

## GOOD PRACTICES AND TECHNOLOGIES

Reducing Footprint in Water

El Agua Nos Une – SuizAgua América Latina



GRUPO  
**MINEROS S.A.**  
MINERÍA RESPONSABLE DEL SIGLO XXI

Recirculation of fluids drained  
from the galleries of an  
underground gold mine

SDG: 6.4. Water efficiency



### Company / implementer

Mineros S.A

**Sector:** ISIC 0722 Mining of gold and other precious metals.

### Location:

El Bagre, Antioquia, Colombia E 918.047,1 - N 1.328.598

**Update:** 01 Feb. 2018



### Results

- Reduction in surface water use of **253,497 m<sup>3</sup>/year** corresponding to **50%**.



### Other benefits

- Supply of good water quality to internal processes and reduction in electricity used for pumping.
- Reduction in treatment costs.
- Reduction in the load of contaminants dumped into water sources.
- Recovery and use of solids generated by sedimentation in treatment processes, with a recovery of **28.1 g gold/year**



### Supplier References

**Supplier:** Internal Development  
**Contact information:** [www.mineros.com.co](http://www.mineros.com.co)



### Implementing Company

**Company in charge of implementing the solution:** Mineros S.A./Underground Mining.  
**Contact information:** Luis Felipe Castañeda.  
**E-mail:** [luis.castaneda@mineros.com.co](mailto:luis.castaneda@mineros.com.co)



### Description

Six sedimentation ponds were built to treat water from the processes of "La Y" mine. GelflocBulk coagulant is applied to the treatment process. A pumping system to use mine water in gold processing is also needed. This allows recirculation of this water in its entirety and contributes to a reduction in the surface water used during the processing stage that was previously obtained from the concession in the Tigüí River. The project also implies a reduction in dumping volumes.

The Tigüí River (Municipality of Zaragoza) is an area of low pressure levels on water resources; however it has a high impact due to pollution caused by deforestation and the execution of unregulated mining activities.



### Investment and Operating Costs

**Investment Costs:** USD 27,000 was invested between 2015 and 2017. An additional investment of USD 4,000 is expected between 2018 and 2019.

**Non-Monetary Costs:** Human resources at the processing plant of the La Y Mine.



### Limitations and Recommendations

- Water in the mine has high solid contents and therefore requires the use of coagulant.



### Cases of Application

N/A



### References

<http://www.mineros.com.co/es/sostenibilidad/gestion-ambiental>