

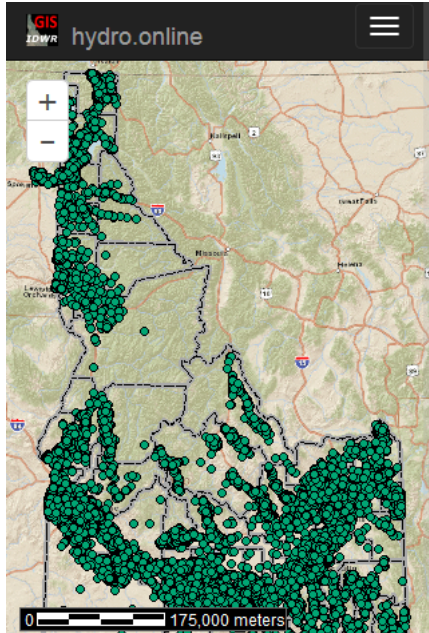
# Using the Water Quality (EDMS) Interactive Map

Last updated May, 2016

Web address: <http://maps.idwr.idaho.gov/map/EDMS>

Questions? Contact [GISInfo@idwr.idaho.gov](mailto:GISInfo@idwr.idaho.gov)

The Environmental Data Management System (EDMS) is a central database designed to house Idaho ground water quality data and well-site details from several state agencies and provide for easy access via the internet. An explanation of the EDMS can be found on the Idaho Department of Water Resources web-site at <https://idwr.idaho.gov/water-data/ground-water-quality/map.html>. This web-based, interactive map facilitates exploration and retrieval of those data. Detailed instructions on how to use the interactive map can be viewed by clicking [Full Manual](#) in the Help dialog.



## Initial Dialogs and Map

When you browse to the **EDMS** interactive map, you will see a conditions-of-use disclaimer and then a pop-up **Locate by...** dialog which allows you to find your area of interest on the map by entering a street address, legal description, etc. If you do not use the **Locate by...** dialog, you can navigate by using the “zoom” controls (+/-), in the upper, left corner of the map. You can click (or touch) and drag the map to position it. Pinch/pull gestures can be used on mobile devices.

## Make the Map Faster

The background map on the initial screen is there to show major features to allow you to find your area of interest. You can make the map respond more quickly by turning it off.

To turn off the background image, click **Change Layers** on the navigation bar. Click the “Background” checkbox to remove the checkmark, or click the drop-down list, beneath the checkbox, and change the value to “None selected.”

## Searching for Wells

Click **Search** on the navigation bar. You can search for the well by well name, using **Select by text-string**. If you have a list of well names, you can supply the identifiers for those wells using **Specify a list of features**, as shown below.

Specify a list of features

Search layer  
EDMS Wells with samples

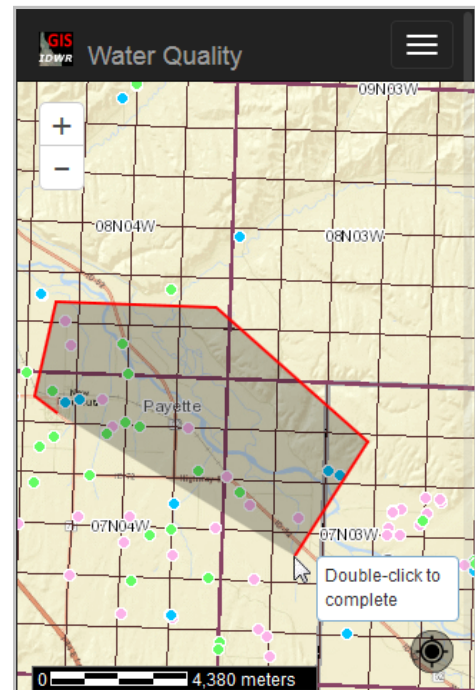
Field  
Well Name

Value list  
05N 05E 04ABB1', '06N 05E 34ABA1', '07

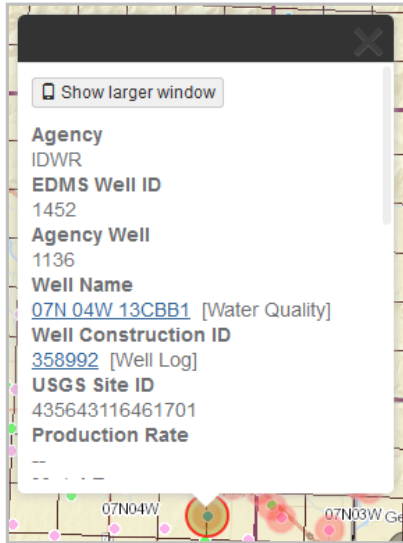
You may also select a group of features (wells) using **Select features by geometry** and digitizing a polygon enclosing your area of interest.

Double-click (or tap) to connect the last point to the initial point of the polygon.

**Note:** The tooltips may not show on your mobile device.



## Viewing Ground Water Monitoring Well Details



Click on a well-site, represented by “dots” on the map, to see a pop-up dialog containing details about that monitoring well. The site-details, including depth, construction date and links to water quality data (and the original well driller’s log) are shown. The number of sample results for the site are also shown.

If you wish to copy the contents of the pop-up dialog, you must select and copy the dialog contents using your mouse (or mobile device gesture).

### Get Water Quality Information

Click the **Well Name** (water quality link) to select and view test results for the well. **SelectCharacteristics** will be displayed in a new tab: <http://maps.idwr.idaho.gov/Groundwater/EDMS/SelectCharacteristics>

The operation of the **SelectCharacteristics** page is explained in the section entitled *Viewing Test Results*.

## Retrieving Data for Multiple Sites

As mentioned in the *Searching for Wells* section of the document, you can select multiple well-sites. In order to download well-site details and view test results for multiple sites, use the tools on the **Results** panel of the **Search for data...** dialog.

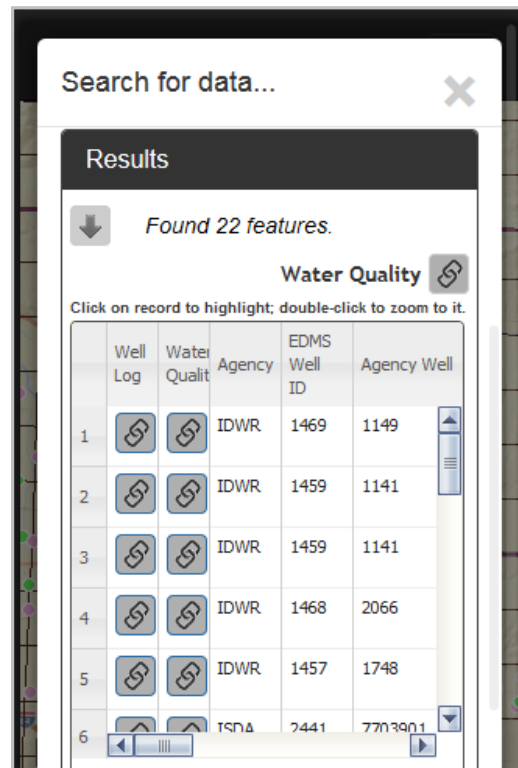
### Download Well-site Details for Multiple Sites

Click the “down arrow” icon at the upper, left corner of the table to create a CSV-formatted file of the well-site details, shown in the table.

### Get Water Quality Information for Multiple Sites

Click the “link” icon above the upper, right corner of the table to use the **SelectCharacteristics** application for the selected ground water quality monitoring wells.

Note that the number of sites for which you water quality test results (at one time) is limited to 50. So, there may be times when you must tighten your search criteria.



## Viewing Test Results Using the EDMS Query Tools

### Accessing the EDMS Query Tools Using the Web Address

The ground water quality monitoring results are available through a forms-based interface. If you know the names of monitoring sites you wish to investigate, you may directly access the **SelectCharacteristics** page using the following address, for example:

<http://maps.idwr.idaho.gov/Groundwater/EDMS/SelectCharacteristics?fieldToFind=AgencyWellName&wellList=07N%2004W%2003CBB1,07N%2003W%2009CBC1,07N%2003W%2009CBC1,07N%2004W%2004DAB1,07N%2003W%2009CDB1,ISDA-7703901,ISDA-3401301,ISDA-7702901,ISDA-7700801,IDEQ-GW-735,07N%2004W%2013CBB1,IDEQ-GW-734,IDEQ-GW-746,IDEQ-GW-747,ISDA-7701001,ISDA-7701301,ISDA-7703001,IDEQ-GW-811,ISDA-3401201,IDEQ-GW-741,IDEQ-GW-748,IDEQ-GW-815>

## Accessing the EDMS Query Tools from the Map

If you have chosen one or more monitoring wells, selecting either the single-site or multiple-site links (mentioned above), will take you to the **SelectCharacteristics** page.

### Selecting Water Quality Characteristics

From the **SelectCharacteristics** page you may select the water quality characteristics you wish to view/download. Click the **Select Characteristics** tab (if the active page is not **SelectCharacteristics**) to move to the page that allows you to select the water quality characteristics for which you wish to see results. In the example below, one characteristic was selected; we wish to see all results, without regard to sample date or whether there were detections. If there are water quality categories you are not interested in, you may narrow the list of **Available Characteristics** by removing the check-marks from any of the entries shown under **Characteristic Types**. The “N” before *Nitrate* indicates that it is a “Nutrient.”

You may request an entire category of characteristics by clicking the arrow-icon on the right of the letter which corresponds to the characteristic type. For example, click the arrow to the right of the “O” to request all characteristics belonging to the ‘organic’ type. Click the arrow to the left of the “O” would remove all of the organic characteristics from the request.

### Selecting Characteristics by Group

This application provides pre-defined query sets to allow the user to request sets of characteristics which are commonly grouped together for analysis.

Add one of these sets to your request by selecting it from the drop-down list. You may request as many characteristics as you wish.

## Selecting Characteristics by Alias



If you cannot find an item in the list of available characteristics you can search for it by common name, synonym, alias, CAS registry number or STORET parameter code. Even when searching for a common characteristic, such as Nitrate, it might be easier to use the **Find alias** button rather than comb through the list.

To select by alias, click the **Find alias** button.

 A small dialog box titled "Find Alias or Synonym" with a close button (X) in the top right corner. It contains a text input field with the text "perc" entered. Below the input field is a button labeled "Find".

Enter the search string in the pop-up window and click the **Find** button. You will see a new window with all of the records containing the search-string.

Since units and descriptive text are searched, the query may return unwanted or unexpected results. In the case of the 'perc' example, the word 'percent' adds unintended records.

Click the name of the characteristic you wish to add to your request. The characteristic will be added to the **Requested Characteristics** list (and to the water quality results requested for download) as **Tetrachloroethylene**, not **Perchlroethylene**, for example.

 A screenshot of a search results window titled "Find Alias or Synonym". The window shows the search string "perc" and states "Your search for 'perc' yielded 14 records." Below this is a table of results. The table has columns for Name, Type, and Synonym. The results include various chemical and physical characteristics. A "Close" button is in the top right, and a "Find alias" button is visible in the background.
 

Name	Type	Synonym
Calcium	Inorg	Calcium, suspended sediment smaller than 62.5 microns, total digestion, dry weight, percent (34833)
Carbon Tetrachloride	VOC	Perchloromethane
Chloride	Inorg	Perchloride
Dissolved Oxygen	Inorg	OXYGEN PERCENT OF VOL (85550)-228
Hexachlorobenzene	Pest	Perchlorobenzene
Hexachlorobutadiene	VOC	Perchloro-1,3-butadiene
Hexachlorobutadiene	VOC	Perchlorobutadiene
Iron	Inorg	IRON TOT REMOVAL PERCENT, (82218)
Sodium	Inorg	PERCENT SODIUM % (00932)
Tetrachloroethylene	VOC	Perchlorethylene
Tetrachloroethylene	VOC	Perchloroethene
Tetrachloroethylene	VOC	Perchloroethylene
Tetrachloroethylene	VOC	PERC
Tetrachloroethylene	VOC	Perclene

## Viewing Query Results

Click the **View Results** tab to display all results which match the selection. Click on column heading to sort by the values in that column. Note, numeric values will not sort correctly since the columns are formatted as character-strings (to allow inclusion of special characters).

Click the **Download CSV** button to retrieve the records in comma-separated-variables format.

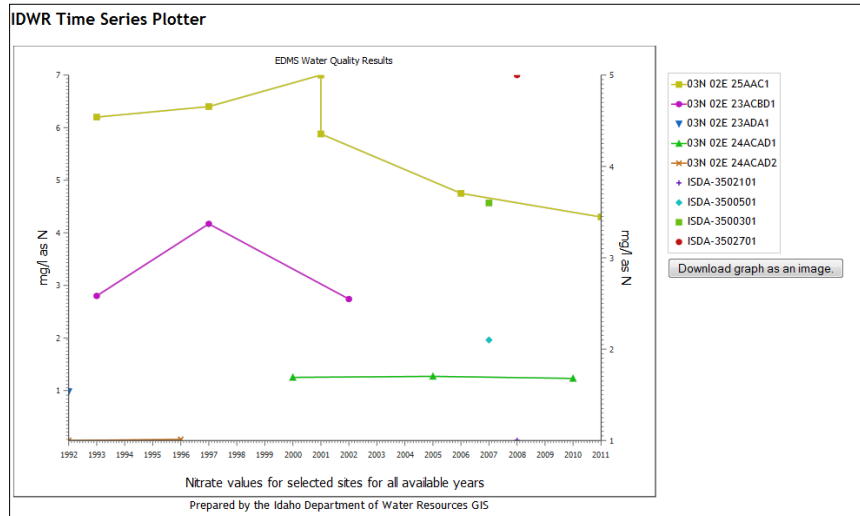
Agency	Well #	Well Name	Sample Date	Type	Name	Value	Units
IDWR	1312	18N 03E 28CDDA1	19941006	Inorg	Arsenic	1	ug/L
IDWR	1312	18N 03E 28CDDA1	19941006	Nutr	Nitrate	<0.080	mg/l as N
IDWR	1312	18N 03E 28CDDA1	19941006	Nutr	Nitrate	ND	ug/L as N
IDWR	1312	18N 03E 28CDDA1	19941006	Phys	pH	6.7	pm
IDWR	1312	18N 03E 28CDDA1	19941006	Phys	Sulfide	91	mg/L
IDWR	1312	18N 03E 28CDDA1	19941006	Rad	Beta_Gross	1.6 ± 0.8	pCi/l
IDWR	1312	18N 03E 28CDDA1	19941006	Rad	Radon-222	290 ± 20	pCi/L
IDWR	1313	18N 03E 28CDDA2	19990904	Inorg	Arsenic	<1	ug/L
IDWR	1313	18N 03E 28CDDA2	19990904	Nutr	Nitrate	323	mg/l as N
IDWR	1313	18N 03E 28CDDA2	19990904	Phys	pH	6.1	pm
IDWR	1313	18N 03E 28CDDA2	19990904	Phys	Sulfide	45	mg/L
IDWR	1313	18N 03E 28CDDA2	19990904	Rad	Beta_Gross	1.7 ± 0.8	pCi/l
IDWR	2043	18N 03E 28CDBA2	20030807	Inorg	Arsenic	<0.20	ug/L
IDWR	2043	18N 03E 28CDBA2	20030807	Nutr	Nitrate	0.817	mg/l as N
IDWR	2043	18N 03E 28CDBA2	20030807	Phys	pH	5.8	pm
IDWR	2043	18N 03E 28CDBA2	20030807	Phys	Solids	44	mg/l
IDWR	2043	18N 03E 28CDBA2	20030807	Rad	Beta_Gross	2.0 ± 0.5	pCi/l
IDWR	2043	18N 03E 28CDBA2	20070905	Inorg	Arsenic	<0.12	ug/l
IDWR	2043	18N 03E 28CDBA2	20070905	Nutr	Nitrate	0.81	mg/l as N
IDWR	2043	18N 03E 28CDBA2	20070905	Phys	pH	7	pm
IDWR	2043	18N 03E 28CDBA2	20070905	Phys	pH	6	pm
IDWR	2043	18N 03E 28CDBA2	20070905	Phys	Sulfide	49	mg/l
IDWR	1316	18N 03E 22CBA1	19940907	Inorg	Arsenic	2	ug/L
IDWR	1316	18N 03E 22CBA1	19940907	Nutr	Nitrate	ND	ug/L as N
IDWR	1316	18N 03E 22CBA1	19940907	Nutr	Nitrate	<0.050	mg/l as N
IDWR	1316	18N 03E 22CBA1	19940907	Phys	pH	6.3	pm
IDWR	1316	18N 03E 22CBA1	19940907	Phys	Sulfide	93	mg/L
IDWR	1316	18N 03E 22CBA1	19940907	Rad	Beta_Gross	1.6 ± 0.8	pCi/l
IDWR	1316	18N 03E 22CBA1	19940907	Rad	Radon-222	100 ± 17	pCi/L
IDWR	1316	18N 03E 22CBA2	19990804	Inorg	Arsenic	2	ug/L
IDWR	1316	18N 03E 22CBA2	19990804	Nutr	Nitrate	<0.050	mg/l as N

81 records selected, for a combination of 8 wells and 6 water quality characteristics.

[Download CSV](#)

## Graphing the Results

You can plot a graph for several sites, for a single characteristic. You can click the button to download the graph as a PNG-format image (the image does not include the legend).



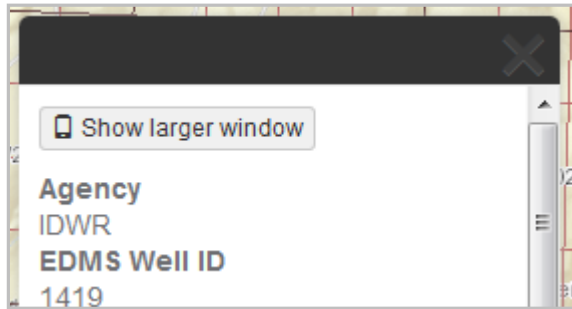
## Mobile Devices and Browsers

This application is designed to be used on any “personal computer,” from large desktops to small smart phones. However, the interaction between the user and the interface varies widely with the size, resolution and type of hand-held, touch-capable devices, be they cell phones or tablets. It has been tested on Android tablets and phones. For Android devices, the native browser and Chrome work the best; Firefox is not recommended. It works on iOS devices from the iPhone 3, forward. The Opera browser is not recommended on iOS devices. The application has not been tested on Windows phones except to ensure basic functionality – displaying and navigating the map and identifying wells sites.

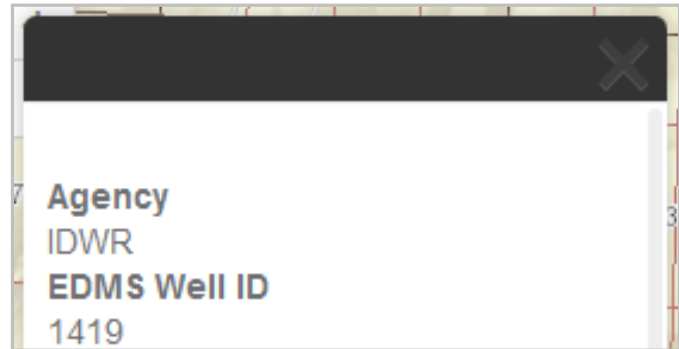
### Improper Scrolling on Mobile Devices

If you cannot get the pop-up window to scroll on your phone or tablet, click the **Show larger window** button; the well-site details will be moved to larger window.

Default dialog



Scrollable dialog



### Hiding the Dialog

In order to dismiss the pop-up dialog that shows monitoring well details **you must use a long-touch gesture on the “X” in the upper, right hand corner of the dialog.** Just tapping the “X” will cause the map to act as if you meant to get details about a monitoring well positioned where the “X” is located.

### Drawing on the Screen

As mentioned in the *Searching for Wells* section, if you digitize a polygon or line on the screen, the tooltips may not show or may not reflect the state of the edit.

### Cookies

The information collected from one page to another is stored in local storage on your PC, Mac or hand-held device. You must have cookies enabled in order to use this application. Although you may use the browser’s “Back” button to go the previous page, you may cause the application to loose any selections you made on the page you are leaving.