



Expanding Production and Reducing Costs



**Q4 &  
FY 2016  
RESULTS**  
**FEBRUARY 21, 2017**

# Disclaimer

**SAFE HARBOR:** 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. 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: the expansion of production and reduction of costs at Golden Star's projects; the exploration upside of the Company's projects and ability of the Company to increase mine lives and Mineral Resources and Mineral Reserves; the ability of the Company to transform into a high grade, low cost gold producer; the impact of Wassa Underground and Prestea Underground on the Company's production profile, cost profile, cash operating cost per ounce and AISC per ounce; the timing for commercial production at Wassa Underground and Prestea Underground; the timing for mining first longitudinal stopes and first transverse stopes at B Shoot of Wassa Underground; the achievement of full production rate at Wassa Underground and life of mine average production; the achievement of 2017 production; production, cash operating cost and capital expenditure guidance for 2017; ore grade, production and capital expenditures at Mampon; the timing for commencing mining and production at Mampon; the timing for mobilizing the underground mining contractor, pre-development of Mineral Resources, blasting of the first stope and commencing commercial production at Prestea Underground; the ability to expand Mineral Reserves and extend the life of mine at Prestea Underground and Wassa Underground through exploration; the timing for releasing the Company's exploration strategy; the ability to convert Mineral Resources into Mineral Reserves; the timing for incurring 2017 capital expenditures; and the potential for growth of Golden Star's share price. Factors that could cause actual results to differ materially include timing of and unexpected events at the Bogoso/Prestea and/or the Wassa processing plants; variations in ore grade, tonnes mined, crushed or milled; delay or failure to receive board or government approvals and permits; construction delays; the availability and cost of electrical power; timing and availability of external financing on acceptable terms or at all; technical, permitting, mining or processing issues, including difficulties in establishing the infrastructure for Wassa Underground or Prestea Underground, inconsistent power supplies, plant and/or equipment failures and an inability to obtain supplies and materials on reasonable terms (including pricing) or at all; changes in U.S. and Canadian securities markets; heavy rainfall and flooding of underground mines; and fluctuations in gold price and input costs and general economic conditions. 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 our Annual Information Form for the year ended December 31, 2015 filed on SEDAR at [www.sedar.com](http://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 thereby. 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.

**NON-GAAP FINANCIAL MEASURES:** In this presentation, we use the terms "cash operating cost per ounce", "all-in sustaining cost per ounce", "AISC per ounce", "Adjusted Net Loss", "Adjusted Net Loss/Share", "Cash operating margin per ounce" and "Cash Flow from/(used in) operations". 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 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 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. In order to indicate to stakeholders the Company's earnings excluding the non-cash (gain)/loss on the fair value of debentures, non-cash impairment charges and severance charges, the Company calculates "Adjusted Net Earnings/(Loss)" and "Adjusted Net Earnings/(Loss) per share" to supplement the condensed interim consolidated financial statements. "Cash operating margin per ounce" is calculated as gold price minus cash operating cost per ounce. "Cash flow from/(used in) operations" is calculated by subtracting the "Changes in working capital" from "Net cash provided by operating activities" as found in the statements of cash flows. These measures are not necessarily indicative of operating profit or cash flow from operations as would be determined under IFRS. 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 titled 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, 2016" 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 technical information relating to Golden Star's material properties disclosed herein is based upon technical reports prepared and filed pursuant to National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and other publicly available information regarding the Company, including the following: (i) "NI 43-101 Technical Report on a Feasibility Study of the Wassa Open Pit Mine and Underground Project in Ghana" effective December 31, 2014; (ii) "NI 43-101 Technical Report on Resources and Reserves, Golden Star Resources Ltd., Bogoso Prestea Gold Mine, Ghana" effective December 31, 2013, and (iii) "NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground gold project in Ghana" effective November 5, 2015. Additional information is included in Golden Star's Annual Information Form for the year ended December 31, 2015 which is filed on SEDAR. Mineral Reserves were prepared under the supervision of Dr. Martin Raffield, Senior Vice President Technical Services for the Company. Dr. Raffield is a "Qualified Person" as defined by NI 43-101. The Qualified Person reviewing and validating the estimation of the Mineral Resources is S. Mitchel Wasel, Golden Star Resources Vice President of Exploration.

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



# Management Participants



**Sam Coetzer**  
President and  
Chief Executive Officer



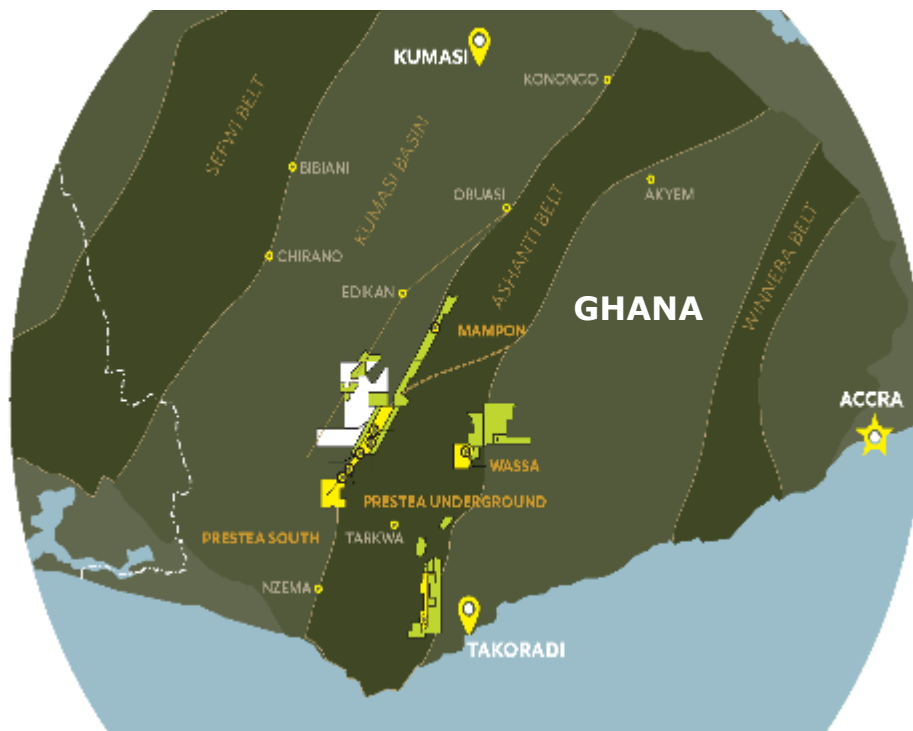
**André van Niekerk**  
Executive Vice President and  
Chief Financial Officer



**Katharine Sutton**  
Director, Investor Relations &  
Corporate Affairs

# Why Invest In Golden Star?

- West African-focused, mid-tier gold producer with two producing mines in Ghana
- High grade development asset, Prestea Underground (Mineral Reserves averaging 14.02g/t) - production is expected to expand and costs to continue to reduce
- Strong exploration upside potential - focused on increasing the mine lives of current operations
- Experienced management team with a track record of discovery and project delivery
- Undervalued compared to peer group and with robust liquidity through NYSE MKT listing

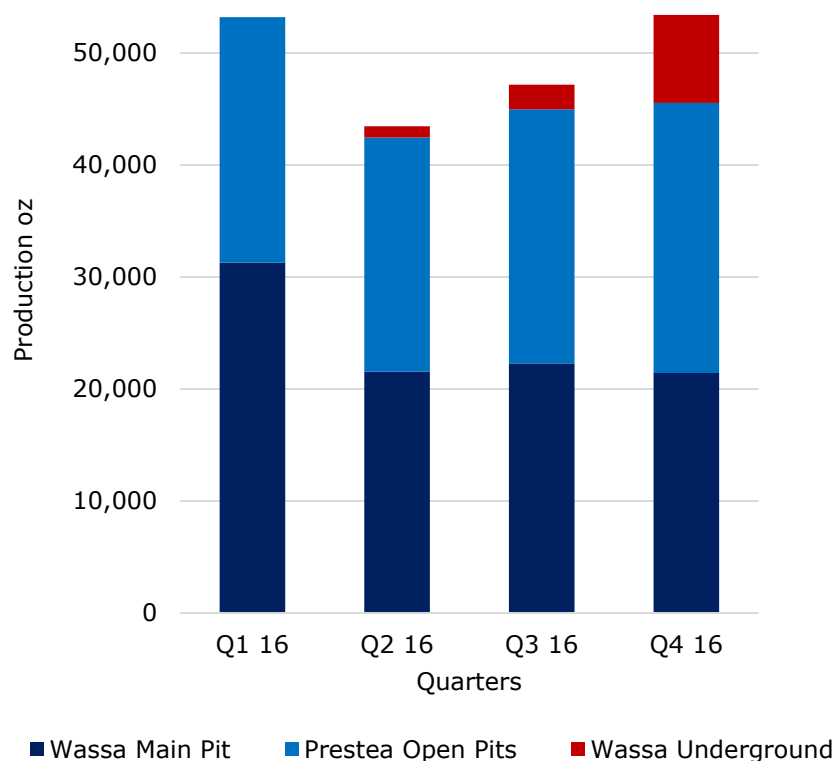


**Transforming into a high grade, non-refractory, low cost gold producer**

# 2016 Guidance Achieved on All Metrics

## 2016 Production in the Top Half of the Guidance Range

### 2016 Quarterly Gold Production

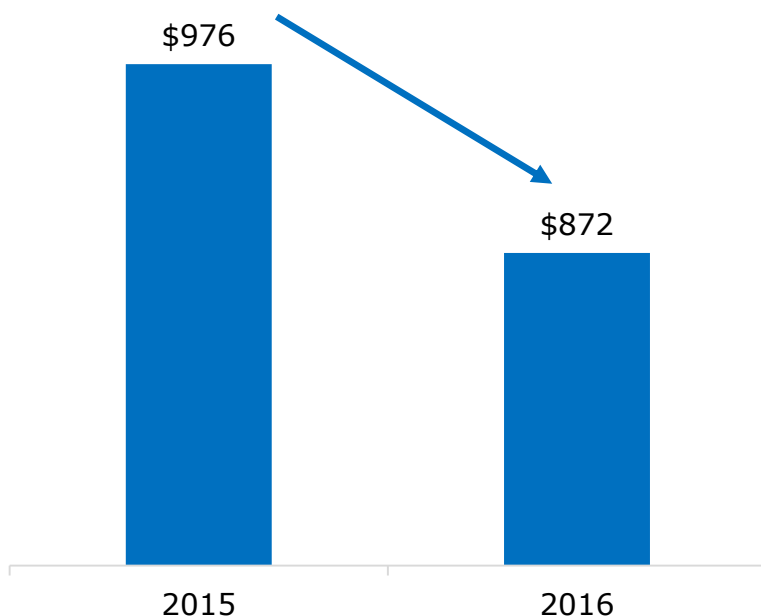


- Gold production of 194,054oz in 2016
- 2016 gold production by asset:
  - Wassa Main Pit: 93,319oz
  - Wassa Underground: 11,062oz
  - Prestea Open Pits: 89,673oz
- Gold production of 53,403oz in Q4 2016 – strongest quarterly performance of 2016
- Wassa Underground's mining rates accelerated strongly during Q4 – 257% increase in production compared to Q3
- Second consecutive record quarter of production for Prestea Open Pits
- Cash of \$21.8m as at December 31, 2016<sup>1</sup>

# Cash Operating Costs Expected to Continue to Reduce

## Significant change in Golden Star's cost structure following cessation of refractory production

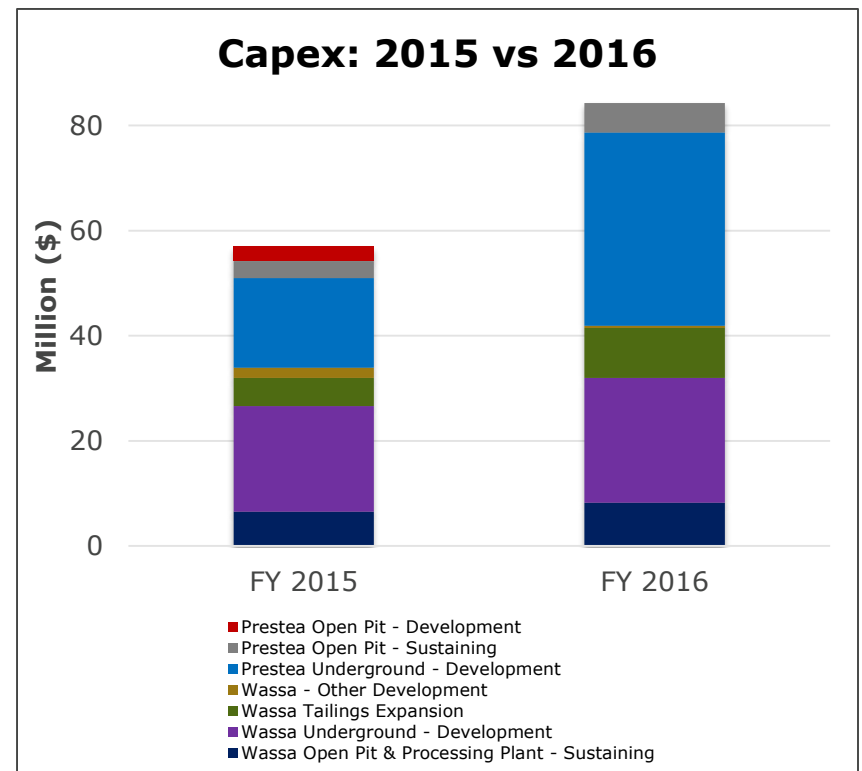
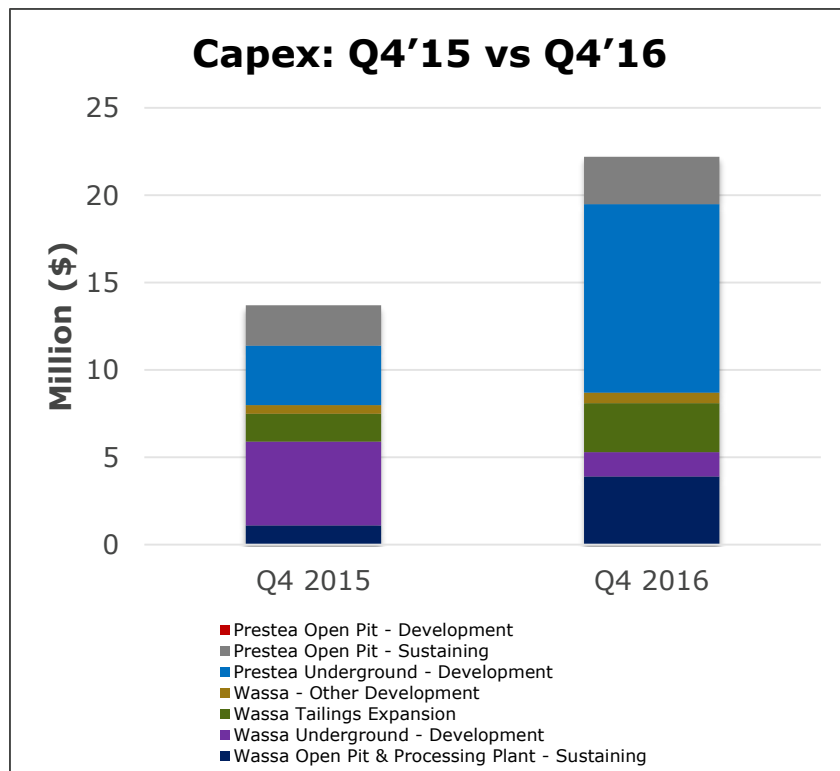
Cash Operating Cost Per Ounce<sup>1</sup>



- Cash operating cost<sup>1</sup> guidance achieved in the middle of guidance range
- 11% decrease in cash operating cost per ounce<sup>1</sup> to \$872 compared to 2015 reflecting GSR's transition into a low cost, non-refractory producer
- AISC per ounce<sup>1</sup> of \$1,093 in 2016, 5% decrease compared to 2015
- Q4 2016 cash operating cost per ounce<sup>1</sup> of \$880 due to fewer ounces produced from Wassa Main Pit and decrease in head grade
- Cash operating cost<sup>1</sup> and AISC<sup>1</sup> per ounce expected to continue to reduce as production from high grade underground mines ramps up

# Investing In Our Future

- Capital expenditures of \$84.4m during 2016, a 48% increase compared to 2015, reflecting the continued work at development projects
- Two underground mines will transform GSR's production and cost profiles
- Commercial production achieved at Wassa Underground on January 1, 2017, as expected





## **2016 OPERATIONAL REVIEW**

**Wassa Gold Mine**

**Prestea Gold Mine**

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## Q4 and FY 2016: Wassa Operational Results

Wassa		FY 2016	FY 2015	Q4 2016	Q4 2015
Ore Mined	kt	2,497	2,849	632	806
Waste Mined	kt	9,975	10,632	2,197	2,924
Ore Processed	kt	2,623	2,495	709	620
Grade Processed	g/t	1.27 <sup>1</sup> 2.06 <sup>2</sup>	1.46 <sup>1</sup>	1.22 <sup>1</sup> 2.27 <sup>2</sup>	1.77 <sup>1</sup>
Recovery	%	93.6	93.4	92.9	93.9
Gold Production	oz	104,381	108,266	29,276	31,395
Gold Sales	oz	104,346	107,751	28,943	30,880
Cash Op. Cost <sup>3</sup>	\$/oz	941	838	1,090	625

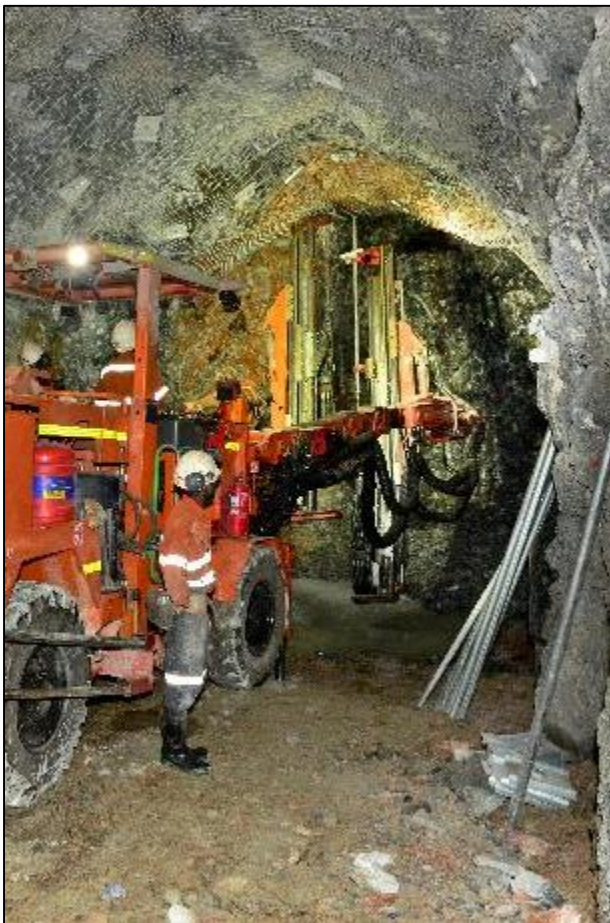
- 4% decrease in production in 2016 compared to 2015 due to lower grade ore from Wassa Main Pit
- 12% increase in cash operating costs<sup>1</sup> in 2016 due to higher mining costs per tonne
- 11,062oz produced from Wassa Underground in 2016
- Costs expected to decrease further as Wassa Underground continues to ramp up

### Wassa 2017 Guidance:

85,000-95,000oz from Wassa Main Pit and 60,000-65,000oz from Wassa Underground

Cash operating cost<sup>1</sup> of \$830-915/oz

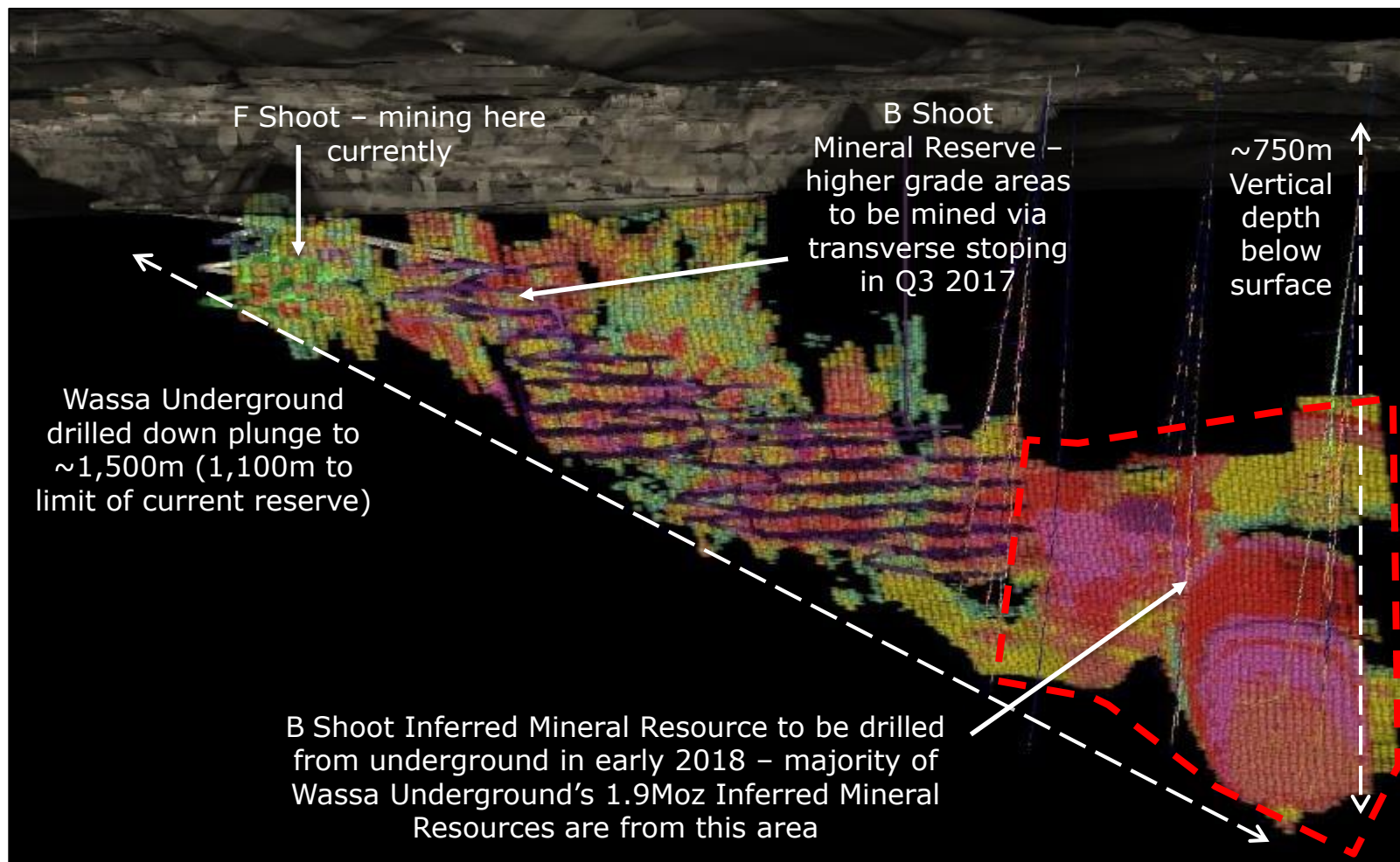
# Wassa Underground: Commercial Production Achieved



- Commercial production achieved on January 1, 2017
- Construction of Wassa Underground, including the installation of all ancillary infrastructure, completed at the end of Q4 2016
- First longitudinal stopes of B Shoot expected to be mined during Q1 2017
- First transverse stopes of B Shoot expected to be mined during Q3 2017 – production is anticipated to increase as the mining operations target the wider, higher grade areas of the deposit
- Full production rate of Wassa Underground of 2,200 tpd expected to be achieved in 2018
- Life of mine average production from 2017 onwards is expected to be 175,000oz per annum

**Production expected to increase in Q3 2017 when transverse stoping of B Shoot begins**

# Wassa Underground Development



**Strong potential to increase Mineral Resources & Reserves through exploration**

# Q4 and FY 2016: Prestea Operational Results

Prestea		FY 2016	FY 2015	Q4 2016	Q4 2015
Ore Mined	kt	1,500	1,711	341	301
Waste Mined	kt	4,040	3,603	615	894
Ore Processed	kt	1,504	1,521 <sup>1</sup> 1,409 <sup>2</sup>	378	318
Grade Processed	g/t	2.21	2.15 <sup>1</sup> 1.32 <sup>2</sup>	2.51	2.36
Recovery	%	83.9	67.5 <sup>1</sup> 64.3 <sup>2</sup>	83.0	83.1
Gold Production	oz	89,673	114,150	24,128	20,746
Gold Sales	oz	89,517	113,902	23,893	20,498
Cash Operating Cost <sup>3</sup>	\$/oz	800	1,108	694	849

- Production from Prestea Open Pits in 2016 was 28% higher than the top end of the Company's original guidance
- Record production for second consecutive quarter delivered in Q4 2016
- 2016 was the first year of wholly non-refractory production from Prestea
- 28% decrease in cash operating costs<sup>3</sup> as a result of cessation of refractory operations

## Prestea 2017 Guidance:

65,000-70,000oz from Prestea Open Pits and 45,000-50,000oz from Prestea Underground  
Cash operating cost<sup>1</sup> of \$715-780/oz



# Mampon: Strong Near-Term Cash Flow

- Mampon is an oxide deposit 65km to the north of the CIL processing plant at the Bogoso site
- Mineral Reserves of 45,000oz of gold (304Kt at 4.60g/t)
- All permits received – mining lease, environmental permit and forestry permit
- High grade ore from Mampon will be blended with ore from Prestea Open Pits to enhance GSR's cash flow in 2017
- Mining expected to commence in Q2 2017
- Limited capital expenditures required to bring Mampon into production due to existing good quality road between deposit and processing plant



**All permits received and mining expected to commence in Q2 2017**

## Prestea Underground: Project Update

- ✓ Rehabilitation works commenced
  - ✓ Long lead time equipment ordered
  - ✓ Underground mining contractor appointed (Manroc Developments, Inc.)
  - ✓ Installation of new electrical and water supply services completed
  - ✓ Track improved on 24 Level for high-speed haulage
  - ✓ Mobilization of underground training contractor to site and first Alimaks arrived
  - ✓ Rock winder upgrade completed and commissioned
  - ✓ Pre-development of the Mineral Resource and West Reef intersected by mining team
- First stope blasted - expected in Q2 2017
- Achieving commercial production – expected in mid-2017

### March 2016 Update to Feasibility Study

Gold production  
per annum

90,000oz

Cash operating  
cost per ounce<sup>1</sup>

\$468

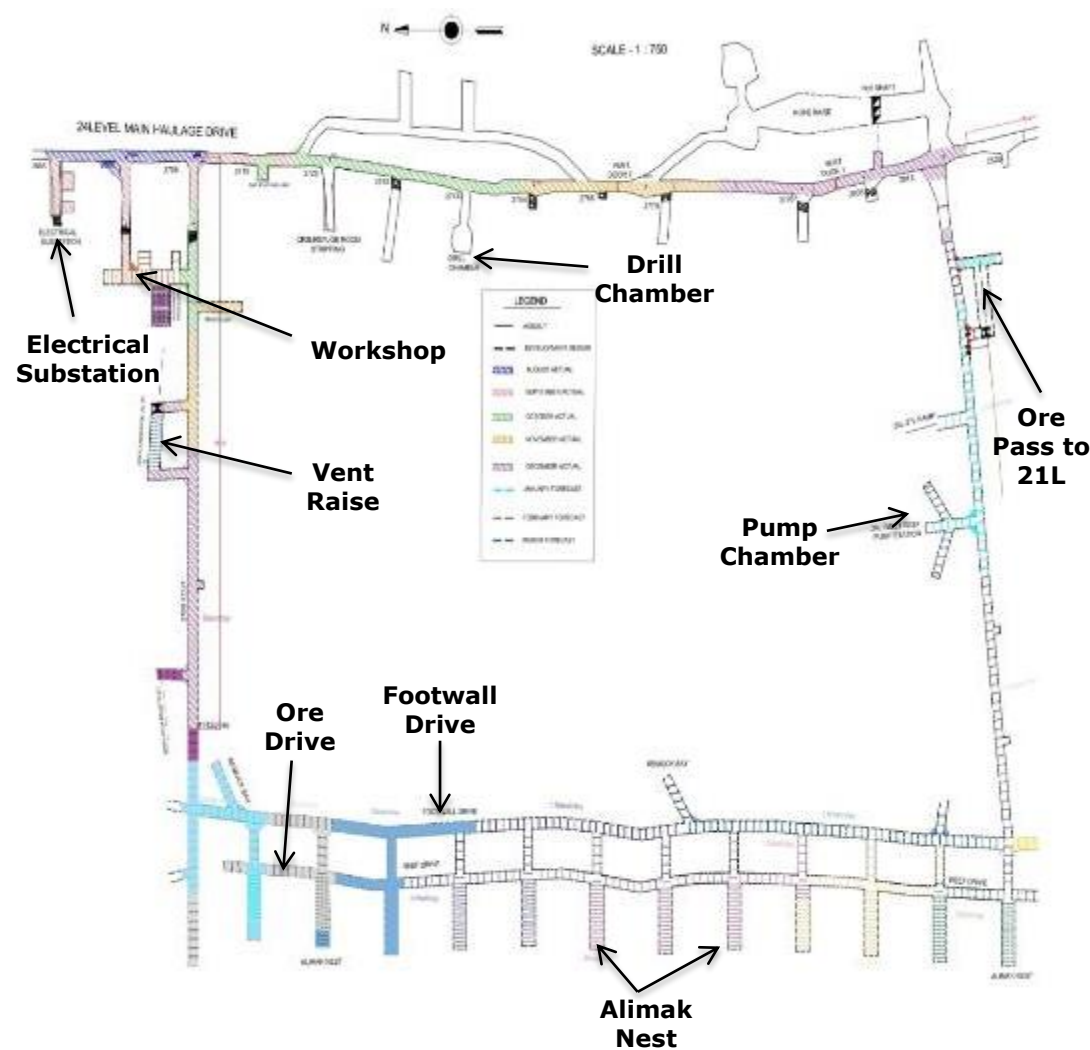
AISC per ounce<sup>1</sup>

\$615

Mineral Reserve  
head grade

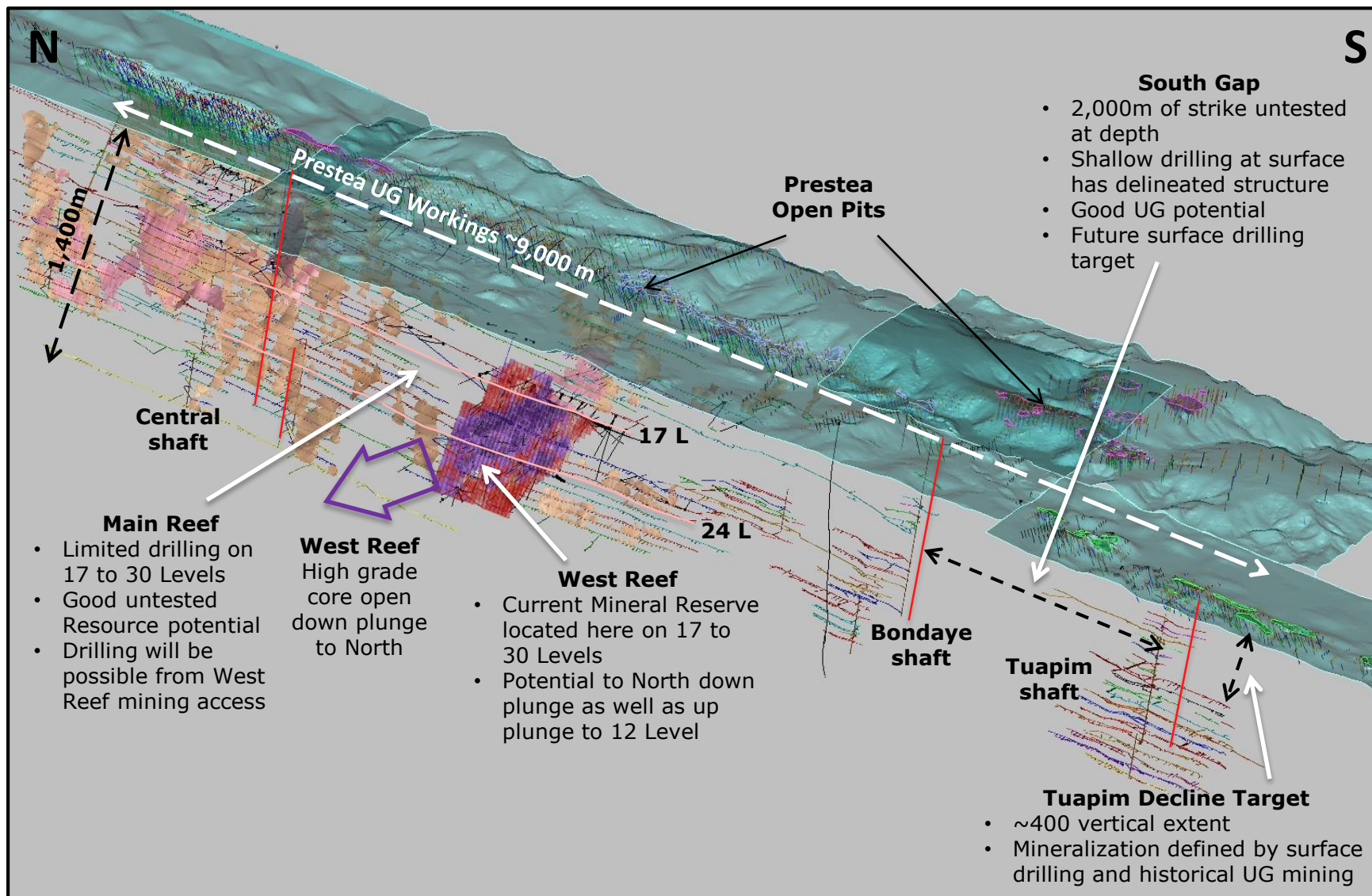
14.0g/t

## Prestea Underground: Development of 24 Level



- 24 Level is approximately 900 metres below surface
- Total development advance of 350 metres completed by December 31, 2016
- Focused on crosscut advancement towards West Reef ore body
- Development team also constructed a workshop and electrical bays and slashed existing drives to a size suitable for mechanized load-haul-dump equipment
- First Alimak moved underground and nest is being prepared

# Prestea Underground: Exploration Upside Potential





# Opportunity to Substantially Increase Mineral Reserves

## Potential to expand Mineral Reserves and extend lives of both operations significantly through further drilling

- Objective is to convert further Measured and Indicated (M&I) Mineral Resources to Mineral Reserves
  - At Wassa, 42% of M&I Resources are Mineral Reserves
  - At Prestea, 57% of M&I Resources are Mineral Reserves
- Strong, low risk, low cost opportunity to expand Mineral Reserve base materially
- Significant additional potential outside of existing Mineral Resource area – Golden Star has concession areas totaling 1,156km<sup>2</sup>
- Update on exploration strategy will be released later in Q1 2017



# 2016 FINANCIAL REVIEW



# Q4 and FY 2016: Financial Highlights

		2016	2015
Revenue	\$'000	221,290	255,187
Gold Sales	oz	193,863	221,653
Average Realized Gold Price	\$/oz	1,211	1,151
Net Loss	\$'000	39,647	67,681
Net Loss per share	\$/share	0.13	0.26
Adjusted Net Income/(Loss) <sup>1</sup>	\$'000	11,183	(28,355)
Adjusted Net Income/(Loss) <sup>1</sup>	\$/share	0.04	(0.11)
Cash Flow from Operations <sup>2</sup>	\$'000	53,249	60,148
Cash Flow from Operations <sup>2</sup>	\$/share	0.18	0.23
Capital Expenditures	\$'000	84,356	57,051
Cash & Cash Equivs.	\$'000	21,764	35,108

- Revenue in 2016 of \$221.3m – 13% decrease compared to 2015 due to fewer ounces sold from Wassa and Prestea but partially offset by higher gold price
- Mine operating margin<sup>1</sup> of \$27.5 million in 2016, compared to a mine operating loss<sup>1</sup> of \$27.6 million in 2015 due to the closure of the high cost, refractory operations in Q3 2015
- Adjusted net income<sup>1</sup> of \$11.2m in 2016 compared to an adjusted net loss<sup>1</sup> of \$28.4m in 2015
- \$21.8m cash at year-end, exclusive of \$10m received from RGLD on January 3, 2017



## Balance Sheet Transformed in 2016

- \$15m bought deal in April 2016
  - Reduced Accounts Payable
- \$65m private placement in August 2016 of 7.0% convertible senior notes, due 2021
  - Significantly reduced 2017 debt repayments and aligned future debt repayments more closely to forecast cash flow
- \$34.5m underwritten public offering in August 2016
  - Repaid high interest Ecobank II loan and brought new institutional investors onto GSR's register
- Post period end: C\$34.5m (US\$26.2m) bought deal in February 2017
  - Ensures that GSR is fully funded and maintains a strong financial position as it finishes refurbishing Prestea Underground and repays its 2017 debt obligations

### DEBT POSITION (US\$M)

	As at Dec 31, 2016	Post-Transaction	Pre-Transaction
Ecobank Loan	--	--	22
Royal Gold Term Loan	19	19	19
5.0% Convertible Debentures	14	14	59
New Convertible Debt <sup>1</sup>	60	63	--
Other Debt <sup>2</sup>	28	27	27
<b>Total Debt</b>	<b>121</b>	<b>123</b>	<b>127</b>



## LOOKING AHEAD

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# 2017 Guidance: Production and Cash Operating Costs<sup>1</sup>

**2017 production guidance 31-44% higher than 2016 production results**

Gold Production and Cash Operating Cost <sup>1</sup> Guidance By Asset			
Asset	Gold Production (oz)	Cash Operating Cost <sup>1</sup> (\$/oz)	All-In Sustaining Cost <sup>1</sup> (\$/oz)
Wassa Main Pit	85,000-95,000	-	-
Wassa Underground	60,000-65,000	-	-
<b>Wassa Consolidated</b>	<b>145,000-160,000</b>	<b>830-915</b>	-
Prestea Open Pits <sup>2,3</sup>	65,000-70,000	-	-
Prestea Underground	45,000-50,000	-	-
<b>Prestea Consolidated</b>	<b>110,000-120,000</b>	<b>715-780</b>	-
<b>CONSOLIDATED</b>	<b>255,000-280,000</b>	<b>780-860</b>	<b>970-1,070</b>

- 2017 gold production expected to be weighted towards H2 2017 due to:
  - Wassa Underground transverse stopes expected to be accessed in Q3 2017
  - Commercial production at Prestea Underground expected in mid-2017
  - Production from Mampon deposit expected in Q2 2017
- Gold production in Q1 and Q2 2017 expected to be in line with Q4 2016
- Cash operating cost<sup>1</sup> per ounce expected to be higher in H1 2017 but decreasing in H2 as higher grade ore becomes available

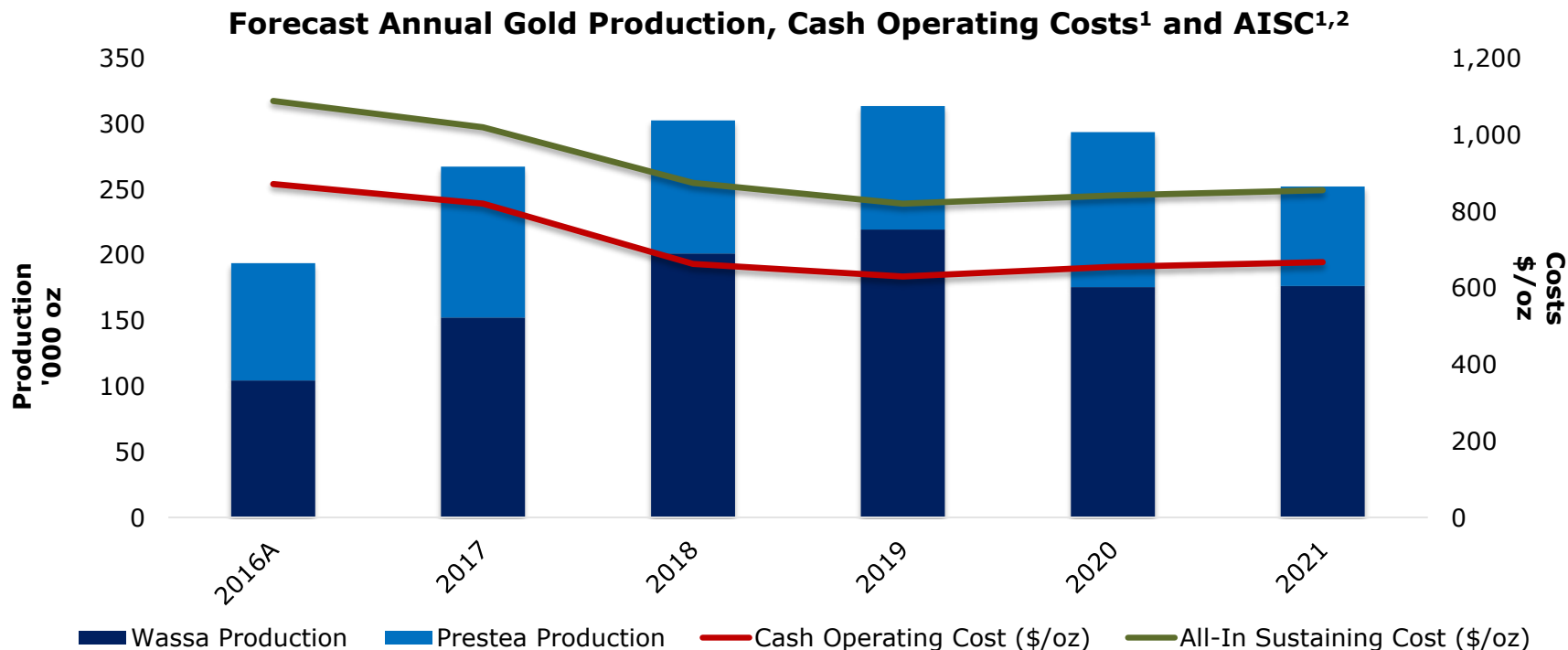
# 2017 Guidance: Capital Expenditures

Capital Expenditures Guidance By Asset			
Asset	Sustaining Capital (\$m)	Development Capital (\$m)	Total Capital Expenditures (\$m)
Wassa Main Pit and Surface Infrastructure	5.9	1.1	<b>7.0</b>
Wassa Underground	9.0	3.4	<b>12.4</b>
Prestea Open Pits	5.0	-	<b>5.0</b>
Prestea Underground <sup>1</sup> and Processing Plant	0.4	31.2	<b>31.6</b>
Exploration	-	2.4	<b>2.4</b>
<b>TOTAL</b>	<b>20.3</b>	<b>38.1</b>	<b>58.4</b>

- 2017 guidance for total capital expenditures of \$58m
- 54% of capital expenditures to be incurred at Prestea Underground
- Capital expenditures are expected to be higher in H1 2017 due to funds required for continued construction of Prestea Underground and accessing of Mampon deposit
- Capital expenditures expected to decrease in H2 2017 once Prestea Underground achieves commercial production

**Capital expenditures weighted towards H1 2017**

# Expanding Production and Reducing Costs



- Average for the next 5 years from 2017 onwards<sup>2</sup>:
  - Production: 281,000oz/annum
  - Cash operating costs<sup>1</sup>: \$695/oz
  - AISC<sup>1</sup>: \$903/oz
- Significant exploration upside on current production profile

**60% increase in production forecast between 2016 and 2019**



## UPCOMING MILESTONES IN H1 2017

✓ Achieve commercial production at Wassa Underground – January 1, 2017

Mineral Reserve and Mineral Resource update and exploration strategy update – Q1 2017

Commence mining of higher grade B Shoot zone of Wassa Underground – Q1 2017

Commence mining of Mampon deposit – Q2 2017

Blasting of first stope at Prestea Underground – Q2 2017

# Investment Summary

## Transforming into a high grade, non-refractory, low cost gold producer

- 2016 guidance achieved on all announced metrics – 2017 production guidance is 31-44% higher than 2016 production result
- Development of two high grade underground mines fully funded – production expected to expand and costs expected to continue to reduce
- Significant exploration upside potential – increase Mineral Reserves and extend mine lives
- Experienced management team with a track record of discovery and project delivery
- Undervalued compared to peer group on a number of metrics







## Contact Us

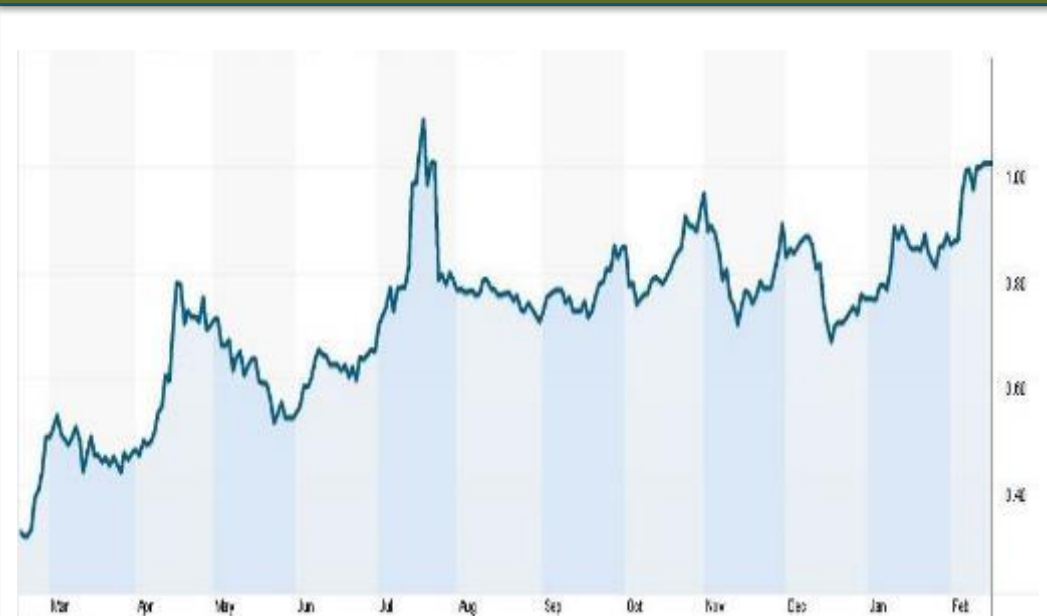
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NYSE MKT: GSS  
TSX: GSC

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# Appendices: Market Information

**One Year Share Price Graph (GSS)<sup>1,2</sup>**



## Analyst Coverage

- BMO Capital Markets
- CIBC Capital Markets
- Clarus Securities
- Credit Suisse
- National Bank Financial
- Scotia Bank

## Key Institutional Shareholders

- Sentry Investments
- Franklin Templeton
- Oppenheimer Funds
- Earth Resources
- Gold 2000
- AGF Management
- RBC Investment Mgmt

## Market Information<sup>1</sup>

Markets	NYSE MKT / TSX / GSE
Tickers	NYSE: GSS TSX: GSC GSE: GSR
Shares in Issue	374,499,286
Options	15,572,606
Share Price <sup>2</sup>	\$1.00
Market Capitalization	\$375m
Cash <sup>3,4</sup>	\$21.8m
Debt	\$121m
Daily Volumes Traded (3 Month Average) <sup>2</sup>	2.9m shares
One Year Return <sup>2</sup>	225%



# A Responsible Corporate Citizen

## CONTRIBUTING TO SOCIETY

# \$1.4 M

in royalties paid in 2015  
and over \$11 million in royalties  
over the last 5 years<sup>1</sup>

# \$5.3 M

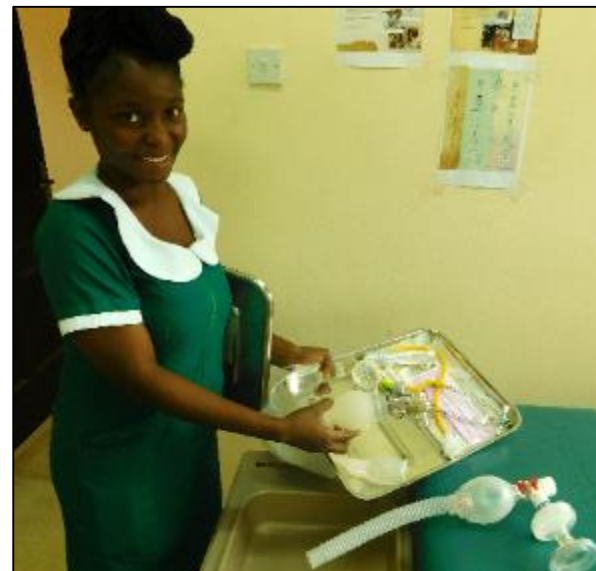
in sustainable  
agribusiness to date

# \$3.2 M

in development fund  
projects to date

# \$46 M

in total salaries paid



GSR supports a range of community projects focused on the key areas of healthcare, education and sustainable agribusiness.

*For more information on our commitment to corporate social responsibility, please visit [www.gsr.com/responsibility](http://www.gsr.com/responsibility)*

**99% of our workforce and contractors are Ghanaian**  
**59% of our workforce and contractors are from local communities**

# Royal Gold Financing Agreement

- **GSR has a financing arrangement with Royal Gold for total aggregate proceeds of \$145m.** Use of funds:
  - Facilitate development of Wassa and Prestea underground mines
  - Retire outstanding Ecobank I loan debt
- **Gold stream of \$145m over Bogoso, Prestea and Wassa:**
  - From January 1, 2016, to deliver 9.25% of all production at a cash purchase price of 20% of spot gold
  - From January 1, 2018 or commercial production of the underground mines, whichever is sooner, to deliver 10.50% of production at a cash purchase price of 20% of spot gold until 240,000 ounces have been delivered
  - Thereafter, 5.50% of production at a cash purchase price of 30% of spot gold will be delivered ('tail stream')
  - Option to repurchase 50% of the tail stream
  - In the event that Golden Star expands its operations to outside its current mine license areas in the future, it will have the option to deliver ounces from these operations to satisfy the first and second delivery thresholds
    - GSR would retain the upside to these new operations as the tail stream would not be applied
  - All payments received for a total of \$145m
  - A total of 30,365 ounces have been delivered as at December 31, 2016
- **Four year \$20m secured term loan:**
  - Interest rate linked to gold price<sup>1</sup>
    - At a gold price of \$1,200/oz the interest rate would be 7.5% and at \$1,300/oz, it would be 8.13%
    - Rate is not to exceed 11.5%
  - No early prepayment penalty
  - Subject to an agreed quarterly 25-50% excess cash flow sweep from the third quarter of 2017 onwards
  - Matures in July 2019
  - Royal Gold has security against mining assets

# Mineral Reserves and Resources

Mineral Reserves <sup>1,2,3</sup>	Tonnes ('000)	Grade (Au g/t)	Content (Koz)
<b>Proven Reserves</b>			
Wassa	1,046	1.09	37
Prestea	25	2.69	2
<b>Total</b>	<b>1,071</b>	<b>1.12</b>	<b>39</b>
<b>Probable Reserves</b>			
Wassa	19,319	2.33	1,450
Prestea	3,237	6.29	654
<b>Total</b>	<b>22,556</b>	<b>2.90</b>	<b>2,104</b>
<b>Total Proven &amp; Probable</b>	<b>23,626</b>	<b>2.82</b>	<b>2,143</b>

Mineral Resources <sup>1,2,3</sup>	Tonnes ('000)	Grade (Au g/t)	Content (Koz)
<b>Measured &amp; Indicated Mineral Resources</b>			
Wassa	54,647	2.02	3,556
Prestea	6,712	5.30	1,144
<b>Total</b>	<b>61,360</b>	<b>2.38</b>	<b>4,700</b>
<b>Inferred Mineral Resources</b>			
Wassa	16,462	4.15	2,200
Prestea	3,813	7.70	944
<b>Total</b>	<b>20,305</b>	<b>4.82</b>	<b>3,144</b>

1. For Wassa's Mineral Reserves and Resources please refer to 'NI 43-101 Technical Report on a Feasibility Study of the Wassa Open Pit and Underground Project in Ghana', dated December 31, 2014, which is filed on SEDAR and at [www.gsr.com](http://www.gsr.com)
2. For Prestea's Mineral Reserves and Resources please refer to 'NI 43-101 Technical Report on a Feasibility Study of the Prestea Underground Gold Project in Ghana', dated November 3, 2015, which is filed on SEDAR and at [www.gsr.com](http://www.gsr.com)
3. All numbers exclude refractory ore.