MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

RECEIVED
FEB 24 1956

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of Stevens, State of Washington, described as follows:1/ The EDNA GROUP of Lode Mining claims as located and held by the undersigned, and recorded in the office of the County Auditor of said County and State in the records of Quartz Mining locations as follows:
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Edna-Log Cabin claim, recorded in said Book 19 on page 194 thereof; and
Edna-September Lode claim recorded in said Book 19 on page 190 thereof,

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Dated this 21st day of February, 1956.

RARE METAL MINES INC., [Seal]

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Attest, Victor S. Green [Seal] Secretary

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Victor S. Green

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RARE METAL MINES, INC. - SPOKANE, WASHINGTON
SEAL
INCORPORATED - NOV. 1, 1938

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SEAL
INCORPORATED - NOV. 1, 1938

File Copy
Surname

Klugescheid
Minerals
Copper
Kilgaard
Mattin
Gylman

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

MAY 25 1956

Mr. Clarence R. Carr
Valley, Washington

Re: Docket No. DMEA-4192 (Copper)
Carr Brothers
Edna Group
Stevens County, Washington

Dear Mr. Carr:

Your application for aid for an exploration project and other reports available to us in Washington referring to your application 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 for the National Defense Program.

Careful study of all our information, although noting a small amount of copper mineralization on your lease, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that 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. Mittendorf

Administrator

WPKlugescheid/er 5/24/56

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Hillsgaard, USGS
Region I, NW Dist. (2)
Chron.

R.G.S.

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

May 24, 1956

Memorandum

To: The Administrator

From: Chief, Base Metals Division

Subject: Denial of Application, Docket No. DMEA-4192 (Copper), Carr Brothers, Edna Group, Stevens County, Washington

The cited application, dated February 15, 1956, was received by this office on February 24.

The Applicants proposed to explore the property by means of 100 feet of shaft sinking from the 265 level to the 365 level and then drifting on the vein for 500 feet on the lower level. The estimated cost of the work was $35,000.00. Their theory was that the grade of ore was improving with depth.

The property was examined and sampled by the Field Team on March 29 and 30, and April 2, 1956. This property had been previously examined by Willard Puffett in 1951 but at that time the principal underground workings were inaccessible. The former application, DMA-776X, was denied April 10, 1952 because the probability of finding a significant ore body by the proposed program seemed remote. It was stated in the letter of denial to the Applicants, that should the principal workings be made accessible for examination, the DMA would consider a new application. Since the first application was denied the Edna shaft workings have been rehabilitated and unwatered.

Assuming a minimum width of 3 feet, eight samples taken on the 180 level would give an average grade of 1.20 per cent copper. Again assuming a minimum mining width of 3 feet, twenty-two samples taken at eighteen places on the 260 level would give an average grade of 1.29 per cent copper. Gold and silver values in the vein are negligible.

The Field Team states: "Although the vein zone is wider where exposed in the lower levels than the near-surface workings would indicate, the copper content is too low to be of economic interest. Considering that past exploration along the vein has failed to find a significant ore body and definitely points to the submarginal nature of the deposit, it appears that Government participation in any program to test the Edna vein is not warranted and it is recommended that the application be denied."

We concur with the recommendations of the Field Team and the commodity member of the Geological Survey that this application be denied. The commodity member of the Bureau of Mines seems to think that the proposed project presents possibilities of success. We cannot agree that rock of this grade is of economic importance in a deposit of this width.

W R Griswold

W. R. Griswold

File Copy
Surname
Klugescheid
Arnold
Yapp

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DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
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WPKlugescheid/er

Copy to: Docket
Base Metals
Chron.

IN REPLY REFER TO:

RECEIVED

MAY 22 1956

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

May 22, 1956

Re: DMEA 4192
Carr Brothers
Edna Mine
Stevens County, Washington
$35,000.00 - Copper

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

The applicants requested assistance in deepening the Edna shaft and drifting from it at a lower horizon.

The mine was the subject of a previous application which was denied, DMA 776X.

The applicants persisted, reopened the shaft and unwatered the mine to the 260 level. The applicants reported that the 260 level disclosed the vein for a length of 500 feet, widths from 4 to 14 feet and "running" 5 to 10 percent copper. Previous sampling had shown a vein structure at the 110 and 180 foot levels. The sampling data for the 110, 180, and 260 levels, as taken by the examiners, show:--

Level	Length (feet)	Width (feet)	Grade (% Cu)
110	50	0.85	2.76
180	75	2.475	1.77
260	220	4.65	1.34

Reference to the geologic-sampling maps, Plate 3 of the Field Team report, shows the 2 samples taken on the 110 level are 50 feet apart, and probably are not representative of the vein for the distance drifted. The 180 level samples indicate a narrow streak of sulfide 1.32 feet wide, sampled in 4 places in a length of 75 feet. The average grade is 2.62%. Because the drift is offset and the vein is not drifted upon 40 feet of the 75-foot length is inferred.

The 260 level, instead of being 500 feet long as stated in the application, shows 305 feet of drifting in the vein structure and 100 feet of crosscut in dolomite. In like manner the copper values are much overstated in the application judging by the examiner's sampling, but the vein does appear to be stronger than on the levels above. Thus an ore shoot of sorts, 125 feet long, 5.32 feet wide and averaging 1.46% copper, is indicated. A second short ore shoot 30 feet long may be inferred and the south end is 'open' but not promising.

This analysis differs somewhat from that of the examiner's but does not better the all-around picture. The vein structure, as known, is longest on the lowest level but even so is not promising.

As the examiners conclude, " . . . the copper content is too low to be of economic interest." I concur with the recommendation of the examiners and the Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
MAY 22 1956

May 22, 1956

Re: DMEA 4192
Carr Brothers
Edna Mine
Stevens County, Washington
$35,000.00 - Copper

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: H. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

The applicants requested assistance in deepening the Edna shaft and drifting from it at a lower horizon.

The mine was the subject of a previous application which was denied, DMA 776X.

The applicants persisted, reopened the shaft and unwatered the mine to the 260 level. The applicants reported that the 260 level disclosed the vein for a length of 300 feet, widths from 4 to 14 feet and "running" 5 to 10 percent copper. Previous sampling had shown a vein structure at the 110 and 180 foot levels. The sampling data for the 110, 180, and 260 levels, as taken by the examiners, show:--

Level	Length (feet)	Width (feet)	Grade (% Cu)
110	50	0.85	2.76
180	75	2.475	1.77
260	220	4.65	1.34

Reference to the geologic-sampling maps, Plate 3 of the Field Team report, shows the 2 samples taken on the 110 level are 50 feet apart, and probably are not representative of the vein for the distance drifted. The 180 level samples indicate a narrow streak of sulfide 1.32 feet wide, sampled in 4 places in a length of 75 feet. The average grade is 2.66%. Because the drift is offset and the vein is not drifted upon 40 feet of the 75-foot length is inferred.

The 260 level, instead of being 300 feet long as stated in the application, shows 305 feet of drifting in the vein structure and 100 feet of crosscut in dolomite. In like manner the copper values are much overstated in the application judging by the examiner's sampling, but the vein does appear to be stronger than on the levels above. Thus an ore shoot of sorts, 185 feet long, 5.32 feet wide and averaging 1.46% copper, is indicated. A second short ore shoot 30 feet long may be inferred and the south end is 'open' but not promising.

This analysis differs somewhat from that of the examiner's but does not better the all-around picture. The vein structure, as known, is longest on the lowest level but even so is not promising.

As the examiners conclude, " . . . the copper content is too low to be of economic interest." I concur with the recommendation of the examiners and the Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-5/22/56

cc: Director's reading, 4212
Branch reading, 4212
BMMA (3)
Docket file
J. W. Pennington, 3623

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

Betty

May 11, 1956

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: Commodity Industry Analyst, Branch of Base Metals

Subject: Review of Field Team examination report, Docket No. DMEA' 4192 (copper), Carr Brothers, Edna Property, Stevens County, Washington. $35,000.00

The Field Team examination report of this property by J. J. Quinlan, Geological Survey, has been reviewed. Information and data included in the report are adequate; however, I am not in complete agreement with the conclusions and recommendations.

According to the report, the indications are that with depth, the vein is increasing in width, the structure is improving, and there is less faulting. Furthermore, the grade of material is believed to be sufficient to be of economic interest, as there are other copper mines currently operating on similar grade material.

It certainly appears that the vein should be explored below the 260 level. This can be done as proposed by sinking the shaft 100 feet and drifting 500 feet on the vein at the new level or by drilling from the northwest crosscut on the 260 level.

J. W. Pennington

J. W. Pennington

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
R. W. Geehan
F i l e s

May 11, 1976

Memorandum

To: W. R. Grimwald, Defense Minerals Exploration Administration

From: Commodity Industry Analyst, Branch of Base Metals

Subject: Review of Field Team examination report, Project No. DMEA' 4198 (copper), Shaw Brothers, Blue Property, Stevens County, Washington. $35,000.00

The Field Team examination report of this property by J. J. Quinlan, Geological Survey, has been reviewed. Information and data included in the report are adequate; however, I am not in complete agreement with the conclusions and recommendations.

According to the report, the indications are that with depth, the vein is increasing in width, the structure is improving, and there is less faulting. Furthermore, the grade of material is believed to be sufficient to be of economic interest, as there are other copper mines currently operating on similar grade material.

It certainly appears that the vein should be explored below the 260 level. This can be done as proposed by sinking the shaft 100 feet and drifting 500 feet on the vein at the new level or by drilling from the northwest crosscut on the 260 level.

J. W. Pennington

J. W. Pennington

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, W.R.E.S.
R. W. Geehan
F i l e s

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

RECEIVED
MAY 4 - 1956

April 30, 1956

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

Re: Docket No. DMEA-4192 (Copper)
Carr Brothers
Edna Property
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are four copies of a memorandum by J. J. Quinlan, Geological Survey, recommending that the Carr brothers' application be denied.

Sampling of the exposed portions of the vein on several levels shows that the exposed material is not of ore grade. It does not seem at all likely that the grade of the vein will be any better 200 feet deeper in the mine; therefore, we concur in the recommendation that the application be denied.

By Field Team, Region I, NW Dist.

A. E. Weissenborn
A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew
Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

cc: USBM (2)
USGS(SRO)
Quinlan

Reviewed by
DMEA OPERATING COMMITTEE
5-7-56
(date)

RECEIVED
MAY 4 - 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

April 26, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: J. J. Quinlan, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-4192 (Copper), Carr Brothers, Edna Property, Stevens County, Washington

INTRODUCTION

The Edna property was examined by Donald Alvord of the Geological Survey and the writer on March 29 and 30, and April 2, 1956. This application is the second submitted by the Carr brothers for DMEA assistance in exploring the Edna property. The first application, Docket No. DMA 776X, was submitted in 1951. The DMEA files, and in particular a memorandum report dated September 21, 1951, by Willard Puffett of the Geological Survey, contain much information on the applicant and the property.

At the time Puffett examined the property in 1951 the principal underground workings, i.e., the Main or Edna shaft workings, were inaccessible. Puffett's description of the geology of the deposit, therefore, was based on information that could be obtained from outcrops, shallow surface workings, dumps, and a brief description of the deposit by Charles E. Weaver (The Mineral Resources of Stevens County, Washington: Wash. State Geol. Survey Bull. No. 20, 1920). Puffett's memorandum, however, contains a detailed description on the location, accessibility and history of the property, as well as an excellent description on the background of the applicants, and the reader is referred to Puffett's report for some interesting details on the property and the applicants, which are not considered pertinent to the evaluation of the present application. The files also contain a supplementary memorandum report by Willard Puffett, dated August 18, 1954, in which the vein exposed by rehabilitation and dewatering of the Edna shaft to the 110-foot level is described.

Work contemplated under the first application included rehabilitation and dewatering of the principal Edna workings and, if warranted, some drifting and diamond drilling to test the vein on the lower levels. The application was denied April 10, 1952, because the probability of finding a significant ore body by the proposed program

Reviewed by
DMEA OPERATING COMMITTEE
5-7-56
(date)

appeared remote. It was stated in the letter of denial to the applicants that should the principal workings be made accessible for examination the DMA would consider a new application.

Since the first application was denied the applicants have rehabilitated and dewatered the Edna shaft workings. This work has confirmed the decision reached by DMA in 1952 that the probability of finding a significant ore body by the proposed program appeared remote. Although the vein zone is wider where exposed in the lower levels than the near-surface workings would indicate, the copper content is too low to be of economic interest. With the information now available it is evident that the probability of finding a significant ore body anywhere along the Edna vein is remote and the property definitely lacks promise as a copper prospect.

RECOMMENDATION

It is recommended that the application be denied.

APPLICANTS

The applicants are brothers, Clarence and J. M. Carr of Valley, Washington. They are considered competent to carry on a small exploration project.

LOCATION

The Edna property is in secs. 9, 10, and 16, T. 31 N., R. 39 E., W.P.M., Stevens County, Washington. It is about nine miles west of Valley, Washington, in the foothills on the east side of the Huckleberry Mountains. The mine is less than half a mile north of the county road which leads from Valley, Washington to the Keystone magnesite quarry of the Northwest Magnesite Company. This road is maintained by the county throughout the year. A dozen road leads from the county road to the principal working on the Edna property.

PROPERTY

The property consists of six unpatented quartz lode mining claims (pl. 1). The Edna Fraction is the only claim owned by the applicants but it is not included in the application. The other five claims, i.e., the Edna, Edna-Log Cabin, Edna-Mother Lode, Edna-Mother Lode Extension, and Edna-September, are owned by Rare Metal Mines, Inc., of Spokane, Washington. The applicants' rights, title and interest in these claims are held under the terms of a lease and option with the owners dated May 10, 1950. A copy of the lease and option was submitted with the application.

At the time the first application was filed the Carr brothers were represented as owners of the Edna property. This was not the case; at that time the Carr brothers' interest in the claims owned by Rare Metal Mines, Inc., were held under the same legal instrument as they are today.

HISTORY

Charles E. Weaver in Washington State Geological Survey Bulletin No. 20 presents a brief description of the history of the property from which the most of the following has been abstracted.

The property was located by Axel Herman in 1896. In 1898 and 1899 the Edna shaft was sunk 100 feet on the vein. During this period three cars of highly oxidized and leached ore are reported to have been shipped to a smelter. This ore, however, is reported to have scarcely paid expenses.

In 1901 the property was taken over by J. B. Tuttle and Sons. Between 1901 and 1904 Tuttle and Sons are reported to have sunk the shaft to a depth of 370 feet and to have drifted about 750 feet on the vein. During this period about 150 tons of ore averaging 7.0 percent copper, 4.0 ounces of silver per ton and $2.75 in gold per ton is reported to have been shipped to a smelter.

The property was idle from 1904 to 1917 when it was reopened. Weaver examined the property shortly after it was reopened. Evidently little work was done after reopening of the mine in 1917 because the workings described by Weaver are essentially those that are seen today. There is, however, a slight discrepancy in the location of the levels referred to in Weaver's report. The 135 level referred to by Weaver is 110 feet below the present collar of the shaft, Weaver's 235 level is 180 feet below the present collar of the shaft, and Weaver's 300 level is 260 feet below the present collar of the shaft.

From the time the property closed in 1917 or 1918 to 1950 when the Carr brothers leased it little or no work is reported to have been done.

Since 1950 the Carr brothers have reopened the principal workings and also have done some trenching and crosscutting in near-surface workings.

An attempt was made in 1954 under a sublease agreement between the Carr brothers and Bonanza Lead Co. partnership of Colville, Washington, to mill a portion of the Edna dump in the Bonanza mill at Palmer siding north of Colville. This mill is about 40 miles from the Edna property. According to the Carr brothers, approximately

270 tons of the dump averaging 1.34 percent copper was milled. Approximately 8 tons of concentrates averaging 0.4 ounce of gold per ton, 2.79 ounces of silver per ton and 24.29 percent copper were shipped to the Tacoma Smelter from this mill lot. The mill tailings from the lot are reported to have averaged 0.22 percent copper. From this it appears that the grade reported by the Carr brothers is a few tenths of a percent high or the tonnage was not as great as reported. This is not astonishing for sampling and assaying at the Bonanza mill are done in a casual manner. In any event the dump was too low grade to stand the trucking and treatment charges and the operation is reported to have lost approximately $220.

WORKINGS

The principal workings on the property are the Edna shaft and workings therefrom. The Edna shaft is reported to have been sunk to a depth of 370 feet. At the time of the examination water filled the shaft below a point 4 feet below the 260 level sill. The Carr brothers report, however, that they have been to the bottom of the shaft and it is only about 12 feet below the 260 level sill.

The principal levels from the Edna shaft are the 45 level, 110 level, 180 level and 260 level. These levels are shown on plates 1 and 3. Drifting and crosscutting on these four levels total approximately 770 feet. There is no evidence of any appreciable stoping on any of the levels.

In addition to the principal Edna workings there are a number of pits, shallow adits, and a 40-foot shaft on the property. These workings are shown on plate 2 accompanying this memorandum.

GEOLOGY

The Edna mine is principally underlain by dolomitic rocks that according to Weaver are a part of the Deer Trail Argillite series of Precambrian age. Ian Campbell and John S. Loofbourow, Jr. (Geology of the Magnesite Belt of Stevens County, Washington: U. S. Geol. Survey unpublished report, 1945) have subdivided the Deer Trail Argillite series. The rocks in the immediate vicinity of the Edna mine are considered typical of a unit named the Edna dolomite because of the excellent outcrops of this unit near the mine. In the underground workings two distinct facies of the Edna dolomite are recognized. One is an olive-drab to gray-colored argillaceous dolomite, which in places is phyllitic or schistose. The other is a buff-to cream-colored dolomite which locally appears to be siliceous. The bedding in the buff-to cream-colored unit is generally thin and platy, usually less than 1 inch thick; locally, however, there are more massive beds up to 3 feet thick. The principal workings are for the most part within or near the base of a thick unit of the buff-to cream-colored dolomite. Crosscuts on the 180 and 260 levels indicated that

Dup. to Mea
Betty

RECEIVED
MAY 25 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

May 17, 1956

MEMORANDUM

To: George C. Selfridge, Chairman
Operating Committee, DMEA
Washington 25, D. C.

From: A. E. Weissenborn, Executive Officer, DMEA
Field Team, Region I, Northwest District

Subject: Correction to field examination report, Docket No. DMEA-4192 (Copper), Carr Brothers, Edna Property, Stevens County, Washington

We have found errors in the section on sampling in the memorandum dated April 26, 1956, by J. J. Quinlan, Geological Survey, on the Edna property; in addition, we believe the method of presentation was confusing. It would be appreciated if you would please remove pages 5 and 6 and substitute the enclosed pages 5 and 6 which have been prepared on sampling. One correction should be made on plate 3 accompanying the memorandum: the copper content of sample A34 (cut near the shaft on the 180 level) should be 2.83 percent.

There is no change in the Field Team recommendation for denial of the application.

Enclosures

Distribution:
DMEA (4)
USBM (2)
USGS(SRO)
Docket
Quinlan

this unit is slightly over 100 feet thick and that it is overlain and underlain by argillaceous dolomites. The general trend of the bedding in the mine is about N. 10° E. and the dip 40°-80° NW.

Dikes and sills of basic composition are exposed in the mine workings (pl. 3). Near the shaft on the 260 level where the vein intersects one of these basic dikes, the dike has a bleached appearance, contains some quartz and in places disseminated pyrite.

In the lower levels of the mine the Edna vein closely follows bedding within the transition zone between the underlying argillaceous dolomite and the thick unit of cream- to buff-colored dolomite (pl. 3). Within the transition zone buff- to cream-colored dolomite is the dominant rock type with subordinate beds of argillaceous dolomite which are in part phyllitic or schistose.

The Edna vein is essentially a silicified zone up to 20 to 30 feet wide. The zone appears to consist of a principal vein strand, 6 inches to 9 feet wide, with subordinate stringers and irregular zones of silicification, mainly in the footwall of the principal vein strand. At most places the principal vein strand appears to be essentially parallel to the bedding but mapping indicates that in detail it actually crosses the bedding at a small angle. The general strike of the vein is N. 10° E. and its general dip 65°-70° NW.

The principal vein minerals are quartz with subordinate amounts of a light-colored carbonate mineral, pyrite, chalcopyrite and tennantite. In the oxidized portions of the vein there is considerable malachite and azurite staining. There may be also a small amount of chalcocite present but because of the limestone environment secondary enrichment would be a negligible factor.

Although minor amounts of sulfide are disseminated throughout the vein zone most is confined to narrow bands principally within the main vein. These bands, about ½ inch to 8 inches wide, are generally parallel to the vein. In places, hair-thin to ¼-inch stringers of a gray copper mineral occur in small transverse fractures in the vein and immediate footwall area.

SAMPLING

Willard Puffett sampled the vein exposed on the 110 level when he examined the property in 1954. At the time of the present examination the vein exposed on the 180 and 260 levels was sampled where practicable on approximately 15-foot centers. The locations and assay results for gold, silver, and copper of the samples taken on the 110, 180, and 260 levels are shown on plate 3. These assay

results indicate that the vein is of no economic interest, the gold and silver values are negligible, and the copper content is low. Two samples (219A and 220A) taken by Puffett on the 110 level over an average vein width of 0.85 foot indicate an average grade on this level of 2.76 percent copper. Seven samples (A34, B34, B35, A36, B36, C36, and B38) taken at four places along the vein on the 180 level over an average vein width of 2.47 feet indicate an average grade on this level of 1.77 percent copper. Eighteen samples (B18, B19, A20, B20, B21, B22, B23, B24, A25, B25, A26, B26, B27, B28, B29, B30, B31, and B32) taken at 15 places along the main vein in the 260 level south drift over an average vein width of 4.65 feet indicate an average grade for the section represented of 1.34 percent copper.

Four samples (B15, B16, A17, and B17) taken at three places along the footwall section of the vein exposed near the face of the 260 level south drift over an average vein width of 4.2 feet indicate an average grade for this section of 0.94 percent copper.

CONCLUSION

The Carr brothers request DMEA assistance in sinking the Edna shaft an additional 100 feet and drifting 500 feet along the vein on a proposed level from the bottom of the shaft.

Considering that past exploration along the vein has failed to find a significant ore body and definitely points to the submarginal nature of the deposit, it appears that Government participation in any program to test the Edna vein is not warranted and it is recommended that the application be denied.

Attachments 3

Distribution:
DMEA (4)
USBM (2)
USGS(SRO)
Docket
Quinlan

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

~~WASHINGTON 25, D.C.~~
No. 157 Howard Street
Spokane 4, Washington

RECEIVED
MAY 4 - 1956

April 30, 1956

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

Re: Docket No. DMEA-4192 (Copper)
Carr Brothers
Mine Property
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are four copies of a memorandum by J. J. Quinlan, Geological Survey, recommending that the Carr brothers' application be denied.

Sampling of the exposed portions of the vein on several levels shows that the exposed material is not of ore grade. It does not seem at all likely that the grade of the vein will be any better 250 feet deeper in the mine; therefore, we concur in the recommendation that the application be denied.

By Field Team, Region I, NW Dist.

A. E. Weissenborn, Exec. Officer
U. S. Geological Survey

Wing G. Agnew, Member
U. S. Bureau of Mines

Enclosure

cc: DMEA (2)
DMEA(ARO)
Quinlan

DMEA OPERATING COMMITTEE
5/7/56
(date)

RECEIVED
MAY 4 - 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

April 26, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: J. J. Quinlan, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-4192 (Copper), Carr Brothers, Edna Property, Stevens County, Washington

INTRODUCTION

The Edna property was examined by Donald Alvord of the Geological Survey and the writer on March 29 and 30, and April 2, 1956. This application is the second submitted by the Carr brothers for DMEA assistance in exploring the Edna property. The first application, Docket No. DMA 776X, was submitted in 1951. The DMEA files, and in particular a memorandum report dated September 21, 1951, by Willard Puffett of the Geological Survey, contain much information on the applicant and the property.

At the time Puffett examined the property in 1951 the principal underground workings, i.e., the Main or Edna shaft workings, were inaccessible. Puffett's description of the geology of the deposit, therefore, was based on information that could be obtained from outcrops, shallow surface workings, dumps, and a brief description of the deposit by Charles E. Weaver (The Mineral Resources of Stevens County, Washington: Wash. State Geol. Survey Bull. No. 20, 1920). Puffett's memorandum, however, contains a detailed description on the location, accessibility and history of the property, as well as an excellent description on the background of the applicants, and the reader is referred to Puffett's report for some interesting details on the property and the applicants, which are not considered pertinent to the evaluation of the present application. The files also contain a supplementary memorandum report by Willard Puffett, dated August 18, 1954, in which the vein exposed by rehabilitation and dewatering of the Edna shaft to the 110-foot level is described.

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Reviewed by
DMEA OPERATING COMMITTEE

(date)

appeared remote. It was stated in the letter of denial to the applicants that should the principal workings be made accessible for examination the DMA would consider a new application.

Since the first application was denied the applicants have rehabilitated and dewatered the Edna shaft workings. This work has confirmed the decision reached by DMA in 1952 that the probability of finding a significant ore body by the proposed program appeared remote. Although the vein zone is wider where exposed in the lower levels than the near-surface workings would indicate, the copper content is too low to be of economic interest. With the information now available it is evident that the probability of finding a significant ore body anywhere along the Edna vein is remote and the property definitely lacks promise as a copper prospect.

RECOMMENDATION

It is recommended that the application be denied.

APPLICANTS

The applicants are brothers, Clarence and J. M. Carr of Valley, Washington. They are considered competent to carry on a small exploration project.

LOCATION

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PROPERTY

The property consists of six unpatented quartz lode mining claims (pl. 1). The Edna Fraction is the only claim owned by the applicants but it is not included in the application. The other five claims, i.e., the Edna, Edna-Log Cabin, Edna-Mother Lode, Edna-Mother Lode Extension, and Edna-September, are owned by Rare Metal Mines, Inc., of Spokane, Washington. The applicants' rights, title and interest in these claims are held under the terms of a lease and option with the owners dated May 10, 1950. A copy of the lease and option was submitted with the application.

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HISTORY

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The property was idle from 1904 to 1917 when it was reopened. Weaver examined the property shortly after it was reopened. Evidently little work was done after reopening of the mine in 1917 because the workings described by Weaver are essentially those that are seen today. There is, however, a slight discrepancy in the location of the levels referred to in Weaver's report. The 135 level referred to by Weaver is 110 feet below the present collar of the shaft, Weaver's 235 level is 180 feet below the present collar of the shaft, and Weaver's 300 level is 260 feet below the present collar of the shaft.

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270 tons of the dump averaging 1.34 percent copper was milled. Approximately 8 tons of concentrates averaging 0.4 ounce of gold per ton, 2.79 ounces of silver per ton and 24.29 percent copper were shipped to the Tacoma Smelter from this mill lot. The mill tailings from the lot are reported to have averaged 0.22 percent copper. From this it appears that the grade reported by the Carr brothers is a few tenths of a percent high or the tonnage was not as great as reported. This is not astonishing for sampling and assaying at the Bonanza mill are done in a casual manner. In any event the dump was too low grade to stand the trucking and treatment charges and the operation is reported to have lost approximately $220.

WORKINGS

The principal workings on the property are the Edna shaft and workings therefrom. The Edna shaft is reported to have been sunk to a depth of 370 feet. At the time of the examination water filled the shaft below a point 4 feet below the 260 level sill. The Carr brothers report, however, that they have been to the bottom of the shaft and it is only about 12 feet below the 260 level sill.

The principal levels from the Edna shaft are the 45 level, 110 level, 180 level and 260 level. These levels are shown on plates 1 and 3. Drifting and crosscutting on these four levels total approximately 770 feet. There is no evidence of any appreciable stoping on any of the levels.

In addition to the principal Edna workings there are a number of pits, shallow adits, and a 40-foot shaft on the property. These workings are shown on plate 2 accompanying this memorandum.

GEOLOGY

The Edna mine is principally underlain by dolomitic rocks that according to Weaver are a part of the Deer Trail Argillite series of Precambrian age. Ian Campbell and John S. Loofbourow, Jr. (Geology of the Magnesite Belt of Stevens County, Washington: U. S. Geol. Survey unpublished report, 1945) have subdivided the Deer Trail Argillite series. The rocks in the immediate vicinity of the Edna mine are considered typical of a unit named the Edna dolomite because of the excellent outcrops of this unit near the mine. In the underground workings two distinct facies of the Edna dolomite are recognized. One is an olive-drab to gray-colored argillaceous dolomite, which in places is phyllitic or schistose. The other is a buff-to cream-colored dolomite which locally appears to be siliceous. The bedding in the buff-to cream-colored unit is generally thin and platy, usually less than 1 inch thick; locally, however, there are more massive beds up to 3 feet thick. The principal workings are for the most part within or near the base of a thick unit of the buff-to cream-colored dolomite. Crosscuts on the 180 and 260 levels indicated that

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
So. 157 Howard Street
Spokane 4, Washington

RECEIVED
MAY 25 1956

May 17, 1956

MEMORANDUM

To: George C. Selfridge, Chairman
Operating Committee, DMEA
Washington 25, D. C.

From: A. E. Weissenborn, Executive Officer, DMEA
Field Team, Region I, Northwest District

Subject: Correction to field examination report, Docket No. DMEA-4192 (Copper), Carr Brothers, Edna Property, Stevens County, Washington

We have found errors in the section on sampling in the memorandum dated April 26, 1956, by J. J. Quinlan, Geological Survey, on the Edna property; in addition, we believe the method of presentation was confusing. It would be appreciated if you would please remove pages 5 and 6 and substitute the enclosed pages 5 and 6 which have been prepared on sampling. One correction should be made on plate 3 accompanying the memorandum: the copper content of sample A34 (cut near the shaft on the 180 level) should be 2.83 percent.

There is no change in the Field Team recommendation for denial of the application.

Enclosures

Distribution:
DMEA (4)
USBM (2)
USGS(SRO)
Docket
Quinlan

this unit is slightly over 100 feet thick and that it is overlain and underlain by argillaceous dolomites. The general trend of the bedding in the mine is about N. 10° E. and the dip 40°-80° NW.

Dikes and sills of basic composition are exposed in the mine workings (pl. 3). Near the shaft on the 260 level where the vein intersects one of these basic dikes, the dike has a bleached appearance, contains some quartz and in places disseminated pyrite.

In the lower levels of the mine the Edna vein closely follows bedding within the transition zone between the underlying argillaceous dolomite and the thick unit of cream- to buff-colored dolomite (pl. 3). Within the transition zone buff- to cream-colored dolomite is the dominant rock type with subordinate beds of argillaceous dolomite which are in part phyllitic or schistose.

The Edna vein is essentially a silicified zone up to 20 to 30 feet wide. The zone appears to consist of a principal vein strand, 6 inches to 9 feet wide, with subordinate stringers and irregular zones of silicification, mainly in the footwall of the principal vein strand. At most places the principal vein strand appears to be essentially parallel to the bedding but mapping indicates that in detail it actually crosses the bedding at a small angle. The general strike of the vein is N. 10° E. and its general dip 65°-70° NW.

The principal vein minerals are quartz with subordinate amounts of a light-colored carbonate mineral, pyrite, chalcopyrite and tennantite. In the oxidized portions of the vein there is considerable malachite and azurite staining. There may be also a small amount of chalcocite present but because of the limestone environment secondary enrichment would be a negligible factor.

Although minor amounts of sulfide are disseminated throughout the vein zone most is confined to narrow bands principally within the main vein. These bands, about ½ inch to 8 inches wide, are generally parallel to the vein. In places, hair-thin to ¼-inch stringers of a gray copper mineral occur in small transverse fractures in the vein and immediate footwall area.

SAMPLING

Willard Puffett sampled the vein exposed on the 110 level when he examined the property in 1954. At the time of the present examination the vein exposed on the 180 and 260 levels was sampled where practicable on approximately 15-foot centers. The locations and assay results for gold, silver, and copper of the samples taken on the 110, 180, and 260 levels are shown on plate 3. These assay

results indicate that the vein is of no economic interest, the gold and silver values are negligible, and the copper content is low. Two samples (219A and 220A) taken by Puffett on the 110 level over an average vein width of 0.85 foot indicate an average grade on this level of 2.76 percent copper. Seven samples (A34, B34, B35, A36, B36, C36, and B38) taken at four places along the vein on the 180 level over an average vein width of 2.47 feet indicate an average grade on this level of 1.77 percent copper. Eighteen samples (B18, B19, A20, B20, B21, B22, B23, B24, A25, B25, A26, B26, B27, B28, B29, B30, B31, and B32) taken at 15 places along the main vein in the 260 level south drift over an average vein width of 4.65 feet indicate an average grade for the section represented of 1.34 percent copper.

Four samples (B15, B16, A17, and B17) taken at three places along the footwall section of the vein exposed near the face of the 260 level south drift over an average vein width of 4.2 feet indicate an average grade for this section of 0.94 percent copper.

CONCLUSION

The Carr brothers request DMEA assistance in sinking the Edna shaft an additional 100 feet and drifting 500 feet along the vein on a proposed level from the bottom of the shaft.

Considering that past exploration along the vein has failed to find a significant ore body and definitely points to the submarginal nature of the deposit, it appears that Government participation in any program to test the Edna vein is not warranted and it is recommended that the application be denied.

Attachments 3

Distribution:
DMEA (4)
USBM (2)
USGS(SRO)
Docket
Quinlan

File Copy
Surname
Klugescheid
Swanson
Selfridge
Johnson
Stettendorf

500

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

MAR 13 1956

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

Re: Docket No. DMEA-4192 (Copper)
Carr Brothers
Edna Group
Stevens County, Washington

Dear Mr. Weissenborn:

The cited application for exploration assistance is being referred to your office for consideration, a field examination of the property if warranted, and recommendation.

From the information at hand, it is impossible to say if preliminary exploration by drilling as suggested by Mr. Pennington is possible, but this method of attack might be kept in mind.

If the showings on the 265-foot level are as the Applicant alleges, it would seem that 100 feet of shaft sinking is not sufficient. It has generally been considered that exploration in such short lifts falls under the category of development.

No dimensions have been given for any of the proposed workings, and the costs are not sufficiently detailed.

The cost for drifting seems reasonable, but the cost for shaft sinking seems a bit low.

Copies of memoranda dated March 2 and 6, 1956, by N. E. Nelson, Geological Survey, and J. W. Pennington, Bureau of Mines, respectively, relating to the project, are enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Enclosures

WPKlugescheid/er 3/9/56
Copy to: Docket
Admr R File
Op. Committee
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Base Metals
Chron.

APPROVED:

/s/ Robert W. Geehan (RWG)
Member, Bureau of Mines

Thor H. Kiilsgaard (THK)
Member, Geological Survey

File Copy
Surname

Klugescheid
Kiilsgaard
Selfridge
Johnson

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

MAR 13 1956

Mr. Clarence R. Carr
Valley, Washington

Re: Docket No. DMEA-4192 (Copper)
Carr Brothers
Edna Group
Stevens County, Washington

Dear Mr. Carr:

Your application for Government assistance to explore the cited property has been reviewed by the Base Metals Division of the Defense Minerals Exploration Administration and has been referred to:

Mr. A. E. Weissenborn
Executive Officer
DMEA Field Team, Region I
Northwest District
South 157 Howard Street
Spokane 4, Washington

If the Field Team requires additional information concerning your application, they will contact you at an early date.

Sincerely yours,

C. O. Mittendorf

Administrator

WPKLugescheid/er 3/9/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Pennington, USBM
Mr. Kiilsgaard, USGS
Region I, NW Dist. (2)
Chron.

R.C.S.

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

RECEIVED
MAR - 7 1956

March 6, 1956

Klingenhad

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: J. W. Pennington, Branch of Base Metals

Subject: Review of application, Docket No. DMEA 4192 (copper), Carr Brothers, Edna Group Claims, Stevens County, Washington, $35,000.00

It is proposed to explore the downward extension of the mineralization by extending the shaft 100 feet from the present 265 foot level to the 365 foot level, 500 feet of drifting on the 365 foot level, straightening present shaft, and cutting stations at an estimated cost of $35,000.00. Ventilating and pumping costs are included in this estimate.

Estimated cost of sinking the shaft seems low, no definite information is submitted on the size and locations of the stations, and no provision is made for sampling and assaying.

Although the proposed exploration appears logical, it is suggested that preliminary exploration by drilling be considered.

Referral of the application to the Field Team is recommended.

J. W. Pennington

J. W. Pennington

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
R. W. Geehan
F i l e s

RECEIVED
MAR - 7 1956

March 6, 1956

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: J. W. Pennington, Branch of Base Metals

Subject: Review of application, Docket No. DMEA 4192 (copper), Carr Brothers, Edna Group Claims, Stevens County, Washington, $35,000.00

It is proposed to explore the downward extension of the mineralization by extending the shaft 100 feet from the present 265 foot level to the 365 foot level, 500 feet of drifting on the 365 foot level, straightening present shaft, and cutting stations at an estimated cost of $35,000.00. Ventilating and pumping costs are included in this estimate.

Estimated cost of sinking the shaft seems low, no definite information is submitted on the size and locations of the stations, and no provision is made for sampling and assaying.

Although the proposed exploration appears logical, it is suggested that preliminary exploration by drilling be considered.

Referral of the application to the Field Team is recommended.

J. W. Pennington

J. W. Pennington

Copy to: Division of Minerals
Branch of Base Metals (2)
Thor Killingsmo, U.S.G.S.
R. W. Goehen
F i l e s

IN REPLY REFER TO:

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

RECEIVED
MAR - 5 1956

March 2, 1956

Re: DMEA 4192
J. M. & C. R. Carr
Edna Mine
Stevens County, Washington
$35,000 - Copper

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application.

The applicants request assistance in deepening a shaft and drifting from it to open up an additional level.

The proposed work consists of:

Sinking, 100 feet	$6,000.00
Drifting, 500 "	20,000.00
Straightening shaft	2,000.00
Stations	2,000.00
Ventilation and pumping	5,000.00
Total	$35,000.00

The Edna mine was the subject of an application, DMA 776X, in 1951. The work contemplated at that time included rehabilitation of the shaft, dewatering, mapping, etc., in Stage I at an estimated cost of $5,000. Stage II to cost $17,000, included drifting and diamond drilling. The application was denied in April 1952.

Apparently in the meantime the property was sold to the Rare Metals Mines and leased to Carr brothers, the owners in 1951. The shaft seems to have been rehabilitated and the mine unwatered to the 265-foot level. Levels at 45 feet, 110 feet, 200 feet, and 265 feet are said to disclose ore. In 1954 examiners mapped and sampled the 110-foot level. Of it they say:

"The drift to the south was mapped and sampled; a copy of the map showing assay results of sampling on the 110 and 45 foot levels accompanies this memorandum.

"The vein, consisting of massive quartz and coarse-grained carbonates, persists in the walls of the shaft to the water level. In general it follows the bedding in the enclosing buff to gray dolomites, but locally pinches and swells. The maximum thickness of the vein is about 40 inches.

"In the drift to the north on the 45-foot level, gray copper sulfides fill fractures in the quartz. These fracture fillings average about one-fourth to one-half inch thick and strike northeastward across the vein.

"As can be seen on the accompanying map, the vein on the 110-foot level gradually thins on its southward extension. It becomes much broken by northwest-trending joints and faults and at the face appears to be fingering out into a number of narrow stringers."

The Carr brothers persisted and now have the mine open for inspection to the 265 level. They report 500 feet of drifting at that level, showing a vein from 4 feet to 14 feet wide and 'running' 5 to 10% copper, some silver and a trace of gold.

At the 200 foot level, 200 feet of drift shows lower grade ore. At the 100 level a 100-foot drift shows a vein 5 to 30 feet wide running 3% copper.

If the conditions are as stated by the applicants, the assistance requested is probably warranted.

Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
MAR - 5 1956

March 2, 1956

Re: DMEA 4192
J. M. & C. R. Carr
Nine Mine
Stevens County, Washington
$35,000 - Copper

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: N. M. Nelson, U. S. Geological Survey

Subject: Review of application.

The applicants request assistance in deepening a shaft and drifting from it to open up an additional level.

The proposed work consists of:

Sinking, 100 feet	$6,000.00
Drifting, 300 "	20,000.00
Straightening shaft	2,000.00
Stations	2,000.00
Ventilation and pumping	5,000.00
Total	$35,000.00

The Nine mine was the subject of an application, DMA 776X, in 1951. The work contemplated at that time included rehabilitation of the shaft, dewatering, mapping, etc., in Stage I at an estimated cost of $5,000. Stage II to cost $17,000, included drifting and diamond drilling. The application was denied in April 1952.

Apparently in the meantime the property was sold to the Rare Metals Mines and leased to Carr brothers, the owners in 1951. The shaft seems to have been rehabilitated and the mine unwatered to the 265-foot level. Levels at 45 feet, 110 feet, 200 feet, and 265 feet are said to disclose ore. In 1954 engineers mapped and sampled the 110-foot level. Of it they say:

"The drift to the south was mapped and sampled; a copy of the map showing assay results of sampling on the 110 and 45 foot levels accompanies this memorandum.

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"As can be seen on the accompanying map, the vein on the 110-foot level gradually thins on its southward extension. It becomes much broken by northwest-trending joints and faults and at the face appears to be fingering out into a number of narrow stringers."

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At the 200 foot level, 200 feet of drift shows lower grade ore. At the 100 level a 100-foot drift shows a vein 5 to 30 feet wide running 3% copper.

If the conditions are as stated by the applicants, the assistance requested is probably warranted.

Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

NENelson:jah
3/2/56
cc: Director's reading 4212
Branch reading 4212
BMEA (3) ✓
Docket file
H. M. Meyer 3673

Subject: DMEA-4192
Re: Edna Group Exploration

Carr Brothers
Valley, Washington

February 28, 1956

Gentlemen: The receipt of your application dated February 15, 1956 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4192 and referred to the Base Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

February 28, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region 1 NW

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 1 NW

DMEA -4192 Carr Brothers

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

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

RECEIVED
FEB 24 1956

February 21, 1956

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

Re: Transmittal of application for aid
in an exploration project
(copper-silver)
J. M. & Clarence R. Carr
d.b.a. Carr Brothers
Edna Group
Stevens County, Washington

Dear Mr. Selfridge:

Enclosed are three copies of an application submitted by J. M. and Clarence R. Carr. Enclosed also are six copies of Form MF-203, Consent to Lien, two copies of which were typed by us; however, we will ask the applicant to obtain two more properly executed copies if a contract is recommended.

A previous application* on this property was denied by letter to the applicant from D. C. dated April 10, 1952. The applicant has now pumped out the shaft, and the underground workings are accessible.

No examination will be scheduled until requested.

Sincerely yours,

James J. Quinlan
for: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosures

cc: USBM (2)
Kellum

* (Docket No. DMA-776 (Copper))

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED

RECEIVED
FEB 24 1956

RECEIVED
FEB 20 1956
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. 4192
Metal or Mineral Copper
Date Received 2-22-56
Estimated Cost 35,000
Participation (Government %) 50

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: J. M. Carr and Clarence R. Carr, doing business as Carr Brothers, at Valley, Stevens County, State of Washington, all residing at such place.

(*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.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

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 The EDNA, EDNA-SEPTEMBER, EDNA-MOTHER LODE, EDNA-MOTHER LODE EXTENSION, LOG CABIN, and EDNA EXTENSION Lode mining claims, unpatented lode claims situated in Sections 9 and 10, Twp. 31 North, Range 39 R.W.M., in Stevens County, Wash. ?

(*b*) State any mine name by which the property is known. Known as the "EDNA GROUP"

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee with option to buy, from Rare Metal Mines, inc. of Spokane, Wash.

(*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.

(*e*) If you own the land, describe any liens or encumbrances on it —

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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 silver

(*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 twelve 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 February 15th, 1956

(Applicant)

By J M Carr

Clarence R. Carr

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

RECEIVED
FEB 24 1956

Carr Brothers, of Valley, Washington.

Application of $30,000.oo D.M.E.A. loan for the purpose of doing the following development and exploration work on the Edna Group of claims located about nine (9) miles west of Valley, in Stevens County, Washington.

The work to be done is as follows, with the estimated cost thereof:

500 feet of drifting on the 365 foot level @ $40.oo per ft-	$20,000.00
100 feet of shaft from present 265 foot level @ $60.oo "	6,000.00
Straightening present shaft- estimated cost	2,000.00
Cutting stations "	2,000.00
Total of estimated cost of proposed work - - -	$30,000.00
Ventilation and pumping	5,000.00
	$35,000.00

The applicants have equipment at said properties consisting of the following:-

1 I.R. Compressor, 315 Cu.ft.
80 H.P. G.M. Diesel motor; 15H.P. Electric pump;
Hoist with 1000 feet of cable.
Stoper, 2 jackhammers, 2 ore cars, track,
pipe, hose, and all necessary tools.
Also one operating saw mill, with timber sufficient to meet required needs.

The applicants are experienced mining men, having been engaged in mining operations in various localities for the past twenty five years, or more. They are capable of doing the mining work required in the above development work, and of supervising the development.

They have been operating on the properties covered by the application since the year 1950, re-opening same, and doing rehabilitation work, unwatering the workings, and disclosing ore of commercial grades in all of the workings.

At the 265 foot level drifting was disclosed running north about 200 feet, and 300 feet south; ore was disclosed running from four feet in width to fourteen feet wide, such ore running from 5 to 10% copper, some silver and a trace of gold. From the drift mentioned some ore had been taken out by previous operators, but no stoping had been done. At the 200 foot level there is a drift about 200 feet to the south, same showing copper of smaller percentage; at the 100 foot level there is a drift of about 100 feet to the south, also showing about 3% copper, some silver and gold; the vein was from 30 to 5 feet in width. At the 45 foot level there was a drift about 20 feet in length, same showing malachite copper, largely leached out, and of less copper content. The ore bodies have improved very much with depth, but no stoping has ever been done, and the mine has really had little testing of its worth.
It is expected that the extension of the shaft down another one hundred feet will make it possible to extend a drift to the south which will be under the present good showing on the next upper level, and from all indications the vein formation will extend downward with more valuable and higher grade ores made available, with possibility of opening up an area which can be stoped out, and make continuous operations possible.

RECEIVED
FEB 24 1956

MINING LEASE

THIS INDENTURE OF LEASE made and entered into May 10, 1950, between Rare Metal Mines Inc, a Washington corporation of Spokane, Washington, the party of the first part, and GARY [illegible] Valley, Washington, [illegible] identified by their respective signatures hereto, parties of the second part,

WITNESSETH: That the party of the first part in consideration of the sum of $ 10.00 to it in hand paid by the second parties, the receipt of which is hereby acknowledged, and in further consideration of the covenants and conditions herein contained, to be kept and performed by the parties of the second part, does hereby contract, lease and demise to the parties of the second part, for the term of Ten (10) years from and after this 10th day of May, 1950, the following described mine, mining claims and property, situated in the Valley Mining District, in Stevens County, State of Washington, Viz.:

> The EDNA, EDNA-SEPTEMBER, EDNA-MOTHER LODE, EDNA-MOTHER LODE EXTENSION, and LOG CABIN Lode Mining Claims, situated in Sections 9 and 10, Twp. 31 North, Range 39 E. W. M., together with the appurtenances.

which said premises are hereby leased to the parties of the second part for the purpose of exploring for and mining and taking out and removing therefrom the ore therein, containing gold, silver, copper, lead, cinnebar and other valuable minerals, which is or which hereafter may be found in, on or under said land, together with the right to construct all buildings, make all excavations, openings, ditches, drains, railroads, wagon roads, concentrators, power plants, smelters, mills, and other improvements upon said premises which are or may become necessary or suitable for the mining or removal of ore containing valuable minerals from said premises, with the right, during the existence of this lease to cut and use the timber found upon said premises for fuel [illegible] necessary for the construction of buildings required in the operation of said [illegible] mines on the premises hereby leased and also the timber necessary for drains, tramways and supports, and for any other necessary purpose: Provided;

THE PARTIES OF THE SECOND PART shall have the right at any time to terminate

this lease by giving written notice thereof by registered mail addressed to the party of the first part at its address, at E. 601 Crown Avenue, Spokane 13, Washington, at least 60 days prior to July 1 in any calendar year. The party of the first part shall within 20 days after receiving said notice acknowledge receipt of the same, and the foregoing lease shall terminate at the end of said 60 days notice, and thereafter all sums which may be due under the lease up to the time of its termination as set forth in said notice shall be paid upon settlement and adjustment thereof.

The party of the first part agrees that the parties of the second part shall have the right under this lease to contract with others to work such mine or mines or said land or any part thereof for the purpose of mining for ore with the same rights and privileges as are herein granted to the parties of the second part.

The parties of the second part agree that they will in each year during the life of this lease perform work or make improvements upon the premises hereinbefore described to an amount of not less than One Hundred Dollars ($100.00) for each mining claim included therein and will seasonably make and file with the County Auditor of Stevens County, Washington, proof of labor for each of said mining claims in the manner provided by law. The building of roads giving access to said property, and the performance of any other act allowable under the laws of the State of Washington to count as assessment work, shall be permissible as such under this lease.

IT IS FURTHER EXPRESSLY AGREED that should the parties of the second part fail to perform the labor herein specified, or to do any other act herein required of them to be done under this lease, then the same shall at the option of the party of the first part be forfeited and expire, and the said party of the first part shall have the right, on demand, to re-possess the same, with or without force, and with or without process of law.

THE PARTIES OF THE SECOND PART shall pay to the Party of the First part a royalty of not less than Three Per Cent (3%) of all money received from the sale of minerals from the lands covered by this lease, after deducting therefrom the

cost of transporting the ore or minerals from the mine or mines to market, or to any smelter, concentrating plant or other place of treatment, and the cost of treatment. (Rem. Rev. Statutes #7797-162)

OPTION TO PURCHASE

IN CONSIDERATION of the acceptance of the foregoing lease and the expenditures to be made thereunder, and the well and faithful keeping of the covenants thereof, the said parties of the second part shall have the right to purchase the said demised premises, by payment of the sum of FIVE THOUSAND DOLLARS ($5,000.00) on or before the 10th day of May, 1960, time being of the essence of the contract as to such payment. The payments made of royalty under the above Lease, may at the option of the parties of the second part, be accredited as payments on this option to purchase when the same shall have been exercised.

Upon tender of such payment the party of the first part will make, execute, acknowledge and deliver at its own cost and charges, good and sufficient deed of warranty to be delivered to the parties of the second part or such person or company as they may nominate, conveying the said premises clear of incumbrances.

THE FORFEITURE, surrender or termination of the above lease for any cause shall render this option void, and the above mentioned payment may not thereafter be tendered.

IN WITNESS WHEREOF, the parties hereunto have affixed their legal signatures and seals, all being done in the County of Stevens, State of Washington, on this 10th day of May, 1950.

RARE METAL MINES INC., The Party of the First Part,

By, [signature] Its president.

Attest: [signature] Its Secretary.

CARR BROTHERS, The Parties of the Second Part,

By - [signature] (SEAL)

[signature] (SEAL)

[signature] (SEAL)

[signature] (SEAL)

(SEAL)

RECEIVED
FEB 24 1956

A D D E N D A

It is further agreed between the parties hereto as follows:

CARR BROTHERS agree that they will at all times fully comply with the provisions of the Workmen's Compensation Act of the State of Washington, will ~~seasonably pay all State and County taxes hereafter levied against the~~ said demised premises, and will keep and preserve the same free and clear of any and all costs, liens, judgments and encumbrances during the life of this agreement.

RARE METAL MINES INC, agrees that it will promptly pay its annual license fees when due, will at all times comply with the corporate laws of the State of Washington, and keep qualified at all times to discharge its obligations hereunder.

IT IS MUTUALLY AGREED that every clause and covenant of this indenture shall extend to and be binding upon the heirs, executors, administrators and lawful assigns of the several parties hereto.

WITNESS the signatures of the parties hereto, as of May 10, 1950.

RARE METAL MINES INC.,

By Arthur L. Hooper
Its President

CARR BROTHERS:

By, _____

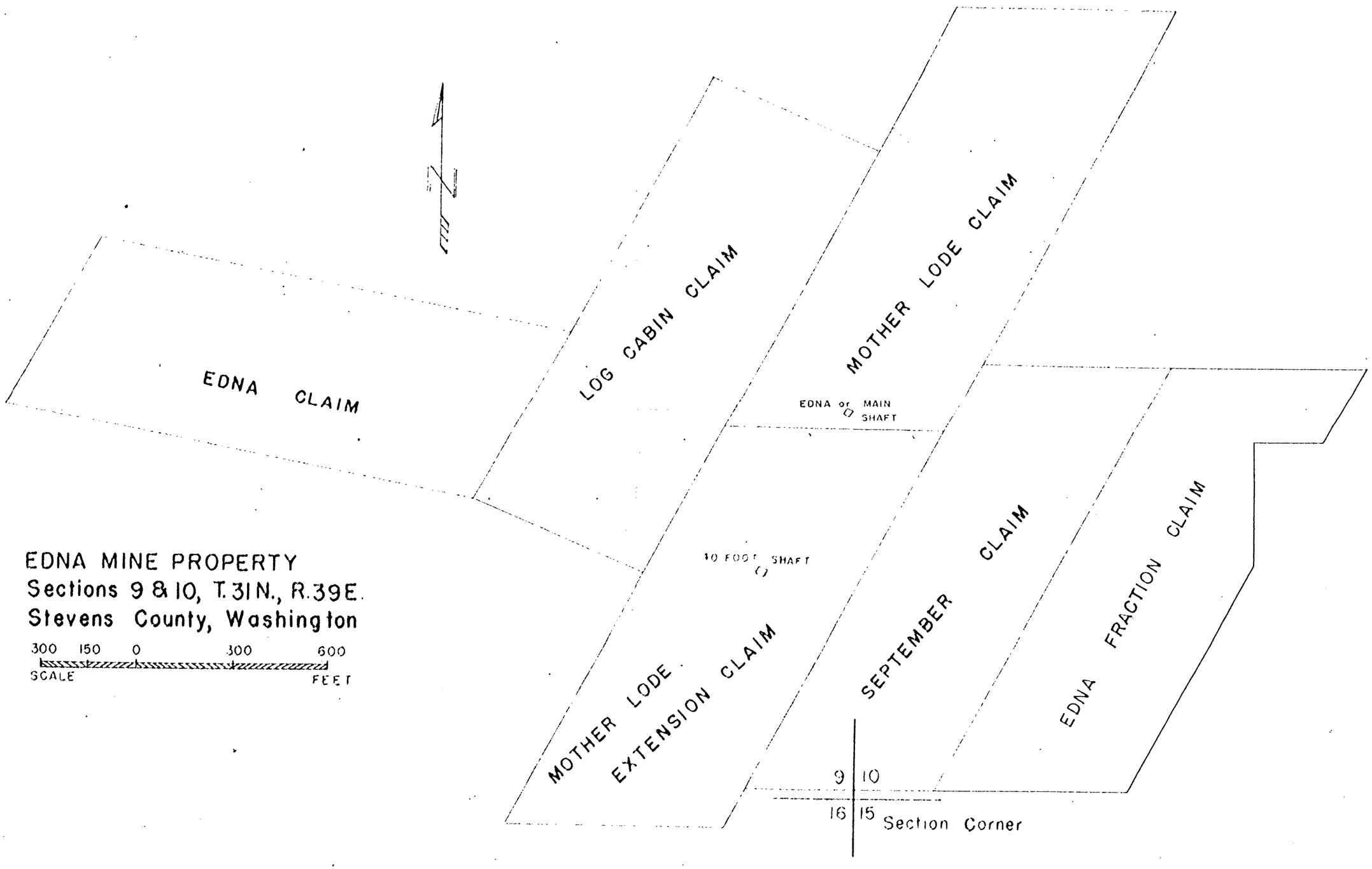
_____

State of Washington)
County of Spokane -) ss -

ON THIS 12th day of May, 1950, personally appeared before me Arthur L. Hooper, the President of the corporation that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year herein first above written.

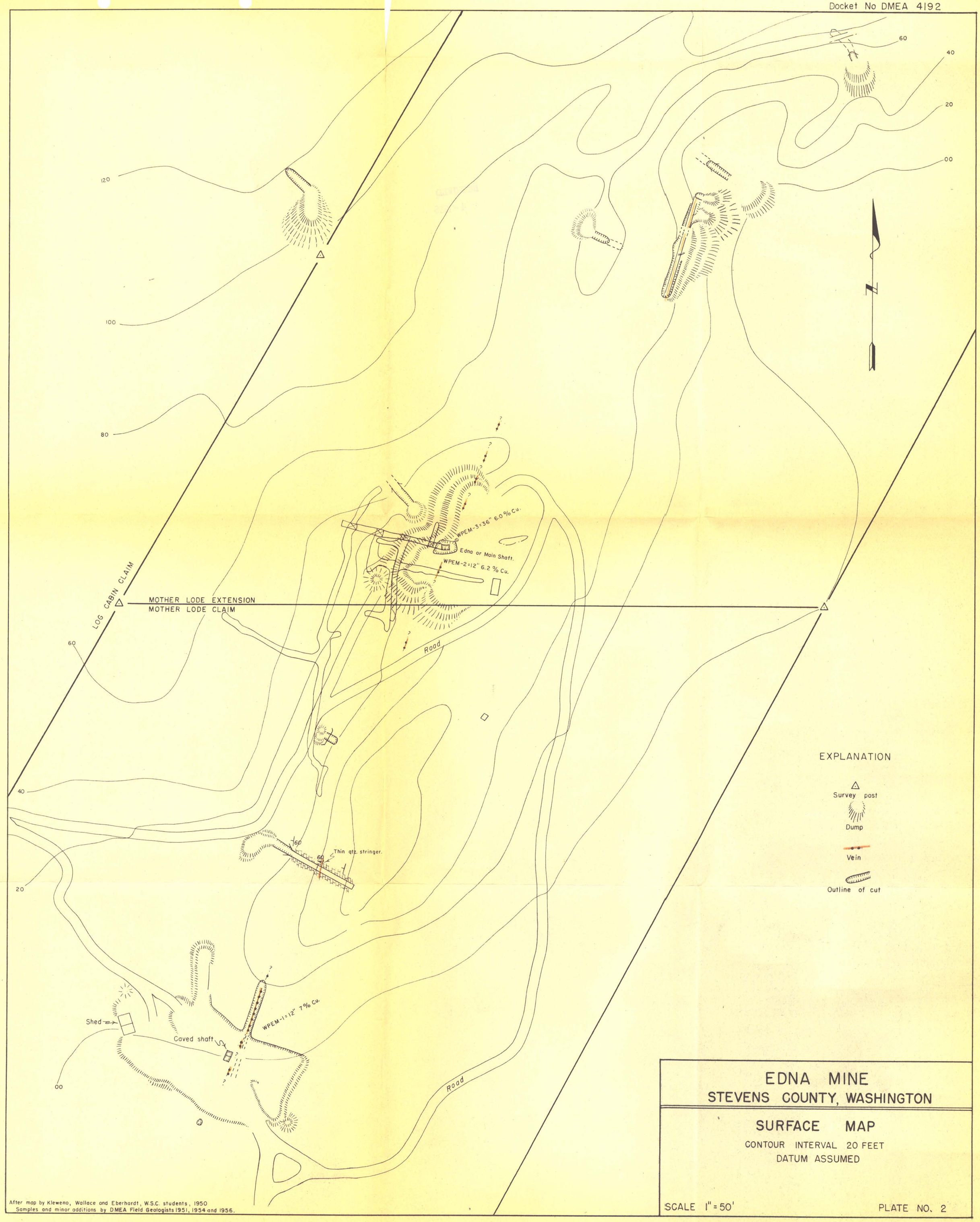
_____
Notary Public in and for the State of Washington, residing at S P O K A N E.



EDNA MINE PROPERTY
Sections 9 & 10, T.31N., R.39E.
Stevens County, Washington

In part from data furnished by applicant, accuracy uncertain

Plate No. 1



EDNA MINE
STEVENS COUNTY, WASHINGTON

SURFACE MAP

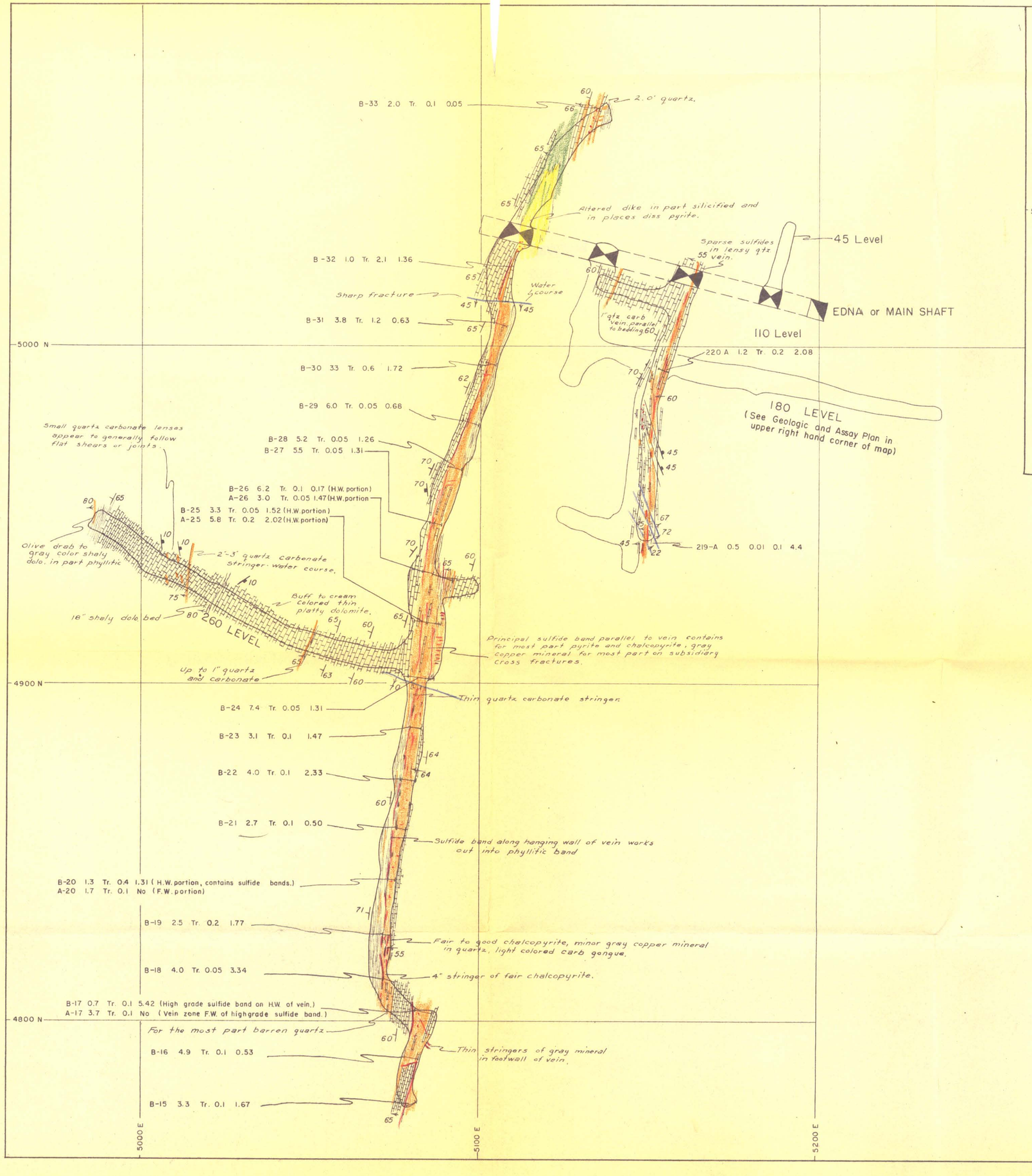
CONTOUR INTERVAL 20 FEET
DATUM ASSUMED

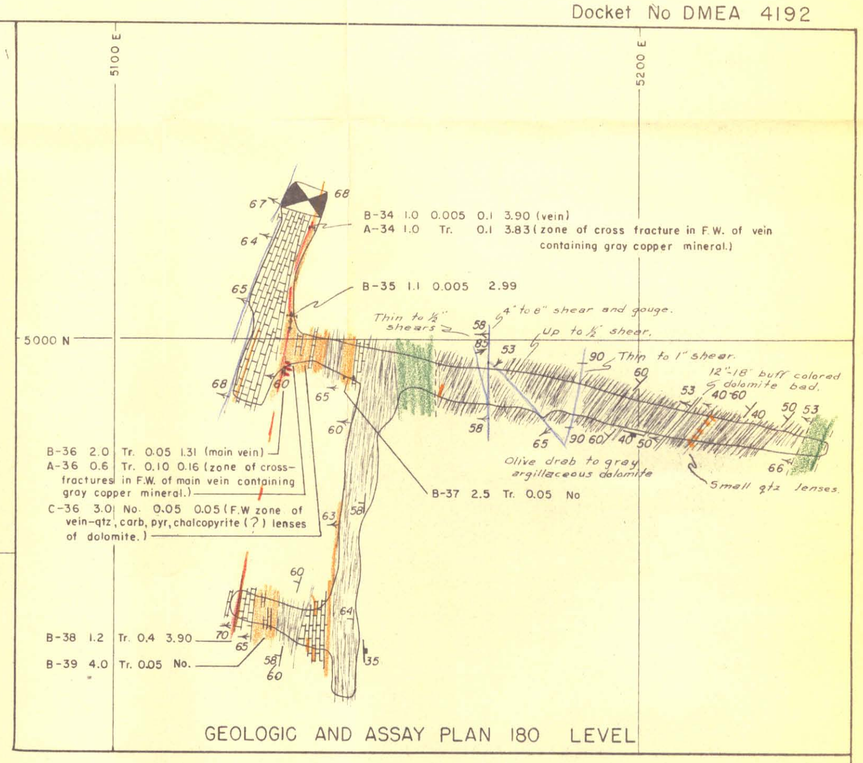
SCALE 1" = 50'

PLATE NO. 2

After map by Kleweno, Wallace and Eberhardt, W.S.C. students, 1950
Samples and minor additions by DMEA Field Geologists 1951, 1954 and 1956.

Docket No DMEA 4192





GEOLOGIC AND ASSAY PLAN 180 LEVEL

EXPLANATION

- Basic dike
- Altered basic dike
- Edna dolomite — *Buff to cream colored dolomite members*
- Edna dolomite — *Olive drab and gray colored argillaceous dolomite members in places phyllitic*
- Vein quartz and light colored carbonate
- Vein sulfides — *Pyrite, chalcopyrite, tennantite, and chalcocite (?)*
- 70 — Faults and shears
- 65 — Beds
- 35 — Joints

Sample No	Width	Au oz	Ag oz	Cu %
B-23	3.1	Tr.	0.1	1.41

EDNA PROPERTY
STEVENS COUNTY, WASHINGTON
GEOLOGIC AND ASSAY PLAN OF EDNA SHAFT WORKINGS

Scale 1"=20'

Plate 3