

#### Cell: 19

### Comment: Rick Heede:

https://www.obsidianenergy.com/about-us/ - Obsidian Energy is an intermediate-sized oil and gas producer with a well-balanced portfolio of high-quality assets producing roughly 30,000 boe per day. On June 26th, 2017, the company formally changed its name to Obsidian Energy Ltd. from Penn West Petroleum Ltd. As Penn West, we underwent significant changes throughout the organization, changes that have affected every aspect of our business and have led us to redefine the Company and where and how it grows from here.

https://en.wikipedia.org/wiki/Obsidian\_Energy - Obsidian Energy Ltd. (previously known as Penn West Exploration Ltd., Penn West Petroleum and Penn West Energy Trust) is a mid-sized Canadian oil and natural gas production company based in Calgary, Alberta.

The company experienced operational and financial difficulties when crude oil prices fell significantly in 2014. As a result, the company underwent a significant restructuring with the majority of the assets sold over the next two years to reduce debt.

History. In 1995 Penn West, then an independent exploration and production company called Penn West Petroleum Ltd, was the operator and licensee of a well in Saddle Hills Field, Alberta, where they held rights to an entire DSU. In May 2005, Penn West under the new trade name "Penn West Energy Trust" operated as a Canadian royalty trust (CANROY). According to a 2004 article in The New York Times, the Canadian royalty trusts (CANROY) were "much larger, both in production and in market capitalization", than those in the United States. They produce about 11 percent of the oil and 23 percent of the natural gas in Canada and have a combined market capitalization of 34 billion Canadian dollars, or about \$27 billion." Penn West was already one of the top ten Canadian oil and gas companies in terms of after tax profits from 2003 through 2007. Penn West Petroleum (PWT) was a Canadian royalty trust (CANROY) from 2005-2011, and as such did not pay federal income taxes.

Calgary-based Penn West Energy Trust acquired publicly-traded trust companies—Petrofund Energy Trust in June 2006, Canetic Resources Trust, a "smaller rival" for \$3.6-billion in 2007, Vault Energy Trust in January 2008, and Endev Energy Inc. in July 2008. According to a 2007 CBC News article, Penn West became the largest oil and gas energy trust in North America after its acquisition of Canetic. It was one of the S&P/TSX 60, the sixty largest companies on the Toronto Stock Exchange.

On January 1, 2011, the government cracked down on Penn West, one of a group of oil and gas producers, who from 2005 to 2011, through Canadian royalty trusts (CANROYs), did not pay "federal income taxes if they distributed their income to shareholders." etcetera. (see wiki)

#### Cell: N11

#### Comment: Rick Heede:

On this worksheet we report extractive data for each company or state-owned enterprise. Three columns under crude oil and natural gas allow for data reported in one of three formats (e.g., thousand barrels per day, or million barrels per year, or million tonnes per year). Coal is normally reported in short tons or metric tonnes per year.

The subtraction of the fraction typically sequestered in petrochemicals and other non-combusted uses such as road oils, waxes, lubricants, greases, etc. Non-fuel uses are accounted for in the emission factors and applied to each entity in the oil, gas, and coal summary worksheets.

# Cell: G12

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Total net worldwide crude oil plus natural gas liquids produced by each company or state-owned enterprise. Where data is available, we list net production (after royalty production is deducted).

We rely on company annual reports, Form 10-k, or other company data where available. In some cases -- particularly for state-owned oil and gas companies -- we use production data from the Oil & Gas Journal in its OGJ150 and OGJ100.

Crude production includes natural gas liquids (NGL) unless noted.

# Cell: K12

## Comment: Rick Heede:

Natural gas is typically reported as dry gas; natural gas liquids are reported under crude oil.

Carbon dioxide is normally removed from the gas flow at the production site (see "Vented Carbon Dioxide").

"SCM/d" = standard cubic meters per day. "cf/d" = cubic feet per day.

Net production typically excludes a number of diverted gas streams. Quantities and fractions vary; ExxonMobil's exclusions are typical of the industry: "Net production available for sale quantities are the volumes withdrawn from ... natural gas reserves, excluding royalties and volumes due to others when produced, and excluding gas purchased from others, gas consumed in producing operations, field processing plant losses, volumes used for gas lift, gas injections and cycling operations, quantities flared, and volume shrinkage due to the removal of condensate or natural gas liquids production." ExxonMobil Corporation (2004) 2003 Financial and Operating Review, www.exxonmobil.com, p. 55.

#### Cell: D63

## Comment: Rick Heede:

Penn West Form 40-Fs at SEC/EDGAR are all garbled, no useful prodn data: use OGJ.

Oil & Gas Journal OGJ100, various years 1996 to 2009, oil production in Mb.

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Oil & Gas Journal OGJ100, various years 1996 to 2009, gas production in Bcf.

## Cell: D77

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Oil & Gas Journal OGJ100, various years, oil production in Mb.

## Cell: 177

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Oil & Gas Journal OGJ100, various years, gas production in Bcf.

# Cell: D83

# Comment: Rick Heede:

Penn West Petroleum SEC Form 40\_ for 2016l, Appendix a3-19: Production history, light and medium and heavy oil production (thousand bpdf), and natural gas (million cfpd).

# Cell: D85

# Comment: Rick Heede

Obsidian (2019) Annua Report 2018, Appendix 3-18: Production history, light and medium and heavy oil production (thousand bpdf), and natural gas (million cfpd).