



France

Treatment of pit water from a quarry

Effluent treatment using a mobile pH neutralization and flocculation unit: Neutramobil® Plus

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In order to guarantee the continued operation of one of its French sites, a major mining and quarrying operator asked CTP environnement to manage its pit water. This water needed to be treated before being discharged in a sensitive area (Natura 2000). Acid and high concentration in suspended solid was the main concerns.

CTP environnement developed a treatment solution, which was both mobile and easy to install, tailored to the site's issue (no industrial or mains water) and needing very little operation.

The **Neutramobil® Plus** unit's features:



- Automated pH correction/neutralization to find the best techno-economic balance between the compliance of discharges and reagent consumption,
- Sludge flocculation with a treatment level dictated by turbidity measurements, with a flocculation reagent selected from a wide range (lab tests results),
- Sludge dewatering using two 300 m³ (392 yd³) geotextile membranes (filling monitored by a pressure sensor).
- Storage/recycling of treated water from these geotextile membranes for preparation of the flocculating agent, with quality control of the water by turbidity monitoring.

The unit is controlled 24/7 by a PLC, which automatically triggers cleaning as soon as water is detected in the quarry and produces reports in a format based on the client's standards.



By combining preliminary studies, excellent cooperation between those involved, continuous operation and technical support, with employee training, the schedule and commitments were adhered to:

- Total compliance with environmental standards: treated effluent ready to be discharged into the natural environment,
- Safe and secure storage of matter, allowing for staggered removal depending on availability and the client's requirements.