DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip Mercury.

CONTROLLED DOCUMENT

DMEA ~~XXXXX~~ Docket No. 2276

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION PROJECT

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

MR. ELLIS, RM. 4070

To: RARE & MISC. METALS Date 12-7-51

To: Miss Meyer Date 2/29/52

To: E. T. McKnight Date

To: Opr. Com. Date 3-5-42

To: Mittendorf Date

To: Mails & Files Date

To: Date

To: Date

To: Date

To: Date

To: Date

To: Date

To: Date

To: Date

DO NOT DETACH

CONTROLLED DOCUMENT

Application amended and given new number 2742 which resulted in contract

Please replace with

DMEA 4207
United Mercury Corp

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C.
DEC 6 10:20 AM '51

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] De Coursey Mountain Mining Co., Inc., hereinafter called the Operator

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 4th Judicial Division, ~~County of~~ Territory of Alaska described as follows: [3] Lode Claims known as Snow-bird No. 1-2-3-4-5 and Last Chance No. 1-2-3, owned by Operator; Placer Claims known as Discovery, Helen, One Below Discovery, the William Claim, Retor, Bedrock, Outcrop, and Dome Claim, leased by the Operator. All in the Otter Mining & Recording District.

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: Deferred payments due Robert F. Lyman

(*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 days from the date of this contract shall commence work on a project of exploration for [5] Mercury; 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] 2 years 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. Any 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 currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. 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.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. 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.* 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 is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The 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, analytical work, accounting, 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 this 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, taxes, or any other indirect costs not expressly allowed by these provisions, 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. *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.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of _____ percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $_____, which is _____ percent of the agreed estimated total cost of this project, $_____.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator 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.

15. *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 for each additional 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 mineral deposit 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.

16. *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.

17. *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 sextuplicate the day and year first above written.

DECOURSEY MOUNTAIN MINING CO., INC.
ANCHORAGE, ALASKA
(Operator)

By John L. Williams
President

THE UNITED STATES OF AMERICA

By _____

U.S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-200
(April 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C.
DEC 6 10 00 AM '51

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] DeCoursey Mountain Mining Co., Inc, hereinafter called the Operator

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 4th Judicial Division, ~~County of~~ Territory of Alaska described as follows: [3] Lode Claims known as Snow-bird No. 1-2-3-4-5 and Last Chance No. 1-2-3, owned by Operator; Placer Claims known as Discovery, Helen, One Below Discovery, the William Claim, Retort, Bedrock, Outcrop, and Dome Claim, leased by the Operator. All in the Otter Mining & Recording Dist. 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: Deferred payments due Robert F. Lyman

(*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] Mercury; 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] 2 years 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 ---------- 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 $----------, which is ---------- percent of the agreed estimated total cost of this project, $----------.

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.

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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.

DECOURSEY MOUNTAIN MINING CO., INC.
ANCHORAGE, ALASKA
---------- (Operator)

By John L. Williams
President

THE UNITED STATES OF AMERICA

By ----------

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

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D.C. 10:20 AM '51 DEC 6

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] De Coursey Mountain Mining Co., Inc., hereinafter called the Operator

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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.

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6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. 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.

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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.* 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 is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The 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, analytical work, accounting, 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 this 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, taxes, or any other indirect costs not expressly allowed by these provisions, 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.

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13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of _____ percent of the approved costs incurred; *Provided*, That the aggregate total of all sums paid by the Government under this agreement shall not exceed $_____, which is _____ percent of the agreed estimated total cost of this project, $_____.

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15. *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:

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This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit 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.

16. *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.

17. *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 sextuplicate the day and year first above written.

DECOURSEY MOUNTAIN MINING CO., INC.
ANCHORAGE, ALASKA

_____
(Operator)

By John L. Williams
President.

THE UNITED STATES OF AMERICA

By _____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the xxxxxxx 4th Judicial Division county of ....., State of Territory of Alaska....., described in a certain Exploration Project Contract dated ....., 195..., between De Coursey Mountain Mining Co., Inc., Placer - Purchaser of said Lode the Lessee of ~~said~~ property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor and Seller of said property under lease and Escrow Contract dated Oct. 16, 1951 ....., does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 16th day of October, 195...

Robert B. Lyman

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the ~~County of~~ 4th Judicial Division, State of Territory of Alaska, described in a certain Exploration Project Contract dated _____, 195__, between De Coursey Mountain Mining Col, Inc., Placer - Purchaser of said Lode the Lessee of ~~said~~ property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor and Seller of said property under lease and Escrow Contract dated Oct. 16, 1951 _____, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 16th day of October, 1951

Robert F. Lyman

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

Territory of Alaska

Office of the Auditor

Juneau

CERTIFICATE OF INCORPORATION

I, NEIL F. MOORE, Auditor of the Territory of Alaska, and custodian of corporation records for said Territory, DO HEREBY CERTIFY that on the 22nd day of October, 1951,

DECOURSEY MOUNTAIN MINING COMPANY, INC.

filed in this office its Articles of Incorporation, as a corporation organized under the laws of the Territory of Alaska, and paid its corporate tax for the calendar year 1951.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, at Juneau, the Capital, this 22nd *day of* October, *A. D. 1951.*

Neil F. Moore

Auditor of Alaska.

DE COURSEY MOUNTAIN MINING COMPANY, INC.

Anchorage, Alaska

STATEMENT OF INITIAL EXPENSES

October 22, 1951 - November 30, 1951

Travel Expense	$ 215.91
Office expense	75.00
Mimeograph and photostats	74.10
	$ 365.01

INCORPORATED UNDER THE LAWS OF

The Territory of Alaska

No. 94

Shares

Decoursey Mountain Mining Co., Inc.

ANCHORAGE, ALASKA

COMMON STOCK

THIS CERTIFIES THAT _____ is the owner of

_____ Shares of $1.00 Par Value each of the Capital Stock of

DECOURSEY MOUNTAIN MINING COMPANY, INC., fully paid and non-assessable.

transferable only on the books of the Corporation by the holder hereof in person or by Attorney, upon surrender of this Certificate properly endorsed.

In Witness Whereof, the said Corporation has caused this Certificate to be signed by its duly authorized officers and to be sealed with the Seal of the Corporation this _____ day of _____ A.D. 19

TREASURER

PRESIDENT

SHARES $1.00 PAR EACH

© GOES 50

CERTIFICATE

FOR

SHARES

OF THE

CAPITAL STOCK

Decoursey Mountain Mining Company, Inc.

ANCHORAGE, ALASKA

ISSUED TO

DATED

For Value Received, _____ hereby sell, assign and transfer unto _____ Shares of the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint _____ to transfer the said Stock on the books of the within named Corporation with full power of substitution in the premises.

Dated _____ 19____

In presence of

_____

_____

NOTICE: THE SIGNATURE OF THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE, IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT, OR ANY CHANGE WHATEVER.

D E E D

THIS INDENTURE, made the 18th of March, 1949, between Harry Brink, the party of the first part, and Robert F. Lyman, the party of the second part;

WITNESSETH: That the said party of the first part, for and in consideration of the terms of the Lease Agreement and Option to Purchase between the party of the first part and the party of the second part, as recorded in the files of the Otter Precinct as of May 16, 1942, instrument number 15496, the fulfillment of the terms of said lease agreement is hereby acknowledged, has granted, sold and forever quitclaimed, and by these presents does grant, sell and forever quitclaim, unto the said party of the second part, and to their heirs and assigns, all the following described real estate, situate in the Otter Recording Precinct, Territory of Alaska, to wit: Eight lode mining claims near the head of Return Creek, a tributary of the Iditarod River, known as:- Snow Bird No. 1, Snow Bird No. 2, Snow Bird No. 3, Snow Bird No. 4, Snow Bird No. 5, Last Chance No. 1, Last Chance No. 2, Last Chance No. 3, together with all and singular the mines, minerals, fixtures, improvements, rights, privileges, and appurtenances thereunto in anywise belonging. To have and to hold the lands, tenements, and hereditaments hereby conveyed unto the said party of the second part his heirs and assigns forever.

IN WITNESS WHEREOF, The said party of the first part has hereunto set his hand and seal the day of the year first written above.

Signed in the presence of:

Charles McBaker

Tom Veich

Harry Brink (Seal)

UNITED STATES OF AMERICA)
:- ss.
TERRITORY OF ALASKA)

This is to certify that on this 18th day of March, 1949 before me, a Notary Public in and for Alaska, duly commissioned and sworn, personally came Harry Brink to me personally known and known to me to be the person described in the foregoing Deed, and he acknowledged to me that he signed and sealed said instrument as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Witness my hand and seal on the day and year first above written.

Wayne Houck
United States Commissioner

LEASE OF PLACER MINING CLAIMS

THIS LEASE, made the 16 day of October, 1951, between ROBERT F. LYMAN, lessor, and DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation, lessee, WITNESSETH:

That the said lessor, for and in consideration of the rents, royalties, covenants and agreements hereinafter reserved, and by the said lessee to be paid, kept and performed, has let, and by these presents does lease and let unto the said lessee, all of the following described placer mining claims, situated in the Otter Mining and Recording District, Fourth Judicial Division, Territory of Alaska, to--wit: "Discovery Claim", "The Helen Claim", "One Below Discovery", "The William Claim", "The Retort Claim", "The Bedrock Claim", "The Outcrop Claim", and "The Dome Claim", together with the appurtenances thereto.

TO HAVE AND TO HOLD unto the said lessee, for the term of ten (10) years from the date hereof, expiring on the 16 day of October, 1961, unless sooner forfeited as determined.

And in consideration of the said lease, the said lessee does covenant and agree with said lessor as follows, to-wit:

1. To enter upon said premises and work the same in a manner necessary and proper to good and economical mining so long as the price of mercury shall justify operations, with due regard to the safety, development, and preservation of the said premises as a workable placer mine.

2. To work and mine said premises as aforesaid, steadily and continuously, beginning with the mining season of 1952, and during the mining seasons thereafter for the term of this lease, and to perform the necessary assessment work annually so as to hold and protect the rights of the lessor in and to the said claims.

3. To allow said lessor and his agents to enter upon and into all parts of said premises for the purpose of inspection.

4. To not assign this lease, or any interest thereof and to not sublet the said premises or any part thereof without the written assent of the lessor, and to not allow any person or persons except the said lessee and his workmen to take or hold possession of said premises, or any part thereof, under any pretence whatever.

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ANCHORAGE, ALASKA

5. To occupy and hold all cross or parrallel lodes, dips, spurs, speeders, crevices, or mineral deposits of any kind which may be discovered in working under this lease, as the property of said lessor, with privilege to the lessee of working the same as an appurtenance of the demised premises during the term of this lease.

6. To keep books of account, showing the amount of ores extracted from the said mine, the amount of ore shipped, sold or treated, and the amount of money received from the sale of said ores, or the values extracted therefrom; that from and out of the values obtained from the ores so extracted, and which may be found in or upon said premises, and reduced, treated, sold or shipped, the lessee will pay to the lessor twelve and one-half per cent (12 ½%) of the gross proceeds from the first four claims named above, and six per cent (6%) of the gross proceeds from the last four claims named above, settlement and payment to be made quarterly, and will deliver to said lessor, at the end of the term, twelve and one-half per cent (12 ½%) of the gross proceeds of all ores extracted from the first four claims named above, and six per cent (6%) of the gross proceeds of all ores extracted from the last four claims named above, which have not yet been shipped or sold. A duplicate of all mill, smelter, or retort returns shall be furnished to the lessor, and that said books of account shall be open, at all reasonable times, to the lessor or his representatives.

7. To save and hold the lessor harmless from all liens or claims of workmen or material, and to keep the premises properly posted so as to protect the said mining claims from any liens of workmen and/or material.

8. To deliver up to the lessor the said premises, with appurtenances, in good order and condition and ready for immedaite continued working, on the day of the date of the termination of this lease, or at any time previous upon demand for forfeiture for violation of any of the covenants and agreements herein contained.

KAY & ROBISON
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MASONIC BLDG.
ANCHORAGE, ALASKA

And finally, upon the violation by the lessee, or any other person under it, of any of the covenants herein contained, the term of this lease shall, at the option of the lessor, expire and become forfeited to said lessor, and said lessor or his representatives may thereupon, after proper demand, enter upon and take

possession of the premises.

Each and every clause and covenant of this lease, where the context requires it, shall extend to and include the heirs and assigns of the lessor and the executors, administrators and assigns of the lessee.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals on the day and year first above written.

Signed in the presence of:

Georgia Simmons

Thomas E. Cook

Robert F. Lyman (SEAL)
ROBERT F. LYMAN, Lessor

DECOURSEY MOUNTAIN MINING COMPANY, INC. (SEAL)

By: Wendell P. Kay
Trustee

UNITED STATES OF AMERICA
TERRITORY OF ALASKA } ss:

THIS IS TO CERTIFY that on this 16th day of October, 1951, before me, the undersigned, a Notary Public in and for the Territory of Alaska, duly commissioned and sworn as such, came ROBERT F. LYMAN and WENDELL P. KAY, the particular officer, to-wit: Trustee of DECOURSEY MOUNTAIN MINING COMPANY, INC., both known to me and known to be the particular persons who executed the foregoing instrument, and they acknowledged that they signed and sealed the same freely and voluntarily for the uses and purposes therein stated, the said WENDELL P. KAY being thereunto duly authorized by the Board of Directors of said corporation.

WITNESS my Hand and Notarial Seal the day and year last above written.

Georgia Simmons
Notary Public in and for Alaska
My commission expires: 7-5-54

KAY & ROBISON
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MASONIC BLDG.
ANCHORAGE, ALASKA

E S C R O W C O N T R A C T

THIS AGREEMENT, made and entered into this 16 day of October, 1951, by and between ROBERT F. LYMAN, party of the first part, hereinafter referred to as the Seller, and DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation, party of the second part, hereinafter referred to as the Buyer, WITNESSETH:

THAT FOR AND IN CONSIDERATION of the mutual covenants and promises hereinafter contained, it is expressly agreed by and between the parties hereto that the Seller will sell and convey to the Buyer, and the Buyer will purchase of and from the Seller, all those certain lode mining claims in the Territory of Alaska, Fourth Judicial Division, Otter Mining and Recording District, and more particularly described as follows:

"Snowbird", Nos. 1, 2, 3, 4 and 5, and "Last Chance", Nos. 1, 2 and 3.

TOGETHER WITH ALL AND SINGULAR, the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining.

THIS CONTRACT OF PURCHASE AND SALE, is however, subject to the following terms and conditions, to-wit:

1. That the purchase price of said property is in the sum of SEVENTY THOUSAND and NO/100 DOLLARS ($70,000.00), lawful money of the United States of America, payable as follows: The sum of FOURTEEN THOUSAND and NO/100 DOLLARS ($14,000.00), at the time of execution and delivery of this contract, the receipt of which is hereby acknowledged, and the balance to-wit: The sum of FIFTY-SIX THOUSAND and NO/100 DOLLARS ($56,000.00) payable at the rate of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest, first payment of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest on or before the 16 day of October, 1952, and a like sum of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest, on or before the 16 day of October of each subsequent year thereafter until this contract is paid in full. It is mutually understood that the down-payment hereinabove mentioned consists of SEVEN THOUSAND and NO/100 DOLLARS ($7,000.00) in cash, and SEVEN THOUSAND DOLLARS ($7,000.00) value in common stock of the DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation.

2. And until the said purchase price shall be paid in full by the Buyer, it is expressly agreed that the Buyer shall pay all taxes and assessments which may be levied or may accrue against said property, or any part thereof from the date hereof; to allow no liens or encumbrances of any kind or character whatsoever to attach to said property or any part thereof. The Buyer shall be entitled to possession of the premises above described at the time of execution and delivery of this contract.

3. It is expressly agreed that the Seller shall deposit a copy of this agreement in the CITY BANK OF ANCHORAGE, at Anchorage, Alaska, and will deposit therewith in escrow a good and sufficient deed conveying title to said property to the Buyer free and clear of all encumbrances, with instructions to the said escrow holder to deliver the same to the Buyer upon payment of the full purchase price hereinaobve mentioned and set forth, or upon showing receipts from the Seller for the full amount of said purchase price. Payments under this contract are to be made directly to the Seller.

4. Time is agreed to be the essence of this contract, and in the event that the Buyer shall make any default in any of the payments when due, or to perform any of the covenants herein contained to be kept on its part, the Seller shall be released from all obligations at law or in equity to convey the said property, as well as the Buyer losing all right to and of purchase hereunder; all payments made by the Buyer shall be forfeited to the Seller as

KAY & ROBISON
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ANCHORAGE, ALASKA

liquidated damages and in the nature of rent, and not as a penalty, and in such event, the Buyer shall and will immediately vacate the hereinabove described premises, and surrender the same to the Seller on demand; and the Seller shall have the right to re-enter upon and take possession of the said land and premises and every part thereof. In the event that this contract is breached by the Buyer, and suit is instigated to enforce the provisions of this contract, the Buyer shall pay all costs of said suit or action, including a reasonable attorney's fee. The Buyer shall not have the right to sell or assign its interest in this contract without first having received the written consent of the Seller to such assignment.

Each and every clause and condition herein contained shall be binding upon and inure to the benefit of the respective parties hereto, their heirs, legal representatives and assigns.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first hereinabove written.

Signed in the presence of:

Georgia Simmons

Lorene L. Frank

Robert F. Lyman (SEAL)
ROBERT F. LYMAN, Seller

DECOURSEY MOUNTAIN MINING COMPANY, INC. (SEAL)

By: Wendell P. Kay
Trustee

UNITED STATES OF AMERICA
TERRITORY OF ALASKA } ss:

THIS IS TO CERTIFY that on this 16th day of October, 1951, before me, the undersigned, a Notary Public in and for the Territory of Alaska, duly commissioned and sworn as such, came ROBERT F. LYMAN and WENDELL P. KAY, the particular officer, to-wit: Trustee of DECOURSEY MOUNTAIN MINING COMPANY, INC., both known to me and known to be the particular persons who executed the foregoing instrument, and they acknowledged that they signed and sealed the same freely and voluntarily for the uses and purposes therein stated, the said WENDELL P. KAY being thereunto duly authorized by the Board of Directors of said corporation.

WITNESS my Hand and Notarial Seal the day and year last above written.

Georgia Simmons
Notary Public in and for Alaska
My commission expires: 7-5-54

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BOX 1178
MASONIC BLDG.
ANCHORAGE, ALASKA

TERRITORY OF ALASKA

DEPARTMENT OF MINES

ASSAY OFFICE

Anchorage, Alaska, Nov. 28, 1951

REPORT OF ASSAY

On samples received from G. A. Sherman

Address Anchorage, Alaska

ASSAY NO.	MARK ON SAMPLE OWNER'S DESCRIPTION	OUNCES PER TON		VALUE PER TON	PERCENTAGE OF
		GOLD	SILVER		
6071	Small piece placer cinnabar from "Scoursby" Mt. property.	---	---	---	Mercury --- 76.57 %

Peter G. Tanavik ASSAYER.

EXPERIENCE AND BUSINESS BACKGROUND OF DIRECTORS

1. President - John L. Williams
One year assistant chemist American Brake Shoe & Foundry Co.
Four years University - B.S. degree Chemistry.
Three years U.S.A.F. - Pilot 1st Lt.
Two and half years Research & Development Chemistry - Pilot plant work American Cyanamid Corp.
One year Building, andIndependent Trucking Business.
Presently employed one year Classification Analysis and Wage Administration Organization U.S.A.F., Elmendorf Air Force Base, Anchorage.
Member A.C.S. (American Chemical Society.
Address: Box 206 Spenard, Alaska.

2. Vice President - Joseph C. Fears
Two years University of Maryland,
Entered Army as Private, discharged eleven years later as Captain.
Six months with Wilkinson & Jones, Hanford, Wash. as General Manager Parts Warehouse.
Year and a half in Fountain-Drugs and Restaurant Business - Seattle, Wash. (Owner-Operator)
Year and a half Salesman for Best Foods, Inc., Green Garden Products Co., Hock Specialty Co.
One year Owner-Operator Wholesale Sandwich Co. - Seattle, Wash.
Presently employed (8 months) Operating Engineer for Haddock Engineers Ltd., Anchorage, Alaska - Address Box 2232, Anchorage, Alaska.

3. Treasurer - William L. Warren
Four years Owner of Men's Clothing Store (Owner-Operator)
Two years Distributors for Sinclair Refining Co. (Plant Manager)
Three years - U.S. Army Engineers (Civilian-Procurement).
One year Birch Lytle & Johnson Const. Co. (Asst. Chief Storekeeper)
One year Standard Oil of California (Inventory Specialist, Arabia)
Present Occupation - General Mgr. of Monty's Stores, Inc. Alaska Division.
Address: 132 East Fourth Ave. - Anchorage, Alaska

4. Secretary - Scott E. Thomas
Three years as Transportation Agent, Northwest Airlines, Inc. - Anchorage, Alaska.
Attended University of Minnesota. Instituteof Tech. (Eng.)
During War in the U.S.A.F.
Presently employed as Salesman for K. & L. Distributors of Seattle, Anchorage branch.
Address: Box 2221, Anchorage, Alaska

5. Director - Cornell Allen Sherman
Graduate Cotner College - B.S. in Engineering - C.E. & M.E.
Two years - Meloney Bros., Council Bluffs, Ia. - Engineer
Three years-Boebe & Company - Engineer - 5 years Gateway Sales Co.
Four years owner-operator General Engineering practice in Mississippi.
Eleven years Airport Engineer - State Aeronautics - Lincoln, Nebraska
One year Chief Draftsman Burns & McDonnell Engineering Co. Kansas City. Mo.
One year Chief Engineer P. H. McGraw Const. Co. - One year Const. Area Supt. Metcalfe-Hamilton Bridge Co. Canada & Alaska
Presently employed A. J. Hopper Co. - Engineer - Alaska. Address Box 223[illegible]

Did not include Stampede Antimony Mine operation 1948-1949

LUMP SUM ESTIMATED COSTS

OF PLACER EXPLORATION

(All Equipment Furnished)

Stream Bed and Watershed to 500' Elevation on Creek limits adjacent to Lode deposits on basis of float.

This work covers RETURN, DISCOVERY, and MONTANA CREEKS: See Sheet C.

		ESTIMATED COST
1.	Construct dirt dam and install Pumping Unit on RETURN CREEK.	$ 2,120.00
2.	Construct 2.2 Miles of Mine roads to Placer areas.	11,000.00
3.	Clearing & stripping with Dozer trees, brush, and overburden. (Alternate Hydraulic stripping in frozen area).	4,000.00
4.	Driving thaw points where overburden and ore is frozen (estimate - 47 trenches).	14,400.00
5.	Piping and pumping thaw water etc.	4,110.00
6.	A. Dragline trenching to bedrock every 1000' in Placer claims on basis of float.	
	B. Dragline trenching to bedrock every 2000' on Montana Creek.	

			C.Y.	L.F.
1-a	Return Creek	18 trenches 300' x 6'	3600	5400
2-a	Discover Creek	5 " 210' x 6'	700	900
3-a	Montana Creek	13 " 900' x 9'	11700	11700
b	" "	11 " 1200' x 9'	13200	13200

Estimated total yardage 29,200 C.Y. plus Sluff or 31,200 L.F. cut 3' x 9' — 55,480.00

7.	Collecting, hauling, sizing, weighing, and retorting Placer samples (38 trenches x 50 samples each).	4,750.00
8.	Surveying and mapping width and depth of paystreaks. Sample numbers and location	950.00
	TOTAL	$ 96,810.00

* In our estimate we have assumed a minimum depth of 2 yds. and a maximum of 3 yds. which appears to be the average from Placer Exploration done recently by the owner.

LUMP SUM ESTIMATED COSTS

OF LODE EXPLORATION

(All Equipment Furnished)

1.	1700 L.F. of Tunnel at 600' Elevation 5½" x 7½" @ $28.00 Per L.F.	$47,600.00
2.	310 L.F. 50° Raise to upper Tunnel @ $23.00 per L.F.	7,130.00
3.	Bull Dozer Surface Trenching and Channel Sampling 6300 L.F. x 12' @ $3.00 per L.F.	18,900.00
4.	Horizontal 7/8" Drill holes at 20' intervals Both sides of Tunnel & Raise	
	A. Tunnel 160 Prospect holes x 24' - 3840 L.F. B. Raise 30 " " x 24' 720 " 4560 L.F. of Prospect Check holes @ $2.00	9,120.00
5.	Horizontal Diamond drill holes & Core at 50' intervals, both sides of Tunnel and Raise	
	A. Tunnel 68 holes x 100' Core ea. @ $3.00 L.F.	20,400.00
	B. Raise 10 holes x 100' Core ea. @ $4.50 L.F.	4,500.00
6.	Mine Roads - 1.9 Miles	9,500.00
7.	Lengthen existing Airfield 700 L.F. x 200'	7,650.00
	TOTAL	$124,800.00

RECAPITULATION OF EXPLORATION COST

FOR BOTH PLACER AND LODE DEPOSITS

		PLACER	LODE	TOTAL
1.	Equipment Purchase *	$25,447.00	$46,364.00	$71,811.00
2.	Equipment Rental *	6,000.00	none	6,000.00
3.	Food	7,193.00	14,409.00	21,602.00
4.	Fuel	14,510.00	11,440.00	25,950.00
5.	Expendable Materials	286.00	2,960.00	3,246.00
6.	Contract Services - Public *	5,090.00	6,630.00	11,720.00
7.	Labor - Wages	64,677.00	89,400.00	154,077.00
8.	Camp Rehabilitation *	3,300.00	3,300.00	6,600.00
	PROJECT EXPENDITURE	126,503.00	174,503.00	301,006.00
9.	Wages Expense of Equip. Escalator Allowance Over 2 year period (8%)	10,120.00	13,960.00	24,080.00
	TOTAL DIRECT COSTS OF JOINT EXPLORATION PROJECT	$136,623.00	188,463.00	$325,086.00
10.	Operators Contribution to Exploration Project (Plus use of all existing structures)	34,716.00	44,750.00	79,466.00
	TOTAL COST OF EXPLORATION PROJECT ALL SOURCES	171,339.00	233,213.00	404,552.00
12.	Operators Share of Exploration Costs in addition to Item 10	34,156.00	47,116.00	81,272.00
	DMA LOAN COMMITMENT REQUESTED	$102,467.00	141,347.00	$243,814.00

* Items not included in Lump Sum Estimates herewith

See Cost Breakdown Exhibits

Sheets -

PLACER EXPLORATION

EQUIPMENT PURCHASE AND RENTAL FROM LOAN

	PURCHASE	RENTAL
1 D8 Caterpillar with Hydraulic Dozer	$14,810.00	
Thaw Points 120	2,190.00	
Pump Motor #671 G.M.C. Diesel	5,165.00	
Pump 12" x 14"	1,170.00	
Rental Lima Dragline 16 months @ $1,000.00)		$6,000.00
Beds and Bedding	2,112.00	
	$25,447.00	$6,000.00

LODE EXPLORATION

PURCHASE OF EQUIPMENT FROM LOAN

D8 Caterpillar with Hydraulic Dozer	$14,200.00
Welder - 300 amps.	1,519.00
3 Air Receiver Tanks	609.00
Track Tools (Set)	349.00
Spikes	67.00
Tie Plates	69.00
Joint Bars	99.00
Bolts	83.00
Rail 24# 14 tons	3,211.00
Trammer	3,440.00
Battery	2,056.00
Diamond Drill (complete)	3,672.00
Mine Cars 4-16 C.F. 18" gauge	1,449.00
Mucking Machine (complete)	3,754.00
Blower	481.00
Vent Tube 1800 l.f.	1,930.00
Radio Transmitter & Receiver	1,135.00
Compressor Diesel 500 c.f.	8,241.00
	$46,364.00

EXPENDABLE MATERIALS TO BE PURCHASED FROM LOAN

PLACER

ITEM	AMOUNT
Food	$7,193.00
Fuel	
Wood 5 Cords	200.00
Diesel 552 Bbls. @ $23.00	12,700.00
Gas 18 Bbls. @ 35.00	610.00
Lube 6-2/3 " @ 90.00	600.00
Grease 800 Lbs. @ 50¢	400.00
First Aid Kits	30.00
Fire Extinguishers	125.00
Air Transportation	2,800.00
Telephone & Telegraph	300.00
Dynamite	110.00
Fuse	10.00
Caps	11.00
Tractor Freight to Mine	1,990.00
Camp Rehabilitation & Maintenance	3,300.00
	$30,379.00

EXPENDABLE MATERIALS TO BE PURCHASED FROM LOAN

LODE

ITEM		AMOUNT
Food		$14,409.00
Fuel		
Wood	45 Cords	1,800.00
Diesel	348 Bbls. @ $23.00	8,000.00
Gas	32 " @ 35.00	1,140.00
Lube	3-1/3 Bbls. @ $90.00	300.00
Grease	400 Lbs. @ 50¢	200.00
First Air Kits		30.00
Fire Extinguishers		125.00
Air Transportation		3,900.00
Telephone & Telegraph		610.00
Dynamite		1,120.00
Fuse		150.00
Caps		160.00
Tractor Freight to Mine		2,120.00
Jack Bits		390.00
Drill Steel		985.00
Camp Rehabilitation & Maintenance		3,300.00
		$38,739.00

PLACER EXPLORATION

Recapitulation of 24 Week Period

NON-MANUAL ½ Time	Hourly Rate	No. Emply.	Amount	Total Amount
Cook & Baker			$334.75 x 10 mos.	$3,347.50
Bookkeeper, Radioman Warehouse & Commissary			334.75 x 10 "	3,347.50
Flunky			207.00 x 10 "	2,070.00
Engineer			515.00 x 10 "	5,150.00
Mineral Surveyor Flat fee including transporation & subsistence				1,886.00
MANUAL				
Placer Foreman	3.27	1	265.96 x 24 wk.	6,383.04
Dragline Operator	3.27	1	265.96 x 24 "	6,383.04
Dozerman 2 shifts	3.22	2	531.36 x 24 "	12,752.64
Thawman	2.82	1	247.29 x 24 "	5,934.96
Pumpman	2.82	1	247.29 x 24 "	5,934.96
Mechanic & Blacksmith (½ Time)	3.27	1	132.98 x 36 "	4,787.28
Oiler & Electrician (½ Time)	2.87	1	118.46 x 36 "	4,264.56
Laborer - full time	2.77	1	228.68 x 36 "	8,232.48
				$ 70,473.96
Less Board & Room Deduction @ $5.75 per diem				5,796.96
				$64,677.00

LODE EXPLORATION

Recapitulation of 36 week Period

MANUAL	Hourly Rate	No. Emply.	AMOUNT	Total Amount
Miners	$3.12	2	$547.20 x 36 wks.	$19,699.20
Muckers	2.82	2	494.58 x 36 "	16,804.88
Timberman	2.77	2	485.82 x 36 "	15,489.52
Trammers	2.77	2	485.82 x 36 "	15,489.52
Dozerman	3.22	1	265.68 x 36 "	9,554.48
Mechanic & Blacksmith	3.27	1	132.98 x 36 "	4,787.28
Oiler & Electrican	2.87	1	118.46 x 36 "	4,264.56
Laborers	2.77	1	228.68 x 36 "	8,232.48
NON-MANUAL ½ Time				
Cook & Baker			334.75 x 10 mos.	3,347.50
Flunky			207.00 x 10 "	2,070.00
Bookkeeper, Radioman Warehouse & Commissary			334.75 x 10 "	3,347.50
Engineer			515.00 x 10 "	5,150.00
			TOTAL LABOR	$108,236.92
Less Board and Room deductions @ $5.75 per diem				18,836.80
			NET	$89,400.12

PLACER EXPLORATION

PLACER EXPLORATION EQUIPMENT TO BE FURNISHED BY THE OPERATOR

Precussion, Prospect Drill, Shoes And Drivepipe	$ 7,800.00
Hydraulic Pipe 3000' 9" to 14"	4,600.00
2 Giants #2	1,006.00
Steel 30" Sluce Box 72 L.F.	970.00
Riffles (Hungarian)	610.00
Water hose for points - 1000 L.F. x 3/4"	920.00
2 Lang Ranges double oven	1,310.00
Kitchen Equipment	640.00
Dining Hall Equipment	1,105.00
1 Denver Jig Hartz Type (with 6 H.P. Wisconsin Motor	1,495.00
1 7" x 11" Fine Jaw Crusher with motor	840.00
Thaw Water Piping	
Pipe 1½" 300 L.F.	305.00
" 1" 1200 L.F.	870.00
Small Tools	
Shovels - Picks	170.00
Wheel barrows	205.00
Axes - Saws - etc.	210.00
2 Tube D Retort in place	3,200.00
Water Piping 700 L.F. Galvanized	700.00
Water Supply Pumps	440.00
Sump Pumps	380.00
Caterpillar, tools, spare parts (new) and others	6,910.00
	$34,686.00

LODE EXPLORATION

EXPLORATION EQUIPMENT FURNISHED BY THE OPERATOR

	EQUIP.	FREIGHT	REPAIR	TOTAL
Sleds & Go Devils	2,900.00	400.00	600.00	$3,900.00
Compressors (2)				
1 - 85 c.f. I.R. Gas				2,200.00
1 - Elec. 160 c.f. Gardner-Denver				3,800.00
1 30 c.f. Compressor for shop				610.00
Platform Scales				121.00
Line oiler for Jackhammers				31.00
Drill Oil				95.00
1 JB 4 Jackhammer drill I.R.				380.00
2-3/4 Stoper R5 I.R.				497.00
1 Threading tool for Jack Bits				147.00
1 Cradle & Shelf Column for J.B. 4				167.00
1 Jack Leg Mounting				93.00
2 Water tanks for Drills				70.00
240' Hex 7/8" drill steel				395.00
Mine Wannigan on wheels				340.00
Lumber 2 FBM				270.00
Nails - all sizes				310.00
Roofing				101.00
Air Pipe 2" - 2000 L.F.				2,000.00
Jack Bits 400 @ 60¢				240.00
Fuse 5 rolls				500.00
Caps 7 Cases				110.00
4 Mine Cars 16 C.F. 18" Gauge				1,448.00
Airhose 1000 L.F. 3/4"				770.00
Electric Power Plant 2 Caterpillar 46-30 Diesels Switchboard Balancing Equipment & Feed Transfer Tanks				14,900.00
2 - 2 ton Yale Hoists				510.00
Carbide - 3 Cans				45.00
1 Machine & Blacksmith Shop (Complete)				10,700.00
				$44,750.00

BUILDINGS TO BE FURNISHED BY OPERATOR AT NO COST TO JOINT VENTURE

One Mess House (Log 20' x 40'	$6,000.00
One Meat Casche 8' x 8'	300.00
One Processing Building 20' x 80'	16,000.00
One Electric Shop & Powerhouse Bldg.	12,000.00
Three 20' x 60' One-bedroom houses	12,000.00
One Office and Parts Warehouse 20' x 40'	8,000.00
One Food Storage Warehouse 20' x 80' (Rodent Proof)	16,000.00
One Sanitary facilities & Water system	31,000.00
One Machinery Shed 20' x 60'	6,000.00
One Retort & Lime Building 20' x 60'	6,000.00
	113,300.00

PROCESSING EQUIPMENT TO BE FURNISHED BY OPERATOR AT NO COST TO THE JOINT VENTURE

Four D Retorts capacity 4 tons - 24 hrs.	8,000.00
One Gould Rotary Furnace and Condensing System, including	37,900.00

(a) 36" x 40' shell complete with ride and drive mechanism, seals, hoods, frame, feeder, brick lining and motors for driving kiln and feeder.
(b) Firing equipment, including compressor with receiver and motor, valves, gauges, meters, burners, oil pump and motor.
(c) Dust collecting equipment, including collector and receptacle, connections, exhauster and motor.
(d) Condensing system, including cast iron pipes, hoppers, and returns, settling tanks, recording thermometer, and auxiliaries.
(e) Steel fine ore and burnt ore bins.
(f) Jaw crusher and motor drive.
(g) Conveyor belt complete with motor drive.
(h) Tools and miscellaneous auxiliary equipment.
(i) All spare parts for any of the above listed equipment.

One 3½ Sack Rex Cement Mixer	835.00
Other misc. Parts & Equipment	1,000.00
	$47,735.00

LODE EXPLORATION

EXPLORATION EQUIPMENT FURNISHED BY THE OPERATOR

	EQUIP.	FREIGHT	REPAIR	TOTAL
Sleds & Go Devils	2,900.00	400.00	600.00	$3,900.00
Compressors (2)				
1 - 85 c.f. I.R. Gas				2,200.00
1 - Elec. 160 c.f. Gardner-Denver				3,800.00
1 30 c.f. Compressor for shop				610.00
Platform Scales				121.00
Line oiler for Jackhammers				31.00
Drill Oil				95.00
1 JB 4 Jackhammer drill I.R.				380.00
2-3/4 Stoper R5 I.R.				497.00
1 Threading tool for Jack Bits				147.00
1 Cradle & Shelf Column for J.B. 4				167.00
1 Jack Leg Mounting				93.00
2 Water tanks for Drills				70.00
240' Hex 7/8" drill steel				395.00
Mine Wannigan on wheels				340.00
Lumber 2 FBM				270.00
Nails - all sizes				310.00
Roofing				101.00
Air Pipe 2" - 2000 L.F.				2,000.00
Jack Bits 400 @ 60¢				240.00
Fuse 5 rolls				500.00
Caps 7 Cases				110.00
4 Mine Cars 16 C.F. 18" Gauge				1,448.00
Airhose 1000 L.F. 3/4"				770.00
Electric Power Plant 2 Caterpillar 46-30 Diesels Switchboard Balancing Equipment & Feed Transfer Tanks				14,900.00
2 - 2 ton Yale Hoists				510.00
Carbide - 3 Cans				45.00
1 Machine & Blacksmith Shop (Complete)				10,700.00
				$44,750.00

Table 1
SUMMARY OF RESERVES
(Cutoff grade approximately 25 pounds of quicksilver a ton)

	A-vein body	Decoursey vein body	Block A	Block B	Block C	Block D	Body at Retort veins	1/	Top Vein Body	TOTAL
Pounds of quicksilver a ton 2/	24.4	29.1	53.1	31.9	41.6	51.0	27.0	25	27.3	
Length of ore body in feet	105	98	65	35	63	184	113	250	72	
Average width of ore body	3.1	6.1	3.0	3.0	3.7	3.2	3.7	5.5	8.2	
Average known height of ore body	11.5	10.0	20.0	51.0	66.0		13.5		4.0	
Tons of reasonably assured ore 3/			320	450						770
Tons of inferred ore 3/	1400	2400				4500	2000	14000	1800	26100
Flasks of quicksilver from reasonably assured and indicated ore	100	190	220	190	700		170		70	1640
Flasks of silver from inferred ore	450	920				3020	710	4600	650	10350
Number of analyses available for estimating grade of ore body	19	17	13	11	18	46	13		22	
Tons of indicated ore 3/	310	490			1280		470		200	2750

1/ Additional inferred ore is believed to exist beneath the inferred ore of the Top vein and Retort veins and also beneath the surface in the interval separating the south end of the Top-vein body from the north end of the body at the Retort veins. This body of inferred ore extends from the north end of the Top-vein ore body to the south end of the ore body at the Retort veins. It is 250 feet long and averages 5.5 feet wide (determined by weighting the average wides of the ore bodies of the Top vein and Retort veins). Although the upper part of the latter block would be reduced by the amount of the inferred ore separately delimited at the Top and Retort veins, the intervening portion of the block which extends to the surface, about balances such a reduction and the total volume of inferred ore forthe whole block is roughly a body 250 feet by 5.5 feet by 125 feet. The ore is estimated to contain at least 25 pounds of quicksilver a ton.

2/ Quicksilver content based on analyses by Bureau of Mines.

3/ 12 cubic feet of ore a ton.

1/ See note 1, table.
2/ Quicksilver content based on analyses by Bureau of Mines.
3/ 12 Cubic feet of ore a ton.

TABLE 2

SUMMARY OF RESERVE

(Cutoff grade approximately 10 pounds of quicksilver a ton)

	A-Vein Body	DeCoursey Vein Body	Tunnel-vein body BLOCK A	BLOCK B	BLOCK C	BLOCK D	Body at the Retort veins	1/	Top vein body	TOTAL
Pounds of quicksilver a ton 2/	17.0	18.2	53.1	31.9	41.6	51.0	11.1	10	18.7	
Length of ore body in feet	125	315	65	35	63	184	148	310	100	
Average known height of ore body	13.0	35.5	20.0	51.0	66.0		17.5		5.0	
Average width of ore body	4.0	3.9	3.0	3.0	3.7	3.2	11.6	12.9	14.7	
Tons of reasonably assured ore 3/			320	450						770
Tons of indicated ore 3/	540	3630			1280		2500		610	8560
Tons of inferred ore 3/	2600	16100				4500	10600	52000	6100	91900
Flasks of quicksilver from reasonably assured and indicated ore	120	870	220	190	700		360		150	2610
Flasks of quicksilver from inferred ore	580	3850				3020	1550	6800	1500	17300
Number of analyses available for estimating grade of ore body	25	25	13	11	18	46	33		41	

ANALYSES OF SAMPLE, TUNNEL ORE BODY

U. S. BUREAU OF MINES FROM R.I. 4065

Sample	Length Sample, Feet	Pounds H.G. Per ton	H.G. Percent Antimony	Sample	Length Sample, Feet	Pounds Mercury Per ton	Percent Antimony
1....	1.3	620.8	0.73	41....	3.0	35.4	0.59
2....	5.0	0.4		42....	4.5	0.6	
3....	0.8	340.8	0.29	43....	5.5	1.2	
4....	4.5	1.8		44....	1.0	156.0	0.59
5....	5.0	2.4		45....	1.3	89.6	
6....	1.3	615.2	0.20	46....	5.5	1.0	
7....	5.0	2.0		47....	5.5	4.8	
8....	5.0	1.8		48....	1.0	246.4	
9....	1.0	2.2	0.10	49....	1.1	89.0	0.59
10....	5.0	0.4		50....	5.5	4.6	
11....	1.2	53.6		51....	4.0	4.6	
12....	5.0	1.0		52....	1.2	59.0	0.78
13....	5.0	1.2		53....	3.3	0.2	
14....	0.8	1.2		54....	5.0	1.6	
15....	5.0	0.8-		55....	3.2	0.4	
16....	5.0	0.6		56....	7.5	1.0	
17....	5.0	0.8		57....	0.8	100.8	0.25
18....	5.0	1.2		58....	1.7	9.4	
19....	1.3	0.4		59....	1.5	35.6	
20....	5.0	1.2		60....	1.8	67.8	0.16
21....	4.0	1.0		61....	1.0	169.2	0.42
22....	0.8	1.2		62....	5.0	Tr.	
23....	5.0	1.2		63....	5.0	0.6	
24....	5.0	0.8		64....	5.0	0.6	
25....	5.0	2.2		65....	5.0	0.4	
26....	3.5	12.8		66....	5.0	0.4	
27....	1.5	1.8		67....	5.0	0.4	
28....	0.5	136.0	0.59	68....	5.0	0.4	
29....	5.0	4.2		69....	5.0	0.4	
30....	4.5	0.2		70....	5.0	0.4	
31....	2.4	9.8		U-4...	0.6	653.6	0.86
32....	5.0	0.2		U-5...	0.5	412.0	0.09
33....	5.0	0.2		U-6...	1.2	236.0	0.29
34....	1.3	20.6		U-7...	1.2	5.6	Nil
35....	0.5	61.6	0.59	U-8...	1.4	1.0	
36....	5.0	2.0		U-9...	2.2	0.6	
37....	5.0	1.4		U-10..	2.2	109.0	
38....	0.9	375.4		U-11..	2.5	143.6	
39....	5.0	10.2	0.59	U-12..	2.3	5.6	
40....	5.0	1.0		U-13..	2.1	160.8	
				U-14..	3.0	6.8	
				S-1...	0.3	605.6	

82 Samples - Average Pounds of Mercury per Ton 69.58 Lbs.

22.35 #/ton

REPORTS ON AND PRODUCTION OF DECOURCY MOUNTAIN MINE
AND ADJACENT PROPERTIES.

U.S. Government Reports

1. February 1943 - R.F.C. Engineer L.C. Doheny Report - all files on his investigation sent to Seattle to be transmitted to Bureau of Mines.
2. War minerals Report No. 223 March 1943.
3. U.S. Geological Survey Report by Weber No. 98775.
4. Bureau of Mines Reports on District R.I. 4065

Decourcy Mountain Production

		Amount	
1921	Thrift Mining Co.	Unknown	
1924-26	C. F. Lindfors & Johnson	"	
1927-28	John & Harry Brink		
May 1942	Robert F. Lyman		
1942	Retorted from surface float	80 flasks	10.8 %
1943	" " 140 ton of high grade ore	400 "	
1944	" " 115 " " " " "	320 "	10.6
1945	" " 110 " " " " "		
	and float	310 "	10.6
1946	Retorted from 130 " " " " "		
	and float	303 "	
1947	Retorted from soot & placer samples	72 "	
1948	Placer Exploration		
1949	Shut down		
1950	" "		
1951	Optioned August 19, Sold Oct. 16		
	Total known Production	1485 flasks	

Red Devil Mine

1943-44	2652 tons furnaced	1090 flasks
1945	1514 " "	962
	Total	2052 flasks

Alice & Bessie Prospect

1923-24		120 flasks
1931		12 "
	Total	132 "

Cinnibar Creek Deposit

	3600 Lbs. of selected ore	29 flasks 61.2%

Rainy Creek Prospect

	2000 Lbs. of Placer Shipped to U.S. approximately	20 flasks 76 %

TIME SCHEDULE OF PROJECT

1952-53 Budget Requirements

		JOINT PURCHASE	PURCHASE BY OPERATOR	TOTAL	
January					
A. Purchase of Equipment in area		$36,905		36,905	
B. Dismantle Bldgs. & Equipment at Flat & Sleetmute for tractor train shipment to mine			9,600.00	9,600	
				46,505	Jan.
February					
A. Winter freighting of Buildings, Mining, and Processing Equipment from Flat (34 miles) to Mine		4,110	2,800	6,900	
B. Buy Tractor train fuel & food to mine	Fuel	16,220		16,220	
	Food	15,900		15,900	
				39,020	Feb.
March	Re-erect Buildings, Shop,				
April	Plant and Processing Equipment at mine	6,600	11,900	18,500	Mar.
				18,500	Apr.
May	DRAGLINE RENTAL	12,900		12,900	May
June	1,000	18,200		18,200	June
July	1,000	18,200		18,200	July
August	1,000	18,200		18,200	Aug.
September	1,000	18,200		18,200	Sept.
October	1,000	18,200		18,200	Oct.
November	1,000	18,200		18,200	Nov.
December		10,700		10,700	Dec.
January - 1952		10,700		10,700	Jan.
February		10,630		10,630	Feb.
March			9,100		
	By Operator----------		33,400		

From March to February 1952 ITEM M

Airplane hire and special service (see breakdown)	11,720
Food & Fuel	15,211
Equipment	34,906
Expendable Materials	3,246
Sub-Total	65,083
Escalator	24,080
	89,163

NOTE: Add to monthly Totals for Budget - $7,430 - contained in ITEM M.

FREIGHT RATES

ALASKA RIVERS NAVIGATION COMPANY

KISKOKWIM RIVER POINTS IN ALASKA

Basing Rates are shown in dollars per ton of 2,000 pounds. These rates apply on General Merchandise, or items not otherwise provided for in LIST OF EXCEPTIONS, between Bethel and Kuskokwim River points as named below.

Stations not listed will take the rate to next station beyond.

Exceptions to the General Merchandise or Basing Rate are included in Items number 1 to 75.

	BETHEL*	AKIAK	TULUKSAK	KALSKAG	ANIAK	NAPAMUTE	CROOKED CREEK*	SLEETMUTE	STONY RIVER	STERLING LDG.	McGRATH	MEDFRA
BETHEL		$13	$15	$23	$28	$35	$35	35	$40	$45	45	$65
AKIAK	10		10	10	15	22	22	22	30	32	32	52
TULUKSAK	10	10		10	15	20	20	20	25	30	30	50
KALSKAG	15	10	10		10	12	12	12	20	22	22	42
ANIAK	15	10	10	10		10	10	10	20	20	20	40
NAPAMUTE	15	10	10	10	10		10	10	20	20	20	40
CROOKED CREEK	15	10	10	10	10	10		10	10	20	20	40
SLEETMUTE	15	10	10	10	10	10	10		10	20	20	40
STONY RIVER	20	20	20	15	10	10	10	10		20	20	40
STERLING LDG.	20	20	20	15	15	10	10	10	10		15	35
McGRATH	20	20	20	15	15	10	10	10	10	10		20
MEDFRA	30	30	30	25	25	20	20	20	20	20	15	

DOWNSTREAM RATES

UPSTREAM RATES

ALASKA STEAMSHIP COMPANY

THE ALASKA LINE

November 20, 1951
Anchorage, Alaska

Decoursey Moutain Mining Co.
Box 2232
Anchorage, Alaska

Gentlemen:

As requested we list below freight rates Seattle to Bethel, Alaska:

	Per Hund. lbs.	Per Cubic Ft.
Mining Machinery	$ 1.65	$ .82½
Groceries	1.70	.85
General Merchandise	1.80	.90

Whichever rate creates the greater revenue will apply in any case.

Very truly yours,

T. Maloney

Agent

FS

US DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP

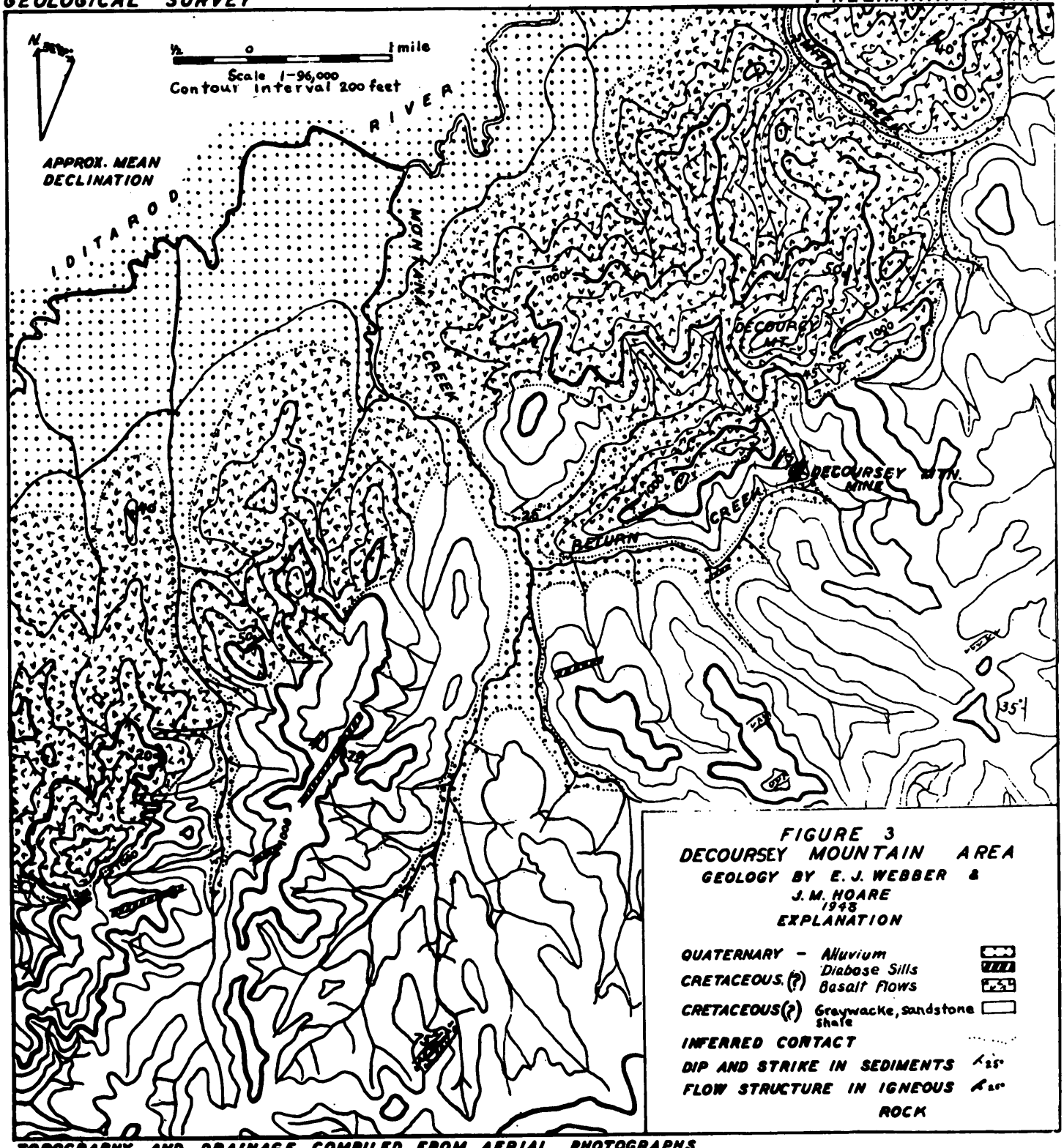

FIGURE 3
DECOURSEY MOUNTAIN AREA
GEOLOGY BY E. J. WEBBER & J. M. HOARE 1948

EXPLANATION

QUATERNARY – Alluvium
CRETACEOUS (?) Diabase Sills
Basalt Flows
CRETACEOUS (?) Graywacke, sandstone shale
INFERRED CONTACT
DIP AND STRIKE IN SEDIMENTS
FLOW STRUCTURE IN IGNEOUS ROCK

TOPOGRAPHY AND DRAINAGE COMPILED FROM AERIAL PHOTOGRAPHS

98775

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP

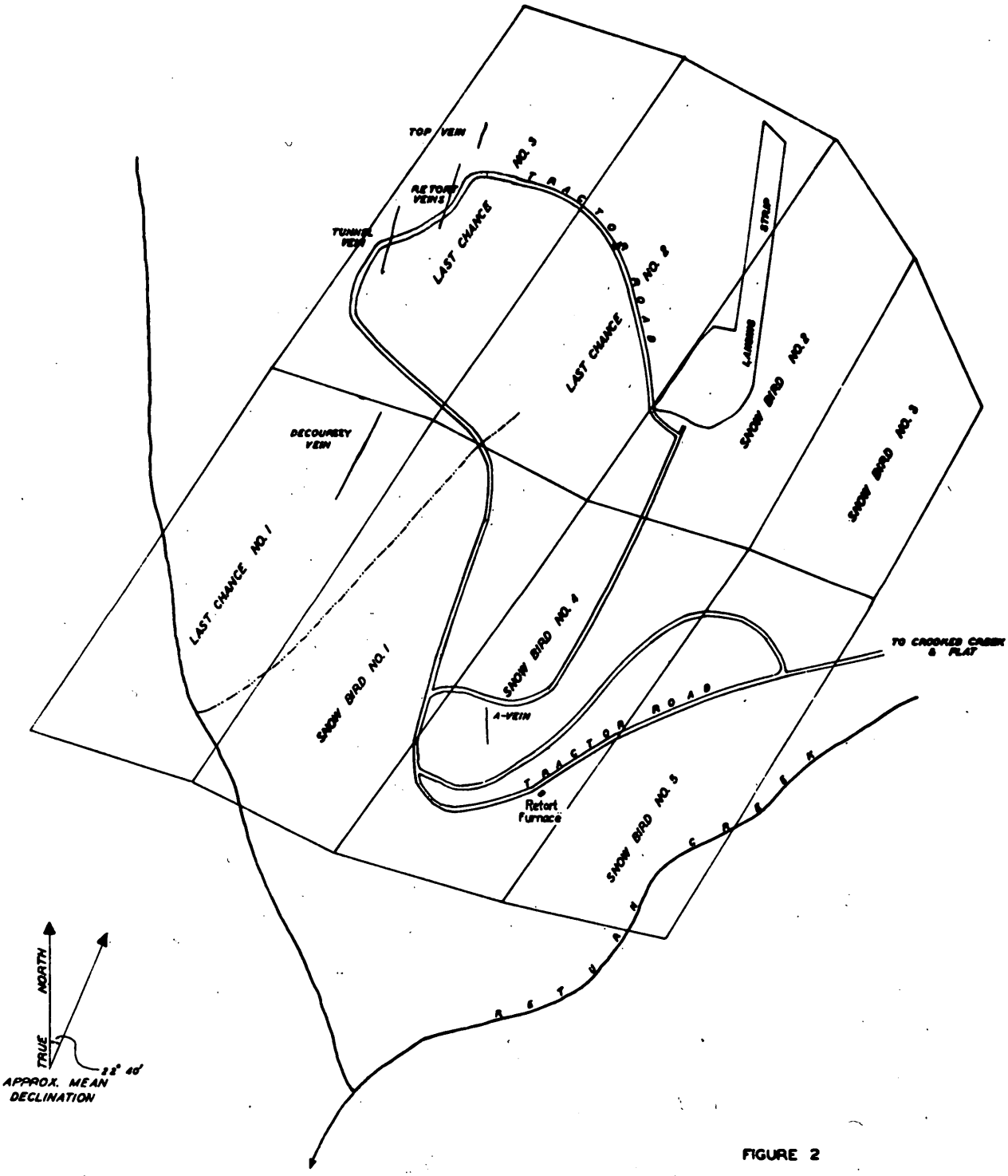

FIGURE 2

MAP SHOWING LODE MINING CLAIMS
DECOURSEY MOUNTAIN AREA
QUICKSILVER DEPOSITS
IDITAROD DISTRICT, SOUTHWESTERN ALASKA

SCALE IN FEET

E.J. WEBBER & J.M. HOARE
OCT. 1943

98775

Territory of Alaska

Office of the Auditor

Juneau

CERTIFICATE OF INCORPORATION

I, NEIL F. MOORE, Auditor of the Territory of Alaska, and custodian of corporation records for said Territory, DO HEREBY CERTIFY that on the 22nd day of October, 1951,

DECOURSEY MOUNTAIN MINING COMPANY, INC.

filed in this office its Articles of Incorporation, as a corporation organized under the laws of the Territory of Alaska, and paid its corporate tax for the calendar year 1951.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, at Juneau, the Capital, this 22nd *day of* October, *A. D. 1951.*

Neil F. Moore

Auditor of Alaska.

INCORPORATED UNDER THE LAWS OF

The Territory of Alaska

No. 99

Shares

Decoursey Mountain Mining Co., Inc.

ANCHORAGE, ALASKA

COMMON STOCK

THIS CERTIFIES THAT _____ is the owner of _____ Shares of $1.00 Par Value each of the Capital Stock of

DECOURSEY MOUNTAIN MINING COMPANY, INC., fully paid and non-assessable.

transferable only on the books of the Corporation by the holder hereof in person or by Attorney upon surrender of this Certificate properly endorsed.

In Witness Whereof, the said Corporation has caused this Certificate to be signed by its duly authorized officers and to be sealed with the Seal of the Corporation this _____ day of _____ A.D. 19__

TREASURER

PRESIDENT

SHARES $1.00 PAR EACH

© GOES 50

CERTIFICATE

FOR

SHARES

OF THE

CAPITAL STOCK

Decoursey Mountain Mining Company, Inc.

ANCHORAGE, ALASKA

ISSUED TO

DATED

For Value Received, _____ hereby sell, assign and transfer unto _____ _____ Shares of the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint _____ to transfer the said Stock on the books of the within named Corporation with full power of substitution in the premises.

Dated _____ 19__

In presence of

_____

NOTICE: THE SIGNATURE OF THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE, IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT, OR ANY CHANGE WHATEVER.

DE COURSEY MOUNTAIN MINING COMPANY, INC.

Anchorage, Alaska

STATEMENT OF INITIAL EXPENSES

October 22, 1951 - November 30, 1951

Travel Expense	$ 215.91
Office expense	75.00
Mimeograph and photostats	74.10
	$ 365.01

ALASKA STEAMSHIP COMPANY

THE ALASKA LINE

November 20, 1951
Anchorage, Alaska

Decoursey Moutain Mining Co.
Box 2232
Anchorage, Alaska

Gentlemen:

As requested we list below freight rates Seattle to Bethel, Alaska:

	Per Hund.lbs.	Per Cubic Ft.
Mining Machinery	$ 1.65	$ .82½
Groceries	1.70	.85
General Merchandise	1.80	.90

Whichever rate creates the greater revenue will apply in any case.

Very truly yours,

T J Maloney

Agent

FS

TERRITORY OF ALASKA

DEPARTMENT OF MINES

ASSAY OFFICE

Anchorage, Alaska, Nov. 28, 1951

REPORT OF ASSAY

On samples received from G. A. Sherman

Address Anchorage, Alaska

ASSAY NO.	MARK ON SAMPLE OWNER'S DESCRIPTION	OUNCES PER TON		VALUE PER TON	PERCENTAGE OF
		GOLD	SILVER		
6071	Small piece placer gold, bar from secur- ney's property.	----------	----------	----------	Mercury --- 76.67 %

Peter [illegible] ASSAYER.

D E E D

THIS INDENTURE, made the 18th of March, 1949, between Harry Brink, the party of the first part, and Robert F. Lyman, the party of the second part;

WITNESSETH: That the said party of the first part, for and in consideration of the terms of the Lease Agreement and Option to Purchase between the party of the first part and the party of the second part, as recorded in the files of the Otter Precinct as of May 16, 1942, instrument number 15496, the fulfillment of the terms of said lease agreement is hereby acknowledged, has granted, sold and forever quitclaimed, and by these presents does grant, sell and forever quitclaim, unto the said party of the second part, and to their heirs and assigns, all the following described real estate, situate in the Otter Recording Precinct, Territory of Alaska, to wit: Eight lode mining claims near the head of Return Creek, a tributary of the Iditarod River, known as:- Snow Bird No. 1, Snow Bird No. 2, Snow Bird No. 3, Snow Bird No. 4, Snow Bird No. 5, Last Chance No. 1, Last Chance No. 2, Last Chance No. 3, together with all and singular the mines, minerals, fixtures, improvements, rights, privileges, and appurtenances thereunto in anywise belonging. To have and to hold the lands, tenements, and hereditaments hereby conveyed unto the said party of the second part his heirs and assigns forever.

IN WITNESS WHEREOF, The said party of the first part has hereunto set his hand and seal the day of the year first written above.

Signed in the presence of:

Charles M. Baker

Tom Veich

Harry Brink (Seal)

UNITED STATES OF AMERICA)
:- ss.
TERRITORY OF ALASKA)

This is to certify that on this 18th day of March, 1949 before me, a Notary Public in and for Alaska, duly commissioned and sworn, personally came Harry Brink to me personally known and known to me to be the person described in the foregoing Deed, and he acknowledged to me that he signed and sealed said instrument as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Witness my hand and seal on the day and year first above written.

Wayne Houne
United States Commissioner

LEASE OF PLACER MINING CLAIMS

THIS LEASE, made the 16 day of October, 1951, between ROBERT F. LYMAN, lessor, and DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation, lessee, WITNESSETH:

That the said lessor, for and in consideration of the rents, royalties, covenants and agreements hereinafter reserved, and by the said lessee to be paid, kept and performed, has let, and by these presents does lease and let unto the said lessee, all of the following described placer mining claims, situated in the Otter Mining and Recording District, Fourth Judicial Division, Territory of Alaska, to--wit: "Discovery Claim", "The Helen Claim", "One Below Discovery", "The William Claim", "The Retort Claim", "The Bedrock Claim", "The Outcrop Claim", and "The Dome Claim", together with the appurtenances thereto.

TO HAVE AND TO HOLD unto the said lessee, for the term of ten (10) years from the date hereof, expiring on the 16 day of October, 1961, unless sooner forfeited as determined.

And in consideration of the said lease, the said lessee does covenant and agree with said lessor as follows, to-wit:

1. To enter upon said premises and work the same in a manner necessary and proper to good and economical mining so long as the price of mercury shall justify operations, with due regard to the safety, development, and preservation of the said premises as a workable placer mine.

2. To work and mine said premises as aforesaid, steadily and continuously, beginning with the mining season of 1952, and during the mining seasons thereafter for the term of this lease, and to perform the necessary assessment work annually so as to hold and protect the rights of the lessor in and to the said claims.

3. To allow said lessor and his agents to enter upon and into all parts of said premises for the purpose of inspection.

4. To not assign this lease, or any interest thereof and to not sublet the said premises or any part thereof without the written assent of the lessor, and to not allow any person or persons except the said lessee and his workmen to take or hold possession of said premises, or any part thereof, under any pretence whatever.

RAY & ROBISON
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MASONIC BLDG.
ANCHORAGE, ALASKA

5. To occupy and hold all cross or parrallel lodes, dips, spurs, speeders, crevices, or mineral deposits of any kind which may be discovered in working under this lease, as the property of said lessor, with privilege to the lessee of working the same as an appurtenance of the demised premises during the term of this lease.

6. To keep books of account, showing the amount of ores extracted from the said mine, the amount of ore shipped, sold or treated, and the amount of money received from the sale of said ores, or the values extracted therefrom; that from and out of the values obtained from the ores so extracted, and which may be found in or upon said premises, and reduced, treated, sold or shipped, the lessee will pay to the lessor twelve and one-half per cent (12 ½%) of the gross proceeds from the first four claims named above, and six per cent (6%) of the gross proceeds from the last four claims named above, settlement and payment to be made quarterly, and will deliver to said lessor, at the end of the term, twelve and one-half per cent (12 ½%) of the gross proceeds of all ores extracted from the first four claims named above, and six per cent (6%) of the gross proceeds of all ores extracted from the last four claims named above, which have not yet been shipped or sold. A duplicate of all mill, smelter, or retort returns shall be furnished to the lesser, and that said books of account shall be open, at all reasonable times, to the lessor or his representatives.

7. To save and hold the lessor harmless from all liens or claims of workmen or material, and to keep the premises properly posted so as to protect the said mining claims from any liens of workmen and/or material.

8. To deliver up to the lessor the said premises, with appurtenances, in good order and condition and ready for immedaite continued working, on the day of the date of the termination of this lease, or at any time previous upon demand for forfeiture for violation of any of the covenants and agreements herein contained.

And finally, upon the violation by the lessee, or any other person under it, of any of the covenants herein contained, the term of this lease shall, at the option of the lessor, expire and become forfeited to said lessor, and said lessor or his representatives may thereupon, after proper demand, enter upon and take

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MASONIC BLDG.
ANCHORAGE, ALASKA

possession of the premises.

Each and every clause and covenant of this lease, where the context requires it, shall extend to and include the heirs and assigns of the lessor and the executors, administrators and assigns of the lessee.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals on the day and year first above written.

Signed in the presence of:

Georgia Simmons

Thomas E. Crook

Robert F. Lyman (SEAL)
ROBERT F. LYMAN, Lessor

DECOURSEY MOUNTAIN MINING COMPANY, INC. (SEAL)

By: Wendell P. Kay
Trustee

UNITED STATES OF AMERICA
TERRITORY OF ALASKA } ss:

THIS IS TO CERTIFY that on this 16th day of October, 1951, before me, the undersigned, a Notary Public in and for the Territory of Alaska, duly commissioned and sworn as such, came ROBERT F. LYMAN and WENDELL P. KAY, the particular officer, to-wit: Trustee of DECOURSEY MOUNTAIN MINING COMPANY, INC., both known to me and known to be the particular persons who executed the foregoing instrument, and they acknowledged that they signed and sealed the same freely and voluntarily for the uses and purposes therein stated, the said WENDELL P. KAY being thereunto duly authorized by the Board of Directors of said corporation.

WITNESS my Hand and Notarial Seal the day and year last above written.

Georgia Simmons
Notary Public in and for Alaska
My commission expires: 7-5-54

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ANCHORAGE, ALASKA

E S C R O W C O N T R A C T

THIS AGREEMENT, made and entered into this 16 day of October, 1951, by and between ROBERT F. LYMAN, party of the first part, hereinafter referred to as the Seller, and DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation, party of the second part, hereinafter referred to as the Buyer, WITNESSETH:

THAT FOR AND IN CONSIDERATION of the mutual covenants and promises hereinafter contained, it is expressly agreed by and between the parties hereto that the Seller will sell and convey to the Buyer, and the Buyer will purchase of and from the Seller, all those certain lode mining claims in the Territory of Alaska, Fourth Judicial Division, Otter Mining and Recording District, and more particularly described as follows:

"Snowbird", Nos. 1, 2, 3, 4 and 5, and "Last Chance", Nos. 1, 2 and 3.

TOGETHER WITH ALL AND SINGULAR, the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining.

THIS CONTRACT OF PURCHASE AND SALE, is however, subject to the following terms and conditions, to-wit:

1. That the purchase price of said property is in the sum of SEVENTY THOUSAND and NO/100 DOLLARS ($70,000.00), lawful money of the United States of America, payable as follows: The sum of FOURTEEN THOUSAND and NO/100 DOLLARS ($14,000.00), at the time of execution and delivery of this contract, the receipt of which is hereby acknowledged, and the balance to-wit: The sum of FIFTY-SIX THOUSAND and NO/100 DOLLARS ($56,000.00) payable at the rate of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest, first payment of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest on or before the 16th day of October, 1952, and a like sum of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest, on or before the ___ day of October of each subsequent year thereafter until this contract is paid in full. It is mutually understood that the down-payment hereinabove mentioned consists of SEVEN THOUSAND and NO/100 DOLLARS ($7,000.00) in cash, and SEVEN THOUSAND DOLLARS ($7,000.00) value in common stock of the DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation.

2. And until the said purchase price shall be paid in full by the Buyer, it is expressly agreed that the Buyer shall pay all taxes and assessments which may be levied or may accrue against said property, or any part thereof from the date hereof; to allow no liens or encumbrances of any kind or character whatsoever to attach to said property or any part thereof. The Buyer shall be entitled to possession of the premises above described at the time of execution and delivery of this contract.

3. It is expressly agreed that the Seller shall deposit a copy of this agreement in the CITY BANK OF ANCHORAGE, at Anchorage, Alaska, and will deposit therewith in escrow a good and sufficient deed conveying title to said property to the Buyer free and clear of all encumbrances, with instructions to the said escrow holder to deliver the same to the Buyer upon payment of the full purchase price hereinaobve mentioned and set forth, or upon showing receipts from the Seller for the full amount of said purchase price. Payments under this contract are to be made directly to the Seller.

4. Time is agreed to be the essence of this contract, and in the event that the Buyer shall make any default in any of the payments when due, or to perform any of the covenants herein contained to be kept on its part, the Seller shall be released from all obligations at law or in equity to convey the said property, as well as the Buyer losing all right to and of purchase hereunder; all payments made by the Buyer shall be forfeited to the Seller as

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ANCHORAGE, ALASKA

liquidated damages and in the nature of rent, and not as a penalty, and in such event, the Buyer shall and will immediately vacate the hereinabove described premises, and surrender the same to the Seller on demand; and the Seller shall have the right to re-enter upon and take possession of the said land and premises and every part thereof. In the event that this contract is breached by the Buyer, and suit is instigated to enforce the provisions of this contract, the Buyer shall pay all costs of said suit or action, including a reasonable attorney's fee. The Buyer shall not have the right to sell or assign its interest in this contract without first having received the written consent of the Seller to such assignment.

Each and every clause and condition herein contained shall be binding upon and inure to the benefit of the respective parties hereto, their heirs, legal representatives and assigns.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first hereinabove written.

Signed in the presence of:

Georgia Simmons

Verene E. Frank

Robert F. Lyman (SEAL)
ROBERT F. LYMAN, Seller

DECOURSEY MOUNTAIN MINING COMPANY, INC. (SEAL)

By: Wendell P. Kay
Trustee

UNITED STATES OF AMERICA
TERRITORY OF ALASKA } ss:

THIS IS TO CERTIFY that on this 16th day of October, 1951, before me, the undersigned, a Notary Public in and for the Territory of Alaska, duly commissioned and sworn as such, came ROBERT F. LYMAN and WENDELL P. KAY, the particular officer, to-wit: Trustee of DECOURSEY MOUNTAIN MINING COMPANY, INC., both known to me and known to be the particular persons who executed the foregoing instrument, and they acknowledged that they signed and sealed the same freely and voluntarily for the uses and purposes therein stated, the said WENDELL P. KAY being thereunto duly authorized by the Board of Directors of said corporation.

WITNESS my Hand and Notarial Seal the day and year last above written.

Georgia Simmons
Notary Public in and for Alaska
My commission expires: 7-5-54

EXPERIENCE AND BUSINESS BACKGROUND OF DIRECTORS

1. President - John L. Williams
One year assistant chemist American Brake Shoe & Foundry Co.
Four years University - B.S. degree Chemistry.
Three years U.S.A.F. - Pilot 1st Lt.
Two and half years Research & Development Chemistry - Pilot plant work American Cyanamid Corp.
One year Building, andIndependent Trucking Business.
Presently employed one year Classification Analysis and Wage Administration Organization U.S.A.F., Elmendorf Air Force Base, Anchorage.
Member A.C.S. (American Chemical Society.
Address: Box 206 Spenard, Alaska.

2. Vice President - Joseph C. Fears
Two years University of Maryland,
Entered Army as Private, discharged eleven years later as Captain.
Six months with Wilkinson & Jones, Hanford, Wash. as General Manager Parts Warehouse.
Year and a half in Fountain-Drugs and Restaurant Business - Seattle, Wash. (Owner-Operator)
Year and a half Salesman for Best Foods, Inc., Green Garden Products Co., Heck Specialty Co.
One Year Owner-Operator Wholesale Sandwich Co. - Seattle, Wash.
Presently employed (8 months) Operating Engineer for Haddock Engineers Ltd., Anchorage, Alaska - Address Box 2232, Anchorage, Alaska.

3. Treasurer - William L. Warren
Four years Owner of Men's Clothing Store (Owner-Operator)
Two years Distributors for Sinclair Refining Co. (Plant Manager)
Three years - U.S. Army Engineers (Civilian-Procurement).
One year Birch Lytle & Johnson Const. Co. (Asst. Chief Storekeeper)
One year Standard Oil of California (Inventory Specialist, Arabia)
Present Occupation - General Mgr. of Monty's Stores, Inc. Alaska Division.
Address: 132 East Fourth Ave. - Anchorage, Alaska

4. Secretary - Scott E. Thomas
Three years as Transportation Agent, Northwest Airlines, Inc. - Anchorage, Alaska.
Attended University of Minnesota. Instituteof Tech. (Eng.)
During War in the U.S.A.F.
Presently employed as Salesman for K. & L. Distributors of Seattle, Anchorage branch.
Address: Box 2221, Anchorage, Alaska

5. Director - Cornell Allen Sherman
Graduate Gotner College - B.S. in Engineering - C.E. & M.E.
Two years - Maloney Bros., Council Bluffs, Ia. - Engineer
Three years-Boebe & Company - Engineer - 5 years Gateway Sales Co.
Four years owner-operator General Engineering practice in Mississippi.
Eleven years Airport Engineer - State Aeronautics - Lincoln, Nebraska
One year Chief Draftsman Burns & McDonnell Engineering Co. Kansas City. Mo.
One year Chief Engineer F. H. McGraw Const. Co. - One year Const. Area Supt. Metcalfe-Hamilton Bridge Co. Canada & Alaska
Presently employed A. J. Hopper Co. - Engineer - Alaska. Address Box 2232

LUMP SUM ESTIMATED COSTS

OF PLACER EXPLORATION

(All Equipment Furnished)

Stream Bed and Watershed to 500' Elevation on Creek limits adjacent to Lode deposits on basis of float.

This work covers RETURN, DISCOVERY, and MONTANA CREEKS: See Sheet C.

		ESTIMATED COST
1.	Construct dirt dam and install Pumping Unit on RETURN CREEK.	$ 2,120.00
2.	Construct 2.2 Miles of Mine roads to Placer areas.	11,000.00
3.	Clearing & stripping with Dozer trees, brush, and overburden. (Alternate Hydraulic stripping in frozen area).	4,000.00
4.	Driving thaw points where overburden and ore is frozen (estimate - 47 trenches).	14,400.00
5.	Piping and pumping thaw water etc.	4,110.00
6.	A. Dragline trenching to bedrock every 1000' in Placer claims on basis of float.	
	B. Dragline trenching to bedrock every 2000' on Montana Creek.	

			C.Y.	L.F.
1-a Return Creek	18 trenches	300' x 6'	3600	5400
2-a Discover Creek	5 "	210' x 6'	700	900
3-a Montana Creek	13 "	900' x 9'	11700	11700
b " "	11 "	1200' x 9'	13200	13200

Estimated total yardage 29,200 C.Y. plus Sluff or 31,200 L.F. cut 3' x 9' — 55,480.00

7.	Collecting, hauling, sizing, weighing, and retorting Placer samples (30 trenches x 50 samples each).	4,750.00
8.	Surveying and map ing width and depth of paystreaks. Sample numbers and location	950.00
	TOTAL	$ 96,810.00

* In our estimate we have assumed a minimum depth of 2 yds. and a maximum of 3 yds. which appears to be the average from Placer Exploration done recently by the owner.

LUMP SUM ESTIMATED COSTS

OF LODE EXPLORATION

(All Equipment Furnished)

1.	1700 L.F. of Tunnel at 600' Elevation 5½" x 7½" @ $28.00 Per L.F.	$47,600.00
2.	310 L.F. 50° Raise to upper Tunnel @ $23.00 per L.F.	7,130.00
3.	Bull Dozer Surface Trenching and Channel Sampling 6300 L.F. x 12' @ $3.00 per L.F.	18,900.00
4.	Horizontal 7/8" Drill holes at 20' intervals Both sides of Tunnel & Raise	
	A. Tunnel 160 Prospect holes x 24' - 3840 L.F. B. Raise 30 " " x 24' 720 " 4560 L.F. of Prospect Check holes @ $2.00	9,120.00
5.	Horizontal Diamond drill holes & Core at 50' intervals, both sides of Tunnel and Raise	
	A. Tunnel 68 holes x 100' Core ea. @ $3.00 L.F.	20,400.00
	B. Raise 10 holes x 100' Core ea. @ $4.50 L.F.	4,500.00
6.	Mine Roads - 1.9 Miles	9,500.00
7.	Lengthen existing Airfield 700 L.F. x 200'	7,650.00
	TOTAL	$124,800.00

RECAPITULATION OF EXPLORATION COST

FOR BOTH PLACER AND LODE DEPOSITS

		PLACER	LODE	TOTAL
1.	Equipment Purchase *	$25,447.00	$46,364.00	$71,811.00
2.	Equipment Rental *	6,000.00	none	6,000.00
3.	Food	7,193.00	14,409.00	21,602.00
4.	Fuel	14,510.00	11,440.00	25,950.00
5.	Expendable Materials	286.00	2,960.00	3,246.00
6.	Contract Services - Public *	5,090.00	6,630.00	11,720.00
7.	Labor - Wages	64,677.00	89,400.00	154,077.00
8.	Camp Rehabilitation *	3,300.00	3,300.00	6,600.00
	PROJECT EXPENDITURE	126,503.00	174,503.00	301,006.00
9.	Wages Expense of Equip. Escalator Allowance Over 2 year period (8%)	10,120.00	13,960.00	24,080.00
	TOTAL DIRECT COSTS OF JOINT EXPLORATION PROJECT	$136,623.00	188,463.00	$325,086.00
10.	Operators Contribution to Exploration Project (Plus use of all existing structures)	34,716.00	44,750.00	79,466.00
	TOTAL COST OF EXPLORATION PROJECT ALL SOURCES	171,339.00	233,213.00	404,552.00
12.	Operators Share of Exploration Costs in addition to Item 10	34,156.00	47,116.00	81,272.00
	DMA LOAN COMMITMENT REQUESTED	$102,467.00	141,347.00	$243,814.00

* Items not included in Lump Sum Estimates herewith

See Cost Breakdown Exhibits

Sheets -

PLACER EXPLORATION

EQUIPMENT PURCHASE AND RENTAL FROM LOAN

	PURCHASE	RENTAL
1 D8 Caterpillar with Hydraulic Dozer	$14,810.00	
Thaw Points 120	2,190.00	
Pump Motor #671 G.M.C. Diesel	5,165.00	
Pump 12" x 14"	1,170.00	
Rental Lima Dragline (6 months @ $1,000.00)		$6,000.00
Beds and Bedding	2,112.00	
	$25,447.00	$6,000.00

LODE EXPLORATION

PURCHASE OF EQUIPMENT FROM LOAN

D8 Caterpillar with Hydraulic Dozer	$14,200.00
Welder - 300 amps.	1,519.00
3 Air Receiver Tanks	609.00
Track Tools (Set)	349.00
Spikes	67.00
Tie Plates	69.00
Joint Bars	99.00
Bolts	83.00
Rail 24# 14 tons (1750 feet of track)	3,211.00
Trammer	3,440.00
Battery	2,056.00
Diamond Drill (complete)	3,672.00
Mine Cars 4-16 C.F. 18" gauge	1,449.00
Mucking Machine (complete)	3,754.00
Blower	481.00
Vent Tube 1800 l.f.	1,930.00
Radio Transmitter & Receiver	1,135.00
Compressor Diesel 500 c.f.	8,241.00
	$46,364.00

EXPENDABLE MATERIALS TO BE PURCHASED FROM LOAN

PLACER

ITEM	AMOUNT
Food	$7,193.00
Fuel	
Wood 5 Cords	200.00
Diesel 552 Bbls. @ $23.00	12,700.00
Gas 18 Bbls. @ 35.00	610.00
Lube 6-2/3 " @ 90.00	600.00
Grease 800 Lbs. @ 50¢	400.00
First Aid Kits	30.00
Fire Extinguishers	125.00
Air Transportation	2,800.00
Telephone & Telegraph	300.00
Dynamite	110.00
Fuse	10.00
Caps	11.00
Tractor Freight to Mine	1,990.00
Camp Rehabilitation & Maintenance	3,300.00
	$30,379.00

EXPENDABLE MATERIALS TO BE PURCHASED FROM LOAN

LODE

ITEM		AMOUNT
Food		$14,409.00
Fuel		
Wood	45 Cords	1,800.00
Diesel	348 Bbls. @ $23.00	8,000.00
Gas	32 " @ 35.00	1,140.00
Lube	3-1/3 Bbls. @ $90.00	300.00
Grease	400 Lbs. @ 50¢	200.00
First Air Kits		30.00
Fire Extinguishers		125.00
Air Transportation		3,900.00
Telephone & Telegraph		610.00
Dynamite		1,120.00
Fuse		150.00
Caps		160.00
Tractor Freight to Mine		2,120.00
Jack Bits		390.00
Drill Steel		985.00
Camp Rehabilitation & Maintenance		3,300.00
		$38,739.00

PLACER EXPLORATION

Recapitulation of 24 Week Period

NON-MANUAL ½ Time	Hourly Rate	No. Emply.	Amount	Total Amount
Cook & Baker			$334.75 x 10 mos.	$3,347.50
Bookkeeper, Radioman Warehouse & Commissary			334.75 x 10 "	3,347.50
Flunky			207.00 x 10 "	2,070.00
Engineer			515.00 x 10 "	5,150.00
Mineral Surveyor Flat fee including transporation & subsistence				1,886.00
MANUAL				
Placer Foreman	3.27	1	265.96 x 24 wk.	6,383.04
Dragline Operator	3.27	1	265.96 x 24 "	6,383.04
Dozerman 2 shifts	3.22	2	531.36 x 24 "	12,752.64
Thawman	2.82	1	247.29 x 24 "	5,934.96
Pumpman	2.82	1	247.29 x 24 "	5,934.96
Mechanic & Blacksmith (½ Time)	3.27	1	132.98 x 36 "	4,787.28
Oiler & Electrician (½ Time)	2.87	1	118.46 x 36 "	4,264.56
Laborer - full time	2.77	1	228.68 x 36 "	8,232.48
				$ 70,473.96
Less Board & Room Deduction @ $5.75 per diem				5,796.96
				$64,677.00

LODE EXPLORATION

Recapitulation of 36 week Period

MANUAL	Hourly Rate	No. Emply.	AMOUNT	Total Amount
Miners	$3.12	2	$547.20 x 36 wks.	$19,699.20
Muckers	2.82	2	494.58 x 36 "	16,804.88
Timberman	2.77	2	485.82 x 36 "	15,489.52
Trammers	2.77	2	485.82 x 36 "	15,489.52
Dozerman	3.22	1	265.68 x 36 "	9,554.48
Mechanic & Blacksmith	3.27	1	132.98 x 36 "	4,787.28
Oiler & Electrican	2.87	1	118.46 x 36 "	4,264.56
Laborers	2.77	1	228.68 x 36 "	8,232.48
NON-MANUAL ½ Time				
Cook & Baker			334.75 x 10 mos.	3,347.50
Flunky			207.00 x 10 "	2,070.00
Bookkeeper, Radioman Warehouse & Commissary			334.75 x 10 "	3,347.50
Engineer			515.00 x 10 "	5,150.00
			TOTAL LABOR	$108,236.92
Less Board and Room deductions @ $5.75 per diem				18,836.80
			NET	$89,400.12

Not 6 finished against yrs. ago?

PLACER EXPLORATION

PLACER EXPLORATION EQUIPMENT TO BE FURNISHED BY

THE OPERATOR

Precussion, Prospect Drill, Shoes And Drivepipe	$ 7,800.00
Hydraulic Pipe 3000' 9" to 14"	4,600.00
2 Giants #2	1,006.00
Steel 30" Sluce Box 72 L.F.	970.00
Riffles (Hungarian)	610.00
Water hose for points - 1000 L.F. x 3/4"	920.00
2 Lang Ranges double oven	1,310.00
Kitchen Equipment	640.00
Dining Hall Equipment	1,105.00
1 Denver Jig Hartz Type (with 6 H.P. Wisconsin Motor	1,495.00
1 7" x 11" Fine Jaw Crusher with motor	840.00
Thaw Water Piping	
Pipe 1½" 300 L.F.	305.00
" 1" 1200 L.F.	870.00
Small Tools	
Shovels - Picks	170.00
Wheel barrows	205.00
Axes - Saws - etc.	210.00
2 Tube D Retort in place	3,200.00
Water Piping 700 L.F. Galvanized	700.00
Water Supply Pumps	440.00
Sump Pumps	380.00
Caterpillar, tools, spare parts (new) and others	6,910.00
	$34,686.00

LODE EXPLORATION

EXPLORATION EQUIPMENT FURNISHED BY THE OPERATOR (not to be charged against property)?

	EQUIP.	FREIGHT	REPAIR	TOTAL
Sleds & Go Devils	2,900.00	400.00	600.00	$3,900.00
Compressors (2)				
1 - 85 c.f. I.R. Gas				2,200.00
1 - Elec. 160 c.f. Gardner-Denver				3,800.00
1 30 c.f. Compressor for shop				610.00
Platform Scales				121.00
Line oiler for Jackhammers				31.00
Drill Oil				95.00
1 JB 4 Jackhammer drill I.R.				380.00
2-3/4 Stoper R5 I.R.				497.00
1 Threading tool for Jack Bits				147.00
1 Cradle & Shelf Column for J.B. 4				167.00
1 Jack Leg Mounting				93.00
2 Water tanks for Drills				70.00
240' Hex 7/8" drill steel				395.00
Mine Wannigan on wheels				340.00
Lumber 2 FBM				270.00
Nails - all sizes				310.00
Roofing				101.00
Air Pipe 2" - 2000 L.F.				2,000.00
Jack Bits 400 @ 60¢				240.00
Fuse 5 rolls				500.00
Caps 7 Cases				110.00
4 Mine Cars 16 C.F. 18" Gauge				1,448.00
Airhose 1000 L.F. 3/4"				770.00
Electric Power Plant 2 Caterpillar 46-30 Diesels Switchboard Balancing Equipment & Feed Transfer Tanks				14,900.00
2 - 2 ton Yale Hoists				510.00
Carbide - 3 Cans				45.00
1 Machine & Blacksmith Shop (Complete)				10,700.00
				$44,750.00

BUILDINGS TO BE FURNISHED BY OPERATOR AT NO COST

TO JOINT VENTURE

One Mess House (Log 20' x 40'	$6,000.00
One Meat Casche 8' x 8'	300.00
One Processing Building 20' x 80'	16,000.00
One Electric Shop & Powerhouse Bldg.	12,000.00
Three 20' x 60' One-bedroom houses	12,000.00
One Office and Parts Warehouse 20' x 40'	8,000.00
One Food Storage Warehouse 20' x 80' (Rodent Proof)	16,000.00
One Sanitary facilities & Water system	31,000.00
One Machinery Shed 20' x 60'	6,000.00
One Retort & Lime Building 20' x 60'	6,000.00
	113,300.00

PROCESSING EQUIPMENT TO BE FURNISHED BY OPERATOR AT NO COST TO THE JOINT VENTURE

Four D Retorts capacity 4 tons - 24 hrs.	8,000.00
One Gould Rotary Furnace and Condensing System, including	37,900.00

(a) 36" x 40' shell complete with ride and drive mechanism, seals, hoods, frame, feeder, brick lining and motors for driving kiln and feeder.
(b) Firing equipment, including compressor with receiver and motor, valves, gauges, meters, burners, oil pump and motor.
(c) Dust collecting equipment, including collector and receptacle, connections, exhauster and motor.
(d) Condensing system, including cast iron pipes, hoppers, and returns, settling tanks, recording thermometer, and auxiliaries.
(e) Steel fine ore and burnt ore bins.
(f) Jaw crusher and motor drive.
(g) Conveyor belt complete with motor drive.
(h) Tools and miscellaneous auxiliary equipment.
(i) All spare parts for any of the above listed equipment.

One 3½ Sack Rex Cement Mixer	835.00
Other misc. Parts & Equipment	1,000.00
	$47,735.00

1/ See note 1, table. 1.
2/ Quicksilver content based on analyses by Bureau of Mines.
3/ 12 Cubic feet of ore a ton.

TABLE 2

SUMMARY OF RESERVE

(Cutoff grade approximately 10 pounds of quicksilver a ton)

	A-Vein Body	DeCoursey Vein Body	Tunnel-vein body BLOCK A	BLOCK B	BLOCK C	BLOCK D	Body at the Retort veins	1/	Top vein body	TOTAL
Pounds of quicksilver a ton 2/	17.0	18.2	53.1	31.9	41.6	51.0	11.1	10	18.7	
Length of ore body in feet	125	315	65	35	63	184	148	310	100	
Average known height of ore body	13.0	35.5	20.0	51.0	66.0		17.5		5.0	
Average width of ore body	4.0	3.9	3.0	3.0	3.7	3.2	11.6	12.9	14.7	
Tons of reasonably assured ore 3/			320	450						770
Tons of indicated ore 3/	540	3630			1280		2500		610	8560
Tons of inferred ore 3/	2600	16100				4500	10600	52000	6100	91900
Flasks of quicksilver from reasonably assured and indicated ore	120	870	220	190	700		360		150	2610
Flasks of quicksilver from inferred ore	580	3850				3020	1550	6800	1500	17300
Number of analyses available for estimating grade of ore body	25	25	13	11	18	46	33		41	

ANALYSES OF SAMPLE, TUNNEL ORE BODY

U. S. BUREAU OF MINES FROM R.I. 4065

Sample	Length Sample, Feet	Pounds H.G. Per ton	H.G.? Percent Antimony	Sample	Length Sample, Feet	Pounds Mercury Per ton	Percent Antimony
1....	1.3	620.8	0.73	41....	3.0	35.4	0.59
2....	5.0	0.4		42....	4.5	0.6	
3....	0.8	340.8	0.29	43....	5.5	1.2	
4....	4.5	1.8		44....	1.0	156.0	0.59
5....	5.0	2.4		45....	1.3	89.6	
6....	1.3	615.2	0.20	46....	5.5	1.0	
7....	5.0	2.0		47....	5.5	4.8	
8....	5.0	1.8		48....	1.0	246.4	
9....	1.0	2.2	0.10	49....	1.1	89.0	0.59
10....	5.0	0.4		50....	5.5	4.6	
11....	1.2	53.6		51....	4.0	4.6	
12....	5.0	1.0		52....	1.2	59.0	0.78
13....	5.0	1.2		53....	3.3	0.2	
14....	0.8	1.2		54....	5.0	1.6	
15....	5.0	0.8-		55....	3.2	0.4	
16....	5.0	0.6		56....	7.5	1.0	
17....	5.0	0.8		57....	0.8	100.8	0.25
18....	5.0	1.2		58....	1.7	9.4	
19....	1.3	0.4		59....	1.5	35.6	
20....	5.0	1.2		60....	1.8	67.8	0.16
21....	4.0	1.0		61....	1.0	169.2	0.42
22....	0.8	1.2		62....	5.0	Tr.	
23....	5.0	1.2		63....	5.0	0.6	
24....	5.0	0.8		64....	5.0	0.6	
25....	5.0	2.2		65....	5.0	0.4	
26....	3.5	12.8		66....	5.0	0.4	
27....	1.5	1.8		67....	5.0	0.4	
28....	0.5	136.0	0.59	68....	5.0	0.4	
29....	5.0	4.2		69....	5.0	0.4	
30....	4.5	0.2		70....	5.0	0.4	
31....	2.4	9.8		U-4...	0.6	653.6	0.86
32....	5.0	0.2		U-5...	0.5	412.0	0.09
33....	5.0	0.2		U-6...	1.2	236.0	0.29
34....	1.3	20.6		U-7...	1.2	5.6	Nil
35....	0.5	61.6	0.59	U-8...	1.4	1.0	
36....	5.0	2.0		U-9...	2.2	0.6	
37....	5.0	1.4		U-10..	2.2	109.0	
38....	0.9	375.4		U-11..	2.5	143.6	
39....	5.0	10.2	0.59	U-12..	2.3	5.6	
40....	5.0	1.0		U-13..	2.1	160.8	
				U-14..	3.0	6.8	
				S-1...	0.3	605.6	

' 82 Samples - Average Pounds of Mercury per Ton 69.58 Lbs.

REPORTS ON AND PRODUCTION OF DECOURCY MOUNTAIN MINE AND ADJACENT PROPERTIES.

U.S. Government Reports

1. February 1943 - R.F.C. Engineer L.C. Doheny Report - all files on his investigation sent to Seattle to be transmitted to Bureau of Mines.
2. War minerals Report No. 223 March 1943.
3. U.S. Geological Survey Report by Weber No. 98775.
4. Bureau of Mines Reports on District R.I. 4065

Decourcy Mountain Production

		Amount	
1921	Thrift Mining Co.	Unknown	
1924-26	C. F. Lindfors & Johnson	"	
1927-28	John & Harry Brink		
May 1942	Robert F. Lyman	lbs report.	
1942	Retorted from surface float	80 flasks	36
1943	" " 140 ton of high grade ore	400 "	218
1944	" " 115 " " " " "	320 "	310
1945	" " 110 " " " " "		320
	and float	310 "	
1946	Retorted from 130 " " " " "		
	and float	303 "	207
1947	Retorted from soot & placer samples	72 "	127
1948	Placer Exploration		100
1949	Shut down		000
1950	" "		
1951	Optioned August 19, Sold Oct. 16		
	Total known Production	1485 flasks	

Red Devil Mine

1943-44	2652 tons furnaced	1090 flasks
1945	1514 " "	962
	Total	2052 flasks

Alice & Bessie Prospect

1923-24		120 flasks
1931		12 "
	Total	132 "

Cinnibar Creek Deposit

3600 Lbs. of selected ore	29 flasks

Rainy Creek Prospect

2000 Lbs. of Placer Shipped to U.S. approximately	20 flasks

TIME SCHEDULE OF PROJECT

1952-53 Budget Requirements

		JOINT PURCHASE	PURCHASE BY OPERATOR	TOTAL	
January					
A. Purchase of Equipment in area		$36,905		36,905	
B. Dismantle Bldgs. & Equipment at Flat & Sleetmute for tractor train shipment to mine			9,600.00	9,600	
				46,505	Jan.
February					
A. Winter freighting of Buildings, Mining, and Processing Equipment from Flat (34 miles) to Mine		4,110	2,800	6,900	
B. Buy Tractor train fuel & food to mine	Fuel	16,220		16,220	
	Food	15,900		15,900	
				39,020	Feb.
March Re-erect Buildings, Shop,					
April Plant and Processing Equipment at mine		6,600	11,900	18,500	Mar.
				18,500	Apr.
May	DRAGLINE RENTAL	12,900		12,900	May
June	1,000	18,200		18,200	June
July	1,000	18,200		18,200	July
August	1,000	18,200		18,200	Aug.
September	1,000	18,200		18,200	Sept.
October	1,000	18,200		18,200	Oct.
November	1,000	18,200		18,200	Nov.
December		10,700		10,700	Dec.
January - 1952		10,700		10,700	Jan.
February		10,630		10,630	Feb.
March			9,100		
	By Operator----------		33,400		

From March to February 1952 ITEM M

Airplane hire and special service (see breakdown)	11,720
Food & Fuel	15,211
Equipment	34,906
Expendable Materials	3,246
Sub-Total	65,083
Escalator	24,080
	89,163

NOTE: Add to monthly Totals for Budget - $7,430 - contained in ITEM M.

FREIGHT RATES

ALASKA RIVERS NAVIGATION COMPANY

KISKOKWIM RIVER POINTS IN ALASKA

Basing Rates are shown in dollars per ton of 2,000 pounds. These rates apply on General Merchandise, or items not otherwise provided for in LIST OF EXCEPTIONS, between Bethel and Kuskokwim River points as named below.

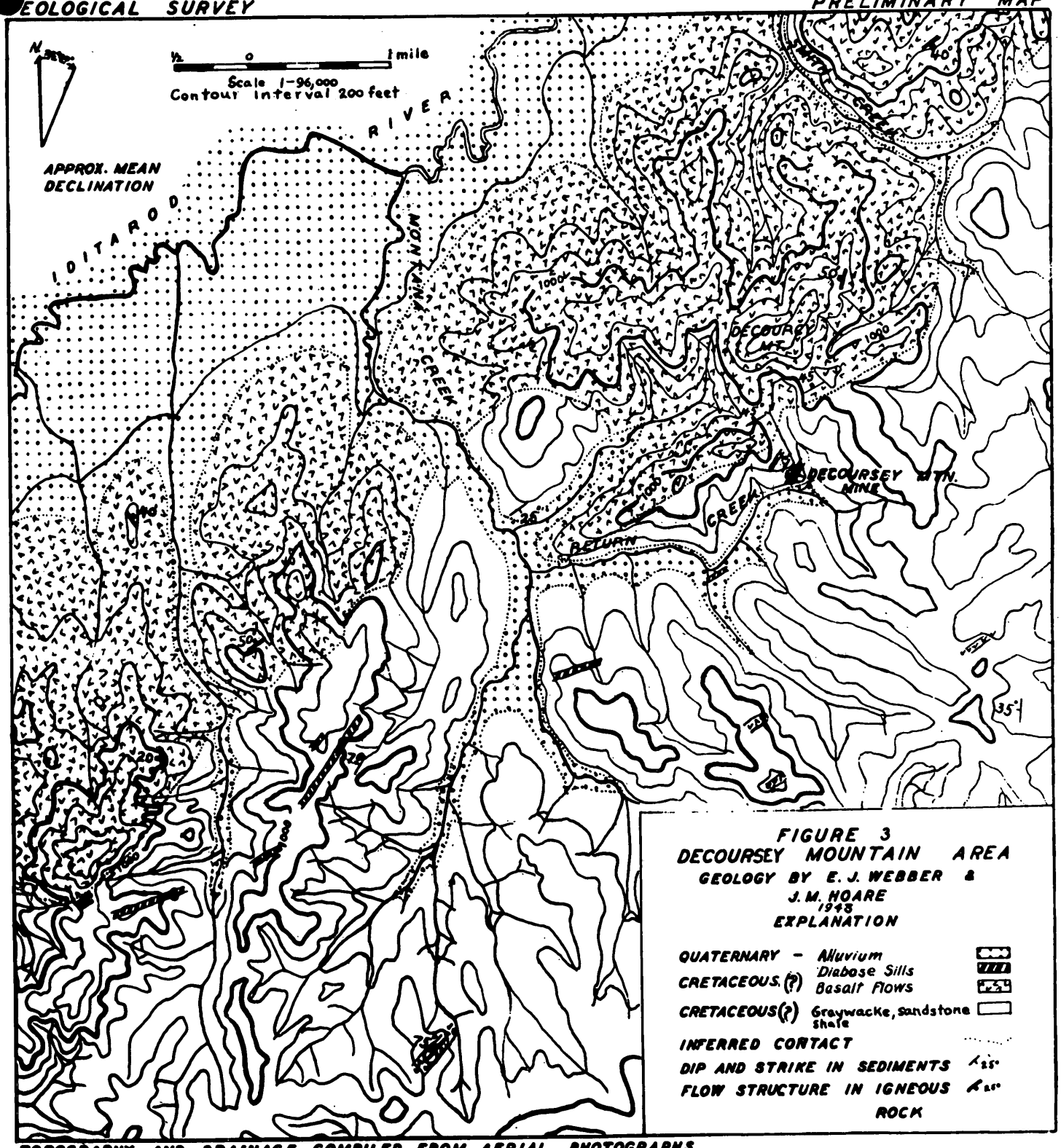
Stations not listed will take the rate to next station beyond.

Exceptions to the General Merchandise or Basing Rate are included in Items number 1 to 75.

	BETHEL*	AKIAK	TULUKSAK	KALSKAG	ANIAK	NAPAMUTE	CROOKED CREEK*	SLEETMUTE	STONY RIVER	STERLING LDG.	McGRATH	MEDFRA
BETHEL		$13	$15	$23	$28	$35	$35	35	$40	$45	45	$65
AKIAK	10		10	10	15	22	22	22	30	32	32	52
TULUKSAK	10	10		10	15	20	20	20	25	30	30	50
KALSKAG	15	10	10		10	12	12	12	20	22	22	42
ANIAK	15	10	10	10		10	10	10	20	20	20	40
NAPAMUTE	15	10	10	10	10		10	10	20	20	20	40
CROOKED CREEK	15	10	10	10	10	10		10	10	20	20	40
SLEETMUTE	15	10	10	10	10	10	10		10	20	20	40
STONY RIVER	20	20	20	15	10	10	10	10		20	20	40
STERLING LDG.	20	20	20	15	15	10	10	10	10		15	35
McGRATH	20	20	20	15	15	10	10	10	10	10		20
MEDFRA	30	30	30	25	25	20	20	20	20	20	15	

UPSTREAM RATES

DOWNSTREAM RATES



TOPOGRAPHY AND DRAINAGE COMPILED FROM AERIAL PHOTOGRAPHS

98775

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP

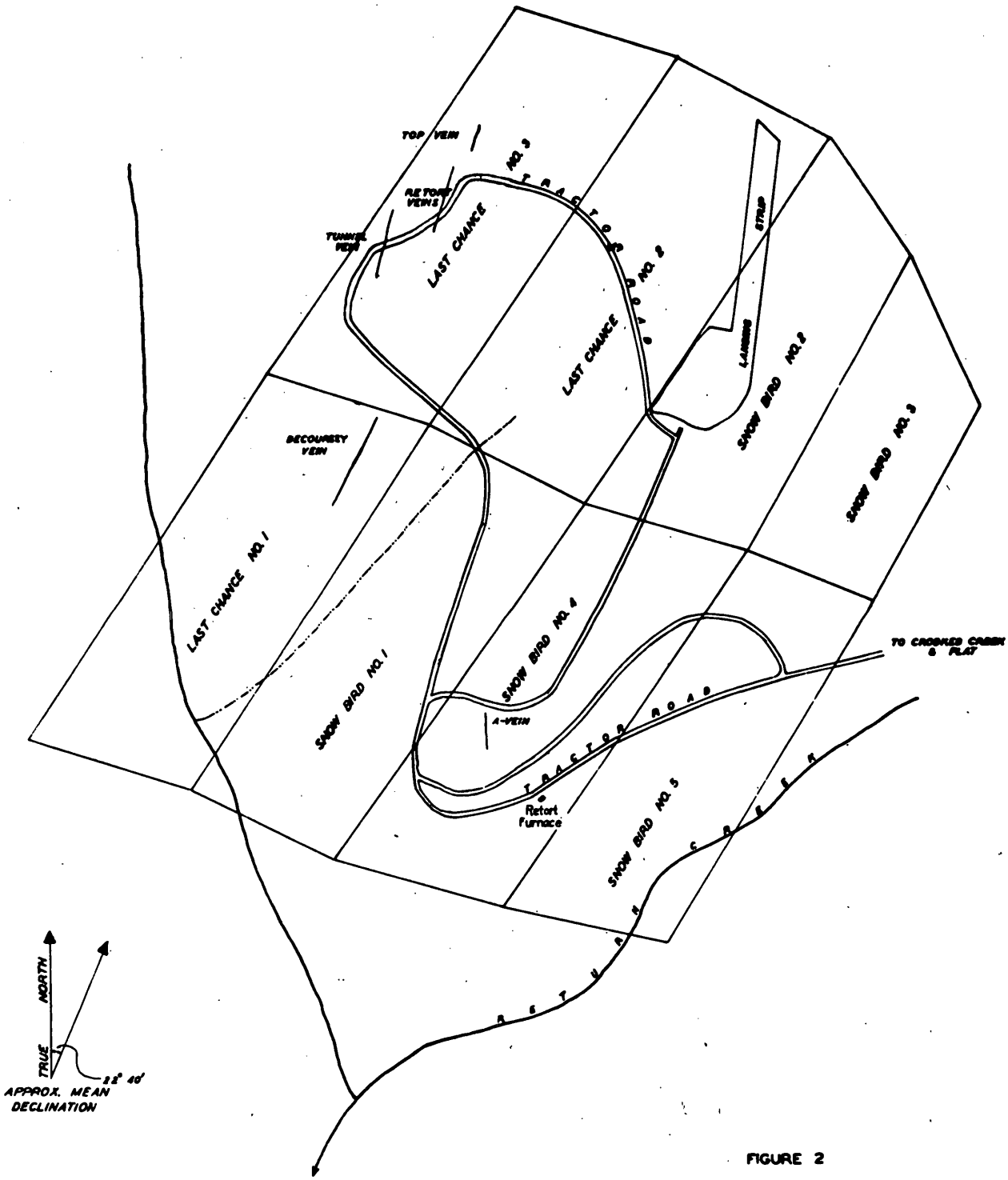


FIGURE 2

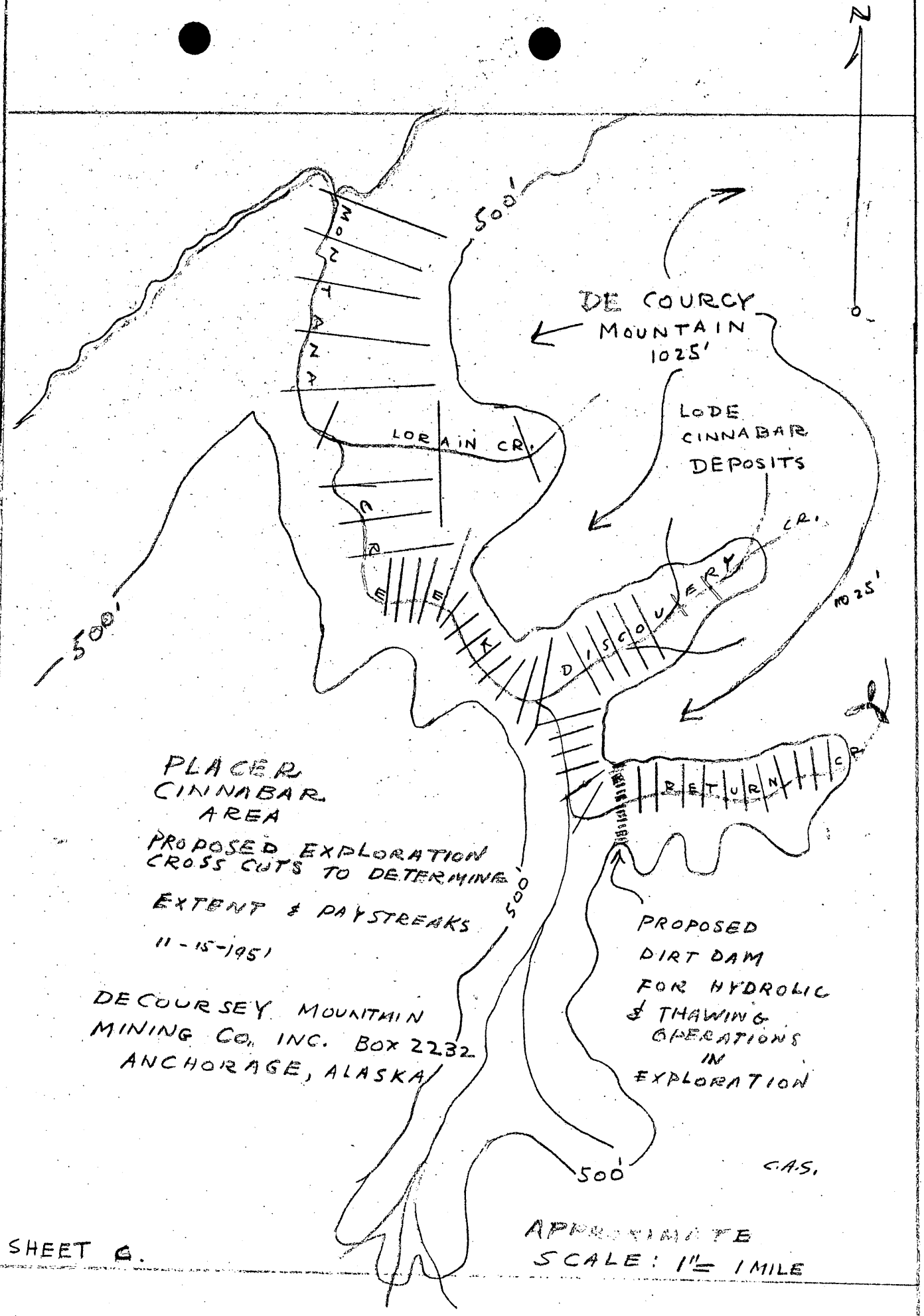
MAP SHOWING LODE MINING CLAIMS
DECOURSEY MOUNTAIN AREA
QUICKSILVER DEPOSITS
IDITAROD DISTRICT, SOUTHWESTERN ALASKA

SCALE IN FEET

250 0 250 500 750 1000

E.J. WEBBER & J.M. HOARE
OCT. 1943

98775


N
500'
DE COURCY MOUNTAIN 1025'
LODE CINNABAR DEPOSITS
LORAIN CR.
CR.
DISCOVERY
1025'
500'
RETURN
CR.
PLACER CINNABAR AREA
PROPOSED EXPLORATION CROSS CUTS TO DETERMINE EXTENT & PAYSTREAKS
11-15-1951
DECOURSEY MOUNTAIN MINING CO. INC. BOX 2232 ANCHORAGE, ALASKA
PROPOSED DIRT DAM FOR HYDROLIC & THAWING OPERATIONS IN EXPLORATION
500'
500'
C.A.S.
APPROXIMATE SCALE: 1" = 1 MILE

SHEET 6.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. DMEA 2276

Date received 12-6-51

Participation

De Coursey Mountain Mining Co., Inc.
Box 2232
Anchorage, Alaska

Name and address of applicant

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C. DEC 6 1 00 AM

Date Nov. 28, 1951

FILL IN THIS BLOCK

Date of application Nov. 28, 1951

Estimated cost $325,000.00

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Otter Mining & Recording District - 4th Judicial Division, Territory of Alaska. (Unsurveyed) 158° 30' W. Long. and 62° 4' N. Lat.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Corporation

*2. If a partnership, state names and addresses of partners.

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders. See Mine Brochure Page 3

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project. See (a) Mine Borchure Page 4 B-See Exhibit A

*5. Are you the owner or the lessee of the property? Owner of Lode, Lesee of Placer.

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. No Claims or Liens - see Exhibit A and Mine Brochure

7. If lessee, attach a copy of the lease and state if it is in good standing. Attached, in Brochure

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

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. See Exhibit A & Mine Brochure

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

See Exhibit A attached

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

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. See Mine Brochure Page 4

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted. See Mine Brochure Page 3

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

*11. State the present and former names of the property, if any. De Courcy or De Coursey Ming

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. See For MF-100 and Mine Brochure

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

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

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

*16. History: See MF-100 and Mine Brochure

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

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

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

*17. Production:

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

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold	Mine Not Now In Production			

*18. Ore or mineral reserves: (If property is or has been operating.) Se M.F.-100 and Mine Brochure

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

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

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

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

See Exhibit and MF-100

THE EXPLORATION

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

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. See Exhibit C & Brochure

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

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

THE REQUIREMENTS AND COSTS

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

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

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

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

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

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

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

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work. None

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

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

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

CERTIFICATION

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

De Coursey Mountain Mining Co., Inc.
(Name of company)

By John L. Williams
(Signature of authorized official)

28 Nov. 1951
(Date)

President
(Title)

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

*Same as footnote on page 1.

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

EXHIBIT A - - FORM MF-103

4. A. See Brochure Page 4.B-Officers & Directors now trying to locate a satisfactory Mining Engineer familiar with Lode and Placer to manage project. Accepted applicants to be approved by D.M.A. Field Team and Operators jointly. Salary $1,000.00 per month and subsistance & transporation.

5. We own the Lode properties and Leasethe Placer.

6. No claims or liens against properties and we owe owner $56,000 balance payable over 9 year period.

7. See Brochure for Photo copies of Escrow Contract, Lease and Owner Subordination Agreement.

8. See Brochure for Financial statement, no Profit & Loss Statement available (new Corporation.)

9. Provided this application is approved, we can furnish up to $90,000 which will pay our share of this project.

10. See Brochure Page 3 (a)
" " Page 2 (b)

15. Cinnabar Ore is to be crushed to minus ½" and Retorted as furnaced at mine, flasks and Processing Equipment made available by Operator. Local Airlines will fly out flasks of Mercury @ 6¢ per lb. to Anchorage where it can go to market via Rail & Boat to Seattle; or it can be shipped boat freight from Crooked Creek to Seattle. See Freight Rates in Brochure.(Alaska)

16. See MF-100 & Mine Brochure.

19. See Exhibit A attached to MF-100 herewith.

22. See Brochure attached.

23. See Exhibit B Attached & Breakdowns in Brochure for a., b., c., d., e., f., h., and i.

24. Project; Progress & Budget Schedule Exhibit C herewith attached.

EXHIBIT - B

DECOURSEY MOUNTAIN MINE

RECAPITULATION OF EXPLORATION COST

FOR BOTH PLACER AND LODE DEPOSITS

		PLACER	LODE	TOTAL
1.	Equipment Purchase *	$25,447.00	$46,364.00	$71,811.00
2.	Equipment Rental *	6,000.00	none	6,000.00
3.	Food	7,193.00	14,409.00	21,602.00
4.	Fuel	14,510.00	11,440.00	25,950.00
5.	Expendable Materials	286.00	2,960.00	3,246.00
6.	Contract Services - Public *	5,090.00	6,630.00	11,720.00
7.	Labor - Wages	64,677.00	89,400.00	154,077.00
8.	Camp Rehabilitation *	3,300.00	3,300.00	6,600.00
	PROJECT EXPENDITURE	126,503.00	174,503.00	301,006.00
9.	Wages Expense of Equip. Escalator Allowance Over 2 year period (8%)	10,120.00	13,960.00	24,080.00
	TOTAL DIRECT COSTS OF JOINT EXPLORATION PROJECT	$136,623.00	188,463.00	$325,086.00
10.	Operators Contribution to Exploration Project (Plus use of all existing structures)	34,716.00	44,750.00	79,466.00
	TOTAL COST OF EXPLORATION PROJECT ALL SOURCES	171,339.00	233,213.00	404,552.00
12.	Operators Share of Exploration Costs in addition to Item 10	34,156.00	47,116.00	81,272.00
	DMA LOAN COMMITMENT REQUESTED	$102,467.00	141,347.00	$243,814.00

* Items not included in Lump Sum Estimates herewith

See Cost Breakdown Exhibits

EXHIBIT--C DECOURSEY MOUNTAIN MINE

TIME SCHEDULE OF PROJECT

1952-53 Budget Requirements

		JOINT PURCHASE	PURCHASE BY OPERATOR	TOTAL	
January					
A. Purchase of Equipment in area		36,905		36,905	
B. Dismantle Bldgs. & Equipment at Flat & Sleetmute for tractor train shipment to mine			9,600.00	9,600	
				46,505	Jan.
February					
A. Winter freighting of Buildings, Mining, and Processing Equipment from Flat (34 miles) to Mine		4,110	2,800	6,900	
B. Buy Tractor train fuel & food to mine	Fuel	16,220		16,220	
	Food	15,900		15,900	
				39,020	Feb.
March, April } Re-erect Buildings, Shop, Plant and Processing Equipment at mine		6,600	11,900	18,500	Mar.
				18,500	Apr.
May	DRAGLINE RENTAL	12,900		12,900	May
June	1,000	18,200		18,200	June
July	1,000	18,200		18,200	July
August	1,000	18,200		18,200	Aug.
September	1,000	18,200		18,200	Sept.
October	1,000	18,200		18,200	Oct.
November	1,000	18,200		18,200	Nov.
December		10,700		10,700	Dec.
January - 1953		10,700		10,700	Jan.
February		10,630		10,630	Feb.
March			9,100		
	By Operator----------		33,400		

From March to February 1953 ITEM M

Airplane hire and special service (see breakdown)	11,720
Food & Fuel	15,211
Equipment	34,906
Expendable Materials	3,246
Sub-Total	65,083
Escalator	24,080
	89,163

NOTE: Add to monthly Totals for Budget - $7,430 - contained in ITEM M.

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C. DEC 6 10 26 AM '51

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] De Coursey Mountain Mining Co., Inc., hereinafter called the Operator

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 4th Judicial Division, ~~County of~~ Territory of Alaska described as follows: [3] Lode Claims known as Snow-bird No. 1-2-3-4-5 and Last Chance No. 1-2-3, owned by Operator; Placer Claims known as Discovery, Helen, One Below Discovery, the William Claim, Retort, Bedrock, Outcrop, and Dome Claim, leased by the Operator. All in the Otter Mining & & Recording District.

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: Deferred payments due Robert F. Lyman

(*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] Mercury; 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] 2 years 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. Any 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 currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. 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.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. 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.* 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 is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The 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, analytical work, accounting, 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 this 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, taxes, or any other indirect costs not expressly allowed by these provisions, 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. *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.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of _____ percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $_____, which is _____ percent of the agreed estimated total cost of this project, $_____.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator 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.

15. *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 for each additional 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 mineral deposit 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.

16. *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.

17. *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 sextuplicate the day and year first above written.

DECOURSEY MOUNTAIN MINING CO. INC.
ANCHORAGE, ALASKA
(Operator)

By John L. Williams
President

THE UNITED STATES OF AMERICA

By _____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner in fee simple of that certain parcel of ground in the ~~county of~~ 4th Judicial Division, State of Territory of Alaska, described in a certain Exploration Project Contract dated _____, 195__, between De Coursey Mountain Mining Co., Inc., the Lessee of Placer - Purchaser of said Lode ~~said~~ property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor and Seller of said property under lease and Escrow Contract dated Oct. 16, 1951, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 16th day of October, 1951

Robert B. Lyman

U. S. GOVERNMENT PRINTING OFFICE 16—64582-1

Territory of Alaska

Office of the Auditor

Juneau

CERTIFICATE OF INCORPORATION

I, NEIL F. MOORE, Auditor of the Territory of Alaska, and custodian of corporation records for said Territory, DO HEREBY CERTIFY that on the 22nd day of October, 1951,

DECOURSEY MOUNTAIN MINING COMPANY, INC.

filed in this office its Articles of Incorporation, as a corporation organized under the laws of the Territory of Alaska, and paid its corporate tax for the calendar year 1951.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, at Juneau, the Capital, this 22nd *day of* October, *A. D. 1951*.

Neil F. Moore

Auditor of Alaska.

DE COURSEY MOUNTAIN MINING COMPANY, INC.

Anchorage, Alaska

STATEMENT OF INITIAL EXPENSES

October 22, 1951 - November 30, 1951

Travel Expense	$ 215.91
Office expense	75.00
Mimeograph and photostats	74.10
	$ 365.01

INCORPORATED UNDER THE LAWS OF

The Territory of Alaska

No. 98

Shares

Decoursey Mountain Mining Co., Inc.

ANCHORAGE, ALASKA

COMMON STOCK

THIS CERTIFIES THAT _____ is the owner of

_____ Shares of $1.00 Par Value each of the Capital Stock of

DECOURSEY MOUNTAIN MINING COMPANY, INC., fully paid and non-assessable.

transferable only on the books of the Corporation by the holder hereof in person or by Attorney upon surrender of this Certificate properly endorsed.

In Witness Whereof, the said Corporation has caused this Certificate to be signed by its duly authorized officers and to be sealed with the Seal of the Corporation this _____ day of _____ A.D. 19__

DECOURSEY MTN. MINING CO. INC. CORPORATE SEAL 1951 TERRITORY OF ALASKA

TREASURER

PRESIDENT

SHARES $1.00 PAR EACH

© GOES 50

CERTIFICATE FOR SHARES

OF THE CAPITAL STOCK

Decoursey Mountain Mining Company, Inc.

ANCHORAGE, ALASKA

ISSUED TO

DATED

For Value Received, _____ hereby sell, assign and transfer unto _____ _____ Shares of the Capital Stock represented by the within Certificate, and do hereby irrevocably constitute and appoint _____ to transfer the said Stock on the books of the within named Corporation with full power of substitution in the premises.

Dated _____ 19____

In presence of

_____ _____

NOTICE: THE SIGNATURE OF THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THE CERTIFICATE, IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT, OR ANY CHANGE WHATEVER.

TERRITORY OF ALASKA

DEPARTMENT OF MINES

ASSAY OFFICE

Anchorage, Alaska, Nov. 28, 1951

REPORT OF ASSAY

On samples received from G. A. Sherman

Address Anchorage, Alaska

ASSAY NO.	MARK ON SAMPLE OWNER'S DESCRIPTION	OUNCES PER TON		VALUE PER TON	PERCENTAGE OF
		GOLD	SILVER		
6071	Small piece placer cinnabar from Recovery Pt. property.	---	---	---	Mercury --- 76.67 %

Peter C. Sandvik ASSAYER.

D E E D

THIS INDENTURE, made the 18th of March, 1949, between Harry Brink, the party of the first part, and Robert F. Lyman, the party of the second part;

WITNESSETH: That the said party of the first part, for and in consideration of the terms of the Lease Agreement and Option to Purchase between the party of the first part and the party of the second part, as recorded in the files of the Otter Precinct as of May 16, 1942, instrument number 15496, the fulfillment of the terms of said lease agreement is hereby acknowledged, has granted, sold and forever quitclaimed, and by these presents does grant, sell and forever quitclaim, unto the said party of the second part, and to their heirs and assigns, all the following described real estate, situate in the Otter Recording Precinct, Territory of Alaska, to wit: Eight lode mining claims near the head of Return Creek, a tributary of the Iditarod River, known as:- Snow Bird No. 1, Snow Bird No. 2, Snow Bird No. 3, Snow Bird No. 4, Snow Bird No. 5, Last Chance No. 1, Last Chance No. 2, Last Chance No. 3, together with all and singular the mines, minerals, fixtures, improvements, rights, privileges, and appurtenances thereunto in anywise belonging. To have and to hold the lands, tenements, and hereditaments hereby conveyed unto the said party of the second part his heirs and assigns forever.

IN WITNESS WHEREOF, The said party of the first part has hereunto set his hand and seal the day of the year first written above.

Signed in the presence of:

Charles M. Baker

Tom Veach

Harry Brink (Seal)

UNITED STATES OF AMERICA)
:- ss.
TERRITORY OF ALASKA)

This is to certify that on this 18th day of March, 1949 before me, a Notary Public in and for Alaska, duly commissioned and sworn, personally came Harry Brink to me personally known and known to me to be the person described in the foregoing Deed, and he acknowledged to me that he signed and sealed said instrument as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Witness my hand and seal on the day and year first above written.

Wayne Houts
United States Commissioner

LEASE OF PLACER MINING CLAIMS

THIS LEASE, made the 16 day of October, 1951, between ROBERT F. LYMAN, lessor, and DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation, lessee, WITNESSETH:

That the said lessor, for and in consideration of the rents, royalties, covenants and agreements hereinafter reserved, and by the said lessee to be paid, kept and performed, has let, and by these presents does lease and let unto the said lessee, all of the following described placer mining claims, situated in the Otter Mining and Recording District, Fourth Judicial Division, Territory of Alaska, to--wit: "Discovery Claim", "The Helen Claim", "One Below Discovery", "The William Claim", "The Retort Claim", "The Bedrock Claim", "The Outcrop Claim", and "The Dome Claim", together with the appurtenances thereto.

TO HAVE AND TO HOLD unto the said lessee, for the term of ten (10) years from the date hereof, expiring on the 16 day of October, 1961, unless sooner forfeited as determined.

And in consideration of the said lease, the said lessee does covenant and agree with said lessor as follows, to-wit:

1. To enter upon said premises and work the same in a manner necessary and proper to good and economical mining so long as the price of mercury shall justify operations, with due regard to the safety, development, and preservation of the said premises as a workable placer mine.

2. To work and mine said premises as aforesaid, steadily and continuously, beginning with the mining season of 1952, and during the mining seasons thereafter for the term of this lease, and to perform the necessary assessment work annually so as to hold and protect the rights of the lessor in and to the said claims.

3. To allow said lessor and his agents to enter upon and into all parts of said premises for the purpose of inspection.

4. To not assign this lease, or any interest thereof and to not sublet the said premises or any part thereof without the written assent of the lessor, and to not allow any person or persons except the said lessee and his workmen to take or hold possession of said premises, or any part thereof, under any pretence whatever.

KAY & ROBISON
BOX 1175
MASONIC BLDG.
ANCHORAGE, ALASKA

5. To occupy and hold all cross or parrallel lodes, dips, spurs, speeders, crevices, or mineral deposits of any kind which may be discovered in working under this lease, as the property of said lessor, with privilege to the lessee of working the same as an appurtenance of the demised premises during the term of this lease.

6. To keep books of account, showing the amount of ores extracted from the said mine, the amount of ore shipped, sold or treated, and the amount of money received from the sale of said ores, or the values extracted therefrom; that from and out of the values obtained from the ores so extracted, and which may be found in or upon said premises, and reduced, treated, sold or shipped, the lessee will pay to the lessor twelve and one-half per cent (12 ½%) of the gross proceeds from the first four claims named above, and six per cent (6%) of the gross proceeds from the last four claims named above, settlement and payment to be made quarterly, and will deliver to said lessor, at the end of the term, twelve and one-half per cent (12 ½%) of the gross proceeds of all ores extracted from the first four claims named above, and six per cent (6%) of the gross proceeds of all ores extracted from the last four claims named above, which have not yet been shipped or sold. A duplicate of all mill, smelter, or retort returns shall be furnished to the lessor, and that said books of account shall be open, at all reasonable times, to the lessor or his representatives.

7. To save and hold the lessor harmless from all liens or claims of workmen or material, and to keep the premises properly posted so as to protect the said mining claims from any liens of workmen and/or material.

8. To deliver up to the lessor the said premises, with appurtenances, in good order and condition and ready for immedaite continued working, on the day of the date of the termination of this lease, or at any time previous upon demand for forfeiture for violation of any of the covenants and agreements herein contained.

And finally, upon the violation by the lessee, or any other person under it, of any of the covenants herein contained, the term of this lease shall, at the option of the lessor, expire and become forfeited to said lessor, and said lessor or his representatives may thereupon, after proper demand, enter upon and take

KAY & ROBISON
BOX 1170
MASONIC BLDG.
ANCHORAGE, ALASKA

possession of the premises.

Each and every clause and covenant of this lease, where the context requires it, shall extend to and include the heirs and assigns of the lessor and the executors, administrators and assigns of the lessee.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals on the day and year first above written.

Signed in the presence of:

Georgia Simmons

Thomas E. Crook

Robert F. Lyman (SEAL)
ROBERT F. LYMAN, Lessor

DECOURSEY MOUNTAIN MINING COMPANY, INC. (SEAL)

By: Wendell P. Kay
Trustee

UNITED STATES OF AMERICA
TERRITORY OF ALASKA } ss:

THIS IS TO CERTIFY that on this 16th day of October, 1951, before me, the undersigned, a Notary Public in and for the Territory of Alaska, duly commissioned and sworn as such, came ROBERT F. LYMAN and WENDELL P. KAY, the particular officer, to-wit: Trustee of DECOURSEY MOUNTAIN MINING COMPANY, INC., both known to me and known to be the particular persons who executed the foregoing instrument, and they acknowledged that they signed and sealed the same freely and voluntarily for the uses and purposes therein stated, the said WENDELL P. KAY being thereunto duly authorized by the Board of Directors of said corporation.

WITNESS my Hand and Notarial Seal the day and year last above written.

Georgia Simmons
Notary Public in and for Alaska
My commission expires: 7-5-54

KAY & ROBISON
BOX 1179
MASONIC BLDG.
ANCHORAGE, ALASKA

E S C R O W C O N T R A C T

THIS AGREEMENT, made and entered into this 16 day of October, 1951, by and between ROBERT F. LYMAN, party of the first part, hereinafter referred to as the Seller, and DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation, party of the second part, hereinafter referred to as the Buyer, WITNESSETH:

THAT FOR AND IN CONSIDERATION of the mutual covenants and promises hereinafter contained, it is expressly agreed by and between the parties hereto that the Seller will sell and convey to the Buyer, and the Buyer will purchase of and from the Seller, all those certain lode mining claims in the Territory of Alaska, Fourth Judicial Division, Otter Mining and Recording District, and more particularly described as follows:

"Snowbird", Nos. 1, 2, 3, 4 and 5, and "Last Chance", Nos. 1, 2 and 3.

TOGETHER WITH ALL AND SINGULAR, the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining.

THIS CONTRACT OF PURCHASE AND SALE, is however, subject to the following terms and conditions, to-wit:

1. That the purchase price of said property is in the sum of SEVENTY THOUSAND and NO/100 DOLLARS ($70,000.00), lawful money of the United States of America, payable as follows: The sum of FOURTEEN THOUSAND and NO/100 DOLLARS ($14,000.00), at the time of execution and delivery of this contract, the receipt of which is hereby acknowledged, and the balance to-wit: The sum of FIFTY-SIX THOUSAND and NO/100 DOLLARS ($56,000.00) payable at the rate of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest, first payment of SIX THOUSAND TWO HUNDRED TWENTY-TWOnd 22/100 DOLLARS ($6,222.22), without interest on or before the 16th day of October, 1952, and a like sum of SIX THOUSAND TWO HUNDRED TWENTY-TWO and 22/100 DOLLARS ($6,222.22), without interest, on or before the 16th day of October of each subsequent year thereafter until this contract is paid in full. It is mutually understood that the down-payment hereinabove mentioned consists of SEVEN THOUSAND and NO/100 DOLLARS ($7,000.00) in cash, and SEVEN THOUSAND DOLLARS ($7,000.00) value in common stock of the DECOURSEY MOUNTAIN MINING COMPANY, INC., a corporation.

2. And until the said purchase price shall be paid in full by the Buyer, it is expressly agreed that the Buyer shall pay all taxes and assessments which may be levied or may accrue against said property, or any part thereof from the date hereof; to allow no liens or encumbrances of any kind or character whatsoever to attach to said property or any part thereof. The Buyer shall be entitled to possession of the premises above described at the time of execution and delivery of this contract.

3. It is expressly agreed that the Seller shall deposit a copy of this agreement in the CITY BANK OF ANCHORAGE, at Anchorage, Alaska, and will deposit therewith in escrow a good and sufficient deed conveying title to said property to the Buyer free and clear of all encumbrances, with instructions to the said escrow holder to deliver the same to the Buyer upon payment of the full purchase price hereinaobve mentioned and set forth, or upon showing receipts from the Seller for the full amount of said purchase price. Payments under this contract are to be made directly to the Seller.

4. Time is agreed to be the essence of this contract, and in the event that the Buyer shall make any default in any of the payments when due, or to perform any of the covenants herein contained to be kept on its part, the Seller shall be released from all obligations at law or in equity to convey the said property, as well as the Buyer losing all right to and of purchase hereunder; all payments made by the Buyer shall be forfeited to the Seller as

KAY & ROBISON
BOX 1176
MASONIC BLDG.
ANCHORAGE, ALASKA

liquidated damages and in the nature of rent, and not as a penalty, and in such event, the Buyer shall and will immediately vacate the hereinabove described premises, and surrender the same to the Seller on demand; and the Seller shall have the right to re-enter upon and take possession of the said land and premises and every part thereof. In the event that this contract is breached by the Buyer, and suit is instigated to enforce the provisions of this contract, the Buyer shall pay all costs of said suit or action, including a reasonable attorney's fee. The Buyer shall not have the right to sell or assign its interest in this contract without first having received the written consent of the Seller to such assignment.

Each and every clause and condition herein contained shall be binding upon and inure to the benefit of the respective parties hereto, their heirs, legal representatives and assigns.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals the day and year first hereinabove written.

Signed in the presence of:
Georgia Simmons
Verne E. Frank

Robert F. Lyman (SEAL)
ROBERT F. LYMAN, Seller

DECOURSEY MOUNTAIN MINING COMPANY, INC. (SEAL)

By: Wendell P. Kay
Trustee

UNITED STATES OF AMERICA
TERRITORY OF ALASKA } ss:

THIS IS TO CERTIFY that on this 16th day of October, 1951, before me, the undersigned, a Notary Public in and for the Territory of Alaska, duly commissioned and sworn as such, came ROBERT F. LYMAN and WENDELL P. KAY, the particular officer, to-wit: Trustee of DECOURSEY MOUNTAIN MINING COMPANY, INC., both known to me and known to be the particular persons who executed the foregoing instrument, and they acknowledged that they signed and sealed the same freely and voluntarily for the uses and purposes therein stated, the said WENDELL P. KAY being thereunto duly authorized by the Board of Directors of said corporation.

WITNESS my Hand and Notarial Seal the day and year last above written.

Georgia Simmons
Notary Public in and for Alaska
My commission expires: 7-5-54

EXPERIENCE AND BUSINESS BACKGROUND OF DIRECTORS

1. President - John L. Williams
One year assistant chemist American Brake Shoe & Foundry Co.
Four years University - B.S. degree Chemistry.
Three years U.S.A.F. - Pilot 1st Lt.
Two and half years Research & Development Chemistry - Pilot plant work American Cyanamid Corp.
One year Building, andIndependent Trucking Business.
Presently employed one year Classification Analysis and Wage Administration Organization U.S.A.F., Elmendorf Air Force Base, Anchorage.
Member A.C.S. (American Chemical Society.
Address: Box 206 Spendard, Alaska.

2. Vice President - Joseph C. Fears
Two years University of Maryland,
Entered Army as Private, discharged eleven years later as Captain.
Six months with Wilkinson & Jones, Hanford, Wash. as General Manager Parts Warehouse.
Year and a half in Fountain-Drugs and Restaurant Business - Seattle, Wash. (Owner-Operator)
Year and a half Salesman for Best Foods, Inc., Green Garden Products Co., Heck Specialty Co.
One Year Owner-Operator Wholesale Sandwich Co. - Seattle, Wash.
Presently employed (8 months) Operating Engineer for Haddock Engineers Ltd., Anchorage, Alaska - Address Box 2232, Anchorage, Alaska.

3. Treasurer - William L. Warren
Four years Owner of Men's Clothing Store (Owner-Operator)
Two years Distributors for Sinclair Refining Co. (Plant Manager)
Three years - U.S. Army Engineers (Civilian-Procurement).
One year Birch Lytle & Johnson Const. Co. (Asst. Chief Storekeeper)
One year Standard Oil of California (Inventory Specialist, Arabia)
Present Occupation - General Mgr. of Monty's Stores, Inc. Alaska Division.
Address: 132 East Fourth Ave. - Anchorage, Alaska

4. Secretary - Scott E. Thomas
Three years as Transportation Agent, Northwest Airlines, Inc. - Anchorage, Alaska.
Attended University of Minnesota. Instituteof Tech. (Eng.)
During War in the U.S.A.F.
Presently employed as Salesman for K. & L. Distributors of Seattle, Anchorage branch.
Address: Box 2221, Anchorage, Alaska

5. Director - Cornell Allen Sherman
Graduate Gotner College - B.S. in Engineering - C.E. & M.E.
Two years - Maloney Bros., Council Bluffs, Ia. - Engineer
Three years-Boebe & Company - Engineer - 5 years Gateway Sales Co.
Four years owner-operator General Engineering practice in Mississippi.
Eleven years Airport Engineer - State Aeronautics - Lincoln, Nebraska
One year Chief Draftsman Burns & McDonnell Engineering Co. Kansas City. Mo.
One year Chief Engineer F. H. McGraw Const. Co. - One year Const. Area Supt. Metcalfe-Hamilton Bridge Co. Canada & Alaska
Presently employed A. J. Hopper Co. - Engineer - Alaska. Address Box 2232

LUMP SUM ESTIMATED COSTS

OF PLACER EXPLORATION

(All Equipment Furnished)

Stream Bed and Watershed to 500' Elevation on Creek limits adjacent to Lode deposits on basis of float.

This work covers RETURN, DISCOVERY, and MONTANA CREEKS: See Sheet C.

		ESTIMATED COST
1.	Construct dirt dam and install Pumping Unit on RETURN CREEK.	$ 2,120.00
2.	Construct 2.2 Miles of Mine roads to Placer areas.	11,000.00
3.	Clearing & stripping with Dozer trees, brush, and overburden. (Alternate Hydraulic stripping in frozen area).	4,000.00
4.	Driving thaw points where overburden and ore is frozen (estimate - 47 trenches).	14,400.00
5.	Piping and pumping thaw water etc.	4,110.00
6.	A. Dragline trenching to bedrock every 1000' in Placer claims on basis of float.	
	B. Dragline trenching to bedrock every 2000' on Montana Creek.	

			C.Y.	L.F.
1-a Return Creek	18 trenches	300' x 6'	3600	5400
2-a Discover Creek	5 "	210' x 6'	700	900
3-a Montana Creek	13 "	900' x 9'	11700	11700
b " "	11 "	1200' x 9'	13200	13200

Estimated total yardage 29,200 C.Y. plus Sluff or 31,200 L.F. cut 3' x 9' — 55,480.00

7.	Collecting, hauling, sizing, weighing, and retorting Placer samples (30 trenches x 50 samples each).	4,750.00
8.	Surveying and map ing width and depth of paystreaks. Sample numbers and location	950.00
	TOTAL	$ 96,810.00

* In our estimate we have assumed a minimum depth of 2 yds. and a maximum of 3 yds. which appears to be the average from Placer Exploration done recently by the owner.

LUMP SUM ESTIMATED COSTS

OF LODE EXPLORATION

(All Equipment Furnished)

1.	1700 L.F. of Tunnel at 600' Elevation 5½" x 7½" @ $28.00 Per L.F.	$47,600.00
2.	310 L.F. 50° Raise to upper Tunnel @ $23.00 per L.F.	7,130.00
3.	Bull Dozer Surface Trenching and Channel Sampling 6300 L.F. x 12' @ $3.00 per L.F.	18,900.00
4.	Horizontal 7/8" Drill holes at 20' intervals Both sides of Tunnel & Raise	
	A. Tunnel 160 Prospect holes x 24' - 3840 L.F. B. Raise 30 " " x 24' 720 " 4560 L.F. of Prospect Check holes @ $2.00	9,120.00
5.	Horizontal Diamond drill holes & Core at 50' intervals, both sides of Tunnel and Raise	
	A. Tunnel 68 holes x 100' Core ea. @ $3.00 L.F.	20,400.00
	B. Raise 10 holes x 100' Core ea. @ $4.50 L.F.	4,500.00
6.	Mine Roads - 1.9 Miles	9,500.00
7.	Lengthen existing Airfield 700 L.F. x 200'	7,650.00
	TOTAL	$124,800.00

RECAPITULATION OF EXPLORATION COST

FOR BOTH PLACER AND LODE DEPOSITS

		PLACER	LODE	TOTAL
1.	Equipment Purchase *	$25,447.00	$46,364.00	$71,811.00
2.	Equipment Rental *	6,000.00	none	6,000.00
3.	Food	7,193.00	14,409.00	21,602.00
4.	Fuel	14,510.00	11,440.00	25,950.00
5.	Expendable Materials	286.00	2,960.00	3,246.00
6.	Contract Services - Public *	5,090.00	6,630.00	11,720.00
7.	Labor - Wages	64,677.00	89,400.00	154,077.00
8.	Camp Rehabilitation *	3,300.00	3,300.00	6,600.00
	PROJECT EXPENDITURE	126,503.00	174,503.00	301,006.00
9.	Wages Expense of Equip. Escalator Allowance Over 2 year period (8%)	10,120.00	13,960.00	24,080.00
	TOTAL DIRECT COSTS OF JOINT EXPLORATION PROJECT	$136,623.00	188,463.00	$325,086.00
10.	Operators Contribution to Exploration Project (Plus use of all existing structures)	34,716.00	44,750.00	79,466.00
	TOTAL COST OF EXPLORATION PROJECT ALL SOURCES	171,339.00	233,213.00	404,552.00
12.	Operators Share of Exploration Costs in addition to Item 10	34,156.00	47,116.00	81,272.00
	DMA LOAN COMMITMENT REQUESTED	$102,467.00	141,347.00	$243,814.00

* Items not included in Lump Sum Estimates herewith

See Cost Breakdown Exhibits

Sheets -

PLACER EXPLORATION

EQUIPMENT PURCHASE AND RENTAL FROM LOAN

	PURCHASE	RENTAL
1 D8 Caterpillar with Hydraulic Dozer	$14,810.00	
Thaw Points 120	2,190.00	
Pump Motor #671 G.M.C. Diesel	5,165.00	
Pump 12" x 14"	1,170.00	
Rental Lima Dragline 16 months @ $1,000.00)		$6,000.00
Beds and Bedding	2,112.00	
	$25,447.00	$6,000.00

LODE EXPLORATION

PURCHASE OF EQUIPMENT FROM LOAN

D8 Caterpillar with Hydraulic Dozer	$14,200.00
Welder - 300 amps.	1,519.00
3 Air Receiver Tanks	609.00
Track Tools (Set)	349.00
Spikes	67.00
Tie Plates	69.00
Joint Bars	99.00
Bolts	83.00
Rail 24# 14 tons	3,211.00
Trammer	3,440.00
Battery	2,056.00
Diamond Drill (complete)	3,672.00
Mine Cars 4-16 C.F. 18" gauge	1,449.00
Mucking Machine (complete)	3,754.00
Blower	481.00
Vent Tube 1800 l.f.	1,930.00
Radio Transmitter & Receiver	1,135.00
Compressor Diesel 500 c.f.	8,241.00
	$46,364.00

EXPENDABLE MATERIALS TO BE PURCHASED FROM LOAN

PLACER

ITEM	AMOUNT
Food	$7,193.00
Fuel	
Wood 5 Cords	200.00
Diesel 552 Bbls. @ $23.00	12,700.00
Gas 18 Bbls. @ 35.00	610.00
Lube 6-2/3 " @ 90.00	600.00
Grease 800 Lbs. @ 50¢	400.00
First Aid Kits	30.00
Fire Extinguishers	125.00
Air Transportation	2,800.00
Telephone & Telegraph	300.00
Dynamite	110.00
Fuse	10.00
Caps	11.00
Tractor Freight to Mine	1,990.00
Camp Rehabilitation & Maintenance	3,300.00
	$30,379.00

EXPENDABLE MATERIALS TO BE PURCHASED FROM LOAN

LODE

ITEM		AMOUNT
Food		$14,409.00
Fuel		
Wood	45 Cords	1,800.00
Diesel	348 Bbls. @ $23.00	8,000.00
Gas	32 " @ 35.00	1,140.00
Lube	3-1/3 Bbls. @ $90.00	300.00
Grease	400 Lbs. @ 50¢	200.00
First Air Kits		30.00
Fire Extinguishers		125.00
Air Transportation		3,900.00
Telephone & Telegraph		610.00
Dynamite		1,120.00
Fuse		150.00
Caps		160.00
Tractor Freight to Mine		2,120.00
Jack Bits		390.00
Drill Steel		985.00
Camp Rehabilitation & Maintenance		3,300.00
		$38,739.00

PLACER EXPLORATION

Recapitulation of 24 Week Period

NON-MANUAL ½ Time	Hourly Rate	No. Emply.	Amount	Total Amount
Cook & Baker			$334.75 x 10 mos.	$3,347.50
Bookkeeper, Radioman Warehouse & Commissary			334.75 x 10 "	3,347.50
Flunky			207.00 x 10 "	2,070.00
Engineer			515.00 x 10 "	5,150.00
Mineral Surveyor Flat fee including transporation & subsistence				1,886.00
MANUAL				
Placer Foreman	3.27	1	265.96 x 24 wk.	6,383.04
Dragline Operator	3.27	1	265.96 x 24 "	6,383.04
Dozerman 2 shifts	3.22	2	531.36 x 24 "	12,752.64
Thawman	2.82	1	247.29 x 24 "	5,934.96
Pumpman	2.82	1	247.29 x 24 "	5,934.96
Mechanic & Blacksmith (½ Time)	3.27	1	132.98 x 36 "	4,787.28
Oiler & Electrician (½ Time)	2.87	1	118.46 x 36 "	4,264.56
Laborer - full time	2.77	1	228.68 x 36 "	8,232.48
				$ 70,473.96
Less Board & Room Deduction @ $5.75 per diem				5,796.96
				$64,677.00

LODE EXPLORATION

Recapitulation of 36 week Period

MANUAL	Hourly Rate	No. Emply.	AMOUNT	Total Amount
Miners	$3.12	2	$547.20 x 36 wks.	$19,699.20
Muckers	2.82	2	494.58 x 36 "	16,804.88
Timberman	2.77	2	485.82 x 36 "	15,489.52
Trammers	2.77	2	485.82 x 36 "	15,489.52
Dozerman	3.22	1	265.68 x 36 "	9,554.48
Mechanic & Blacksmith	3.27	1	132.98 x 36 "	4,787.28
Oiler & Electrican	2.87	1	118.46 x 36 "	4,264.56
Laborers	2.77	1	228.68 x 36 "	8,232.48
NON-MANUAL ½ Time				
Cook & Baker			334.75 x 10 mos.	3,347.50
Flunky			207.00 x 10 "	2,070.00
Bookkeeper, Radioman Warehouse & Commissary			334.75 x 10 "	3,347.50
Engineer			515.00 x 10 "	5,150.00
			TOTAL LABOR	$108,236.92
Less Board and Room deductions @ $5.75 per diem				18,836.80
			NET	$89,400.12

PLACER EXPLORATION

PLACER EXPLORATION EQUIPMENT TO BE FURNISHED BY THE OPERATOR

Precussion, Prospect Drill, Shoes And Drivepipe	$ 7,800.00
Hydraulic Pipe 3000' 9" to 14"	4,600.00
2 Giants #2	1,006.00
Steel 30" Sluce Box 72 L.F.	970.00
Riffles (Hungarian)	610.00
Water hose for points - 1000 L.F. x 3/4"	920.00
2 Lang Ranges double oven	1,310.00
Kitchen Equipment	640.00
Dining Hall Equipment	1,105.00
1 Denver Jig Hartz Type (with 6 H.P. Wisconsin Motor	1,495.00
1 7" x 11" Fine Jaw Crusher with motor	840.00
Thaw Water Piping	
Pipe 1½" 300 L.F.	305.00
" 1" 1200 L.F.	870.00
Small Tools	
Shovels - Picks	170.00
Wheel barrows	205.00
Axes - Saws - etc.	210.00
2 Tube D Retort in place	3,200.00
Water Piping 700 L.F. Galvanized	700.00
Water Supply Pumps	440.00
Sump Pumps	380.00
Caterpillar, tools, spare parts (new) and others	6,910.00
	$34,686.00

LODE EXPLORATION

EXPLORATION EQUIPMENT FURNISHED BY THE OPERATOR

	EQUIP.	FREIGHT	REPAIR	TOTAL
Sleds & Go Devils	2,900.00	400.00	600.00	$3,900.00
Compressors (2)				
1 - 85 c.f. I.R. Gas				2,200.00
1 - Elec. 160 c.f. Gardner-Denver				3,800.00
1 30 c.f. Compressor for shop				610.00
Platform Scales				121.00
Line oiler for Jackhammers				31.00
Drill Oil				95.00
1 JB 4 Jackhammer drill I.R.				380.00
2-3/4 Stoper R5 I.R.				497.00
1 Threading tool for Jack Bits				147.00
1 Cradle & Shelf Column for J.B. 4				167.00
1 Jack Leg Mounting				93.00
2 Water tanks for Drills				70.00
240' Hex 7/8" drill steel				395.00
Mine Wannigan on wheels				340.00
Lumber 2 FBM				270.00
Nails - all sizes				310.00
Roofing				101.00
Air Pipe 2" - 2000 L.F.				2,000.00
Jack Bits 400 @ 60¢				240.00
Fuse 5 rolls				500.00
Caps 7 Cases				110.00
4 Mine Cars 16 C.F. 18" Gauge				1,448.00
Airhose 1000 L.F. 3/4"				770.00
Electric Power Plant 2 Caterpillar 46-30 Diesels Switchboard Balancing Equipment & Feed Transfer Tanks				14,900.00
2 - 2 ton Yale Hoists				510.00
Carbide - 3 Cans				45.00
1 Machine & Blacksmith Shop (Complete)				10,700.00
				$44,750.00

BUILDINGS TO BE FURNISHED BY OPERATOR AT NO COST TO JOINT VENTURE

One Mess House (Log 20' x 40'	$6,000.00
One Meat Cache 8' x 8'	300.00
One Processing Building 20' x 80'	16,000.00
One Electric Shop & Powerhouse Bldg.	12,000.00
Three 20' x 60' One-bedroom houses	12,000.00
One Office and Parts Warehouse 20' x 40'	8,000.00
One Food Storage Warehouse 20' x 80' (Rodent Proof)	16,000.00
One Sanitary facilities & Water system	31,000.00
One Machinery Shed 20' x 60'	6,000.00
One Retort & Lime Building 20' x 60'	6,000.00
	113,300.00

PROCESSING EQUIPMENT TO BE FURNISHED BY OPERATOR AT NO COST TO THE JOINT VENTURE

Four D Retorts capacity 4 tons - 24 hrs.	8,000.00
One Gould Rotary Furnace and Condensing System, including	37,900.00

(a) 36" x 40' shell complete with ride and drive mechanism, seals, hoods, frame, feeder, brick lining and motors for driving kiln and feeder.
(b) Firing equipment, including compressor with receiver and motor, valves, gauges, meters, burners, oil pump and motor.
(c) Dust collecting equipment, including collector and receptacle, connections, exhauster and motor.
(d) Condensing system, including cast iron pipes, hoppers, and returns, settling tanks, recording thermometer, and auxiliaries.
(e) Steel fine ore and burnt ore bins.
(f) Jaw crusher and motor drive.
(g) Conveyor belt complete with motor drive.
(h) Tools and miscellaneous auxiliary equipment.
(i) All spare parts for any of the above listed equipment.

One 3½ Sack Rex Cement Mixer	835.00
Other misc. Parts & Equipment	1,000.00
	$47,735.00

Table 1
SUMMARY OF RESERVES
(Cutoff grade approximately 25 pounds of quicksilver a ton)

	A-vein body	Decoursey vein body	Block A	Block B	Block C	Block D	Body at Retort veins	1/	Top Vein Body	TOTAL
Pounds of quicksilver a ton 2/	24.4	29.1	53.1	31.9	41.6	51.0	27.0	25	27.3	
Length of ore body in feet	105	98	65	35	63	184	113	250	72	
Average width of ore body	3.1	6.1	3.0	3.0	3.7	3.2	3.7	5.5	8.2	
Average known height of ore body	11.5	10.0	20.0	51.0	66.0		13.5		4.0	
Tons of reasonably assured ore 3/			320	450						770
Tons of inferred ore 3/	1400	2400				4500	2000	14000	1800	26100
Flasks of quicksilver from reasonably assured and indicated ore	100	190	220	190	700		170		70	1640
Flasks of silver from inferred ore	450	920				3020	710	4600	650	10350
Number of analyses available for estimating grade of ore body	19	17	13	11	18	46	13		22	
Tons of indicated ore 3/	310	490			1280		470		200	2750

1/ Additional inferred ore is believed to exist beneath the inferred ore of the Top vein and Retort veins and also beneath the surface in the interval separating the south end of the Top-vein body from the north end of the body at the Retort veins. This body of inferred ore extends from the north end of the Top-vein ore body to the south end of the ore body at the Retort veins. It is 250 feet long and averages 5.5 feet wide (determined by weighting the average wides of the ore bodies of the Top vein and Retort veins). Although the upper part of the latter block would be reduced by the amount of the inferred ore separately delimited at the Top and Retort veins, the intervening portion of the block which extends to the surface, about balances such a reduction and the total volume of inferred ore forthe whole block is roughly a body 250 feet by 5.5 feet by 125 feet. The ore is estimated to contain at least 25 pounds of quicksilver a ton.

2/ Quicksilver content based on analyses by Bureau of Mines.

3/ 12 cubic feet of ore a ton.

1/ See note 1, table.
2/ Quicksilver content based on analyses by Bureau of Mines.
3/ 12 Cubic feet of ore a ton.

TABLE 2

SUMMARY OF RESERVE

(Cutoff grade approximately 10 pounds of quicksilver a ton)

	A-Vein Body	DeCoursey Vein Body	Tunnel-vein body BLOCK A	BLOCK B	BLOCK C	BLOCK D	Body at the Retort veins	1/	Top vein body	TOTAL
Pounds of quicksilver a ton 2/	17.0	18.2	53.1	31.9	41.6	51.0	11.1	10	18.7	
Length of ore body in feet	125	315	65	35	63	184	148	310	100	
Average known height of ore body	13.0	35.5	20.0	51.0	66.0		17.5		5.0	
Average width of ore body	4.0	3.9	3.0	3.0	3.7	3.2	11.6	12.9	14.7	
Tons of reasonably assured ore 3/			320	450						770
Tons of indicated ore 3/	540	3630			1280		2500		610	8560
Tons of inferred ore 3/	2600	16100				4500	10600	52000	6100	91900
Flasks of quicksilver from reasonably assured and indicated ore	120	870	220	190	700		360		150	2610
Flasks of quicksilver from inferred ore	580	3850				3020	1550	6800	1500	17300
Number of analyses available for estimating grade of ore body	25	25	13	11	18	46	33		41	

ANALYSES OF SAMPLE, TUNNEL ORE BODY

U. S. BUREAU OF MINES FROM R.I. 4065

Sample	Length Sample, Feet	Pounds H.G. Per ton	H.G. Percent Antimony	Sample	Length Sample, Feet	Pounds Mercury Per ton	Percent Antimony
1....	1.3	620.8	0.73	41....	3.0	35.4	0.59
2....	5.0	0.4		42....	4.5	0.6	
3....	0.8	340.8	0.29	43....	5.5	1.2	
4....	4.5	1.8		44....	1.0	156.0	0.59
5....	5.0	2.4		45....	1.3	89.6	
6....	1.3	615.2	0.20	46....	5.5	1.0	
7....	5.0	2.0		47....	5.5	4.8	
8....	5.0	1.8		48....	1.0	246.4	
9....	1.0	2.2	0.10	49....	1.1	89.0	0.59
10....	5.0	0.4		50....	5.5	4.6	
11....	1.2	53.6		51....	4.0	4.6	
12....	5.0	1.0		52....	1.2	59.0	0.78
13....	5.0	1.2		53....	3.3	0.2	
14....	0.8	1.2		54....	5.0	1.6	
15....	5.0	0.8-		55....	3.2	0.4	
16....	5.0	0.6		56....	7.5	1.0	
17....	5.0	0.8		57....	0.8	100.8	0.25
18....	5.0	1.2		58....	1.7	9.4	
19....	1.3	0.4		59....	1.5	35.6	
20....	5.0	1.2		60....	1.8	67.8	0.16
21....	4.0	1.0		61....	1.0	169.2	0.42
22....	0.8	1.2		62....	5.0	Tr.	
23....	5.0	1.2		63....	5.0	0.6	
24....	5.0	0.8		64....	5.0	0.6	
25....	5.0	2.2		65....	5.0	0.4	
26....	3.5	12.8		66....	5.0	0.4	
27....	1.5	1.8		67....	5.0	0.4	
28....	0.5	136.0	0.59	68....	5.0	0.4	
29....	5.0	4.2		69....	5.0	0.4	
30....	4.5	0.2		70....	5.0	0.4	
31....	2.4	9.8		U-4...	0.6	653.6	0.86
32....	5.0	0.2		U-5...	0.5	412.0	0.09
33....	5.0	0.2		U-6...	1.2	236.0	0.29
34....	1.3	20.6		U-7...	1.2	5.6	Nil
35....	0.5	61.6	0.59	U-8...	1.4	1.0	
36....	5.0	2.0		U-9...	2.2	0.6	
37....	5.0	1.4		U-10..	2.2	109.0	
38....	0.9	375.4		U-11..	2.5	143.6	
39....	5.0	10.2	0.59	U-12..	2.3	5.6	
40....	5.0	1.0		U-13..	2.1	160.8	
				U-14..	3.0	6.8	
				S-1...	0.3	605.6	

82 Samples - Average Pounds of Mercury per Ton 69.58 Lbs.

REPORTS ON AND PRODUCTION OF DECOURCY MOUNTAIN MINE AND ADJACENT PROPERTIES.

U.S. Government Reports

1. February 1943 - R.F.C. Engineer L.C. Doheny Report - all files on his investigation sent to Seattle to be transmitted to Bureau of Mines.
2. War minerals Report No. 223 March 1943.
3. U.S. Geological Survey Report by Weber No. 98775.
4. Bureau of Mines Reports on District R.I. 4065

Decourcy Mountain Production

		Amount
1921	Thrift Mining Co.	Unknown
1924-26	C. F. Lindfors & Johnson	"
1927-28	John & Harry Brink	
May 1942	Robert F. Lyman	
1942	Retorted from surface float	80 flasks
1943	" " 140 ton of high grade ore	400 "
1944	" " 115 " " " " "	320 "
1945	" " 110 " " " " "	
	and float	310 "
1946	Retorted from 130 " " " " "	
	and float	303 "
1947	Retorted from soot & placer samples	72 "
1948	Placer Exploration	
1949	Shut down	
1950	" "	
1951	Optioned August 19, Sold Oct. 16	
	Total known Production	1485 flasks

Red Devil Mine

1943-44	2652 tons furnaced	1090 flasks
1945	1514 " "	962
	Total	2052 flasks

Alice & Bessie Prospect

1923-24		120 flasks
1931		12 "
	Total	132 "

Cinnibar Creek Deposit

3600 Lbs. of selected ore	29 flasks

Rainy Creek Prospect

2000 Lbs. of Placer Shipped to U.S. approximately	20 flasks

TIME SCHEDULE OF PROJECT

1952-53 Budget Requirements

		JOINT PURCHASE	PURCHASE BY OPERATOR	TOTAL	
January					
A. Purchase of Equipment in area		$36,905		36,905	
B. Dismantle Bldgs. & Equipment at Flat & Sleetmute for tractor train shipment to mine			9,600.00	9,600	
				46,505	Jan.
February					
A. Winter freighting of Buildings, Mining, and Processing Equipment from Flat (34 miles) to Mine		4,110	2,800	6,900	
B. Buy Tractor train fuel & food to mine	Fuel	16,220		16,220	
	Food	15,900		15,900	
				39,020	Feb.
March	Re-erect Buildings, Shop,				
April	Plant and Processing Equipment at mine	6,600	11,900	18,500	Mar.
				18,500	Apr.
May	DRAGLINE RENTAL	12,900		12,900	May
June	1,000	18,200		18,200	June
July	1,000	18,200		18,200	July
August	1,000	18,200		18,200	Aug.
September	1,000	18,200		18,200	Sept.
October	1,000	18,200		18,200	Oct.
November	1,000	18,200		18,200	Nov.
December		10,700		10,700	Dec.
January - 1952		10,700		10,700	Jan.
February		10,630		10,630	Feb.
March			9,100		
	By Operator----------		33,400		

From March to February 1952 ITEM M

Airplane hire and special service (see breakdown)	11,720
Food & Fuel	15,211
Equipment	34,906
Expendable Materials	3,246
Sub-Total	65,083
Escalator	24,080
	89,163

NOTE: Add to monthly Totals for Budget - $7,430 - contained in ITEM M.

FREIGHT RATES

ALASKA RIVERS NAVIGATION COMPANY

KISKOKWIM RIVER POINTS IN ALASKA

Basing Rates are shown in dollars per ton of 2,000 pounds. These rates apply on General Merchandise, or items not otherwise provided for in LIST OF EXCEPTIONS, between Bethel and Kuskokwim River points as named below.

Stations not listed will take the rate to next station beyond.

Exceptions to the General Merchandise or Basing Rate are included in Items number 1 to 75.

	BETHEL*	AKIAK	TULUKSAK	KALSKAG	ANIAK	NAPAMUTE	CROOKED CREEK*	SLEETMUTE	STONY RIVER	STERLING LDG.	McGRATH	MEDFRA
BETHEL		$13	$15	$23	$28	$35	$35	35	$40	$45	45	$65
AKIAK	10		10	10	15	22	22	22	30	32	32	52
TULUKSAK	10	10		10	15	20	20	20	25	30	30	50
KALSKAG	15	10	10		10	12	12	12	20	22	22	42
ANIAK	15	10	10	10		10	10	10	20	20	20	40
NAPAMUTE	15	10	10	10	10		10	10	20	20	20	40
CROOKED CREEK	15	10	10	10	10	10		10	10	20	20	40
SLEETMUTE	15	10	10	10	10	10	10		10	20	20	40
STONY RIVER	20	20	20	15	10	10	10	10		20	20	40
STERLING LDG.	20	20	20	15	15	10	10	10	10		15	35
McGRATH	20	20	20	15	15	10	10	10	10	10		20
MEDFRA	30	30	30	25	25	20	20	20	20	20	15	

DOWNSTREAM RATES

UPSTREAM RATES

ANALYSES OF SAMPLE, TUNNEL ORE BODY

U. S. BUREAU OF MINES FROM R.I. 4065

Sample	Length Sample, Feet	Pounds H.G. Per ton	H.G. Percent Antimony	Sample	Length Sample, Feet	Pounds Mercury Per ton	Percent Antimony
1....	1.3	620.8	0.73	41....	3.0	35.4	0.59
2....	5.0	0.4		42....	4.5	0.6	
3....	0.8	340.8	0.29	43....	5.5	1.2	
4....	4.5	1.8		44....	1.0	156.0	0.59
5....	5.0	2.4		45....	1.3	89.6	
6....	1.3	615.2	0.20	46....	5.5	1.0	
7....	5.0	2.0		47....	5.5	4.8	
8....	5.0	1.8		48....	1.0	246.4	
9....	1.0	2.2	0.10	49....	1.1	89.0	0.59
10....	5.0	0.4		50....	5.5	4.6	
11....	1.2	53.6		51....	4.0	4.6	
12....	5.0	1.0		52....	1.2	59.0	0.78
13....	5.0	1.2		53....	3.3	0.2	
14....	0.8	1.2		54....	5.0	1.6	
15....	5.0	0.8-		55....	3.2	0.4	
16....	5.0	0.6		56....	7.5	1.0	
17....	5.0	0.8		57....	0.8	100.8	0.25
18....	5.0	1.2		58....	1.7	9.4	
19....	1.3	0.4		59....	1.5	35.6	
20....	5.0	1.2		60....	1.8	67.8	0.16
21....	4.0	1.0		61....	1.0	169.2	0.42
22....	0.8	1.2		62....	5.0	Tr.	
23....	5.0	1.2		63....	5.0	0.6	
24....	5.0	0.8		64....	5.0	0.6	
25....	5.0	2.2		65....	5.0	0.4	
26....	3.5	12.8		66....	5.0	0.4	
27....	1.5	1.8		67....	5.0	0.4	
28....	0.5	136.0	0.59	68....	5.0	0.4	
29....	5.0	4.2		69....	5.0	0.4	
30....	4.5	0.2		70....	5.0	0.4	
31....	2.4	9.8		U-4...	0.6	653.6	0.86
32....	5.0	0.2		U-5...	0.5	412.0	0.09
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				39,020	Feb.
March Re-erect Buildings, Shop,					
April Plant and Processing Equipment at mine		6,600	11,900	18,500	Mar.
				18,500	Apr.
May	DRAGLINE RENTAL	12,900		12,900	May
June	1,000	18,200		18,200	June
July	1,000	18,200		18,200	July
August	1,000	18,200		18,200	Aug.
September	1,000	18,200		18,200	Sept.
October	1,000	18,200		18,200	Oct.
November	1,000	18,200		18,200	Nov.
December		10,700		10,700	Dec.
January - 1952		10,700		10,700	Jan.
February		10,630		10,630	Feb.
March			9,100		
	By Operator----------		33,400		

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KALSKAG	15	10	10		10	12	12	12	20	22	22	42
ANIAK	15	10	10	10		10	10	10	20	20	20	40
NAPAMUTE	15	10	10	10	10		10	10	20	20	20	40
CROOKED CREEK	15	10	10	10	10	10		10	10	20	20	40
SLEETMUTE	15	10	10	10	10	10	10		10	20	20	40
STONY RIVER	20	20	20	15	10	10	10	10		20	20	40
STERLING LDG.	20	20	20	15	15	10	10	10	10		15	35
McGRATH	20	20	20	15	15	10	10	10	10	10		20
MEDFRA	30	30	30	25	25	20	20	20	20	20	15	

DOWNSTREAM RATES

UPSTREAM RATES

ALASKA STEAMSHIP COMPANY

THE ALASKA LINE

November 20, 1951
Anchorage, Alaska

Decoursey Moutain Mining Co.
Box 2232
Anchorage, Alaska

Gentlemen:

As requested we list below freight rates Seattle to Bethel, Alaska:

	Per Hund.lbs.	Per Cubic Ft.
Mining Machinery	$ 1.65	$ .82½
Groceries	1.70	.85
General Merchandise	1.80	.90

Whichever rate creates the greater revenue will apply in any case.

Very truly yours,

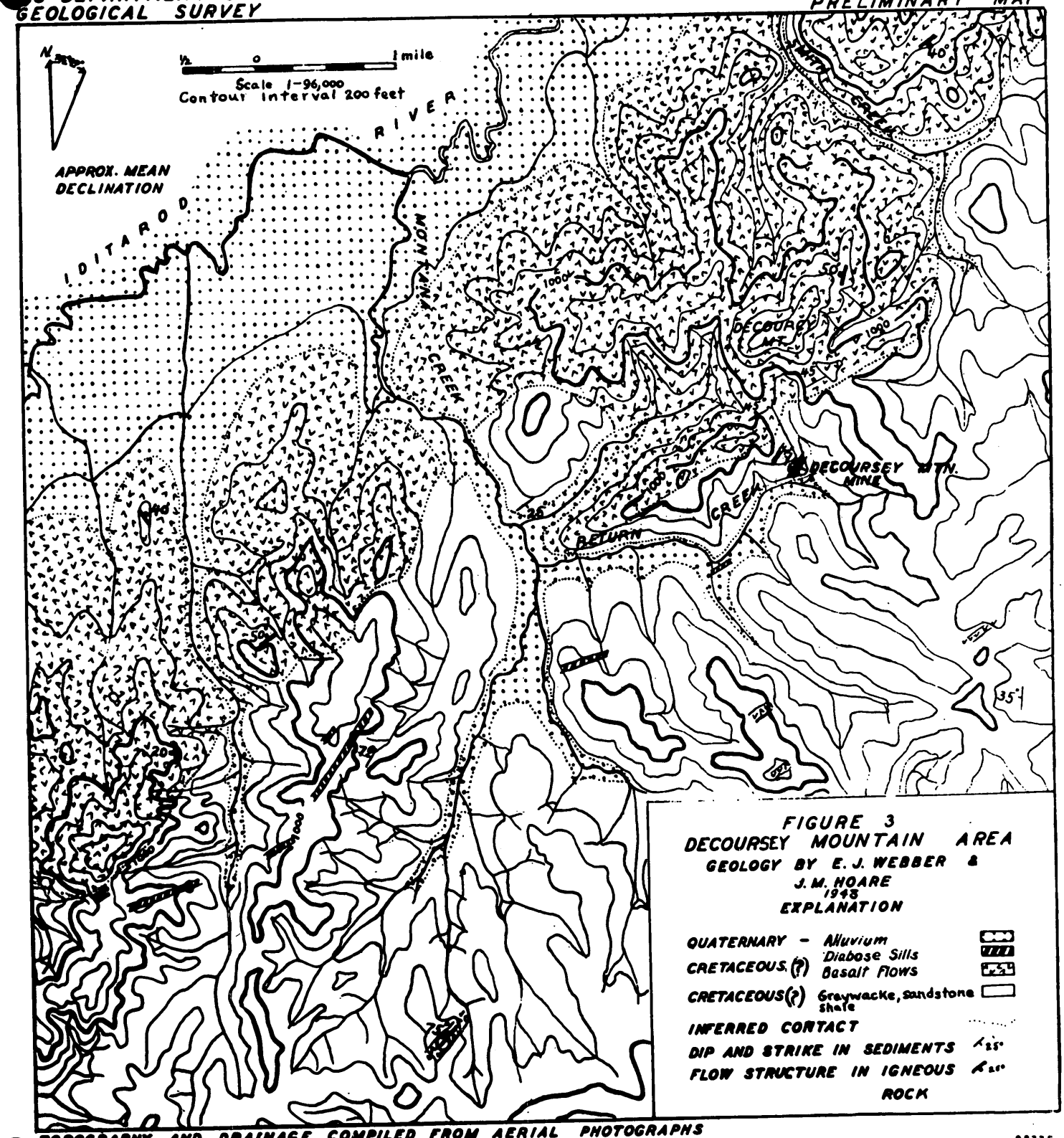
T J Maloney

Agent

FS

S DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP



TOPOGRAPHY AND DRAINAGE COMPILED FROM AERIAL PHOTOGRAPHS

98775

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP

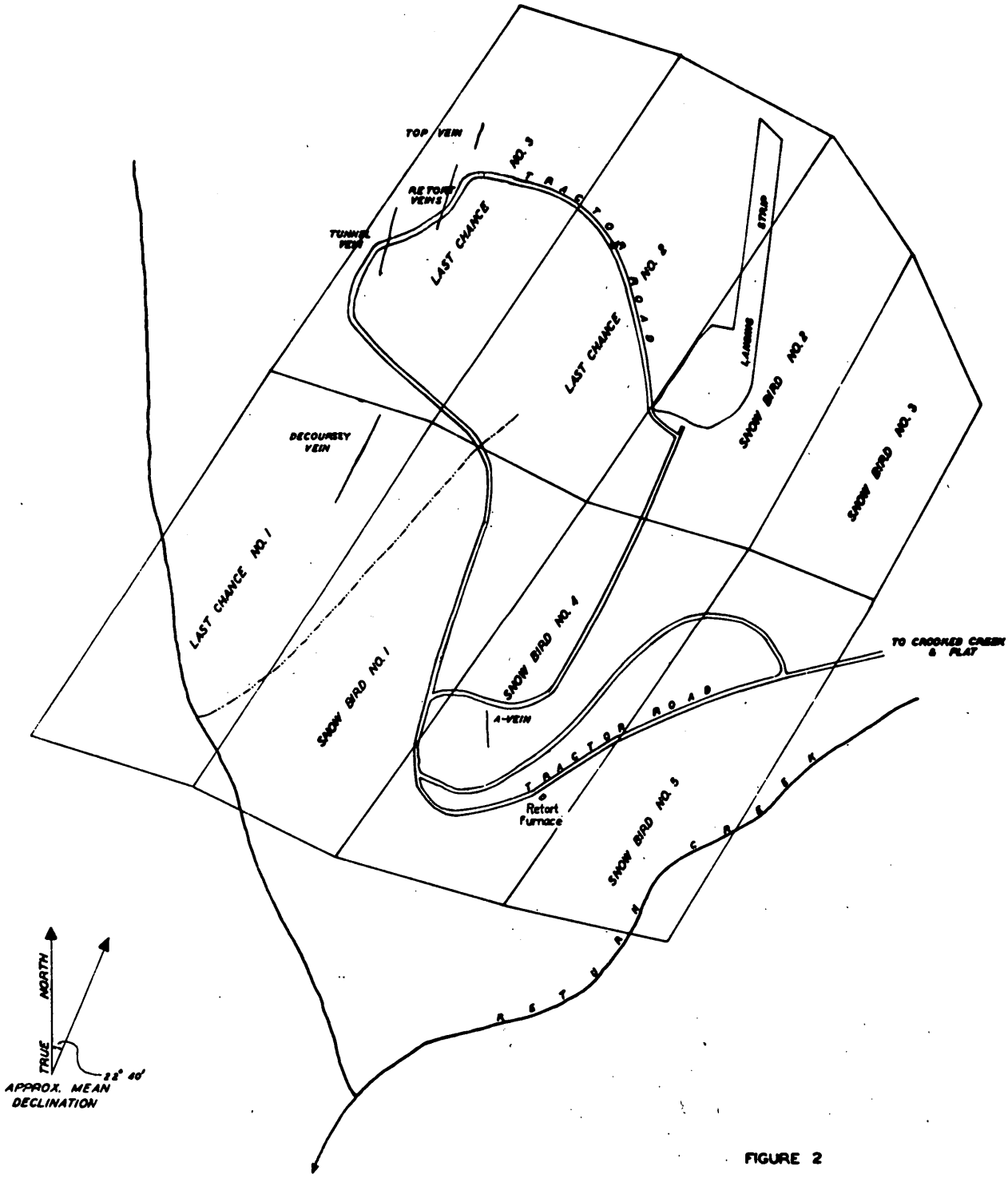


FIGURE 2

MAP SHOWING LODE MINING CLAIMS
DECOURSEY MOUNTAIN AREA
QUICKSILVER DEPOSITS
IDITAROD DISTRICT, SOUTHWESTERN ALASKA

SCALE IN FEET

250 0 250 500 750 1000

E.J. WEBBER & J.M. HOARE
OCT. 1948

98775

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey
Washington

QUICKSILVER DEPOSITS IN THE DECOURCY MOUNTAIN AREA, IDITAROD DISTRICT, SOUTHWESTERN ALASKA

By

Edward J. Webber

INTRODUCTION

Geography

The DeCourcy 1/ Mountain area lies a little northwest of the Yukon-

1/ Two spellings of this name are in use. "DeCourcy", the spelling used by Matt DeCourcy after whom the mountain was named, has been adopted by the Board on Geographical Names. The spelling "DeCoursey", is used by the local operator, the DeCoursey Mountain Mining Company.

Kuskokwim divide in the southern part of the Iditarod district about 32 miles airline S. 30° W. of the mining town of Flat (see figs. 1-A and 1-B), on Otter Creek, a tributary of the Iditarod River. DeCourcy Mountain (approximately 1700 feet high), the highest point in the area, lies among the rolling hills southeast of the Iditarod River, a tributary of the Innoko River which flows into the lower Yukon. The maximum relief is about 1300 feet. Timberline is at about 1100 feet above sea level. Spruce forests cover most of the country below timberline. The hills above timberline are moss-covered.

The principal quicksilver lodes lie south of DeCourcy Mountain on the north side of Return Creek which flows into Montana Creek, a southeastern tributary of the Iditarod River. The mine is accessible by a 24-mile trail from Crooked Creek, a small native village on the Kuskokwim River, and also by a 40-mile trail from Flat. These trails are passable only on foot or by pack train from late spring to early fall, but after the freeze-up in October or November until the break-up in April or May they are used by dog teams and tractors. The mine also is accessible during times of high water by power boat via Crooked Creek from Crooked Creek village and via the Iditarod River from Iditarod. An old trail leads 8 miles across country to the mine from the Brink cabin on the Iditarod River. Montana Creek is navigable for power boats as far as the mouth of Return Creek where a tractor road leads

4 miles to the mine. The latter route is open between the break-up and freeze-up except in times of abnormally low water. Small airplanes have landed on a landing strip about 960 feet long and 90 feet wide constructed on the mining company's property but the soft condition of the field after rains, together with its unfavorable location with respect to cross winds and down-draughts, make landings impracticable for weeks at a time. This landing strip is too short for the use of planes equipped with skiis for the winter season. Supplies have been brought in by air and dropped at the mine.

The climate is characterized by long, cold winters and short, mild summers but it is modified considerable because of the proximity of the Bering Sea. The precipitation is about 18 inches a year, most of it falling as rain during the rainy season from the latter part of July to about the middle of September. Rainy spells are expected at intermittent periods throughout the winter months. The winter snowfall seldom exceeds a depth of 3 feet. The temperature ranges from a winter minimum of about -50° F. to a summer maximum of about 85° F.

History and economic setting

The quicksilver deposits near DeCourcy Mountain, discovered in the winter of 1910-1911 by Matt DeCourcy, were first staked by him in 1919. Mining and treatment of the ore continued intermittently from 1920 to 1932 with a total production of 102 flasks of quicksilver. In 1942 operations were started again by the DeCoursey Mountain Mining Company, a partnership, leasing with option to buy from Harry Brink of Flat. Thirty-eight flasks of quicksilver were produced in 1942, largely from deposits newly uncovered. In 1943 ninety flasks of quicksilver were produced from float ore collected in 1942. From November 1943 until May 1944 four hundred flasks of quicksilver were produced from ore mined from the Tunnel vein in 1943.

The property comprised eight lode mining claims, adjoining each other in two tiers of four claims each (see fig. 2). Amended location notices were recorded at Flat in October 1943 by Brink after the claim boundaries had been readjusted to eliminate interclaim fractions and overlaps found as the result of mapping of the original claim boundaries.

Most of the ore mined by the early operators was from a surface trench about 7 or 8 feet deep and 50 feet long between the Retort- and Top-vein ore bodies. Fifty-eight flasks of quicksilver are reported to have been produced from this ore with a Johnson-McKay retort furnace. The early operators, also mined a small amount of rich ore from the Brush tunnel opened on the Tunnel-vein ore body.

In 1942 operations were limited by inadequate equipment and labor. However, three new veins were discovered and stripped and two known veins were exposed more extensively by surface stripping with a tractor. Fragments of weathered and broken ore from the tops of the veins were treated

in the Johnson-McKay rerort furnace. In 1943 much time was spent in setting up the camp and equipment in preparation for year-around operation. Log framework shelters insulated with moss were erected over the compressor and from the adit portal to the dump. An adit about 180 feet long was driven along the Tunnel vein and two overhand stopes were opened, one of which was completely worked out. Approximately 125 tons of high grade ore were removed from the adit and stopes and treated in two Gould D-type retorts. Ore sorted by hand from the first stope contained 605.6 pounds of quicksilver a ton according to one composite ore-bin sample taken by the Bureau of Mines. The ore was broken by hand and passed through a 2-inch grizzly. Only about 10 percent of the quicksilver content was recovered from the high-grade ore treated in the D-type retorts; presumably the unrecovered quicksilver remained in the condenser soot in the form of a quicksilver sulfide.

The equipment on the property at the time of the writer's investigations included an H-D 10 eighty h.p. Allis-Chalmers diesel tractor with a hydraulic dozer, two large freighting sleds, a gas-powered wood saw, three "go-devils" for tractor hauling of ore to the bin, a model 85 Ingersoll-Rand two-stage compressor, a type 30-T Ingersoll-Rand two-stage compressor, a JB-4 jackhammer, a J-35 jackhammer, a stoper with a 2 3/4 inch piston, a 400-ampere electric welder, a breast drill, a hand forge, a furnace equipped with two Gould D-type retorts with a combined capacity of 1 1/2 tons of ore a day, a partly dismantled 6-tube Johnson-McKay retort furnace with a combined capacity of 2 1/4 tons of ore a day, about 400 feet of narrow-gauge mine track, a mine dump car, about 750 quicksilver flasks, a 2-inch gas-powered Rex pump, a 1500-watt Kohler electric plant, a small jaw crusher, a roofed ore bin with a capacity of 1620 cubic feet, a mess house, a bunkhouse for six men with tool shed adjoining, a tractor garage, a meat house, a wash house, two supply caches, a summer cabin with storeroom, houses for 12 dogs, and shelters for the machinery.

A plentiful supply of spruce timber used for fuel grows on hill slopes and along the valley bottoms in the vicinity of the mine.

Freight landed at Crooked Creek village from Seattle via Bethel costs about $60 a ton. Freight from Seattle is delivered to Flat via St. Michael for $120 a ton and via Seward and Nenana for $140 a ton. Winter freighting with a tractor costs from $1 to $3 a ton mile.

The customary wages paid in the Iditarod district are $10 a day with board but specialized labor may receive as high as $13 a day with board. Native labor is obtainable from the lower Yukon or Kuskokwim Rivers but white labor is preferred. The wages paid to native labor are from $7 to $10 a day with board.

Bare operating costs after payment of royalties and amortization of capital investment, using a modern mine plant, are assumed in this report to be about $25 a ton of ore mined and treated under present conditions of accessibility. At the New Idria-Alaska Quicksilver Mining Company's

mine near Sleitmut on the Kuskokwim River costs of similar operations are said to be about $20 a ton. Additional transportation costs account for the difference. In other words ore containing approximately 25 pounds of quicksilver a ton should be workable when the price of quicksilver is $1 or more a pound (see table 1) and ore containing approximately 10 pounds of quicksilver a ton should be workable when the price of quicksilver is $2.50 or more a pound (see table 2).

Field work and acknowledgments

In the late summer of 1942 Edward J. Webber and Wallace M. Cady of the Geological Survey made a preliminary investigation of the DeCourcy Mountain area and recommended a more detailed examination of the quicksilver deposits. In the summer of 1943 the Bureau of Mines, Stuart C. Bjorklund, project engineer, sampled the deposits and partly prospected them. In the summer and fall of 1943 Webber and Joseph M. Hoare of the Geological Survey made detailed topographic and geologic maps of the ore deposits and their vicinity, including on the maps data from operations of both the Bureau of Mines and the mining company. The Geological Survey party also spent 1½ months in areal reconnaissance of adjoining parts of the Georgetown and Iditarod districts. The grade of the ore estimated by the Geological Survey is based on the analytical data furnished by the Bureau of Mines. Most of the analyses were by Arthur E. Glover of the Alaska Territorial Assay Office at Fairbanks. The remainder were by the Alaska Territorial Assay Office at Ketchikan and by the Smith-Emery Company of Los Angeles.

Robert F. Lyman, the operator, extended many courtesies to the Geological Survey party and furnished information concerning several geologic features in the area.

The Survey party also wishes to express its gratitude to Thomas Belanger of Flat for the use of his cabin on Donlin Creek and for assistance with his dog team in transporting the party's equipment, and to Harry Brink of Flat for copious information concerning the country and the early history of the property.

GEOLOGY

Interbedded graywacke, shale and sandstone of probable early Upper Cretaceous age make up the sedimentary country rock of the area (see fig. 3). Basaltic lave flows, generally less than 100 feet thick are found in the sedimentary sequence, as are a number of hydrothermally-altered sill-like bodies of diabase, locally showing cross-cutting relations with the inclosing sediments. Overlying this sequence, in the northwestern part of the area, are an estimated 1500 feet of both unaltered and propylitized basaltic lava flows. Possibly the latter flows are Tertiary. Local conglomerates at the base of the flows containing boulders more than a foot in diameter suggest that they were poured out over a land surface of considerable relief, but there is no demonstrable angular unconformity below the lavas.

Conglomerates, up to 10 feet thick, composed of water-worn pebbles of basalt cemented by a matrix of carbonate, quartz, the chlorite are interbedded in the lava sequence.

The bedrock is almost everywhere concealed by a mantle of unconsolidated frost-broken fragments.

The structure of the DeCourcy Mountain area, in so far as it could be determined, suggests a homocline striking northeast and dipping in general northwestward. In the vicinity of the ore deposits faulting, marked by slickensided surfaces developed at all orientations throughout the bedrock, appears to be limited to small displacements of less than an inch near the intrusive bodies.

The steep headwalls and sides of the gulches developing in the present cycle of erosion intersect a gently rolling upland surface formed during an older cycle. This physiographic relationship is common throughout the central Kuskokwim and lower Yukon regions.

ORE DEPOSITS

General description

Quicksilver metallization is restricted to the hydrothermally altered sill-like bodies of hyperathene diabase and basalt porphyry and to the sediments immediately enclosing them (see fig. 4). The sill rock, pearl-gray where fresh, weathers to a distinctive yellow-brown color. Some of the adjacent altered graywacke weathers to a similar color and is almost indistinguishable from the sill rock.

The ore mineral is cinnabar which ranges from a dark red, coarse, crystalline material to a scarlet mass of almost indistinguishable crystals. Stibnite is present in considerable abundance in some of the veins. The gangue minerals are mainly quartz and carbonates that line fissures and joints in the center of which cinnabar and stibnite have been deposited. Small, nodular masses of pyrite are found in the ore andin the country rock. Minor quantities of secondary oxides of antimony are present near the ground surface.

Two distinct types of ore bodies are recognized; first, well-defined veins in brecciated zones that generally parallel the strike of the sediments but cut across the dip of the strata and second, zones of short and discontinuous, but locally rich, impregnations and fillings along bedding-plane joints.

Most of the cinnabar is confined between the walls of the large veins or in small, discontinuous bodies adjacent to them. The ore bodies pinch and swell both along the strike and down the dip. The dinnabar is unevenly distributed and "pockety" ore is the rule rather than the exception. Some apparent offsets of the large veins are believed to reflect an irregular

fracture pattern rather than post-ore faulting. Ore veins seem to be most abundant in shaly strata.

A third minor type exists locally. In this type cinnabar has selectively replaced ferromagnesiam phenocrysts of the altered hyperathene diabase porphyry locally forming small, irregular bodies of "cinnabar porphyry". Estimates based on inspection of this material suggest a maximum quicksilver content of 160 pounds a ton.

The ore bodies are exposed for short distances over a slightly curved belt about 2,000 feet long, 250 feet wide andthrough a vertical range of 320 feet. Occurrences of cinnabar, not necessarily of ore value, are known over an area about 2,600 feet long, as much as 2,000 feet wide, and through a vertical range of about 420 feet. A lower vein system exposed between elevations 630 and 740 feet includes the A-vein and some associated veinlets. An upper vein system exposed between elevations 760 and 1,000 feet comprises the DeCoursey vein, the Tunnel vein, the Retort veins and the Top vein.

A-vein ore body

A mineralized zone more than 500 feet long occupies the southern part of the Snowbird No. 4 claim (see fig. 2). A part of the zone near the top of the steep slope northwest of and overlooking the retort furnace (see fig. 4) forms an ore body known as the A-vein.

The A-vein and some associated veinlets have been exposed by surface stripping with a bulldozer over a continuous horizontal distance of 175 feet (see fig. 5-A). Three old prospect pits less than 200 feet south of the A-vein and two pits less than 125 feet east reach bedrock. Two bulldozer trenches lie less than 175 feet south-southwest of the A-vein. The face of a partly-caved adit driven north-northwest into the slope toward the A-vein at an elevation 40 feet below that of the lowest surface exposure is less than 50 feet east of the south end of the downward projected plane of the ore body.

The sedimentary strata strike roughly north and dip from about 30° to about 70° west at the A-vein. The steeply dipping northwestern border of a body of hydrothermally altered hypersthene diabase porphyry at least ½ mile long and probably several hundred feet thick (see fig. 4) appears to cut the beading of the sedimentary rock at least locally east of the ore body. There the border of the diabase strikes N. 10° W. and dips about 75° east. Fracture cleavage, which strikes roughly north, dips 75° east, and parallels the intrusive contact, is developed in the sedimentary rocks within 10 feet of the diabase. The otherwise nearly straight border of the intrusive forms a sharp curve for a short distance around the south end of the A-vein at which curve the contact dips outward away from the vein.

The A-vein occupies principally a continuous fissure roughly parallel

to the strike but dipping about 75° east across shaly graywacke at or near the contact with the diabase. Thick-bedded graywacke is exposed about 5 feet west of the fissure. The vein appears to parallel the contact and the planes of fracture cleavage. The fissure enters the igneous fock at the sharp curve in the contact wouth of the main vein and pinches out 20 feet farther south; part of the fissure and other small, narrow fractures in the diabase are filled with silica and carbonate. The fissure walls are slickensided horizontally or nearly so. At places the slickensided surfaces are smeared with fine cinnabar apparently ground into paper-thin coatings of polished, greasy-appearing gouge. Small but distinct crystals of cinnabar are also found coating the slickensided surfaces.

The principal quicksilver metallization has taken place in the large fissure that extends lenghwise through the A-vein ore body. The accompanying illustrations (fig.'s 5-A and 6-C) show the extent of the ore body and the tenor of the ore in pounds of quicksilver per ton of ore. The southernmost 50 feet of the ore body follows a zone of discontinuous, high-grade bodies west of the main fissure. The ore zone continues south in the sediments to the diabase but does not enter it. Cinnabar float has been found both to the north and south of the ore body for considerable distances. Float ore is exposed near the second road cut south of the A-vein. The operator also has reported finding some cinnabar float in a road cut near the diabase contact about 100 feet north of the northernmost exposure of the A-vein; thus the mineralized zone is at least 500 feet long.

The ore of the A-vein is scarlet, fine-grained cinnabar in a dense, siliceous gangue. No stibnite is present. The vein breaks easily and cleanly from both hanging wall and footwall.

Decoursey-vein ore body

A mineralized zone about 300 feet long, including the Decoursey vein, is situated in the northern part of the Last Chance No. 1 claim (see fig. 2). The part of the mineralized zone that contains the ore body is about midway up the southern slope of a hill about 1/3 mile northwest of the retort furnace (see fig. 4).

The Decoursey vein and some associated veinlets have been exposed discontinuously for a horizontal distance of about 320 feet. One large bulldozer cut has exposed the mineralized zone for 140 feet. Three vulldozer trenches have further exposed the zone at a point 80 feet north of the large cut and at two points 30 and 60 feet south. A number of other bulldozer trenches farther south were not completed to bedrock because the frozen ground, when stripped of its vegetal cover, thawed to form a mire impassable by the tractor. Bulldozer trenches made in 1944 are reported to have uncovered additional exposures of cinnabar in the mineralized zone.

The sedimentary rocks in the vicinity of the Decoursey vein strike routhly N. 20° E. and dip about 55° west (see fig. 5-B). A large, irregular,

intrusive body of hydrothermally altered hyperathene diabase porphyry contains most of the vein. The vein lies in a brecciated zone in the diabase that strikes northeasterly and dips east in some places and west in others and extends into the sediments beyond the diabase as a fracture dipping across the bedding. North of the diabase the mineralized fracture dips steeply east. To the south it dips steeply west. Abrupt irregularities in width and shape of the vein are common in the diabase where they reflect the blocky nature of the brecciated diabase and give the appearance of post-mineral offsets although neither gouge nor brecciated ore were found to substantiate faulting. One cross fracture contained an unbroken continuation of the ore.

Quicksilver metallization has been confined chiefly, to the brecciated zone in the diabase. The accompanying illustrations (fig.'s 5-B and 6-B) show the extent of the ore body and the tenor of the ore.

The ore is a dark red, coarse, crystalline cinnabar, with minor quantities of stibnite, in a coarse siliceous gangue. Numerous bugs are scattered through the ore. The vein breads moderately well from both hanging wall and footwall.

Tunnel-vein ore body

A mineralized zone about 250 feet long known as the Tunnel vein lies in the west central part of the Last Chance No. 3 claim (see fig. 2). The part of the mineralized zone that contains the ore body is about 1/2 mile northwest of the retort (see fig. 4).

One bulldozer trench crosses the northernmost extension of the mineralized zone. Forty feet to the south the zone is exposed continuously for 200 feet by two large bulldozer cuts and an old adit, known as the Brush tunnel, now partly caved. In 1943 a drift adit 180 feet long was driven for 115 feet along the ore body. In 1944 the adit was reported to have been driven farther along the vein and additional overhand stopes opened.

The graywacke and shale are intruded by sill-like bodies of hydrothermally altered hyperathene diabase porphyry generally less than 10 feet wide (see figs. 5-B and 5-C). The strata strike about N. 10° E. and dip 75° west. A discontinuous fissure containing the Tunnel vein strikes about N. 10° E. and dips in general about 65° east across the strata. The fissure seems to be formed by a persistent shaly zone. Its continuity is broken by barren fractures which cross the vein but strata of interbedded shale and graywacke on either side of the cross fractures are not offset with respect to each other. The strikes of the north and of the Tunnel vein and south ends of the Retort veins are roughly parallel at the surface and the veins dip toward each other suggesting the possibility of ore concentrations at depth.

The accompanying illustrations (fig.'s 5-B, 5-C, 6, and 7) show the

The ore body at the Retort veins is 113 feet long, averages 3.7 feet wide and is exposed through a vertical range of 27 feet (see fig. 6-A). The ore contains 27.0 pounds of quicksilver a ton according to analyses by the Bureau of Mines. The Top-vein ore body is 72 feet long, averages 8.2 feet wide, and is exposed through a vertical range of 8.0 feet (see fig. 6-A). The ore, from Bureau of Mines data, contains 27.3 pounds of quicksilver a ton. Picked ore, mined from a rich pocket about 50 feet long in the area between the Top and Retort veins, was estimated from ore selvages to have contained about 100 pounds of quicksilver a ton over a vein width of 0.8 foot.

Reserves of reasonably assured, indicated, and inferred quicksilver ore are sufficient for rather steady operation of a 30-ton rotary furnace over a period of about 3 years. Quicksilver valued at $900,000 would be produced if a price of $1 a pound prevailed. At a price of $2.50 a pound such a furnace could be operated for about 10 years producing quicksilver valued at $3,750,000.

RECOMMENDATIONS

It is likely that other mineralized zones comparable to those thus far disclosed, or extensions of zones already known, may be found by further prospecting. The thick mantle of loose overburden south of the upper vein system sould be removed to trace a possible southward extension of the ore bodies.

Geologic conditions similar to those at the DeCourcy Mountain deposits indicate the possible excistence of lode deposits at other places within this general area. The geology of the DeCourcy Mountain area is comparable to that at Sleitmut, about 45 miles southeast, and Cinnabar Creek, about 85 miles south of the DeCourcy Mountain area and both areas of major quicksilver reserves. These widely separated deposits in the Central Kuskokwim region, were discovered as a result of a relatively small amount of prospecting directed specifically in search of quicksilver. This also suggests that the region contains other comparable deposits yet to be found. Furthermore, prospecting for placer-gold deposits in this large area has revealed the presence of cinnabar at a number of places in unconsolidated deposits.

Duplicating Service, Department of Interior, Washington 25, D. C.

amount of ore mined through 1943, the estimated extent of the remaining ore body, and the tenor of the ore.

The ore is composed of a dark red, coarse, crystalline cinnabar with varying quantities of stibnite in a dense siliceous gangue. The vein breaks away from both walls moderately well.

Ore bodies of the Top-vein and Retort-veins

A mineralized zone about 300 feet long lies in the central part of the Last Chance No. 3 claim (see fig. 2). The northern 100 feet of this zone is known as the Top-vein and the southern 200 feet as the Retort veins. The ore bodies are near the top of a hill about 1/2 mile north and a little west of the retort (see fig. 4). The mineralized zone has been exposed by surface stripping with a bulldozer for a horizontal length of 300 feet.

Irregular sill-like bodies ofhydrothermally altered hyperathene diabase porphyry intrude graywacke, shale and shaly graywacke, striking about N. 30° E. and dips about 80° west at a slight angle to the bedding. The bedding-plane joints are in shale interbedded with massive graywacke. The fracture extends from a body of diabase into the adjacent sediments. Its continuity is broken at a barren cross fracture with apparent offset, but, inasmuch as the latter break does not offset the igneous contact which it also crosses, it is unlikely that post-mineral faulting has taken place.

The Top-vein ore body includes the main fracture, a number of mineralized bedding plane-joints est of the main vein and some smaller fracture-fillings in the diabase. The body of ore, including the Retort veins, comprises a zone of cinnabar-filled, bedding-plane joints. The accompanying illustrations (figs. 5-B and 6-A) show the extent of the ore bodies and the tenor of the ore. The mineralized zone, including the Top vein and the Retort veins, is probably continuous. At the surface, however, the continuity is obscured for a short distance at a place where ore was mined years ago.

The ore is dark red, coarse, crystaline cinnabar with varying quantities of stibnite in a coarse, siliceous gangue. Vugs are present in the ore of the Top vein.

RESERVES

A close approximation of the tonnage and grade of ore thus far found at the deposits near DeCourcy Mountain may be made from exposures at the property and from analytical data based on numerous channel samples out by the Bureau of Mines.

Reasonably assured ore is here defined to include the "backs" of workable ore between underground openings and surface exposures. Indicated ore

is determined by multiplying the exposed width and length by the average known height, in most instances one-half the exposed vertical dimension. Inferred ore includes blocks of ore assumed on geologic evidence to extend to a depth 1/2 the strike length beneath reasonably assured or indicated ore and also includes other ore upon which specific data are conjectural, but the existence of which is suggested by geologic conditions. The dimensions of the ore bodies are shown in figure 6. They are calculated on two bases; one on an assumed cutoff grade of approximately 25 pounds of quicksilver a ton and the other on an assumed cutoff grade of about 10 pounds a ton. A summary of the probable dimensions on each of these bases is shown in table 1 and table 2 respectively. Although quicksilver values may not be distributed throughout, a width of at least 3.0 feet is used in calculating tonnages, this being considered the approximate minimum stoping width.

In the following paragraphs are detailed the calculations used to obtain the reserve figures shown in table 1 for reasonably assured and indicated ore of an assumed cutoff grade of 25 pounds a ton. The other figures in the tables were obtained by similar calculations.

The A-vein ore body is 105 feet long, averages 3.1 feet wide, and is exposed through a vertical range of 23 feet (see fig. 6-c). The grade, based on analyses by the Bureau of Mines, is 24.4 pounds of quicksilver a ton. Float ore near the second road out south of the A-vein (see fig. 4) suggests a quicksilver content of 60 pounds a ton over a vein width of 0.3 foot.

The Decoursey-vein ore body is 98 feet long, averages 6.1 feet wide, and is exposed over a vertical range of 20 feet (see fig. 6-V). According to Bureau of Mines analyses the ore contains 29.1 pounds of quicksilver a ton.

The Tunnel vein, shown by samples to contain most of the quicksilver in the ore body, is 184 feet long, averages 3.2 feet wide, and is known through a vertical range of 71 feet. The ore, according to Bureau of Mines samples, contains approximately 50 pounds of quicksilver a ton. Parts of the ore body exposed within 30 feet of the present face of the new adit contain abundant stibnite and lesser amounts of cinnabar. The cinnabar-stibnite ratio of the ore there appears on inspection to be about 2:3.

For purposes of estimating tonnage the ore body has been divided into four blocks (see figs. 6-A and 7). All grade figures below are from analyses by the Bureau of Mines. Block A is 65 feet long, and averages 3.0 feet wide and 20 feet high. The ore contains 53.1 pounds of quicksilver a ton. Block B is 35 feet long, and averages 3.0 feet wide and 51.0 feet high. The ore contains 31.9 pounds of quicksilver a ton. Block C is 63 feet long and averages 3.7 feet wide and 66.0 feet high. The ore contains 41.6 pounds of quicksilver a ton. Block D is 184 feet long, averages 3.2 feet wide, but has not been exposed vertically. The ore contains 51.0 pounds of quicksilver a ton.

Table 1
SUMMARY OF RESERVES
(Cutoff grade approximately 25 pounds of quicksilver a ton)

	A-vein body	Decoursey-vein body	Tunnel-vein body				Body at the Retort veins	1/	Top-vein body	Total
			Block A	Block B	Block C	Block D				
Pounds of quicksilver a ton 2/	24.4	29.1	53.1	31.9	41.6	51.0	27.0	25	27.3	
Length of ore body in feet	105	98	65	35	63	184	113	250	72	
Average width of ore body	3.1	6.1	3.0	3.0	3.7	3.2	3.7	5.5	8.2	
Average known height of ore body	11.5	10.0	20.0	51.0	66.0		13.5		4.0	
Tons of reasonably assured ore 3/			320	450						770
Tons of indicated ore 3/	310	490			1280		470		200	2750
Tons of inferred ore 3/	1400	2400				4500	2000	14000	1800	26100
Flasks of quicksilver from reasonably assured and indicated ore	100	190	220	190	700		170		70	1640
Flasks of silver from inferred ore	450	920				3020	710	4600	650	10350
Number of analyses available for estimating grade of ore body	19	17	13	11	18	46	13		22	

1/ Additional inferred ore is believed to exist beneath the inferred ore of the Top vein and Retort veins and also beneath the surface in the interval separating the south end of the Top-vein body from the north end of the body at the Retort veins. This body of inferred ore extends from the north end of the Top-vein ore body to the south end of the ore body at the Retort veins. It is 250 feet long (see fig. 6-A) and averages 5.5 feet wide (determined by weighting the average widths of the ore bodies of the Top vein and Retort veins). Although the upper part of the latter block would be reduced by the amount of the inferred ore separately delimited at the Top and Retort veins, the intervening portion of the block, which extends to the surface, about balances such a reduction and the total volume of inferred ore for the whole block is roughly a body 250 feet by 5.5 feet by 125 feet. The ore is estimated to contain at least 25 pounds of quicksilver a ton.

2/ Quicksilver content based on analyses by Bureau of Mines.

3/ 12 cubic feet of ore a ton.

TABLE 2

SUMMARY OF RESERVE

(Cutoff grade approximately 10 pounds of quicksilver a ton)

	A-Vein body	DeCoursey-vein body	Tunnel-vein body				Body at the Retort veins 1/		Top-vein body	Total
			Block A	Block B	Block C	Block D				
Pounds of quicksilver a ton 2/	17.0	18.2	53.1	31.9	41.6	51.0	11.1	10	18.7	
Length of ore body in feet	125	315	65	35	63	184	148	310	100	
Average width of ore body	4.0	3.9	3.0	3.0	3.7	3.2	11.6	12.9	14.7	
Average known height of ore body	13.0	35.5	20.0	51.0	66.0		17.5		5.0	
Tons of reasonably assured ore 3/			320	450						770
Tons of indicated ore 3/	540	3630			1280		2500		610	8560
Tons of inferred ore 3/	2600	16100				4500	10600	52000	6100	91900
Flasks of quicksilver from reasonably assured and indicated ore	120	870	220	190	700		360		150	2610
Flasks of quicksilver from inferred ore	580	3850				3020	1550	6800	1500	17300
Number of analyses available for estimating grade of ore body	25	25	13	11	18	46	33		41	

1/ See note 1, table.

2/Quicksilver content based on analyses by Bureau of Mines.

3/12 cubic feet of ore a ton.

98775

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP

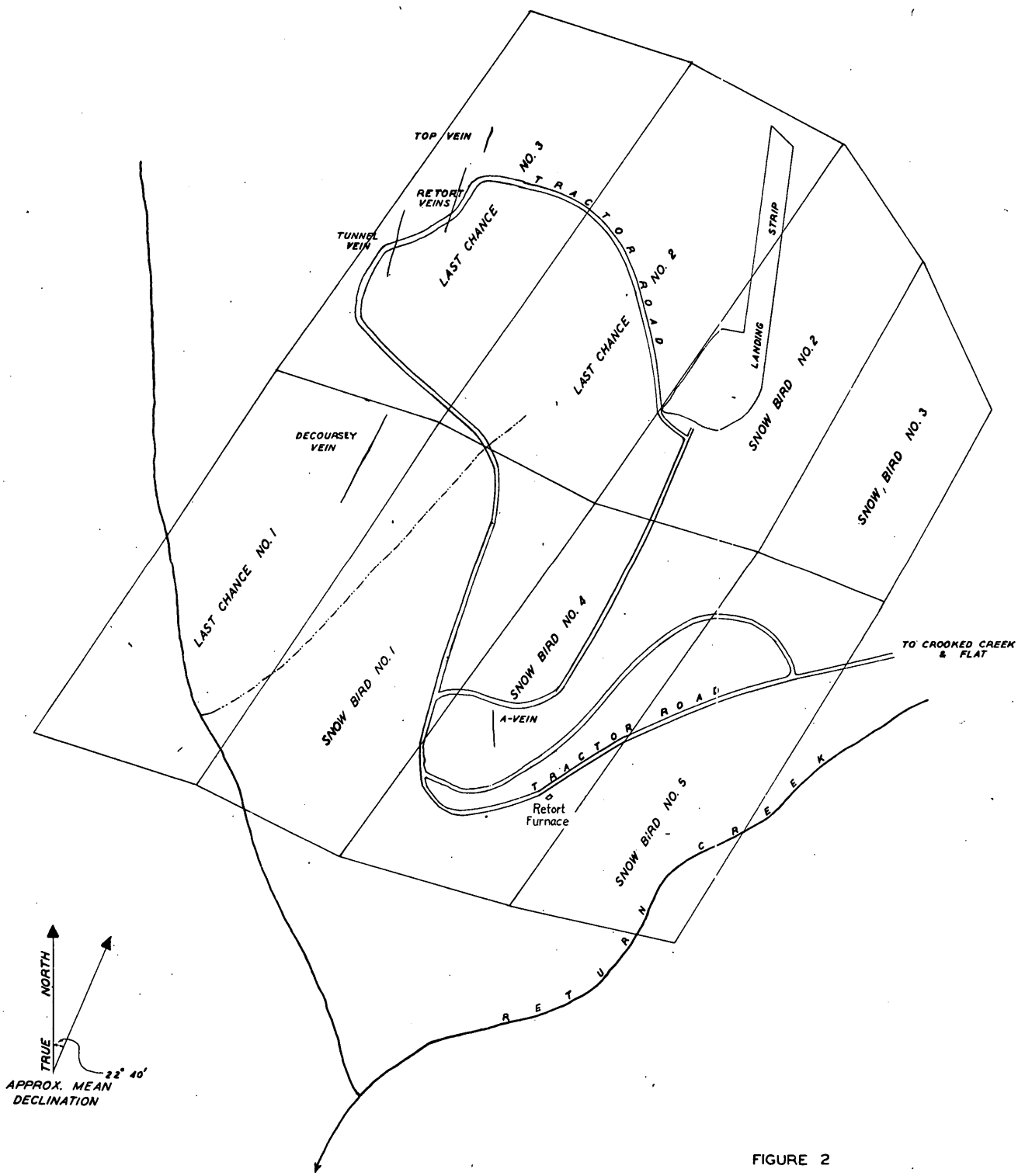


FIGURE 2

MAP SHOWING LODE MINING CLAIMS
DECOURCY MOUNTAIN AREA
QUICKSILVER DEPOSITS
IDITAROD DISTRICT, SOUTHWESTERN ALASKA

SCALE IN FEET

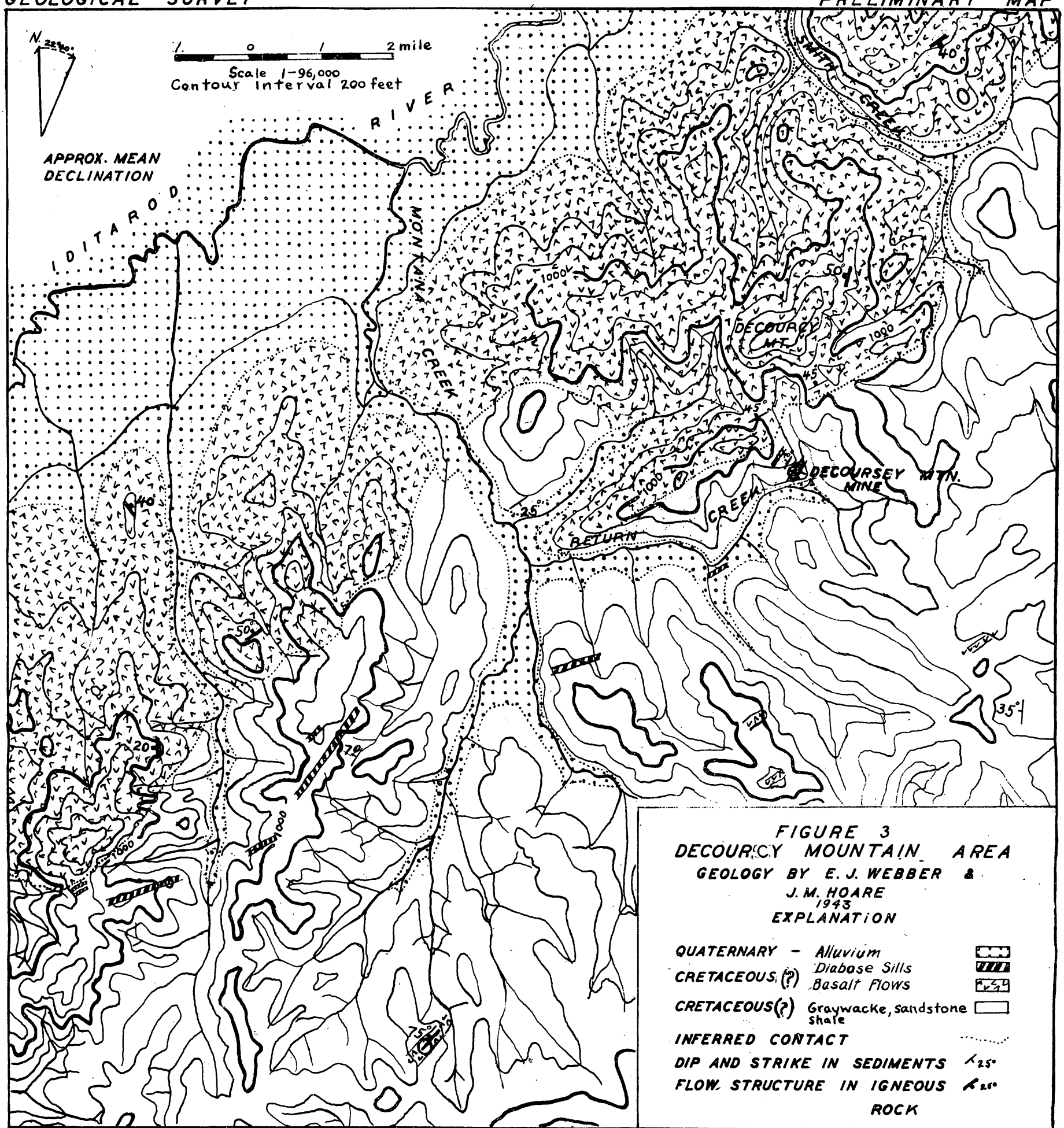
250 0 250 500 750 1000

E.J. WEBBER & J.M. HOARE
OCT. 1943

107268

US DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP



TOPOGRAPHY AND DRAINAGE COMPILED FROM AERIAL PHOTOGRAPHS

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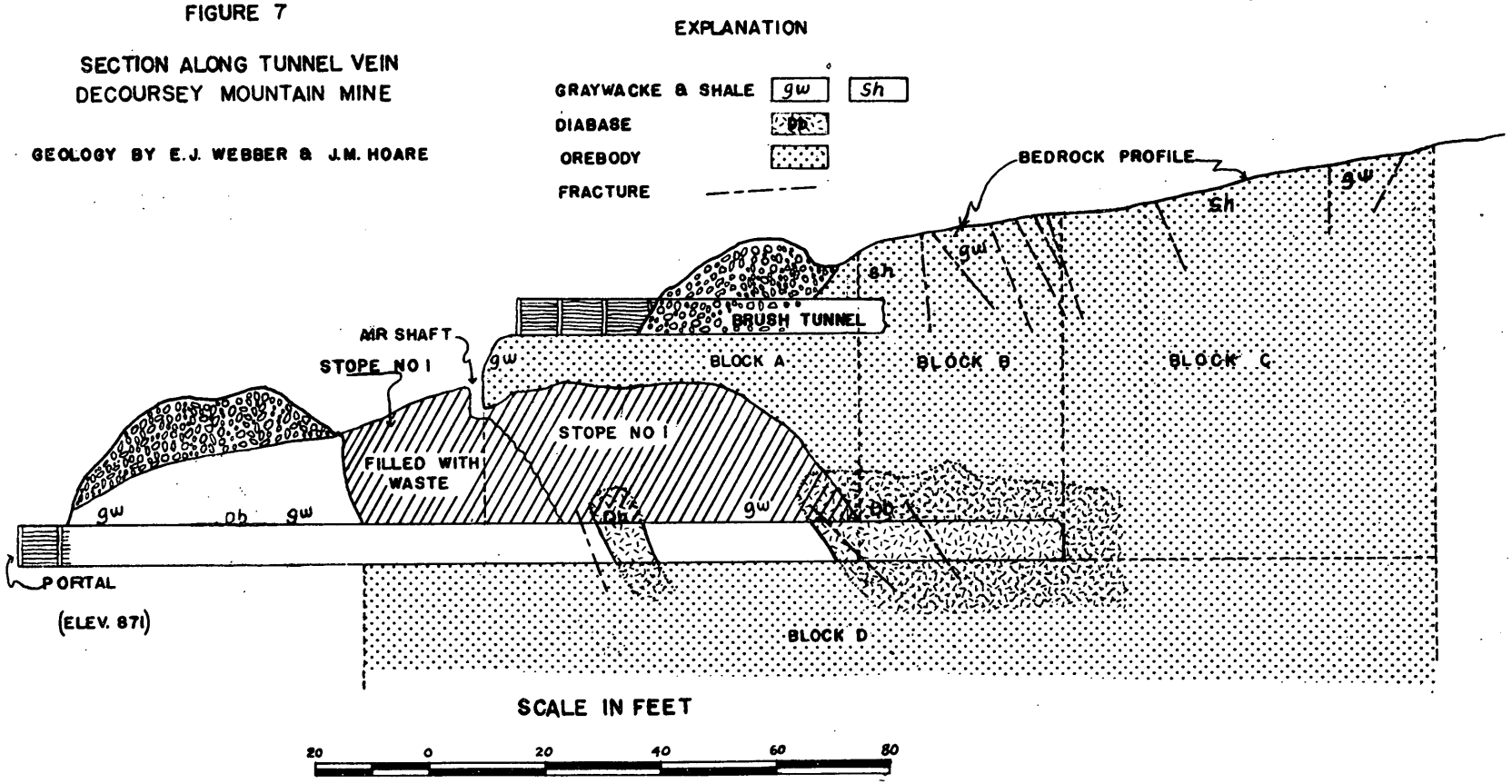
GEOLOGICAL SURVEY

FIGURE 7

SECTION ALONG TUNNEL VEIN
DECOURSEY MOUNTAIN MINE

GEOLOGY BY E.J. WEBBER & J.M. HOARE



OCTOBER 21, 1952

RECEIVED 10/20/52, MEMORANDUM OF 10/15/52 to OPERATING COMMITTEE FROM S. H. LORAIN, ENCLOSING ORIGINAL AND 3 COPIES, WITH MAP, OF A REQUEST FOR AMENDMENT OF THE APPLICATION SUBMITTED BY THIS COMPANY IN NOVEMBER, 1951 FOR EXPLORATION OF THE DeCOURSEY MOUNTAIN MERCURY MINE. APPLICATION SUBMITTED IN NOVEMBER 1951, DOCKETED AS DMEA-2276. THIS APPLICATION WAS DENIED ON 3/6/52.

PER MR. ADAMS - MATERIAL RECEIVED 10/10/52, TO BE DOCKETED UNDER NEW NUMBER, DMEA-2742. THE MATERIAL IN DOCKET DMEA-2276 TRANSFERRED TO DMEA-2742.

McCURSEY MOUNTAIN MINES COMPANY, INC.

Anchorage, Alaska

BALANCE SHEET

November 30, 1951 (1)

ASSETS

	Replacement Value (2)	Cost	
Current Assets			
Cash			$ 234.09
Fixed Assets			
McCursey Mountain mining property (8 lode claims) subject to contract in escrow per contra		$ 70,000.00	
Lode mining equipment and Miscellaneous machinery and equipment	$ 21,000.00	4,300.00	
Placer mining equipment	22,000.00	4,500.00	
Ore processing equipment	33,500.00	6,900.00	
2 electric diesel power plants	10,500.00	2,100.00	
3 buildings and 3 houses (furnished)	35,000.00	7,200.00	
	$122,000.00	95,000.00	95,000.00
Mining Leases			
Lease contract on eight placer claims			1.00
Other Assets			
Promotional expense in connection with incorporation and contracts (3)		4,000.00	
Organization expense - other		500.00	4,500.00
Contingent Assets			
Commitments for cash loans qualified as to approval of $263,000.00 Government loan under Defense Production Act of 1950	$ 10,000.00		
TOTAL ASSETS			$ 99,735.09

LIABILITIES AND NET WORTH

Current Liabilities			
Contracts payable (escrow) due within one year		$ 6,222.22	
Loans payable to Director and Officer		1,000.00	
Accounts payable - other		149.10	$ 7,371.32
Contracts Payable			
Balance of escrow payments on purchase contract of mining property		56,001.00	
Less: Current portion per above		6,222.22	49,778.78
Contingent Liabilities			
Loan commitments, see Contra	$ 10,000.00		
Total Liabilities			$ 57,150.10
Net Worth			
Capital Stock, common, $1.00 par, authorized 300,00 shares			
Issued and outstanding, 75,010 shares at par value		75,010.00	
Less: Discount on capital stock, 72,000 shares		32,000.00	43,010.00
Deficit			42,000.00
TOTAL LIABILITIES AND NET WORTH			$ 99,735.09

(1) Prepared without audit, giving effect to transactions of incorporation and initial financing.
(2) Estimated replacement value less depreciation.
(3) Miscellaneous services acquired against issue of 4,000 shares of common stock at $.50 per share.

DE COURSEY MOUNTAIN MINING COMPANY, INC.

Anchorage, Alaska

BALANCE SHEET

November 30, 1951 (1)

ASSETS

	Replacement Value (2)	Cost	
Current Assets			
Cash			$ 234.09
Fixed Assets			
De Coursey Mountain mining property (8 lode claims) subject to contract in escrow per contra		$ 70,000.00	
Lode mining equipment and Miscellaneous machinery and equipment	$ 21,000.00	4,300.00	
Placer mining equipment	22,000.00	4,500.00	
Ore processing equipment	33,500.00	6,900.00	
2 electric diesel power plants	10,500.00	2,100.00	
3 buildings and 3 houses (furnished)	35,000.00	7,200.00	
	$122,000.00	95,000.00	95,000.00
Mining Lease			
Lease contract on eight placer claims			1.00
Other Assets			
Promotional expense in connection with incorporation and contracts (3)		4,000.00	
Organization expense - other		560.00	4,560.00
Contingent Assets			
Commitments for cash loans qualified as to approval of $245,000.00 Government loan under Defense Production Act of 1950	$ 10,000.00		
TOTAL ASSETS			$ 99,795.09

LIABILITIES AND NET WORTH

Current Liabilities			
Contracts payable (escrow) due within one year		$ 6,222.22	
Loans payable to Director and Officer		1,000.00	
Accounts payable - other		149.10	$ 7,371.32
Contracts Payable			
Balance of escrow payments on purchase contract of mining property		56,001.00	
Less: Current portion per above		6,222.22	49,778.78
Contingent Liabilities			
Loan commitments, see Contra	$ 10,000.00		
Total Liabilities			$ 57,150.10
Net Worth			
Capital Stock, common, $1.00 par, authorized 300,00 shares			
Issued and outstanding, 79,010 shares at par value		79,010.00	
Less: Discount on capital stock, 72,000 shares		36,000.00	43,010.00
Deficit			365.01
			42,644.99
TOTAL LIABILITIES AND NET WORTH			$ 99,795.09

(1) Prepared without audit, giving effect to transactions of incorporation and initial financing.
(2) Estimated replacement value less depreciation.
(3) Miscellaneous services acquired against issue of 8,000 shares of common stock at $.50 per share.

Table 1

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

Station	January Temp.	January Departure	February Temp.	February Departure	March Temp.	March Departure	April Temp.	April Departure	May Temp.	May Departure	June Temp.	June Departure	July Temp.	July Departure	August Temp.	August Departure	September Temp.	September Departure	October Temp.	October Departure	November Temp.	November Departure	December Temp.	December Departure	Annual Temp.	Annual Departure
SOUTHERN DIVISION																										
SOUTHEASTERN DISTRICT																										
ANGOON	18.0	-10.9	27.4	- 0.8	36.3	3.0	38.1	- 0.9	44.4	- 1.7	53.7	2.3	53.6	- 1.2	55.3	1.0	50.9	2.7	41.6	- 0.2	27.0	- 7.3	32.9	2.4	39.9	- 1.0
ANNETTE WB	19.1	-16.7	35.4	- 0.8	37.9	- 1.4	40.6	- 2.1	45.0	- 5.4	56.6	2.0	55.5	- 2.1	57.8	- 0.6	54.3	0.4	44.1	- 2.9	33.8	- 6.8	39.3	3.9	43.3	- 2.7
ANNEX CREEK	9.7	-14.5	20.3	- 5.7	34.9	2.7	37.2	- 2.6	46.3	- 1.1	61.1	7.6	59.3	- 4.5	M		47.2	- 1.9	38.4	- 3.3	22.0	-10.5	22.9	- 2.0	-	-
BARANOF	16.1	-15.0	28.8	- 0.9	33.7	1.1	35.6	3.6	41.5	- 4.1	52.1	0.2	52.6	- 1.9	54.7	0.6	50.3	- 0.1	40.9	- 2.7	27.7	- 8.7	31.5	- 0.2	38.8	- 3.2
BEAVER FALLS	17.4		34.6		37.2		39.6		44.7		57.5		55.7		58.3		54.0		42.6		31.4		35.7		42.4	
CAPE DECISION	19.6	-17.1			32.1	- 5.8	34.0	- 7.5	38.1	- 8.6	M		M		M		M				32.6	- 8.7	38.9	0.9	-	-
CAPE SPENCER	25.9	- 8.2	29.3	- 3.1	36.3	- 0.1	38.3	- 2.3	43.3	- 2.3	48.6	- 0.7	51.7	- 0.8	53.7	1.1	49.7	- 0.7	43.3	- 1.6	31.1	- 7.2	35.6	1.9	40.6	- 2.0
CRAIG	20.5	-15.6	34.8	- 0.1	38.1	- 0.2	40.3	- 2.1	45.8	- 2.4	54.3	1.7	55.6	- 0.3	58.7M	2.4	53.2	- 0.5	M		M		38.0	2.5	-	-
ELDERED ROCK	23.9M		32.5	- 6.4	34.7	- 0.1	37.8	- 2.2	44.6	- 3.9	56.0	0.2	56.0	- 0.6	M		M		M		26.9	- 8.7	31.9	3.9	-	-
FIVE FINGER LIGHT	25.3	-11.8	31.0	- 3.1	37.7	0.1	39.8	- 0.9	44.1	- 3.2	53.9	1.2	52.8	- 1.9	55.4	0.9	50.6	0.0	43.4	- 1.9	32.1	- 7.4			-	-
GUARD ISLAND	23.4	-13.4	35.8	0.1	38.4	- 1.3	41.3	- 1.7	45.7	- 4.9	56.6	1.1	57.1	- 1.3	58.7	0.1	53.6	1.6	44.6	- 3.0	34.7	- 6.5	38.3	2.2	44.0	- 2.3
GULL COVE	21.0	-10.5	27.4	- 4.3	33.9	- 1.1	37.1	- 2.5	42.6	- 4.1	51.5	- 0.3	52.5	- 1.3	53.7	0.1	47.9	- 1.9	40.0	- 3.0	28.1	- 7.3	31.8	0.9	39.0	- 2.9
GUSTAVUS CAA	10.8	-18.8	25.0	- 3.4	33.2	- 0.7	38.1	- 1.4	44.4	- 2.5	54.1	1.9	54.8	- 0.3	55.9	2.2	50.2	0.3	39.4	- 3.6	23.8	-11.0	28.9	- 0.5	38.2	- 3.2
HAINES CAA	16.9	- 7.3			32.3	0.5	36.6	- 2.9	46.0	- 2.6	57.8	2.6	56.3	- 1.1	58.1	2.2	50.9	0.7	38.7	- 2.8	22.2	- 9.3	27.1	2.3	M	-
HOLLIS									44.8M		56.0		55.3M		59.8M		52.6M								-	
JUNEAU	18.0	- 9.8	25.3	- 4.8	35.2	1.4	38.0	- 2.8	44.9	- 2.8	57.9	3.7	55.6	- 1.1	57.4	2.0	51.0	0.6	41.5	- 1.8	26.1	- 9.6	32.5	1.6	40.3	- 1.9
JUNEAU WB AP	7.9	-17.3	23.4	- 4.1	32.7	0.1	37.4	- 2.8	44.8	- 2.0	56.2	3.2	54.4	- 1.1	55.9	3.1	49.6	1.0	38.9	- 2.4	22.3	- 9.7	29.3	1.2	37.7	- 2.6
KETCHIKAN	20.8	-12.8	37.3	2.1	40.1	- 1.3	42.3	- 0.3	47.0	- 1.6	58.5	3.8	56.8	- 0.9	59.0	0.6	55.6	- 1.4	45.8	- 1.9	35.0	- 5.2	39.5	4.2	44.8	- 0.6
LINCOLN ROCK	22.0	-13.6	34.6	- 0.6	37.5	- 0.4	40.3	- 1.9	44.1	- 5.4	53.7	- 0.4	54.4	- 1.9	59.3	2.1	53.2	- 0.2	44.0	- 2.9	33.3	- 8.9	38.0	1.2	42.9	- 2.7
LITTLE PORT WALTER	24.1	-10.4	31.2	- 1.8	35.7	- 0.6	36.7	- 3.4	42.1M		51.0	- 0.7	52.6	- 2.3	55.0	0.2	50.1	- 1.2	42.1	- 3.6	30.8	- 8.2	35.3	0.8	40.5	- 3.0
MILE 28 HAINES HIGHWAY	3.0		9.6		25.3		32.3		42.8		54.1		54.5		56.1		48.1		34.1		16.1		16.6		32.8	
PETERSBURG CAA	10.5	-19.7	31.4	1.0	35.0	0.2	38.3	- 2.8	44.2	- 4.0	55.1	1.3	54.2	- 1.3	55.9	1.0	50.1	0.2	40.7	- 3.6	26.7	- 9.8	33.3	1.9	39.6	- 3.0
POINT RETREAT																					28.2M		33.1M		-	
PORT ALEXANDER	24.9		31.7		36.6		38.2		44.4		54.3		54.6		56.5		51.4		43.5		31.9		36.3		42.0	
RADIOVILLE	25.6	-10.2	30.8	- 3.4	37.5	- 1.5	39.5	- 0.6	45.2	- 3.5	52.3	- 0.8	56.9	0.7	58.6M	1.8	53.4	- 0.2	43.9	- 3.0					-	-
SITKA JAPONSKI CAA	24.2	-12.9	34.2		37.9		39.7		44.7		54.8		53.9		57.8		52.6		44.6		32.2	- 8.3	38.0		42.9	-
SITKA MAGNETIC	18.4	-14.4	32.2	- 2.1	35.7	- 1.0	38.2	- 3.1	42.9	- 3.9	52.3	0.6	52.5	- 2.4	55.7	- 0.1	50.7	- 1.3	42.6	- 3.4	29.6	- 9.3	34.7	- 0.3	40.5	- 3.4
SKAGWAY	M		M		M																				-	
SMEATON BAY	14.0		32.8		35.7		38.8		43.9M		56.9		56.6		57.8M		53.1	3.1							-	
TENAKEE	19.4	-12.7	28.2	- 3.9	35.1	0.3	38.1	- 2.2	44.6	- 3.7	57.1	3.8	56.3	0.7	58.4	2.5	51.8	- 0.2	41.8	- 1.8	26.4	- 8.7	32.3	2.4	40.8	- 2.0
TREE POINT	19.9	-16.1	35.5	- 0.3	39.0	- 0.5	40.6	- 3.8	45.3	- 4.2	54.5	0.5	55.8	- 0.8	56.8	- 0.7	53.0	- 0.4	44.0	- 3.8	34.0	- 7.7	39.4	2.3	43.2	- 2.9
WRANGELL	14.9	-15.3	31.2	- 0.5	37.3	1.5	40.8	- 1.8	46.1	- 3.2	57.8	2.5	56.1	- 1.5	58.1	1.3	52.4	0.5	42.3	- 2.6	28.5M	- 9.2	34.6	3.3	41.7	- 2.1
PACIFIC COAST																										
CAPE HINCHINBROOK	31.6	0.0	28.0	- 3.3	35.0	2.1	37.4	- 0.3	42.3	- 1.4	50.7	- 0.3	53.8	- 1.3	57.0	- 1.6	49.6	- 1.0	43.3	- 0.2	31.7	- 4.7	34.2	- 2.6	41.2	- 0.5
CAPE ST ELIAS	30.0	- 4.1	28.5	- 5.0	35.4	- 0.5	37.4	- 2.4	41.7	- 3.9	49.1	- 2.1	54.0	- 1.4	56.1	0.5	51.0	- 1.2	44.5	0.8	32.5	- 5.7	36.1	2.5	41.4	- 2.0
CORDOVA WB	14.3	-11.5	20.1	- 5.7	31.3	1.1	34.6	- 0.6	41.6	- 2.0	50.3	- 0.2	52.1	- 0.9	53.8	1.7	47.0	- 0.9	38.5	- 2.0	21.2	- 9.2	27.0	3.1	36.0	- 2.2
HOMER CAA	20.1	- 3.7	16.0	-11.6	32.8	4.0	34.9	- 1.2	40.2	- 2.6	47.2	- 2.3	50.6	2.5	52.8	0.1	47.2	0.3	36.2	- 2.7	20.7	- 8.0	20.4	- 3.0	34.9	- 2.8
KENAI CAA	4.0	- 7.9	8.6	- 9.4	27.3	3.8	34.5	2.2	42.7	- 0.6	48.3	- 1.2	52.6	- 1.1	54.7	1.5	47.6	1.4	34.0	- 0.6	13.4	- 8.3	11.0	- 2.3	31.5	- 1.9
KODIAK	34.7	4.6	24.7	- 7.3	34.6	1.3	35.9	- 1.0	40.7	- 2.3	47.6	- 2.2	51.6	2.6	55.2	0.5	48.1	- 1.9	40.1	- 2.1	31.3	- 3.8	30.8	- 0.1	39.6	- 1.4
LATOUCHE	27.1	- 3.4	26.8	- 5.5	33.8	0.7	35.2	- 2.1	40.2	- 3.5	49.2	- 1.7	54.0	- 1.2	56.7	1.7	48.9	- 1.3	41.2	- 1.5	31.3	- 4.2	32.3	- 1.0	39.7	- 3.8
MIDDLETON ISLAND CAA	33.5	- 0.6	30.1	- 3.9	35.8	1.2	37.8	0.0	41.4	- 1.4	46.0	- 3.3	51.3	- 1.0	54.4	0.6	50.2	- 0.2	44.5	0.2	34.7	- 4.1	36.7	2.5	41.3	- 0.8
NORTH DUTCH ISLAND CAA	30.8	0.4	27.4	- 3.2	35.4	3.1	36.7	0.1	42.2	- 1.4	50.7	- 0.9	55.4	- 0.1	57.5	2.9	49.8	0.6	41.6	- 0.1	30.1	- 5.3	32.3	1.3	40.8	- 0.2
SEWARD	25.6	2.2	19.8	- 7.8	34.5	3.6	37.2	- 0.4	43.0	- 1.6	50.9	- 0.3	54.7	- 0.6	57.9	3.4	48.7	- 0.3	39.3	- 1.0	24.5	- 6.6	24.4	- 0.5	38.4	- 0.8
VALDEZ	17.5	- 1.8	15.5	- 6.1	29.2	3.3	35.9	1.8	43.1	0.4	50.9	0.9	51.1	- 2.1	51.7	- 0.1	43.9	- 2.2	34.9	- 2.8	18.0	- 8.5	20.9	0.7	34.4	- 1.4
WHITTIER																			37.4M	- 1.9	25.2	- 3.9	26.7	1.1	-	-
YAKATAGA CAA	18.4	-11.7	26.6	- 3.0	33.2	0.9	36.3	0.2	41.1	- 2.2	49.2	- 0.1	52.5	- 0.8	53.7	1.6	48.4	0.1	40.8	- 0.9	26.4	- 8.3	32.1	2.3	38.2	- 1.9
YAKUTAT WB	12.4	-16.6	25.7	- 4.0	31.5	- 0.5	34.5	- 2.8	41.5	- 2.4	50.1	- 0.1	52.9	0.1	54.3	1.3	47.5	- 1.2	39.9	- 2.2	26.6	- 8.1	30.3	0.4	37.3	- 3.0
SOUTHWESTERN ISLANDS																										
ADAK	37.8	6.0	33.4	1.1	34.4	0.5	36.8	- 0.6	39.4	- 0.2			50.3	2.0	52.6	1.5	46.7	- 0.9	42.0	0.2	37.1	- 0.2	35.4	1.5	-	
ANCHITKA	36.1	5.0	33.5	1.6	32.8	- 0.3	35.5	- 0.6	37.6	- 0.9					M		45.0	- 1.1	41.6	0.3	M				-	
ATTU					31.1		34.0		38.2		44.8		50.0		51.7		47.4		41.9		37.6		34.6		-	
COLD BAY	34.3	7.3	24.2	- 3.9	33.1	5.5	33.0	- 0.0	38.3	- 1.1	44.1	- 1.3	49.9	0.4	52.7	1.2	47.0	0.1	40.4	0.8	33.1	- 0.5	27.0	- 0.9	38.1	
ST PAUL ISLAND WB	32.7	8.0	22.4	- 0.9	28.3	4.0	30.3	1.3	34.5	- 0.5	40.4	- 0.9	45.2	- 0.5	48.4	1.0	44.3	- 0.9	39.1	0.1	33.9	- 1.5	31.1	2.8	35.9	1.
SHEMYA	35.8	5.3	33.7	3.2	32.2	0.6	34.6	- 0.8	37.8	- 0.2	42.8	1.2	46.7	0.4	50.2	0.9	46.9	- 0.7	41.9	0.0	37.3	0.8	35.0	2.0	39.6	1.1
UNNAK	36.7	6.3	29.8	- 2.7	33.9		35.5		38.7		43.0				51.1		46.0		40.9		35.4M				-	
UNALASKA	37.4	5.6	28.8	- 2.0	35.3	1.5	36.0	- 0.2	39.6	- 1.2	44.2	- 2.0	50.4	- 1.0	56.4	3.4	46.6	- 2.1	41.0	- 1.2	35.8	- 0.7	34.4	1.1	40.6	0.1
DIVISION	22.7	- 6.7	26.8	- 3.7	33.5	1.0	36.8	1.2	42.3	- 2.4	50.8	0.1	53.2	- 0.9	55.5	1.3	49.2	- 0.3	40.7	- 1.7	28.4	- 6.3	30.9	1.3	39.2	- 1.6
NORTHERN DIVISION																										
SOUTHERN VALLEYS																										
ANCHORAGE WB AP	5.1	- 6.5	7.5	-11.1	27.5	3.8	35.2	- 0.2	45.1	- 0.1	53.1	- 0.4	56.7	- 0.3	58.0	2.4	48.8	1.0	33.2	- 2.8	12.0	-10.4	12.1	- 1.2	32.9	- 2.1
ANIAK CAA	7.8	9.3	- 9.4M	-17.9	21.2	0.1	28.7	0.4	40.3	- 1.5	49.7	- 4.0	56.4	0.8	54.9	3.1	45.2	0.5	30.0	- 1.1	11.6	- 2.5	3.0	- 2.1	28.3	0.0
BETHEL WB	13.1	6.2	- 3.7	- 9.2	21.0	9.7	26.1	- 0.8	38.2	- 1.9	48.7	- 4.0	56.3	1.8	56.1	3.8	46.3	1.1	34.0	2.5	17.5	0.7	8.9	1.9	30.2	0.6
CASWELL	- 3.4		1.3		25.4		34.2		46.6		55.5		58.3		58.0		M		29.6		5.4		5.0		-	
CHITINA															M		46.3		28.5		-10.2		0.7		-	
CROOKED CREEK	4.1	2.2	-10.4	-20.4	22.7	10.0	30.5M		43.0	0.1	52.2	- 2.1	59.4	2.2	58.2	4.7	46.9	2.3	31.4	1.7	9.4	0.6	0.5	0.1	28.9	0.0
EKLUTNA	- 3.4	-16.5	4.2	-14.6	28.7	3.3	36.7	0.8	46.9	- 1.0	55.2	- 1.2	58.2	0.8	58.6	2.9	48.5	0.1	32.2M	- 3.5	10.5	- 9.4	7.5	- 4.1	32.0	- 3.7
EKLUTNA LAKE	- 0.1		- 2.5M		24.8M		31.1M		42.4		51.1		53.1		55.0		44.3M		30.6M		6.0M		8.8M		28.7	
FARKWELL CAA	10.3	5.6	-18.5	- 23.4	20.4	11.5	27.7	3.5	40.1	0.2	50.2	- 0.6	55.8	0.8	54.9	5.2	43.2	2.1	24.5	- 1.2	4.1	- 2.6	- 1.0	- 4.4	26.0	- 0.3
GULKANA CAA	-13.2	- 9.5	-12.7	- 17.2	16.1	1.6	28.0	0.3	43.8	- 0.1	54.3	0.0	54.4	- 2.7	55.3	3.2	44.2	1.1	23.8	- 4.2	- 7.9	-13.2	- 2.7	0.5	23.6	- 3.4
ILIANNA CAA	15.0M	- 1.6	1.3	- 17.9	29.2	9.6	31.7	- 0.1	41.0	- 0.4	48.4	- 1.9	54.4	0.5	56.7	3.3	47.7	1.7	35.1	0.6	17.6	- 5.1	12.5	- 3.4	32.5	- 1.4
LAKE NINCHUMINA CAA			13.0	- 9.1	17.0	8.3	27.9	3.3	44.7	- 1.3	56.5	- 1.1	61.5	1.9	57.9	5.6	45.2	2.5	25.9	0.3	0.2	- 2.1	5.0	- 1.8	M	-
MATANUSKA VALLEY 2	- 1.4	-15.5	5.2	- 15.2	28.7	3.6	35.8	0.7	45.8	- 1.5	53.7	- 1.1	55.3	- 1.4	57.1	2.3	47.4	- 0.1	33.2M	- 2.6	10.0	- 9.9	8.7	- 2.6	31.6	- 3.6
MATANUSKA VALLEY 9	6.6	-10.4	11.8M	- 8.8	30.6	4.5	35.5	1.0	44.3	- 1.4	52.0	- 0.7	54.7	- 1.3	56.2	1.9			M		12.1M	-11.3	M		-	-
MATANUSKA VALLEY 12	6.5	- 9.6			31.8	6.1	36.6	1.0	46.4	- 0.9	54.6	0.1	56.4M	- 0.6	58.3	3.4	48.0	0.0	33.6	- 2.9	14.7	- 6.9	11.8	- 2.0	-	-
MATANUSKA VALLEY 14	3.8	- 9.6	9.2	- 9.5	29.7	5.2					53.7	- 1.5	57.1	0.4	58.2	2.9	48.2	0.7	33.3	- 3.1					-	-
MATANUSKA VALLEY 15											M		55.5	0.7	56.8	4.8	48.6M	2.4							-	-
MC GRATH WB	- 1.3	6.0	-18.0	- 21.2	15.9	8.5	28.9	4.1	44.0	0.8	54.2	- 1.8	60.9	2.4	57.2	4.3	46.2	2.3	28.0	0.5	3.6	0.4	- 5.4	2.4	26.2	0.7
MEIER											M		53.2		53.5		41.2								-	
NAPTOWNE																	M		32.4		8.9		8.7		-	
NYAC			2.8				29.8				49.5		57.5M		56.5		45.1		32.9		15.4				-	
PALMER	7.4		11.3		31.6		37.0		46.7		55.1		56.7		58.6		48.5		34.1		14.9		14.1		34.7	
PUNTILLA	11.3	7.1	- 3.6	-12.7	15.6	4.3	24.5	1.6	37.0	0.2	48.2	1.1	52.7	1.3	53.4	5.7	39.5	- 0.7	24.0	- 2.3	9.7	- 0.9	2.4	- 0.2	26.2	0.3
SHEEP MOUNTAIN CAA	11.2	3.3	- 2.0	-12.1	20.2	3.4	27.5	1.8	40.7	0.8	50.4	0.2	51.3	1.7	54.7	3.0	45.7M	3.3			6.4	- 7.9	9.2	2.0	-	
SEWENTNA CAA	3.7	-11.9	5.5	- 9.7	25.0	4.3	34.5	1.5	46.2	0.8	53.8	- 1.9	58.3	0.0	58.4	3.6	47.3	0.5	30.3	3.2	6.1	-10.2	8.8	1.5	30.9	- 2.0
STONY RIVER	1.3		5.0	-10.8	22.2	11.1	31.4		45.0		54.3		59.0	1.4	59.0	1.4	47.2		31.4		9.4		0.4		29.6	-
TALKEETNA CAA	1.1	-10.1	9.0	- 7.7	28.7	6.1	35.1	1.8	45.0	0.2	53.3	- 1.5	56.8	1.1	57.8	3.1	46.9	0.7	30.3	3.9	7.9	-11.7	11.1	1.5	31.6	- 1.9
WASILLA	0.3M	-11.9	13.9	- 4.0	31.3M	7.2	36.8M	2.4	45.8	- 0.5	53.2M	- 0.2	56.6	0.4	57.5	3.5	48.8	2.6	33.0	- 2.3	13.3	- 7.1	12.1M	0.8	33.6	- 0.7
BERING SEA																										
CANDLE			-12.5	- 7.2	4.8	4.8	18.3	8.4	29.5M	- 3.4	47.6M	0.5	58.1M	5.2	54.7	4.9	42.8	3.2	32.6M	9.0					-	-
GAMBELL WB AP	23.0	20.2	10.8	7.9	5.6	- 0.4	17.4	- 1.0	26.9	- 2.6	36.8	- 1.2	44.6	- 0.5	46.4	0.8	40.5	- 0.2	34.8	3.6	29.1	6.7	19.6	10.5	28.0	3.7
LAKE ALEKNAGIK					26.0M		M		M						M		M		M				12.2M		-	
MOSES POINT CAA	5.1	4.5	- 6.9	-10.9	11.3	7.9	21.0	4.2	34.3	0.1	46.8	- 1.3	57.4	3.2	55.3	5.8	45.6	4.2	32.4	4.5	18.9	7.2	5.5	4.7	27.2	2.8
MOSQUITO POINT									M		M		55.4M		56.5M		M								-	
NAKNEK	15.4	1.1	1.9	- 17.9	30.1	8.7	31.8	- 1.9	41.7	- 1.3	50.0	- 1.6	55.1	0.2	57.0	2.9	47.7	- 0.6	34.8	- 1.3	16.2	- 6.1	9.0	- 5.5	32.5	- 2.0
NOME WB AP	13.1	9.7	- 3.3	- 8.9	14.4	5.7	21.7	2.0	33.5	- 0.6	41.4	- 4.2	52.4	2.5	51.7	2.2	44.4	2.7	34.3	4.9	22.6	6.7	9.6	2.1	28.0	2.1
NUNIVAK	21.7	11.6	6.6	- 4.8	21.0	7.6	25.1	1.7	33.5	0.3	40.9	- 1.6	49.7	1.5	52.3	2.9	46.2	1.1	38.8	3.4	29.0	4.3	19.5	5.1	32.0	2.7
PLATINUM	22.1	7.0	4.3	- 13.7	27.3	10.6	29.3M	- 1.1	38.6	- 0.8	46.2	- 2.4	53.3	1.7	54.7	3.2	47.2	3.4	37.1	2.5	22.2	0.1	18.6	6.5	33.4	1.2
PORT HEIDEN CAA	27.4	4.5	10.5	- 14.4	32.3	6.6	31.4	1.3	37.7	- 1.8	44.2	- 3.2	51.4	0.4	53.2	1.1	46.9	- 1.2	38.2	0.5	25.1	- 4.6	22.5	- 2.8	35.1	- 1.2
TELLER	13.6	14.4	- 3.5	- 6.0	7.6	4.9	17.6	- 1.1	28.0	- 2.7	40.8	3.9	53.1	2.3	52.6	2.9	43.4	1.0	33.9	3.6	23.2M	7.4	9.4	5.8	26.7	2.4
UNALAKLEET CAA	12.1	6.6	- 9.6	- 18.0	16.3	8.5	24.9	2.8	34.3	- 2.7	45.6	- 3.2	56.6	1.9	54.9	4.1	45.0	1.8	30.7	1.6	15.2	3.3	6.0	3.9	27.7	0.9
WALES WB AP	17.4	18.9	0.1	- 0.7	0.3	3.0	14.8	3.7	24.4	- 2.5	36.9	- 1.9	48.2	- 2.1	49.0	3.1	41.8	1.3	34.4	4.1	25.3	7.4	11.2	9.2	25.3	4.1

See reference notes following Station Index.

Table 1—Continued

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

Station	January Temp.	January Departure	February Temp.	February Departure	March Temp.	March Departure	April Temp.	April Departure	May Temp.	May Departure	June Temp.	June Departure	July Temp.	July Departure	August Temp.	August Departure	September Temp.	September Departure	October Temp.	October Departure	November Temp.	November Departure	December Temp.	December Departure	Annual Temp.	Annual Departure
YUKON VALLEY																										
ALLAKAKET	- 9.1M	10.5	M		7.5M	9.7	20.4	2.4	42.5	1.2	55.3	1.1	61.1	4.7	55.5	3.9	41.9	2.0	23.8	3.3	M		M		-	-
BETTLES CAA	- 9.7	- 3.1	-18.8	-14.7	14.5	10.6	23.1	5.6	42.8	2.7	53.1	- 2.0	62.4	4.0	55.0	5.8	42.6	3.6	24.0	1.9	7.1	- 6.9	- 1.3	7.5	23.4	1.3
BIG DELTA CAA	- 0.7	2.2	-19.0	-25.4	18.6	6.0	27.8	- 0.8	46.3	- 0.5	59.2	2.8	60.0	1.0	57.4	3.8	47.3	3.9	24.4	- 3.5	- 3.8	- 9.8	- 0.6	4.0	26.4	- 1.4
BOUNDARY					16.0M		22.6		39.9		55.2M		54.0		50.8		41.0		19.4M		-10.4		- 3.9		-	
CENTRAL	- 4.8		-30.0		9.3		21.6		45.2		57.0		58.5		53.7		41.9		19.0		- 5.8		- 9.2		21.4	
CIRCLE HOT SPRINGS	0.5	13.8	-30.5	-21.5	11.3	6.2	24.4	0.7	46.2	0.6	58.0	0.0	60.1	- 0.6	55.9	2.1	43.2	1.9	20.1	- 3.6	- 2.8	- 1.3	- 7.1	7.1	23.3	0.5
COLLEGE MAG OBS	1.0		-18.2		20.4

Table 3

MISCELLANEOUS DATA

Station	Highest	Date	Lowest	Date	Freezing Temperature: Last date in spring	Freezing Temperature: First date in autumn	Length of growing season days	Total Annual Snowfall	Rivers and Harbors %: Date ice broke in spring	Rivers and Harbors %: Date closed in autumn	Rivers and Harbors %: Date safe for man	Number of days, Temperature: Max 70° or above	Max 32° or below	Min 32° or below	Min 0° or below
SOUTHEASTERN DISTRICT															
ANGOON	75	7- 9	0	1- 1	MAY 16	OCT 17	154	111.1	APR 15	- (1)	-	5	66	141	1
ANNETTE WB AP	83	6-17	2	1- 1	APR 22	OCT 28	189	43.1	*	*	*	20	40	88	0
ANNEX CREEK	84	6- 8	-10	1- 3	APR 25	SEP 28	156	118.8	*	*	*	38	103	173	16
BARANOF	72	6-17+	- 7	1-13	MAY 23	OCT 17	147	318.2	JUN 5	NOV 25 (2)	NOV 27	6	59	174	7
BEAVER FALLS	86	6-16	1	1-13+	APR 23	OCT 17	177	-	MAY 6	- (3)	-	25	42	131	0
CAPE DECISION	-	-	-	-	-	-	-	-	*	*	*	-	-	-	-
CAPE SPENCER	73	7- 9	11	1-19	APR 10	NOV 5	209	-	-	-	-	1	52	95	0
CRAIG	82	8-18	2	1- 1	APR 28	-	-	-	-	-	-	-	-	-	0
ELDRED ROCK	-	-	5	2- 7	APR 14	OCT 21	190	74.2	-	-	-	-	62	140	0
FIVE FINGER LIGHT	71	6-18	-	-	APR 9	NOV 7	212	-	-	-	-	-	-	-	-
GUARD ISLAND	81	6-18	3	1- 1	APR 24	AUG 27	125	-	*	*	*	25	34	93	0
GULL COVE	76	7- 9	0	1-23	MAY 31	SEP 8	100	-	*	*	*	9	52	171	1
GUSTAVUS CAA	82	6-17	-20	1- 1	JAN 4	SEP 29	117	55.4	FEB 9	NOV 17 (4)	*	23	69	182	20
HAINES CAA	87	6-17	-	-	APR 27	OCT 19	175	-	-	-	-	28	-	-	-
HOLLIS	85	6-17	-	-	MAY 23	-	-	-	-	-	-	-	-	-	-
JUNEAU	82	6-18	0	1- 1	APR 28	OCT 19	174	-	-	-	-	25	63	127	1
JUNEAU WB AP	83	6-17	-19	1- 1	MAY 31	SEP 30	122	92.1	-	-	-	31	78	181	24
KETCHIKAN	87	8-17	2	1- 1	APR 23	OCT 18	178	-	-	-	-	30	26	88	0
LINCOLN ROCK	85	8-14	2	1- 1	APR 15	OCT 27	195	-	-	-	-	11	44	96	0
LITTLE PORT WALTER	76	6-18	8	1-13	MAY 23	OCT 19	149	157.7	MAR 3	NOV 14 (5)	*	2	49	143	0
MILE 28 HAINES HIGHWAY	93	6-17	-32	1- 1	JUN 14	JUL 2	18	-	-	-	-	49	108	247	71
PETERSBURG CAA	81	6-18	- 9	1-23	MAY 22	SEP 30	131	106.4	APR 25	- (6)	-	16	60	144	13
PORT ALEXANDER	75	6-17	11	1- 1	MAY 23	SEP 19	119	-	*	-	-	12	46	114	0
RADIOVILLE	89	7- 9	-	-	APR 28	SEP 17	142	-	-	-	-	-	-	-	-
SITKA JAPONSKI CAA	84	8-18	5	1- 1	MAY 15	SEP 19	127	40.6	-	-	-	14	33	113	0
SITKA MAGNETIC	86	8-19	- 5	1- 1	JAN 1	SEP 16	107	43.6	-	-	-	10	37	163	6
SMEATON BAY	85	6-17	-	-	APR 28	-	-	-	*	-	-	-	-	-	-
TENAKEE	82	6- 9	- 3	1-23	MAY 31	OCT 3	125	84.5	*	-	-	37	53	166	4
TREE POINT	73	8-18	- 5	1- 1	APR 27	OCT 19	145	-	-	OCT 25 (7)	NOV 16	4	24	118	6
WRANGELL	83	6-18	- 1	1- 1+	APR 27	OCT 17	143	117.8	-	-	-	25	54	97	4
PACIFIC COAST															
CAPE HINCHINBROOK	69	8-13	12	2- 5	MAY 24	OCT 30	159	-	-	-	*	0	35	119	0
CAPE ST ELIAS	68	6-28	15	2- 5	APR 19	NOV 4	199	150.4	*	*	*	0	39	109	0
CORDOVA WB AP	77	6- 5	-15	2- 5	JUN 4	SEP 13	101	72.7	MAY 11	OCT 18 (8)	NOV 10	10	62	206	27
HOMER CAA	71	8- 8	- 8	2- 6+	JUN 13	SEP 14	93	26.6	MAY 2	OCT 21 (9)	OCT 30	5	84	218	16
KENAI CAA	79	8-14	-29	2- 6+	JUN 4	SEP 2	90	47.7	APR 6	NOV 4 (10)	-	9	117	216	70
KODIAK	74	8-14	12	2- 7	MAY 5	OCT 13	161	27.9	-	OCT 30 (11)	*	4	46	135	0
LATOUCHE	76	7-25	12	2- 6	MAY 23	OCT 18	148	-	*	*	*	7	50	173	0
MIDDLETON ISLAND CAA	63	8-12	17	2- 6	APR 14	NOV 3	203	-	*	*	*	0	19	77	0
NAPTOWNE	-	-	-	-	-	-	-	-	*	NOV 2 (25)	JAN 9	-	-	-	-
NORTH DUTCH ISLAND CAA	70	8-14	13	2- 6	APR 25	OCT 29	187	90.5	*	*	*	1	45	158	0
SEWARD	80	8-12	0	2-11	APR 26	OCT 13	170	-	*	*	*	11	72	176	1
VALDEZ	75	8-14	- 8	1- 1	MAY 17	SEP 14	120	124.1	*	*	*	8	97	211	12
WHITTIER	-	-	-	-	-	OCT 17	-	-	*	*	*	-	-	-	-
YAKATAGA CAA	70	7-22+	2	2-10	MAY 29	SEP 30	124	61.6	MAR 25	NOV 8 (12)	*	2	63	184	0
YAKUTAT WB AP	78	7- 9	-13	1- 1	MAY 29	SEP 29	123	140.8	-	-	-	10	57	192	21
SOUTHWESTERN ISLANDS															
ADAK	-	-	19	12-25	MAY 2	OCT 20	171	-	*	*	*	-	-	-	-
AMCHITKA	-	-	-	-	MAY 8	NOV 9	185	-	*	*	*	-	-	-	-
ATTU	70	7-18	-	-	MAY 13	OCT 23	163	-	*	*	*	-	-	-	-
COLD BAY	69	8-11	- 9	12-29	MAY 22	OCT 21	152	21.5	*	*	*	0	48	156	2
ST PAUL ISLAND WB AP	60	8-11	11	2-24	JUN 16	SEP 18	95	38.1	*	*	*	0	53	192	0
SHEMYA	57	6-28+	20	12-24	MAY 8	NOV 8	184	43.1	*	*	*	0	15	102	0
UNNAK	68	8-11	-	-	MAY 21	SEP 25	127	-	*	*	*	-	-	-	-
UNALASKA	80	8- 8	17	2-25	MAY 15	JUL 17	32	-	*	*	*	10	12	138	0
SOUTHERN VALLEYS															
ANCHORAGE WB AP	80	8-14	-21	2- 6	MAY 20	SEP 24	127	48.3	MAY 3	OCT 20 (13)	OCT 25	25	120	208	66
ANIAK CAA	82	7- 8	-41	2- 9	JUN 5	AUG 30	86	26.8	MAY 12	OCT 10 (14)	OCT 12	21	34	238	98
BETHEL WB AP	81	8-12	-26	12-22	MAY 23	SEP 25	125	35.4	MAY 18	OCT 28 (14)	NOV 4	12	137	218	74
CASWELL	83	7- 5+	-32	2- 8+	MAY 16	SEP 1	108	79.5	MAY 2	-	NOV 7	-	-	-	-
CHITINA	-	-	-	-	-	AUG 28	-	-	MAY 5	OCT 15 (16)	NOV 1	-	-	-	-
CROOKED CREEK	83	7- 4+	-39	12-22	JUN 5	SEP 1	88	-	MAY 10	OCT 11 (14)	NOV 4	47	133	228	97
EKLUTNA	82	8-13+	-31	1-11	MAY 23	SEP 1	101	-	-	-	-	40	120	216	80
EKLUTNA LAKE	78	6- 5+	-32	2- 2	JUN 27	AUG 27	61	29.9	MAY 19	NOV 19 (17)	NOV 28	31	119	250	77
FAREWELL CAA	80	8-16	-41	2-12	JUN 14	SEP 2	80	34.0	APR 27	NOV 10 (18)	-	24	138	244	104
GULKANA CAA	84	6-18	-45	2-10	JUN 3	AUG 15	73	47.1	MAY 10	OCT 15 (20)	NOV 10	39	150	243	140
ILIAMNA CAA	78	8-14	-22	2- 7	MAY 21	OCT 7	139	41.1	-	OCT 6 (21)	OCT 29	12	115	199	47
LAKE MINCHUMINA CAA	84	7-10	-	-	MAY 23	SEP 15	115	35.7	MAY 30	OCT 9 (23)	OCT 25	48	138	191	84
MATANUSKA VALLEY 2	80	8-13	-27	1-11+	JUN 4	SEP 1	89	31.8	-	- (24)	NOV 1	35	108	214	86
MATANUSKA VALLEY 9	81	6- 6	-25	1-11	JUN 4	-	-	-	-	-	-	-	-	-	-
MATANUSKA VALLEY 12	80	8-14	-	-	MAY 6	SEP 15	132	-	MAR 10	OCT 25 (24)	NOV 1	-	-	-	-
MATANUSKA VALLEY 14	81	8-14	-	-	JUN 14	SEP 15	93	-	-	-	-	-	-	-	-
MATANUSKA VALLEY 15	-	-	-	-	JUN 22	SEP 1	71	-	-	-	-	-	-	-	-
MC GRATH WB AP	84	7-23	-49	2-15	MAY 23	SEP 1	101	65.6	MAY 11	OCT 11 (14)	OCT 30	40	154	229	112
MSIER	-	-	-	-	JUN 26	AUG 25	60	-	-	-	-	-	-	-	-
NYAC	83	7- 8+	-	-	JUN 14	AUG 30	77	-	-	-	-	-	-	-	-
PALMER	80	8-13+	-15	1-11	MAY 20	SEP 4	107	-	-	NOV 1 (24)	-	38	115	201	46
PUNTILLA	80	6-29	-38	2-13	JUN 14	AUG 28	75	57.6	JUN 8	OCT 17 (26)	OCT 18	16	148	265	113
SHEEP MOUNTAIN CAA	75	8-13	-21	2-16	MAY 28	-	-	29.3	MAY 7	OCT 8 (27)	OCT 24	18	-	-	40
SKWENTNA CAA	83	6-29+	-34	2- 6	JUN 2	SEP 2	92	60.5	MAY 7	OCT 15 (28)	OCT 30	41	124	221	88
STONY RIVER	82	7- 9	-36	2-18	MAY 22	SEP 1	102	72.6	MAY 7	OCT 11 (14)	NOV 16	39	134	217	97
TALKEETNA CAA	83	7- 5+	-28	2- 9	JUN 14	SEP 1	79	88.6	APR 5	- (29)	-	38	124	231	81
WASILLA	82	7- 9+	-34	1-11	JUN 27	SEP 1	66	-	APR 20	SEP 1 (30)	OCT 25	42	104	226	34
BERING SEA															
CANDLE	83	7- 9	-	-	JUN 27	AUG 1	35	-	MAY 17	- (31)	-	-	-	-	-
CAMBELL WB AP	58	7-22+	-12	3-19	JUN 10	OCT 10	122	191.2	JUL 1	OCT 28 (32)	OCT 30	0	188	228	25
LAKE ALEKNAGIK	-	-	-	-	-	SEP 25	-	-	MAY 28	OCT 24 (22)	NOV 22	-	-	-	-
MOSES POINT CAA	79	7- 5	-36	2- 3	JUN 1	SEP 12	104	66.3	MAY 18	OCT 8 (33)	OCT 26	8	169	219	93
MOSQUITO POINT	-	-	-	-	JUN 27	AUG 1	35	-	-	-	-	-	-	-	-
NAKNEK	80	7- 8+	-24	12-22	MAY 22	SEP 22	123	32.0	-	OCT 30 (34)	NOV 8	19	110	203	54
NOME WB AP	72	8-15	-26	2-12	JUN 6	SEP 11	97	81.8	MAY 5	OCT 31 (35)	DEC 2	2	165	227	70
NUNIVAK	70	8-10	- 8	2-19+	JUN 12	OCT 12	122	-	APR 18	- (36)	-	1	139	211	20

Robert F. Dale, Climatologist, Anchorage, Alaska

WEATHER SUMMARY

The year of 1950 was one of the coldest and driest in the Southern Division, and one of the driest in the Northern Division. Precipitation was generally below normal over the entire territory, with the exception of the Arctic Drainage District, the Seward Peninsula, the western Aleutian Chain, and the Bering Sea Islands. The areas of greatest precipitation anomalies can be observed on page 160. The least annual precipitation measured in Alaska was observed at Fort Yukon, where the year's precipitation totaled only 3.83 inches, about 55% of normal. Forest fires in the area burned through the spring, summer, and early fall. Lake Minchumina reported the least precipitation in relation to its normal, with only 4.87 inches, about 35 percent of its average annual precipitation. Umiat and Barrow, with 5.51 and 6.22 inches respectively, observed the next lowest amounts, although these amounts were above the average annual precipitation at those stations. Probably the areas of greatest importance with regard to the precipitation deficiency were the agricultural areas from the Matanuska Valley to the western Kenai Peninsula. Anchorage received only 8.61 inches for the least annual precipitation of record. Matanuska Valley #2 received 9.26 inches and Kenai recorded 10.65 inches of precipitation for 1950. However, with above normal rains in June at a time when the soil moisture was about exhausted, and then much better than hoped for harvest weather, crops were not appreciably hurt. In fact, although the yields were somewhat decreased, the quality of the crops was improved. It was one of the first years in which it has been possible for farmers to cure hay outside on the Kenai Peninsula.

The largest temperature anomalies occurred in the northern Bering Sea area and the Northwest coast where daily temperatures averaged 3°- 5° warmer than usual throughout the year. The coldest temperatures relative to the normal were observed in the area from Fairbanks to the Matanuska Valley and in the northern Panhandle, where the temperatures averaged 2°- 3° lower than normal. Generally, only those stations in the Southwestern Islands, Pacific Coast, and Southeastern Districts had mean annual temperatures above 32°. The unusually cold November without snow cover in the Matanuska Valley - Kenai Peninsula area caused fear that many of the legume seedings and some of the berries had winter killed in these areas. The same combination of the coldest November on record with no snow cover at Anchorage caused deeper than average frost penetration and much damage to city water lines. The 1950 mean temperature anomaly chart is shown on page 161.

Many new weather records were established in 1950--a few of these record events are described in the following monthly narrative summaries, with a brief explanation of the general flow pattern for each month. More detailed accounts can be found in the monthly Climatological Data weather summaries.

JANUARY: The January average atmospheric pressure pattern showed the greatest high pressure ridge ever observed over the Alaskan Peninsula and the southeastern Bering Sea. With the associated unusually strong westerly flow over western Alaska and northerly flow over eastern Alaska, one of the warmest Januarys of record was observed in western Alaska, while generally the coldest and driest January of record was observed in the Southeastern and Pacific Coast districts. Due to both light precipitation and unusually cold weather, Southeastern towns experienced water shortages, with Petersburg completely exhausting its supply on the 24th. Storms buffeted the Bering Sea coast with January being recorded as one of the most severe icing months of record. Kotzebue reported glaze formations several times during the period from the 16th to the 23rd, with an accumulation of clear ice on flat surfaces about one-quarter inch thick at the end of the period. The combination of glaze, hoarfrost, and rime in this same period produced a fairly hard, opaque coating about four inches in diameter on wires. Most people in the Southern Valley District and Kenai Peninsula areas will remember January because of the unusually brilliant display of Mother-of-Pearl clouds which appeared the morning of the 24th and continued throughout the day in varying pastel hues, until the last faint glow disappeared about 8:00 p.m.

FEBRUARY: The high pressure ridge moved westward over the Bering Sea with northward flow of cold dry air over Alaska and resultant exceptionally cold, clear, and dry weather being experienced throughout the entire territory. Only the extreme southern Panhandle, the western Aleutian Chain, and the stations at Gambell, Wales, and Point Hope reported near to above normal temperatures. The largest temperature anomalies were reported from the upper Yukon-Tanana River area where Eagle reported the lowest February mean temperature of record, -30.0° Fahrenheit, 26.1° below the February normal temperature. Maintenance crews struggled in zero weather at Seldovia on February 10-14 to thaw the city water supply; schools were temporarily closed and the hospital was without water for a three day period. No measurable precipitation was reported by many stations in the Yukon and Southern Valley districts.

MARCH: The month of March brought a reversal in the flow pattern to a low pressure cell centered over the Bering Sea with a corresponding reversal in the temperature anomaly patterns. Stations over the entire territory reported above to much above normal March temperatures, with the exception of the Panhandle, western Aleutian Chain, Gambell, and Point Hope, which reported near to below normal average March temperatures. However, the drought continued in the Yukon and Southern Valley districts. Only the immediate Bering Sea coast and Big Delta received above normal amounts of March precipitation.

APRIL: The circulation pattern for April, 1950, showed a deep low pressure trough over the Bering Sea and Gulf of Alaska, with continued southeasterly flow over the Alaskan Territory. Temperatures averaged above normal in all areas except the extreme upper Tanana Valley, and the entire Pacific Coast area from the Aleutian Chain to the southeastern Panhandle. With the exception of the Kuskokwim-middle Yukon river valleys from Bethel to Tanana and at Eagle and Tanacross, the precipitation deficiency continued in the Yukon and Southern Valley districts. Above normal precipitation occurred along the entire coastal area from Barrow to Ketchikan. Break-up of rivers and lakes began the latter part of the month in southern coastal areas from Bristol Bay to Ketchikan. Matanuska Valley farmers began to plow and plant small grain and garden crops by the end of the month.

MAY: Southerly to southeasterly flow continued through May with above normal temperatures in the middle Yukon Valley and Arctic Drainage districts, and below normal temperatures in the remainder of the territory. Most Alaskan oceans, streams, and lakes broke their winter bonds during the month in one of the easiest spring break-ups of record. Precipitation continued deficient in the Yukon and Southern Valley districts and the Kenai Peninsula, creating one of the most widespread and hazardous forest fire conditions of record. Anchorage measured only .43 inch of accumulated precipitation for the first five months of the year. However, above normal precipitation was observed along the Pacific Coast from Cold Bay to Tree Point. By the end of the month, snow had largely disappeared from all but the higher hills and mountains south of the Brooks Range. Many gardens were planted.

JUNE: Frequent and persistent storms in the Bering Sea, with a predominant and stronger than normal high pressure ridge over northwestern Canada and eastern Alaska, resulted in generally cloudy, cool, windy, and rainy conditions in western Alaska and the Pacific Coast district, while eastern and southeastern Alaska experienced warm sunny days. Lakes and rivers which were still frozen over in May became free of ice in June. However, the ice in the Arctic Ocean at Wainwright and

STATION INDEX

Station	Index No.	County	Drainage‡	Latitude	Longitude	Elevation	Years of record: Temp.	Years of record: Precip.	Years of record: Evap.	Opened or closed during yr.: Month opened	Opened or closed during yr.: Month closed	Refer to tables
ADAK	0026	SW ISLANDS	29	51 53	176 39	15	8	8				1 2 3
ALLAKAKET	0230	YUKON VALLEY	30	66 34	152 44	600	35	36				1 2 3
AMCHITKA	0252	SW ISLANDS	4	51 24	179 18E	202	8	6		NOV		1 2 3
ANCHORAGE WB AIRPORT	0285	SO VALLEYS	13	61 13	149 50	134	28	28				1 2 3
ANGOON	0310	SOUTHEASTERN	8	57 30	134 35	35	11	11				1 2 3
ANIAK CAA	0332	SO VALLEYS	30	61 40	159 42	81	11	12				1 2 3
ANNETTE WB AIRPORT	0352	SOUTHEASTERN	52	55 02	131 34	110	10	10				1 2 3
ANNEX CREEK	0363	SOUTHEASTERN	51	58 19	134 06	24	33	34				1 2 3
ATKA	0433	SW ISLANDS	38	52 13	174 12	36	19	20		MAR		1 2 3
ATTU	0452	SW ISLANDS	38	52 50	173 11E	59	4	4				1 2 3
BARANOF	0522	SOUTHEASTERN	59	57 05	134 50	20	14	14				1 2 3
BARROW WB	0546	ARCTIC DRAIN	1	71 18	156 47	22	37	35				1 2 3
BARTER ISLAND	0558	ARCTIC DRAIN	1	70 07	143 40	50	3	3				1 2 3
BEAVER FALLS	0657	SOUTHEASTERN	59	55 23	131 28	39	3	3				1 2 3
BELL ISLAND	0676	SOUTHEASTERN	3	55 55	131 35	10	19	19		NOV 1949		1 2 3
BETHEL WB AIRPORT	0754	SO VALLEYS	30	60 47	161 41	21	27	27				1 2 3
BETTLES CAA	0760	YUKON VALLEY	28	66 54	151 51	848	7	7				1 2 3
BIG DELTA CAA	0770	YUKON VALLEY	55	64 00	145 44	1268	10	10				1 2 3
BOUNDARY	0910	YUKON VALLEY	63	64 04	141 07	2600	3	3				1 2 3
CANDLE	1230	BERING SEA	27	65 56	161 55	24	21	11		NOV		1 2 3
CAPE DECISION	1269	SOUTHEASTERN	48	56 00	134 08	39	9	8				1 2 3
CAPE HINCHINBROOK	1308	PACIFIC COAST	18	60 14	146 39	185	5	6				1 2 3
CAPE ST ELIAS	1321	PACIFIC COAST	18	59 45	144 36	50	13	14				1 2 3
CAPE SPENCER	1334	SOUTHEASTERN	38	58 12	136 38	81	14	14				1 2 3
CASWELL	1442	SO VALLEYS	49	61 58	149 54	290	2	2				1 2 3
CENTRAL	1458	YUKON VALLEY	63	65 35	144 47	700	4	6				1 2 3
CHITINA	1824	SO VALLEYS	14	61 32	144 27	572	13	13		AUG		1 2 3
CIRCLE HOT SPRINGS	1987	YUKON VALLEY	63	65 29	144 42	1000	12	13				1 2 3
COLD BAY	2102	SW ISLANDS	38	55 12	162 43	99	9	8				1 2 3
COLLEGE MAGNETIC OBSERVATORY	2107	YUKON VALLEY	9	64 52	147 50	621	3	3				1 2 3
CORDOVA WB AIRPORT	2177	PACIFIC COAST	18	60 29	145 30	40	9	8				1 2 3
CRAIG	2227	SOUTHEASTERN	44	55 29	133 09	13	13	13				1 2 3
CROOKED CREEK	2247	SO VALLEYS	30	61 52	158 15	125	11	8				1 2 3
EAGLE	2607	YUKON VALLEY	63	64 46	141 12	804	39	41		#AUG	JUN	1 2 3
EIELSON FIELD	2707	YUKON VALLEY	55	64 39	147 04	547	5	5				1 2 3
EKLUTNA	2717	SO VALLEYS	25	61 27	149 20	27	10	10				1 2 3
EKLUTNA LAKE	2725	SO VALLEYS	25	61 24	149 08	882	5	5				1 2 3
ELDRIDGE ROCK	2770	SOUTHEASTERN	33	58 38	136 13	55	7	6				1 2 3
FAIRBANKS WB AIRPORT	2968	YUKON VALLEY	9	64 50	147 43	436	46	46				1 2 3
FAREWELL CAA	2988	SO VALLEYS	30	62 32	154 43	1499	7	7				1 2 3
FIVE FINGER LIGHT	3072	SOUTHEASTERN	16	57 16	133 37	30	8	7				1 2 3
FLAT	3085	YUKON VALLEY	21	62 29	158 05	326	17	13				1 2 3
FORT YUKON CAA	3175	YUKON VALLEY	63	66 35	145 18	419	33	32				1 2 3
GALENA WB AIRPORT	3215	YUKON VALLEY	63	64 43	156 54	120	8	7				1 2 3
GAMBELL WB AIRPORT	3226	BERING SEA	4	63 51	171 36	25	15	13				1 2 3
GUARD ISLAND	3454	SOUTHEASTERN	11	55 27	131 53	20	9	7				1 2 3
GULKANA CAA	3465	SO VALLEYS	14	62 09	145 28	1573	12	9				1 2 3
GULL COVE	3470	SOUTHEASTERN	20	58 12	136 09	18	10	10				1 2 3
GUSTAVUS CAA	3475	SOUTHEASTERN	19	58 25	135 42	22	14	14				1 2 3
HAINES CAA	3495	SOUTHEASTERN	10	59 13	135 26	257	26	24				1 2 3
HOLLIS	3650	SOUTHEASTERN	11	55 30	132 30	15	1	1				1 2 3
HOLY CROSS	3655	YUKON VALLEY	63	62 10	159 45	150	47	40				1 2 3
HOMER CAA	3665	PACIFIC COAST	23	59 38	151 31	65	16	16				1 2 3
HUGHES	3765	YUKON VALLEY	28	66 04	154 15	550	9	9				1 2 3
ILIAMNA CAA	3905	SO VALLEYS	22	59 44	154 57	145	12	12				1 2 3
JUNEAU	4092	SOUTHEASTERN	17	58 18	134 24	72	55	57				1 2 3
JUNEAU WB AIRPORT	4100	SOUTHEASTERN	2	58 22	134 35	15	10	10				1 2 3
KENAI CAA	4546	PACIFIC COAST	13	60 33	151 16	64	16	20				1 2 3
KETCHIKAN	4590	SOUTHEASTERN	56	55 21	131 39	15	39	40				1 2 3
KLATTS FARM	4887	SO VALLEYS	13	61 04	149 54	150	2	2		FEB 1949		1 2 3
KODIAK	4986	PACIFIC COAST	60	57 45	152 31	21	47	57				1 2 3
KOTZEBUE WB AIRPORT	5076	ARCTIC DRAIN	27	66 52	162 38	10	25	17				1 2 3
LAKE ALEKNAGIK	5346	BERING SEA	66	59 27	158 54	55	1	1		MAR		1 2 3
LAKE MINCHUMINA CAA	5366	SO VALLEYS	31	63 53	152 17	693	7	7				1 2 3
LATOUCHE	5454	PACIFIC COAST	32	60 03	147 54	45	23	23				1 2 3
LINCOLN ROCK	5499	SOUTHEASTERN	11	56 04	132 42	25	8	10				1 2 3
LITTLE PORT WALTER	5519	SOUTHEASTERN	8	56 23	134 39	14	15	14				1 2 3
MANLEY HOT SPRINGS	5644	YUKON VALLEY	55	65 00	150 39	261	20	19				1 2 3
MATANUSKA VALLEY 2	5721	SO VALLEYS	34	61 33	149 05	75	10	9				1 2 3
MATANUSKA VALLEY 9	5728	SO VALLEYS	34	61 39	149 12	420	8	8				1 2 3
MATANUSKA VALLEY 12	5731	SO VALLEYS	34	61 37	149 06	220	10	10				1 2 3
MATANUSKA VALLEY 14	5733	SO VALLEYS	34	61 34	149 16	150	31	31	16			1 2 3 4
MATANUSKA VALLEY 15	5734	SO VALLEYS	34	61 37	149 13	350	7	9				1 2 3
MC GRATH WB AIRPORT	5769	SO VALLEYS	30	62 58	155 37	334	10	12				1 2 3
MC KINLEY PARK	5778	YUKON VALLEY	36	63 44	148 58	2092	28	26				1 2 3
MEIZER	5843	SO VALLEYS	14	62 47	145 27	2717	1	1		JUN		1 2 3
MIDDLETON ISLAND CAA	5868	PACIFIC COAST	18	59 28	146 19	39	8	8				1 2 3
MILE 28 HAINES HIGHWAY	5898	SOUTHEASTERN	24	59 24	135 54	400	5	5				1 2 3
MOSES POINT CAA	6058	BERING SEA	37	64 43	162 05	15	8	8				1 2 3
MOSQUITO POINT	6062	BERING SEA	66	59 17	158 35	55	1	1		MAY		1 2 3
MOUNTAIN VILLAGE	6078	YUKON VALLEY	63	62 07	163 45	42	6	6				1 2 3
MOUNT MC KINLEY	6089	YUKON VALLEY	36	63 44	148 55	1730	1	1			NOV 1949	1 2 3
NAKNEK	6166	BERING SEA	35	58 41	156 44	49	26	23				1 2 3
NAPTOWNE	6227	PACIFIC COAST	13	60 32	150 45	250	1	1		SEP		1 2 3
NENANA CAA	6309	YUKON VALLEY	55	64 33	149 06	358	26	22				1 2 3
NOME WB AIRPORT	6496	BERING SEA	4	64 30	165 24	13	44	45				1 2 3
NORTH DUTCH ISLAND CAA	6562	PACIFIC COAST	41	60 46	147 49	33	7	7				1 2 3
NORTWAY WB AIRPORT	6586	YUKON VALLEY	35	62 58	141 58	1713	8	8				1 2 3
NUNIVAK	6727	BERING SEA	4	60 12	166 08	38	9	9				1 2 3
NYAC	6760	SO VALLEYS	30	61 00	159 59	450	2	2				1 2 3
PALMER	6870	SO VALLEYS	34	61 36	149 08	300	2	2				1 2 3
PETERSBURG CAA	7233	SOUTHEASTERN	61	56 49	132 57	100	20	20				1 2 3
PLATINUM	7365	BERING SEA	4	59 01	161 47	20	10	10				1 2 3
POINT HOPE	7431	ARCTIC DRAIN	1	68 20	166 48	13	11	10				1 2 3
POINT LAY	7442	ARCTIC DRAIN	1	69 49	162 55	10	8	7				1 2 3
POINT RETREAT	7451	SOUTHEASTERN	43	58 25	134 57	20	5	5				1 2 3
PORTAGE	7486	PACIFIC COAST	57	60 51	148 59	39	8	7			OCT 1949	1 2 3
PORT ALEXANDER	7557	SOUTHEASTERN	65	56 58	134 39	18	2	2				1 2 3
PORT HEIDEN CAA	7700	BERING SEA	6	56 57	158 39	86	6	6				1 2 3
PUNTILLA	7783	SO VALLEYS	47	62 09	152 50	1817	8	7				1 2 3
RADIOVILLE	7854	SOUTHEASTERN	38	57 36	136 09	15	15	15				1 2 3
ST PAUL ISLAND WB	8118	SW ISLANDS	4	57 09	170 13	22	37	46				1 2 3
SAVOONGA	8239	BERING SEA	4	63 41	170 26	35	8	8			JUN 1949	1 2 3
SEWARD	8371	PACIFIC COAST	42	60 07	149 27	76	38	38				1 2 3
SHEEP MOUNTAIN CAA	8407	SO VALLEYS	34	61 48	147 41	2316	8	7				1 2 3
SHEMYA	8419	SW ISLANDS	4	52 43	174 06E	92	18	8				1 2 3
SHISHMAREF	8437	ARCTIC DRAIN	45	66 14	166 07	16	23	21				1 2 3
SHOTGUN COVE	8448	PACIFIC COAST	39	64 47	148 34	20	1	1			JUN 1949	1 2 3
SHUNGNAK CAA	8459	ARCTIC DRAIN	26	66 54	157 02	140	10	10			SEP	1 2 3
SITKA JAPONSKI CAA	8494	SOUTHEASTERN	46	57 03	135 21	15	7	6				1 2 3
SITKA MAGNETIC	8503	SOUTHEASTERN	46	57 03	135 20	67	68	89				1 2 3
SKAGWAY	8525	SOUTHEASTERN	50	59 27	135 19	16	38	38				1 2 3
SKWENTNA CAA	8536	SO VALLEYS	47	61 57	151 10	153	11	11				1 2 3
SKEATON BAY	8558	SOUTHEASTERN	3	55 19	130 47	16	2	2				1 2 3
STONY RIVER	8745	SO VALLEYS	30	61 46	156 38	221	5	5				1 2 3
SUMMIT CAA	8811	YUKON VALLEY	7	63 20	149 09	2401	10	10				1 2 3
TALKEETNA CAA	8976	SO VALLEYS	49	62 19	150 06	345	32	30				1 2 3
TANACROSS	8987	YUKON VALLEY	55	63 24	143 19	1546	10	9				1 2 3
TANAGA	8995	SW ISLANDS	53	51 45	178 02	145	3	3			MAR 1949	1 2 3
TANANA CAA	9014	YUKON VALLEY	63	65 10	152 06	232	47	47				1 2 3
TELLER	9102	BERING SEA	40	65 16	166 21	10	18	17				1 2 3
TENAKEE	9113	SOUTHEASTERN	54	57 47	135 47	19	7	7				1 2 3
TREE POINT	9399	SOUTHEASTERN	15	54 48	130 56	36	18	19				1 2 3
UMIAT WB AIRPORT	9539	ARCTIC DRAIN	12	69 22	152 08	337	6	5				1 2 3
UNMAK	9551	SW ISLANDS	38	53 23	167 54	131	9	9			NOV 1949	1 2 3
UNALAKLEET CAA	9564	BERING SEA	37	63 54	160 47	14	9	8				1 2 3
UNALASKA	9575	SW ISLANDS	4	53 53	166 32	22	28	24				1 2 3
UNIVERSITY EXP STATION	9641	YUKON VALLEY	9	64 51	147 52	475	46	45	11			1 2 3 4
VALDEZ	9685	PACIFIC COAST	58	61 07	146 16	15	38	37				1 2 3
WAINWRIGHT	9729	ARCTIC DRAIN	1	70 40	159 50	29	9	8				1 2 3
WALES WB AIRPORT	9739	BERING SEA	5	65 37	168 03	9	10	10				1 2 3
WASILLA	9759	SO VALLEYS	34	61 35	149 27	330	8	7				1 2 3
WHITTIER	9829	PACIFIC COAST	39	60 47	148 44	28	6	6				1 2 3
WISEMAN	9869	YUKON VALLEY	28	67 26	150 13	1290	17	16				1 2 3
WRANGELL	9919	SOUTHEASTERN	64	56 28	132 23	37	35	34				1 2 3
YAKATAGA CAA	9930	PACIFIC COAST	18	60 02	142 28	27	8	8				1 2 3
YAKUTAT WB AIRPORT	9941	PACIFIC COAST	36	59 31	139 40	28	28	30				1 2 3

‡ DRAINAGE CODE:

1 ARCTIC OCEAN	10 CHILKOOT INLET	19 ICY STRAIT	27 KOTZEBUE SOUND	35 NAKNEK RIVER	43 SAGINAW CHANNEL	51 TAKU INLET	59 WARM SPRINGS BAY
2 AUK BAY	11 CLARENCE STRAIT	20 IDAHO INLET	28 KOYUKUK RIVER	36 NENANA RIVER	44 SAN ABERTO BAY	52 TAMGAS HARBOR	60 WOMAN'S BAY
3 BERM CANAL	12 COLVILLE RIVER	21 IDITAROD RIVER	29 KULUK BAY	37 NORTON SOUND	45 SHISHMAREF INLET	53 TANAGA BAY	61 WRANGELL NARROWS
4 BERING SEA	13 COOK INLET	22 ILIAMNA LAKE	30 KUSKOKWIM RIVER	38 PACIFIC OCEAN	46 SITKA SOUND	54 TENAKEE INLET	62 YAKUTAT BAY
5 BERING STRAIT	14 COPPER RIVER	23 KACHEMAK BAY	31 LAKE MINCHUMINA	39 PASSAGE CANAL	47 SKWENTNA RIVER	55 TANANA RIVER	63 YUKON RIVER
6 BRISTOL BAY	15 DIXON ENTRANCE	24 KLEKINI RIVER	32 LATOUCHE PASSAGE	40 PORT CLARENCE	48 SUMNER STRAIT	56 TONGASS NARROWS	64 ZIMOVIA STRAIT
7 CANTWELL RIVER	16 FREDERICK SOUND	25 KNIK ARM	33 LYNN CANAL	41 PRINCE WM SOUND	49 SUSITNA RIVER	57 TURNAGAIN ARM	65 CHRISTINA SOUND
8 CHATHAM STRAIT	17 GASTINEAU CHANNEL	26 KOBUK RIVER	34 MATANUSKA RIVER	42 RESURRECTION BAY	50 TAIYA INLET	58 VALDEZ ARM	66 WOOD RIVER
9 CHENA RIVER	18 GULF OF ALASKA						

Asterisk (#) denotes REACTIVATED AUGUST 1, 1950.

REFERENCE NOTES

Unless other wise indicated, dimensional units used in this bulletin are: Temperature in °F; precipitation and evaporation in inches, and wind movement in miles. Evaporation is measured on the standard Weather Bureau type pan 4 foot diameter unless otherwise shown by footnote following Table 4.

The four digit identification numbers in the Index are assigned on a territorial basis. There will be no duplication of numbers within the territory.

Delayed data and corrections will be carried in the June and December issues of Climatological Data.

- No record.
+ Also later date (dates) or months.
B Adjusted to full month.
E Water equivalent of snowfall wholly or partially estimated, using a ratio of 1 inch of water equivalent to every 10 inches of new snowfall.
M 1 to 9 days' record missing: see monthly Climatological Data for detailed daily record.
G Precipitation is measured with recording gage.
T Trace, an amount too small to measure.

Subscription Price: 10 cents per copy, monthly and annual: $1.00 per year. (Yearly subscription includes the Annual Summary.) Checks, postal notes and money orders should be made payable to the Treasurer of the United States. Remittances and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

RELOCATIONS

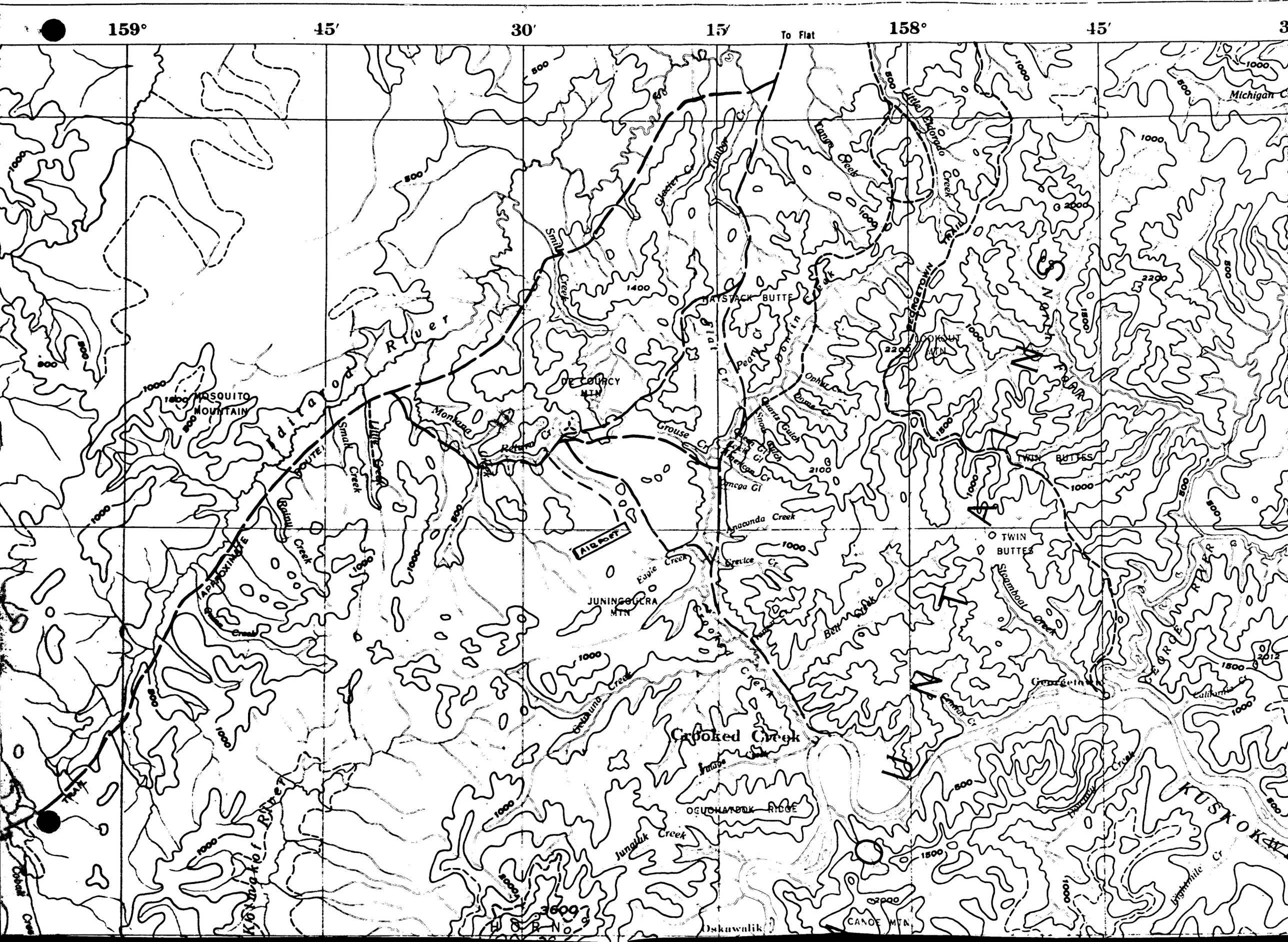
MATANUSKA 9	All equipment moved 0.2 mile S.	October 17, 1950	MATANUSKA 14	All equipment moved 300 feet W.	July 18, 1950
TANACROSS	All equipment moved 660 feet E.	September 27, 1950	WASILLA	All equipment moved 12 mile W of Wasilla railroad depot	January 25, 1950
COLLEGE MAG OBS	Rain gage moved 7 feet NE and shelter moved about 25 feet ESE	June 17, 1950			

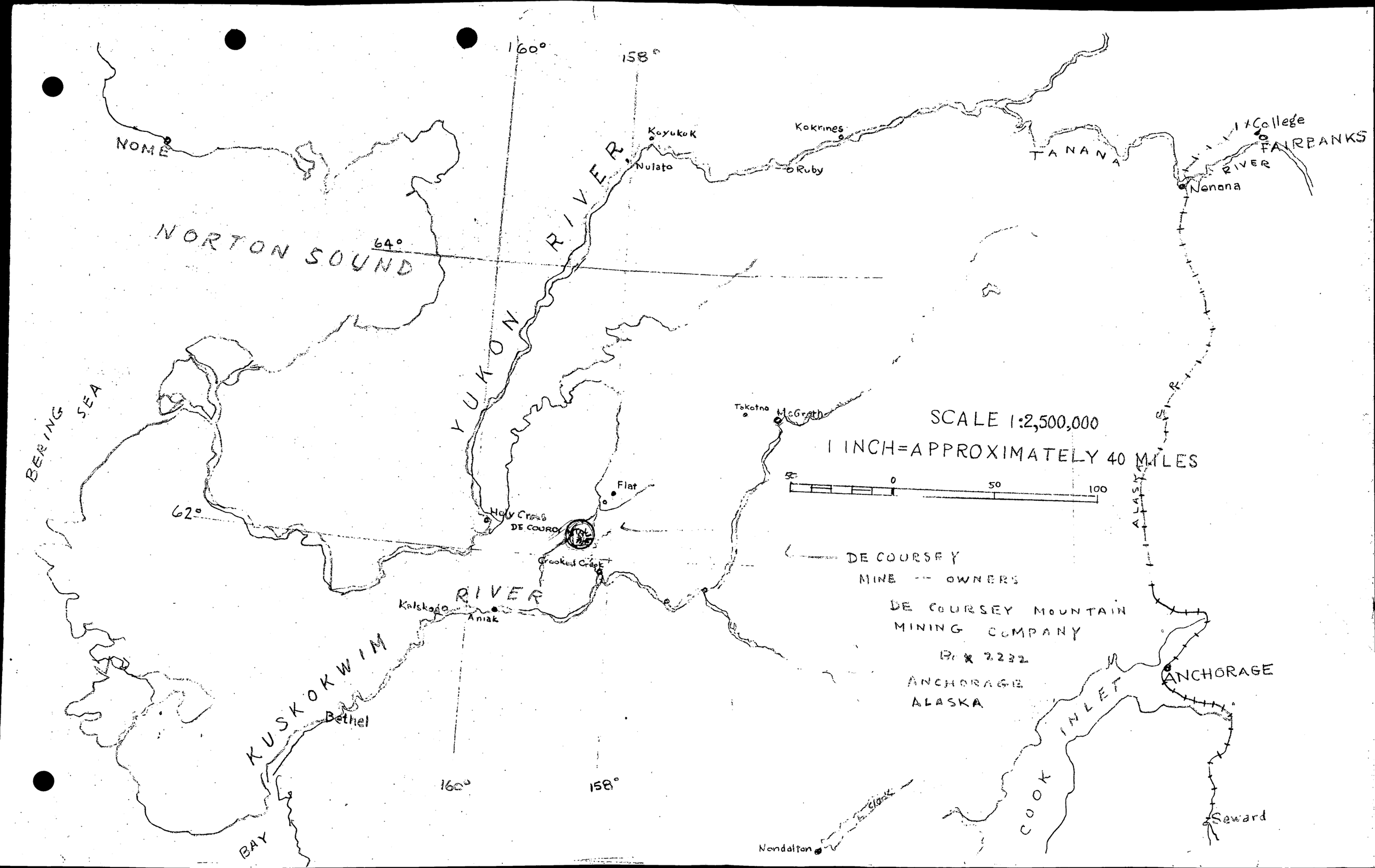
NAME CHANGES

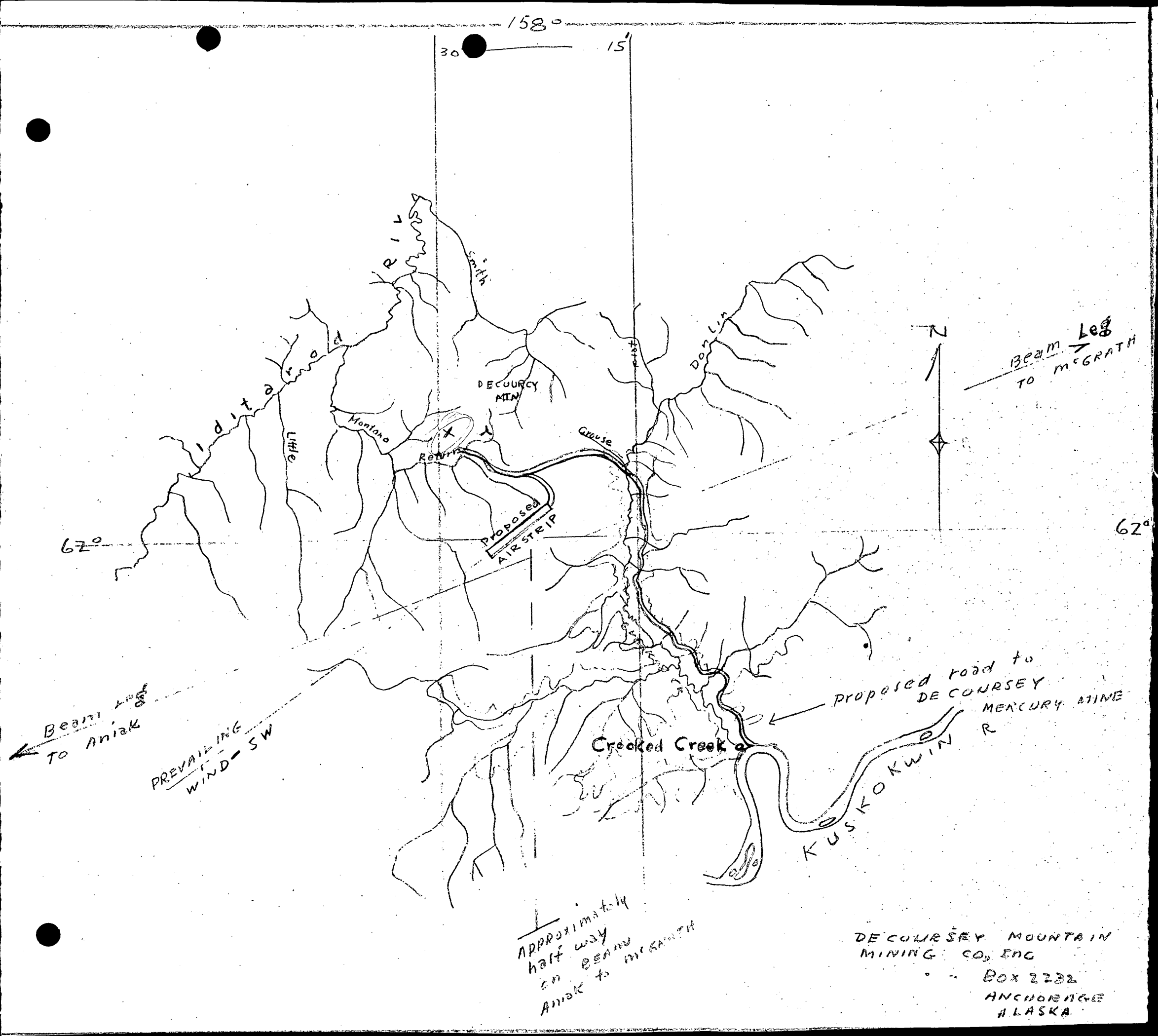
Cape Thornbrough	Changed to Changed to	Unmak Cold Bay	January 1, 1950 January 1, 1950

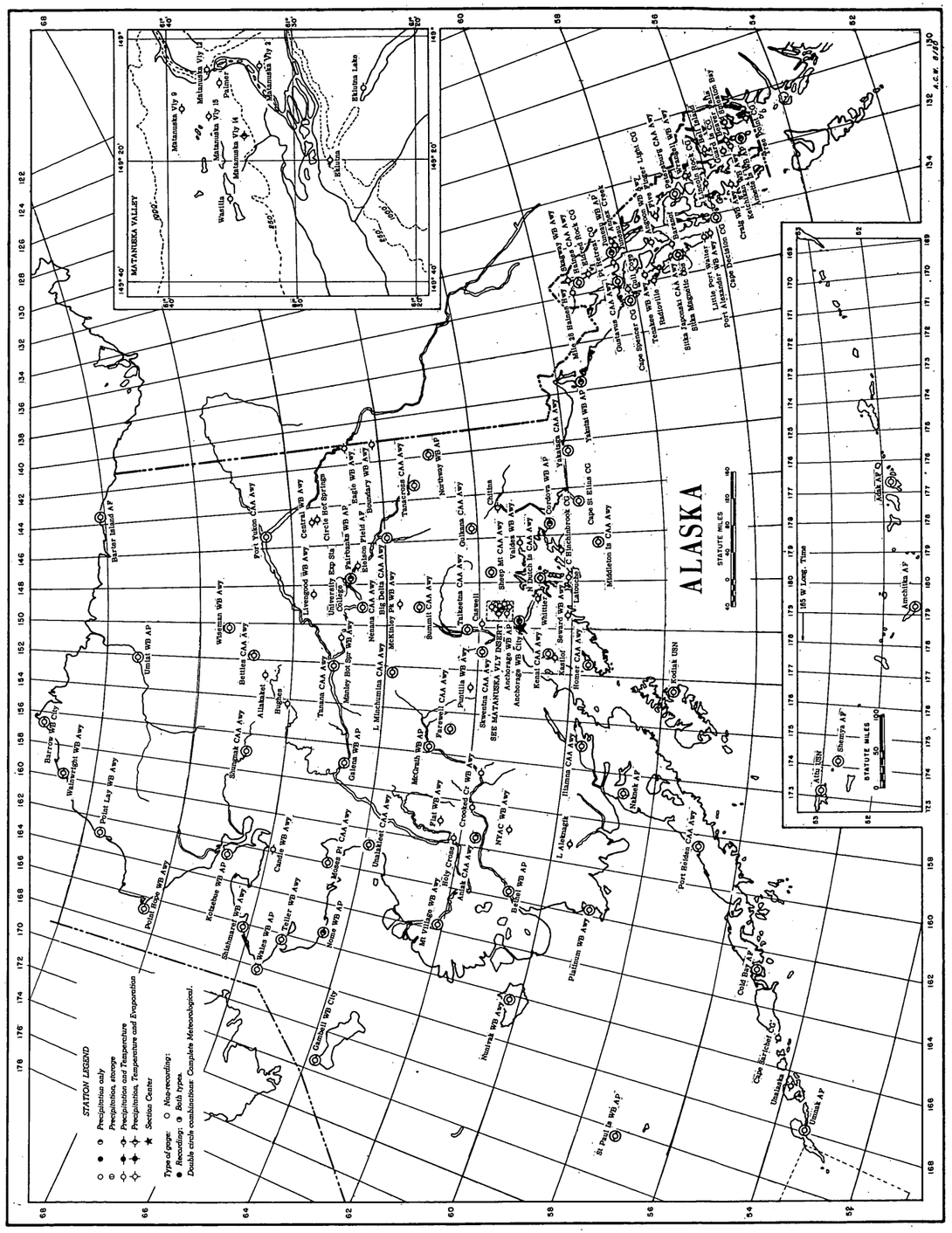
GPO 86-102344 1000 5-15-51

To be Prospected
AREA Prospected




160°
158°
NOME
NORTON SOUND
64°
YUKON RIVER
Koyukuk
Nulato
Kokrines
Ruby
TANANA
RIVER
College
FAIRBANKS
Nenana
BERING SEA
Tokotna
McGrath
SCALE 1:2,500,000
1 INCH=APPROXIMATELY 40 MILES
50
0
50
100
Flat
Holy Cross
DE COURSEY
Crooked Creek
62°
Kalskag
Aniak
RIVER
KUSKOKWIM
Bethel
BAY
DE COURSEY
MINE -- OWNERS
DE COURSEY MOUNTAIN
MINING COMPANY
Box 2232
ANCHORAGE
ALASKA
ANCHORAGE
COOK INLET
Seward
Nondalton
ALASKA


158°
30'
15'
62°
62°
N
Iditarod
Little
Montana
Smith
Donlin
DECOURCY MTN
Crouse
Proposed AIRSTRIP
Beam Leg TO McGRATH
Beam Leg TO Aniak
PREVAILING WIND - SW
Crooked Creek
proposed road to DE COURSEY MERCURY MINE
KUSKOKWIN R
APPROXIMATELY half way on Beam Aniak to McGRATH
DE COURSEY MOUNTAIN MINING CO., INC
BOX 2232
ANCHORAGE ALASKA



U. S. DEPARTMENT OF COMMERCE
CHARLES SAWYER, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

SEE
ANIAK
FLAT
CROOKED CREEK

CLIMATOLOGICAL DATA

ALASKA

ANNUAL SUMMARY 1950

Volume XXXVI No. 13

SAN FRANCISCO: 1951

ALASKA - ANNUAL - 1950

Robert F. Dale, Climatologist, Anchorage, Alaska

WEATHER SUMMARY

The year of 1950 was one of the coldest and driest in the Southern Division, and one of the driest in the Northern Division. Precipitation was generally below normal over the entire territory, with the exception of the Arctic Drainage District, the Seward Peninsula, the western Aleutian Chain, and the Bering Sea Islands. The areas of greatest precipitation anomalies can be observed on page 160. The least annual precipitation measured in Alaska was observed at Fort Yukon, where the year's precipitation totaled only 3.83 inches, about 55% of normal. Forest fires in the area burned through the spring, summer, and early fall. Lake Minchumina reported the least precipitation in relation to its normal, with only 4.87 inches, about 35 percent of its average annual precipitation. Umiat and Barrow, with 5.51 and 6.22 inches respectively, observed the next lowest amounts, although these amounts were above the average annual precipitation at those stations. Probably the areas of greatest importance with regard to the precipitation deficiency were the agricultural areas from the Matanuska Valley to the western Kenai Peninsula. Anchorage received only 8.61 inches for the least annual precipitation of record. Matanuska Valley #2 received 9.26 inches and Kenai recorded 10.65 inches of precipitation for 1950. However, with above normal rains in June at a time when the soil moisture was about exhausted, and then much better than hoped for harvest weather, crops were not appreciably hurt. In fact, although the yields were somewhat decreased, the quality of the crops was improved. It was one of the first years in which it has been possible for farmers to cure hay outside on the Kenai Peninsula.

The largest temperature anomalies occurred in the northern Bering Sea area and the Northwest coast where daily temperatures averaged 3°- 5° warmer than usual throughout the year. The coldest temperatures relative to the normal were observed in the area from Fairbanks to the Matanuska Valley and in the northern Panhandle, where the temperatures averaged 2°- 3° lower than normal. Generally, only those stations in the Southwestern Islands, Pacific Coast, and Southeastern Districts had mean annual temperatures above 32°. The unusually cold November without snow cover in the Matanuska Valley - Kenai Peninsula area caused fear that many of the legume seedings and some of the berries had winter killed in these areas. The same combination of the coldest November on record with no snow cover at Anchorage caused deeper than average frost penetration and much damage to city water lines. The 1950 mean temperature anomaly chart is shown on page 161.

Many new weather records were established in 1950--a few of these record events are described in the following monthly narrative summaries, with a brief explanation of the general flow pattern for each month. More detailed accounts can be found in the monthly Climatological Data weather summaries.

JANUARY: The January average atmospheric pressure pattern showed the greatest high pressure ridge ever observed over the Alaskan Peninsula and the southeastern Bering Sea. With the associated unusually strong westerly flow over western Alaska and northerly flow over eastern Alaska, one of the warmest Januarys of record was observed in western Alaska, while generally the coldest and driest January of record was observed in the Southeastern and Pacific Coast districts. Due to both light precipitation and unusually cold weather, Southeastern towns experienced water shortages, with Petersburg completely exhausting its supply on the 24th. Storms buffeted the Bering Sea coast with January being recorded as one of the most severe icing months of record. Kotzebue reported glaze formations several times during the period from the 16th to the 23rd, with an accumulation of clear ice on flat surfaces about one-quarter inch thick at the end of the period. The combination of glaze, hoarfrost, and rime in this same period produced a fairly hard, opaque coating about four inches in diameter on wires. Most people in the Southern Valley District and Kenai Peninsula areas will remember January because of the unusually brilliant display of Mother-of-Pearl clouds which appeared the morning of the 24th and continued throughout the day in varying pastel hues, until the last faint glow disappeared about 8:00 p.m.

FEBRUARY: The high pressure ridge moved westward over the Bering Sea with northward flow of cold dry air over Alaska and resultant exceptionally cold, clear, and dry weather being experienced throughout the entire territory. Only the extreme southern Panhandle, the western Aleutian Chain, and the stations at Gambell, Wales, and Point Hope reported near to above normal temperatures. The largest temperature anomalies were reported from the upper Yukon-Tanana River area where Eagle reported the lowest February mean temperature of record, -30.0° Fahrenheit, 26.1° below the February normal temperature. Maintenance crews struggled in zero weather at Seldovia on February 10-14 to thaw the city water supply; schools were temporarily closed and the hospital was without water for a three day period. No measurable precipitation was reported by many stations in the Yukon and Southern Valley districts.

MARCH: The month of March brought a reversal in the flow pattern to a low pressure cell centered over the Bering Sea with a corresponding reversal in the temperature anomaly patterns. Stations over the entire territory reported above to much above normal March temperatures, with the exception of the Panhandle, western Aleutian Chain, Gambell, and Point Hope, which reported near to below normal average March temperatures. However, the drought continued in the Yukon and Southern Valley districts. Only the immediate Bering Sea coast and Big Delta received above normal amounts of March precipitation.

APRIL: The circulation pattern for April, 1950, showed a deep low pressure trough over the Bering Sea and Gulf of Alaska, with continued southeasterly flow over the Alaskan Territory. Temperatures averaged above normal in all areas except the extreme upper Tanana Valley, and the entire Pacific Coast area from the Aleutian Chain to the southeastern Panhandle. With the exception of the Kuskokwim-middle Yukon river valleys from Bethel to Tanana and at Eagle and Tanacross, the precipitation deficiency continued in the Yukon and Southern Valley districts. Above normal precipitation occurred along the entire coastal area from Barrow to Ketchikan. Break-up of rivers and lakes began the latter part of the month in southern coastal areas from Bristol Bay to Ketchikan. Matanuska Valley farmers began to plow and plant small grain and garden crops by the end of the month.

MAY: Southerly to southeasterly flow continued through May with above normal temperatures in the middle Yukon Valley and Arctic Drainage districts, and below normal temperatures in the remainder of the territory. Most Alaskan oceans, streams, and lakes broke their winter bonds during the month in one of the easiest spring break-ups of record. Precipitation continued deficient in the Yukon and Southern Valley districts and the Kenai Peninsula, creating one of the most widespread and hazardous forest fire conditions of record. Anchorage measured only .43 inch of accumulated precipitation for the first five months of the year. However, above normal precipitation was observed along the Pacific Coast from Cold Bay to Tree Point. By the end of the month, snow had largely disappeared from all but the higher hills and mountains south of the Brooks Range. Many gardens were planted.

JUNE: Frequent and persistent storms in the Bering Sea, with a predominant and stronger than normal high pressure ridge over northwestern Canada and eastern Alaska, resulted in generally cloudy, cool, windy, and rainy conditions in western Alaska and the Pacific Coast district, while eastern and southeastern Alaska experienced warm sunny days. Lakes and rivers which were still frozen over in May became free of ice in June. However, the ice in the Arctic Ocean at Wainwright and

STATION INDEX

Station	Index No.	County	Drainage‡	Latitude	Longitude	Elevation	Years of record: Temp.	Years of record: Precip.	Years of record: Evap.	Opened or closed during yr.: Month opened	Opened or closed during yr.: Month closed	Refer to tables
ADAK	0026	SW ISLANDS	29	51 53	176 39	15	8	8				1 2 3
ALLAKAKET	0230	YUKON VALLEY	30	66 34	152 44	600	35	36				1 2 3
AMCHITKA	0252	SW ISLANDS	4	51 24	179 152	202	8	8		NOV		1 2 3
ANCHORAGE WB AIRPORT	0285	SO VALLEYS	13	61 13	149 50	134	28	28				1 2 3
ANGOON	0310	SOUTHEASTERN	8	57 30	134 35	35	11	11				1 2 3
ANIAK CAA	0332	SO VALLEYS	30	61 40	159 42	81	11	12				1 2 3
ANNETTE WB AIRPORT	0352	SOUTHEASTERN	52	55 02	131 34	110	10	10				1 2 3
ANNEX CREEK	0363	SOUTHEASTERN	51	58 19	134 06	24	33	34				1 2 3
ATKA	0433	SW ISLANDS	38	52 13	174 12	36	19	20		MAR		1 2 3
ATTU	0452	SW ISLANDS	38	52 50	173 11E	59	4	4				1 2 3
BARANOF	0522	SOUTHEASTERN	59	57 05	134 50	20	14	14				1 2 3
BARROW WB	0546	ARCTIC DRAIN	1	71 18	156 47	22	37	35				1 2 3
BARTER ISLAND	0558	ARCTIC DRAIN	1	70 07	143 40	50	3	3				1 2 3
BEAVER FALLS	0657	SOUTHEASTERN	59	55 23	131 28	39	3	3				1 2 3
BELL ISLAND	0676	SOUTHEASTERN	3	55 55	131 35	10	19	19		NOV 1949		1 2 3
BETHEL WB AIRPORT	0754	SO VALLEYS	30	60 47	161 41	21	27	27				1 2 3
BETTLES CAA	0760	YUKON VALLEY	28	66 54	151 51	848	7	7				1 2 3
BIG DELTA CAA	0770	YUKON VALLEY	55	64 00	145 44	1268	10	10				1 2 3
BOUNDARY	0910	YUKON VALLEY	63	64 04	141 07	2600	3	3				1 2 3
CANDLE	1220	BERING SEA	27	65 56	161 55	24	21	11		NOV		1 2 3
CAPE DECISION	1269	SOUTHEASTERN	48	56 00	134 08	39	9	8				1 2 3
CAPE HINCHINBROOK	1308	PACIFIC COAST	18	60 14	146 39	185	7	6				1 2 3
CAPE ST ELIAS	1321	PACIFIC COAST	18	59 45	144 36	50	13	14				1 2 3
CAPE SPENCER	1334	SOUTHEASTERN	38	58 12	136 38	81	14	14				1 2 3
CASWELL	1447	SO VALLEYS	49	61 58	149 54	290	2	2				1 2 3
CENTRAL	1458	YUKON VALLEY	63	65 35	144 47	700	4	6				1 2 3
CHITINA	1824	SO VALLEYS	14	61 32	144 27	572	13	13		AUG		1 2 3
CIRCLE HOT SPRINGS	1987	YUKON VALLEY	63	65 29	144 42	1000	12	13				1 2 3
COLD BAY	2102	SW ISLANDS	38	55 12	162 43	99	9	8				1 2 3
COLLEGE MAGNETIC OBSERVATORY	2107	YUKON VALLEY	9	64 52	147 50	621	3	3				1 2 3
CORDOVA WB AIRPORT	2177	PACIFIC COAST	18	60 29	145 30	40	9	8				1 2 3
CRAIG	2227	SOUTHEASTERN	44	55 29	133 09	13	13	13				1 2 3
CROOKED CREEK	2247	SO VALLEYS	30	61 52	158 13	125	11	11				1 2 3
EAGLE	2607	YUKON VALLEY	63	64 46	141 12	804	39	41	#AUG	JUN		1 2 3
EIELSON FIELD	2707	YUKON VALLEY	55	64 39	147 04	547	5	5				1 2 3
EKLUTNA	2717	SO VALLEYS	25	61 27	149 20	27	10	10				1 2 3
ELLIOTT LAKE	2725	SO VALLEYS	25	61 24	149 09	882	5	5				1 2 3
ELDRED ROCK	2770	SOUTHEASTERN	33	58 58	135 13	55	7	6				1 2 3
FAIRBANKS WB AIRPORT	2968	YUKON VALLEY	9	64 50	147 43	436	46	46				1 2 3
FAREWELL CAA	2988	SO VALLEYS	30	62 32	154 43	1499	7	7				1 2 3
FIVE FINGER LIGHT	3072	SOUTHEASTERN	16	57 16	133 37	30	8	7				1 2 3
FLAT	3085	YUKON VALLEY	21	62 29	158 05	326	17	13				1 2 3
FORT YUKON CAA	3175	YUKON VALLEY	63	66 35	145 18	419	33	32				1 2 3
GALENA WB AIRPORT	3215	YUKON VALLEY	63	64 43	156 54	120	8	7				1 2 3
GAMBELL WB AIRPORT	3226	BERING SEA	4	63 51	171 36	25	15	13				1 2 3
GUARD ISLAND	3454	SOUTHEASTERN	11	55 27	131 53	20	9	7				1 2 3
GULKANA CAA	3465	SO VALLEYS	14	62 09	145 28	1573	12	9				1 2 3
GULL COVE	3476	SOUTHEASTERN	20	58 12	136 09	18	10	10				1 2 3
GUSTAVUS CAA	3475	SOUTHEASTERN	19	58 25	135 42	22	14	14				1 2 3
HAINES CAA	3495	SOUTHEASTERN	10	59 13	135 26	257	26	24				1 2 3
HOLLIS	3650	SOUTHEASTERN	11	55 30	132 30	15	1	1				1 2 3
HOLY CROSS	3655	YUKON VALLEY	63	62 10	159 45	150	47	40				1 2 3
HOMER CAA	3665	PACIFIC COAST	23	59 38	151 31	65	16	16				1 2 3
HUGHES	3765	YUKON VALLEY	28	66 04	154 15	550	9	9				1 2 3
ILIAMNA CAA	3805	SO VALLEYS	22	59 44	154 57	145	12	12				1 2 3
JUNEAU	4092	SOUTHEASTERN	17	58 18	134 24	72	55	57				1 2 3
JUNEAU WB AIRPORT	4100	SOUTHEASTERN	1	58 22	134 35	15	10	10				1 2 3
KENAI CAA	4546	PACIFIC COAST	13	60 33	151 16	64	16	20				1 2 3
KETCHIKAN	4590	SOUTHEASTERN	56	55 21	131 39	15	39	40				1 2 3
KLATTS FARM	4687	SO VALLEYS	13	61 04	149 54	150	2	2		FEB 1949		1 2 3
KODIAK	4986	PACIFIC COAST	60	57 45	152 31	21	47	57				1 2 3
KOTZEBUE WB AIRPORT	5076	ARCTIC DRAIN	27	66 52	162 38	10	25	17				1 2 3
LAKE ALEKNAGIK	5346	BERING SEA	66	59 27	158 54	55	1	1		MAR		1 2 3
LAKE MINCHUMINA CAA	5366	SO VALLEYS	31	63 53	152 17	693	7	7				1 2 3
LATOUCHE	5454	PACIFIC COAST	32	60 03	147 54	45	23	23				1 2 3
LINCOLN ROCK	5499	SOUTHEASTERN	11	56 04	132 42	25	8	10				1 2 3
LITTLE PORT WALTER	5519	SOUTHEASTERN	8	56 23	134 30	14	15	14				1 2 3
MANLEY HOT SPRINGS	5644	YUKON VALLEY	55	65 00	150 39	261	20	19				1 2 3
MATANUSKA VALLEY 2	5721	SO VALLEYS	34	61 33	149 05	75	10	9				1 2 3
MATANUSKA VALLEY 9	5728	SO VALLEYS	34	61 39	149 12	420	8	8				1 2 3
MATANUSKA VALLEY 12	5731	SO VALLEYS	34	61 37	149 06	220	10	10				1 2 3
MATANUSKA VALLEY 14	5733	SO VALLEYS	34	61 34	149 16	150	31	31	16			1 2 3 4
MATANUSKA VALLEY 15	5734	SO VALLEYS	34	61 37	149 13	350	7	9				1 2 3
MC GRATH WB AIRPORT	5769	SO VALLEYS	30	62 58	155 37	334	10	12				1 2 3
MC KINLEY PARK	5778	YUKON VALLEY	36	63 44	148 58	2092	28	26				1 2 3
MEIER	5843	SO VALLEYS	14	62 47	145 27	2717	1	1		JUN		1 2 3
MIDDLETON ISLAND CAA	5868	PACIFIC COAST	18	59 28	146 19	39	8	8				1 2 3
MILE 28 HAINES HIGHWAY	5898	SOUTHEASTERN	24	59 24	135 54	400	5	5				1 2 3
MOSES POINT CAA	6058	BERING SEA	37	64 43	162 05	15	8	8				1 2 3
MOSQUITO POINT	6062	BERING SEA	66	59 17	158 35	55	1	1		MAY		1 2 3
MOUNTAIN VILLAGE	6078	YUKON VALLEY	63	62 07	163 45	42	6	6				1 2 3
MOUNT MC KINLEY	6089	YUKON VALLEY	36	63 44	148 55	1730	1	1			NOV 1949	1 2 3
NAKNEK	6166	BERING SEA	35	58 41	156 44	49	26	23				1 2 3
NAPTOWNE	6227	PACIFIC COAST	13	60 32	150 45	250	1	1		SEP		1 2 3
NENANA CAA	6309	YUKON VALLEY	35	64 33	149 06	358	26	22				1 2 3
NOME WB AIRPORT	6496	BERING SEA	4	64 30	165 24	13	44	45				1 2 3
NORTH DUTCH ISLAND CAA	6565	PACIFIC COAST	41	60 46	147 49	33	7	7				1 2 3
NORTHWAY WB AIRPORT	6586	YUKON VALLEY	55	62 58	141 58	1713	8	8				1 2 3
NUNIVAK	6727	BERING SEA	4	60 12	166 08	38	9	9				1 2 3
NYAC	6760	SO VALLEYS	30	61 00	159 59	450	2	2				1 2 3
PALMER	6870	SO VALLEYS	34	61 36	149 08	300	2	2				1 2 3
PETERSBURG CAA	7233	SOUTHEASTERN	61	56 49	132 57	100	20	20				1 2 3
PLATINUM	7365	BERING SEA	4	59 01	161 47	20	10	10				1 2 3
POINT HOPE	7431	ARCTIC DRAIN	1	68 20	166 48	13	11	10				1 2 3
POINT LAY	7442	ARCTIC DRAIN	1	69 49	162 55	10	8	7				1 2 3
POINT RETREAT	7451	SOUTHEASTERN	43	58 25	134 57	20	5	5				1 2 3
PORTAGE	7486	PACIFIC COAST	57	60 51	148 59	35	8	7			OCT 1949	1 2 3
PORT ALEXANDER	7557	SOUTHEASTERN	65	56 58	134 39	18	2	2				1 2 3
PORT HEIDEN CAA	7700	BERING SEA	6	56 57	158 39	86	6	6				1 2 3
PUNTILLA	7783	SO VALLEYS	47	62 09	152 50	1817	8	7				1 2 3
RADIOVILLE	7854	SOUTHEASTERN	38	57 36	136 09	15	15	15				1 2 3
ST PAUL ISLAND WB	8118	SW ISLANDS	4	57 09	170 13	22	37	46				1 2 3
SAVOONGA	8239	BERING SEA	4	63 41	170 26	35	8	8			JUN 1949	1 2 3
SEWARD	8371	PACIFIC COAST	42	60 07	149 27	76	38	38				1 2 3
SHEEP MOUNTAIN CAA	8407	SO VALLEYS	34	61 48	147 41	2316	9	2				1 2 3
SHEMYA	8419	SW ISLANDS	4	52 43	174 06E	92	8	8				1 2 3
SHISHMAREF	8437	ARCTIC DRAIN	45	66 14	166 07	16	23	21				1 2 3
SHOYGUK COVE	8448	PACIFIC COAST	39	64 47	148 34	20	2	2			JUN 1949	1 2 3
SHUNGNAK CAA	8459	ARCTIC DRAIN	26	66 54	157 02	140	10	10			SEP	1 2 3
SITKA JAPONSKI CAA	8494	SOUTHEASTERN	46	57 03	135 21	10	5	5				1 2 3
SITKA MAGNETIC	8503	SOUTHEASTERN	46	57 03	135 20	67	68	89				1 2 3
SKAGWAY	8525	SOUTHEASTERN	50	59 27	135 19	18	38	38				1 2 3
SKWENTNA CAA	8536	SO VALLEYS	47	61 57	151 10	153	11	11				1 2 3
SMEATON BAY	8558	SOUTHEASTERN	3	55 19	130 47	16	2	2				1 2 3
STONY RIVER	8745	SO VALLEYS	30	61 46	156 38	221	5	5				1 2 3
SUMMIT CAA	8811	YUKON VALLEY	7	63 20	149 09	2401	10	10				1 2 3
TALKEETNA CAA	8976	SO VALLEYS	49	62 19	150 06	345	32	30				1 2 3
TANACROSS	8987	YUKON VALLEY	55	63 24	143 19	1546	10	9				1 2 3
TANAGA	8995	SW ISLANDS	53	51 45	178 02	145	3	3			MAR 1949	1 2 3
TANANA CAA	9014	YUKON VALLEY	63	65 10	152 06	232	47	47				1 2 3
TELLER	9102	BERING SEA	40	65 16	166 21	10	18	17				1 2 3
TENAKEE	9113	SOUTHEASTERN	54	57 47	135 47	19	7	7				1 2 3
TREE POINT	9399	SOUTHEASTERN	15	54 48	130 56	36	18	19				1 2 3
UMIAT WB AIRPORT	9539	ARCTIC DRAIN	12	69 22	152 08	337	6	5				1 2 3
UMNAK	9551	SW ISLANDS	38	53 23	167 54	131	9	9			NOV	1 2 3
UNALAKLEET CAA	9564	BERING SEA	37	63 54	160 47	14	9	8				1 2 3
UNALASKA	9575	SW ISLANDS	4	53 53	166 32	22	28	24				1 2 3
UNIVERSITY EXP STATION	9641	YUKON VALLEY	9	64 51	147 52	475	46	45	11			1 2 3 4
VALDEZ	9685	PACIFIC COAST	38	61 07	146 16	15	38	37				1 2 3
WAINWRIGHT	9729	ARCTIC DRAIN	1	70 40	159 50	29	9	8				1 2 3
WALES WB AIRPORT	9739	BERING SEA	5	65 37	168 03	9	10	10				1 2 3
WASILLA	9759	SO VALLEYS	34	61 35	149 27	330	8	7				1 2 3
WHITTIER	9829	PACIFIC COAST	39	60 47	148 44	28	6	6				1 2 3
WISEMAN	9869	YUKON VALLEY	28	67 26	150 13	1290	17	16				1 2 3
WRANGELL	9919	SOUTHEASTERN	64	56 28	132 23	37	35	34				1 2 3
YAKATAGA CAA	9930	PACIFIC COAST	18	60 02	142 28	27	8	8				1 2 3
YAKUTAT WB AIRPORT	9941	PACIFIC COAST	36	59 31	139 40	28	28	30				1 2 3

REACTIVATED AUGUST 1, 1950.

‡ DRAINAGE CODE:

1 ARCTIC OCEAN	10 CHILKOOT INLET	19 ICY STRAIT	27 KOTZEBUE SOUND	35 NAKNEK RIVER	43 SAGINAW CHANNEL	51 TAKU INLET	59 WARM SPRINGS BAY
2 AUK BAY	11 CLARENCE STRAIT	20 IDABO INLET	28 KOYUKUK RIVER	36 NENANA RIVER	44 SAN ABERTO BAY	52 TAMGAS HARBOR	60 WOMAN'S BAY
3 BEHM CANAL	12 COLVILLE RIVER	21 IDITAROD RIVER	29 KULIK BAY	37 NORTON SOUND	45 SHISHMAREF INLET	53 TANAGA BAY	61 WRANGELL NARROWS
4 BERING SEA	13 COOK INLET	22 ILIAMNA LAKE	30 KUSKOKWIM RIVER	38 PACIFIC OCEAN	46 SITKA SOUND	54 TENAKEE INLET	62 YAKUTAT BAY
5 BERING STRAIT	14 COPPER RIVER	23 KACHEMAK BAY	31 LAKE MINCHUMINA	39 PASSAGE CANAL	47 SKWENTNA RIVER	55 TANANA RIVER	63 YUKON RIVER
6 BRISTOL BAY	15 DIXON ENTRANCE	24 KLEKINI RIVER	32 LATOUCHE PASSAGE	40 PORT CLARENCE	48 SUMNER STRAIT	56 TONGASS NARROWS	64 ZIMOVIA STRAIT
7 CANTWELL RIVER	16 FREDERICK SOUND	25 KNIK ARM	33 LYNN CANAL	41 PRINCE WM SOUND	49 SUSITNA RIVER	57 TURNAGAIN ARM	65 CHRISTINA SOUND
8 CHATHAM STRAIT	17 GASTINEAU CHANNEL	26 KODUK RIVER	34 MATANUSKA RIVER	42 RESURRECTION BAY	50 TAIYA INLET	58 VALDEZ ARM	66 WOOD RIVER

REFERENCE NOTES

Unless other wise indicated, dimensional units used in this bulletin are: Temperature in °F; precipitation and evaporation in inches, and wind movement in miles. Evaporation is measured on the standard Weather Bureau type pan 4 foot diameter unless otherwise shown by footnote following Table 4.

The four digit identification numbers in the Index are assigned on a territorial basis. There will be no duplication of numbers within the territory.

Delayed data and corrections will be carried in the June and December issues of Climatological Data.

- No record.
+ Also later date (dates) or months.
B Adjusted to full month.
E Water equivalent of snowfall wholly or partially estimated, using a ratio of 1 inch of water equivalent to every 10 inches of new snowfall.
M 1 to 9 days' record missing; see monthly Climatological Data for detailed daily record.
G Precipitation is measured with recording gage.
T Trace, an amount too small to measure.

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RELOCATIONS

MATANUSKA 9	All equipment moved 0.2 mile S.	October 17, 1950	MATANUSKA 14	All equipment moved 300 feet W.	July 18, 1950
TANACROSS	All equipment moved 660 feet E.	September 27, 1950	WASILLA	All equipment moved 1/2 mile W of Wasilla railroad depot	January 25, 1950
COLLEGE MAG OBS	Rain gage moved 7 feet NE and shelter moved about 25 feet ESE	June 17, 1950			

NAME CHANGES

Cape Thornbrough	Changed to Changed to	Umnak Cold Bay	January 1, 1950 January 1, 1950

GPO 86-102344 1000 5-15-51

Table 3—Continued

MISCELLANEOUS DATA

Station	Highest	Date	Lowest	Date	Freezing Temperature: Last date in spring	Freezing Temperature: First date in autumn	Length of growing season days	Total Annual Snowfall	Rivers and Harbors %: Date ice broke in spring	Rivers and Harbors %: Date closed in autumn	Rivers and Harbors %: Date safe for man	Number of days, Temperature: Max 70° or above	Max 32° or below	Min 32° or below	Min 0° or below
PLATINUM	73	8-13	-18	2-12	MAY 22	OCT 9	140	29.5	-	NOV 14 (37)	NOV 24	2	128	201	24
PORT HEIDEN CAA	72	8-11	-14	2-12	JUN 5	OCT 8	125	27.4	*	DEC 11 (38)	*	2	86	193	20
TELLER	73	8-14	-22	12-31	JUN 20	SEP 17	89	-	JUN 9	OCT 28 (39)	DEC 26	4	167	238	78
UNALAKLEET CAA	80	7- 8+	-42	2-10	JUN 5	SEP 12	99	29.1	MAY 19	OCT 12 (40)	OCT 31	11	158	236	81
WALES WB AP	70	8-15	-22	3-30	JUN 29	SEP 24	87	43.3	JUN 15	NOV 20 (41)	JAN 8	1	191	248	63
YUKON VALLEY															
ALLAKAKET	84	7- 5	-60	2-12	JUN 14	AUG 4	51	-	MAY 12	- (42)	OCT 29	54	-	-	-
BETTLES CAA	83	7- 7+	-44	2-14	JUN 2	AUG 30	89	74.6	MAY 11	OCT 8 (42)	NOV 14	36	183	231	113
BIG DELTA CAA	86	6-18	-51	2-14	MAY 26	SEP 13	110	58.6	-	-	-	42	174	215	109
BOUNDARY	87	6-18	-	-	JUN 3	AUG 3	61	-	-	OCT 6 (43)	OCT 20	-	-	-	-
CENTRAL	88	6-18	-59	2-13	JUN 8	AUG 14	67	41.3	-	- (44)	-	57	172	253	150
CIRCLE HOT SPRINGS	88	6-18	-57	2-13	JUN 3	AUG 14	72	-	MAY 3	- (45)	-	54	170	243	130
COLLEGE MAG OBS	86	7-11+	-41	1- 1	JUN 2	SEP 10	100	88.5	MAY 1	OCT 9 (46)	NOV 9	66	162	223	102
EAGLE	-	-	-66	2-11	JUN 3	AUG 6	64	-	MAY 10	- (44)	-	-	-	-	-
EIELSON FIELD	85	6-18+	-56	2-13	MAY 15	SEP 14	122	56.0	-	-	-	54	159	216	127
FAIRBANKS WB AP	87	6-18	-52	2-13	JUN 2	AUG 28	87	81.2	MAY 1	OCT 9 (46)	NOV 9	64	156	230	120
FLAT	85	7- 9	-39	12-22	JUN 5	SEP 1	88	29.4	MAY 10	OCT 9 (19)	OCT 25	43	-	-	-
FORT YUKON CAA	85	6-18+	-63	2-12	MAY 20	AUG 3	75	45.8	MAY 13	SEP - (44)	OCT 27	61	180	237	135
GALENA WB AIRPORT	82	7-23+	-45	2-15	MAY 13	SEP 2	112	42.9	MAY 15	OCT 29 (44)	DEC 8	35	171	220	113
HOLY CROSS	81	7- 8+	-28	2- 4	JUN 1	SEP 26	117	-	MAY 16	OCT 21 (44)	NOV 1	24	142	218	85
HUGHES	85	8-16	-57	2-11	JUN 1	AUG 31	91	-	MAY 13	OCT 9 (47)	OCT 30	53.	164	232	128
MANLEY HOT SPRINGS	86	7- 4	-57	2-14	JUN 24	AUG 14	51	70.4	MAY 11	OCT 10 (48)	NOV 1	61	161	257	132
MC KINLEY PARK	78	6-19	-	-	JUN 13	AUG 27	75	-	-	SEP 1 (49)	JAN 15	-	-	-	-
MOUNTAIN VILLAGE	-	-	-	-	-	OCT 8	-	-	MAY 20	OCT 26 (44)	NOV 4	-	-	-	-
NENANA CAA	85	7-10	-	-	JUN 3	AUG 28	86	37.7	MAY 6	OCT 14 (48)	NOV 6	50	-	-	-
NORTHWAY WB AP	87	6-17+	-59	1- 1	MAY 21	SEP 14	116	38.7	MAY 2	OCT 20 (50)	OCT 28	45	169	242	151
SUMMIT CAA	76	6-29	-	-	JUN 2	AUG 28	87	60.7	-	OCT 12 (51)	NOV 1	-	-	-	-
TANACROSS	90	6-18	-57	2-11	MAY 23	AUG 27	96	37.5	MAY 14	OCT 12 (48)	NOV 2	-	-	-	-
TANANA CAA	86	7- 4	-	-	JUN 2	SEP 1	91	43.5	MAY 16	OCT 9 (44)	NOV 5	-	-	-	-
UNIVERSITY EXP STATION	87	7-23	-55	2-14	JUN 13	AUG 27	75	-	-	-	-	79	148	250	120
WISEMAN	83	7- 7	-51	2-12	JUN 1	AUG 8	68	62.0	MAY 10	OCT 8 (47)	OCT 10	41	180	250	139
ARCTIC DRAINAGE															
BARROW WB	60	8- 8	-50	2-11	JUN 30	JUL 3	3	30.2	JUL 12	- (52)	-	0	249	311	144
BARTER ISLAND	64	9- 9	-59	2-12	JUN 25	JUL 5	10	-	-	-	-	0	239	286	150
KOTZEBUE WB AP	79	7-23	-32	2-12	JUN 8	SEP 23	107	33.3	MAY 27	OCT 11 (53)	OCT 29	11	188	245	98
POINT HOPE	68	7- 9+	-26	3-19	JUN 25	JUL 1	6	-	JUN 4	- (54)	-	0	197	272	97
SHISHMAREF	72	7-18	-28	3-28+	JUN 21	SEP 12	83	41.0	JUN 17	OCT 12 (55)	NOV 20	2	187	222	86
SHUNGNAK CAA	85	7- 5+	-51	2-10	JUN 2	SEP 2	92	-	MAY 16	- (56)	-	-	-	-	-
UMIAT WB AP	79	7-14	-57	2-26	JUN 7	AUG 13	67	38.1	MAY 18	SEP 27 (57)	OCT 28	19	221	272	159
WAINWRIGHT	78	7-11	-50	2-11	JUN 28	JUL 3	5	-	JUL 7	SEP 28 (58)	OCT 20	6	236	279	130

* Insignificant Ice

% Rivers and Harbors. Number in parentheses "Date closed in autumn" identifies waterway or harbor in accordance with following table.

1 KOOTZNAHOO INLET
2 LAKE BARANOF
3 SILVIS LAKE
4 SALMON RIVER
5 LITTLE PORT WALTER HARBOR
6 PETERSBURG LAKE
7 LOCAL LAKES
8 LAKE EYAK
9 BELUGA LAKE
10 KENAI RIVER MOUTH
11 BUSKIN RIVER
12 YAKATAGA RIVER
13 LAKE HOOD
14 KUSKOKWIM RIVER
15 KASHWITNA RIVER
16 COPPER RIVER
17 EKLUTNA LAKE
18 SHEEP CREEK
19 IDITEROD RIVER
20 GULKANA RIVER
21 NEWHALEN LAKE
22 LAKE ALEKNAGIK
23 LAKE MINCHUMINA
24 MATANUSKA RIVER
25 KENAI RIVER
26 PUNTILLA LAKE
27 CARIBOU RIVER
28 SKWENTNA RIVER
29 TALKEETNA RIVER
30 LAKE LUCILLE
31 KEEWALIK RIVER
32 LAKE TROUTMAN
33 KWINIUK RIVER
34 NAKNEK RIVER
35 SNAKE RIVER
36 NEKORYOK RIVER
37 GOODNEWS BAY
38 MESHIK BAY
39 GRANTLEY HARBOR
40 UNALAKLEET RIVER
41 WALES HARBOR
42 KOYUKUK RIVER
43 FORTY-MILE RIVER
44 YUKON RIVER
45 GROUSE CREEK
46 CHENA RIVER
47 KOYUKUK RIVER
48 TANANA RIVER
49 NENANA RIVER
50 NABESNA RIVER
51 CANTWELL RIVER
52 ARCTIC OCEAN
53 KOTZEBUE SOUND
54 ARCTIC OCEAN-NORTH BEACH
55 SHISHMAREF INLET
56 KOBUK RIVER
57 COLVILLE RIVER
58 KUK RIVER

SUPPLEMENTARY TABLE OF BREAK-UP AND FREEZE-UP DATA, 1950

STATION	RIVER OR HARBOR	BREAK-UP	FIRST ICE	DATE SAFE FOR MAN
ALEKNAGIK	WOOD RIVER	MAY 4	----	----
ALLAKAKET	ALATNA RIVER	MAY 13	OCT 9	OCT 29
ANCHORAGE	COOK INLET	----	NOV 4	----
ANVIK	YUKON RIVER	MAY 17	----	----
BEAVER	YUKON RIVER	MAY 14	----	----
CASWELL	KOALA RIVER	MAY 18	OCT 18	OCT 30
	CASWELL	MAY 17	----	OCT 30
CIRCLE	YUKON RIVER	MAY 12	OCT 22	NOV 1
CIRCLE SPRINGS	MEDICINE LAKE	MAY 15	----	OCT 14
	PORTAGE CREEK	MAY 2	OCT 3	OCT 15
COAL CREEK	COAL CREEK	MAY 8	----	----
	WOODCHOPPER CREEK	MAY 8	----	----
	YUKON RIVER	MAY 11	----	----
COUNCIL	NEUKLUK RIVER	MAY 15	OCT 1	NOV 1
DILLINGHAM	NUSHAGAK RIVER	MAY 12	OCT 27	----
EGEGIK	EGEGIK	APRIL 10	OCT 28	DEC 5
	2 MILES N OF TOWN	APRIL 24	----	----
FAREWELL	MIDDLE FORKS, KUSKOKWIM	APRIL 27	----	----
FORTUNA LEDGE	YUKON RIVER	MAY 15	OCT 26	NOV 6
GAMBELL	BERING SEA	----	JAN 1	----
GOODNEWS	GOODNEWS RIVER	MAY 5	OCT 23	NOV 4
	TENULIK RIVER	MAY 5	----	NOV 4
GULKANA	GAKONA RIVER	MAY 10	----	NOV 10
HAMILTON	YUKON RIVER	MAY 25	OCT 27	NOV 1
HAYCOCK	KOYUK RIVER	MAY 20	OCT 10	NOV 4
HOLIKACHUK	INNOKO RIVER	MAY 18	OCT 13	NOV 4
KALSKAG	KUSKOKWIM RIVER	MAY 16	----	----
KALTAG	YUKON RIVER	MAY 17	OCT 12	NOV 13
KENAI	NEARBY LAKES	----	----	OCT 26
KOBUK	KOBUK RIVER	MAY 16	OCT 9	OCT 26
KOYUKU	YUKON RIVER	----	OCT 12	NOV 15
LAKE MINCHUMINA	DEEP CREEK	MAY 6	----	----
	FORAKER RIVER	MAY 6	----	----
	MUDDY RIVER	MAY 6	----	----
NAPAMUTE	KUSKOKWIM RIVER	MAY 11	OCT 16	NOV 16
NAPTOWNE	MOOSE RIVER	----	OCT 15	NOV 1
NOME	NORTON SOUND	MAY 18	NOV 20	DEC 12
NOORVIK	KOBUK RIVER	MAY 25	OCT 10	OCT 13
NORTHWAY	CHISANA	MAY 1	----	OCT 28
NULATO	YUKON RIVER	MAY 16	OCT 13	NOV 3
OPHIR	INNOKO RIVER	MAY 9	----	----
POINT BARROW	ARCTIC OCEAN	JULY 12	OCT 25	Dec 25
POINT HOPE	ARCTIC OCEAN-SOUTH BEACH	JULY 4	----	----
QUINHAGAK KANEGTOK	QUINHAGAK RIVER	APRIL 28	----	NOV 2
RAMPART	YUKON RIVER	MAY 16	OCT 10	NOV 6
SAINT MICHAEL	ST. MICHAEL BAY	JUNE 4	----	----
SELAWIK	SELAWIK RIVER	MAY 26	OCT 24	OCT 26
SLEETMUTE	KUSKOKWIM RIVER	MAY 10	----	----
SMEATON BAY	CABIN CREEK	MAR 1	----	----
SOLOMON	SOLOMON RIVER	MAY 14	----	----
STEVENS VILLAGE	YUKON RIVER	MAY 15	OCT 11	NOV 14
TALKEETNA	SUSITNA RIVER	APRIL 30	OCT 11	DEC 17
WASILLA	COTTONWOOD CREEK	MAR 15	----	----
	WASILLA LAKE	APRIL 12	----	----
WHITE MOUNTAIN	FISH RIVER	MAY 17	OCT 10	OCT 29
WILLOW	WILLOW CREEK	APRIL 23	OCT 31	----
YAKATAGA	OUKTOTH RIVER	MAR 25	----	----

TOTAL EVAPORATION AND WIND MOVEMENT

Table 4

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
MATANUSKA VALLEY 14	EVAP	-	-	-	-	-	-	-	4.42	-	-	-	-	-
	DEP	-	-	-	-	-	-	-	1.40	-	-	-	-	-
	WIND	-	-	-	-	-	-	-	-	-	-	-	-	-
UNIVERSITY EXPERIMENT STATION	EVAP	-	-	-	-	-	5.84	B 4.44	B 3.36	-	-	-	-	-
	DEP	-	-	-	-	-	1.32	.03	.73	-	-	-	-	-
	WIND	-	-	-	-	-	-	-	-	-	-	-	-	-

Barrow was still solid at the end of the month. The above normal precipitation south of the Alaska Range temporarily terminated the hazardous forest fire situation in the Anchorage District, although hazardous fire conditions continued through June in the upper Yukon and Tanana Valleys where, by June 28th, a forest fire between the Chandalar and Porcupine Rivers in the Fort Yukon area covered 246,000 acres. Thunderstorms were reported from 12 stations in the Territory, and a hailstorm with hailstones 2-1/2 to 3-1/2 inches in diameter at Eagle on June 20th caused considerable damage to windows, gardens, green houses, roofs, and a plane.

JULY: The month was characterized by light southeasterly flow, with an unusually large number of thunderstorms reported over the Alaskan Territory, thunderstorms being observed as far north as Wainwright. However, they resulted in little more than lightning strikes, which, with the extended drought conditions, were credited as the major cause of the serious outbreak of forest fires in the Fairbanks district. With the exception of the McGrath-Farewell area, below average precipitation was observed over western Alaska, while stations in eastern and southeastern Alaska generally received above average July precipitation. Monthly mean temperatures averaged above normal north of the Alaska Range, and below normal south of the Range. Record breaking warm July mean temperatures were observed along the Northwest coast and southeast to the upper Koyukuk River Valley. The Arctic Ocean ice, solid at Wainwright and Barrow at the end of June, disappeared by the end of July just in time to permit the annual Navy supply expedition to reach the northern stations of Wainwright, Barrow, and Barter Island.

AUGUST: Above normal temperatures over the entire Alaskan Territory and continued drought conditions over most of the Yukon and Southern Valley districts marked the weather of August, 1950. The mean atmospheric circulation pattern was little changed from that of July. Above normal amounts of sunshine were generally observed over all but the Arctic Drainage and the northern Bering Sea districts. Record mean temperature anomalies were observed in the Kobuk, lower Yukon, and Kuskokwim Valleys. Less than half of normal precipitation was received in large areas of eastern Alaska. A number of thunderstorms were observed in August in the Yukon and Southern Valley districts. Forest fires continued to rage in the Fort Yukon area.

SEPTEMBER: The mean circulation pattern for September showed a low pressure area in the Bering Sea with general southerly flow over the Alaskan Territory. Above normal temperatures occurred over most of the Territory, with the greatest anomalies, as in August, observed in the Colville, Kobuk, and Koyukuk River Valleys, and the Eastern Seward Peninsula. Near to below normal temperature departures were observed along the Pacific Coast from Tree Point to Kodiak, and westward along the Alaskan Peninsula and the Aleutian Chain. Precipitation averaged near normal along the Pacific Coast, generally above normal in the Bering Sea and Northwest Alaska area, but considerably below normal in the drought areas on the western Kenai Peninsula, the Matanuska-Yentna, and the Tanana River Valleys. The hazardous forest fire situation continued.

OCTOBER: With essentially the same circulation pattern observed in September, the cool dry weather in southeastern Alaska continued through October. Below normal temperatures also prevailed south of the Kuskokwim and the Yukon Rivers, while stations in the Bering Sea and western Arctic Drainage districts observed temperatures 2°- 5° warmer than average. All stations in Alaska had reported the first killing freeze by the end of the month. Also by the end of October, the major part of the Territory was snow covered and all stations had reported first ice; ice on rivers was classified as being safe for man north of a line Chitina-Fort Yukon-Hughes-Moses Point, and at Manley Hot Springs, Summit, Skwentna, McGrath, and Flat. Most storms in the Gulf of Alaska stayed well south of the Mainland, and, with the exception of St. Lawrence Island, the Seward Peninsula, the western Arctic Drainage district, and a small area in the vicinity of Big Delta, monthly precipitation was reported below normal over the Territory. Generally less than half of the average precipitation was received by stations in the Southeastern, Pacific Coast, and Southern Valley districts, the lower Yukon Valley, and the upper Koyukuk River Valley.

NOVEMBER: November, 1950, in Alaska was a month of weather extremes, with many stations, as Stateside, posting new records in temperature, precipitation, cloudiness, wind, and pressure. The average circulation pattern for the month showed the Aleutian low pressure area displaced east of its usual November position, and an unusually strong high pressure ridge extending over the Aleutian Chain and southwestern Alaska. Stations in the Bering Sea area reported the highest average November mean sea level pressure of record. Northwest Alaska reported one of the warmest and wettest Novembers of record. Northerly flow on the eastern side of the high pressure ridge resulted in one of the coldest Novembers of record in much of the remaining Alaskan Territory and continued drought and little cloudiness south of the Alaskan range.

DECEMBER: With prevailing light southeasterly flow, the entire territory, with the exception of the Alaskan Peninsula, observed near to above normal December temperatures. As in November, several storms moved northeastward during the month into the Bering Sea, through the Bering Strait and eastward in the Arctic Ocean, bringing periods of high winds to Bering Sea and Arctic Ocean coasts, as well as above average December precipitation over most of the Alaskan Territory north of the Yukon and Tanana Rivers. However, the month of December in Alaska generally was regarded as a mild month, providing a welcome end to the 1950 weather year.

RFD

PERCENTAGE OF NORMAL ANNUAL PRECIPITATION, 1950
LINES — % OF NORMAL
FIGURES — ACTUAL PRECIPITATION 1950
STATION LEGEND
Precipitation only
Precipitation, storage
Precipitation and Temperature
Precipitation, Temperature and Evaporation
Snowfall Center
Type of gage: Non-recording; Recording; Both types.
Double circle combination: Complete Meteorological.
ALASKA
STATUTE MILES
MATANUSKA VALLEY
Barrow WB City
Point Lay RB AWS
Point Hope RB AWS
Kotzebue WB AP
Nome WB AP
Bethel WB AP
Cape Newenham
Cape Romanzof
Unalakleet WB AP
Nulato
Galena
Tanana
Fairbanks
Eielson AFB
Big Delta
Gulkana
Chitina
Cordova WB AP
Yakutat WB AP
Juneau WB AP
Sitka Japonski CAA
Ketchikan
Annette WB AP
Port Alexander
Yakutat CAA AWS
Cape Spencer
Cape Hinchinbrook
Cape St Elias
Middleton Is CAA AWS
Kenai CAA AWS
Homer CAA AWS
Kodiak
Cape Ikolik
Cold Bay
Unalaska
Umnak
Adak
Amchitka
Attu
St Paul Is WB AP
Nunivak
Bethel
Kwethluk
Aniak
Anchorage WB City
Anchorage WB AP
Kenai CAA AWS
Kodiak

Table 2—Continued

TOTAL PRECIPITATION AND DEPARTURES FROM NORMAL

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure
ATTU	-		-		2.89		3.20		6.37		6.43		6.68		3.25		4.97		13.52		6.31		7.81		-	
COLD BAY	2.02	- .80	.08	-3.84	.63	- .99	.52	- .62	1.09	- .75	.69	-1.21	.28	-1.54	3.08	1.83	4.72	1.16	3.16	-1.43	1.59	-3.22	.94	-1.92	20.80	-13.30
ST PAUL ISLAND WB AP G	1.91	- .22	.70	- .82	1.13	- .55	1.56	.27	1.51	.07	.90	- .51	5.85	3.26	2.63	- .54	3.72	.23	3.21	- .11	2.46	- .37	3.13	.88	28.71	1.59
SHEMYA	3.49	1.62	4.51	2.72	1.28	- .64	3.49	2.31	2.57	1.23	1.67	.74	4.10	1.96	1.84	- .95	3.02	.87	1.92	-1.10	.95	-1.99	2.68	.28	31.52	7.05
UMNAK	3.13	.24	1.75	-2.44	2.55		2.07		2.12		1.87		-		7.33		6.71		9.87		-		-		-	
UNALASKA	5.04	-1.46	2.11	-4.40	3.97	-1.01	3.74	- .57	3.02	-1.48	1.19	-1.92	4.62	2.53	2.93	.47	8.81	3.22	4.72	-2.71	2.20	-4.41	9.66	2.78	52.01	- 8.96
DIVISION	1.60	-6.91	4.37	-2.03	4.07	-1.98	5.75	.72	7.06	2.18	4.19	.52	5.52	1.17	6.02	- .68	10.89	.97	6.73	-6.59	2.95	-7.21	7.26	-1.92	66.41	-21.76
NORTHERN DIVISION																										
SOUTHERN VALLEYS																										
ANCHORAGE WB AP G	.83	- .01	T	- .67	.29	- .26	.04	- .37	.10	- .40	1.90	1.20	.97	- .66	.92	-1.68	1.07	-1.51	.52	-1.66	.26	- .78	1.71	.86	8.61	- 5.94
ANIAK CAA	1.10	.37	.26	- .59	.05	- .98	.46	.08	.34	- .81	3.95	2.73	1.49	-1.03	3.50	-1.88	3.64	.65	1.03	-1.15	.42	- .53	.83	- .33	17.06	- 3.47
BETHEL WB AP	1.03	.13	.23	- .61	.53	- .43	.64	.10	.70	- .19	2.48	1.31	2.25	- .04	2.54	-1.54	3.45	.46	1.64	- .11	.99	.02	.52	- .34	17.00	- 1.24
CASWELL	1.95		.00		T		.32		.61		4.01		2.52		1.63		2.59		.89		.44		2.93		17.89	
CHITINA	-		-		-		-		-		-		-		-		1.56		-		-		-		-	
CROOKED CREEK	.48	- .30	.06	- .49	.05	- .31	-		.40	- .49	3.58	2.44	1.50	- .21	2.39	- .77	2.00	- .49	.40	- .83	.80	.05	.84	.33	-	
EKLUTNA	1.06	- .29	.03	- .64	.18	- .39	.21	- .06	.15	- .58	2.12	.54	2.05	.02	.67	-2.64	.69	-1.92	.63	- .72	.20	- .99	1.36	.66	9.35	- 7.01
EKLUTNA LAKE	.58		.10		.41		.15		.22		.85		1.82		.70		-		.53		.12		.99		-	
FAREWELL CAA	.57	.14	.11	- .35	.28	- .08	.18	- .39	1.26	.19	2.16	- .60	4.39	1.02	4.09	- .44	1.09	-1.38	.46	- .22	.43	.04	.40	- .09	15.42	- 2.16
GULKANA CAA	.86	- .03	.39	- .04	T	- .45	.06	- .37	T	- .47	.81	- .42	2.81	.70	.53	-1.33	1.75	.17	.44	- .42	.87	.22	.73	- .23	9.25	- 2.67
ILIAMNA CAA	.52	-1.27	.01	-1.18	.08	-1.32	1.56	.43	.34	-1.28	3.85	2.64	2.02	-1.22	6.39	1.45	3.91	.00	2.42	-1.73	.08	-1.33	.52	-1.86	21.70	- 6.67
LAKE MINCHUMINA CAA	.90	.24	.03	- .46	.08	- .55	.03	- .23	.34	- .44	.37	-1.35	.65	-1.91	1.31	-1.87	.22	-1.33	.27	- .53	.52	- .02	.15	- .44	4.87	- 8.89
MATANUSKA VALLEY 2	E 1.59	.19	E .03	- .83	.01	- .74	.11	- .15	.47	- .05	1.22	.01	2.27	.66	.82	-1.88	.87	-1.41	.34	-1.26	E .18	- .93	E 1.35	- .05	E 9.26	- 6.44
MATANUSKA VALLEY 9	.66	- .88	.00	- .68	.02	- .73	.04	- .24	.38	- .25	1.83	- .57	2.63	.33	1.81	-2.90	-		1.59	- .33	.15	- .72	3.10	2.28	-	
MATANUSKA VALLEY 12	-		-		.07	- .65	.10	- .21	.15	- .49	1.43	- .21	2.20	.15	1.16	-2.29	.82	-2.14	.51	- .97	.26	- .64	1.22	.46	-	
MATANUSKA VALLEY 14	E 1.44	.53	.00	- .73	.07	- .48	-		-		1.82	.55	1.44	- .53	1.45	-1.43	.68	-1.97	.40	-1.37	-		-		-	
MATANUSKA VALLEY 15	-		-		-		-		-		-		2.18	.30	1.15	-2.81	.93	-2.77	-		-		-		-	
MCGRATH WB AP	1.80	.68	.07	-1.23	.03	-1.11	.67	.28	.52	- .51	4.36	2.44	2.84	.46	2.82	- .76	2.13	- .29	.44	-1.42	.51	- .62	.98	- .32	17.17	- 2.40
MEIER	-		-		-		-		-		-		3.47		1.14		1.04		-		-		-		-	
NAPTOWNE	-		-		-		-		-		-		-		-		-		.44		.08		1.90		-	
NYAC	-		.34		-		.48		-		3.34		-		4.06		3.09		.96		.96		-		-	
PALMER	E 1.22		T		T		.02		.06		1.13		2.05		1.16		.95		.55		.18		1.36		E 8.68	
PUNTILLA	.84	- .66	.06	-1.25	.27	-1.02	.31	.01	.30	- .02	-		.46	-1.17	.76	-1.63	.77	-1.10	.41	- .80	.21	- .71	.44	- .34	-	
SHEEP MOUNTAIN CAA	.20	- .51	.10	- .27	.07	- .35	T	- .19	.80	.48	3.44	2.39	3.91	1.50	.46	- .84	.25	-1.67	.20	- .98	.21	- .55	.47	- .17	10.11	- 1.16
SKWENTNA CAA	1.45	-1.13	T	- 2.15	.10	-1.70	.27	- .95	.68	- .74	3.17	1.38	2.14	-1.42	.93	-3.62	2.50	-2.90	1.21	-2.05	.12	-2.31	.62	- .90	13.19	-18.49
STONY RIVER	2.36		.06	-1.61	.13	-1.43	.61		.79		3.58		1.72	-1.24	5.34		2.77		.52		.87		.99		19.74	
TALKEETNA CAA	1.58	- .29	.01	-1.89	.06	-1.86	.15	- .76	.52	- .75	2.88	1.22	1.92	-1.62	2.14	-3.09	5.27	.33	1.46	-2.12	.68	-1.09	3.34	1.55	20.01	-10.37
WASILLA	1.73	.48	.00	- .82	.28	- .59	.50	.11	.47	- .25	1.96	.07	1.40	- .75	1.12	-2.19	1.23	-1.64	.94	- .82	.14	- .72	2.14	1.19	11.91	- 5.93
BERING SEA																										
CANDLE	-		T	- .52	1.32		.04	- .15	-		-		.63	- .61	.95	- .54	1.66	.46	-		-		-		-	
GAMBELL WB AP	3.28	2.57	.59	- .28	4.85	4.02	5.86	5.18	.63	.02	.68	.18	3.20	1.62	2.22	.09	3.23	1.26	2.21	.87	1.22	.19	3.13	2.34	31.10	18.06
LAKE ALEKNAGIK	-		-		-		2.13		4.48		-		-		-		13.67		3.67		1.08		2.45		-	
MOSES POINT CAA	1.44	.13	.40	-1.29	.72	-1.23	.30	- .66	.11	- .95	.42	- .18	.36	-1.59	3.38	- .24	4.30	1.79	2.21	.35	2.48	1.14	1.76	.23	17.88	- 2.50
MOSQUITO POINT	-		-		-		-		-		4.89		3.41		6.15		-		-		-		-		-	
NAKNEK	1.01	.07	.31	- .93	.56	- .63	1.69	.86	2.26	.98	3.78	2.26	2.40	- .70	2.42	-1.72	3.81	.32	2.07	- .66	.08	-1.22	.64	- .57	21.03	- 1.94
NOME WB AP	1.88	.79	.49	- .32	1.01	.17	.99	.32	.53	- .11	1.93	.81	1.69	- .81	5.50	2.28	3.63	.92	3.02	1.46	2.53	1.56	1.05	- .06	24.25	6.99
NUNIVAK	.73	- .23	.61	- .51	1.19	.17	1.05	.49	.32	- .37	.74	.10	1.00	.06	2.04	- .22	2.28	.49	1.30	-1.25	1.47	.14	1.22	.43	13.95	- .70
PLATINUM	.81	- .39	.15	-1.04	.84	- .24	.97	.50	.74	- .30	.75	- .13	.41	-1.13	2.31	-1.14	5.29	2.35	1.75	-1.00	.26	-1.15	.80	- .25	15.08	- 3.92
PORT HEIDEN CAA	.78	- .08	.17	- .39	1.32	.72	.76	.43	1.52	.90	1.46	.16	1.10	- .73	2.27	- .89	3.03		1.83	-1.84	.53	-1.16	.29	- .88	15.06	
TELLER	.29	- .69	.06	- .65	E 1.53	1.05	.09	- .76	.16	- .32	.88	.29	1.49	- .39	3.41	1.19	1.97	.28	1.57	.88	1.25	.67	.74	.26	E 13.44	1.81
UNALAKLEET CAA	.57	.39	.17	- .16	.33	- .07	.17	- .06	.34	- .48	1.20	.32	.67	-2.09	2.20	-2.10	3.20	1.17	.24	- .89	.55	.37	.36	.16	10.00	- 3.44
WALES WB AP	.64	- .12	.76	- .15	.51	- .10	.79	.51	.38	- .11	1.07	.45	1.03	- .33	2.04	- .49	2.69	.81	1.85	.77	.65	.15	.41	- .24	12.82	1.15
YUKON VALLEY																										
ALLAKAKET	.81	.07	.08	- .74	.02	- .64	.20	- .16	1.00	.26	2.56	1.23	.89	-1.25	1.02	-1.11	2.12	.57	E 1.03	- .08	.91	.12	1.14	.36	E 11.78	- 1.37
BETTLES CAA	.41	- .57	T	- .34	T	-1.17	.04	- .30	1.10	- .16	1.35	.16	.33	-1.13	1.08	-1.81	1.64	- .54	.78	- .93	1.05	.52	.96	.45	8.74	- 5.82
BIG DELTA CAA	1.13	.84	.06	- .15	.69	.44	.07	- .28	.71	.00	.61	-1.82	3.37	.21	2.27	.41	.43	- .88	.69	.29	.53	.24	.26	- .08	10.82	- .78
BOUNDARY	-		-		-		T		1.56		-		2.76		1.41		1.41		-		.54		1.41		-	
CENTRAL	.47	- .15	.12	- .05	.12		.28	- .96	.24	- .42	1.15	-1.39	2.74	.02	1.08		.49		.54	- .51	.11		.41	- .06	7.75	
CIRCLE HOT SPRINGS	.52	.13	.13	- .12	.16	- .11	.20	- .21	.23	- .75	.75	- .41	3.13	1.14	1.56	.01	.95	- .32	.80	.03	.25	- .30	.49	.16	9.17	- .75
COLLEGE MAG OBS	2.35		.48		.53		.04		.30		.72		1.03		1.51		.46		.77		1.16		.80		10.15	
EAGLE	1.40	.93	.04	- .28	.60	.25	.52	.12	-		-		-		.81	-1.26	1.52	.18	.23	- .59	.73	.24	1.27	.79	-	
EIELSON FIELD	2.08		.15		.79		.08		.14		.95		3.05		2.62		.58		.58		1.47		.45		12.94	
FAIRBANKS WB AP	2.00	1.12	.25	- .25	.52	- .14	.03	- .28	.52	- .15	.86	- .56	2.50	.60	1.17	-1.00	.31	- .95	.51	- .36	.99	.31	.39	- .19	10.05	- 1.85
FLAT	1.19	.58	T	- .82	.38	- .27	E .63	.21	.70	- .61	4.75	3.14	1.19	-1.78	2.98	-1.11	2.38	- .43	.46	- .95	1.03	.30	.34	- .43	E 16.03	- 2.17
FORT YUKON CAA	.68	.26	.06	- .35	.27	- .05	.07	- .19	.13	- .32	.07	- .73	.06	- .94	.32	- .91	.62	- .09	.50	- .14	.48	.10	.57	.26	3.83	- 3.10
GALENA WB AP	1.21	.63	.12	- .63	.18	- .63	.80	.66	.12	-1.13	1.88	.64	1.07	-1.60	2.58	- .25	1.87	.31	.26	- .36	.33	- .20	1.12	.23	11.54	- 2.33
HOLY CROSS	1.50	.21	.25	- .72	.29	- .95	.25	- .33	.23	- .54	2.05	.79	1.64	- .91	2.24	-1.49	2.63	- .24	.83	- .89	.55	- .65	1.68	.45	14.14	- 5.27
HUGHES	1.68	1.12	.09	- .75	T	- .76	.27	.18	.20	- .80	2.45	1.19	1.61	- .55	1.45	-1.27	2.49	1.08	.85	- .38	1.37	.51	.73	.22	13.19	- .21
MANLEY HOT SPRINGS	1.93	.94	.17	- .70	.10	- .46	.11	- .23	.76	.00	1.18	- .41	.58	-2.05	1.14	-2.48	1.92	.31	.95	- .27	1.56	.78	.90	.20	11.30	- 4.37
MCKINLEY PARK	-		.19	- .42	.41	- .01	.13	- .57	.72	- .13	.36	1.69	3.44	1.08	1.52	-1.33	.88	- .72	.38	- .66	2.44	1.76	.37	- .23	-	
MOUNTAIN VILLAGE	1.71	.56	-		.57	- .19	.46	.06	.50		-		-		4.18		3.69		1.02		.65	- .65	.23	-1.09	-	
NENANA CAA	1.86	1.22	.11	- .37	.06	- .50	.10	- .25	.34	- .36	1.25	- .06	2.10	.19	1.21	-1.33	.40	- .81	.28	- .44	.58	.09	.47	.03	8.76	- 2.59
NORTHWAY WB AP	.98	.38	.04	- .38	.11	- .15	.03	- .37	.99	.30	.58	-1.42	4.83	1.94	.39	-1.83	.54	- .90	.23	- .31	.31	- .04	.44	.06	9.47	- 2.72
SUMMIT CAA	.36	- .71	T	-1.13	.07	-1.41	.13	- .35	.26	- .82	1.19	-1.12	2.22	-1.02	1.39	-2.31	3.96	.56	.70	-1.05	1.48	.60	.71	- .66	12.47	- 9.42
TANACROSS	1.13	.47	.29	.03	.10	- .12	.22	.04	.90	.21	.61	-1.56	4.54	2.02	1.79	.82	1.03	- .44	.38	- .02	.51	.14	.48	.10	11.98	1.69
TANANA CAA	1.01	.27	.09	- .61	T	- .59	1.26	1.02	.25	- .56	.78	- .41	.07	-2.36	.91	-1.74	2.23	.49	.72	- .34	.59	- .09	.62	- .02	8.53	- .49
UNIVERSITY EXP STATION	1.63	.80	.30	- .16	.42	- .24	.02	- .28	.39	- .30	.77	- .64	1.57	- .34	1.48	- .76	.53	- .83	.72	- .14	1.06	.40	.63	.09	E 9.52	- 2.40
WISEMAN	.50	- .05	.04	- .40	.08	- .37	.14	- .24	.74	.13	2.19	.93	2.40	.72	.87	-1.16	2.36	.58	.39	- .58	1.63	1.18	.51	- .01	11.85	.73
DIVISION	1.07	.23	.43	- .43	.34	- .31	.45	.00	.55	- .24	1.61	.38	1.73	- .43	1.76	-1.05	1.79	- .01	.83	- .43	.84	.09	.87	.17	12.27	- 2.03
TERRITORY	1.14	- .76	.98	- .65	.86	- .54	1.19	.10	1.46	.10	1.98	.40	2.26	- .21	2.35	-1.00	3.06	.13	1.65	-1.29	1.13	- .92	1.76	- .12	19.82	- 4.76
ARCTIC DRAINAGE																										
BARROW WB	.55	.40	.42	.23	.04	- .10	.19	.07	.23	.09	.82	.55	.56	- .29	1.24	.43	1.16	.64	.36	- .19	.43	.15	.22	- .01	6.22	1.97
BARTER ISLAND	1.62		.16		.08		.12		.60		.26		2.60		.62		.31		1.13		1.50		.16		9.16	
KOTZEBUE WB AP	.40	- .10	.28	.01	.30	.02	.46	.12	.26	- .08	1.12	.63	.87	- .60	2.14	.43	2.17	1.26	.76	.20	.98	.61	.57	.25	10.31	2.75
POINT HOPE	.75	.42	.66	.40	.33	- .17	1.14	.47	.69	.24	1.41	.99	.37	.59	2.04	.35	1.89	.74	E .81	- .10	E 2.47	1.67	-		-	
POINT LAY	.37	.15	-		.08	- .13	.40	.23	-		-		-		-		T		-		-		.35	.13	-	
SHISHMAREF	1.45	1.09	1.48	.99	.71	.32	.53	.28	.56	.28	1.28	.89	1.28	.01	1.57	- .10	1.90	.80	1.17	.52	.93	.51	1.92	1.68	14.78	7.27
SHUNGNAK CAA	.85	.16	.05	- .83	.08	- .57	1.10	.14	.94	- .25	2.15	.65	.83	-1.75	2.87	-1.53	-		-		-		-		-	
UMIAT WB AP	.88		.16		.13		.10	- .28	.14	.04	.20	- .52	.14	- .46	.88		.64		.56		1.07		.61		5.51	
WAINWRIGHT	.21	.14	.23	.19	-		-		.05	- .11	.29	.13	.37	- .23	.11	-1.48	1.13	.86	.27	- .32	.34	.16	.20	.12	-	

See reference notes following Station Index.

1950 DEPARTURE FROM NORMAL MEAN ANNUAL TEMPERATURE
DEGREES FAHRENHEIT

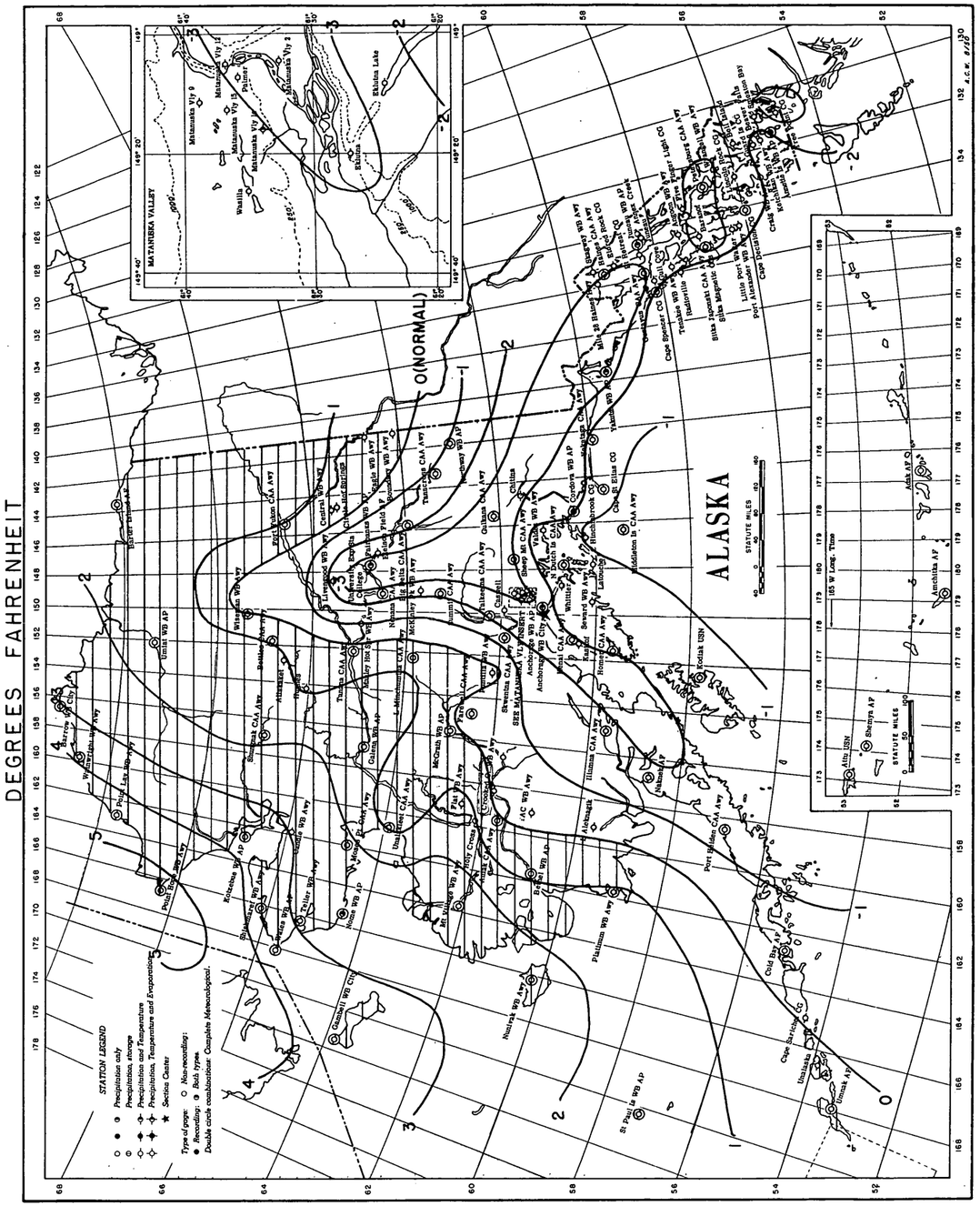


Table 1

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

ALASKA 1950

Station	January Temp.	January Departure	February Temp.	February Departure	March Temp.	March Departure	April Temp.	April Departure	May Temp.	May Departure	June Temp.	June Departure	July Temp.	July Departure	August Temp.	August Departure	September Temp.	September Departure	October Temp.	October Departure	November Temp.	November Departure	December Temp.	December Departure	Annual Temp.	Annual Departure
SOUTHERN DIVISION																										
SOUTHEASTERN DISTRICT																										
ANGOON	18.0	-10.9	27.4	- 0.8	36.3	3.0	38.1	- 0.9	44.4	- 1.7	53.7	2.3	53.6	- 1.2	55.3	1.0	50.9	2.7	41.6	- 0.2	27.0	- 7.3	32.9	2.4	39.9	- 1.0
ANNETTE WB	19.1	-16.7	35.4	- 0.8	37.9	- 1.4	40.6	- 2.1	45.0	- 5.4	56.6	2.0	55.5	- 2.1	57.8	- 0.6	54.3	0.4	44.1	- 2.9	33.8	- 6.8	39.3	3.9	43.3	- 2.7
ANNEX CREEK	9.7	-14.5	20.3	- 5.7	34.9	2.7	37.8	- 2.6	46.3	- 1.1	61.1	7.6	59.3	4.5	M		47.2	- 1.9	38.4	3.3	22.0	-10.5	22.9	2.0	-	-
BARANOF	16.1	-15.0	28.8	- 0.9	33.7	- 1.1	35.6	- 3.6	41.5	- 4.1	52.1	0.2	52.6	- 1.9	54.7	0.6	50.3	- 0.1	40.9	- 2.7	27.7	- 8.7	31.5	- 0.2	38.8	- 3.2
BEAVER FALLS	17.4		34.6		37.2		39.6		44.7		57.5		55.7		58.3		54.0		42.6		31.4		35.7		42.4	
CAPE DECISION	19.6	-17.1			32.1	- 5.8	34.0	- 7.5	38.1	- 8.6	M		M		M		M				32.6	- 8.7	38.9	0.9	-	-
CAPE SPENCER	25.9	- 8.2	29.3	- 3.1	36.3	- 0.1	38.3	- 2.3	43.3	- 2.3	48.6	- 0.7	51.7	- 0.8	53.7	1.1	49.7	- 0.7	43.3	- 1.6	31.1	- 7.2	35.6	1.9	40.6	- 2.0
CRAIG	20.5	-15.6	34.8	- 0.1	38.1	- 0.2	40.3	- 2.1	45.8	- 2.4	54.3	1.7	55.6	- 0.3	58.7M	2.4	53.2	- 0.5	M		M		38.0	2.5	-	-
ELDRED ROCK	23.9M		22.5	- 6.4	34.7	- 0.1	37.8	- 2.2	42.6	- 3.9	56.0	0.2	56.0	- 0.6	M		M				26.9	- 8.7	31.9	3.9	-	-
FIVE FINGER LIGHT	25.3	-11.8	31.0	- 3.1	37.7	0.1	39.8	- 0.9	44.1	- 3.2	53.9	1.2	52.8	- 1.9	55.4	0.9	50.6	0.0	43.4	- 1.9	32.1	- 7.4			-	-
GUARD ISLAND	23.4	-13.4	35.8	- 0.1	38.4	- 1.3	41.3	- 1.7	45.7	- 4.9	56.6	1.1	57.1	- 1.3	58.7	0.1	53.6	1.6	44.6	- 3.0	34.7	- 6.5	38.3	2.2	44.0	- 2.3
GULL COVE	21.0	-10.5	27.4	- 4.3	33.9	- 1.1	37.1	- 2.5	42.8	- 4.1	51.5	- 0.3	52.5	- 1.3	53.7	0.1	47.9	- 1.9	40.0	- 3.0	28.1	- 7.3	31.8	0.9	39.0	- 2.9
GUSTAVUS CAA	10.8	-18.8	25.0	- 3.4	33.2	- 0.7	38.1	- 1.4	44.4	- 2.5	54.1	1.9	54.8	- 0.3	55.9	2.2	50.2	0.3	39.4	- 3.6	23.8	-11.0	28.9	- 0.5	38.2	- 3.2
HAINES CAA	16.9	- 7.3			32.3	0.5	36.6	- 2.9	46.0	- 2.6	57.8	2.6	56.3	- 1.1	58.1	2.2	50.9	0.7	38.7	- 2.8	22.2	- 9.3	27.1	2.3	M	-
HOLLIS									44.8M		56.0		55.3M		59.8M		52.6M		M						-	-
JUNEAU	18.0	- 9.8	25.3	- 4.8	35.2	- 1.4	38.0	- 2.8	44.9	- 2.8	57.9	3.7	55.6	- 1.1	57.4	2.0	51.0	0.6	41.5	- 1.8	26.1	- 9.6	32.5	1.6	40.3	- 1.9
JUNEAU WB AP	7.9	-17.3	23.4	- 4.1	32.7	- 0.1	37.8	- 2.8	44.8	- 2.0	56.2	3.2	54.4	- 1.1	55.9	3.1	49.6	- 1.0	38.9	- 2.4	23.3	- 9.7	29.3	1.2	37.7	- 2.6
KETCHIKAN	20.8	-12.8	37.3	- 2.1	40.1	- 2.3	42.3	- 0.3	47.0	- 1.6	58.5	3.8	56.8	- 0.9	59.0	0.6	55.6	1.9	45.8	- 0.9	35.0	- 5.2	39.5	4.2	44.8	- 0.6
LINCOLN ROCK	22.0	-13.6	34.6	- 0.6	37.5	0.4	40.3	- 1.9	44.1	- 5.4	53.7	- 0.4	54.4	- 1.9	59.3	2.1	53.2	- 0.2	44.0	- 2.9	33.3	- 8.9	38.0	1.2	42.9	- 2.7
LITTLE PORT WALTER	24.1	-10.4	31.2	- 1.8	35.7	- 0.6	36.7	- 3.4	42.1M		51.0	- 0.7	52.6	- 2.3	55.0	0.2	50.1	- 1.2	42.1	- 3.6	30.8	- 8.2	35.3	0.8	40.5	- 3.0
MILE 28 HAINES HIGHWAY	3.0		9.6		25.3		32.3		42.8		54.1		54.5		56.1		48.1		34.1		16.1		16.6		32.8	
PETERSBURG CAA	10.5	-19.7	31.4	1.0	35.0	- 0.2	38.3	- 2.8	44.2	- 4.0	55.1	1.3	54.2	- 1.3	55.9	1.0	50.1	0.2	40.7	- 3.6	26.7	- 9.8	33.3	1.9	39.6	- 3.0
POINT RETREAT																					28.2M		33.1M		-	
PORT ALEXANDER	24.9		31.7		36.6		38.2		44.4		54.3		54.6		56.5		51.4		43.5		31.9		36.3		42.0	
RADIOVILLE	25.6	-10.2	30.8	- 3.4	37.5	- 1.5	39.5	- 0.6	45.2	- 3.5	52.3	- 0.8	56.9	0.7	58.6M	1.8	53.4	- 0.2	43.9	- 3.0					-	-
SITKA JAPONSKI CAA	24.2	-12.9	34.2		37.9		39.7		44.7		54.8		53.9		57.8		52.6		44.6		32.2	- 8.3	38.0		42.9	-
SITKA MAGNETIC	18.4	-14.4	32.2	- 2.1	35.7	- 1.0	38.2	- 3.1	42.9	- 3.9	52.3	0.6	52.5	- 2.4	55.7	- 0.1	50.7	- 1.3	42.6	- 3.4	29.6	- 9.3	34.7	- 0.3	40.5	- 3.4
SKAGWAY	M		M		M																				-	
SMEATON BAY	14.0		32.8		35.7		38.8		43.9M		56.9		56.6		57.8M		53.1	3.1							-	
TENAKEE	19.4	-12.7	28.2	- 3.9	35.1	0.3	38.1	- 2.2	44.6	- 3.7	57.1	3.8	56.3	0.7	58.4	2.5	51.8	- 0.2	41.8	- 1.8	26.4	- 8.7	32.3	2.4	40.8	- 2.0
TREE POINT	19.9	-16.1	35.5	- 0.3	39.0	- 0.5	40.6	- 3.8	45.3	- 4.2	54.5	0.5	55.8	- 0.8	56.8	- 0.7	53.0	- 0.4	44.0	- 3.8	34.0	- 7.7	39.4	2.3	43.2	- 2.9
WRANGELL	14.9	-15.3	31.2	- 0.5	37.3	1.5	40.8	- 1.8	46.1	- 3.2	57.8	2.5	56.1	- 1.5	58.1	1.3	52.4	0.5	42.3	- 2.6	28.5M	- 9.2	34.6	3.3	41.7	- 2.1
PACIFIC COAST																										
CAPE HINCHINBROOK	31.6	0.0	28.0	- 3.3	35.0	2.1	37.4	- 0.3	42.3	- 1.4	50.7	- 0.3	53.8	- 1.3	57.0	1.6	49.6	- 1.0	43.3	0.2	31.7	- 4.7	34.2	2.6	41.2	- 0.5
CAPE ST ELIAS	30.0	- 4.1	28.5	- 5.0	35.4	- 0.5	37.4	- 2.4	41.7	- 3.9	49.1	- 2.1	54.0	- 1.4	56.1	0.5	51.0	- 1.2	44.5	0.8	32.5	- 5.7	36.1	2.5	41.4	- 2.0
CORDOVA WB	14.3	-11.5	20.1	- 5.7	31.3	1.1	34.6	- 0.6	41.6	- 2.0	50.3	0.2	52.1	- 0.9	53.8	1.7	47.0	- 0.9	38.5	- 2.0	21.2	- 9.2	27.0	3.1	36.0	- 2.2
HOMER CAA	20.1	- 3.7	16.0	-11.6	32.8	4.0	34.9	- 1.2	40.2	- 2.6	47.2	- 2.3	50.6	- 2.5	52.8	0.1	47.2	- 0.3	36.2	- 2.7	20.7	- 8.0	20.4	- 3.0	34.9	- 2.8
KENAI CAA	4.0	- 7.9	8.6	- 9.4	27.3	3.8	34.5	- 2.2	42.7	- 0.6	48.3	- 1.2	52.6	- 1.1	54.7	1.5	47.6	- 1.4	34.0	- 0.6	13.4	- 8.3	11.0	- 2.3	31.5	- 1.9
KODIAK	34.7	- 4.6	24.7	- 7.3	34.6	- 1.3	35.9	- 1.0	40.7	- 2.3	47.6	- 2.2	51.6	- 2.6	55.2	0.5	48.1	- 1.9	40.1	- 2.1	31.3	- 3.8	30.8	- 0.1	39.6	- 1.4
LATOUCHE	27.1	- 3.4	26.8	- 5.5	83.8	0.7	35.2	- 2.1	40.2	- 3.5	49.2	- 1.7	54.0	- 1.2	56.7	1.7	48.9	- 1.3	41.2	- 1.5	31.3	- 4.2	32.3	1.0	39.7	- 1.8
MIDDLETON ISLAND CAA	33.5	- 0.6	30.1	- 3.9	35.8	1.2	37.8	0.0	41.4	- 1.4	46.0	- 2.3	51.3	- 1.0	54.4	0.6	50.2	- 0.2	44.5	0.2	34.7	- 4.1	36.7	2.5	41.3	- 0.8
NORTH DUTCH ISLAND CAA	30.8	0.4	27.4	- 3.2	35.4	3.1	36.7	0.1	42.2	- 1.4	50.7	- 0.9	55.4	0.1	57.5	2.9	49.8	0.6	41.6	0.1	30.1	- 5.3	32.3	1.3	40.8	- 0.2
SEWARD	25.6	2.2	19.8	- 7.8	34.5	3.6	37.2	- 0.4	43.0	- 1.6	50.9	- 0.3	54.7	- 0.6	57.9	3.4	48.7	- 0.3	39.3	- 1.0	24.5	- 6.6	24.4	- 0.5	38.4	- 0.8
VALDEZ	17.5	- 1.8	15.5	- 6.1	29.2	3.3	35.9	1.8	43.1	0.4	50.9	0.9	51.1	- 2.1	51.7	- 0.1	43.9	- 2.2	34.9	- 2.8	18.0	- 8.5	20.9	0.7	34.4	- 1.4
WHITTIER																			37.4M	- 1.9	25.2	- 3.9	26.7	1.1	-	-
YAKATAGA CAA	18.4	-11.7	26.6	- 3.0	33.2	0.9	36.3	0.2	41.1	- 2.2	49.2	- 0.1	52.5	- 0.8	53.7	1.6	48.4	0.1	40.8	- 0.9	26.4	- 8.3	32.1	2.3	38.2	- 1.9
YAKUTAT WB	12.4	-16.6	25.7	- 4.0	31.5	- 0.5	34.5	- 2.8	41.5	- 2.4	50.1	- 0.1	52.9	- 0.1	54.3	1.3	47.5	- 1.2	39.9	- 2.2	26.6	- 8.1	30.3	0.4	37.3	- 3.0
SOUTHWESTERN ISLANDS																										
ADAK	37.8	6.0	33.4	1.1	34.4	0.5	36.8	- 0.6	39.4	- 0.2			50.3	2.0	52.6	1.5	46.7	- 0.9	42.0	0.2	37.1	- 0.2	35.4	1.5	-	-
AMCHITKA	36.1	5.0	33.5	1.6	32.8	0.3	35.5	- 0.6	37.6	- 0.9					M		45.0	- 1.1	41.6	0.3	M				-	-
ATTU					31.1		34.0		38.2		44.8		50.0		51.7		47.4		41.9		37.6		34.6		-	
COLD BAY	34.3	7.3	24.2	- 3.9	33.1	5.5	33.0	- 0.0	38.3	- 1.1	44.1	- 1.3	49.9	0.4	52.7	1.2	47.0	0.1	40.4	0.8	33.1	- 0.5	27.0	- 0.9	38.1	0.6
ST PAUL ISLAND WB	32.7	8.0	22.4	- 0.9	28.3	4.0	30.3	1.3	34.5	- 0.5	40.4	- 0.9	45.2	- 0.5	48.4	1.0	44.3	- 0.9	39.1	0.1	33.9	- 1.5	31.1	2.8	35.9	1.3
SHEMYA	35.8	5.3	33.7	3.2	32.2	0.6	34.6	- 0.8	37.8	- 0.2	42.8	1.2	46.7	0.4	50.2	0.9	46.9	- 0.7	41.9	0.0	37.3	0.8	35.0	2.0	39.6	1.1
UMNAK	36.7	6.3	29.8	- 2.7	33.9		35.5		38.7		43.0				51.1		46.2		40.9		35.4M				-	-
UNALASKA	37.4	5.6	29.8	2.0	35.3	1.5	36.0	0.2	39.6	1.2	44.2	- 2.0	50.4	- 1.0	56.4	3.4	46.6	- 2.1	41.0	- 1.2	35.8	- 0.7	34.4	1.1	40.6	0.1
DIVISION	22.7	- 6.7	26.8	- 3.7	33.5	1.0	36.8	- 1.2	42.3	- 2.4	50.8	0.1	53.2	- 0.9	55.5	1.3	49.2	- 0.3	40.7	- 1.7	28.4	- 6.3	30.9	1.3	39.2	- 1.6
NORTHERN DIVISION																										
SOUTHERN VALLEYS																										
ANCHORAGE WB AP	5.1	- 6.5	7.5	-11.1	27.5	3.8	35.2	- 0.2	45.1	0.1	53.1	- 0.4	56.7	- 0.3	58.0	2.4	48.8	1.0	33.2	- 2.8	12.0	-10.4	12.1	- 1.2	32.9	- 2.1
ANIAK CAA	7.8	9.3	- 9.4M	-17.9	21.2	0.1	28.7	0.4	40.3	- 1.5	49.7	- 4.0	56.4	0.8	54.9	3.1	45.2	0.5	30.0	- 1.1	11.6	- 2.5	3.0	2.1	28.3	0.0
BETHEL WB	13.1	6.2	- 3.7	- 9.2	21.0	9.7	26.1	- 0.8	38.2	- 1.9	48.7	- 4.0	56.3	1.8	56.1	3.8	46.3	1.1	34.0	2.5	17.5	- 0.7	8.7	1.9	30.2	0.6
CASWELL	3.4		1.3		25.4		34.2		46.6		55.5		58.3		58.0		M		29.6		5.4		5.0		-	
CHITINA															M		46.3		28.5		-10.2		0.7		-	
CROOKED CREEK	4.1	2.2	-10.4	-20.4	22.7	10.0	30.5M		43.0	0.1	52.2	- 2.1	59.4	2.2	58.2	4.7	46.9	2.3	31.4	1.7	9.4	- 0.6	0.5	- 0.1	28.9	0.0
EKLUTNA	3.4	-16.5	4.2	-14.6	28.7	3.3	36.7	0.8	46.9	- 1.0	55.2	- 1.2	58.2	- 0.8	58.6	2.9	48.5	0.1	32.2M	- 3.5	10.5	- 9.4	7.5	4.1	32.0	- 3.7
EKLUTNA LAKE	- 0.1		2.5M		24.6M		31.1M		42.4		51.1		53.1		55.0		44.3M		30.6M		6.0M		8.8M		28.7	
FAIRWELL CAA	10.3	5.6	-18.5	- 3.4	20.4	11.5	27.7	3.5	40.1	0.2	50.2	- 0.6	55.8	0.8	54.9	5.2	43.2	2.1	24.5	- 1.2	4.1	2.6	1.0	4.4	26.0	- 0.3
GULKANA CAA	-13.2	- 9.5	-12.7	-17.2	16.1	1.6	28.0	- 0.3	43.8	- 0.1	54.3	0.0	54.4	- 2.7	55.3	3.2	44.2	1.1	23.8	- 4.2	- 7.9	-13.2	- 2.7	0.5	23.6	- 3.4
ILIAMNA CAA	15.0M	- 1.6	1.3	-17.9	29.2	9.6	31.7	- 0.1	41.0	- 0.4	48.4	- 1.9	54.4	0.5	56.7	3.3	47.7	1.7	35.1	0.6	17.6	- 5.1	12.5	- 3.4	32.5	- 1.4
LAKE MINCHUMINA CAA			13.0	- 9.1	17.0	8.3	27.9	3.3	44.7	- 1.3	56.5	- 1.1	61.5	- 1.9	57.9	5.6	45.2	2.5	25.9	- 0.3	- 0.2	- 2.1	- 5.0	1.8	M	-
MATANUSKA VALLEY 2	- 1.4	-15.5	5.2	-15.2	28.7	3.6	35.8	0.7	45.8	- 1.5	53.7	- 1.1	55.3	- 1.4	57.1	2.3	47.4	- 0.1	33.2M	- 2.6	10.0	- 9.9	8.7	- 2.6	31.6	- 3.6
MATANUSKA VALLEY 9	6.6	-10.4	11.8M	- 8.8	30.6	4.5	35.5	1.0	44.3	- 1.4	52.0	- 0.7	54.7	- 1.3	56.2	1.9			M		12.1M	-11.3	M		-	-
MATANUSKA VALLEY 12	6.5	- 9.6			31.8	6.1	36.6	1.0	46.4	- 0.9	54.6	0.1	56.4M	- 0.6	58.3	3.4	48.0	0.0	33.6	- 2.9	14.7	- 6.9	11.8	- 2.0	-	-
MATANUSKA VALLEY 14	3.8	- 9.6	9.2	- 9.5	29.7	5.2					53.7	- 1.5	57.1	0.4	58.2	2.9	48.2	0.7	33.3	- 3.1					-	-
MATANUSKA VALLEY 15													55.5	0.7	56.8	4.8	48.6M	2.4							-	-
MC GRATH WB	- 1.3	6.0	-18.0	-21.2	15.9	8.5	28.9	4.1	44.0	0.8	54.2	- 1.8	60.9	2.4	57.2	4.3	46.2	2.3	28.0	0.5	3.6	0.4	5.4	2.4	26.2	0.7
MEIER											M		53.2		53.5		41.2								-	
NAPTOWNE																	M		32.4		8.9		8.7		-	
NYAC			2.8				29.8				49.5		57.5M		56.5		45.1		32.9		15.4				-	
PALMER	7.4		11.3		31.6		37.0		46.7		55.1		56.7		58.6		48.5		34.1		14.9		14.1		34.7	
PUNTILLA	11.3	7.1	- 3.9	-12.7	19.6	4.3	24.5	1.6	37.0	0.2	48.2	1.1	52.7	1.3	53.4	5.7	39.5	- 0.7	24.0	- 2.3	9.7	- 0.9	2.4	- 0.2	26.2	0.3
SHEEP MOUNTAIN CAA	11.2	3.3	- 2.0	-12.1	20.2	3.4	27.5	1.8	40.7	- 0.8	50.4	0.2	51.3	- 1.7	54.7	5.0	45.7M	3.3	M		7.6M	- 6.4	8.9	2.0	-	-
SKWENTNA CAA	3.7	-11.9	5.5	- 9.7	25.0	4.3	34.5	1.5	46.2	0.8	53.8	- 1.9	58.3	0.0	58.4	3.6	47.3	0.5	30.3	- 3.2	6.1	-10.2	8.8	1.5	30.9	- 2.0
STONY RIVER	1.3		- 5.0	-10.8	22.2	11.1	31.4		45.0		54.3		59.0	- 1.4	57.9		47.2		31.4		9.4		0.4		29.6	-
TALKEETNA CAA	- 1.1	-10.1	9.0	- 7.7	26.7	6.1	35.1	1.8	45.0	0.2	53.3	- 1.5	56.8	- 1.1	57.8	3.1	46.9	0.7	30.3	- 3.9	7.9	-11.7	11.1	1.5	31.6	- 1.9
WASILLA	0.3M	-11.9	13.9	- 4.0	31.3M	7.2	36.5M	2.4	45.8	- 0.5	53.2M	- 0.2	56.6	0.4	57.5	3.5	48.8	2.6	33.0	- 2.3	13.3	- 7.1	12.1M	0.8	33.6	- 0.7
BERING SEA																										
CANDLE			-12.5	- 7.2	4.8	4.8	18.3	8.4	29.5M	- 3.4	47.6M	0.5	58.1M	5.2	54.7	4.9	42.8	3.2	32.6M	9.0					-	-
GAMBELL WB AP	23.0	20.2	10.8	7.9	5.8	- 0.4	17.4	- 1.0	26.9	- 2.6	36.8	- 1.2	44.6	- 0.5	46.4	0.8	40.5	- 0.2	34.8	3.6	29.1	6.7	19.6	10.5	28.0	3.7
LAKE ALEKNAGIK					26.0M		M		M						M		M		M				12.2M		-	
MOSES POINT CAA	5.1	4.5	6.9	-10.9	11.3	7.9	21.0	4.2	34.1	0.1	46.8	- 1.3	57.4	3.2	55.3	5.8	45.6	4.2	32.4	4.5	18.9	7.2	5.5	4.7	27.2	2.8
MOSQUITO POINT									M		M		55.4M		56.5M		M								-	
NAKNEK	15.4	1.1	1.9	-17.9	30.1	8.7	31.8	- 1.9	41.7	- 1.3	50.0	- 1.6	55.1	0.2	57.0	2.9	47.7	- 0.6	34.0	- 1.6	16.2	- 6.1	9.0	- 5.5	32.5	- 2.0
NOME WB AP	13.1	9.7	- 3.3	- 8.9	14.4	5.7	21.7	2.0	33.5	0.6	41.4	- 4.2	52.4	2.5	51.7	2.2	44.4	2.7	34.3	4.9	22.6	6.7	9.6	2.1	28.0	2.1
NUNIVAK	21.7	11.6	6.6	- 4.8	21.0	7.6	25.1	1.7	33.5	0.3	40.9	- 1.6	49.7	1.5	52.3	2.9	46.2	1.1	38.8	3.4	29.0	4.3	19.5	5.1	32.0	2.7
PLATINUM	22.1	7.0	4.3	-13.7	27.3	10.6	29.3M	- 1.1	38.6	- 0.8	46.2	- 2.4	53.3	1.7	54.7	3.2	47.2	1.4	37.1	2.5	22.2	0.1	18.6	6.5	33.4	1.2
PORT HEIDEN CAA	27.4	4.5	10.5	-14.4	32.3	6.6	31.4	1.3	37.7	1.8	44.2	- 3.2	51.4	0.4	53.2	1.1	46.9	- 1.2	38.2	0.5	25.1	- 4.6	22.5	- 2.8	35.1	1.2
TELLER	13.6	14.4	3.5	- 6.0	7.6	4.9	17.6	- 1.1	28.0	2.7	40.8	- 3.9	53.1	2.3	52.6	2.9	43.4	1.0	33.9	3.6	23.2M	7.4	9.4	5.8	26.7	2.4
UNALAKLEET CAA	12.1	6.6	- 9.6	-18.0	16.3	8.5	24.9	2.8	34.3	2.7	45.6	- 3.2	56.6	1.9	54.9	4.1	45.0	1.8	30.7	1.6	15.2	3.3	6.0	3.9	27.7	0.9
WALES WB AP	17.4	18.9	0.1	0.7	0.3	3.0	14.8	3.7	24.4	- 2.5	36.9	- 1.9	48.2	- 2.1	49.0	3.1	41.8	1.3	34.4	4.1	25.3	7.4	11.2	9.2	25.3	4.1

See reference notes following Station Index.

Table 1—Continued

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

ALASKA 1950

Station	January Temp.	January Departure	February Temp.	February Departure	March Temp.	March Departure	April Temp.	April Departure	May Temp.	May Departure	June Temp.	June Departure	July Temp.	July Departure	August Temp.	August Departure	September Temp.	September Departure	October Temp.	October Departure	November Temp.	November Departure	December Temp.	December Departure	Annual Temp.	Annual Departure
YUKON VALLEY																										
ALLAKAKET	- 9.1M	10.5	M		7.5M	9.7	20.4	2.4	42.5	1.2	55.3	- 1.1	61.1	4.7	55.5	3.9	41.9	2.0	23.8	3.3	M		M		-	-
BETTLES CAA	- 9.7	- 3.1	-18.8	-14.7	14.5	10.6	23.1	5.6	42.8	2.7	53.1	- 2.0	62.4	4.0	55.0	5.8	42.6	3.6	24.0	1.9	- 7.1	- 6.9	1.3	7.5	23.4	1.3
BIG DELTA CAA	- 0.7	2.2	-19.0	-25.4	18.6	6.0	27.8	- 0.8	46.3	- 0.5	59.2	2.8	60.0	1.0	57.4	3.8	47.3	3.9	24.4	- 3.5	- 3.8	- 9.8	0.6	4.0	28.4	- 1.4
BOUNDARY					16.0M		22.6		39.9		55.2M		54.0		50.8		41.0		19.4M		-10.4		- 3.9		-	
CENTRAL	- 4.8		-30.0		9.3		21.6		45.2		57.0		58.5		53.7		41.9		19.0		- 5.8		- 9.2		21.4	
CIRCLE HOT SPRINGS	0.5	13.8	-30.5	-21.5	11.3	6.2	24.4	0.7	46.2	0.6	58.0	0.0	60.1	- 0.6	55.9	- 2.1	43.2	1.9	20.1	- 3.6	- 2.8	- 1.3	- 7.1	7.1	23.3	0.5
COLLEGE MAG OBS	1.0		-18.2		20.4		28.9		48.6		58.7	

DE COURSEY MOUNTAIN MINING COMPANY, INC.

Anchorage, Alaska

BALANCE SHEET

November 30, 1951 (1)

ASSETS

	Replacement Value (2)	Cost	
Current Assets			
Cash			$ 234.09
Fixed Assets			
De Coursey Mountain mining property (8 lode claims) subject to contract in escrow per contra		$ 70,000.00	
Lode mining equipment and Miscellaneous machinery and equipment	$ 21,000.00	4,300.00	
Placer mining equipment	22,000.00	4,500.00	
Ore processing equipment	33,500.00	6,900.00	
2 electric diesel power plants	10,500.00	2,100.00	
3 buildings and 3 houses (furnished)	35,000.00	7,200.00	
	$122,000.00	95,000.00	95,000.00
Mining Lease			
Lease contract on eight placer claims			1.00
Other Assets			
Promotional expense in connection with incorporation and contracts (3)		4,000.00	
Organization expense - other		560.00	4,560.00
Contingent Assets			
Commitments for cash loans qualified as to approval of $245,000.00 Government loan under Defense Production Act of 1950	$ 10,000.00		
TOTAL ASSETS			$ 99,795.09

LIABILITIES AND NET WORTH

Current Liabilities			
Contracts payable (escrow) due within one year		$ 6,222.22	
Loans payable to Director and Officer		1,000.00	
Accounts payable - other		149.10	$ 7,371.32
Contracts Payable			
Balance of escrow payments on purchase contract of mining property		56,001.00	
Less: Current portion per above		6,222.22	49,778.78
Contingent Liabilities			
Loan commitments, see Contra	$ 10,000.00		
Total Liabilities			$ 57,150.10
Net Worth			
Capital Stock, common, $1.00 par, authorized 300,00 shares			
Issued and outstanding, 79,010 shares at par value		79,010.00	
Less: Discount on capital stock, 72,000 shares		36,000.00	43,010.00
Deficit			365.01
			42,644.99
TOTAL LIABILITIES AND NET WORTH			$ 99,795.09

(1) Prepared without audit, giving effect to transactions of incorporation and initial financing.
(2) Estimated replacement value less depreciation.
(3) Miscellaneous services acquired against issue of 8,000 shares of common stock at $.50 per share.

Table 1

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

ALASKA 1950

Station	January Temp.	January Departure	February Temp.	February Departure	March Temp.	March Departure	April Temp.	April Departure	May Temp.	May Departure	June Temp.	June Departure	July Temp.	July Departure	August Temp.	August Departure	September Temp.	September Departure	October Temp.	October Departure	November Temp.	November Departure	December Temp.	December Departure	Annual Temp.	Annual Departure
SOUTHERN DIVISION																										
SOUTHEASTERN DISTRICT																										
ANGOON	18.0	-10.9	27.4	- 0.8	36.3	3.0	38.1	- 0.9	44.4	- 1.7	53.7	2.3	53.6	- 1.2	55.3	1.0	50.9	2.7	41.6	- 0.2	27.0	- 7.3	32.9	2.4	39.9	- 1.0
ANNETTE WB	19.1	-16.7	35.4	- 0.8	37.9	- 1.4	40.6	- 2.1	45.0	- 5.4	56.6	2.0	55.5	- 2.1	57.8	- 0.6	54.3	0.4	44.1	- 2.9	33.8	- 6.8	39.3	3.9	43.3	- 2.7
ANNEX CREEK	9.7	-14.5	20.3	- 5.7	34.9	2.7	37.2	- 2.6	46.3	- 1.1	61.7	7.6	59.3	4.5	M		47.2	- 1.9	38.4	- 3.3	22.0	-10.5	22.9	2.0	-	-
BARANOF	16.1	-15.0	28.8	- 0.9	33.7	- 1.1	35.6	- 3.6	41.5	- 4.1	52.1	0.2	52.6	- 1.9	54.7	0.6	50.3	0.1	40.9	- 2.7	27.7	- 8.7	31.5	- 0.2	38.8	- 3.2
BEAVER FALLS	17.4		34.6		37.2		39.6		44.7		57.5		55.7		58.3		54.0		42.6		31.4		35.7		42.4	
CAPE DECISION	19.6	-17.1			32.1	- 5.8	34.0	- 7.5	38.1	- 8.6	M		M		M		M				32.6	- 8.7	38.9	0.9	-	-
CAPE SPENCER	25.9	- 8.2	29.3	- 3.1	36.3	- 0.1	38.3	- 2.3	43.3	- 2.3	48.6	- 0.7	51.7	- 0.8	53.7	1.1	49.7	- 0.7	43.3	- 1.6	31.1	- 7.2	35.6	1.9	40.6	- 2.0
CRAIG	20.5	-15.6	34.8	- 0.1	38.1	- 0.2	40.3	- 2.1	45.8	- 2.4	54.3	1.7	55.6	- 0.3	58.7M	2.4	53.2	- 0.5	M		M		38.0	2.5	-	-
ELDRED ROCK	23.9M		22.5	- 6.4	34.7	- 0.1	37.8	- 2.2	44.6	- 3.9	56.0	0.2	56.0	- 0.6	M		M		M		26.9	- 8.7	31.9	3.9	-	-
FIVE FINGER LIGHT	25.3	-11.8	31.0	- 3.1	37.7	- 0.1	39.8	- 0.9	44.1	- 3.2	53.9	1.2	52.8	- 1.9	55.4	0.9	50.6	0.0	43.4	- 1.9	32.1	- 7.4			-	-
GUARD ISLAND	23.4	-13.4	35.8	0.1	38.4	- 1.3	41.3	- 1.7	45.7	- 4.9	56.6	1.1	57.1	- 1.3	58.7	0.1	53.6	1.6	44.6	3.0	34.7	6.5	38.3	2.2	44.0	2.3
GULL COVE	21.0	-10.5	27.4	- 4.3	33.9	- 1.1	37.1	- 2.5	42.8	- 4.1	51.5	- 0.3	52.5	- 1.3	53.7	0.1	47.9	- 1.9	40.0	- 3.0	28.1	- 7.3	31.8	0.9	39.0	- 2.9
GUSTAVUS CAA	10.8	-18.8	25.0	- 3.4	33.2	- 0.7	38.1	- 1.4	44.4	- 2.5	54.1	1.9	54.8	- 0.3	55.9	2.2	50.2	- 0.3	39.4	- 3.6	23.8	-11.0	28.9	- 0.5	38.2	- 3.2
HAINES CAA	16.9	- 7.3			32.3	- 0.5	36.6	- 2.9	46.0	- 2.6	57.8	- 2.6	56.3	- 1.1	58.1	2.2	50.9	0.7	38.7	- 2.8	22.2	- 9.3	27.1	2.3	M	-
HOLLIS									44.8M		56.0		55.3M		59.8M		52.6M								-	
JUNEAU	18.0	- 9.8	25.3	- 4.8	35.2	1.4	38.0	- 2.8	44.9	- 2.8	57.9	3.7	55.6	- 1.1	57.4	2.0	51.0	0.6	41.5	- 1.8	26.1	- 9.6	32.5	1.6	40.3	- 1.9
JUNEAU WB AP	7.9	-17.3	23.4	- 4.1	32.7	- 0.1	37.4	- 2.8	44.8	- 2.0	56.2	3.2	54.4	- 1.1	55.9	3.1	49.6	1.0	38.9	- 2.4	22.3	- 9.7	29.3	1.2	37.7	- 2.6
KETCHIKAN WB	20.8	-12.8	37.3	- 2.1	40.1	- 2.3	43.3	- 0.3	47.0	- 1.6	58.5	3.8	56.8	- 0.9	59.0	0.6	55.6	1.9	45.8	- 0.9	35.6	- 5.2	39.5	4.2	44.8	- 0.6
LINCOLN ROCK	22.0	-13.6	34.6	- 0.6	37.5	- 0.4	40.3	- 1.9	44.1	- 5.4	53.7	- 0.4	54.4	- 1.9	59.3	2.1	53.2	- 0.2	44.0	- 2.9	33.3	- 8.9	38.0	1.2	42.9	- 2.7
LITTLE PORT WALTER	24.1	-10.4	31.2	- 1.8	35.7	- 0.6	36.7	- 3.4	42.1M		51.0	- 0.7	52.6	- 2.3	55.0	0.2	50.1	- 1.2	42.1	- 3.6	30.8	- 8.2	35.3	0.8	40.5	- 3.0
MILE 28 HAINES HIGHWAY	3.0		9.6		25.3		32.3		42.8		54.1		54.5		56.1		48.1		34.1		16.1		16.6		32.8	
PETERSBURG CAA	10.5	-19.7	31.4	1.0	35.0	- 0.2	38.3	- 2.8	44.2	- 4.0	55.1	1.3	54.2	- 1.3	55.9	1.0	50.1	0.2	40.7	- 3.6	26.7	- 9.8	33.3	1.9	39.6	- 3.0
POINT RETREAT																					28.2M		33.1M		-	
PORT ALEXANDER	24.9		31.7		36.6		38.2		44.4		54.3		54.6		56.5		51.4		43.5		31.9		36.3		42.0	
RADIOVILLE	25.6	-10.2	30.8	- 3.4	37.5	- 1.5	39.5	- 0.6	45.2	- 3.5	52.3	- 0.8	56.9	0.7	58.6M	1.8	53.4	- 0.2	43.9	- 3.0					-	
SITKA JAPONSKI CAA	24.2	-12.9	34.2		37.9		39.7		44.7		54.8		53.9		57.8		52.6		44.6		32.2	- 8.3	38.0		42.9	-
SITKA MAGNETIC	18.4	-14.4	32.2	- 2.1	35.7	- 1.0	38.2	- 3.1	42.9	- 3.9	52.3	0.6	52.5	- 2.4	55.7	- 0.1	50.7	- 1.3	42.6	- 3.4	29.6	- 9.3	34.7	- 0.3	40.5	- 3.4
SKAGWAY	M		M		M																				-	
SKEATON BAY	14.0		32.8		35.7		38.8		43.9M		56.6		56.9		57.8M		53.1	- 1.1							-	
TENAKEE	19.4	-12.7	28.2	- 3.9	35.1	0.3	38.1	- 2.2	44.6	- 3.7	57.1	3.8	56.3	0.7	58.4	2.5	51.8	- 0.2	41.8	- 1.8	26.4	- 8.7	32.3	2.4	40.8	- 2.0
TREE POINT	19.9	-16.1	35.5	- 0.3	39.0	- 0.5	40.6	- 3.8	45.3	- 4.2	54.5	- 0.5	55.8	- 0.8	56.8	- 0.7	53.0	- 0.4	44.0	- 3.8	34.0	- 7.7	39.4	2.3	43.2	- 2.9
WRANGELL	14.9	-15.3	31.2	- 0.5	37.3	1.5	40.8	- 1.8	46.1	- 3.2	57.8	2.5	56.1	- 1.5	58.1	1.3	52.4	0.5	42.3	- 2.6	28.5M	- 9.2	34.6	3.3	41.7	- 2.1
PACIFIC COAST																										
CAPE HINCHINBROOK	31.6	0.0	28.0	- 3.3	35.0	2.1	37.4	- 0.3	42.3	- 1.4	50.7	- 0.3	53.8	- 1.3	57.0	1.6	49.6	- 1.0	43.3	0.2	31.7	- 4.7	34.2	2.6	41.2	- 0.5
CAPE ST ELIAS	30.0	- 4.1	28.5	- 5.0	35.4	- 0.5	37.4	- 2.4	41.7	- 3.9	49.1	- 2.1	54.0	- 1.4	56.1	0.5	51.0	- 1.2	44.5	0.8	32.5	- 5.7	36.1	2.5	41.4	- 2.0
CORDOVA WB	14.3	-11.5	20.1	- 5.7	31.3	1.1	34.6	- 0.6	41.6	- 2.0	50.3	0.2	52.1	- 0.9	53.8	1.7	47.0	- 0.9	38.5	- 2.0	21.2	- 9.2	27.0	3.1	36.0	- 2.2
HOMER CAA	20.1	- 3.7	16.0	-11.6	32.8	4.0	34.9	- 1.2	40.2	- 2.6	47.2	- 2.3	50.6	- 2.5	52.8	0.1	47.2	- 0.3	36.2	- 2.7	20.7	- 8.0	20.4	- 3.0	34.9	- 2.8
KENAI CAA	4.0	- 7.9	8.6	- 9.4	27.3	3.8	34.5	- 2.2	42.7	- 0.6	48.3	- 1.2	52.6	- 1.1	54.7	1.5	47.6	1.4	34.0	- 0.6	13.4	- 8.3	11.0	- 2.3	31.5	- 1.9
KODIAK	34.7	4.6	24.7	- 7.3	34.6	1.3	35.9	- 1.0	40.7	- 2.3	47.6	- 2.2	51.6	- 2.6	55.2	0.5	48.1	- 1.9	40.1	- 2.1	31.3	- 3.8	30.8	- 0.1	39.6	- 1.4
LATOUCHE	27.1	- 3.4	26.8	- 5.5	33.8	0.7	35.2	- 2.1	40.2	- 3.5	49.2	- 1.7	54.0	- 1.2	56.7	1.7	48.9	- 1.3	41.2	- 1.5	31.3	- 4.2	32.3	- 1.0	39.7	- 1.8
MIDDLETON ISLAND CAA	33.5	- 0.6	30.1	- 3.9	35.8	1.2	37.8	0.0	41.4	- 1.4	46.0	- 2.3	51.3	- 1.0	54.4	0.6	50.2	- 0.2	44.5	0.2	34.7	- 4.1	36.7	2.5	41.3	- 0.8
NORTH DUTCH ISLAND CAA	30.8	0.4	27.4	- 3.2	35.4	3.1	36.7	0.1	42.2	- 1.4	50.7	- 0.9	55.4	0.1	57.5	2.9	49.8	0.6	41.6	- 0.1	30.1	- 5.3	32.3	1.3	40.8	- 0.2
SEWARD	25.6	2.2	19.8	- 7.8	34.5	3.6	37.2	- 0.4	43.0	- 1.6	50.9	- 0.3	54.7	- 0.6	57.9	3.4	48.7	- 0.3	39.3	- 1.0	24.5	- 6.6	24.4	- 0.5	38.4	- 0.8
VALDEZ	17.5	- 1.8	15.5	- 6.1	29.2	3.3	35.9	1.8	43.1	0.4	50.9	0.9	51.1	- 2.1	51.7	- 0.1	43.9	- 2.2	34.9	- 2.8	18.0	- 8.5	20.9	0.7	34.4	- 1.4
WHITTIER																			37.4M	- 1.9	25.2	- 3.9	26.7	1.1	-	-
YAKATAGA CAA	18.4	-11.7	26.6	- 3.0	33.2	0.9	36.3	0.2	41.1	- 2.2	49.2	- 0.1	52.5	- 0.8	53.7	1.6	48.4	0.1	40.8	- 0.9	26.4	- 8.3	32.1	2.3	38.2	- 1.9
YAKUTAT WB	12.4	-16.6	25.7	- 4.0	31.5	0.5	34.5	- 2.8	41.5	- 2.4	50.1	- 0.1	52.9	- 0.1	54.3	1.3	47.5	- 1.2	39.9	2.2	26.6	- 8.1	30.3	0.4	37.3	- 3.0
SOUTHWESTERN ISLANDS																										
ADAK	37.8	6.0	33.4	1.1	34.4	0.5	36.8	- 0.6	39.4	- 0.2			50.3	2.0	52.6	1.5	46.7	0.9	42.0	0.2	37.1	- 0.2	35.4	1.5	-	-
AMCHITKA	36.1	5.0	33.5	1.6	32.8	- 0.3	35.5	- 0.6	37.6	- 0.9					M		45.0	- 1.1	41.6	0.3	M				-	-
ATTU					31.1		34.0		38.2		44.8		50.0		51.7		47.4		41.9		37.6		34.6		-	-
COLD BAY	34.3	7.3	24.2	- 3.9	33.1	5.5	33.0	- 0.0	38.3	- 1.1	44.1	- 1.3	49.9	0.4	52.7	1.2	47.0	0.1	40.4	0.8	33.1	- 0.5	27.0	- 0.9	38.1	0.6
ST PAUL ISLAND WB	32.7	8.0	22.4	- 0.9	28.3	4.0	30.3	1.3	34.5	- 0.5	40.4	- 0.9	45.2	- 0.5	48.4	1.0	44.3	- 0.9	39.1	0.1	33.9	- 1.5	31.1	2.8	35.9	1.3
SHEMYA	35.8	5.3	33.7	3.2	32.2	0.6	34.6	- 0.8	37.8	- 0.2	42.8	1.2	46.7	0.4	50.2	0.9	46.9	- 0.7	41.9	0.0	37.3	0.8	35.0	2.0	39.6	1.1
UNNAK	36.7	6.3	29.8	- 2.7	33.9		35.5		38.7		43.0				51.1		46.0		40.9		35.4M				-	
UNALASKA	37.4	5.6	29.8	- 2.0	35.3	1.5	36.0	0.2	39.6	- 1.2	44.2	- 2.0	50.4	- 1.0	56.4	3.4	46.6	- 2.1	41.0	- 1.2	35.8	- 0.7	34.4	1.1	40.6	0.1
DIVISION	22.7	- 6.7	26.8	- 3.7	33.5	1.0	36.8	- 1.2	42.3	- 2.4	50.8	0.1	53.2	- 0.9	55.5	1.3	49.2	- 0.3	40.7	- 1.7	28.4	- 6.3	30.9	1.3	39.2	- 1.6
NORTHERN DIVISION																										
SOUTHERN VALLEYS																										
ANCHORAGE WB AP	5.1	- 6.5	7.5	-11.1	27.5	3.8	35.2	- 0.2	45.1	- 0.1	53.1	- 0.4	56.7	- 0.3	58.0	2.4	48.8	- 1.0	33.2	- 2.8	12.0	-10.4	12.1	- 1.2	32.9	- 2.1
ANIAK CAA	7.8	9.3	- 9.4M	-17.9	21.2	10.1	28.7	0.4	40.3	- 1.5	49.7	- 4.0	56.4	0.8	54.9	3.1	45.2	0.5	30.0	- 1.1	11.6	- 2.5	3.0	2.1	28.3	0.0
BETHEL WB	13.1	6.2	- 3.7	- 9.2	21.0	9.7	26.1	- 0.8	38.2	- 1.9	48.7	- 4.0	56.3	1.8	56.1	3.8	46.3	1.1	34.0	- 2.5	17.5	0.7	8.9	1.9	30.2	0.6
CASWELL	- 3.4		1.3		25.4		34.2		46.6		55.5		58.3		58.0		M		29.6		5.4		5.0		-	
CHITINA															M		46.3		28.5		-10.2		0.7		-	
CROOKED CREEK	4.1	2.2	-10.4	-20.4	22.7	10.0	30.5M		43.0	- 0.1	52.2	- 2.1	59.4	2.2	58.2	4.7	46.9	2.3	31.4	1.7	9.4	- 0.6	0.5	- 0.1	28.9	0.0
EKLUTNA	- 3.4	-16.5	- 4.2	-14.6	28.7	3.3	36.7	0.8	46.9	- 1.0	55.2	- 1.2	58.2	- 0.8	58.6	2.9	48.5	0.1	32.2M	- 3.5	10.5	- 9.4	7.5	- 4.1	32.0	- 3.7
EKLUTNA LAKE	- 0.1		- 2.5M		24.8M		31.1M		42.4		51.1		53.1		55.0		44.3M		30.6M		6.0M		8.8M		28.7	
FAREWELL CAA	10.3	5.6	-18.5	-23.4	20.4	11.5	27.7	3.5	40.1	0.2	50.2	- 0.6	55.8	0.8	54.9	5.2	43.2	2.1	24.5	- 1.2	4.1	- 2.6	- 1.0	- 4.4	26.0	- 0.3
GULKANA CAA	-13.2	- 9.5	-12.7	-17.2	16.1	1.6	28.0	- 0.3	43.8	- 0.1	54.3	0.0	54.4	- 2.7	55.3	3.2	44.2	1.1	23.8	- 4.2	- 7.9	-13.2	- 2.7	0.5	23.6	- 3.4
ILIAMNA CAA	15.0M	- 1.6	1.3	-17.9	29.2	9.6	31.7	- 0.1	41.0	- 0.4	48.4	- 1.9	54.4	0.5	56.7	3.3	47.7	1.7	35.1	- 0.6	17.6	- 5.1	12.5	- 3.4	32.5	- 1.4
LAKE NINCHUMINA CAA			13.0	- 9.1	17.0	8.3	27.9	3.3	44.7	- 1.3	56.5	- 1.1	61.5	1.5	57.9	5.6	45.2	2.5	25.9	0.3	- 0.2	- 2.1	- 5.0	1.8	M	-
MATANUSKA VALLEY 2	- 1.4	-15.5	5.2	-15.2	28.7	3.8	35.8	0.7	45.8	- 1.5	53.7	- 1.1	55.3	- 1.4	57.1	2.3	47.4	- 1.1	33.2M	- 2.6	10.0	- 9.9	8.7	- 2.6	31.6	- 3.6
MATANUSKA VALLEY 9	6.6	-10.4	11.8M	- 8.8	30.6	4.5	35.5	1.0	44.3	- 1.4	52.0	- 0.7	54.7	- 1.3	56.2	1.9			M		12.1M	-11.3	M		-	
MATANUSKA VALLEY 12	6.5	- 9.6			31.8	6.1	36.6	1.0	46.4	- 0.9	54.6	0.1	56.4M	- 0.6	58.3	3.4	48.0	0.0	33.6	- 2.9	14.7	- 6.9	11.8	- 2.0	-	
MATANUSKA VALLEY 14	3.8	- 9.6	9.2	- 9.5	29.7	5.2					53.7	- 1.5	57.1	0.4	58.2	2.9	48.2	0.7	33.3	- 3.1					-	
MATANUSKA VALLEY 15													55.5	- 0.7	56.8	4.8	48.6M	2.4							-	
MC GRATH WB	- 1.3	6.0	-18.0	-21.2	15.9	8.5	28.9	4.1	44.0	0.8	54.2	- 1.8	60.9	2.4	57.2	4.3	46.2	2.3	28.0	0.5	3.6	0.4	5.4	2.4	26.2	0.7
MEIER												M	53.2		53.5		41.2								-	
NAPTOWNE																	M		32.4		8.9		8.7		-	
NYAC			2.8				29.8				49.5		57.5M		56.5		45.1		32.9		15.4				-	
PALMER	7.4		11.3		31.6		37.0		46.7		55.1		56.7		58.6		48.5		34.1		14.9		14.1		34.7	
PUNTILLA	11.3	7.1	- 3.6	-12.7	15.6	4.3	24.5	1.6	37.0	0.2	48.2	1.1	52.7	1.3	53.4	5.7	39.5	- 0.7	24.0	2.3	9.7	- 0.9	2.4	- 0.2	26.2	0.3
SHEEP MOUNTAIN CAA	11.2	3.3	- 2.0	-12.1	20.2	3.4	27.5	1.8	40.7	- 0.8	50.4	0.2	51.3	- 1.7	54.7	5.0	45.7M	3.3	M		7.6M	- 6.4	8.9	2.0	-	-
SEWENTNA CAA	3.7	-11.9	5.5	- 9.7	25.0	4.3	34.5	1.5	46.2	0.8	53.8	- 1.9	58.3	0.0	58.4	3.6	47.3	0.5	30.3	- 3.2	6.1	-10.2	8.8	1.5	30.9	- 2.0
STONY RIVER	1.3		- 5.0	-10.8	22.2	11.1	31.4		45.0		54.3		59.0	1.4	57.9		47.2		31.4		9.4		0.4		29.6	-
TALKEETNA CAA	- 1.1	-10.1	9.0	- 7.7	28.7	6.1	35.1	1.8	45.0	0.2	53.3	- 1.5	56.8	- 1.1	57.8	3.1	46.9	0.7	30.3	3.9	7.9	-11.7	11.1	1.5	31.6	- 1.9
WASILLA	0.3M	-11.9	13.9	- 4.0	31.3M	7.2	36.8M	2.4	45.8	- 0.5	53.2M	0.2	56.6	0.4	57.5	3.5	48.8	2.6	33.0	- 2.3	13.3	- 7.1	12.1M	0.8	33.6	0.7
BERING SEA																										
CANDLE			-12.5	- 7.2	4.8	4.8	18.3	8.4	29.5M	- 3.4	47.6M	0.5	58.1M	5.2	54.7	4.9	42.8	3.2	32.6M	9.0					-	
GAMBELL WB AP	23.0	20.2	10.8	7.9	5.6	- 0.4	17.4	- 1.0	26.9	- 2.6	36.8	- 1.2	44.6	- 0.5	46.4	0.8	40.5	- 0.2	34.8	3.6	29.1	6.7	19.6	10.5	28.0	3.7
LAKE ALEKNAGIK					26.0M		M		M						M		M		M				12.2M		-	
MOSES POINT CAA	5.1	4.5	6.9	-10.9	11.3	7.9	21.0	4.2	34.1	0.1	46.8	- 1.3	57.4	3.2	55.3	5.8	45.6	4.2	32.4	4.5	18.9	7.2	5.5	4.7	27.2	2.8
MOSQUITO POINT									M		M		55.4M		56.5M		M								-	
NAENEK	15.4	1.1	1.9	-17.9	30.1	8.7	31.8	- 1.9	41.7	- 1.3	50.0	- 1.6	55.1	- 0.2	57.0	2.9	47.7	0.6	34.8	- 1.3	16.2	- 6.1	9.0	5.5	32.5	- 2.0
NOME WB AP	13.1	9.7	- 3.3	- 8.9	14.4	5.7	21.7	2.0	33.5	- 0.6	41.4	- 4.2	52.4	2.5	51.7	2.2	44.4	2.7	34.3	4.9	22.6	6.7	9.6	2.1	28.0	2.1
NUNIVAK	21.7	11.6	6.6	- 4.8	21.0	7.6	25.1	1.7	33.5	0.3	40.9	- 1.6	49.7	1.5	52.3	2.9	46.2	1.1	38.8	3.4	29.0	4.3	19.5	5.1	32.0	2.7
PLATINUM	22.1	7.0	4.3	-13.7	27.3	10.6	29.3M	- 1.1	38.6	- 0.8	46.2	- 2.4	53.3	1.7	54.7	3.2	47.2	1.4	37.1	2.5	22.2	0.1	18.6	6.5	33.4	1.2
PORT HEIDEN CAA	27.4	4.5	10.5	-14.4	32.3	6.6	31.4	1.3	37.7	- 1.8	44.2	- 3.2	51.4	0.4	53.2	1.1	46.9	- 1.2	38.2	- 0.5	25.1	- 4.6	22.5	- 2.8	35.1	- 1.2
TELLER	13.6	14.4	- 3.5	- 6.0	7.6	4.9	17.6	- 1.1	28.0	- 2.7	40.8	- 3.9	53.1	2.3	52.6	2.9	43.4	1.0	33.9	3.6	23.2M	7.4	9.4	5.8	26.7	2.4
UNALAKLEET CAA	12.1	6.6	- 9.6	-18.0	16.3	8.5	24.9	2.8	34.3	- 2.7	45.6	- 3.2	56.6	1.9	54.9	4.1	45.0	1.8	30.7	1.6	15.2	3.3	6.0	1.9	27.7	0.9
WALES WB AP	17.4	18.9	0.1	0.7	0.3	3.0	14.8	3.7	24.4	- 2.5	36.9	- 1.9	48.2	- 2.1	49.0	3.1	41.8	1.3	34.4	4.1	25.3	7.4	11.2	9.2	25.3	4.1

See reference notes following Station Index.

Table 1—Continued

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

ALASKA 1950

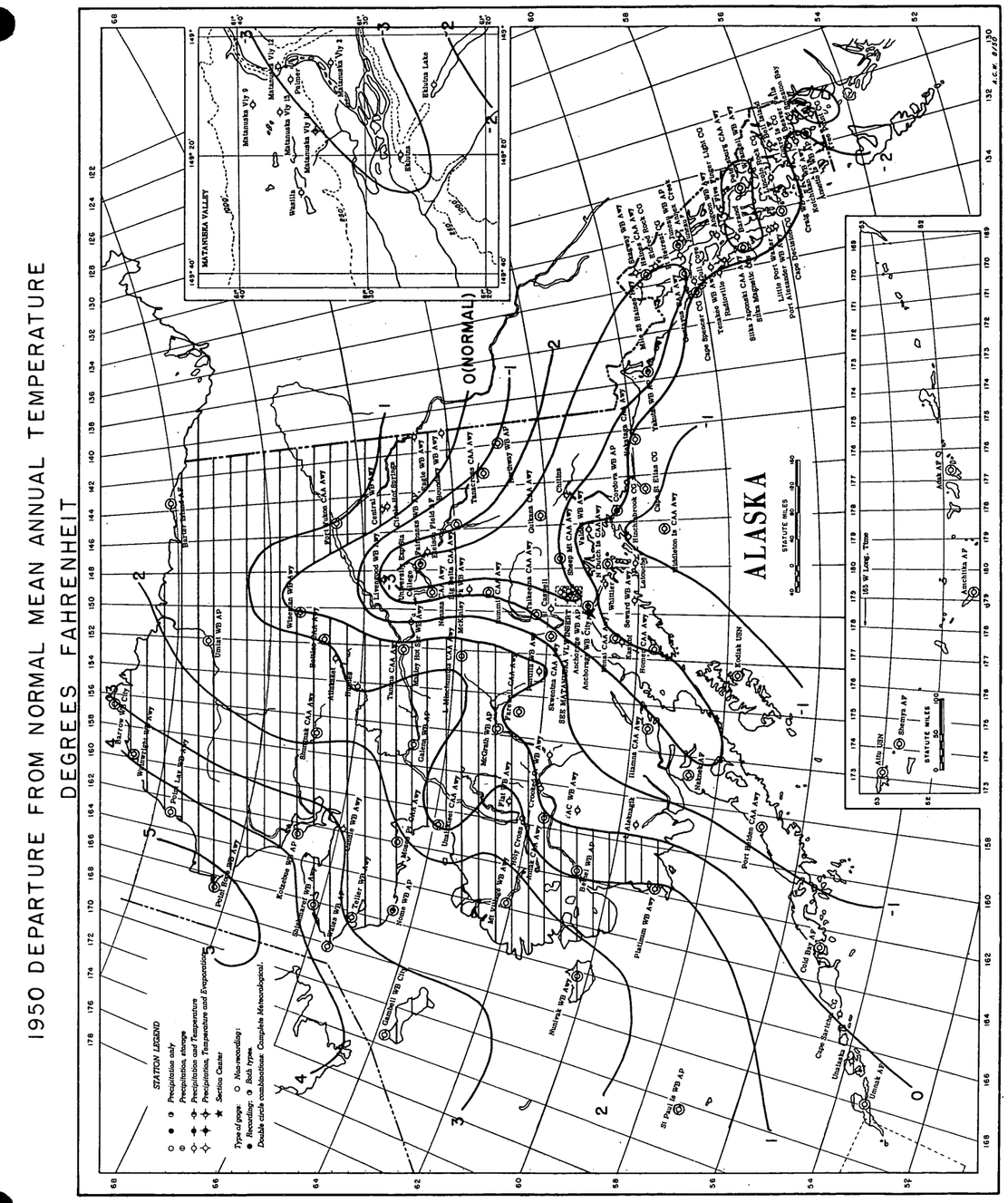
Station	January Temp.	January Departure	February Temp.	February Departure	March Temp.	March Departure	April Temp.	April Departure	May Temp.	May Departure	June Temp.	June Departure	July Temp.	July Departure	August Temp.	August Departure	September Temp.	September Departure	October Temp.	October Departure	November Temp.	November Departure	December Temp.	December Departure	Annual Temp.	Annual Departure
YUKON VALLEY																										
ALLAKAKET	- 9.1M	10.5	M		7.5M	9.7	20.4	2.4	42.5	1.2	55.3	- 1.1	61.1	4.7	55.5	3.9	41.9	2.0	23.8	3.3	M		M		-	-
BETTLES CAA	- 9.7	- 3.1	-18.8	-14.7	14.5	10.6	23.1	5.6	42.8	2.7	53.1	- 2.0	62.4	4.0	55.0	5.8	42.6	3.6	24.0	1.9	- 7.1	- 6.9	- 1.3	7.5	23.4	1.3
BIG DELTA CAA	- 0.7	2.2	-19.0	-25.4	18.6	6.0	27.8	- 0.8	46.3	- 0.5	59.2	2.8	60.0	1.0	57.4	3.8	47.3	3.9	24.4	- 3.5	- 3.8	- 9.8	- 0.6	4.0	26.4	- 1.4
BOUNDARY					16.0M		22.6		39.9		55.2M		54.0		50.8		41.0		19.4M		-10.4		3.9		-	
CENTRAL	- 4.8		-30.0		9.3		21.6		45.2		57.0		58.5		53.7		41.9		19.0		- 5.8		9.2		21.4	
CIRCLE HOT SPRINGS	0.5	13.8	-30.5	-21.5	11.3	6.2	24.4	0.7	46.2	0.6	58.0	0.0	60.1	- 0.6	55.9	2.1	43.2	1.9	20.1	- 3.6	- 2.8	- 1.3	- 7.1	7.1	23.3	0.5
COLLEGE MAG OBS	1.0		-18.2		20.4		28.9		48.6		58.7		62.5M		58.7		46.9

Table 2—Continued

TOTAL PRECIPITATION AND DEPARTURES FROM NORMAL

Station	January		February		March		April		May		June		July		August		September		October		November		December		Annual	
	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure	Precip.	Departure
ATTU	-		-		2.89		3.20		6.37		6.43		6.68		3.25		4.97		13.52		6.31		7.81		-	
COLD BAY	2.02	- .80	.08	-3.84	.63	- .99	.52	- .62	1.09	- .75	.69	-1.21	.28	-1.54	5.08	1.85	4.72	1.16	3.16	-1.43	1.59	-3.22	.94	-1.92	20.80	-13.30
ST PAUL ISLAND WB AP G	1.91	- .22	.70	- .82	1.13	- .55	1.56	.27	1.51	.07	.90	- .51	5.85	3.26	2.63	- .54	3.72	.23	3.21	- .11	2.46	- .37	3.13	.88	28.71	1.59
SHEMYA	3.49	1.62	4.51	2.72	1.28	- .64	3.49	2.31	2.57	1.23	1.67	.74	4.10	1.96	1.84	- .95	3.02	.87	1.92	-1.10	.95	-1.99	2.68	.28	31.52	7.05
UMNAK	3.13	.24	1.75	-2.44	2.55		2.07		2.12		1.87		-		7.33		6.71		9.87		-		-		-	
UNALASKA	5.04	-1.46	2.11	-4.40	3.97	-1.01	3.74	- .57	3.02	-1.48	1.19	-1.92	4.62	2.53	2.93	.47	8.81	3.22	4.72	-2.71	2.20	-4.41	9.66	2.78	52.01	- 8.96
DIVISION	1.60	-6.91	4.37	-2.03	4.07	-1.98	5.75	.72	7.06	2.18	4.19	.52	5.52	1.17	6.02	- .68	10.89	.97	6.73	-6.59	2.95	-7.21	7.26	-1.92	66.41	-21.76
NORTHERN DIVISION																										
SOUTHERN VALLEYS																										
ANCHORAGE WB AP G	.83	- .01	T	- .67	.29	- .26	.04	- .37	.10	- .40	1.90	1.20	.97	- .66	.92	-1.68	1.07	-1.51	.52	-1.66	.26	- .78	1.71	.86	8.61	- 5.94
ANIAK CAA	1.10	.37	.26	- .59	.05	- .98	.46	.08	.34	- .81	3.95	2.73	1.49	-1.03	3.50	-1.88	3.64	.65	1.03	-1.15	.42	- .53	.83	- .33	17.06	- 3.47
BETHEL WB AP	1.03	.13	.23	- .61	.53	- .43	.64	.10	.70	- .19	2.48	1.31	2.25	- .04	2.54	-1.54	3.45	.46	1.64	- .11	.99	.02	.52	- .34	17.00	- 1.24
CASWELL	1.95		.00		T		.32		.61		4.01		2.52		1.63		2.59		.89		.44		2.93		17.89	
CHITINA	-		-		-		-		-		-		-		-		1.56		-		-		-		-	
CROOKED CREEK	.48	- .30	.06	- .49	.05	- .31	-		.40	- .49	3.58	2.44	1.50	- .21	2.39	- .77	2.00	- .49	.40	- .83	.80	.05	.84	.33	-	
EKLUTNA	1.06	- .29	.03	- .64	.18	- .39	.21	- .06	.15	- .58	2.12	.54	2.05	.02	.67	-2.64	.69	-1.92	.63	- .72	.20	- .99	1.36	.66	9.35	- 7.01
EKLUTNA LAKE	.58		.10		.41		.15		.22		.85		1.82		.70		-		.53		.12		.99		-	
FAREWELL CAA	.57	.14	.11	- .35	.28	- .08	.18	- .39	1.26	.19	2.16	- .60	4.39	1.02	4.09	- .44	1.09	-1.38	.46	- .22	.43	.04	.40	- .09	15.42	- 2.16
GULKANA CAA	.86	- .03	.39	- .04	T	- .45	.06	- .37	T	- .47	.81	- .42	2.81	.70	.53	-1.33	1.75	.17	.44	- .42	.87	.22	.73	- .23	9.25	- 2.67
ILIAMNA CAA	.52	-1.27	.01	-1.18	.08	-1.32	1.56	.43	.34	-1.28	3.85	2.64	2.02	-1.22	6.39	1.45	3.91	.00	2.42	-1.73	.08	-1.33	.52	-1.86	21.70	- 6.67
LAKE MINCHUMINA CAA	.90	.24	.03	- .46	.08	- .55	.03	- .23	.34	- .44	.37	-1.35	.65	-1.91	1.31	-1.87	.22	-1.33	.27	- .53	.52	- .02	.15	- .44	4.87	- 8.89
MATANUSKA VALLEY 2	E 1.59	.19 E	.03	- .83	.01	- .74	.11	- .15	.47	- .05	1.22	.01	2.27	.66	.82	-1.88	.87	-1.41	.34	-1.26 E	.18	- .93 E	1.35	- .05 E	9.26	- 6.44
MATANUSKA VALLEY 9	.66	- .88	.00	- .68	.02	- .73	.04	- .24	.38	- .25	1.83	- .57	2.63	.33	1.81	-2.90	-		1.59	- .33	.15	- .72	3.10	2.28	-	
MATANUSKA VALLEY 12	-		-		.07	- .65	.10	- .21	.15	- .49	1.43	- .21	2.20	.15	1.16	-2.29	.82	-2.14	.51	- .97	.26	- .64	1.22	.46	-	
MATANUSKA VALLEY 14	E 1.44	.53	.00	- .73	.07	- .48	-		-		1.82	.55	1.44	- .53	1.45	-1.43	.68	-1.97	.40	-1.37	-		-		-	
MATANUSKA VALLEY 15	-		-		-		-		-		-		2.18	.30	1.15	-2.81	.93	-2.77	-		-		-		-	
MCGRATH WB AP	1.80	.68	.07	-1.23	.03	-1.11	.67	.28	.52	- .51	4.36	2.44	2.82	.46	2.82	- .76	2.13	- .29	.44	-1.42	.51	- .62	.98	- .32	17.17	- 2.40
MEIER	-		-		-		-		-		-		3.47		1.14		1.04		-		-		-		-	
NAPTOWNE	-		-		-		-		-		-		-		-		-		.44		.08		1.90		-	
NYAC	-		.34		-		.48		-		3.34		-		4.06		3.09		.96		.96		-		-	
PALMER	E 1.22		T		T		.02		.06		1.13		2.05		1.16		.95		.55		.18		1.36		E 8.68	
PUNTILLA	.84	- .66	.06	-1.25	.27	-1.02	.31	.01	.30	- .02	-		.46	-1.17	.76	-1.63	.77	-1.10	.41	- .80	.21	- .71	.44	- .34	-	
SHEEP MOUNTAIN CAA	.20	- .51	.10	- .27	.07	- .35	T	- .19	.80	- .48	3.44	- .39	3.91	1.50	.46	- .64	.25	-1.67	.20	- .98	.21	- .55	.47	- .17	10.11	- 1.16
SKWENTNA CAA	1.45	-1.13	T	- 2.15	.10	-1.70	.27	- .95	.68	- .74	3.17	1.38	2.14	-1.42	.93	-3.62	2.50	-2.90	1.21	-2.05	.12	-2.31	.62	- .90	13.19	-18.49
STONY RIVER	2.36		.06	-1.61	.13	-1.43	.61		.79		3.58		1.72	-1.24	5.34		2.77		.52		.87		.99		19.74	
TALKEETNA CAA	1.58	- .29	.01	-1.89	.06	-1.86	.15	- .76	.52	- .75	2.88	1.22	1.92	-1.62	2.14	-3.09	5.27	.33	1.46	-2.12	.68	-1.09	3.34	1.55	20.01	-10.37
WASILLA	1.73	.48	.00	- .82	.28	- .59	.50	.11	.47	- .25	1.96	.07	1.40	- .75	1.12	-2.19	1.23	-1.64	.94	- .82	.14	- .72	2.14	1.19	11.91	- 5.93
BERING SEA																										
CANDLE	-		T	- .52	1.32		.04	- .15	-		-		.63	- .61	.95	- .54	1.66	.46	-		-		-		-	
GAMBELL WB AP	3.28	2.57	.59	- .28	4.85	4.02	5.86	5.18	.63	.02	.68	.18	3.20	1.62	2.22	.09	3.23	1.26	2.21	.87	1.22	.19	3.13	2.34	31.10	18.06
LAKE ALEKNAGIK	-		-		-		2.13		4.48		-		-		-		13.67		3.67		1.08		2.45		-	
MOSES POINT CAA	1.44	.13	.40	-1.29	.72	-1.23	.30	- .66	.11	- .95	.42	- .18	.36	-1.59	3.38	- .24	4.30	1.79	2.21	.35	2.48	1.14	1.76	.23	17.88	- 2.50
MOSQUITO POINT	-		-		-		-		-		4.89		3.41		6.15		-		-		-		-		-	
NAKNEK	1.01	.07	.31	- .93	.56	- .63	1.69	.86	2.26	.98	3.78	2.26	2.40	- .70	2.42	-1.72	3.81	.32	2.07	- .66	.08	-1.22	.64	- .57	21.03	- 1.94
NOME WB AP	1.88	.79	.49	- .32	1.01	.17	.99	.32	.53	- .11	1.93	.81	1.69	- .81	5.50	2.28	3.63	.92	3.02	1.44	2.53	1.56	1.05	- .06	24.25	6.99
NUNIVAK	.73	- .23	.61	- .51	1.19	.17	1.05	.49	.32	- .37	.74	.10	1.00	.06	2.04	- .22	2.28	.49	1.30	-1.23	1.47	.14	1.22	.43	13.95	- .70
PLATINUM	.81	- .39	.15	-1.04	.84	- .24	.97	.50	.74	- .30	.75	- .13	.41	-1.13	2.31	-1.14	5.29	2.35	1.75	-1.00	.26	-1.15	.80	- .25	15.08	- 3.92
PORT HEIDEN CAA	.78	- .08	.17	- .39	1.32	.72	.76	.43	1.52	.90	1.46	.16	1.10	- .73	2.27	- .89	3.03		1.83	-1.84	.53	-1.16	.29	- .88	15.06	
TELLER	.29	- .69	.06	- .65 E	1.53	1.05	.09	- .76	.16	- .32	.88	.29	1.49	- .39	3.41	1.19	1.97	.28	1.57	.88	1.25	.67	.74	.26 E	13.44	1.81
UNALAKLEET CAA	.57	.39	.17	- .16	.33	- .07	.17	- .06	.34	- .48	1.20	.32	.67	-2.09	2.20	-2.10	3.20	1.17	.24	- .89	.55	.37	.36	.16	10.00	- 3.44
WALES WB AP	.64	- .12	.76	- .15	.51	- .10	.79	.51	.38	- .11	1.07	.45	1.03	- .33	2.04	- .49	2.69	.81	1.85	.77	.65	.15	.41	- .24	12.82	1.15
YUKON VALLEY																										
ALLAKAKET	.81	.07	.08	- .74	.02	- .64	.20	- .16	1.00	.26	2.56	1.23	.89	-1.25	1.02	-1.11	2.12	.57 E	1.03	- .08	.91	.12	1.14	.36 E	11.78	- 1.37
BETTLES CAA	.41	- .57	T	- .34	T	-1.17	.04	- .30	1.10	- .16	1.35	.16	.33	-1.13	1.08	-1.81	1.64	- .54	.78	- .93	1.05	.52	.96	.45	8.74	- 5.82
BIG DELTA CAA	1.13	.84	.06	- .15	.69	.44	.07	- .28	.71	.00	.61	-1.82	3.37	.21	2.27	.41	.43	- .88	.69	.29	.53	.24	.26	- .08	10.82	- .78
BOUNDARY	-		-		-		T		1.56		-		2.76		1.41		1.41		-		.54		1.41		-	
CENTRAL	.47	- .15	.12	- .05	.12		.28	- .96	.24	- .42	1.15	-1.39	2.74	.02	1.08		.49		.54	- .51	.11		.41	- .06	7.75	
CIRCLE HOT SPRINGS	.52	.13	.13	- .12	.16	- .11	.20	- .21	.23	- .75	.75	- .41	3.13	1.14	1.56	.01	.95	- .32	.80	.03	.25	- .30	.49	.16	9.17	- .75
COLLEGE MAG OBS	2.35		.48		.53		.04		.30		.72		1.03		1.51		.46		.77		1.16		.80		10.15	
EAGLE	1.40	.93	.04	- .28	.60	.25	.52	.12	-		-		-		.81	-1.26	1.52	.18	.23	- .59	.73	.24	1.27	.79	-	
EIELSON FIELD	2.08		.15		.79		.08		.14		.95		3.05		2.62		.58		.58		1.47		.45		12.94	
FAIRBANKS WB AP	2.00	1.12	.25	- .25	.52	- .14	.03	- .28	.52	- .15	.86	- .56	2.50	.60	1.17	-1.00	.31	- .95	.51	- .36	.99	.31	.39	- .19	10.05	- 1.85
FLAT	1.19	.58	T	- .82	.38	- .27 E	.63	.21	.70	- .61	4.75	3.14	1.19	-1.78	2.98	-1.11	2.38	- .43	.46	- .95	1.03	.30	.34	- .43 E	16.03	- 2.17
FORT YUKON CAA	.68	.26	.06	- .35	.27	- .05	.07	- .19	.13	- .32	.07	- .73	.06	- .94	.32	- .91	.62	- .09	.50	- .14	.48	.10	.57	.26	3.83	- 3.10
GALENA WB AP	1.21	.63	.12	- .63	.18	- .63	.80	.66	.12	-1.13	1.88	.64	1.07	-1.60	2.58	- .25	1.87	.31	.26	- .36	.33	- .20	1.12	.23	11.54	- 2.33
HOLY CROSS	1.50	.21	.25	- .72	.29	- .95	.25	- .33	.23	- .54	2.05	.79	1.64	- .91	2.24	-1.49	2.63	- .24	.83	- .89	.55	- .65	1.68	.45	14.14	- 5.27
HUGHES	1.68	1.12	.09	- .75	T	- .76	.27	.18	.20	- .80	2.45	1.19	1.61	- .55	1.45	-1.27	2.49	1.08	.85	- .38	1.37	.51	.73	.22	13.19	- .21
MANLEY HOT SPRINGS	1.93	.94	.17	- .70	.10	- .46	.11	- .23	.76	.00	1.18	- .41	.58	-2.05	1.14	-2.48	1.92	.31	.95	- .27	1.56	.78	.90	.20	11.30	- 4.37
MCKINLEY PARK	-		.19	- .42	.41	- .01	.13	- .57	.72	- .13	.36	1.69	3.44	1.08	1.52	-1.33	.88	- .72	.38	- .66	2.44	1.76	.37	- .23	-	
MOUNTAIN VILLAGE	1.71	.56	-		.57	- .19	.46	- .06	.50		-		-		4.18		3.69		1.02		.65	- .65	.23	-1.09	-	
NENANA CAA	1.86	1.22	.11	- .37	.06	- .50	.10	- .25	.34	- .36	1.25	- .06	2.10	.19	1.21	-1.33	.40	- .81	.28	- .44	.58	.09	.47	.03	8.76	- 2.59
NORTHWAY WB AP	.98	.38	.04	- .38	.11	- .15	.03	- .37	.99	.30	.58	-1.42	4.83	1.94	.39	-1.83	.54	- .90	.23	- .31	.31	- .04	.44	.06	9.47	- 2.72
SUMMIT CAA	.36	- .71	T	-1.13	.07	-1.41	.13	- .35	.26	- .82	1.19	-1.12	2.22	-1.02	1.39	-2.31	3.96	.56	.70	-1.05	1.48	.60	.71	- .66	12.47	- 9.42
TANACROSS	1.13	.47	.29	.03	.10	- .12	.22	.04	.90	.21	.61	-1.56	4.54	2.02	1.79	.82	1.03	- .44	.38	- .02	.51	.14	.48	.10	11.98	1.69
TANANA CAA	1.01	.27	.09	- .61	T	- .59	1.26	1.02	.25	- .56	.78	- .41	.07	-2.36	.91	-1.74	2.23	.49	.72	- .34	.59	- .09	.62	- .02	8.53	- .49
UNIVERSITY EXP STATION	1.63	.80	.30	- .16	.42	- .24 E	.02	- .28	.39	- .30	.77	- .64	1.57	- .34	1.48	- .76	.53	- .83	.72	- .14	1.06	.40	.63	.09 E	9.52	- 2.40
WISEMAN	.50	- .05	.04	- .40	.08	- .37	.14	- .24	.74	.13	2.19	.93	2.40	.72	.87	-1.16	2.36	.58	.39	- .58	1.63	1.18	.51	- .01	11.85	- .73
DIVISION	1.07	.23	.43	- .43	.34	- .31	.45	.00	.55	- .24	1.61	.38	1.73	- .43	1.76	-1.05	1.79	- .01	.83	- .43	.84	.09	.87	.17	12.27	- 2.03
TERRITORY	1.14	- .76	.98	- .65	.86	- .54	1.19	.10	1.46	.10	1.98	.40	2.26	- .21	2.35	-1.00	3.06	.13	1.65	-1.29	1.13	- .92	1.76	- .12	19.82	- 4.76
ARCTIC DRAINAGE																										
BARROW WB	.55	.40	.42	.23	.04	- .10	.19	.07	.23	.09	.82	.55	.56	- .29	1.24	.43	1.16	.64	.36	- .19	.43	.15	.22	- .01	6.22	1.97
BARTER ISLAND	1.62		.16		.08		.12		.60		.26		2.60		.62		.31		1.13		1.50		.16		9.16	
KOTZEBUE WB AP	.40	- .10	.28	.01	.30	.02	.46	.12	.26	- .08	1.12	.63	.87	- .60	2.14	.43	2.17	1.26	.76	.20	.98	.61	.57	.25	10.31	2.75
POINT HOPE	.75	.42	.66	.40	.33	- .17	1.14	.47	.69	.24	1.41	.99	.37	.59	2.04	.35	1.89	.74 E	.81	- .10 E	2.47	1.67			-	
POINT LAY	.37	.15	-		.08	- .13	.40	.23	-	-	-		-		-		T		-		-		.35	.13	-	
SHISHMAREF	1.45	1.09	1.48	.99	.71	.32	.53	.28	.56	.28	1.28	.89	1.28	.01	1.57	- .10	1.90	.80	1.17	.52	.93	.51	1.92	1.68	14.78	7.27
SHUNGNAK CAA	.85	.16	.05	- .83	.08	- .57	1.10	.14	.94	- .25	2.15	.65	.83	-1.75	2.87	-1.53	-		-		-		-		-	
UMIAT WB AP	.88		.16		.13		.10	- .28	.14	.04	.20	- .52	.14	- .46	.88		.64		.56		1.07		.61		5.51	
WAINWRIGHT	.21	.14	.23	.19	-		-		.05	- .11	.29	.13	.37	- .23	.11	-1.48	1.13	.86	.27	- .32	.34	.16	.20	.12	-	

See reference notes following Station Index.


1950 DEPARTURE FROM NORMAL MEAN ANNUAL TEMPERATURE
DEGREES FAHRENHEIT
ALASKA
STATUTE MILES
STATION LEGEND
Precipitation only
Precipitation and Temperature
Precipitation and Temperature
Precipitation, Temperature and Evaporation
Service Center
Type of gage: O Non-recording:
Recording: Both types
Double circle combinations: Complete Meteorological.
MATANUSKA VALLEY
Wasilla
Palmer
Eklutna Lake
Eklutna
Eagle River
Chugiak
Anchorage
Girdwood
Portage
Moose Pass
Cooper Landing
Hope
Sterling
Kenai
Homer
Seldovia
Kodiak
Port Lions
Cordova
Valdez
Tatitlek
Yakutat
Sitka
Ketchikan
Wrangell
Petersburg
Juneau
Haines
Skagway
Cape Spencer
Gulf Cities
Tenakee
Angoon
Hoonah
Elfin Cove
Pelican
Gustavus
Yakutat
Cape Yakataga
Cape Hinchinbrook
Cape Decision
Port Alexander
Little Port Walter
Cape Fairweather
Chichagof
Sitka Magnetic
Sitka Tacoma
Sitka Observatory
Port Alexander
Ketchikan
Metlakatla
Hydaburg
Klawock
Craig
Wrangell
Petersburg
Sitka
Juneau
Haines
Skagway
Cordova
Valdez
Tatitlek
Yakutat
Kodiak
Port Lions
Homer
Kenai
Seldovia
Cape Spencer
Cape Decision
Cape Fairweather
Cape Yakataga
Cape Hinchinbrook
Cape Decision
Port Alexander
Little Port Walter

PERCENTAGE OF NORMAL ANNUAL PRECIPITATION, 1950

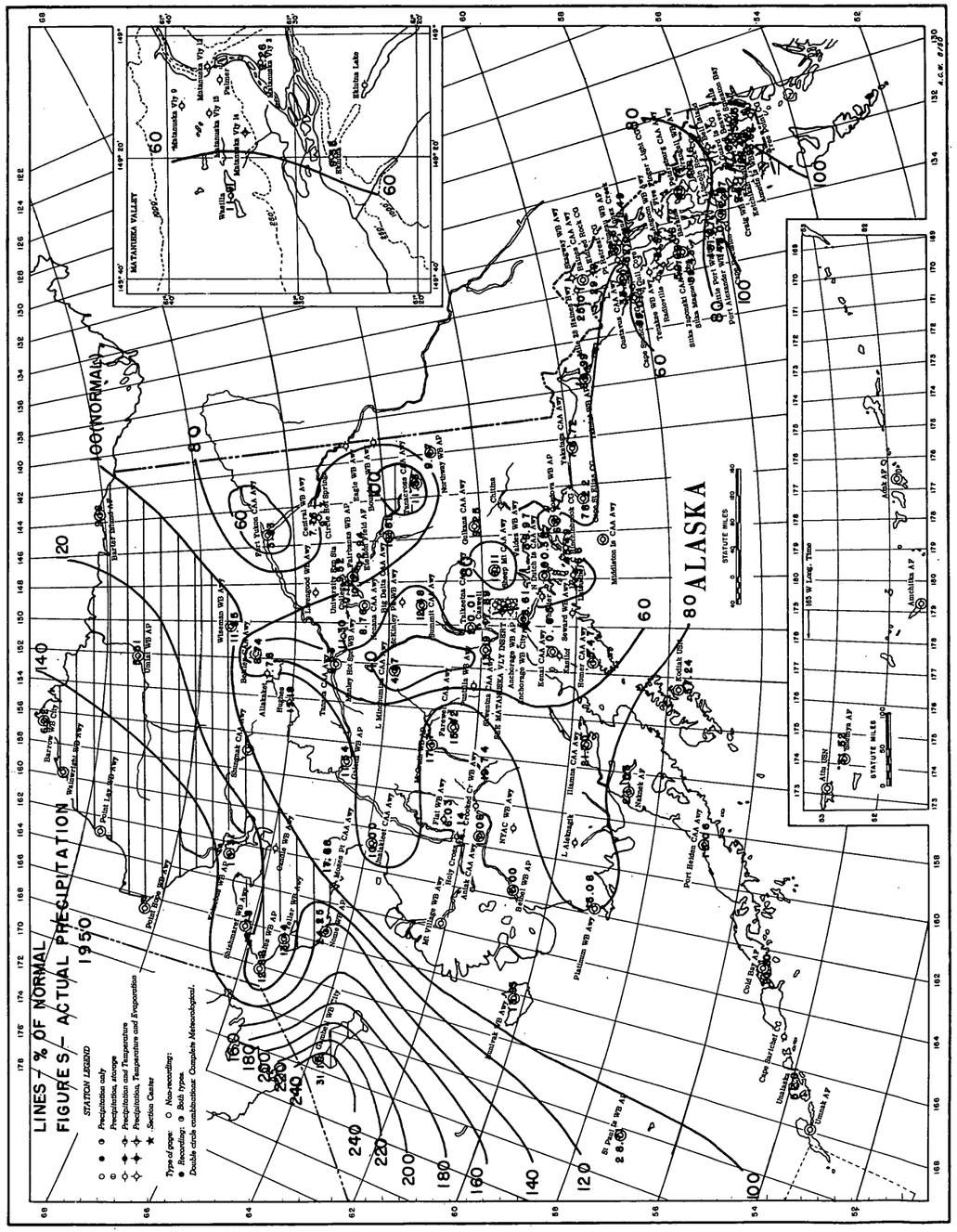


Table 3

MISCELLANEOUS DATA

Station	Highest	Date	Lowest	Date	Freezing Temperature: Last date in spring	Freezing Temperature: First date in autumn	Length of growing season days	Total Annual Snowfall	Rivers and Harbors %: Date ice broke in spring	Rivers and Harbors %: Date closed in autumn	Rivers and Harbors %: Date safe for man	Number of days, Temperature: Max 70° or above	Number of days, Temperature: Max 32° or below	Number of days, Temperature: Min 32° or below	Number of days, Temperature: Min 0° or below
SOUTHEASTERN DISTRICT															
ANGOON	75	7- 9	0	1- 1	MAY 16	OCT 17	154	111.1	APR 15	- (1)	-	5	66	141	1
ANNETTE WB AP	83	6-17	2	1- 1	APR 22	OCT 28	189	43.1	*	*	*	20	40	88	0
ANNEX CREEK	84	6- 8	-12	1- 3	APR 25	SEP 28	156	118.8	*	*	*	38	103	173	16
BARANOF	72	6-17+	- 7	1-13	MAY 23	OCT 17	147	318.2	JUN 5	NOV 25 (2)	NOV 27	6	59	174	7
BEAVER FALLS	86	6-16	1	1-13+	APR 23	OCT 17	177	-	MAY 6	- (3)	-	25	42	131	0
CAPE DECISION	-	-	-	-	-	-	-	-	*	*	*	-	-	-	-
CAPE SPENCER	73	7- 9	11	1-19	APR 10	NOV 5	209	-	-	-	-	1	52	95	0
CRAIG	82	8-18	2	1- 1	APR 28	-	-	-	-	-	-	-	-	-	0
ELDRED ROCK	-	-	5	2- 7	APR 14	OCT 21	190	74.2	-	-	-	-	62	140	0
FIVE FINGER LIGHT	71	6-18	-	-	APR 9	NOV 7	212	-	-	-	-	-	-	-	-
GUARD ISLAND	81	6-18	3	1- 1	APR 24	AUG 27	125	-	*	*	*	25	34	93	0
GULL COVE	76	7- 9	0	1-23	MAY 31	SEP 8	100	-	*	*	*	9	52	171	1
GUSTAVUS CAA	82	6-17	-20	1- 1	JAN 4	SEP 29	117	55.4	FEB 9	NOV 17 (4)	*	23	69	182	20
HAINES CAA	87	6-17	-	-	APR 27	OCT 19	175	-	-	-	-	28	-	-	-
HOLLIS	85	6-17	-	-	MAY 23	-	-	-	-	-	-	-	-	-	-
JUNEAU	82	6-18	0	1- 1	APR 28	OCT 19	174	-	-	-	-	25	63	127	1
JUNEAU WB AP	83	6-17	-19	1- 1	MAY 31	SEP 30	122	92.1	*	-	-	31	78	181	24
KETCHIKAN	87	8-17	2	1- 1	APR 23	OCT 18	178	-	-	-	-	30	26	88	0
LINCOLN ROCK	85	8-14	2	1- 1	APR 15	OCT 27	195	-	-	-	-	11	44	96	0
LITTLE PORT WALTER	76	6-18	8	1-13	MAY 23	OCT 19	149	157.7	MAR 3	NOV 14 (5)	*	2	49	143	0
MILE 28 HAINES HIGHWAY	93	6-17	-32	1- 1	JUN 14	JUL 2	18	-	-	-	-	49	108	247	71
PETERSBURG CAA	81	6-18	- 9	1-23	MAY 22	SEP 30	131	106.4	APR 25	- (6)	-	16	60	144	13
PORT ALEXANDER	75	6-17	11	1- 1	MAY 23	SEP 19	119	-	*	-	-	12	46	114	0
RADIOVILLE	89	7- 9	-	-	APR 28	SEP 17	142	-	-	-	-	-	-	-	-
SITKA JAPONSKI CAA	84	8-18	5	1- 1	MAY 15	SEP 19	127	40.6	-	-	-	14	33	113	0
SITKA MAGNETIC	86	8-19	- 5	1- 1	JAN 1	SEP 16	107	43.6	-	-	-	10	37	163	6
SMEATON BAY	85	6-17	-	-	APR 28	-	-	-	-	-	-	-	-	-	-
TENAKEE	82	6- 9	- 3	1-23	MAY 31	OCT 3	125	84.5	*	-	-	37	53	166	4
TREE POINT	73	8-18	- 5	1- 1	APR 27	OCT 19	145	-	-	OCT 25 (7)	NOV 16	4	24	118	6
WRANGELL	83	6-18	- 1	1- 1+	APR 27	OCT 17	143	117.8	-	-	-	25	54	97	4
PACIFIC COAST															
CAPE HINCHINBROOK	69	8-13	12	2- 5	MAY 24	OCT 30	159	-	-	-	*	0	35	119	0
CAPE ST ELIAS	68	6-28	15	2- 5	APR 19	NOV 4	199	150.4	*	-	*	0	39	109	0
CORDOVA WB AP	77	6- 8	-12	2- 5	JUN 4	SEP 13	101	72.7	MAY 11	OCT 18 (8)	NOV 10	10	62	206	27
HOMER CAA	71	8- 8	- 8	2- 6+	JUN 13	SEP 14	93	26.6	MAY 2	OCT 21 (9)	OCT 30	5	84	218	16
KENAI CAA	79	8-14	-29	2- 6+	JUN 4	SEP 2	90	47.7	APR 6	NOV 4 (10)	-	9	117	216	70
KODIAK	74	8-14	12	2- 7	MAY 5	OCT 13	161	27.9	-	OCT 30 (11)	*	4	46	135	0
LATOUCHE	76	7-25	12	2- 6	MAY 23	OCT 18	148	-	*	*	*	7	50	173	0
MIDDLETON ISLAND CAA	63	8-12	17	2- 6	APR 14	NOV 3	203	-	*	*	*	0	19	77	0
NAPTOWNE	-	-	-	-	-	-	-	-	-	NOV 2 (25)	JAN 9	-	-	-	-
NORTH DUTCH ISLAND CAA	70	8-14	13	2- 6	APR 25	OCT 29	187	90.5	*	*	*	1	45	158	0
SEWARD	80	8-12	0	2-11	APR 26	OCT 13	170	-	*	*	*	11	72	176	1
VALDEZ	75	8-14	- 8	1- 1	MAY 17	SEP 14	120	124.1	*	*	*	8	97	211	12
WHITTIER	-	-	-	-	-	OCT 17	-	-	*	*	*	-	-	-	-
YAKATAGA CAA	70	7-22+	2	2-10	MAY 29	SEP 30	124	61.6	MAR 25	NOV 8 (12)	*	2	63	184	0
YAKUTAT WB AP	78	7- 9	-13	1- 1	MAY 29	SEP 29	123	140.8	-	-	-	10	57	192	21
SOUTHWESTERN ISLANDS															
ADAK	-	-	19	12-25	MAY 2	OCT 20	171	-	*	*	*	-	-	-	-
AMCHITKA	-	-	-	-	MAY 8	NOV 9	185	-	*	*	*	-	-	-	-
ATTU	70	7-18	-	-	MAY 13	OCT 23	163	-	*	*	*	-	-	-	-
COLD BAY	69	8-11	- 9	12-29	MAY 22	OCT 21	152	21.5	*	*	*	0	48	156	2
ST PAUL ISLAND WB AP	60	8-11	11	2-24	JUN 16	SEP 18	95	38.1	*	*	*	0	53	192	0
SHEMYA	57	6-28+	20	12-24	MAY 8	NOV 8	184	43.1	*	*	*	0	15	102	0
UMNAK	68	8-11	-	-	MAY 21	SEP 25	127	-	*	*	*	-	-	-	-
UNALASKA	80	8- 8	17	2-25	MAY 15	JUL 17	32	-	*	*	*	10	12	138	0
SOUTHERN VALLEYS															
ANCHORAGE WB AP	80	8-14	-21	2- 6	MAY 20	SEP 24	127	48.3	MAY 3	OCT 20 (13)	OCT 25	25	120	208	66
ANIAK CAA	82	7- 8	-41	2- 9	JUN 5	AUG 30	86	26.8	MAY 12	OCT 10 (14)	OCT 12	21	34	238	98
BETHEL WB AP	81	8-12	-26	12-22	MAY 23	SEP 25	125	35.4	MAY 18	OCT 28 (14)	NOV 4	12	137	218	74
CASWELL	83	7- 5+	-32	2- 8+	MAY 16	SEP 1	108	79.5	MAY 2	-	NOV 7	-	-	-	-
CHITINA	-	-	-	-	-	AUG 28	-	-	MAY 5	OCT 15 (16)	NOV 1	-	-	-	-
CROOKED CREEK	83	7- 4+	-39	12-22	JUN 5	SEP 1	88	-	MAY 10	OCT 11 (14)	NOV 4	47	133	228	97
EKLUTNA	82	8-13+	-31	1-11	MAY 23	SEP 1	101	-	-	-	-	40	120	216	80
EKLUTNA LAKE	78	6- 5+	-32	2- 2	JUN 27	AUG 27	61	29.9	MAY 19	NOV 19 (17)	NOV 28	31	119	250	77
FAREWELL CAA	80	8-16	-41	2-12	JUN 14	SEP 2	80	34.0	APR 27	NOV 10 (18)	-	24	138	244	104
GULKANA CAA	84	6-18	-45	2-10	JUN 3	AUG 15	73	47.1	MAY 10	OCT 15 (20)	NOV 10	39	150	243	140
ILIAMNA CAA	78	8-14	-22	2- 7	MAY 21	OCT 7	139	41.1	-	OCT 6 (21)	OCT 29	12	115	199	47
LAKE MINCHUMINA CAA	84	7-10	-	-	MAY 23	SEP 15	115	35.7	MAY 30	OCT 9 (23)	OCT 25	48	138	191	84
MATANUSKA VALLEY 2	80	8-13	-27	1-11+	JUN 4	SEP 1	89	31.8	-	- (24)	NOV 1	35	108	214	86
MATANUSKA VALLEY 9	81	6- 6	-25	1-11	JUN 4	-	-	-	-	-	-	-	-	-	-
MATANUSKA VALLEY 12	80	8-14	-	-	MAY 6	SEP 15	132	-	MAR 10	OCT 25 (24)	NOV 1	-	-	-	-
MATANUSKA VALLEY 14	81	8-14	-	-	JUN 14	SEP 15	93	-	-	-	-	-	-	-	-
MATANUSKA VALLEY 15	-	-	-	-	JUN 22	SEP 1	71	-	-	-	-	-	-	-	-
MC GRATH WB AP	84	7-23	-49	2-15	MAY 23	SEP 1	101	65.6	MAY 11	OCT 11 (14)	OCT 30	40	154	229	112
MEIER	-	-	-	-	JUN 26	AUG 25	60	-	-	-	-	-	-	-	-
NYAC	83	7- 8+	-	-	JUN 14	AUG 30	77	-	-	-	-	-	-	-	-
PALMER	80	8-13+	-15	1-11	MAY 20	SEP 4	107	-	-	NOV 1 (24)	-	38	115	201	46
PUNTILLA	80	6-29	-38	2-13	JUN 14	AUG 28	75	57.6	JUN 8	OCT 17 (26)	OCT 18	16	148	265	113
SHEEP MOUNTAIN CAA	75	8-13	-21	2-16	MAY 28	-	-	29.3	MAY 7	OCT 8 (27)	OCT 24	18	-	-	40
SKWENTNA CAA	83	6-29+	-34	2- 6	JUN 2	SEP 2	92	60.5	MAY 7	OCT 15 (28)	OCT 30	41	124	221	88
STONY RIVER	82	7- 9	-36	2-18	MAY 22	SEP 1	102	72.6	MAY 7	OCT 11 (14)	NOV 16	39	134	217	97
TALKEETNA CAA	83	7- 5+	-28	2- 9	JUN 14	SEP 1	79	88.6	APR 5	- (29)	-	38	124	231	81
WASILLA	82	7- 9+	-34	1-11	JUN 27	SEP 1	66	-	APR 20	SEP 1 (30)	OCT 25	42	104	226	34
BERING SEA															
CANDLE	83	7- 9	-	-	JUN 27	AUG 1	35	-	MAY 17	- (31)	-	-	-	-	-
GAMBELL WB AP	58	7-22+	-12	3-19	JUN 10	OCT 10	122	191.2	JUL 1	OCT 28 (32)	OCT 30	0	188	228	25
LAKE ALEKNAGIK	-	-	-	-	-	SEP 25	-	-	MAY 28	OCT 24 (22)	NOV 22	-	-	-	-
MOSES POINT CAA	79	7- 5	-36	2- 3	JUN 1	SEP 12	104	66.3	MAY 18	OCT 8 (33)	OCT 26	8	169	219	93
MOSQUITO POINT	-	-	-	-	JUN 27	AUG 1	35	-	-	-	-	-	-	-	-
NAKNEK	80	7- 8+	-24	12-22	MAY 22	SEP 22	123	32.0	-	OCT 30 (34)	NOV 8	19	110	203	54
NOME WB AP	72	8-15	-26	2-12	JUN 6	SEP 11	97	81.8	MAY 5	OCT 31 (35)	DEC 2	2	165	227	70
NUNIVAK	70	8-10	- 8	2-19+	JUN 12	OCT 12	122	-	APR 18	- (36)	-	1	139	211	20

Table 3—Continued

MISCELLANEOUS DATA

Station	Highest	Date	Lowest	Date	Freezing Temperature: Last date in spring	Freezing Temperature: First date in autumn	Length of growing season days	Total Annual Snowfall	Rivers and Harbors %: Date ice broke in spring	Rivers and Harbors %: Date closed in autumn	Rivers and Harbors %: Date safe for man	Number of days, Temperature: Max 70° or above	Max 32° or below	Min 32° or below	Min 0° or below
PLATINUM	73	8-13	-18	2-12	MAY 22	OCT 9	140	29.5	-	NOV 14 (37)	NOV 24	2	128	201	24
PORT HEIDEN CAA	72	8-11	-14	2-12	JUN 5	OCT 8	125	27.4	*	DEC 11 (38)	*	2	86	193	20
TELLER	73	8-14	-22	12-31	JUN 20	SEP 17	89	-	JUN 9	OCT 28 (39)	DEC 26	4	167	238	78
UNALAKLEET CAA	80	7- 8+	-42	2-10	JUN 5	SEP 12	99	29.1	MAY 19	OCT 12 (40)	OCT 31	11	158	236	81
WALES WB AP	70	8-15	-22	3-30	JUN 29	SEP 24	87	43.3	JUN 15	NOV 20 (41)	JAN 8	1	191	248	63
YUKON VALLEY															
ALLAKAKET	84	7- 5	-60	2-12	JUN 14	AUG 4	51	-	MAY 12	- (42)	OCT 29	54	-	-	-
BETTLES CAA	83	7- 7+	-44	2-14	JUN 2	AUG 30	89	74.6	MAY 11	OCT 8 (42)	NOV 14	36	183	231	113
BIG DELTA CAA	86	6-18	-51	2-14	MAY 26	SEP 13	110	58.6	-	-	-	42	174	215	109
BOUNDARY	87	6-18	-	-	JUN 3	AUG 3	61	-	-	OCT 6 (43)	OCT 20	-	-	-	-
CENTRAL	88	6-18	-59	2-13	JUN 8	AUG 14	67	41.3	-	- (44)	-	57	172	253	150
CIRCLE HOT SPRINGS	88	6-18	-57	2-13	JUN 3	AUG 14	72	-	MAY 3	- (45)	-	54	170	243	130
COLLEGE MAG OBS	86	7-11+	-41	1- 1	JUN 2	SEP 10	100	88.5	MAY 1	OCT 9 (46)	NOV 9	66	162	223	102
EAGLE	-	-	-66	2-11	JUN 3	AUG 6	64	-	MAY 10	- (44)	-	-	-	-	-
EIELSON FIELD	85	6-18+	-56	2-13	MAY 15	SEP 14	122	56.0	-	-	-	54	159	216	127
FAIRBANKS WB AP	87	6-18	-52	2-13	JUN 2	AUG 28	87	81.2	MAY 1	OCT 9 (46)	NOV 9	64	156	230	120
FLAT	85	7- 9	-39	12-22	JUN 5	SEP 1	88	29.4	MAY 10	OCT 9 (19)	OCT 25	43	-	-	-
FORT YUKON CAA	85	6-18+	-63	2-12	MAY 20	AUG 3	75	45.8	MAY 13	SEP - (44)	OCT 27	61	180	237	135
GALENA WB AIRPORT	82	7-23+	-45	2-15	MAY 13	SEP 2	112	42.9	MAY 15	OCT 29 (44)	DEC 8	35	171	220	113
HOLY CROSS	81	7- 8+	-28	2- 4	JUN 1	SEP 26	117	-	MAY 16	OCT 21 (44)	NOV 1	24	142	218	85
HUGHES	85	8-16	-57	2-11	JUN 1	AUG 31	91	-	MAY 13	OCT 9 (47)	OCT 30	53	164	232	128
MANLEY HOT SPRINGS	86	7- 4	-57	2-14	JUN 24	AUG 14	51	70.4	MAY 11	OCT 10 (48)	NOV 1	61	161	257	132
MC KINLEY PARK	78	6-19	-	-	JUN 13	AUG 27	75	-	-	SEP 5 (49)	JAN 15	-	-	-	-
MOUNTAIN VILLAGE	-	-	-	-		OCT 8	-	-	MAY 20	OCT 26 (44)	NOV 4	-	-	-	-
NENANA CAA	85	7-10	-	-	JUN 3	AUG 28	86	37.7	MAY 6	OCT 14 (48)	NOV 6	50	-	-	-
NORTHWAY WB AP	87	6-17+	-59	1- 1	MAY 21	SEP 14	116	38.7	MAY 2	OCT 20 (50)	OCT 28	45	169	242	151
SUMMIT CAA	76	6-29	-	-	JUN 2	AUG 28	87	60.7	-	OCT 12 (51)	NOV 1	-	-	-	-
TANACROSS	90	6-18	-57	2-11	MAY 23	AUG 27	96	37.5	MAY 14	OCT 12 (48)	NOV 2	-	-	-	-
TANANA CAA	86	7- 4	-	-	JUN 2	SEP 1	91	43.5	MAY 16	OCT 9 (44)	NOV 5	-	-	-	-
UNIVERSITY EXP STATION	87	7-23	-55	2-14	JUN 13	AUG 27	75	-	-	-	-	79	148	250	120
WISEMAN	83	7- 7	-51	2-12	JUN 1	AUG 8	68	62.0	MAY 10	OCT 8 (47)	OCT 10	41	180	250	139
ARCTIC DRAINAGE															
BARROW WB	60	8- 8	-50	2-11	JUN 30	JUL 3	3	30.2	JUL 12	- (52)	-	0	249	311	144
BARTER ISLAND	64	9- 9	-59	2-12	JUN 25	JUL 5	10	-	-	-	-	0	239	286	150
KOTZEBUE WB AP	79	7-23	-32	2-12	JUN 8	SEP 23	107	33.3	MAY 27	OCT 11 (53)	OCT 29	11	188	245	98
POINT HOPE	68	7- 9+	-26	3-19	JUN 25	JUL 1	6	-	JUN 4	- (54)	-	0	197	272	97
SHISHMAREF	72	7-18	-28	3-28+	JUN 21	SEP 12	83	41.0	JUN 17	OCT 12 (55)	NOV 20	2	187	222	86
SHUNGNAK CAA	85	7- 5+	-51	2-10	JUN 2	SEP 2	92	-	MAY 16	- (56)	-	-	-	-	-
UMIAT WB AP	79	7-14	-57	2-26	JUN 7	AUG 13	67	36.1	MAY 18	SEP 27 (57)	OCT 28	19	221	272	159
WAINWRIGHT	78	7-11	-50	2-11	JUN 28	JUL 3	5	-	JUL 7	SEP 28 (58)	OCT 20	6	236	279	130

* Insignificant Ice

% Rivers and Harbors. Number in parentheses "Date closed in autumn" identifies waterway or harbor in accordance with following table.

1 KOOTZNAHOO INLET	10 KENAI RIVER MOUTH	19 IDITEROD RIVER	27 CARIBOU RIVER	35 SNAKE RIVER	43 FORTY-MILE RIVER	51 CANTWELL RIVER
2 LAKE BARANOF	11 BUSKIN RIVER	20 GULKANA RIVER	28 SKWENTNA RIVER	36 NEKORYOK RIVER	44 YUKON RIVER	52 ARCTIC OCEAN
3 SILVIS LAKE	12 YAKATAGA RIVER	21 NEWHALEN LAKE	29 TALKEETNA RIVER	37 GOODNEWS BAY	45 GROUSE CREEK	53 KOTZEBUE SOUND
4 SALMON RIVER	13 LAKE HOOD	22 LAKE ALEKNAGIK	30 LAKE LUCILLE	38 MESHIK BAY	46 CHENA RIVER	54 ARCTIC OCEAN-NORTH BEACH
5 LITTLE PORT WALTER HARBOR	14 KUSKOKWIM RIVER	23 LAKE MINCHUMINA	31 KEEWALIK RIVER	39 GRANTLEY HARBOR	47 KOYUKUK RIVER	55 SHISHMAREF INLET
6 PETERSBURG LAKE	15 KASHWITNA RIVER	24 MATANUSKA RIVER	32 LAKE TROUTMAN	40 UNALAKLEET RIVER	48 TANANA RIVER	56 KOBUK RIVER
7 LOCAL LAKES	16 COPPER RIVER	25 KENAI RIVER	33 KWINIUK RIVER	41 WALES HARBOR	49 NENANA RIVER	57 COLVILLE RIVER
8 LAKE EYAK	17 EKLUTNA LAKE	26 PUNTILLA LAKE	34 NAKNEK RIVER	42 KOYUKUK RIVER	50 NABESNA RIVER	58 KUK RIVER
9 BELUGA LAKE	18 SHEEP CREEK					

SUPPLEMENTARY TABLE OF BREAK-UP AND FREEZE-UP DATA, 1950

STATION	RIVER OR HARBOR	BREAK-UP	FIRST ICE	DATE SAFE FOR MAN	STATION	RIVER OR HARBOR	BREAK-UP	FIRST ICE	DATE SAFE FOR MAN
ALEKNAGIK	WOOD RIVER	MAY 4	----	----	KOBUK	KOBUK RIVER	MAY 16	OCT 9	OCT 26
ALLAKAKET	ALATNA RIVER	MAY 13	OCT 9	OCT 29	KOYUKU	YUKON RIVER	----	OCT 12	NOV 15
ANCHORAGE	COOK INLET	----	NOV 4	----	LAKE MINCHUMINA	DEEP CREEK	MAY 6	----	----
ANVIK	YUKON RIVER	MAY 17	----	----		FORAKER RIVER	MAY 6	----	----
BEAVER	YUKON RIVER	MAY 14	----	----		MUDDY RIVER	MAY 6	----	----
CASWELL	KOALA RIVER	MAY 18	OCT 18	OCT 30	NAPAMUTE	KUSKOKWIM RIVER	MAY 11	OCT 16	NOV 16
	CASWELL	MAY 17	----	OCT 30	NAPTOWNE	MOOSE RIVER	----	OCT 15	NOV 1
CIRCLE	YUKON RIVER	MAY 12	OCT 22	NOV 1	NOME	NORTON SOUND	MAY 18	NOV 20	DEC 12
CIRCLE SPRINGS	MEDICINE LAKE	MAY 15	----	OCT 14	NOORVIK	KOBUK RIVER	MAY 25	OCT 10	OCT 13
	PORTAGE CREEK	MAY 2	OCT 3	OCT 15	NORTHWAY	CHISANA	MAY 1	----	OCT 28
COAL CREEK	COAL CREEK	MAY 8	----	----	NULATO	YUKON RIVER	MAY 16	OCT 13	NOV 3
	WOODCHOPPER CREEK	MAY 8	----	----	OPHIR	INNOKO RIVER	MAY 9	----	----
	YUKON RIVER	MAY 11	----	----	POINT BARROW	ARCTIC OCEAN	JULY 12	OCT 25	Dec 25
COUNCIL	NEUKLUK RIVER	MAY 15	OCT 1	NOV 1	POINT HOPE	ARCTIC OCEAN-SOUTH BEACH	JULY 4	----	----
DILLINGHAM	NUSHAGAK RIVER	MAY 12	OCT 27	----	QUINHAGAK KANEGTOK	QUINHAGAK RIVER	APRIL 28	----	NOV 2
EGEGIK	EGEGIK	APRIL 10	OCT 28	DEC 5	RAMPART	YUKON RIVER	MAY 16	OCT 10	NOV 6
	2 MILES N OF TOWN	APRIL 24	----	----	SAINT MICHAEL	ST. MICHAEL BAY	JUNE 4	----	----
FAREWELL	MIDDLE FORKS, KUSKOKWIM	APRIL 27	----	----	SELAWIK	SELAWIK RIVER	MAY 26	OCT 24	OCT 26
FORTUNA LEDGE	YUKON RIVER	MAY 15	OCT 26	NOV 6	SLEETMUTE	KUSKOKWIM RIVER	MAY 10	----	----
GAMBELL	BERING SEA	----	JAN 1	----	SMEATON BAY	CABIN CREEK	MAR 1	----	----
GOODNEWS	GOODNEWS RIVER	MAY 5	OCT 23	NOV 4	SOLOMON	SOLOMON RIVER	MAY 14	----	----
	TENULIK RIVER	MAY 5	----	NOV 4	STEVENS VILLAGE	YUKON RIVER	MAY 15	OCT 11	NOV 14
GULKANA	GAKONA RIVER	MAY 10	----	NOV 10	TALKEETNA	SUSITNA RIVER	APRIL 30	OCT 11	DEC 17
HAMILTON	YUKON RIVER	MAY 25	OCT 27	NOV 1	WASILLA	COTTONWOOD CREEK	MAR 15	----	----
HAYCOCK	KOYUK RIVER	MAY 20	OCT 10	NOV 4		WASILLA LAKE	APRIL 12	----	----
HOLIKACHUK	INNOKO RIVER	MAY 18	OCT 13	NOV 4	WHITE MOUNTAIN	FISH RIVER	MAY 17	OCT 10	OCT 29
KALSKAG	KUSKOKWIM RIVER	MAY 16	----	----	WILLOW	WILLOW CREEK	APRIL 23	OCT 31	----
KALTAG	YUKON RIVER	MAY 17	OCT 12	NOV 13	YAKATAGA	OUKTOTH RIVER	MAR 25	----	----
KENAI	NEARBY LAKES	----	----	OCT 26					

TOTAL EVAPORATION AND WIND MOVEMENT

Table 4

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
MATANUSKA VALLEY 14	EVAP	-	-	-	-	-	-	-	4.42	-	-	-	-	-
	DEP	-	-	-	-	-	-	-	1.40	-	-	-	-	-
	WIND	-	-	-	-	-	-	-	-	-	-	-	-	-
UNIVERSITY EXPERIMENT STATION	EVAP	-	-	-	-	-	5.84	B 4.44	B 3.36	-	-	-	-	-
	DEP	-	-	-	-	-	1.32	.03	.73	-	-	-	-	-
	WIND	-	-	-	-	-	-	-	-	-	-	-	-	-

Barrow was still solid at the end of the month. The above normal precipitation south of the Alaska Range temporarily terminated the hazardous forest fire situation in the Anchorage District, although hazardous fire conditions continued through June in the upper Yukon and Tanana Valleys where, by June 28th, a forest fire between the Chandalar and Porcupine Rivers in the Fort Yukon area covered 246,000 acres. Thunderstorms were reported from 12 stations in the Territory, and a hailstorm with hailstones 2-1/2 to 3-1/2 inches in diameter at Eagle on June 20th caused considerable damage to windows, gardens, green houses, roofs, and a plane.

JULY: The month was characterized by light southeasterly flow, with an unusually large number of thunderstorms reported over the Alaskan Territory, thunderstorms being observed as far north as Wainwright. However, they resulted in little more than lightning strikes, which, with the extended drought conditions, were credited as the major cause of the serious outbreak of forest fires in the Fairbanks district. With the exception of the McGrath-Farewell area, below average precipitation was observed over western Alaska, while stations in eastern and southeastern Alaska generally received above average July precipitation. Monthly mean temperatures averaged above normal north of the Alaska Range, and below normal south of the Range. Record breaking warm July mean temperatures were observed along the Northwest coast and southeast to the upper Koyukuk River Valley. The Arctic Ocean ice, solid at Wainwright and Barrow at the end of June, disappeared by the end of July just in time to permit the annual Navy supply expedition to reach the northern stations of Wainwright, Barrow, and Barter Island.

AUGUST: Above normal temperatures over the entire Alaskan Territory and continued drought conditions over most of the Yukon and Southern Valley districts marked the weather of August, 1950. The mean atmospheric circulation pattern was little changed from that of July. Above normal amounts of sunshine were generally observed over all but the Arctic Drainage and the northern Bering Sea districts. Record mean temperature anomalies were observed in the Kobuk, lower Yukon, and Kuskokwim Valleys. Less than half of normal precipitation was received in large areas of eastern Alaska. A number of thunderstorms were observed in August in the Yukon and Southern Valley districts. Forest fires continued to rage in the Fort Yukon area.

SEPTEMBER: The mean circulation pattern for September showed a low pressure area in the Bering Sea with general southerly flow over the Alaskan Territory. Above normal temperatures occurred over most of the Territory, with the greatest anomalies, as in August, observed in the Colville, Kobuk, and Koyukuk River Valleys, and the Eastern Seward Peninsula. Near to below normal temperature departures were observed along the Pacific Coast from Tree Point to Kodiak, and westward along the Alaskan Peninsula and the Aleutian Chain. Precipitation averaged near normal along the Pacific Coast, generally above normal in the Bering Sea and Northwest Alaska area, but considerably below normal in the drought areas on the western Kenai Peninsula, the Matanuska-Yentna, and the Tanana River Valleys. The hazardous forest fire situation continued.

OCTOBER: With essentially the same circulation pattern observed in September, the cool dry weather in southeastern Alaska continued through October. Below normal temperatures also prevailed south of the Kuskokwim and the Yukon Rivers, while stations in the Bering Sea and western Arctic Drainage districts observed temperatures 2°- 5° warmer than average. All stations in Alaska had reported the first killing freeze by the end of the month. Also by the end of October, the major part of the Territory was snow covered and all stations had reported first ice; ice on rivers was classified as being safe for man north of a line Chitina-Fort Yukon-Hughes-Moses Point, and at Manley Hot Springs, Summit, Skwentna, McGrath, and Flat. Most storms in the Gulf of Alaska stayed well south of the Mainland, and, with the exception of St. Lawrence Island, the Seward Peninsula, the western Arctic Drainage district, and a small area in the vicinity of Big Delta, monthly precipitation was reported below normal over the Territory. Generally less than half of the average precipitation was received by stations in the Southeastern, Pacific Coast, and Southern Valley districts, the lower Yukon Valley, and the upper Koyukuk River Valley.

NOVEMBER: November, 1950, in Alaska was a month of weather extremes, with many stations, as Stateside, posting new records in temperature, precipitation, cloudiness, wind, and pressure. The average circulation pattern for the month showed the Aleutian low pressure area displaced east of its usual November position, and an unusually strong high pressure ridge extending over the Aleutian Chain and southwestern Alaska. Stations in the Bering Sea area reported the highest average November mean sea level pressure of record. Northwest Alaska reported one of the warmest and wettest Novembers of record. Northerly flow on the eastern side of the high pressure ridge resulted in one of the coldest Novembers of record in much of the remaining Alaskan Territory and continued drought and little cloudiness south of the Alaskan range.

DECEMBER: With prevailing light southeasterly flow, the entire territory, with the exception of the Alaskan Peninsula, observed near to above normal December temperatures. As in November, several storms moved northeastward during the month into the Bering Sea, through the Bering Strait and eastward in the Arctic Ocean, bringing periods of high winds to Bering Sea and Arctic Ocean coasts, as well as above average December precipitation over most of the Alaskan Territory north of the Yukon and Tanana Rivers. However, the month of December in Alaska generally was regarded as a mild month, providing a welcome end to the 1950 weather year.

RFD

ALASKA - ANNUAL - 1950

Robert F. Dale, Climatologist, Anchorage, Alaska

WEATHER SUMMARY

The year of 1950 was one of the coldest and driest in the Southern Division, and one of the driest in the Northern Division. Precipitation was generally below normal over the entire territory, with the exception of the Arctic Drainage District, the Seward Peninsula, the western Aleutian Chain, and the Bering Sea Islands. The areas of greatest precipitation anomalies can be observed on page 160. The least annual precipitation measured in Alaska was observed at Fort Yukon, where the year's precipitation totaled only 3.83 inches, about 55% of normal. Forest fires in the area burned through the spring, summer, and early fall. Lake Minchumina reported the least precipitation in relation to its normal, with only 4.87 inches, about 35 percent of its average annual precipitation. Umiat and Barrow, with 5.51 and 6.22 inches respectively, observed the next lowest amounts, although these amounts were above the average annual precipitation at those stations. Probably the areas of greatest importance with regard to the precipitation deficiency were the agricultural areas from the Matanuska Valley to the western Kenai Peninsula. Anchorage received only 8.61 inches the least annual precipitation of record. Matanuska Valley #2 received 9.26 inches and Kenai recorded 10.65 inches of precipitation for 1950. However, with above normal rains in June at a time when the soil moisture was about exhausted, and then much better than hoped for harvest weather, crops were not appreciably hurt. In fact, although the yields were somewhat decreased, the quality of the crops was improved. It was one of the first years in which it has been possible for farmers to cure hay outside on the Kenai Peninsula.

The largest temperature anomalies occurred in the northern Bering Sea area and the Northwest coast where daily temperatures averaged 3°- 5° warmer than usual throughout the year. The coldest temperatures relative to the normal were observed in the area from Fairbanks to the Matanuska Valley and in the northern Panhandle, where the temperatures averaged 2°- 3° lower than normal. Generally, only those stations in the Southwestern Islands, Pacific Coast, and Southeastern Districts had mean annual temperatures above 32°. The unusually cold November without snow cover in the Matanuska Valley - Kenai Peninsula area caused fear that many of the legume seedings and some of the berries had winter killed in these areas. The same combination of the coldest November on record with no snow cover at Anchorage caused deeper than average frost penetration and much damage to city water lines. The 1950 mean temperature anomaly chart is shown on page 161.

Many new weather records were established in 1950--a few of these record events are described in the following monthly narrative summaries, with a brief explanation of the general flow pattern for each month. More detailed accounts can be found in the monthly Climatological Data weather summaries.

JANUARY: The January average atmospheric pressure pattern showed the greatest high pressure ridge ever observed over the Alaskan Peninsula and the southeastern Bering Sea. With the associated unusually strong westerly flow over western Alaska and northerly flow over eastern Alaska, one of the warmest Januarys of record was observed in western Alaska, while generally the coldest and driest January of record was observed in the Southeastern and Pacific Coast districts. Due to both light precipitation and unusually cold weather, Southeastern towns experienced water shortages, with Petersburg completely exhausting its supply on the 24th. Storms buffeted the Bering Sea coast with January being recorded as one of the most severe icing months of record. Kotzebue reported glaze formations several times during the period from the 16th to the 23rd, with an accumulation of clear ice on flat surfaces about one-quarter inch thick at the end of the period. The combination of glaze, hoarfrost, and rime in this same period produced a fairly hard, opaque coating about four inches in diameter on wires. Most people in the Southern Valley District and Kenai Peninsula areas will remember January because of the unusually brilliant display of Mother-of-Pearl clouds which appeared the morning of the 24th and continued throughout the day in varying pastel hues, until the last faint glow disappeared about 8:00 p.m.

FEBRUARY: The high pressure ridge moved westward over the Bering Sea with northward flow of cold dry air over Alaska and resultant exceptionally cold, clear, and dry weather being experienced throughout the entire territory. Only the extreme southern Panhandle, the western Aleutian Chain, and the stations at Gambell, Wales, and Point Hope reported near to above normal temperatures. The largest temperature anomalies were reported from the upper Yukon-Tanana River area where Eagle reported the lowest February mean temperature of record, -30.0° Fahrenheit, 26.1° below the February normal temperature. Maintenance crews struggled in zero weather at Seldovia on February 10-14 to thaw the city water supply; schools were temporarily closed and the hospital was without water for a three day period. No measurable precipitation was reported by many stations in the Yukon and Southern Valley districts.

MARCH: The month of March brought a reversal in the flow pattern to a low pressure cell centered over the Bering Sea with a corresponding reversal in the temperature anomaly patterns. Stations over the entire territory reported above to much above normal March temperatures, with the exception of the Panhandle, western Aleutian Chain, Gambell, and Point Hope, which reported near to below normal average March temperatures. However, the drought continued in the Yukon and Southern Valley districts. Only the immediate Bering Sea coast and Big Delta received above normal amounts of March precipitation.

APRIL: The circulation pattern for April, 1950, showed a deep low pressure trough over the Bering Sea and Gulf of Alaska, with continued southeasterly flow over the Alaskan Territory. Temperatures averaged above normal in all areas except the extreme upper Tanana Valley, and the entire Pacific Coast area from the Aleution Chain to the southeastern Panhandle. With the exception of the Kuskokwim-middle Yukon river valleys from Bethel to Tanana and at Eagle and Tanacross, the precipitation deficiency continued in the Yukon and Southern Valley districts. Above normal precipitation occurred along the entire coastal area from Barrow to Ketchikan. Break-up of rivers and lakes began the latter part of the month in southern coastal areas from Bristol Bay to Ketchikan. Matanuska Valley farmers began to plow and plant small grain and garden crops by the end of the month.

MAY: Southerly to southeasterly flow continued through May with above normal temperatures in the middle Yukon Valley and Arctic Drainage districts, and below normal temperatures in the remainder of the territory. Most Alaskan oceans, streams, and lakes broke their winter bonds during the month in one of the easiest spring break-ups of record. Precipitation continued deficient in the Yukon and Southern Valley districts and the Kenai Peninsula, creating one of the most widespread and hazardous forest fire conditions of record. Anchorage measured only .43 inch of accumulated precipitation for the first five months of the year. However, above normal precipitation was observed along the Pacific Coast from Cold Bay to Tree Point. By the end of the month, snow had largely disappeared from all but the higher hills and mountains south of the Brooks Range. Many gardens were planted.

JUNE: Frequent and persistent storms in the Bering Sea, with a predominant and stronger than normal high pressure ridge over northwestern Canada and eastern Alaska, resulted in generally cloudy, cool, windy, and rainy conditions in western Alaska and the Pacific Coast district, while eastern and southeastern Alaska experienced warm sunny days. Lakes and rivers which were still frozen over in May became free of ice in June. However, the ice in the Arctic Ocean at Wainwright and

STATION INDEX

Station	Index No.	County	Drainage‡	Latitude	Longitude	Elevation	Years of record: Temp.	Years of record: Precip.	Years of record: Evap.	Opened or closed during yr.: Month opened	Opened or closed during yr.: Month closed	Refer to tables
ADAK	0026	SW ISLANDS	29	51 53	176 39	15	8	8				1 2 3
ALLAKAKET	0230	YUKON VALLEY	30	66 34	152 44	600	35	36				1 2 3
AMCHITKA	0252	SW ISLANDS	4	51 24	179 15E	202	8	8		NOV		1 2 3
ANCHORAGE WB AIRPORT	0285	SO VALLEYS	13	61 13	149 50	134	28	28				1 2 3
ANGOON	0310	SOUTHEASTERN	8	57 30	134 35	35	11	11				1 2 3
ANIAK CAA	0332	SO VALLEYS	30	61 40	159 42	81	11	12				1 2 3
ANNETTE WB AIRPORT	0352	SOUTHEASTERN	52	55 02	131 34	110	10	10				1 2 3
ANNEX CREEK	0363	SOUTHEASTERN	51	58 19	134 06	24	33	34				1 2 3
ATKA	0433	SW ISLANDS	38	52 13	174 12	36	19	20		MAR		1 2 3
ATTU	0452	SW ISLANDS	38	52 50	173 11E	59	4	4				1 2 3
BARANOF	0522	SOUTHEASTERN	59	57 05	134 50	20	14	14				1 2 3
BARROW WB	0546	ARCTIC DRAIN	1	71 18	156 47	22	37	35				1 2 3
BARTER ISLAND	0558	ARCTIC DRAIN	1	70 07	143 40	50	3	3				1 2 3
BEAVER FALLS	0657	SOUTHEASTERN	59	55 23	131 28	39	3	3				1 2 3
BELL ISLAND	0676	SOUTHEASTERN	3	55 55	131 35	10	19	19		NOV 1949		1 2 3
BETHEL WB AIRPORT	0754	SO VALLEYS	30	60 47	161 41	21	27	27				1 2 3
BETTLES CAA	0760	YUKON VALLEY	28	66 54	151 51	848	7	7				1 2 3
BIG DELTA CAA	0770	YUKON VALLEY	55	64 00	145 44	1268	10	10				1 2 3
BOUNDARY	0910	YUKON VALLEY	63	64 04	141 07	2600	3	3				1 2 3
CANDLE	1230	BERING SEA	27	65 56	161 55	24	21	11		NOV		1 2 3
CAPE DECISION	1269	SOUTHEASTERN	48	56 00	134 08	39	9	8				1 2 3
CAPE HINCHINBROOK	1308	PACIFIC COAST	18	60 14	146 39	185	7	6				1 2 3
CAPE ST ELIAS	1321	PACIFIC COAST	18	59 45	144 36	50	13	14				1 2 3
CAPE SPENCER	1334	SOUTHEASTERN	38	58 12	136 38	81	14	14				1 2 3
CASWELL	1447	SO VALLEYS	49	61 58	149 54	290	2	2				1 2 3
CENTRAL	1458	YUKON VALLEY	63	65 35	144 47	700	4	6				1 2 3
CHITINA	1824	SO VALLEYS	14	61 32	144 27	572	13	13		AUG		1 2 3
CIRCLE HOT SPRINGS	1987	YUKON VALLEY	63	65 29	144 42	1000	12	13				1 2 3
COLD BAY	2102	SW ISLANDS	38	55 12	162 43	99	9	8				1 2 3
COLLEGE MAGNETIC OBSERVATORY	2107	YUKON VALLEY	9	64 52	147 50	621	3	3				1 2 3
CORDOVA WB AIRPORT	2177	PACIFIC COAST	18	60 29	145 30	40	9	8				1 2 3
CRAIG	2227	SOUTHEASTERN	44	55 29	133 09	13	15	13				1 2 3
CROOKED CREEK	2247	SO VALLEYS	30	61 52	158 15	123	11	8				1 2 3
EAGLE	2607	YUKON VALLEY	63	64 46	141 12	804	39	41	#AUG	JUN		1 2 3
EIELSON FIELD	2707	YUKON VALLEY	55	64 39	147 04	547	5	5				1 2 3
EKLUTNA	2717	SO VALLEYS	25	61 27	149 20	27	10	10				1 2 3
EKLUTNA LAKE	2725	SO VALLEYS	25	61 24	149 09	882	5	5				1 2 3
ELDRED ROCK	2770	SOUTHEASTERN	33	58 58	135 13	55	7	6				1 2 3
FAIRBANKS WB AIRPORT	2968	YUKON VALLEY	9	64 50	147 43	436	46	46				1 2 3
FAREWELL CAA	2988	SO VALLEYS	30	62 32	154 43	1499	7	7				1 2 3
FIVE FINGER LIGHT	3072	SOUTHEASTERN	16	57 16	133 37	30	8	7				1 2 3
FLAT	3085	YUKON VALLEY	21	62 29	158 05	326	17	13				1 2 3
FORT YUKON CAA	3175	YUKON VALLEY	63	66 35	145 18	419	33	32				1 2 3
GALENA WB AIRPORT	3215	YUKON VALLEY	63	64 43	156 54	120	8	7				1 2 3
GAMBELL WB AIRPORT	3226	BERING SEA	4	63 51	171 36	25	15	13				1 2 3
GUARD ISLAND	3454	SOUTHEASTERN	11	55 27	131 53	20	9	7				1 2 3
GULKANA CAA	3465	SO VALLEYS	14	62 09	145 28	1573	12	9				1 2 3
GULL COVE	3470	SOUTHEASTERN	20	58 12	136 09	18	10	10				1 2 3
GUSTAVUS CAA	3475	SOUTHEASTERN	19	58 25	135 42	22	14	14				1 2 3
HAINES CAA	3495	SOUTHEASTERN	10	59 13	135 26	257	26	24				1 2 3
HOLLIS	3650	SOUTHEASTERN	11	55 30	132 30	15	1	1				1 2 3
HOLY CROSS	3655	YUKON VALLEY	63	62 10	159 45	150	47	40				1 2 3
HOMER CAA	3665	PACIFIC COAST	23	59 38	151 31	65	16	16				1 2 3
HUGHES	3765	YUKON VALLEY	28	66 04	154 15	550	9	9				1 2 3
ILIAMNA CAA	3905	SO VALLEYS	22	59 44	154 57	145	12	12				1 2 3
JUNEAU	4092	SOUTHEASTERN	17	58 18	134 24	72	55	57				1 2 3
JUNEAU WB AIRPORT	4100	SOUTHEASTERN	2	58 22	134 35	15	10	10				1 2 3
KENAI CAA	4546	PACIFIC COAST	13	60 33	151 16	64	16	20				1 2 3
KETCHIKAN	4590	SOUTHEASTERN	56	55 21	131 39	15	39	40				1 2 3
KLATTS FARM	4887	SO VALLEYS	13	61 04	149 54	150	2	2		FEB 1949		1 2 3
KODIAK	4986	PACIFIC COAST	60	57 45	152 31	21	47	57				1 2 3
KOTZEBUE WB AIRPORT	5076	ARCTIC DRAIN	27	66 52	162 38	10	25	17				1 2 3
LAKE ALEKNAGIK	5346	BERING SEA	66	59 27	158 54	55	1	1		MAR		1 2 3
LAKE MINCHUMINA CAA	5366	SO VALLEYS	31	63 53	152 17	693	7	7				1 2 3
LATOUCHE	5454	PACIFIC COAST	32	60 03	147 54	45	23	23				1 2 3
LINCOLN ROCK	5499	SOUTHEASTERN	11	56 04	132 42	25	8	10				1 2 3
LITTLE PORT WALTER	5519	SOUTHEASTERN	8	56 23	134 39	14	15	14				1 2 3
MANLEY HOT SPRINGS	5644	YUKON VALLEY	55	65 00	150 39	261	20	19				1 2 3
MATANUSKA VALLEY 2	5721	SO VALLEYS	34	61 33	149 05	75	10	9				1 2 3
MATANUSKA VALLEY 9	5728	SO VALLEYS	34	61 39	149 12	420	8	8				1 2 3
MATANUSKA VALLEY 12	5731	SO VALLEYS	34	61 37	149 06	220	10	10				1 2 3
MATANUSKA VALLEY 14	5733	SO VALLEYS	34	61 34	149 16	150	31	31	16			1 2 3 4
MATANUSKA VALLEY 15	5734	SO VALLEYS	34	61 37	149 13	350	7	9				1 2 3
MC GRATH WB AIRPORT	5769	SO VALLEYS	30	62 58	155 37	334	10	12				1 2 3
MC KINLEY PARK	5778	YUKON VALLEY	36	63 44	148 58	2092	28	26				1 2 3
MEIER	5843	SO VALLEYS	14	62 47	145 27	2717	1	1		JUN		1 2 3
MIDDLETON ISLAND CAA	5868	PACIFIC COAST	18	59 28	146 19	39	8	8				1 2 3
MILE 28 HAINES HIGHWAY	5898	SOUTHEASTERN	24	59 24	135 54	400	5	5				1 2 3
MOSES POINT CAA	6058	BERING SEA	37	64 43	162 05	15	8	8				1 2 3
MOSQUITO POINT	6062	BERING SEA	66	59 17	158 35	55	1	1		MAY		1 2 3
MOUNTAIN VILLAGE	6078	YUKON VALLEY	63	62 07	163 45	42	6	6				1 2 3
MOUNT MC KINLEY	6089	YUKON VALLEY	36	63 44	148 53	1730	1	1			NOV 1949	1 2 3
NAKNEK	6166	BERING SEA	35	58 41	156 44	49	26	23				1 2 3
NAPTOWNE	6227	PACIFIC COAST	13	60 32	150 45	250	1	1		SEP		1 2 3
NENANA CAA	6309	YUKON VALLEY	55	64 33	149 06	358	26	22				1 2 3
NOME WB AIRPORT	6496	BERING SEA	4	64 30	165 24	13	44	45				1 2 3
NORTH DUTCH ISLAND CAA	6562	PACIFIC COAST	41	60 46	147 49	33	7	7				1 2 3
NORTHWAY WB AIRPORT	6586	YUKON VALLEY	55	62 58	141 58	1713	8	8				1 2 3
NUNIVAK	6727	BERING SEA	4	60 12	166 08	38	9	9				1 2 3
NYAC	6760	SO VALLEYS	30	61 00	159 59	450	2	2				1 2 3
PALMER	6870	SO VALLEYS	34	61 36	149 08	300	2	2				1 2 3
PETERSBURG CAA	7233	SOUTHEASTERN	61	56 49	132 57	100	20	20				1 2 3
PLATINUM	7365	BERING SEA	4	59 01	161 47	20	10	10				1 2 3
POINT HOPE	7431	ARCTIC DRAIN	1	68 20	166 48	13	11	10				1 2 3
POINT LAY	7442	ARCTIC DRAIN	1	69 49	162 55	10	8	7				1 2 3
POINT RETREAT	7451	SOUTHEASTERN	43	58 25	134 57	20	5	5				1 2 3
PORTAGE	7486	PACIFIC COAST	57	60 51	148 59	35	8	7			OCT 1949	1 2 3
PORT ALEXANDER	7557	SOUTHEASTERN	65	56 58	134 39	18	2	2				1 2 3
PORT HEIDEN CAA	7700	BERING SEA	6	56 57	158 39	86	6	6				1 2 3
PUNTILLA	7783	SO VALLEYS	47	62 09	152 50	1817	8	7				1 2 3
RADIOVILLE	7854	SOUTHEASTERN	38	57 36	136 09	15	15	15				1 2 3
ST PAUL ISLAND WB	8118	SW ISLANDS	4	57 09	170 13	22	37	46				1 2 3
SAVOONGA	8239	BERING SEA	4	63 41	170 26	35	8	8			JUN 1949	1 2 3
SEWARD	8371	PACIFIC COAST	42	60 07	149 27	76	38	38				1 2 3
SHEEP MOUNTAIN CAA	8407	SO VALLEYS	34	61 48	147 41	2316	8	7				1 2 3
SHEMYA	8419	SW ISLANDS	4	52 43	174 06E	92	8	8				1 2 3
SHISHMAREF	8437	ARCTIC DRAIN	45	66 14	166 07	16	23	21				1 2 3
SHOTGUN COVE	8448	PACIFIC COAST	39	64 47	148 34	20	1	1			JUN 1949	1 2 3
SHUNGNAK CAA	8459	ARCTIC DRAIN	26	66 54	157 02	140	10	10			SEP	1 2 3
SITKA JAPONSKI CAA	8494	SOUTHEASTERN	46	57 03	135 21	15	5	5				1 2 3
SITKA MAGNETIC	8503	SOUTHEASTERN	46	57 03	135 20	67	68	89				1 2 3
SKAGWAY	8525	SOUTHEASTERN	50	59 27	135 19	18	38	38				1 2 3
SKWENTNA CAA	8536	SO VALLEYS	47	61 57	151 10	153	11	11				1 2 3
SMEATON BAY	8558	SOUTHEASTERN	3	55 19	130 47	16	2	2				1 2 3
STONY RIVER	8745	SO VALLEYS	30	61 46	156 38	221	5	5				1 2 3
SUMMIT CAA	8811	YUKON VALLEY	7	63 20	149 09	2401	10	10				1 2 3
TALKEETNA CAA	8976	SO VALLEYS	49	62 19	150 06	345	32	30				1 2 3
TANACROSS	8987	YUKON VALLEY	55	63 24	143 19	1546	10	9				1 2 3
TANAGA	8995	SW ISLANDS	53	51 45	178 02	145	3	3			MAR 1949	1 2 3
TANANA CAA	9014	YUKON VALLEY	63	65 10	152 06	232	47	47				1 2 3
TELLER	9102	BERING SEA	40	65 16	166 21	10	18	17				1 2 3
TENAKEE	9113	SOUTHEASTERN	54	57 47	135 47	19	7	7				1 2 3
TREE POINT	9399	SOUTHEASTERN	15	54 48	130 56	36	18	19				1 2 3
UMIAT WB AIRPORT	9539	ARCTIC DRAIN	12	69 22	152 08	337	6	5				1 2 3
UMNAK	9551	SW ISLANDS	38	53 23	167 54	131	9	9		NOV		1 2 3
UNALAKLEET CAA	9564	BERING SEA	37	63 54	160 47	14	9	8				1 2 3
UNALASKA	9575	SW ISLANDS	4	53 53	166 32	22	28	24				1 2 3
UNIVERSITY EXP STATION	9641	YUKON VALLEY	9	64 51	147 52	475	46	45	11			1 2 3 4
VALDEZ	9685	PACIFIC COAST	58	61 07	146 16	15	38	37				1 2 3
WAINWRIGHT	9729	ARCTIC DRAIN	1	70 40	159 50	29	9	8				1 2 3
WALES WB AIRPORT	9739	BERING SEA	5	65 37	168 03	9	10	10				1 2 3
WASILLA	9759	SO VALLEYS	34	61 35	149 27	330	8	7				1 2 3
WHITTIER	9829	PACIFIC COAST	39	60 47	148 44	28	6	6				1 2 3
WISEMAN	9869	YUKON VALLEY	28	67 26	150 13	1290	17	16				1 2 3
WRANGELL	9919	SOUTHEASTERN	64	56 28	132 23	37	35	34				1 2 3
YAKATAGA CAA	9930	PACIFIC COAST	18	60 02	142 28	27	8	8				1 2 3
YAKUTAT WB AIRPORT	9941	PACIFIC COAST	36	59 31	139 40	28	28	30				1 2 3

REACTIVATED AUGUST 1, 1950.

‡ DRAINAGE CODE:

1 ARCTIC OCEAN
2 AUK BAY
3 BEHM CANAL
4 BERING SEA
5 BERING STRAIT
6 BRISTOL BAY
7 CANTWELL RIVER
8 CHATHAM STRAIT
9 CHENA RIVER
10 CHILKOOT INLET
11 CLARENCE STRAIT
12 COLVILLE RIVER
13 COOK INLET
14 COPPER RIVER
15 DIXON ENTRANCE
16 FREDERICK SOUND
17 GASTINEAU CHANNEL
18 GULF OF ALASKA
19 ICY STRAIT
20 IDAHO INLET
21 IDITAROD RIVER
22 ILIAMNA LAKE
23 KACHEMAK BAY
24 KLEKINI RIVER
25 KNIK ARM
26 KOBUK RIVER
27 KOTZEBUE SOUND
28 KOYUKUK RIVER
29 KULUK BAY
30 KUSKOKWIM RIVER
31 LAKE MINCHUMINA
32 LATOUCHE PASSAGE
33 LYNN CANAL
34 MATANUSKA RIVER
35 NAKNEK RIVER
36 NENANA RIVER
37 NORTON SOUND
38 PACIFIC OCEAN
39 PASSAGE CANAL
40 PORT CLARENCE
41 PRINCE WM SOUND
42 RESURRECTION BAY
43 SAGINAW CHANNEL
44 SAN ABERTO BAY
45 SHISHMAREF INLET
46 SITKA SOUND
47 SKWENTNA RIVER
48 SUMNER STRAIT
49 SUSITNA RIVER
50 TAIYA INLET
51 TAKU INLET
52 TAMGAS HARBOR
53 TANAGA BAY
54 TENAKEE INLET
55 TANANA RIVER
56 TONGASS NARROWS
57 TURNAGAIN ARM
58 VALDEZ ARM
59 WARM SPRINGS BAY
60 WOMAN'S BAY
61 WRANGELL NARROWS
62 YAKUTAT BAY
63 YUKON RIVER
64 ZIMOVIA STRAIT
65 CHRISTINA SOUND
66 WOOD RIVER

REFERENCE NOTES

Unless other wise indicated, dimensional units used in this bulletin are: Temperature in °F; precipitation and evaporation in inches, and wind movement in miles. Evaporation is measured on the standard Weather Bureau type pan 4 foot diameter unless otherwise shown by footnote following Table 4.

The four digit identification numbers in the Index are assigned on a territorial basis. There will be no duplication of numbers within the territory.

Delayed data and corrections will be carried in the June and December issues of Climatological Data.

- No record.
+ Also later date (dates) or months.
B Adjusted to full month.
E Water equivalent of snowfall wholly or partially estimated, using a ratio of 1 inch of water equivalent to every 10 inches of new snowfall.
M 1 to 9 days' record missing; see monthly Climatological Data for detailed daily record.
G Precipitation is measured with recording gage.
T Trace, an amount too small to measure.

Subscription Price: 10 cents per copy, monthly and annual: $1.00 per year. (Yearly subscription includes the Annual Summary.) Checks, postal notes and money orders should be made payable to the Treasurer of the United States. Remittances and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

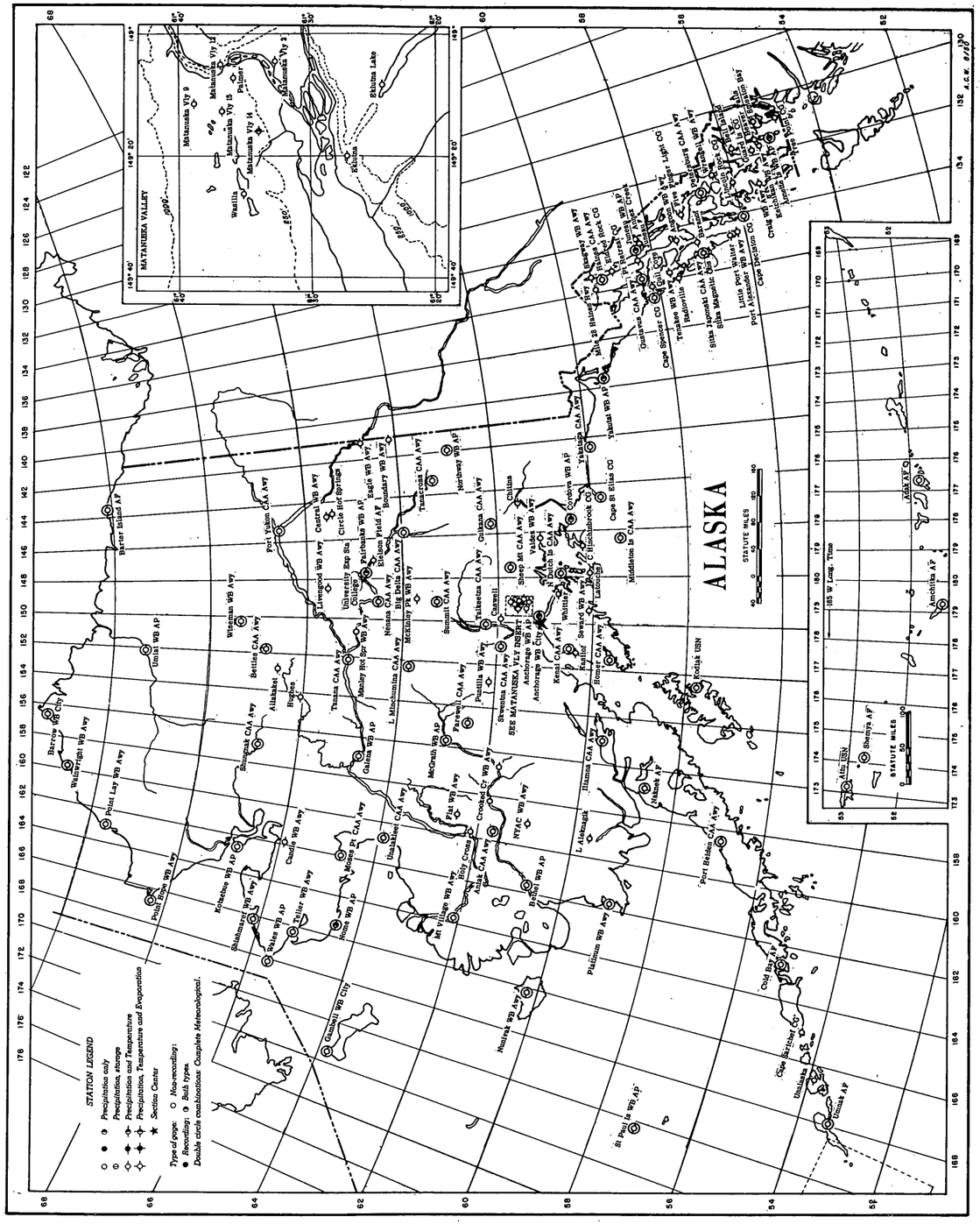
RELOCATIONS

MATANUSKA 9	All equipment moved 0.2 mile S. . . . .October 17, 1950	MATANUSKA 14	All equipment moved 300 feet W. . . . .July 18, 1950
TANACROSS	All equipment moved 660 feet E. . . . .September 27, 1950	WASILLA	All equipment moved 1/2 mile W of Wasilla railroad depot . . . . . .January 25, 1950
COLLEGE MAG OBS	Rain gage moved 7 feet NE and shelter moved about 25 feet ESE . . . . .June 17, 1950		

NAME CHANGES

Cape Thornbrough	Changed to Umnak	Cold Bay	January 1, 1950
	Changed to		January 1, 1950

GPO 86-102344 1000 5-15-51



U. S. DEPARTMENT OF COMMERCE
CHARLES SAWYER, Secretary
WEATHER BUREAU
F. W. REICHELDERFER, Chief

SEE
ANIAK
CROOKED CREEK
FLAT

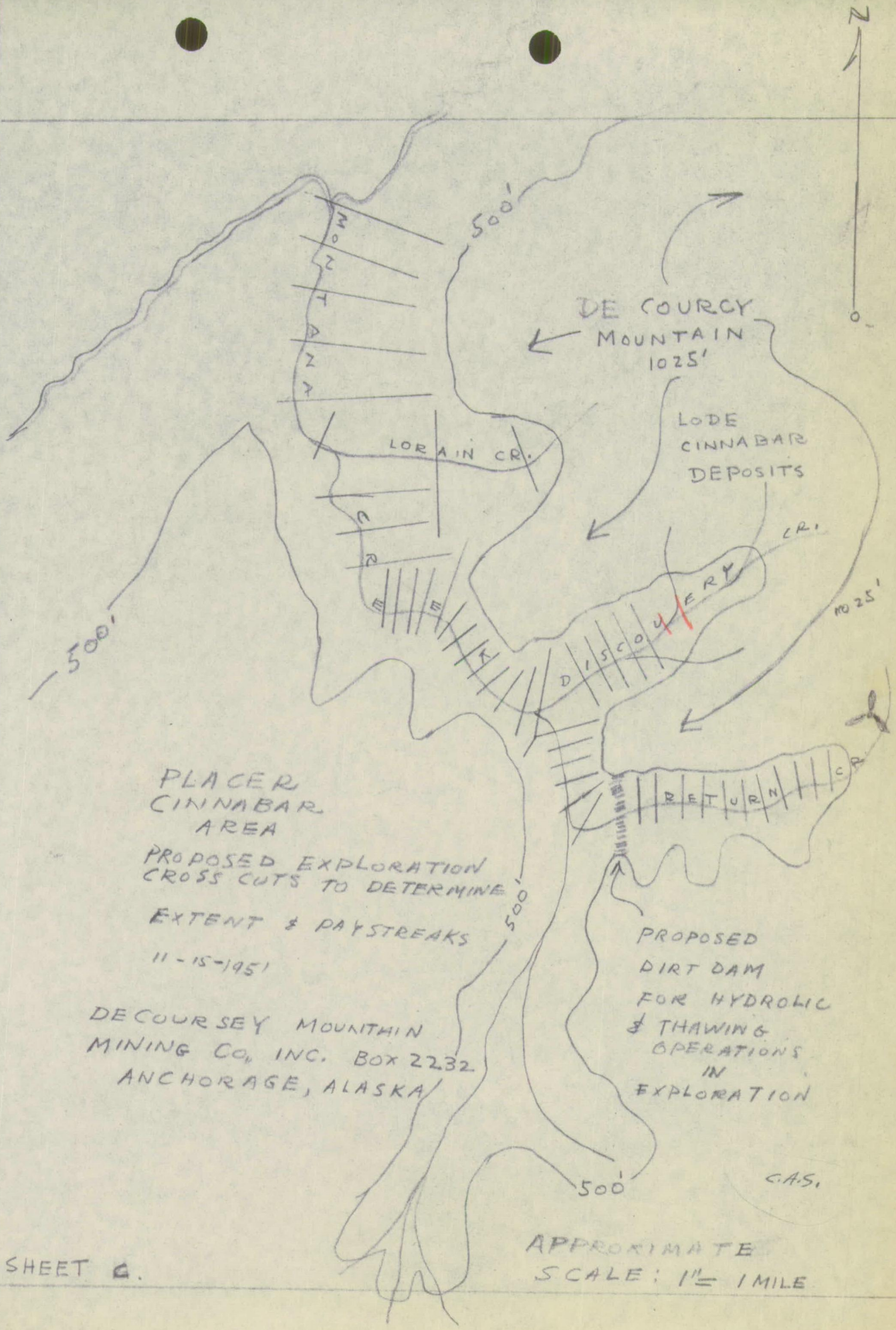
CLIMATOLOGICAL DATA

ALASKA

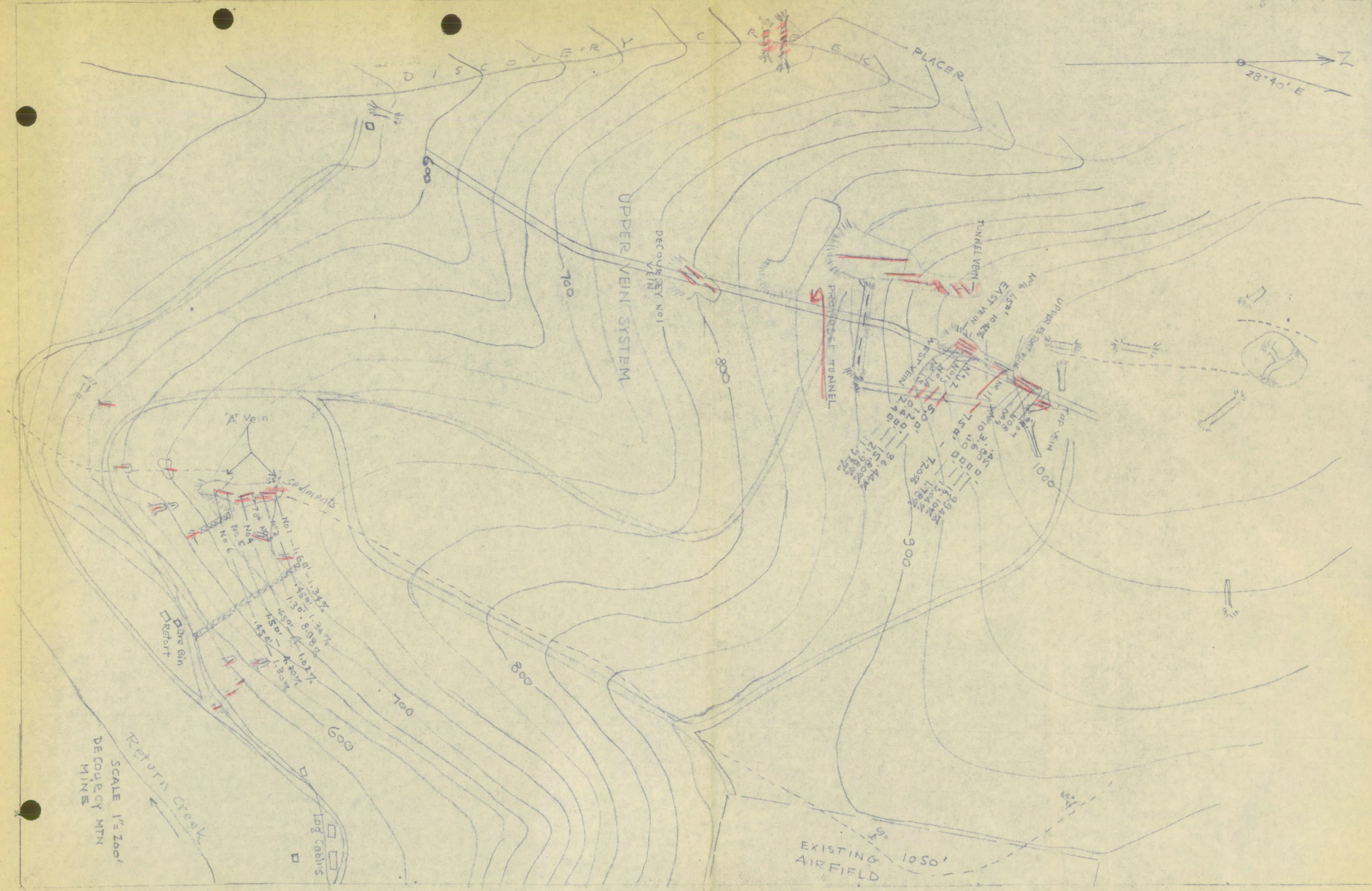
ANNUAL SUMMARY 1950

Volume XXXVI No. 13

SAN FRANCISCO: 1951


N
500'
DE COURCY
MOUNTAIN
1025'
LODE
CINNABAR
DEPOSITS
LORAIN CR.
CR.
DISCOVERY
1025'
500'
RETURN
CR.
500'
500'
PLACER
CINNABAR
AREA
PROPOSED EXPLORATION
CROSS CUTS TO DETERMINE
EXTENT & PAYSTREAKS
11-15-1951
DECOURSEY MOUNTAIN
MINING CO. INC. BOX 2232
ANCHORAGE, ALASKA
PROPOSED
DIRT DAM
FOR HYDROLIC
& THAWING
OPERATIONS
IN
EXPLORATION
C.A.S.
APPROXIMATE
SCALE: 1" = 1 MILE

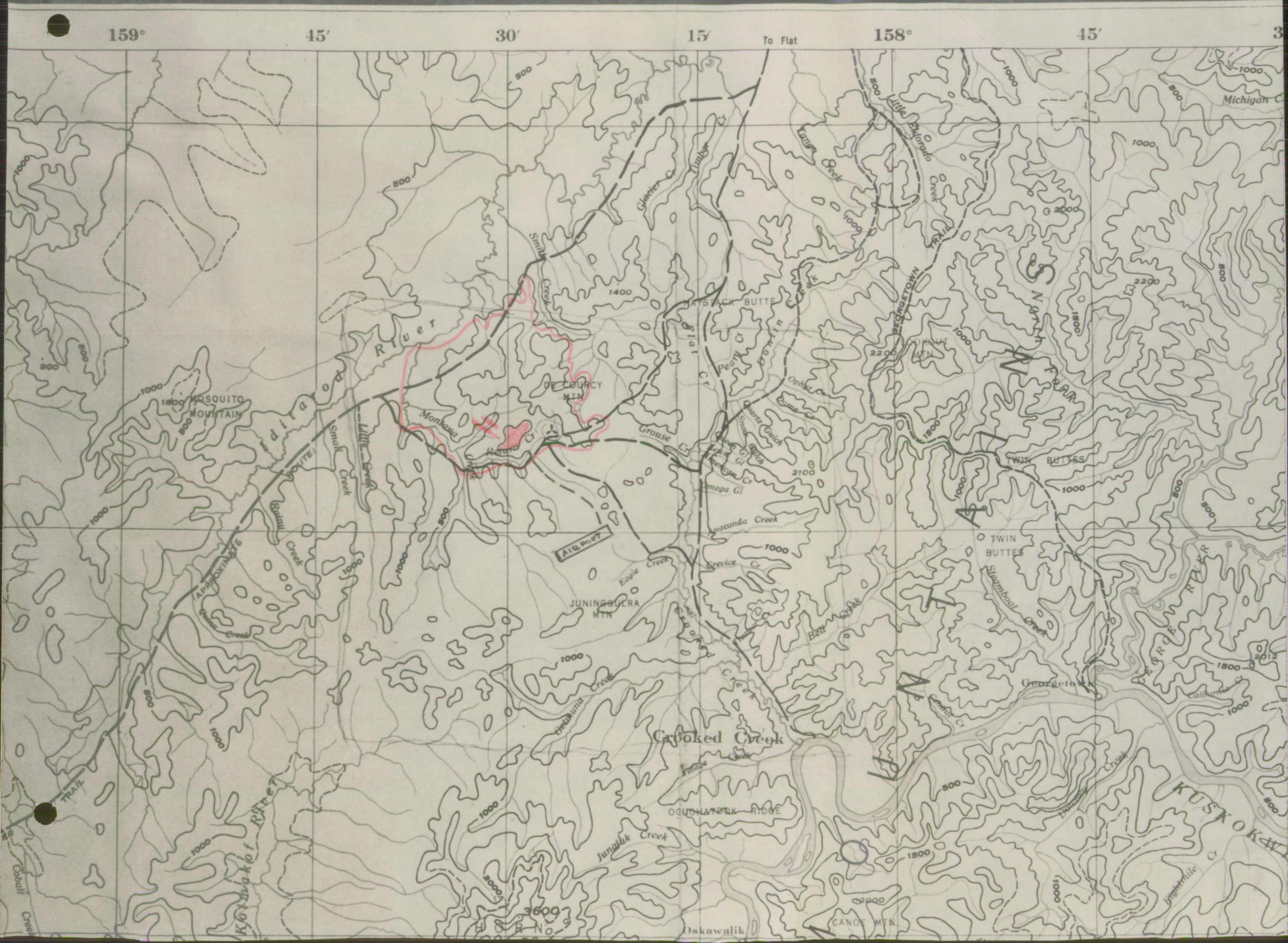
SHEET 6.



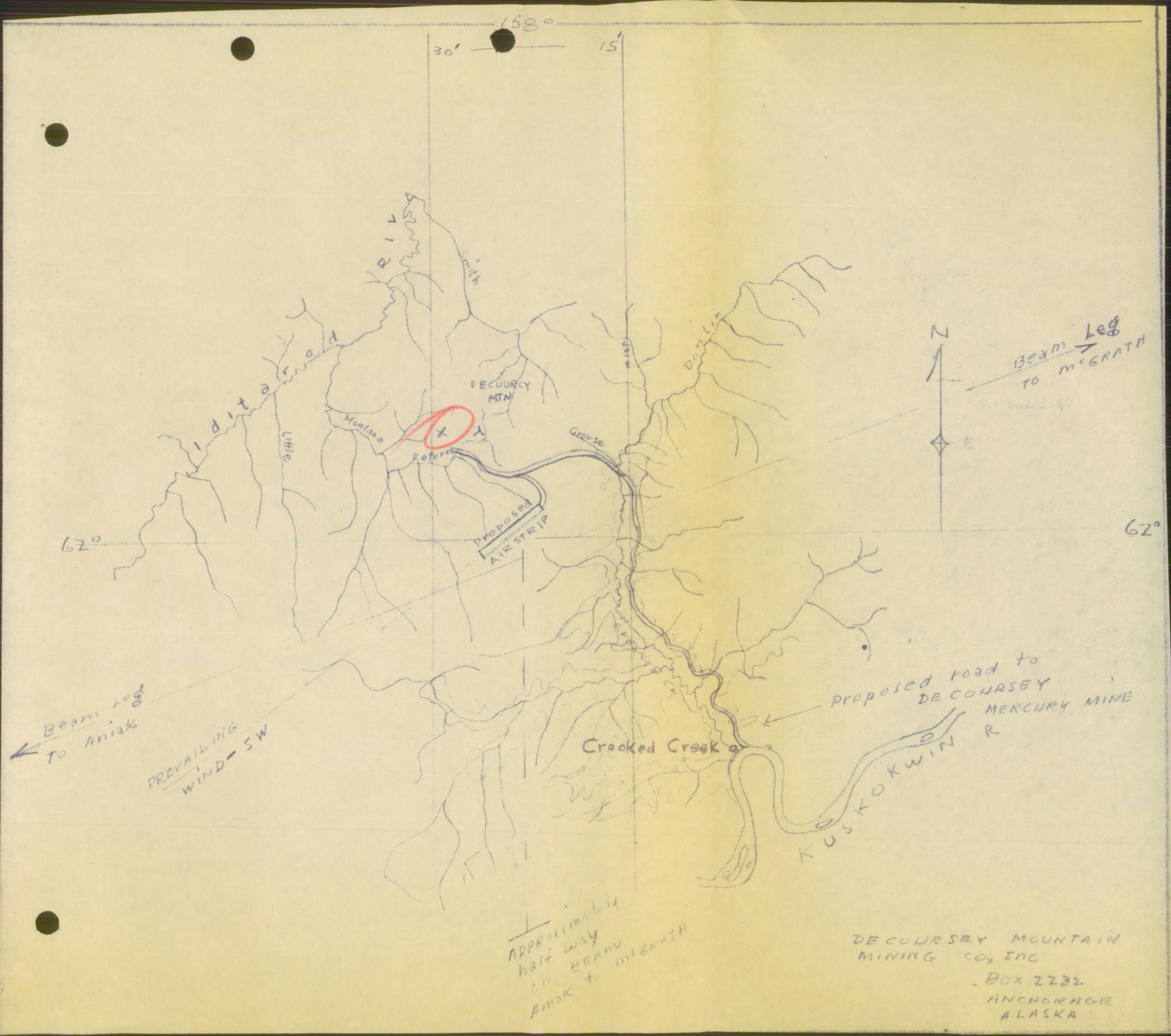
TRACED FROM MAP MADE BY
E. J. WEBBER U.S.G.S

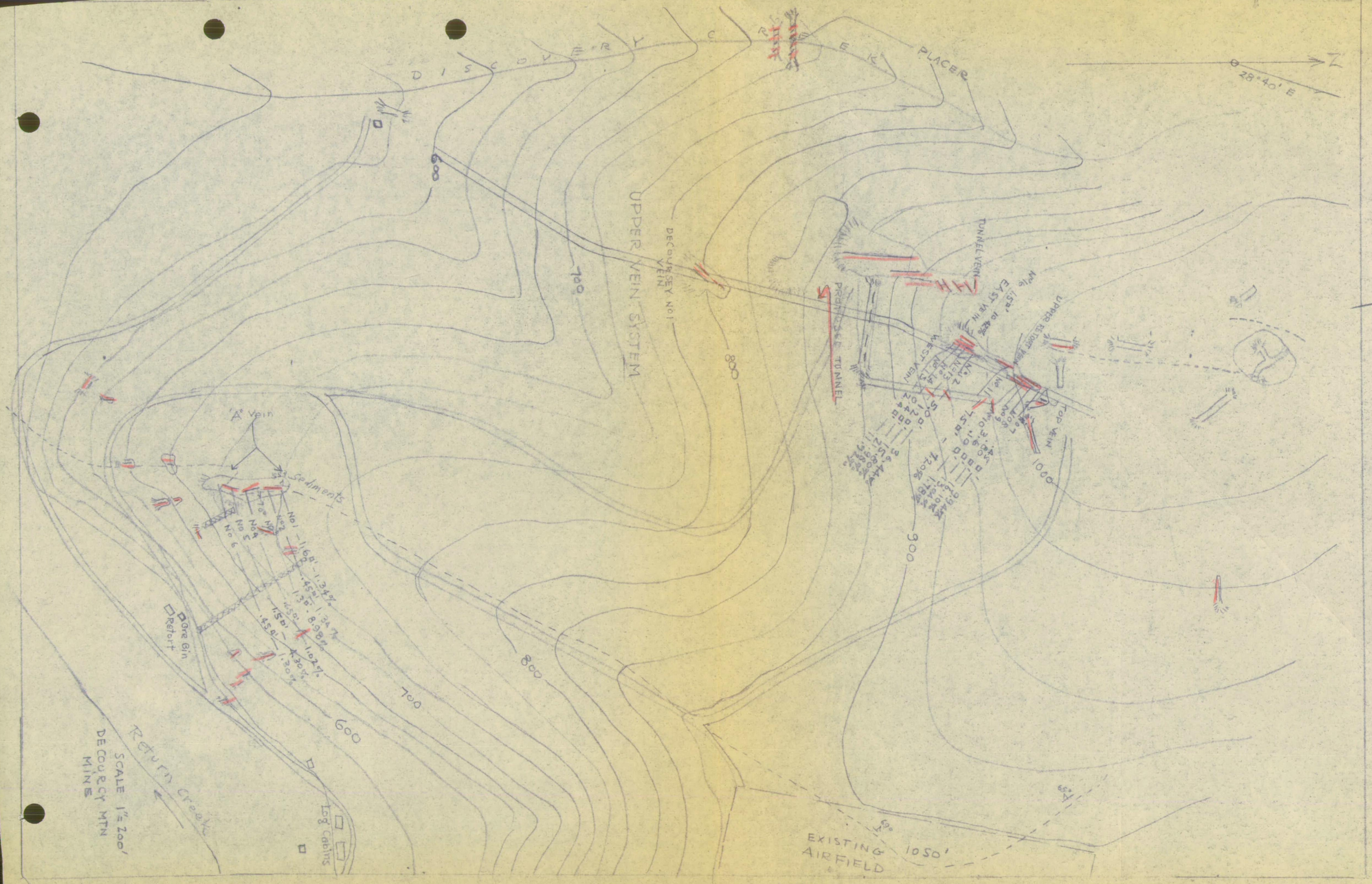
LEGEND: CINNABAR
CAVED TUNNEL
OPEN CUT TRENCH
DIP & STRIKE 56°
TRACTOR TRAIL
SCALE 1" = 200'

DECOURSEY MOUNTAIN
MINING CO. INC
BOX 2232
ANCHORAGE ALASKA


159°
45′
30′
15′
To Flat
158°
45′
Michigan Cr
Little Eldorado Creek
Tatty Creek
Glacier Cr
Timber Cr
Smith Creek
HAYSTACK BUTTE
Flat Cr
Pearl Creek
Bonanza Creek
BEDRIDGETOWN TRAIL
NORTH FORK
Ophir Cr
Rome Cr
Quartz Gulch
Smoke Gulch
Grouse Cr
Omega Gl
Anaconda Creek
Crevice Cr
Eagle Creek
Bell Creek
Steamboat Creek
TWIN BUTTES
Georgetown
LEFT FORK
LEFT FORK
LARGE RIVER
California Cr
Cabin Cr
Crooked Creek
Image Creek
Jungulik Creek
OGUCHLATUK RIDGE
CANOE MTN
Oskawalik
KUSKOKWIM
Kotlakof River
Cobalt Creek
TRAIL
APPROXIMATE ROUTE
Railroad Creek
Smith Creek
Little Creek
Monkana
Railroad Cr
DE COURCY MTN
MOSQUITO MOUNTAIN
Indian River
AIRPORT
JUNINGBULRA MTN
Creek
Creek
Creek

160°
158°
NOME
Koyukok
Nulato
Kokrines
Ruby
TANANA
College
FAIRBANKS
RIVER
Nenana
NORTON SOUND
64°
YUKON RIVER
BERING SEA
Tokotna
McGrath
SCALE 1:2,500,000
1 INCH=APPROXIMATELY 40 MILES
50
0
50
100
Flat
62°
Holy Cross
DE COURSEY
Crooked Creek
Kalskag
Aniak
RIVER
KUSKOKWIM
Bethel
DE COURSEY
MINE — OWNERS
DE COURSEY MOUNTAIN
MINING COMPANY
BOX 2232
ANCHORAGE
ALASKA
ANCHORAGE
COOK INLET
Seward
160°
158°
Nondalton
BAY

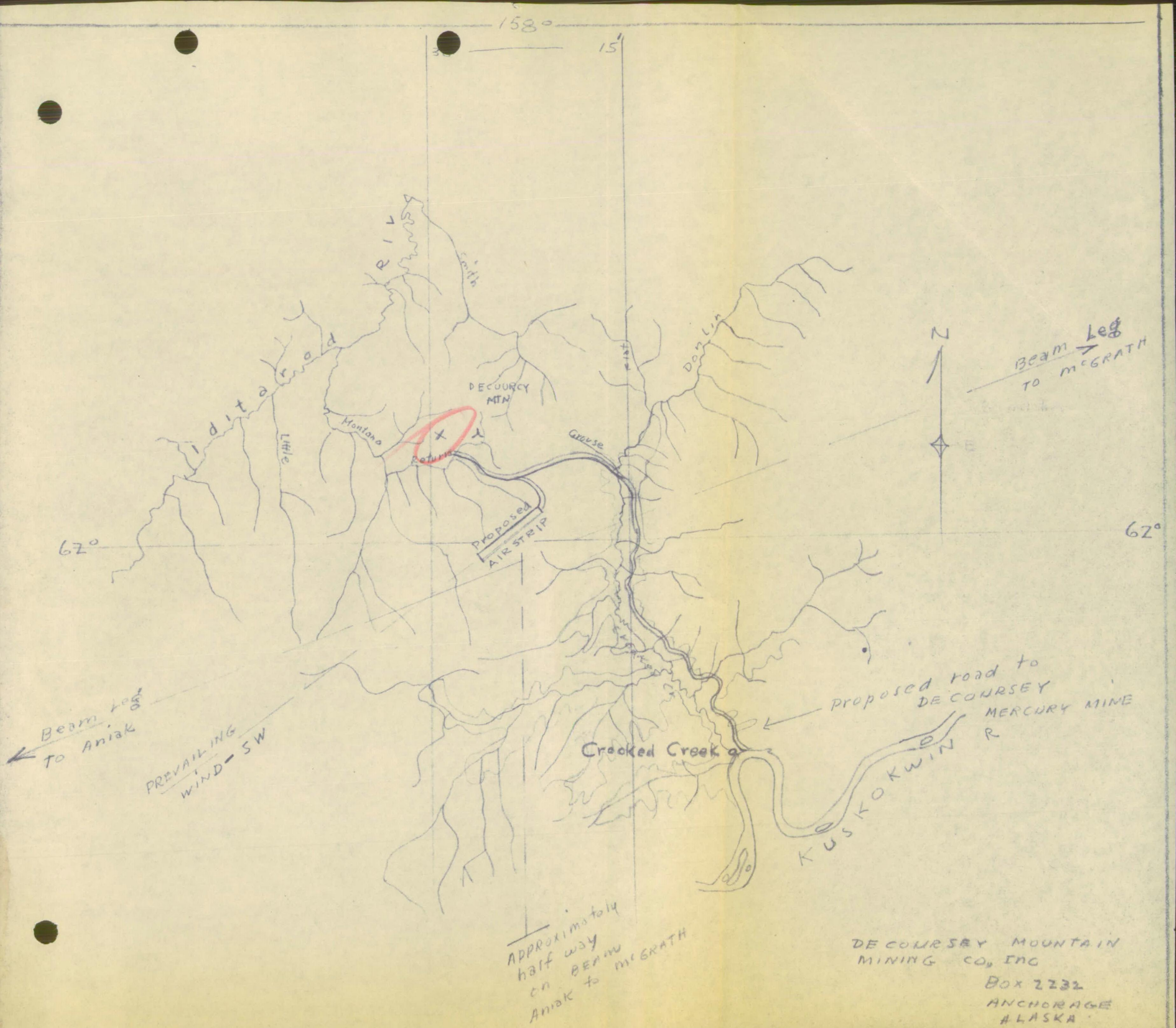

158°
30'
15'
62°
62°
N
Beam Leg
TO McGRATH
Beam Leg
TO Aniak
PREVAILING
WIND - SW
Iditarod
Little
Smith
Montana
Returns
DECOURCY
MITN
Grouse
Donlin
Proposed
AIR STRIP
Crooked Creek
proposed road to
DE COURSEY
MERCURY MINE
KUSKOKWIN R
APPROXIMATELY
half way
on BEAM
Aniak to McGRATH
DE COURSEY MOUNTAIN
MINING CO, INC
BOX 2232
ANCHORAGE
ALASKA

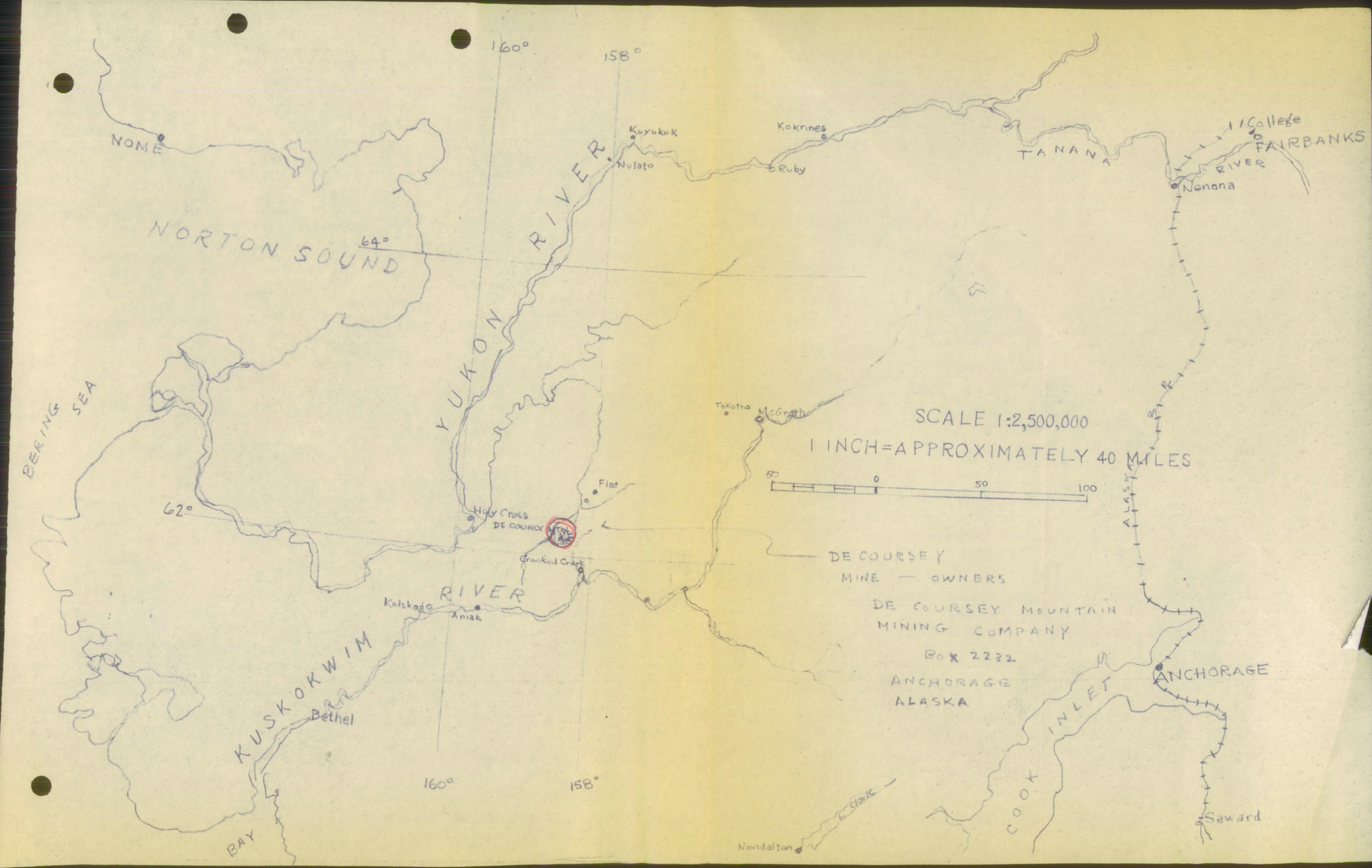


TRACED FROM MAP MADE BY
E. J. WEBBER U.S.G.S

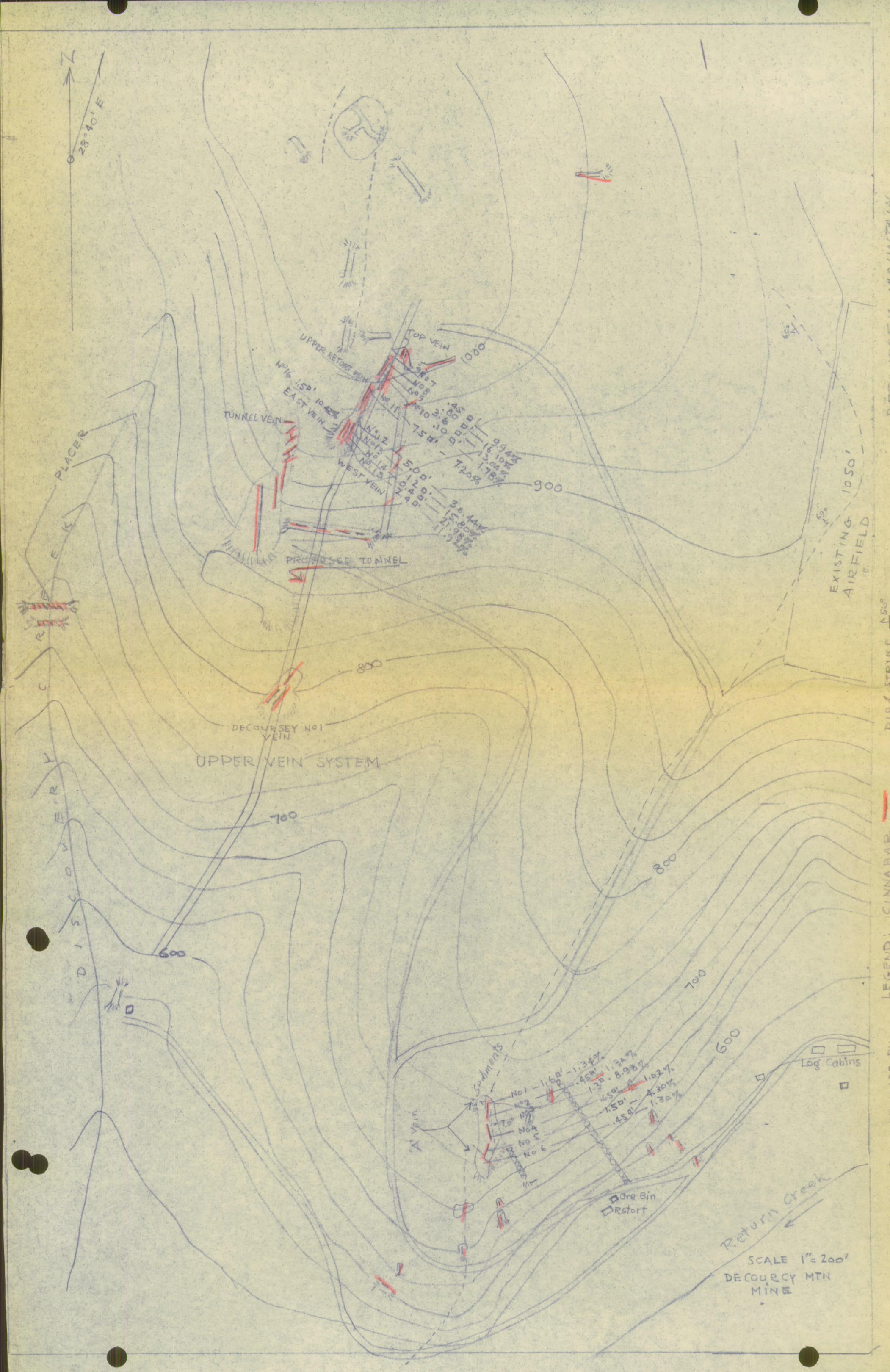
LEGEND: CINNABAR —
CAVED TUNNEL
OPEN CUT TRENCH
DIP & STRIKE 56°
TRACTOR TRAIL
SCALE 1" = 200'

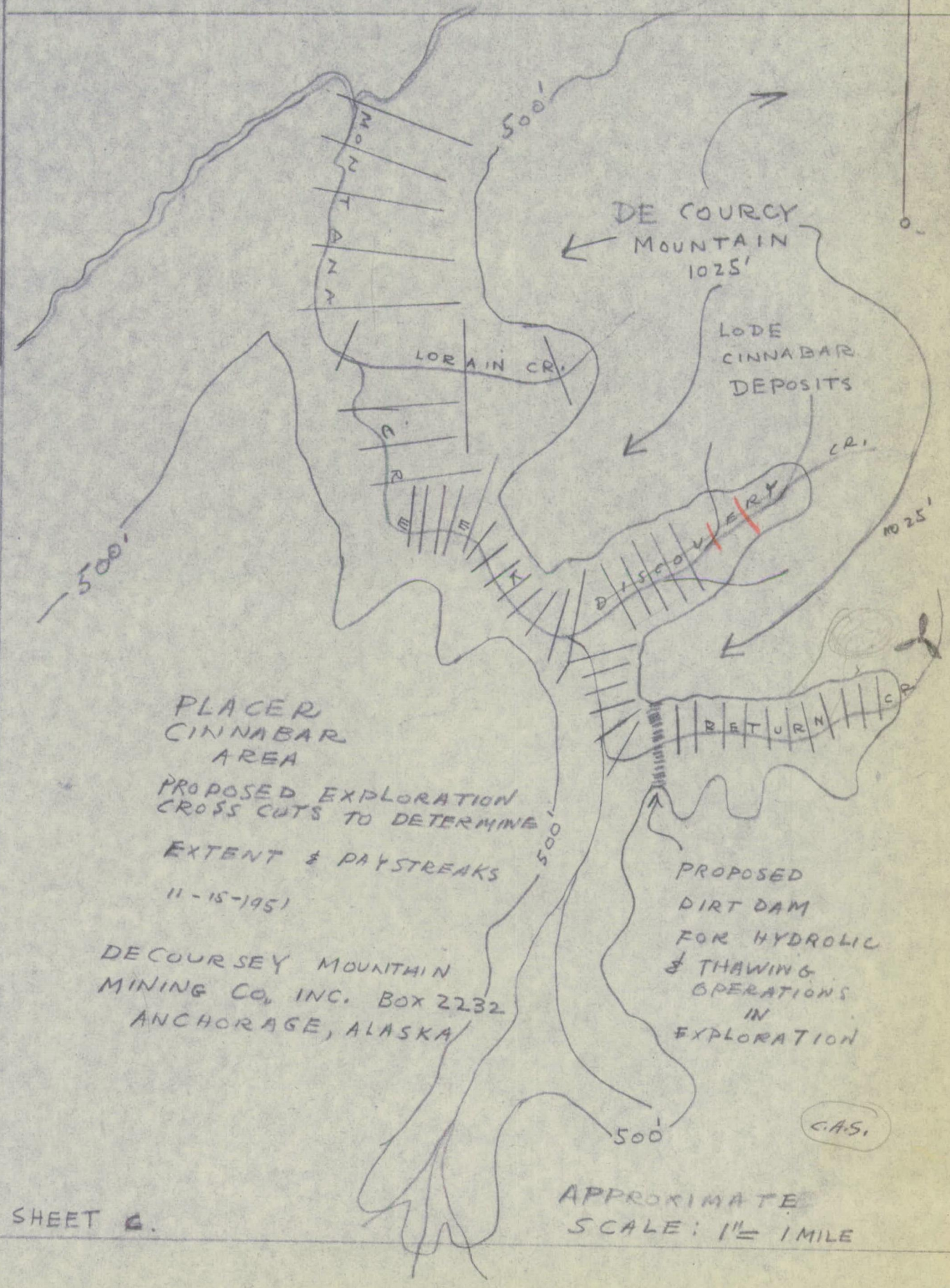
DECOURSEY MOUNTAIN
MINING CO. INC
BOX 2232
ANCHORAGE ALASKA


158°
15'
62°
62°
Iditarod
Little
Montana
Smith
DECOURCY MTN
Grouse
Donlin
Proposed AIRSTRIP
N
Beam Leg TO McGRATH
Beam Leg TO Aniak
PREVAILING WIND - SW
Crooked Creek
proposed road to DE COURSEY MERCURY MINE
KUSKOKWIN R
APPROXIMATELY half way on BEAM Aniak to McGRATH
DE COURSEY MOUNTAIN MINING CO, INC
BOX 2232
ANCHORAGE
ALASKA


160°
158°
NOME
NORTON SOUND
64°
BERING SEA
YUKON RIVER
Koyukuk
Nulato
Kokrines
Ruby
TANANA
RIVER
College
FAIRBANKS
Nenana
Tokotna
McGrath
Flat
Holy Cross
DE COURCY
Crooked Creek
62°
Kalskag
Aniak
KUSKOKWIM
Bethel
BAY
160°
158°
SCALE 1:2,500,000
1 INCH=APPROXIMATELY 40 MILES
50
100
ALASKA
DE COURSEY
MINE — OWNERS
DE COURSEY MOUNTAIN
MINING COMPANY
Box 2232
ANCHORAGE
ALASKA
ANCHORAGE
COOK INLET
Clark
Nondalton
Seward

159°
45′
30′
15′
To Flat
158°
45′
Michigan Cr
Little Eldorado Creek
Tatum Creek
Glacier Cr
Timber Cr
Smith Creek
HAYSTACK BUTTE
Flat Cr
Pearl Cr
Mountain Creek
BEDROCKTOWN TRAIL
NORTH FORK
DE COURCY MTN
Monkey Cr
Railroad Cr
Grouse Cr
Quartz Gulch
Smoke Gulch
Omega Cr
Anaconda Creek
Crevice Cr
Eagle Creek
Ben Creek
Steamboat Creek
TWIN BUTTES
Georgetown
Calhoun Cr
Crooked Creek
Snake Creek
OGUDHANTUK RIDGE
Jungulik Creek
Oskawalik
CANOE MTN
KUSKOKWIM
MOSQUITO MOUNTAIN
Little Smok Creek
Smok Creek
Railroad Creek
APPROXIMATE ROUTE
Green Creek
Airport
JUNINGBULRA MTN
Cobalt Cr
Kuskokwim River
TRAIL
3600
HORN


N
28°40' E
TOP VEIN
UPPER RETORT VEIN
No 16 1.5' 10.42%
EAST VEIN
TUNNEL VEIN
WEST VEIN
PROPOSED TUNNEL
PLACER
CREEK
DECOURSEY No 1 VEIN
UPPER VEIN SYSTEM
EXISTING AIRFIELD
1000
900
800
700
600
Sediments
"A" Vein
No 1
No 2
No 3
No 4
No 5
No 6
Ore Bin
Retort
Log Cabins
Return Creek
SCALE 1" = 200'
DECOURCY MTN
MINE
DECOURSEY MOUNTAIN
MINING CO. INC
BOX 2232
ANCHORAGE ALASKA
LEGEND: CINNABAR
CAVED TUNNEL
OPEN CUT TRENCH
DIP & STRIKE
TRACTOR TRAIL
SCALE 1" = 200'
TRACED FROM MAP MADE BY
E.J. WEBBER U.S.G.S


N
500'
DE COURCY
MOUNTAIN
1025'
LODE
CINNABAR
DEPOSITS
LORAIN CR.
CR.
DISCOVERY
1025'
500'
RETURN
CR.
500'
500'
PLACER
CINNABAR
AREA
PROPOSED EXPLORATION
CROSS CUTS TO DETERMINE
EXTENT & PAYSTREAKS
11-15-1951
DECOURSEY MOUNTAIN
MINING CO. INC. BOX 2232
ANCHORAGE, ALASKA
PROPOSED
DIRT DAM
FOR HYDROLIC
& THAWING
OPERATIONS
IN
EXPLORATION
C.A.S.
APPROXIMATE
SCALE: 1" = 1 MILE

SHEET 6.

UNITED STATES
DEPARTMENT OF THE INTERIOR
U. S. BUREAU OF MINES
WASHINGTON 25, D. C.

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(PMGC)

Mr. E. J. McKnight
Room 4204
G. S. Building

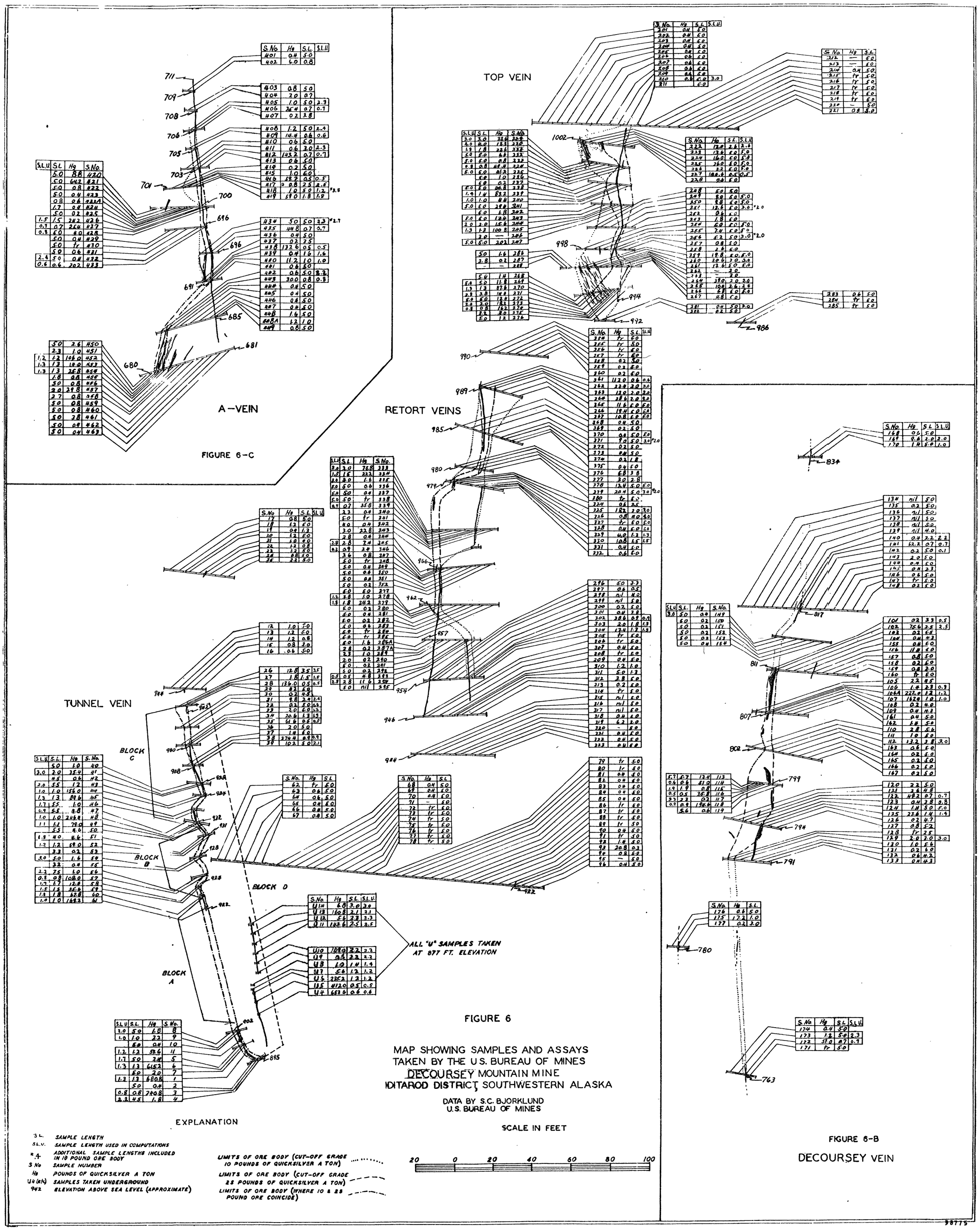


FIGURE 6-C

FIGURE 6

MAP SHOWING SAMPLES AND ASSAYS
TAKEN BY THE U.S. BUREAU OF MINES
DECOURSEY MOUNTAIN MINE
IDITAROD DISTRICT, SOUTHWESTERN ALASKA

FIGURE 6-B

DECOURSEY VEIN

98775

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP

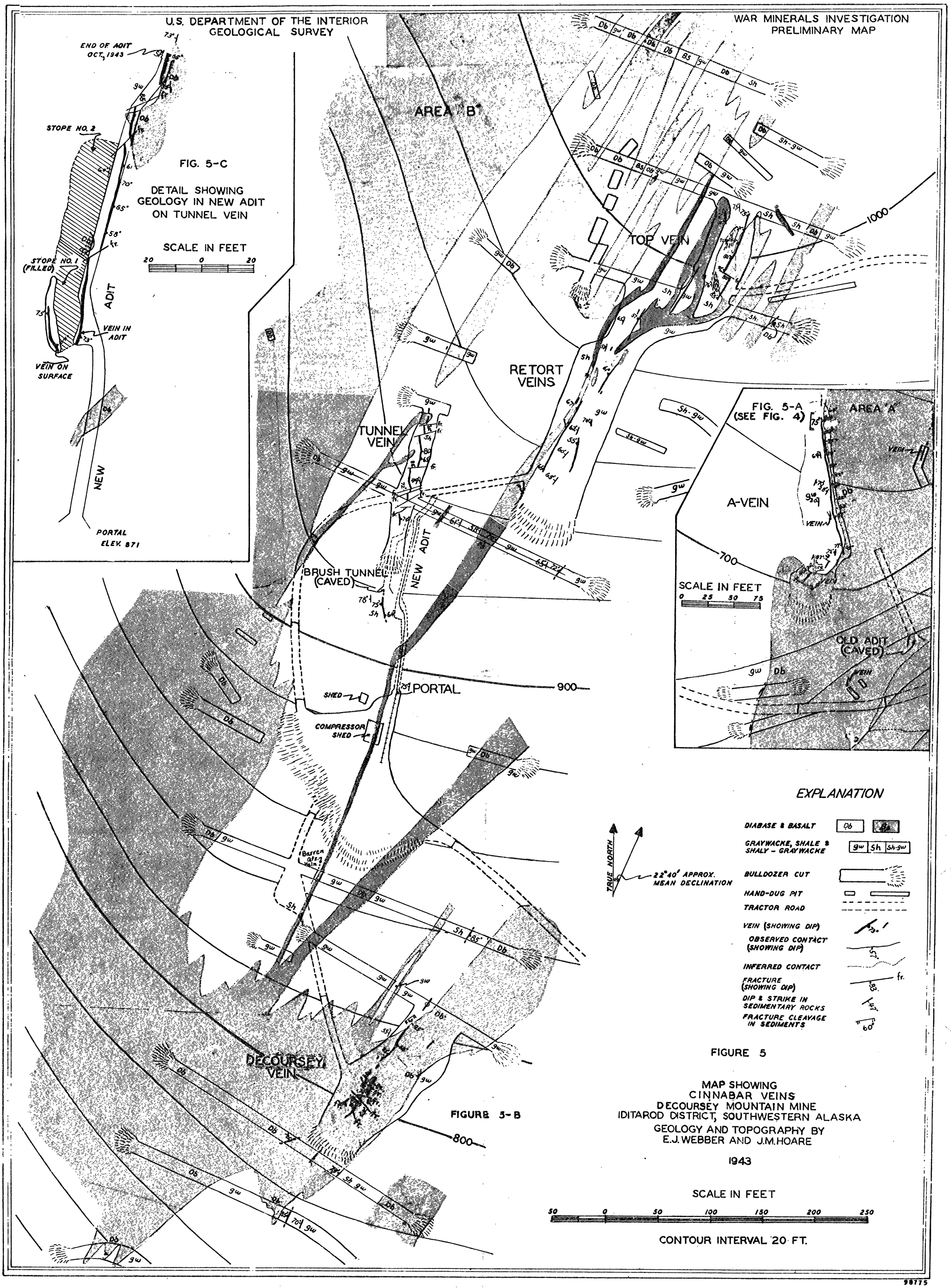


FIGURE 5-B

FIGURE 5

MAP SHOWING
CINNABAR VEINS
DECOURSEY MOUNTAIN MINE
IDITAROD DISTRICT, SOUTHWESTERN ALASKA
GEOLOGY AND TOPOGRAPHY BY
E.J. WEBBER AND J.M. HOARE

1943

98775

U.S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WAR MINERALS INVESTIGATION
PRELIMINARY MAP

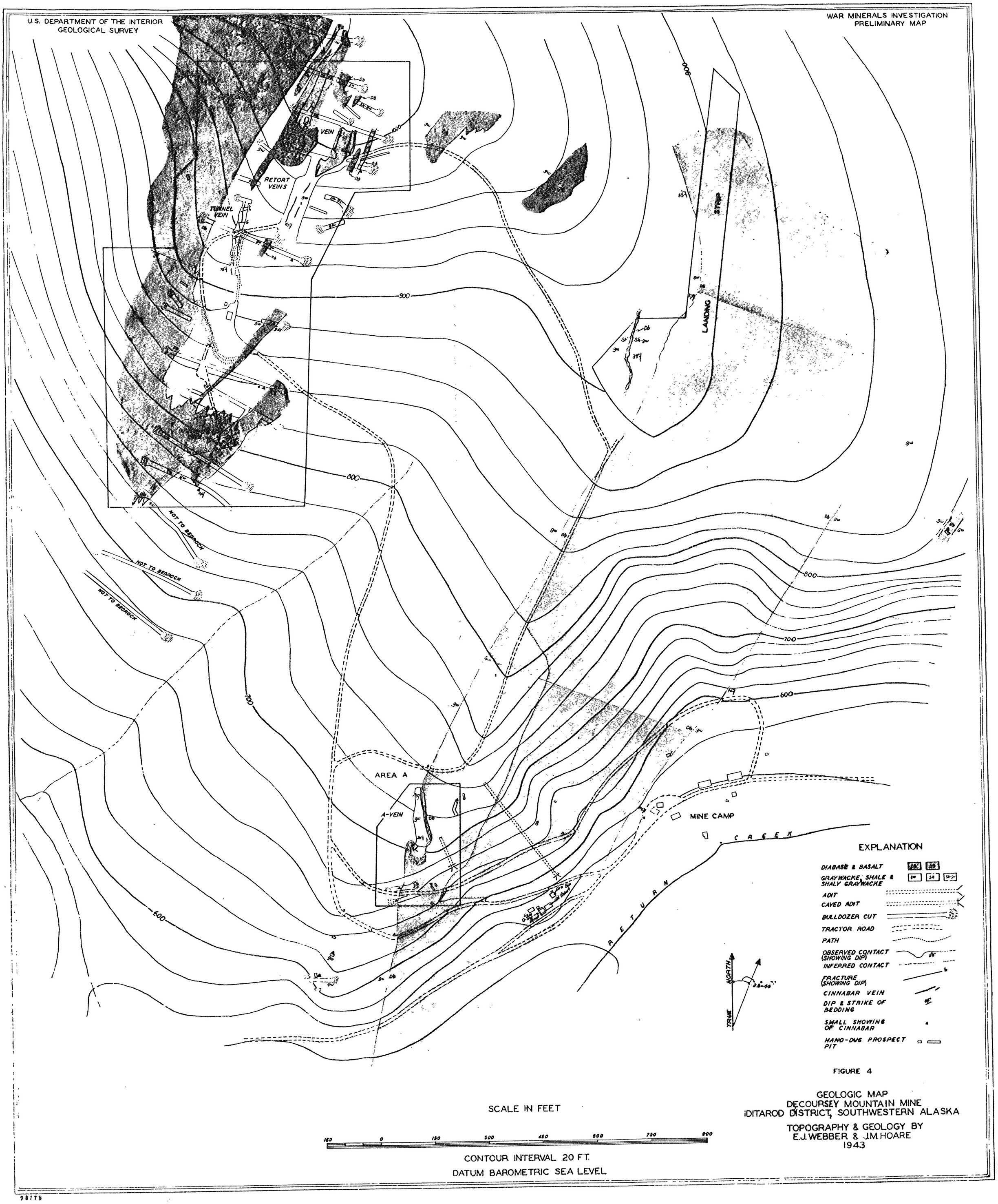
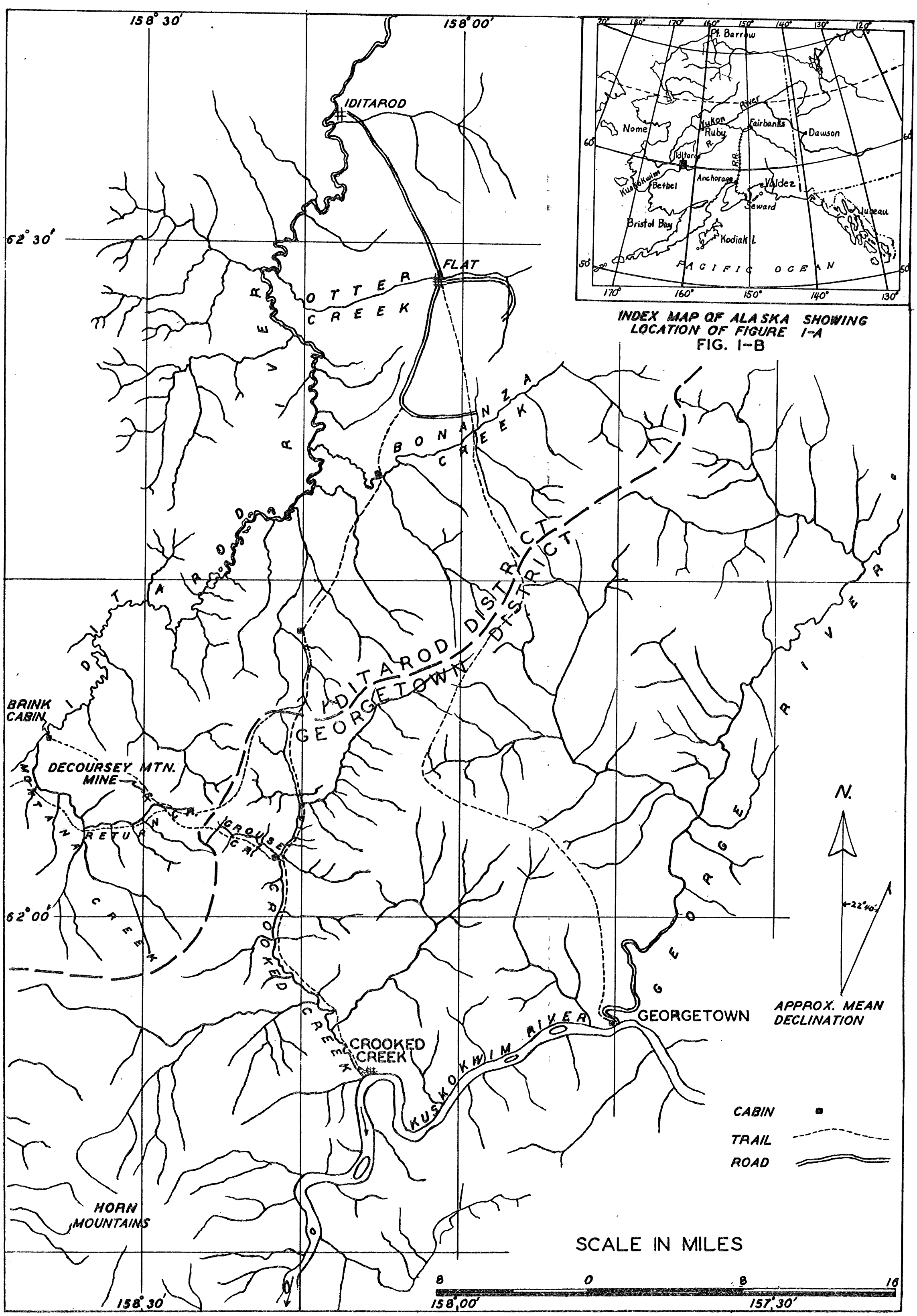


FIGURE 4

GEOLOGIC MAP
DECOURSEY MOUNTAIN MINE
IDITAROD DISTRICT, SOUTHWESTERN ALASKA

TOPOGRAPHY & GEOLOGY BY
E.J. WEBBER & J.M. HOARE
1943

98775



INDEX MAP OF ALASKA SHOWING LOCATION OF FIGURE 1-A
FIG. 1-B

FIGURE 1-A LOCATION OF AND APPROACHES TO DECOURSEY MOUNTAIN MINE

98775