

Working with Standards and Duplicates in Geochemistry for ArcGIS

After you have merged your locations and assay results, you may want to extract your control values (standards and duplicates). This process is an essential part of your due diligence process, enabling you to confirm the validity of your data as received from the various laboratories you use in practice. Once your standards and duplicates have been extracted you can then compare them to existing standards and duplicates by displaying them in a report. This *Working with Standards and Duplicates in Geochemistry for ArcGIS* How-To Guide will demonstrate how to extract standards and duplicates from your geochemistry database and display them in a report.

Geosoft provides sample data for you to use when working through these How-To Guides. These data files can be found in your "...\\Geosoft\\Oasis montaj\\resourcefiles\\data\\geochemistry" folder.

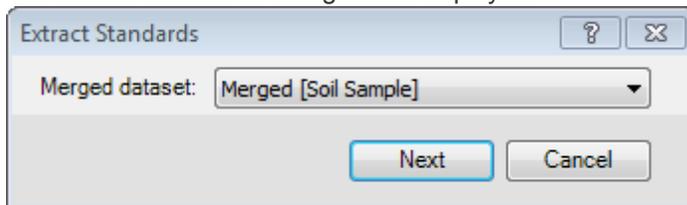
For more information on extracting and displaying Standards and Duplicates, click the **Help** button on the dialog of interest.

Extracting Standards

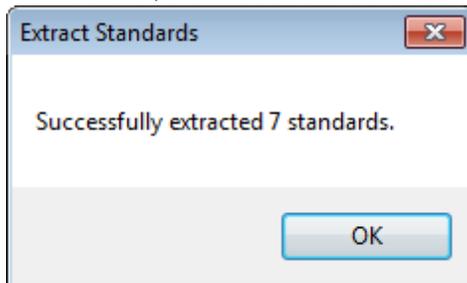
You can use the *Extract Standards* option to select a merged dataset from which the Standards will be extracted.

To Extract Standards

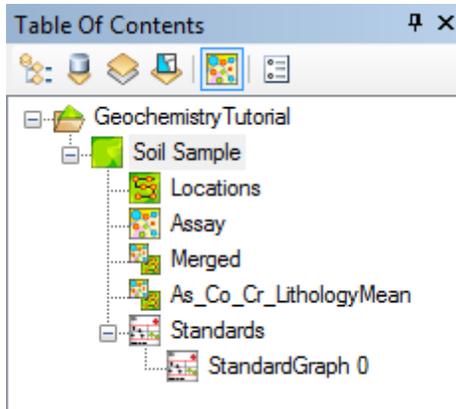
1. On the *Geosoft Geochemistry* toolbar, from the *Data* menu, select **Extract Standards**.
The *Extract Standards* dialog will be displayed.



2. Using the *Merged dataset* dropdown list, select the dataset that includes the standards to extract.
3. Click **Next** to extract the standards from the merged dataset.
If successful, the *Extract Standards* dialog will inform you that the system, "Successfully extracted 'x' standards".



4. Click **OK**.
5. A new *Standards* table will be added to the *Table of Contents* in Geochemistry Data Source mode.



6. Select (highlight) the *Standards* table in Geochemistry Data Source mode. Right-click, and from the pop-up menu select **Open**.
The Standards data will be displayed.

Displaying Standards Report

You can use the *Display Standards* option to select fields for which Standards values will be displayed.

 *If you find errors in your Standards, we recommend that you stop processing and correct these errors before proceeding.*

To Display a Standards Report

1. On the *Geosoft Geochemistry* toolbar, from the *Data* menu, select **Display Standards**.
The *Display Standards* dialog will appear.

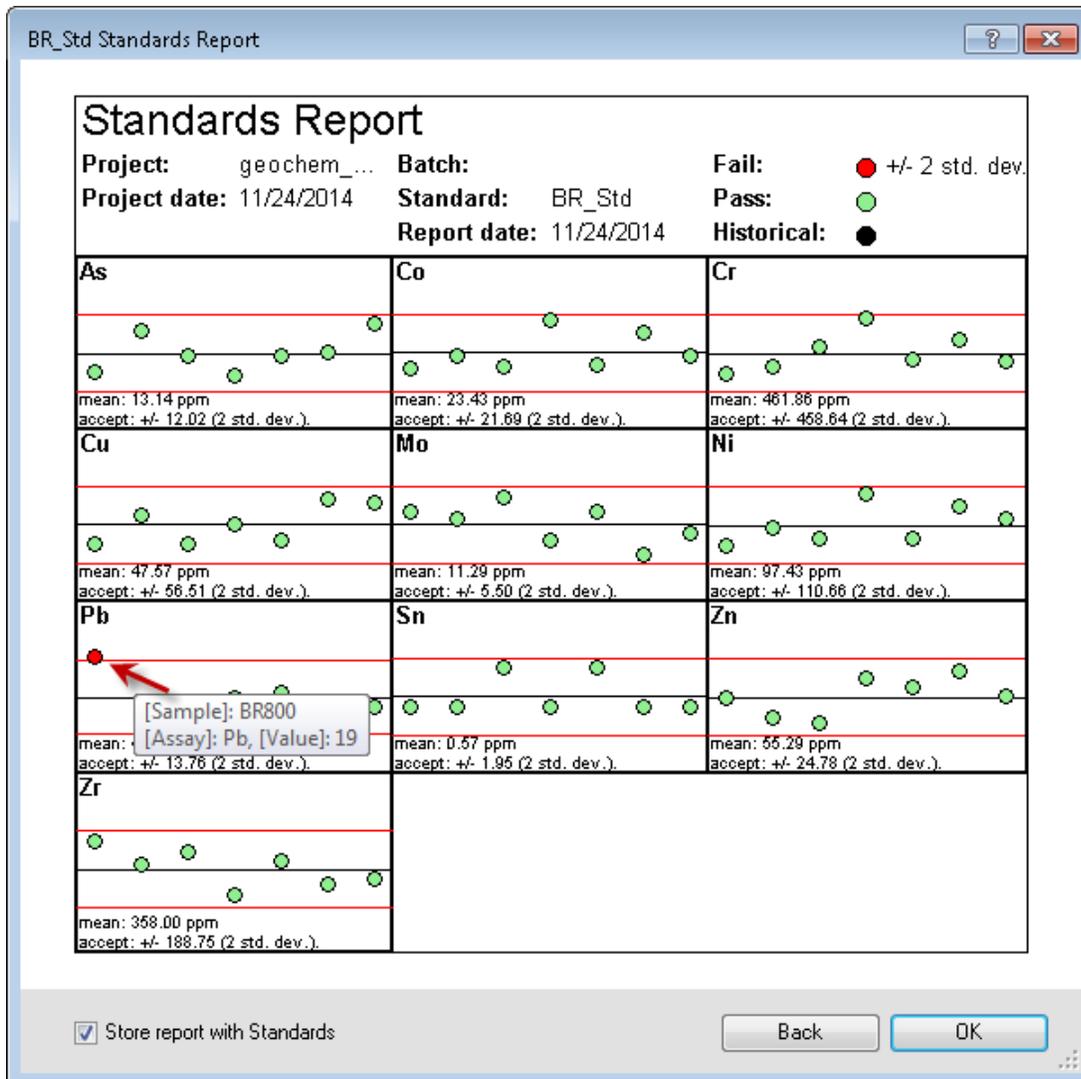
The screenshot shows the 'Display Standards' dialog box with the following settings:

- Survey:** Soil Sample
- Standard:** BR_Std
- Assay field:** Select All (checked), As, Co, Cr, Cu, Mo, Ni, Pb, Sn, Zn, Zr (unchecked)
- Title:** Standards Report
- Tolerance Values:** use default error tolerance (standard deviations) (selected), with a value of 2.

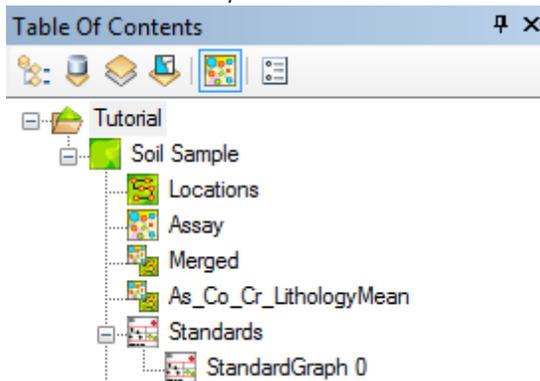
2. By default, the current *Survey* (in this case Soil Sample) should be displayed. If it is not, use the dropdown list to select the current survey.
3. Select the *Standard* to display from the dropdown list.
4. In the *Assay field* window, select individual fields by checking the items or select all using the 'Select All' checkbox.
5. Specify a *Title* for your report. The default is Standards Report.
6. For the *Tolerance Values* select to use either *column maximum and minimum* or *default error tolerance (standard deviations)*.

 *If you select default error tolerance (standard deviations), the associated text box will be enabled. You can use the up and down arrows to change this value. If you have imported specific standard maximum and minimum values as part of the assay attributes, use these values by selecting the use column maximum and minimum option.*

7. Click **Next** to display the Standards Report.
8. Click on a point in the Standards Report and you will see the Sample ID, Assay and Value displayed.



9. The report can be added to the Layout view of your MXD by right clicking anywhere on the Standards Report and selecting *Plot Graph to Layout*. The report can also be copied to the clipboard and pasted into Word or Excel by selecting *Copy to Clipboard* from the right-click menu.
10. Select the *Store report with Standards* checkbox to store the report for later retrieval.
11. Click **OK** to save the report and exit.
12. A new *StandardGraph 0* sub-folder will be added to the *Table of Contents* tab in Geochemistry Data Source mode.



13. Select (highlight) the *StandardGraph 0* report on Geochemistry Data Source mode. Right-click and from the pop-up menu select **Open**.
The Standards Report will be displayed.

Extract Duplicates

You can extract the duplicates and compare them to existing duplicate values by displaying them in a Duplicates Report. In a pair of Duplicates, the first sample of the pair always remains in the merged data table, but the second of the pair is removed to the Duplicates table. A copy of the first sample is also moved to the Duplicates table, so that the two sets of values can be compared.

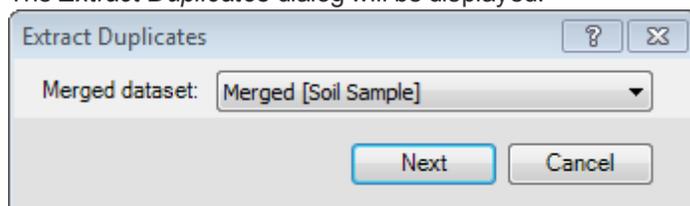
Duplicate sample identification has been improved and simplified, with the duplicate indicator column now containing the original sample number of the parent sample. This enables the use of multiple duplicates referencing a single parent sample.

Extracting Duplicates

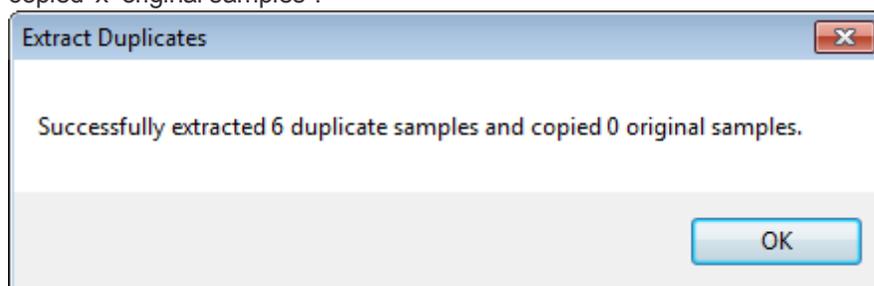
You can use the *Extract Duplicates* option to select a merged dataset from which the Duplicates will be extracted.

To Extract Duplicates

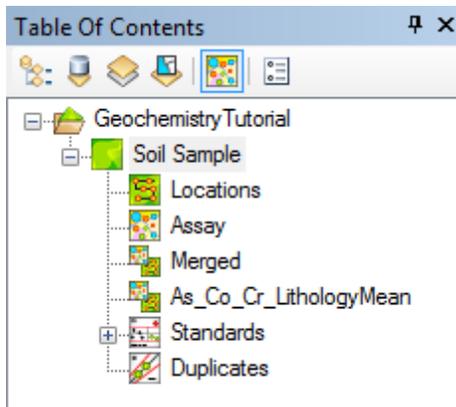
1. On the *Geosoft Geochemistry* toolbar, from the *Data* menu, select **Extract Duplicates**.
The *Extract Duplicates* dialog will be displayed.



2. Using the *Merged dataset* dropdown list, select the dataset with duplicates to extract.
3. Click **Next** to extract the duplicates from the merged table.
The *Extract Duplicates* dialog will inform you that the system “Successfully extracted 'x' duplicate samples and copied 'x' original samples”.



4. Click **OK** to close the summary dialog.
5. A new *Duplicates* table will be added to the *Table of Contents* in Geochemistry Data Source mode.



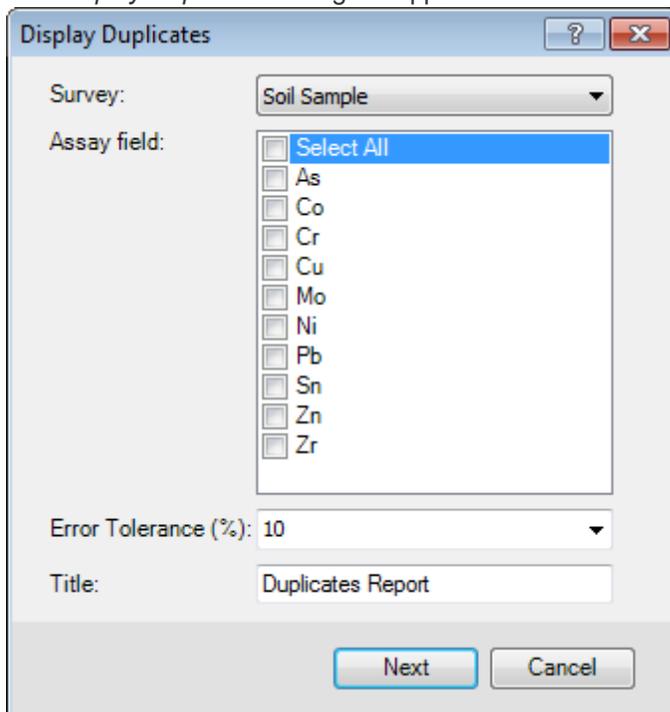
6. Select (highlight) the *Duplicates* table in Geochemistry Data Source mode. Right-click and from the pop-up menu select **Open**.
The Duplicates data will be displayed.

Displaying Duplicates Report

You can use the *Display Duplicates* option to select fields for which Duplicate values will be displayed. If you find errors in your Duplicates, we recommend that you stop processing and correct these errors before proceeding.

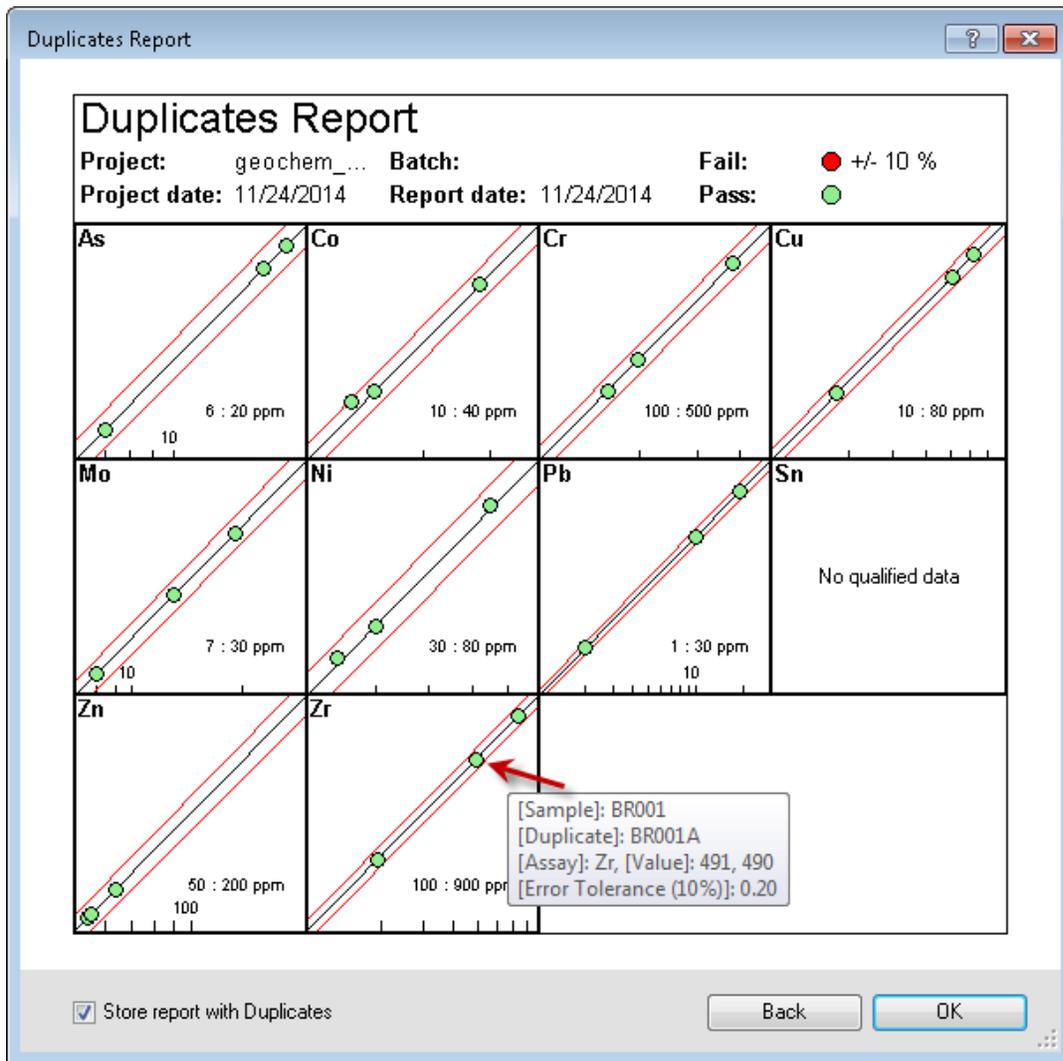
To Display a Duplicates Report

1. On the *Geosoft Geochemistry* toolbar, from the *Data* menu, select **Display Duplicates**.
The *Display Duplicates* dialog will appear.

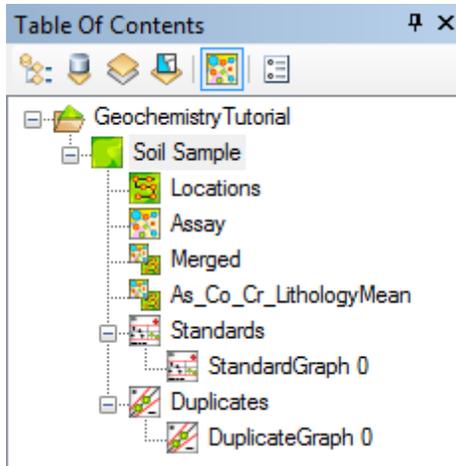


2. By default, the current *Survey* should be displayed (in this case Soil Sample). If it is not, use the dropdown list to select the current survey.
3. In the *Assay field* window select individual fields by checking the items or select all using the 'Select All' checkbox.

4. Select the *Error Tolerance (%)* from the dropdown list. The default is 10%.
5. Click **Next** to display the Duplicates Report.
6. Click on a point in the Duplicates Report to see the Sample ID, Duplicate ID, Assay, Value and Error Tolerance.



7. The report can be added to the Layout view of your MXD by right clicking anywhere on the Duplicates Report and selecting *Plot Graph to Layout*. The report can also be copied to the clipboard and pasted into Word or Excel by selecting *Copy to Clipboard* from the right-click menu.
8. Select the *Store report with Duplicates* checkbox to store the report for later retrieval.
9. Click **OK** to save the report and exit.
10. A new *DuplicateGraph 0* sub-folder will be added in the Table of Contents (TOC) tab in Geochemistry Data Source mode.



11. Select (highlight) the new report in Geochemistry Data Source mode. Right-click and from the pop-up menu select **Open**. The Duplicates Report will be displayed.

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