DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4187

Application (Denied ✓
(~~Withdrawn~~
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

Left Side

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
✓Application and attachments
(3) Envelope for maps

Right Side

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
✓On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

Left Side

Folder No. 2: (In chron. order)
Interim Summary Reports by W. O. Engineers

Right Side

Operator's Semi-Annual Report for Certified Project, Field Team Interim Reports, Operator's Monthly Report with transmittal, narrative, maps, and Field Team review.

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

9779

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

RECEIVED
FEB 23 1956

February 17, 1956

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

Re: New application (Tungsten)
Elmer Enderlin
Empire Vein (Black Rock Claims)
Custer County, Idaho

Dear Mr. Selfridge:

Enclosed are the original and two copies of an application received from Elmer Enderlin of Clayton, Idaho.

Mr. Weissenborn mapped this property in 1949 and there is considerable information in the files. We will await a referral from Washington, however, before an analysis of the application is undertaken.

Sincerely yours,

Wing G. Agnew

Wing G. Agnew
Acting Executive Officer, DMEA
Field Team, Region I, NW Dist.

Enclosure

cc: USBM (2)
Nickelson

RECEIVED

FEB 23 1956

Clayton, Idaho
Feb.6, 1956

Mr. A.E. Weissenborn,
DMEA Feild Team,
So. 157 Howard St.
Spokane, Washington.

Dear Mr. Weissenborn;

Enclosed application for DMEA loan on my Washington Basin Property although I realize I should have had it in some time ago but have been pretty busy here on my contract for The Salmon River Scheelite.

I beleive I have gave you all the needed information in this application and am sending one assay sheet along with it as that is all that I have at this time but you have far more information on this property than I have as I only staked it last Fall.

I would like to have this contract on a unit cost of $34.50 per ft. if possible for 500 ft. of drift and we could follow the ore that is showing on your maps in the main tunnel.

As you know this property could only be developed in the summer months so am asking for a two year project as working up in that altitude of 9000 ft. in the winter time on a limited scale would be too expensive for all concerned.

I would not expect to even get up there until July 1 st. at the earliest and possibly the 15 th. but beleive I can complete the 500 ft. of drift in two seasons.

I will likely be here at Clayton until about June but will let you know if and when I move but leave Stanley, Idaho as address on contract.

Sincerely Yours,

Elmer Enderlin

Elmer Enderlin
Clayton, Idaho

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
FEB 23 1956

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

FEB 8 1956
U. S. G. S.
SPOKANE, WASH.

Not to be filled in by applicant

Docket No. DMEA-4187
Metal or Mineral Tungsten
Date Received 2-23-56
Estimated Cost $ no amount given
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Elmer Enderlin
Stanley, Idaho

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known. The Empire Vein (Geo. Blackman property)

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owner

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

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

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

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

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

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

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

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

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

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. 200 ft. of Crib on vein to be sunk [illegible]

(*c*) The work will start within 60 days and be completed within 24 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☑ Money ☑ Use of equipment owned by you ☑ Other Labor

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Feb. 6, 1956

Elmer Anderson
(Applicant)

By Elmer Anderson

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

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

Ans.to
Form MF-103 Description of Property

4. (a) There are approximately 1000 ft. of drifts and cross-cuts on this propertywhich are in fair condition but will need some repairing and cleaning up. The USGS Office in Spokane, Washington has a complete set of maps of both the surface and under-ground.

(b) I do not beleive there has ever been any commercial amount of ore shipped from this property although there is considerable tungsten ore showing in drift.

(c) The outcropping is a strong iron vein comonly known as the Empire Vein.Am sending a sample sheet which was taken last Fall by Alfred E. Nugent of the Bunker-Hill & Sullivan Mining & Cons. Co.

(d) This would be a seasonal project only due to an altitude of 9000 ft. so I would expect to work from about July 1 st. to about Nov. 1st. depending on weather conditions.

The present road would serve the purpose of this project.

The Rail-road is at Ketchum, Idaho about 70 miles south of property with about 16 miles of Forest Service road from claims to Hi-way 93 which leads to Ketchum.

(e) Man-power is plentiful, Materials, Supplies and equipment will be available.

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FEB 23 1956

Water is plentiful.

I expect to use gasoline power.

5. The Exploration project- Tungsten

(d) The operator has had over 20 years experience in under-ground mining and has completed a DMEA (zinc) project Docket no.2213 as of Sept.30 th. 1955 on Meadow View Group of claims near Stanley, Idaho.

6. (e) Buildings are in need of considerable repair but Operator agrees to do this at his own expense.

(f) If we need any new buildings Operator will will stand this expense.

I expect to furnish my share of expenses with money, machinery and my own Labor.

Elmer Enderlin

Elmer Enderlin

Owner

Estimate of costs of project

4 miners at $16.25 per shift = $65. average 5 ft. per day

Labor ----	$13. per ft.
Explosives	4.00
Gas & oil	5.00
Track -------	2.00
pipe -----	1.00
steel & bits	4.00
Depreciation & repairs on equipment----------	4.00
Workmens Compensation	1.00
Timber for ties & timber where needed---	2.00
Total-----	$34.00

List of machinery to be furnished by operator-

1- 160 CF Le Roi air compressor- (portable)
1- I-R 48 Rock-drill (stoper)
1- I-R 38 Air-leg Rock-drill
1- I-R JA 55 Jack-hammer with air-leg
1- GD9 Gardner-Denver mucking machine
2- mine cars
100 ft. 1 inch air hose
100 ft. 1/2 inch water hose
1- 1 1/2 ton International truck
1- 3/4 ton International 4 wheel drive pick-up truck (new)
1- 1000 watt light plant
1- 5000 watt generator with gasoline engine to run fan if needed
Complete set of small tools and camp out-fit for project.

Elmer Enderlin

Elmer Enderlin

Owner

Legal description of Black Rock Mining Claims

Washington Basin, East Fork Mining District.
Recorded at Challis, Custer County, Idaho

Black Rock no. 1 --- Book 15 ---------- Page 51
Black Rock no. 2 --- Book 15 ---------- Page 51
Black Rock no. 3 --- Book 15 ---------- Page 52
Black Rock no. 4 ----Book 15 ---------- Page 53
Black Rock no. 5 ----Book 15 ---------- Page 54
Black Rock no. 6 ----Book 15 ---------- Page 54

Sections - 26&27

Twp. 8 N.R. 15 E.B.M.

Elmer Enderlin
Stanley, Idaho

BUNKER HILL AND SULLIVAN MINING AND CONCENTRATING COMPANY

RECEIVED
FEB 23 1956

August 31, 1955

TO: Mr. Al Nugent Plant

BLACK ROCK

GENTLEMEN: Below, please find our results on the following controls.

OUR LOT	LEAD %	SILVER OZ.	ZINC %	COPPER %	IRON %	~~ZINC~~ Fe_2O_3 %	INSOL. %	GOLD OZ.
Black Rock #1	0	0.3	0			0		0.005
#2	0.06	0.32	0			0		0.005
#3	0.37	3.4	0			0.06		0.02
#4	0.62	2.9	0			0.06		0.04
#5	1.22	4.5	0			0.11		0.01
#6	0.84	2.8	0			0.06		0.01
#7	0	0.56	0			0.11		0.05
#8	0	0.54	0			0.25		0.12
#9	0	0.4	0			0		0.13
B.R. #10	4.80	13.4	6.0			0		0.08
#11	1.04	6.5	0			0		0.01
#12	0	0	0			0		0.01
#13	0	0.14	0			0		0.01
#14	0	0	0			0.53		trace
#15	0	1.34	0			0		trace
#16	0	0.10	0			0		0.02

(See attached sheet for illegible pencil notations.)

BUNKER HILL & SULLIVAN M. & C. COMPANY

PER F.H. Laskey

Location of Samples

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FEB 23 1933

#1	Vein near west end lake.
#2	Big Gossan vein; cut - south end Big Gossan.
#3	" ; arsenopyrite from winze.
#4	" ; iron oxide bottom of winze.
#5	" ; 20 ft. winze.
#6	" ; pieces from second tunnel dump.
#7	" ; pieces from lowest tunnel dump.
#8	" ; winze at mill.
#9	Tunnel at mill. Tunnel at mill.
#10	Black Rock West vein; lowest tunnel dump.
#11	" ; 6 ft. vein in tunnel.
#12	Black Rock Empire vein; 44 ft. on W. side of big cut.
#13	" ; 21 ft. on E. side of big cut.
#14	" ; 53 ft. big cut above road.
#15	" ; 16 ft. cut old workings.
#16	Black Rock East vein; ore pieces in bin.

DMEA Form 7
(12-56)

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Date	Surname	Code
10/2	[illegible]	500
10/4	[illegible]	130
	[illegible]	
	Williams	
	Johnson	110
	Mittendorf	100
10/7	B	220
		225

Mr. Elmer Enderlin

Stanley, Idaho

OCT 4 1957

Re: Docket No. DMEA-4187 (Lead)
Elmer Enderlin
Black Rock, et al Claims
Custer County, Idaho

Dear Mr. Enderlin:

Your application for aid for an exploration project and other reports available to us in Washington concerning your application have been reviewed.

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

Careful study of all our information, although noting a small amount of lead-antimony mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JWAlt/er 10/2/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region I, (2)
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10/2/57	[illegible]	
10/7	B	220
		225

October 2, 1957

Memorandum

To: The Administrator

From: Director, Division of Base Metals

Subject: Denial of Application, Docket No. DMEA-4187
Elmer Enderlin, Black Rock, et al Claims (Lead).

The cited application, dated February 6, 1956, was referred to this Division by the Director, Division of Iron and Ferro-Alloys on June 5, 1957. On June 24, the application was referred to the Field Team for further consideration and additional sampling. It was left to their judgment whether it was worth while to re-examine the property.

On July 30, 1957, the Field Team, accompanied by Mr. Elmer Enderlin, examined the Yacamellia vein system. At the conclusion of the examination, Mr. Enderlin expressed discouragement at the narrowness, discontinuity, and generally low-grade appearance of the vein. The Field Team report was received by this office on September 20, 1957.

The Field Team took eight samples, the best of which assayed 12.0 ounces silver per ton, 5.7 per cent lead, trace copper, 2.95 per cent antimony, nil tungsten, and 0.005 per cent selenium over a width of 1.2 feet. Another sample, which was taken only 50' away, assayed 0.15 ounce silver, 0.15 per cent lead, trace copper, 0.25 per cent antimony, nil tungsten and nil selenium over a width of 1.4 feet. This variation in grade within such a short interval on a single vein shows that there seems to be little continuity in the individual exposures. The other six samples prove this point as they are all of a very low grade.

The Field Team conclude that the veins are not sufficiently wide, continuous, or sufficiently well mineralized to justify Government supported exploration, and recommend that the application be denied.

We concur with the recommendations of the Field Team and the commodity members of the USGS and USBM that the application for Government exploration assistance be denied.

J. W. Alt

for W. R. Griswold

JWAlt/er
Copy to: Docket
Admr R File
Chron.

8623

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

September 20, 1957

Re: DMEA 4187; Lead
Elmer Enderlin
Black Rock, et al claims
Custer County, Idaho

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, USBM

Subject: Field team report of 9/12/57 on re-examination of Yacamella vein

The Yacamella vein system occurs in a northeasterly fracture zone and in places contains quartz lenses, and pods of pyrite and jamesonite. The mineralized sections lack continuity, average less than 12 inches in width and are generally of low grade.

The examiners, E. W. Parsons (USBM) and D. C. Alvord (USGS) and the field team concluded that the veins exposed at various points along 800 feet of strike did not warrant a DMEA program.

I concur with their conclusions, and recommend denial of the application.

O. M. Bishop

O. M. Bishop

Copy to: Division of Minerals
Mr. Kiilsgaard
Mr. Lamb
Mr. Bishop
Files

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DMEA
RECEIVED SEP 20 1957

DATE	INITIALS	CODE
9-20	C	220
9/20	Jwa	500

IN REPLY REFER TO: ...

OFFICIAL FILE COPY
DMEA
RECEIVED SEP 20 1957

DATE	INITIALS	CODE
9/20	B	220
9/20	Jwa	500

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

September 19, 1957
Re: DMEA 4187
Elmer Enderlin
Black Rock, etc. claims
Custer County, Idaho
Tungsten-lead-zinc

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of supplementary report concerning Yacamella veins.

In an examiners' report, the geologist and engineer disagreed as to whether or not work on the Yacamella veins is warranted.

Following a re-examination by the same engineer and a different geologist, the examiners conclude..."the veins are not sufficiently well mineralized to justify Government supported exploration and recommend that the application be denied."

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

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

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DMEA
RECEIVED SEP 16 1957

DATE	INITIALS	CODE
9-16	C	220
		130
9-23	C	220
9/23	Jwa	500

September 12, 1957

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

Re: Docket No. DMEA-4187 (Lead)
Elmer Enderlin
Black Rock, et al claims
Custer County, Idaho

ON-SITE REPORT.

Dear Mr. Selfridge:

Enclosed are three copies of a memorandum report on the subject property by E. W. Parsons, Mining Engineer, U. S. Bureau of mines, and D. C. Alvord, Geologist, U. S. Geological Survey, in which the authors describe a re-examination of the Yacamella vein.

Eight samples were taken the best of which, EWP20, assayed 12.0 ounces silver per ton, 5.7 percent lead, trace copper, 2.95 percent antimony, nil tungsten, and 0.005 percent selenium over a width of 1.2 feet. Sample EWP19, which was taken from the same vein only 50 feet away, assayed 0.15 ounce silver, 0.15 percent lead, trace copper, 0.25 percent antimony, nil tungsten and nil selenium over a width of 1.4 feet. This variation in grade within such a short interval on a single vein supports the examiners' statement that there seems to be little continuity in the individual exposures. With lenses and pods of heavy sulfides occurring in the surface outcrops, the chance of finding enriched bodies of any size seems remote.

Parsons and Alvord conclude that the veins are not sufficiently wide, continuous, or well mineralized to justify Government supported exploration, and recommend that the application be denied.

We concur with the conclusions and recommendations of the examiners.

By Field Team, Region I

D R MacLaren
D. R. MacLaren, Alternate
Acting Executive Officer
U. S. Geological Survey

Thomas E Howard
Thomas E. Howard, Acting Member
U. S. Bureau of Mines

Enclosures

cc: USBM (2) USGS(SRO)
USBM (AD) Alvord

Reviewed by
DMEA OPERATING COMMITTEE
9-20-57
(date)

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DMEA
RECEIVED SEP 16 1957

DATE	INITIALS	CODE
		1302
		220

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

September 10, 1957

MEMORANDUM

To: DMEA Field Team, Region I

From: E. W. Parsons, Mining Engineer, U. S. Bureau of Mines, and D. C. Alvord, Geologist, U. S. Geological Survey.

Subject: Re-examination of Yacamella vein, Black Rock claims, Washington Basin, Custer County, Idaho (Elmer Enderlin), Docket No. DMEA-4187 (Lead-Tungsten-Antimony).

DMEA(3)

The Yacamella vein system in the Black Rock group of claims, Washington Basin, Custer County, Idaho was re-examined on July 30, 1957, by the authors and G. G. Waddell, Mining Engineer, U. S. Bureau of Mines, accompanied by S. J. Kung, Mining Engineer, Taiwan, Nationalist China, and Elmer Enderlin, applicant. The group arrived on the property about 10:30 a. m. and left about 7:30 p. m., travel time from U. S. Highway 93 requiring 2 hours each way. A number of the pits and the only known underground working on the vein system were blocked by snow drifts at the time of the first examination in July 1956.

The Yacamella vein system lies along a northwest trending fracture system which in places contains quartz stringers or veins, quartz with lenses or pods of heavy sulphides consisting of pyrite and jamesonite, quartz-goethite-jarosite gossans, and zones of silicified country rock. Only a few of the exposures contain jamesonite. There seems to be little continuity in the individual exposures, the widest of which was about 2 feet and the average width being less than 12 inches. There are possibly 20 pits and adits along approximately 800 feet of strike, most of which were made while prospecting for gold. The only underground working, in front of the old assay office, contains roughly 300 feet of drifts, cross-cuts, and raises and very small stopes. Practically no quartz or sulphides were found in these workings though the surface exposure contains some quartz. At the northeastern end of the vein, the dip changes from southeast to northwest and the vein disappears under a thick talus. The difference in altitude of exposures properly belonging to the Yacamella vein is more than 50 feet.

Reviewed by
DMEA OPERATING COMMITTEE
9-20-57
(date)

Seven samples were cut or taken from different exposures, none of which appeared to contain sufficient values to warrant exploration.

The samples were assayed with results as follows:

Sample no.	Width (ft.)	Ag (oz./ton)	Lead (%)	Cu (%)	Sb (%)	WO_3 (%)	Se (%)
EWP-19	1.4	0.15	0.15	Tr	0.25	None	None
20	1.2	12.0	5.7	Tr	2.95	do	0.005
21	Grab	5.5	1.1	Tr	0.63	do	0.008
22	2.0	3.2	1.1	Tr	0.60	do	0.009
23	1.2	Tr	Tr	Tr	0.20	do	None
24	1.3	Tr	0.0	Tr	0.10	do	Tr
25	12.0*	Tr	0.0	Tr	0.52	do	0.008
GGW-26	2.4	2.1	1.05	Tr	0.82	do	0.010

*Taken along strike.

Assays of two samples, taken at the time of the first examination, are:

Sample no.	Width (ft.)	Ag (oz./ton)	Lead (%)	Cu (%)	Sb (%)	WO_3 (%)	Au (%)	Co (%)	Bi (%)
420C	4.0	5.9	1.3	--	0.40	0.02	Tr	Tr	--
421C	Grab	22.6	5.1	0.07	2.09	--	0.100	Tr	0.06

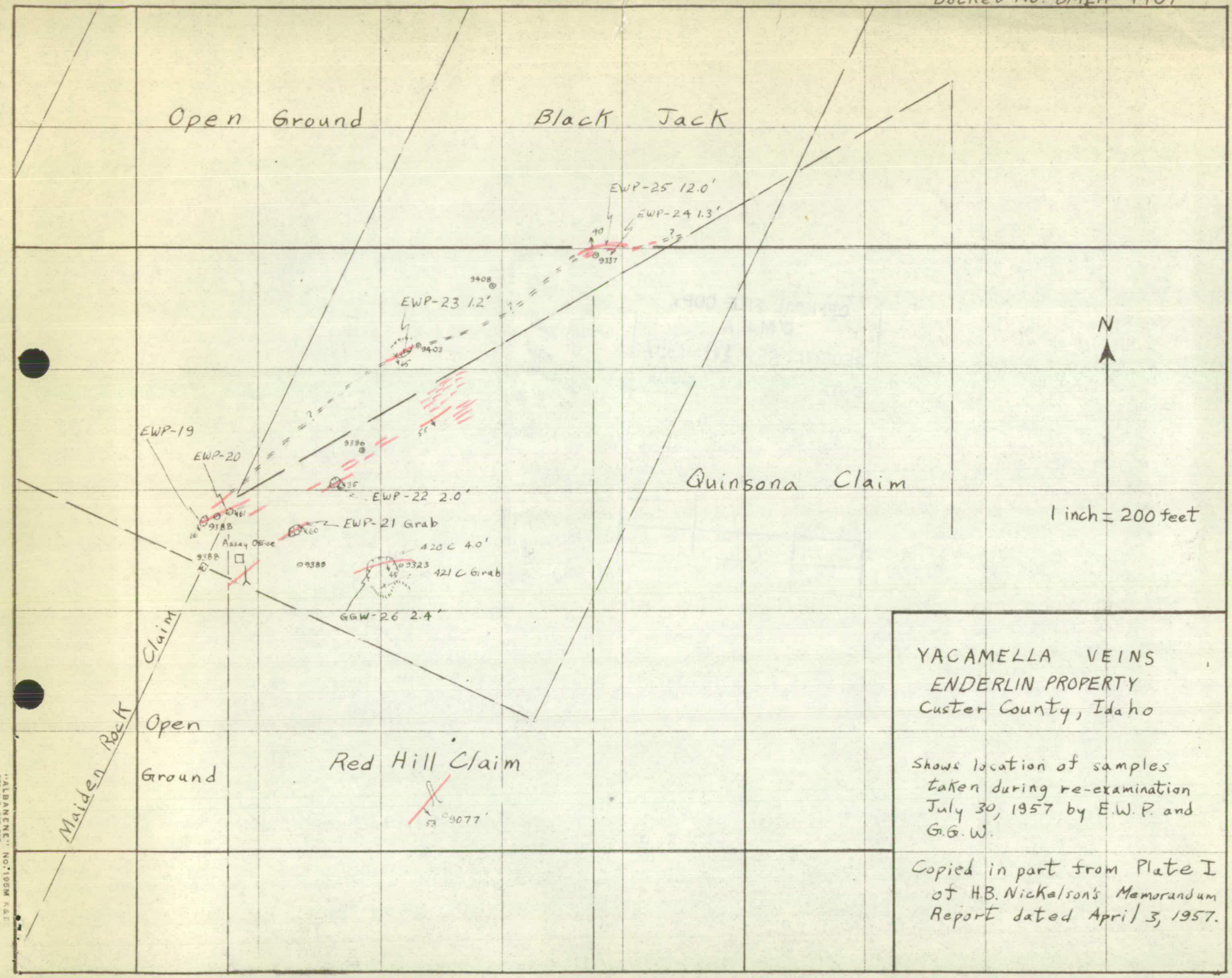
At the conclusion of the examination, Mr. Enderlin expressed discouragement at the narrowness, discontinuity, and generally low-grade appearance of the vein.

The examiners conclude that the veins are not sufficiently wide, continuous, or sufficiently well mineralized to justify Government supported exploration, and recommend that the application be denied.

Distribution:
- DMEA (3)
- USBM (5)
- Alvord
- USGS(SRO)
- Docket

Attachment 1

Docket No. DMEA-4187



YACAMELLA VEINS
ENDERLIN PROPERTY
Custer County, Idaho

Shows location of samples taken during re-examination July 30, 1957 by E.W.P. and G.G.W.

Copied in part from Plate I of H.B. Nickelson's Memorandum Report dated April 3, 1957.

"ALBANENE" NO. 190SM K&E REG. U.S. PAT. OFF.

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DMEA
RECEIVED SEP 16 1957

DATE	INITIALS	CODE

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

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DMEA
RECEIVED JUL 5 1957

DATE	INITIALS	CODE
7/5	C	220
7/5	alb.	500

July 2, 1957

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

Re: Docket No. DMEA-4187 (Lead)
Elmer Enderlin
Black Rock, et al. claims
Custer County, Idaho

Dear Mr. Selfridge:

This is in reply to your letter of June 24, 1957, regarding the above-referenced application.

After reviewing the report by Parsons and Nickelson, the comments on the property by Weissenborn which accompanied the Field Team letter transmitting the report, and the comments by N. E. Nelson and O. M. Bishop which accompanied your letter, we feel that, in fairness to the property, a re-examination of the series of Yacamella veins should be made. The re-examination will be limited to sampling as many vein exposures within the Yacamella series as practicable and sufficient additional mapping to indicate the locations at which samples are taken, and the thickness, altitude, and description of the veins at each location.

It will be the latter part of this month before we will have field men in that area as they are now making examinations in Oregon and Montana. In the meantime we will advise Mr. Enderlin of the pending re-examination and the need for additional sample data.

If the results of the sampling are sufficiently encouraging to recommend a program, we will include in our report the maps requested in your letter, and will then advise Mr. Enderlin to obtain the ground between the Red Hill claim and the Maiden Rock claim and the ground between the Black Rock No. 2 claim and the Black Jack claim.

By Field Team, Region I, NW Dist.

Donald R. MacLaren

Donald R. MacLaren
Alternate Acting Exec. Officer
U. S. Geological Survey

S. W. Zoldok

S. W. Zoldok, Acting Member
U. S. Bureau of Mines

cc: USBM (2)
Nickelson

P. S. In view of the foregoing, returned herewith are the original and two copies of the denial letter sent to us with your letter of June 24, 1957. We were to mail it on in the event we considered it appropriate to do so.

[illegible] Fort Hays
[illegible] Applicant in the event
the Dally Claim to allow the application
to pre-empt. of the premises.
On July 7, this letter and papers were
returned to this office.

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
6/21	[illegible]	500
	[illegible]	500
6/21	[illegible]	130
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JUN 24 1957

Mr. Elmer Enderlin

Stanley, Idaho

Re: Docket No. 4187 (Lead)
Elmer Enderlin
Black Rock, et al, Claims
Custer County, Idaho

Dear Mr. Enderlin:

Your application for aid for an exploration project and other reports available to us in Washington concerning your application have been reviewed.

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

Careful study of all our information, although noting a small amount of lead-antimony mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JWAlt/er 6/21/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region I, NW Dist. (2)
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
5/17	[illegible]	500
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6/17	[illegible]	130
4/17	[illegible]	130
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		225
		500

Mr. Elmer Enderlin

Stanley, Idaho

Re: Docket No. DMEA-4187 (Lead)
Elmer Enderlin
Black Rock, et al, Claims
Custer County, Idaho

Dear Mr. Enderlin:

Your application for Government assistance to explore the Yacamella veins of the above-mentioned property has been referred by the Division of Base Metals of the Defense Mineral Exploration Administration to:

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

If additional information concerning your application is needed, the Field Team will get in touch with you at an early date.

Sincerely yours,

Administrator

JWAlter 6/17/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region I, NW Dist. (2)
Chron.

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DMEA Form 7
(12-56)

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Date	Surname	Code
6/21	[illegible]	500
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JUN 24 1957

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

Re: Docket No. DMEA-4187 (Lead)
Elmer Enderlin
Black Rock, et al, Claims
Custer County, Idaho

Dear Mr. Weissenborn:

This is with reference to your letter dated May 8, 1957, with special reference to the Yacamella veins. We echo your sentiments when you state: "I wish that a little more time had been spent in sampling and that more samples had been taken." Actually, the three samples presented are of dubious value; oxide samples of base metal veins are always questionable and samples from a small pile of selected ore are likewise of no great significance.

The map submitted (Plate I) indicates that various places should be available for assay of sulphide vein material. Likewise H. B. Nickelson states: ". . . most of the pits and short adits on the vein show jamesonite and other sulfide minerals . . ."

At present, we have no strong convictions, one way or the other, regarding proposed work in the Yacamella area. Certainly, the fact that the ore mineral is jamesonite is a definitely unfavorable factor; ordinarily concentrates of such ore must accept heavy penalties at the smelter, unless special sales contracts can be made with plants which require antimonial lead. Nevertheless, we hestitate to deny the application when our background data are so inadequate.

8623

We shall, therefore, leave it to your good judgment as to whether you feel it worth while to re-examine the proerty, with an attempt at more comprehensive sampling. If such is your feeling, we shall hold the application in abeyance until we hear further from you. If, on the other hand, you consider the project to be on the dubious side, you may forward the enclosed letter of denial to the Applicant.

In the event that you should consider the application favorably, we will need to know the location of the work, recommended costs, etc. Howard B. Nickelson recommends "an alternative program comprising 600 feet of crosscutting and drifting."

Also, the Applicant should be requested to obtain the ground between the Red Hill claim and the Maiden Rock claim and also that piece of a ground between the Black Rock No. 2 claim and the Black Jack claim. We believe that these should be included in an exploration project of the Yacamella veins. We would appreciate receiving a property map showing the proposed work. This map should be of a size which can be attached to the copies of a contract if one is granted.

Copies of memoranda dated May 24 and June 12, 1957, by N. E. Nelson, Geological Survey, and O. M. Bishop, Bureau of Mines, respectively, relating to the project, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JWB)
J.W. ALT/er 6/21/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

Enclosures

APPROVED:

Frank D. Lamb (JWB)
Member, Bureau of Mines

N. E. Nelson (JWB)
Member, Geological Survey

DMEA Form 7
(12-56)

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

Re: Docket No. DMEA-4187 (Lead)
Elmer Enderlin
Black Rock, et al, Claims
Custer County, Idaho

Dear Mr. Weissenborn:

We are referring the cited application to your office for supplemental information. Howard B. Nickelson recommends "an alternative program comprising 600 feet of crosscutting and drifting" but we have no information as to the location of such work, recommended costs, etc.

The Applicant should be requested to obtain the ground between the Red Hill claim and the Maiden Rock claim and also that piece of ground between the Black Rock No. 2 claim and the Black Jack claim. We believe that these should be included in an exploration project of the Yacamella veins. We would appreciate receiving a property map showing the proposed work. This map should be of a size which can be attached to the copies of a contract if one is granted.

Copies of memoranda dated May 24 and June 12, 1957, by N. B. Nelson, Geological Survey, and O. M. Bishop, Bureau of Mines, respectively, relating to the project are enclosed for your information.

Sincerely yours,

Enclosures
APPROVED:

Member, Bureau of Mines

Member, Geological Survey

Chairman, Operating Committee
JWAlt/er 6/17/57
Copy to: Docket
Admr R File
Op. Committee
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

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DMEA
ENTERED JUN 18 1957
E. W. S. CODE

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

6/12	JWS	220
6/13	all	500

6/14

June 12, 1957

Re: DMEA 4187; Lead-WO_3;
$17,250
Black Rock, et al claims
Washington Basin
Custer County, Idaho

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, USBM

Subject: Review of Application and of Field Review

The applicant (2/6/56) on the basis of 4 vein outcrops and more than 1,000 feet of underground workings proposed 500 feet of drifting on the Empire vein in Washington Basin, Custer County, Idaho, about 70 miles from the railway at an elevation of about 9,000 feet.

Field examiners E. W. Parsons (USBM) and Howard B. Nickelson (USGS) visited the property studied the geologic setting, observed outcrops, took samples, reviewed earlier works, and agreed that the Empire, Washington, Reconstruction and Margie Bell (Last Resort) veins do not warrant exploration under the DMEA program for either tungsten, or lead or a combination of these metals with attendant accessory minerals.

With relation to a fourth vein, the Yacamella, Parsons reported there was inadequate evidence to warrant exploration but Nickelson on the basis of sporadic galena and jamesonite mineralization along a 1200-foot strike length recommends 550 to 650 feet of cross-cutting and drifting.

On the basis of the examination and sampling todate I am of the opinion that the Yacamella vein does not warrant the work proposed by Nickelson. The vein appears similar to the Margie Bell, Empire, and Reconstruction veins in strike, dip, wall rock types, and metallization. On the basis of original prospecting when the outcrops were fresh the Yacamella vein was by-passed for exploration in favor of the other veins. In no case did the exploration along the several thousand feet of combined outcrop and in the more than

1,000 feet of underground work find a significant ore shoot. As Parson says, "when outcrops over long distances and at considerable differences in elevation have been prospected.....and fail to reveal enrichments" further similar work seems to be wildcatting.

I recommend that the project be denied without prejudice. If additional outcrop or other work should demonstrate some continuity of worthwhile mineralization I would favor DMEA participation in exploration.

O. M. Bishop

O. M. Bishop

cc: Division of Minerals
Mr. Kiilsgaard
Mr. Lamb
Mr. Bishop
Files

OFFICIAL FILE COPY

Date	Surname	Code
6-5	Chapman	400
6-5	Martin	400
6/5		200
		500

June 5, 1957

MEMORANDUM

To: Allen S. Dakan, Director, Division of Operations Control and Statistics, DMEA

From: Division Iron and Ferro-Alloys

Subject: Transfer of Docket to Division of Base Metals
Docket No. DMEA 4187 - Tungsten
Elmer Enderlin
Black Rock claims
Custer County, Idaho

Reference is made to letters of A. E. Weissenborn, dated May 8 and 9, 1957, and memorandum of Howard B. Nicholson, Geological Survey, dated April 3, 1957, recommending a modified exploration program on the Yacamella vein for lead and other base metals.

In accordance with the letters and memorandum mentioned above and recommendations of May 22 and 24, 1957, respectively, from the Commodity Divisions of the Bureau of Mines and Geological Survey, please transfer the cited docket to the Division of Base Metals.

W S Martin
W. S. Martin, Director
Division of Iron and Ferro-Alloys

TLChapman:foc
6-5-57
cc to: Docket
Code 400
Admr. R. File
Mr. Dakan

8623

IN REPLY REFER TO:

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 27 1957

DATE	INITIALS	CODE
5/27	C	220
5/27	WSM	400

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

May 24, 1957
Re: DMEA 4187
Elmer Enderlin
Black Rock, etc. claims
Custer County, Idaho
$17,000 - Tungsten

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report

The applicant requested assistance in exploring the Empire, tungsten-bearing vein by crosscutting and drifting. The Washington Basin, the site of the Empire vein is traversed by several other veins and the report of the examiners includes reports on the Empire, Washington, Margie Bell, Reconstruction and Yacamella veins, all quartz-sulfide veins in quartz diorite.

The examiners and the Field Team agree that no work should be done on veins other than those of the Yacamella system. The geologist examiner believes work is warranted on the Yacamella veins and the Executive Officer is in limited but not enthusiastic agreement. The engineer examiner disagrees, and in support of his opinion quotes the assays of 3 samples, one of which, 421 C, a grab of an ore pile shows ore-grade material as:-

Sample Nos.	Type	Width	Au	Ag	Pb	WO_3	Sb	Co	Description
			oz.	oz.	%				
420 C	Cut	4.0'	Tr	5.9	1.3	0.02	0.4	Tr	Sulfide
421 C	Grab	--	0.1	22.6	5.1	0.07	2.09	Tr	" Ou pile
422 C	Cut	4.0	Tr	0.1	Nil	--	Tr	--	Oxide

The geologist examiner says samples 420 C and 422 C represent semi-oxidized vein matter and probably do not represent average vein material. Sample 421 C represents sorted material from a short adit and 420 C is from the vein at the portal of the adit. Sample 422 C is from a vein in a cut on the side hill not related to the other vein.

Numerous other showings were mapped and high grade jamesonite float was noted in several places, but no other samples were taken.

In the opinion of the geologist examiner, the scattered Yacamella showings are worth some systematic underground work and he recommends that a crosscut 200-250 feet long be driven across the vein

zone and 350-400 feet of drifting be done. No estimate of the cost is furnished.

In my opinion, another examination of the Yacamella veins should be made before a work program is approved. However, if the data at hand are deemed sufficient and a satisfactory program can be set up, I recommend that such be done.

N. E. Nelson

N. E. Nelson

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DMEA
RECEIVED MAY 23 1957

DATE	INITIALS	CODE
5/23	C	220
5/23	WSM	400

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

May 22, 1957

Memorandum

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Acting Chief, Branch of Ferrous Metals and Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Docket No. DMEA 4187
Elmer Enderlin
Black Rock et al Claims
Custer County, Idaho

A question exists as to the probability of making a significant tungsten discovery. Valuable associated minerals, by increasing the likelihood of developing an economic tungsten operation, should be a favorable factor in considering the proposal. Samples of the outcrops however appear to be either low in tungsten, contradictory or inconclusive.

In view of the divergent recommendations of the Field Team I would favor a two stage exploration contract. The first stage would be for no more than a few thousand dollars and would consist of a program of sampling or preparation for sampling of the various outcrops. If such a program is considered unfeasable I would favor denial of the application.

R W Holliday
R. W. Holliday

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

EXTRA COPY
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RECEIVED 13

DATE	INITIALS	CODE

May 8, 1957

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

Re: Docket No. DMEA-4187 (Tungsten)
Elmer Enderlin
Black Rock et al. claims
Custer County, Idaho

Dear Mr. Selfridge:

In attempting to reach a decision on the Black Rock property of Elmer Enderlin in Washington Basin, I have reviewed carefully the divergent reports of Parsons and Nickelson. I am, of course, influenced by the fact that I am, to some degree, familiar with the property having looked at it on two occasions in 1946. This was a long time ago but my memory has been refreshed by maps I made of the property and by two brief memorandums which I prepared following my visits to Washington Basin.

Washington Basin is an extremely interesting area in which numerous veins crop out. The property was first presented to the DMEA as a tungsten project, the target being the Empire vein. The Empire vein is a pyrrhotite-scheelite vein which can be traced along strike by a series of pits and discontinuous outcrops for 1,900 feet. In places it reaches a width of 40 feet. Samples taken on the surface and underground by T. M. Patten of the Snake River Gold Mining Company in 1946, on the surface by myself in 1946, and on the surface last year by Nugent of The Bunker Hill Company, all indicate an average of around 0.5 percent WO_3. I do not know why the samples taken by Parsons during the DMEA examination do not check the previous sampling. Ore of this grade could be of interest if in a continuous body but underground mapping of the Empire adit by me in 1946 showed that the ore lay in discontinuous masses along the Empire structure. This suggested that any proposal for exploration should be viewed with caution, and indicated the need for further investigation. Nickelson's and Parsons' examination revealed further evidence of discontinuity of the ore and this, together with the marginal grade for a vein deposit, and the present uncertain status of tungsten, justifies a refusal of DMEA participation in the proposed exploration. Should tungsten again

Reviewed by
DMEA OPERATING COMMITTEE
(date)

Reviewed by
DMEA OPERATING COMMITTEE
5/17/57
(date)

become in critically short supply the Empire structure might warrant further consideration.

I had hoped that the Washington vein, which outcrops as a strikingly prominent gossan in the southern part of the Basin, might be worth exploration. I did not have the opportunity of observing closely myself. However, examination showed that in spite of the heavy iron-staining, sulfide minerals are close to the surface. Pyrrhotite is the chief sulfide mineral and assays of specimens showed that the base metal content is very low. Agnew has pointed out that the base metal content might improve at depth and that two or three deep drill holes might be informative; however, deep drilling is beyond the present applicant's capacity and shallow exploration of the Washington vein cannot be recommended.

The Margie Belle and Reconstruction veins were inspected again by Nickelson and Parsons. The apparent low base metal content of these veins does not make them attractive for DMEA exploration.

The Yacamella veins can be traced in outcrops for 1,000 to 1,400 feet over a steep talus-covered hillside. There are at least two and possibly three veins 4-6 feet wide and probably other smaller veins and stringers. There are numerous exposures in old pits and in natural outcrops, but the outcrops are heavily oxidized and the exposures in the pits are poor. Because of these conditions, samples are not very informative. Parsons bases his recommendation for denial on the assays of three samples, one of which was taken from the oxidized portal of a caved adit, one from an open cut showing some sulfides, and one from a pile of sorted ore near an old pit. The first was nearly barren, the second showed only a small amount of lead and silver, the third assayed 22.6 ounces silver per ton, 5.1 percent lead and 2.09 percent antimony. A sample by the applicant from the same pile assayed 0.20 ounce gold and 72.5 ounces silver per ton, 13.6 percent lead and 6.48 percent antimony.

These assays viewed quantitatively are by no means impressive. I wish that a little more time had been spent in sampling and that more samples had been taken, but as Nickelson has pointed out, because of the sloughed condition of the pits and the oxidation of nearly all exposures, a fresh face for sampling is very nearly impossible to obtain without a good deal of work. Nevertheless, I do not think that the three samples taken are adequate to evaluate the property and I agree with Nickelson that the presence of two and possibly three veins 4-6 feet wide, the occurrence of jamesonite in almost every pit and its abundance in the float over the entire hillside, suggests that the Yacamella veins are worth some attention. There exists the possibility that the jamesonite may occur in rich but

small, irregular, lenticular masses, but there is also a chance for finding a fair amount of ore that is high enough in grade to permit shipping without concentration.

Perhaps this is an over-optimistic view as it judges the property on appearance rather than assays, but I am inclined to agree with Nickelson's oral statement that "you just can't walk away from this without doing some work on it." The Yacamella area is by no means the most promising prospect we have examined in the Northwest nor is it the worst. I would regard the showings as justifying the modest program suggested by Nickelson. There may be other ways of exploring the Yacamella veins; that proposed by Nickelson appears as effective as any other and is one that Enderlin could carry out.

Sincerely yours,

A. E. Weissenborn

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: USBM (2)
USGS (SRO)
Nickelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

So. 157 Howard Street
Spokane 4, Washington

May 9, 1957

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DMEA
RECEIVED MAY 13 1957

DATE	INITIALS	CODE
5-13	C	220
	esl	130
5/20	JAB	220
5/20	WSM	400

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

Re: Docket No. DMEA-4187 (tungsten)
Elmer Enderlin
Black Rock et al Claims
Custer County, Idaho

Dear Mr. Selfridge:

Enclosed are reports by E. W. Parsons, U. S. Bureau of Mines, and Howard B. Nickelson, U. S. Geological Survey, which present divergent recommendations concerning the Black Rock claims controlled by Elmer Enderlin in Washington Basin, Custer County, Idaho. Both examiners agree that DMEA support for exploration of the Empire, Washington, Reconstruction, or Margie Bell veins cannot be justified. Nickelson recommends a small amount of exploration on the Yacamella veins; Parsons maintains that these do not justify exploration either.

Agnew considers that Parsons has made an adequate presentation of the situation and does not feel that further comment on his part is required. Weissenborn, who has visited the property, has added some comments in support of Nickelson's recommendation.

By Field Team, Region I, NW Dist.

Reviewed by
DMEA OPERATING COMMITTEE
(date)

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

Enclosures

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

cc: USBM (2)
Nickelson
USGS (SRO)

Reviewed by
DMEA OPERATING COMMITTEE
9/17/57
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OFFICIAL FILE COPY
DMEA
RECEIVED MAY 13 1957

DATE	INITIALS	CODE

1201 N. Division St.
Spokane 2, Washington

April 19, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: E. W. Parsons, Mining Engineer, U. S. Bureau of Mines

Subject: Field examination report, Docket No. DMEA-4187 (tungsten) Elmer Enderlin, Black Rock et al Claims, Washington Basin, Custer County, Idaho

INTRODUCTION

An application to explore for tungsten on the Empire vein and Black Rock et al claims in the Washington Basin, Custer County, Idaho, was submitted on February 8, 1956, by Elmer Enderlin. An analysis of Enderlin's application was written by A. E. Weissenborn, Executive Officer, on March 29, 1956, who had previously examined the property. His recommendation was for denial but suggested that a revised proposal would receive consideration.

A field examination was made July 16-19, 1956 by E. W. Parsons, Mining Engineer, U. S. Bureau of Mines, H. B. Nickelson, Geologist, U. S. Geological Survey, Ceasr Ibanez, Point IV Geologist from the Philippines, and Elmer Enderlin and Henry Judd of Clayton, Idaho.

A transit-stadia survey was made to tie in the various workings and joined with previous sketch maps by Weissenborn and Vhay of the Geological Survey.

The examination and assay results indicated that: a diamond drilling program was not feasible; neither the Empire nor Washington veins were likely prospects for tungsten; the Margie Bell and Reconstruction veins gave no indications of favorable mineralization; and the mineralization in the Yacamella vein system is too scanty to merit exploration.

Reviewed by
DMEA OPERATING COMMITTEE
5/17/57
(date)

SUMMARY

Prospecting has been intermittently active in Washington Basin for over 60 years. Most of the work has been done on five veins, four of which strike roughly northeast and the other northwest. Early work was for gold and silver but copper, lead, zinc, antimony, bismuth, barite, and tungsten mineralization is also present. All exploration with the exception of assessment work stopped in 1946.

The Empire vein, generally thought to be the principal structure in the basin and to contain interesting tungsten mineralization, was found to be badly faulted, and the tungsten ore bodies are relatively small, irregular replacements.

The Washington vein was traced on the surface for approximately 1,200 feet and had an average width between 15 and 20 feet. Although gossan capping was noted the oxidation is shallow and sulphides were found very close to or on the surface. Lamping the surface at night showed a trace of tungsten mineralization on the southeastern part of the vein.

The Margie Bell and Reconstruction veins are essentially narrow quartz veins, partially honeycombed, with meager and spotty occurrences of sulphide minerals. Nothing was seen on the dumps and outcrops to indicate they were worth exploring.

The Yacamella vein system is composed of a number of roughly parallel stringers or veins. The structure of individual veins, in places, may have a width of 4 to 6 feet and may include an apparently highly mineralized band of quartz a few inches to 18 inches thick. The principal ore mineral has been identified as jamesonite but assay results indicate the lead and antimony content of the ore to be very low. Jamesonite mineralization can be seen in place and on dumps and in talus.

RECOMMENDATION

It is recommended that the application for exploration on the Black Rock group of claims located in the Washington Basin, Custer County, Idaho, be denied.

LOCATION AND ACCESSIBILITY

The property is in Washington Basin in unsurveyed T. 8 N., R. 15 E., B.M. (probably in secs. 22, 23, 26 and 27), Custer County, Idaho. The basin may be entered by road from Stanley by going south 24 miles on U. S. Highway 93 to Smiley Creek Lodge; thence 0.3 miles south and turn left on graveled county road up Pole Creek (changes to Forest Service Road) over low divide, and down Germania Creek, a distance of 12.7 miles; thence left on road starting up Washington Creek 4.5 miles to the property. The Forest Service road has been badly washed and there are many detours due to fallen trees. The road from Highway 93 is closed at least 6 months a year due to snow and receives little or no attention during the rest of the year. The elevation at the property is above 9,000 feet.

COMPETENCY OF APPLICANT

The applicant is a competent miner and has recently completed an exploration project (Docket No. DMEA-2213, Idm-E294) in a satisfactory manner. He reports that he is financially able to pay his share if a contract is granted.

PROPERTY RIGHTS

The applicant owns or has leased 13 unpatented lode claims which cover practically all the known veins in the Washington Basin and has agreed to stake other claims to cover open ground on vein outcrops. These claims are located on plate 1. The ownership of these claims, the Black Rock 1-9, Quinsona, Red Hill, Maiden Rock, and Anchor, is recorded in the Custer County Courthouse at Challis, Idaho.

DESCRIPTION OF THE PROPERTY

One of the old Blackman cabins on the property has been repaired and can be used to house a crew during the summer months. All of the veins contain a number of old workings, mostly adits, but there is evidence of shaft work as well as some raising or stoping and shallow pits and trenches. Practically all the surface work has sloughed or caved. Apparently some ore has been produced but there are no available records of shipments. The applicant reopened the Empire and Reconstruction adits in 1955. The Empire adit is described by Weissenborn in the report mentioned above. The Reconstruction adit consisted of a 200-foot crosscut and 250 feet of drift on the vein which was a narrow quartz stringer. No ore was encountered.

GEOLOGY

The geology has been covered in reports by Nickelson and Weissenborn.

PAST OPERATION

Empire Vein

The Empire vein contains the greatest footage of accessible underground workings on the property. It was mapped and sampled by Weissenborn and Vhay in November 1946 and there has been no change since that time. Surface pits and trenches, and one or more caved adits are found along the outcrop which is characterized by a heavy gossan. There is evidence of stoping in some of the pits. A number of faults cut the vein, in places causing a displacement of as much as 40 feet. Results of samples cut by Weissenborn and A. Nugent are to be found in reports by Weissenborn and Nickelson. Surface dumps were lamped at night and gave the impression that a good deal of fine scheelite was present. This impression was not borne out by 6 samples that were taken during the examination, the results of which are as follows:

No.	Type	Width	Au	Ag	Pb	Cu	WO_3	Sb	Co	
413C	cut	14.5'	Tr.	1.2 oz.	0.6%	0.1 %	0.1 %	0.11%	Tr.	Oxid.
414C	cut	12.5	Tr.	0.4	nil	0.8	0.21	0.7	Tr.	Ox. & Sul.
415C	cut	17.5	Tr.	0.1	nil	0.11	0.19	0.11	Tr.	Sul.
416C	grab	20.0	Tr.	0.1	nil	0.13	nil	Tr.	Tr.	Ox. & Sul.
417C	grab	42.0	Tr.	0.05	nil	0.11	nil	Tr.	Tr.	Ox. & Sul.
418C	chip		Tr.	0.05	nil		0.18	Tr.	Tr.	Sul.

Washington Vein

The Washington vein was traced on the surface for approximately 1,200 feet and had an average width of between 15 and 20 feet. Although a gossan capping was noted the oxidation was shallow and sulphides were found very close to or on the surface. Lamping the surface at night showed some tungsten mineralization on the southeastern extension of the vein. In a partially caved raise or shaft a sample of apparently high-grade heavy sulphide jamesonite ore (sample 424C) was cut 1.8 feet wide. Assay results were very low. An outcrop (sample 411C) near an old mill, previously thought to be part of the Washington vein, seems to be part of a different structure. This outcrop consists of a mass of pyrrhotite about 30 feet wide and of undetermined length. Sample results are as follows:

No.	Type	Width	Au	Ag	Pb	Cu	WO_3	Sb	Co	Bi	Description
409C	Grab		Tr.	0.1	nil	0.19	nil		Tr.		Sul. & Ox.
410C	Grab		0.02	8.9	2.1	0.07	nil	0.79	Tr.		Qtz. & Sul.
411C	Cut	17.0'	0.12	0.4	nil	0.26	nil	0.14	Tr.		Sul.
412C	Grab		0.10	0.5	nil	0.13	nil	0.11	Tr.		Sul. & Ox.
423C	Cut	13.5'	0.10	2.9	0.8		0.03	0.54	Tr.	0.01	Qtz. & Sul.
424C	Cut	1.8'	0.10	6.6	1.3		0.03	0.54	Tr.		Sul.
425C	Cut	8.0'	Tr.	4.6			nil		Tr.		Oxide

Margie Bell Vein

The Margie Bell vein, composed of quartz stringers and lenses in silicified wall rock, has an average strike of N. 40° E. and dips 45-60° SE. It can be traced more than 2,000 feet by a line of caved adits and prospect holes as well as gossan outcrops. The work was done for gold. A trace of jamesonite can be found on some of the dumps. No samples were taken during the examination as no significant ore mineralization was noted.

Reconstruction Vein

The Reconstruction vein strikes about N. 40° E. and dips about 45° SE. It is similar to the Margie Bell vein in size and mineral content. The Reconstruction adit was not accessible but the vein in the drift was reported by the applicant to be hardly more than a stringer and contained no ore. No samples were taken.

Yacamella Vein

The principal workings on the Yacamella vein consist of a caved adit which contains a raise on the vein that can be seen from an open cut on the hillside above the adit. The vein structure as seen and sampled in the open cut (420C) is about 4 feet wide and is composed of silicified wall rock with bands of quartz a few inches to 18 inches thick that in places has jamesonite mineralization. A chip sample, 421C, was taken from a pile of apparently high-grade heavy sulphide ore which had been hand-sorted. Assay results were so low that a check sample was run to verify the first assay. One other sample (422C) was taken from an adit portal on one of the Yacamella veins, and the results were practically negative. There are indications of jamesonite mineralization in other old cuts and on talus slopes but these indications are not of such magnitude as to create much interest. As a comparison, sample 424C from the Washington vein, appeared to be identical to the high-grade heavy sulphide material in sample 421C, but the assay results were even lower.

Assay results of samples from the Yacamella vein are as follows:

No.	Type	Width	Au	Ag	Pb	WO_3	Sb	Co	Description
420C	Cut	4.0'	Tr	5.9	1.3%	0.02%	0.4 %	Tr.	Sulphide
421C	Grab		0.1	22.6	5.1	0.07	2.09	Tr.	" ore pile
422C	Cut	4.0'	Tr	0.1	nil		Tr.		Oxide

PROPOSED EXPLORATION

In the original application the applicant proposed to rehabilitate old workings on the Empire vein and to advance faces by crosscutting and drifting a total of 500 feet to explore for tungsten. Weissenborn recommended this proposal be denied but suggested a different approach might receive consideration. At a conference between Survey personnel and the applicant, a drilling project was proposed which was to consist of approximately 2,000 feet of diamond drilling. After the examination and when all assay results were available, the drilling project did not appear to be feasible so a third proposal was formulated by the applicant and Survey personnel which would provide for 200 to 250 feet of crosscutting and 350 to 400 feet of drifting with about 40 hours of bulldozer work; this work to be done on the Yacamella vein system at a point roughly 150 feet lower than the open cut from which the samples 420C and 421C were taken.

This third proposal does not seem to be warranted from any exposures in the old workings, outcrops, or from the results of the samples taken. A grab sample taken by the applicant is reported to have assayed 0.20 oz. gold, 72.5 oz. silver, 13.6% lead, 6.48% antimony, and 0.03% copper, and to have been taken from the same pile as sample 421C which assayed considerably lower.

CONCLUSION

The many veins in the Washington Basin area included in this application have been quite thoroughly prospected in the past, mainly for gold. If any significant occurrences of base metals had been encountered, some evidence would be found in the cuts, outcrops, or dumps as they stand at present. Judged by samples taken by Weissenborn, Vhay, Nugent, the applicant, and the present examiners, not only has no significant discovery been made but no showing worthy of additional exploration is in evidence. When outcrops over long distances and at considerable differences in elevation have been prospected as they have been at this property, and fail to reveal enrichments of valuable minerals, a few drill holes or an adit driven practically at random would be little more than wildcat prospecting. Therefore, I recommend that the application be denied.

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ON-SITE Report

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UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

April 3, 1957

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: Howard B. Nickelson, Geologist, U. S. Geological Survey

Subject: Field Examination Report, Docket No. DMEA-4187 (Tungsten), Elmer Enderlin, Black Rock et al. claims, Washington Basin, Custer County, Idaho

INTRODUCTION

On February 8, 1956, Elmer Enderlin submitted an application for 500 feet of drifting to explore for tungsten on the Empire vein at the Black Rock et al. claims. On March 29, 1956, an analysis of Enderlin's application was written by A. E. Weissenborn, Executive Officer, who had previous knowledge of the property; he recommended that the application as presented be denied but stated that a revised proposal might merit consideration. Subsequently, Enderlin secured leases and staked additional claims covering the known veins in the Basin, and a tentative program consisting of about 2,000 feet of diamond drilling was discussed with him.

A field examination was made July 17 through July 19, 1956, by the writer, accompanied by E. W. Parsons, mining engineer of the Bureau of Mines, Cesar Ibanez, Point IV geologist from the Philippines, Elmer Enderlin, and Henry Judd of Clayton, Idaho.

The area was mapping by transit and stadia survey, and 17 samples were cut from the vein outcrops. Plate 1 was compiled from this survey and from previous work in the area by Weissenborn and J. S. Vhay of the Geological Survey.

The examination showed that the tentative diamond drilling program is not feasible, but it is believed that a modest crosscutting and drifting program on the Yacamella veins is merited.

Mr. Enderlin was advised of this and visited the office on April 2, 1957, to discuss an alternative program comprising 600 feet of crosscutting and drifting. He stated he would be willing to pursue such a program.

Reviewed by
DMEA OPERATING COMMITTEE
5/7/57
(Date)

SUMMARY

When the tentative drilling program was discussed with Enderlin, it was proposed to drill several holes across the Washington vein and one or two holes across the Empire vein, and possibly to test other favorable veins in the area. The Washington vein was especially interesting because it was known to have an exceptionally strong iron gossan. During the examination, it was found that this vein could be traced on the surface for approximately 1,200 feet and that the outcrop indicated an average width of 15-20 feet. However, examination of the vein showed that in spite of the conspicuous gossan, sulfides occur close to the surface. Assays of eight samples cut from the vein by the writer and of six samples cut by A. Nugent, The Bunker Hill Company geologist, show very low metal content. The vein is composed mainly of pyrrhotite and arsenopyrite; exploration on this vein cannot be justified. The Empire vein described by Weissenborn in his analysis report of March 29, 1956, was re-examined; surface faulting was found, as shown on plate 1, and six samples cut from the vein showed low tungsten values. Lamping the exposures indicated a higher grade, however, and a previous sample cut across a width of 53 feet by Nugent was reported to assay 0.53 percent WO_3. Nugent's assay is close to the assays obtained by Snake River Dredging Company who examined the mine some years ago.

The writer agrees with Weissenborn that the tungsten ore bodies are apt to be relatively small, irregular replacement bodies that would be expensive to find and to mine. Because of the low grade of the deposit and the uncertainty concerning the future price of tungsten, the applicant probably would be well advised to postpone exploration on the Empire vein.

Examination of the Margie Bell and Reconstruction veins showed them to be composed of quartz and spotty occurrences of sulfide minerals; these veins appear to be too low in base metal content for DMEA participation.

The Yacamella vein system, however, appears to merit a modest DMEA exploration program. Admittedly, not too much is known about the grade of the ore, but most of the pits and short adits on the vein show jamesonite and other sulfide minerals occurring as stringers and bunches on the veins. The Yacamella vein system is a mineralized zone consisting of three or more nearly parallel veins made up of quartz lenses and silicified country rock. The veins strike northeasterly along the brow of the ridge for about 500 feet and they are 10°-20° steeper than the hill slope. The width of almost all the veins is about 4-6 feet. The outcrops are oxidized and leached; consequently, samples representative of the actual metal content of the veins are difficult to secure. For that reason, little sampling has been done, but during the examination, two samples

were cut; one from a 4-foot partially oxidized vein assayed a trace gold and 5.9 ounces silver per ton, 1.3 percent lead and 0.4 percent antimony; the second sample chipped from a sulfide ore pile assayed 0.1 ounce gold and 22.5 ounces silver per ton, 5.1 percent lead and 2.09 percent antimony. Enderlin reported a sample chipped from a pile of ore that assayed 0.2 ounce gold and 72.5 ounces silver per ton, 13.6 percent lead and 6.48 percent antimony; this sample was cut at the same location as the above samples. At least two and possibly three veins could be cut by a 250-foot crosscut, at an altitude that will give 125-150 feet of depth along the dip of the veins.

RECOMMENDATION

It is recommended that a modified program to allow 600 feet of drifting and crosscutting on the Yacamella veins be approved.

PROPERTY RIGHTS

Mr. Enderlin owns or leases 14 unpatented claims which cover almost all the known veins in the Washington Basin area. These claims are approximately located as shown on plate 1.

The claims to be included in the proposed contract are the Quinsona, Red Hill, Maiden Rock and Black Jack claims. As noted on the map, a wedge of open ground exists between the Red Hill claim and the Maiden Rock claim; there is another piece of open ground of claim size that has not been staked between the Black Rock No. 2 claim and the Black Jack claim. Enderlin stated he would stake this ground as soon as he was able to get into the Basin. The granting of a contract should be contingent upon staking this ground. The ground that is to be included in the proposed contract is outlined in red on plate 1.

The claims pertinent to the proposed contract are recorded in the Custer County Courthouse at Challis, Idaho and the ownership of these claims is shown as follows:

Claim	Ownership	Book	Page
Quinsona	Tony S. & Madge E. Yacamella	13	48
Red Hill	do.	13	49
Maiden Rock	Fred & Rosa A. Gossi, Elmer Enderlin	15	100
Black Jack	Elmer Enderlin	15	271

The lease agreement between Tony Yacamella and Madge E. Yacamella and Elmer Enderlin on the Quinsona and Red Hill claims has been received, but no lease agreement for the Gossi's half interest in the Maiden Rock claim has been received. Mr. Enderlin stated he could obtain a lease for Gossi's half interest in this

claim. No Consent to Lien and Subordination Agreement form has been signed.

LOCATION AND ACCESSIBILITY

The property is in Washington Basin in unsurveyed T. 8 N., R. 16 E., B. M., Custer County, Idaho. Washington Basin is a glacial cirque east of Washington Peak and is about 7 miles airline east of Obsidian post office on U. S. Highway 93. Stanley, about 17 miles north of Obsidian, is the nearest town. The Basin may be reached from U. S. Highway 93 over a steep but fairly good Forest Service road that follows Pole Creek to its headwaters and continues down Germania Creek a short distance. From Germania Creek a very poor road traversable only by 4-wheel drive vehicles ascends the exceedingly steep ridge forming the divide between Germania and Washington Basisn, descends into Washington Basin, and ascends Washington Creek to the head of the Basin. The distance by road from Obsidian post office is about 25 miles, and the distance from Ketchum, Idaho, the nearest rail point, is about 60 miles.

The property is about 3 miles south of the Deer Trail mine (Docket No. DMEA-3664, Idm-E819) near the head of Fourth of July Creek from which it can be reached only by foot. The claims adjoin Enderlin's Meadow View claims (Docket No. DMEA-2213, Idm-E294) on the other side of the divide in the Fourth of July Creek drainage.

The property is at an altitude of approximately 9,200 feet and is inaccessible during the winter months.

COMPETENCY OF APPLICANT

The applicant, Elmer Enderlin, has recently completed an exploration project (Docket No. DMEA-2213) just to the north of Washington Basin; he is a competent miner entirely capable of conducting an operation of the scale proposed.

DESCRIPTION OF THE PROPERTY

The old Blackman cabin has been repaired and is suitable to house the crew during the summer months. The only workings in the proposed exploration area are numerous shallow pits, trenches and adits which are almost all sloughed or caved. Apparently some ore was produced from the veins, as there were indications of several small stopes holing the surface, but no record of shipments is available.

Enderlin opened the Empire and the Reconstruction adits last summer. The Reconstruction adit consists of a crosscut about 200 feet long and a drift about 250 feet long which followed a narrow quartz vein. No ore was encountered. The Empire adit is described by Weissenborn in his report of March 29, 1956.

GEOLOGY

The most recent summary of the regional geology of the area and the prospect is by C. P. Ross (Geology and Ore Deposits of the Bayhorse Region, Custer County, Idaho: U. S. Geol. Survey Bull. 877, 1937). An older description of the property is by J. B. Umpleby (Ore Deposits in the Sawtooth Quadrangle, Blaine and Custer Counties, Idaho: U. S. Geol. Survey Bull. 580, p. 244-246, 1915). The property has also been described by A. E. Weissenborn in a preliminary report for this docket, much of which is copied here.

As shown on the map accompanying Ross' report (scale 1:125,000), to the east of Stanley Basin there is a 4- to 6-mile wide north-trending belt of Paleozoic sediments that extends from Pole Creek on the south about 22 miles due north almost to the Salmon River. This belt of sediments forms a great roof pendant which is bounded by intrusive igneous rocks of the Idaho batholith and by Tertiary extrusive rocks. The ore deposits of the area are largely confined to these Paleozoic sediments or to the intrusive rocks near the sedimentary contact.

As shown on Ross' areal map (pl. 1 of U. S. Geol. Survey Bull. 877) of the prospect area, Wood River formation (Pennsylvanian) sediments have been intruded by a small quartz diorite pluton. Surface reconnaissance work at the property seemed to confirm this interpretation, but underground work shows that both diorite and quartz monzonite are present and that replacement ore deposits are confined to contacts of the diorite with the Wood River formation (pl. 1 of this memorandum). Vein deposits cut all these rock types.

The Wood River formation in the mine area is made up of massive quartzite with some argillite layers. In the few places where the bedding is distinct enough to be recognizable, the beds appear to dip to the southwest at moderate angles.

Dark fine-grained diorite and light-colored, coarse-grained quartz monzonite porphyry intrude the quartzite. The quartz monzonite is similar to the quartz monzonite that forms a large part of the Idaho batholith. Quartz monzonite dikes cut the diorite south of the property.

Five strong north- to northeast-trending veins or zones are traceable on the surface by outcrops, pits, trenches and caved workings, and are described as follows:

Washington vein.--The Washington vein, also known as the Big Gossan vein, forms a prominent gossan with abundant limonite and much jarosite and other sulphates. This vein, striking about N. 35° W. and dipping 45°-50° SW., can be traced along the surface for approximately 1,200 feet. The vein lies within the granitic rocks. Outcrops suggest that the vein averages about 20 feet in width and the northwest end of the vein terminates at the contact with the sedimentary rocks.

Despite the prominent gossan oxidation is shallow and sulfide minerals are found nearly at the surface. Pyrrhotite and arsenopyrite are apparently the main mineral constituents; assay and spectrographic analysis of samples cut from the veins indicate only minor amounts of base and precious metals. A specimen of joseite submitted by Martin Pollock in 1946 and identified by the U. S. Geological Survey is reported to have come from that vein (see Weissenborn's memorandum of March 29, 1956).

Assay returns from samples cut during the examination and those cut by Bunker Hill geologists follow. Spectrographic analysis of some of these samples is also attached.

Samples cut from Washington vein

Sample No.		Width	Gold oz./ton	Silver Oz./ton	Lead %	Copper %	WO_3 %	Antimony %	Zinc %	Location and Description
409C	Union	Grab	Tr	0.1	None	0.19	None	--	--	Sta. 14, sulfide and oxide.
410C	"	Grab	0.02	8.9	2.1	0.07	None	0.79	--	Sta. 20, quartz & sulfides.
412C	"	Grab	0.10	0.5	None	0.13	None	0.11	--	Sta. 31, oxide and sulfide.
423C	"	13.5'	0.10	2.9	0.8	--	0.03	0.54	--	Sta. 23, quartz & sulfides.
424C	"	1.8'	0.01	6.6	1.3	--	0.03	0.54	--	Sta. 20, sulfide.
425C	"	18.0'	Tr	4.6	--	--	None	--	--	Stas. 5 and 6, oxide.
423	USBM	--	--	--	0.86	--	--	0.65	--	
424	"	--	--	--	1.02	--	--	0.63	--	
2	Nugent	--	0.005	0.32	0.06	--	None	--	None	Cut at south end of vein.
3	"	--	0.02	3.4	0.87	--	0.06	--	None	Arsenopyrite from winze, probably at Sta. 20.
4	"	--	0.04	2.9	0.42	--	0.06	--	None	Probably at Sta. 20, iron oxide at the bottom of the winze.
5	"	20.0'	0.01	4.5	1.22	--	0.11	--	None	Probably at Sta. 20, winze.
6	"	--	0.01	2.8	0.64	--	0.06	--	None	Pieces from second tunnel dump.
7	"	--	0.05	0.56	None	--	0.11	--	None	Sta. 31, pieces from lower tunnel.

Note: The 400 series samples cut during the examination were assayed by Calera Mining Company for cobalt and they report a trace.

SPECTROGRAPHIC REPORT

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S-1

REPORT TO E.W. Parsons DATE 11-20-56 CHART OR PLATE NO. 1-211 REPORT NO. 242

	Lab No.	Sample Description
1	S-600	Black Rock Prospect 419C
2	S-601	" " " 418C
3	S-602	" " " 421C
4	S-603	" " " 423C
5	S-604	" " " 424C

Letters indicate estimates from qualitative analysis
A over 10%
B 5 to 10%
C 1 to 5%
D 0.1 to 1%
E 0.01 to 0.1%
F 0.001 to 0.01%
G under 0.001%
QR Quantitative values to be reported later
– not detected

	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg
1	F	C	D	–	F	E	F	F	C	–	D	F		E	A	E	–		
2	"	"	–	–	"	"	"	"	B	–	"	"		"	"	"	–		
3	E	"	D	–	D	"	G	D	F	–	E	"		"	"	"	–		
4	F	B	E	–	"	"	F	E	C	–	"	"		"	"	"	–		
5	E	C	D	–	E	"	G	F	F	–	"	"		F	"	"	–		

	In	Ir	K	Li	Mg	Mn	Mo	Na	Nb	Ni	Os	P	Pb	Pd	Pt	Rb	Re	Rh	Ru
1	E			–	C	D	E	D	–	E		–	–	–	–				
2	"			–	"	"	"	"	–	"		–	–	–	–				
3	"			–	D	"	"	"	–	"		–	B	–	–				
4	"			–	C	"	"	C	–	"		–	C	–	–				
5	"			–	D	"	"	E	–	"		–	C	–	–				

	S	Sb	Se	Si	Sn	Sr	Ta	Te	Ti	Tl	V	W	Zn	Zr	Sc	Y	La	Ce	Pr
1		–		A	–	–	–	–	D		E	–	E	E					
2		–		"	–	–	–	–	"		"	–	"	"					
3		C		"	E	–	–	–	"		"	–	"	"					
4		D		"	"	E	–	–	"		"	–	D	"					
5		"		"	"	–	–	–	E		"	–	E	"					

	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Th	U	U*			Density		

U* Radiometric Uranium Equivalent

Values reported as _____

D. N. Sumner

8

West of the Washington vein, a pit exposed a large mass of pyrrhotite approximately 30 feet wide and of undetermined length. Sample No. 411C, cut 17 feet across the outcrop, assayed 0.12 ounce gold and 0.4 ounce silver per ton, no lead, 0.26 percent copper, no tungsten, and 0.14 percent antimony. Nugent reports a sample cut from this deposit assayed 0.12 ounce gold and 0.54 ounce silver per ton, no lead, 0.25 percent tungsten, and no zinc.

The pyrrhotite mass appears to strike about west and to dip south. The intervening block of sedimentary rock between it and the Washington vein suggests that there is no connection between the two.

The samples cut from the two occurrences show that the precious and base metal content is too low in either to warrant exploration.

Empire vein.—The southern end of the Empire vein has been explored more thoroughly than any other vein in the Basin. Approximately 900 feet of workings have been mapped and sampled, as explained in Weissenborn's report of March 29, 1956. It is suggested that the readers refer to Weissenborn's report if information concerning the Empire vein is desired. However, a description of the work done during the writer's examination is presented.

The gossan on the Empire vein appears to be continuous along its strike for approximately 900 feet except that a fault offsets the vein about 40 feet to the west at Station 49. The large fault, which was located on the surface by a line of springs, corresponds to the Empire fault mapped in underground workings. This fault apparently cuts the heavy sulfide portion of the Empire vein, as north of this fault the vein is composed mainly of quartz or silicified granitic rock containing pyrite and minor amounts of other sulfide minerals.

The six samples cut from the Empire vein outcrop by the examiners and four samples reportedly cut by Nugent are listed below with their location and assay results:

Samples from the Empire vein outcrop

Sample No.	Sample length	Gold oz./ton	Silver oz./ton	Lead %	Copper %	VO_3 %	Antimony %	Zinc %	Location and Description
413C	14.5'	Trace	1.2	0.6	0.10	0.10	0.11	--	Sta. 38, channel.
414C	12.5'	Trace	0.4	None	0.08	0.21	0.07	--	Sta. 40, channel.
415C	17.5'	Trace	0.1	None	0.11	0.19	0.11	--	Sta. 39, channel.
416C	20.0'	Trace	0.1	None	0.13	None	Trace	--	Sta. 47, grab.
417C	42.0'	Trace	0.05	None	0.11	None	Trace	--	Sta. 45, grab.
418C	--	Trace	0.05	None	--	0.18	Trace	--	Sta. 50, chip sample from sulfide ore from the dump
12 Nugent	44.0'	0.01	None	None	--	None	--	None	Probably at Sta. 47 on west side of the big cut.
13 "	21.0'	0.01	0.14	None	--	None	--	None	On east side of the big cut, probably at Sta. 45.
14 "	53.0'	Trace	None	None	--	0.53	--	None	Stas. 39-40, cut above the road.
15 "	16.0'	Trace	1.34	None	--	None	--	None	Sta. 38, cut in the old workings.

Weissenborn reported that T. M. Patten of the Snake River Mining Company sampled along the replacement body exposed in the Empire adit and his samples yielded assays from 0.07 percent to 1.32 percent WO_3. The average of all the samples, weighted according to length, was 0.52 percent WO_3. The gold and silver content of these samples is reported to be too low to be of any importance.

The outcrops in trenches were lamped during the examination and in most cases the lamping estimate appeared higher than the assay returns.

Although the vein is large and continuous the tungsten ore bodies within the zone are believed to be relatively small and the over-all grade low. The examiners therefore do not recommend exploration of the Empire vein.

Margie Bell vein:--The Margie Bell vein strikes approximately N. 60°-65° E. and dips 45°-60° SE; it can be traced for approximately 2,000 feet on the surface by gossan outcrops and numerous prospect holes. The vein is composed of quartz lenses and silicified wall rock containing oxidized pyrite, while minor amounts of jamesonite can be found on some of the dumps. The vein was originally prospected primarily for gold.

Reconstruction vein.--The Reconstruction vein strikes N. 30°-50° E. and dips 40°-50° SE. The vein is very similar to the Margie Bell vein; and the base metal content appears low. Faults striking N. 70° E. are evident on the southern end of the vein.

Yacamella veins.--The Yacamella veins strike approximately N. 60° E. and dips from 40°-60° SE. Weissenborn believed they were controlled by the jointing in the quartz diorite. The jamesonite and other ore minerals are richest in the quartz lenses, but they can also be found in the silicified wall rock portion of the veins. The Yacamella vein system is composed of two main veins with numerous smaller parallel veins. This system covers an area approximately 1,200 feet long and 600 feet wide. The veins are composed of quartz, pyrite, and jamesonite, and occasionally some galena, gold and silver. The veins generally average about 4-6 feet in width. Outcrops are obscured by talus and by oxidation but rich masses of jamesonite can be picked up in the float. A description of the samples cut during the examination is as follows:

(1) Sample No. 420C, which was cut from a quartz vein across 4 feet, assayed trace of gold and 5.9 ounces silver per ton, 1.3 percent lead, 0.02 percent WO_3 and 0.40 percent antimony. This sample was composed mainly of quartz and approximately half of the sulfide minerals were oxidized. Some ore had apparently been hand cobbed from this pit.

(2) Sample No. 421C was cut from a 10-ton pile of ore on the floor of the pit and probably represents what could be hand sorted from the vein material. This sample assayed 0.1 ounce gold and 22.6 ounces silver per ton, 5.1 percent lead, 0.07 percent copper and 2.09 percent antimony.

Enderlin took a grab sample from the ore piled at the above location that assayed 0.20 ounce gold and 72.5 ounces silver per ton, 13.6 percent lead, 0.03 percent copper and 6.48 percent antimony.

This vein will be intersected by the proposed work. It was not possible to sample the veins farther up the hill. The few vein outcrops exposed were badly leached and oxidized.

(3) Sample No. 422C, taken at a location half way down the hill slope, was cut from a quartz vein that was badly oxidized and leached. No values were found in this sample.

Few samples were taken in the Yacamella area. Natural outcrops generally are oxidized to a red gossan. Exposures in old prospect pits have been oxidized and the pits are partly full of debris so that extensive cleaning and some blasting would be required to obtain a fresh surface. Surface samples therefore would give little indication of what lies below the surface. Sample 421C from an ore pile from one of the pits gives some suggestion of what might be mined but more significant is the fact that over an area 600 feet wide and 1,600 feet long there are two, and possibly three, veins 4-6 feet wide, and probably a number of narrower veins, in which rich specimens of jamesonite float are abundant and can be found in almost every dump; and that all vein outcrops show evidence of mineralization. The writer believes that this is more than sufficient evidence to justify a small amount of drifting and crosscutting. This could be laid out so that two or possibly three of the wider veins could be tested. Diamond drilling could test the veins but the steep hill slope and the lack of a near-by water supply would make drilling expensive and difficult. A crosscut and drift would result in better exposures and would permit a better evaluation of the metal content of the veins.

If a discovery is made it is probable that much of the ore would be high grade enough to ship without milling. The high antimony content is not necessarily a detriment as a short time ago The Bunker Hill Company was searching for ore of this type.

PROPOSED EXPLORATION

It is proposed that a crosscut approximately 200-250 feet in length be driven from the vicinity of a point as shown on plate 1 and that 350-400 feet of drift on the best veins cut by the crosscut be allowed. The total footage is not to exceed 600 feet.

"Point" not illustrated on

It is estimated that 50 feet of timber will be required for the portal and to support any loose ground that may be encountered.

It is recommended that provision be made to assay 40 samples for gold, silver, lead and antimony.

Enderlin estimates that about 5 days of bulldozing work will be required for road building in order to locate the compressor within 200 feet of the proposed portal site; 300 feet of rock work would be required in addition if the road were completed to the site.

It is recommended that the Government provide 62½ percent of the exploration costs. Antimony appears to be about half the lead content.

The portal site should be located by the Field Team examiners before work is begun.

If a contract is approved, it should be granted before July 1, 1957, in order to give the applicant the longest possible working time before winter snows close the area. The working season is from July 1 to November 1. The time required by the applicant to complete the work is estimated to be three working seasons, but the applicant has reported he may double-shift the work and complete it in less than two seasons.

Costs have not been estimated by the Bureau of Mines. Except that access is a little more difficult, conditions are nearly identical to those at the nearby Deer Trail property (Highland Surprise Consolidated Mining Company, Docket No. DMEA-3664) which is just north of Washington Basin, and costs of crosscutting and drifting at Washington Basin should be comparable to those at the Deer Trail property.

CONCLUSION

Surface evidence suggests the antimony and lead content is sufficient to justify a modest exploration program to determine the actual grade these veins may contain. If the metal content is sufficient, then it is believed enough ore reserves exist to create an interest in the area. It is recommended the proposed work be approved.

Enclosure 1

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

U. S. Government Messenger Envelope

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3. Write clearly.

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Mr. Carl Museum	RUN / STOP	
Mrs. ~~Woodford~~ 6214	RUN / STOP	
Mary L. Spaeth STEEG	RUN / STOP	
Teresa Webster Rm. 4959	RUN / STOP	
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Use other side first

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

OFFICIAL FILE COPY
DMEA
RECEIVED MAR 25 1957

DATE	INITIALS	CODE
3/25	C	220
3/26	WSM	400

March 22, 1957

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

Re: Elmer Enderlin
Docket No. DMEA-4187 (Tungsten)
Washington Basin Claims
and
Docket No. DMEA-2213 (Tungsten)
Meadow View Claims
Custer County, Idaho
Contract No. Idm-E294

Dear Mr. Selfridge:

This is in reply to your letter of March 14, 1957, regarding the above-referenced application report.

Howard Nickelson is preparing the final stages of this report and will finish it within a day or so after he returns from the field on March 25, 1957.

By Field Team, Region I, NW Dist.

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

Thomas E Howard
for: Wing G. Agnew, Member
U. S. Bureau of Mines

cc: USBM (2)
Nickelson

Who wrote our
letter of Mar 14 ?

Mr. Wagoner

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3/12	Chapman	400
3/12	Martin	400
3/13	Selfridge	130
"	Johnson	110
"	Matheson	100
3/14	C	220
		400

MAR 14 1957

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

Re: Docket No. DMEA 4187 - Tungsten
Washington Basin claims
and
Docket No. DMEA 2213 - Tungsten
Meadow View claims
Custer County, Idaho
Contract No. Idm-E294

Dear Mr. Weissenborn:

Reference is made to your letter of August 20, 1956, to Mr. Elmer Enderlin, in answer to his letter of August 4, 1956, concerning the subject application. We note from your February report that new recommendations are in preparation and we would appreciate any information as to the present status of your report.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

P. F. Yopes

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

TLCHAPMAN:foc 3/12/57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. I - NWDist.
Messrs. R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

8623

Docket

xxxxxxxxxxxxxxxxxx
So. 157 Howard Street
Spokane 4, Washington

August 23, 1956

Mr. Elmer Underlin
Stanley, Idaho

Re: Docket No. DMEA-4187 (Tungsten)
Washington Basin Claims
and
Docket No. DMEA-2213 (Tungsten)
Meadow View Claims
Custer County, Idaho
Contract No. Idm-B9h

WSG

Dear Mr. Underlin:

Thank you for your letter of August 4, 1956, in which you ask us to release to Mr. Conoly any information which we might have on the Washington Basin and Meadow View claims.

We would be very happy to meet Mr. Conoly and discuss in general terms the two properties you mention, but we cannot show him any reports, or give him copies of any maps contained in those reports, as we are not authorized to release this information.

Sincerely yours,

D. R. MacLaren
for: A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: DMEA (2) w/cy inc.
USBM (2)
Nickelson

RECEIVED
AUG 3 0 1956

Stanley, Idaho
August 4, 1956

Mr. A. E. Wiessenborn
Executive Officer
D.M.E.A. Field Team
Se. 157 Heward St.
Spokane, Washington

Frey
al
Nick
USBM c c (w) 8/8
DMEA c (w)

Dear Mr. Wiessenborn,

I met Mr. Cenaly, chief geologist for American Smelting and Refining Co. from Wallace, Idaho, in Stanley a few days [redacted] He is going to examine my Washington Basin and Meadow View claims the latter part of August, and has asked me to write you so you may release any information you have on these properties to him.

It is possible they may take an option on this property to carry out the proposed drilling program.

Any information you can give them will be greatly appreciated, should they ask for it.

Sincerely yours,

Elmer Enderlin

DMEA

RECEIVED
AUG 8 1956
U.S.G.S.
SPOKANE, WASH.

Docket

RECEIVED
JUL 16 1956

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

July 11, 1956

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

Copy retained 400

Re: Docket No. DMEA-4187, Tungsten
Elmer Enderlin
Black Rock claims (Empire Vein)
Custer County, Idaho

Dear Mr. Selfridge:

Your letter of July 6, 1956, crossed our letter of the same date giving you the information you request. Mr. Nickelson is scheduled to arrive at the Black Rock prospect July 14 and will start an examination on that date.

Sincerely yours,

Wing G. Agnew

Wing G. Agnew,
Acting Executive Officer
DMEA Field Team, Region I
Northwest District

cc: USBM(2)
Nickelson

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Copy returned

July 6, 1956

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

Re: Docket No. DMEA-4187 (Tungsten)
Elmer Enderlin
Black Rock (Empire) Prospect
Washington Basin
Custer County, Idaho

Dear Mr. Selfridge:

Following the suggestion in your letter of April 2, we discussed a revised program with the applicant. Mr. Enderlin has now informed us (letter dated June 12, 1956 attached) that he would be interested in a small diamond drilling project on the Black Rock property and will add additional claims to contract ground. He gives the book and page number of the Black Rock No.8 and the Maiden Rock claims and also encloses copies of leases and options covering the Anchor, Quinsona, and Red Hill claims but does not give the precise location of any of these claims. He also encloses a bid for the diamond drilling. All of these are forwarded herewith; we have retained copies for our files.

In view of the altered conditions we believe that a field examination will be required before making a recommendation and we will schedule one as soon as possible. At that time we can determine whether the new coverage is adequate. If an affirmative recommendation results from the examination we will request Enderlin to obtain consents to lien and also to clear up the status of the Maiden Rock claim.

By Field Team, Region I, NW Dist.

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

Thomas E Howard
for Wing.G. Agnew, Member
U. S. Bureau of Mines

RECEIVED
JUL 9 - 1956

Enclosures

cc: USBM (2) w/encls.
Nickelson

Stanley, Idaho
June 12, 1956

Mr. A. E. Weissenborn
or
Mr. Howard Nickelson
Geological Survey
So. 157 Howard St.
Spokane, Washington

Dear Mr. Nickelson:

Enclosed are original copies of the two leases which I have on three additional claims in Washington Basin and I also staked two additional claims recently as they were two of the original Blackman Group.

Fred Gossi, the former owner of this Group of Claims and who released them all but asked to retain a 50% interest in the "Maiden Rock" but will agree to anything I want to do with it but if necessary I can get a lease on his interest so that he would not have to sign the contract should we want to explore the claims.

I would be willing to go ahead and diamond drill this property this summer instead of drifting to the extent of (2,000) two thousand feet providing the DMEA would be willing to pay 62½% of the cost.

Am also sending a bid that I received from R. V. Campbell of Salmon, Idaho and I believe that it is about as reasonable as we can expect insofar as it is a short job, short season and very poor roads to move machinery over and also that it includes the complete drilling, casing and moving and including an overall cost as you know some of the larger companies will give a low bid for drilling and add up a considerable amount for these other items.

RECEIVED
JUL 9 - 1956

Mr. Campbell did not sign this bid but if you would want him to do so you may either send them direct to him or back to me.

You may send me the owner's consent to Lein forms and I will have them signed by the owners.

I was up to the Meadow View Mine yesterday and it looks as if I will be able to go into Washington Basin about July 1st and will start setting up a camp and maybe opening up some of the tunnels.

You may keep these original lease papers on file if you care to do so as we each have copies.

Sincerely yours,

/s/ Elmer Enderlin

Challis, Idaho

Description of new claims:
Black Rock #8
Book 15, Page 101

Maiden Rock
Book 15, Page 100

DIAMOND CORE DRILLING BID Submitted by

R. V. Campbell
Salmon, Ida.

Bit cost: $1.70 per foot (average cost at Highland Surprise & Nicee property for 1955 - AX)

Helpers (2) Labor cost $2.00 per foot.

Core Box cost $ .10 per foot

Driller and Machine - fuel, maintenance and repair $2.50 per foot

Driving casing - pulling casing - moving time - cementing and reaming (if necessary) - cutting stations $2.00 per foot average

Total cost per foot BX & AX $8.30

The above submitted bid is stated as nearly cheap as possible due to the short time required to complete job, high altitude and rugged country and the need of two helpers to assist in the moving of equipment and making of drill stations.

MINE LEASE

THIS MINE LEASE, Made and entered into this 29th day of May, 1956, by and between FRED GOSSI and ROSA A. GOSSI, husband and wife, of the County of Custer, State of Idaho, and ANTONIO YACOMELLA and DOMENICA YACOMELLA, husband and wife, of Challis, County of Custer, State of Idaho, hereinafter called "Lessors", and ELMER ENDERLIN of Stanley, County of Custer, State of Idaho, hereinafter called "Lessee";

W I T N E S S E T H:

That the Lessors, for and in consideration of the royalties, covenants and agreements hereinafter specified to be paid, kept and performed by the Lessee, have leased, let and demised, and by these presents do lease, let and demise unto the Lessee that certain unpatented lode mining claim situated and located in East Fork Mining District, County of Custer, State of Idaho, described as follows, to-wit:

ANCHOR MINING CLAIM, location notice of which is of record in Book 7 of Quartz Locations at page 469, official records of Custer County, Idaho, which by reference thereto is incorporated herein.

TO HAVE AND TO HOLD, the above described unpatented mining claim for the purpose of mining, unto the Lessee, for the term of five (5) years, from the 1st day of June, 1956, and expiring at noon on the 1st day of June, 1961, unless forfeited or terminated through the violation of any of the covenants and conditions herein contained, or by proper notice given by the Lessors as hereinafter provided, with full power on the part of the Lessee to assign this Mine Lease, or any part thereof, or to sublet the full or any part of said leased property at the discretion of the Lessee, subject to the covenants and conditions in this Mine Lease contained.

The Lessee, in consideration of the premises, has covenanted, contracted and agreed, and by these presents does covenant, contract and agree to and with the Lessors, their heirs, executors, administrators and assigns as follows:

1. To work and mine said claim with a view toward exploration thereof and production of mine ores therefrom.

2. To allow the Lessors, their executors, administrators or assigns from time to time to enter upon all parts of said leased property for the purposes of inspection, survey or taking samples therefrom.

3. To post and keep posted on said premises notices to the effect that said mining claim is leased by Elmer Enderlin, as Lessee, or his successors or assigns, and to comply with Section 44-501 and Section 44-502 of the Idaho Code relative to mine laborers.

4. That he will not permit any liens of any kind or nature for labor or materials to be filed against said property or any part thereof and agrees to hold and keep the Lessors harmless from any and all liability from such liens by him made or suffered. It is understood and agreed, however, that the limitations of paragraph 4 herein contained shall not in any way restrict the Lessee from applying for and obtaining a government financed DMEA loan and Lessors hereby specifically covenant with Lessee that Lessee may obtain a DMEA loan from the U. S. Government and that they will execute any and all papers and instruments relative thereto including a consent to lien.

5. To comply with all Federal and State laws and in particular, the Workmen's Compensation law of the State of Idaho.

6. To pay and discharge, when the same become due and payable, all taxes of whatsoever kind or nature levied, assessed or imposed upon and against improvements placed by the Lessee on said premises during the term hereof, and any and all taxes and

assessments, levied, assessed or imposed upon and against the ores and minerals or other values mined and extracted from said premises or any part thereof.

7. The Lessee agrees to pay the Lessors, as royalty, ten per cent (10%) of any government bonus or benefit received relative to said mining claim and ten per cent (10%) of the net smelter returns upon all ores, minerals, precious metals or rare earths recovered and shipped from said leased property during the term or life of this Mine Lease. The term "net smelter returns", as used herein, shall be construed to be the net amount paid by the smelter after deducting treatment and smelting charges, penalties, weighing, sampling, switching, and other deductions, including shipping charges, customarily made by smelters. All the ores, minerals, precious metals or rare earths shall be shipped in the name of the Lessee with appropriate instructions to the smelter or custom mill, as the case may be, to pay said ten per cent (10%) royalty direct to the Lessors, or their duly designated agent, and ninety per cent (90%) thereof to the Lessee. With each payment of royalty or premium, the Lessors and Lessee shall be furnished a duplicate copy of the smelter settlement sheet or custom mill settlement sheet upon which such payment is computed.

The Lessee agrees to furnish to Lessors a copy of all engineers or engineering reports relative to said property, including any drilling reports that may be prepared.

8. That the Lessee, during the term of this Mine Lease, will do all things required and necessary for properly holding said mining claim in the name of the Lessors, including the placing on record of all affidavits of assessment work and labor and will save and keep the Lessors harmless and indemnified against any and all loss or losses resulting from his failure to properly hold said claim in the name of the Lessors, for so long as this Mine Lease is effective.

9. That the Lessee will pay all taxes which may become due and payable under Chapter 28, of Title 63 of the Idaho Code and amendments thereto, commonly referred to as a net profits tax.

10. It is further understood and agreed that the Lessee shall have the right to erect upon said premises or any part thereof, such buildings and structures and to install such machinery, equipment and other property as he may deem advisable in carrying on the operations contemplated by this agreement, it being further understood and agreed that the title to any machinery and mine equipment placed on said premises for or by the Lessee at his cost and expense, shall be and remain in the Lessee at all times, and, at the termination of this Mine Lease by mutual agreement or in the event of a forfeiture or cancellation of this Mine Lease as herein provided, any and all machinery and equipment may be removed by the Lessee within thirty (30) days after the termination or forfeiture of this Mine Lease.

11. It is specifically understood and agreed by and between the Lessors and the Lessee that time is of the essence of this agreement and in the event the Lessee fails to make any of the payments as herein provided or fails to perform any of the covenants herein contained, then and in that event, the Lessors shall have the right to declare this Mine Lease forfeited by giving a written notice to the Lessee, by registered mail, specifying the particulars wherein this Mine Lease is not being carried out. The Lessee shall have the period of fifteen (15) days from the Mailing of said notice within which to fully comply with the violated covenant. If such violation be not so overcome at the expiration of fifteen (15) days from the mailing of said notice, then, without further demand and notice, the Lessors, by their agents or attorneys, may enter upon and into the Leased premises

and dispossess all persons occupying the same, with or without force, and with or without process of law; or, at the option of the Lessors, Lessee and all persons found in occupation of said leased mining claim may be proceeded against as guilty of unlawful detainer. Upon such forfeiture and termination becoming effective, the said Lessee shall be without right, title or interest in and to said mining claim and permanent improvements as hereinbefore specified and the whole thereof, except such machinery and mine equipment as may have been placed upon said mining claim by the Lessee and which, as above provided, may be removed by Lessee within thirty (30) days therefrom, shall again vest exclusively with the Lessors. Failure by Lessors, through their agents or otherwise, to exercise in any length of time any right of forfeiture for such cause, shall in no event operate as a waiver of such right of forfeiture for such cause still continuing or for any recurrence thereof or for any different cause or violation.

OPTION TO PURCHASE

In consideration of the Lessee entering into the foregoing mine lease, the Lessors hereby covenant and agree to deliver immediately to Lessee the quiet and peaceable possession of said mining claim above described and do hereby give and grant unto said Lessee an exclusive option to purchase the said Anchor Mining Claim at any time during the term of this lease; the purchase price for said claim shall be Ten Thousand and No/100 Dollars ($10,000) and any and all royalty payments of any kind and character made under the provisions of the foregoing lease shall be applied toward the purchase price.

It is still further covenanted and agreed by and between the Lessors and Lessee that the Lessors may sell said property to a third party or parties at any time during the term hereof on the following basis:

During the first year for the sum of $11,000.00; $10,000.00 thereof to be retained by the Lessors and $1,000.00 to be paid to the Lessee;

During the second year for the sum of $12,000.00; $10,000.00 thereof to be retained by the Lessors and $2,000.00 to be paid to the Lessee;

During the third year for the sum of $13,000.00; $10,000.00 thereof to be retained by the Lessors and $3,000.00 to be paid to the Lessee;

During the fourth year for the sum of $14,000.00; $10,000.00 thereof to be retained by the Lessors and $4,000.00 to be paid to the Lessee;

During the fifth year for the sum of $15,000.00; $10,000.00 thereof to be retained by the Lessors and $5,000.00 to be paid to the Lessee;

If the foregoing Mine Lease shall be terminated or forfeited for any reason prior to the expiration of the term hereof, such termination or forfeiture shall automatically terminate or forfeit this option and in that event all sums heretofore paid on said purchase price shall be retained by the Lessors as liquidated damages and as rental for the use and occupancy of said premises.

It is further understood, covenanted and agreed that every obligation hereof shall extend to and be binding upon and every benefit hereof shall inure to the heirs, executors, administrators, successors and assigns of all parties hereto.

IN WITNESS WHEREOF, the Lessors and Lessee have hereunto set their hands and seals the day and year first above written.

Antonio Yacomella

Domenica Yacomella

Fred Gossi

Rosa A Gossi

Lessors

Elmer Enderlin

Lessee

STATE OF IDAHO)
) ss.
County of Custer)

On this 4th day of June, in the year 1956, before me, the undersigned, a Notary Public in and for said State, personally appeared FRED GOSSI and ROSA A. GOSSI, husband and wife, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

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

Jack B. Turner
Notary Public for Idaho
Residing at Challis, therein
My commission expires: 4/4/57

STATE OF IDAHO)
) ss.
County of Custer)

On this 4th day of June, in the year 1956, before me, the undersigned, a Notary Public in and for said State, personally appeared ANTONIO YACOMELLA and DOMENICA YACOMELLA, husband and wife, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

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

Jack B. Turner
Notary Public for Idaho
Residing at Challis, therein
My commission expires: 4/4/57

STATE OF IDAHO)
) ss.
County of Custer)

On this 4th day of June, in the year 1956, before me, the undersigned, a Notary Public in and for said State, personally appeared ELMER ENDERLIN, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

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

Jack B. Turner
Notary Public for Idaho
Residing at Challis, therein
My commission expires: 4/4/57

MINE LEASE

THIS MINE LEASE, Made and entered into this 29th day of May, 1956, by and between TONY S. YACOMELLA and MADGE E. YACOMELLA, husband and wife, of Challis, County of Custer, State of Idaho, hereinafter called "Lessors", and ELMER ENDERLIN of Stanley, County of Custer, State of Idaho, hereinafter called "Lessee";

W I T N E S S E T H:

That the Lessors, for and in consideration of the royalties, covenants and agreements hereinafter specified to be paid, kept and performed by the Lessee, have leased, let and demised, and by these presents do lease, let and demise unto the Lessee those certain unpatented lode mining claims situated and located in East Fork Mining District, County of Custer, State of Idaho, described as follows, to-wit:

QUINSONA Mining Claim, location notice of which is of record in Book 13 of Quartz Locations at page 48, official records of Custer County, Idaho, which by reference thereto is incorporated herein.

RED HILL Mining Claim, location notice of which is of record in Book 13 of Quartz Locations at page 49, official records of Custer County, Idaho, which by reference thereto is incorporated herein.

TO HAVE AND TO HOLD, the above described unpatented mining claims for the purpose of mining, unto the Lessee, for the term of five (5) years, from the 1st day of June, 1956, and expiring at noon on the 1st day of June, 1961, unless forfeited or terminated through the violation of any of the covenants and conditions herein contained, or by proper notice given by the Lessors as hereinafter provided, with full power on the part of the Lessee to assign this Mine Lease, or any part thereof, or to sublet the full or any part of said leased property at the discretion of the Lessee, subject to the covenants and conditions in this Mine Lease contained.

The Lessee, in consideration of the premises, has covenanted, contracted and agreed, and by these presents does covenant, contract and agree to and with the Lessors, their heirs, executors, administrators and assigns as follows:

1. To work and mine said claims with a view toward exploration thereof and production of mine ores therefrom.

2. To allow the Lessors, their executors, administrators or assigns from time to time to enter upon all parts of said leased property for the purposes of inspection, survey or taking samples therefrom.

3. To post and keep posted on said premises notices to the effect that said mining claims are leased by Elmer Enderlin, as Lessee, or his successors or assigns, and to comply with Section 44-501 and Section 44-502 of the Idaho Code relative to mine laborers.

4. That he will not permit any liens of any kind or nature for labor or materials to be filed against said property or any part thereof and agrees to hold and keep the Lessors harmless from any and all liability from such liens by him made or suffered. It is understood and agreed, however, that the limitations of paragraph 4 herein contained shall not in any way restrict the Lessee from applying for and obtaining a government financed DMEA loan and Lessors hereby specifically covenant with Lessee that Lessee may obtain a DMEA loan from the U. S. Government and that they will execute any and all papers and instruments relative thereto including a consent to lien.

5. To comply with all Federal and State laws and in particular, the Workmen's Compensation Law of the State of Idaho.

6. To pay and discharge, when the same become due and payable, all taxes of whatsoever kind or nature levied, assessed or imposed upon and against improvements placed by the Lessee on said premises during the term hereof, and any and all taxes and

assessments levied, assessed or imposed upon and against the ores and minerals or other values mined and extracted from said premises or any part thereof.

7. The Lessee agrees to pay the Lessors, as royalty, ten per cent (10%) of any government bonus or benefit received relative to said mining claims and ten per cent (10%) of the net smelter returns upon all ores, minerals, precious metals or rare earths recovered and shipped from said leased property during the term or life of this Mine Lease. The term "net smelter returns", as used herein, shall be construed to be the net amount paid by the smelter after deducting treatment and smelting charges, penalties, weighing, sampling, switching, and other deductions, including shipping charges, customarily made by smelters. All the ores, minerals, precious metals or rare earths shall be shipped in the name of the Lessee with appropriate instructions to the smelter or custom mill, as the case may be, to pay said ten per cent (10%) royalty direct to the Lessors, or their duly designated agent, and ninety per cent (90%) thereof to the Lessee. With each payment of royalty or premium, the Lessors and Lessee shall be furnished a duplicate copy of the smelter settlement sheet or custom mill settlement sheet upon which such payment is computed.

The Lessee agrees to furnish to Lessors a copy of all engineers or engineering reports relative to said property, including any drilling reports that may be prepared.

8. That the Lessee, during the term of this Mine Lease, will do all things required and necessary for properly holding said mining claims in the name of the Lessors, including the placing on record of all affidavits of assessment work and labor and will save and keep the Lessors harmless and indemnified against any and all loss or losses resulting from his failure to properly hold said claims in the name of the Lessors, for so long as this Mine Lease is effective.

9. That the Lessee will pay all taxes which may become due and payable under Chapter 28, of Title 63 of the Idaho Code and amendments thereto, commonly referred to as a net profits tax.

10. It is further understood and agreed that the Lessee shall have the right to erect upon said premises or any part thereof, such buildings and structures and to install such machinery, equipment and other property as he may deem advisable in carrying on the operations contemplated by this agreement, it being further understood and agreed that the title to any machinery and mine equipment placed on said premises for or by the Lessee at his cost and expense, shall be and remain in the Lessee at all times, and, at the termination of this Mine Lease by mutual agreement or in the event of a forfeiture or cancellation of this Mine Lease as herein provided, any and all machinery and equipment may be removed by the Lessee within thirty (30) days after the termination or forfeiture of this Mine Lease.

11. It is specifically understood and agreed by and between the Lessors and the Lessee that time is of the essence of this agreement and in the event the Lessee fails to make any of the payments as herein provided or fails to perform any of the covenants herein contained, then and in that event, the Lessors shall have the right to declare this Mine Lease forfeited by giving a written notice to the Lessee, by registered mail, specifying the particulars wherein this Mine Lease is not being carried out. The Lessee shall have the period of fifteen (15) days from the mailing of said notice within which to fully comply with the violated covenant. If such violation be not so overcome at the expiration of fifteen (15) days from the mailing of said notice, then, without further demand and notice, the Lessors, by their agents or attorneys, may enter upon and into the leased premises

and dispossess all persons occupying the same, with or without force, and with or without process of law; or, at the option of the Lessors, Lessee and all persons found in occupation of said leased mining claims may be proceeded against as guilty of unlawful detainer. Upon such forfeiture and termination becoming effective, the said Lessee shall be without right, title or interest in and to said mining claimsand permanent improvements as hereinbefore specified and the whole thereof, except such machinery and mine equipment as may have been placed upon said mining claims by the Lessee and which, as above provided, may be removed by Lessee within thirty (30) days therefrom, shall again vest exclusively with the Lessors. Failure by Lessors, through their agents or otherwise, to exercise in any length of time any right of forfeiture for such cause, shall in no event operate as a waiver of such right of forfeiture for such cause still continuing or for any recurrence thereof or for any different cause or violation.

OPTION TO PURCHASE

In consideration of the Lessee entering into the foregoing mine lease, the Lessors hereby covenant and agree to deliver immediately to Lessee the quiet and peaceable possession of said mining claimsabove described and do hereby give and grant unto said Lessee an exclusive option to purchase the said Quinsona Mining Claim and Red Hill Mining Claim at any time during the term of this lease; the purchase price for said claims shall be Fifteen Thousand and No/100 Dollars ($15,000) and any and all royalty payments of any kind and character made under the provisions of the foregoing lease shall be applied toward the purchase price.

It is still further covenanted and agreed by and between the Lessors and Lessee that the Lessors may sell said property to a third party or parties at any time during the term hereof on the following basis:

During the first year for the sum of $16,000.00; $15,000.00 thereof to be retained by the Lessors and $1,000.00 to be paid to the Lessee;

During the second year for the sum of $17,000.00; $15,000.00 thereof to be retained by the Lessors, and $2,000.00 to be paid to the Lessee;

During the third year for the sum of $18,000.00; $15,000.00 thereof to be retained by the Lessors, and $3,000.00 to be paid to the Lessee;

During the fourth year for the sum of $19,000.00; $15,000.00 thereof to be retained by the Lessors, and $4,000.00 to be paid to the Lessee;

During the fifth year for the sum of $20,000.00; $15,000.00 thereof to be retained by the Lessors, and $5,000.00 to be paid to the Lessee;

If the foregoing Mine Lease shall be terminated or forfeited for any reason prior to the expiration of the term hereof, such termination or forfeiture shall automatically terminate or forfeit this option and in that event all sums heretofore paid on said purchase price shall be retained by the Lessors as liquidated damages and as rental for the use and occupancy of said premises.

It is further understood, covenanted and agreed that every obligation hereof shall extend to and be binding upon and every benefit hereof shall inure to the heirs, executors, administrators, successors and assigns of all parties hereto.

IN WITNESS WHEREOF, the Lessors and Lessee have hereunto set their hands and seals the day and year first above written.

Tony S. Yacomella

Madge E. Yacomella
Lessors

Elmer Enderlin
Lessee

STATE OF IDAHO)
) ss.
County of Custer)

On this 4th day of June, in the year 1956, before me, the undersigned, a Notary Public in and for said State, personally appeared TONY S. YACOMELLA and MADGE E. YACOMELLA, husband and wife, known to me to be the persons whose names are subscribed to the within instrument and acknowledged to me that they executed the same.

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

Jack B. Lusey
Notary Public for Idaho
Residing at Challis, therein
My commission expires:

STATE OF IDAHO)
) ss.
County of Custer)

On this 4th day of June, in the year 1956, before me, the undersigned, a Notary Public in and for said State, personally appeared ELMER ENDERLIN, known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

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

Jack B. Lusey
Notary Public for Idaho
Residing at , therein
My commission expires:

400 DOCKET

Holt
Chapman
Selfridge
Holliday

JUL 6 - 1956

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

Re: Docket No. DMEA-4187, Tungsten
Elmer Enderlin
Black Rock claims (Empire Vein)
Custer County, Idaho

Dear Mr. Weissenborn:

Reference is made to your letter of May 9, 1956, in which you advised that Mr. Nickelson would see Mr. Enderlin the next week and discuss informally what other work might be done on the Empire property. We have heard nothing further on the subject and would appreciate any information you may have obtained on the matter.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Approved:

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

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

cc: Docket
Code 400
Oper. Comm.
Adm. Read. File
T. Kiilsgaard, USGS
R. W. Holliday, USBM
FT, Reg. I-NW

TLChapman/ls
7/3/56

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

Docket

RECEIVED
MAY 14 1956

May 9, 1956

WSay

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

Re: Docket No. DMEA-4187 (Tungsten)
Elmer Enderlin
Blackrock (Empire) Prospect
Washington Basin
Custer County, Idaho

Dear Mr. Selfridge:

In reply to your letter of April 27, Howard B. Nickelson of the Geological Survey will see Mr. Enderlin next week and at that time will informally discuss with him what other work might be done at the Empire property.

Sincerely yours,

A. E. Weissenborn/O.L.

A. E. Weissenborn
Executive Officer, DMEA
Field Team, Region I, NW District

cc: USBM (2)
Nickelson

Copy retained 400

DOCKET
SURNAME
Chapman
Martin
Selfridge
Fleming
Mitchenor

400

APR 27 1956

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

Re: Docket No. DMEA 4187 - Tungsten
Elmer Enderlin
Blackrock (Empire) Prospect
Washington Basin
Custer County, Idaho

Dear Mr. Weissenborn:

With reference to the above noted application for exploration assistance we quote from your memorandum of March 29, 1956, as follows: "I recommend that the application be denied in its present form. A revised proposal might be worth consideration should the applicant choose to present it."

Immediate denial of exploration aid for a project at a property that is thus indicated to have some merit may lead to complications. We would prefer, if possible, to have you discuss the matter with the applicant and determine whether he would be amenable to the type of exploration that you suggest. Of course we do not expect you to put yourself in the position of asking the applicant to acquire additional ground.

Please advise us if you do not believe the above suggestion is feasible.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (246)

APPROVED:

/s/ Robert W. Geehan (246)
Member, Bureau of Mines

Thor H. Kiilsgaard (246)
Member, Geological Survey

TLChapman/foc 4/26/56
cc to: Docket
Code 400
Admr. Read. File
Operating Comm.
FT. REG. I - NWDist.
R. W. Holliday, USBM
T. H. Kiilsgaard, USGS

Docket

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

RECEIVED
APR 25 1956

April 23, 1956

WSM

Memorandum

To: W. S. Martin, Chief, Iron and Ferroalloys Division-DMEA
Through: Chief, Branch of Ferrous Metals & Ferroalloys

From: R. W. Holliday, Commodity Specialist, Branch of Ferrous Metals & Ferroalloys

Subject: Review of Field Team appraisal
Docket No. DMEA 4187
Black Rock (Empire) prospect
Elmer Enderlin
Washington Basin, Custer County, Idaho
$17,000-Tungsten

Subject appraisal indicates that the general area holds possibilities but that the application as presented does not propose the most satisfactory method of exploration.

Low-grade of the deposit and the future price situation should be discussed with the operator but if a project is to be considered the present applicant should be made aware of the conditions which would make a project acceptable.

Cost of magnetometer work, if recommended by the field team, could undoubtedly be included as part of the project cost. A more serious consideration would be the question of ownership or control of a large enough block of ground.

I concur in the recommendation that the application in its present form be denied.

R W Holliday
R. W. Holliday

Copy retained 500

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

APR 23 1956

April 20, 1956

Re: DMEA 4187
Elmer Enderlin
The Empire Vein
Washington Basin
Custer County, Idaho
$17,000.00 - Tu[illegible]ten

WSM

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of analysis of the application by the Executive Officer.

The applicant requested assistance in exploring the Empire vein by 500 feet of drifting and crosscutting.

The Executive Officer is well acquainted with the area and deemed an examination unnecessary. He recommends that the application, in its present form, be denied, but believes a revised program should receive consideration. The revised program might include magnetometer work, diamond drilling of the Margie Bell base metal vein and perhaps work on the Reconstruction and Washington veins, should the applicant obtain control of them.

In short, the simple drifting-crosscutting work program of the applicant is not well adapted to the somewhat complex structural and mineralization patterns likely to be met. The viewpoint is well supported by maps showing features with which the applicant may not be well acquainted.

I concur with the recommendation of the Field Team for conditional denial of the application.

N. E. Nelson

N. E. Nelson

Copy retained 400

Docket

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

RECEIVED
APR 16 1956

April 11, 1956

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

Re: Docket No. DMEA-4187 (Tungsten)
Elmer Enderlin
Black Rock (Empire) prospect
Washington Basin
Custer County, Idaho

Dear Mr. Selfridge:

Enclosed is an analysis of the Enderlin application, written by the Executive Officer. The analysis is based on his previous knowledge of the Washington Basin area. The Field Team concurs in the recommendation that the application be denied in its present form.

By Field Team, Region I, NW Dist.

A. E. Weissenborn

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

Wing G. Agnew

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

Enclosure

cc: USBM (2)
USBM (AD)
USGS, SRO
Nickelson

Reviewed by
DMEA OPERATING COMMITTEE
4-20-56
(Date)

DMEA

RECEIVED
APR 16 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
So. 157 Howard Street
Spokane 4, Washington

March 29, 1956

MEMORANDUM

To: DMEA Field Team, Region I, Northwest District

From: A. E. Weissenborn, Executive Officer

Subject: Analysis of Application, Docket No. DMEA-4187 (Tungsten), Elmer Enderlin, Black Rock (Empire) prospect, Washington Basin, Custer County, Idaho

INTRODUCTION

This analysis of the Enderlin application is based on previous knowledge of the Washington Basin area.

In 1946 Martin W. Pollock brought into the Washington office of the Geological Survey specimens from Washington Basin, Idaho which contained gold, scheelite, and a number of other minerals, including joseite and jamesonite. In July 1946 I visited the area and made a reconnaissance map of part of the surface of the Black Rock prospect (then known as the Empire or Blackman prospect). At that time the underground workings were caved, but the Empire adit was reopened later that summer and I mapped it with the assistance of J. S. Vhay in November 1946. T. M. Patten of the Silas Mason Company, who had the property under option, later sent me assays of samples he had taken in the Empire adit during the time of my visit.

Two unpublished memorandum reports, one dated August 1946 and the other dated January 27, 1947, describe the property as it was in 1946 and should be available in the Washington files of the Geological Survey. In addition, A. L. Nugent, a Bunker Hill Mining and Concentrating Company geologist, has made available field notes of an examination made by him in the summer of 1955. It is apparent that no work has been done on the property since I saw it in 1946, and as the Empire adit is again caved at the portal, it would be useless to

Reviewed by
DMEA OPERATING COMMITTEE
4-20-56
(date)

make another field examination. This memorandum is based on information obtained during the 1946 work supplemented to some extend by Nugent's field notes.

RECOMMENDATION

I recommend that the application be denied in its present form. A revised proposal might be worth consideration should the applicant choose to present it.

LOCATION AND ACCESSIBILITY

The property is in Washington Basin in unsurveyed T. 8 N., R. 16 E., B. M., Custer County, Idaho. Washington Basin is a glacial cirque east of Washington Peak and is about 7 miles airline east of Obsidian post office on U. S. Highway 93. Stanley, about 17 miles north of Obsidian, is the nearest town. The basin may be reached from U. S. Highway 93 over a steep but fairly good Forest Service road that follows Pole Creek to its headwaters and continues down Germania Creek a short distance. From Germania Creek a very poor road traversable only by 4-wheel drive vehicles ascends the exceedingly steep ridge forming the divide between Germania and Washington Basins, descends into Washington Basin, and ascends Washington Creek to the head of the basin. The distance by road from Obsidian post office is about 25 miles, and the distance from Ketchum, Idaho, the nearest rail point, is about 60 miles.

The property is about 3 miles south of the Deer Trail mine (Docket No. DMEA-3664, Idm-E819) near the head of Fourth of July Creek from which it can be reached only by foot. The claims adjoin Enderlin's Meadow View claims (Docket No. DMEA-2213, Idm-E294) on the other side of the divide in the Fourth of July Creek drainage.

The property is at an altitude of approximately 9,200 feet and is inaccessible during the winter months.

COMPETENCY OF APPLICANT

The applicant, Elmer Enderlin, has recently completed an exploration project (Docket No. DMEA-2213) just to the north of Washington Basin; he is a competent miner entirely capable of conducting an operation of the scale proposed.

RECEIVED
APR 16 1956

PROPERTY RIGHTS

The ground at the Black Rock or Empire property was originally staked by George Z. Blackman circa 1887 and in late years has been the property of Fred Gossi. The claims are reported to have been abandoned and have been relocated by Enderlin, apparently at Gossi's suggestion. The locations of the Black Rock claims 1 through 6, the claims reportedly restaked by Enderlin, are plotted on my 1946 map from Nugent's notes. According to Nugent, these claims adjoin Enderlin's Meadow View claims on the south.

DESCRIPTION OF PROPERTY

There are no usable buildings on the property, and almost all underground workings are now inaccessible and have been for years. One adit on the Empire vein was open in 1946, and the Reconstruction adit was also partly open at that time. The Empire adit consists of about 900 feet of crosscut and drift; minor sublevel drifting has been done off four raises. As shown on figure 1, there are numerous caved adits and prospect pits on the property.

GEOLOGY

The most recent summary of the regional geology of the area and the prospect is by C. P. Ross (Geology and Ore Deposits of the Bayhorse Region, Custer County, Idaho: U. S. Geol. Survey Bull. 877, 1937). An older description of the property is by J. B. Umpleby (Ore Deposits in the Sawtooth Quadrangle, Blaine and Custer Counties, Idaho: U. S. Geol. Survey Bull. 580, p. 244-246, 1915).

As shown on the map accompanying Ross' report (scale 1:125,000), to the east of Stanley Basin there is a 4- to 6-mile wide north-trending belt of Paleozoic sediments that extends from Pole Creek on the south about 22 miles due north almost to the Salmon River. This belt of sediments form a great roof pendant which is bounded by intrusive igneous rocks of the Idaho batholith and by Tertiary extrusive rocks. The ore deposits of the area are largely confined to these Paleozoic sediments or to the intrusive rocks near the sedimentary contact.

GEOLOGY OF THE EMPIRE PROSPECT

As shown on Ross' areal map (pl. 1 of U. S. Geol. Survey Bull. 877) of the prospect area, Wood River formation (Pennsylvanian) sediments have been intruded by a small quartz diorite pluton. Surface reconnaissance work at the property seemed to confirm this interpretation, but underground work shows that both diorite and quartz monzonite are present and that replacement ore deposits are confined to contacts of the diorite with the Wood River formation (pl. 1 of this memorandum). Vein deposits cut all these rock types.

The Wood River formation in the mine area is made up of massive quartzite with some argillite layers. In the few places where the bedding is distinct enough to be recognizable, the beds appear to dip to the southwest at moderate angles.

Dark fine-grained diorite and light-colored, coarse-grained quartz monzonite porphyry intrude the quartzite. The quartz monzonite is similar to the quartz monzonite that forms a large part of the Idaho batholith. Quartz monzonite dikes cut the diorite south of the property.

Four northeasterly trending veins or zones have been recognized during reconnaissance mapping of the property (pl. 1). These veins or zones are traceable on the surface by outcrops, pits, trenches, and caved workings for nearly 2,500 feet along their presumed strike but later mapping of the Empire adit (pl. 2) suggests that the mineralization is discontinuous. Mineralization of the Empire vein, the strongest of the four zones, is composed mostly of pyrrhotite, arsenopyrite, and quartz with some scheelite, minor galena, and sphalerite. The Empire zone strikes about N. 25° E., but the dip is unknown. The Last Resort or Margie Bell vein and the Reconstruction vein contain a higher proportion of galena; the Yacamella vein or zone has, in addition, striking amounts of jamesonite of specimen grade. These veins dip to the east. All of the veins have been explored by numerous small pits and adits, but although sulfides are present, it is doubtful if ore has been mined from any of them.

The Washington vein, also known as the Big Gossan vein, a shear zone about 50 feet wide south of the property (pl. 1), strikes about N. 45° W., but the dip is unknown. The outcrop forms a prominent gossan with abundant limonite, and much jarosite and other sulfates. An attempt was made in the past to mine the vein for gold, and there are the remains of a small mill on the west end of the vein. The production, if any, is not known. The joseite submitted by Martin Pollock reportedly came from the Washington vein.

DESCRIPTION OF THE EMPIRE ADIT

There are slightly over 900 feet of workings in the Empire adit (pl. 2), but only a small part of this footage has explored the Empire zone. The adit proper has a bearing of about N. 45° W. and has a length of 210 feet (pl. 2). About 90 feet from the portal there is a crosscut that bears nearly due north for a distance of 240 feet. This, in turn, has a crosscut to the northeast, and at the end there are crosscuts to the east and west. One hundred fifty feet from the portal of the adit there is an irregularly trending crosscut to the west. In 1946 the adit was caved only at that portal; after this was cleared out, the rest of the workings was found to be in good condition. The portal is reported by Nugent to be caved again but probably only a few days work would be needed to reopen it.

The Wood River quartzite, the diorite, and the quartz monzonite are all exposed in the Empire adit, and all have been hydrothermally altered. The quartzite is the least altered but in many places appears somewhat silicified and pyritized and in a few places has been replaced by some scheelite. The diorite, in addition to the replacement by sulfides and scheelite, is in many places softened and altered to claylike material. The quartz monzonite in the north working is also considerably altered over large areas. The rock has much clay in it and is iron-stained from the oxidation of disseminated pyrite; the pyritization appears especially strong next to the contacts with quartzite. The claylike alteration is strongest near the south-dipping faults.

The most prominent structural feature in the adit is a fault striking slightly west of north that crosses the main adit near its junction with the north branch and which for convenience is here termed the "Empire fault." The Empire fault is again exposed in the western crosscut at the end of the north branch. No evidence was seen to suggest the amount or direction of movement in the fault. The fault is not mineralized but contains a few boulders of quartz and sulfides and therefore is presumed to be post-mineral in age. East of the Empire fault there are several northeast- and northwest-trending faults or fault zones dipping south at moderate angles, some of which contain small amounts of quartz and pyrite. On one of these, about 80 feet from the junction of the north branch with the main adit, there is a raise which apparently connects with an old surface working, now caved. At the end of the east crosscut at the end of the north branch of the adit there are a few narrow, steeply dipping northwesterly striking fractures that are filled with quartz and sulfides (principally pyrite). A raise explores these fractures for a distance of about 15 feet above the adit level.

The Empire workings were lamped for scheelite by Vhay and myself and the results of this lamping were plotted on plate 3, which also shows the assays of samples cut by Patten of the Silas Mason Company. No tungsten minerals were noted in any of the workings in the north branch of the adit, all of which are east of the Empire fault. West of the Empire fault, however, the mineralization is quite different. About 135 feet in from the portal a 1- to 3-foot wide quartz-pyrrhotite vein striking N. 50° E. and dipping 43° to the SE. crosses the main adit. Eight feet beyond is an east-west striking fault dipping 35° S.; the ground between is much sheeted quartz-sulfide replacement rock. This zone has been prospected by a raise and a sublevel drift (Point A on pl. 2) that exposes from 4 to 5 feet of quartz-sulfide vein overlying the footwall gouge; above that, the quartzite contains disseminated sulfides (mostly pyrrhotite) over a thickness of from 2 to 3 feet. In the sublevel drift the vein strikes about N. 80° E. and dips 37° S. Discontinuous high-grade stringers of scheelite are found in both the quartz and the pyrrhotite but are more abundant in the pyrrhotite. At the foot of the raise there is a winze that probably also intersected the vein. It is now filled with water and could not be examined.

At about coordinates N 5260 and E 4750, near that end of the crosscut west from the main adit (pl. 2), there is another pyrrhotite-quartz vein from 3 to 4 feet wide that strikes N. 30° W. and dips 30° SW. This strike makes an angle of 70° with the previously described vein (pl. 2). A short inclined raise has opened this vein above the adit level. The vein has also been tested below the adit by a winze but like the one near Point A, it is filled with water and could not be examined. The footwall of the vein has been only slightly mineralized, but the hanging wall, where this is formed of diorite, has been largely replaced by quartz and sulfide minerals. Replacement stops abruptly at the contact with the quartzite irrespective of whether this be a fault or an intrusive contact. In addition to the pyrrhotite the replacement ore contains several irregular masses of an unidentified light-colored sulfide mineral which is said to yield tests for tin. Small amounts of scheelite were found in the vein on the adit level and some moderately rich spots were found associated with the unidentified sulfide, but aside from this scheelite is almost absent.

Along the western crosscut and between the two veins just described there is a replacement body of massive pyrrhotite with some quartz. This body lies below the 35° fault separating quartzite from diorite and is entirely in the diorite. At its eastern end the body terminates against an intrusive contact between diorite and quartz monzonite porphyry. At its western end it is cut off by a high angle fault that apparently shifts the diorite north on the west side. the length of the body is about 41 feet; its width has not been determined. Scheelite is found throughout the body. It is most abundant in the pyrrhotite, but some of the pyrrhotite contains no scheelite, and some scheelite is found in quartz or in the altered

country rock. Samples taken by Mr. Patten along the length of the replacement body yielded assays from 0.07 percent to 1.32 percent WO_3. One specimen of a scheelite seam from directly under the fault separating the quartzite from the diorite contained 3.90 percent WO_3. The average of all the samples weighted according to length (but not including the high-grade specimen) was 0.52 percent WO_3; a bulk sample of the same interval assayed 0.54 percent WO_3 (pl. 3). The gold and silver content of these samples is reported to be too low to be of any importance. These samples may not be entirely representative because they were taken approximately along the strike of the ore body instead of at right angles to it, but they do give some indication of the tungsten content.

Mapping of the Empire adit thus shows that the pyrrhotite-scheelite mineralization is not present as a single vein; but rather it is present as both veins and as massive replacement deposits, at or near the diorite-quartzite contact. A major post-mineral fault, or faults, adds complications. In contrast to this, surface exposures seem to indicate that the Empire zone is an approximately north-south trending structure that can be followed for a long distance. Additional surface work since the reconnaissance map (pl. 1) was made, and not plotted on the map, seems to sustain this. Pyrrhotite and quartz with good showings of scheelite are found in a series of pits and shafts at about coordinate N 4900 (about 75 feet south of the bottom edge of plate 2). The mineralized zone at this point is from 75 to 80 feet wide. Still further to the south, old pits indicate that the mineralized zone continues to the south. At coordinate N 5000 (pl. 2) a new bulldozer trench has exposed a width of about 40 feet of partly oxidized pyrrhotite and quartz. Scheelite is present but only in small quantities. A few scattered gossan outcrops -- only one of which is shown on plate 2 -- indicate that the vein or mineralized zone continues to the north. At coordinate N 5275 about 40 feet of pyrrhotite and quartz with interesting amounts of scheelite is exposed in a bulldozer trench. From lamping with a mineralite it was estimated in 1946 that the rock exposed in the trench averages between 0.50 and 0.80 percent WO_3, and a sample taken by Nugent from this trench assayed 0.52 percent WO_3 over a width of 53 feet. Twenty-five feet north of this trench the mineralized zone is again exposed in some old surface workings. Lamping indicates that the scheelite content is comparable -- or perhaps slightly higher -- than that found in the trench, although Nugent's samples, if they can be correctly identified, do not confirm this. Still further to the north (outside the limits of plate 2) a third bulldozer trench is said to have uncovered the mineralized zone. This trench was filled with snow and could not be inspected.

The explanation for the seeming discrepancy between surface and underground geology is anything but clear, but the following seems relatively certain:

(1) Quartz-pyrrhotite bodies are found both as veins and as replacement bodies.

(2) Scheelite is found in the veins but is more abundant in replacement deposits; the veins on the other hand appear to be higher in base metals, although they have not been looked at thoroughly where they are unoxidized.

(3) The replacement bodies in the Empire adit appear to be aligned in a northeasterly direction, and almost certainly they occur as discontinuous, irregular bodies. The zone of replacement bodies, nevertheless, appear to be fairly continuous, although irregular, over a length of at least 350 feet south from the exposure in the Empire adit, and possibly is much longer.

EXPLORATION OF THE PROPERTY

The applicant proposes to explore the showings in the Empire adit by 500 feet of drifting and crosscutting. His proposal has the merit of being relatively inexpensive, simple, and one he could do himself as he did at the Meadow View project. It is possible that he might be able to find other replacement bodies, but these at best are unlikely to exceed one-half percent WO_3. Under present conditions a substantial, easily mined tonnage of one-half percent tungsten ore would be of considerable interest even in such a remote location as Washington Basin. The applicant's program in its present form is unlikely to find the large amount of ore that would be required to make the property attractive; furthermore, any ore found is apt to occur in relatively small, irregular replacement deposits that would be expensive to find and expensive to mine. In addition, on present evidence the best prospecting ground seems to be south, down slope from, rather than north of the Empire adit.

Because the pyrrhotite ore bodies lie at shallow depth, a magnetometer survey should indicate quickly and accurately the size and distribution of these bodies along the Empire zone; such a survey could be made at little cost. This survey would not determine whether the pyrrhotite bodies are tungsten-bearing but would give enough information to enable one to decide whether there is enough potential tonnage of such material to justify exploration and would at the same time permit the exploration to be laid out in the most effective manner.

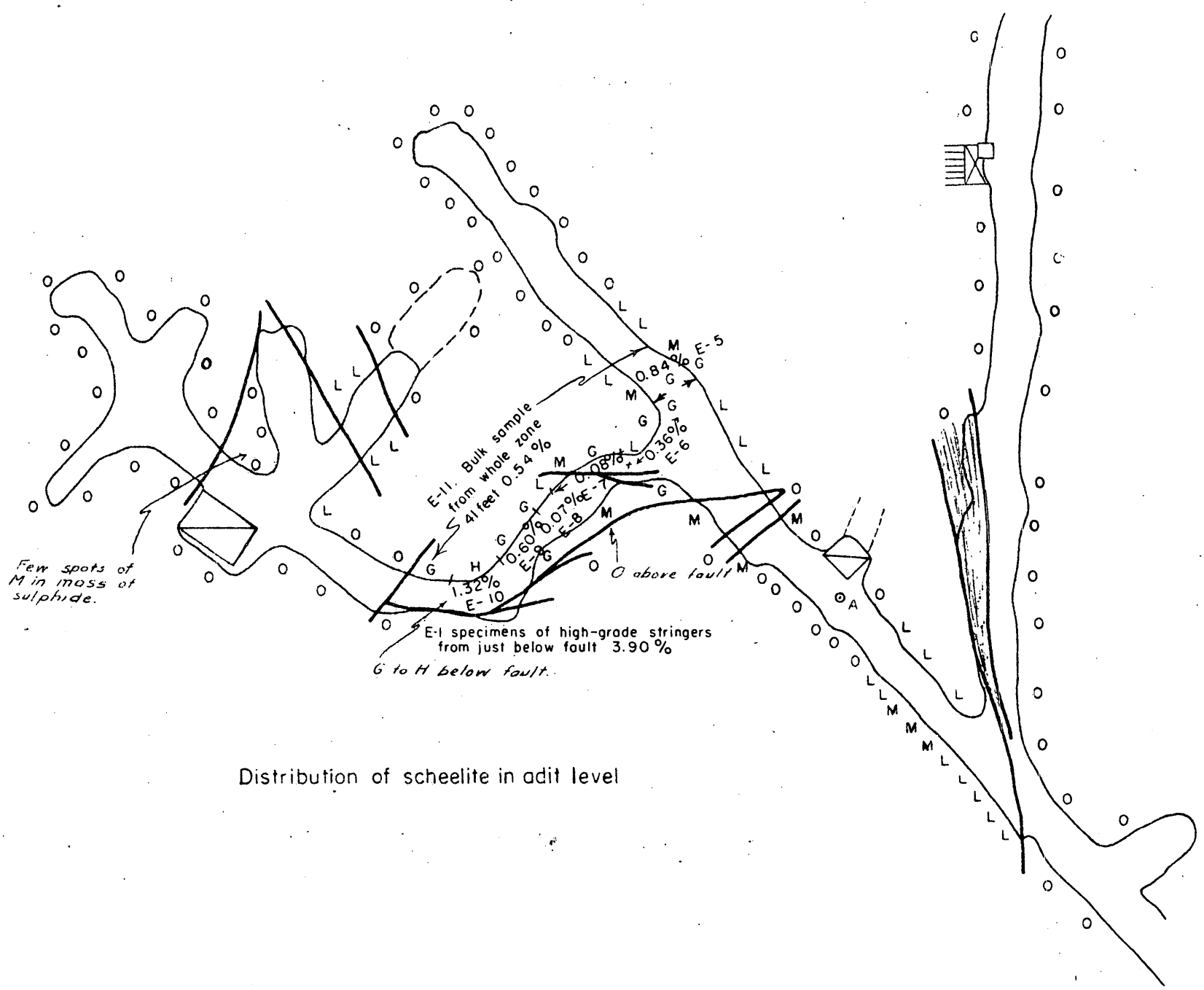
The applicant would be able to carry out the subsequent exploration himself but would not be able to conduct the magnetometer survey. He could have it done at relatively little cost -- perhaps for $500 or $600 -- but whether he would be willing to do this is not known. However, because of the admittedly marginal nature of the deposit under the best of circumstances one hesitates to discuss with the applicant possible changes in his proposal especially one that would necessitate a considerable cash expenditure as contrasted

with the applicant putting in his own work. My recommendation, therefore, is that the application be denied at this time and in its present form. DMEA might well consider a revised program along the lines indicated above, should the applicant choose to present it. Because of the low grade of the deposit and uncertainty concerning the future price of tungsten, the Operator probably would be well advised to wait until the situation clears up.

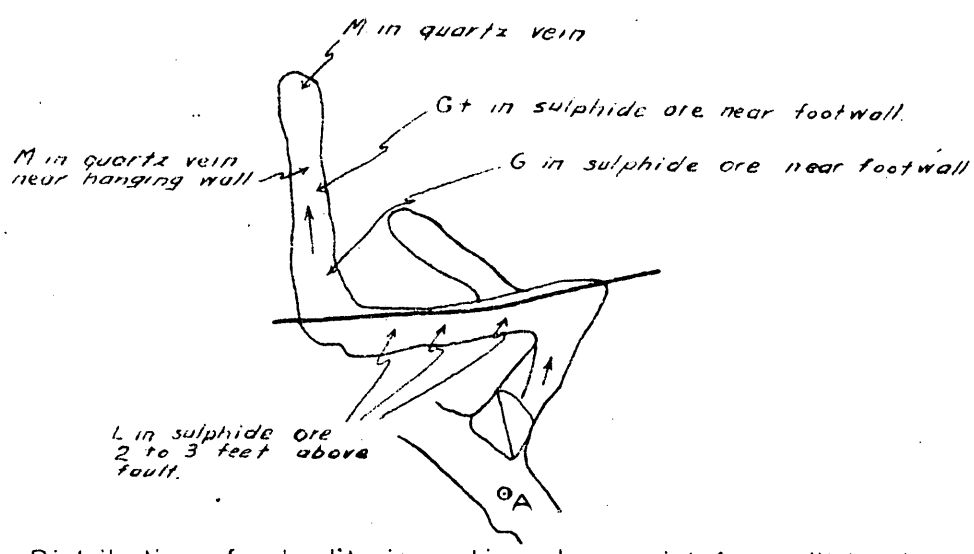
A revised program, incidentally, might consider a few drill holes on the Margie Bell vein for base metals. Assays from the vein are not impressive, but vein widths are good (from 4½ feet to over 6 feet), and the assays are not conclusive for as I remember it the vein in all its exposures has been well leached. The Reconstruction and Washington veins also are of interest as they are even wider, but they are not on Enderlin's property and could not, of course, be discussed with him unless he should acquire this ground. The Washington vein is especially interesting as it is wide, heavily iron-stained and thoroughly leached. This might mean merely a heavy pyrrhotite or arsenopyrite content of the vein, but if outcrop samples showed even small amounts of lead or zinc, the vein would merit a few drill holes. Additional field investigation would be required before a firm recommendation could be made, and this part of the work probably would not be feasible unless the entire area were under one ownership.

Enclosures 3

Distribution:
DMEA (4)
USBM (2)
USGS, SRO
Docket
Nickelson



Distribution of scheelite in adit level



Distribution of scheelite in working above point A on adit level

H exceptionally abundant amounts of scheelite

G abundant scheelite

M moderate amounts of scheelite

L only traces of scheelite

O no scheelite noted

E-1 — E-10 — WO_3 assays of samples by T. M. Patten.

DISTRIBUTION OF SCHEELITE IN EMPIRE ADIT, WASHINGTON BASIN, CUSTER COUNTY, IDAHO

NOVEMBER 1946

SCALE 0 20 40 60 FEET

A. E. WEISSENBORN
AND J. S. VHAY

RECEIVED
APR 16 1956

DOCKET
SURNAME

400 Chapman
Martin
Selfridge
Johnson

MAR 14 1956

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

Re: Docket No. 4187 - Tungsten
Elmer Enderlin
Black Rock Claims (Empire Vein)
Custer County, Idaho

Dear Mr. Weissenborn:

The above-docketed application for exploration assistance is being referred to your office for review and a possible field examination of the property.

Copies of memoranda dated March 1 and March 12, 1956, by N. E. Nelson, Geological Survey, and R. W. Holliday, Bureau of Mines, respectively, relating to the project, are enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JB)

Enclosure

TLChapman/foc 3/13/56
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. I - NWDist.
Messrs. Robert Holliday, USBM
N. E. Nelson, USGS

APPROVED:

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

Thor H. Kiilsgaard (JB)
Member, Geological Survey

R.C.S.

DOCKET
SURNAME
Chapman
Martin
Gerhan
Kilpatrick
Selfridge
Johnson

400

MAR 14 1956

Mr. Elmer Enderlin
Stanley, Idaho

Re: Docket No. 4187 - Tungsten
Black Rock Claims (Empire Vein)
Custer County, Idaho

Dear Mr. Enderlin:

The above-docketed application for exploration assistance for tungsten ore: has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and is being referred to Mr. A. E. Weissenborn, Executive Officer, DMEA Field Team, Region I - Northwest District, South 157 Howard Street, Spokane 4, Washington, for review and a possible field examination of the property.

If a field examination is considered necessary, the Field Team will so advise you and any assistance that you may give them will be appreciated.

Sincerely yours,

C. C. Mittendorf (for)

Administrator

TL Chapman/foc
3/13/56
cc to: Docket
Code 400
Adm. Read. File
Operating Comm.
FT. REG. I - NWDist.
Messrs. R. W. Holliday, USBM
N. E. Nelson, USGS

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

March 12, 1956

Copy retained 400

Memorandum

To: Chief, Iron and Ferroalloys Division - DMEA
Through: Chief, Branch of Ferrous Metals & Ferroalloys

From: Commodity Specialist - Tungsten

Subject: Application
Docket No. DMEA 4187 - Tungsten
The Empire Vein - Custer County, Idaho
Elmer Enderlin
Stanley, Idaho
Amount not given

Subject application proposes 500 feet of drift at $34.50 per foot ($17,250) to be expended during two summer seasons. The application and the memorandum of March 1, 1956 from N. E. Nelson, USGS to W. S. Martin, DMEA both state that information concerning this property is available at the Spokane office of the Survey.

Referral to the Field Team is recommended.

R W Holliday

R. W. Holliday

Docket

IN REPLY REFER TO:

RECEIVED
BUREAU LAND MANAGEMENT
WASHINGTON, D.C.

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

1956 MAR 2 PM 1 2

March 1, 1956

Re: DMEA 4187
Elmer Enderlin
The Empire Vein
Custer County, Idaho
$17,000 - Tungsten

Copy retained 400

Memorandum

RECEIVED
MAR - 5 1956

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of application.

WSM

The applicant requests assistance in exploration of the Empire vein in Washington Basin, Custer County, by approximately 500 feet of drifting. The estimated cost of the drifting is $34.00 per foot.

Considerable information is available concerning the Empire vein. Of it, J. B. Umpleby, 1915*, says "Empire vein--The Empire vein or ledge strikes N. 25° E. and dips 55° SE. It is entirely inclosed in the porphyritic granite and crops out at short intervals through four claims. Its average width is about 30 feet, though in one place on the crest of the ridge it is 72 feet across. Development consists of two tunnels, two shallow shafts, and several trenches. The lower tunnel is 450 feet long, the upper one 150 feet. The vein material is coarse-grained bluish quartz and partly replaced quartz monzonite. Near the surface it is intensely oxidized in most places, but at a depth of a few feet primary minerals appear. Arsenopyrite occurs as small patches and isolated prismatic crystals in the northern part of the vein. In the southern part pyrrhotite, with about an equal amount of intermixed quartz and diopside, forms a band 15 to 20 feet wide next to the hanging wall. Thin sections of this material show clearly that the pyrrhotite replaces quartz monzonite, the quartz of which remains. The feldspar and biotite crystals are completely transformed to pyrrhotite and diopside, the feldspar showing a slight tendency to be in the centers of diopside areas. Much of the diopside also is poikilitic with respect to quartz grains. Near the crest of the ridge the vein incloses a large lenticular mass of quartz monzonite in which considerable sphalerite occurs as isolated patches and stringers, some of which are 3 to 4 inches across. The sphalerite is accompanied by a little galena, pyrite, stibnite, pyrrhotite, and arsenopyrite. The quartz monzonite here is intensely sericitized and locally is greenish gray and of a silky luster. The feldspars are changed to a felted mass of sericite, which incloses grains of the sulphide minerals. Chlorite and a little magnetite occur in areas probably occupied originally by biotite. In one of the thin sections of the sulphide ore the main mass, pyrrhotite, is intricately

fractured and traversed by iron-stained quartz of netlike distribution.

"The tenor of the Empire ledge matter is not definitely known, but pannings from outcrop material show the presence of gold in many places. Mr. George Z. Blackman, of Clayton, Idaho, the owner, claims that ore from a 30-foot face in the lower tunnel averages $12 to the ton in gold, although it would seem from the panning of the specimens collected by the writer that this estimate is too high. On the crest of the hill the outcrop is said to contain $6 to $7 in gold to the ton."

C.P.Ross** says, "Most of the property was held by the late G. Z. Blackman, who resided here since the beginning of activity in the basin. One group of three claims is held by Fidele Giampedraglia and his brother. When visited in 1930 all the workings, except one irregular excavation some 30 feet deep, were reported by Blackman to be either caved or unsafe, so that little information regarding the mineralization was obtained. The excavation that was open is on the Empire vein, the most extensively developed in the basin. In this working the vein is about 30 feet wide, stands nearly vertical, and trends N. 15° E. It is enclosed in sheared and somewhat altered granitic rock. The vein matter consists of white coarse-grained quartz and altered rock with small amounts of pyrite, pyrrhotite, and probably a little sphalerite. Blackman reported that samples from this vein yielded $34 to the ton in gold and silver and that some of the other workings in the basin contained lead ore, although the principal value in all is in gold. He furnished a specimen from the Empire vein that consists of plates of joseite in quartz."
a bismuth-telluride

The U.S.G.S. office in Spokane has unpublished maps and information concerning the vein. Samples taken by Mr. Nugent of the Bunker Hill and Sullivan Mining and Concentrating Company in 1955 are quoted by the applicant. No details concerning the widths, locations, etc., of the samples are given. Of the 16 samples assayed, the following are of interest:

Sample	Lead %	Silver Oz.	Zinc %	WO_3%	Gold Oz.
Black Rock # 5	1.22	4.5	0	0.11	0.01
" " # 7	--	0.56	0	0.11	0.05
" " # 8	--	0.54	0	0.25	0.12
" " #10	4.90	13.4	6.0	0.0	0.08
" " #11	1.04	6.5	0.0	0.0	0.01
" " #14	0.0	0.0	0.0	0.53	Tr.

* Ore deposits in Sawtooth quadrangle, Idaho, U. S. Geological Survey Bulletin 580.

** Geology and ore deposits of the Bayhorse region, Idaho, U. S. Geological Survey Bulletin 877, 1937.

Lacking particulars as to widths, etc., the importance of the samples cannot be assessed, but the presence of tungsten ore cannot be inferred.

why "but"

The applicant completed a project under DMEA 2213, Idm E-294, September 30, 1955. The work was done over the mountain from the Washington Basin. The applicant is considered a competent operator.

Inasmuch as the Field Team has much information concerning the property it should be able to furnish a report and recommendation without having to make an examination.

Referral to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

February 27, 1956

Mr. Elmer Enderlin
Stanley, Idaho

Subject: DMEA-4187
Re: Exploration Assistance

Dear Mr. Enderlin:

The receipt of your application dated February 6, 1956 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4187 and referred to the Iron & Ferro Alloys Division.

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

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

February 27, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region I N. W.

From: Chief, Operation's Control and Statistics Division

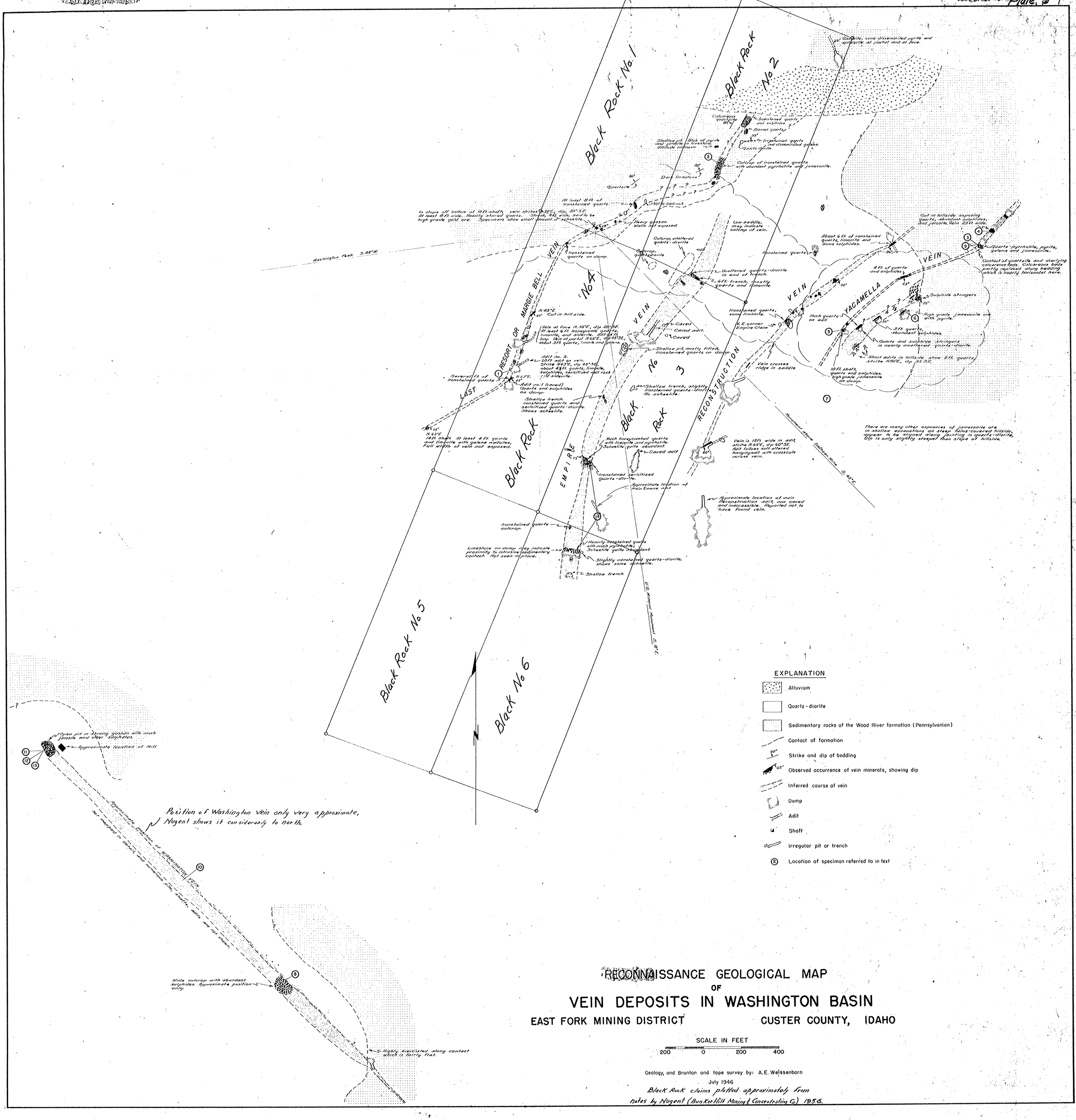
Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region I N. W. District

DMEA
- 4187 Elmer Enderlin

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

Docket No. DMEA 7187
Plate B 1



RECONNAISSANCE GEOLOGICAL MAP OF VEIN DEPOSITS IN WASHINGTON BASIN

EAST FORK MINING DISTRICT CUSTER COUNTY, IDAHO

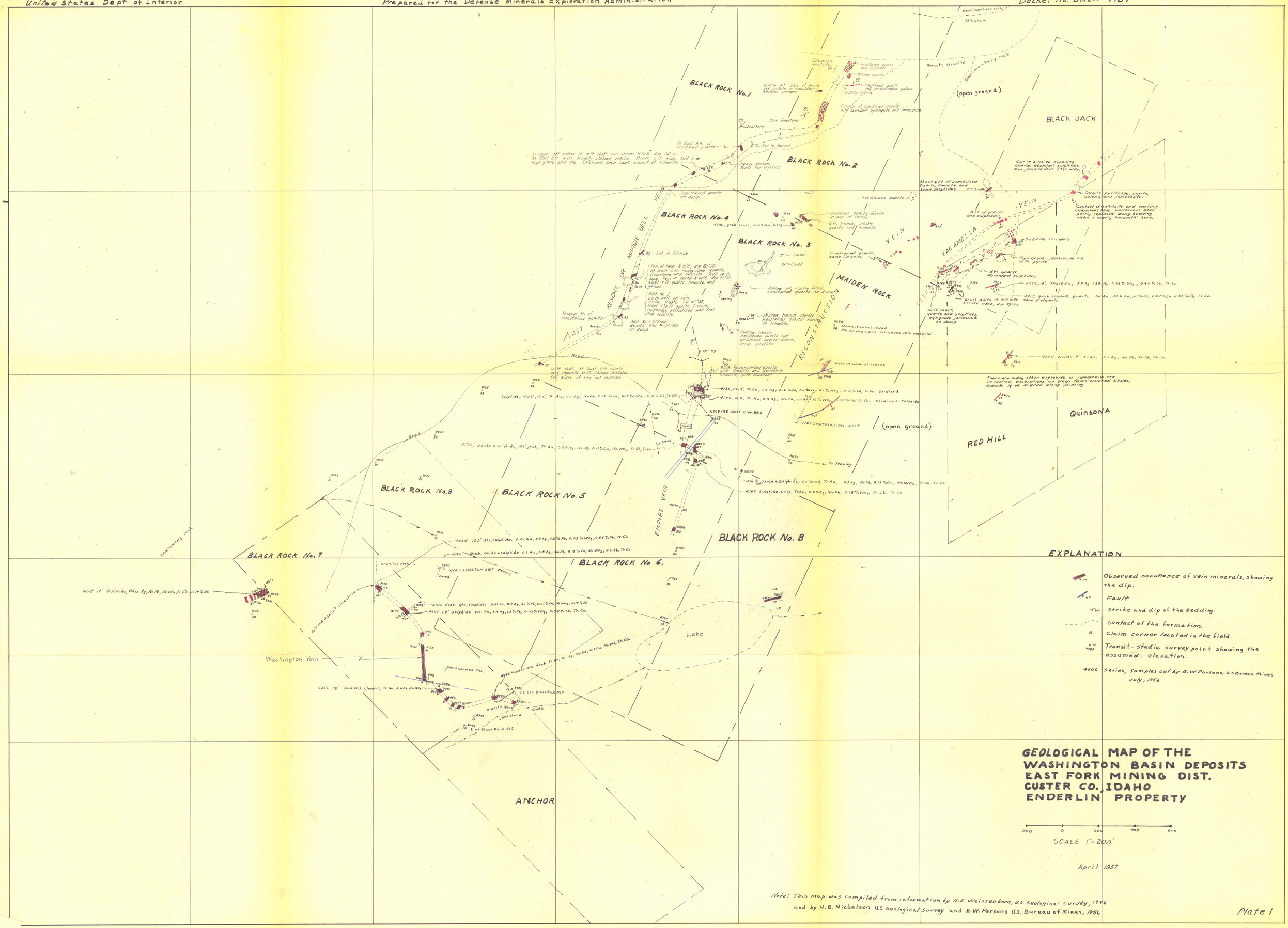
SCALE IN FEET

200 0 200 400

Geology, and Brunton and tape survey by: A.E. Weissenborn

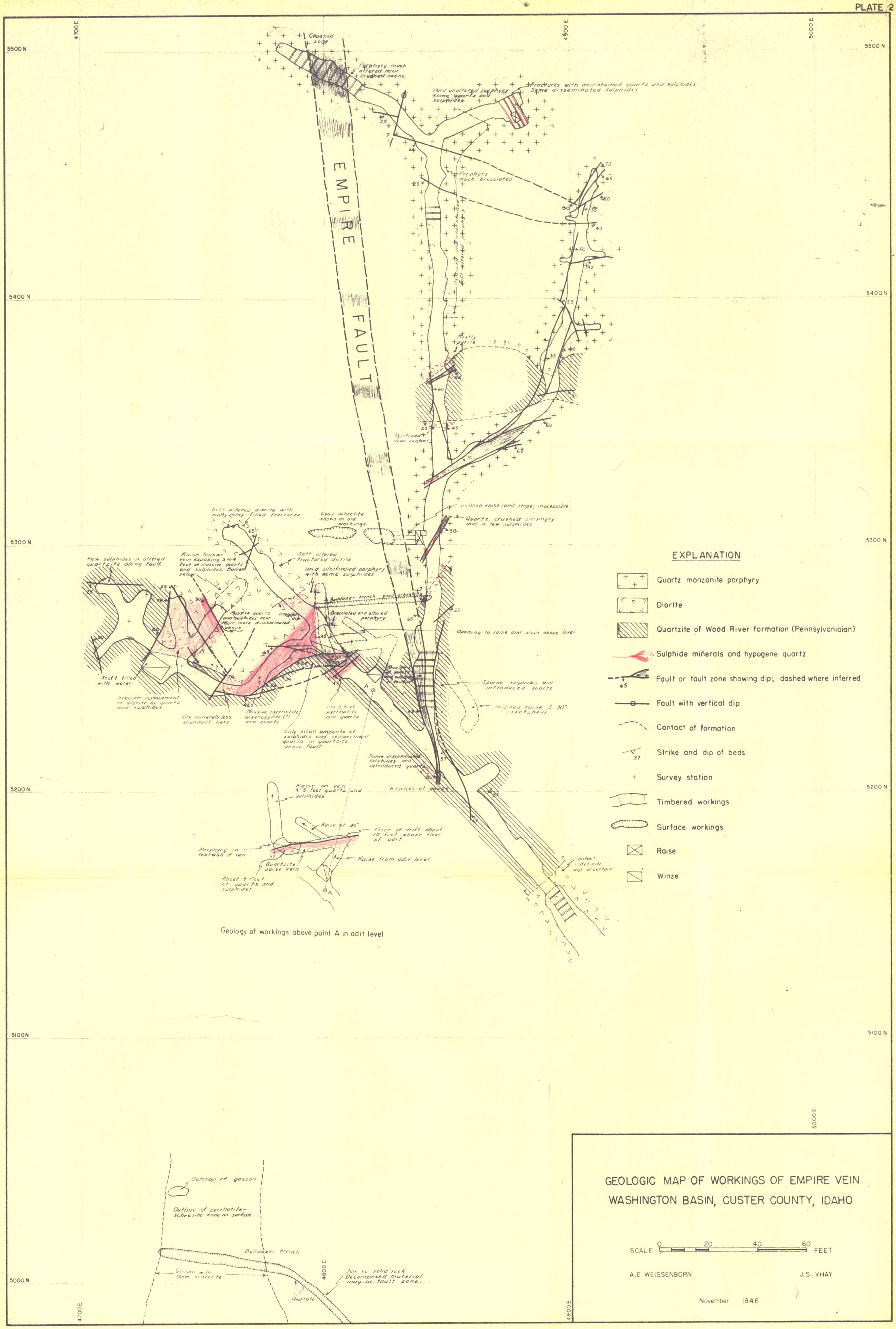
July 1946

Black Rock claims plotted approximately from notes by Nugent (Bunker Hill Mining & Concentrating Co.) 1956.



Note: This map was compiled from information by A.E. Weissenborn, U.S. Geological Survey, 1946 and by H.B. Nickelson U.S. Geological Survey and E.W. Parsons U.S. Bureau of Mines, 1956

Plate 1



Geology of workings above point A in adit level

GEOLOGIC MAP OF WORKINGS OF EMPIRE VEIN
WASHINGTON BASIN, CUSTER COUNTY, IDAHO

SCALE 0 20 40 60 FEET

A.E WEISSENBORN J.S. VHAY

November 1946

Plate 2