DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1484

DO NOT DETACH THIS SLIP

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

This document has been recorded as

Exploration loan

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

Routing Slip

To:	Supply Division	Date	OCT 18 1951
To:	Reports and Records	Date	10/22/51
To:		Date	
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DMA Form 2

DEFENSE MI[redacted]ALS ADMINISTRATION
Status Change Notice

DMA Docket No. 1484

To: Reports and Records Branch Argonaut Mine, Orig. Ltd.

From: Lead Zinc Branch

Date: July 6 1951

The following action has been taken this date on the above Controlled Document.

Forwarded to _____

Type of request changed to:

_____

Denied ☐ Withdrawn ☐

Approved in amount of $ _____

Other action, specify:

On hand - to be denied

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

OCT 22 1951

a.E.C.

Memorandum

Re: DMA-1484
Argonaut Mine
Baker County, Oregon
Exploration loan, $50,000
Lead, zinc, copper

To: Reports and Records Unit
Administrative Management Div.

From: Lead-Zinc Branch

Subject: Denial of exploration loan

The subject property lies in a district of significant gold and silver production. Sparse lead, zinc, and copper mineralization occurs in the granodiorite of this area, but significant tonnages cannot be expected. The field team has recommended a denial of the application based upon the following considerations:

(1) Gold is the dominant metal in the Argonaut vein system.

(2) The probability of transition from precious to base metal mineralization appears remote.

(3) The vein system has been reasonably well explored by the existing workings.

We concur with their recommendation that the application should be denied.

Returned herewith are:

4 Field team reports
1 Form MF-103

G. E. Johnson

G. E. Johnson, Acting Chief
Lead-Zinc Branch

Approved:

Tom Lyon

Director, Supply Division

FILE COPY
SURNAME:

350

Newcomb (ETK)
McKnight
Bishop

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

OCT 22 1951

Re: DMA-1484
Argonaut Mine
Baker County, Oregon
Exploration loan, $50,000
Lead, zinc, copper

Memorandum

To: Reports and Records Unit
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not stripped in R-R.

G. E. Johnson.

G. E. Johnson, Acting Chief
Lead-Zinc Branch

Approved:

Tom Lyon

Director, Supply Division

ELNewcomb:emp G 10-17-51
Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. M. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. files
DMA docket files

FILE COPY
SURNAME:

350

Newcomb (ETK)
McKnight
Johnson
Bishop

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

OCT 22 1951

Re: DMA-484

G.E.C.

Mr. John Arthur, Manager
Argonaut Mine, Oregon, Ltd.
Box 207
Baker, Oregon

Dear Mr. Arthur:

Your application for an exploration loan on property in Baker County, Oregon, has been reviewed by the Defense Minerals Administration. We have a field report available to us which was made on your property at our request.

The occurrence of sparse zinc, lead, and copper mineralization in granodiorite is widespread in the area of your proposed work. However, the mineralization associated with this type of occurrence cannot be expected to yield any significant amounts of zinc, lead, or copper. The production records from this district indicate that gold and silver are the important metals and that they occur in significant quantities. From our available information, we conclude that the Argonaut vein system has been adequately explored for zinc, lead, and copper, and that a transition from precious to base metal mineralization has not taken place laterally along the veins. I regret that we must deny your application for exploration assistance.

We wish to thank you for bringing your property to our attention.

Very truly yours,

Tom Lyon

T.L. 10-22

Tom Lyon, Director
Supply Division

ELNewcomb:emp
G 10-17-51
Copies to: A. E. Weissenborn Region II (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
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Administrators r. files
DMA docket files

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1201 N. Division St.
Spokane 2, Wash.
October 8, 1951

MEMORANDUM

To: Chief, Lead-Zinc Branch, Defense Minerals Administration, Dept. of the Interior, Washington 25, D. C.

Thru: L. F. Strobel

From: DMA Field Team, Region II

Subject: Docket No. 1484X, Argonaut Mine, Baker County, Oregon

The Field Team, in agreement with the opinion expressed by the examining engineers, recommends that the subject application for exploration assistance be denied.

Considerations involved in this action are as follows:

1. Gold is the dominant metallic associated with the Argonaut vein system.

2. Probability of transition from precious to base metal mineralization appears remote.

3. Vein system is reasonably well explored by existing openings.

The request for exploration assistance was made with little hope of concluding a contract, inasmuch as the applicant was aware of the fact that aid is not available to gold-silver properties.

By Field Team, Region II

M. E. Volin, Acting Exec. Officer
(U. S. Bureau of Mines)

Thor Kiilsgaard
For: A. E. Weissenborn
(U. S. Geological Survey)

Enclosure
Examination Team
Report--5 cys

OCT 15 1951

1201 N. Division St.
Spokane 2, Wash.
October 8, 1951

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Report—5 cys

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By Field Team, Region II

Enclosure
Examination Team
Report--5 cys

H. E. Volin, Acting Exec. Officer
(U. S. Bureau of Mines)

Thor Kiilsgaard
For: A. E. Weissenborn
(U. S. Geological Survey)

cc: L. F. Strobel ✓

UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN-SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

DMA-1484X - Argonaut Mine

Baker County, Oregon

E. G. Erickson
J. E. Taber
U. S. Bureau of Mines

October 3, 1951

ARGONAUT MINE
Baker County, Oregon

DMA Docket No. 1484X

By E. G. Erickson, U.S.B.M.
J. W. Taber, U.S.B.M.

RECOMMENDATIONS

The Argonaut Mine is primarily a gold property. The grade and tonnage of the indicated ore appear inadequate to permit a profitable operation under present conditions. The recoverable base metals are not present in sufficient quantity to justify the participation of the Defense Minerals Administration in an exploration project. Indications are not considered particularly favorable for the disclosure of minable base metal ore shoots. It is recommended, therefore, that the application be denied.

APPLICANT

The applicant is the Argonaut Mine, Ltd., John Arthur, Manager, P.O.Box 207, Baker, Oregon.

LOCATION

The Argonaut property consists of the following 21 (surveyed) quartz mining claims: The Argonaut Nos. 1 to 15, inclusive, and the Wilmot claims, Nos. 1 to 5, inclusive. These claims are in secs. 13, 24 and 25, T. 8 S., R. 36 E., and secs. 18, 19 and 30, T. 8 S., R. 37 E., W.P.M.

The property is 12 miles northwest from Sumpter, Ore., over a maintained mountain road. Baker, Ore., 29 miles east of Sumpter, is the nearest railhead and is reached by an improved and partly oiled highway.

OWNERSHIP

Title to the property presumably is held by the applicant. The alleged ownership was not verified, however, because of the remote possibility of executing an exploration contract.

HISTORY AND PAST PRODUCTION

The deposit is one of several quartz gold veins of the Cracker Creek or Bourne district, first exploited in 1880-90. The Argonaut mine first was explored by shallow shafts about 1890. At that time a 3-stamp mill and roaster chlorination unit was built on the property. A small amount of quartz gold ore was claimed to have been treated in this mill.

In 1900 about 1,800 feet of drifts and crosscuts were driven on the upper level. Apparently, no mining was done on this level at the time. After 1900 the mine reputedly was idle until 1938. The several camp buildings now on the property were built in that year.

The lower adit was driven during 1938 and 1939. In the period 1938 to 1940 several lessees mined gold ore from both the lower and upper levels. According to John Arthur, net smelter returns on gold ore mined since 1938 totaled about $25,000.

DESCRIPTION OF PROPOSAL

The applicant proposes to:

1. Extend a drift on the upper level.
2. Crosscut an aplite dike on the lower level and search for the presumed continuation of the gold vein.

The applicant also directed attention to a small vein containing gold and a minor amount of antimony which he proposed to explore by bulldozing and subsequent drifting.

GEOLOGIC SETTING

The Argonaut mine is in an area of thinly laminated siliceous argillites which are invaded locally by small irregular bodies of granitic rocks. In the mine area the surface exposures are highly siliceous metasediments, irregularly cut by several aplite dikes. The lower level of the mine is in a granitic rock of about the composition of granodiorite.

Two veins have been explored. One vein strikes N. 30° E. and the other N. 80° E. The respective dips of these veins are 45° to 55° southeast and 60° to 70° south. Both veins are in well defined fault fissures

The siliceous highly crushed vein material is localized in discontinuous shoots. Much of the so-called ore is chiefly brecciated quartz and intermixed clay. Locally, small stringer veins extend 10 to 15 feet into the walls at high angles to the main fissure. These gash-fracture veins, according to the applicant, often contain unusual amounts of gold.

The vein to be explored for zinc and lead is similar in appearance to other gash veins found along the N. 30° E. fissure. This vein locally contains a few scattered bunches of sphalerite, galena, and chalcopyrite. None of these minerals, however, have been found elsewhere in the mine. The zinc-lead gash vein has not been found in the upper level although the drift extends well beyond the area in which it appears in the lower drift.

The proposed exploration program contemplates a drifting on the N. 30° E. vein on both the upper and the lower levels. Combined

surface and face exposures suggest that this vein probably extends an additional 100 feet or more to the northeast. However, good surface exposures of this vein over about 600 feet combined with drift exposures along 400 to 500 feet of the same section at a depth of 260 feet reveal only one erratic, weakly metalized, lead-zinc vein. Throughout this fairly extensive exploration of the N. 30° E. vein structure and similar explorations on the N. 80° E. vein structure only narrow discontinuous quartz-gold mineralization and a single weak subsidiary quart-zinc-lead stringer have been found. It, therefore, appears obvious that the geologic probability of encountering a marked transition to base metals by drifting a few hundred feet farther on the vein is remote. This conclusion is further strengthened by the conspicuous absence of base metals in other mines in the district, many of which have been more extensively explored.

MINE WORKINGS

The mine consists of two main adits at a level interval of about 160 feet. Average backs above the upper level range from 250 to 300 feet. Two raises have been driven from the lower sill. One raise, currently inaccessible, connects with the upper adit. The other raise has not been driven through to a connection.

Aggregate lateral development on the two levels approaches 3,000 feet; the upper level entirely in argillites and slates, and the lower level partly in granite. Both levels stand well with minimum support. The workings are in good condition with the exception of small areas intersecting minor fault zones.

DISCUSSION OF PROPOSAL

The applicant's intent to include trenching exploration of an antimony prospect refers to an old prospect dump about 1,000 feet northeast of the Argonaut area. According to the applicant, vein material containing a small amount of antimony has been found on the dump. Presumably, there is no other evidence available. The applicant expressed no enthusiasm over this prospect except that he thought there should be some trenching performed to investigate it further. The applicant discouraged a trip to the prospect because "There is nothing up there to see but the dump." It appears that the proposed antimony exploration was attached to the original proposal as an afterthought designed to qualify the proposal as a venture concerned with strategic minerals.

UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN-SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

DMA-1484X - Argonaut Mine

Baker County, Oregon

E. G. Erickson
J. E. Taber
U. S. Bureau of Mines

October 3, 1951

ARGONAUT MINE
Baker County, Oregon

DMA Docket No. 1484X

By E. G. Erickson, U.S.B.M.
J. W. Taber, U.S.B.M.

RECOMMENDATIONS

The Argonaut Mine is primarily a gold property. The grade and tonnage of the indicated ore appear inadequate to permit a profitable operation under present conditions. The recoverable base metals are not present in sufficient quantity to justify the participation of the Defense Minerals Administration in an exploration project. Indications are not considered particularly favorable for the disclosure of minable base metal ore shoots. It is recommended, therefore, that the application be denied.

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The property is 12 miles northwest from Sumpter, Ore., over a maintained mountain road. Baker, Ore., 29 miles east of Sumpter, is the nearest railhead and is reached by an improved and partly oiled highway.

OWNERSHIP

Title to the property presumably is held by the applicant. The alleged ownership was not verified, however, because of the remote possibility of executing an exploration contract.

HISTORY AND PAST PRODUCTION

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GEOLOGIC SETTING

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UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN-SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

DMA-1484X - Argonaut Mine

Baker County, Oregon

E. G. Erickson
J. E. Taber
U. S. Bureau of Mines

October 3, 1951

ARGONAUT MINE
Baker County, Oregon

DMA Docket No. 1434X

By E. G. Erickson, U.S.B.M.
J. W. Taber, U.S.B.M.

RECOMMENDATIONS

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UNITED STATES
DEPARTMENT OF INTERIOR
OSCAR L. CHAPMAN-SECRETARY

DEFENSE MINERALS ADMINISTRATION

Report by Examination Team
Region II

DMA-1484X - Arrowhead Mine

Baker County, Oregon

E. G. Erickson
J. E. Taber
U. S. Bureau of Mines

October 3, 1951

ARGONAUT MINE
Baker County, Oregon

DMA Docket No. 1484X

By E. G. Erickson, U.S.B.M.
J. W. Taber, U.S.B.M.

RECOMMENDATIONS

The Argonaut Mine is primarily a gold property. The grade and tonnage of the indicated ore appear inadequate to permit a profitable operation under present conditions. The recoverable base metals are not present in sufficient quantity to justify the participation of the Defense Minerals Administration in an exploration project. Indications are not considered particularly favorable for the disclosure of minable base metal ore shoots. It is recommended, therefore, that the application be denied.

APPLICANT

The applicant is the Argonaut Mine, Ltd., John Arthur, Manager, P.O.Box 207, Baker, Oregon.

LOCATION

The Argonaut property consists of the following 21 (surveyed) quartz mining claims: The Argonaut Nos. 1 to 15, inclusive, and the Wilmot claims, Nos. 1 to 5, inclusive. These claims are in secs. 13, 24 and 25, T. 8 S., R. 36 E., and secs. 18, 19 and 30, T. 8 S., R. 37 E., W.M.

The property is 12 miles northwest from Sumpter, Ore., over a maintained mountain road. Baker, Ore., 29 miles east of Sumpter, is the nearest railhead and is reached by an improved and partly oiled highway.

OWNERSHIP

Title to the property presumably is held by the applicant. The alleged ownership was not verified, however, because of the remote possibility of executing an exploration contract.

HISTORY AND PAST PRODUCTION

The deposit is one of several quartz gold veins of the Cracker Creek or Bourne district, first exploited in 1889-90. The Argonaut mine first was explored by shallow shafts about 1890. At that time a 3-stamp mill and roaster chlorination unit was built on the property. A small amount of quartz gold ore was claimed to have been treated in this mill.

In 1900 about 1,800 feet of drifts and crosscuts were driven on the upper level. Apparently, no mining was done on this level at the time. After 1900 the mine reputedly was idle until 1938. The several camp buildings now on the property were built in that year.

The lower adit was driven during 1938 and 1939. In the period 1938 to 1940 several lessees mined gold ore from both the lower and upper levels. According to John Arthur, net smelter returns on gold ore mined since 1938 totaled about $25,000.

DESCRIPTION OF PROPOSAL

The applicant proposes to:

1. Extend a drift on the upper level.
2. Crosscut an aplite dike on the lower level and search for the presumed continuation of the gold vein.

The applicant also directed attention to a small vein containing gold and a minor amount of antimony which he proposed to explore by bulldozing and subsequent drifting.

GEOLOGIC SETTING

The Argonaut mine is in an area of thinly laminated siliceous argillites which are invaded locally by small irregular bodies of granitic rocks. In the mine area the surface exposures are highly siliceous metasediments, irregularly cut by several aplite dikes. The lower level of the mine is in a granitic rock of about the composition of granodiorite.

Two veins have been explored. One vein strikes N. 30° E. and the other N. 30° E. The respective dips of these veins are 45° to 55° southeast and 60° to 70° south. Both veins are in well defined fault fissures

The siliceous highly crushed vein material is localized in discontinuous shoots. Much of the so-called ore is chiefly brecciated quartz and intermixed clay. Locally, small stringer veins extend 10 to 15 feet into the walls at high angles to the main fissure. These gash-fracture veins, according to the applicant, often contain unusual amounts of gold.

The vein to be explored for zinc and lead is similar in appearance to other gash veins found along the N. 30° E. fissure. This vein locally contains a few scattered bunches of sphalerite, galena, and chalcopyrite. None of these minerals, however, have been found elsewhere in the mine. The zinc-lead gash vein has not been found in the upper level although the drift extends well beyond the area in which it appears in the lower drift.

The proposed exploration program contemplates a drifting on the N. 30° E. vein on both the upper and the lower levels. Combined

surface and face exposures suggest that this vein probably extends an additional 100 feet or more to the northeast. However, good surface exposures of this vein over about 600 feet combined with drift exposures along 400 to 500 feet of the same section at a depth of 260 feet reveal only one erratic, weakly metalized, lead-zinc vein. Throughout this fairly extensive exploration of the N. 30° E. vein structure and similar explorations on the N. 80° E. vein structure only narrow discontinuous quartz-gold mineralization and a single weak subsidiary quart-zinc-lead stringer have been found. It, therefore, appears obvious that the geologic probability of encountering a marked transition to base metals by drifting a few hundred feet farther on the vein is remote. This conclusion is further strengthened by the conspicuous absence of base metals in other mines in the district, many of which have been more extensively explored.

MINE WORKINGS

The mine consists of two main adits at a level interval of about 160 feet. Average backs above the upper level range from 250 to 300 feet. Two raises have been driven from the lower sill. One raise, currently inaccessible, connects with the upper adit. The other raise has not been driven through to a connection.

Aggregate lateral development on the two levels approaches 3,000 feet; the upper level entirely in argillites and slates, and the lower level partly in granite. Both levels stand well with minimum support. The workings are in good condition with the exception of small areas intersecting minor fault zones.

DISCUSSION OF PROPOSAL

The applicant's intent to include trenching exploration of an antimony prospect refers to an old prospect dump about 1,000 feet northeast of the Argonaut area. According to the applicant, vein material containing a small amount of antimony has been found on the dump. Presumably, there is no other evidence available. The applicant expressed no enthusiasm over this prospect except that he thought there should be some trenching performed to investigate it further. The applicant discouraged a trip to the prospect because "There is nothing up there to see but the dump." It appears that the proposed antimony exploration was attached to the original proposal as an afterthought designed to qualify the proposal as a venture concerned with strategic minerals.

CLASS OF SERVICE

This is a full-rate telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

1201 (509)

W. P. MARSHALL, PRESIDENT

SYMBOLS

DL=Day Letter

NL=Night Letter

LT=Int'l Letter Telegram

VLT=Int'l Victory Ltr.

The f[illegible] the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

PRA297

JUL 26 PM 7 07

PR SKB369 GOVT PD=SPOKANE WASH 26 336P=

T P BILLINGS, CHIEF LEAD ZINC BRANCH DEFENSE MINERALS ADMINISTRATION=DEPARTMENT OF INTERIOR WASHDC=

RE DOCKET DMA 1484, ARGONAUT MINE, OREGON. FIELD EXAMINATION HAS BEEN MADE BUT RESULTS NOT CONCLUSIVE. PROPERTY TO BE RE-EXAMINED WITHIN 2 WEEKS BY U.S. BUREAU OF MINES PERSONNEL. WILL IMMEDIATELY WIRE RESULTS UPON COMPLETION OF STUDY=

T H KIILSGAARD FOR A E WEISSENBORN EXECUTIVE OFFICER DMA=

DMA 1484 2 U S KIILSGAARD=

JUL 30 1951

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

JUL 26 PM 23

BUREAU OF MINES
MAIL ROOM
WASHINGTON, D.C.
JUL 27 8 00 AM '51

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 27 1951
LANDON F. STROBEL
Executive Secretary

FILE COPY
SURNAME:

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

Defense Minerals Administration
Salaries and expenses
Defense Production Act Department of Interior 1952

Mr. Knight
Billings
O'Leary
(For my file)

NIGHT LETTER

July 25, 1951 Washington, D. C.

Mr. A. E. Weissenborn
~~Geological Survey~~
South 157 Howard Street
Spokane 8, Washington

Refer Herres' letter of July 3, re Docket DMA-1484 Argonaut Mines Oregon. Can we send denial letter?

T. P. Billings, Chief
Lead-Zinc Branch

ETMcKnight:emp
7-25-51
Copies to: Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
R. H. Mete
Reports & Records
Directors r. file 4214 GSA
Br. r. file 4214 GSA
CONFIRMATION COPY
Files

FILE COPY
SURNAME:

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

McKnight (alt)
Brokaw
Mote
Herres

Airmail July 3, 1951

Re: DMA-1484X
Argonaut Mine, Oregon, Ltd.
Baker, Oregon
Zinc, lead, copper
Exploration loan

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

Dear Mr. Weissenborn:

We are proposing to deny the application of the Argonaut Mine, Oregon, Ltd. (DMA-1484) on the grounds that the property is in a gold-silver camp that contains very little lead zinc in the veins. The applicant proposes to drift on one quartz vein in the slate and on another quartz vein in the granodiorite below the slate, in the hope that these veins will open up to lead-zinc ore bodies. The mine is in the Blue Mountains of Oregon.

We note from your letter of May 31, that you are holding one copy of Form MF-103 for the purpose of getting additional information from the applicant. As it would not be very diplomatic to have the applicant receive a denial letter while negotiating with your office for further information, we will withhold notifying him of this decision until we receive your reply. Have you contacted him requesting more information on the subjects insufficiently treated in his application?

Very truly yours,

Otto Herres

Otto Herres, Chief
Lead-Zinc Branch

ETMcKNIGHT:emp
G 7/3/51
Copies to: Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
R. H. Mote
L. F. Strobel
Directors r. file 4214 GSA
Br. r. file 4214 GSA
Files

Baker, Oregon
June 15, 1951

Mr. A. E. Weissenborn
Executive Officer, DMA
So. 157 Howard St.
Spokane 8, Washington

Subject— DMA-1484 X

Dear Mr. Weissenborn:

Your letter of June 7th has been received, and the following may cover the information you require. We are also enclosing such maps as we have on the Argonaut Mine, also engineers' report.

THE APPLICANT

QUESTIONS

22. The lead, zinc and copper are new metals beginning to show as described in our former letter. We paid little attention to those metals, as our objective was gold. Now it appears that the government is in earnest, and desires to assist the small operators in securing those defense metals where indications are that pay ore could be mined if the proposed development proved paying quantities. Of course, our good gold values would assist in producing the defense metals.

    Our work on these required metals was not far enough developed to make assay maps, or any proper sampling. Grab samples were taken from the streak of lead-zinc, and the average near the face was from a 14 inch streak - lead 5.5%, zinc 9%. High grade lead specimens can be picked from streaks near the face. The gold streak parallels the hanging wall lead-zinc streak, and is 3½ feet wide of $21.00 gold ore. There are bunches of chalcopyrite showing. Both the lead-zinc and the gold streaks are coming together. They are only three feet apart near the face.

23. Proposed development work is in the upper, or Parker tunnel. Drive this tunnel 100, or 150, feet on the vein into the hill, and we feel positive that another ore shoot will be opened; if so, it being deeper from the surface, zinc and lead can be expected. The plan is to contract any development work done. The estimate per foot would be $35.00, which would cover any rentals of small equipment, assaying and management - in fact, every expense we could think of.

23. cont. Proposed development in the lower, or Wilmot, tunnel should be extended into the hill about 150 feet. This being a virgin, or new, district, there is not development work enough done on any property to get a pattern regarding ore rakes, intrusions, etc. As our ore occurences so far has been in the overlying sediments (slates), now in this lower tunnel considerable lime (calcite) is showing which could account for the lead, etc. coming in. The estimated cost of doing this tunnel work would be $40.00 per foot, which covers tunnel repairs, and costs of every description.

Proposed prospecting on the antimony vein - we know nothing about this vein, as the old, small works are caved. But we do get pieces of stibnite in the ore piles on the dump. These dumps contain gold values. There should be a truck road dozed off further up the hill to expose it. The sum of $5,000.00 should open and prospect this vein. Should the vein not show sufficient antimony after $2,000.00 was expended, then work could be discontinued.

24. The above work as outlined should be finished in one year, or less.

Should any ore be developed showing defense metals, then any extra money would be expended in building bins, etc. As there is a large selective flotation custom mill in Salt Lake City, we could ship our better grades of ore there for treatment.

The buildings on the property, and what equipment we have, could not be replaced for $75,000.00, and very little would have to be bought, or rented. Some of the small contractors here have equipment for tunnel driving.

In making the estimates, we have put them plenty high, as these days no one can make other than guesses as regards costs.

It would be our policy to do all work as cheap as possible in search of these required metals, and endeavor to produce defense metals and repay the government loan as quickly as possible from product marketed.

The general impression with most mining men with whom I have talked was that the government did want to assist in opening up new properties as contributors of the scarce metals. However, there is much complaint recently by really good mining men that the same old "red tape" is being used, and that no small operator can comply. Some now trying it say they are getting stomach ulcers in worrying how they are going to answer things the government engineers could not answer themselves. I mention this for the good of the country, as any good American wants defense.

Should a government examining engineer be sent to give our property an inspection, the best time would be after July 15th, as we will go up soon to see that the tunnels are open.

Very truly yours

ARGONAUT MINE, Oregon, Ltd.

By John Arthur Mgr.

John Arthur
P.O. Box 207
Baker, Oregon

JA/fmcc

JOHN ARTHUR, MANAGER

TEL. NO. 1351

ARGONAUT MINE, OREG. LTD.
BOURNE DISTRICT
P. O. BOX 207
BAKER, OREGON

June 15th, 1951.

Dear Mr. Weissenborn:

Subject: DMA-1484 X

Mailing you today by Parcel Post, maps as follows:

Plat of the Argonaut and Wilmot Groupes, showing the Mining Claims. Both groups are consolidated as the Argonaut, Ore Ltd .

An assay map by John. Arthur and J. A. Herdlick. The latter a Mining Engineer, and now employed by the Goverment doing Engineering in Alaska. This map is in the gold area.

" A "-----Is the proposed drift mentioned in my letters. No. 1 vein, in the upper, or Parker tunnel.

" B "-----Is the proposed drifting in the lower, or Wilmot tunnel.

" C "-----Is where the Zinc-Lead began to come in the Parker tunnel.

One Longitudinal section of East and Westerly veins in both levelz.

One map by J. Arthur (Sketch) showing approximately where antimony shows in small dumps. Marked " D ".

One Plan of the 50 ton proposed mill to treat gold ores from the upper levels.

Enclosing in this letter----Copy of Wilmot report on the Argonaut. Mr. Wilmot, was owner and operator of the Bonanza quicksilver mine at Southerlin, Oregon. He also opened the Balorne gold mine, in B. C.

Yours very truly,

John Arthur

John. Arthur.

Baker, Oregon
June 15, 1951

Mr. A. E. Weissenborn
Executive Officer, DMA
So. 157 Howard St.
Spokane 8, Washington

Subject - DMA - 1484 X

Dear Mr. Weissenborn:

Your letter of June 7th has been received, and the following may cover the information you require. We are also enclosing such maps as we have on the Argonaut Mine, also engineers' report.

THE APPLICANT

QUESTIONS

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Should a government examining engineer be sent to give our property an inspection, the best time would be after July 15th, as we will go up soon to see that the tunnels are open.

Very truly yours

ARGONAUT MINE, Oregon, Ltd.

By John Arthur Mgr.

John Arthur
P.O. Box 207
Baker, Oregon

JA/fmcc

Baker, Oregon
June 15, 1951

Mr. A. E. Weissenborn
Executive Officer, DMA
No. 157 Howard St.
Spokane 8, Washington

Subject: DMA-1484/X

Dear Mr. Weissenborn:

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Very truly yours

ARGONAUT MINE, Oregon, Ltd.

By John Arthur Mgr.

John Arthur
P.O. Box 207
Baker, Oregon

JA/fmcc

Baker, Oregon
June 15, 1951

Mr. A. E. Weissenborn
Executive Officer, DMA
SO. 157 Howard St.
Spokane 8, Washington

Subject- DMA-1424 X

Dear Mr. Weissenborn:

Your letter of June 7th has been received, and the following may cover the information you require. We are also enclosing such maps as we have on the Argonaut Mine, also engineers' report.

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Very truly yours

ARGONAUT MINE, Oregon, Ltd.

By John Arthur Mgr.

John Arthur
P.O. Box 207
Baker, Oregon

JA/fmcc

FILE COPY
SURNAME:

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

June 7, 1951

Mr. John Arthur
Argonaut Mine, Oreg. Ltd.
P. O. Box 207
Baker, Oregon

Subject: DMA-1484X
Re: Exploration Loan
The Argonaut Mine

My dear Mr. Arthur:

Receipt is acknowledged of your application and attachments of May 29, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1484X and was referred to Mr. Otto Herres, Chief, Lead-Zinc Branch on June 6, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1484X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

LFSTROBEL*js
cc: Strobel-2
>Files
Herres
Lyon

dma-1484 X

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

No. 157 Howard Street
Spokane, Washington

May 31, 1951

Mr. L. F. Strobel
Executive Secretary
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Strobel:

Enclosed herewith are three copies of an application on Form MF-103, submitted by Argonaut Mine Oregon Limited, P. O. Box 207, Baker, Oregon.

I note that although the applicant tells quite clearly what he intends to do, he has not provided all the information that would be required for the negotiation of the contract. Therefore, I am holding the fourth copy of Form MF-103 here and we will attempt to get additional information from the applicant.

Sincerely yours,

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

Enclosures

cc: W. S. Vogin

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma-1484X

Date received 6/4/51

Participation

Argonaut Mine, Greg. Ltd.
P. O. Box 207,
Baker, Oregon.

Name and address of applicant

Date May 29th, 1951

FILL IN THIS BLOCK

Date of application May 29th, 1951

Estimated cost

Mineral or metal Lead, Zinc and some copper. Also contains gold values

Percentage of Government participation

Location of mine Bourne District
Baker County, Oregon.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? Partnership
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
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NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

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16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

*11. State the present and former names of the property, if any.
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*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
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    (*a*) If mine is in production, furnish the following information:

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	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
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    (*c*) Give estimated tonnage and grade of each class of ore reserves.
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THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
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23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
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24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

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.

Argonaut Mine, Oreg. Ltd.
(Name of company)

By John A. Arthur
(Signature of authorized official)

Baker, Oregon. May 29th, 1951
(Date)

Manager
(Title)

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

*Same as footnote on page 1.

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

May 29, 1951
Baker, Oregon

Mr. A. E. Weissenborn
Executive Officer, DMA
So. 157 Howard Street
Spokane 8, Washington

Dear Mr. Weissenborn:

Thank you for your letter, and forms, of May 15, and giving what information we have that we think should be ample to warrant an inspection of our property by the examining engineers.

THE APPLICANT

QUESTIONS

1. Limited partnership.

2. Col. Harold Reigelman, 420 Lexington Ave., New York 17, New York.

   Lt. Col. Frank M. Arthur, 5809 15th St. North, Arlington, Virginia.

4. Col. Riegelman has no mining experience. Lt. Col. Frank M. Arthur has some practical knowledge of mining. John Arthur, manager and agent of the Argonaut Mine, has had 55 years' experience in mining, metallurgy, mill construction, etc. Address P.O. Box 207, Baker, Oregon.

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Very truly yours

ARGONAUT MINE, OREGON LTD.

By John Arthur
John Arthur, Mgr.

Defense Minerals Administration
Reference Slip

Date 6/6

To: 1. Hemer

2.

3.

4.

DMA 1484X

For Action ✓
Reply
Information
Remarks:

Sender LANDON F. STROBEL
6/6

3
Mr. Strobel DMA 1484X

Forwarded to

Branch

Date

Sender

2
Mr. Strobel DMA 1484X

Forwarded to

Branch

Date

Sender

dma-1484X

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
So. 157 Howard Street
Spokane, Washington

May 31, 1951

Mr. L. F. Strobel
Executive Secretary
Defense Minerals Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Strobel:

Enclosed herewith are three copies of an application on Form MF-103, submitted by Argonaut Mine Oregon Limited, P. O. Box 207, Baker, Oregon.

I note that although the applicant tells quite clearly what he intends to do, he has not provided all the information that would be required for the negotiation of the contract. Therefore, I am holding the fourth copy of Form MF-103 here and we will attempt to get additional information from the applicant.

Sincerely yours,

A. E. Weissenborn

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

Enclosures

cc: M. E. Volin

JUN 7 1951

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Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma-1484X

Date received 6/4/51

Participation

Argonaut Mine, Oreg. Ltd.
P. O. Box 207,
Baker, Oregon.

Name and address of applicant

Date May 29th, 1951

FILL IN THIS BLOCK

Date of application May 29th, 1951

Estimated cost

Mineral or metal Lead, Zinc and some copper. Also contains gold values

Percentage of Government participation

Location of mine Bourne District
Baker County, Oregon.

Date of filing MF-100

DMA Docket Number, if available

INSTRUCTIONS

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16—64067-1

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Argonaut Mine, Oreg. Ltd.
(Name of company)

By John A. Stam
(Signature of authorized official)

Baker, Oregon. May 29th, 1981
(Date)

Manager
(Title)

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By John Arthur
John Arthur, Mgr.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma-1484X

Date received 6/4/51

Participation

Argonant Mine, Oreg. Ltd.
P. O. Box 207,
Baker, Oregon.

Name and address of applicant

Date May 29th, 1951

FILL IN THIS BLOCK

Date of application May 29th, 1951

Estimated cost

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Percentage of Government participation

Location of mine Bourne District
Baker County, Oregon.

Date of filing MF-100

DMA Docket Number, if available

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THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

Not operating. Only assessment work which was done last fall for this year.

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

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.

Argonaut Mine, Oreg. Ltd.
(Name of company)

By John Williams
(Signature of authorized official)

Baker, Oregon. May 29th, 1951
(Date)

Manager
(Title)

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

*Same as footnote on page 1.

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

May 29, 1951
Baker, Oregon

Mr. A. E. Weissenborn
Executive Officer, DMA
So. 157 Howard Street
Spokane 8, Washington

Dear Mr. Weissenborn:

Thank you for your letter, and forms, of May 15, and giving what information we have that we think should be ample to warrant an inspection of our property by the examining engineers.

THE APPLICANT

QUESTIONS

1. Limited partnership.

2. Col. Harold Reigelman, 420 Lexington Ave., New York 17, New York.

   Lt. Col. Frank M. Arthur, 5809 15th St. North, Arlington, Virginia.

4. Col. Riegelman has no mining experience. Lt. Col. Frank M. Arthur has some practical knowledge of mining. John Arthur, manager and agent of the Argonaut Mine, has had 55 years' experience in mining, metallurgy, mill construction, etc. Address P.O. Box 207, Baker, Oregon.

5. The Argonaut Mine, Oregon Ltd. partnership is lessee of the property, and is now negotiating for an extension sufficiently long to cover any loan, should a loan be granted. There are no encumbrances against the property.

9. Partnership funds, practically exhausted however, have equipment to possibly cover the applicant's part.

10. The Argonaut property consists of a group of 21 quartz mining claims. Surveyed but not patented. Situated in the Bourne district, about two miles westerly from the Cracker Creek Mines, Baker County, Oregon. Elevation 7000 ft.

12. The nearest railroad point is Baker. To get to the mine, it is 29 miles to Sumpter, a small supply village connected with Baker by a highway which is partially oiled, and partially gravel. Then from Sumpter to the mine is 12 miles N. Westerly on a good mountain road.

13. There is ample water at all seasons for all purposes. The main electric line is within one mile. There is a 22000 volt line extended to the mine. Former power charges were about $75.00 per H.P. per year. In our small operations we used a portable 220 C.F. compressor, which is equipped to be operated by gasoline, or by electric motor.

14. The camp has bunkhouse, boarding house, office building, storehouse, shops, etc., to accommodate about twenty laborers. Have some air drills and tools.

15. It was planned to ship the better grade of ore, and mill the lower grade. Concentrates and ore would be shipped to Tacoma, Washington, or Salt Lake City, Utah.

16. The property was located about 15 years ago. Some locations and prospecting, however, were done about 60 years ago. No production was known to be had at this early date. During the past 15 years some crude ore, mostly from development, was shipped to Tacoma, Washington. Smelter returns were around $25,000.00 after railroad freight and smelting deductions. The values were in gold. The government closing of gold mines, and then high costs, prevented gold mines from operating at a profit.

18. Former reports give about one million dollars in $20.00 per ton gold ore, estimated.

20. The property was opened as a gold mine. The gold is in the upper, or overlying slates. The underlying formation is grano-dioryte, and it is nearer this lower formation that the lead, zinc, and some copper comes in. The work is not sufficient to know just how much of those needed metals might be opened, but the evidences are that lead, zinc and copper could be proven in the underlying formation in paying quantities.

21. Continue the drift in the upper tunnel to endeavor to open another ore shoot, as the deeper part of the ore body passed, begins to show encouraging amounts of zinc blend. A line of springs along the strike of the vein further in the hill indicates another ore body, and at a further distance on the strike, some large float is found. My belief is that by extending the tunnel into the hill another 100 feet would encounter ore with an increase of zinc. There are also good gold values which would aid in paying the cost of producing zinc or lead.

OTHER DEVELOPMENT RECOMMENDED - Drive the prospect drift on the lower tunnel another 150 feet further in the hill to get by an intrusion cutting the vein off, and into the hill. Heavy streaks of lead and zinc up to where cut off. The tunnel is about 300 feet vertical from the surface at this point. The evidences are that a gold ore body coming down, and the lead, etc., is coming up from the underlying formation. Ores mined would have good gold values to help pay recovery of metals required. Some copper begins to show in the gold vein at this point.

THE ANTIMONY VEIN - the old works are caved, but the dumps show some stibnite. A sample of the better pieces gave 44.3% antimony. Also $8.60 in gold, as the vein matter is quartz. There is no road to the workings, and a few days' dozing for half a mile could make a truck road. Opening the caved short tunnel, and a possible 200 feet of slightly deeper tunnel, might open the property sufficient to show the width and grade of ore. A dozer to uncover the vein further up the hill might prove length of ore for some distance.

Some diamond drilling in the lower tunnel might prove further depth of ore, when more drifting is done.

We think a loan of about $50,000.00 would be required to do the work mentioned, and possibly be able to ship some ore from development work.

We have about 80% of a 50 ton daily mill formerly purchased to operate on gold ores, if costs had permitted. Part of the mill grading is done. Much of the lumber is bought for mill construction. The mill could be increased in capacity by crushing the ore finer before going to the ball mill. Of course, selective flotation would be needed for the ores milled to separate the various metals.

We have maps and reports, but these are on the gold upper levels. The lead, zinc and copper were not found in the lower level at the time reports were made.

The foregoing is just a plain statement as to these needed metals. You have geological reports in Washington by Lindgren and others which cover this district, and the Argonaut is only two air miles westerly from the largest producers of this district.

Very truly yours

ARGONAUT MINE, OREGON LTD.

By John Arthur
John Arthur, Mgr.

R E P O R T

on the

ARGONAUT MINE

Baker Co., Oregon

ORDER: To determine:

First: Whether the geology and mineralization is right for making a mine.

Second: By check sampling, whether the present workings ore in volume and value.

Third: The best plan for the further development of the mine and the preliminary costs.

Fourth: The treatment method best suited to this ore and the probable cost of the plant.

Fifth: The "Ore Reasonably Assured" - the probable profit to be won from this, and the future possibilities.

Sixth: Money required and chances for success.

CONCLUSIONS:

First: The geology and mineralization are favorable for making a mine. The chances for success are 9 out of 10, which, as a mining venture, is a very favorable hazard.

Second: Although the ore is not blocked, therefore positive, check sampling confirmed the values; this, together with the favorable geology, permits of an estimate of the "Ore Reasonably Assured".

Third: Mill to be located on or about the 7500 foot center. From the mill head a Main Working Adit driven to the veins, from this raise out to the surface a Working Raise, from this drive intermediates at 100 foot intervals.

Fourth: Until tests are completed, final decision in abeyance, probable method; wash ore, fines to flotation; coarse grind to gravity concentration and fines to flotation; combine concentrates roast and cyanide.

Probable cost of mill, $60,000.00.

Fifth: Ore Reasonably Assured - 63000 tons, averaging $22.10.

Estimated Profit - assuming ore can be treated as outlined, $13.00 a ton.

After taxes, it is reasonable to assume a net profit of at least $10.00, or a total of $630,000.00

Future possibilities, four more veins unexplored of which three in appearance equal the surface showings of No. 1 Vein, with greater backs.

Sixth: Money required until on production, $110,000.00. Chances for return of money plus a profit 90 out of 100.

LOCATION:

The Group consists of twelve quartz claims, held by location; situate in Quartz Basin Cracker Creek District, eleven miles from Sumpter and forty from Baker, the county seat and trade center.

CONDITIONS are favorable. The location is in an old mining district where labor is obtainable at $4.50 for machine men and $4.00 for muckers. Water for camp and mill purposes plentiful, and mine timber abundant in the vicinity. The electric power line is about 3/4 of a mile from the proposed mill site. Roads are good from Baker to Fruit Creek. It will be necessary to improve five miles from below the Columbia Mine up Fruit Creek to the new site. Climate excellent, elevation 7500 to 8000 feet, all year round operation possible after established regardless of snow, from December until May.

GENERAL GEOLOGY OF DISTRICT is an old one in which there are several mines which were producers many years ago. The four principals, from north to south, are the North Pole, B. & B., Columbia, and Golconda; these are now under option to a company starting to reopen them. In general, the host-rock is argillite with igneous intrusives off from an underlying granitic batholith.

In the "Gold Belt of the Blue Mts. of Oregon", U.S.G.S. publication 1001, page 216, Waldemar Lindgren's opinion, quote - Regarding the permanency of the veins there are very good reasons for believing that the strong well defined veins upon which most of the important mines are located will continue to the greatest depths yet attained in gold mining. The North Pole has been opened by tunnels to 1000 feet or more below the crop lines; the Columbia by a 500 feet shaft to a point 1000 feet below the highest croppings on the same claim. The total vertical distance between the highest workings in the North Pole mine and the lowest in the Columbia mine is at least 1700 feet, and on the deepest levels the ore continues of the same grade as nearer the surface. Unquote.

Since this bulletin was written the Columbia has been deepened to the 500 foot level and good ore found at that depth, and as well as the B. & B. The difference in elevation from the top outcrop on the North Pole to the bottom of the Columbia workings now approximates 3000 feet.

Apparently, the reasons for closing down these mines were: First, the inability to make a satisfactory recovery, which was 50% to 73%; especially after reaching the primary ore, a refractory type which did not respond to concentration and cyanidation as practiced at that time; second, in some instances management; and third, economic conditions such as poor, etc.

SUMMARY.

This Group is near the northern boundary of the Cracker Creek District about 2½ miles northwesterly from the North Pole - Golconda lode. On strike and dip the Argonaut veins parallel this lode, with the exception of the Tunnel Vein.

The geology is practically the same, a black argillite country rock, usually massive, but in spots schistose, with igneous intrusions from the granitic batholith. The latter are responsible for the ore bodies. Post-mineral faults have displaced the veins on strike by minor left throws and shearings have caused movements within the veins both on strike and dip.

So far as known, there are five veins striking N 30° to 50° E, and dipping 45° to 50° southeasterly, and one striking N 70° to 80° E with southerly dip of 60° to 65°.

The mineralization is a very fine grained pyrite and arsenopyrite with which the gold seems to be associated in very minute particles, as very little free gold is present. Possibly some of the gold occurs as tellurides.

It is probable the oxidized zone will not extend much below 100 feet from the surface and primary ore, of the same character as now exposed in adit, will continue to greater depths. The mineralization of the several veins is similar.

SAMPLING.

Due to close timbering and loose ground, it was difficult to check at many places where mine samples were taken. Also floor samples could not be taken in several sections as the high grade ore was near the hanging wall under or behind the timbers. In all, 68 samples were taken; of these, 61 were for ore value and 27 character samples of vein filling, mineralized country rock and specimen ore; two of the latter assayed $89.00 and $277.80.

Comparison	Mine	Checks
No. of samples	100	61
Average dollar-inch value	$84.10	$20.00
Average width inches	41.	34.

NOTE: When check sampling, it was not always possible to sample the full width nor the same cross-section of vein. Owners cuts were measured more or less horizontally across veins instead of at right angles to the dip, which explains the difference in widths.

A composite made from the rejects, after the assay cuts had been taken, and sent to the Pan American Engineering Co. for testing purposes, assayed $21.00, a very close check on the arithmetical average of $20.00

NOTE: It may be of interest to mention returns from the 3 cars of ore shipped which show the character.

Weight lbs.	Gold	Silver	Silica	Iron	Arsenic
91404	1.00 oz	.35 oz.			6.29
70255	1.00	.34	64.0	6.0	3.77
102000	1.00	.21	64.0	0.1	4.17

DEVELOPMENT.

This is by a drift adit on the 7000 contour. It follows the vein for over 900 feet in a direction S 70° to 80° W. At a point 400 feet from the portal a cross-cut was driven northwesterly to the No. 1 vein and a drift continued for 470 feet to a fault, at which point a cross cut was started to intersect No. 2 vein; this is now in 120 feet with 100 feet to go.

On investigation, the fault was found to have a left throw of 50 feet, drag ore indicated the location, the sampling crew drifted 5 feet with hand steel and proved the continuation as shown on sample plan.

The present adit taps the ore-shoots 100 to 300 feet below the outcrops.

FUTURE DEVELOPMENT.

It is always desirable to locate the working adit at the lowest point possible for efficient operation and also to have the mill-head at the same elevation. From observations, a suitable site can probably be had on about the 7200 feet contour or 300 feet lower than the present adit. A survey will be necessary to determine the best point. From this adit, all the veins can be easily explored by crosscuts and drifts. A working raise to the surface with intermediate levels at 100 feet intervals will block the ore for mining. Such a plan will give blocks of 400 feet vertical on the Samuel vein to 1000 feet on the most westerly or No. 3 Vein.

The length of proposed adit to intersect No. 1 Vein will probably be 1500 to 1600 feet, depending on how far vein extends southwesterly.

The costs should not exceed $35,000.00 for equipment and driving. The completion of this work to synchronize with the mill construction. Production to start on ore from development through the new adit and stopes off the present adit, latter ore being trucked to the mill until working raise and adit completed.

MILLING.

Four preliminary tests have been made by the Pan American Engineering Co.

First: On crude ore ground to minus 100 mesh and cyanided 36 hours. Recovery 5%.

Second: Crude ore ground to minus 10 mesh and roasted, calcine reground to minus 200 mesh and cyanided. Recovery 88.7%.

Third: Minus 10 mesh ground to minus 100 jigged and floated. Recovery 80.04%.

Fourth: Minus 20 mesh tabled, tailings reground to 100 mesh and floated. Recovery 94%.

MILLING (contd.)

It is planned to continue this by combining the gravity concentrates with the flotation product, roast and cyanide. Also more refinements will be tried to the end that a higher percentage of concentration be effected. This method should result in a recovery of 92 to 94% and a saving of $20.00 a ton on the crude ore over the cost of shipping concentrates to a smelter.

Cost of Plant.

As the Palm Creek mill has been purchased, it will only be necessary to buy concentrating tables, small regrind ball mill, roasting furnace and cyanide equipment.

Estimated cost to move and reconstruct mill	$20,000.00
New Equipment and installation	30,000.00
Total	$50,000.00

ORE RESERVES.

As the ore is only shown by several open cuts on the surface and underground by the adit and one raise, it cannot be considered as Positive. On account of the favorable geology, it is classified as:

Reasonably Assured.

Vein	Shoots		Tons		Values
Tunnel No. 1	A-B-C D		15000)	Mine Sampling	$ 34.10
			24000)	Check Sampling	20.50
		Total	39000	Average	27.30
		Dilution 10%	3900	Minus 10%	2.73
		Total	42900	Average	$ 30.10

Total Value: $1,291,290.00

NOTES:

The mine sampled horizontally; check sampling at right angles to dip-correction made.

Breaks in veins were not included in width of shoots on the strike.

Lengths of ore-shoots were taken on the dip and not vertically; 100 feet being allowed below the adit as reasonably assured.

The minable area of the shoots has been taken as 80%, thus allowing 20% loss due to shearing.

Also 10% dilution has been allowed, with tonnage increased proportionately and values reduced to accord.

Estimated Profit			Basis - Per Ton Crude Ore
Average Mode - 100 tons a day			$ 22.10
Milling - concentration		$1.00	
Shipping 10 tons concentrates		.40	
Repairs and operating		.82	
General Expense		.56	
		$2.78	
Losses 10% allowed		0.00	
Total Milling		$2.80	
Mine Development	$1.00		
Stoping (Selective)	1.00		
Trucking	.20		
General Expense	.15	2.20	
Net operating before taxes			7.10
Operating profit before taxes			$ 15.00

Note:

Without knowing more about the flow-sheet, it is difficult to estimate the milling costs and milling losses. The above should approximate the actual. In any event, the margin is so wide that returns will be sufficient to repay the investment plus a good profit from ore now "In Sight".

Possibilities:

On the Tunnel and No. 1 veins, only 100 feet have been allowed below the adit, while the indications are for the ore to continue to greater depths. Both faces are in ore.

After the new lower adit cuts No. 1 Vein, by continuing the crosscut 1500 feet farther, Veins Nos. 2-3-4 will be intersected. Three thousand feet of drifting on the five veins should easily double or treble the present Reserves. Veins 2-3-4 have attractive surface croppings comparable with those of No. 1. It is reasonable to assume that the underground developments will prove up a larger tonnage.

RECOMMENDATION.

For the further development and bringing to production on a 100 tons daily capacity:

Complete treatment tests for Flow-Sheet.

Arrange for Electric Power.

Reconnaissance Road.

Install Dale Creek Compressor, drive proposed Adit.

Move, install, adding additional equipment required, Dale Creek Mill.

Synchronize mine development, as much as possible, with mill construction. Production starting on ore from development, plus ore mined through Tunnel Adit until connections made with Lower Adit.

Plan: milling by August 1939.

Respectfully Submitted,

(signed)

M. C. Wilmot, E.M.