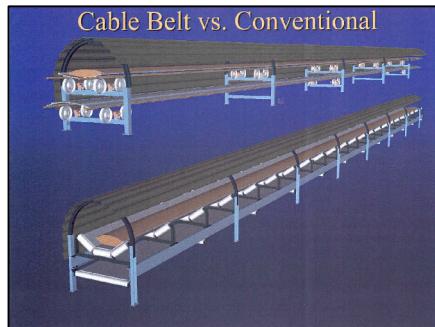


## **Conveyor Design**

The conveyor alternative that is being considered for the Smoky Canyon Mine would be a cable belt type or a conventional conveyor. A substantial proportion of modern, long conveyors installed around the globe are of the cable belt design. A conventional conveyor requires more structures and idler rollers to support the loaded belt than a cable type conveyor, which has strong drive cables to support the belt along more widely spaced idlers. This reduces the bulk of the support structures and idler noise along the right-of-way. A conveyor at Smoky Canyon would not be used during winter when ore would be stockpiled.



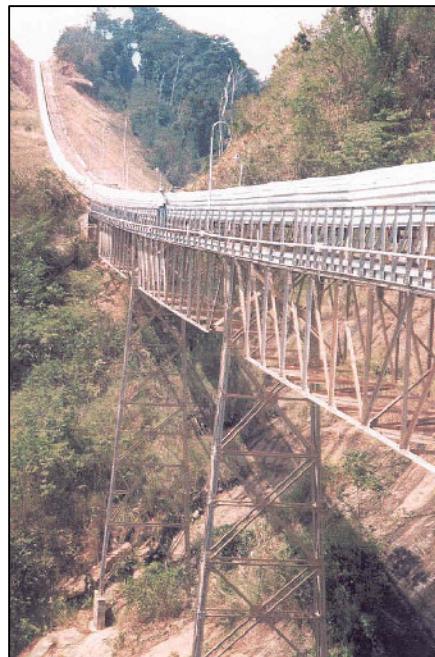
## **Right-of-Way**

Conveyor rights-of-way are graded like roads to have smooth grade transitions and curves. Conveyors can operate on steeper slopes than haul trucks, so cuts and fills along the conveyor right-of-way are less than for a haul road. The conveyor is supported on concrete "sleeper-type" foundations built along one side of the right-of-way, and an access road is built on the other side. Electrical power can be routed along the same corridor mounted on utility poles, in conduits located on the conveyor structure, or buried cable. The conveyor corridor for Smoky Canyon would typically be approximately 50 feet wide.



## **Stream Crossings**

A conveyor right-of-way does not require disturbance of stream channels because they can be crossed with a variety of bridge designs. This would be the case for any conveyor right-of-way built over Deer Creek, Manning Creek, or South Fork Sage Creek. A single vehicle wide maintenance service road would need to parallel the conveyor. This service road would not cross any creeks.



## **Applicability**

Use of a conveyor to transport ore from Panel G to the Smoky Canyon Mill would replace transporting ore from the panel with haul trucks. It would require purchasing and installing the new conveyor equipment as well as an ore crushing system at Panel G to feed the conveyor.

The conveyor would eliminate the need to construct a haul/access road to Panel G, but this would require construction of a new access road, narrower than a haul road, into Panel G. This access is needed for mine employees, moving heavy equipment into the site, and deliveries of fuel and other mining supplies. This would be done either by using the Crow Creek and Wells Canyon routes (Alternative 7) or by building a new access road connecting Panels F and G (Alternative 8). Under Alternative 7, the Crow Creek road would require upgrading from its present condition for the increased, year-round traffic, and the existing Wells Canyon road would be replaced with a new access road up Wells Canyon.

Figure 2.6-10  
Conveyor Characteristics  
Smoky Canyon Mine Panels F and G