



# KARAKERT STONE CASTING FACTORY

April 2017

# FACTORY OVERVIEW

- Designed in 1973, finished in 1992; has been idle since construction
- Ownership structure: Open Joint Stock Company
  - 2 shareholders, 51%-49% split
- Assets
  - 20 hectares of land
  - Production equipment that is outdated in some cases (inventory list available for closer inspection)
  - Infrastructure (i.e. railway) and proximity to Aragats perlite mine and basalt mines are biggest selling points
  - Construction of a similar plant with today's prices would require significant investment (in \$M)
  - To kick-start production, \$5M in investments is needed (for just one product)
- Originally designed for basalt processing
  - Has potential to produce insulation materials from perlite (such as Prpraperlit), basalt pipes and tiles, decorative basalt, colorless silicate glass (known as Kanazit; Armenia owns patents), industrial filter production and acid resistant materials using basalt
  - Each would require upfront investments

# INVESTMENTS NEEDED FOR FOAM PERLITE

- Prpraperlit is insulation material used in construction and produced by mixing perlite with NaOH and coal dust
- Needs certification to be sold in Russia and elsewhere: Armenian certification would be valid in EAEU
- By one estimate, \$5M in investments is needed for initial repairs and equipment to produce prpraperlit at the Karakert Plant
  - \$1.4M needed repairing roofs/electricity/water supply/gas systems/windows/the administrative building, buying and/or repairing transportation vehicles, 6 months of salaries (including payment to the inventor), purchase of conveyor belts, perlite crushing unit with all necessary equipment, compressors, equipment for measuring and cutting final products, woodworking unit for producing boxes to package final products, lab equipment, etc.
  - \$3.6M needed for purchasing ovens necessary for melting perlite
- Above costs will kick-start initial production of 500,000 m<sup>3</sup>
  - \$65/m<sup>3</sup> to produce; to be sold at \$200/m<sup>3</sup>
  - Both figures need to be independently verified

# STRATEGIC CONSIDERATIONS

- Armenia is rich in non-metal minerals that can be extracted and processed into high-value construction and other types of products
- Relatively low energy prices, low cost labor, high quality raw material create the potential for high value-add production that will help mitigate the effect of high transportation costs when exporting
- Armenia has 155 million tons or 22% of the estimated world's reserves of just one of the minerals (perlite)
- 24 extraction licenses in Armenia: Aragats Perlite is the largest and is of the best quality
- No initial R&D is needed as various methods for processing perlite and other raw materials were developed by Soviet Armenian scientists
- Can leverage “Made in Armenia” branding