

Waste rock and mining tailings

BEFORE



AFTER



Puy de l'Age, France

WASTE ROCK

Waste rock is made up of earth, sand or rocks containing little or no uranium ore. It still needs to be extracted, however, to access the mineable ore itself. These substances present no radioactivity or very low levels of radioactivity. This waste rock is mostly used for the remediation of former mining sites, or stored in piles in the immediate vicinity of where the works were carried out.

Under the PNGMDR*, Orano has conducted sampling campaigns on several remediated sites to characterize the evolution of waste rock storage and its potential impact for the natural environment. A multi-year study is ongoing to develop predictive models of the migration of uranium from the rock piles to the environment.

MINING TAILINGS

Tailings are the part of the finely crushed ore which does not contain uranium, or only contains very little, and is produced following the separation of rock and uranium in the ore processing plant (production of uranium concentrate). They are in the form of clayed sand and contain still 70% of initial radioactivity. They are stored near the processing plants. Their storage and inspection make up a considerable portion of remediation and monitoring operations.

Under the PNGMDR*, Orano is required to continue the study of the evolution over time of ore tailings stored in France. This action must ultimately be accompanied by the development of models to predict the long-term impact of the tailings, taking into account both normal and degraded scenarios.

Watch the video of our expert on
waste rock and mining tailings



* Plan National de Gestion des Matières et Déchets Radioactifs -
French National Plan for the Management of Radioactive Materials and Waste