DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

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DMA Docket [redacted] 3240

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Exploration Assistance

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

1 cy to USBM and 1 to USGS

Routing Slip

To:	400	Date	1/21/54
To:	Open Com	Date	2-1-54
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CONTROLLED DOCUMENT

3240

MAR 29 1954

Mr. Sherwood B. Owens, General Partner
Alaskan Associates, Ltd.
P. O. Box 769
Tucson, Arizona

Re: Docket No. DMA 3240 - Tungsten
Big Burrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

Dear Mr. Owens:

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

We believe you understood from our conversations here that 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.

Although our study confirms the presence of a small amount of tungsten mineralization on your property, it does not indicate that your proposed project has enough probability of disclosing ore reserves having a tungsten content commensurate with the size of the program. We realize that under certain circumstances, production of by-product tungsten might be economically feasible from an ore assaying very low in tungsten but containing an appreciable amount of gold; however, at the Big Burrah mine the tenor of the ore appears to be such that participation by the Government in an exploratory program for tungsten is not warranted.

We regret to advise you, therefore, that your application for exploration assistance is denied. At the same time we appreciate your interest in the Defense Minerals Exploration Program and we wish to thank you for bringing your property to our attention.

FARutledge:foc 3-25-54
cc to: Docket
Code 400
FT. Reg. 1
Operating Comm.
Adm. Reading File
R. W. Geehan, USBM
T. P. Thayer, USGS

Sincerely yours,

J. E. Mitscherlich

Administrator

March 25, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $315,922.50
Alaskan Associates, Ltd.
Big Marvel Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

The denial of the subject application by this Division is based on the following information:

1. Alaskan Associates, Ltd., is interested primarily in the production of gold. No data were submitted with the application to substantiate the occurrence of a significant amount of tungsten.

2. The applicant's consulting engineer, James M. Orr, stated on page 13 that: "It is possible that the present mill may readily recover the scheelite on the Wilfley concentrating tables incorporated in the flow sheet." However, C. O. Roberts operated the property during the period 1944-1947 using practically the same setup: i.e., stamps and Wilfley tables. There is no record of any sale of tungsten products from this operation.

3. Applicant proposed repay on tungsten only. Later changed to repayment on all production but still maintained that it would be to the Government's interest to take tungsten. However there is no guarantee that the tungsten will be recovered in appreciable quantities. No metallurgical test data submitted with application. In conference with the Iron and Ferro-Alloys Division, Mr. Owens did not give the impression that he is familiar with the metallurgy of tungsten.

4. On February 24, 1954, Mr. Owens was informed by the Iron and Ferro-Alloys Division that no data had been submitted to substantiate the occurrence of significant tungsten at the Big Hurrah mine. He then submitted the two following composite samples:

SWECO Lot No. 3476 0.09 percent WO_3

This lot consisted of 8 samples, all of which were from the 70' or so-called "Robert Sub-Level"

SWECO Lot No. 3477 0.13 percent WO_3

This lot consisted of 15 samples; two from the 70' level, six from the 150' level, and seven from the 250' level.

5. Mr. Owens was then informed that these samples were too low in grade to warrant Government participation in the exploration program. It was then suggested that the analyses of all the sample rejects of Mr. Orr's samples might indicate areas of higher tungsten concentration.

6. On March 22, 1954, we received the analyses of 51 samples of which 8 could not be located on the sample maps. These samples grouped according to location follow. The average of each group is a weighted average. Value for gold based on $35.00 an ounce. (See assay maps attached to report by Orr).

Shaft or No. 3 Vein
150-foot level

Sample No.	Width, feet	% WO_3	$ Gold
10	3.0	0.13	9.80
11	2.0	0.09	Tr
13A	2.2	0.26	7.00
13B	2.2	0.31	6.65
13	2.2	0.28	6.82
14	3.0	0.18	2.80
15	3.0	0.12	0.70
16	4.6	0.08	0.70
17	3.9	0.15	0.70
19	5.6	0.20	1.40
20	2.5	0.26	23.10
21	2.2	0.62	2.80
22	5.5	0.19	2.80
23	2.5	0.10	11.90
24	2.4	0.83	16.10
25	2.8	0.07	5.60

26	2.5	0.12	0.76
101	3.9	0.16	9.80
102	6.9	0.17	5.60
103	3.5	0.14	11.20
104	4.5	0.18	1.40
36	4.1	0.20	4.20
	3.5	0.20	5.29

Shaft on No. 3 Vein
70-foot level

SAMPLE NO.	Width, feet	% WO_3	% Gold
30	2.9	0.21	26.60
32	2.1	0.06	10.50
33	3.8	0.04	11.20
34	3.7	0.08	8.40
35	3.6	0.13	17.50
	3.2	0.10	14.65

Main Vein
Back of stope above 150-foot level

SAMPLE NO.	Width, feet	% WO_3	% Gold
36	4.0	0.20	28.70
37	3.1	0.25	34.30
	3.6	0.22	31.14

Main Vein
150-foot level

SAMPLE NO.	Width, feet	% WO_3	% Gold
27	5.8	0.17	3.50
28	3.2	0.14	23.90
29	3.0	0.24	75.60
54	2.0	0.15	7.70
	3.5	0.18	24.21

400

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

March 23, 1954

Memorandum

To: W. S. Martin, IMEA

From: P. W. Guild, USGS

Subject: Review of assay results of samples from Big Hurrah mine, Alaska
IMEA 3240 - Tungsten
Alaska Associates, Ltd.

The assay results of 51 samples from the subject property give an unweighted average of only 0.184 percent WO_3. The range is from 0.04 to 0.83 percent, but only 3 samples ran over 0.50 percent. Most samples represent widths of 2 to 4 feet of vein material. The deposit obviously has little chance to produce a significant amount of tungsten, and I recommend denial of the application.

cc: 3 to WSMartin

Copy retained 400

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

FAR
1-25-54

Hold

Mr. Sherwood B. Owens
General Partner
Alaskan Associates, Ltd.
P. O. Box 769
Tucson, Arizona

Re: Docket No. DMEA 3240 - Tungsten
Big Hurrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

Dear Mr. Owens:

This will acknowledge your letter of January 22, 1954, noting that an application for assistance in exploring for tungsten at the Big Hurrah Quartz gold mine was submitted January 20, 1954, and requesting that we expedite the processing of the subject application.

The referenced application was received in Washington on January 21, 1954, and referred to the Iron and Ferro-Alloys Division, DMEA, for review. After review by this division and the appropriate commodity specialists of the Bureau of Mines and Geological Survey, the subject application is being referred to the DMEA Field Team, Region I, for a analysis and possibly a field examination. Because the property has already been visited by representatives of our Field Team, a field examination may not be necessary.

The novel method by which you proposed to repay the Government as outlined in paragraph two of your January 22nd letter and in the referenced application was noted. Your attention is called to Sec. 10 of the enclosed DMEA Order 1, as amended. In the case of certified projects, royalty to the Government is due on all production.

ORE TESTING
SAMPLINGS
and
SUPERVISION OF
ORE SHIPMENTS

Established 1916

Phone
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ED. EISENHAUER, Jr.

ASSAYER -- METALLURGIST -- CHEMIST

320-322 SOUTH SAN PEDRO STREET
LOS ANGELES 13, CALIF.

March 16/54

Alaskan Syndicate
Portland
Oregon

Subject : Assays of Ore.

Marked :	Tungstic Oxide(WO_3)	Marked :	Tungstic Oxide(WO_3)
4	.11 %	37	.25 %
8	.16 %	40	.14 %
10	.13 %	41	.77 %
11	.09 %	42	.43 %
13 A	.26 %	43	.10 %
13 B	.31 %	44	.11 %
14	.18 %	45	.09 %
15	.12 %	46	.13 %
16	.07 %	47	.05 %
17	.15 %	48	.08 %
19	.20 %	W 52	.12 %
20	.26 %	54	.15 %
21	.62 %	59	.11 %
22	.19 %	101	.16 %
23	.10 %	102	.17 %
24	.83 %	103	.14 %
25	.07 %	104	.18 %
26	.12 %	A	.20 %
27	.17 %	B	.13 %
28	.14 %	C	.12 %
29	.24 %	D	.09 %
30	.21 %	E	.14 %
32	.06 %	1-00 156	.15 %
33	.04 %	2-00 157	.14 %
34	.08 %		
35	.13 %		
36	.20 %		

Respectfully submitted

Ed. Eisenhauer Jr.

Ed.Eisenhauer,Jr

DMEA 3240

400

COPY

SWECO Lot No. 3476 0.09 WO_3

This lot consisted of 8 samples, all of which were from the 70' or so-called "Roberts Sub-Level."

The 8 samples were the rejects returned by Jacobs Assay Office after running samples for gold and silver as shown on Certificate No. 48287 under date of October 24, 1950.

SWECO Lot No. 3477 0.13 WO_3

This lot consisted of 15 samples which were as follows:

Location	Sample No.
70' Level	30
70' Level	33
150' Level	20
150' Level	23
150' Level	36-B
150' Level	37
150' Level	53
150' Level	54
250' Level	40
250' Level	41
250' Level	45
250' Level	51
250' Level	55-A
250' Level	56-D
250' Level	57

The 15 samples were the rejects returned by Pittsburgh Testing Laboratory after running samples for gold and silver as shown on Certificate No. PO 305 under date of September 14, 1953.

(Left by Mr. Sherwood B. Owens - 2/24/54)

MAR 11 1954

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA 3240 - Tungsten
Alaskan Associates, Ltd.
Big Hurrah Quartz mine
Seward Peninsula, Alaska

Dear Mr. Lorain:

Reference is made to the Region I monthly report for February 1954, and to the subject docket.

Your report contains the notation: "Big Hurrah denied Washington without referral." According to our records, the application has not been denied but is being held in abeyance pending submission by the applicant of data to substantiate his claim that tungsten occurs in significant amounts at the Big Hurrah mine.

Mr. Sherwood B. Owens, General Partner, Alaskan Associates, Ltd., called on DMEA in Washington on February 24, 1954, and left a copy showing the average grade and samples contained in two composite samples submitted to Southwestern Engineering Company for testing (copy enclosed). In addition, Mr. Owens agreed to have the individual samples taken by Mr. James M. Orr during his examination of the Big Hurrah mine analyzed for tungsten.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosure

APPROVED:

J. H. Hedges
Member, Bureau of Mines

D. M. Larrabee
Member, Geological Survey

cc: Docket
FT, Reg. I
Code 400
Oper. Comm.
Adm. Read. File
R. W. Geehan, USBM
T. P. Thayer, USGS

FARutledge/ls
3-9-54

400

C O P Y

SHERWOOD B. OWENS
P. O. Box 769
TUCSON, ARIZONA

Feb. 9, 1954

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Subject: DMEA 3240

Gentlemen:

At the time the above application was filed certain photostatic copies of instruments were not available. This omission was noted in a memorandum.

A complete file consisting of four sets of these photostatic copies is enclosed herewith.

Please attach one set to each MF-103 in order that our filing may be complete.

The Exhibit should be filed under Question No. 3, Sub-head (d).

Thank you.

Yours very truly,

ALASKAN ASSOCIATES, LTD.

By Sherwood B. Owens

General Partner

SBO/j

Copy retained 400

Main Vein
250-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
43	3.0	0.10	1.40
44	3.0	0.11	1.40
45	1.0	0.09	11.20
46	3.8	0.13	5.60
47	4.0	0.05	18.20
	3.0	0.10	7.68

Hanging Wall Vein
250-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
40	3.0	0.14	16.10
41	2.0	0.77	13.30
42	0.9	0.43	11.90
	5.9	0.40	14.51

Note: The above may be in error but from the map and description of samples these three samples were taken across a hanging wall vein.

The average width and value of all samples listed above follow:

3.5 feet
0.18 percent WO_3
$10.65 in gold at $35.00 an ounce

7. While the analyses submitted indicate that there is slightly more tungsten present than originally estimated, the grade is still too low to indicate a significant source of tungsten and to warrant Government participation in an exploration project.

8. The Field Team recommends denial of the subject application.

9. The Commodity Division of the Geological Survey recommends denial.

10. The Commodity Division of the Bureau of Mines concurs with denial of the application.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

FARutledge/foc
3-25-54
cc: Docket
Code 400
Adm. Read. File
Operating Comm.

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

FAR
1-25-54

Hold

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
Box 560
Juneau, Alaska

Re: Docket No. DMEA 3240 - Tungsten
Alaskan Associates, Ltd.
Big Hurrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

Dear Mr. Lorain:

Reference is made to the above-docketed application for exploration assistance which is being referred to your office for review and a field examination of the property if you believe one is warranted.

In reviewing this application it was noted that the Big Hurrah Quartz mine was examined by DMEA personnel in September 1952. Representatives from both the Geological and Bureau of Mines were said to have been present and samples were taken on the 70-foot level. The property apparently has merit as a gold mine but the tungsten values ~~appear~~ seem low.

Sincerely yours,

Chairman, Operating Committee

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xxxxxxxxxxxxxxxxxxx

P. O. Box 560
Juneau, Alaska
March 17, 1954

Defense Minerals Exploration Administration
MAR 22 1954

Mr. George C. Selfridge, Chairman
Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

re: Docket No. DMEA-3240 (tungsten)
Alaskan Associates, Ltd.

Dear Mr. Selfridge:

I have just received your letter of March 11 in which you state that this application has not been denied but is being held in abeyance pending submission by the applicant of data to substantiate his claim that tungsten occurs in significant amounts at the Big Burrah mine.

It was my understanding from a copy of a letter sent to me that the application had been denied but that it would be reopened if he submitted satisfactory data. In any case the result will be about the same.

I note that he is to submit rejects from his sampling for tungsten assays by the Southwestern Engineering Company. Inasmuch as I am practically sure that the Southwestern results will be too high I can expect that the result will be to involve us in an unnecessary and quite laborious examination and sampling job. Would there not be some way of requiring that the pulps be submitted to an assayer on whom we could depend for reliable low-tungsten results? I don't know who would be a reliable assayer for this work unless it were done in Bureau of Mines laboratories but it is possible that someone in Washington may know of a commercial assayer who could act as umpire.

Yours sincerely,

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

cc: C.L.Sainsbury

EUB065

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KAA77

RR UEPDA

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DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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FEB 4 1954

DMEA
3240

DE UKJC 63A RADIO MESSAGE CENT

R 040125Z

FM S H LORAIN EXECO DMEA FIELD TEAM REGION I BUREAU OF MINES JUNEAU ALASKA

TO GEORGE SELFRIDGE CHAIRMAN OPERATING COMMITTEE DEFENSE MINERALS

EXPLORATION ADMIN INTERIOR BLDG WASHDC
MINES GRNC

REURTEL DOCKET 3240 BIG HURRAH MINE VISITED SUMMER 1952 BY SAINSBURY

AND YOUNGBERG USGS WHO SAMPLED DRIFT FACES AT 70 FOOT LEVEL AND BY

A L RANSOME USBM WHO TOOK GRAB SAMPLES FROM DUMP AND ORE BIN OTHER WORKINGS

NOT ACCESSIBLE SAMPLES NORTHWEST FACE 70 FOOT LEVEL AVERAGED APPROXIMATELY

ONE-TENTH TUNGSTEN TRIOXIDE ACROSS 6.5 FEET SOUTHEAST FACE 70 FOOT LEVEL

ASSAYED LESS THAN ONE-HUNDREDTH TUNGSTEN GRABS FROM TAILING AND FROM ORE

BIN ASSAYED LESS THAN ONE-HUNDREDTH TUNGSTEN ASSAYS BY BUREAU OF MINES

JUNEAU

CFN 3240 1952 USGS 70 USBM 70 6.5 70
04/0138Z

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400

Interior Department

Defense Minerals Exploration Administration
14X3923.970 -
Working Fund -
DMEA

TELETYPE

February 1, 1954

To: S. M. Lorain, DMEA Executive Officer, Region I, Juneau, Alaska

Re Docket DMEA 3240, Tungsten - Alaskan Associates, Ltd., Big Hurrah Quartz Mine, Cape Nome Recording District, Seward Peninsula, Alaska. We note accompanying report by James M. Orr, page 26, shows photographs attributed to DMEA Field Team personnel from USGS and USBM, Juneau, Alaska, September 1952. Without field examination, please give brief summary of information available substantiating occurrence of significant tungsten mineralization at Big Hurrah mine.

George C. Selfridge
G. C. Selfridge
Chairman, Operating Committee

WSMartin/ls
1/29/54

cc: Docket
Code 400
Adm. Read. File
FT, Reg. 1 - confirmation
Oper. Comm.
R. W. Geehan, USBM
T. P. Thayer, USGS
Audits Division, USBM

400

FEB 1 1954

Mr. Sherwood B. Owens
General Partner
Alaskan Associates, Ltd.
P. O. Box 769
Tucson, Arizona

Re: Docket No. DMEA 3240 - Tungsten
Big Hurrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

Dear Mr. Owens:

This will acknowledge receipt of your letter of January 22, 1954, with reference to the subject application.

Review of your same application by our Iron and Ferro-Alloys Division and other commodity specialists concerned with tungsten, had indicated that your project would not be eligible for assistance from Defense Minerals Exploration Administration. On the basis of your request for a conference and your offer to discuss any question which might be raised by our examining engineers, we shall, however, hold your application in abeyance. Either the week preceding or the week following the coming A.I.M.E. convention in New York would be equally convenient for the proposed conference. We would be chiefly interested in whatever data you may have available that would substantiate the occurrence of tungsten in significant amounts at the Big Hurrah quartz mine.

Sincerely yours,

E. O. Mittendorf

Administrator

WSMartin/ls
1/29/54

cc: Docket
Code 400
FT, Reg. 1
Adm. Read. File
R. W. Geehan, USBM
T. P. Thayer, USGS

Lemon
3240

Copied from Mining World - January 1954 Vo. 16 No. 1, page 65

ALASKA—All agencies in the Nome district are reported to be cooperating in the development of plans to reopen the Big Hurrah gold-quartz mine. Three miles of road have been rebuilt by the Alaska Road Commission and the commission plans to keep it open during the winter. The Territorial Department of Aviation plans to build an airfield, a post office will be established and the Alaska Airlines will fly in mail three times a week. With the cooperation of the Alaska Communications Service, radio communications are being set up. The operating company for the mine is the Alaskan Associates, Limited of Portland, Oregon

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

400

Defense Minerals Administration
RECEIVED
JAN 28 1954

January 28, 1954

Memorandum

To: W. S. Martin, DMEA

From: R. W. Geehan, Bureau of Mines

Subject: DMEA 3240, Tungsten
Alaskan Associates, Ltd., Big Hurrah Quartz Mine, near Nome, Alaska

This is a gold mine with traces of tungsten in the ore. The applicants' engineer, Mr. Orr, cut 57 samples which are listed in his report. Not one of these was run for tungsten. The entire case regarding tungsten content seems to be based on a very limited area sampled on the 70-foot level and on samples in the tailings.

The application proposes that the entire recovery of tungsten be paid as a means of paying off the loan. As the applicants have not demonstrated that there is any tungsten in the zones to be worked and have not had mill tests run to determine recovery, this proposal has no merit, even if legal.

This application should not be referred to the Field Team. If the applicants send information on the tungsten in the mine and propose an exploration program in areas where the tungsten content is high, the application could be given favorable consideration.

Perhaps the Small Business Administration could make a mining loan in this case.

/s/ Robert W. Geehan

Robert W. Geehan

400

XXXXXXXXXXXXXXXX

P. O. Box 560
Juneau, Alaska
January 28, 1954

RECEIVED
FEB 1 1954

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

From: S. N. Lorain

Subject: Exploration contract application, Docket No. DMEA-3240
Alaskan Associates, Ltd.

Recently we received the docket number that was assigned by your office to the subject application. Today we received a copy of the application from the applicants. Although we have not been asked for an opinion with regard to this application we have noted in it one or two points which I think should be called to your attention while you are in the process of looking it over.

We note on pages 10 and 11 a discussion of tungsten assays obtained by the Jacobs Assay Office in Arizona versus assays made at the Bureau of Mines Laboratory in Juneau. Contrary to the impression given by the report the assays at Juneau were made very carefully, checked and double checked. Our initial results and the checks thereon were all consistant. Inasmuch as our laboratory is particularly experienced with low-grade tungsten assays we are entirely convinced that our results are correct and that the results by Jacobs are incorrect. The fact that Jacobs does assaying for G.S.A. does not necessarily qualify him in the field of very low tungsten assays; G.S.A. purchases do not involve ores containing tungsten in amounts less than one-tenth percent. In that bracket we have found the colorimetric assay to be much more dependable than the gravimetric method although we actually did check our colorimetric assays by gravimetric methods.

We recently had a discussion of the proposed loan with Mr. Lane in my office. It appeared from that discussion that the only logical basis for a decision on the merits of this contract would be a careful sampling of the ore

faces which have been exposed by their recent unwatering operations. We would be very happy to do this sampling but it seems to us that, before we go to the trouble and expense of making a trip to the Big Hurrah and sampling the workings, the owners should at least have their numerous samples assayed for tungsten and let us have the results thereof or, better, let us have the pulps from these samples so that we can make our own determinations. We have very little confidence in commercial assay results on low tungsten assays. We cannot understand why the applicants should submit only gold assays in support of a tungsten application.

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

cc: C.L.Sainsbury
J.A.Herdlick
R.R.Wells

THIS AGREEMENT, made and entered into this 4th day of November, 1949, by and between LANE INVESTMENT CO., a California corporation, first party, and T. D. LANE, of Phoenix, Arizona, second party,

W I T N E S S E T H:

WHEREAS, first party is the owner of that certain patented ground and patented quartz mining claims, and water rights, situated in the Cape Nome Recording District, Territory of Alaska, and known and described as:

> KING SOLOMON, OCTOBER FRACTION, SOUR DOUGH, QUENA, JULY FRACTION, POTAZUBA FRACTION, KING SOLOMON No.1, KING SOLOMON No.2, KING SOLOMON No.3, KING SOLOMON No.4, KING SOLOMON No.5, KING SOLOMON No.6., DEWEY, JOSEPHINE, and ELMER S. Lode Mining Claims,
>
> the Patent Number of said mining claims being 298715, and the patent thereof having been filed for record on the 4th day of January, 1913, in Book 191, Page 408 of the Records of the Cape Nome Recording District, Alaska, to which records reference is hereby made for a more particular description of said property;
>
> ALSO: All water and water rights riparian to said property or in anywise incident thereto, or used in connection therewith, and together with all personal property, mining machinery, or improvements on any and all of the above described property, and the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining;

and,

WHEREAS, second party is desirous of securing from first party a lease upon and an option to purchase said property hereinabove described;

NOW, THEREFORE, it is agreed between the parties hereto as follows:

1. First party hereby leases, lets and demises unto second party for a term of twenty-five (25) years from the date of this agreement, all of said above described property, and including the

tailings resulting from mining heretofore done on said premises, and second party agrees that he will, on or before twelve (12) months from the date hereof, go upon said premises and begin prospecting and mining operations thereon.

2. Second party is hereby given the exclusive right and privilege to mine any and all of said patented ground and quartz mining claims, and said tailings, and to retain the gold or other valuable minerals and metals recovered therefrom by means of said mining except the royalties hereinafter described and provided to be paid by second party to first party.

3. Second party may sell the gold and other valuable minerals and metals resulting from such mining, and from the proceeds thereof pay to first party a royalty of ten per cent (10%) of the net returns from the United States Mint, or smelter, or other purchaser of said gold or other valuable minerals or metals, until second party has paid to first party royalties to the amount of Thirty-five Thousand Dollars, ($35,000.00), and thereafter the royalties to be paid to first party by second party hereunder will be three per cent (3%) instead of ten per cent (10%) of the said net proceeds, said 3% royalty otherwise to be paid in all respects as the said 10% royalty is required to be paid hereunder.

All royalties to be paid hereunder will be based on the returns from the United States Mint, or smelter, or other purchaser of said proceeds resulting from said mining, and will be accompanied by a copy of the returns of the Mint, or smelter, or other purchaser upon which the royalties then paid are based.

4. All royalties payable hereunder are to be paid to first party within twenty (20) days after the receipt by second party of any Mint, smelter, or other purchaser returns.

5. Second party will have control of the said lands during the continuance of this agreement, and shall be solely responsible

for any and all work done and all expenses incurred in, or upon, or about the same, and for all liabilities, claims or demands of any kind or character arising out of the operations of second party hereunder; and second party will fully protect and save first party and said lands from liens or charges resulting from any acts of omission or commission of second party.

6. Second party shall and will enter upon, and will operate and develop, the said mining ground and mining claims in an orderly, first class, and minerlike manner, and will continuously prospect or mine said ground, with due regard to the preservation of the premises as a workable mine, and will comply promptly with all applicable labor and social security laws, and will protect first party in accordance with any Workmen's Compensation Act of the Territory of Alaska, and will carry for all employees such insurance for this purpose; and second party will protect first party against any and all liability, costs, claims, suits, and/or expenses relating to or arising out of the operation of said lands or the performance of any of the terms, conditions, covenants and agreements herein contained, or arising out of or resulting from anything done or omitted to be done by second party.

7. Second party shall and will at all times keep full, true and correct accounts of, and concerning, all metals, ores, minerals or concentrates extracted or mined from said premises, and of and concerning all ore crushed and all smelter returns, and second party shall and will render and deliver to first party monthly accounts concerning all of the products and proceeds of said lands. First party, or its agent or representative, shall have the right to inspect the work done hereunder upon said lands, and shall also have the right to inspect the books of second party showing the production of ore and the proceeds therefrom, at any time during business hours.

8. It is understood and agreed that if second party shall

at any time default in any of the terms of payment, or make any default in any of the payments that may become due under this agreement, or shall cease to diligently work and develop the said lands, or shall otherwise fail to keep or comply with any of the terms, provisions, covenants and conditions herein contained, it shall constitute a breach and default of this agreement, including option to purchase, and if such breach or default shall not be cured within thirty (30) days after the mailing of a written notice by first party to second party of such breach or default, and of its election to terminate this agreement, this agreement shall then terminate and end, and thereupon, upon any termination hereof, any and all unsold minerals, products and ores theretofore extracted from said mining lands and then remaining thereon, and all the royalties on any metals, ores, minerals or concentrates theretofore sold, and any and all payments theretofore made to first party by second party, shall be retained and shall belong absolutely to first party and as liquidated damages, it being agreed that upon such termination of this agreement it would be difficult or impossible to compute the damages suffered by first party, and first party may then enter upon and take sole and exclusive possession of all of said mining properties without recourse to law. All tools, supplies or moveable equipment, and any mining or milling machinery, placed on said lands by second party, excepting all buildings, shall remain personal property and the property of second party, and the same may be removed from said premises within nine (9) months after any termination of this agreement.

9. Second party shall immediately upon entering the said premises, cause to be posted in a conspicuous place on the said lands, and will there maintain, a written notice to the effect that first party will not be held responsible for any bills contracted by, or any expenses incurred, by second party in connection

with the working of said premises and the development of same.

10. Any payments herein provided to be made by second party to first party shall be made by second party to the MINERS & MERCHANTS BANK OF ALASKA, at Nome, Alaska, for the account of first party.

11. All notices, demands or communications herein provided to be given, or which either party hereto may deem it desirable or necessary to give, and all agreements between the parties hereto, shall be in writing. All such notices, demands or communications may be served by personal service, or by mailing the same by registered mail in a United States Post Office, postage thereon fully prepaid, and directed to first party at Room No.974 Mills Building, San Francisco 4, California, and to second party at 2220 No.13th Street, Phoenix, Arizona until a different party and/or place is designated by either of the parties hereto in writing.

12. Second party will pay before delinquency all taxes levied against the said lode mining claims and the improvements thereon, and all gold or severance taxes levied on the proceeds of said mining by the Territory of Alaska.

13. Second party may terminate this agreement at any time upon written notice thereof given to first party, said notice to fix the time for such termination, which shall be not less than sixty (60) days from the date of said notice.

14. No termination of this agreement by either party shall have the effect of releasing second party from any duty, obligation or requirement which shall have accrued or matured hereunder before the effective date of such termination.

15. Any work to be done or improvements to be made hereunder will be excused during the period for which the same are prevented from being made or done by any law, acts of God, the public enemy, Governmental orders or regulations, weather conditions, strikes,

fires, labor or material shortages, or other causes beyond the control of second party.

16. In consideration of the acceptance of the foregoing lease and the expenditures to be made hereunder, and the well and faithful keeping of the covenants thereof, second party shall have, and he is hereby given - subject to the consent thereto of a majority of the stockholders of first party - the right and option to purchase the said demised premises by payment to first party of the sum of THIRTY-FIVE THOUSAND DOLLARS, ($35,000.00) on or before five (5) years from the date of this agreement, the amount of all royalties theretofore paid by second party to first party hereunder to be credited to second party on the said purchase price of $35,000.00, if said purchase is made hereunder, and upon tender of such payment first party will make, execute, acknowledge and deliver to second party a good and sufficient deed conveying the said premises to second party. The forfeiture, surrender or termination of the above lease prior to the payment of said purchase price for any cause shall render this option void, and the said payment cannot thereafter be tendered.

17. Upon any termination of this agreement other than by the purchase of said premises as hereinbefore provided for, second party will immediately give to first party a good and sufficient quitclaim deed to all of the right, title and interest of second party in and to the said described premises and property.

18. This agreement shall inure to the benefit of and be binding upon the heirs, executors, administrators, successors and assigns of the respective parties hereto.

IN WITNESS THEREOF, first party hereto has caused this agreement to be executed by its proper officers thereunto duly authorized, and second party hereto has hereunto set his hand,

the day and year first hereinabove written.

LANE INVESTMENT CO.,

By Theophilus Allen President.

By J. Thomas Secretary.

FIRST PARTY.

T. P. Lane

T. P. Lane

SECOND PARTY.

Ruth Ann Henderson
N.P. 8/14/53.
State of Arizona
County of Pima

THIS AGREEMENT, made and entered into this 29th day of November, 1950, by and between LANE INVESTMENT CO., a California corporation, first party, and T. P. LANE, of Phoenix, Arizona, second party,

W I T N E S S E T H:

WHEREAS, the parties hereto did on the 4th day of November, 1949, make and enter into a certain lease and option agreement under which second party hereto was given and granted a lease upon and an option to purchase the following described real property, to wit:

> That certain patented ground and patented quartz mining claims, and water rights, situated in the Cape Nome Recording District, Territory of Alaska, and known and described as:
>
> KING SOLOMON, OCTOBER FRACTION, SOUR DOUGH, QUENA, JULY FRACTION, POTAZUBA FRACTION, KING SOLOMON NO.1, KING SOLOMON NO.2, KING SOLOMON NO.3; KING SOLOMON NO.4, KING SOLOMON NO.5, KING SOLOMON NO.6, DEWEY, JOSEPHINE, and ELMER S. Lode Mining Claims, -
>
> the Patent Number of said mining claims being 298715, and the patent thereof having been filed for record on the 4th day of January, 1913, in Book 191, Page 408 of the Records of the Cape Nome Recording District, Alaska, to which records reference is hereby made for a more particular description of said property;
>
> ALSO: All water and water rights riparian to said property or inanywise incident thereto, or used in connection therewith, and together with all personal property, mining machinery, or improvements on any and all of the above described property, and the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining;

and,

WHEREAS the parties hereto did by instrument in writing modify in certain respects the said lease and option agreement dated November 4, 1949; and

WHEREAS it is the desire of the parties hereto to again

modify the said lease and option agreement dated November 4, 1949, as heretofore modified;

NOW, THEREFORE, it is agreed between the parties hereto as follows:

That Paragraph numbered "16" of said lease and option agreement dated November 4, 1949 as heretofore, and on or about April 7, 1950, modified, be and the same is hereby changed and modified so that said Paragraph "16" of said lease and option agreement dated November 4, 1949 will, and does now, read as follows:

> "16. In consideration of the acceptance of the foregoing lease and the expenditures to be made hereunder, and the well and faithful keeping of the covenants thereof, second party shall have, and he is hereby given - subject to the consent thereto of a majority of the stockholders of first party - the right and option to purchase the said demised premises by payment to first party of the sum of THIRTY FIVE THOUSAND DOLLARS, ($35,000.00) on or before ten (10) years from the date of this agreement, the amount of all royalties theretofore paid by second party to first party hereunder to be credited to second party on the said purchase price of $35,000.00, if said purchase is made hereunder, and upon tender of such payment first party will make, execute, acknowledge and deliver to second party a good and sufficient deed conveying the said premises to second party. The forfeiture, surrender or termination of the above lease prior to the payment of said purchase price for any cause shall render this option void, and the said payment cannot thereafter be tendered."

Except as hereby changed and modified, and as heretofore modified, the said lease and option agreement dated November 4, 1949, shall be and remain in all other respects as the same is written and signed.

IN WITNESS WHEREOF, first party hereto has caused this

modification agreement to be executed by its proper officers thereunto duly authorized, and second party hereto has hereunto set his hand, the day and year first hereinabove written.

LANE INVESTMENT CO.,

By _____
President.

By _____
Secretary.

FIRST PARTY.

_____
W. P. Lane

SECOND PARTY.

ASSIGNMENT

For and in consideration of the sum of Ten Dollars paid to T. P. LANE by SHERWOOD B. OWENS, receipt of which is hereby acknowledged, and for other valuable considerations, the said T. P. LANE hereby transfers, assigns and sets over to the said SHERWOOD B. OWENS a fifty-five (55%) per cent interest in and to that certain agreement dated November 4, 1949, by and between the Lane Investment Company, a California corporation, and T. P. LANE of Phoenix, Arizona, which said agreement has been recorded in Book 232 of the Records of the Cape Nome Recording District, Alaska, at page 54-61 incl. thereof, said agreement being a lease of certain patented mining claims together with water rights, and an option to purchase said mining claims, which said lease and option was made to the said T. P. LANE as lessee.

This Assignment is an assignment to the said SHERWOOD B. OWENS by the said T. P. LANE of a fifty-five (55%) per cent interest in said lease and option together with all the rights, proceeds, or assets of any kind which the said T. P. LANE now has or may acquire under the terms of the aforesaid agreement.

IN WITNESS WHEREOF said T. P. LANE has hereunto affixed his name at Nome, Alaska, this 31st day of July, 1950.

T. P. Lane

_____)
: ss.
_____)

On this the ____ day of _____, 1950, before me, _____, a notary public, personally appeared T. P. LANE, known to me to be the person whose name is subscribed to the within instrument, and that he executed the same for the purpose therein contained.

ROBERT S. TULLAR
ATTORNEY AT LAW
37 WEST ALAMEDA STREET
P. O. BOX 121
TUCSON, ARIZONA
TELEPHONE 2-4481

IN WITNESS WHEREOF I hereunto set my hand and official seal.

Notary Public

My Commission Expires:

ROBERT S. TULLAR
ATTORNEY AT LAW
37 WEST ALAMEDA STREET
P. O. BOX 131
TUCSON, ARIZONA
TELEPHONE 2-4481

ASSIGNMENT OF LEASE AND OPTION

KNOW ALL MEN BY THESE PRESENTS, That TRAVIS P. LANE, the same person as T. P. LANE, and SHERWOOD B. OWENS, parties of the first part, for and in consideration of the sum of $1.00, receipt of which hereby is acknowledged, to them paid by Alaskan Associates, Ltd., a limited partnership duly organized and existing under and by virtue of the laws of the Territory of Alaska, party of the second part, do hereby transfer, assign and set over unto Alaskan Associates, Ltd., a limited partnership, party of the second part, its successors and assigns, all of their right, title and interest in and to that certain Lease and Option Agreement dated November 4, 1949, by and between the Lane Investment Company, a California corporation, and T. P. Lane of Phoenix, Arizona, which agreement has been recorded in Book 232 of the records of the Cape Nome Recording District, Alaska, at pages 59 to 61 inclusive thereof, said agreement being a lease of certain patented mining claims described as: KING SOLOMON, OCTOBER FRACTION, SOUR DOUGH, QUENA, JULY FRACTION, POTAZUBA FRACTION, KING SOLOMON NO. 1, KING SOLOMON No. 2, KING SOLOMON No. 3, KING SOLOMON No. 4, KING SOLOMON No. 5, KING SOLOMON No. 6, DEWEY, JOSEPHINE, and ELMER S. Lode Mining Claims, Patent Number 298715, recorded January 4, 1913, in Book 191, Page 408 of the Records of the Cape Nome Recording District, Alaska, together with water rights and mining rights incident or appurtenant to said mining claims, which said Lease and Option was made to the said T. P. Lane as lessee, and which agreement was subsequently modified by the same parties by their further agreement of November 29, 1950.

hereby covenant to and with the party of the second part, its successors and assigns, that they are in lawful possession of the above described mining claims and that said claims are free from encumbrances, excepting the option price of $32,955.15 to be paid in accordance with the terms of the aforesaid Lease and Option, and that there are no liens or other encumbrances against said mining claims, and that the parties of the first part, and each of them, will and their heirs, executors and administrators shall warrant and forever defend the above granted premises and each part and parcel thereof against the lawful claims and demands of all persons whomsoever, excepting as hereinabove provided.

IN WITNESS WHEREOF, We have hereunto set our hands and seals this 8th day of July A. D. 1953.

Travis P. Lane

Sherwood B. Owens

STATE OF OREGON)
: ss
County of Multnomah)

BE IT REMEMBERED, That on this 8th day of July 1953, before me, the undersigned, a Notary Public in and for said County and State, personally appeared the within named TRAVIS P. LANE, and SHERWOOD B. OWENS, who are known to me to be the identical individuals described in and who executed the within instrument and acknowledged to me that they executed the same freely and voluntarily.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal the day and year last above written.

R. Laurence Sulla
Notary Public for Oregon
My Commission Expires: Dec. 9, 1956

DEPARTMENT OF THE INTERIOR
nse Minerals Administration
RECEIVED
FEB 10 1954

MAR 29 1954

DOCKET
SURNAME
Rutledge
Martin
Geehan
Farrabee
Hedgecoe
Selfridge
Johnson

Mr. Sherwood H. Owens, General Partner
Alaskan Associates, Ltd.
P. O. Box 769
Tucson, Arizona

Re: Docket No. DMEA 3240 - Tungsten
Big Hurrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

Dear Mr. Owens:

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

We believe you understood from our conversations here that 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.

Although our study confirms the presence of a small amount of tungsten mineralization on your property, it does not indicate that your proposed project has enough probability of disclosing ore reserves having a tungsten content commensurate with the size of the program. We realize that under certain circumstances, production of by-product tungsten might be economically feasible from an ore assaying very low in tungsten but containing an appreciable amount of gold; however, at the Big Hurrah mine the tenor of the ore appears to be such that participation by the Government in an exploratory program for tungsten is not warranted.

We regret to advise you, therefore, that your application for exploration assistance is denied. At the same time we appreciate your interest in the Defense Minerals Exploration Program and we wish to thank you for bringing your property to our attention.

FARutledge:lcc 3-29-54

cc to: Docket
Code 400
FT. Reg. 1
Operating Comm.
Adm. Reading File
R. W. Geehan, USBM
T. P. Thayer, USGS

Sincerely yours,

R. O. Mittendorf (for)

Administrator

R.C.S.
3-29-54

DOCKET
SURNAME
Rutledge
Martin
Guhan

March 25, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $315,922.50
Alaskan Associates, Ltd.
Big Hurrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

The denial of the subject application by this Division is based on the following information:

1. Alaskan Associates, Ltd., is interested primarily in the production of gold. No data were submitted with the application to substantiate the occurrence of a significant amount of tungsten.

2. The applicant's examining engineer, James M. Orr, stated on page 13 that: "It is possible that the present mill may readily recover the scheelite on the Wilfley concentrating tables incorporated in the flow sheet." However, C. O. Roberts operated the property during the period 1944-1947 using practically the same setup: i.e., stamps and Wilfley tables. There is no record of any sale of tungsten products from this operation.

3. Applicant proposed repay on tungsten only. Later changed to repayment on all production but still maintained that it would be to the Government's interest to take tungsten. However there is no guarantee that the tungsten will be recovered in appreciable quantities. No metallurgical test data submitted with application. In conferences with the Iron and Ferro-Alloys Division, Mr. Owens did not give the impression that he is familiar with the metallurgy of tungsten.

RCG
3-29-54

4. On February 24, 1954, Mr. Owens was informed by the Iron and Ferro-Alloys Division that no data had been submitted to substantiate the occurrence of significant tungsten at the Big Murrah mine. He then submitted the two following composite samples:

SWECO Lot No. 3476 0.09 percent WO_3

This lot consisted of 8 samples, all of which were from the 70' or so-called "Robert Sub-Level"

SWECO Lot No. 3477 0.13 percent WO_3

This lot consisted of 15 samples; two from the 70' level, six from the 150' level, and seven from the 250' level.

5. Mr. Owens was then informed that these samples were too low in grade to warrant Government participation in the exploration program. It was then suggested that the analyses of all the sample rejects of Mr. Orr's samples might indicate areas of higher tungsten concentration.

6. On March 22, 1954, we received the analyses of 51 samples of which 8 could not be located on the sample maps. These samples grouped according to location follow. The average of each group is a weighted average. Value for gold based on $35.00 an ounce. (See assay maps attached to report by Orr).

Shaft or No. 3 Vein
150-foot level

Sample No.	Width, feet	% WO_3	$ Gold
10	3.0	0.13	9.80
11	2.0	0.09	Tr
13A	2.2	0.26	7.00
13B	2.2	0.31	6.65
13	2.2	0.28	6.82
14	3.0	0.18	2.80
15	3.0	0.12	0.70
16	4.6	0.08	0.70
17	3.9	0.15	0.70
19	5.6	0.20	1.40
20	2.5	0.26	23.10
21	2.2	0.62	2.80
22	5.5	0.19	2.80
23	2.5	0.10	11.90
24	2.4	0.83	16.10
25	2.8	0.07	5.60

86	2.5	0.12	0.76
101	3.9	0.16	9.80
102	6.9	0.17	5.60
103	3.5	0.14	11.20
104	4.5	0.18	1.40
36	4.1	0.20	4.20
	3.5	0.20	5.29

Shaft or No. 3 Vein
70-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
30	2.9	0.21	26.60
32	2.1	0.06	10.50
33	3.8	0.04	11.20
34	3.7	0.08	8.40
35	3.6	0.13	17.50
	3.2	0.10	14.65

Main Vein
Back of stope above 150-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
36	4.0	0.20	28.70
37	3.1	0.25	34.30
	3.6	0.22	31.14

Main Vein
150-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
27	5.8	0.17	3.50
28	3.2	0.14	23.90
29	3.0	0.24	75.60
54	2.0	0.15	7.70
	3.5	0.18	24.21

Main Vein
250-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
43	3.0	0.10	1.40
44	3.0	0.11	1.40
45	1.0	0.09	11.20
46	3.8	0.13	5.60
47	4.0	0.05	18.20
	3.0	0.10	7.68

Hanging Wall Vein
250-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
40	3.0	0.14	16.10
41	2.0	0.77	13.30
42	0.9	0.43	11.90
	5.9	0.40	14.51

Note: The above may be in error but from the map and description of samples these three samples were taken across a hanging wall vein.

The average width and value of all samples listed above follow:

3.5 feet
0.18 percent WO_3
$10.65 in gold at $35.00 an ounce

7. While the analyses submitted indicate that there is slightly more tungsten present than originally estimated, the grade is still too low to indicate a significant source of tungsten and to warrant Government participation in an exploration project.

8. The Field Team recommends denial of the subject application.

9. The Commodity Division of the Geological Survey recommends denial.

10. The Commodity Division of the Bureau of Mines concurs with denial of the application.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

FARutledge/foo
3-25-54
cc: Docket
Code 400
Adm. Read. File
Operating Comm.

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

March 25, 1954

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of exploration project in the amount of $315,922.50
Alaskan Associates, Ltd.
Big Hurrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

The denial of the subject application by this Division is based on the following information:

1. Alaskan Associates, Ltd., is interested primarily in the production of gold. No data were submitted with the application to substantiate the occurrence of a significant amount of tungsten.

2. The applicant's examining engineer, James M. Orr, stated on page 13 that: "It is possible that the present mill may readily recover the scheelite on the Wilfley concentrating tables incorporated in the flow sheet." However, C. O. Roberts operated the property during the period 1944-1947 using practically the same setup: i.e., stamps and Wilfley tables. There is no record of any sale of tungsten products from this operation.

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This lot consisted of 15 samples; two from the 70' level, six from the 150' level, and seven from the 250' level.

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150-foot level

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11	2.0	0.09	Tr
13A	2.2	0.26	7.00
13B	2.2	0.31	6.65
13	2.2	0.28	6.82
14	3.0	0.18	2.80
15	3.0	0.12	0.70
16	4.6	0.08	0.70
17	3.9	0.15	0.70
19	5.6	0.20	1.40
20	2.5	0.26	23.10
21	2.2	0.62	2.80
22	5.5	0.19	2.80
23	2.5	0.10	11.90
24	2.4	0.83	16.10
25	2.8	0.07	5.60

26	2.5	0.12	0.76
101	3.9	0.16	9.80
102	6.9	0.17	5.60
103	3.5	0.14	11.20
104	4.5	0.18	1.40
36	4.1	0.20	4.20
	3.5	0.20	5.29

Shaft or No. 3 Vein
70-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
30	2.9	0.21	26.60
32	2.1	0.06	10.50
33	3.8	0.04	11.20
34	3.7	0.08	8.40
35	3.6	0.13	17.50
	3.2	0.10	14.65

Main Vein
Back of stope above 150-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
36	4.0	0.20	28.70
37	3.1	0.25	34.30
	3.6	0.22	31.14

Main Vein
150-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
27	5.8	0.17	3.50
28	3.2	0.14	23.90
29	3.0	0.24	75.60
54	2.0	0.15	7.70
	3.5	0.18	24.21

Main Vein
250-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
43	3.0	0.10	1.40
44	3.0	0.11	1.40
45	1.0	0.09	11.20
46	3.8	0.13	5.60
47	4.0	0.05	18.20
	3.0	0.10	7.68

Hanging Wall Vein
250-foot level

SAMPLE NO.	Width, feet	% WO_3	$ Gold
40	3.0	0.14	16.10
41	2.0	0.77	13.30
42	0.9	0.43	11.90
	5.9 ?	0.40	14.51

Note: The above may be in error but from the map and description of samples these three samples were taken across a hanging wall vein.

The average width and value of all samples listed above follow:

3.5 feet
0.18 percent WO_3
$10.65 in gold at $35.00 an ounce

7. While the analyses submitted indicate that there is slightly more tungsten present than originally estimated, the grade is still too low to indicate a significant source of tungsten and to warrant Government participation in an exploration project.

8. The Field Team recommends denial of the subject application.

9. The Commodity Division of the Geological Survey recommends denial.

10. The Commodity Division of the Bureau of Mines concurs with denial of the application.

W S Martin
W. S. Martin, Chief
Iron and Ferro-Alloys Division

ORE TESTING
SAMPLINGS
and
SUPERVISION OF
ORE SHIPMENTS

Established 1916

Phone
VAndike 9328

ED. EISENHAUER, Jr.

ASSAYER -- METALLURGIST -- CHEMIST

320-322 SOUTH SAN PEDRO STREET
LOS ANGELES 13, CALIF.

March 15/54

Alaskan Syndicate
Portland
Oregon

Subject : Assays of Ore.

Marked :	Tungstic Oxide(WO_3)	Marked :	Tungstic Oxide(WO_3)
4	.11 %	37	.25 %
8	.16 %	40	.14 %
10	.13 %	41	.77 %
11	.09 %	42	.43 %
13 A	.26 %	43	.10 %
13 B	.31 %	44	.11 %
14	.18 %	45	.09 %
15	.12 %	46	.13 %
16	.08 %	47	.05 %
17	.15 %	48	.08 %
19	.20 %	52	.12 %
20	.26 %	54	.15 %
21	.62 %	59	.11 %
~~19~~ 22	.19 %	101	.16 %
23	.10 %	102	.17 %
24	.83 %	103	.14 %
25	.07 %	104	.18 %
26	.12 %	A	.20 %
27	.17 %	B	.13 %
28	.14 %	C	.12 %
29	.24 %	D	.09 %
30	.21 %	E	.14 %
32	.06 %	1-00156	.15 %
33	.04 %	2-00157	.14 %
34	.08 %		
35	.13 %		
36	.20 %		

Respectfully submitted

Ed. Eisenhauer, Jr.

IN REPLY REFER TO:

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

March 23, 1954

WSM

Memorandum

To: W. S. Martin, DMEA

From: P. W. Guild, USGS

Subject: Review of assay results of samples from Big Hurrah mine, Alaska
DMEA 3240 - Tungsten
Alaska Associates, Ltd.

The assay results of 51 samples from the subject property give an unweighted average of only 0.184 percent WO_3. The range is from 0.04 to 0.83 percent, but only 3 samples ran over 0.50 percent. Most samples represent widths of 2 to 4 feet of vein material. The deposit obviously has little chance to produce a significant amount of tungsten, and I recommend denial of the application.

P W Guild

Copy retained

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

March 23, 1954

Memorandum

To: W. S. Martin, DMA

From: P. W. Guild, USGS

Subject: Review of assay results of samples from Big Hurrah mine, Alaska
DMA 3240 - Tungsten
Alaska Associates, Ltd.

The assay results of 51 samples from the subject property give an unweighted average of only 0.184 percent WO_3. The range is from 0.04 to 0.83 percent, but only 3 samples ran over 0.50 percent. Most samples represent widths of 2 to 4 feet of vein material. The deposit obviously has little chance to produce a significant amount of tungsten, and I recommend denial of the application.

cc: 3 to WSMartin

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

March 23, 1954

Memorandum

To: W. S. Martin, [illegible]

From: P. W. Guild, [illegible]

Subject: Review of assay results of samples from Big Hurrah mine, Alaska
MLA 3240 - Tungsten
Alaska Associates, Ltd.

The assay results of 51 samples from the subject property give an unweighted average of only 0.184 percent WO_3. The range is from 0.04 to 0.83 percent, but only 3 samples ran over 0.50 percent. Most samples represent widths of 2 to 4 feet of vein material. The deposit obviously has little chance to produce a significant amount of tungsten, and I recommend denial of the application.

cc: 3 to WSMartin

Docket

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

Defense Minerals Administration
RECEIVED
MAR 22 1954

P. O. Box 560
Juneau, Alaska
March 17, 1954

WSM

Mr. George C. Selfridge, Chairman
Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

re: Docket No. DMEA-3240 (tungsten)
Alaskan Associates, Ltd.

Dear Mr. Selfridge:

I have just received your letter of March 11 in which you state that this application has not been denied but is being held in abeyance pending submission by the applicant of data to substantiate his claim that tungsten occurs in significant amounts at the Big Hurrah mine.

It was my understanding from a copy of a letter sent to me that the application had been denied but that it would be reopened if he submitted satisfactory data. In any case the result will be about the same.

I note that he is to submit rejects from his sampling for tungsten assays by the Southwestern Engineering Company. Inasmuch as I am practically sure that the Southwestern results will be too high I can expect that the result will be to involve us in an unnecessary and quite laborious examination and sampling job. Would there not be some way of requiring that the pulps be submitted to an assayer on whom we could depend for reliable low-tungsten results? I don't know who would be a reliable assayer for this work unless it were done in Bureau of Mines laboratories but it is possible that someone in Washington may know of a commercial assayer who could act as umpire.

Yours sincerely,

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

cc: C.L.Sainsbury

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 3/22/54

REFERRED TO:

1. ~~Op. Comm.~~
2. 400
3. [redacted]
4.

FOR:

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

REMARKS: No reply recommended: (1) FT confused "in abeyance" with denial. (2) We should not tell the applicant which assayer to use

Check (X) before the items needing attention.

W. S. Martin

Initials of sender.

GPO 16—63815-1

DOCKET
Rutledge
Martin
Selfridge
Johnson
Weatherdon

MAR 11 1954

Mr. S. H. Lorain, Executive Officer
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

Re: Docket No. DMEA 3240 - Tungsten
Alaskan Associates, Ltd.
Big Hurrah Quartz mine
Seward Peninsula, Alaska

Dear Mr. Lorain:

Reference is made to the Region I monthly report for February 1954, and to the subject docket.

Your report contains the notation: "Big Hurrah denied Washington without referral." According to our records, the application has not been denied but is being held in abeyance pending submission by the applicant of data to substantiate his claim that tungsten occurs in significant amounts at the Big Hurrah mine.

Mr. Sherwood B. Owens, General Partner, Alaskan Associates, Ltd., called on DMEA in Washington on February 24, 1954, and left a copy showing the average grade and samples contained in two composite samples submitted to Southwestern Engineering Company for testing (copy enclosed). In addition, Mr. Owens agreed to have the individual samples taken by Mr. James M. Orr during his examination of the Big Hurrah mine analyzed for tungsten.

Sincerely yours,

George C. Selfridge (216)
Chairman, Operating Committee

Enclosure

APPROVED:

J. H. Hedges (216)
Member, Bureau of Mines

D. M. Larrabee (216)
Member, Geological Survey

cc: Docket
FT, Reg. I
Code 400
Oper. Comm.
Adm. Read. File
R. W. Geehan, USBM
T. P. Thayer, USGS

FARutledge/ls
3-9-54

R.C.S.
3-14-54

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 24 1954

SAMPLES SUBMITTED TO SOUTHWESTERN ENGINEERING COMPANY

DMEA-3240

SWECO Lot No. 3476 0.09 WO3

This lot consisted of 8 samples, all of which were from the 70' or so-called "Roberts Sub-Level".

The 8 samples were the rejects returned by Jacobs Assay Office after running samples for gold and silver as shown on Certificate No. 48287 under date of October 24, 1950.

SWECO Lot No. 3477 0.13 WO3

This lot consisted of 15 samples which were as follows:

Location	Sample No.
70' Level	30
70' Level	33
150' Level	20
150' Level	23
150' Level	36-B
150' Level	37
150' Level	53
150' Level	54
250' Level	40
250' Level	41
250' Level	45
250' Level	51
250' Level	55-A
250' Level	56-D
250' Level	57

The 15 samples were the rejects returned by Pittsburgh Testing Laboratory after running samples for gold and silver as shown on Certificate No. PO 305 under date of September 14, 1953.

Left by Mr. Sherwood B. Owens
2/24/54

Docket Cam

SHERWOOD B. OWENS
P. O. BOX 769
TUCSON, ARIZONA

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 12 1954

Feb. 10, 1954

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington, D. C.

WSM

Re: Docket No. DMEA 3240

Dear Mr. Mittendorf:

Thank you for your letter granting my request for a conference with you on the above application and an opportunity to discuss same with your examining engineers.

So much assaying has been necessary for our determinations that I find I am a little behind on my schedule. Consequently I should like to confer with you the week following the AIME convention.

I shall be in Washington by Feb. 23 and will contact your office at that time for an appointment at your convenience.

Thanking you, I am

Sincerely yours,

ALASKAN ASSOCIATES, LTD.

by Sherwood B. Owens

General Partner

SBO/j

SHERWOOD B. OWENS
P. O. BOX 769
TUCSON, ARIZONA

TUCSON
FEB 10
4 PM
1954

AIR MAIL
6¢
U.S. POSTAGE

A I R M A I L

Mr. C. O. Mittendorf, Administrator

Defense Minerals Exploration Administration

Department of the Interior

Washington 25, D. C.

SHERWOOD B. OWENS
P. O. BOX 769
TUCSON, ARIZONA

Docket

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 10 1954

Feb. 9, 1954

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Subject: DMEA-3240

WSM

Gentlemen:

At the time the above application was filed certain photostatic copies of instruments were not available. This omission was noted in a memorandum.

A complete file consisting of four sets of these photostatic copies is enclosed herewith.

Please attach one set to each MF-103 in order that our filing may be complete.

The Exhibit should be filed under Question No. 3, Sub-head (d).

Thank you.

Yours very truly,

ALASKAN ASSOCIATES, LTD.

By Sherwood B. Owens

General Partner

SBO/j

Copy retained 400

Copy sent to USGS of US Bm 2/11/54 ls

Copy retained 400

THIS AGREEMENT, made and entered into this 4th day of November, 1949, by and between LANE INVESTMENT CO., a California corporation, first party, and T. P. LANE, of Phoenix, Arizona, second party,

W I T N E S S E T H:

WHEREAS, first party is the owner of that certain patented ground and patented quartz mining claims, and water rights, situated in the Cape Nome Recording District, Territory of Alaska, and known and described as:

> KING SOLOMON, OCTOBER FRACTION, SOUR DOUGH, QUENA, JULY FRACTION, POTAZUBA FRACTION, KING SOLOMON No.1, KING SOLOMON No.2, KING SOLOMON No.3, KING SOLOMON No.4, KING SOLOMON No.5, KING SOLOMON No.6., DEWEY, JOSEPHINE, and ELMER S. Lode Mining Claims,
>
> the Patent Number of said mining claims being 298715, and the patent thereof having been filed for record on the 4th day of January, 1913, in Book 191, Page 408 of the Records of the Cape Nome Recording District, Alaska, to which records reference is hereby made for a more particular description of said property;
>
> ALSO: All water and water rights riparian to said property or in anywise incident thereto, or used in connection therewith, and together with all personal property, mining machinery, or improvements on any and all of the above described property, and the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining;

and,

WHEREAS, second party is desirous of securing from first party a lease upon and an option to purchase said property hereinabove described;

NOW, THEREFORE, it is agreed between the parties hereto as follows:

1. First party hereby leases, lets and demises unto second party for a term of twenty-five (25) years from the date of this agreement, all of said above described property, and including the

tailings resulting from mining heretofore done on said premises, and second party agrees that he will, on or before twelve (12) months from the date hereof, go upon said premises and begin prospecting and mining operations thereon.

2. Second party is hereby given the exclusive right and privilege to mine any and all of said patented ground and quartz mining claims, and said tailings, and to retain the gold or other valuable minerals and metals recovered therefrom by means of said mining except the royalties hereinafter described and provided to be paid by second party to first party.

3. Second party may sell the gold and other valuable minerals and metals resulting from such mining, and from the proceeds thereof pay to first party a royalty of ten per cent (10%) of the net returns from the United States Mint, or smelter, or other purchaser of said gold or other valuable minerals or metals, until second party has paid to first party royalties to the amount of Thirty-five Thousand Dollars, ($35,000.00), and thereafter the royalties to be paid to first party by second party hereunder will be three per cent (3%) instead of ten per cent (10%) of the said net proceeds, said 3% royalty otherwise to be paid in all respects as the said 10% royalty is required to be paid hereunder.

All royalties to be paid hereunder will be based on the returns from the United States Mint, or smelter, or other purchaser of said proceeds resulting from said mining, and will be accompanied by a copy of the returns of the Mint, or smelter, or other purchaser upon which the royalties then paid are based.

4. All royalties payable hereunder are to be paid to first party within twenty (20) days after the receipt by second party of any Mint, smelter, or other purchaser returns.

5. Second party will have control of the said lands during the continuance of this agreement, and shall be solely responsible

for any and all work done and all expenses incurred in, or upon, or about the same, and for all liabilities, claims or demands of any kind or character arising out of the operations of second party hereunder; and second party will fully protect and save first party and said lands from liens or charges resulting from any acts of omission or commission of second party.

6. Second party shall and will enter upon, and will operate and develop, the said mining ground and mining claims in an orderly, first class, and minerlike manner, and will continuously prospect or mine said ground, with due regard to the preservation of the premises as a workable mine, and will comply promptly with all applicable labor and social security laws, and will protect first party in accordance with any Workmen's Compensation Act of the Territory of Alaska, and will carry for all employees such insurance for this purpose; and second party will protect first party against any and all liability, costs, claims, suits, and/or expenses relating to or arising out of the operation of said lands or the performance of any of the terms, conditions, covenants and agreements herein contained, or arising out of or resulting from anything done or omitted to be done by second party.

7. Second party shall and will at all times keep full, true and correct accounts of, and concerning, all metals, ores, minerals or concentrates extracted or mined from said premises, and of and concerning all ore crushed and all smelter returns, and second party shall and will render and deliver to first party monthly accounts concerning all of the products and proceeds of said lands. First party, or its agent or representative, shall have the right to inspect the work done hereunder upon said lands, and shall also have the right to inspect the books of second party showing the production of ore and the proceeds therefrom, at any time during business hours.

8. It is understood and agreed that if second party shall

at any time default in any of the terms of payment, or make any default in any of the payments that may become due under this agreement, or shall cease to diligently work and develop the said lands, or shall otherwise fail to keep or comply with any of the terms, provisions, covenants and conditions herein contained, it shall constitute a breach and default of this agreement, including option to purchase, and if such breach or default shall not be cured within thirty (30) days after the mailing of a written notice by first party to second party of such breach or default, and of its election to terminate this agreement, this agreement shall then terminate and end, and thereupon, upon any termination hereof, any and all unsold minerals, products and ores theretofore extracted from said mining lands and then remaining thereon, and all the royalties on any metals, ores, minerals or concentrates theretofore sold, and any and all payments theretofore made to first party by second party, shall be retained and shall belong absolutely to first party and as liquidated damages, it being agreed that upon such termination of this agreement it would be difficult or impossible to compute the damages suffered by first party, and first party may then enter upon and take sole and exclusive possession of all of said mining properties without recourse to law. All tools, supplies or moveable equipment, and any mining or milling machinery, placed on said lands by second party, excepting all buildings, shall remain personal property and the property of second party, and the same may be removed from said premises within nine (9) months after any termination of this agreement.

9. Second party shall immediately upon entering the said premises, cause to be posted in a conspicuous place on the said lands, and will there maintain, a written notice to the effect that first party will not be held responsible for any bills contracted by, or any expenses incurred, by second party in connection

with the working of said premises and the development of same.

10. Any payments herein provided to be made by second party to first party shall be made by second party to the MINERS & MERCHANTS BANK OF ALASKA, at Nome, Alaska, for the account of first party.

11. All notices, demands or communications herein provided to be given, or which either party hereto may deem it desirable or necessary to give, and all agreements between the parties hereto, shall be in writing. All such notices, demands or communications may be served by personal service, or by mailing the same by registered mail in a United States Post Office, postage thereon fully prepaid, and directed to first party at Room No.974 Mills Building, San Francisco 4, California, and to second party at 2220 No.13th Street, Phoenix, Arizona until a different party and/or place is designated by either of the parties hereto in writing.

12. Second party will pay before delinquency all taxes levied against the said lode mining claims and the improvements thereon, and all gold or severance taxes levied on the proceeds of said mining by the Territory of Alaska.

13. Second party may terminate this agreement at any time upon written notice thereof given to first party, said notice to fix the time for such termination, which shall be not less than sixty (60) days from the date of said notice.

14. No termination of this agreement by either party shall have the effect of releasing second party from any duty, obligation or requirement which shall have accrued or matured hereunder before the effective date of such termination.

15. Any work to be done or improvements to be made hereunder will be excused during the period for which the same are prevented from being made or done by any law, acts of God, the public enemy, Governmental orders or regulations, weather conditions, strikes,

fires, labor or material shortages, or other causes beyond the control of second party.

16. In consideration of the acceptance of the foregoing lease and the expenditures to be made hereunder, and the well and faithful keeping of the covenants thereof, second party shall have, and he is hereby given - subject to the consent thereto of a majority of the stockholders of first party - the right and option to purchase the said demised premises by payment to first party of the sum of THIRTY-FIVE THOUSAND DOLLARS, ($35,000.00) on or before five (5) years from the date of this agreement, the amount of all royalties theretofore paid by second party to first party hereunder to be credited to second party on the said purchase price of $35,000.00, if said purchase is made hereunder, and upon tender of such payment first party will make, execute, acknowledge and deliver to second party a good and sufficient deed conveying the said premises to second party. The forfeiture, surrender or termination of the above lease prior to the payment of said purchase price for any cause shall render this option void, and the said payment cannot thereafter be tendered.

17. Upon any termination of this agreement other than by the purchase of said premises as hereinbefore provided for, second party will immediately give to first party a good and sufficient quitclaim deed to all of the right, title and interest of second party in and to the said described premises and property.

18. This agreement shall inure to the benefit of and be binding upon the heirs, executors, administrators, successors and assigns of the respective parties hereto.

IN WITNESS WHEREOF, first party hereto has caused this agreement to be executed by its proper officers thereunto duly authorized, and second party hereto has hereunto set his hand,

the day and year first hereinabove written.

LANE INVESTMENT CO.,

By Theophilus Allen President.

By J. Thrand Secretary.

FIRST PARTY.

T. P. Lane

T. P. Lane

SECOND PARTY.

Ruth Ann Henderson
N.P. 8/4/53.
State of Arizona
County of Pima

THIS AGREEMENT, made and entered into this 29th day of November, 1950, by and between LANE INVESTMENT CO., a California corporation, first party, and T. P. LANE, of Phoenix, Arizona, second party,

W I T N E S S E T H:

WHEREAS, the parties hereto did on the 4th day of November, 1949, make and enter into a certain lease and option agreement under which second party hereto was given and granted a lease upon and an option to purchase the following described real property, to wit:

> That certain patented ground and patented quartz mining claims, and water rights, situated in the Cape Nome Recording District, Territory of Alaska, and known and described as:
>
> KING SOLOMON, OCTOBER FRACTION, SOUR DOUGH, QUEEN, JULY FRACTION, POTAZUBA FRACTION, KING SOLOMON NO.1, KING SOLOMON NO.2, KING SOLOMON NO.3; KING SOLOMON NO.4, KING SOLOMON NO.5, KING SOLOMON NO.6, DEWEY, JOSEPHINE, and ELMER S. Lode Mining Claims, -
>
> the Patent Number of said mining claims being 298715, and the patent thereof having been filed for record on the 4th day of January, 1913, in Book 191, Page 408 of the Records of the Cape Nome Recording District, Alaska, to which records reference is hereby made for a more particular description of said property;
>
> ALSO: All water and water rights riparian to said property or inanywise incident thereto, or used in connection therewith, and together with all personal property, mining machinery, or improvements on any and all of the above described property, and the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining;

and,

WHEREAS the parties hereto did by instrument in writing modify in certain respects the said lease and option agreement dated November 4, 1949; and

WHEREAS it is the desire of the parties hereto to again

modify the said lease and option agreement dated November 4, 1949, as heretofore modified;

NOW, THEREFORE, it is agreed between the parties hereto as follows:

That Paragraph numbered "16" of said lease and option agreement dated November 4, 1949 as heretofore, and on or about April 7, 1950, modified, be and the same is hereby changed and modified so that said Paragraph "16" of said lease and option agreement dated November 4, 1949 will, and does now, read as follows:

> "16. In consideration of the acceptance of the foregoing lease and the expenditures to be made hereunder, and the well and faithful keeping of the covenants thereof, second party shall have, and he is hereby given - subject to the consent thereto of a majority of the stockholders of first party - the right and option to purchase the said demised premises by payment to first party of the sum of THIRTY FIVE THOUSAND DOLLARS, ($35,000.00) on or before ten (10) years from the date of this agreement, the amount of all royalties theretofore paid by second party to first party hereunder to be credited to second party on the said purchase price of $35,000.00, if said purchase is made hereunder, and upon tender of such payment first party will make, execute, acknowledge and deliver to second party a good and sufficient deed conveying the said premises to second party. The forfeiture, surrender or termination of the above lease prior to the payment of said purchase price for any cause shall render this option void, and the said payment cannot thereafter be tendered."

Except as hereby changed and modified, and as heretofore modified, the said lease and option agreement dated November 4, 1949, shall be and remain in all other respects as the same is written and signed.

IN WITNESS WHEREOF, first party hereto has caused this

modification agreement to be executed by its proper officers thereunto duly authorized, and second party hereto has hereunto set his hand, the day and year first hereinabove written.

LANE INVESTMENT CO.,

By _____
President.

By _____
Secretary.

FIRST PARTY.

_____
T. P. Lane

SECOND PARTY.

ASSIGNMENT

For and in consideration of the sum of Ten Dollars paid to T. P. LANE by SHERWOOD B. OWENS, receipt of which is hereby acknowledged, and for other valuable considerations, the said T. P. LANE hereby transfers, assigns and sets over to the said SHERWOOD B. OWENS a fifty-five (55%) per cent interest in and to that certain agreement dated November 4, 1949, by and between the Lane Investment Company, a California corporation, and T. P. LANE of Phoenix, Arizona, which said agreement has been recorded in Book 222 of the Records of the Cape Nome Recording District, Alaska, at page 54-61 incl. thereof, said agreement being a lease of certain patented mining claims together with water rights, and an option to purchase said mining claims, which said lease and option was made to the said T. P. LANE as lessee.

This Assignment is an assignment to the said SHERWOOD B. OWENS by the said T. P. LANE of a fifty-five (55%) per cent interest in said lease and option together with all the rights, proceeds, or assets of any kind which the said T. P. LANE now has or may acquire under the terms of the aforesaid agreement.

IN WITNESS WHEREOF said T. P. LANE has hereunto affixed his name at Nome, Alaska, this 31st day of July, 1950.

T. P. Lane

_____)
: ss.
_____)

On this the ____ day of _____, 1950, before me, _____, a notary public, personally appeared T. P. LANE, known to me to be the person whose name is subscribed to the within instrument, and that he executed the same for the purpose therein contained.

ROBERT E. TULLAR
ATTORNEY AT LAW
57 WEST ALAMEDA STREET
P. O. BOX 1311
TUCSON, ARIZONA
TELEPHONE 2-4481

IN WITNESS WHEREOF I have hereunto set my hand and official seal.

Notary Public

My Commission Expires:

ROBERT S. TULLAR
ATTORNEY AT LAW
37 WEST ALAMEDA STREET
P. O. BOX 131
TUCSON, ARIZONA
TELEPHONE 2-4491

ASSIGNMENT OF LEASE AND OPTION

KNOW ALL MEN BY THESE PRESENTS, That TRAVIS P. LANE, the same person as T. P. LANE, and SHERWOOD B. OWENS, parties of the first part, for and in consideration of the sum of $1.00, receipt of which hereby is acknowledged, to them paid by Alaskan Associates, Ltd., a limited partnership duly organized and existing under and by virtue of the laws of the Territory of Alaska, party of the second part, do hereby transfer, assign and set over unto Alaskan Associates, Ltd., a limited partnership, party of the second part, its successors and assigns, all of their right, title and interest in and to that certain Lease and Option Agreement dated November 4, 1949, by and between the Lane Investment Company, a California corporation, and T. P. Lane of Phoenix, Arizona, which agreement has been recorded in Book 232 of the records of the Cape Nome Recording District, Alaska, at pages 59 to 61 inclusive thereof, said agreement being a lease of certain patented mining claims described as: KING SOLOMON, OCTOBER FRACTION, SOUR DOUGH, QUENA, JULY FRACTION, POTAZUBA FRACTION, KING SOLOMON NO. 1, KING SOLOMON No. 2, KING SOLOMON No. 3, KING SOLOMON No. 4, KING SOLOMON No. 5, KING SOLOMON No. 6, DEWEY, JOSEPHINE, and ELMER S. Lode Mining Claims, Patent Number 298715, recorded January 4, 1913, in Book 191, Page 408 of the Records of the Cape Nome Recording District, Alaska, together with water rights and mining rights incident or appurtenant to said mining claims, which said Lease and Option was made to the said T. P. Lane as lessee, and which agreement was subsequently modified by the same parties by their further agreement of November 29, 1950.

The parties of the first part, and each of them, hereby covenant to and with the party of the second part, its successors and assigns, that they are in lawful possession of the above described mining claims and that said claims are free from encumbrances, excepting the option price of $32,955.15 to be paid in accordance with the terms of the aforesaid Lease and Option, and that there are no liens or other encumbrances against said mining claims, and that the parties of the first part, and each of them, will and their heirs, executors and administrators shall warrant and forever defend the above granted premises and each part and parcel thereof against the lawful claims and demands of all persons whomsoever, excepting as hereinabove provided.

IN WITNESS WHEREOF, We have hereunto set our hands and seals this 8th day of July A. D. 1953.

Travis P. Lane

Sherwood B. Owens

STATE OF OREGON)
County of Multnomah) ss

BE IT REMEMBERED, That on this 8th day of July 1953, before me, the undersigned, a Notary Public in and for said County and State, personally appeared the within named TRAVIS P. LANE, and SHERWOOD B. OWENS, who are known to me to be the identical individuals described in and who executed the within instrument and acknowledged to me that they executed the same freely and voluntarily.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal the day and year last above written.

R. Lawrence Miller
Notary Public for Oregon
My Commission Expires: Dec. 9, 1956

Department of the Interior
Defense Minerals Administration
RECEIVED
FEB 10 1954

THE ADMINISTRATOR

Docket

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

P. O. Box 560
Juneau, Alaska
January 28, 1954

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 1 1954

WSay

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

From: S. H. Lorain

Subject: Exploration contract application, Docket No. DMEA-3240
Alaskan Associates, Ltd.

Recently we received the docket number that was assigned by your office to the subject application. Today we received a copy of the application from the applicants. Although we have not been asked for an opinion with regard to this application we have noted in it one or two points which I think should be called to your attention while you are in the process of looking it over.

We note on pages 10 and 11 a discussion of tungsten assays obtained by the Jacobs Assay Office in Arizona versus assays made at the Bureau of Mines Laboratory in Juneau. Contrary to the impression given by the report the assays at Juneau were made very carefully, checked and double checked. Our initial results and the checks thereon were all consistent. Inasmuch as our laboratory is particularly experienced with low-grade tungsten assays we are entirely convinced that our results are correct and that the results by Jacobs are incorrect. The fact that Jacobs does assaying for G.S.A. does not necessarily qualify him in the field of very low tungsten assays; G.S.A. purchases do not involve ores containing tungsten in amounts less than one-tenth percent. In that bracket we have found the colorimetric assay to be much more dependable than the gravimetric method although we actually did check our colorimetric assays by gravimetric methods.

We recently had a discussion of the proposed loan with Mr. Lane in my office. It appeared from that discussion that the only logical basis for a decision on the merits of this contract would be a careful sampling of the ore

faces which have been exposed by their recent unwatering operations. We would be very happy to do this sampling but it seems to us that, before we go to the trouble and expense of making a trip to the Big Hurrah and sampling the workings, the owners should at least have their numerous samples assayed for tungsten and let us have the results thereof or, better, let us have the pulps from these samples so that we can make our own determinations. We have very little confidence in commercial assay results on low tungsten assays. We cannot understand why the applicants should submit only gold assays in support of a tungsten application.

S. H. Lorain, Executive Officer
Alaska Field Team, Region I

cc: C.L.Sainsbury
J.A.Herdlick
R.R.Wells

EUB065

WKC42 M

KAA77

RR UEPDA

DEPT. OF ARMY, TAGU
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FEB 4 01 40 z54

FEB 4 06 30 z54
DEPT. ARMY COMM.
EX 56397

RS 184

3240

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 4 1954

No reply necessary
WSG

DE UKJC 63 ARADIO MESSAGE CENTR

R 040125Z

FM S H LORAIN EXECO DMEA FIELD TEAM REGION I BUREAU OF MINES JUNEAU ALASKA

TO GEORGE SELFRIDGE CHAIRMAN OPERATING COMMITTEE DEFENSE MINERALS

EXPLORATION ADMIN INTERIOR BLDG WASHDC

MINES GRNC

REURTEL DOCKET 3240 BIG HURRAH MINE VISITED SUMMER 1952 BY SAINSBURY

AND YOUNGBERG USGS WHO SAMPLED DRIFT FACES AT 70 FOOT LEVEL AND BY

A L RANSOME USBM WHO TOOK GRAB SAMPLES FROM DUMP AND ORE BIN OTHER WORKINGS

NOT ACCESSIBLE SAMPLES NORTHWEST FACE 70 FOOT LEVEL AVERAGED APPROXIMATELY

ONE-TENTH TUNGSTEN TRIOXIDE ACROSS 6.5 FEET SOUTHEAST FACE 70 FOOT LEVEL

ASSAYED LESS THAN ONE-HUNDREDTH TUNGSTEN GRABS FROM TAILING AND FROM ORE

BIN ASSAYED LESS THAN ONE-HUNDREDTH TUNGSTEN ASSAYS BY BUREAU OF MINES

JUNEAU

CFN 3240 1952 USGS 70 USBM 70 6.5 70

04/0138Z

copy to:
R.W. Beckman
T.P. Thayer
2-4-54
ls.

EU 0629Z

400

Rutledge
Martin
Thayer
Geehan
Guild
Hedges
Selfridge
F. Johnson

FEB - 1 1954

Mr. Sherwood B. Owens
General Partner
Alaskan Associates, Ltd.
P. O. Box 769
Tucson, Arizona

Re: Docket No. DMEA 3240 - Tungsten
Big Hurrah Quartz mine
Cape Nome Recording District
Seward Peninsula, Alaska

Dear Mr. Owens:

This will acknowledge receipt of your letter of January 22, 1954, with reference to the subject application.

Review of your same application by our Iron and Ferro-Alloys Division and other commodity specialists concerned with tungsten, had indicated that your project would not be eligible for assistance from Defense Minerals Exploration Administration. On the basis of your request for a conference and your offer to discuss any question which might be raised by our examining engineers, we shall, however, hold your application in abeyance. Either the week preceding or the week following the coming A.I.M.E. convention in New York would be equally convenient for the proposed conference. We would be chiefly interested in whatever data you may have available that would substantiate the occurrence of tungsten in significant amounts at the Big Hurrah quartz mine.

Sincerely yours,

C. O. Mittendorf

Administrator

WSMartin/ls
1/29/54

cc: Docket
Code 400
FT, Reg. 1
Adm. Read. File
R. W. Geehan, USBM
T. P. Thayer, USGS

2-1-54

Docket

docket copy of wire sent to field in error.

Interior Department

Defense Minerals Exploration Administration
14X3923.970 -
Working Fund -
DMEA

TELETYPE

February 1, 1954

To: S. H. Lorain, DMEA Executive Officer, Region I, Juneau, Alaska

Re Docket DMEA 3240, Tungsten - Alaskan Associates, Ltd., Big Hurrah Quartz Mine, Cape Nome Recording District, Seward Peninsula, Alaska. We note accompanying report by James H. Orr, page 26, shows photographs attributed to DMEA Field Team personnel from USGS and USBM, Juneau, Alaska, September 1952. Without field examination, please wire brief summary of information available substantiating occurrence of significant tungsten mineralization at Big Hurrah mine.

George C. Selfridge
G. C. Selfridge
Chairman, Operating Committee

WSMartin/ls
1/29/54

cc: Docket
Code 400
Adm. Read. File
FT, Reg. 1 - confirmation
Oper. Comm.
R. W. Geehan, USBM
T. P. Thayer, USGS
Audits Division, USBM

Docket

Defense Minerals Administration
RECEIVED
JAN 28 1954

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

January 28, 1954

Memorandum

To: W. S. Martin, DMEA

WSM

From: R. W. Geehan, Bureau of Mines

Subject: DMEA 3240, Tungsten
Alaskan Associates, Ltd., Big Hurrah Quartz Mine,
near Nome, Alaska

This is a gold mine with traces of tungsten in the ore. The applicants' engineer, Mr. Orr, cut 57 samples which are listed in his report. Not one of these was run for tungsten. The entire case regarding tungsten content seems to be based on a very limited area sampled on the 70-foot level and on samples in the tailings.

The application proposes that the entire recovery of tungsten be paid as a means of paying off the loan. As the applicants have not demonstrated that there is any tungsten in the zones to be worked and have not had mill tests run to determine recovery, this proposal has no merit, even if legal.

This application should not be referred to the Field Team. If the applicants send information on the tungsten in the mine and propose an exploration program in areas where the tungsten content is high, the application could be given favorable consideration.

Perhaps the Small Business Administration could make a mining loan in this case.

Robert W. Geehan

Robert W. Geehan

Tom Thayer

Survey says on basis of application and what is known about Au-WO_3 association exam cannot be justified

1/29/53

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

Bureau of Mines
JAN 28 1954

January 28, 1954

Memorandum

To: W. S. Martin, DMEA

From: R. W. Geehan, Bureau of Mines

Subject: DMEA 3240, Tungsten
Alaskan Associates, Ltd., Big Hurrah Quartz Mine,
near Nome, Alaska

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This application should not be referred to the Field Team. If the applicants send information on the tungsten in the mine and propose an exploration program in areas where the tungsten content is high, the application could be given favorable consideration.

Perhaps the Small Business Administration could make a mining loan in this case.

/s/ Robert W. Geehan

Robert W. Geehan

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 1/25/54

REFERRED TO:

1. ~~Code 100~~
2. " 400 MARTIN
3.
4.

FOR:

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

REMARKS:

Lets discuss reply —

Check (X) before the items needing attention

ROBERT E. ADAMS

Initials of sender.

GPO 16—63815-1

SHERWOOD B. OWENS
P. O. BOX 769
TUCSON, ARIZONA

Jan. 22, 1954

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

On January 20, 1954 I forwarded as "General Partner" an Application for Aid in an Exploration Project. The applicant is "Alaskan Associates, Ltd.". The location is the Big Hurrah Quartz Mine at Nome, Alaska and the mineral for which we wish to explore is Tungsten.

DMEA 3240

The proposed project is a little out of the ordinary in three ways. First, we propose recovering the tungsten as a by-product except in the event of a National Emergency. Second, we believe there is ample justification at this time for the statement that the project will certainly repay the Exploration Loan. Third, we propose a repayment program unusual in itself but which does practically guarantee the full repayment.

I know that your reaction to the foregoing paragraph will probably be "interesting if true" but I believe the statements can be substantiated. I'm personally in a good position to do this as not only have I been in on this mining venture since its inception back in 1949 but I personally examined the property following its unwatering late this last fall. I've been doing business with Washington for many years as you so well know and I haven't gone off the deep end on any statements yet. I don't believe I'm doing so here.

Every application that crosses your desk no doubt contains a plea for speed but in this particular instance I believe we are justified in requesting as prompt consideration as possible. The movement of equipment and supplies is to some extent seasonal in the area under discussion and additional reasons are given in the data supporting Form MF 103.

My plans call for a trip East next month and I would certainly like to have the opportunity to confer with you personally on this. At the same time I could confer with and attempt to answer any questions which might possibly be raised by the examining engineers in your office.

I expect to be, as do no doubt many of the staff and yourself, in New York the week of Feb. 15 for the AIME convention meeting. It would be very convenient for me to spend any time needed in Washington either before or after this meeting.

If I stopped in the week preceding that would mean only two weeks intervening from now for this application to be processed in your office and this is probably entirely insufficient. If I planned to be there the week following the AIME convention, which would be the week beginning Feb. 22, there would be the advantage of having a full four weeks intervening for processing if you would deem this sufficient. Incidentally, since Feb. 22 is a holiday it would probably be Feb. 23 before I could meet with either you or any of your staff members.

I'll appreciate it greatly if you will give me your ideas on this time element. I certainly don't want to be in the position of asking that your staff knock themselves out on this examination but if they can possibly fit it into their program within the near future, it would obviously be of great benefit to us in several ways.

If you will advise me what you think about this I will make my plans accordingly.

Thanking you for what is always your prompt and sincere consideration of my problems, as well as with best personal regards, I am

Sincerely yours,

SHERWOOD B. OWENS

SBO/j

Sherwood B. Owens

SHERWOOD B. OWENS
P. O. BOX 769
TUCSON, ARIZONA

TUCSON
JAN 22
6 PM
1954
2
ARIZ.

A I R M A I L

Mr. C. O. Mittendorf, Administrator

Defense Minerals Exploration Administration

Department of the Interior

Washington 25, D. C.

We figured the estimated cost at $314,423.50. If this is not correct please notify us.

HHRussell

315,922.50

1st Stage

3350 feet @ 53.65 = 186 427.50

Drifts x-cuts Raise

2nd Stage

2300 feet @ 53.65 = 127,995.00

Drifts Raises

100 hrs @ 15.00

(Bonding)

1500 00

$315,922.50

Alaskan Associates, Ltd.
P. O. Box 769
Tucson, Arizona

January 21, 1954
Subject: DMEA-3240
Re: Exploration Assistance
Big Hurrah Quartz Mine

Dear Sirs:

The receipt of your application dated January 20, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3240 and referred to the Iron and Ferro Alloys Division.

Kindly refer to DMEA-3240 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

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

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

January 21, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region I

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.

DMEA - 3240 Alaskan Associates, Ltd.

ROBERT E. ADAMS

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

SHERWOOD B. OWENS
P. O. BOX 769
TUCSON, ARIZONA

January 20, 1954

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 21 1954

Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D.C.

Gentlemen:

Submitted herewith is an application for aid in an Exploration Project at the Big Hurrah Quartz Mine, Nome, Alaska.

The strategic metal for which we wish to explore is tungsten.

This mine was originally produced for gold and the tungsten values were discarded. The possibilities for tungsten production at the Big Hurrah have long been recognized but have never been thoroughly explored. The purpose of this loan is to explore these potentials with the knowledge that this deposit could become a substantial producer of tungsten, thus augmenting the strategic reserves of this metal.

The mine is at present being rehabilitated and is expected to be in actual operation by the end of March, 1954. Because of the time element involved and the fact that the movement of supplies and equipment is somewhat seasonal in this area, it would be greatly appreciated if the processing of this application could be expedited.

If there is any additional information required we shall be glad to furnish same.

Yours very truly,
ALASKAN ASSOCIATES, LTD.
By Sherwood B. Owens
General Partner

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

Defense Minerals Administration
RECEIVED
JUN 21 1954

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

Not to be filled in by applicant

Docket No. 3240
Metal or Mineral Tungsten
Date Received
Estimated Cost $314,423
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: ALASKAN ASSOCIATES, LTD.
P.O. Box 769
Tucson, Arizona
(Partnership organized under Alaskan Territorial regulations)

(*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 That certain group of 15 mining claims listed in Patent No. 298715, recorded January 4, 1913, in Book 191, page 408, of the Records of the Cape Nome Recording District, Alaska.

(*b*) State any mine name by which the property is known. BIG HURRAH QUARTZ MINE

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee with option to purchase.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[X] Money [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated January 20, 1954

ALASKAN ASSOCIATES, LTD.
(Applicant)

By Sherwood B. Owens
General Partner

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

Alaskan Associates, Ltd.
P. O. Box 769
Tucson, Arizona

Memorandum to explain omission of Exhibit:

Question No. 3.

Sub-head (d)

We are submitting file of photostatic copies of four (4) instruments as listed in our information circular attached hereto.

Due to delay in securing the original instruments from our Nome office for photostating here, we are filing our MF-103 without these particular exhibits.

Same will be at hand within a very few days and a complete file will be forwarded D M E A for inclusion.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 21 1954

INFORMATION SUPPORTING MF-103

ALASKAN ASSOCIATES, LTD.

BIG HURRAH QUARTZ MINE

NOME, ALASKA

1. Name of applicant.

(a) Alaskan Associates, Ltd.
P.O. Box 769
Tucson, Arizona

(b) Alaskan Associates, Ltd., is a limited partnership formed in accordance with the laws of the Territory of Alaska.

(c) Not applicable.

(d) The names and addresses of the partners are as follows:

Sherwood B. Owens, P.O. Box 769, Tucson, Arizona

Henry F.G. Andreae, 1029 S.W. Alder, Portland 5, Oregon

A. E. Gunderson, 4700 N.W. Front Ave., Portland, Oregon

C. E. Gunderson, 4700 N.W. Front Ave., Portland, Oregon

Robert F. Johnson, 1330 American Bank Bldg., Portland 5, Ore.

William L. Josslin, 525 Failing Bldg., Portland 4, Ore.

DMEA 3189 Herbert R. Ketell, 224 Board of Trade Bldg., Portland 4, Ore.

Travis P. Lane, Big Hurrah Mine, Nome, Alaska

John A. Leiter, 504 Wilcox Bldg., Portland 4, Ore.

Jack Meier, 621 S.W. 5th Avenue, Portland 4, Ore.

William B. Murray, 525 Failing Bldg., Portland 4, Ore.

James M. Orr, 2340 S.W. Jefferson St., Portland 1, Ore.

Burton M. Smith, 1117 Equitable Bldg., Portland 4, Ore.

Nils G. Teren, 1029 S.W. Alder, Portland 5, Ore.

Dr. Harry D. Wilson, 856 Morgan Bldg., Portland 5, Ore.

Alaskan Associates, Ltd.
P.O. Box 769
Tucson, Arizona

3. Applicant's property rights.

(a) The legal description of the land is:

That certain group of 15 mining claims listed in Patent No. 298715, recorded January 4, 1913, in Book 191, page 408, of the Records of the Cape Nome Recording District, Alaska, the names of said claims being as follows:

King Solomon	King Solomon	No. 1
October Fraction	" "	No. 2
Sour Dough	" "	No. 3
Quena	" "	No. 4
July Fraction	" "	No. 5
Potazuba Fraction	" "	No. 6

Dewey
Josephine
Elmer S.

(b) The property is known as "The Big Hurrah Quartz Mine."

(c) We are lessees with option to purchase under contract.

(d) We submit herewith file as follows:

1) Lease and option agreement dated November 4, 1949, between Lane Investment Company and T. P. Lane.

2) Modification agreement dated November 29, 1950, between Lane Investment Company and T. P. Lane.

3) Assignment of interest in lease and option from T.P. Lane to Sherwood B. Owens.

4) Assignment of lease and option from T.P. Lane and Sherwood B. Owens to Alaskan Associates, Ltd.

(e) Land is not owned by the applicant. Owner is Lane Investment Company. There are no encumbrances on the land.

(f) Not applicable.

Alaskan Associates, Ltd.
P.O. Box 769
Tucson, Arizona

4. Physical description.

(a) The mine was discovered in 1900 and after two years of development a 20-stamp mill was put on the property together with a complete mining plant and camp. The mill operated continuously summer and winter for over 5 years, until 1908, when operations were terminated because of poor recoveries, inadequate equipment and the difficult supply problems of that period.

The mine then lay idle until the period 1944-1947 when a leaser made a modest production from the mining of vein croppings and pillars in the main shaft above water level.

In 1949 the property was leased with option to purchase to Lane and Owens. In 1950 they embarked upon a program designed to evaluate both the immediate possibilities and long-range potential of the property. Examination of the old tailings proved some 20,000 tons with substantial values. Preliminary testing indicated 70% recovery and a leach cyanide plant was installed to recover these values. Meanwhile rehabilitation work was started on the camp buildings and a complete sampling job done on all ore exposures.

After two years of this work it was apparent that the property was as outstanding as was indicated in U.S.G.S. Bulletins 328 and 433. It was also apparent that the better the outlook for a sizeable mine, the more money would be required to place it on an operational basis. In 1953 Lane and Owens formed a limited partnership with a group of Portland, Oregon, business men, the purpose of which was first to unwater the mine, do a sampling job and determine whether the mine really did have commercial

possibilities. Then, if the determination should prove favorable, operation of the property would follow. This new ownership group is known as Alaskan Associates, Ltd., and is the applicant herein.

Alaskan Associates, Ltd., started operations with a paid in capital of $150,000.00 and have since augmented same by an additional $50,000.00. The mine was unwatered, examined, and sampled as per assay map in accompanying report. All the old reports were found to be surprisingly accurate and factual. Complete statements as to present condition of workings, etc., will be found in the report of Mr. James M. Orr which accompanies this application.

Once the mine was proven to have definite commercial possibilities, steps were immediately taken to proceed with complete rehabilitation of the camp and plant as rapidly as possible. A large shipment of material, supplies and equipment was forwarded in September 1953 via Alaskan Steamship Company and unloaded at Solomon, a port only 13 miles from the property via good truck road. All shipments were transported to the mine in advance of winter weather and operations are going forward rapidly at this writing. We estimate that all rehabilitation work will be complete, the mine in production, and the milling operation running concurrently by the end of March 1954.

The principal workings consist of a 3-compartment main incline shaft 280 feet deep with levels at 60, 70, 150 and 250 feet and with several thousand feet of drifting and much stoping in several veins on those levels. Also, another nearby vein system was developed by a 100-foot shaft with a level and some stoping. In

addition there are numerous pits and trenches on the extensions of the two vein systems and these contributed a considerable amount of ore to the early mill operation. One of these cuts was fairly large and produced several thousand tons of ore. The ore from these surface workings, as well as a considerable amount of float rock, was hauled to the mill by wagon team.

The upper workings of the main shaft were largely caved and the shaft filled with water to the 70 foot level. In our rehabilitation work we stulled, filled and blocked off the old 60-foot level completely, as same was largely caved and dangerous. We than unwatered the mine and are currently carrying forward all necessary rehabilitation. The 70-foot level, the 150-foot level and the 250-foot level are all accessible and in operational condition.

The work on the North vein is completely caved and inaccessible. There was a 100-foot shaft and some workings on same at one time. Most of the surface workings on the property are sloughed in.

(b) The early operations resulted in gold production valued at $830,000 (gold at $35 per ounce) from 49,996 tons of ore. Recovered value therefore was $16.63 per ton. Judging from old reports and the values found in the tailings, the value of the mill feed averaged $25.35 per ton (gold at $35 per ounce). The recent leaser produced approximately $55,000 from several thousand tons of ore; his tailings averaged above $20 per ton. Lane and Owens produced over $22,000 from the treatment of some 2700 tons of tailings assaying just above $12 per ton. Total production has been somewhat over $900,000.

Only fragmentary records were available regarding the early operation, and in the absence of assay maps, etc. it was not possible to assign tonnage or values to the reserves of ore existing in the mine. However, oral statements and reports made by engineers of good repute formerly connected with the enterprise indicated the presence of a substantial amount of good ore in uncompleted stopes and in undeveloped vein exposures at a number of place. Also two veins which made an important production in the upper workings had not been explored by crosscutting at depth. An excellent grade and width of ore is developed in one of these veins on the 70-foot level of the main shaft. Considering the past performance of other veins, it was felt this could reasonably be expected to continue to depth.

It was therefore a source of great satisfaction to the examining engineers in late 1953 to find these underground conditions exactly as represented. Mr. Fozard's report (written in 1908) was found to be extremely accurate, even to his statement regarding a considerable tonnage of very good ore in a stope between the 150-foot and 250-foot levels east of the shaft.

We have not completed our estimates of ore reserves. The examination recently completed did prove the existence of several thousand tons of good mill ore containing tungsten and gold. Since a development program was never carried forward during the productive life of the mine, there is only a comparatively small amount of ore actually blocked out. Considering these facts, however, we were surprised to find so many working faces and so much

ore actually in sight. With the very favorable geological conditions present and the known productive background of the property we have felt no hesitancy in proceeding with the rehabilitation program. It is our firm conviction that a planned program of exploration will discover very substantial quantities of tungsten and gold ores. We think that the production record of the mine to date constitutes a good sampling job and proves beyond doubt the existance of large quantities of recoverable tungsten in the mine, even though the actual grade might be considered low.

Good ore is exposed in the bottom of the large cut some 800 feet northwesterly from the main workings with partial vein exposures assaying around 1.0 ounce gold per ton. No assay was made for tungsten but it seems to be a general rule on this property that the tungsten values do follow the gold. It seems very probable that development here will prove up a good body of ore.

Tungsten was a little-known element having no value at the time of the early-day operation of the property and its occurrence in the ore was not recognized. In later years its presence in the veins as scheelite was noted, but because of low market prices it had no economic importance. At the present time, however, with demand for the metal for strategic purposes and a government supported price, the tungsten potentialities of the mine deserve serious consideration.

(c) The quartz veins of the Big Hurrah mine occur in an area of hard graphitic black slate known as "Hurrah slate." This slate occurs in isolated masses in the predominant schist rock of most of Seward Peninsula. The schist in many places contains a network

of quartz seams and veinlets and some small lenses of the so-called "blow-out" type and these have been the sources of gold in the many placers of the region. These quartz veinlets are so small, however, and have undergone so much distortion that no successful lode mines have been developed in the schist. Veins in the Hurrah slates, on the other hand, have been proven to have good size and continuity along with a relatively high gold content.

The geology of the Big Hurrah Quartz Mine and the region immediately surrounding it have been described in detail in U.S.G.S. Bulletins 328 and 433. The mine workings and some of its history are also commented upon in these publications. The tungsten aspects were examined in a cursory manner and commented upon in U.S.G.S. Circular No. 35950. This was written by Mr. Robert R. Coats in February 1944 and a copy of same is included with this application.

The veins of Big Hurrah Mine are true fissures which cut across the bedding of the slate country rock. The quartz occurs as broad stringers or groups of stringers ("ribbon rock") within definite, generally smooth walls. The gold is extremely fine and remarkably free and is accompanied by only a very small amount of iron sulphide and no other metallic mineral.

There are two more or less parallel vein systems in the mine, one dipping southwesterly at about 60° and the other dipping northeasterly at about the same angle. Each has a definite footwall fissure from which a number of veins of equal or greater importance branch off into the hanging wall making small angular

divergences with the footwall vein. The workings are described under 4(a) above.

The veins were followed and mined for distances of several hundred feet northwesterly and southeasterly from the shaft. On the eastern end a contact with an overlying schist body was encountered at successively greater distances from the shaft as deeper exploration was carried on. On the western end work on the 150-foot level was stopped under the creek because of danger of letting in the creek water, and on the lowest level development was carried out to about the same point. On the surface the vein systems are traceable by croppings and cuts and trenches for over 3,000 feet in a northwesterly direction from the main workings.

The applicant wishes to explore the vein systems for their tungsten and gold content. The mine's record, together with existing ore conditions underground, indicate that a profitable mining operation will be developed here. Its possibilities as a tungsten producer are indicated in assays of the old mill tailings, crude ore in the bins, dumps, and assays of the vein on the 70-foot level. The tailings assays (two bulk samples assayed by different assayers) averaged 0.07% WO_3. In considering this rather low tungsten content it should be noted that concentrators were used in the old mill and some of the tungsten mineral would have been removed with the gold concentrate and would not therefore appear in a tailings assay. The actual content should easily have been 0.10% WO_3 or more. Of greater importance, however, in considering this assay is the fact that it represents an average of all the material which was mined from a number of ore shoots

in a number of veins and included much low grade development material which was sent to the mill because limitations of the mining plant did not permit development of ore in the lower part of the mine on a scale with ore extraction. Obviously tungsten exists in parts of the mine in greater concentration than that shown in the general average noted above. If tungsten were the primary production objective, the ore might be held to a grade at least equal to and probably greater than that shown in the present vein exposure on the 70-foot level.

The faces of the 70-foot level were sampled by the Bureau of Mines and the Alaskan Territorial Engineer. These samples were sent to three assayers--the Bureau of Mines at Juneau, Alaska; Arizona Assay Office at Phoenix, Arizona; and Jacobs Assay Office at Tucson, Arizona.

The two assay offices in Arizona were chosen because of their long experience in assaying tungsten, particularly low grade ores such as we were sampling. The Jacobs Assay Office is particularly well known, inasmuch as they have done a very large amount of purchase-assaying for General Services Administration. These two assayers to whom we sent the samples delivered practically identical results. The average of the assays for the northwest face was 0.157% WO_3 across 6.5 feet. This is equivalent to a tungsten value of $9.89 per ton at $63.00 per unit. The average of values across the southeast face, 6.2 feet, was 0.042% WO_3 or $2.63 tungsten per ton.

The Bureau of Mines assaying showed lower values in these samples than did the two assayers above listed. The reason for

this, however, is readily understandable. No application for assistance of any kind had been made and the sampling by the Bureau was simply in the nature of a general field check to keep their records of area activities up to date. Since real accuracy was not required, only a colorometric assay was run on the samples. While such an assay is admittedly qualitative, it is definitely not quantitative except under the most ideal controlled conditions. Even so, it is not accepted by General Services or any purchaser, but they at all times require gravimetric assaying. Thus, an exact determination as to the quantity of WO_3 contained in low grade ore by colorometric assay would be very difficult if not impossible.

It is suggested therefore that under this set of facts the findings of the Arizona Assay Office and Jacobs Assay Office can be considered as authoritative. In all of their tungsten assaying these assayers first make colorometric determinations and then proceed to gravimetric for their actual findings. They have found colorometric to be of real value on low grade ore assaying. Without first determining that some quantity of WO_3 is present, it is entirely possible to overlook a comparatively small amount in the final assaying.

Panning and inspection under a mineral light shows the tungsten mineral (scheelite) to be fine granular rather than colloidal, indicating its amenability to gravity concentration with good recovery.

It is believed that the mine will yield a grade of ore at least equal to that mined in the past, i.e., $25 per ton gold and about 0.10% WO_3 (probably more). It is also believed that with

vigorous exploration and development of the many proven veins and indicated veins the production rate will be much greater than the 50 tons daily capacity of the present milling plant.

It is with this thought in mind that the present operators are planning, and have the funds committed, for the construction of a modern flotation milling plant of up to 200 tons per day capacity. This mill will be constructed just as soon as sufficiently large ore reserves are outlined to justify the expenditure. Once the new mill is built, the recovery of the tungsten mineral by flotation should be considerably improved over the present anticipated 50% to 60%.

At the start we expect to recover the scheelite on Wilfley tables, two of which are presently installed in the mill. Taking the past production record of the mine as a criterion, our heads should average not less than 0.10% WO_3. With only the present mill equipment we should recover a minimum of 50% of this total or an average dollar value recovery of $3.15 per ton milled.

It is the proposal of the applicant that all tungsten recovered in the operation shall be applied to the repayment of the Exploration Loan.

By the same token, the applicant does not desire to withhold any part of the mine area or ore presently in sight from the contract.

We expect to be ready to mine and mill by the end of March, 1954. We believe there is ample time intervening for D.M.E.A. approval and execution of contracts. Since we offer the tungsten production from all of the property and the present ore reserves

as additional collateral on the Exploration Loan, there can be no question as to what, when or wherefrom D.M.E.A. will receive. The tungsten recovery will begin the day the mill starts operating and will continue right on down the line.

The delivery of all the tungsten recovered to apply on repayment will admittedly make an unusually large proportion of the gross mine return going to D.M.E.A. We are agreeable to such an arrangement, however, and offer it as an incontrovertible evidence of our good faith. We feel that by handling the matter in this manner we have worked out an assured repayment proposition and that, as we all know, is unusual in itself in this type of exploration assistance.

It has been noted that the scheelite is not disseminated but does occur in masses throughout the vein system in the mineralized area. We expect to map the exploration work very carefully and carry a complete assay map on same. Thus, in the event an emergency should arise sometime in the future which necessitated production of a quantity of tungsten, we could concentrate on the high grade areas and with our mill already in production we could produce tungsten in quantity. Otherwise, as a usual thing and in the absence of an emergency, we would expect to recover the tungsten as a by-product from our mine-run ore. This latter assumption is the basis for our calculation that operations under present conditions, using our present mill and operating on mine-run ore, repayment of the Exploration Loan should be on the basis of $3.15 per ton milled.

The question may be asked as to why we need an exploration loan when we have a property of such outstanding merit. The

answer is very simple. This property was in terrible physical condition. We have at this writing expended in excess of $150,000.00 on same and are still in the process of rehabilitation. We have sufficient funds on hand to complete all the necessary mine, plant and housing rehabilitation and get the mine actually into production, but beyond that point it must pay its own way. Our mill is not modern, Alaskan costs are high and our calculations are based on actual operational experience. We can definitely carry on a production program on our presently blocked out reserves, even with existing milling facilities and prices. There is not enough profit in that production program, however, to allow us to proceed with the exploration program which this property so urgently needs and deserves. While we could join with D.M.E.A. in such a program, it would be impossible for us to carry it forward alone. So far we have asked no governmental assistance of any kind. We have spent our own private funds and accepted all the risk ourselves. Now that we have proven the mine to be everything the old reports claimed for it, and to have more possibilities than any single property on the Seward Peninsula, we feel justified in asking D.M.E.A. to come in with us and enable us to carry forward the Exploration Program which is so very vital to the future of this property.

We now have in the mine developed and proven ore reserves of some 10,000 tons of mill grade ore. We have four undeveloped veins which were highly productive at upper levels in the mine. Two of these veins have been contacted in the short inadequate crosscuts driven on the 150-foot or 250-foot levels. The present

mined area shows continuous ore for some 800 feet on the main vein with an average stoping width of 6 feet. If our exploration program is successful only to the extent of discovering one of the four known veins to be present for a length of only one-half (400 feet) of the present length of the main vein, we could expect a large body of ore. It would be reasonable to expect this new discovery to extend upward to the 60 foot level where all the veins were mined. Thus a 6 foot width, 400 foot length and 190 feet of backs would give us 456,000 cu. ft. of ore. This cubic footage would approximate 40,000 tons. This added to the 10,000 tons already in sight would pay well in excess of $150,000.00 in Exploration Loans with the anticipated low tungsten recovery from the present mill. It does not seem reasonable that we could expect less than 0.10% WO_3 in the mine-run ore or a recovery on same of less than 50%.

It is not necessary to dwell upon the fact that this mine has been unanimously recommended by every engineer and geologist who has ever examined the property. It has all the earmarks and qualifications of a medium-sized mine and could actually develop into a major producer. It has been our attempt to show in this short and factual presentation one very pertinent fact: If only a very small percentage of the potentialities are realized there will still be more than sufficient tungsten production to pay off all D.M.E.A. Exploration Loan herein applied for by applying the total tungsten recovery to liquidation of the loan.

On the other hand, should a large or all of the indicated potentialities be realized, D.M.E.A. will have been instrumental in

discovering a major source of tungsten and will have provided an economic boost of immeasurable impact to an area which is greatly in need of work income.

While the tungsten content of the ore is subordinate to the gold content, the tungsten output nevertheless promises to be substantial. The combined value of the two metals assures a profitable operation and a sustained production of tungsten over a long period of time.

Enclosed herewith is a bound volume titled "Reports on Big Hurrah Mine, Seward Peninsula, Alaska." This volume contains the following reports on the property.

J. M. Williams, 1909

J. L. Fozard, 1908

U.S.G.S. Bulletin 328, 1908

U.S.G.S. Bulletin 433, 1910

Norman C. Stines, 1931

Travis P. Lane, 1953

James M. Orr, 1953

In the map envelope in the back of the volume are:

Map of Alaska showing Mine Location

Large Scale Map of Nome-Solomon Area, Alaska, showing mine location

Claim Map of Big Hurrah property

Plan of 150-foot and 250-foot levels, listing Au assays and showing proposed exploration work in red line.

Cross Section of Mine, listing Au assays and showing proposed exploration work in red line.

We also enclose herewith typewritten copy of U.S.G.S. Circular No. 35950, titled "Occurrences of Scheelite in the Solomon District,

Seward Peninsula, Alaska," by Robert R. Coats. Prints of two maps, Figures 1 and 2, are attached thereto.

(d) The property is located about 45 miles by good truck road easterly from Nome, Alaska. It is 13 miles inland from the Bering Sea and the elevation at the mine is 250 feet above sea level. The topography of the region is one of broad coastal plains and low rolling hills. The road is open about four and a half months and during the remainder of the year supplies must be hauled by tractor train over the snow or flown in and landed at the mine. We have constructed an airstrip and have regular service. Nome is visited by several steam freighters each summer season and these discharge at Solomon if the volume of freight justifies doing so. Nome is the banking, supply and population center for a large area.

(e) White labor, though scarce, has so far been sufficient for our needs. We were fortunate enough to secure as master mechanic a very capable man living at Nome. He had formerly held the same position with Utah Construction Company. We sent in two key men from our Arizona operations, and with these three men as a core have had no trouble building around them. There is little if any work of a year-round nature at Nome. We believe that it will be possible to select the best men in the area and hold them on a permanent basis.

Eskimo labor is plentiful. Some of these men have had government training and/or construction experience and are capable of semi-skilled work. The remainder, while not particularly efficient or dependable, seem useful enough at common labor. While

it may be necessary to import a few hard rock miners at the inception of the project, it is our belief that we will be able to train Eskimo labor to the point that they will be able to handle all mining operations.

Materials, supplies and equipment are not much of a problem except the necessity for ordering in volume. The great bulk of items comes in by boat during the summer months. Small supplies and materials are available at Nome. Anything of a special nature not available there can be flown in overnight from Seattle.

We have on hand a quantity of supplies and sufficient equipment to start a small scale exploration program pending arrival of additional equipment in the Spring.

The mine is located at the confluence of two streams, each carrying large volumes of water. During the winter months when these streams are frozen deeply water for the mill operation will be obtained from the mine.

There are no power facilities in this area. Our power (electric) is diesel generated at the mine. This electric power is used throughout the mill, for the operation of the crusher in the headframe, for the powering of the mine pumps and all lighting. The hoist is operated by a gasoline engine. All air compressor units are diesel powered.

5. The exploration project.

(a) It is proposed to explore for tungsten.

(b) We propose a comprehensive overall program to be divided into two stages. The first stage would be a complete exploration program to determine the possibilities of the presently proven mineralized area from which all past production of the mine has been had. The second stage of exploration would be to explore the possibilities of the indicated but unproven mineralized area which lays to the northwest of the present proven area. The second stage would be contingent upon the success of the exploration conducted in the first stage. If, in the opinion of the D.M.E.A. examining engineers, the first stage program upon completion has resulted in the discovery of tungsten in the quantity anticipated, then and in that event the second stage program shall be carried forward. Otherwise, there will be no second stage program.

The first stage program will consist of the following work.

Drifting	1650 feet
Crosscutting	1500 feet
Raising	200 feet
Total footage	3350 ✓

This work is plotted by number and location in red on the mine plan map enclosed with "Reports on Big Hurrah Mine." Number and description of each unit is as follows.

150-foot Level

Item	Location	Distance in Feet
1	Drift N.W. in face of shaft vein	150
2	Continue raise in top W stope	50
3	Crosscut easterly at present W crosscut	50
4	Crosscut easterly at end of N.W. drift	50
5	Crosscut westerly at end of N.W. drift	100
6	Continue present W crosscut	50
7	Crosscut westerly at point 100' N.W. of shaft crosscut	100
8	Continue present shaft crosscut	150
9	Crosscut westerly at point 150' S.E. of shaft crosscut	100
10	Crosscut westerly at point 250' S.E. of shaft crosscut	100
11	Crosscut easterly at point 250' S.E. of shaft crosscut	50
12	Crosscut easterly at point 150' S.E. of shaft crosscut	50
13	Continue present F.W. crosscut to prospect N. vein area	100
14	Optional raise to surface on N vein system if discovered	150
15	Optional drifting on favorable veins discovered	750
	Total footage for 150-foot level	2000

250-foot Level

Item	Location	Distance in Feet
16	Crosscut easterly at point 140' N.W. of shaft crosscut	50
17	Crosscut easterly from present face of N.W. drift	50
18	Crosscut westerly from present face of N.W. drift	100
19	Continue present W. crosscut	100
20	Continue present E. crosscut	100
21	Crosscut westerly at point 250' S.E. of shaft crosscut	100
22	Crosscut easterly at point 200' S.E. of shaft crosscut	50
23	Crosscut easterly at point 100' S.E. of shaft crosscut	50
24	Optional drifting on favorable veins discovered	750
	Total footage for 250-foot level	1350

The second stage program will consist of the following work.

Surface

A series of bulldozer cuts across the projection of both the N and S vein systems to the northwest. This trenching would be located on the Dewey claim.

100 hours bulldozer rental (contract basis) @ $15.00 per hour $1500.00

Underground

Drifting	1000 feet
Crosscutting	1000 feet
Raising	300 feet
Total footage	2300

This work is not plotted on the mine plan map for lack of space but would all be on the 250-foot level. The starting point

for this work would be the present face of the N.W. drift. The reference number and description of each unit is as follows.

250-foot Level

Item	Location	Distance in Feet
25	Continue drift N.W. on main vein	500
26	Crosscut easterly at point 250' beyond present face of N.W. drift	400
27	Crosscut easterly at point 500' beyond present face of N.W. drift	400
28	Crosscut westerly at point 500' beyond present face of N.W. drift	100
29	Crosscut westerly at point 250' beyond present face of N.W. drift	100
30	Raise to surface from new N.W. exploration	300
31	Optional drifting on favorable veins discovered	500
	Total footage for second stage program	2300

Explanation of First Stage Work

In examining the work proposed in the first stage it will be noted that Items 1 and 2 are closely related. The so-called shaft vein shows good tungsten values on the 70-foot level. It is our thought that by drifting on same to the N.W. on the 150-foot level and then raising back to the 70-foot level very good exploration of the possibilities here can be had in short order.

Items 3 through 12 are all crosscuts necessary to explore for the other veins in the south vein system (the total was four) which were productive from the 60-foot level upward, as well as any blind veins which might occur in this highly mineralized area.

Item 13 will crosscut the area traversed by the north vein and will explore for any blind veins in this area.

Item 14 will be the minimum amount of exploratory work necessary on the north vein system if discovered.

Item 15 is optional drifting to be performed on veins which are discovered on the 150-foot level. Since we are exploring for a minimum of three veins on the south vein system and a minimum of one vein on the north vein system in an area which has a present proven longitudinal extension of some 800 feet, this figure of 750 feet for optional drifting may seem ultra-conservative. It is our thought, however, that this amount of openings, coupled with the crosscutting and raising proposed, will give us a good idea as to productive possibilities.

On the 250-foot level in the first stage of the program here again the work is the minimum amount necessary.

Items 16 through 23 are crosscuts to explore the area for veins which have been both present and productive at higher levels.

Item 24 is optional drifting of 750 feet on favorable veins discovered. With the proven length of 800 feet on the main vein and with same still continuing, this is not a great deal of exploration on three possible veins which we know about, as well as any others which might be discovered. However, this should be sufficient to allow us to evaluate the possibilities.

Explanation of Second Stage Work

The first work proposed on second stage program is that bulldozer trenching be done on the Dewey claim. This claim lays northwest of the present productive area and does show good values in one cut which is mentioned in both Mr. T.P. Lane's and Mr. James M. Orr's reports. This is the only cut presently on the claim which

is open. The south vein system and the north vein system both appear to traverse this Dewey claim in a northwest direction. A series of bulldozer cuts or trenches would be of great assistance in both checking the existence of the veins and any values therein. This in turn would have some bearing upon the actual direction of the proposed underground work to be done during the second stage.

The underground work is definitely indicated. As listed same consists of drifting 500 feet in a northwest direction (Item 25) and then driving a series of crosscuts (Items 26-29) to explore the indicated mineralized area. A raise (Item 30) would be driven to the surface to explore the continuity of the vein and provide air at the same time. Item 31, the optional drifting of 500 feet, would be the minimum amount we would consider necessary for exploration should any favorable veins be discovered.

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

(d) The General Partner in Alaskan Associates, Ltd., is Sherwood B. Owens and it will be his responsibility to carry out the exploration project. Mr. Owens is an executive of proven ability and is well known in Washington mining circles through his development and production of the Bulldozer, Elgin, Silver Hill and Silver Reef properties during the last war, all of which developed into successful operations. Since that time Mr. Owens developed the Abril Mine, a copper-zinc producer near Tombstone, Arizona, and the very successful Old Dick Mine, a copper-zinc producer at Bagdad, Arizona. With this background of successful executive experience Mr. Owens is well qualified.

The Superintendent actively in charge will be T. P. Lane. His background of almost thirty years experience includes being Superintendent of the Lucky Jim Lead and Zinc Co., Canada; Alaska Palladium Co., Alaska; Tungsten Metals Corp., Nevada, among others. He has directed numerous exploration, development or producing operations for his own account or with associates. A graduate mining engineer (University of California) he spent six years as Supervising Engineer in the Phoenix, Arizona, office of the Mine Loan Division of the Reconstruction Finance Corporation. He has supervised all operations at the Big Hurrah Quartz Mine for Lane and Owens and the applicant Alaskan Associates, Ltd.

6. Estimate of costs.

(a) Independent contracts:

Bulldozer rental for trenching in second stage program (bulldozers available from two nearby sources on contract basis) 100 hours @ $15.00 per hour	$1500.00

(b) Comparative labor cost per 8-hour shift

1 Driller @ $2.22 per hour	17.76
1 Drill helper @ $1.94 per hour	15.52
*1 Mucking machine operator @ $2.22 per hour	17.76
*1 Trammer @ $1.66 per hour	13.28
1/2 Hoistman @ $1.94 per hour	7.76
1/2 Topman @ $1.66 per hour	6.64
1/2 Cager @ $1.66 per hour	6.64
1 Timberman, pipeman, trackman @ $1.66 per hour	13.28
**1 Engineer @ $600 per month	10.00
Total per 8-hour shift	$ 108.64

*To be used also on track, timbering and pipe.

**In charge of project, including surveying, mapping & sampling.

At 4.5 feet average advance per shift the labor cost per foot advance is	$ 24.14

(c) Operating materials and supplies per foot advance

Powder, caps and fuse	$ 4.66
Steel and bit consumption	1.20
Power	3.00
Air and water lines	.90
Track and ties	2.70
Timber	1.10
Gasoline, oil and grease	1.70
Ventube	1.00
Water pumping	.11
Cost per foot	16.37

(d) Operating equipment

1 500 cfpm diesel compressor	$ 15,000.00
1/2 Gasoline hoist	1,500.00
2 Mucking machines	8,000.00
6 Mine cars	1,500.00
3 Drills complete	4,500.00
Ventilation fan and booster	1,800.00
Total cost operating equipment	32,300.00

Depreciation at 1/60 per month is $538.33. Estimated monthly advance 270 feet. Depreciation per foot $ 1.99

(e) Applicant has expended upward of $150,000.00 for this item and same may be deemed complete.

(f) It will be necessary to construct additional housing for 12 men for the benefit of the Exploration Project. All other facilities are adequate.

3 4-man wanegans @ $2000.00 per unit	$ 6,000.00

Depreciation at 1/60 per month is $100.00. Estimated mo./adv. 270 feet. Depreciation per foot $ .37

(g) Miscellaneous costs per foot of advance.

Maintenance and repairs (underground & surface)	1.35
Assaying and analysis	1.00
Accounting	.25
Workmens Compensation & Public Liability insurance	2.42
Social Security insurance	.73
Federal & Territorial Unemployment insurance	.97
Transportation of supplies	1.00
Miscellaneous costs per foot advance	$ 7.72

(h) The cost per foot of advance to this point totals $50.59. We estimate 10% as a reasonable figure for contingencies. Contingencies per foot advance $ 5.06

Tabulation of Cost Estimates

Labor cost per foot	$ 24.14
Operating material and supplies per foot	16.37
Operating equipment depreciation per foot	1.99
New housing depreciation per foot	.37
Miscellaneous expenses per foot	7.72
Contingencies per foot	5.06
Total cost per foot advance	$ 55.65

Note: For purposes of estimating costs all drifting, cross-cutting and raising are figured on the same per foot advance cost.

7. (a) We are prepared to furnish our share of the cost of the proposed project.

(b) We propose furnishing our share of the costs in part by the depreciation allowed on equipment and buildings. The balance of our contribution would be in money.

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OCCURRENCES OF SCHEELITE IN THE SOLOMON DISTRICT, SEWARD PENINSULA, ALASKA.

by Robert R. Coats

Introduction

The scheelite occurrences here reported are on the Solomon River, about 35 miles by road east of Nome, the principal town on the Seward Peninsula, and on and near Big Hurrah Creek, about 5 miles northward by road (see fig. 1).

The scheelite is associated with gold, both in the lodes and in the placer deposits, and is economically of little importance compared with the gold. The gold placers of the Solomon River were discovered in 1899, 1/ and the quartz veins of the Big Hurrah mine, at the junction of Big and Little Hurrah Creeks, in the following year. No mention has been found in the literature of the presence of scheelite at these places; it was first called to the attention of the Gological Survey in the summer of 1943.

This report is the result of a brief examination in July, 1943 by Robert R. Coats and William N. Laval, of the Geological Survey.

Lode scheelite

Scheelite was observed in an adit of the Big Hurrah mine in a quartz vein cutting the Hurrah slate, a carbonaceous quartzitic

1/ Smith, P.S., Geology and mineral resources of the Solomon and Casadepage quadrangles: U.S. Geol. Survey Bull. 433, pp. 143, 155, 1910.

slate. The vein in which the scheelite was observed is one of several developed by the Big Hurrah mine. 2/ 3/ The mine has not been operated since 1907. At the time of the writer's examination all of the underground workings were inaccessible, with the exception of one short adit, on the east bank of Little Hurrah Creek, in the footwall of the vein that has yielded most of the ore mined. This adit (see fig. 2) exposes two nearly parallel, narrow veins of milky ribbon quartz without noticeable gold or sulfides. The two veins appear similar, but the more northerly has a small amount of scheelite, apparently deposited with the latest quartz of the vein; the other vein contains no scheelite. The scheelite content was estimated to be about 0.1 percent by volume of the whole vein.

Some gold ore, probably from the vein most extensively mined, still remains in the bins of the mill, which has been stripped of nearly all its machinery. This vein was not seen underground in 1943. The ore in the bins was examined and was estimated to contain about 0.25 percent by volume of scheelite. The scheelite is not uniformly distributed through the ore; most of the pieces contain none. Very few of the pieces contain as much as 10 percent of scheelite by volume; a greater number contain about 1 percent. The possibility of the occurrence of one or more shoots of scheelite ore in the quartz veins is not excluded by the available evidence.

2/ Collier, A. J., Gold placers of parts of the Seward Peninsula, Alaska: U.S. Geol. Survey Bull. 328, pp. 228-232, 1908.

3/ Smith, P.S., op. cit., pp. 143-147.

Placer scheelite

In the summer of 1943, C. O. Roberts was mining the gold-bearing gravels of Big Hurrah Creek, just below the mouth of Little Hurrah Creek. A one-pan sample from about 1/4 cubic yard of concentrate accumulated by Roberts in 1943 up to the time of the examination in July yielded 8.75 grams of impure gold and 10.44 grams of scheelite in grains 1 mm. or more in diameter. On this basis the 1/4 yard of concentrate contains 10.5 ounces of gold and 0.87 pound of scheelite. Panning of the concentrate was very difficult because of the large proportion of magnetite, ilmenite, and garnet which differ only slightly in specific gravity from scheelite.

A pan taken from the material being sluiced, which was in part unworked gravel but was largely tailings from earlier placer mining, yielded much garnet, several colors of gold, and a few grains of scheelite from 0.25 mm. to 0.5 mm. in size, and a larger number less than 0.1 mm. in diameter. A pan taken from the tailrace of the sluice box at a point where there was visible local concentration of garnet, yielded much garnet, a little magnetite and ilmenite, two or three grains of scheelite less than 0.5 mm. and more than 0.1 mm. in size, and perhaps a dozen grains less than 0.1 mm. in size, probably less than 0.25 gram of scheelite altogether. As a result of this inadequate sampling it is tentatively concluded that the scheelite content of the gravel and old tailings is considerably less than 0.1 pound per cubic yard. The amount of scheelite larger than 1 mm. in the gravel and old

tailings apparently is negligible. Scheelite grains smaller than 1 mm. apparently cannot be recovered by ordinary methods, and scheelite grains of this size appear present in insufficient quantity to justify the expenditure of much effort or money to recover them.

The dredge of the Lee Bros., operating on the Solomon River, about a mile below the mouth of Shovel Creek and three miles below the mouth of Big Hurrah Creek, has recovered a few cubic yards of concentrate in the past several seasons. Panning of a sample of this concentrate indicated a content of about 22 ounces of gold and 9.1 pounds of scheelite per cubic yard of concentrate.

Reserves

The gold quartz veins of the Big Hurrah mine contain scheelite. The amount cannot be estimated accurately from the incomplete data available, but is inferred to be, at most, a few tens of tons. This scheelite probably can not be mined profitably except as a by-product of the mining and milling of the veins for their gold, the value of which is much greater than that of the scheelite.

The scheelite content of the gravel and old tailings is probably insufficient to make worthwhile its recovery, even from concentrates made incidentally to the recovery of the gold.

February, 1944.

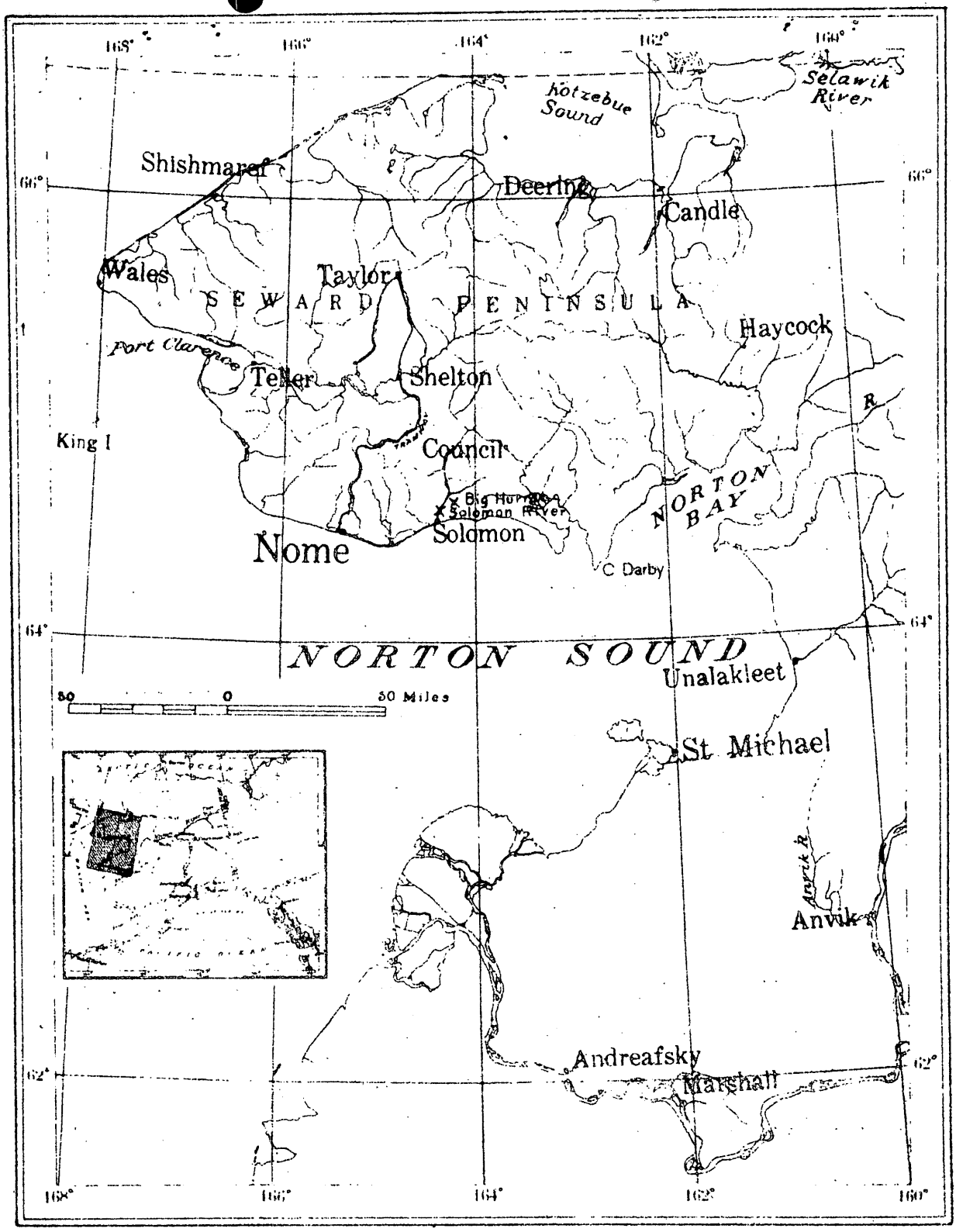

Figure 1

Index map of Seward Peninsula and vicinity Alaska, showing location of placer mining operations on scheelite-bearing gold deposits of Big Hurrah Creek and Solomon River

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WAR MINERALS INVESTIGATIONS
PRELIMINARY MAP

EXPLANATION

26

Hurrah Slate (blank). Symbol shows strike and dip

82

Quartz vein, showing dip

Quartz vein with scheelite. Distribution of scheelite shown diagrammatically

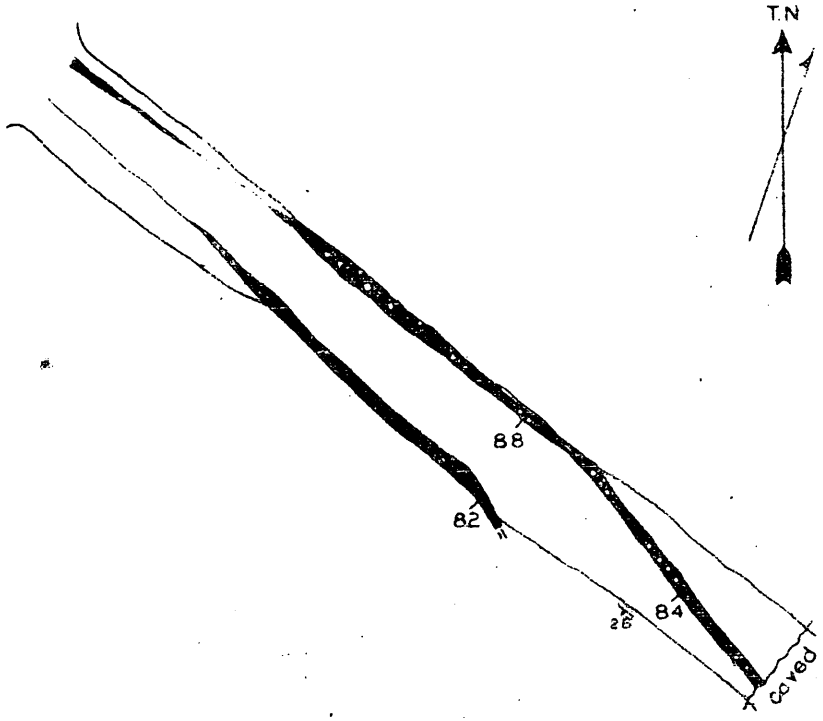

Figure 2

Sketch map of adit in footwall of main vein, Big Hurrah mine, Solomon district, Seward Peninsula, Alaska

Scale

0 10 20

in feet

35276