Discussion Topics (for NCOGC Mtg Feb 9,2021)

1. API vs US Well Number Standard
   1. API (American Petroleum Institute) was founded in 1919 as a standards-setting organization. Its mission is to promote safety within the oil and gas industry.
   2. References to API within the NC Final Oil and Gas Drilling Rules occurs in three ways:
      1. API Number - as a unique well identifier
      2. API – referencing specific publications by the API (e.g., API 5A3 publication)
      3. API – as in the technical standard being referenced (e.g., API Specification 10A)
   3. In addition, API Number is on all of the Oil and Gas Permit Forms.

There does not appear to be a need to change any references using API to either the publications or specifications in the NC Final Oil and Gas Drilling Rules.

However, the Commission must address the matter of introducing US Well Number Standard in the 15A NCAC 05H .0102 Terms of Reference and Definitions 15A NCAC 05H .0102 or find another way to explain the change. In addition, the Commission must address the permit forms.

1. NAD 83
   1. Is the chosen geodetic reference system to be used in preparing maps/plats for permits
   2. Is that the current reference system being used by the NCGS?
   3. Will the NCGS be switching over to GNSS in 2022?
      1. If so, the Commission will need to consider how to address the new requirements in the Final Oil and Gas Drilling Rules.

From Wikipedia:

(The **North American Datum** (**NAD**) is the [horizontal datum](https://en.wikipedia.org/wiki/Geodetic_datum#Horizontal_datum) now used to define the [geodetic](https://en.wikipedia.org/wiki/Geodesy) network in North America. A datum is a formal description of the shape of the Earth along with an "anchor" point for the coordinate system. In [surveying](https://en.wikipedia.org/wiki/Surveying), [cartography](https://en.wikipedia.org/wiki/Cartography), and [land-use planning](https://en.wikipedia.org/wiki/Land-use_planning), two North American Datums are in use for making lateral or "horizontal" measurements: the North American Datum of 1927 (NAD 27) and the North American Datum of 1983 (NAD 83). Both are [geodetic reference systems](https://en.wikipedia.org/wiki/Geodetic_reference_system) based on slightly different assumptions and measurements.

New Datum of 2022

To improve the National Spatial Reference System NAD 83, along with [North American Vertical Datum of 1988](https://en.wikipedia.org/wiki/North_American_Vertical_Datum_of_1988) (NAVD 88), is set to be replaced with a new [GNSS](https://en.wikipedia.org/wiki/GNSS)- and gravimetric geoid model-based geometric reference frame and geopotential datum [in 2022](https://en.wikipedia.org/wiki/Datum_of_2022).[[2]](https://en.wikipedia.org/wiki/North_American_Datum#cite_note-NEW22-2)

The new reference frames will rely primarily on Global Navigation Satellite Systems (GNSS), such as the Global Positioning System (GPS), as well as on a gravimetric geoid model resulting from our Gravity for the Redefinition of the American Vertical Datum (GRAV-D) Project.)

These new reference frames are intended to be easier to access and to maintain than NAD 83 and NAVD 88, which rely on physical survey marks that deteriorate over time.[[2]](https://en.wikipedia.org/wiki/North_American_Datum#cite_note-NEW22-2))

1. Drilling Units naming discussion, continued.
   1. Given the US Well Number Standard organizes the state by county numbers, can the Commission apply this method to aid with Drilling Unit naming convention?
   2. Topographic map data of the state is covered by USGS published maps at a scale of 1:24,000. These are uniquely named and indexed, with a map reference code and Latitude Longitude of the southeast corner of the quadrangle. Could these be added to the Drilling Unit naming convention?
   3. Operators traditionally like to name a land unit after a theme or characteristic of the play upon which the prospect was generated.
   4. Combining a, b and c might be a foundation for the Commission in prescribing how Drilling Units will be named.
      1. For example, a drilling unit in Lee County east of Deep River could be named:
         1. White Hill 053 Cumnock Deep Unit
            1. White Hill = Topographic Map Name
            2. 053 = County Code of Lee County as found in the US Well Number Standard
            3. Cumnock Deep = the operator’s choice of names