



# Well Finder Mapping Application

## Quick Reference Card

### TOOLS IN WELL FINDER MAPPING APPLICATION

Well Finder mapping application provides tools for spatial data visualization, selection, and simple analysis. The tools are described in Table 1.

*Table 1. Tools in Well Finder mapping application*

Tool	Icon	Definition
<b>Layers</b>	▼ ☰ Layers	Select data layers to display on the map.
<b>Zoom to Field</b>	▼ * Zoom to Field	Select from a list of oil and gas fields in California.
<b>Search</b>	▼ Search	Search a data layer by attribute or by shape. Make record selections for export.
<b>Measurement</b>	▼ ↗ Measurement	Measure an area or distance. Find GIS coordinates.

### FUNCTION DETAILS

Each tool in Well Finder mapping application contains several functions upon selection.

#### Functions within Layers

Functions within the Layer tool include toggle view, expend view, and more options. Toggle the checkbox to the left of the layer name between checked and unchecked to display or hide the associated data layer. Expend or collapse the caret to the left of the checkbox to view the sublayers within the layer group. The more options button to the right of the layer name provides layer transparency setting and opens metadata webpage.

## Functions within Zoom to Field

The Zoom to Field tool allows for selection of California oil and gas field from a list, which includes abandoned fields. The map automatically zooms to the selected field.

## Functions within Search

There are two functions within the Search tool, search by attribute and search by shape. The Search functions generate results in a search table that can be located at the bottom of the application.

### Search by Attribute

When searching by attribute, first pick a layer to search with in the dropdown list. Then, refine your search in the box below to search. For example, when searching the Well layer, refine the search by inputting the well API number. Select a spatial filter from the dropdown list to limit the search to a specific area of the map. Toggle the checkbox to specify adding or not adding the new search results to existing ones. A table on the bottom of the application displays the search results.

### Search by Shape

When searching by shape, start by picking a layer from the dropdown list to search with. Then choose a tool to draw a selection feature on the map. Set a buffer distance around the drawn feature if desired. Toggle the checkbox to specify adding or not adding the new search results to existing ones. The stop drawing button ends the drawing function on the map. The search button executes the search. A table on the bottom of the application displays the search results.

### Search Table

Features that are searched and added to the search table can be exported using the Export function. Export formats include Excel and CSV file containing comma-separated values. The Zoom function allows map to zoom to selected features. The Clear function removes the selected features. A new search table will be created for each data layer selected. Navigate between these tables by clicking on the table heading.

## Functions within Measurement
















Measurement tool includes three measuring functions: area, distance, and location coordinates. To measure for area or distance, first select the unit of measurement from the dropdown list. Then create an area or a line on the map depicting the area or distance measuring; finish the area or line by double-clicking. The tool displays the measurement.

To view location coordinates, first choose the coordinates units between degrees or degree/minute/second (DMS). The tool displays the mouse cursor coordinates when the cursor is on the map. When a location pin is added on the map, the tool also displays the pin coordinates.

## BASIC WELL SYMBOLS

Wells are symbolized on Well Finder Application by the combination of colors and symbols. Colors are used to represent the status of the wells; symbols represent the type of the wells. Table 2 illustrates the symbology used for wells in Well Finder and its description.

Table 2. Well symbols in Well Finder mapping application.

Well Status or Type	Icon	Description
<b>Active</b>		Green circle
<b>New</b>		Orange circle
<b>Idle</b>		Purple circle
<b>Plugged</b>		Grey circle
<b>Unknown Status</b>		White circle
<b>Canceled</b>		Red circle
<b>Oil, Gas</b>		Solid black dot
<b>Dry Gas</b>		Hollow circle with spikes
<b>Injector</b>		Solid black dot with single arrow
<b>Cyclic Steam</b>		Solid black dot with double arrow
<b>Gas Storage</b>		Hollow circle with spikes and double arrow
<b>Observation</b>		Hollow circle with letter O
<b>Water Source</b>		Hollow circle with letter W
<b>Multi</b>		Hollow circle with letter M
<b>Unknown Type</b>		Hollow circle with question mark