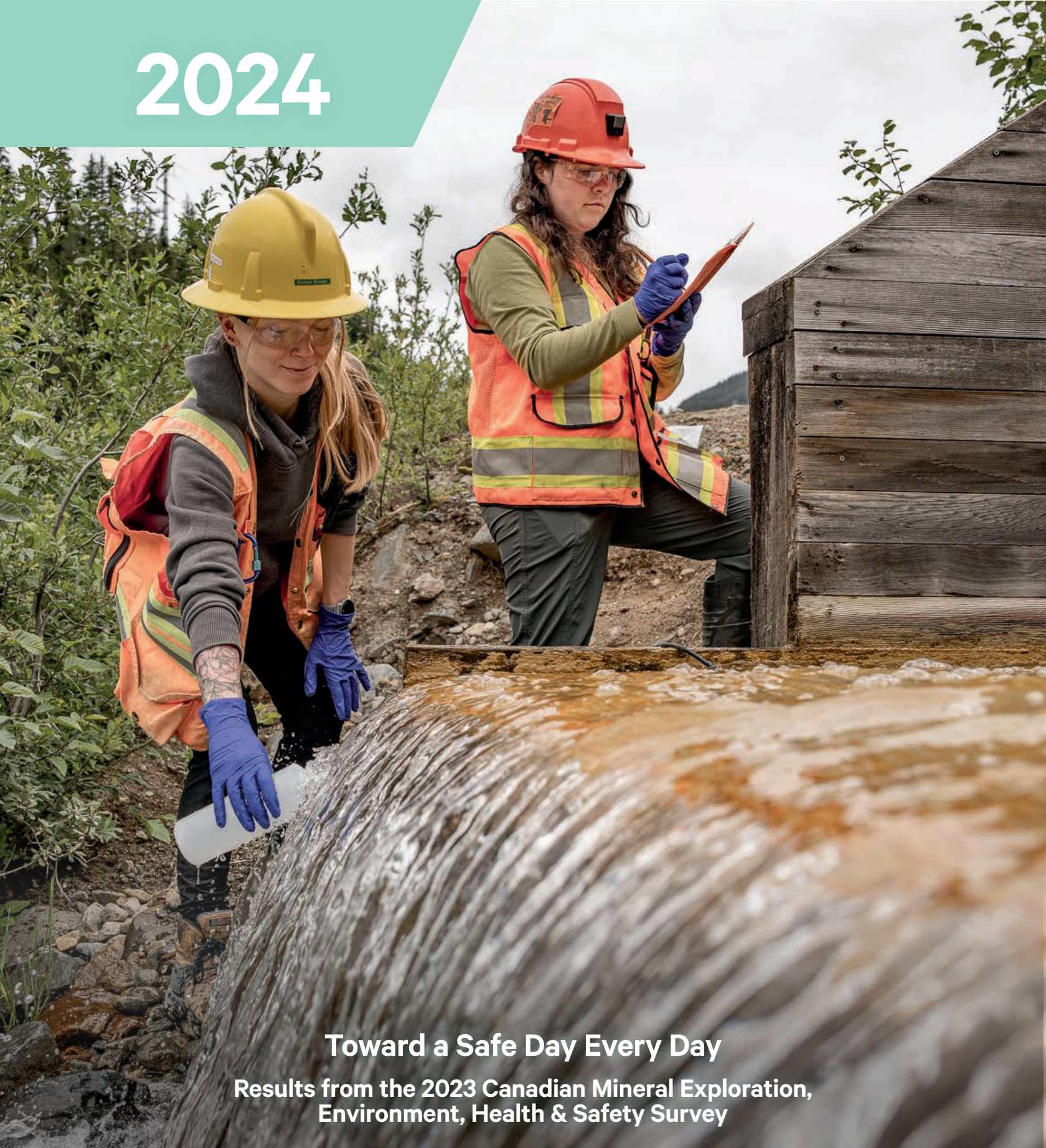


2024



Toward a Safe Day Every Day
**Results from the 2023 Canadian Mineral Exploration,
Environment, Health & Safety Survey**

[EXPLORATIONSURVEY.CA](https://explorationsurvey.ca)



PROSPECTORS &
DEVELOPERS
ASSOCIATION
OF CANADA



TOWARD A SAFE DAY EVERY DAY 2024:

Results from the 2023 Canadian Mineral Exploration Environment, Health & Safety Survey

Introduction

The Association for Mineral Exploration (AME), Prospectors & Developers Association of Canada (PDAC) and Canadian Diamond Drilling Association (CDDA) are pleased to present the 19th annual Toward a Safe Day Every Day report with findings from the Canadian Mineral Exploration Environment, Health and Safety Survey. The 2023 survey had 53 contributing organizations, up from 49 in 2022. The number of hours reported was 8.0 million hours in 2023, up from 7.0 million hours in 2022.

Although the survey is voluntary, it represents a cross-section of the environment, health and safety performance and practices of companies active in, and supporting, exploration for metals, diamonds, coal, and industrial minerals.

AME and PDAC, together with the Canadian Diamond Drilling Association (CDDA) encourage all organizations active in mineral exploration to complete the survey. In addition to mineral exploration and mining companies, participation of companies that support exploration is critical to the success of the survey. The survey provides a snapshot of leading indicators related to environment, health, and safety as well as a report of incidents throughout the year. It also continues to inspire the development of both AME and PDAC's safety workshops and initiatives.

The average worker can expect to have a career in mineral exploration without a lost-time injury: our survey results indicate a lost-time injury frequency rate of 0.23 in 2023¹, down from 0.46 in 2022, the twelfth consecutive year of the mineral exploration industry lost-time injury frequency rate being below the rate for all Canadian industries – reported as 2.07 new claims per 100 covered workers in 2023 by the Association of Workers Compensation Boards of Canada. Although there were no fatalities reported through the survey, there were two transportation related fatalities in the industry in 2023, underlining the need for vigilance among mineral explorers.

¹Frequency rates expressed throughout this report are expressed as the number of incidents per 200,000 hours, or 100 worker years.

SAFETY REPORTING

The survey focuses on the various practices in place prior to incidents happening. These leading indicators, or proactive measures, vary according to the organization. The percentage of companies reporting health and safety programs and policies – were at 94% and 94% respectively, compared to 98% and 98% in 2022.

96% of organizations reported safety discussions at worker meetings (first reported at 56% in 2012, and down from 100% in 2022). Discussions at board meetings decreased from 96% in 2022 to 87% in 2023. This year’s safety reporting has gradually changed as standing agenda items at worker and board meetings became infrequent at 79% and 55% respectively compared to 92% and 63% reported in 2022.

The percentage of companies reporting always or sometimes having return-to-work policies decreased slightly from 94% in 2022 to 91% in 2023.

PSYCHOLOGICAL SAFETY AND MENTAL HEALTH REPORTING

Starting in 2022, companies were asked about various procedures and training in the workplace covering psychological safety and mental health. For 2022, 73% of companies reported having an equity, diversity and inclusion policy, and 72% reported having one in 2023. In 2022, 65% of companies had a definition of psychological health and safety in place; by 2023, this matched the proportion of companies having an EDI policy at 72%. Despite the ubiquity of safety programming, only 43% of companies reported having personnel trained in mental health first aid on project sites in 2022, down to 36% in 2023.



ENVIRONMENTAL REPORTING

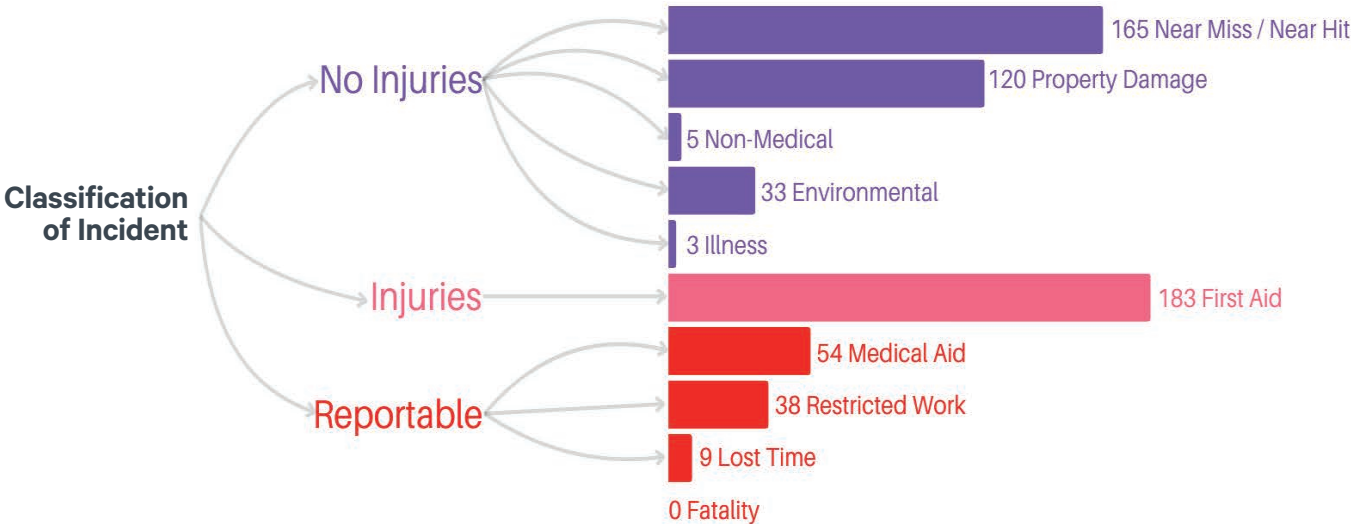
The percentage of companies reporting having an environmental policy remained at 94%, and the percentage reporting environmental management plans broke a recent decline to 76% in 2022 and rose to 85% in 2023. In recent years, there had been an increase likely due to robust due diligence required through legislation, permit requirements and consultation with Indigenous peoples; however, it appears that smaller companies and companies contracting out their exploration work do not necessarily have these in place.

LAGGING INDICATORS

Lagging indicators are measures of actions taken after incidents happened. AME, PDAC and CDDA encourage organizations to report these to inform initiatives and to build awareness of the risk of both injury and damage to property.

Through the survey, 25 companies reported 610 incidents, compared to 24 companies reporting 637 incidents in 2022. Of these, 284 incidents resulted in injury, down from 293 incidents that resulted in injury in 2022. Only 92 of these (15% of incidents and 32% of injuries) resulted in the need for medical attention and/or a restricted work plan.

For the eleventh year in a row, the lost-time injury rate in the Canadian mineral exploration industry decreased: at 0.23, significantly lower than 0.48 in 2022 and 0.81 in 2021. Encouragingly, the frequency rate of reportable injuries also significantly decreased in 2023 to 2.5 down from 2.96 in 2022, and from 4.43 in 2021.



KEY TAKEAWAYS:

Ensure that you are protected during unexpected tasks. These were some of the serious outcomes from various incidents in 2023:

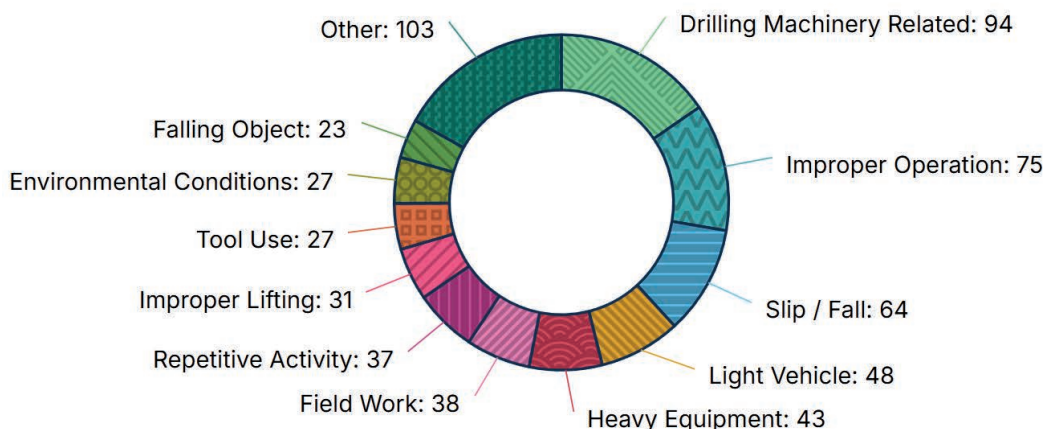
- Various injuries including injuries to head, hands and chest as well as cuts related to swinging, falling and pressurized drilling equipment.
- Sprained wrist from hitting a hidden log while transporting an injured worker by UTV.
- Skin irritation through various causes including cementing without PPE, not laundering clothing following cementing, coming into contact with poison ivy and insect bites from mapping in the field.
- Strains caused by stepping into holes either while planning for or while setting up new drill holes.
- Head injury caused from slipping on ice.
- Broken toes when a supervisor driving a locomotive leaned out to talk to a worker, inadvertently hitting the throttle with their elbow and running over the worker's toes.

Make sure that you are fit for work.

- Reduce muscular injuries and sprains by incorporating health and wellness into your safety program. Stretching should be introduced into the pre-shift toolbox meeting. Assess ergonomics for your work activities and encourage micro-stretch breaks for repetitive tasks.
- Position your body for the task, particularly any task involving heavy lifting.
- Report any injuries or unusual discomfort promptly.

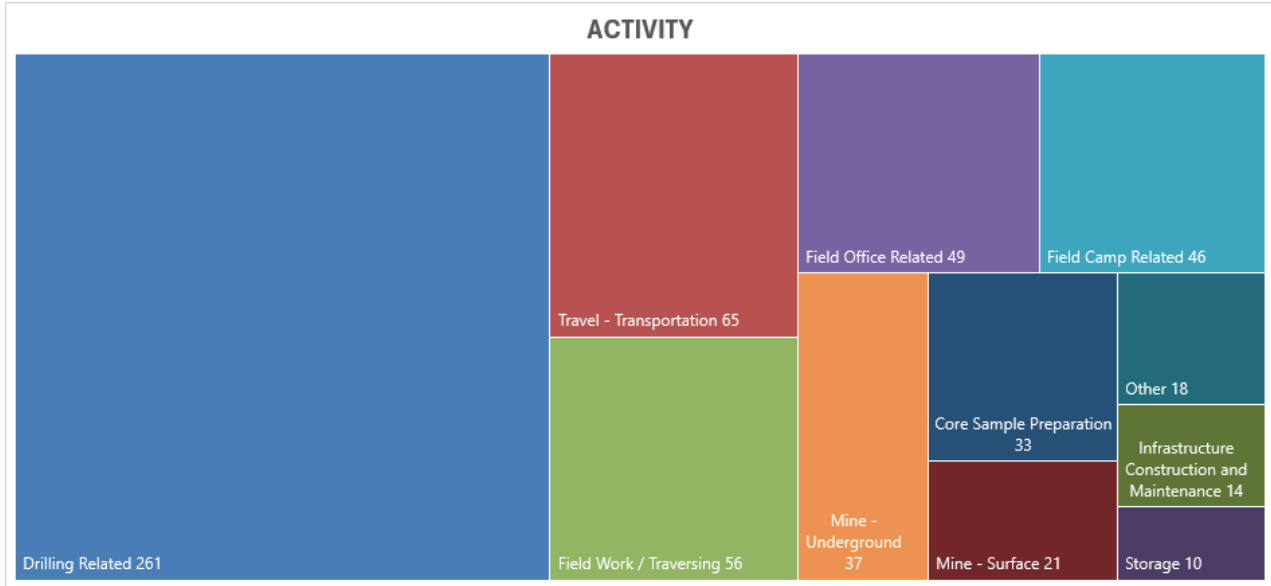
INCIDENT TYPE

Drilling machinery and improper operation account for 27% of all 610 incidents and 21% of reportable injuries. Slip and falls increased from 7% in 2022 to 10% in 2023 and accounted for 18% of reportable injuries. On the other hand, incidents related to light vehicles decreased from 10% incidents in 2022 to 8% in 2023, but were not related to any serious injuries reported in 2023.



INCIDENTS BY ACTIVITY

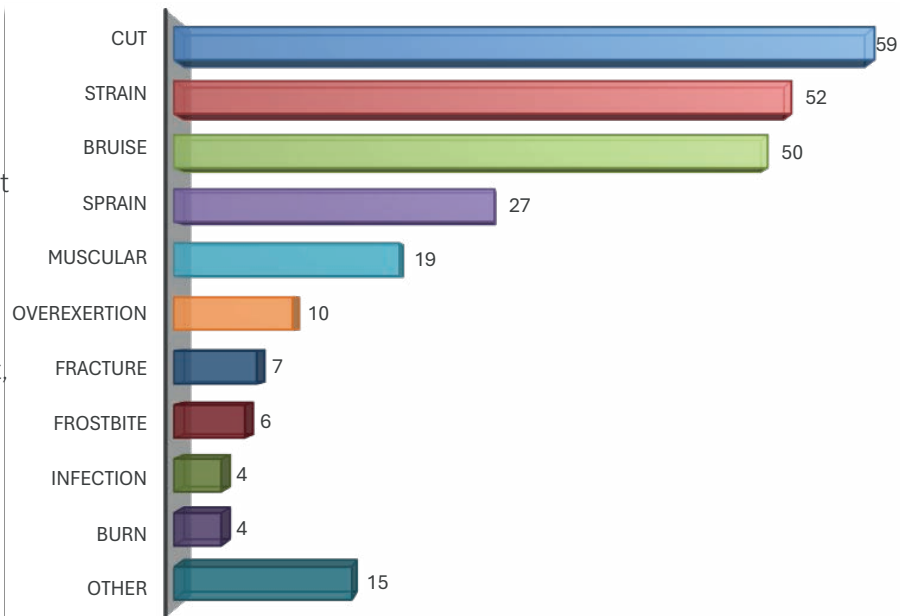
Nearly half of all incidents – 43% of all incidents and 49% of reportable injuries - took place in and around drills.



It is AME, PDAC and CDDA’s ongoing commitment to minimizing high frequency of incidents in the mineral exploration industry, and the reporting of potential incidents is a key step. This reporting process empowers exploration teams across Canada to assess these potential incidents, enabling them to follow up on-site and implement protocols aimed at mitigating their impact at their workplace. It’s a proactive approach that enhances safety measures in the exploration industry.

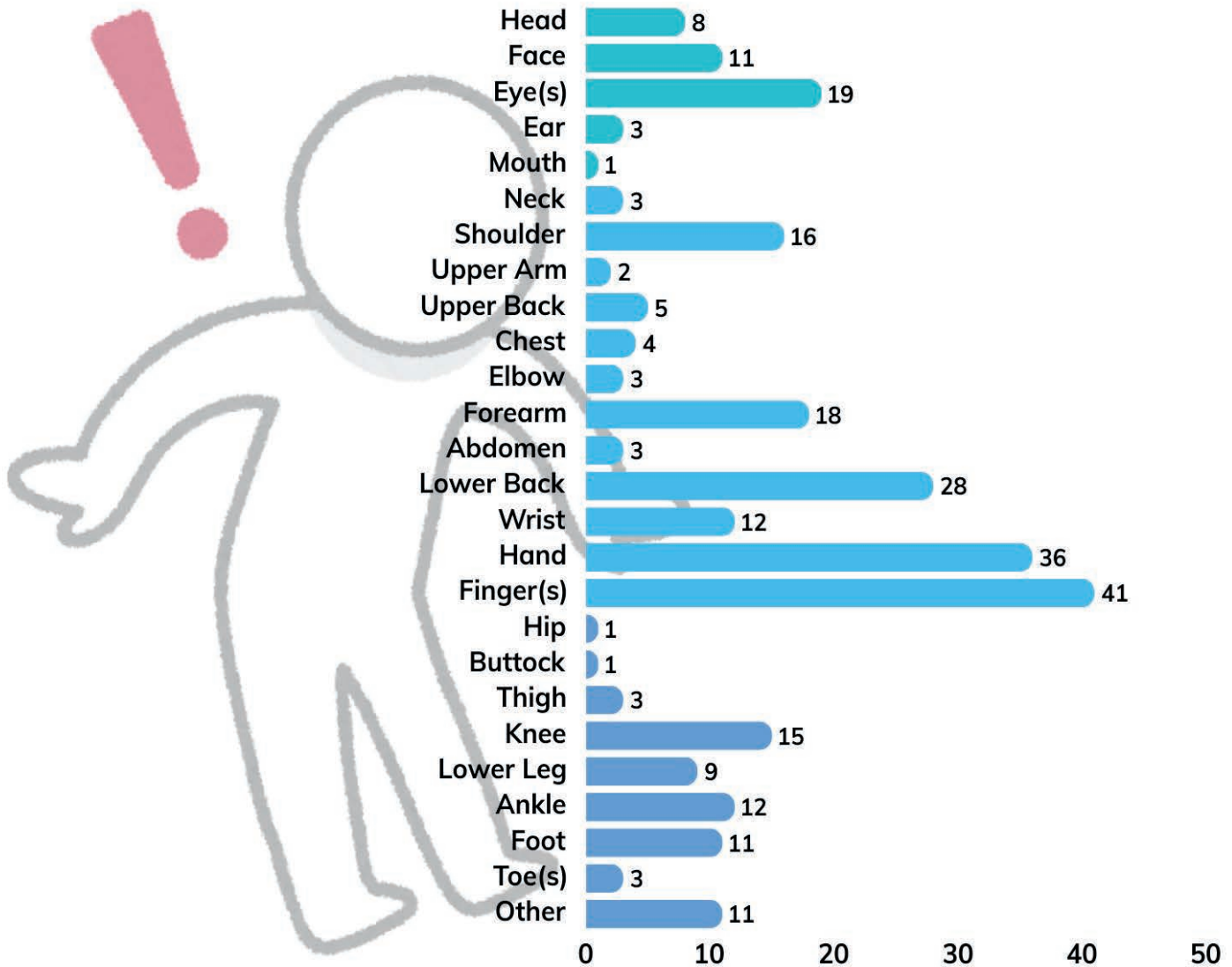
NATURE OF INJURY

In 2023, 253 incidents had some form of injury, account for 41% of all incidents. Cuts, bruises, strain, sprains, and muscular injuries account for 34% of all injuries. The vulnerability to these types of injuries highlights the need for an accessible and comprehensive safety kit, which should include finger splints and wrist splints.



LOCATION OF INJURY

Location of injury was reported for the fifth year in the 2023 survey. The dominant locations of injury include finger and hands (28%), lower back (10%), eyes (7%), and forearm (6%). These numbers remain steady throughout the 2023 survey.



FATALITIES

AME and PDAC track fatalities and their causes separately from the survey. This information is derived from a combination of reporting through government-led investigations, communications with members, company news releases and news reports.

Altogether, there have been 106 fatalities in mineral exploration in Canada since 1980; however, there have been 13 fatality-free years – including a period of four years without a fatality from 2015 through 2018. Over the past four years, the mineral exploration industry has experienced five recorded fatalities, each stemming from distinct incidents. These include a helicopter crash, a drowning incident, a bulldozer incident on a poorly maintained ice road, a fatal occurrence during a drill rig move, and a fatality resulting from a side-by-side incident. To date, no injuries related to mineral exploration have been reported for 2024.

On Jan 17, 2022, one person died after falling through the ice in a dozer while working on a project in western Nunavut. This incident was under investigation at time of writing.

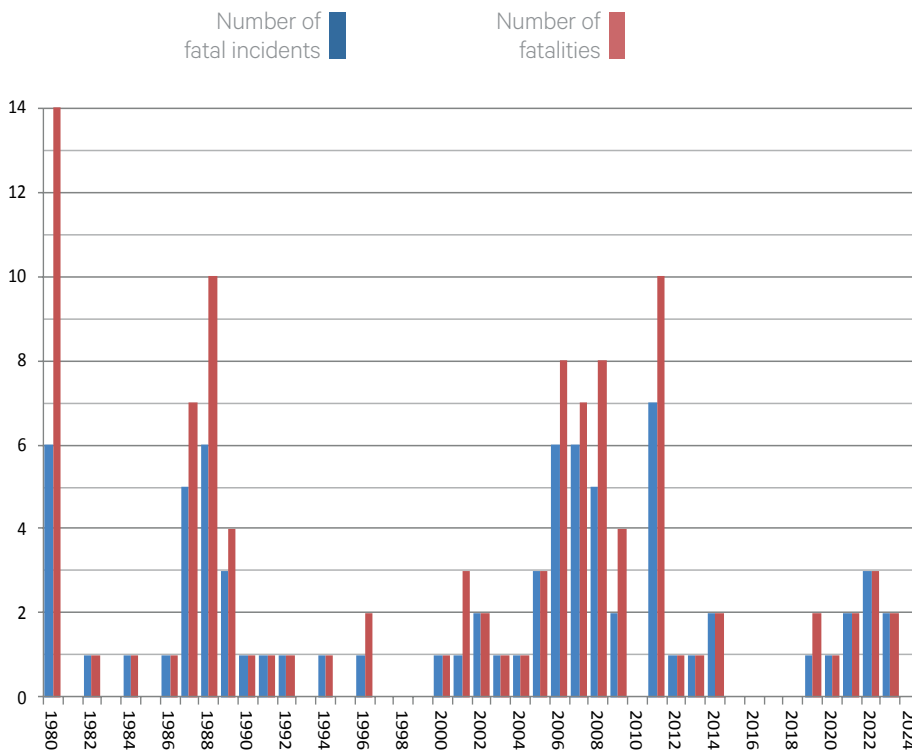
On Feb 8, 2022, a drilling contractor was driving a crawler carrier over to check existing drill holes on the property when he fell through a hole in the ice that measured approximately 2.5 metres by 2.5 metres. Subsequent investigation revealed the contractor fell into a sump. The mining company has been fined C\$390,000 in connection with this incident.

On Nov 9, 2022, during an aerial survey operation, a helicopter pilot suffered fatal injuries in a crash with the terrain along north coast of BC. This incident was under investigation at time of writing.

On Aug 21, 2023, a contractor was fatally injured while moving a drill on site in Ontario. The incident is under investigation at time of writing. Almost one week later, on Aug 29, 2023, a contractor working for an exploration company was driving an all-terrain vehicle (ATV) carrying two other men when it crashed off a curve on a mining access road. The incident happened on an exploration property north of Stewart, BC.

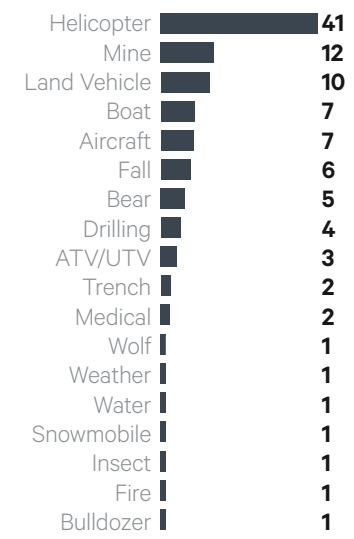
During extended downturns, companies can often lose experienced workers and then ramp up too quickly during subsequent exploration upswings. Historically, increased numbers and rates of fatalities and injuries have generally corresponded with peaks of activity in the industry. This trend appears intact, although to a lesser degree than in previous upswings, which is likely the result of a combination of due diligence, learned lessons from past experience and a growing culture of safety and associated training in the industry.

FATALITIES IN MINERAL EXPLORATION IN CANADA 1980-2023



PRIMARY CAUSE OF FATALITIES 1980-2023

Transportation-related incidents comprise of the primary causes of 75 fatalities (71%) since 1980 and have been related to all but three of the 21 fatalities (88%) in the mineral exploration industry since 2010.



WHAT YOU CAN DO

- ▶ Remember that each risk assessment is unique and may in fact be life-saving. What is normally a routine task may need to be reassessed and postponed or cancelled depending on the outcomes of the risk assessment.
- ▶ Ask questions about environment, health, and safety. It is your right to be informed.
- ▶ If you are concerned, do not accept the status quo. It is every worker's right to refuse unsafe work.
- ▶ Before going in the field, take responsibility to seek out information - including resources from the PDAC and AME – available online free of charge.
- ▶ Provide or ask about resources for safety-related topics such as travel and transportation, proper lifting, drill equipment safety, proper footwear and working in icy conditions.

RESOURCES

SAFETY GUIDELINES AND MANUALS

The PDAC Field Safety Pocket Guide is available in English, French and Spanish. The guide includes a variety of safe fieldwork practices that will increase one's awareness of the risks, hazards, and dangerous situations inherent in exploration work. The pocket guide is available from the PDAC; and more detailed information is available in the Driving Responsible Exploration (DRE) Health and Safety in Exploration Toolkit developed by the Health & Safety Committee of the PDAC. These resources can be downloaded at <https://pdac.ca/driving-responsible-exploration>.

A comprehensive source of safety information for mineral exploration focused on Western Canada is AME's Safety Guidebook: Mineral Exploration in Western Canada. The guidelines are available online at <https://amebc.ca/what-we-do/health-safety/> and from the AME office.

TOOLS AND COURSES

Risk management and helicopter slinging training tools may be viewed and downloaded at <https://amebc.ca/resources/tools/>. An online Short Course: Introduction to Exploration Safety is also available here. Short courses and training are also available annually through AME and PDAC.

REPORTING

Complete the Canadian Mineral Exploration Environment, Health & Safety Survey at <https://explorationsurvey.ca>. The survey includes an incident reporting template and guidance that can be used throughout the year.

OUR 2023 AWARD RECIPIENTS

There are **45** recipients of Safe Day Everyday Awards for their performance in 2023, up from **42** recipients in 2022 due to higher participation of individual organizations in the survey. Additionally, three companies receive Safe Day Everyday Participation Awards for their longstanding contributions to the survey.

SAFE DAY EVERYDAY GOLD AWARD

Major Drilling receives the Safe Day Everyday Gold Award for achieving 1,146,094 hours without a lost-time injury, and **Skeena Gold + Silver** receives the award for achieving 300,184 hours without a reportable injury – no incidents resulting in lost time, restricted work or medical aid.

SAFE DAY EVERYDAY SILVER AWARD

16 organizations are presented with the Safe Day Everyday Silver Award for 2023. This award is presented to organizations reporting more than 10,000 hours throughout 2023 without a reportable injury.

Altius Resources Inc	Kodiak Copper Corp.
Amex Exploration	North Arrow Minerals Inc.
Centerra Gold	Purepoint Uranium Group Inc.
De Beers Group	Scottie Resources
Eldorado Gold Québec	Surge Copper Corp.
Endurance Gold Corporation	TerraLogic Exploration
Fission Uranium Corp.	Vizsla Copper Corp
Imperial Metals Corporation	Westhaven Gold Corp

SAFE DAY EVERYDAY BRONZE AWARD

AME, PDAC and CDDA are pleased to award **27** companies with the Safe Day Everyday Bronze Award for reporting a year without a lost-time incident in 2023.

Ascot Resources	IAMGOLD Exploration	Rocky Mountain Drilling Inc.
AWC Digital Exploration Services	Inomin Mines	Structurally Fine Concepts
Below BC	North Coal Ltd	Tchaikazan Resources Inc
Coast Copper Corp	Northern Superior Resources	Team Drilling
Dolly Varden Silver	Orano Canada Inc	Teck Resources Limited
Driftwood Diamond Drilling Ltd.	Pacific Ridge Exploration Ltd.	Watts, Griffis and McQuat Limited
Durfeld Geological	Probe Metals	
Finlay Minerals Ltd.	Quebec Precious Metals Corporation	
Foraco Canada	Rio Tinto	
Geotronics Consulting Inc	River Rose Resources Ltd	
Giga Metals Corp.		

SAFE DAY EVERYDAY PARTICIPATION AWARD

Boart Longyear, Eldorado Gold Québec, and North Coal Ltd. are recognized for participating in the Canadian Mineral Exploration Environment, Health & Safety Survey for ten consecutive years.

Previous recipients of the Participation Award who have continued to participate in the survey every year include:

Altius Resources Inc. (16 years)
De Beers Group (19 years)
Foraco Canada (11 years)
Hy-Tech Drilling Ltd. (17 years)
Orano Canada Inc. (15 years)
Rio Tinto Exploration (13 years)
Team Drilling (11 years)
Teck Resources Limited (19 years)
TerraLogic Exploration Inc. (19 years)





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TOWARD A SAFE DAY EVERY DAY 2024: *is jointly produced by the Association for Mineral Exploration, Prospectors & Developers Association of Canada and Canadian Diamond Drilling Association.*

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