

SERRA GRANDE

BRAZIL



Development drilling rig underground at Serra Grande



LEGEND: 1 Serra Grande 2 AGA Mineração

Serra Grande, in the state of Goiás about 5km from the city of Crixás, comprises three mechanised underground mines and an open pit: Mina III, Mina Nova and Mina Palmeiras, and an open pit. One dedicated metallurgical plant, with an annual capacity of 1.5Mt, treats all ore mined.

Serra Grande is currently one of three operations in AngloGold Ashanti's Americas region.

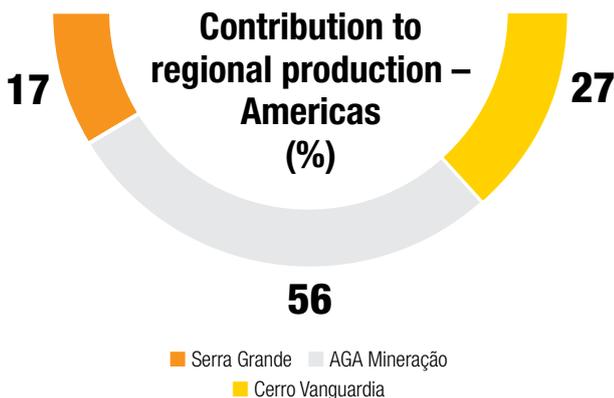
Operating performance

Production

Serra Grande's production for the year was 114,000oz, which was down on the previous year, mainly a result of lower grades due to geological model changes, grade control changes and operational delays at high-grade stope areas, further impacted by absenteeism due to the COVID-19 pandemic.

Costs

Serra Grande's all-in-sustaining cost of \$953/oz for 2020 was 14% lower than the \$1,105/oz reported for 2019, a consequence mainly of the Brazilian real's depreciation against the US dollar and changes in rehabilitation provisions (mainly due to economic parameters).



Contribution to group production*

4%

* 2020 group production includes the South African operations to September 2020

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Capital expenditure

Capital expenditure remained steady at \$33m and was spent mainly on Ore Reserve development, exploration, enhanced tailings storage facilities (TSF) management and maintenance. Serra Grande also maintained its focus on Ore Reserve and Mineral Resource conversions to improve confidence levels, while work is underway to convert the operation's TSFs to dry stacking.

Growth and improvement

Plans to increase gold production are underway. Productivity is expected to improve as a result of the Operational Excellence initiatives begun in the second quarter of 2020. These initiatives included operational and administrative efficiency gains with increasing mine flexibility being a key focus.

Exploration and Ore Reserve development will create options to further scale-up production, extend the life of mine and sustain higher margins. An exploration drill campaign has successfully confirmed the down-plunge continuity of the underground mines. In addition, the discovery of new orebodies, including Palmeiras Sul, has consistently grown the Mineral Resource. There is also opportunity to unlock potential at the open pit in the greenstone belt.

Sustainability performance

Safety and health

The two Brazilian operations – AGA Mineração and Serra Grande – achieved 1,067 fatality-free days by year end, a result of strategic safety-focused projects encompassing safety management systems, behavioural programmes, risk management and critical control monitoring. These projects were supported by the DuPont consultancy.

There were no fatalities in 2020 and the overall safety performance improved by 38% as measured by the all injury frequency rate to 3.80 per million hours worked.

During 2020, the safe production project was rolled out and an Engineering and Maintenance Excellence Committee was set up to address risks and engineering measures to address high-potential safety incidents.

Final certification audits for OHSAS 18001 were conducted. However, the ISO 45001 audit was postponed to the first quarter of 2021 due to the COVID-19 pandemic.

The COVID-19 protocols implemented in the first half of 2020 remain in place and are monitored daily by the operational crisis committee formed by senior leadership and health specialists at Serra Grande.

Employee relations

AngloGold Ashanti's approach to employee relations is predicated on a relationship-based model. We strive to establish constructive relations with our employees and their union representatives based on our Company values and our determination to embed interest-based collective bargaining. Working closely with our sites we are also at the forefront of ensuring that we comply with local legislation and regulatory obligations.

At our Brazilian operations, 24% of employees are registered as union members with 99% being covered by collective bargaining agreements. Wage negotiations were successfully concluded, without strike action, in August 2020.

Environment

Our environmental stewardship activities are focused on managing the impact of our operations on land, water, air and energy resources.

Environmental management processes are governed by our Group Environment Policy, Standards and Guidelines. The combined assurance audits to assess conformance with our Environmental Standards were impacted by COVID-19 related restrictions, resulting in remote reviews. These reviews will be augmented once the restrictions are lifted.

Stricter permitting schedules, resulting from legislation enacted following the Brumadinho tailings catastrophe, continue to be impacted by COVID-19 restrictions which have delayed the required field activities on the part of the public agencies. Environmental staff have worked closely with state environmental agency representatives to address any challenges.

Changes to Brazilian TSF legislation following the Brumadinho tailings catastrophe prompted amendments to our operating methods, and the TSFs at our Brazilian sites are being converted to dry-stacking operations in advance of the decommissioning of the existing TSFs. Automated scanning stations installed on TSF slopes track and detect movement and will trigger warning sirens in line with emergency preparedness and response plans that have been tested with communities. The necessary TSF safety guidelines were finalised. Serra Grande obtained an installation licence for the reinforcement of its TSF.

A dedicated TSF Project Committee monitors progress and timely delivery for all required permits while guaranteeing implementation of all relevant environmental controls. For further details, see <SR>, page 54.

During 2020, the Brazilian operations completed updates to their water accounting systems. Water balance scenarios were run to simulate the effects of the decommissioning of existing TSFs and the transition to filtering and dry stacking technology. This work is essential in informing the future water use needs at each mine site.

One environmental incident was reported. For details, see <SR>, page 48.

Final ISO 14001 certification audits were conducted during the year.

Communities

Our ability to operate successfully is premised on our engagement with communities in an atmosphere of mutual respect. We remain committed to sharing value with communities through training and supplier development programmes and the localisation of employment and procurement opportunities.

We recognise the complexity and diversity of the cultural, economic and social landscapes in which we operate; and aim

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to balance our ethical responsibilities, regulatory obligations and business objectives. Our host and local communities face intricate socio-economic challenges – especially poverty, high unemployment rates, low economic growth, inadequate infrastructure and access to basic services.

In Brazil, constructive community relations reflect the community's goodwill towards AngloGold Ashanti and imply a level of support by the community for operations and projects. It remains a key strategic objective to maintain and strengthen this social licence at all our operations.

Social investment in communities prioritises projects focused on culture, social development, health, income generation and environment/sustainable solutions.

Major initiatives include:

- **Sustainable Partnerships Programme (Public call for projects):** Social projects supported by the Company are selected by a committee comprising AngloGold Ashanti, social projects specialists and community representatives, in line with the open and transparent management of social investments. In 2020, more than R\$1.1m was invested in 23 projects.
- **Tax incentives:** In Brazil, specific laws allow the company to invest part of the income tax due in projects approved by the federal government in areas such as culture, sport, children and youth, elderly and disabled people, as well as health (particularly oncology). AngloGold Ashanti invested around R\$18m in such initiatives for implementation in 2021.
- **Volunteerism:** The Holding Hands Programme, established in 2004, has benefited more than 50,000 people through more than 330 activities (6,300 voluntary participants) over the years. The programme aims to encourage employees to become involved in and to contribute to social causes within the local municipalities where the company operates.
- **Good Neighbourhood Programme:** This initiative aims to strengthen AngloGold Ashanti's relationship and dialogue with communities in Brazil. It includes regular community meetings and publication of a newspaper. A toll-free hotline also receives grievances and complaints.

Community resettlement

AngloGold Ashanti remains committed to avoiding resettlements wherever possible and will undertake them only as a last resort. Our Land Access and Resettlement Standard, in line with the IFC Performance Standard #5, provides the basis of our approach. Where displacement is unavoidable, the consent of affected people is sought in free and fair engagement processes. We also ensure that affected communities are fairly and promptly compensated for loss of assets and acknowledge the obligation to restore or improve livelihoods in affected communities.

At Serra Grande, the voluntary resettlement project at the Santos Reis community (Crixás-GO) is still in progress and 45 of 51 households now occupying their replacement homes.

COVID-19 response in Brazil

- \$280,000 donated to hospitals in the Minas Gerais and Goiás states
- COVID-19 awareness campaign conducted, educating employees and communities about the virus and providing ways to protect themselves and loved ones
- Paid employee salaries and benefits during operational shutdown
- Supplied 28 respirators to hospitals and health units in Minas Gerais and Goiás
- Distribution of food parcels, personal protective equipment and sanitisers to communities
- Employees volunteered in seven host communities promoting awareness of COVID-19 – 452 participants volunteered in more than 36 initiatives, amounting to 847 hours and more than 6,072 beneficiaries

See the case study entitled [Supporting employees and communities in Brazil](#).

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Key statistics

Serra Grande	Units	2020	2019	2018
Operating performance				
Cut-off grade ⁽¹⁾	oz/t	0.043	0.093	0.055
	g/t	1.46	1.77	1.87
Recovered grade	g/t	2.33	2.94	3.46
Tonnes treated/milled	Mt	1.5	1.3	1.2
Gold production	000oz	114	123	130
Total cash costs	\$/oz	665	707	660
All-in sustaining costs	\$/oz	953	1,105	945
Capital expenditure	\$m	33	34	35
Productivity	oz/TEC	8.26	9.80	10.50
Safety performance				
No. of fatalities		0	0	0
All injury frequency rate (AIFR)	per million hours worked	3.80	6.11	5.093
People				
Total average no. of employees		1,695	1,531	1,462
– Permanent		1,260	1,222	1,158
– Contractors		435	309	304
Environmental performance				
Water use	ML	1,121	443	1,500
Water use efficiency	kL/t	0.74	0.34	1.29
Energy consumption	PJ	0.62	0.62	0.54
Energy intensity	GJ/t	0.41	0.47	0.47
Greenhouse gas (GHG) emissions	000t	24	24	21
GHG emissions intensity	t CO ₂ e/t	16	18	18
Cyanide use	t	634	572	450
No. of reportable environmental incidents		1	0	0
Total rehabilitation liabilities	\$m	17	20	13
Social performance				
Community investment	\$000	82	431	322
Payments to government ⁽²⁾	\$m	139	109	107

⁽¹⁾ Based on the Ore Reserve.

⁽²⁾ Total paid to the Brazilian government for AGA Mineração and Serra Grande.

For further information on AngloGold Ashanti and its work and performance, as a group and in the Americas region, see the <IR> and <SR> which are available online at www.aga-reports.com