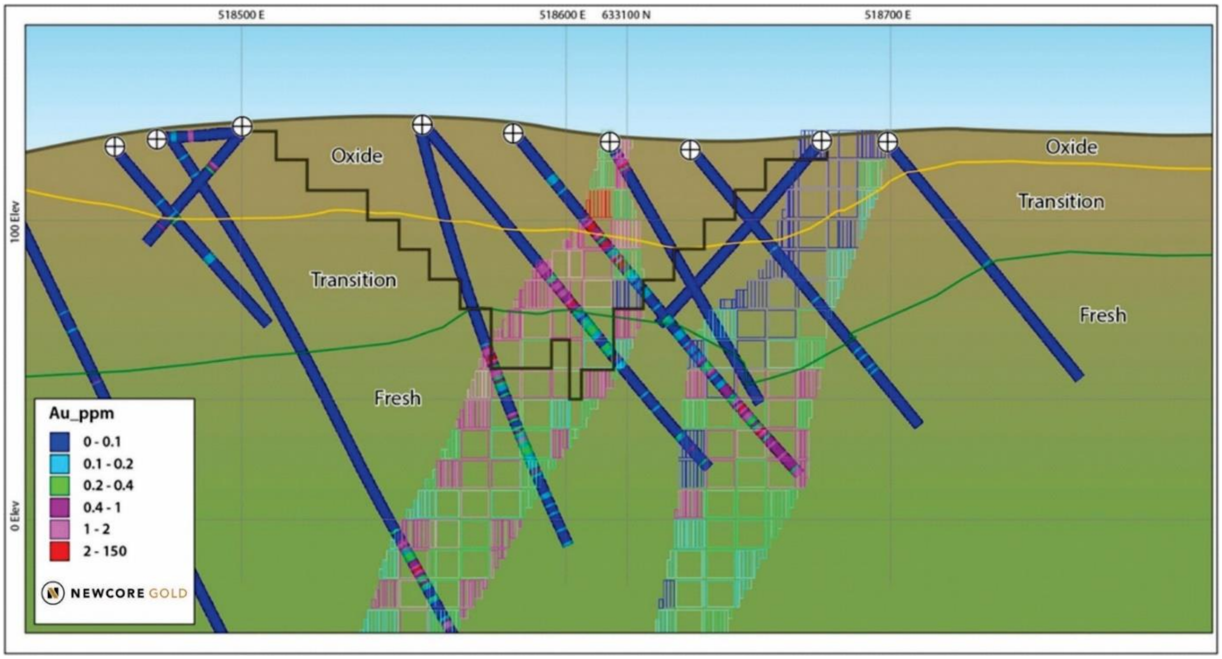


Figure 14.11.5 Boin Central Visual Validaion

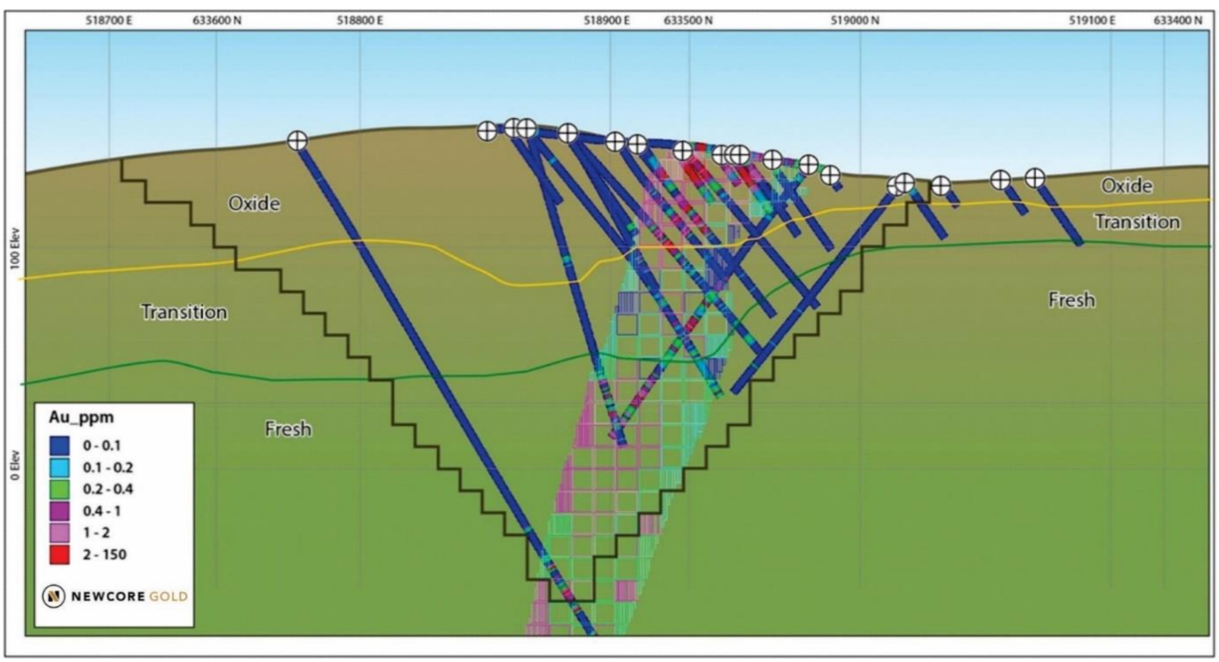


Figure 14.11.6 Boin North Visual Validation

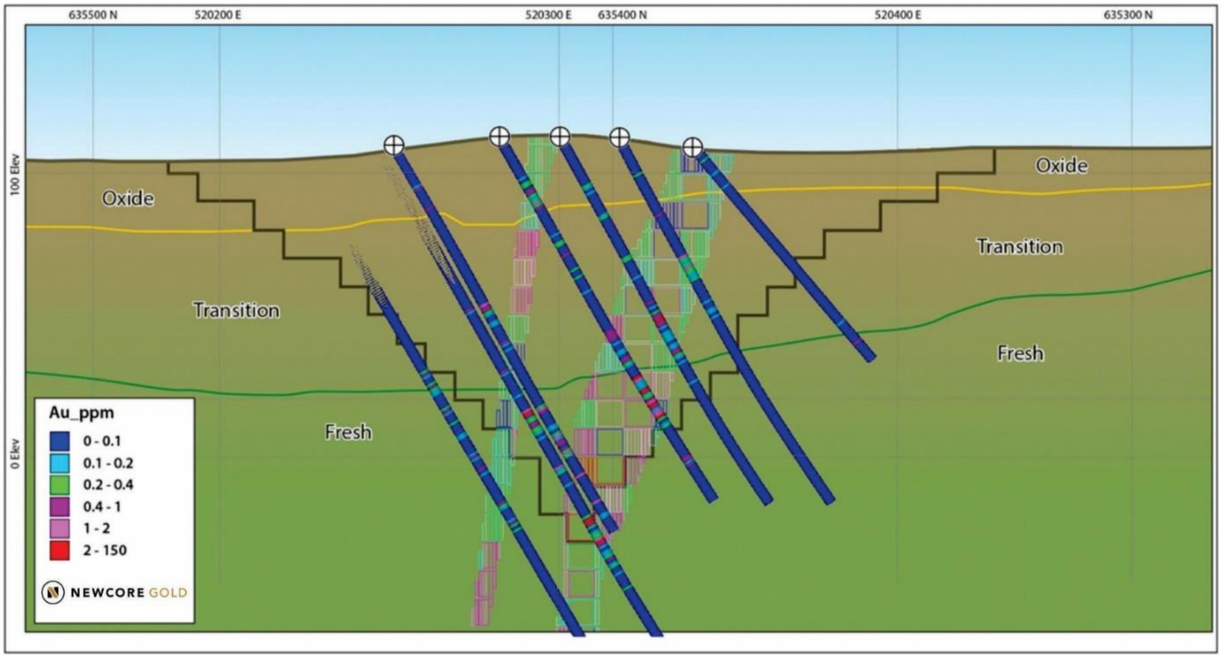


Figure 14.11.7 Nyam Visual Validation

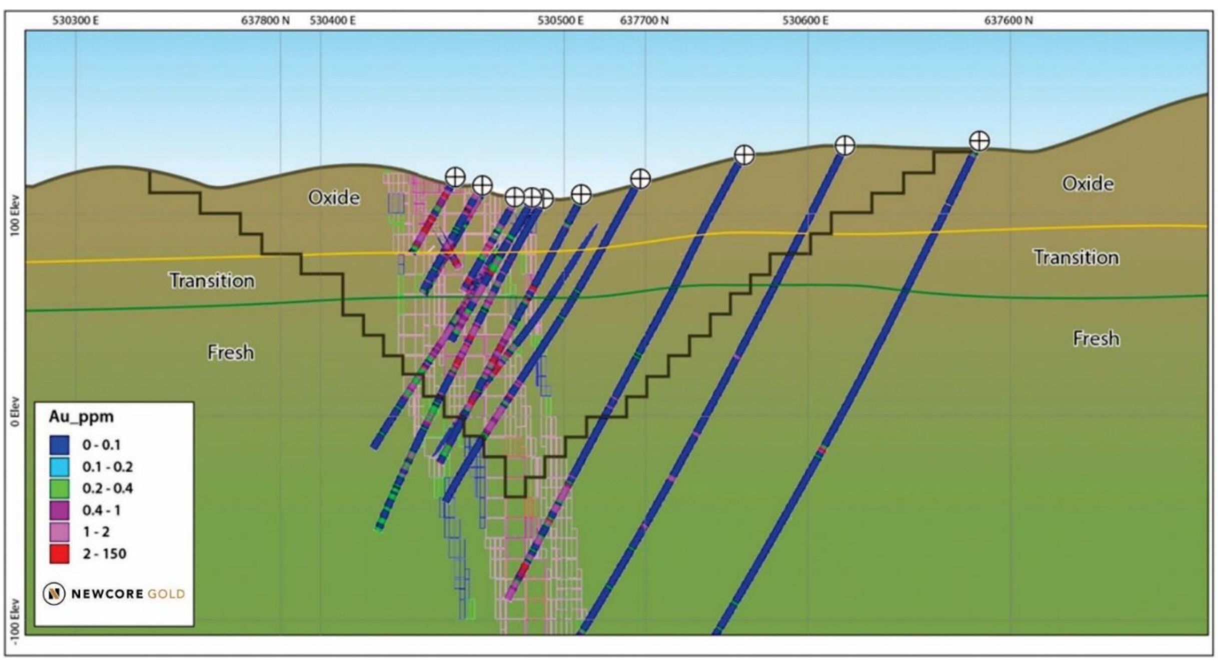


Figure 14.11.8 Kwakyekrom Visual Validation

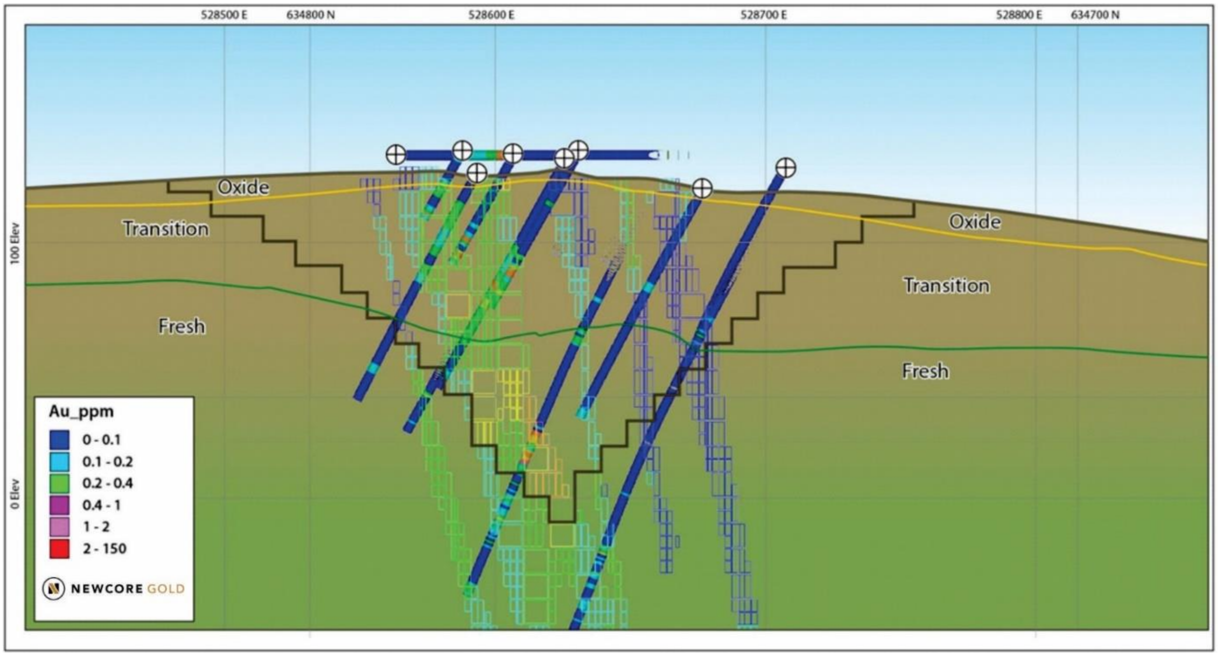
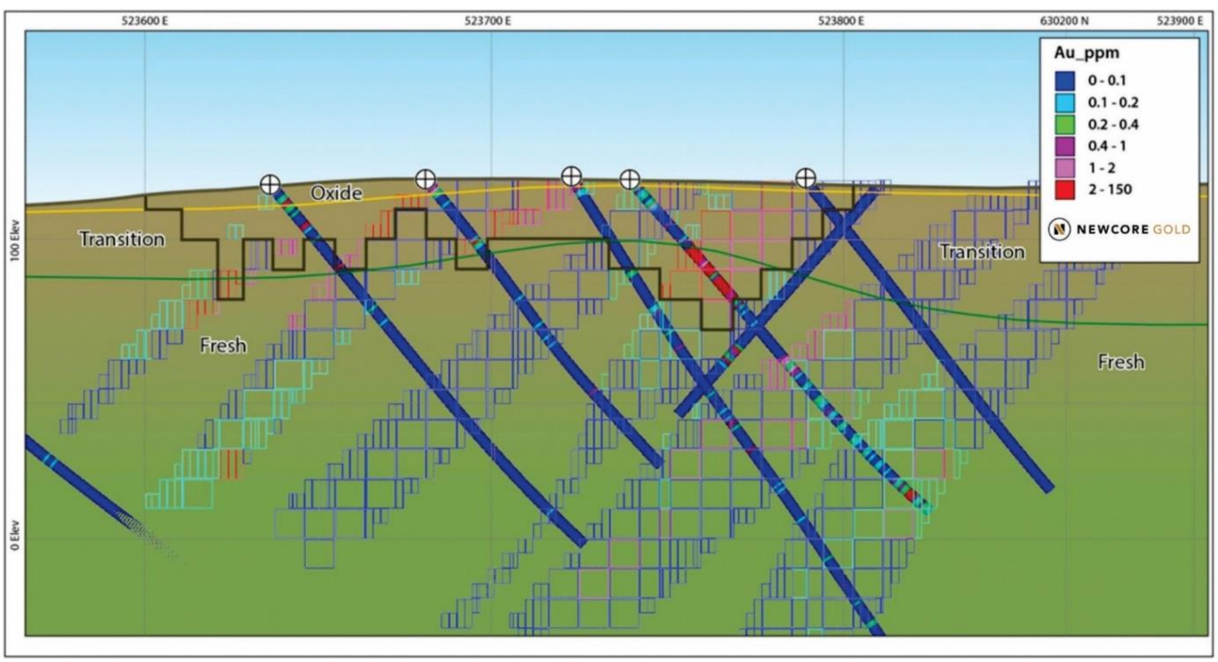


Figure 14.11.9 Tokosea Visual Validation



14.11.2 Global Comparison

The overall block model statistics for the OK model were compared to the overall ID^2 and NN model values as well as the composite capped drillhole data. Table 14.11.1 shows this comparison of the global estimates for the estimation method calculations. In general, there is an agreement between the OK model, ID^2 model, and NN model. Larger discrepancies are reflected as a result of lower drill density in some portions of the model. There is a degree of smoothing apparent when compared to the diamond drill statistics. Comparisons were made using all blocks at a 0 g/t cut-off.

Table 14.11.1 Enchi Global Statistics Comparison

Zone	NN (g/t)	ID2 (g/t)	OK (g/t)	Composite (g/t)
Sewum				
Z1_1	0.64	0.68	0.67	1.02
Z1_2	0.27	0.23	0.22	0.25
Z1_3	0.53	0.63	0.65	0.65
Z2	0.15	0.16	0.16	0.26
Z3	0.09	0.12	0.12	0.17
Z4_1	0.26	0.26	0.25	0.28
Z4_2	0.22	0.2	0.2	0.17
Z4_3	0.17	0.17	0.17	0.18
Z4_4	0.26	0.24	0.23	0.31
Z4_5	0.37	0.39	0.39	0.43
Z4_6	0.19	0.2	0.19	0.2
Z4_7	0.27	0.25	0.26	0.24
Z4_8	0.33	0.38	0.38	0.44
Z4_9	0.37	0.37	0.37	0.4
Z5_1	0.38	0.32	0.32	0.33
Z5_2	0.33	0.26	0.26	0.26
Z5_3	0.37	0.28	0.28	0.24
Z5_4	0.93	0.88	0.87	0.45
Z5_5	0.44	0.53	0.53	0.47
Z5_6	0.5	0.41	0.4	0.3
Z5_7	0.07	0.21	0.24	0.13
Z5_8	0.46	0.34	0.33	0.26
Z5_9	0.35	0.45	0.45	0.44
Z5_10	0.22	0.2	0.2	0.14
Z5_11	0.21	0.27	0.26	0.19
Z5_12	0.34	0.29	0.29	0.24

Zone	NN (g/t)	ID2 (g/t)	OK (g/t)	Composite (g/t)
Z5_13	0.43	0.4	0.42	0.46
Z5_14	0.28	0.27	0.27	0.39
Z6_1	0.73	0.91	0.9	0.84
Z6_2	0.78	0.82	0.83	0.71
Boin				
Z1A	0.63	0.62	0.62	0.69
Z1B	0.39	0.37	0.37	0.43
Z2	0.24	0.26	0.27	0.31
Z3	0.43	0.43	0.43	0.45
Z4A				0.77
Z4B	0.51	0.48	0.47	0.38
Z4C				0.63
Z5A	0.43	0.45	0.46	0.47
ZSB	0.45	0.44	0.44	0.45
Z5C	0.4	0.4	0.4	0.47
Z6	0.3	0.31	0.31	0.25
Z7	0.39	0.38	0.4	0.41
Z8	0.47	0.47	0.47	0.42
Z9	0.4	0.41	0.4	0.43
Z10	0.41	0.43	0.43	0.35
Nyam				
Z1	0.44	0.48	0.46	0.59
Z2	0.32	0.37	0.34	0.31
Z3	0.43	0.47	0.45	0.42
Z4	0.42	0.45	0.45	0.46
Z5	0.45	0.5	0.5	0.71
Z6	0.16	0.16	0.16	0.16
Kwakyekrom				
Z1	0.14	0.12		0.12
Z2	0.31	0.31		0.31
Z3	0.36	0.37		0.39
Z5	0.3	0.29		0.27
Z6	0.23	0.22		0.19
Tokosea				
Z11	0.25	0.23		0.4
Z12	0.18	0.2		0.27
Z13	0.23	0.23		0.26

Zone	NN (g/t)	ID2 (g/t)	OK (g/t)	Composite (g/t)
Z14	0.25	0.25		0.21
Z15	0.12	0.12		0.09
Z16	0.08	0.08		0.15
Z21	0.17	0.17		0.21
Z23	0.23	0.23		0.26
Z24	0.19	0.19		0.21
Z25	0.23	0.23		0.3
Z26	0.14	0.14		0.16
Z27	0.15	0.15		0.23
Z31	0.15	0.15		0.15
Z32	0.06	0.06		0.09
Z41	0.29	0.29		0.33
Z42	0.15	0.15		0.21
Z44	0.21	0.21		0.2
Z45	0.11	0.11		0.13
Z51	0.32	0.32		0.45
Z52	0.4	0.4		0.39
Z53	0.25	0.25		0.13

15.0 MINERAL RESERVE ESTIMATES

There are no mineral reserves on the Enchi Gold Project at this time.

16.0 MINING METHODS

16.1 Introduction

Micon's QP has developed an open pit mine plan for the Enchi Gold Project based on a conventional truck and shovel method of operations, utilizing small scale equipment to drill and blast material, load, and haul mineralized material to a heap leach facility and waste to nearby dump locations. The plan considers only open pit mining, no planned underground mining activity, or voids within the block model for subsurface openings.

The Enchi Gold Project has several exploration targets identified across the property, 5 of which have a Mineral Resource Estimate and as such have been evaluated for the open pit mineral resources, pit optimization and production scheduling in this PEA report. The deposits with mineral resource estimates (MRE) for the open pit mining are Boin, Sewum, Nyam, Kwakyekrom (Kwak), and Tokosea (see Figure 16.2.1). Mining will be conducted across nine open pits in 10 m bench increments. Oxide material will be free dug by hydraulic excavators, thus not requiring any drilling or blasting. It is assumed that the upper 50% of transition material is sufficiently broken and may be free dug as well. The bottom 50% of transition material is considered competent and will be drilled and blasted along with all fresh material.

The open pits will release approximately 22,200 t/d of mineralized material, of which the majority will be dumped directly into the sizing and crushing circuits. Micon has carried out pit optimization of the deposits within the MRE and scheduling of production from the resulting in-pit material.

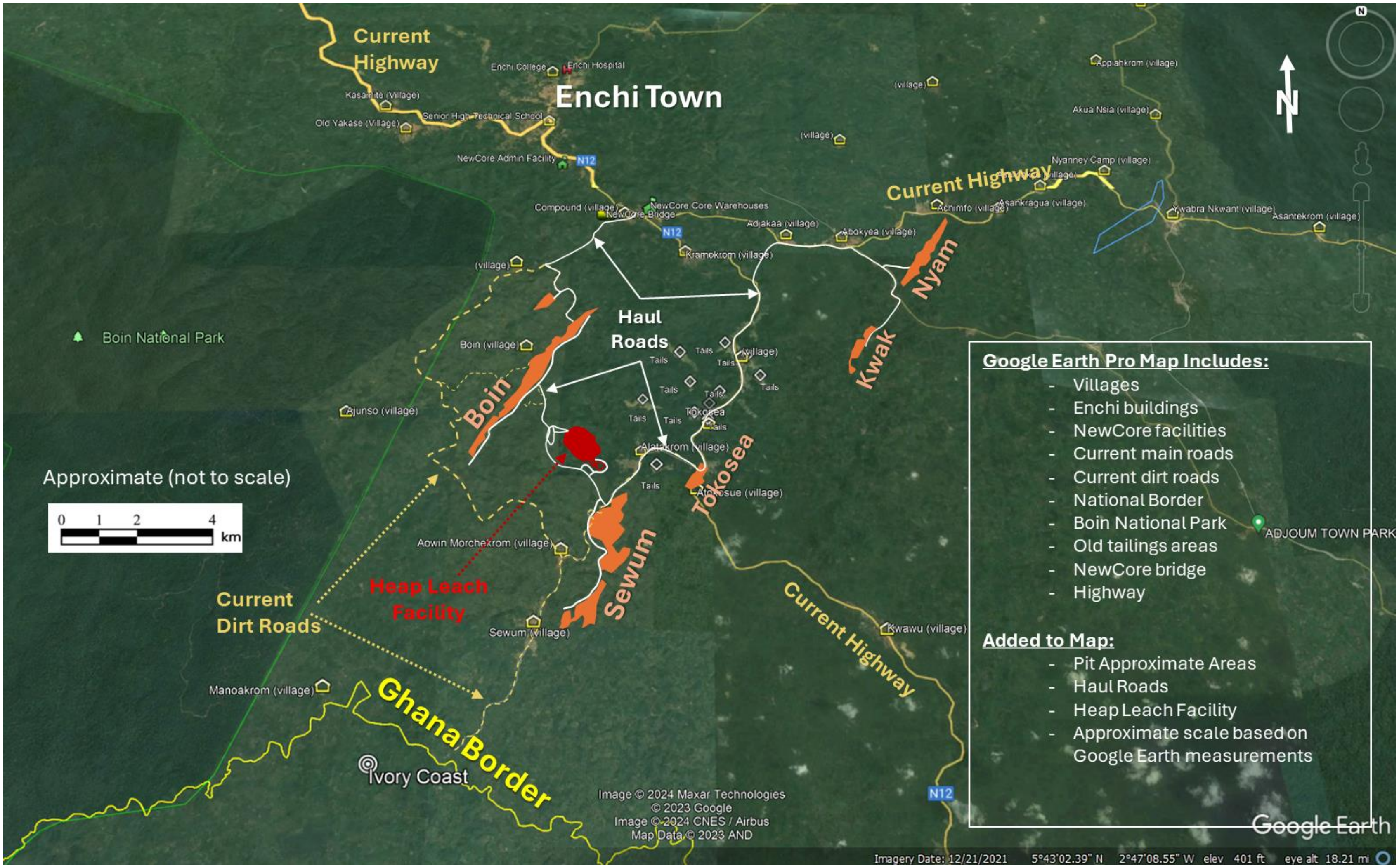
16.2 Geology Model

Prior to the open pit mine planning evaluation, Micon staff performed an internal, high-level review of the resource block models for each deposit. The mineralized material includes gold (Au) as the only production grade element, developed as AuOK (with Ordinary Kriging) for Boin, Sewum, and Nyam deposits, and AuID (with Inversed Distance) for Kwak and Tokosea.

The block model review was done in Leapfrog software, while the mine planning was done with Datamine software for pit optimization and MineSight from Hexagon for volumetric reporting and visualization.

The 5 resource block models utilized by Micon for mine planning have 10 m x 10 m x 10 m sized blocks containing sub-blocks of 2.5 m x 2.5 m x 2.5 m, except for the Boin sub-blocking (1.25 m x 1.25 m x 1.25 m). The specific gravity (SG) values applied to mineralized and country rock in each pit were 2.19 for oxide, 2.45 for transition, and 2.72 for fresh material. Table 16.2.1 illustrates each mining block model by size, coordinates, and orientations. This data was utilized in generating the economic block models.

Figure 16.2.1 Enchi Project Location



Source: Google Earth Pro (with additional labels)

Table 16.2.1 Enchi Block Model Parameters

Deposits	Plane	Origin (m)	Block Count (#)	Block Size (m)	Sub-Cell (m)	Rotation (°)
Boin	X	515445	264	10	1.25	0
	Y	632125	693	10	1.25	0
	Z	-220	51	10	1.25	36
Sewum	X	518100	300	10	2.5	0
	Y	625200	680	10	2.5	0
	Z	-300	80	10	2.5	31
Nyam	X	529000	200	10	2.5	0
	Y	637200	300	10	2.5	0
	Z	-400	65	10	2.5	29
Kwak	X	527800	80	10	2.5	0
	Y	634200	290	10	2.5	0
	Z	-400	59	10	2.5	31
Tokosea	X	521060	210	10	2.5	0
	Y	629290	365	10	2.5	0
	Z	-500	125	10	2.5	43
SG	**Oxide 2.19**		**Transition 2.45**		**Fresh 2.72**	

16.3 Pit Optimization

The pit optimization was generated utilizing Datamine mining software and Lerchs-Grossman's algorithm (LG) for optimizing in price factor increments for the best overall Net Present Value (NPV). Within Datamine software, the pit optimization was developed in the Studio MaxiPit software package for strategic mine planning (version 1.5.16.0).

Micon evaluated the open pits based on the mining, processing, and selling parameters furnished by Newcore. Table 16.3.1 illustrates the value assigned to each parameter for pit optimization.

Table 16.3.1 Enchi Pit Optimization Parameters

	Parameter	Deposit	Units	Value		
				Oxide	Transition	Fresh
Mining	Mining Cost		$\$/t_{Mined}$	1.68	2.33	2.86
	Incremental haulage cost (per 10 m bench)		$\$/t_{Mined}$	0.05		
	Reference level for incremental haulage cost	Boin	m	70		
		Sewum	m	110		
		Nyam	m	30		
		Kwak	m	30		
		Tokosea	m	30		
	Mining Recovery Factor		%	96		
	Mining Dilution		%	0		
	Mining Losses		%	4		
	Slope Angle	Boin	°	35	43	50
		Sewum	°	30	35	48
		Nyam	°	30	32	48
		Kwak	°	30	35	46
		Tokosea	°	33	35	48
Processing	Process Throughput		Mtpa	8.1		
	Heap Leach Recovery		%	85	85	75
	Payable		%	92.7		
	Crushing		$\$/t_{Feed}$	0		
	Process		$\$/t_{Feed}$	4.7		
	G&A		$\$/t_{Feed}$	1.97		
Selling	Gold Prices		$/oz	1650		
	Selling Cost		$/oz	120		
	Royalties (Ghana and Maverix)		%	7		
	Refining Charges, Doré Transport, and Insurance		$/oz	4		
	Discount rate		%	5		

16.3.2 Mining Parameters

Classification

The pit optimization was based on mineralized material in categories Indicated (2) and Inferred (3) Classifications. No Measured (1) material is present in any of the resource block models. Kwak and Tokosea resource block models contain Inferred (3) material only.

Cut – off Grade Calculation

Within Datamine, the cut-off grades (CoG) were calculated using unit cash operating costs and metal price outlined in Table 16.3.1. The resulting calculated cut-off grades were 0.213 g/t for fresh material and 0.188 g/t for oxide and transition material in all deposits.

Mining Cost

The mining cost was calculated according to the material type prevalent in the Enchi region, amounting to \$1.68/t_{mined} for oxide, \$2.33//t_{mined} for transition, and \$2.86//t_{mined} for fresh material, respectively. An incremental haulage cost of \$0.05/t_{mined} per 10 m bench was added for mining below elevation 70, 110, 30, 30, and 30 m for Boin, Sewum, Nyam, Kwak, and Tokosea deposits, respectively.

Mining Dilution and Losses

Mining dilution and losses for the pit optimization were assessed at 0% and 4% respectively (mining recovery of 96%). These values were added to the pit optimization as a calculation. No internal dilution or losses to the block model were evaluated in this study.

Operating Costs

The process cost Micon used for pit optimization was provided by Newcore for the 3 material types (oxide, transition, and fresh) as follows: \$4.7/t_{Feed} for process cost, \$1.97/t_{Feed} for general and administration cost (G&A). Crushing was factored into the overall process cost, not separated. Crushing requirement as a proportion of feed was assumed to be 0% for oxide, 50% for transition, and 100% for fresh material.

Process Recoveries

The process recoveries were 85%, 85%, and 75% for oxide, transition, and fresh material, respectively.

Gold Price and Selling Cost

Table 16.3.1 illustrated the pricing parameters utilized for the pit optimization evaluation. All dollars are in USD unless otherwise stated. The parameters for the pit optimization include a base case gold price of \$1,650/oz and selling cost of \$120/oz (7.3% or payable of 92.7%) with a refining cost of \$4/oz.

Royalties and Discount Rate

The combined Triple Flag and Ghana government royalties of 7% were considered in the pit optimization. The discount rate used for calculating the NPV was 5%, based on comparable gold mining projects.

Geotechnical

At the time of writing, the geotechnical or hydrogeological study investigations were on-going and not incorporated into this study.

Micon's QP recommends that the pit optimization and the mine plan be updated when geotechnical data becomes available, evaluating safe pit slopes and impact of faults, waste storage facilities slopes and footprint stability, and leach pad footprint stability. This should be completed before the next study stage.

Capital Costs

No capital costs were included in the pit optimization. The capital costs were included in the cash flow evaluation in Section 21 of this PEA technical report.

16.3.3 Pit Optimization Results

The CoG was calculated using the unit cash operating costs and a gold metal price of $1,650/oz. The pit optimization involved evaluating the sensitivity of the economics of the 5 deposits over a range of price factors for the saleable gold. The final pit shell for each deposit was then selected upon reviewing the detailed results for each pit taking into consideration heap leach feed grade, stripping ratio, pit NPV and life of mine.

Figure 16.3.1 illustrates the final pit shell locations with the current public road system (brown), the planned haulage road system (green) and the heap leach facilities location (red). The Boin and Sewum pit shells were later split into three segments each for refined detail in the production schedule.

Table 16.3.2 summarizes the base case with a Price Factor (PF) of 1.00 (at $1,650/oz Au price) for each of the 5 deposits and totals in terms of in situ ROM Feed tonnage, grades, contained and recoverable gold. The pit optimization results are before the application of modifying factors, excluding dilution, mining losses and process recovery (in situ). The CoG calculated within Datamine software was 0.188 g/t for oxide and transition and 0.213 g/t for fresh material in all the deposits. This table includes the material split between deposits, along with the gross revenue, mining cost and pit NPVs. The totals were gross revenue of $1,241 M, operating costs of $802 M (including mining, process, and G&A), and an $NPV_{5\%}$ (excluding capex and taxes) of $420 M.

Table 16.3.3 summarizes a scenario with a PF of 1.30 (at $2,145/oz Au price) for each of the 5 deposits. The totals were a gross revenue of $1,420 M, a cost of $993 M, and an $NPV_{5\%}$ of $410 M.

Figure 16.3.1 Enchi Gold Project Pit Locations

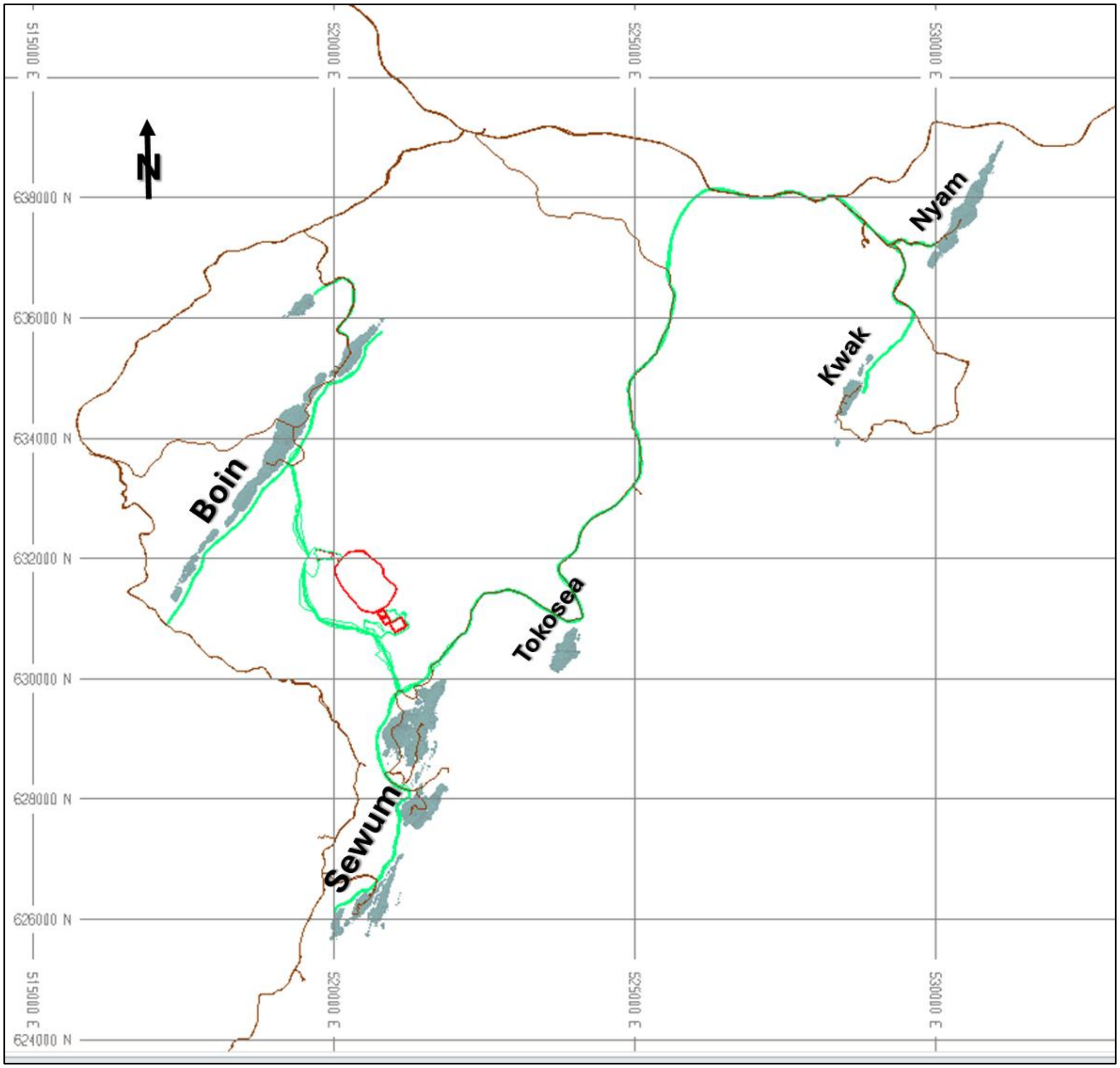


Table 16.3.2 Enchi Pit Optimization Results - Base Case PF 1.00

Deposit	Material				Au Grade		Au Grams		Au Contained		Au Cut-off Grade			Material			Economics		
	Feed	Waste	Total	SR	Insitu	Recovered	Insitu	Recovered	Insitu	Recovered	Oxide	Transition	Fresh	Feed	Waste	Total	Revenue	Cost	NPV
	Mt	*Mt*	*Mt*	*t:t*	*g/t*	*g/t*	*kg*	*kg*	*oz*	*oz*	*g/t*	*g/t*	*g/t*	*%*	*%*	*%*	*US$ M*	*US$ M*	*US$ M*
Boin	19	63	82	3.34	0.746	0.585	14,084	11,042	452,784	355,004	0.188	0.188	0.213	31%	45%	41%	462	289	167
Sewum	31	46	77	1.47	0.539	0.426	16,830	13,317	541,073	428,148	0.188	0.188	0.213	52%	33%	39%	558	365	181
Nyam	7	20	27	2.79	0.668	0.526	4,830	3,800	155,288	122,174	0.188	0.188	0.213	12%	14%	14%	159	100	58
Kwak	2	3	5	1.76	0.579	0.455	1,050	826	33,767	26,558	0.188	0.188	0.213	3%	2%	2%	35	23	12
Tokosea	1	8	9	7.86	0.830	0.656	837	661	26,895	21,243	0.188	0.188	0.213	2%	6%	4%	28	24	4
Total	**60**	**140**	**201**	**2.33**	**0.625**	**0.493**	**37,631**	**29,647**	**1,209,807**	**953,127**	**0.188**	**0.188**	**0.213**	**30%**	**70%**		**1,241**	**802**	**420**

Table 16.3.3 Enchi Pit Optimization Results - PF 1.30

Deposit	Material				Au Grade		Au Grams		Au Contained		Au Cut-off Grade			Material			Economics		
	Feed	Waste	Total	SR	Insitu	Recovered	Insitu	Recovered	Insitu	Recovered	Oxide	Transition	Fresh	Feed	Waste	Total	Revenue	Cost	NPV
	Mt	*Mt*	*Mt*	*t:t*	*g/t*	*g/t*	*kg*	*kg*	*oz*	*oz*	*g/t*	*g/t*	*g/t*	*%*	*%*	*%*	*US$ M*	*US$ M*	*US$ M*
Boin	21	73	94	3.55	0.734	0.575	15,138	11,847	486,664	380,877	0.188	0.188	0.213	29%	39%	37%	496	326	164
Sewum	35	59	93	1.70	0.538	0.424	18,638	14,690	599,189	472,283	0.188	0.188	0.213	49%	32%	36%	615	425	179
Nyam	1	10	12	7.88	0.799	0.630	1,044	823	33,557	26,470	0.188	0.188	0.213	2%	6%	5%	34	31	3
Kwak	10	34	44	3.36	0.636	0.494	6,482	5,031	208,405	161,736	0.188	0.188	0.213	15%	18%	17%	211	158	53
Tokosea	3	9	13	2.65	0.571	0.436	1,997	1,526	64,212	49,049	0.188	0.188	0.213	5%	5%	5%	64	53	11
Total	**70**	**186**	**256**	**2.65**	**0.617**	**0.483**	**43,299**	**33,917**	**1,392,028**	**1,090,416**	**0.188**	**0.188**	**0.213**	**27%**	**73%**		**1,420**	**993**	**410**

The following subsections include the breakdown of the results by the 5 deposits, Boin, Sewum, Nyam, Kwak and Tokosea. Each deposit was evaluated using the LG algorithm in the Datamine MaxiPit optimization module, utilizing price factors from 0.01 to 1.50 in 0.01 increments.

Boin

The results of the pit optimization exercise for the Boin deposit are provided in Table 16.3.4. The pit optimization phases were generated in Datamine, utilizing Price Factors (PF) from 0.07 to 1.50, at increments of 0.01. The table is limited to PF increments of 0.10 for presentation purposes. The PF 1.16 pit shell with the price of $1,914/oz was selected as the ultimate pit for the Boin deposit. The NPV was $163.7 M from a revenue of $506.8 M, processing costs of $138.8 M, and mining costs of $199.0 M. No capital costs were included in the pit optimization.

The PF 1.16 pit shell contains feed of 21.4 Mt, waste of 75.6 Mt, for a total mining tonnage of 97.1 Mt, and a strip ratio (SR) of 3.53. The Au grade is 0.72 g/t with a recovered Au grade of 0.56 g/t, for a contained total of 12,100 kg of recovered Au.

Figure 16.3.2 illustrates the NPV curve with the incremental pit shells from 1 to 144. This graph illustrates the gradual nature of the optimization iterations with significant increase in NPV between pit shell 48 (PF of 0.54) and pit shell 57 (PF of 0.63). The NPV increases up to a PF of 1.0 with an NPV of $167.3 M, then tapers to a slow rate of decrease NPV continuously, while the strip ratio also increases gradually.

Micon's QP considers a strip ratio in the range of 3.5 to be reasonable in this deposit. The pit optimization establishes a reasonable pit area that gradually increases or decreases depending on the economic variables such as price and costs. In future stages, vendors should utilize detailed pit designs and a production schedule for a higher degree of accuracy and to further optimize the NPV.

Table 16.3.5 presents a summary of the Boin pit optimization results with a PF of 1.16 across oxide, transition, and fresh material. As depicted in the table, the in-situ Au grade progressively increases from 0.64 to 0.65 and then 0.92 g/t, while the recovered Au grade also shows an incremental rise from 0.52 to 0.53 and then 0.67 g/t in oxide, transition, and fresh material, respectively.

A plan view of the ultimate pit shell is provided in Figure 16.3.3 with the Indicated and Inferred mineralized blocks in blue and red, respectively. The visible blocks within this pit shell are considered feed as they are above the CoG. The blocks outside this pit shell are not considered in the mined tonnes and grades.

Most of the Indicated material is concentrated within the Central and North pit, while Inferred material is distributed from both ends of the Central and North pits, as well as throughout the entirely South pit. The north mini-pit areas contain Inferred material only, as visible in Figure 16.3.3.

In Figure 16.3.4, a plan view of the Boin PF 1.16 pit shell displays oxide, transition, and fresh, distinguished by red, yellow, and blue coloring, respectively. Notably, only the oxide and transition blocks are identified as mineable within the pit shell. A substantial amount of fresh material remains outside the pit due to limitations on extraction imposed by the economic considerations. Underground mining methods for this material were not studied.

Table 16.3.4 Boin Pit Optimization Pit Shells

Phase	Price Factor	Price US$/oz	Material				Au Grade		Au Grams		Au Contained		Economics			
			Feed	Waste	Total	Strip Ratio	In situ	Recovered	In situ	Recovered	In situ	Recovered	Revenue	Processing Cost	Mining Cost	NPV
			t	t	t	t:t	g/t	g/t	g	g	oz	oz	$	$	$	$
Pit 1	0.07	116	2,920	80	3,000	0.03	3.89	3.18	11,373	9,280	366	298	388,617	19,891	5,037	363,686
Pit 4	0.10	165	31,014	18,437	49,451	0.59	2.89	2.36	89,546	73,070	2,879	2,349	3,059,859	207,983	83,019	2,768,600
Pit 14	0.20	330	365,109	191,159	556,268	0.52	1.51	1.23	552,362	450,728	17,758	14,491	18,874,585	2,395,833	937,071	15,527,138
Pit 24	0.30	495	924,305	739,356	1,663,661	0.80	1.22	1.00	1,127,692	920,197	36,255	29,584	38,533,994	6,036,850	2,800,975	29,628,103
Pit 34	0.40	660	2,143,036	2,946,678	5,089,714	1.38	1.01	0.83	2,167,955	1,769,051	69,698	56,874	74,080,470	13,949,793	8,569,594	51,294,397
Pit 44	0.50	825	4,010,952	7,645,076	11,656,028	1.91	0.91	0.74	3,666,039	2,987,502	117,861	96,046	125,104,061	26,067,132	19,844,937	78,428,700
Pit 54	0.60	990	8,360,300	25,376,509	33,736,809	3.04	0.89	0.71	7,403,593	5,919,623	238,021	190,312	247,888,964	54,293,954	62,876,381	127,913,062
Pit 64	0.70	1,155	11,055,096	32,709,896	43,764,992	2.96	0.83	0.66	9,203,702	7,318,801	295,893	235,295	306,480,749	71,729,215	83,317,725	147,483,722
Pit 74	0.80	1,320	13,704,508	41,953,311	55,657,819	3.06	0.79	0.63	10,867,186	8,614,574	349,373	276,953	360,742,275	88,860,562	107,642,004	159,386,172
Pit 84	0.90	1,485	16,076,987	50,674,760	66,751,747	3.15	0.77	0.60	12,317,436	9,720,041	395,998	312,493	407,034,598	104,194,191	131,901,677	165,508,570
Pit 94	100	1,650	18,882,238	63,253,045	82,135,283	3.35	0.75	0.59	14,096,827	11,050,441	453,204	355,265	462,746,149	122,327,869	167,517,506	167,262,937
Pit 104	1.10	1,815	19,978,454	67,970,372	87,948,826	3.40	0.74	0.58	14,693,629	11,504,323	472,391	369,857	481,752,837	129,405,527	180,373,957	166,433,300
Pit 110	1.16	1,914	21,431,148	75,644,723	97,075,871	3.53	0.72	0.56	15,470,859	12,102,376	497,379	389,084	506,796,781	138,784,321	199,045,531	163,746,354
Pit 114	1.20	1,980	23,246,041	85,896,321	109,142,362	3.70	0.72	0.56	16,661,846	12,978,092	535,668	417,238	543,468,121	150,518,070	229,952,760	158,457,611
Pit 124	1.30	2,145	27,934,006	115,098,986	143,032,992	4.12	0.70	0.54	19,425,632	15,027,395	624,522	483,121	629,284,342	180,799,589	307,969,589	138,929,821
Pit 134	1.40	2,310	29,951,981	124,488,860	154,440,841	4.16	0.68	0.53	20,407,182	15,751,898	656,078	506,414	659,623,424	193,814,256	335,599,781	130,217,413
Pit 144	1.50	2,475	31,509,549	132,828,978	164,338,527	4.22	0.67	0.52	21,142,193	16,299,210	679,708	524,009	682,542,584	203,858,068	358,963,522	121,445,403

Table 16.3.5 Boin Pit Optimization PF 1.16 by Material Type

	Material				Au Grade		Au Grams		Au Contained	
Material	**Feed**	**Waste**	**Total**	**SR**	**In situ**	**Recovered**	**In situ**	**Recovered**	**In situ**	**Recovered**
	t	T	t	t:t	g/t	g/t	g	g	oz	oz
Oxide	787,5982	50,149,436	58,025,418	6.37	0.64	0.52	5,051,005	4,121,620	162,387	132,508
Transition	7,670,772	20,304,107	27,974,879	2.65	0.65	0.53	4,983,972	4,066,921	160,232	130,749
Fresh	5,884,394	5,191,180	11,075,574	0.88	0.92	0.67	5,435,882	3,913,835	174,760	125,827
Total	**21,431,148**	**75,644,723**	**97,075,871**	**3.53**	**0.72**	**0.56**	**15,470,859**	**12,102,376**	**497,379**	**389,084**

Figure 16.3.2 Boin Pit Optimization NPV Graph

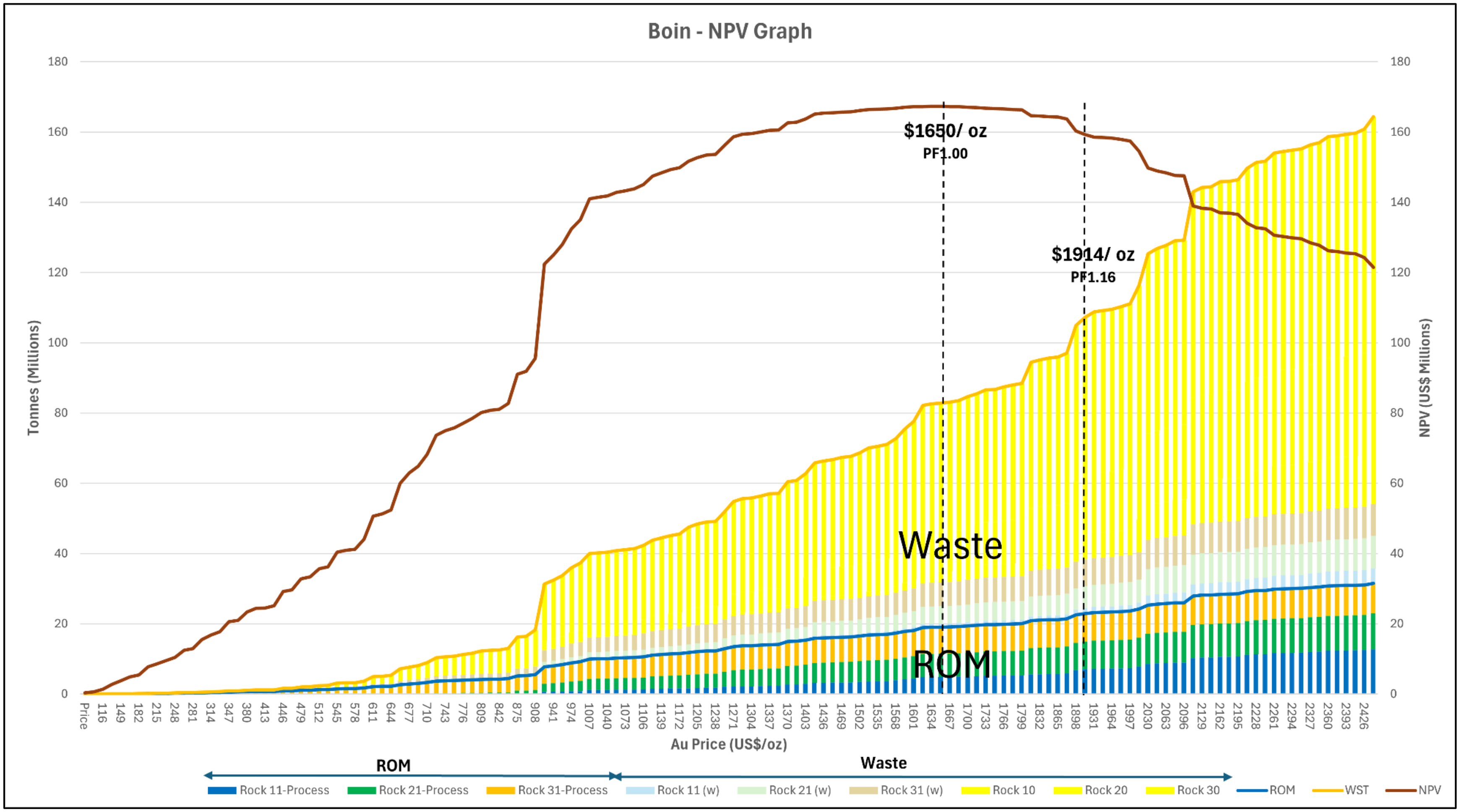


Figure 16.3.3 Boin PF 1.16 Pit Shell Indicated & Inferred > CoG Plan View

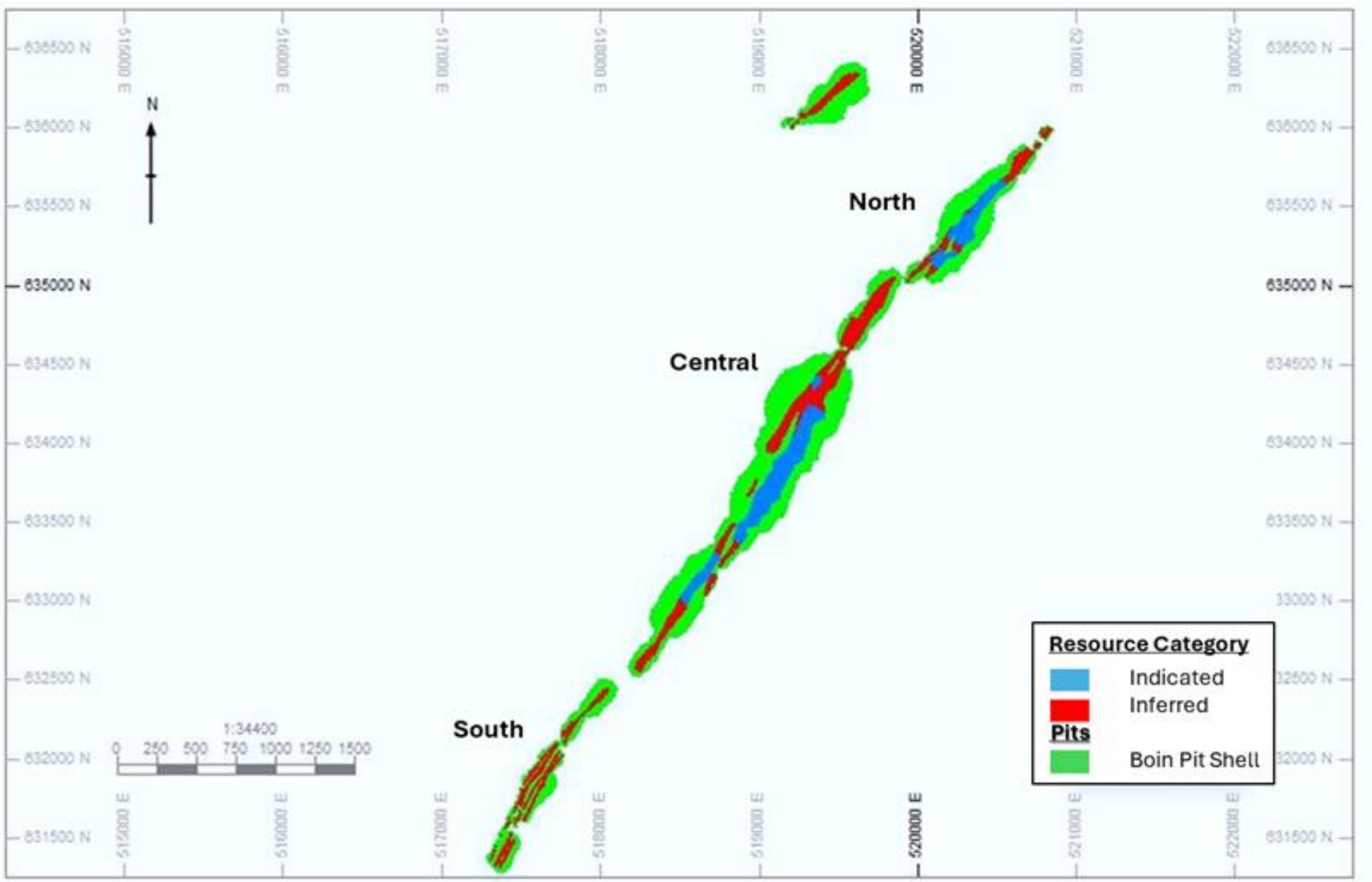
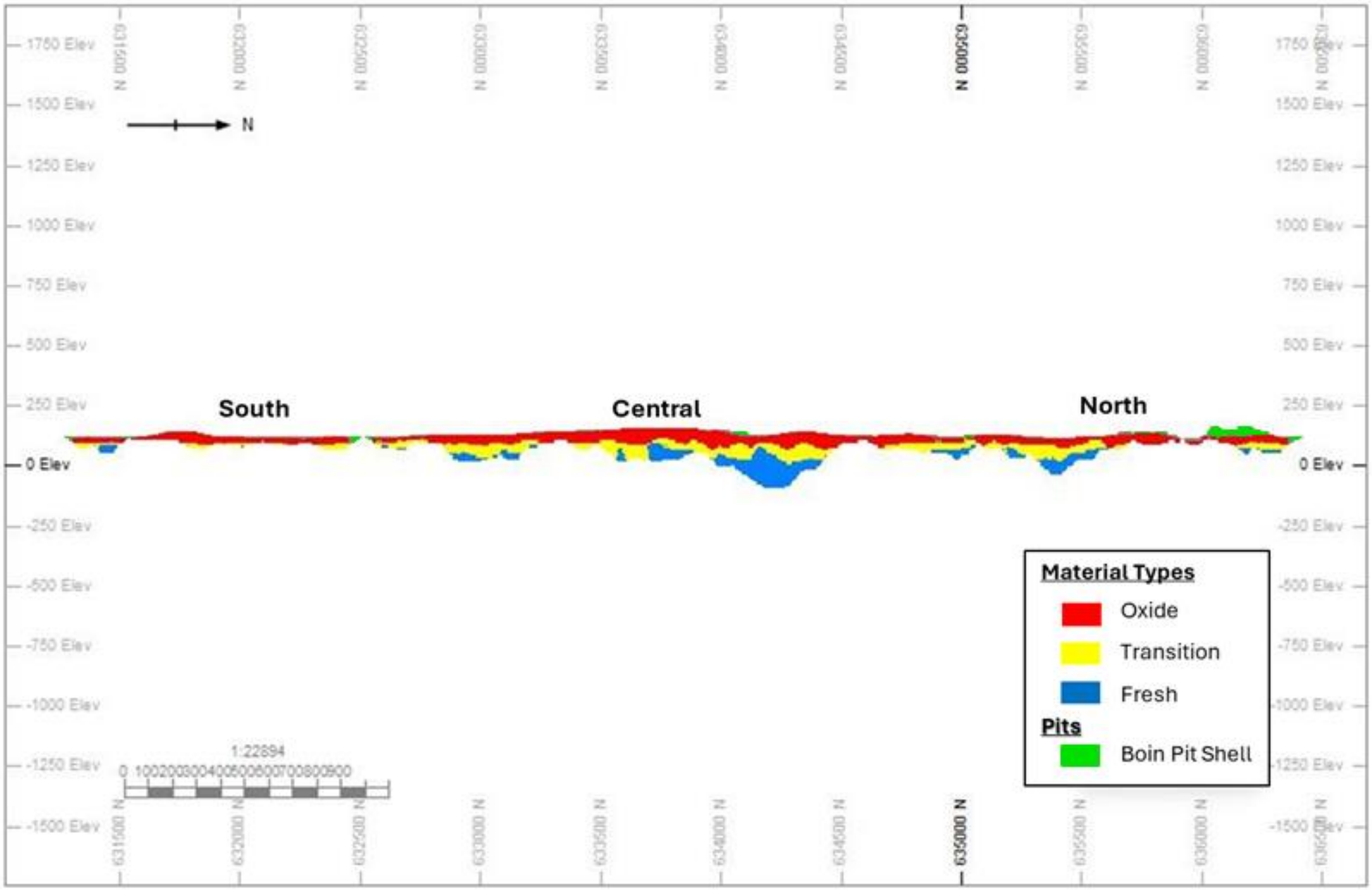


Figure 16.3.4 Boin PF 1.16 Pit Shell by Material Type (S-N Section 518500 E)



Sewum

The results of the pit optimization exercise for the Sewum deposit are provided in Table 16.3.6. The pit optimization phases were generated in Datamine, utilizing PF from 0.06 to 1.50, at increments of 0.01, for a total of 144 iterations. The PF of 1.16 in pit shell with the price of $1,914/oz was selected as the ultimate pit for the PEA. The NPV is $178.1 M, from a revenue of $652.9 M, processing costs of $244.5 M and mining costs of $222.6 M. No capital costs were included in the pit optimization.

The selected PF 1.16 pit shell contains a feed tonnage of 37.9 Mt, and a waste tonnage of 64.6 Mt for a total mining tonnage of 102.5 Mt and a strip ratio (SR) of 1.71. The Au grade is 0.52 g/t with a recovered Au grade of 0.41 g/t for a contained total of approximately 15,600 kg recovered Au.

Table 16.3.6 is limited to PF increments of 0.10 for presentation purposes, though the optimization generated 0.01 increments from 0.0 6 to 1.50.

Figure 16.3.5 illustrates the NPV curve with the pit shells from 1 to 144. This graph illustrates the gradual nature of the optimization iterations with no significant increase between any increment. The NPV increases up to a PF of 1.00 with an NPV of $183.5 M, then tapers to a slow rate of decrease. From a PF beyond 1.16, the NPV decreases continuously, while the strip ratio also increases gradually. Micon's QP considers a strip ratio in the range of 1.7 to be reasonable for the Sewum deposit.

Table 16.3.7 presents a summary of the Sewum pit optimization results with a PF of 1.16 across oxide, transition, and fresh material. As depicted in the table, the Au grade progressively increases from 0.46 to 0.49 and then 0.69 g/t, while the recovered Au grade also shows an incremental rise from 0.37 to 0.40 and then 0.50 g/t in oxide, transition, and fresh material, respectively.

A plan view of the ultimate pit shell is provided in Figure 16.3.6 with the Indicated and Inferred mineralized blocks in blue and red, respectively. The visible blocks within the ultimate pit shell are considered feed as they are above the CoG. The blocks outside the ultimate pit shell are not considered in the mined tonnes and grades.

The majority of Indicated material is observed in the Ridge pit, sparsely in the Checkerboard Hill and South Extension pits, while Inferred material covers all regions (north, central, and south). The figure illustrates the mineable Indicated and Inferred material in the Sewum deposit.

In Figure 16.3.7, a plan view of the Sewum ultimate pit shell displays oxide, transition, and fresh material types, distinguished by red, yellow, and blue coloring, respectively. The ultimate pit exhibits predominantly oxide and transition materials, with a minority of fresh material present.

Table 16.3.6 Sewum Pit Optimization Pit Shells

Phase	Price Factor	Price US$/oz	Material				Au Grade		Au Grams		Au Contained		Economics			
			Feed	Waste	Total	Strip Ratio	In situ	Recovered	In situ	Recovered	Au In situ	Au Recovered	Revenue	Processing Cost	Mining Cost	NPV
			t	t	Total	t:t	g/t	g/t	g	g	oz	oz	$	$	$	$
Pit 1	0.06	99	4,722	0	4,722	0	4.72	3.85	22,284	18,184	716.42	584.60	761,450	32,576	7,928	720,933
Pit 4	0.10	165	34,983	16,032	51,015	0.46	3.25	2.65	113,807	92,866	3,658.82	2,985.58	3,888,846	235,943	90,437	3,562,101
Pit 14	0.20	330	434,446	257,516	691,962	0.59	1.66	1.36	722,306	589,401	23,221.69	18,948.88	24,681,657	2,857,643	1,214,650	20,587,685
Pit 24	0.30	495	1,142,359	666,538	1,808,897	0.58	1.24	1.01	1,414,714	1,154,406	45,482.18	37,113.44	48,341,691	7,463,218	3,194,467	37,585,229
Pit 34	0.40	660	2,622,847	1,484,123	4,106,970	0.57	0.92	0.75	2,420,789	1,974,863	77,826.86	63,490.62	82,698,942	17,048,584	7,282,032	58,049,854
Pit 44	0.50	825	6,437,855	5,029,162	11,467,017	0.78	0.76	0.61	4,887,794	3,924,813	157,139.54	126,180.30	164,354,718	41,727,615	21,865,741	99,317,187
Pit 54	0.60	990	9,597,178	9,257,107	18,854,285	0.96	0.70	0.56	6,762,329	5,400,004	217,404.68	173,606.77	226,129,529	62,147,111	36,940,571	124,379,854
Pit 64	0.70	1,155	15,000,981	14,410,201	29,411,182	0.96	0.62	0.49	9,242,907	7,402,872	297,153.72	237,997.74	310,001,272	97,006,314	57,762,169	150,622,489
Pit 74	0.80	1,320	19,765,844	23,184,529	42,950,373	1.17	0.59	0.47	11,594,744	9,266,469	372,763.82	297,911.22	388,040,887	127,756,345	86,466,035	167,403,842
Pit 84	0.90	1,485	26,565,337	35,562,824	62,128,161	1.34	0.55	0.44	14,701,822	11,671,452	472,654.45	375,229.93	488,751,493	171,604,148	128,852,509	180,041,990
Pit 94	1.00	1,650	31,241,440	46,040,152	77,281,592	1.47	0.54	0.43	16,829,586	13,317,161	541,060.74	428,138.45	557,666,887	201,757,812	163,531,097	183,483,618
Pit 104	1.10	1,815	35,495,117	59,094,811	94,589,928	1.66	0.53	0.42	18,873,377	14,877,488	606,767.35	478,302.00	623,006,829	229,195,622	204,014,075	181,346,750
Pit 110	1.16	1,914	37,867,457	64,584,374	102,451,831	1.71	0.52	0.41	19,804,266	15,591,626	636,694.85	501,261.09	652,911,905	244,478,026	222,592,908	178,146,974
Pit 114	1.20	1,980	38,867,578	67,187,824	106,055,402	1.73	0.52	0.41	20,201,120	15,895,533	649,453.46	511,031.51	665,638,312	250,921,084	231,064,748	176,395,936
Pit 124	1.30	2,145	41,732,929	78,004,543	119,737,472	1.87	0.52	0.40	21,495,930	16,876,481	691,080.80	542,568.38	706,716,305	269,394,654	263,884,936	168,313,698
Pit 134	1.40	2,310	43,703,242	84,733,606	128,436,848	1.94	0.51	0.40	22,239,251	17,450,772	714,978.11	561,031.48	730,765,188	282,084,818	283,641,592	161,768,876
Pit 144	1.50	2,475	47,041,977	98,972,019	146,013,996	2.10	0.50	0.39	23,665,429	18,520,687	760,828.84	595,428.58	775,568,759	303,601,004	326,618,546	146,636,371

Table 16.3.7 Sewum Pit Optimization PF 1.16 by Material Type

Material	Material				Au Grade		Au Grams		Au Contained	
	Feed	Waste	Total	SR	In situ	Recovered	In situ	Recovered	In situ	Recovered
	t	t	t	t:t	g/t	g/t	g	g	oz	oz
Oxide	13654582	30,883,262	44,537,844	2.26	0.46	0.37	6,245,094	5,095,997	200,776	163,833
Transition	15,655,500	23,748,845	39,404,345	1.52	0.49	0.40	7,635,672	6,230,709	245,482	200,313
Fresh	8,557,375	9,952,267	18,509,642	1.16	0.69	0.50	5,923,500	4,264,920	190,437	137,115
Total	**37,867,457**	**64,584,374**	**102,451,831**	**1.71**	**0.52**	**0.41**	**19,804,266**	**15,591,626**	**636,695**	**501,261**

Figure 16.3.5 Sewum Pit Optimization NPV Graph

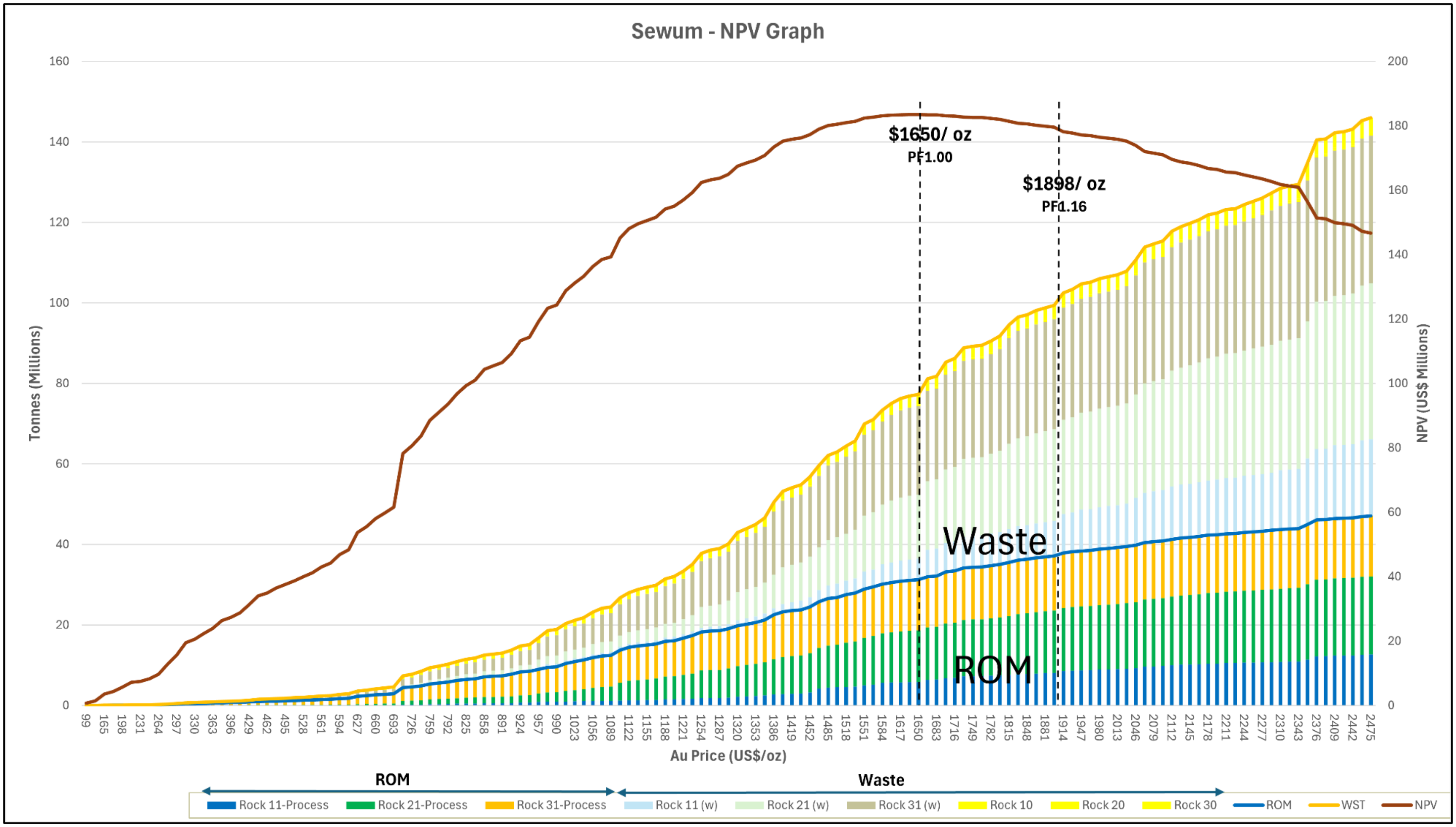


Figure 16.3.6 Sewum PF 1.16 Pit Shell Indicated & Inferred > CoG Plan View

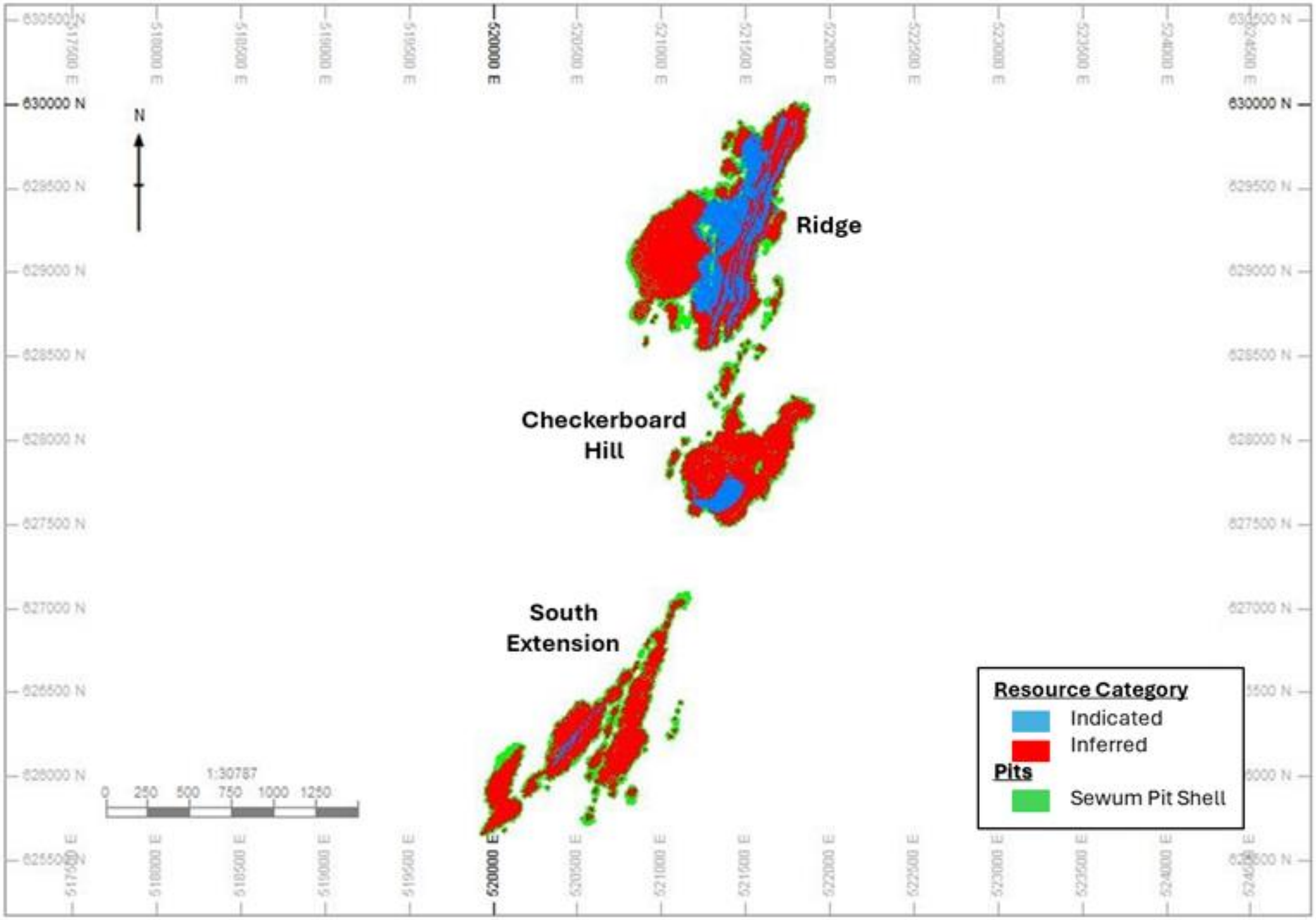
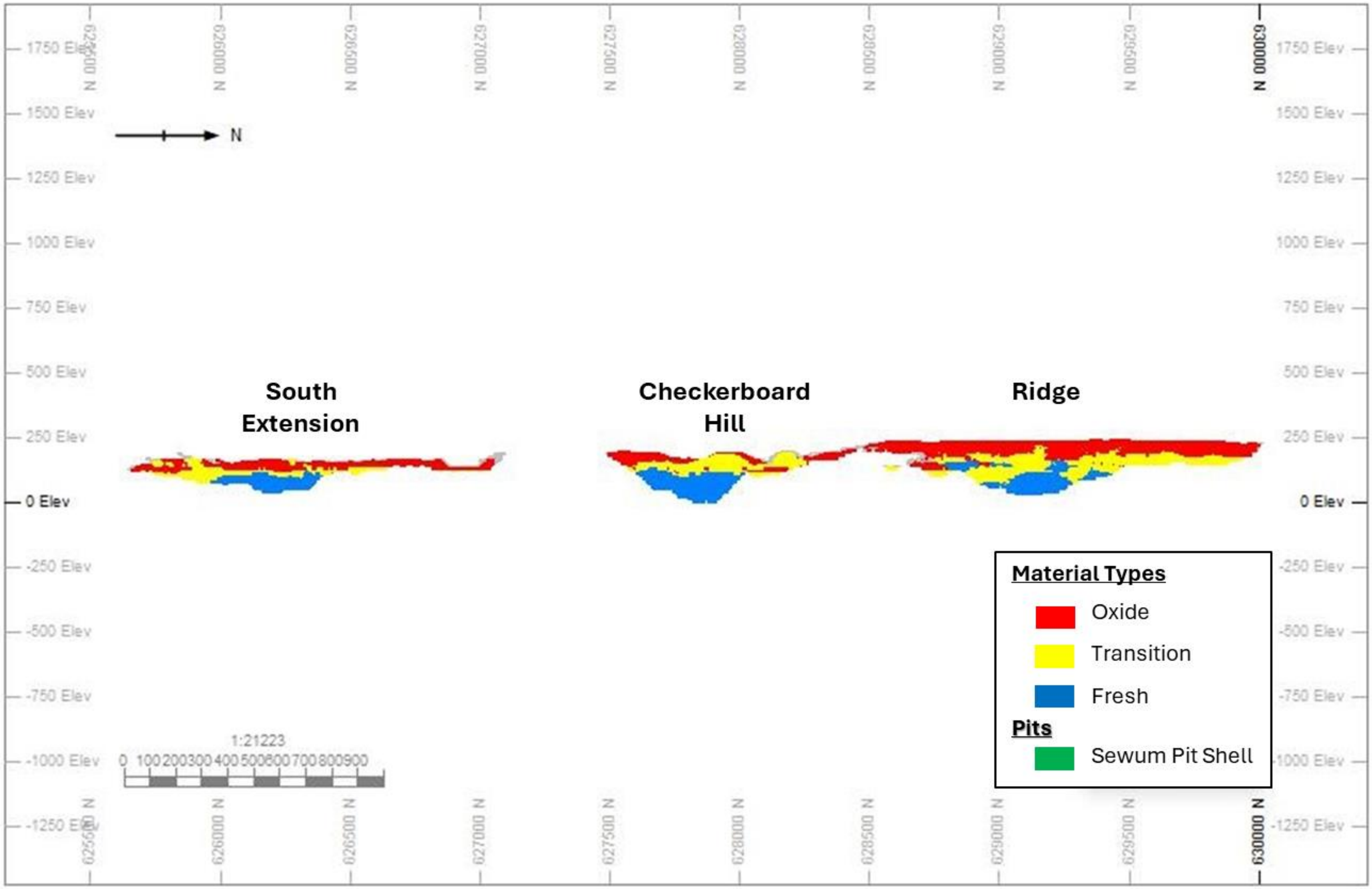


Figure 16.3.7 Sewum F 1.16 Pit Shell by Material Type (S-N Section 521500 E)



Nyam

The results of the pit optimization exercise for the Nyam deposit are provided in Table 16.3.8. The pit optimization phases were generated in Datamine, utilizing PFs from 0.09 to 1.30, at increments of 0.01, for a total of 122 iterations. The Price Factor of 1.07 in Pit shell 99 with the price of $1,766/oz was selected as the ultimate pit for the PEA. The NPV is $57.4 M from a revenue of $183.2 M, processing costs of $54.9 M and mining costs of $70.1 M. No capital costs were included in the pit optimization.

The selected pit shell 99 contains a feed tonnage of 8.5 Mt, and a waste tonnage of 26.2 Mt for a total mining tonnage of 34.7 Mt and a SR of 3.1. The Au grade is 0.66 g/t with a recovered Au grade of 0.52 g/t for a contained total of approximately 4,400 kg recovered Au.

Table 16.3.8 is limited to PF increments of 0.10 for presentation purposes, though the optimization generated 0.10 increments from 0.09 to 1.30.

Figure 16.3.8 illustrates the NPV curve with the pit shells from 1 to 122. This graph illustrates the gradual nature of the optimization iterations with few significant increases between any increment. The NPV increases up to a PF of 1.00 with an NPV of $57.9 M, then tapers to a slow rate of decrease NPV continuously, while the strip ratio also increases gradually. Micon's QP considers a strip ratio in the range of three to be reasonable for Nyam deposit.

Table 16.3.9 presents a summary of the Nyam pit optimization results with a PF of 1.07 across oxide, transition, and fresh material. As depicted in the table, the in-situ gold grade progressively increases from 0.59 to 0.61 and then 0.80 g/t, while the recovered gold grade also shows an incremental rise from 0.48 to 0.50 and then 0.58 g/t in oxide, transition, and fresh material, respectively.

A plan view of the ultimate pit shell is provided in Figure 16.3.9 with the Indicated and Inferred mineralized blocks in blue and red, respectively. The visible blocks within the ultimate pit shell are considered feed as they are above the CoG. The blocks outside the ultimate pit shell are not considered in the mined tonnes and grades.

All Indicated materials are distributed throughout the entire ultimate pit, except for the mini pit located in the southern section. The figure illustrates mineable Indicated and Inferred material in the Nyam deposit.

In Figure 16.3.10, a cross-section view of the Nyam ultimate pit shell reveals distinct material types: oxide, transition, and fresh, distinguished by red, yellow, and blue coloring, respectively. It illustrates that the ultimate pit primarily comprises oxide and transition materials across all pit areas, with fresh material concentrated in the central pits.

Table 16.3.8 Nyam Pit Optimization Pit Shells

Phase	Price Factor	Price US$/oz	Material				Au Grade		Au Grams		Au Contained		Economics			
			Feed	Waste	Total	Strip Ratio	In situ	Recovered	In situ	Recovered	Au In situ	Au Recovered	Revenue	Processing Cost	Mining Cost	NPV
			t	t	Total	t:t	g/t	g/t	g	g	oz	oz	$	$	$	$
Pit 1	0.09	149	958	1,237	2,195	1.29	7.31	2.82	7,006	2,699	225	87	113,011	6,482	3,685	102,843
Pit 2	0.10	165	1,779	2,611	4,390	1.47	3.47	2.83	6,169	5,034	198	162	210,814	12,041	7,370	191,401
Pit 10	0.18	297	47,085	15,655	62,740	0.33	1.92	1.56	90,179	73,586	2,899	2,366	3,081,476	310,958	105,329	2,664,858
Pit 20	0.28	462	360,187	158,277	518,464	0.44	1.19	0.97	427,439	348,790	13,742	11,213	14,605,875	2,351,202	870,407	11,373,937
Pit 30	0.38	627	743,797	564,951	1,308,748	0.76	1.00	0.81	741,014	604,667	23,823	19,440	25,320,938	4,840,440	2,201,945	18,246,275
Pit 40	0.48	792	1,405,757	1,683,708	3,089,465	1.20	0.86	0.70	1,208,326	985,994	38,847	31,699	41,289,293	9,128,144	5,365,088	26,709,403
Pit 50	0.58	957	2,184,503	3,420,952	5,605,455	1.57	0.78	0.64	1,713,067	1,395,032	55,074	44,849	58,418,108	14,167,212	9,782,768	34,301,156
Pit 60	0.68	1,122	3,586,378	7,504,763	11,091,141	2.09	0.75	0.60	2,696,017	2,160,760	86,675	69,467	90,483,563	23,242,172	20,564,719	46,289,585
Pit 70	0.78	1,287	4,928,982	11,275,959	16,204,941	2.29	0.71	0.56	3,516,733	2,784,374	113,061	89,516	116,597,890	31,919,335	31,207,915	52,909,684
Pit 80	0.88	1,452	6,294,874	16,570,299	22,865,173	2.63	0.69	0.54	4,323,331	3,409,346	138,992	109,608	142,769,135	40,745,793	44,376,133	56,943,690
Pit 90	0.98	1,617	7,044,867	19,381,749	26,426,616	2.75	0.67	0.53	4,720,704	3,718,826	151,768	119,558	155,728,854	45,587,943	51,484,352	57,913,744
Pit 99	1.07	1,766	8,492,063	26,230,748	34,722,811	3.09	0.66	0.52	5,595,291	4,373,859	179,885	140,617	183,158,883	54,938,872	70,069,033	57,412,403
Pit 100	1.08	1,782	8,519,702	26,329,000	34,848,702	3.09	0.66	0.51	5,608,773	4,384,158	180,319	140,948	183,590,171	55,117,170	70,355,130	57,380,894
Pit 110	1.18	1,947	9,158,402	29,564,839	38,723,241	3.23	0.65	0.51	5,957,616	4,644,648	191,534	149,323	194,498,390	59,240,392	78,593,371	55,999,627
Pit 120	1.28	2,112	10,136,673	34,032,621	44,169,294	3.36	0.64	0.49	6,455,474	5,011,085	207,539	161,103	209,843,231	65,551,583	91,080,260	52,732,068
Pit 122	1.30	2,145	10,191,067	34,280,702	44,471,769	3.36	0.64	0.49	6,482,404	5,030,779	208,405	161,736	210,667,963	65,902,412	91,794,683	52,505,359

Table 16.3.9 Nyam Pit Optimization PF 1.07 by Material Type

Material	Material				Au Grade		Au Grams		Au Contained	
	Feed	Waste	Total	SR	In situ	Recovered	In situ	Recovered	In situ	Recovered
	t	t	t	t:t	g/t	g/t	g	g	oz	oz
Oxide	3,616,785	17,563,776	21,180,561	4.86	0.59	0.48	2,145,769	1,750,947	68,985	56,292
Transition	2,386,223	5,880,842	8,267,065	2.46	0.61	0.50	1,450,583	1,183,676	46,635	38,054
Fresh	2,489,055	2,786,130	5,275,185	1.12	0.80	0.58	1,998,939	1,439,236	64,265	46,271
Total	**8,492,063**	**26,230,748**	**34,722,811**	**3.09**	**0.66**	**0.52**	**5,595,291**	**4,373,859**	**179,885**	**140,617**

Figure 16.3.8 Nyam Pit Optimization NPV Graph

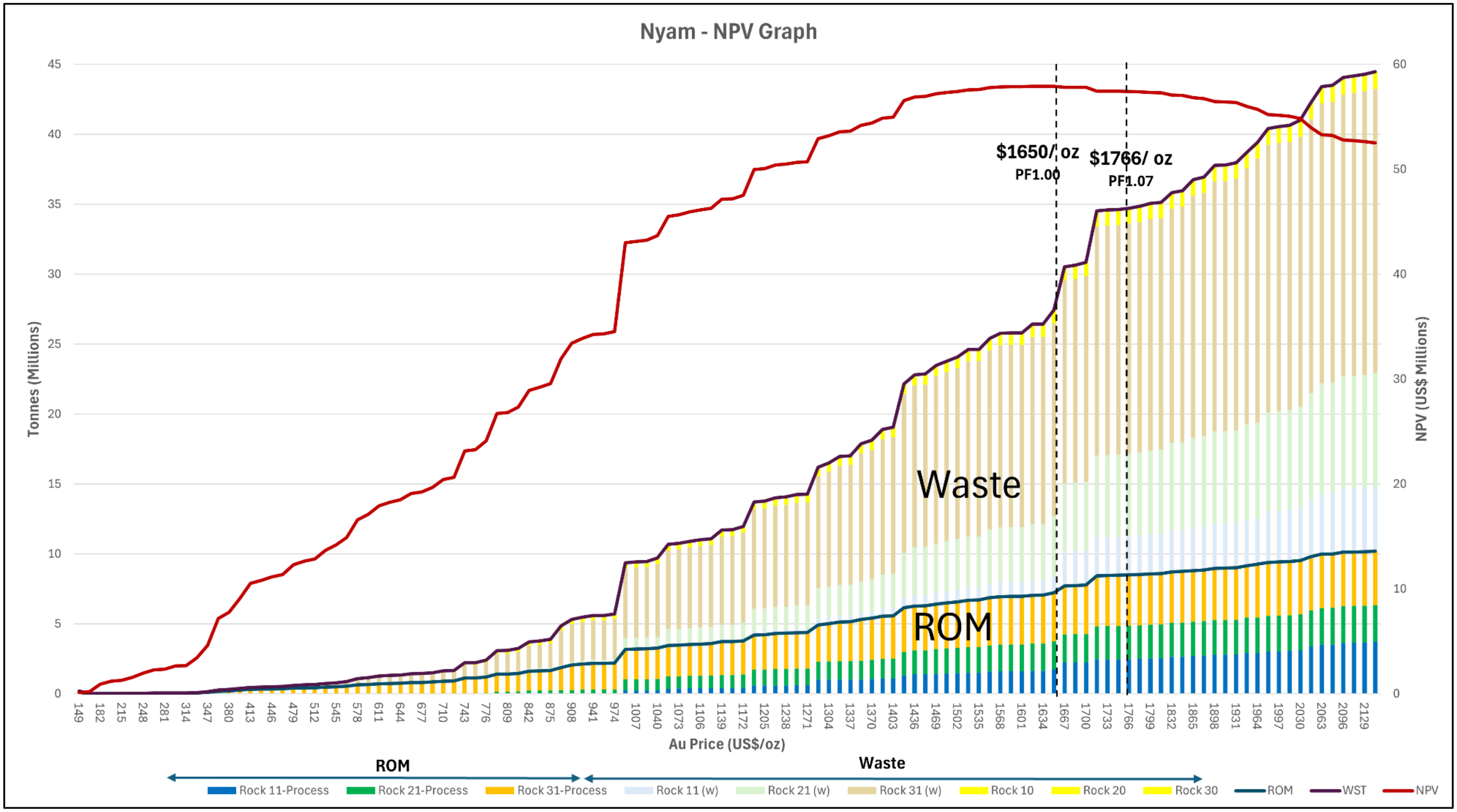


Figure 16.3.9 Nyam PF 1.07 Pit Shell Indicated & Inferred > CoG Plan View

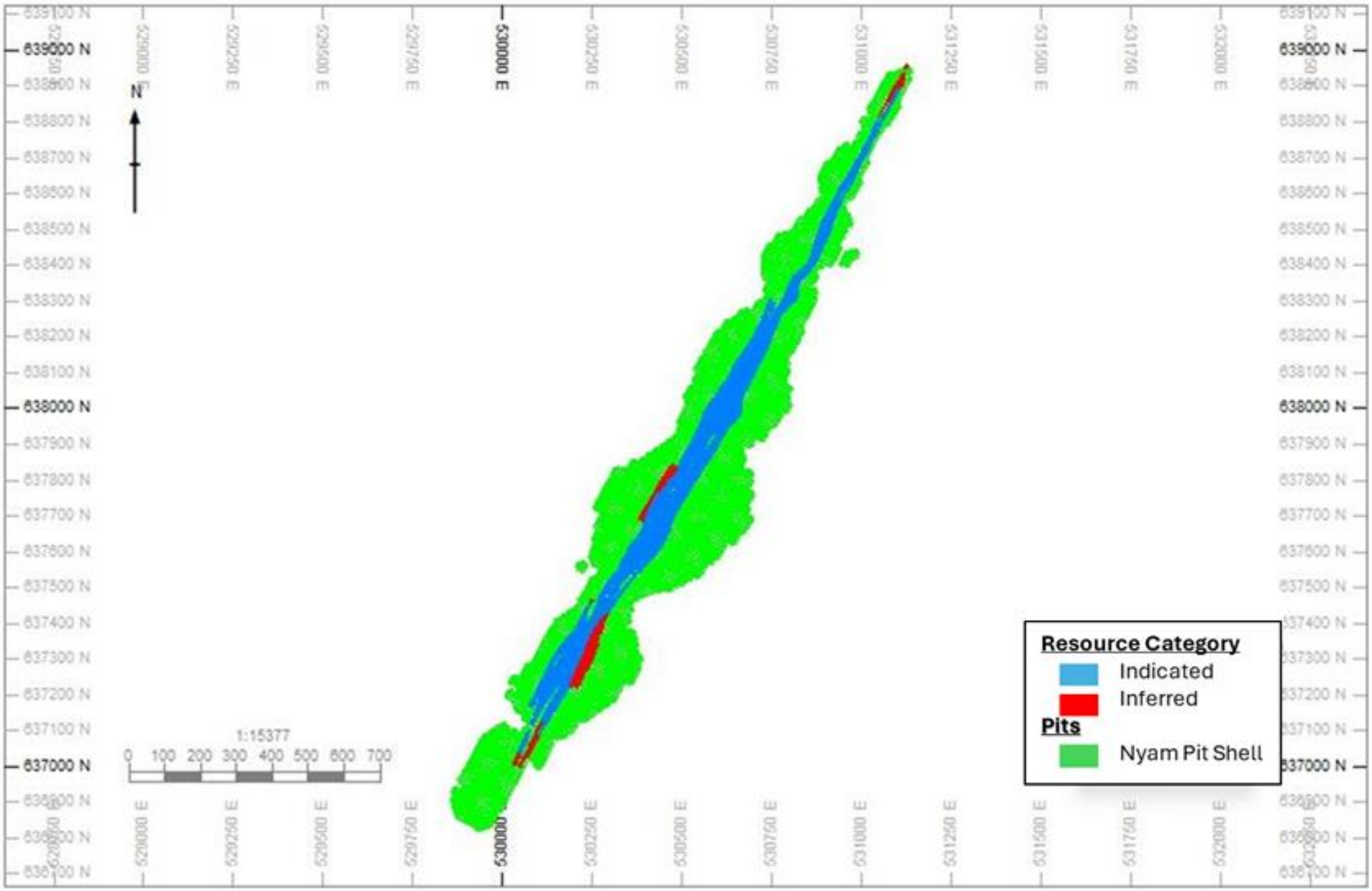
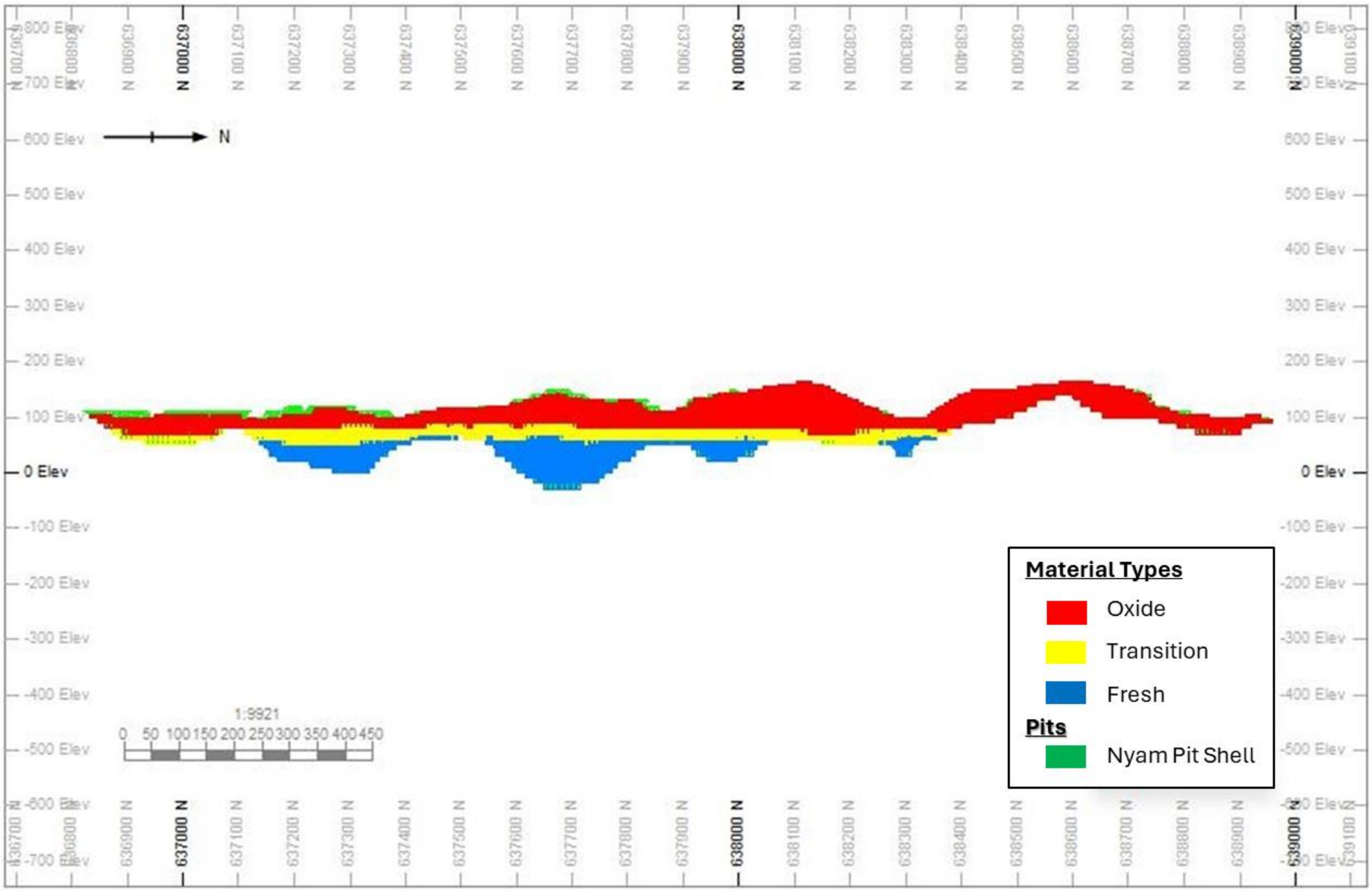


Figure 16.3.10 Nyam PF 1.07 Pit Shell by Material Type (S-N Section 637875 N)



Kwakyekrom

The results of the pit optimization exercise for the Kwak deposit are provided in Table 16.3.10. The pit optimization phases were generated in Datamine, utilizing PFs from 0.21 to 1.50, at increments of 0.01, for a total of 117 iterations. The Price Factor of 1.07 in Pit shell 74 with the price of $1,766/oz was selected as the ultimate pit for the PEA. The NPV is $11.4 M from a revenue of $58.8 M, processing costs of $20.6 M and mining costs of $26.7 M. No capital costs were included in the pit optimization.

The selected pit shell 74 contains a feed tonnage of 3.2 Mt, and a waste tonnage of 8.2 Mt for a total mining tonnage of 11.4 Mt and a SR of 2.57. The in-situ Au grade is 0.57 g/t with a recovered Au grade of 0.44 g/t for a contained total of approximately 1,400 kg recovered Au.

Table 16.3.10 is limited to PF increments of 0.10 for presentation purposes, though the optimization generated 0.01 increments from 0.21 to 1.50. All 122 pit shell increments are shown in Figure 16.3.11.

Figure 16.3.11 illustrates the NPV curve with the pit shells from 1 to 117. This graph illustrates the gradual nature of the optimization iterations with significant increase in NVP between PF 0.21 and PF 0.59 (pit shell 1 and pit shell 28) and followed by modest increase up to a PF of 1.00 (pit shell 68) with an NPV of $11.6 M, then tapers to a slow rate of decrease. From a PF of 1.07 onwards, the NPV decreases continuously, while the strip ratio also increases gradually.

Table 16.3.11 presents a summary of the Kwak pit optimization results with a PF of 1.07 across oxide, transition, and fresh material. As depicted in the table, the in-situ gold grade progressively increases from 0.39 to 0.46 and then 0.78 g/t, while the recovered gold grade also shows an incremental rise from 0.32 to 0.38 and then 0.56 g/t in oxide, transition, and fresh material, respectively.

A plan view of the ultimate pit shell is provided in Figure 16.3.13 with the Inferred mineralized blocks in red. The visible blocks within the ultimate pit shell are considered feed as they are above the CoG. The blocks outside the ultimate pit shell are not considered in the mined tonnes and grades.

As depicted in the Figure 16.3.12, the economically mineable inferred material is confined to the Central region, where the ultimate pit is situated.

In Figure 16.3.13, a cross section of the Kwak ultimate pit shell reveals distinct material types: oxide, transition, and fresh, distinguished by red, yellow, and blue coloring, respectively. The central, larger pit encompasses all three material types, with a notable abundance of mineable fresh materials, whereas the mini pits contain only Indicated and Inferred resources.

Table 16.3.10 Kwak Pit Optimization Pit Shells

Phase	Price Factor	Price US$/oz	Material				Au Grade		Au Grams		Au Contained		Economics			
			Feed	Waste	Total	Strip Ratio	In situ	Recovered	In situ	Recovered	In situ	Recovered	Revenue	Processing Cost	Mining Cost	NPV
			t	t	Total	t:t	g/t	g/t	g	g	oz	oz	$	$	$	$
Pit 1	0.21	347	3,905	275	4,180	0.07	1.20	0.98	4,705	3,840	151	123	160,785	25,496	9,563	125,723
Pit 6	0.30	495	91,091	22,530	113,621	0.25	0.88	0.72	80,262	65,493	2,580	2,106	2,742,587	591,694	219,155	1,931,198
Pit 11	0.40	660	190,089	59,371	249,460	0.31	0.76	0.62	144,900	118,239	4,658	3,801	4,951,330	1,232,384	505,567	3,211,729
Pit 20	0.50	825	420,444	243,408	663,852	0.58	0.72	0.57	300,635	241,721	9,665	7,771	10,122,228	2,723,271	1,402,628	5,989,578
Pit 29	0.60	990	742,058	664,299	1,406,357	0.90	0.69	0.54	508,770	400,175	16,357	12,865	16,757,653	4,803,008	3,133,411	8,804,602
Pit 39	0.70	1,155	848,258	819,615	1,667,873	0.97	0.67	0.53	567,826	446,049	18,255	14,340	18,678,674	5,488,928	3,714,625	9,455,449
Pit 48	0.80	1,320	1,147,097	1,426,953	2,574,050	1.24	0.63	0.49	720,035	567,729	23,149	18,252	23,774,093	7,418,102	5,644,321	10,684,763
Pit 58	0.90	1,485	1,330,832	1,941,793	3,272,625	1.46	0.62	0.49	823,480	645,524	26,474	20,753	27,031,866	8,604,595	7,288,133	11,108,858
Pit 68	1.00	1,650	1,813,914	3,201,427	5,015,341	1.76	0.58	0.46	1,050,325	826,080	33,767	26,558	34,592,769	11,721,091	11,251,416	11,584,569
Pit 74	1.07	1,766	3,193,051	8,193,348	11,386,399	2.57	0.57	0.44	1,831,642	1,404,377	58,886	45,150	58,809,409	20,626,355	26,736,219	11,378,747
Pit 77	1.10	1,815	3,602,697	9,533,395	13,136,092	2.65	0.57	0.43	2,047,893	1,562,391	65,838	50,230	65,426,410	23,269,717	31,223,221	10,873,718
Pit 87	1.20	1,980	3,981,212	11,458,262	15,439,474	2.88	0.57	0.43	2,274,809	1,729,554	73,134	55,604	72,426,444	25,714,915	37,004,766	9,672,524
Pit 97	1.30	2,145	4,221,158	12,529,461	16,750,619	2.97	0.57	0.43	2,395,871	1,819,578	77,026	58,498	76,196,282	27,262,921	40,242,228	8,680,258
Pit 107	1.40	2,310	4,538,026	14,007,838	18,545,864	3.09	0.56	0.43	2,552,351	1,935,439	82,056	62,223	81,048,068	29,306,785	44,676,622	7,094,255
Pit 117	1.50	2,475	4,697,114	15,069,503	19,766,617	3.21	0.56	0.43	2,642,125	2,002,028	84,943	64,364	83,836,538	30,334,027	47,616,888	5,946,321

Table 16.3.11 Kwak Pit Optimization PF 1.07 by Material Type

Material	Material				Au Grade		Au Grams		Au Contained	
	Feed	Waste	Total	SR	In situ	Recovered	In situ	Recovered	In situ	Recovered
	t	t	t	t:t	g/t	g/t	g	g	oz	oz
Oxide	308275	1,499,782	1,808,057	4.87	0.39	0.32	120,530	98,353	3,875	3,162
Transition	1,676,948	5,318,338	6,995,286	3.17	0.46	0.38	771,079	629,201	24,790	20,228
Fresh	1,207,828	1,375,228	2,583,056	1.14	0.78	0.56	940,033	676,823	30,221	21,759
Total	**3,193,051**	**8,193,348**	**11,386,399**	**2.57**	**0.57**	**0.44**	**1,831,642**	**1,404,377**	**58,886**	**45,150**

Figure 16.3.11 Kwak Pit Optimization NPV Graph

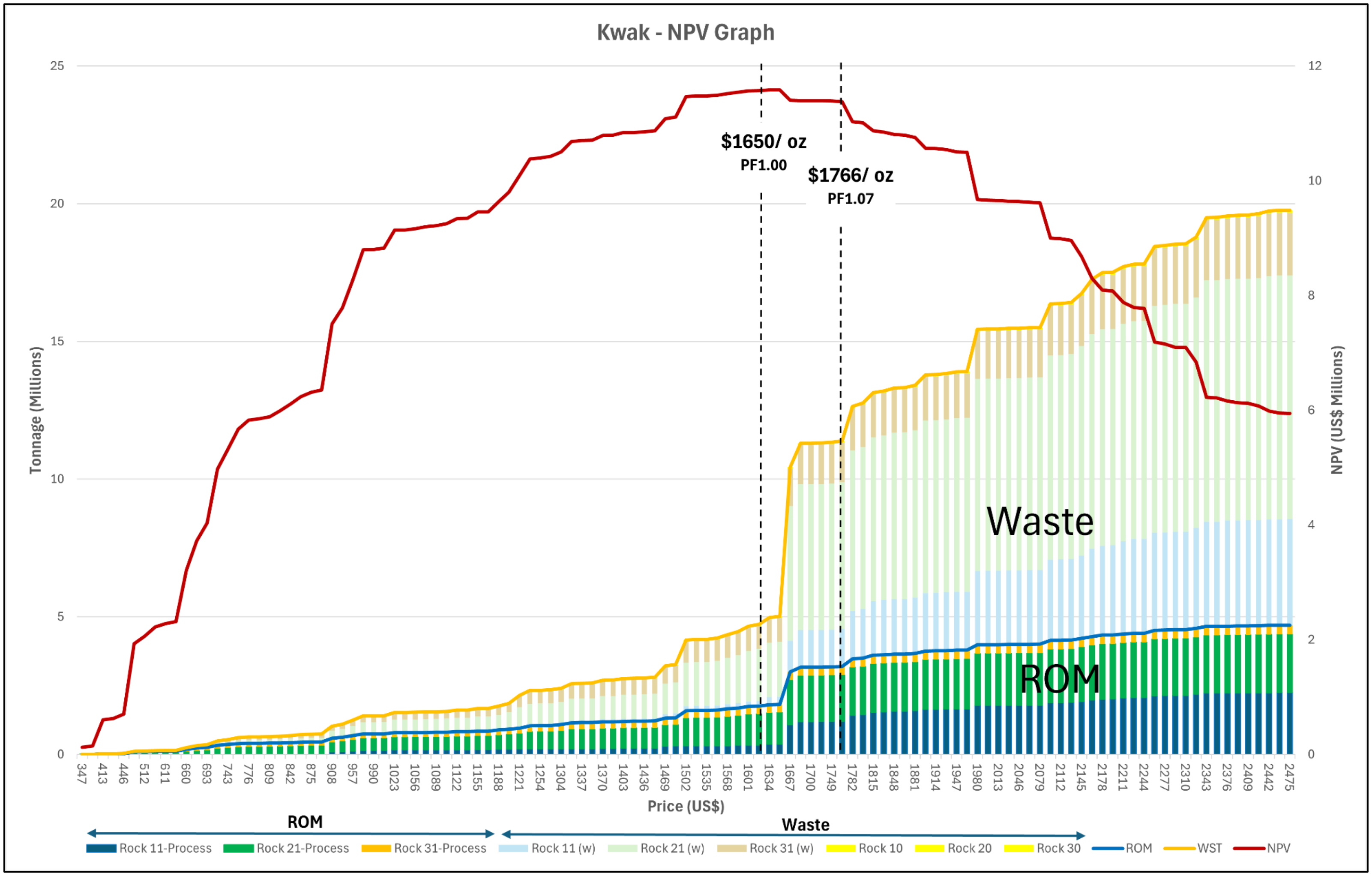


Figure 16.3.12 Kwak PF 1.07 Pit Shell Indicated & Inferred > CoG Plan View

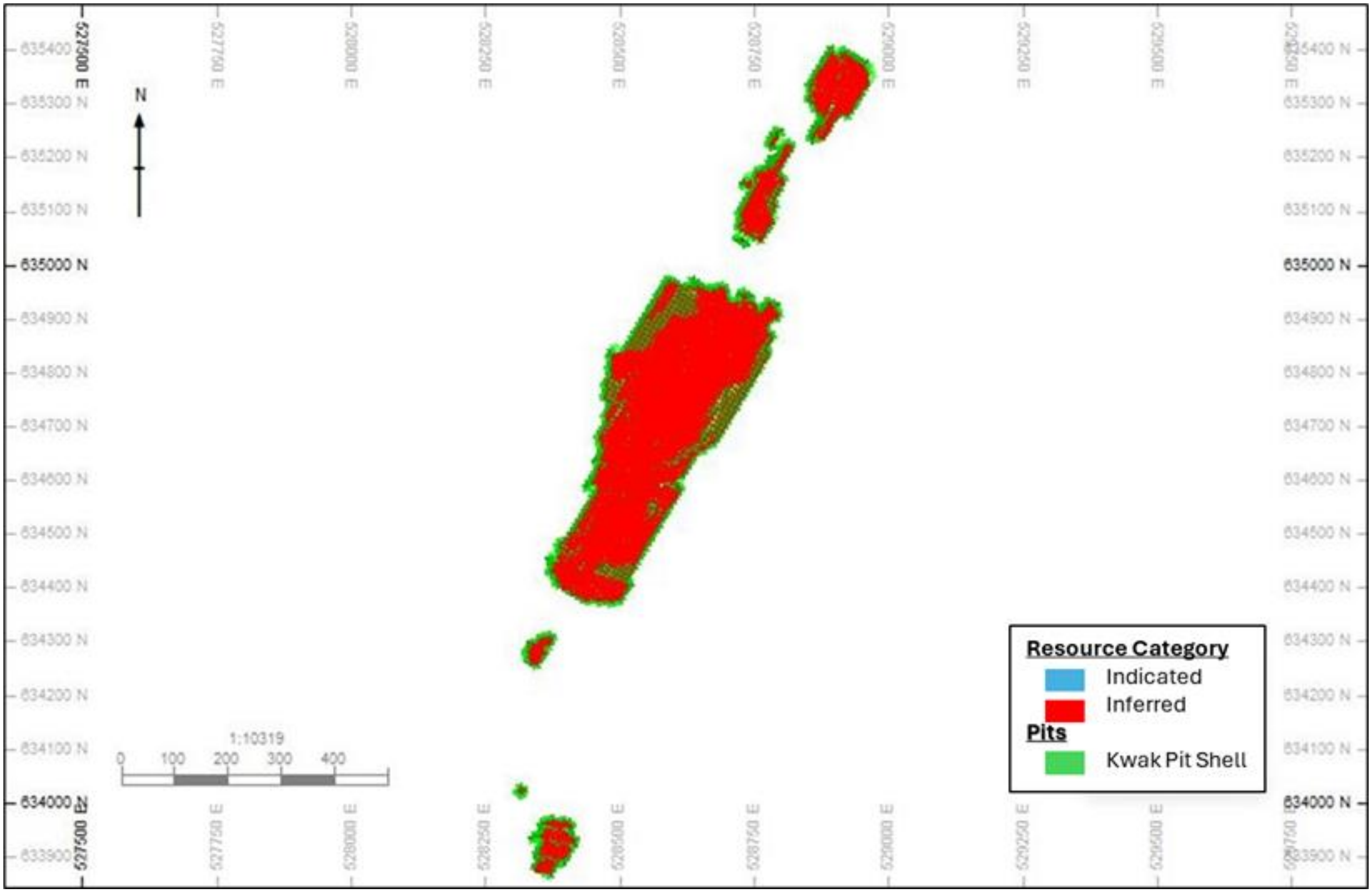
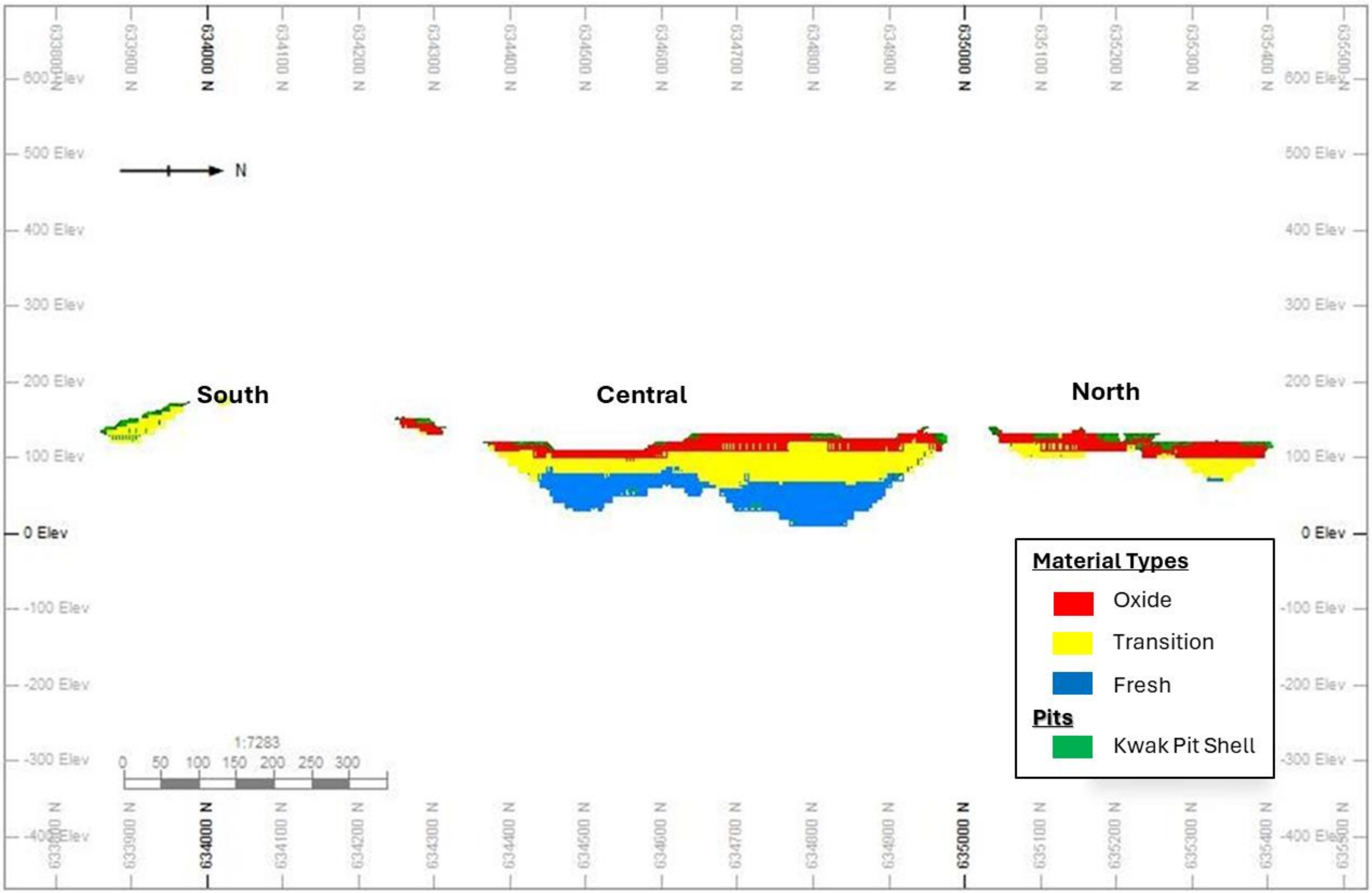


Figure 16.3.13 Kwak PF 1.07 Pit Shell by Material Type (S-N Section 528875 E)



Tokosea

The results of the pit optimization exercise for the Tokosea deposit are provided in Table 16.3.12. The pit optimization phases were generated in Datamine, utilizing PFs from 0.20 to 1.50, at increments of 0.01, for a total of 99 iterations. The Price Factor of 1.09 in Pit shell 62 with the price of $1,799/oz was selected as the ultimate pit for the PEA. The NPV is $3.6 M from a revenue of $30.7 M, processing costs of $7.5 M and mining costs of $19.5 M. No capital costs were included in the pit optimization.

The selected pit shell 62 (PF 1.09) contains a feed tonnage of 1.2 Mt, and a waste tonnage of 8.9 Mt for a total mining tonnage of 10.1 Mt and a strip ratio (SR) of 7.65. The in-situ gold grade is 0.80 g/t with a recovered gold grade of 0.63 g/t for a contained total of approximately 730 kg recovered Au.

Table 16.3.12 is limited to PF increments of 0.10 for presentation purposes, though the optimization generated 0.01 increments from 0.20 to 1.50.

Figure 16.3.14 illustrates the NPV curve with the pit shells from 1 to 99. This graph illustrates the gradual nature of the optimization iterations with no significant increase between any increment. The NPV increases up pit shell PF of 1.00 before gradually declining at a slower rate until it becomes negative at a PF of 1.29, with a magnitude of -$123,986, ultimately reaching its lowest value of -$9.4 M at a PF of 1.50.

Table 16.3.13 presents a summary of the Tokosea pit optimization results with a PF of 1.09 across oxide, transition, and fresh material. As depicted in the table, the in-situ Au grade progressively increases from 0.59 to 0.76 and then 1.07 g/t, while the recovered Au grade also shows an incremental rise from 0.48 to 0.62 and then 0.77 g/t in oxide, transition, and fresh material, respectively.

A plan view of the ultimate pit shell is provided in Figure 16.3.15 with the Inferred mineralized blocks in red. The visible blocks within the ultimate pit shell are considered feed as they are above the CoG. The blocks outside the ultimate pit shell are not considered in the mined tonnes and grades. The economically mineable material is confined to the northeast region of the deposit, where the ultimate pit is situated.

In Figure 16.3.16, a cross section of the Tokosea ultimate pit shell reveals distinct material types: oxide, transition, and fresh, distinguished by red, yellow, and blue coloring, respectively.

The results summarized in Table 16.3.14 reveal that at the selected PF for each deposit, the Sewum deposit boasts the highest NPV of $178.1 M, followed by Boin, Nyam, Kwak, and Tokosea deposits with values of $163.7 M, $57.4 M, $22.4 M, and $3.6 M, respectively, arranged in descending order. Furthermore, the Sewum deposit exhibits the lowest strip ratio at 1.71, while Kwak, Nyam, Boin, and Tokosea present ratios of 2.57, 3.09, 3.53, and 7.65, respectively, in ascending order.

Table 16.3.12 Tokosea Pit Optimization Pit Shells

Phase	Price Factor	Price	Material				Au Grade		Au Grams		Au Contained		Economics			
		US$/oz	Feed	Waste	Total	Strip Ratio	In situ	Recovered	In situ	Recovered	In situ	Recovered	Revenue	Processing Cost	Mining Cost	NPV
			t	t	Total	t:t	g/t	g/t	g	g	oz	oz	$	$	$	$
Pit 1	0.2	330	4,488	275	4,763	0.06	1.31	1.07	5,871	4,791	189	154	200,598	29,354	10,343	160,897
Pit 7	0.31	512	19,924	24,930	44,854	1.25	1.28	1.04	25,449	20,767	818	668	869,620	130,242	85,185	654,152
Pit 11	0.4	660	34,718	69,136	103,854	1.99	1.21	0.98	41,850	34,149	1,345	1,098	1,430,039	226,701	184,738	1,018,501
Pit 19	0.51	842	57,587	164,824	222,411	2.86	1.1	0.9	63,280	51,636	2,034	1,660	2,162,320	375,385	388,466	1,398,263
Pit 24	0.61	1,007	70,570	201,128	271,698	2.85	1.02	0.83	72,156	58,879	2,320	1,893	2,465,603	459,448	477,051	1,528,848
Pit 32	0.7	1,155	112,241	393,238	505,479	3.5	0.91	0.75	102,630	83,746	3,299	2,692	3,506,925	729,471	901,278	1,875,725
Pit 39	0.8	1,320	151,851	548,215	700,066	3.61	0.83	0.68	126,527	103,246	4,068	3,319	4,323,508	985,604	1,262,153	2,075,138
Pit 45	0.9	1,485	174,700	577,537	752,237	3.31	0.77	0.63	134,825	110,017	4,335	3,537	4,607,050	1,132,784	1,358,076	2,115,538
Pit 54	1	1,650	1,007,589	7,921,222	8,928,811	7.86	0.83	0.66	836,550	660,752	26,895	21,243	27,669,536	6,536,769	17,406,729	3,707,036
Pit 62	1.09	1,799	1,156,529	8,850,586	10,007,114	7.65	0.8	0.63	925,545	732,040	29,756	23,535	30,654,754	7,499,631	19,496,179	3,640,139
Pit 63	1.1	1,815	1,303,030	10,036,782	11,339,812	7.7	0.79	0.62	1,027,142	811,212	33,022	26,080	33,970,209	8,447,882	22,166,687	3,338,211
Pit 72	1.2	1,980	2,014,614	15,582,307	17,596,921	7.73	0.77	0.6	1,556,460	1,199,279	50,039	38,556	50,220,788	13,054,205	36,799,522	364,418
Pit 81	1.3	2,145	2,143,607	16,145,931	18,289,538	7.53	0.76	0.58	1,622,801	1,247,810	52,172	40,116	52,253,074	13,886,416	38,492,886	-122,986
Pit 91	1.4	2,310	2,587,647	20,229,119	22,816,766	7.82	0.75	0.57	1,933,463	1,480,432	62,160	47,595	61,994,341	16,759,610	48,615,965	-3,335,916
Pit 99	1.5	2,475	3,315,179	26,371,730	29,686,909	7.95	0.73	0.55	2,403,582	1,825,840	77,274	58,700	76,458,529	21,462,561	64,582,342	-9,440,419

Table 16.3.13 Tokosea Pit Optimization PF 1.09 by Material Type

Material	Material				Au Grade		Au Grams		Au Contained	
	Feed	Waste	Total	SR	In situ	Recovered	In situ	Recovered	In situ	Recovered
	t	t	t	t:t	g/t	g/t	g	g	oz	oz
Oxide	150,836	5,946,324	6,097,160	39.42	0.59	0.48	88,356	72,099	2,841	2,318
Transition	779,253	2,853,944	3,633,197	3.66	0.76	0.62	595,470	485,903	19,144	15,621
Fresh	226,440	50,318	376,758	0.22	1.07	0.77	241,719	174,038	7,771	5,595
Total	**1,156,529**	**8,850,586**	**8,928,811**	**7.65**	**0.80**	**0.63**	**925,545**	**732,040**	**29,756**	**23,535**

Figure 16.3.14 Tokosea Pit Optimization NPV Graph

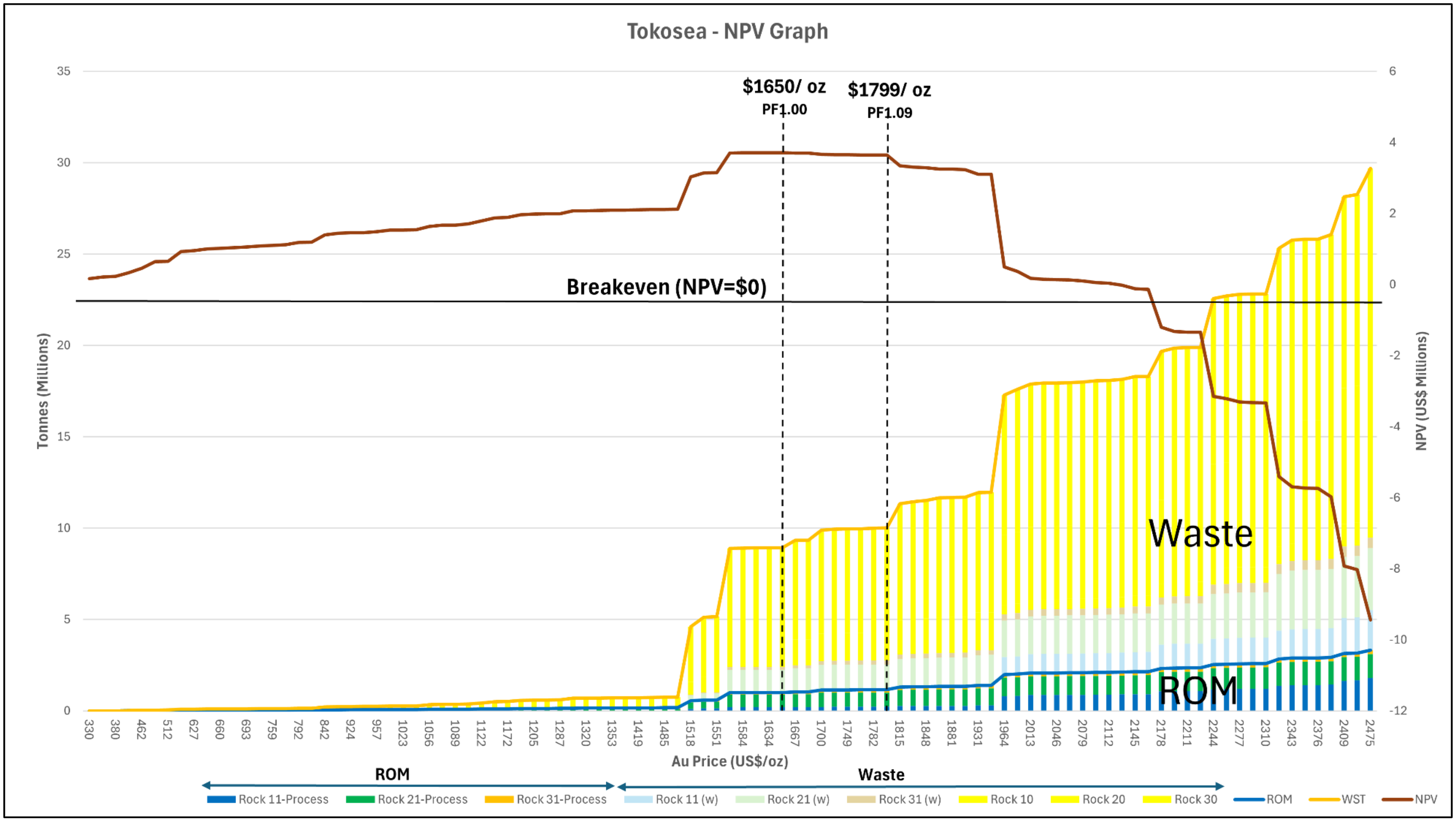


Figure 16.3.15 Tokosea PF 1.09 Pit Shell Indicated & Inferred > CoG - Plan View

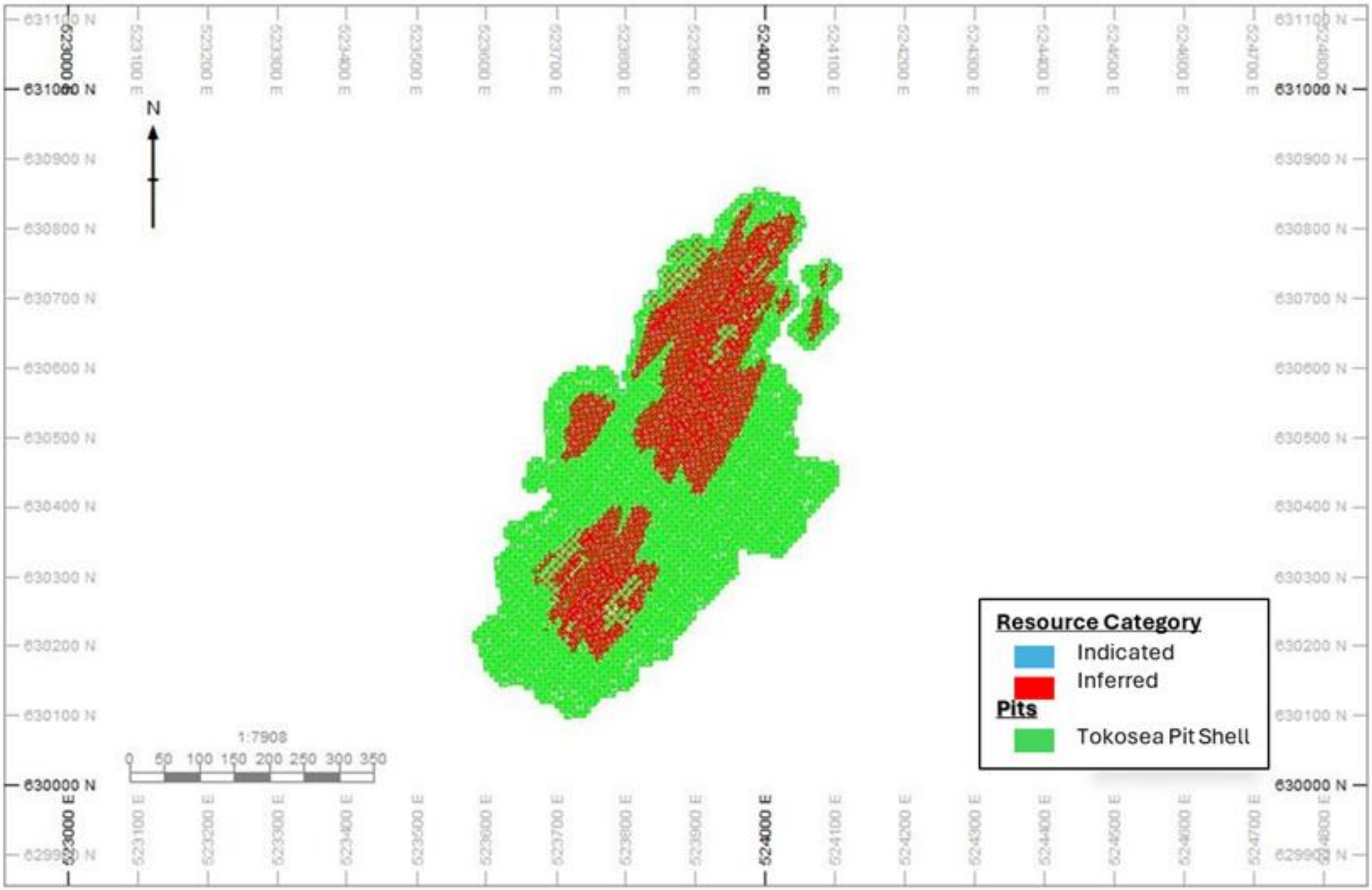


Figure 16.3.16 Tokosea PF 1.09 Pit Shell by Material Type (S-N Section 630450 N)

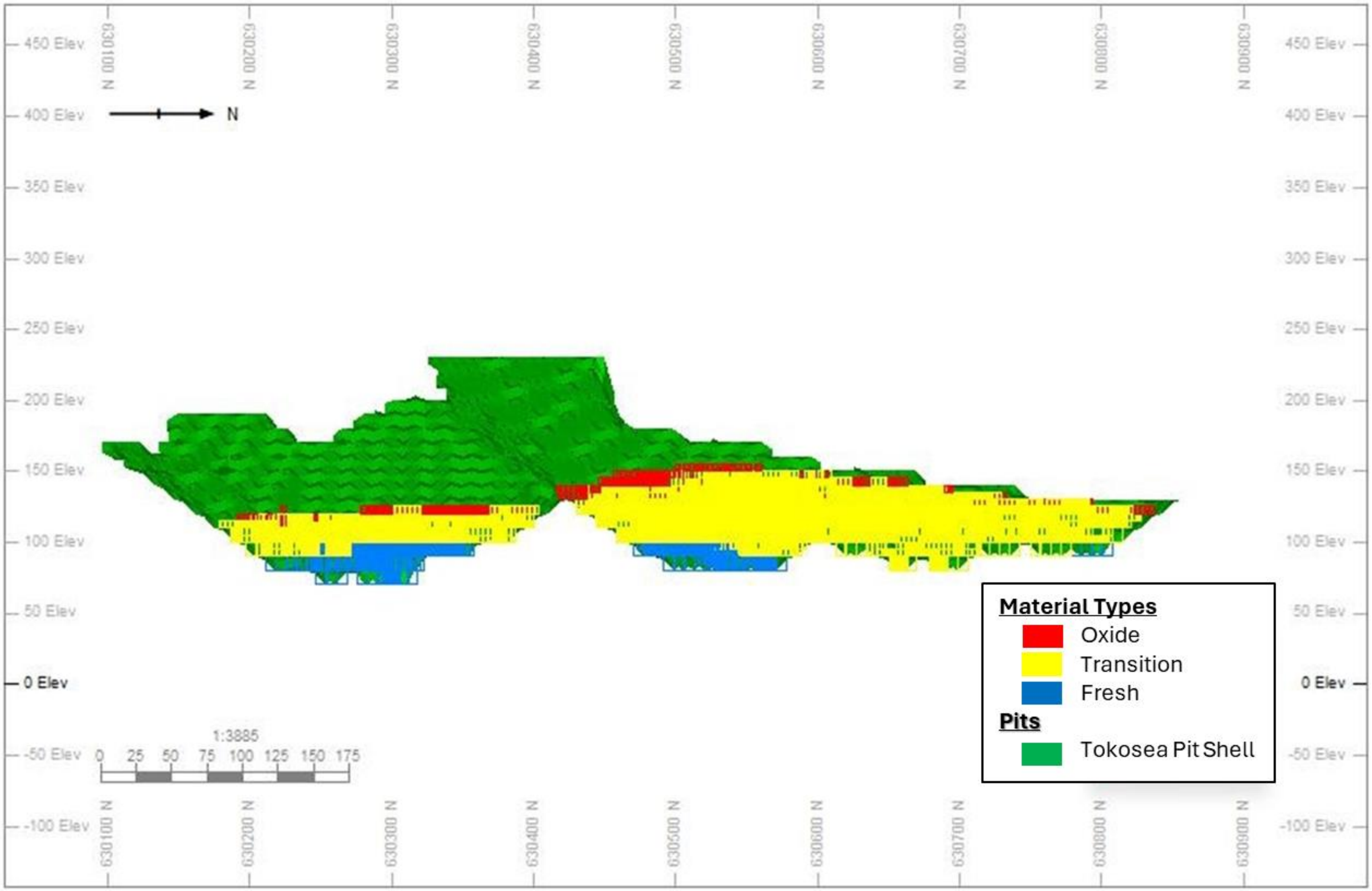


Table 16.3.14 Enchi Pit Optimization Summary

		Material				Au Grade		Au Grams		Au Contained		Economics			
Price Factor	**Deposit**	**Feed**	**Waste**	**Total**	**SR**	**In situ**	**Recovered**	**In situ**	**Recovered**	**In situ**	**Recovered**	**Revenue**	**Processing Cost**	**Mining Cost**	**NPV**
		Mt	**Mt**	**Mt**	**t:t**	**g/t**	**g/t**	**kg**	**kg**	**koz**	**koz**	**$ M**	**$ M**	**$ M**	**$ M**
1.16	Boin	21.4	75.6	97.1	3.53	0.72	0.57	15,471	12,102	497.4	389.1	506.8	138.8	199.0	163.7
1.16	Sewum	37.9	64.6	102.5	1.71	0.52	0.41	19,804	15,592	636.7	501.3	652.9	244.5	222.6	178.1
1.07	Nyam	8.5	26.2	34.7	3.09	0.66	0.52	5,595	4,374	179.9	140.6	183.2	54.9	70.1	57.4
1.07	Kwak	3.2	8.2	11.4	2.57	0.57	0.44	1,832	1,404	58.9	45.2	58.8	20.6	26.7	11.4
1.09	Tokosea	1.2	8.9	10.0	7.65	0.80	0.63	925,545	732	29.8	23.5	30.7	7.5	19.5	3.6
	Total	**72.1**	**183.5**	**255.6**	**2.54**	**0.60**	**0.50**	**43,628**	**34,204**	**1,402.6**	**1,099.6**	**1,432.4**	**466.3**	**537.9**	**410.6**

16.4 EQUIPMENT

16.4.1 Equipment Operations

Mine operations are planned to be carried out by a local contractor with technical services and mine management by Newcore personnel. Micon completed basic mine equipment calculations to demonstrate the scale of the mining operation. The following sections of the report describe the main mining production activities, the parameters considered and the equipment requirements.

The mine production schedule is based on 2, 12-hour shifts, 7 days a week with a mechanical availability (MA) of 85% for an available time (AT) of 7446h/y or 310 days. The 15% down time (DT) includes items such as scheduled maintenance, lube, tires, inspections, preventative maintenance, breakdown loss, wait for parts and labour, cleaning, repair time, and wait for support.

AT = CT x MA   8760 x 85% = 7446 h/y

The gross operating time (GOH) is calculated based on the AT minus operating standby (OS) which includes internal and external delays. Internal delays on a hours per shift (h/sh) basis include items such as equipment not manned, schedule losses, safety talks / updates, meal and rest breaks, and shift change. External delays include items like weather, industrial or power. Internal delays were assumed to be 1.9 h/sh and external delays were assumed to be 120 h/y of weather. This results in a GOH of 6,147 h/y (1,299 h/y delays).

GOH = AT – OS   7446 – 1299 = 6147 h/y

The net operating hours (NOH), calculated based on the GOH minus operating delays, also called utilization or use of availability (UA) is 86%. The efficiency (EFF) of 88% is based on the truck availability to excavators and shovel wait times for trucks during the NOH, results in 4,652 hr/yr operating time.

NOH = GOH x UT x EFF   6147 x 86% x 88% = 4652 h/y

Drilling

The production drill that has been selected is a top hammer rig designed for mid-sized open pits that can drill 150 mm (6 inch) holes and is also suited for wall control and development work. Micon has assumed there will be no blasting of oxide materials. Approximately 50% of transition material and 100% of fresh material is expected to be drilled and blasted. 100% of oxide and 50% of transition material is expected to be mined by ripping/ dozing or free digging.

The assumptions utilized for the drill fleet include: 10 m benches with sub-drilling of 1m for transition and 1.2 m for fresh material, spacing of 5 m, burden of 5 m for transition and 4 m for fresh, and a penetration rate of 21 m/hr. For this exercise the EFF for drilling is 100%, assuming drilling can continuously move ahead to the next bench or pit without delays from loading and hauling. Blasting efficiency and equipment requirements were not evaluated in this PEA study. Drilling EFF also has potential to be impacted by blasting activities.

Loading

The loading of ROM and waste material throughout the life of mine (LOM) is planned with hydraulic backhoe excavators having a 6.6 m^3 bucket capacity (in bank cubic meters, BCM). The swell factors for loading haulage trucks are 20% for oxide and transition, and 30% for fresh material (for loose cubic meters, LCM). The in-situ material moisture is assumed to be 5% for oxide and transition, and 2% for fresh. Note that all mineral resource and scheduled production was based on dry tonne, while equipment fleet calculations are based on wet tonnes.

The target bucket fill factor for loading trucks is 90%. Based on these assumptions the excavators could load the trucks in approximately 6 passes for oxide and 5 passes for transition and fresh material. The resulting truck loads would contain approximately 68 t (weight fill factor of 107%) for oxide, 64 t (weight fill factor of 100%) for transition, and 63 t (weight fill factor of 99%) for fresh material.

With a loading cycle time of 33 seconds and spotting time of 42 seconds, the approximate load times are 4 minutes for oxide, and 3.45 minutes for transition and fresh material. This allows for approximately 15 trucks per hour in oxide material, and 17.4 loads per hour in transition and fresh material. The resulting maximum capacity of an excavator is illustrated in Table 16.4.1 with the annual and daily rates by material type (over 365 d/y).

Table 16.4.1 Maximum Excavator Capacity

Material	Wet Tonnes		Dry Tonnes		Loads/Haul	Productivity	
	(Mtpa)	(kt/d)	(Mtpa)	(kt/d)	(Ld/h)	t/h (wet)	t/h (dry)
Oxide	4.77	13.01	4.54	12.44	15	777	738
Transition	5.16	14.15	4.91	13.44	17.4	840	798
Fresh	5.13	14.01	5.03	13.77	17.4	835	818

Hauling

ROM and waste material will be loaded into rigid frame trucks with a payload of 64 tonnes. Cycle times for haulage assumed an additional dump time of 0.7 minutes.

Haulage routes have roughly been estimated as: ROM - 4 km for Boin, Sewum and Tokosea; ROM – 18 km or Nyam; ROM - 14 km for Kwak; and Waste - 2 km for all pits.

Stockpiling and Dumps

Temporary stockpiles and waste dumps were not addressed in this PEA.

Equipment Fleet

Table 16.4.2 shows the details of major, support, and service equipment considered for this PEA stage of the Project development.

Table 16.4.2 Enchi Mining Equipment

EQUIPMENT	DESCRIPTION	AVERAGE UNITS	MAX UNITS
Major Equipment			
Haul Truck	Payload – 64 t	16	27
Excavator (Bucket Capacity 6.4 m^3)	Bucket Payload – 13 t	6	12
Production Drill	150 mm hole (6")	13	29
Wheel Loader	Operating Weight – 55 t	1	1
Support Equipment			
Track Dozer	Operating Weight – 50 t	6	6
Road Grader	Operating Weight – 35 t	3	3
Water Truck	50,000 Liter Capacity	2	2
Big Utility Excavator	Operating Weight – 90 t	1	1
Small Utility Excavator	Operating Weight – 50 t	2	2
Utility Loader	Operating Weight – 30 t	1	1
Service Equipment			
Fuel and Lube Truck	-	2	2
Mechanical service truck	-	2	2
Welding truck	-	1	1
Lowboy	-	1	1
Tire Handler	-	1	1
Mobile Crane	-	1	1
Boom Truck	-	1	1
Dewatering Pump	-	5	5

Table 16.4.2 illustrates a rough schedule for the major equipment (drilling, loading, and hauling) based on the LOM production schedule in Table 16.5.2

Micon's QP recommends in the next phase (PFS) detailed first principal calculations be developed for drilling, blasting, loading, and hauling using updated contractor quotes to increase the accuracy of the mine plan.

16.5 LOM Production Schedule

The LOM production schedule was developed with a strategy of sequential mining across various benches for different deposits. Table 16.5.1 outlines the mining sequence for economically viable deposits and their corresponding pits. As indicated in the table, the Central pit in the Boin deposit will be the initial pit mined, while Kwak will be the final one from an economic and practicality standpoint.

Table 16.5.1 Enchi Mining Sequence

Deposit	Pit	Sequence
Boin	Central	1
Boin	North	2
Boin	South	3
Sewum	Ridge	4
Sewum	Checkerboard Hill	5
Sewum	South Extension	6
Tokosea		7
Nyam		8
Kwak		9

16.5.2 Summary

The life of mine (LOM) production schedule is included in Table 16.5.2. The first mining stage is with oxide and upper transition material for years 1 to 4, running through the mining sequence from 1 to 9 with 8.1 Mtpa of run of mine (ROM) feed. The second mining stage is with the lower transition and fresh material production at 8.1 Mtpa, finishing with 4.98 Mt of ROM in year 9.

16.5.3 Results

The final totals for the LOM are ROM feed of 69.8 Mt, waste of 186.1 Mt (including mining losses), a total mined material of 255.9 Mt, and overall strip ratio of 2.67. The mining loss of 0.7 Mt (1.02%) ROM feed is based on the addition of 2% losses added to the ROM feed tonnage in years 5 to 9 during mining of the lower transition and fresh material. The mining losses are attributed to movement of material outside of control boundaries during energetic blasting. No losses are expected for the oxide and upper transition material mined during years 1 to 4.

Table 16.5.2 LOM Production Schedule

Deposit	Pit	Item	Units	1	2	3	4	5	6	7	8	9	Total
Sewum	South (Extension)	ROM	t	0	0	0	2,473,090	0	0	0	2,433,750	0	4,906,840
		Oxide	t	0	0	0	1,718,437	0	0	0	0	0	1,718,437
		Transition	t	0	0	0	754,653	0	0	0	1,290,267	0	2,044,919
		Fresh	t	0	0	0	0	0	0	0	1,143,484	0	1,143,484
		Au Grade	g/t	0	0	0	0.52	0	0	0	0.83	0	0.68
		Au Contained	kg	0	0	0	1,289	0	0	0	2,030	0	3,319
		Au Contained	koz	0	0	0	41	0	0	0	65	0	107
		Waste	t	0	0	0	6,844,692	0	0	0	6,228,717	0	13,073,409
		Mined	t	0	0	0	9,317,782	0	0	0	8,662,467	0	17,980,249
		SR	t:t	0	0	0	2.77	0	0	0	2.56	0	2.66
	Central (Checker Board)	ROM	t	0	0	2,955,296	1,127,827	0	0	37,982	4,914,463	0	9,035,568
		Oxide	t	0	0	2,599,268	990,581	0	0	0	0	0	3,589,849
		Transition	t	0	0	356,028	137,246	0	0	33,672	1,319,023	0	1,845,969
		Fresh	t	0	0	0	0	0	0	4,310	3,595,440	0	3,599,751
		Au Grade	g/t	0	0	0.52	0.47	0	0	0.51	0.69	0	0.60
		Au Contained	kg	0	0	1,524	525	0	0	19	3,388	0	5,457
		Au Contained	koz	0	0	49	17	0	0	1	109	0	175
		Waste	t	0	0	8,702,864	2,249,029	0	0	146,442	8,605,366	0	19,703,701
		Mined	t	0	0	11,658,159	3,376,856	0	0	184,424	13,519,830	0	28,739,269
		SR	t:t	0	0	2.94	1.99	0	0	3.86	1.75	0	2.18
	North (Ridge Hill)	ROM	t	0	6,441,027	5,144,704	0	0	3,243,810	8,227,324	0	0	23,056,865
		Oxide	t	0	4,717,263	3,349,162	0	0	0	0	0	0	8,066,425
		Transition	t	0	1,723,764	1,795,542	0	0	2,865,365	5,073,021	0	0	11,457,693
		Fresh	t	0	0	0	0	0	378,445	3,154,303	0	0	3,532,748
		Au Grade	g/t	0	0.45	0.44	0	0	0.54	0.42	0	0	0.45
		Au Contained	kg	0	2,899	2,287	0	0	1,748	3,460	0	0	10,395
		Au Contained	koz	0	93	74	0	0	56	111	0	0	334
		Waste	t	0	16,382,564	9,355,108	0	0	2,949,338	4,032,419	0	0	32,719,429
		Mined	t	0	22,823,591	14,499,812	0	0	6,193,148	12,259,743	0	0	55,776,295
		SR	t:t	0	2.54	1.82	0	0	0.91	0.49	0	0	1.42
Boin	South	ROM	t	0	741,687	0	0	0	138,151	0	0	0	879,838
		Oxide	t	0	612,629	0	0	0	0	0	0	0	612,629
		Transition	t	0	129,058	0	0	0	74,553	0	0	0	203,611
		Fresh	t	0	0	0	0	0	63,598	0	0	0	63,598
		Au Grade	g/t	0	0.66	0	0	0	0.95	0	0	0	0.70
		Au Contained	kg	0	487	0	0	0	131	0	0	0	618
		Au Contained	koz	0	16	0	0	0	4	0	0	0	20
		Waste	t	0	3,368,931	0	0	0	210,808	0	0	0	3,579,739
		Mined	t	0	4,110,618	0	0	0	348,959	0	0	0	4,459,578
		SR	t:t	0	4.54	0	0	0	1.53	0	0	0	4.07
	Central	ROM	t	7,053,584	0	0	0	6,166,739	3,180,389	0	0	0	16,400,712
		Oxide	t	5,771,931	0	0	0	0	0	0	0	0	5,771,931
		Transition	t	1,281,653	0	0	0	4,505,217	76,738	0	0	0	5,863,608
		Fresh	t	0	0	0	0	1,661,522	3,103,652	0	0	0	4,765,174
		Au Grade	g/t	0.63	0	0	0	0.65	1.04	0	0	0	0.72
		Au Contained	kg	4,428	0	0	0	4,030	3,298	0	0	0	11,756
		Au Contained	koz	142	0	0	0	130	106	0	0	0	378
		Waste	t	40,465,025	0	0	0	14,813,566	2,442,596	0	0	0	57,721,187
		Mined	t	47,518,609	0	0	0	20,980,305	5,622,985	0	0	0	74,121,899
		SR	t:t	5.74	0	0	0	2.40	0.77	0	0	0	3.52
	North	ROM	t	1,046,416	917,286	0	0	0	1,702,956	0	0	0	3,666,658
		Oxide	t	1,007,304	368,058	0	0	0	0	0	0	0	1,375,362
		Transition	t	39,112	549,228	0	0	0	859,758	0	0	0	1,448,098
		Fresh	t	0	0	0	0	0	843,197	0	0	0	843,197
		Au Grade	g/t	0.69	0.69	0	0	0	0.75	0	0	0	0.72
		Au Contained	kg	722	634	0	0	0	1,279	0	0	0	2,635
		Au Contained	koz	23	20	0	0	0	41	0	0	0	85
		Waste	t	7,677,168	3,696,423	0	0	0	3,514,709	0	0	0	14,888,300
		Mined	t	8,723,584	4,613,709	0	0	0	5,217,664	0	0	0	18,554,957
		SR	t:t	7.34	4.03	0	0.00	0	2.06	0	0	0	4.06
Nyam		ROM	t	0	0	0	3,745,559	1,049,800	0	0	608,471	2,964,749	8,368,579
		Oxide	t	0	0	0	3,520,733	75,263	0	0	0	0	3,595,996
		Transition	t	0	0	0	224,826	974,537	0	0	566,317	584,563	2,350,242
		Fresh	t	0	0	0	0	0	0	0	42,154	2,380,186	2,422,341
		Au Grade	g/t	0	0	0	0.59	0.59	0	0	0.61	0.76	0.65
		Au Contained	kg	0	0	0	2,214	623	0	0	371	2,245	5,454
		Au Contained	koz	0	0	0	71	20	0	0	12	72	175
		Waste	t	0	0	0	18,593,449	3,000,714	0	0	1,248,337	3,654,585	26,497,084
		Mined	t	0	0	0	22,339,008	4,050,513	0	0	1,856,808	6,619,334	34,865,663
		SR	t:t	0	0	0	4.96	2.86	0	0	2.05	1.23	3.17
Kwak		ROM	t	0	0	0	0	1,004,377	0	0	0	2,119,584	3,123,961
		Oxide	t	0	0	0	0	302,864	0	0	0	0	302,864
		Transition	t	0	0	0	0	701,513	0	0	0	954,525	1,656,038
		Fresh	t	0	0	0	0	0	0	0	0	1,165,059	1,165,059
		Au Grade	g/t	0	0	0	0	0.40	0	0	0	0.64	0.56
		Au Contained	kg	0	0	0	0	397	0	0	0	1,355	1,752
		Au Contained	koz	0	0	0	0	13	0	0	0	44	56
		Waste	t	0	0	0	0	4,276,126	0	0	0	3,980,854	8,256,980
		Mined	t	0	0	0	0	5,280,503	0	0	0	6,100,438	11,380,941
		SR	t:t	0	0	0	0	4.26	0	0	0	1.88	2.64
Tokosea		ROM	t	0	0	0	753,524	0	0	0	308,621	0	1,062,145
		Oxide	t	0	0	0	143,556	0	0	0	0	0	143,556
		Transition	t	0	0	0	609,968	0	0	0	106,548	0	716,516
		Fresh	t	0	0	0	0	0	0	0	202,073	0	202,073
		Au Grade	g/t	0	0	0	0.70	0	0	0	1.01	0	0.79
		Au Contained	kg	0	0	0	530	0	0	0	311	0	841
		Au Contained	koz	0	0	0	17	0	0	0	10	0	27
		Waste	t	0	0	0	8,733,704	0	0	0	226,454	0	8,960,158
		Mined	t	0	0	0	9,487,228	0	0	0	535,075	0	10,022,303
		SR	t:t	0	0	0	11.59	0	0	0	0.73	0	8.44
Total (Not Including Mining Losses)		ROM	Mt	8.1	8.1	8.1	8.1	8.2	8.3	8.3	8.3	5.1	70.5
		Oxide	Mt	6.8	5.7	5.9	6.4	0.4	0.0	0.0	0.0	0.0	25.2
		Transition	Mt	1.3	2.4	2.2	1.7	6.2	3.9	5.1	3.3	1.5	27.6
		Fresh	Mt	0.0	0.0	0.0	0.0	1.7	4.4	3.2	5.0	3.5	17.7
		Au Grade	g/t	0.64	0.50	0.47	0.56	0.61	0.78	0.42	0.74	0.71	0.60
		Insitu Contained Au	kg	5,150	4,020	3,811	4,559	5,050	6,456	3,480	6,100	3,601	42,226
		Insitu Contained Au	koz	166	129	123	147	162	208	112	196	116	1,358
		Waste	Mt	48.1	23.4	18.1	36.4	22.1	9.1	4.2	16.3	7.6	185.4
		Mined	Mt	56.2	31.5	26.2	44.5	30.3	17.4	12.4	24.6	12.7	255.9
		SR	t:t	5.94	2.89	2.23	4.50	2.69	1.10	0.51	1.97	1.50	2.63
Mining Losses		Mining Losses	Mt	0.00	0.00	0.00	0.00	0.12	0.17	0.17	0.17	0.10	0.72
		Mining Losses	%	0.00%	0.00%	0.00%	0.00%	1.47%	2.00%	2.00%	2.00%	2.00%	1.02%
Final Summary		ROM	Mt	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	4.98	69.78
		Waste	Mt	48.14	23.45	18.06	36.42	22.21	9.28	4.34	16.47	7.74	186.12
		Mined	Mt	56.24	31.55	26.16	44.52	30.31	17.38	12.44	24.57	12.72	255.90
		Strip Ratio	t:t	5.94	2.89	2.23	4.50	2.74	1.15	0.54	2.03	1.55	2.67

16.6 Conclusions and Recommendations

16.6.1 Conclusions

Based on the pit optimization parameters and work completed in this PEA study, the Enchi Gold Project has a positive NPV between $410 M and $420 M for the Price Factors (PF) of 1.30 and 1.00, respectively, with the base case (PF 1.00) at an Au price of $1,650/oz. This provided the basis for selecting the optimum pit shells at a PF of 1.16 ($1,914/oz) for Boin and Sewum pits, a PF of 1.07 ($1,766/oz) for Nyam and Kwak, and a PF of 1.09 ($1,799/oz) for Tokosea.

Micon's QP considers a SR in the range of 1.4 to 4 to be reasonable in this type of deposit. The pit optimization establishes reasonable pit areas that gradually increases or decreases depending on the economic variables such as price and costs. The smaller deposits have higher strip ratios due to the small economic footprint in mainly oxide material. The Tokosea pit shell has the highest SR with 7.65 due to the small size between sloping hills along the pit crest on the east and west sides yet has a higher in-situ grade (0.80 g/t) than all the other pits.

The oxide and upper transition material are scheduled to be mined from all nine pits before the lower transition and fresh materials. Given the softer oxide and upper transition mineralized material does not require crushing, the crusher installation and capital cost of two-stage crushing equipment has been delayed to year 4 and year 5 when it is required to be installed to process harder mineralization. The Boin and Sewum deposits were the most significant portion of the Project mineral resources within the resulting pit shells. The Boin deposit has a higher strip ratio than Sewum yet was chosen to be mined first to maximize initial high grade mineralized material and increase gold ounces processed during the initial two years of operations.

16.6.2 Recommendations

Micon's QP has the following recommendations for the mining section of the Project:

- A geotechnical evaluation / study be completed before the next study stage, evaluating safe pit slopes and impact of faults, waste storage facilities slopes and footprint stability, and leach pad footprint stability.
- The pit optimization should be revised after further geotechnical data becomes available.
- In future study stages, vendors should utilize detailed pit designs and a production schedule for a higher degree of accuracy and to further optimize the NPV.

To move blocks with Inferred materials forward to the next study level of prefeasibility study (PFS), further infill drilling would be required, to potentially bring the classification up to Indicated material, to qualify inclusion into PFS level potential mineral reserves. Only Indicated and Measured categories of mineralization above the CoG are reported in PFS and feasibility studies (FS) as the mineral moves from Mineral Resources to Mineral Reserves.

17.0 RECOVERY METHODS

The process design is based on a phased approach flowsheet designed for the recovery of gold, while minimizing initial capital expenditure and operating costs. The main design criteria for equipment selection included suitability for duty, reliability, and ease of maintenance. The plant layout provides ease of access to all equipment for operating and maintenance requirements while facilitating ease of concurrent construction in multiple areas.

The design basis includes:

- 8.1 Mtpa.
- Crushing plant and stacking at 75% utilization (6,570 h/y).
- Heap leach irrigation and ADR areas at 91.3% utilization (8,000 h/y).

17.1 Selected Process

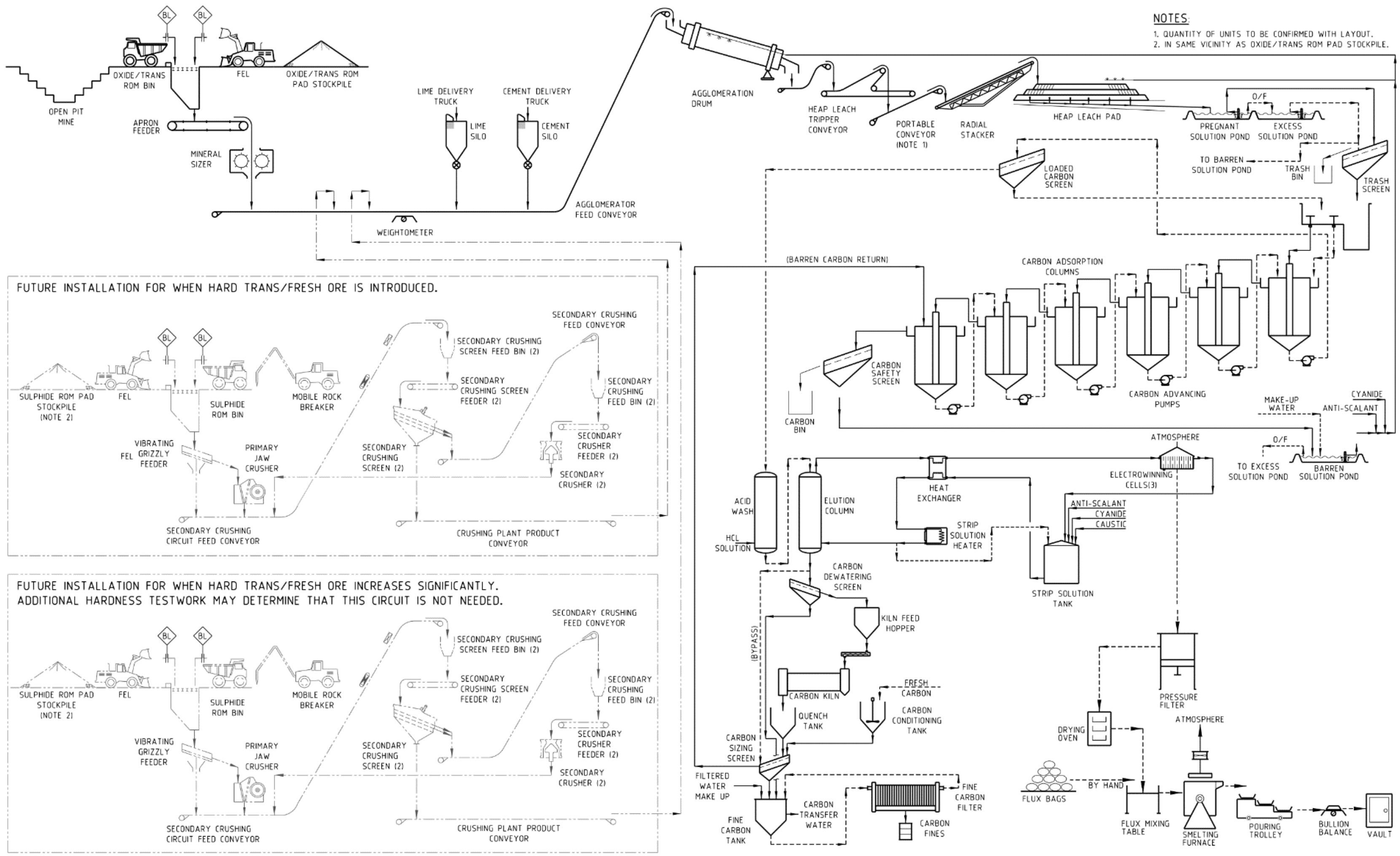
The process design consists of the following process unit operations:

- One primary mineral sizer to provide crushed feed with 80% passing (P_{80}) of 40-50 mm.
- Future installation of two trains of two-stage crushing plant to provide crushed feed with a P_{80} of 19 mm when harder transition and fresh material is introduced, in later years of the mine plan.
- Agglomeration of the crushed material with cement and cyanide solution in a rotating drum to improve percolation within the leach pad.
- Grasshopper conveyors and radial stacker to stack crushed material on the leach pad in 5 m lifts.
- Cyanide solution application rate of 10 L/m^2/hr on the stacked material for a 40-day ‘transition’ period which is the ‘solution limiting’ period. This rate will then decrease to 7 L/m^2/hr for a 40 -day ‘time limiting’ period. Leaching of each cell will continue after the 70 days due to solution trickling down from the cell(s) above and the cell will not be drained until reaching 90 days.
- Carbon-in-column (CIC) process to load activated carbon with gold from pregnant solution drained from the leach pad.

- Barren, pregnant and event / excess solution ponds to accommodate operational upsets, pregnant solution drain-down, and to accommodate storm water, respectively.
- Pressure Zadra elution circuit with gold recovery to electrowinning sludge and a rotary kiln to regenerate the barren carbons from the circuit.
- A drying oven and smelting furnace to refine the electrowinning gold sludge into a final doré product.

An overall process flow diagram depicting the unit operations incorporated in the selected process flowsheet is presented in Figure 17.1.1.

Figure 17.1.1 Simplified Process Flowsheet



Source: Lycopodium, 2024

17.2 Key Process Design Criteria

The process design criteria listed in Table 17.2.1 form the basis of the process design and mechanical equipment list.

Table 17.2.1 Key process Design Criteria

Criteria Description	Units	Nominal	Source
Plant Throughput	Mtpa	8.1	Newcore
Life of Mine	y	10	Calculated
Material Type	-	Oxide, Transition, & Sulphide	Newcore
Head Grade - Maximum	g/t Au	0.66	Newcore
Gold Extraction (Including Lab Discount)	%	88.6	Testwork
Gold Losses - Estimated	%	0.3	Calculated
Overall Gold Recovery	%	88.3	Calculated
Crushing Plant Utilization	%	75	Lycopodium
Heap leach Irrigation and ADR Utilization	%	91.3	Lycopodium
Crushing Plant Product Size (P_{80}) – Oxide & Trans / Sulphide	mm	40-50 / 19	Lycopodium
Crushing Work Index (CWi) – Oxide & Trans / Sulphide	kWh/t	7.5 / 18.4	Testwork
Leaching Method	-	Heap Leach	Lycopodium
Heap Leaching Cycle Time*	d	90	Testwork
Solution Application Rate – 'Solution Limiting' Period	$L/m^2/hr$	10	Lyco/Newcore
Solution Application Rate – 'Time Limiting' Period	$L/m^2/hr$	7	Lyco/Newcore
Heap Leach Pregnant Solution Tenor	g/m^3 Au	0.395	Calculated
Number of Carbon Adsorption Columns (CIC)	#	6	Lycopodium
Carbon Gold Loading - Targeted	g Au/t	1,098	Calculated
Elution Circuit Type	-	Pressure Zadra	Lycopodium
Elution Circuit Size	t carbon	18	Lycopodium
Frequency of Elution	strip/wk	6	Lycopodium
Sodium Cyanide Addition**	kg/t feed	0.37	Testwork
Pebbled Quicklime Addition (Assume 90% Purity)	kg/t feed	1.9	Testwork
Raw Water Requirement – Nominal / Maximum	m^3/hr	164 / 288	Calculated

***Direct solution application will only be for 70 days; remainder of period will rely on solution percolating down from cell(s) above.**

****50% discount has been applied on the testwork cyanide consumption to account for higher amount of solution used in lab columns.**

17.3 Process and Plant Description

17.3.1 Overall Process Description

ROM material will be delivered to a local feed bin by a front-end loader to feed the crushing plant. A measured quantity of alkalinity control reagent, quicklime, and cement for improving the percolation will be added to the crushed material on the agglomeration drum feed conveyor via rotary valve suspended from a large overhead storage silo for the two systems. Agglomerated crushed material will be conveyed via a series of grasshopper conveyors and stacked onto the leach pad with a radial stacker.

The heap leach pad will be constructed in an up-gradient manner, with material stacked in multiple lifts. Cyanide-bearing irrigation solution will be applied on the leach pad for approximately 90 days prior to draining. Further leaching will naturally occur as additional lifts are added to the leach pad. The solution will be applied using a network of piping where both wobblers and drip emitters will be used for uniform solution distribution. Gold-bearing pregnant solution will drain from the leach pad via gravity to a pregnant solution pond prior to being pumped to the ADR process plant.

The pregnant solution will be processed using 6 carbon adsorption columns with 18t of carbon capacity each. Loaded carbon will be transported to the desorption (elution) and recovery portion of the ADR process plant. Loaded carbon will be stripped with hot cyanide-caustic solution in a pressure Zadra elution circuit. Barren carbon will be regenerated with a carbon rotary kiln. Gold sludge from electrowinning will be dried in an oven and smelted in a furnace to pour into gold doré bars.

For metallurgical accounting and process monitoring, the following sample points will be put in place:

- Crushed feed sampler on the crushing plant product conveyor.
- On the barren solution line containing cyanide bearing solution to be applied on the leach pad.
- On the pregnant solution line feeding the adsorption circuit.
- On the barren solution line exiting the adsorption circuit.
- On the pregnant eluate line feeding to the electrowinning cell.
- On the barren eluate line discharging from the strip solution tank.

Overall average field recovery of gold is estimated to be 88.4% based on column leach test results. Silver recovery was not estimated due to its low content in the feed material. Silver is not anticipated to interfere with gold loading kinetics on the activated carbon.

17.3.2 Crushing Plant

The crushing plant is comprised of a mineral sizer of 8.1 Mtpa to process softer oxide and transition material in the earlier years of the mine plan and will reduce the ROM material to a P_{80} of 40 - 50 mm. Feed to the mineral sizer will be provided via direct dumping from a haul truck or from a front-end loader dumping into a ROM bin. ROM material will be drawn at a controlled rate of 1,233 t/h via an apron feeder to feed the mineral sizer. Product from the mineral sizer will be transferred to an agglomeration drum via the agglomerator feed conveyor.

Prior to harder transition and fresh sulphide material being introduced, a two-stage crushing circuit capable of handling 4.05 Mtpa will be installed. As the tonnage of harder material increases more significantly in the mine plan, a second train of the 2-stage crushing circuit will be installed to handle up to 8.1 Mtpa total for both trains in the future. This 2-stage crushing circuit has been proposed to reduce the ROM material to a P_{80} of 19 mm. Feed to each train of the 2-stage crushing plant will be accomplished via direct dumping from a haul truck or from a front-end loader dumping into a ROM bin. ROM material will be drawn at a controlled rate of 616 t/h per train via a vibrating grizzly feeder to feed the primary jaw crusher. Fine ROM material will pass through the grizzly, bypassing the jaw crusher, to reduce the load and wear on the crusher. A mobile rock breaker will be used to break oversize rocks at the top of the ROM bin. Primary crusher product will be directed to the secondary crushing circuit via the secondary crushing circuit feed conveyor to the screen feed bins. Feeders beneath the feed bin will draw material to feed the secondary crushing screens. The screen oversize will be transferred on the secondary crushing feed conveyor to the secondary crushing feed bin and will be drawn by the feeders beneath to feed the secondary cone crushers. The screen undersize, which is the secondary crushing circuit product, will discharge onto the crushing plant product conveyor and will be directed to the agglomerator feed conveyor.

A weightometer will be placed underneath the agglomerator feed conveyor to record the tonnage being processed through the crushing plant. The tonnage measurement will also be used to control the rate at which quicklime and cement are added to this conveyor. Pebbled quicklime and cement will be added onto the agglomerator feed conveyor via a rotary valve suspended from a storage silo for pH control and for agglomeration to improve percolation in the leach pad.

17.3.3 Agglomeration and Stacking

Crushed material combined with quicklime and cement from the agglomerator feed conveyor will feed a rotating agglomeration drum. The discharge from the agglomeration drum will be transferred by a series of conveyor, tripper conveyor, and mobile grasshopper conveyors, and stacked onto the leach pad using a radial stacker. The number of grasshopper conveyors required will vary based on the distance from the crushing plant to the exact location of material being stacked.

17.3.4 Heap Leaching

The leach pad will be constructed based on a stacking plan designed by a heap leach pad consultant. Currently, the proposed maximum irrigation area will have a size of approximately 180,000 m^2.

Pregnant, barren and event / excess solution ponds will be constructed to accommodate process upsets, leach pad drain down, and storm events. The pregnant solution ponds will collect the gold-rich solution drained from the leach pad to pump to the CIC circuit. The barren solution pond will collect barren solution from the ADR plant and return it to the leach pad by pumping via a network of wobblers and drip emitters. The event / excess solution ponds will collect overflow solution from either of the pregnant or barren solution pond and will also be large enough to accommodate a 100-year 24-hour rain event.

Cyanide solution will be injected directly into the pump suction of barren solution line from the barren solution pond through a piping network consisting of wobblers and drip emitters. The cyanide-bearing solution will be applied onto the leach pad at a rate of 10 $L/m^2/hr$ during the 'transition' period and 7 $L/m^2/hr$ after the 'transition' period. Anti-scalant will also be added to network of piping to prevent scaling. Based on column leach test results, the majority of gold recovery occurs during the first 40 days of leaching, with a leach period of approximately 90 days to reach maximum gold recovery. Solution drained from each leach cell will be pumped to the ADR plant for gold recovery. Barren solution from the ADR plant will be recirculated and sprayed / drip onto the heap leach pad.

Gold recovery from heap leaching is predicted to be 88.4% on average for the soft oxide / transition material and 86.7% on average for the harder transition and sulphide material. This is based on column testwork gold extraction with lab to field discount factor applied and additionally subtracting gold losses related to carbon attrition.

17.3.5 Carbon Adsorption Circuit

The adsorption circuit will consist of a single train of 6 open, up flow carbon columns, each with an 18 tonnes carbon capacity and will operate as an expanded bed contactor.

Pregnant solution containing soluble gold will be pumped from the pregnant solution pond to the columns to remove gold via carbon adsorption. The adsorption circuit will be operated manually on a daily basis to allow counter-current contact with the carbon to achieve the targeted carbon loading. Solution will enter into the bottom of each column and exit from the top. The targeted carbon gold loading is estimated to be 1,091 g Au/t. Dart valves will be used to control flow to a column and to bypass the feed to the column if required. The first column will contain solution with the highest gold concentration and carbon with the highest gold loading. As the solution passes through the next 5 columns, the gold concentration will decrease, leaving the weakest gold-concentrated solution to be in contact with the freshest carbon (or most recently stripped carbon) in the last column. Solution exiting the last column will pass over a static, inclined carbon safety screen to provide a visual check on whether any carbon is escaping from the columns. The screen undersize will flow to the barren solution pond to be returned via pumping to the leach pad upon combining with cyanide solution and anti-scalant solution at the pump suction.

17.3.6 Acid Wash and Elution

The acid wash and elution columns will be sized for an 18 tonnes carbon capacity, and carbon will be stripped six days per week. The loaded carbon will be transferred to the column for acid washing with a 3% w/v hydrochloric acid solution. The carbon will be soaked for 30 minutes and rinsed for two hours with four bed volumes (BV) of acid solution to remove scale and other inorganic contaminants tin preparation for the elution step. The spent acid solution will be drained to a sump in the elution area and will be first neutralized with sodium hydroxide before being recycled to the barren solution tank. The acid-washed carbon will be transferred to the elution column for the elution step.

The elution cycle will be controlled by a programmable logic controller. The cycle time for the pressure Zadra elution step will be approximately 10 hours. Gold on the carbon will be eluted with 2 BV of solution containing 0.2% w/v cyanide and 1% w/v caustic at a pressure of 400 kPa and a temperature of 140°C. This solution will be circulated through the solution heater, recovery heat exchanger, elution column and an electrowinning cell until the gold content is depleted in the strip solution exiting the elution column indicating that the stripping of the carbon is complete.

17.3.7 Gold Room

Gold will be recovered from the pregnant eluate by electrowinning onto stainless-steel wool mesh cathodes. Typical time for electrowinning is 10 hours and this process will be completed using three cells. The electroplated gold sludge will be removed from the electrowinning cell cathodes by washing with high-pressure water. The resulting slurry will be filtered with the filter cake solids then dried in an oven before being mixed with fluxes and smelted in a furnace to produce gold doré bars. Fume extraction equipment will be provided to remove gases from electrowinning cell, oven, and smelting furnace.

17.3.8 Carbon Regeneration

After completion of the elution process, barren carbon will be transferred from the elution column to the carbon dewatering screen which will dewater the carbon prior to entering the feed hopper of the horizontal carbon regeneration kiln. Residual water in the hopper will be drained from the carbon prior to it entering the kiln. The kiln operates at 900 kg/hr capacity. The off-gases from the kiln will also be used to dry the carbon prior to entering the kiln. The carbon will be heated to over 750°C and held at this temperature for at least 20 minutes to allow regeneration to occur. Regenerated carbon from the kiln will be quenched in the carbon quench tank and pumped to the carbon sizing screen with the screen oversize returning to the carbon adsorption circuit. The screen undersize will be collected in the fine carbon tank and periodically pumped to the fine carbon filter and collected in a bag.

17.3.9 Reagents

The operations will require a reagent inventory of sodium cyanide, lime, cement, activated carbon, sodium hydroxide (caustic), hydrochloric acid, anti-scalant and flux.

Lime

Pebbled quicklime will be delivered in bulk truckload quantity of 40 tonnes each and will be stored in a lime silo with a 150 tonnes capacity to provide approximately 2.5 days of inventory. The lime will be unloaded from the silo via a rotary feeder on to the agglomeration drum feed product conveyor for leaching pH control.

Cement

Cement will be delivered in bulk truckload quantity of 40 tonnes each and will be stored in a cement silo with a 500 tonnes capacity to provide approximately 2 days of inventory. The lime will be unloaded from the silo via a rotary feeder on to the agglomeration drum feed product conveyor for leaching pH control.

Caustic Soda

Caustic soda will also be used to increase the pH during cyanide addition and to improve electrowinning efficiency during the elution step. Sodium hydroxide pearls or beads will be delivered in one tonne bulk bags to site. Water will be used to fill the mixing and storage tank to a predetermined level before adding the pearls through a bag breaker. A single bag will be added while continuously stirring the caustic solution to ensure complete dissolution of all pearls to achieve a 20% w/v concentration.

Cyanide

Sodium cyanide will be delivered as briquettes in double skinned bulk bags or contained in boxes to site. Bags will be lifted into the cyanide bag breaker, located on top of a mixing tank, using the reagents hoist. The solid reagents will fall into the tank and be dissolved in water to achieve 20% w/v concentration. After mixing for a pre-set time, cyanide solution will be transferred to the cyanide storage tank and will be pumped to the suction side of the barren solution pump to maintain the cyanide concentration in the irrigation solution to the leach pad.

Activated Carbon

Approximately 108 tonnes of carbon will be required initially to fill up the six carbon adsorption columns. New carbon will be delivered in 500 kg bags and will be added to the carbon conditioning tank and transferred to the last carbon adsorption column as required to replace carbon losses due to attrition.

Hydrochloric Acid

Hydrochloric acid solution, at 32% w/v, will be delivered in 1,000 L IBC containers. Acid will be pumped directly from the vessel by a hose pump to the diluted acid tank to be mixed with softened water prior to pumping to the acid wash column during the acid washing step.

Anti-scalant

To avoid any problems with scaling during operation, anti-scalant reagent will be regularly dosed into the barren solution pump suction lines and to the elution plant. Liquid anti-scalant will be delivered in a one tonne IBC containers and distributed by a hose pump.

Annual Consumption

A summary of the annual reagents consumption is shown in Table 17.3.1.

Table 17.3.1 Annual Reagents Consumption

Regents	Annual Consumption (t/y)
Sodium Cyanide	2,997
Quicklime	15,390
Cement	64,800
Carbon	162
Sodium Hydroxide	239
Hydrochloric Acid	780
Anti-scalant	136

17.3.10 Plant Services

Air

Plant and instrument air will be supplied from air compressors. The air will be dried before distribution to the various air receivers and users.

Water

Three types of water will be used in the plant – filtered water, potable water, and raw water. A water treatment plant will be installed to generate potable water to supply to safety showers and for site ablutions. Raw water will be required to supply to both the filtered water system and potable water treatment plant.

Raw water will also be used for dust suppression in the crushing plant area and for make-up water in the heap leach area due to evaporation. A portion of the raw water will be reserved in the raw water tank as fire water to be distributed by the fire water main to the site fire hoses.

17.3.11 Energy Requirements

The estimated annual power consumption is summarized in Table 17.3.1.

Table 17.3.2 Annual Power Usage

Area	Annual Power Consumption (MWh)
Feed Preparation	1,387
Primary Crushing	3,650
Primary Crushing (Future Line A and B)	7,917
Secondary Crushing (Future Line A and B)	26,824
Material Stacking	6,783
Primary Heap Leach Facility	5,078
Process Ponds	5
Carbon Adsorption	1,899
Acid Wash and Elution	285
Carbon Regeneration	67
Electrowinning and Refining	753
Reagents System	160
ADR Utilities	1,341
Administration Offices	260
Fresh-Potable Water Supply, Storage & Distribution	170
Fuel Storage and Distribution	28
Electrical Distribution - Lighting & Small Power	1,472
Total	**58,079**

18.0 PROJECT INFRASTRUCTURE

18.1 Overall Site

The overall site plan is shown in Figure 18.1.1 and includes major facilities of the Project including open pit mines over the deposits of Boin, Sewum, Kwakyekrom, Nyam, and Tokosea crushing and feed preparation facilities, heap leach facility (HLF), process plant, process ponds and security building.

The project site is located 10 kilometres (km) east of Enchi between the villages of Sewum and Alatakrom. The nearby villages are connected by basic sand / gravel / earth roads and are powered by a low-capacity electrical overhead line. Most of the required infrastructure for the project will be developed.

The nearby town of Enchi has a fixed telephone line and mobile phone service tower. Mobile cell service exists over much of the Project area.

18.2 Roads

18.2.1 Access to Site

Access to the project site is by an existing gravel road that connects the village of Sewum and Alatakrom. The national highway N-12 passes through the village of Alatkrom which is located north-east of the project site. The nearest seaport, Takoradi, is 205 km southeast of the Property by way of the N1 and N12 paved highways. Accra, the capital of Ghana and the main point of entry by sea or air, is 427 km east of the Project by road.

18.2.2 Project Site Roads

Internal roads will provide light vehicle access between crushing, HLF, process plant and mine services areas including the mine pits, mine dry complex, explosives magazine and fuel and lubricant storage areas. These roads will be 6 metres wide and constructed flush with bulk earthworks pads to facilitate stormwater management.

18.3 Project Infrastructure

The infrastructure will support mining, processing, and construction activities. Located centrally between Sewum and Boin Mines, the main site will host crushing and feed preparation facilities, HLF, processing plant operations, and a security and site office building. Note that primary and secondary crushing lines one and two are future installations and will be built in year 3 and 5 respectively as shown in Figure 18.3.1 HLF and Process Plant Layout. Open pit mines will operate independently but connect to the central site via haul roads and mine access roads.

Figure 18.1.1 Overall Site Plan

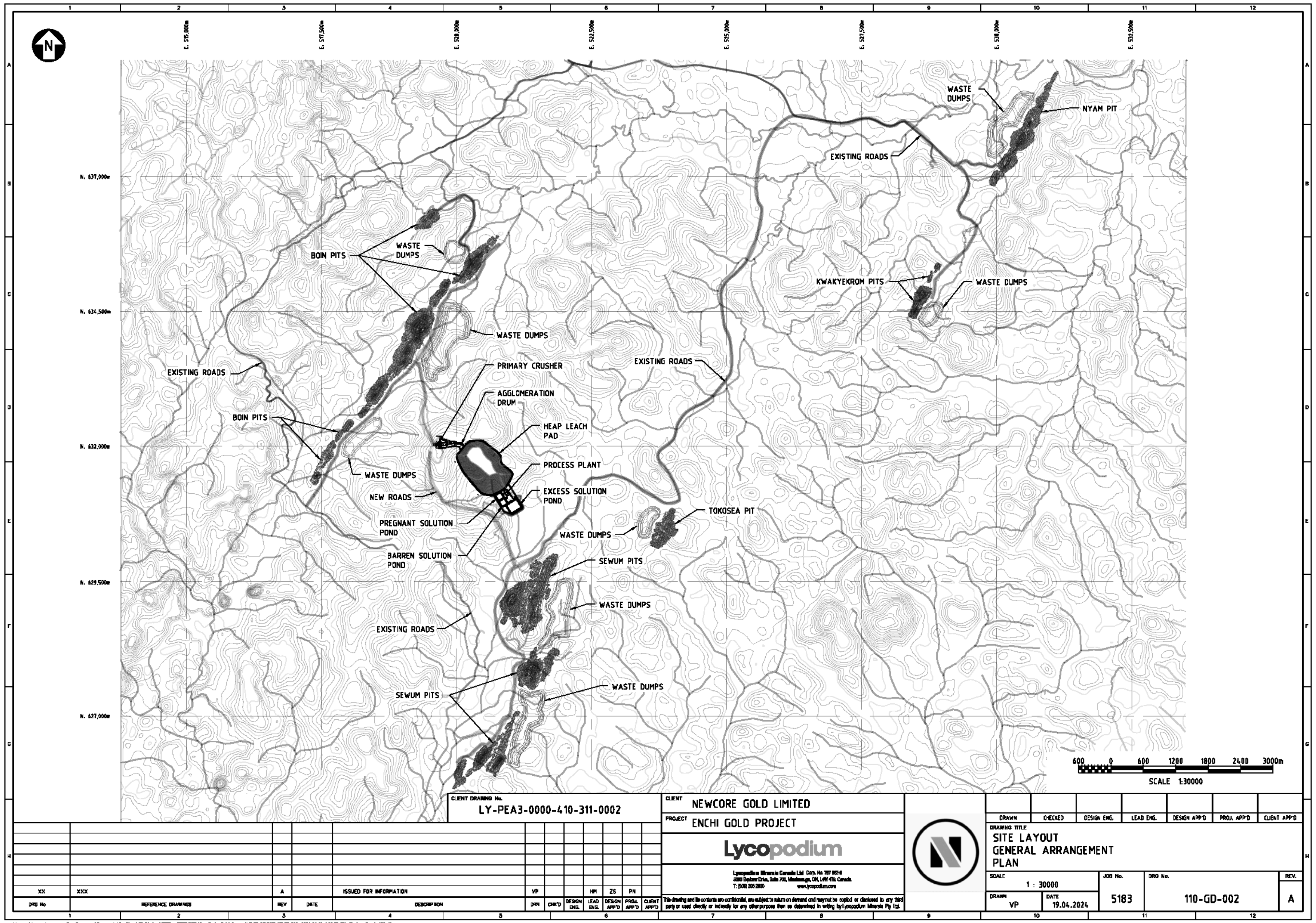
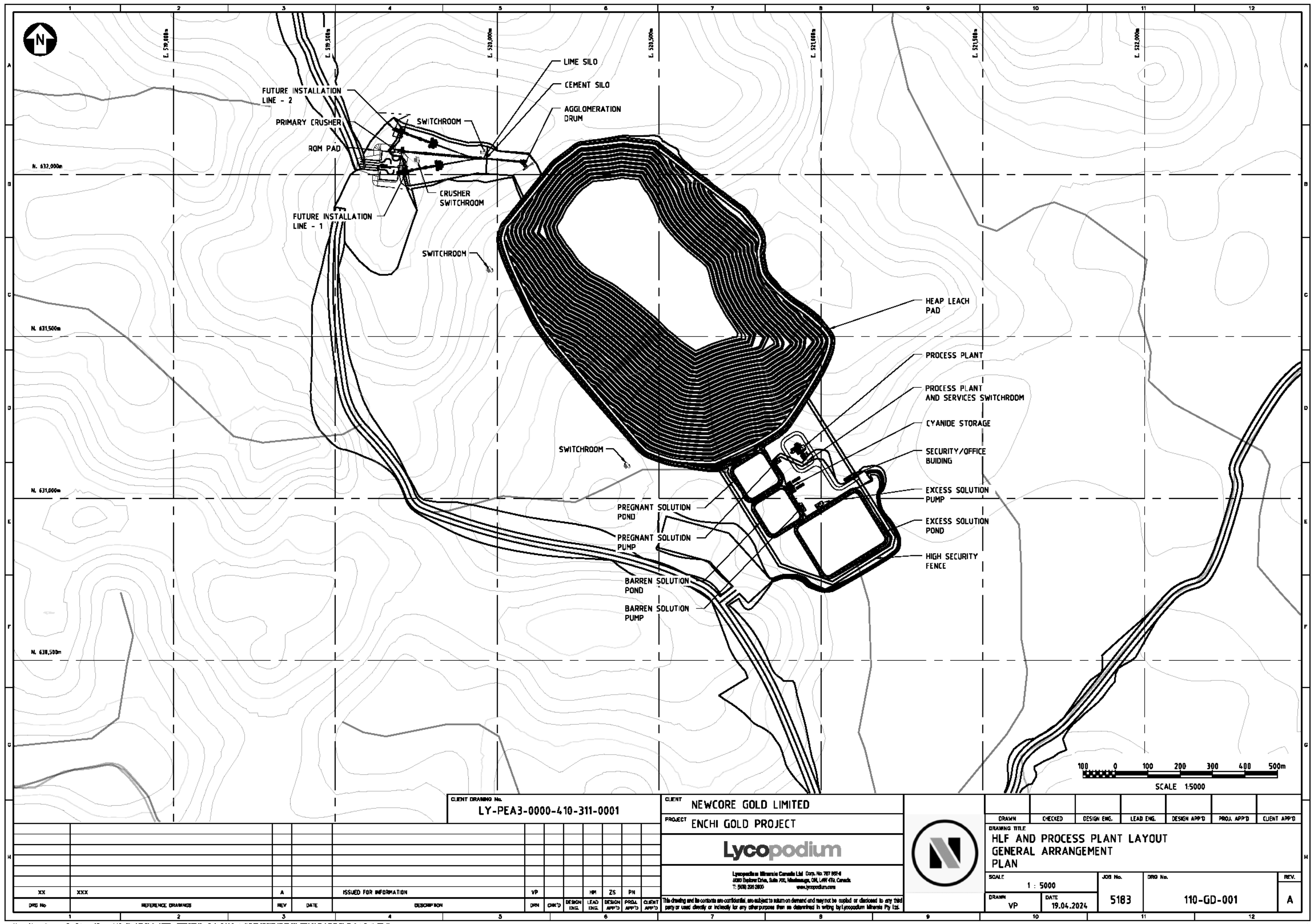


Figure 18.3.1 HLF and Process Plant Layout



Key infrastructure includes:

- Crushing, feed preparation and agglomeration facilities.
- Heap Leach Facility.
- Processing / Extraction plant.
- Reagents Storage.
- Plant security and site office building.
- Mine dry complex.
- Wasterock facility.
- Assay lab.
- Explosive magazine.
- Fuel and lubricant storage.
- Maintenance workshops (mechanical and electrical).
- ROM stockpiling area.
- Electrical Switchrooms.

Services provided cover power generation and distribution, water supply and distribution, surface water management, sewage and waste management, mine pit access, and haul roads. Portable / prefabricated structures will house security office and assay lab, while maintenance shops and warehousing will be steel buildings on concrete slabs.

Electrical Switchrooms will be located near areas of use.

Water sources are abundant, supplemented by on-site surface water management. A site water balance assessment will determine storage needs. A containerized water treatment system will ensure potable water availability for safety showers and personnel consumption.

Wastewater storage and treatment facilities will be established on-site. Solid waste, excluding domestic waste, will be managed off-site by licenced contractors, with on-site incineration for domestic waste. Dedicated areas for waste collection and sorting will facilitate disposal off-site, with no on-site long-term storage planned.

18.4 Power Supply and Distribution

The Plant is estimated to have a connected load of approximately 12MW with a Maximum Demand (running) of an estimated 8MW.

Power to mining operations will be generated onsite without utilizing the grid (island mode).

Compressed Onsite power generation will be based on Compressed Natural Gas (CNG) generators.

CNG will be transported by trucks from nearby gas supply off-take to the onsite gas power station. CNG storage tanks will provide fuel storage backup to ensure power supply reliability.

Onsite power generation will be based on Independent Power Producers (IPPs) model, where the IPP is responsible for the design, construction, financing, ownership, and operation of the asset under a power purchase agreement for a fixed term. At the conclusion of the contract period, Newcore will have the option of extending the contract or the option to purchase the asset(s) at a pre-agreed amount.

18.5 Heap Leach Facility

18.5.1 Design Requirements and Concept

The heap leach facility (HLF) accommodates approximately 82 Mt of material and is located approximately 1.5 km north of the Sewum pits and 1.8 km south of the Boin pits. The HLF is located in an isolated catchment valley. The base of the HLF consists of a confining embankment located at an elevation of 130 masl, and at full height in Phase 3 of the HLF, the heap will extend up to an elevation of approximately 260 masl at the top of the planned stack.

The HLF comprises a number of elements:

- An earthen embankment, to provide stability to the base of the HLF.
- A lined storage area for the material to be leached.
- A lined barren solution storage pond to store and prepare leach solution.
- A leach solution distribution system to transport and distribute leach solution to the heap surface.
- A pregnant leach solution (PLS) collection system.
- An embankment collection ditch for accumulation of PLS.

- A lined PLS storage pond to contain produced solution.
- An event pond to contain excess solution in extreme weather events; and
- Leak detection recovery and monitoring systems to ensure the containment of leach solution.

The HLF will be constructed in phases. Phase 1 will accommodate approximately 23.0 Mt of material and will be built as part of mine construction; Phase 2 will accommodate 29.0 Mt and will be built in year 3; and Phase 3 will accommodate the remainder of the tonnage for a total of 82 Mt and will be built in year 6.

The heap leach pad will be stacked in 5.0 m high lifts by an on-pad stacking conveyor system. Material will be stacked at its natural angle of repose (approximately 1.5H:1V) with 4.5 m width benches every lift resulting in an overall heap slope of 2.5H:1V. Equipment on the heap pad will be limited to reduce surface compaction. Heap material will be stacked at a minimum 10.0 m offset from containment berms.

The liner for the HLF and ponds consists of a composite geomembrane and underlying geosynthetic clay liner (GCL) which was used in lieu of a 300 mm thick layer of compacted low-permeability material. The GCL soil liner provides an equivalent secondary containment to that of a 300 mm minimum thick low permeability soil layer, offering a hydraulic conductivity of 1x10-6 cm/sec or lower. Future analysis of existing onsite soils may allow for replacement of the GCL with native material.

Free-draining granular material will be placed on top of the HLF liner together with a network of collection pipes to collect and drain process solutions and storm infiltration, and to minimize hydraulic heads on the liner, thereby reducing the risk of leakage. Piezometers will be installed within the liner cover fill at strategic locations to monitor the hydraulic head on the liner system.

The HLF collection pipes will feed the PLS collection ditch located within the southern embankment. The PLS collection ditch feeds solution to the PLS storage pond. The PLS collection ditch, PLS storage pond, barren solution storage pond, and event pond will have a double-geomembrane liner installed over a GCL liner together with a leak detection and recovery system (LDRS). The LDRS will be installed between the 2 geomembranes to monitor and contain any leaks through the top geomembrane.

Temporary runoff ditches or berms will be constructed for each phase of the HLF in order to prevent storm water runoff from entering the heap. The ditches will be constructed and in operation before construction of each HLF phase. The temporary ditches will be constructed at the up-gradient limit of each phase of the HLF as the liner will tie into the access road adjacent to the ditches. Once the HLF is ready for the next phase, the temporary ditch will be filled and regraded for placement of the liner for the next phase. The ditches are backfilled or removed at the end of each phase in order to tie in the HLF liner system and pipework.

In the event of an emergency or other unforeseen circumstance in which pumping of solution ceases, or in the event of excessive surface runoff from the HLF, discharge of excess water or solution is directed in a controlled manner through lined spillways to the event pond. Solution levels within the PLS storage and barren solution storage ponds are kept low during normal operations.

The process ponds are sized to provide containment storage for a 1 in 100 year, 24-hour storm event plus 72 hours of drain down from the heap. The PLS storage and barren storage ponds both have a combined operational storage capacity of approximately 107,000 m^3 with 1 m of freeboard. The event pond has a storage capacity of approximately 203,000 m^3 with 1 m of freeboard.

18.5.2 Storage Ponds

Lined ponds will be constructed to store process solution used in operation of the HLF, or that may occur during upset conditions and excess precipitation events. The solution contained in these ponds will be recycled back into the heap leach circuit during normal operation. The ponds are sized to contain peak intensity storm events as well as repetitive wet years and/or periods. The pond designs include a leak detection and recovery system underneath the main liner system.

18.5.3 Collection and Containment Design

The HLF consists of an engineered liner system with the lower section of the HLF containing a solution collection ditch for accumulation of PLS and direction of the PLS to pond storage. Located above this liner system is a 1.0 m layer of drainage rock which is designed to transmit the PLS to the collection system. This drainage rock serves to efficiently transmit the PLS and protect the primary liner from damage by rocks and/or equipment which might otherwise contact the liner. The leachate collection piping system consists of a piping network embedded within the drain rock. The collection pipe network consists of a series of corrugated drainpipes, spaced, and arranged in a 'herringbone' pattern around the larger pipes that conveys the collected fluid (i.e., PLS and storm water flows).

18.5.4 Underdrain and Containment Berm

There are 2 proposed safety systems designed to detect, contain and pump back any leakage resulting from a possible liner failure before any contamination can reach groundwater. A leak detection and recovery system (LDRS) will be installed between the upper and lower geomembrane liners, within the heap embankment, where the hydrostatic head is greatest. If a leak were to occur, the drain system would collect the PLS via drainpipes, connected to a collection monitoring sump, located in the HLF. The sump will be installed with monitoring instruments to provide early alerts to the presence of flow. Collected solution would be pumped back to the heap leach pad or process ponds. There is a secondary drainage system below the liner system throughout the entire HLF area. A leak would trigger an early alert via monitoring instruments. The drain system would collect the PLS, direct it to an external collection monitoring sump located downstream of the HLF, and then pump it back to the heap leach pad or process ponds.

18.6 Waste Rock Facilities

Waste rock will be hauled to one of eight waste rock facilities (WRF) immediately adjacent to the open pits. WRF development has been sequenced to maximize short haul distances for varying stages of the project's mine life. Total waste material removed from the pits to end of LOM totals 186.1 Mt. The current designed capacities of the respective WRF are outlined in Table 18.6.1. These provide more capacity than is required for the LOM. Additionally, all the WRF's can be expanded significantly to accommodate more waste if required.

Table 18.6.1 Waste Rock Facility Available Capacity

WRF Name	Unit	Total
Boin Total	Mt	81.8
Boin 1	*Mt*	*62.1*
Boin 2	*Mt*	*12.6*
Boin 3	*Mt*	*7.1*
Sewum Total	Mt	68.3
Sewum 1	*Mt*	*32.8*
Sewum 2	*Mt*	*35.5*
Nyam	Mt	28.0
Kwakyekrom	Mt	8.7
Tokosea	Mt	9.3
Total	**Mt**	**196.1**

Each WRF is planned to be constructed in a bottom-up approach by placing material at its natural angle of repose (approximately 1.5H:1V) with 15.0 m width catch benches spaced every 20.0 m in elevation gain resulting in final slopes of 2:1.

Geotechnical conditions have not yet been investigated for this study.

Geochemical characterization for waste material has not yet been investigated for this study.

18.7 Water Systems

18.7.1 Raw Water Supply System

It is assumed that raw water will be obtained from nearby boreholes and non-contact surface run-off water. Fresh water will be supplied by the bore hole pumps to an open top raw water tank. Raw water will be provided from the raw water tank for use as fire water, feed to the potable water treatment plant and other users at the process plant.

18.7.2 Fire Water Supply System

Fire water will be piped to all main facilities via buried underground fire water ring mains around each of the facilities. The raw water tank live volume will hold a four-hour reserve of fire water equalling 288 m^3. In addition, all buildings will be equipped with hose cabinets and supplemented with handheld fire extinguishers of 2 types—general purpose extinguishers for inside plant areas, and dry type extinguishers for inside electrical and control rooms.

18.7.3 Potable Water Supply

The potable water treatment plant will be designed to local drinking water guidelines. The water treatment plant is expected to include multimedia filtration for reduction of turbidity, followed by ultraviolet disinfection for primary disinfection, and the addition of sodium hypochlorite for secondary disinfection. Treated potable water from the potable water treatment plant will be stored in the plant potable water tank and distributed via the plant potable water pump in a piping ring main to serve all potable water users in the process plant, heap leach, feed preparation and crushing facilities.

18.8 Sewage Treatment

Sanitary sewage will be collected via underground networks and collected in a holding tank. Sludge disposal will be managed by licensed contractors.

18.9 Accommodation Camp

No on-site accommodations have been accounted for in this study given the proximity of the Project to the town of Enchi. Senior staff and expatriate employees will be accommodated in rental units in the town of Enchi.

19.0 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

Markets for doré are readily available and the doré bars produced from the Project could be sold on the spot market. Gold markets are considered mature.

The gold price used in this study is similar to other technical studies recently published in 2023 and 2024 and is below the 3-year trailing average of approximately $1,884/oz. As of 25 April 2024, the date the PEA was announced by Newcore, the spot price for gold was $2,319/oz (www.gold.org).

19.2 Contracts

There are no sales contracts on the Project.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

This section of the report summarizes the status of permitting and environmental studies. It provides an overview of the environmental and social context, and identifies preliminary risks and impacts, together with proposed strategies for management and closure planning. Information is based on secondary data, including studies undertaken to date, and photographs from a site visit conducted by Micon staff in January 2024.

20.1 Regulatory Framework and Project Permitting

20.1.1 Summary of Ghanaian Environmental Legislation for Mining

Exploration and mining activity in Ghana is governed by the Ministry of Lands and Natural Resources (MLNR) and administered by the Minerals Commission (MINCOM). Key legislation comprises the Minerals and Mining Act of 2006 (Act 703) amended in 2015 (Act 900), and the Minerals and Mining (General) Regulations of 2012 (LI 2173).

Additional supporting legislation for environmental protection includes the following:

- Environmental Protection Agency Act, 1994 (Act 490).
- Environmental Assessment Regulations, 1999 (LI 162).
- Water Resources Commission Act, 1996 (Act 522).
- Forestry Commission Act, 1999 (Act 571).
- Hazardous and Electronic Waste Control and Management Act, 2016 (Act 917).

A more detailed analysis of all relevant mining and environmental legislation will be undertaken and periodically reviewed as the Project advances.

The Minerals and Mining Act makes provision for 3 types of mineral licences (‘mineral operations’) summarized as follows:

- **Reconnaissance Licence** – initially granted for 1 year, this allows preliminary survey work and incidental activity in support of exploration activities, but drilling and excavation work is specifically excluded.

- **Prospecting Licence** – initially granted for 3 years, this allows drilling and excavation work, as well as temporary supporting facilities including camps.
- **Mining Lease** – initially granted for 30 years and subject to a detailed environmental impact assessment; allows commercial mining and processing operations, with necessary supporting infrastructure and storage of mineral waste.

Prospecting (Exploration) Licences, as relevant to the current stage of the Project, are initially granted for a period of 3 years and may be renewed provided the renewal application is made at least 3 months prior to the licence expiry date and subject to the size of the exploration area being reduced. A successful renewal is valid for a further 3 years. The legislation includes language that after this maximum 6 year period (and before it expires), an application must be made to convert the prospecting licence area into a Mineral Lease. In practice, the Prospecting Licences can be extended multiple times, and this is the case for the licences which comprise the Project.

Prospecting licence applications are subject to review of the proposed work programme by the Institutional Technical Committee (ITC), which includes representatives from the Environmental Protection Agency (EPA), Ghana Geological Survey Authority, Lands Commission, Water Resources Commission, and Forestry Commission. Following this review, a technical recommendation is made to the Minerals Commission (MINCOM) and after a further period of review, the Minister for Lands and Natural Resources will decide whether to approve or reject the licence application.

Once a Prospecting Licence has been issued, prior to commencing exploration activity the licence holder must obtain an environmental permit, known as an **EPA permit**, valid for 2 years, and subsequently a **Prospecting Operating Permit**, valid for 1 year. Applications to renew these 2 supporting permits must be made for the duration of the Prospecting Licence and any subsequent extension.

Mining Lease applications require a full environmental and social impact assessment (ESIA) to be undertaken.

20.1.2 Project Permitting Status

The Enchi Project currently comprises nine Prospecting Licences (PL), details of which are summarized in Table 20.1.1.

Sewum, Enkye, Nyamebekyere and Yehikwawkrom

Four of the Prospecting Licences (Sewum, Enkye, Nyamebekyere and Yehikwawkrom) expired in 2023, and their extension is pending. Applications for extension were submitted to MINCOM within the required timeframe and the appropriate application fees were paid. Micon understands that MINCOM has formally recommended extension of each of these four licences to MLNR and that the official confirmation of licence extensions will be forthcoming. The corresponding EPA permits were issued for each of the 4 licences in February 2024 and are valid for 2 years. Operating permits for each of these licence areas have expired and will be renewed once the Prospecting Licence extensions are confirmed. Section 35 (4) of the Minerals and Mining Act makes provision for continuation of exploration activity in the event that a decision by MINCOM is delayed:

"Where a holder of a prospecting licence has made an application for an extension of the term of the licence and the term of the prospecting licence would, but for this subsection expire, the prospecting licence shall continue in force in respect of the land the subject of the application until the application is determined."

The legislation makes provision for a single three-year extension of Prospecting Licences, however Micon understands that in practice additional renewals are normally granted and have occurred in the past for licences associated with the Project.

Abotia and Omanpe

Two of the Prospecting Licences (Abotia and Omanpe) are valid until April 2026, following confirmation of their renewal in 2023. The corresponding EPA permits for both licences are in good standing, and the latest operating permits were issued in February 2024.

Nyame Esa, Nkwanta and Anguzu

Three of the Prospecting Licences (Nyame Esa, Nkwanta and Anguzu) are pending initial confirmation, following their applications by Boin Resources Limited (Newcore subsidiary). These applications, under a different entity, cover previously 'lost' portions of other Prospecting Licences due to the reduction in spatial area linked to licence extensions. Applications have been made and publicly declared by MINCOM in the Mineral Rights Application Bulletin. No exploration activity is being undertaken in these areas, pending MINCOM's decision.

20.1.3 Good International Industry Practice

In addition to compliance with all applicable Ghanaian legal requirements, Newcore intends to develop the Project in general alignment with good international industry practice (GIIP). Such an approach will demonstrate Newcore's responsible business ethics and commitment to environment, social and governance (ESG) principles, and may also help facilitate any potential financial lender requirements in the future. Newcore will refine its approach to GIIP and continue to build on its current ESG commitments as the Project advances.

Examples of relevant and widely accepted international guidelines, which represent GIIP, are as follows:

- **International Finance Corporation Environmental and Social Performance Standards (IFC PS)** – these are part of the IFC's Sustainability Framework. The IFC PS provide a baseline of environmental and social good practice and form an important assessment reference.

- **Equator Principles (EP)** – these form a risk management framework, adopted by international financial institutions for determining, assessing, and managing environmental and social risk in projects. The EP framework is based on the IFC PS and on the World Bank Group (WBG) Environmental, Health and Safety (EHS) Guidelines on environmental and social sustainability.

- **World Bank Environmental, Health and Safety Guidelines (WB EHS)** – these provide a source of technical information during project appraisal. They are widely accepted as technical reference documents presenting general and industry specific examples of GIIP. For the mining industry, sector specific guidelines for open-pit mining are also relevant.

- **International Council on Mining and Metals (ICMM) Mining Principles** – these have been developed in response to evolving societal expectations of the mining industry, and include a comprehensive set of Performance Expectations, Position Statements, and Good Practice Guides, including widely recognised guidelines for integrated mine closure.

- **Global Industry Standard for Tailings Management (GISTM)** - the Standard was developed by an independent review process in response to a number of tailings dam failures. It was initiated by the International Council on Mining and Metals (ICMM), United Nations Environment Programme (UNEP) and Principles for Responsible Investment (PRI) and provides a global benchmark to achieve strong social, environmental, and technical outcomes in tailings management.

- **The International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold (Cyanide Code, ICMC)** – the Cyanide Code is a voluntary, performance driven, certification program of best practices for gold and silver mining companies, and the companies producing and transporting cyanide used in gold and silver mining.

Table 20.1.1 Summary of Enchi Project Licences and Permits

Deposit Name	Prospecting Licence (PL) Number	PL Area	Holding Company	PL Expiry Date	Environmental (EPA) Permit Number	EPA Permit Expiry	Operating Permit Number	Operating Permit Expiry	Notes
Sewum	PL2/424	32.55 km^2	Cape Coast Resources Ltd	31 May 2023 (Extension in progress)	EPA/HQ/MEI/ 0029290/24/SE	16 Jan 2026	Renewal Pending	Pending	PL Extension application in progress and approval expected. Letter from Mincom to Minister recommending extension to 2026 received. Operating permit contingent on extension of Prospecting Licence. Ghanaian law allows prospecting activity to continue in the meantime.
Enkye	PL2/404	34.65 km^2	Cape Coast Resources Ltd	31 May 2023 (Extension in progress)	EPA/HQ/MEI/ 0029288/24/SE	16 Jan 2026	Renewal Pending	Pending	PL Extension application in progress and approval expected. Letter from Mincom to Minister recommending extension to 2026 received. Confirmation letter from Minister approving extension received. Operating permit contingent on extension of Prospecting Licence. Ghanaian law allows prospecting activity to continue in the meantime.

Deposit Name	Prospecting Licence (PL) Number	PL Area	Holding Company	PL Expiry Date	Environmental (EPA) Permit Number	EPA Permit Expiry	Operating Permit Number	Operating Permit Expiry	Notes
Nyamebekyere	PL2/406	35.91 km^2	Cape Coast Resources Ltd	31 May 2023 (Extension in progress)	EPA/HQ/MEI/ 0029289/24/SE	16 Jan 2026	Renewal Pending	Pending	PL Extension application in progress and approval expected. Letter from Mincom to Minister recommending extension to 2026 received. Operating permit contingent on extension of Prospecting Licence. Ghanaian law allows prospecting activity to continue in the meantime.
Yehikwawkrom	PL2/405	29.82 km^2	Cape Coast Resources Ltd	31 May 2023 (Extension in progress)	EPA/HQ/MEI/ 0029287/24/SE	16 Jan 2026	Renewal Pending	Pending	PL Extension application in progress and approval expected. Letter from Mincom to Minister recommending extension to 2026 received. Confirmation letter from Minister approving extension received. Operating permit contingent on extension of Prospecting Licence. Ghanaian law allows prospecting activity to continue in the meantime.

Deposit Name	Prospecting Licence (PL) Number	PL Area	Holding Company	PL Expiry Date	Environmental (EPA) Permit Number	EPA Permit Expiry	Operating Permit Number	Operating Permit Expiry	Notes
Abotia	PL2/119	25.83 km^2	Cape Coast Resources Ltd	10 April 2026	EPA/HQ/ME1/0 009266/23/SE	19 November 2025	0010582/24	31 December 2024	All permits valid
Omanpe	PL2/436	32.13 km^2	Cape Coast Resources Ltd	10 April 2026	EPA/HQ/ME1/0 009274/23/SE	19 November 2025	0010581/24	31 December 2024	All permits valid
Nyame Esa	Pending	24.36 km^2	Boin Resources Ltd	Pending	Pending	Pending	Pending	Pending	PL application in progress (former portion of Nyamebekyere PL) EPA and operating permits contingent on granting of Prospecting Licence
Nkwanta	Pending	30.87 km^2	Boin Resources Ltd	Pending	Pending	Pending	Pending	Pending	PL application in progress (former portion of Sewum PL) EPA and operating permits contingent on granting of Prospecting Licence
Anguzu	Pending	1.89 km^2	Boin Resources Ltd	Pending	Pending	Pending	Pending	Pending	PL application in progress (former portion of Sewum PL) EPA and operating permits contingent on granting of Prospecting Licence

20.2 Status of Environmental and Social Studies

A detailed environmental and social impact assessment (ESIA) has not yet been undertaken for the Project and is not yet required. A completed ESIA report (Environmental Impact Statement) will be necessary in the future as the project advances.

Preliminary baseline environmental and social studies were undertaken for the Project in 2015 by Ghanaian consultants Kings Environmental Resource Management Consultancy (KERMC) and, in 2023, by Abbakus Geosocial Consult (AGC) Ltd. Site visits undertaken as part of those studies were used to gain a general understanding of field conditions, identify the Project area of influence, and establish the physical, biological, socio-economic and cultural setting. Content from both baseline study reports have been incorporated into Section 20.3 in this report.

The most recent baseline studies include field-based data collection in September-November 2022 for:

- **Background air quality and noise levels** - Air quality and noise levels were measured in 4 locations in October 2022: Kangaboi Basic School, Sewum Hospital, Kwakyekrom and the Newcore Residence at Enchi.

- **Soil characteristics** – Soil sampling was undertaken in 4 locations in October 2022: Boin, Kwakyekrom, Nyam and Sewum. In each location, 6 samples were taken (split between topsoil and subsoil), resulting in a total of 24 samples which were sent for laboratory analysis.

- **Water features and water quality** – Basic surveys were undertaken to confirm and delineate the different catchment characteristics. Surface water samples were collected from rivers and streams in 8 locations in October 2022 and samples were sent for laboratory analysis. A sediment sample was also taken at 1 of these locations (Kangaboi Stream). A single groundwater sample was taken from a borehole at Kwakyekrom.

- **Terrestrial flora and fauna** – A basic reconnaissance survey was undertaken in September 2022 to gain a general overview of the flora, after which 13 vegetation sampling plots were selected from a mix of vegetation types. Fauna observations were opportunistic and based on general walks around the Project site and when driving between other survey locations. The aquatic ecology study was carried out at the water quality sampling sites and included experimental (test) fishing and informal interviews with local fishermen.

- **Socio-economics and Cultural Heritage** - Consultations and discussions were held with relevant government institutions and some community members to confirm information obtained from the desk study or observations made during field inspections and the previous studies.

The preliminary baseline studies did not identify any significant barriers to Project development, although a number of recommendations for additional work have been made. The studies noted some species of conservation importance as existing within the wider Project area.

It is important to note that both sets of baseline studies were preliminary. Whilst these studies provide a good overview of environmental and social conditions, they were constrained by limited fieldwork and should not be the only data relied on to determine seasonal differences or longer-term trends. Furthermore, additional baseline work is recommended if a portion of the expanded Project area is included in the Mining Lease application.

20.3 Environmental and Social Context

The Enchi Gold Project (the Project) currently comprises nine Prospecting (Exploration) Licences which cover a total geographical area of 248 km^2 along a 40km strike length. The Project is located in southwestern Ghana, specifically the Aowin Municipality within the Western North Region (Figure 20.3.1).

The Project landscape is characterized by undulating topography with an average elevation of around 300 masl. The drier upper and middle slopes are mostly cultivated and there is an extensive drainage network. Secondary forests or thickets intersperse the landscape, giving it a mosaic / fragmented appearance. The existing vegetation of the Project area is a mixture of farmlands, farm re-growths / secondary thickets, secondary forest with broken canopy, and freshwater swamp / wetland (AGC, 2023 and Figure 20.3.2).

Figure 20.3.1 Environmental and Social Context of the Enchi Project

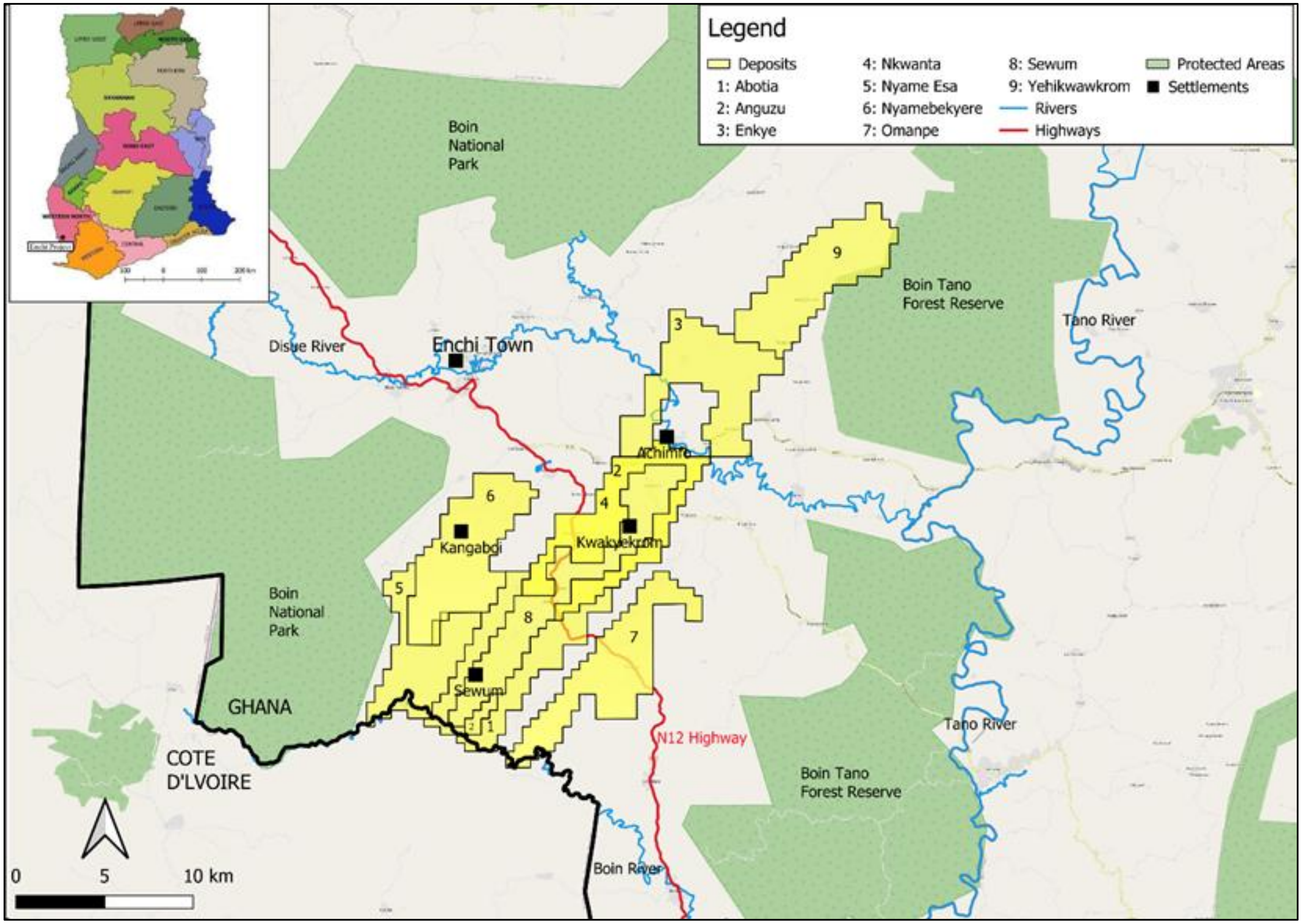


Figure 20.3.2. Example of Landscape Surrounding the Project Area

Land use in the Project area is predominantly small-scale farming and artisanal mining, with commercial timber production in the wider region and limited hunting practiced in the more isolated portions of the district and not in close proximity to the areas containing the proposed infrastructure.

20.3.1 Climate

The Project area has a wet semi-equatorial (tropical savannah) climate, with high rainfall, high humidity, and medium temperature. There are 2 rainy seasons, with the main season in March to July and a minor season from September to November. Rainfall events are often intense, torrential, and stormy, with significant runoff and associated erosion. Strong harmattan winds affect the project area during November to March (AGC, 2023) but winds are otherwise generally light (KERMC, 2015).

Average annual rainfall for the Project area is 1,500 to 1,800 mm, and the average monthly temperature is 27°C. Exploration and mining operations can be conducted on the Project year-round (BBA, 2023).

20.3.2 Water Resources

The Project area is primarily drained by the Disue River to the north and the Boin river to the south (Figure 20.3.1). Both rivers are tributaries of the transboundary Tano River Basin, which has a total catchment area of around 15,000 km^2 (shared with Cote d'Ivoire). Several smaller tributaries also exist within the Project area, including the Dare, Edwe, and Yoyo, but in general they are not well defined / mapped (KERMC, 2015). Several bodies of standing water were observed during the site visit, associated with historical excavation work and artisanal mining (Figure 20.3.3).

Figure 20.3.3. Example of Water Body Associated with Artisanal Mining Activity

Preliminary baseline studies found that watercourses in the Project area have been historically impacted by erosion, riverbank instability, and sediment deposition. Water quality has been affected by runoff from farms, artisanal mining and contamination from domestic waste and lack of appropriate sanitation (AGC, 2023).

Preliminary water quality sampling found the majority of parameters to be within acceptable Ghanaian standards, with the exception of widespread turbidity (high sediment load) in surface water, and an elevated iron concentration in the single available groundwater monitoring borehole. Elevated concentrations of iron and manganese were also found in sediment (AGC, 2023). Similar water quality results were obtained during previous analysis (KERMC, 2015).

Hydrogeological studies are underway with additional compilation and interpretation pending. No data was included in this report.

20.3.3 Biodiversity

The Project is situated in a region of rich natural biodiversity and is classified as Moist Evergreen Forest type of the High Forest Zone of Ghana (AGC, 2023 and Figure 20.3.4).

Figure 20.3.4 Forest Cover Surrounding the Project Area

Flora

Many of the forested areas surrounding the Project site are managed for commercial timber, with typical hardwood species including red ironwood *(Lophira alata)*, African whitewood *(Triplochiton scleroxylon)*, African mahogany *(Khaya)*, and African teak *(Milicia excelsa)* (AGC, 2023). Habitat loss has occurred as a result of timber harvesting.

Preliminary baseline surveys identified that there is no significant mature forest cover or canopy tree layer at the Project site, due to current and historical cultivation. In some areas, rubber plantations have also formed a shaded canopy that prevents the growth of other species. Trees are typically found in isolation on cocoa farms in the area, or in secondary forest patches and thickets which have established on abandoned farms (AGC, 2023).

Plant species recorded during the surveys include the Brimstone tree *(Morinda lucida)*, avocado *(Persea americana)*, and types of nettles *(Myrianthus libericus and Albizia zygia)*. Different types of vegetation are found in swamp and wetland areas, mainly grasses and shrubs but also Raffia palm *(Raphia hookeri)*. Many of the local trees and plants are used for traditional medicinal purposes and supplementary food (AGC, 2023).

Eleven plant species of national conservation concern were recorded at the Project area, with 3 of these also listed as Near Threatened on the IUCN Red List: Budongo mahogany *(Entandrophragma angolense)*, African teak *(Milicia excelsa)* and Rubiaceae *(Mitragyna stipulosa)*. Invasive species recorded at the Project site include Siam weed *(Chromolaena odorata)* and Trumpet tree *(Cecropia peltate)* (AGC, 2023).

Terrestrial Fauna

The natural ecology of the region has been impacted by various human activities, including agriculture, hunting, artisanal mining, firewood collection and commercial forestry. Consequently, the presence of fauna, and in particular large mammals, is limited in the Project area (KERMC, 2015 and AGC, 2023).

Various species of mammals, birds, butterflies, amphibians, and reptiles were recorded during the preliminary baseline surveys. Six species of bird recorded at the Project site are classified as Near Extinct on the IUCN Red List: African Pied Hornbill *(Tockus fasciatus)*, Grey-backed Cameroptera *(Camaroptera brevicaudata)*, Little Green Sunbird *(Anthreptes seimundi)*, Olive Sunbird *(Cyanomitra olivacea)*, Collared Sunbird *(Hedydipna collaris)*, and Slender Billed Greenbul *(Stelgidillas gracilirostris)*. Almost all of the butterfly species recorded are also classified as Near Extinct (AGC, 2023).

Mammals found at the Project site include Royal Antelope *(Neotragus pygmaeus)*, Bushbuck *(Tragelaphus scriptus)*, Marsh Mongoose *(Atilax paludinosus)*, Grasscutter *(Thryonomys swinderianus)*, Ground Squirrel *(Xerus inauris)*, and Gambian Giant Rat *(Cricetomys gambianus)*.

There were no mammal species of international conservation concern documented at the Project site (KERMC, 2015 and AGC, 2023). Interviews with local hunters suggested that large mammals, which were previously common in the area, have moved further away due to pressures from deforestation and hunting (AGC, 2023). There is potential for primates, elephants, large cats, and pangolins to be present in the wider area, and further work is required to determine the presence / absence of threatened / protected species and their potential migration routes.

Aquatic Ecology

Experimental fishing was undertaken as part of the preliminary baseline studies, in the same locations as water quality sampling. All species recorded (>70) were of IUCN Least Concern. Local fishermen were also interviewed to obtain additional information (AGC, 2023).

Macroinvertebrates (>500 species) and phytoplankton (>100 species) were also collected during preliminary baseline surveys. The diversity and abundance of species was considered to be generally low, due to high turbidity of the surface watercourses and impacts from artisanal mining activity (AGC, 2023).

20.3.4 Land Use and Protected Areas

The main soil types in the Project area are Acrisols and Ferrosols, interspersed with Fluvisols. These soils are rich in humus and suitable for crop production. Baseline soil sampling determined that metal loading was generally low, with the exception of Arsenic (AGC Ltd, 2023).

The Project is located in between Boin National Park and Boin Tano Forest Reserve (Figure 20.3.1). Adjacent to the Boin Tano Forest Reserve is the Jema-Asemkrom Forest Reserve, which has been designated as a Key Biodiversity Area (KBA) of international significance. Additional nearby protected areas include the Tano Anwia and Tano Nimiri forest reserves, and the Nini-Suhien national park (part of the Ankasa Conservation Area KBA). There are several designated International Bird Areas (IBAs) in the vicinity of the Project which correspond with forest habitat.

Land use in the Project area is predominantly small-scale farming and artisanal mining, with commercial timber production in the wider region and hunting practiced.

20.3.5 Air Quality, Noise and Vibration

There are currently no major industrial activities in or near the Project area that are likely to affect background air quality, noise, and vibration (KERMC, 2015). However, there is existing exploration activity and several residential settlements nearby. Localized dust, gaseous emissions, and noise generation associated with vehicle traffic and drilling activities will therefore already occur on a periodic basis.

Preliminary measurements indicate that baseline air quality in the Project area is acceptable according to international (WHO and IFC) guidelines, with the exception of PM_{10}. Particulate matter is likely to be associated with dusty conditions on the local unpaved roads (AGC, 2023).

Preliminary noise measurements attributed occasional high levels to existing human activities in the area (AGC, 2023). Vibration monitoring has not been undertaken, but baseline levels are presumed to be low, except in the immediate vicinity of exploration drilling activity.

20.3.6 Cultural Heritage

Existing information on archaeology and cultural heritage in the Project area is limited. It is likely that scattered individual burial sites (associated with different religions) may exist, in addition to more formal cemeteries and old churches (KERMC, 2015). Newcore has implemented a Chance Finds procedure during exploration activity and will facilitate a more detailed study with an archaeologist in the future.

20.3.7 Socio-economic Setting

The Project is adjacent to the border with Cote d'Ivoire and is situated 290 km west of Ghana's capital Accra, 170 km south of the city of Kumasi (the commercial centre for Ghana's mining industry), and approximately 200 km northwest from Takoradi port. Several small villages are within the Project area, and the closest town is Enchi which is located approximately 10 km to the northwest (Figure 20.3.1 and Figure 20.3.5).

Figure 20.3.5 Local Community Settlements

The Project area is rural, and the predominant land use is subsistence and small-scale agriculture, with land areas cleared for farming by slash and burn methods. Crops grown include cocoa, maize, cassava, plantain and vegetables. Small scale livestock rearing also takes place and fish farming is being gradually introduced.

An estimated 90% of land is under traditional ownership. The area is governed by the Aowin Municipal Assembly, which includes a Traditional Council at Enchi. Traditional Leaders work with the administrative authorities to represent the various communities and indigenous peoples (Brusas).

Preliminary social baseline studies have focused on 4 village-based communities within the Project area: Sewum, Achimfo, Kwakyekrom and Kangaboi. A total of 5,125 people are estimated to live in these 4 communities, comprising extended families living in household units (AGC Ltd, 2023). More than half the population is under the age of 18 and there are 5 schools in the area. It is acknowledged that more communities exist, beyond the 4 that were studied. Detailed mapping of local communities in and around the Project area will need to be improved as the Project advances. The communities identified across the Project are outside of the areas for the proposed infrastructure including open pits, waste dumps, and the heap leach facility.

The operational Chirano gold mine is approximately 50 km to the north of the Project, and there are numerous prospecting licences held by other exploration companies in the vicinity. Small-scale artisanal mining (known locally as 'Galamsey') is widespread throughout the region and was observed during baseline studies in the communities of Sewum, Atokosue, Abokyia and Nyamkamam (AGC, 2023). Site visit observations indicate that artisanal mining has, in some instances, followed areas where Newcore completed drilling. Commercial logging is undertaken in nearby forested areas.

There is an available workforce in the region of both skilled and unskilled labour, due to the long history of exploration and mining (BBA, 2023).

20.3.8 Traffic, Transport and Supporting Infrastructure

The Project is located in a rural area with limited infrastructure. Services and supplies including accommodation, food and fuel are available in the nearby town of Enchi. There is a health clinic at Sewum and a hospital in Enchi. Potable water must be brought in by truck or obtained from groundwater boreholes (BBA, 2023).

Local roads in the Project area are mostly unpaved and erosion and dust generation are therefore notable, the latter causing hazy driving conditions and damage to vegetation (Figure 20.3.6). Access roads will require annual maintenance due to seasonal heavy rainfall and runoff.

Figure 20.3.6 Example of Conditions on Local Roads

The N12 highway runs north-south past Enchi and bisects the Project area, with village communities located on either side. The N12 connects to the N1 paved highway in the south and provides access to seaports at Takoradi and Tema and the international airport in Accra (Figure 20.3.7).

Figure 20.3.7 N1 Highway

There is electricity supply available via the national grid, though blackouts are common. Newcore plans to establish a more reliable and sustainable energy supply. There appears to be a lack of municipal facilities for domestic waste management (garbage and recycling) in the area. The area also benefits from a fixed telephone line and mobile phone service tower. Mobile cell service exists over much of the Project area.

20.4 Environmental and Social Risks and Impacts

The Project will be designed to minimize environmental impacts as far as possible and enhance socio-economic opportunities. A full review of the potential environmental and social impacts will be undertaken as part of the future ESIA process. Based on the current Project design, findings from preliminary baseline studies, and gold mining operations in similar environments, the main potential risks and impacts are anticipated to include the following:

Natural Hazards – The Project is located in a heavily vegetated area interspersed with areas of exposed ground, and significant extremes of temperature and rainfall. It is therefore likely to be vulnerable to hazards such as forest fires, flash flooding, and landslips. The Project design will carefully consider these risks. The existing state of local infrastructure, for example overhead power lines surrounded by overgrown vegetation and poorly maintained roads, add to these risks.

Air Quality, Noise, Vibration and Artificial Lighting - The Project will generate air emissions in connection with processing activities and the operation of vehicles and equipment. In addition to embedded engineering controls, operational controls such as dust suppression and good driving practices will be used to help minimize dust generation and greenhouse gas emissions. Local noise and vibration will be influenced by routine Project activities, including drilling, blasting, and crushing, and artificial lighting will be required for nighttime work. All this has the potential to cause disturbance to local communities and wildlife, particularly birds, and will need to be monitored.

Water Resources – The Project intends to operate as a closed loop water system and the Project design includes sufficient water storage and management facilities to ensure safe operation during the rainy seasons. Project operations have the potential to negatively impact water quality via stormwater runoff / drainage that comes into contact with processing areas, potential seepage (from waste material and heap leach) and accidental spills / leaks. The Project design will take a holistic, site-wide approach to water management and ensure sufficient seasonal and emergency storage is incorporated into the Project design, as well as provision for water treatment. Studies to determine hydrogeological conditions and the risk of acid rock drainage and metal leaching (ARDML) have not yet been undertaken.

Biodiversity – The Project is located in close proximity to a number of forest reserves, national parks, Key Biodiversity Areas and International Bird Areas. Some species of conservation importance have been identified during preliminary baseline studies. Additional studies and close cooperation will therefore be required with the relevant regulatory and conservation authorities to agree on measures for any necessary habitat compensation and ensure disturbance to wildlife, birds and fish is minimized, particularly in regard to potential migration routes. A significant level of vegetation clearance is anticipated to be required for the construction of Project infrastructure, including safety clearances for overhead power lines, and widening of access roads.

Heap Leach Management - The Project will require construction of a Heap Leach Facility for processing. The current design incorporates international guidelines and includes appropriate liners, drainage, monitoring systems and bird / wildlife deterrents. Although extensive exploration activity has been undertaken, no drill holes have been completed in the area of the proposed Heap Leach Facility, and therefore the risk of seepage to groundwater should be low.

Socio-economic impacts – Overall, the Project is expected to have a positive impact on the local and regional economy, through creation of direct and indirect jobs and associated training opportunities. Details of job opportunities will be refined as the Project progresses through PFS stage and priority will be given to hiring and procurement from local communities.

Potential negative socio-economic impacts are as follows:

- There is a risk that some local community members or NGO groups, particularly those linked to international biodiversity conservation, may oppose a new mining Project in the area, and therefore proactive and transparent engagement is important from an early stage in the Project development.

- There is potential for damage to or loss of cultural heritage sites, particularly from ongoing exploration and construction activity, where defined vehicle tracks may not be used. This has the potential to escalate opposition to the Project if not mitigated through appropriate Chance Finds procedures and a Cultural Heritage Management Plan.

- Artisanal Mining is undertaken in the Project region and has the potential to cause conflict if artisanal miners are not appropriately considered and consulted as relevant stakeholders, regardless of perceived or actual legal status.

- The local communities in the Project area include Indigenous Peoples and those dependent on Rural Livelihoods, both of which require special consideration under international guidelines for exploration and mining projects.

- Multiple exploration companies have been involved in the Project area over the years, and this may have led to unrealistic long-term expectations from the local community and an over-reliance on donations from Newcore. This can be mitigated by developing a strategic and collaborative approach to community investment, with a focus on partnership funding, capacity building, local empowerment and business diversification that will be sustainable beyond the life of the Project.

- The Project is located at the border with Cote d'Ivoire and may be affected by any associated political tensions, including issues connected with bird and wildlife migration routes and the transboundary River Tano, tributaries of which drain the Project area.

- There are old underground mine workings and historical tailings deposits located in the vicinity of the Project, which pose safety and environmental risks. Whilst not directly related to the Project, this historical infrastructure could cause issues with ground stability and water movement / quality. It will therefore be in Newcore's interest to continue to monitor these facilities, mitigate any cumulative environmental impacts and work with the local authorities to responsibly decommission them.

- The Project is located in close proximity to several community settlements, with many local residences and businesses situated directly alongside key access roads. There is also a significant amount of pedestrian traffic, including schoolchildren, and livestock movement. The lack of defined pavements / sidewalks, and the potential need to upgrade and widen these roads, represents a safety risk to these communities which will need to be carefully communicated and managed. Additional risks will be associated with heavy goods vehicles regularly delivering Project supplies, in particular processing reagents. Based on the current mine and process design no relocation / resettlement will be required for the Project.

The potential environmental and social risks and impacts associated with the Project are considered typical of similar exploration and mining projects in this part of Africa. Negative impacts can be managed appropriately provided that:

- Sufficient environmental protection measures are incorporated into the project design.
- Proactive and transparent stakeholder engagement takes place on a continuous basis throughout the life of the Project.
- A comprehensive environmental and social management system (ESMS) is developed and implemented.
- Sufficient specialist staff resources are allocated for environmental monitoring and community relations, and the senior management team is proactive and supportive.

20.5 Environmental and Social Management

Environmental (EPA) permits issued in association with Prospecting Licences for all Enchi Project exploration areas are subject to various conditions, as listed in each permit. These include:

- Implementing site-specific management measures for air quality, noise levels, protection of water resources, minimizing land disturbance and promoting health and safety.
- Avoiding environmental and culturally sensitive areas.
- Provision of a reclamation bond for rehabilitation of disturbed areas.
- Compensation payments for any damage to buildings and infrastructure.
- Following specific criteria for community consultation and land access.

Once the Project progresses to a Mining Lease application, a provisional Environmental Management Plan, which includes social considerations, will be required as part of the impact assessment process under Ghanaian environmental regulations. Once mining operations have started, a more comprehensive Plan must be submitted and updated every 3 years, in a format to be determined by the EPA. Annual environmental reports must also be submitted to the EPA during mining operations.

In addition to Ghanaian legislative requirements and permit conditions, Newcore is adopting a proactive approach to environmental and social management for development of the Enchi Project. This approach includes:

- Regular review of all aspects of Project design to ensure environmental protection is prioritized.
- Adapting the Project design to incorporate new and more sustainable technologies as they become available.
- Conserving and protecting water resources.

- Incorporating renewable energy supply as it becomes a viable option.
- Minimizing and responsibly managing non-mining waste products.

Newcore has installed a groundwater monitoring borehole and intends to expand its long-term monitoring network as the Project develops, in addition to supporting additional third-party monitoring studies.

Newcore has undertaken a significant level of community investment in the Project area to date, including donation of medical equipment and educational supplies, practical assistance with road improvements and potable water supply, and refurbishment of a local school and sports ground. Going forward, it will be important for Newcore to manage community expectations and continue with a strategic and collaborative approach to community investment. By identifying and managing potential risks with community projects and moving towards a focus on capacity building and local empowerment, Newcore will be able to maximize the socio-economic benefits and help ensure that any infrastructure projects can be sustainably managed in the longer term.

20.6 Project Closure Planning

Responsible closure planning should be integrated into all phases of the Enchi Project and undertaken in compliance with Ghanaian legislative requirements and GIIP.

20.6.1 Legal Requirements

Current requirements for Project closure include the following conditions, as set out in the EPA permits associated with the various Prospecting Licences for the Project:

- Rehabilitate the site to a condition consistent with the pre-existing characteristics and utility of the area.
- Inspect all excavations made during the course of the exploration and backfill and/or seal them.
- Bury or remove all refuse from exploration areas.
- Ensure that exploration site rehabilitation shall be fully completed within 3 months of abandonment.
- Provision of a reclamation bond (financial assurance / security deposit).

The above conditions will remain relevant throughout the life of the Project. Proper closure of exploration drill holes is particularly important in locations where future processing infrastructure may be located, such as heap leach facilities, where there is a potential risk of seepage to groundwater.

In future and once the Project progresses to a Mining Lease application, a preliminary rehabilitation and closure (reclamation) plan will need to be developed and submitted with the Environmental Impact Statement. The reclamation bond will also need to be updated based on the approved work plan and must be lodged with a bank approved by the EPA. The reclamation plan should be regularly updated throughout the life of the Project. A detailed Closure and Decommissioning Plan is required to be submitted to the EPA within 2 years of mine closure.

20.6.2 Closure Objectives

High-level closure objectives identified for the Project include:

- Achieving compliance with Ghanaian legislative requirements.
- Following GIIP and the latest developments in mine rehabilitation science.
- Consultation with local communities and all other relevant stakeholders.
- Ensuring the safety of humans and animals.
- Returning land areas to pre-mining land use to the extent possible.
- Minimizing negative environmental and social impacts.
- Enhancing positive environmental and social benefits.

Consideration of the ICMM Guidance for Integrated Mine Closure and the World Bank Group/IFC EHS Guidelines for Mining is also recommended.

20.6.3 Closure Options

High level closure scenarios for the Project, subject to stakeholder consultation and EPA approval, include:

- Contouring and stabilizing of slopes.
- Installation of safety berms where needed.
- Decontaminate (where needed) and dismantle all mining and processing infrastructure and remove from site.
- Dismantle supporting infrastructure (camp, offices, utilities etc.) unless handover process to local community is agreed.

- Revegetation, including planting of suitable native tree species.

The estimated total Life of the Project is eleven years and reclamation will be undertaken on a progressive basis, where practical to do so. Post-closure environmental monitoring will be undertaken for a duration to be determined by the EPA. Monitoring will cover, but will not be limited to, surface and groundwater quality and progress with vegetation re-establishment.

A detailed closure cost estimate has not yet been developed but an indicative amount of 18.4M USD has been budgeted.

20.7 Recommendations

The ESIA process for the Project is not yet complete and, therefore, specific recommendations will arise as a result of additional baseline studies, impact assessment, and the public consultation process, in addition to any terms and conditions outlined by the regulatory authorities.

Recommendations that are considered important for ongoing development of the Project include the following:

1. Undertake additional baseline studies. This will ensure differences in seasons have been taken into account and help to establish a more comprehensive body of knowledge against which to assess potential impacts. Consider involving local community volunteers to participate in ongoing monitoring, and peer-reviewing the studies against international requirements. Social baseline studies should include detailed mapping of local villages. It is also advisable to document progress with the recommendations made in previous baseline studies.

2. Engage with local conservation organizations to better determine the presence / absence of threatened / protected species and potential migration routes for mammals and birds.

3. Install basic monitoring infrastructure such as a weather and air quality station at the exploration camp and additional groundwater monitoring boreholes.

4. Undertake a hydrogeological study and ARDML testwork.

5. Ensure all stakeholder interactions, including informal meetings, are documented and filed to assist the Community Relations team in future should the Project proceed to an operational mine.

6. Ensure ongoing community investment is done in a strategic and sustainable way so that any supported projects / infrastructure can be independently managed and maintained.

7. Integrate sensitive / protected areas into the GIS used by the exploration team, to minimize the risk for damage, for example to cultural heritage sites and known wildlife habitats.

8. Ensure exploration drill holes and trenches are properly sealed, to minimize land disturbance and avoid future problems with water connectivity – establish a formal procedure for this and ensure the closure of all drill sites is properly documented, in particular near the proposed heap leach location.

9. Regularly review the project design, to adapt to emerging environmental and social risks and incorporate the latest available materials and methods for environmental protection.

Prior to commencing the construction and operational phases of the Project, development of an Environmental and Social Management System (ESMS) and Occupational Health and Safety Management System (OHSMS) should be completed and implemented, with staff and contractors trained in their respective responsibilities and associated procedures. It is recommended that these management systems are aligned with ISO 14001 and ISO 45001 requirements, and that due consideration is given to the various GIIP guidelines and voluntary commitments that Newcore intends to follow.

21.0 CAPITAL AND OPERATIONS COSTS

21.1 Introduction

The preliminary economics of the Enchi Gold Project can be evaluated using the capital and operational cost estimates presented in this PEA. The calculations are based on an open pit mining operation, heap leach facility, a processing plant's development, infrastructure, and the owner's expenses and provisions.

The capital and operating cost estimates in the PEA assume contract mining services for mining related activities. Project areas such as processing and environmental will remain under the Owner's responsibilities. Contractor costs were estimated based on budgetary quotes and unit rates provided by specialized contractors experienced in Ghana.

All costs are expressed in United States Dollars (USD) unless otherwise stated and based on Q1 2024 pricing. The estimate is deemed to have an accuracy of +50/-30%.

Where costs used in the estimate were provided in a currency other than US dollars then the following exchange rates were used:

- 1 AUD = 0.65 USD
- 1 EUR = 1.07 USD
- 1 GBP = 1.26 USD
- 1 ZAR = 0.052 USD

21.2 Capital Cost Estimate

21.2.1 Capital Cost Estimate Summary

The Project initial capital cost estimate is estimated at $106M. The project includes crusher installation in year 4 and year 5, as well as expansion of the heap leach pad in year 3 and 6. These and other sustaining costs are estimated to be $92M. The closure cost is estimated to be $18M; the closure cost is incurred during the last two years of production and also includes the cost of environmental monitoring in the four years after production. A contingency of 20% is applied on the total of direct and indirect costs for the initial capital cost and LOM sustaining capital cost. The summary of the initial, sustaining and closure costs are shown in Table 21.2.1.

Table 21.2.1 Capital Cost Summary

Description	Initial ($M)	Sustaining ($M)	Closure ($M)	LOM ($M)
Mining Areas & Road Development	$4.2	$4.5	-	$8.7
Heap Leach Facility (1)	$9.9	$14.8	-	$24.7
Earthworks & Pads	$1.6	-	-	$1.6
Mechanical, Equipment & Piping	$39.5	-	-	$39.5
Power, Electrical, Instrumentation	$7.9	-	-	$7.9
Crusher Installation (2)	-	$57.7	-	$57.7
EPMC (Engineering & Procurement)	$9.3	-	-	$9.3
Construction Indirect Costs	$7.8	-	-	$7.8
Owner's Costs	$7.8	-	-	$7.8
Closure Capital (3)	-	-	$18.2	$18.2
Contingency (20.0%)	$17.6	$15.4	-	$33.0
Total Capital Costs	**$105.8**	**$92.4**	**$18.2**	**$216.4**

Note: numbers may not add due to rounding.

(1) The heap leach facility will be built in three phases, with excess capacity available. The sustaining capital portion includes $7.4 million in each of years 3 and 6 for the heap leach pad expansion.

(2) Crusher installation will be completed in years 4 and 5, once required for processing fresh mineralization.

(3) Closure Capital includes environmental monitoring in the four years after production.

21.2.2 Basis of Estimate

The basis of the estimates and assumptions considered for the capital cost estimate are summarized in Table 21.2.2.

Table 21.2.2 Basis of Capital Cost Estimate

Description	Basis
Bulk Earthworks	Plant site volumes an allowance only based on projects of similar footprint
Detailed Earthworks	Allowances for under pad excavation and backfill to prepare site for concrete works
Site Access Road	Allowance
Ground reinforcement	Assumed Nil
Concrete Installation	Quantities estimated from similar projects of comparable scale. Concrete (wet) supply rates and installation rates applied from the Lycopodium database

Description	Basis
Structural Steel	Quantities estimated from similar projects of comparable scale. Supply rates based on recent market inquiries (Asian Supply) and install rates from the Lycopodium database
Platework & Small Tanks	Quantities estimated from similar projects of comparable scale. Supply rates based on recent market inquiries (Asian Supply) and install rates from the Lycopodium database
Tankage Field Erect	Tanks as per the mechanical equipment list and platework quantities estimated. Supply rates based on recent market inquiries (Asian Supply) and install rates from the Lycopodium database
Mechanical Equipment	Major items as per the mechanical equipment list and minor items from similar projects of comparable scale. Costs taken from the Lycopodium database that includes recent market enquiries and actual project costs
Fuel Storage & Distribution	Estimated based on previous projects of similar scope (Newcore).
Haul Roads	Quantities calculated from 3D haul road design with PEA pit and waste dump design and preliminary mine schedule (Newcore)
Mining Fleet	Support equipment estimated based on previous projects of similar size, haul and loading fleet included in contract mining unit rate (Newcore)
MSA	Required pad size estimated based on projects of similar size, volumed calculated in 3Q model environment (Newcore)
Mine Admin Building	Estimated based on previous projects of similar size (Newcore)
Power Supply	ECG Power Supply Study – Newcore costing
Conveyors	Concrete & structural estimated from similar projects of comparable scale. Mechanicals supply pricing and install rates from the Lycopodium database
Plant Piping General	Factored from mechanical costs
Overland Piping	NA
Electrical General	Factored from mechanical costs
Electrical HV	Estimated based on previous projects of a similar size
Communications	Estimated based on previous projects of a similar size
Commodity Rates – General	Appropriate rates taken from the Lycopodium database
Installation Rates – General	Appropriate rates taken from the Lycopodium database
Heavy Cranes	Requirements estimated based on largest lifts and likely duration
Freight General	Combination of estimated rates per freight ton & factors
Contractor Mobilization / Demobilization	Estimated based on projects of a similar size
Construction Facilities	Estimated based on projects of a similar size
Plant Buildings	Estimated from Lycopodium database
Permanent Camp	Excluded
Fencing	Quantities estimated from similar projects of comparable scale. Installation rates applied from the Lycopodium database
EPCM	Percentage based on the EPCM controlled scope

Description	Basis
Vendor Representatives	Excluded
Owner's Costs	
Site Establishment	Excluded
Opening Stocks, First Fill Reagents and Consumables	Preliminary Calculation for project
Spares	Allowance factored from mechanical supply cost
Owner's Project Team	Excluded
Project Insurances and Permits	Excluded
Land Compensation	Excluded
Community Relations	Excluded
Plant preproduction expenses	Preliminary Calculation for project
Training	Excluded
Duties and Taxes	Excluded
Escalation	Excluded

21.2.3 General Estimating Methodology

Mining capital costs were calculated using unit rates calculated from local contractor budgetary quotations applied to material take-offs calculated from modeled designs on current topography.

The process plant was broken down into unit operation areas with quantity take-offs based on similar facilities from previous projects to provide an acceptable level of confidence required for a Scoping Study estimate.

The heap leach and process ponds were modeled in Civil 3D AutoCAD software to generate volumetric solids. The solids were used to calculate material take-offs which were combined with local contractor rates to estimate earthworks costs. Preliminary liner and piping designs were generated and used to estimate total required liner and pipe meterage. Budgetary quotes for piping and liner were received and used to calculate overall supply and install costs.

Unit rates for labour and materials were based on the Lycopodium database.

Mechanical Equipment costs were taken from the Lycopodium database that includes recent market enquiries and actual project cost data.

The reagents storage building pricing has been based on the Lycopodium database of pricing.

21.2.4 Pricing Basis

Pricing has been identified by the following cost elements, as applicable, for the development of each estimate item.

Mining

This component represents all costs related to the construction, expansion, and upkeep of facilities related to mining operations. These facilities include a heavy equipment maintenance shop, a refueling area, an explosives storage area, and a land treatment facility. The costs also include development and upkeep of mine haul roads and mine service roads. Foundation preparation and maintenance of waste storage facilities are the final structures included in the costs. All costs were developed from unit rates or vendor quotes from local contractors or recent West African projects. Pricing is inclusive of all incurred costs included installation and transport costs.

Heap Leach Facility

This component includes all earthworks, material, and labour costs associated with the development of the three heap leach pad phases as well as the three designed process ponds. Heap leach phases were calculated based on material release in the project mine plan compared to required pad capacity. The costs for each heap leach phase were calculated based on the required earthworks and system installation for each phase. Pricing is inclusive of transport, installation, and all other material supply costs. Piping and liner costs are taken from recent quotes from local suppliers.

Plant Equipment

This component represents prefabricated, pre-assembled, off-the-shelf types of mechanical or electrical equipment, either fixed or mobile. Pricing is inclusive of all costs necessary to purchase the goods ex-works, generally excluding delivery to site (unless otherwise stated) but including operating and maintenance manuals. In the initial capital costs, vendor quotes were received for three major packages that accounted to approximately 24% of mechanical supply costs.

Bulk Materials

This component covers all other materials, normally purchased in bulk form, for installation on the Project. Costs include the purchase price ex-works, any off-site fabrication, excluding transport to site (unless otherwise stated), and over-supply for anticipated wastage.

Installation

This component represents the cost to install the plant equipment and bulk materials on site or to perform site activities. Installation costs are further divided between direct labour, equipment, and contractors' distributables.

The labour component reflects the cost of the direct workforce required to construct the Project scope. The labour cost is the product of the estimated work hours spent on site multiplied by the cost of labour to the contractor inclusive of overtime premiums, statutory overheads, payroll burden and contractor margin.

The equipment component reflects the cost of the construction equipment and running costs required to construct the Project. The equipment cost also includes cranes, vehicles, small tools, consumables, PPE, and the applicable contractor's margin.

Contractors' distributable costs encompass the remaining cost of installation and include items such as offsite management, onsite staff and supervision above trade level, crane drivers, mobilization, and demobilization, R&Rs, and the applicable contractors' margin.

Heavy Lift Cranage

A heavy lift crane of 250t capacity has been allowed for in the estimate.

Closure

Closure costs were estimated for all facilities and align with industry remediation practices. Costs were allotted for heap leach neutralization and reclamation, waste rock facility reclamation, infrastructure closure and continued environmental monitoring.

Heap leach neutralization costs were calculated from model volumes and reagent, labour, and power estimations. Heap leach closure costs additionally included sloping, resurfacing and remediation programs to return the heap leach facility area to a natural ecosystem.

Costs for both mine and waste dump reclamation included sloping and resurfacing. In-pit backfilling may be considered to reduce haul distances and minimize the overall environmental footprint of the Project.

Costs for decommissioning and closure of process infrastructure was estimated using costs incurred on similar projects in the region. No salvage value was applied to decommissioned equipment.

Environmental monitoring costs were allotted for a four-year period following end of production. The costs include a full monitoring team, equipment and consumables.

Contractor Distributables

Costs for mobilization / demobilization of labour and equipment to / from the Project site were based on projects of a similar size and adjusted to suit the Project location.

21.2.5 Mining

Table 21.2.3 summarizes the initial, sustaining and life of mine capital cost requirements for the mine and mining support infrastructure.

Road and waste rock facility development costs were modeled over the LOM. Approximately half of total road and storage facility infrastructure will be required for initial production. The remaining infrastructure requirements were estimated over the LOM using the PEA mine plan.

Initial mining capital costs are estimated at $4.2M with sustaining capital costs of $4.5M, resulting in a life of mine capital cost total of $8.7M. The costs shown are direct costs presented without indirect costs or contingency applied.

Table 21.2.3 Summary of Mining Capital Cost Estimate

Description	Initial ($k)	Sustaining ($k)	LOM ($k)
Mine Haul and Service Roads	$847	$852	$1,699
Mine Support Infrastructure	$1,600	-	$1,600
Rock Storage Facilities	$1,800	$3,600	$5,400
Total Direct Capital Costs	**$4,247**	**$4,452**	**$8,699**

Note: numbers may not add due to rounding.

21.2.6 Heap Leach Facility

Table 21.2.4 summarizes the initial, sustaining and life of mine capital cost requirements for the heap leach facility. The heap leach facility includes the heap leach pad, as well as process ponds and solution containment infrastructure.

Full pond capacity for life of mine is built during initial construction. The heap leach pad is assumed to be built in 3 phases with the first phase built during initial construction at an estimated cost of $9.9M. New pad capacity is added during subsequent phases in year 3 and year 6 with estimated costs of $7.4M for each expansion, for a total sustaining capital cost of $14.8M.

Initial heap leach facility capital costs are estimated at $9.9M with sustaining capital costs of $14.8M, resulting in a life of mine capital cost total of $24.7M. The costs shown are direct costs presented without indirect costs or contingency applied.

Table 21.2.4 Summary of Heap Leach Facility Cost Estimate

Description	Initial ($k)	Sustaining ($k)	LOM ($k)
Heap Pad Earthworks	$1,921	$3,841	$5,762
Heap Pad Liner & Containment	$4,051	$8,102	$12,153
Heap Pad Collection System	$1,943	$2,870	$4,813
Process Ponds Earthworks	$544	-	$544
Process Ponds Liner & Containment	$1,459	-	$1,459
Total Direct Capital Costs	**$9,918**	**$14,813**	**$24,731**

Note: numbers may not add due to rounding.

21.2.7 Processing Equipment and Infrastructure

Table 21.2.5 summarizes the initial, sustaining and LOM capital cost requirements for processing equipment and infrastructure. The heap leach facility and pond costs are detailed separately in Table 21.2.4.

Initial plant feed will consist of oxide mineralized material and softer transition mineralized material which will not be sent to secondary crushing and screening. Crusher installation is required for the harder transition and fresh mineralized material. This crushing and processing expansion occurs in year 4 and year 5 with an estimated direct cost of $30.6M and $27.2M respectively.

Initial processing equipment and infrastructure capital costs are estimated at $49.0M, with sustaining capital costs of $57.7M, resulting in a life of mine capital cost total of $106.8M. The costs shown are direct costs presented without indirect costs or contingency applied.

Table 21.2.5 Summary of Processing Equipment and Infrastructure Cost Estimate

Description	Initial ($k)	Sustaining ($k)	LOM ($k)
Earthworks	$1,568	-	$1,568
Primary Crushing	$6,382	-	$6,382
Ore Preparation	$6,502	-	$6,502
Ore Stacking	$6,887	-	$6,887
Gold Recovery Plant	$15,765	-	$15,765
Plant Electrical	$7,922	-	$7,922
Ancillary Project Costs	$3,990	-	$3,990
Fresh Processing – Phase 1	-	$30,559	$30,559
Fresh Processing – Phase 2	-	$27,185	$27,185
Total Direct Capital Costs	**$49,016**	**$57,744**	**$106,760**

Note: numbers may not add due to rounding.

21.2.8 Closure

Table 21.2.6 summarizes the closure cost requirements for the project.

The heap leach rinsing period has been calculated for 6 months post-production. Closure costs for facilities include all reclamation and remediation costs to return disturbed areas to natural ecosystems.

Environmental monitoring costs are calculated for a period of 4 years post-production.

Table 21.2.6 Summary of Closure Cost Estimate

Description	Closure ($k)
Heap Leach Neutralization	$1,906
Heap Leach Sloping and Surfacing	$2,367
Mine Sloping and Surfacing	$6,000
Waste Facility Sloping and Surfacing	$5,350
Infrastructure Closure	$2,000
Environmental Monitoring	$600
Total Direct Capital Costs	**$18,223**

Note: numbers may not add due to rounding.

21.2.9 Qualifications

The estimate is subject to the following qualifications:

- All labour rates, materials and equipment supply costs are priced Q1 2024. Contingency (20%) has been allowed based on the quality of the various estimate inputs.
- Construction contractor rates include mobile equipment, vehicles, fuel, construction power and consumables for the duration of construction. Potable water and raw water supply will be provided by the Owner and available at site for the use by contractors.
- Mobilization / demobilization / R&R flights of construction contractor personnel are incorporated in the contractor distributable labour rates on the basis of individual contractors.
- Contractor accommodation costs per day have been included in the individual contractor's rates.
- Meals and accommodation for the EPCM team are included in the EPCM allowance.

- Project spares are a percentage allowance of the mechanical supply cost based on similar size projects.
- A commissioning assistance crew is included in the EPCM allowance.
- PLC programming for the process plant has been allowed for in the EPCM allowance.

21.2.10 Contingency

The purpose of contingency is to make specific provision for uncertain elements of cost within the Project scope. Contingencies do not include allowances for scope changes, escalation, or exchange rate fluctuations.

Contingency is an integral part of an estimate and has been applied to all line items that results in an overall project contingency of 20%.

21.2.11 Exclusions

The following is excluded from the overall project capital costs:

- Geotechnical drilling, testing, engineering / design services and remediation.
- Duties / taxes / fees.
- Project sunk costs.
- Project escalation.
- Permanent camp.
- Power supply.

21.2.12 Escalation and Foreign Exchange

Escalation

Escalation is excluded from the estimate.

Exchange Rates

All items in the capital estimate have been included in United States Dollars (USD) with no allowance for exchange rate variations.

21.3 Operating Cost Estimate

21.3.1 Introduction

The project operating cost estimate is built-up from three components:

- The mine operating costs developed by Micon and Newcore.
- The process plant operating costs developed by Lycopodium.
- The on-site general and administration (G&A) operating costs developed by Lycopodium with agreement from Newcore.

The estimated life of mine operating cost per tonne of ore processed is summarized in Table 21.3.1.

Table 21.3.1 Life of Mine Operations Costs (Q1 2024, +50/-30%)

Cost Category	Total Cost ($M) from First Gold Pour	$/t Processed
Mining	$546.4	$7.83/t
Processing	$285.1	$4.09/t
On-Site G&A	$46.7	$0.67/t
Total Cash Cost	**$878.1**	**$12.58/t**

Note: numbers may not add due to rounding.

The key basis of estimate assumptions for the operating costs include:

- All currency is stated in U.S. dollars unless otherwise indicated.
- All costs have an overall accuracy of +50/-30% based on Q1 2024 pricing.
- Consumable data is based on the process design criteria.
- Average plant throughput is 8.1 Mtpa.
- Manpower requirements as developed by Lycopodium with agreement from Newcore.
- Labour unit costs were based on 2023 benchmark salary report for Ghana mining industry.
- Power unit cost of $0.1726/kWh.
- Diesel fuel cost of $1.19/L.

- Refining costs, NSR royalties and tax are excluded from the operating costs but are applied to the financial model.
- Mobile equipment costs include fuel and maintenance only.

21.3.2 Mining Operating Costs

Mining costs were calculated separately for each material type for both waste and heap feed material. The mining operating costs are based on a throughput rate of 8.1 Mtpa of material release to the heap leach pads. The 8.1 Mtpa is calculated as the final total after the use of 2% mining losses applied to feed tonnage in years 5 to 9 during mining of the lower transition and fresh material.

Mining costs assume contract mining and are based on budgetary quotations and unit rates quoted by local contractors. The mining costs for the oxide / transition / fresh feed and waste material are summarized in Table 21.3.2.

Table 21.3.2 Mining Operating Cost Summary

Cost Centre	Oxide Feed $/t mined	Transition Feed $/t mined	Fresh Feed $/t mined	Oxide Waste $/t mined	Transition Waste $/t mined	Fresh Waste $/t mined
Mining operating costs						
Drill & Blast	-	0.34	0.78	-	0.26	0.62
Loading	0.39	0.35	0.31	0.39	0.35	0.31
Hauling	1.29	1.64	1.77	0.96	1.44	1.65
Technical Services	0.13	0.13	0.13	0.13	0.13	0.13
Contract Management	0.16	0.16	0.16	0.16	0.16	0.16
Total Operating Costs	**1.97**	**2.62**	**3.15**	**1.64**	**2.34**	**2.87**

Note: numbers may not add due to rounding.

Drill and blast costs were not applied to oxide material as it is assumed that all oxide material will be free dug. It is also assumed that the top half of transition material is suitable to be free drug. Drill and blast costs are applied to all fresh material.

Wider burden and spacing was used in waste blast patterns versus run-of-mine material resulting in lower consumable usage. The reduction in required fragmentation for waste resulted in savings of 25% and 33% versus run-of-mine for fresh and transition material respectively.

Loading and haulage costs were estimated using LOM average haul distances calculated for each pit and waste dump.

Additional fees associated with mining contractor management, such as mobilization, have been compiled from quotes and applied to the mining cost on a per tonne basis. Technical services support and monitoring equipment and studies costs have also been estimated from project databases and applied to the mining cost on a per tonne basis.

21.3.3 Process Operating Costs

The process operating costs for all cases are based on a throughput rate of 8.1 Mtpa of dry feed. Under all operating scenarios, the crushing plant and heap leach pad loading will operate a nominal 6,570 h/y with a 75% utilization and the ADR process plant will operate 24 h/d, 365 d/y with 91% utilization or a nominal 8,000 h/y.

The process operating costs for the oxide / transition feed case, and for the year 5 and year 6 sulphide cases are summarized in Table 21.3.3.

Table 21.3.3 Process Operating Cost Summary

Cost Centre	Oxide/Transition $/t feed	Sulphide - Yr 4 $/t feed	Sulphide - Yr 5 $/t feed
Plant operating costs			
Operating consumables	2.98	3.03	3.07
Plant maintenance	0.23	0.32	0.44
Power	0.50	0.87	1.16
Laboratory	0.01	0.01	0.01
Labour (O & M)	0.14	0.14	0.14
Total processing cost	***3.86***	***4.37***	***4.82***
Labour (G & A)	0.06	0.06	0.06
G&A expenses	0.14	0.14	0.14
Subtotal G&A cost	***0.19***	***0.19***	***0.19***
Total Process Operating Costs	**4.05**	**4.56**	**5.01**

Note: numbers may not add due to rounding.

The process operating cost estimate was compiled from a variety of sources, including metallurgical test work results, supplier pricing, Lycopodium databases, input from Newcore, and first-principle calculations. The estimate is based on heap leach operation with a LOM average grade of 0.6 g Au/t sent to the pad.

Consumables include reagents, fuel and operating consumables such as mineral sizer teeth, crusher jaws, plates, mantles, bowl liners, screen panels, dust collector bags, and agglomeration drum lifter bars and liners. Cost estimates exclude maintenance consumables such as lubricants, equipment spare parts and pump wear parts. Maintenance costs include provision for plant and mobile equipment maintenance, and reagents and services. Maintenance costs were estimated by applying factors depending on the complexity of the process (between 2% to 6%) to the installed capital cost in each area.

The process power consumption was estimated based on the project's load list. The installed motor size of individual pieces of equipment, excluding standby equipment, were adjusted by load and utilization factors to calculate the annual power consumption in the load list. A unit power cost of $0.1726/kWh was applied to the annual power consumption to estimate the total annual power costs for each scenario.

The labour costs were estimated from first principles based on a staffing structure developed specifically for the Project based on Lycopodium's experience. Labour rates are based on 2023 benchmark salary report for Ghana mining industry with agreement from Newcore. The estimate assumes a 4-panel rotation working 2, 12-hour shifts per day.

The laboratory / assay costs were based on undertaking complete sample preparation, solution assays, titrations, solids and solutions for fire assay and chemical analyses on-site, however, a minimum of 2% and a maximum 25% of solutions collected for metallurgical testing could be sent to an off-site commercial laboratory for verification. In addition, 100% of the bullion samples will be sent to a commercial laboratory for analysis.

21.3.4 On-Site General and Administration Costs

On-site general and administration costs include costs relating to mining, processing, permitting, land disturbance, and environment and social responsibility initiatives. Total average G&A costs over the life of mine are estimated at $0.67/tonne processed or $46.7M total. The G&A costs are summarized in Table 21.3.4.

Table 21.3.4 On-Site General and Administration Cost Summary

Cost Centre	Average $/t processed	LOM $M
Mining G&A		
Mining Labour	0.30	21.0
Mining Expenses	0.07	5.0
Processing G&A		
Process Labour	0.06	0
Process Expenses	0.14	9.9
Site G&A		
Mineral Tenure Fees	0.05	3.1

Cost Centre	Average $/t processed	LOM $M
Crop Compensation	0.03	2.0
Social Responsibility	0.02	1.6
Total Operating Costs	**0.67**	**46.7**

Note: numbers may not add due to rounding.

General and administrative costs associated with mining labour and expenses total an average of $2.9M/yr, or approximately $0.37/tonne processed. Labour costs were estimated from a staffing estimate based on past project experience. The staff estimate assumes a four-panel rotation working 2, 12-hour shifts per day. Labour rates were calculated based on 2023 inflation-adjusted Ghanaian mining salary guidance. Additional mining G&A expenses for processing were calculated from Lycopodium estimates.

G&A costs associated with process labour and expenses total an average of $1.5M/yr, or approximately $0.20/tonne processed. Processing G&A is further detailed in Table 21.3.3.

Costs associated with maintaining the project mineral titles are included. Mineral tenure costs are calculated on a square kilometer basis and modeled annually. Title-related costs are estimated at $0.3M/yr, resulting in $3.1M LOM.

Land disturbance was modeled over LOM with the majority of disturbance area added within the first 4 years of operation. A yearly crop compensation and land disturbance fee was applied to the cumulative acres disturbed each operating year. Total disturbance and compensation fees paid over LOM are estimated at $2.0M.

Newcore acknowledges the importance of strong corporate social responsibility. The exact terms of Newcore's contribution to social development and initiatives focused on betterment of the local communities will be negotiated with government and local proponents. For the purpose of this PEA, an annual total of $180,000 has been allocated for corporate social responsibility equating to $1.6M LOM.

22.0 ECONOMIC ANALYSIS

22.1 Introduction

The preliminary economic assessment 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 preliminary economic assessment would be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

A preliminary economic analysis has been carried out for the Project using a cash flow model. The model is constructed using annual cash flows by taking into account annual processed tonnages and grades for the heap leach feed. The associated process recoveries, metal prices, operating costs and refining charges, royalties and capital expenditures (both initial and sustaining) were also taken into account. The financial model was completed on a 100% project basis and includes a 5% gross royalty to the Ghanaian Government and a 2% NSR royalty to Triple Flag Precious Metals Corp. As a general rule, the financial assessment of projects of this nature is carried out on a '100% equity' basis, i.e. the debt and equity sources of capital funds are ignored. No provision is made for the effects of inflation. Results are given before and after taxation. Current Ghana tax regulations are applied to assess the corporate and mining tax liabilities. The Government of Ghana has the right to a 10% free carried interest in the Project. All amounts in this chapter are presented in United States Dollars (US$) and unless otherwise stated, are referred to '$'.

The model reflects the base case and technical assumptions shown in the preceding chapters of this report. Discounting has been applied from the first year of mine construction (Year 0 onward).

According to Canadian securities law, the outcomes of the economic assessments mentioned in this section constitute forward-looking information. Results depend on inputs that could differ considerably from those predicted here due to known and unknowable risks, uncertainties, and other factors.

22.2 Fiscal and Economic Parameters

22.2.1 Project Exploitation Permits

Upon the grant of the exploitation permit, and in accordance with Mining Regulation, the Government of Ghana is entitled to retain a 10% free carried equity interest in the Project, which interest may not be diluted even if there is an increase in the share capital, under Section 8 of the Ghanaian Mining Act. The 10% equity interest is paid to the government when a dividend is declared.

22.2.2 Royalties and Duties

The economic analysis incorporates royalties due to the Government of Ghana as well a royalty agreement with Triple Flag Precious Metals Corp. The Government of Ghana also collects various taxes and duties on the importation of fuels, supplies, equipment, and outside services as specified in the Mining Code.

The Government of Ghana is entitled to collect a 5% royalty (calculated based on the international market value of gold) on the revenues from gold production on the Property covered by the exploitation permit.

Triple Flag Precious Metals Corp. has a 2% net smelter return (NSR) royalty on production (with 1% subject to a buy-back option for a lump sum payment of $3.5 million at any time held by Sandstorm Gold Ltd.).

Ghana requires the payment of annual fees for mining rights and ground rents (occupation of land). The mining rights apply on the entire claims with mining activity at $32.96 per hectares for the first 3 years, then $47.08 per hectares from the third year onward. The ground rent applies to the total surface of disturbed areas for a fee of $6.12 per hectare.

22.2.3 Taxes

Newcore's understanding of current Ghana tax regulations are applied to assess the tax liabilities. Taxation calculations are based on a 35% mining corporate tax rate. Depreciation allowance is considered at a rate of 20% over 5 years and accumulates in the capital expenditures tax pool if it is not used within the qualifying year of assessment.

22.2.4 Economic Parameters

All costs have been estimated in US Dollars. All capital and operating costs are provided in Q1 2024 money terms. Inflation rates have not been applied in the financial model as the evaluation has been carried out on a real terms constant money basis.

No price escalation has been applied to the model, and cost input parameters were considered fixed for the life-of-mine for the purposes of this financial valuation.

No salvage value has been considered within the economic model for the Project equipment or infrastructure such as buildings, earth works, or remediation works.

The financial valuation has been completed using a base-case gold price of $1,850/oz with a sensitivity analysis provided ranging from $1,480/oz to $2,350/oz. The detailed sensitivity tables are presented below in the section entitled Project Parameter Sensitivities.

22.3 Project Timing

Key assumptions with respect to project timing used in developing the financial model are:

- For the purposes of the financial valuation, project capital expenditure is spent over 1 year prior to production (Year 0). In the actual planned ramp up, it is estimated that 30% of the capital cost is likely to be incurred in Year 1 (2 years before production) of the implementation period, 60% of the capital cost in Year 0, and 10% of retention and other payments extending over into the first year of production.
- For the financial valuation it has been assumed that the capital expenditure is incurred in full during the year prior to project commissioning and ramp-up.
- Commissioning, ramp-up and initial mining occurs during Year 1 of the schedule.
- Process plant commissioned and first material in the plant in Year 1 of the schedule.
- It is assumed that the project will reach 100% of name plate capacity within 4 months of commissioning, in line with experience at other similar projects that have been constructed by Lycopodium elsewhere in Africa during the last few years.

22.4 Financial Model

The financial assessment of the Project was carried out on a 100% equity basis, not accounting for potential sources of funding which may include debt. The technical parameters and key assumptions described elsewhere in this report are reflected in the financial model, with the LOM Project cash flow shown in Table 22.4.1.

The key assumptions and economic parameters used in the PEA are as follows:

Table 22.4.1 Key PEA Assumptions and Economic Parameters

KEY PARAMETERS / DESCRIPTION	LOM
Economic Parameters	
Gold Price (US$/oz)	$1,850
Discount Rate	5%
Key Processing Parameters	
Processing Throughput (max tonnes/yr)	8.1
Average Gold Grade (g/t)	0.60
Average Gold Recovery (%)	82%

KEY PARAMETERS / DESCRIPTION	LOM
Key Operating Costs	
Mining Cost (US$/tonne mined)	$2.14
Processing Cost (US$/tonne feed)	$4.09
G&A Cost (Mine Site) (US$/tonne feed)	$0.67
Capital Costs	
Initial Capital Costs (US$M)	$106
Sustaining Capital (US$M)	$92
Closure Capital (US$M)	$18

Capital Expenditures

Capital expenditures for the Project have been scheduled according to the execution schedule with the expenditures happening over a 15-month construction period. Initial plant feed will consist of oxide mineralized material and softer transition mineralized material which does not require crushing, as such crusher installation is not required until later years. The economic model assumes crushing and processing expansion occurs in year 4 and year 5 with an estimated direct cost of $30.6M and $27.2M respectively in those years. The capital expenditures also assume the heap leach pad is built in three phases with the first phase built during initial construction at an estimated cost of $9.9M. New pad capacity is added during subsequent phases in year 3 and year 6 with estimated costs of $7.4M for each expansion, for a total sustaining capital cost of $14.8M. Details by year of the required capital expenditures are shown in the full cash flow model presented in Table 22.4.2.

No relocation costs are currently anticipated or modelled within the cash flow. Based on the current mine and process design, no relocation or resettlement will be required for the Project

Power

A power unit cost of $0.1726 per kW/h is used in the economic valuation. Power to mining operations will be generated onsite without utilizing the grid. Compressed onsite power generation will be based on Compressed Natural Gas (CNG) generators. CNG will be transported by trucks from nearby gas supply off-take to the onsite gas power station. CNG storage tanks will provide fuel storage backup to ensure power supply reliability.

Reagent Consumption Costs

Reagent unit rates assumed within the financial model were $3.01/kg for cyanide with a consumption rate of 2,997 t/y, $0.50/kg for lime with a consumption rate of 15,390 t/y, $0.16/kg for cement with a consumption rate of 64,800 t/y.

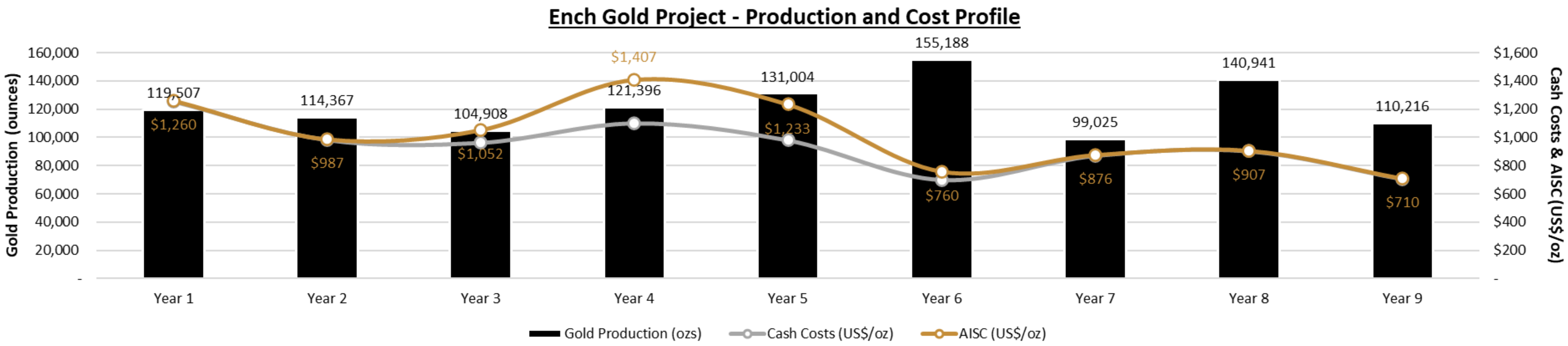
Table 22.4.2 Cash Flow Model

	Unit	Total/Average	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
REVENUES ($1,850/oz Gold Price)																	
Gold Production	oz	**1,096,553**	-	119,507	114,367	104,908	121,396	131,004	155,188	99,025	140,941	110,216	-	-	-	-	-
Gold Dore (Gross Revenues)	**K $**	**$2,028,623**	**-**	**$221,089**	**$211,580**	**$194,080**	**$224,582**	**$242,357**	**$287,098**	**$183,197**	**$260,741**	**$203,899**	**-**	**-**	**-**	**-**	**-**
Treatment & Refining Charges	K $	**$4,386**	-	$478	$457	$420	$486	$524	$621	$396	$564	$441	-	-	-	-	-
Royalties	K $	**$141,916**	-	$15,467	$14,801	$13,577	$15,711	$16,955	$20,084	$12,816	$18,241	$14,264	-	-	-	-	-
Net Revenues	**K $**	**$1,882,321**	**-**	**$205,144**	**$196,321**	**$180,083**	**$208,386**	**$224,879**	**$266,393**	**$169,985**	**$241,937**	**$189,194**	**-**	**-**	**-**	**-**	**-**
OPERATING COSTS																	
Mining	K $	**$546,391**	-	$97,604	$60,693	$50,485	$80,903	$73,576	$47,137	$33,547	$67,252	$35,194	-	-	-	-	-
Processing	K $	**$285,069**	-	$31,234	$31,234	$31,234	$31,234	$32,074	$35,368	$34,209	$35,928	$22,553	-	-	-	-	-
Mine Site G&A (incl. Mineral Tenure Fees)	K $	**$45,034**	-	$5,001	$4,928	$5,001	$5,014	$5,014	$5,019	$5,019	$5,019	$5,019	-	-	-	-	-
Corporate & Social Responsibility	K $	**$1,620**	-	$180	$180	$180	$180	$180	$180	$180	$180	$180	-	-	-	-	-
Total Operating Costs	**K $**	**$878,114**	**-**	**$134,020**	**$97,035**	**$86,900**	**$117,332**	**$110,844**	**$87,704**	**$72,955**	**$108,379**	**$62,946**	**-**	**-**	**-**	**-**	**-**
Total Operating Costs	**$/oz**	**$801**	**-**	**$1,121**	**$848**	**$828**	**$967**	**$846**	**$565**	**$737**	**$769**	**$571**	**-**	**-**	**-**	**-**	**-**
Total Cash Cost (Operating + Refining + Royalties)	**$/oz**	**$934**	**-**	**$1,255**	**$982**	**$962**	**$1,100**	**$980**	**$699**	**$870**	**$902**	**$705**	**-**	**-**	**-**	**-**	**-**
CAPITAL COSTS																	
Direct Costs																	
Mining Areas & Road Development	K $	**$8,699**	$4,247	$495	$495	$495	$495	$495	$495	$495	$495	$495	-	-	-	-	-
Crusher Installation	K $	**$57,744**	-	-	-	-	$30,559	$27,185	-	-	-	-	-	-	-	-	-
Heap Leach Facility (& Expansion)	K $	**$24,731**	$9,918	-	-	$7,407	-	-	$7,407	-	-	-	-	-	-	-	-
Earthworks & Pads	K $	**$1,568**	$1,568	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mechanical, Equipment & Piping	K $	**$39,526**	$39,526	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Power, Electrical & Instrumentation	K $	**$7,922**	$7,922	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EPCM (Engineering & Procurement)	K $	**$9,302**	$9,302	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction Indirect Costs	K $	**$7,835**	$7,835	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Owner's Costs	K $	**$7,830**	$7,830	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contingency (20.0%)	K $	**$33,031**	$17,630	$99	$99	$1,580	$6,211	$5,536	$1,580	$99	$99	$99	-	-	-	-	-
Closure Costs (Incl. Environmental Monitoring)	K $	**$18,223**	-	-	-	-	-	-	-	-	-	-	$8,962	$8,962	$150	$150	-
Total Capital Costs	**K $**	**$216,412**	**$105,777**	**$594**	**$594**	**$9,482**	**$37,265**	**$33,215**	**$9,482**	**$594**	**$594**	**$594**	**$8,962**	**$8,962**	**$150**	**$150**	**-**
Total AISC (Cash Cost + Sustaining Capital)	**$/oz**	**$1,018**	**-**	**$1,260**	**$987**	**$1,052**	**$1,407**	**$1,233**	**$760**	**$876**	**$907**	**$710**	**-**	**-**	**-**	**-**	**-**
CASH FLOW																	
Pre-Tax Cash Flow	**K $**	**$787,795**	**-$105,777**	**$70,531**	**$98,692**	**$83,701**	**$53,789**	**$80,819**	**$169,207**	**$96,437**	**$132,964**	**$125,655**	**-$8,962**	**-$8,962**	**-$150**	**-$150**	**-**
Less: Corporate Income Tax	K $	**$282,106**	-	$10,043	$27,262	$24,463	$21,109	$34,232	$56,239	$27,658	$41,065	$40,036	-	-	-	-	-
Post-Tax Cash Flow	**K $**	**$505,688**	**-$105,777**	**$60,488**	**$71,430**	**$59,239**	**$32,680**	**$46,588**	**$112,969**	**$68,779**	**$91,900**	**$85,619**	**-$8,962**	**-$8,962**	**-$150**	**-$150**	**-**

Table 22.4.3 Production Schedule

	Unit	Total/Average	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
MINING																	
Mineralized Material Mined	kt	**69,783**	-	8,100	8,100	8,100	8,100	8,100	8,100	8,100	8,100	4,983	-	-	-	-	-
Waste Mined	kt	**186,119**	-	48,142	23,448	18,058	36,421	22,211	9,283	4,344	16,474	7,737	-	-	-	-	-
Total Material Mined	kt	**255,901**	-	56,242	31,548	26,158	44,521	30,311	17,383	12,444	24,574	12,720	-	-	-	-	-
Strip Ratio		**2.67**	-	5.94	2.89	2.23	4.50	2.74	1.15	0.54	2.03	1.55	-	-	-	-	-
PROCESSING																	
Heap Leach Feed	kt	**69,783**	-	8,100	8,100	8,100	8,100	8,100	8,100	8,100	8,100	4,983	-	-	-	-	-
Heap Leach Feed Grade	g/t Au	**0.60**	-	0.64	0.50	0.47	0.56	0.61	0.78	0.42	0.74	0.71	-	-	-	-	-
Gold Recovery	%	**81.8%**	-	85.0%	85.0%	85.0%	85.0%	82.7%	78.4%	80.7%	78.2%	77.4%	-	-	-	-	-
Gold Placed on Heap Leach Pad	**ozs**	**1,097,650**	**-**	**140,738**	**109,848**	**104,160**	**124,580**	**132,292**	**159,411**	**88,486**	**150,364**	**87,771**	**-**	**-**	**-**	**-**	**-**
Gold in Heap Leach Inventory (1)	ozs		-	21,111	16,477	15,624	18,687	19,844	23,912	13,273	22,555	-	-	-	-	-	-
Gold Recoverable Same Year	ozs	**1,097,650**	-	119,627	114,482	105,013	121,517	131,135	155,343	99,125	141,082	110,326	-	-	-	-	-
Payable Gold Produced (99.90%)	**ozs**	**1,096,553**	-	**119,507**	**114,367**	**104,908**	**121,396**	**131,004**	**155,188**	**99,025**	**140,941**	**110,216**	-	-	-	-	-

(1) Assumes 15% of gold is assumed to remain on the heap leach in inventory (leach delay) in the same year of processing (except last year of mining). Assumes this gold is recovered the following year.



22.5 Results

22.5.1 Key Economic Results

On a pre-tax basis, the Project has a Net Present Value (NPV) of $586M at a discount rate of 5%, an Internal Rate of Return (IRR) of 77%, and a payback period of 1.4 years. On an after-tax basis, the NPV is $371M at a discount rate of 5%, the IRR is 58%, and the payback period is 1.6 years. The payback period corresponds to the time at which the cumulative cash flow becomes positive.

The key economic results of the PEA for the Enchi Gold Project are presented in the table below.

Table 22.5.1 Summary of Financial Analysis

KEY PARAMETERS / DESCRIPTION	LOM
Economic Parameters	
Gold Price (US$/oz)	$1,850
Discount Rate	5%
Production	
Mine Life	9.0 years
Processing Throughput (max tonnes/yr)	8.1
Average Strip Ratio (waste:ore)	2.67
Avg. Annual Gold Production (ozs)	121,839
Max Annual Payable Gold Production (Year 6) (ozs)	155,188
LOM Payable Gold Production (ozs)	1,096,553
Average Gold Grade (g/t)	0.60
Average Gold Recovery (%)	81.8%
Avg. LOM Cash Costs (US$/oz)	$934
Avg. LOM Mine AISC Costs (US$/oz)*	$1,018
Operating Costs	
Mining Cost (US$/tonne mined)	$2.14
Mining Cost (US$/tonne feed)	$7.83
Processing Cost (US$/tonne feed)	$4.09
G&A Cost (Mine Site) (US$/tonne feed)	$0.67
Total Operating Cost (US$/tonne feed)	$12.58
Capital Costs	
Initial Capital Costs (US$M)	$106
Sustaining Capital (US$M)	$92
Closure Capital (US$M)	$18
Total Capital Expenditures (US$M)**	$216

KEY PARAMETERS / DESCRIPTION	LOM
Mineral Resource	
Total Current Resources (ozs Au)	1,579,600
Modelled Contained Resource (ozs Au)	1,342,608
% of Resources Modelled	85%
PRE-TAX VALUATION SUMMARY	
Total Cash Flow (US$M)	$787.8
Net Present Value (5% Discount Rate) (US$M)	$585.7
Internal Rate of Return (%)	77.1%
Payback Period (years)	1.4 years
AFTER-TAX VALUATION SUMMARY	
Total Cash Flow (US$M)	$505.7
Net Present Value (5% Discount Rate) (US$M)	$370.8
Internal Rate of Return (%)	57.9%
Payback Period (years)	1.6 years

Note: Numbers may not add due to rounding.

Table 22.5.2 summarizes other relevant average costs.

Table 22.5.2 Average Costs Summary

Operating Costs	LOM ($M)	$/tonne Leached	$/oz Au
Mining	$546	$7.83	$498
Processing	$285	$4.09	$260
Mine Site G&A	$47	$0.67	$43
Total Operating Costs	**$878**	**$12.58**	**$801**
Treatment & Refining Charges	$4	$0.06	$4
Royalties	$142	$2.03	$129
Total Cash Costs	**$1,042**	**$14.68**	**$934**
Sustaining Capital [(1)]	$92	$1.32	$84
All-in Sustaining Costs (AISC)	**$1,117**	**$16.00**	**$1,018**

Note: numbers may not add due to rounding.

[(1)] Sustaining capital excludes closure cost.

Table 22.5.3 summarizes the project economics at a gold price of $1,850/oz (base case) and $2,350 (approximate gold price at time of report).

Table 22.5.3 Summary of Project Economics

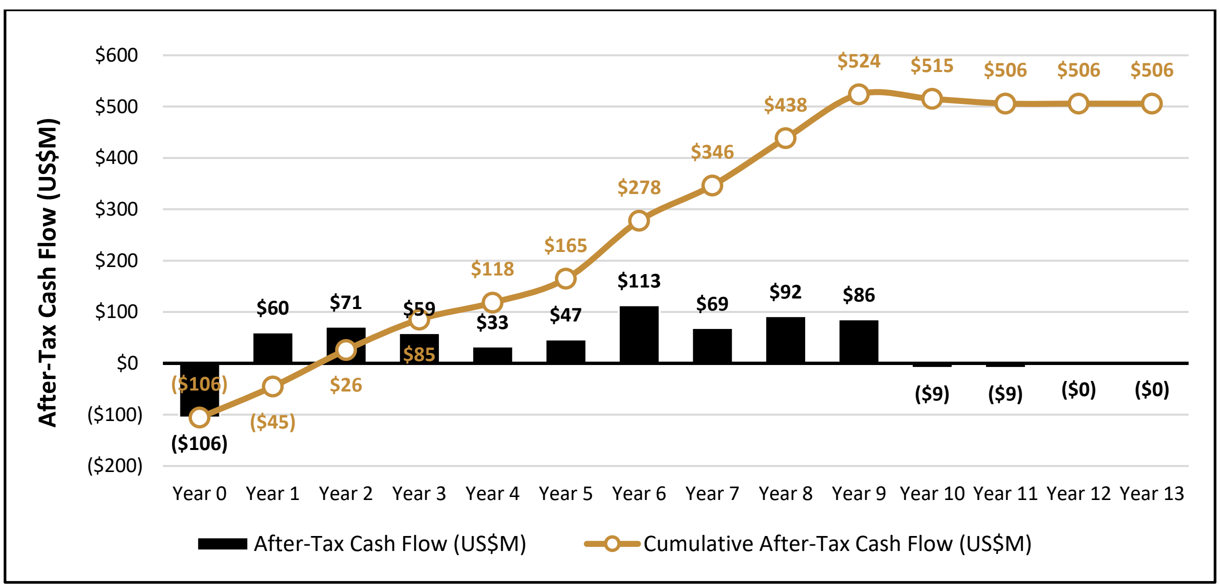
	Base Case Price		Approx. Price at Report Date	
Gold Price	**$1,850/oz**		**$2,350/oz**	
	Pre-Tax	**After-Tax**	**Pre-Tax**	**After-Tax**
Net Present Value (5% Discount Rate)	$586 million	$371 million	$987 million	$632 million
Internal Rate of Return	77%	58%	127%	92%
Payback (From Production Start)	1.4 years	1.6 years	0.8 years	1.1 years
LOM Cash Flow	$788 million	$506 million	$1,298 million	$837 million

22.5.2 Life of Mine Cash Flow Analysis

Figure 22.5.1 shows the cumulative and annual after-tax cash flow for the project at a gold price of $1,850/oz.

The cash flows starting for years 10 through 13 relate to closure cost and environmental monitoring.

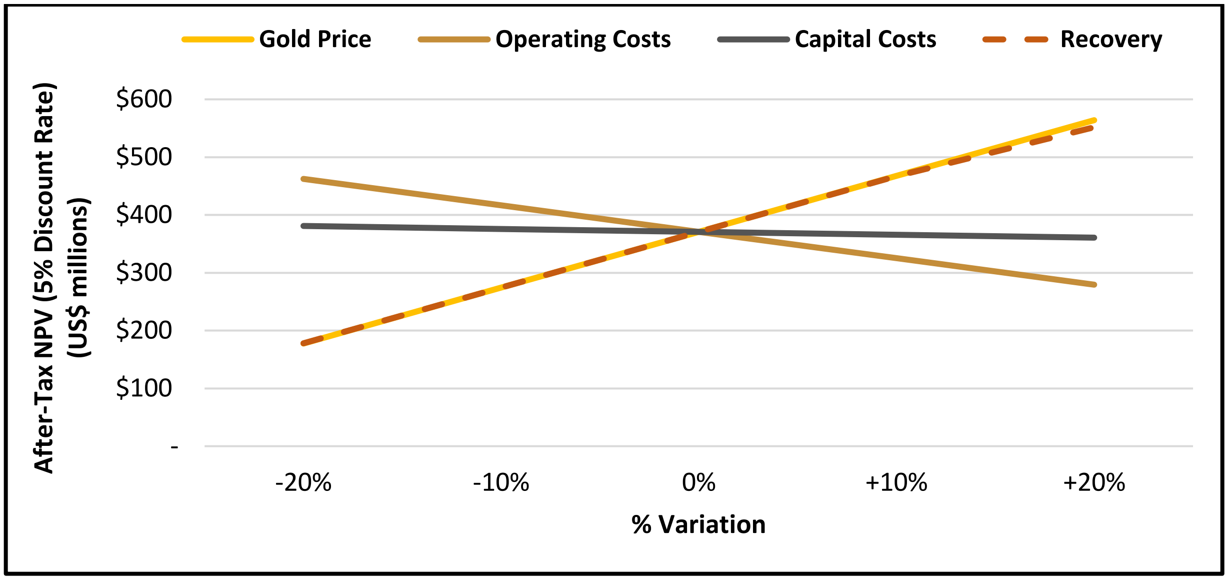
Figure 22.5.1 After-tax Cash Flow Analysis



22.5.3 Project Parameter Sensitivities

Sensitivity analysis was carried out to determine the effect of changes to input parameters on the base-case financial model. Each sensitivity analysis was performed independent of others.

Figure 22.5.2 Post-tax NPV Sensitivity Analysis Curves



The sensitivity of project NPV and IRR to gold price, recovery, OPEX and CAPEX are shown in the tables below, with the base case shown using bold font.

Table 22.5.4 Project Economics Sensitivity - Gold Price (Percentage Change)

Gold Price	-20%	-10%	0%	+10%	+20%
Gold Price Modelled (US$/oz)	$1,480	$1,665	$1,850	$2,035	$2,220
Pre-Tax NPV5% (US$M)	$289	$437	$586	$734	$883
Pre-Tax IRR (%)	41%	59%	77%	95%	114%
Pre-Tax Payback (years)	2.4	1.7	1.4	1.1	0.9
Pre-Tax Cash Flow (US$M)	$410	$599	$788	$976	$1,165
After-Tax NPV5% (US$M)	$178	$274	$371	$467	$564
After-Tax IRR (%)	32%	45%	58%	71%	83%
After-Tax Payback (years)	2.7	2.0	1.6	1.4	1.2
After-Tax Cash Flow (US$M)	$260	$383	$506	$628	$751

Table 22.5.5 Project Economics Sensitivity - Gold Price ($100 Increment Change)

Gold Price	$1,650	$1,750	$1,850	$1,950	$2,050	$2,150	$2,250	$2,350
Pre-Tax NPV5% (US$M)	$425	$505	$586	$666	$746	$827	$907	$987
Pre-Tax IRR (%)	58%	67%	77%	87%	97%	107%	117%	127%
Pre-Tax Payback (years)	1.7	1.5	1.4	1.2	1.1	1.0	0.9	0.8
Pre-Tax Cash Flow (US$M)	$584	$686	$788	$890	$992	$1,094	$1,196	$1,298
After-Tax NPV5% (US$M)	$266	$319	$371	$423	$475	$527	$580	$632
After-Tax IRR (%)	44%	51%	58%	65%	72%	78%	85%	92%
After-Tax Payback (years)	2.0	1.8	1.6	1.5	1.4	1.3	1.2	1.1
After-Tax Cash Flow (US$M)	$373	$439	$506	$572	$638	$705	$771	$837

Table 22.5.6 Project Economics Sensitivity - Gold Recovery (Percentage Change)

Gold Recovery	-10%	-5%	0%	+5%	+10%
Gold Recovery Modelled (%)	73.6%	77.7%	81.8%	85.8%	89.9%
Pre-Tax NPV5% (US$M)	$437	$512	$586	$660	$734
Pre-Tax IRR (%)	59%	68%	77%	86%	95%
Pre-Tax Payback (years)	1.7	1.5	1.4	1.2	1.1
Pre-Tax Cash Flow (US$M)	$600	$694	$788	$882	$976
After-Tax NPV5% (US$M)	$275	$323	$371	$419	$467
After-Tax IRR (%)	45%	52%	58%	64%	70%
After-Tax Payback (years)	2.0	1.8	1.6	1.5	1.4
After-Tax Cash Flow (US$M)	$383	$445	$506	$567	$628

Table 22.5.7 Project Economics Sensitivity - Operating Cost (Percentage Change)

Operating Cost	-20%	-10%	0%	+10%	+20%
Total OPEX ($/tonne)	$10.07	$11.33	$12.58	$13.84	$15.09
Pre-Tax NPV5% (US$M)	$726	$656	$586	$515	$445
Pre-Tax IRR (%)	98%	87%	77%	67%	57%
Pre-Tax Payback (years)	1.1	1.2	1.4	1.5	1.8
Pre-Tax Cash Flow (US$M)	$963	$875	$788	$700	$613
After-Tax NPV5% (US$M)	$462	$417	$371	$325	$279
After-Tax IRR (%)	72%	65%	58%	51%	44%
After-Tax Payback (years)	1.3	1.5	1.6	1.8	2.1
After-Tax Cash Flow (US$M)	$620	$563	$506	$449	$392

Table 22.5.8 Project Economics Sensitivity – Capital Cost (Percentage Change)

Capital Cost	-20%	-10%	0%	+10%	+20%
Total Capex ($M)	$198	$207	$216	$226	$235
Pre-Tax NPV5% (US$M)	$601	$593	$586	$578	$571
Pre-Tax IRR (%)	78%	78%	77%	77%	76%
Pre-Tax Payback (years)	1.4	1.4	1.4	1.4	1.4
Pre-Tax Cash Flow (US$M)	$806	$797	$788	$779	$769
After-Tax NPV5% (US$M)	$381	$376	$371	$366	$361
After-Tax IRR (%)	59%	58%	58%	57%	57%
After-Tax Payback (years)	1.6	1.6	1.6	1.6	1.6
After-Tax Cash Flow (US$M)	$518	$512	$506	$500	$494

22.6 Conclusion

An economic analysis of the mine schedule at a gold price of $1,850/oz shows the project is financially viable. The project is highly sensitive to the gold price and recovery.

23.0 ADJACENT PROPERTIES

Several exploration licences are active or in the application phase immediately adjacent to the Project (Figure 23.1.1). These exploration licences are all held by individuals and there is no public disclosure on the activities related to these licences.

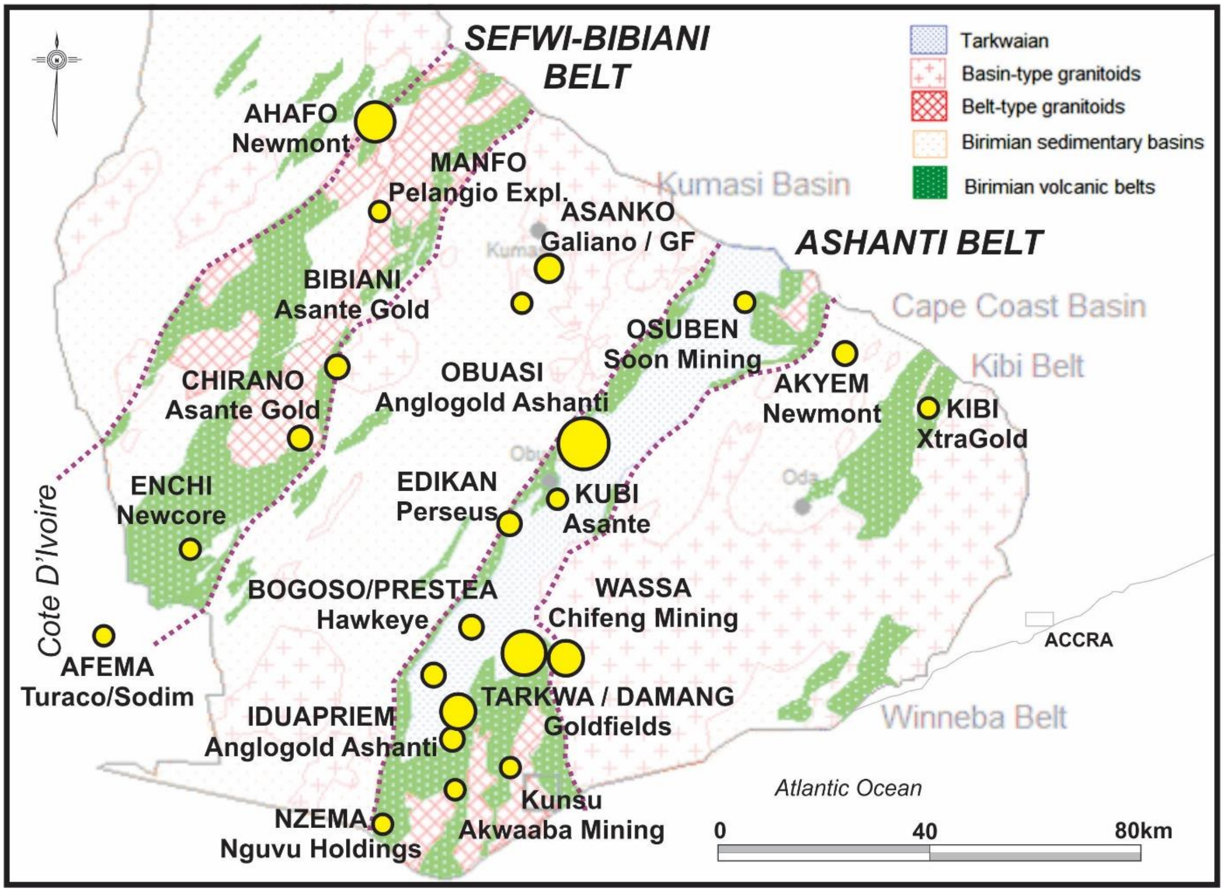
The Afema Gold Project, located in Cote d'Ivoire on the border of Ghana, is a joint venture between Turaco Gold Limited and Sodim Ltd and is located on the southern extension of the Enchi shear system. Afema includes a historical near-surface oxide and sulphide resource and lies within an area hosting several gold mineralized structures on extensions from the Sefwi Belt in Ghana, including the Woulo Woulo prospect. The Afema Property was reported to host, at a 0.5 g/t Au cut-off, an Indicated Mineral Resource Estimate of 5.1 Mt grading 1.10 g/t Au containing 179,000 ounces of gold and an Inferred Mineral Resource Estimate of 3.4 Mt grading 1.05 g/t Au containing 116,000 ounces of gold (Endeavour Mining Annual Report 2022).

Newcore's Enchi Gold Project is located 50 km south of Asante Gold Corporation's Chirano Gold Mine (previously held by Kinross). The Chirano Mine lies within the Proterozoic terrain of southwest Ghana, along a major structure separating the Sefwi Belt to the west from the Kumasi Basin to the east known as the Bibiani Shear Zone. The Project covers a 40-km segment of the Bibiani Shear Zone where known gold mineralization is associated with major structures and subsidiary splays. The Chirano Gold Mine is a well-established mine with both open pit and underground operations. Extensive existing Infrastructure includes its own installed power supply, access to the national power grid, a 3.6 Mtpa milling and CIL processing plant, tailings storage facilities, residential housing and clinic (Begg et. al., 2024). Chirano has been in production since 2005 and has produced over 3 million ounces of gold since then, with 2023 gold production of approximately 160,000 ounces. The deposits are hosted by fractured and altered mafic volcanics and granite and include stacked arrays of parallel veinlets, veinlet stockworks and mineralized cataclasites. The geometry and shape of the deposits range from tabular (Obra), or pipe-like (Tano) to multiple parallel lodes (Paboase). The mineralized zone thickness ranges from a few metres to over 70 m. Most deposits dip very steeply towards the west or southwest and plunge steeply. Generally, the tenor of mineralization is related to intensity of hydrothermal alteration (silica, ankerite, albite, sericite, pyrite), veining and brecciation. The gold is fine-grained and is associated with 1% - 5% pyrite (Begg et. al., 2024).

The Chirano Mine has 14 known gold deposits that occur along a mineralized zone over 11 km long. Regional exploration continues to identify extensions both to the north and south. The deposits range in strike length from 150 m to 700 m, and range in thickness from a few metres to over 70 m (Begg et. al, 2024). As of 31 December 2023, Proven and Probable Reserves were 18.7 Mt grading 1.76 g/t gold for 1.059 Moz (Begg et. al., 2024). Within the constrained pits, the Measured and Indicated Mineral Resources totalled 14.9 Mt grading 1.05 g/t gold for 0.503 Moz, and the Inferred Mineral Resource totalled 1.71 Mt grading 1.23 g/t gold for 0.068 Moz. Within constrained underground shapes, the Measured and Indicated Resources totalled 25 Mt grading 1.97 g/t gold for 1.585 Moz, and the Inferred Resource totalled 18.3 Mt grading 1.64 g/t gold for 0.963 Moz (Begg et. al., 2024)..

The QP has not verified the technical data on the Chirano Mine or Afema Project and the gold mineralization at Chirano or Afema is not necessarily indicative of the mineralization on the Enchi Gold Project.

Figure 23.1.1 Adjacent Properties (Newcore)



Data from; Goldfarb, et al; 2017, West Africa: The world's premier Paleoproterozoic gold province, and R. Lipson,et al; 2018, Gold Deposits of the Birimian and Tarkwaian in Ghana. Data from other projects not necessarily reflective of the Enchi Project.

24.0 OTHER RELEVANT DATA AND INFORMATION

This section is not relevant to this report.

25.0 INTERPRETATIONS AND CONCLUSIONS

25.1 Introduction

The QPs note the following interpretations and conclusions in their respective areas of expertise, based on the review of data available for this Report.

25.2 Metallurgical Testwork

The conclusions from the metallurgical and comminution testwork include:

- Enchi's deposits are suitable for heap leach processing with expected gold recovery between mid-80 to 90%.
- Oxide / transition recovery was lowered to 85% and sulphide recovery was lowered to 75% to maintain a conservative approach for the cash flow model.
- Oxide material is soft while sulphide material is competent based on the available CWi, BWi, and SMC data.
- As no comminution data is available for transition material, assumptions have been made for design purposes.
- A P80 size of ~40 mm is chosen for oxide / transition materials due to its soft nature.
- A P80 size of ~19 mm is chosen for sulphide and competent transition materials.
- Heap leaching can be divided into two periods: a 40-day solution limiting period and a 50-day time limiting period.
- Solution application rates are 10 L/m²/h for the first 40 days and 7 L/m²/h for the remaining 50 days.
- Average consumption rates based on pilot heaps include 1.9 kg/t of quicklime (90% CaO purity), 0.74 kg/t of NaCN, and 8.00 kg/t of Portland cement.

25.3 Geology and Mineral Resource Estimate

Based upon available information, the QP concludes the following, in no particular order of perceived importance:

- The Enchi Gold Project is analogous to shear-hosted gold mineralization with quartz veining. This style of mineralization is typical of Birimian lode gold deposits in Ghana and west Africa.
- The Property is associated with mineralization related to the Bibiani Shear Zone that also hosts large lode-gold deposits at Chirano and Bibiani.
- Gold mineralization on the Property is associated with secondary and tertiary order shears that splay off the Bibiani Shear Zone.
- Newcore has a good understanding of regional and district geology which supports the identification and interpretation of mineralized zones within the Property.
- Mineralization is currently defined in multiple zones along defined structures at various stages of exploration. Five of these zones contain drill defined mineral resources.
- Drilling and sampling procedures, sample preparation, and assay protocols have been conducted in compliance with industry best practices.
- Verification of drillhole collars, downhole surveys, drill sample assays and drillhole logs indicates that historic data collected by Redback and Edgewater is reliable and can be integrated with Newcore data to support the Enchi Gold Project Mineral Resource Estimate.
- Thorough QA/QC protocols demonstrate that drill data is sufficiently reliable to support the Enchi Gold Project Mineral Resource Estimate.
- Mineralisation models have been constructed according to industry standard practices.
- Geological understanding of the Property is sufficient to support the mineral resource estimation.
- An oxide domain, a transition domain, and a fresh domain have been identified in the drill logs.
- Open pit cut-off grades varied from 0.14 g/t to 0.25 g/t Au based on mining and processing costs as well as estimated gold recoveries in different weathered material.
- Based on the parameters for a large tonnage open pit and underground mining, heap leach processing operation, the Enchi Gold Project Indicated Mineral Resource totals 41.7 Mt with an average grade of 0.55 g/t Au, to provide 743.5 Kozs Au. The Inferred Mineral Resource totals 46.6 Mt with an average grade of 0.65 g/t Au to provide 972 Kozs Au.
- The current Mineral Resource Estimate is primarily pit constrained using parameters suitable for large open pit operations in Africa. Portions of the Inferred Mineral Resource include potential mineralization more suitable for underground mining operations.

- Specific gravity (SG) values used to determine tonnage were derived from testing selected sections of drill core from within the mineral resource area.

- Other exploration targets within the Property do not have enough data to support mineral resource estimations at this time. Exploration activities on these targets will not guarantee the delineation of additional mineral resources.

25.4 Mining Methods

Based on the pit optimization parameters and work completed in this PEA study:

- The Enchi Gold Project has a positive NPV between $410 M and $420 M for the Price Factors (PF) of 1.30 and 1.00, respectively, with the base case (PF 1.00) at a gold price of $1,650/oz.

- The optimum pit shells chosen for the in-pit mineral resources were at a Price Factor (PF) of 1.16 ($1,914/oz) for Boin and Sewum pits, a PF of 1.07 ($1,766/oz) for Nyam and Kwak, and a PF of 1.09 ($1,799/oz) for Tokosea.

- The strip ratio (SR) for the Boin, Sewum, Nyam and Kwak pits, in the range of 1.4 to 4.1, are reasonable for this type of deposit. The smaller deposits have higher strip ratios due to the small economic footprint in mainly oxide material.

- The Tokosea pit shell has the highest SR with 7.65 due to the small size between sloping hills along the pit crest on the east and west sides yet has a higher in situ grade (0.80 g/t) than all the other pits. Given the small size and high grades compared to the larger deposits, the high SR of this pit is reasonable for this project.

- The pit optimization established reasonable pit areas that gradually increases or decreases depending on the economic variables such as price and costs.

- The oxide and upper transition material are scheduled to be mined from all five pits before the lower transition and fresh materials, hence delaying the capital cost required for installation of two-stage crushing equipment to years 4 and 5.

- The Boin and Sewum deposits were the most significant portion of the Project mineral resources within the resulting pit shells.

- The Boin deposit has a higher strip ratio than Sewum yet was chosen to be mined first due to the higher average grade which should potentially maximize the gold ounces processed during the initial two years of operations.

25.5 Recovery Methods

Based on metallurgical testwork completed thus far, the following flowsheet has been selected for the PEA:

- Primary mineral sizer to crush the mineralized material to a P_{80} of 40-50 mm.
- Future installation of a two-stage crushing plant to achieve a P_{80} of 19 mm for harder mineralization material types.
- Agglomeration of crushed mineralized material with cement and cyanide solution in a rotating drum to enhance percolation within the leach pad.
- Grasshopper conveyors and radial stacker to stack crushed mineralized material on the leach pad in 5 m lifts.
- Cyanide solution application at a rate of 10 $L/m^2/hr$ for the 40-day 'solution limiting' period, followed by a decreased rate of 7 $L/m^2/hr$ for the 40-day 'time limiting' period. Leaching will continue in each cell for up to 90 days.
- Carbon-in-column (CIC) process to load gold onto activated carbon from pregnant solution drained from the leach pad.
- Construction of barren, pregnant, and excess solution ponds to manage operational upsets, pregnant solution drain-down, and accommodate stormwater, respectively.
- Pressure Zadra elution circuit with gold recovery to electrowinning sludge and a rotary kiln to regenerate the barren carbons from the circuit.
- A drying oven and smelting furnace to refine the electrowinning gold sludge into a final doré product.

25.6 Infrastructure

The infrastructure plan for the Enchi Gold Project outlines facilities and systems supporting mining, processing, and construction. The site, located between the Sewum and Boin deposits features primary components such as open pit mines, crushing facilities, heap leach facility (HLF), and a processing plant.

Internal roads connect various areas including mines, processing plant, and support facilities. Key infrastructure includes crushing and mineralized material preparation facilities, HLF, processing plant, security building, and mine services like assay lab and maintenance workshops. Power supply options were evaluated, with an onsite gas power station via an Independent Power Producer (IPP) deemed most feasible.

Water systems involve sourcing raw water from boreholes, fire water piped through underground mains, and potable water treated to local standards. Sewage treatment involves underground collection and licenced disposal. Accommodation for staff will be off-site in rental units at the nearby town of Enchi. Overall, the plan addresses essential needs for operations while considering local conditions and sustainability.

25.7 Environmental, Permitting and Social Considerations

Preliminary baseline environmental and social studies were undertaken for the Project in 2023 by Ghanaian consultants Abbakus Geosocial Consult (AGC) Ltd, and in 2015 by Ghanaian consultants Kings Environmental Resource Management Consultancy (KERMC). Site visits undertaken as part of those studies were used to gain a general understanding of field conditions, identify the Project area of influence, and establish the physical, biological, socio-economic and cultural setting.

The preliminary baseline studies did not identify any significant barriers to Project development. A detailed environmental and social impact assessment (ESIA) has not yet been undertaken for the Project and is not yet required. Continued development of the Project will trigger a range of regulatory requirements and processes which may require additional baseline studies, impact assessment, public consultation, in addition to any terms and conditions outlined by the regulatory authorities.

The Project currently comprises 9 Prospecting Licences. Four of the Prospecting Licences (Sewum, Enkye, Nyamebekyere and Yehikwawkrom) expired in 2023, and their extension is pending. Letters from Mincom to the Minister recommending extension had been received for the 4 licences and confirmation letters from the Ministry confirming the 3 year extension would be granted have been received for Enkye and Yehikwawkrom. Extensions for all of the licences are expected. Two of the Prospecting Licences (Abotia and Omanpe) are valid until April 2026, following confirmation of their renewal in 2023. Three of the Prospecting Licences (Nyame Esa, Nkwanta and Anguzu) are pending initial confirmation.

The Project will be designed to minimize environmental impacts as far as possible and enhance socio-economic opportunities. The main potential risks and impacts identified are related to natural hazards (forest fires, flooding, landslips), air emissions, noise and vibration, water, biodiversity, and heap leach management. Socio-economic impacts will mainly be positive, though it will be important to manage community relations, continue proactive stakeholder engagement, and understand potential legacy issues associated with historic and artisanal mining.

A detailed closure cost estimate has not yet been developed but an indicative amount of $18.4M has been budgeted. Closure objects will be integrated into all activities throughout the life of mine (LOM).

25.8 Capital Cost Estimate

The preliminary economics of the Enchi Gold Project can be assessed using the capital and operational cost estimates detailed in this PEA. The calculations are based on an open pit mining operation concept, heap leach design, the development of a processing plant, infrastructure, and the Owner's expenses and provisions.

The capital cost estimate conforms to Class 5 guidelines for a preliminary economic assessment level estimate with a +50%/-30% accuracy according to the Association for the Advancement of Cost Engineering International (AACE International). The capital cost estimate was developed in Q1 2024 based on Lycopodium's in-house database of projects and studies, experience from similar operations and inputs from Micon.

The total initial capital cost for the Enchi Project is $105.8 M and the life-of-mine sustaining cost is $92.4 M.

25.9 Operating Cost Estimate

The operating cost estimate was developed in Q1 2024 using data from projects, studies, and previous operations from Lycopodium's internal database. The operating cost estimate conforms to preliminary economic assessment accuracy of +50%/-30%. The estimate covers the general and administrative (G&A), and mining and processing. The unit operating cost per tonne of material milled is $12.58/t leached.

25.10 Economic Analysis

The economic analysis was performed assuming a 5% discount rate. Cash flows have been discounted to the start of construction, assuming that the project execution will be made, and major project financing will be carried out at this time.

The pre-tax NPV discounted at 5% is $586M, with a pre-tax IRR of 77% and payback period of 1.4 years. On an after-tax basis, the NPV discounted at 5% is $371M, with an after-tax IRR of 58%, and payback period of 1.6 years. Cumulative after-tax unlevered free cash flow totals $506M. Tax calculations are based on Newcore's understanding of current Ghana tax regulations as of the effective date of this report.

The sensitivity analysis revealed that the Project's NPV is most sensitive to changes in gold price and operating cost, whereas IRR is sensitive to gold price and initial capital cost.

Readers are cautioned that the PEA 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 PEA will be realized. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

A summary of the project economics is listed in Table 25.10.1, and after-tax free cash flow is shown graphically in Figure 25.10.1.

Table 25.10.1 Economic Analysis Summary

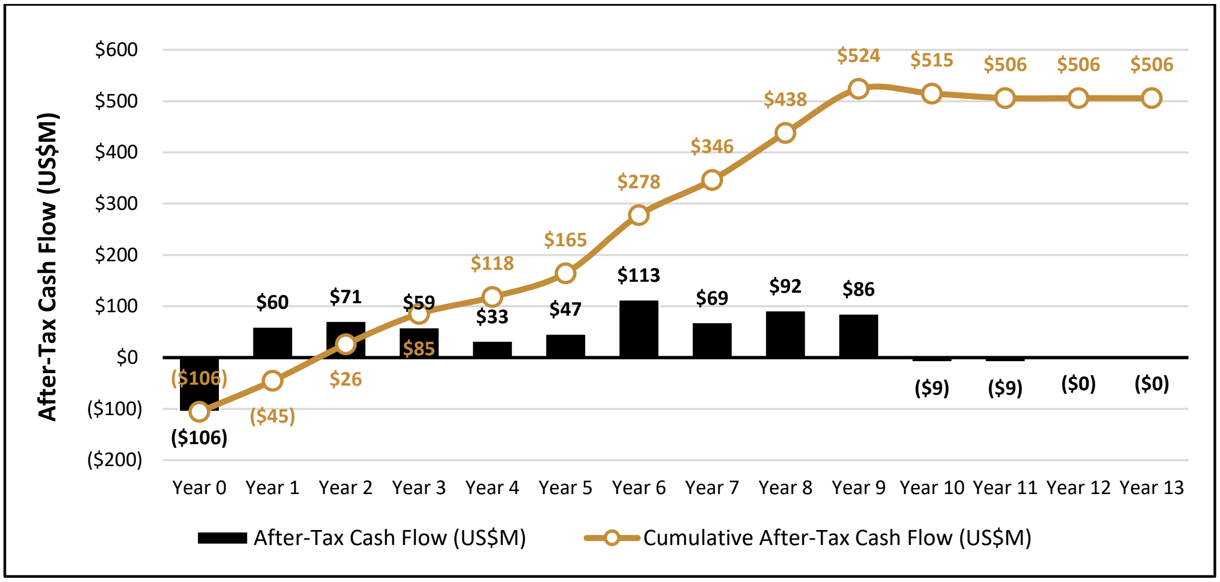
Key Assumptions	
Base Case Gold Price	$1,850/oz
Production Profile	
Total Tonnes Processed (mt)	69.8
Total Tonnes Waste (mt)	186.1
Strip Ratio	2.67
Heap Leach Feed Grade	0.60 g/t Au
Mine Life	9 years
Throughput (mtpa)	8.1
Gold Recovery	81.8%
LOM Payable Gold Production (ozs Au)	1,096,553
LOM Average Annual Gold Production (ozs Au)	121,839
Peak Gold Production (ozs Au)	155,188
Unit Operating Costs	
LOM Average Operating Cost (1)	$801/oz gold
LOM Average Cash Cost (2)	$934/oz gold
LOM AISC (Cash Cost plus Sustaining Cost) (3)	$1,018/oz gold
Capital Costs	
Initial Capital Cost	$106 million
LOM Sustaining Capital Cost	$92 million
Closure Cost	$18 million

(1) Cash costs consist of mining costs, processing costs, and mine-site G&A.

(2) Cash Costs consist of operating costs plus treatment and refining charges, and royalties.

(3) AISC consists of cash costs plus sustaining capital (excluding closure costs and taxes.)

Figure 25.10.1 After-Tax Project Unlevered Free Cashflow



25.11 Risks and Opportunities

25.11.1 Risks

1. The proposed equipment for crushing, the mineral sizer can reduce the feed size to P_{80} of 40-50 mm which is coarser than the samples used in the testwork. This may present recovery risk since the heap leach material will be coarser in size.

2. The mine plan assumed that the oxide material and 50% of the transition material will be mined without drilling and blasting. Additional test work is required to validate this assumption.

3. Assumptions were made for the pit slope angles. No geotechnical or hydrogeological studies were included in the PEA.

4. The capital cost of the process facilities will be sensitive to the geotechnical conditions in the specific areas of facility construction. Geotechnical investigations will be necessary to confirm and optimize the location of the process facilities.

5. The resource exploration industry is an inherently risky business with significant capital expenditures and volatile metals markets. The marketability of any minerals discovered may be affected by numerous factors that are beyond Newcore's control and which cannot be predicted, such as market fluctuations, mineral markets and processing equipment, and changes to government regulations, including those relating to royalties, allowable production, importing and exporting of minerals, and environmental protection.

6. The mining industry is intensely competitive and there is no guarantee that, even if commercial quantities are produced, a profitable market will exist for their sale. Newcore competes with other junior exploration companies for the acquisition of mineral claims as well as for the engagement of qualified contractors. Metal prices have fluctuated widely in recent years, and they are determined in international markets over which Newcore has no influence.

7. It is important to continue to have strong engagement with the local communities, lack of community engagement can present a risk of losing stakeholder support for development of the Project.

These risks are common for this stage of gold projects and are similar risk factors to other gold projects of this stage and nature.

25.11.2 Opportunities

1. The Mineral Resource Estimate for all 5 deposits remains open along strike presenting an opportunity for potential Mineral Resource growth and mine life extension by continuing to step-out and add near surface oxide and transitional material.

2. The average vertical depth of the pits that constrains the Mineral Resource Estimate is only 70-80 metres and remains open in the down-dip direction, presenting opportunities for future resource growth.

3. Newcore has identified over 25 targets across the Enchi Gold Project and has only drilled 9 of them to date. This presents an opportunity to grow the overall Mineral Resource Estimate and extend mine life by adding new resource areas.

4. The average overall gold recovery of 81.8% has been used for heap leaching recovery based on a conservative interpretation of the preliminary metallurgical test work that has been done to date. A higher gold recovery than modeled in the PEA may be possible as the base case interpretation of the test work results completed to date indicates a recovery of 88.3% (including plant losses).

5. Additional comminution testwork may indicate that the second train of the 2-stage crushing plant may not be required as the deeper transition material may be soft enough to process via the mineral sizer.

6. Deeper drilling is expected to continue to grow the open pit sulphide mineralization and higher grade underground Mineral Resource presenting an opportunity to add a CIL plant in the future and grow the overall production profile of the Enchi Project.

25.12 Conclusion

The Mineral Resources currently estimated for the Enchi Gold Project consist of an Indicated Mineral Resource of 743,500 ounces of gold (41.7 million tonnes at an average grade of 0.55 g/t gold) and an Inferred Mineral Resource of 972,000 ounces of gold (46.5 million tonnes at an average grade of 0.65 g/t gold). The PEA provides a base case assessment for developing the Enchi mineral resource by conventional open pit mining methods, and gold recovery using a standard crushing circuit and heap leach processing.

The PEA economic analysis shows the Enchi Gold Project has an after-tax NPV_5% of \$371M, IRR of 58%, and a payback period of 1.6 years. The PEA economics support a decision to continue to advance the Project and carry out additional detailed studies, including a pre-feasibility study.

26.0 RECOMMENDATIONS

26.1 Overall Recommendations

The results presented in this technical report demonstrate that the Enchi Gold Project is technically and economically viable. It is recommended to continue developing the Project through pre-feasibility study (PFS). Table 26.1.1 summarizes the proposed budget to advance the Project through the pre-feasibility stage.

Table 26.1.1 Proposed Pre-Feasibility Study Budget Summary

Description	Cost
Drilling (RC Infill)	$3,215,000
Labour & Support Costs	$200,000
Access & Compensation	$200,000
Community & Stakeholder Engagement	$200,000
Metallurgical Testwork Program	$200,000
Hydrogeological & Geotechnical Study	$100,000
Geology Model Update & Report	$200,000
Geotechnical Design Support	$80,000
PFS Mining & Processing Design	$760,000
Final Report & Economic Model	$120,000
Total	**$5,275,000**

26.2 Mine Engineering

Micon's QP has the following recommendations for the mining section of the Project:

- A geotechnical evaluation / study should be completed before the next study stage, evaluating safe pit slopes and impact of faults, waste storage facilities slopes and footprint stability, and leach pad footprint stability.
- The pit optimization should be revised after further geotechnical data becomes available.
- In future study stages, vendors should utilize detailed pit designs and a production schedule for a higher degree of accuracy and to further optimize the NPV.
- Further infill drilling should be done to potentially bring the classification of Inferred material up to Indicated material, to qualify inclusion into the next phase PFS for potential mineral reserves.

26.3 Metallurgical Testing

The following testwork recommendations have been made to advance the design in the next phase (PFS):

Sample Requirement

- Obtain a minimum of 1 master composite sample for each mineralization type, using interval composite samples from drill cores.
- Determine the number of representative samples required.

Comminution Testwork

- Crushing work index (CWi) testwork for fresh and oxide material.
- SMC testwork (BWi, Ai, A x b) for fresh and transition material.
- UCS testwork for oxide and transition material to verify mineral sizer requirements.

Ore Characterization Testwork

- Size-by-size head assay analysis for gold with top size in the +40mm range.
- Quantitative and semi-quantitative analyzes (ICP scan) for other elements (Ag, As, Hg, Ca, carbon, Cu, and sulphur species, etc.).
- True specific gravity (S.G.).
- Moisture content.
- Bulk density.

Heap Leach Testwork

- Recovery analysis via bottle rolls for coarse oxide and early transition material at P_{80} 40-50 mm by screening out -40 mm from oxides and crushing the +50 mm material to sieve to 40-50 mm.
- Recovery analysis via bottle rolls for sulphide and harder transition material at P_{80} 19mm.
- Additional recovery analysis on other crush sizes may be required based on the results.
- Agglomeration tests at varying cement dosages.

- Percolation tests.
- Column leach tests on agglomerated oxide / transition fine material (-50 mm) and un-agglomerated harder sulphide / transition material to determine if agglomeration is necessary.
- Mineralogical examination of samples' tails as necessary.
- Acid-base testing to verify if sulphide material is acid-generating.

26.4 Environmental, Social and Community Impact

Recommendations that are considered important for advancing the development of the Project include the following:

- Undertake additional baseline studies. This will ensure seasonality has been properly studied and taken into account and will help to establish a more comprehensive body of knowledge against which to assess potential impacts of development. Consider participation by local community volunteers in ongoing monitoring, and peer-reviewing the studies against international requirements. Social baseline studies should include detailed mapping of local villages. It is also advisable to document progress with the recommendations made in previous baseline studies.
- Engage with local conservation organizations to better determine the presence / absence of threatened / protected species and potential migration routes for mammals and birds.
- Install additional basic monitoring infrastructure such as a weather and air quality station at the exploration camp and additional groundwater monitoring boreholes to complement current monitoring infrastructure and existing boreholes.
- Undertake a hydrogeological study and ARDML testwork.
- Ensure all stakeholder interactions, including informal meetings, continue to be documented and filed to assist the Community Relations team in future should the Project proceed to an operational mine.
- Ensure ongoing community investment is done in a strategic and sustainable way so that any supported projects / infrastructure can be independently managed and maintained.
- Integrate sensitive / protected areas into the GIS used by the exploration team, to minimize the risk for damage, for example to cultural heritage sites and known wildlife habitats.

- Continue to ensure exploration drill holes and trenches are properly sealed, to minimize land disturbance and avoid future problems with water connectivity – further expand formal procedure for this and ensure the closure of all drill sites is properly documented, in particular near the proposed heap leach location.

- Regularly review the project design, to adapt to emerging environmental and social risks and incorporate the latest available materials and methods for environmental protection.

- Prior to commencing the construction and operational phases of the Project, development of an Environmental and Social Management System (ESMS) and Occupational Health and Safety Management System (OHSMS) should be completed and implemented, with staff and contractors trained in their respective responsibilities and associated procedures. It is recommended that these management systems are aligned with ISO 14001 and ISO 45001 requirements, and that due consideration is given to the various GIIP guidelines and voluntary commitments that Newcore intends to follow.

26.5 Prefeasibility Study

To progress the project, it is recommended to conduct prefeasibility level design and engineering to improve the accuracy of cost estimation. This shall include optimizing the mine plan, updating the process design using results from additional metallurgical test data, and conduct engineering of other disciplines such as mechanical, civil, structural and electrical engineering producing MTOs.

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28.0 QP CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

I, Preetham Nayak, P. Eng., as an author of this report entitled "NI 43-101 Technical Report, Preliminary Economic Assessment on the Enchi Gold Project, Ghana", prepared for Newcore Gold Ltd. and dated 7 June 2024, do hereby certify that:

1) I am a Study Manager with Lycopodium Minerals Canada Ltd., with a business address at 5090 Explorer Dr, Suite 700, Mississauga, ON, L4W 4T9.

2) I am a graduate of the University of British Columbia with a Masters of Applied Science degree, honours Mining Engineering, 2015 and a graduate of the National Institute of Technology Karnataka, India with a Bachelors of Technology degree in Mining Engineering, 2010.

3) I am a Member of Engineers and Geoscientists British Columbia and registered as a Professional Engineer in the province of British Columbia (Licence Number 47553). I have practiced my profession in the mining and metals industry continuously since graduation.

4) My relevant experience for the purpose of the Technical Report includes:

   - Over 8 years of experience with design and management of gold projects

   - Study manager for several preliminary economic assessment studies

   - Development, execution and interpretation of capital cost estimate and cashflow modelling in gold and copper projects.

5) I have read the definition of 'qualified person' set out in National Instrument 43-101 ('NI 43-101') and certify that by virtue of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a 'qualified person' for the purposes of NI 43-101.

6) I have not visited the Enchi Gold Project site.

7) I am responsible for Sections 1.1, 1.2, 1.12.1, 1.13, 1.14, 1.15, 2 – 6, 19, 21.1, 21.2.1 – 21.2.4, 21.2.6 – 21.2.12, 22, 24, 25.1, 25.8, 25.10 – 25.12, 26.1, 26.5 and 27 of the Technical Report.

8) I have not been involved in the previous Technical Report on the Enchi Gold Project's preliminary economic assessment.

9) I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10) To the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this 6th day of June 2024

"Signed and Sealed"

Preetham Nayak, P. Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Ryda Peung, P. Eng., as an author of this report entitled "NI 43-101 Technical Report, Preliminary Economic Assessment on the Enchi Gold Project, Ghana", prepared for Newcore Gold Ltd. and dated 7 June 2024, do hereby certify that:

1) I am a Principal Process Engineer with Lycopodium Minerals Canada Ltd., with a business address at 5090 Explorer Dr, Suite 700, Mississauga, ON, L4W 4T9.

2) I am a graduate of the University of Waterloo with a Bachelor of Applied Science degree, honours Chemical Engineering, 2008.

3) I am a Member of Ontario Professional Engineers and registered as a Professional Engineer in the province of Ontario (Member Number 100136514). I have practiced my profession in the mining and metals industry continuously since graduation.

4) My relevant experience for the purpose of the Technical Report includes:

   - Over 16 years of experience with design and engineering of minerals processing plants, with expertise in gold processing

   - Lead Process Engineer on a number of feasibility studies and detailed designs in the gold industry in Africa.

   - Development, execution and interpretation of a number of testwork programs in gold and copper projects.

5) I have read the definition of 'qualified person' set out in National Instrument 43-101 ('NI 43-101') and certify that by virtue of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a 'qualified person' for the purposes of NI 43-101.

6) I have not visited the Enchi Gold Project site.

7) I am responsible for Sections 1.9, 1.12.2, 13.0, 17.0, 21.3.1, 21.3.3, 21.3.4, 25.2, 25.5, 25.9, and 26.3 of the Technical Report.

8) I have not been involved in the previous Technical Report on the Enchi Gold Project's preliminary economic assessment.

9) I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10) To the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this 6th day of June 2024

"Signed and Sealed"

Ryda Peung, P. Eng.

CERTIFICATE OF QUALIFIED PERSON

I, Zunedbhai Shaikh, P. Eng., as an author of this report entitled "NI 43-101 Technical Report, Preliminary Economic Assessment on the Enchi Gold Project, Ghana" for the Enchi Gold Project, Ghana, West Africa, prepared for Newcore Gold Ltd. and dated 7 June 2024, do hereby certify that:

1) I am a Senior Mechanical Engineer with Lycopodium Minerals Canada Ltd., with a business address at 5090 Explorer Dr, Suite 700, Mississauga, ON, L4W 4T9.

2) I am a graduate of the Toronto Metropolitan University (formerly Ryerson University) with a Bachelor of Engineering in 2008.

3) I am a Member of Ontario Professional Engineers and registered as a Professional Engineer in the province of Ontario (Member Number 100137621).

4) I have practiced my profession in the mining and metals industry continuously since graduation. Throughout my career I have worked on numerous studies and detail design projects, focusing on process plant and associated infrastructure layout, material handling and mechanical and piping design.

5) I have read the definition of 'qualified person' set out in National Instrument 43-101 ('NI 43-101') and certify that by virtue of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a 'qualified person' for the purposes of NI 43-101.

6) I have not visited the Enchi Gold Project site.

7) I am responsible for Sections 1.10, 18.0 and 25.6 of the Technical Report.

8) I have not been involved in the previous Technical Report on the Enchi Gold Project's preliminary economic assessment.

9) I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10) To the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this 6th day of June 2024

"Signed and Sealed"

Zunedbhai Shaikh, P. Eng.

CERTIFICATE OF QUALIFIED PERSON

As a Qualified Person (QP) of this report for Newcore Gold Ltd. (Newcore) entitled "NI 43-101 Technical Report, Preliminary Economic Assessment on the Enchi Gold Project", dated June 07, 2024, with an effective date of April 24, 2024, I, Kerrine Azougarh, P. Eng., do hereby certify that:

1) I am employed as a Principal Mining Engineer by Micon International Limited (Micon), Suite 601, 90 Eglinton Avenue East, Toronto, ON, Canada, M4P 2Y3.

2) I hold a B.Sc. degree in Mining Engineering from the University of Alberta, Canada, 1993.

3) I am a member in good standing of the Professional Engineers of Ontario (PEO), Membership # 100106200.

4) I have continuously worked as an open pit mining engineer since 1993. My experience includes operational and consulting services within the mining industry, consulting on numerous open pit mining projects throughout Africa, Australia, and the Americas, in gold, silver, PGMs, base metals, and other commodities. I have worked on projects through the different study phases as well as due diligence, and independent engineering projects.

5) I am familiar with NI 43-101 and form 43-101F1 and by reason of education, experience and professional registration with PEO, I fulfill the requirements of a QP as defined in NI 43-101.

6) I have visited the Enchi Project site in Ghana from January 29 to February 2, 2024.

7) I am responsible for the preparation of Sections 1.8, 1.11, 16, 20, 21.2.5, 21.3.2, 25.4, 25.7, 26.2 and 26.4 of the Technical Report.

8) I am independent of Newcore and their subsidiaries, applying the test set out in Section 1.5 of NI 43-101.

9) This is the first Technical Report I have participated on for the Enchi Gold Project.

10) I have read NI 43-101, and Sections 1.8, 1.11, 16, 20, 21.25, 21.32, 25.4, 25.7, 26.2 and 26.4 of the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

11) As of the date of this certificate to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make this report not misleading.

Report dated this67th day of June 2024 with an effective date of 24th day of April 2024.

"*Kerrine Azougarh" {signed as of the report date}*

Kerrine Azougarh, P.Eng.

17 Orphan Crescent
Labone, Accra
P.O. Box 2805, Osu, Accra

telephone: +233 302 784 124
email: ghana@sems-exploration.com
website: www.sems-exploration.com

CERTIFICATE OF QUALIFIED PERSON

I, **Simon Meadows Smith**, Registered Geologist, as an author of this report entitled **NI43-101 Technical Report Preliminary Economic Assessment** for the **Enchi Gold Project**, SW Ghana, prepared for **Newcore Gold Ltd** and dated, 7th June 2024 do hereby certify that:

1) I am the Managing Director of SEMS Exploration Services Ltd. My office address is 19 Orphan Crescent, Labone, Accra, Ghana.

2) I am a graduate of the University of Nottingham in 1988 with a Bachelor of Science degree in Geology.

3) I am a Fellow of Institute of Materials Minerals and Mining and registered as a QMR Geologist (Qualified for Minerals Reporting) in London, UK with registration number 49627. I have worked as a mineral exploration Geologist for a total of thirty-five years since my graduation. My relevant experience for the purpose of the Technical Report is:

   - review and report as a consultant on numerous gold exploration and mining projects in west Africa for due diligence and regulatory requirements.

   - Principal Geologist on a number of mineral resource estimations and economic studies in the gold industry of west Africa.

   - Principal Geologist on several gold deposit discoveries in West Africa that have subsequently been mined.

4) I have read the definition of 'qualified person' set out in National Instrument 43-101 ('NI 43-101') and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a 'qualified person' for the purposes of NI 43-101.

5) I visited the Enchi Gold Project in December 2022.

6) I am responsible for Item Nos. 1.3 -1.7, 7 - 12, 14, 15, 23, 25.3 and of the Technical Report.

7) I am independent of the Issuer applying the test set out in Section 1.5.(4) of NI 43-101.

8) I have been involved in the previous Technical Report on the Enchi Gold Project.

9) I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10) To the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this 6th June, 2024

"Signed and Sealed"

Simon Meadows Smith

Registered Geologist
Fellow IMMM