



The U.S. Department of Energy's Office of Fossil Energy (FE) supports research and development of technologies that can reduce the volume of natural gas (e.g., methane) flared or vented (released) into the atmosphere during crude oil and natural gas exploration, production, processing, transportation, and storage operations. This fact sheet was created by FE to inform stakeholders on state-level production and regulatory activity regarding natural gas flaring and venting. FE's research portfolio includes efforts to reduce methane (and other hydrocarbon) flaring through the application of improved technologies to capture and utilize small volumes of natural gas at remote locations, as well as technologies to reduce (primarily) methane release during midstream gas processing and transportation. Intermittent flaring that occurs as a result of routine well testing, production facility process shutdowns, or facility and pipeline infrastructure maintenance, are normal aspects of safe oil and natural gas production. Increases in domestic oil and natural gas production have resulted in significant infrastructure buildouts, however, natural gas pipeline capacity constraints have led to regional increases in the flaring of associated gas in some unconventional plays (e.g., Permian Basin in Texas and New Mexico and Bakken Shale in North Dakota) in order to enable oil production.

South Dakota Producing Plays and Basins

South Dakota oil and gas production occur primarily in the northwestern (Harding County) and southwestern (Fall River County) corners of the state ([Figure 1](#)). The Williston Basin extends into South Dakota in the northwest and the Denver-Julesburg Basin extends into the southwest corner. The [South Dakota Department of Environment and Natural Resources](#) reports that produced oil and gas comes from about 34 conventional fields, primarily from the Minnelusa and Red River Formations, and mostly from fields in Harding County. There is no significant ongoing unconventional oil or gas development in South Dakota.

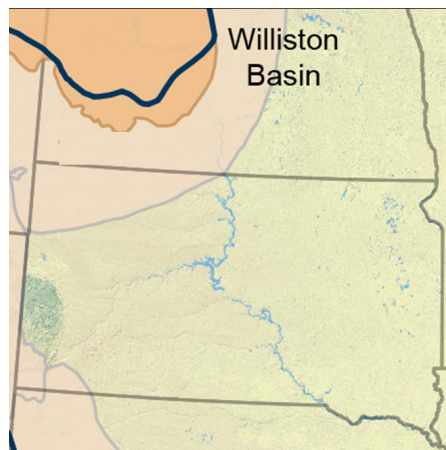


Figure 1: South Dakota oil and gas wells highlighting oil and gas producing areas
Source: South Dakota Department of Environment and Natural Resources

Although the Williston Basin extends into South Dakota, the Bakken Shale does not.

Key Regulations Associated with Flaring and Venting

The [Board of Minerals and Environment](#) and the [Department of Environment and Natural Resources](#) (DENR) implement oil and gas regulations in the state of South Dakota. DENR publishes an [online database of gas production](#) but does not post data specifically pertaining to natural gas flaring. Out of the approximately 200 producing oil and gas wells statewide, the DENR estimates that there are currently less than 20 wells flaring natural gas in South Dakota.

South Dakota [Oil](#) and [Natural Gas](#) Statistics (EIA)

	2013	2014	2015	2016	2017	2018
Crude Oil Production (Average Thousand Barrels/Day)	5.1	4.9	4.6	3.9	3.6	3.4
Natural Gas Gross Withdrawals and Production (Average MMcf/Day)	44.4	41.9	39.8	1.2	1.3	N/A
Natural Gas Gross Withdrawals and Production (Vented and Flared) (MMcf/Day)	N/A	N/A	38.2	N/A	N/A	N/A
Natural Gas Gross Withdrawals and Production (Oil Wells) (MMcf/Day)	1.4	0.8	0.9	0.7	0.8	N/A
Natural Gas and Gas Producing Oil Wells	207	196	187	165	151	N/A

MMcf – million cubic feet

2017 ranking among 32 U.S. oil and natural gas producing states — [Oil](#): 25 [Natural Gas](#): 23

The Administrative Rules of South Dakota [Article 74:12](#) regulates drilling operations. Section [74:12:05:04](#) of this Article stipulates that operators should not permit gas from a completed gas well to escape to the air, except as necessary for cleaning or testing. This rule requires operators to burn all vented casinghead gas that is not put to some useful purpose and to report the volume. Operators must measure casinghead gas that contains high contents of nitrogen and carbon dioxide that will not burn by itself before venting. The Oil and Gas Conservation Act, [South Dakota Codified Law 45-9](#), contains additional rules for oil and gas development in South Dakota. Section [45-9-3](#) prohibits the waste of oil and gas.

South Dakota State Points of Contact

South Dakota Department of Environment and Natural Resources: Minerals and Mining Program

Contact the Minerals and Mining Program at DENR for information on oil and gas regulations, enforcement, and general oil and gas drilling practices.

Website: <https://denr.sd.gov/des/og/oghome.aspx>

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Visit energy.gov/fe/state-natural-gas-flaring-and-venting-regulations for a digital version of this fact sheet that includes hyperlinks to information sources.