



Transformative and sustainable technologies at Hellas Gold

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Eldorado's Climate Change Strategy

Eldorado Gold is committed to implementing sustainability from the ground up in service of our vision to build a safe, sustainable, high-quality business in the gold mining sector creating value today and for future generations.

By investing in best available technologies and implementing leading environmental practices, we seek to safely manage tailings and waste, restore disturbed land, reduce our water and energy consumption and protect the ecosystems surrounding our sites.

In 2020, Eldorado began developing a Climate Change Strategy that defines five focus areas in support of our approach.



Launched our climate change strategy and set a target to mitigate GHG emissions by **30%** by 2030, on a "business-as-usual" basis

Pathways to achieve targets

Identified GHG emission reduction opportunities and strategies that support business objectives. These opportunities categorized under four different 'pathways':

PATHWAYS TO ACHIEVE TARGETS

Measuring and monitoring

Operational efficiencies and continuous improvement

Technologies, processes and energy generation

Energy procurement and strategy

❖ Measuring and Monitoring

Measuring and monitoring our energy use and GHG emissions allows us to:

- Identify and prioritize potential opportunities for operational efficiencies;
- Track and report information against which we can measure the impacts of our GHG emissions reduction projects;

❖ Energy procurement and Strategy

- Support the low-carbon transition by identifying opportunities to source low-carbon electricity.
- Evaluate energy generation and procurement in Greece
- LED initiatives replacing old style bulbs across the sites and underground



Pathways to achieve targets_ Operational Efficiencies and Technology Initiatives



Dewatering Optimization

Backfill - Paste Improvement

Remote Mucking

Remote Blasting

LTE Connectivity across the UG mine

Ventilation – VOD

Geokret

BEV (Battery electric vehicles)

LED initiatives UG mine

Technology is the key to unlock value at the mine



Pathways to achieve targets_ Operational Efficiencies and Technology Initiatives

New Pump Station -284

- Increased maximum capacity (360 l/s).
- The capacity more than twice of the current amount of mine water, which is aligned to a modern mine design, reaching 1,300m³/h.

Skid pumps installation

- Skid pumps will transfer water directly from -345 to -284 PS, making 22 pumps redundant and thus reducing pumping cost.
- The installation of skid pumps at WOZ, will be completed until the end of 2022.

Dewatering optimization



Olympias mine uses paste backfill method, utilizing tailings, mixed with cement and water.

- Contributes to the isolation and disposal of mill tailings by reducing the environmental impact.
- Pumped UG by borehole/pipeline delivery system. This decreases congestion in the UG

Paste fill initiatives for further optimization

- Alternative mix designs to maximize the usage of tailings - reduction of tailings haulage to the TMF.
- Remote monitoring & continuous paste filling between the shifts via camera.
- The implementation of the camera UG targets **10%** of the total delays.

Backfill – Paste Improvements Remote camera monitoring



Pathways to achieve targets_ Operational Efficiencies and Technology Initiatives

- Implementing the system will result in:
 - ✓ Reduced shift handover times
 - ✓ Faster re-entry to the blasted face
 - ✓ Increased utilization of equipment
- Furthermore, the project will improve two key aspects:
 - ✓ **Safety** - operator is not exposed to potential harmful gases after blast.
 - ✓ **Productivity** - effective operating time is increased due to remucking between shifts and elimination of travel time.
- Total average mine cycle time is estimated to be reduced from 3.5 shifts to 3.2 shifts.



Remote Mucking



Centralized blasting on surface through the LTE.

- Safer – zero exposure of blasting personnel to UG hazards
- More Productive – blast completion time reduced (10min/shift is estimated).
- Better Ventilation – more time to ventilate headings.



+10mins
productive time / shift (planned)

Remote Blasting



Pathways to achieve targets_ Operational Efficiencies and Technology Initiatives

- More available data in real-time
- Easier to make operational decisions
- Keep operations running productively
- Track progress and KPIs real-time
- Improve safety across all the mine

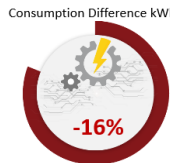
Unlocking Potentials:

- Real-time information on fixed and mobile equipment
- Data sharing real-time
- Access to technical records and reports from UG
- Real-time air and gas readings

LTE connectivity across the UG mine



- Ensure that fresh air is distributed through the mine in a manner that ensures workers' health and safety are maintained.
- The fans will be capable of providing the required volumetric flow rates
- Eliminate underground air recirculation in most areas.
- Ensure the production and development activities at the lower levels of the mine
- Sustain the LOM production levels



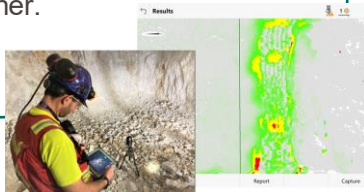
Ventilation - VOD



Pathways to achieve targets_ Operational Efficiencies and Technology Initiatives

Geokret

- Reduce overall shotcrete consumption.
- The installation of the shotcrete is checked both visually during the daily visits, and also by use of the 'GEOKRET' scanner.
- Below the varying thicknesses of shotcrete placed can be easily picked out in the scan by the 'GEOKRET' scanner.



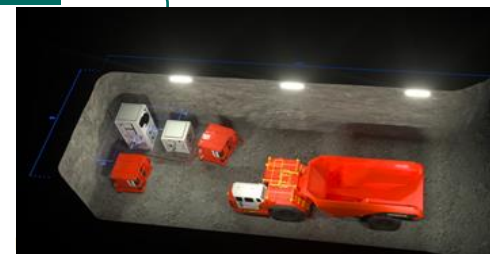
TCAD

- TCAD system applied to the Face drilling
- Provides advancing drilling accuracy and blast economy
- Automatic cycle - Automatic hole length control according to drill plan
- Lower energy consumption, due to better accuracy and minimized overbreak



BEV (Battery electric vehicles)

- BEV (Battery electric vehicles) plans for Sandvik trucks – under evaluation.
- The machines are quieter, they generate far less heat, and they are emissions-free, which reduces ventilation requirements contributing to a healthier environment for workers.





Thank you

November 22

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