Vesna Prodanovic is the General Manager of the company Rio Sava Exploration Belgrade, subsidiarie of the company Rio Tinto group, whose geologists found a deposit of lithium and pine “Jadar” near Loznica. She talks about the way the mine will work.

The environmental impact assessment is performed during the feasibility study, ie the development phase of the project. This is exactly the phase in which the “Jadar” project has been since August this year. The study is now being prepared, and we are currently working with certified experts and relevant institutions to identify the impacts and define the complete set of measures we need to implement in order to eliminate or reduce those impacts to the minimum possible, legally permitted measure. When the study is completed, we will have very precise information on both the impact and the protection measures. I emphasize, this study is a publicly available document. When it is finished, an early inspection and presentation will be organized, about which the competent ministry will inform the citizens through the media. Currently, the planned investments in the construction of systems and equipment in the field of environmental protection are more than 100 million dollars. We can expect an increase in investment in this segment in the next phases of the project, after the completion of conceptual and main projects.

The technology includes the process of preparation of mineral raw materials in order to obtain concentrates (crushing and wet grading, without classical flotation), then dissolution, followed by crystallization of the final products. Processing will take place in a modern plant with a unique, innovative and stable technology that has been tested in a pilot factory in Australia, and developed by a team of leading domestic and foreign experts. As many as 2,000 tests were performed to provide the optimal solution for obtaining the final industrial products, lithium carbonate, boric acid and sodium sulfate. The processing process itself has undergone five independent audits by relevant experts in various fields. This means that our team of experts has improved the previous methods of lithium ore processing and lowered the process temperature from more than 250 to below 100 degrees Celsius, which is a much more environmentally friendly solution.

The project will provide technical water from three sources – treated mine water created by regular drainage of underground mine premises, collection of atmospheric precipitation and from the alluvium of the Drina River – we do not mean the riverbed but the surrounding sediments, ie areas previously devastated by gravel exploitation, and whose resources cannot be used for processing into drinking water. Hydrological and hydrogeological research is underway, which will show the expected balance of water inflow from these three sources. These tests have yet to show whether the supply of water from the Drina alluvium is possible and feasible. The zone in which hydrogeological research is performed

in order to confirm the source of supply, was chosen on the basis of previous research, which was done by the Institute of Water Management "Jaroslav Cerni" from Belgrade.
It is important to note that within the complex of the "Jadar" mine, there will be a state-of-the-art wastewater treatment plant. After the treatment, it will be of higher quality than the water into which they will be discharged. The water that will be used in the processing plant will circulate in a closed system. After purification, the surplus will be discharged in several phases, in order to achieve the same water quality or better than the class of watercourses into which it is discharged at the end of the processing process. The amount of water that will be discharged into Jadar will not always be the same, and according to currently available data, the maximum amount that can be discharged will not exceed 2,000 cubic meters per day.
The waste that will be generated during the exploitation and processing of jadarite will be solid in the form of filter cakes, which will be stacked, leveled and compacted on the landfill using smooth rollers. A certain portion of the total waste, approximately 20 percent, will be used in a mix specifically designed to fill the excavated space in the mine to prevent subsidence of the surface terrain. The content of heavy metals in the waste will be approximately the same as the content present in the soil itself. It will not decompose under the influence of atmospheric conditions, and it will have the smell of earth. Although the study on the impact on the environment is in progress, we already know the measures that we will apply. In addition to the wastewater treatment plant, the landfill area will be lined with impermeable material that will protect groundwater and the surrounding land. There will also be a mechanism for regular monitoring of groundwater and surface water and air quality control. The landfill itself will be successively recultivated by planting different types of plants on the parts where it has reached the planned height – grass and shrubby bushes in order to renew the surface. For the environmental protection measures that are known to us at the moment, an investment of more than 100 million dollars is planned. The rest of the measures, which will be defined by the environmental impact assessment study, will be an additional investment.
The land acquisition program is a sensitive and important issue for all involved. Therefore, our goal is for both parties to be satisfied at the end of the process, and for households to be provided with the same or better quality of life and work compared to those they had before the relocation. In this process, we are guided by the laws of the Republic of Serbia, best global practices, performance standard five of the International Finance Corporation (IFC standard five, World Bank group), as well as Rio Tinto standards that even exceed the standard of the International Finance Corporation that defines measures and good

international practice, fair compensation and improvement of the living conditions of people who go through the relocation process. The way in which the amount of compensation will be calculated is explained in detail in a document that we shared with all landowners. What we can state publicly is that the company covers the following costs: compensation for land and other real estate on the land at the full replacement price, relocation bonus under defined conditions (relocation within four months or less), additional household fee, tax for transfer of ownership, transaction costs. The land and property purchase program also includes providing support to land owners in resolving property relations, as well as providing support to owners in the process of renewing or improving the sources of livelihood of people affected by land purchase. Plans for the renewal of livelihoods have been prepared together with the households affected by the project through their encouragement to actively participate in the process of defining the plan and express the needs of their household and local community.
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