



Produced by the State of Colorado
Department of Natural Resources
Division of Reclamation, Mining & Safety

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watch your step!

Two men entered an old mine by digging through the tunnel from above. The mine atmosphere contained bad air (no oxygen). Both men were found dead approximately 6,200 feet from the portal three days later. A 17-year old boy, who was exploring a mine, fell 120 feet to his death when the ladder gave way. A 17-year old youth was shot by another target practicing youth who discharged his gun into the adit where the youth, father and a friend were collecting ore samples. Two boys entered a mine. One fell 320 feet to his death. A Fort Carson Soldier, who was exploring a mine in the Cripple Creek area, was overcome by gases and fell 90 feet to his death. It was sealed by the state in 1987. A 19-year old boy was walking around at night and fell 40 feet into a shaft. He held on to a rock to avoid falling an additional 600 feet. One of the rescuers suffered from shock. A 27-year old man went down a mine shaft to rescue a dog. He was injured by falling rock 30 feet below the surface. A 17-year old Aurora youth was seriously injured when a motorcycle accident hurtled him 200 feet down the shaft of the Glory Hole Mine. On an outing with friends, an individual fell to his death in a snow-covered shaft at the Glory Mine in Gilpin County. A 45-year old Lakewood man was killed when he fell into the Glory Hole Mine near Central City in Gilpin County. A 24-year old Colorado Springs man was killed after falling down a 900-foot mine shaft at the Mary McKinney Mine near Cripple Creek. An 11-year old died when he fell into a mine shaft while skiing out of bounds on Aspen Mountain. Two 21-year old men were test driving a new 4-wheel drive vehicle in Gilpin County. One of the men was in the jeep when the jeep went into the Empress Mine shaft, fell, and the jeep became lodged 34 feet down the shaft. The vehicle had to be removed in order to continue rescue efforts. The man's body was eventually found 350 feet below the surface. A 7-year old boy and his father were looking down the Cashier Mine Shaft in Gilpin County when the boy slipped and fell.

**ABANDONED MINES ARE DANGEROUS
STAY OUT AND STAY ALIVE**

this sign isn't kidding.

Hundreds have been killed or injured
in the last 50 years in the nation's abandoned mines.

**ABANDONED MINES
~~CAN~~ WILL KILL YOU**

**HOW PEOPLE DIE
IN MINE SHAFTS**

- Falling into deep shafts
- Rock slides at shaft openings
- Collapsing ladders in shafts
- Fall into snow-covered shafts
- Cave-ins from decayed timber
- Cave-ins from loose rock
- Bad air & poisonous gas



**HOW PEOPLE DIE
IN MINE TUNNELS**

- Blind shafts in tunnels
- Cave-ins from loose rock
- Cave-ins from decayed timber
- Drowning in flooded tunnels
- Bad air & poisonous gas
- Discarded explosives
- Poisonous snakes

**Don't give them the chance.
Stay out and stay alive.**

Colorado's mining history has left a rich legacy.

But this legacy also includes 23,000 inactive and abandoned mines that can be as dangerous as they are picturesque.



Mine openings often appear safe to explore, but in fact they are dangerous and can contain unstable soil, unsafe roofs and ladders, deadly gases, poisonous snakes and dangerous explosives. The closures or warnings around abandoned mine hazards are in place to remind visitors to enjoy the outdoors, but play it safe by staying out of abandoned mines.

Mines are not caves. Caves are formed naturally over thousands or even millions of years. Mines are man-made by blasting, which fractures and weakens the surrounding rocks. Vibrations from walking or even speaking can cause an abandoned mine to cave in.

Abandoned mines are not ventilated. Consequently, pockets of deadly air and gases can be present. Even experienced cavers can die exploring mines, due to lack of oxygen.

Structures are dilapidated. Support timbers, headframes, ladders, pump jacks, tanks, and other related structures may seem safe and solid; but rotted wood will easily crumble under a person's weight. Don't be fooled by appearances. Do not climb on, around, or under structures.

Mine shafts are vertical mine openings. They represent the number one cause of death and injury in abandoned mines. Because no light enters a mine shaft, the depth is difficult to assess. The shaft collar may be loose and unconsolidated. This material can break away, causing individuals to fall into the shaft. Darkness, loose debris, false floors, rotten timbers, and water can hide vertical openings.

Winzes are like elevator shafts without the elevator. They are steeply inclined shafts that connect one mine level with a lower level. Typically, winzes were used to gravity-feed ore out of the mine. Winzes may be covered by rotten timbers or water which hides their presence. They may also descend to lower, water-filled levels.

Explosives become highly unstable with time and when exposed to the elements. Old dynamite often contains nitroglycerine, which can explode with the slightest disturbance. Perhaps the most dangerous explosives are blasting caps. Rodents can scatter blasting caps on the mine floor. If stepped on, they will explode. A blasting cap resembles a firecracker with wires

Highwalls are vertical cliffs. They are common features of open pit mines and quarries, which can be unstable and prone to collapse. Do not stand near or under highwalls or attempt to climb them.

Bad Air is oxygen-deficient or toxic air that can build up in abandoned mines, causing dizziness or even unconsciousness. Bad air is odorless and tasteless. Carbon dioxide often collects in low areas or along the floor in horizontal workings. The motion of walking can cause bad air to mix with good air.

Radioactivity is the result of the natural decay process of radioactive minerals (uranium, vanadium, etc.). The effects of radiation exposure are cumulative through a lifetime. Excessive exposure can be harmful or eventually fatal. Many abandoned uranium mines in western Colorado are potential sources of radiation.

Animals live in abandoned mines.

Rattlesnakes, bats, bears, or mountain lions can den or escape the heat in the dark recesses of a mine. Underground mines can be critical habitat for such species. You should not disturb them.

Hazardous Waste such as bags or drums of chemicals used in mining, milling or drilling operations can pose a threat when touched or inhaled by an uninformed person. Illegal dumping of industrial hazardous waste can also occur.

Water Hazards occur in flooded abandoned mines. Shallow water can conceal drop-offs (winzes), sharp objects, and other hazards. You can drown in a water-filled shaft.

Timbers were and still are used to support the roof of mines. The timbers weaken over time due to the weight of the roof rocks and the natural breakdown of the wood itself.

The loose rocks and soil above entries could break away and cover the opening, trapping anyone who entered the mine.

Report the location of any abandoned mine that poses a hazard to the public or the environment. Contact the State of Colorado or your local sheriff.

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RECLAMATION

The State of Colorado conducts abandoned mine inventories. These inventories allow us to identify the most hazardous sites and set priorities for reclamation. Before a site is closed, clearances are obtained. This means checking the site for threatened and endangered plants and animals, such as bats, cultural and historic resources, and wetland values.

WE NEED YOUR HELP

Abandoned mines are hazardous and should be left alone. For your own safety and the safety of others, do not try to enter abandoned mines. Vandalism of closures endangers innocent people and wastes tax dollars.

Some abandoned mines in Colorado have been made safe by the State of Colorado, Division of Reclamation, Mining and Safety. The protective closures or warnings around abandoned mine hazards are placed there to remind you to enjoy colorful Colorado but **play it safe by keeping your distance.**

