

Energy, Minerals and Natural Resources Department: *Oil Conservation Division*

- Well Construction Requirements
 - Pending PFAS Rulemaking Petition
-

DYLAN FUGE

- DEPUTY SECRETARY
- OCD DIRECTOR (ACTING)

DECEMBER 1, 2023

Well Construction and Design Requirements

Well Construction Requirements

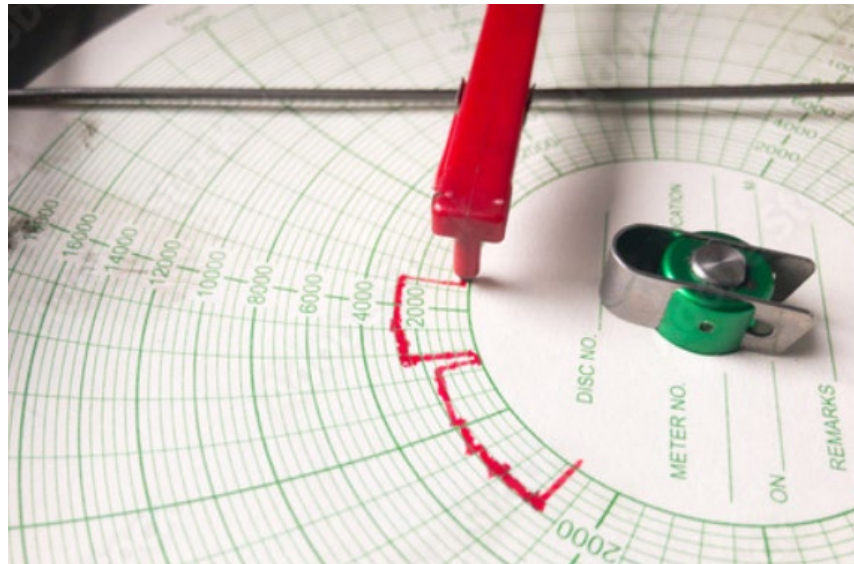
- **OCD has robust well construction requirements to protect** ground and surface water from potential impacts associated with oil and gas development.
- **19.15.16.9 NMAC** requires strata to be sealed off to prevent the escape of contents from one strata to another. It also contemplates specific protections for water resources.
 - 19.15.16.9 SEALING OFF STRATA:**
 - A. During the drilling of an oil well, injection well or other service well, the operator shall seal and separate the oil, gas and water strata above the producing or injection horizon to prevent their contents from passing into other strata.
 - B. The operator shall ensure that fresh waters and waters of present or probable value for domestic, commercial or stock purposes are confined to their respective strata and are adequately protected by division-approved methods. The operator shall take special precautions by methods satisfactory to the division in drilling and abandoning wells to guard against loss of artesian water from the strata in which it occurs, and the contamination of artesian water by objectionable water, oil or gas.
 - C. The operator shall ensure that water is shut off and excluded from the various oil- and gas-bearing strata that are penetrated. The operator shall ordinarily make water shut-offs by cementing casing.
- **19.15.16.11 NMAC** requires operators to promptly address defective casing, including requiring plugging if it cannot be addressed to the Division's satisfaction.

19.15.16.11 DEFECTIVE CASING OR CEMENTING: If a well appears to have a defective casing program or faultily cemented or corroded casing that will permit or may create underground waste or contamination of fresh waters, the operator shall give written notice to the division within five working days and proceed with diligence to use the appropriate method and means to eliminate the hazard. If the hazard of waste or contamination of fresh water cannot be eliminated, the operator shall properly plug and abandon the well.

Well Construction Requirements

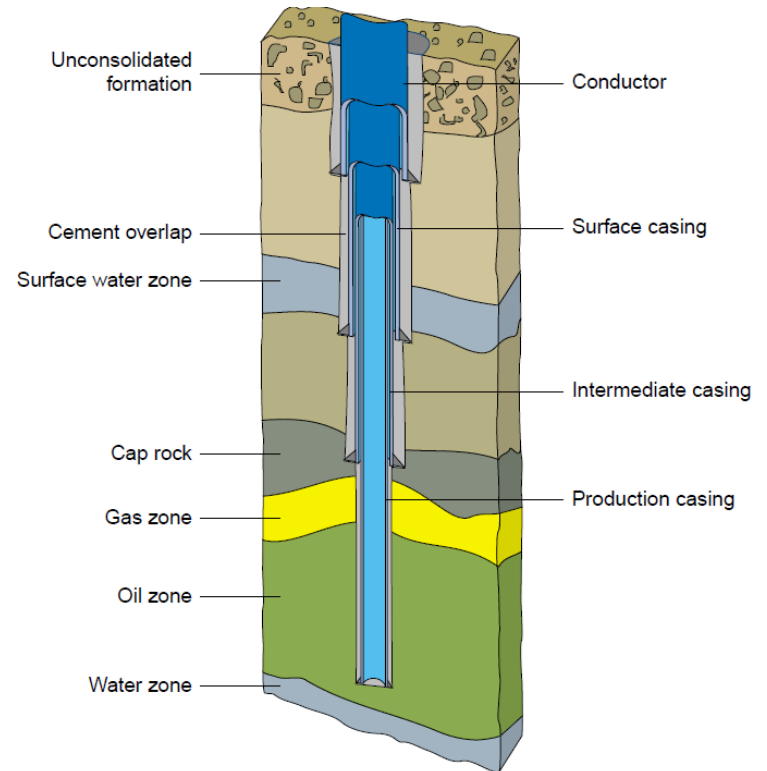
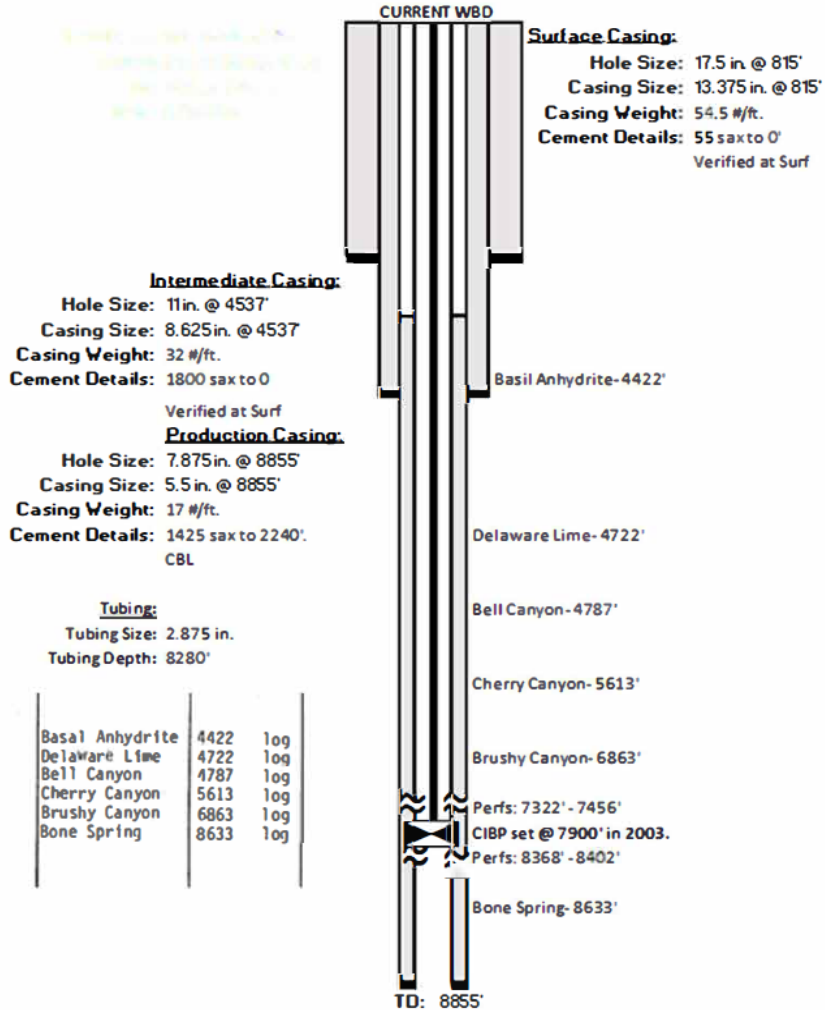
- **19.15.16.10 NMAC** requires operators to pressure test casing strings in order to ensure proper integrity of newly drilled wells.

19.15.16.10 CASING AND TUBING REQUIREMENTS: The operator shall pressure test casing strings in wells drilled with rotary tools. Minimum casing test pressure shall be approximately one-third of the manufacturer's rated internal yield pressure except that the test pressure shall not be less than 600 psi and need not be greater than 1500 psi. In cases where combination strings are involved, the above test pressure shall apply to the lowest pressure rated casing used. The operator shall apply test pressures for a period of 30 minutes. If a drop of more than ten percent of the test pressure occurs the casing shall be considered defective and the operator shall apply corrective measures.



Stock photo

WELL DESIGN

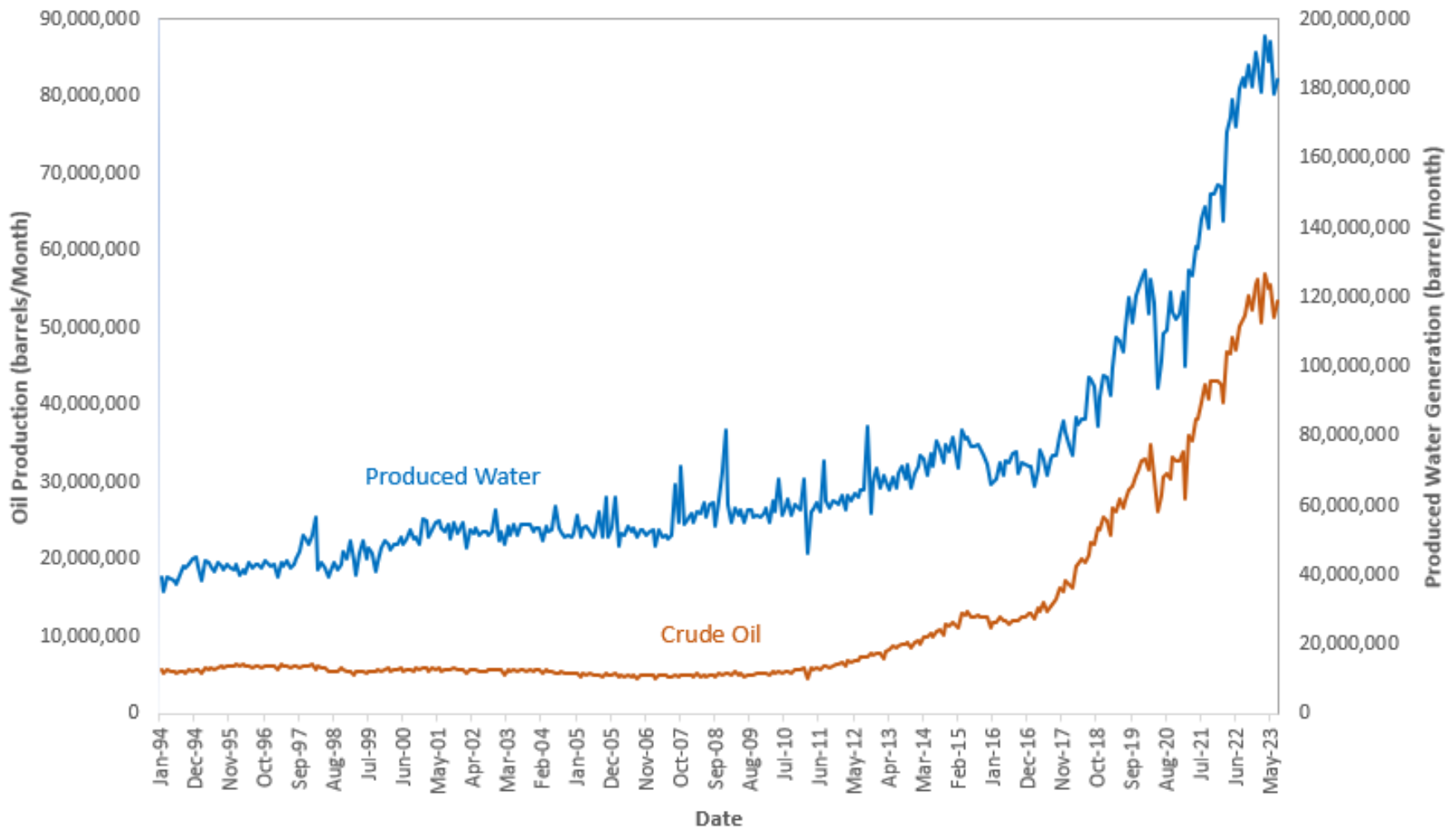


Produced Water Production & Current Hydraulic Fracturing Chemical Disclosure

Refresher on Produced Water

- What is it? “Produced water” means a fluid that is an incidental byproduct from drilling for, or the production of, oil and gas.
 - It is primarily ‘formation water,’ but can also include ‘flowback water’.
 - Formation water is “water that co-existed with oil and gas in geologic formations and is produced with the oil and gas.”
 - Flowback water is “water that was used in drilling and completing a well that flows back during production.”
 - Often highly saline and can also contain drilling and completion chemicals.
- Because it is a byproduct of production, the amount generated annually is a function of production.
 - 6.1 million barrels of produced water generated each day (256 million gallons/day) vs. 1.8 million barrels of oil and 8.6 billion cubic feet of natural gas.
 - The water to oil ratio (known as the “water cut”) is around 3.4 to 1, has been as high as 11.

Monthly Crude Oil Production and Produced Water Generation in New Mexico Since 1994



Where does it go?

- **In CY 2022, industry handled produced water as follows:**
 - **Total volume:** 2,080 million barrels
 - **Reinjected into Reservoirs for Enhanced Oil Recovery and Pressure Maintenance**
 - Volumes not tracked, but occurs in significant quantities
 - **Injected into Deep Wells in New Mexico for permanent disposal**
 - 1,168 million barrels = 49.056 billion gallons
 - Volume disposed of in Texas is not reported
 - **Recycled Within the Industry for Drilling and Completions**
 - 269 million barrels = 11.298 billion gallons
 - **Reported as Spilled and Not Recovered**
 - 68 thousand barrels = 2,856 million gallons

Produced Water Handling Requirements

- **OCD Rules:**
 - Volume Reporting (19.15.16.20 NMAC; added 2020)
 - Storage (19.15.17 NMAC, revised 2013 & 19.15.34 NMAC, revised 2020)
 - Injection wells (19.15.26 NMAC, revised 2018 & 40 CFR 144: Safe Drinking Water Act)
 - Spills (19.15.29 NMAC, revised 2021) and Clean-up (19.15.30 NMAC)
- **Notable provisions: 19.15.34.8 NMAC requires, among other things, that:**
 - All produced water be handled/stored in a manner that protects public health, the environment and freshwater resources;
 - All releases of produced water to be handled in accordance with 19.15.29 NMAC; and,
 - It also prohibits surface application of produced water or recycled produced water.
- **19.15.34.17 NMAC** requires any transporters of liquid oil field waste to be permitted by OCD.
- **19.15.34.20 NMAC prohibits the disposal of produced water**
 - on or below the surface of the ground, in a pit or in a pond, lake, depression or watercourse;
 - in another place or in a manner that may constitute a hazard to fresh water, public health, or the environment; or
 - in a permitted pit or registered or permitted surface waste management facility without permission of the owner or operator of the pit or facility.

Hydraulic Fracturing Disclosure Requirement

- **19.15.16.19(B) - Hydraulic fracture disclosure.**
 - For a hydraulically fractured well, the operator shall also complete and file with the FracFocus chemical disclosure registry a completed hydraulic fracturing disclosure within 45 days after completion, recompletion or other hydraulic fracturing treatment of the well.
 - Current rules prevent the division from requiring the reporting of:
 - information beyond the material safety data sheet data as described in 29 C.F.R. 1910.1200; or
 - or disclosure of proprietary, trade secret or confidential business information.
- **What is FracFocus?** Data collection tool developed through a partnership between the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission with support from the U.S. Department of Energy, which were trying to make it easier for the public to find information about chemical used in hydraulic fracturing operations.
 - It was created in 2011 as a voluntary site.
 - Today it receives reports from more than 1,600 companies reporting chemicals for more than 189,000 hydraulic fracturing operations nationwide; reporting that is mandated in most places due to requirements like New Mexico's above.
 - This information is publicly available from FracFocus and OCD - <https://fracfocus.org/>

Overview of Pending PFAS Rulemaking Petition

PFAS Rulemaking Petition

- PFAS was not a historically known oil field chemical, as such they are not currently covered by Division Rules.
- **On May 25, 2023**, a coalition of environmental organizations and individuals, led by WildEarth Guardians, filed a petition with the Oil Conservation Commission to adopt rules:
 - prohibiting the use of PFAS in oil and gas drilling, development, and production in order to prevent the generation of PFAS-contaminated produced water and nondomestic waste; and
 - establishing new chemical disclosure and reporting rules to ensure reasonable transparency around substances used by the oil and gas industry and to ensure industry compliance with the prohibition on the use of PFAS.
- Rulemaking Petition is currently scheduled to be heard by the OCC at a special rulemaking hearing from **February 26, 2024 to March 1, 2024**.
- Because of pending rulemaking petition and my status as Chair of the Commission, I cannot comment on the merits of the petition or potential rules that the Commission might adopt.

Thank You & Questions
