



MinView User Manual

Geological Survey of NSW

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Introduction

MinView is a web mapping application which provides free access to view, search and download a comprehensive range of geological and geoscientific data for NSW.

MinView also provides a range of supporting reference data to contextualise geoscientific data including current and historic exploration and mining titles, areas where exploration is excluded and cadastral information. There are over 100 unique map layers available to explore.

MinView draws together a vast array of different data types and formats from the Department's existing databases, including the Geoscientific Data Warehouse (GDW) and the Titles Administration System (TAS), with the intention of providing public access to all validated, non-confidential data from a web accessible map interface.

The user can interactively view, search and download the Department's data or choose to build their own custom map which they can either share as a unique URL or annotate and then print out in hardcopy.

Making this data available is a key open data principle of the NSW Open Data Policy (2016) and Action plan, which aims to drive innovation in the digital economy and improve government services.

MinView is provided by the Geological Survey of NSW (GSNSW) for use by a variety of audiences including:

- exploration and mining companies
- government agencies
- research and academic institutions
- the general public

Terms and conditions covering the use of MinView can be found in the footer links of the application.

For more information or help with the following topic areas contact one of the following email addresses:

For MinView operational queries: minview.info@geoscience.nsw.gov.au

For Titles Information queries: titles.services@planning.nsw.gov.au

For Geoscience Information queries: geoscience.products@geoscience.nsw.gov.au

Overview of MinView

MinView is a web mapping application that uses your internet browser to deliver an interactive interface in which you can display and interrogate the Geological Survey of New South Wales (GSNSW) extensive collection of geoscientific data.

MinView is W3C compliant, meaning it works on all standard browsers including Chrome, Firefox, Safari, Internet Explorer and Edge, as well as different operating systems like Microsoft Windows and Apple iOS. There is no need to download or install any additional applications or plugins.

It has also been designed to operate on all desktop, laptop and tablet devices but it is not suitable for phones or screens less than 10 inches.

Please note: MinView works best on modern desktop computers or tablets. The 3D mode may not work satisfactorily on earlier tablets such as the iPad2 or Android tablets running Android 4.3 or lower.

Key Functions

- Display the best available geological mapping data and geophysical imagery of NSW overlaid on a choice of topographic, geological and satellite imagery base maps.
- Display all open-file mineral occurrences, drilling, surface sample locations and analytical data results. This data is drawn from the NSW Geoscientific Data Warehouse, which is sourced from both government research activities and company exploration reports.
- Display exploration and mining title administration datasets including current boundaries for applications and licences and historical mineral titles.
- Allow the downloading of NSW geoscientific and title-related datasets.
- Provide links from data records to company exploration and environmental reports and their associated data files that are available online in the [Digital Imaging Geological System](#) (DiGS) document archive.)
- Provide direct links from data records to download NSW government captured geophysical images and data
- Provide a selection of reference datasets that assist in describing current and proposed land use, such as reserves, parks and forests, property boundaries and Local Government Areas, infrastructure like roads, railways, pipelines and planning instruments that are used to guide regional and local development.
- MinView also allows registered users to setup automated email alerts which can be used to identify new exploration and mining applications, changes to existing licences and when licences are due to expire.
- MinView defaults to a 2D mode but users can toggle to 3D to explore global terrain.
- Layers from other government agencies (state and federal) are also provided. These are limited to viewing and searching functions. GSNSW is not able to guarantee their availability or quality. Layers not defined as geoscientific data sets should be treated as **indicative only**.

Key Features

- Search for and display selected map layers
- Reorder and adjust transparency of layers to compare overlaid layers
- Display layers above a variety of base maps
- Conduct spatial and/or text searches on points, line or polygons of map layers
- Zoom to and highlight search results, then export results to a CSV formatted file

- Registered users can save sets of layers and locations and reload them into MinView later
- Share custom views by sharing a standardised URL
- Add your own data as a simple KML/KMZ or a zipped shape file
- Add public web map services (WMS) to the map
- Measure distances between points
- Draw shapes and add labels to the map
- Print the map or export as a PDF
- Download department data (geoscientific and title administration datasets only)
- Registered users can set up email alerts for changes to title boundaries and attributes in a specified area

Key geoscientific datasets

Geology	
State wide Simplified geology at 1:1.5million scale	
Geology for the whole state presented as separate layers for all major sedimentary and tectonic units at the best available scale	<ul style="list-style-type: none"> • Cenozoic Sedimentary Province • Cenozoic Igneous Province • Great Australian Basin • Mesozoic Igneous Province • Permian-Triassic Basins • New England Orogen • Lachlan Orogen
Geology maps	
	<ul style="list-style-type: none"> • Scanned and georeferenced geology maps published by GSNSW
Mineral occurrences	
	<ul style="list-style-type: none"> • Location of all recorded mineral occurrences. Presented by size, deposit classification and group as defined under the Mining Regulation 2016
Drilling	
	<ul style="list-style-type: none"> • Drill hole locations • Information of samples taken and analysed • Links to original company reports that document the drilling program and results
Core library services	
	<ul style="list-style-type: none"> • Locations of drill holes stored in the core library • Locations of drill holes that have been hyperspectral scanned by the Hylogger™
Geological observations & measures	
	<ul style="list-style-type: none"> • Location and sample collection information • Rock descriptions including stratigraphic unit and lithology • Structural and petrophysical measurements • Links to photographs, petrographs, drilling and mineral occurrences
Fossils	
	<ul style="list-style-type: none"> • Locations of microfossils

Key reference datasets

Exploration and mining titles
<ul style="list-style-type: none">• Current titles• Applications for titles• Historical titles (available for mineral exploration titles only)
Title administration
<ul style="list-style-type: none">• Mineral allocation areas• Mining reserves and general restrictions• Fossicking districts
Reserves, parks & forests
<ul style="list-style-type: none">• National parks• Declared wilderness areas• State forests
Topographic & administration
<ul style="list-style-type: none">• Cities, towns and localities• Lots (property boundaries)• Local government areas (LGA)• Suburbs• County/Parish areas• Crown land• Local Aboriginal Land Councils
Infrastructure & utilities
<ul style="list-style-type: none">• Roads• Railways• Ports• Airports• Electricity lines• Gas pipelines
Planning instruments
<ul style="list-style-type: none">• Standard Instrument Local Environment Plan layers including zoning• SEPP 14 Coastal wetlands• SEPP26 Littoral rainforest• SEPP71 Coastal protection zone• Biophysical Strategic Agricultural land (BSAL)• Critical Industry Clusters (CIC) including equine and viticulture• RAMSAR wetlands• State heritage registered areas and items

Please note:

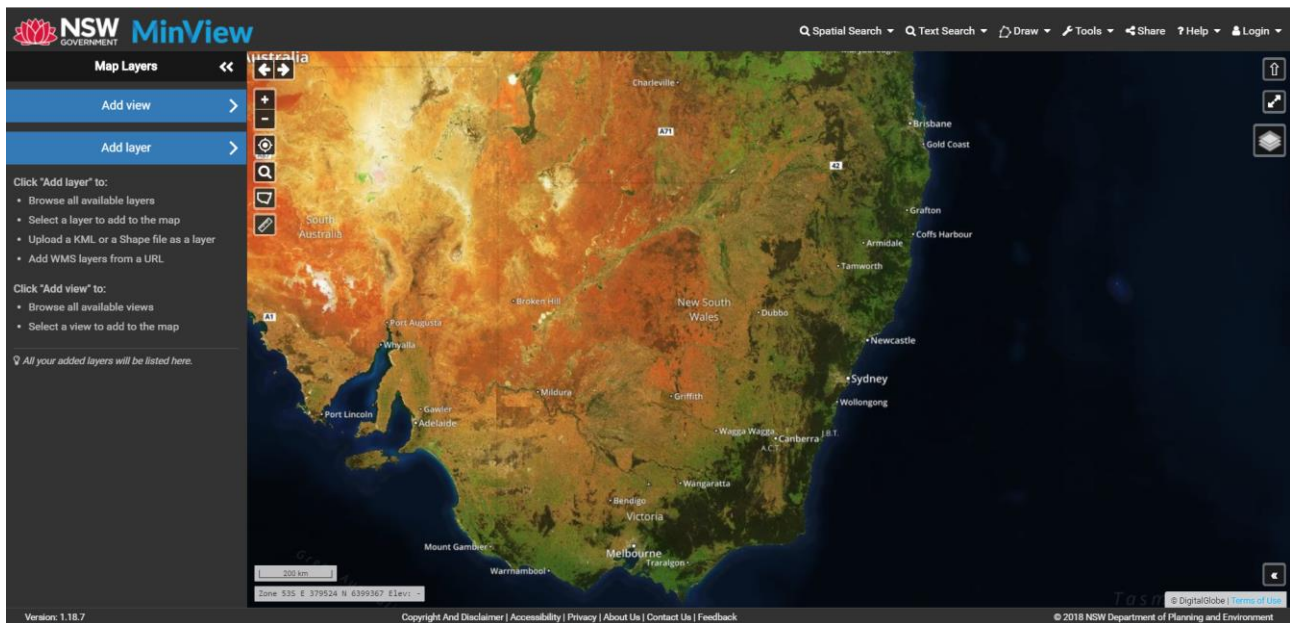
MinView is not designed to provide GIS-type analysis tools, nor to view 3D geological models.

Tools for selecting an area, applying for an exploration licence and related e-commerce functions are no longer associated with MinView. These functions have now been incorporated into the [Resources Customer Portal](#) (RCP).

Main map view

MinView is a web application, accessible from a browser on your desktop computer or tablet device. When you access MinView, you will be presented with the main map view.

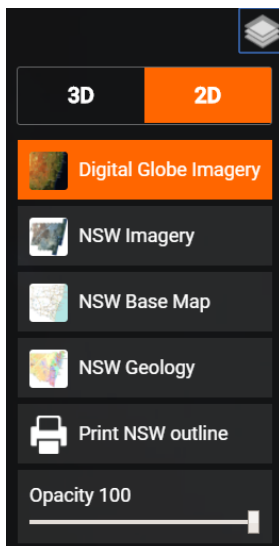
This section describes the main map view and the tools and menus available.



Base maps



Base map selector. Click or tap this icon to display a list of base map options you can select as well as to change the opacity of the base map. You can also switch between 3D and 2D modes.



For details on 3D mode see [Viewing the Map](#).

Add view



Add view allows you to add multiple layers with a common theme to the main map. There are four themes available, based on commodity:

- Minerals
- Coal
- Petroleum
- Mineral Sands

For details see [Adding Map views](#).

Add layer

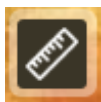


Add layer allows you to add map layers using the layers panel. You can add three types of map layers:

- Pre-configured map layers provided by GSNSW in the layer list
- A user entered Web Map Service (WMS)
- Upload of a simple Keyhole Markup Language file (KML/KMZ) or a zipped shape file

For details see [Adding Map layers](#).

Measure distance



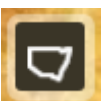
Click or tap the Measure distance tool icon to measure distance by clicking or tapping two or more points on the map. Double click (or tap) to end your measurement line and to view the total distance in kilometres, or metres if the distance is less than 1km. Click or tap on the Measure distance tool icon again to remove all measurement lines from the map.

Address search



Click or tap the Address search tool and it transforms into a text search box. Start typing an address and you will be presented with a list of matching street addresses or localities. Select the desired address or locality to zoom the map to this location. This search is provided by the Google Places API. You can search suburbs, towns and major landmarks as well as street addresses.

New South Wales map extent



Click or tap the map extent tool to reset the map display to all of NSW.

Track current location



Click or tap the Track current location tool to centre the map on your location. The first time you select this option you will be prompted to Allow or Deny MinView access to your location.



If you are running MinView on a tablet device with an inbuilt GPS, this location will be reasonably accurate. If you are using a desktop computer, the location will be based on your network connection point and will be approximate.

Zoom controls

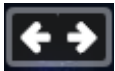
Click or tap the zoom controls to zoom in or out of the map. Move your mouse pointer over the map and use the scroll wheel to zoom in or out. The location at the centre of the map display is the centre of the zooming.



On a touch device, you can zoom in and out by “pinching” and “spreading” with two fingers.

Panning: Click or tap anywhere on the map and drag it to the required location.

Back/Forward map state controls



The Back button (arrow pointing left) returns you to map views you have previously created. The Forward button (arrow pointing right) allows you to step forward again through the sequence of map views you have just cycled back through.

North arrow



Click or tap North arrow tool to reset the map so that north is at the top of your screen. Best used when returning from 3D mode to 2D mode.

Toggle full screen



Click or tap the full screen tool icon to view map in full screen mode. When map is in full screen click or tap the tool again to revert to default MinView application view.

Overview map



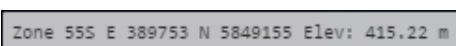
Click or tap the overview tool icon (at the bottom right) to view current map extent in relation to a larger map area.

Scale bar



The scale bar shows the length on the map which represents a standard distance in ground units. The size and units of the scale bar vary as you zoom in and out. The measure tool should be used to calculate the distance between various points on the map. The scale bar provides a quick indication of distance.

Coordinate Control



The Coordinate Control displays the map coordinates and elevation of the point on the map currently under your mouse cursor. The elevation is only updated after the mouse is stationary for half a second within the map window.

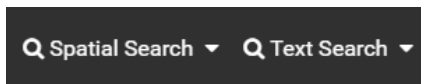


You can click on the Coordinate Control to change the format of the coordinates shown from MGA easting and northings to Lat/Long decimal degrees.



If you are running MinView on a tablet device then the coordinates are shown for the centre of the map (represented by a cross hair). To find the coordinates of a point on the map, drag the map to position the point in the crosshairs.

Spatial and Text Search

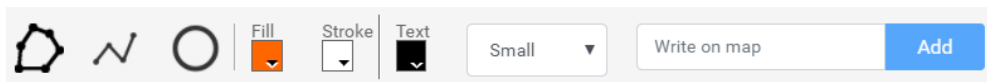


Spatial Search allows you to perform spatial queries on the layers that are present on the map by drawing a polygon or a rectangle on the map to select features.

Text Search allows you to perform textual queries on the layers that are present on the map by entering search criteria against the fields of a layer.

Please see [Querying the Map](#) for more details.

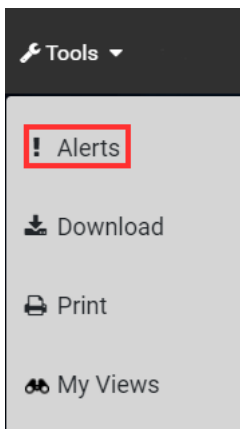
Draw



Draw allows the user to draw shapes and add text to the map. The user can draw polygons, circles and lines and text and can change colours and text size.

See [Drawing on the map](#) for more details.

Alerts

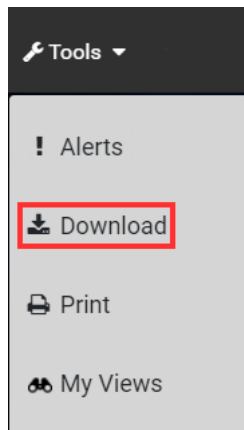


Alerts allow you to select an area of interest and subscribe to email reminders for notification of title(s) expiry or any titles' related changes.

See [Creating alerts](#) for more details.

You need to be logged in to the MinView application to be able to access Alerts.

Download

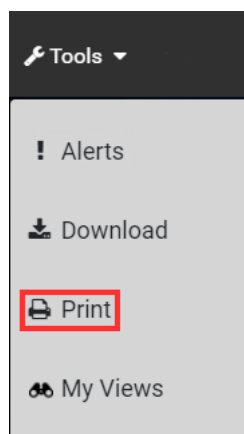


Download allows you to request available data in various formats.

See [Downloading data](#) for more details.

You need to provide a valid email address to be able to receive the data download link via email.

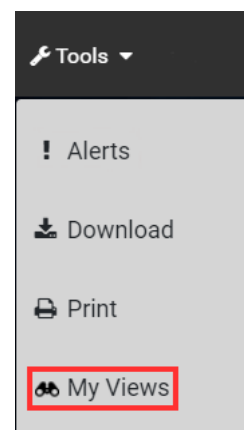
Print



Print allows you to download the current view of the map including drawings and added layers. This is available as either PDF or image formats.

See [Printing the map](#) for more details.

My Views



My Views allows you to save the current map for later access or to share. See [Saving My Views](#) for more details.



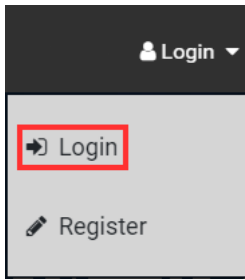
You need to be logged in to the MinView application to be able to access saved My Views.

Share map view



Share map allows the user to share the current view of the Map by copying the URL link to the clipboard. The shared link, when opened in any other browser, will present the current map (including pre-configured layers and zoom levels). User added layers, files and drawings are not part of the shared view.

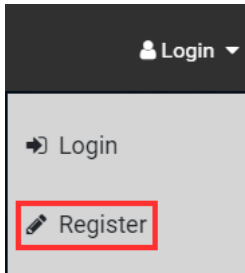
User Login/Registration



User Login

Allows a registered user to log in to MinView. Login is required to access the following features

- Alerts
- My Views



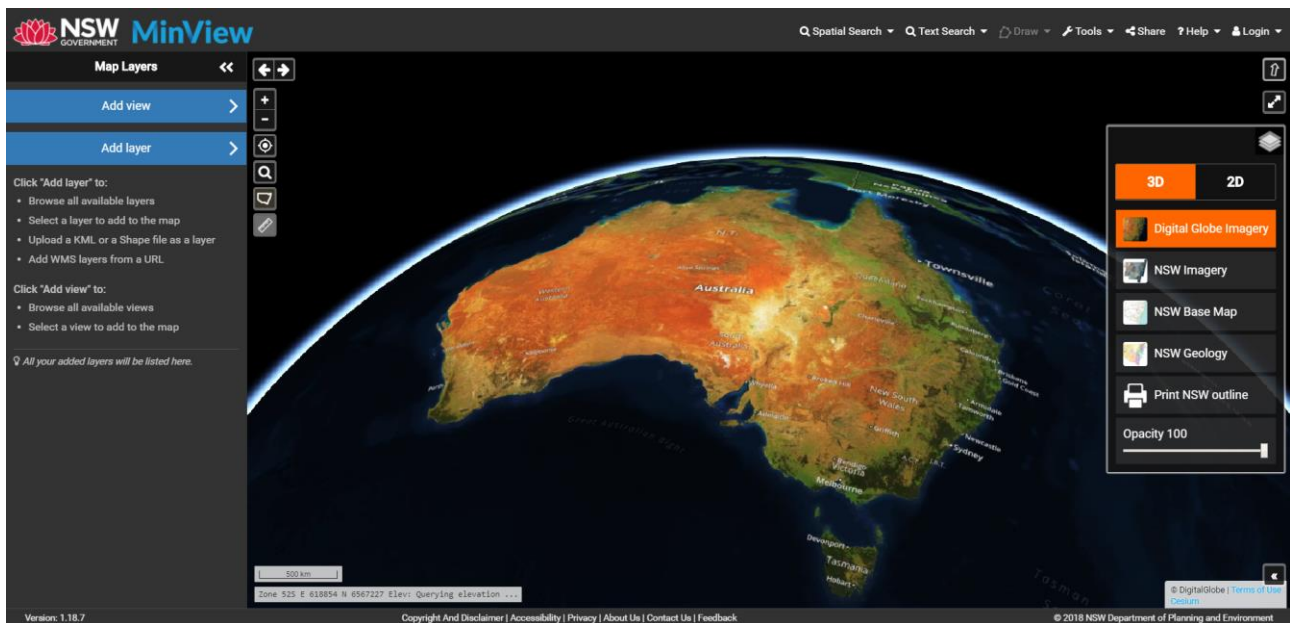
User Registration

Allows a user to register for MinView. After successful registration the user can log in to the system.

See [User accounts](#) for more details.

Viewing the map

The MinView map can be viewed in both 2 dimensions (2D) and 3 dimensions (3D). By default, MinView will open in 2D mode. You can use the base map icon to change the base map selection and change the view to 3D mode.



The 3D mode shows the map data over the terrain. It also provides additional navigation capabilities such as tilting and rotating the map view. To navigate in 3D, hold down Ctrl on the keyboard, click and drag the mouse to rotate and adjust the tilt of the Globe. Zooming in and out works the same way as in 2D mode, by using the mouse wheel or using the Zoom in or Zoom out buttons.



On a touch device, you tilt and rotate the map by placing two fingers on the screen at the same time and dragging forwards or back. To rotate the map, rotate your two fingers.

Limitations of 3D mode

3D mode provides an engaging and attractive view of the map however it requires more recent and powerful devices to deliver a smooth performance. Older or less powerful devices can also experience other display issues.

- If you tilt or zoom in on the map too far, such that your view goes beneath the surface, it will distort the view of the map. You might have to refresh the browser page to recover the map view.
- You cannot use the draw functions in 3D. You will notice that when you choose the 3D mode, the draw function will be disabled. You can draw in 2D mode and then switch to 3D mode and your drawings will be displayed.
- Spatial Search in 3D only supports the rectangle, not the polygon. In 3D mode you need to click or tap on two points on the map to select the corners of your desired rectangle.



3D viewing is best experienced in the latest versions of Chrome, Edge or Firefox. 3D map view is an emerging technology which is being actively enhanced and improved. We plan to upgrade the 3D experience as the technology matures.

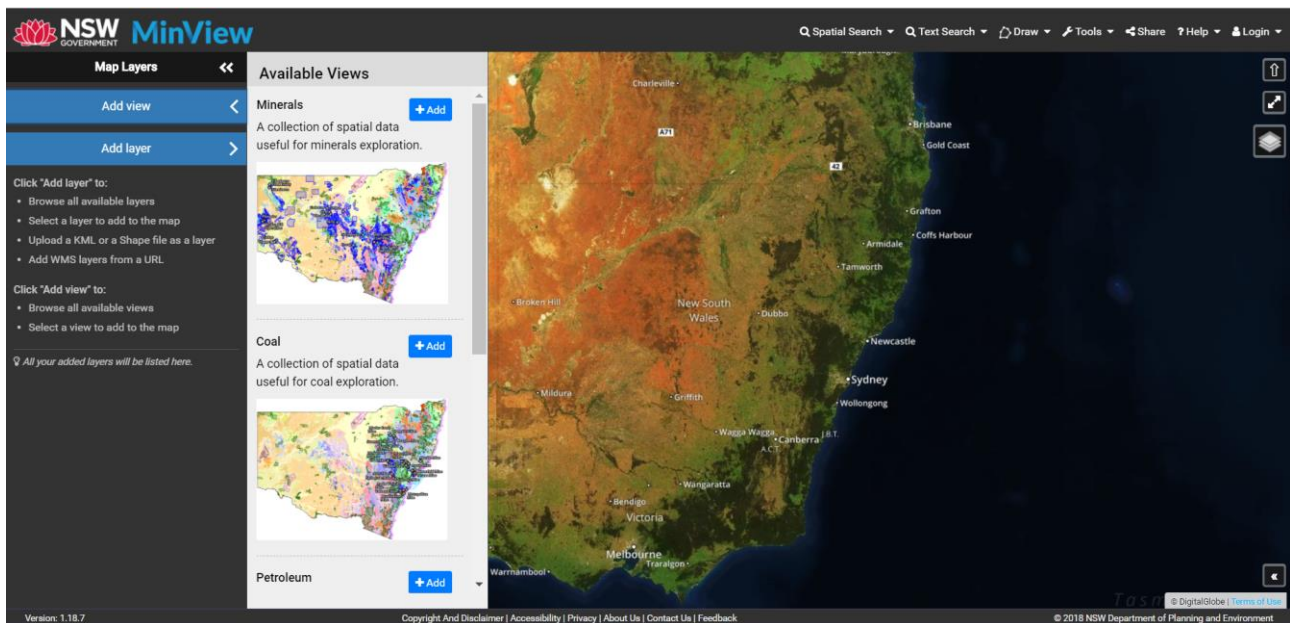


3D mode might not work on older browsers such as Internet Explorer and older devices such as iPad2. You might experience significant performance degradation. MinView requires a modern web browser with WebGL 2.0 capabilities.

Adding map views

A wealth of NSW geological spatial data has been made available through MinView. To help navigate through the provided data sets, themed views have been created to load common map layers into MinView.

The Add view option is available on the left-hand side Map Layers Panel.

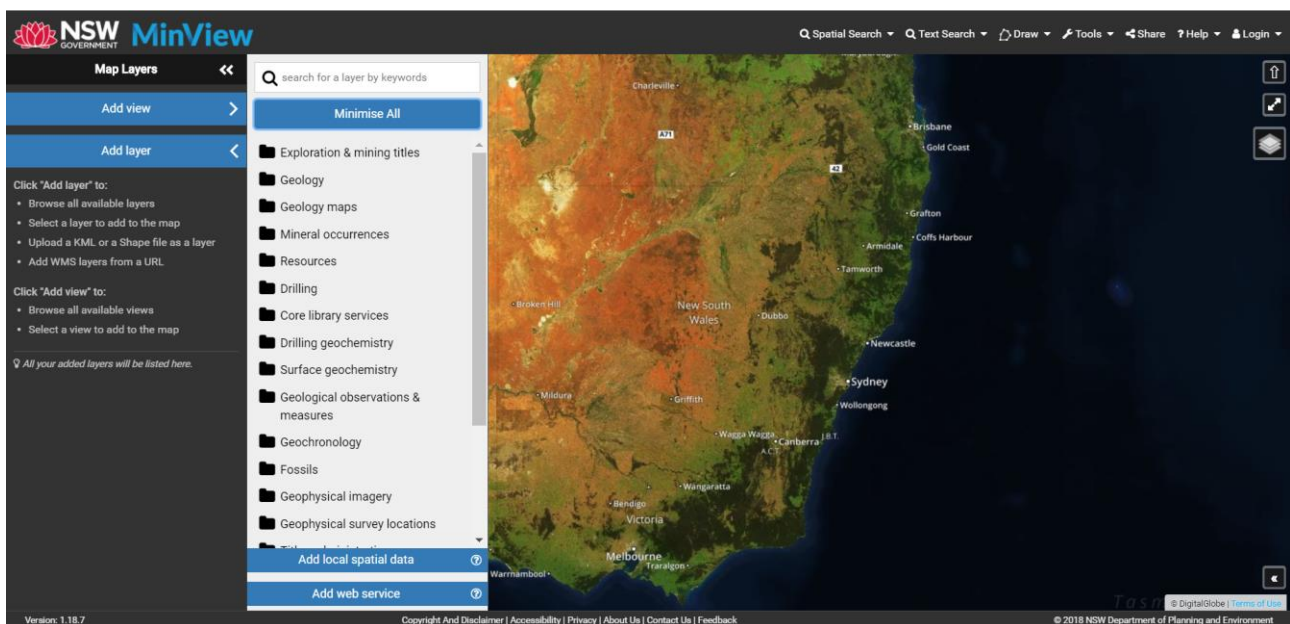


Available views are presented in a vertical scrolling panel. To add a view, click the +Add button. MinView will automatically load the layers into the map.

Note only one view can be added to a map, if a second view is selected all the layers from the first view are deleted.

Adding map layers

To add single layers, instead of themed views, use the Add layer option available on the left-hand side Map Layers Panel.



Layers are presented in a layer tree. To add a layer, navigate to the lowest level of the tree and click +Add. You may also add a whole group of layers using the +Add group button. A more detailed explanation of how to navigate the layer tree is provided in the next section.

Add layers

To add a map layer, click or tap the Add layer button in the left-hand panel. This will present the high-level grouping of available layers. Click or tap on a group to expand and add a layer. Once you add the layer it will appear on the left-hand panel as an active layer. You can remove the layer completely by clicking or tapping the Remove button or you can choose to not display the data on the map by clicking or tapping on the layer check box.



Some map layers, such as those in the Geology group, are comprised of several parts. For example, the lines and polygons data that make up the Seamless geology basins layer will show as a single map layer on the left-hand panel. However, if you choose to perform a Text Search on such a layer, you will be presented with each part separately (since they have different fields or attributes) and will need to select the part you wish to search.



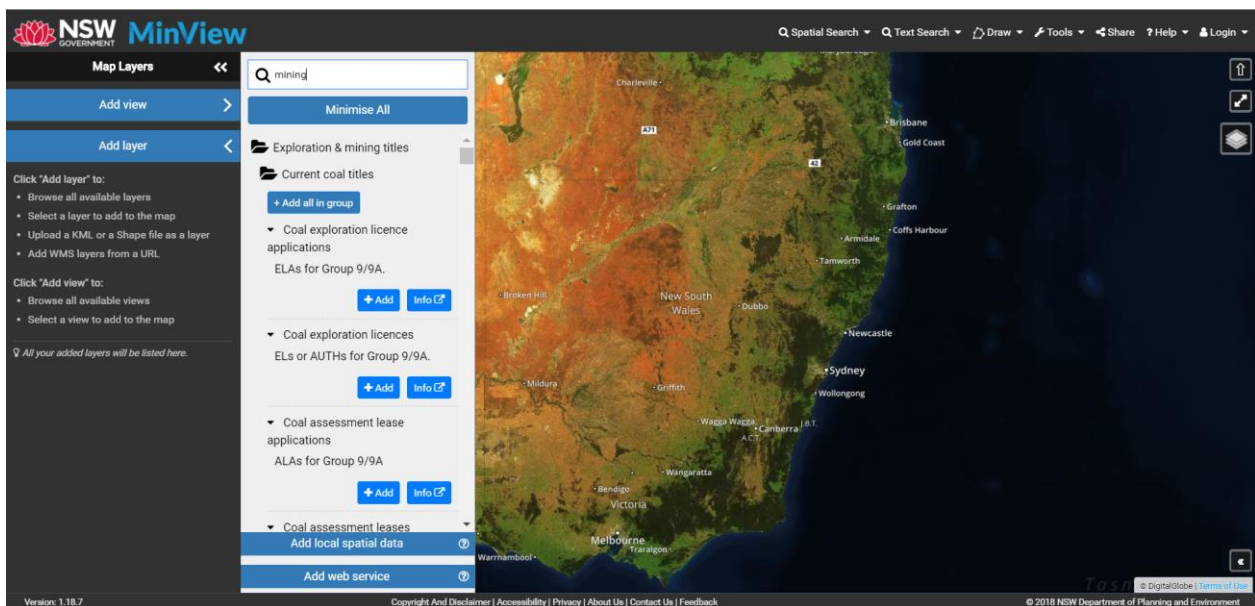
Added layers are available if you do not close your browser tab. Refreshing the browser will not remove these layers from your map view.

Search for layers

You can search for layers by entering a search word into the search area at the top of the Add layer panel. The list of layers will be filtered down to those which match your search.

This search works by matching your search term with layer names, layer descriptions, layer groups and sub group names as well as key words which have been configured for each layer and group. This means that your search can potentially return a large number of layers.

For example, using the search term 'mining' will show a result set where mining appears in layer group names, sub group name or layer names as shown below.



Map layer panel

When a map layer is added to the map it will appear on the Map layer panel on the left-hand side. From the Map layer panel, you can:

- Set the order in which layer is shown on the map. To do this, simply click and hold (or tap and hold) on the title of a layer and drag it above or below other layers to a new position in the panel
- Toggle the visibility of added layers. To do this, click on the checkbox next to the layer title.
- Access the layer detail panel by tapping the ">" icon after the layer's title.

Layer sources

The following layer groups are managed by the Division of Resources and Geoscience (DRG):

- Exploration & mining titles
- Geology
- Raster geology maps
- Mineral occurrences
- Resources
- Drilling
- Core library services
- Drilling geochemistry
- Surface geochemistry
- Geological observations & measurements
- Geochronology
- Geophysical imagery
- Geophysical survey locations

The remaining layer groups are supplied freely under Creative Commons Licence (CC-BY) by other government agencies:

- Titles administration
- Water resources
- Administrative boundaries
- Infrastructure & utilities
- Reserves, parks & forests
- Planning Instruments

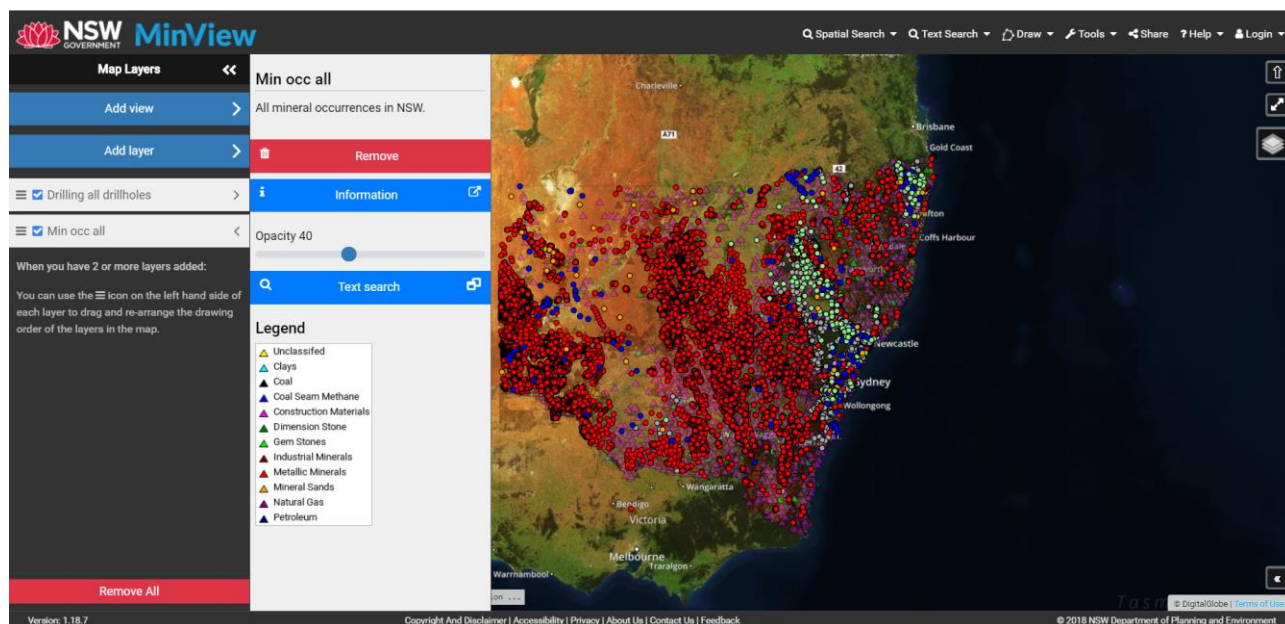
Layer detail

Clicking or tapping on the ">" icon after the layer's title in the left-hand panel opens the layer detail panel. This layer detail panel provides access to further options and information for a layer.

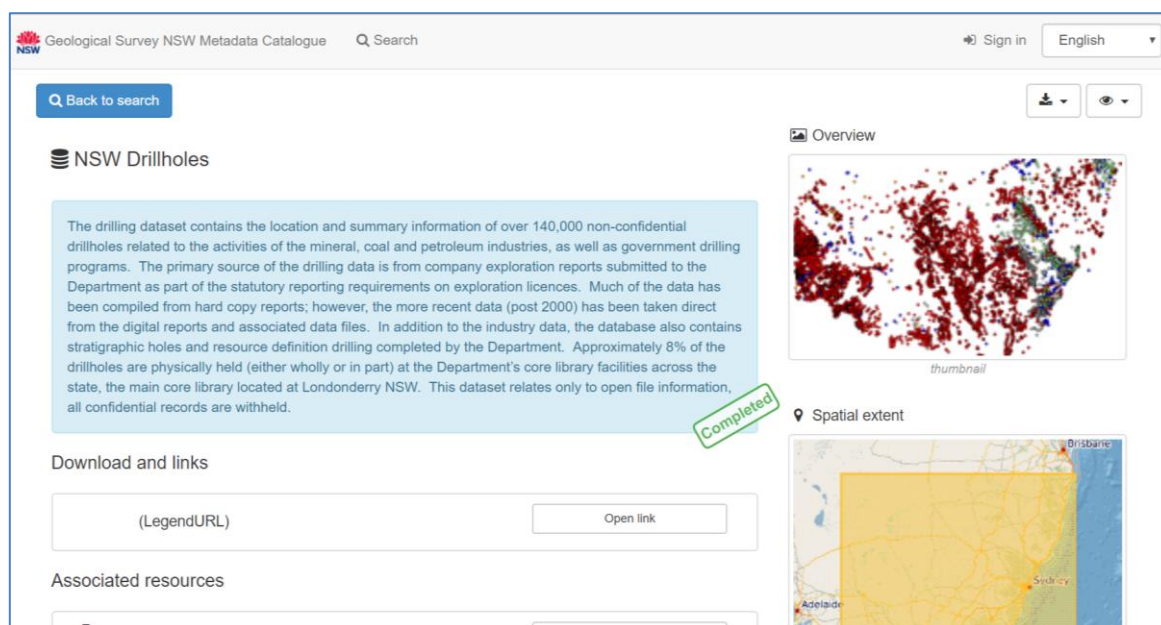
The panel includes:

- The layer title and description
- A remove button which removes the layer from your map
- An Information button which will display further information about the layer (known as its metadata) in a new browser window. Note that some layers may not have any metadata available in which case the Information button will not be active. Note also that only one metadata statement can be open at once since they open in the same browser tab.
- A slider control which allows you to adjust the opacity (i.e. level of transparency) of the layer on the map
- A quick link to perform a text search on the layer's attributes
- If available, a legend for the layer which shows the colour and style used to display this layer's features on the map

Below is an example of the All mineral occurrences layer detail panel displaying an opacity setting of 40% and the layer legend where each mineral occurrence is classified by type.



By clicking the Information button in the layer detail panel, the user is taken to the GSNSW Metadata Catalogue, which provides ISO19139 compliant XML metadata for each dataset in MinView (see below for an example). It also has access to the GSNSW Web Map Service (WMS) and equivalent Web Feature Service (WFS), which can be consumed by GIS clients such as ArcGIS, MapInfo and QGIS. A guide to working with these services is provided on the Division of Resources and Geoscience [website](#).



Layer information or metadata

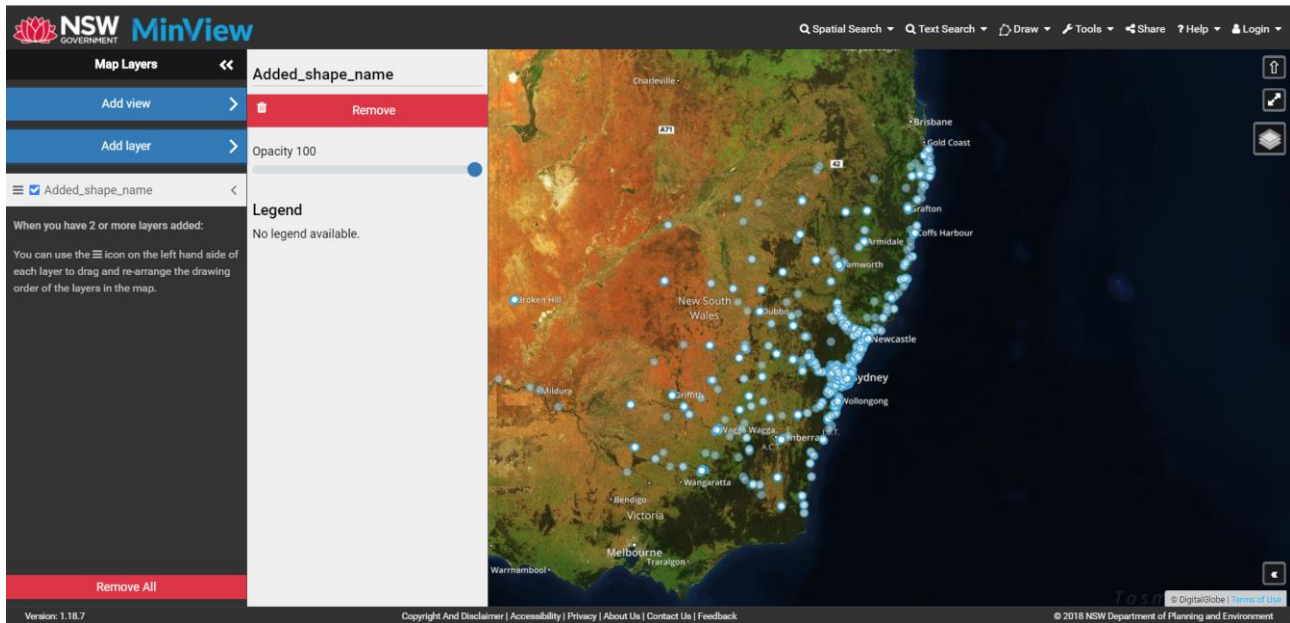
Add local spatial data

Add local spatial data



This function allows you to bring your own map data into MinView to provide more context to other data in MinView or to show desired features for printing.

You can add a zipped shape file or a simple KML/KMZ file from your computer using the Add local spatial data button available on the Add layer panel. This button will open a file selector window. Select a zipped shape file or a KML/KMZ file and click OK. This will open, check and display the shape or KML file on the map.



Once the shape, KML or KMZ file is successfully loaded, it will add the layer to the map and the file name will be used to add the layer to the map layer panel. You can also use the map layer panel to set the opacity of the layer.



Please note that search and information functionality is not available for layers added using shape/KML/KMZ files.



Note that layers added via shape/KML/KMZ files are not included in saved or shared views and are only available for your current browser session. If you refresh the browser then these layers will be removed from the map view.



Please note that MinView only supports small shape/KML files, of up to 10 MB in size. If you load any file that is larger than 10MB, you will receive an alert message as shown below. Only simple point, line and polygon features in KML files are supported – any linked or extended content will be ignored.



Please note that lines are not supported in 3D view so if you use a KML or zipped shape file containing line features, they will not appear in 3D and you need to switch to 2D to view these features.



The MinView map is displayed in Web Mercator projection to be compatible with the widest possible range of web services. Uploaded data will be automatically reprojected to Web Mercator to be displayed. If your shape file does not specify its source projection in a PRJ file, MinView may be unable to reproject it.

Add web service

Add web service



This function allows you to add map layers that are available via a Web Map Service (WMS) such as are often published by government or other large organisations. For example, NSW Spatial Services provides a [WMS URL](#) for many of the map layers they publish.

To add a map layer from a WMS, click or tap on Add Web Services button on the Add Layers panel. It will present you with a form to enter the WMS URL as shown below. Enter the WMS URL and click on List layers button. This will list the available layers which can be added using the add button.

Add Web Service

Enter a WMS web service URL to select and add a layer from this service

[List layers](#)

Lot [+ Add](#)

PlanExtent [+ Add](#)

Only basic information is available for user added layers. You can use the Map Layer Panel to view the layer legend (if available) and set the opacity.

You cannot save or share the map view with layers added via web services. Also, these layers are only available for your current browser session. If you refresh the browser then these layers will be removed from the map view.



Please note that text or Spatial Search functionality is not available for layers added using web services.



Please note that only secure (https) and publicly available web services can be accessed using list layers. If your WMS URL starts with http, try changing it to https – many WMS services support both protocols.

You can find other NSW government web services listed on the portal for Sharing and Enabling Environmental Data ([SEED](#)). This portal has been developed with and for the community of NSW, as a central place for everyone to find data about the NSW environment. It contains many secured https WMS services provided by a wide variety of NSW government departments and agencies.

Querying the Map

MinView provides several different ways to query features on the map, including:

- Spatial Search – drawing an area on the map and finding all features which fall within this area
- Text Search – searching for features in a layer based on values in selected field(s) of the attribute table
- Single click popup – clicking on the map and querying all features under that point

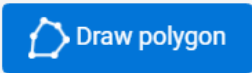
In some cases, these details are displayed as a table, while in other cases, a list-style report is provided.

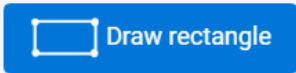
Note that not all map layers can be searched. Searching is performed using a separate Web Feature Service (WFS) which must be available for each map layer. However, most of the raster map layers do not support WFS and cannot be searched. Layers that are not available for a text search include layers from providers other than GSNSW like: SEPP14 Coastal wetlands, SEPP26 Littoral rainforest, SEPP71 Coastal protection zone, Geology cover characteristics, Geophysical imagery and the four base maps layers.

Spatial Search

The Spatial Search allows you to search every visible layer in the map by defining a search area using a polygon or rectangle tool.

1. To start your spatial search, you need to draw a polygon or a rectangle.
2. After selecting one of search options this panel will disappear and you will be able to draw your desired shape.
3. Once you are done with drawing, all visible layers will queried and this panel will be opened with available results.

 Draw polygon

 Draw rectangle

To perform a Spatial Search either:

1. Draw a rectangle by clicking (or tapping on a touch screen device) the top-left corner and bottom-right corner (do not drag a box).

OR

2. Draw a polygon by clicking (or tapping) each vertex of the polygon on the map. You can close your polygon by clicking on the first point. MinView will automatically snap the polygon edge back to the first point and start the search.



Double tapping on a touch device may cause the map to zoom in on some tablets.

Once your search has been executed your search results will be displayed in the search results table. The results will also be highlighted on the map in light blue. Note that the search parameters will be hidden to save screen space.

For details see [Adding map layers](#)


Text Search

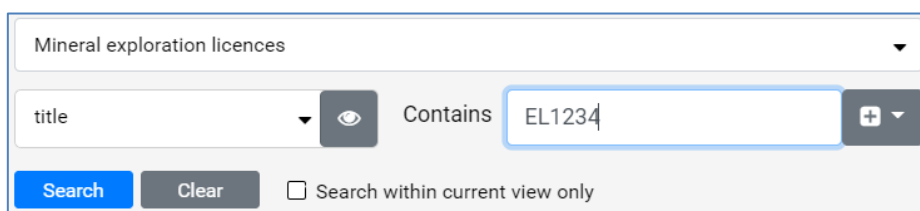
Unlike a Spatial Search, Text Searches are always performed on a single map layer at a time. You access Text Search either from the button on the layer detail panel, or via the Text Search menu option above the map. All searchable map layers listed in the layer drop-down are available as candidates for the Text Search.




MinView is not designed to allow you to perform a Text Search on all visible layers. Instead, consider searching layers one at a time.

To perform a Text Search:

1. Click or tap to select the layer you want to search. In the example below, Mineral exploration licences.
2. Click or tap on the column you wish to search from the dropdown menu. In the example below, title.
3. Click or tap on the sample data icon  to view some sample data contained within the selected attribute field
4. Enter the value you wish to search for. In the example below, EL1234.
5. Click or tap the Search button to execute your search



Click or tap the  icon to add a second search line to further limit your search results. You can combine searches using AND or OR operators.

For example, title contains EL **AND** grant_date > 2018-01-01.

For example, title contains EL **OR** title contains AUTH



Click or tap the checkbox to search only features within the current map view

Once your search has been executed your search results will be displayed in the search results table. Results will also be highlighted on the map in light blue. Note that the search parameters will be hidden to save screen space.

For details see [Adding map layers](#)



Different attributes contain different types of data. MinView supports searches for text, numeric, date and Boolean (True/False) fields. See the notes below for how you should enter values in each case. Note that it is often helpful to use the Sample Data button to check what type of data is in a particular column.

Text fields

MinView performs a case-insensitive string search on text fields. A record will be matched if the selected field includes the value anywhere in the field and with any mix of lower and upper-case characters.

Date fields

If you select a date field then you will be given the choice of searching where the date is less than or equal to (<=) or greater than or equal to (>=) the date you enter. Dates should be entered in the format yyyy-mm-dd e.g. 2017-05-22.

Do not enter times.

If you wish to search for a single date, add a second search line using the AND joiner, and enter the same date in the second line, with > in the first line and < in the second line
e.g. APPLN_DT > 2017-05-22 AND APPLN_DT < 2017-05-22.

Note that if you search on a date field, any records with no date will be omitted.

Number fields These work in a similar way to date fields – you select less than or equal to (<=) or greater than or equal to (>=) and then enter the number value. Numbers may include decimal places if appropriate to the field you are searching.

Boolean fields For fields which holds true and false values, MinView will display a dropdown list with the values True and False – select the desired value.

Search results table

The search results table drops down from the top menu bar after a Spatial or Text Search is completed. There are a variety of interactions that are possible with the table and with individual search results.



Actions	title	company	grant_date	expiry_date	last_renewed	groups
Report + Highlight	EL5891	WALSH, Denis Michael	2001-09-21	2018-09-20	25 Jan 2016	GROUP
Report + Highlight	EL8074	SILVER CITY MINERALS	2013-04-15	2019-04-15	23 Jun 2016	GROUP
Report + Highlight	EL8176	SIBELCO AUSTRALIA LI	2013-10-15	2018-10-15	17 Feb 2016	GROUP
Report + Highlight	EL7437	AWATI RESOURCES LIV	2009-12-23	2020-12-23	15 Feb 2018	GROUP
Report + Highlight	EL8546	JERVOIS MINING LIMIT	2017-03-30	2019-03-30	30 Mar 2017	GROUP
Report + Highlight	EL5879	PERILYA BROKEN HILL I	2001-07-25	2018-10-31	11 Feb 2014	GROUP
Report + Highlight	EL1590	EVOLUTION MINING (CI	1981-03-13	2019-03-13	30 Jan 2017	GROUP

773 results shown.

To help improve viewing the results, you may also wish to maximise or minimise the table using the button in the top right corner. The number of records shown when the table is maximised/minimised is dependent on the resolution of your computer monitor or device, and the text size your browser is set to show.

To modify the parameters used in your text search dropdowns you can click modify search.

To zoom to results of your search in the map, click Zoom to Results.

To clear your search and start again, click Clear.

To export your results to a CSV which you can then open in Excel, click Export Result to CSV.

Inside the table, you can click on the following buttons in the Actions column (if available):

Action	Result
Report	Opens a new window in the browser with a single click report for the selected feature
+ Highlight	Highlights the selected feature on the map in yellow. Note: all other selected features remain cyan
+ Add	Adds the selected feature to the map e.g. a geology map can be added from an index layer

Many records also contain links to the DiGS exploration reports and publications collections. These links are indicated by blue highlighted text with an “opens in a new window” icon as shown below.

Spatial SearchText SearchDrawMore ...

Drilling all drillholes

program has Coultra

titleref	reports	title_type	title_no	licencee	ope
ATOP2636	GS1967/120, GS1967//ATOP		2636	Broken Hill South Ltd	
ATOP2636	GS1967/120, GS1967//ATOP		2636	Broken Hill South Ltd	
ATOP2636	GS1967/120, GS1967//ATOP		2636	Broken Hill South Ltd	
ATOP2636	GS1967/120, GS1967//ATOP		2636	Broken Hill South Ltd	
ATOP2636	GS1967/120, GS1967//ATOP		2636	Broken Hill South Ltd	
ATOP2636	GS1967/120, GS1967//ATOP		2636	Broken Hill South Ltd	

Modify SearchZoom to ResultsClear

Export Result to CSV

Loaded maximum of 500 out of 1,213 results

A special set of layers also contain links to download the data – these links are typically under a column name of “download”. For example, the Airborne government mag-rad layer has a download link, as shown below.

Spatial SearchText SearchDrawToolsShareHelpLo


Airborne government mag-rad

MaximizeClear

Actions	survey_no	download	surveyname	linespace
+ Highlight	1998643_Clarence_Richmond	1998643_Clarence_Richmond	Clarence Richmond/Grafton	200

1 results shown

Zoom to ResultsExport Result to CSV



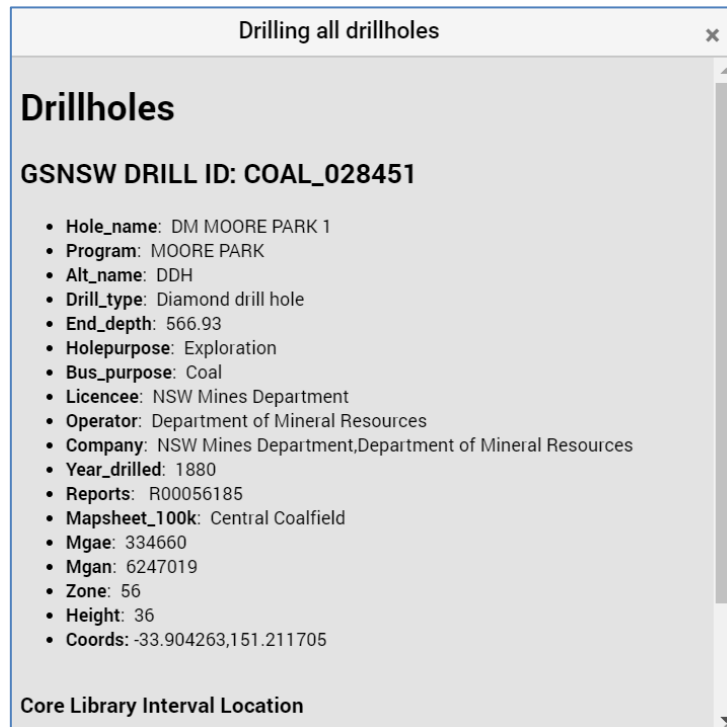
To more clearly view the results on the map, you can temporarily hide the search results table by clicking or tapping on the search menu item in the top menu. You will not lose your search criteria or results. You can click or tap on the Text Search menu again to show the results once more.

Single click popup

Besides Spatial and Text Search, MinView also allows you to click directly on the map and receive information back about all visible features underneath that point. Depending on the map layer being queried, either a report or a table format will be returned with the feature information.

If you click or tap on the map where there is more than one data layer visible then a dropdown list at the top of the single click popup form will be displayed. You can view the results from the different map layers using the dropdown list.

The reports for the given layers are individually presented on a page. You can use the page number navigation feature at the top of the window to navigate between the reports for different features.



You can move this pop up window by clicking (or tapping) and holding, then dragging the box around the screen. This pop up is also resizable, by clicking and dragging any edge of the popup.

Registration and Login

MinView has two levels of service: one for registered users and one for guest users. All users will have access to the full list of map layers, text and spatial searches, data downloads and links to DiGS.

Registering provides extra functionality in MinView including bookmarking favourites and email alerts so that users investigating either the potential for exploration or resource industry activity in a region can be alerted of changes quickly.

To register you need to complete an online registration form using a valid email. You need to provide your personal details such as First Name, Last Name, and Email and choose a password. You will need to accept the registration terms and conditions which can be viewed by clicking the terms and conditions link.

Once you are successfully registered you will be automatically signed into MinView. You can then use this registered email and password to login back to MinView at any time.

User accounts

You need to register for an account and use it to login to MinView to:

- save specific map views
- set and receive alerts on title changes or expirations

NSW Department of Planning and Environment will store your email address on its database solely for activating the above services and keeping users informed of planned outages or the release of new features.

Your account also provides you access to saved searches for documents in the DiGS exploration report archive. The one account is designed to access the additional features of both applications.

Register

First Name*

Last Name*

Organization

State

Email Address*

Password*

Confirm Password*

☐ Join the mailing list

☐ Accept registration [terms and conditions](#)

Register

Login

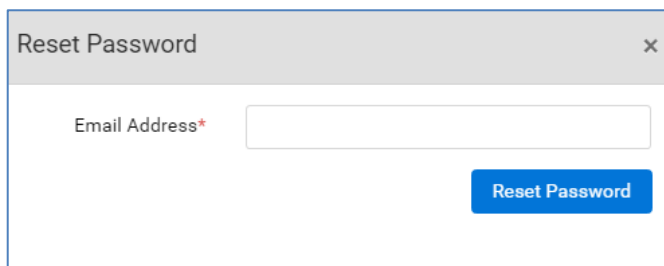
Email

Password

Login

[I forgot my password](#)

Reset password

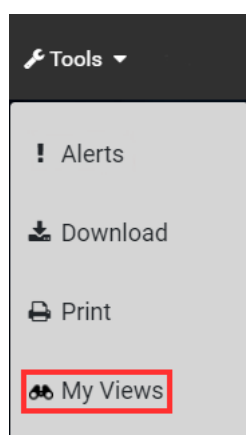
A dialog box titled "Reset Password" with a close button (X) in the top right corner. It contains a text input field labeled "Email Address*" and a blue button labeled "Reset Password" below it.

In case you cannot remember your password, you can reset your password by choosing 'I forgot my password' option on the Login form. You will need to enter your registered email and click on Reset Password. This will send an email to the registered email address with a link to reset your password.



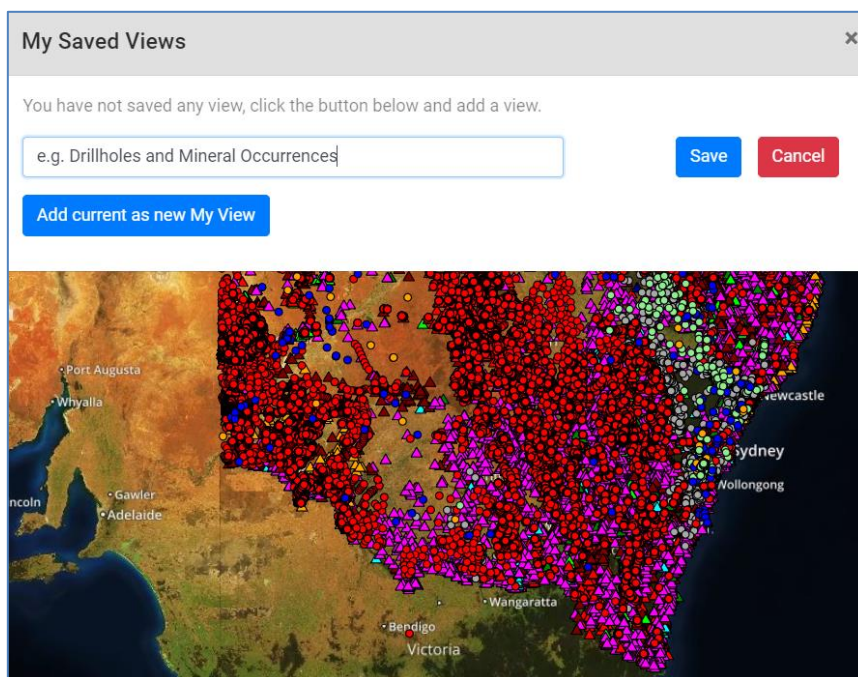
When you are logged in, you will see a message (Logged in as) on the right bottom of the screen.

Saving My Views



My Views allows you to save map views (bookmarks) so that you can retrieve and apply or share them later. To save or access saved views, select My Views from the Tools menu.





The first time you use this function you will be presented with a window that allows you to create a bookmark. Click on Add current as new My View to capture your current map window centre, zoom level and added map layers. Enter a name for your view and click Save.

A dialog box titled "My Saved Views" with a close button (X) in the top right corner. It contains a text input field with the placeholder text "e.g. Drillholes and Mineral Occurrences", a blue "Save" button, and a red "Cancel" button. Below the input field is a blue button labeled "Add current as new My View". At the bottom of the dialog is a map of Australia with numerous colored markers (red, purple, green, blue) indicating saved views. Labels on the map include Port Augusta, Whyalla, Gawler, Adelaide, Lincoln, Sydney, Newcastle, Wollongong, Wangaratta, Bendigo, and Victoria.

Accessing My Views

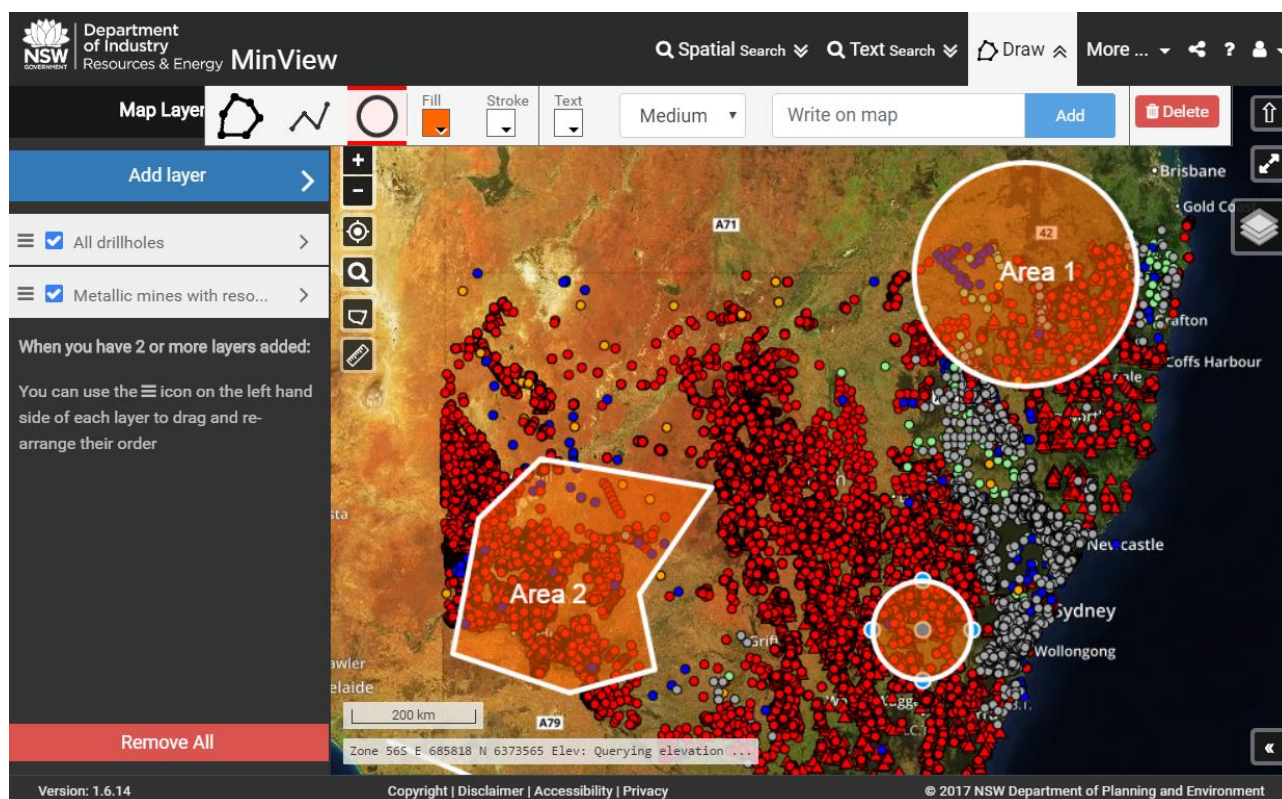
Your saved views are then available for you to access later. There are a few options available for each view:

- **Apply without layers** – This allows you to only apply the zoom and extent of the saved view but leaves your current map layers unaltered.
- **Apply with layers** – This allows you to apply the complete view including layers, zoom level and extent. Any map layers you currently have displayed will be removed and replaced by the layers in the saved view (Note that user added layers and drawing are not included in saved views).
- **Remove** – This allows you to remove the saved view.
- **Share** – This allows you to share the saved view as a hyperlink.

My Saved Views ×				
View	Apply without layers	Apply with layers	Remove	Share
e.g. Drillholes and Mineral Occurrences				
Add current as new My View				

Drawing on the map

The drawing capability in MinView allows you to annotate the map view for print purposes by drawing on the map. You choose a drawing tool e.g. polygon, line or circle by selecting it from the tool bar and then start the drawing by clicking or tapping on the map. User added drawing is included in map prints.



How to Draw (Desktop)

Polygon

When you select the polygon drawing tool and move your cursor to the map area, you will see a blue dot under your mouse pointer. This indicates that each time you click, you will place a corner (vertex) of the polygon. Click once on the map where you would like to begin your drawing and move (don't drag) the mouse in the desired direction. You will see the line being drawn. Click on the various points on the map where you would like to draw the polygon. To finish, "close" the polygon by clicking back on your starting point. You can also double click any time to complete the polygon, automatically closing it back to the starting point.

Circle

When you select the circle drawing tool and move your cursor to the map area, you will see a blue dot under your mouse pointer. Click once on the map where you would like the centre of your circle to be, and then move the mouse in the outward direction. You will see the circle being drawn. Once you are happy with the size of the circle, click once to finish drawing.

Line

When you select line drawing tool, you will see a blue dot under your mouse pointer. Click once on the map where you would like to start your line, and then move the mouse in the desired direction. You will see the line being drawn. Click on the various points on the map where you would like to draw the line. Double click on the map where you want to finish drawing the line.



Drawing on tablets works slightly differently. In this case when choosing a drawing tool, tap on various points on the map to draw the desired shape. Tap once to complete circles and double tap to complete lines and polygons.

Text

You can also write text on map. To write text, enter the desired text in the 'Write on Map' text box on the Draw tool bar. Click Add, then click or tap on the map where you would like the text to appear.

Edit Draw Objects

To edit a draw object first select the Draw option from the main menu. Then click or tap on the draw object e.g. polygon. This action will provide 'draw handles' on the object. You can then change the drawing by clicking and holding your mouse button on these 'draw handles' and moving your mouse in the desired direction.

Once you have selected a draw object you can also change the fill, stroke and text from the Draw tool bar.

When you first create an object, it can be edited immediately. Otherwise follow the steps above.

To edit text, click or tap in the centre of the text. The selected text will then have a blue dot appear under it. The text, its colour and size can then be changed using the Draw tool bar.



For tablets tap the draw object to select, and then hold your finger on the 'draw handle' and swipe in the desired direction to edit the draw shape.



Delete Objects

Draw

To delete a draw object first select the Draw option from the main menu. Then click or tap on the draw object e.g. polygon. This action will show 'draw handles' on the object. Now click or tap on the delete button on the drawing tool to delete the draw object.



The drawing is only available for the current session. MinView will retain your drawing until you close your browser or tab window. You cannot save or share a view with the drawing.

Printing the map

Print allows you to create and download a "printed" version of the map. You can enter a title and optionally a subtitle for your map print, select the desired page size and output format. Currently only an A4 landscape template is available.

Print the map

Map Title:

Map Subtitle:

Page Size:

A4
A4
A3
A3

Output Format:

PDF

Legend layer:

All drillholes

Show grid:
☐

2 pages:
☐

Print

Due to space considerations, only a single map layer legend can be included in your map print. If you have multiple layers on the map, you will need to specify the layer for the legend you want most. This will place the legend for the selected layer on to the map.

Normally the output file will contain only one page. If the selected layer legend is too big to fit on one page then you have the option to specify 2 pages. In this case the legend will be printed on the second page.

Legends are not available for base maps. Prints with no visible data layers will only have options for title, subtitle, page size, file format and grid.



Select the 2-page option to print the legend on the second page.
Select Show grid option to show a grid on the map.



The print file will be downloaded in your computer download folder. The file name will be MinView_print_{date} where {date} will be the current date in the format yyyy-mm-dd.

Downloading data

The Download Data menu item enables you to request data in GIS, image or text formats for a range of datasets managed by the Division of Resources and Geoscience (DRG).

To download the data, you will need a valid email address. If you are logged in, your registered email will be set as the default in the "Send download link to" text box. If you wish, you can enter a different email address. You can choose to download the dataset for your current map view only or for All of NSW.

After you submit your request, it will be placed in a queue for processing. After the dataset is prepared, an email will be sent to you with a link to download the dataset. It is only possible to request one dataset for download at a time.

Dataset	Available Formats
Exploration & mining titles	text(.csv), MapInfo(.tab), ESRI(.shp)
Drilling	text(.csv), MapInfo(.tab), ESRI(.shp)
Mineral occurrences	text(.csv), MapInfo(.tab), ESRI(.shp)
Drilling & surface assay geochemistry	text(.csv), MapInfo(.tab), ESRI(.shp)
All whole rock geochemistry	text(.csv), MapInfo(.tab), ESRI(.shp)
Geology	ESRI(.shp), ESRI(.gdb), MapInfo(.tab)
Geological observations	text(.csv), MapInfo(.tab), ESRI(.shp)
Geochronology	text(.csv), MapInfo(.tab), ESRI(.shp)
Geophysical imagery	
All state-wide imagery	ER Mapper(.ecw), image(jpg, GeoTIFF)
Elevation	ER Mapper(.ecw), image(jpg, GeoTIFF)
Radiometric K-Th-U	ER Mapper(.ecw), image(jpg, GeoTIFF)
Gravity	ER Mapper(.ecw), image(jpg, GeoTIFF)
Gravity (TMI RTP tilt)	ER Mapper(.ecw), image(jpg, GeoTIFF)
Magnetics (TMI RTP)	ER Mapper(.ecw), image(jpg, GeoTIFF)
Magnetics (TMI RTP 1VD)	ER Mapper(.ecw), image(jpg, GeoTIFF)
Magnetics (TMI RTP tilt)	ER Mapper(.ecw), image(jpg, GeoTIFF)

Download Data in GIS & CSV formats

Send download link to:

Map extent:
☒ Use current view
☐ All of NSW

Please select the dataset you wish to download

Exploration & Mining Titles

Drilling
Mineral occurrences
Drilling & surface assay geochemistry
All whole rock geochemistry
Geological observations
Geochronology
Geology
Geophysical imagery

Mining and exploration titles, and applications for titles.

File format

CSV (spreadsheet)

Download

These download options are approximately equivalent to the high-level layer groups visible when the ‘Add layer’ button is clicked/tapped in the Map Layers panel.

Map Layers

Add layer

Click "Add layer" to:

- Browse all available layers
- Select a layer to add to the map
- Upload a KML or a Shape file as a layer
- Add WMS layers from a URL

All your added layers will be listed here

search for a layer by keywords

Minimise All

Exploration & mining titles

Geology

Mineral occurrences

Resources

Drilling

Drilling geochemistry

Surface geochemistry

Geological observations & measurements

Geochronology

Geophysical imagery

Each download option represents an entire dataset. There are also more data fields in these data sets than are visible in MinView. MinView displays only the information required for the user to discover and understand the data layers.

Downloading a dataset allows the user to access and analyse the full data details available from GSNSW and DRG.

Creating alerts

MinView provides access to GSNSW's alerts portal. You can access the alerts portal when you are logged into MinView.

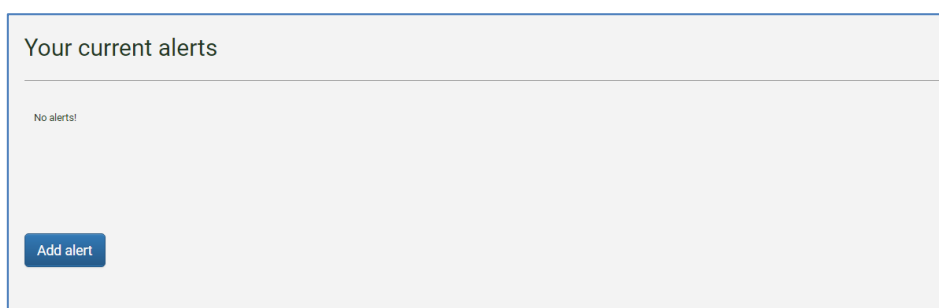
Currently the portal sends alerts to users either

1. when there are changes to exploration and mining titles, or
2. when a title is either 8 or 1 week(s) away from expiring.

The alerts conditions are checked nightly and emails are automatically sent to users whose area of interest intersects a title that meets one or more of the alert conditions. Changes captured are:

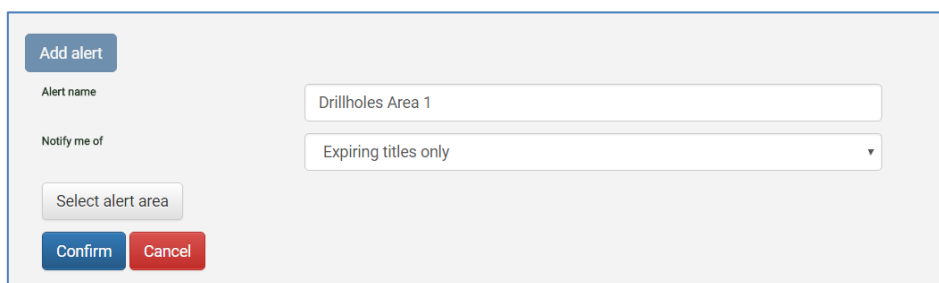
- the grant date, application date, expiry date, last renewal date, groups, minerals or resources recorded against a title changes
- the title shape changes (either the old or new title shape intersects the area of interest)
- a new title is created
- a current title has expired

The first time you use the Alerts function a new browser window or tab opens explaining the alert types and allowing you to create an alert.



You may find you get a popup blocker notification depending on your settings and browser used. If this happens then enable access to MinView and try again.

When you click on the Add alert button, you will need to give the alert a name and chose your alert type.



Clicking on 'Select alert area' opens the area chooser.

From here you can select your area of interest. You can either use the current view passed from your MinView map or draw a box or a polygon around the area you would like to monitor.



Please note: your current area in MinView is only passed when you first open the Alerts page. If you go back to MinView, change your area then go back to an open Alerts page the area displayed when making a new alert will still be the area current in MinView when the Alert page was first opened.

If you want to pass a new area from MinView to make an alert then close the current Alerts web page, find your new area of interest in MinView and select the Alerts function from the MinView Tools menu again.

You can also select a single licence or a map sheet from the drop-down list, or all of NSW to monitor. Click the Apply button to set your area of interest.

Click the Confirm button to save the alert. You will now receive email alerts based on the type of alert created.

A title expiry alert will receive two emails, the first is sent eight (8) weeks prior to the expiry of the licence and a second is sent one (1) week prior to expiry.

An alert for titles related changes will receive an email notification whenever there is a change to titles within the selected area. These changes include any titles that expire, land that is relinquished and/or applications that become titles.

The screenshot shows a web interface titled "Select your area of interest" with a close button (X) in the top right corner. The interface is divided into a map area on the left and a control panel on the right. The map displays a geographical area with various colored regions and black outlines. On the left side of the map, there is a vertical toolbar with icons for zooming in (+), zooming out (-), and other map navigation functions. The control panel on the right contains the following elements:

- Text: "Click or to draw area on map"
- Text: "or"
- Button: "Use current view"
- Text: "or"
- Text: "Set area to title or title application"
- Text input: "eg. ELA3"
- Button: "Go"
- Text: "Set area to mapsheet"
- Dropdown menu: (empty)
- Text: "or"
- Button: "All of NSW"
- Text: "To modify selected area click
- Text: "To delete selected area click then select shape"

At the bottom right of the interface are two buttons: "Apply" (in blue) and "Cancel" (in grey).

Q: Why can't I access the Alerts section when I log into MinView as a registered user?

A: You may have a pop up blocker turned on, most commonly by Internet Explorer or Google. You must turn all pop up blockers off for this site to use this function.

Q: Why can't I access a WMS that I am interested in by using the Add Web Service feature of MinView?

- A. Only secure (https) and publicly available web services can be accessed using this function. Ensure that the service you are trying to add is available securely i.e. can be accessed by https and is publicly available on the internet. If your WMS URL starts with http instead of https, try adding the "S" – many WMS services are available with both protocols.
- B. If you are using https and still cannot access a WMS then it may not be a publicly available service. Sometimes WMS are only available to authorised users. If in doubt contact the service provider.

Q: Why don't I see features on the map when I upload my shapefile, KML or KMZ file?

- A. MinView supports only small file sizes (up to 10 MB) and only simple point, line and polygon features in KML/KMZ files. For MinView to display shape file features, the shape file must include a PRJ file which defines the projection of the shape file.

Q: Why does zooming and/or panning my screen takes a long time to refresh? The system runs very slowly.

- A. The more layers you display, the slower the system due to the additional amount of data transfer to your screen. If you are using one or more of the seamless geology layers then you will experience slower response and refresh times as these layers contain large amounts of complex data. It is strongly recommended that you do not display more than one of these layers at the same time if you are experiencing poor response times.

Q: Why do I see a cross hair at the centre of my map when I am not using a mobile device?

- B. The presence of a cross hair is determined by whether the computer or device has a touch screen or not. All-in-one laptops and other modern computers may show a cross hair if they have any touch functionality. There is currently no way to turn this off.

FAQ related to 3D View

Q: 3D mode is very slow on my computer. How do I fix this?

- A. 3D mode provides an engaging and attractive view of the map however it requires more recent and powerful devices to deliver a smooth performance. Older and simpler devices can also have other display issues. It is important that the device has dedicated graphics capability.

3D mode performs best on new browsers such as latest version of Chrome, Firefox or Edge. Please try using Chrome or Firefox if you would like to explore MinView in 3D.

Q: Why does 3D mode causes the map view to distort when I am tilting the map or zooming in?

- A. If you tilt or zoom in the map too far such that the map view goes under the Earth's surface, it will distort the view of the map. This is because the underlying technology, Cesium, is in the early development stages of dealing with the underground environment. MinView will try to recover from this automatically. This recovery may not always be effective if you are generally experiencing performance issues. You might have to refresh the browser page to recover the map view.

Q: Why can't I access some features of MinView in 3D mode such as Draw and Spatial Search using Polygon?

- You cannot use the draw functions in 3D. You will notice that when you choose the 3D mode, the draw function will be disabled. This is due to a limitation in the current 3D technology used.
- You can draw in 2D mode and then switch to 3D mode and your drawings will be displayed other than lines which are currently unsupported in the 3D view.
- Printing the map whilst in 3D will provide a 2D print only
- Spatial Search in 3D only supports the rectangle, not the polygon. In 3D mode you need to click or tap on two points on the map to the corners of your desired rectangle. Future development plans of MinView include expanding Spatial Searching in 3D to include the polygon tool.