

MINE

The mining method adopted by MATSA in its three mines is based on the underground exploitation of primary and secondary stopes which are subsequently backfilled with a paste generated from the tailings left over by the processing plant. Paste backfilling allows an almost complete extraction of the mineral deposit as well as minimizing the space needed above ground for tailings storage.

The blasted ore from stopes is removed with loaders operated through remote control, so our personnel are always located in a safe area and outside the stope in operation.

MATSA has implemented a tele-remote control system for underground equipment in Magdalena. This system allows the control of the loaders to excavate the stopes and equipment through a tele-remote control using video cameras and remote control from a cabin located at the surface. This innovation improves the safety and comfort of our employees. In the future the objective is to implement this system at the Sotiel and Aguas Teñidas mines.



PROCESSING PLANT

MATSA's processing plant has three milling lines and a technical capacity to process annually between 4.3 and 4.6 million tonnes of copper and polymetallic ore. It is designed to operate 24 hours per day, 365 days per year.

STOCKPILING AREA - Ore extracted from the mines is stored at the stockpiling area where it is sorted by grade and type. From there it is transported using conveyor belts to the crushers in order to reduce its size. The crushed ore is conveyed to three stockpiles: the north and south domes (which feed milling lines 1 and 2 respectively), and the reclaimer facility which feeds milling line 3.

STORAGE - These stockpiles fulfil two important functions: avoiding the uncontrolled spread of dust and storing enough crushed ore to maintain a continuous feed of ore to the processing plant. After being stored in the stockpiles the ore is conveyed to the grinding circuits of the processing plant.

MILLING - Lines 1 and 2 have mills which, in several steps, reduce the size of the ore. The first milling stage involves a SAG mill (semi-autogenous grinding) and the second stage is carried out by a ball mill; and the last stage - tertiary grinding - is performed in vertical mills which use small ceramic beads within the mill to reduce the size of the ore to that required for the flotation stage.

Line 3 has two ball mills and vertical mills fulfilling the same function.

FLOTATION - At the flotation, different reagents such as collectors, modifiers and others are added. Air is injected forming small bubbles where copper, zinc and lead particles are selectively collected.

THICKENER & FILTRATION - The pulp thus formed is passed on to the thickeners and finally to the filtration stage where excess moisture is extracted resulting in the final products of the process: copper, zinc and lead concentrates.

The tailings generated in the flotation stage are thickened to recover the water and to use it to backfill the stopes or to be pumped in the tailings management facility.

PRODUCTION OF CONCENTRATES

The concentrates that MATSA produces are shipped through the ports of Huelva and Algeciras to Asia, the main consumer of these products. These concentrates are traded by Trafigura, the market leader in copper, zinc and lead concentrates trading.



INNOVATION



MATSA is committed to a modern, innovative and technologically advanced mining of our deposits. The implementation of new technologies is focused on optimizing the recovery of underground resources, maximize the extraction and optimize ore recovery in the processing plant. As a result the company will become more profitable while continuing to operate in a sustainable way.

GENERAL INFORMATION

Minas de Aguas Teñidas (MATSA) is a modern and sustainable Spanish mining company which owns and operates three mines in the province of Huelva: Aguas Teñidas and Magdalena mines located in Almonaster la Real, and the Sotiel mine located in Calañas. Nowadays, MATSA has three underground operations have reactivated the mining activity in the province of Huelva.

MATSA's business consists of the exploration and extraction of mineral deposits as well as the processing of mineral ores at the company's facilities situated in the Almonaster la Real municipality. The final products of this process are copper, zinc and lead concentrates which are shipped from MATSA through the ports of Huelva and Algeciras.

MATSA is a jointly-owned by Mubadala Investment Company, a pioneering global investor, deploying capital with integrity and ingenuity to accelerate economic growth for the long-term benefit of Abu Dhabi, and by Trafigura, one of the world's leading independent commodity trading and logistics houses.

MATSA is a founding partner of the Association of Mining and Metallurgy Research, Extractions, Transformation and Auxiliary Businesses and Services (AMINER) whose objective is to be an interlocutor with the Administrations and to generate synergies among the members to unify around common needs. For further information about AMINER: <http://www.aminer.es/>

MATSA is also integrated into CONFEDEM, the National Mining and Metallurgy Business Confederation, the Andalusian Business Confederation (CEA) and the Huelva Businessmen Federation (FOE).

HISTORY

MATSA was discovered in 1980 by Navan Resources PLC which acquired mineral rights in 1995 and set out to exploit the ore deposits until 2001, when metal prices plummeted resulting in de mine's closure.

As metal prices began to recover in 2005, Iberian Minerals Corp. acquired 100% of the shares and mineral rights and presented proposals to authorities to restart operations.

2006 - The company received environmental approval for the reopening of Aguas Teñidas.

2007 - MATSA received the approval for the construction of the processing plant, the tailings storage facility on site and a new ramp to access the ore deposits.

2008 - Most of the infrastructure was built.

2009 - Commercial production began from Aguas Teñidas.

2011 - Approval to increase the production capacity of the processing plant from 1.7Mt to 2.2Mtpa was given the go ahead.

2013 - This year a €300 million expansion project is started to double production whilst creating one of the largest mining operations in Europe. MATSA obtained permission to double the processing plant's capacity to 4.4 Mtpa, although its technical capacity is 4.6Mtpa. In May, MATSA discovered Magdalena mine.

2014 - MATSA obtained the Unified Environmental Authorization for the Sotiel mine.

2015 - MATSA obtained operating permits for the Sotiel mine. In July, MATSA obtained the operating permits for the Magdalena mine.

2017 - MATSA obtained approval to extend the life of the existing tailings facility and postpone the construction of a second facility.



CORPORATE SOCIAL RESPONSIBILITY

In a context where minerals are essential for modern living, the company aims to ensure that all our mining are environmentally, financially viable and socially equitable.

Job stability, occupational Health and Safety and respect for the environment and society are the pillars of MATSA's corporate commitment.

MATSA's main aim is to support a stable business environment for the development of local industries and suppliers, generating opportunities that will remain in place beyond the estimated useful life of the mining project.



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The safety strategies developed by MATSA have the objective to reduce the accident rate to zero, involving all the people who work in the facilities.

SAFETY AND PREVENTION

MATSA's environmental management is based on making its activity a sustainable operation, compatible and integrated with the natural environment.

SUSTAINABLE OPERATION

Job stability, occupational Health and Safety and respect for the environment and society are the pillars of MATSA's corporate commitment.

CORPORATE RESPONSIBILITY

The Company's objective is to increase the scale of underground resources maximize the extraction and optimize ore recovery in the processing plant.

TECHNOLOGICAL INNOVATION

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THE FUTURE UNDER OUR FEET



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HEALTH AND SAFETY

In MATSA, all production activities operate within a framework that ensures the health and safety of all employees, contractors, visitors and the local environment.

MATSA strives to prevent occupational accidents and incidents at work, as well as to promote a culture of prevention at all levels ensuring adequate working conditions and providing ongoing training in the identification and control of occupational risks in all of its activities.

The safety strategies developed by MATSA have the objective to reduce the accident rate to zero, involving all the people who work in the facilities.



ENVIRONMENTAL MANAGEMENT

MATSA's management is focused on making its activity a sustainable operation, compatible and integrated with the natural environment. The company fulfils this commitment through careful planning of production, throughout implementation of monitoring plans and management of every environmental issue arising from our activity.

The company's main commitment is to minimize environmental impact, preserving our surroundings so that they can be enjoyed by future generations once mining activity has concluded. With this in mind, sustainable development forms the backbone of MATSA's business model and is always present in everything we do.

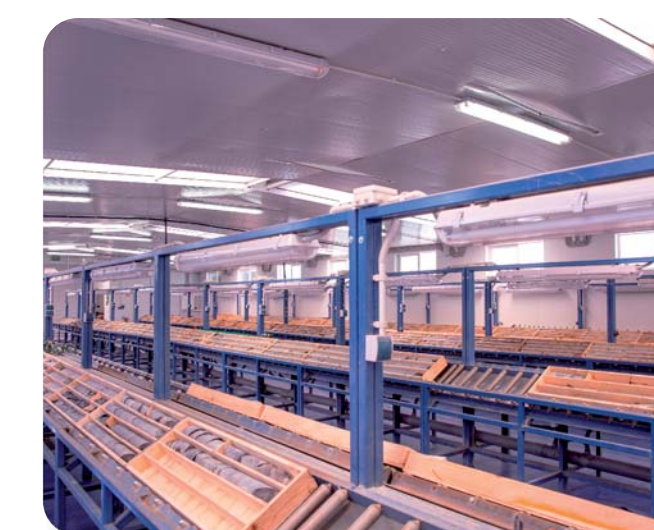
OUR PERSONNEL

MATSA currently generates 2,000 direct jobs, 700 MATSA employees and 1,300 contractors. 2,000 indirect jobs are estimated in the surroundings areas.

One of the most important assets for MATSA is its employees and neighbors. Through its "developing our people" campaign the company put it on value.

Through three mining operations in the province of Huelva, MATSA is currently the main engine driving employment and wealth generation in the area.

MATSA follows a concentric circles recruitment policy whereby staff and suppliers from local communities, Almonaster la Real, El Cerro de Andévalo, Calañas and Cortegana are given priority, solidifying our firm commitment to local development.



GEOLOGY AND EXPLORATION

The company has identified an estimated 100Mt of mineral resources in the old Aguas Teñidas mine and in other surrounding deposits, which provides an insight the mining potential of the Andalusian area.

MATSA uses advanced technology in geological research such VTEM, 2D and 3D seismic exploration, the Titan 24 method and SQUID TEM. With a budget of about €10M per year assigned to geological exploration, MATSA is the leading exploration company in Andalusia.

The success of exploration means that the MATSA project could extend its useful life by more than 20 years with the current known mineral resources.