

DIVER Explorer Custom Queries

This document provides an introduction to building a Custom Query in DIVER Explorer. Please visit the data overview page to learn more about how the data are organized, managed, and standardized.

Custom Queries allow users to run individually tailored queries. The primary difference from Guided Queries is that users must specify all query filters using the **Edit Query Filters** interface.

Scenario

Accessing all tarball sample data collected from the beginning of the spill through July 2010 in marsh habitat. This query is not available in the Guided Queries menu, so a Custom Query is required.

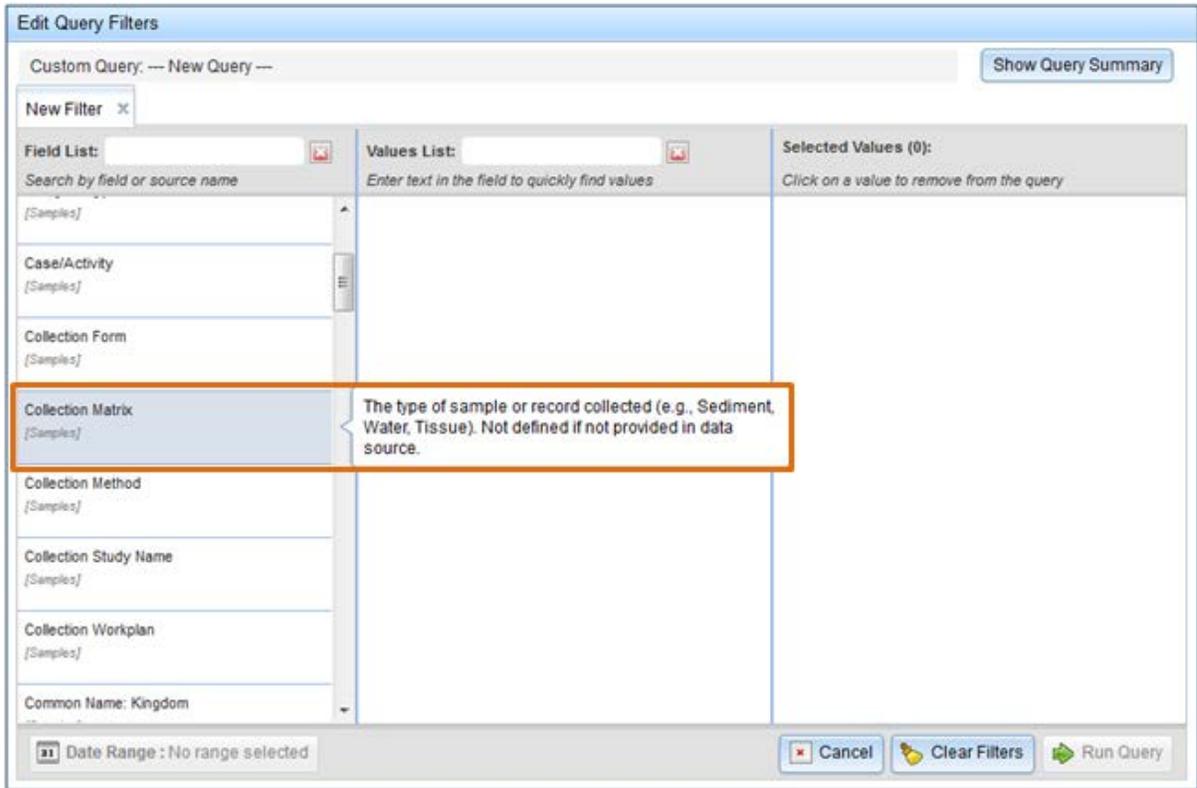
Procedure

1. Click **Build a Custom Query** on the DIVER Explorer start screen.

The screenshot shows the DIVER Explorer start screen. At the top, there are three main action buttons: 'Guided Queries' (with a document icon), 'Build a Custom Query' (with a hammer icon and highlighted with an orange border), and 'Download Data' (with a green arrow icon). Below these buttons is a map of the Gulf of Mexico region, showing the United States, Mexico, and parts of Central America. The map includes various city labels and geographical features. To the right of the map is the 'DIVER Explorer' logo and instructions: 'Click one of the buttons above to start querying data in DIVER Explorer. Spatial elements will be plotted on the map to the left. Data Summary, Table and Charts will appear in the area below.' At the bottom left, there is an 'Export Queue' section showing 'You have 0 pending jobs in the Export Queue'. At the bottom center, there is a placeholder text: 'Query results will appear here.'

2. Use data filters to build the query.

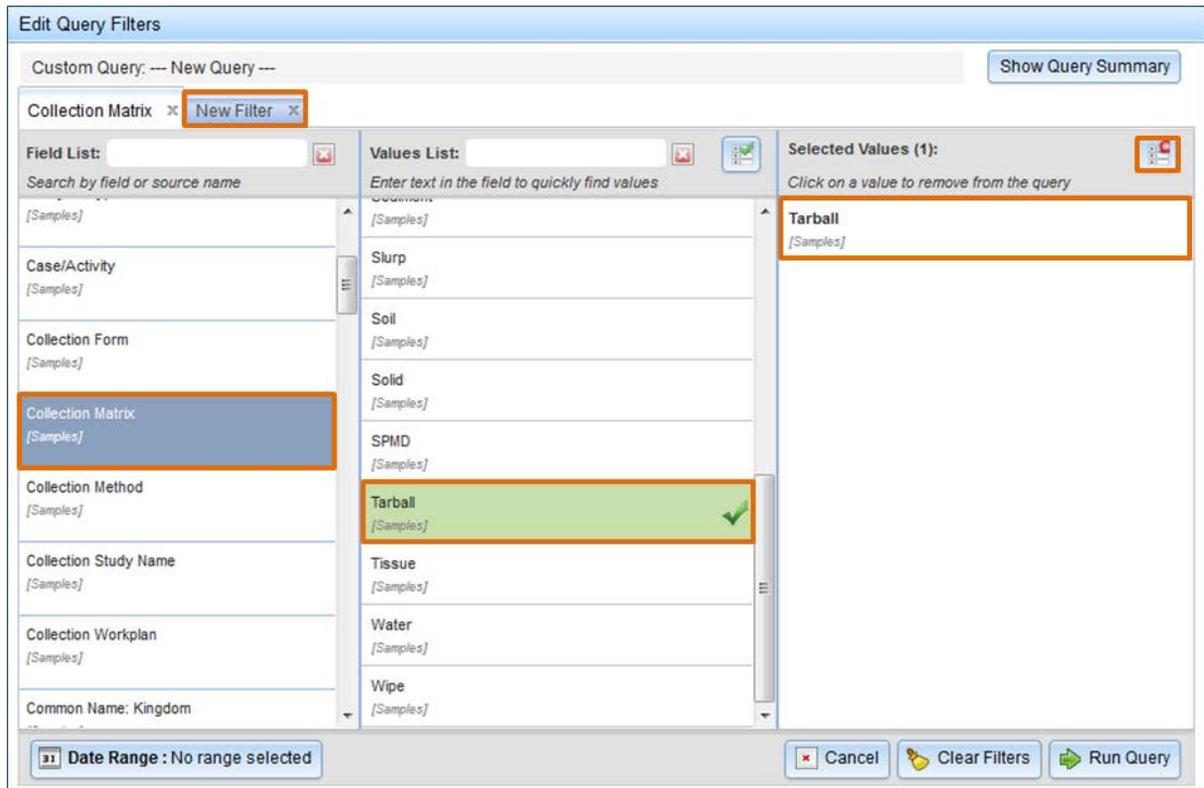
When building a Custom Query, initially no data filters are specified in the Edit Query Filters menu. Users must specify filters in order to develop and run the query. For information on what each filter field means, hover over it and a definition will appear to the right.



Add a Collection Matrix Filter

Because tarballs are a type of Collection Matrix, select **Collection Matrix** from the **Field List** on the left, either by typing *Collection Matrix* in the **Field List** textbox, or by scrolling down the list and clicking **Collection Matrix** (as in the illustration below). The **Values List** is populated after selection of a filter field is made.

Note: Selecting Collection Matrix and Habitat Values narrows the search. For a broader search, skip using these filters.



Select **Tarball** from the **Values List**. This adds it to the **Selected Values** and creates a **New Filter** tab, which appears at the top of the window, just to the right of the **Collection Matrix** tab.

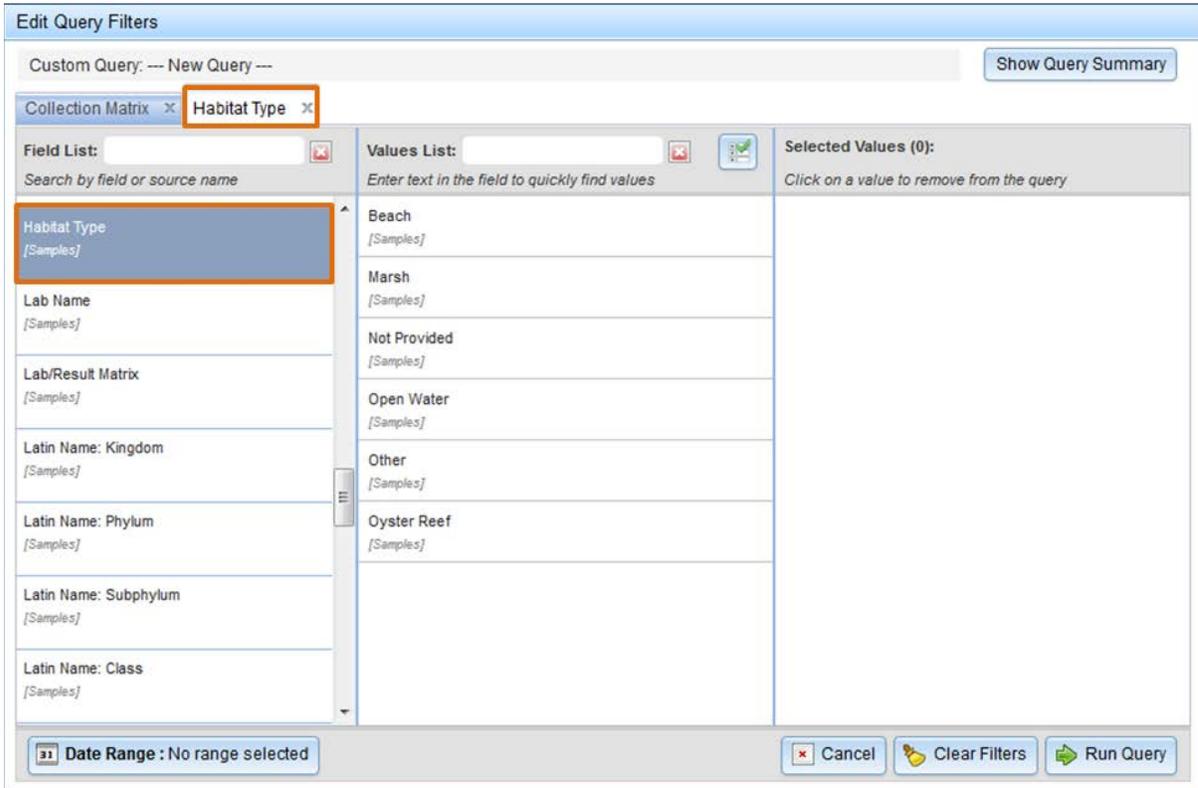
Note: Though this example selects only one value, it is possible to select multiple values from the values list.

Add a Habitat Type Filter

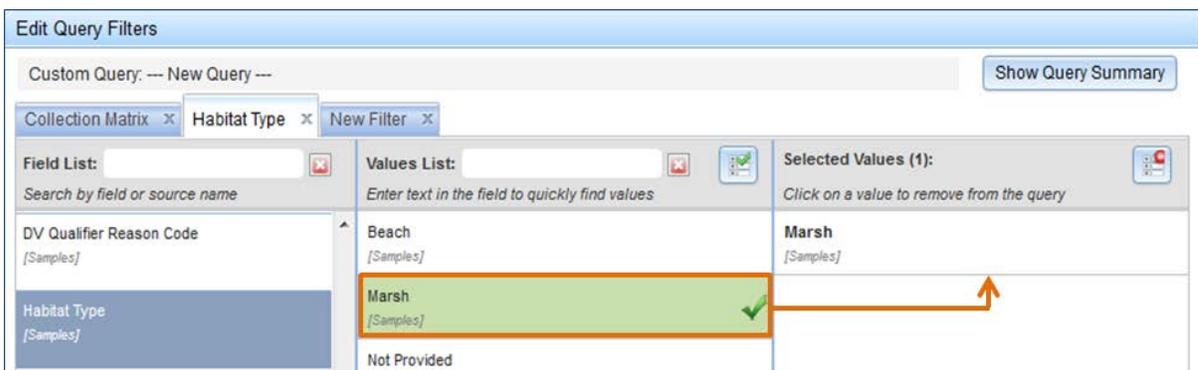
Click the **New Filter** tab to open a new set of filter and value lists. Notice that some values in the **Field List** are shaded in grey -- these filters are no longer applicable given the previously selected filters.

Scroll through the list and click **Habitat Type** to populate the **Values List**. Note that this is identical to how the interface works for Guided Queries.

Alternatively, type *habitat* into the **Field List** textbox to filter all of the fields that contain that word (in this instance, only Habitat Type).

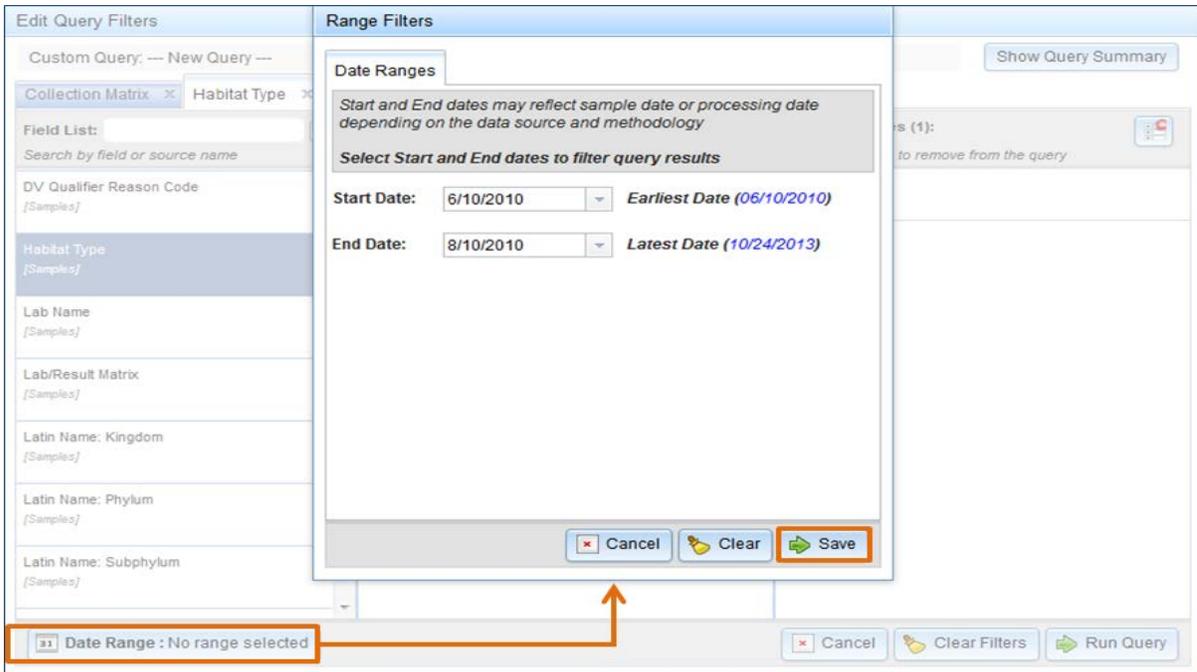


Select **Marsh** from the **Values List**.



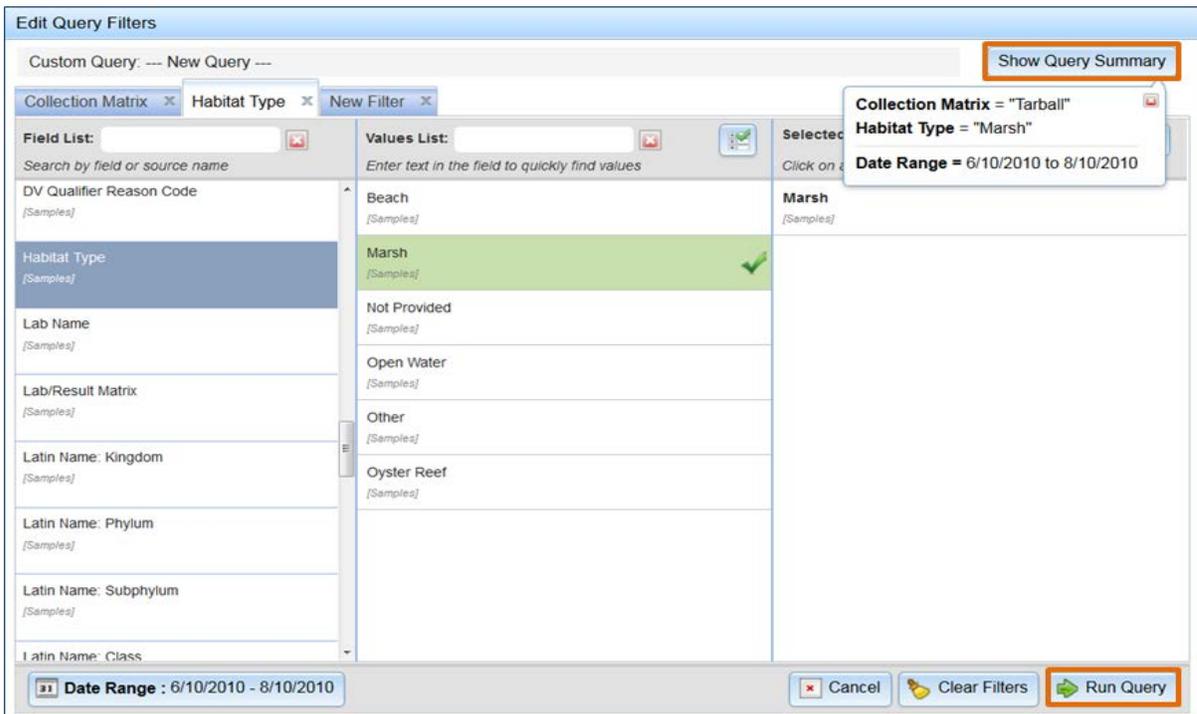
Add a Date Filter

Click the **Date Range** button to open the Date Ranges filter menu. Enter a **Start Date** (6/10/2010) and an **End Date** (8/10/2010). Then click **Save**. Note that **Earliest Date** and **Latest Date** indicate the dates between which there is data available based on the filter selections made so far.



Review and Run Query

Review the query (optional step) to make sure the desired filters have been applied. To do this, click **Show Query Summary** to display a box that shows the current filters. Then, click **Run Query**.



3. View query results.

When the query is complete, a notification appears above the map indicating that the query was successful, along with the number of records it returned. A data summary at the bottom of the screen provides high-level information about the query results.

Points on the map correspond to the location of one or many records, and in this case, samples with a Collection Matrix of "Tarball".

If desired, refine the query using the **Edit Query Filters** button, make additional Field and Values selections, and click "Run Query" again.

The screenshot displays the DIVER Explorer interface. At the top, the 'Query Filters' section shows: Collection Matrix = 'Tarball', Habitat Type = 'Marsh', and Date Range = 6/10/2010 to 8/31/2010. Below this is a yellow notification bar stating 'Query successful : 363 records returned.' The main map area shows the Gulf of Mexico and surrounding regions, with a red dot indicating a sample location near Houston. A legend on the right shows 'Collection Matrix' with a red triangle for 'Tarball'. Below the map is an 'Export Queue' section showing 'You have 0 pending jobs in the Export Queue'. At the bottom, the 'Options' section is expanded to show a 'Data Summary for Custom Query' table.

Data Summary for Custom Query	
<i>The following is a summary of the DIVER Explorer query results. The summary is based on the query result data and is not updated with Table or Chart filters.</i>	
Records Returned :	363 <small>*Number of records returned from a query is based on multiple fields and may not match result, event, or sample counts.</small>
Non-spatial Records :	0
Number of Unique Sample IDs :	363
Workgroup :	Chemistry
Station/Site :	Not Defined
Date :	06/10/2010 to 08/31/2010
Sharing Status :	Publicly Available
Collection Study Name(s) :	Chem--Forensic Oil Sampling 01 2010 Chem--Forensic Oil Sampling 03 2010 Chem--Forensic Oil Sampling 04 2010
Collection Method(s) :	Grab Scrape
Collection Matrix :	Tarball

Dashboard Information

At the bottom of the screen high-level information about the query results is presented in a dashboard approach. These tabs are interactive with the map and with each other, allowing users to explore the query results. The dashboard tabs are:

Summary: High-level information about the query results.

Table: Each row in the table represents a single record, and users can see where that record is located on the map by clicking that row in the table and looking for the red dot on the map. The additional information menu provides links to the NRDA Workplan and related information if available.

Charts: The interactive charts present results in graphical form. Clicking a chart element applies a filter to the table only.

Metadada: Provides background information on the dataset, with information such as a query filters summary, field definitions, and the date as of which the data are current. Metadata is in ISO 19115 format (FGDC endorsed and NOAA Administrative Order)¹.

Study Notes: Provides information on the sample collection effort and lab analysis procedure.

Export: Allows users to download query results. For more details see the Download help materials.

¹ http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_212/212-15.html and <http://www.fgdc.gov/metadata/geospatial-metadata-standards>