

# OKLAHOMA ROCKS! GROUNDWATER

## Lesson 5: What is in an aquifer's name?

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Many geologic features (e.g., rock type, stratigraphic unit, fault, etc.) receive their names from the place where that feature was first identified.

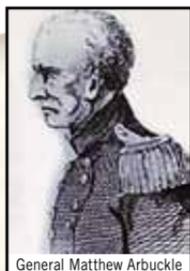
The place contains “evidence” or an example of that feature, such as the Meers Fault named after the town of Meers in Comanche County, Oklahoma. The Meers Fault is one of the largest and most easily recognized faults in the mid-continent region. The town of Meers was founded in 1901 in the foothills of the Wichita Mountains and named after the operator of a gold mine.

Aquifers are comprised of one or more geologic formations that are named after a geographic spot where the “type locality” was first observed and described from a rock outcrop. Rocks with characteristics, age, and origin similar to that of the type locality may extend over very large areas but the rock will be given the same name. Some of the aquifers in Oklahoma have interesting names, but where did these names come from? Sometimes the aquifer is regional in extent (covers parts of more than one state) it's namesake and type locality may be many miles outside the state.

### Fill in the Blank:

1. A minor aquifer in northeastern Oklahoma, the \_\_\_\_\_ Aquifer, was named after a county in Arkansas where the formation is present.
2. The \_\_\_\_\_ Aquifer is named after two predominantly limestone formations that make up the aquifer. The second part of the name comes from a village in Pontotoc County, Oklahoma.
3. The High Plains Aquifer is sometimes referred to as the \_\_\_\_\_ because of the geological formation that is most prevalent throughout its 8-state expanse. The formation was first observed and described in the late 1800s near a town in Keith County, Nebraska. The town's name came from a sub-tribe of the Sioux.
4. The county seat of Pontotoc County, Oklahoma and a “populated place” in Seminole County, Oklahoma are the locations from which the \_\_\_\_\_ Aquifer received its name.
5. A sandstone named after a small city in Garfield County, Oklahoma and a formation named after a town in Collingsworth County, Texas make up what is sometimes called the \_\_\_\_\_ Aquifer. However, because these formations do not bear enough water to be considered an aquifer in all places, it is best to refer to this aquifer as the Central Oklahoma Aquifer.
6. A township in Texas County, Missouri is the namesake of the \_\_\_\_\_ Aquifer, which has the second largest storage volume of any aquifer in Oklahoma.
7. The \_\_\_\_\_ Aquifer picked up its name from a town in Grady County, Oklahoma.

Ada-Vamoosa, Arbuckle-Simpson, Boone, Garber-Wellington, Ogallala, Roubidoux, Rush Springs



General Matthew Arbuckle

The General commanded an outpost in Oklahoma named in his honor (Fort Arbuckle) and nearby mountains were dubbed the Arbuckle Mountains. Later, the Arbuckle Formation was characterized from outcrops exposed in the mountains, and found to comprise part of an important aquifer. General Arbuckle died in 1851 at Ft. Smith, Arkansas from cholera, which is a water-borne illness that is seldom encountered from groundwater sources such as the aquifer bearing his name.

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