

News Release

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BASF and the Catholic University of the North collaborate on mining research, development and innovation

- **Promoting collaboration between academia, students and industry experts**
- **New laboratory established for flotation, hydrometallurgy and solid-liquid separation (SLS) at the university in Antofagasta**
- **Collaboration leads to the development of new innovative products**

Quinta Normal and Antofagasta, Chile – October 19, 2022 – BASF and the Catholic University of the North (UCN) in Antofagasta have signed a collaboration agreement to promote research, development and innovation in mining. The aim of this collaboration is to strengthen the cooperation between academia, students and industry experts. In addition to leveraging synergies in the development of innovative products and solutions, the collaboration is also expected to provide career entry opportunities for promising mining talent. As part of the venture, BASF established a technical service and development laboratory for flotation, hydrometallurgy and solid-liquid separation (SLS) at UCN.

The mining industry, which plays a very important role in Chile, faces many challenges, for example in the areas of sustainability or digitalization. With its mining solutions business, BASF can help the industry to overcome some of these challenges; however, innovation must play an essential role in the future. That is the reason behind, and why the mining industry will benefit directly from, the cooperation between BASF and UCN.

"We are very proud to be able to work with such a renowned institution as the University of the North. The cooperation will allow us to achieve several goals. On the one hand, we will be able to continue offering excellent after-sales technical service to our customers, and work together to develop innovative solutions to solve the challenges of the mining industry, and at the same time, it will give us the opportunity to work and support new talent in the

field of mining research and development," explains Leonor Ardiles, New Business Development Coordinator at BASF Chile, Head of the BASF Laboratories at UCN and awarded as one of the 100 inspiring women of Chilean mining.

Dr. Óscar Benavente Poblete, academic of the UCN Department of Metallurgical and Mining Engineering (DIMM), and one of the main advocates of the initiative, highlighted the significance of the alliance: "This alliance offers us the opportunity to connect with a leading company on a global scale, so it is a mutually beneficial relationship. One of the largest chemical companies in the world has established itself at the Catholic University of the North with two areas of significant importance pertaining to the mining industry, such as solid-liquid separation and solvent extraction reagents. This partnership will provide students with employment opportunities, professional internships, reports, and access to BASF's laboratories that will be available to teach and explain the processes they carry out."

The importance of such cooperation, especially in the mining industry, is also emphasized by Jorge Davo, Regional Manager of the BASF mining solutions business in South America: "We are constantly faced with the challenge of commercializing new innovative products that can make mining more sustainable, such as reducing water consumption or increasing metal recovery".

For example, the launch of BASF's LixTRA™ leaching aid requires extensive laboratory testing to demonstrate the benefits it can bring to a customer's copper heap leach process. The hydrometallurgy laboratory at UCN is fully resourced to enable column leaching to be carried out on customer's individual ores. This, coupled with state-of-the-art analytical techniques, allows BASF to accurately determine the increase in copper recovery and the reduction in processing costs associated with LixTRA's use. Following the excellent results achieved during laboratory and industrial trials, Davo says: "We have secured our first commercial application in the region and are very excited to see what the full value LixTRA will deliver to this customer in the coming months. The collaboration with UCN will also allow us to demonstrate the advantages of using this novel reagent to other mines in the future."

About BASF mining solutions

With innovative products, global field support and industry leading technical expertise, BASF mining solutions provides sustainable solutions which increase productivity, recovery and flexibility throughout the hydrometallurgical process of mining operations in leaching, solvent extraction, flotation, solid/liquid separation and tailings management. Further information can be found at www.mining-solutions.basf.com.

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and Automotive & Transportation benefit from our innovative solutions. To learn more, visit www.performancechemicals.basf.com.

About BASF

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