



Building the largest pure-play silver producer globally

**Q1-2024 RESULTS
CONFERENCE CALL**

May 15, 2024

TSX: **AYA** | OTCQX: **AYASF**

Forward-looking / Statements

The Zgounder Expansion Feasibility Study (“FS”) is based on a technical report entitled “NI43-101 TECHNICAL REPORT – FEASIBILITY STUDY ZGOUNDER EXPANSION PROJECT”, originally dated March 31, 2022, and amended on June 16, 2022 with an effective date of December 13, 2021 (the “Zgounder Report”) which was prepared under the supervision of Daniel M. Gagnon, DRA, with the participation of William Stone, Antoine Yassa, Jarita Barry, Fred Brown, Eugene Puritch, Daniel Morrison, André-François Gravel, Claude Bisailon, Julie Gravel, Kathy Kalenchuk, Hugo Della Sbarba, Philippe Rio Roberge, Richard Barbeau & Stephen Coates all “qualified persons” for the purpose of the Zgounder Report. Scientific and technical information contained in this presentation has been reviewed and approved David Lalonde, B.Sc, Aya’s Head of Exploration and a QP as defined under NI 43-101. Mineral Resources are reported exclusive of Mineral Reserves and as such the Mineral Resources do not have demonstrated economic viability. Numbers may not add or multiply accurately due to rounding. Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is therefore no certainty that the conclusions of the initial exploration drilling results will be realized. Additionally, where the Company discusses exploration/expansion potential, any potential quantity and grade is conceptual in nature and there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the target being delineated as a Mineral Resource. Varying cut-off grades have been used depending on the mine, methods of extraction and type of ore contained in the reserves. Mineral resource metal grades and material densities have been estimated using industry-standard methods appropriate for each mineral project with support of various commercially available mining software packages. Additional details regarding Mineral Reserve and Mineral Resource estimation, classification, reporting parameters, key assumptions and associated risks for each of the Company’s mineral properties are provided in the respective NI 43-101 Technical Reports which are available at www.sedar.com and the Company’s website at www.ayagoldsilver.com.

Certain statements and information contained in this presentation are “forward-looking information” within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and assumptions and accordingly actual results and events may differ materially from those implied or expressed therein. This includes statements such as “expected”, “anticipated”, “growth”, “demonstrate”, “high-potential”, “developing”, “lower”, “prospective”, “adding”, “continuous”, “will”, “timeline”, “favorable”, “opportunities”, “backstopped”, “expand”, “extend”, “expected”, “continue”, “potential”, “deliver”, “complete”, “achieve”, “growing”, “increasing”, as well as statements by the Corporation concerning expected timelines, including the expected

timeline for the Corporation to produce new resources estimates, and exploration results, including deposit size, quantities, grades and contained metals, which are generally made on the basis of estimations and extrapolations from a limited number of drill holes and assays. These estimations and extrapolations are subject to uncertainties, which include but are not limited to uncertainty in connection with evaluating a deposit until the deposit has been extensively drilled on closely spaced centers. Should one or more of these underlying estimations or extrapolations prove incorrect, actual results may vary materially from those described in forward-looking statements.

Forward-looking statements contained herein also include the Corporation’s plans for its mineral properties, which involve known and unknown risks, uncertainties and other factors which may cause the Corporation’s actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information. Forward-looking information is subject to a variety of risks and uncertainties, which could cause actual events or results to differ from those reflected in the forward-looking information, including, without limitation, the ability of the Corporation to continue to access capital markets for the funding necessary to acquire and maintain exploration properties and to carry out its desired exploration programs; difficulties in executing exploration programs according to the Corporation’s proposed schedules and within its cost estimates, whether due to weather conditions in the areas where it operates, increasingly stringent environmental regulations and other permitting restrictions, or the availability of essential supplies and services; and factors beyond the capacity of the Corporation to anticipate and control, such as the marketability of minerals, government regulations relating to health, safety and the environment, and the scale and scope of royalties and taxes on production and other risks described in the Corporation’s documents filed with Canadian securities regulatory authorities. You can find further information with respect to these and other risks in the Corporation’s 2024 Q1 MD&A, and other filings made with Canadian securities regulatory authorities and available at www.sedarplus.ca. Should one or more of these risks or uncertainties materialize, actual results may vary materially from those described in forward-looking statements.

Accordingly, readers are advised and cautioned not to place undue reliance on forward-looking information. Except as required under applicable securities legislation, the Corporation undertakes no obligation to publicly update or revise forward-looking information, whether as a result of new information, future events or otherwise.

Q1-2024 /

Foundational Quarter for Growth

› Continued advancing Zgounder Mine expansion to plan:

- On time and budget for commissioning in Q2-2024
- Stockpile of **275,663t** of ore at quarter-end for commissioning of new mill

› Delivered a steady quarter that provides runway for delivering objectives & guidance

- Produced **366,362 oz**, a result of mining lower grade ore in upper benches of the open pit and underground stope extensions, in addition to underground sequencing.
- Generated \$5.1M in revenue, a result of a temporary increase in silver concentrate inventory and processing lower-grade ore.
- Net loss of \$2.59M (diluted EPS of (\$0.02))
- Total cash cost¹ of \$20.31 per oz sold

› Improved liquidity:

- Closed the quarter with **\$111M** in cash and cash equivalents¹
- Drew down \$25M of the EBRD loan, for a total of \$85M to date

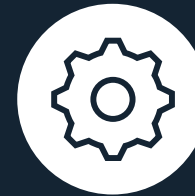
› Strengthened portfolio:

- Delivered an updated Boumadine mineral resource estimate that provides a strong baseline for continued development
- Boosted Boumadine land package with six permits

¹ Non-GAAP Measures, refer to page 23 of the Corporation's First Quarter 2024 MD&A



+89%
of Zgounder expansion complete



366.4
Koz produced



238.3
Koz sold



+22%
increase in cash
& restricted cash YoY



+346%
Boumadine land package
increase since YE

2024 /

Maintaining Production and Cost Guidance¹

- Steady-state production as Zgounder mined lower grade open-pit ore and continued building inventory.
- Average grade processed came in below guidance due to mine sequencing and temporary mining of lower-grade ore from the open pit.
- Mill recovery of 81.8% due to the processing of oxidized ore from the open pit.
- Cash cost² trended higher in Q1 to average \$20.31.

¹ Please refer to Forward-looking statement on slide 2.

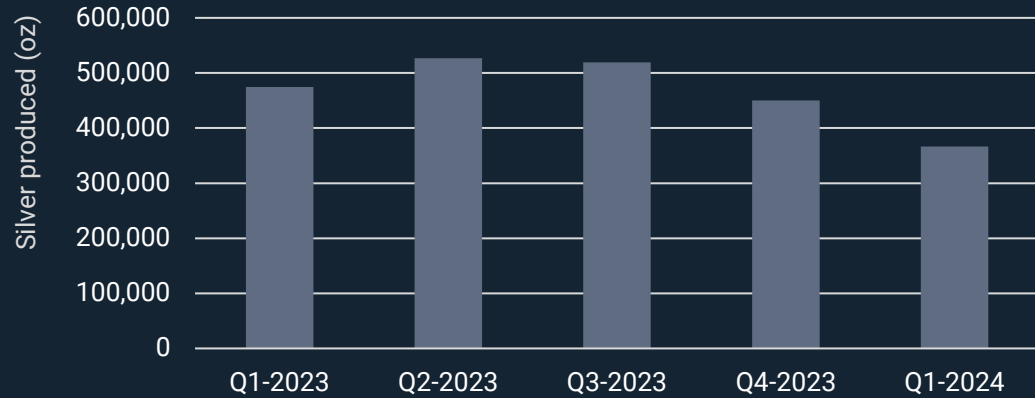
² Non-GAAP Measures, refer to page 23 of the Corporation's First Quarter 2024 MD&A

		2024 Actuals v. Guidance	
		Q1	Guidance
Silver production	oz	366,362	2.6 – 3.2M
Cash cost per oz sold ²	US\$ /oz	20.31	13.00 - 14.50
Average grade processed	g/t Ag	173	215 - 240
Mill recovery	%	81.8	85 - 86
Tonnes processed	K tonnes	81.3	425 - 485

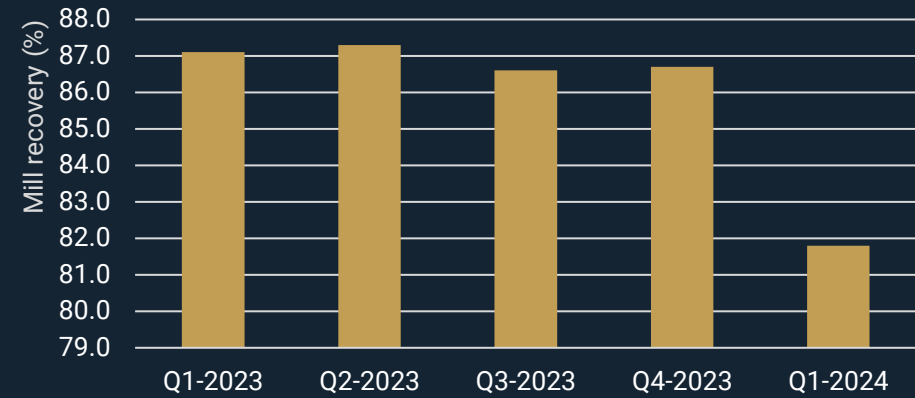


Q1-2024 / Operational Results

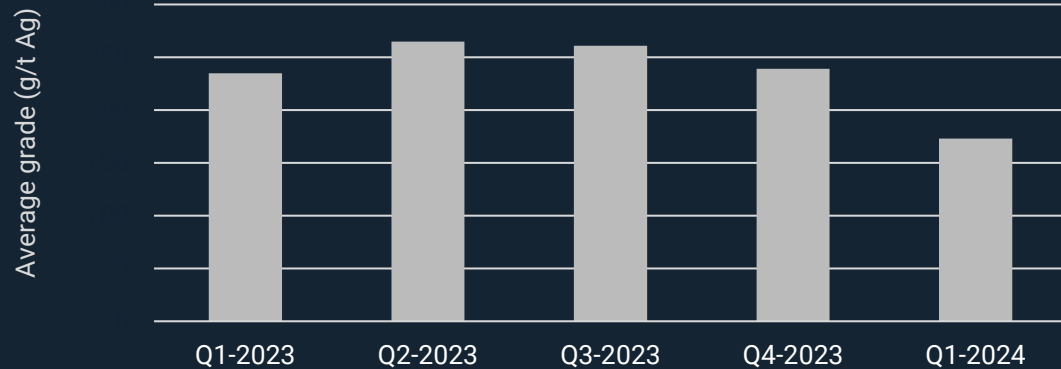
Silver production of 366K oz in Q1-2024



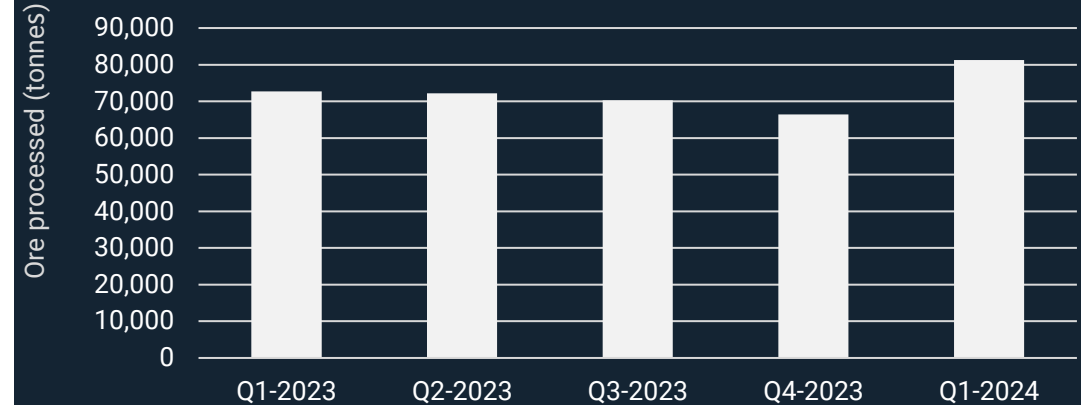
Mill recovery of 81.8% achieved in Q1-2024



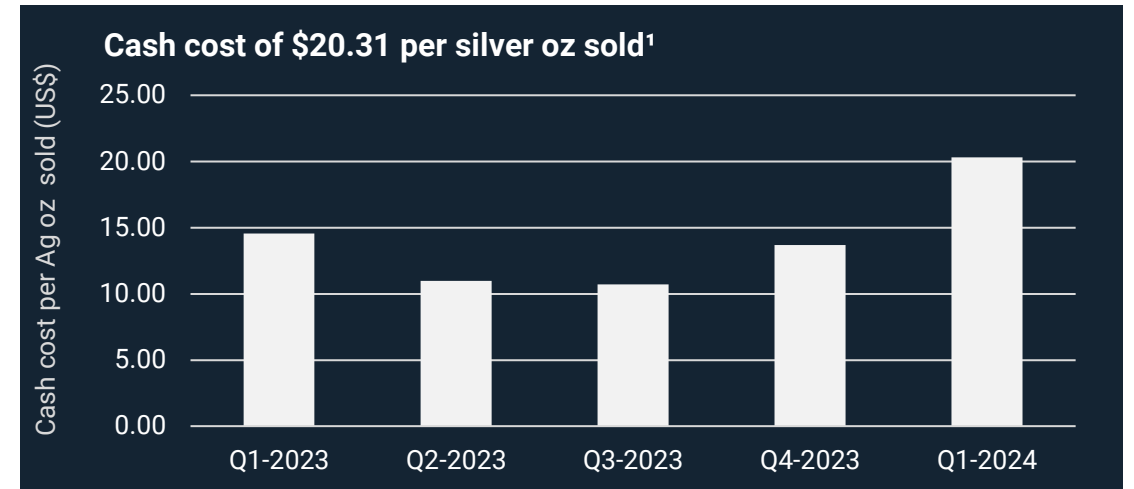
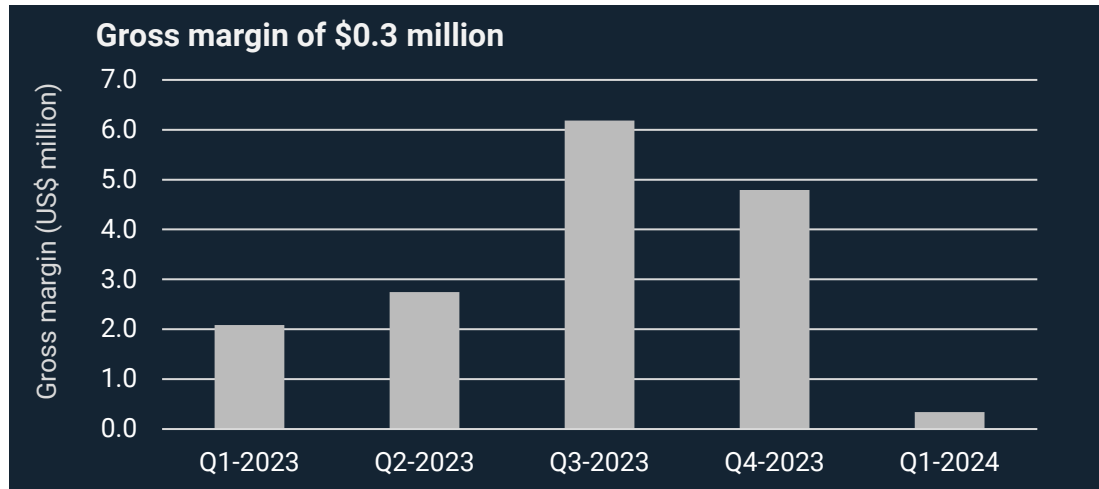
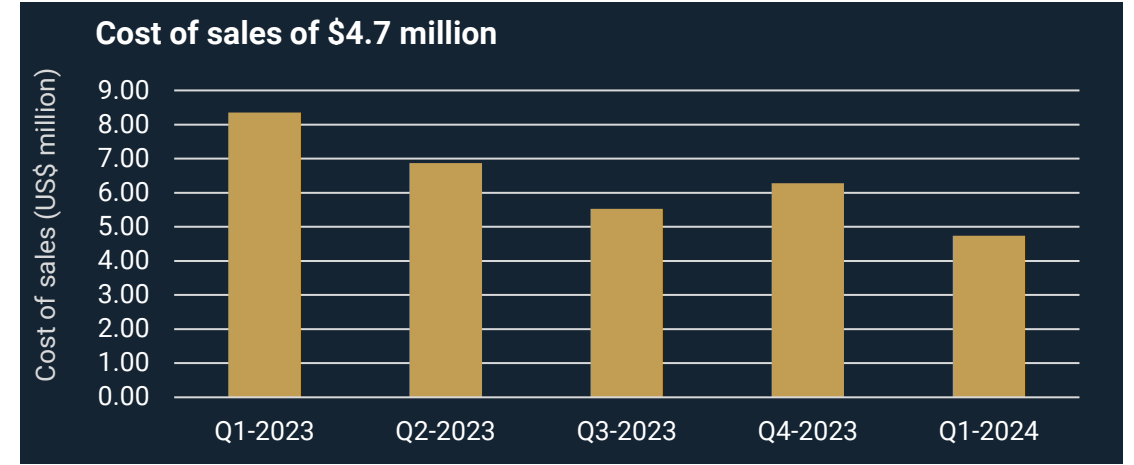
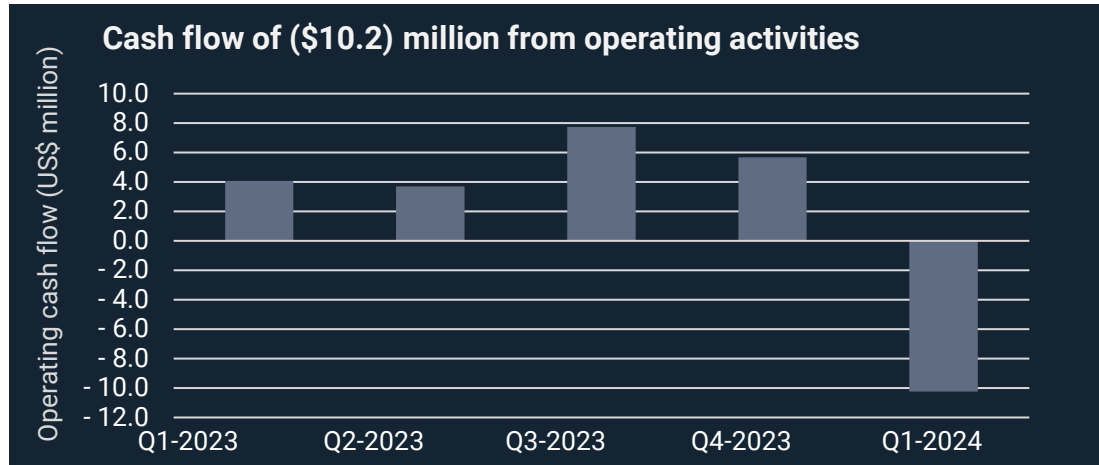
Silver grade processed of 173 g/t in the quarter



Record quarterly ore of 81,331 tonnes processed



Q1-2024 / Financial Results



¹ Non-GAAP Measures, refer to page 23 of the Corporation's First Quarter 2024 MD&A



**CONSTRUCTION
OF ZGOUNDER NEW
PROCESSING PLANT**

April 2024

Zgounder Expansion /

Expansion on Track for Q2-2024 Commissioning Start

On budget:

- **On track** to complete expansion within the capital cost estimate

Underground development on track:

- **94%** of lateral and **83%** of vertical development completed

Progressing to plan:

- Power line, Merrill Crowe and silver room building, haulage and open-pit roads, and garage

Completed on schedule:

- Plant civil and concrete works, cyanidation tanks, electrical substation, warehouses, and workshops



Area	Progress
Process plant	87%
Underground and open-pit mines	89%
Tailings	99%
Water management	100%
Electrical infrastructure	90%
On-site infrastructure	90%

Zgounder /

Expansion Quarterly Spotlight at Q1-2024

Processing plant advanced to
87% completion



Electrical substation
complete



2024 Drill Program of 145,000m Focusing on Boumadine

Zgounder Silver Mine

- **8,710m** of **15,000m** program completed
- Follow up underground targets generated by 2023 program

Boumadine (Development)

- **11,332m** of **120,000m** completed
 - 60,000m: explore and expand 4.2 km strike
 - 60,000m: test new targets
- MobileMT survey expected to generate regional and at-depth targets

Zgounder Regional (Exploration)

- **2,998m** of **10,000m** program completed
- Find similar mineralization to Zgounder deposit; and test Cu-Ag mineralization at Tirzzit
- MobileMT survey on Tirzzit expected to generate drill targets

Amizmiz (Exploration)

- Small drill and fieldwork program



Zgounder /

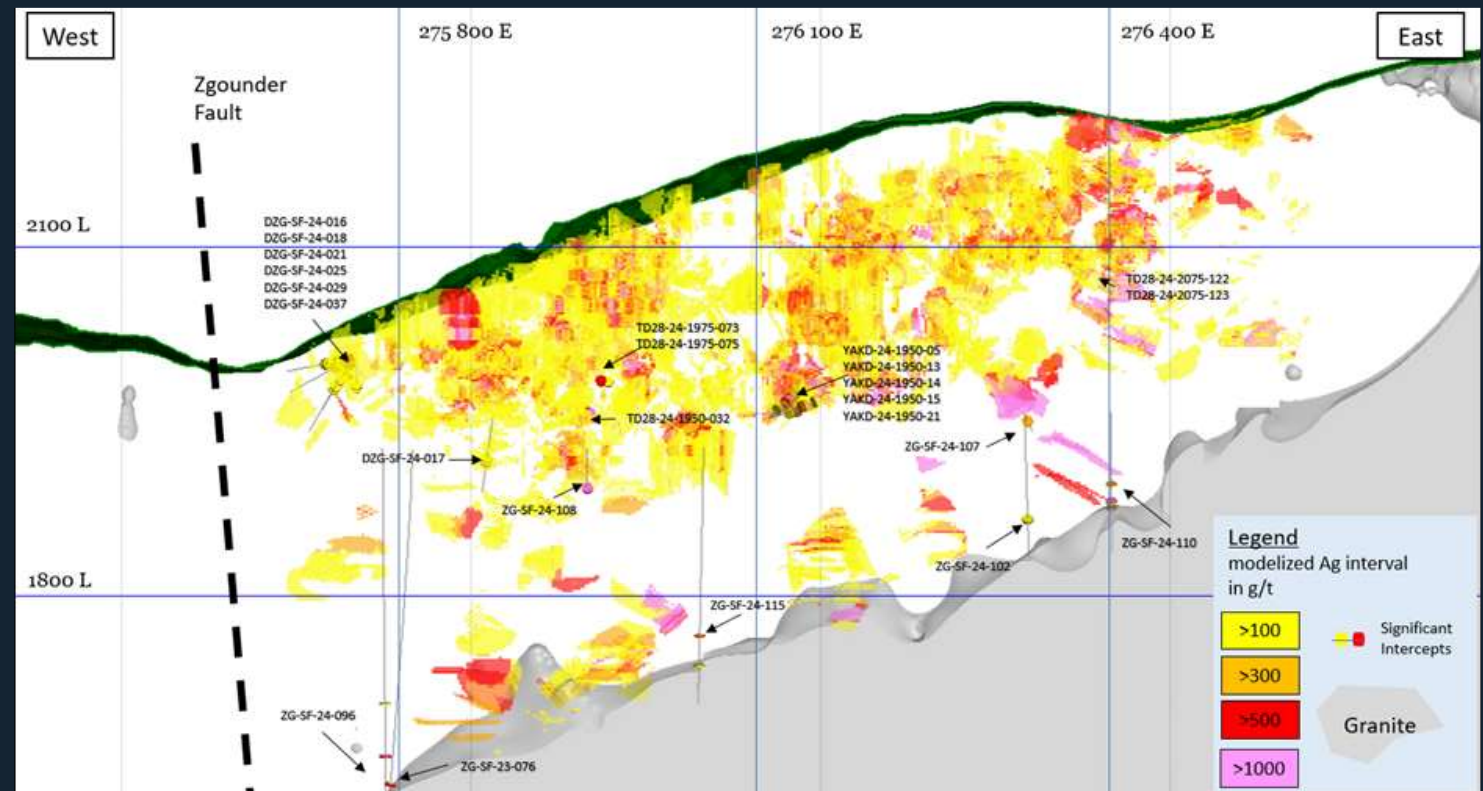
At-depth Drilling of Near-Mine Permits 50% Complete

Drilled **8,710m** of the 15,000m program

At-depth drill results to date confirm high-grade silver mineralization near the granite contact, with two holes hosted within the rhyolite, which was previously believed to be barren.

Recent Drill Result Highlights¹

- **1,089 g/t Ag over 13.5m**, including 1,700 g/t Ag over 7.5m and 4,469 g/t Ag over 4.5m
- **322 g/t Ag over 17.6m**, including 1,877 g/t Ag over 1.5m
- **2,812 g/t Ag over 8.0m**
- **2,227 g/t Ag over 7.0m** including 6,768 g/t Ag over 2.0m
- **812 g/t Ag over 13.5m**, including 2,207 g/t Ag over 4.5m



¹ Refer to Aya Gold & Silver's February 28, September 6, October 12, 2023, March 5, 2024, and May 2, 2024 press releases

Boumadine /

2024 Aggressive Development (Au, Ag, Pb, Zn)

Through drilling¹

- 15,027m of **120,000m** budgeted drill program completed in Q1 (**27,122m** YTD)
 - **60,000m** – expand 4.2km open-ended strike and infill
 - **60,000m** – test hypotheses and generate new drill targets
- **NI 43-101-compliant** resource estimate released in April 2024
- Fieldwork (hyperspectral, mapping and prospecting) ongoing on **18 new permits**
- Results from high resolution MobileMT geophysical airborne survey expected in Q3

Through consolidation

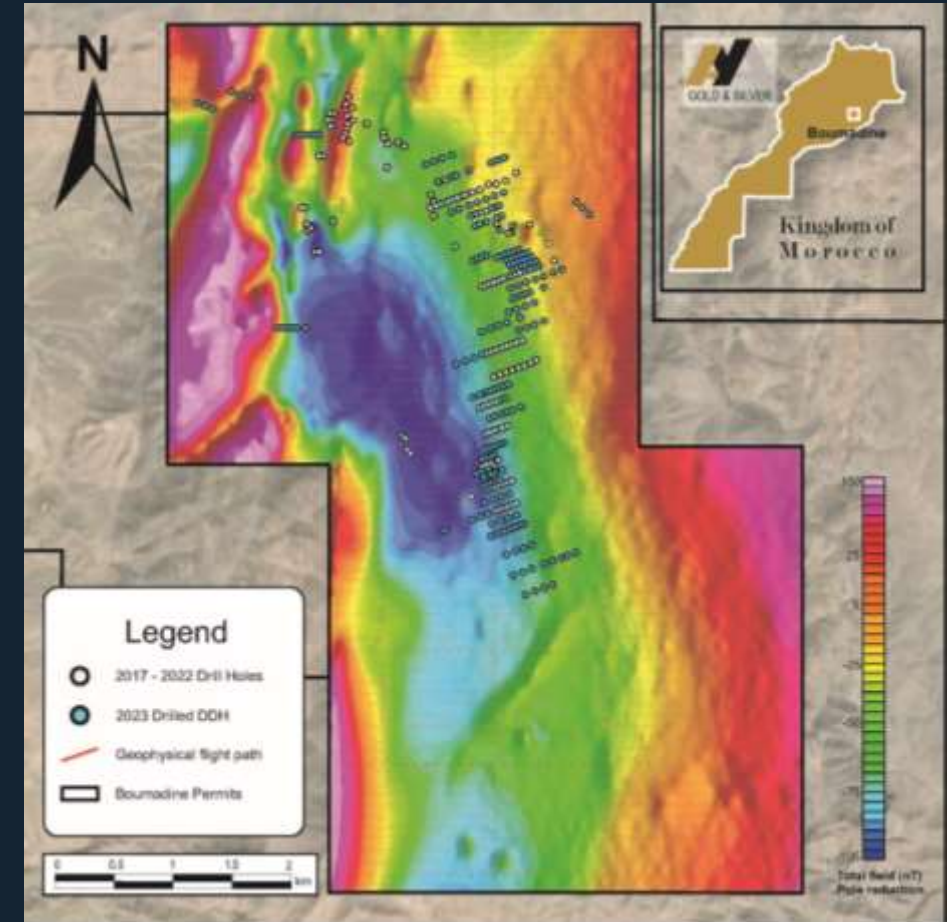
- Land position of **141.4km²** – up **346%** since 2023 (~**200 km²** YTD)

Through Initial Metallurgical Test Work²

- Initial recoveries of **89% Ag**, **85% Au**, **85% Pb** and **72% Zn** obtained
- A two-step process is envisaged that combines flotation with oxidation (Albion Process™) and leaching

¹ Refer to Aya Gold & Silver's April 19, 2023, July 5, 2023, September 19, 2023, October 12, 2023, November 20, 2023, January 18, 2024, March 19, 2024, and May 13, 2024 press releases

² Refer to Aya Gold & Silver's November 9, 2023 press release.



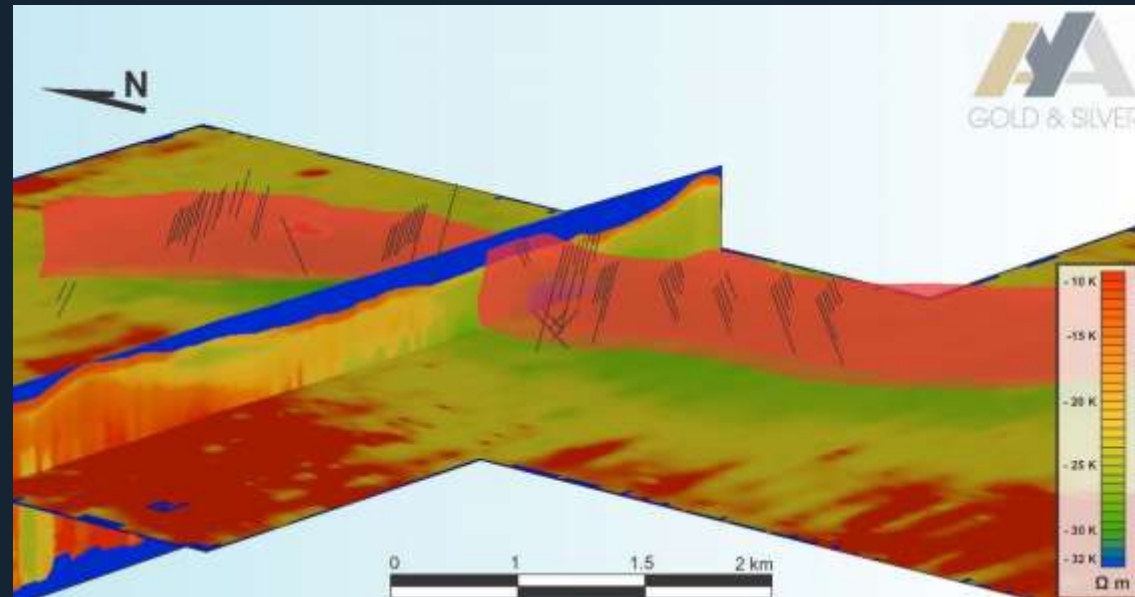
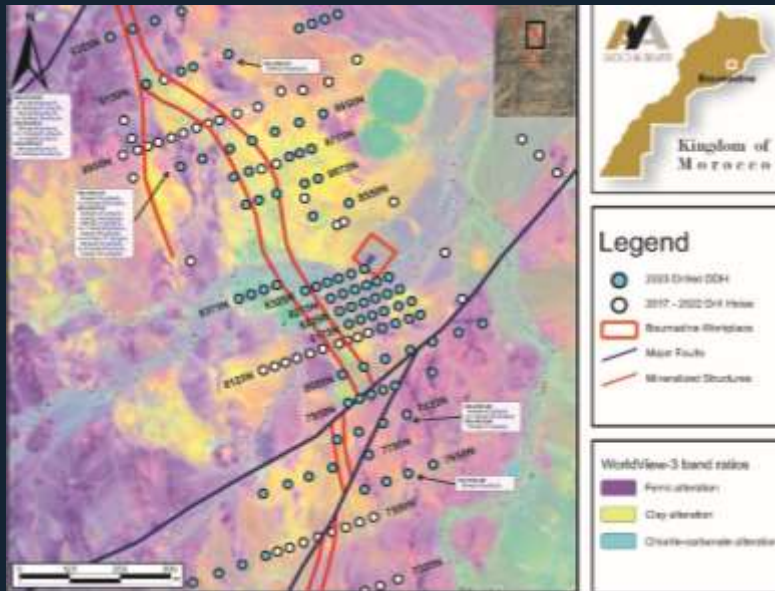
Boumadine Main Zone /

Expand 5km Strike, Which is Open in All Directions

Drilling Highlights¹

- **1,039 g/t AgEq over 23.5m** (6.41 g/t Au, 116 g/t Ag, 4.7% Zn, 0.6% Pb and 0.4% Cu)
- **763 g/t AgEq over 38.3 m** (1.53 g/t Au, 311 g/t Ag, 4.4% Zn, 1.8% Pb and 0.04% Cu)
- **474 g/t AgEq over 30.1m** (2.57 g/t Au, 85 g/t Ag, 2.2% Zn, 0.6% Pb and 0.1% Cu)
- **1,410 g/t AgEq over 9.3m** (12.34 g/t Au, 94 g/t Ag, 2.5% Zn, 0.4% Pb and 0.1% Cu)

¹All intersections are in core lengths; Ag equivalent is based on a 100% recovery with the following ratios: 1g/t Au: 93.4 g/t Ag; 1% Cu: 130.4 g/t Ag; 1% Pb: 31.8 g/t Ag; 1% Zn: 54.1 g/t Ag.



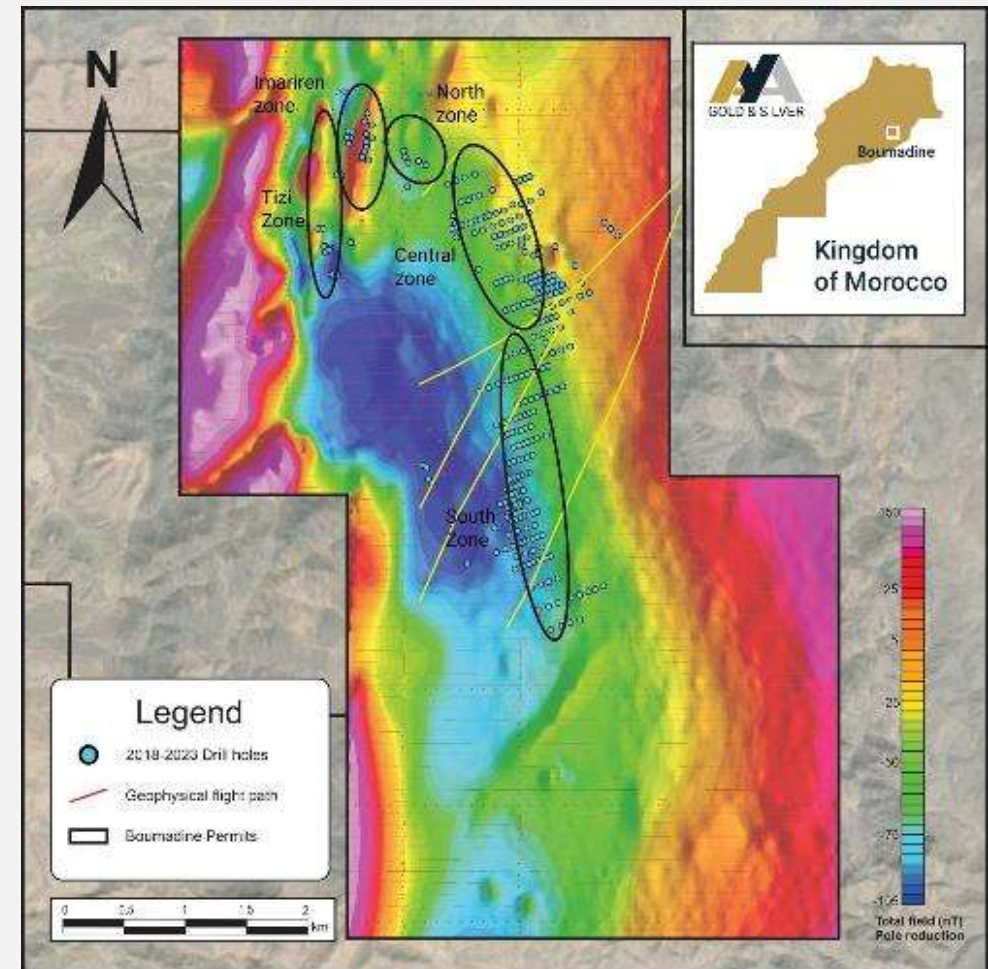
Boumadine /

2024 Resource Highlights (AgEq, AuEq, Cu, Pb, Zn)

Highlights¹

- **Indicated** resources of 2.0Mt at 113 g/t Ag, 2.51 g/t Au, 4.32% Zn and 1.07% Pb containing an estimated **7.4 Moz** of Ag, 165 koz of Au, 88 kt of Zn and 22 kt of Pb
- **Inferred** resources of 23.6Mt at 85g/t Ag, 2.62 g/t Au, 2.32% Zn and 0.84% Pb containing an estimated **64.7 Moz** of Ag, 1.98 Moz of Au, 546 kt of Zn and 198 kt of Pb
- 41% of the inferred mineral resource is pit-constrained, and 59% is deemed underground
- Rapid resource delineation with **+94 km** drilled in under 2 years
- Potential to **expand the deposit in all directions** – 120,000m program drilling ongoing and less than 10% of the land package has been drilled

¹ Refer to Aya Gold & Silver's April 16, 2024 press release.



Boumadine /

2024 Resource Highlights (AgEq, AuEq, Cu, Pb, Zn)

Potential to increase deposit in **all** directions

	Cutoff	Tonnes	Average Grade ²						Contained Metal ²							
			Ag	Au	Cu	Pb	Zn	AgEq	AuEq	Ag	Au	Cu	Pb	Zn	AgEq	AuEq
	NSR US\$/t	(kt)	(g/t)	(g/t)	(%)	(%)	(%)	(g/t)	(g/t)	(koz)	(koz)	(kt)	(kt)	(kt)	(koz)	(koz)
Pit-constrained Indicated	95	995	145	2.71	0.17	1.58	5.92	634	7.40	4,647	87	2	16	59	20,299	237
Pit-constrained Inferred	95	8,474	103	2.97	0.10	0.79	2.54	475	5.54	28,087	808	8	67	215	129,478	1,510
Out-of-pit Indicated	125	1,046	82	2.33	0.11	0.58	2.79	402	4.69	2,751	78	1	6	29	13,533	158
Out-of-pit Inferred	125	15,096	76	2.42	0.07	0.87	2.19	389	4.53	36,653	1,175	11	131	330	188,663	2,198
Total Indicated	95/125	2,042	113	2.51	0.14	1.07	4.32	515	6.01	7,398	165	3	22	88	33,832	395
Total Inferred	95/125	23,569	85	2.62	0.08	0.84	2.32	420	4.89	64,740	1,983	19	198	546	318,141	3,708

¹As at April 15, 2024

² Refer to Aya Gold & Silver's April 16, 2024 press release.

³ The mineral resource has been estimated based on a Ag price of US\$21/oz with a process recovery of 89%, a Au price of US\$1,900/oz with a process recovery of 85%, a Zn price of US\$1.20/lb with a process recovery of 72%, a Pb price of US\$1.00/lb with a process recovery of 85%, and a Cu price of US\$4.00/lb with a process recovery of 75%.

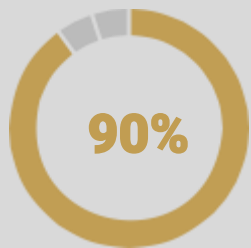
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Ongoing Focus on Safety and Communities

H&S: Significant Decrease in Frequency and Severity Rates:

- Four lost-time injuries (LTIs) recorded
- 2,946 hours of H&S training, **+150%** YoY
- Phase III emergency readiness training

Second EBRD-CTF (Clean Technology Fund) milestone near-complete:



Milestone 2 (2024).

Achievement of capital expenditure outlined in the TCFD report and in the development plan will reduce interest rate by 50% in the CTF tranche.

Q1-2024 Community Highlights:

- **Education** – Launched online classes for middle schoolchildren and adult literacy classes
- **Health** – Organized second phase of audiology mobile clinic in 2 communes
- **Livelihood** projects – Carried out plot maintenance work and received visits at saffron community teaching farm.



/ Training in ground control



/ Adult literacy classes

Aya /

Takeaways

› 120,000m drilling at Boumadine

✓ Progress: ON TRACK

› 25,000m drilling at Zgounder and Zgounder Regional

✓ Progress: ON TRACK

› 2024 milestones for 2,700 tpd Zgounder Silver Mine expansion:

› Q2-2024 – Commissioning start

✓ Progress: ON TRACK

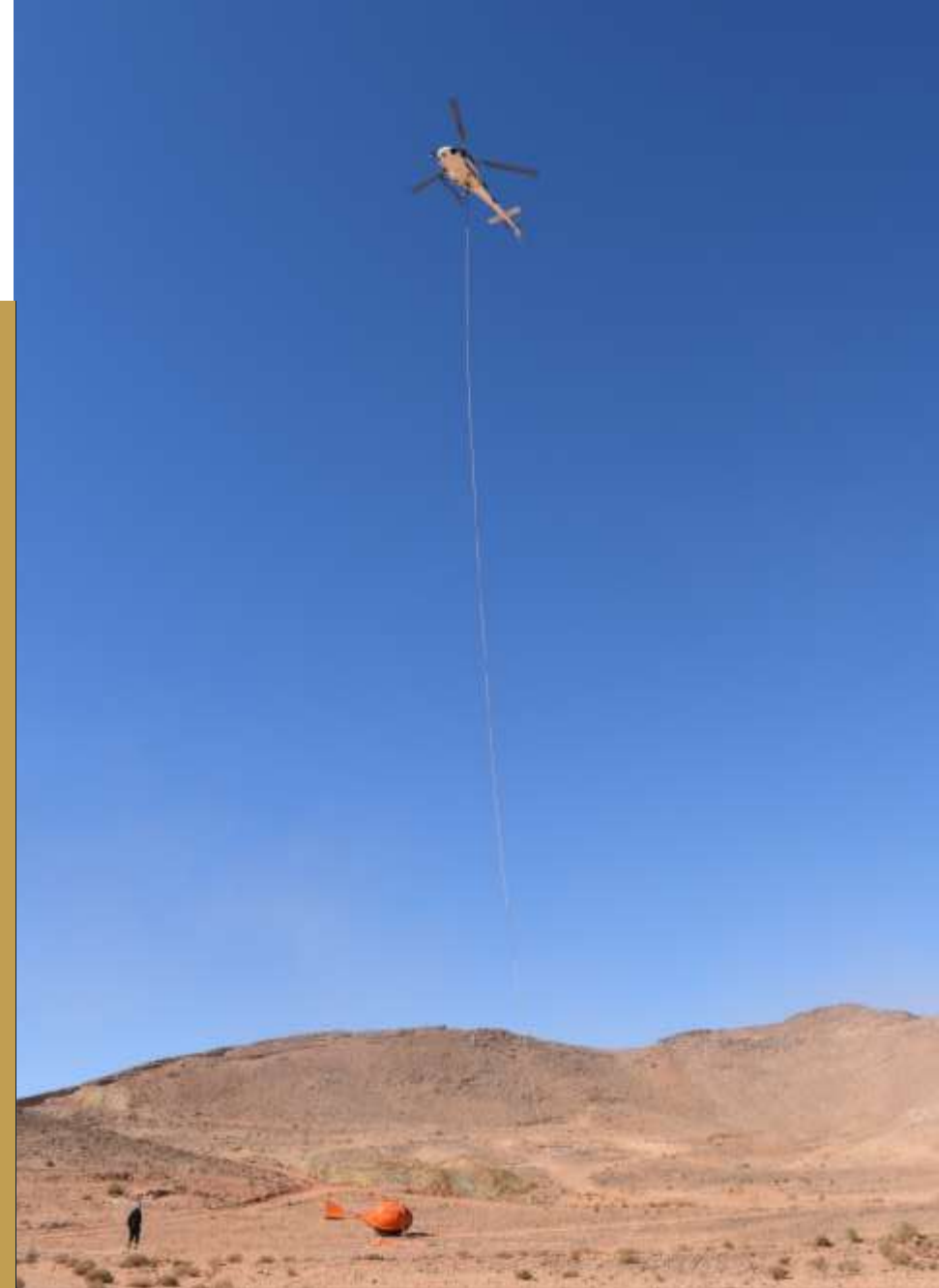
› Q4-2024 – Commercial production

› 2024 silver production and cost guidance

✓ Progress: ON TRACK

› 2024 ESG milestones of EBRD-CTF loan agreement

✓ Progress: ON TRACK





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