

Nuts and Bolts of Brownfields


GETTING STARTED, WHAT TO EXPECT, SITE INVENTORY
RESOURCES AND POTENTIAL RESULTS

WV BROWNFIELDS CONFERENCE

SEPTEMBER 7TH, 2016

CHARLESTON, WV





EPA Definition of a “Brownfield” = **“real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant”**

“Hazardous substances, pollutants, or contaminants”:

Petroleum-based substances (gasoline, diesel fuel, motor oil, etc.), heavy metals (arsenic, lead, selenium, etc.), various chemicals and substances (asbestos, PCB's, solvents, etc.)

“Potential Presence” – doesn't have to be determined to be present first in order to be called a “brownfield”


Types of Brownfields:

closed industrial facilities, abandoned commercial buildings and residential structures (single-family house, apartment building, etc.), surface mine lands, former service stations, former dry cleaners, mechanic shops, et al.

Comments

-Brownfields can be redeveloped for any positive use, such as: New business locations, residential use, recreational use, green space, etc.

-Redeveloping brownfields can lead to increased employment opportunities, increased tax base, diversification of local / regional economy, local community revitalization, improved quality of life, etc.



GETTING STARTED

1. **Why are you interested in redeveloping brownfield properties?**
2. What's your geographical area of interest?
3. What are the types of brownfield properties in your geographical area?
4. Where are the brownfield properties of interest located?
5. What is known about these properties?
6. What are "potential" re-use plans for the brownfield properties of interest?
7. What are the "priority" sites of interest?
8. What are your goals (short-term and long-term)?
9. Who / what else is needed to make your goals a reality?
10. **How committed are you?**



WHAT TO EXPECT

- ✓ Often a slow process
- ✓ Lack of continued commitment from other “partners”
- ✓ Environmental issues and regulations can be high hurdles
- ✓ Lots of questions and unknowns
- ✓ Takes a lot of time
- ✓ Your goals and priorities are not necessarily the same as others
- ✓ Goals change with time
- ✓ Negative criticism
- ✓ The phrase “You can’t do that” is often heard
- ✓ Expect changes

What more reason do you need to start your brownfields project???

An often overlooked yet critical “first-step” is the development and continued use of an accurate, up-to-date site inventory

Mapping your Brownfield Sites







What is a Geographic
Information System (GIS)?



GIS and Brownfields

- ▶ Google Search:
 - ▶ A geographic information system or geographical information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.
- ▶ What kinds of data have a spatial or geographic link?
- ▶ How does this apply to your brownfield inventory?



Options



- Commercial GIS System
- Open Source GIS System
- Go simple: Google Earth



Commercial GIS System

- Pros
 - Complete and Robust Software
 - Data sources available
- Cons
 - Cost: \$5,000 - \$40,000
 - Need someone trained
- Example: Environmental Systems Research Institute (ESRI)



Open Source GIS System

- Pros
 - Cost
 - Similar capabilities to commercial system
- Cons
 - Need to train users
 - No guarantee of support
- Example: Quantum Geographic Information System (QGIS)



Go simple: Google Earth

- Pros

- Cost
- Easy to Use
- Many people know how to navigate

- Cons

- Not much analysis capability



Anyone using some type of
Mapping



Reasons to Map Properties

- Overall Perspective
 - Where are properties in relation to each other, to other resources, etc.
 - Are there clusters of properties
- Categorize Data
 - Color code or assign icons based on status of property
- Share
 - Various ways to share your data



Example Using Google Earth



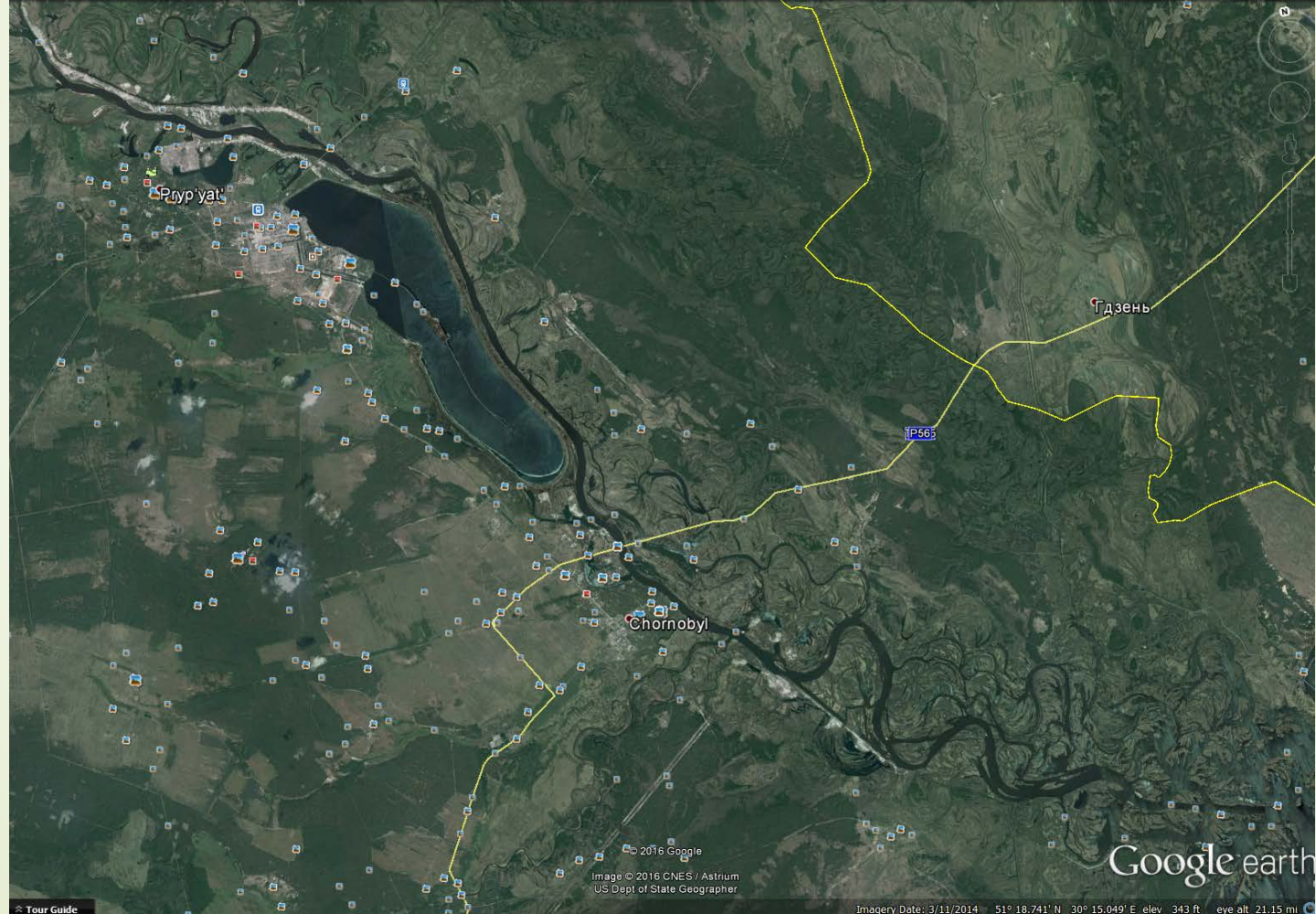
Town in Europe

- Chernobyl, Ukraine
 - Two Spellings
- Has several Brownfields

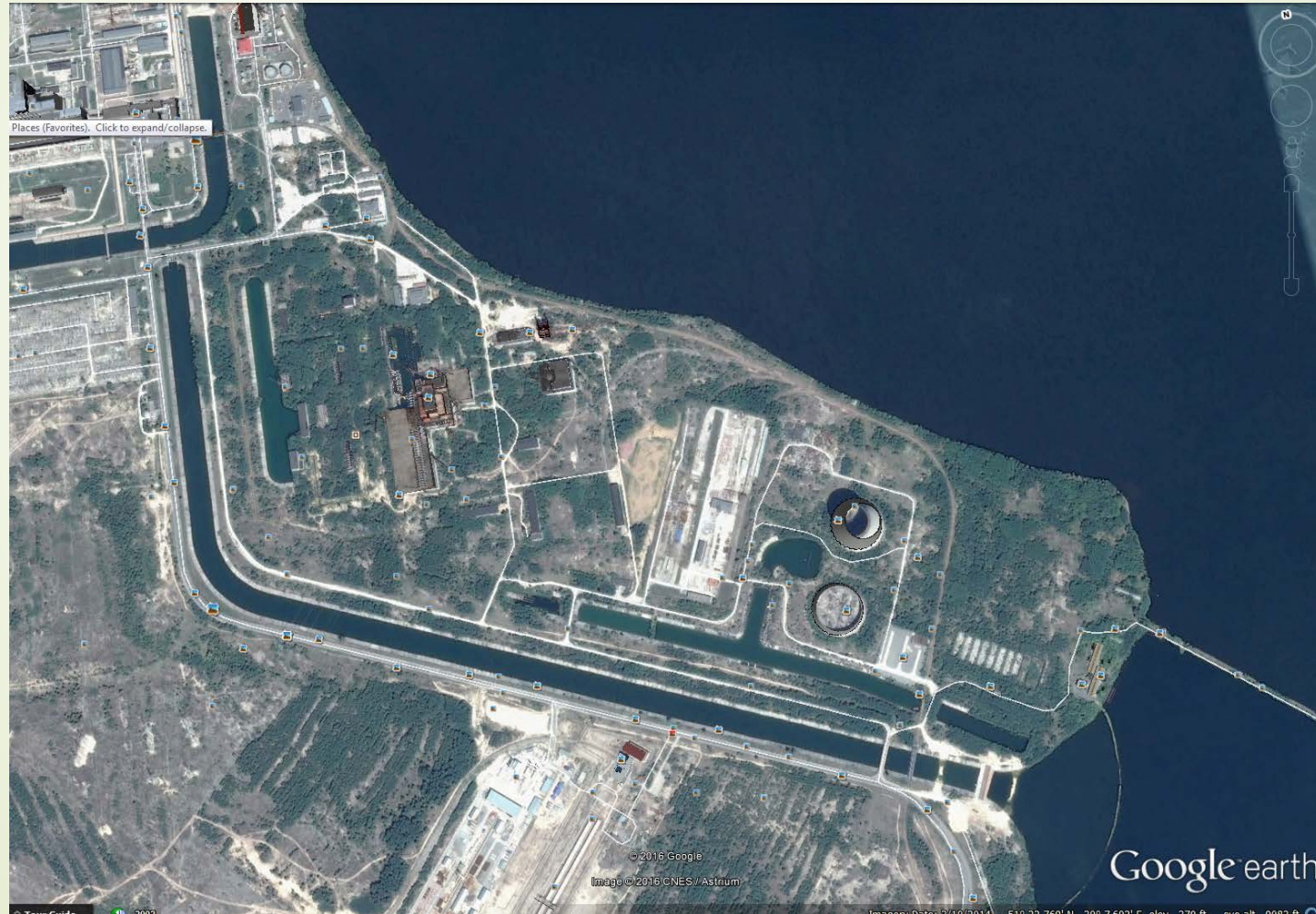
Good Location in Central Europe



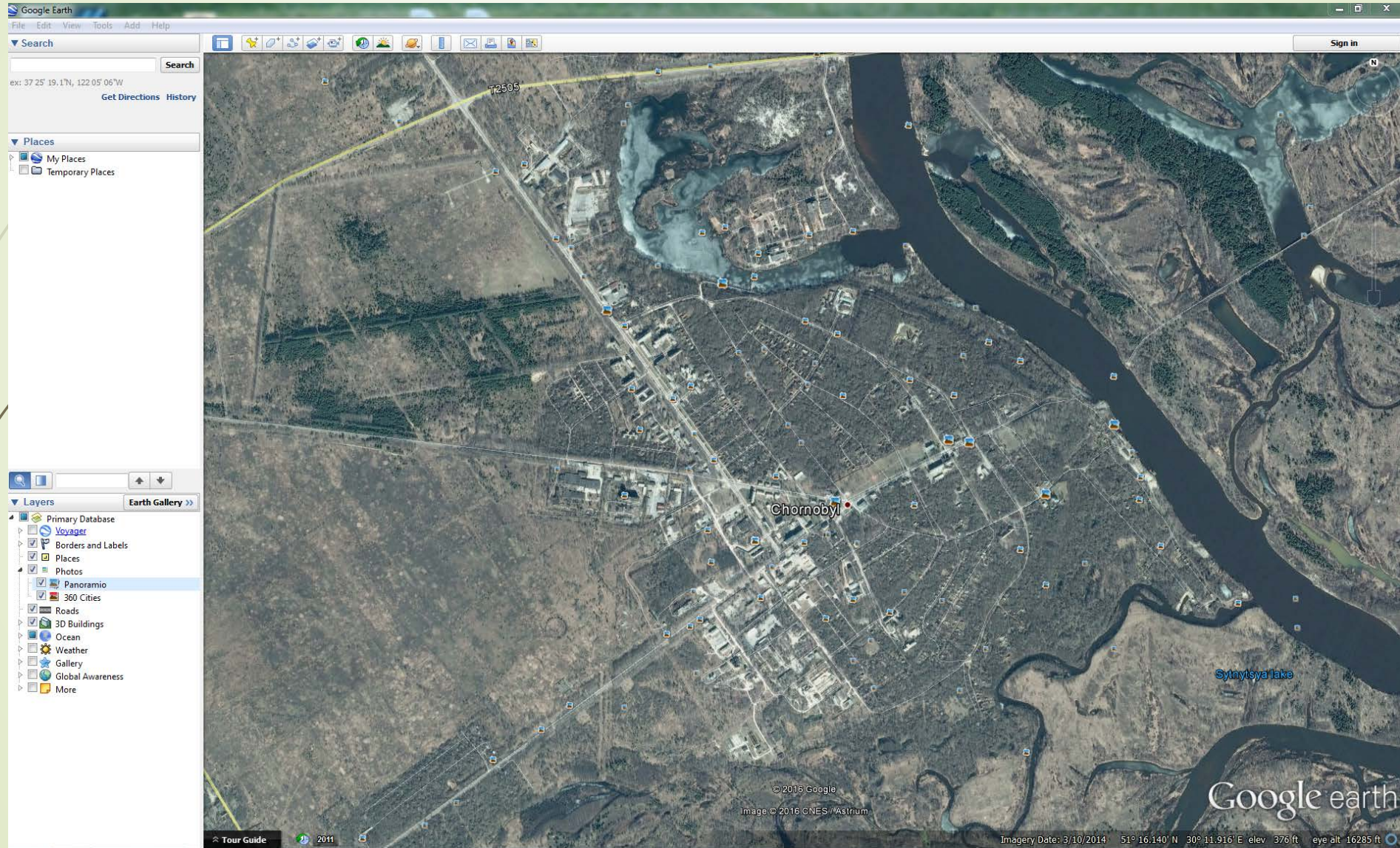
Major roads and river system



Idle Nuclear Power Plant



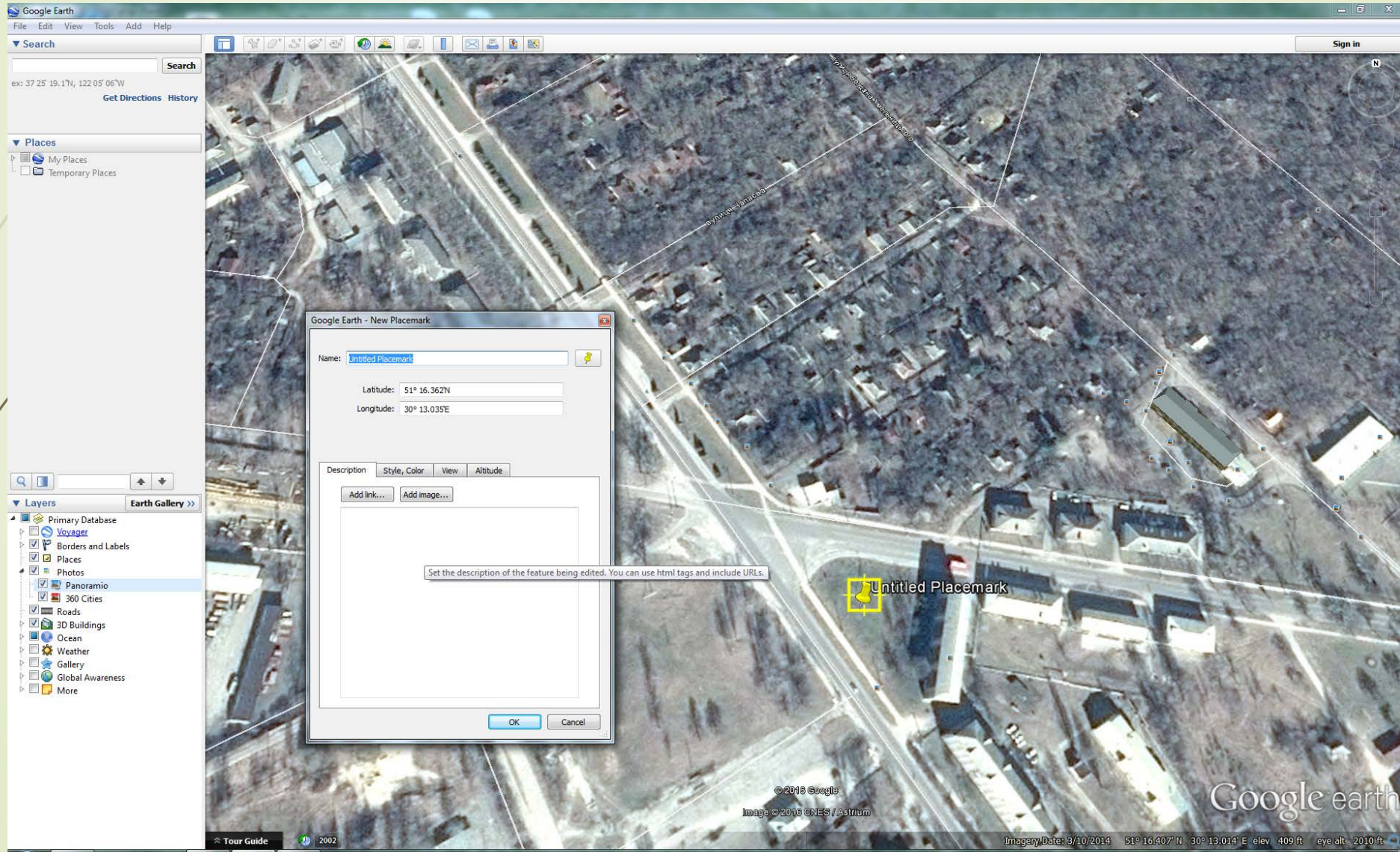
Open Google Earth



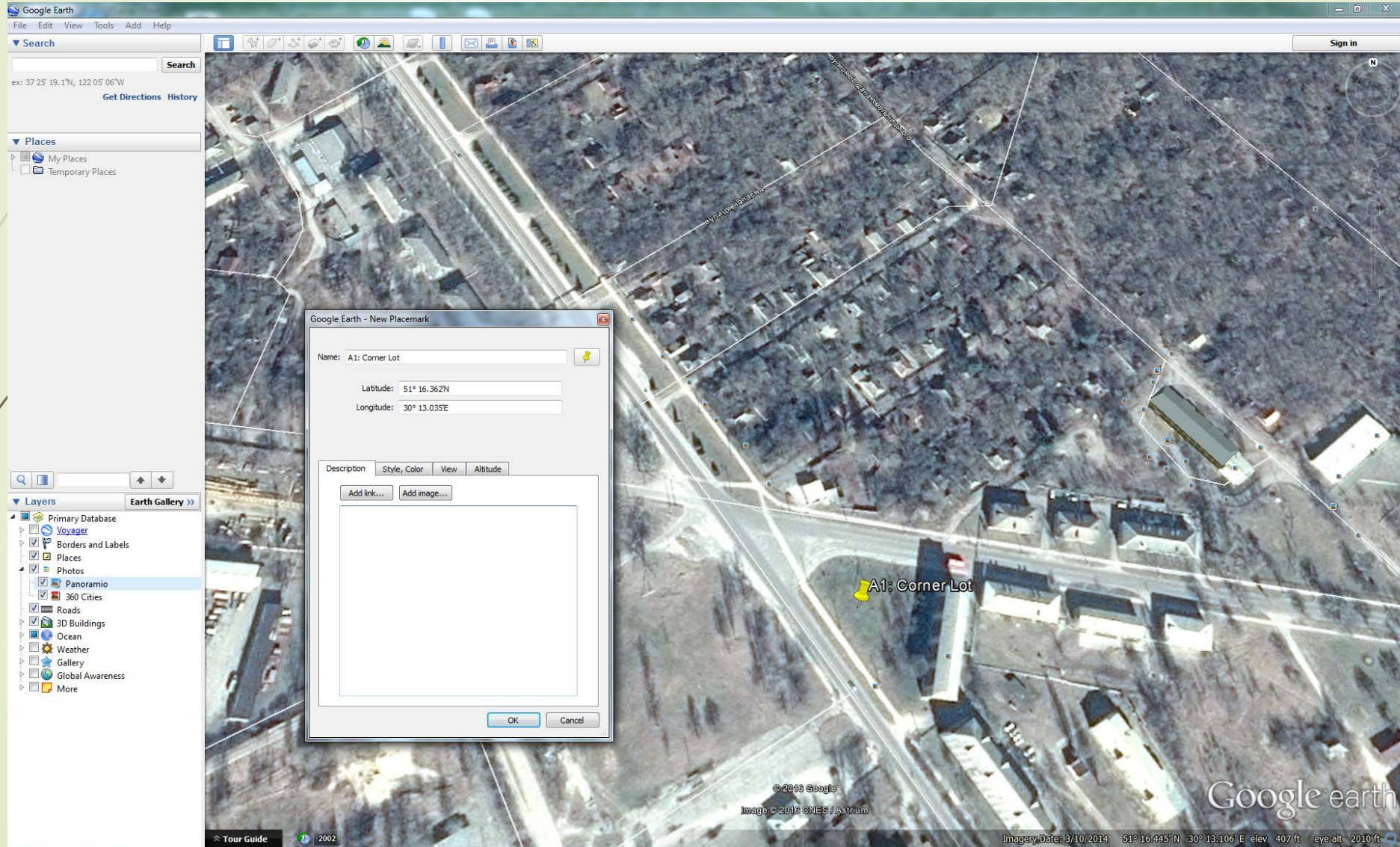
Find Site of Interest and Zoom In



Add Placemark



Name Location



Add Description

Google Earth - New Placemark

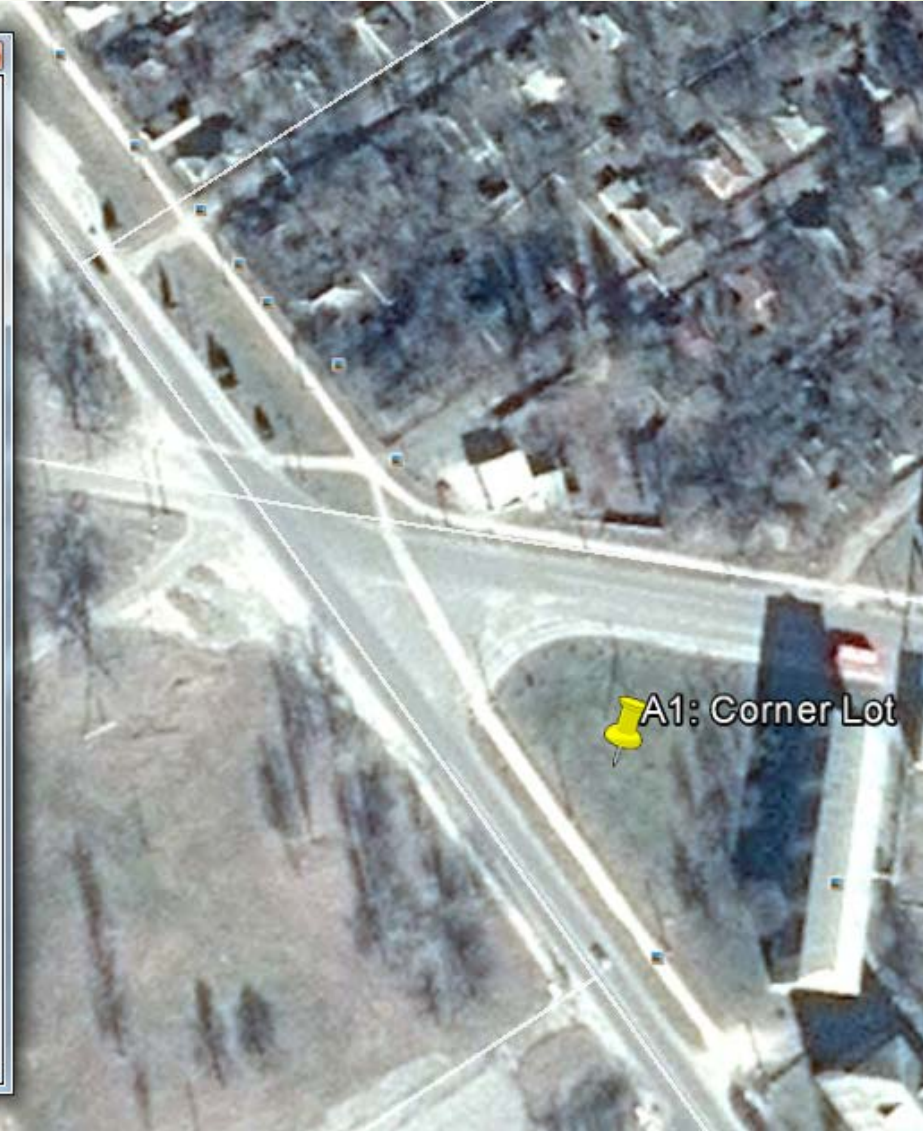
Name:

Latitude:

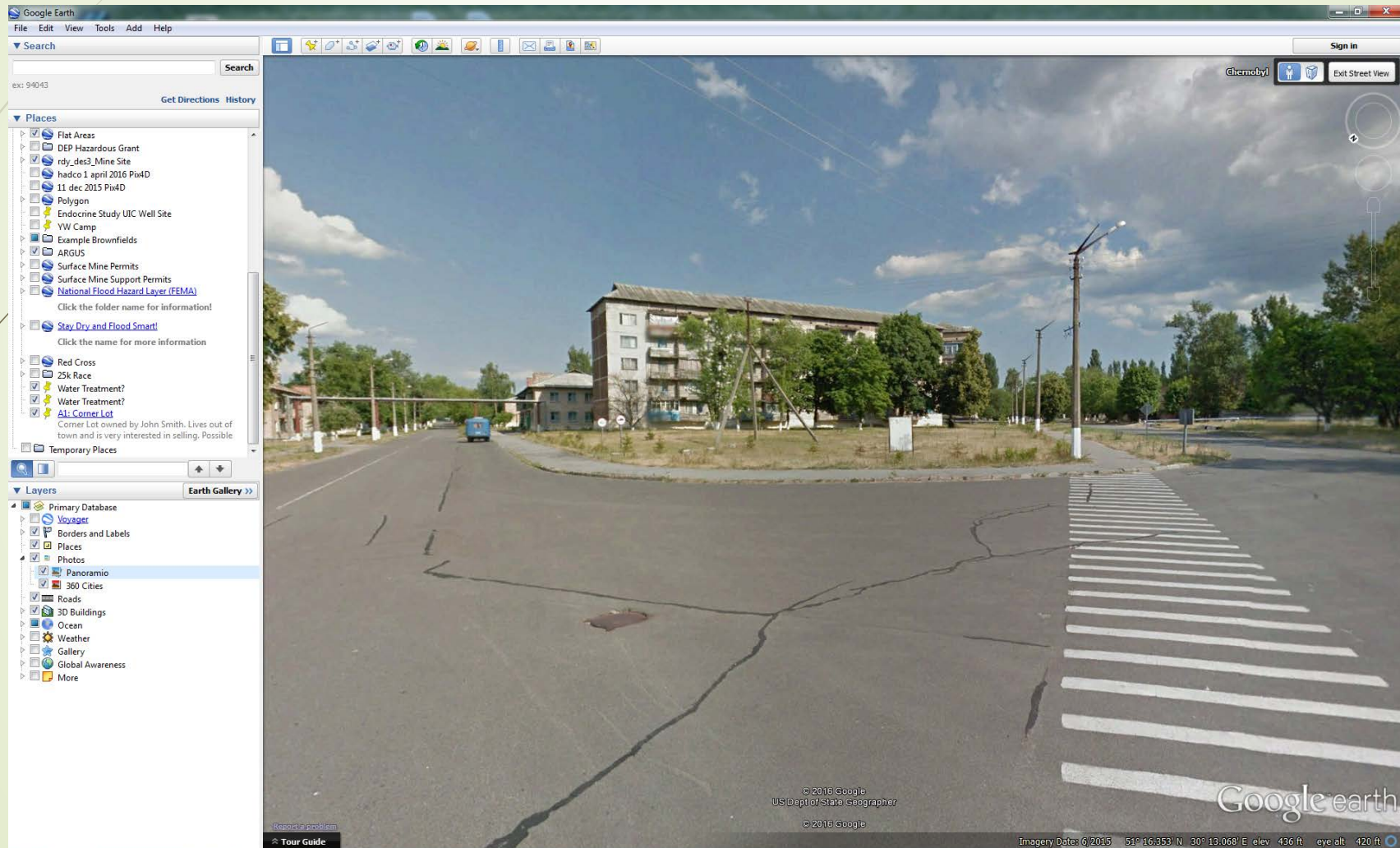
Longitude:

Description

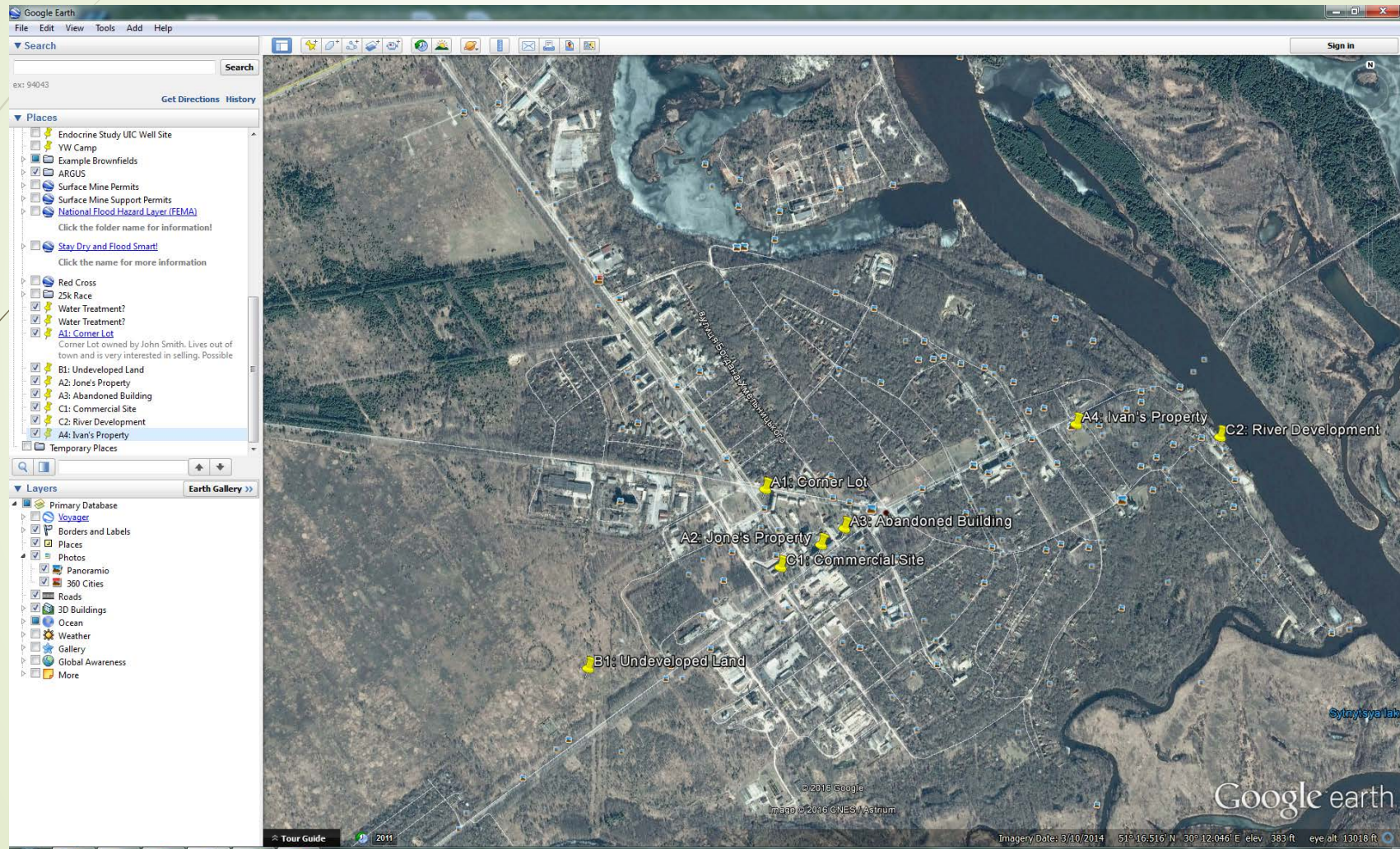
Corner Lot owned by John Smith. Lives out of town and is very interested in selling. Possible location for new gas station.



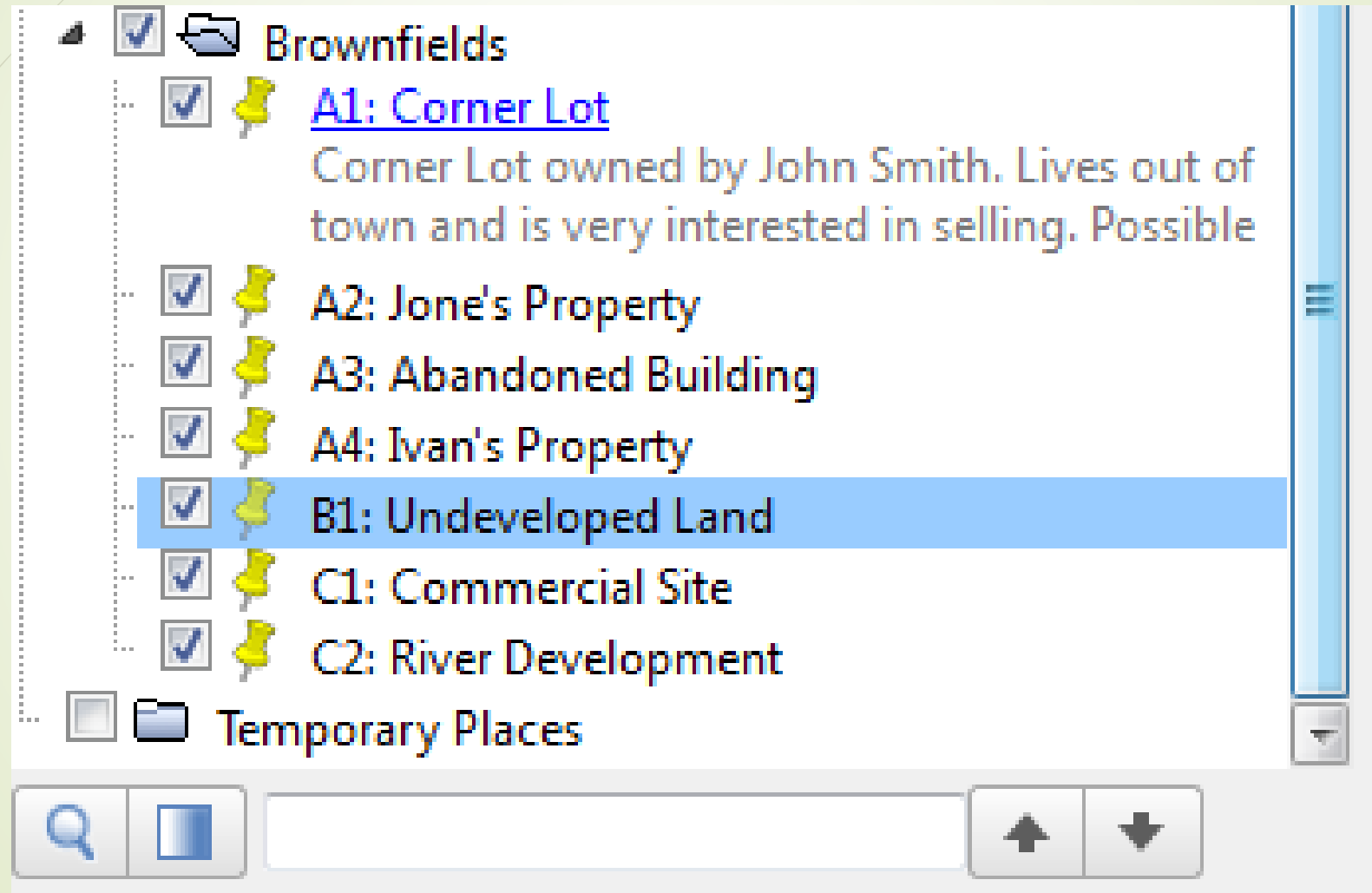
Street View



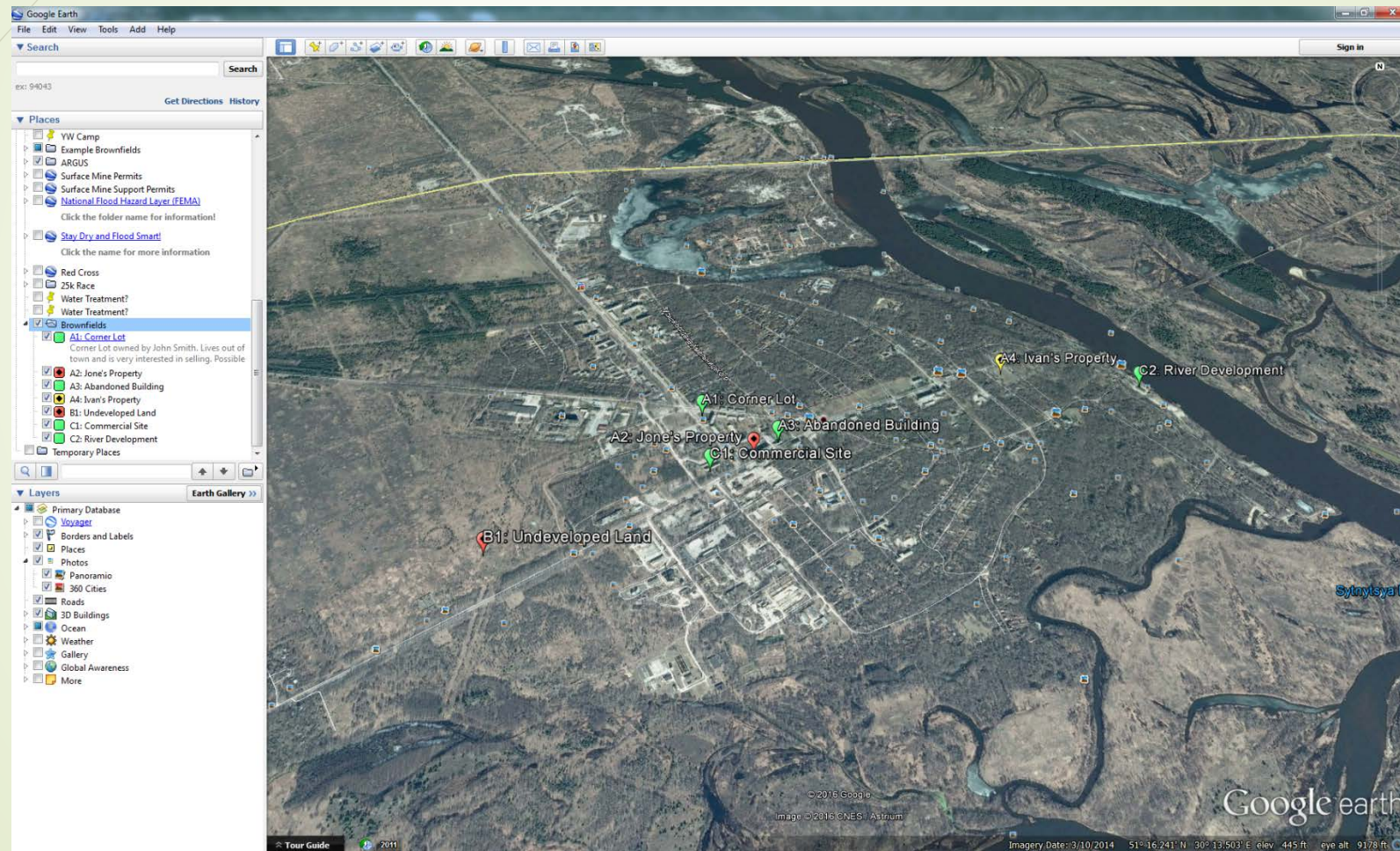
Add More Sites



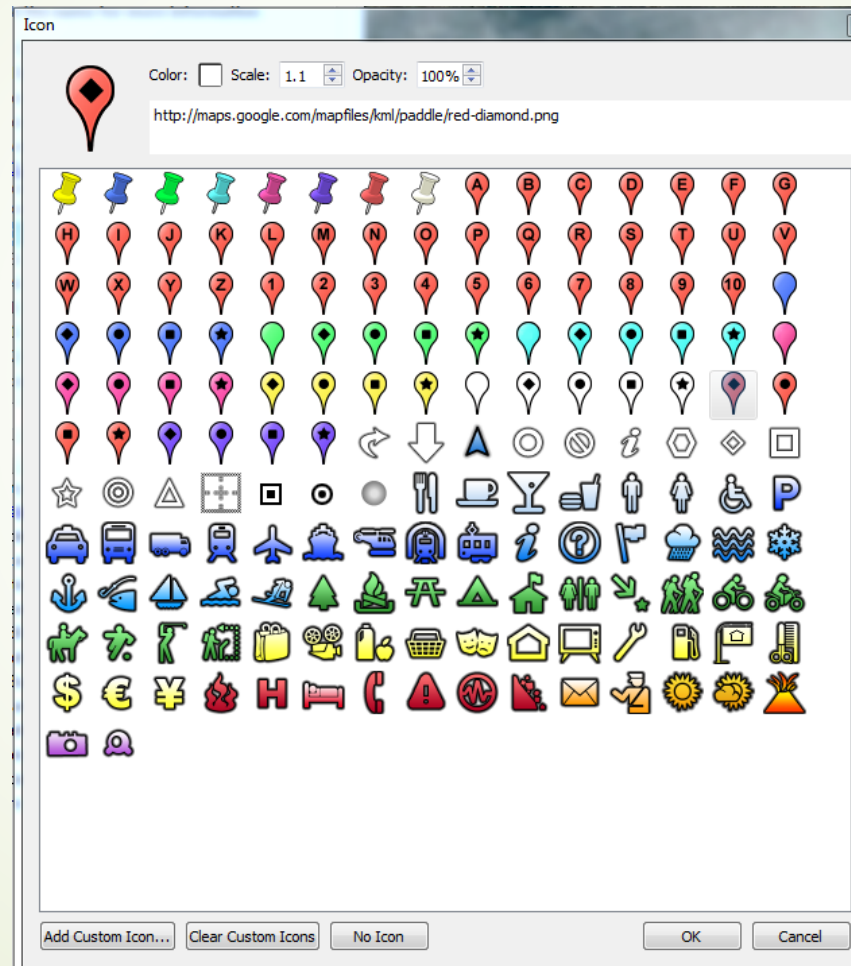
Create Folder



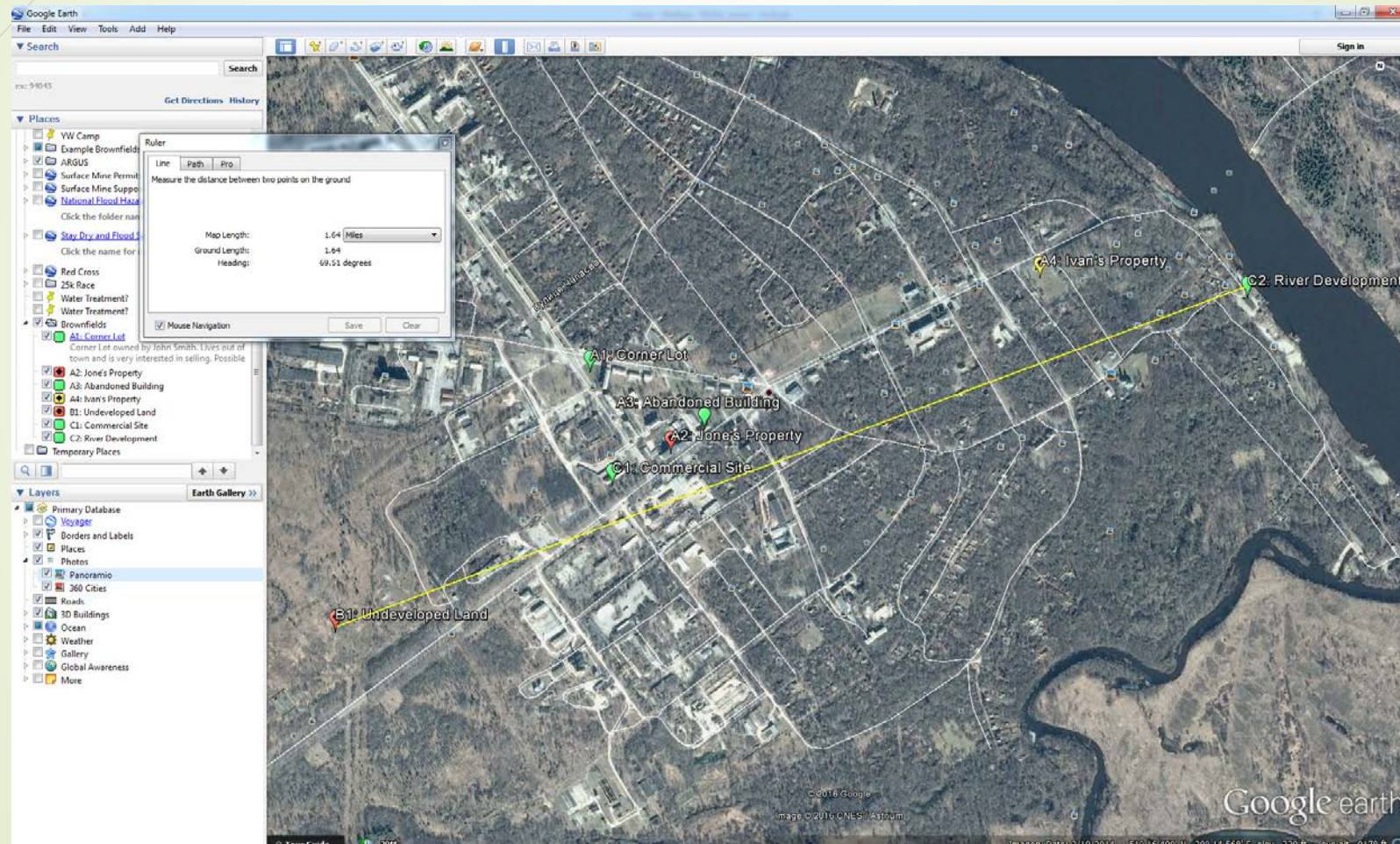
Organize by Color and/or Icon



Organize by Color and/or Icon



Measure Distances



Questions

