

North Dakota Department of Mineral Resources March Director's Cut and January 2023 Production Numbers

Oil Production Numbers

December 29,693,769 barrels
 = 957,864 barrels/day (final)

 New Mexico 50,857,480 barrels
 = 1,640,564 barrels/day +3%

January 32,881,946 barrels = 1,060,708 barrels/day +11% RF +6.1%

1,519,037 all-time high Nov 2019

1,022,986 barrels/day = 96% from Bakken and Three Forks

37,722 barrels/day = 4% from Legacy Pools

Revised Revenue 1,000,000 barrels/day

Forecast

Crude Price (\$barrel)	ND Light Sweet	WTI	ND Market	
December	73.89	76.52	75.21 RF+0%	
January	73.35	78.16	75.76 RF+1%	
Today	67.75	71.33	69.54 Est. RF-7%	
All-time high (6/2008)	125.62	134.02	126.75	
Revised Revenue Forecast			75.00	

Gas Production and Capture

December - Final 81,948,643 MCF = 2,643,505 MCF/Day 94% Capture 76,647,186 MCF = 2,472,490 MCF/Day

January - Prelim 87,871,026 MCF = 2,834,549 MCF/Day +7.23%

95% Capture 83,084,273 MCF = 2,680,138 MCF/Day

3,175,779 all-time high 9/2022 3,021,655 all-time high 9/2022

Wells Permitted	Drilling
December	94
January	79
February	70

Rig Count

New Mexico

December 44
January 46
February 46
Today 45
Federal Surface 1

All time high 218 in 5/29/2012

Waiting on Completions

December 450 January 469

Inactive

December 2,613 January 1,998

Completed

December 104 (Preliminary)
January 67 (Preliminary)

February 96 (Preliminary) RF+60%

106

Revised Rev Forecast 30-40-50-60

Producing

December 17,233

January 17,269 (Preliminary) NEW all-time high 17,791 10/2022

15,168 wells 88% are now unconventional

Bakken/Three Forks Wells

2,101 wells 12% produced from legacy

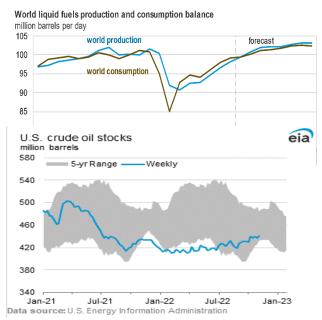
conventional pools

Fort Berthold Reservation Activity

	Total	Fee Land	Trust Land
Oil Production (barrels/day)	146,949	50,125	96,824
Drilling Rigs	4	3	1
Active Wells	2,640	649	1,991
Waiting on Completion	19		
Approved Drilling Permits	246	31	215
Potential Future Wells	3,912	1,115	2,797

Comments:

The drilling rig count has stalled in the mid-forties, with a gradual increase expected over the next two years.



There are now 18 crews active.

OPEC+ is managing production month to month. Russia sanctions, China economic activity, and looming recessions continue to create significant price volatility.

Crude oil transportation capacity including rail deliveries to coastal refineries is adequate, but could be disrupted due to:

US Appeals Court for the ninth circuit upholding of a lower court ruling protecting the Swinomish Indian Tribal Community's right to sue to enforce an agreement that restricts the number of trains that can cross its reservation in northwest Washington state.

DAPL Civil Action No. 16-1534 continues, but the courts have now ruled that DAPL can continue normal operations until the

USACOE EIS is completed.

Potential railroad worker strike – reported that a tentative deal had been reached.

Drilling activity is expected to increase slowly, with operators maintaining a permit inventory of approximately 12 months.

There is 1 survey active, 1 recording, 0 NDIC reclamation projects, 0 remediating, 1 permitted, 6 suspended.

US natural gas storage is 22% above the five-year average. Both US and world crude oil inventories are above normal while the US strategic petroleum reserve is at the lowest level since 1983.

The price of natural gas delivered to Northern Border at Watford City has increased to \$2.08/MCF today but remains at the lowest level since the pandemic due to oversupply in the Midwest US even as LNG prices in Europe remain very high. Current oil to gas price ratio is 33 to 1. The state-wide gas flared volume from November to December

decreased 16.6 MMCFD to 154.4 MMCF per day, the statewide percent flared decreased to 5% while Bakken gas capture percentage increased to 95%. The historical high flared percent was 36% in 09/2011.

Gas capture details are as follows:

Statewide	95%
Statewide Bakken	95%
Non-FBIR Bakken	95%
FBIR Bakken	96%
Trust FBIR Bakken	96%
Fee FBIR	95%
Big Bend	93%
Deep Water Creek Bay	83%
Twin Buttes	71%
Charlson	87%

The Commission established the following gas capture goals:

74%	October 1, 2014 - December 31, 2014
77%	January 1, 2015 - March 31, 2016
80%	April 1, 2016 - October 31, 2016
85%	November 1, 2016 - October 31, 2018
88%	November 1, 2018 - October 31, 2020
91%	November 1, 2020

<u>BLM</u> on 1/20/21 DOI issued order 3395 implementing a 60-day suspension of Federal Register publications; issuing, revising, or amending Resource Management Plans; granting rights of way and easements; approving or amending plans of operation; appointing, hiring, or promoting personnel; leasing; and permits to drill. On 1/27/21, President Biden issued an executive order that mandates a "pause" on new oil and gas leasing on federal lands, onshore and offshore, "to the extent consistent with applicable law," while a comprehensive review of oil and gas permitting, and leasing is conducted by the Interior Department. There is no time limit on the review, which means the president's moratorium on new leasing is indefinite. The order does not restrict energy activities on lands the government holds in trust for Native American tribes.

What is the percentage of federal lands in ND?

Mineral ownership in ND is 85% private, 9% federal (4% Indian lands and 5% federal public lands), and 6% state. 66% of ND spacing units contain no federal public or Indian minerals, 24% contain federal public minerals, 9% contain Indian minerals, 1% contain both.

How many potential wells could be delayed or not drilled by a Biden administration ban on drilling permits and hydraulic fracturing on federal lands?

A spatial query found 3,443 undrilled wells in spacing units that would penetrate federal minerals, 2,902 undrilled wells in spacing units would penetrate BIA Trust minerals (700 tribal minerals and 2,202 allotted minerals), and the total number of wells potentially impacted is 6,345. The minimum number of future Bakken wells is 24,000 so the 3,443 wells on federal public lands = 14%, and the 2,902 wells on trust lands = 12%.

What is the potential federal royalty loss from a Biden administration ban on drilling permits and hydraulic fracturing on federal lands?

A recent study from University of Wyoming estimated the ND loss as follows: 2021-2025 \$76 million; 2026-2030 \$113 million, 2031-2035 \$160 million, and 2036-2040 \$221 million for a total of \$570 million over 15 years. Please note that 50% of the royalties on federal public lands go to the state and 50% of the state share goes to the county where the oil was produced.

On 7/7/21 North Dakota sued the Department of Interior (DOI), Secretary of Interior Debra Haaland, Bureau of Land Management (BLM), Director of the BLM Nada Culver, and Director of the Montana-Dakotas BLM John Mehlhoff in US District Court for the District of North Dakota. The lawsuit requested the court:

Compel the Federal Defendants to hold quarterly lease sales. Oral arguments are scheduled for 1/12/22 in Bismarck.

Prohibit the Federal Defendants from cancelling quarterly lease sales.

Enjoin the Secretary implementing a moratorium on federal lease sales.

Declare that Federal Defendants are in violation of MLA, FLPMA, NEPA, and APA.

Grant other relief sought and as the court deems proper to remedy the violations.

There are 811 tracts nominated for pending lease sales in ND:

569 are pending NEPA or surface manager concurrence.

242 are fully evaluated with Record of Decision by US Forest Service and Corp of Engineers, and waiting for scheduled auction – value to ND 1,037 wells and \$4.9 billion (GPT, OET, NDTL royalties, federal royalties, sales tax and income tax)

On 01/14/2022 Judge Traynor denied North Dakota's motion without prejudice. In the Order on Mandamus, the Court noted that "a fully developed factual record is necessary to resolve the instant dispute." The Court also held that because Federal Defendants had given the Court "assurances at the hearing the process to start Federal oil and gas leasing sales in North Dakota was imminent" mandamus relief was "unnecessary." However, the Court noted that "if the Defendants do not hold to their word and cancel any planned future sale, North Dakota may bring this action for review of the specifically cancelled sales once this Court has the benefit of a complete record.". Federal Defendants have canceled the Q1 2022 lease sale but have now published a potential Q2 sales listing with a protest period ending 5/18/22.

North Dakota filed a motion for preliminary injunction on 1/6/23 and Judge Traynor issued an order for parties to show cause whether the preliminary injunction and mandamus cases should be consolidated.

On 6/28/22, DAKOTA RESOURCE COUNCIL, CENTER FOR BIOLOGICAL DIVERSITY, CITIZENS FOR A HEALTHY COMMUNITY, LIVING RIVERS & COLORADO RIVERKEEPER, MONTANA ENVIRONMENTAL INFORMATION CENTER, RIO GRANDE RIVERKEEPER, SIERRA CLUB, WATERKEEPER ALLIANCE, WESTERN WATERSHEDS PROJECT, and WILDEARTH GUARDIANS sued DOI to challenge leasing decisions on 173 parcels including those in North Dakota. On 8/09/2022, the U.S. District Court in DC granted North Dakota's Motion to Intervene in the NGO's challenge to the legality of BLM's quarterly lease sales in Dakota Resource Council et al. v. U.S. Department of the Interior et al., 1:22-cv-01853-CRC.

On 9/6/22, the BLM and a group of NGOs filed a proposed settlement in the District Court of Montana in which BLM agrees to not issue drilling permits on 2019 and 2020 federal leases in North Dakota, Montana and South Dakota pending the completion of revised NEPA analyses that must take into account factors such as the social cost of carbon. This illustrates the revival of the "sue and settle" litigation strategy whereby the Biden Administration settles litigation brought by NGOs in a manner that furthers the Biden Administration's policy goals. The case was filed on 1/12/2021 by the same group of NGOs involved in North Dakota's leasing cases. The proposed settlement would cover 5 lease sales that authorized the sale of 113 leases encompassing 58,617 acres in North Dakota, Montana, and South Dakota. 55 North Dakota Parcels, 9,564.347 Federal Acres in North Dakota, leases Expire in 2029 and 2030 so if permitting is delayed 7-8 years 130 wells will not be drilled, 58,329,000 barrels of oil will not be produced, GrossProductionTax + OilExtractionTax + SalesTax + PersonalIncomeTax + FedRoyaltyShare + NDTLRoyalties @ \$50/barrel = \$8,006,217 per month = \$960,746,074 in ten years.

BLM has posted for comment NEPA Number: DOI-BLM-HQ-3100-2023-0001-EA, Project Name: Supplemental Environmental Assessment Analysis for Greenhouse Gas Emissions Related to Oil and Gas Leasing in Seven States from February 2015 to December 2020, Project Type: Environmental Assessment, Project Status: In Progress - Public Review and Comment Period, Lead Office: HQ-310. Bureau of Land Management has released an updated environmental assessment for public comment. The additional review analyzes greenhouse gas emissions that may result from reasonably foreseeable development of 3,600 oil and gas leases that were sold in 74 lease sales between February 2015 and December 2020 that were the subject of litigation. The leases span approximately 3,433,615 acres in Colorado, Montana, New Mexico, Utah, Wyoming, North Dakota, and South Dakota. The environmental analysis looks at the development activity that would result in greenhouse gas emissions due to well development and production operations, as well as the end-use of the petroleum products produced from oil and gas leases. The supplemental analysis is in response to numerous court rulings and settlements. It incorporates new information and ensures consistency with recent court decisions, Executive and Secretarial Orders, and Department of the Interior policy. This analysis of greenhouse gas emissions supplements the greenhouse gas analysis provided in the previous National Environmental Policy Act (NEPA) documents supporting the 74 lease sales. The previous environmental assessments or determinations of NEPA adequacy, decision records, and findings of no significant impacts for the 74 lease sales are listed on BLM's State Oil and Gas Lease Sale website, which contains detailed information for the lease sales in each field office. Decisions related to the affected lease sales will be made separately and will include additional analysis of impacts to other resources, as appropriate. NDIC comments are available by request at Contact | Department of Mineral Resources, North Dakota (nd.gov)

<u>BLM</u> published a new final rule 43 CFR Parts 3100, 3160 and 3170 to update and replace its regulations on venting and flaring of natural gas effective 1/17/16. The final rule can be viewed online at https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/methane-and-waste-prevention-rule. North Dakota, Wyoming, Montana, Western Energy Alliance, and IPAA filed for a preliminary injunction to prevent the rule going into effect until the case is settled. A hearing in Casper, Wyoming was held

1/6/17. On 1/16/17 the court denied all of the petitioners' motions for preliminary injunctions. On 2/3/17 the US

House of Representatives voted 221-191 to approve a Congressional Review Act resolution against the rule. On 3/28/17 President Trump issued an executive order which in part directs "The Secretary of the Interior shall review the following final rules, and any rules and guidance issued pursuant to them, for consistency with the policy set forth in section 1 of this order and, if appropriate, shall, as soon as practicable, suspend, revise, or rescind the guidance, or publish for notice and comment proposed rules suspending, revising, or rescinding those rules". This rule is included in the list as item (iv). North Dakota plans to continue active participation in the litigation of this rule until the BLM takes final action eliminating the rule. On 5/10/17 the Senate voted 51 to 49 against the CRA, allowing the rule to remain in effect.

BLM The Bureau of Land Management today announced the North Dakota Draft Resource Management Plan and its associated draft environmental impact statement are available for public comment for a 90-day period ending April 20, 2023. The draft resource management plan and draft environmental impact statement address management of approximately 58,500 acres of BLM-administered surface and 4.1 million acres of federal mineral estate in North Dakota for the next 20 to 30 years. Key issues raised during the public scoping period included mineral and energy resources, wildlife, recreation, water resources, air, and climate. In response to Tribal concerns, a "no surface occupancy" lease stipulation within a half mile of the Missouri River, Lake Sakakawea, and Lake Oahe has been added to the alternatives included in the documents. This stipulation is consistent with the Mandan, Hidatsa and Arikara Nation's Tribal Resolution and recognizes the regional importance of the Missouri River as a major supply of public drinking water. The drafts and additional documents associated with this project, as well as a venue to submit comments, are available on the ePlanning webpage: https://eplanning.blm.gov. Search using the NEPA number: DOI-BLM-MT-C030-2020-0085-RMP-EIS. Written comments related to the documents may also be submitted by mail to: North Dakota Field Office, Attention: North Dakota RMP/EIS, 99 23rd Ave. West, Suite A, Dickinson, ND 58601. The BLM will hold public meetings (in-person and/or virtual) to exchange information and collect comments. When these meetings are planned, details will be listed on the ePlanning page and announced by news release. For more information, contact Project Leader Kristine Braun at (701)227-7725 or by email: blm mt north dakota rmp@blm.gov.

Congress On 08/07/2022 the US Senate and on 08/12/2022 the US House passed HR 5376 which is expected to be signed into law by the president and contains numerous provisions that will negatively impact oil and gas producers and transporters. NDIC is in the process of analyzing the potential impact of Section 10101. CORPORATE ALTERNATIVE MINIMUM TAX, Section 10201 EXCISE TAX ON REPURCHASE OF CORPORATE STOCK, Section 13104 CREDIT FOR CARBON OXIVDE SEQUESTRATION, Section 13502 ADVANCED MANUFACTURING PRODUCTION CREDIT critical minerals, Section 60113 METHANE EMISSIONS REDUCTION PROGRAM, Section 50262 MINERAL LEASING ACT MODERNIZATION, on North Dakota's mineral industries.

EPA On 6/3/16 the final rule proposing a suite of changes to Clean Air Act permitting requirements for new and modified emissions sources in the oil and natural gas industry was published in the Federal Register. On 6/29/16 the NDIC decided to file a Petition for Review with the US Appeals Court for the District of Columbia to defend the state's sovereign jurisdiction over oil and gas regulation. Thirteen other states have joined this effort. North Dakota declined the standard offer to explore settlement through the court's mediation program.

The proposed actions and NDIC comments are as follows:

o Proposed New Source Performance Standards – Docket ID number EPA-HQ-OAR-2010-0505. NDIC comments can be found at http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2010-0505.pdf

- o Draft Control Techniques Guidelines Docket ID number: EPA-HQ-OAR-2015-0216. NDIC comments can be found at http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2015-0216.pdf
- o Proposed Source Determination Rule Docket ID number: EPA-HQ-OAR-2013-0685. NDIC comments can be found at http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2013-0685.pdf
- o Proposed Federal Implementation Plan for Implementing Minor New Source Review Permitting in Indian Country Docket ID number: EPA-HQ-OAR-2014-0606. NDIC comments are at http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2014-0606.pdf.

North Dakota et al. and EPA have filed motions to govern further proceedings and briefing schedules. On 3/28/17 President Trump issued an executive order which in part directs "The Administrator shall review the final rule entitled "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources," 81 Fed. Reg. 35824 (November 3, 2016), and any rules and guidance issued pursuant to it, for consistency with the policy set forth in section 1 of this order and, if appropriate, shall, as soon as practicable, suspend, revise, or rescind the guidance, or publish for notice and comment proposed rules suspending, revising, or rescinding those rules." On 4/7/17 EPA filed a motion to hold the cases in abeyance. On 6/8/17 the NGO environmental groups challenged EPA's November 5th decision to issue a 90 day stay of the Rule's upcoming implementation dates. The NGOs argue that EPA's justifications for its stay (onerous implementation costs and excessive state administrative burdens) of the Rule were already raised and rejected by EPA during EPA's original rulemaking and that the requirements of a "judicial stay" are not met. The NGO's action is a new case, filed in the D.C. Circuit. They have also filed an emergency motion asking the Court to immediately vacate EPA's decision. On November 3 the DC Circuit court issued a 2:1 decision granting the NGO petition and vacating EPA's 90 day stay of the rule. North Dakota filed an amicus brief in support of the EPA stay. On 7/13/17 the same DC Circuit court granted an EPA motion to recall the mandate and granting 14 days for then EPA to seek reconsideration or review by the full court. API and WVA along with other states filed petitions for rehearing en banc, but on 8/10/17 the entire DC Circuit issued an order denying the API and WVa et al States petitions. EPA now proposes a 2-year stay of certain provision in the oil and gas NSPS. North Dakota filed comments on 8/9/17 in support of the proposed 2-year stay. On 11/8/17 EPA published a Federal Register notice request for supplemental comments relating to the current Administration's efforts to change course on the oil and gas sector methane regulations put in place by the Obama Administration. North Dakota did not submit additional comment to EPA because the North Dakota comments submitted on 8/9/17 correctly advocate that EPA's rationale for the two year stay also justifies outright repeal of the original Rule, so it justifies a two year stay. On 9/11/18 EPA proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry that streamline implementation, reduce duplicative EPA and state requirements, and significantly decrease unnecessary burdens on domestic energy producers. This oil and gas targeted improvements package is expected to save up to approximately \$484 million in regulatory costs from 2019 - 2025 or \$75 million annually. NDIC comments can be found at http://www.nd.gov/ndic/ic-press/EPA-HQ-OAR-2017-0757.pdf. On 9/14/20 EPA's final Methane Rule was officially published in the Federal Register, making the rollback effective. On the very same day, a group of states filed a new lawsuit in the D.C. Circuit asking the court to review EPA's new methane regulations. A number of environmental groups followed suit the next day, asking the court to put an emergency halt to the rule. On 9/17/20 the D.C. Circuit issued an administrative stay, which temporarily freezes the EPA's rollback from taking effect while the court considers a long-term suspension of the rule. The court's order states that the administrative stay "should not be construed in any way as a ruling on the merits." On 10/14/20 North Dakota moved to intervene and on 1/22/21 filed a brief in support of the 2020 rule and requesting dismissal of petitioner's claims.

On 12/6/22 The EPA issued a proposal to update, strengthen, and expand the standards proposed on November 15, 2021 which are intended to significantly reduce emissions of greenhouse gases (GHGs) and other harmful air pollutants from the Crude Oil and Natural Gas source category. First, the EPA proposes standards for certain sources that were not addressed in the November 2021 proposal. Second, the EPA proposes revisions that strengthen standards for sources of leaks, provide greater flexibility to use innovative advanced detection methods, and establish a super emitter response program. Third, the EPA proposes to modify and refine certain elements of the proposed standards in response to information submitted in public comments on the November 2021 proposal. Finally, the EPA proposes details of the timelines and other implementation requirements that apply to states to limit methane pollution from existing designated facilities in the source category under the Clean Air Act (CAA). NDIC comments are available by request at Contact | Department of Mineral Resources, North Dakota (nd.gov)