

Sector Profile

Mining, Quarrying, and Oil and Gas Extraction

Atlantic Region

2023

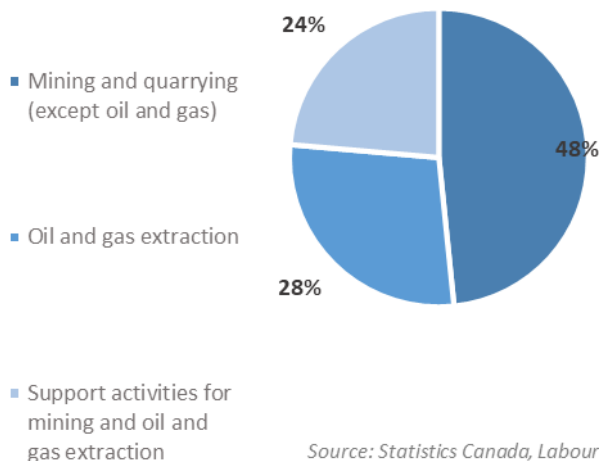


HIGHLIGHTS

- The mining, quarrying, oil, and gas extraction sector contributed almost 12 billion dollars to Atlantic Canada's GDP in 2022, representing 11% of total output in the region. Newfoundland and Labrador produces 94% of the region's economic output in the sector.
- The workforce in the mining, quarrying, oil and gas extraction sector is male-dominated, relatively younger, and has a higher share of post-secondary educated workers compared to the workforce overall.
- Employment in the sector has returned to pre-pandemic levels. Newfoundland and Labrador has seen an upswing in mining sector jobs in recent years due to a high volume of mineral exploration.
- Global interest in critical minerals is projected to boost mining activity in Atlantic Canada in years to come. However, oil production is expected to peak in 2030 and then steeply decline.

ABOUT THE INDUSTRY

Employment Share by sub-industry



Source: Statistics Canada, Labour Force Survey 2022

Composition and Importance of the Sector

The mining, quarrying, and oil and gas extraction industry is comprised of three subindustries: oil and gas extraction, mining and quarrying, and support activities for mining, and oil and gas extraction. Mining and quarrying account for 48% of employment in the sector, followed by oil and gas extraction (28%). Support activities for mining, and oil and gas extraction represent 24% of employment in the sector, encompassing a broad range of services such as contract drilling and blasting, exploration and testing, equipment assembly, maintenance and repair, and site remediation.

The main resources that are extracted in the region are offshore oil, iron, nickel, gold, zinc, stone aggregate, gypsum, and salt. The sector contributed almost 12 billion dollars to Atlantic Canada's GDP in 2022, representing 11% of total output in the region. Newfoundland and Labrador accounts for 94% of the sector's economic contribution in Atlantic Canada.



Geographic Distribution of Employment

The mining, quarrying, oil and gas extraction industry group employs 18,000 people, comprising 1.5% of overall employment in Atlantic Canada. The sector is most significant in the province of Newfoundland and Labrador, where it makes up 5.1% of employment. In addition, 66% of jobs in the sector are found in the province. New Brunswick employs 3,300 people in the sector, representing 0.9% of provincial employment. This is followed by Nova Scotia, where there are 2,500 workers in the industry, and it comprises 0.5% of total employment. The mining, quarrying, oil and gas extraction sector does not have a significant presence in Prince Edward Island, representing only 0.2% in employment with 200 workers.

	Employed 2022	Industry Share (%)
Atlantic Canada	18,000	1.5%
Newfoundland and Labrador	11,900	5.1%
Prince Edward Island	200	0.2%
Nova Scotia	2,500	0.5%
New Brunswick	3,300	0.9%

Source: Statistics Canada, Labour Force Survey

WORKFORCE

Workforce Characteristics

The workforce in the mining, quarrying, oil and gas extraction sector is characterized by being male-dominated and relatively younger than the overall workforce. Male workers account for 81.9% of employed individuals in the sector, compared to 50.7% in all industries. Female workers represent 18.1% in the sector, while in all industries they account for 49.3% of the workforce. The workforce in this sector has a higher share of people aged 25-54 compared to all industries, comprising 79.3% and 62.5% of the workforce, respectively. Workers nearing retirement, those aged 55 and older, make up 14.8% of the sector, while they represent 24% of total employment in the region.

Most workers in the mining, quarrying, oil and gas extraction were employed full-time (99.1%) and in permanent positions (85.3%) during 2022. A small share of workers (14.1%) were employed in a temporary basis. The sector has higher levels of post-secondary education compared to other industries, as more than half (56.8%) of employed individuals in the sector had a postsecondary certificate or diploma as their highest educational achievement, while in all industries the share was 38.8%. Workers who completed a university degree comprised 20.8% of the workforce in mining, quarrying and oil extraction, compared to 29.6% in all industries.

Main Occupations

The largest occupation in the mining, quarrying, oil and gas extraction sector is underground production and development miners, making up 12.4% of employed individuals in the sector in 2022. The number of workers in this occupation has increased by 13.4% since 2012. Construction millwrights and industrial mechanics, an occupational category found in a variety of industries, follow as the second largest occupation, comprising 6.2% of total employment. An occupation of increasing importance in the last ten years is heavy equipment operators, which has grown by 37.2% since 2012 and represents 6.1% of the sector.

Top 5 largest occupations	Employed 2022	% Share of Industry
Underground production and development miners	2,250	12.4%
Construction millwrights and industrial mechanics	1,125	6.2%
Heavy equipment operators	1,100	6.1%
Oil and gas well drillers, servicers, testers and related workers	975	5.4%
Supervisors, mining and quarrying	975	5.4%

Source: ESDC/Service Canada



RECENT HISTORY

Employment in the mining, quarrying, oil, and gas extraction sector in Atlantic Canada declined steeply in the advent of the COVID-19 pandemic but has since returned to pre-pandemic levels. Much of the employment loss was due to extraction projects being scaled back or completely halted.

In early 2020, oil prices plummeted following the onset of the COVID-19 pandemic. Lockdowns and travel restrictions led to a sharp decrease in global oil demand, causing prices to hit historic lows in April 2020. Oil prices peaked in 2022, partially due to economic sanctions placed on Russia following its invasion of Ukraine. Coming into 2023, prices have decreased slightly but remained relatively stable.

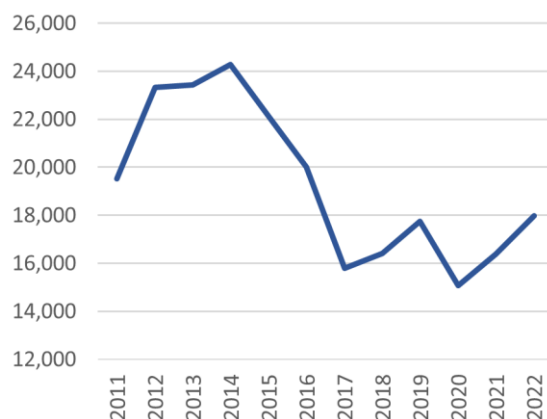
Exploration drilling activity has provided mixed signals, resulting in some degree of uncertainty. While companies such as ExxonMobil and Equinor have moved ahead with their exploration plans, BP abandoned its exploratory well in the Orphan Basin. On the production side, the Terra Nova oil platform is set to head out to sea in August 2023. The Floating Production Storage and Offloading (FSPO) unit has not operated since 2019 when it was pulled from production to undergo repairs. There are 570 employees working on the project, even when the FSPO was under repair.

Equinor decided to put the Bay du Nord oil project on hold for up to three years; it's the first deepwater project in Canada to drill down a kilometer of water. Equinor cited "challenging market conditions" as the reason for the delay, as global inflation has increased the cost of supply materials. This has put into question the viability of future projects such as BP's exploration of a deepwater well in the West Orphan Basin. However, Equinor announced it will drill a deep-water well in the Flemish Pass Basin.

Newfoundland and Labrador has seen an upswing in mining sector jobs in recent years. There is a high volume of mineral exploration taking place across Newfoundland and Labrador. The main minerals being explored in the province are iron ore, nickel, copper, zinc, and gold.

Iron ore has been a particularly prominent mineral in Labrador, with several mines operating in the region. The Iron Ore Company of Canada's mine in Labrador City is the second largest iron ore production in the country. After the onset of the COVID-19 pandemic, iron ore prices climbed steadily to a historical peak in mid-2021 and have been decreasing on average ever since.

Historical Employment Trend Atlantic Canada



Source: Statistics Canada, Labour Force Survey

Tacora Resources Inc. received a \$1.25 million investment from the federal government to assist with the research and planning of a manganese processing operation at the Scully Mine in Labrador. Manganese is one of 31 critical minerals needed to develop clean technology resources.

The Voisey's Bay mine in Labrador is undergoing an underground expansion to develop two deposits that could generate around 40,000 tonnes of nickel in concentrate, 20,000 tonnes of copper and 2,600 tonnes of cobalt annually. These minerals are also considered to be critical to the development of clean technology, particularly electric batteries.

Throughout the pandemic, there has been plenty of gold exploration in Newfoundland and Labrador, due to the elevated price of gold and province's strong potential for increased gold mining. Gold prices have grown steadily since late 2022, as concerns about inflation prompted investors to shift to higher-yielding assets. In May 2023, the price of gold reached its highest point since August 2020 when the price spiked during the beginning of the COVID pandemic.

Marathon Gold began the construction of its Valentine Lake Project, a gold mine, in early 2023. The project is expected to be completed and produce the first gold in the first quarter of 2025. There are currently 454 employees and contractors. The gold mine is expected to employ around 500 people over the next few years.



OUTLOOK

By 2025, employment in the mining, quarrying, oil, and gas extraction industry is expected to grow on average 0.7% per year. The sector is expected to grow at a higher average rate than all industries, which is projected to be 0.2% per year.

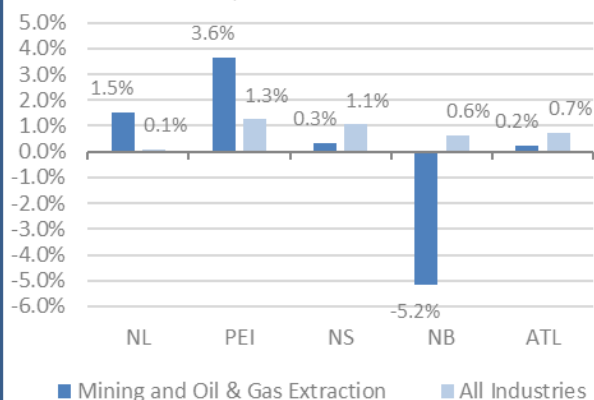
Employment in Newfoundland and Labrador's mining and quarrying subsector is expected to rise in the next few years, driven by new developments and increased exploration in upcoming years. However, the completion of construction at Voisey's Bay's expansion project during the forecast period will offset some of the growth related to other projects.

Global interest critical minerals is projected to boost mining activity in Atlantic Canada in years to come. Critical minerals are important to Canada's transition to a greener economy, as they are used in clean technology applications such as batteries and solar panels.

Increased activity in the mining sector is expected after the federal government invested \$5.2 million in Newfoundland and Labrador to support airborne geophysical survey program to help identify areas in the province for exploration. In addition, manganese exploration is being carried out in Woodstock, New Brunswick by Manganese X Energy Corp. The iron formations in Woodstock are believed to have one the largest manganese resources in North America, with 194 million tonnes of the mineral.

Employment in the oil and gas extraction subsector in Newfoundland and Labrador has been lower in early 2023 than in 2022, which suggests a decline in employment in 2023. The uncertainty surrounding the Bay du Nord project may dampen job prospects moving forward.

Projected Average Annual Employment Growth Rate (%), Atlantic Provinces, 2023-2025



Source: ESDC/Service Canada

However, the \$3.2 billion expansion of West White Rose oil field and the Terra Nova FSPO are proceeding. The Newfoundland and Labrador government expects the project to lead to 250 permanent platform jobs and 1,500 jobs related to the construction site in Argientia.

A recent report published by Canada's Energy Regulator on Canada's energy future stated that Newfoundland and Labrador's oil production will drop sharply by 2050. The province's oil production is forecasted to peak in the early 2030s. If the world reduces emissions to net-zero, they forecast oil production in Newfoundland and Labrador to drop by 99% in 2050. If Canada does not reach net-zero emissions, the report suggests oil production would still drop by 80% in 2050.

Note: In preparing this document, the authors have taken care to provide clients with labour market information that is timely and accurate at the time of publication. Since labour market conditions are dynamic, some of the information presented here may have changed since this document was published. Users are encouraged to also refer to other sources for additional information on the local economy and labour market. Information contained in this document does not necessarily reflect official policies of Employment and Social Development Canada.

The analysis in this report was finalized as of **August 2023**.

Prepared by: Labour Market Analysis Directorate, Service Canada – Atlantic Region

For further information, you may contact us at: ATL-LMI-IMT-GD@servicecanada.gc.ca

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APPENDIX

Real GDP (2022) and Employment (2022) for Atlantic Canada						
	Mining, Quarrying, and Oil and Gas Extraction			All Industries		
	Number	Share of		Number	Share of	
		Total	AAGR*		Total	AAGR*
Real GDP (M\$)	\$11,996.6	100.0%	0.6%	\$109,227.1	100.0%	1.0%
Newfoundland and Labrador	\$11,321.3	94.4%	1.2%	\$30,150.3	27.6%	0.1%
Prince Edward Island	\$0.3	0.0%	-20.6%	\$6,542.6	6.0%	2.5%
Nova Scotia	\$416.6	3.5%	-0.8%	\$40,011.5	36.6%	1.5%
New Brunswick	\$258.4	2.2%	-10.6%	\$32,522.7	29.8%	1.1%
Employment (000s)	18.0	100.0%	-2.6%	1175.2	100.0%	0.4%
Male	14.8	81.9%	-2.9%	596.0	50.7%	0.4%
Female	3.3	18.1%	-1.1%	579.2	49.3%	0.5%
15-24 years old	1.1	5.9%	-6.7%	158.7	13.5%	0.4%
25-54 years old	14.3	79.3%	-1.8%	734.4	62.5%	-0.2%
55 years and older	2.7	14.8%	-4.1%	282.1	24.0%	2.2%
Worked full-time	17.8	99.1%	-2.4%	990.6	84.3%	0.6%
Worked part-time	0.2	0.9%	-11.1%	184.6	15.7%	-0.4%
Self-employed	0.1	0.5%	-11.8%	123.2	10.5%	-1.0%
Employees	17.9	99.5%	-2.5%	1052.0	89.5%	0.6%
Permanent job	15.4	85.3%	-1.3%	884.4	75.3%	1.0%
Temporary job	2.5	14.1%	-7.4%	167.6	14.3%	-1.4%
Less than high school	1.3	7.1%	-4.9%	95.5	8.1%	-3.9%
High school graduate	2.7	15.2%	-5.9%	275.3	23.4%	-0.5%
Postsecondary cert. or diploma	10.2	56.8%	-2.6%	456.3	38.8%	0.3%
University degree	3.8	20.8%	2.5%	348.2	29.6%	3.3%
Newfoundland and Labrador	12.0	66.4%	-0.4%	232.5	19.8%	-0.3%
Prince Edward Island	0.2	1.2%	-12.5%	84.3	7.2%	1.5%
Nova Scotia	2.5	14.1%	-5.7%	484.9	41.3%	0.6%
New Brunswick	3.3	18.3%	-5.0%	373.5	31.8%	0.5%

Source: Statistics Canada, Labour Force Survey - Custom Table; Table 36-10-0402-01

*Average annual growth rate for last ten years of available data (GDP 2013-22 and Employment 2013-22)

