

About Formation Tops & Elevations

Formation tops are the depths in a well (measured in feet below a reference elevation) at which formations are found in the subsurface, except for the glacial drift formation. In the case of the glacial drift, the "top" is actually the bottom or base of the drift. This "base of drift" is the depth of the bedrock surface at the well.

Not all wells have data: Wells that have a well type of LOC (location) or a status of TP (terminated permit) or PW (permitted well) have not been drilled or if drilled, the permittee hasn't reported the data to OOGM yet. Older wells may have data in paper files that has not been entered into the OOGM well database.

Explanation of Data: The Formation Tops & Elevations Download consists of a Microsoft Access database containing the following five tables: *Elevations*, *Formation Codes*, *Formation Tops*, *Method Obtained*, and *Reference point codes*.

In the *Elevations* table, Column 1, Location_ID is the well API number. Elev_Gr is the elevation of the ground surface at the well, Elev_KB is the drilling rig's kelly bushing elevation, Elev_DF is the elevation of the drilling rig (or derrick) floor. Column 5, Ref_Tops, gives a code identifying which elevation was used as the reference elevation in picking the formation tops for the well identified by the API number.

The *Reference Point Codes Table* lists Definitions for codes used in the Ref_Tops column in the *Elevations* table.

The *Formation Codes* table contains American Association of Petroleum Geologists codes (AAPG_Cd) for Michigan rock formations and the full name of the formation. The OOGM publication, "Stratigraphic Lexicon for Michigan" and its companion chart "Stratigraphic Nomenclature for Michigan" provide an extensive compilation of stratigraphic terms.

The *Method Obtained* table lists Definitions for the various sources of formation top data.

The *FormationTops* table lists formation top information by API number. The table can be sorted, filtered, or queried by various factors utilizing Microsoft Access tools. For example: Using a well's API number, the formation tops for that one well can be listed together.

The files are available for download on the GeoWebFace FTP site. The date the file was created will be in the file name: **Formation Tops-YYYY-MM-DD.zip**. (**Important:** Copy the file to your own computer before trying to open it. It will not open from the ftp server.)

Other downloads "Locations - Oil and Gas Wells - download database" and "Production of Oil and Gas Wells - download" are available and can be used in conjunction with the Formation Tops & Elevations download for advanced stratigraphic and/or production investigations.