STORET Warehouse Help

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STORET Warehouse Application

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Overview of System

You are preparing to extract data from EPA's Modernized STORET Data Warehouse. Data here have been provided to EPA through the voluntary contributions of many States, Federal Agencies, local organizations, Native American Tribes, volunteer groups, and other interested organizations.

All data kept on this web site is fully documented with respect to field and laboratory methods employed, monitoring technologies used, project goals and plans, and QA/QC practices of the submitting organizations. Questions concerning the specific data of any organization are best directed to the organization from which the data were obtained.

EPA makes no warranty regarding the accuracy of the environmental data stored here.

There are no fees or charges associated with the use of this site.

The data on this web site are broken down into two major categories and they are Stations and Results. The Station area has the selection options of Stations by Geographic Location and Stations by Organization and Station ID. There are three groupings of Results: Regular, which are non-biological physical and chemical results, Biological, and Habitat. Within each of these Result areas you have the option to select Results by Geographic Location, Results by Stations, or Results by Project. Each one of these possible selections has a search criteria screen where you can streamline their query.

For the Stations by Geographic Location option you will have the option to specify the type of data you want on your report or your search criteria. The search criteria options are organized into several groups. They are: Geographic Location, Station Types, Characteristics, and Organizations. The available search criteria are:

- <u>State/County</u>
- Latitude/Longitude
- Drainage Basin/HUC
- <u>Station Type</u>
- <u>Characteristic</u>
- Organization

For the Stations by Organization and Station ID option you will have the option to specify the type of data

you want on your report or your search criteria. The search criteria options are organized into several groups. They are: Organization/Station ID, Station Types, and Characteristics. The available search criteria are:

- Organization/Station
- <u>Station Type</u>
- <u>Characteristic</u>

For each of the Result groupings there is a Results by Geographic Location option. For this option you will be able to specify the type of data you want on your report. The search criteria options are organized into several groups. They are: Geographic Location, Date Ranges, and Characteristics. In addition, for a Regular Results report one can select an Activity Medium and for a Biological Results report one can select Activity Intent and Community Sampled combination. The available search criteria are:

- <u>State/County</u>
- <u>Latitude/Longitude</u>
- Drainage Basin/HUC
- <u>Date Ranges</u>
- <u>Characteristics</u>
- <u>Activity Medium</u>
- Activity Intent and Community Sampled

For each of the Result groupings there is a Results by Station option. For this option you will be able to specify the type of data you want on your report. The search criteria options are organized into several groups. They are: Organization/Station, Date Ranges, and Characteristics. In addition, for a Regular Results report one can select an Activity Medium and for a Biological Results report one can select Activity Intent and Community Sampled combination. The available search criteria are:

- Organization/Station
- <u>Date Ranges</u>
- <u>Characteristics</u>
- Activity Medium
- Activity Intent and Community Sampled

For each of the Result groupings there is a Results by Project option. For this option you will be able to specify the type of data you want on your report. The search criteria options are organized into several groups. They are: Organization/Project, Date Ranges and Characteristics. In addition, for a Regular Results report one can select an Activity Medium and for a Biological Results report one can select Activity Intent and Community Sampled combination. The available search criteria are:

- Organization/Project
- <u>Date Ranges</u>
- <u>Characteristics</u>
- <u>Activity Medium</u>
- Activity Intent and Community Sampled

STORET Warehouse Application

Station Report

Stations by Geographic Location

The Stations by Geographic Location page allows you to specify the selection criteria for your Station search. There are four different selection criteria areas: <u>Geographic Location Selection</u>, <u>Station Type Selection</u>, <u>Characteristic Selection</u>, and <u>Organization Selection</u>. Within each of the selection areas, you may accept the default values or enter/choose specific values as your search criteria. After you have entered all of your selection criteria, click on the **<Continue>** button to perform the Station Search and proceed to the next page. To reset all search criteria to default values, click on the **<Clear Form>** button.

Stations by Organization and Station ID

The Stations by Organization and Station ID page allows you to specify the selection criteria for your Station search. There are three different selection criteria areas: <u>Organization/Station Selection</u>, <u>Station Type Selection</u>, and <u>Characteristic Selection</u>. Within each of the selection areas, you may accept the default values or enter/choose specific values as your search criteria. After you have entered all of your selection criteria, click on the **<Continue>** button to perform the Station Search and proceed to the next page. To reset all search criteria to default values, click on the **<Clear Form>** button.

Stations by Organization and Project ID

The Stations by Project page allows you to search for Results using these selection criteria areas for the three Result Reports (Regular, Biological, Habitat, Metric, and Index Results): <u>Organization/Project Selection, Station Type Selection, Date Range Selection</u>, and <u>Characteristic Selection</u>. For the Regular Result report you can also search for Results using <u>Activity Medium Selection</u>. For the Biological Result there is an additional search for <u>Activity Intent and Community Sampled Selection</u> combinations. Within each of the selection areas, you may accept the default values or enter/choose specific values as your search criteria. After you have entered all of your selection criteria, click on the **<Continue>** button to perform the Result Search and proceed to the next page. To reset all search criteria to default values, click on the **<Clear Form>** button.

***EXCLUDE Report Count(s): (Optional)**

By Definition:

The EXCLUDE ("include the inverse") Option acts to prevent specific report types from the Summary Counts or taking part in an the Summary Counts of a result set. It ensures that any checked data report types are NOT returned for download. UNCHECKED Report Types will apply all applicable query filters. The EXCLUDE Option allows the data requester to only return specific report types. Due to record request limitation, data request for batch processing are limited. Request exceeding maximum limits require additional filters and re-submission to satisfy record limits.

Report Type Customization for Summary (Using the EXCLUDE Option):

REGULAR only:	(check all boxes except REGULAR)
•	· · · · · · · · · · · · · · · · · · ·
BIOLOGICAL only:	(check all boxes except BIOLOGICAL)
HABITAT only:	(check all boxes except HABITAT)
METRIC only:	(check all boxes except METRIC)
INDEX only:	(check all boxes except INDEX)
etc	

***Exclude Parameter(s):**

By Definition: The EXCLUDE Option performs or applies the INVERSE of the selected parameters.. 1. to leave out (selected) : to not include (selected) parameters.

Result Reports

There are three categories of Result reports. There is the Regular Result Report, the Biological Result Report, and the Habitat Result Report. The Regular Result Report retrieves non-biological physical and chemical data. The

Biological Result Report and the Habitat Result Report retrieve biological and habitat data respectively.

Regular Result Report

The Regular Result Report consists of non-biological physical and chemical results data only. Like the other two Result report pages, there are three selection criteria pages and they are Results by Geographic Location, Results by Station, and Results by Project. The information on these pages is based on your specified selections. For each of these pages you can narrow the scope by selecting specific criteria. Each page provides Date Range and Characteristic selections. The other selection criteria are specific for each page.

Biological Result Report

The Biological Result Report consists of biological data only. Like the other two Result report pages, there are three selection criteria pages and they are Results by Geographic Location, Results by Station, and Results by Project. The information on these pages is based on your specified selections. For each of these pages you can narrow the scope by selecting specific criteria. Each page provides Date Range and Characteristic selections. The other selection criteria are specific for each page.

Habitat Result Report

The Habitat Result Report consists of habitat data only. Like the other two Result report pages, there are three selection criteria pages and they are Results by Geographic Location, Results by Station, and Results by Project. The information on these pages is based on your specified selections. For each of these pages you can narrow the scope by selecting specific criteria. Each page provides Date Range and Characteristic selections. The other selection criteria are specific for each page.

Results by Geographic Location

The Results by Geographic Location page allows you to search for Results using these selection criteria areas for the three Result Reports (Regular, Biological, and Habitat Results): <u>Geographic Location Selection, Station Type Selection</u>, <u>Date Range Selection</u>, and <u>Characteristic Selection</u>. For the Regular Result report you can also search for Results using <u>Activity Medium Selection</u>. For the Biological Result there is an additional search for <u>Activity Intent and Community Sampled Selection</u> combinations. Within each of the selection areas, you may accept the default values or enter/choose specific values as your search criteria. After you have entered all of your selection criteria, click on the **<Continue>** button to perform the Result Search and proceed to the next page. To reset all search criteria to default values, click on the **<Clear Form>** button.

Results by Organization and Station ID

The Results by Station page allows you to search for Results using these selection criteria areas for the three Result Reports (Regular, Biological, Habitat, Metric, and Index Results): <u>Organization/Station Selection, Date Range Selection</u>, and <u>Characteristic Selection</u>. For the Regular Result report you can also search for Results using <u>Activity Medium Selection</u>. For the Biological Result there is an additional search for <u>Activity Intent and Community Sampled Selection</u> combinations. Within each of the selection areas, you may accept the default values or enter/choose specific values as your search criteria. After you have entered all of your selection criteria, click on the **<Continue>** button to perform the Result Search and proceed to the next page. To reset all search criteria to default values, click on the **<Clear Form>** button.

Results by Organization and Project ID

The Results by Project page allows you to search for Results using these selection criteria areas for the three Result Reports (Regular, Biological, Habitat, Metric, and Index Results): <u>Organization/Project Selection, Station Type Selection, Date Range Selection</u>, and <u>Characteristic Selection</u>. For the Regular Result report you can also search for Results using <u>Activity Medium Selection</u>. For the Biological Result there is an additional search for <u>Activity Intent and Community Sampled Selection</u> combinations. Within each of the selection areas, you may accept the default values or enter/choose specific values as your search criteria. After you have entered all of your selection criteria, click on the **<Continue>** button to perform the Result Search and proceed to the next page. To reset all search criteria to default values, click on the **<Clear Form>** button.

The concept of National Projects is also supported by this selection criteria. Choosing the Organization selection

"All Organizations (National Projects)" will populate the Project selection list with Projects where a common Project ID is shared across Organizations. Selecting one of these Projects will instigate data retrieval from the contributing Organizations.

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Selection Criteria for Result and Station Reports

Geographic Location Selection

The Geographic Location selection area is common to the Stations by Geographic Location and the three Results by Geographic Location reports (i.e. Regular, Biological, Habitat, Metric, and Index Results). The Geographic Location selection area consists of three geographic selection options from which you can only select one: State/County, Latitude/Longitude, or Hydrologic Unit. Click on the radio button next to the selection option that you wish to use to enter/choose specific values.

State/County Selection

The State/County Selection consists of the State Name list and the County Name list. Select the state first, then counties. The default values of "ALL" mean that no data is filtered based on state or county values. Consequently, all result data are selected regardless of state and county values.

In the State Name list, the States and Territories of the United States are presented in alphabetical order. They are followed by the States of Mexico and the Provinces of Canada in turn, each in alphabetical order within Country. You may select any one state or province from this list by clicking once.

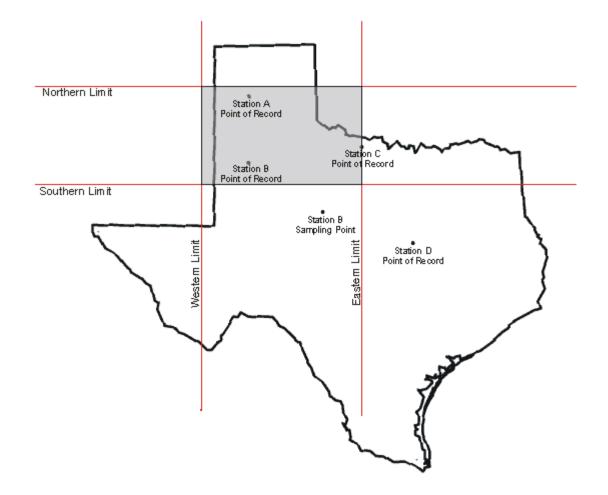
If you would like to select counties for the chosen state, click on the **<Look Up>** button to bring up the County Name list in a popup window. You may select one county and click on the **<Select>** button. You may select multiple counties by holding the **<Ctrl>** key down as you click on the additional rows or by holding the **<Shift>** key down as you click to select all the rows between the current row and the most recently selected row, and then click on **<Select>**. While you are in the popup window, click on the **<Cancel>** button to close the window without selecting a county.

Latitude/Longitude Selection

The Latitude/Longitude selection allows you to specify search criteria based on a geographical area defined by maximum and minimum latitude (North Limit and South Limit) and longitude (West Limit and East Limit) entries. If you choose to use the default values rather than your own entries, the search would retrieve data within the entire Northwest hemisphere.

The North Limit, South Limit, West Limit and East Limit define vertical and horizontal lines, respectively, that create the search area. Station or Result data will be retrieved for Stations whose Point of Record is in or on the boundary of the defined area. When a boundary is entered, let's say a northern boundary, an imaginary line is drawn around the world at that latitude. Any Station's Point of Record above this line will not be included in the report. Any Station's Point of Record on or below this line will be included in the report. The defining of all four boundaries creates a box shape.

There can be many location points other than the Point of Record that are associated with the Station (e.g., Sampling, Boundary, Transect Sampling). None of these other point types are considered when determining if a Station and its associated data will be included in a report. However, all data, even for those points falling outside of the defined area, will be included in the report if the Station's Point of Record has been included. The following exhibit is a pictorial example representing boundary limits and fictitious Station location points on the state of Texas.



In the example, the shaded area represents the geographical area defined by the four boundary limits. There are four data retrieval scenarios depicted as follows:

- The Point of Record for Station A is entirely within the defined geographic area. All sampling information associated with Station A will be included in the report.
- The Point of Record for Station B is entirely within the defined geographic area. All sampling information associated with Station B will be included in the report. This includes the Sampling Point for Station B because the Point of Record for Station B is within the defined geographic area.
- The Point of Record for Station C is on the boundary of the defined geographic area. All sampling information associated with Station C will be included in the report. If there were Sampling Points for Station C, they would also be included regardless of their location.
- The Point of Record for Station D is outside the defined geographic area. All sampling information associated with Station D will not be included in the report. If there were Sampling Points for Station D, they would not be included regardless of their location.

Each boundary limit should be entered as a value in Decimal Degrees. Position the cursor into the field you want to change and enter the desired value.

Query by LAT/LONG Bounding Box Northern and Western Hemisphere:

The Equator and the zero longitude line running through Greenwich, England divide the earth into four quadrants. The United States would be in the Northwest (NW) quadrant, and to reflect this, the latitude values to be entered for both the North Limit and South Limit will have an "N" placed after them. The North Limit latitude will be always

be larger than the South Limit latitude as it represents a latitude further north of the Equator.

The longitudes in the NW quadrant have a negative sign. However, STORET looks only at the absolute value; therefore, drop the negative signs when adding longitude values. Both longitudes values to be entered into the West Limit and East Limit fields will be followed by a "W". The longitude value for the West Limit will always be

larger (in the NW quadrant) than the value for the East Limit, since that longitude is further west of the Greenwich zero longitude.

ie:

- Example Bounding box in the state of Texas is given below: (in decimal degrees) Latitude/Longitude diagonal endpoints: (30.448, -99.931) and (31.653, -98.789) Latitude/Longitude bounding box: 31.653, -99.931 and 30.448, -98.789 Latitude/Longitude bounding box: North Limit, West Limit and South Limit, East Limit Latitude/Longitude limit direction: N-North, W-West (negative decimal) and N-North, W-West (negative decimal) Latitude/Longitude bounding box: 31.653 N, 99.931 W and 30.448 N, 98.789 W
- How to convert decimal degrees into Latitude/Longitude bounding box? (decimal degrees with "direction: N-North,S-South,W-West,E-East")
- Decimal Degrees Conversion Algorithm: Northern Hemisphere: N - North, W - West Latitude Degree is positive value; North and South Limit direction is "N" - North Longitude Degree is negative value; West and East Limit direction is "W" - West
- Southern Hemisphere: S South, E East Latitude Degree is negative value; North and South Limit direction is "S" - South Longitude Degree is positive value; West and East Limit direction is "E" - East
- Northern Hemisphere: N North, W West
- North Limit direction "N" South Limit direction "N" West Limit direction "W" East Limit direction "W"
- North Limit is the Largest positive value (in decimal degrees) South Limit is the Lowest positive value (in decimal degrees) West Limit is the Lowest negative value (in decimal degrees) East Limit is the Highest negative value (in decimal degrees)
- North Limit: 31.653 NORTH South Limit: 30.448 NORTH West Limit: 99.931 WEST East Limit: 98.789 WEST

Click on image for latitude/longitude point browser

Latitude/Longitude (in decimal degrees)		North Limit	
(in decimal degrees)		31.653 N 🛩	
(Option C)	West Limit		East Limit
	99.931 🛛 🛛 🐨		98.789 🛛 🕅 💌
		South Limit	
		30.448 N 💌	

Drainage Basin/HUC Selection

The Drainage Basin/HUC (<u>Hydrologic Unit Code</u>) Selection allows you to specify the HUC within which you would like to search for Results or Stations.

To select a HUC, click on the **<Look Up>** button to bring up the HUC list in a popup window.

You may select any one HUC from this list by clicking once.

HUC is an optional field in STORET and may be missing for certain Station Descriptions. Therefore, when searching for data by HUC, it's possible that not all Stations will be retrieved in the area of interest.

Top Result Reports Station Report

Date Range Selection

The Date Range selection area appears in all the Result Selection Criteria pages. It allows you to select up to four different date ranges. If the Activity Start Date falls within any of the date ranges then the result data are selected. The four date ranges have a "from" date and a "to" date. The "from" date must be less than or equal to the "to" date. Also, the day must be valid for the specified month. If you make no adjustments to the defaults, then no record will be filtered out of the selection process based on Activity Start Date values.

Characteristic Selection

The Characteristic selection area appears in all the Result Selection Criteria and Station Selection Criteria pages. It allows you to search and select the Characteristics to use in the Result and Station searches. It allows you to select Characteristics via Characteristic Alias Type (e.g., Systematic Name, STORET Parm Code) or the Characteristic Name itself.

Characteristic Searches

You have been given the option to use Characteristic Aliases or Characteristic Name to select Characteristics. Select the specific Characteristic Alias Type (e.g., Systematic Name, STORET Parm Code) or Characteristic Name, for which you wish to search. Enter as many characters of the selected Characteristic Alias or Characteristic Name as you desire for the search string. Click on the **<Search>** button, and a popup window will display with the complete list of Characteristics based on the Characteristic Alias Type or name you selected, and based on the search string you entered. From the list, highlight the ones that you would like to select and click on the **<Select>** button. The popup window will be closed and the determined Characteristics will appear in the selected Characteristic Name list. Even when you select a Characteristic Alias Type, like STORET Parm Code, the software will determine the Characteristics based on the alias selected, and display these Characteristics in the selected Characteristic Name list.

EPA's Standards (naming convention) for Substances is the Substance Registry System (SRS)

Search SRS	
Keywords:	
• • • •	
Substance Types:	
All	
Chemical Substance	
Biological Organism	
Physical Property	
Miscellaneous Object	
Not Known	
Search	

Search using LIKE Conditions

The LIKE conditions specify a search involving pattern matching. Whereas the equality operator (=) exactly matches one character value to another, the LIKE conditions match a portion of one character value to another by searching the first value for the pattern specified by the second.

The LIKE Conditions can be used to match using a "wildcard search". Wildcard characters (operators) are used to create the search string. The two operators are the percent sign ('%') and the underscore ('_').

LIKE condition allows you to use wildcards. This allows you to perform pattern matching.

The patterns that you can choose from are:

% allows you to match any string of any length (including zero length) allows you to match on a single character

Percent Matching

The percent ('%') matches any group of characters.

It can 'stand in' for zero or more characters, with no upper limit.

Consider the string 'wood%' used as search term with LIKE.

Because of the percent sign at the end of the term, the search term will match anything and everything after 'wood'.

It will match on 'wood', 'woodland', 'woods', 'woods', 'woods in the country' and so on.

It would not match on 'darkwood', 'redwood', or 'parkwoods' because the string starts with 'wood'.

If the search term was '%wood' then it could (and would) attempt to match anything before 'wood'. It would match on 'darkwood' and 'redwood', 'parkwoods' (default search: match ANY text with the word 'wood' in it).

The term '%wood%' used as search term would match ANY text with the word 'wood' in it. (matches anything before and/or after the text 'wood')

Note: ALL searches have a trailing percent signs which basically matches anything after the text: SEARCH STRING

(ie '% wood' means matches anything before the text), therefore a match as long as it found 'wood' somewhere in the search text.

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Underscore Matching

The underscore ('_') is more selective- it matches any single character.

Consider the string 'w_d' used as search term with LIKE. The two underscores in the middle tell the LIKE

Condition to look for a 'w', then any two characters, and then a 'd'.

This search term will match on 'wood', wild', 'wand', 'ward', and so on. It would not match on 'weird', 'wad', 'wide', or 'wed'. (There are either too few characters or too many to satisfy the match condition.)

Similarly, the search term 'wood_' will match on 'woods', 'woode', 'woody', 'wood!', and any other instance of 'wood' with one and only one additional character after it. It would not match 'wooded', 'woodland', 'redwood', or 'woodsman'.

For example you want to see all characteristics whose name starts with S char. Then you can use LIKE condition as follows

EXAMPLE: 'S' or 'S%' <<Search>>

-- 'S%' like operator in Oracle SQL statement.

You want to see all characteristics whose contains character that starts with 'Acet' and follows with 'd' in the string like 'Acetaldehyde', 'Acetaldol', 'Acetamiprid', 'Acetic acid', 'Acetic acid, 2-ethylhexyl ester'. --You want to see all characteristics whose contain strings of letters that starts with 'Acet' and ends with 'd' like 'Acetaldehyde', 'Acetaldol', 'Acetamiprid', 'Acetic acid', 'Acetic acid, 2-ethylhexyl ester'.

EXAMPLE: 'Acet%d' <<Search>>

-- 'Acet%d%' like operator in Oracle SQL statement.

You want to see those characteristics whose name contains character 'acid' anywhere in the string.

EXAMPLE: '%acid' <<Search>>

```
Substance ACRONYMS and Substance ABBREVIATIONS retrieved via <<Search>>
'%BOD' <<Search>>,______'%(PCP)' <<Search>>,______'%(NH3)' <<Search>>
'%FUSILADE 2000' <<Search>>,______'%HALOWAX 1031)' <<Search>>,_______'%MBAA'
<<Search>>
```

--'%acid%' like operator in Oracle SQL statement.

To see those characteristics whose name contains 'a' in second position.

EXAMPLE: '_a' <<Search>>

--'_a%' like operator in Oracle SQL statement.

To see those characteristics whose name contain '%' sign. i.e. '%' sign has to be used as literal not as wild char.

EXAMPLE: '% !% %' <<Search>>

-- '%!%%' escape '!' like operator in Oracle SQL statement.

Note: ALL searches have a trailing percent signs which basically matches anything after the text: SEARCH STRING,

as long as it found the SEARCH STRING somewhere in the search text.

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as long as it found the SEARCH STRING somewhere in the search text.

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as long as it found the SEARCH STRING somewhere in the search text.

Taxonomic Names

Because the total number of taxonomic Characteristics is large, the check box labeled "Hide Taxonomic Names" is checked by default. This causes the Characteristic search to exclude all taxonomic Characteristics. If you would like to include taxonomic names in the search, click on the check box to uncheck it. The list will then display both non-taxonomic and taxonomic Characteristics. Keep in mind that the only taxonomic Characteristics that will be returned are ones that have data associated to them.

Characteristic List Functions

After you have created the selected Characteristic Name list, you still have the option to remove Characteristics from the list. To remove all Characteristics from the selected Characteristic Name list, click on the **<Clear All>** button. To remove only specific Characteristics from the list, highlight the Characteristic(s) that you wish to remove, then click on the **<Clear Selected>** button.

<u>Selected (AND)</u> Characteristic Search returning SAME Sample(s) with results for "all" selected Characteristics Occuring.

Query returns ONLY sample result records, which includes an occurrence of <u>ALL characteristic on the search list</u>.

Option Functions as a "AND" operator for each selected characteristic displaying a record if "ALL" / both the first condition AND the second condition are true.

Selected (OR) Characteristic Search returning results "if any" selected Characteristics Exists.

Query returns the sample result records, which includes ANY characteristic on the search list.

Option Functions as a "OR" operator for each selected characteristic displaying a record if "ANY" / either the first condition OR the second condition is true.

<u>Sample (AND)</u> Characteristic Search returning whole Sample(s) with "all" selected Characteristics Occurence/Required.

Query returns the entire (whole) sample, which includes <u>ALL characteristic on the search list</u>. Option Functions as a "AND" operator for each selected characteristic displaying a record if "ALL" / both the first condition AND the second condition are true.

<u>Sample (OR)</u> Characteristic Search returning whole Sample(s) with "if any" selected Characteristics Exists. Query returns the entire (whole) sample, which includes <u>ANY characteristic on the search list</u>. Option Functions as a "OR" operator for each selected characteristic displaying a record if "ANY" / either the first condition OR the second condition is true.

Top Result Reports

Activity Medium Selection

The Activity Medium Selection only appears in the Regular Result Selection Criteria page. It allows you to search and select records based on Activity Medium. You can select one or more Activity Mediums from the list of valid Activity Mediums. The records selected for the report will contain the results with the selected Activity Mediums only. If you select the "Select All" option there will be no filter for Activity Medium.

Activity Intent and Community Sampled Selection

The Activity Intent and Community Sampled Selections only appear in the Biological Result Selection Criteria page. There is a list of Activity Intents from which you can choose one or more. You can also select one or more Community Sampled from a list; however, Taxon Abundance is the only Activity Intent with Community Sampled data. The records selected will be based on the selected Activity Intents or the combination of the Taxon Abundance Activity Intent and the selected Community Sampled.

Organization/Station Selection

The Organization/Station Selection area appears in the Stations by Organization and Station ID and Results by Station pages. You can narrow the search criteria by selecting an Organization and one or more Stations within the selected Organization. First, you select an Organization from the drop down list of Organizations. After that, you select what attribute you would like to use to search for a Station list. You can select Station ID, Station Name, or Station Alias. If you select Station ID or Station Name you can enter as many characters of a Station ID or Station Name as you desire for the Station search string and click on the **Search Stations**> button. A popup window with the complete list of Station IDs and Station Names matching the search criteria will be displayed within the popup window. If you select Station Alias, click on the <Look Up> button. A popup window will be displayed with a list of Station Alias Types for the selected Organization. Highlight your selection and click on the **Select**> button. You can only select a single Station Alias Type from the list. This will return you to the Selection Criteria page. Now, you can enter as many characters of the Station Alias as you desire for the Station search string and click on the **Search Stations** button. A popup window with the complete list of Station IDs, Station Alias Types, Station Aliases, and Station Names matching the search criteria will be displayed within the popup window. The Organization ID is also displayed in this popup. From the list, highlight the stations you would like to select and click on the *Select>* button. The popup window will be closed and the selected Station IDs and Station Names will appear in the selected Stations list.

After you have created the selected Stations list, you still have the option to remove Stations from the list. To remove all Stations from the selected Stations list, click on the \langle Clear All \rangle button. To remove only specific Stations from the list, highlight the Station(s) that you wish to remove, then click on the \langle Clear Selected \rangle button.

To add Stations from another Organization, select another Organization from the Organization list and follow the steps above to select Stations.

If you leave the defaults intact, there will be no filter for Organization and Station criteria. If you select an Organization but do not select any corresponding Stations, then only data for the selected Organization will be returned. If you select one or more Stations then only records from the selected Stations will be chosen for the report.

Top Result Reports

Organization/Project Selection

The Organization/Project Selection area appears in the Results by Project page. You can narrow the search criteria by selecting an Organization and a Project within the selected Organization. First, you select an Organization from the drop down list of Organizations. After that, click on the **<Look Up>** button and a popup window with the complete list of Project IDs and Project Names within the selected Organization will be displayed within the popup window. From the list, highlight the Project that you would like to select and click on the **<Select>** button. The popup window will be closed and the selected Project Name will appear in the selected Project area.

After you have selected a Project, you can still remove the Project by selecting an Organization from the "Select an Organization" drop down list. This will clear your Project selection.

If you leave the defaults intact there will be no filter for Organization or Project criteria. If you select an Organization but do not select any corresponding Project, then only data for the selected Organization will be returned. If you select an Organization and a Project then only the Result records from the selected Organization/Project will be chosen for the report.

Station Type Selection

The Station Type selection area appears in the Stations by Geographic Location and Stations by Organization and Station ID pages. It allows you to choose one or more Primary Type/Secondary Type combinations to use in your Station search. If "Select All" is chosen, then the Station search would include Stations of any Station Type.

You may select any one Station Primary Type/Secondary Type from the Station Type list by highlighting the desired row.

You may hold the **<Ctrl>** key down as you click additional rows if you wish to select more than one.

You may hold the **<Shift>** key down as you click to select all the rows between the current row and the most recently selected row.

Organization Selection

The Organization selection area appears in the Stations by Geographic Location page. It allows you to choose one or more Organizations to use in your Station search. If **<Select All>** is chosen, then the Station search would include Stations from any Organization.

You may select any one Organization from the Organization list by highlighting the desired row.

You may hold the **<Ctrl>** key down as you click additional rows if you wish to select more than one.

You may hold the **<Shift>** key down as you click to select all the rows between the current row and the most recently selected row.

Pressing the first character of an Organization's code will transfer the focus to that area of the Organization list.

Top Station Report

Summary Pages

The Summary Pages for the Result and Station requests are very similar. They both display the selection criteria of the request and the number of records selected. Both have a selectable list of data elements that can be included in reports.

Station Search Summary Page

This page displays the total count of Stations returned followed by a list of the Station search parameters entered. If the count of Station records is zero or more than maximum allowed then you are requested to modify your search criteria by making it more specific to eliminate records or more general to allow more records. If the count of Stations falls between the allowable limits, then a list of Data Elements are displayed. You can select from this list of Data Elements to customize the content of your report and continue, or return to the Station Selection Criteria page. The allowable limits are divided into Online and Batch ranges. The Batch range includes Immediate and Overnight processing. Immediate option is only available for lower end of the Batch range. These limits are maintained by the STORET administrator. This page contains the following sections:

Number of Stations Returned

The number of Stations retrieved with the search criteria you entered on the previous page.

Search Parameter Values Summary

This box displays the Station search parameters you entered on the previous page.

Navigation Options for Stations

Click on the **<Back>** button to return to the Station Selection Criteria page for modifying Station search parameters and refining your query.

Click on the **<Continue>** button to generate a report based on your search criteria and selected data elements.

Choose the **<Batch Processing>** to submit a request for report based on your search criteria and selected data elements.

Batch Processing

Provide user profile to categorize the user type. This is required only for Batch Processing.

Provide email address to report the completion of your request. This is required only for Batch Processing.

Provide three character string to prefix the data filename. This is required only for Batch Processing.

Click on the **<Immediate>** button to submit the request to generate the report immediately. An email will be sent after completing the process.

Click on the **<Overnight>** button to submit the request to generate the report overnight. An email will be sent after completing the process.

Report Customization for Stations (Select Data Elements for Reports)

If the number of Station records selected are more than zero, then a list of Data Elements are displayed for you to select for your report. You may select Data Elements that are appropriate to your Station search for customizing the content of your report. There are default data elements selected for you when the page is displayed which are considered the most notable. You can tailor the content of your report by selecting or unselecting data elements, via their check box, until you have selected your desired content. Click on the **<Select All>** button to select all Data Elements. **<Clear All>** button to clear all selections, or **<Restore Defaults>** button to set the selections back to the default report elements. Some of the displayed Data Elements are actually Group Elements. These Group Elements represent more than one Data Element and, if selected, the report will contain the Data Elements of the group. Once you have selected the data elements you want to see in the report, then click on the **<Continue>**button.

DISTINCT Clause

By Definition:

The DISTINCT clause acts as a filter to remove duplicate records from a result set. It ensures that any records that are returned are unique for the column or columns specified in the SELECT statement. A duplicate row is defined as a row with matching values for each expression in the SELECT list. The DISTINCT keyword is synonymous with the UNIQUE keyword, which is non-standard SQL.

Report Customization for Summary (Using the DISTINCT Clause):

Examples: Who? has data (monitoring) ORG_ID, ORG_NAME

What? type of data CHAR_NAME, MEDIUM, ANALYTICAL METHOD ACTIVITY TYPES

When? sample/submission event ACTIVITY_START_DATE ORG_ID, LAST_CHANGE_DATE

Where? site / geo /site type ORG_ID, STATION_ID, CHAR_NAME (storetw.station_char) HUC COUNTY

STATION_TYPE

Why? Purpose PROJECT_ID, PROJECT_NAME

NOTE: A Report of Warehouse Domain Values (partial/subset) for a specific query result dataset

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Station Group Elements

As mentioned before, there are several Group Elements displayed in the Station Report's customization screen. A Group Element represents several data elements. When one selects a Group Element, the data elements represented by the Group Element will appear in the report. The following is a list of Group Elements available in the Station Report and the data elements that are related. The data elements are linked to the <u>Glossary</u> definitions.

Data Elements for Spring Info

#13: Spring Type Improvement
#14: Permanence
#15: USGS Geologic Unit Code-Name
#16: Spring Other Name
#17: USGS Lithologic Unit Code-Name

Data Elements for Latitude/Longitude

#21: Latitude
#22: Longitude
#23: Horizontal Datum

Data Elements for Converted Latitude/Longitude

#24: Converted Latitude
#25: Converted Longitude
#26: Converted Horizontal Datum

Data Elements for Lat/Long Info

#27: Geopositioning Method #28: Map Scale

Data Elements for Elevation (w/ Units) #29: Elevation #30: Elevation Unit

Data Elements for Additional Elevation Info #31: Elevation Datum #32: Elevation Method

Data Elements for **RF1 Info** <u>#40: RF1 Segment Code</u> <u>#41: RF1 Segment Name</u> <u>#42: RF1 Mileage</u> <u>#43: On Reach Ind</u>

Data Elements for **Estuary Info** <u>#45: Primary Estuary</u> <u>#46: Secondary Estuary</u>

#47: Other Estuary

Data Elements for **Well Hole Depth Measure** #56: Well Hole Depth Measure #57: Well Hole Depth Measure Unit

Data Elements for **Station Document/Graphic** #58: Station Document/Graphic Name #59: Station Document/Graphic URL

Data Elements for Administrative Submission/Change Record #62 Stations / #232 Results: Last Change Date

#63 Stations / #233 Results: Last Transaction ID #64 Stations / #234 Results: Last User ID

Station Data Elements

The following are the Data Elements available for selection for the Station Report. The data elements that are italicized are group elements. Group Elements represent a group of related data elements. When one selects a Group Element, one will get the related data elements in the report. The Group Elements are linked to the list of related elements. The default data elements are in bold and the data elements are linked to the <u>Glossary</u> to provide the definition.

Org ID	Country Name	HUC Twelve Digit Code
Beach ID/Project ID	<u>State</u>	Generated HUC Twelve Digit Code
Station ID	County	Administrative Submission/Change Record
Station Name	Hydrologic Unit Code (HUC)	
Org Name	Hydrologic Unit Name	
Primary Type	Generated Hydrologic Unit Code (HUC)	
Secondary Type	Generated Hydrologic Unit Name	
S/G/O Indicator	<u>RF1 Info</u>	
Well Number	NRCS Watershed ID	
Well Name	Estuary Info	
Pipe Number	Great Lake Name	
NAICS Code	Ocean Name	
<u>Spring Info</u>	Native American Land Name	
Location Point Type	FRS Key Identifier	
Point Sequence Number	Description Text	
Point Name	Well Type	
Latitude/Longitude	Aquifer Name	
Conv Latitude/Longitude	Formation Type	
Lat/Long Info	Well Hole Depth Measure	
Elevation (w/ Units)	Station Document/Graphic	
Additional Elevation Info		

Result Search Summary Page

This page is used by each of the Result pages (i.e. Regular, Biological, Habitat, Metric, and Index Results). This page displays the total count of Results returned followed by a list of the Result search parameters entered. If the count of Result records is zero or more than 30,000, then you are requested to modify your search criteria by making it more specific to eliminate records, or more general to allow more records. If the count of Results falls between the allowable limits, then a list of Data Elements is displayed. You may select the Data Elements to customize the content of your report and continue, or return to the Result Selection Criteria page. The allowable limits are divided into Online and Batch ranges. The Batch range includes Immediate and Overnight processing. Immediate option is only available for lower end of the Batch range. These limits are maintained by the STORET administrator. This page contains the following sections:

Number of Results Returned

The number of Results retrieved with the search criteria you entered on the previous page.

Search Criteria for Results

This box displays the Result search parameters you entered on the previous page.

Navigation Options for Results

Click on the **<Back>** button to return to the Results Selection Criteria page for modifying result search parameters and refining your query.

Click on the **<Continue>** button to generate a report based on your search criteria and selected data elements.

Choose the **<Batch Processing>** to submit a request for report based on your search criteria and selected data elements.

Batch Processing

Provide email address to report the completion of your request. This is required only for Batch Processing.

Provide three character string to prefix the data filename. This is required only for Batch Processing.

Click on the **<Immediate>** button to submit the request to generate the report immediately. An email will be sent after completing the process.

Click on the **<Overnight>** button to submit the request to generate the report overnight. An email will be sent after completing the process.

Report Customization for Results (Select Data Elements for Reports)

You may select Data Elements that are appropriate to your result search for customizing the content of your report. The list of Data Elements available to select differs slightly among Regular Result, Biological Result, and Habitat Result. There are default data elements selected for you when the page is displayed which are considered the most notable. You can tailor the content of your report by selecting or unselecting data elements, via their check box, until you have selected your desired content. Click on the **<Select All>** button to select all Data Elements, **<Clear All>** button to clear all selections, or **<Restore Defaults>** button to set the selections back to the default report elements. Some of the displayed Data Elements are actually Group Elements. These Group Elements represent more than one Data Element and, if selected, the report will contain the Data Elements of the group. Once you have selected the data elements you want to see in the report, then click on the **<Continue>** button.

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Result Group Elements

As mentioned before, there are several Group Elements displayed in each of the Result Search Summary pages. A Group Element represents a group of data elements. When one selects a Group Element, the data elements

represented by the Group Element will appear in the report. The following is a list of Group Elements and the data elements that are related. The data elements are linked to the <u>Glossary</u> to provide definitions.

Data Elements for Station Location Info

#6: State
#7: County
#8: HUC
#9: Generated HUC

Data Elements for Station Lat/Long #10: Station Latitude #11: Station Longitude #12: Station Horizontal Datum

Data Elements for **Conv Station Lat/Long** #13: Converted Station Latitude #14: Converted Station Longitude #15: Converted Station Horizontal Datum

Data Elements for **Station Types** <u>#16: Primary Type</u> <u>#17: Secondary Type</u>

Data Elements for Visit Start #20: Visit Start #21: Visit Start Time Zone

Data Elements for Visit Stop #22: Visit Stop #23: Visit Stop Time Zone

Data Elements for Activity Start #27: Activity Start #28: Activity Start Time Zone

Data Elements for Activity Stop #29: Activity Stop #30: Activity Stop Time Zone

Data Elements for Actual Activity Lat/Long #43: Actual Activity Latitude #44: Actual ActivityLongitude #45: Actual Activity Horizontal Datum #46: Actual Activity Horizontal Accuracy

Data Elements for Conv Actual Activity Lat/Long #47: Converted Actual Activity Latitude #48: Converted Actual Activity Longitude #49: Converted Actual Activity Horizontal Datum

Data Elements for Additional Act Location Info Geopositioning Method Map Scale

Data Elements for Sample Preservation

#65: Container Description
#66: Temp Pres Type
#67: Pres Storage Proc
#68: Transport Storage Desc

Data Elements for Characteristic Name <u>#70: Characteristic Name</u> <u>#71: Characteristic Description</u>

Data Elements for **Result Value as Text** <u>#78: Result Value as Text</u> <u>#79: Result Value Status</u>

Data Elements for Activity/Result Comment #84: Activity Comment #85: Result Comment

Data Elements for Additional Anal Proc Info

#95: Detection/Threshold Limit #96: Detection/Threshold Limit Unit #97: Detection/Threshold Limit Descript #98: Lower Quantification Limit #99: Upper Quantification Limit #100: All Result Detections/Thresholds

Data Elements for Other Lab Info

#105: Lab ID #106: Lab Name #107: Lab Cert #108: Lab Batch ID #109: Analysis Date #110: Analysis Date Time Zone #110: Analysis End Date Time #110: Analysis End Date Time

Data Elements for Data Quality

#114: Precision
#115: Bias
#116: Confidence Level
#117: Confidence Interval

Data Elements for Activity/Result Document/Graphic

#119: Result Document/Graphic Name
#120: Result Document/Graphic URL
#121: Activity Document/Graphic Name
#122: Activity Document/Graphic URL

Data Elements for Net Tow Info

#123: Trawl Start Point Name
#124: Trawl Start Latitude
#125: Trawl Start Longitude
#126: Trawl Start Horizontal Datum
#127: Conv Trawl Start Latitude
#128: Conv Trawl Start Longitude
#129: Conv Trawl Start Datum

#130: Trawl Start Depth (w/units) #131: Trawl Stop Point Name #132: Trawl Stop Latitude #133: Trawl Stop Longitude #134: Trawl Stop Horizontal Datum #135: Conv Trawl Stop Latitude #136: Conv Trawl Stop Longitude #137: Conv Trawl Stop Datum #138: Trawl Stop Depth (w/units) #139: Fished Duration Measure (w/units) #140: Boat Speed (w/units) #141: Fished Distance (w/units) #142: Trawl Rel Current Dir #143: Trawl Rel Wind Dir #144: Trawl Comment #145: Net Information #146: Net Surface Area #147: Net Mesh Size #148: Current Speed

Data Elements for Electroshock Info

#149: Voltage Measure #150: Current Type Code #151: Amperage Measure #152: Pass Count #153: Pass Length Measure (w/units) #154: Pulse Rate Measure #155: Electroshock Comment #156: Total Energzed Time (w/units)

Data Elements for Net Non-Tow Info

#157: Sampling Duration (w/units)
#158: Orientation to Current
#159: Trap/Net Rel Current Dir Dir
#160: Trap/Net Rel Wind Dir
#161: Trap Net Comment
#161: Trap Net Current Speed
#161: Trap Net Mesh Size
#161: Trap Net Surface Area

Data Elements for General Group Info

#165: Bio Result Group ID #166: Bio Result Group Type #167: Bio Result Group Subject Taxon (w/species #) #168: Bio Result Group Desc

Data Elements for Multi-Taxon Pop Census Info

#169: Feeding Group #170: Pollution Tolerance Scale #171: Pollution Tolerance #172: Trophic Level #173: Habit #174: Voltinism #175: Cell Shape

#176: Cell Form

Data Elements for Single Taxon Frequency Class Info #178: Phys/Bio Ind #179: Bio Result Group ID (sex) #180: Bio Result Group ID (lifestage) #181: Bio Result Group Class Var #182: Class Prim Desc #183: Class Sec Desc #184: Class Lower Bound #185: Class Upper Bound #186: Class Units

Data Elements for Single Taxon Individual Info #187: Number in Group #188: Bio Individual Number

Data Elements for Collection Duration Info #189: Sampling Component #190: Place In Series

Data Elements for **Reach Measure** <u>#191: Reach Length</u> <u>#192: Reach Width</u>

- Data Elements for **Toxicity Test Type** <u>#193: Toxicity Test Type</u>
- Data Elements for **Result Depth Height** <u>#194: Result Depth Height</u> <u>#195: Result Depth Height Unit</u> <u>#196: Result Depth Altitude Ref Point</u> <u>#197: Result Sampling Point</u>
- Data Elements for **Bio Individual** <u>#198: Bio Individual</u>
- Data Elements for Unidentified Species ID #199: Species ID

Data Elements for Group Summary Count Weight #200: Group Summary Count Weight

Data Elements for Frequency Class #201: Frequency Class

Data Elements for Laboratory Accreditation Indicator #202: Taxa Accred Authority #203: Lab Accred Authority #204: Taxa Accred YN

Data Elements for Lab Sample Preparation ID #205: Lab Sample Preparation ID

Data Elements for Lab Sample Prep Info

#206: Sample Prep Start Date
#207: Sample Prep Start Date Zone
#208: Sample Prep End Date
#209: Sample Prep End Date Zone

Data Elements for **Dilution Factor** #210: Dilution Factor

Data Elements for Activity Conducting Organization #211: Activity Conducting Organization

Data Elements for Metric Type ID #212: Metric Type ID

Data Elements for Metric Value #213: Metric Value

Data Elements for **Taxon Detail Citation ID** #214: Taxon Detail Citation ID

Data Elements for Metric Context #215: Metric Context

Data Elements for Metric Unit #216: Metric Unit

Data Elements for Metric Score #217: Metric Score

Data Elements for Metric Name #218: Metric Name

Data Elements for Metric Scale #219: Metric Scale

Data Elements for Metric Comment #220: Metric Comment

Data Elements for Index ID #221: Index ID

Data Elements for Index Type ID #222: Index Type ID

Data Elements for Index Type Name #223: Index Type Name

Data Elements for Index Type Citation #224: Index Type Citation

Data Elements for Index Type Scale Text #225: Index Type Scale Text

Data Elements for Index Score #226: Index Score Data Elements for Index Qualifier Code #227: Index Qualifier Code

Data Elements for Index Comment #228: Index Comment

Data Elements for Index Calculated Date #229: Index Calculated Date

Data Elements for Index Activity ID #230: Index Activity ID

Data Elements for Metric Detail Citation ID #231: Metric Detail Citation ID

Data Elements for Administrative Submission/Change Record

#232: Last Change Date #233: Last Transaction ID #234: Last User ID

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Regular Result Data Elements

The following are the Data Elements available for selection for the Regular Results Report. The data elements that are italicized are group elements. Group elements represent a group of related data elements. When one selects a Group Element, one will get the related data elements in the report. The Group Elements are linked to the list of related elements. The default data elements are in bold, and the data elements are linked to the <u>Glossary</u> to provide the definition.

Org ID	Well Number	Weight Basis
Beach ID/Project ID	Pipe Number	Temperature Basis
Org Name	Additional Act Location Info	Duration Basis
Station ID	Activity Depth	Particle Size Basis
Station Name	Activity Depth Unit	Distance Measured From
Station Location Info	Activity Upper Depth	Distance Measured to
Station Lat/Long	Activity Rel Depth	Analytical Proc ID
Conv Station Lat/Long	Activity Lower Depth	Additional Anal Proc Info
Station Types	Upr Lwr Depth Unit	Lab Remark
S/G/O Indicator	Activity Depth Ref Point	Dilution Ind
Visit Num	Sample Collection ID	Recovery Ind
<u>Visit Start</u>	Field Gear ID	Correction Ind
<u>Visit Stop</u>	Field Gear Config ID	Other Lab Info
<u>Trip ID</u>	Sample Preservation	Num of Reps
Trip Name	Portable Data Logger	Data Quality
Activity ID	Characteristic Name	Correction for Bias Ind
<u>Activity Start</u>	CAS Num	Activity/Result Document/Graphic
Activity Stop	EPA Registry Num	Result Depth Height

Activity Medium	ITIS Num	Laboratory Accreditation Indicator
Activity Matrix	Sample Fraction	Lab Sample Preparation ID
Activity Type	Value Type	Lab Sample Prep Info
Activity Category-Rep Num	<u>Statistic Type</u>	Dilution Factor
Activity Intent	<u>Result Value as Text</u>	
Activity Comment	Result Value as Number	
Field Set	<u>Units</u>	
Actual Point Type	Converted Result Value	
Actual Point Sequence	Converted Result Units	
Actual Point Name	<u>Activity/Result Comment</u>	
Actual Activity Lat/Long	Result Measure Qualifier	
Conv Actual Activity Lat/Long	Result Free Text	Administrative Submission/Change Record

Biological Result Data Elements

The following are the Data Elements available for selection for the Biological Results Report. The data elements that are italicized are group elements. Group elements represent a group of related data elements. When one selects a Group Element, one will get the related data elements in the report. The Group Elements italicized below are linked to the list of related elements. The default data elements are in bold, and the data elements are linked to the <u>Glossary</u> to provide the definition.

Org ID	Well Number	Duration Basis
Org Name	Pipe Number	Particle Size Basis
Station ID	Additional Act Location Info	Distance Measured From
Station Name	Activity Depth	Distance Measured to
Station Location Info	Activity Depth Unit	Analytical Proc ID
Station Lat/Long	Activity Upper Depth	Additional Anal Proc Info
Conv Station Lat/Long	Activity Rel Depth	Lab Remark
S/G/O Indicator	Activity Lower Depth	Dilution Ind
Visit Num	Upr Lwr Depth Unit	Recovery Ind
<u>Visit Start</u>	Sample Collection ID	Correction Ind
Visit Stop	Field Gear ID	Other Lab Info
Trip ID	Field Gear Config ID	Num of Reps
Trip Name	Sample Preservation	Precision
Activity ID	Characteristic Name	Bias
Activity Start	CAS Num	Conf Level
Activity Stop	EPA Registry Num	Correction for Bias Ind
Activity Medium	ITIS Num	Net Tow Info
Activity Type	Sample Fraction	Electroshock Info
Activity Category-Rep Num	Value Type	Net Non-Tow Info
Activity Intent	Statistic Type	General Group Info
Community Sampled	Result Value as Text	Multi-Taxon Pop Census Info
Subject Taxon	Result Value as Number	Single Taxon Group Summary Info

<u>Biopart</u>	<u>Units</u>	Single Taxon Frequency Class Info
Field Set	Converted Result Value	Single Taxon Individual Info
Actual Point Type	Converted Result Unit	Laboratory Accreditation Indicator
Actual Point Sequence	Result Comment	Lab Sample Prep Info
Actual Point Name	Result Free Text	Activity/Result Document/Graphic
Actual Activity Lat/Long	Weight Basis	Reach Measure
Conv Actual Activity Lat/Long	Temperature Basis	Activity Comment
Activity Depth Ref Point	Station Types	Result Depth Height
Bio Individual	Unidentified Species ID	Group Summary Count Weight
Beach ID/Project ID	<u>Data Quality</u>	Administrative Submission/Change Record

Habitat Result Data Elements

The following are the Data Elements available for selection for the Habitat Results Report. The data elements that are italicized are group elements. Group elements represent a group of related data elements. When one selects a Group Element, one will get the related data elements in the report. The Group Elements italicized below are linked to the list of related elements. The default data elements are in bold, and the data elements are linked to the <u>Glossary</u> to provide the definition.

Org ID	Actual Point Name	Temperature Basis
Org Name	Actual Activity Lat/Long	Duration Basis
Station ID	Conv Actual Activity Lat/Long	Distance Measured From
Station Name	Well Number	Distance Measured to
Station Location Info	Pipe Number	Analytical Proc ID
Station Lat/Long	Additional Act Location Info	Additional Anal Proc Info
Conv Station Lat/Long	Characteristic Name	Lab Remark
S/G/O Indicator	Habitat Class Name	Dilution Ind
<u>Visit Num</u>	EPA Registry Num	Recovery Ind
<u>Visit Start</u>	Sample Fraction	Correction Ind
<u>Visit Stop</u>	Value Type	Other Lab Info
Trip ID	Statistic Type	Num of Reps
Trip Name	Result Value as Text	Precision
Activity ID	Result Value as Number	Bias
Activity Start	Units	Conf Level
Activity Stop	Converted Result Value	Correction for Bias Ind
Activity Type	Converted Result Unit	Result Document/Graphic Name
Field Set	Result Comment	Activity Document/Graphic Name
Actual Point Type	Result Free Text	Activity/Result Document/Graphic
Actual Point Sequence	Weight Basis	Activity Conducting Organization
Beach ID/Project ID	Data Quality	Station Types
Activity Comment	Dilution Factor	Laboratory Accreditation Indicator
Lab Sample Preparation ID	Result Depth Height	Lab Sample Preparation ID

Metric Result Data Elements

The following are the Data Elements available for selection for the Metric Results Report. The data elements that are italicized are group elements. Group elements represent a group of related data elements. When one selects a Group Element, one will get the related data elements in the report. The Group Elements italicized below are linked to the list of related elements. The default data elements are in bold, and the data elements are linked to the <u>Glossary</u> to provide the definition.

Activity Conducting Organization	Actual Point Type	Result Free Text
Metric Type ID	Actual Point Sequence	Weight Basis
Metric Detail Citation ID	Actual Point Name	Temperature Basis
Metric Type Name	Actual Activity Lat/Long	Duration Basis
Taxon Detail Citation ID	Conv Actual Activity Lat/Long	Particle Size Basis
Metric Value	Well Number	Analytical Proc ID
Metric Unit	Pipe Number	Additional Anal Proc Info
Metric Context	Additional Act Location Info	Lab Remark
Metric Score	Activity Depth	Dilution Ind
Metric Name	Activity Depth Unit	Recovery Ind
Metric Scale	Activity Upper Depth	Correction Ind
Metric Comment	Activity Rel Depth	Other Lab Info
Org ID	Activity Lower Depth	Data Quality
Org Name	Upr Lwr Depth Unit	Activity/Result Document/Graphic
Station ID	Activity Depth Ref Point	Net Tow Info
Station Name	Sample Collection ID	Electroshock Info
Station Location Info	Field Gear ID	Net Non-Tow Info
Station Lat/Long	Sample Preservation	Multi-Taxon Pop Census Info
Conv Station Lat/Long	Portable Data Logger	Single Taxon Frequency Class Info
Station Types	<u>Characteristic Name</u>	Collection Duration Info
S/G/O Indicator	CAS Num	Reach Measure
Activity ID	Sample Fraction	Toxicity Test Type
Activity Start	<u>Value Type</u>	Result Depth Height
Activity Stop	<u>Statistic Type</u>	Bio Individual
Activity Medium	<u>Result Value as Text</u>	Unidentified Species ID
Activity Type	Result Value as Number	Group Summary Count Weight
Activity Category-Rep Num	<u>Units</u>	Frequency Class
Activity Intent	Converted Result Value	Laboratory Accreditation Indicator
Community Sampled	Converted Result Unit	Lab Sample Preparation ID
Subject Taxon	<u>Activity/Result Comment</u>	Lab Sample Prep Info
Biopart	Result Measure Qualifier	Actual Point Type
	Dilution Factor	Administrative Submission/Change Record

Index Result Data Elements

The following are the Data Elements available for selection for the Index Results Report. The data elements that are italicized are group elements. Group elements represent a group of related data elements. When one selects a Group Element, one will get the related data elements in the report. The Group Elements italicized below are linked to the list of related elements. The default data elements are in bold, and the data elements are linked to the <u>Glossary</u> to provide the definition.

Org ID
Org Name
Station ID
Station Name
Station Location Info
Station Lat/Long
Conv Station Lat/Long
Station Types
Index ID
Index Type ID
Index Type Name
Index Type Citation
Index Type Scale Text
Index Score
Index Qualifier Code
Index Comment
Index Calculated Date
Index Activity ID
Administrative Submission/Change Record

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Watershed Summary

Watershed summary report provides a summary of STORET results for a chosen Hydrologic Unit Code, grouped by organization or characteristic type. A dropdown list of Hydrologic Unit Codes is displayed, from which you can choose a Hydrologic Unit Code and request for summary information. The Search By radio buttons provided on the web page allow you to choose one out of the two formats for watershed summary display.

Get Organization Summary and Download Results for One or All organization(s)

This page displays the number of organizations, stations, characteristics and results for the selected watershed. Name of each organization within the selected watershed is displayed with a radio button. Number of stations, and distibution of results across the various characteristic types for each organization will be displayed as hyperlinks. The stations hyperlink lists station names and number of results of each station, for the selected organization within the watershed. The hyperlinks attached to the characteristic types provide names and number of results for each characteristic of the selected characteristic type found within the selected organization and watershed.

Get Characteristic Type Summary and Download Results for Selected Characteristic Type(s)

This page displays the total number of characteristics and the total number of results available for the selected watershed. Names of characteristic types found across the results of the watershed are displayed. The check boxes

displayed next to each of the characteristic type allow you to choose one or more of the characteristic types, and request STORET result data for the watershed for the selected characteristic types.

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Download Results Page

Download Results Page General

This page gives you the option to download your report or to have it compressed first before downloading. It displays the size of your report in kilobytes to assist you in deciding to compress (zip) the report or not. Click on the link "Download your file now..." to download your report. Click the "Compress Data File Now" button to proceed with compressing your report. Another download page is brought up when you select to compress your report. From this page you can download your compressed report.

Explanation of Result Report Format

The generated report provides the available information associated with the selected data elements when Results exist that match the search criteria.

The file will be "Tilde Delimited" flat ASCII text. The Tilde character (i.e., ~) is found on many keyboards at the top left, just above the TAB key, and looks like a horizontal "S".

This unusual character has been used as a delimiter because of its lower likelihood of appearing in any of your downloaded data over other more common characters.

Download Site Descriptions Page

Download Site Descriptions Page General

This page gives you the option to download your report or to have it compressed first before downloading. It displays the size of your report in kilobytes to assist you in deciding to compress (zip) the report or not. Click on the link "Download your file now..." to download your report. Click the "Compress Data File Now" button to proceed with compressing your report. Another download page is brought up when you select to compress your report. From this page you can download your compressed report.

Explanation of Station Report Format

The generated report provides the available information associated with the selected data elements when monitoring sites exist that match the search criteria.

The file will be "Tilde Delimited" flat ASCII text. The Tilde character (i.e., ~) is found on many keyboards at the top left, just above the TAB key, and looks like a horizontal "S".

This unusual character has been used as a delimiter because of its lower likelihood of appearing in any of your downloaded data over other more common characters.

Download Your Compressed Data File

If you select to compress your report, a download page is opened. This page allows you to download your compressed report. The file size is given to help you decide whether to download or not. The report is compressed using a UNIX tool. The compressed file has an extension of ".gz". This stands for GZIP. Most compression or Zip software recognizes this extension and is compatible with the file. However, some Zip software will not be able to unzip this file. By clicking on the link "Download your compressed file now..." your default Zip software will open ready to unzip your report. Depending on your browser's settings, you may be prompted to either open or save your compressed file before your Zip software is called. You can save it to a directory of your choice or unzip the report right away. The report is the same tilde delimited file described in the Download Results Page and the Download Site Descriptions Page. It should be noted that the Netscape browser

does not work properly with the zip enhancement. It unzips the file immediately, instead of bringing up the zip program to allow you to determine what to do with the file.

Retrieving Documents/Graphics

Retrieving documents/graphics requires a few additional steps when customizing and downloading your Station or Result report. When customizing your report the data elements associated with Station documents/graphics are <u>Station Document/Graphic Name</u> and <u>Station Document/Graphic URL</u>. These data elements can be selected from the Station Search Summary page. The data elements associated with Result documents/graphics are <u>Result</u> <u>Document/Graphic Name</u> and <u>Result Document/Graphic URL</u>. The data elements associated with Activity documents/graphics are <u>Activity Document/Graphic Name</u> and <u>Activity Document/Graphic URL</u>. Documents/graphics for both Activity and Result data can be selected from the Result Search Summary page. For each type of documents/graphics (Station, Result, or Activity) the Document/Graphic Name data element provides the title or name of the documents/graphics. The Document/Graphic URL data element provides the address or Uniform Resource Locator (URL) of the web page that can download your documents/graphics. This data element is essential to retrieve your documents/graphics. The Document/Graphic Name data element is optional.

To retrieve a documents/graphics, select, at least, the Document/Graphic URL data element for which you are interested. Download your report as usual. Highlight the URL that appears in the body of the report. Copy and paste it into the "Address" prompt on your web browser and hit "Enter". Make sure the complete URL is copy and pasted. This will open the Download Document/Graphic page. Clicking on the "Download your Document/Graphic now..." link will open the documents/graphics on your browser or with other software compatible with the file type.

The URL contained in your Document/Graphic URL data element will remain accurate and can be used again without running another report, unless that documents/graphics record gets modified through STORET's data entry.

Download Document/Graphic Page

As mentioned above, this page is displayed when the value in the Document/Graphic URL data element is transcribed to the address prompt of your web browser. By clicking on the link "Download your Document/Graphic now..." the document or graphic being pointed to by the URL is downloaded and opened on your browser or with other software compatible with the file type.

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Glossary

Activity Category

A descriptor used to distinguish different kinds of samples and different kinds of Measurements & Observations.

Activity Category-Rep Num

This is the concatenation of <u>Activity Category</u> and <u>Replicate Number</u>. An Activity Category is a descriptor used to distinguish different kinds of samples and different kinds of Measurements & Observations. A Replicate Number is a user-assigned number applied to samples/measurements of the same type, medium, etc. to differentiate between them (e.g., Water Replicate 1 and Water Replicate 2). Note: This applies only to certain Activity Categories for Samples (replicate, field replicate, depletion replicate, sample created from sample) and Measurements (measurement replicate)- not Observations.

Activity Depth

Distance from the surface to the point in the water column at which the activity is conducted.

Activity Depth Unit

The code that represents the units in which the depth to activity is expressed.

Activity Document/Graphic Name

An activity may be further described by a document or graphic. This field defines the title of the

documents/graphics which further defines this activity.

Activity Document/Graphic URL

A Uniform Resource Locator (URL) is an address of a file accessible on the internet. In this case, it is the address of a Document/Graphic describing an activity.

Activity ID

The Organization-assigned alphanumeric code that identifies a Field Activity, sometimes called Sample ID. The combination of Activity/Sample ID and Replicate Number must be unique among all samples collected during one Station visit conducted during any one Trip.

Activity Intent

The primary reason the Field Activity occurred. Note: This is mandatory for Biological Medium, and not available for other media.

Activity Comment

Free text comments usually originating from members of the field crew regarding the Field Activity.

Activity Lower Depth

This measure is associated with an activity that is normally conducted over or within a vertical depth range within the water column. This attribute is a measure of the distance from the surface to the lower boundary of the zone within which the activity is conducted or over which the activity is integrated.

Activity Matrix

The short name of the Sample Matrix.

<u>Activity Medium</u> The name of the medium where the Field Activity occurred.

<u>Activity Rel Depth</u> The name that indicates the approximate location within the water column at which the activity occurred.

Activity Start

For Samples Collected or for Measurements/Observations made - the date and time that the Field Activity began. For Samples Created from other samples - the date and time on which a sample is created by compositing, splitting, or subsampling from a parent sample. It is a date/time attribute containing Activity Start Date and Activity Start Time.

<u>Activity Start Time Zone</u> Time Zone for Activity Start.

Activity Stop

Date and time that the Field Activity ended. It is a date/time attribute containing Activity Stop Date and Activity Stop Time.

<u>Activity Stop Time Zone</u> Time Zone for Activity Stop.

Activity Type

The type of the Field Activity being performed, used to distinguish between field samples and field measurements and observations.

Activity Upper Depth

This measure is associated with an activity that is normally conducted over or within a vertical depth range within the water column. This attribute is a measure of the distance from the surface to the upper boundary of the zone

within which the activity is conducted or over which the activity is integrated.

Actual Activity Latitude

The Latitude (in decimal degrees) for the absolute location point of the Activity. Latitudes South of the Equator are negative.

Actual Activity Longitude

The Longitude (in decimal degrees) for the absolute location point of the Activity. Longitudes in the Western Hemisphere (including the entire continental United States) are negative.

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<u>Actual Point Type</u> The code that identifies the type of location for an Absolute Location Point.

<u>Actual Point Name</u> User-specified free text name by which a specific absolute location point will be known.

Actual Point Sequence

The number that indicates the sequence position of current point among a group of points. For example, if several points are recorded to mark the boundary of a Station, the sequence number specifies the order in which the system should "connect the dots."

<u>Amperage Measure</u> The rate of current flow (amperes) produced by the electroshock equipment used to collect the Sample.

<u>Analysis Date</u> The date on which laboratory analysis of the sample for this particular result was performed.

<u>Analysis Date Time Zone</u> The time zone of the Analysis Date.

<u>Analytical Proc Name</u> The full title of the analytical procedure.

Analytical Proc ID

A combination of an abbreviation or acronym identifying the Organization that owns the analytical procedure (e.g. ASTM, USGS, and EPA) and the abbreviated name or identifying code of the analytical procedure.

<u>Activity</u>

This allows for the reporting of monitoring activities conducted at a Monitoring Location

<u>Activity Group</u> Allows for the grouping of activities

ActivityAttachedBinaryObject

This allows for the association of References and electronic attachments to the Activity description including any other documents, images, maps, photos, laboratory materials, geospatial coverages, and other objects associated with the Project.

<u>ActivityBottomDepthHeightMeasure</u>

A measurement of the lower vertical location of a vertical location range (measured from a reference point) at which an activity occurred.

<u>ActivityCommentText</u> General comments concerning the activity.

<u>ActivityConductingOrganizationText</u> A name of the Organization conducting an activity.

<u>ActivityDepthAltitudeReferencePointText</u> The reference used to indicate the datum or reference used to establish the depth/altitude of an activity.

<u>ActivityDepthHeightMeasure</u> A measurement of the vertical location (measured from a reference point) at which an activity occurred.

<u>ActivityEndDate</u> The calendar date when the field activity was completed.

<u>ActivityEndTime</u> The measure of clock time when the field activity ended.

<u>ActivityGroupIdentifier</u> Designator that uniquely identifies a grouping of activities within an organization.

<u>ActivityGroupName</u> A name of an activity group.

<u>ActivityGroupTypeCode</u> Identifies the type of grouping of a set of activities

<u>ActivityIdentifier</u> Designator that uniquely identifies an activity within an organization.

ActivityLocation

This allows for the geospatial description of actual monitoring site, if it is different from that described for in the formal station description.

<u>ActivityMediaName</u> Name or code indicating the environmental medium where the sample was taken.

<u>ActivityMediaSubDivisionName</u> Name or code indicating the environmental matrix as a subdivision of the sample media.

<u>ActivityMetric</u> This allows for the reporting of metrics to support habitat or biotic integrity indices.

<u>ActivityMetricType</u> This identifies the metric type reported as part of an activity metric.

<u>ActivityRelativeDepthName</u> The name that indicates the approximate location within the water column at which the activity occurred.

<u>ActivityStartDate</u> The calendar date on which the field activity was started.

<u>ActivityStartTime</u> The measure of clock time when the field activity began. ActivityTopDepthHeightMeasure

A measurement of the upper vertical location of a vertical location range (measured from a reference point) at which an activity occurred.

<u>ActivityTypeCode</u> The text describing the type of activity.

<u>AddressText</u> The address that describes the physical (geographic), shipping, or mailing location of an organization.

<u>AddressTypeName</u> Categorizes an address as either location, shipping, or mailing address.

<u>AlternateMonitoringLocationIdentity</u> Alternate identifications of a monitoring location.

<u>AnalysisEndDate</u> The calendar date on which the analysis was finished.

<u>AnalysisEndTime</u> The local time and relative time zone when the analysis was finished.

<u>AnalysisStartDate</u> The calendar date on which the analysis began.

<u>AnalysisStartTime</u> The local time and relative time zone when the analysis began.

<u>AquiferName</u> Name of the aquifer in which the well is completed.

<u>AssemblageSampledName</u> An association of interacting populations of organisms in a given waterbody.

<u>AttachedBinaryObject</u>

This allows for the association of References and electronic attachments to the Monitoring Location or Result description description including any other documents, images, maps, photos, laboratory materials, geospatial coverages, and other objects associated with the Project.

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<u>Bias</u>

A consistent deviation of measured values from the true value, caused by systematic errors in a procedure, as determined by applying the identical procedures to a specimen of known properties.

Bio Individual Number

System assigned sequence number to the individual in accordance with the total number of individuals reported by the user. Once assigned, this number does not change and cannot be changed/deleted. Each defined group of individuals gets an increasing series of "individual numbers" beginning with 1 for the identification of individual specimens from the original group. Results then describe the specific individual.

Bio Result Group Class Var

The name of the characteristic when the group is Single Taxon Frequency Classes based on Physical measures.

Bio Result Group Desc

Additional user-specified text describing the biological result group. Not intended to replace results with characteristics with text values.

Bio Result Group ID

The user-assigned number that identifies a Biological Result Group.

Bio Result Group ID (lifestage)

The lifestage of all organisms in the biological result group, when the group is Single Taxon Frequency Classes based on Physical measures.

Bio Result Group ID (sex)

The sex of all organisms in the biological result group, when the group is Single Taxon Frequency Classes based on Physical measures.

Bio Result Group Subject Taxon (w/species #)

This field is a combination of two fields. Part of it is a number that is assigned as a part of a taxonomic identification. Used with a valid genus (or higher taxonomic rank) to indicate a unique species has been observed but not taxonomically identified (e.g., Lepomis sp.1). It is also the name of the taxonomic characteristic.

Bio Result Group Type

The name of the kind of group. Examples include: 1. Multi-Taxon Population Census 2. Single taxon frequency class 3. Single taxon group summary 4. Single taxon individual

Biopart

The usual anatomical term which identifies the portion of an organism to be analyzed.

Boat Speed

The relative speed, through the water, of the boat during Sample collection. This field also includes the code that represents the unit in which the boat speed is expressed.

CAS Num

Chemical Abstract Service Registry Number. It is a unique identifier for chemicals.

Cell Form

The name of the cell form for cellular organisms expressed as a result. A single cellular species may have a result value for any or all of these cell forms.

Cell Shape

The cell shape of the cellular organism. For example, a chrysophyta can have a form and a shape.

Characteristic Name

The name of the characteristic as it is to be displayed on windows and reports.

<u>BiasValue</u>

The systematic or persistent distortion of a measurement process which causes error in one direction.

BinaryObjectFileName

The text describing the descriptive name used to represent the file, including file extension.

<u>BinaryObjectFileTypeCode</u>

The text or acronym describing the binary content type of a file.

BiologicalActivityDescription

This allows for the reporting of biological monitoring activities conducted at a Monitoring Location

BiologicalHabitatCollectionInformation

Allows for the reporting of biological habitat sample collection information

<u>BiologicalHabitatIndex</u>

This allows for the reporting of habitat and biotic integrity indices as a representation of water quality conditions.

BiologicalIndividualIdentifier

A number uniquely identifying the individual in accordance with the total number of individuals reported by the user.

BiologicalIntentName

The primary reason the biological monitoring has occurred.

BiologicalResultDescription

This allows for the reporting of biological result information.

<u>BoatSpeedMeasure</u>

A measurement of the boat speed during biological monitoring sample collection.

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Characteristic Group Type

A Characteristic Group Type represents a group of characteristics. Each Characteristic is assigned to one or more characteristic types. This list is maintained by USGS NWIS or Water Quality Portal Team.

WQP Group Name	WQP Group Description
Information	Information about a data-collection site, sampling activity, analytical procedure, or quality-assurance measurement (Evaluation order 18)
Physical	General quantitative and qualitative observations as well as results computed from field and laboratory observations (Evaluation order 12)
Inorganics, Major, Metals	Major metallic cations (including sodium, calcium, magnesium, and potassium); generally present in concentrations of milligrams per liter. (Evaluation order 4)
Inorganics, Major, Non-metals	Major non-metallic anions (including chloride, fluoride, sulfate, and alkalinity related); generally present in concentrations of milligrams per liter. (Evaluation order 5)
Nutrient	Nitrogen- or phosphorus-based constituents. (Evaluation order 3)
Microbiological	Bacteria, viruses, protozoans, or other microbial constituents. (Evaluation order 14)
Biological	Algal and zooplankton constituents (including productivity, chlorophyll, and biomass). Information about biological samples (for example, sample size and weight parameters), including tissue samples, are grouped as Biological. (Evaluation order 17)
Inorganics, Minor, Metals	Trace metal cations or metal-based compounds; generally present in micrograms per liter. (Evaluation order 6)
Inorganics, Minor, Non-metals	Trace non-metallic elements or non-metallic based compounds, generally present in micrograms per liter. (Evaluation order 7)
Organics, Pesticide	Organic pesticide compounds, including their break-down products. When a chemical compound has more than one use, if the predominant use is for pesticides, it is assigned to this group; if the predominant use is other than as a pesticide, it is assigned to "Organics, other". (Evaluation order 10)
Organics, PCBs	Polychlorinated biphenol compounds, including their break-down products. (Evaluation

	order 9)
Organics, Other	Organic compounds not classified as pesticides or polychlorinated biphenol compounds, including volatile organic compounds and oil/grease constituents. (Evaluation order 11)
Radiochemical	Radioactive constituents, including gross alpha, gross beta, uranium, and radon. (Evaluation order 2)
Stable Isotopes	Isotopic constituents that are stable and not radioactive in nature, including isotope ratios. (Evaluation order 1)
Sediment	Physical sediment-related constituents, including suspended sediment and bedload sediment. This group does not include parameters for the chemical analysis of sediment or dissolved solids. (Evaluation order 8)
Population/Community	Biological population or community information. (Evaluation order 15)
Habitat	Physical habitat measurements. (Evaluation order 16)
Toxicity	Toxicity-test measurements. (Evaluation order 13)
Other	Other miscellaneous constituents. (Evaluation order 19)
	Compounds not yet classified or pending classification of an expert chemist: email documented and expert recommendations to STORET Helpdesk (storet@epa.gov).

<u>Characteristic Type</u> A Characteristic Type represents a group of characteristics. Each Characteristic is assigned to one or more characteristic types. This list is maintained by EPA STORET Team.

STORET Characteristic Type	STORET Characteristic Type Description
Biological	Biological population or community information as represent by a Taxonomic Hierarchy
Habitat	Physical habitat measurements.
Metals	Major metallic cations (including sodium, calcium, magnesium, and potassium) and Trace metal cations or metal-based compounds.
Microbiological	***retired date 2014-01-24 **** Bacteria, viruses, protozoans, or other microbial constituents (including Algal and zooplankton constituents).
Microbiological - Autotrophic	Microbial constituents – producers such as plants or algae.
Microbiological - Contaminants	Microbial constituents - anything other than the intended organism to grow.
Microbiological – Heterotrophic	Microbial constituents – consumers of (autotrophs) organic matter.
Microbiological - Other	Microbial constituents - Organics, Inorganics and others.
Not Assigned	Compounds not yet classified or pending classification of an expert chemist: email documented and expert recommendations to STORET Helpdesk (storet@epa.gov).
Nutrient	Nitrogen- or phosphorus-based constituents.
Other	Other miscellaneous constituents.
PBDEs	Polybrominated diphenyl ether compounds, including their break-down products.
PCBs	Polychlorinated biphenol compounds, including their break-down products.
Pesticide	Pesticide compounds, including their break-down products. When a chemical compound has more than one use, if the predominant use is for pesticides, it is assigned to this group; if the

	predominant use is other than as a pesticide, it is assigned to "Other".
IIPhysical I	General quantitative and qualitative observations as well as results computed from field and laboratory observations.
Radiation	Radioactive constituents, including gross alpha, gross beta, uranium, and radon.

Class Lower Bound

Represents the value of the lower bound of the result class interval.

Class Prim Desc

For Single Taxon Frequency Classes based on biological conditions for a group of organisms, this defines either the Sex or the Lifestage of all organisms participating in the frequency class.

Class Sec Desc

For Single Taxon Frequency Classes based on biological conditions for a group of organisms, this optionally defines either the Sex or the Lifestage (whichever was not used as Primary) of all organisms participating in the frequency class.

Class Upper Bound

Represents the value of the upper bound of the result class interval.

Community Sampled

The name of the Biological Community from which the Sample was taken. Note: This is only valid when medium is Biological and the intent type is Taxon Abundance. It is mandatory for that combination of descriptors.

Confidence Level

A statistical calculation measuring the certainty about the result.

Container Description

The style and material of the container, the color of the container, the measure of the size of the container, and the unit which the size of the container is expressed which is used to collect and transport a sample.

Container Color

The description of the color of the container used to collect and transport the sample.

Converted Actual Activity Latitude

The Latitude (in decimal degrees) for the absolute location point of the Activity. Latitudes South of the Equator are negative. This value has been converted to standard units where possible to assist with data analysis.

Converted Actual Activity Longitude

The Longitude (in decimal degrees) for the absolute location point of the Activity. Longitudes in the Western Hemisphere (including the entire continental United States) are negative. This value has been converted to standard units where possible to assist with data analysis.

Converted Actual Activity Horizontal Datum

The set of reference points from which the Latitude and Longitude were determined. Accuracy of the latitude/longitude determination is affected by the choice of a datum. This value has been converted to standard units where possible to assist with data analysis.

Converted Result Value

The numeric representation of the result value for fully numeric values. Note: This value will be determined by converting the text values from Value Text. This conversion to numeric is always attempted during data entry, and when successful, its result is placed in this field. This value has been converted to standard units where possible to assist with data analysis.

Converted Result Unit

The unit of measure. This value has been converted to standard units where possible to assist with data analysis.

Converted Trawl Start Latitude

The measure of latitude in decimal degrees (-90.0 to 90.0) indicating angular distance North or South of the equator where the trawl began. This value has been converted to standard units where possible to assist with data analysis.

Converted Trawl Start Longitude

The measure of longitude in decimal degrees (-180.0 to 180.0) indicating angular distance west or east of the prime meridian where the trawl began. This value has been converted to standard units where possible to assist with data analysis.

Converted Trawl Start Datum

The set of reference points from which the Latitude and Longitude were determined. Accuracy of the latitude/longitude determination is affected by the choice of a datum. This value has been converted to standard units where possible to assist with data analysis.

Converted Station Latitude

The Latitude (in decimal degrees) at which the Station's Point of Record is located. Latitudes South of the Equator are negative. Every STORET Station has a Point of Record. This value has been converted to standard units where possible to assist with data analysis.

Converted Station Longitude

The Longitude (in decimal degrees) at which the Station's Point of Record is located. Longitudes in the Western Hemisphere (including the entire continental United States) are negative. This value has been converted to standard units where possible to assist with data analysis.

Converted Station Horizontal Datum

The set of reference points from which the Latitude and Longitude were determined. Accuracy of the latitude/longitude determination is affected by the choice of a datum. This value has been converted to standard units where possible to assist with data analysis.

Converted Trawl Stop Latitude

The measure of latitude in decimal degrees (-90.0 to 90.0) indicating angular distance North or South of the equator where the trawl ended. This value has been converted to standard units where possible to assist with data analysis.

Converted Trawl Stop Longitude

The measure of longitude in decimal degrees (-180.0 to 180.0) indicating angular distance west or east of the prime meridian where the trawl ended. This value has been converted to standard units where possible to assist with data analysis.

Converted Trawl Stop Datum

The set of reference points from which the Latitude and Longitude were determined. Accuracy of the latitude/longitude determination is affected by the choice of a datum. This value has been converted to standard units where possible to assist with data analysis.

Correction for Bias Ind

A code indicating whether the confidence level has been corrected for Bias.

Correction Indicator

A code indicating whether the reported result has been adjusted in accordance with a correction factor.

Country Code

A 2-character abbreviation that is used to uniquely identify a country. (i.e., US for the United States and its territories, CN for Canada, and MX for Mexico.)

Country Name

The country name (English spelling). Only Canada, the United States, and Mexico are included in STORET.

County

For Stations in the United States (only), the name of the county or county equivalent in which the Station is located.

Current Type Code

The code that represents the type of current produced by the electroshock equipment.

<u>CellFormName</u>

The name of the cell form for phytoplankton organisms expressed as a result. A single phytoplankton species may have a result value for any or all of these cell forms.

<u>CellShapeName</u>

The cell shape of the phytoplankton organism.

<u>CharacteristicName</u>

The object, property, or substance which is evaluated or enumerated by either a direct field measurement, a direct field observation, or by laboratory analysis of material collected in the field.

ChemicalPreservativeUsedName

Information describing the chemical means to preserve the sample.

<u>CollectionDuration</u>

The length of time a collection procedure or protocol was performed (e.g. total energized time for electrofishing, or total time kick net used).

<u>CommentText</u> General comments about the project monitoring location weighting.

ConfidenceIntervalValue

A range of values constructed so that this range has a specified probability of including the true population mean.

<u>CountryCode</u>

A acronym or code designator used to identify a primary geopolitical unit of the world.

<u>CountyCode</u>

A Federal Information Processing Standards (FIPS) County code designator used to identify a U.S. county or county equivalent.

<u>CurrentSpeedMeasure</u>

A measurement of the current during biological monitoring sample collection.

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Data Owner

The Entity that can authorize or deny access to certain data, and is responsible for its accuracy, integrity, and timeliness. A data owner maybe assigned one or more organization ids. Contact information is contained in the Organization Summary section of each Metadata report.

Description Text

Contains the organization-defined description of the station. This text could include the distance of the left or right shore to the station, or any other information that would further identify the station.

Detection/Threshold Limit

Represents the least amount of the target substance which could be detected by the instrument/analytical process employed to determine the result. Above this value the target substance is presumed to be present.

<u>Detection/Threshold Limit Unit</u> Represents the unit of measure.

Detection/Threshold Limit Descript

Text providing further description and comment on the detection and/or threshold limits, for example "Instrument Detection Level (IDL)", "Method Detection Level (MDL)", etc.

All Result Detections/Thresholds

Represents a delimited list of detection thresholds and limits referenced by the instrument/analytical process employed to determine the result. Each threshold and/or limit is separated by a semicolon (';') as the delimiter.

Dilution Indicator

A code indicating that the result has been calculated from an analysis performed on a diluted sample.

Distance Measured From

The point from which a measurement such as surface elevation or stream width is taken.

Distance Measured to

The point to which a measurement such as stream width or surface elevation was taken.

Duration Basis

The period of time (in days) over which a measurement was made.

Electroshock Comment

User-defined text that provides further information about the Electroshock Operation.

DataLoggerLineName

The unique line identifier from a data logger result text file, normally a date/time format but could be any user defined name, e.g. surface, midwinter, and or bottom.)

DataQuality

The quantitative statistics and qualitative descriptors that are used to interpret the degree of acceptability or utility of data to the user.

DetectionQuantitationLimitMeasure

Constituent concentration that, when processed through the complete method, produces a signal that is statistically different from a blank.

<u>DetectionQuantitationLimitTypeName</u>

Text describing the type of detection or quantitation limit used in the analysis of a characteristic.

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Elevation

The vertical distance above or below sea level at which the Station is located.

Elevation Unit

Represents the unit of measure.

Elevation Datum

The set of reference points from which elevation measurements were made. The accuracy of an elevation determination is affected by the choice of a datum.

Elevation Method

The method by which the elevation measurements were made. The accuracy of the elevation determination is affected by the choice of a method.

<u>EPA Registry Num</u> A number used to standardize the identification of characteristics.

External Reference Scheme Acronym

The abbreviation or acronym of the external reference scheme in which the Station participates. For example, if the reference is to the National Pollution Discharge Elimination System the acronym is NPDES.

ElectronicAddress

This allows for the description of many electronic addresses per owning Organization.

<u>ElectronicAddressText</u>

A resource address, usually consisting of the access protocol, the domain name, and optionally, the path to a file or location.

<u>ElectronicAddressTypeName</u> The name that describes the electronic address type.

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Feeding Group

For entries representing taxa, a code representing the functional feeding group with which the reported taxon is typically associated.

<u>Field Gear Configuration ID</u> The code that identifies a Gear Configuration within the Organization.

Field Gear ID

An Organization-assigned ID Code that identifies a specific instance of Field Gear. Note: One Field Gear may have many Gear Configurations. Used as a shorthand or abbreviation to represent the Field Gear in batch data update runs.

<u>Field Procedure ID</u> The short name (i.e., abbreviation or acronym) listed in reference document.

Field Procedure Name

The name of the sampling procedure, as listed in the reference document.

Field Set

The long name assigned by the Organization to identify and group field activities.

FIPS County Code

The Federal Information Processing Standard (FIPS) code, a 3-digit integer, used by government agencies to

identify Counties and County equivalents within the States of the United States. Canadian Provinces and Mexican States have no counties.

FIPS State Code

The Federal Information Processing Standard (FIPS) code, a 2-digit integer, used by government agencies to identify States within the countries of North America.

Fished Distance

The distance over which the trawl was operated for Sample collection. This field also includes the code that represents the units in which the fished distance is expressed.

Fished Duration Measure

The length of time the Trawl is considered to be operational (i.e., collecting). This field also includes the code that represents the units in which the fished duration is expressed.

FRS Key Identifier

FRS is the Facility Registry System, a scheme adopted by EPA to uniquely identify facilities in which EPA has a regulatory or monitoring interest. This identifier, if present, can be used as a link to the Facility Registry.

FormationTypeText

Name of the primary formation or soils unit, in which the well is completed.

FormulaDescriptionText

Provides a description of the formula used to calculate the activity metric score.

FrequencyClassDescriptorCode

A code that describes the frequency class, either as a life stage, abnormality, gender, or measurable characteristic (i.e. length, weight) used to categorize a biological population count.

<u>FrequencyClassDescriptorUnitCode</u>

The code that represents the unit for measuring the item.

FrequencyClassInformation

This allows for the definition of a subgroup of biological communities by life stage, physical attribute, or abnormality to support frequency class studies.

<u>FunctionalFeedingGroupName</u>

For entries representing taxa, a code representing the functional feeding group with which the reported taxon is typically associated.

<u>Top</u>

Gear Configuration Name

The Organization-defined name of the Gear Configuration.

Geopositioning Method

The name of the method used to determine the latitude/longitude. Accuracy of the latitude/longitude determination is affected by the choice of method.

Great Lake Name

For Stations within any of the five Great Lakes, the name of the Great Lake on which the Station is located.

Group Count Type

A name that represents the process which was used in the determination of the Single Taxon Summary Group result value (e.g., actual, estimated, calculated).

<u>GroupSummaryCountWeight</u>

Captures the total count or total sample weight for a Group Summary

<u>Top</u>

<u>Habit</u> A characteristic form or mode of a plant or animal.

Habitat Class Name

The Organization-defined label for the aggregation of characteristics that are habitat related.

Horizontal Accuracy

The horizontal measure of the relative accuracy of the latitude and longitude coordinates.

Horizontal Datum

The set of reference points from which the Latitude and Longitude were determined. Accuracy of the latitude/longitude determination is affected by the choice of a datum.

Hydrologic Unit Code (HUC)

An 8-digit integer standardized by the United States Geological Survey to identify large drainage basins within the United States. The Hydrologic Unit Code (HUC) is not defined for Canada or Mexico. Internally, the code consists of four fields of 2 digits each, identifying the hydrologic Region, Subregion, Accounting Unit, and Cataloging Unit respectively.

Hydrologic Unit Name

For Stations in the United States (only), the name of the Hydrologic Unit or drainage basin in which the Station is located.

Generated Hydrologic Unit Code (Generated HUC)

Currently it is a copy of <u>Hydrologic Unit Code (HUC)</u>. In the future it is intended to hold user provided HUC and generated HUC based on Station geographic location information.

Generated Hydrologic Unit Name

For Stations in the United States (only), the name of the Generated Hydrologic Unit or generated drainage basin based on geographic location in which the Station is located.

<u>HabitName</u>

The position that the characteristic occupies in a food chain

<u>HorizontalAccuracyMeasure</u>

The horizontal measure of the relative accuracy of the latitude and longitude coordinates

$\underline{HorizontalCollectionMethodName}$

The name that identifies the method used to determine the latitude and longitude coordinates for a point on the earth.

$\underline{HorizontalCoordinateReferenceSystemDatumName}$

The name that describes the reference datum used in determining latitude and longitude coordinates.

HUCEightDigitCode

The 8 digit federal code used to identify the hydrologic unit of the monitoring location to the cataloging unit level of precision.

<u>HUCTwelveDigitCode</u>

The 12 digit federal code used to identify the hydrologic unit of the monitoring location to the subwatershed level of precision.

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ITIS Num

Integrated Taxonomic Information System Number is used to identify taxonomic information on plants, animals, fungi, and microbes.

IndexCalculatedDate Date on which the index was calculated.

<u>IndexCommentText</u> Free text with general comments concerning the index.

IndexIdentifier

A unique designator used to describe the unique name, number, or code assigned to identify the index record that may be (optionally) associated with an activity metric.

<u>IndexQualifierCode</u> A code used to identify any qualifying issues that affect the index.

<u>IndexScoreNumeric</u> Provides the score for the index.

<u>IndexType</u> This identifies the index type reported as part of a biological or habitat index.

<u>IndexTypeCitation</u> Provides additional description of the source that created or defined the index.

IndexTypeIdentifier

A designator used to describe the unique name, number, or code assigned to identify the index (Organization specific).

<u>IndexTypeIdentifierContext</u> Identifies the source or data system that created or defined the index.

<u>IndexTypeName</u> Name of the habitat or biotic integrity index.

IndexTypeScaleText Provides a description of the scale used for the index.

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Lab Batch ID

The code that represents the laboratory batch ID for a result or a group of results. Batch ID may be used to link with Laboratory Data files, which may contain useful information further describing the reported result.

Lab Cert

A code indicating whether the laboratory was certified for the analyte and the analytical procedure at the time that the result determination was made.

<u>Lab ID</u>

An abbreviation or commonly-used name of the laboratory.

Lab Name

The formal title of the laboratory facility.

Lab Remark

An Organization defined code which represents a particular laboratory remark.

Last Change Date

The date of submission when the system processes and tracks the record transaction (INSERT, UPDATE).

Last Transaction ID

The WQX data submission Transaction ID reported by the exchange network services.

Last User ID

The User ID / NAAS ID of the data submission to the WQX data flow.

<u>Latitude</u>

The Latitude (in decimal degrees) at which the Station's Point of Record is located. Latitudes South of the Equator are negative. Every STORET Station has a Point of Record.

Location Point Type

Stations in STORET may have a large number of physical points described within their boundaries, and each point gets a descriptor explaining its function at the Station. Valid types include point of record (every Station has exactly one), boundary points, sampling points, ends of pipes, well heads, and the origins of permanent sampling grids or transects.

Longitude

The Longitude (in decimal degrees) at which the Station's Point of Record is located. Longitudes in the Western Hemisphere (including the entire continental United States) are negative.

Lower Quantification Limit

Represents the least amount of the target substance which could be quantified by the instrument/analytical process employed to determine the result. Values above the minimum and below the maximum quantitation limits are reported as valid numeric results.

LaboratoryAccreditationAuthorityName An outside accreditation authority identifier.

<u>LaboratoryAccreditationIndicator</u> Indicates whether the laboratory is accredited.

<u>LaboratoryName</u> The name of the Lab responsible for the result

<u>LabSamplePreparation</u> Describes Lab Sample Preparation procedures which may alter the original state of the Sample and produce Lab subsamples. These Lab Subsamples are analyzed and reported by the Lab as Sample results.

LabSamplePreparationMethod Identifying information about the method followed to prepare a sample for analysis

<u>LatitudeMeasure</u> The measure of the angular distance on a meridian north or south of the equator.

<u>LatitudeMeasure</u> The measure of the angular distance on a meridian north or south of the equator.

<u>LocalityName</u> The name of a city, town, village or other locality.

LocationCategoryName Free text describing a category of naturally similar site types, such as high-gradient.

<u>LocationStatusName</u> Indicates whether this site is active and available for sampling.

LocationWeightingFactorMeasure

A measurement of the monitoring location selection weighting factor.

LongitudeMeasure

The measure of the angular distance on a meridian east or west of the prime meridian.

LongitudeMeasure

The measure of the angular distance on a meridian east or west of the prime meridian.

<u>LowerClassBoundValue</u> This described the lower bound for a frequency class descriptor.

LowerConfidenceLimitValue Value of the lower end of the confidence interval.

<u>Top</u>

Map Scale

Further qualifies latitude/longitude methods requiring map interpolation. Accuracy of the latitude/longitude determination is affected by the scale of the map from which the interpolation is performed.

<u>MeasureQualifierCode</u> A code used to identify any qualifying issues that affect the results.

<u>MeasureUnitCode</u>

The code that represents the unit for measuring the item. The code that represents the unit for measuring the chemical substance, microbiological substance or other characteristic.

MeasureValue

The recorded dimension, capacity, quality, or amount of something ascertained by measuring or observing. The reportable measure of the result for the chemical, microbiological or other characteristic being analyzed.

<u>MethodDescriptionText</u>

A brief summary that provides general information about the method.

<u>MethodIdentifier</u> The identification number or code assigned by the method publisher.

<u>MethodIdentifierContext</u> Identifies the source or data system that created or defined the identifier.

<u>MethodName</u> The title that appears on the method from the method publisher.

<u>MethodQualifierTypeName</u> Identifier of type of method that identifies it as reference, equivalent, or other.

<u>MethodSpeciationName</u> Identifies the chemical speciation in which the measured result is expressed.

<u>MetricCommentText</u> Free text with general comments concerning the metric.

<u>MetricScoreNumeric</u> Provides the scaled or calculated score for the activity metric.

<u>MetricTypeCitation</u> Provides additional description of the source that created or defined the metric.

<u>MetricTypeIdentifier</u>

A designator used to describe the unique name, number, or code assigned to identify the metric (Organization specific).

<u>MetricTypeIdentifierContext</u> Identifies the source or data system that created or defined the metric.

<u>MetricTypeName</u> Name of the activity metric.

<u>MetricTypeScaleText</u> Provides a description of the scale used for the activity metric.

<u>MetricValueMeasure</u> A non-scaled value calculated from raw results that may be scaled into a metric score.

<u>MonitoringLocationDescriptionText</u> Text description of the monitoring location.

<u>MonitoringLocationGeospatial</u> This allows for the geospatial description of a monitoring station. This records the location in 3 dimensions.

MonitoringLocationIdentifier A designator used to describe the unique name, number, or code assigned to identify the monitoring location.

<u>MonitoringLocationIdentifierContext</u> Identifies the source or data system that created or defined the monitoring location identifier

<u>MonitoringLocationIdentity</u> This allows the owning Organization to describe monitoring locations.

MonitoringLocationName

The designator specified by the sampling organization for the site at which sampling or other activities are conducted.

<u>MonitoringLocationTypeName</u>

The descriptive name for a type of monitoring location.

<u>Top</u>

<u>NAICS Code</u> North American Industrial Classification System Codes. These codes uniquely identify industrial classifications.

Native American Land Name

The name of the Native American Land in which the Station is located, if applicable.

NRCS Watershed ID

The Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service (SCS), has standardized a method for subdividing the drainages defined by the HUC scheme, and where it has been implemented extends the HUC by 3 to 6 digits. The NRCS Watershed identifying scheme is not available in Canada or Mexico, and it is not implemented by all states.

Number in Group

The total number of individuals in a Single Taxon Summary Group or Single Taxon Individual Group.

Number of Replicates

When the laboratory analysis is repeated for quality control purposes, the number of the specific replicate being reported for this specific result.

<u>NetInformation</u> Allows for the reporting of net sample collection information

<u>NetMeshSizeMeasure</u> A measurement of the mesh size of the net used during biological monitoring sample collection.

<u>NetSurfaceAreaMeasure</u>

A measurement of the effective surface area of the net used during biological monitoring sample collection.

<u>NetTypeName</u>

The text describing the type of net.

<u>Top</u>

Ocean Name

For Stations located in the Ocean, offshore of North America, the name of the Ocean in which the Station is located.

<u>On Reach Ind</u> Y (yes) or N(no); is the Station actually on the reach segment to which it is ascribed.

Organization ID

An 8-character code that uniquely identifies the Organization.

<u>Organization Name</u> The name of the Organization.

The name of the Organization

Orientation to Current

The name of the orientation of the equipment with respect to the water current (e.g. down current).

Other Estuary

Where the Station's location is best described by a colloquial term commonly used to identify the estuarine waters on which it is located.

OrganizationAddress

This allows for the description of up to three physical addresses for the owning Organization.

OrganizationDescription

The particular word(s) regularly connected with a unique framework of authority within which a person or persons act, or are designated to act, towards some purpose.

<u>OrganizationDescriptionText</u> Information that further describes an organization.

<u>OrganizationFormalName</u> The legal designator (i.e. formal name) of an organization.

<u>OrganizationIdentifier</u> A designator used to uniquely identify a unique business establishment within a context.

<u>Top</u>

<u>Particle Size Basis</u> User defined free text describing the particle size class for which the associated result is defined.

Pass Count

The number of times the electroshock gear was swept through the water from which the Sample was collected.

Pass Length Measure

The distance through which the electroshock was swept on each pass (assuming passes of equal length) through the water from which the Sample was collected. This field also includes the code that represents the units in which the pass length is expressed.

Permanence

The code that describes the flow frequency of a Spring, e.g. continuous, intermittent.

Phys/Bio Ind

This is used to determine whether or not Single Taxon Frequency Classes are defined by Physical Measures such as length or weight, or Biological Conditions such as sex or lifestage.

Pipe Number

Uniquely identifies a pipe within the facility. When a location point is a pipe, it is assigned an identifying numerical code by its owner.

Point Sequence Number

Every boundary point and sampling point is assigned a sequence number. For boundary points, the sequence number determines the logical order for a boundary traverse.

Point Name

User-specified free text name by which a specific absolute location point will be known.

Pollution Tolerance

For entries representing taxa, a code representing the ability of the reported taxon to tolerate pollution.

Portable Data Logger

This field consists of two values. The first is a mandatory, system generated number representing a single recording event during the deployment of a hand-held data logger and the other is a user-assigned text identifier further describing the single recording event during deployment of the device

Precision

Estimate of the maximum possible error in the result (e.g., Counting error in determining radiological beta particle counts).

Pres Storage Proc

Free text description providing additional information about the preservation and storage of the sample.

Primary Estuary

For Stations located in a defined estuary, the name of the Primary Estuary in which the Station is located.

Primary Type

A descriptor which generally characterizes the nature of the site being monitored.

Proc Exception

The description of the procedure exception.

<u>Project description</u> The description of the project.

Project Document/Graphic Name

A Project may be further described by a document or graphic. This field defines the title of the documents/graphics which further defines this Project.

Project Document/Graphic URL

A Uniform Resource Locator (URL) is an address of a file accessible on the internet. In this case, it is the address of a Document/Graphic describing a Project.

<u>Project Name</u> The name of the project.

<u>Pulse Rate Measure</u> The number of times the electric current is interrupted in one second during use of the gear.

PassCount

The number of passes through the water from which the sample was collected.

PostalCode

The combination of the 5-digit Zone Improvement Plan (ZIP) code and the four-digit extension code (if available) that represents the geographic segment that is a subunit of the ZIP Code, assigned by the U.S. Postal Service to a geographic location to facilitate mail delivery; or the postal zone specific to the country, other than the U.S., where the mail is delivered.

PrecisionValue

A measure of mutual agreement among individual measurements of the same property usually under prescribed similar conditions.

<u>PreparationEndDate</u>

The calendar date when on which the preparation/extraction of the sample for analysis was finished.

<u>PreparationEndTime</u>

The local time when the preparation/extraction of the sample for analysis was finished.

<u>PreparationStartDate</u>

The calendar date when on which the preparation/extraction of the sample for analysis began.

<u>PreparationStartTime</u>

The local time when the preparation/extraction of the sample for analysis began.

Project

This allows for the description of Organization Projects.

ProjectAttachedBinaryObject

This allows for the association of References and electronic attachments to the project, including formal Project Plan and any other documents, images, maps, photos, laboratory materials, geospatial coverages, and other objects associated with the Project.

<u>ProjectDescriptionText</u>

Project description, which may include a description of the project purpose, summary of the objectives, or brief summary of the results of the project.

ProjectIdentifier

A designator used to uniquely identify a data collection project within a context of an organization.

ProjectIdentifier

A designator used to uniquely identify a data collection project within a context of an organization.

ProjectMonitoringLocationWeighting

This describes the probability weighting information for a given Project / Monitoring Location Assignment.

ProjectName

The name assigned by the Organization (project leader or principal investigator) to the project.

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<u>QAPPApprovalAgencyName</u> An outside approval authority identifier for the QAPP (e.g. EPA or State Organization).

QAPPApprovedIndicator

Indicates whether a Quality Assurance Project Plan (QAPP) has been approved for the submitted project.

<u>Recovery Indicator</u> A code indicating whether the reported result has been adjusted in accordance with a recovery factor.

Regular Results

Non-biological physical and chemical results.

Rel Current Dir (Non-Tow)

The direction of water current movement relative to the bow heading of the trawling boat. It is measured in degrees clockwise from the bow heading, with zero indicating a bow heading directly into the current. Recorded in degrees from 0-359; 0 is into the current, 90 is perpendicular to the current with the current running right to left, 180 is with the current and 270 is perpendicular to the current with the current running left to right. This current direction is when Net Towing is NOT being performed.

Rel Current Dir (Tow)

The direction of water current movement relative to the bow heading of the trawling boat. It is measured in degrees clockwise from the bow heading, with zero indicating a bow heading directly into the current. Recorded in degrees from 0-359; 0 is into the current, 90 is perpendicular to the current with the current running right to left, 180 is with the current and 270 is perpendicular to the current with the current running left to right. This current direction is when Net Towing is being performed.

Rel Wind Dir (Non-Tow)

The direction of wind movement relative to the bow heading of the trawling boat. It is measured in degrees clockwise from the bow heading, with zero indicating a bow heading directly into the wind. Recorded in degrees from 0-359; 0 is into the wind, 90 is perpendicular to the wind with the wind blowing right to left, 180 is with the wind and 270 is perpendicular to the wind with the wind blowing left to right. This wind direction is when Net Towing is NOT being performed.

Rel Wind Dir (Tow)

The direction of wind movement relative to the bow heading of the trawling boat. It is measured in degrees clockwise from the bow heading, with zero indicating a bow heading directly into the wind. Recorded in degrees from 0-359; 0 is into the wind, 90 is perpendicular to the wind with the wind blowing right to left, 180 is with the wind and 270 is perpendicular to the wind with the wind blowing left to right. This wind direction is when Net Towing is being performed.

Replicate Number

User-assigned number applied to samples of the same type, medium, etc. to differentiate between them (e.g., Water Replicate 1 and Water Replicate 2). Note: This applies only to certain Activity Categories for Samples (e.g., replicate, field replicate, depletion replicate, sample created from sample) and Measurements (measurement replicate)- not Observations.

<u>Result Comment</u> Comments made about the result.

<u>Result Free Text</u> A text description of the result.

Result Document/Graphic Name

A result may be further described by a document or graphic. This field defines the title of the documents/graphics which further defines this result.

Result Document/Graphic URL

A Uniform Resource Locator (URL) is an address of a file accessible on the internet. In this case, it is the address of a Document/Graphic describing a result.

Result Value as Number

The numeric representation of the result value for fully numeric values. Note: This value will be determined by converting the text values from Value Text. This conversion to numeric is always attempted during data entry, and when successful, its result is placed in this field.

Result Value as Text

The alphanumeric representation of the result of analyzing, measuring, or observing a Characteristic. Note: All

numeric values will also be stored numerically in Result Numeric Value to support mathematical computations. Reports will display the text form of all results, preserving the exact form in which data entry was done. Characteristics for which values must be taken from permitted text values will carry NULL in the corresponding Result Numeric Value field, and their chosen textual value in this field. *TEXT signifies that the result consists of long free text. The actual long free text is stored in Text Result. *Present<QL, *Present>QL, and *Not Detected are textual entries in this field to indicate that a detection condition exists.

RF1 Mileage

Where an RF1 segment is given, the mileage between the downstream end of the segment and the Station, or the point on the segment which best represents the Station.

RF1 Segment Code

RF1 is a reference to a numbering scheme for stream segments adopted by EPA during the 1970's to identify and logically connect the large streams of the United States. RF1 stream segments are not applicable to streams in Canada or Mexico.

RF1 Segment Name

For Stations in the United States (only), the name of the stream containing the segment on which the Station is located.

<u>ReachLengthMeasure</u>

A measure of the water body length distance in which the procedure or protocol was performed.

<u>ReachWidthMeasure</u>

A measurement of the reach width during collection procedures.

ReferenceLocationCitation

Identifies the source that created or defined the Reference Location.

<u>ReferenceLocationEndDate</u>

The calendar date on which the monitoring location stopped being used as a reference site.

<u>ReferenceLocationStartDate</u>

The calendar date on which the monitoring location started being used as a reference site.

<u>ReferenceLocationTypeCode</u>

Identifies whether this site is a reference or control site by specifying the reference location type

<u>ResourceCreatorName</u>

An entity primarily responible for making the content of the resource.

<u>ResourceDate</u>

A date of an event in the lifecycle of the resource.

<u>ResourceIdentifier</u>

An unambiguous reference to the resource within a given context.

ResourcePublisherName

An entity responsible for making the resource available.

<u>ResourceSubjectText</u> A topic of the content of the resource.

<u>ResourceTitleName</u> A name given to the resource

<u>Result</u>

This describes the results of a field measurement, observation, or laboratory analysis.

<u>ResultAnalyticalMethod</u>

Allows for the optional association of an analytical method employed either in the Lab or in the Field with any result.

<u>ResultCommentText</u> Free text with general comments concerning the result.

<u>ResultCount</u> Identifies the number of result records that exist for a particular activity.

<u>ResultDepthAltitudeReferencePointText</u> The reference used to indicate the datum or reference used to establish the depth/altitude of a result.

<u>ResultDepthHeightMeasure</u> A measurement of the vertical location (measured from a reference point) at which a result is obtained.

<u>ResultDetectionConditionText</u> The textual descriptor of a result.

<u>ResultDetectionQuantitationLimit</u> Information that describes one of a variety of detection or quantitation limits determined in a laboratory.

<u>ResultLabInformation</u> Information that describes information obtained by a laboratory related to a specific laboratory analysis.

ResultLaboratoryCommentCode

Remarks which further describe the laboratory procedures which produced the result.

<u>ResultMeasure</u>

The reportable measure of the result for chemical, microbiological, or other characteristics being analyzed.

<u>ResultMeasureValue</u> The reportable measure of the result for the chemical, microbiological or other characteristic being analyzed.

ResultParticleSizeBasisText

User defined free text describing the particle size class for which the associated result is defined.

<u>ResultSampleFractionText</u>

The text name of the portion of the sample associated with results obtained from a physically-partitioned sample.

<u>ResultSamplingPointName</u>

Single point name within a sampling frame or protocol that is associated with the reported result.

<u>ResultStatusIdentifier</u>

Indicates acceptability of the result with respect to QA/QC criteria.

 $\underline{ResultTemperatureBasisText}$

The name that represents the controlled temperature at which the sample was maintained during analysis, e.g. 25 deg BOD analysis.

<u>ResultTimeBasisText</u>

The period of time (in days) over which a measurement was made. For example, BOD can be measured as 5 day

or 20 day BOD.

<u>ResultValueTypeName</u>

A name that qualifies the process which was used in the determination of the result value (e.g., actual, estimated, calculated).

ResultWeightBasisText

The name that represents the form of the sample or portion of the sample which is associated with the result value (e.g., wet weight, dry weight, ash-free dry weight).

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S/G/O Indicator

This field is valued at "S" for Surface, "G" for Ground, or "O" for Other based on Station Type.

Sample Collection ID

The short name (i.e., abbreviation or acronym) for procedure used to collect or create the field sample.

Sample Fraction

The text name of the portion of the sample associated with results obtained from a physically-partitioned sample. Examples: - dissolved - suspended - total

Sample Handling Desc

Free text description providing additional information about the preservation and storage of the sample.

Sample Prep Proc

A combination of the long name of the Sample Preparation Procedure and the brief acronym representing the Organization which publishes the official description of the procedure (e.g. APHA).

Sampling Duration

The length of time the Trap or Net is considered to be operational (i.e., collecting) and the code that represents the units in which the sampling duration is expressed.

<u>Secondary Type</u> Further describes the nature of the Station within the category identified by the Primary Type.

Secondary Estuary

For Stations located in complex estuaries, the name of the secondary estuary within the primary designation.

Spring Other Name

An alternative or colloquial name used to further identify the Geologic Unit or Aquifer which feeds the spring.

Spring Type Improvement

The code that describes the man-made improvement made to the Spring.

<u>State</u>

The full name of the State or Province in which the Station is located.

State Postal Code

The official U.S. Postal Service abbreviation for the State. Province abbreviations for Canada, and state abbreviations for Mexico are not official.

Station Document/Graphic Name

A station may be further described by a document or graphic. This field defines the title of the documents/graphics which further defines this station.

Station Document/Graphic URL

A Uniform Resource Locator (URL) is an address of a file accessible on the internet. In this case, it is the address of a Document/Graphic describing a station.

Station ID

A 15-character code which uniquely identifies the Station within the Organization.

Station Latitude See Latitude

Station Longitude See Longitude

Station Name

A 60-character text field which provides a descriptive name for the Station.

Statistic Type

A statistic or calculation type which describes the reported result (e.g., average, mode, median, MPN).

Subject Taxon

A combination of the name of the taxonomic characteristic as it is to be displayed on windows and reports, and a number assigned as a part of the taxonomic identification. Used with a valid genus or higher rank name to indicate a unique species has been observed but not taxonomically identified (e.g., Lepomis sp.1).

SampleCollectionEquipmentCommentText

Free text with general comments further describing the sample collection equipment.

SampleCollectionEquipmentName

The name that represents equipment used in collecting the sample.

SampleCollectionMethod

Identifies sample collection or measurement method procedures. Where a documented sample collection method has been employed, this enables the data provider to indicate the documented method that was employed during the field sample collection. Otherwise, the sample collection procedure will best be described in a freeform text.

SampleContainerColorName

The text describing the sample container color.

<u>SampleContainerTypeName</u> The text describing the sample container type.

SamplePreparation

This describes a sample preparation procedure which may be conducted on an initial Sample or on subsequent subsamples.

<u>SamplePreparationMethod</u> Identifying information about the method(s) followed to prepare a sample for analysis.

SampleTissueAnatomyName

The name of the anatomy from which a tissue sample was taken.

SampleTransportStorageDescription

The text describing sample handling and transport procedures used.

SamplingComponentName

Single entity within a sampling frame at which a collection procedure or protocol was performed.

<u>SamplingComponentPlaceInSeriesNumeric</u> The order in which a component within the sampling frame was visited in relation to other components.

<u>SamplingDesignTypeCode</u>

A code used to identify the type of sampling design employed for this project to ensure that sampling activities can support project objectives.

<u>SourceMapScaleNumeric</u> The number that represents the proportional distance on the ground for one unit of measure on the map or photo.

<u>SourceMapScaleNumeric</u> The number that represents the proportional distance on the ground for one unit of measure on the map or photo.

<u>StateCode</u>

A two+ character acronym or code designator used to identify a principal administrative subdivision of the United States, Canada, or Mexico.

<u>StatisticalBaseCode</u> The code for the method used to calculate derived results.

<u>StatisticalStratumText</u> Identifies the statistical stratum applied to this site.

<u>SubjectTaxonomicName</u> The name of the organism sampled as part of a biological sample.

<u>SubstanceDilutionFactorNumeric</u> The overall dilution of the substance subjected to this analysis.

<u>SupplementalAddressText</u>

The text that provides additional information about an address, including a building name with its secondary unit and number, an industrial park name, an installation name or descriptive text where no formal address is available.

<u>Top</u>

<u>Temp Pres Type</u> The means by which a sample was preserved using temperature.

Temperature Basis

The name that represents the controlled temperature at which the sample was maintained during analysis.

Total Energzed Time

Total time during the sample collection event that the electrodes were in the water and effective voltage was applied. For pulsed or intermittent electroshock procedures, this is not the same as elapsed time. This field also includes the code that represents the units in which the sampling duration is expressed.

Trap Net Comment

User-defined text that provides further information about the Trap or Net Operation.

Trawl Comment

User-defined text that provides further information about the Trawl Operation.

Trawl Start

Identifies the location at which a trawl or horizontal tow began.

Trawl Start Depth

The measure of the distance from the surface to the bottom where the trawl started. This field also includes the code that represents the units in which the bottom depth is expressed.

Trawl Start Latitude

The measure of latitude in decimal degrees (-90.0 to 90.0) indicating angular distance North or South of the equator where the trawl began.

Trawl Start Longitude

The measure of longitude in decimal degrees (-180.0 to 180.0) indicating angular distance west or east of the prime meridian where the trawl began.

Trawl Start Point Name

User-specified free text name by which a specific absolute location point will be known. This name refers to the location which a trawl or horizontal tow began.

Trawl Stop

Identifies the location at which a trawl or horizontal tow ended.

Trawl Stop Depth

The measure of the distance from the surface to the bottom where the trawl ended. This field also includes the code that represents the units in which the bottom depth is expressed.

Trawl Stop Latitude

The measure of latitude in decimal degrees (-90.0 to 90.0) indicating angular distance North or South of the equator where the trawl ended.

Trawl Stop Longitude

The measure of longitude in decimal degrees (-180.0 to 180.0) indicating angular distance west or east of the prime meridian where the trawl ended.

Trawl Stop Point Name

User-specified free text name by which a specific absolute location point will be known. This name refers to the location which a trawl or horizontal tow ended.

Trophic Level

For entries representing taxa, a code representing the trophic level with which the reported taxon is typically assigned.

<u>Trip ID</u>

The Organization-assigned alphanumeric code that identifies a Trip. This number must be unique within the Organization.

Trip Name

The long name assigned by the Organization to the Trip.

TaxonomicDetails

This allows for the further definition of user-defined details for taxa.

<u>TaxonomicDetailsCitation</u> Identifies the source that created or defined the Taxonomic Details.

<u>TaxonomicPollutionTolerance</u> For entries representing taxa, a code representing the ability of the reported taxon to tolerate pollution.

<u>TaxonomicPollutionToleranceScaleText</u> Provides a description of the scale used for the taxonomic pollution tolerance value.

<u>TaxonomistAccreditationAuthorityName</u> An outside accreditation authority identifier for the taxonomist.

<u>TaxonomistAccreditationIndicator</u> Indicates whether the taxonomist is accredited.

<u>TelephoneExtensionNumberText</u> The number assigned within an organization to an individual telephone that extends the external telephone number.

<u>TelephoneNumberText</u> The number that identifies a particular telephone connection.

<u>TelephoneNumberTypeName</u> The name that describes a telephone number type.

<u>Telephonic</u> This allows for the description of many telephone numbers per owning Organization.

<u>ThermalPreservativeUsedName</u> Information describing the temperature means used to preserve the sample.

<u>Time</u> The time of day that is reported.

<u>TimeZoneCode</u> The time zone for which the time of day is reported. Any of the longitudinal divisions of the earth's surface in which a standard time is kept.

<u>ToxicityTestType</u> Identifies the type of toxicity as either Acute or Chronic.

Transport Storage Desc

Free text description providing additional information about the preservation and storage of the sample, including sample handling and transport procedures used.

<u>TribalCode</u> The code that represents the American Indian tribe or Alaskan Native entity.

<u>TribalLandIndicator</u> An indicator denoting whether the location is on a tribal land.

<u>TribalLandName</u> The name of an American Indian or Alaskan native area where the location exists.

TrophicLevelName

For entries representing taxa, a code representing the trophic level with which the reported taxon is typically assigned.

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<u>Units</u> The unit of measure.

Upper Quantification Limit

Represents the largest amount of the target substance which could be quantified by the instrument/analytical process employed to determine the result. Values above the minimum and below the maximum quantitation limits are reported as valid numeric results.

Upr Lwr Depth Unit

The code that represents the units in which the upper and lower depth to activity is expressed.

Activity Depth Ref Point

It describes the reference point from which the depth is measured, typically "Surface".

USGS Geologic Unit Code-Name

The official United States Geological Survey (USGS) National Water Information System (NWIS) II code which identifies the Geologic Unit and the official USGS NWIS II name which identifies the Geologic Unit.

USGS Lithologic Unit Code-Name

The official United States Geological Survey (USGS) National Water Information System (NWIS) II code which identifies the Lithologic Unit and the official USGS NWIS-II name of the Lithologic Unit.

<u>UnidentifiedSpeciesIdentifier</u>

A number or name assigned as a part of a taxonomic identification. Used with a valid genus name to indicate a unique species has been observed but not taxonomically identified.

<u>UpperClassBoundValue</u>

This described the upper bound for a frequency class descriptor.

<u>UpperConfidenceLimitValue</u> Value of the upper end of the confidence interval.

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Value Type

A name that represents the process which was used in the determination of the result value, (e.g., actual, estimated, calculated).

<u>Visit Num</u>

The Organization-assigned alphanumeric code that identifies a Station Visit for the Trip and visited Station.

<u>Visit Start</u>

Combination of the date and time that the Station Visit commenced. Note: Defaults to Trip Start Date.

Visit Start Time Zone

The time zone of the Station Visit Start.

Visit Stop

Combination of the date and time that the Station Visit concluded.

Visit Stop Time Zone

The time zone of the Station Visit Stop.

Voltage Measure

The magnitude of the electro-motive force (volts) applied to the electroshock equipment used to collect the Sample.

<u>Voltinism</u> A duration required to complete a life cycle or generation.

<u>VerticalCollectionMethodName</u> The name that identifies the method used to collect the vertical measure (i.e. the altitude) of a reference point.

VerticalCoordinateReferenceSystemDatumName

The name of the reference datum used to determine the vertical measure (i.e., the altitude).

<u>VerticalMeasure</u>

The measure of elevation (i.e., the altitude), above or below a reference datum.

VoltinismName

The number of broods or generations of the characteristic in a year

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Weight Basis

The name that represents the form of the sample or portion of the sample which is associated with the result value (e.g., wet weight, dry weight, ash-free dry weight).

Well Name

The name of the Well. User defined text.

Well Number

Uniquely identifies a well within a Station. When a location point is a well head, it is assigned an identifying numerical code by its owner.

<u>WellHoleDepthMeasure</u> Depth below land surface datum (LSD) to the bottom of the hole on completion of drilling.

<u>WellInformation</u> Description of the attributes of a well

<u>WellTypeText</u> Identifies the primary well type.

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Comments? If you have a question or comments on this website or on the STORET system, please call STORET User Assistance at 1-800-424-9067, or send us an email at <u>STORET@epa.gov</u>.