DMA Form 1

DEFENSE MINERALS ADMINISTRATION
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DMA Docket No. 3113

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Routing Slip

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MME Form 7
(2/63)

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FEB 8 1966

Mr. Philip L. Keaton
Assistant Regional Forester
U. S. Department of Agriculture
P. O. Box 3623
Portland, Oregon 77208

Re: DMEA-3113 (Copper)
Norman C. Chapman
Doris Group, Sultan Basin
Snohomish County, Washington

Dear Mr. Keaton:

Reference is made to your letter of January 11, 1966, and our letter of January 27 concerning the subject application.

We have located the docket on the subject application in the storage files. Therefore, we are enclosing a copy of the map of the Doris Prospect dated September 20, 1953, prepared by Willard P. Puffett for the confidential use of the Government only, in accordance with your request.

Sincerely yours,

(Signed) FRANK E. JOHNSON

Frank E. Johnson
Chief, Office of
Minerals Exploration

Enclosure

cc: Director's reading file
Division file
Economic Geology file
OME file
OME reading file
OME Region I

FEJohnson/bih 2/8/66

23263

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane, Washington 99204
January 31, 1966

OFFICIAL COPY
O. M. E.
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110

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: Your letter 1/27/66 to Philip L. Heaton, Ass't. Regional Forester, Portland, Oregon

Our card index control for DMEA applications indicates that Docket No. DMEA 3113 (Copper), Norman C. Chapman, Applicant, Sultan Basin Mining District, Snohomish County, Washington, refers to the Celia Lee Nos. 1, 2, 3, 4, and 5 Claims (formerly known as the Doris Group). We hope that this will help you in identifying the file for Mr. Heaton.

D. R. MacLaren

D. R. MacLaren

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

October 16, 1953

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket DMEA 3113 (copper)
Doris Group, Sultan Basin
Snohomish County, Washington

Dear Mr. Selfridge:

Enclosed herewith are original and three copies of a report by Willard P. Puffett of the U. S. Geological Survey concerning the examination of the Doris property, Snohomish County, Washington. Puffett recommends denial of the application because, although some high-grade ore is showing, the individual ore lenses are too small and too widely dispersed. The Field Team agrees with this conclusion and also recommends that the application be denied.

By Field Team, Region II

A. E. Weissenborn
A. E. Weissenborn, Executive Officer
(U. S. Geological Survey)

M. E. Volin
M. E. Volin, Member
(U. S. Bureau of Mines)

Enclosure 1 (in quad.)

cc: USBM (2)
Puffett

Reviewed by
DMEA OPERATING COMMITTEE
10-30-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

October 10, 1953

11/9/53

Memorandum

To: DMEA Field Team, Region II

From: Willard P. Puffett, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3113 (copper), Field Examination of Doris Group, Sultan Basin, Snohomish County, Washington.

APPLICANT

Norman C. Chapman
Route #1, Box 386B
Snohomish, Washington

RECOMMENDATIONS

It is recommended that the application be denied. A persistent narrow shear is exposed in the drift on the Doris prospect, but this shear is mineralized only at sporadic intervals. Although the grade of the copper ore contained in the mineralized portions of the shear is moderately high, the sporadic nature of the ore occurrence and the general narrowness of the mineralized shear preclude favorable recommendation of the proposed project.

EXAMINATION

The field examination of the Doris prospect was made Sunday, September 20, 1953, in company with Mr. Norman Chapman, applicant. Twelve hours were spent on the examination, eight hours being actually spent at the property, the rest of the time being consumed hiking to and from the upper workings.

Prior to this examination, attempts were made on July 22 and August 26, by E. A. Magill, U. S. Bureau of Mines, and myself to examine the property but on both instances low clouds and rainy weather prevented us from reaching the upper workings.

Reviewed by
DMEA OPERATING COMMITTEE
10-30-53
(date)

PROPERTY

The Doris Group consists of five unpatented claims in Sections 34 and 35, T. 29 N., R. 10 E., W. M., Snohomish County, Washington. These claims lie across the upper reaches of the Sultan River, with the major portion of the area covered by the claims being on the north slopes of the relatively narrow ridge capped by Red Mountain. Access to the upper Sultan River is by 26 miles of county and mine-to-market road. From the end of the road, a trail has been brushed out along the north bank of the Sultan River to the lower workings. From the lower workings the trail crosses the river and trends in a general southwesterly direction up the steep slopes to the upper workings. By this trail, it is estimated to be nearly two miles from the end of the road to the lower portal of the upper workings. The difference in elevation between the end of the road and the lower tunnel of the upper workings is more than 1,000 feet.

ACCESSIBILITY

Even at the late date of the examination, snow remained in the ravines crosses by the trail to the upper workings. The elevation of the lower portion of these snow fields was approximately 3,000 feet.

The road into the Sultan Basin is open for six to seven months a year, and if a tramway is constructed, in all probability access to the upper workings of the Doris prospect can be made during the same months. Access to the mine by trail would be difficult for more than five months a year because of the snow conditions. Equipment could probably be transported along this trail by horses inasmuch as the grade of the trail is quite gentle.

COMPETENCY OF APPLICANT

The applicant is quick to admit that he has had scarcely any experience in mining. He is currently employed as a lineman with the Bonneville Power Administration. He states that if a project is approved, he will have Mr. Robert Curtiss supervise the operation. Mr. Curtiss is currently a member of the partnership of Curtiss and Rogers, who have a contract (Idm-E243) to explore for copper at a property near the Doris prospect.

Apparently the applicant is financially competent to complete a project and he states that he has already purchased considerable equipment, including tramway cable and a compressor, to use on the project.

PROPERTY RIGHTS

The five unpatented claims are owned by the applicant. He states these claims are recorded in Vol. 505, page 593, in the Snohomish County records.

DESCRIPTION OF PROPERTY

The Doris prospect consists of the Upper and the Lower workings. The Upper workings are a 187-foot crosscut at an altitude of 3,600 feet, a 268-foot long drift at an elevation of 142 feet above the crosscut, with a winze 60 feet from the portal which has been sunk to a reported depth of 40 feet. These workings are on the steep northern slopes of the ridge capped by Red Mountain. The Lower workings consist of two very short drifts and a shallow winze driven in the banks of the Sultan River, at an elevation approximately 1,000 feet lower than the Upper workings. The Upper workings, with the exception of the winze, are open for inspection. The lower workings are partially filled with water, preventing an examination of their walls.

The accompanying map shows the outline and relative position of the two upper tunnels. No map was made of the lower workings.

GEOLOGY

The geology of the Sultan Basin area is included in Washington State Department of Conservation and Development Bulletin No. 36 entitled "Geology and Ore Deposits of the Sultan Basin, Snohomish County, Washington," by Ward Carithers and A. K. Guard, which was published in 1945. The geology of the Doris prospect is included in this publication on pages 60-62.

The Upper workings have been driven in metamorphic rocks, mainly quartzite, which Carithers and Guard have assigned to the Old Metamorphic series of Paleozoic age. The Lower workings have been driven in quartz diorite, probably of late Mesozoic or early Tertiary age.

In the Upper workings, a drift has followed a persistent shear for nearly 270 feet. This shear strikes in a general westerly direction and dips very steeply to the north. At the portal of the drift, another strong fault, striking in the same general direction but dipping steeply to the south, intersects the main

shear just above sill level. From the portal and inward toward the face for about fifty feet, the rock has been considerably fractured and mineralized. There is a suggestion that the mineralization was localized near the junction between the two strong opposite dipping faults. The mineralization has resulted in fairly strong concentrations of chalcopyrite with minor sphalerite and some pyrite. This mineralized zone attains a maximum width of nearly seven feet near the portal. Specimens of bornite were noted at one or two locations, but this mineral occurs only in very minor amounts. Beyond the first fifty feet of drift, the shear narrows to an average of not more than five inches and contains only localized, small lenses of ore containing chalcopyrite, pyrite, and very minor sphalerite. These lenses measure up to 4½ feet long with a maximum width of 15 inches, with an average width of less than eight inches. Very little gangue mineral is present in the shear.

Samples were taken along the shear to check the copper content of the ore. Assay results of these samples show that where ore occurs, it generally contains from six to ten percent copper with two to five ounces of silver, and only traces of gold. No assay for zinc was made of any of the samples. Assay results of the sampling are shown on the accompanying map.

The winze, though not flooded, was not accessible for examination due to lack of ladders, but from what could be observed by an examination from the sill level at the top of the winze, very little copper staining was present on the winze walls; little could be discerned concerning the shear followed in the winze.

There was insufficient time to make a detailed examination of the geology of the crosscut tunnel. No veins or major faults were noted and there was no copper staining along the backs or walls to indicate proximity of a significant copper-bearing structure. It is doubtful if the crosscut has been extended long enough to intersect the downward extension of the mineralized shear exposed in the drift, but if not, it is believed that 20 to 30 feet more of crosscutting will definitely determine if the shear extends in depth to the level of the crosscut.

The lower workings have been driven in quartz diorite. From those which could be observed, these workings were following an 18-inch wide shear or fault in which some copper mineral occurred. The applicant reported some scheelite in the mineralized zone. A grab sample of the dump near the workings on the north side of the river yielded an assay of trace of gold, 1.0 ounce silver per ton, 2.73 percent copper, and nil WO_3.

Ore Reserves

There are a few tens of tons of copper ore near the portal of the drift on the Upper workings, but other than these there are no indicated or measured ore reserves at the Doris prospect.

PAST OPERATION

Little is known about the history of the deposit other than its being first staked in the 1890's and apparently worked little since that time. Insofar as is known, there have been no shipments of ore from the property.

AVAILABILITY OF MATERIALS AND MANPOWER

There is sufficient labor available in the small towns of Sultan and Monroe and outlying settlements for the modest project planned.

The applicant has already purchased considerable equipment to carry out the project and has quite completely outlined in his application those other materials necessary to complete the project.

Current wage scale as indicated by the applicant is $2.15 per hour.

APPLICANT'S PROPOSAL

The applicant proposes to explore the deeper extensions of the mineralized shear drifted on in the upper workings by extending the crosscut to intersect its downward projection and drifting 350 feet and raising 60 feet on the structure. Exploration on the shear in the lower workings will be accomplished by surface stripping followed by 60 feet of drifting.

To carry out this project the applicant proposes an access road to be constructed by bulldozer from the end of the mine-to-market road to the lower workings. Here he will construct living quarters and cookhouse for four men. Next he will install an aerial tramway from the area of the living quarters to the portal of the crosscut, a distance estimated by him to be 1,500 feet. This tramway is necessary for transportation of heavy equipment to the Upper workings. At the portal of the crosscut, he plans on erecting a compressor and blacksmith shop. According to

the application this preliminary work will cost nearly $5,500.00. Total drifting and crosscutting, plus the stripping at the lower workings, will cost $8,820.00. Thus, the total cost of the exploration project as outlined by the applicant is in excess of $14,000.00, of which nearly 40 percent is consumed in preparations preliminary to actual exploration.

Inasmuch as the face of the crosscut in the upper workings is so near to the projected location of the downward extension of the mineralized shear in the drift, it is believed that a very modest amount of hand steel work, amounting to very little capital expenditure, can determine if the shear does extend in depth. If this work were successful, then perhaps it would be justifiable to expand the plans to permit the erection of a tramway, etc., such as the applicant proposes.

As a result of mapping the shear in the upper workings, it appears very doubtful that there is sufficient ore mineral contained in the shear to merit any work other than a very small scale project to determine the character of the shear at depth. Because of this questionable ore content of the shear, plus the present difficult accessibility to the property and the possible short working season, it is believed that there is insufficient favorable evidence available to justify a recommendation to approve an exploration project at the Doris prospect.

Enclosure

Distribution:
DMEA (Orig. & 3)
USBM (2)
USGS (SRO)
Docket
Puffett

FILE COPY
SURNAME: 13

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

Keating
Emmel
Kinkel
Hedges
Selfridge
Fogelman

NOV 9 1953

Mr. Norman C. Chapman
Route 1
Box 386 B
Snohomish, Washington

Re: Docket No. DMA 3113 (Copper)
Doris Group
Snohomish County, Washington

Dear Mr. Chapman:

Your application for aid for an exploration project and other data available to us in Washington concerning the above named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position of the National Defense Program.

Careful study of all our information, although noting a small amount of copper mineralization, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you that under these circumstances your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittemeier

Administrator

AGKeating/hmj
(10-5-53)
CC to: Docket
Adm. R. File
Op. Committee
Base Metals Division
Mr. Kinkel
Mr. Bishop
Chron.
Field Team, Reg II (2)

R.C.J.
11-9-53

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

November 5, 1953

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Recommendation for denial of application for exploration assistance Docket No. DMEA 3113, Norman C. Chapman, Doris claims, Snohomish County, Washington (Copper)

The above project property consists of five unpatented mining claims. Two veins are on the property; one occurs at an altitude of 3,000 feet, while the other is on a mountain slope 1,500 feet west and 700 feet higher.

The upper vein is opened by a westerly 250 ft. drift following a vertical mineralized fault zone. In this drift, 57 feet from the portal, a 40 foot winze is reported to have been sunk. The first 100 feet of the drift reported some copper mineralization mixed with breccea in lenticular occurrence some 6 to 30 inches thick.

From a cut on the surface 225 feet north and 100 feet lower than the above drift, a crosscut has been driven southward for 200 feet but does not reach a vein.

The lower vein is developed by two 6-foot drifts in opposite banks of the river with a 10-foot shaft at one of the portals. Only a small amount of mineralization has been disclosed, although lumps of rock on the dump at the shaft indicated that the vein might be 11 inches thick in these workings.

The proposed exploration as outlined by the Applicant consists of the following items with the Applicant's estimate of costs.

	Construction of living quarters	$ 1,400.00
	" " compressor shed & shop	1,500.00
	" " aerial tram	245.40
1.	Analytical work, bookkeeping, etc.	50.00
2.	Operating equipment to be purchased	1,170.00
3.	Building road from river to mill site & lower workings	2,580.00

4.	Bulldozer stripping overburden from lower dump	$ 320.00
5.	Extend upper workings crosscut 30 feet - drift easterly and westerly 350 ft. - raise 60 ft. aggregating 440 feet at $17.00 per foot	7,480.00
	Total estimated costs	$ 14,745.40

In a foot note the Applicant states that he will furnish all labor (3 men) for this project, a compressor and tramline cable and makes application for a total of $ 14,208.00

The Field Team, after examination, reports that although there is some showing of high grade ore, the individual lenses are too small and widely dispersed to permit favorable consideration and they recommend denial of the application, to which the Washington Commodity members and the Base Metals Division concurs.

W. R. Griswold

W. R. Griswold

Attachment

FILE COPY
SURNAME: 500

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

Keating
Minard
Johnson

November 5, 1953

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AGKeating/hmj
(11-5-53)
CC to: Docket
Operating Committee
Base Metals Division
Chron.

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 4 1953

November 4, 1953

Memorandum

To: W. R. Griswold, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-3113 (Copper) Norman C. Chapman, Doris Group, Snohomish County, Washington

I have reviewed the Field Team report on the above-named application. The Field Team recommends the application be denied because the showings, although high-grade, indicate that only very small orebodies are likely to be found. The field team report recommends a small amount of hand work to advance the face of an adit twenty or thirty feet as the most practical step in further exploration of this property. If the applicant would carry out such work and if it gave encouraging results then I think DMEA might give further consideration to an exploration project. In any event it seems to me that the Field Team's present recommendation for denial is sound.

C. H. Johnson

C. H. Johnson

Copy to - Minerals Division
A. R. Kinkel, Jr. - USGS - B-242-A
C. H. Johnson
Files

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

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C. H. Johnson

CHJohnson:ks

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A. R. Kinkel, Jr. - DMEA - B-242-A
C. H. Johnson
Files

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

October 29, 1953

Memorandum

Re: DMEA-3113
Doris Claims
Snohomish County, Washington
$14,208
Copper

To: Mr. W. R. Griswold

From: E. L. Newcomb

Subject: Concurrence with field team recommendation for denial.

The field team examination report recommends the applicant's request for exploration assistance be denied. Mineralization occurs in local pods along a narrow shear zone. The nature of the ore occurrences does not indicate that significant amounts of copper ore will be found by the proposed work at depth.

I concur with the field team and recommend the application be denied.

E. L. Newcomb

E. L. Newcomb
Geologist

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

October 29, 1953

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Re: DMEA-3113
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Snohomish County, Washington
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Copper

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

[redacted]
No. 157 Howard Street
Spokane 4, Washington

October 16, 1953

Mr. George C. Selfridge, Chairman
DMEA Operating Committee
Department of the Interior
Washington 25, D. C.

Re: Docket DMEA 3113 (copper)
Doris Group, Sultan Basin
Snohomish County, Washington

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By Field Team, Region II

A. E. Weissenborn, Executive Officer
(U. S. Geological Survey)

M. E. Volin, Member
(U. S. Bureau of Mines)

Enclosure 1 (in qund.)

cc: [redacted] (2)
Puffett

Reviewed by
DMEA OPERATING COMMITTEE
10-30-53
(date)

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

So. 157 Howard Street
Spokane 4, Washington

October 10, 1953

Memorandum

To: DMEA Field Team, Region II

From: Willard P. Puffett, Geologist, U. S. Geological Survey

Subject: Docket No. DMEA-3113 (copper), Field Examination of Doris Group, Sultan Basin, Snohomish County, Washington.

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Norman C. Chapman
Route #1, Box 3068
Snohomish, Washington

RECOMMENDATIONS

It is recommended that the application be denied. A persistent narrow shear is exposed in the drift on the Doris prospect, but this shear is mineralized only at sporadic intervals. Although the grade of the copper ore contained in the mineralized portions of the shear is moderately high, the sporadic nature of the ore occurrence and the general narrowness of the mineralized shear preclude favorable recommendation of the proposed project.

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DESCRIPTION OF PROPERTY

The Doris prospect consists of the Upper and the Lower workings. The Upper workings are a 187-foot crosscut at an altitude of 3,600 feet, a 288-foot long drift at an elevation of 142 feet above the crosscut, with a winze 60 feet from the portal which has been sunk to a reported depth of 40 feet. These workings are on the steep northern slopes of the ridge capped by Red Mountain. The Lower workings consist of two very short drifts and a shallow winze driven in the banks of the Sultan River, at an elevation approximately 1,000 feet lower than the Upper workings. The Upper workings, with the exception of the winze, are open for inspection. The lower workings are partially filled with water, preventing an examination of their walls.

The accompanying map shows the outline and relative position of the two upper tunnels. No map was made of the lower workings.

GEOLOGY

The geology of the Sultan Basin area is included in Washington State Department of Conservation and Development Bulletin No. 36 entitled "Geology and Ore Deposits of the Sultan Basin, Snohomish County, Washington," by Ward Carithers and A. K. Guard, which was published in 1945. The geology of the Doris prospect is included in this publication on pages 60-62.

The Upper workings have been driven in metamorphic rocks, mainly quartzite, which Carithers and Guard have assigned to the Old Metamorphic series of Paleozoic age. The Lower workings have been driven in quartz diorite, probably of late Mesozoic or early Tertiary age.

In the Upper workings, a drift has followed a persistent shear for nearly 270 feet. This shear strikes in a general westerly direction and dips very steeply to the north. At the portal of the drift, another strong fault, striking in the same general direction but dipping steeply to the south, intersects the main

shear just above sill level. From the portal and inward toward the face for about fifty feet, the rock has been considerably fractured and mineralized. There is a suggestion that the mineralization was localized near the junction between the two strong opposite dipping faults. The mineralization has resulted in fairly strong concentrations of chalcopyrite with minor sphalerite and some pyrite. This mineralized zone attains a maximum width of nearly seven feet near the portal. Specimens of bornite were noted at one or two locations, but this mineral occurs only in very minor amounts. Beyond the first fifty feet of drift, the shear narrows to an average of not more than five inches and contains only localized, small lenses of ore containing chalcopyrite, pyrite, and very minor sphalerite. These lenses measure up to 4½ feet long with a maximum width of 15 inches, with an average width of less than eight inches. Very little gangue mineral is present in the shear.

Samples were taken along the shear to check the copper content of the ore. Assay results of these samples show that where ore occurs, it generally contains from six to ten percent copper with two to five ounces of silver, and only traces of gold. No assay for zinc was made of any of the samples. Assay results of the sampling are shown on the accompanying map.

The winze, though not flooded, was not accessible for examination due to lack of ladders, but from what could be observed by an examination from the sill level at the top of the winze, very little copper staining was present on the winze walls; little could be discerned concerning the shear followed in the winze.

There was insufficient time to make a detailed examination of the geology of the crosscut tunnel. No veins or major faults were noted and there was no copper staining along the banks or walls to indicate proximity of a significant copper-bearing structure. It is doubtful if the crosscut has been extended long enough to intersect the downward extension of the mineralized shear exposed in the drift, but if not, it is believed that 20 to 30 feet more of crosscutting will definitely determine if the shear extends in depth to the level of the crosscut.

The lower workings have been driven in quartz diorite. From those which could be observed, these workings were following an 18-inch wide shear or fault in which some copper mineral occurred. The applicant reported some scheelite in the mineralized zone. A grab sample of the dump near the workings on the north side of the river yielded an assay of trace of gold, 1.0 ounce silver per ton, 2.73 percent copper, and nil WO_3.

Ore Reserves

There are a few tens of tons of copper ore near the portal of the drift on the Upper workings, but other than these there are no indicated or measured ore reserves at the Doris prospect.

PAST OPERATION

Little is known about the history of the deposit other than its being first staked in the 1850's and apparently worked little since that time. Insofar as is known, there have been no shipments of ore from the property.

AVAILABILITY OF MATERIALS AND MANPOWER

There is sufficient labor available in the small towns of Sultan and Monroe and outlying settlements for the modest project planned.

The applicant has already purchased considerable equipment to carry out the project and has quite completely outlined in his application those other materials necessary to complete the project.

Current wage scale as indicated by the applicant is $2.15 per hour.

APPLICANT'S PROPOSAL

The applicant proposes to explore the deeper extensions of the mineralized shear drifted on in the upper workings by extending the crosscut to intersect its downward projection and drifting 350 feet and raising 60 feet on the structure. Exploration on the shear in the lower workings will be accomplished by surface stripping followed by 60 feet of drifting.

To carry out this project the applicant proposes an access road to be constructed by bulldozer from the end of the mine-to-market road to the lower workings. Here he will construct living quarters and cookhouse for four men. Next he will install an aerial tramway from the area of the living quarters to the portal of the crosscut, a distance estimated by him to be 1,500 feet. This tramway is necessary for transportation of heavy equipment to the Upper workings. At the portal of the crosscut, he plans on erecting a compressor and blacksmith shop. According to

the application this preliminary work will cost nearly $5,500.00. Total drifting and crosscutting, plus the stripping at the lower workings, will cost $8,820.00. Thus, the total cost of the exploration project as outlined by the applicant is in excess of $14,000.00, of which nearly 60 percent is consumed in preparations preliminary to actual exploration.

Inasmuch as the face of the crosscut in the upper workings is so near to the projected location of the downward extension of the mineralized shear in the drift, it is believed that a very minor amount of hand steel work, amounting to very little capital expenditure, can determine if the shear does extend in depth. If this work were successful, then perhaps it would be justifiable to expand the plans to permit the erection of a tramway, etc., such as the applicant proposes.

As a result of mapping the shear in the upper workings, it appears very doubtful that there is sufficient ore mineral contained in the shear to merit any work other than a very small scale project to determine the character of the shear at depth. Because of this questionable ore content of the shear, plus the present difficult accessibility to the property and the possible short working season, it is believed that there is insufficient favorable evidence available to justify a recommendation to approve an exploration project at the Daria prospect.

Enclosure

Distribution:
DMEA (Orig. & 3)
DMEM (2)
USGS (SEO)
Beckert
Puffett

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

Bureau Mines
RECEIVED
JUL 13 1953

July 10, 1953

Memorandum

To: W. R. Griswold, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-3113 (Copper), Norman C. Chapman, Celia Lee prospect, Snohomish County, Washington

I have noted the subject application, which is returned herewith. As the Field Team states an examination will be made, I presume no action is required until its report is received. If you wish to request a field examination, for the sake of the record, I shall be glad to concur.

C. H. Johnson

C. H. Johnson

Attachment

Copy to - Minerals Division
Mr. Kinkel, B-242-A, GSA
C. H. Johnson
Files

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 13 1953

July 10, 1953

Memorandum

To: W. E. Grimwood, DMA

From: C. H. Johnson, Bureau of Mines

Subject: DMA-5113 (Copper), Bonnie C. Gagnon, Gold Lee prospect, Snohomish County, Washington

I have noted the subject application, which is returned herewith. As the Field Team plans an examination will be made, I present no action be required until the report is received. If you wish to request a field examination, for the sake of the record, I shall be glad to concur.

C. H. Johnson

C. H. Johnson

Attachment

CHJohnson:jbc

Copy to - Minerals Division
Mr. Kimball, DMA, GSA
C. H. Johnson
File

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 10 1953

July 10, 1953

Memorandum

To: W. R. Grimesh, DMA

From: C. H. Johnson, Bureau of Mines

Subject: DMA-9113 (Copper), Norman C. Chapman, Cubin Lee prospect, Snohomish County, Washington

I have noted the subject application, which is recommended herewith. As the Field Team plans an examination will be made, I propose no action be required until its report is received. If you wish to request a field examination, for the sake of the record, I shall be glad to concur.

C. H. Johnson

C. H. Johnson

Attachment

Chlorinerecin

Copy to - Minerals Division
Mr. Kinkel, R-Gh-4, GSA
C. H. Johnson
Files

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

July 10, 1953

Memorandum

To: W. R. Grimwald, DGSA

From: C. H. Johnson, Bureau of Mines

Subject: DGSA-3113 (Copper), Emma C. Chapman, Celia Lee prospect, Snohomish County, Washington

I have noted the subject application, which is returned herewith. As the Field Team states an examination will be made, I presume no action is required until its report is received. If you wish to suggest a field examination, for the sake of the record, I shall be glad to concur.

C. H. Johnson

C. H. Johnson

Attachment

CHJohnson:hm

Copy to - Minerals Division
Mr. Kimbal, B-GSB-A, GSA
C. H. Johnson
Files

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

July 7, 1953

Memorandum

To: Executive Officer, DMEA Field Team, Region II

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region II

DMEA - 3113 - Norman C. Chapman.

ROBERT E. ADAMS

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

33980

July 7, 1953

Mr. Norman C. Chapman
Route #1
Box 386B
Snohomish, Washington

Subject: DMEA-3113
Re: Exploration Assistance
Celia Lee #1,#2, #3, #4, #5.

My dear Mr. Chapman:

The receipt of your application dated June 22, 1953, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3113 and referred to the Base Metals Division.

Kindly refer to DMEA-3113 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

3113

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
~~WASHINGTON 25, D. C.~~
So. 157 Howard Street
Spokane 4, Washington

June 24, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Application for assistance
Norman C. Chapman
Route No. 1, Box 386B
Snohomish, Washington

Dear Mr. Selfridge:

Enclosed is an application submitted by Norman C. Chapman, Route No. 1, Box 386B, Snohomish, Washington, for the exploration of 5 unpatented claims in Snohomish County, Washington.

A field examination will be scheduled as soon as possible.

Sincerely yours,

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure
cc: USBM(2)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED
JUN 25 1953
U. S. G. S.
SPOKANE, WASH.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-3113
Metal or Mineral
Date Received 7/6/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Norman C. Chapman - Route #1, Box 386B, Snohomish, Washington

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. Not applicable

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Not applicable

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Not applicable.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract consisting of five unpatended claims located on Section 34 and 35 of Township 29, Range 10 East.

(*b*) State any mine name by which the property is known. Celia Lee #1, Celia Lee #2, Celia Lee #3 Celia Lee #4 and Celia Lee #5 (Formerly known as the Doris Group)

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owner [redacted] Vol. 505 page 593

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Not applicable.

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Snohomish County Courthouse in Volume No's. 48 pages 44, 45, 46, 47 and 48.

(Note: Remainder of MF-103 on attached sheets.)

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Copper and secondarily Scheelite.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 30 days and be completed within 24 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☒ Use of equipment owned by you ☒ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated June 22, 1958

Norman C. Chapman
(Applicant)

By Norman C. Chapman

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.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

No 4, a, b, c,

The Davis property, consisting of five unpatented claims, is in Sec. 34 and 35, (29-108) on the east slope of Red Mountain, south of the Florence Rae claims. The property was first staked in the early 90's, and for several years was known as the Blackman and Brown claims. During the last 40 years, it has had several owners; the last one's were Kelly Summerfield and others of Salton, Washington.

Two veins are on the property. One occurs on the banks of the North Fork of the Salton River at an altitude of about 3,000 ft. and the other is on the mountain slope some 1,500 ft. west and at 3,700 ft. altitude. They are reached from the end of the Salton Basin road by one mile of trail that follows up the North Fork of the Salton River to a place near the lower vein, then leads up the mountain slope to the other.

The upper vein is explored by a drift that trends westward for 250 ft. and follows a nearly vertical mineralized fault zone, 1 - 4 ft. wide which cuts through quartzitic and hornfelsic phases of the old metamorphic series. Two narrow aplite dikes crop out a few feet above the portal. In the drift, at 57 ft. from the portal, a shaft has been sunk to a reported depth of 40 ft., which is now full of water. The first 100 ft. of drift exposes chalcopyrite, pyrite, and a little sphalerite that occur intermixed with breccia and also as irregularily spaced, lenticular masses 6 - 30 inches thick. In some places, especially near the portal, narrow branch fractures leading out into the walls, are also well mineralized by sulphides. The entire vein contains an unusually small amount of quartz. Considerable malachite and some chrysocolla and bornite occur at places in the vein, and malachite stains the walls of the drift near the portal. Beyond 100 ft. the vein thins and varies in thickness from 1 - 12 inches. A cross cut 30 ft. back from the face cuts three small parallel fractures 6 inches apart, and chalcopyrite together with pyrite, sphalerite, and quartz occur between two of them.

From a place on the surface about 225 ft. north of the portal of the drift and 100 ft. lower in elevation, a cross cut was driven southward in quartzite for about 200 ft., but does not reach the vein. It cuts two narrow dikes that are probably off shoots of a large mass of quartz diorite that crops out about 200 ft. lower on the hillside.

The lower vein is developed by two 6 ft. drifts, driven into opposite banks of the river, and a shaft 10 - 15 ft. deep at one of the portals. The drifts are on a shear zone striking N. 34° E. and dipping 70° N.E. through quartz diorite. Only a small amount of mineralization is shown in them, but the dump of the shaft contains large blocks of nearly massive chalcopyrite, indicating that a vein at least 11 inches thick is in this working. Quartz and a small amount of scheelite are associated with the chalcopyrite. Brush and gravel prevent observation of the vein beyond the banks of the river.

This discription has been copied from

Geology and Ore Deposits of the Salton Basin,
Snohomish County Washington
by
Ward Carithers and A.E. Guard
Bulletin No. 36

4. Physical description:
(a),(b),(c) Information on accompanying papers.
(d) Accessibility to this property by twenty six miles of County and mine to market roads from Sultan, Wash., then by trail for about one mile. Shipping by truck to the Tacoma smelter, approximately one hundred and ten miles.
Supplies are available by the above stated roads, and then twelve miles of State highways to Everett, Washington.
(e) The headwater of the Sultan river are available for both power and water. Material and supplies are available from nearby towns and citys. Manpower, also available.

5. The exploration project:
(a) Copper is the primary ore. Secondarily with further exploration for scheelite.

(b) 1. First constructing a cat road from the bridge across the Sultan River to the mill site and lower discovery, approximately one mile. This is necessary to move in the equipment, compressor, material, fuels and etc.
2. Stripping overburden from lower discovery and further exploration by open cuts and drifting, chalcapyrite and scheelite being the primary minerals of exploration.
3. At the upper discovery, completing the crosscut to contact with vain approximately 30 ft. than drifting easterly to the surface 200 ft. Than drifting westerly some 150 ft., thus blocking out considerable tonage. Also, raising 60 ft. to the shaft of the upper drift.

(c) Thirty days, and completing contract within two six month seasons.

(d) I have had two years of mining experience with a miner of forty one years experience. I have had experience as a milwright, steamfitter, road construction, carpenter and electrician. Robert Curtiss of Monroe, Wash. will supervise the operations.

6. Estimates of cost:
(a) None.
(b) 1. Laber - three men, which will be muckers, 2.15 per hr.
Machine man 2.15 per hr.
Equipment operator 2.15 per hr.
2. Supervision)
Engineering) - Robert Curtiss at a monthly salary.
Geological)
(c) Operating materials and supplies to be purchased.

2 - muck sheets, 4'x8'x1/4"	at 12.00 ea.	24.00
4 - muck shovels	3.80 ea.	15.20
4 - Shovels, #2	3.50 ea.	14.00
2 - Hammers, 10 lbs.	3.00 ea.	6.00
2 - Axes, DB	3.75 ea.	7.50
2 - Wrenches, stillson	5.00 ea.	10.00
4 - Anchers, tramway, 1¼"x6'		12.50
2 - Much cars	100.00 ea.	200.00

(d) Operating equipment to be purchased.

1 - Air drill	340.00)
1 - Air leg	150.00)
1 - Air leg (slopper)	150.00)
1 - Air grinder	185.00)
5 - 6' steel drills	102.00)

(d)(Con't.)

5 - 3' steel drills	at 18.00 ea.	90.00)	Complete
Air and water hose		94.00)	Unit
6 - Air hose couplings	at 3.30 ea.	19.80)	
3 - grinder wheels	at 9.90 ea.	29.70)	$1170.00
1 - Wrench, (air drill)		9.50)	

Operating equipment furnished by operator

1 - D4 caterpillar with dozer blade.
1 - Single stage air compressor.

(e) None

(f) 1. A construction of living quarters and cookhouse for four men at mill site.
2. Construction of compressor and blacksmith shop at portal of crosscut at 3600 ft. elevation.
3. Approximately 1500 ft. of airial tramway from upper portal to mill site landing.

1 - A	Construction of living quarters, cookhouse -	
	Log cabin - 14' x 24'	1083.60
	Windows, doors, logs, flooring, etc.	316.40
		1400.00
2 - B	Construction of compressor and blacksmith shop -	
	Labor 3 men at 2.15 per hr.	1083.60
	Drilling and surfacing building area at lower haulage level.	100.00
	Timbers, logs, windows, doors, lumber and etc.	316.40
		1500.00
3 - C	Installing airial tramway	
	Installing anchors, cable, 3 men, 5 day	254.40
4 -		

(g) Analytical work 50.00
Workmen's compensation
Liability insurance
Payroll taxes

6. (a) Drifting, crosscutting, raising, per fft.

Powder	at 11.00 per box	2.20	
Primers (elect)	at 4.00 per.	1.30	
Fuel	at .26	1.50	Crosscutting
Steel	at 21.40 per 6' drill	.75	Drifting
Pipe	(air) 600' at .80 per. ft.	.80	Raising
Rail	1200' at .60 per ft.	1.20	
Rail ties and spikes at 21.00 per keg.		.20	Total footage
Labor	- 3 men at 2.15 per hr.	8.60	500I
		~~16.55~~	8500.00 1825.00

Whitch consists of 30' of crosscuting, and raising approximately 60', drifting westerly approx. 150' from shaft and drifting easterly from the shaft to the surface. This work being done at the crosscut and upper levels at 3600' elevation. Also, at the lower discovery drifting 60'.

6 A 2 Cat road to property about one mile -

6 a 2 Cat road to property about one mile

Cat and operator at 8:00 per hr. approx. 160 hrs.	1280.00
Labor - 3 mmn at 2.15 per hr. approx 20 days	1032.00
Powder at 11.00 per box - 10 boxes	110.00
Compressor, drill, primers, - 10 boxes	158.00
	2580.00

6 a 3 Stripping overburden from lower discovery, and at contact area

Cat and operator at 8:00 per hr. 5 days	320.00
	90.0.00

Total cost 14,208

I will furnish all labor (3 men) for this project. a compressor, and tramline cable.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
So. 157 Howard Street
Spokane 4, Washington

June 24, 1953

Mr. George C. Selfridge, Chairman
Operating Committee, DMEA
Department of the Interior
Washington 25, D. C.

Re: Application for assistance
Norman C. Chapman
Route No. 1, Box 386B
Snohomish, Washington

Dear Mr. Selfridge:

Enclosed is an application submitted by Norman C. Chapman, Route No. 1, Box 386B, Snohomish, Washington, for the exploration of 5 unpatented claims in Snohomish County, Washington.

A field examination will be scheduled as soon as possible.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region II

Enclosure
cc: USBM(2)

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED
JUN 25 1953
U. S. G. S.
SPOKANE, WASH.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-3113
Metal or Mineral
Date Received 7/6/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Norman C. Chapman - Route #1, Box 386B, Snohomish, Washington

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. Not applicable

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Not applicable

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Not applicable.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract consisting of five unpatended claims located on Section 34 and 35 of Township 29, Range 10 East.

(*b*) State any mine name by which the property is known. Celia Lee #1, Celia Lee #2, Celia Lee #3 Celia Lee #4 and Celia Lee #5 (Formerly known as the Doris Group)

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owner [redacted] Vol. 505 page 593

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Not applicable.

(*e*) If you own the land, describe any liens or encumbrances on it None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Snohomish County Courthouse in Volume No's. 48 pages 44, 45, 46, 47 and 48.
(Note: Remainder of MF-103 on attached sheets.)

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(a) State the mineral or minerals for which you will explore Copper, and Secandarily Scheelite.

(b) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(c) The work will start within 30 days and be completed within 24 months from the date of an exploration project contract.

(d) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(a) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(b) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(c) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(d) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(e) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(f) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(g) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(h) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (a) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(b) How do you propose to furnish your share of the costs?

☐ Money ☒ Use of equipment owned by you ☒ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated June 22, 1953

Norman C. Chapman
(Applicant)

By Norman C. Chapman

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.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

No 4, a, b, c,

The Basin property, consisting of five unpatented claims, is in Sec. 34 and 35, (29-12E) on the east slope of Red Mountain, south of the Florence Rae claims. The property was first staked in the early 90's, and for several years was known as the Blackman and Brown claims. During the last 10 years, it has had several owners; the last one's were Emily Summerfield and others of Sultan, Washington.

Two veins are on the property. One occurs on the banks of the North Fork of the Sultan River at an altitude of about 3,000 ft. and the other is on the mountain slope some 1,500 ft. west and at 3,700 ft. altitude. They are reached from the end of the Sultan Basin road by one mile of trail that follows up the North Fork of the Sultan River to a place near the lower vein, then leads up the mountain slope to the other.

The upper vein is explored by a drift that trends westward for 250 ft. and follows a nearly vertical mineralized fault zone, 1 - 4 ft. wide which cuts through quartzite and hornfelsic phases of the old metamorphic series. Two narrow aplite dikes crop out a few feet above the portal. In the drift, at 37 ft. from the portal, a shaft has been sunk to a reported depth of 40 ft., which is now full of water. The first 100 ft. of drift exposes chalcopyrite, pyrite, and a little sphalerite that occur intermixed with brecciated and also as irregularly spaced, lenticular masses 6 - 30 inches thick. In some places, especially near the portal, narrow branch fractures leading out into the walls, are also well mineralized by sulphides. The entire vein contains an unusually small amount of quartz. Considerable malachite and some chrysocolla and bornite occur at places in the vein, and malachite stains the walls of the drift near the portal. Beyond 100 ft. the vein thins and varies in thickness from 1 - 18 inches. A cross cut 30 ft. back from the face cuts three small parallel fractures 6 inches apart, and chalcopyrite together with pyrite, sphalerite, and quartz occur between two of them.

From a place on the surface about 225 ft. north of the portal of the drift and 100 ft. lower in elevation, a cross cut was driven southward in quartzite for about 200 ft., but does not reach the vein. It cuts two narrow dikes that are probably off shoots of a large mass of quartz diorite that crops out about 200 ft. lower on the hillside.

The lower vein is developed by two 6 ft. drifts, driven into opposite banks of the river, and a shaft 10 - 15 ft. deep at one of the portals. The drifts are on a shear zone striking N. 34° E. and dipping 70° N.E. through quartz diorite. Only a small amount of mineralization is shown in them, but the dump of the shaft contains large blocks of nearly massive chalcopyrite, indicating that a vein at least 11 inches thick is in this working. Quartz and a small amount of schealite are associated with the chalcopyrite. Brush and soil prevent observation of the vein beyond the banks of the river.

This description has been copied from

Geologgnand Ore Deposites of the Sultan Basin,
Snohomish County Washington
by
Ward Smithers and A.K. Guard
Bulletin No. 36

4. Physical description:
(a),(b),(c) Information on accompanying papers.
(d) Accessibility to this property by twenty six miles of County and mine to market roads from Sultan, Wash., then by trail for about one mile. Shipping by truck to the Tacoma smelter, approximately one hundred and ten miles.
Supplies are available by the above stated roads, and then twelve miles of State highways to Everett, Washington.
(e) The headwater of the Sultan river are available for both power and water. Material and supplies are available from nearby towns and citys. Manpower, also available.

5. The exploration project:
(a) Copper is the primary ore. Secondarily with further exploration for scheelite.

(b) 1. First constructing a cat road from the bridge across the Sultan River to the mill site and lower discovery, approximately one mile. This is necessary to move in the equipment, compressor, material, fuels and etc.
2. Stripping overburden from lower discovery and further exploration by open cuts and drifting, chalcapyrite and scheelite being the primary minerals of exploration.
3. At the upper discovery, completing the crosscut to contact with vain approximately 30 ft. than drifting easterly to the surface 200 ft. Than drifting westerly some 150 ft., thus blocking out considerable tonage. Also, raising 60 ft. to the shaft of the upper drift.

(c) Thirty days, and completing contract within two six month seasons.

(d) I have had two years of mining experience with a miner of forty one years experience. I have had experience as a milwright, steamfitter, road construction, carpenter and electrician. Robert Curtiss of Monroe, Wash. will supervise the operations.

6. Estimates of cost:
(a) None.
(b) 1. Labor - three men, which will be muckers, 2.15 per hr.
Machine man 2.15 per hr.
Equipment operator 2.15 per hr.
2. Supervision)
Engineering) - Robert Curtiss at a monthly salary.
Geological)
(c) Operating materials and supplies to be purchased.

2 - muck sheets, 4'x8'x1/4"	at 12.00 ea.	24.00
4 - muck shovels	3.80 ea.	15.20
4 - Shovels, #2	3.50 ea.	14.00
2 - Hammers, 10 lbs.	3.00 ea.	6.00
2 - Axes, DB	3.75 ea.	7.50
2 - Wrenches, stillson	5.00 ea.	10.00
4 - Anchors, tramway, $1\frac{1}{4}$"x6'		12.50
2 - Much cars	100.00 ea.	200.00
		289.70

(d) Operating equipment to be purchased.

1 - Air drill	340.00)
1 - Air leg	150.00)
1 - Air leg (slopper)	150.00)
1 - Air grinder	185.00)
5 - 6' steel drills	102.00)

(d)(Con't.)

5 - 3' steel drills	at 18.00 ea.	90.00)	Complete
Air and water hose		94.00)	Unit
6 - Air hose couplings	at 3.30 ea.	19.80)	
3 - grinder wheels	at 9.90 ea.	29.70)	$1170.00
1 - Wrench, (air drill)		9.50)	

Operating equipment furnished by operator 247.00

289
242
531

1 - D4 caterpillar with dozer blade.
1 - Single stage air compressor.

(e) None

(f) 1. A construction of living quarters and cookhouse for four men at mill site.
2. Construction of compressor and blacksmith shop at portal of crosscut at 3600 ft. elevation.
3. Approximately 1500 ft. of airial tramway from upper portal to mill site landing.

1 - A Construction of living quarters, cookhouse -

Log cabin - 14' x 24'	1083.60
Windows, doors, logs, flooring, etc.	316.40
	1400.00

2 - B Construction of compressor and blacksmith shop -

Labor 3 men at 2.15 per hr.	1083.60
Drilling and surfacing building area at lower haulage level.	100.00
Timbers, logs, windows, doors, lumber and etc.	316.40
	1500.00

3 - C Installing airial tramway
Installing anchors, cable, 3 men, 5 day 254.40

4 -

(g) Analytical work 50.00
Workmen's compensation
Liability insurance
Payroll taxes

6. (a) Drifting, crosscutting, raising, per fft.

Powder at 11.00 per bos	2.20	
Primers (elect) at 4.00 per.	1.30	
Fuel at .26	1.50	Crosscutting
Steel at 21.40 per 6' drill	.75	Drifting
Pipe (air) 600' at .80 per. ft.	.80	Raising
Rail 1200' at .60 per ft.	1.20	
Rail ties and spikes at 21.00 per keg.	.20	Total footage
Labor - 3 men at 2.15 per hr.	8.60	500I
		8500.00

Whitch consists of 30' of crosscuting, and raising approximately 60', drifting westerly approx. 150' from shaft and drifting easterly from the shaft to the surface. This work being done at the crosscut and upper levels at 3600' elevation. Also, at the lower discovery drifting 60'.

6 A 2 Cat road to property about one mile -

6 a 2 Cat road to property about one mile

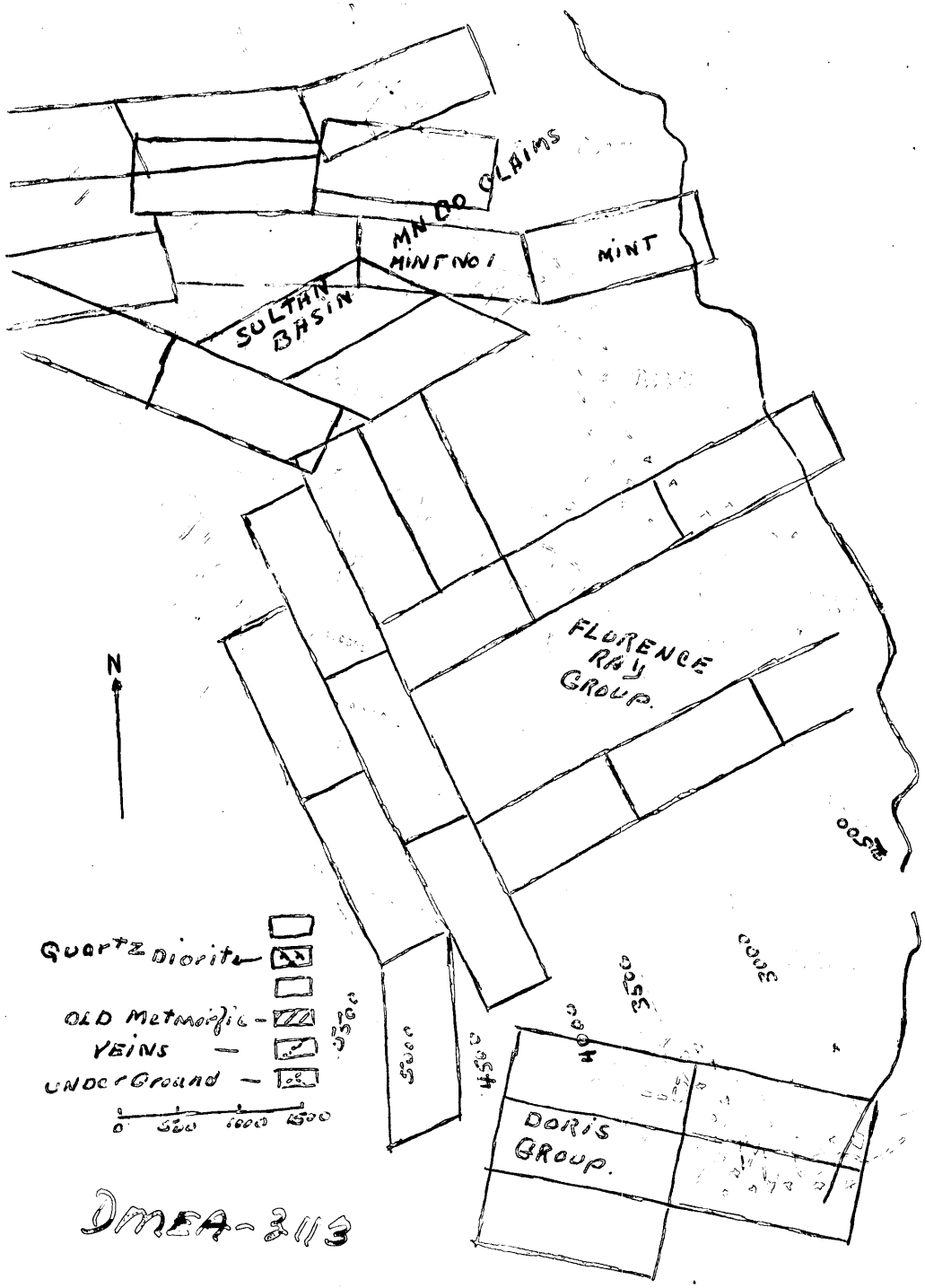
Cat and operator at 8:00 per hr. approx. 160 hrs.		1280.00
Labor - 3 men at 2.15 per hr. approx 20 days		1032.00
Powder at 11.00 per box - 10 boxes		110.00
Compressor, drill, primers, - 10 boxes		158.00
		2580.00

6 a 3 Stripping overburden from lower discovery, and at contact area

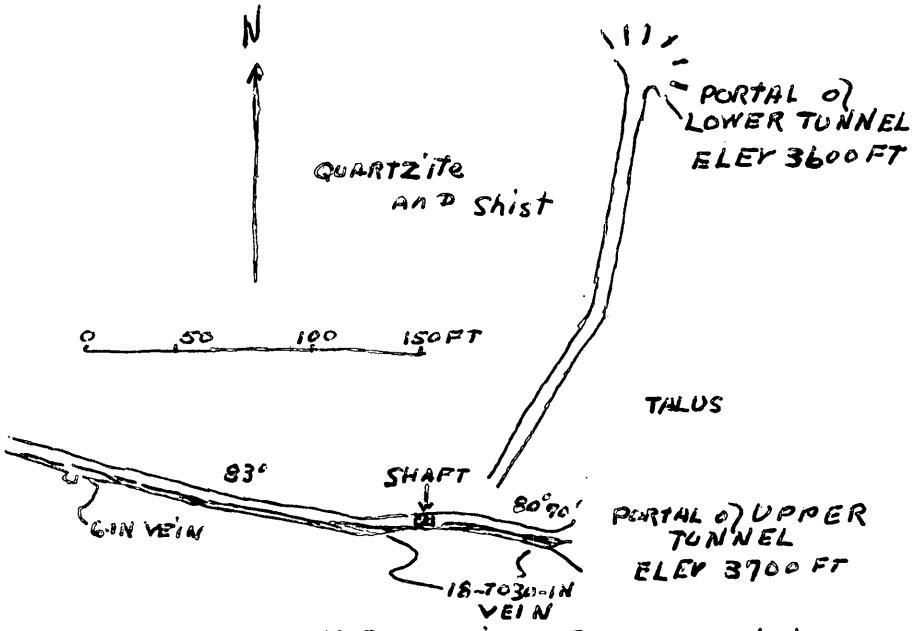
Cat and operator at 8:00 per hr.	5 days	320.00

Total cost 14,208

I will furnish all labor, (3 men) for this project. a compressor, and tramline cable.

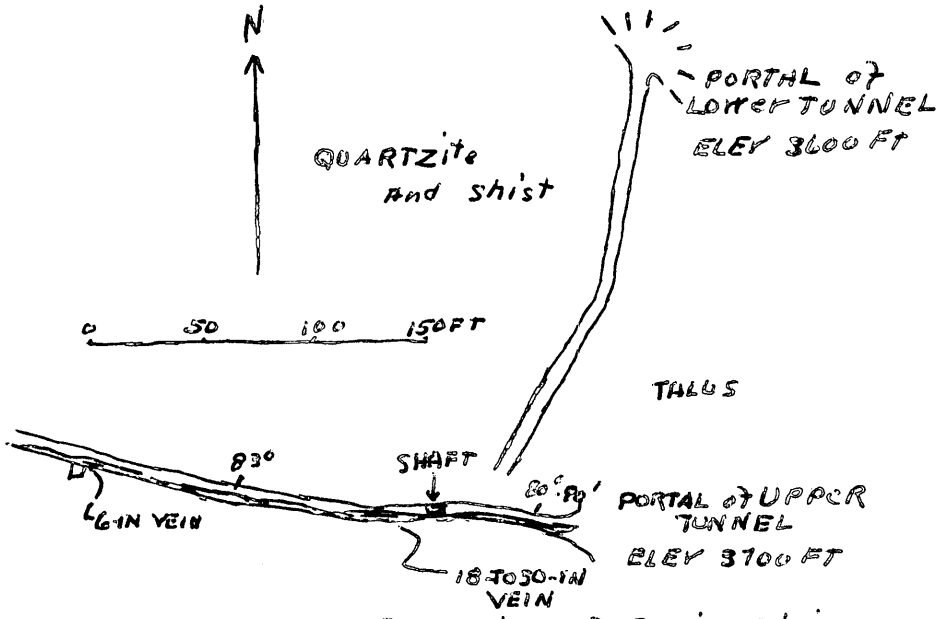

MN 00 CLAIMS
MINT NO 1
MINT
SULTAN BASIN
FLORENCE RAY GROUP.
N
Quartz Diorite
OLD Metmorfic
VEINS
UNDERGROUND
0 500 1000 1500
5500
4500
4000
3500
3000
2500
DORIS GROUP.

DMEA-2113



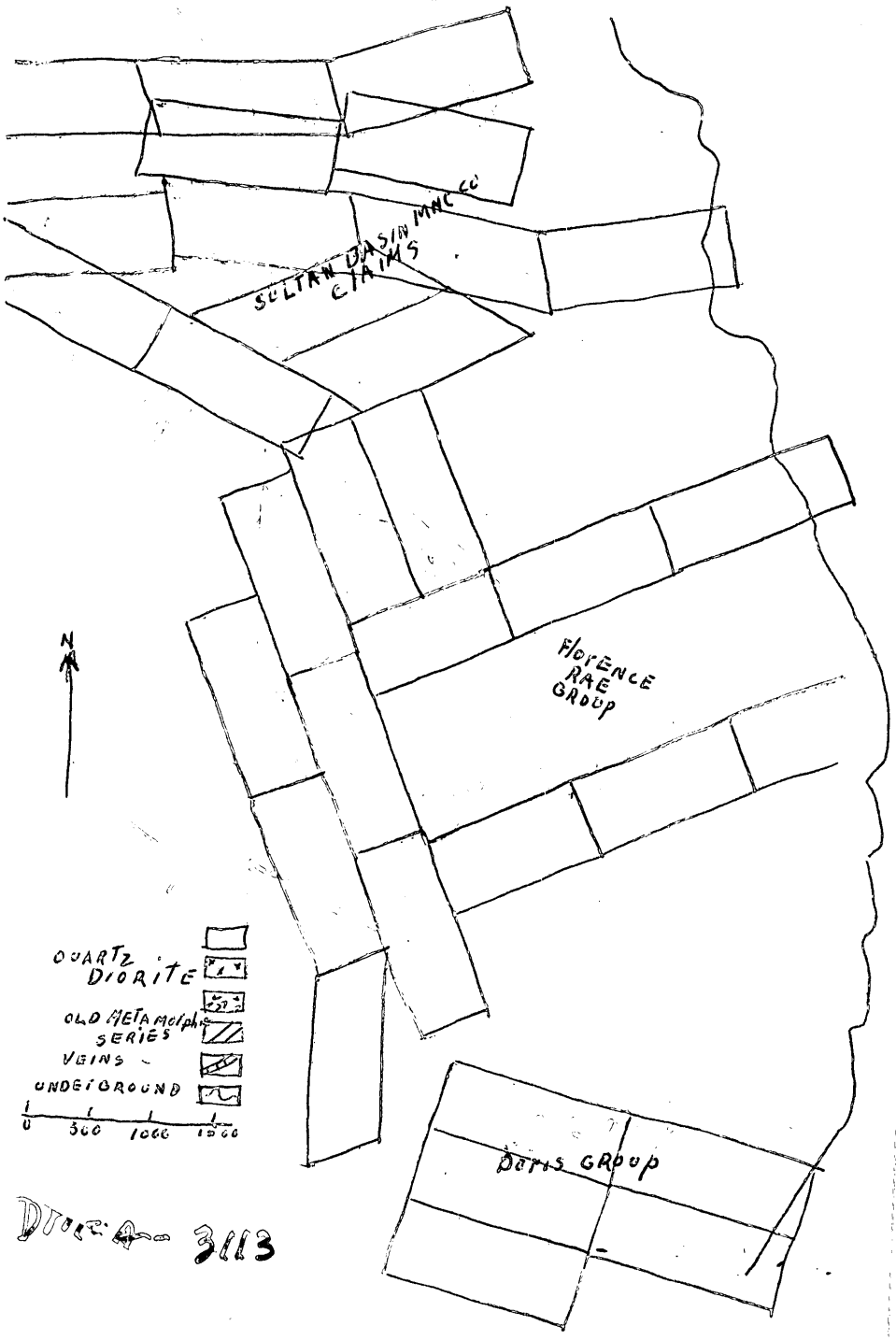
SKETCH of workings of DORIS claims

DMEA-3113



Sketch of Workings of Doris Claims

DMEA - 3113


SULTAN BASIN MNG CO
CLAIMS
FLORENCE
RAE
GROUP
N
QUARTZ
DIORITE
OLD METAMORPHIC
SERIES
VEINS
UNDERGROUND
0
500
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1500
DENIS GROUP

DUCA 3113

WASHINGTON 25, D. C.

OFFICIAL BUSINESS

U. S. GEOLOGICAL SURVEY
SUITE 117 HOWARD ST.
SPOKANE 4, WASHINGTON

SPOKANE, WASH.
JY 1 7 30PM
1955

Mr. George C. Selfridge, Chairman

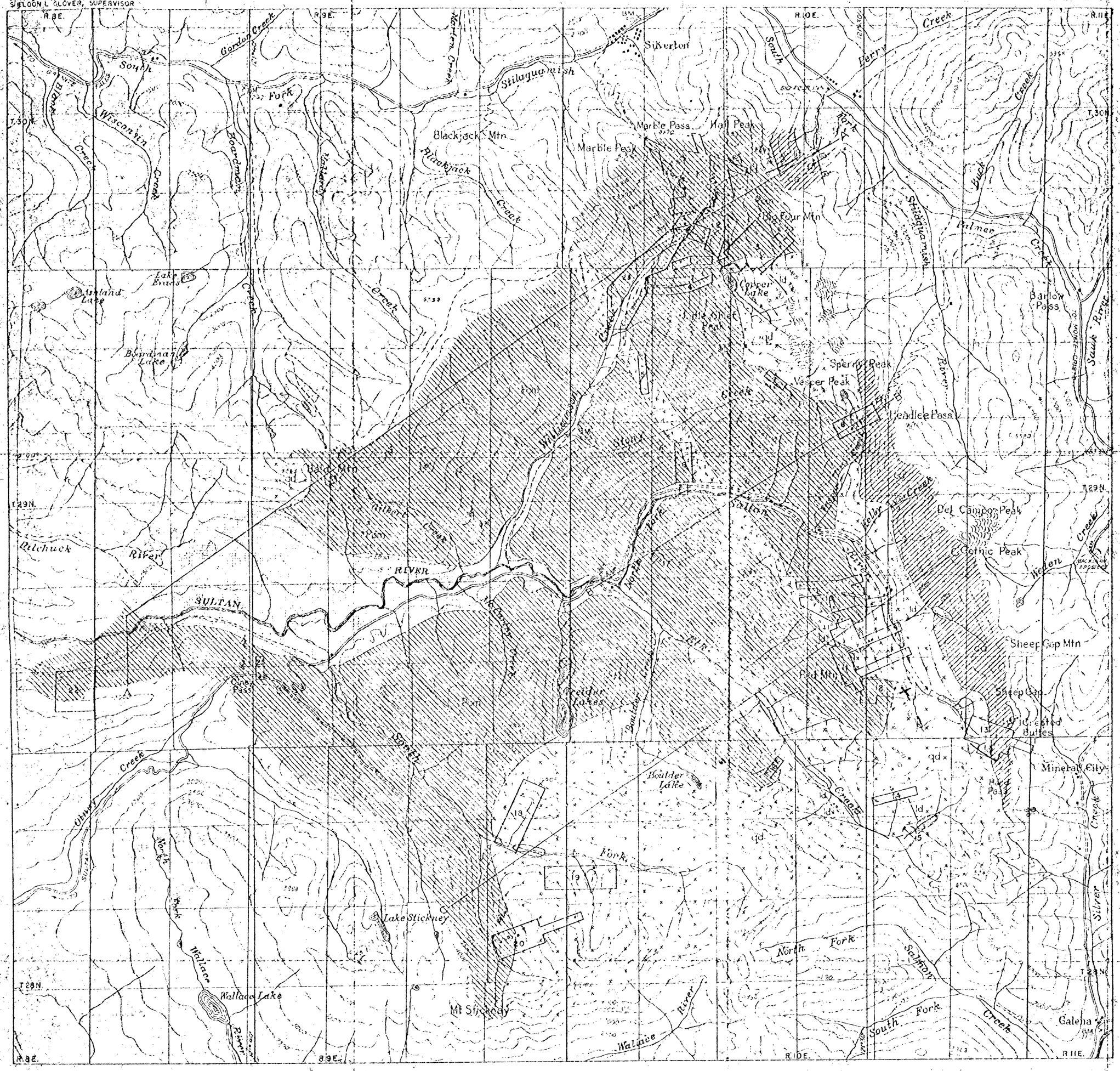
Operating Committee

Defense Minerals Exploration Administration

Department of the Interior

Washington 25, D. C.

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION AND DEVELOPMENT
DIVISION OF MINES AND MINING
SIGLOON L. GLOVER, SUPERVISOR



GEOLOGIC MAP AND SECTIONS OF THE SULTAN BASIN, SNOHOMISH COUNTY, WASHINGTON

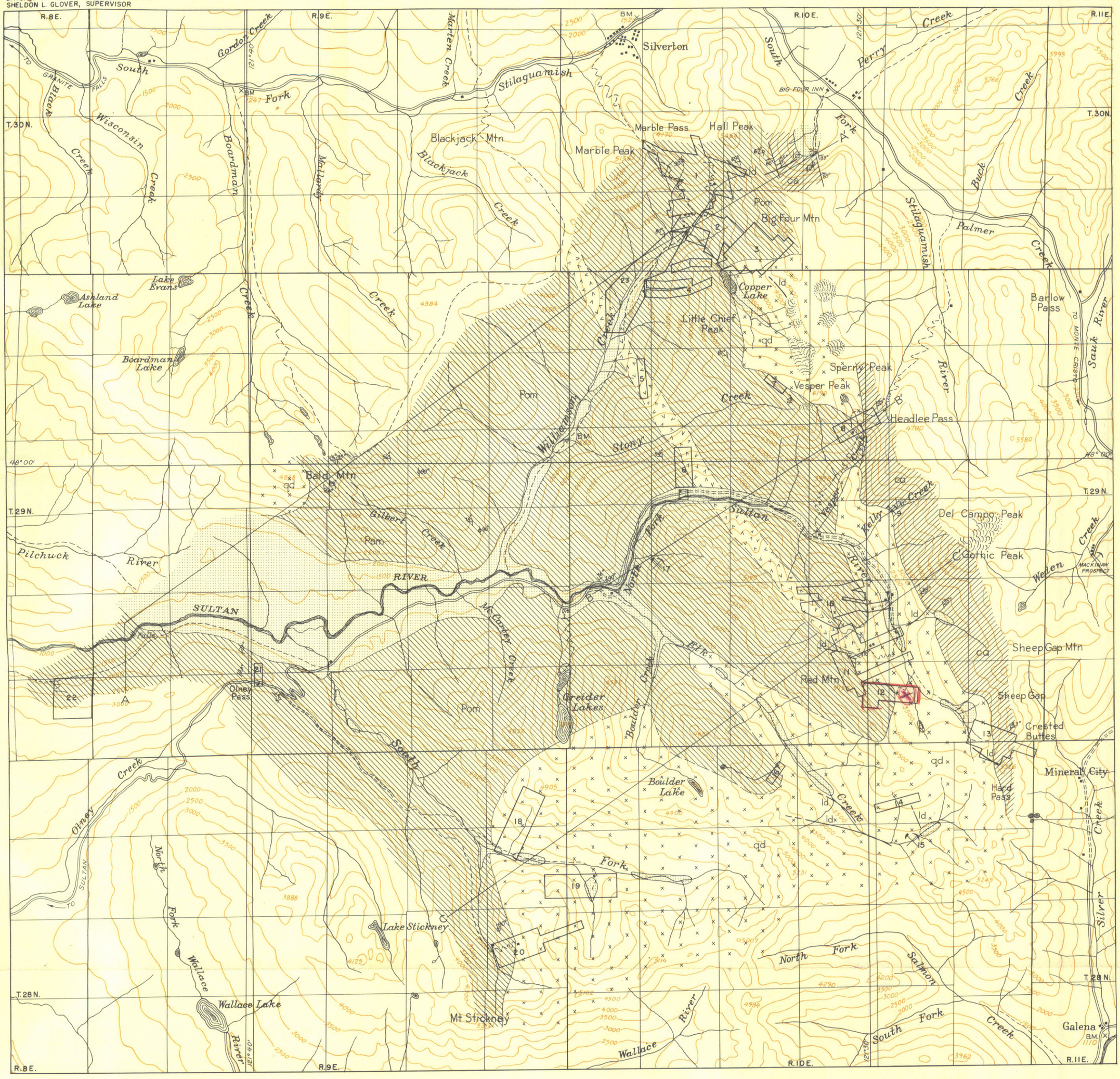
BASE FROM U.S. GEOLOGICAL SURVEY

TRUE NORTH
MAGNETIC NORTH
23½°
APPROXIMATE MEAN DECLINATION, 1921

Scale
1 ½ 0 1 2 MILES
CONTOUR INTERVAL 500 FEET
DATUM IS MEAN SEA LEVEL

DMEA-3113

GEOLOGY BY A.K. GUARD AND WARD CARITHERS
SURVEYED IN 1943-44
DRAWN BY V.L. FENLEY



GEOLOGIC MAP AND SECTIONS OF THE SULTAN BASIN, SNOHOMISH COUNTY, WASHINGTON

DMEA-3113

EXPLANATION

BEDDED ROCKS

QUATERNARY

Qg — GLACIOFLUVIAL DEPOSITS
(Silt, sand, and gravel)

MESOZOIC (?)

ca — CONGLOMERATE-ARGILLITE SERIES
(Principally quartzitic conglomerate and sandstone. Some interbedded argillite)

PALEOZOIC

Pom — OLD METAMORPHIC SERIES
(Principally sedimentary in origin; some serpentine included)

IGNEOUS INTRUSIVE ROCKS

TERTIARY

ld — LATE DIKES

MESOZOIC OR TERTIARY

qd — QUARTZ DIORITE

pr — PERIDOTITE
(Mostly serpentinized)

40° — STRIKE AND DIP OF BED

40° — STRIKE AND DIP OF OVERTURNED BEDS

70° — FAULT, SHOWING DIP

9 — PROSPECTS WITH UNKNOWN OR ABANDONED BOUNDARY LINES

12 — APPROXIMATE BOUNDARIES OF MINING PROPERTIES. NUMBERS REFER TO NAME IN LIST BELOW

LIST OF MINING PROPERTIES

1 45 MINES, INC.
2 MILWAUKEE
3 SILVER HORSE-SHOE
4 LITTLE CHIEF
5 ALA DICKSON
6 MOUNTAIN CEDAR
7 48-55
8 SUNRISE
9 KELLY CREEK
10 SULTAN BASIN MINING CO.
11 FLORENCE RAE
12 DORIS
13 SULTAN KING
14 MARVEL
15 JONES
16 BLUE STONE
17 NEWHOUSE
18 ST. THERESA
19 GOLDEN EAGLE
20 KROMONA MINES, INC.
21 BORDER QUEEN
22 LOCKWOOD PYRITE
23 ALPHA AND BETA PLACERS

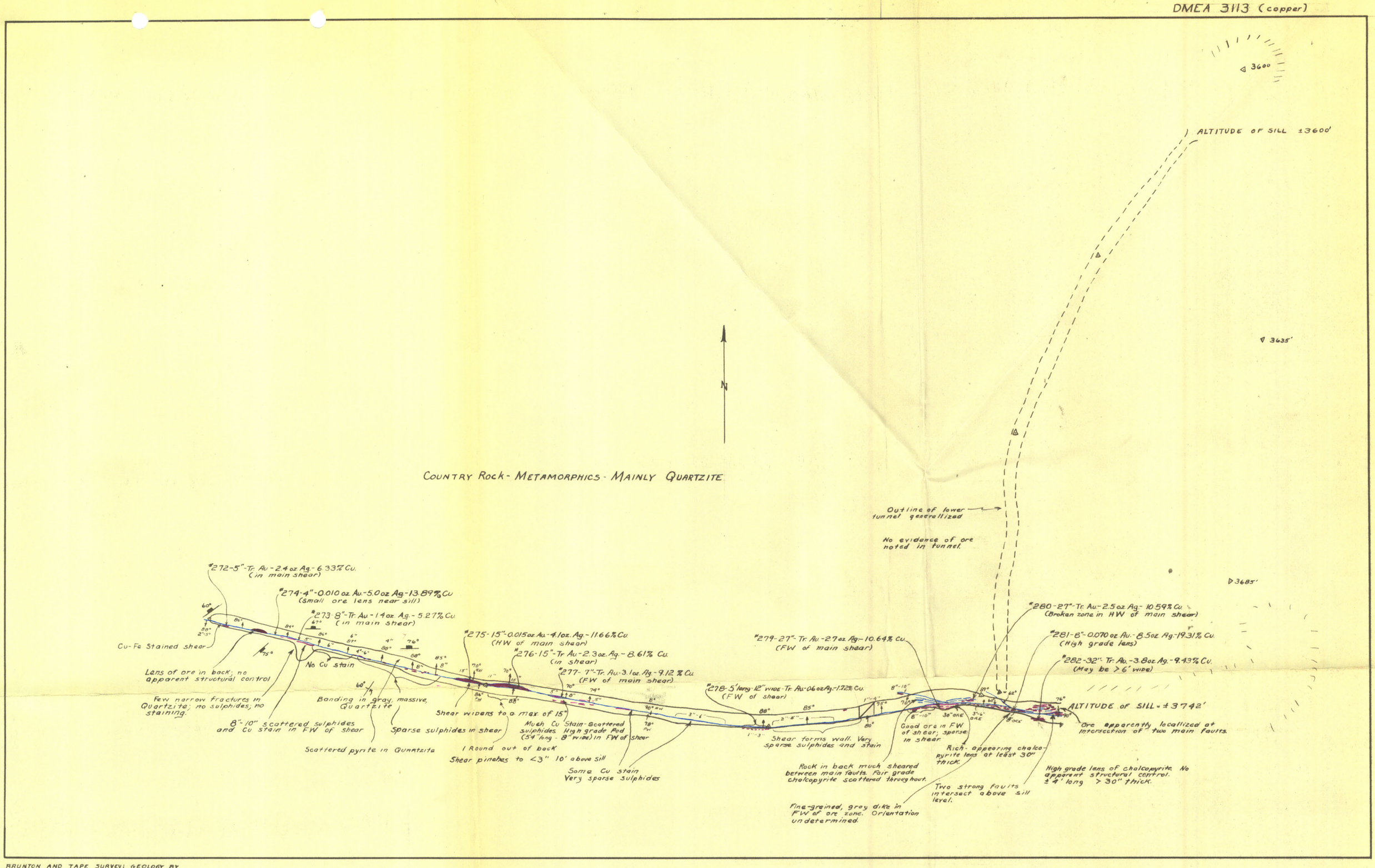
BASE FROM U. S. GEOLOGICAL SURVEY

TRUE NORTH — MAGNETIC NORTH 23½°
APPROXIMATE MEAN DECLINATION, 1921

Scale
1 ½ 0 1 2 MILES
CONTOUR INTERVAL 500 FEET
DATUM IS MEAN SEA LEVEL

GEOLOGY BY A.K. GUARD AND WARD CARITHERS
SURVEYED IN 1943-44
DRAWN BY V. L. FENLEY

DMEA 3113 (copper)



BRUNTON AND TAPE SURVEY; GEOLOGY BY WILLARD P. PUFFETT, USGS, 9/20/53

PLAN MAP AND GEOLOGY OF UPPER WORKINGS

DORIS PROSPECT

SULTAN BASIN, SNOHOMISH COUNTY, WASHINGTON

SCALE 20 10 0 20 40 60 FEET