Docket

FILE COPY
SURNAME:
500

Corbett
Keller
Lemmon
Thum
Keller

UNITE[redacted]
DEPARTMENT OF [redacted]IOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

AUG 28 1952

Mr. B. W. Porter
War Eagle Gold, Silver, Lead Mining Co.
511 Securities Building
Seattle, Washington

Re: Docket No. DMEA-2235 (Lead)
War Eagle Mine
Lemhi County, Idaho

Dear Mr. Porter:

Reference is made to your application, Docket No. DMEA-2235, for Government assistance in the exploration of your property.

A study of the available data indicates that the possibility of finding significant bodies of ore on your property is too poor to warrant the expenditure of public funds. We regret to advise you, therefore, that your application is denied.

Your interest in the defense program is appreciated and we wish to thank you for bringing your property to the attention of the Government.

Sincerely yours,

C. O. Mittendorf

Acting Administrator

FXCorbett-mb
August 26, 1952
Copy to: Docket
Adm. Reading File
Operating Committee
Mr. Keller (2)
Mr. Corbett
Mr. Bishop
Mr. McKnight
Region II (2)

2235 - War Eagle - Copy of application held pending examination.

Docket

FILE COPY
SURNAME:

500

Corbett
Mills
Lemmon
Johnson

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

August 26, 1952

Memorandum

To: Acting Administrator

From: Chief, Base Metals Division

Subject: Denial of Application Docket No. DMEA-2235

In compliance with the Field Team and Commodity engineers regarding the merits of this proposal, this office has refused to grant exploration funds for this property.

The application was received in this office November 19, 1951, and a report by the USBM and USGS describing the property on August 14, 1952. A sampling of the material near a shallow shaft indicates a low lead content and a study of the geology indicates the improbability of discovering any significant ore bodies. There has been no production mentioned in the reports submitted to this office.

H. F. Keller
Chief, Base Metals Division

FXCorbett-mb
Copy to: Docket
Adm. Reading File
Operating Committee
Mr. Keller (2)
Mr. Corbett
Mr. Bishop
Mr. McKnight

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

August 26, 1952

Memorandum

To: Acting Administrator

From: Chief, Base Metals Division

Subject: Denial of Application Docket No. DMEA-2235

In compliance with the Field Team and Commodity engineers regarding the merits of this proposal, this office has refused to grant exploration funds for this property.

The application was received in this office November 19, 1951, and a report by the USBM and USGS describing the property on August 14, 1952. A sampling of the material near a shallow shaft indicates a low lead content and a study of the geology indicates the improbability of discovering any significant ore bodies. There has been no production mentioned in the reports submitted to this office.

H. F. Keller
Chief, Base Metals Division

IN REPLY REFER TO:

G-MD-CNF

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

August 22, 1952

Re: DMEA-2235
War Eagle Mine
Lemhi County, Idaho
War Eagle Gold, Silver,
Lead Mining Company
$17,000
Lead-Silver

Memorandum

To: H. F. Keller

From: B. Gildersleeve, USGS & O. M. Bishop, USBM

Subject: Concurrence with Field Team's denial

The present reviewers concur with the Field Team's recommendation that this application be denied on the grounds that the geologic probability of a significant discovery is remote.

Benjamin Gildersleeve

Benjamin Gildersleeve
Geologist, U. S. Geological Survey

O. M. Bishop

O. M. Bishop
U. S. Bureau of Mines

IN REPLY REFER TO:

G-MD-CNF

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

August 22, 1952

Re: DMSA-2235
War Eagle Mine
Lemhi County, Idaho
War Eagle Gold, Silver,
Lead Mining Company
$17,000
Lead-Silver

Memorandum

To: H. F. Keller

From: B. Gildersleeve, USGS & O. M. Bishop, USBM

Subject: Concurrence with Field Team's denial

The present reviewers concur with the Field Team's recommendation that this application be denied on the grounds that the geologic probability of a significant discovery is remote.

Benjamin Gildersleeve
Geologist, U. S. Geological Survey

O. M. Bishop
U. S. Bureau of Mines

B.Gildersleeve:gt

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

1201 North Division Street
Spokane 2, Washington
August 8, 1952

MEMORANDUM

To: Chairman, Operating Committee, DMEA, Washington, D.C.

From: Field Team, Region II

Subject: DMEA Docket No. 2235 (lead), War Eagle prospect, Lemhi County, Idaho.

An examination report concerning the captioned prospect prepared by T. E. Howard, Mining Engineer, U. S. Bureau of Mines and T. H. Kiilsgaard, Geologist, U. S. Geological Survey is forwarded herewith for review.

The Field Team, in full agreement with the examiners, believe that the geologic probability of making a significant mineral discovery is remote. This fact in conjunction with the indicated operating difficulties and probable high costs leads the Field Team to conclude that exploration is not justified under existing conditions.

It is recommended therefore, that the applicant's request for exploration assistance be denied.

By Field Team, Region II

Glenn C. Reed

Glenn C. Reed,
For M. E. Volin, Acting Exec. Off.

S. W. Hobbs

S. W. Hobbs,
Acting Member

Enclosure

OFFICE OF THE ADMINISTRATOR

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

1201 N. Division St.
Spokane, Wash.

August 1, 1952

MEMORANDUM

To: Field Team, DMEA, Region II

From: T. E. Howard, Mining Engineer, U. S. Bureau of Mines, and Thor H. Kiilsgaard, Geologist, U. S. Geological Survey

Subject: Field Examination of the War Eagle property, Lemhi County, Idaho, DMEA Docket 2235

## INTRODUCTION

The War Eagle Gold, Silver, Lead Mining Company property in Lemhi County, Idaho, was examined by the writers in company with Mr. Walter Deighton, mine foreman for the War Eagle Company, on June 10, 1952.

## RECOMMENDATIONS

It is recommended that the application for a DMEA contract submitted by the War Eagle Gold, Silver, Lead Mining Company, Lemhi County, Idaho, be denied.

## LOCATION AND ACCESSIBILITY

The property is in Section 23, T. 21 N., R. 24 E., Boise Meridian, Pratt Creek Mining District, 12.9 miles by road east of Baker, Idaho. It is reached from paved State Highway No. 28 at Baker over 5.9 miles of graded county road and 7 miles of unimproved mountain road which rises from an elevation of 5480 feet near the mouth of Pratt Creek to 8920 feet at the War Eagle workings. The last 1.5 miles is accessible only to four-wheel drive vehicles.

## TOPOGRAPHY AND CLIMATE

The existing War Eagle workings and the site of the proposed work are on a ridge between Pratt and Wimpy Creeks at an elevation of 8900 feet. Severe winters are usual and the normal working season is five or six months.

Reviewed by
DMEA OPERATING COMMITTEE

8-20-52
(Date)

## PROPERTY

The property consists of 10 unpatented lode mining claims, the Ben No. 1 through 10, recorded in book 2, pages 143 to 152 of lode mining claim locations in the office of the County Recorder at Salmon, Idaho. The proposed exploration would be conducted on the Ben No. 1 claim.

Since the date of the application, the Goldstone Mining Company has acquired the property under a thirty-year lease. The proposed exploration work would be performed by that company.

## GEOLOGY

At the time of the visit, no portions of the vein were visible at the outcrop, although a line of sloughed open cuts marked its location. These cuts indicate that the vein strikes N. 30° W.; the dip is reported to be very steep to the northeast. An open cut, accessible in 1951, is reported to have exposed the vein, which, at that point, consisted of 1 foot of quartz with minor amounts of gold, silver, and lead mineralization. A 10-foot crosscut from the bottom of a 60-foot shaft, sunk about 110 feet northwest of the open cut is reported to have intersected the vein, which also consisted of about 1 foot of quartz. This shaft was flooded at the time of the examination. A 22-foot shaft 40 feet northwest of the open cut is reported to have exposed 3 feet of quartz in the vein. Several tons of this quartz are piled near the collar of the shaft. Some pieces are iron and copper-stained but when broken to a fresh surface give little evidence of lead mineralization. Occasional quartz fragments contain thin veinlets of fine-grained galena, pyrite, and chalcopyrite, the local aggregate of which impart a dark coloration to the quartz. A selected sample, for which only the more mineralized quartz was collected, assayed 1.9 ounces of silver, 7.1 percent lead, and 0.2 percent copper. No test for gold was made. However, Arthur Lake's report, a copy of which is attached to the application, lists several samples assaying from 0.1 to 0.6 ounces per ton in gold. The sample taken by the examining team varies markedly from samples listed in Lake's report. Those samples are appreciably higher in lead content and must have been taken from carefully selected mineral specimens.

Country rocks in the War Eagle area are pre-Cambrian chloritic schists, the schistocity of which strikes northwest and dips steeply.

Owing to the lack of outcrops and the scanty mineralization, no map of the property was prepared, although Lake's map No. 3A, attached to the application, was referred to. This map indicates that the vein was been traced for about 250 feet across the ridge. However, the vein has been projected some distance to the northwest and southeast.

The character of quartz piled near the 20-foot shaft indicates that the vein would be of value chiefly as a possible gold producer in which minor amounts of lead might be recovered as a by-product. As such, the vein would be comparable to that of the Goldstone mine located about 1.5 miles to the southeast. This mine, operating from 1937 to 1939, produced 86 tons of concentrates that contained 439 ounces of gold, 273 ounces of silver, and small amounts of lead and copper. According to a prospectus put out by the Goldstone Mining company, ore samples from the Goldstone vein average 0.35 ounce gold per ton across a working width of 2.5 feet of quartz vein.

## EVALUATION OF APPLICANT'S PROPOSAL

The applicant proposes to deepen the existing 60-foot vertical shaft an additional 135 feet and to drift 300 feet on the vein from its bottom. The applicant estimates the program will cost $17,000.00.

This program would not develop the War Eagle vein to any appreciable extent. The shaft would be sunk from the top of a steep ridge in a location that would be accessible only during a comparatively short working season. Although the deposit is not developed sufficiently to allow an accurate estimate of mining costs, the short working season, the difficult access, and the reported narrow vein width all indicate that such costs would be high. In addition, the apparent low metal content of the ore makes it likely that concentration would be necessary. The proposed program would not develop sufficient tonnage to justify mill construction. There are no custom mills in the area.

A bulldozing program on either side of the steep ridge to expose the vein, followed by drifting, would be as informative and considerably cheaper. However, in the opinion of the examining team, the low assay values of the ore, the reported narrow vein structure, and the indicated high cost of production make further exploration of the property unwarranted at the present time.

T. E. Howard, Mining Engineer
(Bureau of Mines)

Thor H. Kiilsgaard, Geologist
(Geological Survey)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
1201 North Division Street
Spokane 2, Washington
August 8, 1952

MEMORANDUM

To: Chairman, Operating Committee, DMEA, Washington, D.C.

From: Field Team, Region II

Subject: DMEA Docket No. 2235 (lead), War Eagle prospect, Lemhi County, Idaho.

An examination report concerning the captioned prospect prepared by T. E. Howard, Mining Engineer, U. S. Bureau of Mines and T. H. Kiilsgaard, Geologist, U. S. Geological Survey is forwarded herewith for review.

The Field Team, in full agreement with the examiners, believe that the geologic probability of making a significant mineral discovery is remote. This fact in conjunction with the indicated operating difficulties and probable high costs leads the Field Team to conclude that exploration is not justified under existing conditions.

It is recommended therefore, that the applicant's request for exploration assistance be denied.

By Field Team, Region II

Glenn C. Reed,
For M. E. Volin, Acting Exec. Off.

S. W. Hobbs,
Acting Member

Enclosure

cc: Wash. (3)
USGS
Albany

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
1201 N. Division St.
Spokane, Wash.

August 1, 1952

MEMORANDUM

To: Field Team, DMEA, Region II

From: T. E. Howard, Mining Engineer, U. S. Bureau of Mines, and Thor H. Kiilsgaard, Geologist, U. S. Geological Survey

Subject: Field Examination of the War Eagle property, Lemhi County, Idaho, DMEA Docket 2235

## INTRODUCTION

The War Eagle Gold, Silver, Lead Mining Company property in Lemhi County, Idaho, was examined by the writers in company with Mr. Walter Deighton, mine foreman for the War Eagle Company, on June 10, 1952.

## RECOMMENDATIONS

It is recommended that the application for a DMEA contract submitted by the War Eagle Gold, Silver, Lead Mining Company, Lemhi County, Idaho, be denied.

## LOCATION AND ACCESSIBILITY

The property is in Section 23, T. 21 N., R. 24 E., Boise Meridian, Pratt Creek Mining District, 12.9 miles by road east of Baker, Idaho. It is reached from paved State Highway No. 28 at Baker over 5.9 miles of graded county road and 7 miles of unimproved mountain road which rises from an elevation of 5480 feet near the mouth of Pratt Creek to 8920 feet at the War Eagle workings. The last 1.5 miles is accessible only to four-wheel drive vehicles.

## TOPOGRAPHY AND CLIMATE

The existing War Eagle workings and the site of the proposed work are on a ridge between Pratt and Wimpy Creeks at an elevation of 8900 feet. Severe winters are usual and the normal working season is five or six months.

## PROPERTY

The property consists of 10 unpatented lode mining claims, the Ben No. 1 through 10, recorded in book 2, pages 143 to 152 of lode mining claim locations in the office of the County Recorder at Salmon, Idaho. The proposed exploration would be conducted on the Ben No. 1 claim.

Since the date of the application, the Goldstone Mining Company has acquired the property under a thirty-year lease. The proposed exploration work would be performed by that company.

## GEOLOGY

At the time of the visit, no portions of the vein were visible at the outcrop, although a line of sloughed open cuts marked its location. These cuts indicate that the vein strikes N. 30° W.; the dip is reported to be very steep to the northeast. An open cut, accessible in 1951, is reported to have exposed the vein, which, at that point, consisted of 1 foot of quartz with minor amounts of gold, silver, and lead mineralization. A 10-foot crosscut from the bottom of a 60-foot shaft, sunk about 110 feet northwest of the open cut is reported to have intersected the vein, which also consisted of about 1 foot of quartz. This shaft was flooded at the time of the examination. A 22-foot shaft 40 feet northwest of the open cut is reported to have exposed 3 feet of quartz in the vein. Several tons of this quartz are piled near the collar of the shaft. Some pieces are iron and copper-stained but when broken to a fresh surface give little evidence of lead mineralization. Occasional quartz fragments contain thin veinlets of fine-grained galena, pyrite, and chalcopyrite, the local aggregate of which impart a dark coloration to the quartz. A selected sample, for which only the more mineralized quartz was collected, assayed 1.9 ounces of silver, 7.1 percent lead, and 0.2 percent copper. No test for gold was made. However, Arthur Lake's report, a copy of which is attached to the application, lists several samples assaying from 0.1 to 0.6 ounces per ton in gold. The sample taken by the examining team varies markedly from samples listed in Lake's report. Those samples are appreciably higher in lead content and must have been taken from carefully selected mineral specimens.

Country rocks in the War Eagle area are pre-Cambrian chloritic schists, the schistocity of which strikes northwest and dips steeply.

Owing to the lack of outcrops and the scanty mineralization, no map of the property was prepared, although Lake's map No. 3A, attached to the application, was referred to. This map indicates that the vein has been traced for about 250 feet across the ridge. However, the vein has been projected some distance to the northwest and southeast.

The character of quartz piled near the 20-foot shaft indicates that the vein would be of value chiefly as a possible gold producer in which minor amounts of lead might be recovered as a by-product. As such, the vein would be comparable to that of the Goldstone mine located about 1.5 miles to the southeast. This mine, operating from 1937 to 1939, produced 86 tons of concentrates that contained 439 ounces of gold, 273 ounces of silver, and small amounts of lead and copper. According to a prospectus put out by the Goldstone Mining company, ore samples from the Goldstone vein average 0.35 ounce gold per ton across a working width of 2.5 feet of quartz vein.

## EVALUATION OF APPLICANT'S PROPOSAL

The applicant proposes to deepen the existing 60-foot vertical shaft an additional 135 feet and to drift 300 feet on the vein from its bottom. The applicant estimates the program will cost $17,000.00.

This program would not develop the War Eagle vein to any appreciable extent. The shaft would be sunk from the top of a steep ridge in a location that would be accessible only during a comparatively short working season. Although the deposit is not developed sufficiently to allow an accurate estimate of mining costs, the short working season, the difficult access, and the reported narrow vein width all indicate that such costs would be high. In addition, the apparent low metal content of the ore makes it likely that concentration would be necessary. The proposed program would not develop sufficient tonnage to justify mill construction. There are no custom mills in the area.

A bulldozing program on either side of the steep ridge to expose the vein, followed by drifting, would be as informative and considerably cheaper. However, in the opinion of the examining team, the low assay values of the ore, the reported narrow vein structure, and the indicated high cost of production make further exploration of the property unwarranted at the present time.

T. E. Howard, Mining Engineer
(Bureau of Mines)

Thor H. Kiilsgaard, Geologist
(Geological Survey)

500

FILE COPY
SURNAME:

Minerals
Mitt

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

DEC 29 1951

BN

Mr. B. W. Porter
War Eagle Gold, Silver, Lead Mining Co.
511 Securities Building
Seattle, Washington

Re: Docket DMEA 2235
War Eagle Mine
War Eagle Gold, Silver,
Lead Mining Co.

Dear Mr. Porter:

Your application for assistance in exploring the War Eagle Mine in Idaho, Docket No. DMEA 2235, 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, Region II, South 157 Howard Street, Spokane 8, Washington, for a field examination.

The Region Office will contact you at the earliest opportunity in regard to your project.

Sincerely yours,

Signed B.H. 12-29

D. E. Moulds, Acting Chief
Base Metals Division
Defense Minerals Exploration
Administration.

DEMoulds/hmj

12-28-51

cc to: Adm. Reading File
Mails and Files
Mr. Mittendorf
Mr. Moulds
Mr. Bishop
Mr. McKnight
Docket
Region II (2)

FILE COPY
SURNAME:

Moulds
McKnight
Johnson

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

DEC 26 1951

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

Re: Docket No. DMEA 2235X
War Eagle Gold Silver Lead Mining Co.
Seattle, Washington

Dear Mr. Weissenborn:

We are transmitting herewith a copy of Review of Application for Exploration Assistance for the subject project. Your letter of transmittal of November 16, 1951 states that one set of the application forms has been retained for use in field examination.

In event that the field examination of the subject exploration project indicates the possibility of worthwhile Government participation, the following information and documents will be necessary to process a contract:

(1) Map showing property location in relation to veins and proposed work.

(2) Book, page, and place of recording of located claims, and section, range, township, and county in which located.

(3) A signed agreement stating all conditions of rental of the Goldstone Mining Company facilities to be used for this project.

(4) Schedule of labor classification and rates per shift or contract unit price and what is included in contract.

(5) Breakdown of estimated cost of supplies required for the work.

(6) Statement that applicant is prepared to furnish the necessary funds to meet the expense of participation.

We believe that inasmuch as a field examination is necessary, that the applicant could be requested at that time to furnish the foregoing information if the examination indicated the possibility of approval

sa

of the project for a contract. In this way the processing of favorable projects can be expedited upon review of the field report. Also, if the project appears unfavorable and a denial in order, the applicant will not be involved in the expense and effort of sending material requested by this office and not used.

Sincerely yours,

(signed) FRANK E. JOHNSON (for)

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosure-1

APPROVED:

_____
Member, Bureau of Mines

_____
Member, Geological Survey

DEMoulds/meh
12/13/51
cc to: Adm. Reading File
Mails and Files
Mr. Mittendorf
Mr. Moulds
Mr. Moon
Mr. ~~Mann~~ Bishop
Mr. McKnight
Region II
Docket

12-26-50

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

December 12, 1951

Memorandum

To: Mr. C. O. Mittendorf, Acting Administrator

From: D. E. Moulds

Subject: Review of Application Docket No. DMA 2235X, War Eagle Gold-Silver-Lead Mining Co., Seattle, Washington, Lead - Zinc

Application:

Filed Form MF-100 and MF-103 under date of November 1951, with Region II and transmitted by Region II on November 16, 1951. Region has retained one set of applications for field examination which cannot be accomplished until May due to mine now snowed in and inaccessible. Application contains two reports by Arthur Lakes, mining engineer and geologist, with plan and section maps.

One set of applications transmitted to E. T. McKnight, USGS, and one set to O. M. Bishop, USBM, for review on December 4, 1951.

Property:

Property consists of ten-lode mining claims, Ben No. 1 - 10 inclusive, located in the name of the subject applicant. Present development consists of 65-foot shaft, and open cut pits. Fixtures consist of a compressor house and small headframe.

Exploration Project:

The proposed exploration consists of sinking the shaft from the present 60-foot depth to approximately 200 feet (135' advance) and drifting from the bottom of the shaft 300 feet on the vein. The estimated cost is $17,100 and completed 6 months after start of work.

Review of the engineer's report made in July and August 1944, indicates the possibility of a worthwhile project on an unexplored vein. Samples of the veins and float range from 0.85% to 37% lead with accompanying gold and silver values. The costs appear reasonable for the work. The consulting engineer, however, presents two other exploration plans of which the proposed plan is a curtailed revision of the third alternative presented. It is also noted that the engineer reports the shaft having a depth of 20 feet; it thus appears that some work has been done which may modify the data and conclusions of the report.

Field Referral:

The engineer's report indicates the possibility of a worthwhile project for lead discovery. The engineer's report, however, was made sometime past and it is recommended that a field examination be made to ascertain present conditions existing at the property, review the feasibility of the project from geological and mining standpoint, and determine if the project presented would adequately explore the project in preference to the other alternatives mentioned by the consulting engineer. In event the project appears to be worthy of Government participation, inform the applicant of the necessity for furnishing the following information and data.

(1) Map showing property location in relation to veins and proposed work.

(2) Book,page and place of recording of located claims, and section, range, township, and county in which located.

(3) Clarification of proposed rental arrangement for use of Goldstone Mining Company facilities. A signed agreement stating all conditions of the rental should be furnished.

(4) A schedule of labor rates per shift or contract rate and what the contract includes.

(5) A breakdown of estimated cost of supplies required for the work.

D E Moulds

D. E. Moulds

500

FILE COPY
SURNAME:

Moulds

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

December 12, 1951

Not stripped in R v R.

Memorandum

To: Mr. C. O. Mittendorf, Acting Administrator

From: D. E. Moulds

Subject: Review of Application Docket No. DMA 2235X, War Eagle Gold-Silver-Lead Mining Co., Seattle, Washington, Lead - Zinc

Application:

Filed Form MF-100 and MF-103 under date of November 1951, with Region II and transmitted by Region II on November 16, 1951. Region has retained one set of applications for field examination which cannot be accomplished until May due to mine now snowed in and inaccessible. Application contains two reports by Arthur Lakes, mining engineer and geologist, with plan and section maps.

One set of applications transmitted to E. T. McKnight, USGS, and one set to O. M. Bishop, USBM, for review on December 4, 1951.

Property:

Property consists of ten lode mining claims, Ben No. 1 - 10 inclusive, located in the name of the subject applicant. Present development consists of 65-foot shaft, and open cut pits. Fixtures consist of a compressor house and small headframe.

Exploration Project:

The proposed exploration consists of sinking the shaft from the present 60-foot depth to approximately 200 feet (135' advance) and drifting from the bottom of the shaft 300 feet on the vein. The estimated cost is $17,100 and completed 6 months after start of work.

Review of the engineer's report made in July and August 1944, indicates the possibility of a worthwhile project on an unexplored vein. Samples of the veins and float range from 0.85% to 37% lead with accompanying gold and silver values. The costs appear reasonable for the work. The consulting engineer, however, presents two other exploration plans of which the proposed plan is a curtailed revision of the third alternative presented. It is also noted that the engineer reports the shaft having a depth of 20 feet; it thus appears that some work has been done which may modify the data and conclusions of the report.

BL

Field Referral:

The engineer's report indicates the possibility of a worthwhile project for lead discovery. The engineer's report, however, was made sometime past and it is recommended that a field examination be made to ascertain present conditions existing at the property, review the feasibility of the project from geological and minihg standpoint, and determine if the project presented would adequately explore the project in preference to the other alternatives mentioned by the consulting engineer. In event the project appears to be worthy of Government participation, inform the applicant of the necessity for furnishing the following information and data.

(1) Map showing property location in relation to veins and proposed work.

(2) Book,page and place of recording of located claims, and section, range, township, and county in which located.

(3) Clarification of proposed rental arrangement for use of Goldstone Mining Company facilities. A signed agreement stating all conditions of the rental should be furnished.

(4) A schedule of labor rates per shift or contract rate and what the contract includes.

(5) A breakdown of estimated cost of supplies required for the work.

D. E. Moulds

DEMoulds/meh
cc to: Mails and Files
Mr. Moulds
Docket

DRAFT

December 7, 1951

Memorandum

To: Mr. D. E. Moulds, DMEA

From: O. M. Bishop, Base Metals Branch, U. S. Bureau of Mines

Subject: DMEA 2235, (War Eagle, Lemhi Co., Idaho)

I have given the above docket a brief examination at your request to see if I note items the field team should clarify so that a contract could be written if the application were approved.

Obviously the geologic and mining problems involved in any exploration and the economic factors governing a discovery in Lemhi County should be considered. These will be evaluated by field team.

I believe you will also want an estimate from the applicant as to the amount and cost of the supply items needed, and the gross cost of the project. He should also clarify his answer to question 7a so that you may know what he thinks a fair rental value for his facilities. You might wish to write him whether this type of item is allowable.

O. M. Bishop

O. M. Bishop

Defense Minerals Exploration Administration

Review of Application for Exploration Assistance

Docket No. DMEA-2235

Commodity Lead, silver, gold

Total Amount $24,900 ?

Govt. Participation 50% $12,450

Mr. A. E. Weissenborn
Executive Officer, Field Team
Region II
South 157 Howard Street
Spokane 8, Washington

1. Name and Address of Applicant B. W. Porter, War Eagle Gold Silver Lead Mining Company, 511 Securities Building., Seattle, Washington

2. Location of Property 12 miles W. of Baker, Lemhi County, Idaho (1½ mile from Goldstone mine).

3. Mineral or metal Lead-silver Is it listed in Section 9 of MO-5?

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination X

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes
(question 5, 6, 7)* Note engineer Lake's Supplemental report, Page 4.

6. If applicant is a lessee, is a copy of the lease attached?

Does the lease have sufficient time to run to cover a future productive period?

*question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? _____

b) MF-202 _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes

b) Equipment and supplies Yes
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Requires 1½ mile road built

d) Water (question 13)* Yes

e) Power (question 13)* Not certain

Is a field check needed on any of these points? Yes, c & e

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Yes

Is a field check needed on this point? No

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? Yes, but relation to geology not adequately shown

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

Is this part a worthwhile exploration project?_____

d) Are the cost estimates detailed? No, MF-103 #9 deleted

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? Don't know

f) Should more information be requested from applicant? Yes

g) Is a field examination necessary to complete Exhibit A? Yes

11. Exhibit B (question 23-d)*

a) Is it applicable? Not applicable

b) If so, are sufficient data furnished?_____ If so, attach a draft.

c) Is a field check needed? No

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Yes

b) Sufficient data? No If so, attach a draft.

c) Are rents and charges reasonable? Don't know

d) Is a field check needed? Yes

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? No

b) Is the schedule adequate for the work proposed? Don't know

c) Is the schedule excessive for the work proposed? Don't know

d) Are the proposed wages and salaries reasonable? Don't know

e) Is a field check needed? Yes

14. Exhibit E (question 23-c)*

a) Is it applicable? Yes

b) Sufficient data? No

c) Reasonable?

d) Field check needed? Yes

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? An examination of property is needed in order to evaluate proposal. It is possible that some modification of project will be necessary after examination has been made. On MF-103 Nos. 9 and 10 were deleted. Consequently total loan request unknown and also agreement to mutual participation on cost of project is unknown.

Reviewed by: E. L. Newcomb GS 12-6-51

Date 12-10-51



INT.-DUP. SEC., WASH., D.C. 99009

C
O
P
Y

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

So. 157 Howard Street
Spokane 4, Washington

November 16, 1951

Thru: Reports and Records Unit

Mr. Tom Lyon, Chairman
Coordinating Committee
Defense Minerals Administration
U. S. Department of the Interior
Washington 25, D. C.

Dear Mr. Lyon:

Enclosed are four copies each of Forms MF-100 and MF-103 submitted by the War Eagle Gold, Silver, Lead Mining Company, 511 Securities Building, Seattle, Washington. The application concerns the War Eagle property, Lemhi County, Idaho.

This office was previously informed that the War Eagle Gold, Silver, Lead, Mining Company wished to submit application for exploration assistance. Therefore in October Mr. Elton Youngberg, Geologist, U. S. Geological Survey, attempted to visit the property to conduct a field examination, but found the mine to be snowed in and inaccessible. The applicant, Mr. B. W. Porter, advises that the property should be accessible by May 1952. This office will tentatively schedule a field examination for that time.

Sincerely,

s/ Thor H. Kiilsgaard
for A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures as indicated.

cc: USBM, Spokane

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

# GENERAL TECHNICAL DATA
# FOR USE UNDER THE
# DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. D.M.E.A. 2235

Date received 11-19-51

War Eagle Gold Silver Lead Mining Co.
511 Securities Bldg.
Seattle, Washington

Name and address of applicant

Date November 1951

## INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

## GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

| Name and Address (a) | Official Title (If officer is also director indicate by "D") (b) | Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c) | Estimated Net Worth Outside of Interest in Applicant (d) | Number of Shares Held in Applicant Corporation: Common (e) | Number of Shares Held in Applicant Corporation: Preferred (f) | Life Insurance Carried for Benefit of Applicant: Amount (g) | Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h) |
|---|---|---|---|---|---|---|---|
| Allen Knight<br>Bellingham, Wash. | Vice-pres.<br>& director | None | | 10,000 | | None | |
| F. E. Frost<br>Bellingham, Wash. | | " | | 10,000 | | " | |
| C. W. Miller<br>Bellingham, Wash. | | " | | 10,000 | | " | |
| Emil Mottman<br>Kelso, Washington | Secretary<br>& director | " | | 10,000 | | " | |
| P. W. Miller<br>LaConner, Washington | | " | | 10,000 | | " | |
| B. W. Porter<br>Seattle, Washington | President<br>& director | " | | 10,000 | | " | |
| | | | | | | | |
| | Total | | x x x x x | 60,000 | | x x x x x | x x x x x |

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

**For Corporate Applicants**

| Item | Authorized (a) | Outstanding (b) | Par Value (c) | Number of Shares Outstanding (d) | Dividend Rate Last Paid* (e) |
|---|---|---|---|---|---|
| Common stock | $ 350,000 | $ 60,000 | $ 0.10 | | |
| Preferred stock | $ | $ | $ | | |

*Indicate period covered.

10. Production: Not applicable

| Item | Kind of Product (a) | 1948 Total (b) | 1949 Total (c) | 1950 Total (d) | Present Average Monthly (e) |
|---|---|---|---|---|---|
| 1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.) | | | | | |
| 2. Quantity of product processed (specify unit of measure and type of process) | | | | | |
| 3. Quantity and grade of product sold or shipped (specify units of measure) | | | | | |

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. Not applicable

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

See Engineer's Reports, attached

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

**TOTAL ORE OR MINERAL RESERVES**

| Ore or Mineral Reserve | Estimated Tons (a) | Metal or Mineral Content Per Ton (Grade) (b) | Gross Value Per Ton (c) | Recoverable Unit Value Per Ton (d) | Estimated Cost of Production Per Ton (e) |
|---|---|---|---|---|---|
| Measured (proved) | | | | | |
| Indicated (probable) | | | | | |

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads: 40 miles to Armistead railhead, U.P.Ry.
Give road distances to shipping/supply and residence points, stating kind and condition of roads.
21 miles to Salmon, Idaho, supply center (county seat)

14. Water Supply:
State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:
State amount of power used, rate per hour, and source thereof.

16. Labor: Not applicable - work done by footage contract
State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: Compressor house 12x12, and gallows shaft frame (condition good).
Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation. None

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

**CERTIFICATION**

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

WAR EAGLE GOLD SILVER LEAD MINING CO.
(Name of company)

By B. W. Jones
(Signature of authorized official)

November 1951
(Date)

President
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

1. (a) Lead, silver, gold

(b) None

2. (a) Linear feet of shafts 65 ft.

(b) Drifts and crosscuts None

(c) Tunnels or adits None

(d) No other mine openings except some open cuts

The mine is not flooded and presents no pumping problem.

3. (a) Nearest supply center is Salmon, Idaho, 21 miles
Nearest shipping point is Armistad, ~~Idaho~~, 40 miles

(b) Pratt Creek Mining District Montana

(c) Township_____, Section_____, Range_____

(d) Lemhi, Idaho

4. (a) The property is not now in operation

(b) Owner

5. Has not been in production or operation

Estimated date when production will begin: "six months after commencement of this contemplated project"

6. (a) B. W. Porter, president and manager of applicant, has been actively engaged in mining and mine development since 1934.

The foreman or superintendent to be assigned to this project is Walter Deighton, who has had more than 20 years experience in actual mining, both underground and surface.

7. (a) Previous exploration work consisted of sinking a shaft 65 ft. and open cuts across the lode or vein.

(b) Among the properties being developed in this area are the Idaho Consolidated Mines property, which is expected to be in production before December 1, 1951; the Goldstone Mining Co. property one mile distant from the War Eagle property; and the How Sound's 2000-ton per day operation.

(c) ~~Pr~~ Engineers' reports attached.

PRELIMINARY REPORT
ON THE
WAR EAGLE PROPERTY
Lemhi County, Idaho

The War Eagle is a prospective mining property that warrants exploration in expectancy of making a good lead-silver-gold mine of moderate size.

The property comprises five located claims extending from War Eagle Mountain northwest across Pratt Creek and up over the ridge dividing Pratt Creek from Wimpy Creek. The claims extend NW along the indicated course of War Eagle vein-lode which has been opened by two tunnels south of Pratt Creek on War Eagle Mountain, thence NW over Pratt Creek-Wimpy Creek divide where the lode is opened by a series of surface cuts and two shallow shafts, and is also presumed to be exposed by tunnel down the Pratt Creek slope as shown on Plan No. 1 and Longitudinal Section herewith.

The property is reached by mountain road extending 11 miles westerly from the main highway at Baker, Idaho to Goldstone mine, thence by high level foot trail extending 1½ miles easterly to the upper War Eagle showings on the divide. From there a switchback trail extends down Pratt Creek slope to the lower tunnel and thence to War Eagle camp. War Eagle camp is on the road 1-1/3 miles nearer Baker.

An alternative means of access is by road extending 40-miles from Armstead, Idaho, to Goldstone mine, thence by above mentioned trails. Whilst this latter route is in better repair--as about 1½ miles of the Pratt Creek road has been washed out making it impassable except for pack horses and difficult wagon haul--the Armstead road crosses the Continental Divide at about 9000 feet altitude and is there under deep snow until late summer.

In the event that War Eagle showings on Pratt Creek-Wimpy Creek divide expose commercial ore bodies as anticipated, the surface configuration indicates that best means of access will be by road extending up the gentle Wimpy Creek slope which is generally covered by overburden and timbered so that a road could be quickly and cheaply bulldozed.

Timber in vicinity of War Eagle showings is suitable for lumber and for mining purposes. Both Pratt and Wimpy Creeks flow adequate water for all milling purposes but there appear to be no running streams in close vicinity of War Eagle showings. The summer prospecting camp suggested at the upper showings may be provided with water from the 20-foot shaft on War Eagle vein or a spring might be found by further search.

The high elevations make winter weather severe but open weather may be counted on for about six, or more, months per year in vicinity of the proposed work. Transportation to summer camp will be by pack horse over the War Eagle-Goldstone trail or up the gentle hill slope NW and W of the showings.

The country rocks comprise a series of thin bedded, platy argillaceous quartzites enclosed between beds of hard, vitreous, massive quartzites, all striking generally NW with variable steep dips SW and NE. The War Eagle and Goldstone veins occur in the thinner bedded formations which are much more favorable for formation of shear and fissure zones than the more massive rocks which appear to be too hard and resistant to permit extensive vein fissuring.

The bed of thinner favorable formation at War Eagle appears to exceed 1000-feet thick, striking NW nearly parallel to War Eagle vein which cuts it at acute angle, and has nearly vertical dip. The War Eagle vein-lode about centers this bed and its acute intersection of formation course will permit considerable lateral and vertical extension of the vein before it enters the harder and more massive, less favorable rocks.

Best exposures of War Eagle vein-lode are on the divide between Pratt & Wimpy Creek at about 8800 feet above sea level where it has been trenched and opened by shallow shafts for about 220 feet length in a N 25°W direction with a 20-foot shaft near center where ore width must have been considerable, judging from the large amount of quartz-lead ore piled around it where chunks upwards of one foot square are common. The area NW of these workings is generally covered by earth and timber but considerable float in large chunks and possible outcrop occur for an additional 260 feet. Whilst it will require more systematic surface trenching to prove vein outcrop under the overburden, the above exposures indicate a possible length of more than 450 feet of vein in this vicinity and it is to be expected that this will be closely approximated by the work suggested.

The cuts and shafts are not exposed in vein at present, except for 10-foot pit near station 37 where a foot of good ore is opened. The samples taken in this vicinity were, therefore, grab samples from the numerous and considerable ore piles around the shaft and cuts and from possible outcrops and/or large float exposed NW down the hill. The ore is essentially quartz with visible lead in streaks, veinlets and small bunches and the samples show a higher lead tenor that would be first anticipated. Judging from the workings it would appear that the ore body here is a lense which widened out to considerable width at and near the center (in vicinity of the shaft) and narrowed at each end. However I do not believe that the large float occurring NW down towards and in the vicinity of Tunnel "A" (See Map No. 3) was thrown from this wider bed as the surface is too flat for these large pieces to have travelled that far. It is possible, therefore, that another good sized lense may occur between station No. 35 and Tunnel "A" and it is on this assumption that the exploration work advised herein is predicated. Success here would encourage further prospecting down the lode strike towards Wimpy Creek with possibility that additional ore lenses may be found.

Judging from the Goldstone maps and other geologic conditions, which will be more fully investigated and reported in Goldstone examination, the probable downward rake of War Eagle ore shoots or ore zone will be NW or toward Wimpy Creek. If this proves to be the case the obvious locality for attack in depth would be from Wimpy Creek side of the mountain towards which the better ore showings would plunge.

The next showing on War Eagle vein is presumed to be at Tunnel "B", 1000 feet further SE and 430-vertical feet below the above showings. This comprises two veins (1) on east side of cut over tunnel face which lines up with the projected SE strike of vein from the upper showings, giving belief that this may be on the same vein-lode, and (2) a narrow quartz vein branching N33°W from the first. These two veins occur in a sheared, much contorted and schisted zone within the thin, platy argillaceous quartzites. They appear to be barren of mineral where now exposed but ore on the tunnel dump contains considerable galena which is indicative that the vein, or veins, in the tunnel were productive of ore. They vary in width from two feet at surface of the

first vein and 6" at surface of the second, but in the cut both pinch down to about half their surface exposure. Unfortunately the tunnel floor and face was not open for inspection so that conditions there could not be judged. A picked sample of the best lead-quartz ore returned high values as reported elsewhere in this report.

Two cuts between the upper showings and Tunnel "B" are clearly off the vein strike and show nothing. The distance between the respective showings is too far to conclude with certainty that Tunnel "B" is on the same vein shown by the upper workings and surface trenching--starting from above--will have to be done to prove or disprove the contention. The upper showings are better and show more promise than this one isolated showing but it is possible that more extensive prospecting may materially improve it.

About 1000 feet SW and 560 feet lower elevation from Tunnel "B" is a small cut in thin, platy argillaceous quartzites containing a 6-inch, well mineralized quartz vein whose strike nearly parallels the War Eagle. Its position prohibits its being SE extension of this vein but it might prove to be a parallel one, about 650 feet west of War Eagle vein. A little prospecting to see if it widens might afford encouragement to prospect uphill for parallel ore showings. Its position is west of War Eagle property lines and if it should provide encouragement additional claims should be staked to cover it.

The tunnels on the south side of Pratt Creek are caved and were not examined. I am informed that good gold ore was gotten though in what amount is not noted. This section would be left for some future date as the area between Pratt and Wimpy Creeks affords most promise, is easier of access, and if it proves satisfactory after exploration would give a wide section for development and mining.

As noted none of the actual vein was exposed in any of the cuts or shafts at the upper showings, with exception of about one foot of vein in bottom of the most southerly exposure. For this reason the samples taken by me are primarily "grab" samples from the ore piles at surface and whilst they are indicative of the good ore tenor are not conclusive as they would be if the vein itself had been sampled. In taking these grab samples the mineralized quartz was chipped from numerous larger chunks into a small sample. Two picked samples of the ore containing heaviest visible galena were taken, the others being the better quartz-galena ore and quartz. The results are higher than I had expected at the time of sampling and are encouraging for lead-silver-gold ore but it is to be expected that the full vein widths will run less than the average of grab samples taken, though these indicate that the vein-run will be good mill grade ore. The encouraging feature is that the "float" ore represented by Samples #1 and #2 ran as well as it did as this material did not look overly promising on the ground.

In calculating present dollar values of metal contents of the samples, the following prices have been taken: Gold $35 per ounce; Silver 75¢ per ounce; Lead 6-3/4¢ per pound.

Sample No. 1 taken from outcrop or float exposed above surface 12 inches wide at o.c. "B" (See Map No. 3) 180 feet NW of the shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.36 oz. | $12.60 | |
| Silver | 1.3 oz. | $ 0.97 | |
| Lead | 0.85% | $ 1.41 - Total value per ton | $14.71 |

Sample No. 2 General grab sample of large pieces of ore at cut above Tunnel "A" portal, 260 feet NW from shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.40 oz. | $14.00 | |
| Silver | 3.1 oz. | $ 2.32 | |
| Lead | 10.35% | $13.97 - Total value per ton | $30.27 |

The lead content is unexpectedly high. Tunnel "A" is caved and cannot determine if in downward continuation of this vein. Doubtful as little ore on tunnel dump.

Sample No. 3 Grab from large pieces of ore piled around 20-foot shaft to amount estimated about 30 tons. Quartz with galena, copper stains, etc. Representative of ore that came from the shaft but possibly higher than average if chipped from vein face.

| | | | |
|---|---|---|---|
| Gold | 0.30 oz. | $10.50 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 10.8% | $14.57 - Total value per ton | $29.77 |

Samples #3A Picked sample of best lead ore with quartz taken from numerous large chunks of lead-quartz stained by copper, etc. Clearly high grade and probably in minor amount within the vein.

| | | | |
|---|---|---|---|
| Gold | 0.60 oz. | $21.00 | |
| Silver | 12.6 oz. | $ 9.45 | |
| Lead | 34.4% | $46.44 - Total value | $76.89 |

Taken to see what the best ore in this vicinity would run.

Sample No. 4 Grab from pile of ore near filled cut #36, quartz and galena. No indication of vein width.

| | | | |
|---|---|---|---|
| Gold | 0.32 oz. | $11.20 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 14.0% | $18.90 - Total value | $32.80 |

These values unexpectedly high as ore does not have appearance of this much lead content.

Sample No. 5 From 1-foot vein in bottom of 10-foot pit at south end of the showings. Vein partly exposed in north end of shaft contains visible stringers of lead.

| | | | |
|---|---|---|---|
| Gold | 0.18 oz | $ 6.30 | |
| Silver | 4.4 oz. | $ 3.30 | |
| Lead | 16.1% | $21.60 - Total value | $31.20 |

Sample No. 6 Selected sample from the best lead-quartz ore at Tunnel "A". No indication of width or occurrence in vein which was covered under tunnel floor and not exposed in tunnel face. Surface

outcrop shows no visible galena. Sample taken to see what best ore here might run. When the tunnel faces are better exposed a more systematic sampling should follow as this is inconclusive of the ore possibilities here.

| | | | | |
|---|---|---|---|---|
| Gold | 0.12 oz. | $ 4.20 | | |
| Silver | 4.25 oz. | $ 3.25 | | |
| Lead | 37.0% | $49.90 | - Total value | $58.35 |

- - - - - - - - - - - - - - - - - - - - - - - - -

The above sampling, despite the limitations outlined, is encouraging that the War Eagle upper showings may develop into a good lead-silver-gold mine by further work.

In order to prove the property more fully this summer it is advised that two men be installed at the upper area and provided with tent camp, tools, and supplies by horse pack. A system of open trench work should be laid out and the work frequently inspected.

I advise that the area between station 35 and Tunnel "A" first be prospected through overburden to solid rock and the vein (or veins) exposed be blasted into and sampled. It is probable that from 3 to 4 feet of overburden will be found which will slow up pick and shovel work but this appears to be the most feasible for this summer. After this section has been explored the Pratt Creek slope should be trenched from vicinity of station 37 to SE along the projected vein strike. This will conclude about all the work two men could do during the season.

I estimate costs of wages, supplies, packing, etc. for two men will average about $22 per day. If success is met with a more extensive and cheaper per cubic yard prospecting could be performed next summer by bulldozer but the preliminary work would not warrant the cost of bringing one in at this time.

## Conclusions

The War Eagle property is situated in the rock formation that has been most ore-favorable in this section and has developed Goldstone vein to more than 500 feet depth in good ore. Whilst War Eagle rock belt is separate from Goldstone it is similar in character and structure. Thus War Eagle has ore-favorable host rock.

The small amount of work on War Eagle upper workings has indicated more than usual amounts of quartz-galena ore which assays high enough to promise commercial returns after the ore sheets may be developed into length and depth.

The immediate future should be given to proving lateral extent and vein widths of ore. This will best be done by surface trenching. After this work is done the depth extension could conveniently be done by diamond drilling from surface by gas-driven drill.

I have no hesitancy in recommending prospecting and exploration of this property and believe that a good lead-silver-gold mine of moderate size will be disclosed.

Spokane, Washington
July 3, 1944

ARTHUR LAKES

SUPPLEMENTAL REPORT
ON THE
WAR EAGLE GROUP

I made another examination of War Eagle property July 28th, in conjunction with underground examination of Goldstone mine workings, July 24-29th.

This report chiefly concerns method of surface prospecting of vein outcrop and downward extensions of ore found thereby; transportation facilities and improvement thereof. Various routes for road connection between War Eagle and Goldstone mine were investigated.

The outstanding factors developed by this examination were:

(1) The depth of overbufden at War Eagle surface exceeds estimate of my Preliminary report, July 3rd., and vein outcrop cannot be adequately or cheaply opened by pick and shovel. The only satisfactory method involves bulldozer trenching through from 5 to more than 10-feet of over burden.

(2) The absolute necessity for roads over which to drive bulldrozer to the upper War Eagle area and also to haul compressor, mine cars, and other mining equipment to be used for underground development of ore that may be found by bulldozing.

(3) Validity of title of War Eagle claims is subject to doubt. Steps have been made to protect your interests in this matter.

Transportation The unusually strong showings of ore float and at the surficial workings at upper War Eagle should interest any mining engineer. The fact that the property has been ignored for the past 15 to 20-years is probably due to the isolated position and difficult accessibility of these showings. In order to explore the actual vein outcrop along its course, in accord with proper mining caution, will require the use of bulldozer. This requires that it dig a road to War Eagle locality. Without this work the ore possibilities will remain entirely speculative and the property continue as it has for the past years. Therefore the chief "bug" is lack of transportation which will have to be remedied before intellegent and conclusive investigations can go forward.

In considering transportation it is necessary to bear in mind that ore from War Eagle (if successfully developed in commercial quantity as expected) and from Goldstone mine will be treated in a central mill, powered by Deisel-electric unit from which electricity will be wired to compressors at each mine. This plant should be located where ore from the respective mines can be transported downgrade to it. The most central locality meeting this condition will be on Pratt Creek, possibly near War Eagle cabin, whereby ore from War Eagle could be transported over aerial tramway or by road down to mill and ore from Goldstone mine be hauled down over present road to mill by truck in summer and cat-train in winter.

Thus the location of the road will be determined by the above considerations in order to facilitate earliest access to War Eagle showings and at the same time provide adequate permanent transportation for ore and supplies. An alternative mill location had been considered on the gentler slope of Wimpy Creek north of War Eagle showings which is covered by earth but investigation proved the impossibility of building down grade road connecting Goldstone mine to this section.

If this had proven otherwise the Wimpy slope had my preference but the best method of access to these properties now appears to be as follows:

(1) Improve Goldstone road up Pratt Creek by relocating about 2-miles on the south side of Pratt Creek from the lower power plant to about ½-mile above damsite, thereby bypassing all washed out sections and connecting into the good, even grade road from about ½-mile west of War Eagle cabin to Goldstone camp. Anerold readings indicate from 6% to 10% grade, with possibility of one or two switchbacks. The south side of the creek is mostly earth timbered by jack pine and other small timber. Two bridges will be required, one crossing Pratt Creek at each end of the relocated road. This will provide adequate truck haulage to and from Goldstone mine which will greatly facilitate future operations there as well as afford access to War Eagle showings.

(2) Take off from Goldstone road at most convenient place between War Eagle cabin and Goldstone camp to miss the large rock slide west of north creek fork. This rock slide extends part way down the moutain north of present road. This road to extend at about 10% grade up to Tunnel "B", thence up a 10% locality of War Eagle upper workings. Subject to survey, I have sketched this road on accompanying Map No. 1. Distance cannot be determined until survey but should approximate 8,000 feet. Preliminary observation indicates depth of overburden sufficient to dig a 12 to 14-foot road. Some narrow rock ridges may be encountered, requiring rock work which will be facilitated by use of portable compressor to be used in preliminary underground development at War Eagle. The idea is to follow bulldozer route and eliminate all rock work possible.

Obviously a true estimate of cost cannot be arrived at until further investigation but it is possible that the above work can be performed in a week or 10-days, largely dependent upon the rock work required.

Surface exploration Once the road is completed a series of level cuts will be driven across the indicated vein strike down both Pratt Creek and Wimpy Creek slopes. The gentle Wimpy Creek slope will permit bulldozing as far as required but the lower half of Pratt Creek slope between upper War Eagle and Tunnell"B" gets progressively steeper which may eventually limit work in that direction.

A minimum 5-foot depth to over 10-feet depth over overburden and slabbed country rock may be expected, thus benches upwards of 30-feet wide will be formed by digging down into bedrock to expose the vein outcrop. The bulldozer will be followed by two men who will use pick and shovel and dynamite to define vein (or veins) found therein. Possibly $3,000 may be expended in this work which will most conclusively define surficial ore possibilities which mining caution requires.

As mentioned in my preliminary report, and illustrated on accompanying Longitudinal Section 2-A, the probable downward ore rake of War Eagle ore zone (or zones) will be northerly towards Wimpy Creek and the presumed igneous ore source. This northerly ore rake was anticipated from Goldstone maps and has been definitely proven by my recent Goldstone examination.

At present the full lateral extent of War Eagle's upper ore zone has not been indicated due to the heavy cover. Testing down Pratt Creek slope will be necessary to define the southeastern limits at surface and likewise bulldoze testing down Wimpy Creek slope will be required to define length of ore to the northwest.

The indicated northerly rake suggests that prospecting down Wimpy Creek slope will provide better and quicker results and this work should be performed first.

Underground exploration and development The Longitudinal Section indicates possible additional ore zone under the upper zone. This extends from Tunnel "B". How far above or below the tunnel this showing may continue will depend upon exploration to prove.

The northerly ore rake, if proven as expected, will require longer tunnels to tap downward continuation of ore zone if driven from Pratt Creek slope in a northerly direction than tunnels driven southerly from Wimpy Creek slope because the Pratt Creek tunnels would progress with and under the ore rake, whilst the Wimpy Creek tunnels would be driven into the ore rake.

Wimpy Creek slope affords better opportunity to quickly determine ore possibilities indicated by the large float showings there and the surficial showings on the divide between Pratt and Wimpy Creeks. The Pratt Creek slope has advantage of proving ore possibilities indicated in vicinity of Tunnel "B" but would be more than twice as long as Wimpy tunnels to test downward continuation of the indicated larger ore possibilities north of the divide.

Three methods of underground development present themselves:

(1) Drift tunnel driven southeast along vein from Wimpy slope whereby about 800 to 900-feet length would test the full length of indicated ore zone to about 400-maximum feet below surface. The cost of this tunnel at $18 per foot would be about $16,000 and would prove width of ore vein, length of ore shoots, etc. to that depth.

(2) Drift tunnel driven northwest along vein by extension of Tunnel "B" would extend 1200-feet to reach the indicated beginning of the better ore zone, thence would have to advance an additional 800 feet or more to reach its other end, a total of 2000 feet which would bring this tunnel almost to surface at Wimpy slope. This tunnel would have advantage of proving possibilities of the ore zone near its portal and would also test ground between the two zones which Wimpy tunnel would not do. Cost of this tunnel at $18 per foot would be about $36,000 and would prove width of ore vein, length of ore shoots within the various ore zones, etc, to a maximum of 400 feet below surface.

(3) Extension of the 20-foot shaft down in the ore vein for 400 feet, to same elevation of the two proposed tunnels, would have advantage of "staying with the ore" until it raked out to the north, thereby proving width and ore tenor in downward continuation. Drifts would have to be run out northerly in the lower levels to prove lateral conditions along the vein. At $40 per foot, 400 feet of shaft would cost $16,000 and at $20 per foot an additional 800 feet of drift along vein would cost $16,000, the total $32,000. Subject to bulldozer disclosures of vein down Wimpy slope, whereby Wimpy tunnel could be started on, or close to ore, the shaft method would give better assurance and prove two dimensions within limits of ore rake, whereby the tunnel methods would require additional work to prove vertical conditions.

The more rapid accomplishment of objective together with lesser cost gives advantage to Wimpy slope tunnel. If success is met with and commercial ore proven along its horizontal extent then a shaft could be raised to surface from this level, 150 feet north from the 20-foot shaft to afford information about the vein

and also provide access to surface whereby ore could be hoisted to a tram or road terminal for transportation down to mill. Deeper development would best be performed by continuing this shaft. At about $30 per foot this shaft-raise would cost about $12,000 but this additional expense would not be incurred until Wimpy tunnel had proved occurrence of acceptable quantities and grade of ore to warrant going into mining.

In regards the shaft method it is questionable if the compressor to be used for preliminary development would provide sufficient power for hoisting more than 200 feet. This would require a larger and more expensive compressor, pumps, continuous timbering, whereby water would drain out the tunnels and much of the drift tunnels would not require timber.

Title Validity of title to War Eagle claims is subject to doubt by reason that Location Notice posted at War Eagle No. 2 claim is dated May 25, 1937 but the County Recorders's office has no filing as of that date but shows only the original location in 1928. Subject to thorough checking of yearly assessment filings from 1928 to 1937 or some other legal arrangement for holding the claims in good standing during that period the title of optioners may have lapsed. If assessment lapsed at any time between 1928 and 1937 the claims lapsed and thereafter would be subject to (a) relocation by former stakers or (b) open for new location by new stakers. Unless a lapse had occurred I cannot see reason for posting a Notice dated in 1937 because the claims would be in good standing and not require such a notice. This matter deserves thorough investigation.

In the meantime, to protect your interests, six claims are being located to cover War Eagle Lode and an additional four claims are being located on open ground west of War Eagle to cover a vein there, as advised in my July 3rd. report. The new claims are marked in green on Map No. 1 and the old War Eagle locations shown in orange.

Your option on this ground and your investment in work will thus be adequately protected. If War Eagle owners have a valid title the terms of your option still stand. If they have not, the new locations will acquire all rights to this property.

In checking over the ground during last examination we found that all quartz carries values, even some pure white "bull quartz" when broken contained lead sulphides. This is indicative of extensive metallization of the quartz and the wide spread and large pieces of float is indicative of good sized quartz body beneath overburden.

CONCLUSIONS The wide distribution of large ore float and indication of considerable ore width by dump at 20-foot shaft together with the fact that metallic values occur in every type of quartz on this showing, all give encouragement that further exploration and development will provide commercial ore results. The showings justify bulldoze prospecting whose results will determine underground exploration and development. Success should provide a good profitable lead-silver-gold mine. In event of disappointment from bulldozer work the losses will be limited to cost of road plus about $3,000 for bulldozing. Whilst it will require this work to prove whether or not these expectations develop the showings fully justify this expenditure which will be followed by expenditure for underground

development in accord with bulldozer findings. Unless this work is done the property will remain dormant in same position economically as it has for the past years.

Spokane, Wash.
August 2, 1944

Arthur Lakes
Mining Engineer & Geologist

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

*Not To Be Filled in by Applicant*

Docket No. D.M.A. 2235
Metal or Mineral
Date Received 11-19-51
Amount $
Participation (Government %)

WAR EAGLE GOLD, SILVER, LEAD MINING CO.
511 Securities Building
Seattle, Washington

Name and address of applicant

Date November 1951

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

## INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

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

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

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

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

DEFENSE MINERALS ADMINISTRATION WASHINGTON D.C. NOV 19 2 PM 511

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

## CERTIFICATION

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

Goldstone Mining Co. By B. W. Torey
(Name of company) (Signature of authorized official)

Nov. 15, 1951 Pres.
(Date) (Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

1. (a) The property involved in this exploration project consists of ten lode mining claims named "Ben Nos. 1 to 10" inclusive, with principal development work concentrated on Ben No. 1 lode claim.

(b) The claims are mining locations made for the benefit of the War Eagle Gold Silver Lead Mining Co., a corporation, and owned by said corporation.

(c) Ben No. 1 lode claim is an area 1500 ft. long and 600 ft. wide.

NOTE: Exploration of this claim will benefit the other claims which are located along the same lode or mineral zone.

2. (a) Lead, silver and gold

(b) See reports of mining and consulting engineer attached.

3. (a) The proposed exploration and development work planned on this property consists of sinking the present shaft, now 60 ft. deep, another 135 ft. (approximately), then drifting from the bottom of the shaft under the exposed ore a distance of approximately 300 ft.

| | |
|---|---|
| Estimated cost per ft. for sinking shaft is $60.00, total | $ 8,100.00 |
| Estimated cost of drift tunnel from bottom of shaft, $30.00 per foot, total | 9,000.00 |
| | $ 17,100.00 |

NOTE: Shaft sinking and tunneling will be done at a contract price per foot on the above schedule

(b) This project can be started immediately upon the availability of funds and can be completed within six months after commencement of work.

4. See engineer's report and maps attached as supplements to this application.

5. Existing facilities consist of a compressor house furnishing adequate space for the installation of a compressor and a shaft (gallows frame). Housing and boarding of men, blacksmith, etc., can be had at the Goldstone Mining Company's property approximately one mile distant.

6. No additional facilities, buildings or fixtures are contemplated.

7. The operating equipment, separated into items, will be approximately as follows:

(a) Rented: The use of the bunkhouse, boarding house, blacksmith shop, assay office, to be arranged with the Goldstone Mining Company at a rental to be determined.

(b) Purchased:

| | |
|---|---|
| Compressor, approximately 210 cu. ft. | $ 3000.00 |
| Hoist | 750.00 |
| Truck for hauling supplies, etc. | 3000.00 |
| Air drill | 450.00 |
| Ore cars | 500.00 |
| Rails | 200.00 |
| Powder, fuse, caps, timber, steel and bits, as needed | |

8. Schedule of labor:

2 miners
1 mucker
1 timber man (who is also foreman)
1 compressor and hoist man

No wages or salaries payable, since the work is to be done by footage contract.

9. The cost of materials and supplies, consisting of powder, fuse, caps, mine timbers, steel and bits, is as follows:

| | |
|---|---|
| Powder | $ |
| Fuse | $ |
| Caps | $ |
| Timber | $ |
| Steel | $ |
| Bits | $ |

PRELIMINARY REPORT
ON THE
WAR EAGLE PROPERTY
Lemhi County, Idaho

The War Eagle is a prospective mining property that warrants exploration in expectancy of making a good lead-silver-gold mine of moderate size.

The property comprises five located claims extending from War Eagle Mountain northwest across Pratt Creek and up over the ridge dividing Pratt Creek from Wimpy Creek. The claims extend NW along the indicated course of War Eagle vein-lode which has been opened by two tunnels south of Pratt Creek on War Eagle Mountain, thence NW over Pratt Creek-Wimpy Creek divide where the lode is opened by a series of surface cuts and two shallow shafts, and is also presumed to be exposed by tunnel down the Pratt Creek slope as shown on Plan No. 1 and Longitudinal Section herewith.

The property is reached by mountain road extending 11 miles westerly from the main highway at Baker, Idaho to Goldstone mine, thence by high level foot trail extending 1½ miles easterly to the upper War Eagle showings on the divide. From there a switchback trail extends down Pratt Creek slope to the lower tunnel and thence to War Eagle camp. War Eagle camp is on the road 1-1/3 miles nearer Baker.

An alternative means of access is by road extending 40-miles from Armstead, Idaho, to Goldstone mine, thence by above mentioned trails. Whilst this latter route is in better repair--as about 1½ miles of the Pratt Creek road has been washed out making it impassable except for pack horses and difficult wagon haul--the Armstead road crosses the Continental Divide at about 9000 feet altitude and is there under deep snow until late summer.

In the event that War Eagle showings on Pratt Creek-Wimpy Creek divide expose commercial ore bodies as anticipated, the surface configuration indicates that best means of access will be by road extending up the gentle Wimpy Creek slope which is generally covered by overburden and timbered so that a road could be quickly and cheaply bulldozed.

Timber in vicinity of War Eagle showings is suitable for lumber and for mining purposes. Both Pratt and Wimpy Creeks flow adequate water for all milling purposes but there appear to be no running streams in close vicinity of War Eagle showings. The summer prospecting camp suggested at the upper showings may be provided with water from the 20-foot shaft on War Eagle vein or a spring might be found by further search.

The high elevations make winter weather severe but open weather may be counted on for about six, or more, months per year in vicinity of the proposed work. Transportation to summer camp will be by pack horse over the War Eagle-Goldstone trail or up the gentle hill slope NW and W of the showings.

The country rocks comprise a series of thin bedded, platy argillaceous quartzites enclosed between beds of hard, vitreous, massive quartzites, all striking generally NW with variable steep dips SW and NE. The War Eagle and Goldstone veins occur in the thinner bedded formations which are much more favorable for formation of shear and fissure zones than the more massive rocks which appear to be too hard and resistant to permit extensive vein fissuring.

The bed of thinner favorable formation at War Eagle appears to exceed 1000-feet thick, striking NW nearly parallel to War Eagle vein which cuts it at acute angle, and has nearly vertical dip. The War Eagle vein-lode about centers this bed and its acute intersection of formation course will permit considerable lateral and vertical extension of the vein before it enters the harder and more massive, less favorable rocks.

Best exposures of War Eagle vein-lode are on the divide between Pratt & Wimpy Creek at about 8800 feet above sea level where it has been trenched and opened by shallow shafts for about 220 feet length in a N 25°W direction with a 20-feet shaft near center where ore width must have been considerable, judging from the large amount of quartz-lead ore piled around it where chunks upwards of one foot square are common. The area NW of these workings is generally covered by earth and timber but considerable float in large chunks and possible outcrop occur for an additional 260 feet. Whilst it will require more systematic surface trenching to prove vein outcrop under the overburden, the above exposures indicate a possible length of more than 450 feet of vein in this vicinity and it is to be expected that this will be closely approximated by the work suggested.

The cuts and shafts are not exposed in vein at present, except for 10-foot pit near station 37 where a foot of good ore is opened. The samples taken in this vicinity were, therefore, grab samples from the numerous and considerable ore piles around the shaft and cuts and from possible outcrops and/or large float exposed NW down the hill. The ore is essentially quartz with visible lead in streaks, veinlets and small bunches and the samples show a higher lead tenor that would be first anticipated. Judging from the workings it would appear that the ore body here is a lense which widened out to considerable width at and near the center (in vicinity of the shaft) and narrowed at each end. However I do not believe that the large float occurring NW down towards and in the vicinity of Tunnel "A" (See Map No. 3) was thrown from this wider bed as the surface is too flat for these large pieces to have travelled that far. It is possible, therefore, that another good sized lense may occur between station No. 35 and Tunnel "A" and it is on this assumption that the exploration work advised herein is predicated. Success here would encourage further prospecting down the lode strike towards Wimpy Creek with possibility that additional ore lenses may be found.

Judging from the Goldstone maps and other geologic conditions, which will be more fully investigated and reported in Goldstone examination, the probable downward rake of War Eagle ore shoots or ore zone will be NW or toward Wimpy Creek. If this proves to be the case the obvious locality for attack in depth would be from Wimpy Creek side of the mountain towards which the better ore showings would plunge.

The next showing on War Eagle vein is presumed to be at Tunnel "B", 1000 feet further SE and 430-vertical feet below the above showings. This comprises two veins (1) on east side of cut over tunnel face which lines up with the projected SE strike of vein from the upper showings, giving belief that this may be on the same vein-lode, and (2) a narrow quartz vein branching N33°W from the first. These two veins occur in a sheared, much contorted and schisted zone within the thin, platy argillaceous quartzites. They appear to be barren of mineral where now exposed but ore on the tunnel dump contains considerable galena which is indicative that the vein, or veins, in the tunnel were productive of ore. They vary in width from two feet at surface of the

first vein and 6" at surface of the second, but in the cut both pinch down to about half their surface exposure. Unfortunately the tunnel floor and face was not open for inspection so that conditions there could not be judged. A picked sample of the best lead-quartz ore returned high values as reported elsewhere in this report.

Two cuts between the upper showings and Tunnel "B" are clearly off the vein strike and show nothing. The distance between the respective showings is too far to conclude with certainty that Tunnel "B" is on the same vein shown by the upper workings and surface trenching—starting from above—will have to be done to prove or disprove the contention. The upper showings are better and show more promise than this one isolated showing but it is possible that more extensive prospecting may materially improve it.

About 1000 feet SW and 560 feet lower elevation from Tunnel "B" is a small cut in thin, platy argillaceous quartzites containing a 6-inch, well mineralized quartz vein whose strike nearly parallels the War Eagle. Its position prohibits its being SE extension of this vein but it might prove to be a parallel one, about 650 feet west of War Eagle vein. A little prospecting to see if it widens might afford encouragement to prospect uphill for parallel ore showings. Its position is west of War Eagle property lines and if it should provide encouragement additional claims should be staked to cover it.

The tunnels on the south side of Pratt Creek are caved and were not examined. I am informed that good gold ore was gotten though in what amount is not noted. This section would be left for some future date as the area between Pratt and Wimpy Creeks affords most promise, is easier of access, and if it proves satisfactory after exploration would give a wide section for development and mining.

As noted none of the actual vein was exposed in any of the cuts or shafts at the upper showings, with exception of about one foot of vein in bottom of the most southerly exposure. For this reason the samples taken by me are primarily "grab" samples from the ore piles at surface and whilst they are indicative of the good ore tenor are not conclusive as they would be if the vein itself had been sampled. In taking these grab samples the mineralized quartz was chipped from numerous larger chunks into a small sample. Two picked samples of the ore containing heaviest visible galena were taken, the others being the better quartz-galena ore and quartz. The results are higher than I had expected at the time of sampling and are encouraging for lead-silver-gold ore but it is to be expected that the full vein widths will run less than the average of grab samples taken, though these indicate that the vein-run will be good mill grade ore. The encouraging feature is that the "float" ore represented by Samples #1 and #2 ran as well as it did as this material did not look overly promising on the ground.

In calculating present dollar values of metal contents of the samples, the following prices have been taken: Gold $35 per ounce; Silver 75¢ per ounce; Lead 6-3/4¢ per pound.

Sample No. 1 taken from outcrop or float exposed above surface 12 inches wide at o.c. "B" (See Map No. 3) 180 feet NW of the shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.36 oz. | $12.60 | |
| Silver | 1.3 oz. | $ 0.97 | |
| Lead | 0.85% | $ 1.41 - Total value per ton | $14.71 |

Sample No. 2 General grab sample of large pieces of ore at cut above Tunnel "A" portal, 260 feet NW from shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.40 oz. | $14.00 | |
| Silver | 3.1 oz. | $ 2.32 | |
| Lead | 10.33% | $13.97 - Total value per ton | $30.27 |

The lead content is unexpectedly high. Tunnel "A" is caved and cannot determine if in downward continuation of this vein. Doubtful as little ore on tunnel dump.

Sample No. 3 Grab from large pieces of ore piled around 20-foot shaft to amount estimated about 30 tons. Quartz with galena, copper stains, etc. Representative of ore that came from the shaft but possibly higher than average if chipped from vein face.

| | | | |
|---|---|---|---|
| Gold | 0.30 oz. | $10.50 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 10.8% | $14.57 - Total value per ton | $29.77 |

Samples 3A Picked sample of best lead ore with quartz taken from numerous large chunks of lead-quartz stained by copper, etc. Clearly high grade and probably in minor amount within the vein.

| | | | |
|---|---|---|---|
| Gold | 0.60 oz. | $21.00 | |
| Silver | 12.6 oz. | $ 9.45 | |
| Lead | 34.4% | $46.44 - Total value | $76.89 |

Taken to see what the best ore in this vicinity would run.

Sample No. 4 Grab from pile of ore near filled cut #36, quartz and galena. No indication of vein width.

| | | | |
|---|---|---|---|
| Gold | 0.32 oz. | $11.20 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 14.0% | $18.90 - Total value | $32.80 |

These values unexpectedly high as ore does not have appearance of this much lead content.

Sample No. 5 From 1-foot vein in bottom of 10-foot pit at south end of the showings. Vein partly exposed in north end of shaft contains visible stringers of lead.

| | | | |
|---|---|---|---|
| Gold | 0.18 oz | $ 6.30 | |
| Silver | 4.4 oz. | $ 3.30 | |
| Lead | 16.1% | $21.60 - Total value | $31.20 |

Sample No. 6 Selected sample from the best lead-quartz ore at Tunnel "A". No indication of width or occurrence in vein which was covered under tunnel floor and not exposed in tunnel face. Surface

outcrop shows no visible galena. Sample taken to see what best ore here might run. When the tunnel faces are better exposed a more systematic sampling should follow as this is inconclusive of the ore possibilities here.

| | | | |
|---|---|---|---|
| Gold | 0.12 oz. | $ 4.20 | |
| Silver | 4.25 oz. | $ 3.25 | |
| Lead | 37.0% | $49.90 - Total value | $58.35 |

- - - - - - - - - - - - - - - - - - - - - - - - -

The above sampling, despite the limitations outlined, is encouraging that the War Eagle upper showings may develop into a good lead-silver-gold mine by further work.

In order to prove the property more fully this summer it is advised that two men be installed at the upper area and provided with tent camp, tools, and supplies by horse pack. A system of open trench work should be laid out and the work frequently inspected.

I advise that the area between station 35 and Tunnel "A" first be prospected through overburden to solid rock and the vein (or veins) exposed be blasted into and sampled. It is probable that from 3 to 4 feet of overburden will be found which will slow up pick and shovel work but this appears to be the most feasible for this summer. After this section has been explored the Pratt Creek slope should be trenched from vicinity of station 37 to SE along the projected vein strike. This will conclude about all the work two men could do during the season.

I estimate costs of wages, supplies, packing, etc. for two men will average about $22 per day. If success is met with a more extensive and cheaper per cubic yard prospecting could be performed next summer by bulldozer but the preliminary work would not warrant the cost of bringing one in at this time.

## Conclusions

The War Eagle property is situated in the rock formation that has been most ore-favorable in this section and has developed Goldstone vein to more than 500 feet depth in good ore. Whilst War Eagle rock belt is separate from Goldstone it is similar in character and structure. Thus War Eagle has ore-favorable host rock.

The small amount of work on War Eagle upper workings has indicated more than usual amounts of quartz-galena ore which assays high enough to promise commercial returns after the ore shoots may be developed into length and depth.

The immediate future should be given to proving lateral extent and vein widths of ore. This will best be done by surface trenching. After this work is done the depth extension could conveniently be done by diamond drilling from surface by gas-driven drill.

I have no hesitancy in recommending prospecting and exploration of this property and believe that a good lead-silver-gold mine of moderate size will be disclosed.

Spokane, Washington
July 3, 1944

ARTHUR LAKES

SUPPLEMENTAL REPORT
ON THE
WAR EAGLE GROUP

I made another examination of War Eagle property July 28th, in conjunction with underground examination of Goldstone mine workings, July 24-29th.

This report chiefly concerns method of surface prospecting of vein outcrop and downward extensions of ore found thereby; transportation facilities and improvement thereof. Various routes for road connection between War Eagle and Goldstone mine were investigated.

The outstanding factors developed by this examination were:

(1) The depth of overbufden at War Eagle surface exceeds estimate of my Preliminary report, July 3rd., and vein outcrop cannot be adequately or cheaply opened by pick and shovel. The only satisfactory method involves bulldozer trenching through from 5 to more than 10-feet of over burden.

(2) The absolute necessity for roads over which to drive bulldrozer to the upper War Eagle area and also to haul compressor, mine cars, and other mining equipment to be used for underground development of ore that may be found by bulldozing.

(3) Validity of title of War Eagle claims is subject to doubt. Steps have been made to protect your interests in this matter.

Transportation The unusually strong showings of ore float and at the surficial workings at upper War Eagle should interest any mining engineer. The fact that the property has been ignored for the past 15 to 20-years is probably due to the isolated position and difficult accessibility of these showings. In order to explore the actual vein outcrop along its course, in accord with proper mining caution, will require the use of bulldozer. This requires that it dig a road to War Eagle locality. Without this work the ore possibilities will remain entirely speculative and the property continue as it has for the past years. Therefore the chief "bug" is lack of transportation which will have to be remedied before intellegent and conclusive investigations can go forward.

In considering transportation it is necessary to bear in mind that ore from War Eagle (if successfully developed in commercial quantity as expected) and from Goldstone mine will be treated in a central mill, powered by Deisel-electric unit from which electricity will be wired to compressors at each mine. This plant should be located where ore from the respective mines can be transported downgrade to it. The most central locality meeting this condition will be on Pratt Creek, possibly near War Eagle cabin, whereby ore from War Eagle could be transported over aerial tramway or by road down to mill and ore from Goldstone mine be hauled down over present road to mill by truck in summer and cat-train in winter.

Thus the location of the road will be determined by the above considerations in order to facilitate earliest access to War Eagle showings and at the same time provide adequate permanent transportation for ore and supplies. An alternative mill location had been considered on the gentler slope of Wimpy Creek north of War Eagle showings which is covered by earth but investigation proved the impossibility of building down grade road connecting Goldstone mine to this section.

If this had proven otherwise the Wimpy slope had my preference but the best method of access to these properties now appears to be as follows:

(1) Improve Goldstone road up Pratt Creek by relocating about 2-miles on the south side of Pratt Creek from the lower power plant to about ½-mile above damsite, thereby bypassing all washed out sections and connecting into the good, even grade road from about ½-mile west of War Eagle cabin to Goldstone camp. Amerold readings indicate from 6% to 10% grade, with possibility of one or two switchbacks. The south side of the creek is mostly earth timbered by jack pine and other small timber. Two bridges will be required, one crossing Pratt Creek at each end of the relocated road. This will provide adequate truck haulage to and from Goldstone mine which will greatly facilitate future operations there as well as afford access to War Eagle showings.

(2) Take off from Goldstone road at most convenient place between War Eagle cabin and Goldstone camp to miss the large rock slide west of north creek fork. This rock slide extends part way down the moutain north of present road. This road to extend at about 10% grade up to Tunnel "B", thence up a 10% locality of War Eagle upper workings. Subject to survey, I have sketched this road on accompanying Map No. 1. Distance cannot be determined until survey but should approximate 8,000 feet. Preliminary observation indicates depth of overburden sufficient to dig a 12 to 14-foot road. Some narrow rock ridges may be encountered, requiring rock work which will be facilitated by use of portable compressor to be used in preliminary underground development at War Eagle. The idea is to follow bulldozer route and eliminate all rock work possible.

Obviously a true estimate of cost cannot be arrived at until further investigation but it is possible that the above work can be performed in a week or 10-days, largely dependent upon the rock work required.

Surface exploration Once the road is completed a series of level cuts will be driven across the indicated vein strike down both Pratt Creek and Wimpy Creek slopes. The gentle Wimpy Creek slope will permit bulldozing as far as required but the lower half of Pratt Creek slope between upper War Eagle and Tunnell"B" gets progressively steeper which may eventually limit work in that direction.

A minimum 5-foot depth to over 10-feet depth over overburden and slabbed country rock may be expected, thus benches upwards of 30-feet wide will be formed by digging down into bedrock to expose the vein outcrop. The bulldozer will be followed by two men who will use pick and shovel and dynamite to define vein (or veins) found therein. Possibly $3,000 may be expended in this work which will most conclusively define surficial ore possibilities which mining caution requires.

As mentioned in my preliminary report, and illustrated on accompanying Longitudinal Section 2-A, the probable downward ore rake of War Eagle ore zone (or zones) will be northerly towards Wimpy Creek and the presumed igneous ore source. This northerly ore rake was anticipated from Goldstone maps and has been definitely proven by my recent Goldstone examination.

At present the full lateral extent of War Eagle's upper ore zone has not been indicated due to the heavy cover. Testing down Pratt Creek slope will be necessary to define the southeastern limits at surface and likewise bulldoze testing down Wimpy Creek slope will be required to define length of ore to the northwest.

The indicated northerly rake suggests that prospecting down Wimpy Creek slope will provide better and quicker results and this work should be performed first.

Underground exploration and development The Longitudinal Section indicates possible additional ore zone under the upper zone. This extends from Tunnel "B". How far above or below the tunnel this showing may continue will depend upon exploration to prove.

The northerly ore rake, if proven as expected, will require longer tunnels to tap downward continuation of ore zone if driven from Pratt Creek slope in a northerly direction than tunnels driven southerly from Wimpy Creek slope because the Pratt Creek tunnels would progress with and under the ore rake, whilst the Wimpy Creek tunnels would be driven into the ore rake.

Wimpy Creek slope affords better opportunity to quickly determine ore possibilities indicated by the large float showings there and the surficial showings on the divide between Pratt and Wimpy Creeks. The Pratt Creek slope has advantage of proving ore possibilities indicated in vicinity of Tunnel "B" but would be more than twice as long as Wimpy tunnels to test downward continuation of the indicated larger ore possibilities north of the divide.

Three methods of underground development present themselves:

(1) Drift tunnel driven southeast along vein from Wimpy slope whereby about 800 to 900-feet length would test the full length of indicated ore zone to about 400-maximum feet below surface. The cost of this tunnel at $18 per foot would be about $16,000 and would prove width of ore vein, length of ore shoots, etc. to that depth.

(2) Drift tunnel driven northwest along vein by extension of Tunnel "B" would extend 1200-feet to reach the indicated beginning of the better ore zone, thence would have to advance an additional 800 feet or more to reach its other end, a total of 2000 feet which would bring this tunnel almost to surface at Wimpy slope. This tunnel would have advantage of proving possibilities of the ore zone near its portal and would also test ground between the two zones which Wimpy tunnel would not do. Cost of this tunnel at $18 per foot would be about $36,000 and would prove width of ore vein, length of ore shoots within the various ore zones, etc, to a maximum of 400 feet below surface.

(3) Extension of the 20-foot shaft down in the ore vein for 400 feet, to same elevation of the two proposed tunnels, would have advantage of "staying with the ore" until it raked out to the north, thereby proving width and ore tenor in downward continuation. Drifts would have to be run out northerly in the lower levels to prove lateral conditions along the vein. At $40 per foot, 400 feet of shaft would cost $16,000 and at $20 per foot an additional 800 feet of drift along vein would cost $16,000, the total $32,000. Subject to bulldozer disclosures of vein down Wimpy slope, whereby Wimpy tunnel could be started on, or close to ore, the shaft method would give better assurance and prove two dimensions within limits of ore rake, whereby the tunnel methods would require additional work to prove vertical conditions.

The more rapid accomplishment of objective together with lesser cost gives advantage to Wimpy slope tunnel. If success is met with and commercial ore proven along its horizontal extent then a shaft could be raised to surface from this level, 150 feet north from the 20-foot shaft to afford information about the vein

and also provide access to surface whereby ore could be hoisted to a tram or road terminal for transportation down to mill. Deeper development would best be performed by continuing this shaft. At about $30 per foot this shaft-raise would cost about $12,000 but this additional expense would not be incurred until Wimpy tunnel had proved occurrence of acceptable quantities and grade of ore to warrant going into mining.

In regards the shaft method it is questionable if the compressor to be used for preliminary davelopment would provide sufficient power for hoisting more than 200 feet. This would require a larger and more expensive compressor, pumps, continuous timbering, whereby water would drain out the tunnels and much of the drift tunnels would not require timber.

Title Validity of title to War Eagle claims is subject to doubt by reason that Location Notice posted at War Eagle No. 2 claim is dated May 25, 1937 but the County Recorders's office has no filing as of that date but shows only the original location in 1928. Subject to thorough checking of yearly assessment filings from 1928 to 1937 or some other legal arrangement for holding the claims in good standing during that period the title of optioners may have lapsed. If assessment lapsed at any time between 1928 and 1937 the claims lapsed and thereafter would be subject to (a) relocation by former stakers or (b) open for new location by new stakers. Unless a lapse had occurred I cannot see reason for posting a Notice dated in 1937 because the claims would be in good standing and not require such a notice. This matter deserves thorough investigation.

In the meantime, to protect your interests, six claims are being located to cover War Eagle Lode and an additional four claims are being located on open ground west of War Eagle to cover a vein there, as advised in my July 3rd. report. The new claims are marked in green on Map No. 1 and the old War Eagle locations shown in orange.

Your option on this ground and your investment in work will thus be adequately protected. If War Eagle owners have a valid title the terms of your option still stand. If they have not, the new locations will acquire all rights to this property.

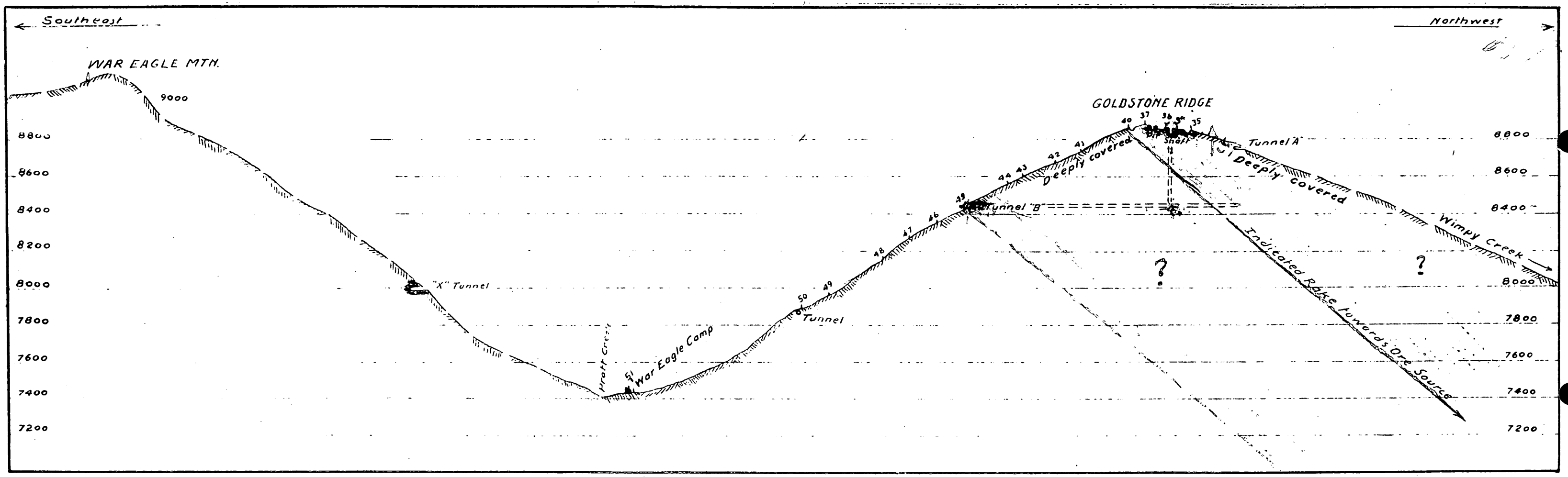
In checking over the ground during last examination we found that all quartz carries values, even some pure white "bull quartz" when broken contained lead sulphides. This is indicative of extensive metallization of the quartz and the wide spread and large pieces of float is indicative of good sized quartz body beneath overburden.

CONCLUSIONS The wide distribution of large ore float and indication of considerable ore width by dump at 20-foot shaft together with the fact that metallic values occur in every type of quartz on this showing, all give encouragement that further exploration and development will provide commercial ore results. The showings justify bulldoze prospecting whose results will determine underground exploration and development. Success should provide a good profitable lead-silver-gold mine. In event of disappointment from bulldozer work the losses will be limited to cost of road plus about $3,000 for bulldozing. Whilst it will require this work to prove whether or not these expectations develop the showings fully justify this expenditure which will be followed by expenditure for underground

development in accord with bulldozer findings. Unless this work is done the property will remain dormant in same position economically as it has for the past years.

Spokane, Wash.
August 2, 1944

Arthur Lakes
Mining Engineer & Geologist

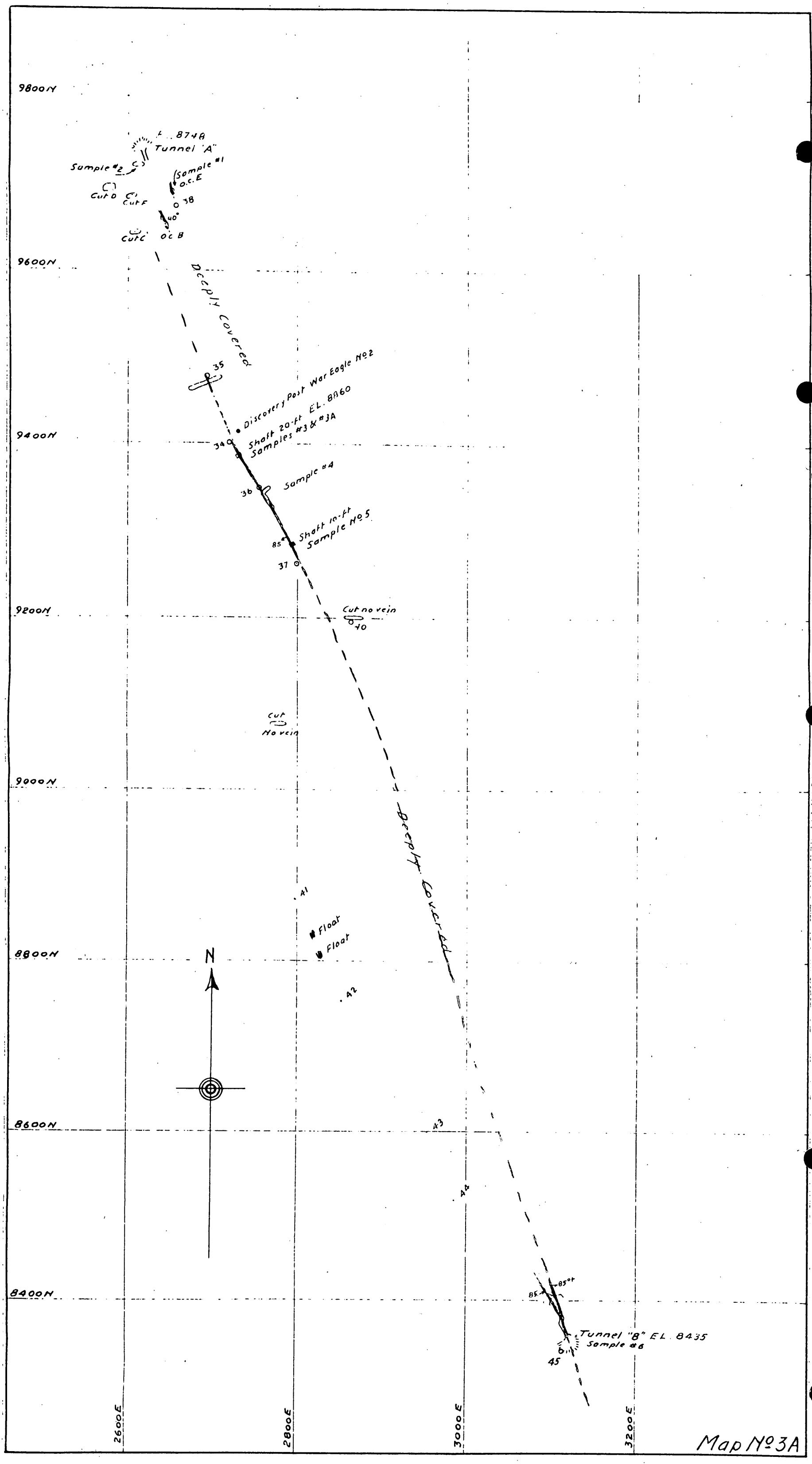



LONGITUDINAL SECTION ALONG WAR EAGLE LODE

SCALE: 500-ft. to 1-in.

Arthur Lakes, 1944.

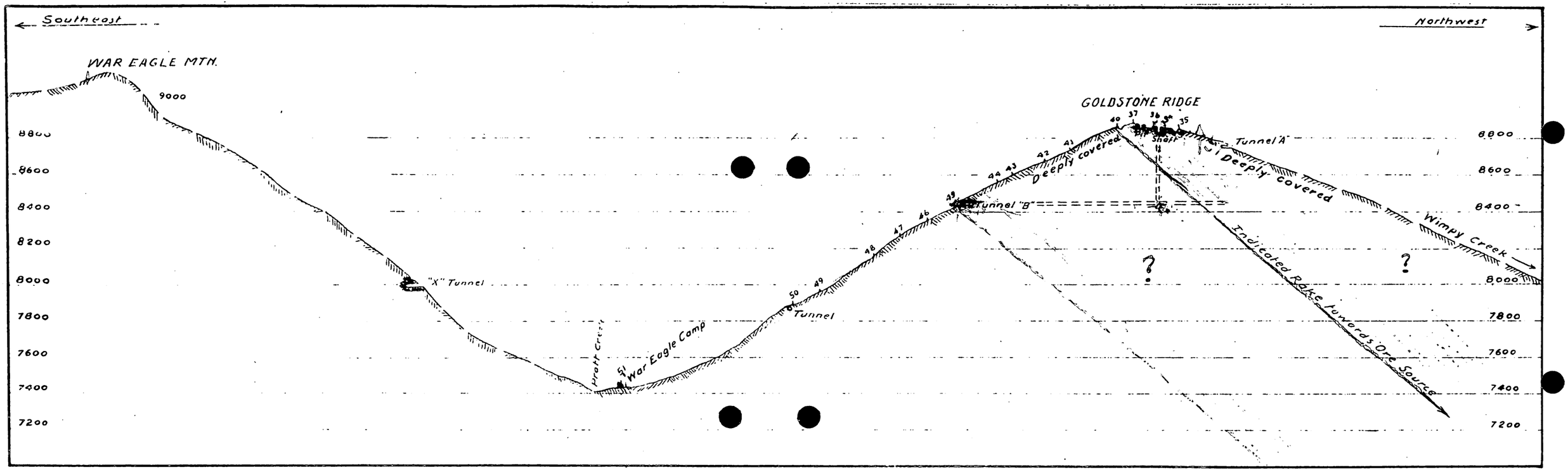
Map No 2A




PLAN OF UPPER WAR EAGLE WORKINGS

SCALE: 500-ft. to 1-in.

Arthur Lakes, 1944.




LONGITUDINAL SECTION ALONG WAR EAGLE LODE

SCALE: 500-ft. to 1-in.

Arthur Lakes, 1944.

Map No 2A

D.M.A. 2235
War Eagle Gold, Silver Lead, Mining Co.

C
O
P
Y

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

So. 157 Howard Street
Spokane 4, Washington

November 16, 1951

Thru: Reports and Records Unit

Mr. Tom Lyon, Chairman
Coordinating Committee
Defense Minerals Administration
U. S. Department of the Interior
Washington 25, D. C.

Dear Mr. Lyon:

Enclosed are four copies each of Forms MF-100 and MF-103 submitted by the War Eagle Gold, Silver, Lead Mining Company, 511 Securities Building, Seattle, Washington. The application concerns the War Eagle property, Lemhi County, Idaho.

This office was previously informed that the War Eagle Gold, Silver, Lead, Mining Company wished to submit application for exploration assistance. Therefore in October Mr. Elton Youngberg, Geologist, U. S. Geological Survey, attempted to visit the property to conduct a field examination, but found the mine to be snowed in and inaccessible. The applicant, Mr. B. W. Porter, advises that the property should be accessible by May 1952. This office will tentatively schedule a field examination for that time.

Sincerely,

s/ Thor H. Kiilsgaard
for A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures as indicated.

cc: USBM, Spokane

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

*Not To Be Filled in by Applicant*

Docket No. D.MEA. 2235
Metal or Mineral
Date Received 11-19-51
Amount $
Participation (Government %)

WAR EAGLE GOLD, SILVER, LEAD MINING CO.
511 Securities Building
Seattle, Washington

Name and address of applicant

Date November 1951

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

## INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

DEFENSE MINERALS ADMINISTRATION WASHINGTON 25, D.C. NOV 26 1951

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

(b) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

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

NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (c) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

(2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (a) What metals or minerals do you expect to find?

(b) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

## CERTIFICATION

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

Goldstone Mining Co. By B. W. Foley
(Name of company) (Signature of authorized official)

Nov. 15, 1951 Pres.
(Date) (Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

1. (a) The property involved in this exploration project consists of ten lode mining claims named "Ben Nos. 1 to 10" inclusive, with principal development work concentrated on Ben No. 1 lode claim.

(b) The claims are mining locations made for the benefit of the War Eagle Gold Silver Lead Mining Co., a corporation, and owned by said corporation.

(c) Ben No. 1 lode claim is an area 1500 ft. long and 600 ft. wide.

NOTE: Exploration of this claim will benefit the other claims which are located along the same lode or mineral zone.

2. (a) Lead, silver and gold

(b) See reports of mining and consulting engineer attached.

3. (a) The proposed exploration and development work planned on this property consists of sinking the present shaft, now 60 ft. deep, another 135 ft. (approximately), then drifting from the bottom of the shaft under the exposed ore a distance of approximately 300 ft.

| | |
|---|---|
| Estimated cost per ft. for sinking shaft is $60.00, total | $ 8,100.00 |
| Estimated cost of drift tunnel from bottom of shaft, $30.00 per foot, total | 9,000.00 |
| | $ 17,100.00 |

NOTE: Shaft sinking and tunneling will be done at a contract price per foot on the above schedule

(b) This project can be started immediately upon the availability of funds and can be completed within six months after commencement of work.

4. See engineer's report and maps attached as supplements to this application.

5. Existing facilities consist of a compressor house furnishing adequate space for the installation of a compressor and a shaft (gallows frame). Housing and boarding of men, blacksmith, etc., can be had at the Goldstone Mining Company's property approximately one mile distant.

6. No additional facilities, buildings or fixtures are contemplated.

7. The operating equipment, separated into items, will be approximately as follows:

(a) Rented: The use of the bunkhouse, boarding house, blacksmith shop, assay office, to be arranged with the Goldstone Mining Company at a rental to be determined.

(b) Purchased:

| | |
|---|---|
| Compressor, approximately 210 cu. ft. | $ 3000.00 |
| Hoist | 750.00 |
| Truck for hauling supplies, etc. | 3000.00 |
| Air drill | 450.00 |
| Ore cars | 500.00 |
| Rails | 200.00 |
| Powder, fuse, caps, timber, steel and bits, as needed | |

8. Schedule of labor:

2 miners
1 mucker
1 timber man (who is also foreman)
1 compressor and hoist man

No wages or salaries payable, since the work is to be done by footage contract.

9. The cost of materials and supplies, consisting of powder, fuse, caps, mine timbers, steel and bits, is as follows:

| | |
|---|---|
| Powder | $ |
| Fuse | $ |
| Caps | $ |
| Timber | $ |
| Steel | $ |
| Bits | $ |

PRELIMINARY REPORT
ON THE
WAR EAGLE PROPERTY
Lemhi County, Idaho

The War Eagle is a prospective mining property that warrants exploration in expectancy of making a good lead-silver-gold mine of moderate size.

The property comprises five located claims extending from War Eagle Mountain northwest across Pratt Creek and up over the ridge dividing Pratt Creek from Wimpy Creek. The claims extend NW along the indicated course of War Eagle vein-lode which has been opened by two tunnels south of Pratt Creek on War Eagle Mountain, thence NW over Pratt Creek-Wimpy Creek divide where the lode is opened by a series of surface cuts and two shallow shafts, and is also presumed to be exposed by tunnel down the Pratt Creek slope as shown on Plan No. 1 and Longitudinal Section herewith.

The property is reached by mountain road extending 11 miles westerly from the main highway at Baker, Idaho to Goldstone mine, thence by high level foot trail extending 1½ miles easterly to the upper War Eagle showings on the divide. From there a switchback trail extends down Pratt Creek slope to the lower tunnel and thence to War Eagle camp. War Eagle camp is on the road 1-1/3 miles nearer Baker.

An alternative means of access is by road extending 40-miles from Armstead, Idaho, to Goldstone mine, thence by above mentioned trails. Whilst this latter route is in better repair--as about 1½ miles of the Pratt Creek road has been washed out making it impassable except for pack horses and difficult wagon haul--the Armstead road crosses the Continental Divide at about 9000 feet altitude and is there under deep snow until late summer.

In the event that War Eagle showings on Pratt Creek-Wimpy Creek divide expose commercial ore bodies as anticipated, the surface configuration indicates that best means of access will be by road extending up the gentle Wimpy Creek slope which is generally covered by overburden and timbered so that a road could be quickly and cheaply bulldozed.

Timber in vicinity of War Eagle showings is suitable for lumber and for mining purposes. Both Pratt and Wimpy Creeks flow adequate water for all milling purposes but there appear to be no running streams in close vicinity of War Eagle showings. The summer prospecting camp suggested at the upper showings may be provided with water from the 20-foot shaft on War Eagle vein or a spring might be found by further search.

The high elevations make winter weather severe but open weather may be counted on for about six, or more, months per year in vicinity of the proposed work. Transportation to summer camp will be by pack horse over the War Eagle-Goldstone trail or up the gentle hill slope NW and W of the showings.

The country rocks comprise a series of thin bedded, platy argillaceous quartzites enclosed between beds of hard, vitreous, massive quartzites, all striking generally NW with variable steep dips SW and NE. The War Eagle and Goldstone veins occur in the thinner bedded formations which are much more favorable for formation of shear and fissure zones than the more massive rocks which appear to be too hard and resistant to permit extensive vein fissuring.

The bed of thinner favorable formation at War Eagle appears to exceed 1000-feet thick, striking NW nearly parallel to War Eagle vein which cuts it at acute angle, and has nearly vertical dip. The War Eagle vein-lode about centers this bed and its acute intersection of formation course will permit considerable lateral and vertical extension of the vein before it enters the harder and more massive, less favorable rocks.

Best exposures of War Eagle vein-lode are on the divide between Pratt & Wimpy Creek at about 8800 feet above sea level where it has been trenched and opened by shallow shafts for about 220 feet length in a N 25°W direction with a 20-feet shaft near center where ore width must have been considerable, judging from the large amount of quartz-lead ore piled around it where chunks upwards of one foot square are common. The area NW of these workings is generally covered by earth and timber but considerable float in large chunks and possible outcrop occur for an additional 260 feet. Whilst it will require more systematic surface trenching to prove vein outcrop under the overburden, the above exposures indicate a possible length of more than 450 feet of vein in this vicinity and it is to be expected that this will be closely approximated by the work suggested.

The cuts and shafts are not exposed in vein at present, except for 10-foot pit near station 37 where a foot of good ore is opened. The samples taken in this vicinity were, therefore, grab samples from the numerous and considerable ore piles around the shaft and cuts and from possible outcrops and/or large float exposed NW down the hill. The ore is essentially quartz with visible lead in streaks, veinlets and small bunches and the samples show a higher lead tenor that would be first anticipated. Judging from the workings it would appear that the ore body here is a lense which widened out to considerable width at and near the center (in vicinity of the shaft) and narrowed at each end. However I do not believe that the large float occurring NW down towards and in the vicinity of Tunnel "A" (See Map No. 3) was thrown from this wider bed as the surface is too flat for these large pieces to have travelled that far. It is possible, therefore, that another good sized lense may occur between station No. 35 and Tunnel "A" and it is on this assumption that the exploration work advised herein is predicated. Success here would encourage further prospecting down the lode strike towards Wimpy Creek with possibility that additional ore lenses may be found.

Judging from the Goldstone maps and other geologic conditions, which will be more fully investigated and reported in Goldstone examination, the probable downward rake of War Eagle ore shoots or ore zone will be NW or toward Wimpy Creek. If this proves to be the case the obvious locality for attack in depth would be from Wimpy Creek side of the mountain towards which the better ore showings would plunge.

The next showing on War Eagle vein is presumed to be at Tunnel "B", 1000 feet further SE and 430-vertical feet below the above showings. This comprises two veins (1) on east side of cut over tunnel face which lines up with the projected SE strike of vein from the upper showings, giving belief that this may be on the same vein-lode, and (2) a narrow quartz vein branching N33°W from the first. These two veins occur in a sheared, much contorted and schisted zone within the thin, platy argillaceous quartzites. They appear to be barren of mineral where now exposed but ore on the tunnel dump contains considerable galena which is indicative that the vein, or veins, in the tunnel were productive of ore. They vary in width from two feet at surface of the

first vein and 6" at surface of the second, but in the cut both pinch down to about half their surface exposure. Unfortunately the tunnel floor and face was not open for inspection so that conditions there could not be judged. A picked sample of the best lead-quartz ore returned high values as reported elsewhere in this report.

Two cuts between the upper showings and Tunnel "B" are clearly off the vein strike and show nothing. The distance between the respective showings is too far to conclude with certainty that Tunnel "B" is on the same vein shown by the upper workings and surface trenching--starting from above--will have to be done to prove or disprove the contention. The upper showings are better and show more promise than this one isolated showing but it is possible that more extensive prospecting may materially improve it.

About 1000 feet SW and 560 feet lower elevation from Tunnel "B" is a small cut in thin, platy argillaceous quartzites containing a 6-inch, well mineralized quartz vein whose strike nearly parallels the War Eagle. Its position prohibits its being SE extension of this vein but it might prove to be a parallel one, about 650 feet west of War Eagle vein. A little prospecting to see if it widens might afford encouragement to prospect uphill for parallel ore showings. Its position is west of War Eagle property lines and if it should provide encouragement additional claims should be staked to cover it.

The tunnels on the south side of Pratt Creek are caved and were not examined. I am informed that good gold ore was gotten though in what amount is not noted. This section would be left for some future date as the area between Pratt and Wimpy Creeks affords most promise, is easier of access, and if it proves satisfactory after exploration would give a wide section for development and mining.

As noted none of the actual vein was exposed in any of the cuts or shafts at the upper showings, with exception of about one foot of vein in bottom of the most southerly exposure. For this reason the samples taken by me are primarily "grab" samples from the ore piles at surface and whilst they are indicative of the good ore tener are not conclusive as they would be if the vein itself had been sampled. In taking these grab samples the mineralized quartz was chipped from numerous larger chunks into a small sample. Two picked samples of the ore containing heaviest visible galena were taken, the others being the better quartz-galena ore and quartz. The results are higher than I had expected at the time of sampling and are encouraging for lead-silver-gold ore but it is to be expected that the full vein widths will run less than the average of grab samples taken, though these indicate that the vein-run will be good mill grade ore. The encouraging feature is that the "float" ore represented by Samples #1 and #2 ran as well as it did as this material did not look overly promising on the ground.

In calculating present dollar values of metal contents of the samples, the following prices have been taken: Gold $35 per ounce; Silver 75¢ per ounce; Lead 6-3/4¢ per pound.

Sample No. 1 taken from outcrop or float exposed above surface 12 inches wide at o.c. "B" (See Map No. 3) 180 feet NW of the shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.36 oz. | $12.60 | |
| Silver | 1.3 oz. | $ 0.97 | |
| Lead | 0.85% | $ 1.41 - Total value per ton | $14.71 |

Sample No. 2 General grab sample of large pieces of ore at cut above Tunnel "A" portal, 260 feet NW from shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.40 oz. | $14.00 | |
| Silver | 3.1 oz. | $ 2.32 | |
| Lead | 10.35% | $13.97 - Total value per ton | $30.27 |

The lead content is unexpectedly high. Tunnel "A" is caved and cannot determine if in downward continuation of this vein. Doubtful as little ore on tunnel dump.

Sample No. 3 Grab from large pieces of ore piled around 20-foot shaft to amount estimated about 30 tons. Quartz with galena, copper stains, etc. Representative of ore that came from the shaft but possibly higher than average if chipped from vein face.

| | | | |
|---|---|---|---|
| Gold | 0.30 oz. | $10.50 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 10.8% | $14.57 - Total value per ton | $29.77 |

Samples 3A Picked sample of best lead ore with quartz taken from numerous large chunks of lead-quartz stained by copper, etc. Clearly high grade and probably in minor amount within the vein.

| | | | |
|---|---|---|---|
| Gold | 0.60 oz. | $21.00 | |
| Silver | 12.6 oz. | $ 9.45 | |
| Lead | 34.4% | $46.44 - Total value | $76.89 |

Taken to see what the best ore in this vicinity would run.

Sample No. 4 Grab from pile of ore near filled cut #36, quartz and galena. No indication of vein width.

| | | | |
|---|---|---|---|
| Gold | 0.32 oz. | $11.20 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 14.0% | $18.90 - Total value | $32.80 |

These values unexpectedly high as ore does not have appearance of this much lead content.

Sample No. 5 From 1-foot vein in bottom of 10-foot pit at south end of the showings. Vein partly exposed in north end of shaft contains visible stringers of lead.

| | | | |
|---|---|---|---|
| Gold | 0.18 oz | $ 6.30 | |
| Silver | 4.4 oz. | $ 3.30 | |
| Lead | 16.1% | $21.60 - Total value | $31.20 |

Sample No. 6 Selected sample from the best lead-quartz ore at Tunnel "A". No indication of width or occurrence in vein which was covered under tunnel floor and not exposed in tunnel face. Surface

outcrop shows no visible galena. Sample taken to see what best ore here might run. When the tunnel faces are better exposed a more systematic sampling should follow as this is inconclusive of the ore possibilities here.

| | | | | |
|---|---|---|---|---|
| Gold | 0.12 oz. | $ 4.20 | | |
| Silver | 4.25 oz. | $ 3.25 | | |
| Lead | 37.0% | $49.90 | - Total value | $58.35 |

- - - - - - - - - - - - - - - - - - - - - - - - -

The above sampling, despite the limitations outlined, is encouraging that the War Eagle upper showings may develop into a good lead-silver-gold mine by further work.

In order to prove the property more fully this summer it is advised that two men be installed at the upper area and provided with tent camp, tools, and supplies by horse pack. A system of open trench work should be laid out and the work frequently inspected.

I advise that the area between station 35 and Tunnel 2A" first be prospected through overburden to solid rock and the vein (or veins) exposed be blasted into and sampled. It is probable that from 3 to 4 feet of overburden will be found which will slow up pick and shovel work but this appears to be the most feasible for this summer. After this section has been explored the Pratt Creek slope should be trenched from vicinity of station 37 to SE along the projected vein strike. This will conclude about all the work two men could do during the season.

I estimate costs of wages, supplies, packing, etc. for two men will average about $22 per day. If success is met with a more extensive and cheaper per cubic yard prospecting could be performed next summer by bulldozer but the preliminary work would not warrant the cost of bringing one in at this time.

## Conclusions

The War Eagle property is situated in the rock formation that has been most ore-favorable in this section and has developed Goldstone vein to more than 500 feet depth in good ore. Whilst War Eagle rock belt is separate from Goldstone it is similar in character and structure. Thus War Eagle has ore-favorable host rock.

The small amount of work on War Eagle upper workings has indicated more than usual amounts of quartz-galena ore which assays high enough to promise commercial returns after the ore sheets may be developed into length and depth.

The immediate future should be given to proving lateral extent and vein widths of ore. This will best be done by surface trenching. After this work is done the depth extension could conveniently be done by diamond drilling from surface by gas-driven drill.

I have no hesitancy in recommending prospecting and exploration of this property and believe that a good lead-silver-gold mine of moderate size will be disclosed.

Spokane, Washington
July 3, 1944

ARTHUR LAKES

SUPPLEMENTAL REPORT
ON THE
WAR EAGLE GROUP

I made another examination of War Eagle property July 28th, in conjunction with underground examination of Goldstone mine workings, July 24-29th.

This report chiefly concerns method of surface prospecting of vein outcrop and downward extensions of ore found thereby; transportation facilities and improvement thereof. Various routes for road connection between War Eagle and Goldstone mine were investigated.

The outstanding factors developed by this examination were:

(1) The depth of overburden at War Eagle surface exceeds estimate of my Preliminary report, July 3rd., and vein outcrop cannot be adequately or cheaply opened by pick and shovel. The only satisfactory method involves bulldozer trenching through from 5 to more than 10-feet of over burden.

(2) The absolute necessity for roads over which to drive bulldozer to the upper War Eagle area and also to haul compressor, mine cars, and other mining equipment to be used for underground development of ore that may be found by bulldozing.

(3) Validity of title of War Eagle claims is subject to doubt. Steps have been made to protect your interests in this matter.

Transportation The unusually strong showings of ore float and at the surficial workings at upper War Eagle should interest any mining engineer. The fact that the property has been ignored for the past 15 to 20-years is probably due to the isolated position and difficult accessibility of these showings. In order to explore the actual vein outcrop along its course, in accord with proper mining caution, will require the use of bulldozer. This requires that it dig a road to War Eagle locality. Without this work the ore possibilities will remain entirely speculative and the property continue as it has for the past years. Therefore the chief "bug" is lack of transportation which will have to be remedied before intellegent and conclusive investigations can go forward.

In considering transportation it is necessary to bear in mind that ore from War Eagle (if successfully developed in commercial quantity as expected) and from Goldstone mine will be treated in a central mill, powered by Deisel-electric unit from which electricity will be wired to compressors at each mine. This plant should be located where ore from the respective mines can be transported downgrade to it. The most central locality meeting this condition will be on Pratt Creek, possibly near War Eagle cabin, whereby ore from War Eagle could be transported over aerial tramway or by road down to mill and ore from Goldstone mine be hauled down over present road to mill by truck in summer and cat-train in winter.

Thus the location of the road will be determined by the above considerations in order to facilitate earliest access to War Eagle showings and at the same time provide adequate permanent transportation for ore and supplies. An alternative mill location had been considered on the gentler slope of Wimpy Creek north of War Eagle showings which is covered by earth but investigation proved the impossibility of building down grade road connecting Goldstone mine to this section.

If this had proven otherwise the Wimpy slope had my preference but the best method of access to these properties now appears to be as follows:

(1) Improve Goldstone road up Pratt Creek by relocating about 2-miles on the south side of Pratt Creek from the lower power plant to about ½-mile above damsite, thereby bypassing all washed out sections and connecting into the good, even grade road from about ½-mile west of War Eagle cabin to Goldstone camp. Amerold readings indicate from 6% to 10% grade, with possibility of one or two switchbacks. The south side of the creek is mostly earth timbered by jack pine and other small timber. Two bridges will be required, one crossing Pratt Creek at each end of the relocated road. This will provide adequate truck haulage to and from Goldstone mine which will greatly facilitate future operations there as well as afford access to War Eagle showings.

(2) Take off from Goldstone road at most convenient place between War Eagle cabin and Goldstone camp to miss the large rock slide west of north creek fork. This rock slide extends part way down the moutain north of present road. This road to extend at about 10% grade up to Tunnel "B", thence up a 10% locality of War Eagle upper workings. Subject to survey, I have sketched this road on accompanying Map No. 1. Distance cannot be determined until survey but should approximate 8,000 feet. Preliminary observation indicates depth of overburden sufficient to dig a 12 to 14-foot road. Some narrow rock ridges may be encountered, requiring rock work which will be facilitated by use of portable compressor to be used in preliminary underground development at War Eagle. The idea is to follow bulldozer route and eliminate all rock work possible.

Obviously a true estimate of cost cannot be arrived at until further investigation but it is possible that the above work can be performed in a week or 10-days, largely dependent upon the rock work required.

Surface exploration Once the road is completed a series of level cuts will be driven across the indicated vein strike down both Pratt Creek and Wimpy Creek slopes. The gentle Wimpy Creek slope will permit bulldozing as far as required but the lower half of Pratt Creek slope between upper War Eagle and Tunnell"B" gets progressively steeper which may eventually limit work in that direction.

A minimum 5-foot depth to over 10-feet depth over overburden and slabbed country rock may be expected, thus benches upwards of 30-feet wide will be formed by digging down into bedrock to expose the vein outcrop. The bulldozer will be followed by two men who will use pick and shovel and dynamite to define vein (or veins) found therein. Possibly $3,000 may be expended in this work which will most conclusively define surficial ore possibilities which mining caution requires.

As mentioned in my preliminary report, and illustrated on accompanying Longitudinal Section 2-A, the probable downward ore rake of War Eagle ore zone (or zones) will be northerly towards Wimpy Creek and the presumed igneous ore source. This northerly ore rake was anticipated from Goldstone maps and has been definitely proven by my recent Goldstone examination.

At present the full lateral extent of War Eagle's upper ore zone has not been indicated due to the heavy cover. Testing down Pratt Creek slope will be necessary to define the southeastern limits at surface and likewise bulldoze testing down Wimpy Creek slope will be required to define length of ore to the northwest.

The indicated northerly rake suggests that prospecting down Wimpy Creek slope will provide better and quicker results and this work should be performed first.

Underground exploration and development The Longitudinal Section indicates possible additional ore zone under the upper zone. This extends from Tunnel "B". How far above or below the tunnel this showing may continue will depend upon exploration to prove.

The northerly ore rake, if proven as expected, will require longer tunnels to tap downward continuation of ore zone if driven from Pratt Creek slope in a northerly direction than tunnels driven southerly from Wimpy Creek slope because the Pratt Creek tunnels would progress with and under the ore rake, whilst the Wimpy Creek tunnels would be driven into the ore rake.

Wimpy Creek slope affords better opportunity to quickly determine ore possibilities indicated by the large float showings there and the surficial showings on the divide between Pratt and Wimpy Creeks. The Pratt Creek slope has advantage of proving ore possibilities indicated in vicinity of Tunnel "B" but would be more than twice as long as Wimpy tunnels to test downward continuation of the indicated larger ore possibilities north of the divide.

Three methods of underground development present themselves:

(1) Drift tunnel driven southeast along vein from Wimpy slope whereby about 800 to 900-feet length would test the full length of indicated ore zone to about 400-maximum feet below surface. The cost of this tunnel at $18 per foot would be about $16,000 and would prove width of ore vein, length of ore shoots, etc. to that depth.

(2) Drift tunnel driven northwest along vein by extension of Tunnel "B" would extend 1200-feet to reach the indicated beginning of the better ore zone, thence would have to advance an additional 800 feet or more to reach its other end, a total of 2000 feet which would bring this tunnel almost to surface at Wimpy slope. This tunnel would have advantage of proving possibilities of the ore zone near its portal and would also test ground between the two zones which Wimpy tunnel would not do. Cost of this tunnel at $18 per foot would be about $36,000 and would prove width of ore vein, length of ore shoots within the various ore zones, etc, to a maximum of 400 feet below surface.

(3) Extension of the 20-foot shaft down in the ore vein for 400 feet, to same elevation of the two proposed tunnels, would have advantage of "staying with the ore" until it raked out to the north, thereby proving width and ore tenor in downward continuation. Drifts would have to be run out northerly in the lower levels to prove lateral conditions along the vein. At $40 per foot, 400 feet of shaft would cost $16,000 and at $20 per foot an additional 800 feet of drift along vein would cost $16,000, the total $32,000. Subject to bulldozer disclosures of vein down Wimpy slope, whereby Wimpy tunnel could be started on, or close to ore, the shaft method would give better assurance and prove two dimensions within limits of ore rake, whereby the tunnel methods would require additional work to prove vertical conditions.

The more rapid accomplishment of objective together with lesser cost gives advantage to Wimpy slope tunnel. If success is met with and commercial ore proven along its horizontal extent then a shaft could be raised to surface from this level, 150 feet north from the 20-foot shaft to afford information about the vein

and also provide access to surface whereby ore could be hoisted to a tram or road terminal for transportation down to mill. Deeper development would best be performed by continuing this shaft. At about $30 per foot this shaft-raise would cost about $12,000 but this additional expense would not be incurred until Wimpy tunnel had proved occurrence of acceptable quantities and grade of ore to warrant going into mining.

In regards the shaft method it is questionable if the compressor to be used for preliminary development would provide sufficient power for hoisting more than 200 feet. This would require a larger and more expensive compressor, pumps, continuous timbering, whereby water would drain out the tunnels and much of the drift tunnels would not require timber.

Title Validity of title to War Eagle claims is subject to doubt by reason that Location Notice posted at War Eagle No. 2 claim is dated May 25, 1937 but the County Recorders's office has no filing as of that date but shows only the original location in 1928. Subject to thorough checking of yearly assessment filings from 1928 to 1937 or some other legal arrangement for holding the claims in good standing during that period the title of optioners may have lapsed. If assessment lapsed at any time between 1928 and 1937 the claims lapsed and thereafter would be subject to (a) relocation by former stakers or (b) open for new location by new stakers. Unless a lapse had occurred I cannot see reason for posting a Notice dated in 1937 because the claims would be in good standing and not require such a notice. This matter deserves thorough investigation.

In the meantime, to protect your interests, six claims are being located to cover War Eagle Lode and an additional four claims are being located on open ground west of War Eagle to cover a vein there, as advised in my July 3rd. report. The new claims are marked in green on Map No. 1 and the old War Eagle locations shown in orange.

Your option on this ground and your investment in work will thus be adequately protected. If War Eagle owners have a valid title the terms of your option still stand. If they have not, the new locations will acquire all rights to this property.

In checking over the ground during last examination we found that all quartz carries values, even some pure white "bull quartz" when broken contained lead sulphides. This is indicative of extensive metallisation of the quartz and the wide spread and large pieces of float is indicative of good sized quartz body beneath overburden.

CONCLUSIONS The wide distribution of large ore float and indication of considerable ore width by dump at 20-foot shaft together with the fact that metallic values occur in every type of quartz on this showing, all give encouragement that further exploration and development will provide commercial ore results. The showings justify bulldoze prospecting whose results will determine underground exploration and development. Success should provide a good profitable lead-silver-gold mine. In event of disappointment from bulldozer work the losses will be limited to cost of road plus about $3,000 for bulldozing. Whilst it will require this work to prove whether or not these expectations develop the showings fully justify this expenditure which will be followed by expenditure for underground

development in accord with bulldozer findings. Unless this work is done the property will remain dormant in same position economically as it has for the past years.

Spokane, Wash.
August 2, 1944

Arthur Lakes
Mining Engineer & Geologist

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.

Form approved.
Budget Bureau No. 42-R1026.

# GENERAL TECHNICAL DATA
# FOR USE UNDER THE
# DEFENSE PRODUCTION ACT OF 1950

NOV 19 2 27 PM '51

NOT TO BE FILLED IN BY APPLICANT

Docket No. D.M.E.A. 2235

Date received 11-19-51

War Eagle Gold Silver Lead Mining Co.
511 Securities Bldg.
Seattle, Washington

Name and address of applicant

Date November 1951

## INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

## GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

| Name and Address (a) | Official Title (If officer is also director indicate by "D") (b) | Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c) | Estimated Net Worth Outside of Interest in Applicant (d) | Number of Shares Held in Applicant Corporation: Common (e) | Number of Shares Held in Applicant Corporation: Preferred (f) | Life Insurance Carried for Benefit of Applicant: Amount (g) | Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h) |
|---|---|---|---|---|---|---|---|
| Allen Knight Bellingham, Wash. | Vice-pres. & director | None | | 10,000 | | None | |
| F. E. Frost Bellingham, Wash. | | " | | 10,000 | | " | |
| C. W. Miller Bellingham, Wash. | | " | | 10,000 | | " | |
| Emil Hottman Kelso, Washington | Secretary & director | " | | 10,000 | | " | |
| P. W. Miller LaConner, Washington | | " | | 10,000 | | " | |
| B. W. Porter Seattle, Washington | President & director | " | | 10,000 | | " | |
| | | | | | | | |
| | Total | | x x x x x | 60,000 | | x x x x x | x x x x x |

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

**For Corporate Applicants**

| Item | Authorized (a) | Outstanding (b) | Par Value (c) | Number of Shares Outstanding (d) | Dividend Rate Last Paid* (e) |
|---|---|---|---|---|---|
| Common stock | $ 350,000 | $ 60,000 | $ 0.10 | | |
| Preferred stock | $ | $ | $ | | |

*Indicate period covered.

10. Production: Not applicable

| Item | Kind of Product (a) | 1948 Total (b) | 1949 Total (c) | 1950 Total (d) | Present Average Monthly (e) |
|---|---|---|---|---|---|
| 1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.) | | | | | |
| 2. Quantity of product processed (specify unit of measure and type of process) | | | | | |
| 3. Quantity and grade of product sold or shipped (specify units of measure) | | | | | |

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. Not applicable

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

See Engineer[illegible] Reports, attached

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

| Ore or Mineral Reserve | Estimated Tons (a) | Metal or Mineral Content Per Ton (Grade) (b) | Gross Value Per Ton (c) | Recoverable Unit Value Per Ton (d) | Estimated Cost of Production Per Ton (e) |
|---|---|---|---|---|---|
| Measured (proved) | | | | | |
| Indicated (probable) | | | | | |

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads: 40 miles to Armistead railhead, U.P.Ry.

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

21 miles to Salmon, Idaho, supply center (county seat)

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor: Not applicable - work done by footage contract

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: Compressor house 12x12, and gallows shaft frame (condition good).

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation. None

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

WAR EAGLE GOLD SILVER LEAD MINING CO.
(Name of company)

By B. W. Tooley
(Signature of authorized official)

November 1951
(Date)

President
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

1. (a) Lead, silver, gold

(b) None

2. (a) Linear feet of shafts 65 ft.

(b) Drifts and crosscuts None

(c) Tunnels or adits None

(d) No other mine openings except some open cuts

The mine is not flooded and presents no pumping problem.

3. (a) Nearest supply center is Salmon, Idaho, 21 miles
Nearest shipping point is Armistead, Idaho, 40 miles

(b) Pratt Creek Mining District

(c) Township_____, Section_____, Range_____

(d) Lemhi, Idaho

4. (a) The property is not now in operation

(b) Owner

5. Has not been in production or operation

Estimated date when production will begin: "six months after commencement of this contemplated project"

6. (a) B. W. Porter, president and manager of applicant, has been actively engaged in mining and mine development since 1934.

The foreman or superintendent to be assigned to this project is Walter Deighton, who has had more than 20 years experience in actual mining, both underground and surface.

7. (a) Previous exploration work consisted of sinking a shaft 65 ft. and open cuts across the lode or vein.

(b) Among the properties being developed in this area are the Idaho Consolidated Mines property, which is expected to be in production before December 1, 1951; the Goldstone Mining Co. property one mile distant from the War Eagle property; and the How Sound's 2000-ton per day operation.

(c) ~~Private~~ Engineers reports attached.

# PRELIMINARY REPORT
# ON THE
# WAR EAGLE PROPERTY
## Lemhi County, Idaho

The War Eagle is a prospective mining property that warrants exploration in expectancy of making a good lead-silver-gold mine of moderate size.

The property comprises five located claims extending from War Eagle Mountain northwest across Pratt Creek and up over the ridge dividing Pratt Creek from Wimpy Creek. The claims extend NW along the indicated course of War Eagle vein-lode which has been opened by two tunnels south of Pratt Creek on War Eagle Mountain, thence NW over Pratt Creek-Wimpy Creek divide where the lode is opened by a series of surface cuts and two shallow shafts, and is also presumed to be exposed by tunnel down the Pratt Creek slope as shown on Plan No. 1 and Longitudinal Section herewith.

The property is reached by mountain road extending 11 miles westerly from the main highway at Baker, Idaho to Goldstone mine, thence by high level foot trail extending 1½ miles easterly to the upper War Eagle showings on the divide. From there a switchback trail extends down Pratt Creek slope to the lower tunnel and thence to War Eagle camp. War Eagle camp is on the road 1-1/3 miles nearer Baker.

An alternative means of access is by road extending 40-miles from Armstead, Idaho, to Goldstone mine, thence by above mentioned trails. Whilst this latter route is in better repair--as about 1½ miles of the Pratt Creek road has been washed out making it impassable except for pack horses and difficult wagon haul--the Armstead road crosses the Continental Divide at about 9000 feet altitude and is there under deep snow until late summer.

In the event that War Eagle showings on Pratt Creek-Wimpy Creek divide expose commercial ore bodies as anticipated, the surface configuration indicates that best means of access will be by road extending up the gentle Wimpy Creek slope which is generally covered by overburden and timbered so that a road could be quickly and cheaply bulldozed.

Timber in vicinity of War Eagle showings is suitable for lumber and for mining purposes. Both Pratt and Wimpy Creeks flow adequate water for all milling purposes but there appear to be no running streams in close vicinity of War Eagle showings. The summer prospecting camp suggested at the upper showings may be provided with water from the 20-foot shaft on War Eagle vein or a spring might be found by further search.

The high elevations make winter weather severe but open weather may be counted on for about six, or more, months per year in vicinity of the proposed work. Transportation to summer camp will be by pack horse over the War Eagle-Goldstone trail or up the gentle hill slope NW and W of the showings.

The country rocks comprise a series of thin bedded, platy argillaceous quartzites enclosed between beds of hard, vitreous, massive quartzites, all striking generally NW with variable steep dips SW and NE. The War Eagle and Goldstone veins occur in the thinner bedded formations which are much more favorable for formation of shear and fissure zones than the more massive rocks which appear to be too hard and resistant to permit extensive vein fissuring.

The bed of thinner favorable formation at War Eagle appears to exceed 1000-feet thick, striking NW nearly parallel to War Eagle vein which cuts it at acute angle, and has nearly vertical dip. The War Eagle vein-lode about centers this bed and its acute intersection of formation course will permit considerable lateral and vertical extension of the vein before it enters the harder and more massive, less favorable rocks.

Best exposures of War Eagle vein-lode are on the divide between Pratt & Wimpy Creek at about 8800 feet above sea level where it has been trenched and opened by shallow shafts for about 220 feet length in a N 25°W direction with a 20-foot shaft near center where ore width must have been considerable, judging from the large amount of quartz-lead ore piled around it where chunks upwards of one foot square are common. The area NW of these workings is generally covered by earth and timber but considerable float in large chunks and possible outcrop occur for an additional 260 feet. Whilst it will require more systematic surface trenching to prove vein outcrop under the overburden, the above exposures indicate a possible length of more than 450 feet of vein in this vicinity and it is to be expected that this will be closely approximated by the work suggested.

The cuts and shafts are not exposed in vein at present, except for 10-foot pit near station 37 where a foot of good ore is opened. The samples taken in this vicinity were, therefore, grab samples from the numerous and considerable ore piles around the shaft and cuts and from possible outcrops and/or large float exposed NW down the hill. The ore is essentially quartz with visible lead in streaks, veinlets and small bunches and the samples show a higher lead tenor that would be first anticipated. Judging from the workings it would appear that the ore body here is a lense which widened out to considerable width at and near the center (in vicinity of the shaft) and narrowed at each end. However I do not believe that the large float occurring NW down towards and in the vicinity of Tunnel "A" (See Map No. 3) was thrown from this wider bed as the surface is too flat for these large pieces to have travelled that far. It is possible, therefore, that another good sized lense may occur between station No. 35 and Tunnel "A" and it is on this assumption that the exploration work advised herein is predicated. Success here would encourage further prospecting down the lode strike towards Wimpy Creek with possibility that additional ore lenses may be found.

Judging from the Goldstone maps and other geologic conditions, which will be more fully investigated and reported in Goldstone examination, the probable downward rake of War Eagle ore shoots or ore zone will be NW or toward Wimpy Creek. If this proves to be the case the obvious locality for attack in depth would be from Wimpy Creek side of the mountain towards which the better ore showings would plunge.

The next showing on War Eagle vein is presumed to be at Tunnel "B", 1000 feet further SE and 430-vertical feet below the above showings. This comprises two veins (1) on east side of cut over tunnel face which lines up with the projected SE strike of vein from the upper showings, giving belief that this may be on the same vein-lode, and (2) a narrow quartz vein branching N33°W from the first. These two veins occur in a sheared, much contorted and schisted zone within the thin, platy argillaceous quartzites. They appear to be barren of mineral where now exposed but ore on the tunnel dump contains considerable galena which is indicative that the vein, or veins, in the tunnel were productive of ore. They vary in width from two feet at surface of the

first vein and 6" at surface of the second, but in the cut both pinch down to about half their surface exposure. Unfortunately the tunnel floor and face was not open for inspection so that conditions there could not be judged. A picked sample of the best lead-quartz ore returned high values as reported elsewhere in this report.

Two cuts between the upper showings and Tunnel "B" are clearly off the vein strike and show nothing. The distance between the respective showings is too far to conclude with certainty that Tunnel "B" is on the same vein shown by the upper workings and surface trenching--starting from above--will have to be done to prove or disprove the contention. The upper showings are better and show more promise than this one isolated showing but it is possible that more extensive prospecting may materially improve it.

About 1000 feet SW and 560 feet lower elevation from Tunnel "B" is a small cut in thin, platy argillaceous quartzites containing a 6-inch, well mineralized quartz vein whose strike nearly parallels the War Eagle. Its position prohibits its being SE extension of this vein but it might prove to be a parallel one, about 650 feet west of War Eagle vein. A little prospecting to see if it widens might afford encouragement to prospect uphill for parallel ore showings. Its position is west of War Eagle property lines and if it should provide encouragement additional claims should be staked to cover it.

The tunnels on the south side of Pratt Creek are caved and were not examined. I am informed that good gold ore was gotten though in what amount is not noted. This section would be left for some future date as the area between Pratt and Wimpy Creeks affords most promise, is easier of access, and if it proves satisfactory after exploration would give a wide section for development and mining.

As noted none of the actual vein was exposed in any of the cuts or shafts at the upper showings, with exception of about one foot of vein in bottom of the most southerly exposure. For this reason the samples taken by me are primarily "grab" samples from the ore piles at surface and whilst they are indicative of the good ore tenor are not conclusive as they would be if the vein itself had been sampled. In taking these grab samples the mineralized quartz was chipped from numerous larger chunks into a small sample. Two picked samples of the ore containing heaviest visible galena were taken, the others being the better quartz-galena ore and quartz. The results are higher than I had expected at the time of sampling and are encouraging for lead-silver-gold ore but it is to be expected that the full vein widths will run less than the average of grab samples taken, though these indicate that the vein-run will be good mill grade ore. The encouraging feature is that the "float" ore represented by Samples #1 and #2 ran as well as it did as this material did not look overly promising on the ground.

In calculating present dollar values of metal contents of the samples, the following prices have been taken: Gold $35 per ounce; Silver 75¢ per ounce; Lead 6-3/4¢ per pound.

Sample No. 1 taken from outcrop or float exposed above surface 12 inches wide at o.c. "B" (See Map No. 3) 180 feet NW of the shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.36 oz. | $12.60 | |
| Silver | 1.3 oz. | $ 0.97 | |
| Lead | 0.85% | $ 1.41 - Total value per ton | $14.71 |

Sample No. 2 General grab sample of large pieces of ore at cut above Tunnel "A" portal, 260 feet NW from shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.40 oz. | $14.00 | |
| Silver | 3.1 oz. | $ 2.32 | |
| Lead | 10.35% | $13.97 - Total value per ton | $30.27 |

The lead content is unexpectedly high. Tunnel "A" is caved and cannot determine if in downward continuation of this vein. Doubtful as little ore on tunnel dump.

Sample No. 3 Grab from large pieces of ore piled around 20-foot shaft to amount estimated about 30 tons. Quartz with galena, copper stains, etc. Representative of ore that came from the shaft but possibly higher than average if chipped from vein face.

| | | | |
|---|---|---|---|
| Gold | 0.30 oz. | $10.50 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 10.8% | $14.57 - Total value per ton | $29.77 |

Samples #3A Picked sample of best lead ore with quartz taken from numerous large chunks of lead-quartz stained by copper, etc. Clearly high grade and probably in minor amount within the vein.

| | | | |
|---|---|---|---|
| Gold | 0.60 oz. | $21.00 | |
| Silver | 12.6 oz. | $ 9.45 | |
| Lead | 34.4% | $46.44 - Total value | $76.89 |

Taken to see what the best ore in this vicinity would run.

Sample No. 4 Grab from pile of ore near filled cut #36, quartz and galena. No indication of vein width.

| | | | |
|---|---|---|---|
| Gold | 0.32 oz. | $11.20 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 14.0% | $18.90 - Total value | $32.80 |

These values unexpectedly high as ore does not have appearance of this much lead content.

Sample No. 5 From 1-foot vein in bottom of 10-foot pit at south end of the showings. Vein partly exposed in north end of shaft contains visible stringers of lead.

| | | | |
|---|---|---|---|
| Gold | 0.18 oz | $ 6.30 | |
| Silver | 4.4 oz. | $ 3.30 | |
| Lead | 16.1% | $21.60 - Total value | $31.20 |

Sample No. 6 Selected sample from the best lead-quartz ore at Tunnel "A". No indication of width or occurrence in vein which was covered under tunnel floor and not exposed in tunnel face. Surface

outcrop shows no visible galena. Sample taken to see what best ore here might run. When the tunnel faces are better exposed a more systematic sampling should follow as this is inconclusive of the ore possibilities here.

| | | | | |
|---|---|---|---|---|
| Gold | 0.12 oz. | $ 4.20 | | |
| Silver | 4.25 oz. | $ 3.25 | | |
| Lead | 37.0% | $49.90 | - Total value | $58.35 |

- - - - - - - - - - - - - - - - - - - - - - - - -

The above sampling, despite the limitations outlined, is encouraging that the War Eagle upper showings may develop into a good lead-silver-gold mine by further work.

In order to prove the property more fully this summer it is advised that two men be installed at the upper area and provided with tent camp, tools, and supplies by horse pack. A system of open trench work should be laid out and the work frequently inspected.

I advise that the area between station 35 and Tunnel "A" first be prospected through overburden to solid rock and the vein (or veins) exposed be blasted into and sampled. It is probable that from 3 to 4 feet of overburden will be found which will slow up pick and shovel work but this appears to be the most feasible for this summer. After this section has been explored the Pratt Creek slope should be trenched from vicinity of station 37 to SE along the projected vein strike. This will conclude about all the work two men could do during the season.

I estimate costs of wages, supplies, packing, etc. for two men will average about $22 per day. If success is met with a more extensive and cheaper per cubic yard prospecting could be performed next summer by bulldozer but the preliminary work would not warrant the cost of bringing one in at this time.

## Conclusions

The War Eagle property is situated in the rock formation that has been most ore-favorable in this section and has developed Goldstone vein to more than 500 feet depth in good ore. Whilst War Eagle rock belt is separate from Goldstone it is similar in character and structure. Thus War Eagle has ore-favorable host rock.

The small amount of work on War Eagle upper workings has indicated more than usual amounts of quartz-galena ore which assays high enough to promise commercial returns after the ore sheets may be developed into length and depth.

The immediate future should be given to proving lateral extent and vein widths of ore. This will best be done by surface trenching. After this work is done the depth extension could conveniently be done by diamond drilling from surface by gas-driven drill.

I have no hesitancy in recommending prospecting and exploration of this property and believe that a good lead-silver-gold mine of moderate size will be disclosed.

Spokane, Washington
July 3, 1944

ARTHUR LAKES

SUPPLEMENTAL REPORT
ON THE
WAR EAGLE GROUP

I made another examination of War Eagle property July 28th, in conjunction with underground examination of Goldstone mine workings, July 24-29th.

This report chiefly concerns method of surface prospecting of vein outcrop and downward extensions of ore found thereby; transportation facilities and improvement thereof. Various routes for road connection between War Eagle and Goldstone mine were investigated.

The outstanding factors developed by this examination were:

(1) The depth of overburden at War Eagle surface exceeds estimate of my Preliminary report, July 3rd., and vein outcrop cannot be adequately or cheaply opened by pick and shovel. The only satisfactory method involves bulldozer trenching through from 5 to more than 10-feet of over burden.

(2) The absolute necessity for roads over which to drive bulldozer to the upper War Eagle area and also to haul compresser, mine cars, and other mining equipment to be used for underground development of ore that may be found by bulldozing.

(3) Validity of title of War Eagle claims is subject to doubt. Steps have been made to protect your interests in this matter.

Transportation The unusually strong showings of ore float and at the surficial workings at upper War Eagle should interest any mining engineer. The fact that the property has been ignored for the past 15 to 20-years is probably due to the isolated position and difficult accessibility of these showings. In order to explore the actual vein outcrop along its course, in accord with proper mining caution, will require the use of bulldozer. This requires that it dig a road to War Eagle locality. Without this work the ore possibilities will remain entirely speculative and the property continue as it has for the past years. Therefore the chief "bug" is lack of transportation which will have to be remedied before intellegent and conclusive investigations can go forward.

In considering transportation it is necessary to bear in mind that ore from War Eagle (if successfully developed in commercial quantity as expected) and from Goldstone mine will be treated in a central mill, powered by Deisel-electric unit from which electricity will be wired to compressors at each mine. This plant should be located where ore from the respective mines can be transported downgrade to it. The most central locality meeting this condition will be on Pratt Creek, possibly near War Eagle cabin, whereby ore from War Eagle could be transported over aerial tramway or by road down to mill and ore from Goldstone mine be hauled down over present road to mill by truck in summer and cat-train in winter.

Thus the location of the road will be determined by the above considerations in order to facilitate earliest access to War Eagle showings and at the same time provide adequate permanent transportation for ore and supplies. An alternative mill location had been considered on the gentler slope of Wimpy Creek north of War Eagle showings which is covered by earth but investigation proved the impossibility of building down grade road connecting Goldstone mine to this section.

If this had proven otherwise the Wimpy slope had my preference but the best method of access to these properties now appears to be as follows:

(1) Improve Goldstone road up Pratt Creek by relocating about 2-miles on the south side of Pratt Creek from the lower power plant to about ½-mile above damaite, thereby bypassing all washed out sections and connecting into the good, even grade road from about ½-mile west of War Eagle cabin to Goldstone camp. Amerold readings indicate from 6% to 10% grade, with possibility of one or two switchbacks. The south side of the creek is mostly earth timbered by jack pine and other small timber. Two bridges will be required, one crossing Pratt Creek at each end of the relocated road. This will provide adequate truck haulage to and from Goldstone mine which will greatly facilitate future operations there as well as afford access to War Eagle showings.

(2) Take off from Goldstone road at most convenient place between War Eagle cabin and Goldstone camp to miss the large rock slide west of north creek fork. This rock slide extends part way down the moutain north of present road. This road to extend at about 10% grade up to Tunnel "B", thence up a 10% locality of War Eagle upper workings. Subject to survey, I have sketched this road on accompanying Map No. 1. Distance cannot be determined until survey but should approximate 8,000 feet. Preliminary observation indicates depth of overburden sufficient to dig a 12 to 14-foot road. Some narrow rock ridges may be encountered, requiring rock work which will be facilitated by use of portable compressor to be used in preliminary underground development at War Eagle. The idea is to follow bulldozer route and eliminate all rock work possible.

Obviously a true estimate of cost cannot be arrived at until further investigation but it is possible that the above work can be performed in a week or 10-days, largely dependent upon the rock work required.

Surface exploration Once the road is completed a series of level cuts will be driven across the indicated vein strike down both Pratt Creek and Wimpy Creek slopes. The gentle Wimpy Creek slope will permit bulldozing as far as required but the lower half of Pratt Creek slope between upper War Eagle and Tunnell"B" gets progressively steeper which may eventually limit work in that direction.

A minimum 5-foot depth to over 10-feet depth over overburden and slabbed country rock may be expected, thus benches upwards of 30-feet wide will be formed by digging down into bedrock to expose the vein outcrop. The bulldozer will be followed by two men who will use pick and shovel and dynamite to define vein (or veins) found therein. Possibly $3,000 may be expended in this work which will most conclusively define surficial ore possibilities which mining caution requires.

As mentioned in my preliminary report, and illustrated on accompanying Longitudinal Section 2-A, the probable downward ore rake of War Eagle ore zone (or zones) will be northerly towards Wimpy Creek and the presumed igneous ore source. This northerly ore rake was anticipated from Goldstone maps and has been definitely proven by my recent Goldstone examination.

At present the full lateral extent of War Eagle's upper ore zone has not been indicated due to the heavy cover. Testing down Pratt Creek slope will be necessary to define the southeastern limits at surface and likewise bulldoze testing down Wimpy Creek slope will be required to define length of ore to the northwest.

The indicated northerly rake suggests that prospecting down Wimpy Creek slope will provide better and quicker results and this work should be performed first.

Underground exploration and development The Longitudinal Section indicates possible additional ore zone under the upper zone. This extends from Tunnel "B". How far above or below the tunnel this showing may continue will depend upon exploration to prove.

The northerly ore rake, if proven as expected, will require longer tunnels to tap downward continuation of ore zone if driven from Pratt Creek slope in a northerly direction than tunnels driven southerly from Wimpy Creek slope because the Pratt Creek tunnels would progress with and under the ore rake, whilst the Wimpy Creek tunnels would be driven into the ore rake.

Wimpy Creek slope affords better opportunity to quickly determine ore possibilities indicated by the large float showings there and the surficial showings on the divide between Pratt and Wimpy Creeks. The Pratt Creek slope has advantage of proving ore possibilities indicated in vicinity of Tunnel "B" but would be more than twice as long as Wimpy tunnels to test downward continuation of the indicated larger ore possibilities north of the divide.

Three methods of underground development present themselves:

(1) Drift tunnel driven southeast along vein from Wimpy slope whereby about 800 to 900-feet length would test the full length of indicated ore zone to about 400-maximum feet below surface. The cost of this tunnel at $18 per foot would be about $16,000 and would prove width of ore vein, length of ore shoots, etc. to that depth.

(2) Drift tunnel driven northwest along vein by extension of Tunnel "B" would extend 1200-feet to reach the indicated beginning of the better ore zone, thence would have to advance an additional 800 feet or more to reach its other end, a total of 2000 feet which would bring this tunnel almost to surface at Wimpy slope. This tunnel would have advantage of proving possibilities of the ore zone near its portal and would also test ground between the two zones which Wimpy tunnel would not do. Cost of this tunnel at $18 per foot would be about $36,000 and would prove width of ore vein, length of ore shoots within the various ore zones, etc, to a maximum of 400 feet below surface.

(3) Extension of the 20-foot shaft down in the ore vein for 400 feet, to same elevation of the two proposed tunnels, would have advantage of "staying with the ore" until it raked out to the north, thereby proving width and ore tenor in downward continuation. Drifts would have to be run out northerly in the lower levels to prove lateral conditions along the vein. At $40 per foot, 400 feet of shaft would cost $16,000 and at $20 per foot an additional 800 feet of drift along vein would cost $16,000, the total $32,000. Subject to bulldozer disclosures of vein down Wimpy slope, whereby Wimpy tunnel could be started on, or close to ore, the shaft method would give better assurance and prove two dimensions within limits of ore rake, whereby the tunnel methods would require additional work to prove vertical conditions.

The more rapid accomplishment of objective together with lesser cost gives advantage to Wimpy slope tunnel. If success is met with and commercial ore proven along its horizontal extent then a shaft could be raised to surface from this level, 150 feet north from the 20-foot shaft to afford information about the vein

and also provide access to surface whereby ore could be hoisted to a tram or road terminal for transportation down to mill. Deeper development would best be performed by continuing this shaft. At about $30 per foot this shaft-raise would cost about $12,000 but this additional expense would not be incurred until Wimpy tunnel had proved occurrence of acceptable quantities and grade of ore to warrant going into mining.

In regards the shaft method it is questionable if the compressor to be used for preliminary development would provide sufficient power for hoisting more than 200 feet. This would require a larger and more expensive compressor, pumps, continuous timbering, whereby water would drain out the tunnels and much of the drift tunnels would not require timber.

Title Validity of title to War Eagle claims is subject to doubt by reason that Location Notice posted at War Eagle No. 2 claim is dated May 25, 1937 but the County Recorders's office has no filing as of that date but shows only the original location in 1928. Subject to thorough checking of yearly assessment filings from 1928 to 1937 or some other legal arrangement for holding the claims in good standing during that period the title of optioners may have lapsed. If assessment lapsed at any time between 1928 and 1937 the claims lapsed and thereafter would be subject to (a) relocation by former stakers or (b) open for new location by new stakers. Unless a lapse had occurred I cannot see reason for posting a Notice dated in 1937 because the claims would be in good standing and not require such a notice. This matter deserves thorough investigation.

In the meantime, to protect your interests, six claims are being located to cover War Eagle Lode and an additional four claims are being located on open ground west of War Eagle to cover a vein there, as advised in my July 3rd. report. The new claims are marked in green on Map No. 1 and the old War Eagle locations shown in orange.

Your option on this ground and your investment in work will thus be adequately protected. If War Eagle owners have a valid title the terms of your option still stand. If they have not, the new locations will acquire all rights to this property.

In checking over the ground during last examination we found that all quartz carries values, even some pure white "bull quartz" when broken contained lead sulphides. This is indicative of extensive metallization of the quartz and the wide spread and large pieces of float is indicative of good sized quartz body beneath overburden.

CONCLUSIONS The wide distribution of large ore float and indication of considerable ore width by dump at 20-foot shaft together with the fact that metallic values occur in every type of quartz on this showing, all give encouragement that further exploration and development will provide commercial ore results. The showings justify bulldozer prospecting whose results will determine underground exploration and development. Success should provide a good profitable lead-silver-gold mine. In event of disappointment from bulldozer work the losses will be limited to cost of road plus about $3,000 for bulldozing. Whilst it will require this work to prove whether or not these expectations develop the showings fully justify this expenditure which will be followed by expenditure for underground

development in accord with bulldozer findings. Unless this work is done the property will remain dormant in same position economically as it has for the past years.

Spokane, Wash.
August 2, 1944

Arthur Lakes
Mining Engineer & Geologist

C
O
P
Y

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

So. 157 Howard Street
Spokane 4, Washington

November 16, 1951

Thru: Reports and Records Unit

Mr. Tom Lyon, Chairman
Coordinating Committee
Defense Minerals Administration
U. S. Department of the Interior
Washington 25, D. C.

Dear Mr. Lyon:

Enclosed are four copies each of Forms MF-100 and MF-103 submitted by the War Eagle Gold, Silver, Lead Mining Company, 511 Securities Building, Seattle, Washington. The application concerns the War Eagle property, Lemhi County, Idaho.

This office was previously informed that the War Eagle Gold, Silver, Lead, Mining Company wished to submit application for exploration assistance. Therefore in October Mr. Elton Youngberg, Geologist, U. S. Geological Survey, attempted to visit the property to conduct a field examination, but found the mine to be snowed in and inaccessible. The applicant, Mr. B. W. Porter, advises that the property should be accessible by May 1952. This office will tentatively schedule a field examination for that time.

Sincerely,

s/ Thor H. Kiilsgaard
for A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures as indicated.

cc: USBM, Spokane

Form 6-95

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

# REFERENCE SLIP

DATE 12/4/51

REFERRED TO:

1. E. T. McKnight
2. O M Bishop
3.
4.

FOR:

| | |
|---|---|
| ..... Action | ..... Recommendation |
| ..... Approval | ..... Record of ..... |
| ..... Comment | ..... Referring to ..... |
| ..... Conference | ..... Reply for signature of ..... |
| ..... Consideration | ..... Rewriting |
| ..... Filing | ..... Signature |
| ..... Instructions | ..... Suggestions |
| ..... Investigation | ..... Your information |
| ..... Initials | |
| ..... Mailing | |
| ..... Previous correspondence | |

REMARKS: Preliminary review to see if additional information from contract should be requested

Check (X) before the items needing attention.

*Initials of sender.*

GPO 16—51162-1

OFFICE OF THE ADMINISTRATOR

DEFENSE MINERALS ADMINISTRATION
NOV 16 PM '51

# UNITED STATES
# DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
So. 157 Howard Street
Spokane 4, Washington

November 16, 1951

Thru: Reports and Records Unit

Mr. Tom Lyon, Chairman
Coordinating Committee
Defense Minerals Administration
U. S. Department of the Interior
Washington 25, D. C.

Dear Mr. Lyon:

Enclosed are four copies each of Forms MF-100 and MF-103 submitted by the War Eagle Gold, Silver, Lead Mining Company, 511 Securities Building, Seattle, Washington. The application concerns the War Eagle property, Lemhi County, Idaho.

4 copies

3 copies rec'd in Reports & Records

This office was previously informed that the War Eagle Gold, Silver, Lead, Mining Company wished to submit application for exploration assistance. Therefore in October Mr. Elton Youngberg, Geologist, U. S. Geological Survey, attempted to visit the property to conduct a field examination, but found the mine to be snowed in and inaccessible. The applicant, Mr. B. W. Porter, advises that the property should be accessible by May 1952. This office will tentatively schedule a field examination for that time.

Sincerely,

Thor H. Kiilsgaard

Thor H. Kiilsgaard
for A. E. Weissenborn
Executive Officer, DMA
Field Team, Region II

Enclosures as indicated.

cc: USBM, Spokane

Subject: DMEA-2235
Re: Exploration Loan
Ben Nos. 1 to 10

Mr. W. B. Porter, President
War Eagle Gold, Silver, Lead Mining Co.
511 Securities Building
Seattle, Washington

My dear Mr. Porter:

This will acknowledge receipt of your application dated November 15, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2235 and referred to the Base Metals Branch.

Kindly refer to DMEA-2235 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams, Chief
Reports & Records Unit

7862

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

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

*Not To Be Filled in by Applicant*

Docket No. D.MEA. 2235
Metal or Mineral
Date Received 11-19-51
Amount $
Participation (Government %)

Name and address of applicant

MAD MAUS GOLD, SILVER, LEAD MINING CO.
511 Securities Building
Seattle, Washington

Date November 1951

If you have already filed MF-100, give date filed _____, type of assistance requested _____,

DMA Docket Number (if available) _____

## INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

DEFENSE MINERALS ADMINISTRATION WASH. D.C. NOV 21 1951

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

   (b) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

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

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

   Granite Creek Deep Vein

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

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

## CERTIFICATION

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

Goldstone Mining Co. By B. M. Tarey
(Name of company) (Signature of authorized official)

Nov. 15. 1951 Pres.
(Date) (Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

1. (a) The property involved in this exploration project consists of ten lode mining claims named "Ben Nos. 1 to 10" inclusive, with principal development work concentrated on Ben No. 1 lode claim.

(b) The claims are mining locations made for the benefit of the War Eagle Gold Silver Lead Mining Co., a corporation, and owned by said corporation.

(c) Ben No. 1 lode claim is an area 1500 ft. long and 600 ft. wide.

NOTE: Exploration of this claim will benefit the other claims which are located along the same lode or mineral zone.

2. (a) Lead, silver and gold

(b) See reports of mining and consulting engineer attached.

3. (a) The proposed exploration and development work planned on this property consists of sinking the present shaft, now 60 ft. deep, another 135 ft. (approximately), then drifting from the bottom of the shaft under the exposed ore a distance of approximately 300 ft.

| | |
|---|---|
| Estimated cost per ft. for sinking shaft is $60.00, total | $ 8,100.00 |
| Estimated cost of drift tunnel from bottom of shaft, $30.00 per foot, total | 9,000.00 |
| | $ 17,100.00 |

NOTE: Shaft sinking and tunneling will be done at a contract price per foot on the above schedule

(b) This project can be started immediately upon the availability of funds and can be completed within six months after commencement of work.

4. See engineer's report and maps attached as supplements to this application.

5. Existing facilities consist of a compressor house furnishing adequate space for the installation of a compressor and a shaft (gallows frame). Housing and boarding of men, blacksmith, etc., can be had at the Goldstone Mining Company's property approximately one mile distant.

6. No additional facilities, buildings or fixtures are contemplated.

7. The operating equipment, separated into items, will be approximately as follows:

(a) Rented: The use of the bunkhouse, boarding house, blacksmith shop, assay office, to be arranged with the Goldstone Mining Company at a rental to be determined.

(b) Purchased:

| | |
|---|---|
| Compressor, approximately 210 cu. ft. | $ 3000.00 |
| Hoist | 750.00 |
| Truck for hauling supplies, etc. | 3000.00 |
| Air drill | 450.00 |
| Ore cars | 500.00 |
| Rails | 200.00 |
| Powder, fuse, caps, timber, steel and bits, as needed | |

8. Schedule of labor:

2 miners
1 mucker
1 timber man (who is also foreman)
1 compressor and hoist man

No wages or salaries payable, since the work is to be done by footage contract.

9. The cost of materials and supplies, consisting of powder, fuse, caps, mine timbers, steel and bits, is as follows:

| | |
|---|---|
| Powder | $ |
| Fuse | $ |
| Caps | $ |
| Timber | $ |
| Steel | $ |
| Bits | $ |

PRELIMINARY REPORT
ON THE
WAR EAGLE PROPERTY
Lemhi County, Idaho

The War Eagle is a prospective mining property that warrants exploration in expectancy of making a good lead-silver-gold mine of moderate size.

The property comprises five located claims extending from War Eagle Mountain northwest across Pratt Creek and up over the ridge dividing Pratt Creek from Wimpy Creek. The claims extend NW along the indicated course of War Eagle vein-lode which has been opened by two tunnels south of Pratt Creek on War Eagle Mountain, thence NW over Pratt Creek-Wimpy Creek divide where the lode is opened by a series of surface cuts and two shallow shafts, and is also presumed to be exposed by tunnel down the Pratt Creek slope as shown on Plan No. 1 and Longitudinal Section herewith.

The property is reached by mountain road extending 11 miles westerly from the main highway at Baker, Idaho to Goldstone mine, thence by high level foot trail extending 1½ miles easterly to the upper War Eagle showings on the divide. From there a switchback trail extends down Pratt Creek slope to the lower tunnel and thence to War Eagle camp. War Eagle camp is on the road 1-1/3 miles nearer Baker.

An alternative means of access is by road extending 40-miles from Armstead, ~~Idaho~~, to Goldstone mine, thence by above mentioned trails. Whilst this latter route is in better repair--as about 1½ miles of the Pratt Creek road has been washed out making it impassable except for pack horses and difficult wagon haul--the Armstead road crosses the Continental Divide at about 9000 feet altitude and is there under deep snow until late summer.

In the event that War Eagle showings on Pratt Creek-Wimpy Creek divide expose commercial ore bodies as anticipated, the surface configuration indicates that best means of access will be by road extending up the gentle Wimpy Creek slope which is generally covered by overburden and timbered so that a road could be quickly and cheaply bulldozed.

Timber in vicinity of War Eagle showings is suitable for lumber and for mining purposes. Both Pratt and Wimpy Creeks flow adequate water for all milling purposes but there appear to be no running streams in close vicinity of War Eagle showings. The summer prospecting camp suggested at the upper showings may be provided with water from the 20-foot shaft on War Eagle vein or a spring might be found by further search.

The high elevations make winter weather severe but open weather may be counted on for about six, or more, months per year in vicinity of the proposed work. Transportation to summer camp will be by pack horse over the War Eagle-Goldstone trail or up the gentle hill slope NW and W of the showings.

The country rocks comprise a series of thin bedded, platy argillaceous quartzites enclosed between beds of hard, vitreous, massive quartzites, all striking generally NW with variable steep dips SW and NE. The War Eagle and Goldstone veins occur in the thinner bedded formations which are much more favorable for formation of shear and fissure zones than the more massive rocks which appear to be too hard and resistant to permit extensive vein fissuring.

The bed of thinner favorable formation at War Eagle appears to exceed 1000-feet thick, striking NW nearly parallel to War Eagle vein which cuts it at acute angle, and has nearly vertical dip. The War Eagle vein-lode about centers this bed and its acute intersection of formation course will permit considerable lateral and vertical extension of the vein before it enters the harder and more massive, less favorable rocks.

Best exposures of War Eagle vein-lode are on the divide between Pratt & Wimpy Creek at about 8800 feet above sea level where it has been trenched and opened by shallow shafts for about 220 feet length in a N 25°W direction with a 20-feet shaft near center where ore width must have been considerable, judging from the large amount of quartz-lead ore piled around it where chunks upwards of one foot square are common. The area NW of these workings is generally covered by earth and timber but considerable float in large chunks and possible outcrop occur for an additional 260 feet. Whilst it will require more systematic surface trenching to prove vein outcrop under the overburden, the above exposures indicate a possible length of more than 450 feet of vein in this vicinity and it is to be expected that this will be closely approximated by the work suggested.

The cuts and shafts are not exposed in vein at present, except for 10-foot pit near station 37 where a foot of good ore is opened. The samples taken in this vicinity were, therefore, grab samples from the numerous and considerable ore piles around the shaft and cuts and from possible outcrops and/or large float exposed NW down the hill. The ore is essentially quartz with visible lead in streaks, veinlets and small bunches and the samples show a higher lead tenor that would be first anticipated. Judging from the workings it would appear that the ore body here is a lense which widened out to considerable width at and near the center (in vicinity of the shaft) and narrowed at each end. However I do not believe that the large float occurring NW down towards and in the vicinity of Tunnel "A" (See Map No. 3) was thrown from this wider bed as the surface is too flat for these large pieces to have travelled that far. It is possible, therefore, that another good sized lense may occur between station No. 35 and Tunnel "A" and it is on this assumption that the exploration work advised herein is predicated. Success here would encourage further prospecting down the lode strike towards Wimpy Creek with possibility that additional ore lenses may be found.

Judging from the Goldstone maps and other geologic conditions, which will be more fully investigated and reported in Goldstone examination, the probable downward rake of War Eagle ore shoots or ore zone will be NW or toward Wimpy Creek. If this proves to be the case the obvious locality for attack in depth would be from Wimpy Creek side of the mountain towards which the better ore showings would plunge.

The next showing on War Eagle vein is presumed to be at Tunnel "B", 1000 feet further SE and 430-vertical feet below the above showings. This comprises two veins (1) on east side of cut over tunnel face which lines up with the projected SE strike of vein from the upper showings, giving belief that this may be on the same vein-lode, and (2) a narrow quartz vein branching N33°W from the first. These two veins occur in a sheared, much contorted and schisted zone within the thin, platy argillaceous quartzites. They appear to be barren of mineral where now exposed but ore on the tunnel dump contains considerable galena which is indicative that the vein, or veins, in the tunnel were productive of ore. They vary in width from two feet at surface of the

first vein and 6" at surface of the second, but in the cut both pinch down to about half their surface exposure. Unfortunately the tunnel floor and face was not open for inspection so that conditions there could not be judged. A picked sample of the best lead-quartz ore returned high values as reported elsewhere in this report.

Two cuts between the upper showings and Tunnel "B" are clearly off the vein strike and show nothing. The distance between the respective showings is too far to conclude with certainty that Tunnel "B" is on the same vein shown by the upper workings and surface trenching--starting from above--will have to be done to prove or disprove the contention. The upper showings are better and show more promise than this one isolated showing but it is possible that more extensive prospecting may materially improve it.

About 1000 feet SW and 560 feet lower elevation from Tunnel "B" is a small cut in thin, platy argillaceous quartzites containing a 6-inch, well mineralized quartz vein whose strike nearly parallels the War Eagle. Its position prohibits its being SE extension of this vein but it might prove to be a parallel one, about 650 feet west of War Eagle vein. A little prospecting to see if it widens might afford encouragement to prospect uphill for parallel ore showings. Its position is west of War Eagle property lines and if it should provide encouragement additional claims should be staked to cover it.

The tunnels on the south side of Pratt Creek are caved and were not examined. I am informed that good gold ore was gotten though in what amount is not noted. This section would be left for some future date as the area between Pratt and Wimpy Creeks affords most promise, is easier of access, and if it proves satisfactory after exploration would give a wide section for development and mining.

As noted none of the actual vein was exposed in any of the cuts or shafts at the upper showings, with exception of about one foot of vein in bottom of the most southerly exposure. For this reason the samples taken by me are primarily "grab" samples from the ore piles at surface and whilst they are indicative of the good ore tenor are not conclusive as they would be if the vein itself had been sampled. In taking these grab samples the mineralized quartz was chipped from numerous larger chunks into a small sample. Two picked samples of the ore containing heaviest visible galena were taken, the others being the better quartz-galena ore and quartz. The results are higher than I had expected at the time of sampling and are encouraging for lead-silver-gold ore but it is to be expected that the full vein widths will run less than the average of grab samples taken, though these indicate that the vein-run will be good mill grade ore. The encouraging feature is that the "float" ore represented by Samples #1 and #2 ran as well as it did as this material did not look overly promising on the ground.

In calculating present dollar values of metal contents of the samples, the following prices have been taken: Gold $35 per ounce; Silver 75¢ per ounce; Lead 6-3/4¢ per pound.

Sample No. 1 taken from outcrop or float exposed above surface 12 inches wide at o.c. "B" (See Map No. 3) 180 feet NW of the shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.36 oz. | $12.60 | |
| Silver | 1.3 oz. | $ 0.97 | |
| Lead | 0.85% | $ 1.41 - Total value per ton | $14.71 |

Sample No. 2 General grab sample of large pieces of ore at cut above Tunnel "A" portal, 260 feet NW from shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.40 oz. | $14.00 | |
| Silver | 3.1 oz. | $ 2.32 | |
| Lead | 10.35% | $13.97 - Total value per ton | $30.27 |

The lead content is unexpectedly high. Tunnel "A" is caved and cannot determine if in downward continuation of this vein. Doubtful as little ore on tunnel dump.

Sample No. 3 Grab from large pieces of ore piled around 20-foot shaft to amount estimated about 30 tons. Quartz with galena, copper stains, etc. Representative of ore that came from the shaft but possibly higher than average if chipped from vein face.

| | | | |
|---|---|---|---|
| Gold | 0.30 oz. | $10.50 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 10.8% | $14.57 - Total value per ton | $29.77 |

Samples 3A Picked sample of best lead ore with quartz taken from numerous large chunks of lead-quartz stained by copper, etc. Clearly high grade and probably in minor amount within the vein.

| | | | |
|---|---|---|---|
| Gold | 0.60 oz. | $21.00 | |
| Silver | 12.6 oz. | $ 9.45 | |
| Lead | 34.4% | $46.44 - Total value | $76.89 |

Taken to see what the best ore in this vicinity would run.

Sample No. 4 Grab from pile of ore near filled cut #36, quartz and galena. No indication of vein width.

| | | | |
|---|---|---|---|
| Gold | 0.32 oz. | $11.20 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 14.0% | $18.90 - Total value | $32.80 |

These values unexpectedly high as ore does not have appearance of this much lead content.

Sample No. 5 From 1-foot vein in bottom of 10-foot pit at south end of the showings. Vein partly exposed in north end of shaft contains visible stringers of lead.

| | | | |
|---|---|---|---|
| Gold | 0.18 oz | $ 6.30 | |
| Silver | 4.4 oz. | $ 3.30 | |
| Lead | 16.1% | $21.60 - Total value | $31.20 |

Sample No. 6 Selected sample from the best lead-quartz ore at Tunnel "A". No indication of width or occurrence in vein which was covered under tunnel floor and not exposed in tunnel face. Surface

outcrop shows no visible galena. Sample taken to see what best ore here might run. When the tunnel faces are better exposed a more systematic sampling should follow as this is inconclusive of the ore possibilities here.

| | | | | |
|---|---|---|---|---|
| Gold | 0.12 oz. | $ 4.20 | | |
| Silver | 4.25 oz. | $ 3.25 | | |
| Lead | 37.0% | $49.90 | - Total value | $58.35 |

- - - - - - - - - - - - - - - - - - - - - - - - -

The above sampling, despite the limitations outlined, is encouraging that the War Eagle upper showings may develop into a good lead-silver-gold mine by further work.

In order to prove the property more fully this summer it is advised that two men be installed at the upper area and provided with tent camp, tools, and supplies by horse pack. A system of open trench work should be laid out and the work frequently inspected.

I advise that the area between station 35 and Tunnel "A" first be prospected through overburden to solid rock and the vein (or veins) exposed be blasted into and sampled. It is probable that from 3 to 4 feet of overburden will be found which will slow up pick and shovel work but this appears to be the most feasible for this summer. After this section has been explored the Pratt Creek slope should be trenched from vicinity of station 37 to SE along the projected vein strike. This will conclude about all the work two men could do during the season.

I estimate costs of wages, supplies, packing, etc. for two men will average about $22 per day. If success is met with a more extensive and cheaper per cubic yard prospecting could be performed next summer by bulldozer but the preliminary work would not warrant the cost of bringing one in at this time.

## Conclusions

The War Eagle property is situated in the rock formation that has been most ore-favorable in this section and has developed Goldstone vein to more than 500 feet depth in good ore. Whilst War Eagle rock belt is separate from Goldstone it is similar in character and structure. Thus War Eagle has ore-favorable host rock.

The small amount of work on War Eagle upper workings has indicated more than usual amounts of quartz-galena ore which assays high enough to promise commercial returns after the ore shoots may be developed into length and depth.

The immediate future should be given to proving lateral extent and vein widths of ore. This will best be done by surface trenching. After this work is done the depth extension could conveniently be done by diamond drilling from surface by gas-driven drill.

I have no hesitancy in recommending prospecting and exploration of this property and believe that a good lead-silver-gold mine of moderate size will be disclosed.

Spokane, Washington
July 3, 1944

ARTHUR LAKES

SUPPLEMENTAL REPORT
ON THE
WAR EAGLE GROUP

I made another examination of War Eagle property July 28th, in conjunction with underground examination of Goldstone mine workings, July 24-29th.

This report chiefly concerns method of surface prospecting of vein outcrop and downward extensions of ore found thereby; transportation facilities and improvement thereof. Various routes for road connection between War Eagle and Goldstone mine were investigated.

The outstanding factors developed by this examination were:

(1) The depth of overbufden at War Eagle surface exceeds estimate of my Preliminary report, July 3rd., and vein outcrop cannot be adequately or cheaply opened by pick and shovel. The only satisfactory method involves bulldozer trenching through from 5 to more than 10-feet of over burden.

(2) The absolute necessity for roads over which to drive bulldrozer to the upper War Eagle area and also to haul compressor, mine cars, and other mining equipment to be used for underground development of ore that may be found by bulldozing.

(3) Validity of title of War Eagle claims is subject to doubt. Steps have been made to protect your interests in this matter.

Transportation The unusually strong showings of ore float and at the surficial workings at upper War Eagle should interest any mining engineer. The fact that the property has been ignored for the past 15 to 20-years is probably due to the isolated position and difficult accessibility of these showings. In order to explore the actual vein outcrop along its course, in accord with proper mining caution, will require the use of bulldozer. This requires that it dig a road to War Eagle locality. Without this work the ore possibilities will remain entirely speculative and the property continue as it has for the past years. Therefore the chief "bug" is lack of transportation which will have to be remedied before intellegent and conclusive investigations can go forward.

In considering transportation it is necessary to bear in mind that ore from War Eagle (if successfully developed in commercial quantity as expected) and from Goldstone mine will be treated in a central mill, powered by Deisel-electric unit from which electricity will be wired to compressors at each mine. This plant should be located where ore from the respective mines can be transported downgrade to it. The most central locality meeting this condition will be on Pratt Creek, possibly near War Eagle cabin, whereby ore from War Eagle could be transported over aerial tramway or by road down to mill and ore from Goldstone mine be hauled down over present road to mill by truck in summer and cat-train in winter.

Thus the location of the road will be determined by the above considerations in order to facilitate earliest access to War Eagle showings and at the same time provide adequate permanent transportation for ore and supplies. An alternative mill location had been considered on the gentler slope of Wimpy Creek north of War Eagle showings which is covered by earth but investigation proved the impossibility of building down grade road connecting Goldstone mine to this section.

If this had proven otherwise the Wimpy slope had my preference but the best method of access to these properties now appears to be as follows:

(1) Improve Goldstone road up Pratt Creek by relocating about 2-miles on the south side of Pratt Creek from the lower power plant to about ½-mile above damsite, thereby bypassing all washed out sections and connecting into the good, even grade road from about ½-mile west of War Eagle cabin to Goldstone camp. Aneroid readings indicate from 6% to 10% grade, with possibility of one or two switchbacks. The south side of the creek is mostly earth timbered by jack pine and other small timber. Two bridges will be required, one crossing Pratt Creek at each end of the relocated road. This will provide adequate truck haulage to and from Goldstone mine which will greatly facilitate future operations there as well as afford access to War Eagle showings.

(2) Take off from Goldstone road at most convenient place between War Eagle cabin and Goldstone camp to miss the large rock slide west of north creek fork. This rock slide extends part way down the moutain north of present road. This road to extend at about 10% grade up to Tunnel "B", thence up a 10% locality of War Eagle upper workings. Subject to survey, I have sketched this road on accompanying Map No. 1. Distance cannot be determined until survey but should approximate 8,000 feet. Preliminary observation indicates depth of overburden sufficient to dig a 12 to 14-foot road. Some narrow rock ridges may be encountered, requiring rock work which will be facilitated by use of portable compressor to be used in preliminary underground development at War Eagle. The idea is to follow bulldozer route and eliminate all rock work possible.

Obviously a true estimate of cost cannot be arrived at until further investigation but it is possible that the above work can be performed in a week or 10-days, largely dependent upon the rock work required.

Surface exploration Once the road is completed a series of level cuts will be driven across the indicated vein strike down both Pratt Creek and Wimpy Creek slopes. The gentle Wimpy Creek slope will permit bulldozing as far as required but the lower half of Pratt Creek slope between upper War Eagle and Tunnell "B" gets progressively steeper which may eventually limit work in that direction.

A minimum 5-foot depth to over 10-feet depth over overburden and slabbed country rock may be expected, thus benches upwards of 30-feet wide will be formed by digging down into bedrock to expose the vein outcrop. The bulldozer will be followed by two men who will use pick and shovel and dynamite to define vein (or veins) found therein. Possibly $3,000 may be expended in this work which will most conclusively define surficial ore possibilities which mining caution requires.

As mentioned in my preliminary report, and illustrated on accompanying Longitudinal Section 2-A, the probable downward ore rake of War Eagle ore zone (or zones) will be northerly towards Wimpy Creek and the presumed igneous ore source. This northerly ore rake was anticipated from Goldstone maps and has been definitely proven by my recent Goldstone examination.

At present the full lateral extent of War Eagle's upper ore zone has not been indicated due to the heavy cover. Testing down Pratt Creek slope will be necessary to define the southeastern limits at surface and likewise bulldoze testing down Wimpy Creek slope will be required to define length of ore to the northwest.

The indicated northerly rake suggests that prospecting down Wimpy Creek slope will provide better and quicker results and this work should be performed first.

Underground exploration and development The Longitudinal Section indicates possible additional ore zone under the upper zone. This extends from Tunnel "B". How far above or below the tunnel this showing may continue will depend upon exploration to prove.

The northerly ore rake, if proven as expected, will require longer tunnels to tap downward continuation of ore zone if driven from Pratt Creek slope in a northerly direction than tunnels driven southerly from Wimpy Creek slope because the Pratt Creek tunnels would progress with and under the ore rake, whilst the Wimpy Creek tunnels would be driven into the ore rake.

Wimpy Creek slope affords better opportunity to quickly determine ore possibilities indicated by the large float showings there and the surficial showings on the divide between Pratt and Wimpy Creeks. The Pratt Creek slope has advantage of proving ore possibilities indicated in vicinity of Tunnel "B" but would be more than twice as long as Wimpy tunnels to test downward continuation of the indicated larger ore possibilities north of the divide.

Three methods of underground development present themselves:

(1) Drift tunnel driven southeast along vein from Wimpy slope whereby about 800 to 900-feet length would test the full length of indicated ore zone to about 400-maximum feet below surface. The cost of this tunnel at $18 per foot would be about $16,000 and would prove width of ore vein, length of ore shoots, etc. to that depth.

(2) Drift tunnel driven northwest along vein by extension of Tunnel "B" would extend 1200-feet to reach the indicated beginning of the better ore zone, thence would have to advance an additional 800 feet or more to reach its other end, a total of 2000 feet which would bring this tunnel almost to surface at Wimpy slope. This tunnel would have advantage of proving possibilities of the ore zone near its portal and would also test ground between the two zones which Wimpy tunnel would not do. Cost of this tunnel at $18 per foot would be about $36,000 and would prove width of ore vein, length of ore shoots within the various ore zones, etc., to a maximum of 400 feet below surface.

(3) Extension of the 20-foot shaft down in the ore vein for 400 feet, to same elevation of the two proposed tunnels, would have advantage of "staying with the ore" until it raked out to the north, thereby proving width and ore tenor in downward continuation. Drifts would have to be run out northerly in the lower levels to prove lateral conditions along the vein. At $40 per foot, 400 feet of shaft would cost $16,000 and at $20 per foot an additional 800 feet of drift along vein would cost $16,000, the total $32,000. Subject to bulldozer disclosures of vein down Wimpy slope, whereby Wimpy tunnel could be started on, or close to ore, the shaft method would give better assurance and prove two dimensions within limits of ore rake, whereby the tunnel methods would require additional work to prove vertical conditions.

The more rapid accomplishment of objective together with lesser cost gives advantage to Wimpy slope tunnel. If success is met with and commercial ore proven along its horizontal extent then a shaft could be raised to surface from this level, 150 feet north from the 20-foot shaft to afford information about the vein

and also provide access to surface whereby ore could be hoisted to a tram or road terminal for transportation down to mill. Deeper development would best be performed by continuing this shaft. At about $30 per foot this shaft-raise would cost about $12,000 but this additional expense would not be incurred until Wimpy tunnel had proved occurrence of acceptable quantities and grade of ore to warrant going into mining.

In regards the shaft method it is questionable if the compressor to be used for preliminary development would provide sufficient power for hoisting more than 200 feet. This would require a larger and more expensive compressor, pumps, continuous timbering, whereby water would drain out the tunnels and much of the drift tunnels would not require timber.

Title Validity of title to War Eagle claims is subject to doubt by reason that Location Notice posted at War Eagle No. 2 claim is dated May 25, 1937 but the County Recorders's office has no filing as of that date but shows only the original location in 1928. Subject to thorough checking of yearly assessment filings from 1928 to 1937 or some other legal arrangement for holding the claims in good standing during that period the title of optioners may have lapsed. If assessment lapsed at any time between 1928 and 1937 the claims lapsed and thereafter would be subject to (a) relocation by former stakers or (b) open for new location by new stakers. Unless a lapse had occurred I cannot see reason for posting a Notice dated in 1937 because the claims would be in good standing and not require such a notice. This matter deserves thorough investigation.

In the meantime, to protect your interests, six claims are being located to cover War Eagle Lode and an additional four claims are being located on open ground west of War Eagle to cover a vein there, as advised in my July 3rd. report. The new claims are marked in green on Map No. 1 and the old War Eagle locations shown in orange.

Your option on this ground and your investment in work will thus be adequately protected. If War Eagle owners have a valid title the terms of your option still stand. If they have not, the new locations will acquire all rights to this property.

In checking over the ground during last examination we found that all quartz carries values, even some pure white "bull quartz" when broken contained lead sulphides. This is indicative of extensive metallization of the quartz and the wide spread and large pieces of float is indicative of good sized quartz body beneath overburden.

CONCLUSIONS The wide distribution of large ore float and indication of considerable ore width by dump at 20-foot shaft together with the fact that metallic values occur in every type of quartz on this showing, all give encouragement that further exploration and development will provide commercial ore results. The showings justify bulldoze prospecting whose results will determine underground exploration and development. Success should provide a good profitable lead-silver-gold mine. In event of disappointment from bulldozer work the losses will be limited to cost of road plus about $3,000 for bulldozing. Whilst it will require this work to prove whether or not these expectations develop the showings fully justify this expenditure which will be followed by expenditure for underground

development in accord with bulldozer findings. Unless this work is done the property will remain dormant in same position economically as it has for the past years.

Spokane, Wash.
August 2, 1944

Arthur Lakes
Mining Engineer & Geologist

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

# GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. D.M.E.A. 2235

Date received 11-19-51

War Eagle Gold Silver Lead Mining Co.
511 Securities Bldg.
Seattle, Washington

Name and address of applicant

Date November 1951

## INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

## GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry(ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).
   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____
   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

| Name and Address (a) | Official Title (If officer is also director indicate by "D") (b) | Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c) | Estimated Net Worth Outside of Interest in Applicant (d) | Number of Shares Held in Applicant Corporation: Common (e) | Number of Shares Held in Applicant Corporation: Preferred (f) | Life Insurance Carried for Benefit of Applicant: Amount (g) | Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h) |
|---|---|---|---|---|---|---|---|
| Allen Knight Bellingham, Wash. | Vice-pres. & director | None | | 10,000 | | None | |
| F. E. Frost Bellingham, Wash. | | " | | 10,000 | | " | |
| C. W. Miller Bellingham, Wash. | | " | | 10,000 | | " | |
| Emil Mottman Kelso, Washington | Secretary & director | " | | 10,000 | | " | |
| P. W. Miller LaConner, Washington | | " | | 10,000 | | " | |
| B. W. Porter Seattle, Washington | President & director | " | | 10,000 | | " | |
| | Total | | x x x x x | 60,000 | | x x x x x | x x x x x |

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

**For Corporate Applicants**

| Item | Authorized (a) | Outstanding (b) | Par Value (c) | Number of Shares Outstanding (d) | Dividend Rate Last Paid* (e) |
|---|---|---|---|---|---|
| Common stock | $ 350,000 | $ 60,000 | $ 0.10 | | |
| Preferred stock | $ | $ | $ | | |

*Indicate period covered.

10. Production: **Not applicable**

| Item | Kind of Product (a) | 1948 Total (b) | 1949 Total (c) | 1950 Total (d) | Present Average Monthly (e) |
|---|---|---|---|---|---|
| 1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.) | | | | | |
| 2. Quantity of product processed (specify unit of measure and type of process) | | | | | |
| 3. Quantity and grade of product sold or shipped (specify units of measure) | | | | | |

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. **Not applicable**

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

**See Engineer's Reports, attached**

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

| Ore or Mineral Reserve | Estimated Tons (a) | Metal or Mineral Content Per Ton (Grade) (b) | Gross Value Per Ton (c) | Recoverable Unit Value Per Ton (d) | Estimated Cost of Production Per Ton (e) |
|---|---|---|---|---|---|
| Measured (proved) | | | | | |
| Indicated (probable) | | | | | |

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads: 40 miles to Armistead railhead, U.P.Ry.

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply: 21 miles to Salmon, Idaho, supply center (county seat)

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor: Not applicable - work done by footage contract

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: Compressor house 12x12, and gallows shaft frame (condition good).

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation. None

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

WAR EAGLE GOLD SILVER LEAD MINING CO.
(Name of company)

By B. W. Potts
(Signature of authorized official)

November 1951
(Date)

President
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

1. (a) Lead, silver, gold

   (b) None

2. (a) Linear feet of shafts 65 ft.

(b) Drifts and crosscuts None

(c) Tunnels or adits None

(d) No other mine openings except some open cuts

The mine is not flooded and presents no pumping problem.

3. (a) Nearest supply center is Salmon, Idaho, 21 miles
Nearest shipping point is Armistad, Idaho, 40 miles

(b) Pratt Creek Mining District

(c) Township_____, Section_____, Range_____

(d) Lemhi, Idaho

4. (a) The property is not now in operation

(b) Owner

5. Has not been in production or operation

Estimated date when production will begin: "six months after commencement of this contemplated project"

6. (a) B. W. Porter, president and manager of applicant, has been actively engaged in mining and mine development since 1934.

The foreman or superintendent to be assigned to this project is Walter Deighton, who has had more than 20 years experience in actual mining, both underground and surface.

7. (a) Previous exploration work consisted of sinking a shaft 65 ft. and open cuts across the lode or vein.

(b) Among the properties being developed in this area are the Idaho Consolidated Mines property, which is expected to be in production before December 1, 1951; the Goldstone Mining Co. property one mile distant from the War Eagle property; and the New Sound's 2000-ton per day operation.

(c) ~~Private~~ Engineer's reports attached.

# PRELIMINARY REPORT
# ON THE
# WAR EAGLE PROPERTY
## Lemhi County, Idaho

The War Eagle is a prospective mining property that warrants exploration in expectancy of making a good lead-silver-gold mine of moderate size.

The property comprises five located claims extending from War Eagle Mountain northwest across Pratt Creek and up over the ridge dividing Pratt Creek from Wimpy Creek. The claims extend NW along the indicated course of War Eagle vein-lode which has been opened by two tunnels south of Pratt Creek on War Eagle Mountain, thence NW over Pratt Creek-Wimpy Creek divide where the lode is opened by a serioes of surface cuts and two shallow shafts, and is also presumed to be exposed by tunnel down the Pratt Creek slope as shown on Plan No. 1 and Longitudinal Section herewith.

The property is reached by mountain road extending 11 miles westerly from the main highway at Baker, Idaho to Goldstone mine, thence by high level foot trail extending 1½ miles easterly to the upper War Eagle showings on the divide. From there a switchback trail extends down Pratt Creek slope to the lower tunnel and thence to War Eagle camp. War Eagle camp is on the road 1-1/3 miles nearer Baker.

An alternative means of access is by road extending 40-miles from Armstead, Idaho, to Goldstone mine, thence by above mentioned trails. Whilst this latter route is in better repair—as about 1½ miles of the Pratt Creek road has been washed out making it impassable except for pack horses and difficult wagon haul—the Armstead road crosses the Continental Divide at about 9000 feet altitude and is there under deep snow until late summer.

In the event that War Eagle showings on Pratt Creek-Wimpy Creek divide expose commercial ore bodies as anticipated, the surface configuration indicates that best means of access will be by road extending up the gentle Wimpy Creek slope which is generally covered by overburden and timbered so that a road could be quickly and cheaply bulldozed.

Timber in vicinity of War Eagle showings is suitable for lumber and for mining purposes. Both Pratt and Wimpy Creeks flow adequate water for all milling purposes but there appear to be no running streams in close vicinity of War Eagle showings. The summer prospecting camp suggested at the upper showings may be provided with water from the 20-foot shaft on War Eagle vein or a spring might be found by further search.

The high elevations make winter weather severe but open weather may be counted on for about six, or more, months per year in vicinity of the proposed work. Transportation to summer camp will be by pack horse over the War Eagle-Goldstone trail or up the gentle hill slope NW and W of the showings.

The country rocks comprise a series of thin bedded, platy argillaceous quartzites enclosed between beds of hard, vitreous, massive quartzites, all striking generally NW with variable steep dips SW and NE. The War Eagle and Goldstone veins occur in the thinner bedded formations which are much more favorable for formation of shear and fissure zones than the more massive rocks which appear to be too hard and resistant to permit extensive vein fissuring.

The bed of thinner favorable formation at War Eagle appears to exceed 1000-feet thick, striking NW nearly parallel to War Eagle vein which cuts it at acute angle, and has nearly vertical dip. The War Eagle vein-lode about centers this bed and its acute intersection of formation course will permit considerable lateral and vertical extension of the vein before it enters the harder and more massive, less favorable rocks.

Best exposures of War Eagle vein-lode are on the divide between Pratt & Wimpy Creek at about 8800 feet above sea level where it has been trenched and opened by shallow shafts for about 220 feet length in a N 25°W direction with a 20-foot shaft near center where ore width must have been considerable, judging from the large amount of quartz-lead ore piled around it where chunks upwards of one foot square are common. The area NW of these workings is generally covered by earth and timber but considerable float in large chunks and possible outcrop occur for an additional 260 feet. Whilst it will require more systematic surface trenching to prove vein outcrop under the overburden, the above exposures indicate a possible length of more than 450 feet of vein in this vicinity and it is to be expected that this will be closely approximated by the work suggested.

The cuts and shafts are not exposed in vein at present, except for 10-foot pit near station 37 where a foot of good ore is opened. The samples taken in this vicinity were, therefore, grab samples from the numerous and considerable ore piles around the shaft and cuts and from possible outcrops and/or large float exposed NW down the hill. The ore is essentially quartz with visible lead in streaks, veinlets and small bunches and the samples show a higher lead tenor that would be first anticipated. Judging from the workings it would appear that the ore body here is a lense which widened out to considerable width at and near the center (in vicinity of the shaft) and narrowed at each end. However I do not believe that the large float occurring NW down towards and in the vicinity of Tunnel "A" (See Map No. 3) was thrown from this wider bed as the surface is too flat for these large pieces to have travelled that far. It is possible, therefore, that another good sized lense may occur between station No. 35 and Tunnel "A" and it is on this assumption that the exploration work advised herein is predicated. Success here would encourage further prospecting down the lode strike towards Wimpy Creek with possibility that additional ore lenses may be found.

Judging from the Goldstone maps and other geologic conditions, which will be more fully investigated and reported in Goldstone examination, the probable downward rake of War Eagle ore shoots or ore zone will be NW or toward Wimpy Creek. If this proves to be the case the obvious locality for attack in depth would be from Wimpy Creek side of the mountain towards which the better ore showings would plunge.

The next showing on War Eagle vein is presumed to be at Tunnel "B", 1000 feet further SE and 430-vertical feet below the above showings. This comprises two veins (1) on east side of cut over tunnel face which lines up with the projected SE strike of vein from the upper showings, giving belief that this may be on the same vein-lode, and (2) a narrow quartz vein branching N33°W from the first. These two veins occur in a sheared, much contorted and schisted zone within the thin, platy argillaceous quartzites. They appear to be barren of mineral where now exposed but ore on the tunnel dump contains considerable galena which is indicative that the vein, or veins, in the tunnel were productive of ore. They vary in width from two feet at surface of the

first vein and 6" at surface of the second, but in the cut both pinch down to about half their surface exposure. Unfortunately the tunnel floor and face was not open for inspection so that conditions there could not be judged. A picked sample of the best lead-quartz ore returned high values as reported elsewhere in this report.

Two cuts between the upper showings and Tunnel "B" are clearly off the vein strike and show nothing. The distance between the respective showings is too far to conclude with certainty that Tunnel "B" is on the same vein shown by the upper workings and surface trenching--starting from above--will have to be done to prove or disprove the contention. The upper showings are better and show more promise than this one isolated showing but it is possible that more extensive prospecting may materially improve it.

About 1000 feet SW and 560 feet lower elevation from Tunnel "B" is a small cut in thin, platy argillaceous quartzites containing a 6-inch, well mineralized quartz vein whose strike nearly parallels the War Eagle. Its position prohibits its being SE extension of this vein but it might prove to be a parallel one, about 650 feet west of War Eagle vein. A little prospecting to see if it widens might afford encouragement to prospect uphill for parallel ore showings. Its position is west of War Eagle property lines and if it should provide encouragement additional claims should be staked to cover it.

The tunnels on the south side of Pratt Creek are caved and were not examined. I am informed that good gold ore was gotten though in what amount is not noted. This section would be left for some future date as the area between Pratt and Wimpy Creeks affords most promise, is easier of access, and if it proves satisfactory after exploration would give a wide section for development and mining.

As noted none of the actual vein was exposed in any of the cuts or shafts at the upper showings, with exception of about one foot of vein in bottom of the most southerly exposure. For this reason the samples taken by me are primarily "grab" samples from the ore piles at surface and whilst they are indicative of the good ore tenor are not conclusive as they would be if the vein itself had been sampled. In taking these grab samples the mineralized quartz was chipped from numerous larger chunks into a small sample. Two picked samples of the ore containing heaviest visible galena were taken, the others being the better quartz-galena ore and quartz. The results are higher than I had expected at the time of sampling and are encouraging for lead-silver-gold ore but it is to be expected that the full vein widths will run less than the average of grab samples taken, though these indicate that the vein-run will be good mill grade ore. The encouraging feature is that the "float" ore represented by Samples #1 and #2 ran as well as it did as this material did not look overly promising on the ground.

In calculating present dollar values of metal contents of the samples, the following prices have been taken: Gold $35 per ounce; Silver 75¢ per ounce; Lead 6-3/4¢ per pound.

Sample No. 1 taken from outcrop or float exposed above surface 12 inches wide at o.c. "B" (See Map No. 3) 180 feet NW of the shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.36 oz. | $12.60 | |
| Silver | 1.3 oz. | $ 0.97 | |
| Lead | 0.85% | $ 1.41 - Total value per ton | $14.71 |

Sample No. 2 General grab sample of large pieces of ore at cut above Tunnel "A" portal, 260 feet NW from shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.40 oz. | $14.00 | |
| Silver | 3.1 oz. | $ 2.32 | |
| Lead | 10.35% | $13.97 - Total value per ton | $30.27 |

The lead content is unexpectedly high. Tunnel "A" is caved and cannot determine if in downward continuation of this vein. Doubtful as little ore on tunnel dump.

Sample No. 3 Grab from large pieces of ore piled around 20-foot shaft to amount estimated about 30 tons. Quartz with galena, copper stains, etc. Representative of ore that came from the shaft but possibly higher than average if chipped from vein face.

| | | | |
|---|---|---|---|
| Gold | 0.30 oz. | $10.50 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 10.8% | $14.57 - Total value per ton | $29.77 |

Samples #3A Picked sample of best lead ore with quartz taken from numerous large chunks of lead-quartz stained by copper, etc. Clearly high grade and probably in minor amount within the vein.

| | | | |
|---|---|---|---|
| Gold | 0.60 oz. | $21.00 | |
| Silver | 12.6 oz. | $ 9.45 | |
| Lead | 34.4% | $46.44 - Total value | $76.89 |

Taken to see what the best ore in this vicinity would run.

Sample No. 4 Grab from pile of ore near filled cut #36, quartz and galena. No indication of vein width.

| | | | |
|---|---|---|---|
| Gold | 0.32 oz. | $11.20 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 14.0% | $18.90 - Total value | $32.80 |

These values unexpectedly high as ore does not have appearance of this much lead content.

Sample No. 5 From 1-foot vein in bottom of 10-foot pit at south end of the showings. Vein partly exposed in north end of shaft contains visible stringers of lead.

| | | | |
|---|---|---|---|
| Gold | 0.18 oz | $ 6.30 | |
| Silver | 4.4 oz. | $ 3.30 | |
| Lead | 16.1% | $21.60 - Total value | $31.20 |

Sample No. 6 Selected sample from the best lead-quartz ore at Tunnel "A". No indication of width or occurrence in vein which was covered under tunnel floor and not exposed in tunnel face. Surface

outcrop shows no visible galena. Sample taken to see what best ore here might run. When the tunnel faces are better exposed a more systematic sampling should follow as this is inconclusive of the ore possibilities here.

| | | | | |
|---|---|---|---|---|
| Gold | 0.12 oz. | $ 4.20 | | |
| Silver | 4.25 oz. | $ 3.25 | | |
| Lead | 37.0% | $49.90 | - Total value | $58.35 |

- - - - - - - - - - - - - - - - - - - - - - - - -

The above sampling, despite the limitations outlined, is encouraging that the War Eagle upper showings may develop into a good lead-silver-gold mine by further work.

In order to prove the property more fully this summer it is advised that two men be installed at the upper area and provided with tent camp, tools, and supplies by horse pack. A system of open trench work should be laid out and the work frequently inspected.

I advise that the area between station 35 and Tunnel "A" first be prospected through overburden to solid rock and the vein (or veins) exposed be blasted into and sampled. It is probable that from 3 to 4 feet of overburden will be found which will slow up pick and shovel work but this appears to be the most feasible for this summer. After this section has been explored the Pratt Creek slope should be trenched from vicinity of station 37 to SE along the projected vein strike. This will conclude about all the work two men could do during the season.

I estimate costs of wages, supplies, packing, etc. for two men will average about $22 per day. If success is met with a more extensive and cheaper per cubic yard prospecting could be performed next summer by bulldozer but the preliminary work would not warrant the cost of bringing one in at this time.

## Conclusions

The War Eagle property is situated in the rock formation that has been most ore-favorable in this section and has developed Goldstone vein to more than 500 feet depth in good ore. Whilst War Eagle rock belt is separate from Goldstone it is similar in character and structure. Thus War Eagle has ore-favorable host rock.

The small amount of work on War Eagle upper workings has indicated more than usual amounts of quartz-galena ore which assays high enough to promise commercial returns after the ore shoots may be developed into length and depth.

The immediate future should be given to proving lateral extent and vein widths of ore. This will best be done by surface trenching. After this work is done the depth extension could conveniently be done by diamond drilling from surface by gas-driven drill.

I have no hesitancy in recommending prospecting and exploration of this property and believe that a good lead-silver-gold mine of moderate size will be disclosed.

Spokane, Washington
July 3, 1944

ARTHUR LAKES

SUPPLEMENTAL REPORT
ON THE
WAR EAGLE GROUP

I made another examination of War Eagle property July 28th, in conjunction with underground examination of Goldstone mine workings, July 24-29th.

This report chiefly concerns method of surface prospecting of vein outcrop and downward extensions of ore found thereby; transportation facilities and improvement thereof. Various routes for road connection between War Eagle and Goldstone mine were investigated.

The outstanding factors developed by this examination were:

(1) The depth of overburden at War Eagle surface exceeds estimate of my Preliminary report, July 3rd., and vein outcrop cannot be adequately or cheaply opened by pick and shovel. The only satisfactory method involves bulldozer trenching through from 5 to more than 10-feet of over burden.

(2) The absolute necessity for roads over which to drive bulldozer to the upper War Eagle area and also to haul compressor, mine cars, and other mining equipment to be used for underground development of ore that may be found by bulldozing.

(3) Validity of title of War Eagle claims is subject to doubt. Steps have been made to protect your interests in this matter.

Transportation The unusually strong showings of ore float and at the surficial workings at upper War Eagle should interest any mining engineer. The fact that the property has been ignored for the past 15 to 20-years is probably due to the isolated position and difficult accessibility of these showings. In order to explore the actual vein outcrop along its course, in accord with proper mining caution, will require the use of bulldozer. This requires that it dig a road to War Eagle locality. Without this work the ore possibilities will remain entirely speculative and the property continue as it has for the past years. Therefore the chief "bug" is lack of transportation which will have to be remedied before intelligent and conclusive investigations can go forward.

In considering transportation it is necessary to bear in mind that ore from War Eagle (if successfully developed in commercial quantity as expected) and from Goldstone mine will be treated in a central mill, powered by Deisel-electric unit from which electricity will be wired to compressors at each mine. This plant should be located where ore from the respective mines can be transported downgrade to it. The most central locality meeting this condition will be on Pratt Creek, possibly near War Eagle cabin, whereby ore from War Eagle could be transported over aerial tramway or by road down to mill and ore from Goldstone mine be hauled down over present road to mill by truck in summer and cat-train in winter.

Thus the location of the road will be determined by the above considerations in order to facilitate earliest access to War Eagle showings and at the same time provide adequate permanent transportation for ore and supplies. An alternative mill location had been considered on the gentler slope of Wimpy Creek north of War Eagle showings which is covered by earth but investigation proved the impossibility of building down grade road connecting Goldstone mine to this section.

If this had proven otherwise the Wimpy slope had my preference but the best method of access to these properties now appears to be as follows:

(1) Improve Goldstone road up Pratt Creek by relocating about 2-miles on the south side of Pratt Creek from the lower power plant to about ½-mile above damsite, thereby bypassing all washed out sections and connecting into the good, even grade road from about ½-mile west of War Eagle cabin to Goldstone camp. Amerold readings indicate from 6% to 10% grade, with possibility of one or two switchbacks. The south side of the creek is mostly earth timbered by jack pine and other small timber. Two bridges will be required, one crossing Pratt Creek at each end of the relocated road. This will provide adequate truck haulage to and from Goldstone mine which will greatly facilitate future operations there as well as afford access to War Eagle showings.

(2) Take off from Goldstone road at most convenient place between War Eagle cabin and Goldstone camp to miss the large rock slide west of north creek fork. This rock slide extends part way down the moutain north of present road. This road to extend at about 10% grade up to Tunnel "B", thence up a 10% locality of War Eagle upper workings. Subject to survey, I have sketched this road on accompanying Map No. 1. Distance cannot be determined until survey but should approximate 8,000 feet. Preliminary observation indicates depth of overburden sufficient to dig a 12 to 14-foot road. Some narrow rock ridges may be encountered, requiring rock work which will be facilitated by use of portable compressor to be used in preliminary underground development at War Eagle. The idea is to follow bulldozer route and eliminate all rock work possible.

Obviously a true estimate of cost cannot be arrived at until further investigation but it is possible that the above work can be performed in a week or 10-days, largely dependent upon the rock work required.

Surface exploration Once the road is completed a series of level cuts will be driven across the indicated vein strike down both Pratt Creek and Wimpy Creek slopes. The gentle Wimpy Creek slope will permit bulldozing as far as required but the lower half of Pratt Creek slope between upper War Eagle and Tunnell"B" gets progressively steeper which may eventually limit work in that direction.

A minimum 5-foot depth to over 10-feet depth over overburden and slabbed country rock may be expected, thus benches upwards of 30-feet wide will be formed by digging down into bedrock to expose the vein outcrop. The bulldozer will be followed by two men who will use pick and shovel and dynamite to define vein (or veins) found therein. Possibly $3,000 may be expended in this work which will most conclusively define surficial ore possibilities which mining caution requires.

As mentioned in my preliminary report, and illustrated on accompanying Longitudinal Section 2-A, the probable downward ore rake of War Eagle ore zone (or zones) will be northerly towards Wimpy Creek and the presumed igneous ore source. This northerly ore rake was anticipated from Goldstone maps and has been definitely proven by my recent Goldstone examination.

At present the full lateral extent of War Eagle's upper ore zone has not been indicated due to the heavy cover. Testing down Pratt Creek slope will be necessary to define the southeastern limits at surface and likewise bulldoze testing down Wimpy Creek slope will be required to define length of ore to the northwest.

The indicated northerly rake suggests that prospecting down Wimpy Creek slope will provide better and quicker results and this work should be performed first.

Underground exploration and development The Longitudinal Section indicates possible additional ore zone under the upper zone. This extends from Tunnel "B". How far above or below the tunnel this showing may continue will depend upon exploration to prove.

The northerly ore rake, if proven as expected, will require longer tunnels to tap downward continuation of ore zone if driven from Pratt Creek slope in a northerly direction than tunnels driven southerly from Wimpy Creek slope because the Pratt Creek tunnels would progress with and under the ore rake, whilst the Wimpy Creek tunnels would be driven into the ore rake.

Wimpy Creek slope affords better opportunity to quickly determine ore possibilities indicated by the large float showings there and the surficial showings on the divide between Pratt and Wimpy Creeks. The Pratt Creek slope has advantage of proving ore possibilities indicated in vicinity of Tunnel "B" but would be more than twice as long as Wimpy tunnels to test downward continuation of the indicated larger ore possibilities north of the divide.

Three methods of underground development present themselves:

(1) Drift tunnel driven southeast along vein from Wimpy slope whereby about 800 to 900-feet length would test the full length of indicated ore zone to about 400-maximum feet below surface. The cost of this tunnel at $18 per feet would be about $16,000 and would prove width of ore vein, length of ore shoots, etc. to that depth.

(2) Drift tunnel driven northwest along vein by extension of Tunnel "B" would extend 1200-feet to reach the indicated beginning of the better ore zone, thence would have to advance an additional 800 feet or more to reach its other end, a total of 2000 feet which would bring this tunnel almost to surface at Wimpy slope. This tunnel would have advantage of proving possibilities of the ore zone near its portal and would also test ground between the two zones which Wimpy tunnel would not do. Cost of this tunnel at $18 per foot would be about $36,000 and would prove width of ore vein, length of ore shoots within the various ore zones, etc, to a maximum of 400 feet below surface.

(3) Extension of the 20-foot shaft down in the ore vein for 400 feet, to same elevation of the two proposed tunnels, would have advantage of "staying with the ore" until it raked out to the north, thereby proving width and ore tenor in downward continuation. Drifts would have to be run out northerly in the lower levels to prove lateral conditions along the vein. At $40 per foot, 400 feet of shaft would cost $16,000 and at $20 per foot an additional 800 feet of drift along vein would cost $16,000, the total $32,000. Subject to bulldozer disclosures of vein down Wimpy slope, whereby Wimpy tunnel could be started on, or close to ore, the shaft method would give better assurance and prove two dimensions within limits of ore rake, whereby the tunnel methods would require additional work to prove vertical conditions.

The more rapid accomplishment of objective together with lesser cost gives advantage to Wimpy slope tunnel. If success is met with and commercial ore proven along its horizontal extent then a shaft could be raised to surface from this level, 150 feet north from the 20-foot shaft to afford information about the vein

and also provide access to surface whereby ore could be hoisted to a tram or road terminal for transportation down to mill. Deeper development would best be performed by continuing this shaft. At about $30 per foot this shaft-raise would cost about $12,000 but this additional expense would not be incurred until Wimpy tunnel had proved occurrence of acceptable quantities and grade of ore to warrant going into mining.

In regards the shaft method it is questionable if the compressor to be used for preliminary development would provide sufficient power for hoisting more than 200 feet. This would require a larger and more expensive compressor, pumps, continuous timbering, whereby water would drain out the tunnels and much of the drift tunnels would not require timber.

Title Validity of title to War Eagle claims is subject to doubt by reason that Location Notice posted at War Eagle No. 2 claim is dated May 25, 1937 but the County Recorders's office has no filing as of that date but shows only the original location in 1928. Subject to thorough checking of yearly assessment filings from 1928 to 1937 or some other legal arrangement for holding the claims in good standing during that period the title of optioners may have lapsed. If assessment lapsed at any time between 1928 and 1937 the claims lapsed and thereafter would be subject to (a) relocation by former stakers or (b) open for new location by new stakers. Unless a lapse had occurred I cannot see reason for posting a Notice dated in 1937 because the claims would be in good standing and not require such a notice. This matter deserves thorough investigation.

In the meantime, to protect your interests, six claims are being located to cover War Eagle Lode and an additional four claims are being located on open ground west of War Eagle to cover a vein there, as advised in my July 3rd. report. The new claims are marked in green on Map No. 1 and the old War Eagle locations shown in orange.

Your option on this ground and your investment in work will thus be adequately protected. If War Eagle owners have a valid title the terms of your option still stand. If they have not, the new locations will acquire all rights to this property.

In checking over the ground during last examination we found that all quartz carries values, even some pure white "bull quartz" when broken contained lead sulphides. This is indicative of extensive metallization of the quartz and the wide spread and large pieces of float is indicative of good sized quartz body beneath overburden.

CONCLUSIONS The wide distribution of large ore float and indication of considerable ore width by dump at 20-foot shaft together with the fact that metallic values occur in every type of quartz on this showing, all give encouragement that further exploration and development will provide commercial ore results. The showings justify bulldoze prospecting whose results will determine underground exploration and development. Success should provide a good profitable lead-silver-gold mine. In event of disappointment from bulldozer work the losses will be limited to cost of road plus about $3,000 for bulldozing. Whilst it will require this work to prove whether or not these expectations develop the showings fully justify this expenditure which will be followed by expenditure for underground

development in accord with bulldozer findings. Unless this work is done the property will remain dormant in same position economically as it has for the past years.

Spokane, Wash.
August 2, 1944

Arthur Lakes
Mining Engineer & Geologist

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

# GENERAL TECHNICAL DATA
# FOR USE UNDER THE
# DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. D.M.E.A. 2235

Date received 11-19-51

War Eagle Gold Silver Lead Mining Co.
511 Securities Bldg.
Seattle, Washington

Name and address of applicant

Date November 1951

## INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

## GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (a) What are the chief mine, mill, or smelter products?
   (b) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry(ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (a) Linear feet of shafts.
   (b) Linear feet of drifts and crosscuts.
   (c) Linear feet of tunnels or adits.
   (d) Linear feet of other mine openings (explain briefly).
   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (a) Distance and direction from nearest town and shipping point.
   (b) Mining district.
   (c) Township, Section, Range.
   (d) County, State.
4. (a) State whether or not property is now in operation, and if in operation, by whom operated.
   (b) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____
   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:
   Describe the mining and general business experience of (a) the applicant, and (b) the person or persons who manage the project.
7. History:
   (a) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (b) State briefly the known history and production of adjoining and neighboring properties.
   (c) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

DEFENSE MINERALS ADMINISTRATION

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

| Name and Address (a) | Official Title (If officer is also director indicate by "D") (b) | Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c) | Estimated Net Worth Outside of Interest in Applicant (d) | Number of Shares Held in Applicant Corporation: Common (e) | Number of Shares Held in Applicant Corporation: Preferred (f) | Life Insurance Carried for Benefit of Applicant: Amount (g) | Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h) |
|---|---|---|---|---|---|---|---|
| Allen Knight Bellingham, Wash. | Vice-pres. & director | None | | 10,000 | | None | |
| F. E. Frost Bellingham, Wash. | | " | | 10,000 | | " | |
| C. W. Miller Bellingham, Wash. | | " | | 10,000 | | " | |
| Emil Mottman Kelso, Washington | Secretary & director | " | | 10,000 | | " | |
| P. W. Miller LaConner, Washington | | " | | 10,000 | | " | |
| B. W. Porter Seattle, Washington | President & director | " | | 10,000 | | " | |
| | Total | | x x x x x | 60,000 | | x x x x x | x x x x x |

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

| Item | Authorized (a) | Outstanding (b) | Par Value (c) | Number of Shares Outstanding (d) | Dividend Rate Last Paid* (e) |
|---|---|---|---|---|---|
| Common stock | $ 350,000 | $ 60,000 | $ 0.10 | | |
| Preferred stock | $ | $ | $ | | |

*Indicate period covered.

10. Production: Not applicable

| Item | Kind of Product (a) | 1948 Total (b) | 1949 Total (c) | 1950 Total (d) | Present Average Monthly (e) |
|---|---|---|---|---|---|
| 1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.) | | | | | |
| 2. Quantity of product processed (specify unit of measure and type of process) | | | | | |
| 3. Quantity and grade of product sold or shipped (specify units of measure) | | | | | |

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change. Not applicable

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

See Engineer's Reports, attached

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

| Ore or Mineral Reserve | Estimated Tons (a) | Metal or Mineral Content Per Ton (Grade) (b) | Gross Value Per Ton (c) | Recoverable Unit Value Per Ton (d) | Estimated Cost of Production Per Ton (e) |
|---|---|---|---|---|---|
| Measured (proved) | | | | | |
| Indicated (probable) | | | | | |

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads: 40 miles to Armistead railhead, U.P.Ry.

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

21 miles to Salmon, Idaho, supply center (county seat)

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor: Not applicable - work done by footage contract

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: Compressor house 12x12, and gallows shaft frame (condition good).

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation. None

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

WAR EAGLE GOLD SILVER LEAD MINING CO.
(Name of company)

By B. N. Potts
(Signature of authorized official)

November 1951
(Date)

President
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

1. (a) Lead, silver, gold

(b) None

2. (a) Linear feet of shafts 65 ft.

(b) Drifts and crosscuts None

(c) Tunnels or adits None

(d) No other mine openings except some open cuts

The mine is not flooded and presents no pumping problem.

3. (a) Nearest supply center is Salmon, Idaho, 21 miles
Nearest shipping point is Armistead, Idaho, 40 miles

(b) Pratt Creek Mining District

(c) Township_____, Section_____, Range_____

(d) Lemhi, Idaho

4. (a) The property is not now in operation

(b) Owner

5. Has not been in production or operation

Estimated date when production will begin: "six months after commencement of this contemplated project"

6. (a) B. W. Porter, president and manager of applicant, has been actively engaged in mining and mine development since 1934.

The foreman or superintendent to be assigned to this project is Walter Deighton, who has had more than 20 years experience in actual mining, both underground and surface.

7. (a) Previous exploration work consisted of sinking a shaft 65 ft. and open cuts across the lode or vein.

(b) Among the properties being developed in this area are the Idaho Consolidated Mines property, which is expected to be in production before December 1, 1951; the Goldstone Mining Co. property one mile distant from the War Eagle property; and the How Sound's 2000-ton per day operation.

(c) ~~Private~~ Engineers reports attached.

PRELIMINARY REPORT
ON THE
WAR EAGLE PROPERTY
Lemhi County, Idaho

The War Eagle is a prospective mining property that warrants exploration in expectancy of making a good lead-silver-gold mine of moderate size.

The property comprises five located claims extending from War Eagle Mountain northwest across Pratt Creek and up over the ridge dividing Pratt Creek from Wimpy Creek. The claims extend NW along the indicated course of War Eagle vein-lode which has been opened by two tunnels south of Pratt Creek on War Eagle Mountain, thence NW over Pratt Creek-Wimpy Creek divide where the lode is opened by a serioes of surface cuts and two shallow shafts, and is also presumed to be exposed by tunnel down the Pratt Creek slope as shown on Plan No. 1 and Longitudinal Section herewith.

The property is reached by mountain road extending 11 miles westerly from the main highway at Baker, Idaho to Goldstone mine, thence by high level foot trail extending $1\frac{1}{2}$ miles easterly to the upper War Eagle showings on the divide. From there a switchback trail extends down Pratt Creek slope to the lower tunnel and thence to War Eagle camp. War Eagle camp is on the road 1-1/3 miles nearer Baker.

An alternative means of access is by road extending 40-miles from Armstead, Idaho, to Goldstone mine, thence by above mentioned trails. Whilst this latter route is in better repair--as about $1\frac{1}{2}$ miles of the Pratt Creek road has been washed out making it impassable except for pack horses and difficult wagon haul--the Armstead road crosses the Continental Divide at about 9000 feet altitude and is there under deep snow until late summer.

In the event that War Eagle showings on Pratt Creek-Wimpy Creek divide expose commercial ore bodies as anticipated, the surface configuration indicates that best means of access will be by road extending up the gentle Wimpy Creek slope which is generally covered by overburden and timbered so that a road could be quickly and cheaply bulldozed.

Timber in vicinity of War Eagle showings is suitable for lumber and for mining purposes. Both Pratt and Wimpy Creeks flow adequate water for all milling purposes but there appear to be no running streams in close vicinity of War Eagle showings. The summer prospecting camp suggested at the upper showings may be provided with water from the 20-foot shaft on War Eagle vein or a spring might be found by further search.

The high elevations make winter weather severe but open weather may be counted on for about six, or more, months per year in vicinity of the proposed work. Transportation to summer camp will be by pack horse over the War Eagle-Goldstone trail or up the gentle hill slope NW and W of the showings.

The country rocks comprise a series of thin bedded, platy argillaceous quartzites enclosed between beds of hard, vitreous, massive quartzites, all striking generally NW with variable steep dips SW and NE. The War Eagle and Goldstone veins occur in the thinner bedded formations which are much more favorable for formation of shear and fissure zones than the more massive rocks which appear to be too hard and resistant to permit extensive vein fissuring.

The bed of thinner favorable formation at War Eagle appears to exceed 1000-feet thick, striking NW nearly parallel to War Eagle vein which cuts it at acute angle, and has nearly vertical dip. The War Eagle vein-lode about centers this bed and its acute intersection of formation course will permit considerable lateral and vertical extension of the vein before it enters the harder and more massive, less favorable rocks.

Best exposures of War Eagle vein-lode are on the divide between Pratt & Wimpy Creek at about 8800 feet above sea level where it has been trenched and opened by shallow shafts for about 220 feet length in a N 25°W direction with a 20-foot shaft near center where ore width must have been considerable, judging from the large amount of quartz-lead ore piled around it where chunks upwards of one foot square are common. The area NW of these workings is generally covered by earth and timber but considerable float in large chunks and possible outcrop occur for an additional 260 feet. Whilst it will require more systematic surface trenching to prove vein outcrop under the overburden, the above exposures indicate a possible length of more than 450 feet of vein in this vicinity and it is to be expected that this will be closely approximated by the work suggested.

The cuts and shafts are not exposed in vein at present, except for 10-foot pit near station 37 where a foot of good ore is opened. The samples taken in this vicinity were, therefore, grab samples from the numerous and considerable ore piles around the shaft and cuts and from possible outcrops and/or large float exposed NW down the hill. The ore is essentially quartz with visible lead in streaks, veinlets and small bunches and the samples show a higher lead tenor that would be first anticipated. Judging from the workings it would appear that the ore body here is a lense which widened out to considerable width at and near the center (in vicinity of the shaft) and narrowed at each end. However I do not believe that the large float occurring NW down towards and in the vicinity of Tunnel "A" (See Map No. 3) was thrown from this wider bed as the surface is too flat for these large pieces to have travelled that far. It is possible, therefore, that another good sized lense may occur between station No. 35 and Tunnel "A" and it is on this assumption that the exploration work advised herein is predicated. Success here would encourage further prospecting down the lode strike towards Wimpy Creek with possibility that additional ore lenses may be found.

Judging from the Goldstone maps and other geologic conditions, which will be more fully investigated and reported in Goldstone examination, the probable downward rake of War Eagle ore shoots or ore zone will be NW or toward Wimpy Creek. If this proves to be the case the obvious locality for attack in depth would be from Wimpy Creek side of the mountain towards which the better ore showings would plunge.

The next showing on War Eagle vein is presumed to be at Tunnel "B", 1000 feet further SE and 430-vertical feet below the above showings. This comprises two veins (1) on east side of cut over tunnel face which lines up with the projected SE strike of vein from the upper showings, giving belief that this may be on the same vein-lode, and (2) a narrow quartz vein branching N33°W from the first. These two veins occur in a sheared, much contorted and schisted zone within the thin, platy argillaceous quartzites. They appear to be barren of mineral where now exposed but ore on the tunnel dump contains considerable galena which is indicative that the vein, or veins, in the tunnel were productive of ore. They vary in width from two feet at surface of the

first vein and 6" at surface of the second, but in the cut both pinch down to about half their surface exposure. Unfortunately the tunnel floor and face was not open for inspection so that conditions there could not be judged. A picked sample of the best lead-quartz ore returned high values as reported elsewhere in this report.

Two cuts between the upper showings and Tunnel "B" are clearly off the vein strike and show nothing. The distance between the respective showings is too far to conclude with certainty that Tunnel "B" is on the same vein shown by the upper workings and surface trenching--starting from above--will have to be done to prove or disprove the contention. The upper showings are better and show more promise than this one isolated showing but it is possible that more extensive prospecting may materially improve it.

About 1000 feet SW and 560 feet lower elevation from Tunnel "B" is a small cut in thin, platy argillaceous quartzites containing a 6-inch, well mineralized quartz vein whose strike nearly parallels the War Eagle. Its position prohibits its being SE extension of this vein but it might prove to be a parallel one, about 650 feet west of War Eagle vein. A little prospecting to see if it widens might afford encouragement to prospect uphill for parallel ore showings. Its position is west of War Eagle property lines and if it should provide encouragement additional claims should be staked to cover it.

The tunnels on the south side of Pratt Creek are caved and were not examined. I am informed that good gold ore was gotten though in what amount is not noted. This section would be left for some future date as the area between Pratt and Wimpy Creeks affords most promise, is easier of access, and if it proves satisfactory after exploration would give a wide section for development and mining.

As noted none of the actual vein was exposed in any of the cuts or shafts at the upper showings, with exception of about one foot of vein in bottom of the most southerly exposure. For this reason the samples taken by me are primarily "grab" samples from the ore piles at surface and whilst they are indicative of the good ore tenor are not conclusive as they would be if the vein itself had been sampled. In taking these grab samples the mineralized quartz was chipped from numerous larger chunks into a small sample. Two picked samples of the ore containing heaviest visible galena were taken, the others being the better quartz-galena ore and quartz. The results are higher than I had expected at the time of sampling and are encouraging for lead-silver-gold ore but it is to be expected that the full vein widths will run less than the average of grab samples taken, though these indicate that the vein-run will be good mill grade ore. The encouraging feature is that the "float" ore represented by Samples #1 and #2 ran as well as it did as this material did not look overly promising on the ground.

In calculating present dollar values of metal contents of the samples, the following prices have been taken: Gold $35 per ounce; Silver 75¢ per ounce; Lead 6-3/4¢ per pound.

Sample No. 1 taken from outcrop or float exposed above surface 12 inches wide at o.c. "B" (See Map No. 3) 180 feet NW of the shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.36 oz. | $12.60 | |
| Silver | 1.3 oz. | $ 0.97 | |
| Lead | 0.85% | $ 1.41 - Total value per ton | $14.71 |

Sample No. 2 General grab sample of large pieces of ore at cut above Tunnel "A" portal, 260 feet NW from shaft and cut workings.

| | | | |
|---|---|---|---|
| Gold | 0.40 oz. | $14.00 | |
| Silver | 3.1 oz. | $ 2.32 | |
| Lead | 10.35% | $13.97 - Total value per ton | $30.27 |

The lead content is unexpectedly high. Tunnel "A" is caved and cannot determine if in downward continuation of this vein. Doubtful as little ore on tunnel dump.

Sample No. 3 Grab from large pieces of ore piled around 20-foot shaft to amount estimated about 30 tons. Quartz with galena, copper stains, etc. Representative of ore that came from the shaft but possibly higher than average if chipped from vein face.

| | | | |
|---|---|---|---|
| Gold | 0.30 oz. | $10.50 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 10.8% | $14.57 - Total value per ton | $29.77 |

Samples #3A Picked sample of best lead ore with quartz taken from numerous large chunks of lead-quartz stained by copper, etc. Clearly high grade and probably in minor amount within the vein.

| | | | |
|---|---|---|---|
| Gold | 0.60 oz. | $21.00 | |
| Silver | 12.6 oz. | $ 9.45 | |
| Lead | 34.4% | $46.44 - Total value | $76.89 |

Taken to see what the best ore in this vicinity would run.

Sample No. 4 Grab from pile of ore near filled cut #36, quartz and galena. No indication of vein width.

| | | | |
|---|---|---|---|
| Gold | 0.32 oz. | $11.20 | |
| Silver | 3.6 oz. | $ 2.70 | |
| Lead | 14.0% | $18.90 - Total value | $32.80 |

These values unexpectedly high as ore does not have appearance of this much lead content.

Sample No. 5 From 1-foot vein in bottom of 10-foot pit at south end of the showings. Vein partly exposed in north end of shaft contains visible stringers of lead.

| | | | |
|---|---|---|---|
| Gold | 0.18 oz | $ 6.30 | |
| Silver | 4.4 oz. | $ 3.30 | |
| Lead | 16.1% | $21.60 - Total value | $31.20 |

Sample No. 6 Selected sample from the best lead-quartz ore at Tunnel "A". No indication of width or occurrence in vein which was covered under tunnel floor and not exposed in tunnel face. Surface

outcrop shows no visible galena. Sample taken to see what best ore here might run. When the tunnel faces are better exposed a more systematic sampling should follow as this is inconclusive of the ore possibilities here.

| | | | | |
|---|---|---|---|---|
| Gold | 0.12 oz. | $ 4.20 | | |
| Silver | 4.25 oz. | $ 3.25 | | |
| Lead | 37.0% | $49.90 | - Total value | $58.35 |

- - - - - - - - - - - - - - - - - - - - - - - - - -

The above sampling, despite the limitations outlined, is encouraging that the War Eagle upper showings may develop into a good lead-silver-gold mine by further work.

In order to prove the property more fully this summer it is advised that two men be installed at the upper area and provided with tent camp, tools, and supplies by horse pack. A system of open trench work should be laid out and the work frequently inspected.

I advise that the area between station 35 and Tunnel "A" first be prospected through overburden to solid rock and the vein (or veins) exposed be blasted into and sampled. It is probable that from 3 to 4 feet of overburden will be found which will slow up pick and shovel work but this appears to be the most feasible for this summer. After this section has been explored the Pratt Creek slope should be trenched from vicinity of station 37 to SE along the projected vein strike. This will conclude about all the work two men could do during the season.

I estimate costs of wages, supplies, packing, etc. for two men will average about $22 per day. If success is met with a more extensive and cheaper per cubic yard prospecting could be performed next summer by bulldozer but the preliminary work would not warrant the cost of bringing one in at this time.

## Conclusions

The War Eagle property is situated in the rock formation that has been most ore-favorable in this section and has developed Goldstone vein to more than 500 feet depth in good ore. Whilst War Eagle rock belt is separate from Goldstone it is similar in character and structure. Thus War Eagle has ore-favorable host rock.

The small amount of work on War Eagle upper workings has indicated more than usual amounts of quartz-galena ore which assays high enough to promise commercial returns after the ore shoots may be developed into length and depth.

The immediate future should be given to proving lateral extent and vein widths of ore. This will best be done by surface trenching. After this work is done the depth extension could conveniently be done by diamond drilling from surface by gas-driven drill.

I have no hesitancy in recommending prospecting and exploration of this property and believe that a good lead-silver-gold mine of moderate size will be disclosed.

Spokane, Washington
July 3, 1944

ARTHUR LAKES

SUPPLEMENTAL REPORT
ON THE
WAR EAGLE GROUP

I made another examination of War Eagle property July 28th, in conjunction with underground examination of Goldstone mine workings, July 24-29th.

This report chiefly concerns method of surface prospecting of vein outcrop and downward extensions of ore found thereby; transportation facilities and improvement thereof. Various routes for road connection between War Eagle and Goldstone mine were investigated.

The outstanding factors developed by this examination were:

(1) The depth of overbufden at War Eagle surface exceeds estimate of my Preliminary report, July 3rd., and vein outcrop cannot be adequately or cheaply opened by pick and shovel. The only satisfactory method involves bulldozer trenching through from 5 to more than 10-feet of over burden.

(2) The absolute necessity for roads over which to drive bulldrozer to the upper War Eagle area and also to haul compressor, mine cars, and other mining equipment to be used for underground development of ore that may be found by bulldozing.

(3) Validity of title of War Eagle claims is subject to doubt. Steps have been made to protect your interests in this matter.

Transportation The unusually strong showings of ore float and at the surficial workings at upper War Eagle should interest any mining engineer. The fact that the property has been ignored for the past 15 to 20-years is probably due to the isolated position and difficult accessibility of these showings. In order to explore the actual vein outcrop along its course, in accord with proper mining caution, will require the use of bulldozer. This requires that it dig a road to War Eagle locality. Without this work the ore possibilities will remain entirely speculative and the property continue as it has for the past years. Therefore the chief "bug" is lack of transportation which will have to be remedied before intellegent and comclusive investigations can go forward.

In considering transportation it is necessary to bear in mind that ore from War Eagle (if successfully developed in commercial quantity as expected) and from Goldstone mine will be treated in a central mill, powered by Deisel-electric unit from which electricity will be wired to compressors at each mine. This plant should be located where ore from the respective mines can be transported downgrade to it. The most central locality meeting this condition will be on Pratt Creek, possibly near War Eagle cabin, whereby ore from War Eagle could be transported over aerial tramway or by road down to mill and ore from Goldstone mine be hauled down over present road to mill by truck in summer and cat-train in winter.

Thus the location of the road will be determined by the above considerations in order to facilitate earliest access to War Eagle showings and at the same time provide adequate permanent transportation for ore and supplies. An alternative mill location had been considered on the gentler slope of Wimpy Creek north of War Eagle showings which is covered by earth but investigation proved the impossibility of building down grade road connecting Goldstone mine to this section.

If this had proven otherwise the Wimpy slope had my preference but the best method of access to these properties now appears to be as follows:

(1) Improve Goldstone road up Pratt Creek by relocating about 2-miles on the south side of Pratt Creek from the lower power plant to about ½-mile above damsite, thereby bypassing all washed out sections and connecting into the good, even grade road from about ½-mile west of War Eagle cabin to Goldstone camp. Aneroid readings indicate from 6% to 10% grade, with possibility of one or two switchbacks. The south side of the creek is mostly earth timbered by jack pine and other small timber. Two bridges will be required, one crossing Pratt Creek at each end of the relocated road. This will provide adequate truck haulage to and from Goldstone mine which will greatly facilitate future operations there as well as afford access to War Eagle showings.

(2) Take off from Goldstone road at most convenient place between War Eagle cabin and Goldstone camp to miss the large rock slide west of north creek fork. This rock slide extends part way down the moutain north of present road. This road to extend at about 10% grade up to Tunnel "B", thence up a 10% locality of War Eagle upper workings. Subject to survey, I have sketched this road on accompanying Map No. 1. Distance cannot be determined until survey but should approximate 8,000 feet. Preliminary observation indicates depth of overburden sufficient to dig a 12 to 14-foot road. Some narrow rock ridges may be encountered, requiring rock work which will be facilitated by use of portable compressor to be used in preliminary underground development at War Eagle. The idea is to follow bulldozer route and eliminate all rock work possible.

Obviously a true estimate of cost cannot be arrived at until further investigation but it is possible that the above work can be performed in a week or 10-days, largely dependent upon the rock work required.

Surface exploration Once the road is completed a series of level cuts will be driven across the indicated vein strike down both Pratt Creek and Wimpy Creek slopes. The gentle Wimpy Creek slope will permit bulldozing as far as required but the lower half of Pratt Creek slope between upper War Eagle and Tunnell"B" gets progressively steeper which may eventually limit work in that direction.

A minimum 5-foot depth to over 10-feet depth over overburden and slabbed country rock may be expected, thus benches upwards of 30-feet wide will be formed by digging down into bedrock to expose the vein outcrop. The bulldozer will be followed by two men who will use pick and shovel and dynamite to define vein (or veins) found therein. Possibly $3,000 may be expended in this work which will most conclusively define surficial ore possibilities which mining caution requires.

As mentioned in my preliminary report, and illustrated on accompanying Longitudinal Section 2-A, the probable downward ore rake of War Eagle ore zone (or zones) will be northerly towards Wimpy Creek and the presumed igneous ore source. This northerly ore rake was anticipated from Goldstone maps and has been definitely proven by my recent Goldstone examination.

At present the full lateral extent of War Eagle's upper ore zone has not been indicated due to the heavy cover. Testing down Pratt Creek slope will be necessary to define the southeastern limits at surface and likewise bulldozer testing down Wimpy Creek slope will be required to define length of ore to the northwest.

The indicated northerly rake suggests that prospecting down Wimpy Creek slope will provide better and quicker results and this work should be performed first.

Underground exploration and development The Longitudinal Section indicates possible additional ore zone under the upper zone. This extends from Tunnel "B". How far above or below the tunnel this showing may continue will depend upon exploration to prove.

The northerly ore rake, if proven as expected, will require longer tunnels to tap downward continuation of ore zone if driven from Pratt Creek slope in a northerly direction than tunnels driven southerly from Wimpy Creek slope because the Pratt Creek tunnels would progress with and under the ore rake, whilst the Wimpy Creek tunnels would be driven into the ore rake.

Wimpy Creek slope affords better opportunity to quickly determine ore possibilities indicated by the large float showings there and the surficial showings on the divide between Pratt and Wimpy Creeks. The Pratt Creek slope has advantage of proving ore possibilities indicated in vicinity of Tunnel "B" but would be more than twice as long as Wimpy tunnels to test downward continuation of the indicated larger ore possibilities north of the divide.

Three methods of underground development present themselves:

(1) Drift tunnel driven southeast along vein from Wimpy slope whereby about 800 to 900-feet length would test the full length of indicated ore zone to about 400-maximum feet below surface. The cost of this tunnel at $18 per foot would be about $16,000 and would prove width of ore vein, length of ore shoots, etc. to that depth.

(2) Drift tunnel driven northwest along vein by extension of Tunnel "B" would extend 1200-feet to reach the indicated beginning of the better ore zone, thence would have to advance an additional 800 feet or more to reach its other end, a total of 2000 feet which would bring this tunnel almost to surface at Wimpy slope. This tunnel would have advantage of proving possibilities of the ore zone near its portal and would also test ground between the two zones which Wimpy tunnel would not do. Cost of this tunnel at $18 per foot would be about $36,000 and would prove width of ore vein, length of ore shoots within the various ore zones, etc, to a maximum of 400 feet below surface.

(3) Extension of the 20-foot shaft down in the ore vein for 400 feet, to same elevation of the two proposed tunnels, would have advantage of "staying with the ore" until it raked out to the north, thereby proving width and ore tenor in downward continuation. Drifts would have to be run out northerly in the lower levels to prove lateral conditions along the vein. At $40 per foot, 400 feet of shaft would cost $16,000 and at $20 per foot an additional 800 feet of drift along vein would cost $16,000, the total $32,000. Subject to bulldozer disclosures of vein down Wimpy slope, whereby Wimpy tunnel could be started on, or close to ore, the shaft method would give better assurance and prove two dimensions within limits of ore rake, whereby the tunnel methods would require additional work to prove vertical conditions.

The more rapid accomplishment of objective together with lesser cost gives advantage to Wimpy slope tunnel. If success is met with and commercial ore proven along its horizontal extent then a shaft could be raised to surface from this level, 150 feet north from the 20-foot shaft to afford information about the vein

and also provide access to surface whereby ore could be hoisted to a tram or road terminal for transportation down to mill. Deeper development would best be performed by continuing this shaft. At about $30 per foot this shaft-raise would cost about $12,000 but this additional expense would not be incurred until Wimpy tunnel had proved occurrence of acceptable quantities and grade of ore to warrant going into mining.

In regards the shaft method it is questionable if the compressor to be used for preliminary development would provide sufficient power for hoisting more than 200 feet. This would require a larger and more expensive compressor, pumps, continuous timbering, whereby water would drain out the tunnels and much of the drift tunnels would not require timber.

Title Validity of title to War Eagle claims is subject to doubt by reason that Location Notice posted at War Eagle No. 2 claim is dated May 25, 1937 but the County Recorders's office has no filing as of that date but shows only the original location in 1928. Subject to thorough checking of yearly assessment filings from 1928 to 1937 or some other legal arrangement for holding the claims in good standing during that period the title of optioners may have lapsed. If assessment lapsed at any time between 1928 and 1937 the claims lapsed and thereafter would be subject to (a) relocation by former stakers or (b) open for new location by new stakers. Unless a lapse had occurred I cannot see reason for posting a Notice dated in 1937 because the claims would be in good standing and not require such a notice. This matter deserves thorough investigation.

In the meantime, to protect your interests, six claims are being located to cover War Eagle Lode and an additional four claims are being located on open ground west of War Eagle to cover a vein there, as advised in my July 3rd. report. The new claims are marked in green on Map No. 1 and the old War Eagle locations shown in orange.

Your option on this ground and your investment in work will thus be adequately protected. If War Eagle owners have a valid title the terms of your option still stand. If they have not, the new locations will acquire all rights to this property.

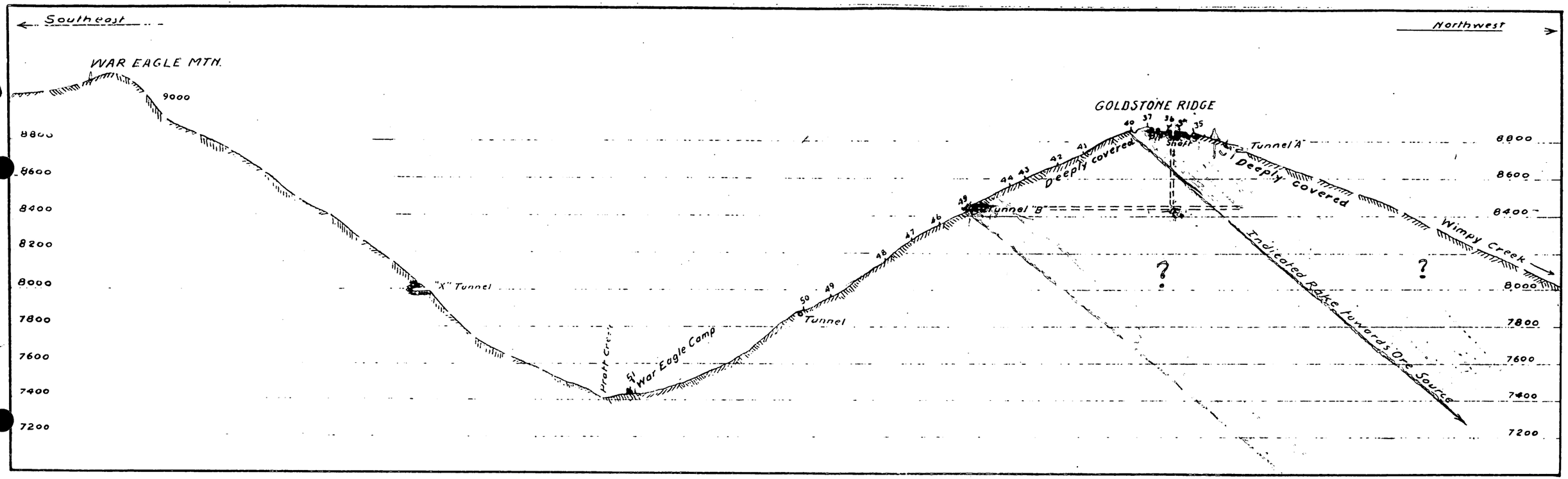
In checking over the ground during last examination we found that all quartz carries values, even some pure white "bull quartz" when broken contained lead sulphides. This is indicative of extensive metallization of the quartz and the wide spread and large pieces of float is indicative of good sized quartz body beneath overburden.

CONCLUSIONS The wide distribution of large ore float and indication of considerable ore width by dump at 20-foot shaft together with the fact that metallic values occur in every type of quartz on this showing, all give encouragement that further exploration and development will provide commercial ore results. The showings justify bulldoze prospecting whose results will determine underground exploration and development. Success should provide a good profitable lead-silver-gold mine. In event of disappointment from bulldozer work the losses will be limited to cost of road plus about $3,000 for bulldozing. Whilst it will require this work to prove whether or not these expectations develop the showings fully justify this expenditure which will be followed by expenditure for underground

development in accord with bulldozer findings. Unless this work is done the property will remain dormant in same position economically as it has for the past years.

Spokane, Wash.
August 2, 1944

Arthur Lakes
Mining Engineer & Geologist

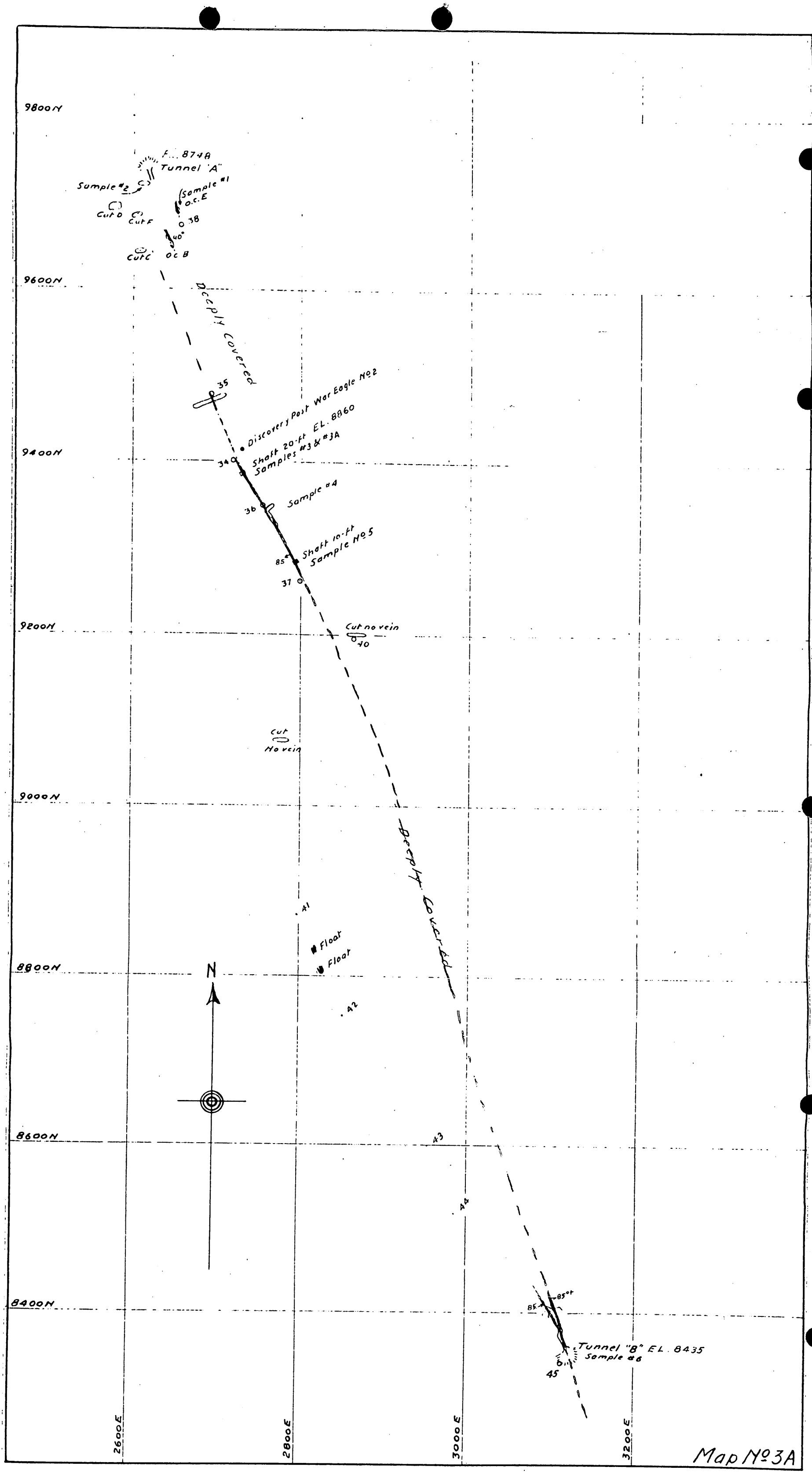



LONGITUDINAL SECTION ALONG WAR EAGLE LODE

SCALE: 500-ft. to 1-in.

Arthur Lakes, 1944.

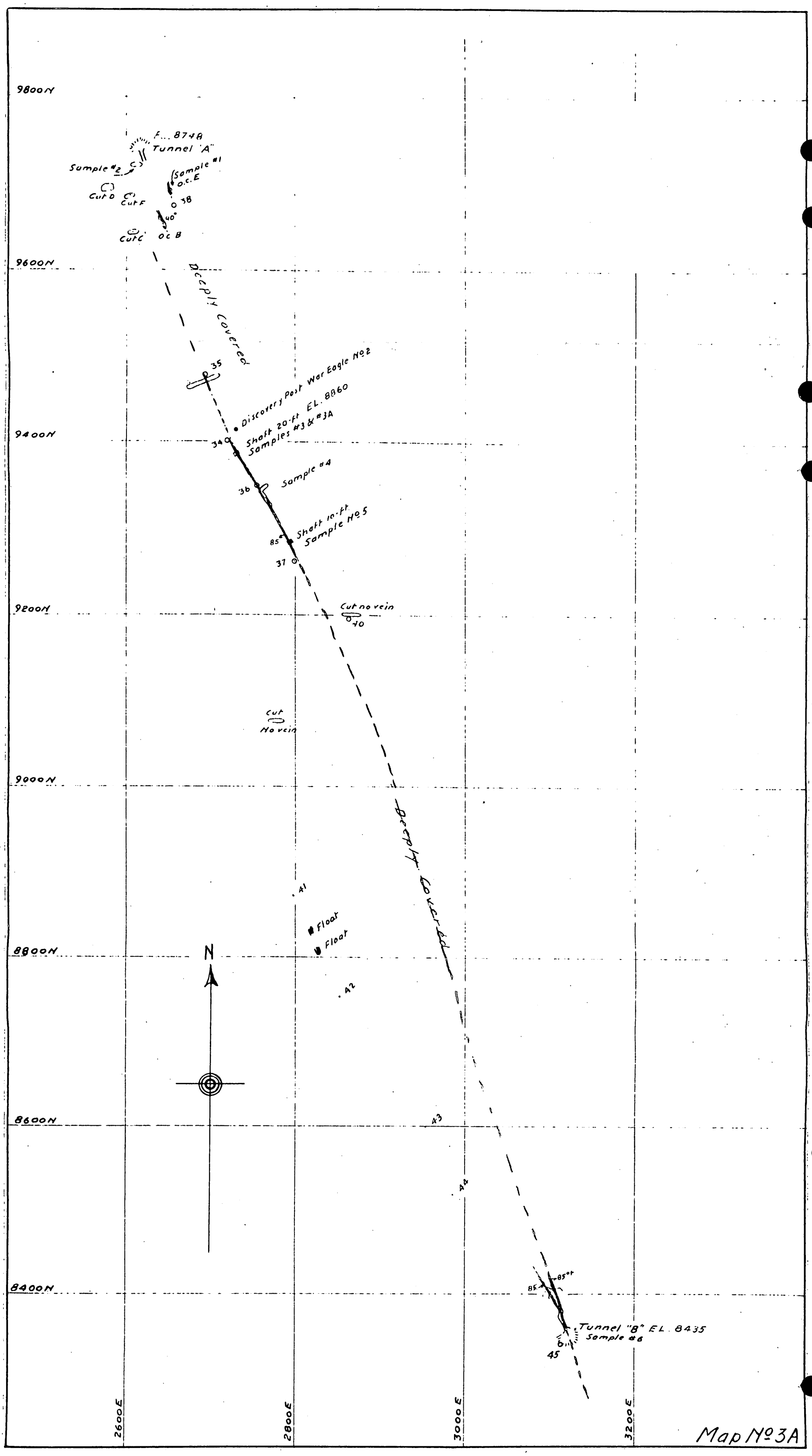
Map No 2A




PLAN OF UPPER WAR EAGLE WORKINGS

SCALE: 500-ft. to 1-in.

Arthur Lakes, 1944.




PLAN OF UPPER WAR EAGLE WORKINGS

SCALE: 500-ft. to 1-in.

Arthur Lakes, 1944.

D.M.A. 2235
War Eagle Excl. Lawn
Lead Mining Co.