



(Typical mining section, Smoky Canyon Mine, 2000)

The proposed panels would be mined like previous panels at Smoky Canyon Mine. Sediment control facilities, such as silt fences and sediment ponds, would be installed before and during mining to minimize siltation impacts. A timber inspection by the USFS would determine the value of the trees to be purchased within the footprint of the area to be mined. After the logging, crews remove the usable trees, and the remaining scrub is pushed into berms around the perimeter of the area to be mined. These berms serve as silt barriers, temporary animal habitat, and as eventual ground cover on the reclaimed areas. Topsoil is then salvaged and immediately spread over the mined-out, backfilled and regraded areas or temporarily stockpiled until such areas become available.

Dozers establish predetermined bench levels on the overburden above the ore zones and the overburden is drilled with a pattern of holes to the bench design depth. Each of these holes is loaded with a predetermined amount of explosives from a truck. The column of explosives in the hole is capped with crushed rock to minimize the air shock wave when detonation occurs and to maximize the fragmentation of the surrounding rock. These are controlled explosions that must meet the rules, regulations and requirements of MSHA and the BATF before they can occur. The ore itself is not blasted; only the overburden and interburden need to be blasted.

The blasted rock is dug out with shovels and loaded into trucks to be hauled to overburden disposal areas. These disposal areas are initially external to the pit. Once an area of the pit has been mined to its final depth, any further non-ore rock will be used to backfill the mined-out pit. Those zones of rock that are known to have low selenium concentrations are separated from the other rock. This low selenium rock is used for haul road construction or set aside in stockpiles to be used as capping material above the regraded backfill. The ore zones are loaded into trucks as they are encountered and hauled to the mill for processing.

Mined-out, backfilled and regraded pits are capped with low selenium rock and covered with topsoil. The remains of the scrub berms around the perimeter are spread over the topsoil and the reclaimed surfaces reseeded using USFS approved seed mixes. Reclamation is ongoing during mining operations.

Figure 2.3-2  
Open Pit Mining at Smoky Canyon  
Smoky Canyon Mine Panels F and G