

DIVER Explorer Guided Queries

This document provides an introduction to running Guided Queries in DIVER Explorer. Guided Queries are partially built queries that allow quick access to various types of data. Currently, DIVER includes contaminant chemistry results from samples collected across the Deepwater Horizon incident, in addition to visual observations, oceanographic data, photographs, telemetry, , and additional environmental data and analysis. Please visit the data overview page to learn more about how the datasets are organized, managed, and standardized.

This document walks through the steps of building a Guided Query, refining it further, and interacting with results. Note that all steps beyond the Guided Queries menu are also applicable to Custom Queries.

Scenario

Accessing Anthracene results (i.e., a single contaminant) from sediment grab samples collected under the DWH NRDA. Anthracene is one of the compounds that make up the polycyclic aromatic hydrocarbons (PAHs).

Procedure

1. Click **Guided Queries** on the DIVER Explorer start screen.

Guided Queries
Designed to present results and data with specialized output formats. Dive into analysis!

Build a Custom Query
Create your own customized query across all data sources or only the data you're interested in.

Download Data
Download data packages and find links to external datasets.

DIVER Explorer

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.

Export Queue You have 0 pending jobs in the Export Queue

Query results will appear here.

2. Browse the available Guided Query types, and select the one that is most applicable.

A variety of Guided Query types are available, ranging from queries that return information on sites and stations where samples were collected to queries that return contaminant chemistry results for one or multiple contaminants.

This example involves a single contaminant in sediment - Anthracene - so select Single Contaminant Results – Sediment from the drop down menu.

Note: Contextual help explaining the Guided Query's focus is available on the right side of the screen below the breadcrumb that details which Guided Query was selected.

Select a Guided Query

Expand All | Collapse All

- Start to Explore Data
- Data Status
- Visual Observations and Instruments
- Photographs
- Contaminant Chemistry Results**
 - Station Locations
 - Basic Sample Information
 - Single Contaminant Results
 - Sediment**
 - Tissue
 - Oil
 - Water
 - Multiple Contaminant Results
- Compare Chemistry to Guidelines

Contaminant Chemistry Results > Single Contaminant Results > Sediment

For sediment samples, create a table with one row for each sample. Data qualifiers, method, and other analyte-specific information are available.

Explanation of the Guided Query

Filter Choices | More Information

Database Source Type: NRDA Historical Response
 BP Public

Choose a Depth Category: Surface Sediment Subsurface Sediment
 Both

Include Rejected Results: {Qualifier Code = R} Include Exclude

Include results for samples with non-standard QM reporting units (NSR)? Include Exclude

Additional Filter: Analysis Type

Cancel Next

3. Make choices about the data of interest.

Following the selection of a Guided Query, a prompt appears with additional query selection options that complete the query pre-building process. This example uses the default values, with the exception of the **Additional Filter** option, which allows users to focus the query by an Analysis Type. For this example, select “No Additional Filter,” and then click **Next** to move to the Edit Query Filters window.

The screenshot shows the 'Select a Guided Query' window. On the left is a tree view with categories: 'Start to Explore Data', 'Data Status', 'Visual Observations and Instruments', 'Photographs', 'Contaminant Chemistry Results' (expanded), 'Station Locations', 'Basic Sample Information', 'Single Contaminant Results' (expanded), 'Sediment' (selected), 'Tissue', 'Oil', 'Water', 'Multiple Contaminant Results', and 'Compare Chemistry to Guidelines'. The right pane is titled 'Contaminant Chemistry Results » Single Contaminant Results » Sediment' and contains a description: 'For sediment samples, create a table with one row for each sample. Data qualifiers, method, and other analyte-specific information are available.' Below this are three tabs: 'Filter Choices' (active), 'More Information', and 'Field Information'. The 'Filter Choices' section includes: 'Database Source Type' with radio buttons for 'NRDA' (checked), 'BP Public', 'Historical', and 'Response'; 'Choose a Depth Category' with radio buttons for 'Surface Sediment' (checked), 'Subsurface Sediment', and 'Both'; 'Include Rejected Results: {Qualifier Code = R}' with radio buttons for 'Include' and 'Exclude' (checked); and 'Include results for samples with non-standard QM reporting units (NSR)?' with radio buttons for 'Include' and 'Exclude' (checked). At the bottom of the filter section is an 'Additional Filter' dropdown menu with the text '--- No Additional Filter ---'. At the very bottom of the window are 'Cancel' and 'Next' buttons.

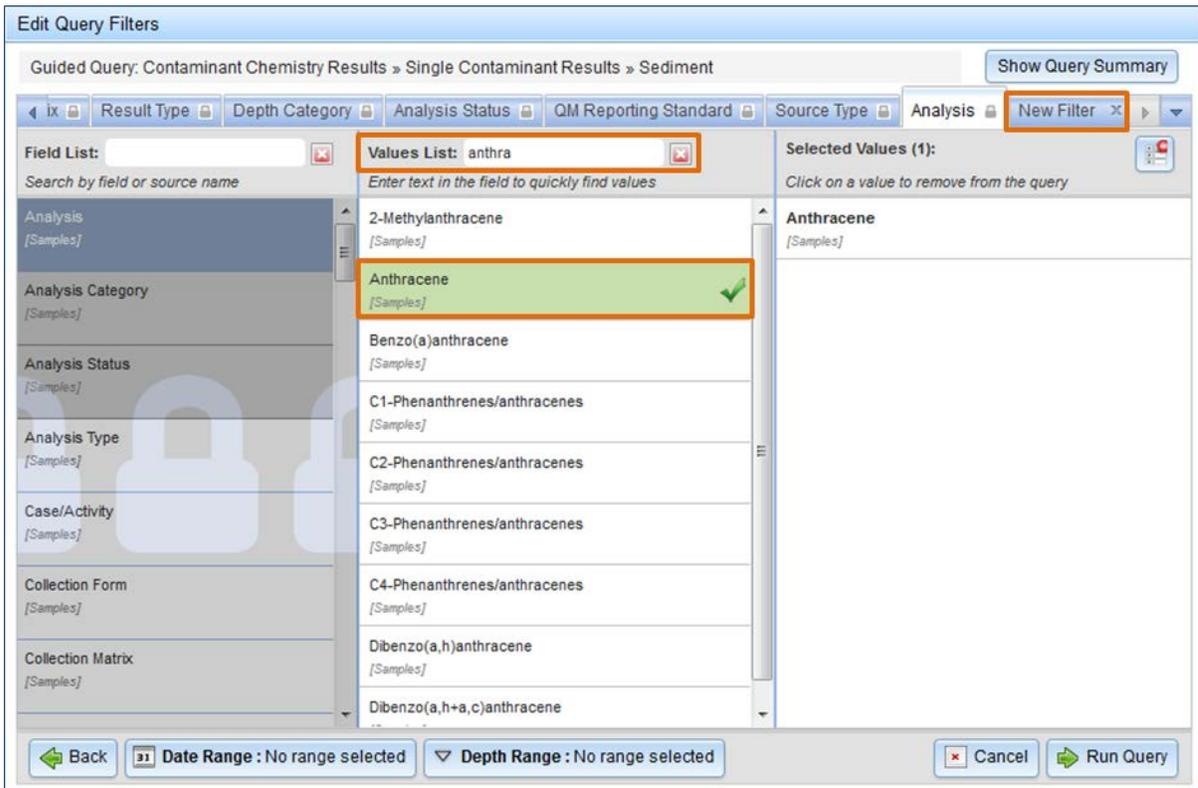
4. Use the **Edit Query Filters** window to build the remainder of the query.

The Edit Query Filters window allows users to apply additional filters to further refine and finish the query. Each tab at the top of the screen represents a filter, and the filters with lock signs were generated from the selections in the Guided Queries menu. The following steps apply filters to narrow the query to a specific contaminant (Anthracene) and collection method (grab samples).

Specify an Analysis

Select **Anthracene** from the **Values List**, either by typing *antra* in the **Values List** to bring it near the top of the list, or by scrolling down the list and clicking it directly.

Next, click the **New Filter** tab in the top right corner.



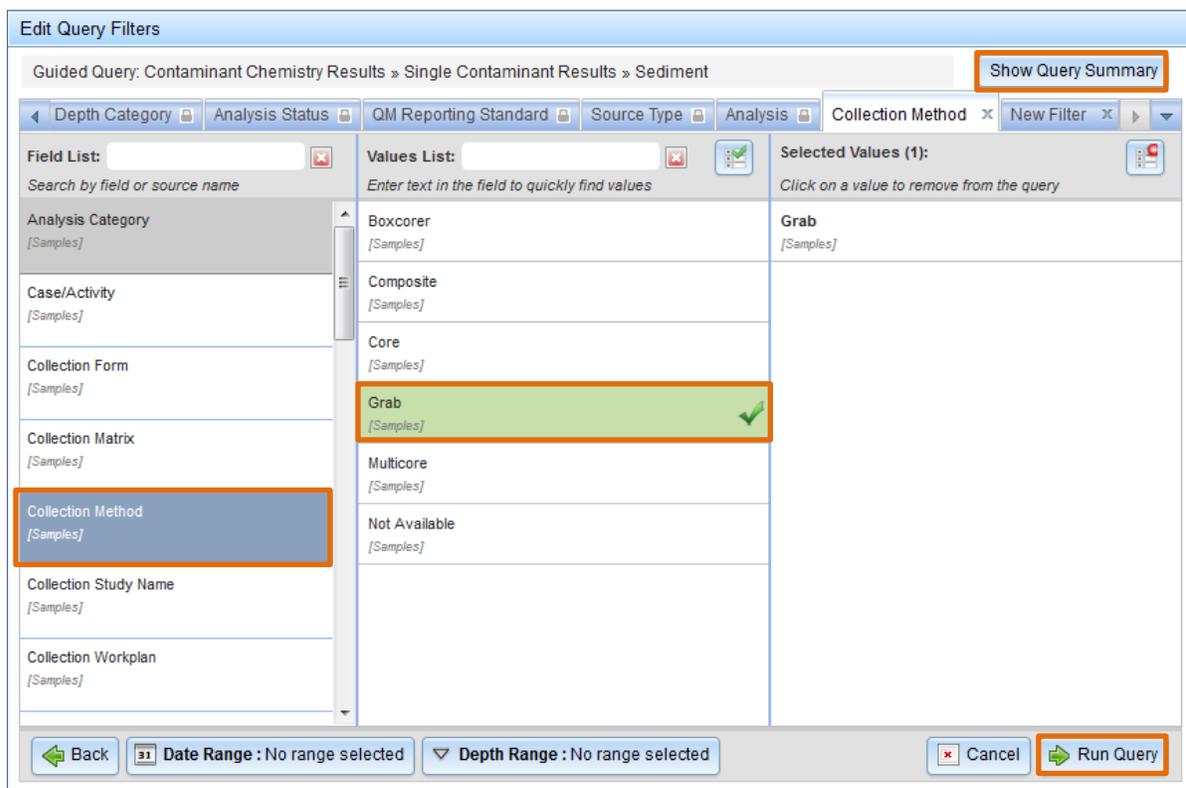
Add a Collection Method Filter

The **New Filter** tab allows selection of a new field from the Field list, and value(s) from the Value list. Notice that some fields on the field list appear in grey -- these are no longer applicable based upon earlier filter choices. Hover over a **Field** in the left-most column to view the description.

Scroll through the Field list and click **Collection Method** to populate the Values List. The tab will change its name to reflect the selection, and will update with the available Collection Method values based on all of the already selected Filters and Values.

From the Values list, click **Grab**. This adds it to the Selected Values List and creates a **New Filter** tab, which appears at the top of the window, just to the right of the **Collection Method** tab.

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



Review and Run Query

Although DIVER Explorer has opened another **New Filter** tab, no additional filters are required. Reviewing the query is an optional step that allows the user to make sure that it contains the desired filters. To do this, click **Show Query Summary**. Once the optional review is complete, click **Run Query**.

5. 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. Points on the map correspond to the location of one or many records, and in this case the concentration of Anthracene at each location.

If necessary, refine the query using the **Edit Query Filters** button.

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.

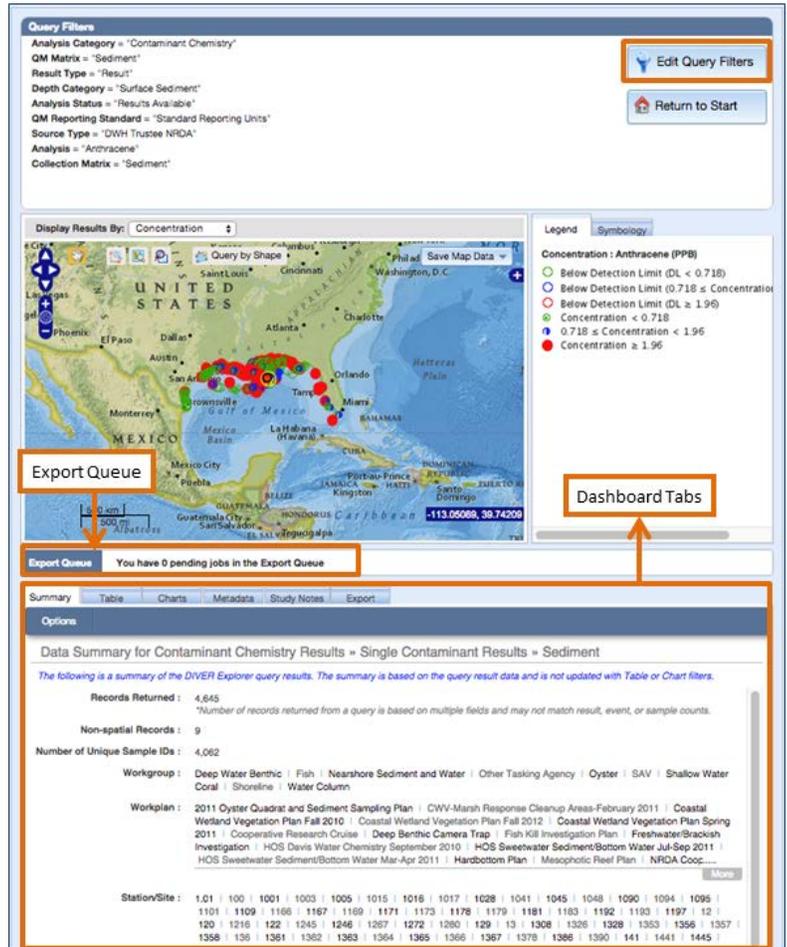
Table: Each row in the table represents a single record, and users can see where that record is located on the map by clicking that row in the table and looking for the red dot on the map. The additional information menu provides links to the NRDA Workplan and related information if available.

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

Metadata: 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>