

Expanding Production and Reducing Costs

**PRESTEA
OPEN PITS
SITE VISIT
NOVEMBER 2016**

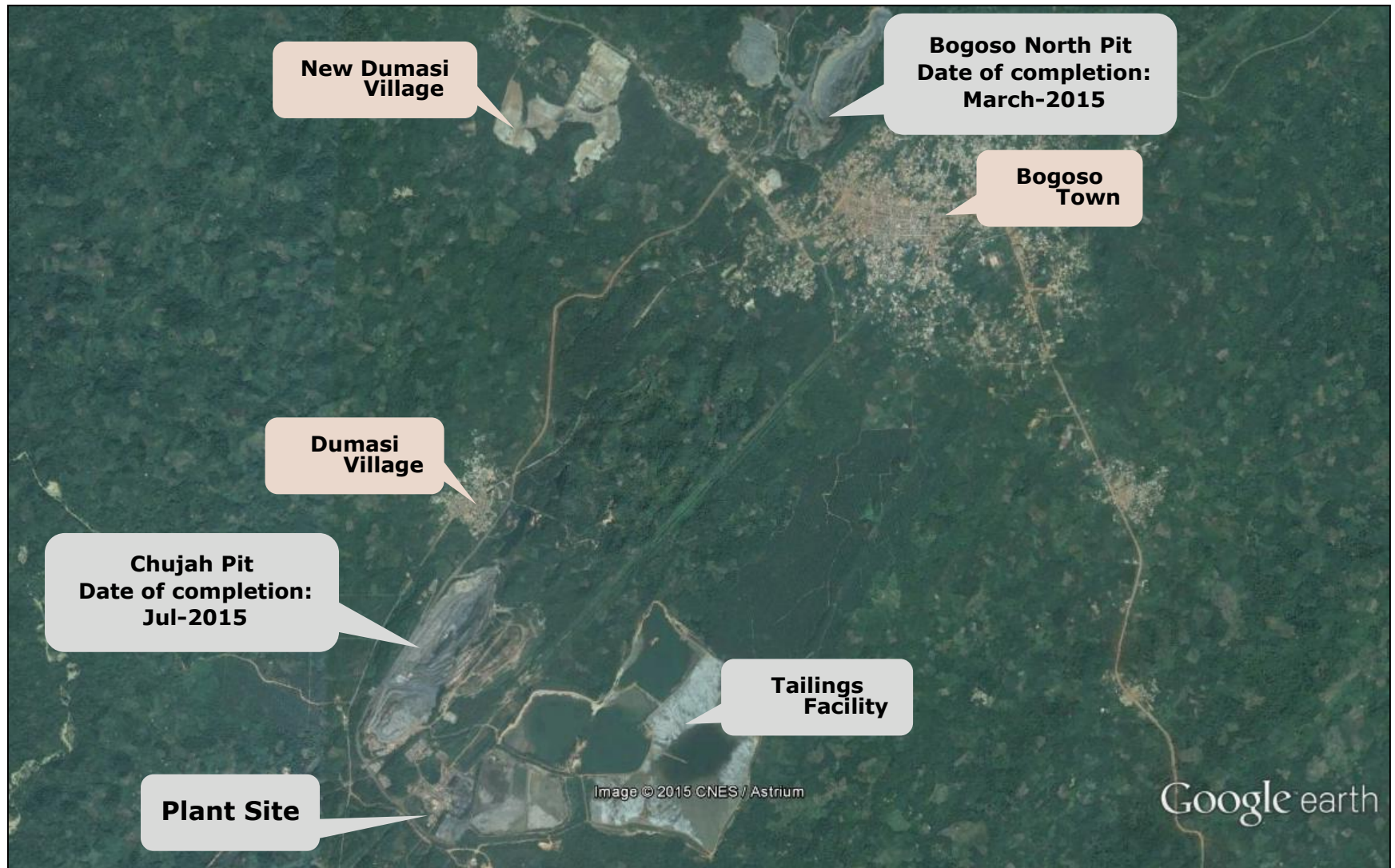
Health and Safety



Update: No LTI at Prestea Open Pits

- **5.65M** man hours worked with no LTI
- **510 Days** – as at **31st Oct** without LTI. Last LTI on June 9, 2015
- Prestea Open Pits: 5.84M hours before June 9, 2015 LTI

2015 Operational Areas



2015: Change in Operations

Cessation of Refractory Operations: Responsible Closure

- Planned more than 1 year in advance
- FIAT agreement reached with union and Department of Labour
- Workforce trimmed down – 500 jobs removed
- Severance costs paid to employees and no industrial issues
- Biox plant on care and maintenance



Prestea Open Pits Brought Into Production

- Oxide deposits close to Prestea Underground
- Mineral Reserves at Prestea South of 140koz (1.9Mt at 2.30g/t) and Mampon of 45koz (304Kt at 4.60g/t)¹
- Oxide plant activated at Bogoso site and ore trucked 14km from Prestea Open Pits
- Prestea Open Pits expected to be in production until at least H2 2017



Golden Star is now a wholly non-refractory gold producer

Prestea Open Pits: Performance To Date

	Overall PSP Area Mining					
	Actual Mining Data			Planned Mining Data		
	Ore	Grade	Waste	Ore	Grade	Waste
Q3 2015	179,188	1.87	581,276	140,567	2.18	427,405
Q4 2015	301,397	2.61	894,081	360,630	2.15	1,140,964
Q1 2016	379,277	2.37	1,112,556	279,580	2.31	818,713
Q2 2016	306,157	2.10	1,067,207	295,394	2.03	638,613
Q3 2016	490,278	2.27	1,212,431	364,801	2.07	742,214
Q4 2016	-	-	-	-	-	-
	1,656,297	2.28	4,867,552	1,440,974	2.14	3,767,909

Mining Highlights

15% more ore
6% better grade
25% more waste

	Overall PSP Ore Treatment					
	Actual Processing Data			Planned Processing Data		
	Ore	Feed Grade	% Recov	Ore	Feed Grade	% Recov
Q3 2015	150,865	1.76	83%	129,911	1.84	80%
Q4 2015	317,764	2.36	83%	233,151	1.91	80%
Q1 2016	362,302	2.19	84%	292,082	2.30	84%
Q2 2016	377,636	1.95	86%	311,875	2.06	83%
Q3 2016	386,621	2.20	83%	356,888	2.06	83%
Q4 2016						
	1,595,189	2.13	84%	1,323,907	2.07	82%

Milling Highlights

20% more tonnage
3% better grade
2% better recovery

Model Reconciliation Data

	Resource Model		Grade Control Model		Ex-pit	
	Ore	Grade	Ore	Grade	Ore	Grade
Bondaye	1,071,327	1.91	1,028,201	2.11	1,084,293	1.92
Beta North	240,502	2.84	435,964	2.79	435,162	2.60
Beta South	252,613	2.68	404,844	2.24	423,933	2.02
Total	1,564,442	2.18	1,869,008	2.30	1,943,388	2.10
	Reconciliation Factors					
	GC Vs Resource		Ex-pit Vs GC		Plant Vs Model	
	19%	6%	4%	-9%	102%	98%

- Tonnage and grade data includes subgrades
- Subgrades not milled yet, sitting on stockpiles
- Plant vs model comparison excludes stockpiles

Q3 2016: Prestea Operational Results

Prestea		Q3 2016	Q3 2015
Ore Mined	kt	490	240
Waste Mined	kt	1,212	606
Ore Processed	kt	387	725
Grade Processed	g/t	2.20	1.66 ¹ 1.35 ²
Recovery	%	82.7	60.4 ¹ 68.0 ²
Gold Production	oz	22,684	23,050
Gold Sales	oz	22,930	23,050
Cash Operating Cost ³	\$/oz	835	1,261

- Record quarterly production achieved since non-refractory production from Prestea Open Pits began in Q3 2015
- Year to date production of 65,546oz – 2016 FY guidance increased as a result of strong performance
- Accordingly, FY2016 cash operating cost³ per ounce guidance decreased
- 34% decrease in cash operating cost per ounce³ compared to Q3 2015 as a result of transition to lower cost, non-refractory ounces

Upgraded Prestea 2016 Production Guidance:

80,000-93,000oz from Prestea Open Pits at cash operating cost³ of \$800-890/oz

2017 Transition to Underground

Current Timeline

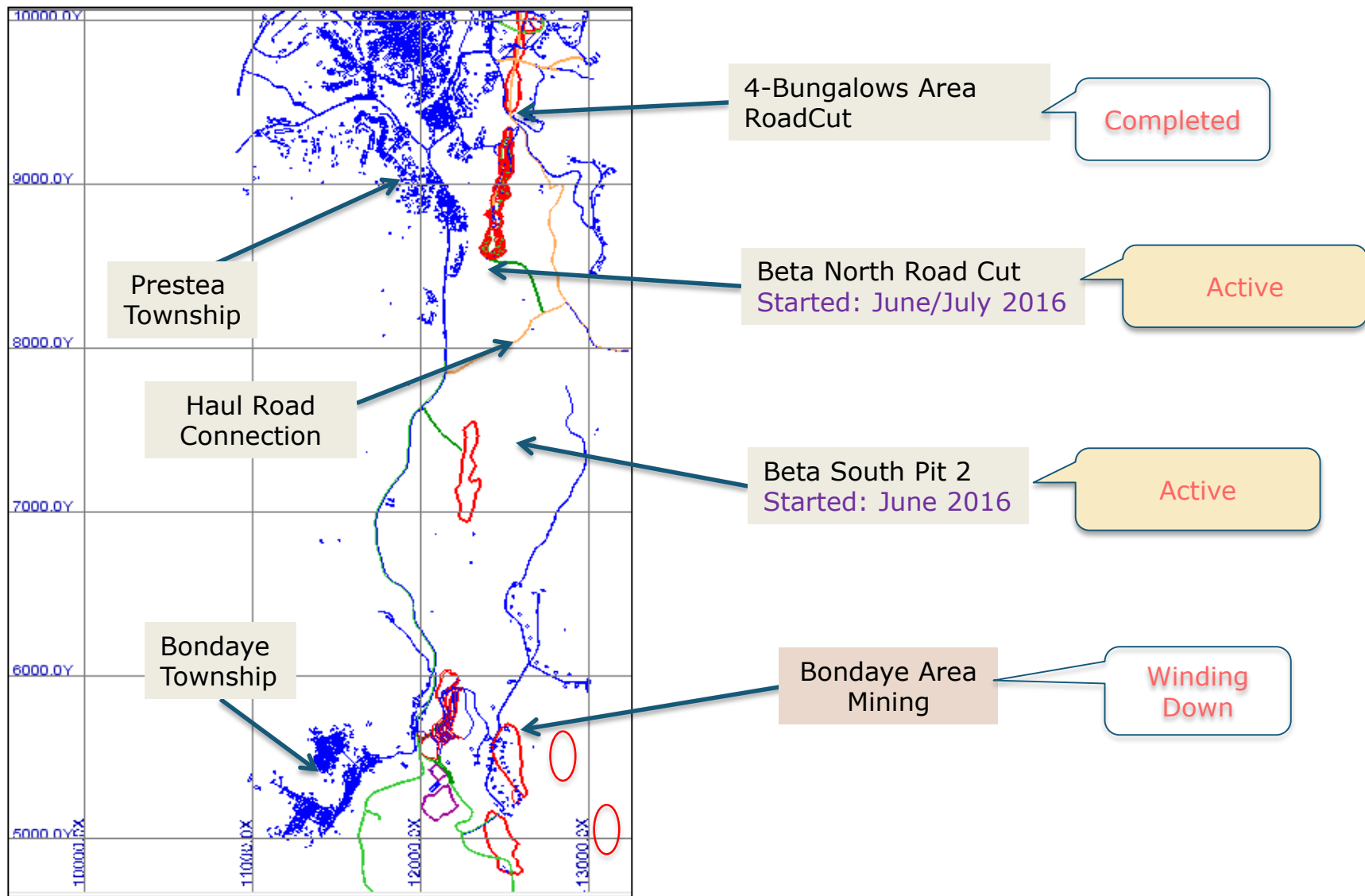
- Prestea Open Pits scheduled to complete production in H2 2017
- Prestea Underground ore delivery to mill expected to begin in Q2 2017
- Commercial production expected in mid-2017
- Prestea production expected to be solely from underground mine by Q4 2017, based on current Mineral Reserves

Prestea Open Pits – Opportunities

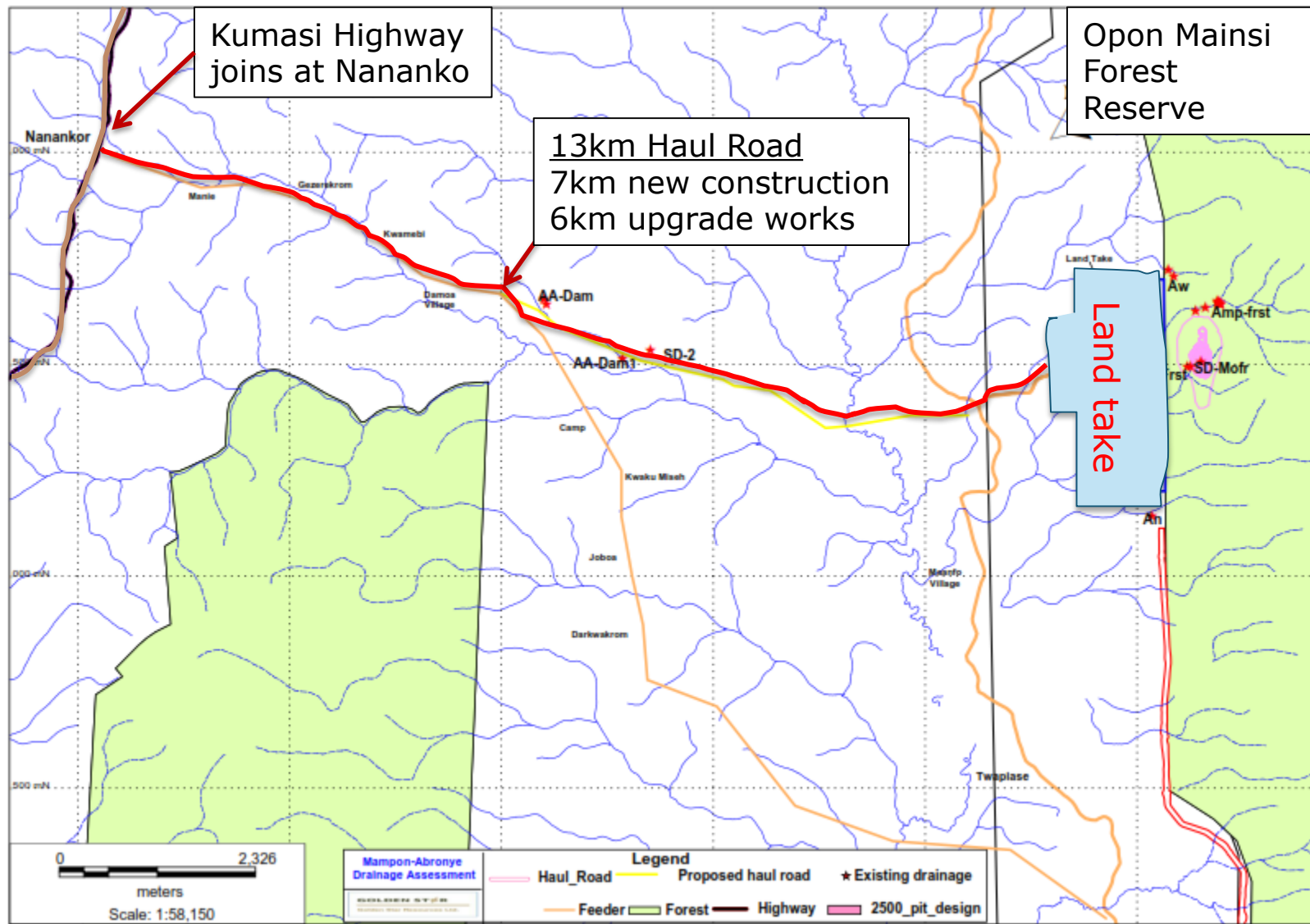
Exploration drilling ongoing in known target zones:

- Bondaye
- Beta Boundary
- Tuapim

2016-2017 Mining Areas



2017 Mining Areas - Mampon



Mampon Mining Lease Received

- Post-period end, mining lease received for high grade Mampon gold deposit
- 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)
- 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 H1 2017 – represents upside on GSR's current production profile
- Limited capital expenditures required to bring Mampon into production due to existing good quality road between deposit and processing plant



Opportunity to enhance 2017 cash flow strongly

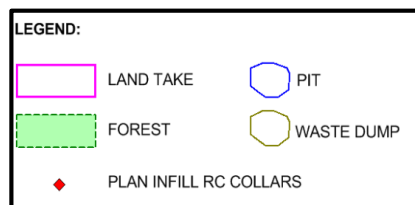
Prestea Open Pits

Exploration Overview



Mampon & Aboronye Drill Plan and Pit Location

- Pit optimizations have identified oxide resource at Aboronye¹
- Drilling expected at Aboronye in 2017 to upgrade the deposit through the resource categories

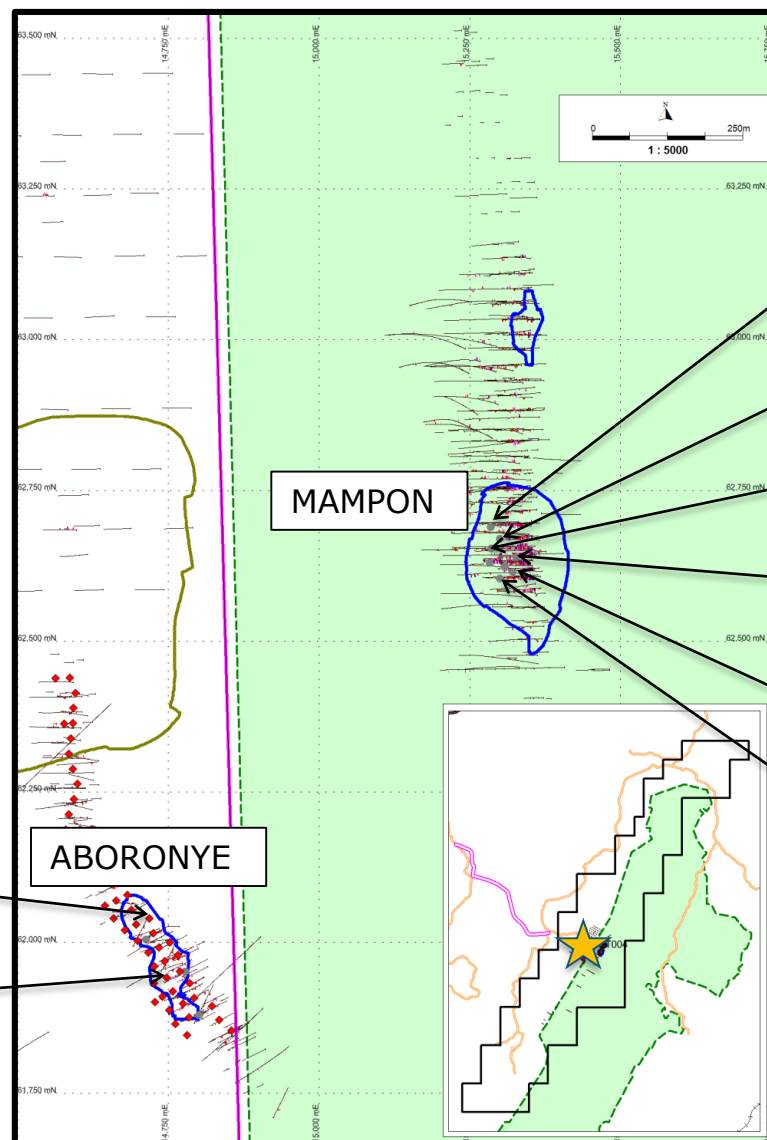


ABORC029

22 m @ 2.2 g/t from 0 m to 22 m incl. 5 m @ 6.8 g/t

ABORC025

27 m @ 1.8 g/t from 0 m to 27 m incl. 2 m @ 4.5 g/t



MPMET020

23.2 m @ 11.2 g/t from 72.8 m to 96 m incl. 3.8 m @ 19.8 g/t

MPMET004

6.5 m @ 15.0 g/t from 20.5 m to 27 m incl. 3 m @ 25.9 g/t

MPMET024

26.4 m @ 7.7 g/t from 64.6 m to 91 m incl. 4.2 m @ 21.8 g/t

MPMET029

43 m @ 4.9 g/t from 11 m to 54 m incl. 9 m @ 12.2 g/t

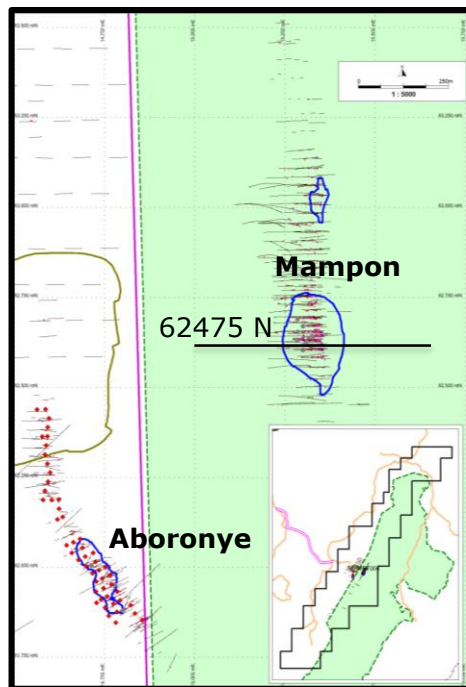
MPMET007

19.5 m @ 12.7 g/t from 34 m to 53.5 m incl. 5.4 m @ 26.8 g/t

MPMET028

12.0 m @ 2.4 g/t from 2.6 m to 14.6 m incl. 0.7 m @ 14.2 g/t

Mampon Drilling Cross Section 62475 N

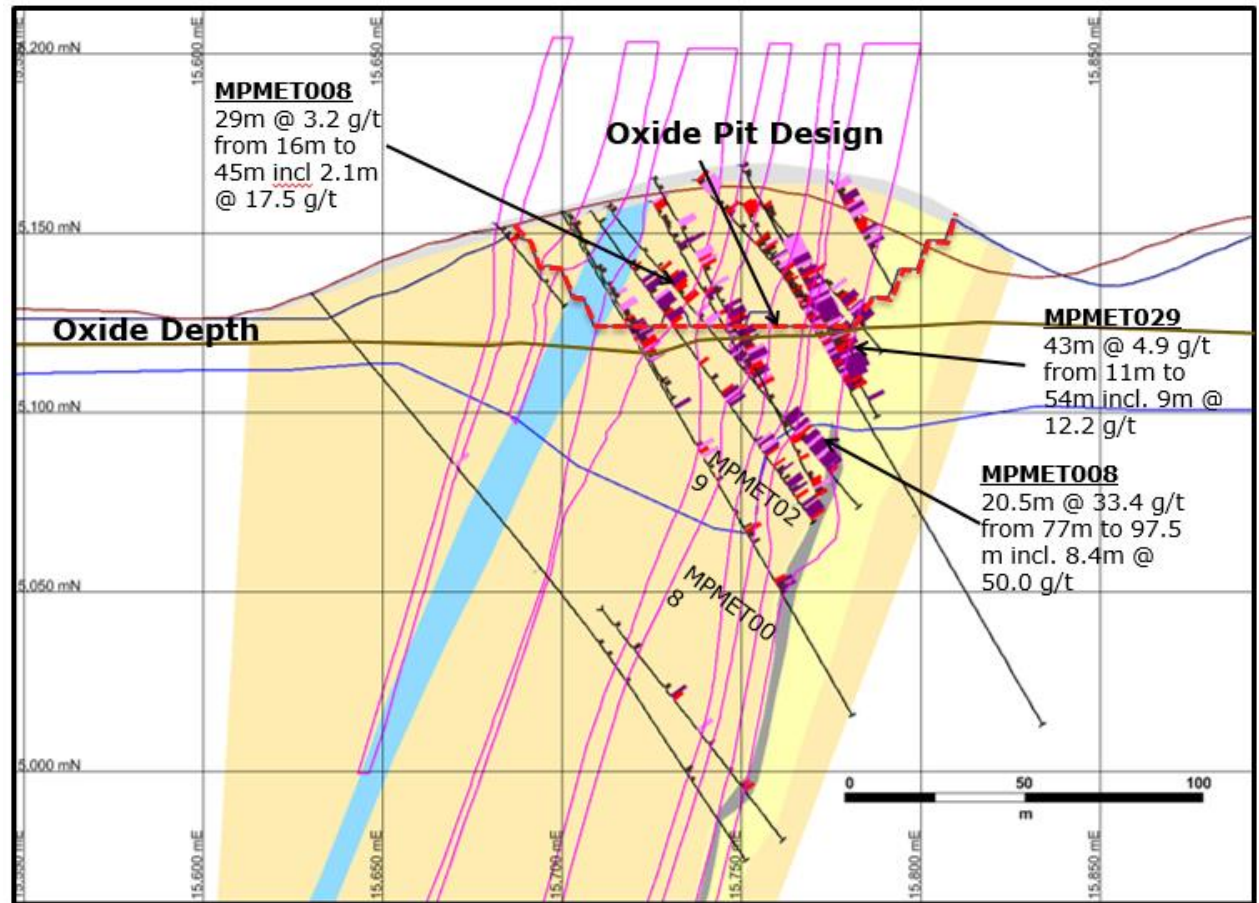


LEGEND:

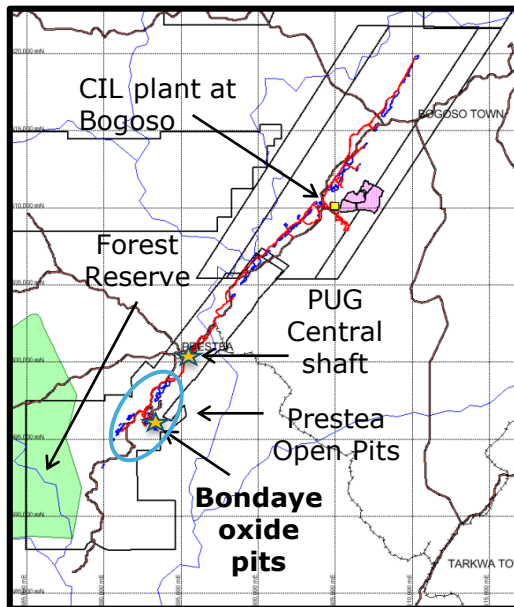
- Topo
- \$1250 Pit Shell
- Ox Boundary
- Transition Boundary
- Ore Body

LEGEND:

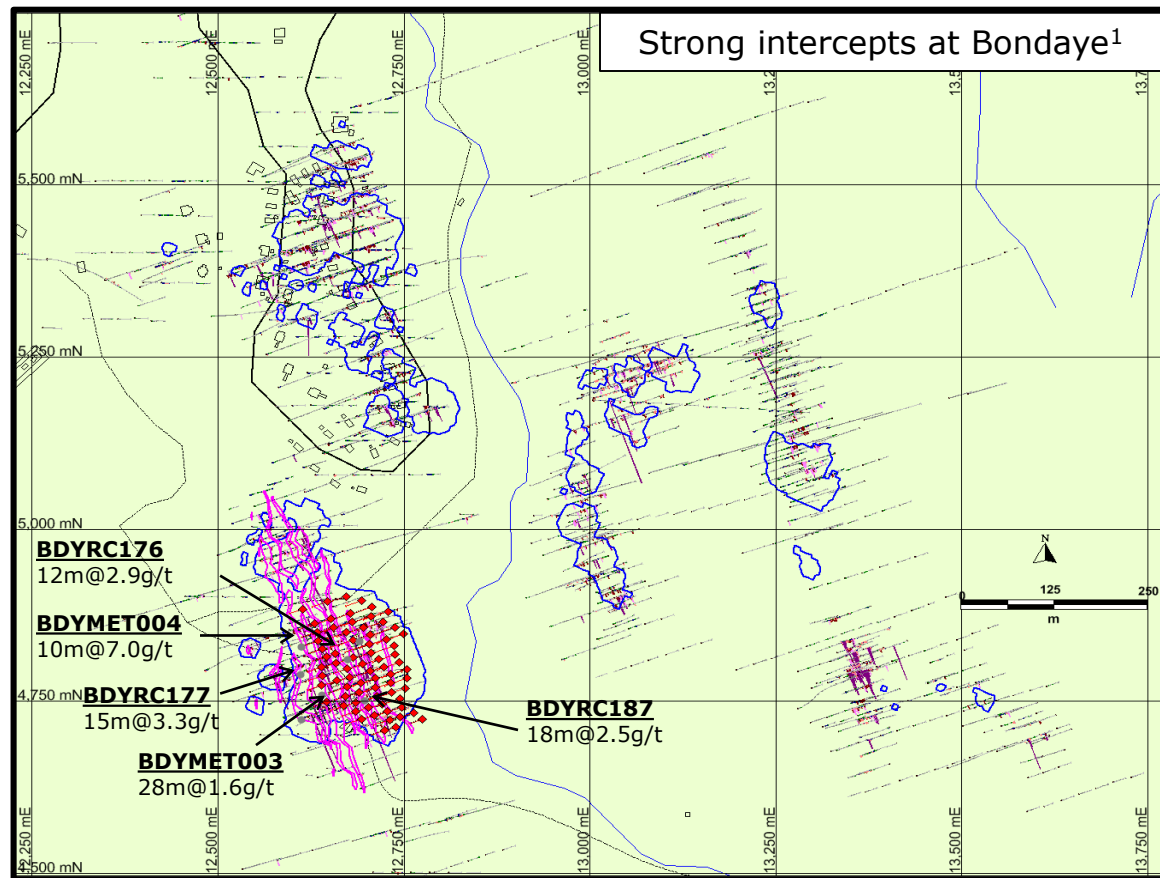
- Laterite
- Birimian Phyllite
- Birimian Graywacke
- Graphitic Shear Zone
- Graphitic Phyllite



Prestea South – Bondaye Pit 2



- 138Kt mined at 1.6g/t - remaining Mineral Resource within 274Kt grading 2.0g/t
- Shallow RC drilling planned to improve confidence in remaining oxide resource



- GSR has submitted Applications for Exploration within the forest reserve to the Forestry Commission - this 35km² area has never been explored systematically
- Wide spaced soil geochemistry has been planned once permission to access area has been granted



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Mineral Reserves and Resources

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

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

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
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 03, 2015, which is filed on SEDAR and at www.gsr.com
3. All numbers exclude refractory ore.