1742X withdrawn and combined with 1207X

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

June 29, 1951

Mr. A. E. Peterrann
Vice President
1 Calumet Avenue
Calumet, Michigan

Subject: DMA-1742X
Re: Exploration Loan - Seneca

My dear Mr. Petermann:

Receipt is acknowledged of your application and attachments of June 23, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1742X and referred to Mr. J. B. Gowen, Chief, Copper Branch on June 28, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1742.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
✓ File
Gowen
Lyon

Dma-1742X
Return to DMEA Rm. 4539

UNITED STATES
DEPARTMENT OF THE INTERIOR
Oscar L. Chapman, Secretary

DEFENSE MINERALS ADMINISTRATION

Report of Examination by Field Team
Region V

DMA-New application - Calumet and Hecla
Consolidated Copper Co.

Exploration project, 26th level
north, Seneca shaft. Drift to
be extended 2,000 feet

Keweenaw County, Michigan

Emmett J. Martin and Thomas L. Chapman
Mining Engineers
U. S. Bureau of Mines

W. S. White
Geologist
U. S. Geological Survey

June 25, 1951

DEFENSE MINERALS ADMINISTRATION

Review of Application for Exploration Assistance

Docket No. - 1742
Commodity - Copper
Total amount - $61,580
Government participation - $30,790

APPLICANT

The Calumet Consolidated Copper Co., a corporation, Calumet Division, Calumet, Mich.

LOCATION OF PROPERTY

The area in which the 26th level north of the Seneca shaft is located is as follows:

W1/2 of SW1/4 of section 14
SE1/4 of SE1/4 of section 15
Township 57 North, Range 32 West, Keweenaw County, Michigan

Repayments to the Government from ores discovered in this area will be bounded as follows:

That portion of the Kearsarge lode lying 150 feet above and below the 26th level, north drift of the Seneca shaft, measured on the incline of said vein, and extending laterally 2,000 feet in a northerly direction from draft mark 4,605 in said drift.

Accompanying map shows the location of the project within the Calumet district.

MINERAL

This exploration work will be for the purpose of locating copper-bearing ore bodies. The Government schedule of assistance in the exploration work for copper amounts to 50 percent of the cost.

GEOLOGY

The Seneca Mining Co. operated the Seneca shaft on the Kearsarge lode from 1925 to 1931, when it went into receivership. The applicant acquired

the property in 1945, rehabilitated the shaft, and began mining operations. The ore is of a low grade, averaging 14 to 15 pounds of copper per ton.

At the present time, most of the work is confined to robbing pillars, and the ore in sight is near an end. As this would mean the abandonment and flooding of the shaft, it is considered advisable to drive the 26th level north an additional 2,000 feet, in order to further explore the lode while it is accessible from the present workings. As is usual with the amygdaloid ore deposits, the mineralization is scattered and erratic. While the values have been low in the present workings, it is no criterion of what may be expected in other portions of the lode.

An underground map accompanies the report.

Geology by W. S. White

No method has yet been devised whereby one can predict, without exploratory drifting, whether one has reached the lateral margins of a Michigan amygdaloidal ore deposit, or whether a new shoot lies a few feet or several thousands of feet beyond the outermost working faces. The proposed exploratory drift north on the 26th level will test the possibility of additional ore shoots to the north of present workings. There are no drill holes or other openings to give a clue to what may be expected in the prospective extension. The area to be explored is, however, close enough to the known ore shoots at the northeastern end of the Kearsarge lode ore body that any new shoots would still be regarded as part of the same major ore body.

(See Exhibit "H" - Statement and opinion of W. S. White)

OWNERSHIP

The applicant owns the above noted property as listed without liens or encumbrances.

FEASIBILITY

This project proposes to extend the 26th level north drift from the Seneca shaft a distance of 2,000 feet to explore the area to the north of draft mark 4,605. The geological conditions indicate the possibility of opening up economic ore bodies of copper ore in this area.

The applicant is well equipped to carry on this work, as ore is being mined on this lode and through the Seneca shaft. Work can be started immediately upon execution of contract with the Government.

The Calumet Consolidated Copper Co. employs about 2,000 men in this district and they have men available for this work. The work will be carried on with the regular operations and will be under the direct supervision of the underground superintendent and foreman.

All necessary equipment and supplies are on hand and available for carrying out this project. The broken rock will be trammed to the Seneca shaft and hoisted to surface for disposal.

EXPERIENCE

The applicant employs a large staff of men experienced in all types of mining exploration and they are capable of carrying out the work in an efficient manner.

OPERATION AND COST

Due to the flat dip of the lodes, the applicant carries all exploration drifts so that the footwall and hanging wall will be encountered in the work. The average width of the lodes is about 9 feet; and on this basis, the drifts are carried from 11 to 12 feet wide and 9 to 10 feet in height. The geologist of the Geological Survey concurs in the necessity of this size of drift. The tracks are of a 42-inch gauge; and with these widths, passing tracks can be installed at any point. As the drifts are long, it is necessary to have frequent passing points.

The costs are based on the average cost of drifting as carried out by the applicant in their operations.

In most of this work, the miners work on a contract or bonus basis. It is expected to work this drift with 2 drilling shifts and 2 mucking shifts per day, and the average rate of progress will be at the rate of 10 feet per day or 250 feet per month. Eimco loaders are used for mucking.

Average cost of driving drifts of the above type are as follows:

	Cost per foot
Direct labor	
2 miners	
1 trammer	
1 laborer	$13.34
Equipment maintenance	.21
Supplies - powder, fuse, caps, ties, etc.	9.51
Air, electric power, payroll taxes	.91
Timekeeper, workmens compensation insurance benefits, vacation allowances	1.61
Supervision	
Mine captain	
2 shift bosses	1.10
Change house and surface expense	.14
Hoisting (about 10 tons per foot)	1.57
Poor rock disposal	.98
Shaft repairs	.19
Depreciation of equipment	1.23
Total cost per foot	$30.79

This project will be completed in about 8 months time. The cost at $30.79 per foot will be $61,580. It is estimated that the cost will be $8,005.40 for the first 7 months and $5,542.20 for the 8th month.

(Exhibit "C" shows the rental rate of equipment as adjusted for depreciation.)

(Exhibit "D" shows the average rate of pay for labor.)

(Exhibit "G" shows the time schedule for 14 projects.)

REQUIREMENTS

As the Seneca shaft is in operation for mining purposes, the property is completely equipped, and this project can be carried along with other operations.

RECOMMENDATIONS

The proposed drift on the 26th level and to the north of the Seneca shaft on the Iroquois lode will open up unexplored territory, which is indicated to have good geological possibilities of opening up ore bodies of an economic grade. This work can be considered as a search for extensions of the present ore zones. As this project has possibilities of opening up copper ore bodies of an economic grade, it is recommended that the U. S. Government enter into a contract with the applicant to assist in carrying out this work. As copper is one of the critical and strategic materials, this work offers a good possibility of increasing its production.

A P P E N D I X

Map - Shows location of project area in relation to the Calumet district.

Map - Shows proposed drift extension in relation to the Seneca shaft and underground workings.

Exhibit "C" - Shows rental value of equipment furnished, equivalent to depreciation.

Exhibit "D" - Shows direct labor rates.

Exhibit "G" - Time schedule of 14 projects.

Exhibit "H" - Statement and opinion of W. S. White, geologist, U. S. Geological Survey.

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
CALUMET, MICHIGAN

EXHIBIT "C"

Operating Equipment for Drifting

No equipment will be rented.
No equipment will be purchased.

Operator will furnish the following equipment at rental values equivalent to depreciation, as follows:

	Rental Value Per Month
3, 3½" Drill machines	$ 16.67 each
1, Model 21 Eimco loader	76.67
3, 5-ton tram cars	16.67 each
1, 7-ton battery locomotive	100.00

Other facilities of Operator will be used, such as hoists, compressors, shaft, rock house, etc. Depreciation will be charged at the rates allowed by the Treasury Department, and allocated by the same method that such costs are now allocated between Operator's present operations.

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
CALUMET, MICHIGAN

EXHIBIT "D"

Labor for Drifting

Class	Number	Maximum Wage or Salary
Miners	4	$ 20.00 per day
Trammers	4	20.00 " "
Trackmen	2	9.97 " "
Pipemen	2	10.41 " "
Shift Bosses	2	375.00 " month
Captain	1	550.00 " "
Superintendent	1	750.00 " "

(Exhibit "G")

CALUMET AND HECLA CONSOLIDATED COPPER CO.
Timing and Financial Requirements
All Copper Exploration Projects

Months	Calumet Conglomerate	Centennial 23S Drift	Iroquois 18N Drift	Iroquois 22S Drift	Centennial 48S Drift	Seneca 26N Drift	Total Month
1		4,618.50	4,618.50	4,618.50	4,844.25	8,005.40	35,705.15
2		4,618.50	4,618.50	4,618.50	4,844.25	8,005.40	35,705.15
3		4,618.50	4,618.50	4,618.50	4,844.25	8,005.40	41,321.15
4	4,959.00	4,618.50	4,618.50	4,618.50	4,844.25	8,005.40	40,664.15
5	4,959.00	4,618.50	4,618.50	4,618.50	4,844.25	8,005.40	40,664.15
6	4,960.00	4,618.50	4,618.50	4,618.50	4,844.25	8,005.40	31,665.15
7	4,959.00	4,618.50	4,618.50	4,618.50	4,844.25	8,005.40	31,664.15
8	4,959.00	4,618.50	4,618.50	4,618.50	4,844.25	5,542.20	29,200.95
9	4,960.00	4,618.50	4,618.50	4,618.50	4,844.25		32,659.75
10		4,618.50	4,618.50	4,618.50	4,844.25		27,699.75
11		4,618.50	4,618.50	4,618.50	4,844.25		26,838.75
12		4,618.50	4,618.50	4,618.50	4,844.25		23,809.25
13		4,618.50	4,618.50	4,618.50	4,844.25		27,761.25
14		4,618.50	4,618.50	4,618.50	4,844.25		27,761.25
15		4,618.50	4,618.50	4,618.50	4,844.25		26,699.75
16		4,618.50	4,618.50	4,618.50	4,844.25		26,699.75
17		4,618.50	4,618.50	4,618.50	4,844.25		26,857.75
18		2,733.30	2,733.30	2,733.30	4,844.25		13,044.15
19					4,844.25		4,844.25
20					4,844.25		4,844.25
21					4,844.25		14,244.75
22					4,844.25		12,844.25
23					4,060.50		12,060.50
24							8,000.00
	29,756.00	81,247.80	81,247.80	81,247.80	110,634.00	61,580.00	603,259.40

(Exhibit "G")

CALUMET AND HECLA CONSOLIDATED COPPER CO.
Timing and Financial Requirements
All Copper Exploration Projects

Months	Ashbed	West Deleware	Calumet Amygdaloid	Iroquois Trenching	Kearsarge Hanging Wall	Mayflower Old Colony	St. Louis	Deleware D.D. hole 83
1	9,000							
2	9,000							
3	9,000							5,616.00
4	9,000							
5	9,000							
6	*							
7	*							
8	*							
9	9,000							
10	9,000							
11	8,139							
12		5,109.50						
13			9,061.50					
14				9,061.50				
15					8,000.00			
16					8,000.00			
17					8,158.00			
18					*	*		
19					*	*		
20					*	*		
21						6,111.50	3,289.00	
22							8,000.00	
23							8,000.00	
24							8,000.00	
	71,139	5,109.50	9,061.50	9,061.50	24,158.00	6,111.50	27,289.00	5,616.00

* Trenching suspended during January, February, and March because of weather.

(Exhibit "H")

"In the opinion of Walter S. White, geologist, U. S. Geological Survey, who has been in charge, for the past 5 years of a party studying the geology of the Michigan copper district, the proposed exploration is justified on geologic grounds and he recommends approval.

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTERI
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. dma - 1742X

Date received 6/27/51

Participation

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951
LANDON F. STROBEL
Executive Secretary

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
1 CALUMET AVENUE
CALUMET, MICHIGAN

Name and address of applicant

Date June 23, 1951

FILL IN THIS BLOCK

Date of application June 23, 1951

Estimated cost ~~$110,754~~ $61,580

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Keweenaw County, Michigan

Date of filing MF-100 May 14, 1951

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted and the expenditure of funds which may be charged as costs of the project must be limited to that area of work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

CALUMET AND HECLA CONSOLIDATED COPPER CO.
CALUMET DIVISION
(Name of company)

By A. E. Petermann
(Signature of authorized official)

June 23, 1951
(Date)

Vice President
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64007-1 U. S. GOVERNMENT PRINTING OFFICE

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
CALUMET, MICHIGAN

Form MF-103

26th Level North Seneca Shaft

1., 2., 3., and 4. Answered on Form MF-100

5. Owner

6. None

7. Not applicable

8. Statements attached as EXHIBIT "A"

9. $55,372 (50% of cost)

10.(a) West half of Southwest quarter (W½ of SW¼), of Section Fourteen (14) Southeast quarter of Southeast quarter (SE¼ of SE¼), of Section Fifteen (15) Township Fifty-seven North, Range Thirty-two West (T57N, R32W), Keweenaw County, Michigan

(b) That portion of the Kearsarge lode lying 150 feet above and below the 26th level north drift of the Seneca shaft, measured on the incline of said vein, and extending laterally 2,000 feet in a northerly direction from draft mark 4,605 in said drift.

11. Seneca

12. Located one mile north of Mohawk, Michigan on U. S.-41. Served by Applicant's railroad.

13. Water from Applicant's pumping plants on Lake Superior—adequate at all seasons. Power from Applicant's two power plants.

14. Mine is in operation and has all necessary facilities.

15. Ore will be shipped on Applicant's railroad to Applicant's Ahmeek mill for treatment.

16. The Seneca Mining Company operated this shaft from 1925 to 1931 when it went into receivership. Applicant'acquired the property in 1945, started rehabilitating the shaft in 1945, and has been in production since 1946.

17. While the mine is in production, no production is coming from the area it is proposed to explore.

18. There are no known reserves in the area in question.

19. No unusual circumstances.

20. It is intended to explore the Kearsarge lode for copper north of any present operations.

21. The 26th level north drift of the Seneca shaft will be extended northerly 2,000 feet in the Kearsarge lode. Progress will be about 250 feet per month, and the project will be completed in 8 months from the time a contract is signed.

22. The Kearsarge lode has been one of the most productive lodes in the Michigan copper area. It has been and is being mined over a distance of about 7 miles, from the Centennial mine at the south to the Seneca mine at the north. This exploration is intended to find out whether there are values in the Kearsarge lode north of present operations.

23. See following sheet.

24. First through the seventh month - $8,005.40; eighth month - $5,542.20.

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
CALUMET, MICHIGAN

23. In accordance with our customary practice, costs are calculated on a footage basis, as follows:

	Cost per Foot
Direct labor	$13.34
2 miners	
2 trammers	
1 laborer	
Equipment maintenance	.21
Supplies	9.51
Air, electric power, payroll taxes	.91
Timekeeper, workmen's compensation, insurance benefits, vacation allowances	1.61
Supervision	1.10
Mine captain	
2 shift bosses	
Change house and surface expense	.14
Hoisting	1.57
Poor rock disposal	.98
Shaft repairs	.19
Depreciation of equipment	1.23
Cost per foot	$30.79

2,000 feet @ $30.79 per foot = $61,580

EXHIBIT A.

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY

BALANCE SHEET AT DECEMBER 31, 1950

A S S E T S

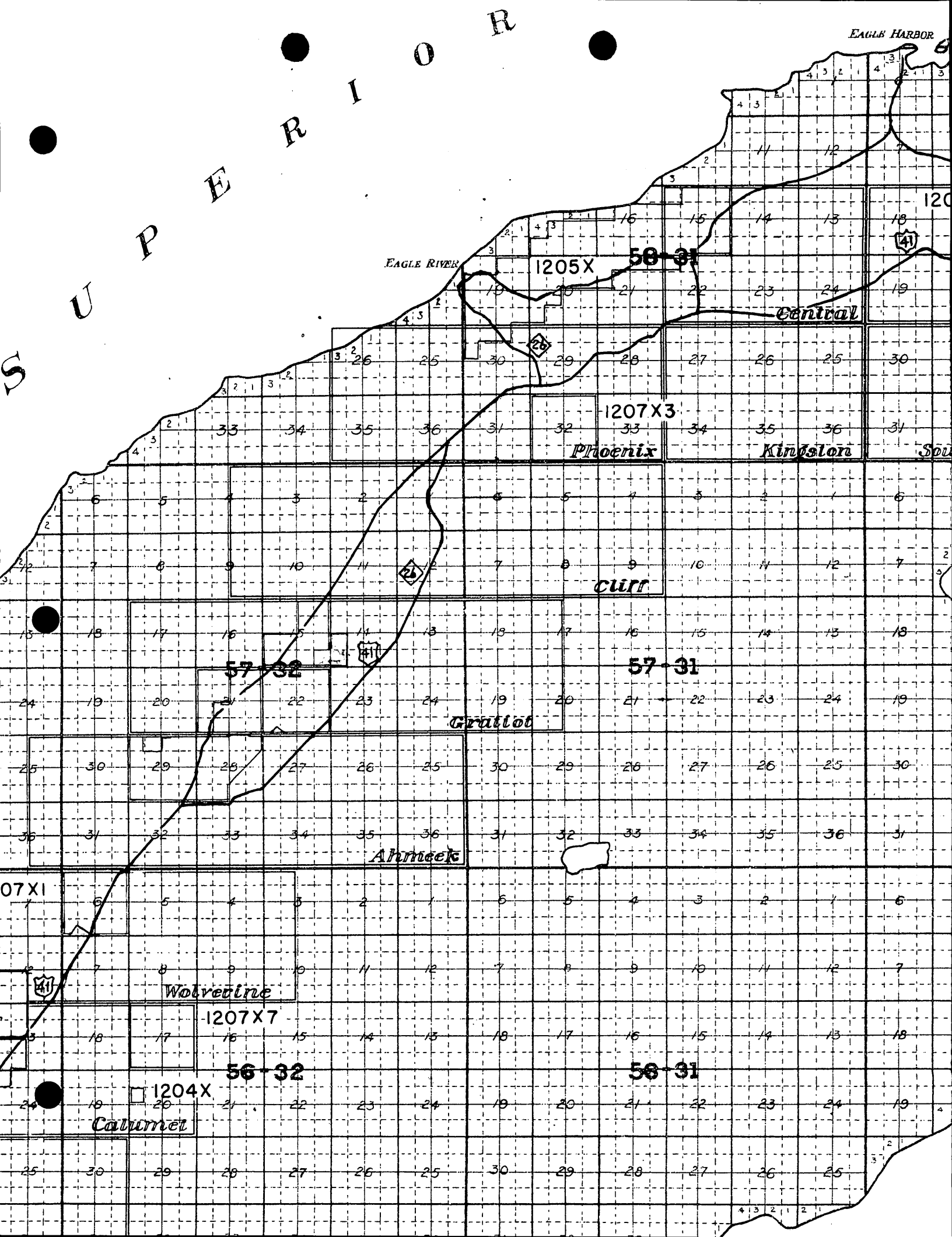
Current Assets	
Cash	$ 6,028,695
Federal, State and Municipal Securities	2,050,000
Accounts Receivable	4,024,165
Inventories	8,320,871
Marketable Securities (at cost)	6,392
Total Current Assets	20,430,130
Capital Assets	
Land and Land Improvements (at cost)	3,635,312
Stumpage and Timberlands (at cost)	462,205
Mine Lands (at cost of ore in place)	9,550,125
Plants and Equipment (at cost less amounts charged to past operations as depreciation)	15,241,759
Total Capital Assets	28,889,401
Other Assets	
Investment in Affiliates (at cost or less)	380,773
Explorations and Mineral Properties in Development	471,366
Charges to Future Operations (net)	262,498
Federal Tax Carryback Credit (1949)	475,000
Federal Tax Claims (1943-1945)	211,140
Total Other Assets	1,800,777
TOTAL ASSETS	$51,120,308

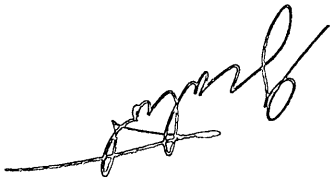
L I A B I L I T I E S

Current Liabilities	
Accounts Payable	$ 3,094,745
Bank Loans due in 12 months	400,000
Taxes Payable and Accrued	3,737,742
Total Current Liabilities	7,232,487
Deferred Liabilities	
Employment Contracts	57,780
Bank Loans due after 12 months	1,300,000
Insurance Company Loans due 1955 to 1964	5,700,000
Total Deferred Liabilities	7,057,780
TOTAL LIABILITIES	$14,290,267
Shareholders' Equity	36,830,041
TOTAL LIABILITIES and EQUITY	$51,120,308

CONDENSED INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 1950

Revenue from processing and selling metals and metal products		$46,948,761
Operating Costs - Production	$32,807,436	
- Freight, Selling, Admin. & Corporate Taxes	4,967,842	37,775,278
Net Operating Income		9,173,483
Other Income		1,063,605
Total Income		10,237,088
Other Charges		1,115,018
Net Gain before Depreciation, Depletion and Federal Taxes based on income		9,122,070
Depreciation	$1,303,137	
Depletion	375,499	1,678,636
Net Gain before Federal Taxes		7,443,434
Provision for Federal Income and Excess Profits Taxes		3,600,000
NET GAIN CARRIED TO EARNED SURPLUS		$ 3,843,434


SUPERIOR
EAGLE HARBOR
EAGLE RIVER
1205X
58-31
Central
1207X3
Phoenix
Kingston
Clifr
57-32
57-31
Grafiot
Ahmeek
07X1
Wolverine
1207X7
56-32
56-31
1204X
Calumet



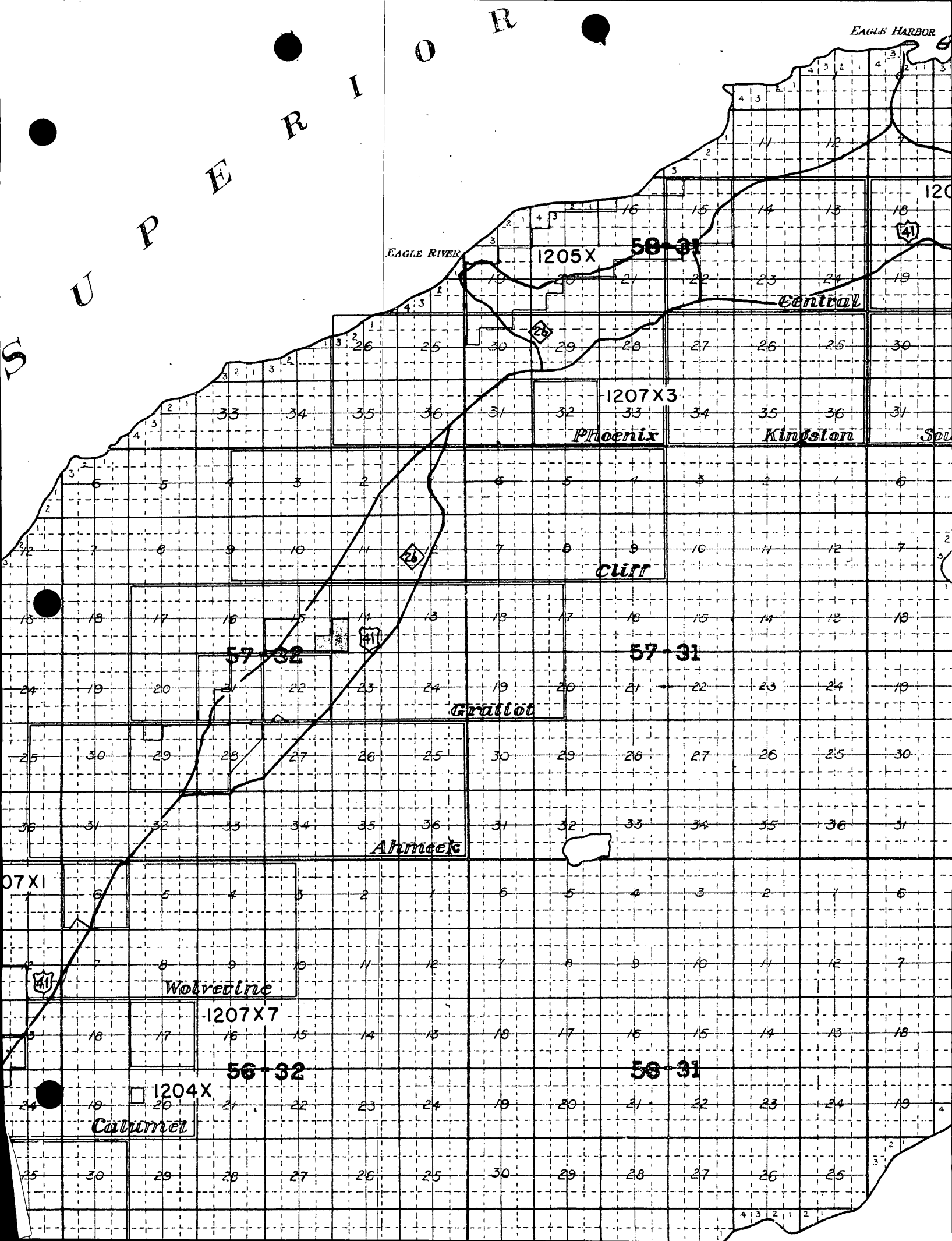

SUPERIOR
EAGLE HARBOR
EAGLE RIVER
1205X
58-31
Central
1207X3
Phoenix
Kingston
Clirr
57-32
57-31
Gratiot
Ahmeek
Wolverine
1207X7
56-32
58-31
1204X
Calumet

EXHIBIT A.

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY

BALANCE SHEET AT DECEMBER 31, 1950

ASSETS

Current Assets	
Cash	$ 6,028,695
Federal, State and Municipal Securities	2,050,000
Accounts Receivable	4,024,165
Inventories	8,320,871
Marketable Securities (at cost)	6,392
Total Current Assets	20,430,130
Capital Assets	
Land and Land Improvements (at cost)	3,635,312
Stumpage and Timberlands (at cost)	462,205
Mine Lands (at cost of ore in place)	9,550,125
Plants and Equipment (at cost less amounts charged to past operations as depreciation)	15,241,759
Total Capital Assets	28,889,401
Other Assets	
Investment in Affiliates (at cost or less)	380,773
Explorations and Mineral Properties in Development	471,366
Charges to Future Operations (net)	262,498
Federal Tax Carryback Credit (1949)	475,000
Federal Tax Claims (1943-1945)	211,140
Total Other Assets	1,800,777
TOTAL ASSETS	$51,120,308

LIABILITIES

Current Liabilities	
Accounts Payable	$ 3,094,745
Bank Loans due in 12 months	400,000
Taxes Payable and Accrued	3,737,742
Total Current Liabilities	7,232,487
Deferred Liabilities	
Employment Contracts	57,780
Bank Loans due after 12 months	1,300,000
Insurance Company Loans due 1955 to 1964	5,700,000
Total Deferred Liabilities	7,057,780
TOTAL LIABILITIES	$14,290,267
Shareholders' Equity	36,830,041
TOTAL LIABILITIES and EQUITY	$51,120,308

CONDENSED INCOME STATEMENT FOR THE YEAR ENDED DECEMBER 31, 1950

Revenue from processing and selling metals and metal products		$46,948,761
Operating Costs - Production	$32,807,436	
- Freight, Selling, Admin. & Corporate Taxes	4,967,842	37,775,278
Net Operating Income		9,173,483
Other Income		1,063,605
Total Income		10,237,088
Other Charges		1,115,018
Net Gain before Depreciation, Depletion and Federal Taxes based on income		9,122,070
Depreciation	$1,303,137	
Depletion	375,499	1,678,636
Net Gain before Federal Taxes		7,443,434
Provision for Federal Income and Excess Profits Taxes		3,600,000
NET GAIN CARRIED TO EARNED SURPLUS		$ 3,843,434

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
CALUMET, MICHIGAN

23. In accordance with our customary practice, costs are calculated on a footage basis, as follows:

	Cost per Foot
Direct labor	$13.34
2 miners	
2 trammers	
1 laborer	
Equipment maintenance	.21
Supplies	9.51
Air, electric power, payroll taxes	.91
Timekeeper, workmen's compensation, insurance benefits, vacation allowances	1.61
Supervision	1.10
Mine captain	
2 shift bosses	
Change house and surface expense	.14
Hoisting	1.57
Poor rock disposal	.98
Shaft repairs	.19
Depreciation of equipment	1.23
Cost per foot	$30.79

2,000 feet @ $30.79 per foot = $61,580

20. It is intended to explore the Kearsarge lode for copper north of any present operations.

21. The 26th level north drift of the Seneca shaft will be extended northerly 2,000 feet in the Kearsarge lode. Progress will be about 250 feet per month, and the project will be completed in 8 months from the time a contract is signed.

22. The Kearsarge lode has been one of the most productive lodes in the Michigan copper area. It has been and is being mined over a distance of about 7 miles, from the Centennial mine at the south to the Seneca mine at the north. This exploration is intended to find out whether there are values in the Kearsarge lode north of present operations.

23. See following sheet.

24. First through the seventh month - $8,005.40; eighth month - $5,542.20.

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
CALUMET, MICHIGAN

Form MF-103

26th Level North Seneca Shaft

1., 2., 3., and 4. Answered on Form MF-100

5. Owner

6. None

7. Not applicable

8. Statements attached as EXHIBIT "A"

9. $55,372 (50% of cost)

10.(a) West half of Southwest quarter (W½ of SW¼), of Section Fourteen (14) Southeast quarter of Southeast quarter (SE¼ of SE¼), of Section Fifteen (15) Township Fifty-seven North, Range Thirty-two West (T57N, R32W), Keweenaw County, Michigan

(b) That portion of the Kearsarge lode lying 150 feet above and below the 26th level north drift of the Seneca shaft, measured on the incline of said vein, and extending laterally 2,000 feet in a northerly direction from draft mark 4,605 in said drift.

11. Seneca

12. Located one mile north of Mohawk, Michigan on U. S.-41. Served by Applicant's railroad.

13. Water from Applicant's pumping plants on Lake Superior—adequate at all seasons. Power from Applicant's two power plants.

14. Mine is in operation and has all necessary facilities.

15. Ore will be shipped on Applicant's railroad to Applicant's Ahmeek mill for treatment.

16. The Seneca Mining Company operated this shaft from 1925 to 1931 when it went into receivership. Applicant acquired the property in 1945, started rehabilitating the shaft in 1945, and has been in production since 1946.

17. While the mine is in production, no production is coming from the area it is proposed to explore.

18. There are no known reserves in the area in question.

19. No unusual circumstances.

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area and to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

CALUMET AND HECLA CONSOLIDATED COPPER CO.
CALUMET DIVISION
(Name of company)

By A. E. Vitermann
(Signature of authorized official)

June 23, 1951
(Date)

Vice President
(Title)

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. Dma-1742 X

Date received 6/27/51

Participation

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 27 1951
LANDON F. STROBEL
Executive Secretary

CALUMET AND HECLA CONSOLIDATED COPPER COMPANY
CALUMET DIVISION
1 CALUMET AVENUE
CALUMET, MICHIGAN

Name and address of applicant

Date June 23, 1951

FILL IN THIS BLOCK

Date of application June 23, 1951

Estimated cost $110,744

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Keweenaw County, Michigan

Date of filing MF-100 May 14, 1951

DMA Docket Number, if available

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

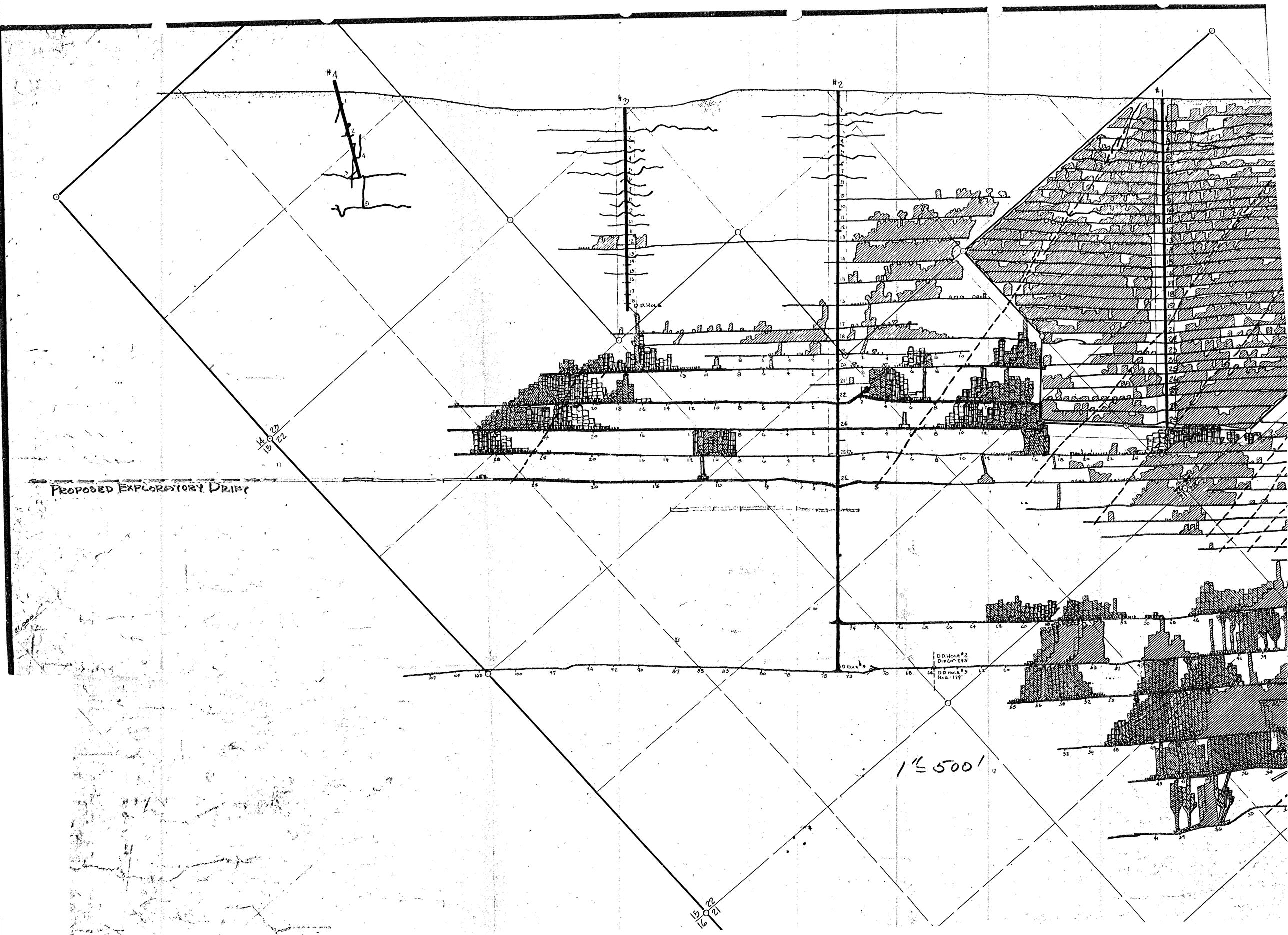
*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

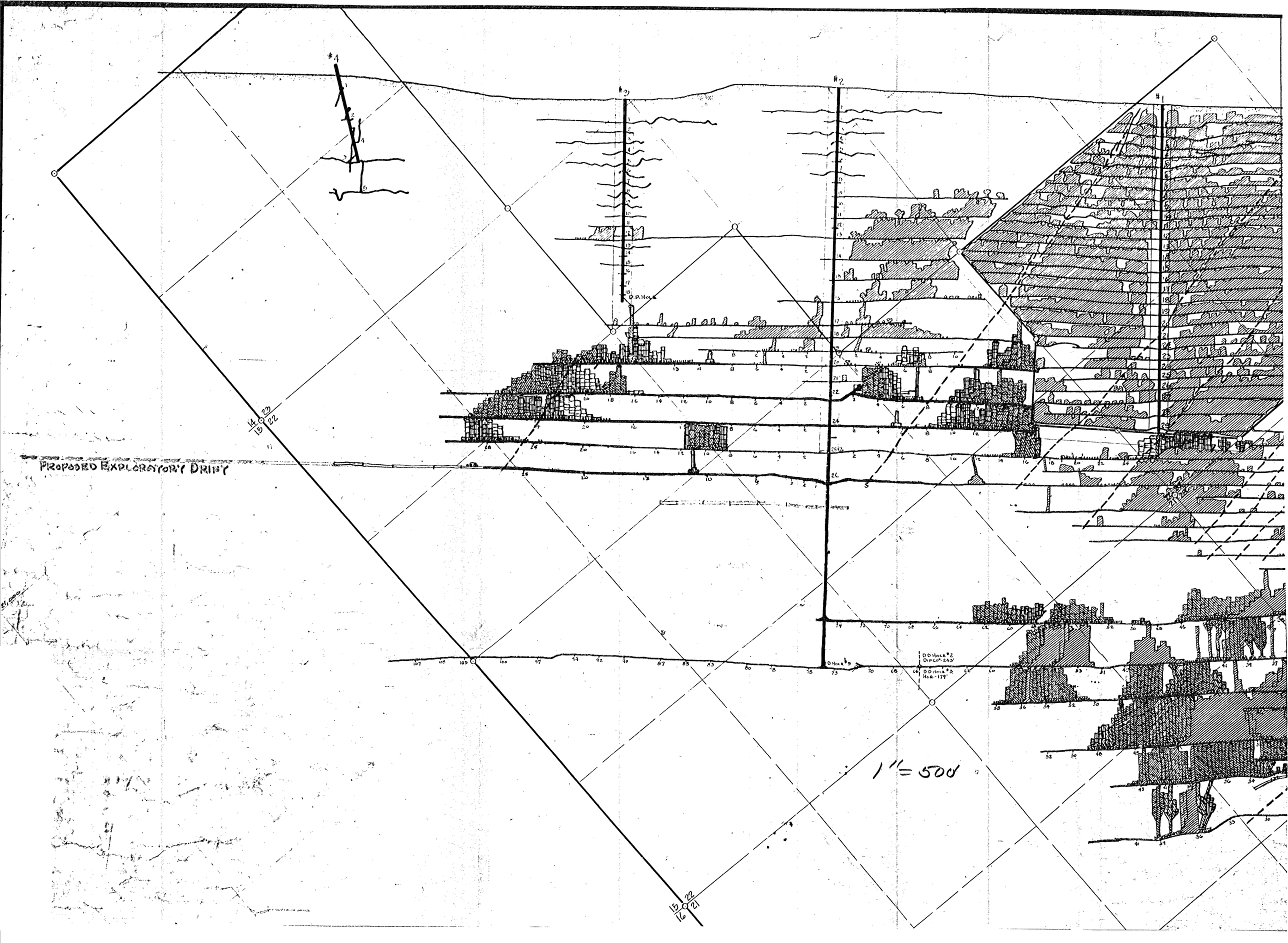
NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

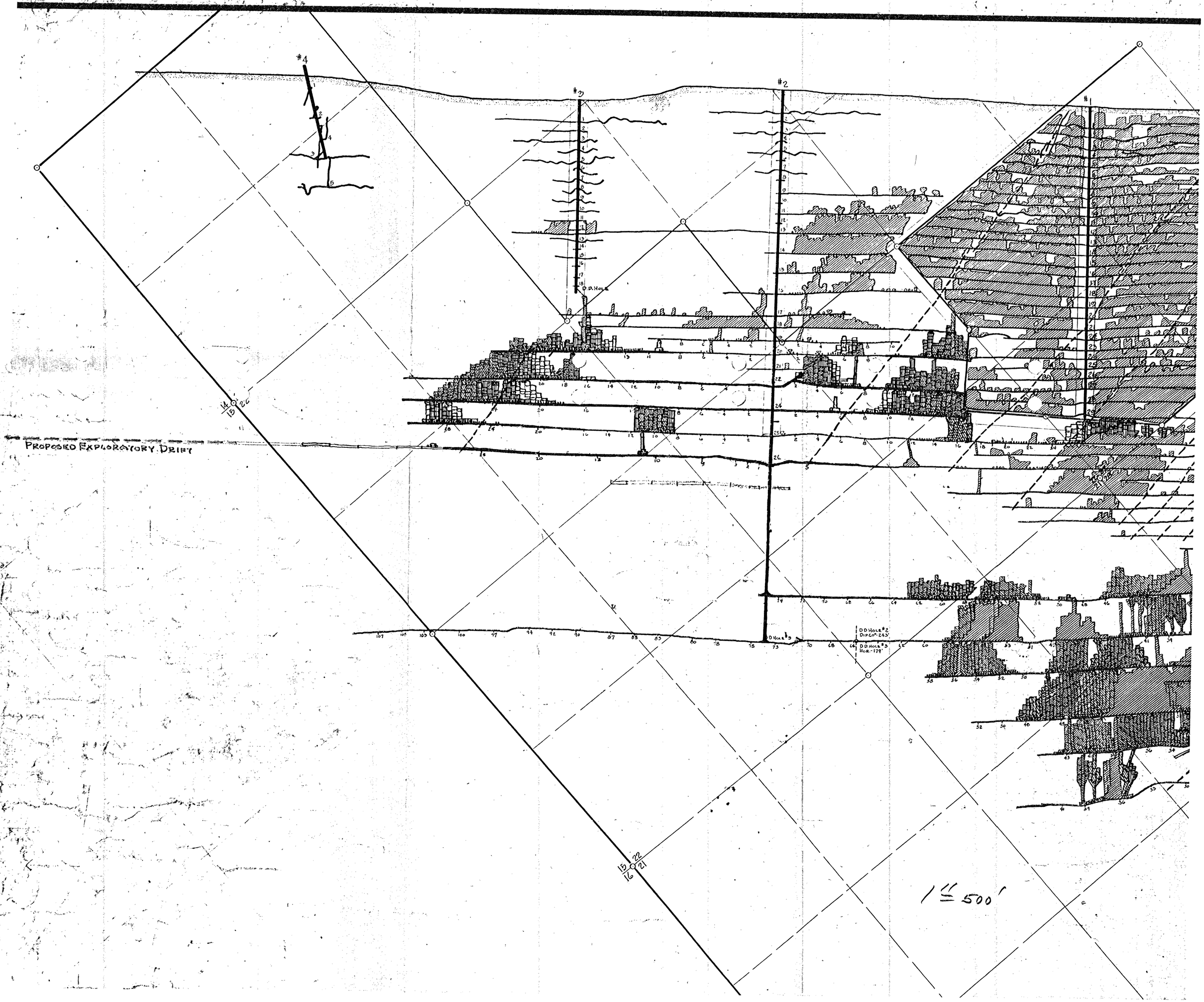
8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

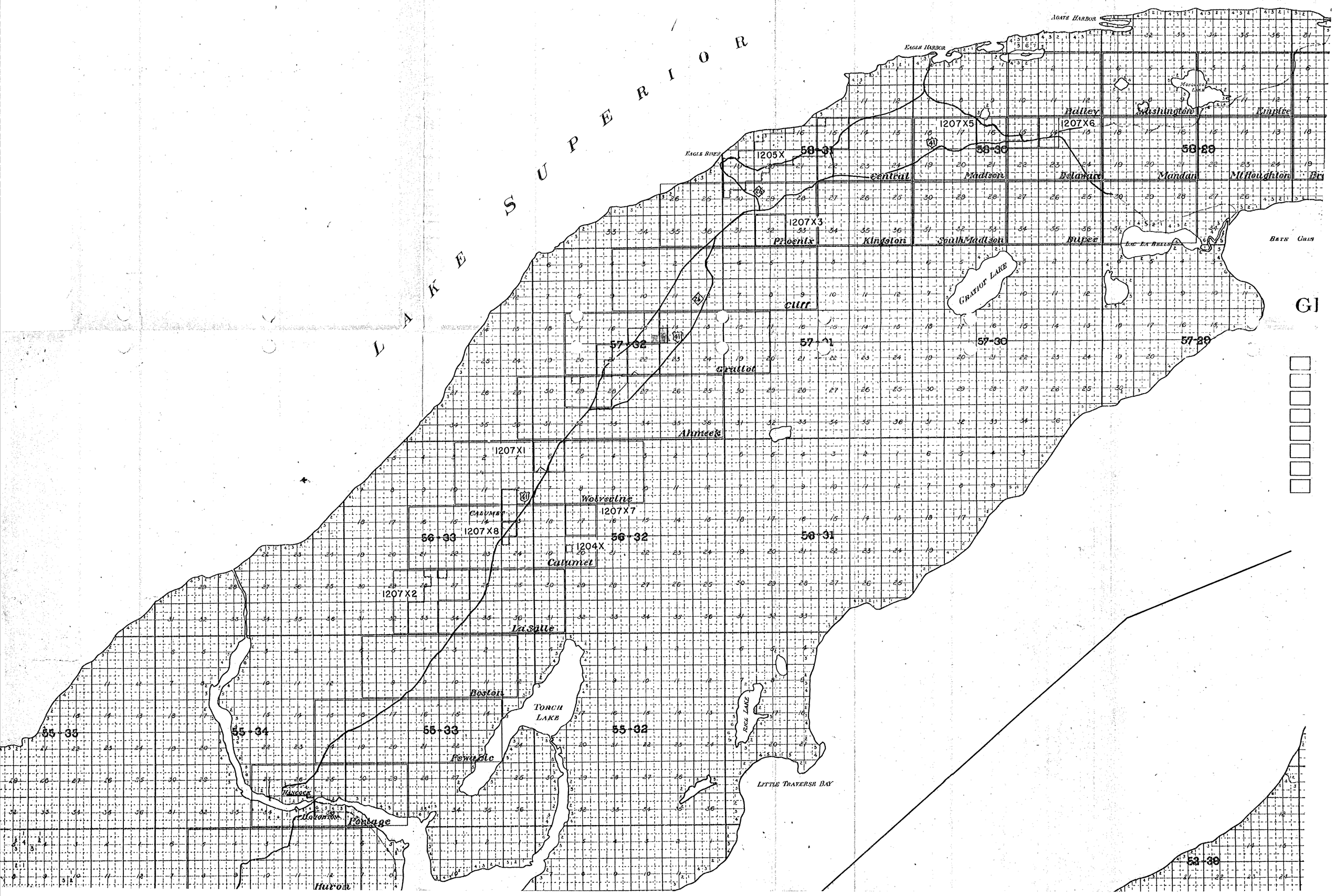
*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1


#1
#2
#3
D.D. Hole
D.D. Hole #2
Dip 60° 243'
D.D. Hole #3
Hor.-179'
1" = 500'
PROPOSED EXPLORATORY DRIFT


#4
#3
#2
#1
D.D. Hole
D.D. Hole #2
Dip 60° 243'
D.D. Hole #3
Hor. 179'
PROPOSED EXPLORATORY DRIFT
1" = 500'


#4
#3
#2
#1
D.D. Hole
PROPOSED EXPLORATORY DRIFT
DD Hole #2
Dip Cor. 243'
DD Hole #3
Hor.-179'
1" = 500'


LAKE SUPERIOR
AGATE HARBOR
EAGLE HARBOR
EAGLE RIVER
MOSQUITO LAKE
Bulley
Washington
Empire
Central
Madison
Delaware
Mandan
Mt Houghton
Phoenix
Kingston
South Madison
Dupee
LAC LA BELLE
GRATIOT LAKE
Clifr
Gratiot
Ahmeek
Wolverine
Calumet
La Salle
Boston
Fewaitic
TORCH LAKE
RICE LAKE
LITTLE TRAVERSE BAY
Hancock
Houghton
Portage
Huron
1205X
1207X1
1207X2
1207X3
1207X5
1207X6
1207X7
1207X8
1204X
58-31
58-30
58-29
57-32
57-31
57-30
57-29
56-33
56-32
56-31
55-35
55-34
55-33
55-32
53-30