

Historical Production of Mine Pollution

Mining Impacts on Lake Superior Waters

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Industrial Heritage Program

Social Sciences Department,

Funded Torch Lake Projects

- Integrated Assessment at Torch Lake – Michigan Sea Grant (with Noel Urban and Judith Perlinger)
- Abandoned Mining Wastes at Torch Lake – Michigan Department of Environmental Quality
- Oral Histories: Working at Torch Lake Industrial District, 1940-1970 – Keweenaw National Historical Park

Using Industrial History to Solve Mining Pollution Problems

- The history of mining and ore processing operations, with emphasis on technological change, helps us target pollution sources and track environmental change
- Archival work, historic maps, photographs
- Torch Lake a mining processing site 1860s – 1970
- Waste: Stamp Sands, Slag, Sludge, processing chemicals

Map of Torch Lake Industrial District



Guiding Questions for Data Collection

- What were the major processes utilized in copper milling, smelting, reclamation, scrapping, and producing chemical copper products?
- What were major waste products from facilities?
 - changes in production - 1800s to 1970
 - where were they disposed

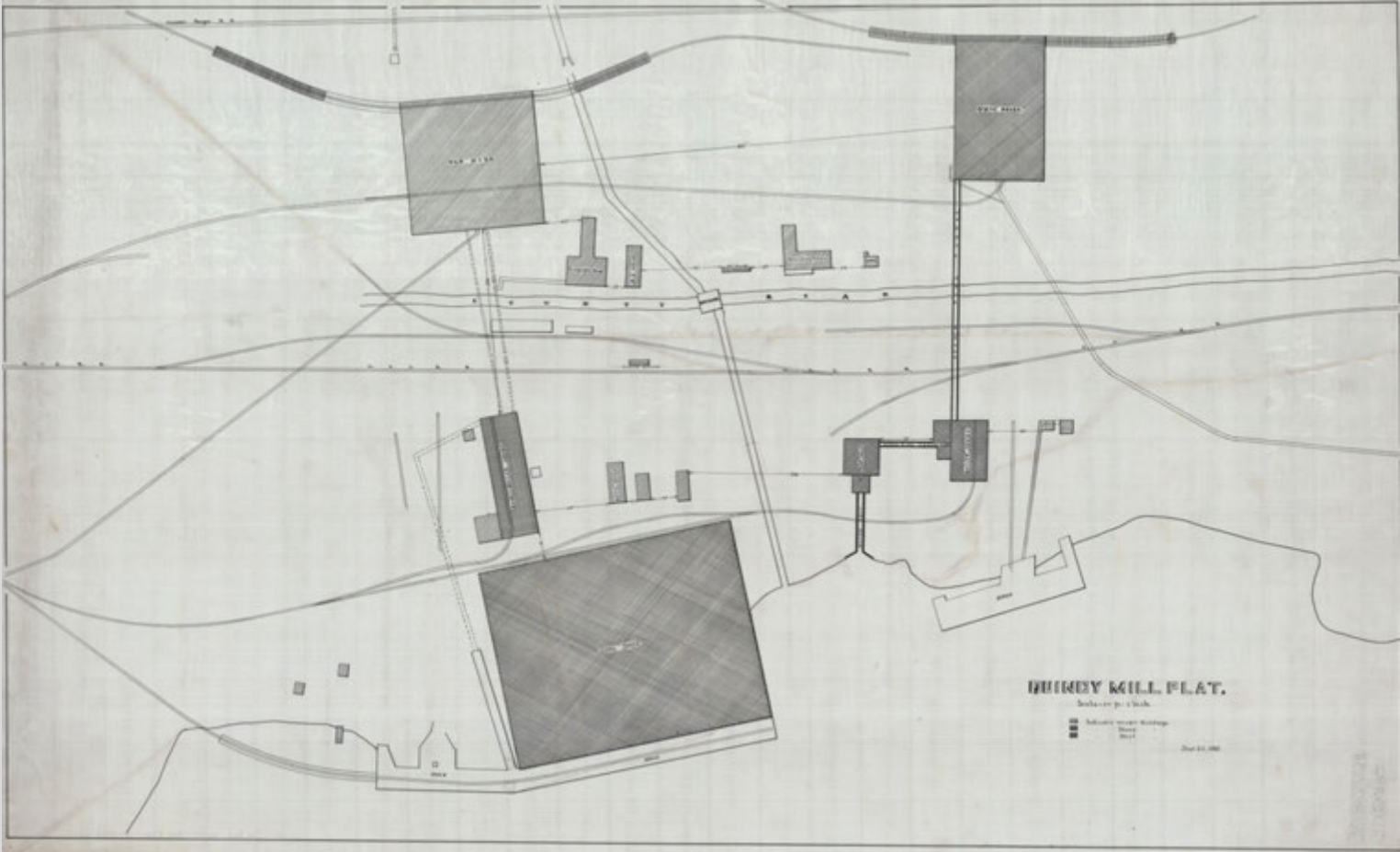
Types of Data Available

- Narratives of major production facilities and processes
- Histories of individual facilities along Torch Lake – documenting technologies utilized during life span, chemical inputs, waste output, blueprints (N=46 buildings)
- GIS maps with geo-referenced building locations and blueprints
- Photographs
- Sanborn Maps, Company blueprints and drawings
- Annotated bibliographies of engineering and mining

Quincy Mining Company – Case Study

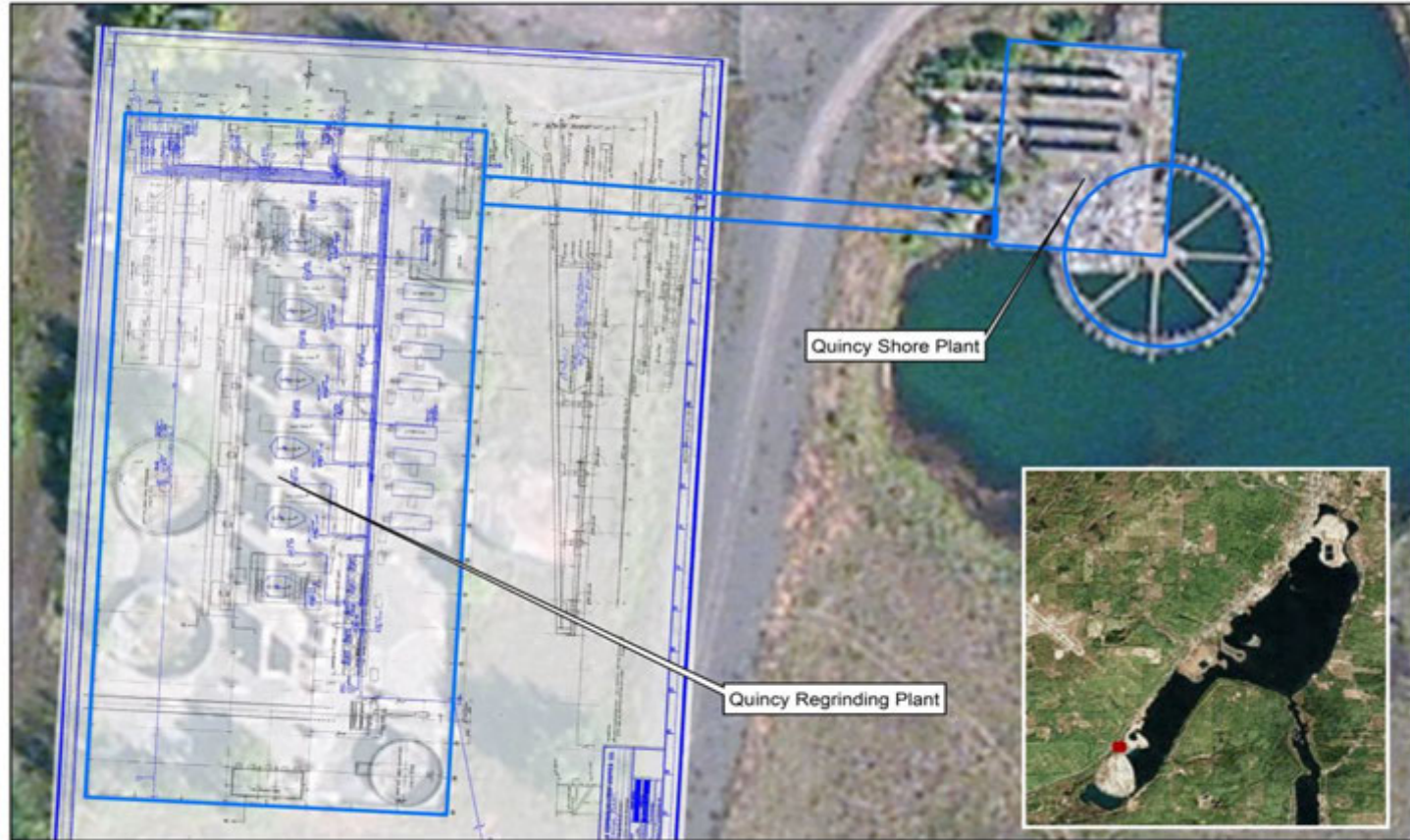
- Milling
- Reclamation
- Power production

Historic Maps



GIS Maps

Quincy Buildings
Blueprints - 10491 (1942) and 10528 (1944)



Quincy Buildings



Michigan Tech
Great Lakes Research Center

0 20 40 Feet
0 10 20 Meters



Photos

S.G. KOEPEL COLL. PHOTOGRAPH - [FUEL TANK BEING LOWERED
KEWE-00001] NEAR QUINCY
LOUIS G. KOEPEL COLL. PHOTOGRAPH - [FUEL TANK BEING LOWERED
INTO POSITION - QUINCY RECLAMATION]
ACC. # KEWE-00001 (CA. 1943)
CAT. # KEWE 1



Photos



Thank You!