GOLDEN STAR

CREATING A LEADING AFRICAN GOLD PRODUCER

Corporate Presentation | November 2020

DISCLAIMER

SAFE HARBOUR: Some statements contained in this presentation are forward-looking statements or forward-looking information (collectively, "forward-looking statements") within the meaning of the United States Private Securities Litigation Reform Act of 1995 and applicable Canadian securities laws, respectively. Investors are cautioned that forward-looking statements are inherently uncertain and involve risks and uncertainties that could cause actual results to differ materially. Such statements include comments regarding: gold production, cash operating costs, AISC and capital expenditure estimates and guidance for 2020 on a consolidated and per mine basis, the Company's achievement of expected range of consolidated gold production for 2020; the accuracy of the Company's updated mineral reserve and resource models; the expected allocation of the Company's capital expenditures; the potential application of the ATM program up to $50m and use of proceeds being discretionary growth capital, exploration and general corporate purposes; the ability to expand the Company and its production profile through the exploration and development of its existing mines and through strategic value accretive acquisitions; the intended expansion of production and reduction of costs; the potential impact of the COVID-19 pandemic on the Company's operations and the ability to mitigate such impact; the ability to expand the mineral reserves of the Company through further drilling; the ability of the Company to improve the geographical diversification of its portfolio; expected grade and mining rates for 2020; the ability to increase capacity at Wassa; completion and commissioning of the paste fill plant project and timing thereof; timing to complete the paste fill plant project; improved recovery expected to result from the paste fill plant project; installation of the electrical substation and upgrade of the underground electrical infrastructure, and the timing thereof; the resumption of exploration activities and the timing thereof; the development of the southern extensions of the Wassa resource and the timing thereof; Future Global Resources' ability to deliver the Bogoso Sulfide Project; the receipt by Golden Star of the deferred payments and the timing thereof; and the receipt by Golden Star of the contingent payment and the potential amount thereof. Forward-looking statements are subject to known and unknown risks, uncertainties and other important factors that may cause the actual results, performance or achievements of Golden Star to be materially different from those expressed or implied by such forward-looking information. There can be no assurance that future developments affecting the Company will be those anticipated by management. Please refer to the discussion of these and other factors in Management's Discussion and Analysis of financial conditions and results of operations for the year ended December 31, 2019, the three months ended September 30, 2020 and in our annual information form for the year ended December 31, 2019 as filed on SEDAR at www.sedar.com. The forecasts contained in this presentation constitute management's current estimates, as of the date of this presentation, with respect to the matters covered therein. We expect that these estimates will change as new information is received and that actual results will vary from these estimates, possibly by material amounts. While we may elect to update these estimates at any time, we do not undertake to update any estimate at any particular time or in response to any particular event. Investors and others should not assume that any forecasts in this presentation represent management's estimate as of any date other than the date of this presentation.

In this presentation, we use the terms "cash operating cost per ounce", "All-In Sustaining Cost per ounce" and "AISC per ounce". These terms should be considered as Non-GAAP Financial Measures as defined in applicable Canadian and United States securities laws and should not be considered in isolation or as a substitute for measures of performance prepared in accordance with International Financial Reporting Standards ("IFRS"). "Cash operating cost per ounce" for a period is equal to the cost of sales excluding depreciation and amortization for the period less royalties, the cash component of metals inventory net realizable value adjustments and severance charges divided by the number of ounces of gold sold (excluding pre-commercial production ounces) during the period. ,"All-In Sustaining Costs per ounce" commences with cash operating costs and then adds sustaining capital expenditures, corporate general and administrative costs, mine site exploratory drilling and greenfield evaluation costs and environmental rehabilitation costs, divided by the number of ounces of gold sold (excluding pre-commercial production ounces) during the period. This measure seeks to represent the total costs of producing gold from operations. These measures are not representative of all cash expenditures as they do not include income tax payments or interest costs. Changes in numerous factors including, but not limited to, mining rates, milling rates, gold grade, gold recovery, and the costs of labor, consumables and mine site general and administrative activities can cause these measures to increase or decrease. We believe that these measures are the same or similar to the measures of other gold mining companies but may not be comparable to similarly totaled measures in every instance. Please see our "Management's Discussion and Analysis of Financial Condition and Results of Operations for the year ended December 31, 2019" for a reconciliation of these Non-GAAP measures to the nearest IFRS measure.

INFORMATION: The information contained in this presentation has been obtained by Golden Star from its own records and from other sources deemed reliable, however no representation or warranty is made as to its accuracy or completeness. The mineral reserve and mineral resource estimates have been compiled by the Company's technical personnel in accordance with definitions and guidelines set out in the Definition Standards for Mineral Resources and Mineral Reserves adopted by the Canadian Institute of Mining, Metallurgy, and Petroleum and as required by Canada's National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101"). . All mineral resources are reported inclusive of mineral reserves. Mineral resources which are not mineral reserves do not have demonstrated economic viability. Mineral reserve estimates reflect the Company's reasonable expectation that all necessary permits and approvals will be obtained and maintained. Mining dilution and mining recovery vary by deposit and have been applied in estimating the mineral reserves. Additional scientific and technical information relating to the mineral properties referenced in this news release are contained in the following current technical reports for those properties available at www.sedar.com: (i) Wassa - "NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources, Wassa Gold Mine, Ghana" effective December 31, 2018;

CAUTIONARY NOTE TO US INVESTORS: This presentation uses the terms "measured mineral resources", "indicated mineral resources" and "inferred mineral resources." The Company advises US investors that while these terms are recognized and required by NI 43-101, the US Securities and Exchange Commission ("SEC") does not recognize them. Also, although disclosure of contained ounces is permitted under Canadian regulations, the SEC generally requires mineral resource information to be reported as in-place tonnage and grade. US Investors are cautioned not to assume that any part or all of the mineral deposits in the measured and indicated categories will ever be converted into mineral reserves. US investors should also note that "Inferred mineral resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of inferred mineral resources will ever be upgraded to a higher category. In accordance with Canadian rules, estimates of inferred mineral resources cannot form the basis of feasibility or other economic studies. US investors are cautioned not to assume that any part or all of the inferred mineral resource exists or is economically or legally mineable.

CURRENCY: All monetary amounts refer to United States dollars unless otherwise indicated.

GOLDEN STAR - Overview

Wassa | Underground gold mine in Ghana

Business Transformation

Balance Sheet Transformation

Bogoso-Prestea – Sale transforms balance sheet and improves cash generation

Macquarie facility amendments – Adds liquidity

$50m At The Market program – Discretionary growth capital

Unlocking Growth

Improved financial position enables increase in capital allocation to support future growth

Wassa

Short Term Growth

Targeting 5,000tpd mining rate

Long Term Growth

Plant capacity 7,800tpd

Preliminary Economic Assessment

Commenced September 2020

Growth supported by scale of underground resource

889koz Reserve | 2Moz M&I resource | 7Moz Inferred resource

Exploration

Exploring the wider potential of the Ghana land package

352km² of licence area | 90km prospective gold belt

Step up in exploration activity expected in 2021

Q3 2020 – Performance Summary & Key Events

Production And Sales – (Continuing operations)

Production
Q3 2020 41.6koz
Q2 2020 44.8koz

Gold Sold
Q3 2020 40.9koz
Q2 2020 46.5koz

Unit Costs

Cash opex/oz[1]
Q3 2020 $664/oz
Q2 2020 $633/oz

AISC/oz[1]
Q3 2020 $1,023/oz
Q2 2020 $957/oz

Financial Performance

Adj. EBITDA[1]
Q3 2020 $37.5m
Q2 2020 $36.4m

Operating Cash Flow[2]
(inc disc. opps)
Q3 2020 $25.5m
Q2 2020 $27.1m

Cash
Q3 2020 $48.3m
Q2 2020 $45.1m

Net Debt
Q3 2020 $50.1m
Q2 2020 $57.5m

Q3 2020 Key Events

COVID-19

- No cases at Wassa since early September, availability of technical expertise impacted on Q3 2020
- Borders open and expatriate workforce being remobilized

Wassa

- Underground mining rates neared 5,000 tonnes per day through Q3 2020
- Plant throughput exceeded 6,000 tonnes per day with the addition of stockpiles
- Underground grades reduced to 2.8g/t, 18% lower than Q2 2020
- Commenced Preliminary Economic Assessment ("PEA") on development of Southern Extension of Wassa ore body

Prestea

- Sale of 90% interest in Bogoso-Prestea completed September 30, 2020
- Disposal removed $24m of negative working capital and a $53m rehabilitation provision from the Company's balance sheet
- Cash generation from Wassa no longer encumbered by losses at Prestea, infill drilling at Wassa and exploration to be accelerated in 2021

Sustainability

- All injury frequency rate (AIFR) of 5.19 and total recordable injury frequency rate (TRIFR) of 1.00 during Q3 2020

1. See note on slide 2 regarding Non-GAAP Financial Measures.
2. Operating cash flow before working capital changes (including discontinued operations)

BOGOSO-PRESTEA – Sale completed 30 September 2020

$55m total consideration
Cash proceeds of $30m

$25m Working Capital transferred on completion

Calculated on a cash, debt and working capital free basis. FGR to assume c.$25m of negative working capital

$5m cash

Payable on the earlier of FGR finalizing reclamation bonding process or March 30, 2021

$10m cash

Payable July 31, 2021

$15m cash

Payable July 31, 2023

Sulfides Contingent Consideration

Average spot price for 90 days preceding sulfides "Decision to Proceed"[1] defines the value of contingent payment

≤$1,400/oz	>$1,400 - $1,700/oz	>$1,700/oz
$20m	$30m	$40m

$20-40m – Bogoso sulfide contingent consideration payable in two tranches

Tranche one

50% of $20-40m consideration payable on "Decision to Proceed"[1] or extraction of 5% of sulfide resource

Tranche two

Balance of contingent consideration payable on first anniversary of achieving commercial production or declaration of extraction of 5% of sulfide resource

1. "Decision to Proceed", The trigger point for the contingent payment is either (i) FGR's formal decision to proceed with the Bogoso Sulfide Project, or (ii) the extraction of an aggregate of 5% of the sulfide resources as stated by Golden Star at the end of 2019, being 1.76 million ounces of measured and indicated resources and 0.07 million ounces of inferred resource

OUTLOOK – Tightening Production and Cost Guidance Range

		Quarter Ended		Year to Date	Guidance	
		Sep 2020	Jun 2020	9 Months	Updated	Previous[2]
Production and cost highlights						
Production – Wassa	koz	41.6	44.8	126.7	165-170	165-170
Production – Prestea	koz	6.8	5.9	22.3	22.3	30-35
Total gold produced	**koz**	**48.4**	**50.6**	**149.0**	**187-192**	**195-205**
Cash operating cost – Wassa[1]	$/oz	664	633	643	620-660	620-660
Cash operating cost – Prestea[1]	$/oz	2,141	2,292	2,033	2,033	1,800-2,000
Cash operating cost – Consolidated[1]	**$/oz**	**872**	**827**	**852**	**810-850**	**810-850**
All-in sustaining cost – Wassa[1]	$/oz	1,023	957	979	930-990	930-990
All-in sustaining cost – Prestea[1]	$/oz	2,491	2,910	2,477	2,477	2,200-2,600
All-in sustaining cost – Consolidated[1]	**$/oz**	**1,230**	**1,186**	**1,205**	**1,100-1,180**	**1,100-1,180**
Capital Expenditure						
Sustaining capital – Wassa	$m	6.0	6.5	16.0	20-22	23-25
Sustaining capital - Prestea	$m	1.3	1.9	5.4	5.4	6.5-7.5
Sustaining capital - Corporate	$m	-	0.1	0.4	-	-
Sustaining capital – Consolidated	**$m**	**7.3**	**8.5**	**21.8**	**25.4-27.4**	**29.5-32.5**
Development capital – Wassa	$m	2.6	5.2	13.6	18-20	19-21
Development capital – Prestea	$m	0.9	0.3	1.6	1.6	2.5-3
Development capital – Exploration	$m	0.1	0.1	0.4	2.5	3.5
Development capital – Consolidated	**$m**	**3.6**	**5.6**	**15.6**	**22.1-24.1**	**25-27.5**
Total capital - Consolidated	**$m**	**10.9**	**14.1**	**37.4**	**47.5-51.5**	**55-60**

Performance Versus Guidance

Production

Wassa performance remains on track to deliver on the 165-170koz production guidance range that was increased from 155-165koz in the Q2 2020 results this is attributable to:

- Higher than budgeted mining rates of 4,960tpd in Q3 2020
- The processing of low grade stockpiles

Prestea – Following the sale of the Bogoso-Prestea assets on September 30, 2020, Prestea production for Q4 2020 has been removed from guidance

Costs

Wassa is tracking towards the upper end of its AISC guidance range due to:

- Increase in royalties due to higher realized gold price ($17/oz)
- Processing of low grade stockpiles at Wassa ($12/oz AISC impact for Wassa
- Reallocation of G&A to Wassa on sale of Prestea

Capital Expenditure

The capex guidance has been reduced due to:

- Q3 2020 Wassa development rates impacted by availability of expat jumbo operators due to COVID-19
- The sale of Prestea removes capex of $2-3.5m that was budgeted for Q4 2020

1. See note on slide 2 regarding Non-GAAP Financial Measures.
2. Revised guidance from Q2 2020 results, announced July 28, 2020

ESG SCORECARD – 2019

ENVIRONMENT

0
ZERO reportable environmental incidents

0.05
Water intensity
ML per ounce

4.33
Energy intensity
GJ / oz Au produced

0.28
GHG emissions intensity
tCO_2e / oz Au produced

100%
Conformance
Statutory monitoring & limits

SOCIAL

0
ZERO fatalities

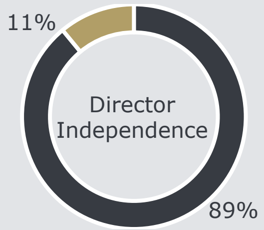
4%
of employees are female

99%
Site workforce Ghanaian
54% host communities

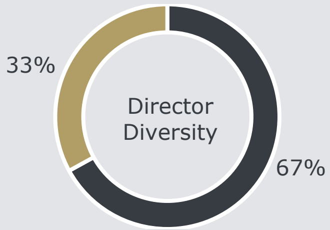
52
Hours of training per person

Best Performer in OHS
Ghana Mining Industry awards

GOVERNANCE



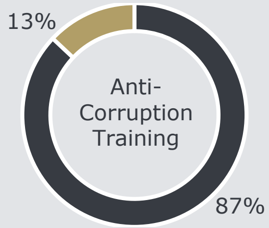
89% directors are independent



33% directors and ExCo are female

4
Whistleblower reports
100% resolved

0
ZERO corruption issues



Anti-corruption training
designated employees

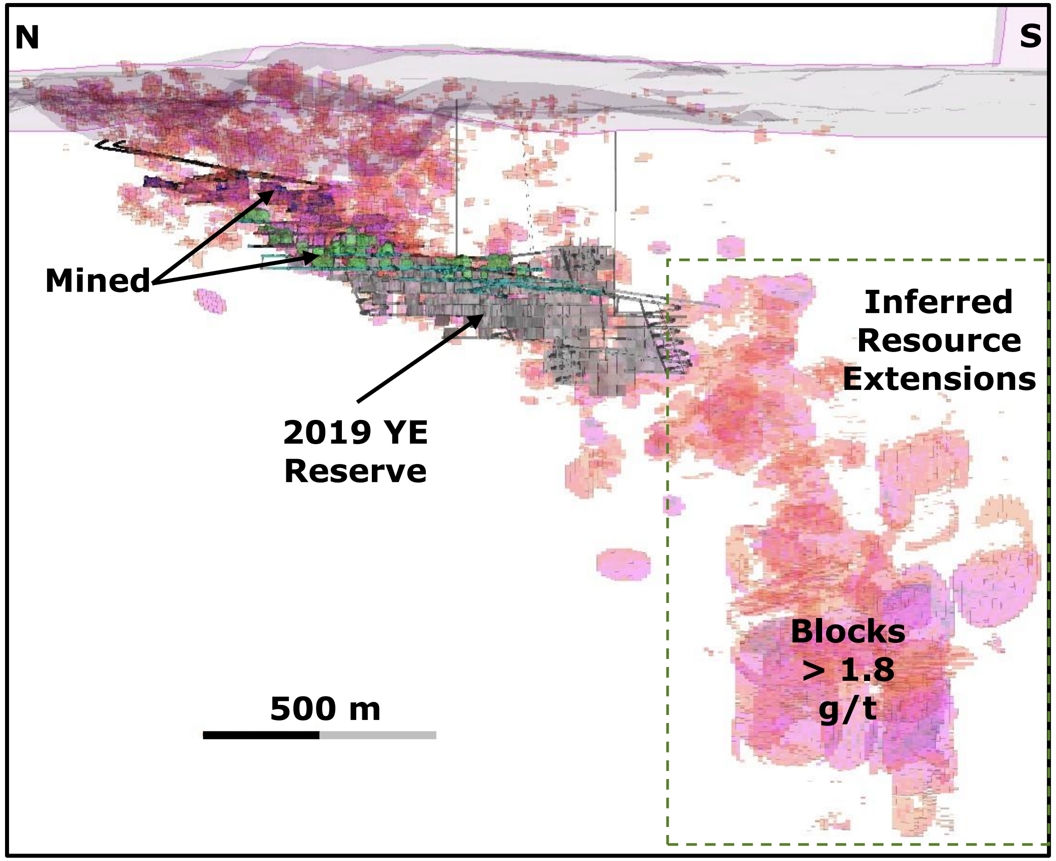
RECOGNITION

Featured in the UN Global Compact Canada Sustainable Development Goals Leading Practice Guide for SDG 1, 3 & 8

Five successive Ghana Mining Industry Awards for leading social initiatives

WASSA

WASSA – Available Infrastructure Capacity Creates Growth Opportunity



Current Operations – A Strong Foundation

- Mining rates expected to exceed 4,000tpd in 2020
- 2020 production guidance of 155-165koz revised to 165-170koz
- Paste fill plant currently being constructed - due to be commissioned in Q4 2020

Growth Phase One - Utilisation of decline capacity

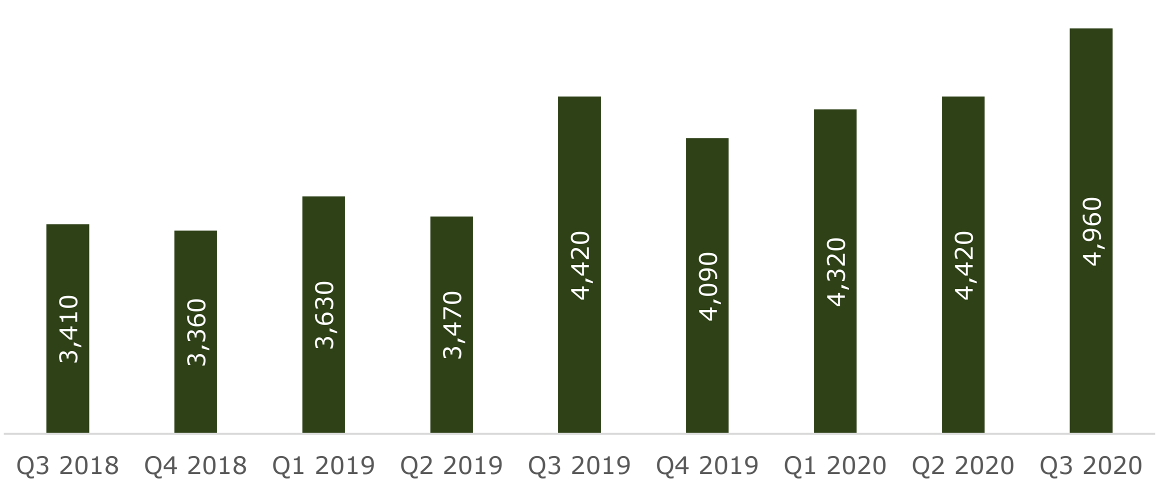
- Decline capacity 5,000tpd
- Implies 20-25% of additional production capacity once fully utilised
- Production should therefore rise accordingly
- The incremental production expected to have a positive impact on unit costs
- Mining fleet required to to be expanded over time. 60 tonne trucks, additional loaders & jumbo

Growth Phase Two - Utilisation of plant capacity

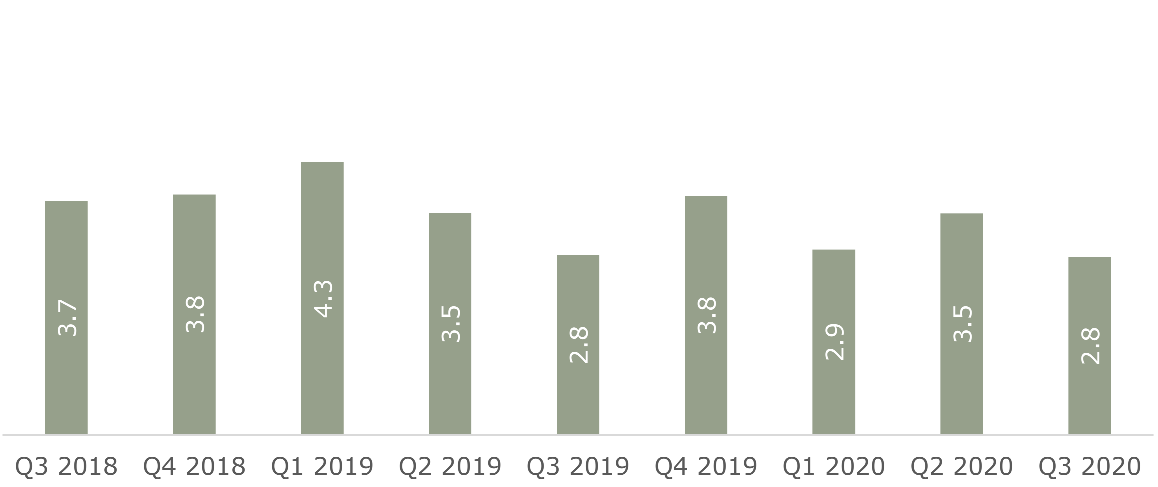
- Processing plant capacity 7,800tpd - only ~50-60% utilised
- Additional underground mining infrastructure would be required to maximise utilisation of the plant
- The southern extensions could be accessed via a decline or a shaft
- The on-mine exploration program could defer the need for major infrastructure (subject to success)

WASSA PRODUCTION SCORECARD – Performance Tracking

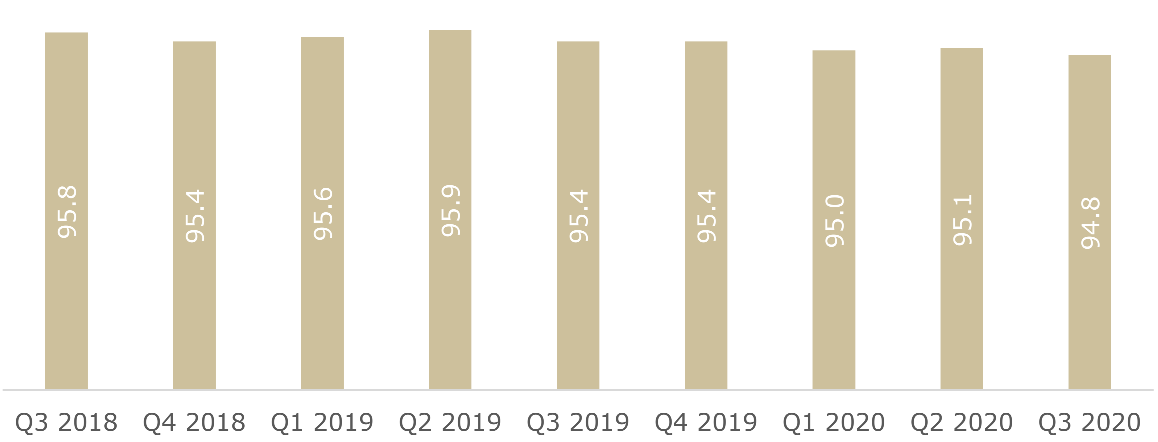
Mining Rate (ore tpd) – Nearing 5,000tpd in Q3 2020



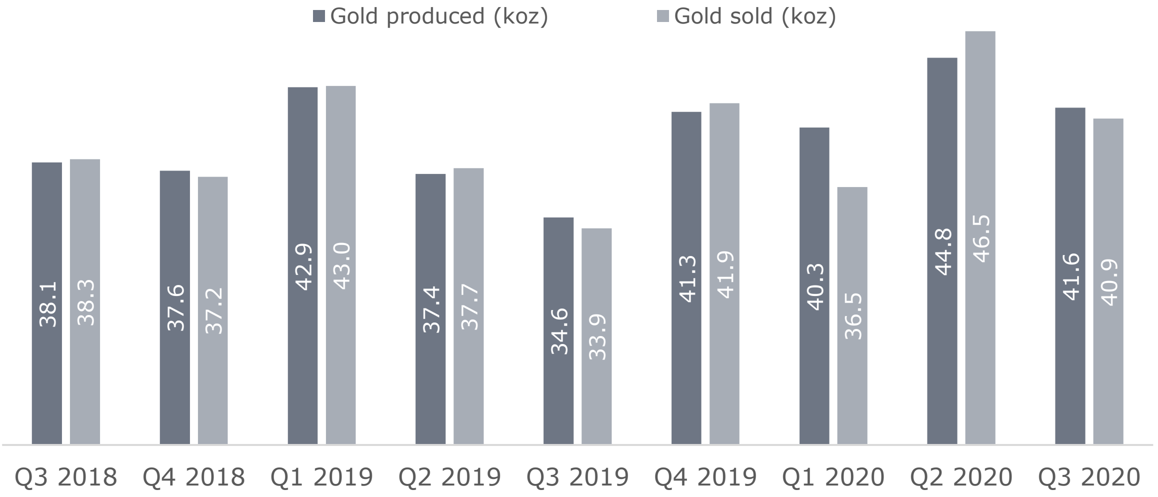
Grade (g/t) – Impacted by development rates in Q3 2020



Recovery (%) – Stable while processing stockpiles



Production (koz) – Robust performance driven by ore volumes



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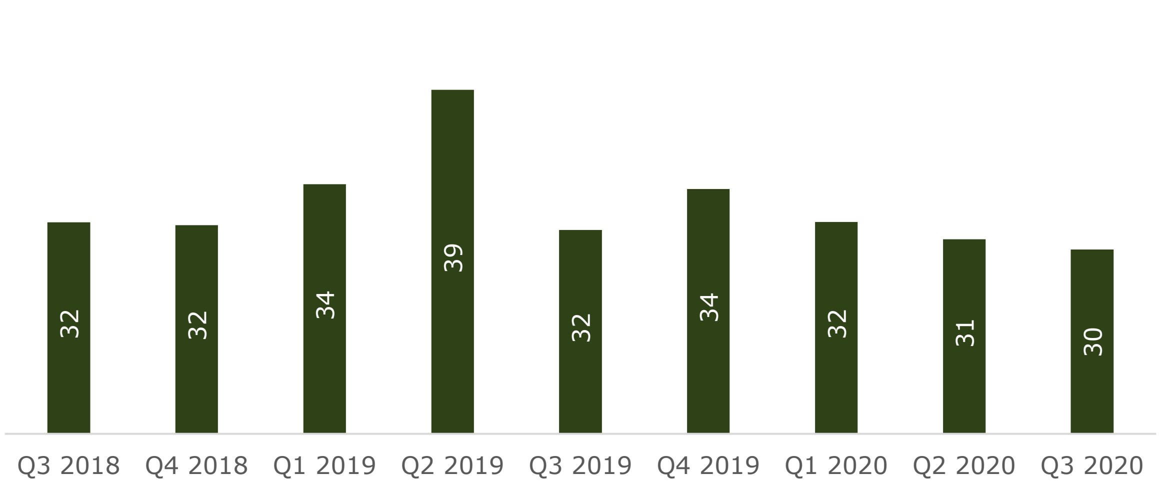
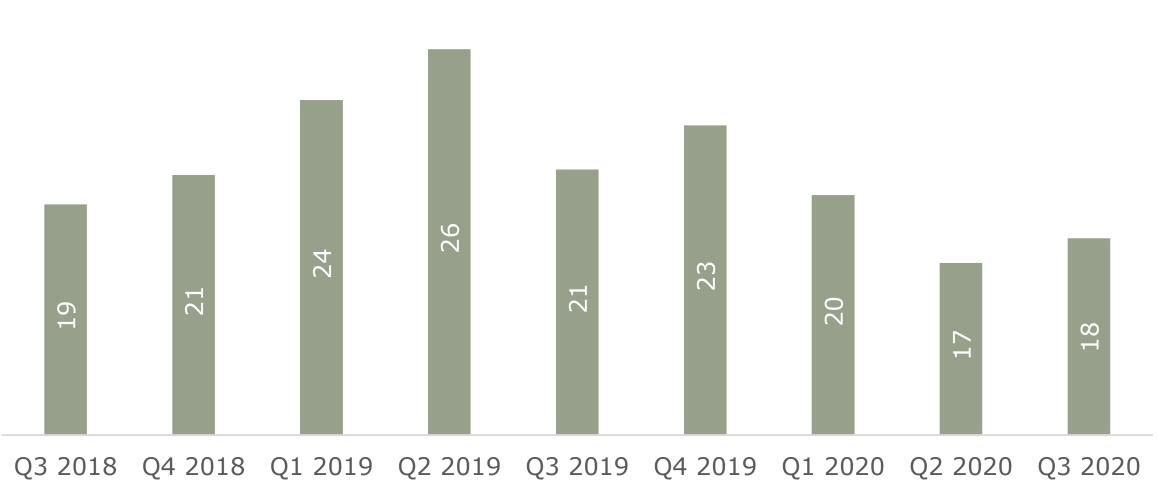
NYSE AMERICAN: GSS | TSX: GSC

WASSA COST SCORECARD – Performance Tracking

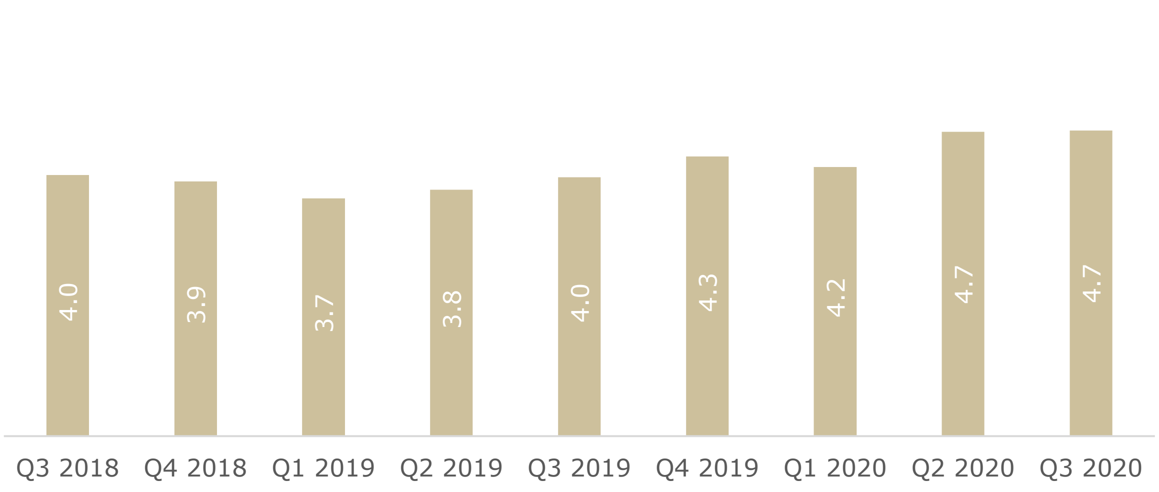
UG Mining Costs ($/t ore mined) – Benefiting from higher volumes



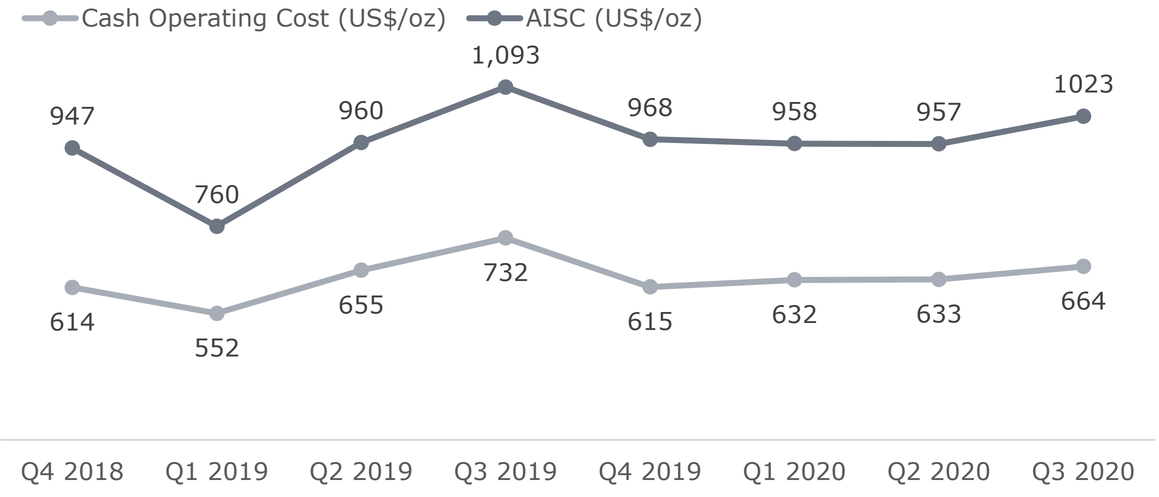
Processing Costs ($/t) – Benefiting from higher ore volumes



Site G&A ($m) – Q2/Q3 2020 impacted by elevated gold transport costs



Cash Opex & AISC[1] ($/oz) – AISC restated for Prestea sale



1. See note on slide 2 regarding Non-GAAP Financial Measures.

WASSA PROJECTS UPDATE – Investing In The Longer-term Potential

Paste Fill Plant

Project Timeline
- Paste plant construction started in H2 2019
- Project at 98% completion at September 30, 2020
- Commissioning expected in Q4 2020

Budget
- Capital cost: $23m budget ($13.5m in 2020), tracking below budget
- Operating cost: $5-7 per tonne

Investment rationale
- Beneficial reuse of waste material will reduce TSF footprint and risk
- Increase recovery of ore as a primary and secondary stope will be mined, we currently mine larger primary stopes, leaving support pillars
- Can return to certain mining areas to recover historical pillars
- Access more ore per development metre
- Supports increased mining rates

Electrical Upgrade and Genser Facility

Project Timeline
- Electrical upgrades completed in Q3 2020
- Genser facility expected to be completed during Q4 2020

Investment rationale
- Genser facility is designed to provide stable power supply at an attractive price
- Electrical infrastructure upgrade to support the underground mine plan for the next five years

FINANCIAL RESULTS

Q3 2020 CONSOLIDATED FINANCIAL RESULTS

Continuing operations		Q3 2020	Q3 2019	YoY[1] % change	Q2 2020	QoQ[1] % change
Total gold produced	**koz**	**41.6**	**34.6**	**20%**	**44.8**	**(9%)**
Total gold sold	koz	40.9	33.9	21%	46.5	(12%)
All-in Sustaining Costs per Ounce Sold	$/oz	1,023	1,093	(6%)	957	(7%)
Average realized gold price	$/oz	1,813	1,428	27%	1,621	12%
Gold revenues	$m	74.2	48.4	53%	75.4	(2%)
Consolidated EBITDA (Including discontinued operations)[2]	**$m**	**(9.6)**	**21.1**	**(146%)**	**33.4**	**(129%)**
Adjust for impact of discontinued operations	$m	40.8	(1.3)	3238%	1.9	2047%
EBITDA (from continuing operations)[2]	**$m**	**31.2**	**19.7**	**58%**	**35.3**	**(12%)**
Adjust for loss/(gain) on fair value of financial instruments	$m	3.7	(4.8)	177%	1.8	106%
Adjust for other expense/(income)	$m	2.6	0.3	767%	(0.7)	471%
Adj. EBITDA (from continuing operations)[2]	**$m**	**37.5**	**15.3**	**145%**	**36.4**	**3%**
Net income attributable to shareholders per share (continuing operations)[2]	$/share	0.13	0.06	117%	0.08	63%
Net (loss) / income attributable to shareholders per share (inc. discontinued operations)	$/share	(0.61)	0.05	(1320%)	0.07	(971%)
Adj. income per share (continuing operations)	**$/share**	**0.17**	**0.02**	**750%**	**0.10**	**70%**

Revenue

- Gold revenues benefited from higher realized prices (27% on Q3 2019 and 12% on Q2 2020)
- YTD sales from continuing operations lag production by 2.7koz

EBITDA

- Sale of Bogoso-Prestea had a positive impact on EBITDA from continuing operations
- $40.8m negative impact from discontinued operations includes:
  - $36.9m loss from the sale of Bogoso-Prestea operations
  - $3.9m of operating losses from the Prestea underground

Earnings per share

- Significant increase in adjusted income per share from continuing operations relative to Q3 2019 due to:
  - 21% increase in gold sales
  - 27% increase in realized gold price
  - Offset by higher mine operating costs, royalties and income taxes

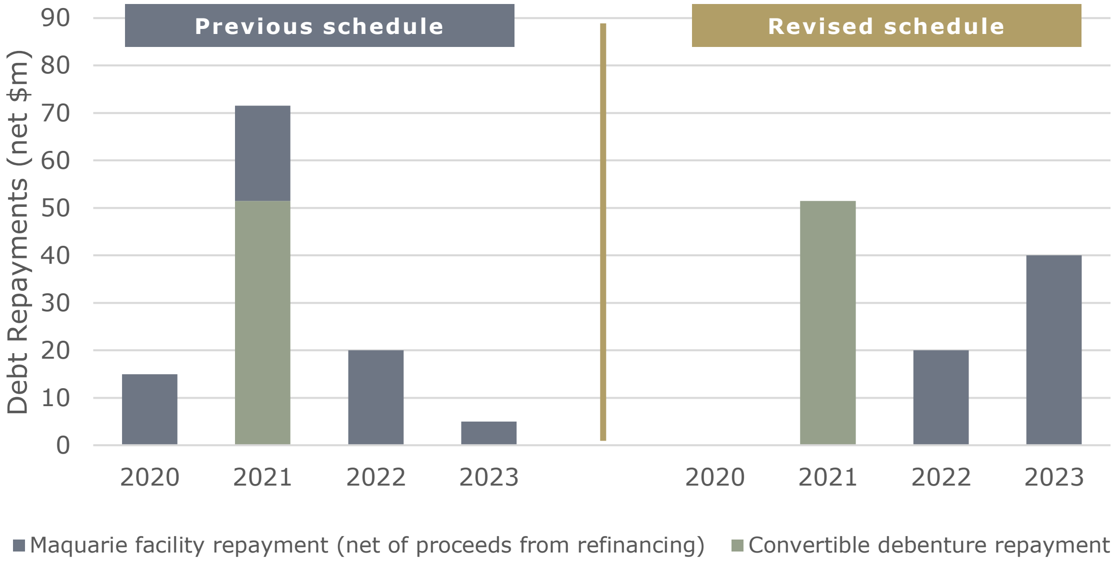
1. Year on Year ("YoY"), Quarter on Quarter ("QoQ")
2. See note on slide 2 regarding Non-GAAP Financial Measures.

Q3 2020 BALANCE SHEET – Transitioning to positive net assets

Balance Sheet Impact of Prestea Sale

Q3 Balance Sheet Position - $m	Pre Disposal	Change on sale of Prestea	Post Disposal
Assets			
Cash and cash equivalents	50	(2)	48
Accounts receivable	7	17	24
Inventories	45	(13)	32
Prepaids and other	7	(1)	6
Total Current Assets	**109**	**1**	**110**
Restricted cash	2	(1)	1
Non-current receivables	-	12	12
Mining interests	282	(82)	200
Total Assets	**393**	**(70)**	**323**
Liabilities			
Accounts payable and accrued liabilities	79	(39)	40
Current portion of rehabilitation liabilities	8	(6)	2
Current portion of long term debt	69	-	69
Other current liabilities	33	(1)	32
Total Current Liabilities	**189**	**(46)**	**143**
Rehabilitation provisions	63	(47)	16
Deferred revenue	100	(9)	91
Long term debt	29	-	29
Deferred tax liability	28	-	28
Total Liabilities	**409**	**(102)**	**307**
Equity			
Equity attributable to Golden Star shareholders	35	(37)	(2)
Non-controlling interest	(51)	68	17
Total Shareholders Equity	(16)	32	16
Total liabilities and shareholder's equity	**393**	**(69)**	**323**
Net current position	**(80)**	**47**	**(33)**
Net debt position	**(48)**	**(2)**	**(50)**

Reprofiled amortization payments – (net of proceeds)



Prestea sale transforms balance sheet

- Removal of Prestea operating losses, releases Wassa cash generation for investment in growth and exploration
- $30m cash proceeds by 2023 | $15m by July 2021

Macquarie credit facility amended October 8, 2020

- Rescheduled amortization profile and expansion of facility to $70m provides $35m of additional liquidity in the short term

$50m of additional liquidity in 2021

- Additional liquidity provides a solution to satisfy repayment of the convertible debentures on maturity in August 2021.

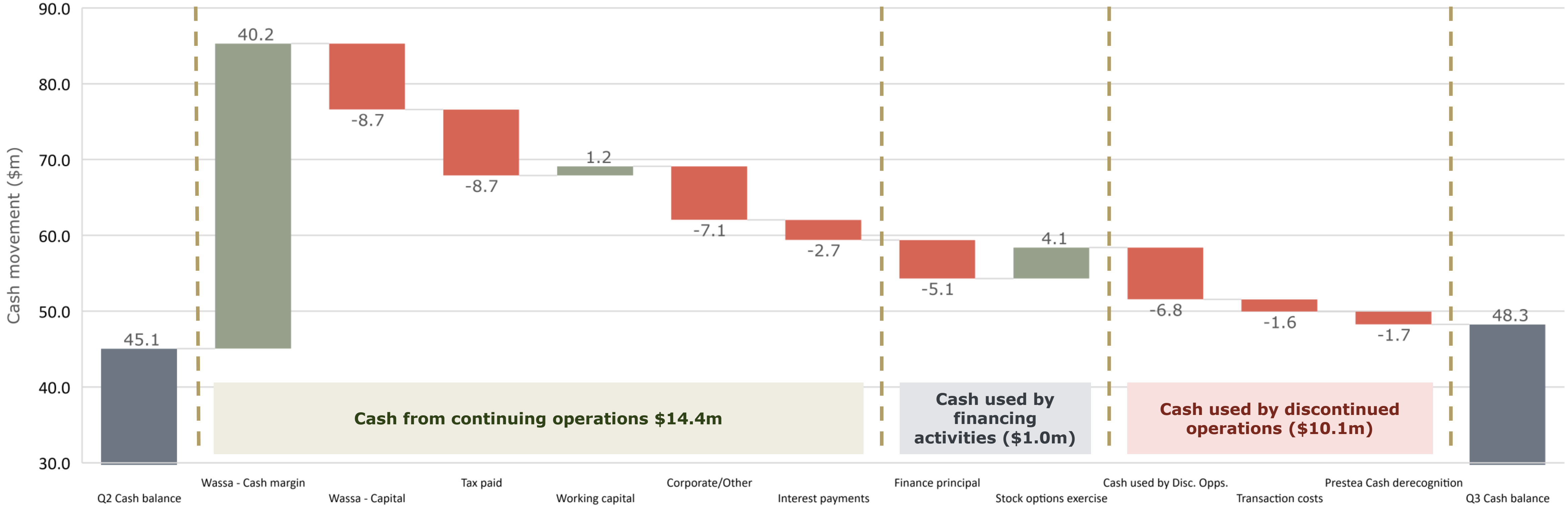
At the Market ("ATM") - $50m program

- Use of proceeds – Discretionary growth capital, exploration and general corporate purposes

GOLDEN STAR

NYSE AMERICAN: GSS | TSX: GSC

NET CASH FLOW BRIDGE – Cash Movement And Financial Position



$3.2m increase in cash during Q3 2020 | Cash position adjusted for unsold gold $52.7m

Cash from continuing operations

- Strong operating cashflow (before working capital movements) generated in Q3 2020 of $30.5m
- Corporate/Other – Includes $4.7m G&A and realized loss of $2.4m on gold hedges
- Income tax payment of $8.7m for Wassa (relating to Q2 2020)

Cash used by financing activities

- Macquarie principal repayment of $5m in September 2020 – refinancing occurred 8 October
- $4m cash inflow from stock options exercised in Q3, following the increase in the share price

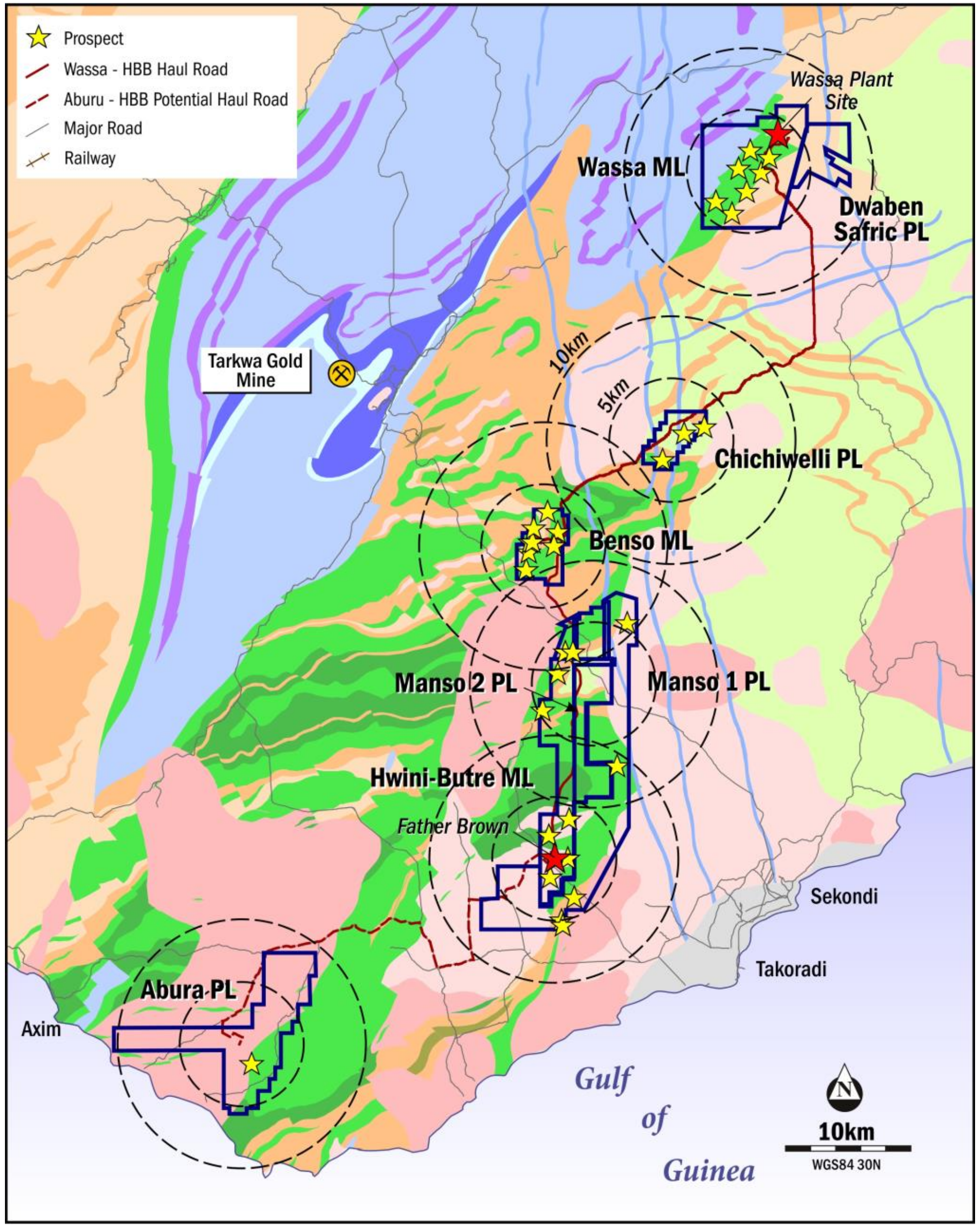
Cash used by discontinued operations

- Cash used by discontinued operations (Bogoso-Prestea) totalled $10m
- Prestea cash derecognition of $1.7m represents the cash held in the subsidiaries sold to FGR

1. See note on slide 2 regarding Non-GAAP Financial Measures.

EXPLORATION & GEOLOGY

EXPLORATION – Redefining The Exploration Strategy



Exploration Focus – Expanding Our Regional Footprint

EXPLORATION GUIDANCE

$

$5.2m

Exploration budget

$2.5m capitalised & $2.7m expensed

EXPLORATION STRATEGY

- Wassa mineralisation extends over 2.5km along strike & 1.5km depth and still open
- Wassa focus now on infill drilling of Inferred resource from underground
- Regional programs to focus on targets along the existing haul road to the south
- Identifying attractive land packages for acquisition

Exploration Objectives – 2020

Mineral Reserve and Resource update – Completed Q1 2020

Drill Wassa in-mine targets – Re-commenced Q3 2020

Regional targeting exercises – Commenced Q2 2020

Regional field programmes – Commenced Q3 2020

Identifying new Exploration Properties in Africa – Ongoing

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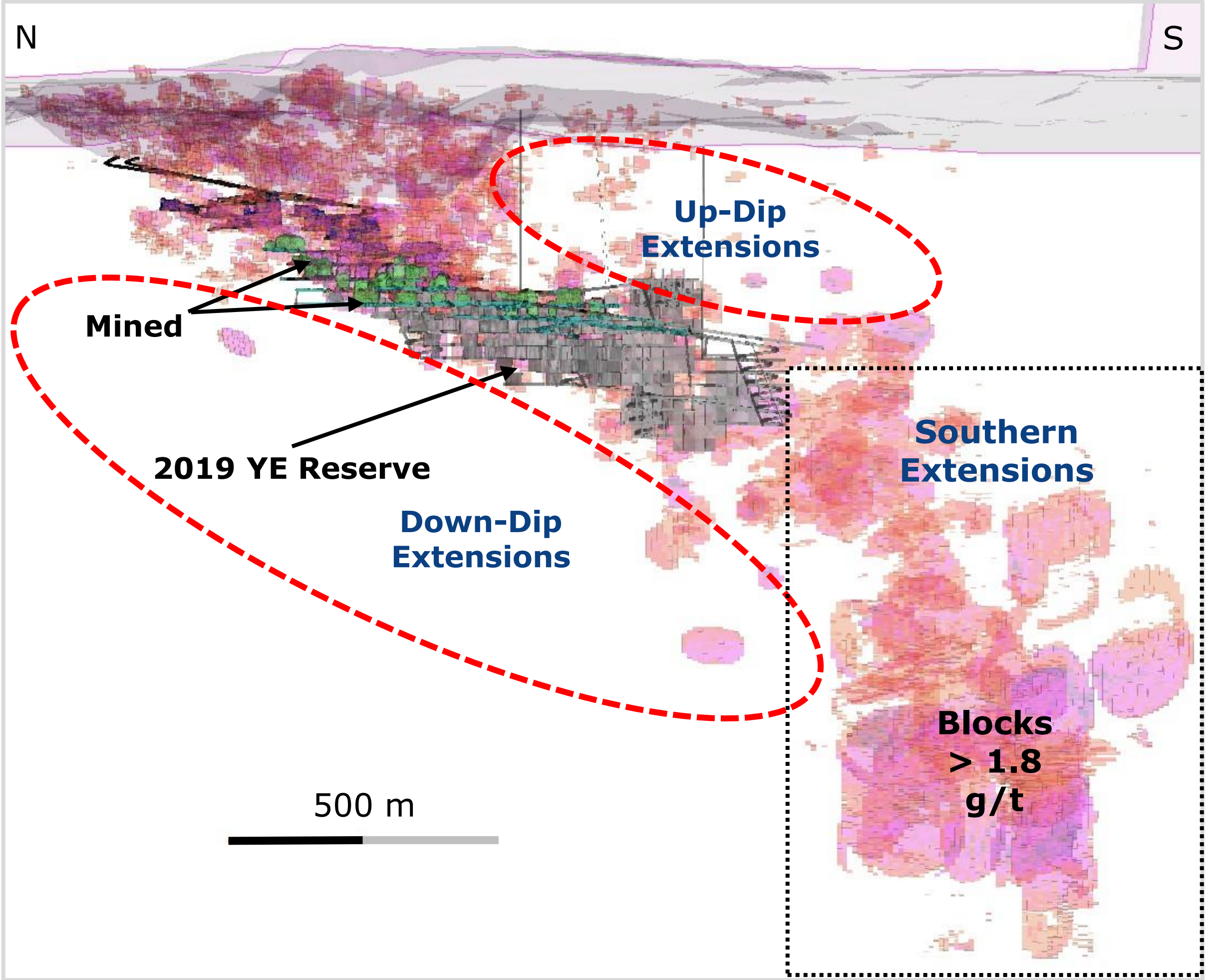
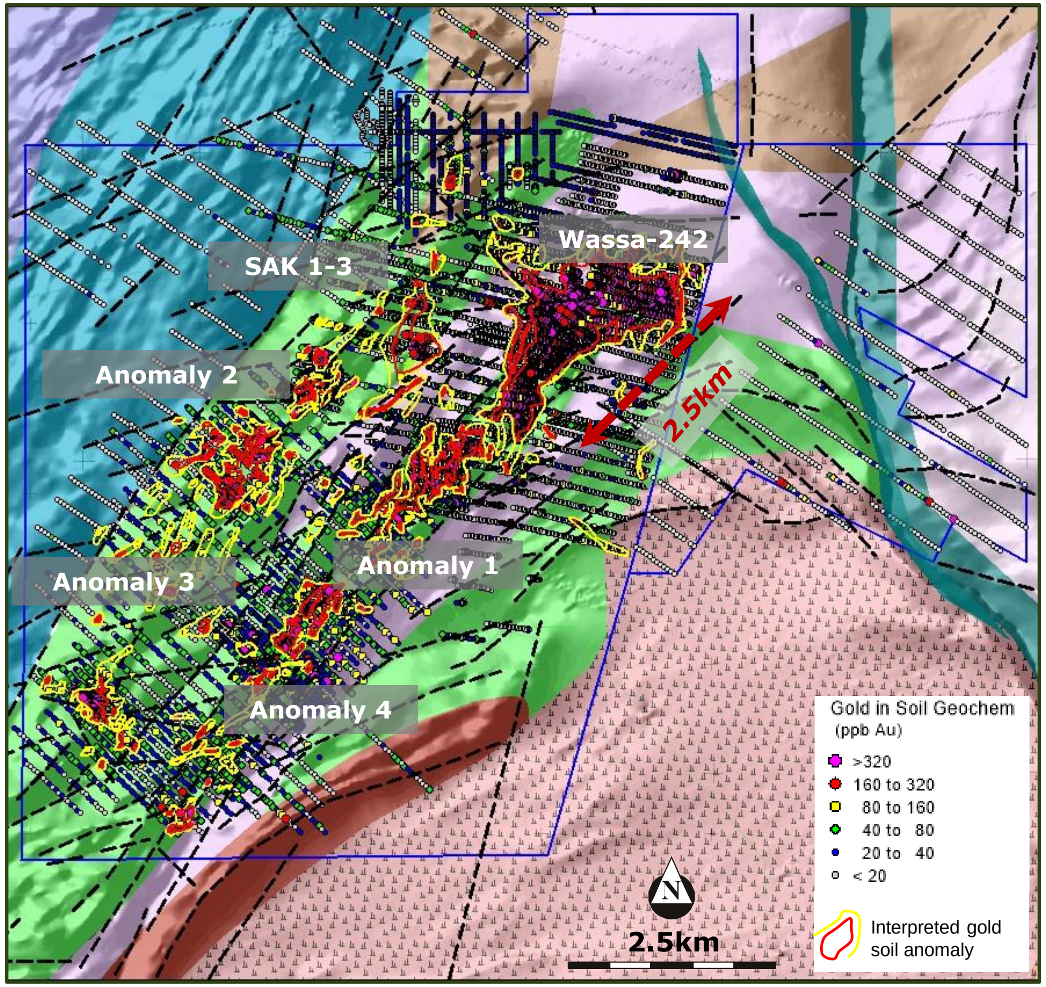
EXPLORATION – Testing Resource Extensions Adjacent to Infrastructure





Wassa In-Mine Targets

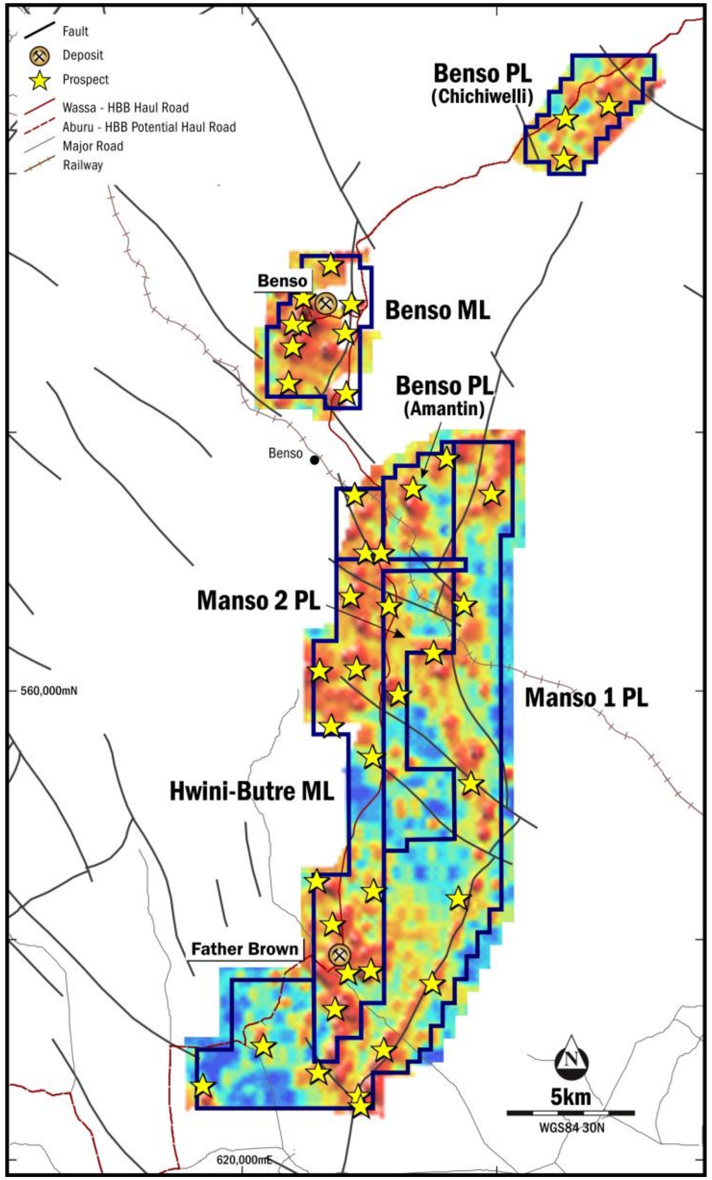
- Q4 2020 commenced drilling to test "up-dip" extensions between previously mined surface pits and existing underground infrastructure
- Planning underway for drilling "down-dip" of B-Shoot Q4 2020 / Q1 2021

Wassa Near-Mine Targets

- Numerous multi-kilometre scale gold-soil anomalies
- Targeting discovery of new gold deposits within 2-10km of the large Wassa gold resource

WASSA REGIONAL EXPLORATION – Targets Along Existing Haul Road

+30 Gold Targets Identified



Significant Regional Prospectivity

- Regional exploration across Chichiwelli, Benso, HBB and Abura project areas has identified more than 30 targets for field follow-up
    - Targets identified & delineated with surface geochemistry, geological and geophysical interpretation, historic RAB drilling, and field validation
- Wassa operation is linked to Father Brown by an 85km long, well-maintained haul road that was used to truck ore from open pits mined in the past & still hosts several small resources
- The company plans to systematically test the best regional targets to potentially identify either satellite ore feed to Wassa or a possible stand-alone satellite operation based around another gold camp
- Infill auger/soil sampling programs over 6 gold targets were completed in late Q3 2020 with results expected in early Q4

Existing infrastructure

85 km long haul road
Wassa to Father Brown

Wassa plant
Capacity: 7,800 tpd
Current utilization (12 month average): ~4,450 tpd

Targets

Father Brown
Indicated Resources: 238 koz (982 kt at 7.5 g/t)

Benso
Indicated Resources: 112 koz (1.2 Mt at 2.9g/t)
Under pit intercept 15.5 m at 6.2 g/t

Chichiwelli
Indicated Resources: 52 koz (850 kt at 1.9 g/t)

Manso North (Angu)
3-5km long gold anomaly (>100ppb)
Historical testing – Auger drilling

Abada & Apotunso
High grade quartz vein & shear
Intercepts include 8m at 5.48g/t

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SUMMARY – Q3 2020 Highlights, 2020 Guidance and Catalysts

Q3 2020 Highlights

- **Wassa** | Q3 2020 performance demonstrated the potential of the decline and processing plant to support sustainable increases in mining rates and plant throughput
- **Strategic focus** | The sale of Bogoso-Prestea releases the management team to focus on delivery of the significant growth potential at Wassa
- **Balance sheet restructuring** | Now positioned to address the convertible debentures in 2021 and accelerate investment in Wassa and the wider exploration portfolio

Catalysts Next 12 months

- **Investing in infrastructure** | Paste fill plant and electrical upgrades due to be commissioned in Q4 2020
- **Preliminary economic assessment** | Outlining development potential of southern extensions of Wassa ore body in January 2021
- **Ramp up in Wassa definition drilling** | Improved financial position unlocks accelerated investment in infill drilling at Wassa underground
- **Investing in exploration** | Exploration expected to be accelerated in 2021. Systematic program testing of regional targets being planned

2020 Guidance

WASSA

165-170koz
Production Guidance

$620-660/oz
Cash cost
$930-990/oz
AISC[1]

$38-42m
Capex Guidance

PRESTEA – to Sep. 30

22koz
Production Guidance

$2,033/oz
Cash cost
$2,477/oz
AISC[1]

$7m
Capex Guidance

GROUP GUIDANCE - 2020

187-192koz
Production Guidance

$810-850/oz
Cash cost
$1,100-1,180/oz
AISC Guidance[1]

$48-52m
Capex Guidance

1. See note on slide 2 regarding Non-GAAP Financial Measures.

THANK YOU – Q&A

CONTACT US

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Appendix

GOLDEN STAR RESOURCES – History

1999
Acquired Bogoso concessions

2002
Acquired Prestea concessions Underground operational since 1890s

2003
Acquired Wassa Gold Mine for $16m

2004
Wassa CIL plant construction begins

2005
Wassa CIL plant commissioned
-
Construction of Bogoso Biox plant commences

2006
Acquired St.Jude Resources (HBB concessions)

2007
Construction of 80km haul road through HBB concessions
-
Bogoso refractory plant commissioned

2011
Father Brown open pit commences
-
Biox tanks at Bogoso refractory plant upgraded

2012
Drilling of underground target below Wassa pits commences

2014
Wassa Underground PEA
-
Father Brown open pit mining ceases
-
Prestea Underground PEA

2015
Wassa UG study & construction decision
-
Royal gold stream
-
Prestea UG study & refractory plant closed

2016
Wassa Underground first stope
-
Prestea underground infrastructure refurbishment

2017
Wassa UG commercial production
-
Prestea Underground first stope

2018
La Mancha invest $126m
-
Prestea UG commercial production

2019
Management change
-
Refinance debt facilities
-
Initiate Prestea strategic review

ENVIRONMENT & SOCIAL – Projects

Alternative Livelihoods and Post Mining Land Use

- Commercial oil palm plantation developed on subsistence farms and through the rehabilitation of former mining areas
- Zero deforestation
- Field trials on historical tailings facilities
- Creates a sustainable alternative livelihood that currently supports over 700 families
- Multi-award winning program

Alternative Livelihoods & Local Procurement

- Alternative livelihoods to promote wealth creation and value retention for host communities
- Avoid conflicting land uses and reduce reliance on illegal activities
- Supporting local supply chains by sourcing services and supplies from local businesses
- Strengthens business continuity

Diversity & Representation - Ladies Group

- 99% Ghanaian workforce
- +50% of workforce from host communities
- Increasing female representation in the workforce to +20% over the next five years. Currently 7%
- Ladies group proactively promotes opportunities for women in communities
- Partnership with WIM UK

Health – Malaria Prevention

- Malaria case rates in line with target
- Lowest level in history of the program and an order of magnitude better than background rates
- Extended program elements to host community in 2019 with supply of over 5,000 long lasting insecticide treated bed nets to workforce and community

Mineral Reserves & Resources – Wassa Resource Continues To Grow

Mineral Reserve & Resource update

Total Reserves

1.4Moz

Total Measured and Indicated Resources

3.7Moz

Total Inferred Resources

7.5Moz

Wassa Underground Proven Reserve

228koz | 87% growth

Reflects improved geological understanding of 2020 & 2021 mining areas

Wassa Underground Measured & Indicated Resource

2Moz | 18% growth

Infill drilling improved geological confidence in ore body

Wassa Underground Inferred Resource

7Moz | 19% growth

Southern extensions of ore body continued to deliver additional Inferred Resource

Mineral Reserve Estimate – December 31, 2019

	Proven Mineral Reserve			Probable Mineral Reserve			Total Mineral Reserve		
	Mt	g/t	koz	Mt	g/t	koz	Mt	g/t	koz
Wassa Open Pit	-	-	-	9.9	1.57	500	9.9	1.57	500
Wassa Underground	**1.7**	**4.11**	**228**	**5.7**	**3.61**	**661**	**7.4**	**3.72**	**889**
Stockpiles	1.1	0.62	21	-	-	-	1.1	0.62	21
Total Wassa	2.8	2.78	249	15.6	2.31	1,160	18.4	2.38	1,410

Mineral Resource Estimate – December 31, 2019

	Measured & Indicated Resource			Inferred Resource		
	Mt	g/t	koz	Mt	g/t	koz
Wassa Open Pit	29.2	1.29	1,206	0.6	1.31	26
Wassa Underground	**16.2**	**3.89**	**2,027**	**58.8**	**3.75**	**7,097**
Father Brown Adoikrom Underground	0.9	8.67	254	1.9	6.07	367
Wassa Other	2.5	2.32	187	0.4	2.11	29
Total Wassa	**48.8**	**2.34**	**3,675**	**61.7**	**3.79**	**7,518**