MF-200
(April 1951)

Docket No. DMA 1590

Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 9 - 1951
LANDON F. STROBEL
Executive Secretary

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] James J. Flynn and Virgil D. Taylor, partnership owning the Shamrock Mine Keller, Washington

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Washington, County of Ferry described as follows: [3] Mining claims comprising the Shamrock mine group listed below: Mill fraction, Allard, Jack, Broad Axe, Gardner, Trapper Dexter Horton, Columbia Copper King, Copper Plate, New York, Jack Rabbit, May Flower, Iron Sides. Continued on attached supplemental sheet. with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None.

(*b*) ~~[illegible]~~

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Nickel; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 18 Months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator 90 percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $13,500, which is 90 percent of the agreed estimated total cost of this project, $15,000.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in triplicate the day and year first above written.

THE UNITED STATES OF AMERICA

(Operator)

By _____

By _____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

EXPLORATION PROJECT CONTRACT

Item 2 Continued:

Chicago, Black Horse, Peter Morton Olmstead, Biffo Bates, Jimmy Angle, Wm. Dodelle, Gabie, Ben Olson, John Riley, Janet Anderson No. I, Anderson, Jewel, Anderson No. II, Anderson Ext. No. I, Iron Creek Clinker, Uncle Tom Fraction, Hidden Treasure, Herman, Old Pioneer, Shamrock, and Anderson Ext. No. II.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "A"

Exploration Project

The purpose of this project is to obtain geologic, assay, and diamond drill information on the nickel zones occuring in the property known as the Shamrock Mine situated in Ferry County, Washington.

It is proposed to take surface samples along a wide, persistent nickel-bearing quartz breccia zone. The breccia zone is at least 9000 feet long. The width varies from 200 to 600 feet. (See Fig. 1.) To procure fresh samples of rock, drilling will be done by means of a portable power auger. Tests for nickel will be made in the field using methods proposed by the U. S. Geological Survey. Each sample will also be tested for its pH.

After this zone is mapped and sampled and assays are available, it is proposed to diamond drill the most favorable locations.

The costs of the project are as follows.

Mapping) Sampling)---------Total.	$ 2,500.00
Assaying)	
Diamond Drilling 1666 ft. @ $6.00/ft. . . .	10,000.00
Equipment Cost	2,500.00
Total Cost of Project	$15,000.00

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "B"

Fixtures and improvements

No additional facilities, buildings, or fixtures are to be purchased, installed, or erected on the property as a cost of this project.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "C"

Operating equipment

To be rented: --------None

To be purchased:

	Delivery cost
1 Portable 2-man auger and chain saw.	$ 600.00
1 Chipmonk crusher and motor.	400.00
1 Chipmonk pulverizer	350.00
1 Torsion balance	200.00
1 Beckman model G electrometric pH meter.	250.00
Miscellaneous chemical supplies	700.00
Total	$2500.00

To be furnished by Operator: ---------None

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "D"

Labor and supervision

For the mapping, sampling, and assaying work the following labor costs are estimated.

1.	Supervisor	$500.00 per month
2.	2 Laborers @ $1.80/hr.	28.80 per day

The preliminary mapping, sampling, and assay work will require about two months to complete, or approximately $2,500.00 for labor and supervision.

The diamond drilling will be contracted for at a unit price per foot. During the drilling phase of the program, the supervisor's salary will be allowed as a cost of the project. The diamond drilling may require four to six months' time to complete. The estimated cost of drilling including supervision is $6.00 per foot.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "E"

Rehabilitation and repairs

No facilities, buildings, fixtures, etc. are to be repaired or rehabilitated as a cost of this project.

MF-200
(April 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and[2] James J. Flynn and Virgil D. Taylor, partnership owning the Shamrock Mine Keller, Washington

hereinafter called the "Operator," as follows:

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2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Washington, County of Ferry described as follows:[3] Mining claims comprising the Shamrock mine group listed below: Mill fraction, Allard, Jack, Broad Axe, Gardner, Trapper Dexter Horton, Columbia Copper King, Copper Plate, New York, Jack Rabbit, May Flower, Iron Sides. Continued on attached supplemental sheet.
with respect to which the Operator represents and undertakes:[4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None.

(*b*) [redacted].

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Nickel; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of[6] 18 Months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, and other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator ---90--- percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $---13,500---, which is ---90--- percent of the agreed estimated total cost of this project, $---15,000---.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in triplicate the day and year first above written.

THE UNITED STATES OF AMERICA

(Operator)

By ---

By ---

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

EXPLORATION PROJECT CONTRACT

Item 2 Continued:

Chicago, Black Horse, Peter Morton Olmstead, Biffe Bates, Jimmy Angle, Wm. Dodelle, Gabie, Ben Olson, John Riley, Janet Anderson No. I, Anderson, Jewel, Anderson No. II, Anderson Ext. No. I, Iron Creek Clinker, Uncle Tom Fraction, Hidden Treasure, Herman, Old Pioneer, Shamrock, and Anderson Ext. No. II.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "A"

Exploration Project

The purpose of this project is to obtain geologic, assay, and diamond drill information on the nickel zones occuring in the property known as the Shamrock Mine situated in Ferry County, Washington.

It is proposed to take surface samples along a wide, persistent nickel-bearing quartz breccia zone. The breccia zone is at least 9000 feet long. The width varies from 200 to 600 feet. (See Fig. 1.) To procure fresh samples of rock, drilling will be done by means of a portable power auger. Tests for nickel will be made in the field using methods proposed by the U. S. Geological Survey. Each sample will also be tested for its pH.

After this zone is mapped and sampled and assays are available, it is proposed to diamond drill the most favorable locations.

The costs of the project are as follows.

Mapping) Sampling) Assaying) ——Total.	$ 2,500.00
Diamond Drilling 1666 ft. x 6.00/ft. . . .	10,000.00
Equipment Cost	2,500.00
Total Cost of Project	$15,000.00

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "B"

Fixtures and improvements

No additional facilities, buildings, or fixtures are to be purchased, installed, or erected on the property as a cost of this project.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "C"

Operating equipment

To be rented: ————None

To be purchased:

	Delivery cost
1 Portable 2-man auger and chain saw.	$ 600.00
1 Chipmonk crusher and motor.	400.00
1 Chipmonk pulverizer	350.00
1 Torsion balance	200.00
1 Beckman model G electrometric pH meter.	250.00
Miscellaneous chemical supplies	700.00
Total	$2500.00

To be furnished by Operator: ————None

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "D"

Labor and supervision

For the mapping, sampling, and assaying work the following labor costs are estimated.

1.	Supervisor	$500.00 per month
2.	2 Laborers - $1.80/hr.	28.80 per day

The preliminary mapping, sampling, and assay work will require about two months to complete, or approximately $2,500.00 for labor and supervision.

The diamond drilling will be contracted for at a unit price per foot. During the drilling phase of the program, the supervisor's salary will be allowed as a cost of the project. The diamond drilling may require four to six months' time to complete. The estimated cost of drilling including supervision is $6.00 per foot.

Shamrock Mine

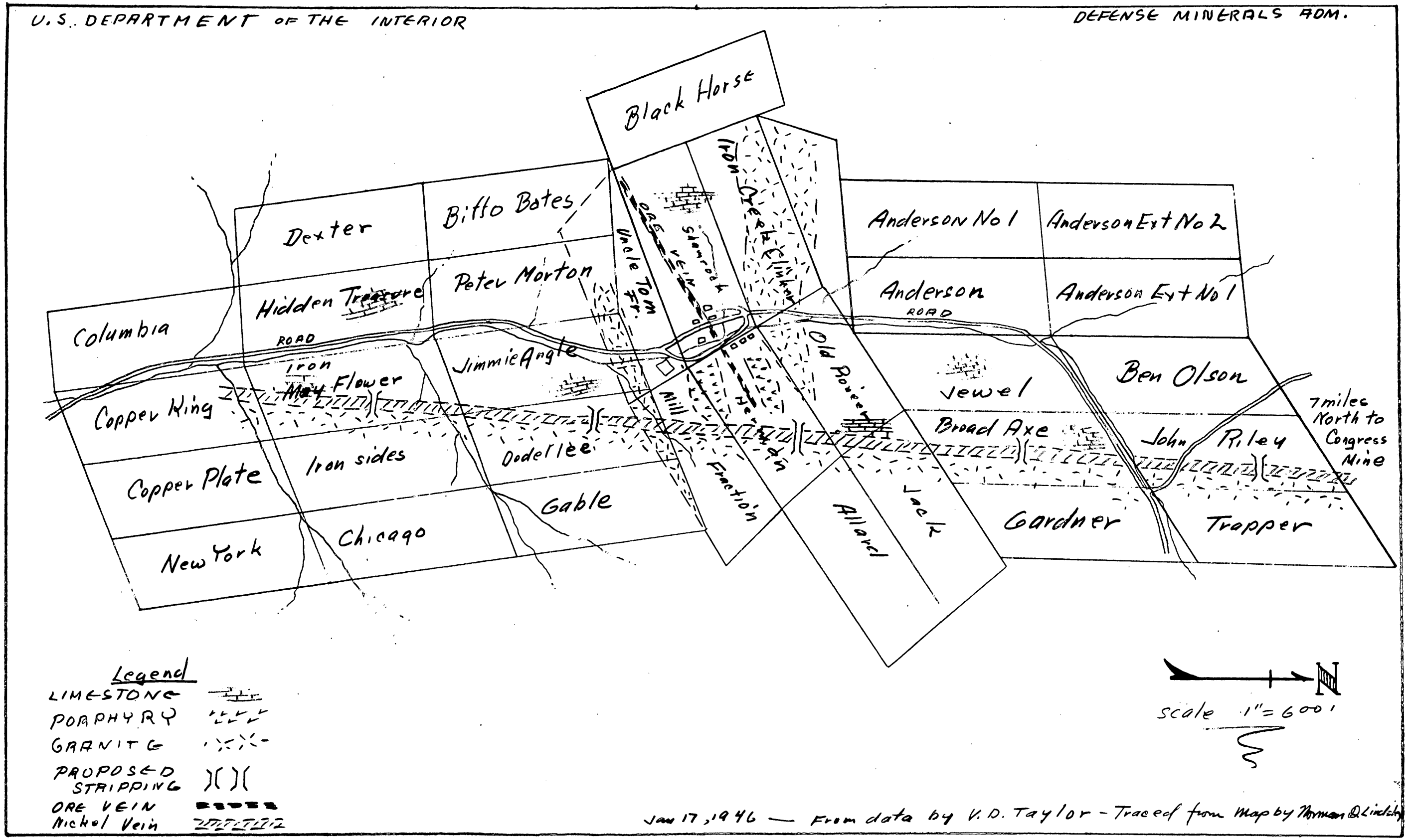
Ferry County, Wash.

Exploration Project Contract

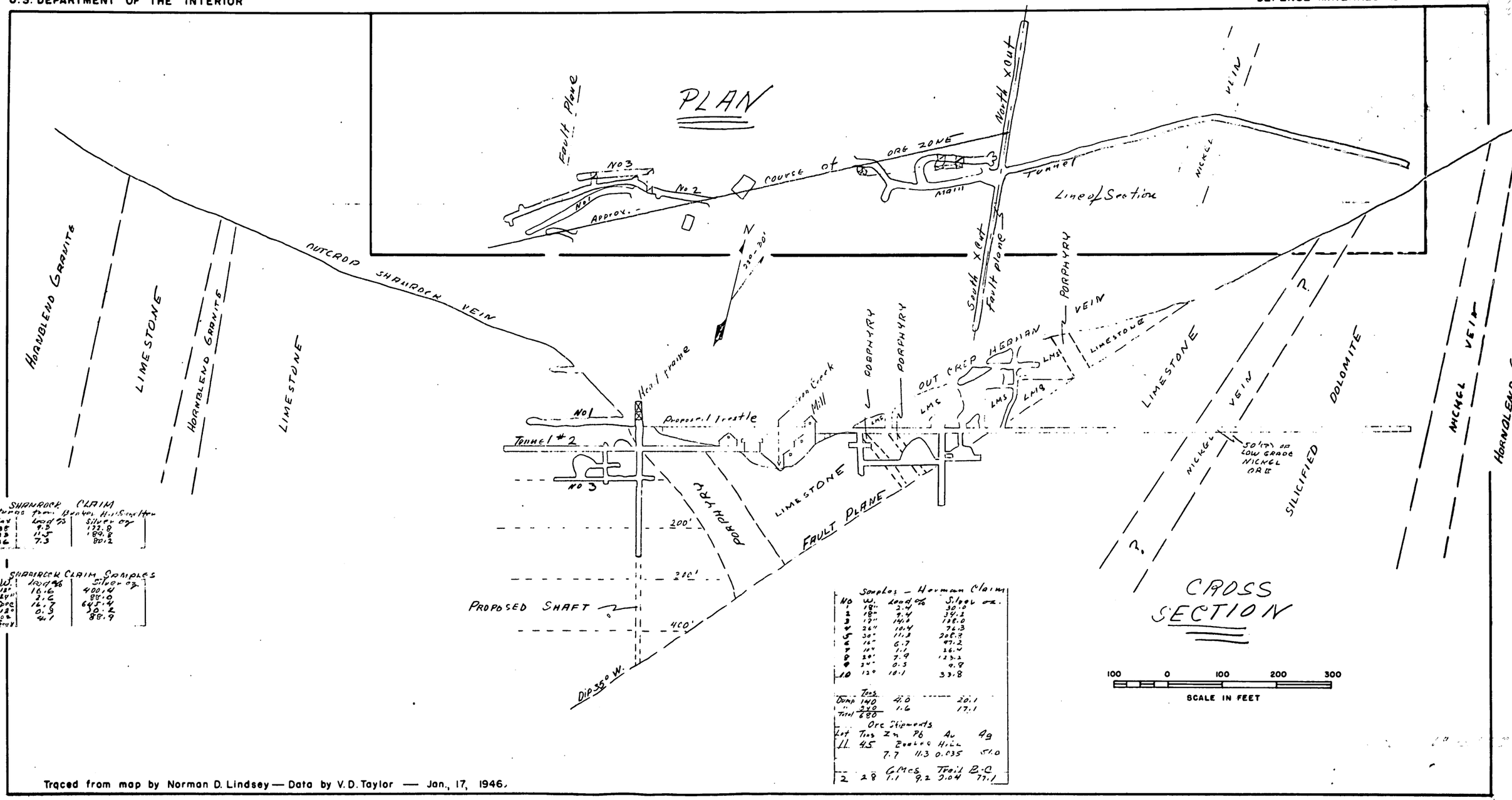
EXHIBIT "E"

Rehabilitation and repairs

No facilities, buildings, fixtures, etc. are to be repaired or rehabilitated as a cost of this project.



Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.



Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

FIGURE 2. — SHAMROCK SILVER-LEAD PROPERTY, IRON CREEK, FERRY COUNTY, WASHINGTON.

MF-200
(April 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 9 - 1951
LANDON F. STROBEL
Executive Secretary

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with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None.

(*b*) ~~That he is the lessee, in possession, and the subordination agreement of the lessor is attached.~~

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Nickel; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 18 Months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator ____90____ percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $____13,500____, which is ____90____ percent of the agreed estimated total cost of this project, $____15,000____.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in triplicate the day and year first above written.

THE UNITED STATES OF AMERICA

(Operator)

By _____

By _____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

EXPLORATION PROJECT CONTRACT

Item 2 Continued:

Chicago, Black Horse, Peter Morton Olmstead, Biffo Bates, Jimmy Angle, Wm. Dodelle, Gabie, Ben Olson, John Riley, Janet Anderson No. I, Anderson, Jewel, Anderson No. II, Anderson Ext. No. I, Iron Creek Clinker, Uncle Tom Fraction, Hidden Treasure, Herman, Old Pioneer, Shamrock, and Anderson Ext. No. II.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "A"

Exploration Project

The purpose of this project is to obtain geologic, assay, and diamond drill information on the nickel zones occuring in the property known as the Shamrock Mine situated in Ferry County, Washington.

It is proposed to take surface samples along a wide, persistent nickel-bearing quartz breccia zone. The breccia zone is at least 9000 feet long. The width varies from 200 to 600 feet. (See Fig. 1.) To procure fresh samples of rock, drilling will be done by means of a portable power auger. Tests for nickel will be made in the field using methods proposed by the U. S. Geological Survey. Each sample will also be tested for its pH.

After this zone is mapped and sampled and assays are available, it is proposed to diamond drill the most favorable locations.

The costs of the project are as follows.

Mapping) Sampling)————Total.	$ 2,500.00
Assaying)	
Diamond Drilling 1666 ft. @ $6.00/ft. . . .	10,000.00
Equipment Cost	2,500.00
Total Cost of Project	$15,000.00

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "B"

Fixtures and improvements

No additional facilities, buildings, or fixtures are to be purchased, installed, or erected on the property as a cost of this project.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "C"

Operating equipment

To be rented: ————None

To be purchased:

	Delivery cost
1 Portable 2-man auger and chain saw.	$ 600.00
1 Chipmonk crusher and motor.	400.00
1 Chipmonk pulverizer	350.00
1 Torsion balance	200.00
1 Beckman model G electrometric pH meter.	250.00
Miscellaneous chemical supplies	700.00
Total	$2500.00

To be furnished by Operator: ————None

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "D"

Labor and supervision

For the mapping, sampling, and assaying work the following labor costs are estimated.

1.	Supervisor	$500.00 per month
2.	2 Laborers @ $1.80/hr.	28.80 per day

The preliminary mapping, sampling, and assay work will require about two months to complete, or approximately $2,500.00 for labor and supervision.

The diamond drilling will be contracted for at a unit price per foot. During the drilling phase of the program, the supervisor's salary will be allowed as a cost of the project. The diamond drilling may require four to six months' time to complete. The estimated cost of drilling including supervision is $6.00 per foot.

Shamrock Mine

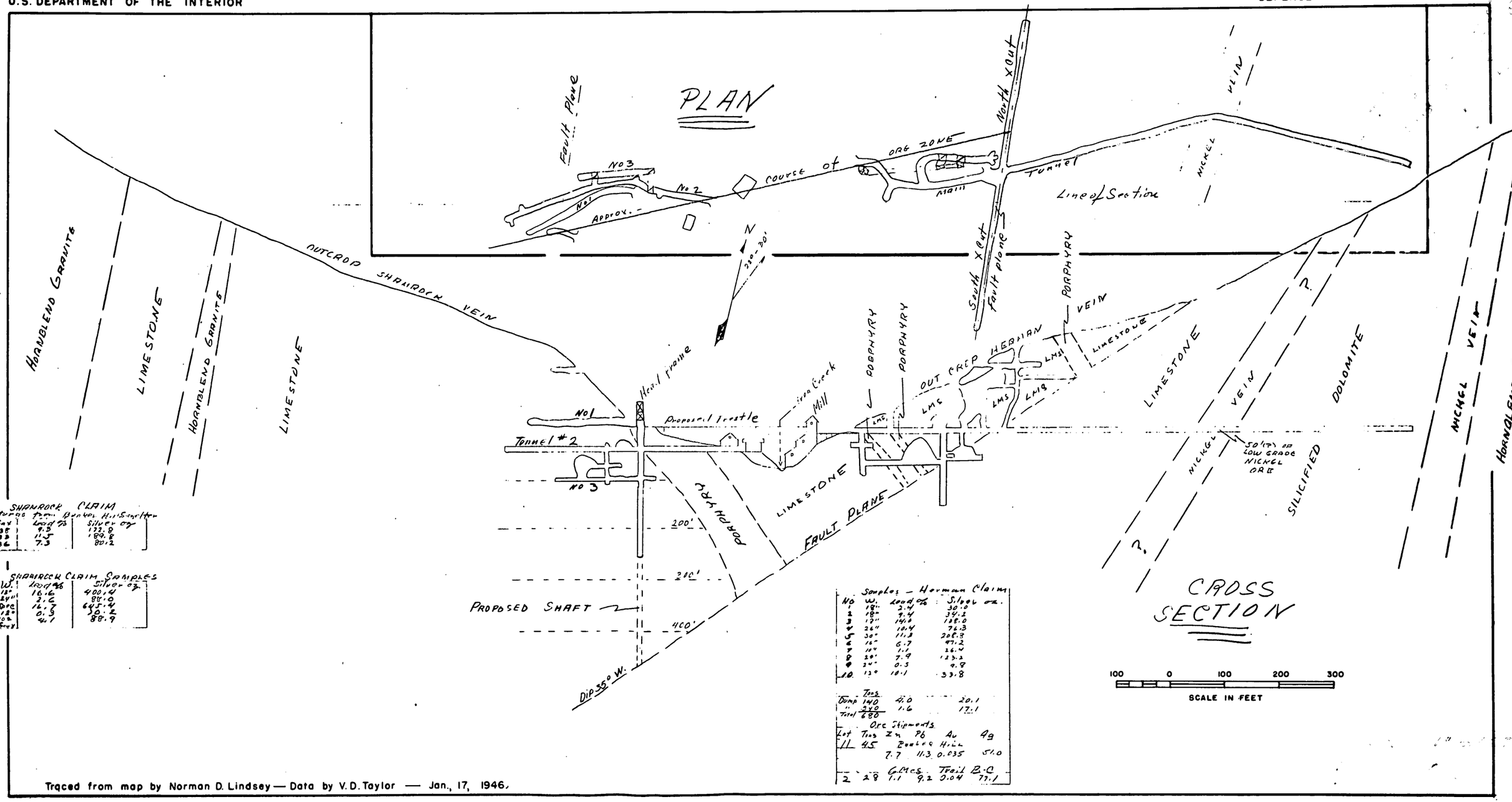
Ferry County, Wash.

Exploration Project Contract

EXHIBIT "E"

Rehabilitation and repairs

No fasilities, buildings, fixtures, etc. are to be repaired or rehabilitated as a cost of this project.



SHAMROCK CLAIM
Returns from Bonner Hill Smelter

Lot	Sam	Lead %	Silver oz
1	35	9.5	122.0
2	33	11.5	189.8
3	36	7.3	80.2

SHAMROCK CLAIM SAMPLES

No	W.	Lead %	Silver oz.
1	18"	16.6	400.4
2	24"	2.6	88.0
3	Dre	16.7	645.4
4	18"	0.5	30.2
Stope	10" (Grey)	4.1	88.9

Samples – Herman Claim

No	W.	Lead %	Silver oz.
1	18"	2.4	30.0
2	18"	9.4	39.2
3	12"	14.8	188.0
4	26"	10.4	76.3
5	30"	11.3	208.3
6	16"	6.7	97.2
7	14"	1.1	26.4
8	20"	7.9	123.2
9	24"	0.3	9.8
10	12"	10.1	33.8

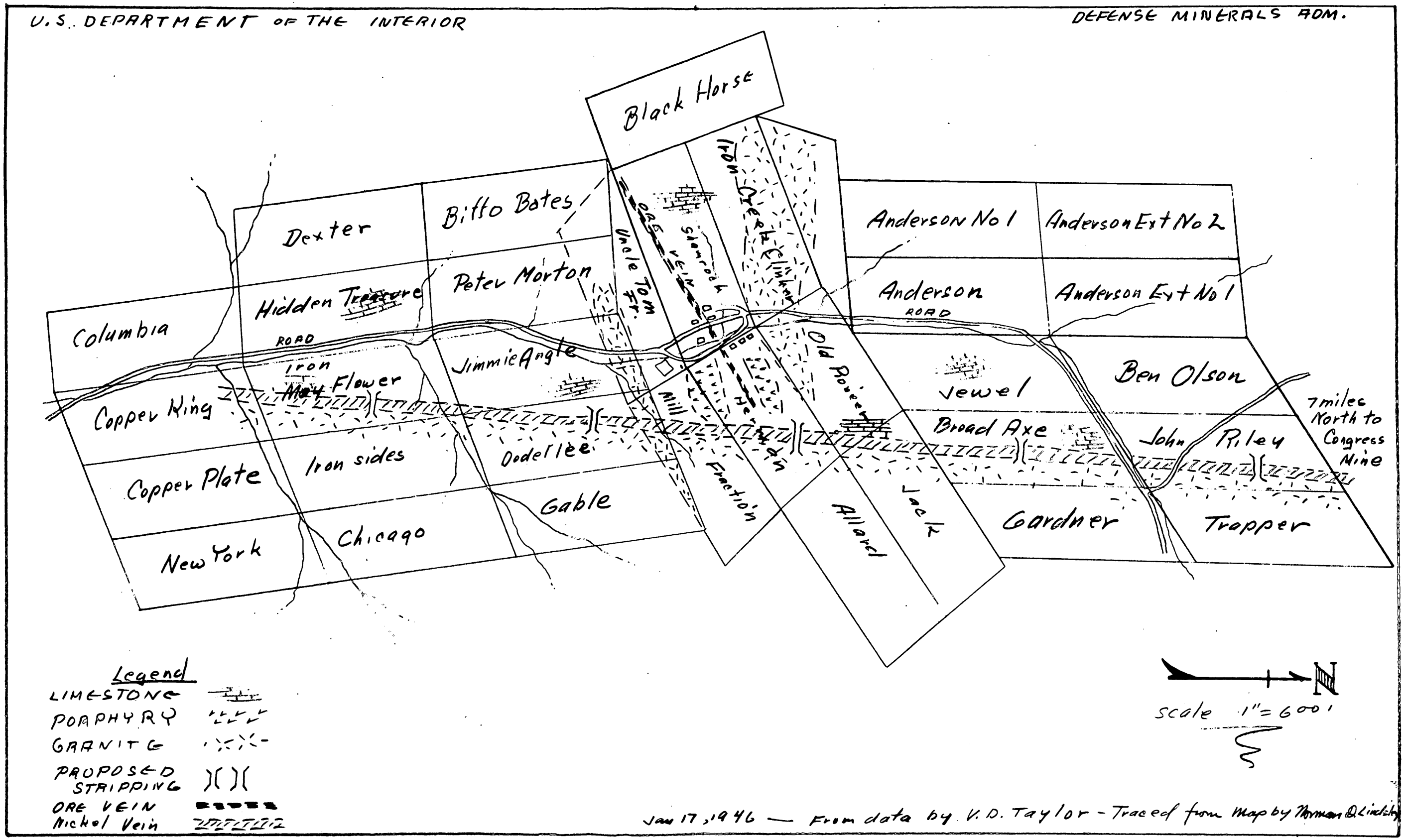
	Tons		
Dump	140	4.0	20.1
"	240	1.6	17.1
Total	680		

Ore Shipments

Lot	Tons	Zn	Pb	Au	Ag
11	45	Bonner Hill			
		7.7	11.3	0.035	51.0
		G.Mcs.	Trail B.C		
2	28	1.1	9.2	0.04	77.1

Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

FIGURE 2. — SHAMROCK SILVER-LEAD PROPERTY, IRON CREEK, FERRY COUNTY, WASHINGTON.



Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.

MF-200
(April 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 9 - 1951
LANDON F. STROBEL
Executive Secretary

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] James J. Flynn and Virgil D. Taylor, partnership owning the Shamrock Mine Keller, Washington

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Washington, County of Ferry described as follows: [3] Mining claims comprising the Shamrock mine group listed below: Mill fraction, Allard, Jack, Broad Axe, Gardner, Trapper Baxter Horton, Columbia Copper King, Copper Plate, New York, Jack Rabbit, May Flower, Iron Sides. Continued on attached supplemental sheet.
with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None.

(*b*) [redacted]

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Nickel; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 18 Months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator ____90____ percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $____13,500____, which is ____90____ percent of the agreed estimated total cost of this project, $____15,000____.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in triplicate the day and year first above written.

THE UNITED STATES OF AMERICA

(Operator)

By ____

By ____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

EXPLORATION PROJECT CONTRACT

Item 2 Continued:

Chicago, Black Horse, Peter Morton Olmstead, Biffo Bates, Jimmy Angle, Wm. Dodelle, Gabie, Ben Olson, John Riley, Janet Anderson No. I, Anderson, Jewel, Anderson No. II, Anderson Ext. No. I, Iron Creek Clinker, Uncle Tom Fraction, Hidden Treasure, Herman, Old Pioneer, Shamrock, and Anderson Ext. No. II.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "A"

Exploration Project

The purpose of this project is to obtain geologic, assay, and diamond drill information on the nickel zones occuring in the property known as the Shamrock Mine situated in Ferry County, Washington.

It is proposed to take surface samples along a wide, persistent nickel-bearing quartz breccia zone. The breccia zone is at least 9000 feet long. The width varies from 200 to 600 feet. (See Fig. 1.) To procure fresh samples of rock, drilling will be done by means of a portable power auger. Tests for nickel will be made in the field using methods proposed by the U. S. Geological Survey. Each sample will also be tested for its pH.

After this zone is mapped and sampled and assays are available, it is proposed to diamond drill the most favorable locations.

The costs of the project are as follows.

Mapping) Sampling)————Total.	$ 2,500.00
Assaying)	
Diamond Drilling 1666 ft. @ $6.00/ft. . . .	10,000.00
Equipment Cost	2,500.00
Total Cost of Project	$15,000.00

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "B"

Fixtures and improvements

No additional facilities, buildings, or fixtures are to be purchased, installed, or erected on the property as a cost of this project.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "C"

Operating equipment

To be rented: ————None

To be purchased:

	Delivery cost
1 Portable 2-man auger and chain saw.	$ 600.00
1 Chipmonk crusher and motor.	400.00
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1 Torsion balance	200.00
1 Beckman model G electrometric pH meter.	250.00
Miscellaneous chemical supplies	700.00
Total	$2500.00

To be furnished by Operator: ————None

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "D"

Labor and supervision

For the mapping, sampling, and assaying work the following labor costs are estimated.

1.	Supervisor	$500.00 per month
2.	2 Laborers @ $1.80/hr.	28.80 per day

The preliminary mapping, sampling, and assay work will require about two months to complete, or approximately $2,500.00 for labor and supervision.

The diamond drilling will be contracted for at a unit price per foot. During the drilling phase of the program, the supervisor's salary will be allowed as a cost of the project. The diamond drilling may require four to six months' time to complete. The estimated cost of drilling including supervision is $6.00 per foot.

Shamrock Mine

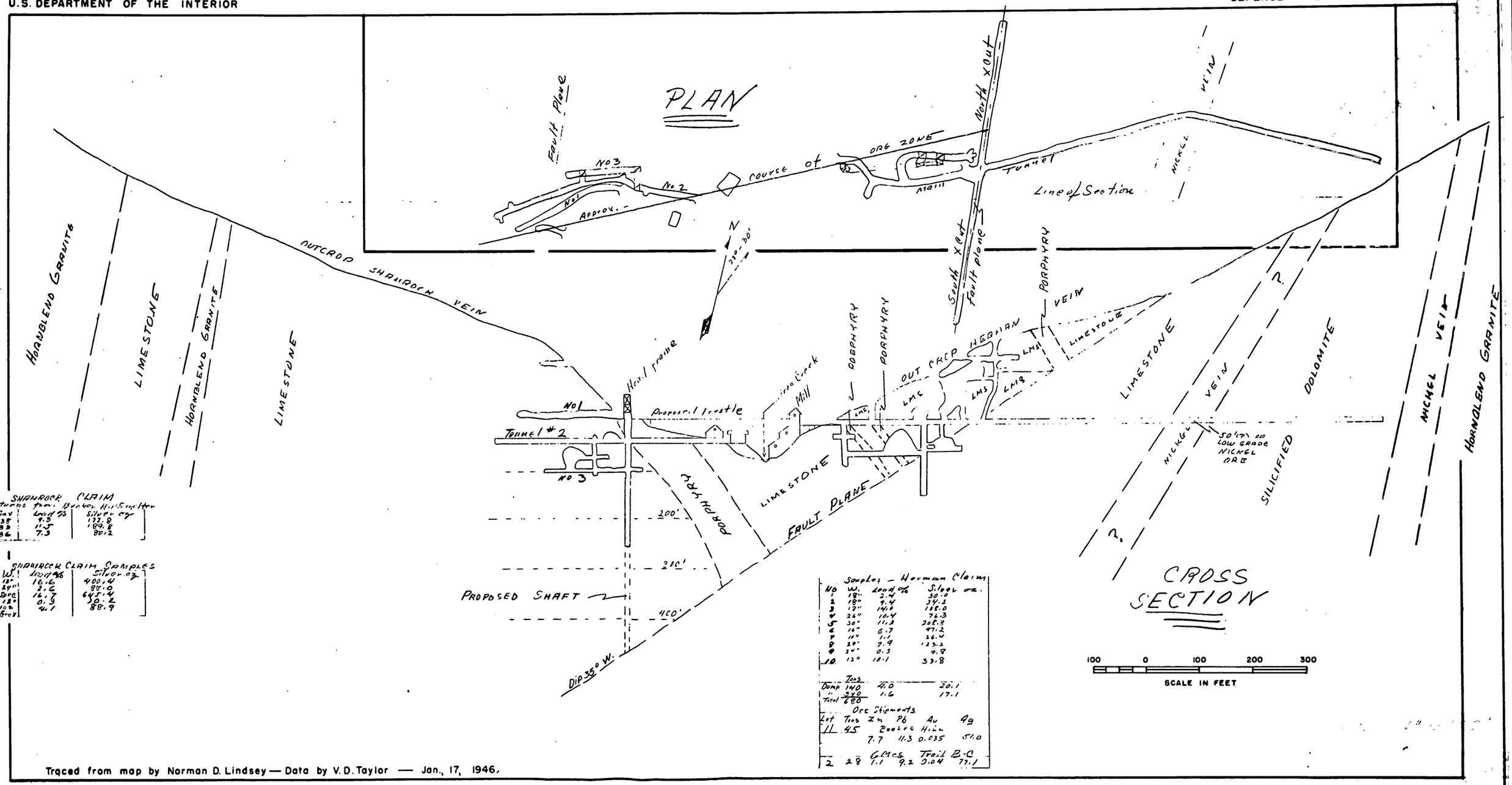
Ferry County, Wash.

Exploration Project Contract

EXHIBIT "E"

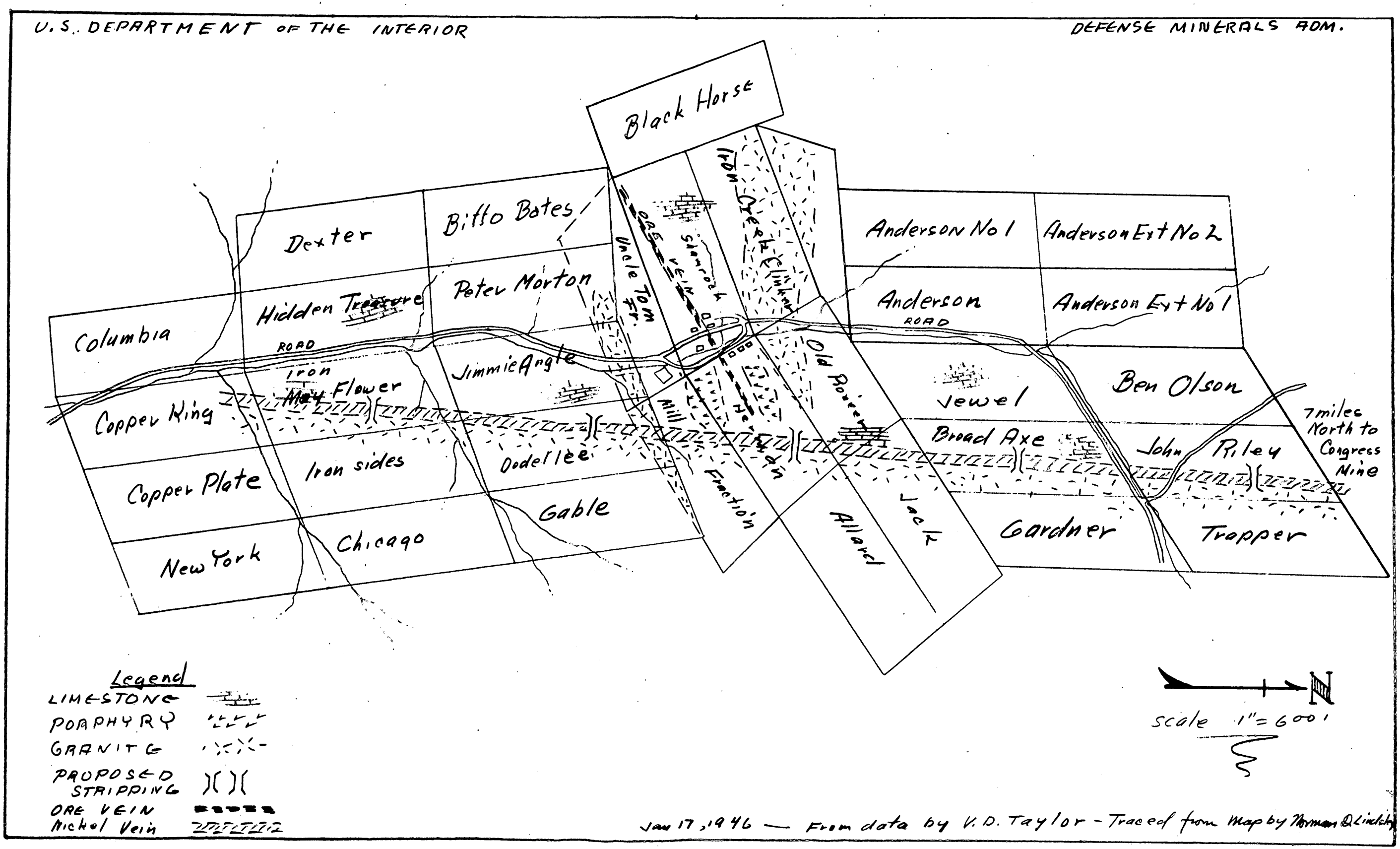
Rehabilitation and repairs

No facilities, buildings, fixtures, etc. are to be repaired or rehabilitated as a cost of this project.



Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

FIGURE 2. — SHAMROCK SILVER-LEAD PROPERTY, IRON CREEK, FERRY COUNTY, WASHINGTON.



Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.

MEX-200
(April 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] James J. Flynn and Virgil D. Taylor, partnership owning the Shamrock Mine Keller, Washington

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with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None.

(*b*) ~~That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.~~

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Nickel; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 18 Months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator ---90--- percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $---13,500---, which is ---90--- percent of the agreed estimated total cost of this project, $---15,000---.

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in triplicate the day and year first above written.

THE UNITED STATES OF AMERICA

(Operator)

By ---

By ---

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

EXPLORATION PROJECT CONTRACT

Item 2 Continued:

Chicago, Black Horse, Peter Morton Olmstead, Riffe Bates, Jimmy Angle, Wm. Dodelle, Gabie, Ben Olson, John Riley, Janet Anderson No. I, Anderson, Jewel, Anderson No. II, Anderson Ext. No. I, Iron Creek Clinker, Uncle Tom Fraction, Hidden Treasure, Herman, Old Pioneer, Shamrock, and Anderson Ext. No. II.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "A"

Exploration Project

The purpose of this project is to obtain geologic, assay, and diamond drill information on the nickel zones occuring in the property known as the Shamrock Mine situated in Ferry County, Washington.

It is proposed to take surface samples along a wide, persistent nickel-bearing quartz breccia zone. The breccia zone is at least 9000 feet long. The width varies from 200 to 600 feet. (See Fig. 1.) To procure fresh samples of rock, drilling will be done by means of a portable power auger. Tests for nickel will be made in the field using methods proposed by the U. S. Geological Survey. Each sample will also be tested for its pH.

After this zone is mapped and sampled and assays are available, it is proposed to diamond drill the most favorable locations.

The costs of the project are as follows.

Mapping) Sampling)————Total.	$ 2,500.00
Assaying)	
Diamond Drilling 1666 ft. @ $6.00/ft. . . .	10,000.00
Equipment Cost	2,500.00
Total Cost of Project	$15,000.00

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "B"

Fixtures and improvements

No additional facilities, buildings, or fixtures are to be purchased, installed, or erected on the property as a cost of this project.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "C"

Operating equipment

To be rented: ————None

To be purchased:

	Delivery cost
1 Portable 2-man auger and chain saw.	$ 600.00
1 Chipmonk crusher and motor.	400.00
1 Chipmonk pulverizer	350.00
1 Torsion balance	200.00
1 Beckman model G electrometric ph meter.	250.00
Miscellaneous chemical supplies	700.00
Total	$2500.00

To be furnished by Operator: ————None

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "D"

Labor and supervision

For the mapping, sampling, and assaying work the following labor costs are estimated.

1.	Supervisor	$500.00 per month
2.	2 Laborers @ $1.80/hr.	28.80 per day

The preliminary mapping, sampling, and assay work will require about two months to complete, or approximately $2,500.00 for labor and supervision.

The diamond drilling will be contracted for at a unit price per foot. During the drilling phase of the program, the supervisor's salary will be allowed as a cost of the project. The diamond drilling may require four to six months' time to complete. The estimated cost of drilling including supervision is $6.00 per foot.

Shamrock Mine

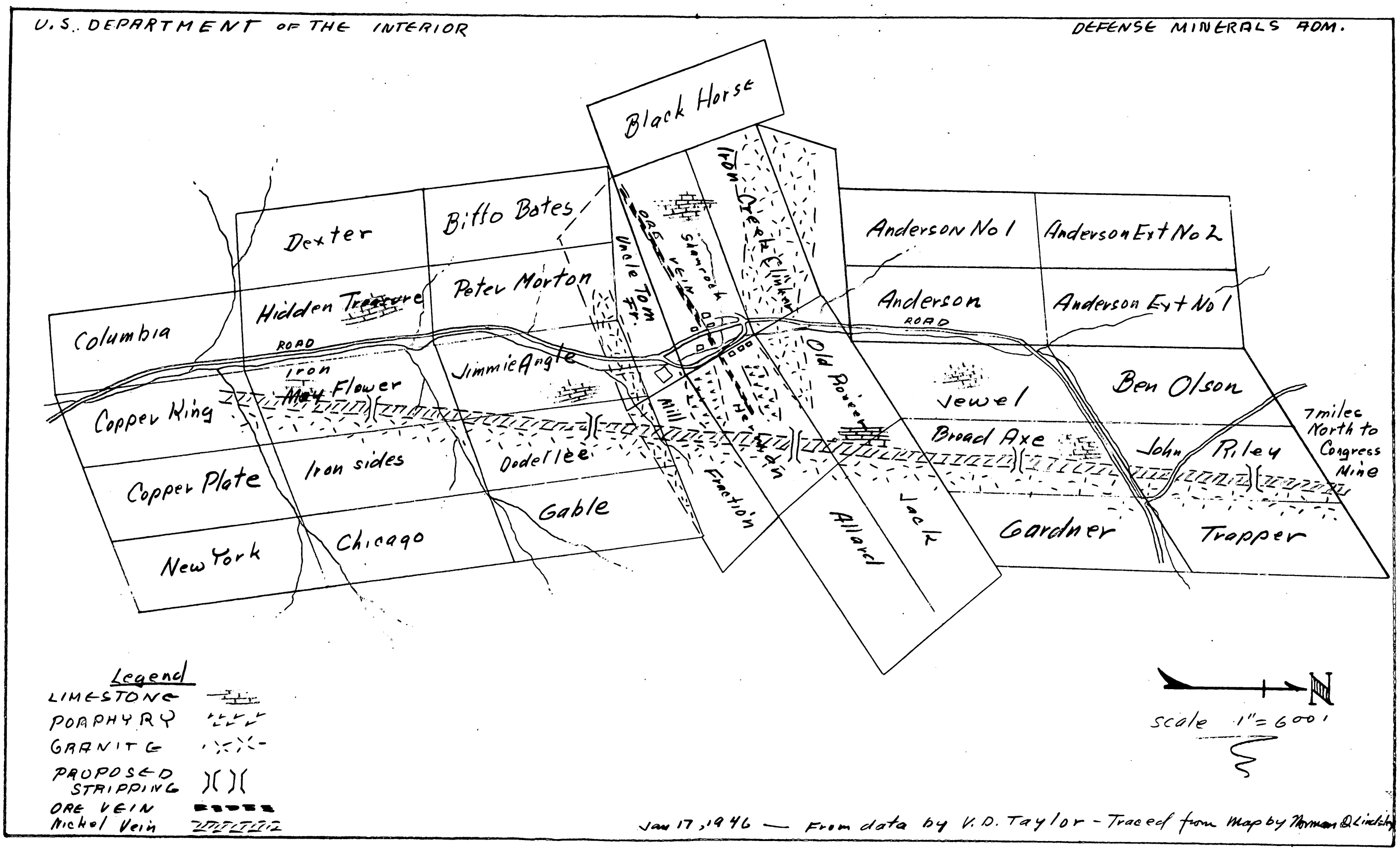
Ferry County, Wash.

Exploration Project Contract

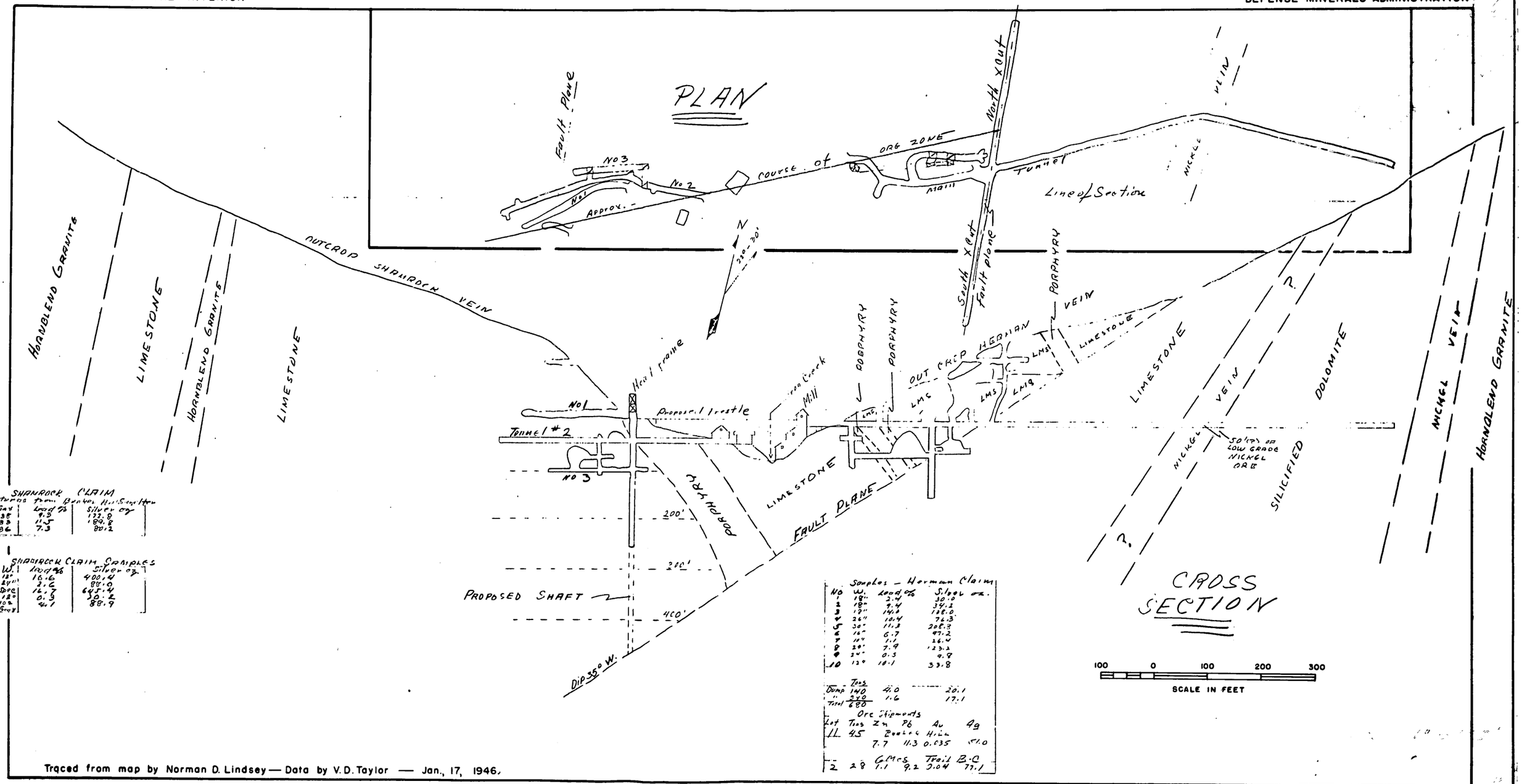
EXHIBIT "E"

Rehabilitation and repairs

No facilities, buildings, fixtures, etc. are to be repaired or rehabilitated as a cost of this project.



Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.



SHAMROCK CLAIM
Returns from Bunker Hill Smelter

Lot	Sav	Lead %	Silver oz
1	38	9.5	122.8
2	32	11.5	189.6
3	36	7.3	80.2

SHAMROCK CLAIM SAMPLES

No	W.	Lead %	Silver oz.
1	18"	16.6	400.4
2	24"	2.6	88.0
3	Dpc	16.5	645.4
4	18"	0.3	30.2
Skip	10" (Grab)	4.1	88.9

Samples – Herman Claim

No	W.	Lead %	Silver oz.
1	18"	2.4	30.0
2	18"	9.4	35.2
3	17"	14.0	188.0
4	26"	10.4	76.3
5	30"	11.3	208.3
6	16"	6.7	97.2
7	16"	1.1	26.4
8	20"	7.9	123.2
9	24"	0.3	9.8
10	12"	10.1	33.8

	Tons		
Dump	140	4.0	20.1
"	540	1.6	17.1
Total	680		

Ore Shipments

Lot	Tons	Zn	Pb	Au	Ag
11	45	Bonded		4.64	
		7.7	11.3	0.035	<1.0
		GMCS		Trail B.C.	
2	28	1.1	9.2	0.04	77.1

Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

FIGURE 2. — SHAMROCK SILVER-LEAD PROPERTY, IRON CREEK, FERRY COUNTY, WASHINGTON.

MP-200
(April 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] James J. Flynn and Virgil D. Taylor, partnership owning the Shamrock Mine Keller, Washington

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of Washington, County of Ferry described as follows: [3] Mining claims comprising the Shamrock mine group listed below: Mill Fraction, Allard, Jack, Broad Axe, Gardner, Trapper Dexter Horton, Columbia Copper King, Copper Plate, New York, Jack Rabbit, May Flower, Iron Sides. Continued on attached supplemental sheet.
with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: None.

(*b*) ~~[illegible] and the subordination agreement of the lessor is attached.~~

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Nickel; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] 18 Months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Attached hereto, marked "Exhibit 'B'," is a detailed list of additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute its agreed pro-rata share of the cost. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

6. *Operating equipment.* Attached hereto, marked "Exhibit 'C'," is a detailed list of operating equipment divided into categories of items to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or rental value, as the case may be, annexed to each. As to equipment purchased for the project, the Government will contribute its agreed pro-rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro-rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* Attached hereto, marked "Exhibit 'D'," is an itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project.

9. *Rehabilitation and repairs.* Attached hereto, marked "Exhibit 'E'," is a detailed schedule of existing facilities, buildings, installations, and fixtures, with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition, which cost shall be allowed as a cost of the project.

10. *Allowable costs of the project.* The allowable costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in the contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, or any other indirect costs not expressly allowed by these regulations, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Participation by the Government.* At the end of the first full calendar month after the Operator has commenced work under the project, and at the end of each succeeding calendar month, the Operator shall submit to the Government a voucher for payment with a detailed statement of work done and allowable costs (as defined in Article 10 of this agreement) incurred, in a form and with supporting data acceptable to the Government. After approving the voucher, the Government shall pay to the Operator ....90.... percent of the sum of such costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $....13,500...., which is ....90.... percent of the agreed estimated total cost of this project, $....15,000....

12. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

13. *Progress reports.* The Operator shall provide the Government with monthly reports of progress in form and content satisfactory to the Government, and upon the completion of the project or termination of the contract shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

14. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent additional for each full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the property which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

15. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

16. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in triplicate the day and year first above written.

THE UNITED STATES OF AMERICA

.....
(Operator)

By .....

By .....

U. S. GOVERNMENT PRINTING OFFICE 16—64066-1

EXPLORATION PROJECT CONTRACT

Item 2 Continued:

Chicago, Black Horse, Peter Morton Olmstead, Biffo Bates, Jimmy Angle, Wm. Dodelle, Gabbs, Ben Olson, John Riley, Janet Anderson No. I, Anderson, Jewel, Anderson No. II, Anderson Ext. No. I, Iron Creek Clinker, Uncle Tom Fraction, Hidden Treasure, Herman, Old Pioneer, Shamrock, and Anderson Ext. No. II.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "A"

Exploration Project

The purpose of this project is to obtain geologic, assay, and diamond drill information on the nickel zones occuring in the property known as the Shamrock Mine situated in Ferry County, Washington.

It is proposed to take surface samples along a wide, persistent nickel-bearing quartz breccia zone. The breccia zone is at least 9000 feet long. The width varies from 200 to 600 feet. (See Fig. 1.) To procure fresh samples of rock, drilling will be done by means of a portable power auger. Tests for nickel will be made in the field using methods proposed by the U. S. Geological Survey. Each sample will also be tested for its pH.

After this zone is mapped and sampled and assays are available, it is proposed to diamond drill the most favorable locations.

The costs of the project are as follows.

Mapping) Sampling)————Total.	$ 2,500.00
Assaying)	
Diamond Drilling 1666 ft. @ 6.00/ft. . . .	10,000.00
Equipment Cost	2,500.00
Total Cost of Project	$15,000.00

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "B"

Fixtures and improvements

No additional facilities, buildings, or fixtures are to be purchased, installed, or erected on the property as a cost of this project.

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "C"

Operating equipment

To be rented: ————None

To be purchased:

	Delivery cost
1 Portable 2-man auger and chain saw.	$ 600.00
1 Chipmonk crusher and motor.	400.00
1 Chipmonk pulverizer	350.00
1 Torsion balance	200.00
1 Beckman model G electrometric pH meter.	250.00
Miscellaneous chemical supplies	700.00
Total	$2500.00

To be furnished by Operator: ————None

Shamrock Mine

Ferry County, Wash.

Exploration Project Contract

EXHIBIT "D"

Labor and supervision

For the mapping, sampling, and assaying work the following labor costs are estimated.

1.	Supervisor	$500.00 per month
2.	2 Laborers @ $1.60/hr.	28.80 per day

The preliminary mapping, sampling, and assay work will require about two months to complete, or approximately $2,500.00 for labor and supervision.

The diamond drilling will be contracted for at a unit price per feet. During the drilling phase of the program, the supervisor's salary will be allowed as a cost of the project. The diamond drilling may require four to six months' time to complete. The estimated cost of drilling including supervision is $6.00 per foot.

Shamrock Mine

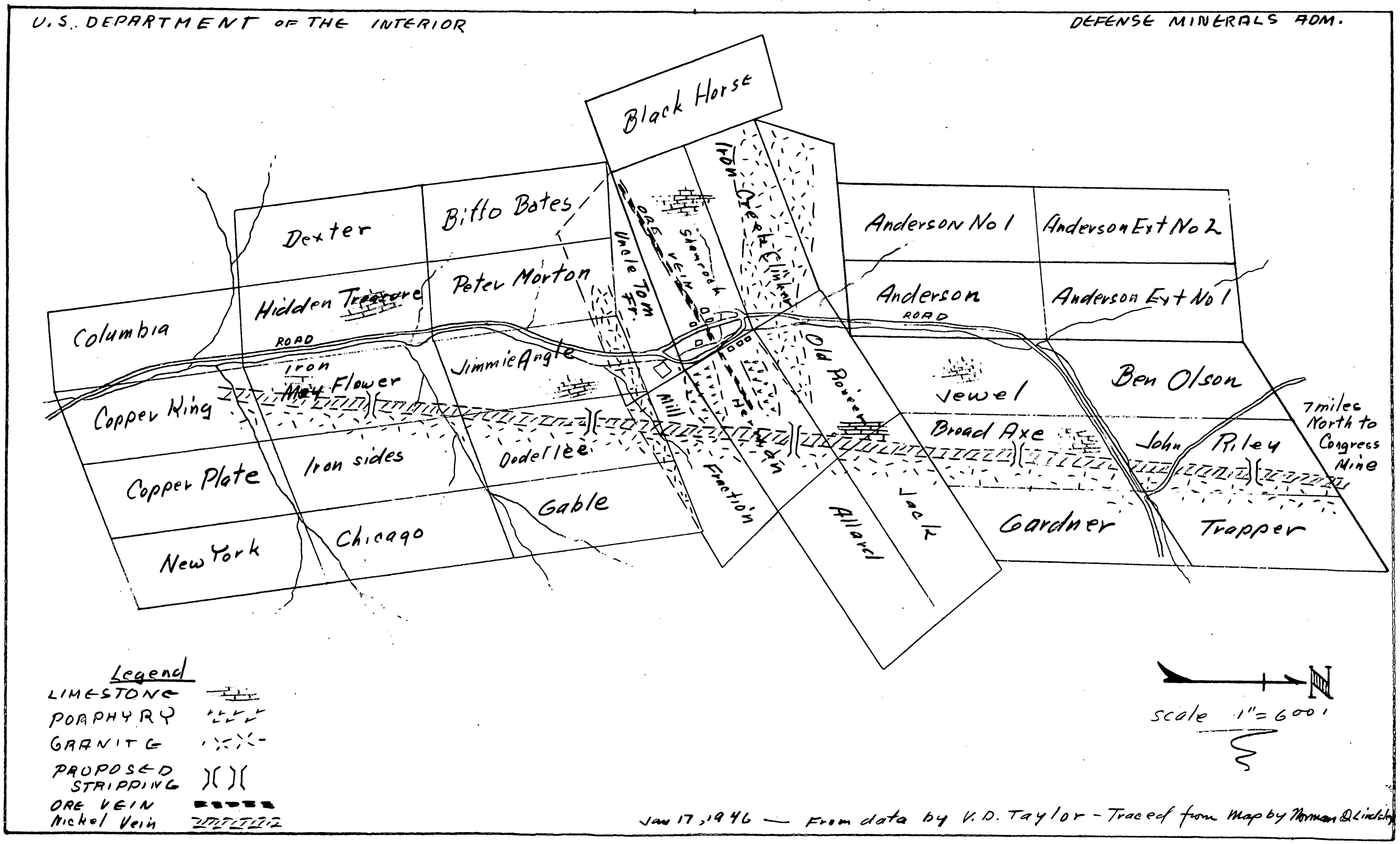
Ferry County, Wash.

Exploration Project Contract

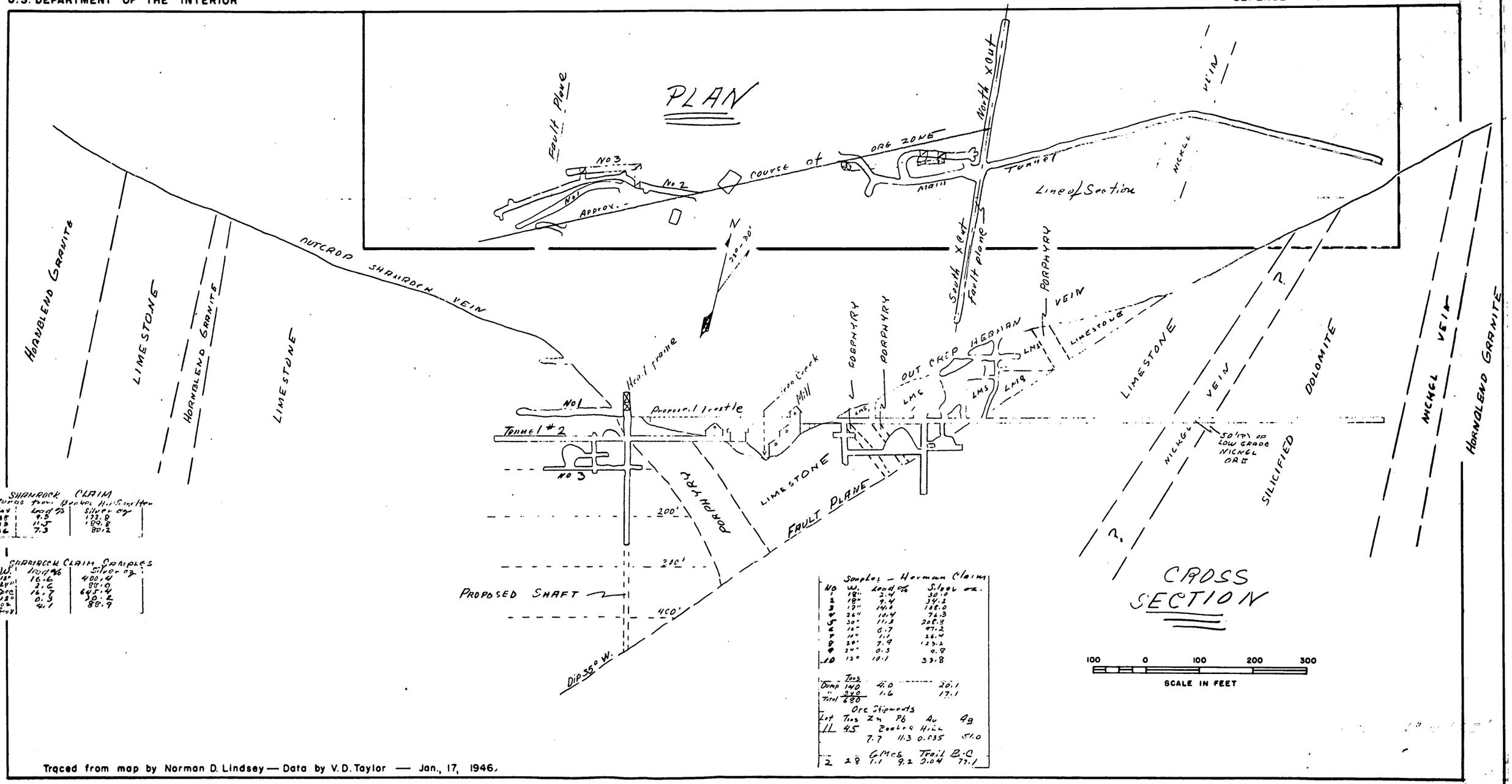
EXHIBIT "E"

Rehabilitation and repairs

No facilities, buildings, fixtures, etc. are to be repaired or rehabilitated as a cost of this project.



Shamrock silver-lead claim map, Iron Creek, Ferry County. Washington.- Figure 1.



Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

FIGURE 2. — SHAMROCK SILVER-LEAD PROPERTY, IRON CREEK, FERRY COUNTY, WASHINGTON.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 9 - 1951
LOUIS F. STROBEL
Executive Secretary

UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN--SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

DMA- --Shamrock Nickel Silver-Lead Mine

Ferry County, Wash.

R. J. Hundhausen, Mining Engineer
U. S. Bureau of Mines

June 28, 1951

DMA EXAMINATION REPORT

DMA Docket No. ____

Shamrock Nickel Silver-Lead Mine
Ferry County, Washington
June 28, 1951

R. J. Hundhausen, USBM

RECOMMENDATIONS

It is recommended that the applicants be granted an exploration contract amounting to $15,000; of this sum, the applicants, Messrs. V. D. Taylor and James J. Flynn, are to furnish 10 percent or $1,500.

It is further recommended that diamond drilling be done only if the initial mapping, sampling, and assaying program is successful enough to warrant further exploration. If no favorable nickel areas are found the project should be terminated without diamond drilling. If no diamond drilling is done, the project will cost $5,000 of which the Government's share will be 90 percent, or $4,500.

APPLICANT

The applicants are Messrs. V. D. Taylor of Keller, Wash., and James J. Flynn of Spokane, Wash.

LOCATION AND OWNERSHIP

The Shamrock mine is in Ferry County, Wash. It was examined by R. J. Hundhausen on June 19, 1951, accompanied by V. D. Taylor of Keller, Wash. The property consists of 33 claims; the claim locations are shown in figure 1. The property is owned jointly by V. D. Taylor and James J. Flynn.

A Bureau of Mines unpublished War Minerals Memorandum by W. R. Green, dated September 14, 1943, briefly describes this property. A copy of this report is attached.

HISTORY, PRODUCTION AND MINE WORKINGS

This mine was developed and worked for lead and silver. Several thousand feet of adits, drifts, shafts and winzes were driven in search of small, high-grade ore shoots. Figure 2 shows the principal workings in plan and section and also gives some data on the ore shipments made. No nickel ore was ever produced.

GEOLOGY AND ASSAY DATA

The nickel showing was found about 600 feet from the portal of the main crosscut. Green sampled this zone over a width of 20 feet. One 10-foot sample assayed 0.25 percent nickel and 0.10 percent cobalt. The other assayed 0.07 percent nickel and 0.02 percent cobalt. These assays are shown on figure 2. This crosscut now is caved at the portal, and the mineral thus cannot be re-sampled at this time.

ORE DEPOSITS

Two types of nickel ore evidently are present on the property. In the first type, the nickel occurs in a silicified, dolomitized limestone accompanying minor disseminations of pyrrhotite and pyrite. Both the hanging wall and footwall contacts of the bleached dolomite apparently are favorable zones. The dolomitic limestone is brecciated and contains apple green stains on the fractures, together with occasional pinkish stains. This is the type ore Green sampled and according to him the zone strikes N. 5° E. and is nearly vertical.

In the second type of ore, the nickel occurs as minute green disseminations in a vuggy quartz breccia. Oxidized manganese, nickel and iron are evident in this breccia. No assays of this material are available, but it no doubt contains low amounts of nickel. This material seems somewhat similar in character, but lower grade, than the quartz boxwork granierite ores at Nickel Mountain near Riddle, Oreg. A spectrographic assay for comparative purposes has been requested.

The quartz breccia crops out about 500 feet vertically above the main crosscut but is not encountered underground. It forms a contact between hornblende granite on the east and dolomite on the west. This contact zone is from 200 to 600 feet wide and can be traced on the surface in a general north-south direction throughout the length of the property, a distance of approximately 9,000 feet. Undoubtedly, there is a tremendous quantity of this breccia present along the contact zone. One sample was taken of this breccia; the analysis is not yet available.

ORE RESERVES

Geologic and assay information is very meager, and there is no developed ore reserve. As far as is known, only low-grade nickel is present on the property. The interesting features, however, are the large persistent breccia zone and the nickel occurrences in dolomite. The breccia zone, if sampled and found to be mineralized continuously, would contain an important amount of nickel although in low percentages. Additional information on this potentially important structure as well as on the occurrences in dolomite seems worthwhile.

PROPOSAL

The applicants propose to diamond drill the nickel-bearing dolomite and breccia structures to obtain geologic and reserve information. Surface samples of the weathered quartz breccia will be procured by means of a portable power auger. These samples will be crushed and pulverized in the field and tested for nickel by methods developed by the U. S. Geological Survey. Every tenth sample will be sent for chemical assay.

The diamond drilling program will be based upon the surface sampling, but if no favorable areas are found the project can be terminated without such drilling.

COSTS

A copy of the exploration contract accompanies this report. The surveying, sampling and assay work should take two months and cost $5,000, including equipment. The diamond drilling may take from four to six months or less and cost $10,000, including supervision. The total cost of the project is $15,000. If no drilling is done the project will cost only $5,000, of which the Government's share will be 90 percent or $4500. Some equipment purchased with this money may have salvage value.

COMPETENCE OF APPLICANT

Mr. V. D. Taylor, one of the applicants, has prospected for minerals most of his life. He is equipped with a first-class geiger counter, a Fisher M-Scope, surveying instruments, and various chemicals and analytical equipment. He desires to make his own nickel determinations if he has the proper equipment. Because of the isolated location

of the property it may prove worthwhile to provide him with the necessary equipment and instruction to run satisfactory nickel determinations in the field. Check assays, of course, would be made from time to time in order to assure the accuracy of the analytical work. The applicant should be required to save duplicate pulps of all samples in case additional checking is necessary.

W.M.M.
September 1943

WAR MINERALS MEMORANDUM 1/

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Report of the Bureau of Mines to Hon. Harold L. Ickes,
Secretary of the Interior.

SHAMROCK MINE

Ferry County, Washington

-- Nickel - Cobalt --

Summary

The Shamrock mine is located 12 miles northeast of Keller, Ferry County, Washington. The property was brought to the attention of the Bureau of Mines as a possible source of nickel.

Considerable development work has been done on the lead-silver veins occurring on the property but there was only one exposure of the zone containing the nickel mineralization.

Samples taken in the nickel zone indicate that the grade is too low to be of further interest to the Bureau of Mines at this time.

1/ These memoranda present the facts reported by Bureau of Mines engineers regarding properties for which no further consideration is recommended. Therefore, they should be treated as confidential, for the sole use of Bureau employees. They should not be given out to the public or to the owners of the properties concerned.

Introduction

The Shamrock mine is located in Section 35, T. 31 N., R. 33 E., W.M., about 12 miles northeast of Keller, Ferry County, Washington.

The property consists of 10 mining claims. Six claims are owned by H. R. Taylor of Elberton, Washington and 4 claims by J. M. Walker of Keller, Washington.

An engineer of the Bureau of Mines visited the property in August 1943.

History

The original location was made by Charles Hill and Edward Hall in 1902. They did a small amount of development work in the succeeding years and sold the property to J. E. Angle in 1915. Mr. Angle accumulated 34 claims and organized the Iron Creek Mining Company. Considerable development work was done by the company and some ore was shipped. In 1928 the Iron Creek Mining Company was reorganized as the Shamrock Silver-Lead Mines, Inc. Under management of this company considerable development work was carried out and a mill was placed on the property. The Shamrock Company encountered financial difficulties and in 1942 the assets of the company were sold at a sheriff's sale. At this sale Taylor and Walker purchased the claims which they now own.

Physical Features and Communications

The claims are located along both sides of Iron Creek. The topography of the area is rugged. Steep slopes prevail with very little level land. The altitudes vary from 2,000 feet at the mine workings to as much as 5,000 feet at the mountain tops.

An abundance of timber and water for a mining operation exist on the property.

Transportation is furnished by 12 miles of poor dirt road which connects

with Washington State Highway No. 4 at Keller. The nearest railway connection is at Wilbur, 22 miles south of Keller.

Description of the Deposit

Schist and limestone, of the Covada group, surrounded by granodiorite constitute the rocks in the area. Exposures on the claims indicate that locally the rocks have been sheared and silicified. In several places on the property brecciated limestone has been silicified and sparsely mineralized with galena, sphalerite and pyrite. Approximately parallel to the granite-limestone contact is a wide brecciated and sheared zone in the limestone which shows some mineralization containing nickel. The limestone in this zone exhibits an apple green stain with occasional patches of pink.

Mine Workings

The mine has been developed by about 3,000 feet of crosscuts, drifts, shafts and raises. Most of this work has been done in search of lenses of high grade lead-silver ore.

The main 1,000 foot crosscut was the only adit accessible at the time of the examination. About 650 feet from the portal the adit cuts the zone reported to contain nickel. The adit crosses the zone at about right angles to the apparent strike. No drifting has been done to determine the extent of the nickel mineralization. Two samples were cut in the zone. The following table summarizes the sampling results:

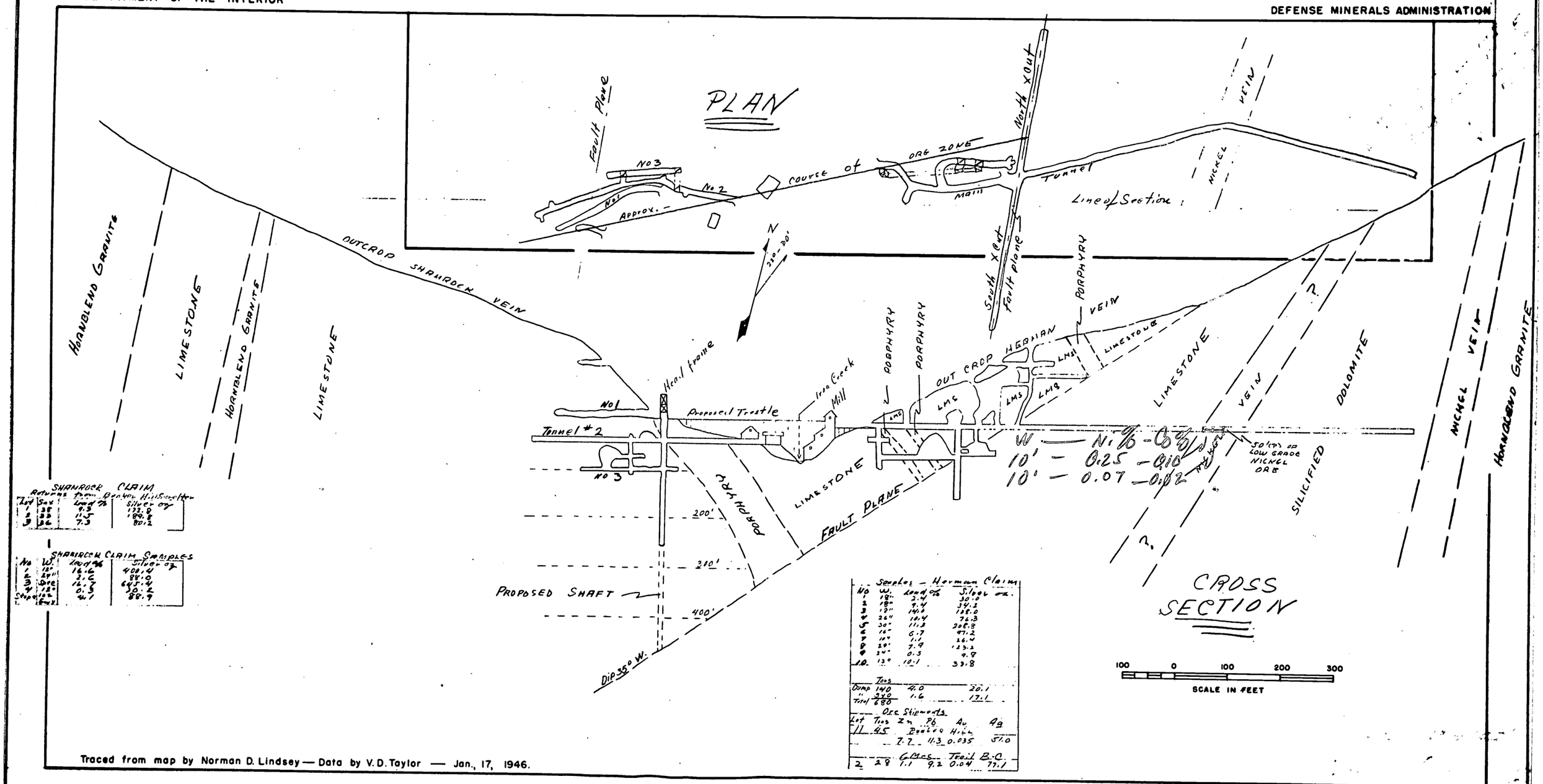
Sample No.	Width in Feet	% Ni	% Co
WRG 228	10	0.25	0.10
WRG 229	10	0.07	0.02

Conclusions

The Bureau of Mines concludes that the ore does not contain a sufficient amount of essential minerals to be of further interest at this time.

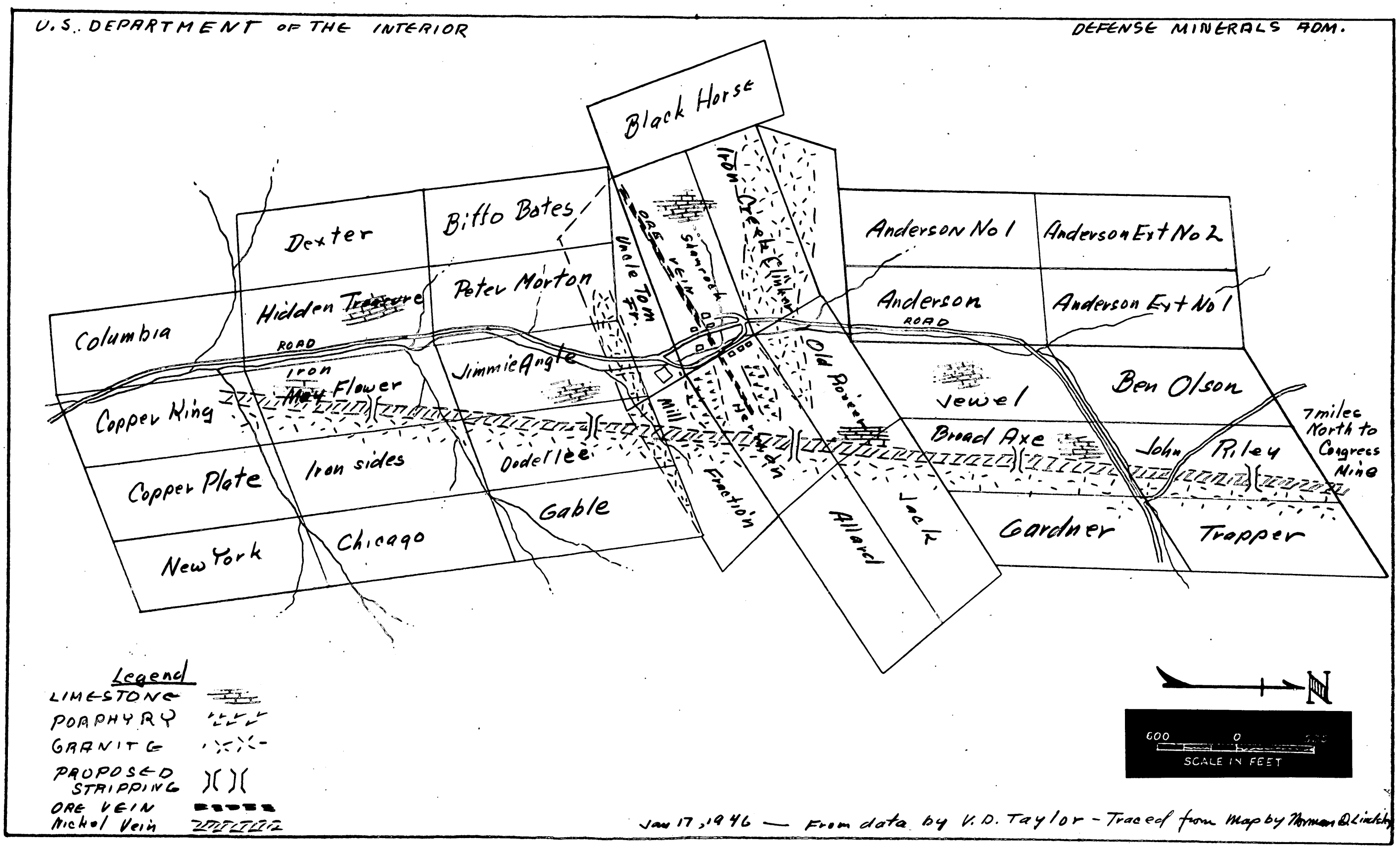
U.S. DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION



Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

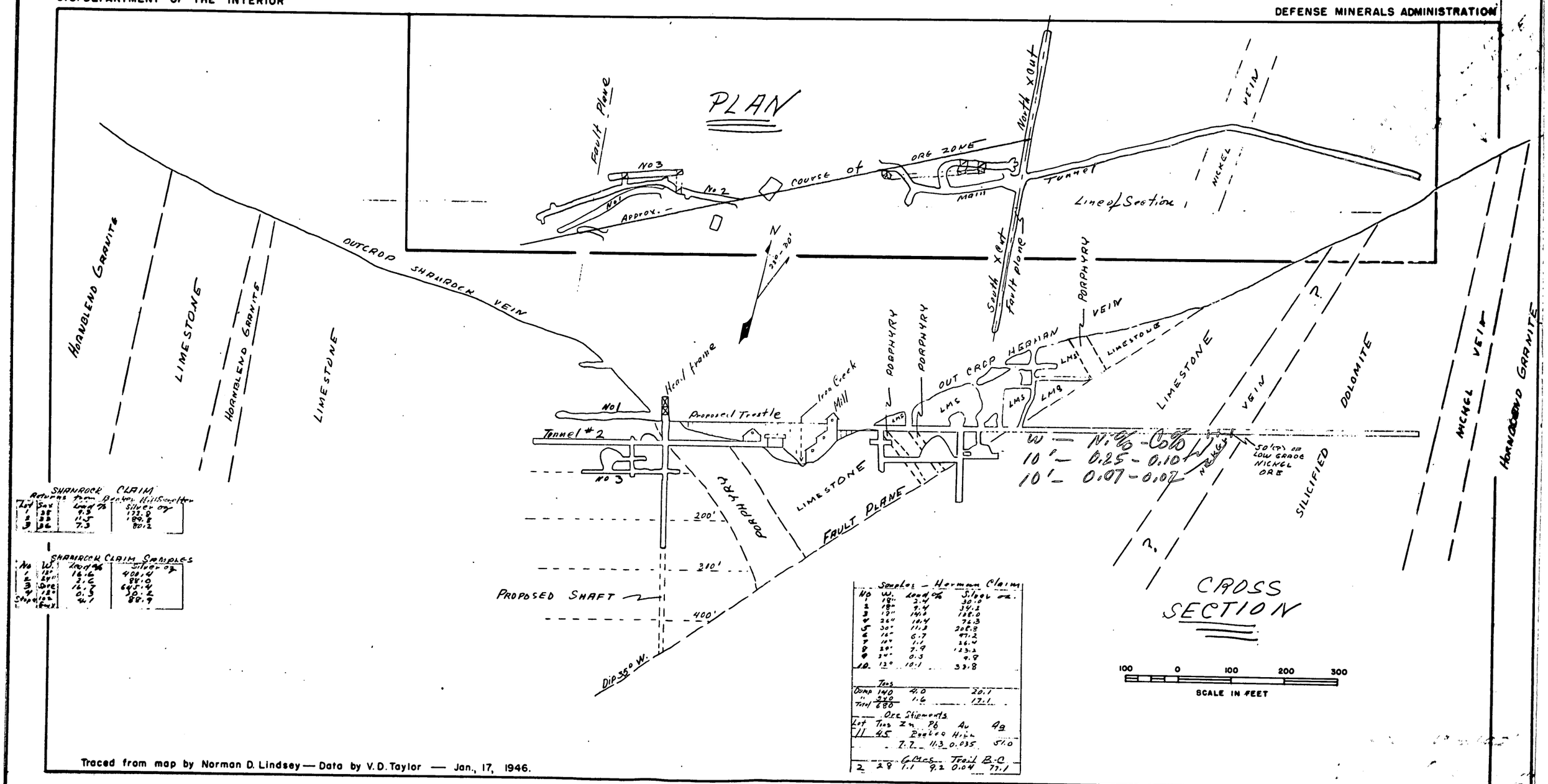
FIGURE 2. — SHAMROCK SILVER-LEAD PROPERTY, IRON CREEK, FERRY COUNTY, WASHINGTON.



Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.

U.S. DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION



SHAMROCK CLAIM
Returns from Boston Hill Smelter

Lot	Sax	Lead %	Silver oz
1	35	9.5	123.0
2	35	11.5	189.2
3	66	7.3	80.2

SHAMROCK CLAIM Samples

No	W.	Lead %	Silver oz
1	22"	16.6	400.4
2	24"	3.6	88.0
3	Ore	16.7	645.4
4	12"	0.5	30.2
Stope 1	12"	4.1	88.9

Samples - Hermann Claim

No	W.	Lead %	Silver oz.
1	18"	2.4	30.0
2	18"	9.4	34.2
3	19"	14.4	128.0
4	24"	10.4	76.3
5	30"	11.3	208.8
6	18"	6.7	47.2
7	10"	1.1	26.4
8	28"	7.9	123.2
9	24"	0.3	9.8
10	13"	10.1	33.8

Tons

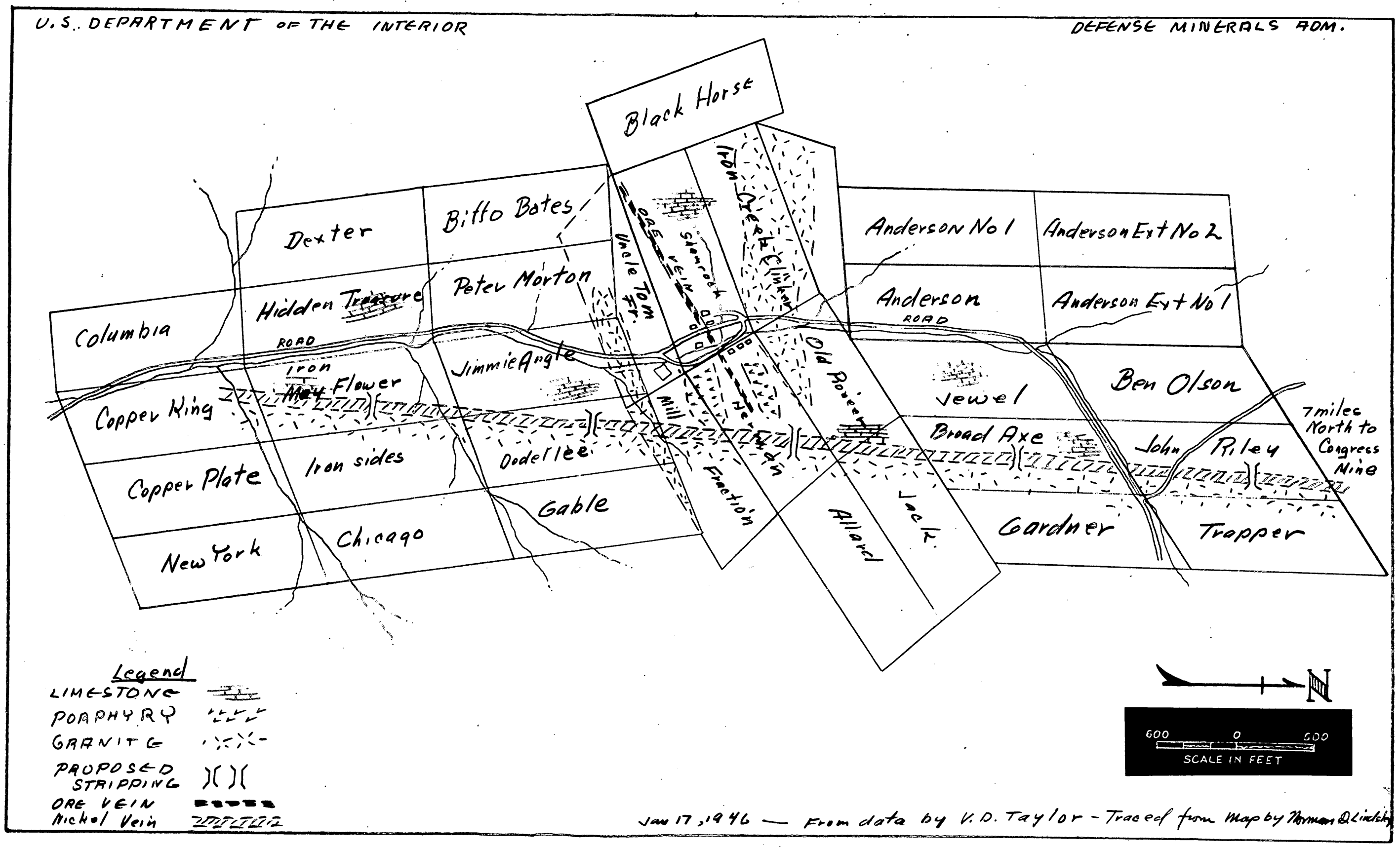
Dump	140	4.0	20.7
"	340	1.6	17.1
Total	680		

Ore Shipments

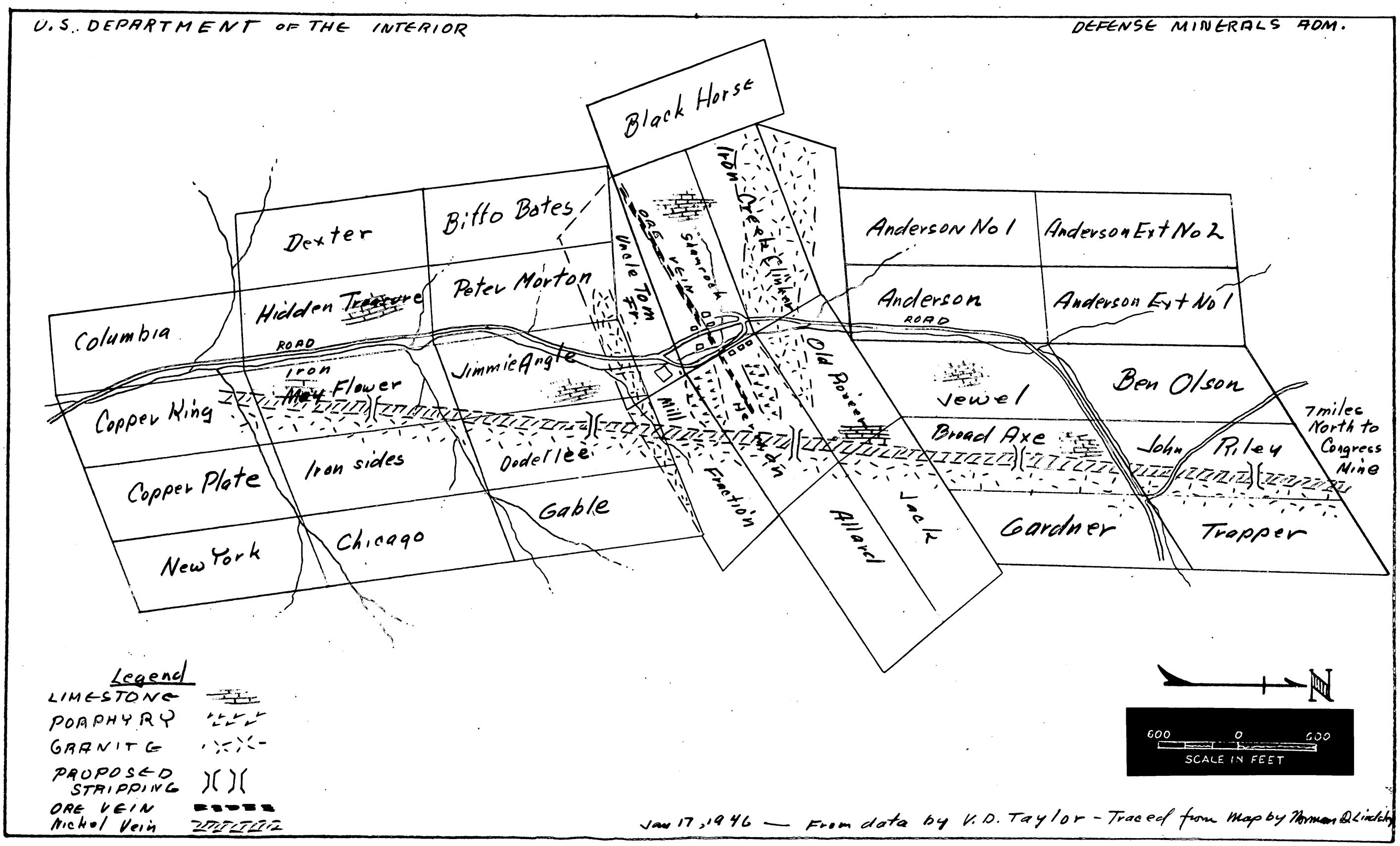
Lot	Tons	Zn	Pb	Au	Ag
11	45	Peelers		High	
		7.7	11.3	0.035	51.0
		Gloss		Trail B.C.	
2	28	1.1	9.2	0.04	77.1

Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

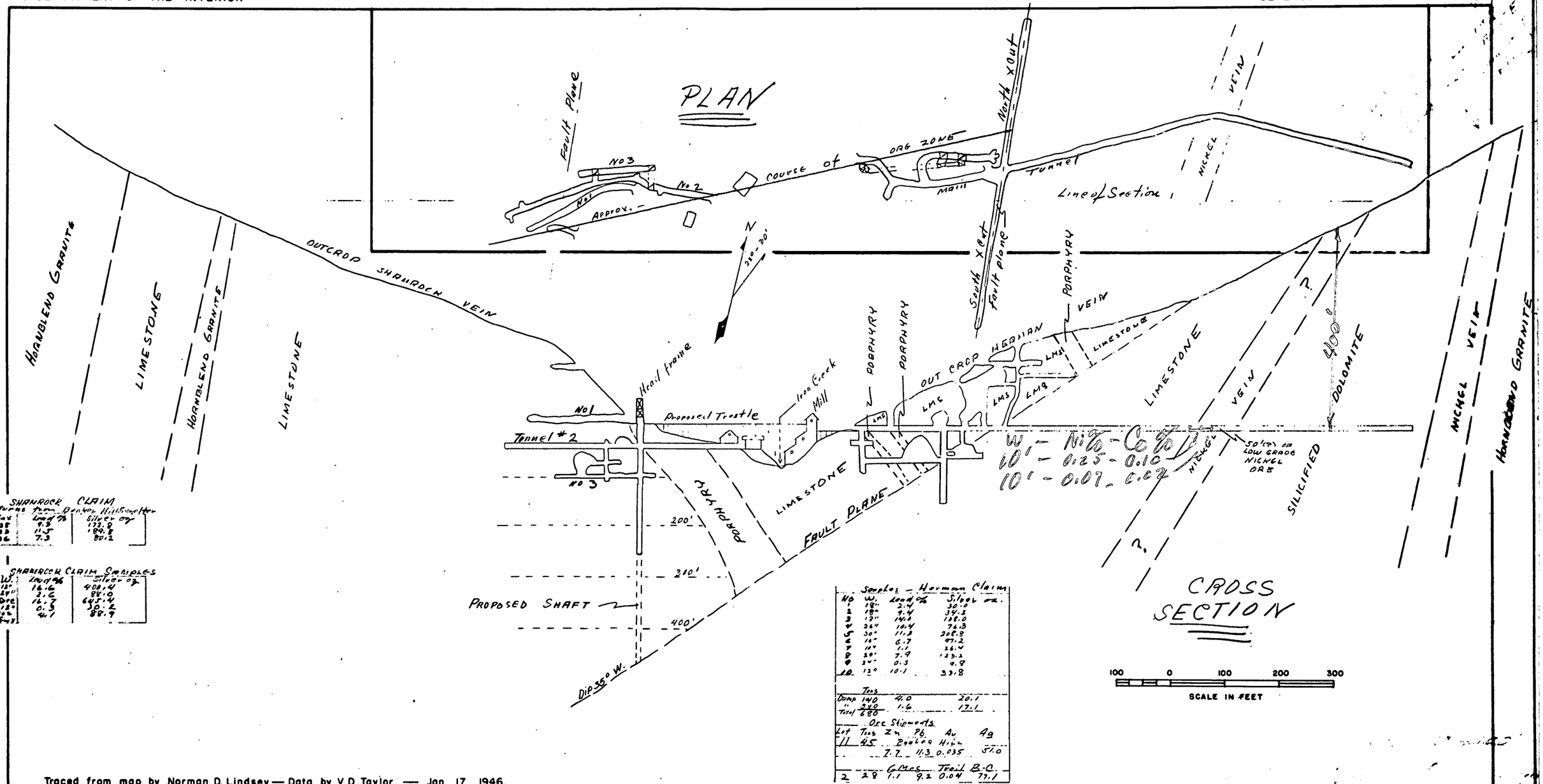
FIGURE 2. — SHAMROCK SILVER-LEAD PROPERTY, IRON CREEK, FERRY COUNTY, WASHINGTON.



Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.



Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.



SHAMROCK CLAIM
Returns from Bonton Hill Smelter

Lot	Sax	Lead %	Silver oz
1	38	9.5	132.9
2	33	11.5	189.8
3	26	7.3	80.2

SHAMROCK CLAIM Samples

No	W.	Lead %	Silver oz
1	18"	16.6	408.4
2	24"	2.2	88.0
3	Dec	16.3	697.4
4	12"	0.5	12.2
Shaft	10"	4.1	88.9

Samples - Herman Claim

No	W.	Lead %	Silver oz.
1	18"	2.4	30.0
2	18"	9.4	39.2
3	19"	14.1	158.0
4	24"	18.4	76.3
5	30"	11.3	208.8
6	16"	6.7	97.2
7	10"	1.1	26.4
8	20"	7.9	123.2
9	24"	0.3	9.9
10	12"	10.1	33.8

Tons			
Dump	140	4.0	20.1
"	540	1.6	17.1
Total	680		

Ore Shipments

Lot	Tons	Zn	Pb	Au	Ag
11	45	Bonton Hill			
		7.7	11.3	0.035	51.0
		G.Mac	Trail B.C.		
2	28	1.1	9.2	0.04	77.1

Traced from map by Norman D. Lindsey — Data by V. D. Taylor — Jan., 17, 1946.

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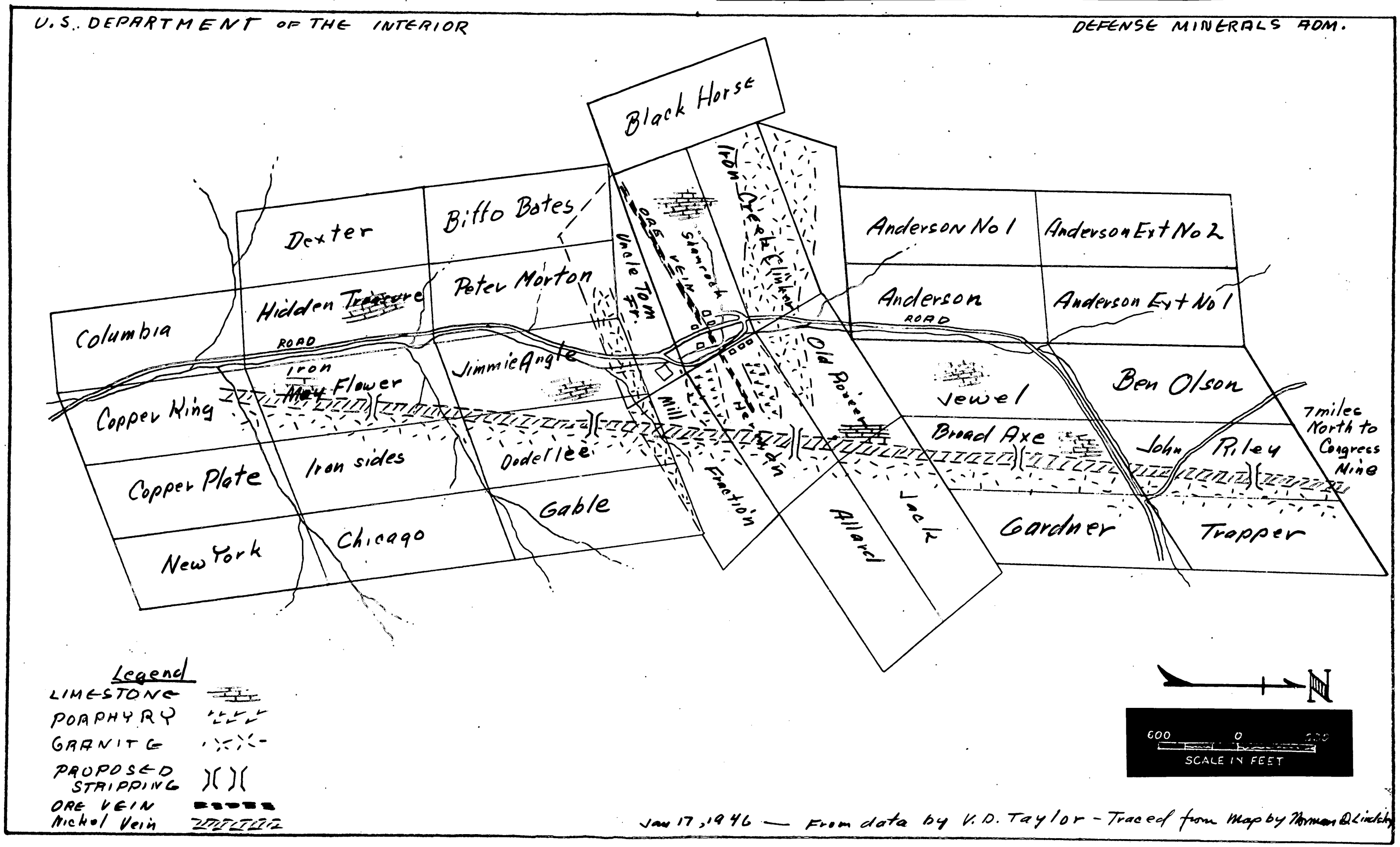

Shamrock silver-lead claim map, Iron Creek, Ferry County, Washington.- Figure 1.