

Soil Data 201


February 19th, 2015 or recorded webinar at later date

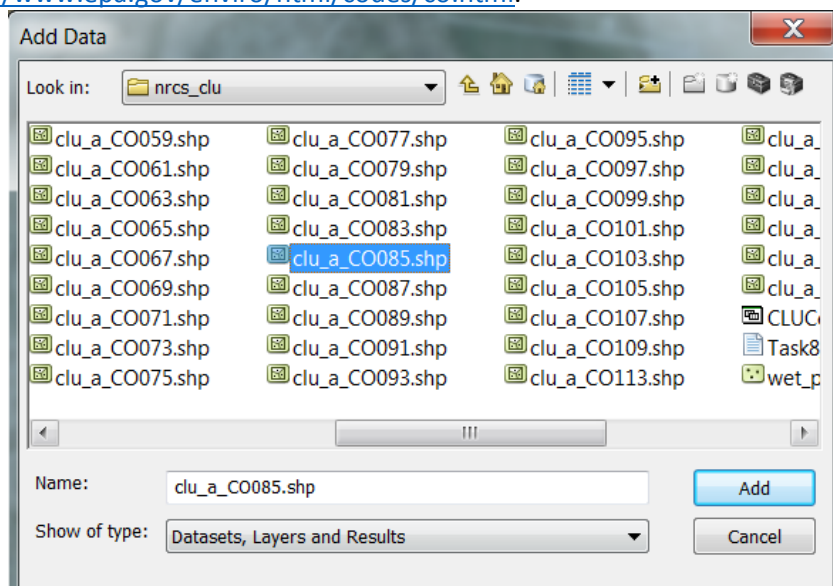
Link to the video

(<https://connect16.uc.att.com/usda/meet/?RecordingKey=A2129E7E-38B7-47AD-84AE-70F082401BD9>)

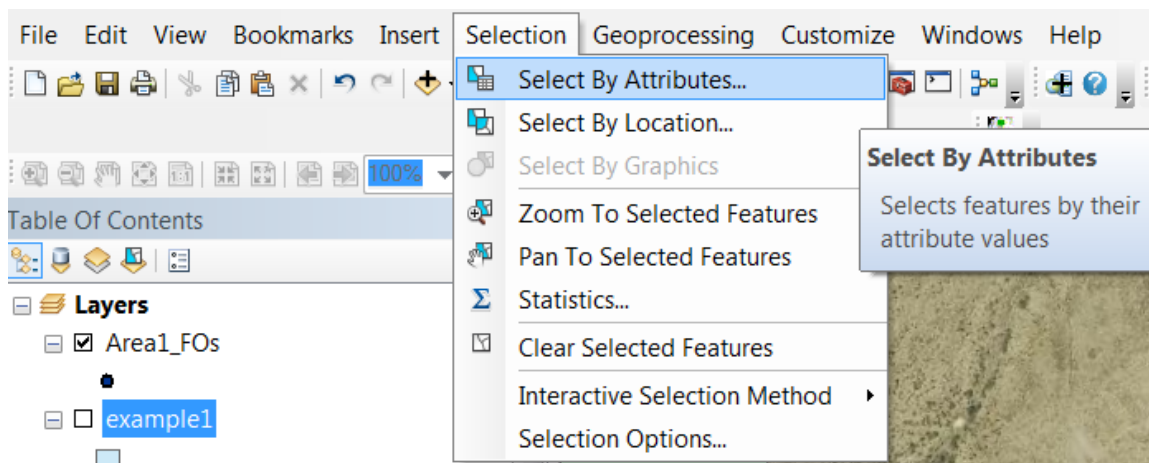
Exercise 1- Importing an Area of Interest (AOI) into Web Soil Survey (WSS)

Steps:

1. Open ArcMap directly or via Customer Toolkit
2. Click  and browse to F:\geodata\common_land_unit\nrcs folders to add CLU layer for your county. A list of County FIPS codes can be found at <http://www.epa.gov/enviro/html/codes/co.html>.

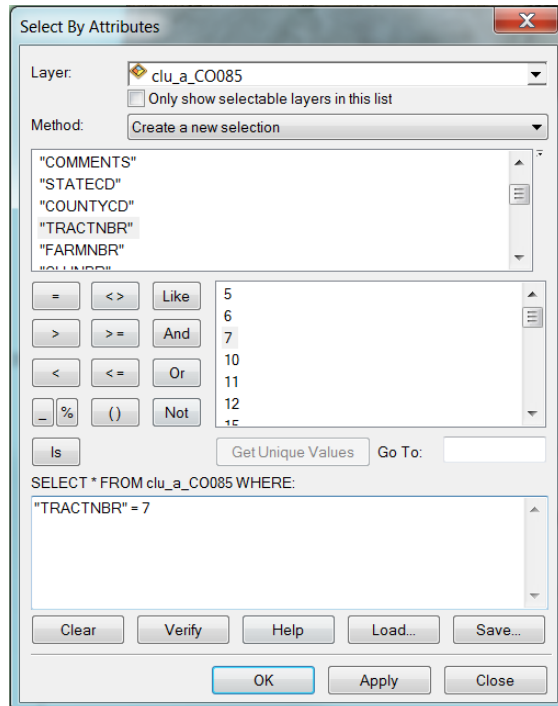


3. In ArcMap, select tracts or fields of interest.
 - a. Go to Selection- Select by Attribute

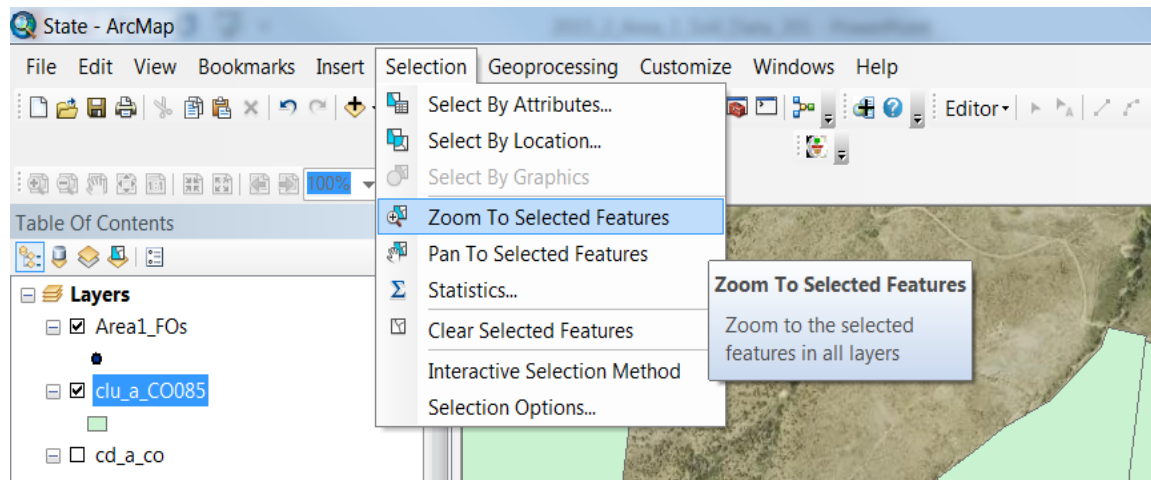


- b. Select the CLU_a_COxxx layer. Double click on "TRACTNBR", click on "=", and enter tract number. Then click "ok".

NOTE: If you want tract 7 and field 5, your query would be "TRACTNBR" = 7 AND "CLUNBR" = 5.

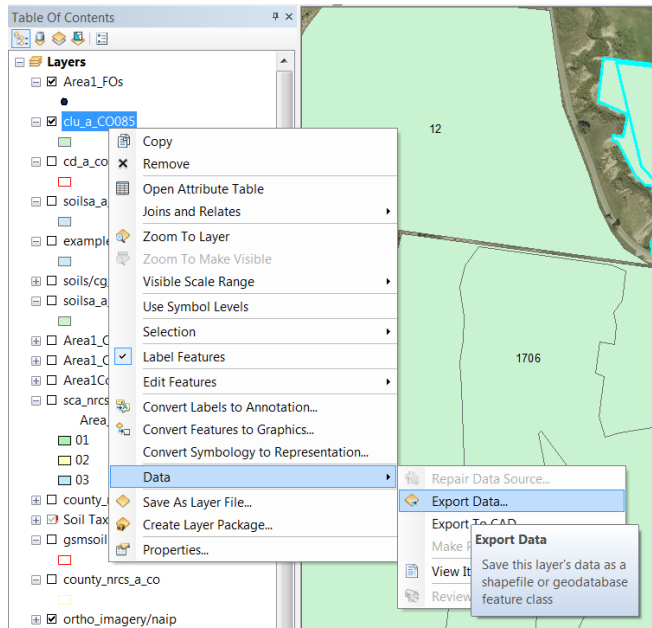


4. Go to Selection- Zoom to Selected Features

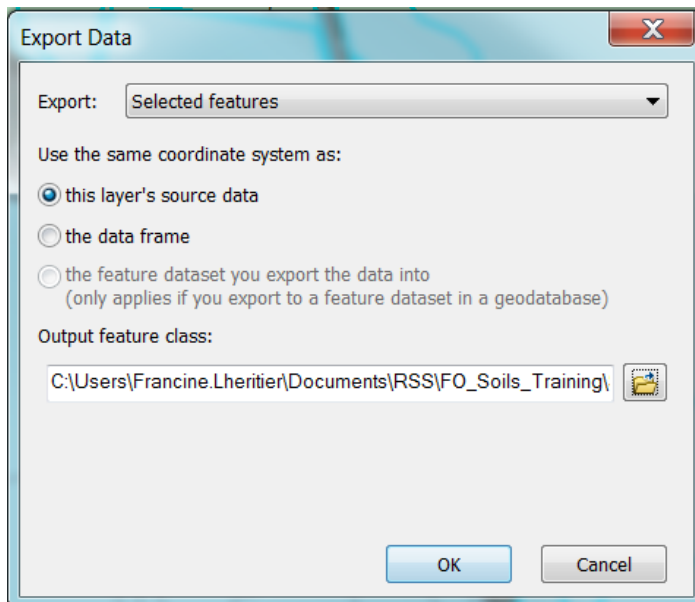


5. Make sure the selected tracts and fields represent your area of interest.

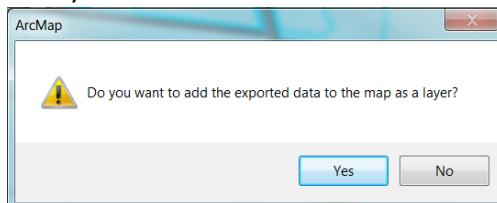
6. In the table of contents, right click on the CLU layer. Select Data- Export Data.



7. Choose “Selected features”. Browse to location to save and name the shapefile. Click OK.



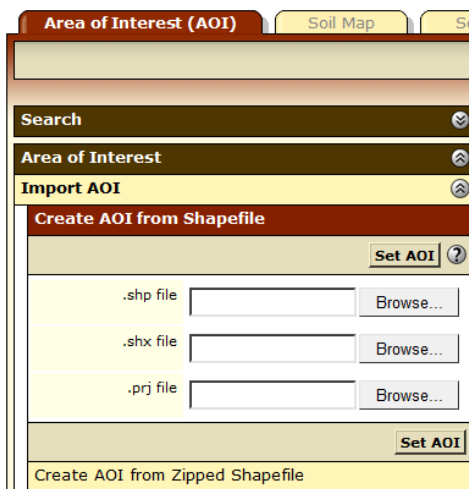
8. Click yes.



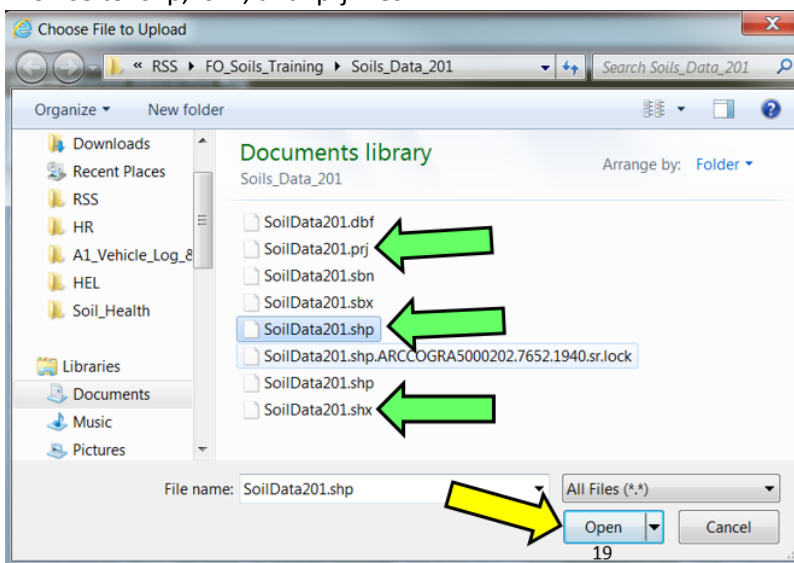
9. Open Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/>) and click on Start WSS.



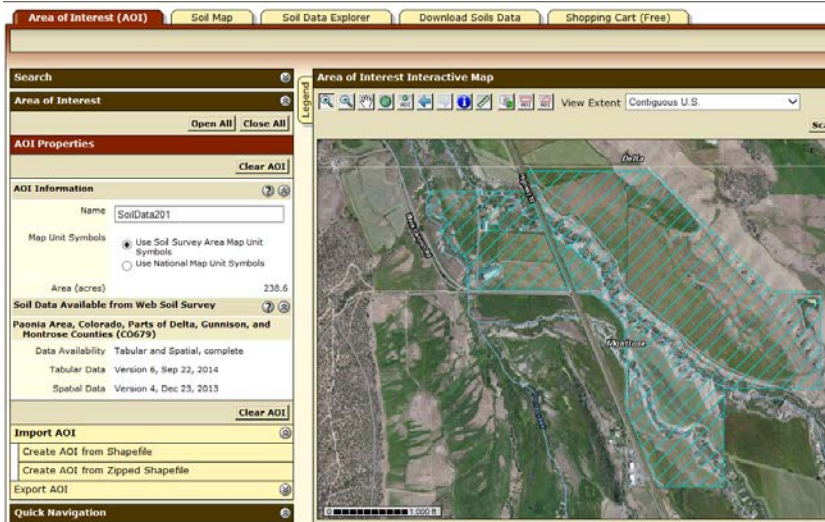
10. On AOI Tab, click on "Import AOI" and then "Create AOI from Shapefile".



11. Browse to .shp, .shx, and .prj files.



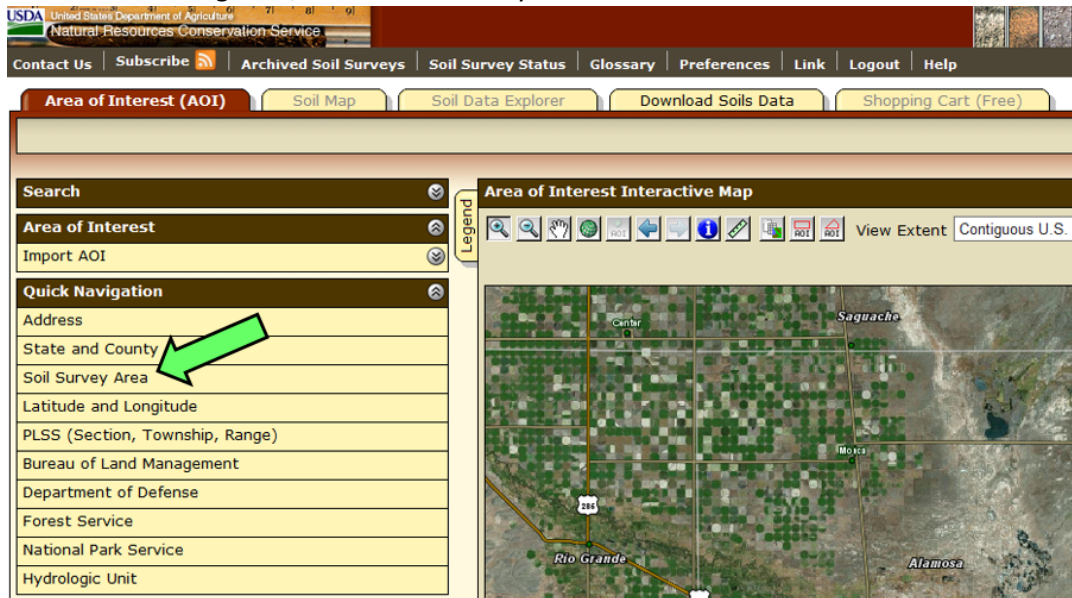
12. Click open and Set AOI
13. Check AOI correct. If AOI not correct, click on the “Clear AOI” button.
NOTE: Two polygons make up my AOI and can be up to 100,000 acres.
NOTE: Can also Export AOI!



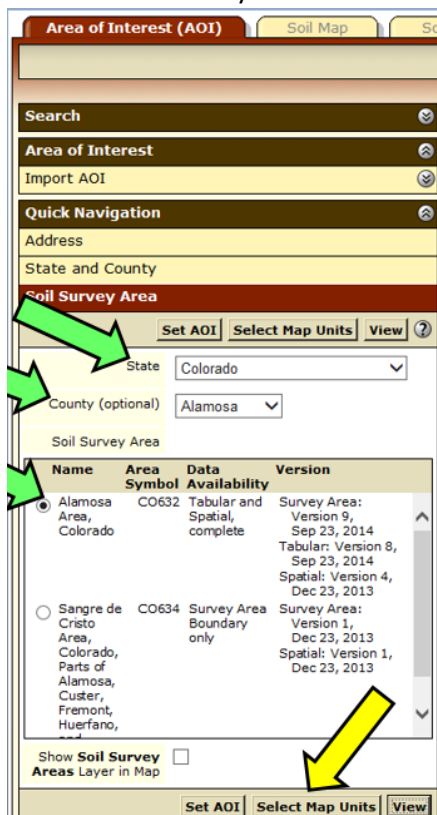
14. As shown in the Soil Data 101 webinar (<https://connect16.uc.att.com/usda/meet/?RecordingKey=225D487B-D810-40FB-B608-CB11F26BD0A4>), now move across tabs from left to right to explore data and create soil maps and reports.
15. For this exercise, go to the Soil Map tab. Click on the “Printable Version” button.

Exercise 2- Generating reports in WSS without an AOI**Steps:**

1. Click on the Area of Interest (AOI) Tab of Web Soil Survey.
2. Under Quick Navigation, click on Soil Survey Area.



3. Select State, county, and Soil Survey Area.
4. Click on "Select Map Units" button.



5. Check boxes next to Map Units of interest.

Area of Interest

Open All Close All

AOI Properties

Clear AOI

AOI Information

Name

Map Unit Symbols

☒ Use Soil Survey Area Map Unit Symbols

☐ Use National Map Unit Symbols

Area (acres) 437,300

Soil Data Available from Web Soil Survey

Alamosa Area, Colorado (C0632)

Data Availability Tabular and Spatial, complete

Tabular Data Version 8, Sep 23, 2014

Spatial Data Version 4, Dec 23, 2013

Select Map Units

Alamosa Area, Colorado (C0632)

Type the first few characters of a map unit symbol to find it

c Next


Select All Clear Selection

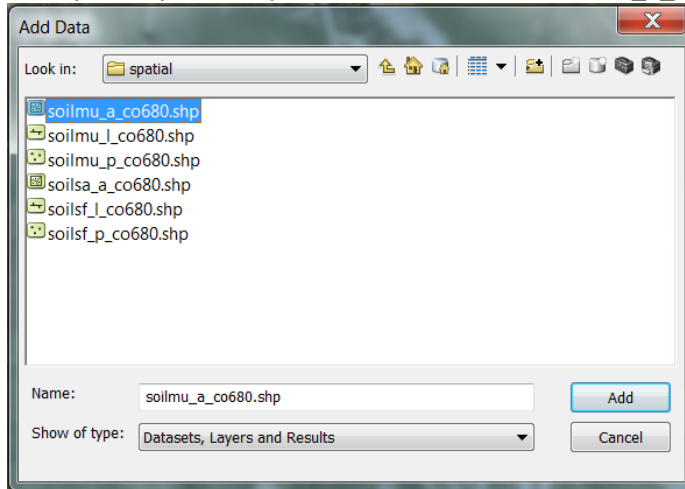
- ☒ AaA—Acacio loam, 0 to 1 percent slopes
- ☐ AaB—Acacio loam, 1 to 3 percent slopes
- ☒ AcA—Acacio loam, saline, 0 to 1 percent slopes
- ☐ Am—Alamosa loam
- ☐ An—Alamosa loam, saline
- ☐ Ar—Arena loam
- ☐ As—Arena loam, drained
- ☐ CmF—Comodore extremely rocky loam, 40 to 150 percent slopes
- ☐ CoE—Corlett sand, hilly
- ☐ CpB—Corlett-Hooper complex, undulating
- ☒ CsA—Costilla loamy sand, 0 to 2 percent slopes
- ☐ CtE—Cotopaxi sand, hilly

Clear AOI

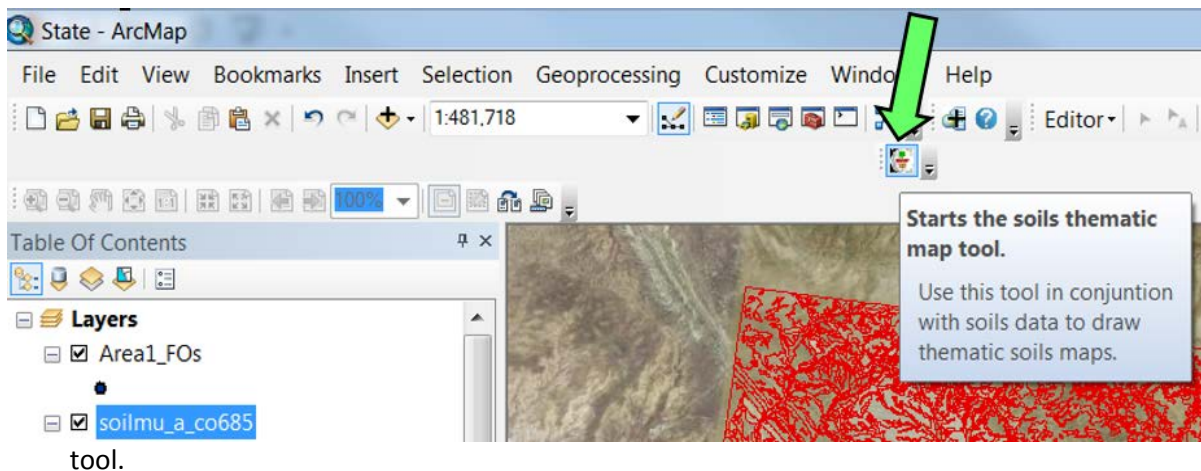
6. Now select the **Soil Data Explorer** tab. From the sub-tabs (Soil Reports, etc.), you will be able to print reports but not soil maps (as there is no AOI selected).
7. For this example, go to the **Soil Reports** tab (the other sub-tabs will work as well).
8. On the left side under the **Soils Reports** Menu, select **AOI Inventory- Map Unit Description (Brief, Generated)**.
9. Click on the “View Soil Report” button.
10. For this exercise, click on the “Printable Version” button and save as a pdf.

Exercise 3- Soil Data Viewer Basics**Steps:**

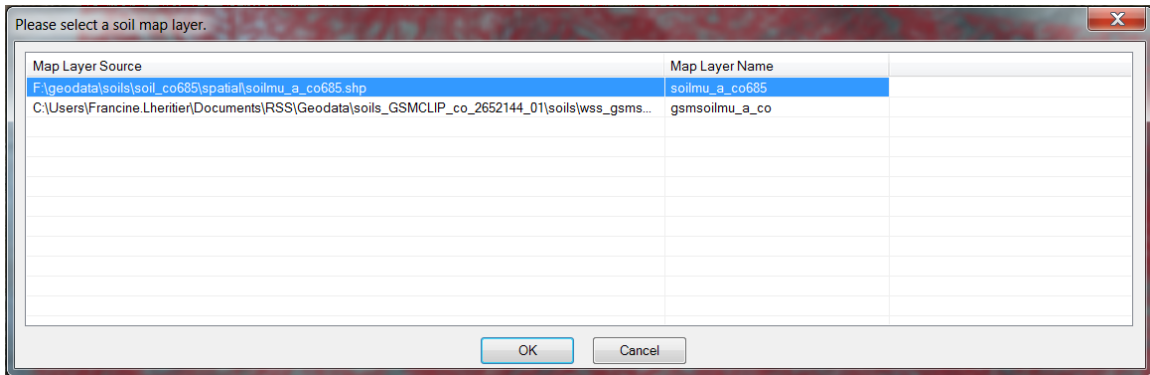
1. Open ArcMap directly or via Customer Toolkit.
2. Click  and browse to the F:\geodata\Soil folders. Locate the folder for the needed soil survey and open the spatial folder. Select the soilmu_a_coxxx.shp file and click "Add".



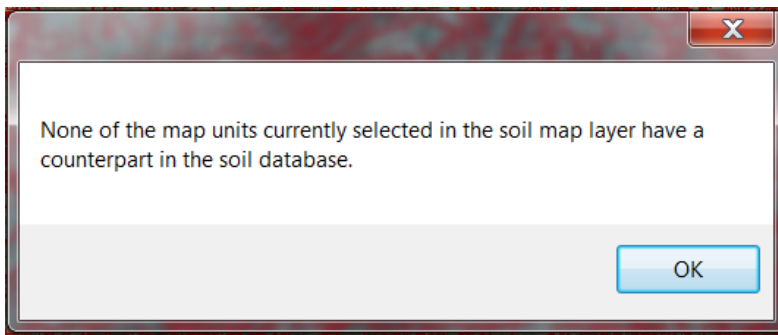
3. Go to Customize- Toolbars and select the Soil Data Viewer toolbar. Then click on the SDV .



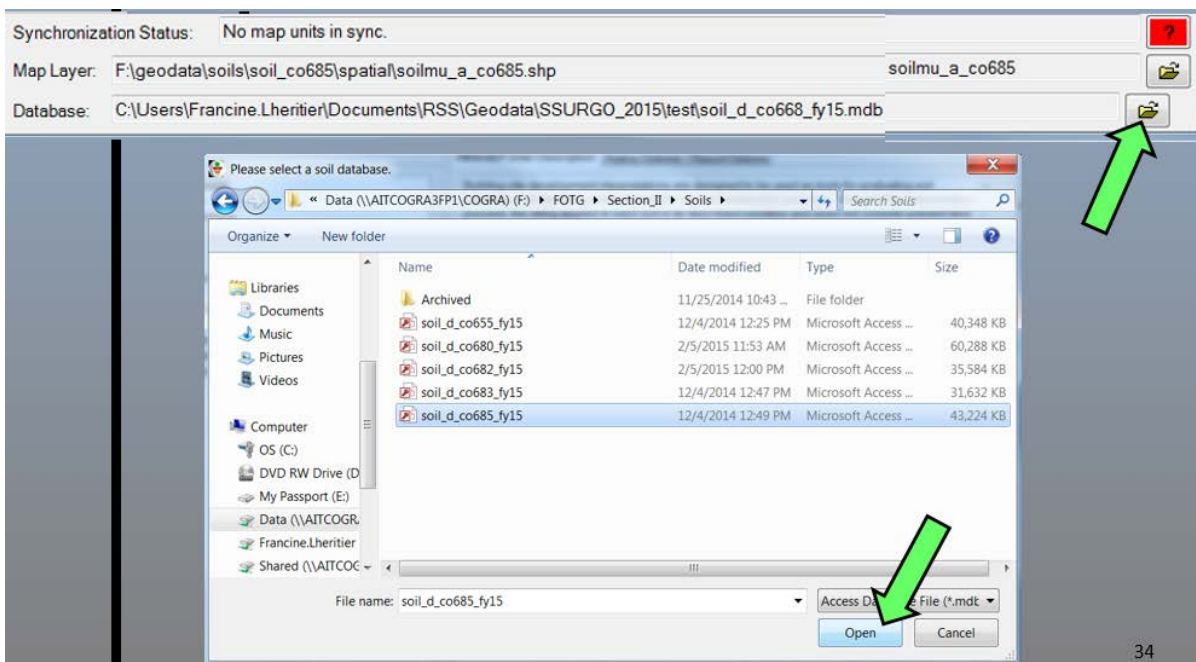
4. Highlight the Soil Map layer and click "Ok".



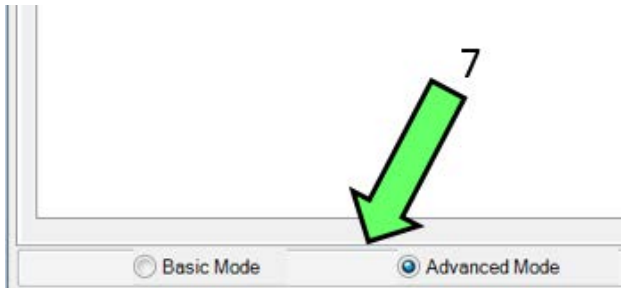
5. If you get this warning, click "OK".



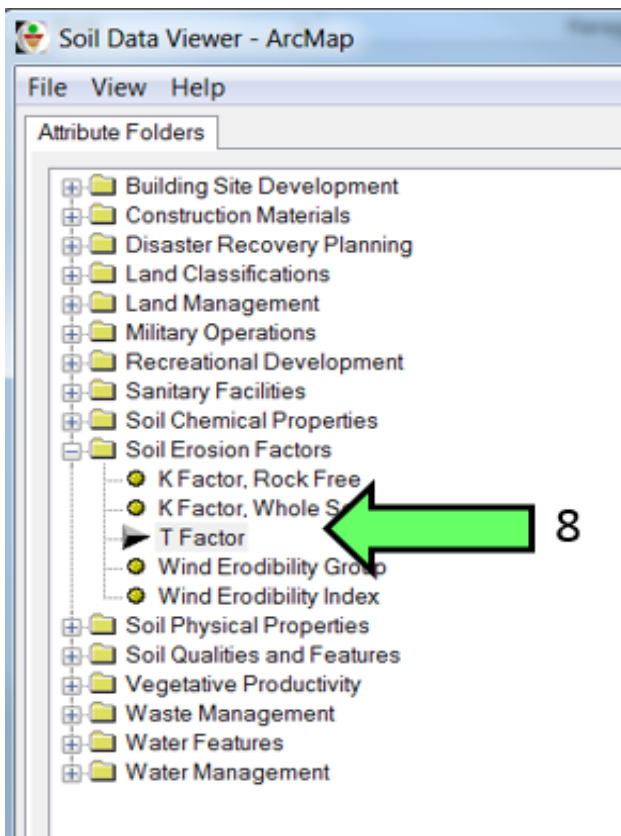
6. Browse to the corresponding SSURGO Access Database at F:\FOTG\SectionII\Soils and click "Open".



7. Select the radial button next to the advanced or basic mode.



8. Under the Attribute Folders Tab, select the soil property or interpretation of interest. For this exercise, the soil property or interpretation is your choice.



9. Under the Rating Options tab, select the aggregation method.

Attribute/Folder Description Rating Options Report Options

Basic Options
Result Column Name: Tfactor

Advanced Options

Aggregation Method
Dominant Condition
Dominant Condition
Dominant Component
Weighted Average
Minimum or Maximum

Method Description

Tie-break Rule
☒ Lower
☐ Higher

Interpret Nulls as Zero
☐ Yes
☒ No

10. Click the “Map” button.

Aggregation Report Map Unit Desc. Report Map Synchronize Clear Themes

11. View and interpret results

12. Under report options, you can select the map units of interest (if less than the whole legend). To select consecutive map units, use the shift button and a left click. To select non-consecutive map units, use the control button and a left click.

Attribute/Folder Description Rating Options Report Options

Aggregation Report Options

☒ Rating Options

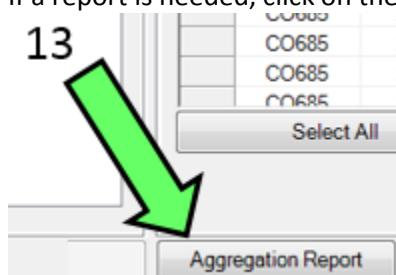
Additional Reports

Select map units to be included in the tabular report from the set of map units currently selected in the current soil map layer:

Survey Area	Map Unit	Map Unit Name
CO685	8	Billings-Torrifluents complex, gullied, 0 to 5 per
CO685	9	Blakabin-Rhone-Waybe complex, 5 to 50 per
CO685	10	Blazon, moist-Rentsac complex, 8 to 65 percent
CO685	11	Borollic Calciorrhids-Guben complex, 6 to 50 pe
CO685	12	Bucklon-Inchau loams, 25 to 50 percent slopes
CO685	13	Bulkley channery silty clay loam, 5 to 30 percent
CO685	14	Bulkley-Abor clay loams, 5 to 30 percent slopes
CO685	15	Castner channery loam, 5 to 50 percent slopes
CO685	16	Chipeta silty clay loam, 3 to 25 percent slopes
CO685	17	Chipeta silty clay loam, 3 to 25 percent slopes, e
CO685	18	Chipeta-Killpack silty clay loams, 3 to 15 per
CO685	19	Chipeta-Walknolls complex, 5 to 15 percent slop
CO685	20	Clayburn loam, 3 to 15 percent slopes
CO685	21	Cliffdown-Cliffdown variant complex, 5 to 65 per
CO685	22	Clifferson channery loam, 1 to 15 percent slopes
CO685	23	Cochetopa loam, 9 to 50 percent slopes
CO685	24	Cochetopa-Jerry loams, 12 to 25 percent slopes
CO685	25	Colorado sandy loam

Select All Unselect All View Selected Map Units

13. If a report is needed, click on the "Aggregation Report" button.



An example aggregation report (in this case, for T factor):

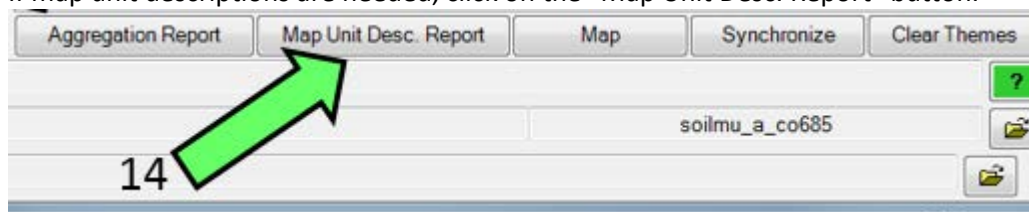
T Factor

Units of Measure: tons per acre per year
 Aggregation Method: Dominant Condition
 Tie-break Rule: Lower
 Interpret Nulls as Zero: No

Rio Blanco County Area, Colorado
 Survey Area Version and Date: 10 - 09/22/2014

Map symbol	Map unit name	Rating	Map unit percent
11	Borollic Calciorrhids-Guben complex, 6 to 50 percent slopes	5	60
12	Bucklon-Inchau loams, 25 to 50 percent slopes	2	55
13	Bulkley channery silty clay loam, 5 to 30 percent slopes	4	85
17	Chipeta silty clay loam, 3 to 25 percent slopes, eroded	2	85

14. If map unit descriptions are needed, click on the “Map Unit Desc. Report” button.



An example Map Unit Description report:

Map Unit Description

Rio Blanco County Area, Colorado

[Minor map unit components are excluded from this report]

Map unit: 11 - Borollic Calciorthids-Guben complex, 6 to 50 percent slopes

Component: Borollic Calciorthids (60%)

The Borollic Calciorthids component makes up 60 percent of the map unit. Slopes are 25 to 50 percent. This component is on uplands, terraces. The parent material consists of very calcareous, mixed source alluvium and/or glacial outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R048AY287CO Stony Foothills ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 38 percent. The soil has a slightly saline horizon within 30 inches of the soil surface.