

LET'S START MINING!

The first step in any type of mining is removing rock from the ground. To begin, any rock and soil (called overburden) covering the orebody is removed and stockpiled for later use. Depending on how hard or loose the rock to be mined is, it may be removed by dredging, digging, or blasting.

DREDGING is the process of removing loose material (like gravel) from under water (lakes, rivers, oceans, etc.) using draglines and dredges.

DIGGING is the process of removing loose or easily broken material (like sand and some types of rock) using bulldozers or front-end loaders.

BLASTING is the process of removing hard rock from the earth with explosives. Special permits are required and safety precautions are taken when blasting is necessary.

What is processing? Processing is anything that needs to be done to rock before it is useful. Some minerals, like gold and copper, require lots of complex processing to chemically separate the needed mineral from rock. Luckily our aggregate does not require much processing before it is useful. Mainly, it only requires:

CRUSHING is smashing and breaking the rock into different sized pieces for different uses. Some sand and gravel does not require crushing.

SCREENING is sorting the crushed stone by size. The screens look like window screens with openings that vary in size.

WASHING is removing clay, dirt, and smaller-sized particles from the aggregate.

When processing is complete, there are usually several different “**Stockpiles**” of aggregate rock for different purposes.

Haul trucks, trains or barges are loaded with the size of aggregate that is needed to do a particular job. Some sizes are used in concrete (like sidewalks). Some are used in asphalt (like paved roads). And others are used as decoration in landscaping or to help stop erosion along rivers or hills.

Removing the rock from the earth and processing it may take many years. During the entire process, quarry operators take care to protect their community and the environment from noise, water, and air pollution. They may plant areas of trees called buffer zones between the quarry and its neighbors. And someday, when surface mining is finished, the trees are already there as part of the next step in the mining process reclamation.

RECLAMATION means, “to reclaim” the land. In other words, to make it into an area that will be useful to humans or wildlife. Some depleted aggregate operations become lakes or wetlands for recreation or wildlife. Others are leveled for developing houses, office parks or malls. And sometimes they are turned into beautiful golf courses or parks.