

# Monthly Mineral Production Survey Participant Guide

This guide describes in detail the data you are asked to provide in the questionnaire. If you require further assistance, please contact us. The staff at the Institut de la statistique du Québec (ISQ) will be happy to assist you.

# **General information**

The Monthly Mineral Production Survey is conducted every month by the ISQ and aims to collect essential data on the mineral extraction industry. As part of this survey, every establishment must provide information on various aspects of its activities, including production and production capacity. The ISQ uses the survey results to compile data according to the different needs of the Québec government. In addition, the survey results that relate to production are used to compile essential data on the Québec economy, in particular on gross domestic product (GDP).

Other organizations also benefit from the data disseminated from this survey, including the business community, mining associations, governments, and individuals.

# General instructions for the data requested

When precise figures are not available, please provide your best estimates. Please provide all amounts in thousands of Canadian dollars, rounded to the nearest thousand (e.g. for \$55,417.40 enter 55). Percentages must be rounded to the nearest decimal (e.g. for 37.35%, enter 37.4%; for 75.83%, enter 75.8%). As for quantities, they must be rounded to the nearest unit (e.g. for 10,815.4 tons, enter 10,815 tons)

Enter a value of 0 if the value is nil or if the question or category does not apply to your establishment. In other words, do not leave any fields blank.

# **Industry sector and reporting period**

# **Industry sector**

## Information on main activity

The main activity describes the main purpose of the organization targeted by the survey (your establishment), based on the North American Industry Classification System (NAICS). In for-profit businesses or organizations, the main activity is usually the activity that generates the most revenue.

NAICS is an industry classification system developed by the statistical agencies of Canada, Mexico and the United States. It is designed to provide common definitions of the industrial structure of the three countries and a common statistical framework to facilitate the analysis of the three economies. NAICS is based on supply-side or production-oriented principles, to ensure that industrial data, classified to NAICS, are suitable for the analysis of production-related issues.

The target entities for which NAICS is designed are businesses and other organizations engaged in the production of goods and services. They include farms, incorporated and unincorporated businesses, and government business enterprises. They also include government institutions and agencies engaged in the production of marketed and non-marketed services, as well as organizations such as professional associations and unions and charitable or non-profit organizations and the employees of households.

NAICS should only reflect those activities conducted by the organizational unit targeted by this questionnaire (your establishment), and which can be identified by the specified legal and operating name.

The NAICS classification contains a limited number of activities that might be applicable for a business or organization. The NAICS code associated with your business or organization does not necessarily describe its main activity exactly as you would.

Please note that any changes to be made to your business or organization's main activity as a result of your responses may not be implemented before subsequent questionnaires are sent. As a result, the information listed may not be up-to-date.

If the NAICS description currently associated with your business or organization is incorrect, please provide a brief description of your main activity.

# **Reporting period**

Please specify the duration of your reporting period. We ask that you provide the start and end date of the period.

This reporting period (month covered by the survey) will be the reference period for all the information requested in the questionnaire.

# **Extraction, harvesting, processing**

# **Conversion factors**

Ore		
To convert	То	Multiply by
Short tons	Metric tons	0,9071847
Peat		
To convert	То	Multiply by
Cubic metres	6 ft³ (170 dm³)	5,88577833333333
Cubic feet	6 ft³ (170 dm³)	0,16666666666666
Cubic yards	6 ft³ (170 dm³)	4,5
5.5 ft <sup>3</sup> (154 dm <sup>3</sup> )	6 ft³ (170 dm³)	0,916666667
5 ft <sup>3</sup> (142 dm <sup>3</sup> )	6 ft³ (170 dm³)	0,83333333
4 ft <sup>3</sup> (113 dm <sup>3</sup> )	6 ft³ (170 dm³)	0,666666667
3.8 ft <sup>3</sup> (106 dm <sup>3</sup> )	6 ft³ (170 dm³)	0,633333333
3 ft <sup>3</sup> /85 dm <sup>3</sup>	6 ft³ (170 dm³)	0,5
2.2 ft <sup>3</sup> /62 dm <sup>3</sup>	6 ft³ (170 dm³)	0,366666667
2 ft <sup>3</sup> /57 dm <sup>3</sup>	6 ft³ (170 dm³)	0,33333333
1.5 ft <sup>3</sup> /42 dm <sup>3</sup>	6 ft³ (170 dm³)	0,25
1 ft <sup>3</sup> /28 dm <sup>3</sup>	6 ft³ (170 dm³)	0,166666667
0.75 ft <sup>3</sup> /21 dm <sup>3</sup>	6 ft³ (170 dm³)	0,125
55 ft <sup>3</sup> /1,557 dm <sup>3</sup>	6 ft³ (170 dm³)	9,166666667
110 ft <sup>3</sup> /3,115 dm <sup>3</sup>	6 ft³ (170 dm³)	18,33333333
120 ft <sup>3</sup> /3,398 dm <sup>3</sup>	6 ft³ (170 dm³)	20
135 ft <sup>3</sup> /3,823 dm <sup>3</sup>	6 ft <sup>3</sup> (170 dm <sup>3</sup> )	22,5

# **Extraction/harvesting and processing**

# Crude ore extracted or peat harvested

Please report the quantities of materials extracted or harvested by your establishment for the reporting period. For the mining industry, please report your quantities in **metric tons**. For the peat industry, please report your quantities in **170 dm³** (6 ft³ bags). Please convert the volumes of bulk crude peat, unpackaged, into 170 dm³ units, which are equivalent to 6 cubic foot bags (6 ft³ or 170 dm³).

# Processed ore (does not apply to peat bogs)

Please report the quantities of ore processed at your establishment for the reporting period, in metric tons. Ore processing consists in crushing, milling, screening and concentrating activities.

# Rock waste and other waste (does not apply to peat bogs)

Please report the quantities of materials removed from the extraction site at your establishment (waste rock and overburden) for the reporting period, in metric tons.

# Ore reprocessed from tailings (does not apply to peat bogs)

Please report the quantities of mine tailings (e.g. material removed from a tailings heap) reprocessed at your establishment during the reporting period, in metric tons.

# Monthly production (Metallic commodities – minerals)

NOTE: For peat, go to Monthly production (Non-metallic commodities – peat)

# Information on the products

In this section, you are asked to provide information on your establishment's production. The "product" is the result of ore processing and beneficiation, including extraction, crushing, milling, screening, concentration, agglomerate and pellet production, and unwrought metal production at the mine.

## **Opening inventory**

Please report all **quantities** of "product" **that your establishment owned** on **the first day of the reporting period**, whether they are stored at the mine or establishment, stored outside the mine or establishment or in transit but not yet sold.

## Transfers in and purchases

Please report the **quantities** of "product" **purchased** during the reporting period. Please also include the quantities of "product" **transferred (not yet sold)** to your establishment from other mines or establishments of your own company.

#### **Production**

Please report the **quantities** of "product" **that your establishment owns** that come from ore extraction and processing and beneficiation activities carried out at your establishment, as well as their **value**.

Please also include the quantity of "product" that your establishment owns that comes from ore where the processing and beneficiation activities were carried out under contract at another mine or establishment.

## Shipments

Please report the **quantities** of "product" **that your establishment owns** that **were sold** to another establishment, whether intra- or inter-company, and their **value**. Please separate quantities sold for use as is from quantities **sold** for **further processing**.

Further processing consists of a series of manufacturing steps that follow ore processing and beneficiation. It includes **primary metal processing** such as smelting and refining for the production of primary metals, as well as the manufacture of cement and lime.

If the use of the "product" sold is unknown, please report the values under "Shipments (as-is sales)".

# Transfers out for further processing

The term "transfer" means that the "product" has not yet been sold.

Please report the **quantities** of "product" **transferred out** of your establishment for further processing as well as their **value**.

Further processing consists of a series of manufacturing steps that follow ore processing and beneficiation. It includes **primary metal processing** such as smelting and refining for the production of primary metals, as well as the manufacture of cement and lime.

### Internal transfers (for further processing)

Please report the **quantities** of "product" **transferred internally**, meaning **within your own establishment**, for further processing.

Further processing consists of a series of manufacturing steps that follow ore processing and beneficiation. It includes the manufacture of ferro-alloys (e.g. ferroniobium from pyrochlore concentrate), the manufacture of metallic salts (e.g. lithium carbonate from spodumene concentrate) and the manufacture of cement and lime.

# **Recovery and by-products**

# **Metal recovery**

From the quantities of "product" leaving your establishment for further processing (shipments for further processing + transfers out for further processing), please select the economically viable metals contained in your "product" that will be recoverable through further processing.

Further processing consists of a series of manufacturing steps that follow ore processing and beneficiation. It includes **primary metal processing** such as smelting and refining for the production of primary metals.

For each recoverable metal selected, please provide the following information:

- 1. Quantity of metal contained in the "product"
- 2. Quantity of recoverable metal after primary processing of the product (production of primary metal)
- 3. Market value of the recoverable metal

#### For example:

In X metric tons of copper concentrate:

- X kilograms of copper in the concentrate
  X grams of gold in the concentrate
  X grams of silver in the concentrate
- X kilograms of copper recovered as copper cathode
  X grams of gold recovered or refined
  X grams of silver recovered or refined
- market value of the copper recovered as copper cathode market value of the gold recovered or refined market value of the silver recovered or refined

# **Metal by-products**

From the quantities of "product" leaving your establishment (shipments + transfers out) for further processing and/or quantities of "product" transferred internally (internal transfers for further processing), please select the by-products that will be produced.

Further processing consists of a series of manufacturing steps that follow ore processing and beneficiation. It includes the manufacture of **by-products** such as ferro-alloys (e.g. ferroniobium) and metallic salts (e.g. lithium carbonate).

For each by-product selected, please provide the following information:

- 1. Quantity of by-product produced from the selected product
- 2. Market value of by-product produced

When a by-product is produced **directly at your establishment** (internal transfers for further processing), please also provide the following information:

- 3. Quantity of by-product shipped (sold) by your establishment
- 4. Market value of by-product shipped (sold)

# Monthly production (Non-metallic commodities - peat)

# Information on the products

In this section, you are asked to provide information on your establishment's production. "**Product**" means crude peat, unmixed and unpackaged.

# **Opening inventory**

Please report all **quantities** of "product" **that your establishment owned** on the **first day of the reporting period**, whether they are stored at the establishment, stored outside the establishment or in transit but not yet sold.

# Transfers in and purchases

Please report the **quantities** of "product" **purchased** during the reporting period. Please also include the quantities of "product" **transferred (not yet sold)** to your establishment from other establishments of your own company.

#### **Production**

Please report the **quantities** of "product" **that your establishment owns** that come from peat harvested or processed at your establishment, as well as their **value**.

Please also include the quantity of "product" **that your establishment owns** that comes from peat harvested or processed under contract at another establishment.

# Shipments

Please report the **quantities** of "product" that your establishment owns **that were sold** to another establishment, whether intra-or inter-company, and their **value**. Please separate quantities sold for use as is from quantities sold for **further processing**.

Further processing consists of a series of manufacturing steps that follow the peat harvesting activities. It includes **packaging** and the **manufacture of peat-based mixes**.

If the "product" is sold in bulk, please report the values under "Shipments (as-is sales)".

### Transfers out for further processing

The term "transfer" means that the "product" has not yet been sold.

Please report the **quantities** of "product" **transferred out** of your establishment for further processing as well as their **value**.

Further processing consists of a series of manufacturing steps that follow the peat harvesting activities. It includes **packaging** and the **manufacture of peat-based mixes**.

## Internal transfers (for further processing)

Please report the **quantities** of "product" **transferred internally**, meaning **within your own establishment**, for further processing. Further processing consists of a series of manufacturing steps that follow the peat harvesting activities. It includes **packaging** and the **manufacture of peat-based mixes**.

# **Production capacity**

This section relates to the potential production (production capacity) and the actual production (capacity utilization) of your establishment.

To determine your potential production, estimate the **production value** of your ore processing facilities, as if they had been operating at full production capacity for the whole month.

Take into account:

- machinery and equipment in place and ready to operate;
- normal downtime;
- labour, materials, utilities, etc. are fully available;
- the number of shifts, hours of operation and overtime pay that can be sustained under normal conditions and realistic in the long run;
- the same product mix as the actual production.

#### Concepts:

- Potential production value: Your estimation of production value under full production capacity conditions.
- Actual production value: The sum of the production values for all "products" reported at question 6c.

### **Question 6c - Production**

Please report the **quantities** of "product" **that your establishment owns** that come from ore extraction and processing and beneficiation activities carried out at your establishment, as well as their **value**.

Please also include the quantity of "product" that your establishment owns that comes from ore where the processing and beneficiation activities were carried out under contract at another mine or establishment.

#### Or

Please report the **quantities** of "product" **that your establishment owns** that come from peat harvested or processed at your establishment, as well as their **value**.

Please also include the quantity of "product" **that your establishment owns** that comes from peat harvested or processed under contract at another establishment.

## **Production capacity percentage**

Please indicate at what percentage of its production capacity your establishment operated during the reporting period.

The production capacity percentage asked at question 8 (Q8) is calculated by using the following formula:

 Divide your estimate of the actual production value by your estimate of the potential production value, then multiply the result by 100 to obtain a percentage ((actual production value ÷ potential production value) x 100).

#### **Examples**

# Scenario 1

Establishment operating above its full production capacity (e.g. due to increased market demand)

- Question 6c as a value = \$1,000,000 Can
- Question 6c under full capacity conditions = \$700,000 Can
- Actual production value = \$1,000,000 Can
- Potential production value = \$700,000 Can
- Production capacity percentage (Q8) = (1,000,000 ÷ 700,000) × 100
- Production capacity percentage (Q8) = 142.9%

#### Scenario 2

Establishment operating below its full production capacity (e.g. due to equipment failure)

- Question 6c as a value = \$1,000,000 Can
- Question 6c under full capacity conditions = \$1,200,000 Can
- Actual production value = \$1,000,000 Can
- Potential production value = \$1,200,000 Can
- Production capacity percentage (Q8) = (1,000,000 ÷ 1,200,000) × 100
- Production capacity percentage (Q8) = 83.3%

# Information on production capacity percentage

If your establishment operated at less than its full production capacity during the reporting period, please provide the reasons:

- Weather
- Commodity prices
- Temporary plant shutdown
- Lack of materials or supplies
- Sufficient inventory
- Storage limitation
- Equipment failure
- · Environmental restrictions
- · Insufficient labour available
- · Seasonal operations
- · Financial constraints
- · Quality issues
- Insufficient orders
- Strike or work stoppage
- Other

If your establishment operated above its full production capacity during the reporting period, please provide the reasons:

- · Exchange rate impact
- Commodity prices
- New contract
- · Acquisition of business or business units
- Merge of business or business units
- · Increased market demand
- Weather
- Plant expansion or contraction
- Technology changes
- · Process changes
- Other

Please indicate the nature of the change in production capacity of your establishment during the current reporting period:

- Increase
- Decrease
- No change