Geo-referencing Resources

Tools that we have found especially useful are marked with a .

1. **Essential Tool for Locations and Radius of Uncertainty**
   a. Geolocate - Tool linked to Specify locations. Now supported by Yale rather than Tulane. Note that it is often better to paste a location description into the tool directly, rather than relying on the link in Specify. That link will often not include the county and state information. This tool also provides a convenient means of drawing a radius of uncertainty by hand. When searching for a county, it will draw a radius of uncertainty around the entire county.

2. **Name Search**
   a. USGS Geographic Names Information System - Any name (almost) that has appeared on one of their maps. Includes 1100+ oil field names in TX.
   b. Handbook of Texas History - Can be useful for old names.
   c. Texas Historical Sites Atlas - Includes text from historical markers.

3. **USGS Current & Historical Topos**
   a. USGS Topoview - Main Search for Historical Topos. Use this one or the following.
      Note that clicking on sets the elevation and GPS coordinate data at the bottom middle of the page based on the center of the map. Which allows you to cut and paste this data.
   b. USGS Historical Topographic Map Explorer - Nice interface to historical topos. One advantage is that it will tile multiple maps, whereas Topoview will only show one map at a time. However, it doesn't seem to have a way to read out lat/long.
   c. USGS current and Historical Topographic Map Collection (HTMC) - Search by state, scale, map name, or map type.
   d. The National Map - Historical - Historical Topographic Map Collection
   e. The National Map - Current - Current National Topos
   f. USGS Maps Overview
   g. USGS Data, Tools, and Technology FAQ
   h. USGS FAQ - On finding current and historical US topographic maps.

4. **Texas Geology**
   a. Explore Texas Geology (new) - Can input location names and GPS (tab says USGS - Pocket Texas Geology).
   b. Explore Texas Geology (old) - New version (above) seems better.
   c. Geologic Atlas of Texas - Display quads online with collar showing formation names

5. **National Geology**
   a. USGS Geology of the conterminous United States - maps at the level of groups/series for all US including Texas.
   b. USGS National Geologic Map Database (Geolex) - look up a formation name by state and/or age
   c. USGS / AASG Mapview - Visualization. Click on a location to find all geological maps for that point. Covers entire US courtesy of USGS and the Association of American State Geologists.
   d. NM Geology Maps - Geology maps for New Mexico.

6. **Texas Government**
   a. Interactive Land Lease Mapping Program - Use to identify Surveys. Requires Adobe Flash. At the bottom of the page there is an orange Query button that allows you to search for County-Block-Section.
   b. Texas Natural Resources Information System - GIS and imagery datasets are available at four levels: State, County, Quadrangle, and Quarter-Quadrangle.
   d. Railroad Commission GISViewer2 - for wells.
   e. Railroad Commission Drilling Permits
   f. Drilling Edge - Subscription required to get full use, but some data is free.
   g. US Mines and Mining Companies
   h. JOIDES - Deep Sea Drilling Project Reports. Includes sites, some of which are locations in Specify.

7. **Mines, Oil Wells, Drilling and Samples**
   a. Bureau of Economic Geography - Logs from wells (may have GPS coordinates)
   b. Bureau of Economic Geography - Samples (cores) from wells. We often find the well, but without additional location data.
   c. Railroad Commission GISViewer2 - for wells.
   d. Railroad Commission Drilling Permits
   e. Texas Oil Leases - Site provide quite a bit of potential data, though much of it seems to be behind a paywall.
   f. Drilling Edge - Subscription required to get full use, but some data is free.
   g. US Mines and Mining Companies
   h. JOIDES - Deep Sea Drilling Project Reports. Includes sites, some of which are locations in Specify.

8. **Texas History, Railroads and Old Austin**
   a. Handbook of Texas History - Can be useful for old names.
   b. The Portal to Texas History
   c. Texas Historical Sites Atlas - Includes text from historical markers
   d. Census Enumeration District Maps - E.g. 1940 Census maps Travis Texas.
   e. Perry-Castaneda Library Map Collection - Historical maps of Texas.
   f. Abandoned Railroads - Old rail lines.
   g. Southern Pacific Lines - Route from 1933 with dated TX geology.
   h. City of Austin - GIS and Maps

9. **Texas Counties & Highways**
   a. TXDOT allows you to search for Highway Designation Files. See http://www.dot.state.tx.us/tpp/
   b. Many details about old highways can be found in Wikipedia by simply searching for something like Texas Highway 81
   c. Old Texas Highway Maps - (1917-1973)
   d. All Texas County Maps - (1993-1996)
   e. 1940's County Maps of Texas - County highways.
   f. 1960's County Maps of Texas - County highways.
   g. Old Texas County Maps - Texas State Library and Archives Commission.
   h. More old Texas county maps - Texas Land Office.
   i. Atlas of Historical County Boundaries - The Newberry Library. Dynamic map of changes to all counties in the US over time.

10. **NPL and UT Data Sources**
    a. NPL Library Lookup - Includes things like old Geological Society field trips. Though these may be in boxes in the SW Cage.
b. NPL Lab Wiki - Lab procedures, Specify database information, etc.
c. UT Libraries - Supports search for papers in journals, dissertations and theses. For electronic versions of these either select “---
   Electronic Resources” in place of “ALL collections”, or go directly to UT Scholarworks.
d. UT Scholarworks - For scanned UT Dissertations and Theses, old UT Bulletins, etc. We have downloaded many of the relevant local
   ones in Z:/DocLib/Georeferencing/Resources.
e. Also for UT Theses, see ProQuest
f. NPL Catalogs - Only available when on the NPL network. These pdf files in z:/DocLib/Catalogs/ are scans of the earlier text catalogs that
   have been (largely) captured within Specify. However, sometimes there is more information here than has been recorded in the DB. We
   have also found both transcription errors and hand written notes.
g. Old BEG Locations - Only available when on the NPL network. BEG Book 1 contains an odd mix of locality and accession numbers. So
   if you find an old reference to BEG location 209, you might check here.
h. UT Geology and Paleontology Dissertations and Theses.

11. Converting Land Survey Locations to GPS
   a. Utilities for Township and Range - Louisiana, California, Texas Land Survey are listed on the left side.
b. Public Land Survey System (PLSS) - Township and Range to GPS

12. Other Data Sources
   a. UT Geologists - To figure out rough time periods
b. Shoal Creek Conservancy Map - includes old springs, some old homesteads.
c. Sanborn Fire - Insurance maps of Texas
d. Austin Historical Aerial Photos
e. USGS Aerial Photos - A wide variety of images. Accessible by location using Earth Explorer (below).
f. Abandoned & Little Known Airfields:
g. USGS Earth Explorer - Numerous USGS Data sets, including Aerial, Digital Maps, Land Cover, Landsat, and many more.
h. Library of Congress Maps - Filter to Texas. Old county maps, Sanborn Fire Insurance maps, etc.
i. Manisnet Best Practices - This page provides a calculator that I have not figured out how to use. But it has a good guide to consistent
   best practices for georeferencing, in particularly as regards uncertainty. See “Georeferencing, Quick Reference Guide (pdf)”.
j. David Rumsey Map Collection Database - Stanford University. Historical map collection with over 82,000 maps and images online.
   Includes rare 16th through 21st century maps of America, North America, South America, Europe, Asia, Africa, Pacific, Arctic, Antarctic,
   and the World. We found 1888 Rand McNally maps of TX there, downloadable.