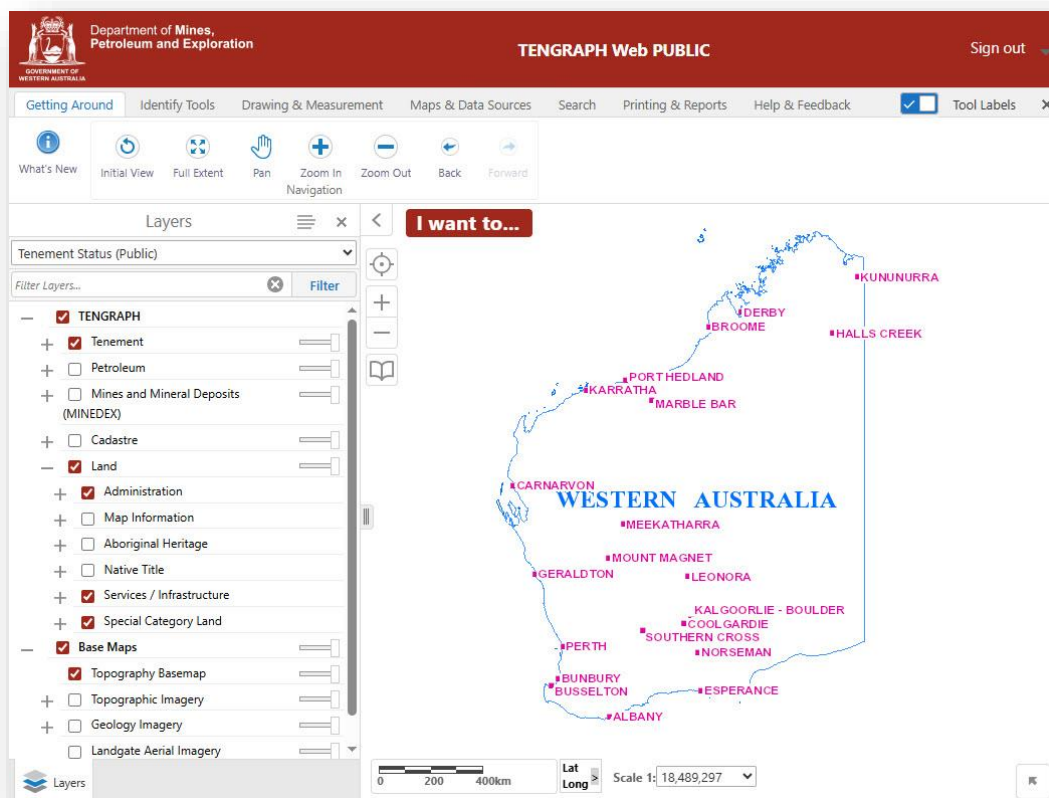


TENGRAPH Web

Getting Started



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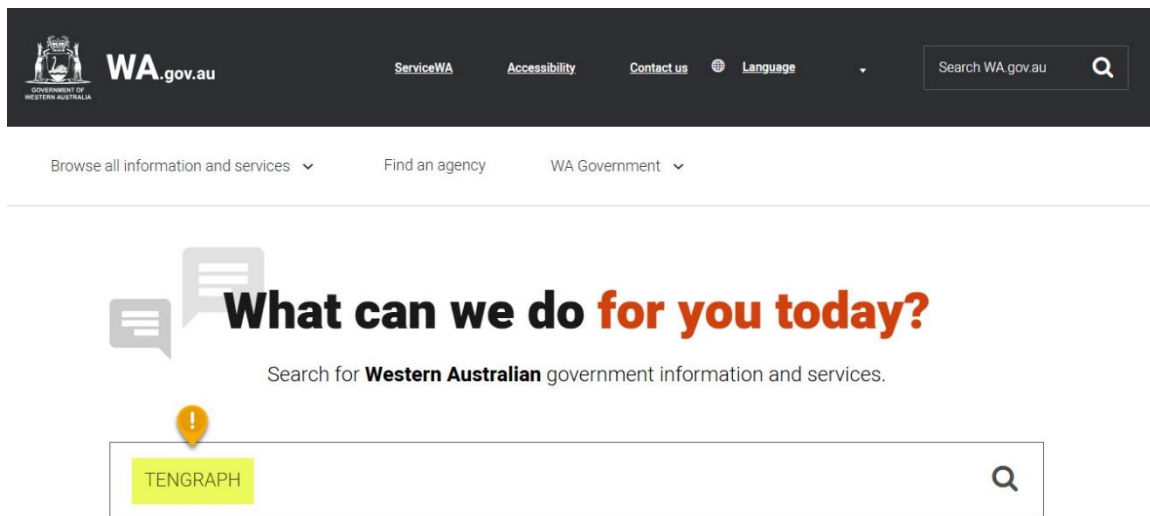
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Introduction

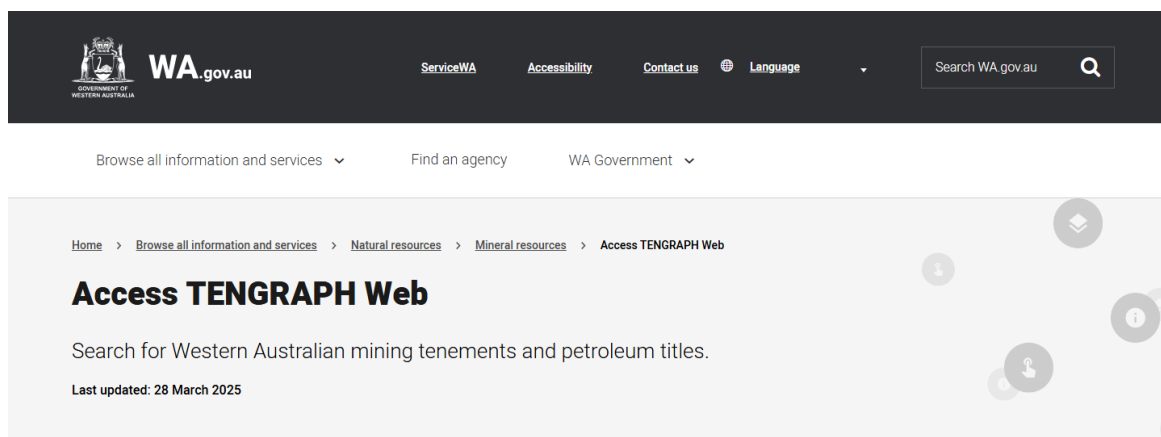
TENGRAPH Web is a spatial enquiry system optimised for the viewing of mining and petroleum tenure whether the status is live, pending or dead. It is also one half of a whole, working as a spatial representation of the digital title register Mineral Titles Online (MTO) and Petroleum Geothermal Register (PGR).

Access

Access TENGRAPH Web through the state government website: www.wa.gov.au. From the home page, TENGRAPH can be found on by searching from the home screen as show below:



Once you've clicked the TENGRAPH online services option, you can access TENGRAPH Web by pressing the **< ACCESS TENGRAPH WEB >** button as shown below:



TENGRAPH Web is an online mapping tool that shows the locations of mining tenements and petroleum titles in Western Australia. It displays this data alongside other land information, giving a clear and up-to-date view of land where mining is happening. The system is used to check which land is available for exploration.

Explore more about TENGRAPH Web features below:

- [Register for an account](#)
- [Manage your account](#)
- [Forgot password](#)
- [Forgot your account](#)

Provided by

[Department of Energy, Mines, Industry Regulation and Safety](#)

The link **<https://tgw.dmp.wa.gov.au/tgw/>** can also be bookmarked or saved to favourites for quick easy access.

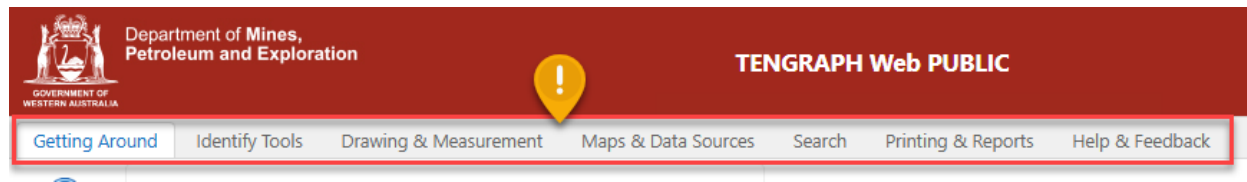
Lastly it is worth noting that TENGRAPH Web requires a single sign on account to use. It is a quick and free process to register for one.

Initial View



Every time you open the TENGRAPH Web application, it will open to the same standard initial view with a set of default layers enabled. Any changes that are made during use (to layer selection, drawings, labels etc.) are reset. We will examine controls, menus and a few other areas of note in this brochure.


Toolbar Tabs



The Toolbar contains tools grouped together by function such as identifying, plotting and drawing, searching, printing and help guides.





Getting Around Tab

The Getting Around toolbar is used to navigate around the screen in TENGRAPH Web. The initial view  and full extent  buttons zoom your screen back to the initial view, the same view that is loaded when you open up TENGRAPH Web.

Select the pan button  then click and drag the screen to move your view around the map without changing your view scale.

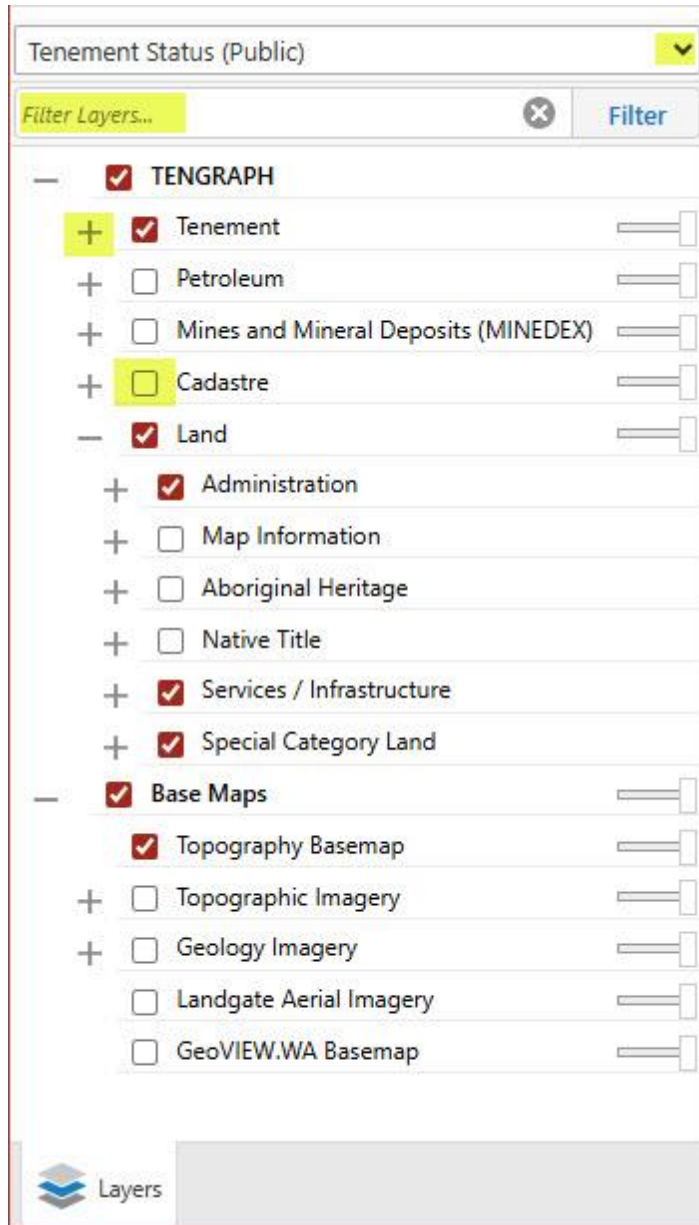
The zoom buttons zoom your map view in  or  out.

You can zoom to a previous map view by pressing back  or press forward  to zoom to the next map extent.

To...	Do this...
Pan or move the map.	Click on the map and drag in any direction.
Pan left or right.	Press the Left or Right arrow keys.
Pan up or down.	Press the Up or Down arrow keys.
Zoom in or out.	Press the Plus + key to zoom in . Press the Minus - key to zoom out .
Zoom in or out.	Scroll the mouse wheel away from you to zoom in towards you to zoom out or, click the Plus + or Minus - to zoom in or out.
Zoom in to a specific region on the map.	Press SHIFT and drag a rectangle around the area you want to zoom in to.

Exercise 1: *Practice moving around the map and zoom to an area so that you can see some mining tenements on the map. (Hint: Tenements are visible at a larger scale so you'll have to zoom in to view these, pending applications are shown in blue and current mining tenure is coloured green).*

Map Layers



The Layers panel contains the various spatial layers viewable within TENGGRAPH Web. These are divided into folders (Tenement, Petroleum, Cadastre ... etc) and subfolders, as can be seen in the “Land” folder. For example, to view topography in TENGGRAPH, ensure there is a tick in the main folder (Topographic Imagery) and a tick in one of the layer boxes 1:100 000 Topographic Mosaic or 1:250 000 Topographic Mosaic.

Above layer list is a “*Filter Layers*” box. This allows users to search for a layer by name. As you begin typing in the Filter Layer box, the layers list will filter to only show layers containing the text you’ve entered. When you’ve found your desired layer, or no longer want to filter the layers panel, ensure you click the cross at the right hand side of the Filter Layers box to close the filtered view.

Exercise 2: Zoom in to your map and turn on and off different map layers to see how this changes how TENGGRAPH displays information (Hint: Open folders for more layer options).

Tip: Remember to turn on the **Cadastre** layer to view reserves, pastoral leases, private property (freehold land) and other important land information.

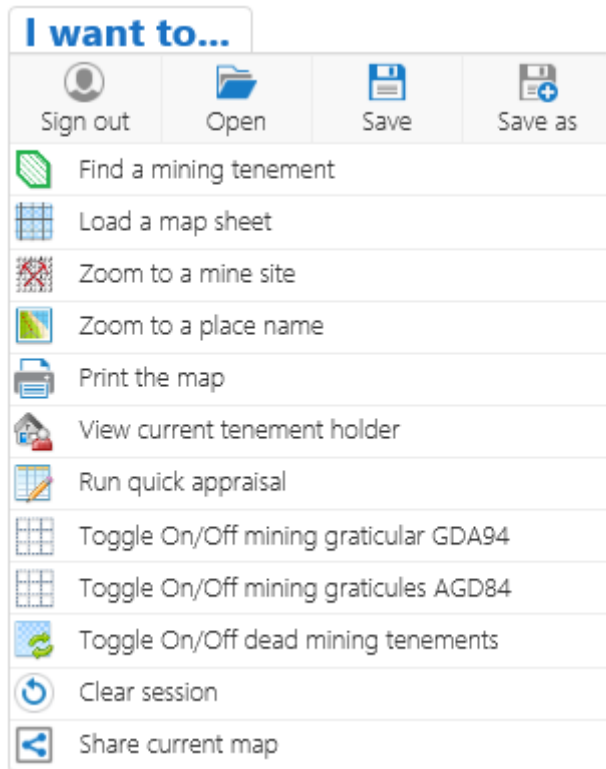
Exercise 3: Use the “filter layers...” search bar to find the “Aboriginal Communities” layer. (**Important:** Cancel the filter when you’re finished to see all map layers).

Menu Shortcuts

There are six shortcuts in TENGRAPH Web that open different menus and sets of functionality shortcuts. These are the panel actions, layer action menu, results actions, feature actions, context menu and I want to menu.

I want to...

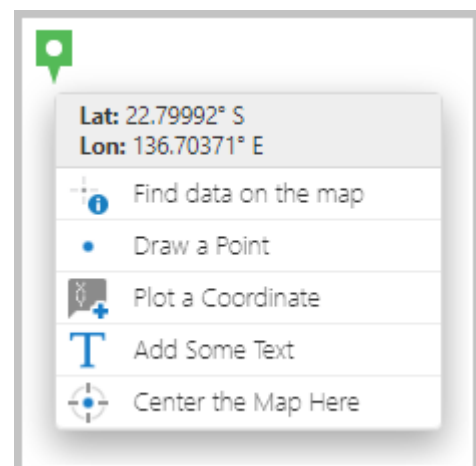
The **I want to...** menu is a dropdown menu of shortcuts to the most frequently used tools in TENGRAPH Web. The **I want to...** menu is pictured below:



Left click the **I want to...** button on your screen to open the menu pictured here. The tools in this menu allow you to run a variety of tools, as well as saving and opening project files.

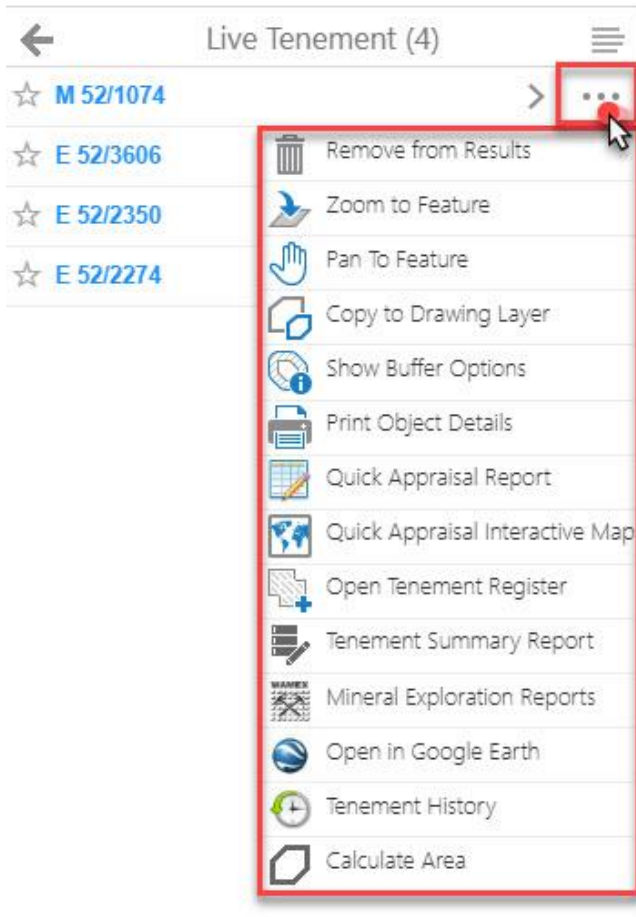
Context Menu

The context menu can be opened by **right mouse clicking** on the TENGRAPH map. There are 5 functionality options within the context menu and they are pictured below. The coordinates of the point at which you opened the context menu will be displayed at the top of the window as pictured below:




Feature Action Menu

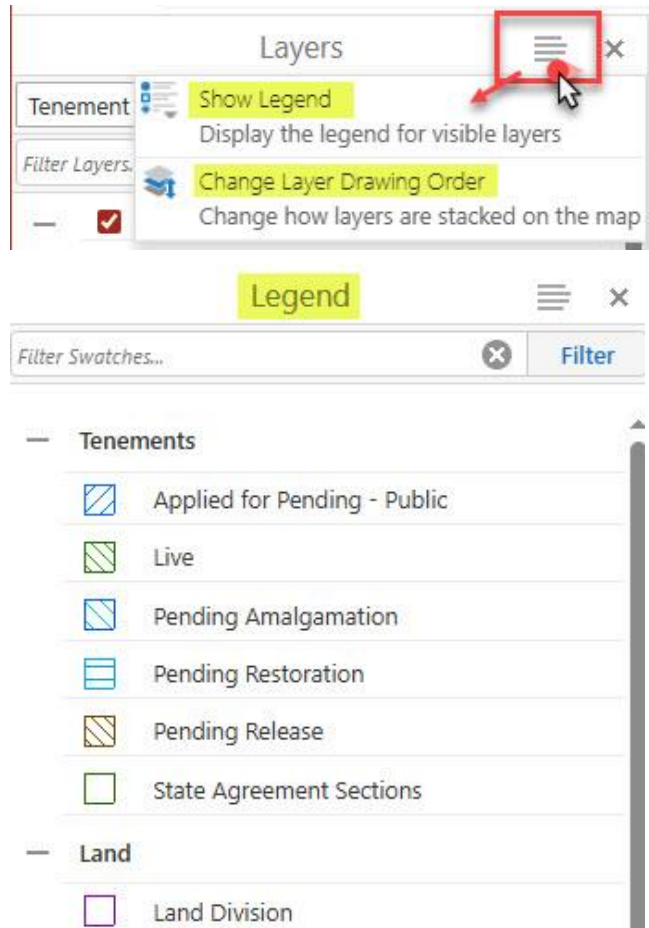
The Feature Action menu is a list of TENGRAPH tools that can be run on individual features in a list of results, generated using one of the identify tools or the “Find data on the map” tool through the context menu. To open the feature action menu, press the three dots button (⋮) next to a tenement result item as shown below.



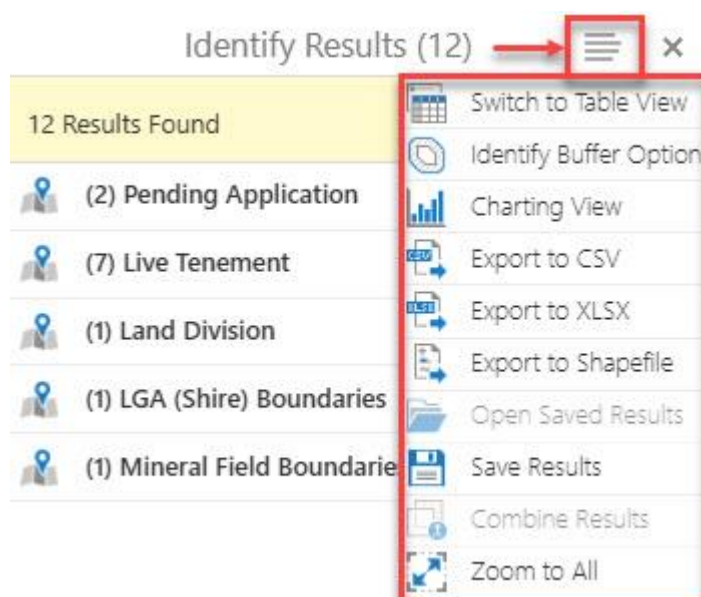
This menu allows the listed tools and functionality to be used on features within the TENGRAPH map.

Panel Actions Menu (Layers & Identify Results)

The panel actions menu is represented by this symbol  and is found at the top right hand side of some panel menus. This menu allows you to customise how information is represented in the panel that you are viewing.



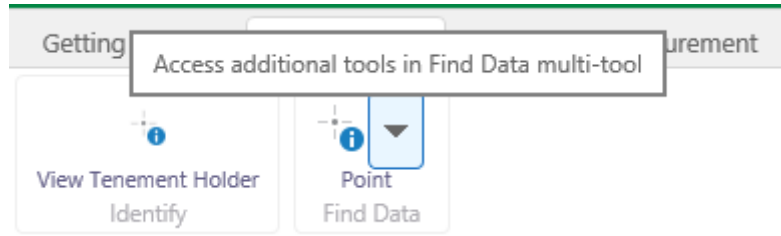
In the Layers panel, the panel actions menu allows you to switch the menu view to show the **legend** or change the layer drawing order for **layers** of information in TENGRAPH.



In the Identify Results panel, the panel actions menu allows a variety of different options of functionality to customise how search results are viewed and utilised, including save and export options.

Identify Tools

The Identify Tools tab allows you to query TENGRAPH Web active layers of information and identify data on the map and stored within TENGRAPH. You can query the map information by drawing different shapes or bounding areas such as points, lines, polygons, rectangles or freehand drawings using the Find Data tool.



Find Data

The Find Data tool can be used to find out about a location on the map. The button is split into two sections. Click the black triangle on the right-hand side of Find Data tool as shown above, to choose the shape by which you'll enquire the map.

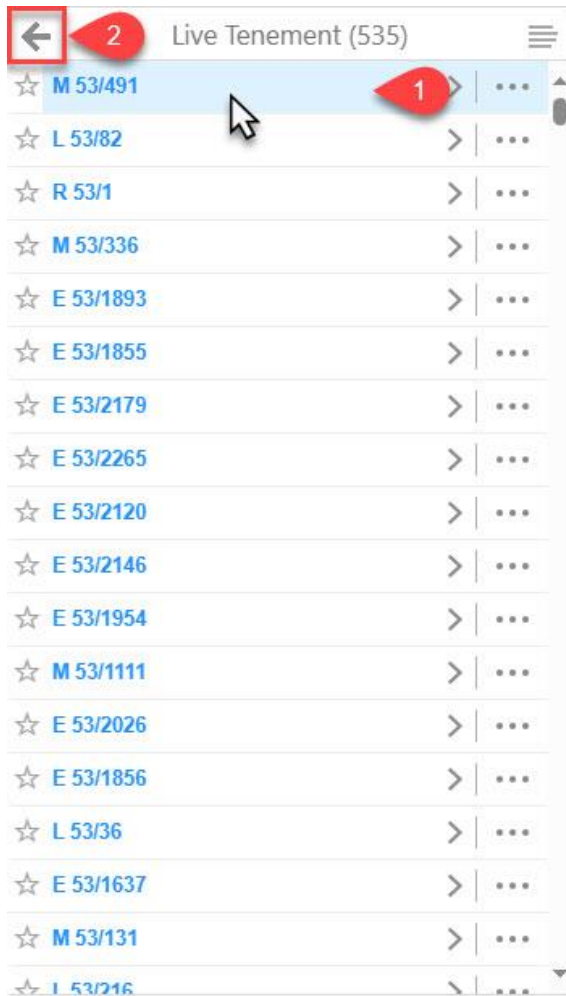


To begin, zoom in to the map so that some map information is visible, choose the Point option and then left click on the map to enquire at that point. Your results will be listed in an Identify Results panel as shown below.

Identify Results (29)			☰	×
29 Results Found				×
	(9) Live Tenement	>		...
	(16) Applied for Pending - Public	>		...
	(1) Towns	>		...
	(1) Mineral Field Boundaries	>		...
	(1) Mineralisation Zone, Non Section 57 (2AA)	>		...
	(1) LGA (Shire) Boundaries	>		...

Any map layers that are active (have the boxes ticked in the map layer view as shown on Page 6) will be searchable when using the Find Data tool.

In the Identify Results menu, the number in brackets represents the number of results identified for each layer. To view the results for each layer, click the arrow next to the layer name (see below the expanded results for the "Live Tenement" category).



Hovering your mouse over each result will highlight the tenement area on the map (1).

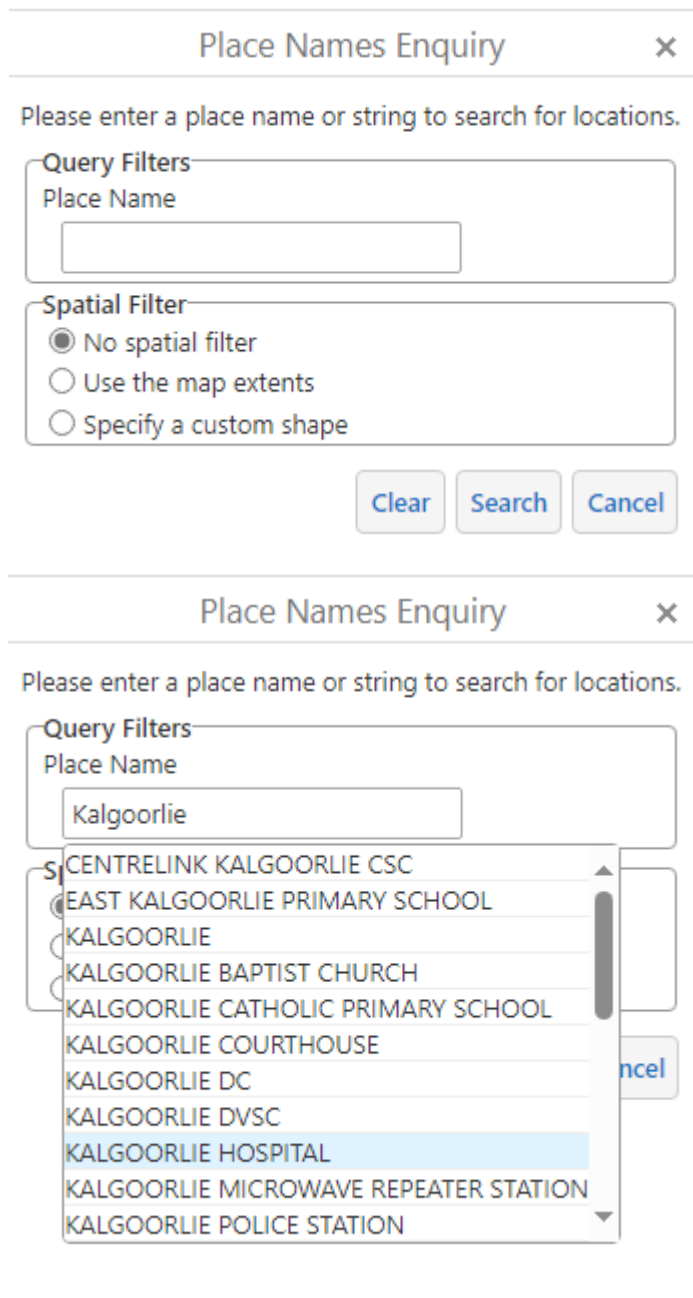
You can return to the above results list by clicking the **back arrow (2)** at the top next to the Live Tenement heading.

Pressing on an individual result will launch a pop-up window with additional data about the result. Some types of results have additional interaction options (1), and others will have tabs that contain more information (2). To close the pop-up press the cross in the top right of the pop-up window (3).



Exercise 4: Practice navigating and identifying/finding data on the map using Identify Tools. Use some of the menus to explore some of TENGRAPHs functions.

Place Name Search



Place Names Enquiry ✕

Please enter a place name or string to search for locations.

Query Filters

Place Name

Spatial Filter

☒ No spatial filter

☐ Use the map extents

☐ Specify a custom shape

Clear Search Cancel

Place Names Enquiry ✕

Please enter a place name or string to search for locations.

Query Filters

Place Name

Kalgoorlie

Spatial Filter

☒ No spatial filter

☐ Use the map extents

☐ Specify a custom shape

Cancel

CENTRELINK KALGOORLIE CSC

EAST KALGOORLIE PRIMARY SCHOOL

KALGOORLIE

KALGOORLIE BAPTIST CHURCH

KALGOORLIE CATHOLIC PRIMARY SCHOOL

KALGOORLIE COURTHOUSE

KALGOORLIE DC

KALGOORLIE DVSC

KALGOORLIE HOSPITAL

KALGOORLIE MICROWAVE REPEATER STATION

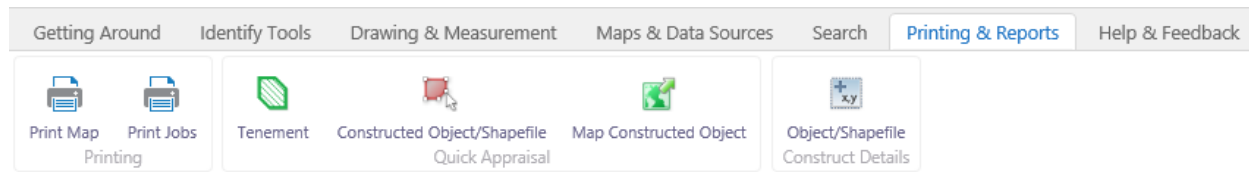
KALGOORLIE POLICE STATION

The (Geographic) Place Name search in the **I want to...** menu allows users to search for a location in TENGRAPH Web using a place name or location name. For example, by typing “Kalgoorlie” in the Query Filters – Place Name box, a drop down menu will appear with all of the place names containing the word “Kalgoorlie” that are in TENGRAPH. This is shown in the second screenshot. By left clicking and selecting an option from the drop down menu, the selection will appear in the search box. Press search to select the location and highlight it on the TENGRAPH map. The place name will appear in a results panel on the left hand side of the TENGRAPH screen, simply left click on the blue text on the name of the location and select the “zoom to feature” option on the attribute window to zoom to the location you’ve selected.

Exercise 5: Use the “**Find Place Name**” and try search for and zoom to an interesting landmark. If you can’t think of a landmark try “Barrack Street Jetty”, then click on the tree dot context menu of the result and click the “**Zoom to Feature**” option.

Printing & Reports

The Printing & Reports tab in TENGRAPH Web allows users to print maps, run quick appraisals and print the spatial coordinates of a constructed polygon.



When you left click the Print Map button on the left hand side of the toolbar, it opens the printing menu as shown below:

The print map menu is the final menu that appears before you run the “print a map” function in TENGRAPH. This menu allows you to choose your print page size (Print Template), the scale of your printed map (Map Scale).

Tip: Tick the “Print Preview” box to preview the area that will be captured by the print job. This way you can ensure all of the area you would like is being captured and adjust as required.

Exercise 6: Use the Printing & Reports tab to print your map, once the map has printed, click on the link to view your map! (Hint: The map won’t physically print to paper, but you can save the printed map as a .pdf and print it out when you get home).

Problem Solving

The best way to learn a new program or refresh your abilities is with practical problem solving. Below is an objective with a instruction set to solve it.

Scenario objective: Find an area that is free of any crown reserves, private property (freehold) or live tenements that you could potentially surface detect on with just a Miner's Right. Then once you have found an area print a PDF map.

- Enable Cadastre in the Layers
- Click on the **I want to...** button and "Zoom to a place name"
- In the place name search type in "Marble Bar" (you can try other locations and apply the below tasks).
- Click the 3 dot feature action menu (see page 8) on the first result then click the "Zoom to Feature" option. This will zoom you to that result.
- Practice panning around the map and, zooming in and out.
- While doing so also right click on the map and use the "Find data on the map" function.
- Read through the results that return; if one of the results is a "Crown Reserve" or "Live Tenement", try elsewhere. You will notice the layer colours and pattern fills.

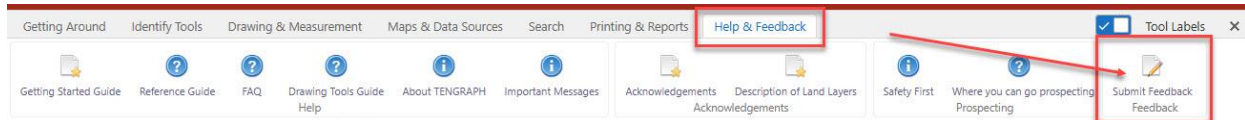
Once you have found a suitable spot, practice some drawing and then printing a map:

- First draw a point at the location you are targeting, easiest way of doing so is right clicking on the spot and selecting the "Draw a Point" option (more advanced drawing instructions can be found in the drawing tools guide, see last page).
- You can also practice adding some text the same way, right click just above the point you drew, this time select the "Add Some Text Option" and write what you like and press "OK".
- Now that you have modified the map let's print it, click on the **I want to...** button then, click the "Print the map" option.
- First tick the "Print Preview" box (this will show a grey boarder on anything that will not be printed). Experiment with the map scale, first change it to 1:40k to view then gradually go up until you have captured the area. This will give you a feel for the different scales.
- Press Print, give it some time to load, once it is finished an "Open" option will be available.
- Click the "Open" hyperlink to view, save or print the map you have generated.

Help & Feedback

The aim of the booklet was to introduce the reader to some of TENGRAPH Webs basic functionality, several guides, FAQs, updates will be made available in the TENGRAPH Web Help & Feedback tab in due course.

Please feel free at any point to submit feedback via the “Submit Feedback” function also found in the Help & Feedback tab:



Alternatively, you can send an email to: tengraph@dmpe.wa.gov.au