

RIVS SCIENCE AND PRODUCTION ASSOCIATION: CONTEMPORARY STRATEGY AND PRINCIPAL AREAS OF ACTIVITY



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RIVS Science and Production Association is a widely known diversified company engaged in mineral beneficiation by way of development of efficient processing technologies, planning of processing plants and design and delivery of up-to-date mineral concentration equipment.

Under the current tough competition among the same specialization companies, it is extremely important to select and substantiate sound approaches to meeting challenges set by a customer. It should be taken into account that in view of the tendency toward reduction of content of commercial components in raw materials, some mining and processing integrated works have to push up processing flow, develop advanced technologies and design adequate equipment in order to keep up with the planned commercial output. These efforts result in escalation of costs.

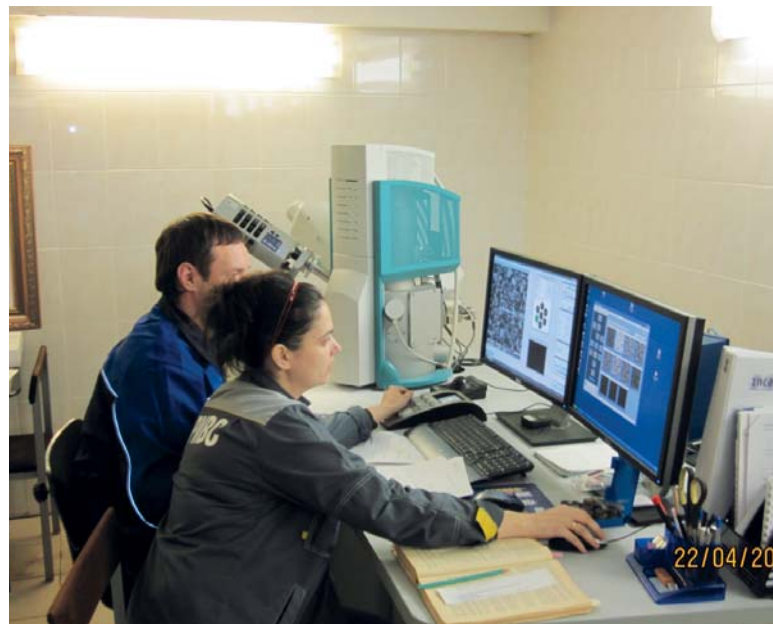
In the context of the aforesaid, RIVS specialists see the main missions of any new project launched as:

- Substantial reduction in total cost of ore processing;
- Increase in commercial output owing to production of higher quality concentrates with high content of valuable components;

- Cutback of energy consumption;
- Abatement of ecological stress.

A principal advantage of RIVS is the individual approach to problem management considering characteristics of raw material and customer's desires. Efficient engineering and design solutions and modern in-house manufacture equipment allow RIVS to be confident under increased competition.

RIVS Science and Production Association possesses research laboratories fitted with advanced equipment meant for wide range technological study of minerals and raw materials along the "crude ore—finished product" chain; has an opportunity to evaluate grindability index, crushability and abrasiveness of crude ore and beneficiation products, as well as to analyze mineral composition using the up-to-date instrumentation: binocular microscopes with digital cameras and specialized program support. The Company holds an



Mineralogical Laboratory, RIVS



Hydrometallurgy Laboratory



Automated RIF proportioning machine at processing plant, Carmen Copper Corporation

automation department to design facilities and devices for automatic control of process flows and has its own production facilities to manufacture a wide variety of equipment for mineral mining and processing.

One of the new RIVS Company's profiles is the Hydrometallurgy Department found in 2012. The goal of the department is comprehensive performance of processing and metallurgical treatment of nonferrous and noble metals, mine waste materials and mining chemical feedstock.

As of today, the Company holds over 50 patents for development of advanced mineral processing technologies and design of promising processing equipment; tens implemented patents for technical upgrading and construction of processing plants in Russia, Kazakhstan, Uzbekistan, Armenia, Mongolia, Bulgaria, Philippines and other countries.

**Promising areas of activities
for RIVS Science and Research
Association**

- Audit of mineral processing plants and recommendation of new, more viable technologies and engineering solutions;
- Integrated examination of processing plants and justification of investment for business modernization;
- Development of new advanced technologies and flowsheets for mineral flotation with mineralogy supervision;
- New approaches to flotation of oxidized iron-bearing ore;
- Design and construction of new plants without suspension of production;
- Recirculated water management;
- Exploration projects;
- Design of new high-cube equipment (conditioning tanks, flotation agent blending machines, flotation machines, etc.);
- Automation equipment design.

Technological achievements, currentness of the tasks and challenges and high scientific-and-technological level of the performance are the RIVS passport to success and long-term fruitful cooperation with business partners in Russia and abroad. **EM**

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