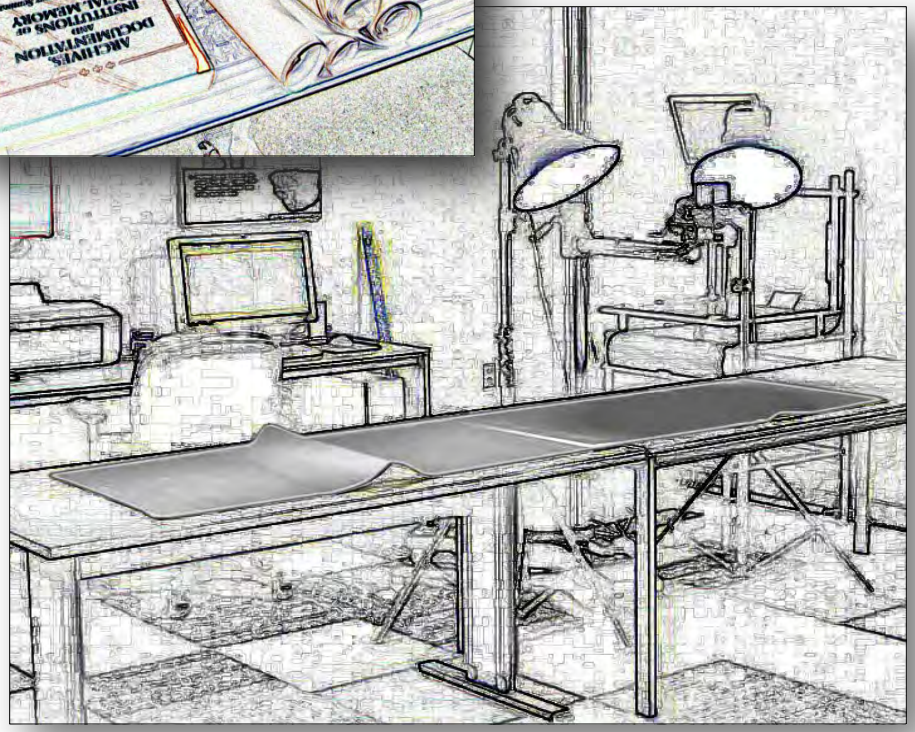
Digitizing Oversized Documents Operational Guide



Step-by-step procedural guide for digitizing oversized documents and maps

Methods
Equipment
Procedures
Post Processing
Stitching
File Configurations

(Considerations)

Size
Length + Width

Condition
Flat, Curled, Fragile, etc.

Digitizing method
Scanner vs. Camera

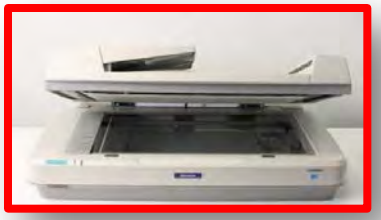
Post Processing
Enhancement and Stitching

File size/format
Size vs. Resolution

Methods Overview

Scanners

Documents up to (11” x 17”) can be scanned completely on the Epson GT20000.
Documents 11” x any length can be scanned in overlapping sections.
The HP large format scanner in St. Louis can scan 48” wide x any length documents.

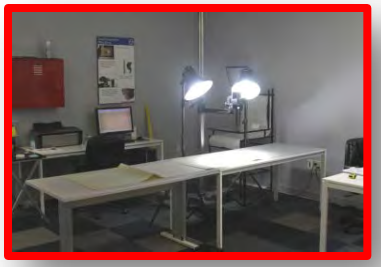


Copy Stand Method

Documents larger than 11” x 17” but not larger than the copy table surface can be photographed using the digital camera setup.

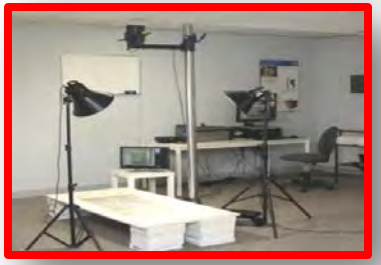
Table Top Method

Maps, documents, and other materials larger than the copy stand surface can be laid out on top of several table tops and must be shot with the digital camera positioned above it.
Long documents must be shot in overlapping sections to be digitally stitched later.

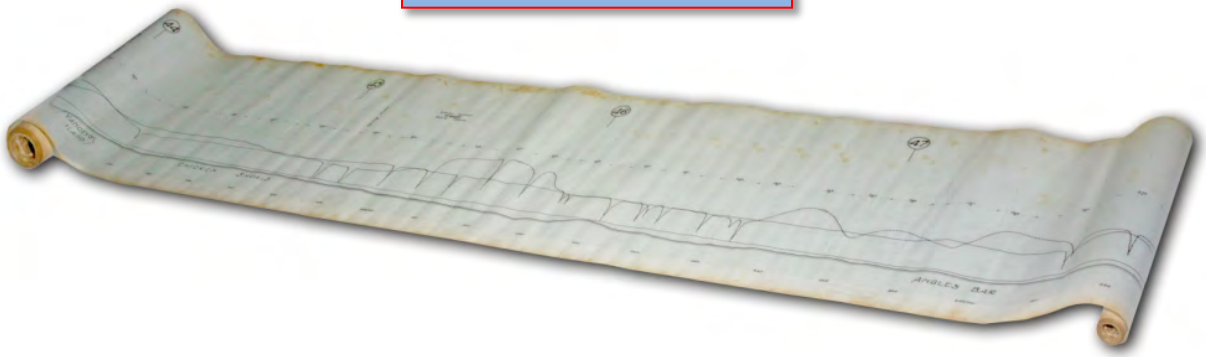


Floor Method

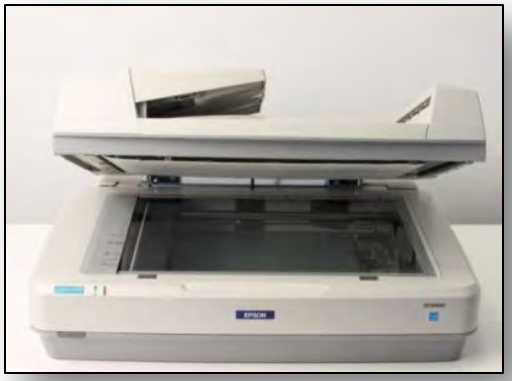
Maps, documents, and other materials larger than the copy stand surface can be laid on the floor with the digital camera positioned above it.
Long documents must be shot in overlapping sections to be digitally stitched later.

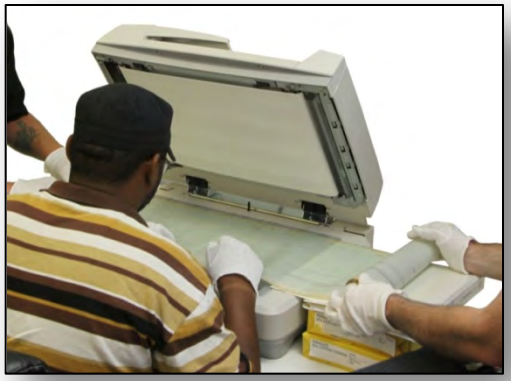


Scanning Method



Large documents measuring 11 inches in width by any length can be scanned using the GT20000 scanner. Refer to Scanning Operational Guide for more scanning instructions.

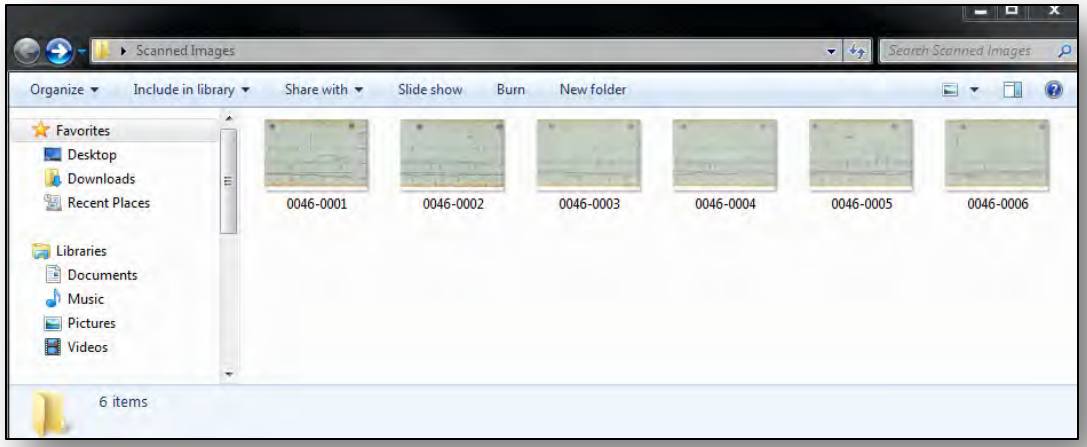




Scan individual overlapping images moving the document the entire length.

NOTE: This method may require several lab technicians working together to align and move the document for accurate overlapping scans.

Scanning Method



Images are saved in the **(Scanned Images)** folder.

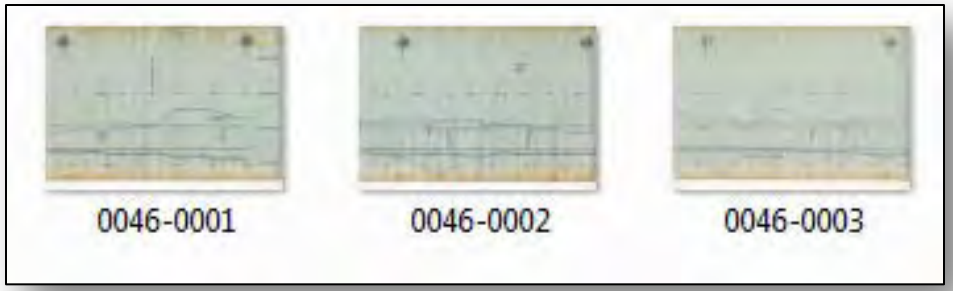
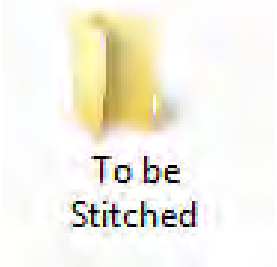


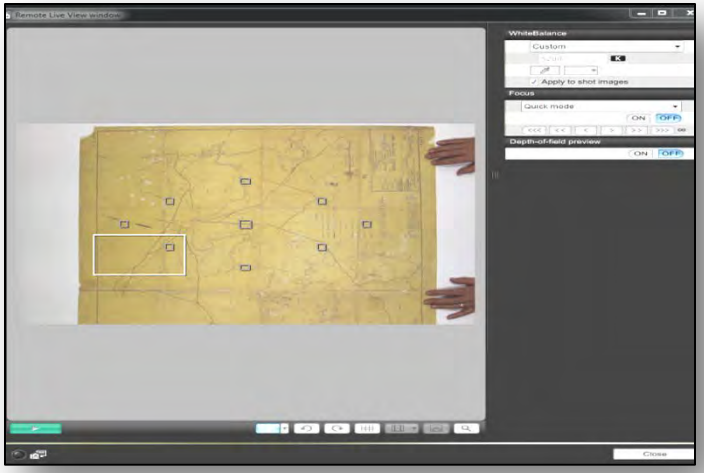
Image file names are preset by the lab technician using the scanner software's naming configuration.

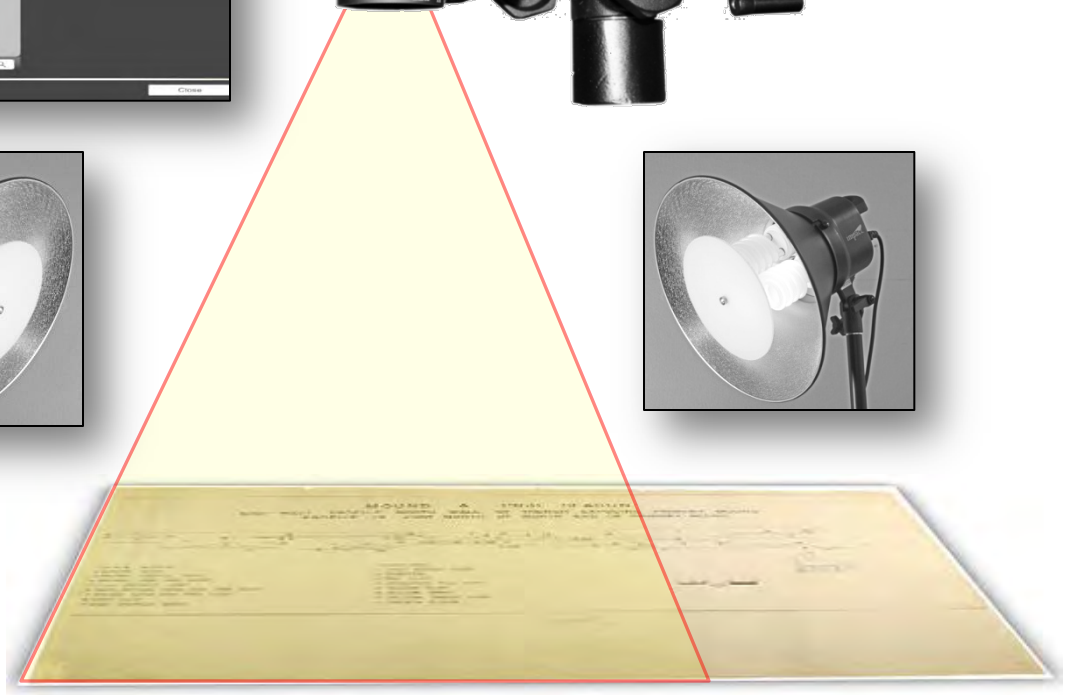
Move the scanned images into a designated **(To be stitched)** folder.



Camera Methods

All of the camera methods in this guide involve the use of the Canon 50D digital camera mounted on the camera stand and controlled by a computer with the dedicated EOS software program in each VCP lab.

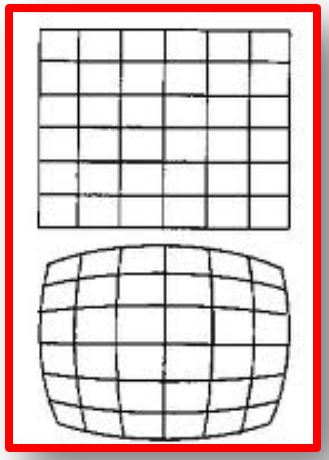




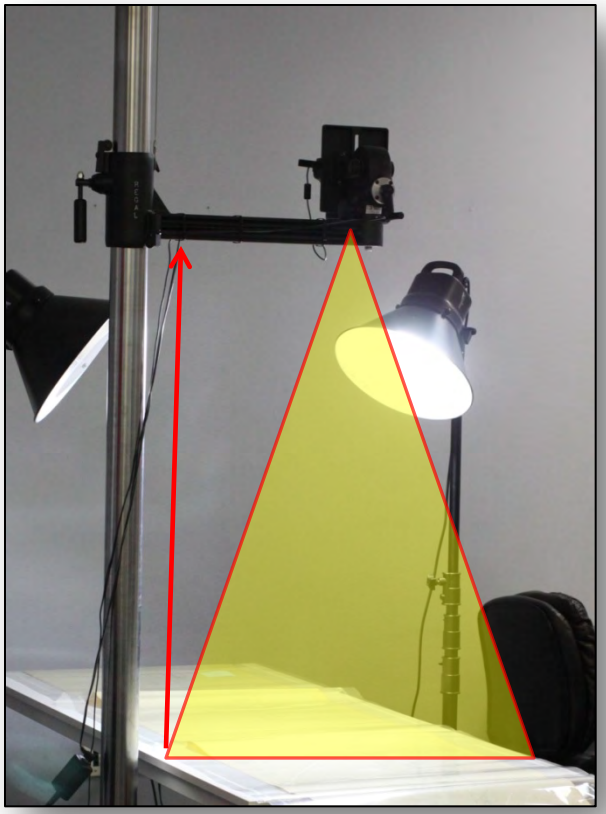
Camera Methods

When using the zoom lens adjust the focal length setting between **(35mm and 50mm)** to prevent “barrel distortion”.

It may be necessary to elevate the camera higher on the camera stand to ensure that the document is positioned accurately within the frame.

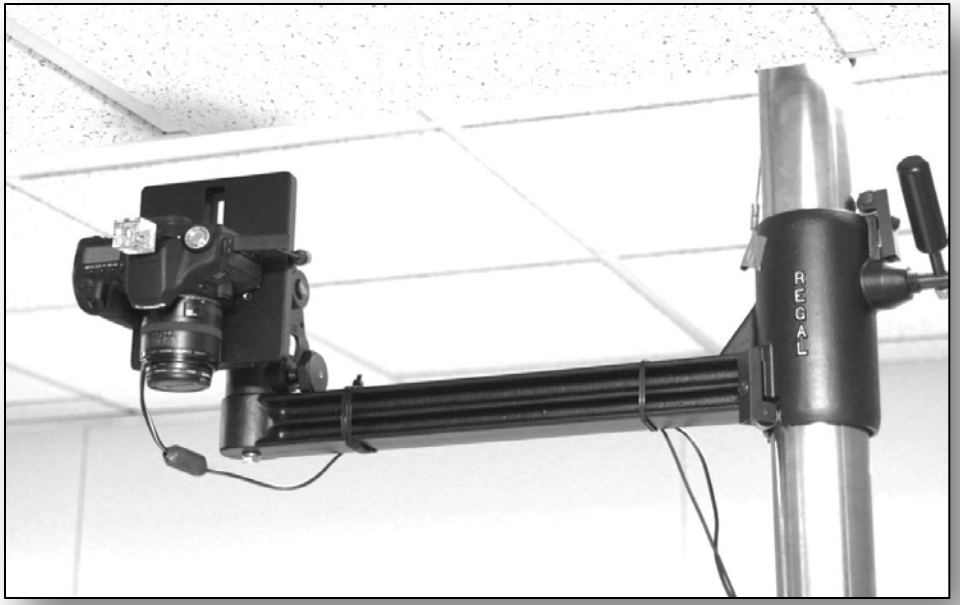


Barrel Distortion



Camera Methods

Camera must be **level**



Document **surface** must be **level**

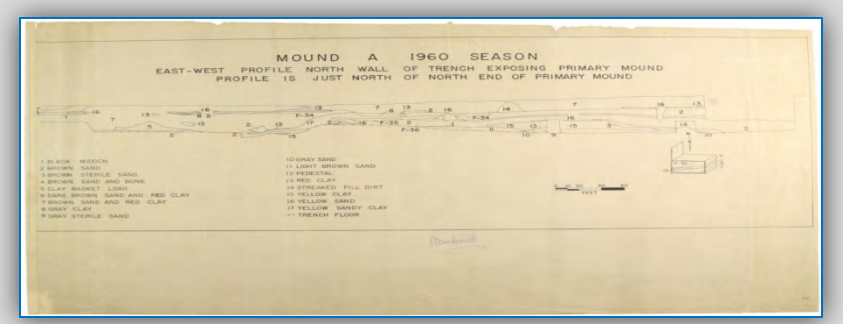
Copy Stand Method

Equipment Needed:

- Digital camera mounted on the camera stand.
- 28mm to 105mm zoom lens.
- Two lights on light stands.
- 36” x 24” white foam core board.

Procedure: (36” x 24” or smaller)

1. Take a reference photograph of the entire document.
2. Position the camera stand closer to the front of the copy stand.
3. Position two lights on light stands on both sides of the copy stand at equal distances and heights.
4. Place a 36” x 24” white foam core board on top of the plexiglas copy stand surface.
5. Position an oversized document on top of the foam core board.
6. Utilizing the EOS utility software's “Live View” function, compose the image so that the document fills the frame.
7. Capture the image.
8. Move the image into the Oversized Documents folder.
9. Re-name the captured image with the asset number.
10. Move the re-named image into the project folder.

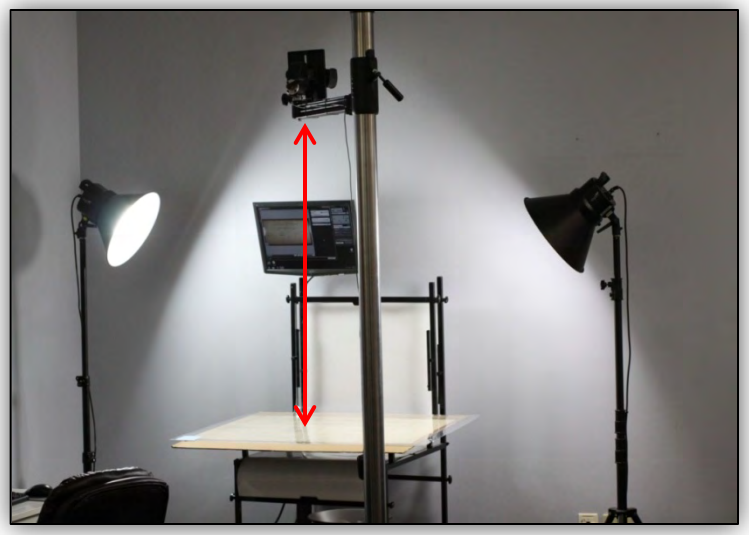


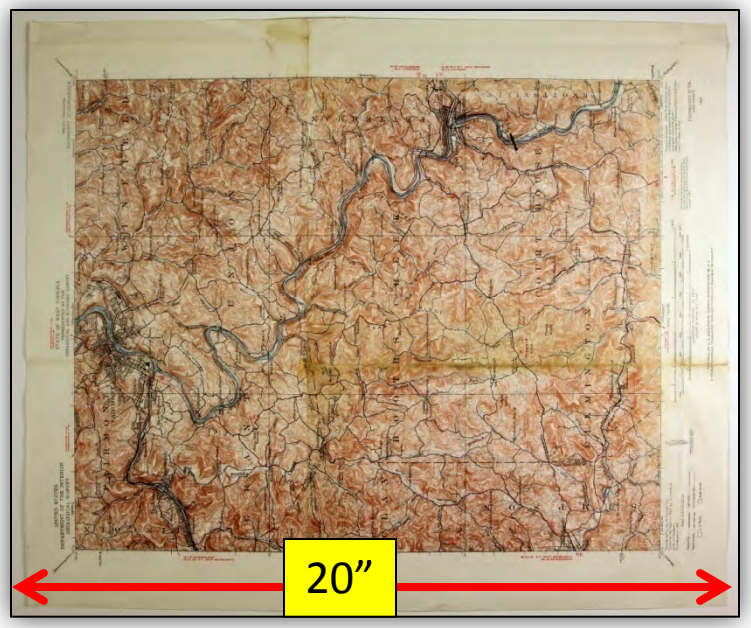
Procedure: (24” x any length)

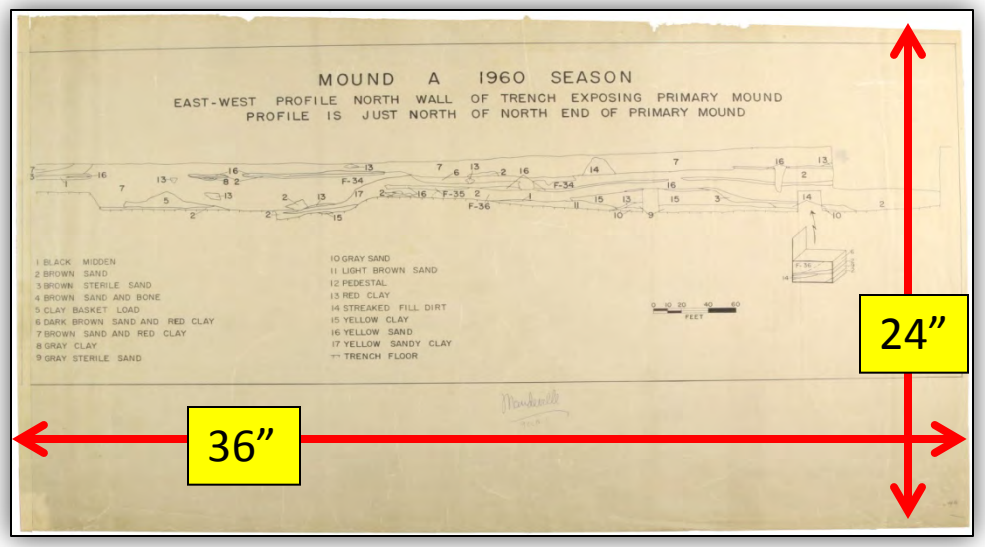
Follow steps 1 – 6 as above.

7. Capture overlapping images as needed of entire document.
8. Move the images into the Oversized Documents folder.
9. Re-name the files with the asset number (plus a file extension of .1, .2, .3, etc.) for each sequential overlapping image.
10. Move all images into a “To be stitched” folder within the project name folder.

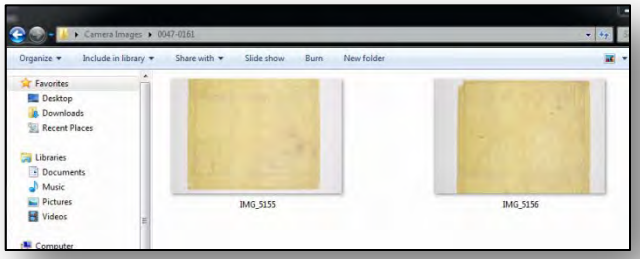
Copy Stand Method





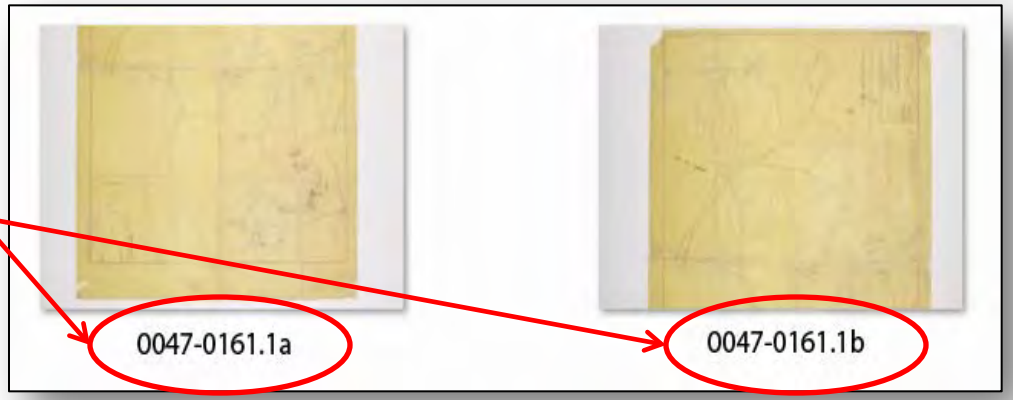


File Naming Configuration

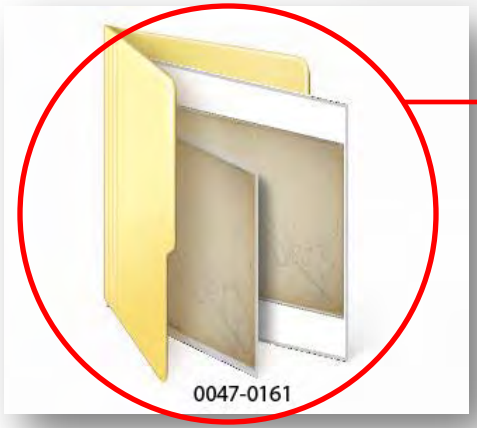


1. Captured images are saved in the (**Camera Images**) folder by default.

2. **Rename** image files with the asset number. For multiple images that need to be stitched, add the (**view extension**) to the asset number.



3. **Move** the renamed images into a folder named with the asset number.



4. **Move** the renamed folder into a (**to be stitched**) folder.

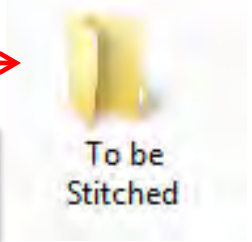


Table Method

Equipment Needed:

- Digital camera mounted on the camera stand.
- 28mm to 105mm zoom lens.
- Two lights on light stands.
- (1 or 2) 6’ white tables.

Procedure: (Large documents over 36” in length)

1. Position the camera stand so that the swing arm (camera mount) is positioned over the document.
2. Position two lights on light stands on both sides of the camera stand at equal distances and heights.
3. Utilizing the EOS utility software's “Live View” function, compose the image so that the document fills the frame.
4. Capture overlapping images as needed of entire document.
5. Move the images into the Oversized Documents folder.
6. Re-name the files with the asset number (plus a file extension of .1a, .1b, .1c, etc.) for each sequential overlapping image.
7. Move all images into a “To be stitched” folder within the project name folder.

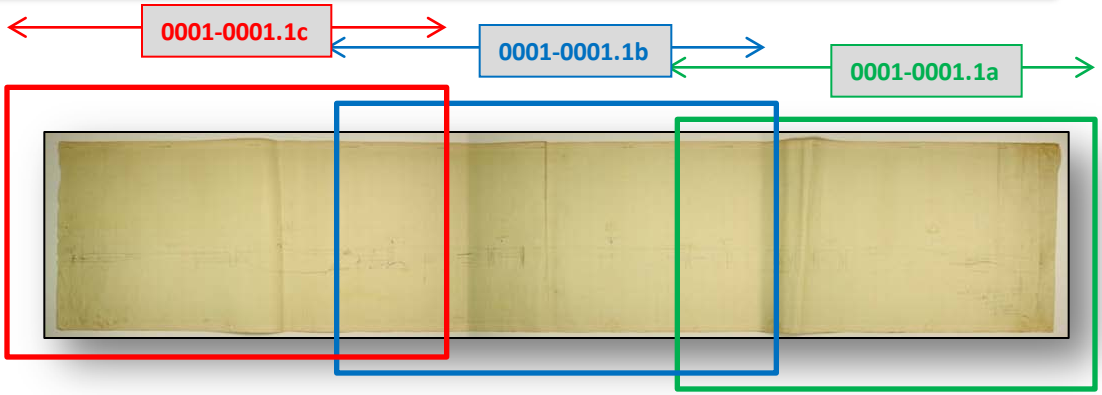


Table Method

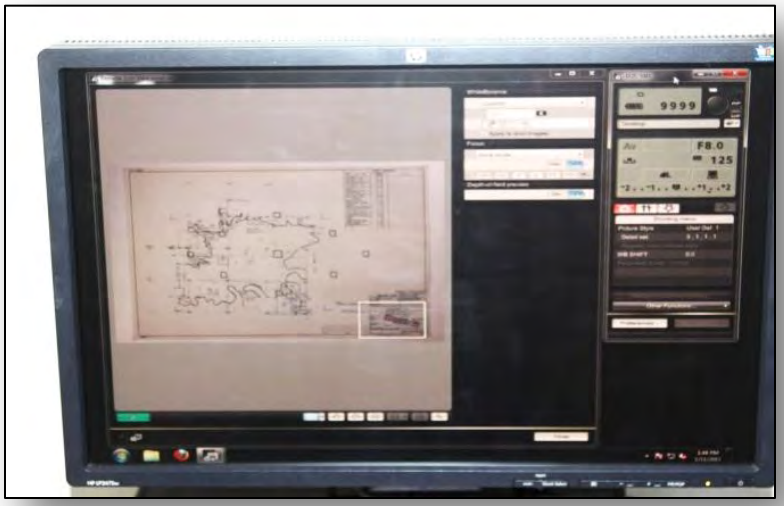
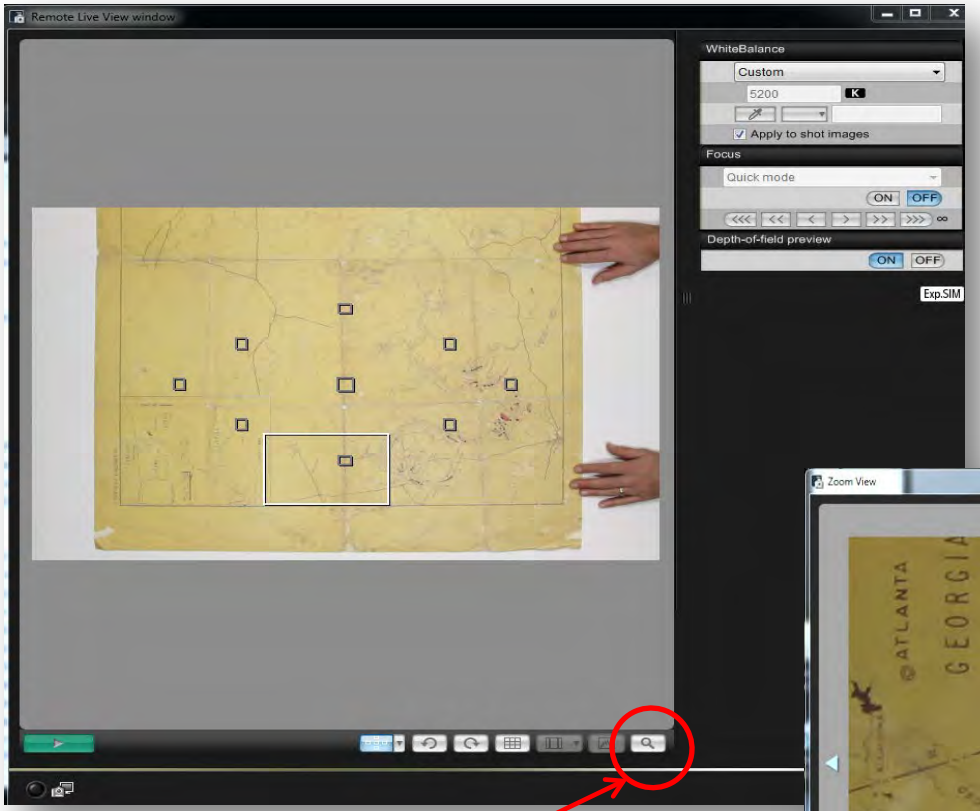


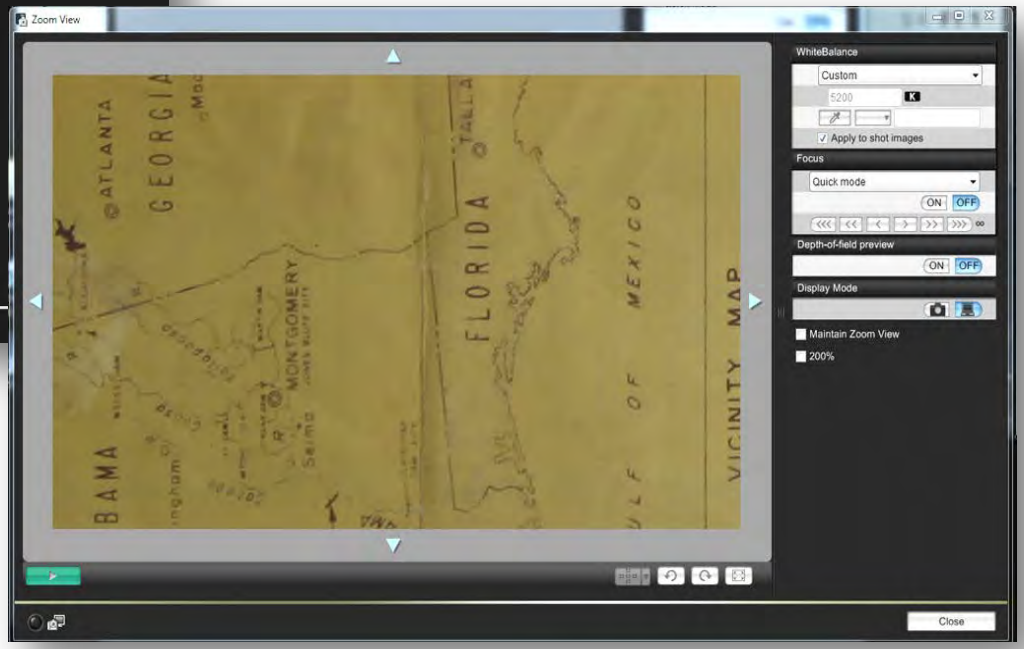
Table Method



1. **Align** first section of the document utilizing the LiveView function within the EOS utility software.

2. **Ensure** that the edge of the document is visible.

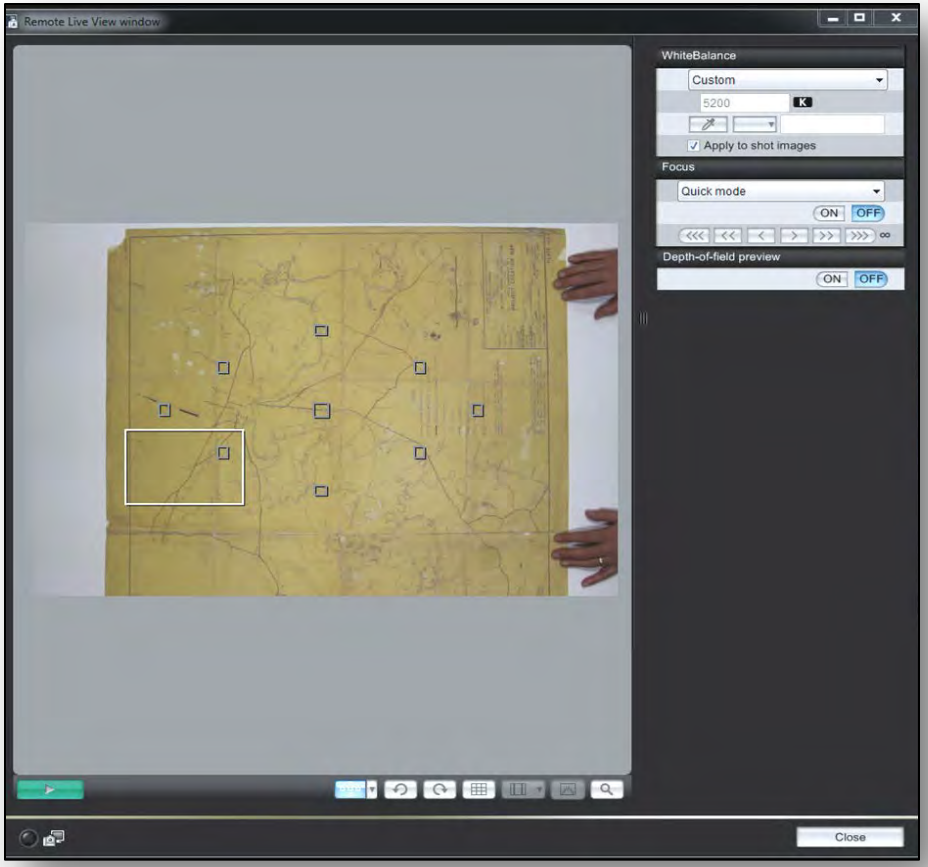
3. **Capture** the image.



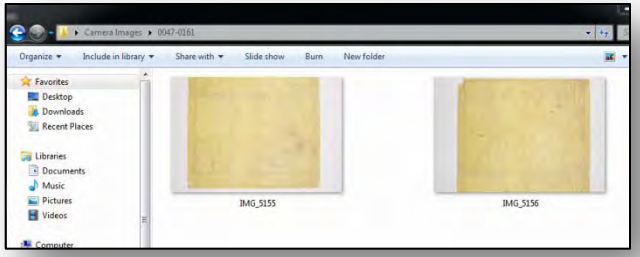
Use the (**Zoom View**) function to adjust focus.

Table Method

1. **Align** the second section of the document using the Live View function within the EOS utility software.
2. **Make** sure there are overlapping reference points visible in both images.
3. **Ensure** that the edge of the document is visible.
4. **Capture** the image.

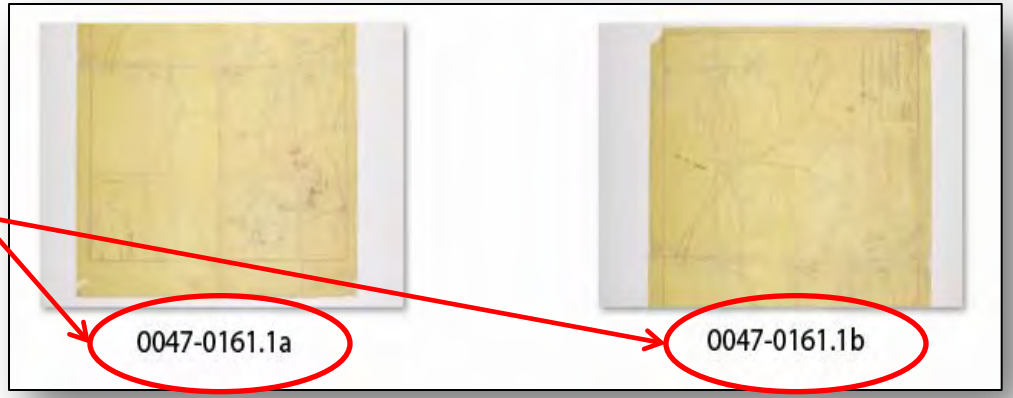


File Naming Configuration

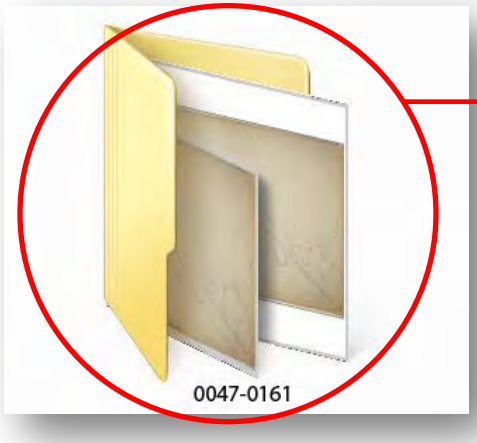


1 Captured images are saved in the (**Camera Images**) folder by default.

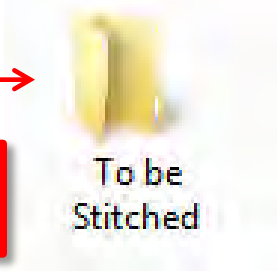
2 **Rename** image files with the asset number. For multiple images that need to be stitched, add the (**view extension**) to the asset number.



3 **Move** the renamed images into a folder named with the asset number.



4 **Move** the renamed folder into a (**to be stitched**) folder.

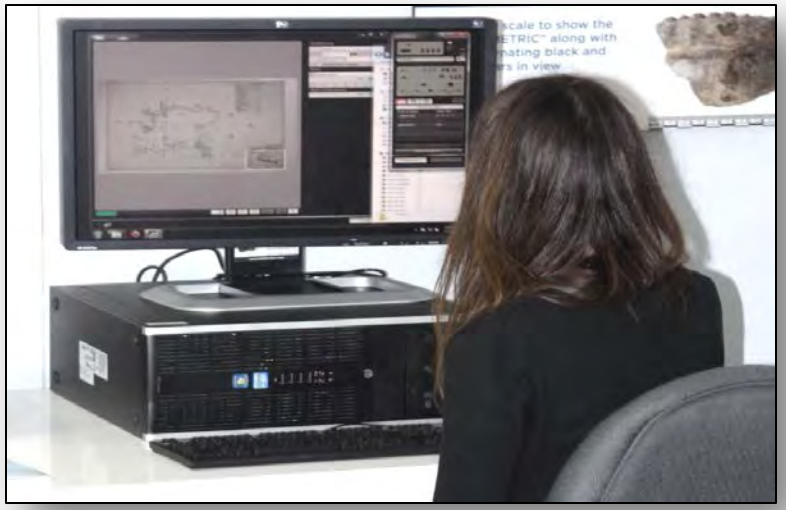


Floor Method

- Documents larger than 42 inches will require a two person approach.

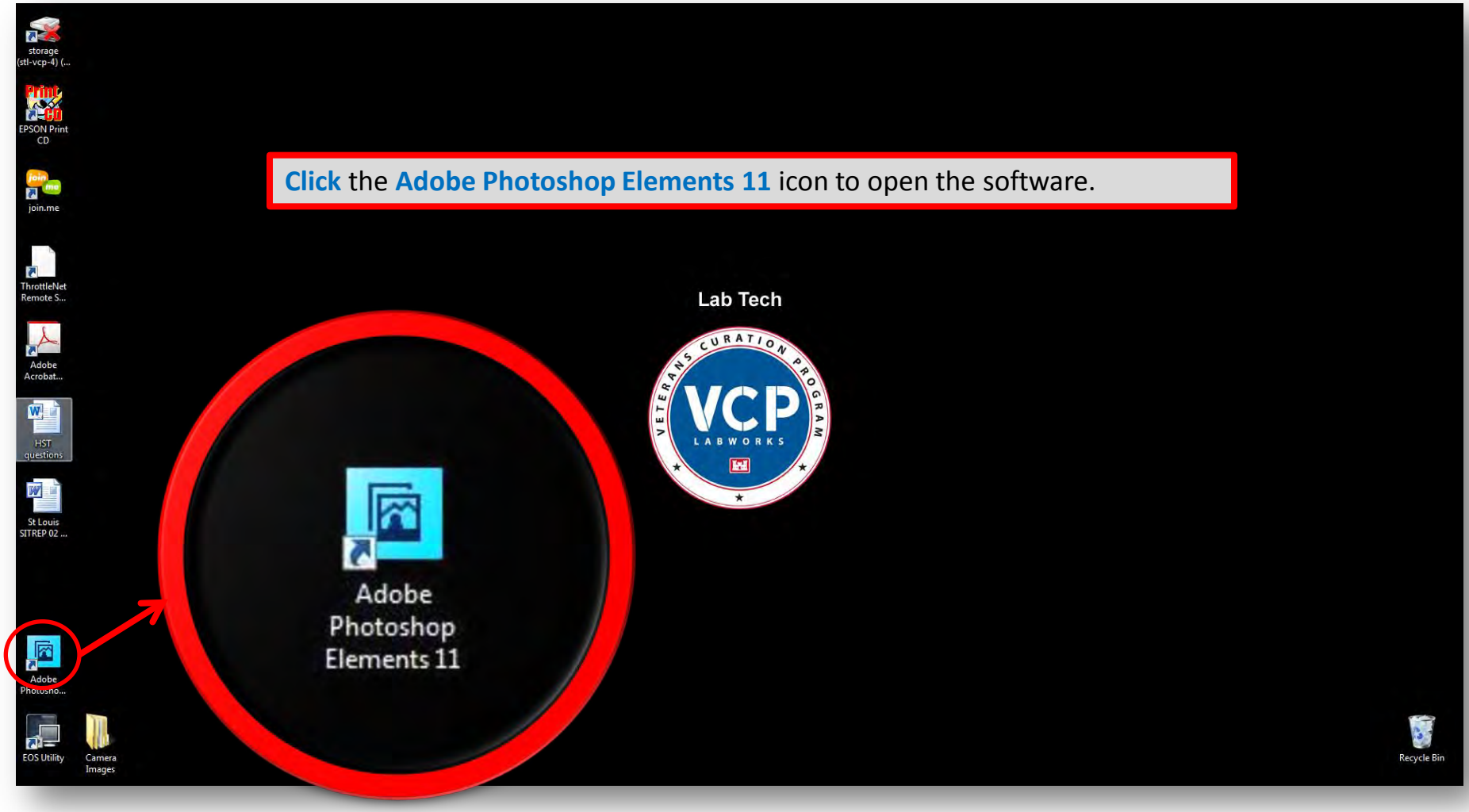
- One person is responsible for aligning the document and positioning the camera, while the other operates the camera remotely from the main computer.

- It's important check the focus on every shot.

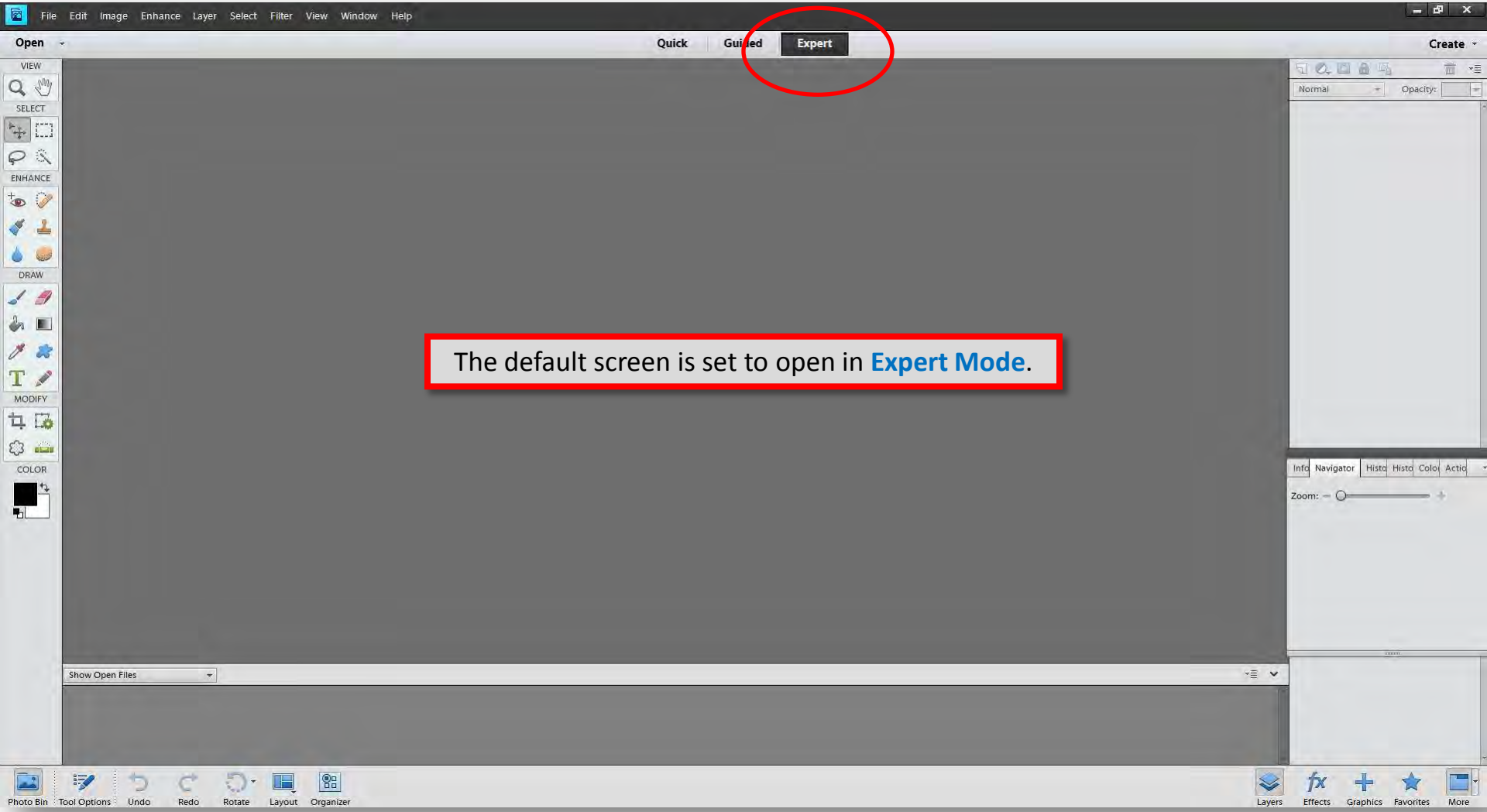


The floor method should be used when shooting very large documents.

Digital Stitching using Adobe Photoshop Elements (Photomerge Method)

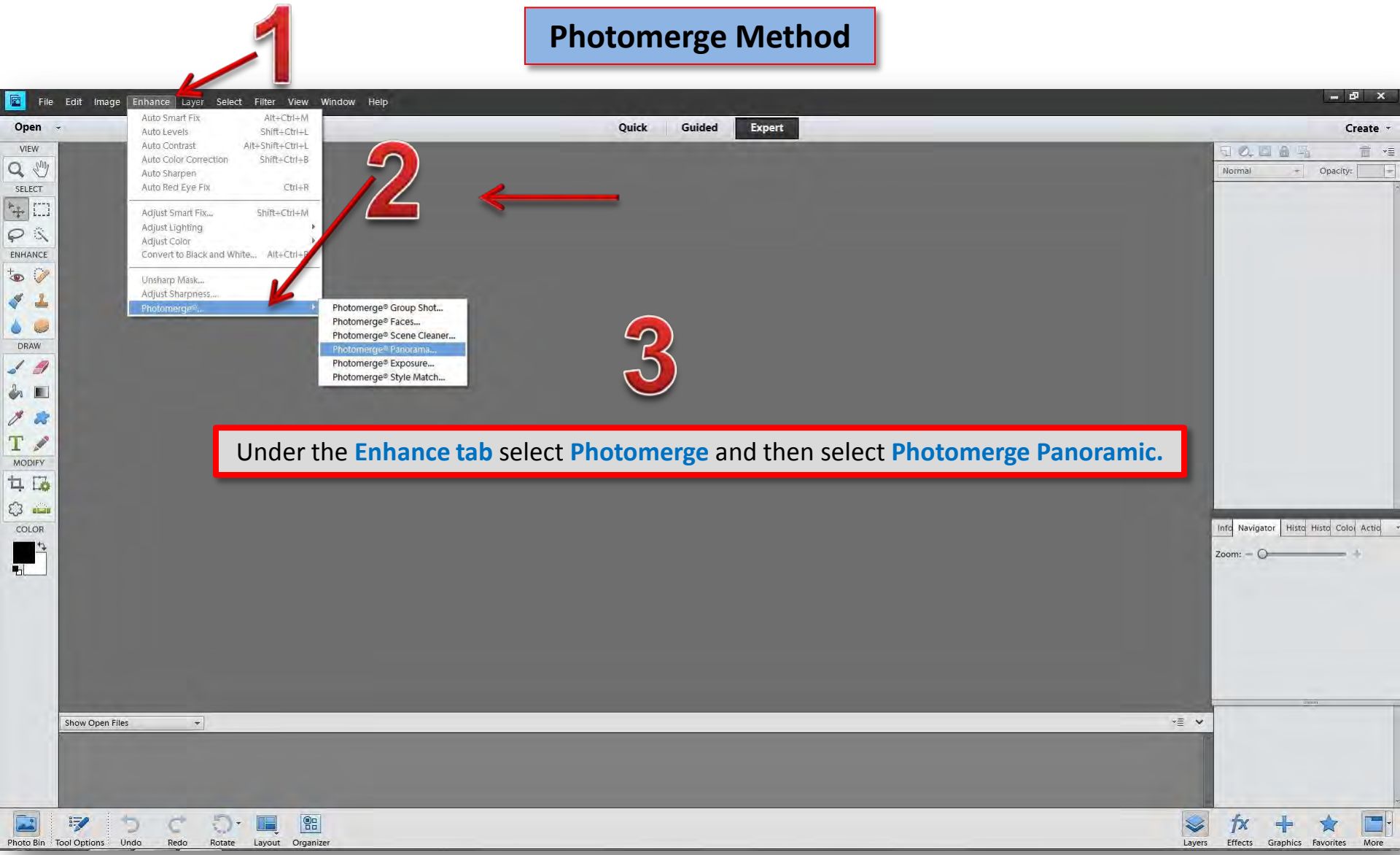


Photomerge Method

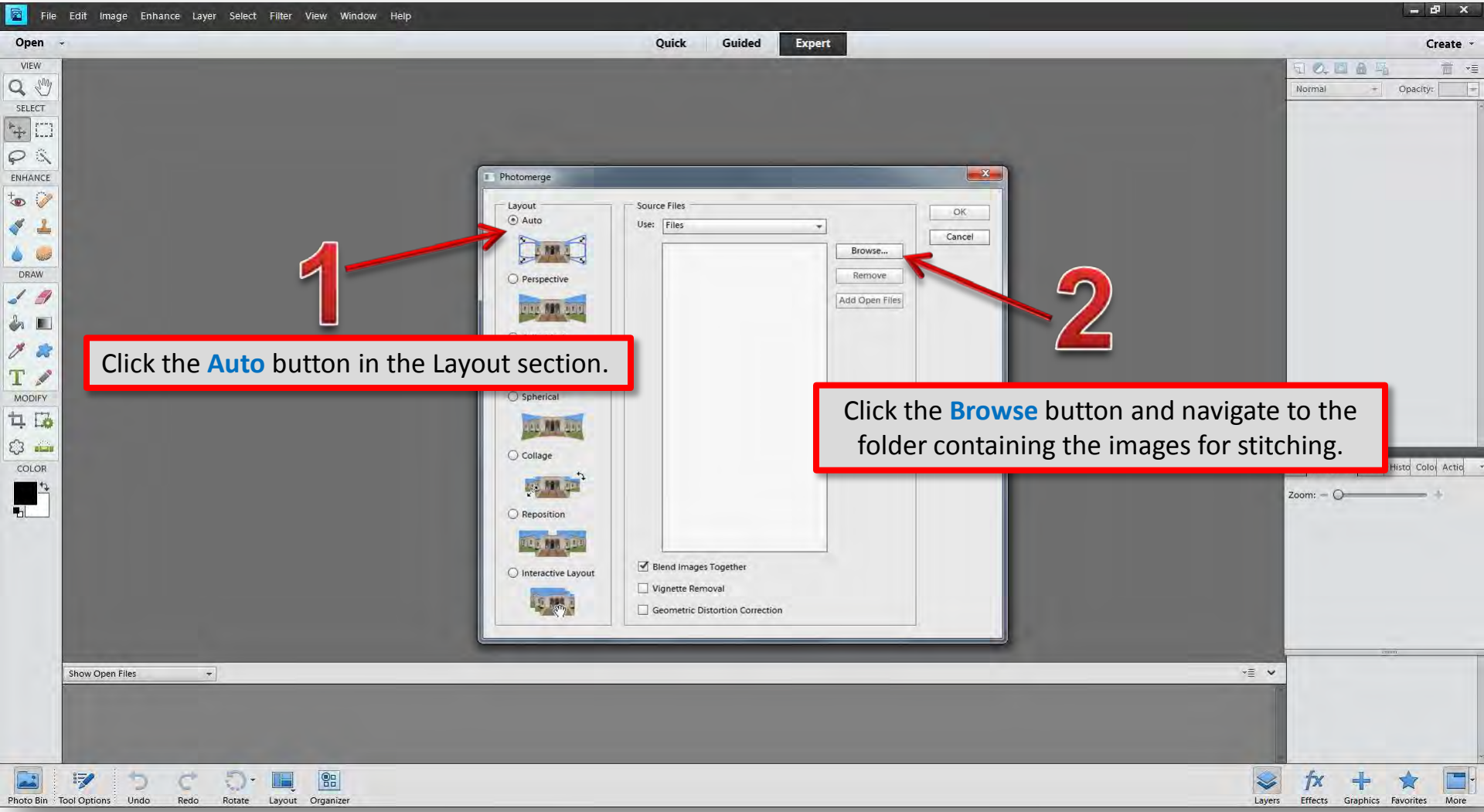


The default screen is set to open in **Expert Mode**.

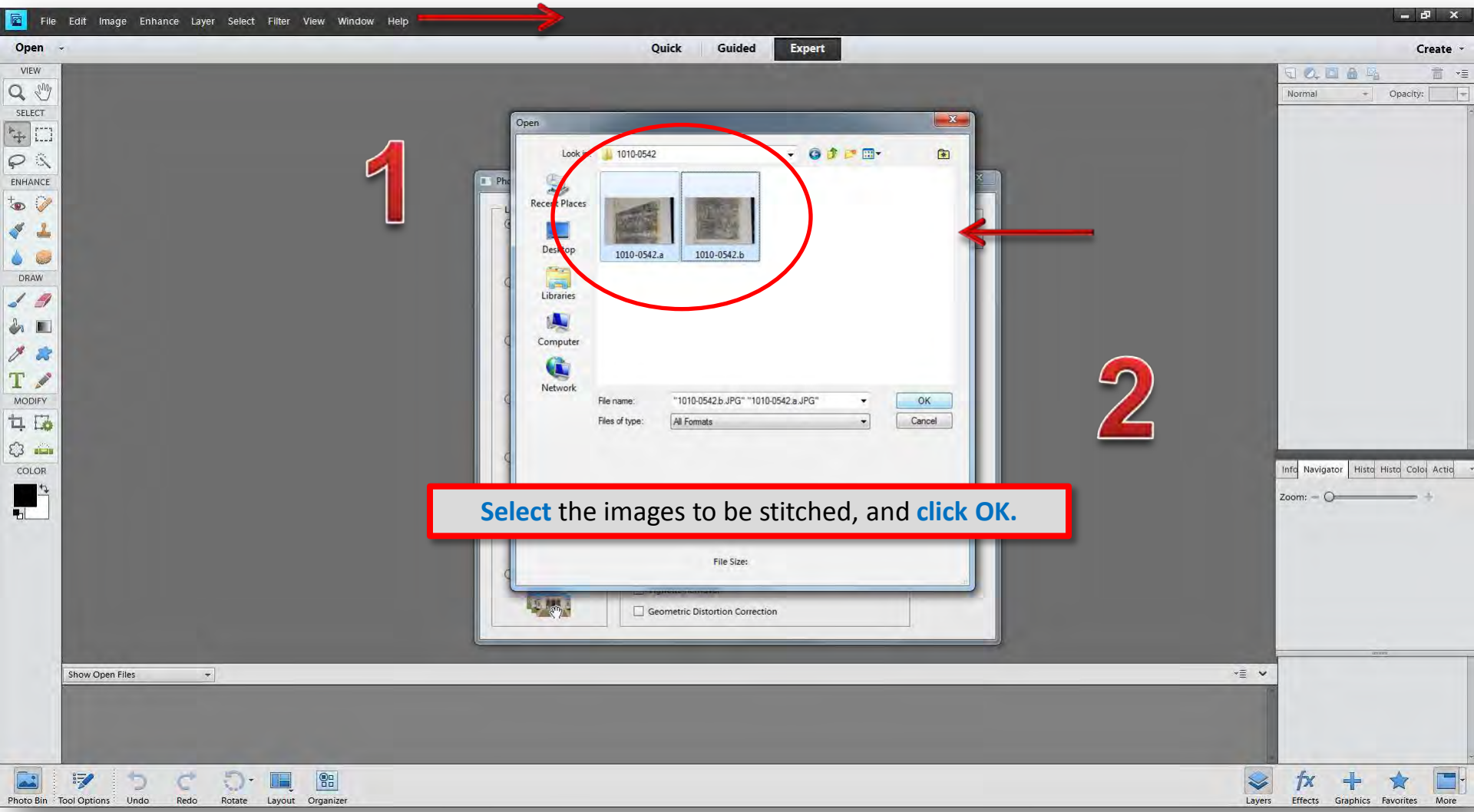
Photomerge Method



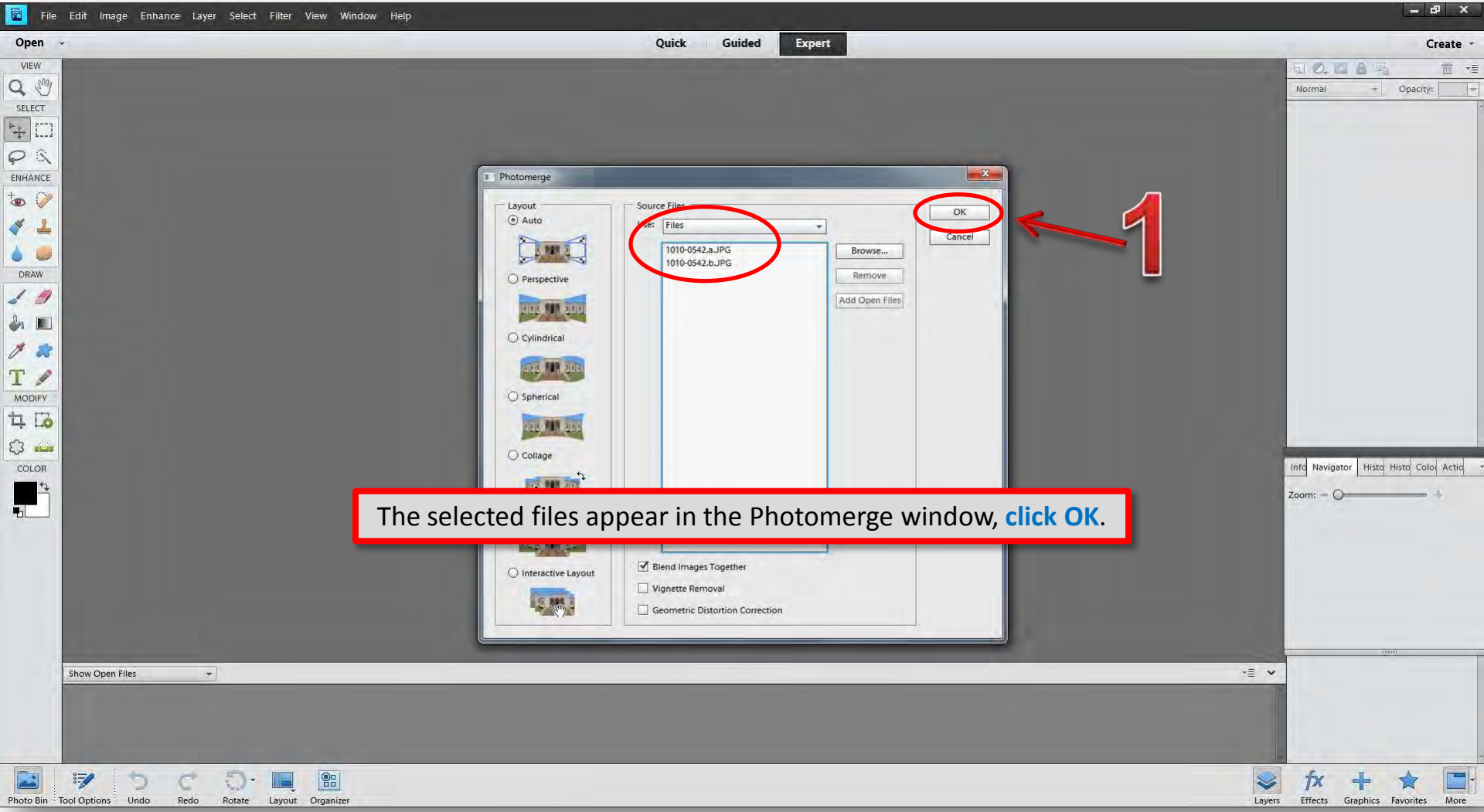
Photomerge Method



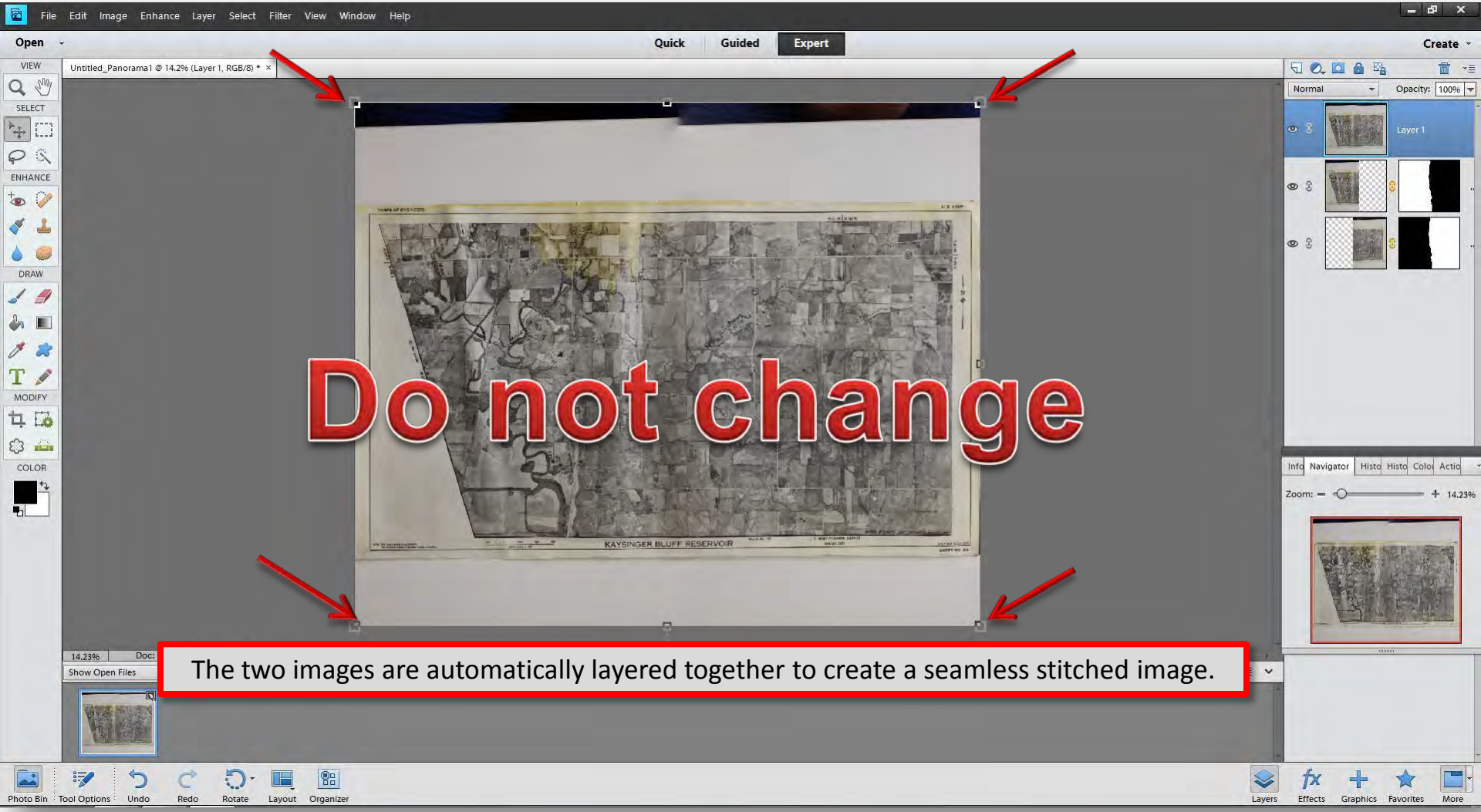
Photomerge Method



Photomerge Method

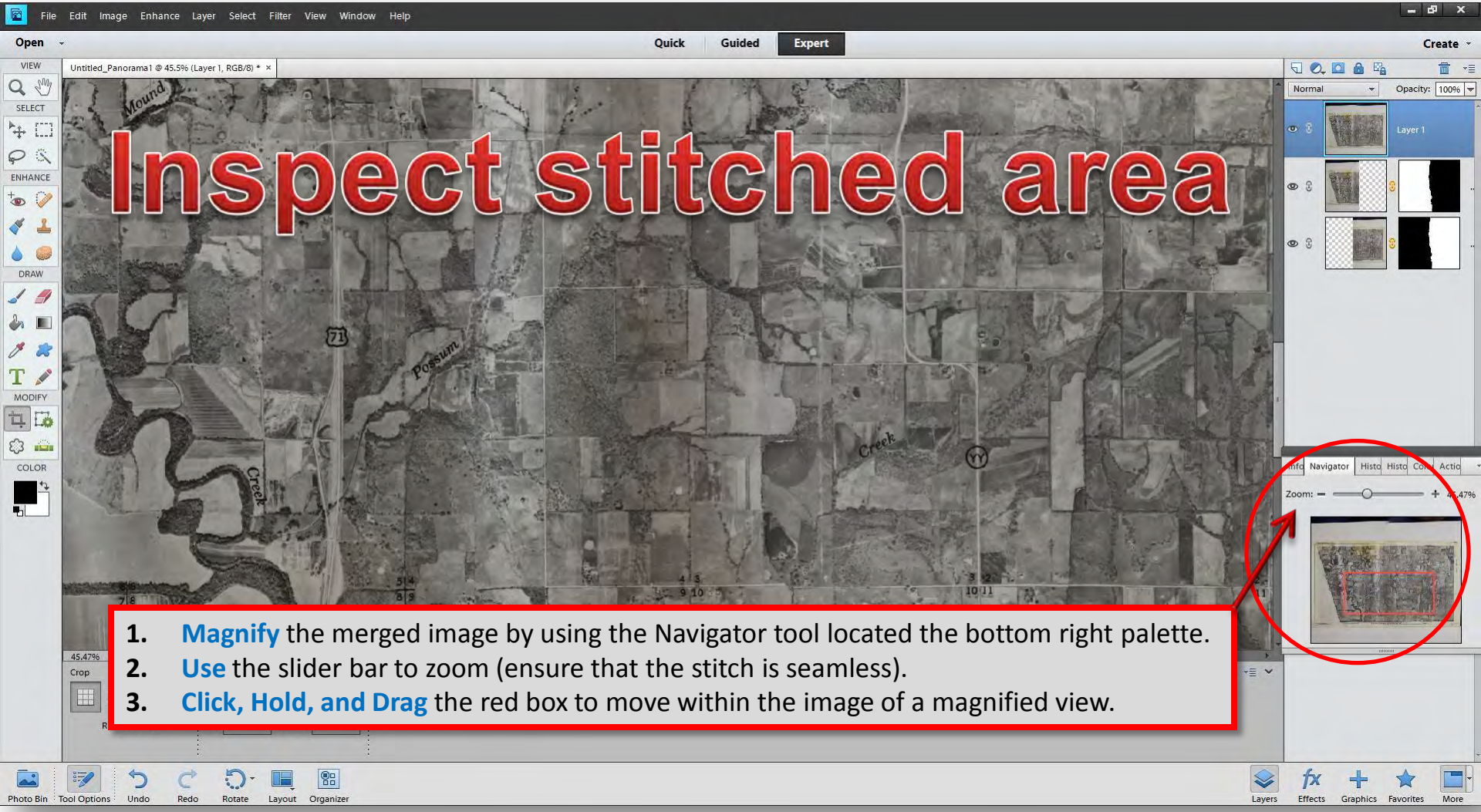


Photomerge Method

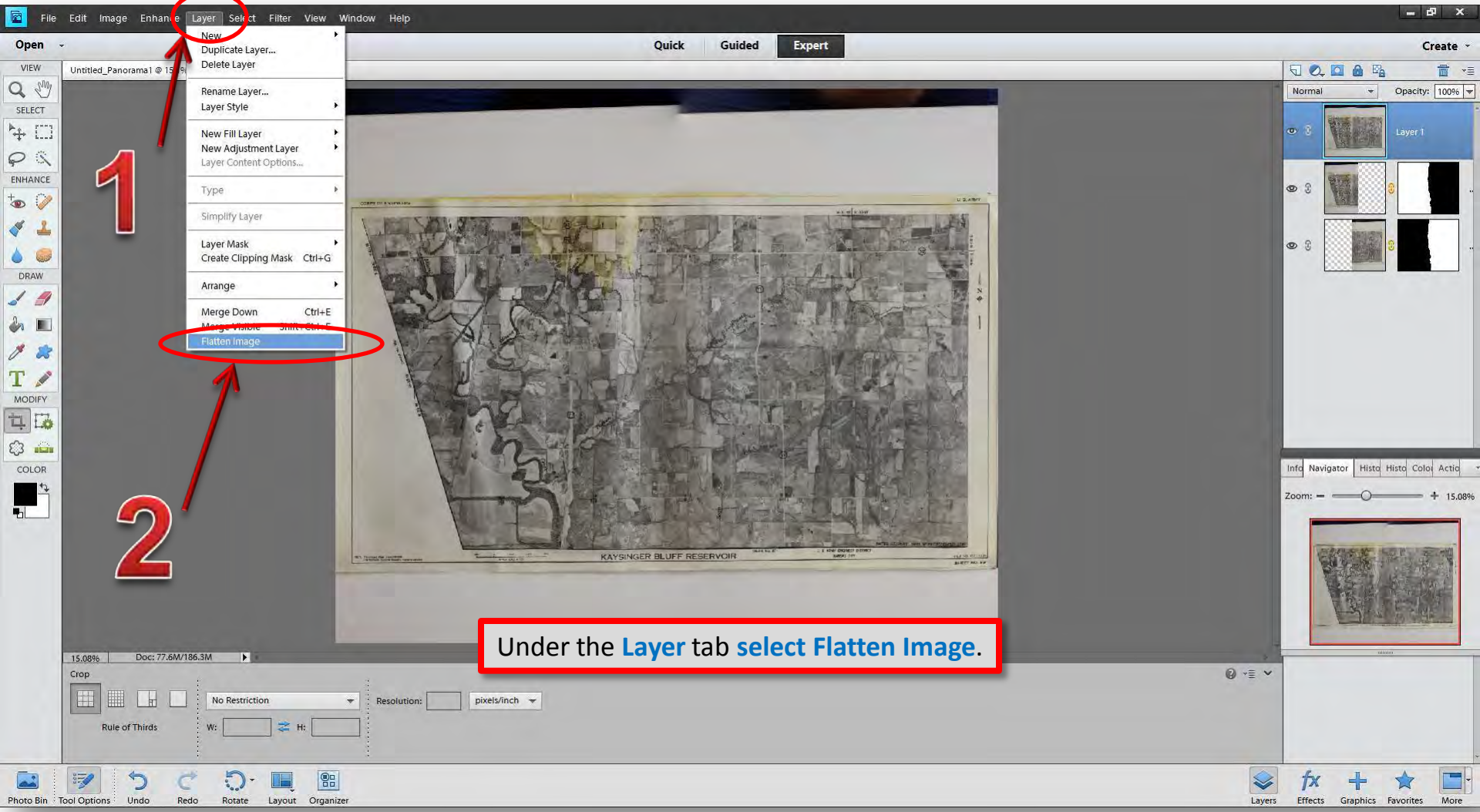


NOTE: Do not move the adjustment control boxes located on the corners, **top**, **bottom**, and **sides** of the image.

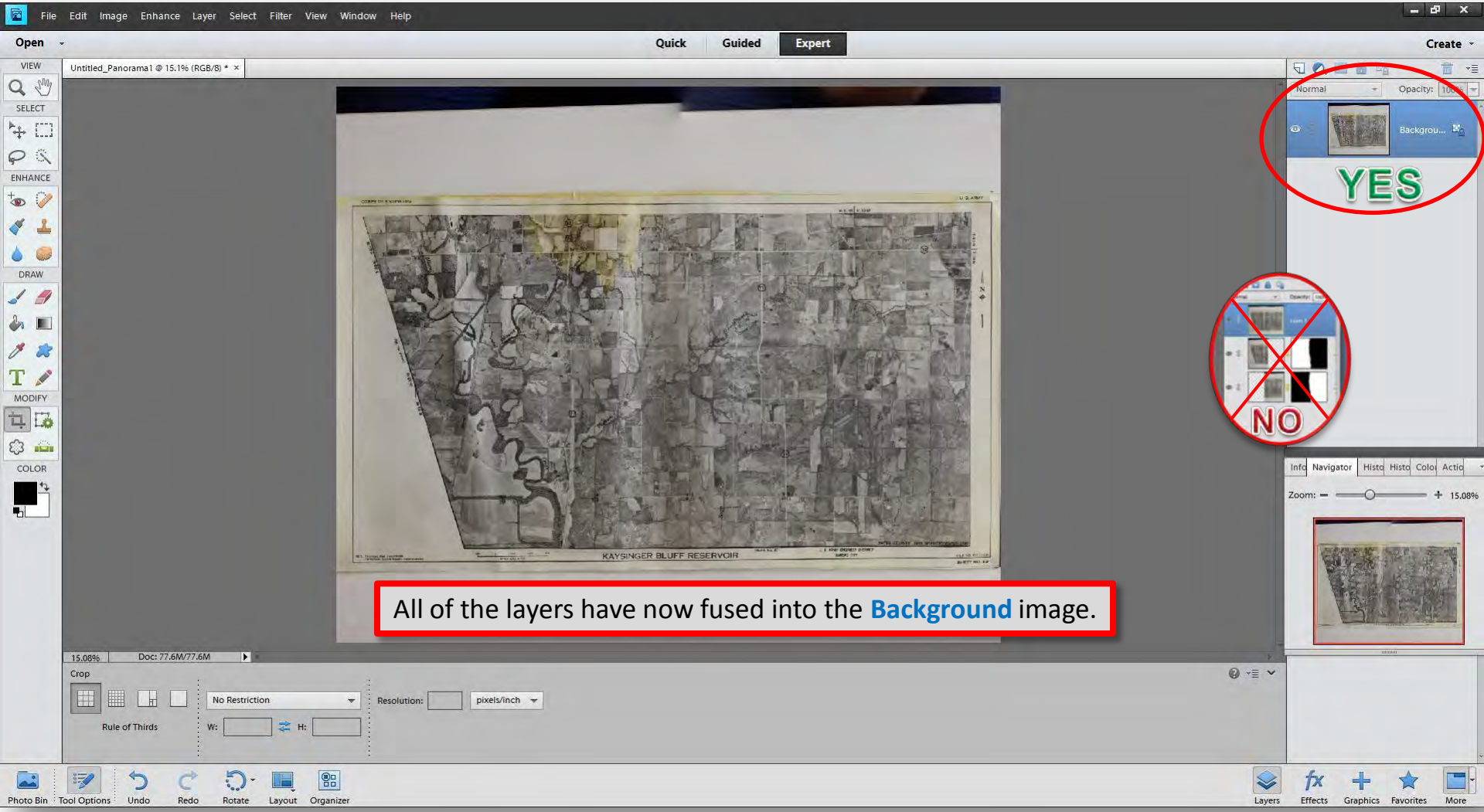
Photomerge Method



Photomerge Method

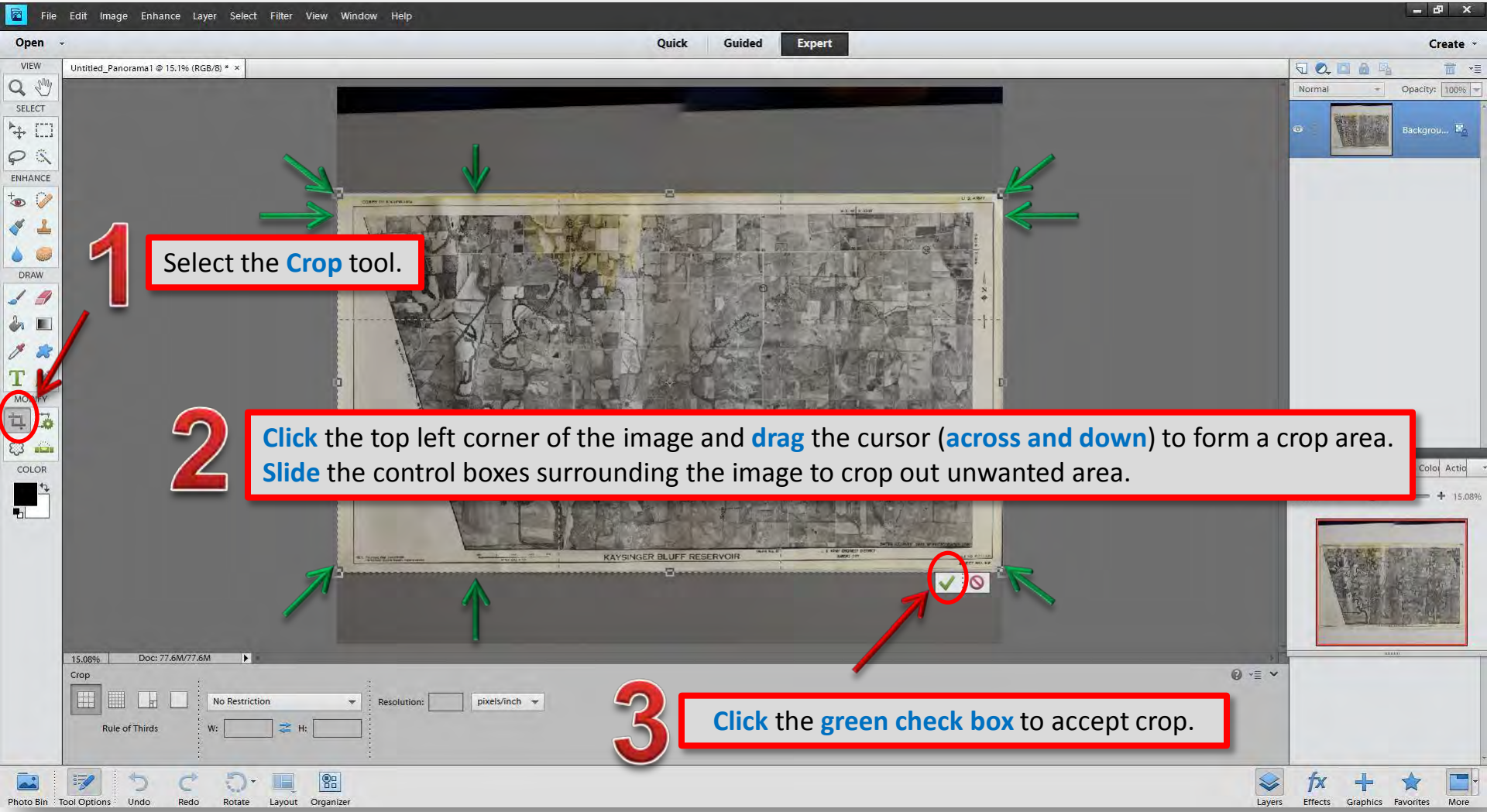


Photomerge Method

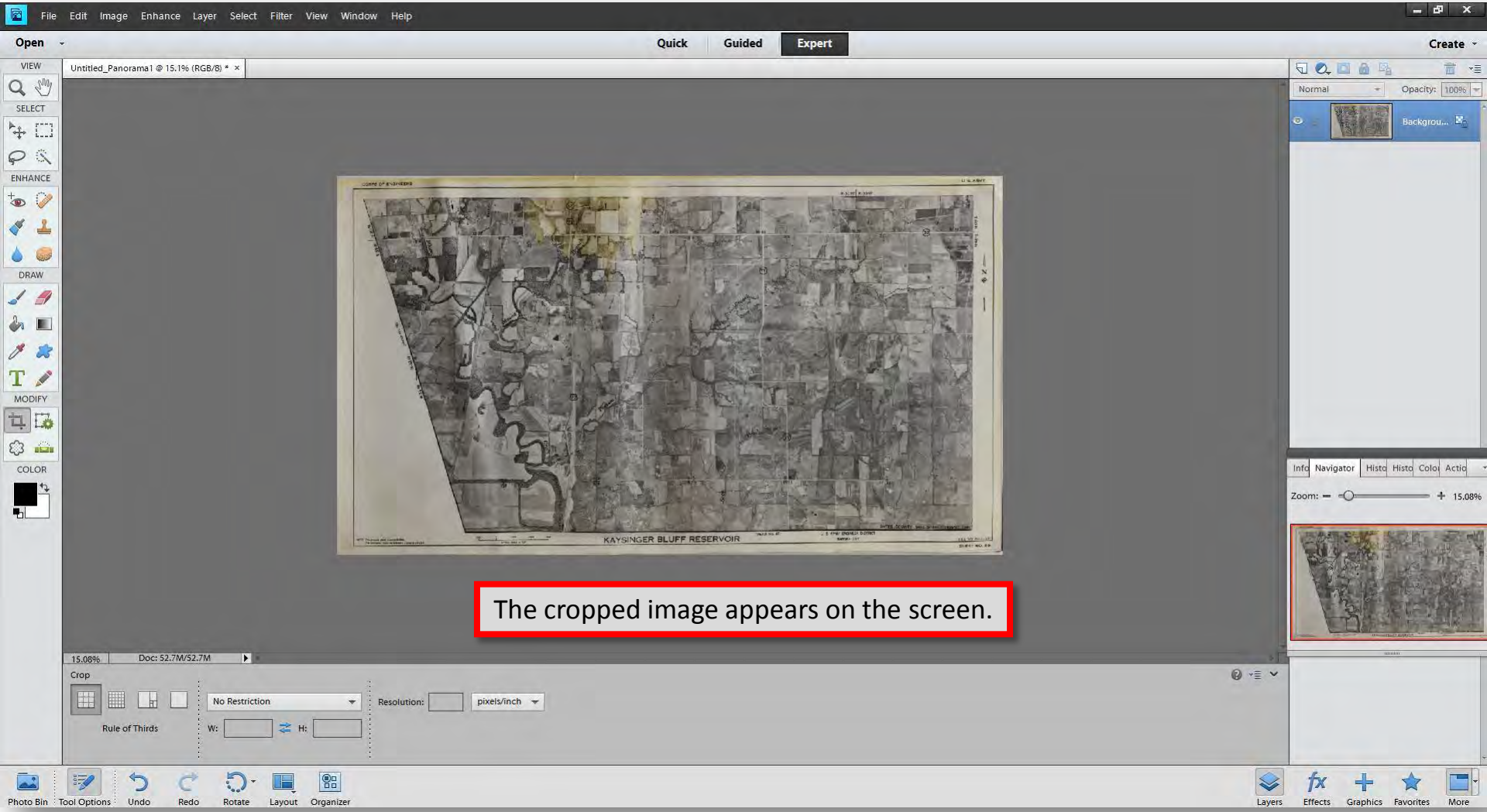


NOTE: All of the layers in the upper right palette are replaced with a single layer called (**Background**).

Photomerge Method

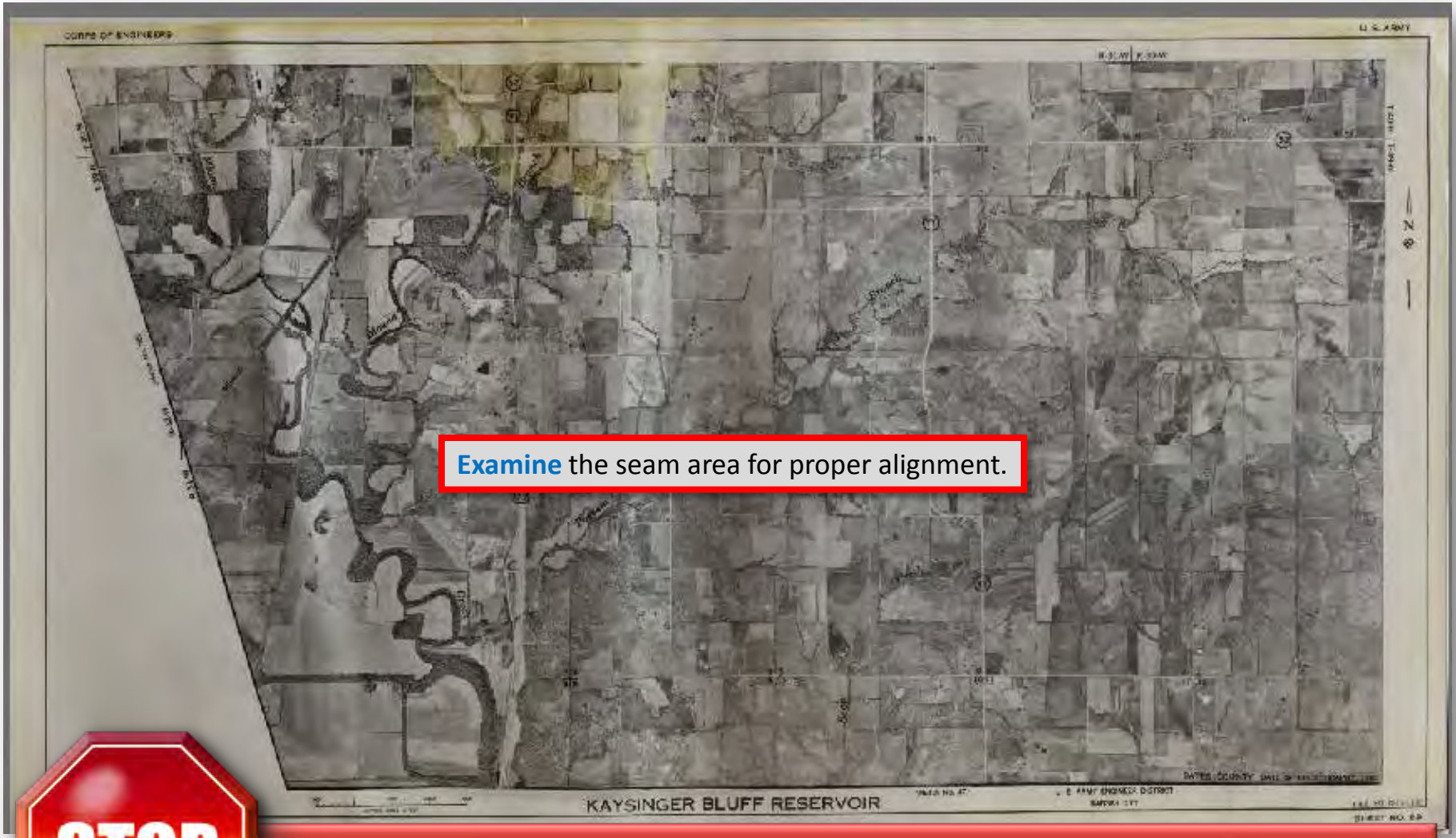


Photomerge Method



The cropped image appears on the screen.

Photomerge Method

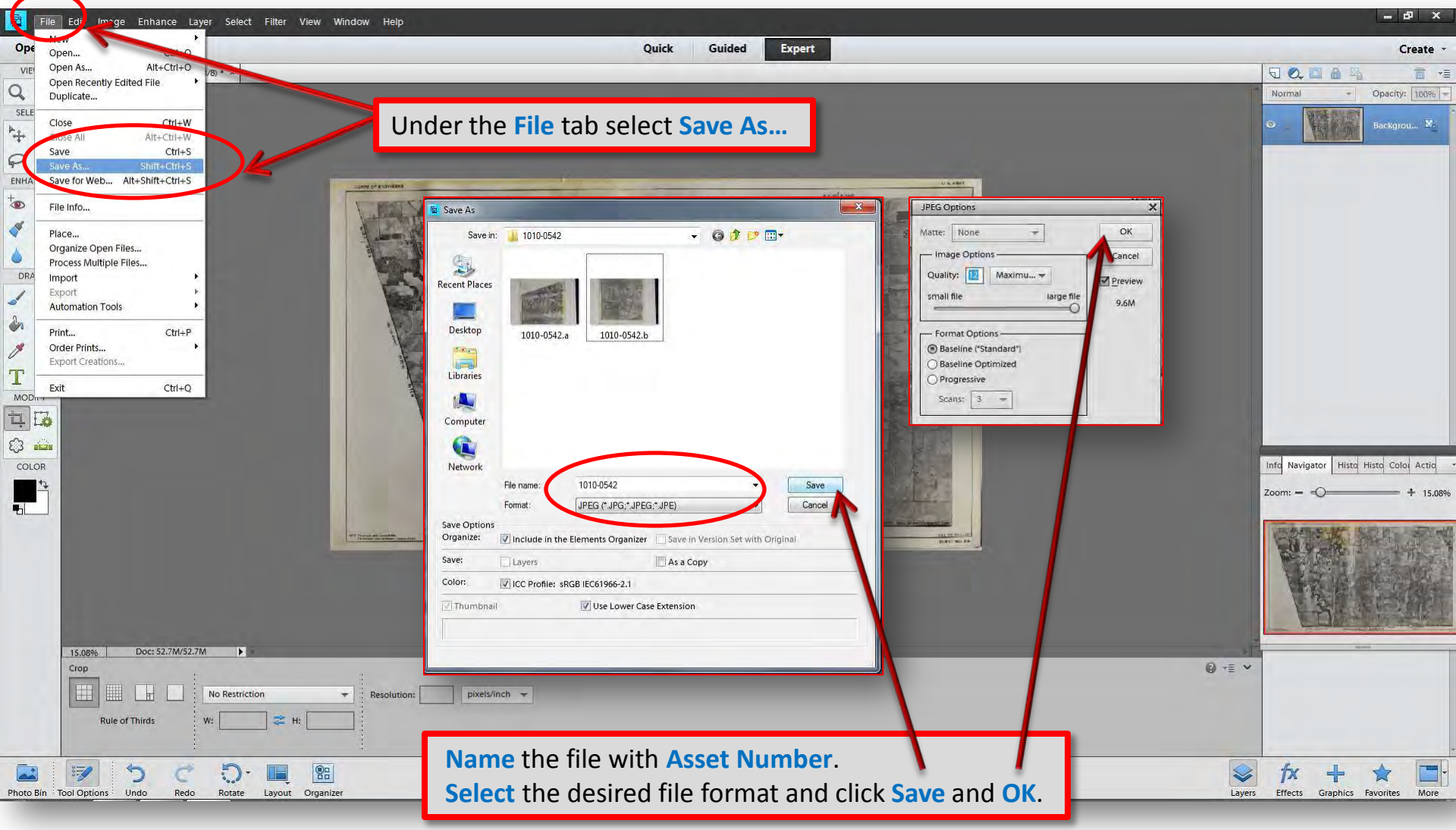


Examine the seam area for proper alignment.

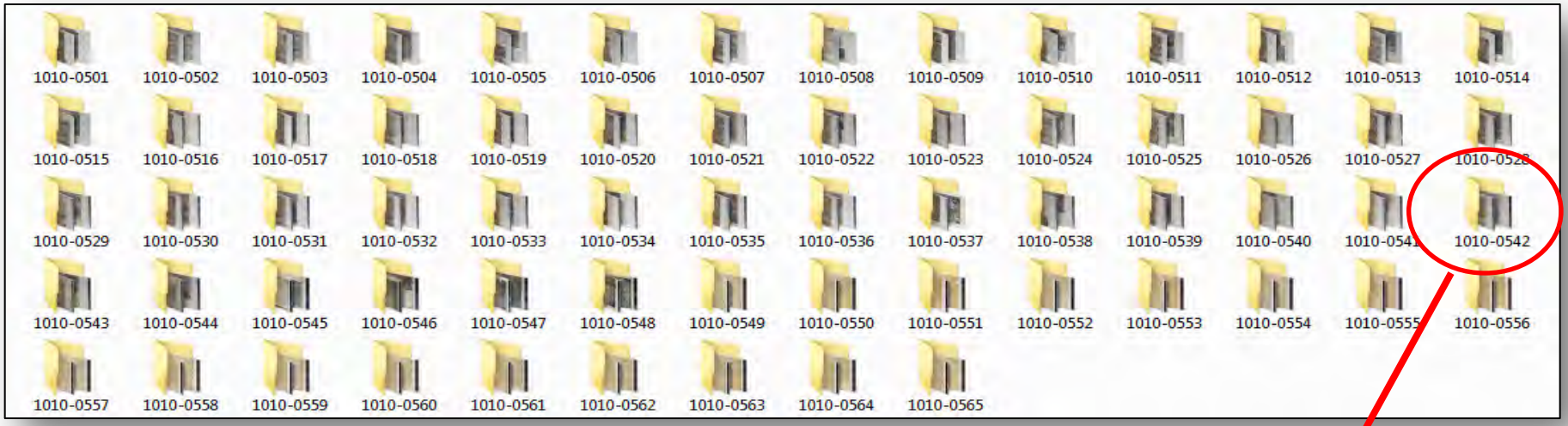
STOP

QUALITY CONTROL must be performed by **LAB MANAGER** before continuing

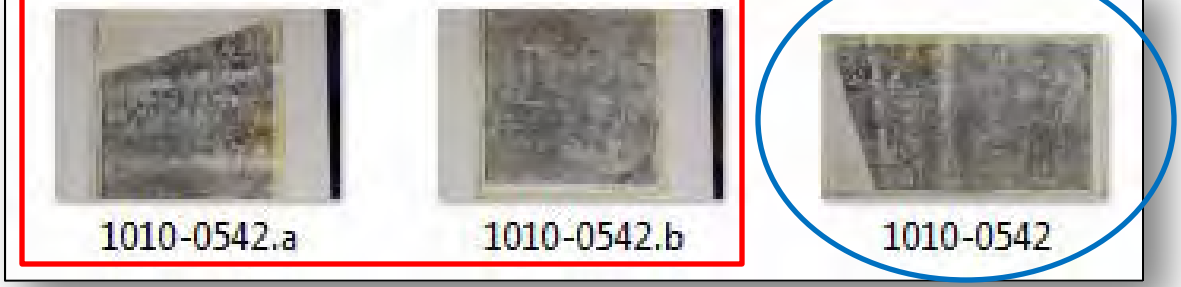
Photomerge Method



Photomerge Method



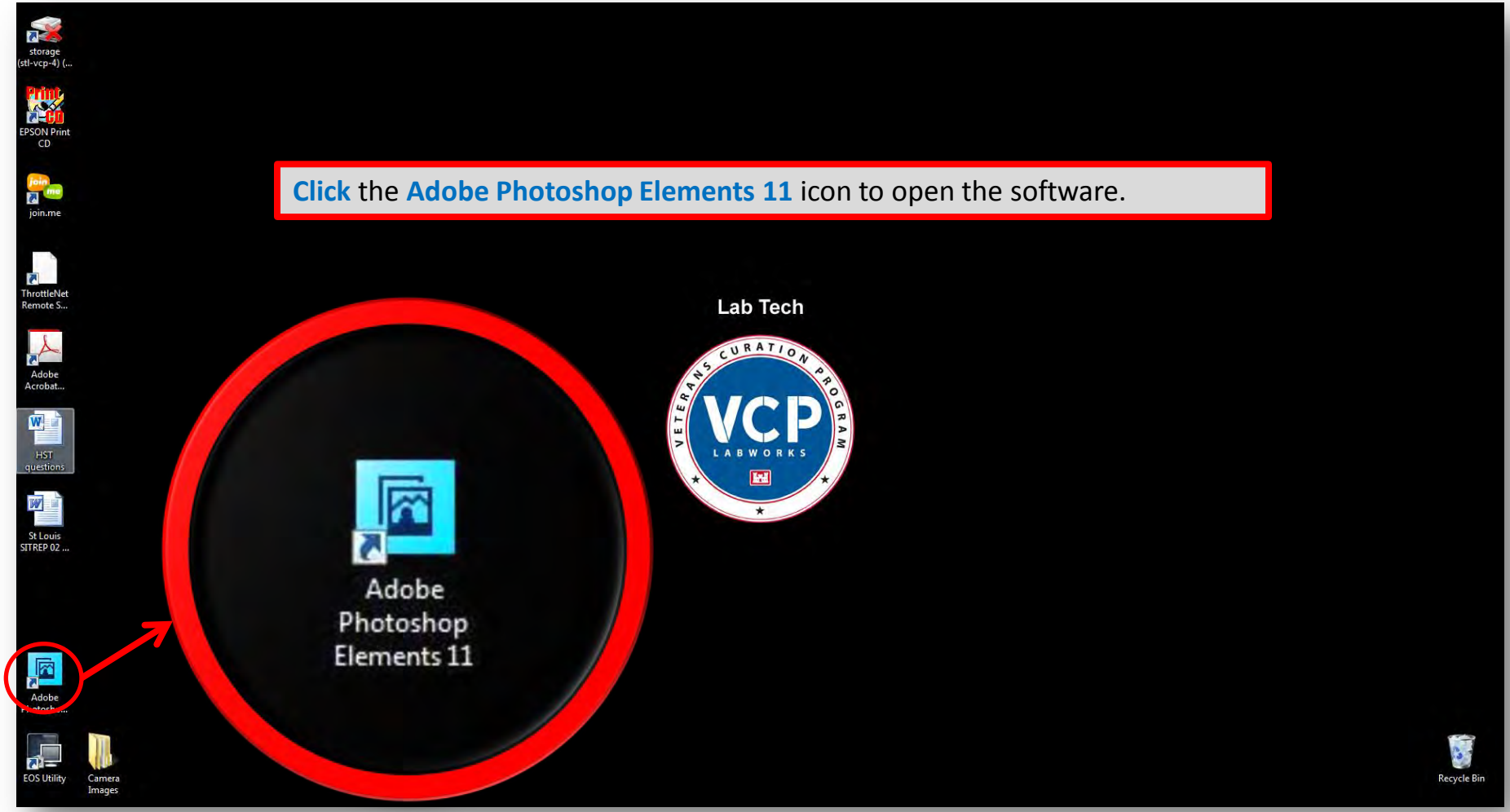
Original images



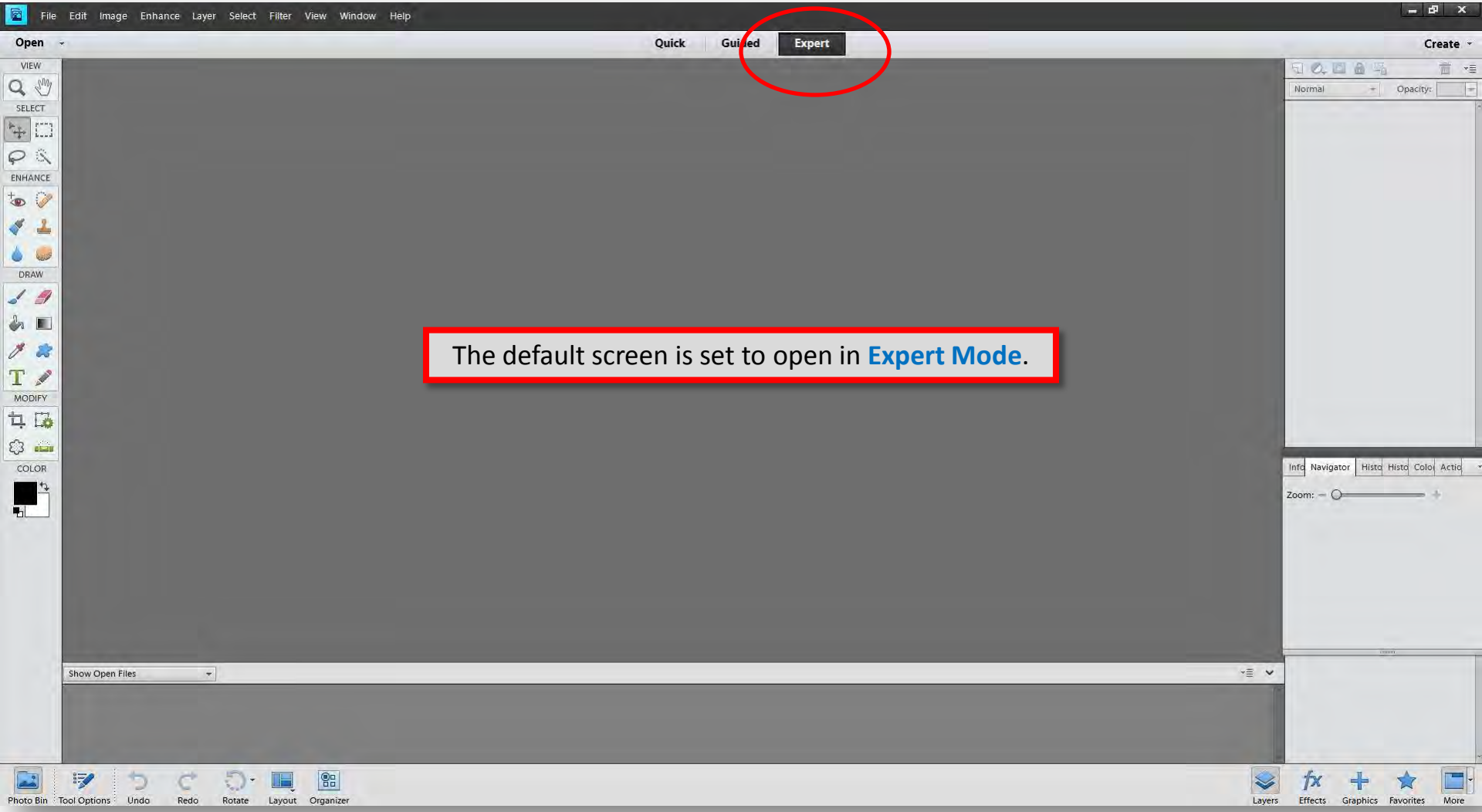
Completed stitched image

The folder should contain the image files used for the stitch, as well as the final stitched image.

Digital Stitching using Adobe Photoshop Elements (Manual Method)

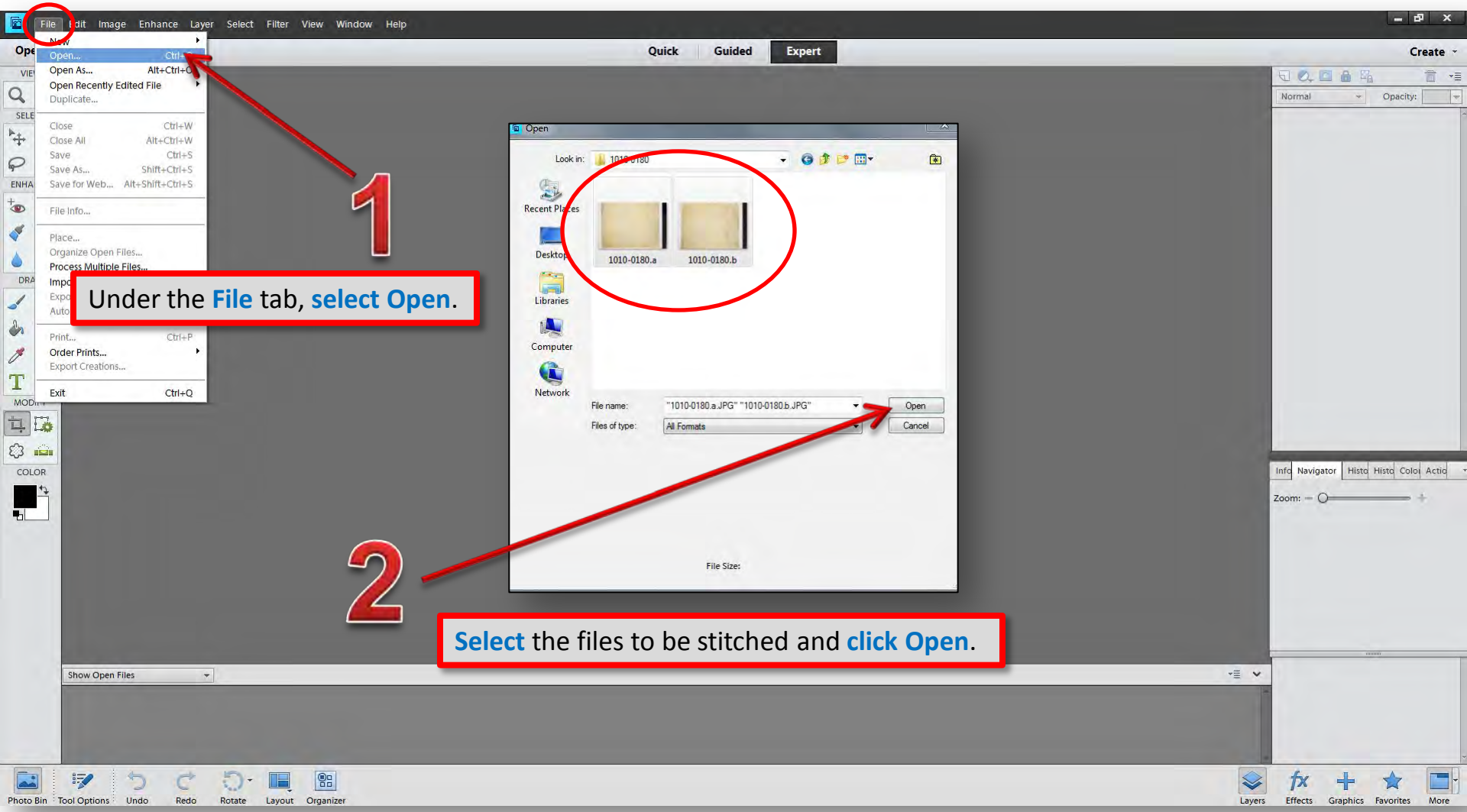


Manual Method

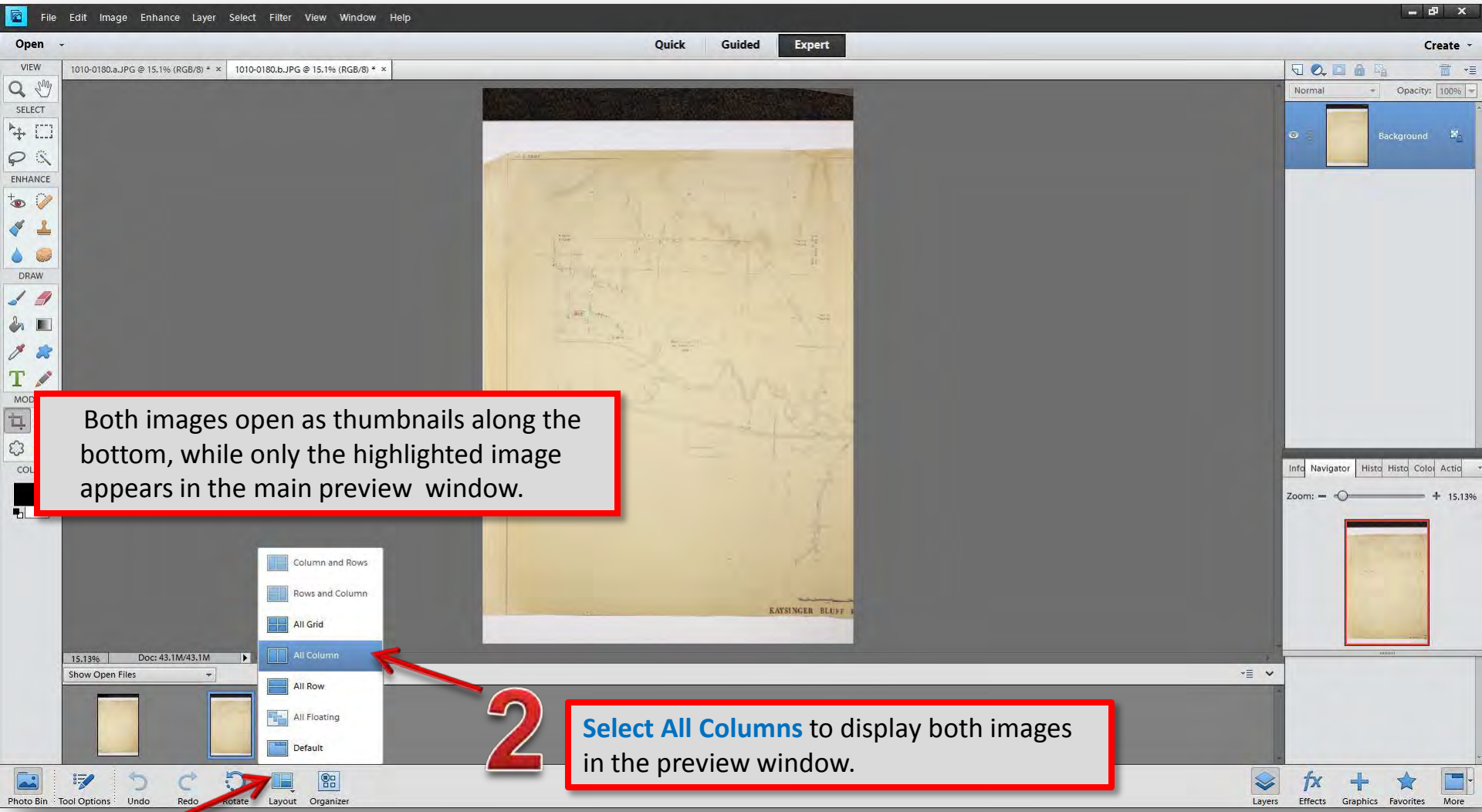


The default screen is set to open in **Expert Mode**.

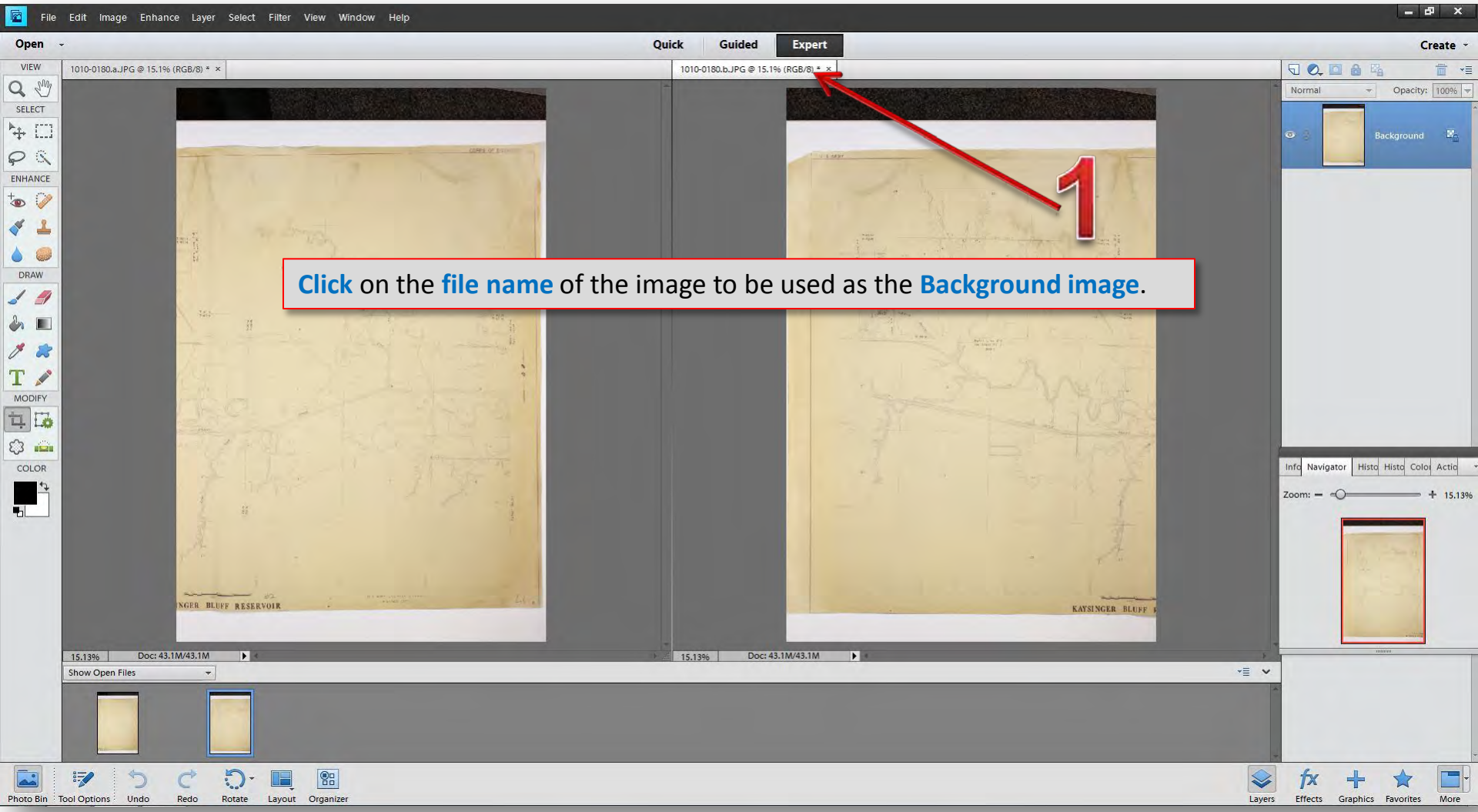
Manual Method



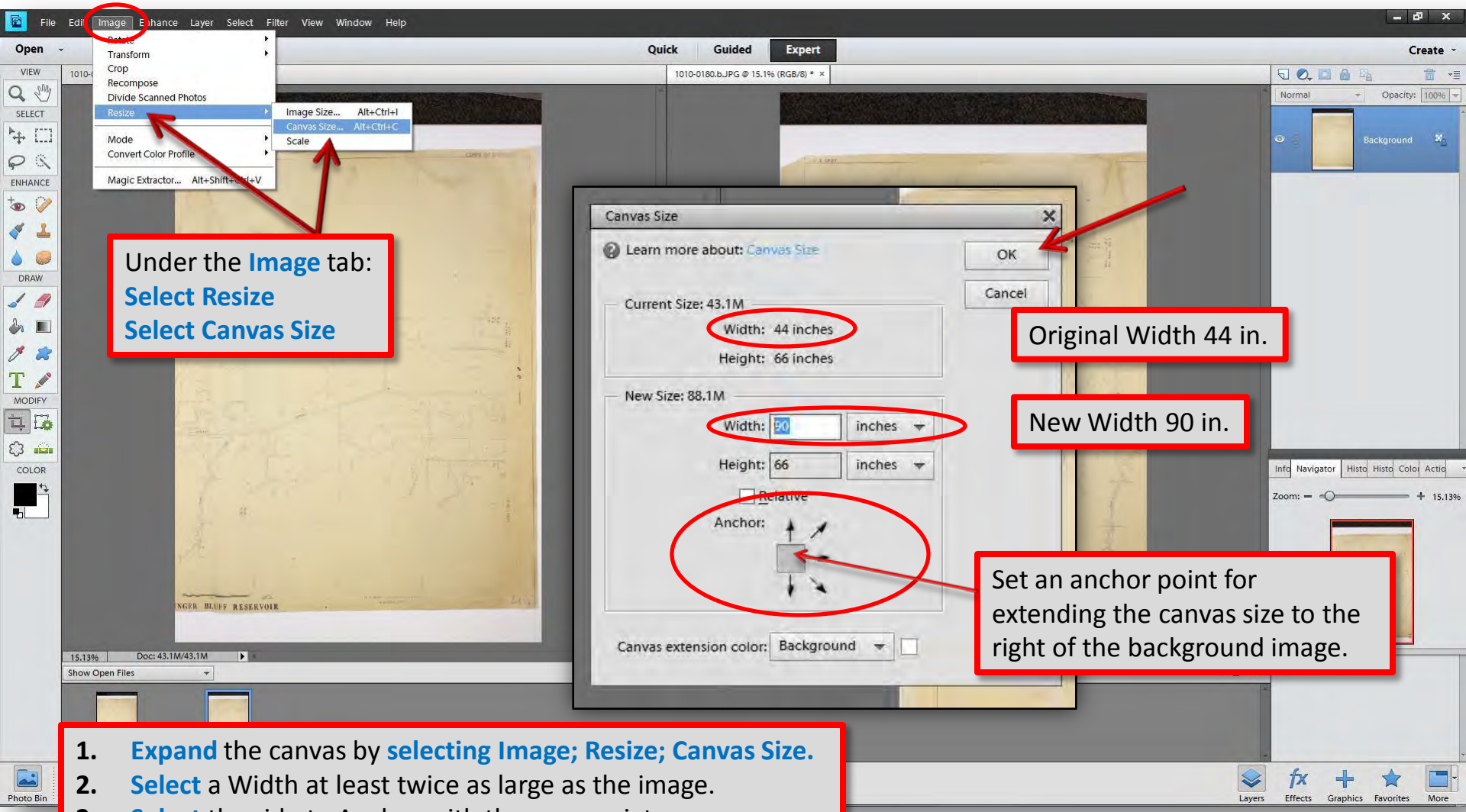
Manual Method



Manual Method

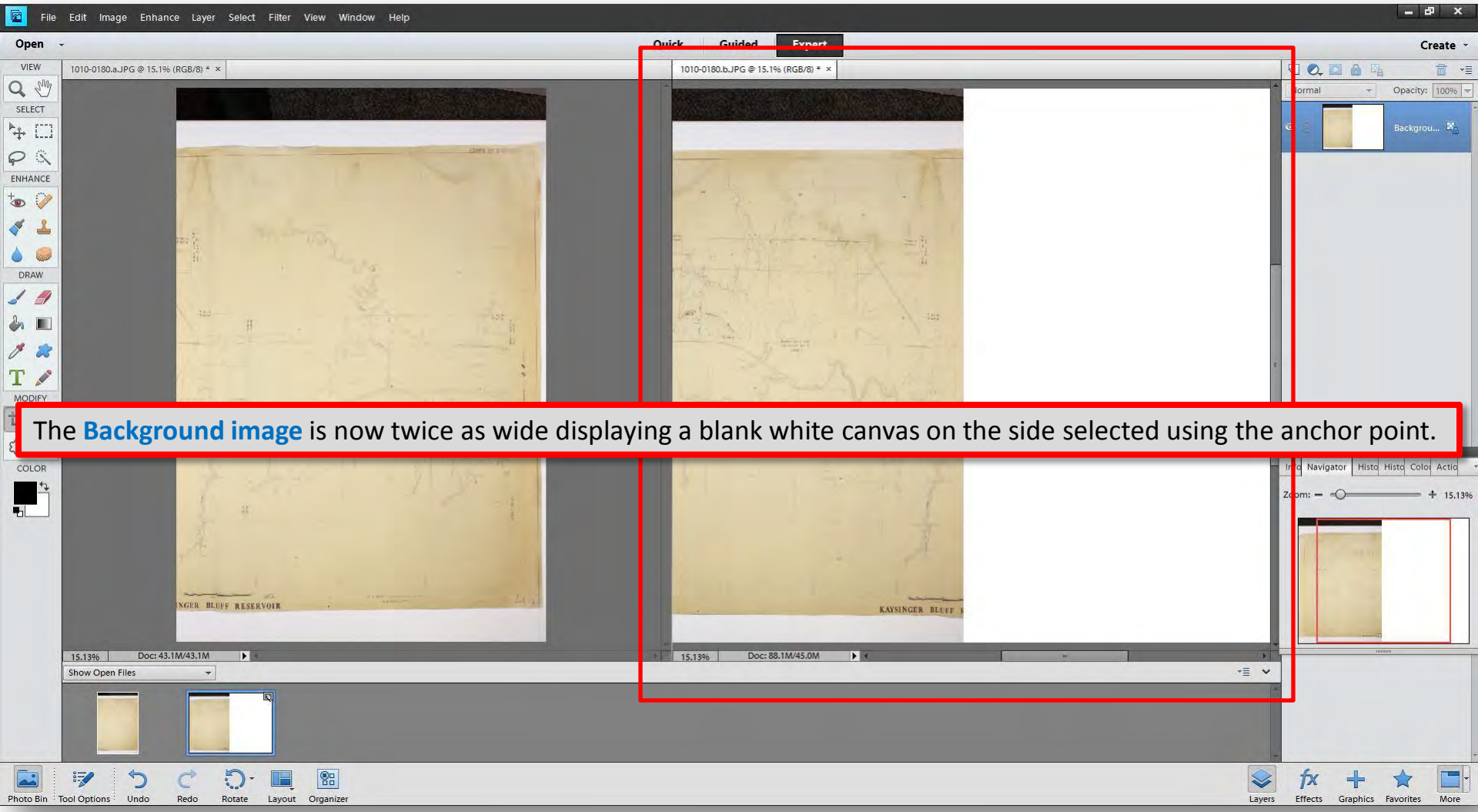


Manual Method



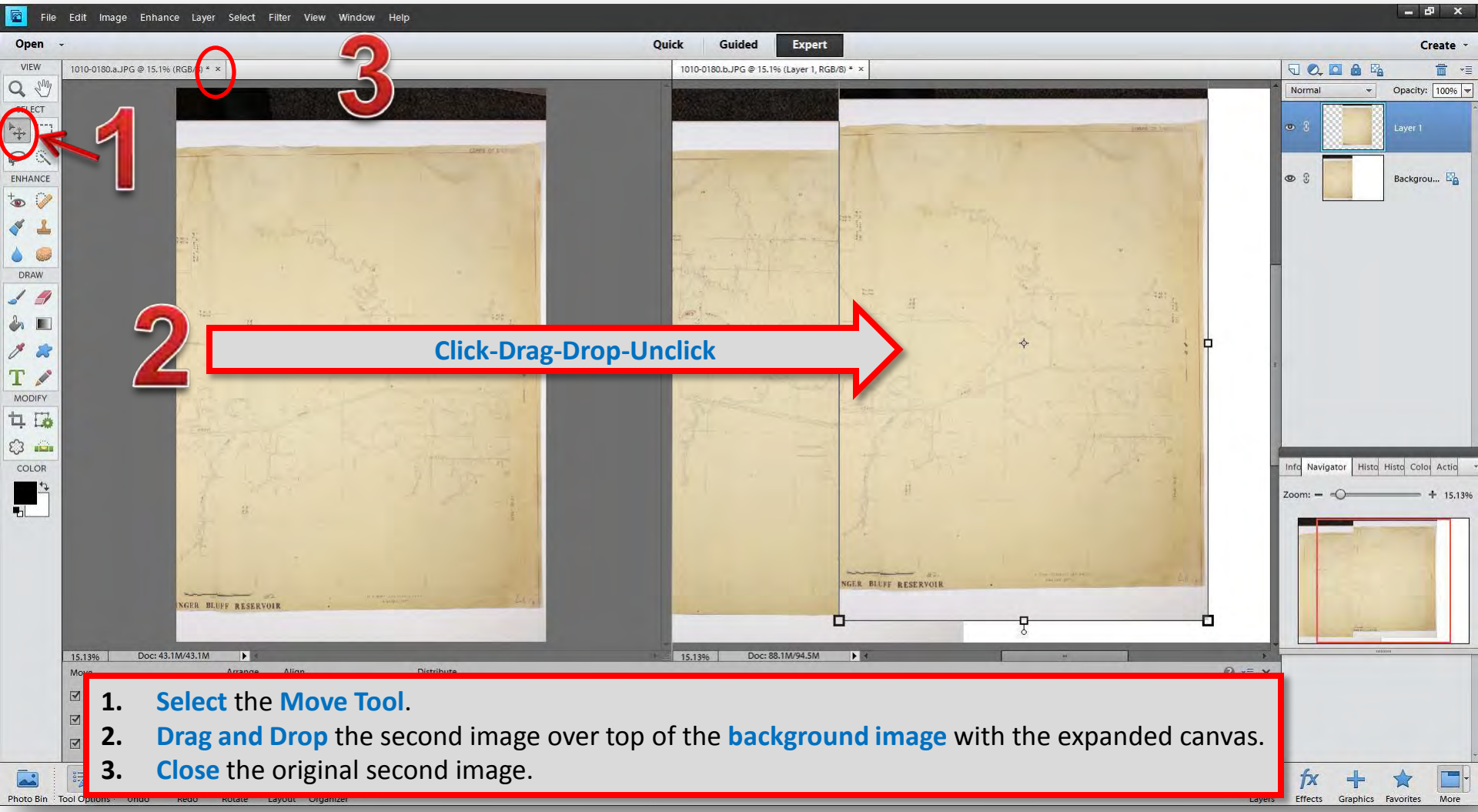
1. **Expand** the canvas by **selecting Image; Resize; Canvas Size.**
2. **Select** a Width at least twice as large as the image.
3. **Select** the side to Anchor with the appropriate arrow.
4. **Click OK.**

Manual Method



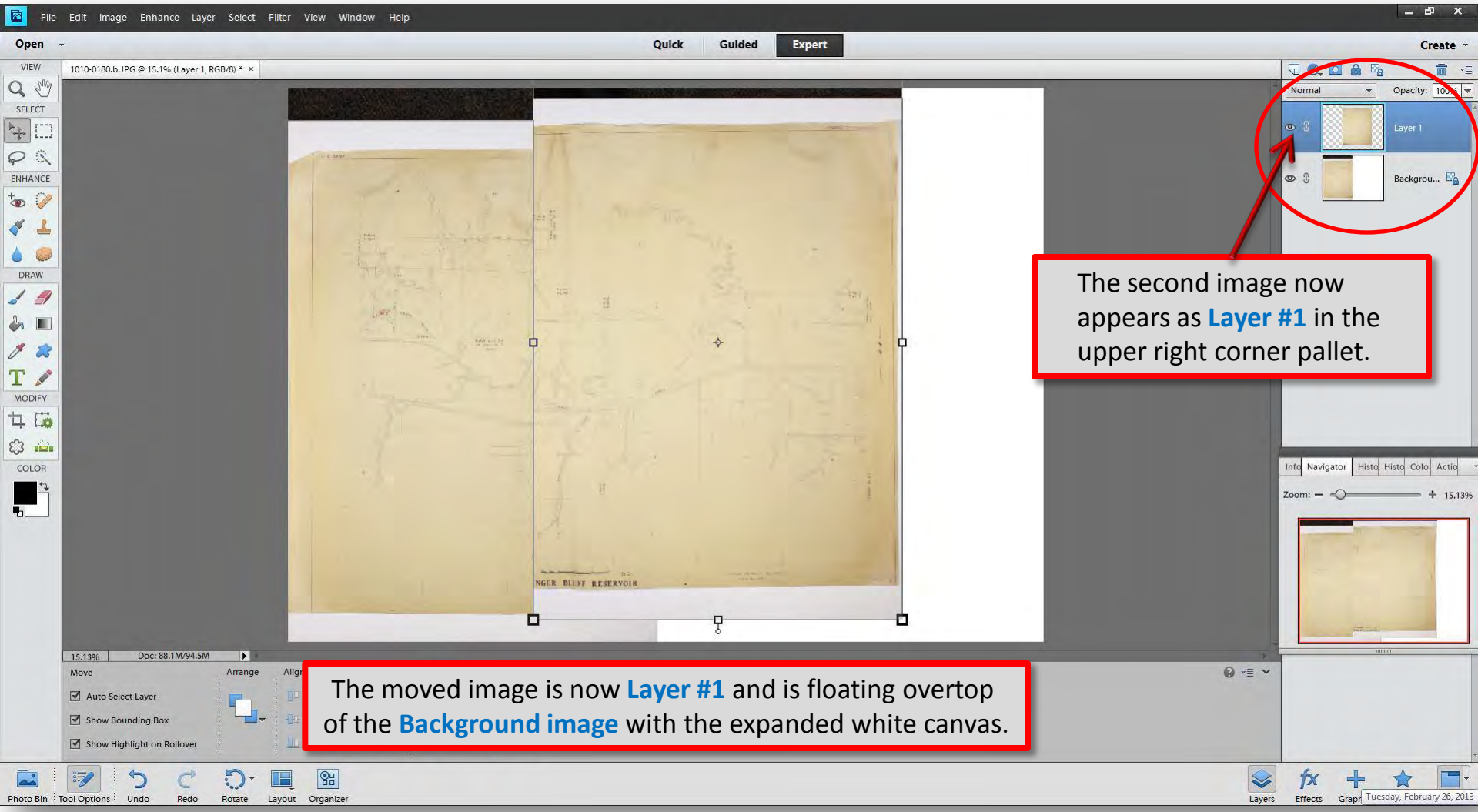
The **Background image** is now twice as wide displaying a blank white canvas on the side selected using the anchor point.

Manual Method



1. **Select** the **Move Tool**.
2. **Drag and Drop** the second image over top of the **background image** with the expanded canvas.
3. **Close** the original second image.

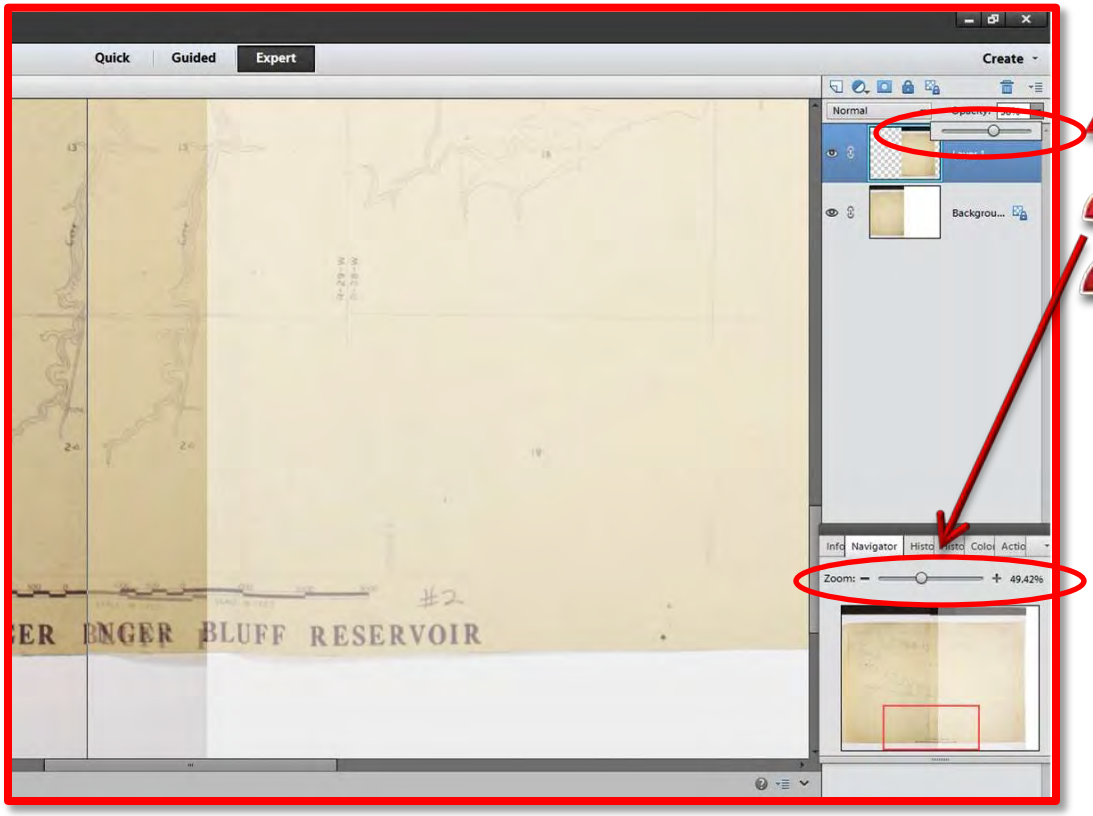
Manual Method



The second image now appears as **Layer #1** in the upper right corner pallet.

The moved image is now **Layer #1** and is floating overtop of the **Background image** with the expanded white canvas.

Manual Method

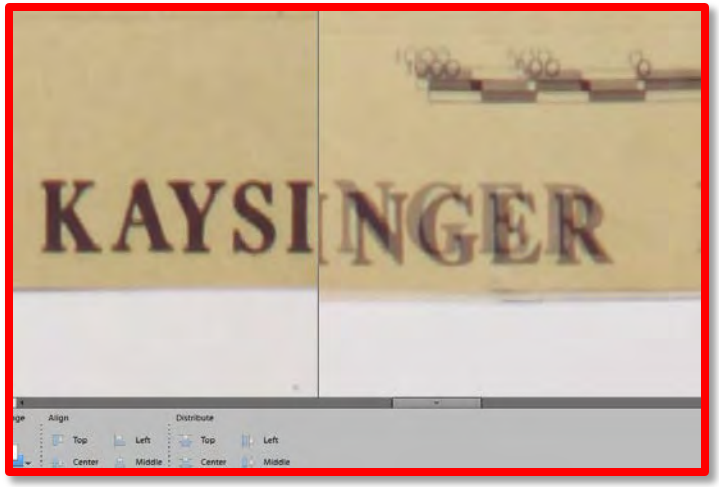


1

Slide the **Opacity** bar to make **layer #1** transparent.

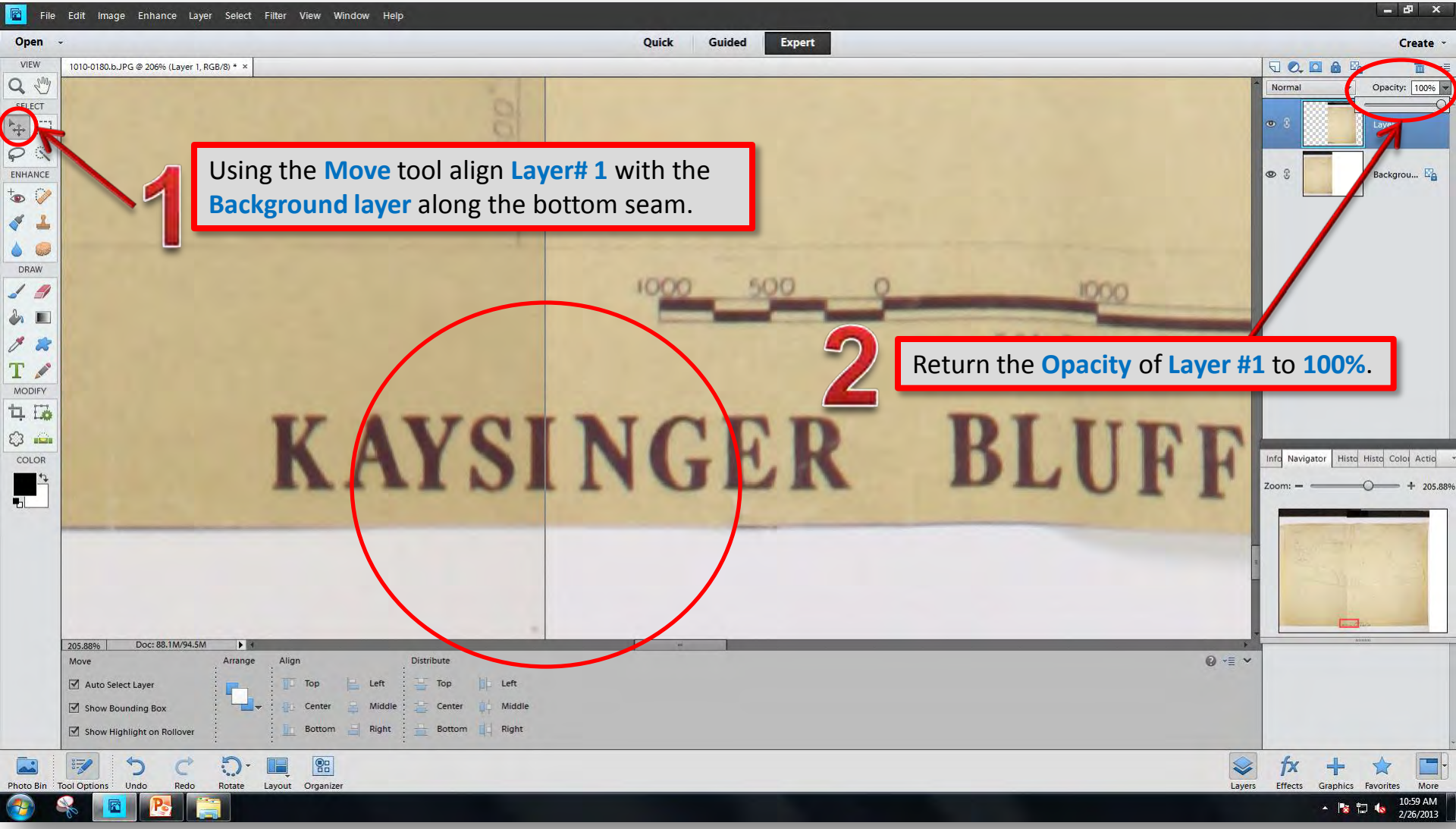
2

Slide the **Zoom** bar to enlarge a section of the seam.

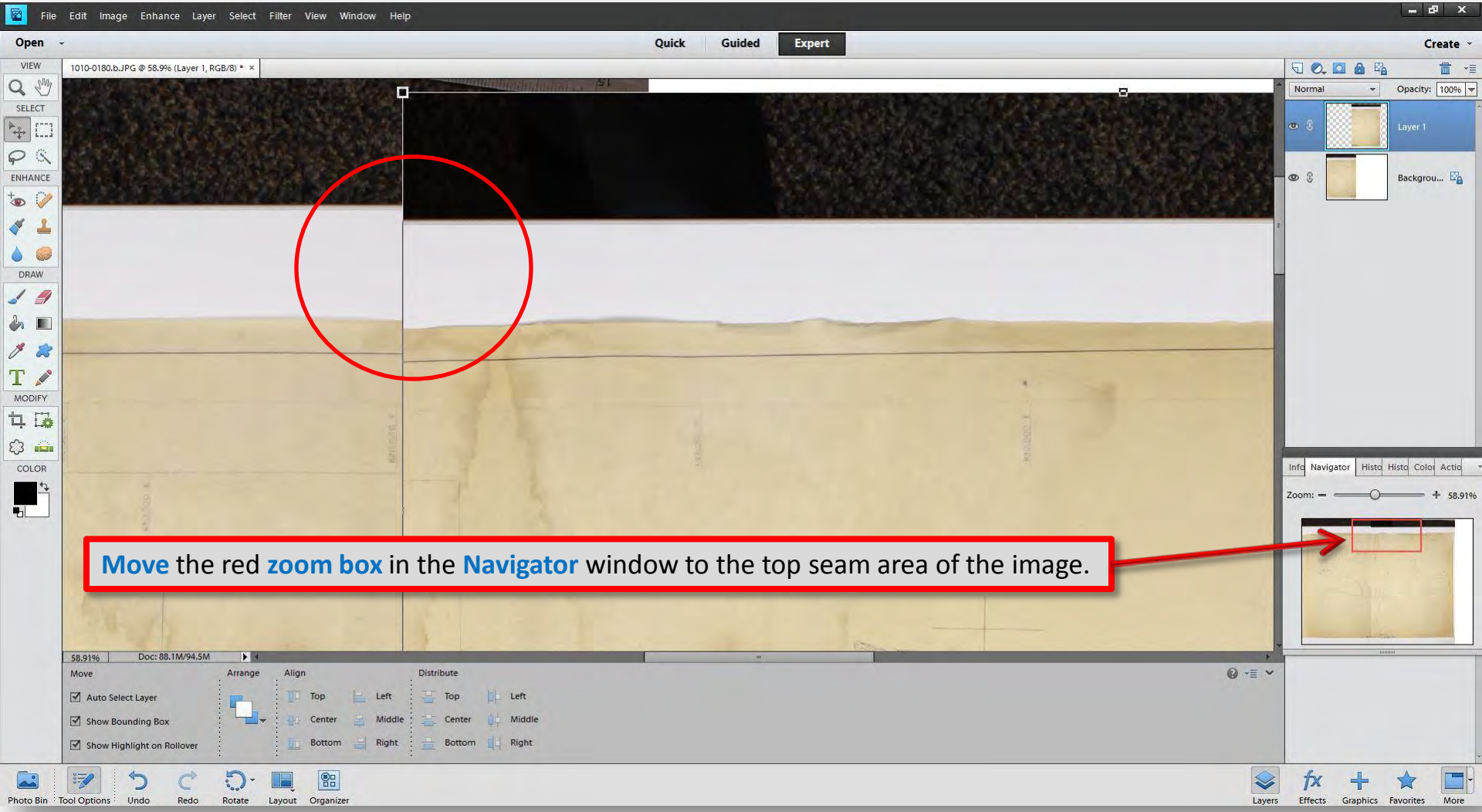


1. **With Layer #1** highlighted **adjust the opacity** to make that layer transparent.
2. **Use** the **navigator zoom bar** to enlarge the overlapping images at the seam area along the bottom.

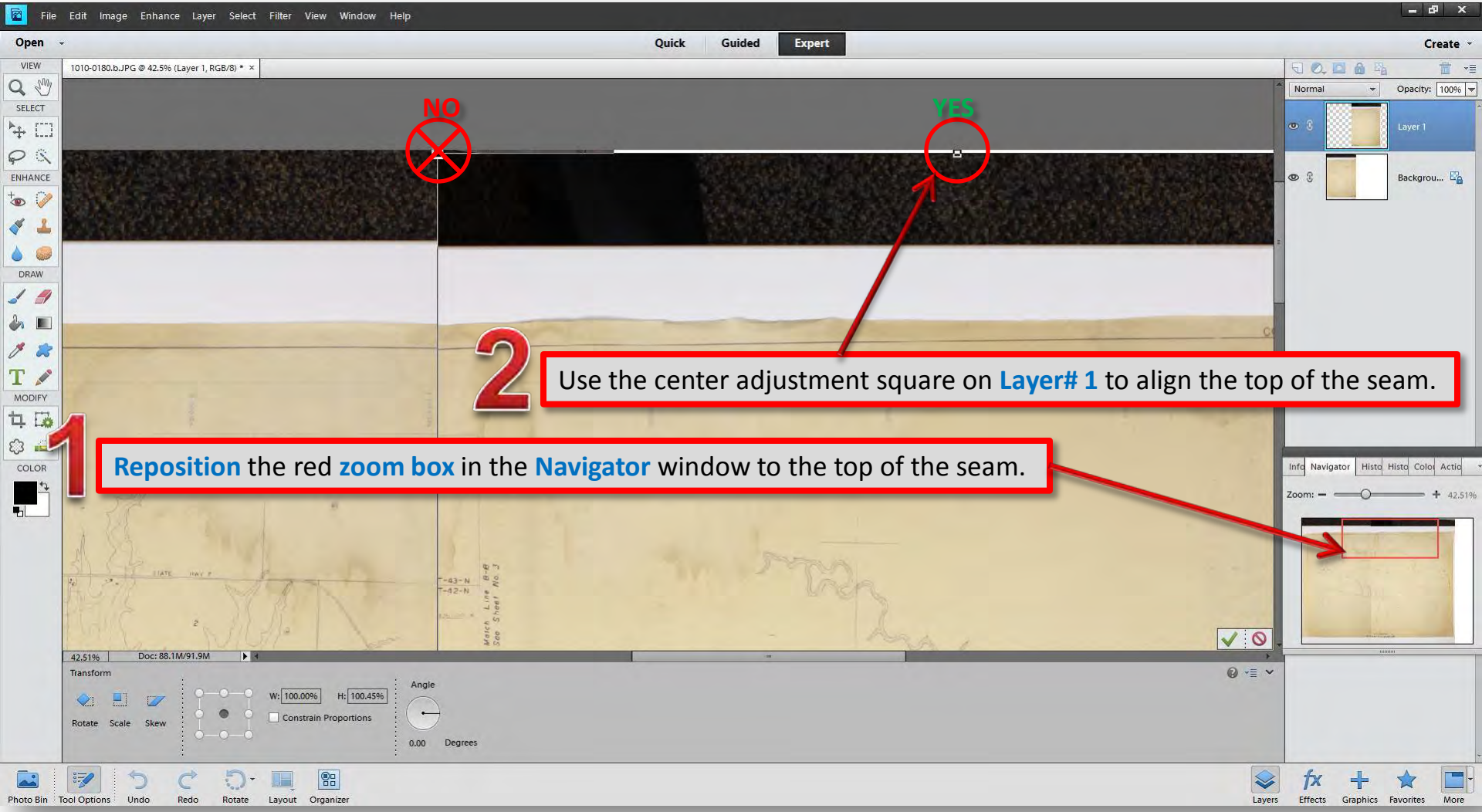
Manual Method



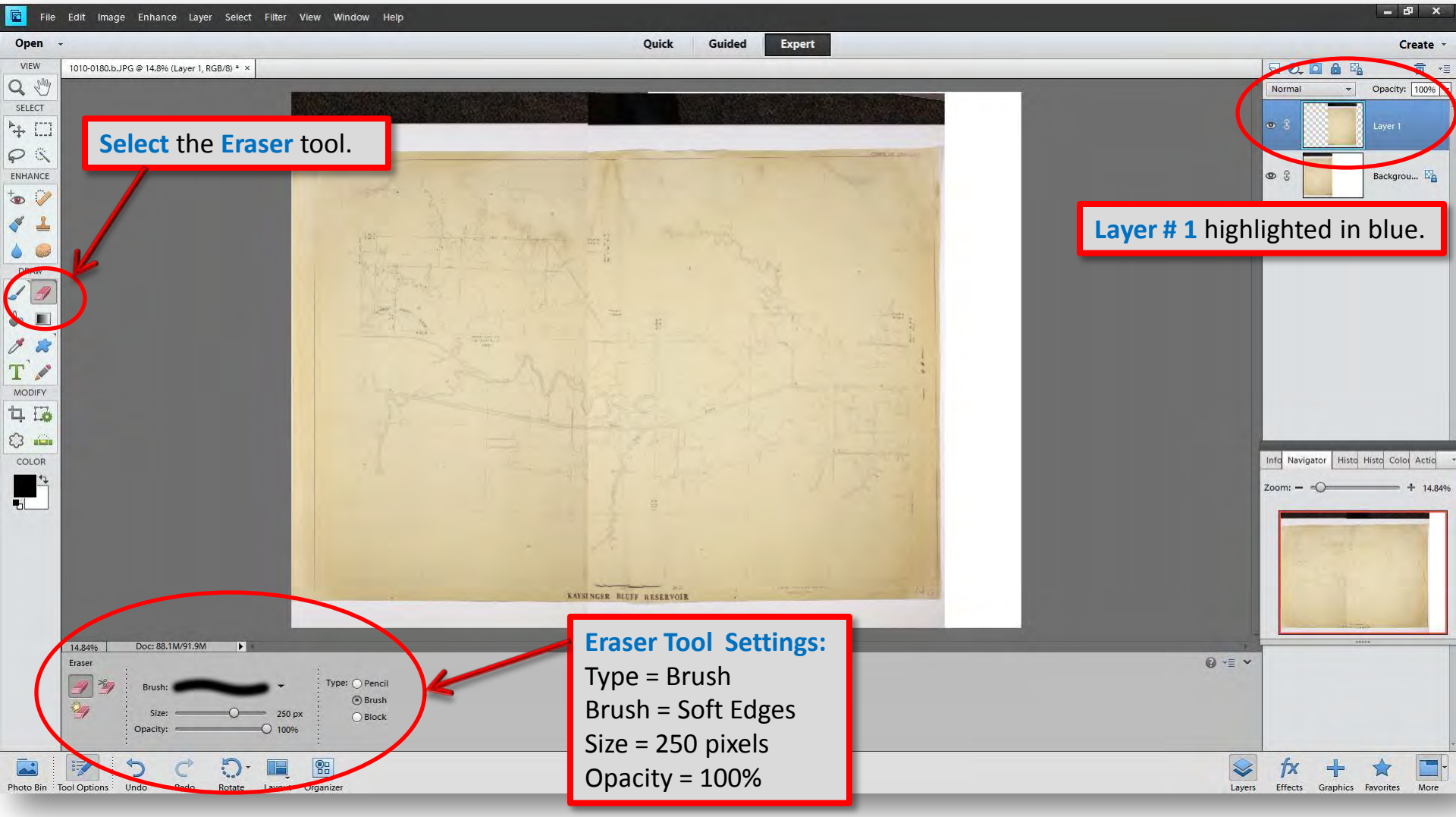
Manual Method



Manual Method



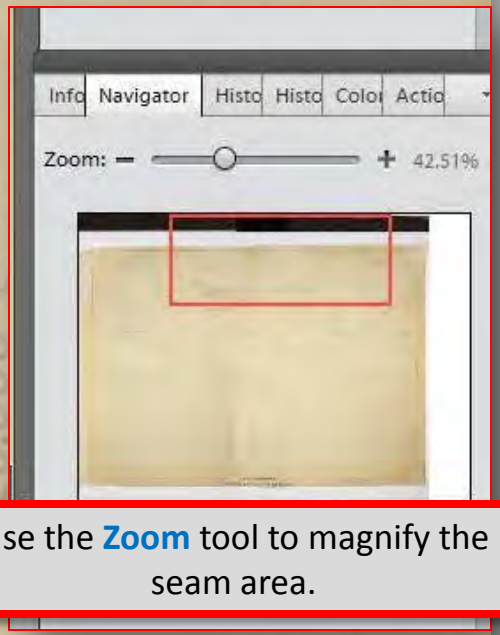
Manual Method



Manual Method

Before

After

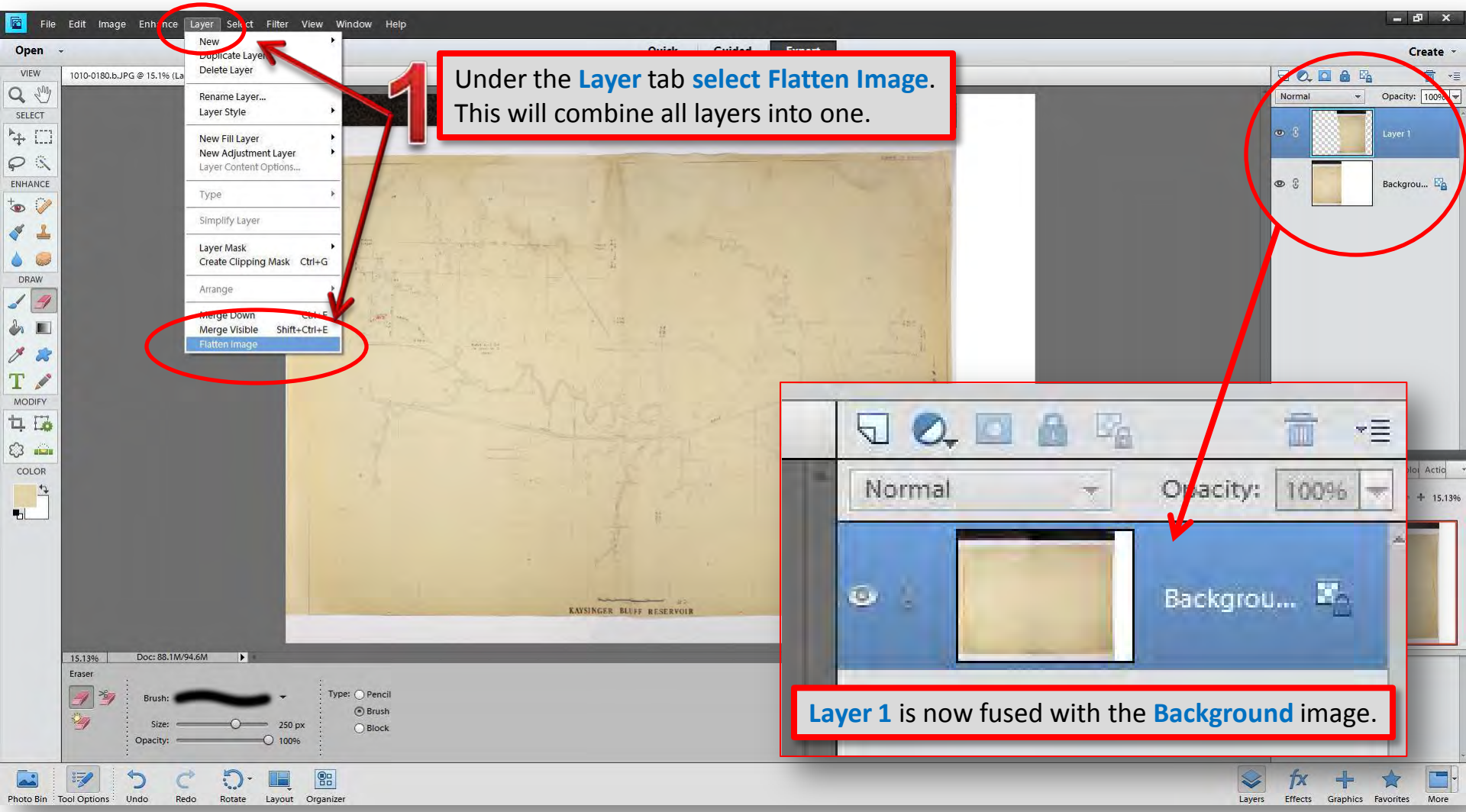


Use the **Zoom** tool to magnify the seam area.

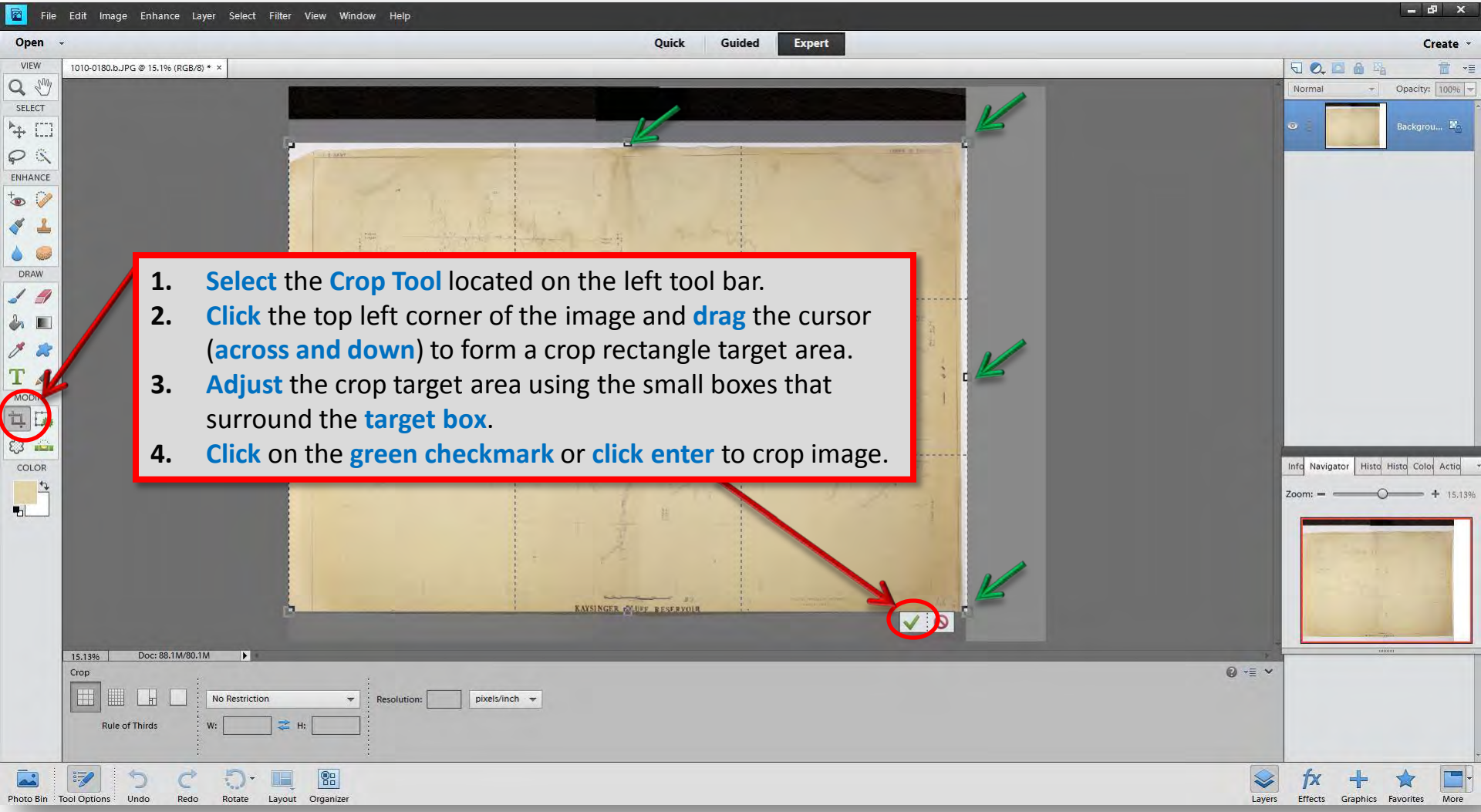
Magnify the image with the **Navigator** tool and slowly **drag** the **Erasure** tool along the seam.

NOTE: Only erase from Layer 1, and stay on the seam area.

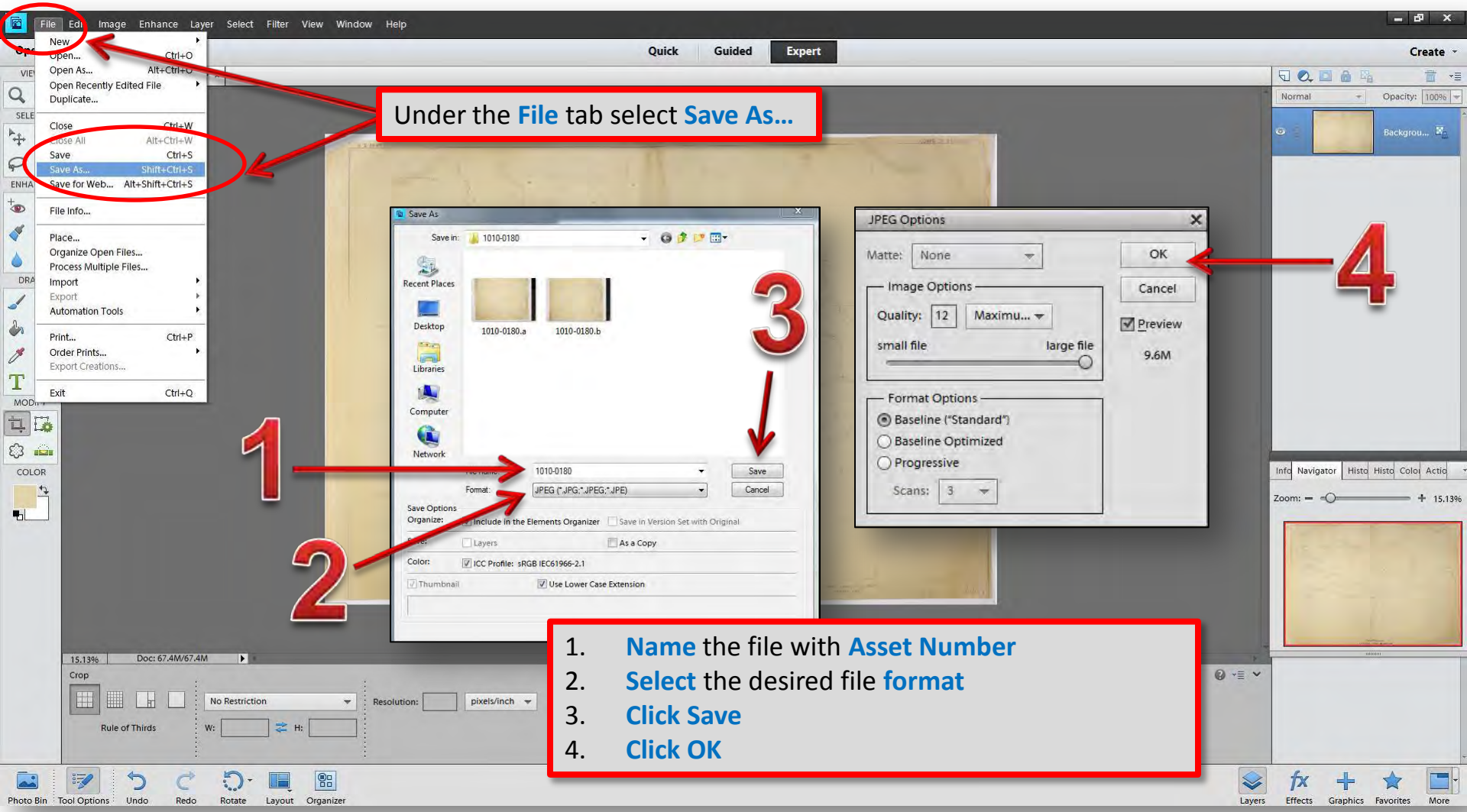
Manual Method



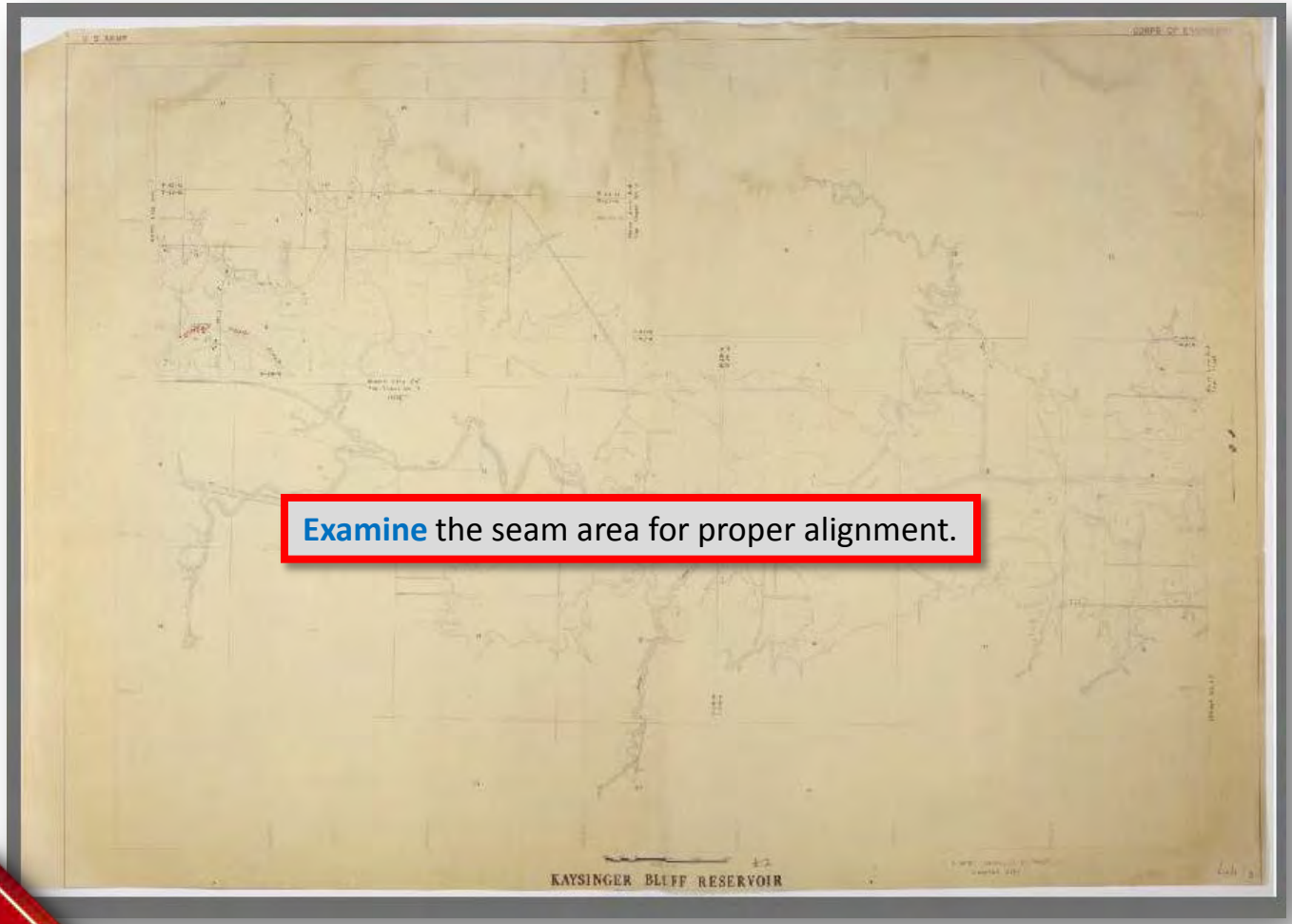
Manual Method



Manual Method



Manual Method

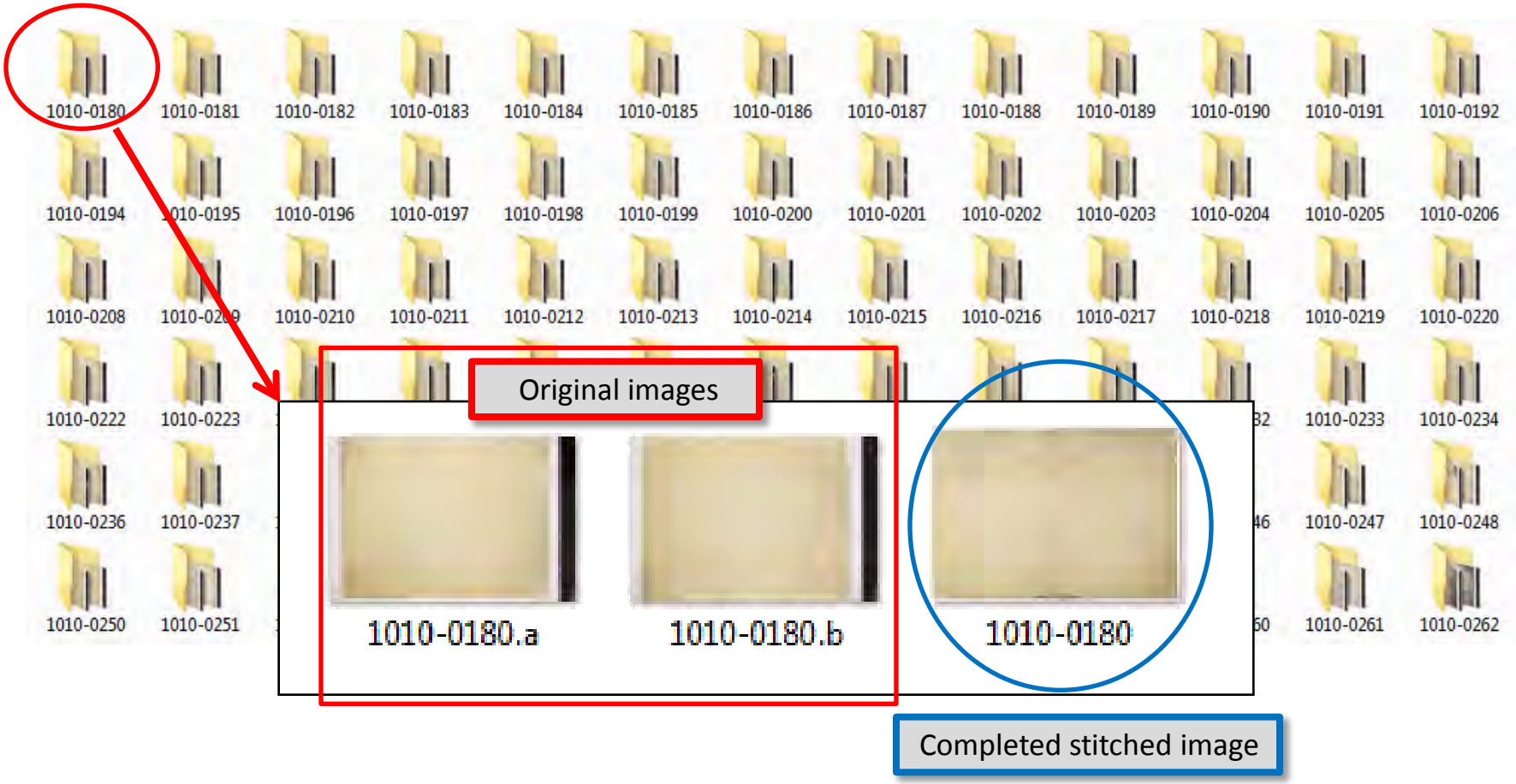


Examine the seam area for proper alignment.

STOP

QUALITY CONTROL must be performed by **LAB MANAGER** before continuing

Manual Method



The folder should contain the image files used for the stitch, as well as the final stitched image.