



Mining Applications

The initial mining application of the GOC was thought to be used for the narrow vein mining venue, with the initial design as a unit needing only a one meter by two-meter access as the least needed for a man pass. This would allow a single head unit to mine at a rate of approximately 2.6 tons per hour of ore bearing material and waste, with the ability to roughly separate between the two. Ancillary equipment such as power generation equipment, air compressors and vacuum systems can either be remotely located or are sized to be transported along with the GOC. Larger underground projects would utilize additional GOCs and any necessary support equipment. We anticipate the GOC will be highly effective in the process of securing portals and adits as well as in the completion of drifts, cross cuts, raises and vents of any desired size without the use of explosives. Our team is in the process of finalizing additional patent applications for exciting new advanced technology units to expand applications in mining. We are in the process of finalizing proposals and contracts with Raytheon ELCAN for the manufacturing of unit components and mirrors.

Testing will evaluate the ability to cut, fracture, and spall various samples of geologic materials. The patent pending technology is designed for use mining operations such as explosive installation preparation, rock bolting operations, drifting, expanding raises, winzes and stope mining. We believe the anticipated successful testing will accelerate the commercialization of the versatile and low environmental impact equipment designed to transform the mining industry and the ability to recover valuable commodities including Gold, Silver and the critical minerals supply chain feeding the clean energy transition.

Mining applications:

- Opening Adits or Portals (the opening or entry to a mine).
- Drilling tunnels (three to seven feet wide by six to eight feet tall) in narrow vein mining situations.
- Smoothing or vitrifying existing tunnels (to prevent or lessen groundwater seepage and enhance air flow in underground ventilation).
- Material removal when drifting (following) along a narrow vein of precious metals.
- Removing material in a vertical stope or raise (between two tunnels).
- Drilling holes two to three inches in diameter by two to eight feet deep to place blasting materials (may be eliminated or reduced in scope by laser cutting the material).
- Drilling holes for safety rock bolting (two to six feet long steel, hollow, slotted rods) (protection from falling rock from prior blasting or residual stress build-up in the rock).