

# DEC Abandoned Wells Overview

## General Description

This dataset is an annually-produced list of wells related to the oil, gas and solution mining industries, or in some cases, wells unrelated to these industries but drilled to depths deeper than 500 feet, that have been abandoned by their original owners. These wells are regulated under Article 23 of the Environmental Conservation Law ([ECL Article 23](#)), but they have not been produced or plugged in accordance with ECL Article 23 or its implementing regulations at [6 NYCRR Parts 550 - 559](#). Most of these wells were drilled prior to the existence of a regulatory framework in New York. The majority of abandoned wells are oil and gas wells which exist in all oil and gas producing regions in the United States including New York State. These wells represent a relatively small but significant part of the nation's legacy of historical energy production.

New York does not have official definitions for abandoned (or orphan) wells; however, it is generally accepted that an abandoned well is a well that has been shut-in or temporarily abandoned for more than a year without having been plugged or without receiving written permission from the NYSDEC for an extension of the shut-in (or temporary abandonment) period. An orphan well is an abandoned well for which no viable owner can be identified.

An operator's wells may not be considered abandoned, and the wells may not appear in this dataset, if the operator is the subject of legal proceedings with the NYSDEC regarding the wells or if the operator has submitted a NYSDEC-approved plugging and abandonment plan.

## Data Collection Methodology

Regulated operators provide information to the Division of Mineral Resources through various regulatory filings. Most of the information comes from annual well reports filed each spring. This information is used to regulate the oil and gas industry in New York State and to track the history of a wellbore's production of oil, gas, or water during its lifecycle. Wells are sometimes added to the abandoned wells list when regulatory filings are not received. Orphan and abandoned wells are also identified through reviews of old well listings, during field inspections of old oil and gas fields, and occasionally by other agencies and the public.

## Statistical and Analytical Issues

Abandoned oil and gas wells exist in all oil and gas producing regions in the United States including New York State. These wells represent a relatively small but significant part of the nation's legacy of historical energy production. Since 1981, when the New York State Legislature established the Oil & Gas Account to address orphan and abandoned wells, the state has made efforts to plug such wells, with some limited success. Beginning with legislative

sweeps in the early 1990s and continuing through the recent reduction in permitting activity (the account is funded by a \$100 fee for each ECL 23 well permit application), the Oil & Gas Account has been drastically reduced, effectively precluding the Department's ability to plug higher-priority orphan and abandoned oil and gas wells. Since 2013, the DEC has received annual budgetary allocations for the plugging of abandoned oil and gas wells, and staff continue to develop plugging contracts for abandoned well sites throughout the state. Additionally, the DEC continues to work with the EPA on the plugging of abandoned oil wells in the state's navigable waterways; this work is performed by EPA and funded through its OPA-90 program (Oil Pollution Act of 1990, which was legislation passed in the wake of the 1989 Exxon Valdez tanker incident in Alaska).

New York has an extensive history of oil and gas exploration and development, dating back to 1821 when the first gas well was developed in the Town of Fredonia. In 1879, New York became the first state to codify the requirement to plug oil and gas wells once they reached the end of their economic life. This law predated state oversight and modern plugging regulations; as a result, many wells were either improperly plugged, or not plugged at all. Historically, wells have been plugged with a variety of materials, including tree stumps, telephone poles, and earthen debris. Wells plugged in this "old school" fashion may have been temporarily sealed, but nearly a century later, some have leaked oil, gas, and/or brine to the surface, often with deleterious environmental effects. The companies that drilled and originally operated these old wells are defunct and the principals have passed away with no identifiable heirs or successors. The advanced age of many orphan and abandoned wells complicates efforts to locate and document their existence. As society expanded, wells drilled in formerly rural settings are now located commercial and residential areas.

It has been estimated that more than 75,000 oil, gas, and solution mining wells have been drilled in New York State. The NYSDEC has records of approximately 41,400 wells. While New York became the first state that required plugging of abandoned oil, gas, and solution mining wells (1879), there was no consistent enforcement of the legislation. It is unknown how many of the unrecorded, historic wells have been plugged.

### **Limitations of Data Use**

This data has not been field verified, but approximate locations are expected to be within 100 meters of the actual well location. The data should not be used for determining precise distances to buildings, property boundaries or other features. It is most useful for determining the general locations of wells. Coordinate locations are approximate. The latitude and longitude are in the NAD83 datum. The dataset reflects the status of all known orphan and abandoned wells in the database as of the end of the previous calendar year.