

Energy sector outlook

February 2023

ALBERTA CRUDE OIL AND EQUIVALENT PRODUCTION SUMMARY

Barrels per day (bpd)

	YTD 2021*	YTD 2022*	YTD Change	% YTD Change
Conventional (Light and Medium)	325,910	359,252	33,342	10%
Conventional (Heavy and Ultra Heavy)	110,510	132,215	21,704.9	20%
Non-upgraded Bitumen	1,921,629	1,995,600	73,971	4%
Synthetic Crude Oil (SCO)	1,145,787	1,168,496	22,709	2%
Pentanes	270,406	286,149	15,743	6%
Condensate	72,756	79,016	6,260	9%
TOTAL	3,846,998	4,020,728	173,729	5%
Crude Oil and Equivalent Production				

*YTD January - September

Source: Alberta Energy Regulator

Updated and additional information on Alberta's energy sector will be released in Budget 2023 on Feb. 28, 2023.

Alberta's oil and gas reserves as of 2021

- Alberta has the fourth largest proven oil reserves in the world, after Venezuela, Saudi Arabia and Iran.
- As of 2021, Alberta's total proven oil reserves were around 161.7 billion barrels; of which 160.1 billion barrels were oil sands and 1.6 billion barrels were conventional oil.
- As of 2021, Alberta had the ultimate potential (recoverable) resources of 223 trillion cubic feet (Tcf) of natural gas.

Oil prices

Price fluctuations occur due to changes in market demand and supply. The price a producer receives for a barrel of oil depends on the type of oil, where it's produced, and where it is sold.

\$ 47.14 **Western Canadian Select** – One of the benchmark prices for heavy oil produced in North America. Price reflects supply-and-demand balance and transportation constraints for heavy crude in North America.

\$ 78.16 **West Texas Intermediate** - The benchmark price of oil in North America. Its price changes reflect the supply-and-demand balance and transportation constraints for light, sweet oil in North America.

WCS (December 2022 US\$/bbl) and WTI (January 2023 US\$/bbl)

Sources: Alberta Energy, U.S. Energy Information Administration (EIA)

ALBERTA'S NATURAL GAS LIQUIDS PRODUCTION SUMMARY

Barrels per day (bpd)

	YTD 2021*	YTD 2022*	YTD Change	% YTD Change
Propane	182,029	189,943	7,914	4%
Butane	116,190	124,952	8,762	8%
Ethane	214,829	222,586	7,757	4%
Total NGLs Production	513,048	537,481	24,433	5%

*YTD January - November

Source: Alberta Energy Regulator ST-3

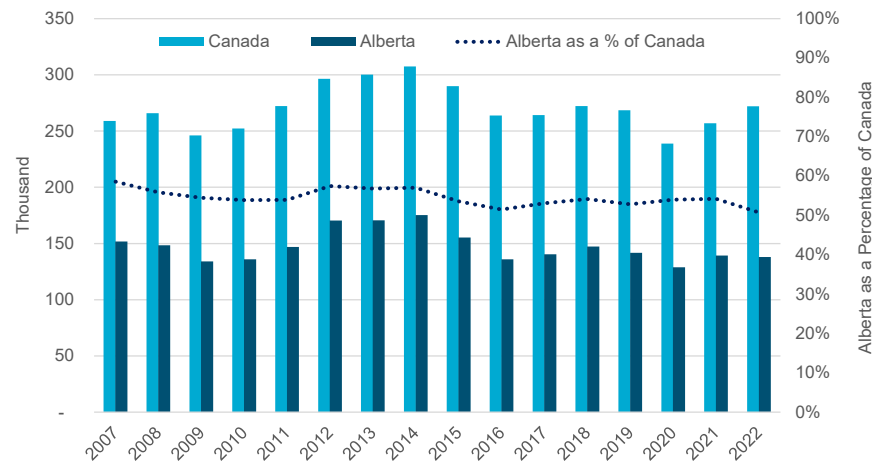
Note: totals may not add up due to rounding

Energy industry employment in 2022

In 2022, Alberta's mining, quarrying, and oil and gas extraction sector, or upstream energy sector employed about 138 thousand people, accounting for about 6 per cent of total employment in Alberta.

- Alberta's mining, quarrying and oil and gas extraction employment decreased by about one per cent in 2022 compared to 2021 when 139 thousand people were employed in the sector.
- Employment in the upstream energy industry has averaged about 148 thousand people per year over 2007-2022 period, peaking at 175 thousand people in 2014.

EMPLOYMENT IN MINING, QUARRYING, OIL AND GAS EXTRACTION



Source: Statistics Canada

ALBERTA MERCHANDISE EXPORTS

Energy products

YTD 2021* **99,491**

YTD 2022* **158,278**

+59%

\$ Millions

*YTD January - November

Source: Statistics Canada

ALBERTA'S MARKETABLE NATURAL GAS

Production summary

YTD 2021* **9.6**

YTD 2022* **10.3**

+7%

Marketable Gas Production

Billion Cubic Feet per Day

Alberta's oil and gas production and disposition in 2022

- Alberta crude bitumen production was estimated to reach about 3.3 million barrels per day (bpd) in 2022.
- In 2022, total Alberta crude oil and equivalent production was estimated at about 4.0 million barrels per day (bpd) of which marketable oil sands production (upgraded and non-upgraded bitumen) was estimated at about 3.2 million bpd (79 per cent of total), conventional oil production accounted for 492 thousand bpd (12 per cent of total), and condensate and pentanes plus accounted for 365 thousand bpd (9 per cent of total). Estimated total crude oil and equivalent production in 2022 exceeded the production in 2021 by about 4 per cent.
- The vast majority of Alberta's overall oil disposition goes to the United States and the rest of Canada. In 2022, 87 per cent of Alberta's oil disposition left the province.
- Updated and additional information on Alberta's energy sector will be released in Budget 2023 on Feb. 28, 2023.

Energy Security

- Minister Guthrie attended the Oslo Energy Forum in Norway on February 14-16, where he participated in a panel to discuss solutions for hard-to-abate sectors, highlighting Alberta's global leadership in carbon capture utilization and storage.
- Following Oslo, Minister Guthrie travelled to Germany to promote Alberta natural gas products – including clean hydrogen and LNG – as the best options for energy security and meeting Germany's long-term energy needs.
- As the world shifts to lower emission energy sources, Alberta is well-positioned to play a key role in global energy security. Our established oil and gas sector adheres to the highest ESG standards and will be able to meet continued demand, while helping Canada in meeting emission goals. We have more than a century of expertise in energy production, regulatory excellence, clean technology and innovation – and we are global leaders in carbon capture.
- Whether it's across Canada, North America or the world – energy plays a vital role in our daily lives. The world needs a solution for long-term energy security that is also responsible, reliable and affordable.