INTRODUCTION

The mineral recovery facility known as *Batán Recovery* is an industrial facility belonging to the state-owned enterprise Hulleras Del Norte S.A., 100% of whose shares are held by the Sociedad Española de Participaciones Industriales (SEPI).

It is strategically located 40 km from the port of Musel, in Gijón, which handles 16.7 million tonnes of goods per year (2021), more than half of which is bulk cargo.

The facility, which opened in 1959, was completely remodelled between 1998 and 2012, making it one of Europe's most modern facilities, with continuous investments in machinery that guaranteed the washing site's current position in the international market.

The first external washing test was conducted in 2018, seeking to adapt to the company's new reality and begining to provide services to third parties; it made us a pioneering installation in designing and conducting industrial-scale tests to treat different mixtures of raw materials.





RESOURCES

Under the direction and supervision of mining engineers works a specially-trained team that is highly qualified in the activity with more than 14 years' experience in the sector.

The facility has a circuit of 46 conveyor belts that move the raw and processed material over more than 3.5 km.

In the dry process, there are two UK strainers in the Retter and Livewell strainers in the two dry cuts.

In the wet process, there is a Wemco drum, two horizontal cyclones in dense media, three vertical hydrocyclones, 17 strainers of different sizes (Heinn Lemann 1.8 and 2.4), two fine centrifuges for fine particles and two for small particles, with a filter press with two trolleys with 160 plates each.

PROCESSES

Processable raw materials & laboratory

With exhaustive quality control of the batches, samples are taken of both raw and treated products, and the client is constantly provided with this information. Analyses are conducted to guarantee the contracted output parameters, as well as the underflow and overflow at our installation's exit.

> The control of flows (weighing) is conducted on our certified scales at the entry and exit points of the two areas.



"DRY PROCESS"

What we at *Batán* call dry processing is an justrial classification of raw material that is cted on the dry cuts of the Batán area and

This classification consists of straining the material by means of large strainers called Livewell.

We also have a Retter for larger sizes which sorts to 150 mm using two 1,800 mm-wide UK strainers.





"WET PROCESSING"

The ore arrives at the wet mill building via the 169 m long B14 belt (the belt is 1,000 mm wide).

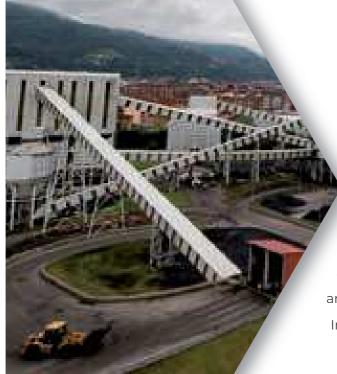
It is in this building that the wet separation takes place. This separation of the ore and the gangue is made, according to the particle size, in 3 circuits: GRANOS (GRAINS) circuit (dense media), MENUDOS (SMALL) circuit (dense media) and FINOS (FINE) and ULTRAFINOS (ULTRA FINE) circuit.











VALUE

Recovery of raw materials. Revaluation of by-products. Separation of ore and slag.

BUSINESS MODEL

At *Batán*, we act on materials to recover the raw materials and minerals they contain, separating ore and dross, and using the various by-products generated by the client company.

We also operate as a test bench with industrial scaling, conducting preliminary mineral recovery tests with the client's samples, so that they know the potential capacity to recover raw materials derived from their waste and raw materials, all the while maximising customisation and the science supported in the laboratory.

Our service is aimed at mining and iron and steel companies, and all industries that work with mineral raw materials as a source of strategic supply.

Our location near the seaport of Gijón and the almost direct motorway access allow us to serve companies from all over the world.

CLIENTS

Mining companies. Steel companies metallurgical industry.

NOITAVONNI

Test bench. Industrial scale. Material recovery test.

CUSTOMIZATION

Analysis of specific customre needs.
Pre-treatment laboratory tests.

\INTERNATIONAL

Port available at 35 kilometers and acces by highway.
Ability to serve companies around the world

SUSTAINABILITY

Batan Recovery, in addition to assuming the Hunosa Group sustainability purposes, acts specifically on 4 of the Sustainable Development Goals defined by the United Nations General Assembly in 2015, through our processes of revaluation of materials and also as a result of the plant's engineering.

Batan Recovery is a modern, versatile installation that can be adapted to different products and customer needs.



Self-sufficiency in water (internal closed circuit)



Reduction of emissions (by avoiding new mining)



Circular economy: reuse of waste and revaluation of by-products



resorting to new mining



