

NEWCORE GOLD LTD.  
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# ENCHI GOLD PROJECT RESOURCE UPDATE, ENCHI, GHANA

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# TITLE PAGE

## ENCHI GOLD PROJECT

### RESOURCE UPDATE, ENCHI, GHANA

NEWCORE GOLD LTD.

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# ABBREVIATIONS

## UNITS OF MEASURE

above mean sea level .....	amsl	kilograms per cubic metre .....	kg/m <sup>3</sup>
acre .....	ac	kilograms per hour .....	kg/h
ampere .....	A	kilograms per square metre .....	kg/m <sup>2</sup>
annum (year) .....	a	kilometre .....	km
billion .....	B	kilometre .....	km
billion tonnes .....	Bt	kilometres per hour .....	km/h
billion years ago .....	Ga	kilopascal .....	kPa
British thermal unit .....	BTU	kiloton .....	kt
Centimetre .....	cm	kilovolt .....	kV
cubic centimetre .....	cm <sup>3</sup>	kilovolt-ampere .....	kVa
cubic feet per minute .....	cfm	kilowatt .....	kW
cubic feet per second .....	ft <sup>3</sup> /s	kilowatt hour .....	kWh
cubic foot .....	ft <sup>3</sup>	kilowatt hours per tonne .....	kWh/t
cubic inch .....	in	kilowatt hours per year .....	kWh/a
cubic metre .....	m <sup>3</sup>	less than .....	<
cubic yard .....	yd <sup>3</sup>	litre .....	L
Coefficients of Variation .....	Cvs	litres per minute .....	L/m
day .....	d	megabytes per second .....	Mb/s
days per week .....	d/wk	megapascal .....	Mpa
days per year (annum) .....	d/a	megavolt-ampere .....	Mva
dead weight tonnes .....	DWT	megawatt .....	MW
decibel adjusted .....	Ba	metre .....	m
decibel .....	dB	metres above sea level .....	masl
degree .....	°	metres Baltic sea level .....	mbsl
degrees Celsius .....	°C	metres per minute .....	m/min
diameter .....	∅	metres per second .....	m/s
dollar (American) .....	US\$	microns .....	µm
dollar (Canadian) .....	CAN\$	milligram .....	mg
dry metric ton .....	mt	milligrams per litre .....	mg/L
foot .....	ft	millilitre .....	mL
gallon .....	gal	millimetre .....	mm
gallons per minute .....	gpm	million .....	M
Gigajoule .....	GJ	million bank cubic metres .....	Mbm <sup>3</sup>
Gigapascal .....	GPA	million bank cubic metres per annum .....	Mbm <sup>3</sup> /a
Gigawatt .....	GW	million tonnes .....	Mt
Gram .....	g	minute (plane angle) .....	'
grams per litre .....	g/L	minute (time) .....	min
grams per tonne .....	g/t	month .....	mo
greater than .....	>	ounce .....	oz
hectare (10,000 m <sup>2</sup> ) .....	ha	pascal .....	Pa
hertz .....	Hz	centipoise .....	mPa·s
horsepower .....	hp	parts per million .....	ppm
hour .....	h	parts per billion .....	ppb
hours per day .....	h/d	percent .....	%
hours per week .....	h/wk	pound(s) .....	lb
hours per year .....	h/a	pounds per square inch .....	psi
inch .....	in	revolutions per minute .....	rpm
kilo (thousand) .....	k	second (plane angle) .....	"
kilogram .....	kg	second (time) .....	s

short ton (2,000 lb) ..... st  
short tons per day ..... st/d  
short tons per year ..... st/y  
specific gravity ..... SG  
square centimetre ..... cm<sup>2</sup>  
square foot ..... ft<sup>2</sup>  
square inch ..... in<sup>2</sup>  
square kilometre ..... km<sup>2</sup>  
square metre ..... m<sup>2</sup>  
three-dimensional ..... 3D

tonne (1,000 kg) (metric ton) ..... t  
tonnes per day ..... t/d  
tonnes per hour ..... t/h  
tonnes per year ..... t/a  
tonnes seconds per hour metre cubed ..... ts/hm<sup>3</sup>  
volt ..... V  
week ..... wk  
weight/weight ..... w/w  
wet metric ton ..... wmt

## ACRONYMS

ADR ..... Adsorption-Desorption-Recovery  
Ai ..... Abrasion Index  
BLEG ..... Bulk Leach Extractable Gold  
BOQ ..... Bill of Quantity  
CEPA ..... Centre for Policy Analysis  
CIC ..... Carbon-in-Column  
CIM ..... Canadian Institute of Mining, Metallurgy and Petroleum  
CP ..... Companion Policy  
CRM ..... Certified Reference Material  
Cwi ..... Bond Crushability Work Index  
DIBK ..... Di-Isobutyl Ketone  
DTM ..... Digital Terrain Model  
EAR ..... Environmental Assessment Regulations  
ECG ..... Electricity Commission of Ghana  
ECZ ..... East Contact Zone  
Edgewater ..... Edgewater Exploration Ltd.  
EDM ..... Electronic Distance Measurement  
EMP ..... Environmental Management Plan  
Energold ..... Energold Drilling Corp.  
EPA ..... Environmental Protection Agency  
EPAA ..... Environmental Protection Agency Act  
EPCM ..... Engineering, Procurement, Construction Management  
ESIA ..... Environmental and Social Impact Assessment  
ID<sup>2</sup> ..... Inverse Distance Squared  
IFC ..... International Finance Corporation  
Kinross ..... Kinross Gold Corporation  
Leo Shield ..... Leo Shield Exploration Ghana NL  
LIDAR ..... Light Detection and Ranging  
LOI ..... Letter of Intent  
LOM ..... Life-of-Mine  
MB ..... Volcanic  
MCZ ..... Main Contact Zone  
Mincom ..... Minerals Commission  
Mutual ..... Mutual Ghana Ltd.  
Newcore ..... Newcore Gold Ltd.  
NI ..... National Instrument  
NN ..... Nearest Neighbour  
NSR ..... Net Smelter Royalty  
NSZ ..... Nyamebekyere Shear Zone  
Nyam ..... Nyamebekyere  
OK ..... Ordinary Kriging

PEA .....	Preliminary Economic Assessment
PFS .....	Pre-Feasibility Study
PLS .....	Pregnant Leach Solution
the Project .....	Enchi Gold Project
the Property .....	Enchi Gold Project
PVC .....	Polyvinyl-chloride
QA/QC .....	Quality Assurance/Quality Control
QP .....	Qualified Person
QV .....	Quartz Vein
RAB .....	Rotary Air Blast
RBMGL.....	Red Back Mining Group Limited
RC .....	Reverse Circulation
Red Back .....	Red Back Mining Inc.
RF.....	Revenue Factor
ROM .....	Run-of-Mine
RTSZ .....	Ridge Top Shear Zone
SETO .....	Sewum-Tokosea Mine Trend
SG .....	Specific Gravity
SHS .....	Hilltop Shear
SPG .....	Graphitic Phyllite
SPH .....	Turbidite
SRM .....	Standard Reference Material
SRTSZ .....	Sewum Ridgetop Shear Zone
SRZ .....	Road Zone
SVC .....	Volcaniclastic
SWZ .....	Sewum West Zone
UTM .....	Universal Transverse Mercator
WCZ .....	West Contact Zone
WGS .....	World Geodetic System
WRC.....	Water Resources Commission
WSP.....	WSP Canada Inc.



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## APPENDICES

- A** 2005 – 2006 RED BACK COLLAR LOCATIONS
- B** RED BACK DRILL PROGRAM SIGNIFICANT RESULTS
- C** VARIOGRAMS

# 1 SUMMARY

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## 1.1 INTRODUCTION

WSP Canada Inc. (WSP) was retained by Newcore Gold Ltd. (Newcore) to prepare an update to the mineral resource estimate for the Enchi Gold Project (the Project or the Property), located in southwestern Ghana. This report has been prepared to comply with disclosure and reporting requirements set forth in National Instrument 43-101 (NI 43-101), Form 43-101F1 of NI 43-101 (NI 43-101F1) and Standards of Disclosure for Mineral Projects, Companion Policy 43-101CP (NI43-101CP) to NI 43-101. The purpose of this report is to:

- Update the mineral resource estimates for the Boin and Sewum deposits with the 2017 drilling.
- State the mineral resource estimates for Boin, Sewum, and Nyamebikyere (Nyam) with updated pit shell constraints.

On December 5, 2014 Newcore announced that it had completed the acquisition of a 100% interest in the Enchi Gold Project from Edgewater Exploration Ltd. (Edgewater) and Red Back Mining Ghana Limited (Red Back), an indirect wholly-owned subsidiary of Kinross Gold Corporation (Kinross). The Project area is comprised of seven licenses totaling 216.1 km<sup>2</sup>.

Mr. Todd McCracken visited the Property on September 23, 2014 and in April 2014. Mr. Greg Smith visited the Property in 2010, 2011, 2012, and then in 2018 for two days from September 10 to 11 and three days from December 8 to 10 inclusive.

All currency values are reported in US Dollars (US\$), unless otherwise indicated.

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## 1.2 PROPERTY DESCRIPTION AND LOCATION

The Project is located in southwestern Ghana, in a region well known for prolific gold production, and hosts numerous historical and current operating mines located along strike to the northeast of the Project. In 2019, Ghana was the second largest gold producer in Africa at 3.86 Moz. The 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 the southern margin of the Suhuma Forest Reserve to the northeast. The Bibiani shear is known to host significantly large lode-gold deposits such as Bibiani and Chirano.

The Project is located 290 km west of the capital of Accra and 70 km southwest of the Chirano Gold Mine operated by Kinross. The Project is centered on 5°47' North latitude and 2°42' West longitude.

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

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. Most of the Project area is covered by farmland. The main food crops grown locally are cocoa, plantain, maize, cocoyam, cassava, and rice.

The Project is located in the southwestern region of Ghana and is accessed from Accra on sealed roads via the regional port city of Takoradi or the mining centre of Tarkwa. From either of these centres, access to Enchi (population 9,270), the capital of Aowin-Suaman district, is available by paved and gravel roads (Elubo-Enchi Road or the Asankragua-Enchi Road). Access through the remainder of the Project area is by earthen roads. 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.

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

The entire Project area has limited to moderate infrastructure. A paved road crosses the central portion of the Project leading to the city of Enchi. The rest of the Project is serviced by a series of gravel roads. The district capital of Enchi is located 10 km west of the Project.

Fuel, accommodations, food, and most supplies can be obtained in the city 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 during the exploration programs.

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## 1.4 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. The limited mining activity ceased in the 1940s.

Modern exploration in the form of soil sampling, surface trenching, rotary air blast drilling, reverse circulation drilling, and diamond drilling has been completed by various operators, including Leo Shield Exploration Ghana NL (Leo Shield) from 1995 to 1998, Redback Mining Inc. (Red Back (now Kinross)) from 2003 to 2006, Edgewater Exploration Ltd. (Edgewater) from 2011 to 2012, and Newcore Gold Ltd. (Newcore) from 2014 to present.



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## 1.5 GEOLOGY AND MINERAL RESOURCES

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 the gold deposits for 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 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. Non-refractory mineralization is described as gold not hosted within sulphide minerals, in either the early or later stage-mineralizing event. Extensive oxidation has occurred, and in some areas has liberated some of the refractory gold.

Extensive exploration has been conducted at the Project by various operators. Red Back Mining Inc. (Red Back) (now Kinross) had consolidated the land package and had successfully compiled most of the historic data available. Besides sporadic small-scale mines that operated in the past, there is no history of mining operations in the Project area.

Widespread soil sampling and other regional-scale exploration techniques have been used in the past. Extensive trenching, rotary air blast, reverse circulation, and diamond drill programs have delineated at least 14 gold prospects, 3 of which contain the Inferred resource.

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## 1.6 DRILLING

A total of 1,014 drillholes has been completed on the Project for a total of 91,980 m. This includes diamond drilling, reverse circulation (RC), rotary air blast, and surface trenching. Of the entire dataset, 920 holes or 91% has been completed within the three resource areas.

In 2012, 4,058m in 25 RC holes were completed in the Nyam and Sewum zones. In 2017, 3,406 m in 28 RC holes were completed in the Boin and Sewum zones. An ongoing 2020 RC program has completed 26 holes totaling 4,269 m at Boin as of the effective date of this report. The holes completed in 2020 have not been used in the resource estimation.

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

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## 1.7 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 drilling programs meet industry standards practice.

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## 1.8 DATA VERIFICATION

Validation of the database has been conducted and any issues identified have been corrected in the database.

Check assays have been completed on selected samples from the 2012 and 2017 drilling programs. A strong correlation exists between the original samples and the check assay.

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## 1.9 MINERAL PROCESSING AND METALLURGICAL TESTING

Based on the results of three basic bottle roll tests, it was suggested that heap leaching using a cyanide solution may be a viable option for extraction of gold from the oxide domains. Static column leach tests need to be undertaken to specifically determine heap leach amenability.

Results on samples taken from selected drillholes at the Boin, Nyam, and Sewum zones are as follows:

- Boin (with a total of three samples) was highly oxidized and shows consistently good recoveries between 75.15% and 92.96% with the average of 86.98%.
- Nyam (with a total of five samples) was slightly oxidized and shows good to moderate recoveries between 50.56% and 82.73%, averaging 70.05%.
- Sewum (with a total of nine samples) was vaguely oxidized and shows variable but poor recoveries between 1.10% and 66.67%, averaging 18.73%.

Gold recovery involving leach tests is typically sensitive to crush size. Generally, the gold recovery will increase with smaller crush size yet will result in associated higher operating costs and potential heap permeability issues. The particle size range was not recorded during the initial bottle roll tests, although a conventional P<sub>80</sub> crush size to about 25 mm has been assumed. Similarly heap height, solution application rates, reagent concentration, and other variables will all affect the final recovery and design.

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## 1.10 MINERAL RESOURCE ESTIMATION

The resource estimate update was completed on the Boin and Sewum zones using the ordinary kriging (OK) methodology on a capped and composited borehole dataset consistent with industry standards. Validation of the results was conducted through the use of visual inspection, swath plots, and global statistical comparison of the model against inverse distance squared (ID<sup>2</sup>) and nearest neighbour (NN) models. The mineral model for the Nyam zone was not updated as no additional work has been completed on the Project since 2014. The Nyam model was evaluated with the updated pit constrain criteria.

The mineral resource estimate does not include any drilling completed in 2020.

Table 1.1 summarizes the results of the Inferred resource estimation (pit constrained).

**Table 1.1 Enchi Resource Summary**

Zone	Tonnes	Grade Au (g/t)	Contained Gold (oz.)
<b>Boin</b>	19,837,000	0.84	533,000
<b>Nyam</b>	5,489,000	0.88	155,000
<b>Sewum</b>	27,600,000	0.60	535,800
<b>Total</b>	<b>52,926,000</b>	<b>0.72</b>	<b>1,223,800</b>

**Notes:**

- CIM definition standards were followed for the resource estimate.
- The 2020 resource models used ordinary kriging (OK) grade estimation within a three-dimensional block model with mineralized zones defined by wireframed solids and constrained by Whittle pits shells.
- A base cut-off grade of 0.3 g/t Au was used with a capping of gold grades at 18 g/t.
- A US\$1,500/ounce gold price, open pit with heap leach operation was used to determine the cut-off grade of 0.3 g/t Au. Mining costs of US\$2.27/mined tonne and G&A and Milling costs of US\$9.84/milled tonne. The Inferred mineral resource estimate is pit constrained.
- A density of 2.45 g/cm<sup>3</sup> was applied. Numbers may not add due to rounding.
- Mineral resources that are not mineral reserves do not have economic viability.

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## 1.11 RECOMMENDATIONS

It is the QP's opinion that additional exploration expenditures are warranted. Two separate exploration programs are proposed. Phase 2 is independent on the results of Phase 1 and could be completed before or after the completion of Phase 1.

Phase 1 is designed to further expand the mineral resources of the known zones with RC and diamond drilling. A budget of \$2.4 million is recommended to complete the program.

Phase 2 is designed for continued exploration on the Project with RC and diamond drilling as well as to collect data for future engineering studies including an update to the PEA. A budget of \$3,925,000 is recommended.

## 2 INTRODUCTION

The Project is a shear-hosted gold bearing system located in southwestern Ghana within the Birimian aged rocks of the Sefwi volcanics and Kumasi sediments. The region is well known as a prolific gold producing camp, hosting numerous historical and current operating mines along strike to the northeast.

On December 5, 2014 Newcore (at the time named Pinecrest Resources Ltd.) announced that it had completed the acquisition of a 100% interest in the Project from Edgewater Exploration Ltd. and Red Back Mining Ghana Limited, an indirect wholly-owned subsidiary of Kinross Gold Corporation. In 2020, Pinecrest changed company name to Newcore Gold Ltd. Newcore is a Vancouver based junior exploration company focused on exploration in Ghana. Newcore trades on the TSX-V under the symbol NCAU.

In March 2015, WSP completed a preliminary economic assessment (PEA) and technical report on the Property.

In May 2015, WSP was commissioned by Newcore to provide an updated PEA on the Property to provide an additional alternative economic analysis of the Project using Contract Mining.

In June 2020, WSP was commissioned by Newcore to update the technical report based on the following parameters:

- Update the mineral resource models of Boin and Sewum based on the drilling completed in 2017.
- State the mineral resource for Boin, Sewum and Nyamebekyere (Nyam) using update pit shells reflecting updated inputs.

All data reviewed for the report was provided by Newcore in digital format, with access to paper reports and logs when requested. The work completed by Newcore encompasses exploration, primarily surface trenching, reverse circulation drilling, and diamond drilling. Historical work conducted in the region has been compiled by Newcore and was available for review and use in the resource estimation.

The Boin and Sewum mineral resources were updated with the 2017 Reverse Circulation (RC) drilling for the 2020 resource update. The Nyam resource was not updated at the time, as no additional work has been completed on the deposit since the last technical report.

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### 2.1 QUALIFICATION OF CONSULTANTS

Mr. Todd McCracken, who helped prepare this technical report, is a specialist in the fields of geology, exploration, mineral resource estimation and classification.

Mr. McCracken or any associates employed by WSP in the preparation of this report have no beneficial interest in Newcore. Mr. McCracken is not an insider, associate, or affiliate 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 Mr. McCracken. Mr. McCracken is being paid a fee for services in accordance with normal professional consulting practice.

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## 2.2 QUALIFIED PERSONS

The individuals identified in Table 2.1, by virtue of their education, experience, and professional association, are considered independent Qualified Persons (QP) as defined in the NI 43-101 standard, for this report, and are members in good standing of appropriate professional institutions.

**Table 2.1 Qualified Persons**

Qualified Person	Position/Title	Company	Responsibility
<b>Todd McCracken, P. Geo.</b>	Director – Mining & Geology – Central Canada	BBA E&C Inc.	Sections 1 to 3, 5 to 10.3, 10.6, 11.1 to 11.10.6, 11.11, 12.1.1 to 12.1.3, 12.2.1, 12.2.2, 12.3.1 to 12.3.3, 12.4, and 13 to 20
<b>Greg Smith, P. Geo.</b>	VP Exploration	Newcore Gold Ltd.	Sections 4, 10.4, 10.5, 11.10.7, 11.10.8, 12.1.4, 12.1.5, 12.2.3, 12.2.4, 12.3.4, 12.3.5, and 12.4

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## 2.3 DETAILS OF INSPECTION

Mr. Todd McCracken, P. Geo. is a qualified person (QP) and co-author of this report. Mr. McCracken is a professional geologist with 28 years of experience in exploration and operations, including several years working in shear hosted lode gold deposits and 20 years completing resource estimation and block models. Mr. McCracken visited the Property for three days from April 28 to May 1, 2014. This was Mr. McCracken's third visit to the Property, having visited previously in 2011 and 2010. During the most recent trip, Mr. McCracken was accompanied by Mr. Vincent Dzorkpetey, a geologist with Edgewater.

Mr. Greg Smith, P. Geo. is a qualified person (QP) and co-author of this report. Mr. Smith is a professional geologist with 30 years of experience in exploration and operations, including several years working in shear hosted lode gold deposits. Mr. Smith visited the Property for three days from December 08, 2018 to December 10, and two days from September 10, 2018 to September 11, 2018. These were Mr. Smith's fifth and sixth visits to the Property, having visited previously in 2010, twice in 2011 and in 2012. During the most recent trip, Mr. Smith was accompanied by Dan Wilson, a geologist with Newcore. The personal inspections in September and December 2018 confirmed all work included in the Mineral Resource Update on the Project as no additional exploration was performed in 2019. The 2017-2018 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. Locations were confirmed through a verification with adjacent drillholes. Additionally, the field inspection did not reveal any active or recent artisanal mining. The author 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.

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## 2.4 SOURCES OF INFORMATION

The sources of information, including data and reports supplied by Newcore personnel, as well as documents cited throughout the report, are referenced in Section 19.

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## 2.5 UNITS OF MEASUREMENT

The metric system has been used throughout this report. Tonnes are dry metric of 1,000 kg, or 2,204.6 lb. All currency is in US dollars (US\$), and referenced as '\$', unless otherwise stated. Gold values for work performed by Newcore and previous operators are reported as grams per tonne or parts per billion. A conversion factor of 31.1035 is used to convert grams to troy ounces.

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## 2.6 EFFECTIVE DATE

The Issue Date of this report is October 28, 2020. The Effective Date of the technical report is October 21, 2020.

### 3 RELIANCE ON OTHER EXPERTS

The QPs have reviewed and analyzed data and reports provided by Newcore, together with publicly-available data, drawing their own conclusions augmented by direct field examination.

This report includes technical information, which 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 do not consider them to be material.

The QPs who prepared this report did not rely on information provided by experts who are not QPs.

# 4 PROPERTY DESCRIPTION AND LOCATION

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## 4.1 LOCATION

The Project comprises seven prospecting licenses, totaling 216.09 km<sup>2</sup> 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 the southern margin of the Suhuma Forest Reserve, to the northeast. The Project is located 290 km west of the capital of Accra and 70 km southwest of the Chirano Mine operated by Kinross (Figure 4.1). The Project is centered on 5°47' North latitude and 2°42' West longitude.



**Figure 4.1 Location Map**



Source: WSP Canada Inc., 2020

## 4.2 MINERAL DISPOSITION

The seven licenses that make up the Project are summarized in Table 4.1 and displayed on Figure 4.2. 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 and Nkwanta are license applications and are required to proceed through the full application process. These licenses were submitted in 2019. The application process for a prospecting license, which is required for drilling and excavation work, is as follows:

- Application submitted to Mincom.
- Mincom completes paper work and checks maps.
- Mincom generates a letter that is sent to the local authorities and is posted for three weeks; this provides an opportunity for objections to the license 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 license is prepared and sent to the Mincom Minister for signature.

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

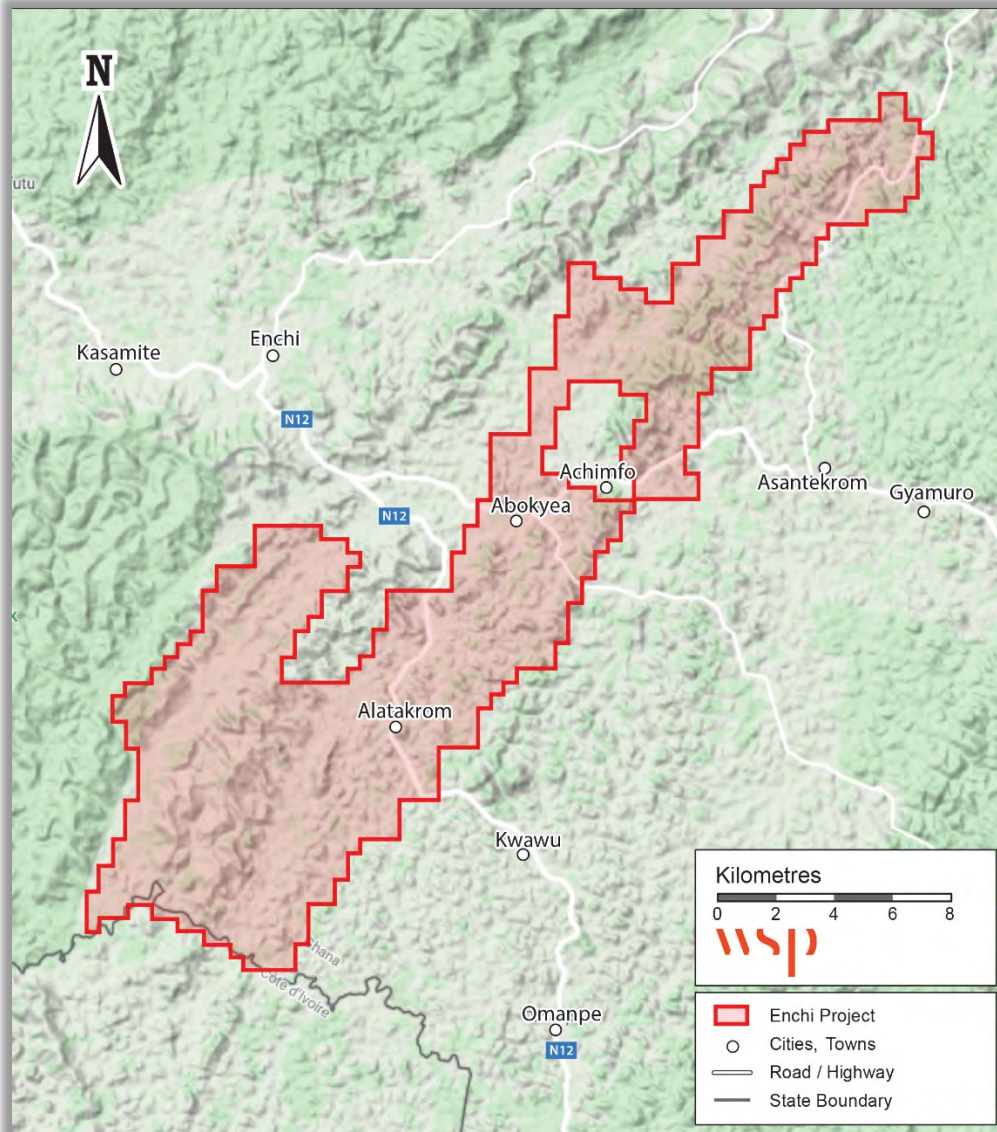
Sewum, Enkye, Nyam, Abotia and Yehikwakrom are subject to license renewal. The renewal process is similar to the application process indicated above yet does not require approval of the district and community. The applications for renewal were submitted in November 2019 and approved May 31, 2020; the licences are now in good standing until May 31, 2023. The time frame for extending the licenses is variable depending on how busy Mincom is, and can take as little as six months to as long as two years.

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

**Table 4.1 List of Project Licenses**

Name	Type	Number	Old Area (km <sup>2</sup> )	Previous Holding Company	New Area (km <sup>2</sup> )	Current Holding Company	Status
<b>Sewum</b>	PL	PL 2/424	68.79	Red Back Mining Ghana Ltd.	32.55	Cape Coast Resources Ltd.	License expired 16th February 2016. Mincom request 50% shed off. All maps and application for 3-year extension submitted 11/03/2019. License extended to 31st May 2023.
<b>Enkye</b>	PL	PL 2/404	69.49	Red Back Mining Ghana Ltd.	34.65	Cape Coast Resources Ltd.	License expired 16th February 2016. Mincom request 50% shed off. All maps and application for 3-year extension submitted 11/03/2019. License extended to 31st May 2023.
<b>Nyamebekyere</b>	PL	PL 2/406	80.16	Red Back Mining Ghana Ltd.	35.91	Cape Coast Resources Ltd.	License expired 16th February 2016. Mincom request 50% shed off. All maps and application for 3-year extension submitted 11/03/2019. License extended to 31st May 2023.
<b>Abotia</b>	PL	PL 2/119	66.91	Red Back Mining Ghana Ltd.	26.04	Cape Coast Resources Ltd.	License expired 16th February 2016. Mincom request 50% shed off. All maps and application for 3-year extension submitted 11/03/2019. In progress.
<b>Yehikwakrom</b>	PL	PL 2/405	68.49	Red Back Mining Ghana Ltd.	29.82	Cape Coast Resources Ltd.	License expired 16th February 2016. Mincom request 50% shed off. All maps and application for 3-year extension submitted 11/03/2019. License extended to 31st May 2023.
<b>Nyame Esa</b>	PL	not assigned yet	n/a	Cape Coast Resources Ltd.	24.36	Boin Resources Limited	Re-application for the 50% shed off from Nyamebekyere PL by BRL. Mincom detects few errors on map. New coordinates submitted for correction.
<b>Nkwanta</b>	PL	not assigned yet	n/a	Cape Coast Resources Ltd.	32.76	Boin Resources Limited	Re-application for the 50% shed off from Sewum PL by BRL.

**Figure 4.2 Enchi License Map**



Source: WSP Canada Inc., 2020

### 4.3 TENURE RIGHTS

Edgewater has executed a definitive Option Agreement dated May 5, 2010 that outlines the terms of an Option-Joint Venture agreement with Red Back, whereby Edgewater can earn a 51% interest in Red Back’s ownership interest in the Project. Red Back, through its subsidiary Red Back Mining Ghana Ltd, owns and controls 90% interest in the prospecting and reconnaissance licenses that make up the Project. The Government of Ghana owns the remaining 10% interest.

In order to earn the 51% interest, Edgewater must spend a total of CAN\$5.0 million on work expenditures on the Project within 26 months, including CAN\$2.0 million in the first 14 months. Edgewater will be the operator of the Option-Joint Venture agreement and would continue to be the operator of the Joint Venture as long as Edgewater holds the largest equity interest in the Joint Venture.

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

On May 22, 2012, Edgewater announced that it had completed the earn-in requirements of the 2010 Option Agreement with Kinross. Edgewater now has a 51% interest in Kinross' ownership of the licenses and a joint venture company will be formed. The shares of the ownership of the joint venture company will be as follows:

- Edgewater 45.9%;
- Kinross 44.1%;
- Government of Ghana 10.0%.

On May 22, 2014, Newcore Gold (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 Government of Ghana retains a 10% carried interest in the Project. The terms of the transaction are as follows.

For Newcore to acquire Kinross' 49% interest:

- Red Back will receive 19.9% of the issued and outstanding common shares of Newcore post-closing of the transaction.
- Red Back will receive a 2% NSR on the Project with an option for Newcore to acquire 1% of the NSR at any time for US\$3.5 million. This option was transferred to Sandstorm Gold Ltd. through another financing agreement.
- Red Back will receive \$10/oz. on any new NI 43-101 Measured and Indicated resource estimate or any ounce of gold mined whichever occurs first. Such amount shall be payable in cash or, if agreeable to Newcore, common shares of Newcore, at Newcore's sole discretion, 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 will have first right to process material from the Project at its Chirano Mill if toll processing is considered.
- Red Back will receive 5,000,000 share purchase warrants priced at \$0.40/warrant exercisable for a five-year term from closing of the transaction.

For Newcore to acquire Edgewater's 51% interest:

- Upon closing of the transaction, Edgewater will receive one Newcore post-consolidated common share (the "Acquisition Shares") for every five common shares of Edgewater issued and outstanding on the closing, which will represent approximately 40% of the issued common shares of Newcore post-closing of the transaction. All shares issued to Edgewater will be subject to resale restrictions as follows: 25% to be free-trading six months and nine months from closing, and the remaining 50%, twelve months from closing.

- Edgewater will agree to distribute the Acquisition Shares pro-rata to its shareholders as soon as reasonably practicable after the closing of the transaction.
- Newcore will pay to Edgewater a cash payment of CAN\$150,000.
- The completion of the transactions contemplated by the Edgewater Letter of Intent (LOI) are subject to the execution of a definitive agreement with Newcore and the concurrent completion of the transactions contemplated by the Red Back LOI.

On December 5, 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.

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

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## 4.4 ROYALTIES AND RELATED INFORMATION

There are no known royalties, back-in rights, or payments outside of the agreement between Newcore and Kinross. A 5% royalty on revenues is due to the Government of Ghana (*Pricewaterhouse Coopers, 2012*).

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## 4.5 ENVIRONMENTAL LIABILITIES

The QP is not aware of any known environmental liabilities on the Property.

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## 4.6 PERMITS

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

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## 4.7 OTHER RELEVANT FACTORS

Newcore is able to work in areas with no existing surface properties free of 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 damage of crops during establishment of access of exploration activities.

The risk to the Project would come in the form of the licence applications being denied by Mincom and work having to be halted. Licences covering the mineral resource have been granted. The licences for other areas currently being contemplated for further work have been extended until 2023.

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 licenses over the last ten years.

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

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## 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.

Most of the Project area is covered by farmland. The main food crops grown locally are cocoa, plantain, maize, cocoyam, cassava, and rice (Figure 5.1).

**Figure 5.1** Cocoa Plantation



Source: McCracken, 2010

The northern part of the Project lies within forest reserves, and is covered by tall, primary, semi-deciduous rain forest (Figure 5.2). Most of this area is reserved for commercial timber production.

**Figure 5.2 Forest Reserve**



Source: McCracken, 2010

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## 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 Takoradi or the mining centre of Tarkwa. From either of these centres, access to Enchi (population 9,270), the capital of Aowin-Suaman district, is available by paved and gravel roads (Elubo-Enchi Road or the Asankragua-Enchi Road). Access through the remainder of the Project area is by earthen roads (Figure 5.3).

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 5.3 Project Access Map



Source: WSP Canada Inc., 2020

## 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 two 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.

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

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## 5.4 INFRASTRUCTURE

The entire Project area has limited to moderate infrastructure. A paved road crosses the central portion of the Project leading to the city of Enchi. The rest of the Project is serviced by a series of gravel roads. The district capital of Enchi is located 10 km west of the Project.

The city 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. The Chirano Gold Mine, located 70 km northeast of the Project, is supplied by power from a 33 kV overhead power line from an existing transformer supplying the Bibiani gold mine plant. In addition, six diesel generators are located at the Chirano facility to provide stand-by power in case of Electricity Commission of Ghana (ECG) supply issues.

Fuel, accommodations, food, and most supplies can be obtained in the city 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 during the exploration 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 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 gamamsey (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. The limited mining activity ceased in the 1940s.

Table 6.1 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 license holders, The QP cautions that the history may not be complete. Most of the information was derived from reports and digital data acquired from Leo Shield Exploration Ghana NL (Leo Shield), Mutual Ghana Ltd. (Mutual), and Kinross.

The extensive work completed by the previous landholders has resulted in the identification of at least 14 gold-bearing prospects. A summary of the results for each prospect is provided in Section 7.0.

**Table 6.1 Enchi 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 6 km by 3 km, followed by a 100 m x 25 m grid spacing; – 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 totaling 2,396 m; – Six diamond drillholes totaling 464 m; – RC drill program totaling 1,202 m.
1995-1998	Leo Shield	– 14,470 soil samples in 400 m by 50 m grid; – 89 trenches totaling 10,240 m; – Audit sampling at Kojina Hill and Achimfu; – Stream sediment sampling (76 pits); – 121 RC holes totaling 7,621 m; – 49 RAB holes totaling 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.

*(table continues on next page)*

Year	Company	Activities
2005	Red Back	<ul style="list-style-type: none"> <li>– 695 soil samples;</li> <li>– 69 trenches totaling 5,750 m;</li> <li>– 102 RAB holes totaling 5,261 m;</li> <li>– 80 RC holes totaling 9,715 m.</li> </ul>
2006	Red Back	<ul style="list-style-type: none"> <li>– Ground magnetic survey;</li> <li>– IP survey;</li> <li>– 2,221 soil samples;</li> <li>– 38 trenches totaling 3,564 m;</li> <li>– 217 RAB holes totaling 7,182 m;</li> <li>– 73 RC holes totaling 7,403 m.</li> </ul>
2011	Edgewater	<ul style="list-style-type: none"> <li>– 9,441 soil samples over 461-line km;</li> <li>– Twelve trenches at Nyam totaling 396 m;</li> <li>– Three trenches at Sewum totaling 781 m;</li> <li>– Eight trenches at Boin totaling 359 m;</li> <li>– Seven trenches at Eradi totaling 1,294 m;</li> <li>– VTEM/magnetic/radiometric survey totaling 3,084-line km;</li> <li>– 182 diamond drillholes and 13 RC holes totaling 23,697 m;</li> <li>– Resource estimation completed on Boin, Sewum and Nyam; results summarized in Section 14.11 of this technical report.</li> </ul>
2012	Edgewater	<ul style="list-style-type: none"> <li>– Completion of 25 RC holes totaling 4,058 m;</li> <li>– Bottle roll tests;</li> <li>– Soil and rock sampling, auger drilling, and trenching.</li> </ul>
2014	Pinecrest	<ul style="list-style-type: none"> <li>– Completes acquisition of the Project from Edgewater and Kinross.</li> </ul>
2015	Pinecrest	<ul style="list-style-type: none"> <li>– Completion of a PEA.</li> </ul>
2017	Pinecrest	<ul style="list-style-type: none"> <li>– Completion of 28 RC holes totaling 3,406 m.</li> </ul>
2020	Newcore	<ul style="list-style-type: none"> <li>– Company changes name from Pinecrest Resource to Newcore Gold.</li> </ul>

# 7 GEOLOGICAL SETTING AND MINERALIZATION

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## 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).

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 hundreds of kilometres along strike, but is usually only 20 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, but is typically faulted with the faults most likely representing basin margin growth faults along which basin subsidence occurred (*Hirdes and Leube, 1989*).

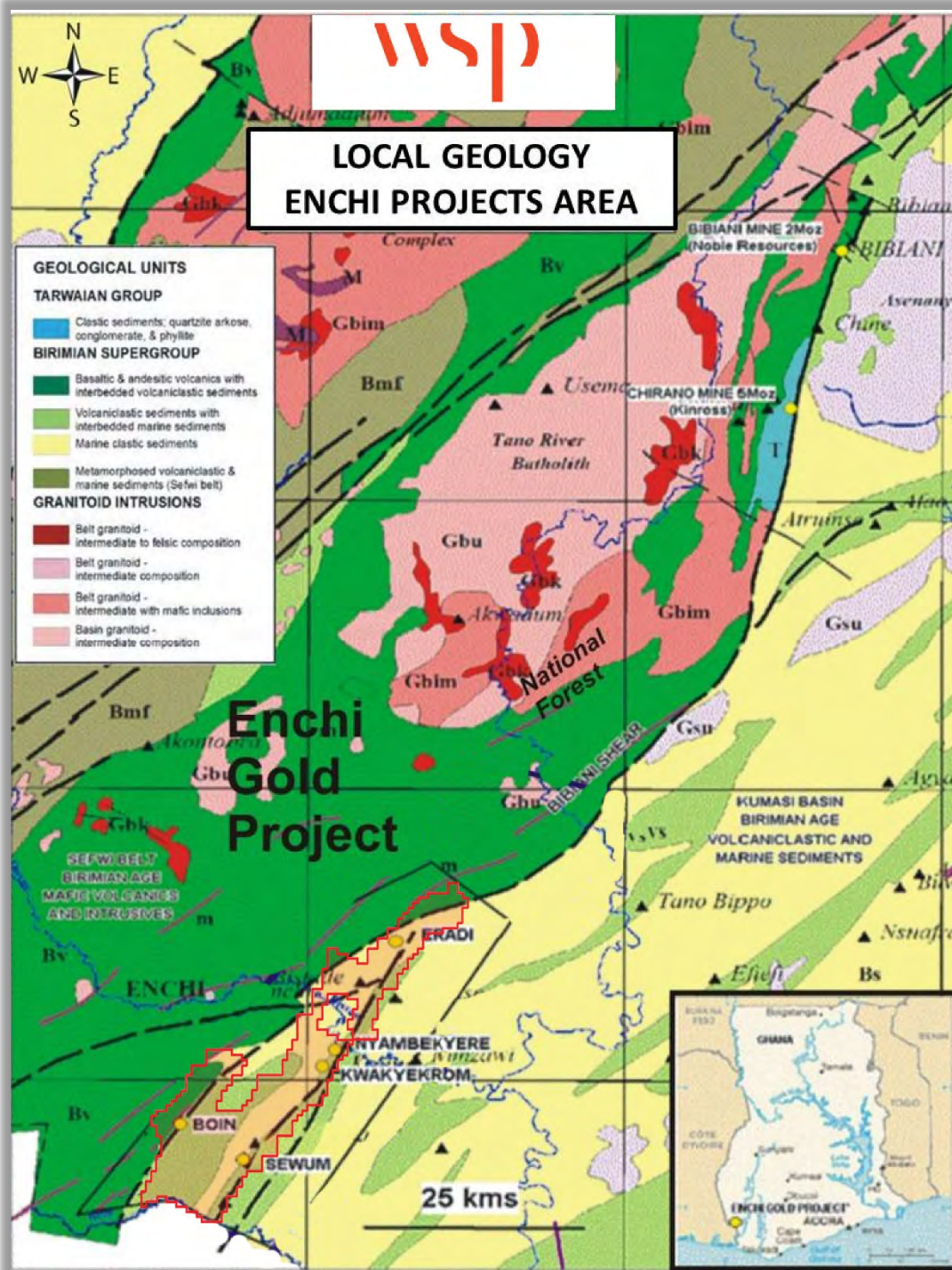
Granitoid intrusions are common within the belt and basin terrains and can be divided into two types: Belt Type (Dixcove) and Basin Type (Cape Coast) granitoids. Belt type granitoids (2,180 Ma) range from tonalite to granodiorite in composition and are confined to the metavolcanic belts. Basin granitoids (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 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 concession are named from west to east, the Bibiani Shear (BS), the West Sewum Shear (WSS), and the Nyamebekyere 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 Regional Geology

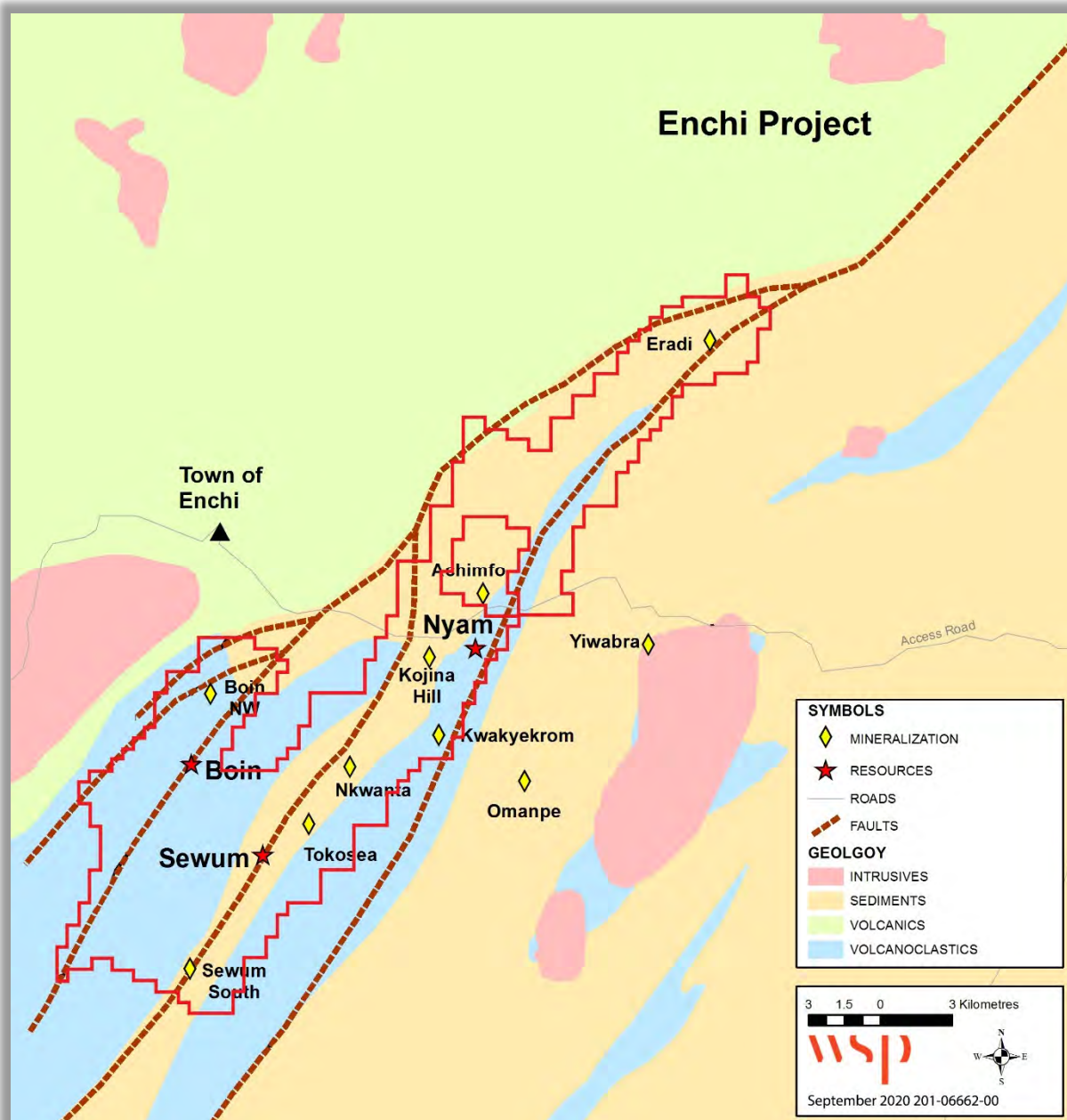


Source: WSP Canada Inc., 2020

## 7.2 PROJECT GEOLOGY

The Project overlaps 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 70 km north of the Enchi licenses (Figure 7.2).

Figure 7.2 Project Geology



Source: WSP Canada Inc., 2020

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 pass through the license area, e.g. Boin Fault, Sewum Fault, and Nyamebekyere 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, textureless, weathered white to brown, to deep pink and red, igneous rock generally evident as un-deformed rafts, fault-bound, within foliated and sheared volcanoclastics and pelitic sediments.
- Volcanoclastics (SVC): hanging wall, fine- to medium-grained, lithic to crystal volcanoclastic 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 graphitically altered phyllites and schists. Each of the host rock-types may be preferentially graphitized  $\pm$ 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.

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## 7.3 MINERALIZATION

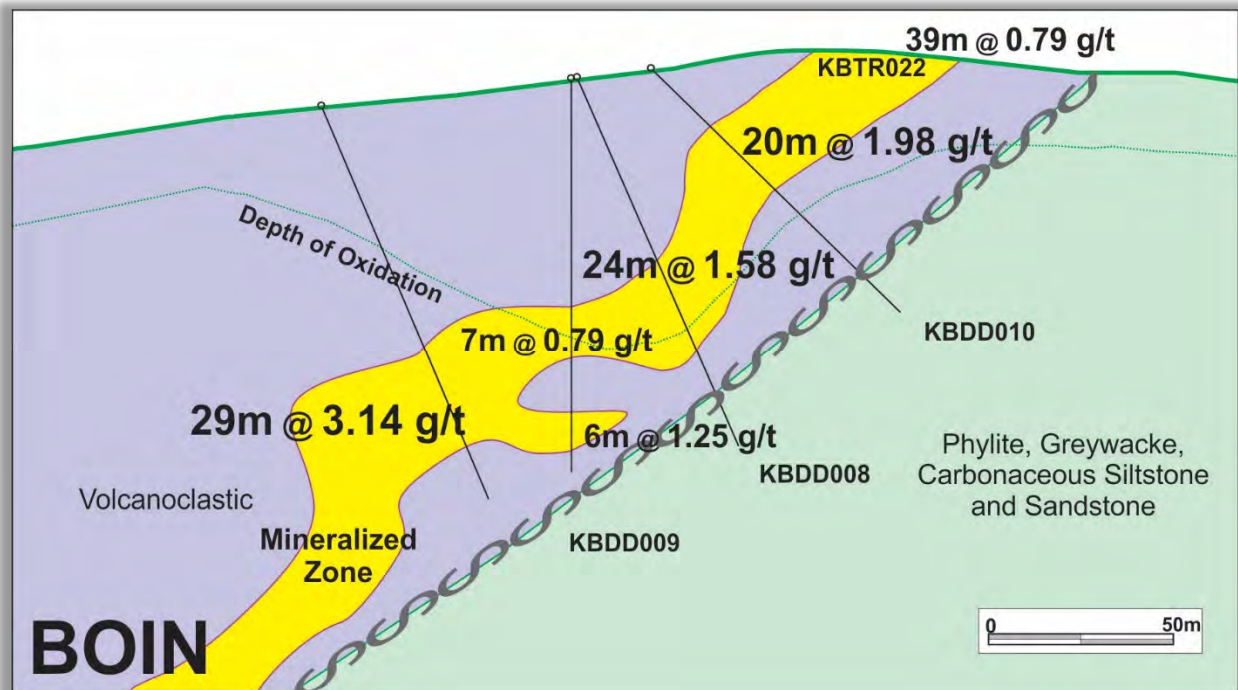
Fourteen gold zones or prospects have been identified on the Project to date. The locations of the zones are illustrated on previous Figure 7.2.



### 7.3.1 BOIN ZONE

The Boin Shear Zone is one of a number of major structures that splay off the BS 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. Eleven kilometres of the Boin Shear Zone has been drill tested at shallow depths over regular intervals across the structure. A generalized section is shown on Figure 7.3.

Figure 7.3 Boin Generalized Section



Source: Newcore Gold Ltd., 2020

The Boin Shear Zone is formed in the west hanging wall of this major second-order, west-dipping, thrust contact between mafic volcanic ±volcaniclastic sediments which over-thrust 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 re-mobilized, 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.

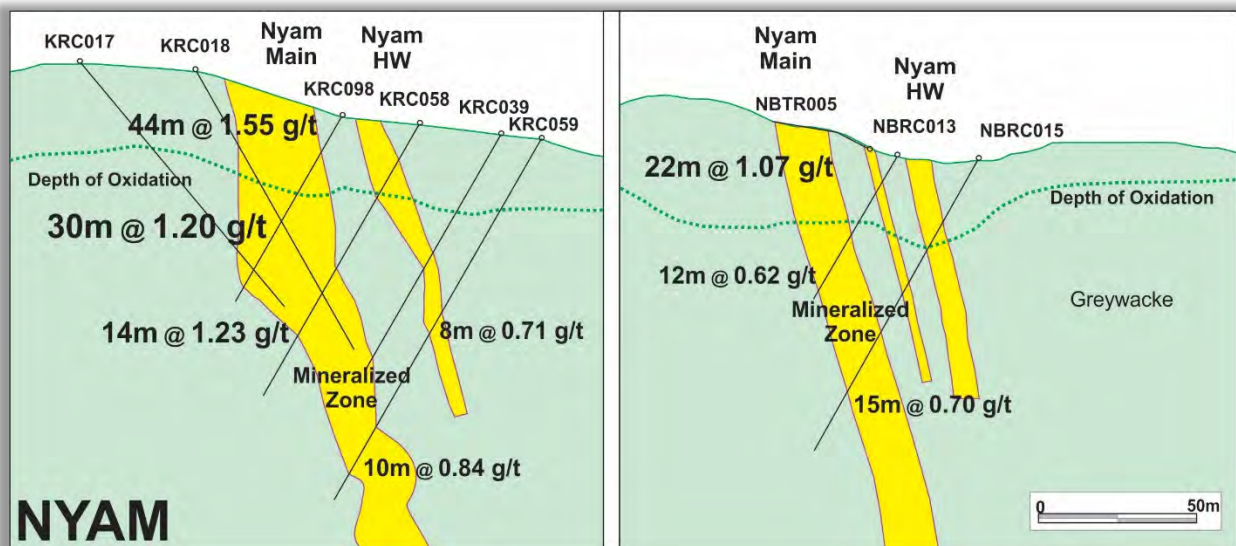
Hydrothermal alteration displays a typical greenschist assemblage (gold + quartz + sericite ±graphite ±chlorite ±epidote ±ankerite). Chlorite + epidote clots are observed within, or proximal to, the gold mineralization within the brecciated quartz veins. These probably result from remobilization associated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

### 7.3.2 NYAM ZONE

The Nyam Zone strikes over a distance of 1,600 m, hosted by altered phyllite, 200 to 300 m west of the interpreted position of the second order NS. The zone of mineralization lies in the hanging wall of a northeast-striking shear that dips 70° 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 7.4).

Figure 7.4 Nyam Generalized Section



Source: Newcore Gold Ltd., 2020

Mineralization at the Nyam Zone is composed of veined and brecciated sediment and phyllite cemented by quartz, carbonate (ankerite), and albite and has been traced continuously in trenching and drilling for over 2,000 m 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 volcanoclastic 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*).

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### 7.3.3 SEWUM GOLD PROSPECTS GEOLOGY

The Sewum West and 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 Hill northeast through Kojina Hill and Nyam Zone to the north.

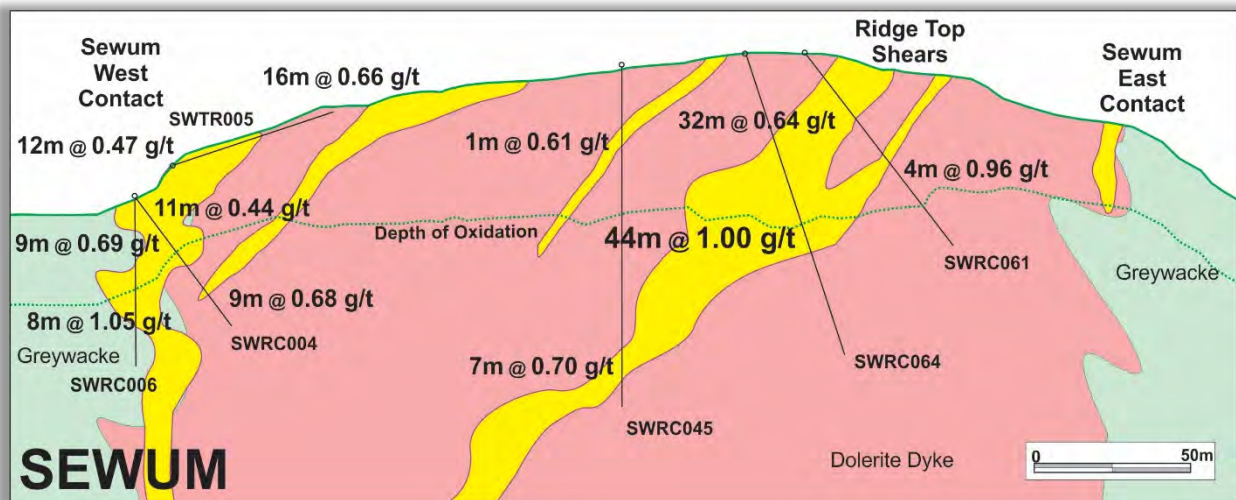
The main relief of Sewum West Hill is characterized by a relict indurated, duricrust, or ferricrete plateau along the main hilltop, degraded breakaways forming the slope crests and variably mixed and transported upper-slope soils progressing into residual mid- and lower-slope soils. The duricrust mantle is geochemically subdued and potentially transported ferricrete. 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 West 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 igneous volcanic 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 7.5):

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

**Figure 7.5 Sewum Generalized Section**



Source: Newcore Gold Ltd., 2020

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 (30°) 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:

- Disseminated arsenopyrite associated with quartz veining and silicification in sheared sediment, e.g. Sewum Shear Zone.
- Quartz – sericite – carbonate replacement of sheared dolerite and sediment localized along moderately (40°) dipping shears hosted within dolerite, e.g. Sewum Ridge Top Shears (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).

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. Adamansu, 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.

The most significant zone of continuous gold mineralization identified in drilling at Sewum is the Ridge Top Shears Zone (RTSZ), related to 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 is 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 is 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 has occurred and was formed by hydraulic fracturing, probably in response to fault movement near the intrusive contact.

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### 7.3.4 ERADI

The Eradi prospect is located in the north of the Enchi license 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 Nyamebekyere Shear Zone (NSZ) is one of a number of major structures that splay off the Bibiani Shear and pass through the Enchi license 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 selvages. 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.

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### **7.3.5 ACHIMFU**

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).

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### **7.3.6 ADAMANSU**

Quartz veining is hosted by phyllite, within a contact zone, with volcanoclastics 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.

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### **7.3.7 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 volcanoclastics to the west.

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### **7.3.8 BEEKOKROM**

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

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### **7.3.9 KOJINA HILL**

Mineralization is hosted by a zone of deeply-weathered quartz-veined phyllite. Fuchsite-altered greywacke is also noted. Mineralized zone dips west at 80° and plunges steeply to moderately north.

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### **7.3.10 KWAKYEKROM**

The Kwakyekrom prospect is 4 km southwest of the Nyam Zone. Several shear-hosted gold lodes strike northeast and dip steeply (70 to 80°) east within phyllite, 500 to 900 m west of the NS.

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### **7.3.11 NKWANTA**

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 volcanoclastics to the west. The contact zone is possibly the strike extension of that in the Tokosea Mine 3 km to the south.

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### 7.3.12 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 volcanoclastics 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*).

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### 7.3.13 TOKOSEA MINE

The Tokosea prospect is located on the same phyllite/volcanoclastic contact as that located west of the Sewum Mine, although offset by faulting south of Adamansu. The prospect includes the workings of the 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 mine 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 volcanoclastic unit. The main structure developed in the Tokosea Mine is a shear hosted, thin (0.3 to 1 m) lenticular quartz vein, dipping 85° northwest, and following a contact between a dominantly argillaceous (phyllite) footwall (eastern) and a dominantly volcanoclastic hanging wall (western) unit. The immediate host rock is a black carbonaceous phyllite. The general strike is 030°.

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### 7.3.14 TOKOSEA SOUTH

An adit intersected patchy gold (the best result was 1 m at 2.04 g/t) on a shear zone with quartz stringers and veins hosted by phyllite, within a contact zone, with volcanoclastics to the west. The contact zone is the strike extension of that in the Tokosea Mine, 800 m to the northeast.

## 8 DEPOSIT TYPES

The Project 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 important type of gold occurrence in West Africa and it 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 multi-phase 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, mafic volcanic and intrusive rocks are known to host significant gold mineralization as at Kinross' Chirano Gold Mine located 70 km north-east 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 (*Vu et al., 1987*).

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 Boloso/Prestea (Golden Star Resources). 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 (Kinross), and Ahafo (Newmont).

The reserves and resources stated in the previous paragraph are not indicative of the mineralization on the Enchi Project. The reserves and resources stated in the previous paragraph have been disclosed only to show the potential of the Property based on existing or past producers in the regions.

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, appears to take place in situ with little evidence of supergene enrichment. The mineralization can be concealed by metres of kaolinite-mica forest soils. The saprolite zone of leached rock can extend down 60-70 m (*Bowell, 1992*).



## 9 EXPLORATION

Exploration, consisting of line cutting, soil sampling, trenching, and auger drilling, was completed by Edgewater in 2012–2013. The principal targets were anomalies generated from the airborne geophysical surface. The work included both wide-spaced and detailed surveys. Results included anomalous gold in soils, trenches, and auger which warrant 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

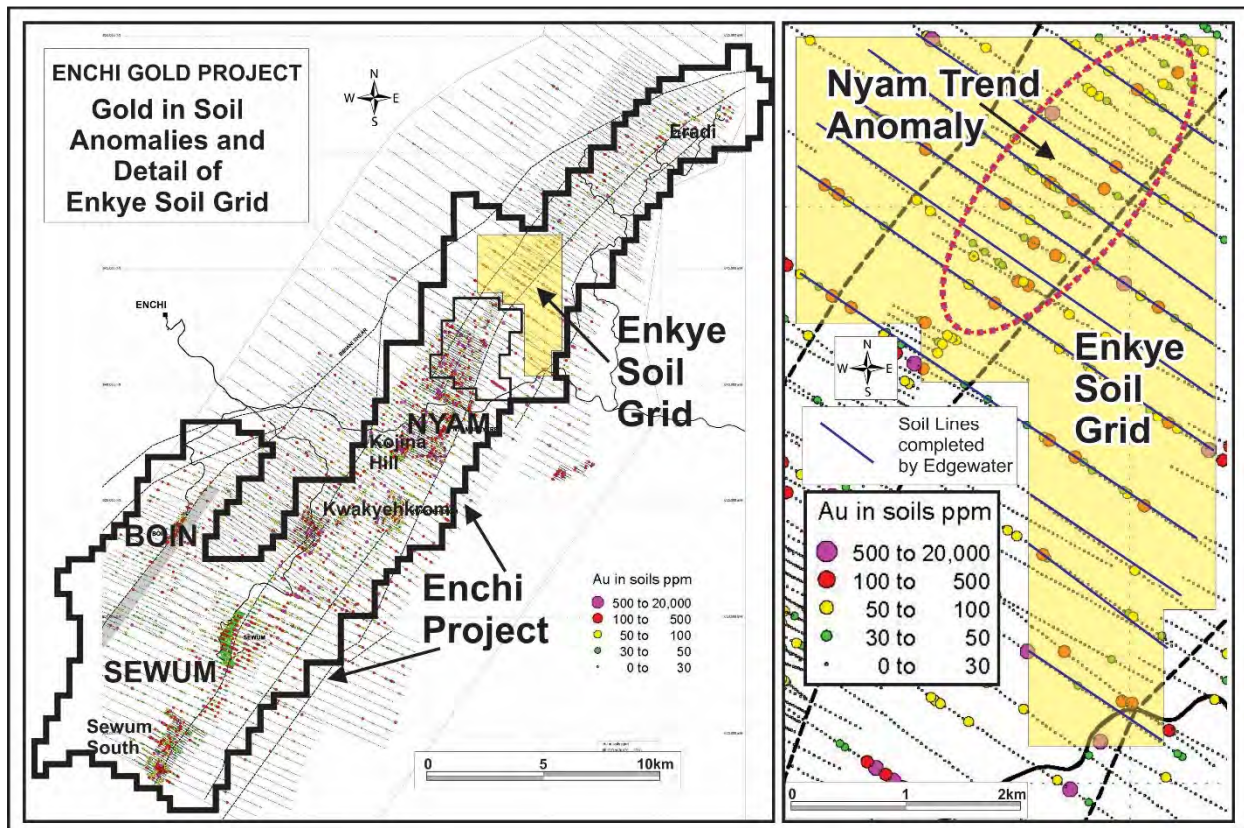
All soil sampling was conducted in the presence of a geologist and was not carried out by technicians alone. Samples were collected from  $\pm 50$  cm depth and were 2 to 3 kg of material. Duplicate samples were collected every 25 samples. To collect the duplicate, a larger hole had to be dug to collect 5 to 6 kg of sample and mixed thoroughly on a plastic sheet. The material was then coned and quartered into two samples. The results of the soil survey were disclosed in a previous technical report (*McCracken et al., 2016*). Table 9.1 summarizes the soil work completed.

**Table 9.1 Soil Survey Summary**

Prospect	Area Covered (km <sup>2</sup> )	No. of Lines	Grid (spacing)	Total Line Length (km)	No. of Samples	Type of Sample
Enkye	35.00	10	400 m x 50 m	60.0	986	Soil

Figure 9.1 is a map summarizing the significant soil results from around the Enkye Prospect.

**Figure 9.1 Significant Soil Results**



Source: Newcore Gold Ltd., 2020

The Enkye Grid area results of the soil samples 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. 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.

## 9.2 TRENCHING

The trenches were dug 80 cm to 100 cm wide 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.

One hundred and eighty (180) trenches totaling 17,019 m have been completed on the Project. Table 9.2 summarizes significant trench results. The criteria for reporting trench results were 4 m minimum length and minimum 0.3 g/t average grade over the interval. Figure 9.2 shows the location of the trenches at Enchi.

**Table 9.2 Trench Summary**

Zone	Trench	From (m)	To (m)	Length (m)	Au (g/t)
<b>Boin</b>	KBTR002	58.3	63.4	5.1	1.43
	KBTR003	2.0	6.0	4.0	0.42
	KBTR004	0.0	6.0	6.0	0.68
	KBTR004	108.0	112.0	4.0	0.74
	KBTR004	140.0	144.0	4.0	0.44
	KBTR007	12.0	16.0	4.0	1.29
	KBTR008	38.0	58.0	20.0	0.31
	KBTR009C	47.0	66.0	19.0	1.83
	KBTR010	88.0	143.0	55.0	0.83
	<i>includes</i>	<i>94.0</i>	<i>98.0</i>	<i>4.0</i>	<i>2.21</i>
	<i>includes</i>	<i>124.0</i>	<i>127.0</i>	<i>3.0</i>	<i>3.63</i>
	KBTR011	3.0	6.2	3.2	2.92
	KBTR011	81.3	105.7	24.4	0.51
	<i>includes</i>	<i>85.3</i>	<i>87.3</i>	<i>2.0</i>	<i>3.00</i>
	KBTR012	162.4	167.7	5.3	0.48
	KBTR014	216.5	221.0	4.5	0.87
	KBTR016	11.6	13.6	2.0	1.39
	KBTR018	107.0	113.0	6.0	0.54

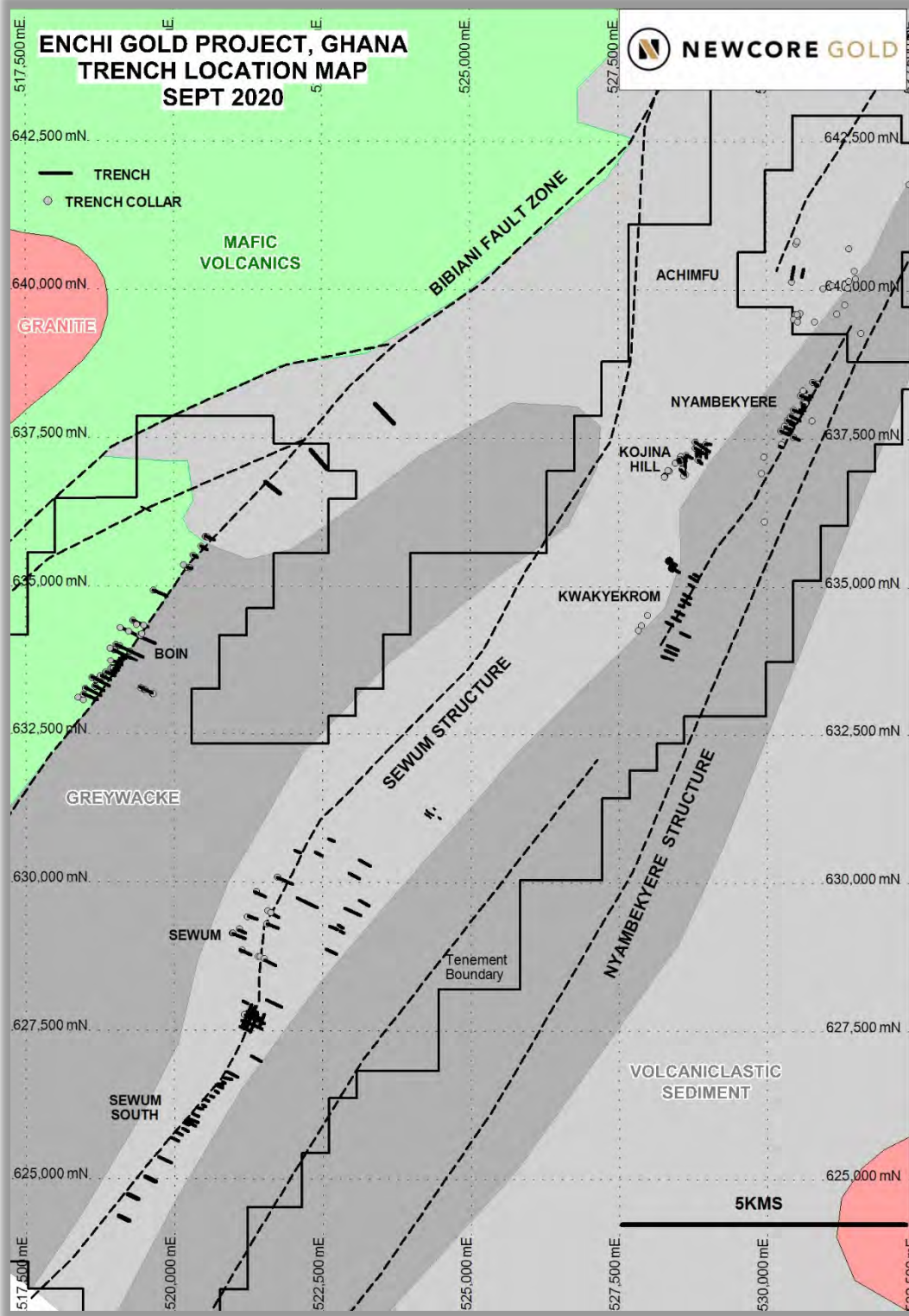
*(table continues on next page)*

Zone	Trench	From (m)	To (m)	Length (m)	Au (g/t)	
<b>Boin (cont.)</b>	KBTR023	66.4	93.0	26.6	1.53	
	<i>includes</i>	66.4	70.4	4.0	3.49	
	<i>includes</i>	90.4	93.0	2.6	6.21	
	KBTR024	95.8	103.8	8.0	1.40	
	KBTR024	142.5	144.5	2.0	1.07	
	KBTR024C	55.0	63.0	8.0	1.40	
	<i>includes</i>	59.0	63.0	4.0	2.19	
	KBTR029	2.0	41.0	39.0	0.78	
	<i>includes</i>	16.0	19.2	3.2	2.03	
	KBTR030	0.0	42.0	42.0	0.56	
	<i>includes</i>	14.0	18.0	4.0	2.21	
	KBTR031	26.0	30.0	4.0	1.32	
	KBTR032	26.0	34.0	8.0	1.30	
	KBTR033	28.0	45.0	17.0	0.63	
	KBTR034	14.0	36.0	22.0	1.21	
	<i>includes</i>	22.0	26.0	4.0	4.01	
	KBTR036	66.0	90.0	24.0	0.66	
	<i>includes</i>	76.0	82.0	6.0	1.46	
	KBTR037	34.0	42.0	8.0	2.00	
	<i>includes</i>	36.0	40.0	4.0	3.47	
	KBTR037	148.0	154.0	6.0	0.78	
	<b>Sewum</b>	SWTR001B	0.0	104.0	104.0	0.68
		<i>includes</i>	20.0	32.0	12.0	1.71
<i>includes</i>		86.0	92.0	6.0	1.44	
SWTR003A		10.0	18.0	8.0	0.46	
SWTR003B		36.0	42.0	6.0	0.42	
SWTR004B		0.0	48.0	48.0	0.54	
<i>includes</i>		0.0	4.0	4.0	1.28	
SWTR005		10.0	20.0	10.0	0.47	
SWTR005		42.0	58.0	16.0	0.66	
SWTR006		18.0	64.0	46.0	0.46	
<i>includes</i>		44.0	48.0	4.0	1.14	
SWTR008		97.0	104.0	7.0	3.41	
<i>includes</i>		100.0	102.0	2.0	11.13	
SWTR009		176.0	190.0	14.0	1.18	
<i>includes</i>		178.0	186.0	8.0	1.78	
SWTR010		62.0	84.0	22.0	0.59	
<i>includes</i>		72.0	74.0	2.0	2.63	
SWTR010		100.0	126.0	26.0	0.58	
<i>includes</i>		110.0	112.0	2.0	3.04	
SWTR010		160.0	205.0	45.0	0.44	
<i>includes</i>		164.0	170.0	6.0	0.88	
SWTR010B		0.0	25.0	25.0	0.75	
<i>includes</i>		1.0	11.0	10.0	1.05	
SWTR010D	11.0	39.0	28.0	0.85		
SWTR013A	80.0	149.0	69.0	1.27		
<i>includes</i>	86.0	102.0	16.0	1.99		
<i>includes</i>	122.0	140.0	18.0	1.81		

(table continues on next page)

Zone	Trench	From (m)	To (m)	Length (m)	Au (g/t)
<b>Sewum (cont.)</b>	SWTR013B	0.0	73.0	73.0	0.54
	<i>includes</i>	26.0	32.0	6.0	1.09
	<i>includes</i>	50.0	60.0	10.0	0.98
	SWTR013D	14.0	30.0	16.0	0.49
	SWTR015	28.0	78.0	50.0	0.71
	<i>includes</i>	32.0	38.0	6.0	1.91
	SWTR015	98.0	120.0	22.0	0.47
	SWTR017	2.0	56.0	54.0	1.32
	<i>includes</i>	28.0	40.0	12.0	3.39
	SWTR017	67.0	126.0	59.0	0.90
	<i>includes</i>	75.0	89.0	14.0	1.70
	SWTR017B	4.0	14.0	10.0	0.38
	SWTR017D	20.0	52.0	32.0	0.89
	<i>includes</i>	40.0	44.0	4.0	1.38
	SWTR019A	47.0	53.0	6.0	0.80
	SWTR022	234.0	240.0	6.0	0.34
	SWTR024A	0.0	11.0	11.0	0.41
	SWTR024B	25.0	70.0	45.0	0.56
	SWTR025A	32.0	48.0	16.0	0.98
	<i>includes</i>	44.0	47.0	3.0	3.48
	SWTR026C	52.0	74.0	22.0	0.79
	<i>includes</i>	56.0	62.0	6.0	1.21
	SWTR027	37.0	40.0	3.0	0.64
	SWTR029	20.0	28.0	8.0	1.57
	SWTR033	17.0	23.0	6.0	1.10
	SWTR034	13.0	22.0	9.0	2.14
	<i>includes</i>	17.0	19.0	2.0	4.05
	SWTR038	21.0	64.0	43.0	0.80
	<i>includes</i>	40.0	45.0	5.0	1.57
	SWTR039B	6.0	17.0	11.0	0.81
	SWTR045	0.0	18.0	18.0	1.83
	<i>includes</i>	7.0	17.0	10.0	2.43
	<b>Nyam</b>	NBTR001	16.0	42.0	26.0
NBTR002		20.0	26.5	6.5	1.26
NBTR003		12.0	22.0	10.0	2.34
NBTR004		26.0	46.0	20.0	1.67
NBTR005		2.0	24.0	22.0	1.07
<i>includes</i>		4.0	8.0	4.0	2.14
NBTR006		0.0	10.0	10.0	0.98
NBTR006		34.0	42.0	8.0	0.63
NBTR007		8.0	20.0	12.0	1.20
NBTR008		14.0	24.0	10.0	1.12
NBTR009		4.0	12.0	8.0	1.89
NBTR009		22.0	38.0	16.0	0.77
NBTR011		14.0	30.0	16.0	0.73
NBTR012		12.0	18.0	6.0	2.33
ACHTR001A		134.0	154.0	20.0	0.97
ACHTR005		4.0	24.0	20.0	0.66

Figure 9.2 Enchi Trench Locations



Source: Newcore Gold Ltd., 2020

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## 9.3 AUGER

Auger holes are vertical (-90°) and therefore no azimuth is required in the collar file. In the survey file, a -90° 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 should be 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.

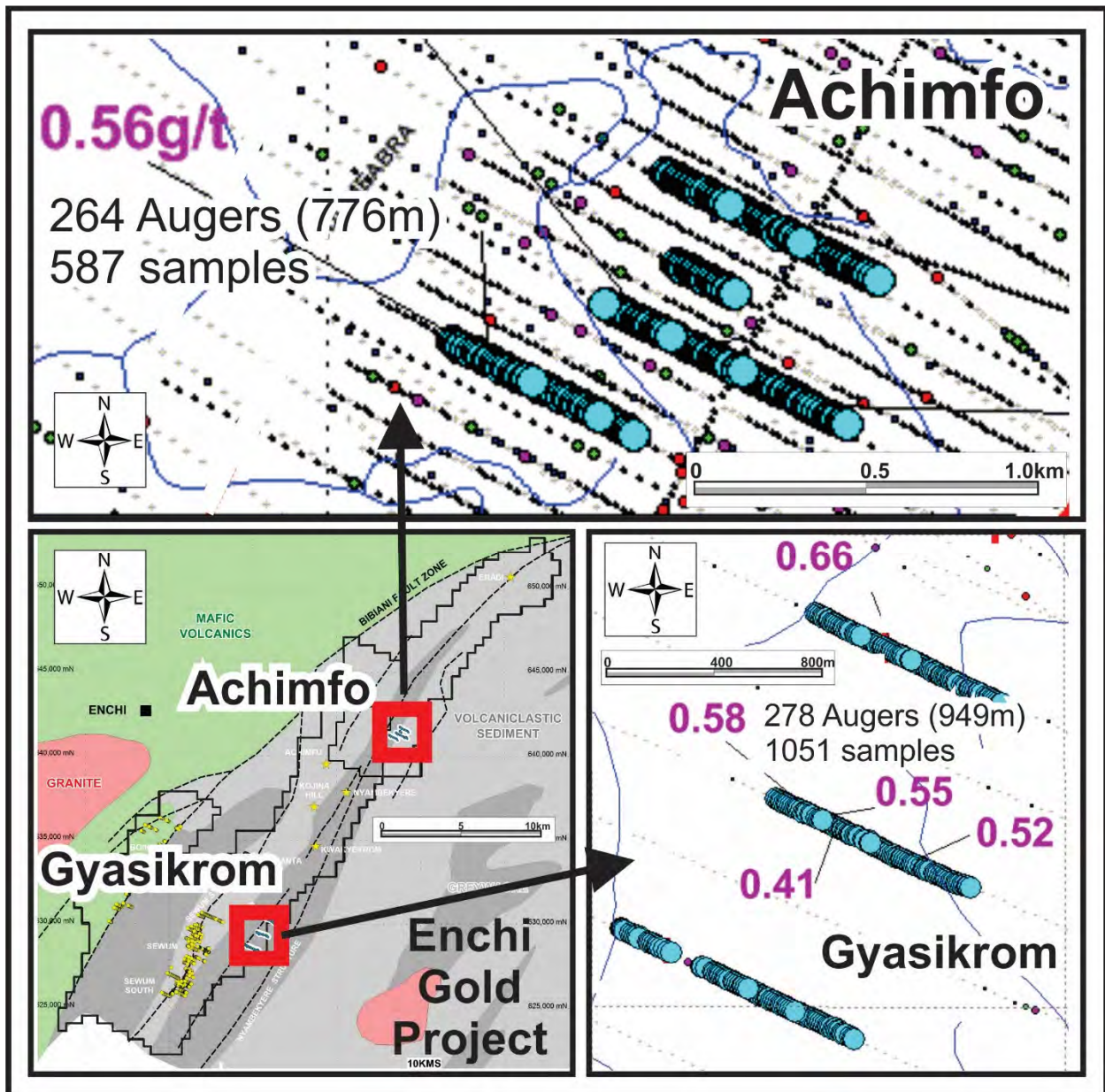
The results of the auger survey were disclosed in a previous technical report (*McCracken et al., 2016*). Table 9.3 summarizes the auger work completed.

**Table 9.3 Auger Summary**

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

Figure 9.3 is a map summarizing the significant auger results from around the Achimfo and Gyasikrom Prospects.

Figure 9.3 Significant Auger Results



Source: Newcore Gold Ltd., 2020

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 augers.



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## 9.4 EXPLORATION RESULTS

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### 9.4.1 ACHIMFO

The Achimfo Target is located in the central portion of the Enchi Project, approximately 1 km north of the Nyam Zone (previous Figure 7.1). The mineralized zone is located along the same structure which hosts the Nyam mineralization. Previous soil sampling at Achimfo had generated moderate anomalous results and the airborne geophysical survey highlighted a linear radiometric anomaly. Work completed consisted of five trenches for 615.6 m and 264 holes for 776 m (587 samples). The trenches and augers were completed over an area of 1 km by 1 km. Significant results for trenches included 24 m 0.84 g/t Au and 14.0 m @ 0.49 g/t Au (previous Figure 9.1).

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### 9.4.2 BOIN NW

The Boin NW Target is located in the west-central portion of the Enchi Project, approximately 1 km west-northwest of the Boin deposit (previous Figure 7.2). The mineralized zone is located along a sub-parallel structure to that which hosts the Boin mineralization. Previous soil sampling at Boin NW had generated moderate anomalous results, and the airborne geophysical survey highlighted a linear radiometric anomaly. Work completed consisted of 11 trenches for 1,563.7 m. The trenches exposed silicified and brecciated volcanoclastic sediments and quartz veining with disseminated sulphides. The trenches were completed over an area 2 km long and 200 m wide. Weakly to moderately anomalous results were returned in most trenches with significant results including 10 m @ 1.64 g/t Au, and 8.0 m @ 0.49 g/t Au (previous Figure 9.1).

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### 9.4.3 SEWUM-TOKOSEA

The Sewum-Tokosea target is located in the south-central portion of the Enchi Project, approximately 500 to 1,500 m north of the Sewum deposit (previous Figure 7.2). The mineralized zone is located along a series of structures sub-parallel and along trend from the structure which hosts the Sewum mineralization. Previous soil sampling at Sewum-Tokosea had generated moderate anomalous results, and the airborne geophysical survey outlined a series of linear radiometric anomalies. Work completed consisted of seven trenches for 992 m. The trenches were completed over an area of 2 km by 200 m. The trenches exposed highly oxidized volcanoclastic sediments with brecciated quartz veins and foliated graphitic phyllites. Weakly anomalous results were returned in most trenches with significant results including 34 m @ 0.31 g/t Au (previous Figure 9.1).

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### 9.4.4 GYASIKROM

The Gyasikrom target is located in the south-eastern portion of the Enchi Project, approximately 2 km east of the Sewum deposit (previous Figure 7.2). Limited previous work had been completed in this area; this work consisted of wide-spaced soil sampling which generated isolated weakly anomalous results. The airborne geophysical survey outlined a large 1 km by 3 km area interpreted to be underlain by intrusive rocks. Work completed consisted of 3 trenches for 540 m, and 278 auger holes for 949.1 m (1,051 samples) completed over an area of 4 km by 1 km. The trenches did not return anomalous values, and the auger returned isolated moderately anomalous values including 0.66 and 0.58 g/t Au .

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#### 9.4.5 ENKYE

The Enkye target is located in the west-central portion of the Enchi Project, approximately 5 km northwest of the Nyam zone (previous Figure 7.2). Limited previous work had been completed in this area; this work consisted of wide-spaced soil sampling which generated isolated anomalous results. The airborne geophysical survey outlined a large area with moderately complex radiometric and magnetic anomalies. The line cutting and soil sampling program was completed over the interpreted volcanic–sediment contact within the Enkye license on 400 m x 50 m spacing infilling the original 800 m x 50 m. Work completed consisted of 986 soil samples completed along 10 lines of length totaling 60.0.8 km over an area 7 km by 5 km. The soil sampling generated a limited number of weakly anomalous results as well as three spot highs including 354, 1386, and 6453 ppb Au.

# 10 DRILLING

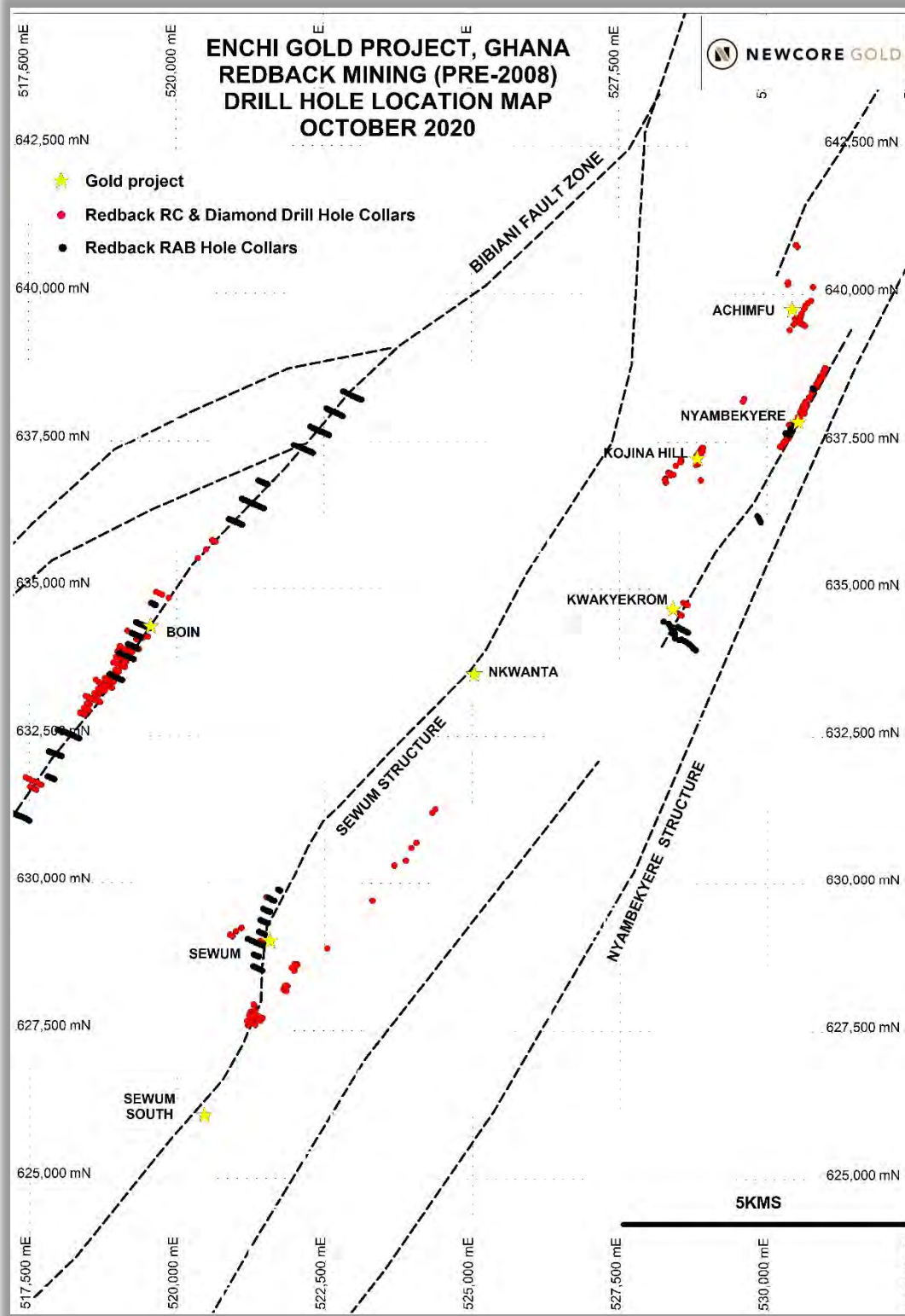
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## 10.1 PRE-2011 DRILLING

The 2005-2006 Red Back Reverse Circulation (RC) and Rotary Air Blast (RAB) drilling program undertaken on the Project from January 6, 2005 to December 4, 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 (Figure 10.1). 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.

Appendix A lists the collar locations from the Red Back drill program. Appendix B lists the significant results from the Red Back drill program. Results are expressed in downhole length in metres. At the time of drilling, the orientation of the mineralization was not fully understood and the various dips of the holes resulted in unknown true thickness.

Figure 10.1 Drillhole Location Pre-2011

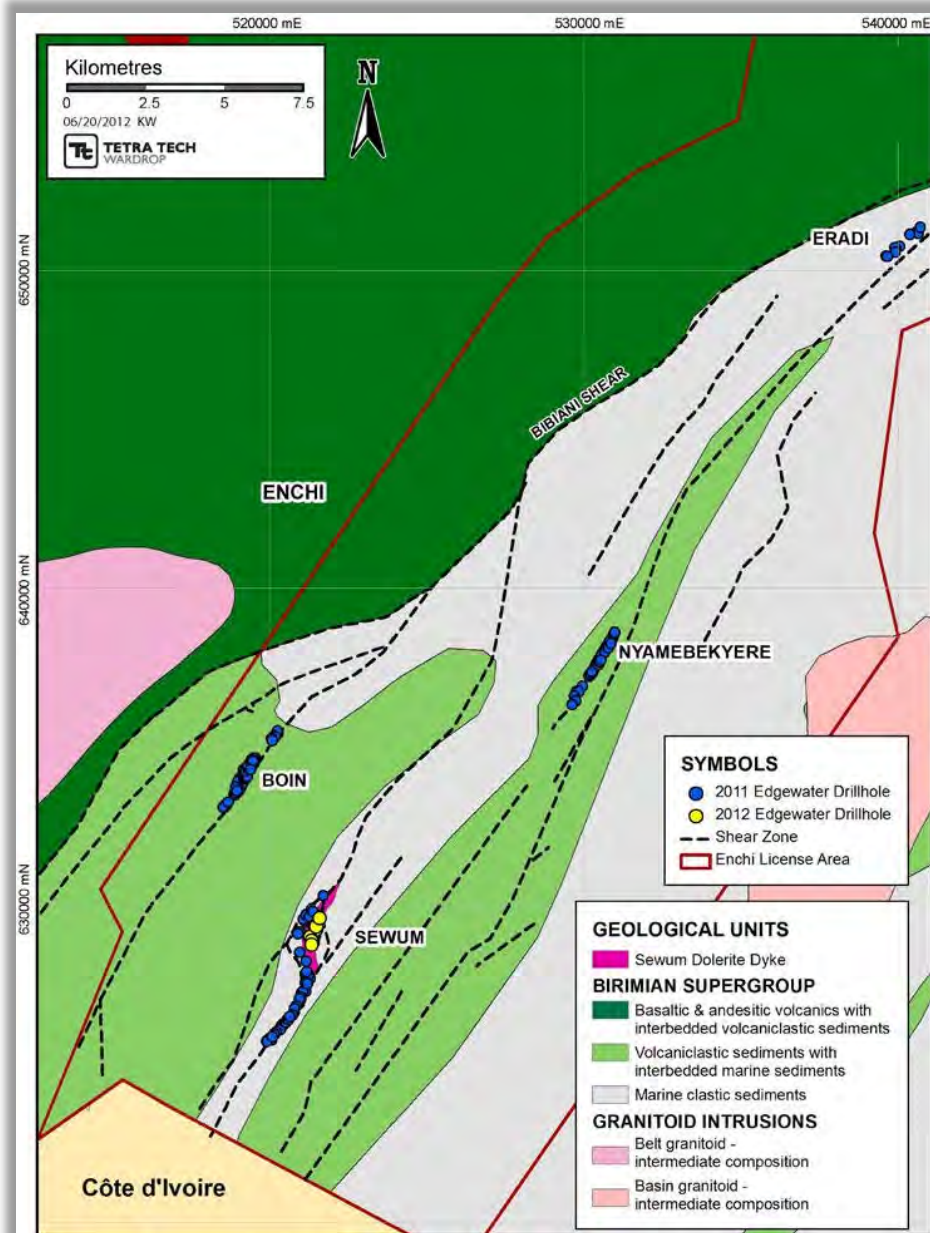


Source: Newcore Gold Ltd., 2020

## 10.2 2011 EDGEWATER DRILLING

The 2011 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 (Figure 10.2 and Table 10.1).

**Figure 10.2 Drillhole Location 2011**



Source: Tetra Tech, 2012

**Table 10.1 Drillhole Collar Location 2011**

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date
KBDDH001	633,780.40	519,076.80	160.081	-50	120.0	59.2	Boin	2011
KBDDH002	633,726.20	519,089.10	158.329	-90	0.0	100.5	Boin	2011
KBDDH003	633,726.10	519,089.40	158.329	-70	120.0	100.6	Boin	2011
KBDDH004	633,721.50	519,100.10	158.329	-60	120.0	100.5	Boin	2011
KBDDH005	633,813.20	519,118.00	161.450	-90	0.0	105.2	Boin	2011
KBDDH006	633,813.60	519,118.50	161.450	-70	120.0	100.8	Boin	2011
KBDDH007	633,809.20	519,125.90	161.400	-60	120.0	70.8	Boin	2011
KBDDH008	633,897.10	519,152.30	150.110	-90	120.0	90.3	Boin	2011
KBDDH009	633,897.00	519,152.40	150.110	-70	120.0	90.2	Boin	2011
KBDDH010	633,890.90	519,166.20	150.080	-50	120.0	70.5	Boin	2011
KBDDH011	633,640.80	519,028.50	158.230	-90	0.0	100.5	Boin	2011
KBDDH012	633,641.70	519,028.10	158.230	-70	120.0	70.5	Boin	2011
KBDDH013	633,635.50	519,044.50	158.190	-60	120.0	49.6	Boin	2011
KBDDH014	633,690.30	519,043.80	159.136	-50	120.0	70.5	Boin	2011
KBDDH015	633,561.40	518,948.70	152.440	-90	120.0	91.5	Boin	2011
KBDDH016	633,561.20	518,949.10	152.440	-60	120.0	100.5	Boin	2011
KBDDH017	633,548.90	518,975.30	152.100	-60	120.0	50.0	Boin	2011
KBDDH018	633,533.50	518,886.80	151.666	-60	120.0	81.0	Boin	2011
KBDDH019	633,481.40	518,870.10	143.360	-90	0.0	100.5	Boin	2011
KBDDH020	633,481.30	518,870.30	143.360	-60	120.0	60.0	Boin	2011
KBDDH021	633,467.10	518,897.90	141.190	-60	120.0	51.0	Boin	2011
KBDDH022	633,159.00	518,620.10	137.200	-90	0.0	106.5	Boin	2011
KBDDH023	633,158.80	518,620.40	137.200	-65	120.0	81.0	Boin	2011
KBDDH024	633,167.20	518,597.30	139.100	-90	0.0	84.0	Boin	2011
KBDDH025	633,078.10	518,547.10	137.370	-60	120.0	78.0	Boin	2011
KBDDH026	633,090.40	518,521.60	139.120	-90	120.0	112.5	Boin	2011
KBDDH027	633,090.00	518,521.50	139.120	-60	120.0	111.5	Boin	2011
KBDDH028	633,245.00	518,677.00	139.000	-60	120.0	80.0	Boin	2011
KBDDH029	633,523.90	518,915.10	149.187	-50	120.0	77.8	Boin	2011
KBDDH030	633,858.10	519,151.30	161.087	-50	120.0	79.0	Boin	2011
KBDDH031	634,632.40	519,552.20	140.090	-60	120.0	100.6	Boin	2011
KBDDH032	634,645.20	519,508.10	140.090	-60	120.0	195.0	Boin	2011
KBDDH033	634,586.30	519,427.40	140.190	-60	120.0	99.1	Boin	2011
KBDDH034	633,826.80	518,970.20	157.062	-80	120.0	232.2	Boin	2011
KBDDH035	635,420.10	520,283.90	115.280	-60	130.0	148.7	Boin	2011
KBDDH036	634,008.70	519,042.70	148.007	-80	120.0	215.0	Boin	2011
KBDDH037	633,918.20	518,997.30	156.093	-80	95.0	201.5	Boin	2011
KBDDH038	635,464.40	520,263.10	115.280	-60	130.0	157.5	Boin	2011
KBDDH039	633,731.30	518,925.00	158.266	-80	120.0	251.0	Boin	2011
KBDDH040	635,496.20	520,255.00	115.340	-60	130.0	170.6	Boin	2011

*(table continues on next page)*

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date
KBDDH041	635,346.10	520,151.50	117.150	-60	130.0	77.0	Boin	2011
KBDDH041A	635,342.80	520,154.80	117.150	-60	130.0	159.5	Boin	2011
KBDDH042	633,611.90	518,960.10	159.248	-80	120.0	102.0	Boin	2011
KBDDH043	635,319.40	520,190.40	117.200	-60	130.0	153.3	Boin	2011
KBDDH044	634,050.10	519,182.70	126.332	-80	120.0	202.5	Boin	2011
KBDDH045	633,985.20	519,196.10	135.100	-60	120.0	149.0	Boin	2011
KBDDH046	635,252.30	520,059.30	120.100	-60	130.0	158.0	Boin	2011
KBDDH047	633,981.20	519,230.10	135.000	-60	120.0	150.5	Boin	2011
KBDDH048	634,278.30	519,167.50	134.376	-80	120.0	252.0	Boin	2011
KBDDH049	634,070.40	519,251.30	127.200	-60	120.0	155.0	Boin	2011
KBDDH050	634,120.10	519,269.20	123.200	-60	120.0	45.5	Boin	2011
KBDDH050A	634,118.60	519,271.10	123.200	-60	120.0	141.5	Boin	2011
KBDDH051	634,052.00	519,297.00	126.100	-60	120.0	101.0	Boin	2011
KBDDH052	633,611.00	518,962.00	159.248	-80	120.0	201.0	Boin	2011
KBDDH053	634,238.50	519,234.80	133.549	-80	120.0	221.0	Boin	2011
KBDDH054	634,296.00	519,350.00	135.170	-60	120.0	152.0	Boin	2011
KBDDH055	634,316.00	519,307.00	140.180	-60	120.0	131.0	Boin	2011
KBDDH056	634,421.40	519,312.80	136.456	-80	120.0	200.5	Boin	2011
KBDDH057	634,456.00	519,481.00	140.100	-60	120.0	101.5	Boin	2011
KBDDH058	634,476.00	519,434.00	140.200	-60	120.0	104.5	Boin	2011
KBDDH059	634,496.00	519,387.00	140.300	-60	120.0	155.0	Boin	2011
KBDDH060	634,586.00	519,427.00	140.190	-60	120.0	154.0	Boin	2011
KBRC113	635,209.00	520,082.00	120.00	-60	130.0	36.0	Boin	2011
KBRC113A	635,208.00	520,084.00	120.00	-60	130.0	102.0	Boin	2011
KBRC114	634,541.00	519,522.00	140.00	-60	120.0	34.0	Boin	2011
KBRC114A	634,540.00	519,524.00	140.00	-60	120.0	108.0	Boin	2011
KBRC115	634,561.00	519,476.00	140.00	-60	120.0	36.0	Boin	2011
KBRC115A	634,562.00	519,474.00	140.00	-60	120.0	108.0	Boin	2011
KBRC116	634,275.00	519,396.00	135.00	-60	120.0	100.0	Boin	2011
NBDDH001	637,685.60	530,453.70	116.434	-60	300.0	90.5	Nyam	2011
NBDDH002	637,732.00	530,461.30	114.140	-60	300.0	60.2	Nyam	2011
NBDDH003	637,617.80	530,413.60	127.840	-60	300.0	90.6	Nyam	2011
NBDDH004	637,586.00	530,387.70	128.500	-60	300.0	80.2	Nyam	2011
NBDDH005	637,442.20	530,326.60	111.350	-60	300.0	101.1	Nyam	2011
NBDDH006	637,400.90	530,309.80	111.450	-60	300.0	101.0	Nyam	2011
NBDDH007	637,795.90	530,509.70	106.280	-60	300.0	70.5	Nyam	2011
NBDDH008	637,878.60	530,576.10	105.370	-60	300.0	80.6	Nyam	2011
NBDDH009	637,918.10	530,600.30	110.250	-60	300.0	76.2	Nyam	2011
NBDDH010	637,927.10	530,582.30	110.670	-60	300.0	76.8	Nyam	2011
NBDDH011	637,980.60	530,652.60	128.250	-60	300.0	100.5	Nyam	2011
NBDDH012	638,063.80	530,665.40	150.180	-60	300.0	75.6	Nyam	2011

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date
NBDDH013	637,967.10	530,618.30	117.873	-60	300.0	81.6	Nyam	2011
NBDDH014	638,079.00	530,718.00	152.270	-60	300.0	129.6	Nyam	2011
NBDDH015	638,090.50	530,703.30	155.630	-60	300.0	86.0	Nyam	2011
NBDDH016	638,203.50	530,783.30	100.380	-60	300.0	137.0	Nyam	2011
NBDDH017	638,157.40	530,748.70	110.360	-60	300.0	119.3	Nyam	2011
NBDDH018	638,170.50	530,733.10	115.040	-60	300.0	77.0	Nyam	2011
NBDDH019	638,259.90	530,792.20	90.280	-60	300.0	80.5	Nyam	2011
NBDDH020	638,246.90	530,807.20	90.140	-60	300.0	110.5	Nyam	2011
NBDDH021	638,289.90	530,829.20	90.260	-60	300.0	86.0	Nyam	2011
NBDDH022	638,342.50	530,827.90	92.190	-60	300.0	71.2	Nyam	2011
NBDDH023	638,359.90	530,869.20	95.230	-60	300.0	92.0	Nyam	2011
NBDDH024	638,395.60	530,897.10	105.270	-60	300.0	81.5	Nyam	2011
NBDDH025	638,404.60	530,879.10	110.050	-60	300.0	61.5	Nyam	2011
NBDDH026	638,425.60	530,916.10	116.230	-60	300.0	92.2	Nyam	2011
NBDDH027	638,340.00	530,826.00	92.560	-90	360.0	100.6	Nyam	2011
NBDDH028	638,498.00	530,949.00	130.290	-60	300.0	110.0	Nyam	2011
NBDDH029	638,532.00	530,968.00	135.000	-60	300.0	100.6	Nyam	2011
NBDDH030	638,542.00	530,953.00	140.450	-60	300.0	86.0	Nyam	2011
NBDDH031	638,611.00	530,990.00	125.830	-60	300.0	78.6	Nyam	2011
NBDDH032	637,845.00	530,570.00	105.170	-60	300.0	101.5	Nyam	2011
NBDDH033	637,854.00	530,553.00	105.570	-60	300.0	83.3	Nyam	2011
NBDDH034	637,969.00	530,680.00	126.060	-60	300.0	141.8	Nyam	2011
NBDDH035	637,506.00	530,357.00	115.620	-60	300.0	92.1	Nyam	2011
NBDDH036	637,237.00	530,160.00	100.610	-60	300.0	86.6	Nyam	2011
NBDDH037	637,227.00	530,177.00	100.230	-60	300.0	122.7	Nyam	2011
NBDDH038	637,298.20	530,205.00	99.890	-60	300.0	101.6	Nyam	2011
NBDDH039	637,287.20	530,223.00	99.750	-60	300.0	129.8	Nyam	2011
NBDDH040	637,343.50	530,290.00	102.100	-60	300.0	122.1	Nyam	2011
NBDDH041	637,353.70	530,272.80	100.050	-60	300.0	104.0	Nyam	2011
NBDDH042	637,363.60	530,254.80	100.943	-60	300.0	98.1	Nyam	2011
NBDDH043	637,593.00	530,469.00	127.310	-60	300.0	242.5	Nyam	2011
NBDDH044	637,665.00	530,503.00	122.290	-60	300.0	221.3	Nyam	2011
NBDDH045	637,731.00	530,551.00	115.340	-60	300.0	230.4	Nyam	2011
NBDDH046	638,126.00	530,785.00	110.120	-60	300.0	236.2	Nyam	2011
NBDDH047	638,257.00	530,865.00	90.640	-60	300.0	233.5	Nyam	2011
NBRC001	636,911.00	529,961.10	99.830	-60	300.0	150.0	Nyam	2011
NBRC002	636,742.00	529,770.00	114.760	-60	300.0	100.0	Nyam	2011
NBRC003	636,737.00	529,835.00	105.200	-50	300.0	92.0	Nyam	2011
NBRC004	636,592.00	529,703.30	114.870	-50	120.0	120.0	Nyam	2011
NBRC005	636,451.00	529,752.00	104.670	-50	300.0	100.0	Nyam	2011
NBRC006	636,321.00	529,620.40	104.270	-50	300.0	100.0	Nyam	2011

(table continues on next page)



Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date
SWDDH001	626,198.50	520,401.90	99.690	-60	122.6	130.0	Sewum	2011
SWDDH002	626,210.70	520,378.60	96.110	-60	170.5	130.0	Sewum	2011
SWDDH003	626,260.40	520,428.40	119.380	-60	134.0	130.0	Sewum	2011
SWDDH004	626,251.60	520,455.00	122.150	-60	101.5	130.0	Sewum	2011
SWDDH005	626,093.50	520,320.00	98.540	-60	177.7	130.0	Sewum	2011
SWDDH006	626,085.70	520,341.00	103.230	-60	155.3	130.0	Sewum	2011
SWDDH007	626,019.40	520,230.30	105.530	-60	122.3	130.0	Sewum	2011
SWDDH008	625,955.20	520,145.00	102.460	-60	125.3	130.0	Sewum	2011
SWDDH009	625,937.60	520,168.30	106.760	-60	92.5	130.0	Sewum	2011
SWDDH010	625,801.50	520,004.40	100.610	-60	121.0	130.0	Sewum	2011
SWDDH011	625,790.50	520,028.80	105.530	-60	113.2	130.0	Sewum	2011
SWDDH012	625,769.50	520,063.10	114.760	-60	101.2	130.0	Sewum	2011
SWDDH013	625,726.30	519,904.80	97.360	-60	104.0	130.0	Sewum	2011
SWDDH014	625,716.40	519,924.70	97.230	-60	98.0	130.0	Sewum	2011
SWDDH015	626,332.30	520,514.80	114.760	-60	111.2	130.0	Sewum	2011
SWDDH016	626,323.50	520,536.90	114.150	-60	149.3	130.0	Sewum	2011
SWDDH017	626,411.90	520,569.00	105.840	-60	128.0	120.0	Sewum	2011
SWDDH018	626,397.50	520,604.40	103.690	-60	140.0	120.0	Sewum	2011
SWDDH019	625,873.00	520,070.00	103.110	-60	42.5	120.0	Sewum	2011
SWDDH019A	625,874.50	520,072.00	103.110	-60	110.0	120.0	Sewum	2011
SWDDH020	625,863.00	520,092.00	105.230	-60	93.2	120.0	Sewum	2011
SWDDH021	626,644.10	520,778.20	116.300	-60	111.5	130.0	Sewum	2011
SWDDH022	626,639.70	520,795.90	116.920	-60	36.5	130.0	Sewum	2011
SWDDH023	626,901.00	520,935.00	100.340	-60	80.0	130.0	Sewum	2011
SWDDH024	627,032.00	520,982.00	92.400	-60	83.0	130.0	Sewum	2011
SWDDH025	627,335.00	521,109.00	97.800	-60	71.0	130.0	Sewum	2011
SWDDH025A	627,335.00	521,106.00	97.800	-60	152.0	130.0	Sewum	2011
SWDDH026	627,243.00	521,016.00	109.560	-60	149.1	120.0	Sewum	2011
SWDDH027	627,231.00	521,039.00	109.340	-60	113.0	120.0	Sewum	2011
SWDDH028	627,310.00	521,160.00	98.230	-60	101.1	120.0	Sewum	2011
SWDDH029	627,306.00	521,083.00	96.120	-60	129.4	120.0	Sewum	2011
SWDDH030	627,118.00	521,007.00	105.670	-60	116.2	120.0	Sewum	2011
SWDDH031	627,070.00	520,955.00	91.700	-60	131.3	120.0	Sewum	2011
SWDDH032	626,839.00	520,850.00	100.340	-60	122.2	120.0	Sewum	2011
SWDDH033	626,595.50	520,759.40	114.240	-60	105.5	130.0	Sewum	2011
SWDDH034	626,757.00	520,792.00	100.670	-60	140.4	130.0	Sewum	2011
SWDDH035	626,560.10	520,729.50	110.130	-60	104.0	130.0	Sewum	2011
SWDDH036	626,502.60	520,642.10	95.670	-60	110.5	130.0	Sewum	2011
SWDDH037	627,571.00	521,147.00	128.520	-50	221.7	120.0	Sewum	2011
SWDDH038	627,712.40	521,311.00	144.340	-50	200.1	120.0	Sewum	2011
SWDDH039	627,756.90	521,213.00	120.150	-50	201.5	120.0	Sewum	2011

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date
SWDDH040	627,843.00	521,195.00	127.230	-50	200.5	120.0	Sewum	2011
SWDDH041	627,822.80	521,245.80	127.450	-50	207.5	120.0	Sewum	2011
SWDDH042	627,542.00	521,209.00	124.230	-50	199.7	120.0	Sewum	2011
SWDDH043	627,915.00	521,181.00	128.450	-50	201.2	120.0	Sewum	2011
SWDDH044	629,491.00	521,156.00	105.230	-50	149.5	120.0	Sewum	2011
SWDDH045	629,520.00	521,115.00	105.170	-50	151.0	120.0	Sewum	2011
SWDDH046	629,569.00	521,081.00	105.140	-50	154.0	120.0	Sewum	2011
SWDDH047	629,684.00	521,210.00	107.290	-50	152.6	120.0	Sewum	2011
SWDDH048	629,718.00	521,164.00	107.270	-50	255.7	120.0	Sewum	2011
SWDDH049	629,660.00	521,264.00	107.290	-50	133.0	120.0	Sewum	2011
SWDDH050	629,175.00	520,963.00	102.560	-50	110.3	120.0	Sewum	2011
SWDDH051	629,116.00	520,899.00	98.230	-50	134.5	120.0	Sewum	2011
SWDDH052	629,880.00	521,334.00	100.340	-50	218.0	120.0	Sewum	2011
SWDDH053	629,697.00	521,588.00	193.580	-50	167.0	120.0	Sewum	2011
SWDDH054	629,822.00	521,377.00	130.670	-50	125.0	120.0	Sewum	2011
SWDDH055	630,298.00	521,714.00	100.230	-50	92.1	120.0	Sewum	2011
SWDDH056	629,512.00	521,576.00	191.500	-50	224.0	120.0	Sewum	2011
SWDDH057	629,416.00	521,562.00	194.280	-50	183.0	120.0	Sewum	2011
SWDDH058	629,325.00	521,513.00	193.480	-50	221.0	120.0	Sewum	2011
SWDDH059	629,229.00	521,498.00	194.190	-50	212.0	120.0	Sewum	2011
SWDDH060	629,134.00	521,475.00	194.260	-50	214.0	120.0	Sewum	2011
SWDDH061	629,042.00	521,453.00	194.760	-50	150.0	120.0	Sewum	2011
SWDDH062	628,842.00	521,436.00	194.340	-50	146.5	120.0	Sewum	2011
SWDDH063	629,527.00	521,526.00	194.190	-50	162.0	120.0	Sewum	2011
SWDDH064	628,763.00	521,367.00	190.230	-50	134.5	120.0	Sewum	2011
SWDDH065	629,116.00	520,899.00	98.410	-90	146.0	0.0	Sewum	2011
SWDDH066	628,530.00	520,964.00	107.230	-50	156.0	120.0	Sewum	2011
SWDDH067	628,971.00	521,379.00	194.040	-90	132.8	0.0	Sewum	2011
SWDDH068	628,243.00	521,167.00	127.820	-50	152.5	300.0	Sewum	2011
SWDDH069	628,971.00	521,379.00	194.300	-50	114.5	120.0	Sewum	2011
SWRC034	629,243.28	521,467.61	190.340	-90	0.0	100.0	Sewum	2012
SWRC035	629,014.75	521,278.62	187.120	-60	120.0	160.0	Sewum	2012
SWRC036	629,416.12	521,562.56	194.280	-90	0.0	130.0	Sewum	2012
SWRC037	629,340.75	521,482.53	194.440	-90	0.0	140.0	Sewum	2012
SWRC038	628,884.34	521,341.18	190.670	-90	0.0	130.0	Sewum	2012
SWRC039	628,768.56	521,343.18	188.960	-90	0.0	150.0	Sewum	2012
SWRC040	629,602.78	521,607.26	189.880	-90	0.0	130.0	Sewum	2012
ERDDH001	651,215.00	540,594.00	173.280	-60	130.0	144.0	Eradi	2011
ERDDH002	651,187.00	540,638.00	146.520	-60	130.0	100.5	Eradi	2011
ERDDH003	651,146.00	540,380.00	166.430	-60	130.0	120.0	Eradi	2011
ERDDH004	651,374.00	540,712.00	148.210	-60	130.0	100.5	Eradi	2011

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date
ERDDH005	650,767.00	540,056.00	202.430	-60	130.0	100.5	Eradi	2011
ERDDH006	650,688.00	539,941.00	193.230	-60	130.0	70.5	Eradi	2011
ERDDH007	650,719.00	539,899.00	214.240	-60	130.0	105.0	Eradi	2011
ERDDH008	650,585.00	539,918.00	201.510	-60	130.0	120.0	Eradi	2011
ERDDH009	650,463.00	539,617.00	160.230	-60	130.0	117.0	Eradi	2011
ERDDH010	650,445.00	539,661.00	149.170	-60	130.0	85.5	Eradi	2011

### 10.2.1 BOIN

Edgewater completed 62 diamond and 7 reverse circulation drillholes totalling 8,087 m at Boin (Figure 10.3). The aim of the program was to confirm results from the Red Back reverse circulation 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.

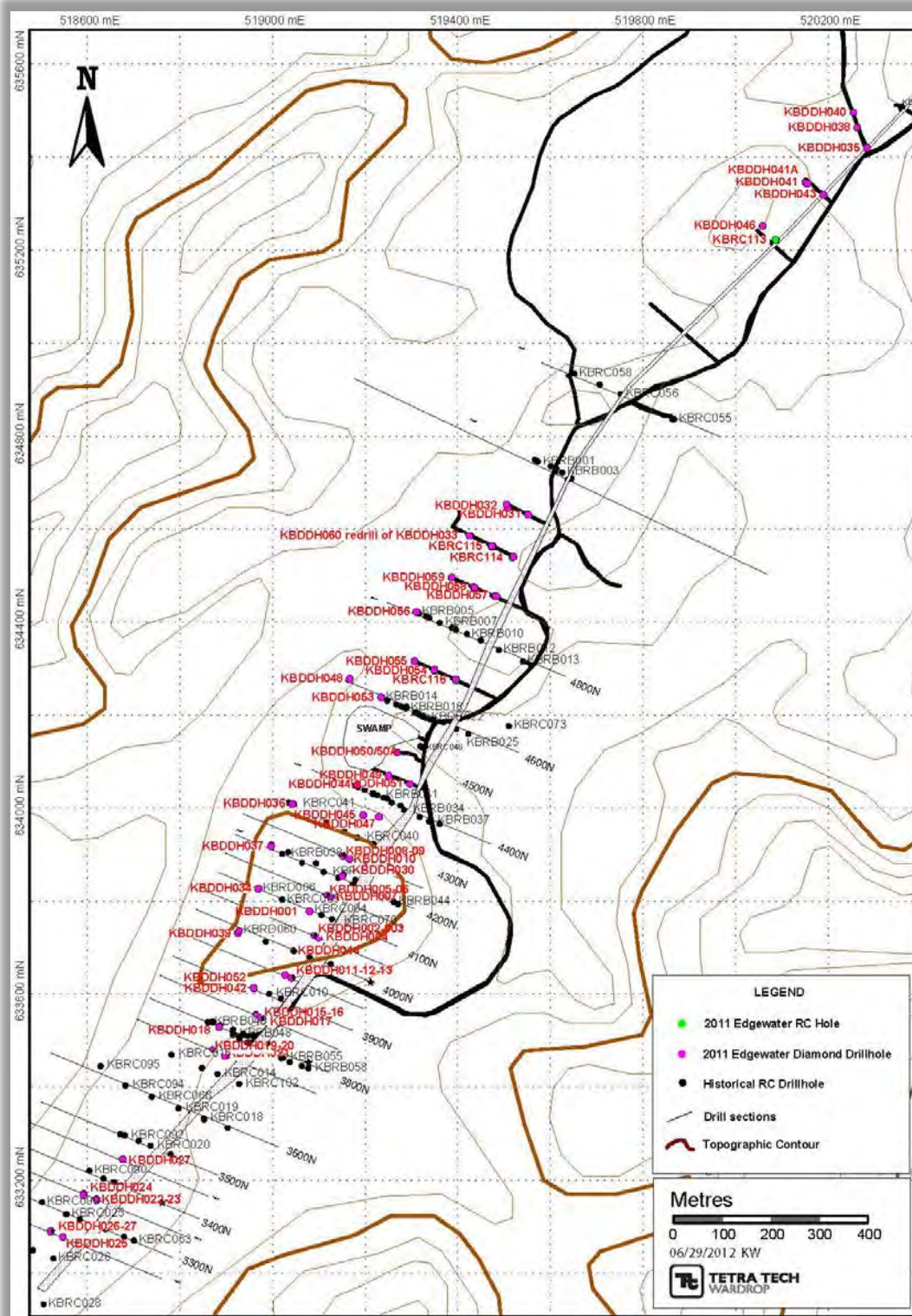
Drilling at Boin (KBDDH001 to 033) was completed initially with an Energold Drilling Corp. (Energold) man-portable diamond rig operated by E Global Drilling Corp, a division of Energold based in London England, from February to July 2011. Most holes were completed using thin-walled HQTW (61.1 mm core 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 (85.0 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 three 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.

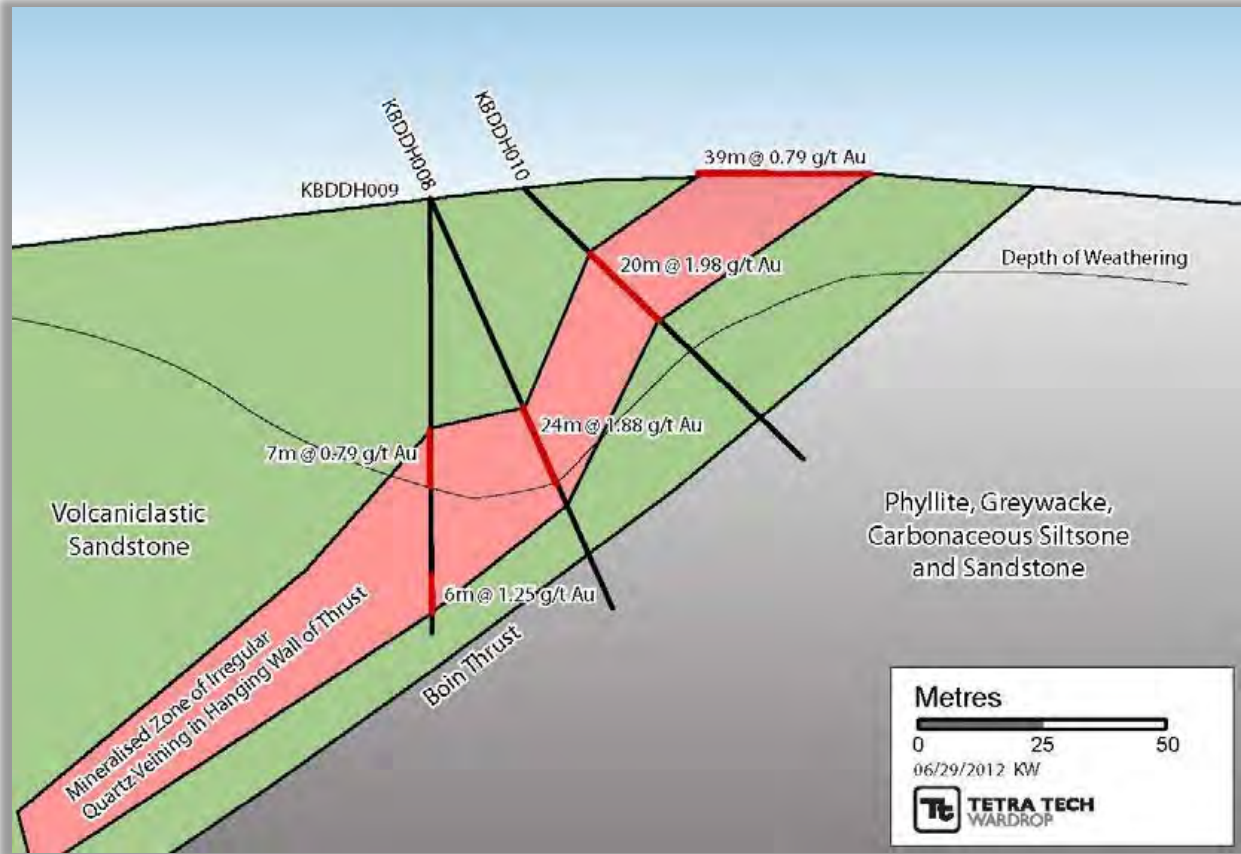
Figure 10.3 Boin Drillhole Location Map 2011



Source: Tetra Tech, 2012

Results of the drilling suggest that ore shoots are flat-lying or moderately dipping as some of the deeper holes aimed at testing the zone of mineralization at depth failed to intersect any significant mineralization (Figure 10.4).

**Figure 10.4 Boin Diagrammatic Cross-Section**



Source: Tetra Tech, 2012

Table 10.2 lists the significant results from the Boin drill program.

**Table 10.2 Boin 2011 Significant Drill Results**

Hole Number	Section	From (m)	To (m)	Interval (m)	Au (g/t)
KBDDH002	4050N	32	41	9	2.74
KBDDH002	4050N	55	59	4	1.91
KBDDH003	4050N	44	68	24	1.72
KBDDH003	including	50	58	8	3.84
KBDDH004	4050N	1	13	12	2.24
KBDDH005	4150N	54	64	10	0.69
KBDDH005	including	61	64	3	1.64
KBDDH007	4150N	11	14	3	1.20
KBDDH008	4250N	43	46	3	1.45
KBDDH008	4250N	83	87	4	1.70
KBDDH009	4250N	41	65	24	1.58

(table continues on next page)

Hole Number	Section	From (m)	To (m)	Interval (m)	Au (g/t)
KBDDH009	including	48	57	9	2.71
KBDDH010	4250N	15	35	20	1.98
KBDDH011	3950N	45	79	34	1.41
KBDDH011	including	47	57	10	2.36
KBDDH012	3950N	35	44	9	1.13
KBDDH013	3950N	10	34	24	1.42
KBDDH014	4000N	39	61	22	1.39
KBDDH015	3850N	48	53	5	0.99
KBDDH016	3850N	29	37	8	1.11
KBDDH016	3850N	47	75	28	1.12
KBDDH016	including	52	61	9	1.80
KBDDH016	3850N	88	94	6	1.72
KBDDH017	3850N	0	4	4	2.26
KBDDH022	3350N	84	103	19	1.05
KBDDH028	3450N	28	43	15	1.00
KBDDH029	3800N	41	46	5	1.44
KBDDH030	4200N	31	42	11	0.9
KBDDH032	5100N	145	147	2	1.33
KBDDH035	6100N	97	114	17	1.44
KBDDH037	4200N	125	137	12	0.76
KBDDH043	6000N	17	27	10	1.03
KBDDH044	4400N	157	177	20	0.42
KBDDH045	4350N	6	41	35	2.65
KBDDH049	4450N	9	16	7	1.22
KBDDH050	4500N	30	37	7	0.98
KBDDH050A	4500N	18	49	31	0.54
KBDDH050A	including	29	38	9	1.15
KBDDH052	3900N	84	108	24	0.82
KBDDH052	including	96	107	11	1.59

### 10.2.2 NYAM

Edgewater completed two phases of drilling at Nyam. The first phase of drilling was conducted between January 24 and April 9, 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 October 31 to November 16, 2001 and consisted of five diamond holes totalling 1,164 m and six reverse circulation holes totalling 662 m (Figure 10.5). The second program was designed to test the down plunge extensions of ore 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 hole drilled (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.

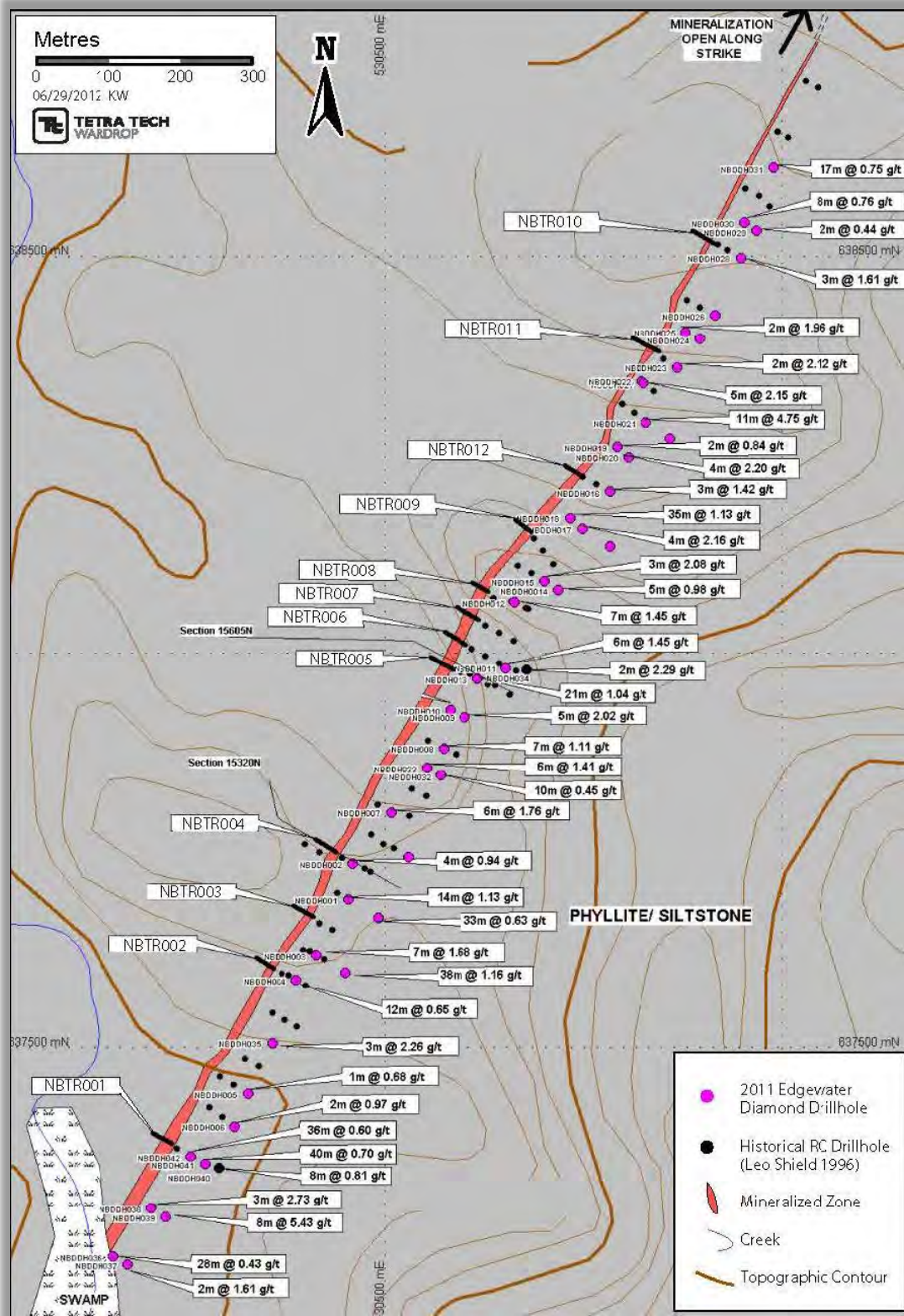
The results of Edgewater's first phase of diamond drilling at Nyam confirmed the continuity of the zone of gold mineralization, reinforcing the results of the reverse circulation drilling completed by Leo Shield in 1996 and extending the length of known mineralization to more than 2,000 m (Figure 10.6).

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 southernmost line of diamond holes drilled in the first phase of drilling was located adjacent to a 400 m wide swamp. New roads were constructed through the jungle to the south side of the swamp to allow the reverse circulation rig to test the south extension of the mineralized zone.

The reverse circulation drilling used a track-mounted Schramm HD 450 operated by Longyear. Reverse circulation drilling was designed to test the southern strike extension of the Nyam mineralized zone. All six 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).

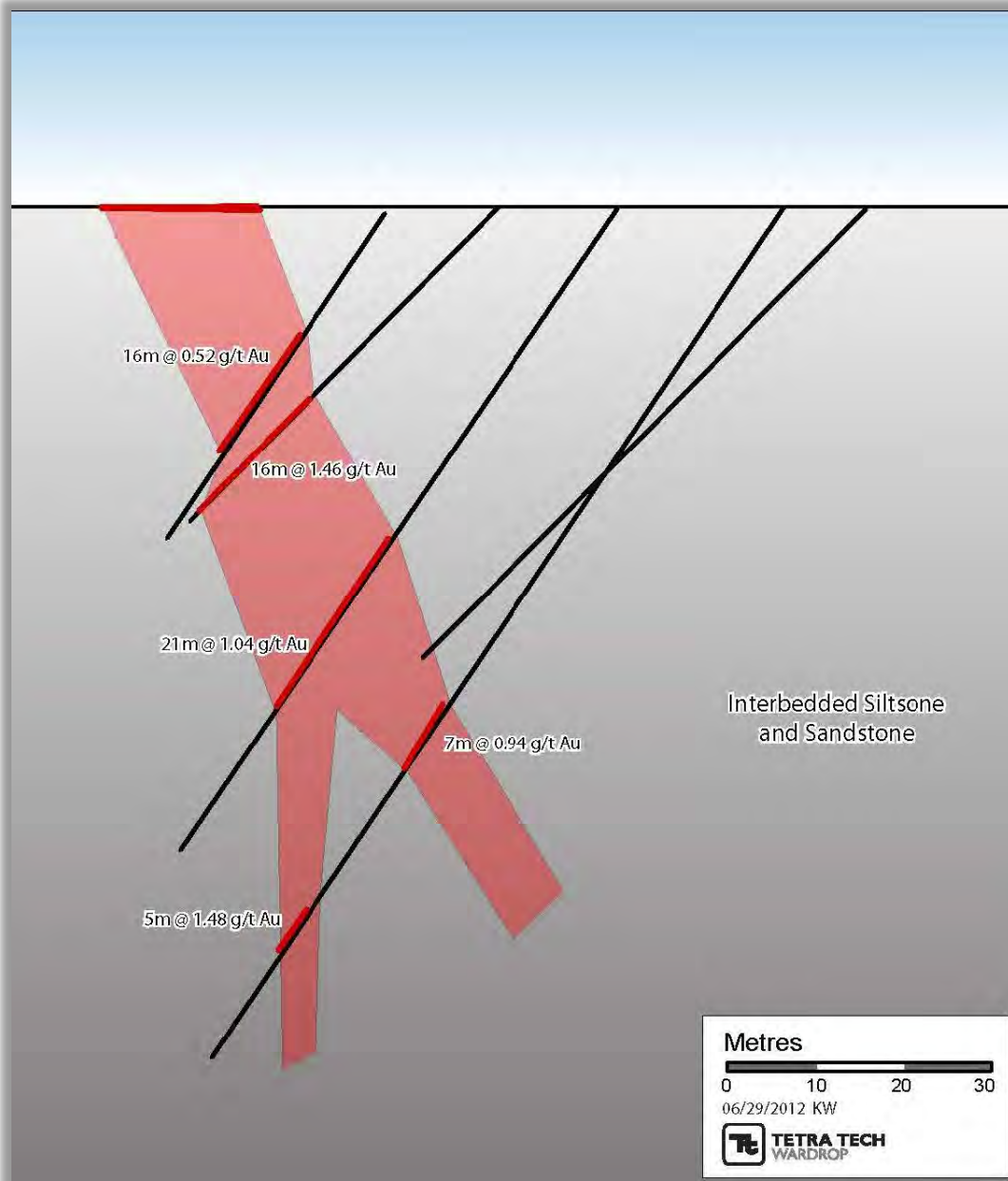
Figure 10.5 Nyam Drillhole Location Map 2011



Source: Tetra Tech, 2012



Figure 10.6 Nyam Diagrammatic Cross-Section



Source: Tetra Tech, 2012

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” 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° and the rig sometimes had problems with collapsing holes in the clay surface material.

Table 10.3 summarizes the significant results from Nyam.

**Table 10.3 Nyam 2011 Significant Drill Results**

Hole Number	Section	From (m)	To (m)	Interval (m)	Au (g/t)
NBDDH001	15280N	35	43	8.00	1.25
NBDDH001	15280N	47	61	14.00	1.13
NBDDH002	15320N	11	15	4.00	0.94
NBDDH002	15320N	30	36	6.00	0.57
NBDDH003	15200N	32	39	7.00	0.78
NBDDH003	15200N	48	49	1.00	2.17
NBDDH003	15200N	55	61	7.00	1.68
NBDDH004	15160N	19	22	3.00	1.11
NBDDH004	15160N	25	37	12.00	0.65
NBDDH004	including	26	29	3.00	1.26
NBDDH004	15160N	47	52	5.00	0.90
NBDDH005	15000N	70	71	1.00	0.68
NBDDH006	14960N	61	62	1.00	0.89
NBDDH006	14960N	77	79	2.00	0.97
NBDDH007	15400N	33	39	6.00	1.76
NBDDH007	15400N	43	47	4.00	0.71
NBDDH008	15500N	35	42	7.00	1.10
NBDDH008	15500N	46	56	10.00	0.84
NBDDH008	15500N	62	65	3.00	0.69
NBDDH008	15500N	74	77	3.00	1.05
NBDDH009	15550N	51	56	5.00	2.02
NBDDH009	15550N	66	68	2.00	1.41
NBDDH010	15550N	30	31	1.00	0.74
NBDDH010	15550N	46	47	1.00	0.67
NBDDH011	15640N	24	28	4.00	1.64
NBDDH011	15640N	74	75	1.00	1.46
NBDDH011	15640N	80	86	6.00	1.45
NBDDH012	15710N	35	42	7.00	1.45
NBDDH012	15710N	47	53	6.00	0.78
NBDDH013	15605N	43	64	21.00	1.04
NBDDH013	including	52	61	9.00	1.84
NBDDH014	15755N	52	57	5.00	0.98
NBDDH014	15755N	62	63	1.00	0.85
NBDDH014	15755N	101	109	8.00	0.47
NBDDH014	15755N	114	121	7.00	0.52
NBDDH015	15755N	65	66	1.00	0.98
NBDDH015	15755N	71	77	6.00	0.69
NBDDH015	15755N	81	84	3.00	2.08
NBDDH016	15900N	56	64	8.00	0.90
NBDDH016	15900N	72	74	2.00	1.03
NBDDH016	15900N	107	110	3.00	1.42
NBDDH016	15900N	127	129	2.00	0.96
NBDDH017	15850N	27	29	2.00	1.02
NBDDH017	15850N	34	35	1.00	0.76
NBDDH017	15850N	85	88	3.00	1.02
NBDDH017	15850N	95	96	1.00	1.90

*(table continues on next page)*

Hole Number	Section	From (m)	To (m)	Interval (m)	Au (g/t)
NBDDH017	15850N	108	112	4.00	2.16
NBDDH018	15850N	1	5	4.00	0.86
NBDDH018	15850N	10	16	6.00	2.04
NBDDH018	15850N	31	65	34.00	1.13
NBDDH019	15950N	38	40	2.00	0.84
NBDDH019	15950N	57	58	1.00	0.95
NBDDH020	15950N	9	10	1.00	4.47
NBDDH020	15950N	61	65	4.00	2.20
NBDDH020	15950N	72	73	1.00	0.99
NBDDH020	15950N	81	82	1.00	0.90
NBDDH020	15950N	91	94	3.00	0.55
NBDDH021	16000N	45	46	1.00	0.67
NBDDH021	16000N	59	60	1.00	0.69
NBDDH021	16000N	61	62	1.00	1.64
NBDDH021	16000N	69	80	11.00	4.75
NBDDH021	including	74	75	1.00	44.2
NBDDH022	16035N	3	6	3.00	1.26
NBDDH022	16035N	31	36	5.00	2.15
NBDDH023	16070N	64	66	2.00	1.02
NBDDH023	16070N	69	73	4.00	0.82
NBDDH024	16110N	0	1	1.00	0.72
NBDDH024	16110N	65	68	3.00	0.65
NBDDH025	16110N	22	24	2.00	1.96
NBDDH025	16110N	31	32	1.00	0.96
NBDDH026	16150N	70	71	1.00	0.59
NBDDH026	16150N	78	79	1.00	0.77
NBDDH028	16230N	86	89	3.00	1.61
NBDDH028	16230N	93	96	3.00	0.32
NBDDH029	16270N	81	83	2.00	0.44
NBDDH030	16270N	45	53	8.00	0.76
NBDDH031	16350N	48	65	17.00	0.57
NBDDH032	15470N	76	86	10.00	0.45
NBDDH033	15470N	37	43	6.00	1.41
NBDDH033	15470N	53	56	3.00	0.60
NBDDH033	15470N	63	70	7.00	0.74
NBDDH034	15640N	53	54	1.00	2.11
NBDDH034	15640N	56	57	1.00	0.9
NBDDH034	15640N	78	79	1.00	0.55
NBDDH034	15640N	81	82	1.00	0.51
NBDDH034	15640N	87	89	2.00	0.87
NBDDH034	15640N	94	96	2.00	2.29
NBDDH034	15640N	104	105	1.00	2.51
NBDDH034	15640N	112	114	2.00	2.16
NBDDH035	15075N	51	54	3.00	2.26
NBDDH035	15075N	62	65	3.00	0.85
NBDDH035	15075N	69	72	3.00	0.92
NBDDH035	15075N	75	83	8.00	0.45

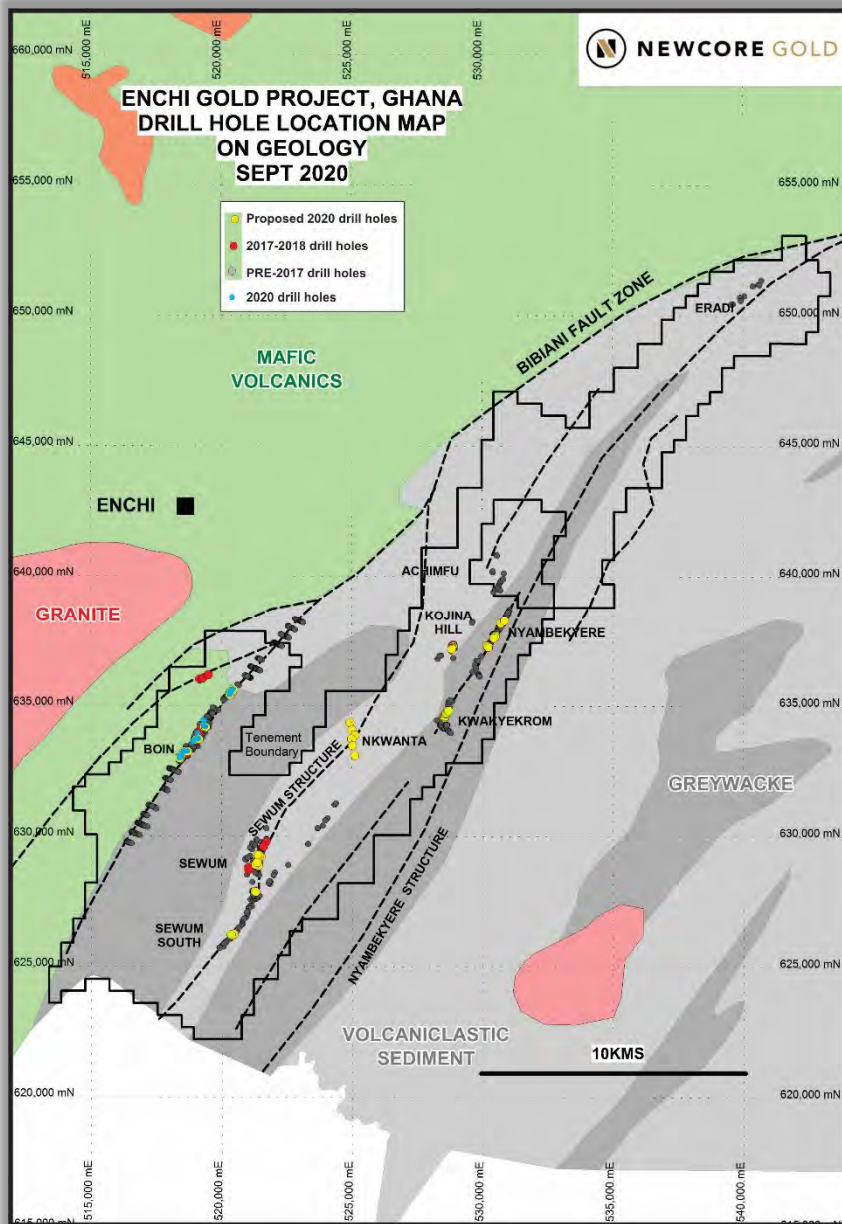
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Hole Number	Section	From (m)	To (m)	Interval (m)	Au (g/t)
NBDDH036	14740N	24	26	2.00	1.41
NBDDH036	14740N	33	61	28.00	0.43
NBDDH036	including	58	61	3.00	1.47
NBDDH036	14740N	72	81	9.00	0.88
NBDDH036	14740N	85	86.6	2.00	0.48
NBDDH037	14740N	1	3	2.00	1.61
NBDDH037	14740N	21	22	1.00	2.10
NBDDH037	14740N	42	45	3.00	0.87
NBDDH037	14740N	75	76	1.00	0.63
NBDDH037	14740N	87	88	1.00	0.65
NBDDH037	14740N	100	105	5.00	0.42
NBDDH038	14820N	4	7	3.00	2.73
NBDDH038	14820N	19	20	1.00	0.56
NBDDH038	14820N	41	45	4.00	0.85
NBDDH038	14820N	47	51	4.00	0.59
NBDDH038	14820N	66	70	4.00	0.36
NBDDH039	14820N	3	11	8.00	5.43
NBDDH039	14820N	37	38	1.00	7.05
NBDDH039	14820N	57	58	1.00	0.94
NBDDH039	14820N	112	113	1.00	0.58
NBDDH040	14900N	31	33	2.00	0.46
NBDDH040	14900N	73	81	8.00	0.81
NBDDH040	14900N	99	100	1.00	0.42
NBDDH040	14900N	120	122	2.00	0.63
NBDDH041	14900N	37	73	36.00	0.60
NBDDH041	including	5	12	7.00	0.49
NBDDH041	including	37	50	13.00	1.06
NBDDH041	including	60	73	13.00	0.46
NBDDH041	including	80	89	9.00	0.37
NBDDH042	14900N	8	48	40.00	0.70
NBDDH042	including	11	19	8.00	0.96
NBDDH042	including	23	24	1.00	1.38
NBDDH042	including	27	38	11.00	1.15
NBDDH042	including	62	65	3.00	0.4
NBDDH043	-	-	-	-	-
NBDDH044	116	149	33	0.63	-
NBDDH044	including	132	149	17.0	0.94
NBDDH044	including	132	139	7.00	1.58
NBDDH045	-	-	-	-	-
NBDDH046	-	-	-	-	-
NBDDH047	-	-	-	-	-
NBRC001	42	43	1	16.58	-
NBRC001	111	112	1	0.70	-
NBRC002	No	Significant	Intercepts	-	-
NBRC003	No	Significant	Intercepts	-	-
NBRC004	No	Significant	Intercepts	-	-
NBRC005	No	Significant	Intercepts	-	-
NBRC006	72	82	10	0.59	-

## 10.3 2012 DRILLING

The 2012 Reverse Circulation (RC) drilling program undertaken on the Project commenced in March 2012 and was completed in April 2012. A total of 25 RC drillholes were completed for a total of 4,058 m (Figure 10.7 and Table 10.4).

Figure 10.7 2012 Enchi RC Drilling Program



Source: Newcore Gold Ltd., 2020

**Table 10.4 2012 Enchi RC Collar Locations**

Borehole ID	Hole Type	Easting	Northing	Elevation	Bearing	Dip	Depth (m)	Prospect
NBRC007	RC	531304.91	639189.88	69.85	294	-60	120.0	Nyam
NBRC008	RC	531324.98	639177.38	70.64	294	-60	130.0	Nyam
NBRC009	RC	530424.41	637522.88	91.19	294	-60	180.0	Nyam
NBRC010	RC	531079.83	638767.67	72.35	294	-60	150.0	Nyam
NBRC011	RC	531074.26	638694.50	78.32	294	-60	150.0	Nyam
NBRC012	RC	530745.87	638053.57	133.17	294	-60	220.0	Nyam
NBRC013	RC	530706.39	637955.97	100.90	294	-60	200.0	Nyam
NBRC014	RC	530651.13	637904.31	88.62	294	-60	200.0	Nyam
NBRC015	RC	530656.72	637945.96	90.32	294	-60	174.0	Nyam
SWRC041	RC	521733.72	629877.10	228.48	0	-90	150.0	Sewum
SWRC042	RC	521768.10	629965.57	181.69	0	-90	150.0	Sewum
SWRC043	RC	521771.55	629964.53	181.12	114	-50	100.0	Sewum
SWRC044	RC	521287.51	629011.41	231.08	0	-90	210.0	Sewum
SWRC045	RC	521356.04	629090.71	192.11	0	-90	216.0	Sewum
SWRC046	RC	521383.22	629175.57	230.59	0	-90	206.0	Sewum
SWRC047	RC	521533.49	629530.43	235.08	0	-90	200.0	Sewum
SWRC048	RC	521601.03	629724.12	233.58	0	-90	204.0	Sewum
SWRC049	RC	521691.94	629788.02	193.58	0	-90	162.0	Sewum
SWRC050	RC	521733.22	629877.11	228.48	114	-55	140.0	Sewum
SWRC051	RC	521293.79	628589.07	226.12	114	-60	150.0	Sewum
SWRC052	RC	521168.95	628244.19	128.67	84	-60	156.0	Sewum
SWRC053	RC	521001.41	628915.55	98.99	114	-60	120.0	Sewum
SWRC055	RC	522064.47	630264.37	119.80	114	-60	120.0	Sewum
SWRC056	RC	521894.04	630257.95	120.92	114	-60	120.0	Sewum
SWRC057	RC	521784.09	630273.10	121.12	114	-60	130.0	Sewum

### 10.3.1 NYAM

Edgewater completed an RC drilling program at Nyam from between April 13 and 24, 2012. The program consisted of nine reverse circulation holes totaling 1,524 m. Seven of the RC holes targeted the known resource area while two of the holes were exploration holes, well outside the resource area. The program used a truck-mounted LC 36 operated by Boart Longyear (Figure 10.8).

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 seven 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 (Table 10.5). 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, clayey, weathered zone were better than in fresh rock, suggesting some supergene enrichment has occurred.

**Figure 10.8 Reverse Circulation Drill**



Source: Edgewater, 2012

**Table 10.5 Nyam RC Results**

Borehole ID	Prospect	From (m)	To (m)	Interval (m)	Grade (g/t Au)
NBRC009	Nyam	85	88	3	0.73
		91	92	1	0.74
		108	109	1	0.42
		113	114	1	2.08
		117	126	9	0.49
NBRC010	Nyam	73	91	18	0.46
NBRC011	Nyam	113	115	2	0.51
NBRC012	Nyam	108	110	2	1.76
		117	118	1	0.46
		121	122	1	0.48
		166	174	8	0.47
NBRC013	Nyam	144	160	16	0.64
		165	166	1	0.44
NBRC014	Nyam	67	69	2	0.90
		104	105	1	0.41
		109	115	6	1.03
		124	137	13	0.80
		175	177	2	0.69
NBRC015	Nyam	55	58	3	0.82
		93	95	2	0.92
		113	116	3	2.20
		121	122	1	0.92

### 10.3.2 SEWUM

Edgewater completed 16 RC holes totaling 2,534 m at Sewum. The aim of the program was to better delineate the mineralization associated with the 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, ECZ, WCZ, or Checker Board 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 which average 20 m in thickness and has been traced in drilling for over 1,000 m along strike and remains along strike to the south toward the Checker Board 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. If additional zones exist at depth, these zones would appear as stacked lenses at depth. Currently, there have been no indications that such a system exists at depth.

Table 10.6 summarizes the significant results from the 2012 Sewum drilling. The intervals stated in the results table reflect downhole intervals and do not reflect true thickness of the mineralization.

**Table 10.6 Sewum 2012 RC Results**

Borehole ID	Prospect	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SWRC041	Sewum	1	3	2	0.84
		28	30	2	1.02
		42	45	3	1.09
		134	143	9	0.44
		146	150	4	0.43
SWRC042	Sewum	62	63	1	1.35
SWRC043	Sewum	54	55	1	0.81
		89	95	6	0.77
SWRC044	Sewum	149	150	1	0.45
		171	172	1	0.47
		206	210	4	1.35
SWRC045	Sewum	23	24	1	0.61
		174	180	6	0.78
SWRC046	Sewum	30	31	1	2.84
		37	38	1	0.55
		105	106	1	1.37
SWRC047	Sewum	46	47	1	0.63
		63	64	1	0.69
SWRC048	Sewum	60	63	3	0.66
		163	169	6	0.46

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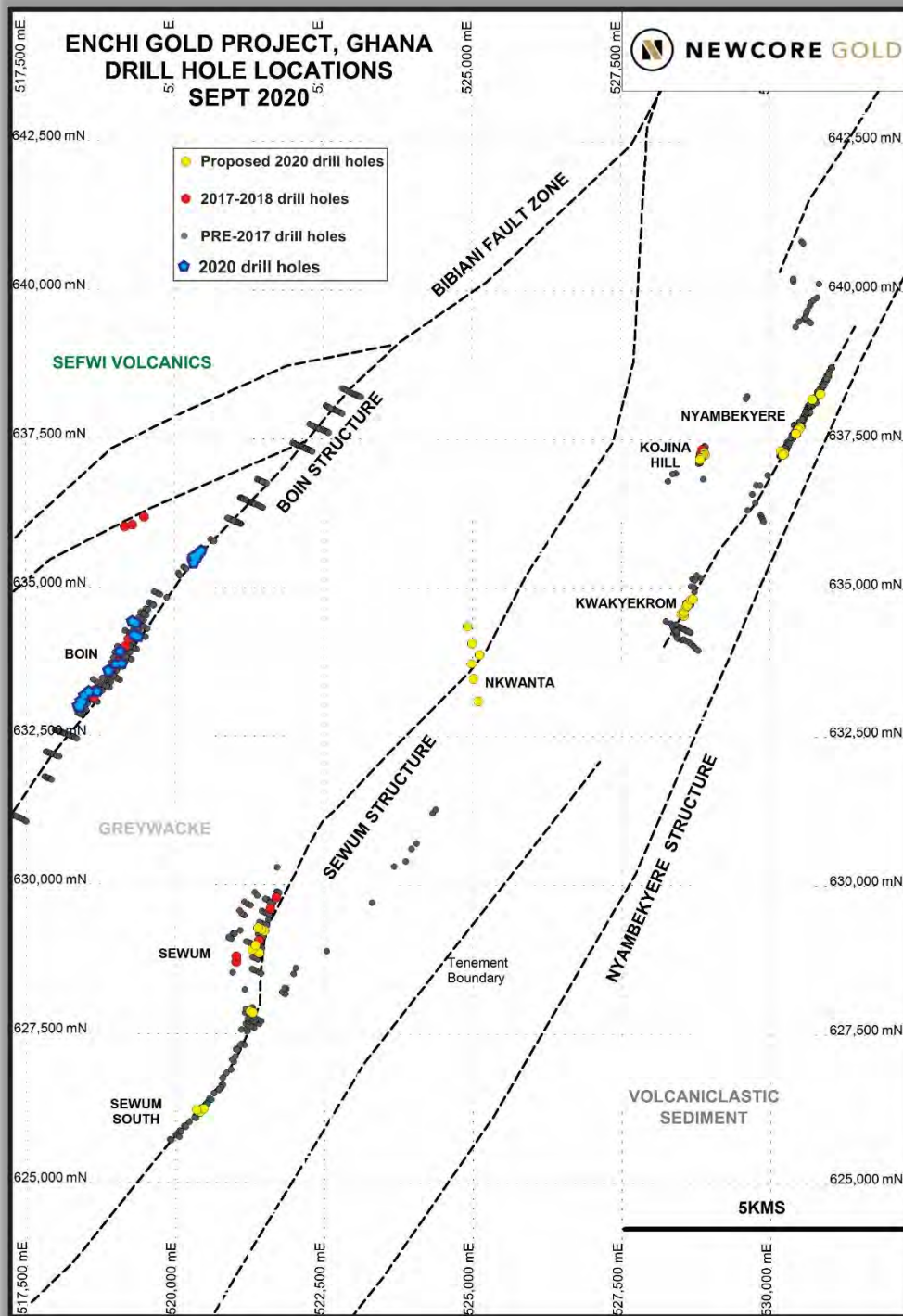


Borehole ID	Prospect	From (m)	To (m)	Interval (m)	Grade (g/t Au)
SWRC049	Sewum	97	98	1	1.17
		113	114	1	0.35
		123	138	15	1.10
		144	147	3	0.40
		158	160	2	0.47
SWRC050	Sewum	61	67	6	0.99
SWRC051	Sewum				N/A
SWRC052	Sewum				N/A
SWRC053	Sewum	9	12	3	0.42
		42	43	1	0.75
		46	102	56	0.49
		118	120	2	0.45
SWRC054	Sewum				N/A
SWRC055	Sewum				N/A
SWRC056	Sewum	26	27	1	0.50
SWRC057	Sewum				N/A

## 10.4 2017 DRILLING

The 2017 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 (Figure 10.9 and Table 10.7).

Figure 10.9 2017 Enchi RC Drilling Program



Source: Newcore Gold Ltd.

**Table 10.7 2017 Enchi RC Collar Locations**

Borehole ID	Hole Type	Easting	Northing	Elevation	Bearing	Dip	Depth (m)	Prospect
KBRC124	RC	519159	636023	122	130	-60	120	Boin
KBRC125	RC	519290	636058	112	340	-60	120	Boin
KBRC126	RC	519489	636189	127	340	-60	125	Boin
KBRC127	RC	518641	633145	132	120	-65	100	Boin
KBRC128	RC	518545	633188	137	120	-65	150	Boin
KBRC129	RC	518631	633255	138	120	-60	102	Boin
KBRC130	RC	518981	633662	155	125	-65	116	Boin
KBRC131	RC	518980	633663	156	0	-90	109	Boin
KBRC131A	RC	518980	633663	156	0	-90	150	Boin
KBRC132	RC	519044	633748	156	120	-65	102	Boin
KBRC133	RC	519040	633747	162	0	-90	144	Boin
KBRC134	RC	519165	634009	129	120	-60	100	Boin
KBRC135	RC	519163	634013	134	0	-90	120	Boin
KBRC136	RC	519226	634142	117	120	-60	120	Boin
KBRC137	RC	519350	634187	121	120	-60	132	Boin
KJRC009	RC	528863	637336	106	300	-60	100	Kojina
KJRC010	RC	528844	637276	131	300	-60	100	Kojina
SWRC058	RC	629790	521693	195	120	-60	120	Sewum
SWRC059	RC	629603	521601	199	100	-60	100	Sewum
SWRC060	RC	629229	521496	185	100	-90	100	Sewum
SWRC061	RC	629254	521444	194	150	-90	150	Sewum
SWRC062	RC	629067	521408	197	100	-60	100	Sewum
SWRC063	RC	629069	521408	195	150	-90	150	Sewum
SWRC064	RC	628872	521381	196	148	-60	148	Sewum
SWRC065	RC	628869	521381	192	150	-90	150	Sewum
SWRC066	RC	628707	521025	105	78	-50	78	Sewum
SWRC066A	RC	628709	521029	101	150	-50	150	Sewum
SWRC067	RC	628803	521024	102	150	-50	150	Sewum

Newcore completed 15 RC holes totaling 1,810 m at Boin, 11 RC holes totaling 1,396 m at Sewum and 2 RC holes totaling 200 m at Kojina Hill. Drilling was completed using a track-mounted GEMSA operated by Minerex Drilling of Senegal.

Drilling at Boin concentrated on infilling within the area of the main Boin shear with additional holes testing the Boin NW shear. The 2017 RC holes targeting the Boin shear were drilled either vertical or dipping to the east. The drilling at Boin NE were drilled in a scissor pattern dipping both east and west.

Drilling at Sewum focused on gaps in the drill coverage of SRTSZ and the south extension of the WCZ as the zone wraps around the intrusion. The 2017 RC holes drilled to target the RTSZ were drilled either vertically or dipping east while the holes targeting the WCZ were drilled with a dip to the 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 which average 20 m in thickness and has been traced in drilling for over 1,000 m along strike and remains open along strike to the south toward the Checker Board Zone.

The northern strike extension of the RTSZ appears to be significantly thinner, with intervals approximately 7 m thick. The down dip extension of the RTSZ would be limited by the width of the dolerite intrusion, yet would intersect with the ECZ.

Table 10.8 summarizes the significant results from the 2017 drilling. The intervals stated in the results table reflect downhole intervals and do not reflect true thickness of the mineralization.

**Table 10.8 2017 RC Results**

Borehole ID	Prospect		From (m)	To (m)	Interval (m)	Grade (g/t Au)
<b>KBRC124</b>	Boin		no significant results			
<b>KBRC125</b>	Boin		5	6	1	0.37
			20	26	6	0.54
		<i>including</i>	23	24	1	1.05
			28	29	1	0.43
<b>KBRC126</b>	Boin		42	44	2	0.69
		<i>including</i>	43	44	1	0.91
			54	60	6	1.06
		<i>including</i>	54	56	2	2.64
			64	65	1	0.56
			78	85	7	0.70
		<i>including</i>	83	85	2	1.42
			104	107	3	1.17
		<i>including</i>	114	120	6	0.93
<b>KBRC127</b>	Boin		12	15	3	0.73
		<i>including</i>	12	13	1	1.22
			20	28	8	0.82
		<i>including</i>	20	22	2	1.66
			35	38	3	1.62
		<i>including</i>	36	37	1	2.31
			66	68	2	0.50
			84	86	2	0.76
<b>KBRC128</b>	Boin		140	150	10	1.46
		<i>including</i>	140	143	3	1.57
		<i>including</i>	144	146	2	3.46
<b>KBRC129</b>	Boin		100	101	1	0.43
<b>KBRC130</b>	Boin		71	77	6	1.42
		<i>including</i>	73	76	3	2.31
			90	101	11	0.59
		<i>including</i>	91	92	1	1.48
		<i>including</i>	95	96	1	1.30

(table continues on next page)

Borehole ID	Prospect		From (m)	To (m)	Interval (m)	Grade (g/t Au)
KBRC131	Boin		77	78	1	0.98
			93	95	2	1.81
KBRC131A	Boin		134	146	12	0.56
		<i>including</i>	143	145	2	1.61
KBRC132	Boin		73	87	14	1.00
		<i>including</i>	77	78	1	1.55
		<i>including</i>	84	87	3	2.68
KBRC133	Boin		73	74	1	0.85
			103	117	14	0.47
		<i>including</i>	106	107	1	1.06
			131	137	6	1.19
		<i>including</i>	135	137	2	1.95
KBRC134	Boin		no significant results			
KBRC135	Boin		2	4	2	1.61
		<i>including</i>	2	3	1	2.77
			51	52	1	0.88
KBRC136	Boin		6	7	1	0.54
			96	98	2	0.67
			114	117	3	1.45
		<i>including</i>	114	115	1	2.75
KBRC137	Boin		35	42	7	0.44
		<i>including</i>	38	39	1	1.25
			99	132	33	1.19
		<i>including</i>	104	109	5	3.44
		<i>including</i>	110	115	5	1.38
KJRC009	Kojina		no significant results			
KJRC010	Kojina		0	9	9	1.99
		<i>including</i>	3	8	5	3.22
			21	44	23	0.84
		<i>including</i>	25	27	2	1.41
SWRC058	Sewum		70	75	5	0.82
		<i>including</i>	72	74	2	1.49
			96	105	9	0.59
SWRC059	Sewum		23	27	4	1.03
		<i>including</i>	24	25	1	1.74
			38	49	11	0.65
		<i>including</i>	38	39	1	2.88
		<i>including</i>	47	49	2	1.49
SWRC060	Sewum		26	28	3	1.19
		<i>including</i>	26	27	1	2.30
			53	72	19	1.29
		<i>including</i>	56	60	4	1.54
		<i>including</i>	67	69	2	2.46

(table continues on next page)

Borehole ID	Prospect		From (m)	To (m)	Interval (m)	Grade (g/t Au)
SWRC061	Sewum		53	55	2	0.71
			66	69	3	0.98
			82	92	10	0.72
		<i>including</i>	82	84	2	1.71
			128	133	5	2.86
		<i>including</i>	130	132	2	4.80
SWRC062	Sewum		7	10	3	0.84
		<i>including</i>	7	8	1	1.28
			66	69	3	0.74
			81	100	19	0.61
		<i>including</i>	81	84	3	1.27
SWRC063	Sewum		21	22	1	1.47
SWRC064	Sewum		34	35	1	0.76
			77	115	38	1.12
		<i>including</i>	77	90	13	2.02
		<i>including</i>	96	97	1	1.65
SWRC065	Sewum		51	53	2	1.07
			71	72	1	0.72
SWRC066	Sewum		no significant results			
SWRC066A	Sewum		no significant results			
SWRC067	Sewum		23	29	6	0.80

#### 10.4.1 BOIN

Boin is located with nearby roads and power and 15 km south of the city of Enchi. Further access is provided by a series of drill roads.

Boin is outlined on surface by a 5 km long and 0.5 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 which occurs in the footwall to the gold mineralization. The geophysical anomaly extends for a further 2 km north and 5 km south beyond the currently drill tested section.

The 2017 RC drill program was targeting 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 totaling 1,445 m, intersecting mineralization to a depth of 150 m below surface and successfully extended the main zone of continuous gold mineralization to approximately 2,500 m 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 program consisted of 3 holes totaling 365 m, intersecting mineralization to a depth of 120 m below surface.

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### 10.4.2 SEWUM

Sewum is located 13.0 km south of the major city of Enchi and 5.0 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 extending an additional 300 m.

Gold mineralization at Sewum can be traced continuously for over 4.0 km and is contained within broad (up to 40.0 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.

Airborne electromagnetic signature for the Sewum Zone is a generally a linear high conductivity trend in parts segmented reflective of the complex geology of the zone and irregular distribution of the intrusive rocks.

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.

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### 10.4.3 KOJINA HILL GOLD TARGET

Kojina Hill is located approximately 400 m northwest of the Nyam Zone and not included in the current NI 43-101 Inferred Resource Estimate. Exploration has outlined a gold in soil anomaly 2 km by 1 km. The airborne electromagnetic signature consists of sharp break from a moderate high on the east and a moderate low response on the west. Mineralization outlined to date is associated with a noticeable kink within this geophysical response.

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

Kojina previous drilling has included eight RC holes and one diamond drill hole. The drilling has outlined a steeply dipping, northeast striking gold zone approximately 100 m long and up to 30 m wide. Results include near surface intercepts of: 37 m grading 1.34 g/t gold (11 to 48 m) and a second zone of 13 m grading 1.76 g/t gold (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 gold (50 to 67 m).

The 2017 program consisted of 2 holes totaling 200 m, intersecting mineralization to a depth of 80 m below surface. During the 2017, RC drilling program drillhole KJRC010 intersected 9 m of 1.99 g/t gold (0.0 to 9.0 m) and 29.0 m grading 0.87 g/t gold (21 to 50 m) confirming continuity of the mineralized gold zone.

## 10.5 2020 DRILLING

### 10.5.1 BOIN

The 2020 reverse circulation (RC) drilling program on the Enchi Gold Project commenced on August 7, 2020 and is ongoing with a total of 26 holes finished representing 4,269 m (Table 10.9) as of effective date of this technical report. All holes were completed on the Boin Prospect stepping out along strike and down dip from previous drilling. None of the 2020 RC drillholes have been used in the 2020 mineral resource estimate disclosed in Section 14 of this technical report.

**Table 10.9 2020 Enchi RC Collar Locations**

Borehole ID	Hole Type	Easting	Northing	Elevation	Bearing	Dip	Depth (m)	Prospect
KBRC138	RC	518408	632972	147	114	-60	97	Boin
KBRC138A	RC	518405	632976	147	114	-60	216	Boin
KBRC139	RC	518700	633234	130	120	-60	80	Boin
KBRC140	RC	519121	633708	155	120	-60	80	Boin
KBRC141	RC	519018	633704	156	114	-50	120	Boin
KBRC142	RC	518558	633239	129	114	-50	156	Boin
KBRC142B	RC	518573	633233	137	114	-50	238	Boin
KBRC143	RC	519395	634172	120	114	-60	108	Boin
KBRC144	RC	519378	634178	120	120	-60	150	Boin
KBRC145	RC	520325	635410	117	120	-60	150	Boin
KBRC146	RC	520456	635619	124	114	-50	100	Boin
KBRC147	RC	520424	635582	124	114	-50	102	Boin
KBRC148	RC	520391	635546	122	114	-50	108	Boin
KBRC149	RC	520378	635496	120	114	-50	100	Boin
KBRC150	RC	520335	635517	125	114	-65	148	Boin
KBRC150A	RC	520338	635514	122	114	-65	174	Boin
KBRC151	RC	519349	634402	131	120	-60	156	Boin
KBRC152	RC	519292	634429	117	120	-60	258	Boin
KBRC153	RC	519317	634201	122	120	-60	258	Boin
KBRC154	RC	519086	633928	157	120	-60	178	Boin
KBRC155	RC	518896	633582	155	120	-60	138	Boin
KBRC155A	RC	518900	633578	163	120	-60	204	Boin
KBRC156A	RC	518480	633164	130	114	-55	270	Boin
KBRC157B	RC	518457	633065	128	114	-65	180	Boin
KBRC158	RC	518379	632992	126	114	-60	260	Boin
KBRC159	RC	518423	633075	127	114	-65	240	Boin

Drilling was completed by a track-mounted Sandvik DE810 or Exploration Drill Masters EDM2000 rig operated by Geodrill, an independent drill company.



The 2020 RC drilling is distributed over a 3 km stretch of the Boin Prospect. Drilling includes 7 holes at the northern portion of Boin stepping out along strike and down dip from previous drilling; 10 holes at the central portion of Boin targeting up-dip and down-dip extensions and additional in-fill drilling on sections with sparse previous drilling; and 9 holes at the southern portion of Boin targeting down-dip extensions. The drill intercepts include gold-bearing intervals within the oxidized saprolite portion of the system as well as the upper portions of the unoxidized primary gold mineralization. Table 10.10 summarizes the significant results from the 2020 drilling completed as of the effective date of this technical report. The intervals stated in the results table reflect downhole intervals and do not reflect true thickness of the mineralization.

**Table 10.10 2020 RC Results**

Borehole ID	Prospect		From (m)	To (m)	Interval (m)	Grade (g/t Au)
KBRC138	Boin		92	96	4	1.05
KBRC138A	Boin		133	135	2	0.57
			146	148	2	0.65
KBRC139	Boin		1	17	16	0.69
KBRC140	Boin		4	7	3	0.31
			13	14	1	0.44
KBRC141	Boin		10	21	11	0.34
			48	95	47	1.67
		<i>including</i>	49	58	9	2.96
		<i>including</i>	75	85	10	3.63
KBRC142	Boin		1	4	3	0.27
			131	150	19	0.43
		<i>including</i>	131	142	11	0.60
KBRC142B	Boin		121	130	9	0.30
KBRC143	Boin		3	17	14	0.56
KBRC144	Boin		146	148	2	0.51
KBRC145	Boin		48	55	7	0.54
KBRC146	Boin		7	10	3	0.24
			30	62	32	0.92
		<i>including</i>	42	54	12	1.78
		<i>including</i>	59	61	2	0.52
KBRC147	Boin		50	59	9	0.52
KBRC148	Boin		56	58	2	0.69
			75	77	2	0.30
KBRC149	Boin		38	41	3	0.36
KBRC150	Boin		59	94	35	0.57
		<i>including</i>	65	91	26	0.70
			130	135	5	0.59
			141	148	7	0.42
KBRC150A	Boin		72	74	2	0.59
			87	108	21	1.19
			136	139	3	1.01
KBRC151	Boin		9	20	11	2.30
			62	65	3	0.63
			136	144	8	0.55

(table continues on next page)

Borehole ID	Prospect		From (m)	To (m)	Interval (m)	Grade (g/t Au)
KBRC152	Boin		73	74	1	1.20
			209	213	4	1.56
			234	235	1	2.55
KBRC153	Boin		7	11	4	0.68
			28	33	5	0.42
			42	60	18	1.21
			67	71	4	1.40
			110	114	4	0.82
			155	158	3	0.33
			191	194	3	0.39
KBRC154	Boin		88	95	7	0.61
			149	152	3	0.27
KBRC155	Boin		85	89	4	0.22
			103	105	2	0.89
			118	134	16	0.57
KBRC155A	Boin		95	97	2	0.68
			110	113	3	0.64
			127	135	8	0.37
KBRC156A	Boin		156	174	18	0.69
			187	191	4	1.20
KBRC157B	Boin		150	162	12	0.70
KBRC158	Boin		77	91	14	1.41
KBRC159	Boin		178	240	62	0.73
		<i>including</i>	187	206	19	1.76
		<i>including</i>	199	206	7	3.18

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## 10.6 DRILLING PROCEDURES

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### 10.6.1 SURVEYING

#### COLLAR SURVEY

Before a hole is drilled, the proposed collar position is located by tape and compass survey from the nearest point whose coordinates are accurately known, or by hand held GPS. When there is a surveyor on site, the collar is located by electronic distance measurement (EDM) survey (Figure 10.10).

**Figure 10.10 Collar Survey**



Source: McCracken, 2011

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.

After drilling, all holes drilled the collar locations accurately surveyed. 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.

## **DOWNHOLE SURVEY**

A minimum of two 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 drilling process.

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## 10.6.2 DRILLING PROCEDURES

### ROTARY AIR BLAST

A downhole hammer was used, with compressed air 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 to 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 10.11).

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

**Figure 10.11** 2017 RC Drill Setup



Source: Pinecrest Resources Ltd., 2017

## DIAMOND DRILL

Diamond drilling was completed using a wireline system, drilling NQ sized core. 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 monitor the drill rig operation 24 h/d. Forms are filled out during each shift recording the type of work completed and time taken such as rig shifts, pulling rods, changing the bit, drilling, breakdowns and downhole survey.

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### 10.6.3 LOGGING PROCEDURE

#### 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 glued to a chip board for future reference (Figures 10.12 and 10.13). Chip boards are stored at the Newcore field office in Enchi.

Figure 10.12 RC Chip Logging



Source: Pinecrest Resources Ltd, 2017

Figure 10.13 Chip Board Preparation



Source: McCracken, 2011

## DIAMOND DRILL CORE LOGGING

Any 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 1 m intervals. Very soft, clayey core was halved using a broad bladed steel spatula (paint scraper). The following is a detailed description of logging the procedure which were 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. Two 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.
- Once completed all the logging data is entered into a drillhole database.

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## 10.6.4 SAMPLING APPROACH

### REVERSE CIRCULATION SAMPLING

Sampling was done at the rig. The standard form and ticket books were filled-in 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 4” polyvinyl chloride (PVC) tube splitter (Figure 10.14). Care was taken to ensure the tube was speared down the centre of the bag to the base of the plastic. In 2017, samples were passed through the riffle and an approximate 3 kg split collected for submittal to the assay lab (Figure 10.15).

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 10.14 Reverse Circulation Sampling Using Tube Splitter**



Source: McCracken, 2011



**Figure 10.15 Reverse Circulation Sampling Riffle Splitter**



Source: Pinecrest Resources Ltd., 2017

### **WET SAMPLES**

Wet samples were collected in fabrene bags and placed in the sun to allow the excess water drained, and as far as possible, left to settle before subsequent sampling using the same procedure as with the dry samples (Figure 10.16).

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 watchman on the Property to ensure samples and equipment were not tampered.

**Figure 10.16 Drying Wet RC Samples**



Source: Pinecrest Resources Ltd., 2017

## DIAMOND DRILL CORE SAMPLING

The following is the diamond drill core sampling procedure carried 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: one tag stating the depth down the hole and the other with sample number for that 1 m interval.
- All diamond drill core is sampled at 1 m intervals. When 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, the core is cut in half 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 1 m half-core samples are placed in a numbered clear plastic bag and the numbered aluminium tag for that 1 m 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 in 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 two splits (more than 1.5 kg) are collected from the one sample using a Jones Splitter and the splits are then processed as separate samples.

- 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 SGS laboratories 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 lab in Tarkwa, approximately a four-hour drive. Each batch of samples is submitted to SGS with a sample submission form outlining the method of preparation and analysis. Once the samples are delivered, the laboratory staff sign and date Edgewater'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 sent regularly for umpire assaying at different laboratories as a check on the results from SGS.
  - Assay results are received both electronically and in hard copy form.
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## 10.7 QPS' OPINION

It is the QPs' 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 modeling.

# 11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

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## 11.1 ROTARY AIR BLAST SAMPLE PREPARATIONS

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 the sample is crushed to a 75% passing at 2 mm.
- Sample is split to get a sample up to 2 kg in weight for pulverizing.
- The entire sample split 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.

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## 11.2 ROTARY AIR BLAST 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, by adding nitric acid first to dissolve the silver, and then adding hydrochloric acid. Gold content is determined by Atomic Absorption spectrometer. 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 preparation or analysis of the samples.

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## 11.3 REVERSE CIRCULATION SAMPLE PREPARATION

Each batch of samples is delivered using the Newcore vehicles and drivers directly from site to the Intertek laboratory in Tarkwa, approximately a 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.

Ten percent of the samples sent to the laboratories 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 the sample is crushed to a 75% passing at 2 mm.
- Sample is split to get a sample up to 2 kg in weight for pulverizing.
- The entire sample split 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.

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## 11.4 REVERSE CIRCULATION 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, by adding nitric acid first, to dissolve the silver, and then hydrochloric acid. Gold content is determined by Atomic Absorption spectrometer. 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 preparation or analysis of the samples.

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## 11.5 DIAMOND DRILL SAMPLE PREPARATION

Each batch of samples is delivered using company vehicles and drivers directly from site to the SGS laboratory in Tarkwa, approximately a four-hour drive. Each batch of samples is submitted to SGS with a sample submission form outlining the method of preparation and analysis. Once the samples are delivered, the laboratory staff sign and date Edgewater's copy of the sample submission form acknowledging receipt of the samples. Ten percent of the samples sent to the laboratories were either a duplicate sample, blank, or standard.

All drill core samples were prepared at the SGS laboratory in Tarkwa using prep code PRP89:

- Samples are sorted and dried;
- Once dried, less than 3.0 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 a 85% passing of 75 µm.

Each time a delivery is made to the SGS 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 were sent to Intertek laboratories for check gold fire assay and ICP multi trace element analysis.

The sample preparation methodology meets industry standards and would support the resource estimation.

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## 11.6 DIAMOND DRILL ANALYTICAL PROCEDURE

Samples were assayed for gold using a 50 g charge fire assay code FAA505 using the following criterion:

- Gold 0.01 ppm – 100 ppm 50 g, fire assay, atomic absorption spectroscopy (AAS) finish.

A few selected holes were analyzed 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 analyzed by either inductively coupled plasma-atomic emission spectroscopy (ICP-AES) or 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 recommend 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).

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

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## 11.7 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 micron.

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

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## 11.8 TRENCH SAMPLE PREPARATION AND ANALYSIS

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

Analysis was completed by 50 g fire assay with aqua regia digest with AAS finish at a 10 ppb detection limit.

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## 11.9 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 micron.

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

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## 11.10 QA/QC

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### 11.10.1 SOIL

Blanks were inserted at a frequency of 1 every 50 samples with a minimum of 1 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 1 per batch.

QP Mr. Smith has reviewed the QA/QC results for the soil survey program.

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### 11.10.2 TRENCH

Blanks were inserted at a frequency of 1 every 50 samples with a minimum of 1 per batch. The material consisted of oxide rock fragments supplied from Accra.

Commercial standards were inserted at a frequency of 1 every 50 samples with a minimum of 1 per batch.

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

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### 11.10.3 AUGER

Blanks were inserted at a frequency of 1 every 50 samples with a minimum of 1 per batch. The material consisted of red-brown soils (2.5 kg) collected in Accra.

Commercial standards were inserted at a frequency of 1 every 50 samples with a minimum of 1 per batch.

QP Mr. Smith has reviewed the QA/QC results for the auger survey program.

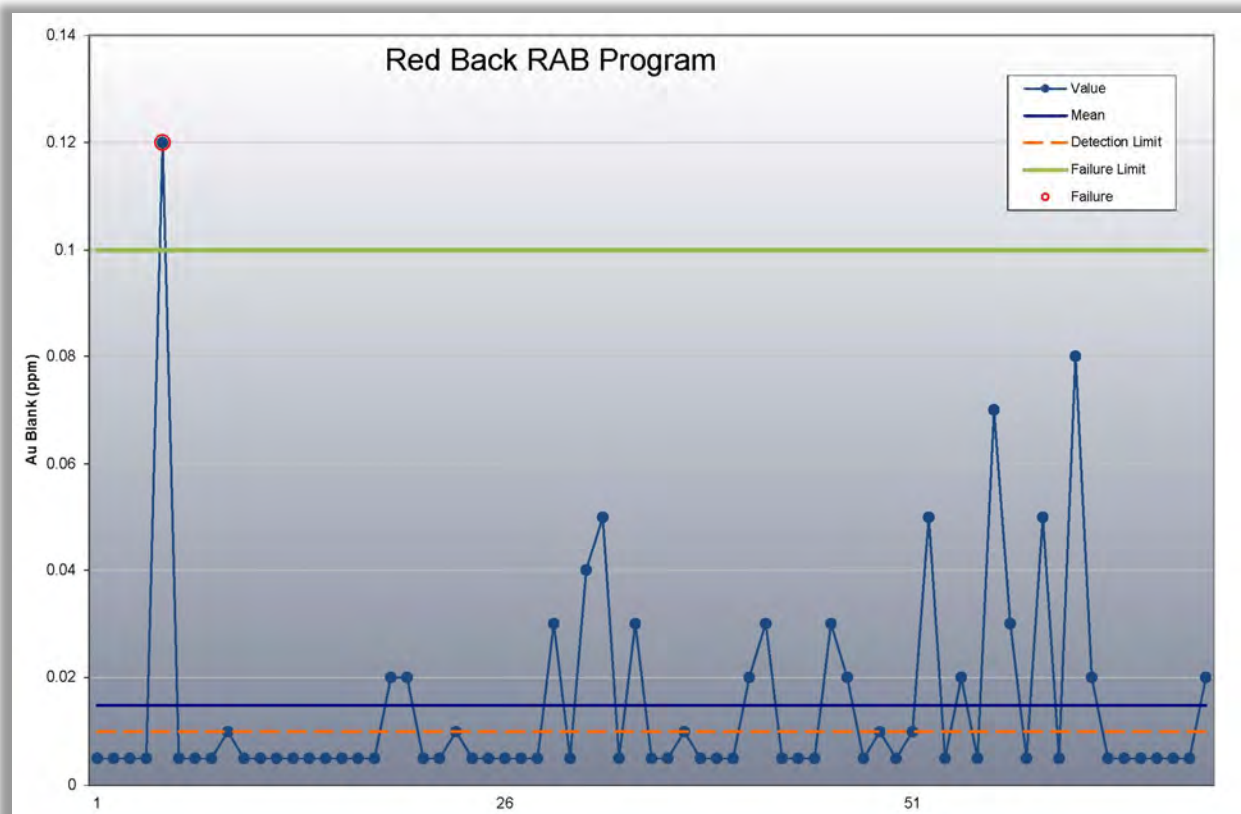
#### 11.10.4 PRE-2011 ROTARY AIR BLAST

Red Back inserted blank and duplicate QA/QC samples into the sample stream. There was no set interval for insertion. Blanks typically were inserted approximately every 50<sup>th</sup> samples. Duplicates were inserted approximately every 20<sup>th</sup> sample. Reports indicate standards were 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 up the outside of the drill steel and will likely result in downhole contamination. A single sample, or 1% of the samples failed (Figure 11.1). There is more variation in the results in the later part of the program.

Figure 11.1 2005-06 RAB Blank QA/QC Chart



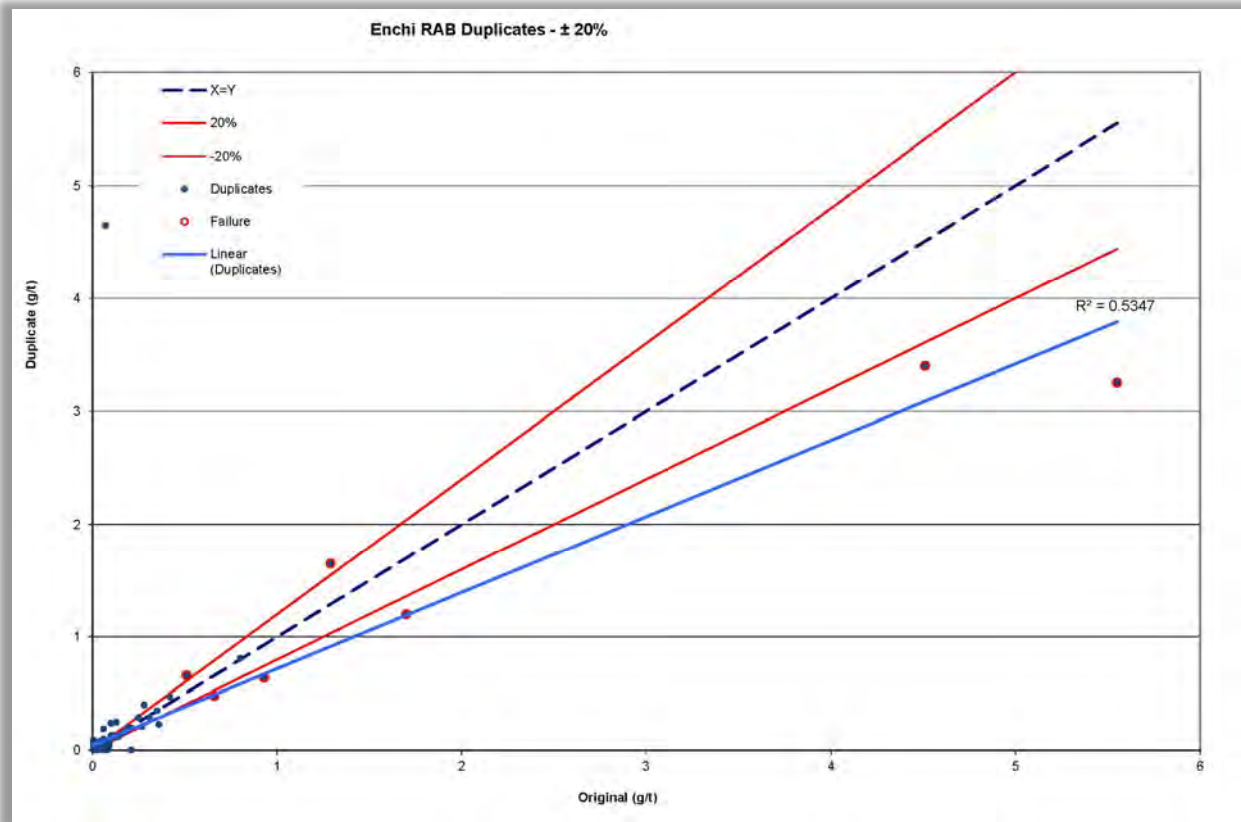
#### DUPLICATES

A total of 180 duplicate samples were submitted. The control limit of  $\pm 20\%$  is typically considered a failure by industry standards. A total of 7 samples, or 4%, failed (Figure 11.2). 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.



Figure 11.2 2005-06 RAB Duplicate QA/QC Chart



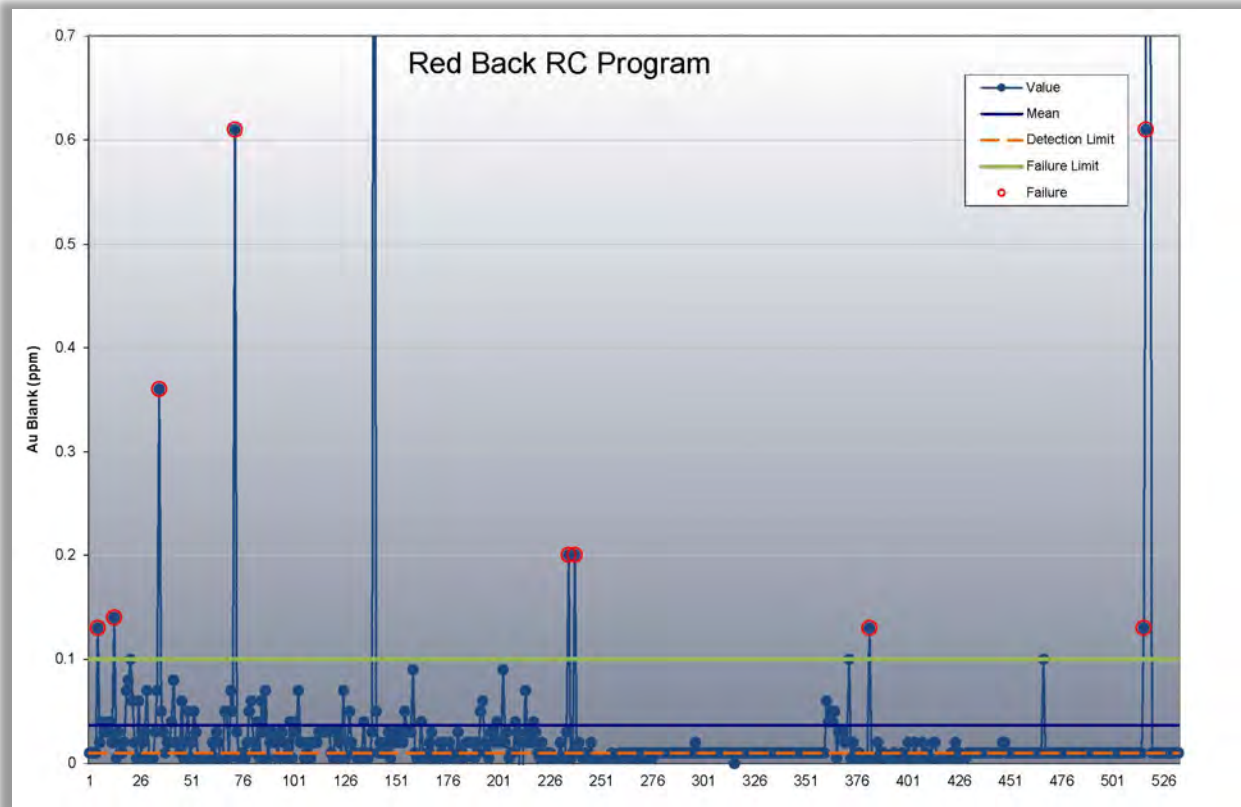
### 11.10.5 PRE-2011 REVERSE CIRCULATION

Red Back inserted a blank and duplicate QA/QC samples into the sample stream. There was no set interval for insertion. Blanks typically were inserted approximately every 50<sup>th</sup> samples. Duplicates were inserted approximately every 20<sup>th</sup> sample. Reports indicate 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 ten times the detection limit. Twelve samples, or 2% of the samples failed (Figure 11.3). There is more variation in the results at the beginning of the program.

Figure 11.3 2005-06 RC Blank QA/QC Chart

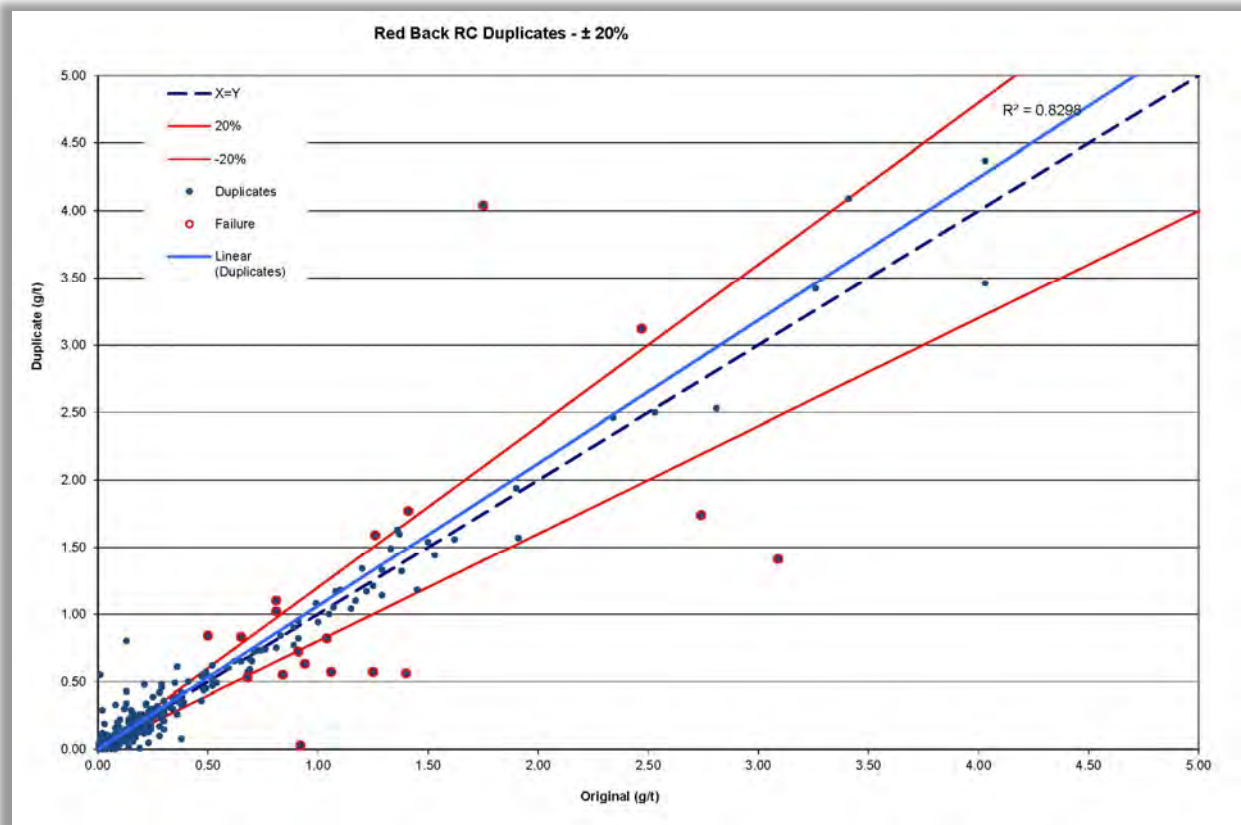


## DUPLICATES

The control limit of  $\pm 20\%$  is typically considered a failure by industry standards. A total of 21 samples, or 2%, failed (Figure 11.4). 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.

Figure 11.4 2005-06 RC Duplicate QA/QC Chart



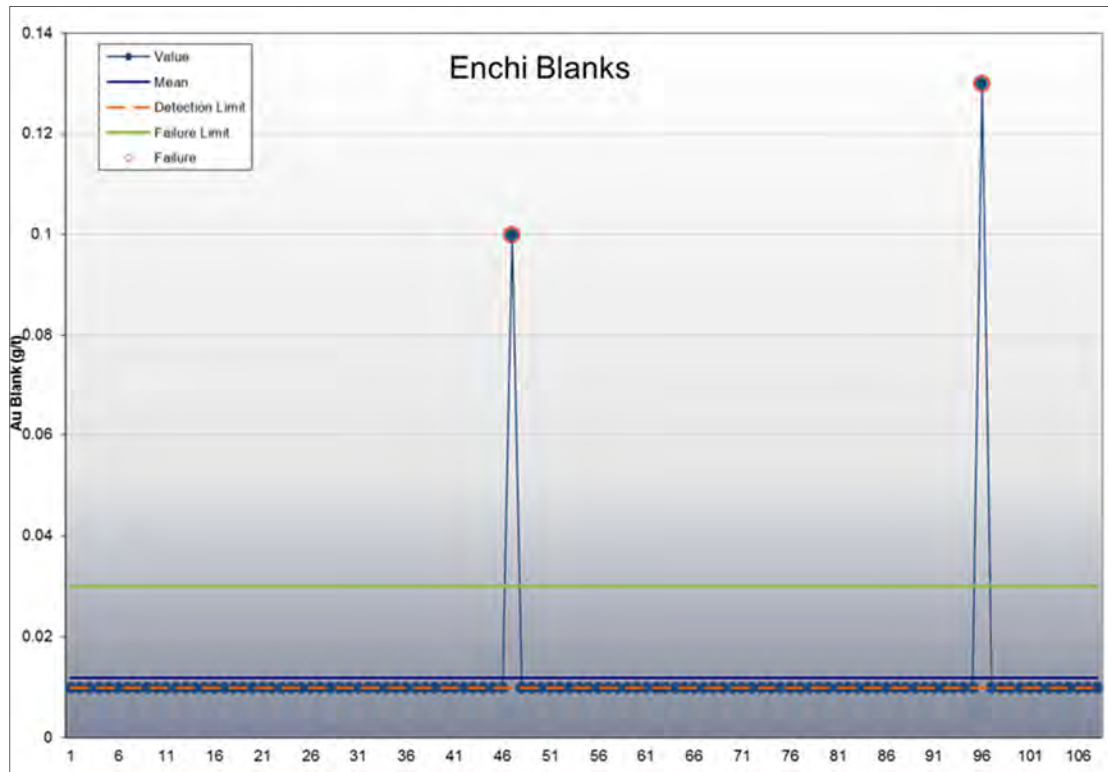
### 11.10.6 2012 REVERSE CIRCULATION

Every 10<sup>th</sup> sample submitted was a QA/QC sample. These samples were prepared prior to core sampling and were placed in the sample stream. Every 20<sup>th</sup> sample was a duplicate and in 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 (Figure 11.5). A single sample was removed from the blank dataset as it returned the same value as one of the standards.

Figure 11.5 Enchi Blank QA/QC Chart

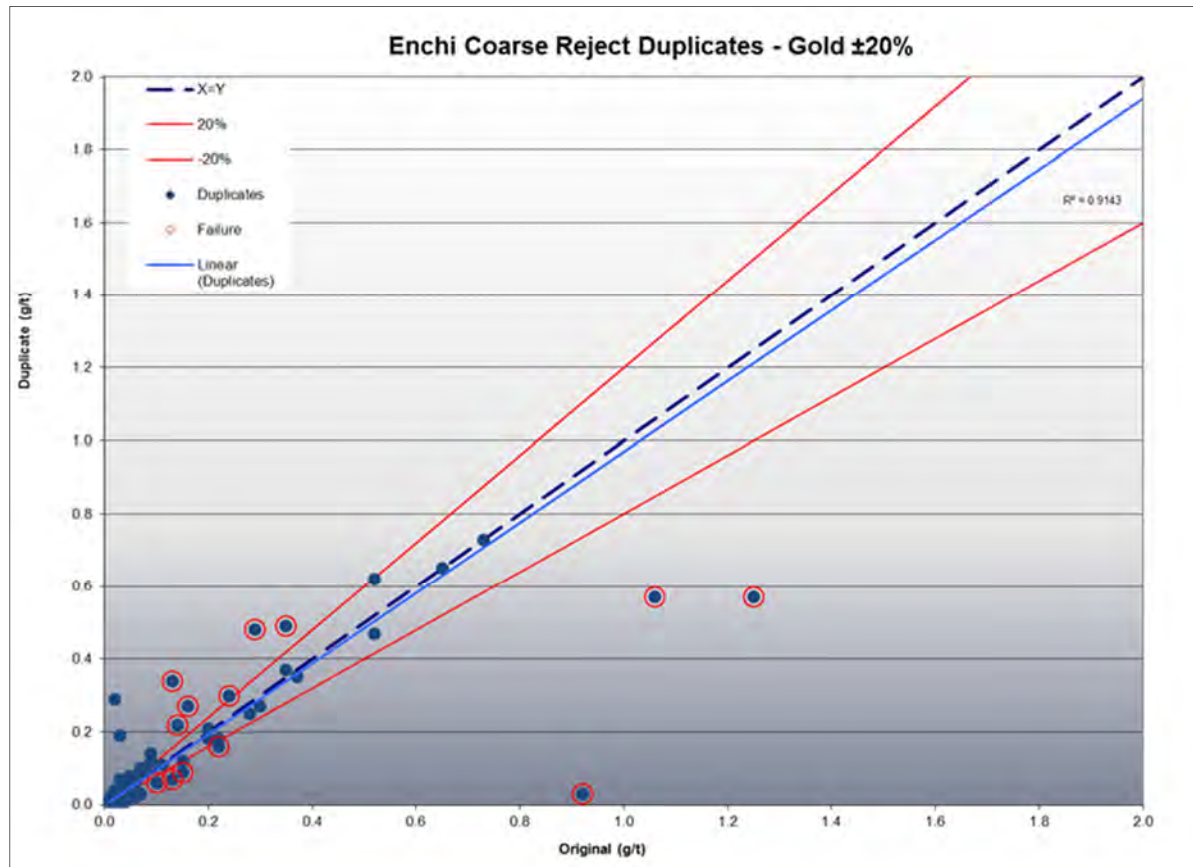


## DUPLICATES

A total of 211 course rejects duplicate samples were submitted. The control limit of  $\pm 20\%$  is typically considered a failure by industry standards. A total of 13 samples, or 6%, failed (Figure 11.6). 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. Edgewater should work with the laboratory to determine what preparation and analytical methodology should be used to minimize the variation of the assays.

Figure 11.6 Enchi Course Reject Duplicate QA/QC Chart



## 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 come 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 grades ranging from 0.36 g/t gold up to 6.75 g/t gold. 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 (Figure 11.7). 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 (Figure 11.8). 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.

The 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 gold (Figure 11.9). The SRM G995-1, with an expected value of 2.75 g/t, had 22 samples submitted and returned an average grade of 2.736 g/t gold (Figure 11.10). The SRM G905-10, with an expected value of 6.75 g/t, had 16 samples submitted and returned an average grade of 6.89g/t gold (Figure 11.11).

Figure 11.7 Enchi GL904-6 QA/QC Chart



Figure 11.8 Enchi G909-10 QA/QC Chart

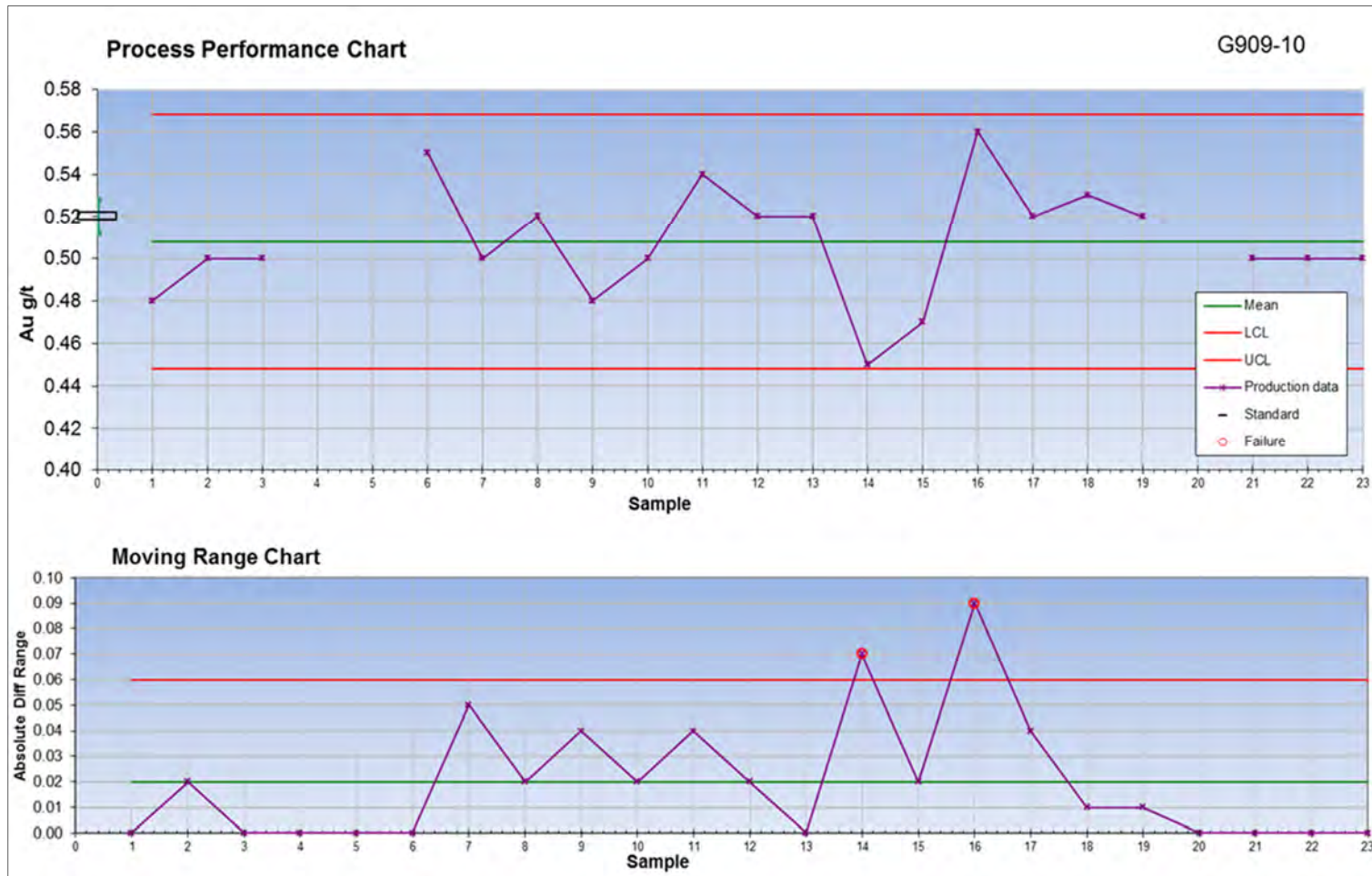


Figure 11.9 Enchi G901-7 QA/QC Chart

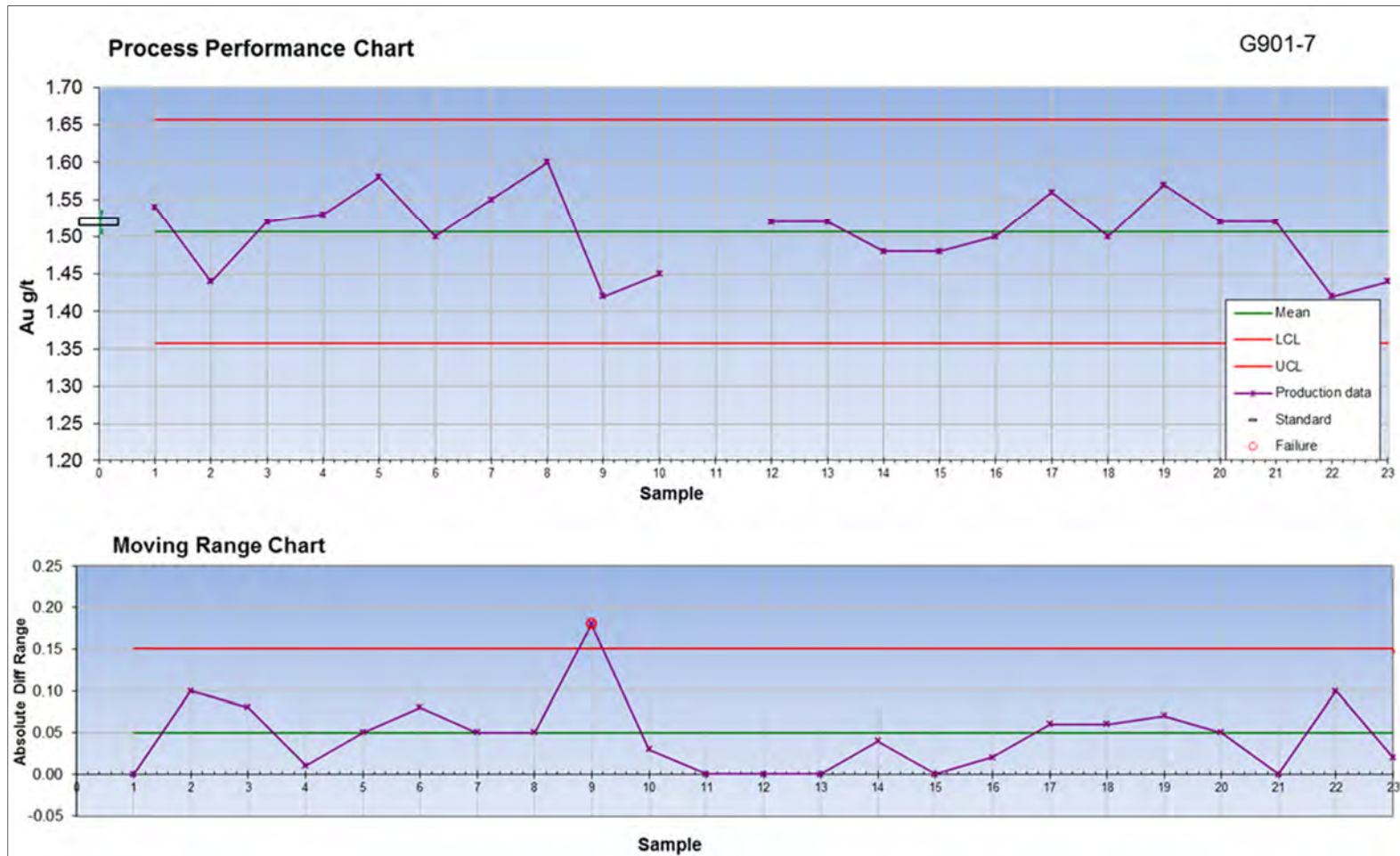




Figure 11.10 Enchi G995-1 QA/QC Chart

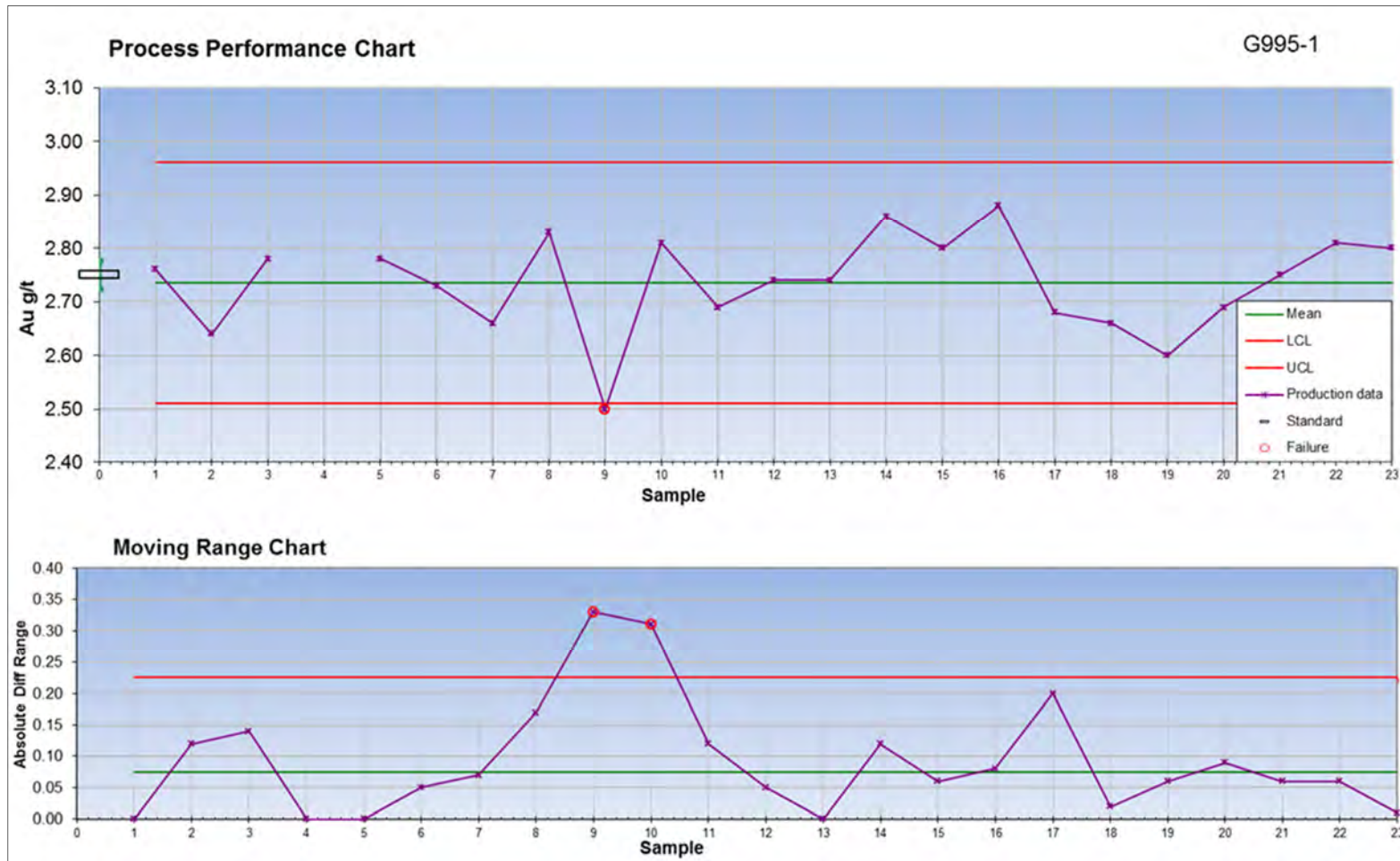
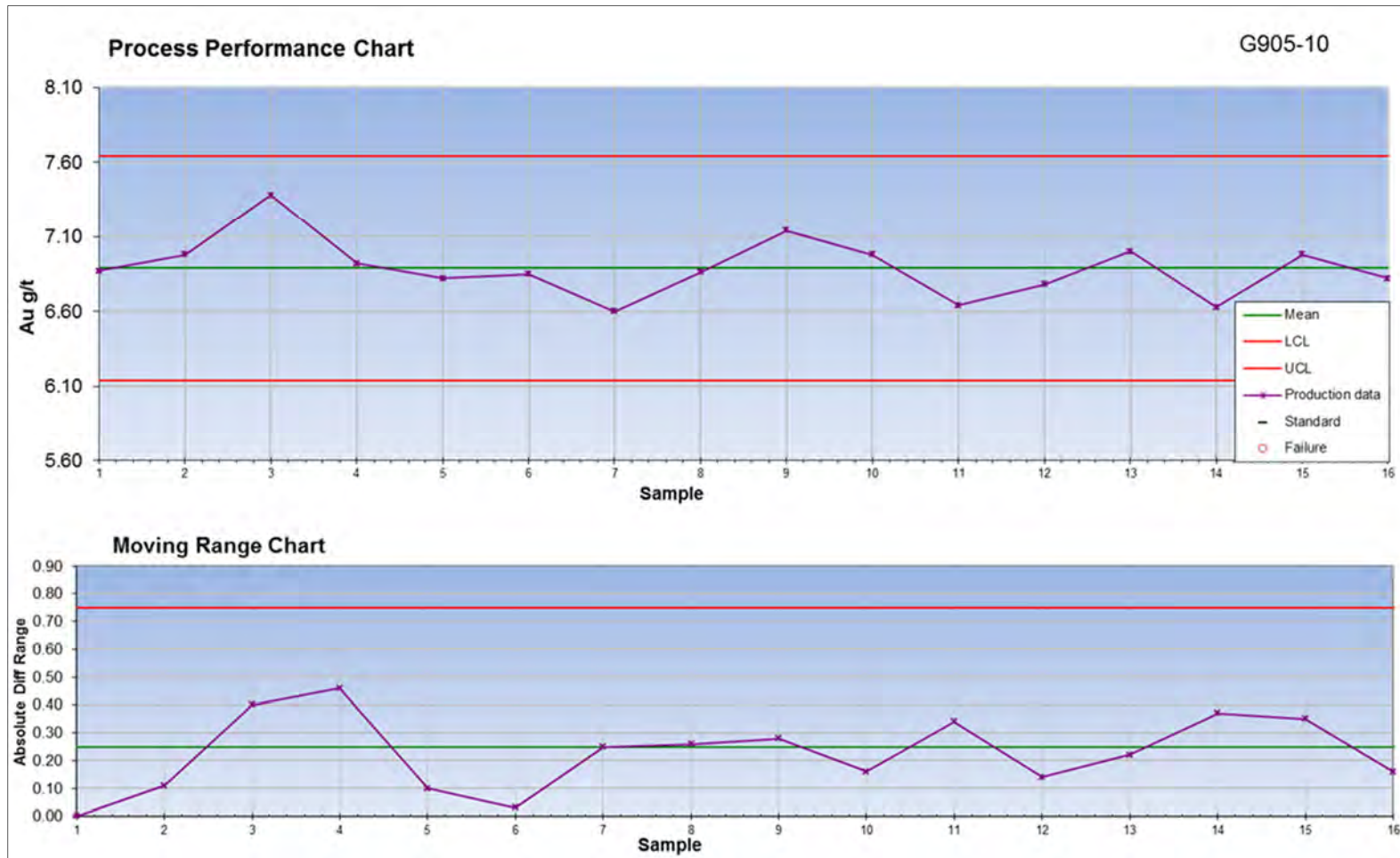


Figure 11.11 Enchi G905-10 QA/QC Chart



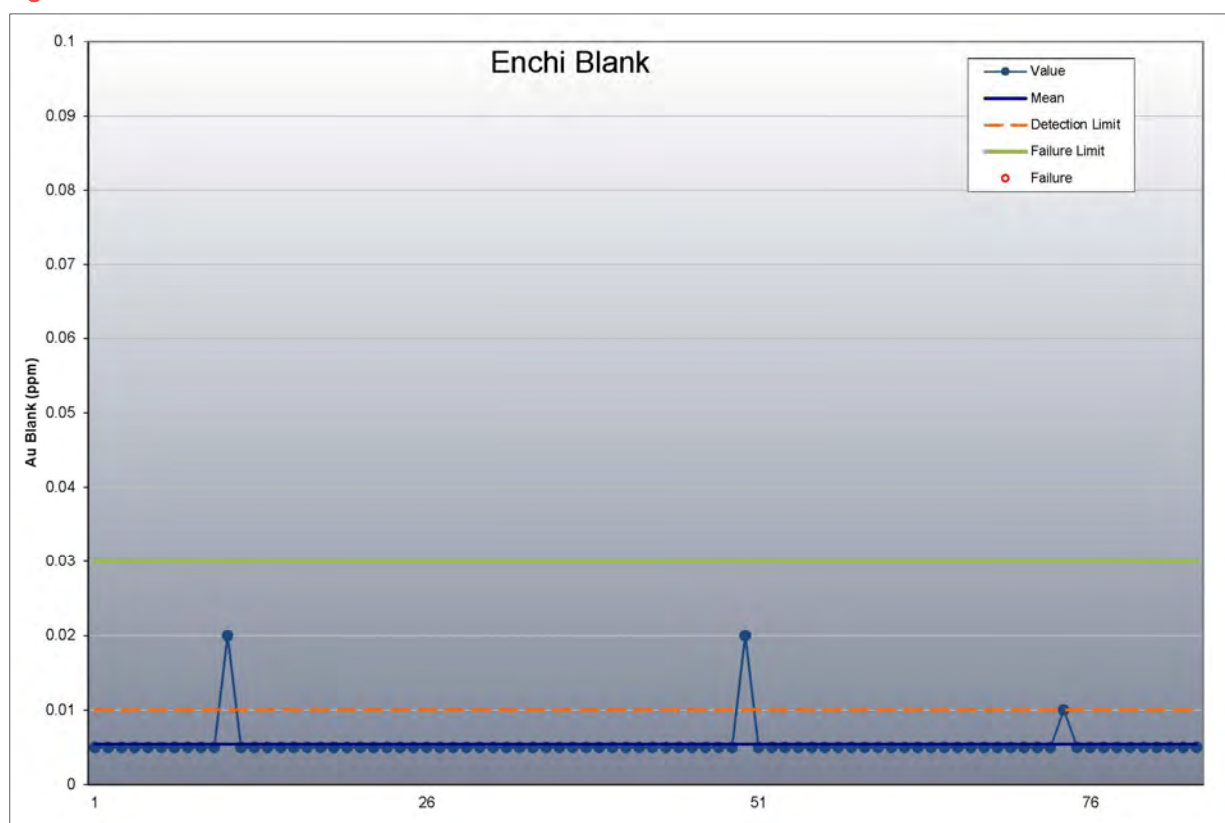
### 11.10.7 2017 REVERSE CIRCULATION

Every 10<sup>th</sup> sample submitted was a QA/QC sample. These samples were prepared prior to core sampling and were placed in the sample stream. Every 20<sup>th</sup> sample was a duplicate and in 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 three times the detection limit. No failures were recorded. (Figure 11.12).

Figure 11.12 Enchi 2017 Blank QA/QC

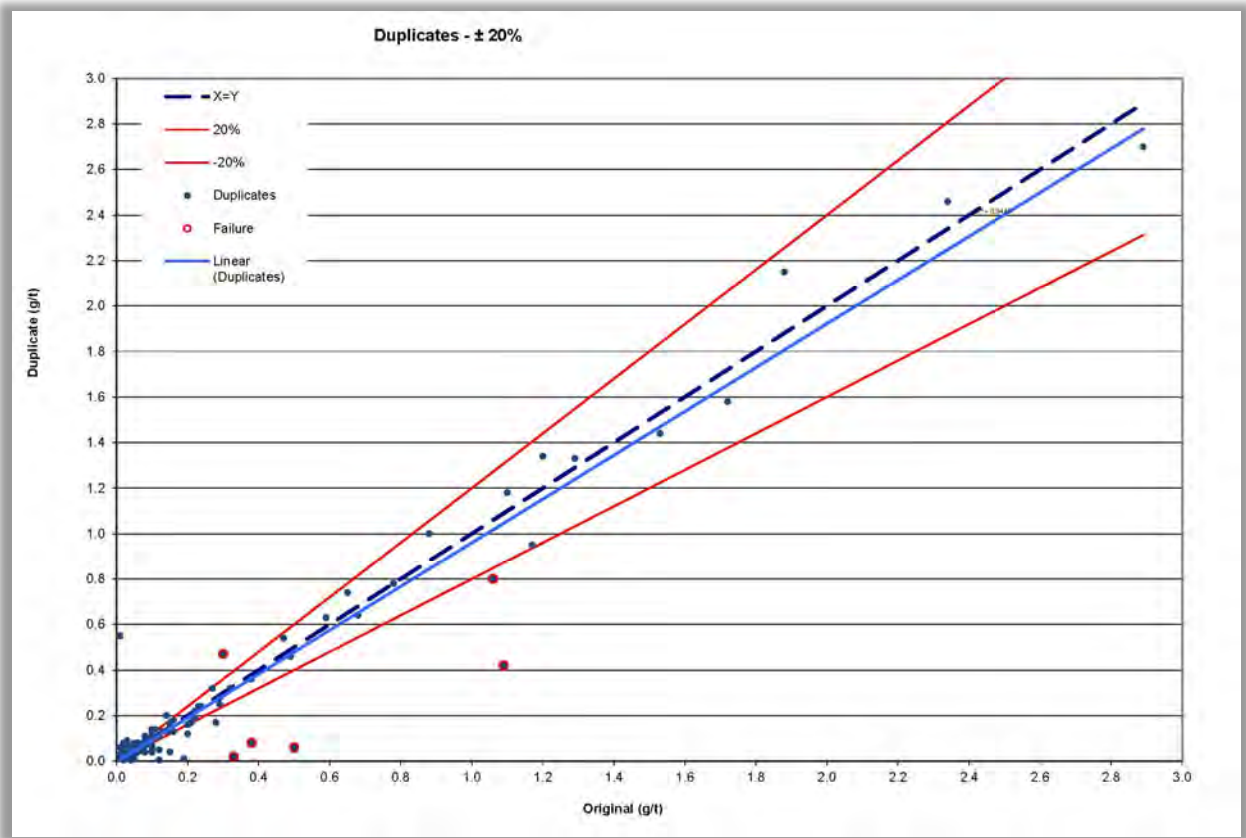


### DUPLICATES

A total of 211 course rejects duplicate samples were submitted; 148 of the duplicates were above detection limit. The control limit of  $\pm 20\%$  is typically considered a failure by industry standards. A total of 6 samples, or 3%, failed (Figure 11.13).

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

Figure 11.13 Enchi 2017 Duplicate QA/QC



## STANDARDS

Two separate SRM were used during the drilling program with grades of 1.03 g/t gold up and 1.99 g/t gold. The SRM ST403, with an expected value of 1.99 g/t, had 41 samples submitted and returned an average of 2.05 g/t (Figure 11.14). The SRM ST452, with an expected value of 1.03 g/t, had 42 samples submitted and returned an average of 1.06 g/t (Figure 11.15).

Figure 11.14 Enchi 2017 SRM ST403

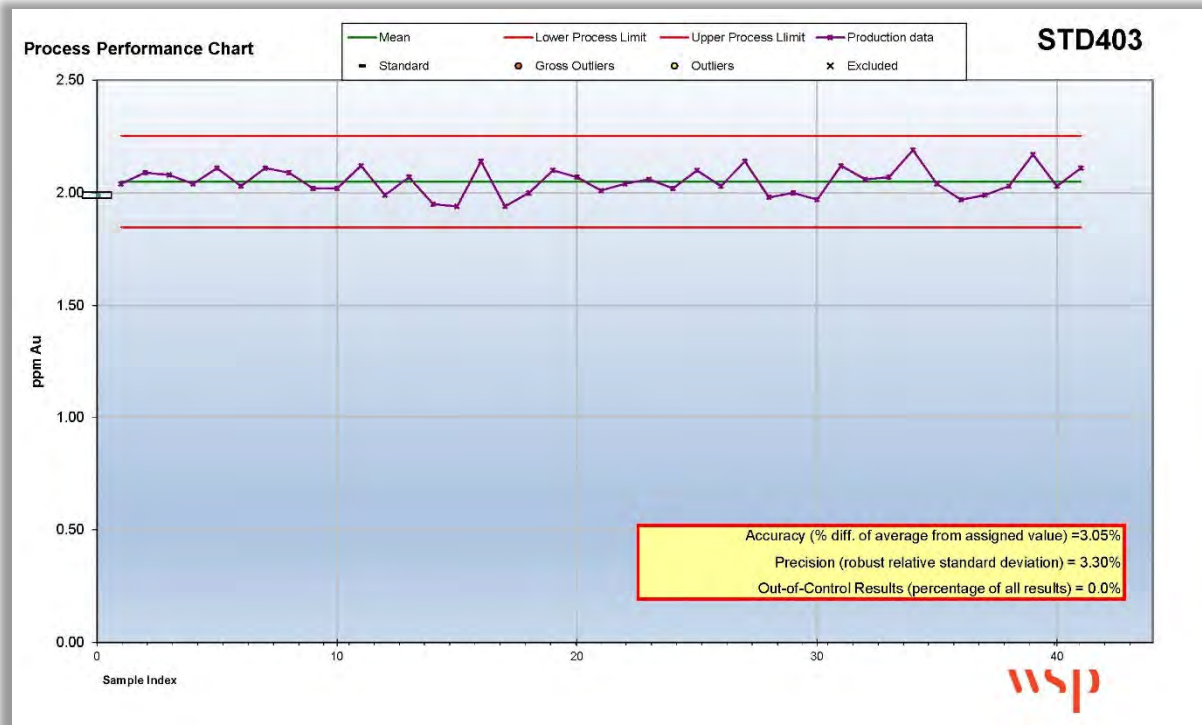
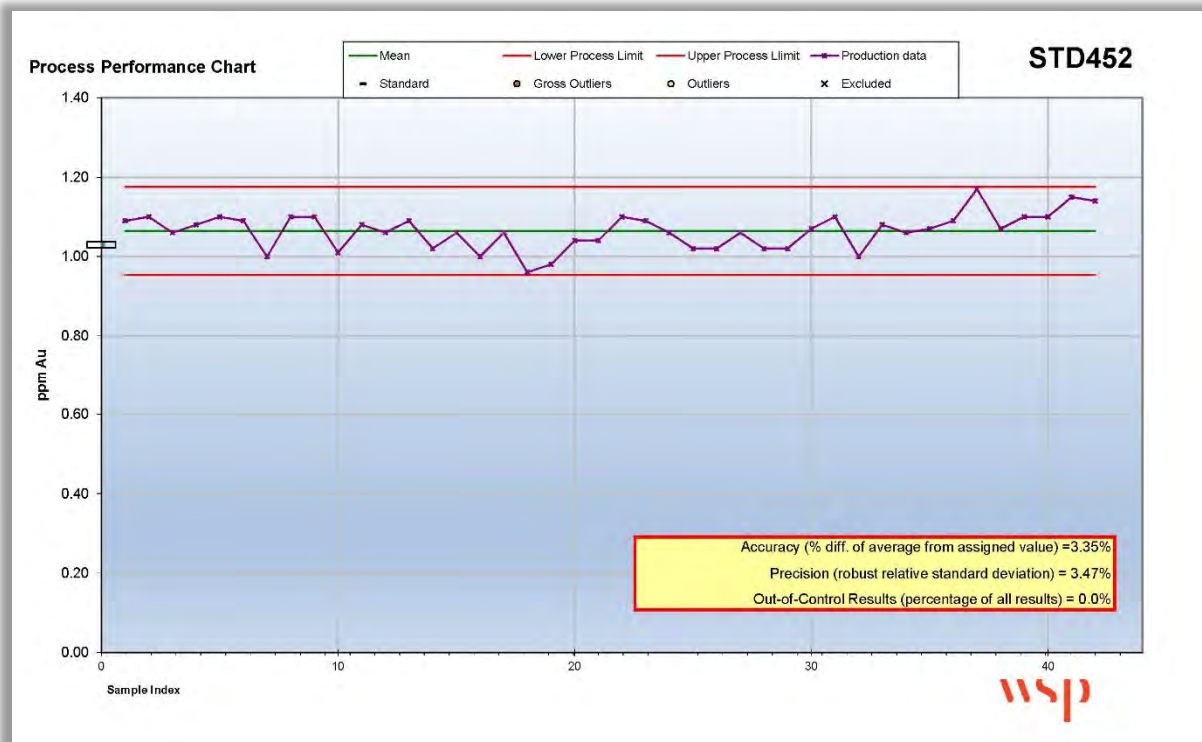


Figure 11.15 Enchi 2017 SRM ST452



### 11.10.8 2020 REVERSE CIRCULATION

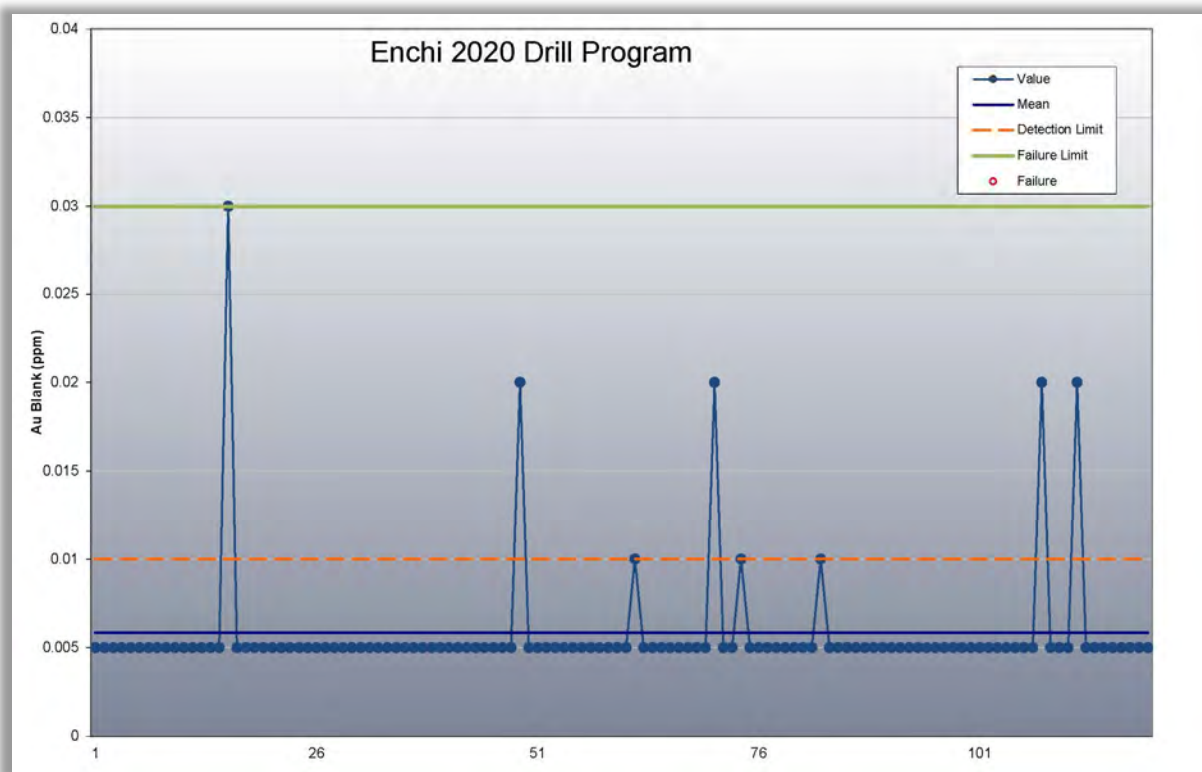
All RC drill samples from the Enchi 2020 RC Drilling Program were analysed at the independent analytical facility of Intertek laboratory located Tarkwa, Ghana. Sample were analyzed by 50 g fire assay for gold with an atomic absorption spectroscopy (AAS) finish.

Analytical quality assurance and quality control procedures include the systematic insertion of blanks, standards and duplicates into the sample strings.

#### BLANKS

A total of 120 blanks were inserted into the Enchi 2020 RC Drilling Program and were analyzed in each batch submitted to the independent analytical facility of Intertek laboratory located Tarkwa, Ghana. Sample were analyzed by 50 g fire assay for gold with an atomic absorption spectroscopy (AAS) finish (Figure 11.16).

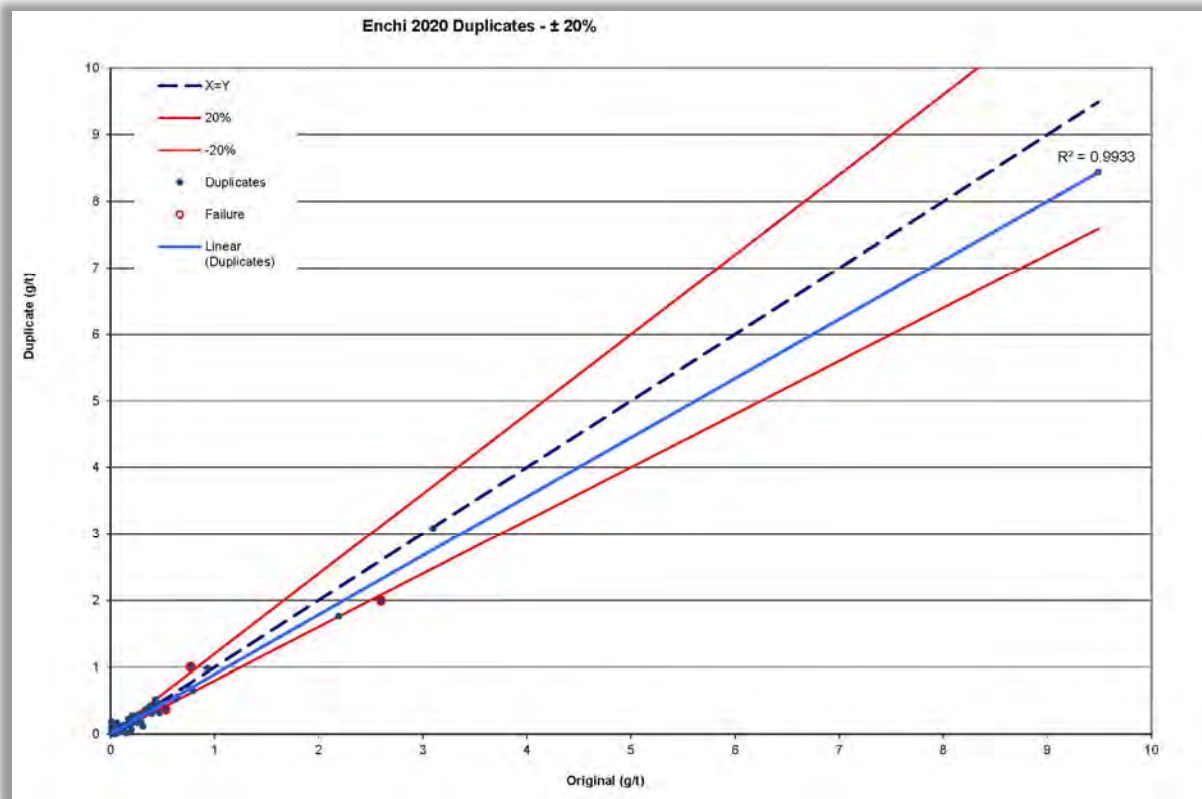
Figure 11.16 Enchi 2020 Blanks



#### DUPLICATES

A total of 237 pairs of duplicates were inserted into the Enchi 2020 RC Drilling Program and were analyzed in each batch submitted to the independent analytical facility of Intertek laboratory located Tarkwa, Ghana. Sample were analyzed by 50 g fire assay for gold with an atomic absorption spectroscopy (AAS) finish (Figure 11.17).

Figure 11.17 Enchi 2020 Duplicates



## STANDARDS

A total of 117 standards were inserted into the Enchi 2020 RC drilling program and were analyzed in each batch submitted to the independent analytical facility of Intertek laboratory located Tarkwa, Ghana. Samples were analyzed by 50 g fire assay for gold with an atomic absorption spectroscopy (AAS) finish (Figures 11.18 to 11.20).

Three Certified Reference Material (CRM) were used for the 2020 program consisting of:

- STD ORS 251 (0.504 ppm)
- STD ORS 253 (1.22 ppm)
- STD ORS 224 (2.15 ppm)

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

Figure 11.18 2020 SRM ORS 251

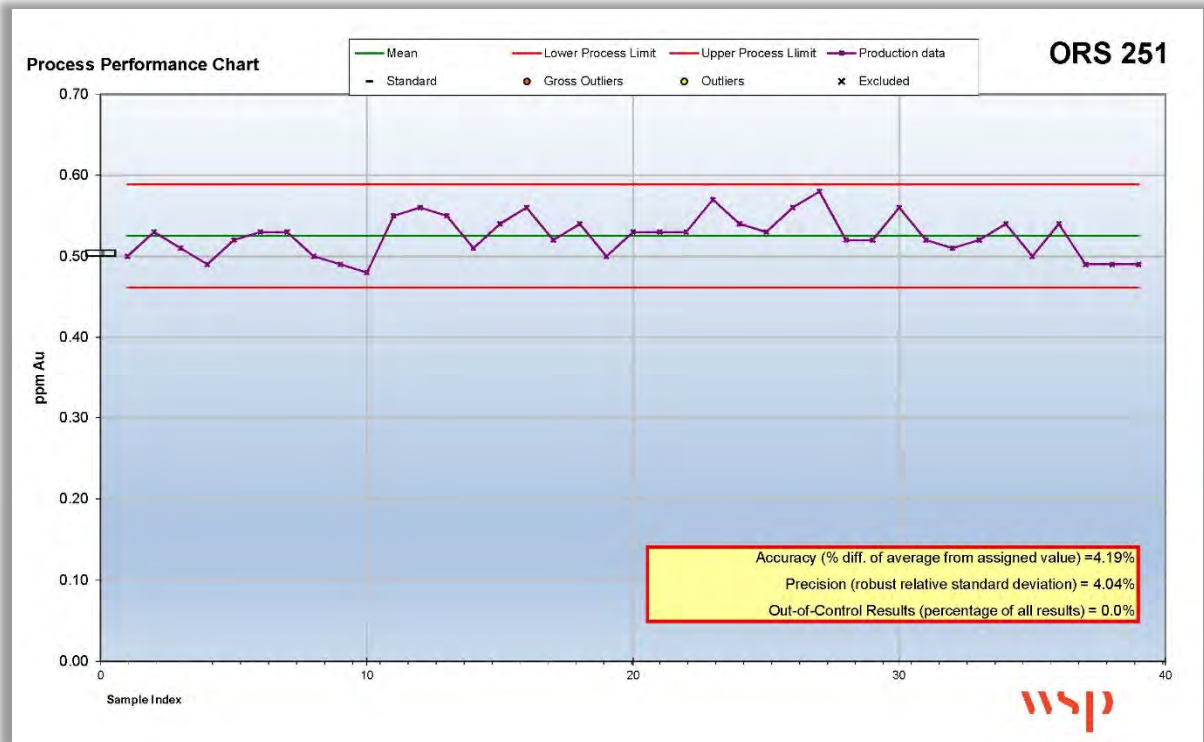


Figure 11.19 2020 SRM ORS 253

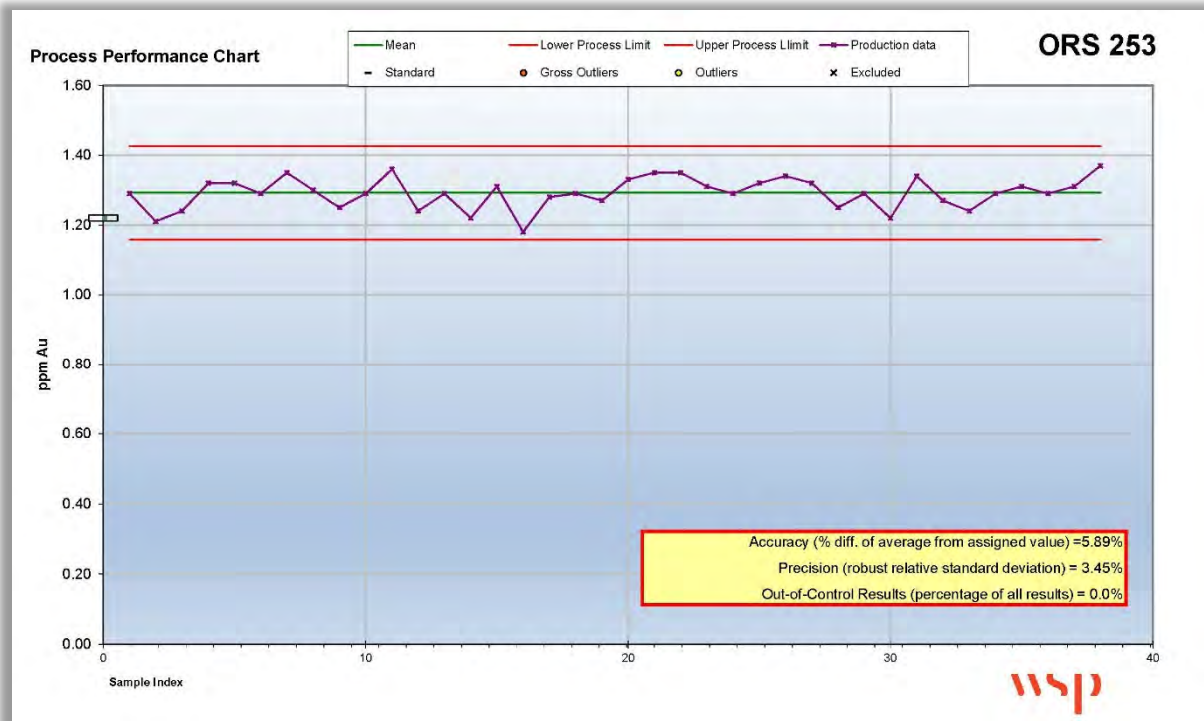
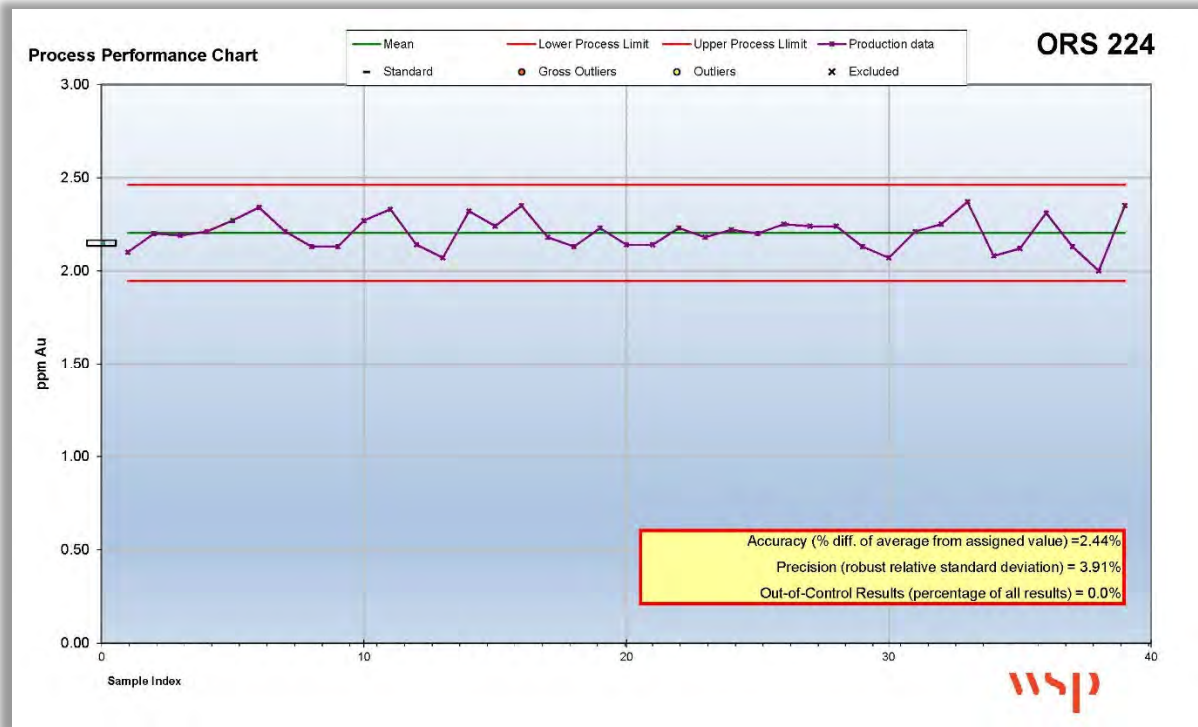




Figure 11.20 2020SRM ORS 224



## 11.11 QPS' OPINION

It is the QPs' 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 resource modeling.

The 2020 drill results were not used in the 2020 mineral resource estimation.

# 12 DATA VERIFICATION

## 12.1 DRILL COLLAR

### 12.1.1 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. Table 12.1 contains the results of the collar checks. 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 to 5 m of which all but one collar passed (SWRC005).

**Table 12.1 Red Back Collar Validation**

BH ID	Tetra Tech GPS			Red Back Log			Site	Delta Distance (m)	Comment
	Northing (m)	Easting (m)	Elevation (m)	Northing (m)	Easting (m)	Elevation (m)			
KBRC-003	633,907	519,032	194	633,905	519,034	194	Boin	2.6	-
KBRC-038	633,844	519,178	193	633,902	519,021	193	Boin	167.4	Incorrect GPS reading
KBRC-040	633,936	519,183	187	633,937	519,183	187	Boin	0.7	-
KBRC-044	634,032	519,218	163	634,033	519,217	163	Boin	1.1	-
KBRC-046	634,133	519,321	156	634,131	519,322	156	Boin	2.0	-
KBRC-054	634,748	519,566	176	634,749	519,567	176	Boin	1.5	-
KBRC-083	634,177	519,388	157	636,784	521,474	135	Boin	3,338.3	Incorrectly identified BH ID
KBRC-085	633,993	519,299	163	633,992	519,300	163	Boin	1.6	-
KBRC-086	634,021	519,248	167	634,021	519,248	167	Boin	0.4	-
KBRC-106	633,953	519,156	180	633,954	519,155	180	Boin	0.8	-
SWRC-001	629,009	520,941	138	629,097	520,937	138	Sewum	2.0	-
SWRC-005	629,175	521,003	143	629,182	520,997	143	Sewum	9.5	-
SWRC-007	627,932	521,296	128	627,931	521,298	128	Sewum	2.3	-
SWRC-009	627,669	521,179	154	627,668	521,179	154	Sewum	1.0	-
SWRC-014	627,707	521,237	158	627,705	521,232	158	Sewum	5.0	-
SWRC-015	627,735	521,261	159	627,735	521,260	159	Sewum	1.0	-
SWRC-021	627,809	521,294	160	627,806	521,298	160	Sewum	4.9	-

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.

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### 12.1.2 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 coordinate system (Figure 12.1). Table 12.2 contains the results of the collar checks.

The accepted error for the handheld GPS is typically 3 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.

**Figure 12.1** 2011 Collar Validation



Source: McCracken, 2011

**Table 12.2 2011 Collar Validation**

BH ID	Tetra Tech GPS			Edgewater Exploration Log			Site
	Northing (m)	Easting (m)	Elevation (m)	Northing (m)	Easting (m)	Elevation (m)	
KBDDH013	633,636	519,045	159	633,636	519,045	158	Boin
KBDDH022	633,156	518,612	146	633,159	518,620	137	Boin
KBDDH024	633,164	518,598	152	633,167	518,597	139	Boin
KBDDH025	633,080	518,548	145	633,078	518,547	137	Boin
KBDDH026	633,093	518,527	156	633,090	518,522	139	Boin
KBRC114	634,542	519,523	130	634,541	519,522	140	Boin
KBRC115	634,563	519,477	136	634,561	519,476	140	Boin
NBDDH001	637,689	530,453	98	637,686	530,454	116	Nyam
NBDDH018	638,187	530,732	118	638,171	530,733	115	Nyam
NBDDH040	637,346	530,290	84	637,344	530,290	102	Nyam
NBDDH042	637,361	530,259	86	637,364	530,255	101	Nyam
NBDDH044	637,667	530,506	106	637,665	530,503	122	Nyam
NBDDH046	638,132	530,790	102	638,126	530,785	110	Nyam
SWDDH003	626,262	520,424	128	626,260	520,428	119	Sewum South
SWDDH004	626,248	520,450	128	626,252	520,455	122	Sewum South
SWDDH038	627,711	521,310	157	627,712	521,307	124	Sewum Checker
SWDDH039	627,756	521,217	130	627,757	521,213	100	Sewum Checker
SWDDH050	629,174	520,958	116	629,175	520,963	103	Sewum Road
SWDDH053	629,698	521,583	212	629,697	521,588	194	Sewum Ridge
SWDDH065	629,118	520,892	108	629,116	520,899	98	Sewum Road
SWDDH067	628,978	521,386	204	628,971	521,379	194	Sewum Ridge

### 12.1.3 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) World Geodetic System (WGS) 84 coordinate system (Figure 12.2). Table 12.3 contains the results of the collar checks.

The accepted error for the handheld GPS is typically 3 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.

**Figure 12.2 2012 Collar Validation**



Source: McCracken, 2012

**Table 12.3 Collar Validation**

Edgewater Exploration				WSP				X-Y
BH ID	Easting	Northing	Elevation	BH ID	Easting	Northing	Elevation	Delta
SWRC041	521734	629877	228	SWRC041	521735	629875	196	2.46
SWRC042	521768	629966	182	SWRC042	521767	629966	190	1.19
SWRC043	521772	629965	181	SWRC043	521771	629960	190	4.56
SWRC044	521288	629011	231	SWRC044	521289	629015	193	3.88
SWRC045	521356	629091	192	SWRC045	521358	629089	194	2.60
SWRC046	521383	629176	231	SWRC046	521384	629179	196	3.52
SWRC047	521533	629530	235	SWRC047	521535	629527	198	3.75
SWRC048	521601	629724	234	SWRC048	521599	629723	197	2.32
SWRC049	521692	629788	194	SWRC049	521691	629786	195	2.23
SWRC050	521733	629877	228	SWRC050	521733	629880	195	2.90
SWRC051	521294	628589	226	SWRC051	521290	628592	200	4.79
SWRC052	521169	628244	129	SWRC052	521166	628242	138	3.67
SWRC053	521001	628916	99	SWRC053	521000	628918	114	2.83
SWRC055	522064	630264	120	SWRC055	522059	630268	131	6.56

(table continues on next page)

Edgewater Exploration				WSP				X-Y
BH ID	Easting	Northing	Elevation	BH ID	Easting	Northing	Elevation	Delta
SWRC056	521894	630258	121	SWRC056	521887	630262	128	8.12
SWRC057	521784	630273	121	SWRC057	521777	630279	127	9.23
NBRC009	530424	637523	91	NBRC009	530425	637524	100	1.27
NBRC012	530746	638054	133	NBRC012	530746	638054	145	0.45
NBRC013	530706	637956	101	NBRC013	530701	637956	113	5.39
NBRC014	530651	637904	89	NBRC014	530650	637904	101	1.18
NBRC015	530657	637946	90	NBRC015	530656	637947	103	1.26

#### 12.1.4 2017 DRILL COLLAR

A validation of the Newcore 2017 reverse circulation drill collars was conducted during the 2018 site visits. Locations were confirmed through a 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.

#### 12.1.5 2020 DRILL COLLAR

A site visit has not been completed for verification of the 2020 RC drill collars.

The QP has previously completed site visits to the Enchi Gold Project including the Boin Prospect and has been provided updated photographs of the 2020 drill collars which include in some case adjacent drill collars from existing drillholes which have been previously validated.

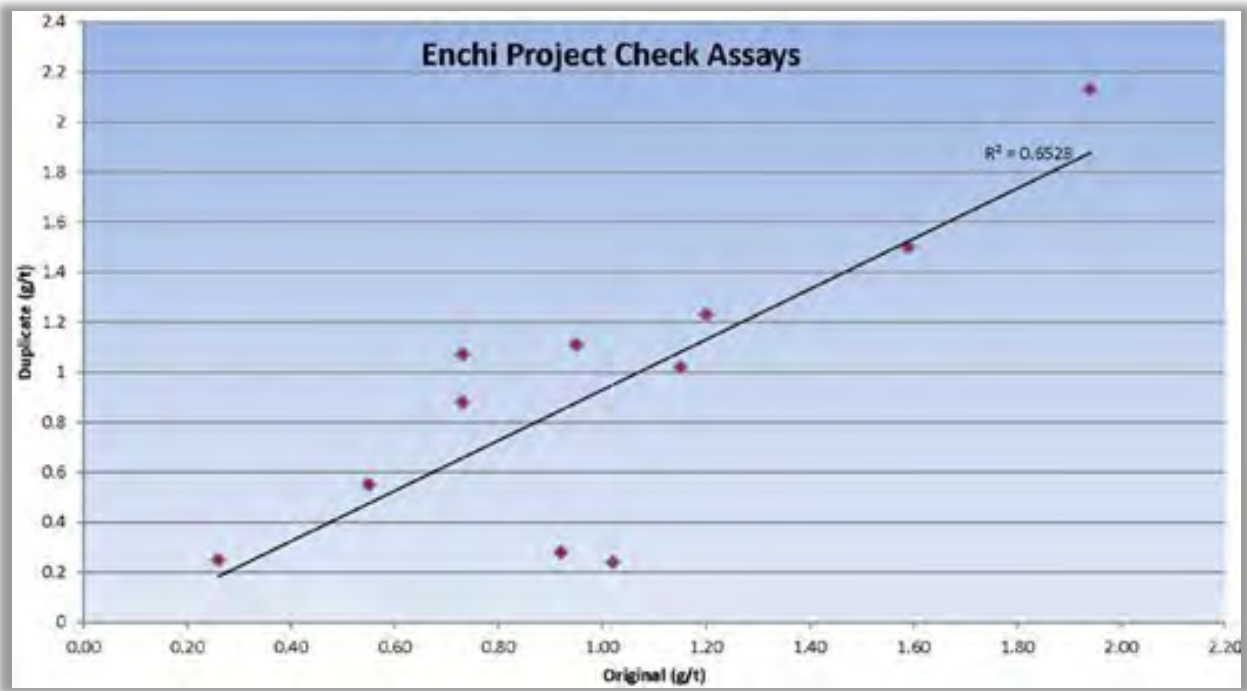
## 12.2 ASSAY

#### 12.2.1 PRE-2012 ASSAY

The QP, while employed by Tetra Tech, collect 21 pulps from the Boin reverse circulation drilling program and re-submitted the samples to the SGS laboratories in Ghana for check analysis. The small number of samples collected does not statistically represent the entire Boin Zone drilling data set yet should indicate the reproducibility of the material. Overall, the data collected has a strong correlation to the original samples submitted by Red Back ( $R=0.84$ ) (Figure 12.3). The correlation does appear to break down with samples with assay values above the 2.5 g/t range. This is likely due to the analytical process of flame atomic absorption (FAA), which is fire-assay with an atomic absorption finish. FAA is accurate at the lower detection limits yet tends to have poor precision range at the higher detection limits.

The QP did not collect any check samples from the Redback RAB or RC drilling.

Figure 12.3 2010 Check Samples



### 12.2.2 2012 ASSAY

The QP collected 38 pulps from the drilling program and re-submitted the samples to ALS laboratories in Sudbury for check analysis. The QP used the same analytical procedure as Newcore in order to minimize the potential variance from different analytical methods.

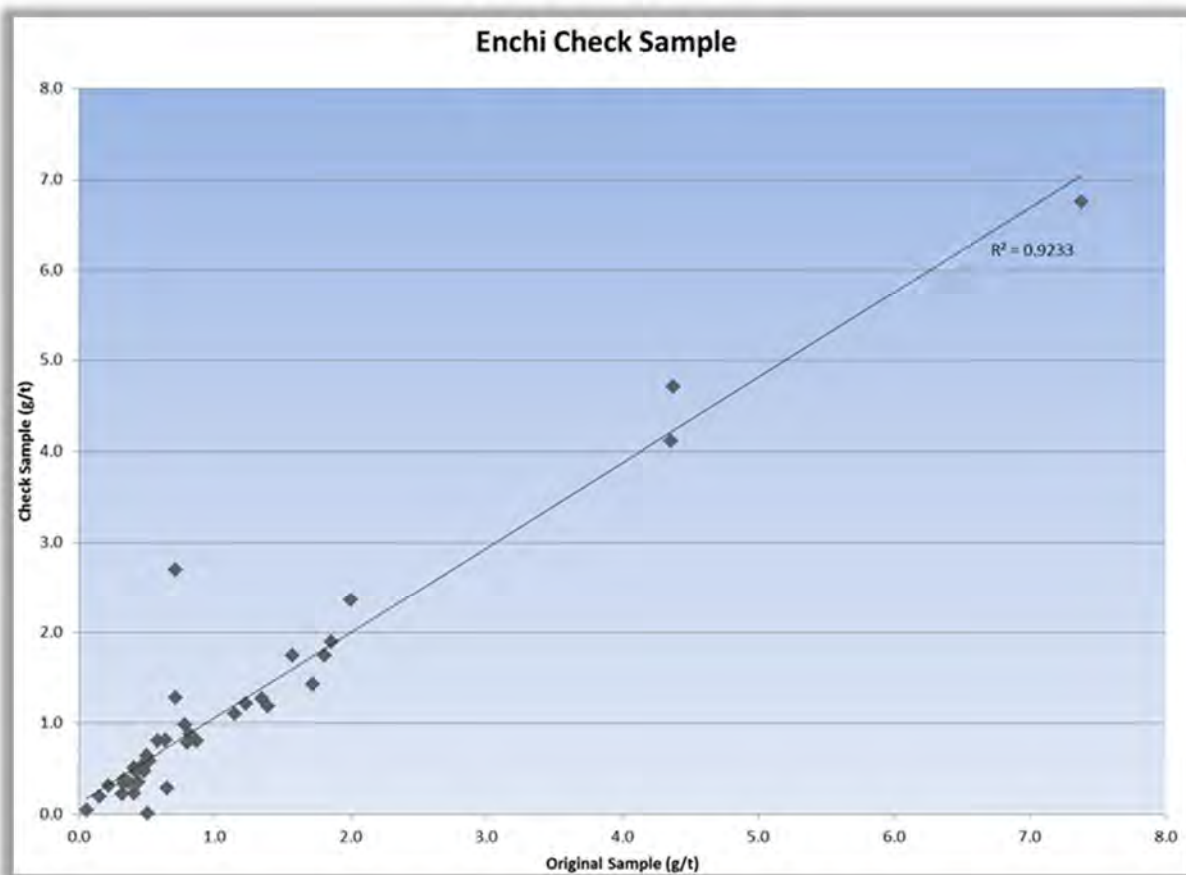
Overall, the data collected has a strong correlation to the original samples submitted by Newcore (Table 12.4) with a  $R^2$  of 0.92 (Figure 12.4).

**Table 12.4 2012 Check Analysis**

Borehole ID	Original Sample ID	Original Gold (g/t)	Check Sample ID	Check Gold (g/t)	Log-QC (% passing 75 µm)
NBRC009	1046734	0.51	120087500920	0.005	75.7
	1046763	0.41	120087501210	0.51	88.9
	1046778	1.23	120087501360	1.22	94.9
NBRC010	1046910	0.50	120087600680	0.64	-
	1046935	1.35	120087600930	1.27	56.3
	1046940	0.37	120087600980	0.35	80.6
NBRC011	1047110	7.38	120088001020	6.75	-
	1047115	0.33	120088001070	0.33	92.2
	1047135	0.42	120088001270	0.48	94.9
NBRC012	1047297	1.39	120088501220	1.19	87.6
	1047310	0.48	120088501350	0.48	-
	1047352	0.15	120088501770	0.20	82.8
NBRC013	1047538	0.22	120089401180	0.32	-
	1047604	0.44	120089401840	0.35	56.0
NBRC014	1047782	1.81	120098401400	1.74	92.0
	1047786	0.06	120098401440	0.04	90.0
	1047837	0.80	120098401950	0.78	84.2
NBRC015	1047978	0.78	120101101140	0.98	95.1
	1047992	4.36	120101101280	4.11	87.8
SWRC041	1042704	1.72	120061400330	1.43	89.9
	1042828	0.65	120061401570	0.29	75.5
	1042836	0.46	120061401650	0.51	92.8
SWRC043	1043104	0.48	120065001000	0.56	82.4
	1043108	0.87	120065001040	0.80	88.9
	1043114	0.32	120065001100	0.22	83.6
SWRC044	1043337	0.52	120065102220	0.58	90.1
	1043345	0.71	120065102300	1.28	80.6
	1043348	0.82	120065102330	0.87	80.4
SWRC047	1043888	0.71	120068300710	2.70	-
SWRC048	1044108	1.15	120068600680	1.10	94.9
	1044223	0.64	120068601830	0.81	88.4
	1044265	0.41	120068602250	0.23	89.2
SWRC049	1044408	0.58	120069401420	0.80	94.6
	1044411	2.00	120069401450	2.36	78.0
	1044415	1.57	120069401490	1.75	84.7
SWRC050	1044515	0.33	120069500690	0.38	93.1
	1044520	4.38	120069500740	4.71	-
	1045046	1.86	120089401650	1.90	50.5



Figure 12.4 2012 Check Assay



In addition to the assay, the QP had the pulps checked for pulp fineness. The Intertek standard is listed as 95% passing 75  $\mu\text{m}$ . Only 10 samples had 90% passing 75  $\mu\text{m}$  of 31% of the samples. This discrepancy must be addressed with the laboratory prior to any further work being completed.

### 12.2.3 2017 ASSAY

A series of representative samples from the 2017 RC drill program were selected by the QP for validation assays. The QP directed onsite Newcore personnel to collect 15 pulps from the 2017 drilling program and the samples in their original sample bags were submitted to SGS laboratories in Ghana for check analysis. Photographs of the original pulps as received from the primary assay laboratory were provided. The QP used the same analytical procedure as Newcore, at the second umpire laboratory, to minimize the potential variance from different analytical methods. The pulps were also subjected to a sieve test to investigate the preparation procedure.

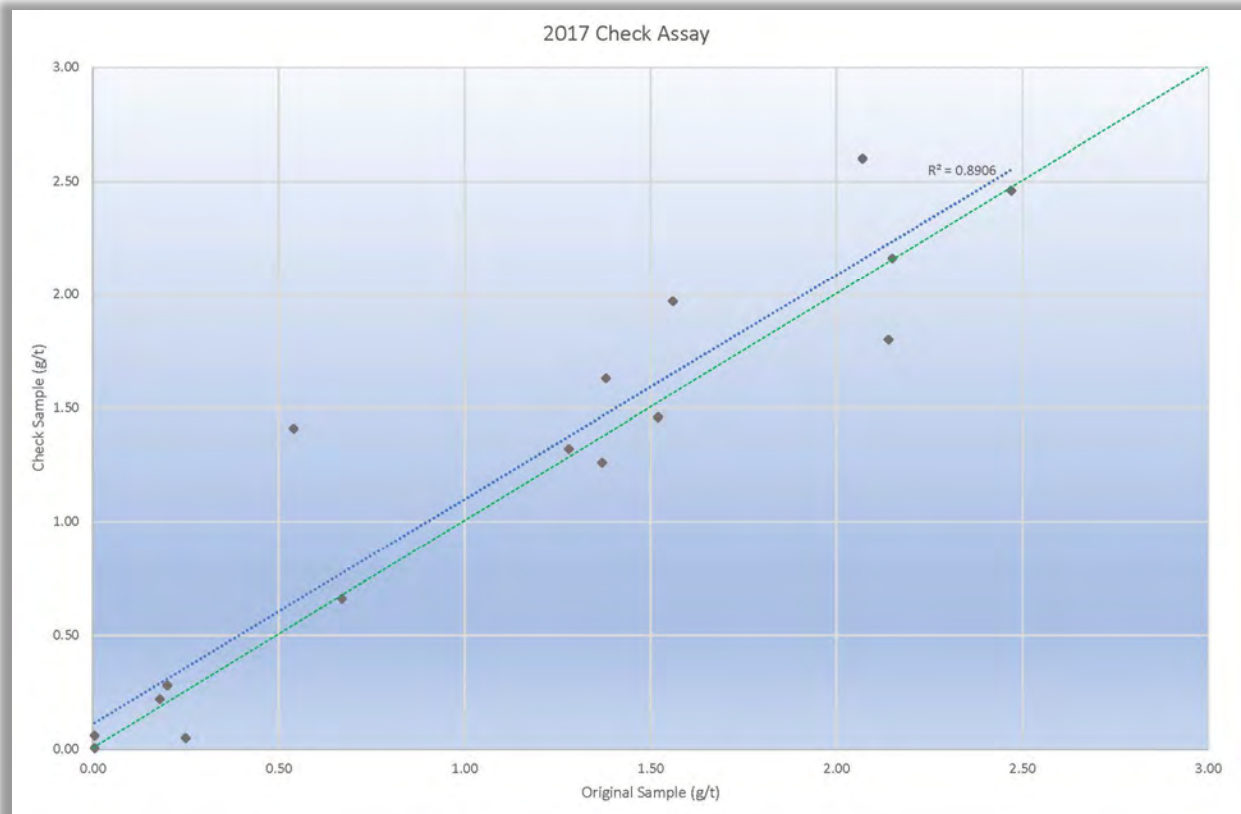
Overall, the data collected has a good correlation to the original samples submitted by Newcore (Table 12.5) with a  $R^2$  of 0.89 (Figure 12.5). One sample failed the sieve test, yet the duplicate assay matches the original sample.

The chain of custody was not maintained during this process. The results of the check samples are similar to the check samples the QP collected on previous site visits.

**Table 12.5 2017 Check Analysis**

Borehole ID	Original Sample ID	Original Gold (g/t)	Check Sample ID	Check Gold (g/t)	Log-QC (% passing 75 µm)
KBRC126	1064867	2.14	1076701	1.8	96.28
KBRC126	1064899	1.56	1076702	1.97	89.56
KBRC126	1064937	1.37	1076703	1.26	97.00
KBRC128	1065214	1.28	1076704	1.32	96.36
KBRC133	1065852	2.47	1076705	2.46	64.88
KBRC137	1066354	2.07	1076706	2.6	81.52
KBRC137	1066365	1.38	1076707	1.63	95.36
KBRC129	1065232	<0.01	1076708	<0.01	98.72
SWRC058	1063403	1.52	1076709	1.46	97.60
SWRC059	1063503	<0.01	1076710	0.06	92.88
SWRC060	1063603	0.54	1076711	1.41	90.36
SWRC061	1063704	0.25	1076712	0.05	99.04
SWRC062	1063943	0.67	1076713	0.66	92.12
SWRC065	1064425	0.18	1076714	0.22	99.00
SWRC067	1066664	0.2	1076715	0.28	83.96

**Figure 12.5 2017 Check Assay**



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#### 12.2.4 2020 ASSAY

Verification of the 2020 RC drilling program has included a review of original drill logs and original assay certificates and comparison to the values in the 2020 database.

Sampling, analytical, and test data underlying the drill data were reviewed and found reliable. Geological observations, photos of RC drill chips for each metre of drilling and results were compared to adjacent or nearby drillholes previously completed and considered consistent with the current interpretation of the gold mineralization at the Boin Prospect.

A site visit has not been completed however the QP has previously completed site visits to the Enchi Gold Project including the Boin Prospect and has been provided updated photographs of the 2020 drilling, sampling, and logging activities.

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### 12.3 DATABASE

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#### 12.3.1 RED BACK VALIDATION

The trench, rotary air blast, and reverse circulation drilling log formats, procedures and dictionaries are found in the Exploration Procedures Manual provided by Red Back during the 2010 site visit conducted by Tetra Tech. The QP for the Tetra Tech report is the current QP and therefore accepts the results of the Tetra Tech validation.

All Red Back geological logging and sampling was conducted by geologists at the face, or on the rig, manually using standardized paper copy logging forms and dictionaries. All hard-copy field logs were manually transcribed by a data entry clerk into a Red Back designed Microsoft® Access® front-end database. The front-end database was designed with a set of data entry forms, the digital equivalent of the Exploration Manual, to capture all drillhole and trench collar, survey, geology, and sampling data. Each alphanumeric field, or attribute, has a linked look-up table, which controls the entry of the specifically defined dictionary codes for each of the defined database attributes. This prevents the entry of incorrect codes. The numeric fields included in the survey, sampling, and geology forms were also manually transcribed to complete the database for each project.

Following data entry, each drillhole or trench log is printed out for the logging geologist to validate and approve, or sign-off. The file is then transferred to the senior geologist to compile into the drillhole database. Micromine™ software has been used by the senior geologists to validate and compile the 3D drillhole databases at both the Boin and Sewum zones. Micromine™ includes a variety of techniques to validate the drillhole data. Senior geological staff completes the validation of the Project drillhole databases and all reverse circulation and diamond drill geological, geotechnical and structural logs were reviewed during the 2005 and 2006 programs, prior to compiling the final resource and project sections.

The numeric assay data produced by Transworld and Analabs laboratories were merged and validated into the Access™ database through Datashed™ in Accra's head office. The senior geologist at site is responsible for the routine analysis and reporting on the QA/QC standards, blanks, and duplicates submitted during the programs.

Red Back routinely submitted a combined 12% quality control component with project sampling, comprised of 8% blind field duplicates, 2% in-house blanks, and 2% Rocklabs certified reference material (CRM) standards.

The sampling programs conducted by Red Back were not observed or audited by the QP. At no time was an employee, officer, director or associate of Newcrest involved in the sampling programs conducted by Red Back. A review of the Red Back geologist's procedural manual suggests a robust program that meets industry standards for sampling and quality assurance/quality control (QA/QC) measures.

Red Back constructed RC chip boards for the 2005 and 2006 RC drill programs. Boards were clearly marked with borehole numbers and depth intervals. The boards are stored in numerical order, in boxes at the Red Back office in Accra (Figures 12.6 and 12.7).

**Figure 12.6 Red Back Chip Boards**



Source: McCracken, 2010

Figure 12.7 Red Back Chip Board



Source: McCracken, 2010

Limited diamond drill coring has been completed on the concession by Red Back. Diamond drillholes are extensions of RC holes. The core has been sampled repeatedly and as a result very little core remains. Core was stored on site and has recently been transported to the Red Back office in Accra. Core was placed in wooden boxes with wooden run markers placed at 1 m intervals. The boxes were marked with a marker on the end with the borehole number and the box number (Figure 12.8).

**Figure 12.8 Red Back Drill Core (KBRC059)**



Source: McCracken, 2010

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### 12.3.2 EDGEWATER PRE-2012 DATA VALIDATION

The QP for the 2011 Tetra Tech report is the current QP and therefore accepts the results of the Tetra Tech validation. The QP validated 18 of the 180 drillholes completed in 2011. The QP carried out an internal validation of the drillhole data files against the original drillhole logs and assay certificates.

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### 12.3.3 PINECREST 2012 DATA VALIDATION

The QP carried out an internal validation of the diamond drillhole data files against the original drillhole logs and assay certificates. The validation of the data files was completed on the 23 drillholes finished in 2012.

Data verification was completed on collar coordinates, end-of-hole depth, downhole survey measurements, from and to intervals, assay sample intervals, and analytical results. Assay intervals in the database listed as less than 0.01 were converted to a value of 0.01 and were not considered an error. Sample intervals that were not assayed were input as absent data. It is the QP's opinion that material not sampled should not be assigned a zero value.

A significant error rate in the collar coordinates was indicated in the validation (Table 12.6). The collars in the digital database match reasonably well with the GPS coordinates collected during the site visit. It would appear that the drill logs were not updated with the correct coordinates after the final survey was completed.

There is a 14.9% error rate in the survey data in the digital data compared to the drill logs. The electronic survey files were reviewed and indicate that the digital database results are correct. The errors are always the last reading in the hole.

The drillhole data was imported into the Surpac™ program, which has a routine that checks for duplicate intervals, overlapping intervals, and intervals beyond the end-of-hole. The errors identified in the routine were checked against the original logs and corrected.

It is the QP's opinion that the data is of sufficient quality to support the resource estimation.

**Table 12.6 2012 Data Validation Summary**

Field	Number of Records	Number of Errors	Error Rate
<b>Collar</b>			
Hole ID	23	0	0%
East	23	19	83%
North	23	19	83%
Elevation	23	0	0%
Azimuth	23	0	0%
Dip	23	0	0%
Depth	23	0	0%
<b>Survey</b>			
Hole ID	87	0	0%
Depth	87	0	0%
Azimuth	87	13	15%
Dip	87	13	15%
<b>Lithology</b>			
Hole ID	3806	0	0%
From	3806	0	0%
To	3806	0	0%
Litho	3806	37	1%
<b>Assay</b>			
Hole ID	3800	0	0%
Sample #	3800	0	0%
From	3800	0	0%
To	3800	0	0%
Au	3800	4	0%

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#### **12.3.4 NEWCORE 2017 DATA VALIDATION**

The QP carried out an internal validation of the diamond drillhole data files against the original drillhole logs and assay certificates. The validation of the data files was completed on the 28 drillholes finished in 2017.

Data verification was completed on collar coordinates, end-of-hole depth, downhole survey measurements, from and to intervals, assay sample intervals, and analytical results. Assay intervals in the database listed as less than 0.01 were converted to a value of 0.01 and were not considered an error.

Several holes had elevation issues relative to the available topography. Elevations in the digital file were adjusted to closely match the topography.

The drillhole data was imported into the Surpac™ program, which has a routine that checks for duplicate intervals, overlapping intervals, and intervals beyond the end-of-hole. The errors identified in the routine were checked against the original logs and corrected.

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#### **12.3.5 NEWCORE 2020 DATA VALIDATION**

The QP carried out an internal validation of the diamond drillhole data files against the original drillhole logs and assay certificates. The validation of the data files was completed on all 26 RC drillholes finished in 2020. This data is not used in the 2020 mineral resource estimate

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### **12.4 QPS' OPINION**

It is the QPs' opinion that the database has been adequately validated and is suitable to be used for geological and resource modeling.

The 2020 drill results were not used in the 2020 mineral resource estimation.



# 13 MINERAL PROCESSING AND METALLURGICAL TESTING

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## 13.1 MINERALOGY

The three main zones (Boin, Nyam, and Sewum) are generally considered to be mesothermal quartz vein style gold deposits. The mineralization is found in structurally-controlled zones of quartz veining or silicified volcanics with pyrite. With quartz-vein style mineralization, the gold occurs mainly as liberated gold particles but may have some disseminated gold. Gold is present in saprolite outcrops and chlorite and epidote clots and has very low levels of sulphides, less than 1% sulphur; other metal contents are low such as less than 2 ppm silver, and 100 ppm copper. The levels of gangue minerals such as quartz, chlorite, carbonates and other carbonaceous matter are not known. They may have a negative impact on the extraction of gold, as they tend to re-adsorb the gold after it has been leached. Kaolin content should also be analyzed since its presence will result in reducing percolation in the heaps, increasing leach time, and reducing the overall gold recovery.

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## 13.2 METALLURGICAL TEST WORK

Preliminary test work for the three oxide zones at Boin, Nyam, and Sewum was carried out by Edgewater and SGS in 2012. The following section was extracted from Edgewater's internal report 'Summary of Metallurgical Tests Completed on Samples from the Enchi Gold Project'. The sampling and analysis were completed in two stages:

- The first stage consisted of bottle roll tests on a series of samples from one drillhole at the Boin deposit.
- The second stage consisted of two sets of bottle roll tests on a series of samples from drillholes at the Boin, Nyam, and Sewum deposits.

The basic coarse bottle roll tests were conducted per SGS standard bulk leach extractable gold (BLEG) method which is a partial extraction procedure that involves leaching of 1,000 g samples with a cyanide solution for at least 24 hours. In addition, other fine grind bottle roll tests were carried out to provide indicative gold recovery information.

During the first stage of bottle roll tests, a total of 23 samples (25 were submitted but 2 samples were not analyzed) were tested for cyanide soluble analysis. The samples were taken from drillhole KBRC-011 and consisted of a well-mineralized and strongly- to very-strongly oxidized section of the Boin deposit. The interval ranged in depth from 105 to 128 m. The portion of samples with intervals between 107 and 113 m contained gold grades below the base cut-off of 0.7 g/t Au and returned below average recoveries. Table 13.1 lists the samples tested for head grade, pregnant leach solution (PLS), and tailings grade.

**Table 13.1 CN Bottle Roll Tests Analysis on Primary Mineralization from Boin Deposit Drillhole KBRC-011**

Hole ID	Sample ID	Orig FA Head g/t	FA PLS g/t	FA Tails g/t	Simple Recovery %	Balanced Recovery %
KBRC011	77469	0.79	0.72	0.06	91.14	92.31
KBRC011	77470	1.58	1.45	0.08	91.46	94.75
KBRC011	77471	1.14	0.71	0.38	62.28	65.14
KBRC011	77472	0.70	0.30	0.19	42.86	61.22
KBRC011	77473	1.17	0.76	0.34	64.96	69.09
KBRC011	77474	0.63	0.40	0.01	63.49	97.56
KBRC011	77475	0.53	0.24	0.07	45.28	77.42
KBRC011	77476	0.54	0.26	0.08	48.15	76.47
KBRC011	77477	0.81	0.46	0.09	56.79	83.64
KBRC011	77478	1.46	1.32	0.16	90.41	89.19
KBRC011	77479	1.56	1.14	0.22	73.08	83.82
KBRC011	77480	6.65	4.29	1.48	64.48	74.33
KBRC011	77481	2.11	1.54	0.42	72.99	78.57
KBRC011	77482	1.08	1.02	0.07	94.44	93.58
KBRC011	77483	1.46	1.45	0.09	98.97	94.14
KBRC011	77485	3.97	3.13	0.52	78.84	85.75
KBRC011	77487	12.98	-	-	-	-
KBRC011	77488	7.74	-	-	-	-
KBRC011	77489	3.05	2.43	0.64	79.51	79.12
KBRC011	77490	2.53	2.24	0.21	88.54	91.43
KBRC011	77491	2.50	2.12	0.42	84.80	83.46
KBRC011	77492	1.29	1.14	0.32	88.37	78.08
KBRC011	77493	0.30	0.22	0.04	73.33	84.62
<b>Mean % Recovery</b>					74.01	82.56

The overall simple recovery using the original head fire assay and PLS analysis by AAS is 74%, and ranges between 98.9% and 42.9%.

The overall balanced recovery using the calculated PLS and tailings analysis is 82.5%, and ranges between 97.5% and 61.2%.

During the second stage of bottle roll tests, two sets of samples (total of 20 samples) were tested for cyanide soluble analysis. The first set included a total of 11 samples (8 with results) from drillholes located within the Boin and Sewum deposits. The second set included a total of 9 samples from drillholes located within the Nyam and Sewum deposits. Tables 13.2 to 13.4 list results for PLS and tailings of the selected samples.

**Table 13.2 CN Bottle Roll Tests Analysis of Selected Samples from Boin Deposit**

Hole ID	Sample ID	Depth from m	Depth to m	BLE61K PLS g/t	FA Tails g/t	Balanced Recovery %
KBDD050A	1033615	31	32	1.27	0.42	75.15
KBDD050A	1033661*	72	73	0.01	0.05	16.67
KBDD045	1032361	31	32	1.85	0.14	92.96
KBDD045	1033362	32	33	7.89	0.61	92.82
<b>Mean % Recovery</b>						<b>86.98</b>

**Table 13.3 CN Bottle Roll Tests Analysis of Selected Samples from Nyam Deposit**

Hole ID	Sample ID	Depth from m	Depth to m	BLE61K PLS g/t	FA Tails g/t	Balanced Recovery %
NBRC012	1047296	108	109	1.68	1.06	61.31
NBRC012	1047297	109	110	0.45	0.44	50.56
NBRC014	1047782	125	126	1.47	0.40	78.61
NBRC014	1047783	126	127	0.91	0.19	82.73
NBRC014	1047784	127	128	0.94	0.28	77.05
<b>Mean % Recovery</b>						<b>70.05</b>

**Table 13.4 CN Bottle Roll Tests Analysis of Selected Samples from Sewum Deposit**

Hole ID	Sample ID	Depth from m	Depth to m	BLE61K PLS g/t	FA Tails g/t	Balanced Recovery %
SWRC034	1041734*	96	97	0.05	0.02	71.43
SWRC035	1041915	159	160	0.16	0.08	66.67
SWRC036	1042036	108	109	0.01	0.90	1.10
SWRC037	1042204	129	130	0.19	0.61	23.75
SWRC038	1042287	64	65	NA	NA	NA
SWRC038	1042292	68	69	0.01	0.65	1.52
SWRC038	1042332	104	105	0.06	0.75	7.41
SWRC053	1045046	93	94	0.27	1.58	14.59
SWRC053	1045047	94	95	0.31	0.99	23.85
SWRC054	1045138	56	57	0.20	0.68	22.73
SWRC054	1045139	57	58	0.10	1.34	6.94
<b>Mean % Recovery</b>						<b>18.73</b>

**Note:**

\* Samples 1033661 and 1041734 were removed from the review of the results as the fire assay (as well as BLEG result) did not confirm the original assay and the samples were found to contain negligible gold; it is believed there was a sample mix-up. The laboratory did not report results for sample 1052287.

Good metallurgical recoveries were achieved from the Boin and Nyam samples, averaging 87% and 70% respectively, while only one sample from Sewum indicated a reasonable recovery at 67%. The remaining samples from Sewum showed poor recoveries.

Strongest correlation is with zone Boin > Nyam > Sewum. Bi-modal results with nine samples from Boin, Nyam and Sewum averaging 75.3% recovery, and eight samples from Sewum averaging 12.7% recovery. There is moderate correlation with grade, and weak to no correlation with sample depth and weathering intensity.

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## 13.3 CONCLUSIONS

Based on the results of these basic bottle roll tests, it was suggested that heap leaching using a cyanide solution may be a viable option for extraction of gold from the oxide domains. The QP cautions that these preliminary bottle roll tests are dynamic tests and do not necessarily indicate the material's amenability to heap leaching. Static column leach tests need to be undertaken to specifically determine heap leach amenability. While helpful as a guide for cyanide solubility, the bottle roll tests are preliminary and are not sufficient to make any meaningful conclusions on the metallurgy of the three zones involved in the Project.

Results on samples taken from one drillhole at the Boin deposit indicates balanced recoveries between 97.5% and 61.2%, and averaging 82.5%.

Results on samples taken from selected drillholes at the Boin, Nyam, and Sewum zones are as follows:

- Boin (with a total of three samples) was highly oxidized and shows consistently good recoveries between 75.15% and 92.96% with the highest average of 86.98%.
- Nyam (with a total of five samples) was slightly oxidized and shows good to moderate recoveries between 50.56% and 82.73%, averaging 70.05%.
- Sewum (with a total of nine samples) was vaguely oxidized and shows variable but poor recoveries between 1.10% and 66.67%, averaging 18.73%.

Also, per the report, there may be a moderate correlation with grade as higher gold grade samples tend to show higher recoveries, and there is little to no correlation with depth and weathering intensity.

These initial bottle roll tests show that cyanide leaching is a viable option for the extraction of gold from the oxide domains. Further work on the physical constraints associated with heap leaching is still required to definitively select heap leaching as the best technical process option. For the purposes of this study, heap leaching has been selected as the preferred process option. A conservative overall gold recovery of 75% was used to develop process design criteria for the purpose of the project PEA and is consistent with typical heap leaching operations of similar type of mineralization.

Gold recovery involving leach tests is typically sensitive to crush size. Generally, the gold recovery will increase with decreasing crush size but with associated higher operating costs and potential heap permeability issues. The particle size range was not recorded during the initial bottle roll tests, although a conventional P<sub>80</sub> crush size to about 25 mm has been assumed as the heap leach process option for the purpose of the Project PEA. Similarly heap height, solution application rates, reagent concentration, and other variables will all affect the final recovery and design. Data for these variables are based on other similar operations and still need to be confirmed for the Project.

# 14 MINERAL RESOURCE ESTIMATES

WSP completed a mineral resource estimation of the Enchi Project under the supervision of Mr. Todd McCracken, the QP for this section. Mr. Marcelo Filipov, P. Geo assisted with the completion of the mineral resource estimate. The mineral resource has an effective date of October 21, 2020. No drillholes completed in 2020 and disclosed in Section 10 of this technical report were used for the current mineral resource estimate.

The mineral resource update was completed on the Boin and Sewum Zones with the 2017 drilling. No new drilling was completed on the Nyam Zone. The information related to the Nyam resource is sourced from the previous technical report (*McCracken et al, 2015*).

## 14.1 DATABASE

Newcore maintains all borehole 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 were provided to the QP by Newcore on June 25, 2020.

The Project database contains a total of 988 boreholes (diamond drill, reverse circulation, and reverse air blast) and trenches. On the Project, 90% of the drilling occurring within the Boin, Nyamebekyere and Sewum Zones. Table 14.1 summarizes the borehole database.

**Table 14.1 Enchi Drillhole Database**

Zone	Hole Type	No of Holes	Total Metres	% Holes	% Metres
<b>Boin</b>	Diamond Drill	62	7,570	6	9
	RC	143	16,068	14	18
	RAB	275	9,338	28	11
	Trench	63	5,729	6	7
<b>Nyam</b>	Diamond Drill	47	5,133	5	6
	RC	15	2,186	2	2
	RAB	0	0	0	0
	Trench	18	1,303	2	1
<b>Sewum</b>	Diamond Drill	71	9,999	7	11
	RC	68	8,540	7	10
	RAB	44	3,105	4	4
	Trench	88	8,546	9	10
<b>Other Zones</b>		94	10,194	10	12
<b>Project Total</b>		<b>988</b>	<b>87,711</b>	<b>100%</b>	<b>100</b>

The non-assayed intervals within the database were assigned a value equal to the detection limit. The QP believes that non-assayed material should not be assigned a zero value, as this does not reflect the true value of the material. Sample intervals with values below detection limit (<) in the database were assigned the detection limit.

The resource estimation was conducted using Surpac™ (v. 2020)

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## 14.2 SPECIFIC GRAVITY

The QP used a Specific Gravity (SG) of 2.45 for the resource estimate. This value is based on the average between the SG for transition zone material at the Chirano Mine and Asanko Gold's Esaase Project. Chirano and Asanko were selected as suitable analogies because these projects occur in the similar rock types, along the same regional structure, in the same country. The Chirano Mine is located 70 km north along strike of the Enchi project, with Esaase found further along strike past Chirano.

Typically, the weathered material could have a slightly lower SG, while fresh material would typically have a SG of 2.75 to 2.78. It was determined at this stage of the Project that a global SG would be appropriate. The use of assumed SG from the region is acceptable practice in the absence of data. The absence of SG data is a contributing factor in the determination of the resource category.

The QP recommends that Newcore collect SG measurements based on the weathering profile (weathered, transition, and fresh) in order to build up the dataset.

At a minimum, 5% of the dataset should have SG measurements before an acceptable value can be determined.

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## 14.3 TOPOGRAPHIC DATA

The topographic surface used in the resource estimate is digital terrain model (DTM) based on the collar coordinates of the drillhole and trenches at each zone. Additional data points were inserted to smooth out some of the major discrepancies in the DTM.

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## 14.4 GEOLOGICAL INTERPRETATION

The original three-dimensional wireframe models of mineralization were developed in Datamine™ by Tetra Tech with approval of all shapes by Newcore. WSP received the wireframes files from Newcore and adjusted the wireframes to include the recent drilling.

The basic wireframe designs for each of the zones were based on design criteria that included a minimum downhole width of 2 m and a minimum grade of 0.2 g/t gold.

Sectional interpretations used Surpac™ (v. 2020) software and these interpretations were linked and triangulated to build 3D solids. The solids were validated in Surpac™ and no errors were found.

The zones of mineralization interpreted for each area were generally contiguous; however, due to the nature of the mineralization there are portions of the wireframe that have grades less than 0.2 g/t gold yet are still within the mineralizing trend.

Table 14.2 summarizes the basic parameters of the various mineral wireframes used in this resource estimate.

**Table 14.2 Enchi Wireframe Statistics**

Domain	Veins	Minimum X	Maximum X	Minimum Y	Maximum Y	Minimum Z	Maximum Z	Volume (m <sup>3</sup> )
<b>Boin</b>	<b>Zone 01</b>	518,341	518,850	632,671	633,492	-3	145	2,421,215
	<b>Zone 02</b>	518,953	519,540	633,774	634,667	-101	150	2,516,079
	<b>Zone 03</b>	520,054	520,476	635,233	635,670	-40	129	325,528
	<b>NW Zone 04</b>	518,727	519,637	635,719	636,368	-9	150	1,390,361
	<b>Zone 05</b>	518,581	520,755	633,017	635,991	-103	160	35,151,508
<b>Nyam</b>	<b>Zone 01</b>	530,110	531,068	637,206	638,815	-128	157	9,021,493
	<b>Zone 02</b>	530,143	530,850	637,194	638,353	-58	157	950,188
	<b>Zone 03</b>	530,153	530,927	637,204	638,441	-36	158	1,362,683
	<b>Zone 04</b>	530,093	530,250	637,228	637,401	-76	141	428,997
<b>Sewum</b>	<b>Zone 01</b>	519,936	520,901	625,687	626,815	-51	118	1,413,617
	<b>Zone 02</b>	521,125	521,515	627,613	627,928	-101	141	7,212,207
	<b>Zone 03</b>	520,879	521,446	628,735	629,899	-100	146	5,961,422
	<b>Zone 04-01</b>	520,998	521,575	628,642	629,871	-12	194	5,318,075
	<b>Zone 04-02</b>	521,220	521,637	628,612	629,799	28	199	1,839,897
	<b>Zone 04-03</b>	521,349	521,772	629,169	630,005	25	195	1,841,869
	<b>Zone 04-04</b>	521,266	521,682	629,086	629,724	-80	194	958,399
	<b>Zone 04-05</b>	521,232	521,844	628,660	630,016	-98	194	4,729,848
	<b>Zone 04-06</b>	521,343	521,532	628,728	629,102	-1	183	783,232
	<b>Zone 04-07</b>	521,305	521,519	628,675	628,864	29	178	231,441
<b>Zone 04-08</b>	521,647	521,876	629,706	629,970	24	172	475,472	

## 14.5 EXPLORATORY DATA ANALYSIS

### 14.5.1 ASSAYS

The portion of the deposit included in the mineral resource was sampled by 16,897 gold assays. The assay intervals within each zone were flagged within the database. These borehole files were reviewed to ensure all the proper assay intervals were captured. Table 14.3 summarizes the basic statistics for the assays at Enchi and for each of the three zones individually.

**Table 14.3 Enchi Drill Statistics by Zone**

Domain	Field	No of Records	Minimum	Maximum	Mean
<b>Boin</b>	Au (g/t)	8,835	0.01	17.61	0.39
	Length (m)	8,835	0.30	33.00	1.15
<b>Nyam</b>	Au (g/t)	2,634	0.01	44.20	0.36
	Length (m)	2,634	1.50	2.20	2.00
<b>Sewum</b>	Au (g/t)	5,428	0.01	18.97	0.45
	Length (m)	5,485	1.00	3.00	2.73

### 14.5.2 GRADE CAPPING

Raw gold assay was examined individually to assess the amount of metal that is at risk from high-grade assays. Cumulative frequency plots were used to assist in the determination if grade capping was required along with reviewing the 3D spatial distribution of the samples.

It was determined through the review, that only three samples representing less than 1% of the dataset should be capped at 18 g/t gold to restrict the local influence of these samples. The potential for smearing high-grade samples elsewhere within the deposits would be controlled by the kriging process. A total of four samples were capped (Table 14.4).

**Table 14.4 Enchi Capped Drill Data Statistics**

Zone	Samples	Length (m)			Gold (g/t)		
		Min	Max	Mean	Min	Max	Mean
<b>Boin</b>	4,957	0.30	2.58	1.95	0.01	13.19	0.46
<b>Nyam</b>	2,634	0.50	2.00	1.90	0.01	18.00	0.36
<b>Sewum</b>	3,414	0.03	2.94	1.94	0.01	18.00	0.44



### 14.5.3 COMPOSITING

Boin, Nyam and Sewum assay data was composited on 2 m intervals honoring the geological interpretation.

The process was used in the compositing routine to ensure all captured sample material was included. The routine adjusts the composite lengths for each individual borehole in order to compensate for the last sample interval. Table 14.5 summarizes the statistics for the boreholes after compositing.

**Table 14.5 Enchi Composited Drill Data Statistics**

Zone	Samples	Length (m)			Gold (g/t)			
		Min	Max	Mean	Min	Max	Mean	Capped Samples
<b>Boin - Non Capped</b>	8,835	0.30	33.00	1.12	0.01	17.61	0.42	
<b>Boin - Capped</b>	8,835	0.30	33.00	1.12	0.01	17.61	0.42	0
<b>Nyam - Non Capped</b>	2,634	1.50	2.20	2.00	0.01	44.20	0.36	
<b>Nyam - Capped</b>	2,634	1.50	2.20	2.00	0.01	18.00	0.44	2
<b>Sewum - Non Capped</b>	5,485	1.00	3.00	1.25	0.01	30.60	0.39	
<b>Sewum - Capped</b>	8,317	1.00	3.00	1.25	0.01	18.00	0.38	2

## 14.6 SPATIAL ANALYSIS

Variography, using Surpac™ (v.2020) software, was completed for gold within Boin, Nyam, and Sewum. Downhole variograms were used to determine nugget effect and then correlograms were modeled to determine spatial continuity in the zones. The variograms are not normalized.

Table 14.6 summarizes results of the variography. The variograms for Boin, Nyam, and Sewum are found in Appendix C.

**Table 14.6 Enchi Variogram Parameters**

Domain	Field	Nugget	Sill 1 <sup>st</sup> S	Range 1 <sup>st</sup> S	Sill 2 <sup>nd</sup> S	Range 2 <sup>nd</sup> S
<b>Boin</b>	<b>Au (g/t)</b>	0.2672	0.3868	30.2400	0.1059	72.1880
<b>Nyam</b>	<b>Au (g/t)</b>	0.6989	0.1354	3.5010	0.1665	18.3640
<b>Sewum, Zones 1, 2 and 3</b>	<b>Au (g/t)</b>	0.3069	0.1940	2.5140	0.4918	96.9420
<b>Sewum, Zone 4</b>	<b>Au (g/t)</b>	0.3069	0.1940	2.5140	0.4918	96.9420

## 14.7 RESOURCE BLOCK MODEL

Individual block models were established in Surpac™ for each of the zones using a separate parent model as the origin. The models were not rotated. Drillhole spacing is variable with the majority of the surface drilling spaced at 25 m sections, and 25 to 75 m on sections. A block size of 10 m x 10 m x 10 m was selected to accommodate the nature of the mineralization and be amenable for the open pit potential.

The block model was sub-celled on a 1.25 m x 1.25 m x 1.25 m pattern allowing the parent block to be split in each direction to more accurately fill the volume of the wireframes, thus more accurately estimate the tonnes in the resource.

Table 14.7 summarizes details of the parent block model.

**Table 14.7 Enchi Parent Model**

Parameters	Boin	Nyam	Sewum
Minimum X Coordinate	632500	529,563	625500
Minimum Y Coordinate	518000	635,281	519600
Minimum Z Coordinate	-150	-200	-150
Maximum X Coordinate	636600	533,243	630200
Maximum Y Coordinate	521000	639,751	522100
Maximum Z Coordinate	260	300	260
Block Size (m)	10	10	10
Rotation	0	0	0
Sub-block	1.25	1.25	1.25
<b>Total No. Blocks</b>	<b>14,647,812</b>	<b>19,557,303</b>	<b>14,743,479</b>

Table 14.8 compares the difference between the volume of the solids and the volume of the block model. All the model volumes have less than 1% various from the solid volumes.

**Table 14.8 Solid vs. Model Comparison**

Domain	Veins	Solid Volume	Block Model Volume	Difference (%)
<b>Boin</b>	Zone 01	2,421,215	2,421,096	0.00%
	Zone 02	2,516,079	2,516,082	0.00%
	Zone 03	325,528	325,469	-0.02%
	NW Zone 04	1,390,361	1,390,158	-0.01%
	Zone 05	35,151,508	35,108,576	-0.12%
<b>Nyam</b>	Zones	8,978,240	8,980,293	0.02%
<b>Sewum</b>	Zone 01	1,413,617	1,414,354	0.05%
	Zone 02	7,212,207	7,212,469	0.00%
	Zone 03	5,961,422	5,961,594	0.00%
	Zone 04-01	5,318,075	5,267,535	-0.95%
	Zone 04-02	1,839,897	1,839,016	-0.05%
	Zone 04-03	1,841,869	1,843,051	0.06%
	Zone 04-04	958,399	958,445	0.00%
	Zone 04-05	4,729,848	4,729,986	0.00%
	Zone 04-06	783,232	783,291	0.01%
	Zone 04-07	231,441	231,607	0.07%
	Zone 04-08	475,472	475,551	0.02%

### 14.7.1 ESTIMATION PARAMETERS

The interpolations of the zones were completed using the estimation methods: NN, ID<sup>2</sup>, and OK. The estimations were designed for three passes. In each pass a minimum and maximum number of samples were required as well as a maximum number of samples from a borehole to satisfy the estimation criteria. Upon completion of the estimations, a global SG field was applied.

Tables 14.9 and 14.10 summarize the interpolation criteria for the zones.

**Table 14.9 Estimation Parameters**

Domain	Estimation Pass No.	Search Ellipse Factor	Minimum No. of Composites	Maximum No. of Composites	Maximum No. of Composites per Borehole
<b>Boin</b>	<b>1</b>	50%	5	15	2
	<b>2</b>	75%	4	15	2
	<b>3</b>	186%	3	15	2
<b>Nyam</b>	<b>1</b>	100%	6	15	2
	<b>2</b>	200%	5	15	2
	<b>3</b>	500%	4	15	2
<b>Sewum</b>	<b>1</b>	50%	5	15	2
	<b>2</b>	75%	4	15	2
	<b>3</b>	186%	3	15	2

**Table 14.10 Search Ellipse Parameters**

Parameter	Boin	Nyam	Sewum Zones 1, 2 and 3	Sewum Zone 4
<b>Bearing</b>	215.00	115.23	34.00	19.30
<b>Plunge</b>	-90.00	0.00	0.00	0.00
<b>Dip</b>	-90.00	-85.02	78.00	40.00
<b>Major Axis</b>	72.19	100.00	180.00	180.00
<b>Semi-major Axis</b>	50.20	59.88	125.00	125.00
<b>Minor Axis</b>	28.42	47.85	54.71	54.71
<b>Major/semi-major ratio</b>	1.438	1.67	1.44	1.44
<b>Major/minor ratio</b>	2.540	2.09	3.29	3.29

## 14.8 RESOURCE CLASSIFICATION

Several factors are considered in the definition of a 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 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;

- The uncertainty in the drillhole collar elevations.

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, 2014). An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.

Currently, based on the factors listed above and the definitions provided by CIM, the mineral resources at Boin, Nyam, and Sewum 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 estimate of mineral resources.

## 14.9 MINERAL RESOURCE TABULATION

The resource estimate, effective as of October 21, 2020, has been tabulated in terms of a gold cut-off grade.

Each mineral resource is constrained within a Whittle pit. Table 14.11 summarizes the input parameters for the Whittle pit shells.

**Table 14.11 Enchi Whittle Parameters**

Parameter	Unit	
<b>Mining Cost</b>	\$/Tonne Mined	2.27
<b>Processing Cost</b>	\$/Tonne Processed	6.56
<b>G&amp;A Cost</b>	\$/Tonne Processed	2.16
<b>Pit Angle</b>	degree	45
<b>Recovery</b>	%	75
<b>Metal Price</b>	USD/troy ounce	1500
<b>Selling Cost</b>	USD/troy ounce	100

The pit constrained mineral resource for each of the zones at Enchi is tabulated in Tables 14.12 to 14.14 for the Inferred resources.

**Table 14.12 Boin Cut-Off Table**

Cut-off Grade	Tonnes	Au (g/t)	Ounces
<b>0.1</b>	28,956,000	0.63	589,490
<b>0.2</b>	23,864,000	0.74	565,160
<b>0.3</b>	19,837,000	0.84	533,040
<b>0.4</b>	15,967,000	0.95	489,760
<b>0.5</b>	12,764,000	1.08	443,340
<b>0.6</b>	10,170,000	1.22	397,730
<b>0.7</b>	8,429,000	1.33	361,510

**Table 14.13 Nyam Cut-Off Table**

Cut-off Grade	Tonnes	Au (g/t)	Ounces
0.1	6,717,000	0.76	163,635
0.2	6,267,000	0.80	161,346
0.3	5,489,000	0.88	154,982
0.4	4,956,000	0.94	149,010
0.5	4,285,000	1.01	139,365
0.6	3,812,000	1.07	131,044
0.7	3,267,000	1.14	119,519

**Table 14.14 Sewum Cut-Off Table**

Cut-off Grade	Tonnes	Au (g/t)	Ounces
0.1	41,027,000	0.48	628,770
0.2	35,995,000	0.52	603,829
0.3	27,600,000	0.60	535,837
0.4	19,173,000	0.72	441,878
0.5	13,713,000	0.82	363,096
0.6	9,533,000	0.94	289,461
0.7	6,727,000	1.07	231,323

Based on the assumptions in previous Table 14.11, a 0.3 g/t gold cut-off is deemed suitable for this Enchi mineral resource. Table 14.15 is a summary of the pit constrained mineral resource estimate.

**Table 14.15 Enchi Resource Summary**

Zone	Tonnes	Grade Au (g/t)	Contained Gold (oz.)
<b>Boin</b>	19,837,000	0.84	533,000
<b>Nyam</b>	5,489,000	0.88	155,000
<b>Sewum</b>	27,600,000	0.60	535,800
<b>Total</b>	<b>52,926,000</b>	<b>0.72</b>	<b>1,223,800</b>

## 14.10 VALIDATION

The Enchi model was validated by three methods:

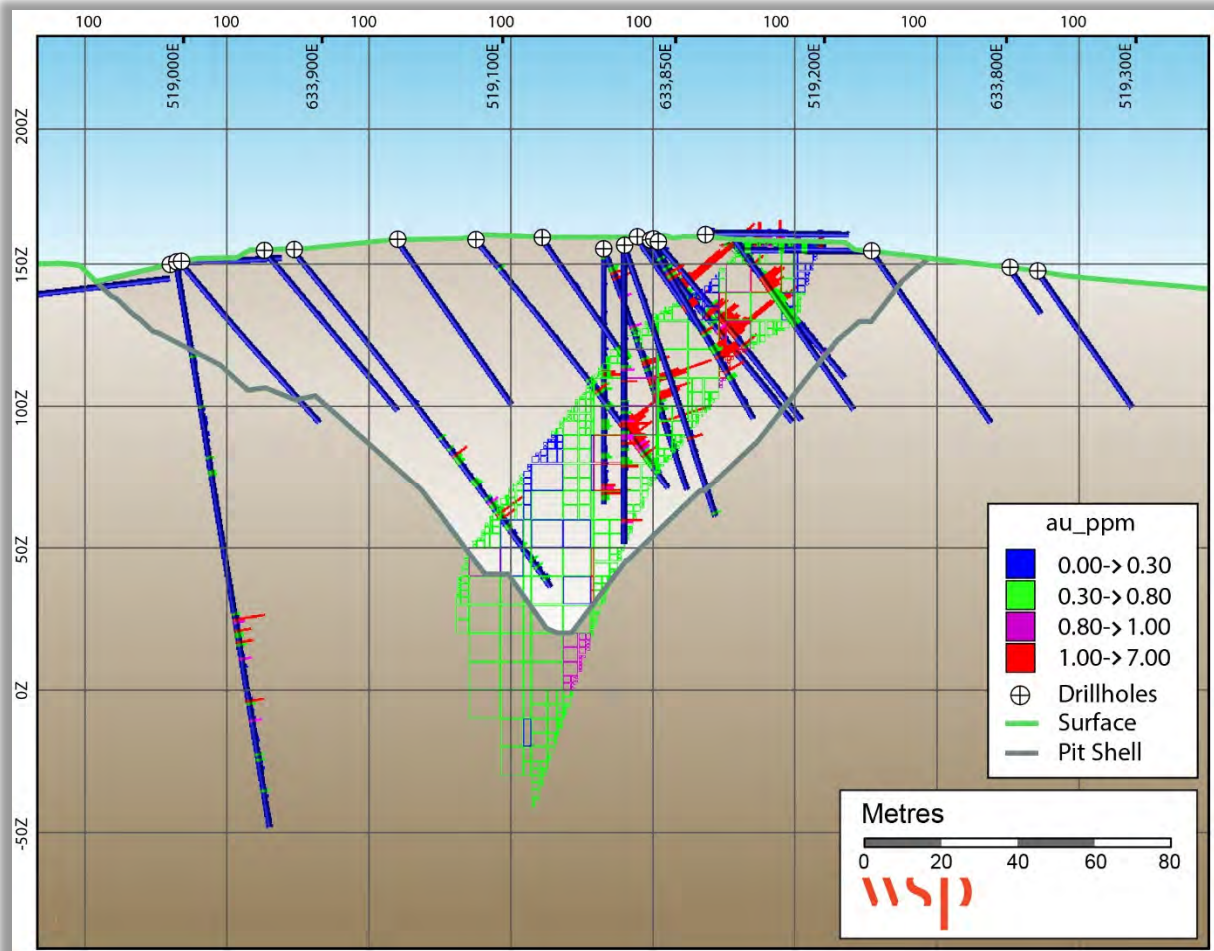
- 1 Visual comparison of colour-coded block model grades with composite grades on section and plan.
- 2 Comparison of the global mean block grades for OK, ID<sup>2</sup>, NN, and composites.
- 3 Swath plots of the various zones in both plan and section views.

### 14.10.1 VISUAL VALIDATION

The visual comparisons of the block model grades with composite grades for each of the zones 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 regions.

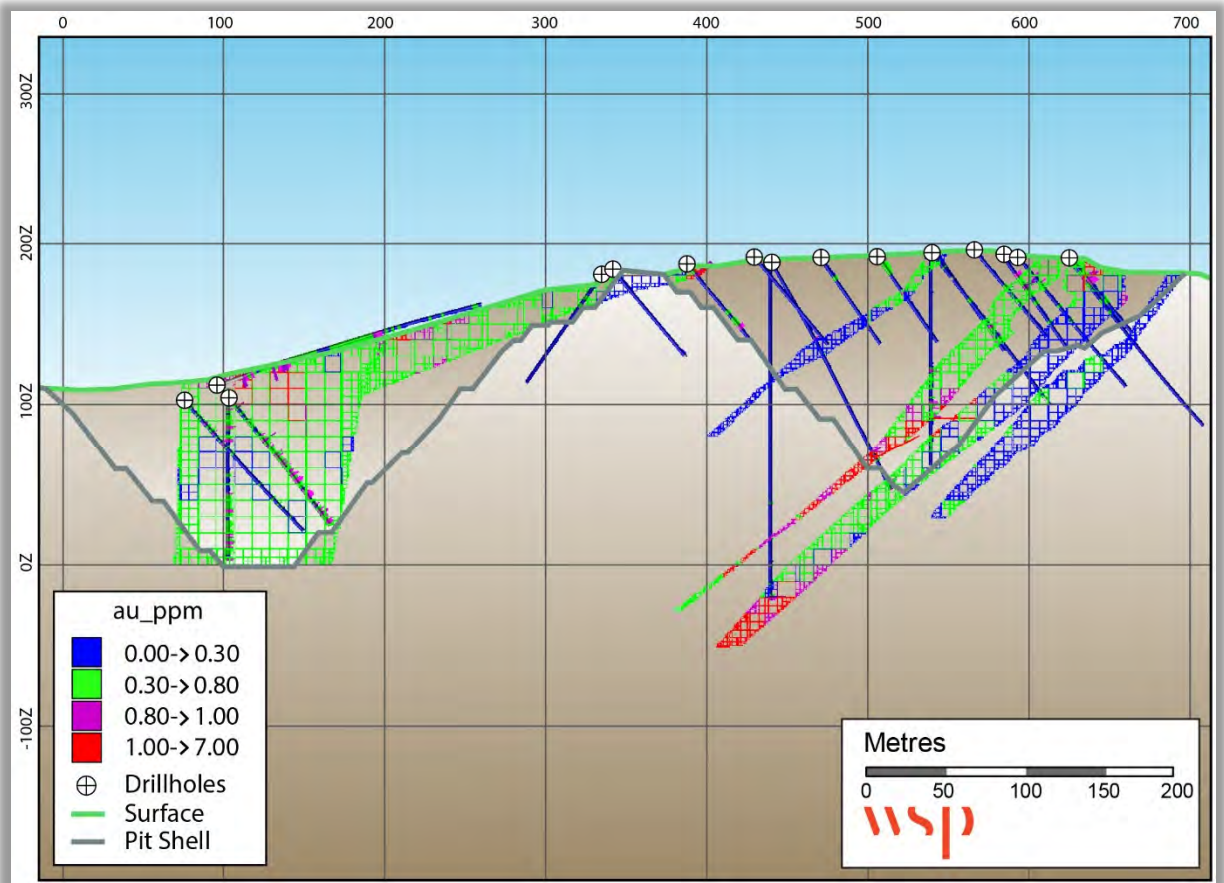
Figures 14.1 to 14.3 display the comparison between the block model and the composited drillholes. The colour-coded legend in the figures applies to both the drillholes and the resource blocks.

**Figure 14.1** Boin Validation Sections



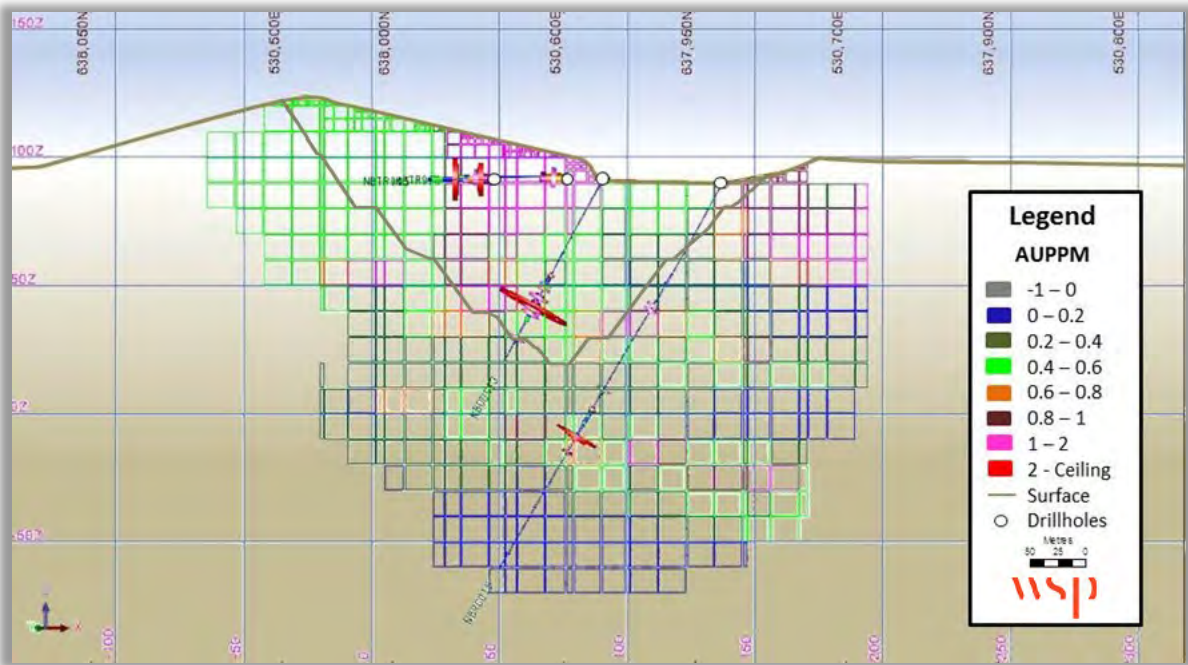
Source: WSP Canada Inc., 2020

Figure 14.2 Sewum Validation Section



Source: WSP Canada Inc., 2020

**Figure 14.3 Nyam Validation Section**



Source: WSP Canada Inc., 2020

### 14.10.2 GLOBAL COMPARISON

The overall block model statistics for the OK model were compared to the overall ID<sup>2</sup> and NN model values as well as the composite capped drillhole data. Table 14.16 shows this comparison of the global estimates for the three estimation method calculations. In general, there is agreement between the OK model, ID<sup>2</sup> 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 14.16 Global Statics Comparison**

Domain	Zone	Composites	OK	ID <sup>2</sup>	NN
<b>Boin</b>	<b>boin_z1</b>	0.48	0.42	0.42	0.42
	<b>boin_z2</b>	0.26	0.30	0.29	0.27
	<b>boin_z3</b>	0.28	0.28	0.28	0.31
	<b>boin_z4_1</b>	0.86	0.88	0.77	0.80
	<b>boin_z4_2</b>	0.58	0.68	0.57	0.55
	<b>boin_z4_3</b>	0.36	0.42	0.39	0.39
	<b>boin_z5</b>	0.41	0.38	0.37	0.38
<b>Nyam</b>		0.49	0.54	0.55	0.56
<b>Sewum</b>	<b>sewum_z1</b>	0.64	0.58	0.58	0.57
	<b>sewum_z2</b>	0.39	0.33	0.33	0.28
	<b>sewum_z3</b>	0.39	0.40	0.41	0.54
	<b>sewum_z4_1</b>	0.40	0.43	0.45	0.51
	<b>sewum_z4_2</b>	0.20	0.21	0.21	0.22
	<b>sewum_z4_3</b>	0.17	0.20	0.19	0.17
	<b>sewum_z4_4</b>	0.51	0.49	0.47	0.51
	<b>sewum_z4_5_1</b>	0.60	0.58	0.59	0.59
	<b>sewum_z4_5_2</b>	0.60	0.50	0.50	0.47
	<b>sewum_z4_6</b>	0.52	0.37	0.37	0.43
	<b>sewum_z4_7</b>	0.47	0.42	0.43	0.43
	<b>sewum_z4_8</b>	0.60	0.53	0.54	0.63

### 14.10.3 SWATH PLOTS

Swath plots of northings and elevations were generated for each mineralized zone respectively. These plots are comparing the OK estimates with the NN and ID<sup>2</sup> estimates. The plots are illustrated on Figures 14.4 to 14.9.

Figure 14.4 Boin Cross-Section Swath Plot

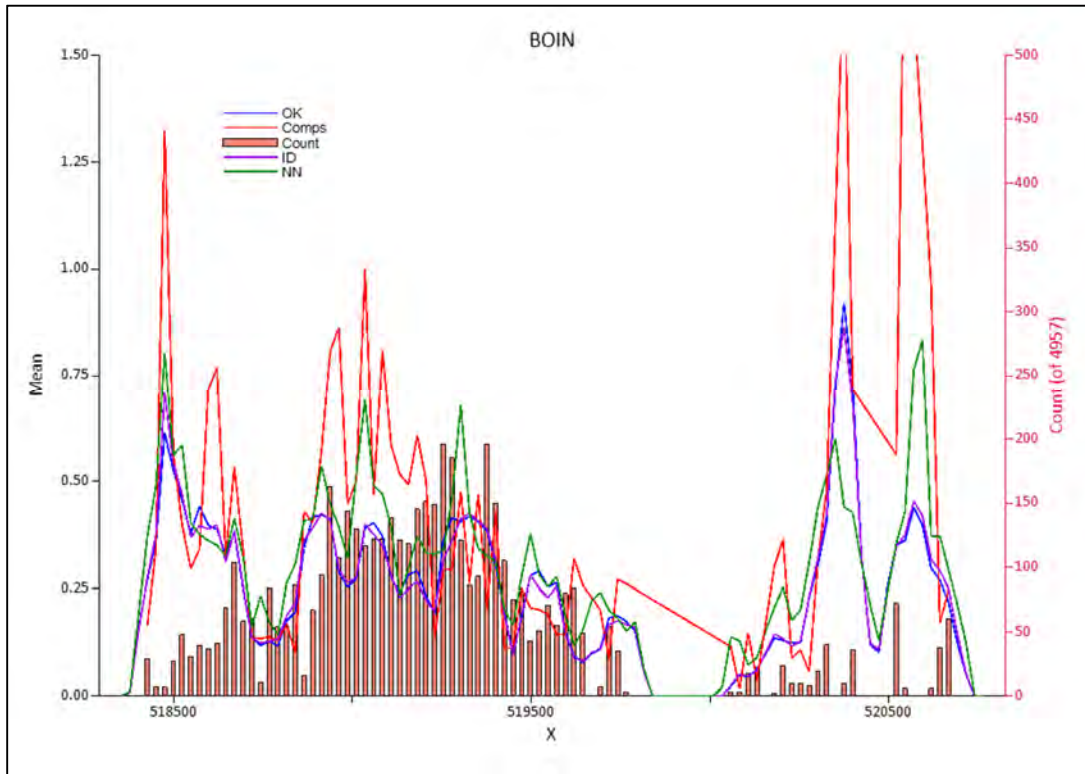


Figure 14.5 Boin Elevation Swath Plot

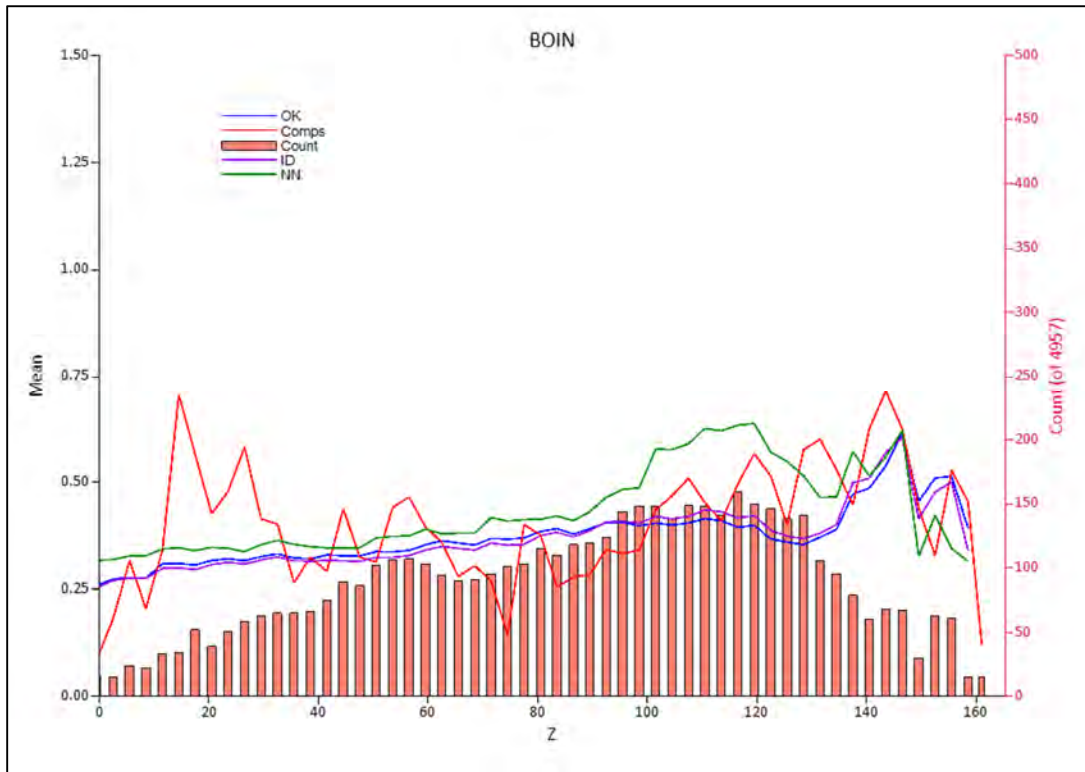


Figure 14.6 Nyam Cross-Section Swath Plot

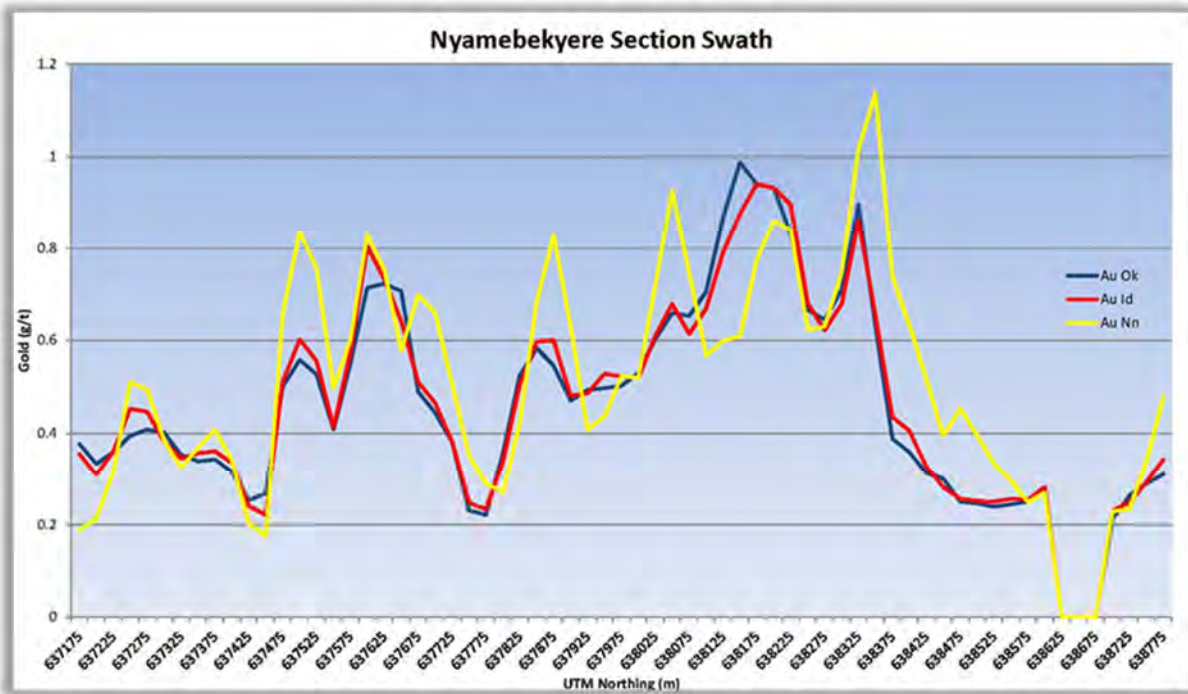


Figure 14.7 Nyam Elevation Swath Plot

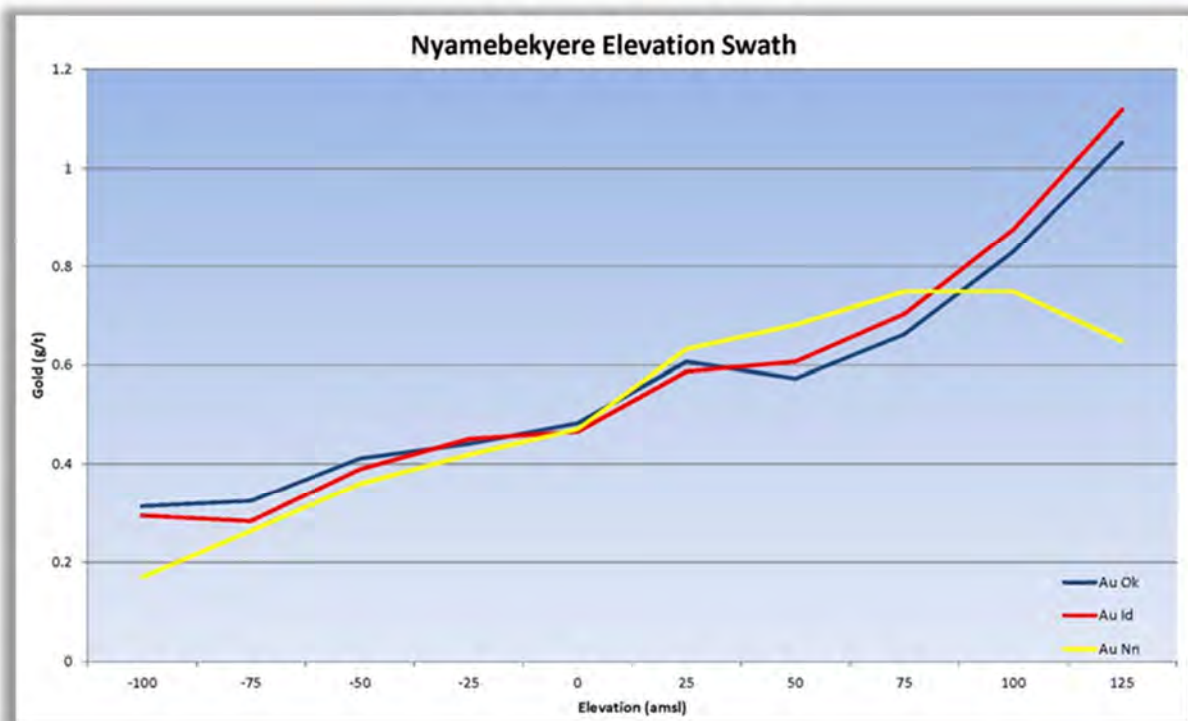


Figure 14.8 Sewum Cross-Section Swath Plot

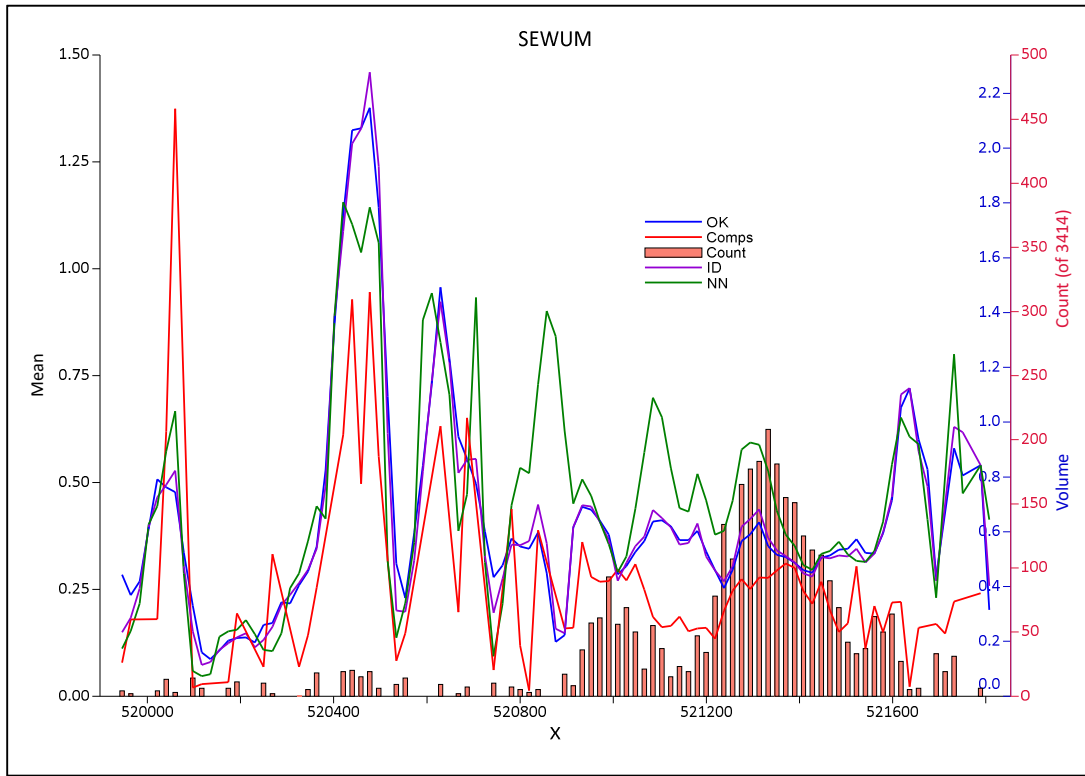
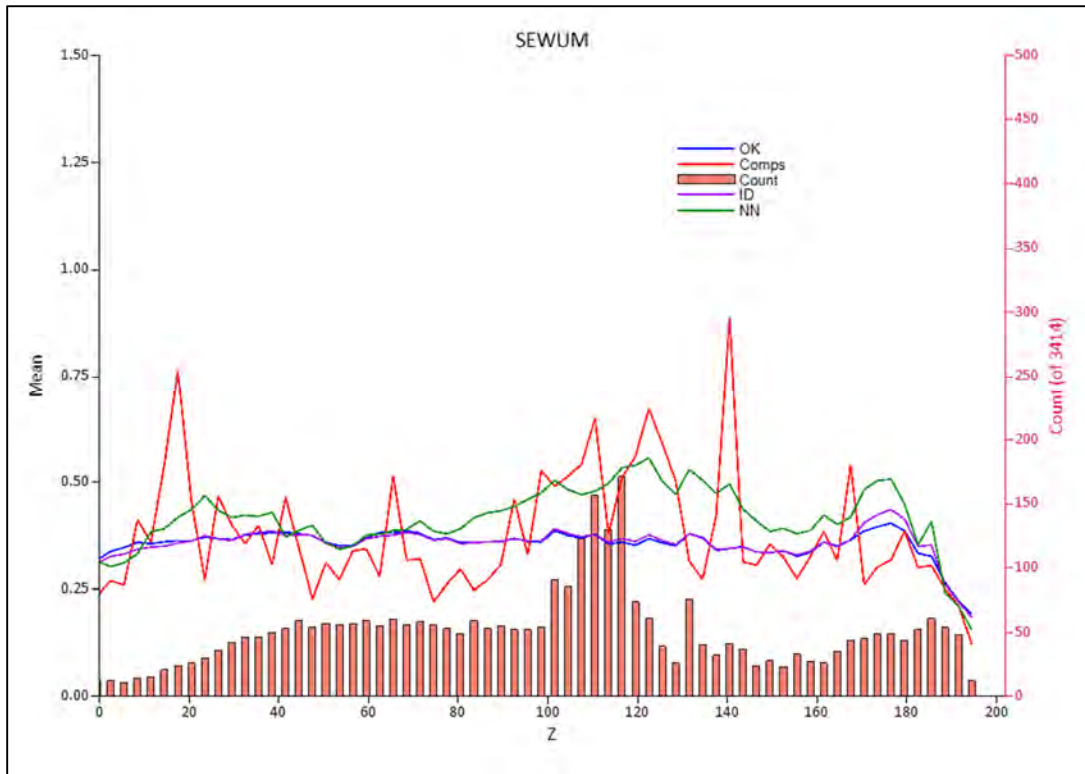


Figure 14.9 Sewum Elevation Swath Plot



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## 14.11 PREVIOUS ESTIMATES

Newcore commissioned WSP to generate a resource estimate in 2015 (*McCracken, 2016*). That 2015 estimate was based on the premise that the resource could potentially be extracted using traditional open pit methods.

Table 14.17 illustrates the differences in the 2014 resource estimate with the current NI 43-101 compliant resource from 2020.

**Table 14.17 Comparison with Previous Estimate**

Zone	Unit	2014 WSP	2020 WSP
<b>Boin</b>	Tonnes	15,872,000	19,837,000
	Au (g/t)	0.96	0.84
<b>Nyam</b>	Tonnes	5,350,000	5,489,000
	Au (g/t)	0.96	0.88
<b>Sewum</b>	Tonnes	16,135,000	27,600,000
	Au (g/t)	0.82	0.60
<b>Enchi Total</b>	Tonnes	37,357,000	52,926,000
	Au (g/t)	0.9	0.72

The difference between the 2014 resource model and the 2020 resource model is largely due to a lower cut-off grade being applied based on adjustments to the operating costs and a higher gold selling price.

# 15 MINERAL RESERVE ESTIMATES

A mineral reserve is the economically mineable part of a Measured and/or Indicated mineral resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Prefeasibility or Feasibility level as appropriate that include application of modifying factors.

A mineral reserve has not been estimated for the Project.

# 16 ADJACENT PROPERTIES

Several exploration licenses are active or in the application phase immediately adjacent to the Project (Figure 16.1). These exploration licences are all held by individuals and there is no public disclosure on the activities related to the licences.

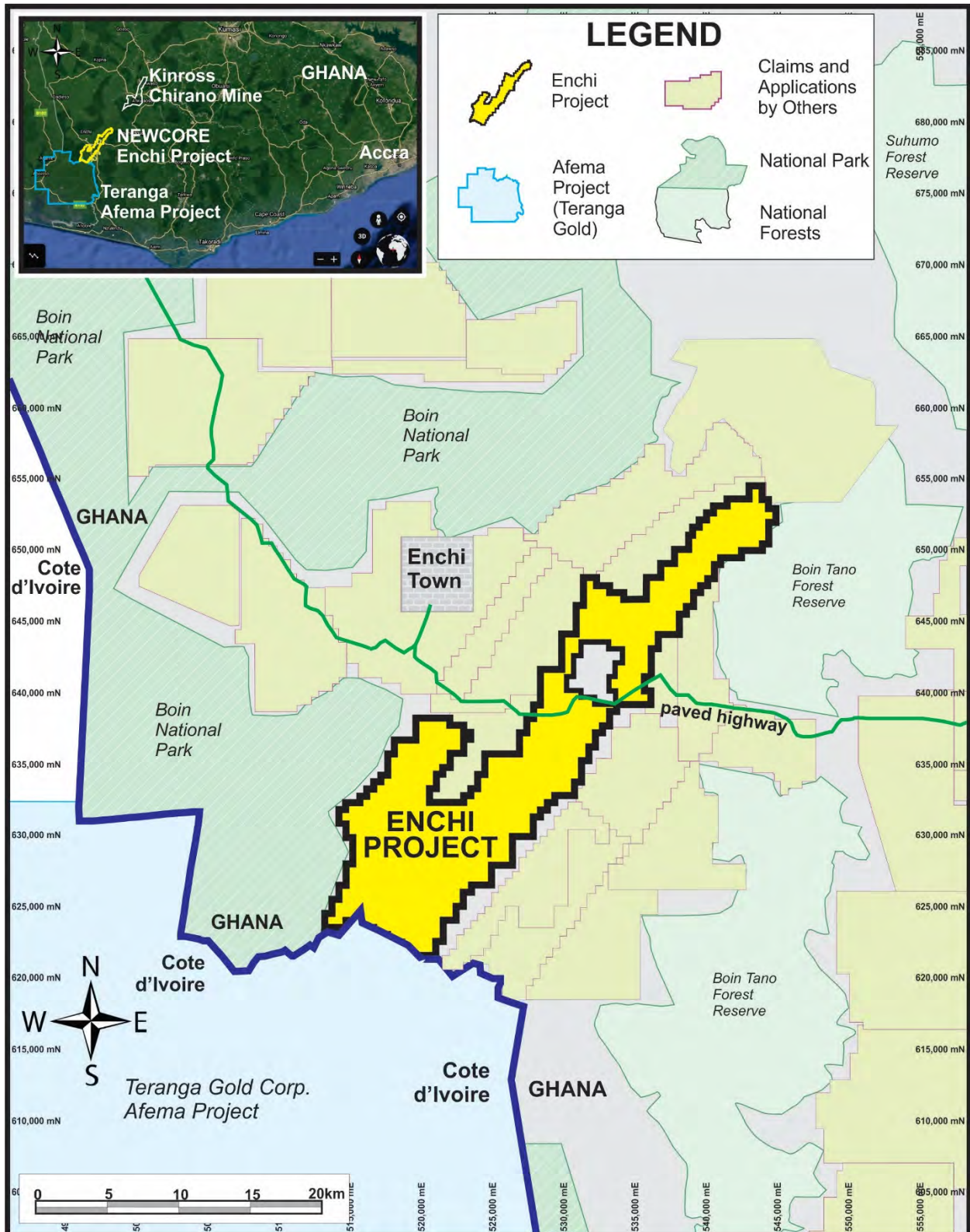
Teranga Gold Corporation hold over 1,400 km<sup>2</sup> of mine licence and exploration permit as part of a joint venture with Sodim Limit in Côte d'Ivoire. The property is the southern extension of the Enchi shear system. The project is at an early stage exploration and there has been no publicly disclosed activity on the project ([www.terangagold.com](http://www.terangagold.com)).

Newcore's Enchi Gold Project is located 70 km south of Kinross' Chirano Gold Mine property. The Chirano Mine area 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 Enchi Gold 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 was commissioned in September 2005, and in 2019 produced 201,296 oz. of gold equivalent ([www.kinross.com](http://www.kinross.com)). Gold mineralization at Chirano is hosted within fractured and intensely hydrothermally altered granite where gold is associated with 1% to 5% pyrite and the distribution of gold appears to be closely associated with the presence of pyrite (*Red Back AIF March 30, 2010*).

The Chirano Mine has 14 known gold deposits over a 9 km strike length range in individual length from 150 to 700 m, and range in thickness from a few metres to over 70 m (*Red Back NI 43-101 Chirano Gold Mine Technical Report, May 2009*). Individual deposits may extend to over 700 m in depth. Mining at Chirano is done by both open pit and underground extraction. As of December 31, 2019, proven and probable reserves were 7.4 Mt grading 2.2 g/t gold for 0.53 Moz. The Measured and Indicated resources totaled 13.0 Mt grading 2.2 g/t gold for 0.9 Moz., and the Inferred resource totaled 6.2 Mt grading 2.2 g/t gold for 0.4 Moz. ([www.kinross.com](http://www.kinross.com)).

The QP has not verified the technical data on the Chirano Mine and the gold mineralization at Chirano is not necessarily indicative of the mineralization on the Enchi Project.

**Figure 16.1 Adjacent Properties**



Source: Newcore Gold Ltd.



# 17 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information to disclose.

# 18 INTERPRETATION AND CONCLUSIONS

Based on the review of the available information and observations made during the site visit, the QP concludes the following, in no particular order of perceived importance.

- The Property is currently held 100% by Newcore and subject to the right of the Government of Ghana to obtain a 10% carried interest.
- The approval process to grant licenses in the country is very slow. Although work can start on a license once an application is submitted, this does not guarantee the license will be granted.
- Licences covering the three resources have been granted and are current.
- The Property is analogous to shear-hosted gold mineralization in quartz veining or quartz flooding. This style of mineralization is present in other mineral resources in the region.
- The Property is associated with mineralization related to the Bibiani Shear Zone that is known to host significantly large lode-gold deposits.
- The mineralization on the Property is associated to secondary and tertiary order shears splay off the Bibiani Shear Zone.
- Newcore has a strong understanding of the regional and local geology to support the interpretation of the mineralized zones on the Property.
- Mineralization is currently defined in fourteen individual zones at various stages of exploration. Three of the zones have drill defined mineral resources.
- Drilling and sampling procedures, sample preparation, and assay protocols are conducted in agreement with industry best practices.
- Verification of the drillhole collars, surveys, assays and drillhole logs indicates the data is reliable to support the resource estimation.
- Discrepancy in the collar elevations relative to the topography at Nyam and Sewum continue to be an issue. Until this issue is resolved, the resources are likely to remain in the Inferred category.
- Based on the QA/QC program, the data is sufficiently reliable to support the resource estimate generated for the three zones on the Property.
- The mineral model has been constructed in conformance to industry standard practices.
- The geological understanding is sufficient to support the resource estimation.
- The presence of an oxide domain, a transition domain, and a fresh domain has been identified in the drill logs.
- The current resource does not differentiate between the various weathering domains.
- At a gold cut-off grade of 0.3 g/t, the pit constrained Inferred Mineral Resource totals 52.9 Mt with an average grade of 0.72 g/t gold, based on the parameters for a small tonnage open pit heap leach operation.
- The Property contains resources that are comparable to other projects in the region.
- The SG value used to determine that tonnage was derived from data used by operating mines in the region, which may reflect a lack of precision with respect to the resource tonnages.

- The resources at Boin, Sewum, and Nyam remain open along strike and in the down-dip directions.
- The remaining eleven mineral zones on the Property do not have enough data to support resource estimations. Additional exploration on these zones will not guarantee that the zones will support potentially economic material.

# 19 RECOMMENDATIONS

It is the QP's opinion that additional exploration expenditures are warranted. Two separate exploration programs are proposed. Phase 2 is independent on the results of Phase 1 and could be completed before or after the completion of Phase 1.

## 19.1 PHASE 1 – RESOURCE EXPANSION

Phase 1 is designed to further expand the mineral resources of the known zones. A budget of \$2.4 million is recommended to complete the program of RC and diamond drilling, including all the related support costs. Table 19.1 summarizes the Phase 1 program

**Table 19.1 Phase 1 Resource Expansion Budget**

Program	Cost (US\$)
Reverse circulation drilling 8,500 m @ \$100/m	850,000
Diamond drilling 3,000 m @ \$190/m	570,000
Sample assay @ \$45/sample	517,500
Labour & Camp costs	150,000
Access & Compensation	175,000
Topographic survey/LiDAR	165,000
<b>Total</b>	<b>\$2,427,500</b>

## 19.2 PHASE 2 – ENGINEERING STUDIES

Phase 2 is designed for continued exploration on the Project with RC and diamond drilling as well as to collect data for future engineering studies including an update to the PEA. A budget of \$3,925,000 is recommended. Table 19.2 summarizes the Phase 2 program.

**Table 19.2 Phase 2 Engineer Study Budget**

Program	Cost (US\$)
Reverse circulation drilling 18,000 m @ \$100/m	1,800,000
Diamond drilling 6,315 m @ \$190/m	1,200,000
Environmental impact assessment	150,000
Metallurgical test program	300,000
Geotechnical assessment (open pit & site)	175,000
Preliminary economic assessment study	300,000
<b>Total</b>	<b>\$3,925,000</b>

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## 19.3 OTHER RECOMMENDATIONS

The following recommendations are based on observations by the QP during the site visit or during the resource estimation process. These recommendations are suggestions to policy and procedures conducted by Newcore.

- The drillhole database should be corrected for the elevations from the LiDAR survey.
- Future programs to switch analysis to a fire assay with a gravimetric finish for samples with grades higher than 3 to 5 g/t, which has better precision at the higher grades
- On all future drilling programs, Newcore should collect SG samples from the various rock types and oxide domains (including waste rock units). A minimum of 2% of the total drillhole dataset should contain SG data.
- Downhole televiewer surveys should be considered for selected boreholes to acquire appropriate geotechnical data. This data would be utilized in future pit designs.

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- <http://miningalmanac.com/stock/Kinross-Gold-Corp-K-KGC/properties/Chirano>.
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- <https://www.terangagold.com>

# 21 CERTIFICATES OF QUALIFIED PERSONS

## TODD MCCRACKEN, P.GEO.

I, Todd McCracken, P. Geo., of Sudbury, Ontario do hereby certify:

- I am the Director – Mining & Geology – Central Canada at BBA E&C Inc. with a business address at 1010 Lorne Street, Suite 103, Sudbury, Ontario P3C 4R9.
- This certificate applies to the technical report entitled “*Enchi Gold Project, Resource Update, Enchi, Ghana*”, with an effective date of October 21, 2020 (the “Technical Report”).
- I am a graduate of the University of Waterloo, with a Bachelor of Science (Honours) in Applied Earth Science in 1992.
- I am a member of the Association of Professional Geoscientists of Ontario and License 0631. My relevant experience includes 28 years of experience in exploration and operations, including epithermal hosted gold deposits.
- I have read the definition of “Qualified Person” as set out in National Instrument 43-101 *Standards of Disclosure for Mineral Properties* (“the Instrument”) and certify that by reason of my education, affiliation with a professional association (as defined in the Instrument), and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of the Instrument.
- I visited the Property in 2010, 2011, then in 2014 for 3 days from April 28 to May 1 inclusive.
- I am responsible for Sections 1 to 3, 5 to 10.3, 10.6, 11.1 to 11.10.6, 11.11, 12.1.1 to 12.1.3, 12.2.1, 12.2.2, 12.3.1 to 12.3.3, 12.4, and 13 to 20 of the Technical Report.
- I am independent of Newcore Gold Ltd. as defined by Section 1.5 of the Instrument, and I do not hold any security in Newcore Gold Ltd.
- I have prior involvement with the Project that is the subject of the Technical Report, having issued technical reports in May 2010, July 2012, June 2015 and January 2016.
- I have read the Instrument, and the Technical Report has been prepared in compliance with the Instrument.
- 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 the Technical Report not misleading.

Signed and stamped this 28<sup>th</sup> day of October 2020 at Sudbury, Ontario.

*Original signed and stamped by*

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Todd McCracken, P.Geo.  
Director – Mining & Geology – Central Canada  
BBA E&C Inc.



**GREG SMITH, P.GEO.**

I, Greg Smith, P. Geo., of North Vancouver, British Columbia do hereby certify:

- I am V. P. Exploration for Newcore Gold Ltd. with a business address at Suite 413 – 595 Burrard Street, Vancouver, British Columbia, Canada V7X 1J1.
- This certificate applies to the technical report entitled “*Enchi Gold Project, Resource Update, Enchi, Ghana*”, with an effective date of October 21, 2020 (the “Technical Report”).
- I am a graduate of St. Francis Xavier University, with a Bachelor of Science (Major in Geology) in 1987.
- I am a member of Engineers and Geoscientists British Columbia with License #21007. My relevant experience includes 30 years of experience in exploration, development, and operations, including more than 15 years on greenstone-hosted and structurally controlled gold deposits.
- I have read the definition of “Qualified Person” as set out in National Instrument 43-101 *Standards of Disclosure for Mineral Properties* (“the Instrument”) and certify that by reason of my education, affiliation with a professional association (as defined in the Instrument), and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of the Instrument.
- I visited the Property in 2010, 2011, 2012 and then in 2018 for three days from December 08, 2018 to December 10, 2018, and two days from September 10, 2018 to September 11, 2018 inclusive.
- I am responsible for Sections 4, 10.4, 10.5, 11.10.7, 11.10.8, 12.1.4, 12.1.5, 12.2.3, 12.2.4, 12.3.4, 12.3.5, and 12.4 of the Technical Report.
- I am not independent of Newcore Gold Ltd. as defined by Section 1.5 of the Instrument. Greg Smith is the Vice President of Exploration of Newcore Gold Ltd. and owns 250,000 Common Shares of the Company and convertible securities which, if and when exercised, will convert into an additional 700,000 Common Shares.
- I have prior involvement with the Project that is the subject of the Technical Report in my capacity as Vice President of Exploration planning, overseeing, and participating in the exploration on the Enchi Gold Project from 2010-2020.
- I have read the Instrument, and the Technical Report has been prepared in compliance with the Instrument.
- 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 the Technical Report not misleading.

Signed and stamped this 28<sup>th</sup> day of October 2020 at Vancouver, British Columbia.

*Original signed and stamped by  
Greg Smith, P. Geo.*

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Greg Smith, P. Geo.  
V. P. Exploration  
Newcore Gold Ltd.

# APPENDIX

## **A** 2005 – 2006 RED BACK COLLAR LOCATIONS

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRB001	634745.50	519573.31	175.571	-55.0	114	50.0	BOIN	2005	RAB
KBRB002	634735.31	519601.09	175.495	-55.0	114	50.0	BOIN	2005	RAB
KBRB003	634721.81	519626.00	173.134	-55.0	114	47.0	BOIN	2005	RAB
KBRB004	634709.31	519646.50	169.186	-55.0	114	35.0	BOIN	2005	RAB
KBRB005	634421.38	519312.81	171.456	-50.0	114	47.0	BOIN	2005	RAB
KBRB006	634409.31	519338.91	172.200	-50.0	114	41.0	BOIN	2005	RAB
KBRB007	634398.63	519361.50	173.145	-50.0	114	47.0	BOIN	2005	RAB
KBRB008	634412.88	519331.41	171.980	-50.0	114	41.0	BOIN	2005	RAB
KBRB009	634387.81	519387.91	175.077	-50.0	114	65.0	BOIN	2005	RAB
KBRB010	634374.19	519420.19	178.586	-50.0	114	47.0	BOIN	2005	RAB
KBRB011	634360.81	519450.09	181.944	-50.0	114	71.0	BOIN	2005	RAB
KBRB012	634339.88	519489.09	186.552	-50.0	114	89.0	BOIN	2005	RAB
KBRB013	634315.63	519541.09	178.995	-50.0	114	56.0	BOIN	2005	RAB
KBRB014	634238.50	519234.81	168.549	-55.0	114	26.0	BOIN	2005	RAB
KBRB015	634231.13	519248.00	167.615	-55.0	114	38.0	BOIN	2005	RAB
KBRB016	634223.13	519267.31	165.946	-55.0	114	20.0	BOIN	2005	RAB
KBRB017	634218.81	519278.19	164.537	-55.0	114	17.0	BOIN	2005	RAB
KBRB018	634214.88	519287.41	163.370	-55.0	114	41.0	BOIN	2005	RAB
KBRB019	634205.31	519307.59	160.287	-55.0	114	20.0	BOIN	2005	RAB
KBRB020	634201.13	519316.81	159.495	-55.0	114	14.0	BOIN	2005	RAB
KBRB021	634197.13	519324.50	159.320	-55.0	114	14.0	BOIN	2005	RAB
KBRB022	634193.31	519332.81	158.821	-55.0	114	14.0	BOIN	2005	RAB
KBRB023	634184.69	519369.50	159.100	-55.0	114	35.0	BOIN	2005	RAB
KBRB024	634173.31	519388.41	158.915	-55.0	114	17.0	BOIN	2005	RAB
KBRB025	634170.13	519397.19	158.156	-55.0	114	26.0	BOIN	2005	RAB
KBRB026	634190.00	519341.31	158.750	-55.0	114	14.0	BOIN	2005	RAB
KBRB027	634048.13	519177.50	161.332	-55.0	114	14.0	BOIN	2005	RAB
KBRB028	634045.81	519184.41	161.149	-55.0	114	26.0	BOIN	2005	RAB
KBRB029	634039.31	519199.31	160.665	-55.0	114	32.0	BOIN	2005	RAB
KBRB030	634030.38	519217.41	162.831	-55.0	114	11.0	BOIN	2005	RAB
KBRB031	634027.88	519226.59	164.563	-50.0	114	23.0	BOIN	2005	RAB
KBRB032	634022.38	519240.31	166.070	-55.0	114	29.0	BOIN	2005	RAB
KBRB033	634012.13	519257.31	165.268	-55.0	114	47.0	BOIN	2005	RAB
KBRB034	633996.63	519284.00	163.432	-55.0	114	23.0	BOIN	2005	RAB
KBRB035	633989.69	519296.50	162.349	-55.0	114	38.0	BOIN	2005	RAB
KBRB036	633981.13	519318.09	160.444	-55.0	114	38.0	BOIN	2005	RAB
KBRB037	633971.31	519338.41	158.756	-55.0	114	29.0	BOIN	2005	RAB
KBRB038	633901.63	519021.00	193.456	-50.0	114	74.0	BOIN	2005	RAB
KBRB039	633882.50	519063.81	195.488	-55.0	114	71.0	BOIN	2005	RAB
KBRB040	633862.50	519110.69	195.905	-55.0	114	53.0	BOIN	2005	RAB
KBRB041	633850.13	519141.81	195.771	-55.0	114	53.0	BOIN	2005	RAB
KBRB042	633835.38	519172.91	195.446	-55.0	114	74.0	BOIN	2005	RAB
KBRB043	633817.00	519217.69	193.778	-55.0	114	74.0	BOIN	2005	RAB
KBRB044	633797.81	519262.41	190.982	-55.0	114	20.0	BOIN	2005	RAB
KBRB045	633793.63	519271.19	190.312	-55.0	114	59.0	BOIN	2005	RAB
KBRB046	633539.38	518860.31	189.000	-55.0	114	41.0	BOIN	2005	RAB
KBRB047	633529.31	518884.00	187.000	-55.0	114	56.0	BOIN	2005	RAB

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRB048	633512.31	518915.19	183.630	-55.0	114	32.0	BOIN	2005	RAB
KBRB049	633503.38	518928.50	182.670	-55.0	114	26.0	BOIN	2005	RAB
KBRB050	633495.81	518945.50	180.060	-55.0	114	14.0	BOIN	2005	RAB
KBRB051	633493.69	518951.50	178.000	-55.0	114	29.0	BOIN	2005	RAB
KBRB052	633491.63	518956.31	178.000	-55.0	114	41.0	BOIN	2005	RAB
KBRB053	633487.50	518967.19	176.000	-55.0	114	47.0	BOIN	2005	RAB
KBRB054	633477.38	518991.19	171.120	-55.0	114	8.0	BOIN	2005	RAB
KBRB055	633462.31	519023.31	168.003	-55.0	114	29.0	BOIN	2005	RAB
KBRB056	633453.88	519037.19	167.633	-55.0	114	11.0	BOIN	2005	RAB
KBRB057	633445.63	519063.31	168.067	-55.0	114	17.0	BOIN	2005	RAB
KBRB058	633440.63	519077.41	169.049	-55.0	114	35.0	BOIN	2005	RAB
KBRB059	636167.00	520899.00	138.909	-50.0	114	11.0	BOIN	2006	RAB
KBRB060	636163.00	520907.00	139.080	-50.0	114	33.0	BOIN	2006	RAB
KBRB061	636152.00	520935.00	138.543	-50.0	114	9.0	BOIN	2006	RAB
KBRB062	636148.00	520944.00	138.663	-50.0	114	15.0	BOIN	2006	RAB
KBRB063	636143.00	520958.00	138.876	-50.0	114	25.0	BOIN	2006	RAB
KBRB064	636131.00	520988.00	138.797	-50.0	114	12.0	BOIN	2006	RAB
KBRB065	636121.00	521011.00	138.878	-50.0	114	12.0	BOIN	2006	RAB
KBRB066	636117.00	521023.00	138.909	-50.0	114	21.0	BOIN	2006	RAB
KBRB067	636106.00	521047.00	138.893	-50.0	114	9.0	BOIN	2006	RAB
KBRB068	636101.00	521057.00	139.016	-50.0	114	12.0	BOIN	2006	RAB
KBRB069	636095.00	521068.00	139.424	-50.0	114	21.0	BOIN	2006	RAB
KBRB070	636087.00	521089.00	139.003	-50.0	114	15.0	BOIN	2006	RAB
KBRB071	636515.00	521105.00	136.728	-50.0	114	12.0	BOIN	2006	RAB
KBRB072	636511.00	521116.00	136.496	-50.0	114	13.0	BOIN	2006	RAB
KBRB073	636505.00	521128.00	136.525	-50.0	114	9.0	BOIN	2006	RAB
KBRB074	636496.00	521139.00	136.312	-50.0	114	11.0	BOIN	2006	RAB
KBRB075	636493.00	521153.00	136.234	-50.0	114	9.0	BOIN	2006	RAB
KBRB076	636488.00	521166.00	136.169	-50.0	114	9.0	BOIN	2006	RAB
KBRB077	636476.00	521197.00	136.055	-50.0	114	17.0	BOIN	2006	RAB
KBRB078	636461.00	521220.00	135.763	-50.0	114	3.0	BOIN	2006	RAB
KBRB079	636825.00	521389.00	136.321	-50.0	114	34.0	BOIN	2006	RAB
KBRB080	636812.00	521420.00	136.022	-50.0	114	34.0	BOIN	2006	RAB
KBRB081	636794.00	521452.00	135.673	-50.0	114	21.0	BOIN	2006	RAB
KBRB082	636793.00	521463.00	134.406	-50.0	114	6.0	BOIN	2006	RAB
KBRB083	636784.00	521474.00	134.796	-50.0	114	9.0	BOIN	2006	RAB
KBRB084	636779.00	521490.00	135.055	-50.0	114	6.0	BOIN	2006	RAB
KBRB085	636777.00	521498.00	135.009	-50.0	114	9.0	BOIN	2006	RAB
KBRB086	636774.00	521505.00	134.967	-50.0	114	12.0	BOIN	2006	RAB
KBRB087	636769.00	521518.00	135.005	-50.0	114	3.0	BOIN	2006	RAB
KBRB088	636767.00	521524.00	134.915	-50.0	114	15.0	BOIN	2006	RAB
KBRB089	636762.00	521537.00	134.750	-50.0	114	9.0	BOIN	2006	RAB
KBRB090	636759.00	521546.00	134.818	-50.0	114	4.0	BOIN	2006	RAB
KBRB091	637433.00	521985.00	183.354	-50.0	114	81.0	BOIN	2006	RAB
KBRB092	637423.00	522021.00	169.289	-75.0	114	72.0	BOIN	2006	RAB
KBRB093	637411.00	522040.00	161.817	-75.0	114	57.0	BOIN	2006	RAB
KBRB094	637407.00	522052.00	156.423	-70.0	114	42.0	BOIN	2006	RAB

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRB095	637402.00	522066.00	151.132	-70.0	114	33.0	BOIN	2006	RAB
KBRB096	637397.00	522078.00	147.979	-65.0	114	36.0	BOIN	2006	RAB
KBRB097	637390.00	522093.00	144.562	-60.0	114	27.0	BOIN	2006	RAB
KBRB098	637383.00	522107.00	142.247	-55.0	114	36.0	BOIN	2006	RAB
KBRB099	637377.00	522120.00	140.636	-55.0	114	33.0	BOIN	2006	RAB
KBRB100	637371.00	522136.00	139.162	-50.0	114	27.0	BOIN	2006	RAB
KBRB101	637363.00	522151.00	138.762	-50.0	114	24.0	BOIN	2006	RAB
KBRB102	637357.00	522169.00	138.432	-50.0	114	24.0	BOIN	2006	RAB
KBRB103	637350.00	522182.00	137.837	-55.0	114	24.0	BOIN	2006	RAB
KBRB104	637344.00	522194.00	136.058	-55.0	114	21.0	BOIN	2006	RAB
KBRB105	637340.00	522202.00	134.806	-50.0	114	18.0	BOIN	2006	RAB
KBRB106	637336.00	522214.00	134.430	-50.0	114	48.0	BOIN	2006	RAB
KBRB107	637327.00	522239.00	133.647	-50.0	114	24.0	BOIN	2006	RAB
KBRB108	637320.00	522254.00	133.095	-50.0	114	33.0	BOIN	2006	RAB
KBRB109	637312.00	522272.00	132.311	-50.0	114	17.0	BOIN	2006	RAB
KBRB110	637308.00	522289.00	132.035	-50.0	114	18.0	BOIN	2006	RAB
KBRB111	637304.00	522295.00	131.519	-50.0	114	27.0	BOIN	2006	RAB
KBRB112	637293.00	522312.00	130.897	-50.0	114	27.0	BOIN	2006	RAB
KBRB113	637751.00	522268.00	172.062	-50.0	114	66.0	BOIN	2006	RAB
KBRB114	637728.00	522310.00	168.283	-50.0	114	54.0	BOIN	2006	RAB
KBRB115	637718.00	522338.00	162.299	-60.0	114	57.0	BOIN	2006	RAB
KBRB116	637707.00	522358.00	154.907	-60.0	114	48.0	BOIN	2006	RAB
KBRB117	637693.00	522387.00	149.416	-60.0	114	69.0	BOIN	2006	RAB
KBRB118	637676.00	522423.00	143.294	-55.0	114	45.0	BOIN	2006	RAB
KBRB119	637668.00	522439.00	137.100	-60.0	114	63.0	BOIN	2006	RAB
KBRB120	637660.00	522476.00	132.763	-50.0	114	41.0	BOIN	2006	RAB
KBRB121	637650.00	522499.00	130.866	-50.0	114	23.0	BOIN	2006	RAB
KBRB122	637641.00	522523.00	130.389	-50.0	114	47.0	BOIN	2006	RAB
KBRB123	637631.00	522546.00	129.094	-50.0	114	23.0	BOIN	2006	RAB
KBRB124	637624.00	522556.00	128.449	-50.0	114	20.0	BOIN	2006	RAB
KBRB125	637621.00	522563.00	127.991	-50.0	114	23.0	BOIN	2006	RAB
KBRB126	637613.00	522583.00	127.968	-50.0	114	8.0	BOIN	2006	RAB
KBRB127	637611.00	522586.00	127.942	-50.0	114	5.0	BOIN	2006	RAB
KBRB128	638060.00	522541.00	144.405	-50.0	114	14.0	BOIN	2006	RAB
KBRB129	638041.00	522572.00	139.115	-50.0	114	32.0	BOIN	2006	RAB
KBRB130	638037.00	522592.00	137.087	-50.0	114	44.0	BOIN	2006	RAB
KBRB131	638017.00	522619.00	135.651	-50.0	114	50.0	BOIN	2006	RAB
KBRB132	638002.00	522649.00	134.512	-50.0	114	56.0	BOIN	2006	RAB
KBRB133	637980.00	522709.00	137.742	-50.0	114	59.0	BOIN	2006	RAB
KBRB134	637974.00	522725.00	137.099	-50.0	114	65.0	BOIN	2006	RAB
KBRB135	637969.00	522738.00	137.139	-50.0	114	47.0	BOIN	2006	RAB
KBRB136	637948.00	522780.00	136.159	-50.0	114	35.0	BOIN	2006	RAB
KBRB137	637940.00	522801.00	132.537	-55.0	114	38.0	BOIN	2006	RAB
KBRB138	637928.00	522817.00	127.935	-50.0	114	20.0	BOIN	2006	RAB
KBRB139	638350.00	522823.00	153.064	-55.0	114	83.0	BOIN	2006	RAB
KBRB140	638334.00	522862.00	143.479	-55.0	114	74.0	BOIN	2006	RAB
KBRB141	638309.00	522903.00	137.057	-50.0	114	62.0	BOIN	2006	RAB

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Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRB142	638293.00	522939.00	133.722	-50.0	114	62.0	BOIN	2006	RAB
KBRB143	638275.00	522975.00	131.798	-50.0	114	50.0	BOIN	2006	RAB
KBRB144	638263.00	523001.00	128.907	-50.0	114	56.0	BOIN	2006	RAB
KBRB145	638249.00	523038.00	127.355	-50.0	114	20.0	BOIN	2006	RAB
KBRB146	638241.00	523052.00	127.069	-50.0	114	44.0	BOIN	2006	RAB
KBRB147	638233.00	523076.00	126.459	-50.0	114	32.0	BOIN	2006	RAB
KBRB148	638222.00	523096.00	126.350	-50.0	114	41.0	BOIN	2006	RAB
KBRB149	638213.00	523113.00	126.064	-50.0	114	35.0	BOIN	2006	RAB
KBRB150	638208.00	523135.00	125.550	-50.0	114	32.0	BOIN	2006	RAB
KBRB151	632595.00	517982.00	162.021	-50.0	114	41.0	BOIN	2006	RAB
KBRB152	632587.00	518014.00	164.093	-50.0	114	50.0	BOIN	2006	RAB
KBRB153	632580.00	518033.00	165.444	-50.0	114	14.0	BOIN	2006	RAB
KBRB154	632573.00	518069.00	165.987	-50.0	114	32.0	BOIN	2006	RAB
KBRB155	632563.00	518087.00	167.127	-50.0	114	26.0	BOIN	2006	RAB
KBRB156	632555.00	518113.00	167.643	-50.0	114	44.0	BOIN	2006	RAB
KBRB157	632544.00	518133.00	168.237	-50.0	114	50.0	BOIN	2006	RAB
KBRB158	632537.00	518150.00	166.189	-50.0	114	41.0	BOIN	2006	RAB
KBRB159	632533.00	518162.00	165.444	-50.0	114	50.0	BOIN	2006	RAB
KBRB160	632519.00	518203.00	166.582	-50.0	114	53.0	BOIN	2006	RAB
KBRB161	632501.00	518237.00	169.374	-50.0	114	71.0	BOIN	2006	RAB
KBRB162	632483.00	518280.00	171.978	-50.0	114	71.0	BOIN	2006	RAB
KBRB163	632466.00	518319.00	164.189	-55.0	114	38.0	BOIN	2006	RAB
KBRB164	632454.00	518349.00	161.709	-50.0	114	29.0	BOIN	2006	RAB
KBRB165	632229.00	517832.00	155.209	-50.0	114	10.0	BOIN	2006	RAB
KBRB166	632226.00	517838.00	155.703	-50.0	114	47.0	BOIN	2006	RAB
KBRB167	632215.00	517866.00	159.489	-50.0	114	47.0	BOIN	2006	RAB
KBRB168	632207.00	517895.00	161.786	-50.0	114	32.0	BOIN	2006	RAB
KBRB169	632196.00	517919.00	162.136	-50.0	114	41.0	BOIN	2006	RAB
KBRB170	632188.00	517937.00	162.965	-50.0	114	35.0	BOIN	2006	RAB
KBRB171	632183.00	517963.00	162.009	-50.0	114	68.0	BOIN	2006	RAB
KBRB172	632169.00	518002.00	166.028	-50.0	114	20.0	BOIN	2006	RAB
KBRB173	632162.00	518016.00	161.842	-50.0	114	53.0	BOIN	2006	RAB
KBRB174	632151.00	518050.00	158.651	-50.0	114	14.0	BOIN	2006	RAB
KBRB175	631811.00	517813.00	155.767	-50.0	114	14.0	BOIN	2006	RAB
KBRB176	631807.00	517823.00	155.745	-50.0	114	23.0	BOIN	2006	RAB
KBRB177	631791.00	517851.00	155.959	-50.0	114	23.0	BOIN	2006	RAB
KBRB178	631783.00	517857.00	156.217	-50.0	114	44.0	BOIN	2006	RAB
KBRB179	631779.00	517889.00	157.846	-50.0	114	44.0	BOIN	2006	RAB
KBRB180	631764.00	517914.00	159.502	-50.0	114	35.0	BOIN	2006	RAB
KBRB181	631758.00	517927.00	158.871	-50.0	114	20.0	BOIN	2006	RAB
KBRB182	631197.00	517191.00	147.006	-50.0	114	14.0	BOIN	2006	RAB
KBRB183	631187.00	517211.00	146.711	-50.0	114	29.0	BOIN	2006	RAB
KBRB184	631174.00	517235.00	147.920	-50.0	114	56.0	BOIN	2006	RAB
KBRB185	631174.00	517253.00	150.479	-50.0	114	35.0	BOIN	2006	RAB
KBRB186	631162.00	517282.00	154.870	-50.0	114	44.0	BOIN	2006	RAB
KBRB187	631147.00	517300.00	155.868	-50.0	114	32.0	BOIN	2006	RAB
KBRB188	631147.00	517313.00	154.574	-50.0	114	26.0	BOIN	2006	RAB

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Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRB189	631139.00	517335.00	153.125	-50.0	114	29.0	BOIN	2006	RAB
KBRB190	631131.00	517356.00	150.188	-50.0	114	20.0	BOIN	2006	RAB
KBRB191	631124.00	517377.00	148.358	-50.0	114	11.0	BOIN	2006	RAB
KBRB192	631114.00	517400.00	148.670	-50.0	114	11.0	BOIN	2006	RAB
KBRB193	631102.00	517425.00	153.381	-50.0	114	45.0	BOIN	2006	RAB
KBRB194	631094.00	517445.00	158.049	-50.0	114	42.0	BOIN	2006	RAB
KBRB195	631073.00	517471.00	161.432	-50.0	114	48.0	BOIN	2006	RAB
KBRB196	631056.00	517498.00	163.671	-50.0	114	51.0	BOIN	2006	RAB
KBRB197	630845.00	516996.00	159.691	-50.0	114	45.0	BOIN	2006	RAB
KBRB198	630837.00	517013.00	158.053	-50.0	114	59.0	BOIN	2006	RAB
KBRB199	630814.00	517054.00	157.402	-50.0	114	50.0	BOIN	2006	RAB
KBRB200	630806.00	517084.00	156.632	-50.0	114	35.0	BOIN	2006	RAB
KBRB201	630801.00	517103.00	156.514	-50.0	114	35.0	BOIN	2006	RAB
KBRB202	630792.00	517127.00	154.162	-50.0	114	23.0	BOIN	2006	RAB
KBRB203	630783.00	517142.00	150.697	-50.0	114	14.0	BOIN	2006	RAB
KBRB204	630506.00	516762.00	146.641	-50.0	114	17.0	BOIN	2006	RAB
KBRB205	630503.00	516770.00	146.771	-50.0	114	26.0	BOIN	2006	RAB
KBRB206	630499.00	516787.00	146.984	-50.0	114	17.0	BOIN	2006	RAB
KBRB207	630494.00	516798.00	147.499	-50.0	114	20.0	BOIN	2006	RAB
KBRB208	630495.00	516809.00	147.769	-50.0	114	14.0	BOIN	2006	RAB
KBRB209	630488.00	516818.00	147.773	-50.0	114	14.0	BOIN	2006	RAB
KBRB210	630486.00	516826.00	147.924	-50.0	114	17.0	BOIN	2006	RAB
KBRB211	630476.00	516839.00	148.275	-50.0	114	14.0	BOIN	2006	RAB
KBRB212	630464.00	516858.00	148.310	-50.0	114	11.0	BOIN	2006	RAB
KBRB213	630457.00	516871.00	148.559	-50.0	114	11.0	BOIN	2006	RAB
KBRB214	630459.00	516885.00	149.088	-50.0	114	20.0	BOIN	2006	RAB
KBRB215	630456.00	516895.00	149.280	-50.0	114	17.0	BOIN	2006	RAB
KBRB216	630452.00	516906.00	150.651	-50.0	114	26.0	BOIN	2006	RAB
KBRB217	630439.00	516929.00	152.713	-50.0	114	29.0	BOIN	2006	RAB
KBRB218	630445.00	516918.00	154.667	-50.0	114	20.0	BOIN	2006	RAB
KBRB219	630431.00	516946.00	155.050	-50.0	114	29.0	BOIN	2006	RAB
KBRB220	630422.00	516968.00	155.144	-50.0	114	44.0	BOIN	2006	RAB
KBRB221	630415.00	516992.00	154.518	-50.0	114	32.0	BOIN	2006	RAB
KBRB222	630408.00	517010.00	154.501	-50.0	114	38.0	BOIN	2006	RAB
KBRB223	630398.00	517030.00	155.182	-50.0	114	65.0	BOIN	2006	RAB
KBRB224	630382.00	517071.00	158.094	-50.0	114	50.0	BOIN	2006	RAB
KBRB225	630376.00	517102.00	161.922	-50.0	114	65.0	BOIN	2006	RAB
KBRB226	630355.00	517137.00	168.355	-50.0	114	59.0	BOIN	2006	RAB
KBRB227	630162.00	516549.00	152.089	-50.0	114	14.0	BOIN	2006	RAB
KBRB228	630158.00	516560.00	152.688	-50.0	114	38.0	BOIN	2006	RAB
KBRB229	630151.00	516581.00	153.527	-50.0	114	32.0	BOIN	2006	RAB
KBRB230	630143.00	516599.00	155.721	-50.0	114	38.0	BOIN	2006	RAB
KBRB231	630134.00	516615.00	158.899	-50.0	114	50.0	BOIN	2006	RAB
KBRB232	630118.00	516651.00	163.625	-50.0	114	62.0	BOIN	2006	RAB
KBRB233	630107.00	516691.00	169.755	-50.0	114	74.0	BOIN	2006	RAB
KBRB234	630082.00	516729.00	174.582	-50.0	114	74.0	BOIN	2006	RAB
KBRB235	630068.00	516778.00	174.525	-50.0	114	56.0	BOIN	2006	RAB

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Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRB236	630055.00	516811.00	175.739	-50.0	114	68.0	BOIN	2006	RAB
KBRB237	630041.00	516853.00	182.208	-50.0	114	77.0	BOIN	2006	RAB
KBRB238	629789.00	516355.00	143.035	-50.0	114	39.0	BOIN	2006	RAB
KBRB239	629782.00	516376.00	146.056	-50.0	114	51.0	BOIN	2006	RAB
KBRB240	629778.00	516385.00	149.119	-50.0	114	21.0	BOIN	2006	RAB
KBRB241	629772.00	516395.00	152.427	-50.0	114	51.0	BOIN	2006	RAB
KBRB242	629760.00	516430.00	157.558	-50.0	114	54.0	BOIN	2006	RAB
KBRB243	629745.00	516461.00	159.955	-50.0	114	75.0	BOIN	2006	RAB
KBRB244	629732.00	516507.00	166.490	-50.0	114	48.0	BOIN	2006	RAB
KBRB245	629716.00	516534.00	174.574	-50.0	114	54.0	BOIN	2006	RAB
KBRB246	636443.00	521265.00	136.753	-50.0	114	15.0	BOIN	2006	RAB
KBRB247	636443.00	521275.00	136.635	-50.0	114	12.0	BOIN	2006	RAB
KBRB248	636433.00	521281.00	136.686	-50.0	114	27.0	BOIN	2006	RAB
KBRB249	636431.00	521295.00	136.822	-50.0	114	27.0	BOIN	2006	RAB
KBRB250	636427.00	521312.00	136.958	-50.0	114	12.0	BOIN	2006	RAB
KBRB251	636420.00	521324.00	137.053	-50.0	114	12.0	BOIN	2006	RAB
KBRB252	636422.00	521327.00	137.242	-50.0	114	21.0	BOIN	2006	RAB
KBRB253	636413.00	521343.00	137.857	-50.0	114	12.0	BOIN	2006	RAB
KBRB254	636408.00	521348.00	138.383	-50.0	114	18.0	BOIN	2006	RAB
KBRB255	636407.00	521353.00	138.879	-50.0	114	54.0	BOIN	2006	RAB
KBRB256	636385.00	521403.00	142.110	-50.0	114	48.0	BOIN	2006	RAB
KBRB257	636378.00	521423.00	148.443	-50.0	114	60.0	BOIN	2006	RAB
KBRB258	636364.00	521450.00	153.771	-50.0	114	48.0	BOIN	2006	RAB
KBRB259	636352.00	521479.00	155.808	-50.0	114	60.0	BOIN	2006	RAB
KBRB260	636076.00	521113.00	138.983	-50.0	294	12.0	BOIN	2006	RAB
KBRB261	636076.00	521101.00	139.285	-50.0	294	6.0	BOIN	2006	RAB
KBRB262	636086.00	521088.00	139.064	-50.0	294	36.0	BOIN	2006	RAB
KBRB263	636101.00	521062.00	139.225	-50.0	294	27.0	BOIN	2006	RAB
KBRB264	636106.00	521051.00	139.031	-50.0	294	18.0	BOIN	2006	RAB
KBRB265	636111.00	521036.00	139.008	-50.0	294	20.0	BOIN	2006	RAB
KBRB266	636115.00	521023.00	139.009	-50.0	294	27.0	BOIN	2006	RAB
KBRB267	636115.00	521001.00	138.850	-50.0	294	21.0	BOIN	2006	RAB
KBRB268	636125.00	520991.00	138.766	-50.0	294	9.0	BOIN	2006	RAB
KBRB269	636129.00	520992.00	138.861	-50.0	294	9.0	BOIN	2006	RAB
KBRB270	636131.00	520980.00	138.750	-50.0	294	30.0	BOIN	2006	RAB
KBRB271	636145.00	520955.00	138.673	-50.0	294	21.0	BOIN	2006	RAB
KBRB272	636149.00	520944.00	138.685	-50.0	294	21.0	BOIN	2006	RAB
KBRB273	636153.00	520937.00	138.839	-50.0	294	42.0	BOIN	2006	RAB
KBRB274	636162.00	520906.00	139.129	-50.0	294	33.0	BOIN	2006	RAB
KBRB275	636171.00	520888.00	138.758	-50.0	294	27.0	BOIN	2006	RAB
SWRB001	628589.13	521291.78	226.400	-50.0	108	59.0	SEWUM	2005	RAB
SWRB002	628575.13	521319.09	226.940	-50.0	108	44.0	SEWUM	2005	RAB
SWRB003	628566.19	521336.94	227.070	-55.0	108	59.0	SEWUM	2005	RAB
SWRB004	628550.38	521369.84	225.970	-50.0	108	59.0	SEWUM	2005	RAB
SWRB005	628534.19	521404.66	225.060	-60.0	108	71.0	SEWUM	2005	RAB
SWRB006	628517.88	521438.56	221.760	-60.0	108	65.0	SEWUM	2005	RAB
SWRB007	628785.44	521302.84	229.000	-50.0	108	71.0	SEWUM	2005	RAB

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Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
SWRB008	628768.56	521343.19	228.970	-50.0	108	71.0	SEWUM	2005	RAB
SWRB009	628752.38	521386.63	231.320	-55.0	108	71.0	SEWUM	2005	RAB
SWRB010	628759.56	521367.88	230.650	-55.0	108	44.0	SEWUM	2005	RAB
SWRB011	629050.56	521198.13	223.280	-50.0	108	71.0	SEWUM	2005	RAB
SWRB012	629032.25	521239.91	227.180	-50.0	108	71.0	SEWUM	2005	RAB
SWRB013	629014.75	521278.63	231.180	-50.0	108	71.0	SEWUM	2005	RAB
SWRB014	628998.63	521316.06	230.610	-55.0	108	65.0	SEWUM	2005	RAB
SWRB015	628984.94	521348.78	231.780	-55.0	108	65.0	SEWUM	2005	RAB
SWRB016	628970.75	521384.22	231.380	-55.0	108	71.0	SEWUM	2005	RAB
SWRB017	628952.19	521418.88	232.580	-55.0	108	71.0	SEWUM	2005	RAB
SWRB018	628937.38	521457.72	231.430	-50.0	108	62.0	SEWUM	2005	RAB
SWRB019	628960.31	521403.31	236.130	-50.0	108	71.0	SEWUM	2005	RAB
SWRB020	629175.50	521384.59	230.590	-50.0	108	71.0	SEWUM	2005	RAB
SWRB021	629157.63	521424.56	232.350	-55.0	108	62.0	SEWUM	2005	RAB
SWRB022	629144.94	521450.56	232.980	-55.0	108	71.0	SEWUM	2005	RAB
SWRB023	629134.50	521479.59	232.670	-55.0	108	44.0	SEWUM	2005	RAB
SWRB024	629369.69	521414.81	231.600	-50.0	108	53.0	SEWUM	2005	RAB
SWRB025	629354.44	521444.38	233.440	-55.0	108	68.0	SEWUM	2005	RAB
SWRB026	629340.75	521482.53	234.450	-55.0	108	80.0	SEWUM	2005	RAB
SWRB027	629321.94	521522.53	234.070	-55.0	108	59.0	SEWUM	2005	RAB
SWRB028	629318.94	521539.44	233.480	-55.0	108	84.0	SEWUM	2005	RAB
SWRB029	629563.38	521458.91	230.270	-50.0	108	83.0	SEWUM	2005	RAB
SWRB030	629537.75	521505.53	234.320	-50.0	108	89.0	SEWUM	2005	RAB
SWRB031	629519.31	521549.66	235.080	-55.0	108	89.0	SEWUM	2005	RAB
SWRB032	629509.56	521572.72	233.170	-55.0	108	83.0	SEWUM	2005	RAB
SWRB033	629526.81	521531.38	235.080	-50.0	108	50.0	SEWUM	2005	RAB
SWRB034	629747.31	521554.41	229.740	-50.0	108	89.0	SEWUM	2005	RAB
SWRB035	629751.25	521546.53	228.850	-55.0	108	89.0	SEWUM	2005	RAB
SWRB036	629717.88	521599.09	233.580	-55.0	108	89.0	SEWUM	2005	RAB
SWRB037	629698.50	521646.50	234.350	-55.0	108	89.0	SEWUM	2005	RAB
SWRB038	629889.31	521708.41	228.220	-55.0	108	74.0	SEWUM	2005	RAB
SWRB039	629885.56	521714.63	228.850	-50.0	108	89.0	SEWUM	2005	RAB
SWRB040	629870.25	521745.19	228.480	-55.0	108	53.0	SEWUM	2005	RAB
SWRB041	629373.25	521409.38	230.250	-55.0	288	63.0	SEWUM	2005	RAB
SWRB042	629052.44	521191.94	221.390	-55.0	288	83.0	SEWUM	2005	RAB
SWRB043	628787.44	521298.66	228.850	-55.0	288	80.0	SEWUM	2005	RAB
SWRB044	628590.19	521288.41	226.240	-55.0	288	89.0	SEWUM	2005	RAB
KBRC001	633857.94	519153.59	196.087	-49.0	115	81.0	BOIN	2005	RC
KBRC002	633881.50	519094.06	195.849	-50.0	111	111.0	BOIN	2005	RC
KBRC003	633905.38	519034.06	193.958	-50.0	109	150.0	BOIN	2005	RC
KBRC004	633780.38	519079.81	195.081	-49.0	111	99.0	BOIN	2005	RC
KBRC005	633803.63	519020.69	195.104	-50.0	112	150.0	BOIN	2005	RC
KBRC007	633494.56	518988.78	172.990	-51.0	292	150.0	BOIN	2005	RC
KBRC008	633523.88	518915.09	184.187	-50.0	111	102.0	BOIN	2005	RC
KBRC009	633541.63	518870.50	189.044	-50.0	117	150.0	BOIN	2005	RC
KBRC010	633600.13	518992.84	188.720	-49.0	112	100.0	BOIN	2005	RC
KBRC011	633613.25	518959.66	193.270	-49.0	109	150.0	BOIN	2005	RC

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRC012	633692.31	519047.00	194.136	-49.0	110	100.0	BOIN	2005	RC
KBRC013	633712.88	518985.59	195.175	-50.0	114	150.0	BOIN	2005	RC
KBRC014	633428.25	518881.19	172.074	-49.0	114	100.0	BOIN	2005	RC
KBRC015	633441.44	518847.72	176.310	-49.0	110	150.0	BOIN	2005	RC
KBRC016	633469.75	518781.94	183.384	-50.0	116	154.0	BOIN	2005	RC
KBRC017	633462.00	519019.00	168.032	-50.0	296	120.0	BOIN	2005	RC
KBRC018	633333.00	518851.63	167.206	-49.0	115	100.0	BOIN	2005	RC
KBRC019	633354.25	518797.31	174.814	-50.0	114	150.0	BOIN	2005	RC
KBRC020	633273.81	518736.56	172.271	-50.0	114	100.0	BOIN	2005	RC
KBRC021	633284.44	518711.25	176.009	-50.0	113	150.0	BOIN	2005	RC
KBRC022	633188.69	518672.69	139.750	-50.0	115	140.0	BOIN	2005	RC
KBRC023	633203.75	518635.00	137.740	-49.0	117	150.0	BOIN	2005	RC
KBRC024	633116.00	518584.03	173.029	-50.0	111	150.0	BOIN	2005	RC
KBRC025	633126.88	518555.91	175.173	-50.0	115	150.0	BOIN	2005	RC
KBRC026	633031.25	518526.78	166.472	-50.0	112	150.0	BOIN	2005	RC
KBRC027	633048.31	518482.13	171.932	-50.0	119	150.0	BOIN	2005	RC
KBRC028	632933.06	518505.72	164.964	-49.0	116	155.0	BOIN	2005	RC
KBRC029	632949.25	518466.19	168.625	-49.0	113	150.0	BOIN	2005	RC
KBRC030	632966.38	518427.69	168.386	-50.0	115	145.0	BOIN	2005	RC
KBRC031	632853.81	518436.88	169.540	-49.0	116	151.0	BOIN	2005	RC
KBRC032	632870.88	518401.16	170.471	-50.0	117	150.0	BOIN	2005	RC
KBRC033	632885.63	518361.91	168.744	-50.0	115	150.0	BOIN	2005	RC
KBRC034	633514.75	518936.81	181.866	-49.0	116	93.0	BOIN	2005	RC
KBRC035	633590.25	519018.31	184.680	-50.0	115	81.0	BOIN	2005	RC
KBRC036	633664.81	519126.22	188.650	-50.0	115	102.0	BOIN	2005	RC
KBRC037	633769.94	519106.03	194.406	-50.0	114	120.0	BOIN	2005	RC
KBRC038	633845.31	519178.59	195.705	-50.0	116	60.0	BOIN	2005	RC
KBRC039	633923.63	519218.13	189.203	-50.0	116	150.0	BOIN	2005	RC
KBRC040	633936.69	519183.03	186.549	-50.0	115	154.0	BOIN	2005	RC
KBRC041	634008.75	519046.88	184.160	-47.0	114	108.0	BOIN	2005	RC
KBRC042	633966.06	519361.16	157.214	-47.0	117	120.0	BOIN	2005	RC
KBRC043	634005.19	519276.91	163.956	-50.0	116	84.0	BOIN	2005	RC
KBRC044	634032.56	519217.09	162.735	-50.0	117	150.0	BOIN	2005	RC
KBRC045	633254.00	518753.00	165.021	-49.0	117	110.0	BOIN	2005	RC
KBRC046	634131.50	519322.38	156.077	-49.0	108	80.0	BOIN	2005	RC
KBRC047	634191.00	519347.28	158.414	-48.0	119	99.0	BOIN	2005	RC
KBRC048	634218.25	519289.22	163.460	-49.0	115	102.0	BOIN	2005	RC
KBRC049	634275.56	519165.00	169.376	-49.0	116	100.0	BOIN	2005	RC
KBRC050	634352.13	519469.16	184.509	-49.0	115	100.0	BOIN	2005	RC
KBRC051	634385.25	519395.19	176.001	-50.0	117	99.0	BOIN	2005	RC
KBRC052	634418.19	519316.59	171.438	-49.0	115	150.0	BOIN	2005	RC
KBRC053	634729.88	519613.25	174.658	-49.0	114	120.0	BOIN	2005	RC
KBRC054	634749.25	519566.84	175.726	-50.0	118	114.0	BOIN	2005	RC
KBRC055	634836.63	519867.84	155.434	-49.0	116	120.0	BOIN	2005	RC
KBRC056	634890.44	519752.00	163.980	-49.0	116	100.0	BOIN	2005	RC
KBRC057	634910.75	519706.69	156.714	-50.0	114	150.0	BOIN	2005	RC
KBRC058	634934.75	519652.13	163.483	-49.0	115	144.0	BOIN	2005	RC

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRC061	633679.00	519080.09	192.284	-50.0	113	100.0	BOIN	2005	RC
KBRC062	633050.06	518482.53	172.500	-66.0	116	150.0	BOIN	2005	RC
KBRC063	633069.88	518700.69	166.772	-50.0	113	102.0	BOIN	2005	RC
KBRC064	633094.06	518639.78	164.303	-50.0	113	120.0	BOIN	2005	RC
KBRC065	633125.94	518554.34	174.930	-75.0	109	150.0	BOIN	2005	RC
KBRC066	633378.88	518739.34	180.771	-49.0	117	150.0	BOIN	2005	RC
KBRC067	633505.19	518961.22	178.000	-49.0	114	30.0	BOIN	2005	RC
KBRC068	633540.00	518870.50	188.918	-73.0	113	150.0	BOIN	2005	RC
KBRC069	633533.00	518886.84	186.666	-47.0	115	132.0	BOIN	2005	RC
KBRC070	633755.94	519145.25	192.439	-50.0	115	108.0	BOIN	2005	RC
KBRC071	633910.31	519243.28	189.014	-50.0	113	78.0	BOIN	2005	RC
KBRC072	633968.44	519117.63	178.782	-50.0	113	130.0	BOIN	2005	RC
KBRC073	634176.31	519510.94	159.821	-49.0	111	90.0	BOIN	2005	RC
KBRC074	635790.50	520655.34	168.166	-49.0	117	132.0	BOIN	2005	RC
KBRC075	635813.63	520605.59	172.563	-49.0	112	132.0	BOIN	2005	RC
KBRC076	635654.94	520497.38	165.344	-50.0	112	125.0	BOIN	2005	RC
KBRC077	635503.94	520358.56	159.450	-50.0	118	100.0	BOIN	2005	RC
KBRC078	634382.88	519396.09	177.232	-50.0	294	87.0	BOIN	2006	RC
KBRC079	634348.69	519470.31	185.722	-50.0	294	143.0	BOIN	2006	RC
KBRC080	634216.00	519289.59	163.847	-50.0	294	100.0	BOIN	2006	RC
KBRC081	634176.13	519389.56	159.859	-50.0	294	147.0	BOIN	2006	RC
KBRC082	634159.81	519423.38	156.754	-50.0	294	120.0	BOIN	2006	RC
KBRC083	634131.81	519321.63	156.587	-85.0	294	102.0	BOIN	2006	RC
KBRC084	634132.75	519319.91	156.484	-50.0	294	100.0	BOIN	2006	RC
KBRC085	633991.81	519300.06	162.520	-50.0	294	120.0	BOIN	2006	RC
KBRC086	634020.63	519247.91	166.633	-50.0	114	120.0	BOIN	2006	RC
KBRC087	633077.81	518679.59	166.578	-50.0	294	81.0	BOIN	2006	RC
KBRC088	633103.31	518614.50	166.938	-60.0	114	100.0	BOIN	2006	RC
KBRC089	633169.50	518461.03	168.897	-50.0	114	80.0	BOIN	2006	RC
KBRC090	633220.06	518604.50	134.170	-50.0	114	120.0	BOIN	2006	RC
KBRC091	633255.38	518779.78	166.108	-50.0	294	153.0	BOIN	2006	RC
KBRC092	633296.38	518680.81	178.495	-80.0	114	57.0	BOIN	2006	RC
KBRC093	633298.88	518671.06	178.297	-75.0	114	110.0	BOIN	2006	RC
KBRC094	633403.06	518682.56	178.366	-50.0	114	150.0	BOIN	2006	RC
KBRC095	633445.06	518628.69	173.730	-50.0	114	150.0	BOIN	2006	RC
KBRC096	633343.44	518824.13	171.173	-60.0	114	40.0	BOIN	2006	RC
KBRC097	633312.25	518903.09	165.423	-50.0	114	80.0	BOIN	2006	RC
KBRC098	633330.38	518852.16	167.502	-70.0	294	110.0	BOIN	2006	RC
KBRC099	633152.69	518502.31	173.580	-50.0	294	50.0	BOIN	2006	RC
KBRC100	633196.06	518657.50	139.280	-50.0	114	80.0	BOIN	2006	RC
KBRC101	633418.00	518904.88	170.290	-50.0	114	60.0	BOIN	2006	RC
KBRC102	633407.00	518928.28	167.299	-85.0	294	93.0	BOIN	2006	RC
KBRC103	633761.31	519128.69	193.329	-50.0	114	57.0	BOIN	2006	RC
KBRC104	633921.94	518998.16	191.093	-50.0	114	75.0	BOIN	2006	RC
KBRC105	634011.94	519034.28	183.382	-70.0	114	102.0	BOIN	2006	RC
KBRC106	633953.56	519155.41	180.461	-50.0	114	105.0	BOIN	2006	RC
KBRC107	634724.56	519611.50	174.565	-50.0	294	87.0	BOIN	2006	RC

(table continues on next page)

Hole Number	Northing (m)	Easting (m)	Elevation (m)	Dip (°)	Azimuth (°)	Length (m)	Zone	Date	Hole Type
KBRC108	634706.13	519637.19	169.831	-50.0	294	105.0	BOIN	2006	RC
KBRC109	635506.88	520359.19	159.450	-65.0	114	145.0	BOIN	2006	RC
KBRC110	635654.44	520496.78	165.344	-70.0	114	120.0	BOIN	2006	RC
KBRC111	635786.06	520659.97	167.923	-80.0	294	100.0	BOIN	2006	RC
KBRC112	635787.13	520653.47	168.569	-80.0	114	80.0	BOIN	2006	RC
KBRC113R	631665.00	517704.00	114.000	-55.0	138	81.0	BOIN	2006	RC
KBRC114R	631683.00	517663.00	126.000	-55.0	138	81.0	BOIN	2006	RC
KBRC115R	631711.00	517617.00	143.000	-50.0	138	93.0	BOIN	2006	RC
KBRC116R	631727.00	521571.00	114.000	-50.0	138	105.0	BOIN	2006	RC
KBRC117R	631584.00	517618.00	121.000	-55.0	138	75.0	BOIN	2006	RC
KBRC118R	631611.00	517573.00	110.000	-55.0	138	81.0	BOIN	2006	RC
KBRC119	631627.81	517522.59	141.480	-55.0	120	74.0	BOIN	2006	RC
KBRC120	631632.13	517513.97	142.830	-50.0	300	99.0	BOIN	2006	RC
KBRC121	631748.63	517524.44	162.770	-50.0	120	93.0	BOIN	2006	RC
KBRC122	631767.94	517481.34	151.970	-50.0	120	93.0	BOIN	2006	RC
KBRC123	631791.25	517439.44	143.760	-50.0	120	69.0	BOIN	2006	RC
SWRC001	629096.92	520937.11	138.410	-49.0	114	100.0	SEWUM	2005	RC
SWRC002	629180.99	520997.74	142.620	-50.0	114	100.0	SEWUM	2005	RC
SWRC003	629121.89	520896.02	138.210	-50.0	114	120.0	SEWUM	2005	RC
SWRC004	629240.32	521088.79	145.600	-50.0	114	100.0	SEWUM	2005	RC
SWRC005	629182.24	520996.91	142.590	-90.0	0	100.0	SEWUM	2005	RC
SWRC006	629238.89	521088.43	145.440	-90.0	0	100.0	SEWUM	2005	RC
SWRC007	627930.80	521298.00	128.410	-50.0	114	111.0	SEWUM	2006	RC
SWRC008	627940.60	521293.50	126.750	-50.0	24	105.0	SEWUM	2006	RC
SWRC009	627668.00	521179.00	154.350	-50.0	114	100.0	SEWUM	2006	RC
SWRC010	627646.80	521223.20	157.710	-50.0	114	117.0	SEWUM	2006	RC
SWRC011	627592.50	521197.30	150.690	-50.0	24	105.0	SEWUM	2006	RC
SWRC012	627646.60	521221.00	157.210	-50.0	24	117.0	SEWUM	2006	RC
SWRC013	627624.90	521272.40	150.590	-55.0	114	100.0	SEWUM	2006	RC
SWRC014	627705.10	521232.40	157.590	-50.0	24	89.0	SEWUM	2006	RC
SWRC015	627734.50	521260.10	158.940	-50.0	114	105.0	SEWUM	2006	RC
SWRC016	627712.40	521308.90	163.950	-50.0	114	105.0	SEWUM	2006	RC
SWRC017	627691.30	521351.70	160.350	-50.0	114	100.0	SEWUM	2006	RC
SWRC018	627667.50	521405.60	155.710	-50.0	114	105.0	SEWUM	2006	RC
SWRC019	627753.00	521272.70	160.290	-50.0	24	92.0	SEWUM	2006	RC
SWRC020	627822.80	521245.80	146.920	-50.0	114	117.0	SEWUM	2006	RC
SWRC021	627805.80	521297.70	159.590	-50.0	24	73.0	SEWUM	2006	RC
SWRC022	627756.90	521215.10	140.580	-50.0	114	117.0	SEWUM	2006	RC
SWRC023	627812.00	521275.40	155.620	-50.0	114	111.0	SEWUM	2006	RC
SWRC024	627791.60	521323.80	152.940	-55.0	114	105.0	SEWUM	2006	RC
SWRC025	628956.90	521432.30	231.500	-50.0	114	105.0	SEWUM	2006	RC
SWRC026	629318.90	521540.00	233.480	-50.0	114	135.0	SEWUM	2006	RC
SWRC027	629511.60	521574.20	233.170	-55.0	114	135.0	SEWUM	2006	RC
SWRC028	629760.80	521515.30	218.500	-50.0	114	135.0	SEWUM	2006	RC
SWRC029	628939.60	521457.20	231.500	-50.0	114	135.0	SEWUM	2006	RC
SWRC030	627857.80	521323.30	144.640	-60.0	24	105.0	SEWUM	2006	RC
SWRC031	627739.60	521381.50	149.720	-50.0	114	105.0	SEWUM	2006	RC
SWRC032	627712.50	521445.40	141.980	-50.0	114	111.0	SEWUM	2006	RC
SWRC033	627600.20	521319.40	145.270	-50.0	114	90.0	SEWUM	2006	RC

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# APPENDIX

**B**

RED BACK  
DRILL  
PROGRAM  
SIGNIFICANT  
RESULTS

Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
KBRB006	Boin	26.0	41.0	15.0	1.33
KBRB010	Boin	5.0	20.0	15.0	0.54
KBRB041	Boin	38.0	53.0	15.0	0.86
KBRB042	Boin	17.0	38.0	21.0	0.70
KBRB048	Boin	11.0	32.0	21.0	0.76
KBRB049	Boin	0.0	26.0	26.0	1.10
KBRB050	Boin	0.0	14.0	14.0	0.67
KBRB051	Boin	0.0	29.0	29.0	1.61
KBRB052	Boin	0.0	11.0	11.0	0.94
KBRB053	Boin	0.0	14.0	14.0	0.67
KBRC001	Boin	29.0	49.0	20.0	1.57
KBRC002	Boin	63.0	70.0	7.0	0.46
KBRC002	Boin	74.0	104.0	30.0	1.02
KBRC003	Boin	89.0	96.0	7.0	0.50
KBRC003	Boin	111.0	147.0	36.0	0.40
KBRC004	Boin	56.0	62.0	6.0	0.45
KBRC004	Boin	65.0	90.0	25.0	1.54
KBRC005	Boin	88.0	99.0	11.0	1.00
KBRC005	Boin	110.0	122.0	12.0	1.00
KBRC005	Boin	129.0	136.0	7.0	0.46
KBRC006	Boin	0.0	7.0	7.0	0.47
KBRC007	Boin	60.0	109.0	49.0	0.88
KBRC007	Boin	114.0	150.0	36.0	0.89
KBRC008	Boin	26.0	56.0	30.0	1.92
KBRC009	Boin	110.0	112.0	2.0	0.56
KBRC009	Boin	145.0	150.0	5.0	0.39
KBRC010	Boin	35.0	39.0	4.0	0.74
KBRC010	Boin	53.0	55.0	2.0	0.32
KBRC011	Boin	53.0	57.0	4.0	1.53
KBRC011	Boin	71.0	83.0	12.0	0.81
KBRC011	Boin	91.0	127.0	36.0	1.98
KBRC011	Boin	105.0	126.0	21.0	2.56
KBRC012	Boin	31.0	66.0	35.0	2.01
KBRC013	Boin	88.0	106.0	18.0	1.80
KBRC014	Boin	3.0	63.0	60.0	0.86
KBRC015	Boin	36.0	38.0	2.0	1.37
KBRC016	Boin	110.0	114.0	4.0	0.83
KBRC016	Boin	141.0	148.0	7.0	1.12
KBRC019	Boin	47.0	49.0	2.0	0.76
KBRC021	Boin	19.0	23.0	4.0	1.10
KBRC021	Boin	32.0	35.0	3.0	0.64
KBRC021	Boin	135.0	150.0	15.0	0.52
KBRC022	Boin	0.0	9.0	9.0	0.42
KBRC023	Boin	41.0	54.0	13.0	0.91
KBRC023	Boin	101.0	104.0	3.0	0.46
KBRC023	Boin	108.0	118.0	10.0	0.89
KBRC024	Boin	39.0	62.0	23.0	1.36
KBRC024	Boin	99.0	105.0	6.0	0.53

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Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
KBRC024	Boin	111.0	150.0	39.0	0.86
KBRC025	Boin	61.0	82.0	21.0	0.95
KBRC025	Boin	88.0	103.0	15.0	0.39
KBRC026	Boin	17.0	24.0	7.0	0.88
KBRC027	Boin	89.0	102.0	13.0	0.55
KBRC028	Boin	2.0	10.0	8.0	1.12
KBRC028	Boin	15.0	18.0	3.0	0.43
KBRC029	Boin	29.0	33.0	4.0	0.58
KBRC029	Boin	40.0	43.0	3.0	0.60
KBRC030	Boin	95.0	127.0	32.0	1.09
KBRC031	Boin	7.0	16.0	9.0	0.47
KBRC032	Boin	34.0	37.0	3.0	0.57
KBRC033	Boin	100.0	102.0	2.0	0.84
KBRC033	Boin	124.0	126.0	2.0	0.57
KBRC034	Boin	0.0	18.0	18.0	2.68
KBRC035	Boin	9.0	24.0	15.0	1.36
KBRC036	Boin	2.0	14.0	12.0	0.62
KBRC037	Boin	50.0	59.0	9.0	1.46
KBRC037	Boin	66.0	70.0	4.0	0.37
KBRC038	Boin	5.0	26.0	21.0	0.97
KBRC038	Boin	47.0	50.0	3.0	0.69
KBRC039	Boin	54.0	59.0	5.0	1.27
KBRC040	Boin	21.0	30.0	9.0	0.66
KBRC040	Boin	37.0	40.0	3.0	1.66
KBRC040	Boin	89.0	91.0	2.0	0.49
KBRC040	Boin	114.0	120.0	6.0	2.03
KBRC041	Boin	26.0	38.0	12.0	1.39
KBRC041	Boin	50.0	52.0	2.0	0.35
KBRC041	Boin	76.0	78.0	2.0	0.87
KBRC041	Boin	97.0	101.0	4.0	0.75
KBRC044	Boin	24.0	40.0	16.0	0.61
KBRC044	Boin	52.0	61.0	9.0	1.17
KBRC044	Boin	67.0	71.0	4.0	1.08
KBRC044	Boin	87.0	122.0	35.0	1.46
KBRC044	Boin	87.0	146.0	59.0	0.99
KBRC044	Boin	126.0	128.0	2.0	0.39
KBRC044	Boin	132.0	140.0	8.0	0.51
KBRC045	Boin	17.0	21.0	4.0	2.17
KBRC046	Boin	2.0	4.0	2.0	1.19
KBRC047	Boin NW	9.0	11.0	2.0	0.36
KBRC047	Boin NW	27.0	34.0	7.0	0.60
KBRC047	Boin	44.0	46.0	2.0	1.24
KBRC047	Boin	72.0	99.0	27.0	1.08
KBRC048	Boin	87.0	102.0	15.0	0.50
KBRC050	Boin	72.0	82.0	10.0	0.55
KBRC051	Boin	45.0	47.0	2.0	0.32
KBRC052	Boin	111.0	150.0	39.0	1.76
KBRC053	Boin	10.0	37.0	27.0	1.47

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Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
KBRC053	Boin	60.0	62.0	2.0	1.23
KBRC054	Boin	47.0	68.0	21.0	0.64
KBRC054	Boin	93.0	98.0	5.0	0.37
KBRC055	Boin	58.0	60.0	2.0	0.48
KBRC055	Boin	95.0	103.0	8.0	0.29
KBRC056	Boin	0.0	4.0	4.0	0.82
KBRC057	Boin	2.0	4.0	2.0	0.38
KBRC057	Boin	57.0	67.0	10.0	0.69
KBRC057	Boin	72.0	74.0	2.0	0.47
KBRC057	Boin	100.0	104.0	4.0	0.29
KBRC058	Boin	79.0	82.0	3.0	0.36
KBRC061	Boin	8.0	19.0	11.0	0.54
KBRC061	Boin	28.0	45.0	17.0	1.06
KBRC062	Boin	76.0	104.0	28.0	0.82
KBRC062	Boin	108.0	115.0	7.0	0.43
KBRC062	Boin	126.0	130.0	4.0	0.83
KBRC065	Boin	78.0	92.0	14.0	1.11
KBRC065	Boin	102.0	112.0	10.0	0.52
KBRC065	Boin	122.0	124.0	2.0	0.45
KBRC066	Boin	26.0	30.0	4.0	0.36
KBRC066	Boin	69.0	75.0	6.0	0.42
KBRC067	Boin	0.0	21.0	21.0	2.53
KBRC068	Boin	114.0	140.0	26.0	0.50
KBRC069	Boin	56.0	75.0	19.0	2.39
KBRC069	Boin	78.0	80.0	2.0	0.69
KBRC070	Boin	8.0	11.0	3.0	1.01
KBRC071	Boin	10.0	22.0	12.0	0.72
KBRC072	Boin	97.0	100.0	3.0	0.35
KBRC072	Boin	104.0	112.0	8.0	0.58
KBRC072	Boin	121.0	125.0	4.0	0.65
KBRC074	Boin	21.0	32.0	11.0	1.90
KBRC075	Boin	45.0	52.0	7.0	1.18
KBRC076	Boin	19.0	35.0	16.0	2.51
KBRC077	Boin	45.0	52.0	7.0	5.03
KBRC077	Boin	65.0	84.0	19.0	0.38
KBRC078	Boin	12.0	18.0	6.0	0.43
KBRC078	Boin	46.0	48.0	2.0	0.57
KBRC078	Boin	58.0	62.0	4.0	0.73
KBRC079	Boin	44.0	48.0	4.0	1.56
KBRC079	Boin	67.0	69.0	2.0	2.91
KBRC079	Boin	93.0	96.0	3.0	0.72
KBRC079	Boin	139.0	141.0	2.0	0.67
KBRC080	Boin	19.0	21.0	2.0	1.39
KBRC081	Boin	32.0	37.0	5.0	0.87
KBRC081	Boin	75.0	80.0	5.0	1.40
KBRC081	Boin	121.0	147.0	26.0	1.73
KBRC082	Boin	26.0	28.0	2.0	0.39
KBRC082	Boin	64.0	68.0	4.0	1.56

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Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
KBRC082	Boin	117.0	120.0	3.0	0.97
KBRC083	Boin	10.0	12.0	2.0	0.91
KBRC083	Boin	41.0	58.0	17.0	1.38
KBRC083	Boin	70.0	102.0	32.0	0.67
KBRC084	Boin	9.0	20.0	11.0	0.98
KBRC084	Boin	28.0	35.0	7.0	1.00
KBRC084	Boin	66.0	68.0	2.0	0.40
KBRC085	Boin	2.0	10.0	8.0	0.69
KBRC085	Boin	22.0	26.0	4.0	0.89
KBRC085	Boin	66.0	72.0	6.0	2.92
KBRC085	Boin	90.0	93.0	3.0	0.51
KBRC085	Boin	105.0	120.0	15.0	0.26
KBRC086	Boin	60.0	62.0	2.0	0.47
KBRC086	Boin	77.0	79.0	2.0	0.75
KBRC088	Boin	4.0	11.0	7.0	1.06
KBRC090	Boin	76.0	78.0	2.0	1.14
KBRC090	Boin	84.0	106.0	22.0	0.34
KBRC091	Boin	82.0	86.0	4.0	0.41
KBRC091	Boin	114.0	124.0	10.0	0.67
KBRC091	Boin	131.0	133.0	2.0	0.80
KBRC091	Boin	141.0	152.0	11.0	0.44
KBRC094	Boin	147.0	149.0	2.0	0.34
KBRC098	Boin	12.0	19.0	7.0	0.46
KBRC099	Boin	15.0	18.0	3.0	0.57
KBRC100	Boin	19.0	33.0	14.0	3.83
KBRC100	Boin	70.0	74.0	4.0	0.35
KBRC101	Boin	6.0	11.0	5.0	0.53
KBRC103	Boin	10.0	18.0	8.0	1.05
KBRC103	Boin	23.0	28.0	5.0	1.03
KBRC105	Boin	93.0	100.0	7.0	0.79
KBRC106	Boin	35.0	39.0	4.0	3.02
KBRC106	Boin	45.0	50.0	5.0	0.77
KBRC108	Boin	11.0	13.0	2.0	0.56
KBRC108	Boin	32.0	47.0	15.0	1.14
KBRC108	Boin	53.0	58.0	5.0	0.40
KBRC109	Boin	58.0	66.0	8.0	0.33
KBRC109	Boin	72.0	86.0	14.0	2.37
KBRC109	Boin	97.0	99.0	2.0	1.47
KBRC110	Boin	40.0	48.0	8.0	0.38
KBRC110	Boin	60.0	62.0	2.0	0.91
KBRC110	Boin	70.0	73.0	3.0	1.51
KBRC110	Boin	109.0	111.0	2.0	3.02
KBRC111	Boin	48.0	51.0	3.0	0.57
KBRC114	Boin	0.0	8.0	8.0	0.64
KBRC114A	Boin	4.0	12.0	8.0	0.33
KBRC115	Boin	28.0	36.0	8.0	0.62
KBRC115A	Boin	16.0	24.0	8.0	0.41
KBRC115A	Boin	88.0	96.0	8.0	0.30

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Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
KBRC116R	Boin	69.0	75.0	6.0	0.55
KBRC117	Boin	5.0	13.0	8.0	0.90
KBRC117	Boin	43.0	46.0	3.0	0.69
KBRC117	Boin	82.0	84.0	2.0	2.16
KBRC117	Boin	97.0	99.0	2.0	0.36
KBRC118	Boin	9.0	16.0	7.0	0.97
KBRC118	Boin	21.0	25.0	4.0	0.52
KBRC118	Boin	31.0	33.0	2.0	0.90
KBRC118	Boin	44.0	48.0	4.0	0.43
KBRC125	Boin NW	20.0	26.0	6.0	0.54
KBRC126	Boin NW	42.0	44.0	2.0	0.69
KBRC126	Boin NW	54.0	60.0	6.0	1.06
KBRC126	Boin NW	78.0	85.0	7.0	0.70
KBRC126	Boin NW	103.0	121.0	18.0	0.59
KBRC127	Boin	12.0	37.0	25.0	0.58
KBRC127	Boin	66.0	68.0	2.0	0.50
KBRC128	Boin	140.0	150.0	10.0	1.46
KBRC130	Boin	70.0	78.0	8.0	1.12
KBRC130	Boin	90.0	101.0	11.0	0.59
KBRC131	Boin	77.0	79.0	2.0	0.67
KBRC131	Boin	92.0	96.0	4.0	0.97
KBRC131	Boin	107.0	109.0	2.0	0.65
KBRC131a	Boin	75.0	77.0	2.0	0.78
KBRC131a	Boin	106.0	108.0	2.0	1.05
KBRC131a	Boin	133.0	137.0	4.0	0.60
KBRC131a	Boin	142.0	150.0	8.0	0.60
KBRC132	Boin	73.0	78.0	5.0	0.64
KBRC132	Boin	81.0	87.0	6.0	1.77
KBRC133	Boin	103.0	118.0	15.0	0.47
KBRC133	Boin	131.0	140.0	9.0	0.88
KBRC134	Boin	37.0	40.0	3.0	0.39
KBRC135	Boin	2.0	5.0	3.0	1.17
KBRC135	Boin	51.0	53.0	2.0	0.49
KBRC136	Boin	6.0	7.0	1.0	0.54
KBRC136	Boin	96.0	98.0	2.0	0.67
KBRC136	Boin	112.0	117.0	5.0	0.95
KBRC137	Boin	37.0	42.0	5.0	0.52
KBRC137	Boin	97.0	132.0	35.0	1.15
NBRC001	Nyam	42.0	44.0	2.0	8.65
NBRC001	Nyam	43.0	44.0	1.0	16.58
NBRC001	Nyam	111.0	112.0	1.0	0.70
NBRC006	Nyam	72.0	82.0	10.0	0.56
NBRC009	Nyam	85.0	88.0	3.0	0.73
NBRC009	Nyam	113.0	114.0	1.0	2.08
NBRC009	Nyam	121.0	126.0	5.0	0.58
NBRC010	Nyam	82.0	91.0	9.0	0.68
NBRC011	Nyam	93.0	98.0	5.0	0.33
NBRC011	Nyam	108.0	110.0	2.0	1.76

(table continues on next page)

Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
NBRC011	Nyam	113.0	115.0	2.0	0.51
NBRC012	Nyam	166.0	174.0	8.0	0.47
NBRC013	Nyam	148.0	160.0	12.0	0.62
NBRC014	Nyam	67.0	69.0	2.0	0.90
NBRC014	Nyam	109.0	115.0	6.0	1.03
NBRC014	Nyam	124.0	137.0	13.0	0.80
NBRC015	Nyam	55.0	57.0	2.0	0.82
NBRC015	Nyam	93.0	95.0	2.0	0.92
NBRC015	Nyam	101.0	116.0	15.0	0.70
SWRB007	Sewum	14	32	18	0.41
SWRB008	Sewum	23	41	18	0.39
SWRB012	Sewum	2	11	9	1.62
SWRB012	Sewum	38	53	15	0.45
SWRB015	Sewum	2	14	12	0.78
SWRB016	Sewum	47	65	18	0.63
SWRB017	Sewum	14	53	39	0.53
SWRB018	Sewum	2	38	36	0.58
SWRB021	Sewum	50	56	6	1.57
SWRB028	Sewum	23	53	30	0.62
SWRB041	Sewum	17	41	24	0.56
SWRB042	Sewum	0	26	26	0.35
SWRB044	Sewum	32	53	21	0.65
SWRC001	Sewum	0.0	20.0	20.0	0.94
SWRC001	Sewum	38.0	45.0	7.0	0.58
SWRC001	Sewum	49.0	52.0	3.0	0.40
SWRC001	Sewum	84.0	86.0	2.0	0.70
SWRC001	Sewum	94.0	96.0	2.0	0.54
SWRC002	Sewum	0.0	100.0	100.0	0.69
SWRC003	Sewum	5.0	12.0	7.0	0.46
SWRC003	Sewum	21.0	23.0	2.0	1.11
SWRC003	Sewum	45.0	47.0	2.0	0.47
SWRC003	Sewum	51.0	54.0	3.0	0.39
SWRC003	Sewum	64.0	96.0	32.0	0.51
SWRC003	Sewum	101.0	119.0	18.0	0.60
SWRC004	Sewum	0.0	11.0	11.0	0.44
SWRC004	Sewum	36.0	48.0	12.0	0.59
SWRC005	Sewum	0.0	27.0	27.0	0.60
SWRC005	Sewum	46.0	48.0	2.0	0.50
SWRC005	Sewum	54.0	100.0	46.0	0.59
SWRC006	Sewum	0.0	9.0	9.0	0.69
SWRC006	Sewum	54.0	62.0	8.0	1.05
SWRC007	Sewum	106.0	111.0	5.0	0.30
SWRC010	Sewum	24.0	31.0	7.0	0.44
SWRC011	Sewum	26.0	31.0	5.0	0.23
SWRC011	Sewum	68.0	70.0	2.0	0.39
SWRC012	Sewum	99.0	116.0	17.0	0.33
SWRC013	Sewum	62.0	66.0	4.0	0.31
SWRC014	Sewum	2.0	8.0	6.0	0.40

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Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
SWRC014	Sewum	26.0	28.0	2.0	0.32
SWRC014	Sewum	68.0	81.0	13.0	0.61
SWRC015	Sewum	5.0	32.0	27.0	0.61
SWRC015	Sewum	39.0	53.0	14.0	0.55
SWRC015	Sewum	68.0	84.0	16.0	0.55
SWRC016	Sewum	7.0	24.0	17.0	1.06
SWRC016	Sewum	30.0	75.0	45.0	0.55
SWRC016	Sewum	86.0	101.0	15.0	0.52
SWRC017	Sewum	2.0	16.0	14.0	0.74
SWRC017	Sewum	74.0	87.0	13.0	1.56
SWRC018	Sewum	4.0	24.0	20.0	0.33
SWRC018	Sewum	37.0	44.0	7.0	0.40
SWRC019	Sewum	3.0	11.0	8.0	1.37
SWRC019	Sewum	21.0	27.0	6.0	0.38
SWRC019	Sewum	30.0	39.0	9.0	0.60
SWRC019	Sewum	44.0	48.0	4.0	0.73
SWRC019	Sewum	57.0	59.0	2.0	0.30
SWRC019	Sewum	76.0	79.0	3.0	0.75
SWRC020	Sewum	26.0	33.0	7.0	0.71
SWRC020	Sewum	44.0	59.0	15.0	0.56
SWRC020	Sewum	76.0	84.0	8.0	0.92
SWRC020	Sewum	90.0	117.0	27.0	0.80
SWRC021	Sewum	4.0	13.0	9.0	0.51
SWRC021	Sewum	28.0	30.0	2.0	0.34
SWRC021	Sewum	39.0	53.0	14.0	0.36
SWRC021	Sewum	65.0	71.0	6.0	0.42
SWRC022	Sewum	21.0	24.0	3.0	0.28
SWRC022	Sewum	49.0	67.0	18.0	0.63
SWRC022	Sewum	71.0	73.0	2.0	0.41
SWRC023	Sewum	8.0	31.0	23.0	1.93
SWRC023	Sewum	73.0	75.0	2.0	1.83
SWRC023	Sewum	94.0	97.0	3.0	1.11
SWRC024	Sewum	2.0	17.0	15.0	1.00
SWRC024	Sewum	21.0	25.0	4.0	0.84
SWRC024	Sewum	95.0	103.0	8.0	1.20
SWRC025	Sewum	3.0	5.0	2.0	0.68
SWRC025	Sewum	15.0	27.0	12.0	0.64
SWRC025	Sewum	39.0	41.0	2.0	0.44
SWRC025	Sewum	49.0	53.0	4.0	0.25
SWRC026	Sewum	27.0	53.0	26.0	0.52
SWRC026	Sewum	131.0	135.0	4.0	0.51
SWRC027	Sewum	3.0	5.0	2.0	0.33
SWRC027	Sewum	35.0	48.0	13.0	0.53
SWRC027	Sewum	78.0	95.0	17.0	1.85
SWRC027	Sewum	116.0	118.0	2.0	0.89
SWRC028	Sewum	2.0	4.0	2.0	0.58
SWRC028	Sewum	124.0	126.0	2.0	0.38
SWRC029	Sewum	3.0	27.0	24.0	0.87

(table continues on next page)

Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
SWRC029	Sewum	34.0	38.0	4.0	0.46
SWRC029	Sewum	43.0	46.0	3.0	0.50
SWRC030	Sewum	3.0	11.0	8.0	0.85
SWRC030	Sewum	38.0	47.0	9.0	0.32
SWRC030	Sewum	72.0	73.0	1.0	10.44
SWRC030	Sewum	85.0	87.0	2.0	0.80
SWRC031	Sewum	4.0	33.0	29.0	0.82
SWRC031	Sewum	40.0	59.0	19.0	0.58
SWRC032	Sewum	1.0	4.0	3.0	0.36
SWRC032	Sewum	14.0	18.0	4.0	0.32
SWRC034	Sewum	55.0	59.0	4.0	2.59
SWRC034	Sewum	89.0	99.0	10.0	1.60
SWRC035	Sewum	2.0	5.0	3.0	0.31
SWRC035	Sewum	54.0	56.0	2.0	0.46
SWRC035	Sewum	133.0	140.0	7.0	3.22
SWRC035	Sewum	153.0	160.0	7.0	0.83
SWRC036	Sewum	8.0	10.0	2.0	0.32
SWRC036	Sewum	35.0	43.0	8.0	0.35
SWRC036	Sewum	91.0	96.0	5.0	0.38
SWRC036	Sewum	108.0	112.0	4.0	0.42
SWRC037	Sewum	126.0	134.0	8.0	1.25
SWRC038	Sewum	0.0	6.0	6.0	0.26
SWRC038	Sewum	64.0	75.0	11.0	0.61
SWRC038	Sewum	91.0	97.0	6.0	0.54
SWRC038	Sewum	101.0	108.0	7.0	1.02
SWRC039	Sewum	3.0	8.0	5.0	0.33
SWRC039	Sewum	16.0	20.0	4.0	0.67
SWRC039	Sewum	50.0	54.0	4.0	0.83
SWRC039	Sewum	64.0	68.0	4.0	0.35
SWRC039	Sewum	79.0	82.0	3.0	0.36
SWRC039	Sewum	143.0	148.0	5.0	0.76
SWRC040	Sewum	49.0	56.0	7.0	0.53
SWRC040	Sewum	64.0	66.0	2.0	0.35
SWRC040	Sewum	72.0	80.0	8.0	1.43
SWRC040	Sewum	110.0	112.0	2.0	0.67
SWRC041	Sewum	1.0	3.0	2.0	0.84
SWRC041	Sewum	28.0	30.0	2.0	1.02
SWRC041	Sewum	43.0	45.0	2.0	1.68
SWRC041	Sewum	134.0	150.0	16.0	0.38
SWRC042	Sewum	62.0	64.0	2.0	0.77
SWRC043	Sewum	3.0	5.0	2.0	0.31
SWRC043	Sewum	89.0	95.0	6.0	0.77
SWRC044	Sewum	199.0	202.0	3.0	0.33
SWRC044	Sewum	206.0	210.0	4.0	1.35
SWRC045	Sewum	174.0	180.0	6.0	0.78
SWRC046	Sewum	2.0	4.0	2.0	0.32
SWRC046	Sewum	27.0	31.0	4.0	0.82
SWRC046	Sewum	105.0	106.0	1.0	1.37

(table continues on next page)

Hole ID	Prospect	From(m)	To(m)	Interval(m)	Gold g/t
SWRC046	Sewum	164.0	167.0	3.0	0.35
SWRC048	Sewum	60.0	62.0	2.0	0.87
SWRC048	Sewum	163.0	169.0	6.0	0.46
SWRC048	Sewum	201.0	203.0	2.0	0.37
SWRC049	Sewum	97.0	98.0	1.0	1.17
SWRC049	Sewum	123.0	138.0	15.0	1.10
SWRC049	Sewum	144.0	147.0	3.0	0.40
SWRC049	Sewum	154.0	160.0	6.0	0.28
SWRC050	Sewum	61.0	67.0	6.0	0.99
SWRC050	Sewum	71.0	74.0	3.0	0.32
SWRC050	Sewum	95.0	107.0	12.0	0.38
SWRC053	Sewum	9.0	12.0	3.0	0.42
SWRC053	Sewum	41.0	43.0	2.0	0.45
SWRC053	Sewum	46.0	99.0	53.0	0.50
SWRC054	Sewum	0	19	19	0.30
SWRC054	Sewum	22	69	47	0.66
SWRC054	Sewum	98	107	9	0.25
SWRC056	Sewum	78.0	80.0	2.0	0.37
SWRC058	Sewum	70.0	82.0	12.0	0.48
SWRC058	Sewum	95.0	105.0	10.0	0.56
SWRC059	Sewum	23.0	28.0	5.0	0.87
SWRC059	Sewum	37.0	41.0	4.0	0.95
SWRC059	Sewum	44.0	50.0	6.0	0.62
SWRC059	Sewum	95.0	100.0	5.0	0.42
SWRC060	Sewum	25.0	35.0	10.0	0.54
SWRC060	Sewum	53.0	84.0	31.0	0.94
SWRC060	Sewum	53.0	73.0	20.0	1.27
SWRC061	Sewum	66.0	70.0	4.0	0.86
SWRC061	Sewum	82.0	97.0	15.0	0.60
SWRC061	Sewum	128.0	138.0	10.0	1.58
SWRC062	Sewum	7.0	10.0	3.0	0.84
SWRC062	Sewum	65.0	100.0	35.0	0.50
SWRC062	Sewum	81.0	87.0	6.0	0.94
SWRC063	Sewum	21.0	22.0	1.0	1.47
SWRC064	Sewum	32.0	41.0	9.0	0.34
SWRC064	Sewum	77.0	115.0	38.0	1.12
SWRC064	Sewum	77.0	92.0	15.0	1.89
SWRC065	Sewum	0.0	4.0	4.0	0.31
SWRC065	Sewum	51.0	53.0	2.0	1.06
SWRC066A	Sewum	69.0	72.0	3.0	0.15
SWRC067	Sewum	23.0	31.0	8.0	0.67
SWRC067	Sewum	50.0	147.0	97.0	0.24

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# APPENDIX

## C VARIOGRAMS



Figure 1 Boin Zone 1, 2, 3, & 5 Major Axis Variogram

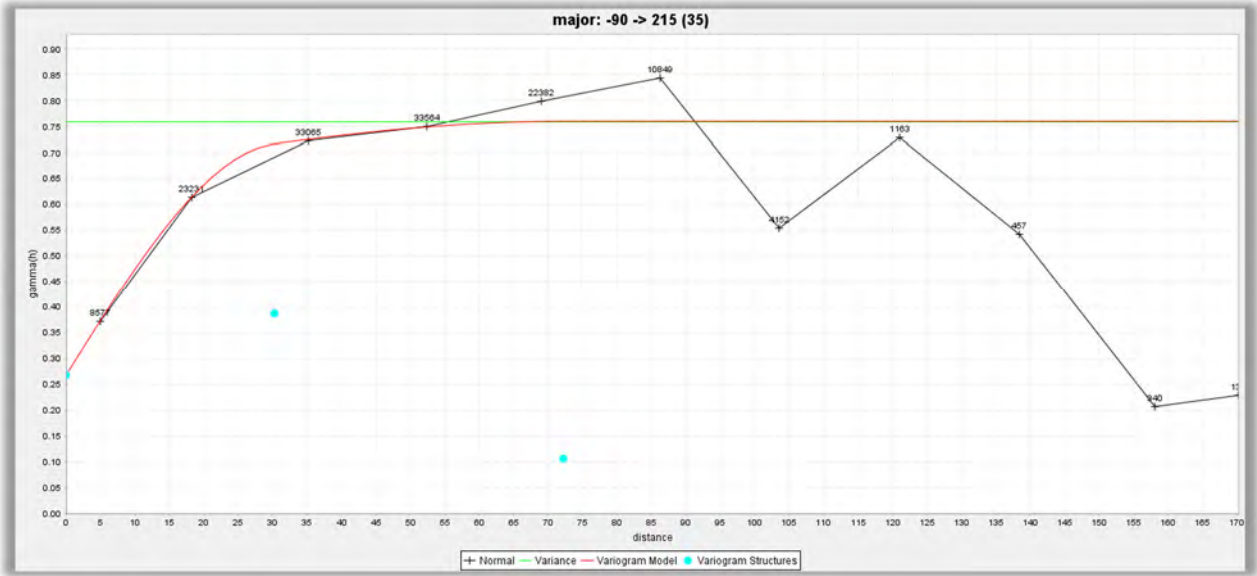


Figure 2 Boin Zone 1, 2, 3, & 5 Semi-Major Axis Variogram

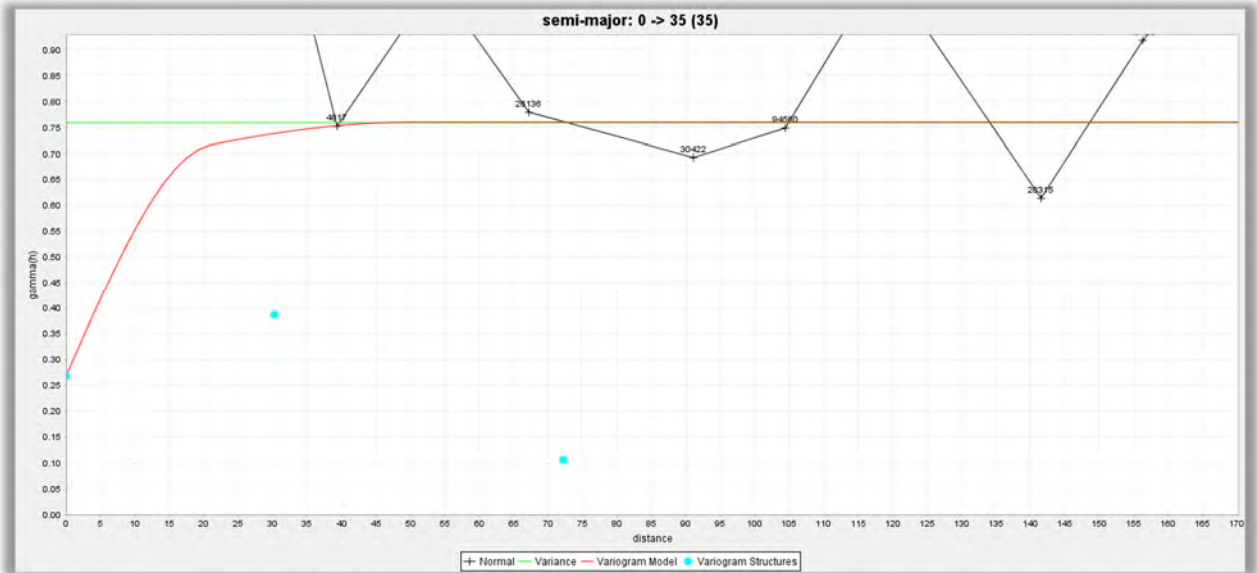




Figure 3 Boin Zone 1, 2, 3, & 5 Minor Axis Variogram

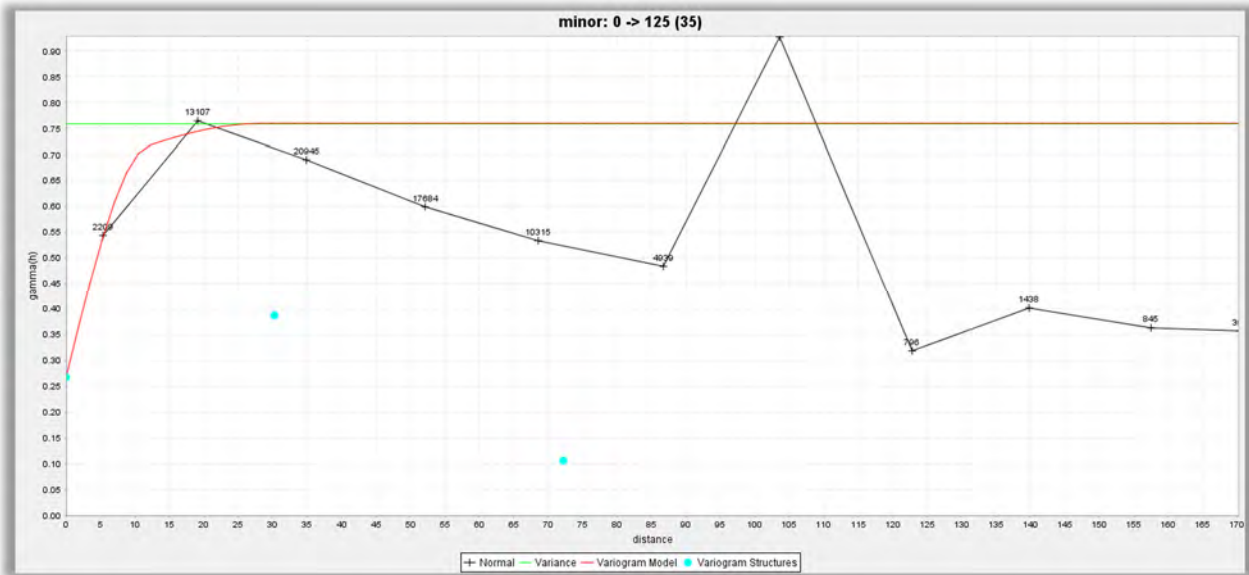


Figure 4 Nyam Multi-Directional Variogram

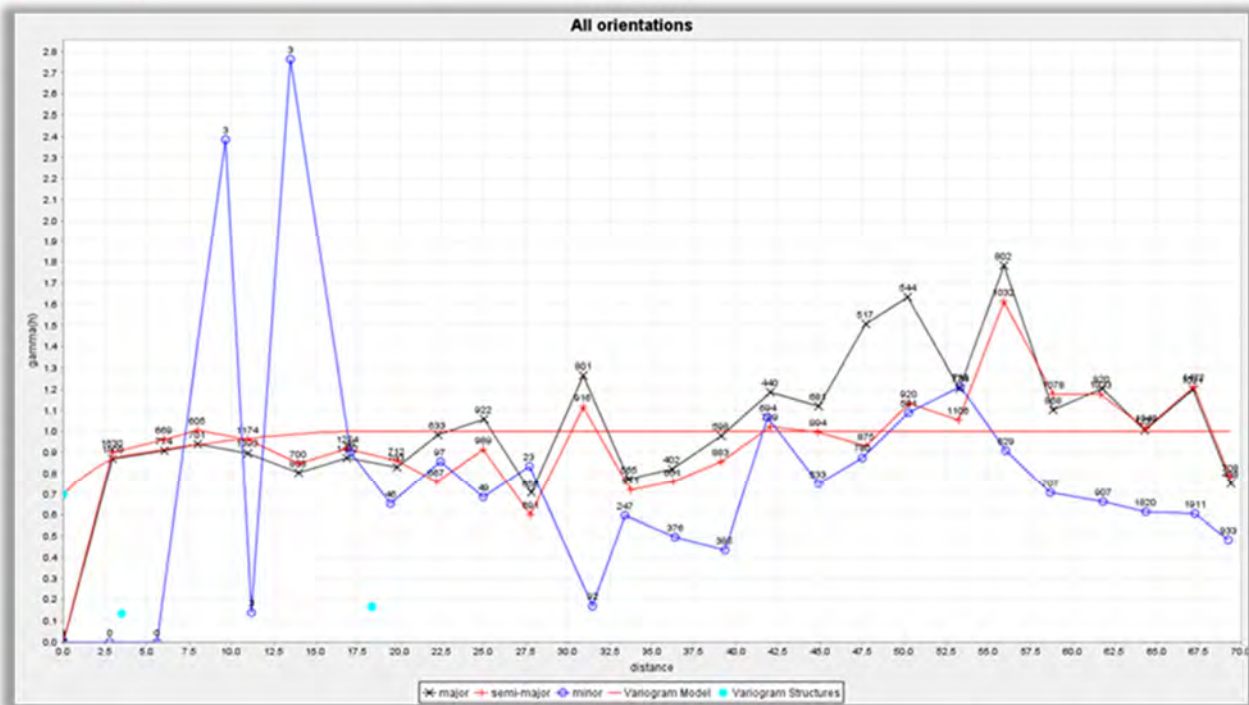
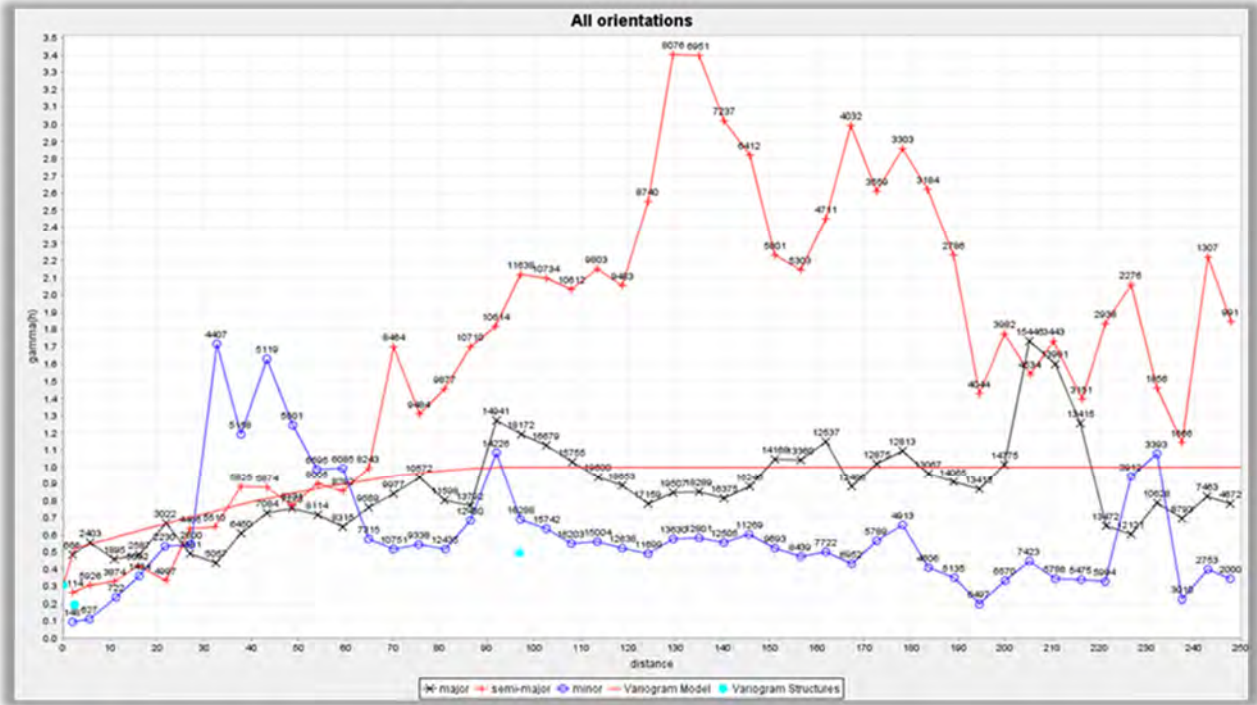


Figure 5 Sewum Multi-Directional Variogram



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