

National Coal Resources Data System (NCRDS) Spatial Viewer

The NCRDS Spatial Viewer provides users the ability to view the location of NCRDS USTRAT data points and the stratigraphic unit data associated with each NCRDS USTRAT data point.

The NCRDS Spatial Viewer main menu provides the user with options in four functional areas: Maps, Navigation, Tools, and Help.

Map Options

A mouse click on the globe icon produces the following list of options.



The first three options under Map allow the user to choose the underlying base map on which to view the NCRDS points.

Street Map

The worldwide street map presents highway-level data for the world. The street map includes highways, major roads, minor roads, railways, water features, administrative boundaries, cities, parks, and landmarks, overlaid on shaded relief imagery.

Satellite Map

This imagery map presents satellite imagery for the world and high-resolution (1m or better) imagery for the United States, Great Britain, and other areas around the world. The map includes National

Aeronautics and Space Administration (NASA) Blue Marble: Next Generation 500m resolution imagery at small scales (above 1:1,000,000), i-cubed 15m eSAT imagery at medium-to-large scales (down to 1:70,000) for the world, and USGS 15m Landsat imagery for Antarctica. The map also includes i-cubed Nationwide Prime 1m or better resolution imagery for the contiguous United States, Getmapping 1m resolution imagery for Great Britain, and GeoEye IKONOS 1m resolution imagery for Hawaii, parts of Alaska, and several hundred metropolitan areas around the world. i-cubed Nationwide Prime is a seamless, color mosaic of various commercial and government imagery sources, including Aerials Express 0.3 to 0.6m resolution imagery for metropolitan areas and the best available United States Department of Agriculture (USDA) National Agriculture Imagery Program (NAIP) imagery and enhanced versions of United States Geological Survey (USGS) Digital Ortho Quarter Quad (DOQQ) imagery for other areas.

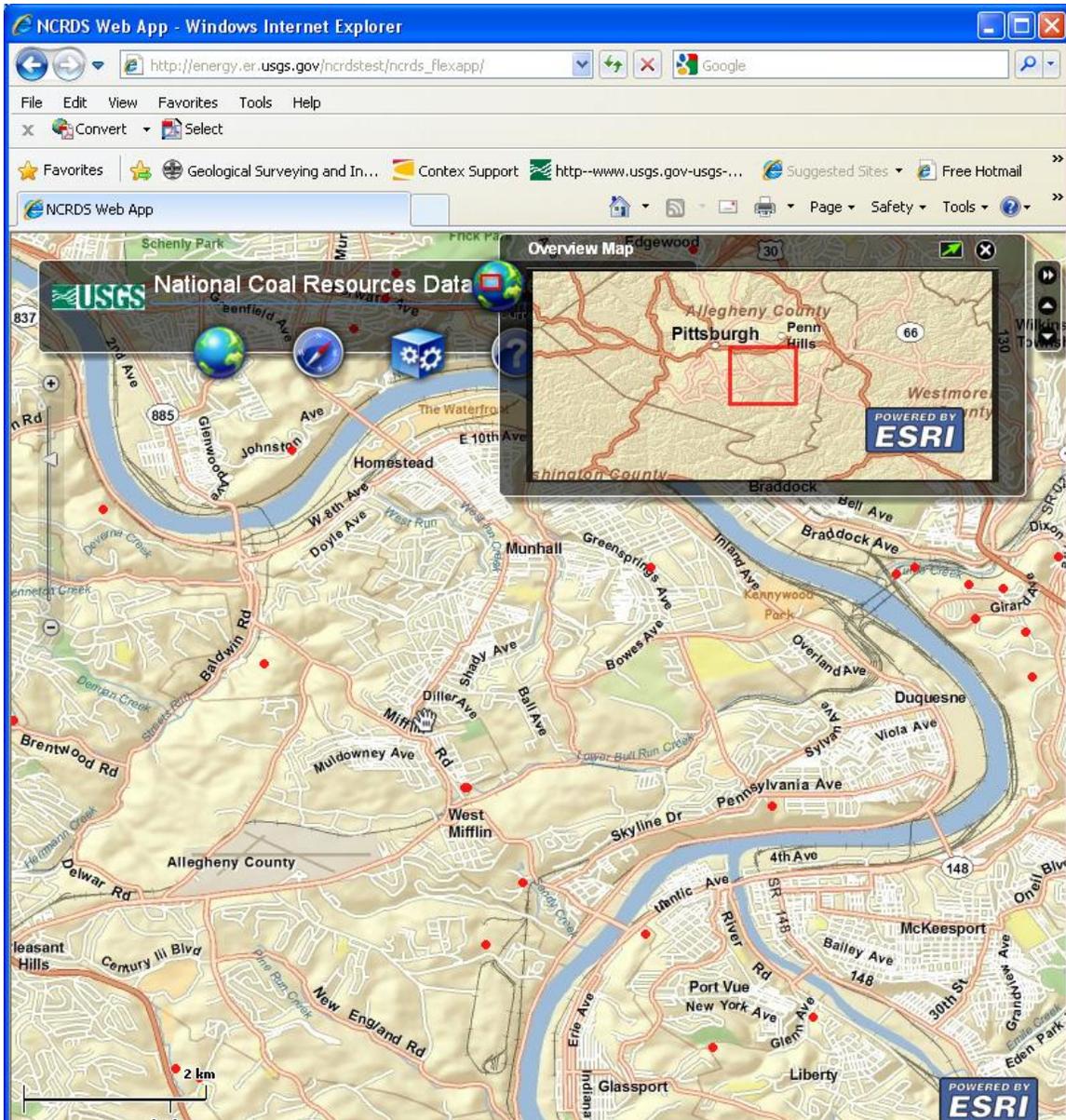
NGS Topo Map

This map presents land cover imagery for the world and detailed topographic maps for the United States. The map includes the National Park Service (NPS) Natural Earth physical map at 1.24km per pixel for the world at small scales, i-cubed eTOPO 1:250,000-scale maps for the contiguous United States at medium scales, and National Geographic TOPO! 1:100,000 and 1:24,000-scale maps (1:250,000 and 1:63,000 in Alaska) for the United States at large scales. The TOPO! maps are seamless, scanned images of United States Geological Survey (USGS) paper topographic maps.

Additional information on each of these base map options is available within the appendix.

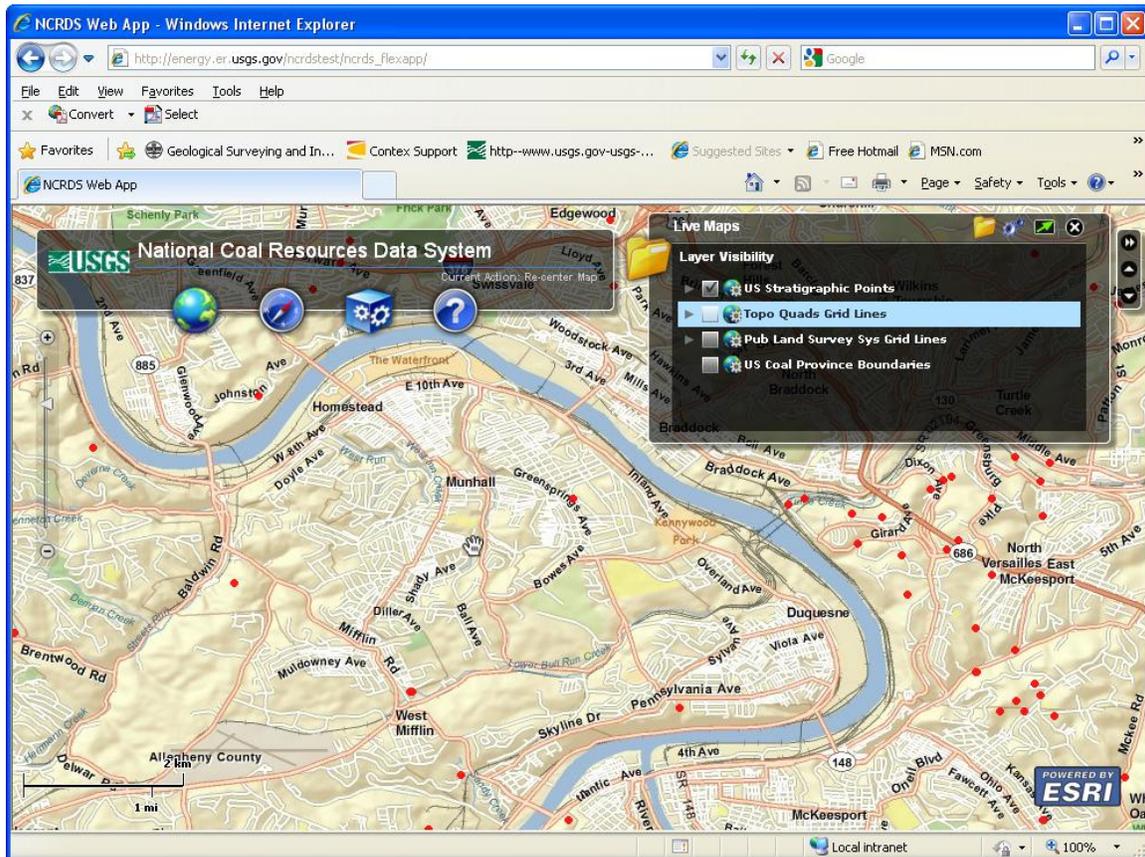
Overview Map

The overview map option opens a small window to the right of the main menu that displays a red box that shows the spatial boundary of the current map view within the context of a larger map resolution. For example, when the main map view is shown in 1:24000 resolution, the overview map shows where that map is within a 1:100000 map resolution of the spatial area.



Live Maps

Live maps gives the user the option to turn on various map layers that are derived from NCRDS data or have been derived from other government data sources.



Print

The print option prints the current view of the map within the map viewer.

Navigation Options

A mouse click on the compass icon produces the following list of options.



Zoom In

The Zoom In option utilizes a mouse click and drag of the mouse to define a window over an area to magnify on the map.



Zoom Out

The Zoom Out option operates similarly to the Zoom In option. The Zoom Out option will display a larger geographical area.

Full Extent

The Full Extent option re-orientes the current map view to a view that displays the contiguous 48 states of the US.

Re-Center Map

The Re-Center Map option allows the user to pan the current view of the map and drag the map in any direction.

Tools Options

A mouse click on the toolbox icon produces the following list of options.



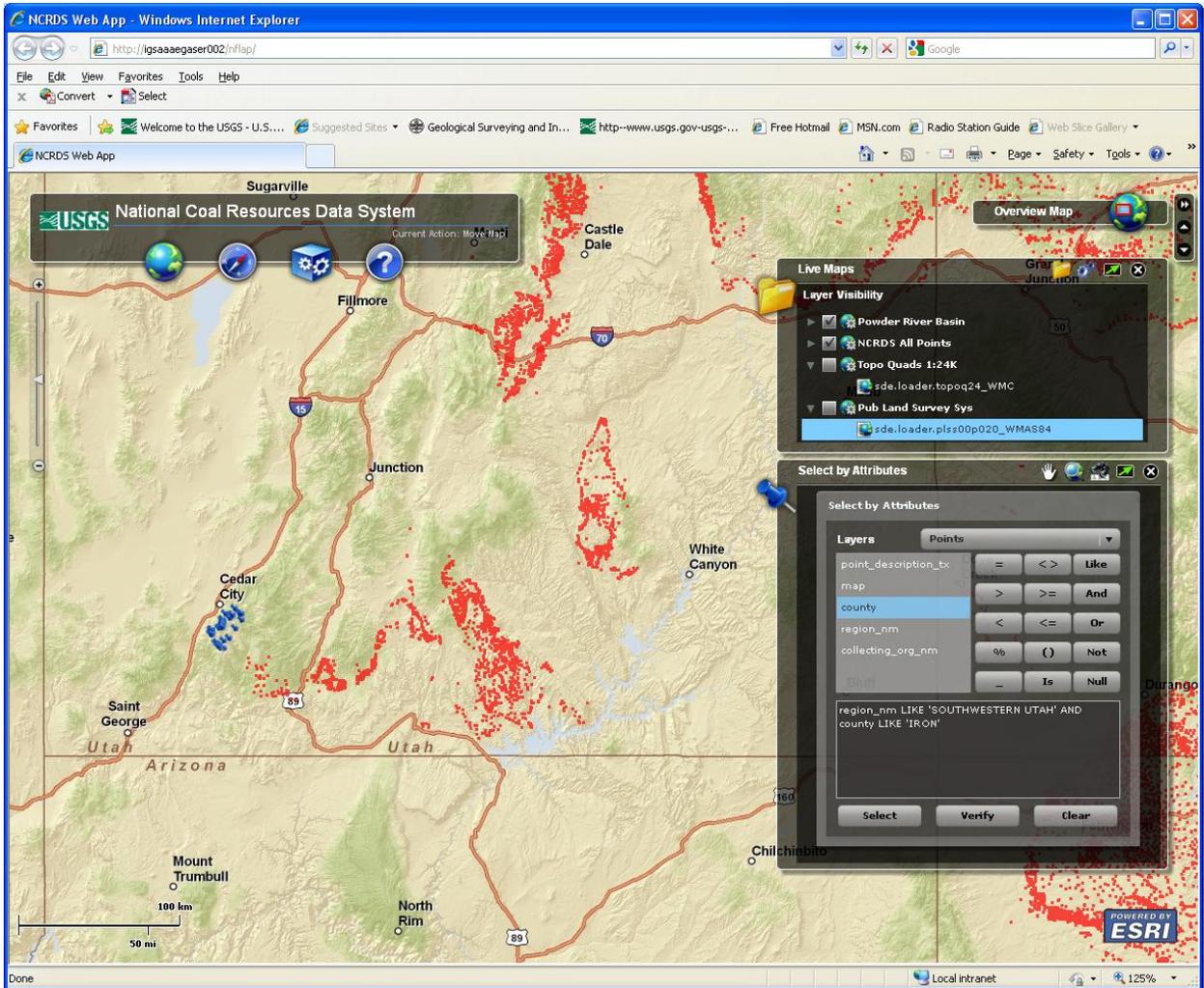
Select By Attributes

The Select By Attributes option opens the following dialog box.



USTRAT database points with specific attributes that can be selected and highlighted on the map through this dialog box.

In the example below, the Select by Attributes dialog box was used to create a query string to select points with the attributes of a region name like 'SOUTHWESTERN UTAH' and a county like 'IRON' and highlights the points with blue push pins on the map.



Select - The Select button runs the query string (for example, region_nm LIKE 'SOUTHWESTERN UTAH' and county LIKE 'IRON') and highlight with blue push pins the points on the map that meet the query results. The Select button presents the data associated with the points selected by the query in a table.

Results

46 points selected

Point	Pnt Nm	Pnt Type	TD Log...	# of U...	Est Rnk	Long	Lat	Sufl Elv	Coll Org	Collector
115195	CBSW-C	206-GEC	900.000	12	BIT	-112.97	37.5654	8,401.9	UTGS	SMITH A
115196	CBSW-C	206-GEC	950.000	10	BIT	-112.93	37.6022	7,999.9	UTGS	SMITH A
115576	CBNW-M	106-MUI	7.499	9	NDE	-112.94	37.6336	7,119.9	UTGS	SMITH A
115577	CBNW-M	106-MUI	8.399	12	NDE	-112.97	37.6538	6,919.9	UTGS	SMITH A
115578	CBNW-M	106-MUI	8.199	7	NDE	-112.94	37.6316	7,189.9	UTGS	SMITH A
115579	CBSW-M	106-MUI	9.399	11	NDE	-112.99	37.6207	7,959.9	UTGS	SMITH A

Units associated with selected point

Point	Unit #	Lith	Lith Mod	Thickns	Form	Bed	Subzn	Fr Dpth	To Dpth	Unit Q...

Get Excel Data Close Window

The units associated with each point are shown in the lower half of the results table by selecting a specific point row. The table results can be downloaded directly into an Excel spreadsheet by selecting the Get Excel Data button that lists point information within the point tab and the corresponding stratigraphic units information within the unit tab.

Results

46 points selected

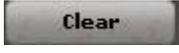
Point	Pnt Nm	Pnt Type	TD Log...	# of U...	Est Rnk	Long	Lat	Sufl Elv	Coll Org	Collector
115195	CBSW-C	206-GEC	900.000	12	BIT	-112.97	37.5654	8,401.9	UTGS	SMITH A
115196	CBSW-C4	206-GEC	950.000	10	BIT	-112.93	37.6022	7,999.9	UTGS	SMITH A
115576	CBNW-M	106-MUI	7.499	9	NDE	-112.94	37.6336	7,119.9	UTGS	SMITH A
115577	CBNW-M	106-MUI	8.399	12	NDE	-112.97	37.6538	6,919.9	UTGS	SMITH A
115578	CBNW-M	106-MUI	8.199	7	NDE	-112.94	37.6316	7,189.9	UTGS	SMITH A
115579	CBSW-M	106-MUI	9.399	11	NDE	-112.99	37.6207	7,959.9	UTGS	SMITH A

10 Units found.

Point	Unit #	Lith	Lith Mod	Thickns	Form	Bed	Subzn	Fr Dpth	To Dpth	Unit Q...
115196	1	NR		556.000	STRAIGH	NDE	NDE	0.000	556.000	
115196	2	COAL		3.999	STRAIGH	NDE	NDE	556.000	559.999	
115196	3	NR		119.999	STRAIGH	NDE	NDE	559.999	679.999	
115196	4	NR		14.999	DAKOTA	NDE	NDE	679.999	694.999	UB
115196	5	COAL		6.000	DAKOTA	UPPER C	NDE	694.999	701.000	U
115196	6	NR		37.999	DAKOTA	NDE	NDE	701.000	738.999	

Get Excel Data Close Window

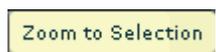
 - The Verify button runs the query string and provides the number of points that will be returned from the query. The number of points that can be queried is limited to 500 records. The Verify button allows the user to determine whether additional parameters should be used in the query to ensure that the number of records that are returned is below 500.

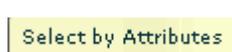
 - The Clear button clears all text from the query string.

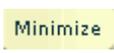
The Select by Attributes dialog box provides the following option icons:



  - Center selected points on current map resolution

  - Magnify map to where all selected points are within map boundaries

  - Build query to select points from the USTRAT database based upon specific values associated with point attributes.

  - Minimize the Query by Attributes dialog box to the right hand side of the mapping screen.

  - Close the Query by Attributes dialog box.

Select by Location



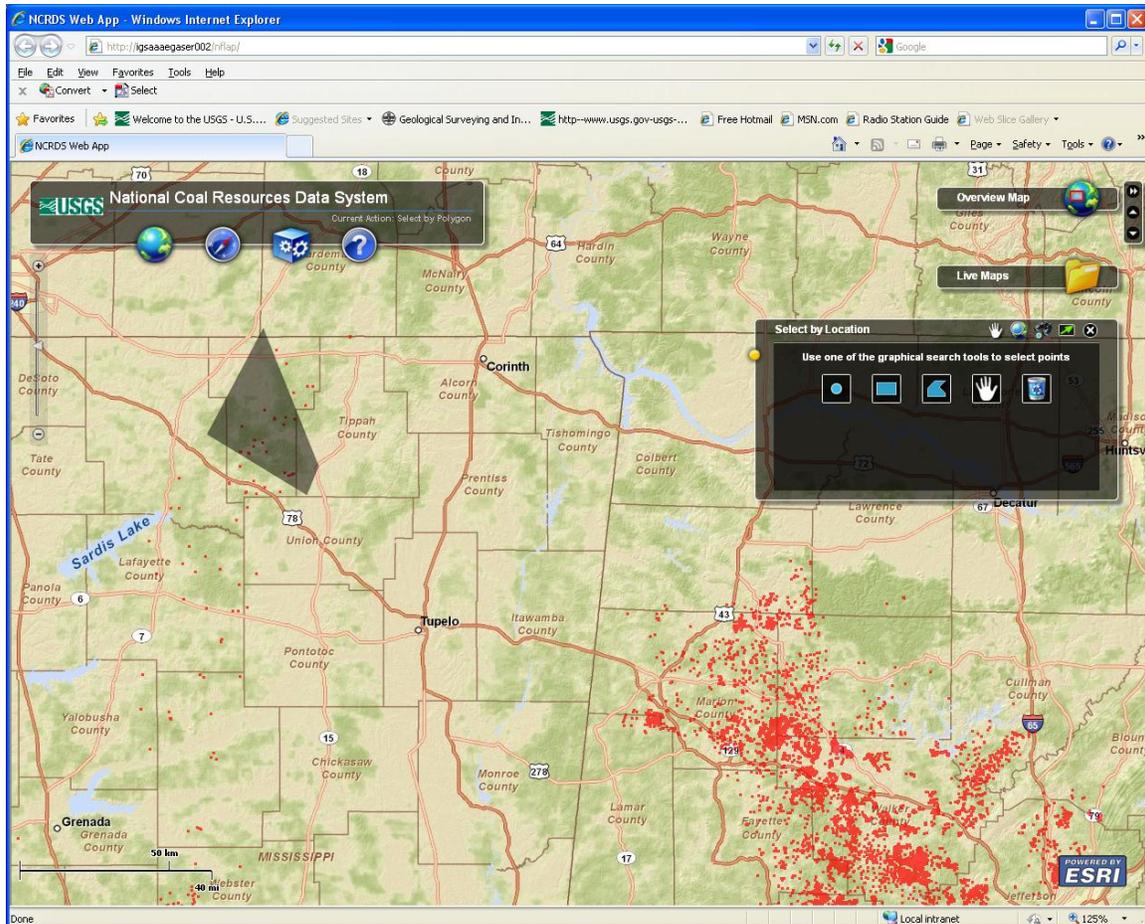
 **Select by Point** - The Select by Point option returns the attribute data for a selected point.

 **Select by Rectangle** - The Select by Rectangle option queries the attribute data associated with all the USTRAT points contained within a user selected area.



Select by Polygon

- This option allows a user to select a group of points by defining a polygon.



Pan Tool

- The Pan tool allows users to re-center the view of the map without closing the Query Graphically tool.



Clear

- Clears selection set of points.



Show Results Table

- This selection opens up the results table and displays the data for the selected points. (If no points have been selected the table will be empty.)

The Select by Location dialog box provides the following icons:



 **Pan To Selected Features** - Centers selected points on current map resolution

 **Zoom To Selected Features** - Magnifies map to where all selected points are within map boundaries

 **Graphical Search** - Draws rectangle or polygon to select points from the USTRAT database and displays the attributes of the points.

 **Minimize** - Minimizes the Query by Attributes dialog box to the right hand side of the mapping screen.

 **Close** - Closes the Query by Attributes dialog box.

Help Options

A mouse click on the question mark icon produces the following list of options.



Help

The Help selection will provide this document in a new browser windows.

Home

Home opens a new browser window with the Energy Resources Program website home page.

About

The About selection provides version information on the application and the primary developer contact information.

