



Interactive Map Manual

Information Services

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Version – 1

1	INTRODUCTION.....	3
1.1	ACCESS AND NAVIGATION	3
1.2	MAP VIEW.....	3
1.2.1	THE MAP WINDOW	4
1.2.2	THE INFORMATION PANEL.....	5
2	CREATING A CUSTOM VIEW	6
3	FINDING FEATURES (SEARCHING).....	7
4	FUNCTION AND TOOLBARS	8
4.1	FUNCTION BAR.....	8
4.2	TOOLBAR.....	8
4.2.1	ZOOM TOOLS.....	10
5	USING LAYERS.....	12
5.1	ACTIVE LAYERS	13
6	GENERATING REPORTS	14
6.1	DISPLAY OR HIDE LEGENDS	16
6.2	USING BOOKMARKS.....	16
7	PRINTING A MAP.....	17
8	SAVING YOUR PROJECT.....	18

1 INTRODUCTION

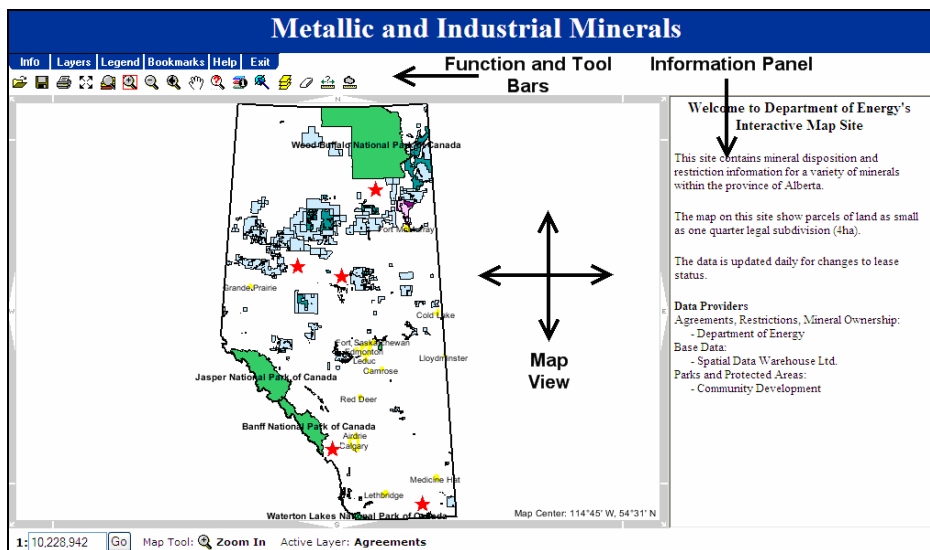
The Department of Energy (DOE) provides a mapping system, using a Geographic Information System (GIS), to enable clients to find basic information on the disposition and use of Alberta's mineral resources. Clients are able to view most of the geographic information in the province including the position of crown land, restrictions, agreements and other information about Alberta's minerals.

1.1 ACCESS AND NAVIGATION

A Geographic Information System (GIS) is a computer system that stores, manages, maps and analyses geographic data. The Department of Energy uses the GIS system to track the exploration, lease and production of Alberta's Mineral resources. The GIS system links pictures of various features such as roads, lakes, agreements and leases, with attributes or information about those features. For example, The Restrictions feature is divided into four groups by attributes; No Surface Access, Reserved/Withdrawn, Subject To and Other.

1.2 MAP VIEW

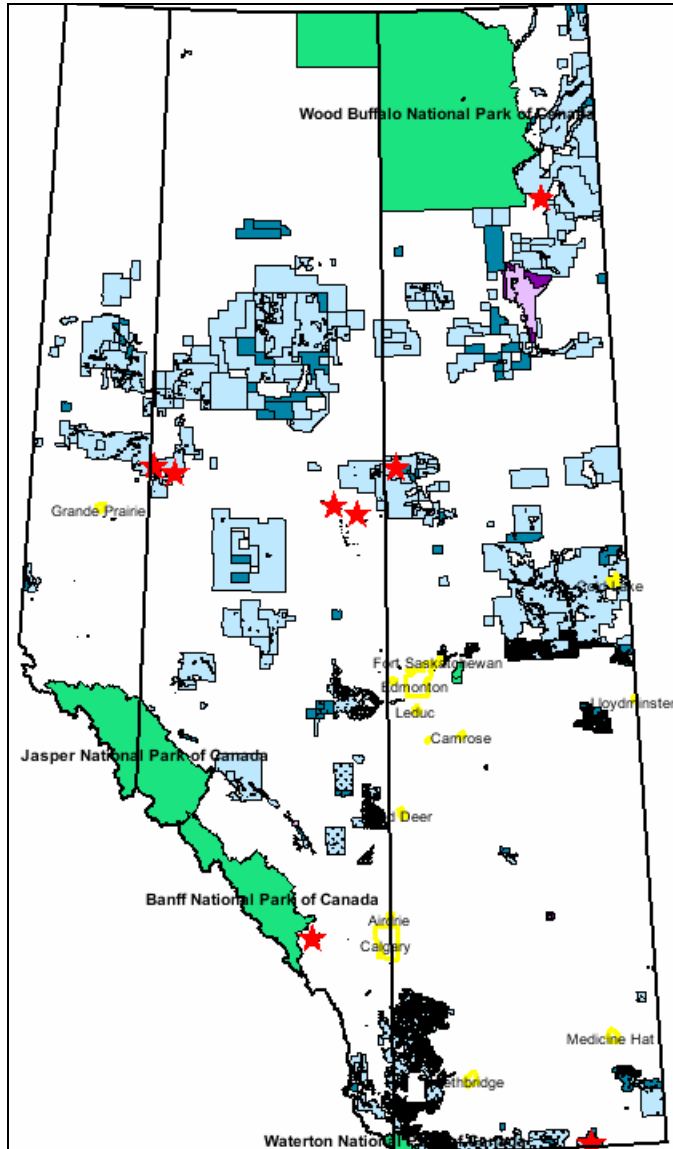
The Department of Energy's GIS maps are divided into three separate areas; the Main window, the Information panel and the Function and Toolbar area.



The main window or **Map Window** is where the map is displayed. The **Information Panel** displays information about what is shown on the map and allows users to work with the map's layers. Users can find information about the map including; the legend, and which layers are visible and/or active.

The **Function Bar** and **Toolbars** at the top of the map are used to navigate and interact with the map.

1.2.1 The Map Window



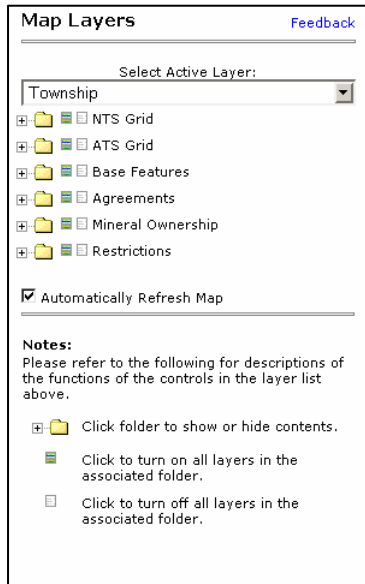
The map shows information about the province using several methods:

Points: Points are used for showing exactly where a feature is; for example a point or other small picture can be used to represent a small town or well.

Lines: Lines are used to show many real world features such as roads, rivers or boundaries.

Polygons: Polygons are used to show features that have boundaries such as lakes, restriction or lease areas.

1.2.2 *The Information Panel*





The Information Panel enables users to work with the legend and layers to make the map more applicable to their needs. Users view the layers associated with a particular folder, turn the folder and all of its layers on or off, or select specific layers within a folder to turn the layer on or off.

See section 5 Using Layers for a full explanation of using the Information Panel to move through layers.

2 CREATING A CUSTOM VIEW

By using the Interactive Map users can zoom in to, select and print their area of interest. **To Create a Custom View**

1. Click the Layers icon to view Map Layers in the Information panel. Layers with a red star beside them are turned on; however, you must get to the proper scale to view them. Click the red star beside the layer name or click **ZOOM-TO-A-SELECTED LAYER**.
2. Use the **ZOOM-IN** and **PAN** tools to find your area of interest.
3. Click **SELECT**  to choose your areas. Use the menu displayed on the right to modify the set of features selected.
4. Click **SELECTED SET LAYERS**  to get a legal land description of the land selected.
5. Click **PRINT** to create a PDF version of the map (see Section 7 Printing a Map for a full description of the print function).

3 FINDING FEATURES (SEARCHING)

The DOE Interactive Map function enables user to search (perform a Query) by Agreement, Major Lake, Municipality, National Topographic System (NTS) or Township. The search terms depend on the type of search being conducted. For example Agreements can be searched for based on Agreement Name, Type or Number.

To Perform a Search

GENERATE QUERY


1. Select a layer

2. Select a database field

3. Select a logical operator

4. Input the data value

Format: MRRTTT

1. Click Find 
2. Use the drop-down arrow to **SELECT A LAYER**.to be searched
3. Use the drop-down arrow to select a **DATABASE FIELD** (the fields change depending on the layer selected).
4. Use the drop-down arrow to select a **LOGICAL OPERATOR**.
5. Type the **DATA VALUE**.
6. Click **SUBMIT**.



To search using Township the format is Meridian – Range – Township without hyphens. (MRRTTT).

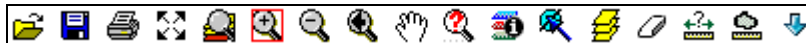
4 FUNCTION AND TOOLBARS

4.1 FUNCTION BAR

The Function bar provides general controls for the Interactive Map.










	Info	The Info button provides information about the application, the data providers and the format by which Alberta Land is entered into the program.
	Layers	The Layers button enables users to view and select Map layers from the Information Panel.
	Legend	Because the display changes at different scales Legends are only shown for visible layers.
	Bookmarks	Users can define Bookmarks, which retain the scale and area being viewed. By naming bookmarks users are able to return to that view by clicking the bookmark icon and selecting the bookmark they wish to view.
	Help	The Help button takes users to a link page where they can select the full manual or a quick start page for easy reference.
	Exit	The Exit button closes the program and shuts down the browser.




4.2 TOOLBAR



The toolbar provides tools to help users work with the map's functions:

	OPEN PROJECT	Enables the users to open a saved session, after viewing the map in a specific way, users can save that view to be used in a later session. Click on the save button to save the session.
	SAVE PROJECT	The SAVE PROJECT tool allows you to save the project you are working on to your own computer. <ol style="list-style-type: none"> 1. Click the Save Project tool and a new window will appear in the information panel. 2. Click the link provided to download a project file (.gcx) and save it to your computer for later use.
	PRINT TO PDF	PRINT the map as displayed on your screen.
	FULL EXTENT	Use the FULL EXTENT tool to view the complete map.
	ZOOM TO A SELECTED LAYER	Use the ZOOM TO A SELECTED LAYER to view a layer that has been turned on but is not visible at the current scale.

	ZOOM IN	Use the ZOOM IN tools to view more detail on the map. See below for the two methods of using the Zoom Tools.
	ZOOM OUT	Use the ZOOM OUT tools to view less detail on the map. See below for the two methods of using the Zoom Tools.
	ZOOM PREVIOUS	Use the <i>Previous Extent</i> tool to return to the previous view of the map.
	PAN	Use the PAN tool to look at a specific area of interest. For example, to see a specific section of the map, click the PAN tool then place the cursor over the map and, click and drag the mouse to move the map around.
	FIND	The FIND tool selects records based on certain attribute criteria. It launches the Generate Query function in the Information Panel. To generate a query select the layer that you are interested in from the drop-down menu. <ol style="list-style-type: none">1. Choose the database field to base your selection on.2. Select the logical expression from the drop-down list and enter a value into the value box.3. Click Submit, the results are displayed in the Information Panel.
	IDENTIFY VISIBLE	Use the IDENTIFY VISIBLE tool to find information from all the layers below a specific location on the map. Click on the map, the IDENTIFY VISIBLE tool drills down through the data and displays the attributes of any layers turned on under your chosen point.
	SELECT ACTIVE LAYER	The SELECT ACTIVE LAYER tool selects features on a specific layer as long as the layer is visible and turned on. <ol style="list-style-type: none">1. Select the layer to be viewed by using the drop-down arrow in the Information Panel.2. Press and drag the mouse over the area to be examined, the features will be listed in the information panel.3. Click on the link to generate and see the report.
	SELECTED SET LAYERS	The SELECTED SET LAYERS tool enables users to see the land descriptions for the land that has been selected. When users click on this button a list of selected elements is displayed in the Information Panel.
	CLEAR SELECTION	The CLEAR SELECTION tool erases a selected mark-up feature from the map.

	<p>MEASURE DISTANCE</p>	<p>Select the MEASURE DISTANCE tool, click on the desired start location. The latitude and longitude coordinates of your starting point are automatically registered in the information panel. Click on the desired stop location to complete the line, the coordinates of your stopping point are displayed along with the distance between the two points.</p> <p>To determine the length of a line with multiple stops, simply keep clicking on the new stopping points. The measure distance displays the map coordinates and the distance between stops, as well as the total distance.</p> <p>Use the <i>Clear Points</i> button in the information panel, to erase the points.</p>
	<p>MEASURE AREA</p>	<p>The MEASURE AREA tool enables you to calculate the area inside a polygon.</p> <p>Selecting the MEASURE AREA button to define the corners of a polygon by clicking on the map. You must enter a minimum of three points (corners) before the area can be calculated.</p> <p>The calculated area is displayed in the Information Panel along with a record of the all the points' coordinates.</p>
	<p>DOWNLOAD</p>	<p>The Download tool will be visible if there are any Provincial-wide shape and DXF files. Click this tool to save these files to your computer.</p>

4.2.1 *Zoom Tools*

The magnifying glass with the plus sign lets you 'zoom in', while the one with the minus sign lets you 'zoom out'. Some details on the maps can only be seen by zooming in, which provides more clarity and avoids confusion. There are two ways to use the zoom tools.

The first method is to click a zoom tool and then click somewhere on the map. The map will then *Zoom-In* or *Zoom Out* with the point you clicked centered in your view.

The second method is to click a zoom tool and then click and drag the cursor to create a box around the area you wish to view, the map then zooms using the box as the outside border of the display.

It is also possible to zoom using the scale displayed below the map window.

1. Enter the desired scale and click **Go** the map will zoom to that scale.



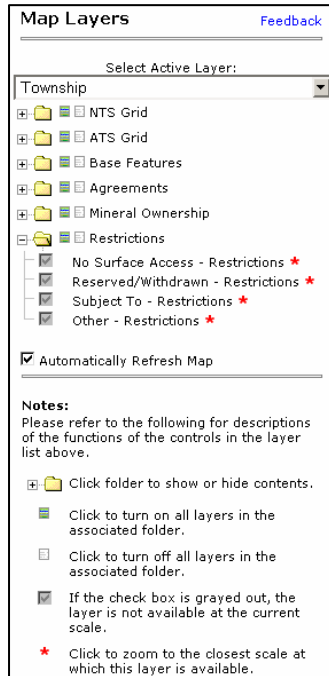
The scale that appears on this viewer is for map navigation only, and does not represent actual distances.

Some maps have limits on the scales at which you can view the data. As well, some layers and/or map labels may only appear at certain scales.

To navigate around maps:

- Use the **PREVIOUS EXTENT** tool to return to the previous view of the map.
- Use the **ZOOM TO FULL EXTENT** tool to view the complete map.

5 USING LAYERS



The system combines the feature, its location and its attributes to create a record for the feature. This enables the system to store numerous attributes for millions of records.

Each set of features is collected into a layer of information. Just the same as when a layer of acetate is placed over a paper map, GIS contains separate layers for each type of feature. For example, one layer contains information on Townships, another on rivers; users can show or hide layers to enable them to see the information more clearly. Individual layers enable users to perform an analysis between layers and/or display only those layers they are interested in.

The layers available in a map are organized into related folders and displayed in the Information Panel. When you open a map, some folders may be open and some closed while individual layers may

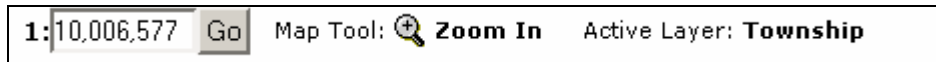
be turned on or off.

Click on a folder to open or close it, when open a list of the layers in the folder will be displayed. Opening and closing folders does not turn layers on or off; it simply helps you stay organized. There are two rectangles next to the folder icon, a coloured rectangle and a small grey and white rectangle. Click the small coloured rectangle, to display the layers available in the folder. Click the grey and white rectangle to hide all the layers in the folder (the folder can be open or closed when you do this).

Click the **Red Star** next to the name of a layer to zoom to the scale at which the layer is displayed. Users can hold their cursor over the Red Asterisk to see the scale at which the layer will become visible.

5.1 ACTIVE LAYERS

Click the checkbox beside the layer name to turn individual layers on or off. When a layer is 'on' (displayed on the map) a check mark will be displayed in its checkbox. Because layers are only displayed at certain scales, visible layers are indicated in the drop down menu at the top of the Information Panel.



Layers are made **Active** by selecting them from the drop-down menu; only one layer can be active at a time. When active the layer name is displayed below the map window and users can work on it.

6 GENERATING REPORTS

There are two ways to view reports on Restrictions and Agreements, one is to use the Multiple Layer Identify tool and the other is to use the select tool.

To Use the Drill Down Identify Tool

Identify Results	
Coordinate Position	
Geographic:	117°9' W 55°6' N
Subject To - Restrictions	
Restriction Type:	IRS
Restriction Number:	0002
Restriction Detail Number:	01
Name:	STURGEON LAKE-PUSKWASKAU EAST View Detail Report
Township	
MRT:	521071
End of Result Set	

1. Click the **LAYERS** button to display map layers in the **INFORMATION PANEL**.
2. Click the Plus (+) sign beside **AGREEMENTS** or **RESTRICTIONS** (if you are not zoomed in far enough, red stars will display beside the menu options).
3. Click the **RED STAR** to zoom-in to where the layer is visible.
4. Use the **PAN** tool to move the map to your area of interest.
5. Select the **DRILL DOWN IDENTIFY** tool and click on the map; any **RESTRICTIONS** or **AGREEMENTS** on any layer under your cursor will be displayed in a smaller window.
6. Click the **VIEW DETAILED REPORT** link to see the report.


To Use the Select Active Layer Tool



Query Results	
Agreements	
Agreement Number:	9303040829
Agreement Type:	093
Tract:	00
Designated Representative:	679424 ALBERTA LTD.
	Zoom to this feature
	View Detail Report
Agreement Number:	9303040828
Agreement Type:	093
Tract:	00
Designated Representative:	679424 ALBERTA LTD.
	Zoom to this feature
	View Detail Report
End of Result Set	

1. Click the **LAYERS** button to display map layers in the **INFORMATION PANEL**.
2. Click the Plus (+) sign beside **AGREEMENTS** or **RESTRICTIONS** (if you are not zoomed in far enough, red stars will display beside the menu options).
3. Click a **RED STAR** to zoom-in to where the layer is visible.
4. Use the **PAN** tool to move the map to your area of interest.
5. Select the **SELECT ACTIVE LAYER TOOL** and click and drag to cover your area of interest.
6. The **INFORMATION PANEL** will change to show the **SELECTION SET**.
7. Click **EXECUTE REPORT FOR THIS SET** or click **SELECTED SET LAYERS**. Restrictions and Agreements within the selected area will be displayed in a smaller window. Each Restriction or Agreement Type will have a link to view a detailed report.
8. Click the **VIEW DETAILED REPORT** link to see the report.

Example of a Detailed Report

	
RESTRICTION DETAIL REPORT Report Date: Thursday, April 27, 2006 5:42:51 PM	
Restriction: MPD 0001 30	METALLIC AND INDUSTRIAL MINERALS 30 DAY PENDING
RESTRICTION DETAIL Status: ACTIVE Surface Access Level: RESERVED FROM DISPOSITION Mineral Activity: ALL MINING Security Type Code: PUBLIC INFORMATION	
RESTRICTION TEXT Restriction Text Id: ENR64 - ENERGY Status: ACTIVE	
CONTACT DETAIL Contact Code/Name: EN23 HAZEL HENSON Title: SENIOR MINERALS COORDINATOR Telephone Number: (780)427-9075 Client Code: 8000322 016 Name/Address: ALBERTA DEPARTMENT OF ENERGY MINERAL DEVELOPMENT COAL AND MINERAL DEVELOPMENT 9945 108 ST FLOOR 7 EDMONTON, AB CANADA T5K 2G6	
30 DAY PENDING DETAIL Effective Date: 2006-03-06 Expiry Date: 2006-04-05	
LAND DESCRIPTION 4-24-090: 19-21;28-33 4-24-091: 3-5;8-10;15-17 4-25-090: 19-36	

6.1 DISPLAY OR HIDE LEGENDS

The Show Legend option is active by default, and a legend is automatically displayed for all layers that are available and visible at a particular scale. To hide a single legend, click the Hide Legend icon. To hide all of the legends, click the Show Legend option at the bottom of the layer list.

Please note that even if all of the legends are turned off when you print a map, the legend is automatically added to the map.

6.2 USING BOOKMARKS

Bookmarks enable you to zoom to a preset location but do not alter the layer display. Click the *Bookmarks* tab on the function bar, to display available bookmarks information panel.

If your browser accepts cookies you can create *Personal Bookmarks*. Click *Add Current Extent* when you are at a location you wish to bookmark and then type a name for the bookmark. The Bookmark will be stored for a year under the name you chose. When you click your bookmark at a later date, and the map will jump to that location.

To remove a bookmark, click the red beside the bookmark name.

7 PRINTING A MAP

Click the Print Icon at the top of the map to generate your map in PDF format, you can then print or save the map.

To Print a Map

1. Type a name for the map in the Map Title text box, (the title will appear at the top of the map).
2. Select the paper size from the drop down menu.
3. Select the print quality.
4. Set the scale for the map to be printed.
5. Add notes to be printed on the map.
6. Click Generate Map.



If you do not select a map scale, the map will print at the map's current scale. Choose a scale from the list, or enter your scale in the text box.

Maps may take from 10 seconds to a minute or two to generate. Also, PDF's may be large (around 2MB) and may take additional time to download to your machine depending on your Internet connection speed.

Because the maps are in *Adobe PDF* format you must have the [Adobe Acrobat Reader](#) installed on your computer.

8 SAVING YOUR PROJECT

The Save Project feature allows you to save the criteria you used to set up the current session. If you open a saved project, it will show the current status of that location.

By saving your current map project to your computer for later use , you can return to it later. Projects are saved with a “*.gcx” extension and can be retrieved by using the open  project icon.

To Save Your Project

1. Click the save icon, a dialog will open on the right side explaining saving.
2. Click the “Save this project now” link.

To Open a Saved Project

1. Click the Open Project icon; a dialog will open on the right side displaying the two steps.
2. Step one, click the Browse button to select the *.gcx file to be opened.
3. Step two click Open Project.