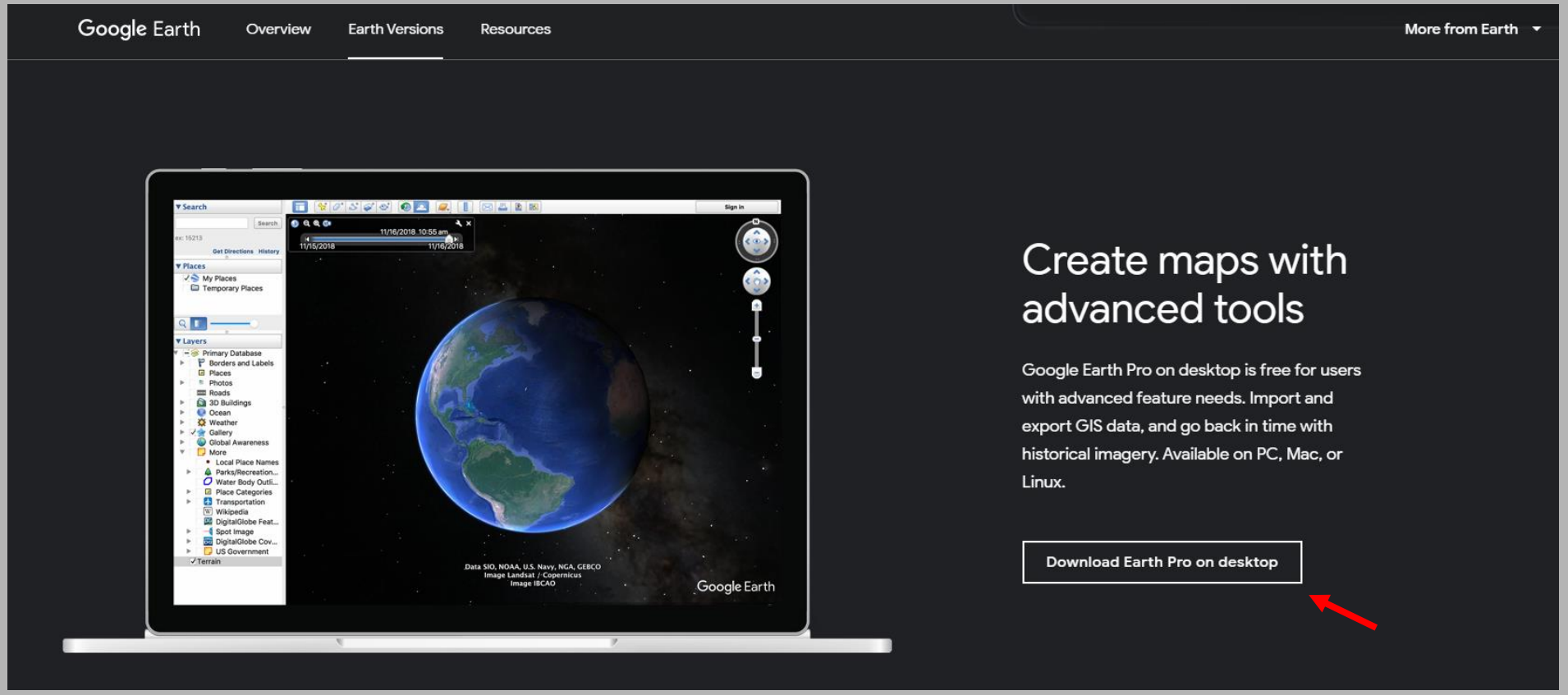
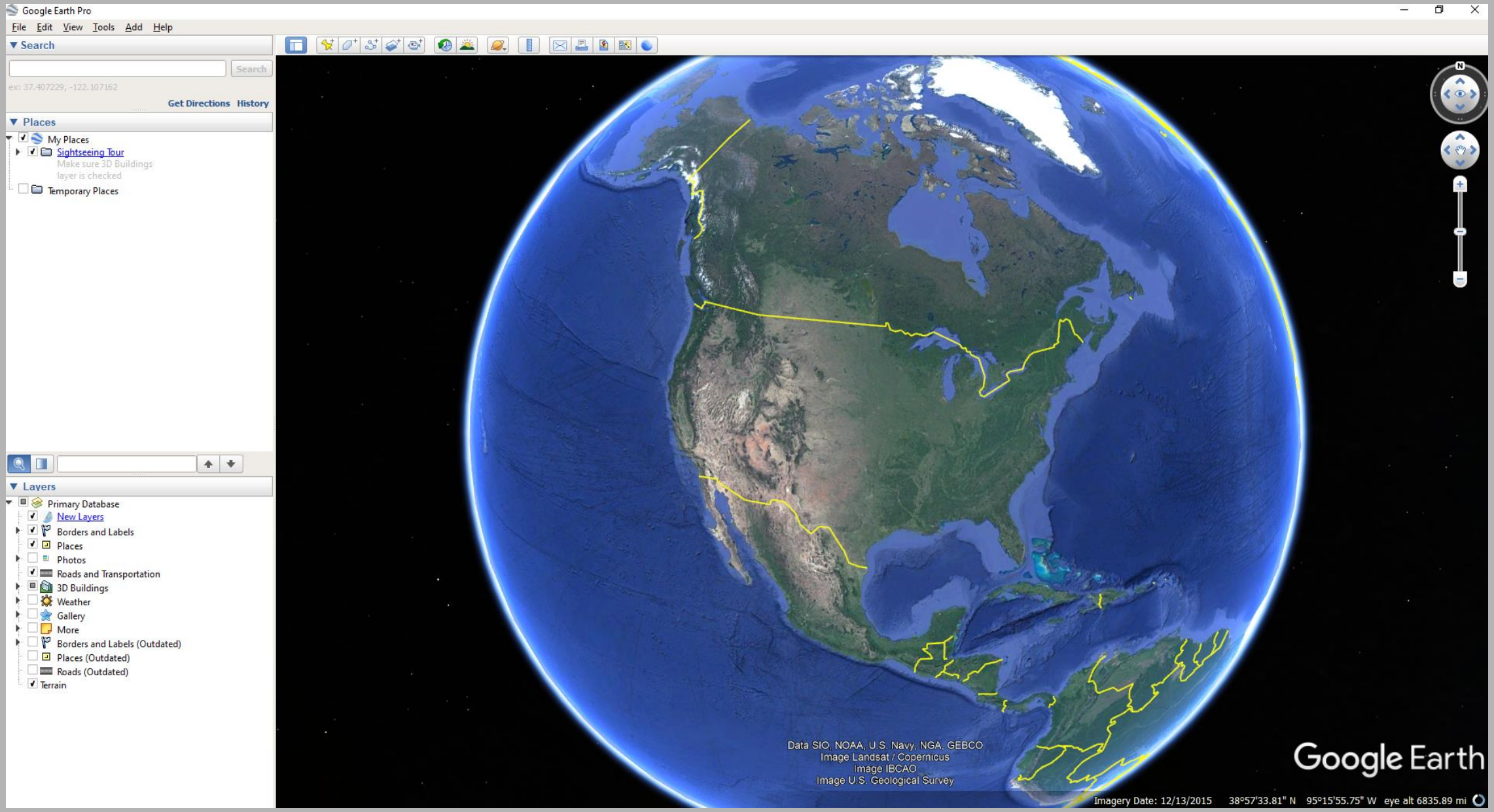
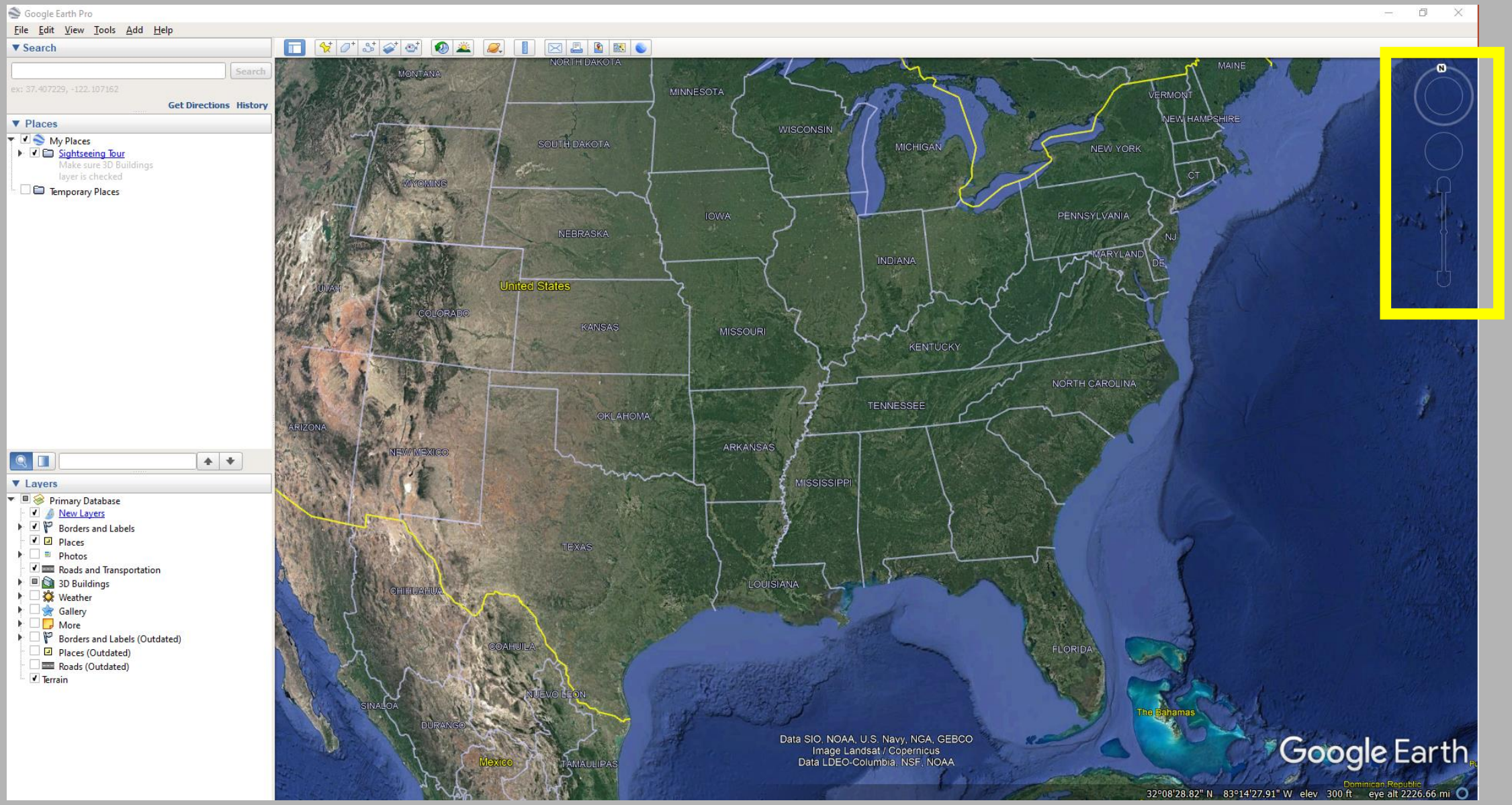
Creating Field Boundaries and Logging Sampling Points using Google Earth Pro



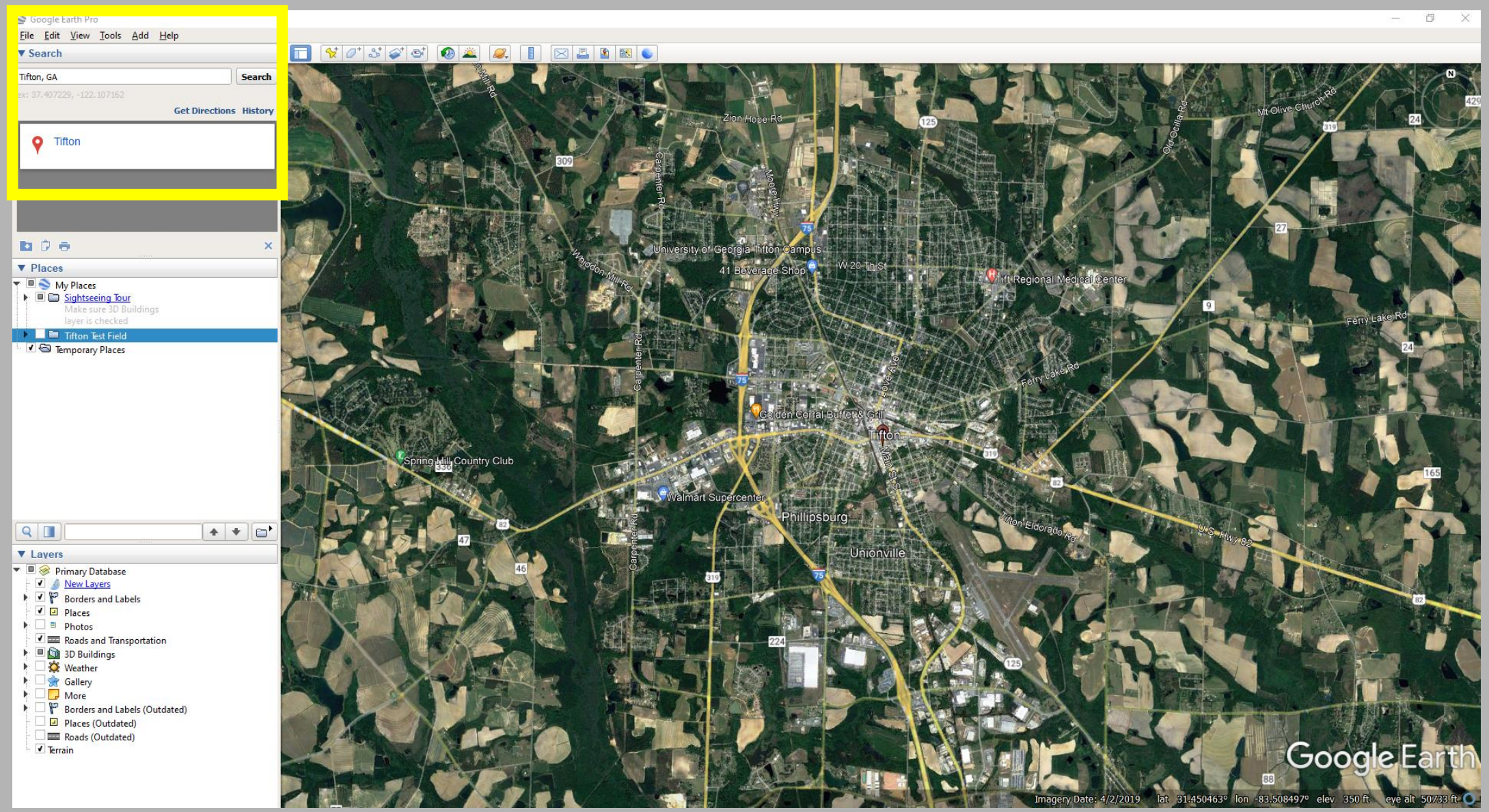
Search for Google Earth Pro using your internet browser. Then click the button to “Download Earth Pro on desktop”



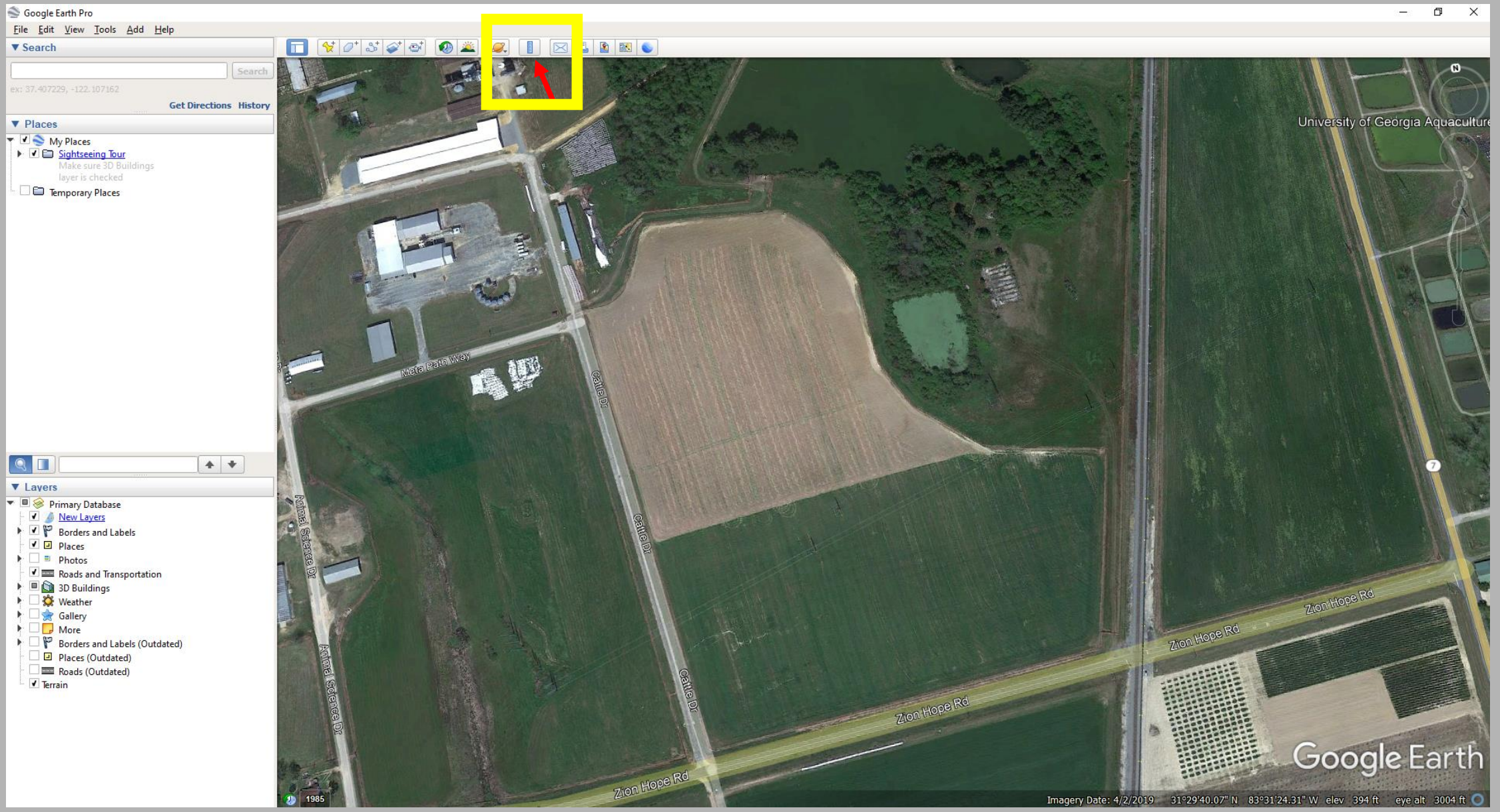
Open Google Earth Pro to bring up the home screen similar to the one shown here.



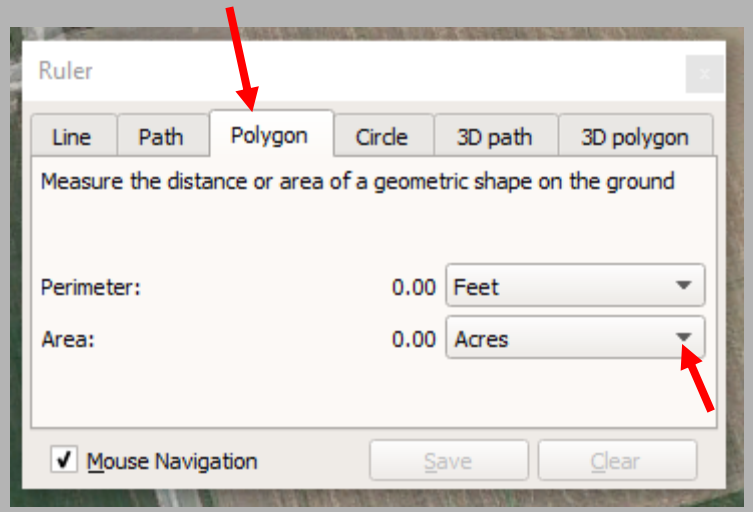
Use the arrows located in the upper right-hand part of the screen, or scroll using the mouse to zoom into the location of interest.



You can also use the search feature in the upper left corner to search for a location (city, address, Lat./Long). In this example we searched for Tifton, GA.

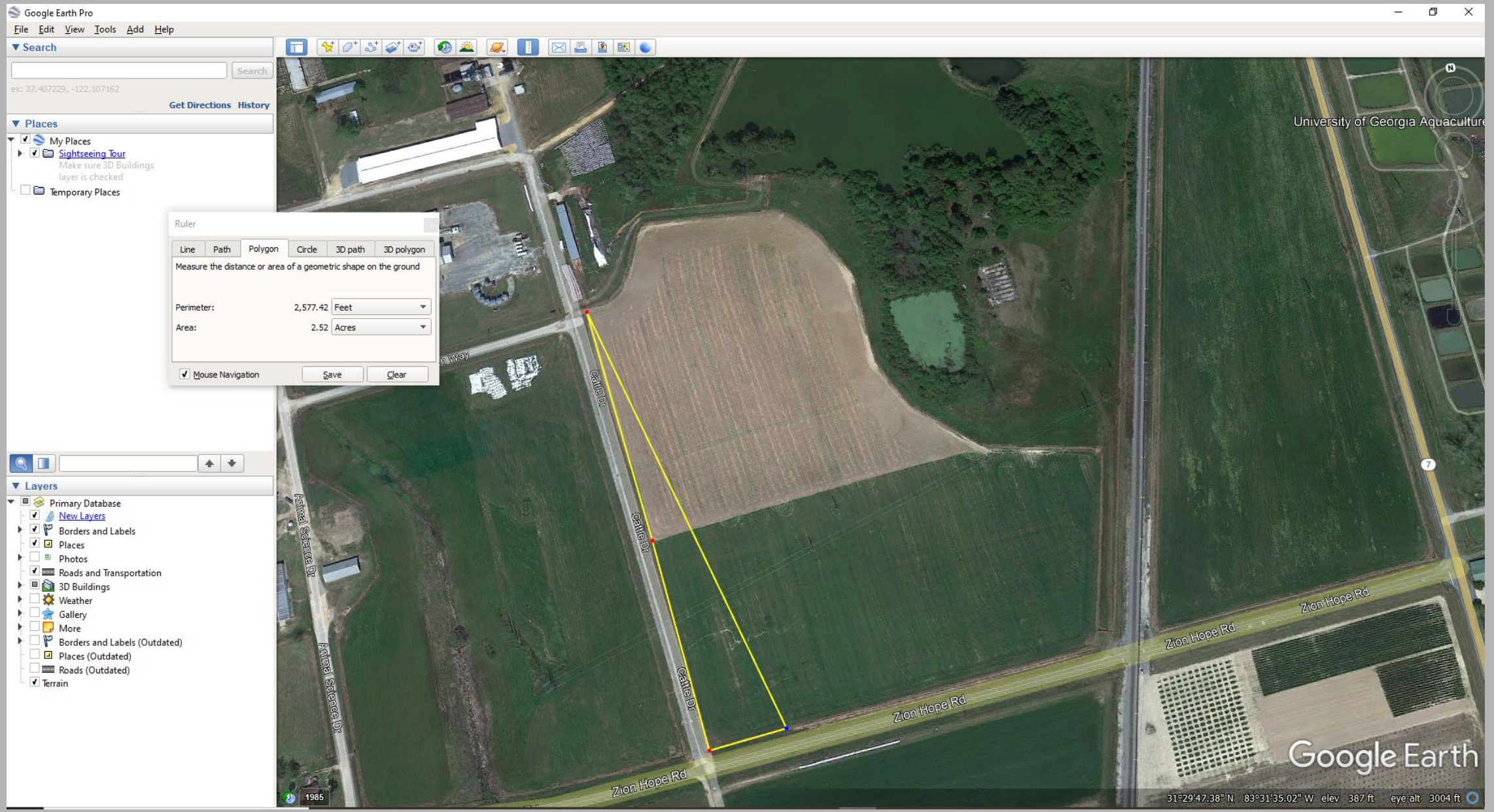


Once you have navigated to the field of interest, select the ruler icon at the top of the screen.

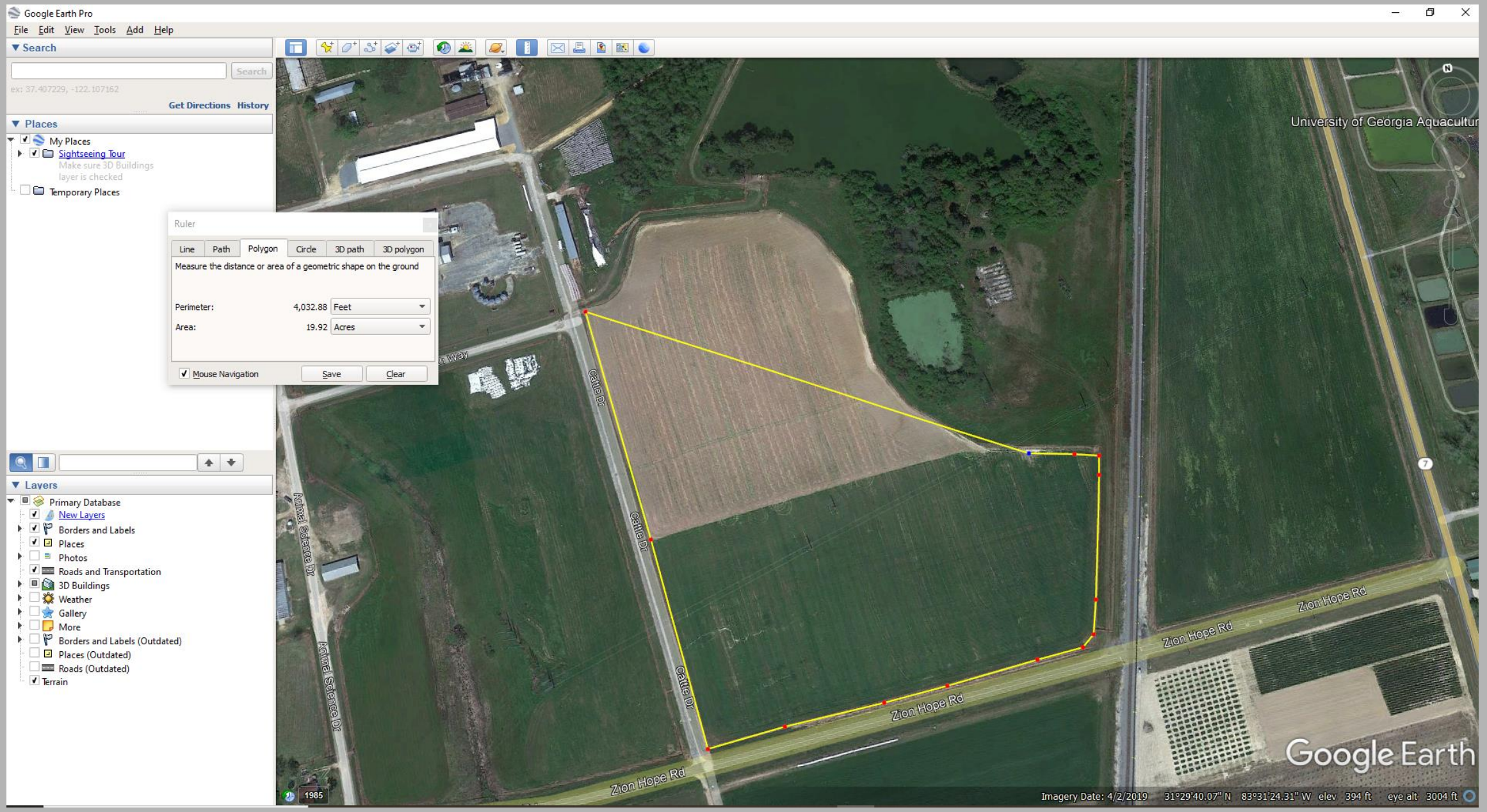


Select the “Polygon” option and change the units to reflect a relevant measurement for your area.

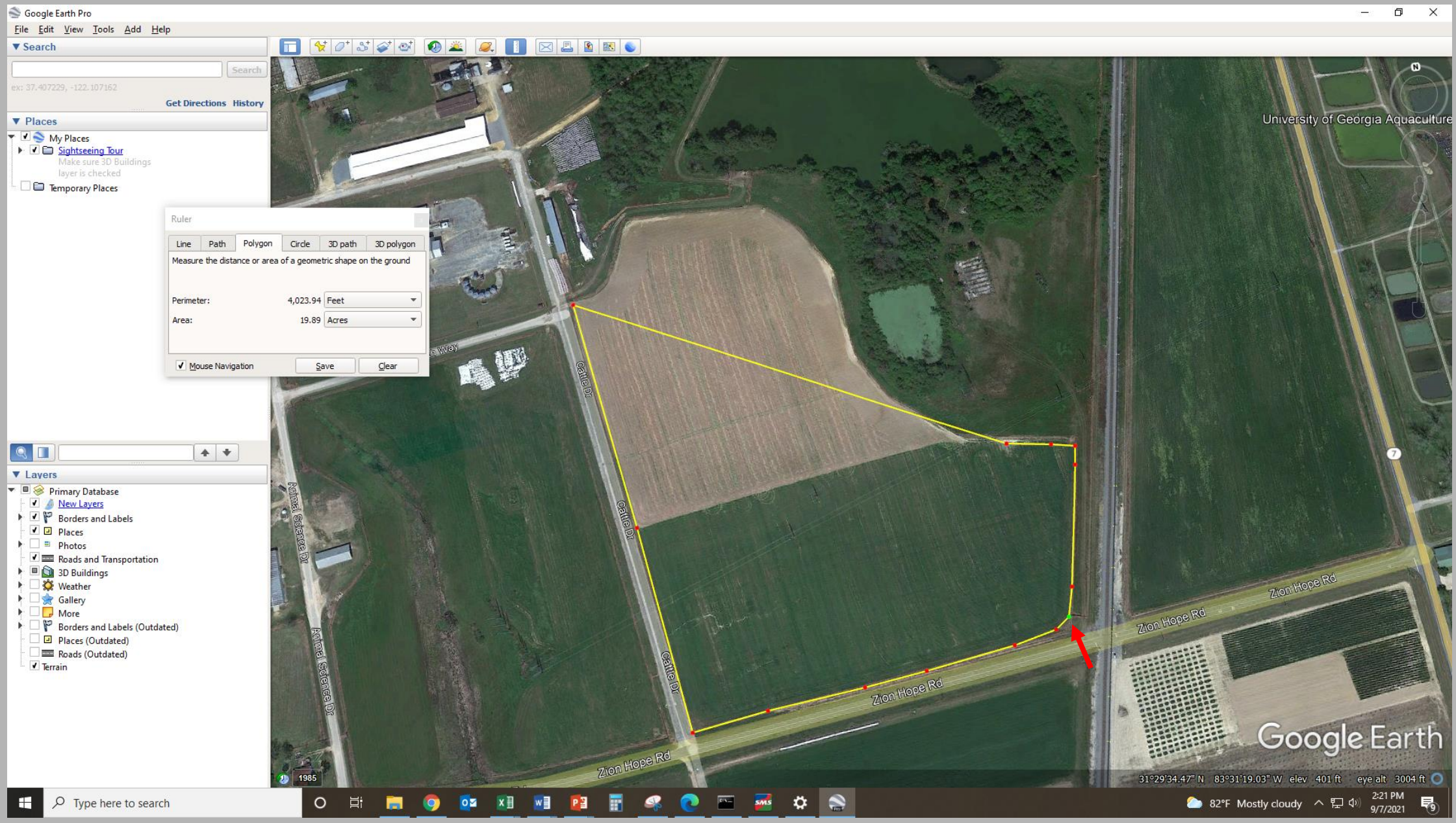
If this is a commercial production field, select “Acres”. If this is a home garden, select “Square Feet”.



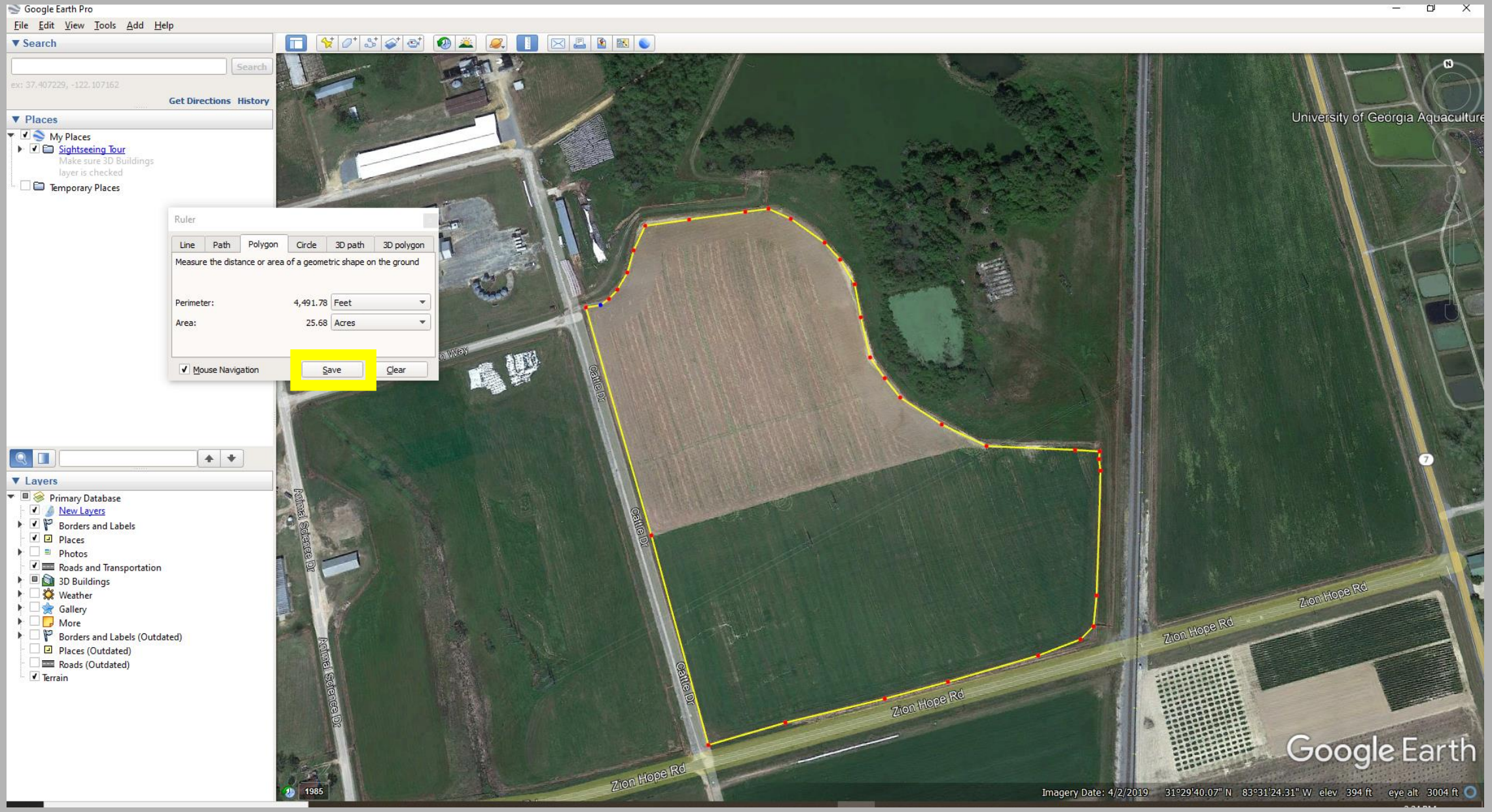
Start drawing the field boundary by clicking on one corner of the field. Then, continue clicking around the edge of the field and you will see the polygon forming.



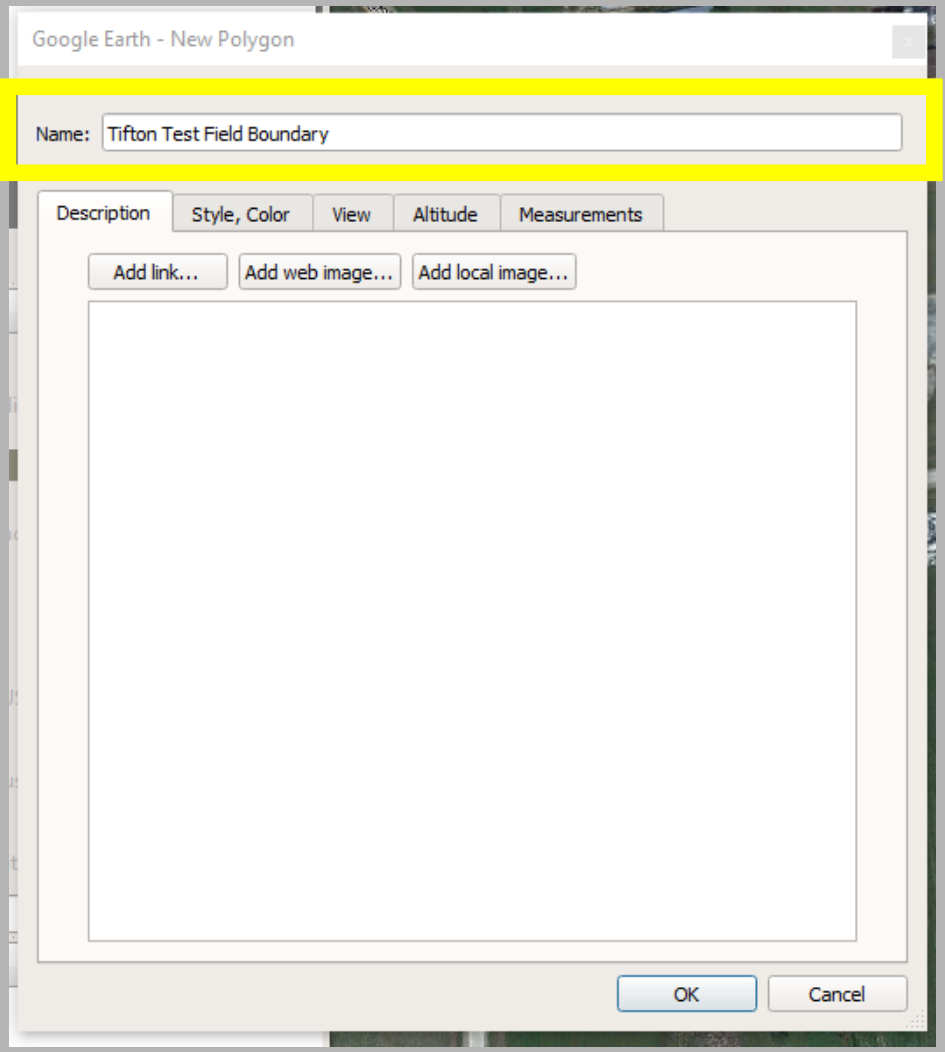
Continue clicking around the edge of the field to outline the boundary.



If you make a mistake and need to adjust a point, hover over the point until it turns green. Then you can click and drag to make the adjustments as needed.

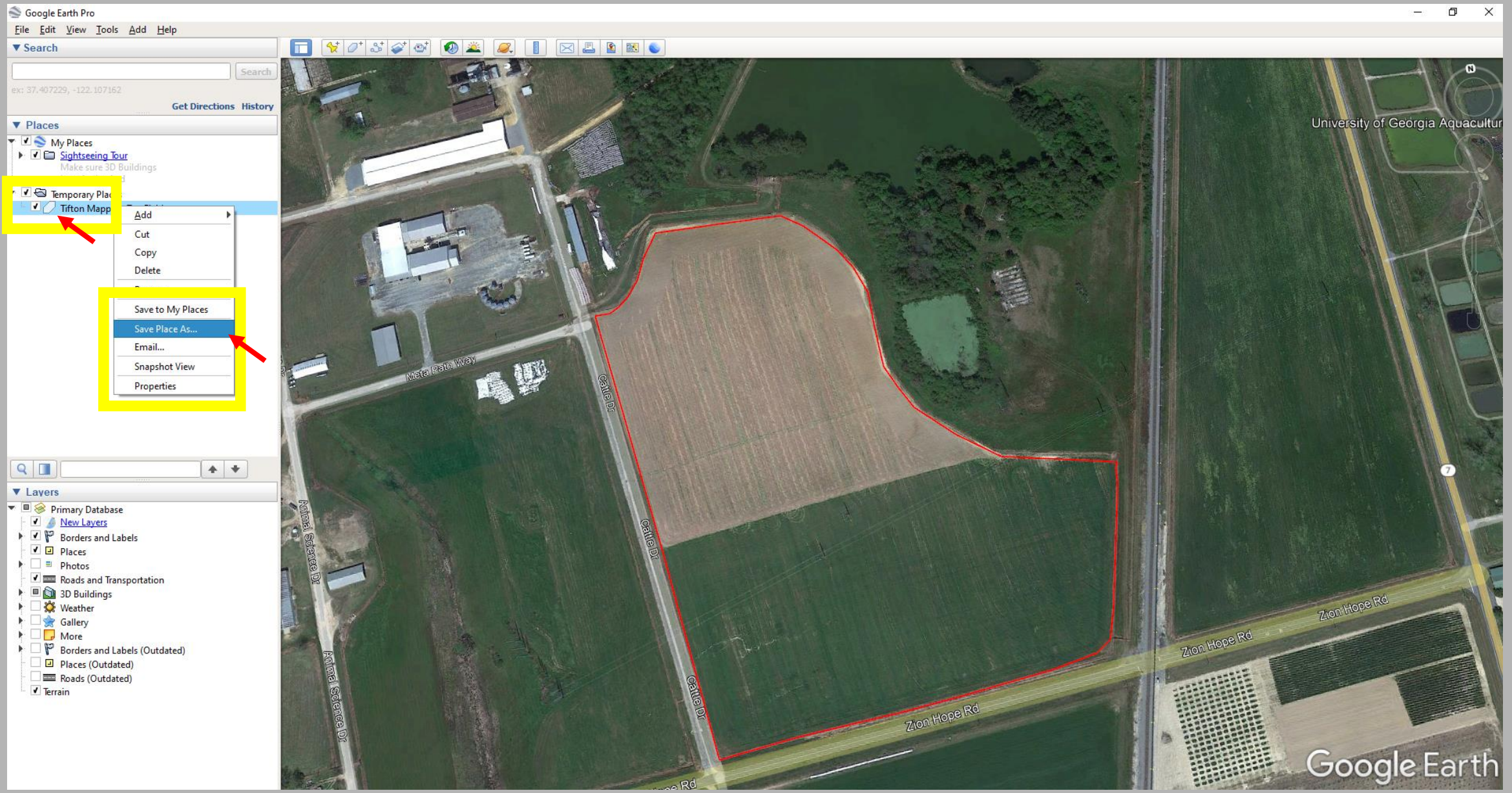


Continue outlining the field until the entire area of interest is within the polygon. Then select “save”.

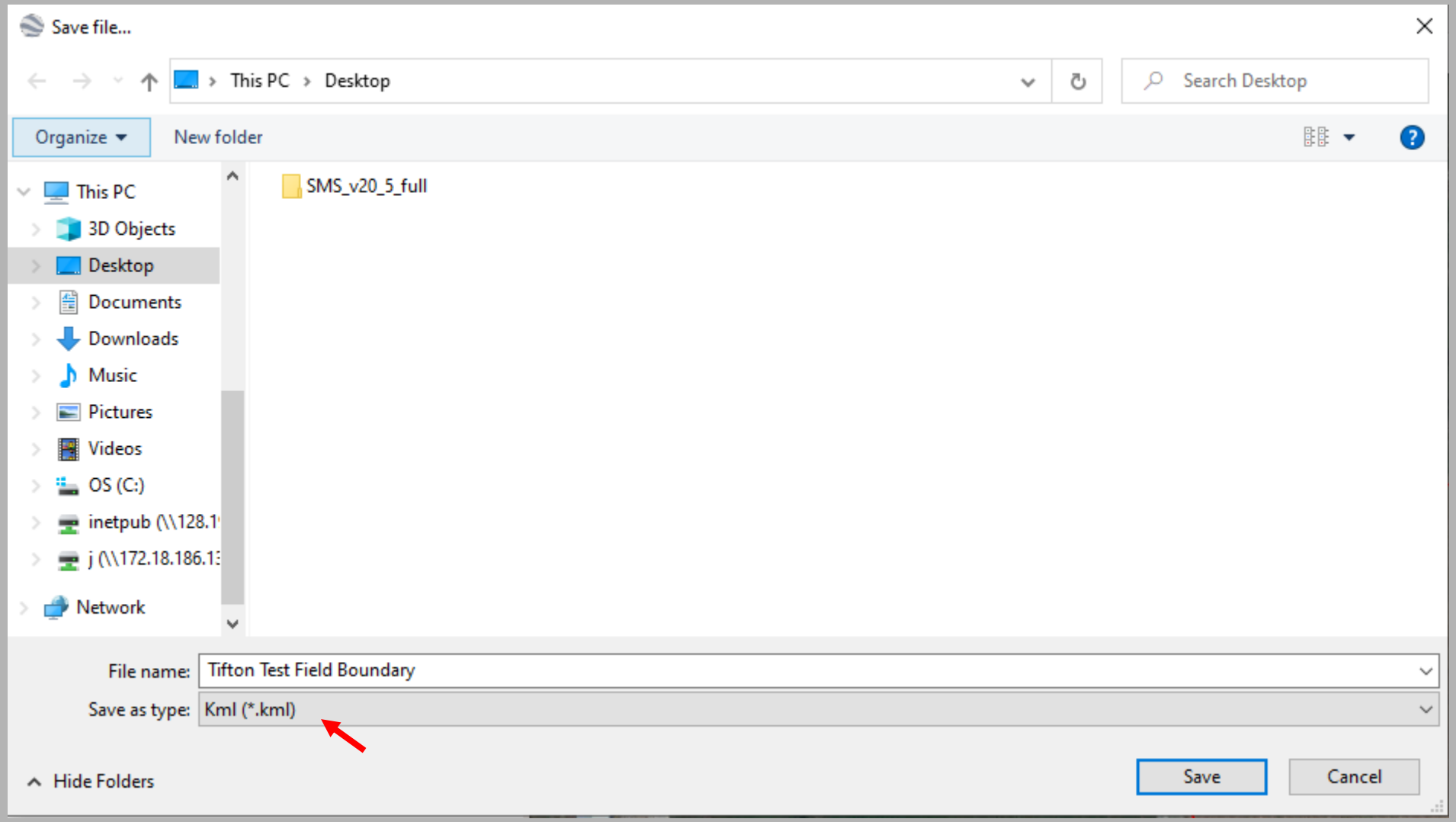


Give the field a descriptive name you will be able to remember. Also, it helps to include the term “boundary” in the name to keep your files organized.

You have now created a field boundary that can be used for mapping your field.

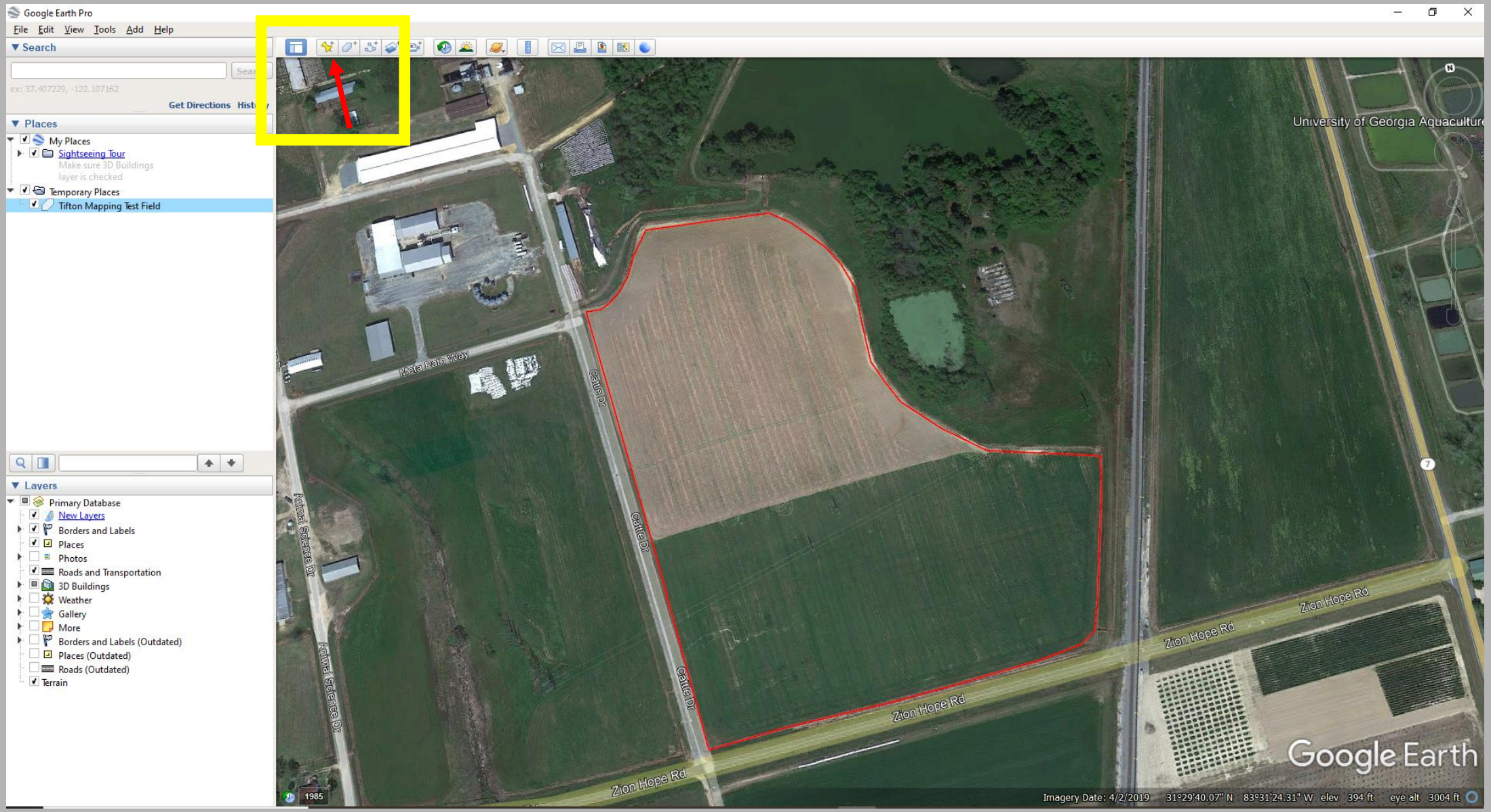


To download and save your field boundary file, right click on the polygon name, and then select “Save Place As”.



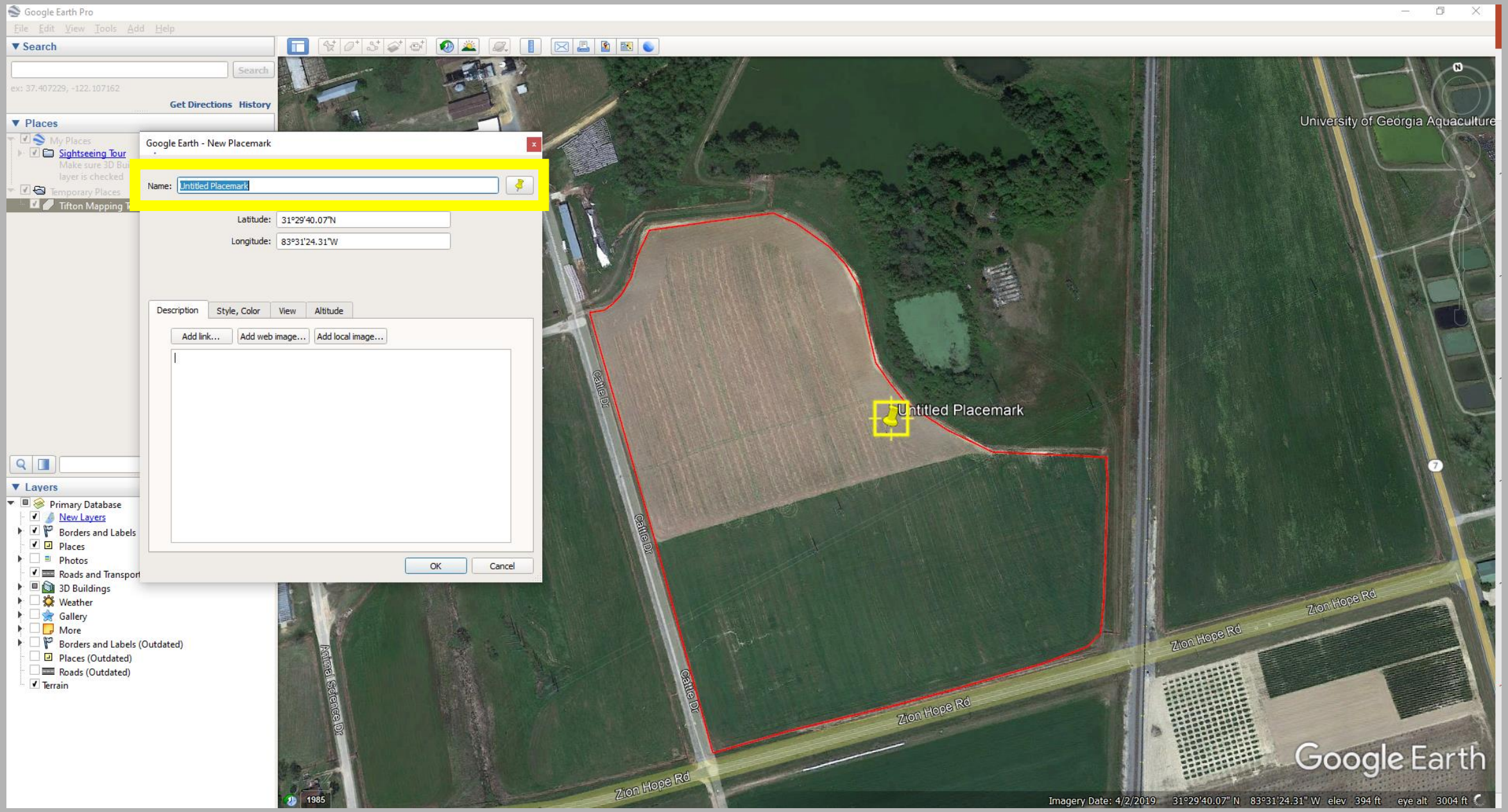
Make sure the file type is list as Kml. If it is not, select Kml from the dropdown arrow.

Save the file to a location where you will be able to easily find it later. In this example we are saving the file to the computer desktop.

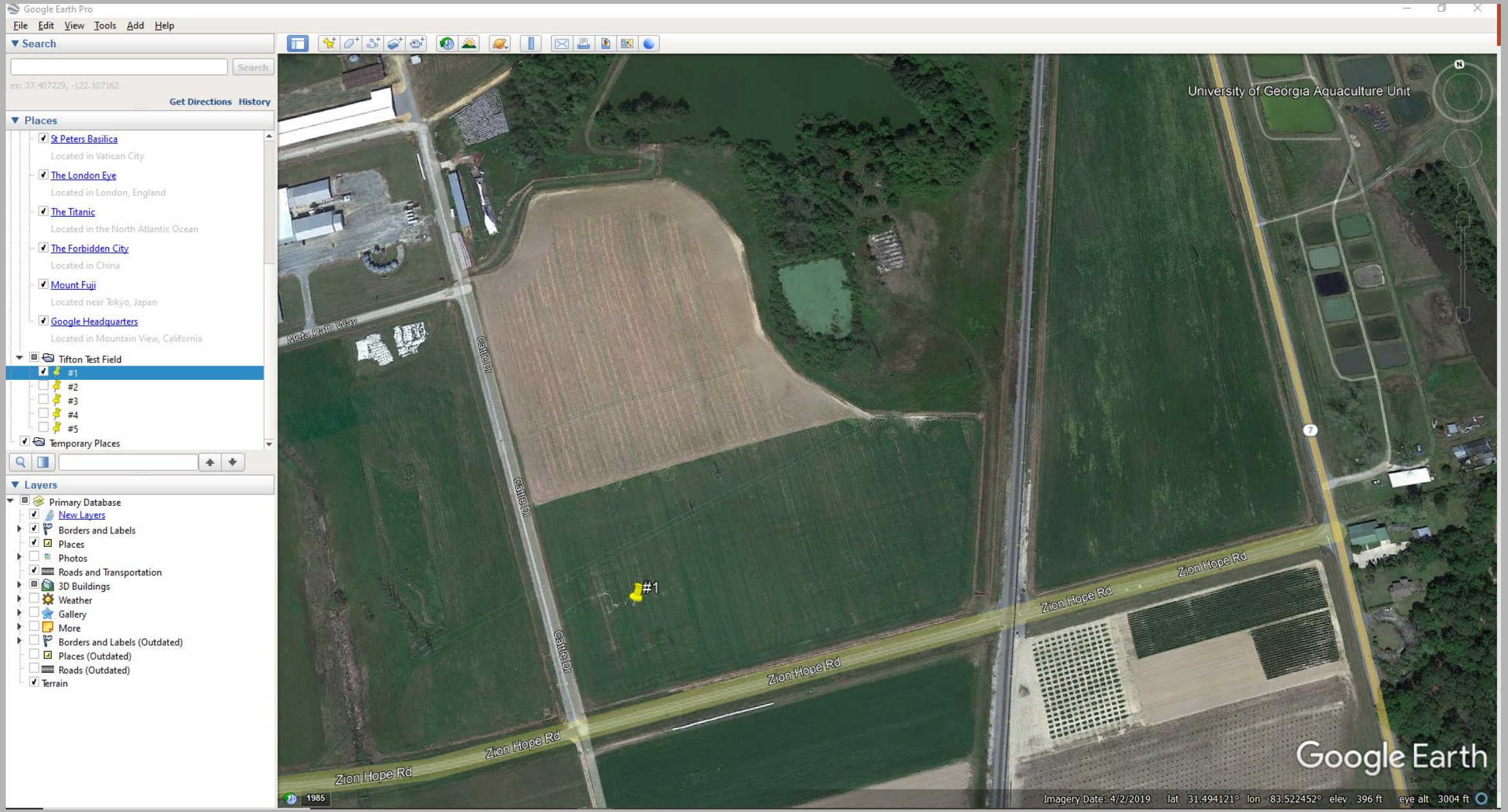


Now that we have identified the field boundary, we need to add sampling locations.

To add a new sample point, select the “Add Placemark” button at the top of the page, which looks like a push pin.

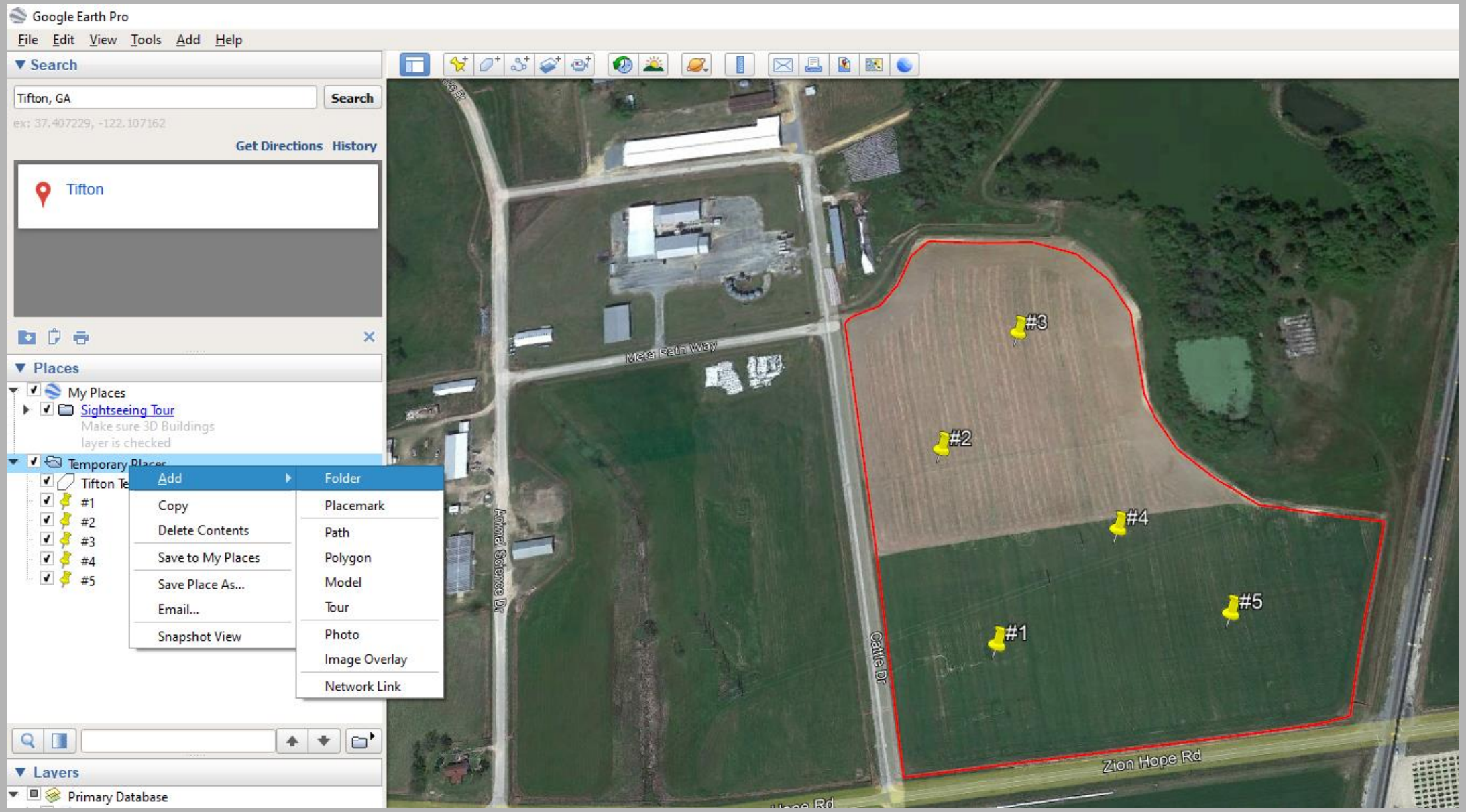


You will now see a pin in the middle of the screen. Drag the pin to the area of the field where you will begin sampling, and then rename the pin “#1”.

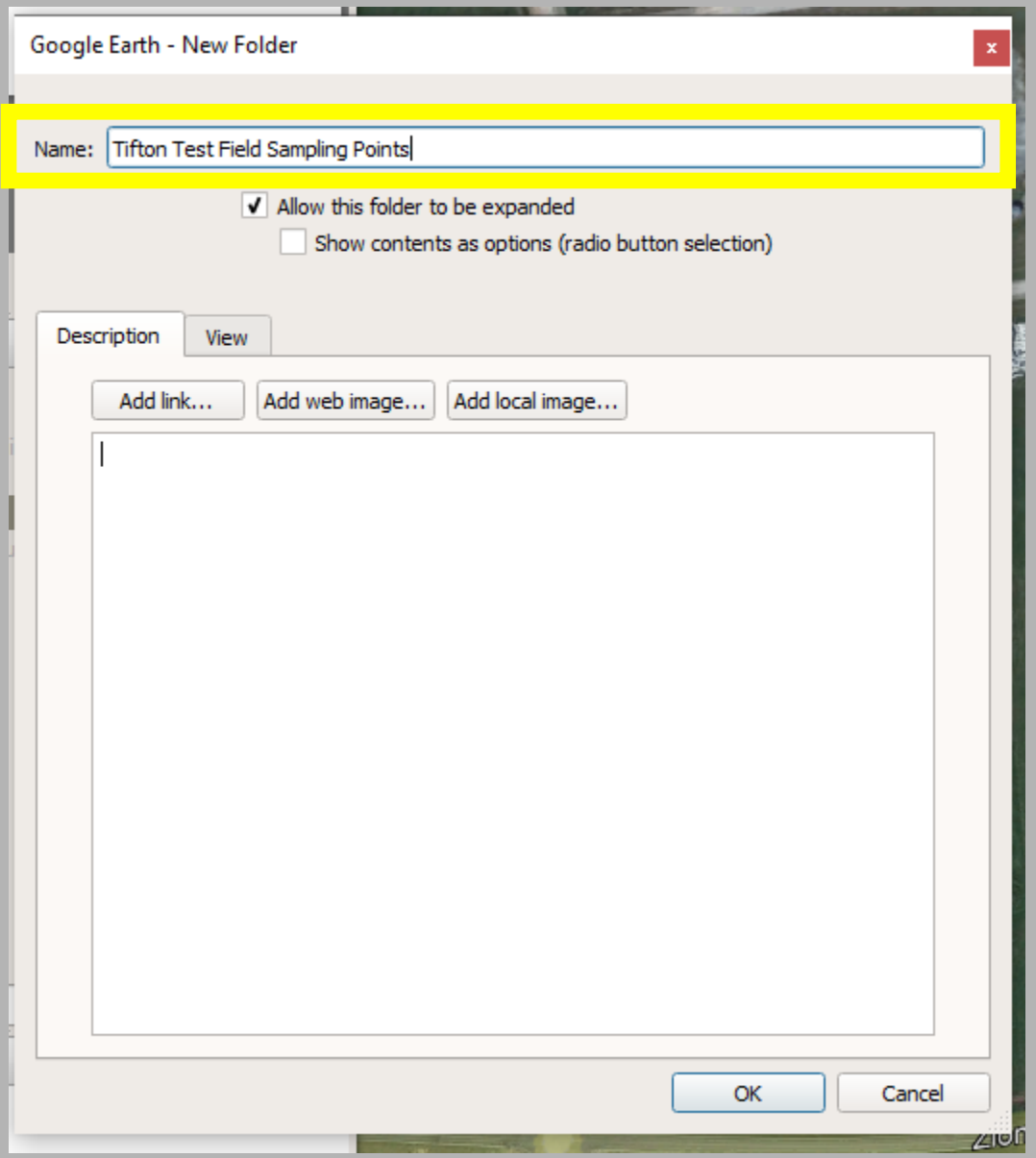


After clicking OK, you will now see your first sampling point location identified. Continue adding pins until the entire field area is covered. ***Remember, each soil sample should be a composite and represent no more than 10-acres.***

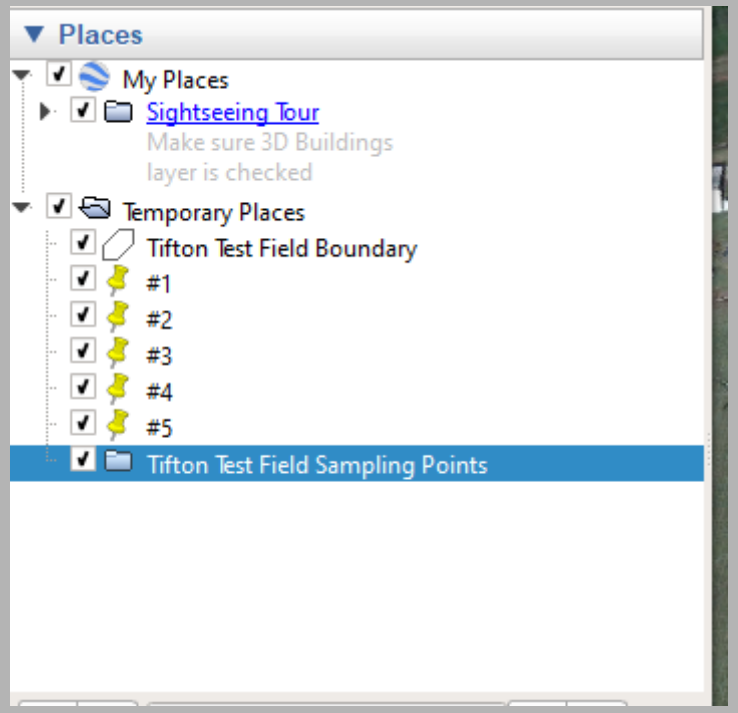
In this example, our field is 25-acres so we will be collecting 5 soil samples representing approximately 5-acres each.



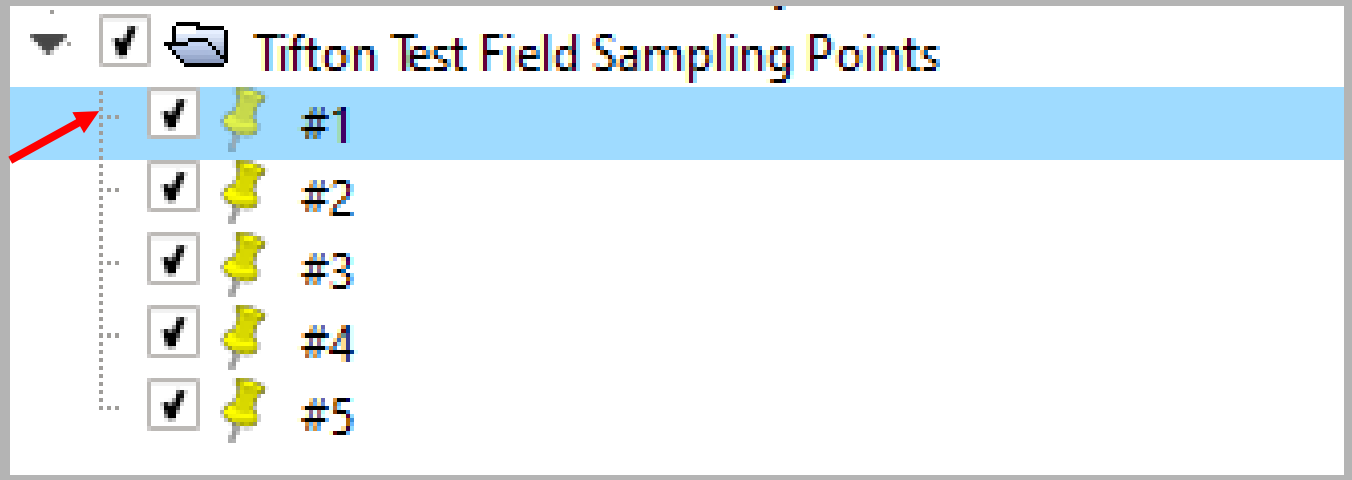
You will now need to save all these sampling points as a single Kml file. To do this, right click on the “Temporary Places” folder where these files are currently stored. Select “Add”, and then “Folder”.



Name this folder to identify the field and that this folder contains the sampling locations.

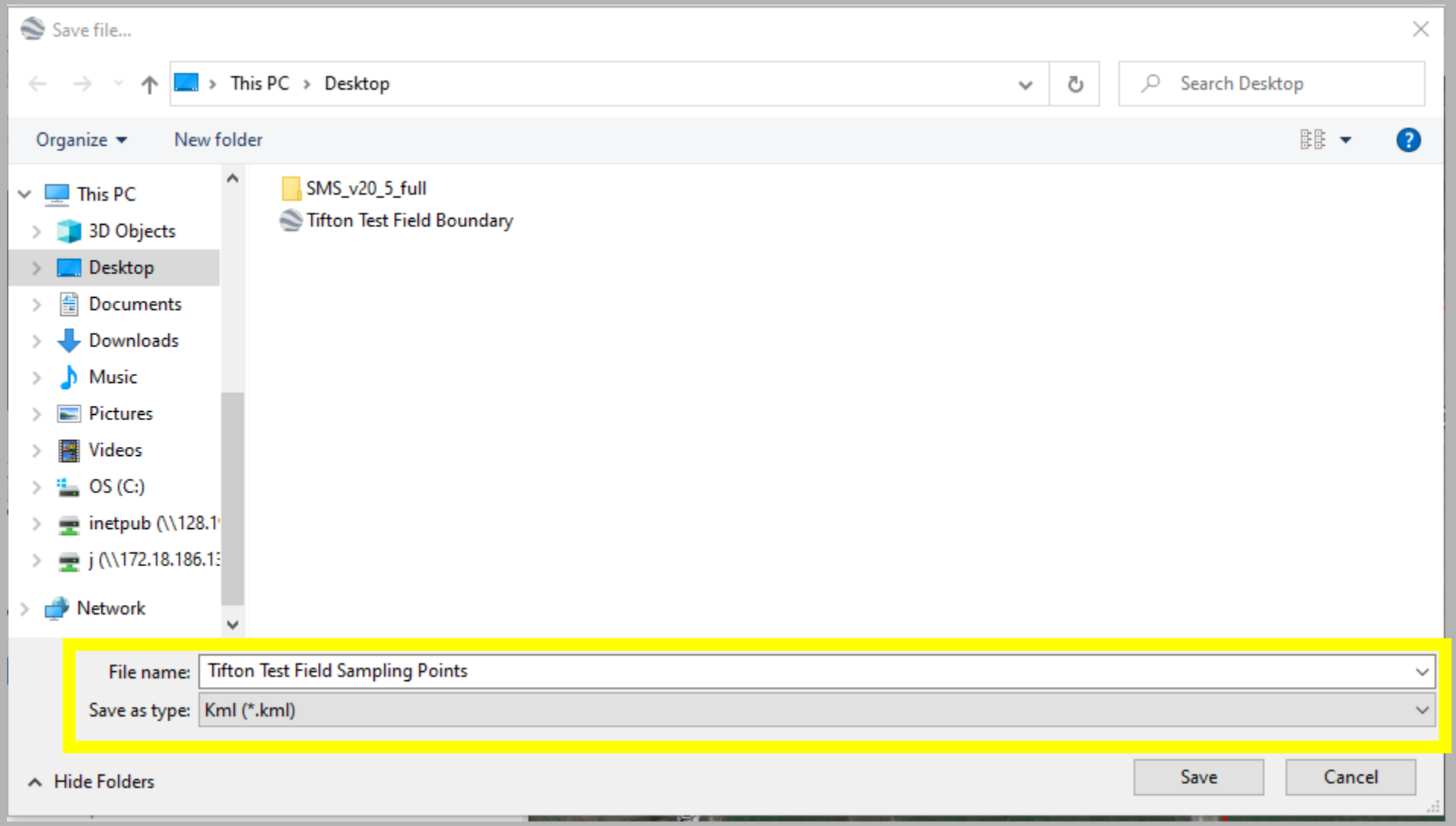


You will now see the folder you created in the column on the left.



Click on the icon for each point and drag it into the new folder. When complete, all the sampling points should be listed under the hierarchy of the sampling point folder as shown above.

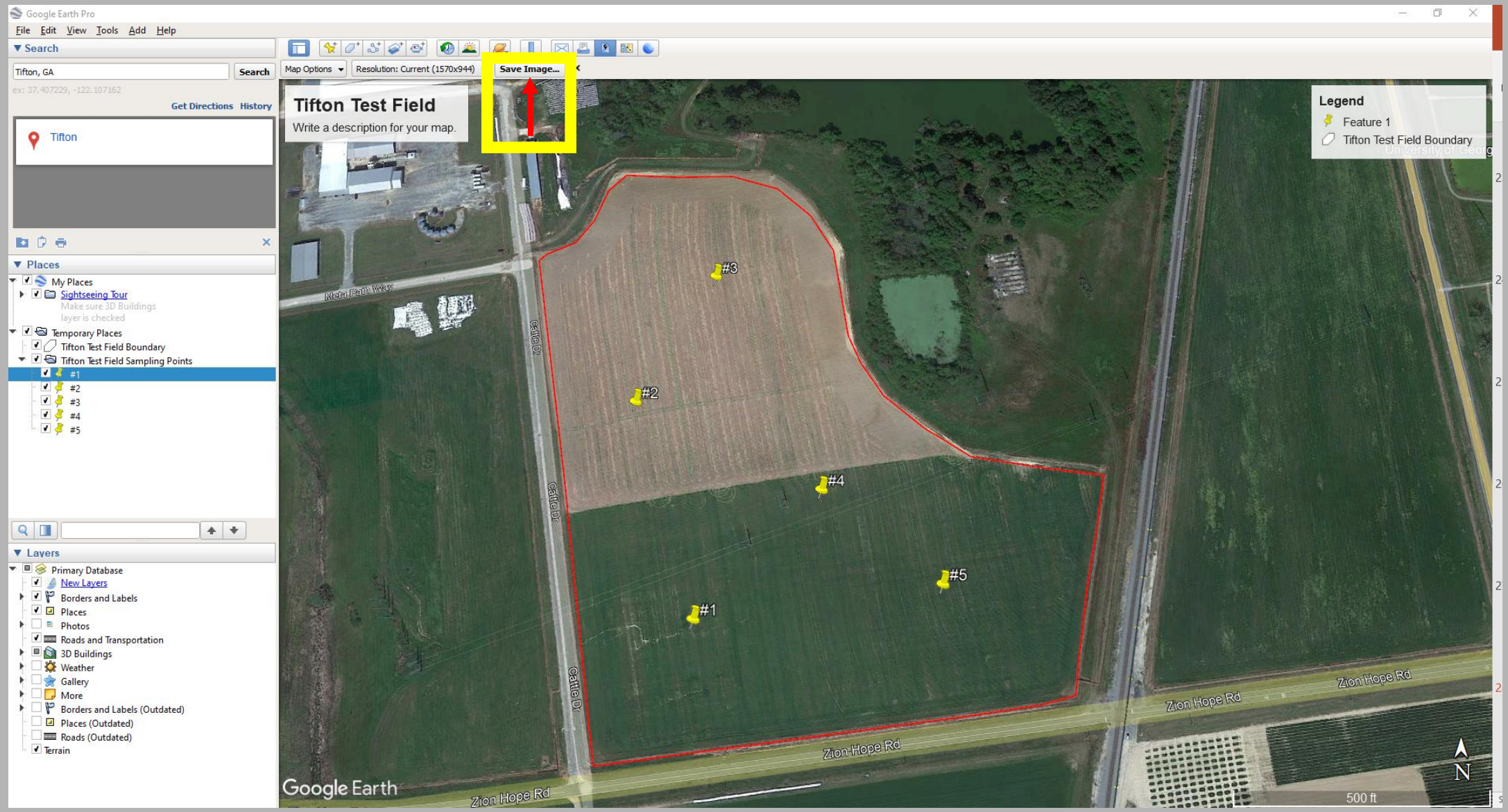
Now we can save the entire folder as a Kml just like we did for the boundary file. To do this, right-click on the folder and select “Save Place As”.



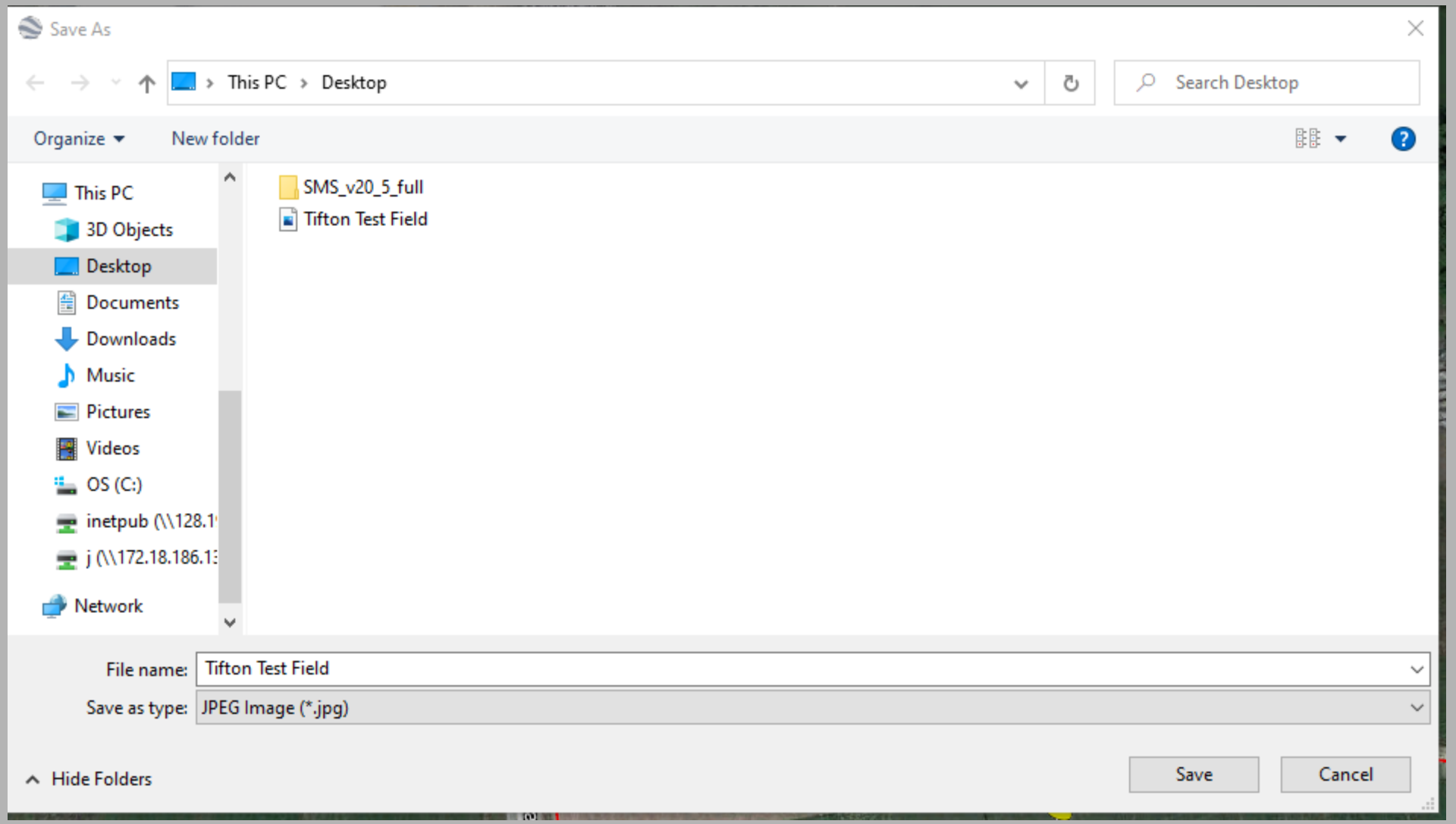
Save this file as a Kml in the same place you saved your field boundary file.

You have now saved your sampling points and field boundary as kml files. After you have collected your soil samples, you will email these two files (boundary and sampling locations) to ***soiltest@uga.edu***

To help with the sampling process and to add labels to the map, click on the “Save Image” icon at the top of the screen.



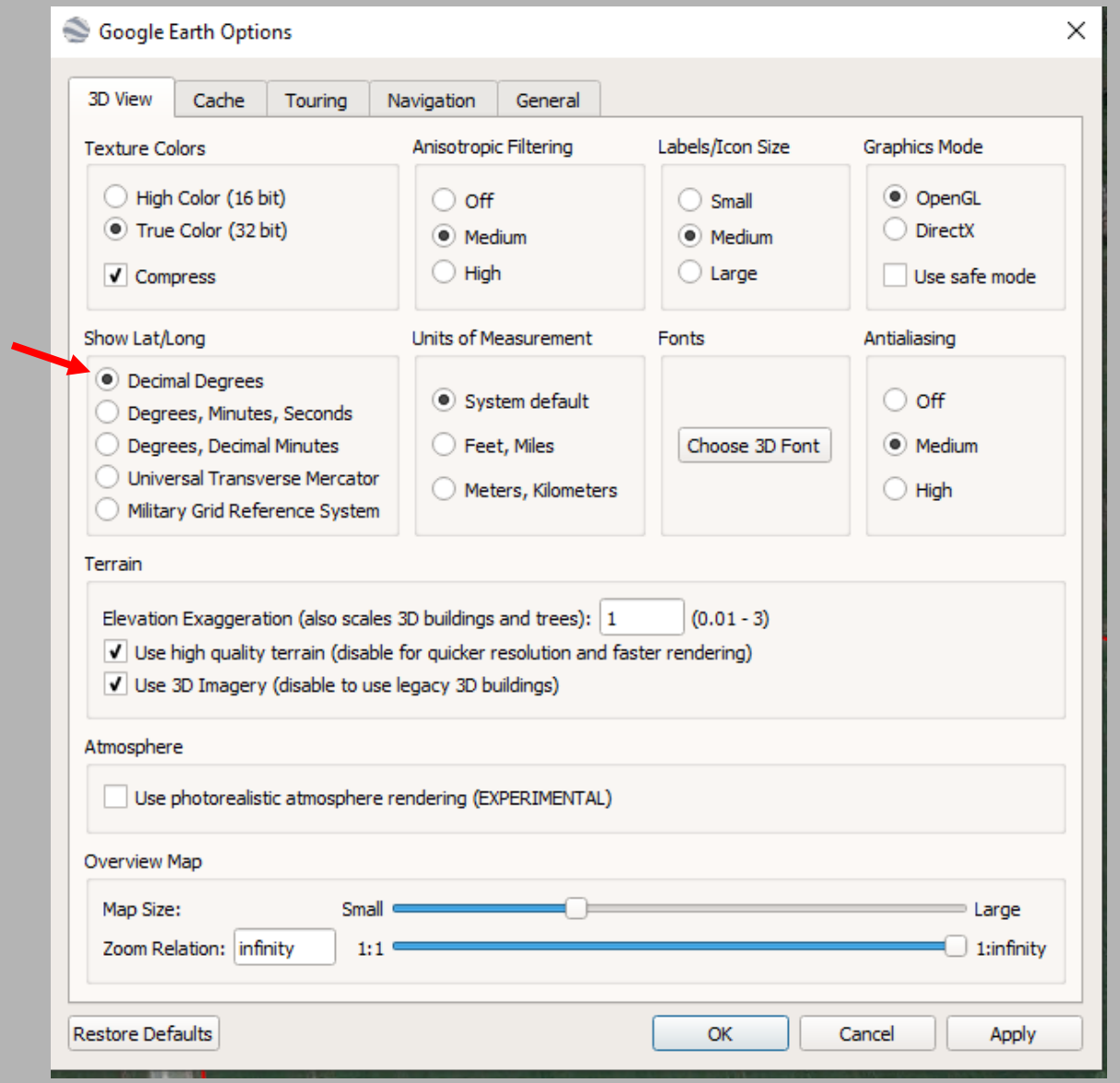
You can now add a title or description to your field map. When complete, select “Save Image” at the top of the screen.



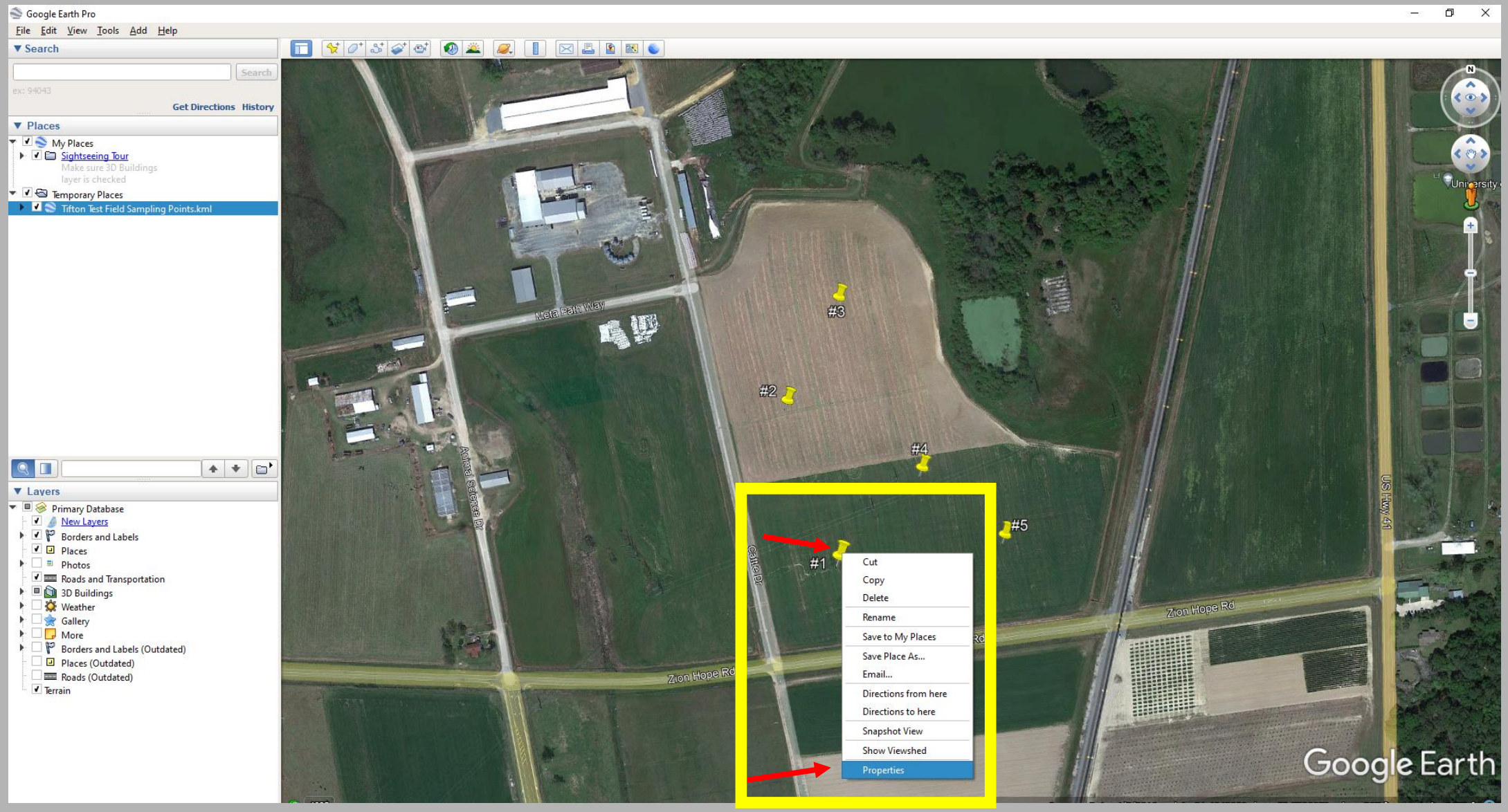
Name your field map as a jpg and then you can print it or send it as a picture to your phone to help locating the soil collection points.

Also, if you want to use your phone or handheld GPS to navigate to each sampling point you can save or write down the coordinates for each point.

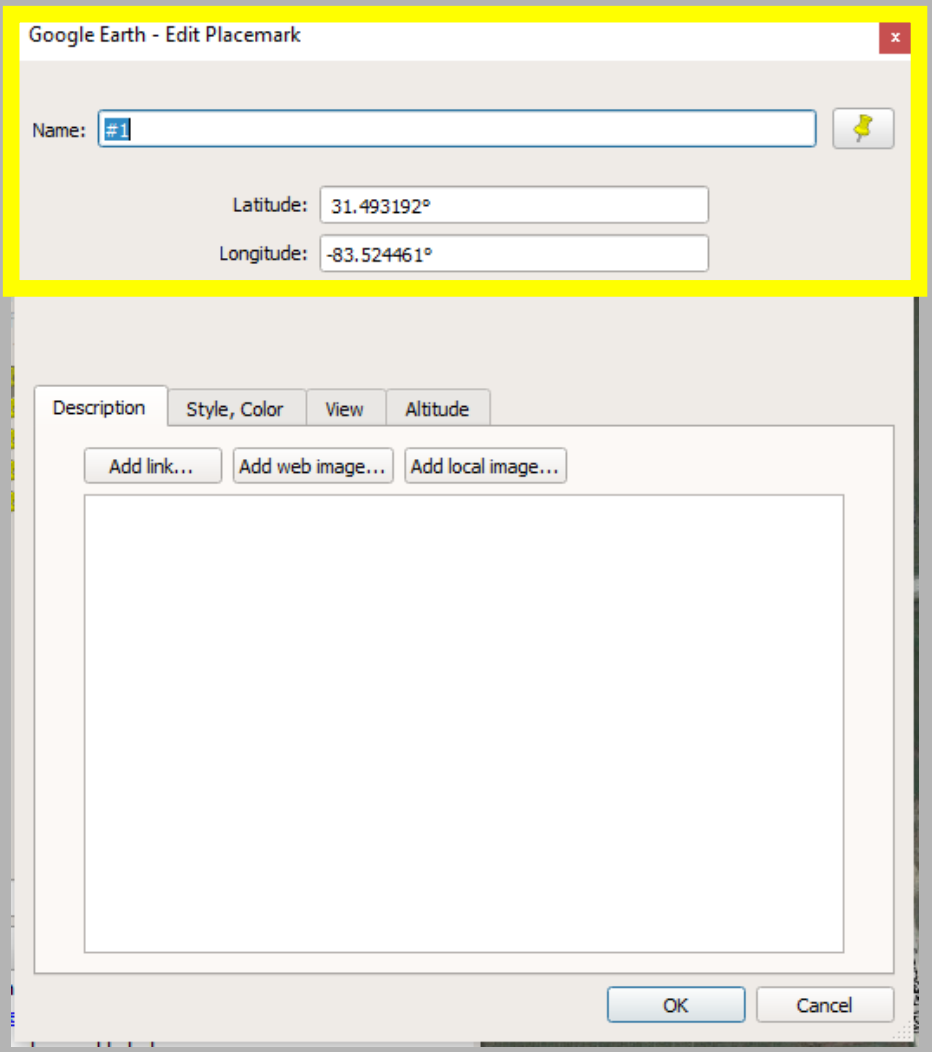
The first thing you will need to do is change the Lat./Long. units to decimal. Click “Tools” at the top of the screen, then select “Options”.



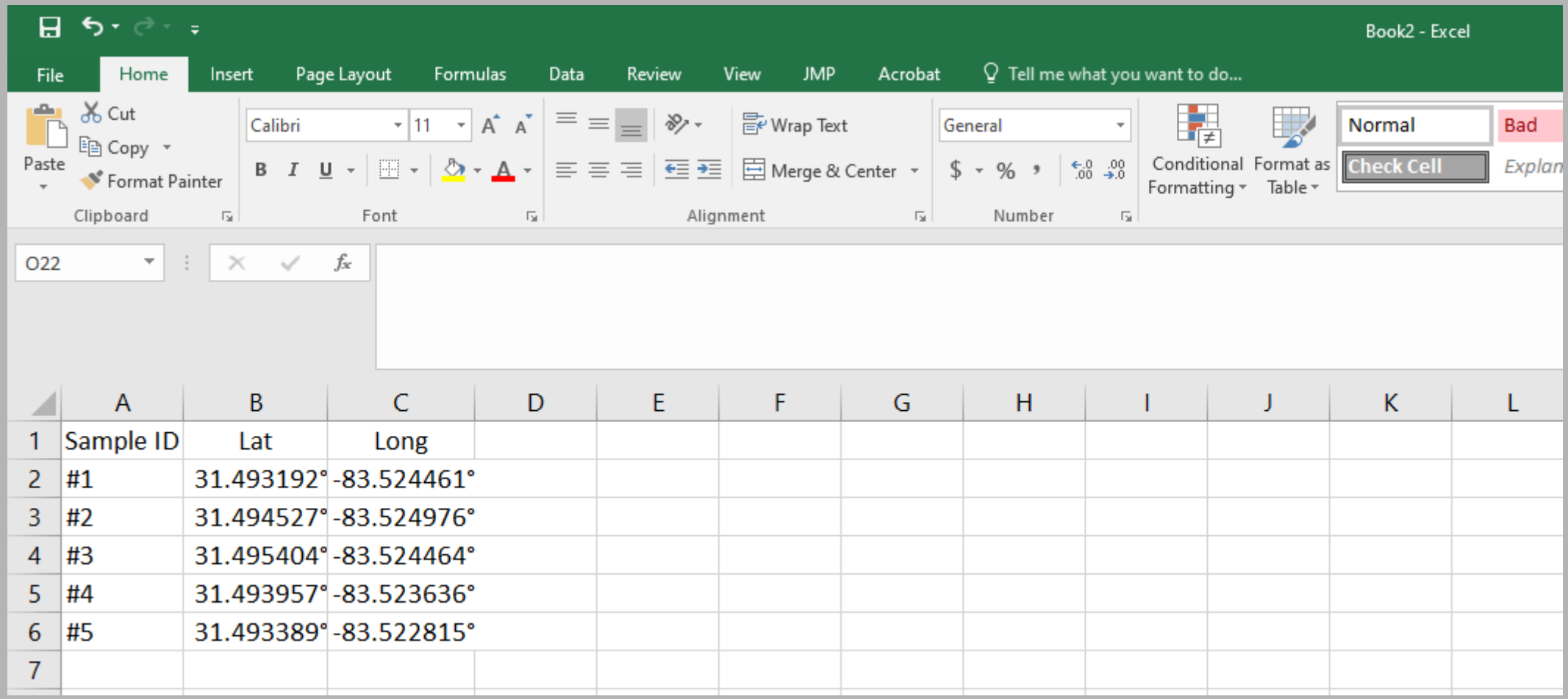
Under Lat/Long, make sure “Decimal Degrees” is selected.



To see the coordinates for each sample point, click on the sample point icon, and then select “Properties”

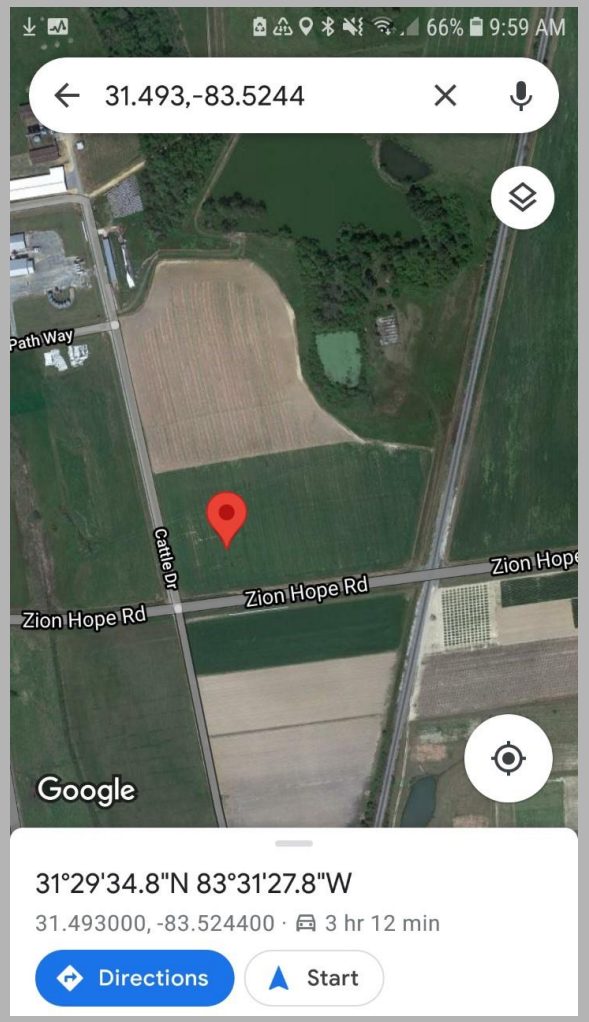


You will now see the coordinates for this point listed. Record these coordinates by writing them down or copy and pasting them to a spreadsheet.



	A	B	C	D	E	F	G	H	I	J	K	L
1	Sample ID	Lat	Long									
2	#1	31.493192°	-83.524461°									
3	#2	31.494527°	-83.524976°									
4	#3	31.495404°	-83.524464°									
5	#4	31.493957°	-83.523636°									
6	#5	31.493389°	-83.522815°									
7												

Once you get you coordinates entered, you can print this off and take it with you sampling.



Once in the field, open Google Maps or Apple Maps on your phone. Then type in the coordinates for the first point (don't include the N or W designations).

You can then press "Start" to navigate to your first sampling location. Continue this process until all samples have been collected.

After you have collected all your samples, make sure to email both kml files to ***soiltest@uga.edu***