

Abandoned Mine Openings

By Ernie Hennick, Mineral Development and Policy Section

Nova Scotia has a long history of mineral exploration and mining activity. Unfortunately, this has left a large number of abandoned mine openings. The Department of Natural Resources is conducting a program to locate and evaluate potentially hazardous mine openings on Crown land. In the past two years, we have spent more than \$100,000 to safeguard people from these openings. This program, unparalleled elsewhere in Canada, is helping ensure that the hazards of abandoned mine openings will not endanger hikers, hunters, and explorers who spend time on Crown lands.

In the 1600s French explorer Nicholas Denys, in his reports to King Louis XIV of France, mentioned vast reserves of coal along the shorelines of Nova Scotia. Not long after, both the French and British are known to have mined these coastal exposures, at what is now industrial Cape Breton and Joggins. Over the next 300 years, coal would be exploited on a commercial, and illegal, basis. Illegal mining was conducted by “bootleggers,” often for their own use. To date, more than 1,400 coal mine openings have been documented, and it is safe to say that this number would easily double or triple if it included illegal mining activities.

Move forward to the discovery of gold in 1858 at Mooseland, Halifax County. Only 10 years after the start of the California Gold Rush, prospectors poured into Nova Scotia’s 40 or so gold districts, only to find that the untold riches were not so easy to come by. Each gold prospector was allotted a 20 x 50 foot tract of ground. With some districts measuring over a mile in length one can only imagine the scene, with each prospector having their own shaft. Humorous stories are noted of one man’s mine breaking into neighboring ground leading to many a scrap over rightful ownership of the potential riches. The reality of the gold rush was that the mining was tough and most dreams of gold riches went unfulfilled. When word spread of a gold strike in the Yukon in 1896, most of the dreamers packed their bags and headed for new territory, leaving their individual mine opening unsealed and often unmarked, for Mother Nature to grow over. The Deputy Inspector of Mines noted in his Annual Report for 1899 that



Above: Looking down the Skerry escape raise today.
Full Page: Skerry mine in operation

attention must be called to the hundreds of old mine shafts left without protection in the gold districts. To date, there are more than 4,400 documented mine openings related to historical gold exploration and mining operations.

Fast forward to 1984. The Nova Scotia Department of Mines and Energy, now recognizing that it is a landowner’s responsibility to safeguard the public from the hazards, instituted a program to inventory abandoned mine openings. In conjunction with the inventory, a field crew of technicians and summer students evaluated more than 200 mine sites, known to contain over 3,000 mine openings. By 1992, the (now) Department of Natural Resources decided to compile all information on the location and condition of individual mine openings into a database. The Abandoned Mine Openings Database and Open File Map (97-035) were released in 1997. The map was made available in the DNR library and copies of the database were circulated to DNR’s regional offices to help staff respond to public inquiries. Municipalities were also supplied with a copy to aid them in their planning processes.

Interested parties were informed that the map and database contained only the locations of documented mine openings and that further information on the underground mine workings was available upon request.

As of 2002, almost 6,700 abandoned mine openings spread over 300 mine sites have been identified, with approximately 25 per cent of the openings located on provincial Crown land. All documented mine openings on Crown land have been evaluated and assigned a hazard potential. Some of the most hazardous mine openings known to exist on private land have also been evaluated and the owners notified by DNR of their liability under the criminal code. Preliminary work on Crown land has involved the posting of more than 4,000 warning signs, as well as marking some openings with flagging tape and temporarily securing others with snow fences.

Since 1998, the Mineral Development and Policy Section has been working with DNR's regional geologists to create and update a list of the mine sites deemed as highest priority for remedial work. Some sites contain one potentially hazardous opening while others, such as Montague Mines and Oldham, have over 50 dangerous abandoned mine openings.



A close-up of the Abandoned Gold Brook Mine

In 2001, working with the Department of Transportation and Public Works, DNR's Regional Services Branch initiated a work plan to eliminate potential hazards posed by mine openings located on Crown lands. Based upon the proximity of nearby population, ease of access, and degree of hazard, work commenced at Montague Mines in Halifax Regional Municipality. The most hazardous openings were filled or enclosed with chain link fencing. Local residents were informed of the work and the effort was welcomed by those who were aware of the potential hazards. Over the last two years, the potential hazard posed by 60 mine openings at Montague Mines have been reduced or eliminated. At Oldham, Halifax County, harvesting by Ledwidge Lumber of Enfield included filling 40 abandoned mine openings.

Work planned for 2003 includes the department's first effort towards the closure of a mine opening known to host a bat population at Glenelg, Guysborough County. Regional Services and Wildlife Division staff will work together to ensure the closure does not harm this important bat habitat.

It's easy to imagine mystery and adventure in these relics of the past, but in reality abandoned mine openings are dangerous. In the U.S. more than 30 deaths occur every year related to abandoned mines. So when you're walking or driving in Nova Scotia's wooded or remote areas, be alert, and stay away from abandoned mine openings.



More Information

A Sign to Watch Your Step, a general overview of the location and potential problems associated with abandoned mine openings.

Available on line at:
www.gov.ns.ca/natr/meb/ic/ic42.htm

Abandoned Mine Openings: Hazards and Remediation Handbook, a more detailed technical guide that helps landowners evaluate and correct mine-related hazards on their properties.

Available on line at:
www.gov.ns.ca/natr/meb/is/is23.htm