

## **Oil Reserves: Locations, Characteristics, Extraction Economics, and Other Constraints — January 7, 2026**

Oil is central to the global economy. When refined, it fuels transportation, powers industry, and serves as the raw material for countless products from plastics to pharmaceuticals. Yet the characteristics of oil reserves differ in ways that significantly affect production. Understanding where the world's oil sits—and what kind of oil it is—offers insight into both the economics of energy and the geopolitics that often follow.

**Locations.** The world's "proven" oil reserves—the amount that can be economically recovered with today's technology at current prices—total approximately 1.7 trillion barrels. This resource is unevenly distributed: five countries have over half of it. Venezuela leads the world (303 billion barrels), followed by Saudi Arabia (267 billion), Iran (209 billion), Canada (171 billion), and Iraq (145 billion).<sup>1</sup> The rest of the top ten are the United Arab Emirates, Kuwait, Russia, the United States, and Libya. Notably, the Middle East accounts for nearly half of global reserves.

**Characteristics.** Oil varies in two important ways: its *weight* (light versus heavy) and its *sulfur content* (sweet versus sour). Light, sweet crude flows easily and refines cleanly into gasoline and other high-value fuels. Heavy, sour crude is thick, high in sulfur, and requires specialized, energy-intensive refining. Saudi Arabia's oil is predominantly light and sweet, close to the surface, and inexpensive to extract. Venezuela's "Orinoco Belt" oil is extra-heavy crude that is so viscous it must be heated or diluted with lighter oils before it can even flow through a pipeline. Canada's Alberta reserves also present major challenges: the oil there resembles thick tar and is embedded in sand and clay.

**Extraction Economics.** Saudi oil can be profitably extracted at almost any market price, while Venezuelan extra-heavy crude and Canadian oil sands may become uneconomical when prices fall. Venezuela has the world's largest reserves, yet it produces about one million barrels per day—under 1% of global output—compared to a 1970s peak of 3.5 million barrels per day.<sup>2</sup> The United States ranks ninth in reserves but leads global production (13+ million barrels per day) after a 1998 experiment<sup>3</sup> led to extraction of major light, sweet crude reserves from tight rock formations.

**Other Constraints.** Large reserves are only usable to the extent they result in output. Sanctions constrain production in Iran, Venezuela, and Russia. Infrastructure decay and political instability constrain output in Venezuela and Libya. The recent U.S. military operation that removed Nicolás Maduro from power has drawn attention to Venezuela's vast potential—and the challenges of reviving its severely weakened oil industry.

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<sup>1</sup> Organization of the Petroleum Exporting Countries, *2025 OPEC Annual Statistical Bulletin*, 60th ed. (Vienna: OPEC, 2025), Table 3.1, p. 22, <https://www.opec.org/assets/assetdb/asp-2025.pdf> (accessed January 7, 2026); Canada figure (including oil sands) from Government of Canada, Natural Resources Canada, "Oil Resources," <https://natural-resources.ca/energy-sources/fossil-fuels/oil-resources> (accessed January 7, 2026).

<sup>2</sup> Bruno Venditti, "All of the World's Oil Reserves by Country, in One Visualization," *Visual Capitalist*, December 30, 2025, <https://www.visualcapitalist.com/all-of-the-worlds-oil-reserves-by-country-in-one-visualization> (accessed January 7, 2026).

<sup>3</sup> Russell Gold, "The Texas Well That Started a Revolution," *The Wall Street Journal*, June 29, 2018, <https://www.wsj.com/articles/the-texas-well-that-started-a-revolution-1530270010> (accessed January 7, 2026).