The 8151 reports of Oklahoma produced water were extracted from the national Produced Water Database at

http://energy.cr.usgs.gov/prov/prodwat/index.htm/

which is a revision of a database originally compiled at the DOE Fossil Energy Research Center that was located in Bartlesville, Oklahoma. George Breit and Chris Skinner of the USGS modified the original database by removing redundancies, verifying internal consistency and adding information to the fields that describe the location, geologic setting, sample type, and major ion chemical composition.

The distribution and relative amount of water produced within a province and among geologic units may not be represented by the samples in the database. No sampling was planned to accurately depict the aggregate water composition of any area whether it be province, state, county or field.

The geologic units developed for petroleum production have changed over time. Data from a province collected 30 years ago may not resemble current production.

The composition of produced water within a province, field or even well may change in time as a result of water flooding, recompletion in other intervals, and workovers.

Water samples are commonly collected when a well has production problems or during the initial development of a well. Although criteria were applied to remove the obviously contaminated samples, the culling of unrepresentative data is considered incomplete.

Although most obvious redundant entries were removed from the database, many of the records represent multiple samples of the same well. Therefore aggregate statistics may be weighted by relatively few wells.