

# Ontario Mineral Exploration Review

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Defining and quantifying an environmental footprint

# Defining and quantifying an environmental footprint

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**T**he increased attention to environmental issues such as climate change requires a strategic response. Businesses in every sector are developing strategies that are environmentally sustainable, economically viable, and socially acceptable to their various stakeholders. Before regulatory requirements are enacted, North American businesses can put themselves in a unique position to improve upon their environmental performance, re-brand their corporate image, and emerge as industry leaders in the area of environmental sustainability.

Customers, suppliers, investors, and senior management are applying pressure to have businesses determine their Environmental Footprint, especially with respect to climate change and greenhouse gas (GHG) emissions. At the same time, new regulatory frameworks in both Canada and the United States are in the works. Some of these regulatory initiatives have grown into trans-jurisdictional regulations, such as the Western Climate Initiative. These proposed regulatory frameworks will dramatically affect the mining industry and will include requirements to accurately quantify and report GHG emissions.

## **Quantifying Your Environmental Footprint**

The benefits of effectively quantifying an environmental footprint are numerous. Existing GHG reporting frameworks often promote conservative reporting of GHG emissions from a reduction project. Therefore, uncertainties and unreliable data usually result in a business overestimating its GHG emissions. In addition to reporting inaccurate data, a poorly-designed system may have significant adverse financial effects for mining companies that operate in jurisdictions that have implemented a cap-and-trade system – the system that sets reg-

ulatory limits and allows trading to achieve those limits.

Conversely, mining companies that implement effective systems to track and improve upon their environmental footprint can benefit in a cap-and-trade environment by being a seller of credits. Additionally, tracking and communicating environmental performance allows mining companies to maintain positive relationships with their stakeholders by effectively communicating their environmental initiatives in a manner that is accurate, transparent, and verifiable.

### Developing a Sustainability Plan

One method for quantifying an environmental footprint is to develop a customized calculator as part of an overall operations sustainability plan. A number of such calculators are available on the market today, so how do you determine the best for your sustainability plan? Here are some key considerations:

- Firstly, the environmental footprint calculator should be designed to use calculation methods that ensure the data collected are relevant to your targets, and meet the requirements of relevant guidance documents.
- Secondly, the data must be tracked, managed, and reported in a manner that easily communicates a business' environmental performance to stakeholders.
- Thirdly, the environmental footprint calculator you select should be designed to incorporate any existing calculation systems that individual facilities within the business may already be using for voluntary sustainability reporting.

### The Importance of Key Performance Indicators

It is important to remember that an operation's overall environmental footprint can be quantified through an environmental footprint calculator based on a list of key performance indicators (KPI). KPIs are quantifiable metrics of environmental performance that define the specific items that can be evaluated to define and monitor environmental performance.

KPIs help measure, manage, and communicate impact on the environment; assist a company in integrating sustainable solutions into day-to-day operations to meet defined targets; and help provide a standard reporting framework for elements of environmental performance that may be difficult to quantify. Examples of environmental KPIs include GHG emissions, other air emissions, waste management, research and development, fines and sanctions, and water man-

agement. Monitoring, reporting, and improving upon these additional KPIs can help your business' sustainability plan remain current as market pressures towards environmental sustainability evolve.

### Recap

Consumers, manufacturers, industry and many levels of government are placing increased emphasis on the impact organizations have on the environment. A sustainability plan with a clearly defined system to monitor environmental KPIs can help improve the environmental performance,

enhance the corporate image, and develop a profile as an industry leader in the area of environmental sustainability.

An environmental footprint calculator is an important part of a successful sustainability plan. There are a growing number of calculators available today. Crucial factors to keep in mind when choosing the one right for your operations are: specific, relevant calculations customized to your business; simplicity for reporting and communicating results; and effective integration with your business' existing calculation systems. ✕

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