Public GIS Viewer User Guide

DECEMBER 2020

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GIS Viewer Basics

Basics

The GIS Viewer allows you to view information about wells, pipelines, surveys, LPG/CNG/LNG, Operator Cleanup Program, Voluntary Cleanup Program, Brownfield Response Program, Commercial Waste Disposal sites, Discharge Permits and related features in a map view.

The default view when you open the GIS Viewer is a state map with the *Oil/Gas Districts* layer visible. The *Oil/Gas Districts* layer displays the Railroad Commission's Oil and Gas Division district boundaries and numbers in green. You can view additional layers, such as AED districts, by customizing the visibility.

TIP: For the best viewing results, see the Browser Recommendations below.
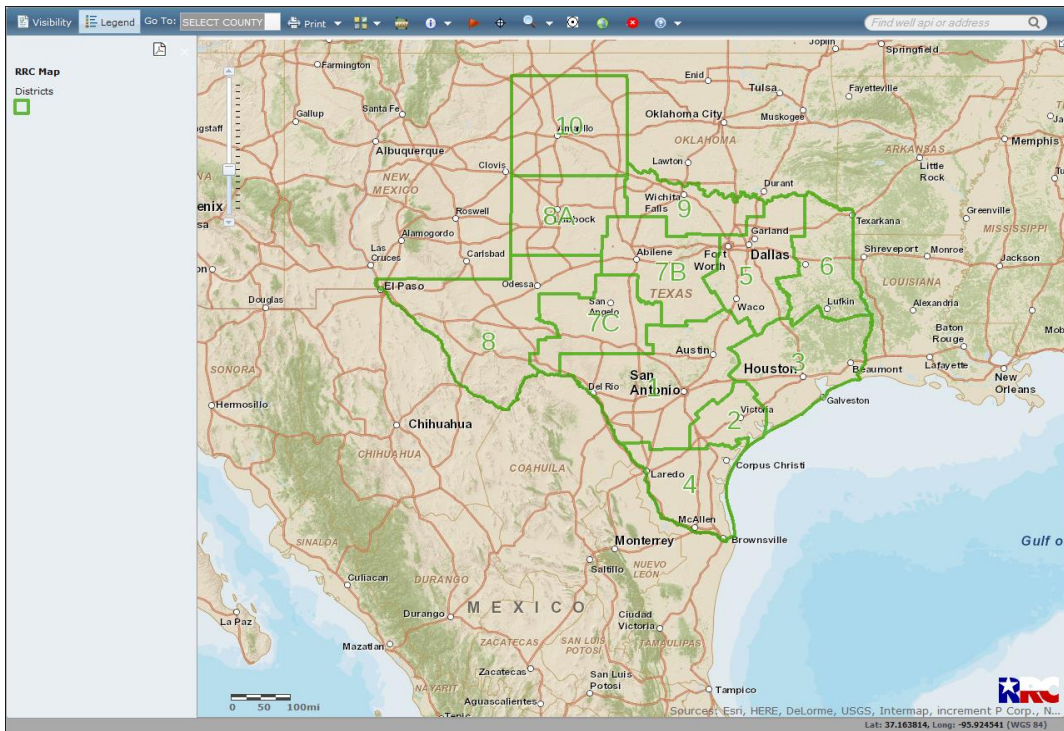

Browser Recommendations

1. Mozilla Firefox 73.0+ and Google Chrome 80.0+ are recommended for the best viewing results.

2. Internet Explorer 11.0 and below are not recommended.

3. JavaScript must be enabled.

4. Pop-up blocking in your browser must be disabled.

    TIP: To verify that pop-up blocking is disabled on your computer, use our Pop-up Blocker Test.

Screen Overview

The table below provides a description of the GIS Viewer screen.

TIP: For the best viewing results, see the Browser Recommendations.
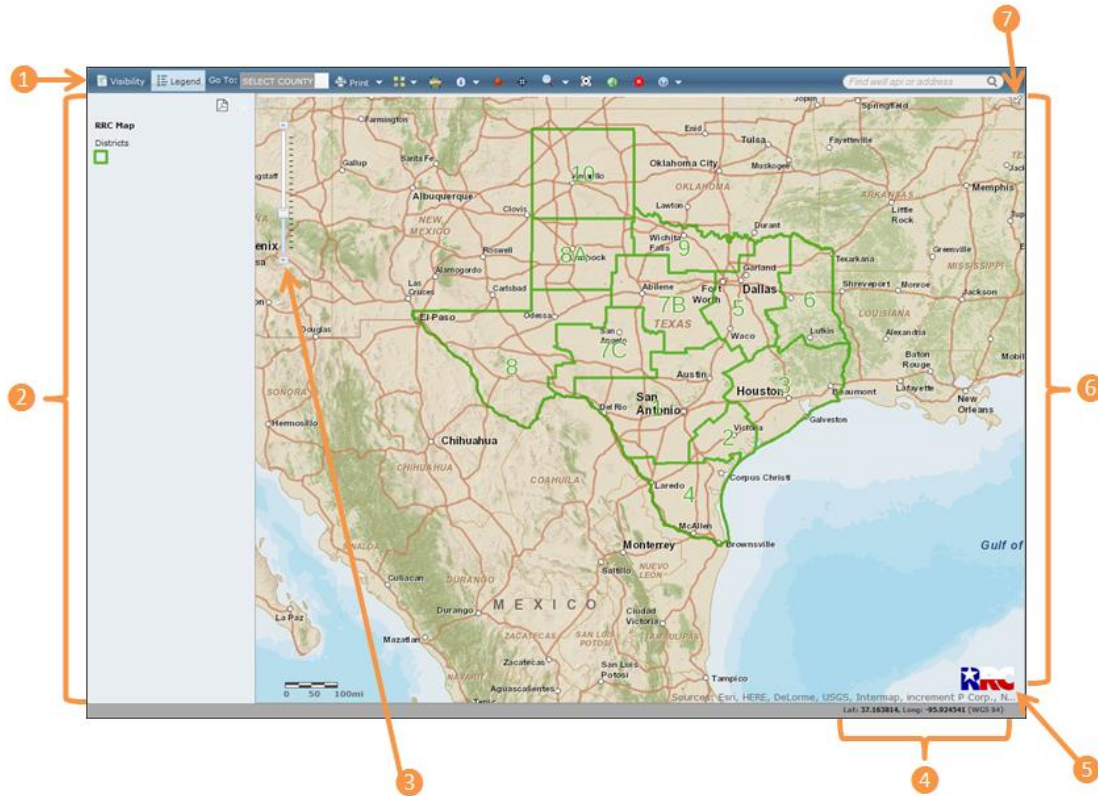
Area	Description
❶ Toolbar	Allows you to access the available tools and features for the GIS Viewer.
❷ Visibility/Legend Pane	Allows you to toggle between the available layers and the associated legend.
❸ Zoom Control	Allows you to zoom in or out on the map.
❹ Dynamic Coordinates	Displays the World Geodetic System 1984 (WGS 84) coordinates for the location of your cursor on the map. The latitude and longitude are expressed in decimal degrees.
❺ RRC Button	Allows you to access the RRC Home page.
❻ Viewing Pane	Displays the map and available layers.
❼ Screen Overview	Allows you to see an overview of the area you are viewing on the map.

Toolbar

The toolbar provides access to the available tools and features. Below is a description of the tools.

- **Visibility**: Click the **Visibility** button to choose the layers you want to display on the map. For example, to display pipelines on the map, click the *Pipelines* check box.

- **Legend:** Click the **Legend** button to display the list of items that may display on the map. Items display in the legend as they are made visible on the map. As you zoom in, more items display in the list and can be seen on the map.

- **Go To:** Use the *Go To* drop-down list to select a county to zoom to on the map.

- **Print:** Use the *Print* drop-down list to select a print option. Your print selection displays in another window. You will need to disable pop-up blocking in your browser to view the print selection.

- **Switch Basemap** : Use the *Switch Basemap* drop-down list to choose the basemap that you want to display. By default, *Streets* is selected.

- **Measure** : Click the **Measure** button to access the measure tools that allow you to measure an area, measure the distance between points, or view coordinates for a selected location.

- **Identify** : Allows you to view detailed information about the selected item.

- **What's Here?** : Click the **What's Here** button, and then select a point on the map to display details.

- **Coordinates** : Allows you to enter specific coordinates that you want to view.

- **Search** : Allows you to search for pipelines, surveys, lease IDs, commercial waste disposal (CWD) sites or discharge permits.

- **Radius Tool** : Allows you to draw a circle at a defined radius around a selected location on the map. This circle has no size limits.

- **Download Wells** : Allows you to draw a circle at a defined radius around a selected location on the map, retrieve well data for the wells within the radius, and export the well data to a comma-separated values (CSV) file.

- **Zoom to Texas** : Allows you to return to the default view.

- **Clear Graphics** : Allows you to clear the graphics on the map.

- **Find Field:** (*Find well API or address*) Enter a well API number or location to zoom to the area on the map. You can enter the following types of location data:

- o Street addresses

- o Points of interest (e.g., malls and museums)

- o Places (e.g., cities and counties)

- o Postal codes

- o X/Y coordinates (e.g., -97.732, 30.267)

  NOTE: When using X/Y coordinates, enter in the *longitude, latitude* format. The longitude and latitude must be separated by a comma, space, or semicolon.

- **Help** : Allows you to access GIS Viewer help resources, including web help, a user guide, a glossary, FAQs, and a data sources table.

Visibility/Legend Pane

Allows you to view the legend for the icons that display on the map. To access a printable version of the legend, click the **Printable Legend (PDF)** icon. You can click the **Visibility** button to select which layers you want to display.

Zoom Control

Allows you to zoom in or out on the map. You can also use the scroll wheel on your mouse to zoom in and out. To zoom in to a specific location, double-click the location on the map.

Dynamic Coordinates

Place your cursor over any location in the map to view the WGS 84 coordinates.

RRC Button

Click the **RRC** button to open the RRC Home Page in a separate tab.

Viewing Pane

Displays the map and overlays that you have selected. As you zoom in, more information displays on the map.
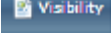
Screen Overview

Click the arrow to see an overview window that represents the area currently displayed on the map. You can pan the map by clicking and dragging the black box.
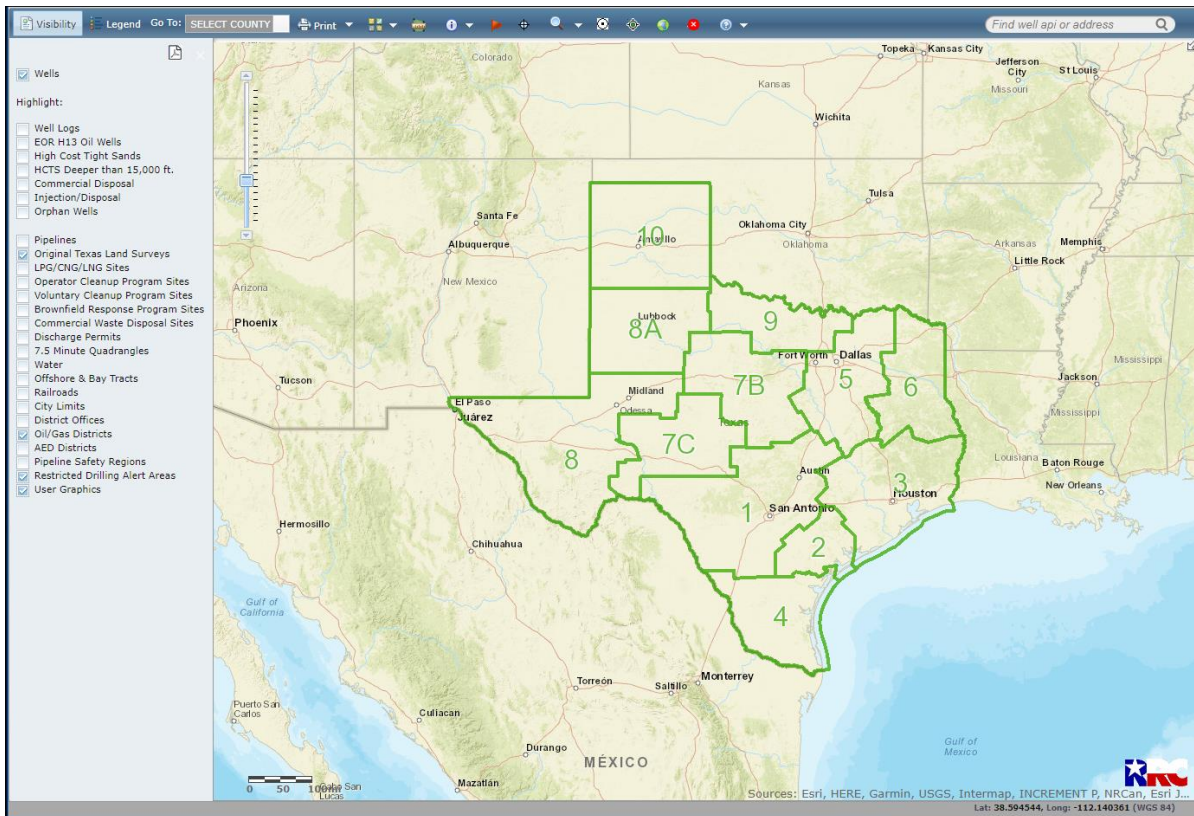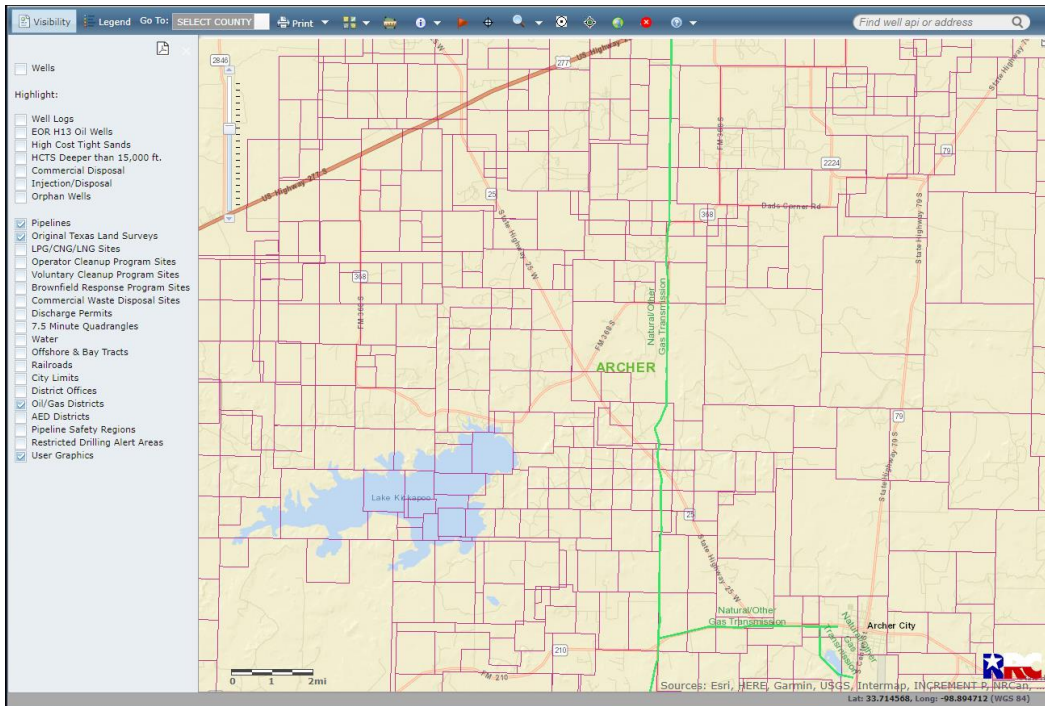
Tools

Visibility

The *Visibility* tool allows you to choose which layers you want to display on the map.

To Choose a Layer

1. In the toolbar, click the **Visibility** button. The available layers display in the *Visibility/Legend* pane.

2. Click the check box next to the layers that you want to display.

IMPORTANT: 1) It may be necessary to zoom in to see the selected layers on the map. 2) It may take a few seconds for the selected layers to display. 3) Click the **Legend** button to view what each icon represents.
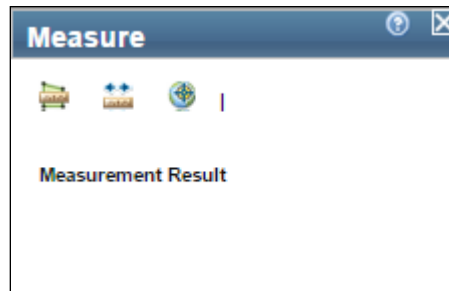
TIP: To access a printable version of the legend, click the **Printable Legend (PDF)** icon in the *Legend* pane.

Measure Tool

The *Measure* tool allows you to measure <u>area</u> and <u>distance</u> between selected points and to <u>view the WGS 84 coordinates</u> of a selected location.

Measuring an Area

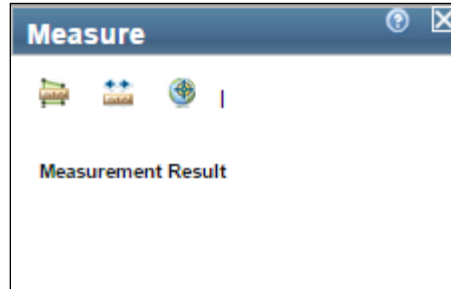1. Click the **Measure** button. The *Measure* dialog box displays.

2. Click the **Area** button. The default measurement unit displays in the dialog box.

3. Click the drop-down arrow to select the units you want to use in the measurement.

4. In the map, click the points you want to include in the area measurement.

5. After selecting the last point, double-click. The results display in the *Measurement* dialog box.

Measuring Distance

1. Click the **Measure** button. The *Measure* dialog box displays.

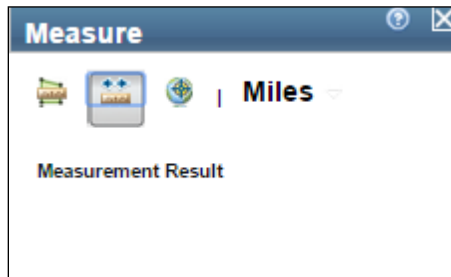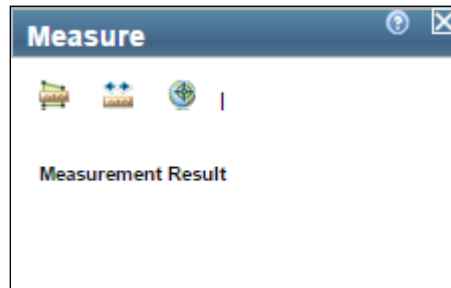2. Click the **Distance** button. The default measurement unit displays in the dialog box.

3. Click the drop-down arrow to select the units you want to use in the measurement.

4. In the map, click the points you want to include in the distance measurement. The results display in the *Measurement* dialog box.

Viewing Coordinates

1. Click the **Measure** button. The *Measure* dialog box displays.

2. Click the **Location** button. The default coordinate type displays in the dialog box.
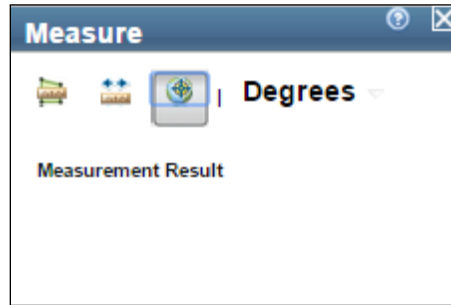
3. Click the drop-down arrow to select the coordinate type you want to use.

4. In the map, click the point. The latitude and longitude coordinates (in the WGS 84 datum) of the selected location display in the *Measurement* dialog box.

Identify Tool

The *Identify* tool allows you to view additional information on wells, pipelines, surveys, LPG/CNG/LNG sites, OCP sites, VCP and BRP sites, Commercial Waste Disposal Sites and Discharge Permits, and alert areas.
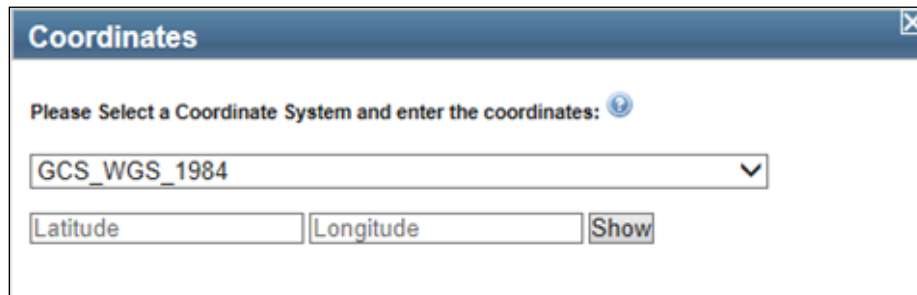
Using the Identify Tool

1. Click the **Identify** button in the toolbar.

2. Select the type of item you want to see additional information for.

3. On the map, click the icon that represents the item. The *GIS Identify Results* dialog box displays with the attributes.

4. To print the attributes, click the **Print** button.

Coordinates Tool

You can use the *Coordinates* tool to find a specific location on the map.

Using the Coordinates Tool

1. Click the **Coordinates** ⊕ button. The *Coordinates* dialog box displays.

2. Using the drop-down list, select the coordinate system you want to use.

3. Enter the coordinates in the fields.

4. Click the **Show** button. The map zooms to the location.

Searches

You can use the *Search* tool to search for [pipelines,](#) [surveys,](#) [lease IDs,](#) [commercial waste](#) [disposal (CWD) sites](#) or [discharge permits.](#)

Pipeline Search

You can search for pipelines.

1. Click **Search | Pipelines**. The *Pipeline Search* dialog box displays.

2. Using the *Select a County* drop-down list, choose the county you want to use in your search. The map zooms to the selected county.

3. Complete your search criteria by using the drop-down lists and entering text into the available fields.

   TIP: You can search using partial values in the text fields.

4. You can also use the Pipeline Search to view lines that have been recently removed from our Public GIS Viewer. Reasons for lines being removed from our Viewer include lines being physically removed from the ground or lines that were never built. These records have been removed from operator's permits but are kept in permit DDDDD so that the public maintains a record of these lines. To find these lines, in the T4PERMIT field, type 'DDDDD' and hit 'query'.

5. Click **Query**. The results display.
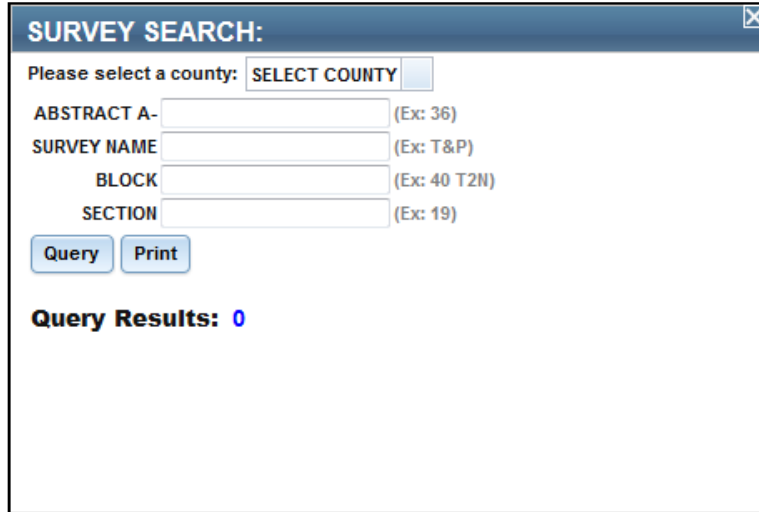
6. A maximum of 1000 results display. If your search returns more than 1000 results, a dialog box notifies you that there are too many results to display on the map.

7. You can sort the results by clicking the heading.

8. To print the query results, click the **Print** button.

9. Click the **Reset** button to clear the search criteria. The county remains selected after clicking *Reset*.

TIP: To remove the highlighting from the pipelines, click the **Clear Graphics** button.

Surveys Search

You can search for surveys.

1. Click **Search | Surveys**. The *Survey Search* dialog box displays.
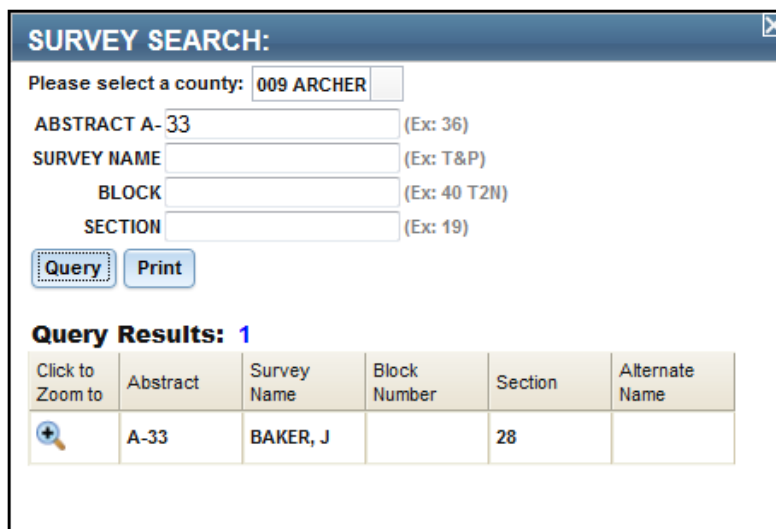
2. Using the *Select a County* drop-down list, choose the county you want to use in your search. The map zooms to the selected county.

   IMPORTANT: You <u>must</u> select a county to run a survey search. If you have selected a county previously, it displays in the field.

3. Complete your search criteria by entering text into the available fields.

   TIP: You can search using partial values in the text fields.

4. Click **Query**. The results display.

NOTE: A maximum of 300 results can display. If your search returns more than 300 results, a dialog box requests that you refine your search criteria to limit the number of search results.

5. To print the query results, click the **Print** button.

TIP: To remove the highlighting from the survey boundaries, click the **Clear Graphics** button.

Lease Id Search

You can search for wells in a specified lease.

1. Click **Search | Lease Id**. The *Lease Search* dialog box displays.

2. In the *Enter Lease ID* field, enter the lease ID.

3. Using the *District* drop-down list, select a district.

TIP: This field is not required.

4. Click **Search**. The results display.

TIP: 1) To view a specific well, click the *API* link. **2)** To remove the highlighting from the well, click the **Clear Graphics** button.

NOTE: If you retrieve multiple pages of search results, you can use the **Previous**, **Next**, and page number links at the bottom of the search results list to navigate between the pages.

5. If you need to filter the search results, enter a search term in the *Search table* field. For example, you can enter a specific API number or a county name.

NOTE: When filtering by *API* number, enter a space between the 3-digit FIPS and 5-digit API number (e.g., 355 02670).

6. If you need to sort the search results by a specific column, click the sort arrows in the column header.

Commercial Waste Disposal Site Search

You can search for specific disposal sites.

1. Click **Search | CWD Sites**. The *Site Search* dialog box displays.

2. Enter search criteria in one or more of the available fields.

- In the *Site ID* field, enter a complete or partial Site ID name to locate a specific site.

- In the *Facility Name* field, enter a complete or partial Facility Name to locate a specific site.

- In the *Operator Name* field, enter a complete or partial Operator Name to locate sites owned by a specific operator.

TIP: Only one field is required to perform a search but providing more information will narrow-down the results.

3. Click the **Query** button to view the results of the query.

4. To print the query results, click the **Print** button.

Discharge Permits Search

You can search for discharge permit locations.

1. Click **Search | Discharge Permits**. The *Permit Search* dialog box displays.

2. Enter search criteria in one or more of the available fields.

- In the *Permit Number* field, enter a complete or partial Permit Number to locate a targeted location.

- In the *Facility Name* field, enter a complete or partial Facility Name to locate a targeted location.

- In the *Operator Name* field, enter a complete or partial Operator Name to locate permits obtained by a specific operator.

TIP: Only one field is required to perform a search but providing more information will narrow-down the results.

3. Click the **Query** button to view the results of the query.

Discharge Permit Search:

Permit Number:	UHS	(Ex: UHS-006)
Facility Name:		(Ex: Big Hill)
Operator Name:		(Ex: Energy)

Query   Print

Query Results: 15

Click to Zoom to	Permit Num	Lease or Facility Name	Operator Name	Permit Type	County	Permit Expiration	NPDes Permit No	Discharge Volume
🔍	UHS-004	BRYAN MOUND STRATEGIC PETROLEUM RESERVE OIL STORAGE FACILITY	U.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
🔍	UHS-005	CLEMENS TERMINAL	CHEVRON PHILLIPS CHEMICAL CO LP	DISCHARGE	BRAZORIA	10/31/2021	TX0007587	
🔍	UHS-005	CLEMENS TERMINAL	CHEVRON PHILLIPS CHEMICAL CO	DISCHARGE	BRAZORIA	10/31/2021	TX0007587	

4. To print the query results, click the **Print** button.

3/11/2020   Print Discharge Permit Search Results

Discharge Permit Search Results

Permit Num	Lease or Facility Name	Operator Name	Permit Type	County	Permit Expiration	NPDes Permit No	Discharg Volume
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	U.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	U.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	U.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	U.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	
UHS-004	BRYAN MOUND STRATEGIC PETROLEUM	U.S. DEPARTMENT OF ENERGY	DISCHARGE	BRAZORIA	9/4/2024	TX0074012	

Radius Tool

The *Radius* tool allows you to create a circle at a defined radius around a specific point on the map.

Using the Radius Tool

1. Click the **Radius** button in the toolbar. The *Radius* dialog box displays**.**

2. In the *Buffer Size* field, enter the radius distance.

IMPORTANT: Depending on the *Buffer Size* you enter, you may have to zoom in to select a point.

3. In the map, click the location to draw the radius. The radius displays around the point.
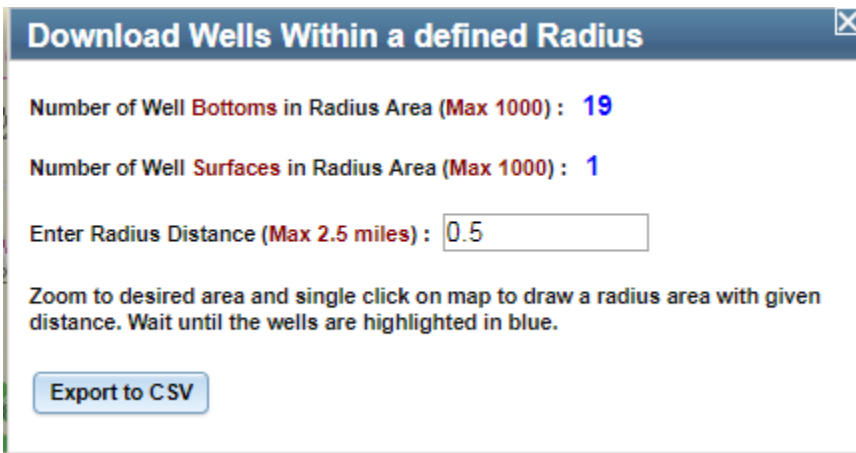
Download Wells

The *Download Wells* tool allows you to create a circle at a defined radius around a specific point on the map and export information related to the wells within that circle to a comma separated values (CSV) file.

NOTE: The *Download Wells* tool can export information for up to 1000 wells that within the circle.

Using the Download Wells Tool

1. Click the *Download Wells* ⊕ button in the toolbar. The *Download Wells* dialog box displays.

2. In the *Enter Radius Distance* field, enter the radius distance in miles.

   IMPORTANT: 1) To ensure optimal performance, a maximum radial (buffer) distance of 2.5 miles is allowed. If you enter a distance larger than 2.5 miles, the tool automatically changes the distance to 2.5 mile when you click in the map. **2)** Depending on the distance you enter, you may have to zoom in to select a point.

3. In the map, click the location to draw the circle. The specified radius displays around the point, and the wells in the circle are selected.

   NOTE: The *Download Wells* tool can export information for up to 1000 wells.

   A popup window will display when the well number to be retrieved reaches 1000. Click OK and wait for the process to finish:
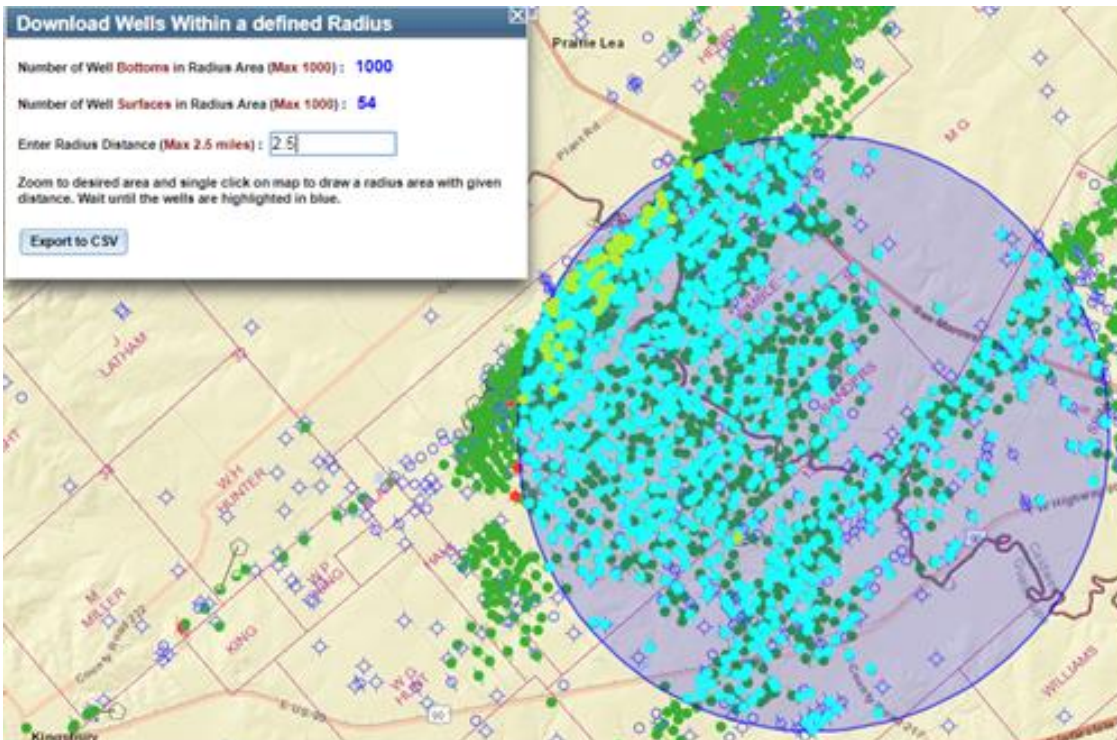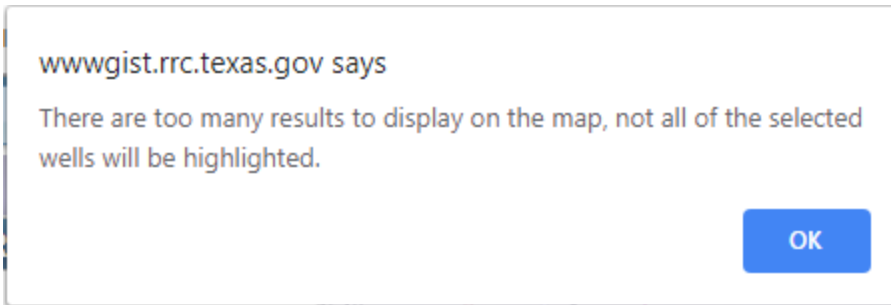
4. Click the **Export to CSV** button to export information for the selected wells to a CSV file.

   IMPORTANT WARNING: To avoid losing leading zeros in some of the exported data, do not save the file in CSV (.csv) format. To preserve the leading zeros use the 'save as' and change the format to Excel Workbook (.xlsx) before saving or renaming the file.

About the Well Data

The *Download Wells* tool retrieves Geographic Information System (GIS) data for each well in the circular (buffer) area. In addition to the GIS information, the tool also retrieves operator/wellbore information, completion records, and plugging records when applicable to the wells.

The most recent on file operator/wellbore and, if applicable, plugging record information for each well is exported to the CSV file.

All completion records are retrieved for each of the wells. Each completion record has its own row in the CSV file which also contains the most recent operator/wellbore information and, if applicable, plugging record.

DISCLAIMER: A "data set" is any set of information electronically generated or stored by Railroad Commission of Texas (Commission) systems, including, but not limited to, the Commission's Geographic Information System, Online Research Query System, or Mainframe System.

The data sets contained in the Public GIS Viewers were generated from the Commission's Geographic Information System. These data sets are provided as a public service for informational purposes only. They are **not** intended to be used as an authoritative public record for any geographic location and have no legal force or effect. Organizations and individual users are responsible for verifying the accuracy, completeness, currency, and/or suitability of these data sets themselves.

The Commission specifically disclaims any and all warranties, representations, or endorsements, express or implied, with regard to these data sets, including, but not limited to, the warranties of merchantability, fitness for a particular purpose, or non-infringement of privately-owned rights.