



# CMIS

Indiana Coal Mine  
Information System



# EDITING DIGITAL MINE IMAGES

## Using Adobe Photoshop



*Presented by Licia Weber  
Pittsburgh - June, 2005*



# WHY EDIT?

## - Legibility

Serving mine maps to the public

Clearer image for georeferencing

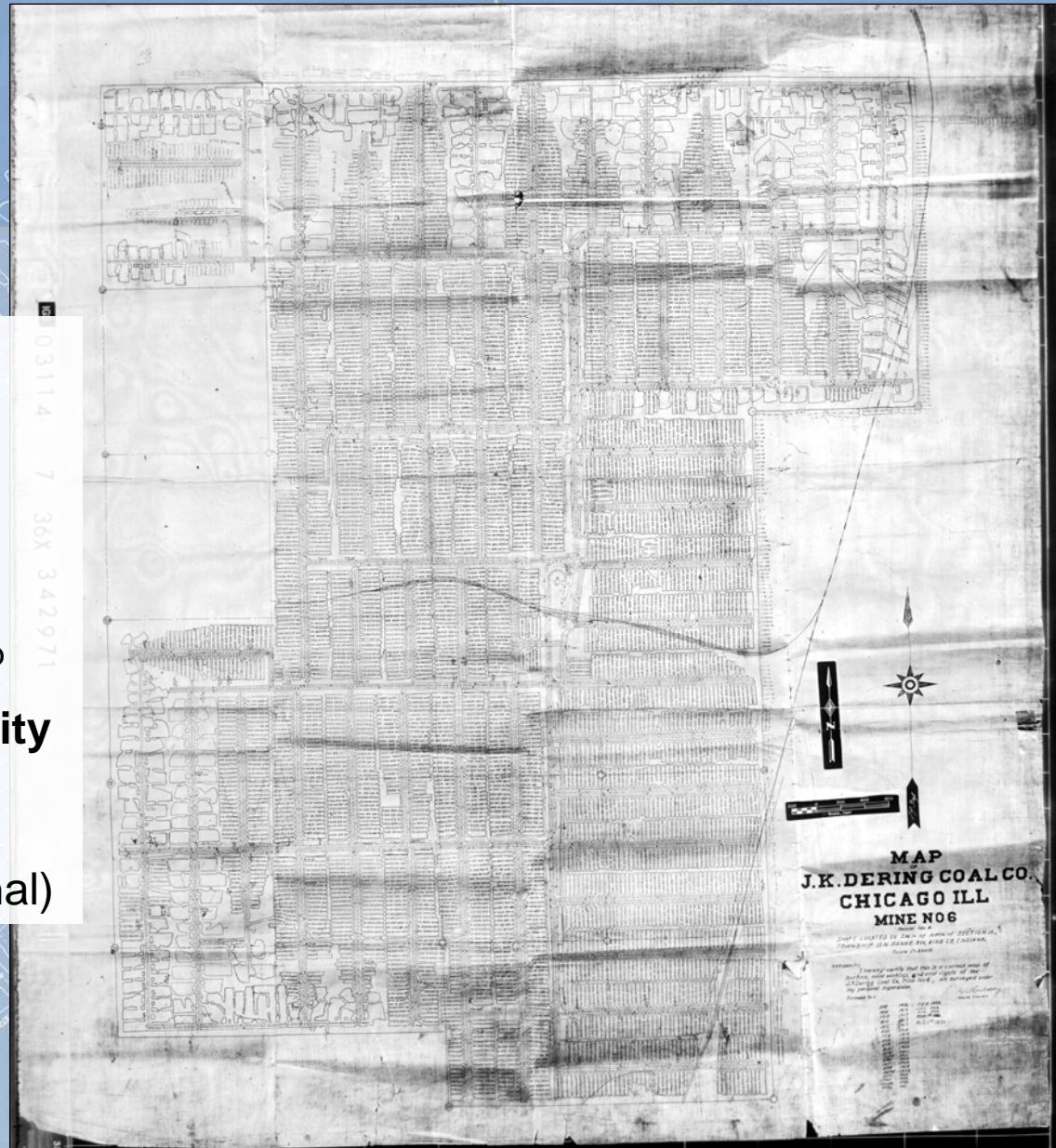
## - Readability

Drilling data and other info on map

## - Consistency in image quality

## - Preservation of map info

## - Prep for vectorizing (optional)





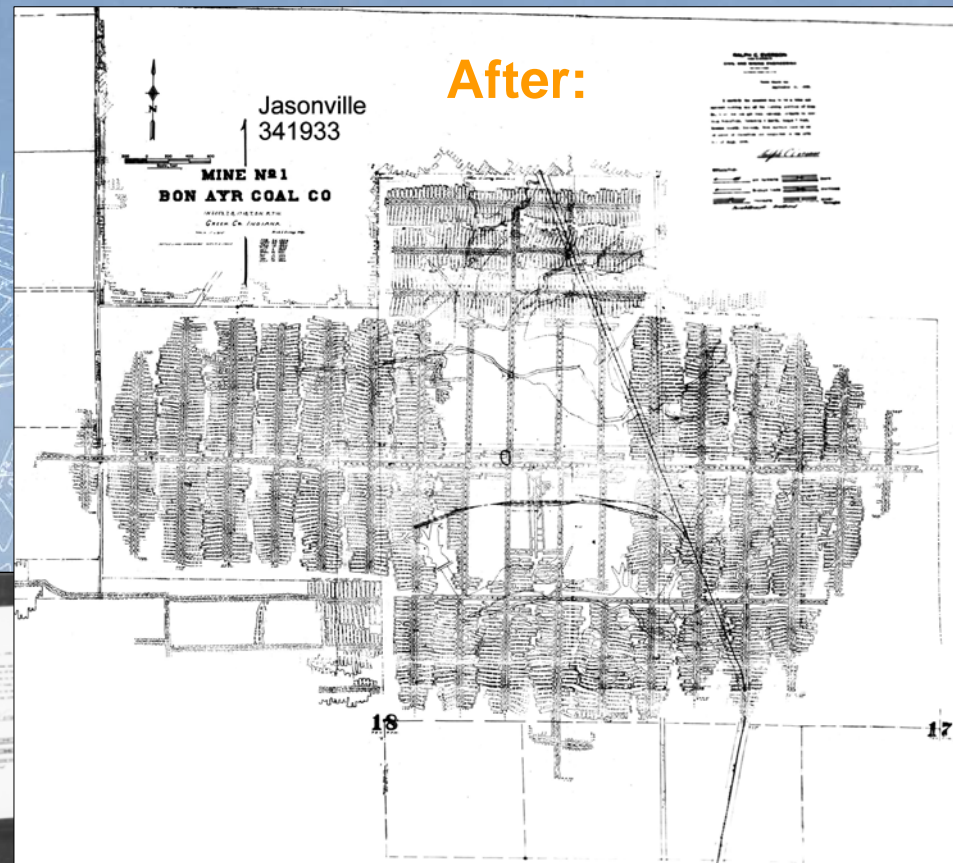
The process of editing is more of an art than a science.

Procedures can be established for editing, but each map has it's own unique issues.

**Before:**



**After:**



It takes a certain eye for detail and someone who 'cares' to do the task.

The main objective is to make sure all the information on the map is preserved and legible.

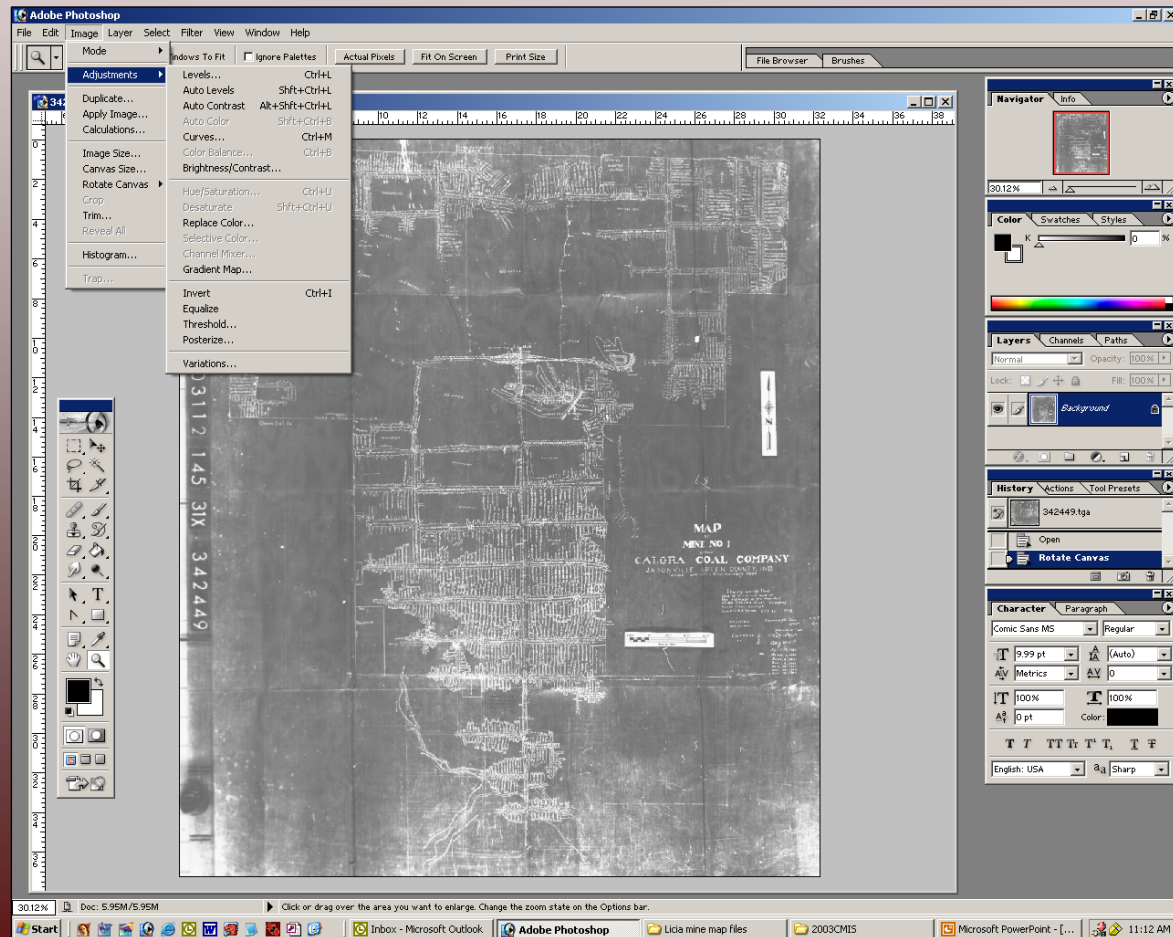
# Using Adobe Photoshop

## Editing map images for legibility

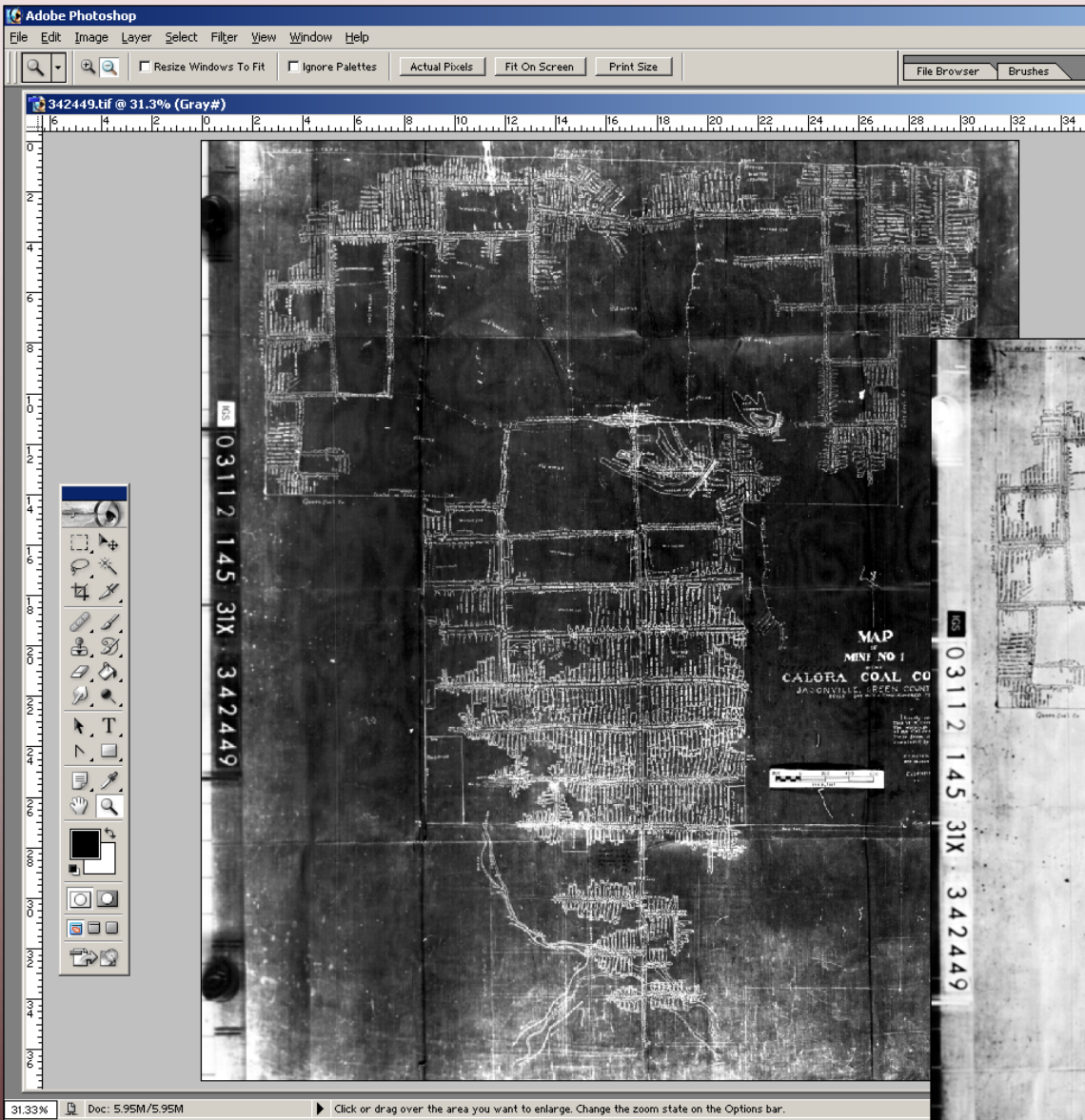
Many of the functions that will be used for editing mine map images are found under:

**Image**>  
**Adjustments**>  
**Levels**  
**Brightness/Contrast**  
**Invert**  
**Variations**

Other preliminary functions such as **Rotate** and **Image Size** are also found in the **Image** menu





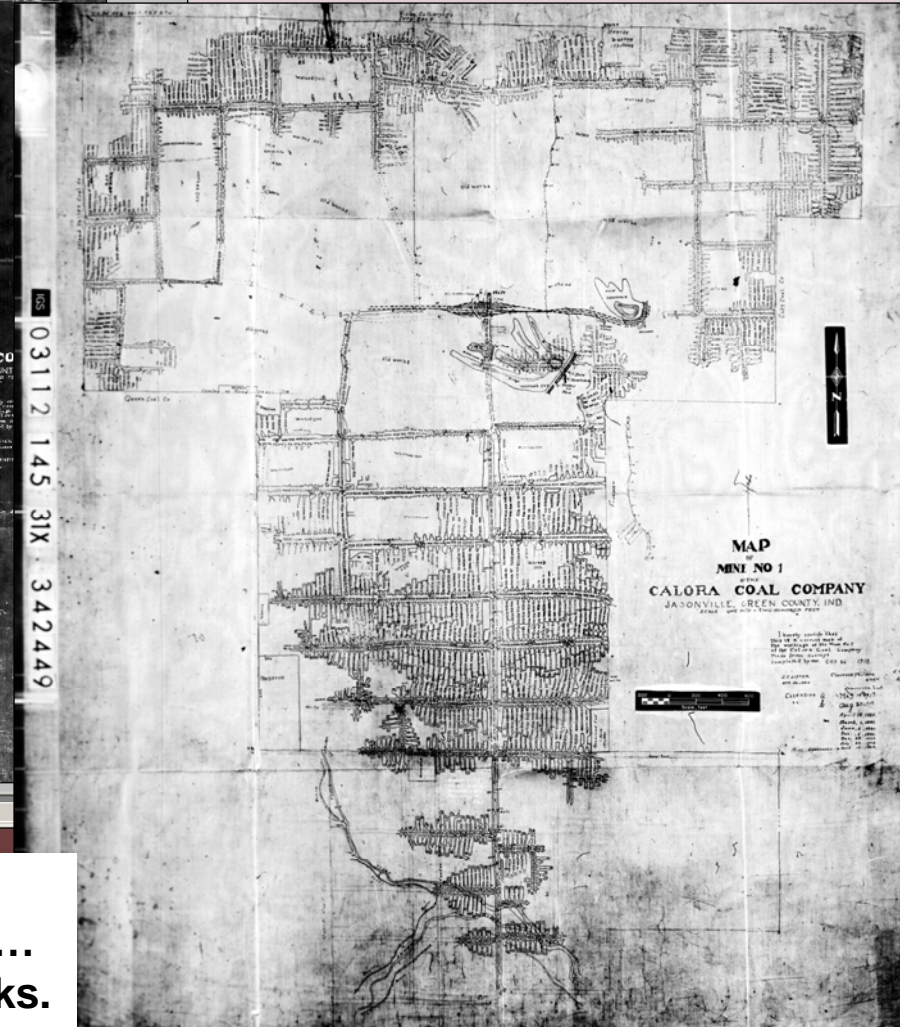


**Convert the image to black on white background:**

**Image>**

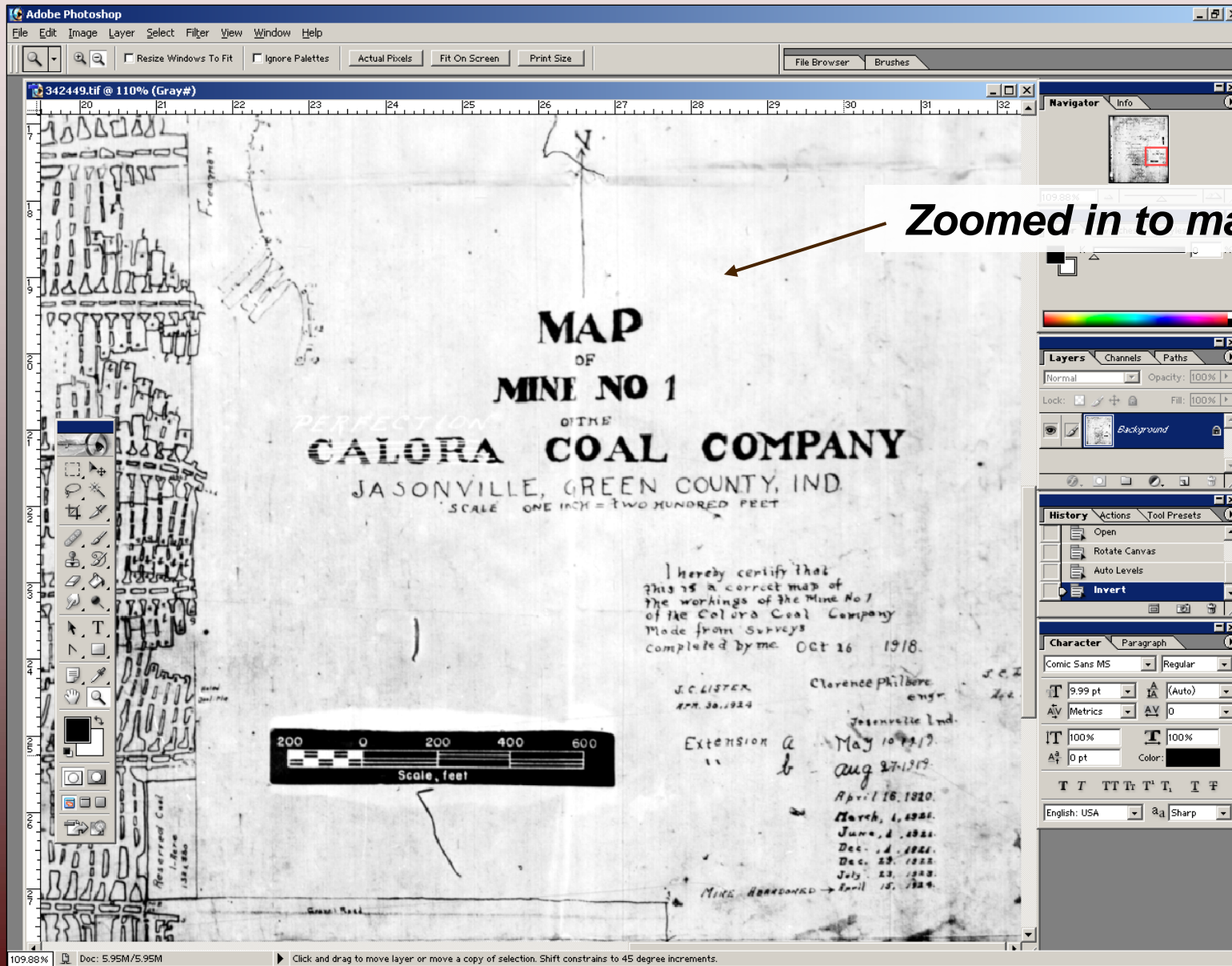
**Adjustments>**

**Invert**



**Sometimes the Auto Levels or Auto Contrast functions are used before inverting the image... It depends on the users preferred order of tasks.**

# Check map details... Are they still legible?

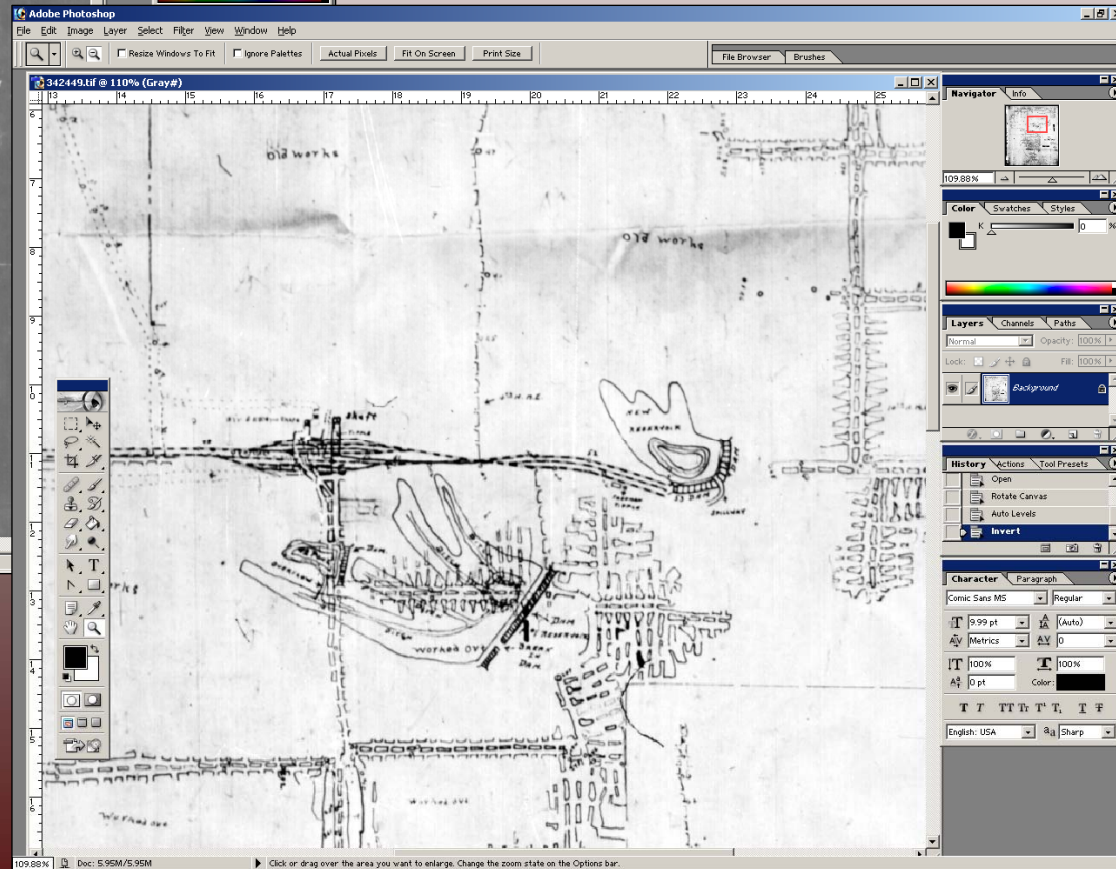
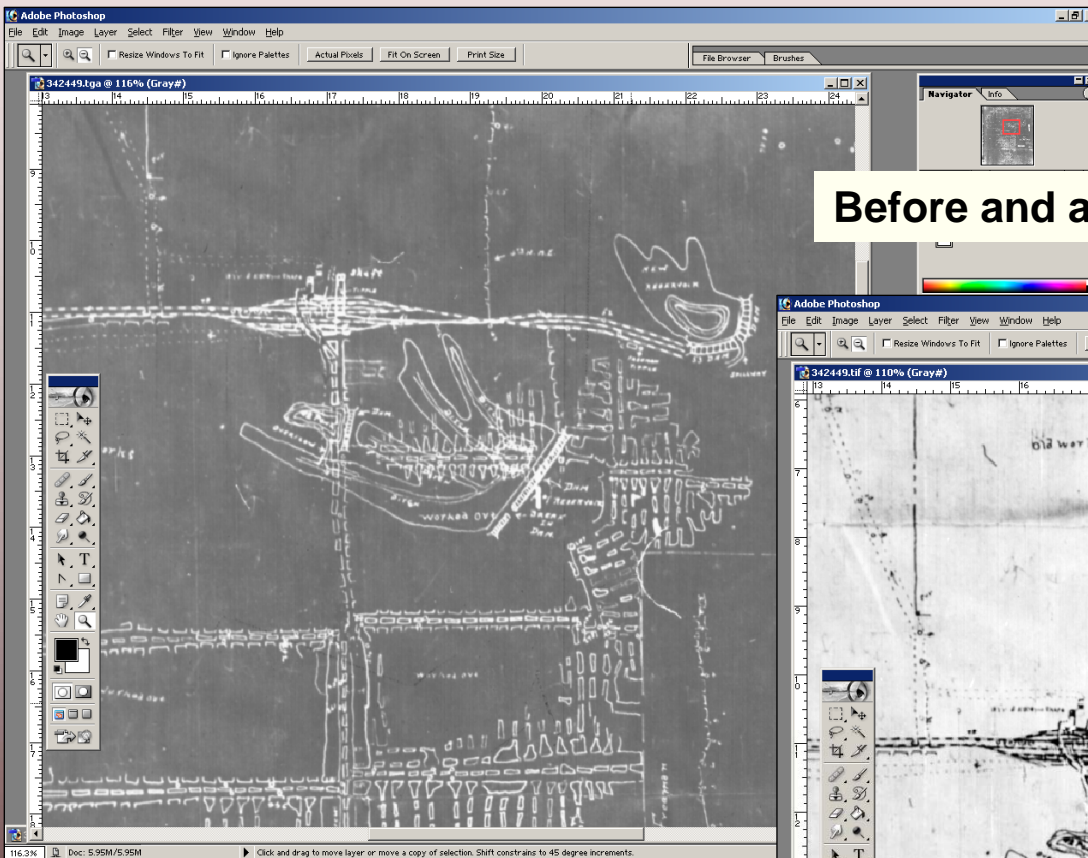


Zoomed in to map legend



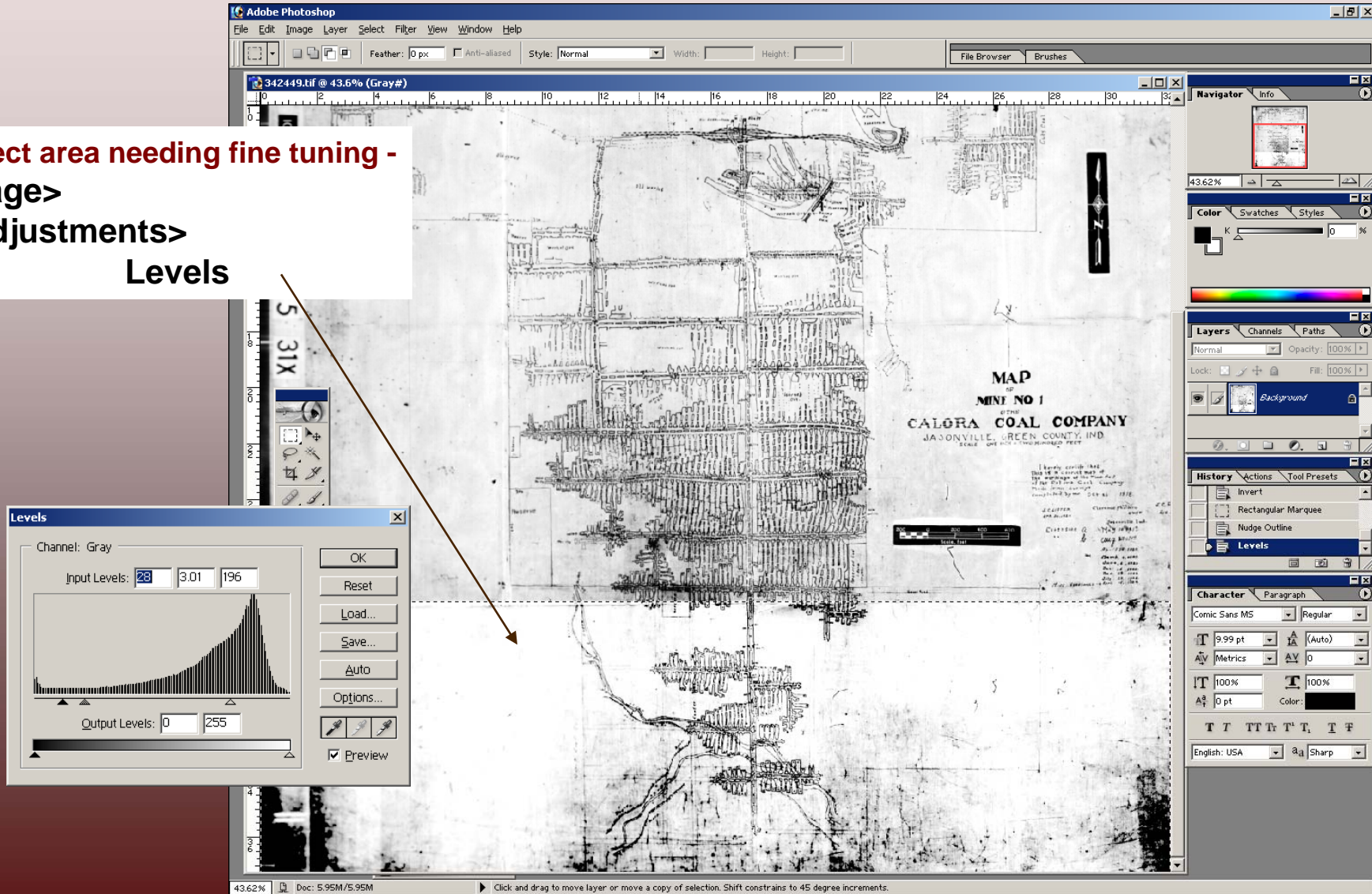
# Continue to check for map detail legibility...

Before and after editing - comparing map details



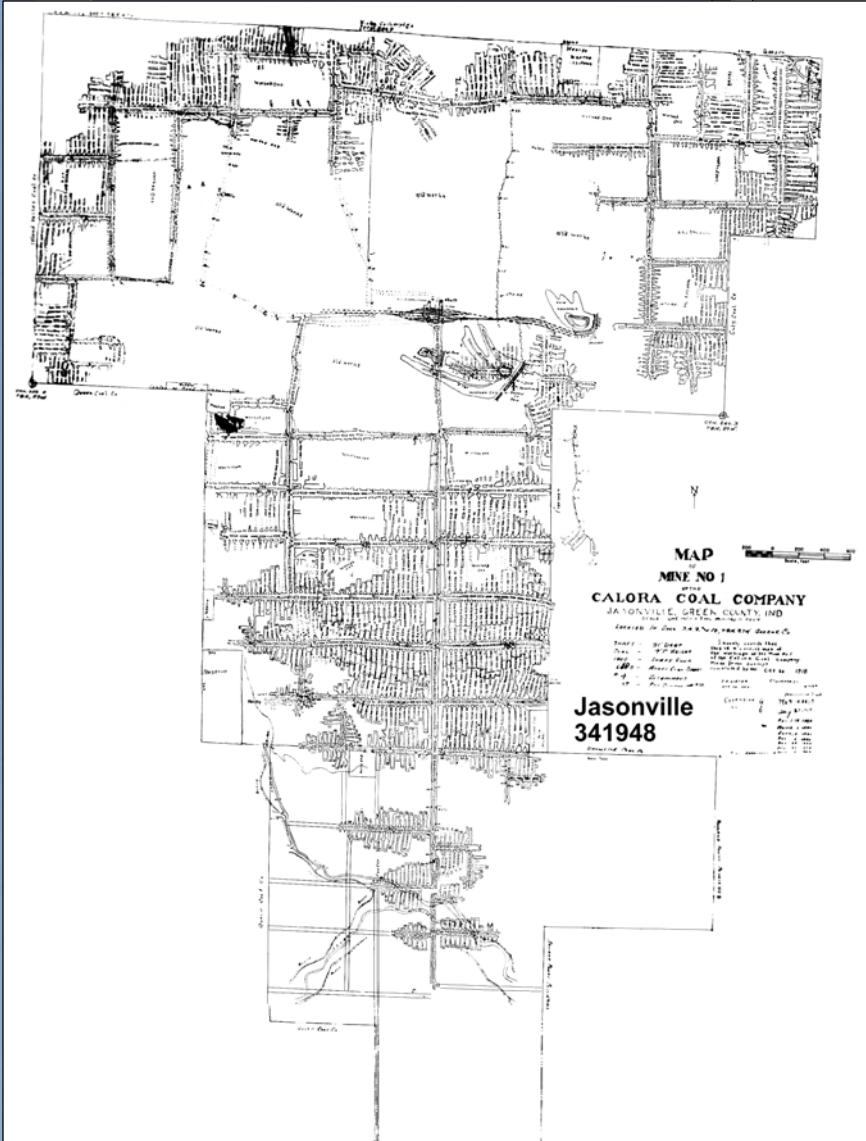
# Fine tuning... work on areas where background may be dark (or lines are too light)

Select area needing fine tuning -  
Image>  
Adjustments>  
Levels





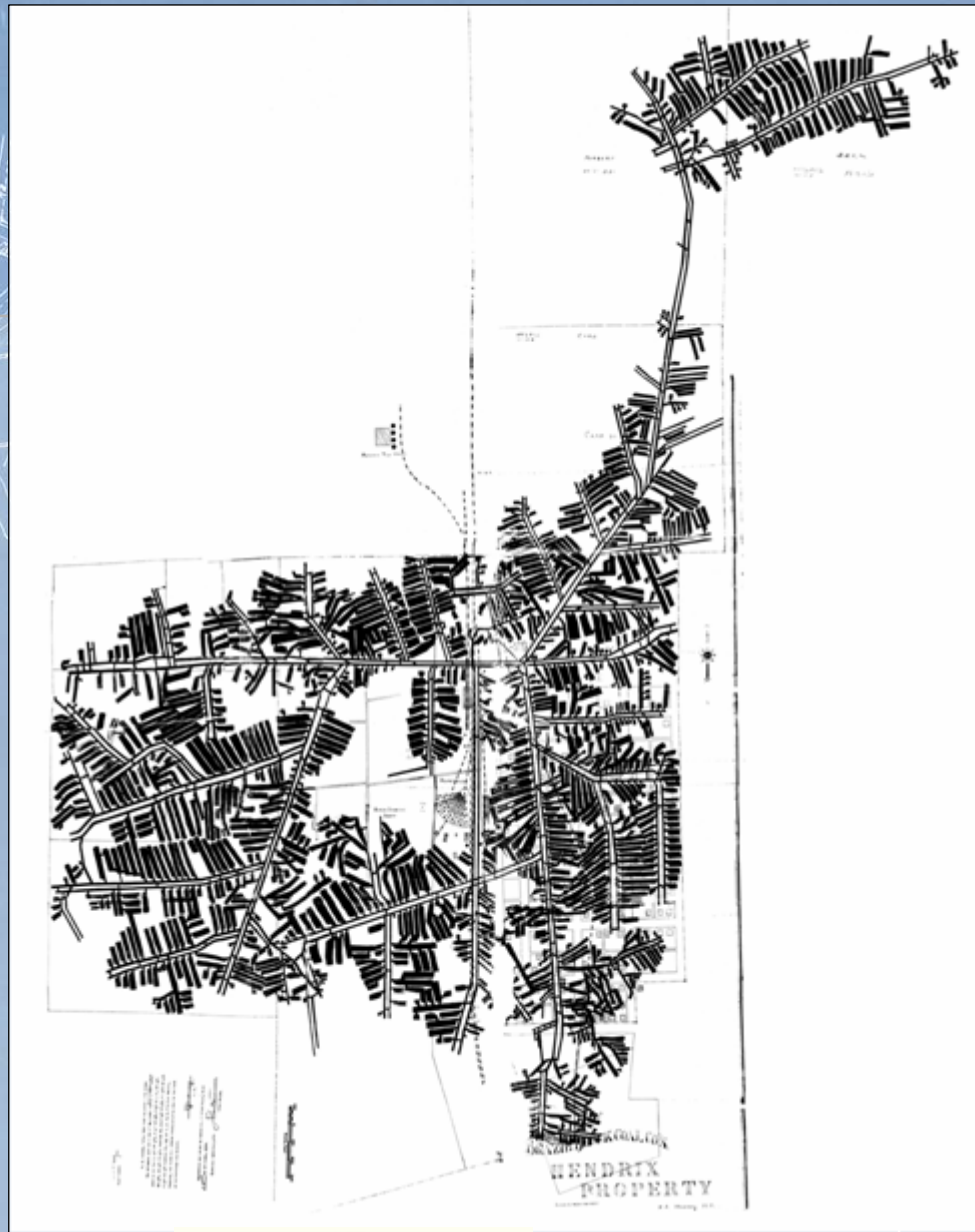
# Finished image...



5.95M

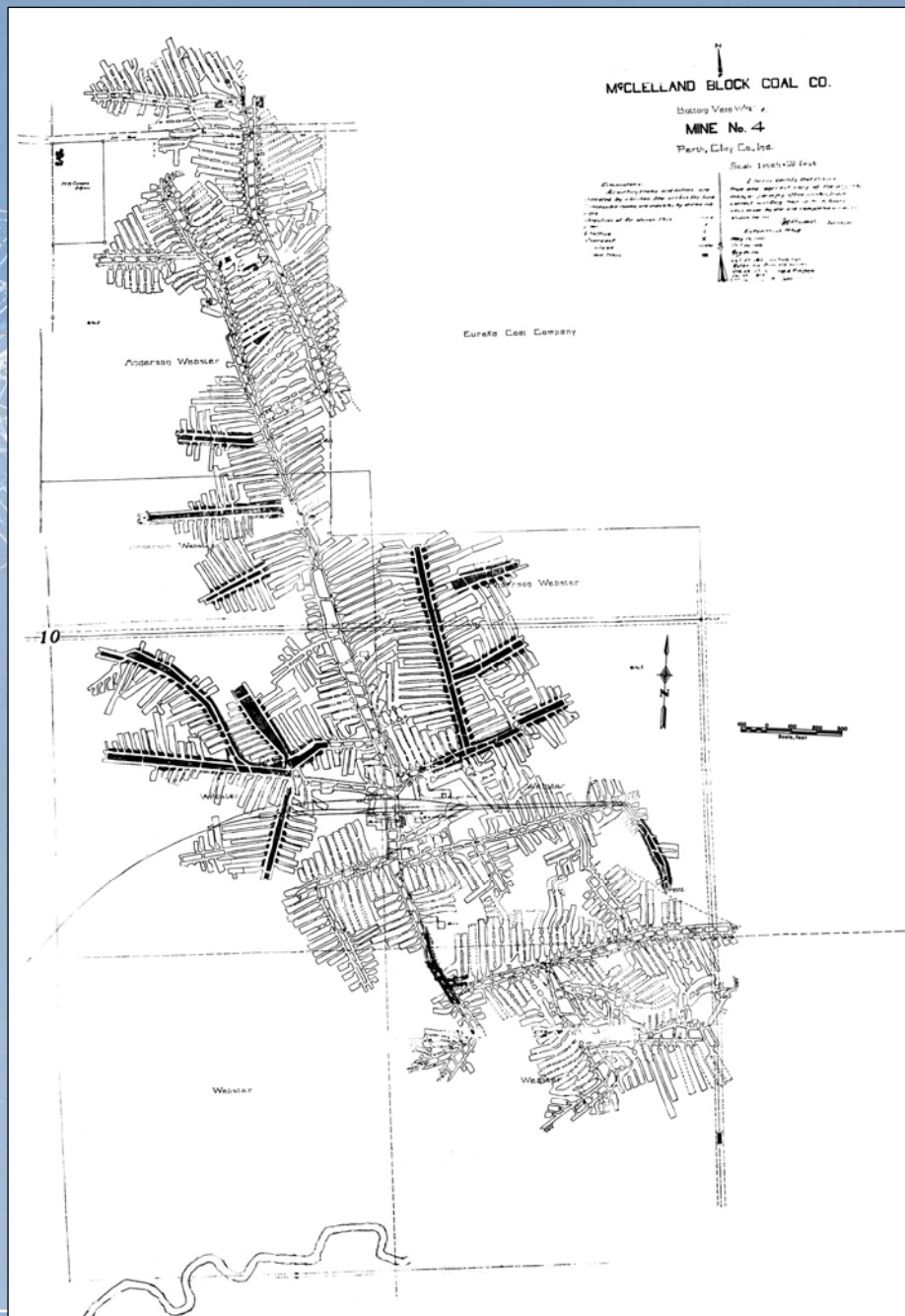
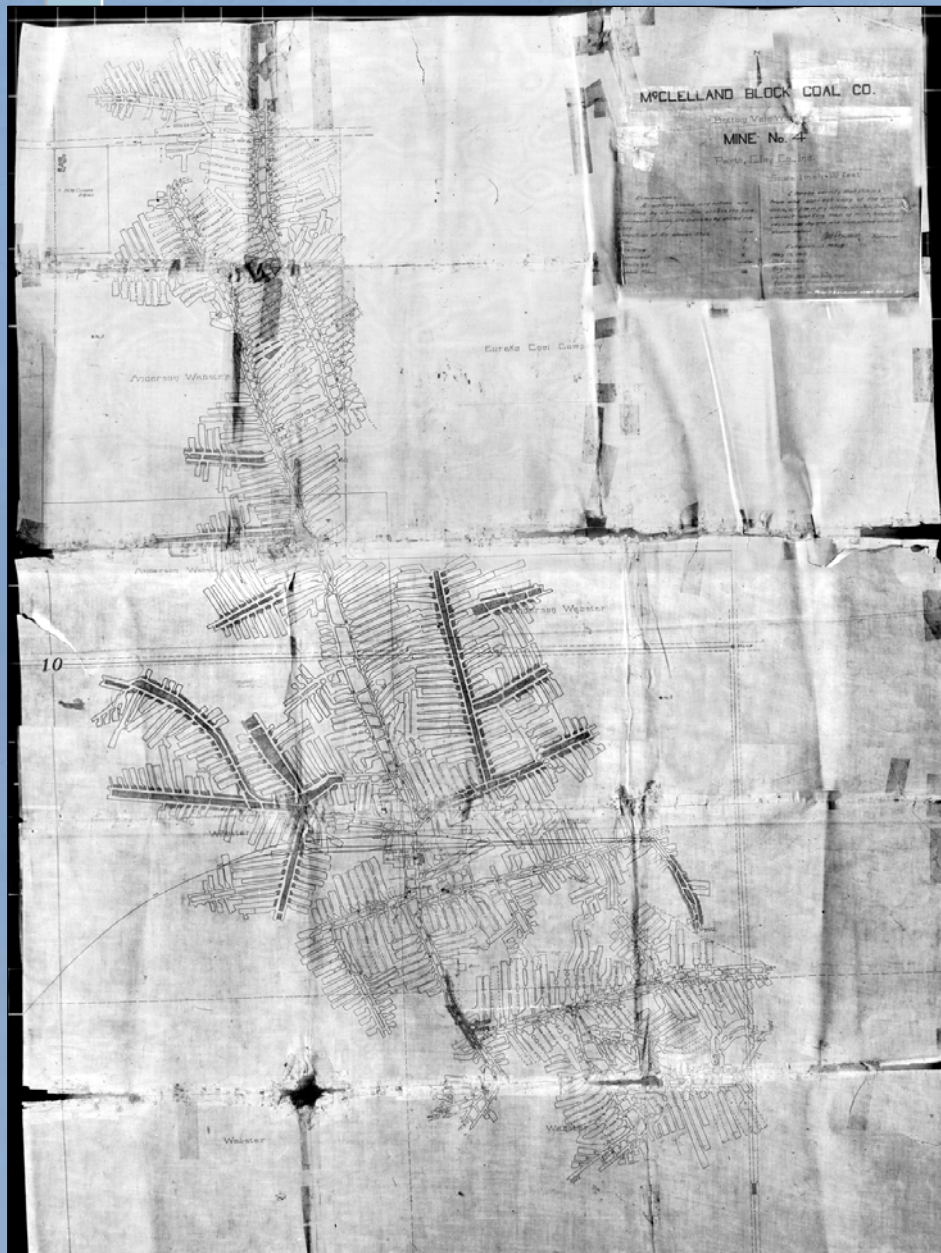
Click or drag over the area you want to enlarge. Change the zoom state on the Options bar.

**BEFORE**



**AFTER**





# Contact Info:



**Licia Weber**

**Indiana University - Indiana Geological Survey**

**611 N. Walnut Grove**

**Bloomington, IN 47405**

**812-855-1364**

**weber@indiana.edu**