



Smithsonian  
*National Museum of American History*  
*Kenneth E. Behring Center*

## Guide to the Erasmus D. Leavitt Papers

NMAH.AC.0966

NMAH Staff

Archives Center, National Museum of American History  
P.O. Box 37012  
Suite 1100, MRC 601  
Washington, D.C. 20013-7012  
archivescenter@si.edu  
<http://americanhistory.si.edu/archives>

# Table of Contents

Collection Overview .....	1
Administrative Information .....	1
Arrangement.....	3
Scope and Contents note.....	2
Biographical/Historical note.....	2
Names and Subjects .....	4
Container Listing .....	6
Series 2: Drawings.....	6
Series 1: Photographs.....	183

---

## Collection Overview

<b>Repository:</b>	Archives Center, National Museum of American History
<b>Title:</b>	Erasmus D. Leavitt Papers
<b>Identifier:</b>	NMAH.AC.0966
<b>Date:</b>	1871-1917
<b>Extent:</b>	20.4 Cubic feet (3 boxes, 82 folders)
<b>Source:</b>	Work and Industry, Division of, NMAH, SI Calumet and Hecla Mining Company. Leavitt, Erasmus D., 1836-1916 Mechanical and Civil Engineering, Division of [former name], NMAH, SI.
<b>Language:</b>	English
<b>Summary:</b>	Tracings on linen of steam engines of all types, pumping, histing, air compressing, mining, material handling, power transmission, mine structures, mining machinery, and buildings by Erasmus D. Leavitt, Jr. for Calumet Heclas, Inc. of Calumet, Michigan.
<b>Digital Content:</b>	<a href="#">Image(s): Erasmus D. Leavitt Papers</a>

---

## Administrative Information

### Immediate Source of Acquisiton

Collection materials donated by Calumet and Hecla, Inc. in 1960 and by Thomas E. P. Rice, 1977.

### Provenance

The drawings were collected in two parts for the National Museum of American History, Division of Civil and Mechanical Engineering (now called the Division of Work and Industry). All were transferred to the Archives Center in 2007. The remaining part of the collection was donated in 1996 to the Division of Civil and Mechanical Engineering by Thomas E. P. Rice. That portion was also transferred to the Archives Center in 2007.

### Related Materials

#### Materials at Other Organizations

Michigan Technological University Archives and Copper COuntry Hihistorical Collections

Calumet and Hecla Mining Company Collection

## Processing Information

Collection is unprocessed.

## Preferred Citation

Erasmus D. Leavitt Collection, 1871-1917, Archives Center, National Museum of American History.

## Terms Governing Use and Reproduction

Collection items available for reproduction, but the Archives Center makes no guarantees concerning copyright restrictions. Other intellectual property rights may apply. Archives Center cost-recovery and use fees may apply when requesting reproductions.

---

## Biographical Note

The Calumet & Hecla Company, which was formed in about 1866, was one of the largest mining operations in the Lake Superior region of upper Michigan. Over 3 billion pounds of copper were removed from its extensive mines by the time operations ceased in 1939. To facilitate the work in both the mines and smelting plants, the company installed some of the largest steam engines ever built. The aggregate amounted to over 55,000 horsepower.

Noted 19th century steam engineer Erasmus Darwin Leavitt was hired to design the series of huge multi-cylinder engines. Each had sufficient power to support several operations at one time. While an engine drove one of the hoists, it might also power pumping, conveying, and air compressing machinery. At the peak of operations there were at least 50 steam engines of all sizes providing power to Calumet & Hecla. Falling copper prices during the 1920s and the economic depression of the 1930s ultimately forced the mines to close. The engines were of no further use and their countless tons of cast iron and steel ended up in the scrap drives of World War II.

The collection came to the Smithsonian in 1960 from Calumet & Hecla, Inc. In the course of a reorganization in 1952 mining had been dropped from the company name as the emphasis was on chemicals, foundry work, and forest products. Its remaining mining activities in other areas of Michigan were phased out during the 1960s and in 1968 C&H merged with Universal Oil Products, Inc. Late in 1970 UOP scrapped what was left of the C&H physical plant and its remaining assets were auctioned off.

---

## Scope and Contents

These papers contain engineering drawings by Leavitt from the Calumet & Hecla Mining Company including tracings and blueprints of 2000 to 8000 horsepower compound hoisting engines, 1889-1917; hoisting plants, 1891-1901; shaft hoisting gear, 1887-1902; Calumet & Hecla compressor houses, 1877-1882; waterworks; and electric plants. Also included are notebooks containing engine drawings and calculations; account books, 1885; a diary; a letterpress volume of sketches and office memoranda, 1884-1890; scrapbooks.

---

## Arrangement

The collection is arranged into one series by drawing number. Descriptions contain a category designation beginning with a letter. For example, drawings associated with Torch Lake in Michigan are designated as Category K. In some instances, the drawings are categorized as XY with no further description or are unnumbered.

### Series 1: Drawings

A Pumping Engine No. 2

B Boiler House and Gear House

C Gearing for Pump and Man Engine

D Hoisting Engine No. 1, Hecla Mine

E Calumet Mine General

F Calumet Pond Water Works

G Hecla Mine General

H No. 4 Stamp for Calumet Mill

I Calumet & Helca Mine General

J Calumet Hoisting Gear

K Torch Lake

L Hoisting Engine "Superior"

M Miscellaneous Engine Parts

N Pumping Engine "Arcadian"

O Engine "Wabeek"

P Pumping Engine "Ontario"

Q Hoisting Engine "Frontenac"

R Engine "Erie"

S Engine "Hecla"

T Pumping Engine No. 1

U Black Hills Hoisting Gear

V Hoisting Engines "Gratiot", "Houghton" & "Seneca"

W Pumping Engines "Michigan" & "Winnipeg"

X Hoisting Engines "Minong" & "Siscowitt"

Y Hoisting Engines "Mesnard & Pontiac"  
Z Hoisting Engines "Hancock" & "Pewabic"  
AA Sinking Engines "Delaware" & "Iroquois"  
BB Compressor Engine "Mackinac"  
CC Compressor Engine "Baraga"  
DD Lake Superior Water Works  
EE Hoisting Engines "Marquette" & Chippewa"  
FF Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin"  
GG Misc. City of Boston Improved Sewerage Pumping Engine  
HH Hoisting Engines "Osage", "Owego" & "Ontonagon"  
II Amygdaloid Sand Wheel  
JJ Pump "Arcadian"  
KK Engine "Saginaw"

---

## Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

- Engines
- Hoisting and conveying
- Mineral industries
- Mining
- Pumping
- Steam-engines
- Waterworks

Types of Materials:

- Account books
- Blueprints
- Diaries
- Drawings
- Letterpress books
- Notebooks
- Scrapbooks

Names:

- Mechanical and Civil Engineering, Division of [former name], NMAH, SI.
- Work and Industry, Division of, NMAH, SI

Geographic Names:

Upper Peninsula (Mich.)

---

## Container Listing

### Series 2: Drawings

Map-folder 1	0001, Cylinders, Category A (Pumping Engine No. 2)
Map-folder 1	0001 X, Arrangement of pipes for boilers, Category E
Map-folder 1	0002, Bedplate, Category A (Pumping Engine No. 2)
Map-folder 1	0002 W, Cylinders, Category D (Hoisting engine No. 1, Hecla Mine)
Map-folder 1	0003, Crank shaft pedestal, Category A (Pumping Engine No. 2)
Map-folder 1	0004, Beam pedestals, Category A (Pumping Engine No. 2)
Map-folder 1	0005, Valves, seats , Category A (Pumping Engine No. 2)
Map-folder 1	0006, Pistons cylinder heads , Category A (Pumping Engine No. 2)
Map-folder 1	0007, Main connecting rod, Category A (Pumping Engine No. 2)
Map-folder 1	0008, Main links, Category A (Pumping Engine No. 2)
Map-folder 1	0009, Entablature etc, Category A (Pumping Engine No. 2)
Map-folder 1	0010, Columns & guides, Category A (Pumping Engine No. 2)
Map-folder 1	0011, Valve gear, Category A (Pumping Engine No. 2)
Map-folder 1	0012, Hand gear , Category A (Pumping Engine No. 2)
Map-folder 1	0013, Beam , Category A (Pumping Engine No. 2)
Map-folder 1	0014, Main pumps, Category A (Pumping Engine No. 2)
Map-folder 1	0015, Fly wheel, Category A (Pumping Engine No. 2)
Map-folder 1	0016, Cast details, Category A (Pumping Engine No. 2)
Map-folder 1	0017, Rockers & stands , Category A (Pumping Engine No. 2)



Map-folder 1 0018, Main pump valves & plunger, Category A (Pumping Engine No. 2), 08/11/80

Map-folder 1 0019, High Pressure exhaust cam, Category A (Pumping Engine No. 2)

Map-folder 1 0020, Wrought details of governor & valvegear, Category A (Pumping Engine No. 2)

Map-folder 1 0021, Foundation, Category A (Pumping Engine No. 2)

Map-folder 1 0022, Wrought details of valve gear, Category A (Pumping Engine No. 2)

Map-folder 1 0023, Outboard pedestal, Category A (Pumping Engine No. 2)

Map-folder 1 0024, Details of hand gear, Category A (Pumping Engine No. 2)

Map-folder 1 0025, Brackets for handgear shaft , Category A (Pumping Engine No. 2)

Map-folder 1 0026, Cast details of hand gear , Category A (Pumping Engine No. 2), 04/29/80

Map-folder 1 0027, Crossheads, piston rods , Category A (Pumping Engine No. 2)

Map-folder 1 0028, Crank, crankshaft, pump rods , Category A (Pumping Engine No. 2), 06/21/83

Map-folder 1 0029, Air vessel & pump plunger, Category A (Pumping Engine No. 2)

Map-folder 1 0030, Condensing apparatus, Category A (Pumping Engine No. 2)

Map-folder 1 0031, Condensing apparatus, Category A (Pumping Engine No. 2)

Map-folder 1 0032, Guide blocks , Category A (Pumping Engine No. 2)

Map-folder 1 0033, Steam cam, Category A (Pumping Engine No. 2)

Map-folder 1 0034, Exhaust pipe , Category A (Pumping Engine No. 2)

Map-folder 1 0037, Roof details, Category C (Gearing for pump and man engine)

Map-folder 1 0038, Gallery & stairs, Category A (Pumping Engine No. 2) (Pumping Engine No. 2)

Map-folder 1 0039, Valve diagram, Category A (Pumping Engine No. 2)

Map-folder 1 0040, Air pump rods, guide, crosshead , Category A (Pumping Engine No. 2)

Map-folder 1 0041, Water pipes & connections, Category A (Pumping Engine No. 2)

Map-folder 1 0042, Low pressure exhaust cam, Category A (Pumping Engine No. 2)

Map-folder 1 0043, High pressure exhaust cam & sundries, Category A (Pumping Engine No. 2)

Map-folder 1 0044, Engineer's platform, Category A (Pumping Engine No. 2)

Map-folder 1 0044 a, Castings for roofs, Category B (Boiler House and Gear House)

Map-folder 1 0045, Cylinder lagging, Category A (Pumping Engine No. 2)

Map-folder 1 0045 a, Foundations for 18" x 36" Porter Allen engine, Category A (Pumping Engine No. 2)

Map-folder 1 0046, False covers, , Category A (Pumping Engine No. 2)

Map-folder 1 0047, Injection & bye pass pipes etc., Category A (Pumping Engine No. 2)

Map-folder 1 0048, Indicator cover, Category A (Pumping Engine No. 2)

Map-folder 1 0049, Pipes, Category A (Pumping Engine No. 2)

Map-folder 2 51, Valves seats, etc. (2 copies), Category H (No. 4 Stamp for Calumet Mill), / /80

Map-folder 2 52, Steam & exhaust cams, Category H (No. 4 Stamp for Calumet Mill)

Map-folder 2 53, Calumet hoisting house, Category E (Calumet Mine General), 1980-07-21

Map-folder 2 54, Valve gear, Category H (No. 4 Stamp for Calumet Mill)

Map-folder 2 55, Stamp shaft guide, lower frame, #4 stamp, Category H (No. 4 Stamp for Calumet Mill), 04/ /80

Map-folder 2 55, Stamp shaft guide, lower frame, Category H (No. 4 Stamp for Calumet Mill), / /80

Map-folder 2 56, Exhaust pipes to condenser, Category H (No. 4 Stamp for Calumet Mill)

Map-folder 2 57, Boiler house, Category E (Calumet Mine General), 1980-04-27

Map-folder 2 58, Boilers of Calumet hoisting engine, Category E (Calumet Mine General), / /79

Map-folder 2 59, Man engines, Category C (Gearing for pumping and man engine), 1981-05-20

Map-folder 2 60, Chimney, Category E (Calumet Mine General), 1980-03-05

Map-folder 2 60, Chimney (same as No. 60, only unshaded), Category E (Calumet Mine General), 1980-03-05

Map-folder 2 61, Details for chimney flue etc., Category E (Calumet Mine General), / /80

Map-folder 2 62, Foundations, Category C (Gearing for pumping and man engine), 1980-07-03

Map-folder 2 0063 e, Foundation bolts, Category I (Calumet and Hecla Mine General), 1983-03-07

Map-folder 2 63, End elevation of cylinder foundation, Category I (Calumet and Hecla Mine General), 1982-07-01

Map-folder 2 64, Chimney, Category E (Calumet Mine General)

Map-folder 2 65, Boiler house, Category E (Calumet Mine General)

Map-folder 2 66, Arrangement Hecla mine pump bobs, Category C (Gearing for pumping and man engine), 1980-10-18

Map-folder 2 67, Mortar anvil & braces (2 copies), Category H (No. 4 Stamp for Calumet Mill), / /80

Map-folder 2 68, Arrangement of first two boilers, Category E (Calumet Mine General), 1980-03-05

Map-folder 2 69, Alteration of valve gear for Calumet No. 4, Category H (No. 4 Stamp for Calumet Mill), 1981-09-26

Map-folder 2 70, Uptakes for boilers, Category E (Calumet Mine General), 02/ /80

Map-folder 2 71, Middle frame, Category H (No. 4 Stamp for Calumet Mill), / /80

Map-folder 2 72, Cradles for boilers, Category F (Calumet Pond Water Works), 1980-08-15

- Map-folder 2 73, Cylinder head, Category K (Torch Lake), 1982-11-18
- Map-folder 2 74, Bed plates & sills, Category H (No. 4 Stamp for Calumet Mill), / /80
- Map-folder 2 75, Arrangement of hoisting engine No. 2, Category E (Calumet Mine General), 1981-12-29
- Map-folder 2 76, Shafting at Calumet engine house, Category J (Calumet Hoisting gear), 1980-09-15
- Map-folder 2 0076 b, Expansion pins for existing couplings, Category J (Calumet Hoisting gear), 1983-12-29
- Map-folder 2 77, Uptakes for boilers, Category F (Calumet Pond Water Works), 1980-08-12
- Map-folder 2 78, Sole plate guide support, Category C (Gearing for pumping and man engine), 1980-09-28
- Map-folder 2 79, Cylinder heads & pistons, Category H (No. 4 Stamp for Calumet Mill), / /80
- Map-folder 2 80, Foundations 32" x 48" Calumet compressors etc., Category E (Calumet Mine General), 1980-08-19
- Map-folder 2 82, Engine & boiler house Calumet Pond W.W., Category F (Calumet Pond Water Works), 1980-08-06
- Map-folder 2 83, Gearing for pump & man engine, Category C (Gearing for pumping and man engine), 1980-04-24
- Map-folder 2 84, Chimney Hecla Mine, Category G (Hecla Mine General), 04/ /79
- Map-folder 2 0084 X, Chimney Hecla Mine, Category G (Hecla Mine General), 04/ /79
- Map-folder 2 85, Cap & sill stones, Category E (Calumet Mine General), 1980-08-19
- Map-folder 2 86, Plan showing location of wall plates projection of Calumet engine house, Category I (Calumet and Hecla Mine General), 1980-09-08
- Map-folder 2 87, Overhead shaft details, Category C (Gearing for pumping and man engine), 1980-09-20
- Map-folder 2 88, Elevation of 32" x 48" air compressor, Rand Drill Company, Category I (Calumet and Hecla Mine General)

Map-folder 2 0088 A, General arrangement of overhead shaft, Category C (Gearing for pumping and man engine), 07/ /83

Map-folder 2 89, Overhead shaft assemblies & details, Category C (Gearing for pumping and man engine), 1980-11-26

Map-folder 2 91, Collars & crank counterweights, Category C (Gearing for pumping and man engine), 1980-09-13

Map-folder 2 92, Columns, guides, etc., Category C (Gearing for pumping and man engine), 1980-09-18

Map-folder 2 93, Rods, trestles, etc., Category C (Gearing for pumping and man engine), 1980-10-01

Map-folder 2 94, Calumet Pond Water Works, Category F (Calumet Pond Water Works)

Map-folder 2 97, 30" x 48" cylinder fitted to Rand air compressor bedplate, Category E (Calumet Mine General)

Map-folder 2 98, General plan of 32" x 48" air compressor, Category I (Calumet and Hecla Mine General)

Map-folder 2 99, Exhaust feed water heater for Calumet mine boilers, Category E (Calumet Mine General), 1980-11-15

Map-folder 2 0099 a, Separator, Category E (Calumet Mine General), 1980-09-06

Map-folder 2 0099 c, Feed water heater, Category E (Calumet Mine General), 1984-04-09

Map-folder 3 100, Amended plan of foundations for Calumet compressor, Category E (Calumet Mine General), 1980-11-16

Map-folder 3 101, Temporary arrangement of steam pipes for Calumet hoisting engine No. 2, Category E (Calumet Mine General), 1980-11-16

Map-folder 3 102, Calumet boiler sections, Category E (Calumet Mine General), 1980-11-30

Map-folder 3 103, Crane truss, Category E (Calumet Mine General), 1980-12-06

Map-folder 3 104, Arrangement of hot well discharge, Calumet hoisting engine No. 2, Category E (Calumet Mine General), 1980-12-02

Map-folder 3 105, Housing for overhead shaft and 15 ft sheave, Category C (Gearing for pumping and man engine), 1980-12-17

- Map-folder 3 106, Arrangement of steam separator and Bulkley's condensor, Category C (Gearing for pumping and man engine), 1980-12-10
- Map-folder 3 107, Calumet man engine lower bob, Category C (Gearing for pumping and man engine), 1980-12-14
- Map-folder 3 108, Spring bearing for 32" shaft, Category C (Gearing for pumping and man engine), 1980-12-22
- Map-folder 3 109, 12 ft pulley & pedestals, Category E (Calumet Mine General), 1981-04-26
- Map-folder 3 110, No. 3 boiler sectional elevations, Category E (Calumet Mine General), 1980-01-22
- Map-folder 3 111, Upper bob man engine, Category C (Gearing for pumping and man engine), 1980-12-30
- Map-folder 3 112, Connecting rods for upper bobs, Category C (Gearing for pumping and man engine), 1981-01-12
- Map-folder 3 113, Hecla man engine lower bob, Category C (Gearing for pumping and man engine), 1981-01-12
- Map-folder 3 114, Fourteen inch pedestal, Category C (Gearing for pumping and man engine), 1981-01-20
- Map-folder 3 115, Cut off regulating gear, piston rod & cam shaft, Category H (No. 4 Stamp for Calumet Mill)
- Map-folder 3 116, Adjustable pedestal & details, Category E (Calumet Mine General), 1981-03-02
- Map-folder 3 117, Fondations, Category H (No. 4 Stamp for Calumet Mill)
- Map-folder 3 118, Condensing apparatus (2 copies), Category H (No. 4 Stamp for Calumet Mill)
- Map-folder 3 119, Man engine bob bedplates, Category C (Gearing for pumping and man engine), 1981-01-27
- Map-folder 3 120, Man engine cross head, Category C (Gearing for pumping and man engine), 1981-05-20
- Map-folder 3 121, Arrangement of Calumet man engine bobs, Category C (Gearing for pumping and man engine), 1981-06-23

- Map-folder 3 122, Pump crossheads & details, Category C (Gearing for pumping and man engine), 1981-02-11
- Map-folder 3 0123 L, Roof of hoisting engine house, Category E (Calumet Mine General), 1980-07-16
- Map-folder 3 0124 L, Spur gearing for rock house transmission, Category G (Hecla Mine General)
- Map-folder 3 125, Details of valve gear, Category H (No. 4 Stamp for Calumet Mill)
- Map-folder 3 126, Arrangement of Hecla man engine bobs, Category C (Gearing for pumping and man engine), 1981-07-14
- Map-folder 3 127, Connecting rod for bobs man engine rod, Category C (Gearing for pumping and man engine), 1981-02-18
- Map-folder 3 128, No. 4 stamp for Calumet mill (2 copies), Category H (No. 4 Stamp for Calumet Mill)  
[Image\(s\)](#)
- Map-folder 3 0129 L, 20 ft spur wheel for 28 x 48 air compressors, Category G (Hecla Mine General)
- Map-folder 3 0130 L, 12 ft mortise wheel for 28 in x 48 air compressors, Category G (Hecla Mine General)
- Map-folder 3 131, Crane carriage, Category E (Calumet Mine General), 1981-05-17
- Map-folder 3 132, Cam shaft bracket, Category H (No. 4 Stamp for Calumet Mill)
- Map-folder 3 132, Cam shaft bracket, Category H (No. 4 Stamp for Calumet Mill)
- Map-folder 3 133, Bed plate for 30" x 48" Corliss cylinder, Category J (Calumet Hoisting gear), 1981-06-28
- Map-folder 3 134, South counter shaft, Category E (Calumet Mine General), 1981-01-12
- Map-folder 3 135, Bed plate & pedestal for 30" x 48" Corliss, Category J (Calumet Hoisting gear), 1981-07-12
- Map-folder 3 136, Connecting rod, cross head and crank for 30" x 48" Corliss cylinder, Category J (Calumet Hoisting gear)

- Map-folder 3 137, Foundation for Calumet man engine bobs, Category C (Gearing for pumping and man engine), 1981-06-28
- Map-folder 3 138, 30" by 48" cylinder, Category I (Calumet and Hecla Mine General), 1982-07-15
- Map-folder 3 139, Headstock, Category H (No. 4 Stamp for Calumet Mill), / /80
- Map-folder 3 140, Cylinders, Category F (Calumet Pond Water Works)
- Map-folder 3 141, Cylinder heads, pistons & exhaust side pipe, Category F (Calumet Pond Water Works)
- Map-folder 3 142, Valve seats & re heaters, Category F (Calumet Pond Water Works)
- Map-folder 3 143, Columns. etc., Category F (Calumet Pond Water Works), 1981-04-04
- Map-folder 3 144, Valve stem crosshead guides & rockers, Category F (Calumet Pond Water Works)
- Map-folder 3 145, Forgings, Category F (Calumet Pond Water Works)
- Map-folder 3 146, Forgings for valve gear, Category F (Calumet Pond Water Works)
- Map-folder 3 147, Valve motion diagram, Category F (Calumet Pond Water Works)
- Map-folder 3 148, Steam inlet cam, Category F (Calumet Pond Water Works)
- Map-folder 3 149, H.P. exhaust cam, Category F (Calumet Pond Water Works)
- Map-folder 4 150, L.P. inlet cam, Category F (Calumet Pond Water Works)
- Map-folder 4 151, Rocker stands, etc., Category F (Calumet Pond Water Works)
- Map-folder 4 152, Governor & details, Category F (Calumet Pond Water Works)
- Map-folder 4 153, Details for valve gear, Category F (Calumet Pond Water Works)
- Map-folder 4 154, Arrangement of valve gear, Category F (Calumet Pond Water Works)
- Map-folder 4 155, Connecting rod, link, etc., Category F (Calumet Pond Water Works)
- Map-folder 4 156, Beam, Category F (Calumet Pond Water Works), 1981-03-24



Map-folder 4 157, Bed plate, Category F (Calumet Pond Water Works), 1981-04-12

Map-folder 4 158, Crank & beam pedestals, Category F (Calumet Pond Water Works)

Map-folder 4 159, Outboard pedestal & bed plate girder etc., Category F (Calumet Pond Water Works), 1981-04-22

Map-folder 4 160, Gallery, Category F (Calumet Pond Water Works)

Map-folder 4 161, Cylinder lagging, Category F (Calumet Pond Water Works)

Map-folder 4 162, Fly wheel, Category F (Calumet Pond Water Works)

Map-folder 4 163, Condensing apparatus, Category F (Calumet Pond Water Works)

Map-folder 4 164, Air pump details, Category F (Calumet Pond Water Works)

Map-folder 4 165, Main pumps, Category F (Calumet Pond Water Works), 1981-03-29

Map-folder 4 166, Main pump details, Category F (Calumet Pond Water Works), 1981-04-15

Map-folder 4 167, Main pump valves, Category F (Calumet Pond Water Works)

Map-folder 4 168, Crossheads, crank. main shaft, link etc., Category F (Calumet Pond Water Works), 1981-03-24

Map-folder 4 169, Foundation, Category F (Calumet Pond Water Works)

Map-folder 4 170, Pumping engine No. 3 Calmt Pond W.W., Category F (Calumet Pond Water Works), 1981-06-14

Map-folder 4 171, Bench for valve gear, Category F (Calumet Pond Water Works)

Map-folder 4 172, Gallery. details, Category F (Calumet Pond Water Works), 1981-04-29

Map-folder 4 173, Gallery. details, Category F (Calumet Pond Water Works), 1981-04-26

Map-folder 4 174, Valve gear, Category F (Calumet Pond Water Works)

Map-folder 4 175, Throttle valve & details, Category F (Calumet Pond Water Works)

Map-folder 4 176, Gallery. details, Category F (Calumet Pond Water Works)

- Map-folder 4 177, L.P. exhaust cam, Category F (Calumet Pond Water Works)
- Map-folder 4 178, Injection gear, Category F (Calumet Pond Water Works)
- Map-folder 4 179, Indicator gear & pipe arrangement, Category F (Calumet Pond Water Works)
- Map-folder 4 180, Foundation cap stones, Category F (Calumet Pond Water Works), 1981-07-06
- Map-folder 4 181, Main pump valves, Category I (Calumet and Hecla Mine General), 1981-12-05
- Map-folder 4 182, Cylinder 36" x 60" Calumet compressors, Category E (Calumet Mine General), 1985-03-07
- Map-folder 4 183, Stand pipe, Category F (Calumet Pond Water Works)
- Map-folder 4 184, Details of ironwork, Category F (Calumet Pond Water Works)
- Map-folder 4 185, Details of framing, Category F (Calumet Pond Water Works)
- Map-folder 4 186, Oil cylinder for governor engine, Category E (Calumet Mine General)
- Map-folder 4 187, Strap brake, Category E (Calumet Mine General), 1981-08-03
- Map-folder 4 188, Details for strap brake, Category E (Calumet Mine General), 1981-08-04
- Map-folder 4 189, Crank shaft etc. for 30" x 48" Corliss cylinder, Category E (Calumet Mine General)
- Map-folder 4 190, Bed plates & sills, Category H (No. 4 Stamp for Calumet Mill)
- Map-folder 4 191, Bed plate etc. for strap brake, Category E (Calumet Mine General), 1981-07-26
- Map-folder 4 192, Bedplate & pedestals, Category K (Torch Lake), 1989-05-28
- Map-folder 4 0193 A, Central Station, Category K (Torch Lake), 1981-08-22
- Map-folder 4 0193 Aa, New 36" mitre gears for Central Station, Category K (Torch Lake), 1984-10-17
- Map-folder 4 195, Bedplate, pedestals, shafts, etc., Category K (Torch Lake)

Map-folder 4 196, Alterations to hoisting drums for strap brakes, Category E (Calumet Mine General), 1981-08-06

Map-folder 4 197, Strap brake, Category E (Calumet Mine General), 1980-08-10

Map-folder 4 0198 L, General plan of foundations & buildings, Category G (Hecla Mine General), 1979-05-06

Map-folder 4 199, Foundation for 30" x 48" Corliss cylinder, Category E (Calumet Mine General), 1981-08-24

Map-folder 5 200, 30" x 48" Corliss engine, Category E (Calumet Mine General), 1981-08-20

Map-folder 5 0200 c, Arrangement of governor, Category E (Calumet Mine General), 1982-07-15

Map-folder 5 201, Strap brakes, Category G (Hecla Mine General), 1981-08-29

Map-folder 5 205, Cylinders, Category E (Calumet Mine General)

Map-folder 5 0205 a, Excelsior copper gaskets, Category L (Hoisting engine Superior), 1984-03-24

Map-folder 5 207, Valves & seats, Category E (Calumet Mine General)

Map-folder 5 208, L.P. inlet valve, seat etc., Category E (Calumet Mine General)

Map-folder 5 209, Cylinder lagging, Category E (Calumet Mine General)

Map-folder 5 210, Details for lagging, Category E (Calumet Mine General)

Map-folder 5 211, Details for lagging, Category E (Calumet Mine General)

Map-folder 5 212, Steam side pipe. stop valve, Category E (Calumet Mine General)

Map-folder 5 213, Exhaust side pipe, Category E (Calumet Mine General)

Map-folder 5 214, Re heaters, Category E (Calumet Mine General)

Map-folder 5 215, Indicator gear, Category E (Calumet Mine General)

Map-folder 5 216, Arrangement of steam pipes from Calumet Hoisting engine No. 2, Category E (Calumet Mine General), / /80

Map-folder 5 218, Cam shaft pedestals, etc., Category E (Calumet Mine General)

Map-folder 5 224, Diagram of motion of crank & valves, Category E (Calumet Mine General)

Map-folder 5 228, Arrangement of valve connections. H.P. cylinders, Category E (Calumet Mine General)

Map-folder 5 229, Arrangement of valve connections. L.P. cylinders, Category E (Calumet Mine General)

Map-folder 5 231, Valve stem crosshead guides, Category E (Calumet Mine General)

Map-folder 5 233, Rocker connections etc., Category E (Calumet Mine General)

Map-folder 5 234, Clutch & throttle valve gear, Category E (Calumet Mine General)

Map-folder 5 235, Cutoff governor etc., Category E (Calumet Mine General), 12/ /83

Map-folder 5 236, Governor engine, Category E (Calumet Mine General)

Map-folder 5 237, Governor engine details, Category E (Calumet Mine General)

Map-folder 5 241, Mitre wheels for valve gear, Category E (Calumet Mine General)

Map-folder 5 242, Bed plate, Category E (Calumet Mine General)

Map-folder 5 243, Beam pedestals, Category E (Calumet Mine General)

Map-folder 5 244, Crank shaft pedestals, Category E (Calumet Mine General)

Map-folder 5 245, Outboard pedestal, Category E (Calumet Mine General)

Map-folder 5 246, Columns & guides, Category E (Calumet Mine General)

Map-folder 5 247, Piston rods, shafts, crank , beam pins, etc., Category E (Calumet Mine General)

Map-folder 5 0247 d, East crank shaft, Category M (Miscellaneous engine parts)

Map-folder 5 248, Fly wheel, Category E (Calumet Mine General)

Map-folder 5 249, Main connecting rod & low pressure main link, Category E (Calumet Mine General)

Map-folder 5	0249 b, New binders for main connecting rod, Category L (Hoisting engine Superior), 1984-08-07
Map-folder 5	0249 c, Main connecting rod, Category E (Calumet Mine General), 1985-11-07
Map-folder 5	0249 d, Main connecting rod boxes at crank end, Category L (Hoisting engine Superior), 1993-01-18
Map-folder 6	250, H.P. main link, Category E (Calumet Mine General)
Map-folder 6	251, H.P. crosshead, Category E (Calumet Mine General)
Map-folder 6	252, Low pressure crosshead, Category E (Calumet Mine General)
Map-folder 6	253, Beam, Category E (Calumet Mine General)
Map-folder 6	254, Air pump, Category L (Hoisting engine Superior)
Map-folder 6	255, Details of condensing apparatus, Category E (Calumet Mine General)
Map-folder 6	256, Gallery, Category E (Calumet Mine General)
Map-folder 6	0256 a, Alteration to gallery for new valve gear, Category L (Hoisting engine Superior), 1984-03-19
Map-folder 6	257, Details for gallery, Category E (Calumet Mine General)
Map-folder 6	0257 a, Gallery bracket, Category L (Hoisting engine Superior), 1984-02-11
Map-folder 6	258, Miscellaneous details, Category E (Calumet Mine General)
Map-folder 6	259, Foundation, Category E (Calumet Mine General), 1980-07-10
Map-folder 6	260, Sections of foundations, Category E (Calumet Mine General), 1980-07-26
Map-folder 6	263, Lower gallery, Category E (Calumet Mine General)
Map-folder 6	265, Details for strap brakcets, Category G (Hecla Mine General), 1981-09-30
Map-folder 6	266, Details for strap brackets, Category G (Hecla Mine General), 1981-09-13
Map-folder 6	267, Cylinder, Category H (No. 4 Stamp for Calumet Mill), 1981-09-08

Map-folder 6	270, Foundation for stand pipe, Category F (Calumet Pond Water Works)
Map-folder 6	272, Plan, Category G (Hecla Mine General), 10/ /81
Map-folder 6	276, Elevation, Category G (Hecla Mine General), 1981-10-28
Map-folder 6	282, 18 ft connecting rod, Category K (Torch Lake), 1981-11-03
Map-folder 6	283, Alterations to starting engines, Category E (Calumet Mine General), 1981-11-07
Map-folder 6	286, Main pumps, Category K (Torch Lake), 1981-11-14
Map-folder 6	287, Cast iron plates for foundation, Category F (Calumet Pond Water Works), 1981-12-01
Map-folder 6	288, Plunger, crank, cross head, pump rod, brackets & bonnet, Category K (Torch Lake), 1981-11-17
Map-folder 6	289, Bed plate, Category K (Torch Lake), 1981-11-23
Map-folder 6	291, Main pump valves, Category K (Torch Lake), 1981-11-18
Map-folder 6	293, Caissons for foundations, Category F (Calumet Pond Water Works), 1981-11-14
Map-folder 6	294, Bed plate pedestal, Category K (Torch Lake), 1981-11-16
Map-folder 6	0296 L, Foundation plan, Category G (Hecla Mine General), 1979-05-03
Map-folder 6	298, Shaft & pedestals, Category K (Torch Lake), 1981-11-25
Map-folder 6	0298 a, Shaft & pinion, Category N (Pumping engine Arcadian), 2000-01-16
Map-folder 6	299, Pump No. 3 at Torch Lake, Category K (Torch Lake), 1982-01-20
Map-folder 7	300, Mortise wheel & pinion, Category K (Torch Lake), 1981-12-05
Map-folder 7	301, Pile foundation etc., Category K (Torch Lake), 1981-12-30
Map-folder 7	302, Roof trusses, Category K (Torch Lake), 1982-02-03
Map-folder 7	303, Plan of foundations, Category K (Torch Lake), 1982-01-11

Map-folder 7            0304, Main pumps, Category I (Calumet and Hecla Mine General), 12/12/81

Map-folder 7            0304 A, Main pumps, Category I (Calumet and Hecla Mine General), 06/15/87

Map-folder 7            0304 A, Strengthening rods for main pump chambers, details, Category I  
(Calumet and Hecla Mine General), 05/15/83

Map-folder 7            0305, Pump plungers & brackets, Category I (Calumet and Hecla Mine General),  
12/14/81

Map-folder 7            0306, Main pump valves, Category I (Calumet and Hecla Mine General),  
12/05/81

Map-folder 7            0307 c, Expansion coupling for 10 1/2" line shaft, Category G (Hecla Mine  
General), 12/07/81

Map-folder 7            0307, Twelve feet pulley, Category G (Hecla Mine General), 12/07/81

Map-folder 7            0308, Foundations for pumping engines, Category F (Calumet Pond Water  
Works), 12/15/81

Map-folder 7            0309, Plan showing location of outboard pedestal for engine "Wabeek",  
Category O (Engine Wabeek), 11/02/82

Map-folder 7            0309, Plan of foundations, Category I (Calumet and Hecla Mine General),  
01/18/82

Map-folder 7            0310, General elevation, Category E (Calumet Mine General), 01/15/82

Map-folder 7            0310 X, General elevations, Category E (Calumet Mine General), 02/05/84

Map-folder 7            0311, Foundations, Category I (Calumet and Hecla Mine General), 01/23/82

Map-folder 7            0313, Foundations, Category K (Torch Lake), 01/13/82

Map-folder 7            0315, Gallery, Category I (Calumet and Hecla Mine General), 01/05/82

Map-folder 7            0316, Suction & delivery pipes, Category K (Torch Lake), 12/30/81

Map-folder 7            0317, Gallery. details, Category I (Calumet and Hecla Mine General), 01/10/82

Map-folder 7            0318, Gallery details, Category I (Calumet and Hecla Mine General), 01/14/82

Map-folder 7	0322, Suction & delivery pipes, Category I (Calumet and Hecla Mine General), 01/09/82
Map-folder 7	0325, Details of clutch gear, Category E (Calumet Mine General), 01/26/82
Map-folder 7	0325 X, 24 ft clutch gear segment, Category E (Calumet Mine General), 11/14/83
Map-folder 7	0325 Xa, Clutch gear for drums 1 & 4, Category I (Calumet and Hecla Mine General), 11/10/83
Map-folder 7	0326, Engineer's platform, Category E (Calumet Mine General), 01/21/82
Map-folder 7	0327, Details of clutch gear, Category E (Calumet Mine General), 01/19/82
Map-folder 7	0327 X, Details of clutch gear, Category E (Calumet Mine General), 11/15/83
Map-folder 7	0328, 15" pedestals, shaft etc., Category E (Calumet Mine General), 01/23/82
Map-folder 7	0328 X, 15" pedestals, shaft etc., Category E (Calumet Mine General), 11/16/83
Map-folder 7	0329, 14" pedestals, girders etc., Category E (Calumet Mine General), 02/23/82
Map-folder 7	0329 X, 14" pedestals, girders etc., Category E (Calumet Mine General), 11/15/83
Map-folder 7	0330 a, Engine house, Category K (Torch Lake), 12/02/82
Map-folder 7	0331, 8 feet pinion, Category E (Calumet Mine General), 02/09/82
Map-folder 7	0331 X, 8' pinion, Category E (Calumet Mine General), 11/13/83
Map-folder 7	0332, Hydraulic gear, Category E (Calumet Mine General), 01/28/82
Map-folder 7	0332 X, Hydraulic coupling, Category E (Calumet Mine General), 11/20/83
Map-folder 7	0333, Roof details etc., Category K (Torch Lake), 02/07/82
Map-folder 7	0335, Counter gear, Category E (Calumet Mine General), 03/01/82
Map-folder 7	0336, Details of drum, Category E (Calumet Mine General), 02/10/82
Map-folder 7	0336 X, Details of drum, Category E (Calumet Mine General), 11/12/83



Map-folder 7 0337, Floor, etc., Category E (Calumet Mine General), 06/01/82

Map-folder 7 0338, Screen, etc., Category K (Torch Lake), 02/27/82

Map-folder 7 0340, Indicator gear, Category E (Calumet Mine General), 02/21/82

Map-folder 7 0340 X, Gears etc. for indicator, Category E (Calumet Mine General), 11/20/83

Map-folder 7 0341, Fly wheel guards, Category E (Calumet Mine General), 03/08/82

Map-folder 7 0343, Hydraulic cylinders & girder, Category E (Calumet Mine General), 05/08/82

Map-folder 7 0343 X, Hydraulic brake cylinder etc., Category E (Calumet Mine General), 11/20/83

Map-folder 7 0344, Arrangement of brake, Category E (Calumet Mine General), 03/08/83

Map-folder 7 0344 X, Arrangement of brake for drums No. 2 & 3, Category E (Calumet Mine General), 11/20/83

Map-folder 7 0345, Columns for hydraulic cylinders, Category E (Calumet Mine General), 03/14/82

Map-folder 7 0345 X, Columns for hydraulic cylinders, Category E (Calumet Mine General), 11/20/83

Map-folder 7 0346, General plan, Category E (Calumet Mine General), 04/01/82

Map-folder 7 0347, Details of brake, Category E (Calumet Mine General), 03/17/82

Map-folder 7 0347 X, Details of brake, Category E (Calumet Mine General), 11/19/83

Map-folder 7 0348, Gallery, Category E (Calumet Mine General), 05/13/82

Map-folder 7 0349, Indicator gear, Category E (Calumet Mine General), 03/08/82

Map-folder 7 0349 X, Dial standards, Category E (Calumet Mine General), 11/20/83

Map-folder 8 0350, Auxiliary governor, Category E (Calumet Mine General), 03/30/82

Map-folder 8 0350, Auxiliary governor, Category E (Calumet Mine General), 08/17/82

Map-folder 8 0351, Gallery details, Category E (Calumet Mine General), 03/15/82

Map-folder 8            0351 X, Gallery details, Category E (Calumet Mine General), 11/20/83

Map-folder 8            0352, Foundation, Category E (Calumet Mine General), 05/10/82

Map-folder 8            0353, Indicator gear. details, Category E (Calumet Mine General), 03/06/83

Map-folder 8            0353 X, Indicator gear. details, Category E (Calumet Mine General), 11/20/83

Map-folder 8            0354, Miscellaneous, Category E (Calumet Mine General), 04/15/83

Map-folder 8            0354 X, Miscellaneous, Category E (Calumet Mine General), 11/20/83

Map-folder 8            0357, Cylinder lagging, Category H (No. 4 Stamp for Calumet Mill), 05/15/82

Map-folder 8            0358, Pumping engine "Ontario", Category P (Pumping engine Ontario),  
04/29/82  
[Image\(s\)](#)

Map-folder 8            0359, Injection & bypass pipes, Category I (Calumet and Hecla Mine General),  
04/19/82  
[Image\(s\)](#)

Map-folder 8            0361, Pumping engine No. 2, Category I (Calumet and Hecla Mine General),  
05/02/82  
[Image\(s\)](#)

Map-folder 8            0365, Girders & pocket plates, Category E (Calumet Mine General), 05/26/82

Map-folder 8            0370, Hydraulic valves, etc., Category E (Calumet Mine General), 02/08/83

Map-folder 8            0370 X, Hydraulic valves, etc., Category E (Calumet Mine General), 11/20/83

Map-folder 8            0374, Alteration to valve gear, Category E (Calumet Mine General), 06/17/82

Map-folder 8            0378, Miscellaneous details, Category E (Calumet Mine General), 06/09/82

Map-folder 8            0379, Alteration to valve gear, Category E (Calumet Mine General), 06/28/82

Map-folder 8            0382, Gearing for Pump & man engines, Category C (Gearing for pumping and  
man engine), 06/12/82

Map-folder 8            0384, Force main etc., Category K (Torch Lake), 03/08/84

Map-folder 8            0392 e, Shafting pedestals, Category G (Hecla Mine General), 06/21/82

Map-folder 8            0399, Shaft, crank & crank pin, Category G (Hecla Mine General), 12/24/83

Map-folder 9            0400, Foundation for 30" x 72" Corliss engine. Hecla Mine, Category G (Hecla Mine General), 07/18/82

Map-folder 9            0414, Bed plate, Category I (Calumet and Hecla Mine General), 09/08/82

Map-folder 9            0419, Bed plate pedestal for 40 x 60 horizontal engine, Category I (Calumet and Hecla Mine General), 09/06/82

Map-folder 9            0419, Alterations to main pedestal, Category I (Calumet and Hecla Mine General), 09/29/82

Map-folder 9            0423, General plan location of machinery, Category G (Hecla Mine General), 09/14/82

Map-folder 9            0424, Plan, Category G (Hecla Mine General), 10/12/82

Map-folder 9            0425, Elevations & sections, Category G (Hecla Mine General), 09/11/82

Map-folder 9            0426, Cylinder, Category I (Calumet and Hecla Mine General), 09/20/82

Map-folder 9            0426 a, Copper gaskets, Category I (Calumet and Hecla Mine General), 04/12/84

Map-folder 9            0428, Cylinder heads, piston, Category I (Calumet and Hecla Mine General), 09/23/82

Map-folder 9            0429, Crosshead, crank & crank shaft, Category I (Calumet and Hecla Mine General), 09/20/82

Map-folder 9            0429 b, Crosshead, Category I (Calumet and Hecla Mine General), 09/20/82

Map-folder 9            0431, Bevel mitre gears, etc., Category I (Calumet and Hecla Mine General), 09/28/82

Map-folder 9            0432, 25 ft belt pulley, Category O (Engine Wabeek), 09/18/82

Map-folder 9            0434, 22 ft double belt pulley, Category O (Engine Wabeek), 09/21/82

Map-folder 9            0435, General plan, Category E (Calumet Mine General), 09/28/82

Map-folder 9 0436, Outboard pedestal, Category O (Engine Wabeek), 09/28/82

Map-folder 9 0436 A, Outboard pedestal, Category Q (Hoisting engine Frontenac), 03/31/83

Map-folder 9 0438, Valves & seats, Category I (Calumet and Hecla Mine General), 09/25/82

Map-folder 9 0440, Cam shaft pedestals, Category I (Calumet and Hecla Mine General), 12/07/82

Map-folder 9 0442, Stop valve & steam pipe, Category I (Calumet and Hecla Mine General), 10/05/82

Map-folder 9 0443, 40" x 60" horiz. eng outboard pedestal, Category I (Calumet and Hecla Mine General), 12/27/83

Map-folder 9 0443 X, 16" x 30" pedestals G & H, Category E (Calumet Mine General), 11/14/83

Map-folder 9 0444, Foundation, Category I (Calumet and Hecla Mine General), 11/15/82

Map-folder 9 0444, Foundation, Category I (Calumet and Hecla Mine General), 10/03/82

Map-folder 9 0445, Valve diagram, Category I (Calumet and Hecla Mine General), 01/09/83

Map-folder 9 0446, Connecting rod & piston rod, Category I (Calumet and Hecla Mine General), 10/04/82

Map-folder 9 0447, Valve gear: general drawing, Category I (Calumet and Hecla Mine General), 12/19/82

Map-folder 10 0450, Exhaust cams, Category I (Calumet & Helca Mine General), 11/22/82

Map-folder 10 0451, General drawing, Category I (Calumet & Helca Mine General), 07/12/83

Map-folder 10 0453, Gearing for 36" x 60" Calumet compressors, Category E (Calumet Mine General), 10/12/82

Map-folder 10 0454, 30' 0" flywheel, Category I (Calumet & Helca Mine General), 10/20/82

Map-folder 10 0458, Details of valve gear, Category I (Calumet & Helca Mine General), 11/16/82

Map-folder 10 0460, Air pump & condensor, Category I (Calumet & Helca Mine General), 11/06/82

Map-folder 10 0461, Air pump beam, etc., Category I (Calumet & Helca Mine General), 11/08/82

Map-folder 10 0462, Valve gear bracket, Category I (Calumet & Helca Mine General), 11/20/82

Map-folder 10 0463, Details of condensing apparatus, Category I (Calumet & Helca Mine General), 11/11/82

Map-folder 10 0464, Cut off cams, Category I (Calumet & Helca Mine General), 11/22/82

Map-folder 10 0465, Steam cams, Category I (Calumet & Helca Mine General), 11/18/82

Map-folder 10 0466, Roof trusses etc., Category K (Torch Lake), 12/02/82

Map-folder 10 0467, Foundations, Category E (Calumet Mine General), 11/06/82

Map-folder 10 0467 a, Foundation capstones, Category E (Calumet Mine General), 11/06/82

Map-folder 10 0468, Bed plate pedestal, Category E (Calumet Mine General), 11/09/82

Map-folder 10 0469, Bed plate, Category E (Calumet Mine General), 11/17/82

Map-folder 10 0470 , L.P. cylinder, Category Q (Hoisting Engine "Frontenac"), 12/05/82

Map-folder 10 0473, Cross head, crank & shaft, Category E (Calumet Mine General), 11/23/82

Map-folder 10 0473 c, Cross head, Category E (Calumet Mine General), 11/23/82

Map-folder 10 0474, Bed plates, sections, Category E (Calumet Mine General), 11/16/82

Map-folder 10 0475 L, Connecting rods, Category E (Calumet Mine General), 11/21/82

Map-folder 10 0477, Sand wheel for stamp mill, Category I (Calumet & Helca Mine General), 12/19/82

Map-folder 10 0478, Beams etc. for overhead shaft, Category K (Torch Lake), 12/21/82

Map-folder 10 0479 L, Cast details, Category I (Calumet & Helca Mine General), 12/20/82

Map-folder 10 0482 L, Valves & seats, Category Q (Hoisting Engine "Frontenac"), 12/11/82

Map-folder 10 0483, Governor engine, Category I (Calumet & Helca Mine General), 01/12/83

Map-folder 10	0484 c, Beam, Category Q (Hoisting Engine "Frontenac"), 11/29/82
Map-folder 10	0485 La , H.P. and L.P. links, Category I (Calumet & Helca Mine General), 12/08/82
Map-folder 10	0486, Pulleys for overhead shaft, Category K (Torch Lake), 12/07/82
Map-folder 10	0486 a, Pulleys for overhead shaft, Category K (Torch Lake), 12/07/82
Map-folder 10	0487, Connecting rod, Category Q (Hoisting Engine "Frontenac"), 12/04/82
Map-folder 10	0487 a, Main connecting rods, Category Q (Hoisting Engine "Frontenac"), 02/21/84
Map-folder 10	0488, Details of starting gear, Category I (Calumet & Helca Mine General), 12/23/82
Map-folder 10	0489, Valve gear details, Category I (Calumet & Helca Mine General), 01/26/83
Map-folder 10	0490, Guide blocks, Category Q (Hoisting Engine "Frontenac"), 12/23/82
Map-folder 10	0491, Cross heads: piston rods, Category Q (Hoisting Engine "Frontenac"), 12/05/82
Map-folder 10	0492, Columns & guides, Category Q (Hoisting Engine "Frontenac"), 12/06/82
Map-folder 10	0493, Valve diagram, Category Q (Hoisting Engine "Frontenac"), 12/08/82
Map-folder 10	0494, Bed plate, Category Q (Hoisting Engine "Frontenac"), 12/22/82
Map-folder 10	0495, Shaft & wro't iron works, Category I (Calumet & Helca Mine General), 12/21/82
Map-folder 10	0496 L, Cylinder heads & pistons, Category Q (Hoisting Engine "Frontenac"), 12/13/82
Map-folder 10	0497, Exhaust pipe, condensor, etc., Category Q (Hoisting Engine "Frontenac"), 03/09/83
Map-folder 10	0498, Re heaters, etc., Category Q (Hoisting Engine "Frontenac"), 12/20/82
Map-folder 10	0499, Cylinder foot etc., Category E (Calumet Mine General), 12/14/82
Map-folder 10	0499 a, Air cylinder etc., Category E (Calumet Mine General), 12/14/82

Map-folder 11 0501, Air pump, Category Q (Hoisting Engine "Frontenac"), 12/26/82

Map-folder 11 0502, Details of condensing apparatus, Category Q (Hoisting Engine "Frontenac"), 12/29/82

Map-folder 11 0504, Pedestal for sand wheel, Category I (Calumet & Helca Mine General), 12/27/82

Map-folder 11 0505, Governor, Category I (Calumet & Helca Mine General), 02/23/83

Map-folder 11 0507, Injection gear, etc., Category I (Calumet & Helca Mine General), 01/23/83

Map-folder 11 0509, Floor. etc., Category I (Calumet & Helca Mine General), 02/26/83

Map-folder 11 0511, Beam pedestals, Category Q (Hoisting Engine "Frontenac"), 12/11/83

Map-folder 11 0513, Arrangement for dial standard B, etc., Category E (Calumet Mine General), 02/26/83

Map-folder 11 0513 X, Arrangement for dial standard B, etc., Category E (Calumet Mine General), 11/20/83

Map-folder 11 0515 A, 4 ft strap clutch: headstock, Category C (Gearing for Pump and Man Engine), 07/17/83

Map-folder 11 0519, Crank shaft pedestals, Category Q (Hoisting Engine "Frontenac"), 01/18/83

Map-folder 11 0520, Indicator gear etc., Category I (Calumet & Helca Mine General), 02/23/83

Map-folder 11 0521, Plan of roof etc., Category K (Torch Lake), 01/12/83

Map-folder 11 0522, General plan, Category K (Torch Lake), 05/28/83

Map-folder 11 0524, Headstock, Category I (Calumet & Helca Mine General), 01/27/83

Map-folder 11 0524 a, Details of stamps, Category E (Calumet Mine General), 12/27/86

Map-folder 11 0525, Mortar, anvil & braces, Category I (Calumet & Helca Mine General), 01/ /83

Map-folder 11 0525 b, Anvils for stamps #1,2 & 3 Calumet & Hecla mills, Category I (Calumet & Helca Mine General), 11/21/83

Map-folder 11 0525 c, Alterations to existing patterns, Category G (Hecla Mine General), 01/01/84

Map-folder 11 0525 d, Anvil for the last four stamps, Category I (Calumet & Helca Mine General), 07/31/84

Map-folder 11 0526, Throttle valve, Category I (Calumet & Helca Mine General), 01/ /83

Map-folder 11 0527, Middle frame, Category I (Calumet & Helca Mine General), 01/27/83

Map-folder 11 0528, Bevel mitre gears, Category Q (Hoisting Engine "Frontenac"), 02/13/83

Map-folder 11 0529, Jacket pipes & indicator gear, Category I (Calumet & Helca Mine General), 03/24/83

Map-folder 11 0531, Bed plates & sills, Category I (Calumet & Helca Mine General), 01/ /83

Map-folder 11 0531 C, Bed plates. sill etc., Category I (Calumet & Helca Mine General), 07/30/84

Map-folder 11 0531 e, Details of indicator gear, Category G (Hecla Mine General), 04/20/86

Map-folder 11 0532, Deatils of indicator gear, Category I (Calumet & Helca Mine General), 02/ /83

Map-folder 11 0532 a, Alteration to indicator gear, Category E (Calumet Mine General), 03/06/84

Map-folder 11 0533, Bed plate for hydraulic valve, etc., Category E (Calumet Mine General), 02/12/83

Map-folder 11 0533 X, Bed plate for hydraulic valve, etc., Category E (Calumet Mine General), 11/20/83

Map-folder 11 0535, Pile foundations, Category I (Calumet & Helca Mine General), 02/19/83

Map-folder 11 0536, Roof trusses etc., Category I (Calumet & Helca Mine General), undated

Map-folder 11 0537 L, Governor engine, Category Q (Hoisting Engine "Frontenac"), 09/27/00

Map-folder 11 0539, Temporary pedestals for 12" pinion shaft, Category E (Calumet Mine General), 02/16/83

Map-folder 11 0540 A, H.P. inlet & L.P. inlet cam rockers, Category Q (Hoisting Engine "Frontenac"), 04/27/83



Map-folder 11 0541, Cam shaft pedestals A,B, & C, Category Q (Hoisting Engine "Frontenac"), 02/19/83

Map-folder 11 0543, Details for lagging, Category I (Calumet & Helca Mine General), 03/21/83

Map-folder 11 0544 A, L.P. exh. cam rockers, Category Q (Hoisting Engine "Frontenac"), 04/25/83

Map-folder 11 0545, Governor, Category Q (Hoisting Engine "Frontenac"), 02/22/83

Map-folder 11 0546, Cut off cam, Category Q (Hoisting Engine "Frontenac"), 02/26/83

Map-folder 11 0547 A, Valve gear tables, etc., Category Q (Hoisting Engine "Frontenac"), 05/03/83

Map-folder 11 0548, Buildings, Category I (Calumet & Helca Mine General), 04/24/83

Map-folder 11 0549, Foundations for Hecla sand wheel, Category G (Hecla Mine General), 03/14/83

Map-folder 11 0549 a, Foundation capstones for Hecla sand wheel, Category G (Hecla Mine General), 04/16/83

Map-folder 11 0549 b, Foundation pocket plates for Hecla sand wheel, Category G (Hecla Mine General), 03/14/83

Map-folder 12 0550, Foundations. sections, Category OS, 03/03/83

Map-folder 12 0551, Foundation. plan, Category OR, 03/06/83

Map-folder 12 0552, Arrangement for dial standard A, etc., Category E (Calumet Mine General), 03/02/83

Map-folder 12 0552 X, Arrangement for dial standard A, etc., Category E (Calumet Mine General), 11/20/83

Map-folder 12 0555, Air pump, Category O (Engine "Wabeek"), 07/14/83

Map-folder 12 0557, Pedestal & pulleys, Category I (Calumet & Helca Mine General), 04/12/83

Map-folder 12 0559, Safety valve, Category K (Torch Lake), 04/25/83

Map-folder 12 0559 X, Safety Valve, Category G (Hecla Mine General), 05/27/85

Map-folder 12 0559Z, Safety valve, Category E (Calumet Mine General), 03/21/84

Map-folder 12 0560, Rocker stands, pedestals D,E,F,G,H, etc., Category Q (Hoisting Engine "Frontenac"), 05/19/83

Map-folder 12 0561, Details for overhead shaft for Hecla Tail House, Category K (Torch Lake), 03/12/83

Map-folder 12 0562, Foundation, Category Q (Hoisting Engine "Frontenac"), 03/09/83

Map-folder 12 0563, Valve gear brackets. etc., Category Q (Hoisting Engine "Frontenac"), 05/08/83

Map-folder 12 0564 A, Sections, Category K (Torch Lake), 06/11/83

Map-folder 12 0565, Deatials of starting gear, Category Q (Hoisting Engine "Frontenac"), 03/22/83

Map-folder 12 0566, 25 ft fly wheel, Category Q (Hoisting Engine "Frontenac"), 03/13/83

Map-folder 12 0567, Cylinder lagging, Category I (Calumet & Helca Mine General), 03/19/83

Map-folder 12 0569, L.P. valve gear brackets, etc., Category Q (Hoisting Engine "Frontenac"), 05/11/83

Map-folder 12 0570, Suction pipe, pumping engine No 2, Category I (Calumet & Helca Mine General), 12/27/82

Map-folder 12 0570 b, West suction pipe, Category I (Calumet & Helca Mine General), 03/27/83

Map-folder 12 I 0571, Cranks & shafts, Category Q (Hoisting Engine "Frontenac"), 03/30/83

Map-folder 12 0572 A, L.P. inlet cams, Category Q (Hoisting Engine "Frontenac"), 04/03/83

Map-folder 12 0573, Tower etc. at Calumet Sand Wheel House, Category K (Torch Lake), 04/23/83

0574 A, Elevations, etc., Category K (Torch Lake), 06/21/83

Map-folder 12 0575, Steam pipe, bonnets, etc., Category Q (Hoisting Engine "Frontenac"), 03/29/83

Map-folder 12 0576, Cast details for pinion shafts, Category I (Calumet & Helca Mine General), 03/30/83

Map-folder 12 0577, Foundations for Calumet sand wheel, Category E (Calumet Mine General), 03/23/83

Map-folder 12 0577 a, Foundation capstones for Calumet sand wheel, Category Q (Hoisting Engine "Frontenac"), 04/16/83

Map-folder 12 0577 b, Injection and out board delivery, Category E (Calumet Mine General), 04/17/83

Map-folder 12 0578, Injection & outboard delivery, Category Q (Hoisting Engine "Frontenac"), 03/21/83

Map-folder 12 0579, Joints & bracing, Category K (Torch Lake), 04/04/83

Map-folder 12 0579 Z, Joints & bracing, Category E (Calumet Mine General), 04/04/83

Map-folder 12 0580, Machinery in Hecla sand wheel house. General plan , Category G (Hecla Mine General), 04/19/83

Map-folder 12 0581, Steam pipes, nozzles, etc., Category K (Torch Lake), 04/19/83

Map-folder 12 0581 Z, Dry pipe, mud drum etc., Category E (Calumet Mine General), 02/12/84

Map-folder 12 0582, Stamp shaft guide. lower frame, Category I (Calumet & Helca Mine General), 03/28/83

Map-folder 12 0583 L, False front, grate bars etc., Category K (Torch Lake), 04/19/83

Map-folder 12 0583 LX, False front, grate bars etc., Category G (Hecla Mine General), 05/27/85

Map-folder 12 0583 Z, False front, grate bars etc., Category E (Calumet Mine General), 02/12/84

Map-folder 12 0584, H.P. inlet cam, Category Q (Hoisting Engine "Frontenac"), 03/22/82

Map-folder 12 0585, Tower etc. at Hecla Sand Wheel House, Category K (Torch Lake), 04/13/83

Map-folder 12 0586, Cradles: smoke box: base ring etc., Category K (Torch Lake), 04/30/83

Map-folder 12 0586 X, Cradles, base ring etc., Category G (Hecla Mine General), 05/27/85

Map-folder 12 0586 Z, Cradles, base ring, etc., Category I (Calumet & Helca Mine General), 02/12/84

Map-folder 12 0588 A, L.P. exhaust cams, Category Q (Hoisting Engine "Frontenac"), 04/02/83

Map-folder 12 0589, Gallery, Category Q (Hoisting Engine "Frontenac"), 05/09/83

Map-folder 12 0590, Arrangement of governor engine, etc., Category Q (Hoisting Engine "Frontenac"), 04/09/83

Map-folder 12 0590 a, Arrangement of governor engine, etc., Category Q (Hoisting Engine "Frontenac"), 11/02/85

Map-folder 12 0591, Pinion shafts and channel beams, Category I (Calumet & Helca Mine General), 04/04/83

Map-folder 12 0592, Upper L.P. inlet & H.P. cut off rockers, Category Q (Hoisting Engine "Frontenac"), 04/28/83

Map-folder 12 0593, H.P. exhaust cams, Category Q (Hoisting Engine "Frontenac"), 04/09/83

Map-folder 12 0594, H.P. exh. cam rockers, Category Q (Hoisting Engine "Frontenac"), 04/23/83

Map-folder 12 0595, Indicator gear, Category Q (Hoisting Engine "Frontenac"), 04/23/83

Map-folder 12 0596, General drawing, Category I (Calumet & Helca Mine General), 07/05/83

Map-folder 12 0597, Cylinder lagging, Category Q (Hoisting Engine "Frontenac"), 05/12/83

Map-folder 12 0598, Gallery details, Category Q (Hoisting Engine "Frontenac"), 05/09/83

Map-folder 12 0599, Cylinders, Category I (Calumet & Helca Mine General), 04/24/83

Map-folder 13 0600, Valve gear details, Category I (Calumet & Helca Mine General), 04/20/83

Map-folder 13 0601, General plan, Category E (Calumet Mine General), 04/28/83

Map-folder 13 0602, Valves, seats, etc., Category I (Calumet & Helca Mine General), 04/ /83

Map-folder 13 0602 a, Details of stamp alterations, Category E (Calumet Mine General), 12/30/86

Map-folder 13 0604, Cylinder heads & pistons, Category I (Calumet & Helca Mine General), 04/ /83

Map-folder 13 0605, Lagging details, Category Q (Hoisting Engine "Frontenac"), 05/07/83

Map-folder 13 0606, Steam cams, Category I (Calumet & Helca Mine General), 04/26/83

Map-folder 13 0607, Cam shaft bracket, pedestal, etc., Category I (Calumet & Helca Mine General), 05/02/83

Map-folder 13 0609, Lagging details, Category Q (Hoisting Engine "Frontenac"), 05/02/83

Map-folder 13 0610, Push rod, dash pot, etc., Category I (Calumet & Helca Mine General), 05/03/83

Map-folder 13 0611, Details for overhead shafts in sand wheel house, Category I (Calumet & Helca Mine General), 06/26/83

Map-folder 13 0612, Condensing apparatus, Category I (Calumet & Helca Mine General), 05/15/83

Map-folder 13 0613, Valve gear, Category I (Calumet & Helca Mine General), 05/12/83

Map-folder 13 0614, Overhead shafts etc. in towers at Sand wheel House, Category K (Torch Lake), 05/14/83

Map-folder 13 0615, Overhead shafts etc. in sand wheel house, Category I (Calumet & Helca Mine General), 05/19/83

Map-folder 13 0616, Crane for connecting rod, Category I (Calumet & Helca Mine General), 05/24/83

Map-folder 13 0617, L.P. valve gear, Category Q (Hoisting Engine "Frontenac"), 06/18/83

Map-folder 13 0618, Cam shaft, valve stems, etc., Category Q (Hoisting Engine "Frontenac"), 05/29/83

Map-folder 13 0619, Starting platform, Category I (Calumet & Helca Mine General), 06/25/83

Map-folder 13 0620, H.P. valve gear, Category Q (Hoisting Engine "Frontenac"), 06/07/83

Map-folder 13 0621, Steam pipe, Category I (Calumet & Helca Mine General), 06/13/83

Map-folder 13 0622, 4 ft strap clutch, Category C (Gearing for Pump and Man Engine), 07/13/83

Map-folder 13      0624, Details for 4 ft strap clutch, Category C (Gearing for Pump and Man Engine), 07/13/83

Map-folder 13      0626, Travelling crane, Category Q (Hoisting Engine "Frontenac"), 06/21/83

Map-folder 13      0628, Details 4 ft strap clutch details, Category C (Gearing for Pump and Man Engine), 07/10/83

Map-folder 13      0630 a, Alterations to roof, Category G (Hecla Mine General), 06/25/83

Map-folder 13      0631, Bed plate etc., Category G (Hecla Mine General), 09/18/83

Map-folder 13      0632, Girders for traveling crane, Category G (Hecla Mine General), 06/30/83

Map-folder 13      0633 b, Opening in north wall, Category G (Hecla Mine General), 07/11/83

Map-folder 13      0633 d, Foundation pocket plates, Category G (Hecla Mine General), 04/08/84

Map-folder 13      0633 e, Plan, Category G (Hecla Mine General), 04/10/84

Map-folder 13      0633 g, Capstones for 42" x 60" compressors, Category G (Hecla Mine General), 01/06/85

Map-folder 13      0633 H, Elevations & section , Category G (Hecla Mine General), 04/10/84

Map-folder 13      0635, Cylinder lagging, Category G (Hecla Mine General), 07/06/83

Map-folder 13      0636, 4 ft strap clutch overhead details, Category C (Gearing for Pump and Man Engine), 07/18/83

Map-folder 13      0637, Air pump beam, links etc., Category O (Engine "Wabeek"), 07/09/83

Map-folder 13      0639, Air pump details, Category O (Engine "Wabeek"), 07/11/83

Map-folder 13      0640, New crank shafts & pedestals, Category I (Calumet & Helca Mine General), 07/19/83

Map-folder 13      0641, Pedestal details, Category I (Calumet & Helca Mine General), 07/21/83

Map-folder 13      0645, Hydraulic piping, Category I (Calumet & Helca Mine General), 08/02/83

Map-folder 13      0646, Operation platforms for 6 ft clutches, Category I (Calumet & Helca Mine General), 08/06/83

Map-folder 13 0647, Lower gallery, Category Q (Hoisting Engine "Frontenac"), 08/03/83

Map-folder 13 0648, General plan of machinery, Category K (Torch Lake), 08/09/83

Map-folder 14 0650, General elevation, Category Q (Hoisting Engine "Frontenac"), 09/18/83

Map-folder 14 0652, Trestle for traveling crane, Category G (Hecla Mine General), 08/18/83

Map-folder 14 0653, Name plate. counter gear, Category F (Calumet Pond Water Works), 09/27/83

Map-folder 14 0655, General plan, Category Q (Hoisting Engine "Frontenac"), 09/18/83

Map-folder 14 0657, Arrangement of jacket pipes, Category Q (Hoisting Engine "Frontenac"), 09/15/83

Map-folder 14 0658, Name plate. counter gear, Category I (Calumet & Helca Mine General), 10/03/83

Map-folder 14 0659, Name plate. counter gear, Category Q (Hoisting Engine "Frontenac"), 10/10/83

Map-folder 14 0660 A, General plan, Category E (Calumet Mine General), 04/24/84

Map-folder 14 0660 a, Plan of floor, Category E (Calumet Mine General), 02/04/84

Map-folder 14 0660 b, Plan of floor, Category E (Calumet Mine General), 02/24/84

Map-folder 14 0661, General drawing, Category I (Calumet & Helca Mine General), 10/30/83

Map-folder 14 0665, Outlet launders, Category I (Calumet & Helca Mine General), 10/23/83

Map-folder 14 0665, Outlet launders, Category I (Calumet & Helca Mine General), 06/29/00

Map-folder 14 0668, Outlet launders: details, Category I (Calumet & Helca Mine General), 10/23/83

Map-folder 14 0671, 40 ft. sand wheel for stamp mills, Category I (Calumet & Helca Mine General), 02/04/84

Map-folder 14 0671 b, Stay rod hubs, Category I (Calumet & Helca Mine General), 04/22/84

Map-folder 14 0672, Foundation, Category G (Hecla Mine General), 01/ /83

Map-folder 14 0674, Bevel mitre gears, Category L (Hoisting Engine "Superior"), 11/28/83

Map-folder 14 0675, L.P. exhaust cams, Category L (Hoisting Engine "Superior"), 11/16/83

Map-folder 14 0676 A, L.P. inlet cams, Category L (Hoisting Engine "Superior"), 11/18/83

Map-folder 14 0677 A, H.P. exhaust cams, Category L (Hoisting Engine "Superior"), 11/16/83

Map-folder 14 0678, H.P. exh & L.P. cam rockers, Category L (Hoisting Engine "Superior"),  
12/04/83

Map-folder 14 0679, H.P. inlet & cut off rockers, Category L (Hoisting Engine "Superior"),  
12/08/83

Map-folder 14 0680, H.P. standards & brackets, Category L (Hoisting Engine "Superior"),  
12/15/83

Map-folder 14 0681, Lower valve gear, Category L (Hoisting Engine "Superior"), 01/21/84

Map-folder 14 0683, Trunion bearing, cut off bracket etc., Category L (Hoisting Engine  
"Superior"), 12/07/83

Map-folder 14 0684 X, Gallery: general plan, Category E (Calumet Mine General), 11/21/83

Map-folder 14 0685, Cam shafts etc., Category L (Hoisting Engine "Superior"), 12/19/83

Map-folder 14 0686, H.P. inlet cam, Category L (Hoisting Engine "Superior"), 11/23/83

Map-folder 14 0687, L.P. standards & brackets, Category L (Hoisting Engine "Superior"),  
12/10/83

Map-folder 14 0688, Cut off rockers, pins etc., Category L (Hoisting Engine "Superior"),  
12/11/83

Map-folder 14 0689 X, Gallery: elevation etc., Category E (Calumet Mine General), 12/03/83

Map-folder 14 0691 X, Shafting, expansion coupling etc., Category E (Calumet Mine General),  
12/21/83

Map-folder 14 0692 A, General plan of machinery, Category E (Calumet Mine General),  
10/20/85

Map-folder 14 0692 B, General plan of machinery, Category E (Calumet Mine General),  
10/20/85



Map-folder 14 0692 C, General plan of machinery, Category E (Calumet Mine General), 10/20/85

Map-folder 14 0693, Sketch showing foundation capstones to be moved..., Category E (Calumet Mine General)

Map-folder 14 0693 X, Foundations: plan, Category E (Calumet Mine General), 01/04/84

Map-folder 14 0694 X, Foundation: sections, Category E (Calumet Mine General), 01/07/84

Map-folder 14 0695, Elevations, Category E (Calumet Mine General), 02/01/84

Map-folder 14 0695 X, Elevations No. 5 & No. 6 boilers, Category G (Hecla Mine General), 06/26/85

Map-folder 14 0696, H.P. valve gear, Category L (Hoisting Engine "Superior"), 01/15/84

Map-folder 14 0698 X, Foundation girders bed plates etc., Category E (Calumet Mine General), 12/31/83

Map-folder 14 0699, Starting and throttle gear: details, Category L (Hoisting Engine "Superior"), 01/02/84

Map-folder 15 0700, Starting & throttle gear, Category L (Hoisting Engine "Superior"), 01/08/84

Map-folder 15 0704, New valve gear, Category L (Hoisting Engine "Superior"), 01/18/84

Map-folder 15 0706 X, Capstones & pocket plates, Category E (Calumet Mine General), 01/11/84

Map-folder 15 0714, Sections, Category E (Calumet Mine General), 02/07/84

Map-folder 15 0714 X, Sections, Category G (Hecla Mine General), 07/17/85

Map-folder 15 0715 X, Arrangement of brake for drums No. 1 & 4, Category E (Calumet Mine General), 01/30/84

Map-folder 15 0716, General elevation, Category L (Hoisting Engine "Superior"), 04/10/84

Map-folder 15 0717, Lower valve gear, Category Q (Hoisting Engine "Frontenac"), 06/10/83

Map-folder 15 0719, foundation for 16 ft. gap lathe, Category G (Hecla Mine General), 01/27/84

Map-folder 15 0719 a, Foundation capstones for 16 ft gap lathe, Category E (Calumet Mine General), 01/28/84

Map-folder 15 0720, Flywheel guard, Category E (Calumet Mine General), 05/07/84

Map-folder 15 0721, Inlet launders, Category I (Calumet & Helca Mine General), 02/01/84

Map-folder 15 0728 L, Nozzles, braces for 40" x 60" engine, Category E (Calumet Mine General), 02/14/84

Map-folder 15 0729 X, General elevations, Category E (Calumet Mine General), 02/27/84

Map-folder 15 0733, Hydraulic piping, Category E (Calumet Mine General), 03/03/84

Map-folder 15 0737 A, Steam drum, uptake etc., Category E (Calumet Mine General), 03/21/84

Map-folder 15 0738 a, 10" stop valve, Category I (Calumet & Helca Mine General), 04/30/86

Map-folder 15 0749, 6" & 12" standard stop valves, Category I (Calumet & Helca Mine General), 03/12/84

Map-folder 15 0749 b, 8" standard stop valve, Category I (Calumet & Helca Mine General), 03/12/84

Map-folder 15 0750 a, Skip counter gear, Category E (Calumet Mine General), 03/18/84

Map-folder 15 0756 AL, Bed plate, Category G (Hecla Mine General), 12/31/84

Map-folder 15 0756 AR, Bed plate, Category G (Hecla Mine General), 12/31/84

Map-folder 15 0759, General arrangement, etc., Category G (Hecla Mine General), 04/07/84

Map-folder 15 0760, Cross head, crank & shaft, Category G (Hecla Mine General), 03/31/84

Map-folder 15 0761, 20 ft. spur gear, Category G (Hecla Mine General), 04/01/84

Map-folder 15 0761 X, 20 ft. spur gear, Category G (Hecla Mine General), 07/21/86

Map-folder 15 0762 A, Connecting rods, Category G (Hecla Mine General), 12/23/84

Map-folder 15 0762 AX, Connecting rods, Category G (Hecla Mine General), 07/10/86

Map-folder 15 0763, Bed plate pedestal, Category G (Hecla Mine General), 04/04/84

Map-folder 15 0764, Sections, Category G (Hecla Mine General), 04/07/84

Map-folder 15 0772, 10 ft mortise clutch pinion, Category G (Hecla Mine General), 04/17/84

Map-folder 15 0773 A, Bed plate: sections etc., Category G (Hecla Mine General), 01/03/85

Map-folder 15 0774 A, Cylinder, Category I (Calumet & Helca Mine General), 01/16/85

Map-folder 15 0777, 15" x 28" pedestal, Category I (Calumet & Helca Mine General), 04/24/84

Map-folder 15 0778, Floor details, Category E (Calumet Mine General), 04/24/84

Map-folder 15 0785, Floor details, Category E (Calumet Mine General), 05/03/84

Map-folder 15 0794, Stairs over main shaft, Category E (Calumet Mine General), 05/14/84

Map-folder 16 0801, Valve gear details, Category T (Pumping Engine No. 1), 08/27/77

Map-folder 16 0802, Bed plate, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0803, Columns & guides, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0804, Entablature & cylinder base, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0805, Beam, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0806, Cylinder details, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0807, Main pump No. 1, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0808, Main pump No. 2, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0809, Pump details, Category T (Pumping Engine No. 1), 06/ /74

Map-folder 16 0810, Forgings, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0811, General arrangement of valve gear, Category T (Pumping Engine No. 1),  
08/ /77

Map-folder 16 0812, Piston valve and connections, Category T (Pumping Engine No. 1),  
11/01/77

Map-folder 16 0813, Beam pedestal, crossheads & crank, Category T (Pumping Engine No. 1), 06/ /74

Map-folder 16 0814, Valve gear stand etc., Category T (Pumping Engine No. 1), 06/ /74

Map-folder 16 0815, Valve gear details, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0816, Alteration to engine No. 774 (details), Category T (Pumping Engine No. 1), 07/ /77

Map-folder 16 0817, Steam & exhaust cams, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0818, Forgings for valve gear, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0819, Waste valves & operating gear, Category T (Pumping Engine No. 1), 06/24/74

Map-folder 16 0820, Outboard pedestal & stand, Category T (Pumping Engine No. 1), 06/ /76

Map-folder 16 0821, Belt wheels, Category T (Pumping Engine No. 1), 08/ /77

Map-folder 16 0822, Gallery, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0823, Main pump buckets, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0824, Upper valve stem brackets, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0825, False heads & counterbalance gear, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0826, Main pump rods, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0827, Governor & details, Category T (Pumping Engine No. 1), undated

Map-folder 16 0828, Bracing for towers at Sand wheel Houses, Category K (Torch Lake), 06/22/84

Map-folder 16 0829, Air pump details, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0831, Condensing apparatus, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0832, Cam rings, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0833, Cylinders, Category T (Pumping Engine No. 1), undated

Map-folder 16 0834, Crank shaft & main pedestals, Category T (Pumping Engine No. 1), 07/ /77

Map-folder 16 0835, Flywheel, Category T (Pumping Engine No. 1), / /74

Map-folder 16 0836, Air pump details, Category T (Pumping Engine No. 1), 08/ /77

Map-folder 16 0837, Governor details, Category T (Pumping Engine No. 1), 07/ /77

Map-folder 16 0838, Valve gear bracket, rocker and stands, Category T (Pumping Engine No. 1), 07/ /77

Map-folder 16 0839, New beam pedestals, Category T (Pumping Engine No. 1), 08/ /76

Map-folder 16 0840, Valve seat. stub end, Category T (Pumping Engine No. 1), / /77

Map-folder 16 0841 b, New bucket rim, Category G (Hecla Mine General), 08/18/84

Map-folder 16 0841 c, New bucket rims, Category G (Hecla Mine General), 09/16/84

Map-folder 16 0842, Cylinder lagging, Category T (Pumping Engine No. 1), 08/ /77

Map-folder 16 0843, 40 ft. sand wheel, Category I (Calumet & Helca Mine General), 02/21/02

Map-folder 16 0844, Main pump valves, Category T (Pumping Engine No. 1), 02/21/77

Map-folder 16 0845, Governor details, Category T (Pumping Engine No. 1), 07/ /77

Map-folder 16 0846, Valve gear details, Category T (Pumping Engine No. 1), 07/ /77

Map-folder 16 0847, Main pump valves, Category T (Pumping Engine No. 1), 02/21/77

Map-folder 16 0848, Cut off cam and spiral key, Category T (Pumping Engine No. 1), 07/ /77

Map-folder 16 0849, Valve gear, Category T (Pumping Engine No. 1), 08/ /77

Map-folder 16 0850, Air pump, Category T (Pumping Engine No. 1), 08/ /77

Map-folder 16 0851, Foundation, Category T (Pumping Engine No. 1), undated

Map-folder 16 0880, Receivers etc., Category L (Hoisting Engine "Superior"), 11/15/84

Map-folder 16 0881, Gallery, Category E (Calumet Mine General), 12/11/84

Map-folder 17 0902, Valve chests, receivers. plunger, Category I (Calumet & Helca Mine General), 02/06/85

Map-folder 17 0902 X, Valve chests, receivers. plunger, Category I (Calumet & Helca Mine General), 07/22/86

Map-folder 17 0903, General drawing, Category I (Calumet & Helca Mine General), 02/10/85

Map-folder 17 0905, Injection pump: details, Category I (Calumet & Helca Mine General), 01/30/85

Map-folder 17 0906, Injection pump: details, Category I (Calumet & Helca Mine General), 02/10/85

Map-folder 17 0908, Valves, injection piping, Category I (Calumet & Helca Mine General), 02/04/85

Map-folder 17 0914, Receiver lagging, Category L (Hoisting Engine "Superior"), 03/03/85

Map-folder 17 0916, Shafts, expansion coupling etc., Category G (Hecla Mine General), 02/25/85

Map-folder 17 0920, Delivery pipe, clutch hood etc., Category I (Calumet & Helca Mine General), 03/14/85

Map-folder 17 0921 a, New boiler house, Category K (Torch Lake), 08/24/85

Map-folder 17 0923, Sections & foundations, Category K (Torch Lake), 06/15/85

Map-folder 17 0931 a, New boiler house, Category K (Torch Lake), 09/01/85

Map-folder 17 0932, Roof trusses, etc. , Category K (Torch Lake), 06/29/85

Map-folder 17 0933, Chimney, Category K (Torch Lake), 06/18/85

Map-folder 17 0934, New boiler house, Category K (Torch Lake), 06/05/85

Map-folder 17 0935, Joints & bracing, Category G (Hecla Mine General), 07/21/85

Map-folder 17 0936 L, Steam pipes, nozzles, etc., Category G (Hecla Mine General), 08/03/85

Map-folder 17 0937, Main steam pipe details, Category K (Torch Lake), 08/17/85

Map-folder 17 0937 b, Copper elbows, Category K (Torch Lake), 04/09/86

Map-folder 17 0938, Uptakes, Category G (Hecla Mine General), 08/22/85

Map-folder 17 0939, Main steam pipe & separator, Category K (Torch Lake), 01/28/86

Map-folder 17 0939 a, Separator for Hecla Stamp Mill , Category G (Hecla Mine General), 12/02/85

Map-folder 17 0939 c, Alterations of flanges for steam pipe, Category K (Torch Lake), 04/07/86

Map-folder 17 0939 d, Copper elbows, Category K (Torch Lake), 04/10/86

Map-folder 17 0941, Flue dampers, etc., Category K (Torch Lake), 11/24/85

Map-folder 17 0942, Sections, Category I (Calumet & Helca Mine General), 01/19/86

Map-folder 17 0943, Elevations, Category I (Calumet & Helca Mine General), 12/24/85

Map-folder 17 0944, Joints & bracing, Category I (Calumet & Helca Mine General), 12/29/85

Map-folder 17 0945, Cast details, Category I (Calumet & Helca Mine General), 12/28/85

Map-folder 17 0945 a, Nozzles, Category I (Calumet & Helca Mine General), 12/10/85

Map-folder 17 0945 d, Branch pipe for 6" safety valves, Category I (Calumet & Helca Mine General), 04/21/86

Map-folder 17 0946, Front casing, brick arch etc., Category I (Calumet & Helca Mine General), 01/15/86

Map-folder 17 0947 L, Fire door, grate, etc., Category I (Calumet & Helca Mine General), 01/11/86

Map-folder 17 0948 x, Uptake for boilers, Category K (Torch Lake), 07/02/87

Map-folder 17 0950, Standard 135 lbs safety valve, Category I (Calumet & Helca Mine General), 01/20/86

Map-folder 17 0951, Main steam pipe in Hecla Mine, Category K (Torch Lake), 02/02/86

Map-folder 17 0953 a, General arrangement of Hecla Mine boilers, Category G (Hecla Mine General), 05/31/86

Map-folder 17            0971, Miscellaneous No. 1, Category E (Calumet Mine General), 02/09/86

Map-folder 18            1002 a, Branch pipe for 5" safety valve, Category I (Calumet & Helca Mine General), 04/21/86

Map-folder 18            1019, Main steam pipe for new boiler house and Calumet Mill, Category K (Torch Lake), 06/07/86

Map-folder 18            1020, Separator, and main steam pipe in Calumet Mill, Category K (Torch Lake), 06/02/86

Map-folder 18            1023, Alteration of 10 ft strap clutch: details, Category G (Hecla Mine General), 06/08/86

Map-folder 18            1030, General drawing of main steam pipe for Calumet Mill, etc., Category K (Torch Lake), 07/14/86

Map-folder 18            1033 L, Bed plate, Category G (Hecla Mine General), 08/12/86

Map-folder 18            1033 R, Bed plate, Category G (Hecla Mine General), 06/30/86

Map-folder 18            1034, 13 1/2" x 24" pedestal, Category G (Hecla Mine General), 07/03/86

Map-folder 18            1035 , Cylinder, Category G (Hecla Mine General), 07/23/86

Map-folder 18            1036 , 10 ft mortise pinion, Category G (Hecla Mine General), 07/16/86

Map-folder 18            1037, Injection gear details, Category G (Hecla Mine General), 08/04/84

Map-folder 18            1038, Injection pump details, Category G (Hecla Mine General), 08/06/86

Map-folder 18            1039, Air and water pipes, Category G (Hecla Mine General), 08/10/86

Map-folder 18            1040, General drawing, Category G (Hecla Mine General), 09/01/86

Map-folder 18            1041, Foundation, Category G (Hecla Mine General), 08/27/86

Map-folder 18            1041 a, Capstones, Category G (Hecla Mine General), 10/22/86

Map-folder 18            1048, Valves. injection piping, Category G (Hecla Mine General), 08/01/96

Map-folder 18            1049, Cross head. crank and shaft, Category G (Hecla Mine General), 09/04/86



Map-folder 18 1050, Bed plate pedestal, Category G (Hecla Mine General), 09/08/86

Map-folder 18 1051, Brass fittings for injection piping, Category G (Hecla Mine General), 09/10/86

Map-folder 18 1053, Drain pipe details, Category G (Hecla Mine General), 09/14/86

Map-folder 18 1054, Pedestal bed plates, Category G (Hecla Mine General), 09/11/86

Map-folder 18 1055 K, Principal forgings, Category G (Hecla Mine General), 09/21/86

Map-folder 18 1061, Details, Category G (Hecla Mine General), 11/01/86

Map-folder 18 1074, Arrangement of governors etc., Category Q (Hoisting Engine "Frontenac"), 11/04/86

Map-folder 18 1075, Longitudinal section & elevation, Category I (Calumet & Helca Mine General), 11/27/86

Map-folder 18 1076, Transverse elevations, Category I (Calumet & Helca Mine General), 12/07/86

Map-folder 18 1077, Joints & bracing, Category I (Calumet & Helca Mine General), 11/18/86

Map-folder 18 1077 a, Side bars, Category I (Calumet & Helca Mine General), 11/03/86

Map-folder 18 1078, Cast details, Category I (Calumet & Helca Mine General), 11/16/86

Map-folder 18 1079, Front casing, brick arch, etc., Category I (Calumet & Helca Mine General), 11/05/86

Map-folder 18 1080 L, Fire door, grate, etc., Category I (Calumet & Helca Mine General), 10/30/86

Map-folder 18 1086 a, General Arrangement, Category G (Hecla Mine General), 08/31/88

Map-folder 18 1091, Bed plates & pedestals, Category U ( Black Hills Hoisting Gear), 12/30/86

Map-folder 18 1094 a, Clutch & brake for south drum, Category G (Hecla Mine General), 09/07/88

Map-folder 18 1095, Clutch details, Category U ( Black Hills Hoisting Gear), 01/01/87

Map-folder 18 1096, Indicator diagrams, Category G (Hecla Mine General), 12/18/86

Map-folder 18 1097, Foundation, Category U ( Black Hills Hoisting Gear), 01/11/87

Map-folder 18 1097 a, Alteration in foundation, Category G (Hecla Mine General), 08/28/88

Map-folder 18 1098, Drums, Category U ( Black Hills Hoisting Gear), 02/26/87

Map-folder 18 1099, Main column, sector, etc., Category U ( Black Hills Hoisting Gear), 04/05/87

Map-folder 19 1100, H.P. cylinder, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/10/86

Map-folder 19 1101, Intermediate cylinder, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/08/86

Map-folder 19 1102, L.P. cylinder, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/09/86

Map-folder 19 1103, Beam pedestals, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/28/86

Map-folder 19 1104, Intermediate & L.P. cyl. heads & pistons, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/04/86

Map-folder 19 1105, H.P. & Int. columns & guides, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/20/87

Map-folder 19 1106, Low Pressure columns & guides, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/05/86

Map-folder 19 1107, Int. & L.P. valves & seats, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/15/86

Map-folder 19 1108, H.P. cyl. valves, seats, heads etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/24/86

Map-folder 19 1109, Valve diagram for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/04/86

Map-folder 19 1110, Connecting rods, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/18/86

Map-folder 19 1112, Low pressure re heater, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/12/87

Map-folder 19 1114, H.P. exh. v.g. details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/10/87

Map-folder 19 1115, Shafts, cranks & crank pins, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/24/86

Map-folder 19 1116, Int. cylinder crossheads & guides, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/10/86

Map-folder 19 1117, H.P. inlet valve gear details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/28/86

Map-folder 19 1118, Intermediate valve gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/28/87

Map-folder 19 1119, H.P. inlet v.g. details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/25/87

Map-folder 19 1120, Int. cyl. valve gear details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/ /86

Map-folder 19 1121, Longitudinal section and elevation, Category I (Calumet & Helca Mine General), undated

Map-folder 19 1121 b, Part longitudinal section, Category I (Calumet & Helca Mine General), 01/12/87

Map-folder 19 1122, Transverse elevations, Category I (Calumet & Helca Mine General), 02/12/87

Map-folder 19 1122 a, Transverse elevation & sections, Category I (Calumet & Helca Mine General), 01/13/87

Map-folder 19 1123, Joints & bracing, Category I (Calumet & Helca Mine General), 01/07/87

Map-folder 19 1123 c, Tie rods, crown stays, etc., Category I (Calumet & Helca Mine General), 12/30/86

Map-folder 19 1124, Cast details etc., Category I (Calumet & Helca Mine General), 01/20/87

Map-folder 19 1125, Front casing, brick arch, etc., Category I (Calumet & Helca Mine General), 02/15/87

Map-folder 19 1126 L, Fire door, grate, etc., Category I (Calumet & Helca Mine General), 12/18/86

Map-folder 19 1127, Boiler uptakes, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/11/87

Map-folder 19 1128, Steam drums, pipes, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/18/87

Map-folder 19 1129, Entablatures and gallery details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/08/87

Map-folder 19 1130, Bedplates, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/08/87

Map-folder 19 1131 L, Channel way & air pump, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/21/86

Map-folder 19 1132, Main pedestal, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/22/86

Map-folder 19 1132 A, New main pedestal body for "Houghton", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/01/93

Map-folder 19 1133, L.P. valve gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/28/87

Map-folder 19 1134, L.P. cyl. v.s. crossheads & guides, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/12/87

Map-folder 19 1135, Int. & L.P. cyl. cam rockers etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/27/86

Map-folder 19 1136, Outboard pedestal, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/19/87

Map-folder 19 1137, Upper gallery fdoor Houghton & Seneca, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/12/87

Map-folder 19 1138, Main ped. bed plate for Gratiot etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/24/87

Map-folder 19 1139, Beam, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/26/86

Map-folder 19 1140, H.P. cyl. v.g. details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/15/87

Map-folder 19 1142, L.P. connections, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/05/87

Map-folder 19 1143 a, Capstones, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/16/87

Map-folder 19 1143, Foundations (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/21/87

Map-folder 19 1144, Int. connections, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/15/87

Map-folder 19 1145, Cut off cam, etc. for Houghton, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/16/87

Map-folder 19 1146, H.P. inlet cam for H. & S., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/10/87

Map-folder 19 1147, Starting & clutch gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/16/87

Map-folder 19 1148, H.P. connections, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/19/87

Map-folder 19 1149, Cut off cam, etc. for Gratiot & Seneca, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/22/87

Map-folder 20 1150, Theoretical indicator cards, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/14/87

Map-folder 20 1151, L.P. Vyl. v.g. details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/01/87

Map-folder 20 1152, Forgings, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/22/87

Map-folder 20 1153, L.P. valve gear details & cam shafts, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/25/87

Map-folder 20 1155, H.P. valve gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/04/87

Map-folder 20 1156, Forgings, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/01/87

Map-folder 20 1157, Int. cyl. v.g. details, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/05/87

Map-folder 20 1158, Air pump connections etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/08/87

Map-folder 20 1159, H.P. exhaust cams for H. & S., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/01/87

Map-folder 20 1160, Entablatures and gallery details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/18/87

Map-folder 20 1161, Gen. arr. of steam condenser pipes etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/19/87

Map-folder 20 1162, Int. inlet cam for Seneca, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/07/87

Map-folder 20 1163, Boiler house details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/14/87

Map-folder 20 1164, Engine house details (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/03/87

Map-folder 20 1165, Exhaust pipe, condenser, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/11/87

Map-folder 20 1166, Injection details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/11/87

Map-folder 20 1168, Steam pipes etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/21/87

Map-folder 20 1168 a, HP cylinder inlet chest bonnet, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/08/87

Map-folder 20 1170, Cam shaft pedestals, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/14/87

Map-folder 20 1171, Spur gears for valve gear, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/19/87

Map-folder 20 1172, House roof truss details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/18/87

Map-folder 20 1173, Details etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/04/87

Map-folder 20 1174, Int. exhaust cams for Houghton, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/19/87

Map-folder 20 1175, Int. exhaust cams for Seneca, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/22/87

Map-folder 20 1178, Gallery details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/04/87

Map-folder 20 1179, Indicator gear details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/29/87

Map-folder 20 1180, Gallery details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/13/87

Map-folder 20 1181, Engine & boiler house , Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/19/87

Map-folder 20 1182, Mitre gears, governor details etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/11/87

Map-folder 20 1185, Plan of "Seneca", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/06/87

Map-folder 20 1188 a, Granite capstones, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/30/87

Map-folder 20 1188, Engine details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/09/87

Map-folder 20 1190, Gallery details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/25/87

Map-folder 20 1193, Gallery details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/06/87

Map-folder 20 1194, Governor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/05/87

Map-folder 20 1195, L.P. inlet cams for SENECA, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/26/87

Map-folder 20 1196, Lagging (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/15/87

Map-folder 20 1197, Lagging (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/15/87

Map-folder 20 1198, Lagging (3), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/15/87

Map-folder 20 1199, Lagging (4), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/15/87

Map-folder 21 1200, Galleries, Category U (Black Hills Hoisting Gear), 01/22/87

Map-folder 21 1201, Straps, brake strap shafts etc., Category U (Black Hills Hoisting Gear), 01/11/87

Map-folder 21 1202 a, Clutch & brake for north drum, Category G (Hecla Mine General), 09/13/88

Map-folder 21 1203 L, Cam shaft brackets. etc., Category E (Calumet Mine General), 01/19/87

Map-folder 21 1204, Indicator gear details etc., Category U (Black Hills Hoisting Gear), 01/29/87

Map-folder 21 1205, Main shaft, etc., Category U (Black Hills Hoisting Gear), 02/08/87

Map-folder 21 1207, Passenger car, Category U (Black Hills Hoisting Gear), 03/04/87

Map-folder 21 1209, Passenger car details, Category U (Black Hills Hoisting Gear), 03/17/87

Map-folder 21 1214, Comparisons of results..., Category I (Calumet & Helca Mine General), 02/16/85

Map-folder 21 1215 L, Cylinder heads & pistons, Category I (Calumet & Helca Mine General), 02/26/87

Map-folder 21 1216 L, Valve gear details, Category I (Calumet & Helca Mine General), 02/28/87

Map-folder 21 1218 L, Valves, seats, etc., Category I (Calumet & Helca Mine General), 03/17/87

Map-folder 21 1219, Spare interchangeable pinion, Category G (Hecla Mine General), 04/06/87



Map-folder 21 1236 L, Piston rod, dash pot, etc., Category I (Calumet & Helca Mine General), 05/05/87

Map-folder 21 1238, Deatils of stamp shaft, Category I (Calumet & Helca Mine General), 04/23/87

Map-folder 21 1239, Valve gear, Category I (Calumet & Helca Mine General), 04/23/87

Map-folder 21 1241, Mortar, anvil & braces, Category I (Calumet & Helca Mine General), 08/20/87

Map-folder 21 1241 a, Anvil, Category I (Calumet & Helca Mine General), 06/10/87

Map-folder 21 1242, Standard stop valves, Category I (Calumet & Helca Mine General), 07/29/87

Map-folder 21 1246, Uptake for boilers, Category K (Torch Lake), 06/25/87

Map-folder 21 1248 L, Headstock, Category I (Calumet & Helca Mine General), 09/09/87

Map-folder 21 1249, Sills, bed plates, etc., Category I (Calumet & Helca Mine General), 08/24/87

Map-folder 22 1250, H.P. valve gear, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/18/87

Map-folder 22 1251, Int. valve gear, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/02/88

Map-folder 22 1252, Arrangement of L.P. valve gear, Category W (Pumping Engines "Michigan" & "Winnipeg"), 03/07/88

Map-folder 22 1253, H.P. cylinder, Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/02/87

Map-folder 22 1254, Connecting rod, Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/09/87

Map-folder 22 1255, Gen. arrangement of main pump, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/22/87

Map-folder 22 1256, Fly wheel, Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/28/87

Map-folder 22 1257, Pump details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/09/87

Map-folder 22 1258, Valve diagrams, Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/13/87

Map-folder 22 1259, Beam, Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/16/87

Map-folder 22 1259 a, Distance piece for beam, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/11/92

Map-folder 22 1260, Distance piece for beam, Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/12/87

Map-folder 22 1261, H.P. rocker stands etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/18/87

Map-folder 22 1262, Intermediate cylinder, Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/12/87

Map-folder 22 1263, L.P. cylinder, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/06/87

Map-folder 22 1264, H.P. v.g. details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/21/87

Map-folder 22 1265, Pump valves & seats, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/04/87

Map-folder 22 1266, Arrangement of air pump for Winnipeg, Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/09/88

Map-folder 22 1267, Cam rockers etc. (2), Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/05/87

Map-folder 22 1268, Cam rockers etc. (1), Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/01/87

Map-folder 22 1269, Pump base & plungers, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/12/87

Map-folder 22 1270, L.P. cols & guides, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/05/87

Map-folder 22 1271, Cross heads & piston rods, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/22/87

Map-folder 22 1273, Condensing apparatus, Category I (Calumet & Helca Mine General), 09/30/87

Map-folder 22 1277, Main pipe ext'n in Calumet mill, Category K (Torch Lake), 09/01/87

Map-folder 22 1278, H.P. & Int. col's & guides, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/10/87

Map-folder 22 1279, Steam links, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/06/87

Map-folder 22 1280, Pump details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/18/87

Map-folder 22 1280 a, Dam for delivery nozzle, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/07/92

Map-folder 22 1281, Beam pedestals, Category K (Torch Lake), 08/27/87

Map-folder 22 1282, Beam pedestals, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/17/87

Map-folder 22 1283, Pump connections, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/17/87

Map-folder 22 1284, Bed plate, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/24/87

Map-folder 22 1285, Steam valves & seats, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/12/87

Map-folder 22 1287, Forgings (2), Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/17/87

Map-folder 22 1288, Forgings (1), Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/09/87

Map-folder 22 1289, Forgings (3), Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/23/87

Map-folder 22 1290, Cylinder lagging, Category I (Calumet & Helca Mine General), 09/15/87

Map-folder 22 1291, Main pedestal, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/26/87

Map-folder 22 1292 L, Lower frames, Category I (Calumet & Helca Mine General), 09/15/87

Map-folder 22 1293, Middle frame, Category I (Calumet & Helca Mine General), 09/21/87

Map-folder 22 1294 L, Cylinders, Category I (Calumet & Helca Mine General), 09/19/87

Map-folder 22 1295, General arrangement, Category I (Calumet & Helca Mine General), 12/06/87

Map-folder 22 1296 L, Cams, Category I (Calumet & Helca Mine General), 04/26/83

Map-folder 22 1297, Piston & cylinder heads, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/25/87

Map-folder 22 1298, Throttle valve, Category I (Calumet & Helca Mine General), 09/26/87

Map-folder 22 1299, Outboard pedestal, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/03/87

Map-folder 23 1308, Smoke flues etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/30/87

Map-folder 23 1308 a, Smoke flue etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/15/87

Map-folder 23 1309, Chimney, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/14/87

Map-folder 23 1310, Girders, etc. for travelling crane, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/19/87

Map-folder 23 1311, Throttle valve and gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/31/87

Map-folder 23 1313, Elevation of Int. and L.P. side of "Seneca", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/14/87

Map-folder 23 1314, Travelling crane, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/28/87

Map-folder 23 1315, Lower gallery etc. of H. & S., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/10/87

Map-folder 23 1316, 10" x 12" stop valves, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/02/87

Map-folder 23 1318, Jacket pipes, drain cylinder etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/14/87

Map-folder 23 1319, Pedestal steps, guards, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/13/87

Map-folder 23 1322, Outboard delivery pipes, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/15/87

Map-folder 23 1323, Governor engine (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/28/87

Map-folder 23 1324, Lower gallery for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/16/87

Map-folder 23 1325, Steam pipe details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/05/87

Map-folder 23 1326, Lagging (5), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/20/87

Map-folder 23 1327, Lower gallery details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/01/87

Map-folder 23 1328, Governor engine details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/02/87

Map-folder 23 1329, Indicator gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/30/87

Map-folder 23 1330, Injection gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/05/87

Map-folder 23 1333, Drum indicator gear details (3), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/07/87

Map-folder 23 1336, Crane crab, Category I (Calumet & Helca Mine General), 07/18/87

Map-folder 23 1338, Fleeting engine foundation, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/15/87

Map-folder 23 1340, Injection pipes, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/25/87

Map-folder 23 1341, Counter gear, etc. for H. & S., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/23/87

Map-folder 23 1342, Carrier sheaves, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/22/87

Map-folder 23 1345, Accumulator, etc. , Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/18/87

Map-folder 23 1346, Details of name plates, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/07/87

Map-folder 23 1347, Arrangement of starting gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/06/87

Map-folder 24 1350, Feed water heater etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/28/87

Map-folder 24 1353, Separator, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/09/87

Map-folder 24 1355, Counter gear for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/30/87

Map-folder 24 1356, Foundations (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/19/87

Map-folder 24 1358, Details of piping, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/30/87

Map-folder 24 1360, Arrangement of boilers etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/29/87

Map-folder 24 1361, Plan of engine room floor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/28/87

Map-folder 24 1370, Arrangement of oiling devices, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/28/87

Map-folder 24 1371, Damper regulator, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/02/87

Map-folder 24 1372, Details of engine house floor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/28/87

Map-folder 24 1373, Details of engine house floor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/28/87

Map-folder 24 1375, Engine house floor: details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/28/87

Map-folder 24 1376, Details of engine house floor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/28/87

Map-folder 24 1378, Oiling devices, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/10/87

Map-folder 24 1380, Details of floor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/28/87

Map-folder 24 1381 c, Lists of hydraulic piping & fittings, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/24/87

Map-folder 24 1381 d, Lists of wrought iron pipes & cast iron fittings, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/23/87

Map-folder 24 1381 e, Lists of pipe fittings, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/24/87

Map-folder 24 1384, Beam drip pan, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/21/87

Map-folder 24 1385, Miscellaneous details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/02/88

Map-folder 24 1387, Piping, etc. for oil pumps, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/28/88

Map-folder 24 1388, Crank pointers, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/23/88

Map-folder 24 1389, Hydraulic packing formers, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 06/08/88

Map-folder 24 1390, Steam pipes for feed pumps, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/01/88

Map-folder 24 1394, Miscellaneous , Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/10/89

Map-folder 24 1395, Cor. copper gaskets for cylinder bonnets, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/20/89

Map-folder 24 1397 1, Gallery brackets, Category I (Calumet & Helca Mine General), 03/27/90

Map-folder 24 1397 3, Gallery brackets, Category I (Calumet & Helca Mine General), 03/26/90

Map-folder 24 1398, Miscellaneous, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/04/89

Map-folder 24 1399 1, Oil pump, Category I (Calumet & Helca Mine General), 01/11/90

Map-folder 24 1399 2, Oil piping etc., Category I (Calumet & Helca Mine General), 12/04/89

Map-folder 25 1400, Longitudinal section & elevation, Category I (Calumet & Helca Mine General), 09/07/87

Map-folder 25 1400 b, Plate list for boilers, Category I (Calumet & Helca Mine General), 11/11/88

Map-folder 25 1400 e, Plate list, Category I (Calumet & Helca Mine General), 12/21/89

Map-folder 25 1400 f, Plate list for 90" Belpaire boilers class B, Category I (Calumet & Helca Mine General), 01/23/90

Map-folder 25 1400 g, Plate list for 90" Belpaire boilers class B, Category I (Calumet & Helca Mine General), 02/28/90

Map-folder 25 1401, Transverse elevations, Category I (Calumet & Helca Mine General), 09/01/87

Map-folder 25 1401 A, New arrangement of bracing, Category I (Calumet & Helca Mine General), 03/24/90

Map-folder 25 1401 a, Longitudinal and transverse section of smoke box end, Category I (Calumet & Helca Mine General), 10/08/89

Map-folder 25 1402, Joints & bracing, Category I (Calumet & Helca Mine General), 10/03/87

Map-folder 25 1402 A, Details, new bracing, Category I (Calumet & Helca Mine General), 03/10/90

Map-folder 25 1403, Cast details, etc., Category I (Calumet & Helca Mine General), 12/31/87



Map-folder 25 1403 A, Miscellaneous details, Category I (Calumet & Helca Mine General), 04/11/90

Map-folder 25 1404, Front casing, etc., Category I (Calumet & Helca Mine General), 02/01/88

Map-folder 25 1405 L, Fire door, grate, etc., Category I (Calumet & Helca Mine General), 02/04/88

Map-folder 25 1406, Flange sheets, Category I (Calumet & Helca Mine General), 09/13/87

Map-folder 25 1406 a, Flange sheet, Category I (Calumet & Helca Mine General), 10/28/87

Map-folder 25 1407, Valve gear details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/25/87

Map-folder 25 1408, Governor details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/08/87

Map-folder 25 1409, Foundation columns, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/27/87

Map-folder 25 1410, Valve gear details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/07/87

Map-folder 25 1412, Cam shaft pedestals, etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/15/87

Map-folder 25 1413, Lower gallery, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/10/87

Map-folder 25 1414, Governor details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/18/87

Map-folder 25 1415, Steam plant details, Category K (Torch Lake), 10/26/87

Map-folder 25 1416, Flange sheets, Category I (Calumet & Helca Mine General), 10/07/87

Map-folder 25 1416 a, Flange sheet, Category I (Calumet & Helca Mine General), 10/28/87

Map-folder 25 1419, Lower gallery details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/18/87

Map-folder 25 1420, Cylinder bonnets etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/24/87

Map-folder 25 1421, Intermediate reheater, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/07/87

Map-folder 25 1422, L.P. reheater, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/26/87

Map-folder 25 1425, H.P. cut off cam for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/25/87

Map-folder 25 1427, Valve driving gear, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/10/87

Map-folder 25 1428, H.P. inlet cam, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/22/87

Map-folder 25 1429, Cut off cam, etc. for "Winnipeg" , Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/03/87

Map-folder 25 1430, Starting gear, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/24/87

Map-folder 25 1431, Valve gear details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/10/87

Map-folder 25 1432, Cylinder bonnets, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/10/87

Map-folder 25 1437, Valve gear details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/14/87

Map-folder 25 1438, Air pump details , Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/18/87

Map-folder 25 1438 a, Air Pump details for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/14/88

Map-folder 25 1439, Side elevations, Category W (Pumping Engines "Michigan" & "Winnipeg"), 03/16/88

Map-folder 25 1440, Cylinder bonnets, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/05/87

Map-folder 25 1441, L.P. entablature, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/19/87

Map-folder 25 1443, Piston packing, springs, etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/17/87

Map-folder 25 1444, L.P. cylinder, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/04/88

Map-folder 25 1445, H.P. entablature, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/29/87

Map-folder 25 1446, H.P. exhaust cams for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/19/87

Map-folder 25 1447, Intermediate cylinder, Category X (Hoisting Engines "Minong" & "Siscowitt"), 06/12/88

Map-folder 25 1448, Throttle valve details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/12/87

Map-folder 25 1449, Exhaust side pipe, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/07/88

Map-folder 26 1450, H.P. exhaust cams for "Winnipeg", Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/26/87

Map-folder 26 1451, Arrangement of governor , Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/20/87

Map-folder 26 1452, H.P. cylinder, Category X (Hoisting Engines "Minong" & "Siscowitt"), 06/13/88

Map-folder 26 1453, Lower cylinder heads, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/07/87

Map-folder 26 1454, Bed plate for high duty Worthington engine, Category F (Calumet Pond Water Works), 12/14/87

Map-folder 26 1456, Details of upper gallery, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/18/88

Map-folder 26 1459, Lagging, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/11/88

Map-folder 26 1460, Elevation of H.P. & L.P. Int. end, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/28/88

Map-folder 26 1463 a, Steam plant details, Category K (Torch Lake), 12/19/87

Map-folder 26 1464, Lagging, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/11/88

Map-folder 26 1465, Main foundation bedplates, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/16/88

Map-folder 26 1466, Arrangement of air pump for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/24/88

Map-folder 26 1467, Elevation of L.P. end, Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/29/88

Map-folder 26 1468, Upper gallery, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/31/88

Map-folder 26 1469, Lagging, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/11/88

Map-folder 26 1470, Air pump details etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/16/88

Map-folder 26 1471, Injection gear details etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/27/88

Map-folder 26 1472, Indicator gear, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/26/88

Map-folder 26 1475, Upper gallery details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/31/88

Map-folder 26 1477, Int. inlet cams for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/12/88

Map-folder 26 1480, Int. exhaust cams for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/19/88

Map-folder 26 1483 a, Cast Steel nozzles, Category I (Calumet & Helca Mine General), 03/20/88

Map-folder 26 1486, L.P. inlet cams for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/24/88

Map-folder 26 1491, L.P. exhaust cams for "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/06/88

Map-folder 26 1492, Lagging, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/16/88

Map-folder 26 1493, Expansion joint for steam piping to mine, Category I (Calumet & Helca Mine General), 02/21/86

Map-folder 26 1494, Delivery and stand pipe details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 03/09/88

Map-folder 26 1495 A, Location of new boiler house, Category F (Calumet Pond Water Works), 04/15/99

Map-folder 26 1495, New engine and boiler house, Category F (Calumet Pond Water Works), 02/15/88

Map-folder 26 1498, INT. inlet cam for Winnipeg, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/04/88

Map-folder 27 1501, Stand & delivery pipe details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 03/10/88

Map-folder 27 1501 a, Arrangement of pump delivery pipes, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/27/88

Map-folder 27 1502, Arrangement of pump and condensor, Category I (Calumet & Helca Mine General), 01/31/88

Map-folder 27 1503, Int. Ex. cam for "Winnipeg", Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/09/88

Map-folder 27 1504, Foundation, Category W (Pumping Engines "Michigan" & "Winnipeg"), 03/31/88

Map-folder 27 1504 a, Foundation capstones, Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/15/88

Map-folder 27 1505, Steam valves & seats, Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/10/88

Map-folder 27 1506, Theoretical indicator cards, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/07/88

Map-folder 27 1510, Water pipes, Category F (Calumet Pond Water Works), 07/25/88

Map-folder 27 1510 a, Suction pipe for Worthington high duty pumping engine, Category I (Calumet & Helca Mine General), 03/17/88

Map-folder 27 1512, Jacket piping, Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/02/88

Map-folder 27 1514, Engine house details , Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/08/88

Map-folder 27 1514 a, Engine house details roof castings, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/09/89

Map-folder 27 1514 a, Engine house roof tie rods and bolts etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/19/90

Map-folder 27 1519, Lagging, Category W (Pumping Engines "Michigan" & "Winnipeg"), 03/13/88

Map-folder 27 1526, Foundation for Worthington high duty engine, Category F (Calumet Pond Water Works), 07/23/88

Map-folder 27 1526 a, Foundation for Worthington high duty engine, Category F (Calumet Pond Water Works), 08/11/88

Map-folder 27 1529, Beam pedestals, Category X (Hoisting Engines "Minong" & "Siscowitt"), 04/17/88

Map-folder 27 1531, Pistons, Category X (Hoisting Engines "Minong" & "Siscowitt"), 04/09/88

Map-folder 27 1533, Principal particulars of engines, Category I (Calumet & Helca Mine General), 10/31/88

Map-folder 27 1534, Gate and screen details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 04/14/88

Map-folder 27 1534 a, Foundation bolts for eng "Michigan", Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/15/88

Map-folder 27 1535, Oiling devices, Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/08/88

Map-folder 27 1536, Oiling devices, Category W (Pumping Engines "Michigan" & "Winnipeg"), 04/28/88

Map-folder 27 1537, Counter gear etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/29/88

Map-folder 27 1538, Name plates, Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/15/88

Map-folder 27 1539, L.P. inlet cam for "Winnipeg", Category W (Pumping Engines "Michigan" & "Winnipeg"), 04/23/88

Map-folder 27 1545, Upper cylinder heads, Category X (Hoisting Engines "Minong" & "Siscowitt"), 04/16/88

Map-folder 27 1547, Lower cylinder heads, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/04/88

Map-folder 28 1560, L.P. exhaust cams for "Winnipeg", Category W (Pumping Engines "Michigan" & "Winnipeg"), 04/26/88

Map-folder 28 1561, Governor engine, Category X (Hoisting Engines "Minong" & "Siscowitt"), 11/12/88

Map-folder 28 1571, Plan, Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/12/88

Map-folder 28 1574, Traveling crane details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/05/88

Map-folder 28 1574 a, Splice joint in crane girders, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/29/90

Map-folder 28 1575, Upper gallery of "Winnipeg", Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/27/88

Map-folder 28 1576, Floor, Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/08/88

Map-folder 28 1578, Foundation, Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/13/88

Map-folder 28 1579, Starting injection and throttle gear, Category W (Pumping Engines "Michigan" & "Winnipeg"), 06/09/88

Map-folder 28 1580, Connecting rods, Category X (Hoisting Engines "Minong" & "Siscowitt"), 06/12/88

Map-folder 28 1581, Strap clutch details, Category G (Hecla Mine General), 06/22/88

Map-folder 28 1582, Crossheads & piston rods, Category X (Hoisting Engines "Minong" & "Siscowitt"), 06/21/88

Map-folder 28 1583, Details of gears, Category I (Calumet & Helca Mine General), 01/09/91

Map-folder 28 1585, Rim & bucket details, Category I (Calumet & Helca Mine General), 08/18/88

Map-folder 28 1585 A, Steel forgings & castings for spare shaft & hubs, Category I (Calumet & Helca Mine General), 08/20/00

Map-folder 28 1585 B, New shaft & hubs, Category I (Calumet & Helca Mine General), 08/23/00

Map-folder 28 1586, Strap clutch details, Category G (Hecla Mine General), 06/27/88

Map-folder 28 1587, Standard wrenches, Category I (Calumet & Helca Mine General), 06/14/88

Map-folder 28 1588, Main links, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/28/88

Map-folder 28 1589, Forward motion valve diagram, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/16/89

Map-folder 28 1590, Backward motion valve diagram, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/02/89

Map-folder 28 1591, Main pedestal bedplate, Category X (Hoisting Engines "Minong" & "Siscowitt"), 08/15/88

Map-folder 28 1592, Governor etc., Category O (Engine "Wabeek"), 07/20/88

Map-folder 28 1593, Governor details, Category O (Engine "Wabeek"), 07/20/88

Map-folder 28 1594, Crank shaft pedestal, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/14/88

Map-folder 28 1595, Miscellaneous details, Category W (Pumping Engines "Michigan" & "Winnipeg"), 07/12/88

Map-folder 28 1596, Shaft, cranks, etc., Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/02/88

Map-folder 28 1597, Coupling rod, Category X (Hoisting Engines "Minong" & "Siscowitt"), 09/08/88

Map-folder 28 1598, Middle hub, Category I (Calumet & Helca Mine General), 08/14/88



Map-folder 28 1599, Engine bed plate, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/23/88

Map-folder 29 1600, General arrangement of strap clutch, Category G (Hecla Mine General), 08/13/88

Map-folder 29 1601, 30 ton travelling crane, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/01/88

Map-folder 29 1602, Strap clutch hoods, Category G (Hecla Mine General), 07/07/88

Map-folder 29 1603, Forgings, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/10/88

Map-folder 29 1604, H.P. & Int columns & guides, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/16/88

Map-folder 29 1606, Forgings, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/09/88

Map-folder 29 1607, General arrangement, Category I (Calumet & Helca Mine General), 10/12/88

Map-folder 29 1608, Gears for north drum, Category G (Hecla Mine General), 03/12/88

Map-folder 29 1609, Gears for south drum, Category G (Hecla Mine General), 07/16/88

Map-folder 29 1610, Beam, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/17/88

Map-folder 29 1610 a, Alteration of hub beam, Category X (Hoisting Engines "Minong" & "Siscowitt"), undated

Map-folder 29 1611, Low pressure re heater, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/18/88

Map-folder 29 1612, Forgings, Category X (Hoisting Engines "Minong" & "Siscowitt"), 08/17/88

Map-folder 29 1613, Forgings, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/24/88

Map-folder 29 1614, Intermediate re heater, Category X (Hoisting Engines "Minong" & "Siscowitt"), 08/03/88

Map-folder 29 1615, New beam, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/24/88

Map-folder 29 1616, L.P. columns & guides, Category X (Hoisting Engines "Minong" & "Siscowitt"), 08/02/88

Map-folder 29 1617, Air pump details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 04/26/88

Map-folder 29 1618, End piece for main bedplate, Category X (Hoisting Engines "Minong" & "Siscowitt"), 08/02/88

Map-folder 29 1619, Cylinder bonnets, Category X (Hoisting Engines "Minong" & "Siscowitt"), 08/15/88

Map-folder 29 1620, Main pedestals, Category I (Calumet & Helca Mine General), 10/11/88

Map-folder 29 1621, Foundations, Category E (Calumet Mine General), 11/12/88

Map-folder 29 1621 a, Foundation cap stones, Category E (Calumet Mine General), 11/20/88

Map-folder 29 1622, Governor, Category X (Hoisting Engines "Minong" & "Siscowitt"), 08/06/88

Map-folder 29 1623, Rope wheels, Category X (Hoisting Engines "Minong" & "Siscowitt"), 09/15/88

Map-folder 29 1623 a, Diagrams of rope wheels & shafts, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/23/89

Map-folder 29 1625, Arrangement of cylinder lubricators, Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/23/89

Map-folder 29 1626, Rope wheels, Category I (Calumet & Helca Mine General), 10/26/88

Map-folder 29 1627, Gen Arr of conduit gates, Category W (Pumping Engines "Michigan" & "Winnipeg"), 08/24/88

Map-folder 29 1628, Steam plant details, arrangement of boilers, Category K (Torch Lake), 11/07/88

Map-folder 29 1629, Building, Category E (Calumet Mine General), 10/30/88

Map-folder 29 1630, Exhaust pipes, Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/06/88

Map-folder 29 1631, Calumet sand wheel house, Category E (Calumet Mine General), 10/31/88

Map-folder 29 1632, Details for overhead shaft in Calumet sand wheel house, Category E (Calumet Mine General), 09/25/88

Map-folder 29 1633, Steam plant details, Category K (Torch Lake), 10/03/88

Map-folder 29 1635, Outboard ped. foundation columns etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/16/88

Map-folder 29 1635 a, Framing bed plate, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/06/88

Map-folder 29 1636, Steam separator etc., Category W (Pumping Engines "Michigan" & "Winnipeg"), 09/25/88

Map-folder 29 1639, Uptake for boilers, Category K (Torch Lake), 11/19/88

Map-folder 29 1641, High pressure stop valves, Category I (Calumet & Helca Mine General), 10/05/88

Map-folder 29 1644, Cylinder bonnets etc., Category X (Hoisting Engines "Minong" & "Siscowitt"), 10/16/88

Map-folder 29 1645, Driving gear, Category I (Calumet & Helca Mine General), 01/29/89

Map-folder 29 1646, Cylinder bonnets, etc., Category X (Hoisting Engines "Minong" & "Siscowitt"), 10/15/88

Map-folder 29 1647, Lagging, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/10/89

Map-folder 29 1647 a, Lagging, Category X (Hoisting Engines "Minong" & "Siscowitt"), 11/30/89

Map-folder 29 1650, Condensing apparatus, Category X (Hoisting Engines "Minong" & "Siscowitt"), 1888-11-06

Map-folder 30 1650 A, New details of supp't'y injection, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/26/90

Map-folder 30 1651, Lower valve gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 11/03/88

Map-folder 30 1654, Reversing engine details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/28/88

Map-folder 30 1655, New governor, Category L (Hoisting Engine "Superior"), 11/28/88

Map-folder 30 1658, New governor engine, Category L (Hoisting Engine "Superior"), 03/05/89

Map-folder 30 1659, Lagging details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/02/89

Map-folder 30 1660, Engine house sections, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/27/88

Map-folder 30 1661, Plan, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/11/97

Map-folder 30 1662, H.P. & Int entablature for "Minong", Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/04/89

Map-folder 30 1666, Wrought iron details of engine house, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/26/88

Map-folder 30 1667, Cut off cam etc., Category L (Hoisting Engine "Superior"), 11/26/88

Map-folder 30 1669, Theoretical pressure diagrams, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/05/88

Map-folder 30 1670, Lagging details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/07/89

Map-folder 30 1670 a, Bonnet lagging, Category X (Hoisting Engines "Minong" & "Siscowitt"), 10/25/89

Map-folder 30 1673, Engine house sections, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/05/89

Map-folder 30 1674 a, Roof & foundation details, Category E (Calumet Mine General), 11/20/88

Map-folder 30 1674 b, Truss rods & foundation bolts, Category E (Calumet Mine General), 11/20/88

Map-folder 30 1675, L.P. entablature, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/23/89

Map-folder 30 1677, H.P. cut off cams, etc., Category X (Hoisting Engines "Minong" & "Siscowitt"), 11/21/88

Map-folder 30 1678, Stop valve etc., Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/12/89

Map-folder 30 1679, Arrangement of H.P. ex, Int. inlet & exhaust and L.P. inlet and exh gears, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/11/89

Map-folder 30 1680, Engine bed plate for "Siscowit", Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/08/88

Map-folder 30 1681, Valve gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/03/80

Map-folder 30 1682, Arr of H.P. inlet, cut off and Int. exhaust gears, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/16/89

Map-folder 30 1683, Outlet launder, Category E (Calumet Mine General), 12/06/88

Map-folder 30 1686, Valve gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/22/88

Map-folder 30 1687, Entablature girders, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/28/89

Map-folder 30 1688, Arrangement of brake gear, Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/23/89

Map-folder 30 1689, Reversing engine details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/28/88

Map-folder 30 1691, Wrought iron details of engine house, Category W (Pumping Engines "Michigan" & "Winnipeg"), 12/21/88

Map-folder 30 1692, Valve gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/21/88

Map-folder 30 1693, Cam shaft pedestals, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/11/89

Map-folder 30 1694, Valve gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/31/88

Map-folder 30 1696, Valve gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/10/89

Map-folder 30 1697, Valve gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/16/89

Map-folder 30 1698, Bucket rim details, Category E (Calumet Mine General), 01/01/89

Map-folder 30 1699, Gallery, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/04/89

Map-folder 31 1700, Lower valve gear, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/14/89

Map-folder 31 1702, Outlet launder details, Category E (Calumet Mine General), 03/09/89

Map-folder 31 1704, Crank shafts and coupling rods, Category E (Calumet Mine General), 01/18/89

Map-folder 31 1708, Brake details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/27/89

Map-folder 31 1709 , Engine house, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/28/89

Map-folder 31 1709 A, Engine house , Category W (Pumping Engines "Michigan" & "Winnipeg")

Map-folder 31 1709 a, Timber list, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/19/89

Map-folder 31 1710, H.P. inlet & Int. exhaust cams, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/26/89

Map-folder 31 1711, Details for counter and drum indicator, Category X (Hoisting Engines "Minong" & "Siscowitt"), 10/28/89

Map-folder 31 1712, Int. & L.P. inlet cams, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/25/89

Map-folder 31 1713, Operating mechanism, Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/18/89

Map-folder 31 1715, 30 ton crane crab , Category I (Calumet & Helca Mine General), 03/09/89

Map-folder 31 1717, H.P. and L.P. exhaust cams, Category I (Calumet & Helca Mine General), 01/29/89

Map-folder 31 1718, Details for 30 ton crane crab details, Category I (Calumet & Helca Mine General), 03/06/89

Map-folder 31 1719, Details for 30 ton crane crab, Category I (Calumet & Helca Mine General), 02/13/89

Map-folder 31 1719 A, 30 ton crane crab details, Category I (Calumet & Helca Mine General), 06/27/90

Map-folder 31 1720, Drum indicator gen arr and details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 10/29/89

Map-folder 31 1723, Injection gear details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/15/89

Map-folder 31 1723 a, New arr' of suppt'y injection, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/29/90

Map-folder 31 1724, Gallery details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/25/89

Map-folder 31 1725, Splasher, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/22/89

Map-folder 31 1726, HP entablature for "Siscowit", Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/27/89

Map-folder 31 1728, Lagging details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/23/89

Map-folder 31 1735, Gallery details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 04/20/89

Map-folder 31 1738, Details for operating strap clutch, Category G (Hecla Mine General), 03/21/89

Map-folder 31 1739, Operating gallery for north drum, Category G (Hecla Mine General), 11/06/89

Map-folder 31 1741 L, Details of hoisintg gear, Category X (Hoisting Engines "Minong" & "Siscowitt"), 04/09/89

Map-folder 31 1743, Brake details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 03/28/89

Map-folder 31 1744, List of pieces and est. finished weights valve gear class E, Category X (Hoisting Engines "Minong" & "Siscowitt")

Map-folder 31 1745, Boiler for 160 lbs gauge pressure, Category I (Calumet & Helca Mine General), 06/06/89

Map-folder 31 1750, H.P. cylinder, Category Y(Hoisting Engines "Mesnard & Pontiac"), 03/25/89

Map-folder 31 1751, Intermediate cylinder, Category Y(Hoisting Engines "Mesnard & Pontiac"), 08/09/89

Map-folder 31 1752, L.P. cylinder, Category Y(Hoisting Engines "Mesnard & Pontiac"), 01/15/89

Map-folder 32 1822, Indicator gear, Category Y(Hoisting Engines "Mesnard & Pontiac"), 10/17/89

Map-folder 32 1826 4, Standard stuffing box for cyl head drain pipe, Category I (Calumet & Helca Mine General), 04/14/90

Map-folder 32 1836, Details of roof trusses, Category I (Calumet & Helca Mine General), 12/11/89

Map-folder 32 1852 1, Reheater gauges, Category X (Hoisting Engines "Minong" & "Siscowitt"), 11/15/89

Map-folder 32 1852 3, Hand lever friction latch, Category I (Calumet & Helca Mine General), 03/20/90

Map-folder 32 1852 4, Hand lever spring latch, Category I (Calumet & Helca Mine General), 03/20/90

Map-folder 32 1860, Name plates, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/11/90

Map-folder 32 1865 1, New uptake for boilers Nos 2 & 3, Category E (Calumet Mine General), 02/28/90

Map-folder 32 1865 2, Alteration to uptake for boiler No. 1, Category E (Calumet Mine General), 02/14/90

Map-folder 32 1868 1, 30" feed water heater, Category I (Calumet & Helca Mine General), 03/10/90

Map-folder 32 1868 2, Miscellaneous details, Category I (Calumet & Helca Mine General), 04/11/90

Map-folder 32 1872, 14" x 28" pedestal, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/19/89

Map-folder 32 1874, High pressure cylinder, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/19/89

Map-folder 32 1875, Int. cylinder, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/16/89



Map-folder 32 1876, L.P. cylinders, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/19/89

Map-folder 32 1880, Steam valves & seats, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/20/90

Map-folder 32 1882, Lower cylinder heads, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/21/89

Map-folder 32 1883, Beam pedestal, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/21/89

Map-folder 32 1886, Pistons & cross heads, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/27/89

Map-folder 32 1888 1, Connecting rod, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/09/90

Map-folder 32 1888 3, Links, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/13/90

Map-folder 32 1889, 14" x 18" main pedestal, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/01/90

Map-folder 32 1891, Columns, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/14/90

Map-folder 32 1892, Main bed plate, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/22/90

Map-folder 32 1894, Beam & beam pin, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/09/90

Map-folder 32 1895, Reheaters, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/06/90

Map-folder 32 1897, Gen arr int valve gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/ /90

Map-folder 32 1898, Side pipes, etc., Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/25/90

Map-folder 33 1900, Arrangement of boilers etc., Category E (Calumet Mine General), 03/24/90

Map-folder 33 1901, Joints & bracing, etc., Category I (Calumet & Helca Mine General), 04/25/89

Map-folder 33 1903, Cast details, etc., Category I (Calumet & Helca Mine General), 05/11/89

Map-folder 33 1908, Cast details, etc., Category I (Calumet & Helca Mine General), 06/10/89

Map-folder 34 1911, Gallery details, Category X (Hoisting engines "Minong" and "Siscowitt"), 1989-04-04

Map-folder 33 1912 a, Plan, Category G (Hecla Mine General)

Map-folder 33 1915, Crank shaft, reheater, etc., Category G (Hecla Mine General), 06/14/89

Map-folder 33 1916, Building details, Category G (Hecla Mine General), 06/20/89

Map-folder 33 1918, General arrangement (preliminary) , Category I (Calumet & Helca Mine General), 05/16/89

Map-folder 33 1921, Indicator gear, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/28/89

Map-folder 33 1923, Engine house, Category I (Calumet & Helca Mine General), 06/14/89

Map-folder 33 1925, Valve diagram, Category G (Hecla Mine General), 10/24/89

Map-folder 33 1926, Details, Category I (Calumet & Helca Mine General), 06/21/89

Map-folder 33 1927, Reversing gear of Corliss engines, Category G (Hecla Mine General), 06/17/89

Map-folder 33 1930, Valve gear details of Corliss engines, Category G (Hecla Mine General), 06/11/89

Map-folder 33 1931, Boiler house, Category I (Calumet & Helca Mine General), 06/10/89

Map-folder 33 1932, Details of reversing gear, Category G (Hecla Mine General), 06/18/89

Map-folder 33 1933, Foundaton, Category G (Hecla Mine General), 07/27/89

Map-folder 33 1933 b, Foundation cap stones, Category G (Hecla Mine General), 06/12/89

Map-folder 33 1933 c, Foundation girder, Category G (Hecla Mine General), 08/29/89

Map-folder 33 1934, Passenger car, Category I (Calumet & Helca Mine General), 06/10/89

Map-folder 33 1936, Throttle valve, etc., Category G (Hecla Mine General), 07/01/89

Map-folder 33 1937, Details of reversing engine, Category G (Hecla Mine General), 07/11/89

Map-folder 33 1938, Details, Category I (Calumet & Helca Mine General), 06/21/89

Map-folder 33 1940, Miscellaneous details, Category G (Hecla Mine General), 06/21/89

Map-folder 33 1941, General arrangement, Category I (Calumet & Helca Mine General), 11/08/89

Map-folder 33 1942, Operating mechanism, Category G (Hecla Mine General), 07/18/89

Map-folder 33 1943, New governor engine, Category I (Calumet & Helca Mine General), 07/01/89

Map-folder 33 1945, Chimney, etc., Category I (Calumet & Helca Mine General), 07/29/89

Map-folder 33 1947, Hydraulic gear, Category E (Calumet Mine General), 07/01/89

Map-folder 33 1949, Details of engine floor, Category G (Hecla Mine General), 09/27/89

Map-folder 34 1950, Injection gear details, Category G (Hecla Mine General), 07/20/89

Map-folder 34 1954, Details, Category I (Calumet & Helca Mine General), 07/23/89

Map-folder 34 1956, Gallery, Category G (Hecla Mine General), 09/13/89

Map-folder 34 1957, Belt guard for east fly wheel, Category L (Hoisting Engine "Superior"), 07/26/89

Map-folder 34 1958, Hydraulic gear, Category G (Hecla Mine General), 08/09/89

Map-folder 34 1959, Arrangement of electric plant, Category I (Calumet & Helca Mine General), 08/07/89

Map-folder 34 1959 c, Foundation bolts for pedestals & framing, Category I (Calumet & Helca Mine General), 09/21/89

Map-folder 33 1912 a, Plan, Category G (Hecla Mine General)

Map-folder 33 1915, Crank shaft, reheater, etc., Category G (Hecla Mine General), 06/14/89

Map-folder 33 1916, Building details, Category G (Hecla Mine General), 06/20/89

Map-folder 33 1918, General arrangement (preliminary) , Category I (Calumet & Helca Mine General), 05/16/89

Map-folder 33 1921, Indicator gear, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/28/89

Map-folder 33 1923, Engine house, Category I (Calumet & Helca Mine General), 06/14/89

Map-folder 33 1925, Valve diagram, Category G (Hecla Mine General), 10/24/89

Map-folder 33 1926, Details, Category I (Calumet & Helca Mine General), 06/21/89

Map-folder 33 1927, Reversing gear of Corliss engines, Category G (Hecla Mine General), 06/17/89

Map-folder 33 1930, Valve gear details of Corliss engines, Category G (Hecla Mine General), 06/11/89

Map-folder 33 1931, Boiler house, Category I (Calumet & Helca Mine General), 06/10/89

Map-folder 33 1932, Details of reversing gear, Category G (Hecla Mine General), 06/18/89

Map-folder 33 1933, Foundaton, Category G (Hecla Mine General), 07/27/89

Map-folder 33 1933 b, Foundation cap stones, Category G (Hecla Mine General), 06/12/89

Map-folder 33 1933 c, Foundation girder, Category G (Hecla Mine General), 08/29/89

Map-folder 33 1934, Passenger car, Category I (Calumet & Helca Mine General), 06/10/89

Map-folder 33 1936, Throttle valve, etc., Category G (Hecla Mine General), 07/01/89

Map-folder 33 1937, Details of reversing engine, Category G (Hecla Mine General), 07/11/89

Map-folder 33 1938, Details, Category I (Calumet & Helca Mine General), 06/21/89

Map-folder 33 1940, Miscellaneous details, Category G (Hecla Mine General), 06/21/89

Map-folder 33 1941, General arrangement, Category I (Calumet & Helca Mine General), 11/08/89

Map-folder 33 1942, Operating mechanism, Category G (Hecla Mine General), 07/18/89

Map-folder 33 1943, New governor engine, Category I (Calumet & Helca Mine General), 07/01/89

Map-folder 33 1945, Chimney, etc., Category I (Calumet & Helca Mine General), 07/29/89

Map-folder 33 1947, Hydraulic gear, Category E (Calumet Mine General), 07/01/89

Map-folder 33 1949, Details of engine floor, Category G (Hecla Mine General), 09/27/89

Map-folder 34 1950, Injection gear details, Category G (Hecla Mine General), 07/20/89

Map-folder 34 1954, Details, Category I (Calumet & Helca Mine General), 07/23/89

Map-folder 34 1956, Gallery, Category G (Hecla Mine General), 09/13/89

Map-folder 34 1957, Belt guard for east fly wheel, Category L (Hoisting Engine "Superior"), 07/26/89

Map-folder 34 1958, Hydraulic gear, Category G (Hecla Mine General), 08/09/98

Map-folder 34 1959, Arrangement of electric plant, Category I (Calumet & Helca Mine General), 08/07/89

Map-folder 34 1959 c, Foundation bolts for pedestals & framing, Category I (Calumet & Helca Mine General), 09/21/89

Map-folder 34 1961, General arrangement of piping, Category G (Hecla Mine General), 09/28/89

Map-folder 34 1962, Gallery details , Category G (Hecla Mine General), 08/31/89

Map-folder 34 1963, Miscellaneous , Category G (Hecla Mine General), 09/28/89

Map-folder 34 1964, Elevations, Category G (Hecla Mine General), 11/06/89

Map-folder 34 1965, Details for electric plant , Category I (Calumet & Helca Mine General), 08/26/89

Map-folder 34 1966, Plan, Category G (Hecla Mine General), 09/10/89

Map-folder 34 1967, General plan of reversing engine, Category G (Hecla Mine General), 08/10/89

Map-folder 34 1968, Engine house, Category G (Hecla Mine General), 08/07/89

Map-folder 34 1969, Details of rope wheels, Category I (Calumet & Helca Mine General), 08/20/89

Map-folder 34 1970, Engine house floor, Category G (Hecla Mine General), 09/27/89

Map-folder 34 1971, Steam & obd. dely. piping, Category G (Hecla Mine General), 09/23/89

Map-folder 34 1972 1, 10in high pressure globe valve, Category I (Calumet & Helca Mine General), 09/26/89

Map-folder 34 1972 2, 12in high pressure globe valve, Category I (Calumet & Helca Mine General), 10/23/89

Map-folder 34 1973 1, 10" high pressure piston valve, Category I (Calumet & Helca Mine General), 10/21/89

Map-folder 34 1973 2, Throttle and steam pipe details, Category X (Hoisting Engines "Minong" & "Siscowitt"), 10/25/89

Map-folder 34 1975, Pipe diagrams, Category G (Hecla Mine General), 09/28/89

Map-folder 34 1977, Miscellaneous , Category G (Hecla Mine General), 10/16/89

Map-folder 34 1978 a, Pockets for independent condenser bolts, Category I (Calumet & Helca Mine General), 12/31/90

Map-folder 34 1978 A, Engine foundations (1), Category I (Calumet & Helca Mine General), 06/03/90

Map-folder 34 1979, Indicator gear, Category G (Hecla Mine General), 10/31/89

Map-folder 34 1980 2, Clamp & bracket , Category I (Calumet & Helca Mine General), 11/22/89

Map-folder 34 1980 1, Watt's regulator for 185 lbs pressure, Category G (Hecla Mine General), 11/06/89

Map-folder 34 1981, Jacket piping, Category X (Hoisting Engines "Minong" & "Siscowitt"), 04/15/90

Map-folder 34 1981 A, Alteration to jacket piping, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/14/97

Map-folder 34 1983 A, Hor. sections of foundations, Category I (Calumet & Helca Mine General), 06/01/90

Map-folder 34 1984 a, Long.& trans. sections of foundations, Category I (Calumet & Helca Mine General), 06/11/90

Map-folder 34 1985, Lagging for reheater etc., Category G (Hecla Mine General), 11/06/89

Map-folder 34 1986, Development of irregular plates, Category I (Calumet & Helca Mine General), 01/08/90

Map-folder 34 1987, Steam chest bonnets, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/10/90

Map-folder 34 1988 1, Crank shaft & cranks, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/18/90

Map-folder 34 1988 2, Gallery brackets, Category I (Calumet & Helca Mine General), 03/25/90

Map-folder 34 1988 4, Gallery brackets, Category I (Calumet & Helca Mine General), 03/24/90

Map-folder 34 1989 a, Plate list for 90" Belpaire boilers, Category I (Calumet & Helca Mine General), 02/17/90

Map-folder 34 1991, Entablature & girders etc., Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/25/90

Map-folder 34 1992, L.P. rockers, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/27/90

Map-folder 34 1996, Main bed plate ("Pewabic"), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/22/90

Map-folder 34 1997 2, Front casing, Category I (Calumet & Helca Mine General), 01/30/90

Map-folder 35 2001 1/c, Pocket plates for foundations, Category I (Calumet & Helca Mine General), 07/07/90

Map-folder 35 2001 1/A, Pocket plates for foundations, Category I (Calumet & Helca Mine General), 06/01/90

Map-folder 35 2001 2, Gallery bracket, Category I (Calumet & Helca Mine General), 03/28/90

Map-folder 35 2001 4, Gallery bracket, Category I (Calumet & Helca Mine General), 03/28/90

Map-folder 35 2004, Forgings, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/05/90

Map-folder 35 2008, Sections & details, Category I (Calumet & Helca Mine General)

Map-folder 35 2010, Steam chest bonnets, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/28/90

Map-folder 35 2018, Chimney, Category I (Calumet & Helca Mine General), 03/11/90

Map-folder 35 2022, General arrangement, Category I (Calumet & Helca Mine General), 05/30/90

Map-folder 35 2023, Foundation cap stones (1), Category I (Calumet & Helca Mine General), 03/05/90

Map-folder 35 2026, Foundation cap stones (2), Category I (Calumet & Helca Mine General), 03/15/90

Map-folder 35 2027, Joints, Category I (Calumet & Helca Mine General), 03/26/90

Map-folder 35 2030, Valve rockers, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/20/90

Map-folder 35 2031, Entablature columns & cam shaft driving gears, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/20/91

Map-folder 35 2039, New arrangement of bracing (3), Category I (Calumet & Helca Mine General), 04/02/90

Map-folder 35 2041, Cam shaft driving gears (1), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/25/90

Map-folder 35 2043, Int. & H.P. valve rockers, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/25/90

Map-folder 35 2045, Lagging (1), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/30/92

Map-folder 35 2046, Valve gear details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/15/90

Map-folder 35 2049, Flange plates, Category I (Calumet & Helca Mine General), 04/23/90

Map-folder 35 2051, 7" "Wanich" valve, Category I (Calumet & Helca Mine General), 12/12/91

Map-folder 35 2051 1, 7" piston valve, Category I (Calumet & Helca Mine General), 04/11/90



Map-folder 35 2051 2, 7" "Wanich" valve, Category I (Calumet & Helca Mine General), 04/19/90

Map-folder 35 2052 2, Standard plans for boiler braces, Category I (Calumet & Helca Mine General), 04/21/90

Map-folder 35 2052 3, Standard cap nuts, Category I (Calumet & Helca Mine General), 03/08/98

Map-folder 35 2052 4, Standard Tee heads for boiler braces, Category I (Calumet & Helca Mine General), 04/21/90

Map-folder 35 2056 1, Gallery brackets, Category I (Calumet & Helca Mine General)

Map-folder 35 2056 2, Gallery brackets, Category I (Calumet & Helca Mine General), 03/21/90

Map-folder 35 2056 3, Gallery brackets, Category I (Calumet & Helca Mine General), 03/31/90

Map-folder 35 2056 4, Stanchions & knobs, Category I (Calumet & Helca Mine General), 04/02/90

Map-folder 35 2056 4a, Stanchions & knobs, Category I (Calumet & Helca Mine General)

Map-folder 35 2059, Valve stems & rocker pins, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/18/90

Map-folder 35 2062, Crane carriage, Category I (Calumet & Helca Mine General), 04/12/90

Map-folder 35 2063, Crane crab traveller gears, Category W (Pumping Engines "Michigan" & "Winnipeg"), 04/10/90

Map-folder 35 2064, Trusses in Fleet gear house roof, Category I (Calumet & Helca Mine General), 05/21/90

Map-folder 35 2067 A, 16' sheave, Category I (Calumet & Helca Mine General), 04/26/90

Map-folder 35 2072, Sheave pedestals, Category I (Calumet & Helca Mine General), 04/17/90

Map-folder 35 2073 a, Piston rod, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/15/90

Map-folder 35 2073 a/2, Carrier rod, Category I (Calumet & Helca Mine General), 12/15/90

Map-folder 35 2073 4 , Cross head, Category I (Calumet & Helca Mine General), 06/19/90

Map-folder 35 2076, Pipes for south pipe line, Category I (Calumet & Helca Mine General), 02/11/93

Map-folder 35 2077, 45 degree sheave pedestals, Category I (Calumet & Helca Mine General), 04/28/90

Map-folder 35 2078 1, Standard stuffing box for cyl. head drain pipe, Category I (Calumet & Helca Mine General), 04/17/90

Map-folder 35 2081, Windows, Category I (Calumet & Helca Mine General), 04/18/80

Map-folder 35 2093, Boiler house roof truss details, Category I (Calumet & Helca Mine General), 05/17/90

Map-folder 35 2093 a, Boiler house Roof truss details eye bars, Category I (Calumet & Helca Mine General), 12/22/90

Map-folder 35 2095, Side elevation & sections, Category I (Calumet & Helca Mine General), 05/05/90

Map-folder 36 2100, Boiler house, Category I (Calumet & Helca Mine General), 06/07/90

Map-folder 36 2103 A, Boiler house floor, Category I (Calumet & Helca Mine General), 05/09/90

Map-folder 36 2103 b, Framing for top of flue, Category I (Calumet & Helca Mine General), 07/17/91

Map-folder 36 2112, Oiling devices, Category X (Hoisting Engines "Minong" & "Siscowitt"), 05/29/90

Map-folder 36 2117, Corr copper gaskets for cylinder bonnets, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/09/90

Map-folder 36 2118 2, Shafts, crank, etc., Category AA (Sinking Engines "Delaware" & "Iroquois"), 06/21/90

Map-folder 36 2123, Bedplate (1), Category AA (Sinking Engines "Delaware" & "Iroquois"), 06/02/90

Map-folder 36 2132 A, Details of boiler house floor, smoke boxes downtake, etc., Category I (Calumet & Helca Mine General), 06/09/90

Map-folder 36 2133, Bedplate (2), Category AA (Sinking Engines "Delaware" & "Iroquois"), 06/02/90

Map-folder 36 2136 1, H.P. inlet and L.P. exhaust side pipes, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/07/90

Map-folder 36 2136 4, Lever latch, Category I (Calumet & Helca Mine General), 09/04/90

Map-folder 36 2139, 84" rope drums, Category AA (Sinking Engines "Delaware" & "Iroquois"), 06/10/90

Map-folder 36 2139 b, Position of drums on shafts, Category AA (Sinking Engines "Delaware" & "Iroquois"), 09/15/90

Map-folder 36 2142 1, Sole plate for sheave pedestal, Category I (Calumet & Helca Mine General), 06/17/90

Map-folder 36 2142 4, Fleet gear engine foundation, Category I (Calumet & Helca Mine General), 07/23/90

Map-folder 36 2147, General arrangement, Category I (Calumet & Helca Mine General), 06/18/90

Map-folder 36 2151, Details, Category I (Calumet & Helca Mine General), 06/30/90

Map-folder 36 2153, Sheave room & fleet gear house, Category I (Calumet & Helca Mine General), 04/12/90

Map-folder 36 2154 1, Connecting rod, Category AA (Sinking Engines "Delaware" & "Iroquois"), 06/19/90

Map-folder 36 2154 2, Coupling rod, Category AA (Sinking Engines "Delaware" & "Iroquois"), 06/19/90

Map-folder 36 2161 1, Valve gear protractor plate, Category X (Hoisting Engines "Minong" & "Siscowitt"), 06/20/90

Map-folder 36 2167, Reversing eng details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 07/03/90

Map-folder 36 2169, Reversing engine, Category AA (Sinking Engines "Delaware" & "Iroquois"), 07/09/90

Map-folder 36 2169 a, Reversing engine details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/14/90

Map-folder 36 2175, Reversing gear details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 07/11/90

Map-folder 36 2179, Granite capstones, Category I (Calumet & Helca Mine General), 06/14/90

Map-folder 36 2181, Brake lever and stand, Category AA (Sinking Engines "Delaware" & "Iroquois"), 07/17/90

Map-folder 36 2184, Fly wheel, Category I (Calumet & Helca Mine General), 05/02/93

Map-folder 36 2190, Reversing & brake details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 07/19/90

Map-folder 36 2193, Engine house floor, Category I (Calumet & Helca Mine General), 10/11/92

Map-folder 36 2195, Reversing eng girder, etc., Category AA (Sinking Engines "Delaware" & "Iroquois"), 07/25/90

Map-folder 36 2196, Brake details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/16/90

Map-folder 37 2206, Foundation cap stones (3), Category I (Calumet & Helca Mine General), 07/29/90

Map-folder 37 2209, Foundation, Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/29/90

Map-folder 37 2213, Cor copper gaskets for cylinder bonnets, Category W (Pumping Engines "Michigan" & "Winnipeg"), 10/01/90

Map-folder 37 2214, Drum indicator gear, etc., Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/19/90

Map-folder 37 2215, Engine house roof truss, Category AA (Sinking Engines "Delaware" & "Iroquois"), 09/17/90

Map-folder 37 2220 1, Shaft, cranks, etc. (1), Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/18/90

Map-folder 37 2224, Foundation (sections), Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/29/90

Map-folder 37 2227, Foundation capstones, Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/29/90

Map-folder 37 2228, Pipes & hangers, Category AA (Sinking Engines "Delaware" & "Iroquois"), 02/10/91

Map-folder 37 2229, Drum indicator gear details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 08/28/90

Map-folder 37 2231, Engine house, Category AA (Sinking Engines "Delaware" & "Iroquois"), 09/16/90

Map-folder 37 2232, Floor, Category AA (Sinking Engines "Delaware" & "Iroquois"), 02/14/91

Map-folder 37 2237, Sheave pedestals, sole plate (1), Category AA (Sinking Engines "Delaware" & "Iroquois"), 09/19/90

Map-folder 37 2239, Pocket plates for foundations, Category AA (Sinking Engines "Delaware" & "Iroquois"), 09/11/90

Map-folder 37 2242, Details for 35 ton crane crab, Category I (Calumet & Helca Mine General), 09/26/90

Map-folder 37 2243, Details 70 ton crane, Category I (Calumet & Helca Mine General), 09/25/90

Map-folder 37 2246 , Foundation bolts (2), Category AA (Sinking Engines "Delaware" & "Iroquois"), 10/04/90

Map-folder 37 2246 , 6 ft sheave (1), Category AA (Sinking Engines "Delaware" & "Iroquois"), 10/01/90

Map-folder 37 2247, 35 ton crab, Category I (Calumet & Helca Mine General), 10/04/90

Map-folder 37 2247 a, Yale & Towne triplex blocks for light hoist on Red Jacket engine house crane, Category I (Calumet & Helca Mine General), 03/16/91

Map-folder 37 2248, Details of 35 ton crab, Category I (Calumet & Helca Mine General), 10/06/90

Map-folder 37 2250, 8" stop valve (2), Category I (Calumet & Helca Mine General), 09/23/90

Map-folder 37 2251, Crane bridge, Category I (Calumet & Helca Mine General), 09/27/90

Map-folder 37 2252, Feed water heater inj details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 09/24/90

Map-folder 37 2254, Engine house floor details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 02/13/91

Map-folder 37 2255, 70 ton crane carriage, etc. , Category I (Calumet & Helca Mine General), 10/07/90

Map-folder 37 2256, Arrangement of cylinders & reheaters, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/27/90

Map-folder 37 2260, 35 ton crab details, Category I (Calumet & Helca Mine General), 10/11/90

Map-folder 37 2263, Platform truss, Category I (Calumet & Helca Mine General), 10/08/90

Map-folder 37 2267, Crane traveller gears, Category I (Calumet & Helca Mine General), 10/10/90

Map-folder 37 2268, General arrangement, Category I (Calumet & Helca Mine General), 10/29/90

Map-folder 37 2271, Miscellaneous details, Category I (Calumet & Helca Mine General), 10/18/90

Map-folder 37 2279, Track girder bolts (1), Category I (Calumet & Helca Mine General), 11/01/90

Map-folder 37 2286, Capstones for roof trusses (1), Category I (Calumet & Helca Mine General), 10/30/90

Map-folder 37 2291, Rope driving wheels, Category I (Calumet & Helca Mine General), 11/12/90

Map-folder 37 2293, Rim details 25 ft drum, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/22/90

Map-folder 37 2294, Thompson indicator with electric attachment (1), Category I (Calumet & Helca Mine General), 03/08/93

Map-folder 37 2296, Bedplate steps, handrail, etc., Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/17/90

Map-folder 37 2298, Hub & miscellaneous details 25' drum, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/10/91

Map-folder 37 2298 a, Drum shaft, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/09/91

Map-folder 37 2298 b, Standard test piece for steel forgings, Category I (Calumet & Helca Mine General), 02/02/91

Map-folder 37 2299, Gen'l plan of engines, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/18/90

Map-folder 38 2300, Clutch strap details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/14/91

Map-folder 38 2301, Development of shell plates (1), Category I (Calumet & Helca Mine General), 11/18/90

Map-folder 38 2304, Hydraulic & oiling devices for drum, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/05/91

Map-folder 38 2307, H.P. piston, piston rods, etc., Category L (Hoisting Engine "Superior"), 11/29/90

Map-folder 38 2308, Arm casting, turning rods, rim segment, hub, etc., Category G (Hecla Mine General), 12/12/90

Map-folder 38 2310, Drum indicator gear (3), Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/16/90

Map-folder 38 2311, Splasher & lagging for separator, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/12/90

Map-folder 38 2312, Operating mechanism, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/18/90

Map-folder 38 2313, Operating platform, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/18/90

Map-folder 38 2317, Main pedestal bed plates, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/13/91

Map-folder 38 2320, New upper cylinder heads, Category L (Hoisting Engine "Superior"), 12/17/90

Map-folder 38 2321, Side elevation (1), Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/16/91

Map-folder 38 2322, End elevation, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/07/91

Map-folder 38 2323, OPerating platform details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/20/90

Map-folder 38 2324, 3" piston valve & LP live steam gear, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/18/90

Map-folder 38 2325, Gen'l plan of engines & house, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/25/92

Map-folder 38 2328, Valve motion diagram, Category AA (Sinking Engines "Delaware" & "Iroquois"), 12/20/90

Map-folder 38 2329, Gen'l arr of driving gears, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/05/91

Map-folder 38 2330, Gen'l plan of piping, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/24/91

Map-folder 38 2331, Miscellaneous details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/08/91

Map-folder 38 2332, Gen'l arr of throttle live steam & drum ind gears, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/14/91

Map-folder 38 2333, Side & end elevations of piping, Category AA (Sinking Engines "Delaware" & "Iroquois"), 02/10/91

Map-folder 38 2334, Side elevation (2), Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/31/91

Map-folder 38 2335, Throttle gear, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/07/91

Map-folder 38 2336, Cam shaft driving gears (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/20/91

Map-folder 38 2337, Foundation plan "Minong" & "Siscowit", Category X (Hoisting Engines "Minong" & "Siscowitt"), 02/20/91

Map-folder 38 2339, Engine house roof truss, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/17/91

Map-folder 38 2339 A, Engine house roof details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/17/91

Map-folder 38 2341, Foundation plan "Mesnard" & "Pontiac", Category Y (Hoisting Engines "Mesnard & Pontiac"), 02/21/91

Map-folder 38 2342, General arrangement, Category G (Hecla Mine General), 01/20/91



Map-folder 38 2344, Miscellaneous details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/19/91

Map-folder 38 2345, Details of floor plates, Category AA (Sinking Engines "Delaware" & "Iroquois"), 02/03/91

Map-folder 38 2346, Transverse sections, Category I (Calumet & Helca Mine General), 03/28/91

Map-folder 38 2347, Ash pit frame & fire brick arch, Category I (Calumet & Helca Mine General), 03/24/91

Map-folder 38 2349, Fleet gear crane, Category I (Calumet & Helca Mine General), 02/07/91

Map-folder 38 2349 a, Yale & Towne triplex blocks for Red Jacket Fleet crane house, Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 39 2350, Outlet launder, Category G (Hecla Mine General), 02/28/91

Map-folder 39 2351, Plan & elevation of fire boxes, Category I (Calumet & Helca Mine General), 01/28/90

Map-folder 39 2352, Diagram of small pipes, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/11/91

Map-folder 39 2353, 30 ft clutch mortise gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/12/91

Map-folder 39 2354, Hydraulic clutch cylinders and miscellaneous details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/06/91

Map-folder 39 2355, Fleet gear crane details, Category I (Calumet & Helca Mine General), 04/08/91

Map-folder 39 2356, Alteration to brake & reversing engines, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/29/91

Map-folder 39 2357, Regulator levers, Category AA (Sinking Engines "Delaware" & "Iroquois"), 01/17/91

Map-folder 39 2358, Fire doors, grate bars, dead plate, etc., Category I (Calumet & Helca Mine General), 02/06/91

Map-folder 39 2359, Bucket rim details, Category G (Hecla Mine General), 01/28/91

Map-folder 39 2361, Capstones, Category I (Calumet & Helca Mine General), 01/30/91

Map-folder 39 2362, Fleet gear crane details (2), Category I (Calumet & Helca Mine General), 03/21/91

Map-folder 39 2364, Fleet gear clutch segment, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/09/91

Map-folder 39 2364 A, Gun iron castings for clutch segment, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/12/91

Map-folder 39 2365, Main driving pinion, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/14/91

Map-folder 39 2366, Cast details, Category I (Calumet & Helca Mine General), 02/10/91

Map-folder 39 2367, Outlet launder details, Category G (Hecla Mine General), 03/13/91

Map-folder 39 2368, General elevations & plan of house, Category G (Hecla Mine General), 05/06/91

Map-folder 39 2369, Drum shaft pedestal, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/16/91

Map-folder 39 2370, Longitudinal section, Category I (Calumet & Helca Mine General), 02/26/91

Map-folder 39 2371, Foundation, Category G (Hecla Mine General), 05/16/91

Map-folder 39 2371 A, Foundations, Category G (Hecla Mine General), 05/15/91

Map-folder 39 2371 B, Foundations, Category G (Hecla Mine General), 05/15/91

Map-folder 39 2371 C, Foundation piling, Category G (Hecla Mine General), 05/21/91

Map-folder 39 2371 D, Foundations, Category G (Hecla Mine General), 05/19/91

Map-folder 39 2372, Valve diagram, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/25/92

Map-folder 39 2373, Forgings, Category I (Calumet & Helca Mine General), 03/21/91

Map-folder 39 2375, Hecla 50 ft sand wheel house, Category G (Hecla Mine General), 05/11/91

Map-folder 39 2376, Details of riveted joints, cross sections of boiler etc., Category I (Calumet & Helca Mine General), 04/09/91

Map-folder 39 2377, Longitudinal elevation & plan, Category I (Calumet & Helca Mine General), 02/28/91

Map-folder 39 2378, Main pedestal bedplate, columns, etc., Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/13/91

Map-folder 39 2379, L.P. inlet & cut off valve gear gen'l arrangement, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/06/91

Map-folder 39 2380, Cast details (1), Category I (Calumet & Helca Mine General), 03/04/91

Map-folder 39 2381, New crank shaft, crank, pin, etc., Category O (Engine "Wabeek"), 02/26/91

Map-folder 39 2392, Cam shaft pedestals, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/26/91

Map-folder 39 2393, Bedplates, pinion, etc. for new drive gear, Category E (Calumet Mine General), 04/22/91

Map-folder 39 2394, Jacket piping, Category Y (Hoisting Engines "Mesnard & Pontiac"), 04/29/91

Map-folder 39 2394 A, Alteration to jacket piping, Category Y (Hoisting Engines "Mesnard & Pontiac"), 12/15/97

Map-folder 39 2399, Base ring & miscellaneous details, Category I (Calumet & Helca Mine General), undated

Map-folder 40 2400, Bed plate and pedestals for new driving gear, Category E (Calumet Mine General), 04/28/91

Map-folder 40 2402, Intermediate gears and pulley for driving 40' wheel, Category E (Calumet Mine General), 02/20/91

Map-folder 40 2405, Pulleys for new driving gear, Category E (Calumet Mine General), 04/01/91

Map-folder 40 2406, General elevations, Category I (Calumet & Helca Mine General), 04/30/91

Map-folder 40 2407, Monitor for boiler house, Category I (Calumet & Helca Mine General), 04/04/91

Map-folder 40 2409, Cam shaft pedestals, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/26/91

Map-folder 40 2410, General arrangement plan, Category E (Calumet Mine General), 05/13/91

Map-folder 40 2411, General arr of new driving gear, Category E (Calumet Mine General), 05/01/91

Map-folder 40 2412, Plan of foundations showing capstones, etc., Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2413, Hor section of foundations, etc. 2ft from concrete, Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2414, Hor section of foundations, etc. 5ft from concrete etc., Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2415, Plan of pocket plates & vertical sections, Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2416, Hor section of foundations, under tunnel plate etc., Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2417, Sections of foundations through tunnels etc., Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2418, Sections of foundations through tunnels, etc., Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2419, Plan & elev. of finished brickwork, Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2420, Pocket, covering & pedestal plates, Category I (Calumet & Helca Mine General), 03/14/91

Map-folder 40 2421, Girders for overhead shaft for new driving gear, Category E (Calumet Mine General), 04/08/91

Map-folder 40 2422, Shafts for new driving gear, Category E (Calumet Mine General), 03/30/91

Map-folder 40 2423, Roof truss castings and foundation pocketplates etc., Category G (Helca Mine General), 04/23/91

Map-folder 40 2425, Roof truss and foundation bolts and foundation capstones, Category G (Helca Mine General), 04/24/91

Map-folder 40 2426, Ties for new driving gear bedplate, Category E (Calumet Mine General), 04/23/91

Map-folder 40 2427, Valve gear connections, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/14/91

Map-folder 40 2429, Gen'l arr of governor and cut off gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/11/92

Map-folder 40 2430, Addition to S.W. corner, Category E (Calumet Mine General), 04/29/91

Map-folder 40 2432, Details of erection of traveling crane, Category I (Calumet & Helca Mine General), 04/04/91

Map-folder 40 2436, Foundation for new driving gear, Category E (Calumet Mine General), 06/19/91

Map-folder 40 2437, Foundation for new driving gear, Category E (Calumet Mine General), 06/18/91

Map-folder 40 2437 A, Foundation for new driving gear, Category E (Calumet Mine General), 06/18/91

Map-folder 40 2439, Cam & idler gear shafts, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/26/91

Map-folder 40 2440, Cut off levers and connections, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/30/91

Map-folder 40 2441, Fire box boiler data, Category I (Calumet & Helca Mine General), 03/917/91

Map-folder 40 2443, Miscellaneous details for governor and throttle, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/19/92

Map-folder 40 2445, H.P. inlet cam rocker stands, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/18/91

Map-folder 40 2446, Exhaust cam rocker stands, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/19/91

Map-folder 40 2447, Gen'l arrangement of brake and operating gears, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/04/92

Map-folder 40 2448, Cam rocker stand sole plates, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/11/91

Map-folder 41 2450, Capstones foundation bolts & pocket plates for new driving gear, Category E (Calumet Mine General), 05/26/91

Map-folder 41 2451, Int inlet cam rocker stands, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/15/91

Map-folder 41 2453, LP inlet cam rocker stands, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/22/91

Map-folder 41 2454, Governor details (1), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/15/91

Map-folder 41 2455, Entablature (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/31/91

Map-folder 41 2456, Governor details (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/24/91

Map-folder 41 2460, Piston follower nuts, Category Y (Hoisting Engines "Mesnard & Pontiac"), 05/07/91

Map-folder 41 2466, Engine house elevations & plan, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/15/91

Map-folder 41 2468, H.P. inlet & cut off valve gear general arrangement, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/13/91

Map-folder 41 2469, General arrangement of valve gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/11/91

Map-folder 41 2470, Int inlet & cut off valve gear general arrangement, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/20/91

Map-folder 41 2471, Engine house sections, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/15/91

Map-folder 41 2472, Stress diagram for H.P. valve gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/25/92

Map-folder 41 2473, Stress diagram for Intermediate valve gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/25/92

Map-folder 41 2474, Stress diagram for LP valve gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/25/92

- Map-folder 41 2475, Combined stress diagram for valve gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/25/92
- Map-folder 41 2476, Sole plates for drum shaft pedestals, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/06/91
- Map-folder 41 2477, Gen'l arrangement of oiling devices for inlet & cut off valve gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 11/13/91
- Map-folder 41 2478, Foundation plan, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/06/91
- Map-folder 41 2480, Side elevation & sections of foundation, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/26/91
- Map-folder 41 2482, Engine house roof framing and skylight, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/03/91
- Map-folder 41 2483, Governor engine details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/06/91
- Map-folder 41 2484, Boiler house elevations & plan, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/13/91
- Map-folder 41 2485, Starting and reverse gear general arrangement, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/24/91
- Map-folder 41 2486, Sections of foundations, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/22/91
- Map-folder 41 2487, Boiler house roof truss, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/09/91
- Map-folder 41 2489, Boiler house sections, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 11/13/91
- Map-folder 41 2490, Standard oil cups and fittings, Category I (Calumet & Helca Mine General), 06/09/91
- Map-folder 41 2490 A, Standard oil cups and fittings, Category I (Calumet & Helca Mine General), 02/13/92
- Map-folder 41 2490 B, Standard oil cups and fittings, Category I (Calumet & Helca Mine General), 10/13/96

Map-folder 41 2491, Chimney cap, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/30/91

Map-folder 41 2492, Cylinder back bonnets, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/07/91

Map-folder 41 2493, Foundation plan & elevations, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/06/91

Map-folder 41 2494, Starting gear details (1), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/10/91

Map-folder 41 2495, Exhaust valve gear general arrangement, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/21/91

Map-folder 41 2496, Plan of engine house foundations, drains and tunnel to boiler house, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/16/91

Map-folder 41 2497, Starting & reversing gear details (1), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/31/91

Map-folder 41 2498, Boiler house sectional plan & elevation of foundation, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/22/91

Map-folder 41 2499, Boiler house roof truss details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/10/91

Map-folder 42 2500, Iron work for foundations, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/17/91

Map-folder 42 2500 a, Crane pier caps, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/18/91

Map-folder 42 2501, Starting & reversing gear details (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/18/91

Map-folder 42 2502, Sections through foundation walls and boiler foundations, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/20/91

Map-folder 42 2503, Brake stand & hydraulic cylinders, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/12/92

Map-folder 42 2505, Boiler house roof truss strut details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/09/91

Map-folder 42 2506, Chimney, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 06/22/91



Map-folder 42 2507, Boiler house roof purlins, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/10/91

Map-folder 42 2510, Floor over boiler house flue, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/29/91

Map-folder 42 2511, Guard for tunnel stairs and boiler house floor details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/20/91

Map-folder 42 2512, Boiler house roof purlins (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/13/91

Map-folder 42 2513, Side elevation & sections of foundation, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/03/91

Map-folder 42 2514, Boiler house roof framing, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/14/91

Map-folder 42 2515, Boiler house doors, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/14/91

Map-folder 42 2516, Boiler house monitor, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/23/91

Map-folder 42 2517, Boiler house roof trusses general arrangement, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/29/91

Map-folder 42 2523, Plan of foundation cap stones, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/03/91

Map-folder 42 2524, Horizontal section 2 ft above concrete, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/11/93

Map-folder 42 2525, Plan of pocket plates, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/11/93

Map-folder 42 2534, Plan of pocket plates, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 42 2536, Plan of foundation cap stones, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/03/91

Map-folder 42 2568, Boiler house piping general plan, Category I (Calumet & Helca Mine General), 12/18/91

Map-folder 42 2573 A, General plan of engine house piping, Category I (Calumet & Helca Mine General), 01/12/92

Map-folder 42 2576 A, General elevations of engine house piping, Category I (Calumet & Helca Mine General), 01/12/92

Map-folder 42 2579, Steam pipe details, Category I (Calumet & Helca Mine General), 11/27/91

Map-folder 42 2594, Boiler house piping general elevations, Category I (Calumet & Helca Mine General), 12/21/91

Map-folder 43 2630, Steam drums, etc., Category I (Calumet & Helca Mine General), 11/25/91

Map-folder 43 2643, Steam pipes, Category I (Calumet & Helca Mine General), 11/21/91

Map-folder 43 2643 a, Bends for boiler house steam pipe, Category I (Calumet & Helca Mine General), 11/03/91

Map-folder 43 2644, 5" angle valve for 185 lbs steam pressure, Category I (Calumet & Helca Mine General), 12/17/91

Map-folder 43 2645, Anvil for steam stamps, Category I (Calumet & Helca Mine General), 10/16/91

Map-folder 43 2658, New connecting rod end, Category I (Calumet & Helca Mine General), 10/27/91

Map-folder 43 2660, Miscellaneous details for boiler house piping, Category I (Calumet & Helca Mine General), 12/31/91

Map-folder 43 2665, 8" angle valve for 185 lbs steam pressure, Category I (Calumet & Helca Mine General), 12/16/91

Map-folder 43 2669, 12" angle valve for 185 lbs steam pressure, Category I (Calumet & Helca Mine General), 12/08/91

Map-folder 43 2669 A, Steel casting for valve chamber, Category I (Calumet & Helca Mine General), 08/21/94

Map-folder 43 2676, Stamp shaft, Category I (Calumet & Helca Mine General), 11/08/91

Map-folder 43 2686, Outboard delivery and injection pipe details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 01/04/92

Map-folder 43 2689, New drag link to connect engines HOUGHTON & SENECA, Category I (Calumet & Helca Mine General), 09/23/91

Map-folder 43 2691, Extension of line shafting, Category I (Calumet & Helca Mine General), 12/17/91

Map-folder 43 2692, Accumulator Red Jacket shaft plant, Category I (Calumet & Helca Mine General), 12/17/91

Map-folder 43 2698, Drum indicator details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/23/92

Map-folder 44 2702, Splasher plates for 30 ft mortise gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/05/92

Map-folder 44 2703, Fleet carriage pedestal, Category I (Calumet & Helca Mine General), 03/09/92

Map-folder 44 2704, Hand brake details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/12/92

Map-folder 44 2705, Brake gear entablature and drum indicator stand, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/14/92

Map-folder 44 2707, Solid anvil for stamp, Category I (Calumet & Helca Mine General), 12/05/91

Map-folder 44 2708, Stamps pocket & sole plates for Red Jacket Fleet gear foundations, Category I (Calumet & Helca Mine General), 01/13/92

Map-folder 44 2709, Drum indicator details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/03/92

Map-folder 44 2710, Headstock, Category I (Calumet & Helca Mine General), 12/28/92

Map-folder 44 2711, Drum indicator details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/18/92

Map-folder 44 2712, Headstock, Category I (Calumet & Helca Mine General), 01/05/92

Map-folder 44 2714, Brake details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/21/92

Map-folder 44 2715, Red Jacket Fleet gear foundations south end, Category I (Calumet & Helca Mine General), 01/09/92

Map-folder 44 2716, Gallery for "Hancock", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/11/92

Map-folder 44 2719, Drum speed indicator details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/15/92

Map-folder 44 2720, Piston rod, dash pot piston and miscellaneous details, Category I (Calumet & Helca Mine General), 01/02/92

Map-folder 44 2722, Carriage crab and chock, Category I (Calumet & Helca Mine General), 03/24/92

Map-folder 44 2726, Hydraulic valves etc. for Fleet gear brake and clutch, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/20/92

Map-folder 44 2731, Operating mechanism (1), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/22/92

Map-folder 44 2733, General arrangement of operating gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/04/92

Map-folder 44 2736, Throttle gear details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/20/92

Map-folder 44 2739, Gallery floor plates for "Hancock", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/06/92

Map-folder 44 2745, Gallery floor plates for "Hancock", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/08/92

Map-folder 44 2746, Beam pin forgings, Category W (Pumping Engines "Michigan" & "Winnipeg"), 01/16/92

Map-folder 44 2747, Brake strap, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/21/92

Map-folder 44 2748, REd Jacket Fleet gear foundations north end, Category I (Calumet & Helca Mine General), 04/02/92

Map-folder 44 2750, Operating mechanism (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/20/92

Map-folder 44 2752, Brake splasher, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/26/92

Map-folder 44 2754, Gallery floor plates for "Hancock", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/05/92

Map-folder 44 2755, Fleet gear tracks, Category I (Calumet & Helca Mine General), 03/02/92

Map-folder 44 2756, Fleet gear cylinder, piston, crosshead, etc., Category I (Calumet & Helca Mine General), 04/29/92

Map-folder 44 2758, Fleet gear details, Category I (Calumet & Helca Mine General), 04/22/92

Map-folder 44 2764, Oil pump, Category I (Calumet & Helca Mine General), 04/04/92

Map-folder 44 2765, Gallery floor plates for "Hancock", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 03/12/92

Map-folder 44 2767, Fleet gear eye bars, Category I (Calumet & Helca Mine General), 03/25/92

Map-folder 44 2770, General arrangement of indicator gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/06/92

Map-folder 44 2771, Lagging details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/07/92

Map-folder 44 2774, General arrangement of lagging (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/07/92

Map-folder 44 2776, Clutch splasher, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/28/92

Map-folder 44 2777 A, Gallery details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/19/92

Map-folder 44 2781, Indicator gear details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/09/92

Map-folder 44 2783, Gallery for "PEWABIC", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/25/92

Map-folder 44 2784, Gallery floor plates for "Pewabic", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/19/92

Map-folder 44 2785, Gallery floor plates for "Pewabic", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/16/92

Map-folder 44 2786, Gallery floor plates for "Pewabic", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/14/92

Map-folder 44 2787, Gallery floor plates for "Pewabic", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/06/92

Map-folder 44 2788, Lagging details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/07/92

Map-folder 44 2789, New driving gear rope wheels and shaft, Category E (Calumet Mine General), 03/16/92

Map-folder 44 2790, Gallery details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/22/92

Map-folder 44 2798, Lagging details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/07/92

Map-folder 45 2803, Signalling apparatus, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/24/92

Map-folder 45 2804, New connecting rod end etc., Category E (Calumet Mine General), 04/09/92

Map-folder 45 2804 a, Forgings for new connecting rod end, etc. for 30" x 49" Corliss engine, Category I (Calumet & Helca Mine General), 04/08/92

Map-folder 45 2808, Lagging details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/14/92

Map-folder 45 2809, General arrangement for Nos 8,9,10&11; Hecla mill, Category G (Hecla Mine General), 06/08/92

Map-folder 45 2810, Gear guards & oiling steps, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/25/92

Map-folder 45 2811, Forgings for Fleet gear, Category I (Calumet & Helca Mine General), 04/12/92

Map-folder 45 2812, General arrangement of Fleet gear north end, Category I (Calumet & Helca Mine General), 08/30/92

Map-folder 45 2814, General arrangement of Fleet gear south end, Category I (Calumet & Helca Mine General), 08/23/92

Map-folder 45 2825, Supports for steam and water pipes, Category I (Calumet & Helca Mine General), 07/19/92

Map-folder 45 2831 A, Cradle for 90" Belpaire boiler, Category I (Calumet & Helca Mine General), 01/07/94

Map-folder 45 2836, General arrangement plan, Category G (Hecla Mine General), 06/29/92

Map-folder 45 2841, General arrangement of new driving gear, Category G (Hecla Mine General), 06/30/92

Map-folder 45 2843, Miscellaneous details, Category XY, 08/08/92

Map-folder 45 2846, Details of new driving gear, Category G (Hecla Mine General), 06/07/92

Map-folder 45 2849, Girders for overhead shaft for new driving gear, Category G (Hecla Mine General), 06/29/92

Map-folder 45 2860, Counter and lubricator gears, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/20/92

Map-folder 45 2861, Name plates, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/27/92

Map-folder 45 2866 A, Engine house floor, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/07/92

Map-folder 45 2867, Condenser foundations, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/28/92

Map-folder 45 2868, Jacket and drain piping etc., Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/11/92

Map-folder 45 2870, Lagging details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/15/92

Map-folder 45 2877, Engine house floor plate details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/13/92

Map-folder 45 2878, Details, Category I (Calumet & Helca Mine General), 07/12/92

Map-folder 45 2879, General arrangement, Category I (Calumet & Helca Mine General), 07/28/92

Map-folder 45 2880, Engine house floor details, Category I (Calumet & Helca Mine General), 10/06/92

Map-folder 45 2881, Details, Category I (Calumet & Helca Mine General), 07/21/92

Map-folder 45 2882, Arrangement of facings on motor base for electric power pumps, Category I (Calumet & Helca Mine General), 06/12/92

Map-folder 45 2883, Bed plate, Category I (Calumet & Helca Mine General)

Map-folder 45 2885, General arrangement of engine house piping, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/10/92

Map-folder 45 2887, Side elevation of "Hancock", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 11/09/92

Map-folder 45 2888, Crank shaft, Category I (Calumet & Helca Mine General), 07/20/92

Map-folder 45 2890, Foundation for new driving gear, Category G (Hecla Mine General), 08/01/92

Map-folder 45 2891, Oiling devices, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/06/92

Map-folder 45 2895, Capstones & pocket plates, Category G (Hecla Mine General), 08/01/92

Map-folder 45 2899, Steam pipe details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/11/92

Map-folder 46 2903, Cor. copper gaskets for cylinder bonnets, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/05/92

Map-folder 46 2904, Injection and outboard del piping, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/07/92

Map-folder 46 2905, Crank shaft, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/05/92

Map-folder 46 2906, Smoke box and downtake, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/10/92

Map-folder 46 2909, Pipe hangers & supports, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/08/92



Map-folder 46 2912, Intermediate reheater, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 11/03/92

Map-folder 46 2913, Steam separator, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/12/92

Map-folder 46 2915, Intermediate reheater, Category W (Pumping Engines "Michigan" & "Winnipeg"), 11/13/92

Map-folder 46 2916, General elevations, Category I (Calumet & Helca Mine General), 05/05/93

Map-folder 46 2918, 22' rope wheel, Category O (Engine "Wabeek"), 04/24/94

Map-folder 46 2919, Bed plate, Category I (Calumet & Helca Mine General), 03/21/93

Map-folder 46 2926, H.P. and L.P. exhaust cams, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/29/92

Map-folder 46 2931, Cylinder, Category I (Calumet & Helca Mine General), 04/05/93

Map-folder 46 2932, Columns, etc., Category I (Calumet & Helca Mine General), 03/21/93

Map-folder 46 2934, Connecting rod & links, Category I (Calumet & Helca Mine General), 03/24/93

Map-folder 46 2936, Valve gear details, Category I (Calumet & Helca Mine General), 03/27/93

Map-folder 46 2937, H.P. inlet and Int. exh cams, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/29/92

Map-folder 46 2938, Int. and L.P. inlet cams, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/30/92

Map-folder 46 2940, H.P. cut off cams, Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/28/92

Map-folder 46 2941, Crosshead beam crank shaft etc., Category I (Calumet & Helca Mine General), 03/20/93

Map-folder 46 2943, Splashes & drip pan for coupling rod & crank, Category X (Hoisting Engines "Minong" & "Siscowitt"), 01/22/94

Map-folder 46 2945, Alteration to throttle levers etc., Category XY, 12/14/92

Map-folder 46 2946, Rand Drill, 32" x 48" compressor, air piston, Category I (Calumet & Helca Mine General), 11/23/92

Map-folder 46 2947, Main steam pipe, Category G (Hecla Mine General), 12/02/92

Map-folder 46 2950, Theoretical steam diagrams for five complete, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/20/93

Map-folder 46 2951, Air chamber, Category I (Calumet & Helca Mine General), 12/12/92

Map-folder 46 2954, Con rod end & crank shaft, Category I (Calumet & Helca Mine General), 01/04/93

Map-folder 46 2956, General plan, Category I (Calumet & Helca Mine General), 04/22/93

Map-folder 46 2959, Cylinder lagging, Category I (Calumet & Helca Mine General), 04/27/93

Map-folder 46 2963, Theoretical steam diagrams for five complete, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/21/93

Map-folder 46 2970, Forgings for con rod end & crank shaft, Category I (Calumet & Helca Mine General), 01/07/93

Map-folder 46 2971, Hanger for 86" rope wheel, Category G (Hecla Mine General), 01/05/93

Map-folder 46 2972, Outboard pedestal 22" x 38", Category L ( Hoisting Engine "Superior"), 01/31/93

Map-folder 46 2973, New boxes for 19" x 38" pedestal "K", Category E (Calumet Mine General), 01/20/93

Map-folder 46 2974, Slip joint for south pipe line, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/04/93

Map-folder 46 2975, New boxes for 19" x 32" crank shaft pedestal, Category L ( Hoisting Engine "Superior"), 01/10/93

Map-folder 46 2976, Pipes for south pipe line, Z, 02/11/93

Map-folder 46 2978, New west crank & crankshaft, Category L ( Hoisting Engine "Superior"), 02/23/93

Map-folder 46 2979, Operating gear for supplementary valve, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 02/10/93

Map-folder 46 2980, Fleet sheave for "Seneca" & "Houghton", V, 01/17/93

Map-folder 46 2982, 25 ft rope wheel, Category L ( Hoisting Engine "Superior"), 01/27/93

Map-folder 46 2984, Operating gear, Category I (Calumet & Helca Mine General), 03/28/93

Map-folder 46 2986, Shaft for driven rope wheel, Category L ( Hoisting Engine "Superior"), 01/19/92

Map-folder 46 2987, Steel forgings & casting for new west crank, & crank shaft etc., Category L ( Hoisting Engine "Superior"), 01/18/92

Map-folder 46 2989, Steam pipe line from "G.H.&S." boiler house to Frontenac compressor room , Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/20/93

Map-folder 46 2991, Connecting rod, Category L ( Hoisting Engine "Superior"), 02/17/93

Map-folder 46 2993, Crosshead, Category L ( Hoisting Engine "Superior"), 04/04/93

Map-folder 46 2994, Drag link, Category L ( Hoisting Engine "Superior"), 02/21/93

Map-folder 46 2997, Crankshafts & cranks, Category L ( Hoisting Engine "Superior"), 02/16/93

Map-folder 46 2998, 19" x 38" crank shaft pedestal, Category L ( Hoisting Engine "Superior"), 03/03/93

Map-folder 46 2999, 15" x 27" crank shaft pedestal, Category L ( Hoisting Engine "Superior"), 03/06/93

Map-folder 47 3001, Bed plate, Category L ( Hoisting Engine "Superior"), 05/02/93

Map-folder 47 3008, Crosshead guides for compressors "E & H", Category L ( Hoisting Engine "Superior"), 06/28/95

Map-folder 47 3011, Crosshead guides for compressors "F & G", Category L ( Hoisting Engine "Superior"), 06/14/95

Map-folder 47 3012, Steel forgings for cranks, connecting rod, drag link, etc., Category L ( Hoisting Engine "Superior"), 02/23/93

Map-folder 47 3030, Bucket rim segments, Category I (Calumet & Helca Mine General), 03/22/93

Map-folder 47 3031, Steel forgings & castings for crosshead, Category L ( Hoisting Engine "Superior"), 03/19/93

Map-folder 47 3033, Plan & elevation, Category L ( Hoisting Engine "Superior"), 07/06/94

Map-folder 47 3033 A, Location of new "Superior" compressor house, Category L ( Hoisting Engine "Superior"), 04/21/93

Map-folder 47 3034, Indicator gear, Category I (Calumet & Helca Mine General), 04/22/93

Map-folder 47 3035, Beam & crank shaft pedestals, Category I (Calumet & Helca Mine General), 03/25/93

Map-folder 47 3041, Oiling devices, etc., Category I (Calumet & Helca Mine General), 05/19/93

Map-folder 47 3043, Steel forgings, Category I (Calumet & Helca Mine General), 04/13/93

Map-folder 47 3044, Compressor house doors & windows, Category L ( Hoisting Engine "Superior"), 07/09/94

Map-folder 47 3049, Crank pit drip pans, Category L ( Hoisting Engine "Superior"), 05/16/93

Map-folder 47 3051, Monitor, Category L ( Hoisting Engine "Superior"), 05/09/93

Map-folder 47 3052, Sections, Category L ( Hoisting Engine "Superior"), 05/24/93

Map-folder 47 3053, Elevations & plan, Category L ( Hoisting Engine "Superior"), 05/22/93

Map-folder 47 3053 a, Location of new "Superior" boiler house, Category L ( Hoisting Engine "Superior"), 04/21/93

Map-folder 47 3055, Monitor details, Category L ( Hoisting Engine "Superior"), 05/10/93

Map-folder 47 3057, Roof truss for passage between old & new boiler houses, Category L ( Hoisting Engine "Superior"), 05/10/93

Map-folder 47 3058, Connecting rod & drag link boxes, Category L ( Hoisting Engine "Superior"), 05/24/93

Map-folder 47 3060, Compressor house roof truss, Category L ( Hoisting Engine "Superior"), 06/24/93

Map-folder 47 3062, Rope wheels, Category I (Calumet & Helca Mine General), 05/19/93

Map-folder 47 3063, Compressor house roof truss details, Category I (Calumet & Helca Mine General), 06/22/92

Map-folder 47 3064, 68 1/4" rope wheel, Category I (Calumet & Helca Mine General), 06/07/93

Map-folder 47 3066, Door, roof truss plates etc., Category I (Calumet & Helca Mine General), 05/24/93

Map-folder 47 3068, 10" x 24" pedestal, Category I (Calumet & Helca Mine General), 06/10/93

Map-folder 47 3069 A, Chimney, Category K (Torch Lake), 07/18/93

Map-folder 47 3070, Roof trusses for passage between engine and compressor houses, Category I (Calumet & Helca Mine General), 06/28/93

Map-folder 47 3074, New chimney, Category L ( Hoisting Engine "Superior"), 05/26/93

Map-folder 47 3075, Flue details, Category L ( Hoisting Engine "Superior"), 06/26/93

Map-folder 47 3076, Compressor house roof framing, Category L ( Hoisting Engine "Superior"), 04/23/94

Map-folder 47 3080, Shafting, etc., Category I (Calumet & Helca Mine General), 06/30/93

Map-folder 47 3082, Arrangement of walls & flues, Category K (Torch Lake), 06/05/93

Map-folder 47 3083 A, Steam & hydraulic piping, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/22/93

Map-folder 47 3084, Head sheave pedestals, Category I (Calumet & Helca Mine General), 06/26/93

Map-folder 47 3085, Oiling steps, etc., Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/09/93

Map-folder 47 3087, Foundations, Category I (Calumet & Helca Mine General), 07/08/93

Map-folder 47 3087 A, Foundation capstones, Category I (Calumet & Helca Mine General), 07/03/93

Map-folder 47 3087 B, Pocket plates, sole plates & bolts, Category I (Calumet & Helca Mine General), 07/14/93

Map-folder 47 3090, Miscellaneous details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/09/93

Map-folder 47 3093, General arrangement of machinery, Category I (Calumet & Helca Mine General), 07/21/93

Map-folder 47 3095, Accumulator regulating gear, gallery details, etc., Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/04/93

Map-folder 47 3096, Separator & regulators for new steam pipe line, Category Q ( Hoisting Engine "Frontenac"), 07/21/93

Map-folder 48 3101, New drum indicator, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 07/28/93

Map-folder 48 3110, Drain piping etc., Category Z (Hoisting Engines "Hancock" & "Pewabic"), 09/09/93

Map-folder 48 3112, Miscellaneous details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/09/93

Map-folder 48 3119, General plan of boiler house piping, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/11/93

Map-folder 48 3121, General elevations of boiler house piping, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/12/93

Map-folder 48 3152, Miscellaneous details, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 12/28/93

Map-folder 48 3159, Steam pipe lines to electric plant and Nos 9 & 10 So. Hecla engine house, Category G (Hecla Mine General), 01/01/94

Map-folder 48 3162, 5 ton skip, Category I (Calumet & Helca Mine General), 01/01/94

Map-folder 48 3163, New drum indicator gear details, Category E (Calumet Mine General), 12/14/93

Map-folder 48 3164, New clutch strap ends, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 01/23/93

Map-folder 48 3165, Plan of boilers and piping, Category L (Hoisting Engine "Superior"), 08/16/94

Map-folder 48 3166, Hydraulic and drain piping, etc., Category XY, 04/21/97

Map-folder 48 3169, New H.P. cylinder, Category Q ( Hoisting Engine "Frontenac"), 01/01/93

Map-folder 48 3171, Cylinder heads, valves and seats for new H.P. cylinder, Category Q (Hoisting Engine "Frontenac"), 01/04/93

Map-folder 48 3183 A, Head sheave pedestals and shafts for sinking engines, Category I (Calumet & Helca Mine General), 07/23/96

Map-folder 48 3184, New hydraulic valve etc. for reversing engine, Category X (Hoisting Engines "Minong" & "Siscowitt"), 06/05/94

Map-folder 48 3185, Arm castings, Category I (Calumet & Helca Mine General), 01/30/94

Map-folder 48 3193, Elevation of hoisting engine "Hancock", Category Z (Hoisting Engines "Hancock" & "Pewabic"), 11/09/94

Map-folder 49 3206, Combined indicator diagrams, Category W Pumping Engines "Michigan" & "Winnipeg"), 05/16/93

Map-folder 49 3207, Overhead shafts and rope wheels, Category K (Torch Lake), 04/25/84

Map-folder 49 3207 a, Overhead shafts for sand wheels, Category K (Torch Lake), 03/07/94

Map-folder 49 3214, Combined indicator diagrams, Category W (Pumping Engines "Michigan" & "Winnipeg"), 05/31/94

Map-folder 49 3215, New top for crosshead, Category Q (Hoisting Engine "Frontenac"), 03/20/94

Map-folder 49 3225, Alterations to north wall at entrance to, Category L (Hoisting Engine "Superior"), 07/10/94

Map-folder 49 3226, Connecting rod, Category O (Engine "Wabeek"), 04/05/94

Map-folder 49 3227, Bedplate, Category O (Engine "Wabeek"), 06/11/94

Map-folder 49 3228, High pressure cylinder, Category O (Engine "Wabeek"), 05/09/94

Map-folder 49 3229, Intermediate cylinder, Category O (Engine "Wabeek"), 05/16/94

Map-folder 49 3230, Links, Category O (Engine "Wabeek"), 05/29/94

Map-folder 49 3231, 14" x 28" crank shaft pedestal, Category O (Engine "Wabeek"), 05/01/94

Map-folder 49 3232, 12 1/2" x 27" beam pedestal, Category O (Engine "Wabeek"), 04/28/94

Map-folder 49 3233, Piston rods and crossheads, Category O (Engine "Wabeek"), 05/09/94

Map-folder 49 3233 A, Forgings for piston rods and crossheads, Category O (Engine "Wabeek"), 05/04/94

Map-folder 49 3234, Motion diagrams, Category O (Engine "Wabeek"), 10/02/94

Map-folder 49 3235, Upper cylinder heads, Category O (Engine "Wabeek"), 04/26/94

Map-folder 49 3236, Pistons, Category O (Engine "Wabeek"), 04/26/94

Map-folder 49 3237, Low pressure cylinder, Category O (Engine "Wabeek"), 04/16/94

Map-folder 49 3238, L.P. valves and seats, Category O (Engine "Wabeek"), 05/11/94

Map-folder 49 3239 A, L.P. lower cylinder head, Category O (Engine "Wabeek"), 04/31/94

Map-folder 49 3240, H.P. & Int. valves and seats, Category O (Engine "Wabeek"), 04/28/94

Map-folder 49 3241, Crank shaft & beam pins, Category O (Engine "Wabeek"), 04/30/94

Map-folder 49 3241 A, Forgings for crank shaft & beam pins, Category O (Engine "Wabeek"), 04/10/94

Map-folder 49 3242, Beam, Category O (Engine "Wabeek"), 04/16/94

Map-folder 49 3243, Cam throws and treads, Category O (Engine "Wabeek"), 04/16/94

Map-folder 49 3244, Reheaters, Category O (Engine "Wabeek"), 06/06/94

Map-folder 49 3245, Low pressure columns, Category O (Engine "Wabeek"), 05/25/94

Map-folder 49 3246, L.P. nozzles and side pipes, Category O (Engine "Wabeek"), 05/25/94

Map-folder 49 3247, H.P. & Int. lower cylinder heads, Category O (Engine "Wabeek"), 05/26/94

Map-folder 49 3248, Valve chest front bonnets and cam rocker stands, Category O (Engine "Wabeek"), 06/09/94

Map-folder 49 3249, H.P. & I. columns, Category O (Engine "Wabeek"), 06/05/94

Map-folder 50 3250, H.P. & I. nozzles bonnets, side pipes, etc., Category O (Engine "Wabeek"), 06/14/94



Map-folder 50 3251, General arrangement of H.P. & L.P. valve gear, Category O (Engine "Wabeek"), 08/21/94

Map-folder 50 3253, Valve gear details (1), Category O (Engine "Wabeek"), 06/23/94

Map-folder 50 3253 A, Steel forgings for valve gear, Category O (Engine "Wabeek"), 06/12/94

Map-folder 50 3254, Valve gear details (2), Category O (Engine "Wabeek"), 07/05/94

Map-folder 50 3255, Cam shaft pedestals and bearing for vertical shaft, Category O (Engine "Wabeek"), 06/15/94

Map-folder 50 3256, Inlet & cut off cams, etc., Category O (Engine "Wabeek"), 06/14/94

Map-folder 50 3257, Valve driving gears, Category O (Engine "Wabeek"), 06/23/94

Map-folder 50 3259, Valve gear shafts, Category O (Engine "Wabeek"), 06/29/94

Map-folder 50 3259 A, Forgings for valve gear shafts, Category O (Engine "Wabeek"), 06/20/94

Map-folder 50 3260, Starting gear & governor details, Category O (Engine "Wabeek"), 07/16/94

Map-folder 50 3261, Bedplate brackets entablature columns, etc., Category O (Engine "Wabeek"), 06/29/94

Map-folder 50 3261 A, Forgings for entablature columns, Category O (Engine "Wabeek"), 06/21/94

Map-folder 50 3263, Steam pipe for engine "Frontenac" from "G.H.&S." boilers, Category Q ( Hoisting Engine "Frontenac"), 06/30/94

Map-folder 50 3264, General plan of overhead shafting, Category K (Torch Lake), 11/17/94

Map-folder 50 3264 A, Foundations for trestle, Category K (Torch Lake), 10/30/94

Map-folder 50 3265, Elevation of boilers and piping, Category L ( Hoisting Engine "Superior"), 08/16/94

Map-folder 50 3266, Compressor house sections, Category L ( Hoisting Engine "Superior"), 07/11/94

Map-folder 50 3267, Elevations of overhead shafting etc., Category K (Torch Lake), 11/23/94

Map-folder 50 3269, Entablature, Category O (Engine "Wabeek"), 07/28/94

Map-folder 50 3270, Compressor house elevations & plan, Category L (Hoisting Engine "Superior"), 07/14/94

Map-folder 50 3272, Exhaust cam details (1), Category O (Engine "Wabeek"), 09/12/94

Map-folder 50 3273, Main gallery, Category O (Engine "Wabeek"), 09/07/94

Map-folder 50 3274, General arrangement of boilers and piping, Category L (Hoisting Engine "Superior"), 08/16/94

Map-folder 50 3275, Steam pipe details, Category L (Hoisting Engine "Superior"), 07/28/94

Map-folder 50 3276, Steam pipe and separator, Category I (Calumet & Helca Mine General), 07/17/94

Map-folder 50 3277, General arrangement of lagging (1), Category O (Engine "Wabeek"), 11/06/94

Map-folder 50 3278, Indicator gear, Category O (Engine "Wabeek"), 08/21/94

Map-folder 50 3279, L.P. exhaust cams, Category O (Engine "Wabeek"), 09/26/94

Map-folder 50 3280, Upper oiling galleries, stairs, etc., Category O (Engine "Wabeek"), 09/22/94

Map-folder 50 3281, Alterations to air pump, Category O (Engine "Wabeek"), 09/04/94

Map-folder 50 3283, Trestle for overhead shafting (1), Category K (Torch Lake), 09/19/94

Map-folder 50 3284, General arrangement of Int. valve gear, Category O (Engine "Wabeek"), 09/05/94

Map-folder 50 3285, H.P. exhaust cams, Category O (Engine "Wabeek"), 09/26/94

Map-folder 50 3286, Trestle for overhead shafting (2), Category K (Torch Lake), 11/19/94

Map-folder 50 3287, Spare parts for clutch and brake, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 08/09/94

Map-folder 50 3288, Air chambers, Category I (Calumet & Helca Mine General), 08/24/94

Map-folder 50 3289, Lower gallery, Category O (Engine "Wabeek"), 10/15/94

Map-folder 50 3290, Foundation plan, Category I (Calumet & Helca Mine General), 08/15/94

Map-folder 50 3291, Exhaust cam details (2), Category O (Engine "Wabeek"), 09/12/94

Map-folder 50 3295, Injection gear, Category O (Engine "Wabeek"), 09/19/94

Map-folder 50 3296, Carrier for rope from #4 drum, Category L ( Hoisting Engine "Superior"), 09/07/94

Map-folder 50 3297, Intermediate exhaust cams, Category O (Engine "Wabeek"), 09/26/97

Map-folder 50 3298 A, Alterations to engine house, Category K (Torch Lake), 11/27/94

Map-folder 50 3299, Lagging details (1), Category O (Engine "Wabeek"), 10/30/94

Map-folder 51 3300, Gen'l arr'mnt of governor, Category O (Engine "Wabeek"), 09/14/94

Map-folder 51 3301, Lagging details (2), Category O (Engine "Wabeek"), 10/22/94

Map-folder 51 3303, Jacket piping (1), Category O (Engine "Wabeek"), 01/08/95

Map-folder 51 3305, Alteration to intermediate reheater, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/30/94

Map-folder 51 3308, Gen'l arr'mnt of cylinders and reheaters, Category O (Engine "Wabeek"), 10/08/94

Map-folder 51 3310, Lagging details (3), Category O (Engine "Wabeek"), 11/06/94

Map-folder 51 3311, Gallery for overhead shafting, Category K (Torch Lake), 10/30/94

Map-folder 51 3325, Gear guards, Category O (Engine "Wabeek"), 10/17/94

Map-folder 51 3326, Oiling devices (1), Category O (Engine "Wabeek"), 11/27/94

Map-folder 51 3327, Drip pan, Category O (Engine "Wabeek"), 10/17/94

Map-folder 51 3331, Elevation flywheel side, Category O (Engine "Wabeek"), 12/18/94

Map-folder 51 3332, Elevation starting gear side, Category O (Engine "Wabeek"), 12/26/94

Map-folder 51 3334, Jacket piping, Category O (Engine "Wabeek"), 12/08/94

Map-folder 51 3335, General arrangement of lagging (2), Category O (Engine "Wabeek"), 11/06/94

Map-folder 51 3336, Throttle valve & gear, Category O (Engine "Wabeek"), 11/22/94

Map-folder 52 3347, Oiling devices (2), Category O (Engine "Wabeek"), 12/17/84

Map-folder 52 3348, Gauge plates & misc. details, Category O (Engine "Wabeek"), 12/11/94

Map-folder 52 3351, Steel roof frame, Category K (Torch Lake), 12/03/94

Map-folder 52 3356, Boiler house extension elevations, Category K (Torch Lake), 12/28/94

Map-folder 52 3363, Name plate, Category O (Engine "Wabeek"), 12/18/94

Map-folder 52 3364, Hand rail stanchions, etc. for electric lighting, Category O (Engine "Wabeek"), 12/07/94

Map-folder 52 3365 B, Lake Erie engine bedplate, K, 01/03/95

Map-folder 52 3369 A, Forgings for piston rod, CC, 12/18/94

Map-folder 52 3369 B, New piston, piston rod, etc., CC, 01/18/95

Map-folder 52 3370, Piping & general arrangement, K, 01/22/95

Map-folder 52 3370 A, Foundation for "Lake Erie" engines, etc., K, 01/01/95

Map-folder 52 3372 A, L.P. cylinder, Category BB (Compressor Engine "Mackinac"), 02/13/95

Map-folder 52 3373, Steam pipe, K, 02/20/95

Map-folder 52 3374, L.P. valves and seats, Category BB (Compressor Engine "Mackinac"), 01/28/95

Map-folder 52 3377 A, Intermediate cylinder, Category BB (Compressor Engine "Mackinac"), 02/18/95

Map-folder 52 3378, Int. valves and seats, Category BB (Compressor Engine "Mackinac"), 01/23/95

Map-folder 52 3379, Drip pan, alteration to floor etc., CC, 01/17/95

Map-folder 52 3382, H.P. cylinder, Category BB (Compressor Engine "Mackinac"), 02/13/95

Map-folder 52 3383, H.P. valves and seats, Category BB (Compressor Engine "Mackinac"), 01/16/95

Map-folder 52 3384, Intermediate connecting rod, Category BB (Compressor Engine "Mackinac"), 03/04/95

Map-folder 52 3385, H.P. connecting rod, Category BB (Compressor Engine "Mackinac"), 03/04/95

Map-folder 52 3388, 4" angle valve for 185 lbs steam pressure, Category I (Calumet & Helca Mine General), 01/15/95

Map-folder 52 3389, H.P. beam pedestals, Category BB (Compressor Engine "Mackinac"), 03/14/95

Map-folder 52 3391, 7" stop valve for 185 lbs steam pressure, Category I (Calumet & Helca Mine General), 02/26/95

Map-folder 52 3403, New L.P. cylinder, L, 01/16/95

Map-folder 52 3409, Pistons, Category BB (Compressor Engine "Mackinac"), 02/05/95

Map-folder 52 3411, Crank shafts, Category BB (Compressor Engine "Mackinac"), 05/16/95

Map-folder 52 3411 A, Steel forgings for crank shaft, Category BB (Compressor Engine "Mackinac"), 05/07/95

Map-folder 52 3413, 16 1/2" x 28" shaft & beam pedestals, Category BB (Compressor Engine "Mackinac"), 06/03/95

Map-folder 52 3414, Clean up hole and plug, Category I (Calumet & Helca Mine General), 05/24/95

Map-folder 52 3415, 19" x 38" crank shaft pedestal, Category BB (Compressor Engine "Mackinac"), 05/24/95

Map-folder 52 3416, 19" x 28" crank shaft pedestal, Category BB (Compressor Engine "Mackinac"), 06/03/95

Map-folder 52 3418 A, Lower gallery (2), Category O (Engine "Wabeek"), 07/30/95

Map-folder 52 3419, Upper cylinder heads, Category BB (Compressor Engine "Mackinac"), 03/12/95

Map-folder 52	3421, 5" stop valve for 185 lbs. pressure, Category I (Calumet & Helca Mine General), 02/20/95
Map-folder 52	3422, Beam pins, Category BB (Compressor Engine "Mackinac"), 05/20/95
Map-folder 52	3423, H.P. beam, Category BB (Compressor Engine "Mackinac"), 05/16/95
Map-folder 52	3424, Intermediate beam, Category BB (Compressor Engine "Mackinac"), 05/16/95
Map-folder 52	3426, Flue details, Category I (Calumet & Helca Mine General), 05/24/95
Map-folder 52	3427, List of drawings and weights, engine "Wabeek", Category O (Engine "Wabeek"), 09/07/95
Map-folder 52	3428, Scum blow off, Category I (Calumet & Helca Mine General), 06/12/95
Map-folder 52	3436, Crossheads and piston rods, Category BB (Compressor Engine "Mackinac"), 05/14/95
Map-folder 53	3456, Intermediate links, Category BB (Compressor Engine "Mackinac"), 05/20/95
Map-folder 53	3460, H.P. and L.P. links, Category BB (Compressor Engine "Mackinac"), 05/16/95
Map-folder 53	3464, L.P. exhaust nozzles & side pipes, Category BB (Compressor Engine "Mackinac"), 05/27/95
Map-folder 53	3465, L.P. inlet nozzles & side pipes, Category BB (Compressor Engine "Mackinac"), 05/27/95
Map-folder 53	3467, Int. nozzles & side pipes, Category BB (Compressor Engine "Mackinac"), 05/27/95
Map-folder 53	3468, H.P. nozzles & side pipes, Category BB (Compressor Engine "Mackinac"), 05/31/95
Map-folder 53	3470, Lower cylinder heads, Category BB (Compressor Engine "Mackinac"), 05/27/95
Map-folder 53	3471 A, Motion diagram, Category BB (Compressor Engine "Mackinac"), 01/09/96

Map-folder 53 3473, Accumulator guides, Category I (Calumet & Helca Mine General), 05/21/95

Map-folder 53 3474, Gear wheels, Category I (Calumet & Helca Mine General), 05/29/95

Map-folder 53 3477, Plan for operating devices, Category XY, 03/25/97

Map-folder 53 3478, Elevation of operating devices, Category XY, 03/20/97

Map-folder 53 3479, Alterations to engine house floor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/24/97

Map-folder 53 3480, Foundations: plan & sections, Category L ( Hoisting Engine "Superior"), 06/24/95

Map-folder 53 3480 A, Horizontal section of foundation through pockets, Category L ( Hoisting Engine "Superior"), 06/21/95

Map-folder 53 3480 B, Plan of pocket plates, Category L ( Hoisting Engine "Superior"), 06/20/95

Map-folder 53 3480 C, Foundation capstones (1), Category L ( Hoisting Engine "Superior"), 06/25/95

Map-folder 53 3480 D, Foundation capstones, Category L ( Hoisting Engine "Superior"), 06/24/95

Map-folder 53 3481, Bedplate, Category BB (Compressor Engine "Mackinac"), 07/26/95

Map-folder 53 3483, Foundations. sections & elevations, Category L ( Hoisting Engine "Superior"), 07/17/95

Map-folder 53 3484 C, Valve gear details, Category BB (Compressor Engine "Mackinac"), 11/07/95

Map-folder 53 3484 D, Steel castings for valve gear, Category BB (Compressor Engine "Mackinac"), 10/17/95

Map-folder 53 3485, Stand pipe, Category DD (Lake Superior Water Works), 05/28/95

Map-folder 53 3486, Crosshead guide for "D", Category L ( Hoisting Engine "Superior"), 07/18/95

Map-folder 53 3488, Crosshead guide for "C", Category L ( Hoisting Engine "Superior"), 07/17/95

Map-folder 53 3498, Cam rocker stands and valve chest back bonnets, Category BB (Compressor Engine "Mackinac"), 10/22/95

Map-folder 53 3499, High pressure engine frame, Category BB (Compressor Engine "Mackinac"), 10/15/95

Map-folder 54 3501, Inlet and cutoff cams, etc., Category BB (Compressor Engine "Mackinac"), 12/02/95

Map-folder 54 3504, Barring arrangements for 23 x 40/20 Westinghouse engines, Category I (Calumet & Helca Mine General), 12/02/95

Map-folder 54 3506, Upper section of head frame, Category I (Calumet & Helca Mine General), 03/31/96

Map-folder 54 3510, H.P. & Int. exhaust cams, Category BB (Compressor Engine "Mackinac"), 10/21/95

Map-folder 54 3512, Intermediate engine frame, Category BB (Compressor Engine "Mackinac"), 11/11/95

Map-folder 54 3513, Plan of boilers & piping, Category K (Torch Lake), 03/19/96

Map-folder 54 3514, Elevation of boilers & piping, Category K (Torch Lake), 02/18/96

Map-folder 54 3520, H.P. side elevation, Category BB (Compressor Engine "Mackinac"), 10/31/96

Map-folder 54 3521, Plan, Category BB (Compressor Engine "Mackinac"), 09/02/96

Map-folder 54 3523, Valve driving gears, Category BB (Compressor Engine "Mackinac"), 11/15/95

Map-folder 54 3525, Foundation sections & elevation, Category L ( Hoisting Engine "Superior"), 09/09/95

Map-folder 54 3527, Steps for outboard pedestal, Category O (Engine "Wabeek"), 09/26/95

Map-folder 54 3528, Relief plungers, Category DD (Lake Superior Water Works), 09/30/95

Map-folder 54 3533, General arrangement of H.P. & Int. valve gear, Category BB (Compressor Engine "Mackinac"), 03/20/06



Map-folder 54 3540, Intermediate reheater, Category BB (Compressor Engine "Mackinac"), 11/13/95

Map-folder 54 3544, Lower section of head frame, Category I (Calumet & Helca Mine General), 03/24/96

Map-folder 54 3545, General arrangement of L.P. valve gear, Category BB (Compressor Engine "Mackinac"), 03/03/96

Map-folder 54 3547, Valve chest bonnets (1), Category BB (Compressor Engine "Mackinac"), 11/14/95

Map-folder 54 3548, Starting gear index, Category O (Engine "Wabeek"), 11/06/95

Map-folder 55 3551, L.P. cylinder head drain, Category L ( Hoisting Engine "Superior"), 10/04/95

Map-folder 55 3554, L.P. reheaters, Category BB (Compressor Engine "Mackinac"), 11/11/95

Map-folder 55 3555, Head frame and rock houses sectional plan, Category I (Calumet & Helca Mine General), 03/19/96

Map-folder 55 3556, Elevation of head frame and rock house, Category I (Calumet & Helca Mine General), 03/25/96

Map-folder 55 3557, Head frame and rock house sectional elevation (2), Category I (Calumet & Helca Mine General), 03/25/96

Map-folder 55 3559, Valve gear shafts (2), Category B (Boiler House and Gear House), 01/13/96

Map-folder 55 3562, Valve chest bonnets (2) & crossheads, Category BB (Compressor Engine "Mackinac"), 11/18/95

Map-folder 55 3563, Pedestals, etc., Category BB (Compressor Engine "Mackinac"), 04/30/96

Map-folder 55 3566, Driving pinion for 40 ft wheel, Category E (Calumet Mine General), 10/23/95

Map-folder 55 3567, Valve gear details (2), Category BB (Compressor Engine "Mackinac"), 12/26/95

Map-folder 55 3568, H. P. & Int. entablature, Category BB (Compressor Engine "Mackinac"), 12/27/95

Map-folder 55 3572, Valve gear pedestals, etc., Category BB (Compressor Engine "Mackinac"), 12/24/95

Map-folder 55 3573 A, Rock house roof trusses, Category I (Calumet & Helca Mine General), 03/24/96

Map-folder 55 3575, Low pressure entablature, Category BB (Compressor Engine "Mackinac"), 01/01/96

Map-folder 55 3578, Governor, Category BB (Compressor Engine "Mackinac"), 01/15/96

Map-folder 55 3579, Forgings for valve gear shafts, crossheads, etc., Category BB (Compressor Engine "Mackinac"), 12/28/95

Map-folder 55 3580, Middle section of head frame, Category I (Calumet & Helca Mine General), 03/17/96

Map-folder 55 3582, Sectional elevations of head frame and rock houses, Category I (Calumet & Helca Mine General), 03/24/96

Map-folder 55 3583, Governor engine details, Category BB (Compressor Engine "Mackinac"), 01/23/96

Map-folder 55 3584, General arrangement and details of governor, Category BB (Compressor Engine "Mackinac"), 01/23/96

Map-folder 55 3586, Starting gear details, Category BB (Compressor Engine "Mackinac"), 02/15/96

Map-folder 55 3587, General arrangement starting gear, Category BB (Compressor Engine "Mackinac"), 06/12/96

Map-folder 55 3588, Indicator gear, Category BB (Compressor Engine "Mackinac"), 06/20/96

Map-folder 55 3589, Main gallery, Category BB (Compressor Engine "Mackinac"), 06/03/96

Map-folder 55 3590, Gallery details (1), Category BB (Compressor Engine "Mackinac"), 06/11/96

Map-folder 55 3591, Gallery details (2), Category BB (Compressor Engine "Mackinac"), 06/02/96

Map-folder 55 3592, Upper oiling galleries, Category BB (Compressor Engine "Mackinac"), 05/26/96

Map-folder 55 3593, General arrangement of lagging, Category BB (Compressor Engine "Mackinac"), 06/04/96

Map-folder 55 3594, Lagging details (1), Category BB (Compressor Engine "Mackinac"), 04/18/96

Map-folder 55 3595, Lagging details (2), Category BB (Compressor Engine "Mackinac"), 04/18/96

Map-folder 55 3596, Lagging details (3), Category BB (Compressor Engine "Mackinac"), 04/02/96

Map-folder 55 3597, Oiling devices (1), Category BB (Compressor Engine "Mackinac"), 01/27/97

Map-folder 55 3598, Oiling devices (2), Category BB (Compressor Engine "Mackinac"), 01/29/97

Map-folder 55 3599, Miscellaneous details, Category BB (Compressor Engine "Mackinac"), 04/09/96

Map-folder 56 3600, Gear guards, Category BB (Compressor Engine "Mackinac"), 04/27/96

Map-folder 56 3601, Throttle valve & gear, Category BB (Compressor Engine "Mackinac"), 02/04/96

Map-folder 56 3603, Exhaust pipes & reheater columns, Category BB (Compressor Engine "Mackinac"), 02/10/96

Map-folder 56 3604, Gallery details (3), Category BB (Compressor Engine "Mackinac"), 07/15/96

Map-folder 56 3605, Jacket piping, Category BB (Compressor Engine "Mackinac"), 10/06/96

Map-folder 56 3606, Lower oiling gallery, Category BB (Compressor Engine "Mackinac"), 06/06/96

Map-folder 56 3607, West elevation, Category BB (Compressor Engine "Mackinac"), 09/02/96

Map-folder 56 3609 A, End elevation low pressure end, Category BB (Compressor Engine "Mackinac"), 02/10/03

Map-folder 56 3610, Fondation bed plates, Category BB (Compressor Engine "Mackinac"), 02/06/96

Map-folder 56 3611, Gallery details (4), Category BB (Compressor Engine "Mackinac"), 07/09/96

Map-folder 56 3612, Steam piping, Category BB (Compressor Engine "Mackinac"), 02/23/97

Map-folder 56 3614, Compressor house floor, Category L ( Hoisting Engine "Superior"), 08/21/96

Map-folder 56 3615, Compressor house floor details, Category L ( Hoisting Engine "Superior"), 07/23/96

Map-folder 56 3619, Crankshafts and crossheads, Category EE (Hoisting Engines "Marquette" & Chippewa"), 12/26/95

Map-folder 56 3619 a, Steel castings for crossheads, Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/25/96

Map-folder 56 3626, Gear guards, etc., Category L ( Hoisting Engine "Superior"), 04/29/96

Map-folder 56 3627, Water pipes, etc., Category BB (Compressor Engine "Mackinac"), 03/20/97

Map-folder 56 3628, Carrier for rope from No. 4 drum, Category L (Hoisting Engine "Superior"), 03/30/97

Map-folder 56 3630, Main pedestal bedplate, Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/18/96

Map-folder 56 3631, Head frame and rock houses sectional plan (2), Category I (Calumet & Helca Mine General), 04/02/96

Map-folder 56 3632 B, Arrangement of accumulators, hydraulic piping, pumps, etc., Category I (Calumet & Helca Mine General), 04/22/97

Map-folder 56 3633, Drums & steam pipe details, Category K (Torch Lake), 02/12/96

Map-folder 56 3634, Head frame and rock houses details of joints (1), Category I (Calumet & Helca Mine General), 03/24/96

Map-folder 56 3635, Sectional elevations (3), Category I (Calumet & Helca Mine General), 03/20/96

Map-folder 56 3636, Details of joints (2), Category I (Calumet & Helca Mine General), 03/17/96

Map-folder 56 3637, Crosshead bedplate, Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/17/96

Map-folder 56 3638, Gears, Category I (Calumet & Helca Mine General), 01/10/96

Map-folder 56 3640, New steam pipe, Category K (Torch Lake), 02/18/96

Map-folder 56 3641 A, Gen'l arr'mnt of accumulators & pumps, Category I (Calumet & Helca Mine General), 07/17/96

Map-folder 56 3641 B, Gen'l arr'mnt of accumulators, pumps, etc., Category I (Calumet & Helca Mine General), 03/22/97

Map-folder 56 3643, Plan of rockhouse roof (1), Category I (Calumet & Helca Mine General), 03/23/96

Map-folder 56 3645 A, Hydraulic details, Category I (Calumet & Helca Mine General), 03/30/97

Map-folder 56 3647, Floor framing between rock houses, Category I (Calumet & Helca Mine General), 04/06/96

Map-folder 57 3650 A, General arrangement of feed pumps, Category I (Calumet & Helca Mine General), 03/19/97

Map-folder 57 3654, Bedplates, Category I (Calumet & Helca Mine General), 05/07/96

Map-folder 57 3655, Piston rods, crosstails, etc., Category EE (Hoisting Engines "Marquette" & Chippewa"), 03/12/96

Map-folder 57 3656, Sectional plan, Category BB (Compressor Engine "Mackinac"), 06/19/96

Map-folder 57 3657, Heqd frame and rock houses foundations, Category I (Calumet & Helca Mine General), 06/16/96

Map-folder 57 3658, General plan of engine, compressor, and boiler houses, Category L ( Hoisting Engine "Superior"), 07/21/96

Map-folder 57 3665, Valve gear details (1), Category EE (Hoisting Engines "Marquette" & Chippewa"), 05/29/96

Map-folder 57 3671, Plan of roof (2), Category I (Calumet & Helca Mine General), 05/19/96

Map-folder 57 3674, Reheaters and piping, Category EE (Hoisting Engines "Marquette" & Chippewa"), 05/26/96

Map-folder 57 3680, Hydraulic and auxiliary steam pipe, etc. , Category I (Calumet & Helca Mine General), 04/21/97

Map-folder 57 3681, Foundations, Category EE (Hoisting Engines "Marquette" & Chippewa"), 07/18/96

Map-folder 57 3681 C, Horizontal section of foundations, Category EE (Hoisting Engines "Marquette" & Chippewa"), 07/08/96

Map-folder 57 3681 A, Foundation capstones, Category EE (Hoisting Engines "Marquette" & Chippewa"), 06/27/96

Map-folder 57 3681 B, Foundation pocket plates, etc., Category EE (Hoisting Engines "Marquette" & Chippewa"), 07/11/96

Map-folder 57 3682, Valve gear details (2), Category EE (Hoisting Engines "Marquette" & Chippewa"), 09/17/96

Map-folder 57 3683, Engine house roof, Category EE (Hoisting Engines "Marquette" & Chippewa"), 06/18/96

Map-folder 57 3685, Additions to reverse gear, Category X (Hoisting Engines "Minong" & "Siscowitt"), 07/21/96

Map-folder 57 3686, New drum indicator (1), Category X (Hoisting Engines "Minong" & "Siscowitt"), 12/29/96

Map-folder 57 3693, Sectional plan of head frame, Category I (Calumet & Helca Mine General), 05/29/96

Map-folder 57 3695, Electric light fittings, Category I (Calumet & Helca Mine General), 06/10/96

Map-folder 57 3696, Marquette & Chippewa engine house, Category EE (Hoisting Engines "Marquette" & Chippewa"), 06/13/96

Map-folder 57 3699 A, General arrangement of piping, Category EE (Hoisting Engines "Marquette" & Chippewa"), 08/27/98

Map-folder 58 3702, General arrangement of operating gear, Category EE (Hoisting Engines "Marquette" & Chippewa"), 10/28/96

Map-folder 58 3704, Reversing engine, Category EE (Hoisting Engines "Marquette" & Chippewa"), 08/15/96

Map-folder 58 3706, Jacket piping, Category EE (Hoisting Engines "Marquette" & Chippewa"), 09/08/96

Map-folder 58 3707, List of drawings and weights, Category BB (Compressor Engine "Mackinac"), 03/16/98

Map-folder 58 3709, New drum indicator (2), Category XY, 12/30/96

Map-folder 58 3713, Hydraulic details, etc., Category I (Calumet & Helca Mine General), 04/12/97

Map-folder 58 3714, Entablature, girders, etc., Category EE (Hoisting Engines "Marquette" & Chippewa"), 08/07/96

Map-folder 58 3717, Signalling apparatus, Category XY, 01/26/97

Map-folder 58 3722 A, Reversing gear details, Category EE (Hoisting Engines "Marquette" & Chippewa"), 07/07/97

Map-folder 58 3727, Indicator & knockoff gear, Category EE (Hoisting Engines "Marquette" & Chippewa"), 09/18/96

Map-folder 58 3732, Gallery, Category EE (Hoisting Engines "Marquette" & Chippewa"), 09/11/96

Map-folder 58 3734, New drum indicator (3), Category XY, 01/05/97

Map-folder 58 3735, Stamp shafts, Category I (Calumet & Helca Mine General), 07/21/96

Map-folder 58 3745, Miscellaneous details, Category XY, 03/30/97

Map-folder 58 3746, Calumet steam pipeline. north end, Category I (Calumet & Helca Mine General), 08/31/96

Map-folder 58 3748, Clearance of corsshead guide blocks, Category BB (Compressor Engine "Mackinac"), 08/27/96

Map-folder 58 3763, Sectional elevation, Category XY, 04/08/97

Map-folder 58 3777, Lagging, Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/05/97

Map-folder 58 3778, Steam & water pipes, Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/13/97

Map-folder 58 3779, Throttle gear, etc., Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/18/97

Map-folder 58 3781, Drum indicator details (1), Category BB (Compressor Engine "Mackinac"), 01/25/97

Map-folder 58 3782, Operating geat (2), Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/13/97

Map-folder 58 3785, Drum indicator details (2), Category BB (Compressor Engine "Mackinac"), 01/21/97

Map-folder 58 3787, Engine house floor (1), Category EE (Hoisting Engines "Marquette" & Chippewa"), 03/02/97

Map-folder 58 3788, Engine house floor (2), Category EE (Hoisting Engines "Marquette" & Chippewa"), 03/04/97

Map-folder 58 3791, Engine house Floor (3), Category EE (Hoisting Engines "Marquette" & Chippewa"), 02/18/91

Map-folder 58 3792, Oiling gallery, Category EE (Hoisting Engines "Marquette" & Chippewa"), 01/01/97

Map-folder 58 3794, Oiling gallery, Category XY, 10/21/97

Map-folder 59 3801, Alterations to steam drums and pipe, Category I (Calumet & Helca Mine General), 04/13/97

Map-folder 59 3802, Air piping, Category L (Hoisting Engine "Superior"), 01/06/96

Map-folder 59 3803 A, Signalling apparatus, Category BB (Compressor Engine "Mackinac"), 03/31/97

Map-folder 59 3804, Drip pans and splasher, Category EE (Hoisting Engines "Marquette" & Chippewa"), 02/15/97

Map-folder 59 3805, Baseplates for pumps, Category I (Calumet & Helca Mine General), 01/28/97

Map-folder 59 3808 A, Steam pipe bridge, Category BB (Compressor Engine "Mackinac"), 03/16/97

Map-folder 59 3809, Arrangement of accumulators, hydraulic piping, pumps, etc. (2), Category I (Calumet & Helca Mine General), 04/14/97

Map-folder 59 3810, Supports for fleet chain and tail house sheaves, Category I (Calumet & Helca Mine General), 03/25/97



Map-folder 59 3811, Alterations to throttle, Category XY, 01/26/97

Map-folder 59 3813, Supplementary air vessel, Category W (Pumping Engines "Michigan" & "Winnipeg"), 02/09/97

Map-folder 59 3814 A, 21 1/2in new bronze piston, Category I (Calumet & Helca Mine General), 06/12/99

Map-folder 59 3828, Plan of new hoisting gear (1) , Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/21/98

Map-folder 59 3829, Plan of new hoisting gear (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 02/21/98

Map-folder 59 3832, Drum shaft pedestal, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/05/97

Map-folder 59 3833, Drum shaft, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/20/97

Map-folder 59 3833 B, New hoisting gear forgings for drum shaft, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/07/97

Map-folder 59 3834, Alterations to pump room, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 04/28/97

Map-folder 59 3838, 3" globe valve for 400lbs pressure, Category I (Calumet & Helca Mine General), 03/09/97

Map-folder 59 3840, Oiling devices, Category DD (Lake Superior Water Works), 03/13/97

Map-folder 59 3841, New drum indicator, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/03/97

Map-folder 59 3845, New drum indicator details (1), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 05/05/97

Map-folder 59 3846, New drum indicator details (2), Category Z (Hoisting Engines "Hancock" & "Pewabic"), 04/30/97

Map-folder 59 3849, Safety device for brakes, Category XY, 05/03/97

Map-folder 60 3850, Pinion, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/19/97

Map-folder 60 3851, Boiler house platforms, Category I (Calumet & Helca Mine General), 04/20/97

Map-folder 60 3852, Elevation of west drums, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/16/98

Map-folder 60 3854, General arrangement of drum, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/20/97

Map-folder 60 3855, 25 ft spur wheel, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/20/97

Map-folder 60 3855 A, 25 ft spur wheel for west drums, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/21/97

Map-folder 60 3856, Hub, etc. for 25 ft drum, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 05/19/97

Map-folder 60 3857, Floor around 25ft rope wheel, Category L (Hoisting Engine "Superior"), 04/28/97

Map-folder 60 3858, Details of drum rim, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 07/06/97

Map-folder 60 3859, Barring arrangement, Category O (Engine "Wabeek"), 04/29/96

Map-folder 60 3860, Boiler house piping general elevations, Category I (Calumet & Helca Mine General), 04/23/97

Map-folder 60 3861, Boiler house piping general plan, Category I (Calumet & Helca Mine General), 05/05/97

Map-folder 60 3862, Clutch strap details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/06/97

Map-folder 60 3863, Clutch strap ends, heel pin support, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 09/09/97

Map-folder 60 3864, General arrangement of drum indicators, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 12/15/97

Map-folder 60 3865, Drum indicator details (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/27/97

Map-folder 60 3867, Boiler house platforms, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 11/17/97

Map-folder 60 3870, Drum indicator details (2), Category XY, 10/30/97

Map-folder 60 3873, Steam pipe and separator lagging, Category XY, 11/11/97

Map-folder 60 3876, New drum indicator details, Category AA (Sinking Engines "Delaware" & "Iroquois"), 05/13/97

Map-folder 60 3877, Plan (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/09/98

Map-folder 60 3878, Plan (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 03/09/98

Map-folder 60 3881, New high pressure cylinder, Category R (Engine "Erie"), 06/16/97

Map-folder 60 3882, Mitre gears, pedestals, etc., Category K (Torch Lake), 06/03/97

Map-folder 60 3883, Drum indicator details (3), Category XY, 10/28/97

Map-folder 60 3884, Deetails of lagging for steam pipe & separator, Category XY, 11/11/97

Map-folder 60 3887, New automatic gear for accumulator pumps, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/21/97

Map-folder 60 3888, New accumulator gear, Category Z (Hoisting Engines "Hancock" & "Pewabic"), 10/20/97

Map-folder 60 3891, Foot plates for pedestal caps, Category BB (Compressor Engine "Mackinac"), 09/06/97

Map-folder 60 3892, General arrangment of bedplates, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/07/97

Map-folder 60 3892 A, General arrangement of bedplates, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/14/97

Map-folder 60 3893, Bedplates, girders, etc. (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/07/97

Map-folder 60 3894, Bedplates (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/07/97

Map-folder 60 3894 A, Plan of east end bedplates, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/14/97

Map-folder 60 3894 B, Inverted plan of east bedplates, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/15/97

Map-folder 60 3894 C, Sections of bedplates, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/13/97

Map-folder 60 3897, Hydraulic clutch cylinders, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 08/30/97

Map-folder 60 3898, Brake strap, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/28/97

Map-folder 60 3899, Brake stands, levers, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca"), 10/20/97

Map-folder 61 3900, Brake splasher, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3901 A, General arrangement of governors, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3902, Splasher plates for 25 ft gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3905, Clutch splasher, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3912, Splasher details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3913, Operating gear details (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3918, Alterations to gallery, Category BB (Compressor Engine "Mackinac")

Map-folder 61 3920 A, General arrangement cylinders, pistons, etc., Category I (Calumet & Helca Mine General)

Map-folder 61 3921 A, Cylinder head, pistons, piston rods, etc., Category I (Calumet & Helca Mine General)

Map-folder 61 3922, Girders, etc. for operating gallery, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3923 A, Hydraulic brake cylinders, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3925, Steel forgings (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3926, Steel forgings (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3927, Steel castings for clutch heel pin supports, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3928, Steel castings for brake gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3929, 7ft 3in balance rope sheave, Category I (Calumet & Helca Mine General)

Map-folder 61 3930 A, Operating gallery, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3931, Tie rods for expansion joints, Category BB (Compressor Engine "Mackinac")

Map-folder 61 3932, Operating gallery details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3934, Miscellaneous details, Category BB (Compressor Engine "Mackinac")

Map-folder 61 3935, Hydraulic & oiling devices for drum, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3936, Elevation of operating gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3937, Plan of drain piping, Category BB (Compressor Engine "Mackinac")

Map-folder 61 3938, Sectional elevation of operating gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61 3939, Elevation of drain piping. looking north, Category BB (Compressor Engine "Mackinac")

Map-folder 61 3940, Operating gear details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 61	3941, Plan of operating gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 61	3943, Hydraulic valves, etc. for brake and clutch, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 61	3944, Elevation of drain piping looking west, Category BB (Compressor Engine "Mackinac")
Map-folder 61	3945, General arrangement of starting gear, Category O (Engine "Wabeek")
Map-folder 61	3946 A, Arrangement of operating gear for NW and SE drums, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 61	3946 B, Arrangement of operating gear for NE and SW drums, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 61	3948, Operating gear details (3), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 61	3949, New valve driving gears, Category O (Engine "Wabeek")
Map-folder 62	3951, Brake gear connections, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3952, Bearing for new vertical shaft, Category O (Engine "Wabeek")
Map-folder 62	3953, Gallery details (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3954, Plan of drum indicator and oiling galleries, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3955, Elevations of drum indicator and oiling galleries, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3957, Operating gear details (4), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3958, Operating gear details (5), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3959, New vertical valve gear shaft, etc., Category O (Engine "Wabeek")

Map-folder 62	3961, General arrangement of air pressure regulator, Category Q (Hoisting Engine "Frontenac")
Map-folder 62	3964, Gallery details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3965, General plan of injection and steam pipes, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3967, Air pressure regulator details (1), Category Q (Hoisting Engine "Frontenac")
Map-folder 62	3969 A, Indicator card details, Category I (Calumet & Helca Mine General)
Map-folder 62	3971, Oiling steps for drum shaft pedestal, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3972, Side elevation of injection and steam pipe, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3973, End elevation of injection and steam pipes, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3974, Plan of hydraulic piping and details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3975, Elevations of hydraulic piping, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3976, Lower brake & clutch splashers, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3984, Oiling gallery, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 62	3995 A, Pulpit for engineman, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 63	4004, Boiler furnaces, Category I9
Map-folder 63	4017, Alterations to engine gallery, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 63	4016, Name plate, Category BB (Compressor Engine "Mackinac")

Map-folder 63 4018, By pass for boiler stop valves, Category I (Calumet & Helca Mine General)

Map-folder 63 4021, Arrangement of new driving gears and pulley for, Category E (Calumet Mine General)

Map-folder 63 4022, Smoke box & covering, Category I (Calumet & Helca Mine General)

Map-folder 63 4025, Arrangement for new driving gear for 40' wheel, Category E (Calumet Mine General)

Map-folder 63 4027, Mortise pinion, Category E (Calumet Mine General)

Map-folder 63 4033, Steel forgings, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4034 A, Engine house elevations and plan, FF Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4035, Engine house section, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4036 A, Marquette & Chippewa engine house alterations, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 63 4037, Bedplate, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4038 A, Plan of hoisting gear, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 63 4039, Elevation of Hoisting gear, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 63 4040, Engine bedplate, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4041, Crank shafts and crossheads, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4041 A, Steel casting for crosshead, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4042, Engine house crane girders, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")



Map-folder 63 4043, 8 inch throttle valve etc., Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 63 4044 A, Brake strap, etc., Category E (Calumet Mine General)

Map-folder 63 4045, Clutch strap details, Category E (Calumet Mine General)

Map-folder 63 4046, Rims for rope wheels, Category XY

Map-folder 63 4047, Connecting rod forging, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4048, Piston rod forgings, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 63 4049 A, Drum shaft, Category E (Calumet Mine General)

Map-folder 63 4049, Forgings for drum shaft, Category E (Calumet Mine General)

Map-folder 64 4050, Steel forgings (2), Category E (Calumet Mine General)

Map-folder 64 4052, Steel castings for clutch heel pin supports, Category E (Calumet Mine General)

Map-folder 64 4053, 16 1/2" x 28" crank shaft pedestals, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 64 4054, Brake stand, bedplates, etc., Category I (Calumet & Helca Mine General)

Map-folder 64 4055, Clutch strap ends, heel pin support, etc., Category I (Calumet & Helca Mine General)

Map-folder 64 4055 A, Clutch strap ends, heel pin support etc., Category I (Calumet & Helca Mine General)

Map-folder 64 4058, 25 ft spur wheel, Category E (Calumet Mine General)

Map-folder 64 4060, Connecting rod, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4061, Crank pin oiling devices, Category L (Hoisting Engine "Superior")

Map-folder 64 4062 A, Foundation alterations, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4062 B, Foundation alterations pocket & cap plates, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4062 C, Foundation alterations horizontal section, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4063, Hydraulic clutch cylinders, etc., Category I (Calumet & Helca Mine General)

Map-folder 64 4064, Splasher plates for 25 ft gear, Category E (Calumet Mine General)

Map-folder 64 4065, Hub, etc., for 25 ft drum, Category E (Calumet Mine General)

Map-folder 64 4066, Details of drum rim, Category E (Calumet Mine General)

Map-folder 64 4067, Steel forgings (1), Category I (Calumet & Helca Mine General)

Map-folder 64 4068 A, General plan of foundations, Category FF (Hoisting Engines "Minnesota" & "Esanaba" and "Illinois" & "Wisconsin")

Map-folder 64 4068 B, Sectional plan of foundations, Category FF (Hoisting Engines "Minnesota" & "Esanaba" and "Illinois" & "Wisconsin")

Map-folder 64 4069, Brake splasher, Category E (Calumet Mine General)

Map-folder 64 4070, Brake levers, etc., Category I (Calumet & Helca Mine General)

Map-folder 64 4071, Accumulator details, Category E (Calumet Mine General)

Map-folder 64 4072, Elevations of foundations for "I&W", Category FF (Hoisting Engines "Minnesota" & "Esanaba" and "Illinois" & "Wisconsin")

Map-folder 64 4072 A, Elevations of foundations for "M&E", Category FF (Hoisting Engines "Minnesota" & "Esanaba" and "Illinois" & "Wisconsin")

Map-folder 64 4073, Transverse sections of foundations, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4075, Brake stand bedplate etc., Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4076, Drum indicator details (3), Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4077, Splasher details, Category E (Calumet Mine General)

Map-folder 64	4079, Clutch splasher, Category EE (Hoisting Engines "Marquette" & Chippewa")
Map-folder 64	4080, General arrangement of throttle gear, Category EE (Hoisting Engines "Marquette" & Chippewa")
Map-folder 64	4081, Operating gear details, Category EE (Hoisting Engines "Marquette" & Chippewa")
Map-folder 64	4082, Hand brake details (1), Category E (Calumet Mine General)
Map-folder 64	4082 A, Steel castings for brake gear, Category I (Calumet & Helca Mine General)
Map-folder 64	4083, Hydraulic brake cylinders, Category I (Calumet & Helca Mine General)
Map-folder 64	4084, Hydraulic valves etc. for brake and clutch, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 64	4087, General arrangement of operating gear, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 64	4088, Drum indicator details (2), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 64	4089, Foundation plan for "Illinois & Wisconsin", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 64	4089 A, Foundation capstones for "I&W", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 64	4089 B, Foundation pocket plates for "I&W", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 64	4090, Operating gear details (2), Category EE (Hoisting Engines "Marquette" & Chippewa")
Map-folder 64	4092, General arrangement of hand brake, Category EE (Hoisting Engines "Marquette" & Chippewa")
Map-folder 64	4093, Drum shaft pedestal, Category E (Calumet Mine General)
Map-folder 64	4094, Hand brake details (2), Category I (Calumet & Helca Mine General)

Map-folder 64 4096, Drum indicator details (1), Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 64 4097, Brake stand, bedplates, etc., Category I (Calumet & Helca Mine General)

Map-folder 64 4099, Operating gear details (3), Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4100, Galleries, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4101, Foundation plan for "Minnesota & Escanaba", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4101 A, Foundation capstones for "M&E", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4101 B, Foundation pocket plates for "M&E", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4103, Hydraulic & oiling devices for drum, Category E (Calumet Mine General)

Map-folder 65 4104, Lower brake & clutch splashers, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4104 A, Lower brake & clutch splashers, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4105, Pinion splasher and support for clutch splasher, Category E (Calumet Mine General)

Map-folder 65 4106, Clutch splasher, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4108, Throttle gear details (1), Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4109, Operating gear details (4), Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4113, Reheaters, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4114, General arrangement of hand brake, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4115, Gallery details, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4116, Engine "Frontenac" forging for crank shaft, Category Q (Hoisting Engine "Frontenac")

Map-folder 65 4117, Governor (1), Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4118, Entablature for "M&E", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4118 A, Entablature for "I&W", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4119, General arrangement of piping, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4121, 8 inch throttle valve, etc., Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4122, Governor (2), Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4123, Calumet steam pipe line, north end, Category I (Calumet & Helca Mine General)

Map-folder 65 4124, Steam pipe, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4125, General arrangement of accumulator, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4126, General arrangement of accumulator, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4127, Reversing engine, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 65 4128, Arrangement of bedplates etc., Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 65 4129, Hydraulic details, Category E (Calumet Mine General)

Map-folder 65 4130, General arrangement of knock off gear, Category EE (Hoisting Engines "Marquette" & Chippewa")

- Map-folder 65 4131, Hydraulic piping (1), Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4132 A, General plan of machinery, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 65 4132 B, General plan of machinery (contnd from 4132A), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 65 4133, Arrangement of bedplates, etc., Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 65 4134, Alterations to L.P. valve gear, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4135, Engine house floor (1), Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4136, Hydraulic piping (2), Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4137, Hydraulic piping details (1), Category E (Calumet Mine General)
- Map-folder 65 4138, Oiling steps for drum shaft pedestal, etc., Category E (Calumet Mine General)
- Map-folder 65 4139, Drum guard, crank splasher & floor details, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4140, Engine house floor (2), Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4141, Alterations to H.P. valve gear, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4142, Hydraulic piping details (2), Category E (Calumet Mine General)
- Map-folder 65 4143, Knock off gear details, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 65 4144, Elevation of hoisting gear for "M&E", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 65 4145, Carrier sheave and cradle for brake strap, Category E (Calumet Mine General)

- Map-folder 65 4146, Drum indicator details, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 65 4147, Oiling steps for drum shaft pedestal, etc., Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4150, Steam pipe details, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4152, Valve motion diagram, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 66 4153, General arrangement of operating gear, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4154, Drum indicator details, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4155, Engine house floor details, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 66 4156, Hydraulic piping details (3), Category E (Calumet Mine General)
- Map-folder 66 4157, Operating gear details (1), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4158 A, General plan of floor, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4158 B, General plan of floor (contnd from 4158A), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4159, Hydraulic valves, etc. for brake and clutch, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4160, General arrangement of drum indicators, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4162, Separator and general arrangement of steam piping, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4164, Hydraulic piping (1 of 2), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 66 4165, Reversing gear general arrangement and details, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4166, Hydraulic piping (2 of 2), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4167, Operating gear details (2 of 3), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4168, Gallery for "I&W", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4169, Jacket & drain piping, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4170, Drum indicator galleries, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4171, Gallery for "M&E", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4172, Gallery framing, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4173, Operating gear details (3), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4174, Throttle and reversing gear, etc., Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4176, Miscellaneous, Category EE (Hoisting Engines "Marquette" & Chippewa")

Map-folder 66 4177, Gallery details (3), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4178, Gallery details (1), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4181, 3" Waters governor valve body for air pump engines, Category I (Calumet & Helca Mine General)

Map-folder 66 4182, Gallery details (2), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 66 4183, Indicator gear, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")



Map-folder 66	4184, Injection & outboard delivery pipes, etc., Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4185, Floor plate details (1), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4186, Floor plate details (2), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4187, Engine house floor details, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4188, Floor plate details (3) etc., Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4189, Crank splasher, drip pans & drum card, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4190, Floor plate details (4), Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4191, Hydraulic gage stand, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
Map-folder 66	4192, 80" fire box boiler for Torch Lake stamp mills, Category K (Torch Lake)
Map-folder 66	4193, Steam pipe details, Category K (Torch Lake)
Map-folder 66	4195, Stamp shaft, Category I (Calumet & Helca Mine General)
Map-folder 66	4196, Steam pipe details, Category L (Hoisting Engine "Superior")
Map-folder 66	4197, Compressed air accumulator, Category I (Calumet & Helca Mine General)
Map-folder 67	4205, Compressed air accumulator, Category I (Calumet & Helca Mine General)
Map-folder 67	4205 A, Hydraulic piping and fittings, etc., Category I (Calumet & Helca Mine General)
Map-folder 67	4206, Joints, braces, steam drum, etc., Category I (Calumet & Helca Mine General)
Map-folder 67	4207, Smoke box head, front casing, fire doors, etc., Category I (Calumet & Helca Mine General)

Map-folder 67 4208, Boiler setting, Category F (Calumet Pond Water Works)

Map-folder 67 4209, Foundations, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 67 4209 A, Foundation pocket plates, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 67 4209 B, Sectional plan of foundations, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 67 4209 C, Foundation capstones, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

4211, Steel castings, etc., Category I (Calumet & Helca Mine General)

Map-folder 67 4212, 8" throttle valve, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 67 4217, Air pressure regulator details (2), Category Q (Hoisting Engine "Frontenac")

Map-folder 67 4218, Alterations to LP exhaust bonnets and valves, Category BB (Compressor Engine "Mackinac")

Map-folder 67 4220, Indicator cards for compressor "C", Category L (Hoisting Engine "Superior")

Map-folder 67 4221, Air pressure regulator details (3), Category Q (Hoisting Engine "Frontenac")

Map-folder 67 4222, Engine house floor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 67 4223, Sectional end elevation (Boston Sew Pump Eng), Category GG (Miscellaneous City of Boston Improved Sewerage Pumping Engine)

Map-folder 67 4224, Upper oiling galleries for "Houghton & Seneca", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 67 4226, General arrangement of valve gear, Category FF (Hoisting Engines "Minnesota" & "Esanaba" and "Illinois" & "Wisconsin")

Map-folder 67 4230, Boiler setting, Category DD (Lake Superior Water Works)

Map-folder 67 4235, Floor plate details (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 67 4239, 50 ft sand wheel bucket plates, showing errors in construction, Category I (Calumet & Helca Mine General)

Map-folder 67 4240, Floor on bedplate at the L.P. end, Category L (Hoisting Engine "Superior")

Map-folder 67 4242, Floor plate details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 68 4249, Arrangement of reversing & live steam shafts, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 68 4250, Location of foundation bolts in "M&E", Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 68 4252, Arrangement of bedplate and cylinders, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 68 4253, New link, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 68 4255, New cylinder for No. 1 Hecla stamp, Category G (Hecla Mine General)

Map-folder 68 4256, New connecting rod, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 68 4257, Elevation of HP side of "Houghton", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 68 4258, Steel forgings for new links and connecting rod, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 68 4259 A, New boiler house roof, Category F (Calumet Pond Water Works)

Map-folder 68 4260, New boiler house, Category F (Calumet Pond Water Works)

Map-folder 68 4262, Chimney, Category F (Calumet Pond Water Works)

Map-folder 68 4267, Smoke flue details, etc., Category F (Calumet Pond Water Works)

Map-folder 68 4268 A, Smoke flue, Category F (Calumet Pond Water Works)

Map-folder 68 4269, Floor details (3), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 68	4274, Alteration to lower galleries, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 68	4278, Lagging, Category I (Calumet & Helca Mine General)
Map-folder 68	4280, Mortise pinion, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 68	4284, Lagging details, Category I (Calumet & Helca Mine General)
Map-folder 68	4285, Hand brake details (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 68	4287, Hand brake details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 68	4288 A, Drum, Category I (Calumet & Helca Mine General)
Map-folder 68	4290, Drum pedestal bedplates, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 68	4293, Drum indicator details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 68	4296, Brake stands, levers and links, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 68	4297, Drum indicator details (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 68	4298, Drum gear & pinion, Category I (Calumet & Helca Mine General)
Map-folder 69	4300, Plan of "Houghton", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 69	4303, Steel forgings , Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 69	4304, Outboard delivery pipes, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 69	4305, Hand brake details (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 69 4306, Hydraulic valves etc. for brake & clutch, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 69 4307, Operating gear details (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 69 4308, Operating gear details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 69 4309, Bedplate (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 69 4310, General arrangement of drum operating gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 69 4311 A, General plan of bedplates, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 69 4313, Foundation plan for east drums, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 69 4314, Foundation sections, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 69 4317, Drum shaft pedestal, Category I (Calumet & Helca Mine General)

Map-folder 69 4318, Foundation plan fo west drums, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 69 4319, New steam pipe and supports, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 69 4321, Throttle & pulpit details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 69 4323, Drum shaft, Category I (Calumet & Helca Mine General)

Map-folder 69 4323 A, Forging for drum shaft, Category I (Calumet & Helca Mine General)

Map-folder 69 4327, Injection gear details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 69 4329, Stamp shaft guide and cam shaft pedestal boxes, Category I (Calumet & Helca Mine General)

Map-folder 69	4331, New Arrangement of governors, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 69	4337, New Intermediate & LP cams for "Houghton", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 69	4338, General arrangement of hand brake, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 69	4339, Governor connection details (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 69	4341, Governor connection details (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 69	4344, Alterations to operating gallery, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 69	4345, Miscellaneous details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 70	4351, Steam pipe and lagging details, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 70	4352, Setting for 64" boilers, Category I (Calumet & Helca Mine General)
Map-folder 70	4353, Motion diagram for "Houghton", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 70	4356, New Intermediate & LP cams for "Seneca", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")
Map-folder 70	4357, Operation gallery for #1 drums, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 70	4358, Uptake and flue details for 64 inch boilers, Category I (Calumet & Helca Mine General)
Map-folder 70	4359, Entablature, etc., Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 70	4359 A, Entablature (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 70	4361, General arrangement of 64 inch boiler, Category Q (Hoisting Engine "Frontenac")

Map-folder 70 4365, Uptakes for new 64" boilers, Category Q (Hoisting Engine "Frontenac")

Map-folder 70 4368, New intermediate inlet cam for "Houghton", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4369, Motion diagram for "Seneca", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4371 A, Bedplates (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4373, New L.P. inlet cams for "Houghton", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 70 4374, Uptake & flue details for new 64" boilers, Category Q (Hoisting Engine "Frontenac")

Map-folder 70 4376 A, Flues for new 64" boilers, Category Q (Hoisting Engine "Frontenac")

Map-folder 70 4381, Operating gallery details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4391, 15" x 27" crankshaft pedestal (ozalid, paper), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4392, 10" x 20" beam pedestal, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4397, Drum indicator galleries, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4398, Operating gallery for #2 drums, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 70 4399, 64 inch boiler setting details, Category I (Calumet & Helca Mine General)

Map-folder 71 4400, Setting for 64" boilers, Category Q (Hoisting Engine "Frontenac")

Map-folder 71 4404, oiling steps for drum shaft pedestal, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4405, Smoke flue, Category I (Calumet & Helca Mine General)

Map-folder 71 4406, Setting for 64 inch boilers, Category I (Calumet & Helca Mine General)

Map-folder 71	4407, General arrangement of 64 inch boilers, Category I (Calumet & Helca Mine General)
Map-folder 71	4408, General arrangement, end elevation, Category I (Calumet & Helca Mine General)
Map-folder 71	4409, General arrangement, side elevation, Category I (Calumet & Helca Mine General)
Map-folder 71	4410 A, General arrangement, plan, Category I (Calumet & Helca Mine General)
Map-folder 71	4414, Screens for flywheel, etc., Category O (Engine "Wabeek")
Map-folder 71	4415 A, Engine house elevations and plan, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 71	4416 A, Engine house sections, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 71	4417, Engine house, crane girders, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 71	4418, Crosshead & links, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 71	4419, Connecting & piston rods, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 71	4420, Keeps, Category I (Calumet & Helca Mine General)
Map-folder 71	4421, Engine house roof truss stress sheet, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 71	4423, Arrangement of drum indicators, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 71	4424, Brake details (2), Category I (Calumet & Helca Mine General)
Map-folder 71	4425, Foundation, Category W (Pumping Engines "Michigan" & "Winnipeg")
Map-folder 71	4426, General arrangement , Category JJ (Pump "Arcadian")
Map-folder 71	4427, Brake details (1), Category I (Calumet & Helca Mine General)



Map-folder 71 4428, Brake details (3), Category I (Calumet & Helca Mine General)

Map-folder 71 4429, Hydraulic details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4430 A, Bedplates, Category I (Calumet & Helca Mine General)

Map-folder 71 4431, Brake splasher, Category I (Calumet & Helca Mine General)

Map-folder 71 4433 A, Plan of engine house, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4434, Steel forgings (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4435, Steel forgings (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4436, New driving & hand clutch for "Houghton", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 71 V437, General plan of engine, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4438, Sectional elevation, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4439, Front elevation, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4443, Steel forgings (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 71 4445, Elevations "Arcadian" addition, Category I (Calumet & Helca Mine General)

Map-folder 71 4447, 78" boiler for 150 lbs working pressure, Category I (Calumet & Helca Mine General)

Map-folder 71 4447 a, Reinforcing plate for heads, Category I (Calumet & Helca Mine General)

Map-folder 71 4448, General arrangement, Category II (Amygdaloid Sand Wheel)

Map-folder 71 4449 A, Bucket rim details, Category II (Amygdaloid Sand Wheel)

Map-folder 72 4450, Rim segments, hub, shaft, etc., Category JJ (Pump "Arcadian")

Map-folder 72 4451, Middle hub, Category JJ (Pump "Arcadian")

Map-folder 72 4453, Setting for 78 inch boilers, Category I (Calumet & Helca Mine General)

Map-folder 72 4454, Cylinder, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4455, Cylinder sections, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4456, Cylinder, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4457, Cylinder sections, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4458, Lower LP cylinder head, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4459, Details of gears, Category II (Amygdaloid Sand Wheel)

Map-folder 72 4460, Cranks, crank pins & shafts, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4461, Pistons, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4462, Upper cylinder heads, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4463, Elevations, Category JJ (Pump "Arcadian")

Map-folder 72 4464, Roof framing, Category JJ (Pump "Arcadian")

Map-folder 72 4465, Details, Category JJ (Pump "Arcadian")

Map-folder 72 4466, HP & LP valves & seats, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4467, Pump chambers, Category JJ (Pump "Arcadian")

Map-folder 72 4468, Brake sector, Category I (Calumet & Helca Mine General)

Map-folder 72 4470, Details, Category I (Calumet & Helca Mine General)

Map-folder 72 4471, Boiler fronts, smoke boxes, etc for 78 inch boilers, Category I (Calumet & Helca Mine General)

Map-folder 72 4472, Lower HP cylinder head, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4473, Setting details, Category I (Calumet & Helca Mine General)

Map-folder 72 4474, 5" stop valve for 185 lbs steam pressure, Category I (Calumet & Helca Mine General)

Map-folder 72 4475, Main pedestal, Category II (Amygdaloid Sand Wheel)

Map-folder 72 4476 A, Pedestal columns, Category II (Amygdaloid Sand Wheel)

Map-folder 72 4477, Beam, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4477 A, Steel castings for beams, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4478, Reheater, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4480, H.P. nozzles & side pipes, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4481, L.P. nozzles & side pipes, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4482, Motion diagram, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4483, Valve chest bonnets, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4484, Engine bed plates, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4484 A, Alteration for engine bedplates, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72 4485, Engine bedplates, sections, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 72	4486, Water pipes, Category JJ (Pump "Arcadian")
Map-folder 72	4487, Arrangement of L.P. exhaust valve gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4488 A, Main foundation bedplate, Category II (Amygdaloid Sand Wheel)
Map-folder 72	4489, 14" throttle valve, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4490, Valve gear details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4491, Engine house, Category I (Calumet & Helca Mine General)
Map-folder 72	4492, Plan of foundations, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4492 A, Foundation capstones, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4492 B, Sectional plan of foundations, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4492 C, Foundation pocket plates, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4493, Arrangement of H.P. exhaust valve gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4494, Foundations, Category I (Calumet & Helca Mine General)
Map-folder 72	4494 A, Foundation capstones, Category II (Amygdaloid Sand Wheel)
Map-folder 72	4494 B, Foundation picket plates, Category II (Amygdaloid Sand Wheel)
Map-folder 72	4495, Longitudinal elevations of foundations, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4496, Transverse sections etc. of foundations, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 72	4497, Foundations, Category I (Calumet & Helca Mine General)

Map-folder 72 4497 A, Sectional plan of foundations, Category I (Calumet & Helca Mine General)

Map-folder 72 4497 B, Foundation pocket plates, Category I (Calumet & Helca Mine General)

Map-folder 72 4498, Foundation sections, Category I (Calumet & Helca Mine General)

Map-folder 72 4499 B, Elevations, Category II (Amygdaloid Sand Wheel)

Map-folder 73 4500 A, Elevation and plan of lagging, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4501, Tie for bedplate, Category II (Amygdaloid Sand Wheel)

Map-folder 73 4502, 8" throttle valve, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4503 A, Dash pots, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4504 A, Lagging details (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4505, Lagging details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4506, Lagging details (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4507, Valve gear details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4508, Engine entablature (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4510, Accumulator, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4511, Pinion shaft pedestal, Category II (Amygdaloid Sand Wheel)

Map-folder 73 4512, Foundation capstones, Category I (Calumet & Helca Mine General)

Map-folder 73 4513, Main frames, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4514, Engine gallery, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4515, North end of engine house, Category I (Calumet & Helca Mine General)

Map-folder 73 4518, Cranks, crank pins & shafts, Category I (Calumet & Helca Mine General)

Map-folder 73 4518 A, Steel forgings, Category I (Calumet & Helca Mine General)

Map-folder 73 4518 B, Steel castings, Category I (Calumet & Helca Mine General)

Map-folder 73 4519, Foundation cap plates for #1 drum, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4520, General arrangement of drum indicator gear, Category I (Calumet & Helca Mine General)

Map-folder 73 4521, Drum indicator gear details, Category I (Calumet & Helca Mine General)

Map-folder 73 4522, Valve gear pedestals, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4523, General arr'mnt of throttle & reversing gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4524, Lagging details (4), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4525, Lower brake & clutch splashers, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4526, Brake splasher for #1 drum, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4527, 4" throttle valve, Category I (Calumet & Helca Mine General)

Map-folder 73 4528, Splasher details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4529, Indicator gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73 4530, Steam & exhaust piping, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 73	4531, Lagging details (5), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 73	4532, Pinion bedplate, Category II (Amygdaloid Sand Wheel)
Map-folder 73	4533, Indicator gear details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 73	4534, Jacket piping (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 73	4535, Jacket piping (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 73	4537, Throttle & reversing gear details (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 73	4538, Throttle & reversing gear details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 73	4539, Outlet launder (1), Category II (Amygdaloid Sand Wheel)
Map-folder 73	4540, Outlet launder (2), Category II (Amygdaloid Sand Wheel)
Map-folder 73	4547, Theoretical steam diagram (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4548, Foundation plan and sections, Category JJ (Pump "Arcadian")
Map-folder 74	4550, Theoretical steam diagram (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4551, Throttle & reversing gear details (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4552, Theoretical steam diagram (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4553, Throttle & reversing gear details (1), Category I (Calumet & Helca Mine General)
Map-folder 74	4554 A, Theoretical air diagram for two stage compression, Category I (Calumet & Helca Mine General)

Map-folder 74 4555, Engine entablature (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 74 4557, Location of man engine & Calumet engine house, Category E (Calumet Mine General)

Map-folder 74 4558, 32 ft rope wheel for engine "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 74 4561, Arrangement of 1st L.P. inlet valve gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 74 4562, Outlet launder plates, Category II (Amygdaloid Sand Wheel)

Map-folder 74 4563, Arrangement of HP inlet valve gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 74 4564, Throttle & reversing gear details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 74 4565, Valve gear details, Category I (Calumet & Helca Mine General)

Map-folder 74 4568, Gallery details (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 74 4569, Valve gear details (4), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 74 4570, 5" throttle valve, Category I (Calumet & Helca Mine General)

Map-folder 74 4574, Strut for north side of head frame, Category I (Calumet & Helca Mine General)

Map-folder 74 4577, General arrangement of steam & injection piping, Category I (Calumet & Helca Mine General)

Map-folder 74 4578, Separator & steam pipe details, Category I (Calumet & Helca Mine General)

Map-folder 74 4583, Gallery details (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 74 4584, Rocker shafts, reversing shafts, etc., Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")



Map-folder 74	4585, Valve gear details (5), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4586, Valve gear details (6), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4587, Reversing engine, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4588, Valve gear details (7), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4589, Arrangement of 2d L.P. inlet valve gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4590, Foundation for west strut, Category I (Calumet & Helca Mine General)
Map-folder 74	4592, General arrangement of accumulator, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4593, Columns etc. for entablature & piping, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4594, Accumulator details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4595, Hydraulic details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 74	4596, Alterations to L.P. reheater, Category O (Engine "Wabeek")
Map-folder 75	4600, Theoretical steam diagrams (4), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4601, Theoretical steam diagrams (5), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4604, Valve gear diagram, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4607, Hydraulic piping details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4608, Combined indicator diagrams, Category O (Engine "Wabeek")

Map-folder 75 4609, Brake splasher for No.2 Drum, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4610, Oiling devices (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4611, Oiling devices (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4612, Jacket piping (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4613, Lagging details (6), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4614, Gauge plates & counter gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4615, Nameplate, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4616, Engine house floors, Category I (Calumet & Helca Mine General)

Map-folder 75 4617, Combined indicator diagrams, Category O (Engine "Wabeek")

Map-folder 75 4618, Floor, Category JJ (Pump "Arcadian")

Map-folder 75 4620, Engine house floor details (1), Category I (Calumet & Helca Mine General)

Map-folder 75 4621, Crank effort diagrams, Category O (Engine "Wabeek")

Map-folder 75 4622, Floor details, Category JJ (Pump "Arcadian")

Map-folder 75 4625, Engine house floor details (2), Category I (Calumet & Helca Mine General)

Map-folder 75 4627, Floor details (2), Category JJ (Pump "Arcadian")

Map-folder 75 4629, General arrangement of governor and details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4630, Engine house floor details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4631, Plan of bedplates etc., Category II (Amygdaloid Sand Wheel)

Map-folder 75	4632 A, General plan of hydraulic piping, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4634 A, Hydraulic piping (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4635 A, Hydraulic piping (2), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4637, Building foundation, Category II (Amygdaloid Sand Wheel)
Map-folder 75	4640, Injection details, Category I (Calumet & Helca Mine General)
Map-folder 75	4641, Tabulation of indicator diagrams, Category BB (Compressor Engine "Mackinac")
Map-folder 75	4643, Clutch splasher, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4647, General arrangement of steam and injection piping, Category JJ (Pump "Arcadian")
Map-folder 75	4648, Building foundation plates, etc., Category II (Amygdaloid Sand Wheel)
Map-folder 75	4650, Crank effort diagrams, Category I (Calumet & Helca Mine General)
Map-folder 75	4651 A, Hydraulic piping (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4652 A, Hydraulic piping (4), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4653, Pinion splasher and support for clutch splasher, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4657, Crank effort diagrams, Category I (Calumet & Helca Mine General)
Map-folder 75	4660, Details of steam and injection piping, Category JJ (Pump "Arcadian")
Map-folder 75	4663, General arrangement of piping for "Osage", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
Map-folder 75	4664, Drum shaft, Category II (Amygdaloid Sand Wheel)

Map-folder 75 4670, Exhaust piping, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4672, General arrangement side elevation, Category I (Calumet & Helca Mine General)

Map-folder 75 4673, General arrangement end elevation, Category I (Calumet & Helca Mine General)

Map-folder 75 4674, General arrangement plan, Category I (Calumet & Helca Mine General)

Map-folder 75 4675, Steam pipe details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4682 A, Hydraulic piping, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4685, Crank effort diagrams, Category II (Amygdaloid Sand Wheel)

Map-folder 75 4686, Air pump and condenser foundations, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4694, Air pump and condenser foundation plates, etc., Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4697 A, Injection and air pipe details for "Osage", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4697 B, Injection and air pipe details for "Owego", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4697 C, Injection and air pipe details for "Ontonagon", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 75 4698, Sectional plan of foundation for King Riedler compressors, Category I (Calumet & Helca Mine General)

Map-folder 75 4699, General arrangement of piping for "Owego", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 76 4700, General arrangement of piping for "Ontonagon", Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 76 4701, Gratiot foundation 05/13/01 V 4701 A Sectional plan & details of Gratiot foundation, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 76 4702, Mortise gear & motor pinion, Category II (Amygdaloid Sand Wheel)

Map-folder 76 4704 A, Engine house sections, Category I (Calumet & Helca Mine General)

Map-folder 76 4705 A, Engine house foundation, Category I (Calumet & Helca Mine General)

Map-folder 76 4706, Arrangement of compressors, Category L (Hoisting Engine "Superior")

Map-folder 76 4708, 11 ft 6 in rope wheel, Category L (Hoisting Engine "Superior")

Map-folder 76 4709, Motor pedestals, shafts, etc., Category II (Amygdaloid Sand Wheel)

Map-folder 76 4710, Alteration to crank shaft for engine "Gratiot", Category I (Calumet & Helca Mine General)

Map-folder 76 4711, Crank shaft forging, Category KK (Engine "Saginaw")

Map-folder 76 4713, Engine house columns, Category I (Calumet & Helca Mine General)

Map-folder 76 4714, Roof truss (1), Category I (Calumet & Helca Mine General)

Map-folder 76 4715, Engine house elevations, Category I (Calumet & Helca Mine General)

Map-folder 76 4716, Engine house plan, Category I (Calumet & Helca Mine General)

Map-folder 76 4717, Roof trusses for annex, Category I (Calumet & Helca Mine General)

Map-folder 76 4718, Engine foundations, etc., Category I (Calumet & Helca Mine General)

Map-folder 76 4720, Engine house columns (2), Category I (Calumet & Helca Mine General)

Map-folder 76 4721, Foundation plates and bolts, Category I (Calumet & Helca Mine General)

Map-folder 76 4722, Engine house panel details, Category I (Calumet & Helca Mine General)

Map-folder 76 4723, Bedplates for generator, Category I (Calumet & Helca Mine General)

Map-folder 76 4724, Re arrangement of spare drive for sand wheels, Category G (Helca Mine General)

Map-folder 76 4725, Roof truss (2), Category I (Calumet & Helca Mine General)

Map-folder 76 4726, New H.P. cylinder for "Pewabic", Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 76 4727, Spare drive for sand wheels rope wheel, Category G (Hecla Mine General)

Map-folder 76 4729, Engine house girders, Category I (Calumet & Helca Mine General)

Map-folder 76 4730, Engine house panel details, Category I (Calumet & Helca Mine General)

Map-folder 76 4731, Bracing, purlins, etc., Category I (Calumet & Helca Mine General)

Map-folder 76 4732, 60" boiler for 185 lbs gauge pressure, Category I (Calumet & Helca Mine General)

Map-folder 76 4733, Crank effort diagrams, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 76 4734, Motor bedplate, etc., Category II (Amygdaloid Sand Wheel)

Map-folder 76 4735, Theoretical crank effort diagram, Category II (Amygdaloid Sand Wheel)

Map-folder 76 4736, Theoretical crank effort diagrams (1), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 76 4737, Building foundation, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 76 4738, Door frames, etc., Category I (Calumet & Helca Mine General)

Map-folder 76 4739, Steam drum, etc. for 64" boiler, Category I (Calumet & Helca Mine General)

Map-folder 76 4740, Details (1), Category I (Calumet & Helca Mine General)

Map-folder 76 4741, Theoretical crank effort diagrams (3), Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 76 4742, Foundation for generator, Category I (Calumet & Helca Mine General)

Map-folder 76 4743, Details (2), Category I (Calumet & Helca Mine General)

Map-folder 76 4744, Plan of engine house floor, Category I (Calumet & Helca Mine General)

Map-folder 76 4748, Theoretical crank effort diagrams., Category II (Amygdaloid Sand Wheel)

Map-folder 76 4749, Generator shaft, Category I (Calumet & Helca Mine General)

Map-folder 77 4750, Arrangement of piping (1), Category I (Calumet & Helca Mine General)

Map-folder 77 4751, New H.P. inlet cam for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4752, New L.P. exhaust cams for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4753, Saginaw foundation, Category KK (Engine "Saginaw")

Map-folder 77 4753 A, Saginaw foundation, etc. (2), Category KK (Engine "Saginaw")

Map-folder 77 4754, New H.P. exhaust cams for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4755, General elevations of engine house, Category I (Calumet & Helca Mine General)

Map-folder 77 4756, New L.P. inlet cams for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4757, New Int. exhaust cams for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4758, New Int. inlet cams for "Gratiot" cut off cams, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4759, Arrangement of piping (2), Category I (Calumet & Helca Mine General)

Map-folder 77 4761, New cut off cam for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4762, Crank effort, acceleration, speed, and crank pin displacement diagramsetc. diagrams, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 77 4763, Separators, etc., Category I (Calumet & Helca Mine General)

Map-folder 77 4764, Arrangement of piping (2), Category I (Calumet & Helca Mine General)

Map-folder 77 4766, Air coolers, Category L (Hoisting Engine "Superior")

Map-folder 77 4767, Engine house piping details (1), Category I (Calumet & Helca Mine General)

Map-folder 77 4768, Steam pipe bridge, Category I (Calumet & Helca Mine General)

Map-folder 77 4769, Arrangement of governor for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4770, Steam pipe bridge details, Category I (Calumet & Helca Mine General)

Map-folder 77 4771, Engine house piping details (2), Category I (Calumet & Helca Mine General)

Map-folder 77 4772, Rope wheels, Category G (Helca Mine General)

Map-folder 77 4773, Air pump and condenser foundation, Category I (Calumet & Helca Mine General)

Map-folder 77 4774, Crank effort diagrams, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 77 4775, Air pump and condenser foundation plates, etc., Category I (Calumet & Helca Mine General)

Map-folder 77 4776, 7" stop valve, Category I (Calumet & Helca Mine General)

Map-folder 77 4777, Sectional plan of machinery (1), Category I (Calumet & Helca Mine General)

Map-folder 77 4778, Sectional plan of machinery (2), Category I (Calumet & Helca Mine General)

Map-folder 77 4779, Engine house piping details (3), Category I (Calumet & Helca Mine General)

Map-folder 77 4780, Crank effort diagram (1), Category Y (Hoisting Engines "Mesnard & Pontiac")

Map-folder 77 4781, Switchboard gallery, Category I (Calumet & Helca Mine General)

Map-folder 77 4782, Crank effort diagram (2), Category Y (Hoisting Engines "Mesnard & Pontiac")

Map-folder 77 4783, Pipe hangers, etc., Category I (Calumet & Helca Mine General)



Map-folder 77 4784, Engine house floor details, Category I (Calumet & Helca Mine General)

Map-folder 77 4785, Arrangement of handrails, screens, etc., Category I (Calumet & Helca Mine General)

Map-folder 77 4786, Stamp shaft, 14" foot, Category I (Calumet & Helca Mine General)

Map-folder 77 4788, Acceleration, speed and crank pin displacement diagrams, Category Y (Hoisting Engines "Mesnard & Pontiac")

Map-folder 77 4789, Steel forgings, Category KK (Engine "Saginaw")

Map-folder 77 4790, Arrangement of governor engine piping, etc., Category I (Calumet & Helca Mine General)

Map-folder 77 4791, Engine house floor details (2), Category I (Calumet & Helca Mine General)

Map-folder 77 4792, Engine house screens, etc., Category I (Calumet & Helca Mine General)

Map-folder 77 4795, Re arrangement of spare drive, Category G (Hecla Mine General)

Map-folder 77 4797, Oiling galleries for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 77 4798, Oiling gallery details for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 78 4801, Engine "Gratiot" alterations to main gallery, etc., Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 78 4803, Elevation of H.P. side of "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 78 4804, Crank effort, accel., speed, etc. diagrams, Category Y (Hoisting Engines "Mesnard & Pontiac")

Map-folder 78 4805, Arrangement of air & water pipes, Category L (Hoisting Engine "Superior")

Map-folder 78 4806, Air pipe details, Category L (Hoisting Engine "Superior")

Map-folder 78 4807, Crank effort, acceleration, speed, and crank pin displacement diagrams, Category KK (Engine "Saginaw")

Map-folder 78 4808, Main gallery for "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 78 4809, Inlet air ducts, Category L (Hoisting Engine "Superior")

Map-folder 78 4811, Arrangement of ledges, etc., Category I (Calumet & Helca Mine General)

Map-folder 78 4813, Cooler supports, injection details, etc., Category L (Hoisting Engine "Superior")

Map-folder 78 4814, Outboard pedestal gallery & details for engine "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 78 4815, Actual and theoretical indicator diagrams, Category I (Calumet & Helca Mine General)

Map-folder 78 4816, General arrangement of compressors E,F,G, & H, Category L (Hoisting Engine "Superior")

Map-folder 78 4817, Lower throat sheet, Category I (Calumet & Helca Mine General)

Map-folder 78 4818, Plan of "Gratiot", Category L (Hoisting Engine "Superior")

Map-folder 78 4819, Plan of "Gratiot", Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 78 4823, Water tank, traps, etc., Category L (Hoisting Engine "Superior")

Map-folder 78 4826, 15 ft sheave, Category I (Calumet & Helca Mine General)

Map-folder 78 4827, Steam piping, Category G (Helca Mine General)

Map-folder 78 4828, Compressor house floor alterations, Category L (Hoisting Engine "Superior")

Map-folder 78 4830, Gallery (1), Category L (Hoisting Engine "Superior")

Map-folder 78 4831, Oxidizer No. 3, Category I (Calumet & Helca Mine General)

Map-folder 78 4834, Actual and theoretical indicator diagrams, Category I (Calumet & Helca Mine General)

Map-folder 78 4837, Cooler supports, nozzles, etc., Category L (Hoisting Engine "Superior")

Map-folder 78 4838, Arrangement of 7' 6" cooler, etc., Category L (Hoisting Engine "Superior")

Map-folder 78 4841, Acceleration, speed and crank pin displacement diagrams, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")

Map-folder 78 4844, General arrangement of compressors C & D , Category L (Hoisting Engine "Superior")

Map-folder 79 4846, Valve gear shafts, Category L (Hoisting Engine "Superior")

Map-folder 79 4852, Theoretical indicator diagrams for saturated steam, Category KK (Engine "Saginaw")

Map-folder 79 4861, Theoretical isothermal indicator diagrams, Category KK (Engine "Saginaw")

Map-folder 79 4863, Elevation of "Gratiot", Category KK (Engine "Saginaw")

Map-folder 79 4874, New roof on boiler house, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 79 4875, Alterations to L.P. exhaust closing cams, Category BB (Compressor Engine "Mackinac")

Map-folder 79 4876, Alteration to L.P. opening and cut off cams, Category BB (Compressor Engine "Mackinac")

Map-folder 79 4878, Boiler house roof truss (1), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 79 4880, Boiler data, Category I (Calumet & Helca Mine General)

Map-folder 79 4882, Crank effort, acceleration, speed & crank pin displacement diagrams, Category I (Calumet & Helca Mine General)

Map-folder 79 4884, Boiler house monitor, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 79 4886, General arrangement, Category II (Amygdaloid Sand Wheel)

Map-folder 79 4887, Alteration to Int. inlet cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4888, Boiler house roof trusses (2), Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 79 4889, Alteration to HP inlet cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4890, Alteration to LP inlet cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4891, Stamp shaft foot, Category I (Calumet & Helca Mine General)

Map-folder 79 4891 A, Forging for stamp shaft foot, Category I (Calumet & Helca Mine General)

Map-folder 79 4892, Alteration to upper H.P. exhaust cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4893, Alteration to lower H.P. exhaust cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4894, Alteration to upper Int. exhaust cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4895, Alteration to lower Int. exhaust Cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4896, Alteration to upper L.P. exhaust cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4897, Alteration to lower L.P. exhaust cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 79 4899, Alteration to H.P. cut=off cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 80 4900, Alteration to Int. cut off cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 80 4901, Alteration to L.P. cutoff cam, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 80 4902, General arrangement of machinery, Category L (Hoisting Engine "Superior")

Map-folder 80 4903, Engine house floor, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 80 4903 A, Engine house floor beams, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

- Map-folder 80 4907, Sections of engine house floor, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
- Map-folder 80 4909, Revised list of drawings & weights, Category L (Hoisting Engine "Superior")
- Map-folder 80 4910, Engine house floor details, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
- Map-folder 80 4911, List of drawings & weights for hoisting gear, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 80 4913, List of drawings & weights for engines, Category FF (Hoisting Engines "Minnesota" & "Escanaba" and "Illinois" & "Wisconsin")
- Map-folder 80 4914, List of drawings & weights for hoisting gear, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 80 4916, Hangers for hydraulic piping, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
- Map-folder 80 4917, List of drawings & weights for engines, Category EE (Hoisting Engines "Marquette" & Chippewa")
- Map-folder 80 4918, List of drawings & weights for hoisting gear, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
- Map-folder 80 4919, Velocity and crank pin displacement diagrams, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
- Map-folder 80 4920, List of drawings & weights for engines, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")
- Map-folder 80 4922, List of drawings & weights for engines, Category Z (Hoisting Engines "Hancock" & "Pewabic")
- Map-folder 80 4923, Indicator and time diagram (1), Category I (Calumet & Helca Mine General)
- Map-folder 80 4924, Indicator & time diagrams (2), Category I (Calumet & Helca Mine General)
- Map-folder 80 4925, Side elevation, Category II (Amygdaloid Sand Wheel)
- Map-folder 80 4927, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 80 4926, Indicator and time diagrams (3), Category I (Calumet & Helca Mine General)

Map-folder 80 4928, Indicator and time diagrams (4), Category L (Hoisting Engine "Superior")

Map-folder 80 4929, Indicator and time diagrams, Category I (Calumet & Helca Mine General)

Map-folder 80 4930, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 80 4931, Indicator & time diagrams, Category I (Calumet & Helca Mine General)

Map-folder 80 4932, Indicator & time diagrams, Category I (Calumet & Helca Mine General)

Map-folder 80 4933, List of drawings & weights for hoisting gear, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 80 4934, Indicator & time diagrams, Category I (Calumet & Helca Mine General)

Map-folder 80 4935, List of drawings & weights for hoisting gear, Category Z (Hoisting Engines "Hancock" & "Pewabic")

Map-folder 80 4936, End elevation, Category II (Amygdaloid Sand Wheel)

Map-folder 80 4937, List of drawings and weights for engines, Category V (Hoisting Engines "Gratiot", "Houghton" & "Seneca")

Map-folder 80 4938, Indicator and time diagrams, Category I (Calumet & Helca Mine General)

Map-folder 80 4939, List of drawings & weights for engines, Category W (Pumping Engines "Michigan" & "Winnipeg")

Map-folder 80 4942, Comparison of results from indicator and time, diagrams, Category 17

Map-folder 80 4943, Plan, Category II (Amygdaloid Sand Wheel)

Map-folder 80 4946, List of drawings & weights (1), Category XY

Map-folder 80 4947, List of drawings for engines, Category L (Hoisting Engine "Superior")

Map-folder 80 4948, List of drawings & weights for engines , Category I (Calumet & Helca Mine General)

Map-folder 80 4949, Llist of drawings & weights, Category E (Calumet Mine General)

Map-folder 81 4950, List of drawings & weights (2), Category XY

Map-folder 81 4951, List of drawings & weights (2), Category I (Calumet & Helca Mine General)

Map-folder 81 4952, Cylinder port filling pieces, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

Map-folder 81 4953, List of drawings & weights (2), Category I (Calumet & Helca Mine General)

Map-folder 81 4954, List of drawings & weights (2), Category CC (Compressor Engine "Baraga")

Map-folder 81 4955, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 81 4956, List of drawings & weights, Category G (Helca Mine General)

Map-folder 81 4957, List of drawings & weights (1), Category I (Calumet & Helca Mine General)

Map-folder 81 4958, List of drawings & weights, Category Q (Hoisting Engine "Frontenac")

Map-folder 81 4961, List of drawings & weights (2), Category I (Calumet & Helca Mine General)

Map-folder 81 4962, List of drawings & weights, Category G (Helca Mine General)

Map-folder 81 4968, List of drawings & weights (1), Category I (Calumet & Helca Mine General)

Map-folder 81 4970, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 81 4974, List of drawings & weights (2), Category I (Calumet & Helca Mine General)

Map-folder 81 4977, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 81 4982, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 81 4984, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 81 4988, List of drawings & weights, Category I (Calumet & Helca Mine General)

Map-folder 82 UN 001, Calumet stamp, arrangement of condensing apparatus, Category I (Calumet & Helca Mine General)

Map-folder 82 UN 002, Calumet hoisting engine house, Category E (Calumet Mine General)

Map-folder 82	UN 003, Proposed Calumet engine house, Category E (Calumet Mine General)
Map-folder 82	UN 004, Boiler house, Category E (Calumet Mine General)
Map-folder 82	UN 005, List of engines at Calumet & Hecla Mine, Category I (Calumet & Helca Mine General)
Map-folder 82	UN 006, No. 4 stamp for Calumet mill foundations, Category E (Calumet Mine General)
Map-folder 82	UN 007, Alterations to pumping engine No. 1, Category I (Calumet & Helca Mine General)
Map-folder 82	UN 008, Foundation for patent pumping engine No. 1, Category I (Calumet & Helca Mine General)
Map-folder 82	UN 009, Location for foot plates, Category L (Hoisting Engine "Superior")
Map-folder 82	UN 010, Foundation and suction pipes, Category K (Torch Lake)
Map-folder 82	UN 011, Plan of foundations, Category K (Torch Lake)
Map-folder 82	UN 012, Plan showing location of wall plates etc. in projections of Calumet engine house, Category E (Calumet Mine General)
Map-folder 82	UN 013, Side elevation, Category G (Hecla Mine General)
Map-folder 82	UN 014, 22 3/4in H.P. cylinder, Category G (Hecla Mine General)
Map-folder 82	UN 015, Calumet stamp, Category E (Calumet Mine General), 1979
Map-folder 82	UN 016, Steam stamp indicator gear for time cards, Category I (Calumet & Helca Mine General)
Map-folder 82	UN 017, Plan and side elevation of steam governor, Category HH (Hoisting Engines "Osage", "Owego" & "Ontonagon")

*[Return to Table of Contents](#)*



## Series 1: Photographs

Box 1, Folder 1	Leavitt engine, Louisville
Box 1, Folder 2	Leavitt engines, Calumet and Hecla
Box 1, Folder 3	Leavitt pumping engine, Chestnut Hill Station, Boston, Massachusetts

*[Return to Table of Contents](#)*