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

370

REGIONAL DIRECTOR'S OFFICE REGION IV
SEP 14 1951
BUREAU OF MINES
DENVER, COLORADO

SEP 12 1951

Mr. A. C. Bohrnstedt, President
The Cooperative Mines, Inc.
Plaza Hotel
Santa Fe, New Mexico

Subject: DMA-388
Mica

Dear Mr. Bohrnstedt:

Replying to your letter of September 5, 1951, we regret that nothing in existing Legislation, Directives and Orders issued pursuant thereto, authorizes this office to render assistance to the production of non-strategic materials. Neither does this organization determine what is or is not strategic.

Specifications for strategic materials are determined by the Munitions Board of the National Defense Establishment after due consultation with Industry Advisory Committees.

As previously pointed out to you, non-ruby mica has not been classified as strategic. As long as that situation exists, your problem would appear to be outside the jurisdiction of this office.

Sincerely yours,

Tom Lyon

Tom Lyon, Director
Supply Division

RWASKEY:mp
9-7-51
cc: Field Team, Region IV (2)
DMA Docket File
Mr. Lyon
Mr. Barr
Hon. Clinton P. Anderson
309 Federal Building
Albuquerque, New Mexico

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

AUG 29 1951
OFFICE
DECION IV
AUG 30 1951
BUREAU OF MINES
DENVER, COLO.

AIR MAIL

Mr. A. C. Wohrnstedt, President
The Cooperative Mines, Inc.
Plaza Hotel
Santa Fe, New Mexico

Subject: DMA-388 - Mica.

Dear Mr. Behrnstedt:

Replying to your wire of August 23 we regret that we cannot reopen subject application until and unless data is submitted to prove the existence of significant amounts of strategic mica in the deposits. We have no authority under existing legislation to render assistance to operations which are based on other than strategic material.

There probably exists considerable misunderstanding of just what constitutes strategic mica. To qualify as strategic for our purpose mica must be acceptable to the National Stockpile. For your information in this regard we enclose National Stockpile Specification P-32a and quality classification definition. Please note that non-ruby mica does not qualify.

The information which we have indicates that in general the mica from the Petaca district is non-ruby (green) and hence does not qualify as strategic under present Stockpile Specification, although we are well aware that much of this mica is entirely suitable for many uses by industry.

Should you care to submit additional samples of your mica we shall be glad to have these graded by qualified experts and advise you of the results. If you can produce strategic mica from your deposits please be assured that we are ready to render every possible assistance within the limitations of existing pertinent legislation.

Sincerely yours,

Tom Lyon

Tom Lyon, Director
Supply Division

Enclosures.
RWASKEY:ms
cc: 210
DMA-Files
Mr. Lyon
Mr. Barr
Field Team IV

FWO

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

REGIONAL DIRECTOR'S
OFFICE
REGION IV
AUG 22 1951
BUREAU OF MINES
DENVER, COLORADO

AUG 17 1951

The Co[illegible] Fred, Inc.
[illegible] Schornstedt, President
[illegible] a, [illegible]

Gentlemen:

Subject: [illegible] Mine

This is in answer to your letter of July 2[illegible] [illegible] July 17 directed to Mr. [illegible] concerning the requirements of your application.

We have carefully reviewed the information contained in your letter, the data previously submitted, and pertinent [illegible] geological surveys data. There does not appear to be a sound basis for believing that the project will result in discovery or production of significant amounts of strategic minerals.

We regret to advise that the information does not warrant recommendation [illegible].

Sincerely yours,

Thomas Lyon
Thomas Lyon, Director
[illegible]

TWE
wom

TWLyon:mas
Rewritten: TLyon:lk
8/14/51

CC: Adm. Reading File
Reports and Records Unit
Mr. Lyon
Mr. Barr
Senator Anderson (2)
Field Team (2) IV
DMA Files

La Madera, N.M., June 30, 1951

RECEIVED
JUL 1 1951
BUREAU OF MINES
DENVER, COLORADO

Mr. Tom Lyon, Director,
Supply Division,
Defense Minerals Administration,
Washington 25, D.C.

In Re: DMA-388

Dear Mr. Lyon:

Supplementing the information previously given to you in connection with the above numbered application, will say that we have fully completed, and yesterday filed, the Proof's of Labor in connection with all of the claims covered by the application.

The work done was principally upon access roads to, and upon, all of the properties, and while we had the large Dozer to do it with, we did fully $2,000.00 of work which we had hoped to do with the Cooperation and assistance applied for in the above named application. It was so vital to that work and needs, that we hope that it may be considered favorably as a part of our 10% of the program in contemplation. We sincerely hope that very soon we may be working under the full program.

Sincerely yours,

The Cooperative Mines, Inc.

A. C. Schmusbeit, President.

CC to -
Mr. John V. Hart,
Regional Director,
Defense Minerals Administration,
884 New Customhouse,
Denver 2, Colorado.

COPY

P.W.

File
copy

La Madera, N.M.

REGIONAL DIRECTOR'S OFFICE
REGION IV
JUN 1 - 1951
BUREAU OF MINES
DENVER, COLORADO

Honorable James Boyd, Administrator,
Defense Minerals Administration,
Department of the Interior, Washington, D.C.

Subject: DMA - 300
DMA - 604

Dear Mr. Boyd:

Senator Clinton P. Anderson has forwarded to me a copy of your letter to him, dated May 1, 1951, relative to the above mentioned applications. Your personal interest in these applications are appreciated very much. We are advised that at the office of Region IV, they had not received instructions for the Field Team, as yet, but we did hear from Mr. James A. Barr, Jr., Chief, Industrial Minerals Branch, by letter dated May 11,1951, so undoubtedly the work is being given attention. We are most seriously interested in getting started, so that the work may be well advanced yet this year, and that it may be far enough advanced, that we can be prepared to operate, at least upon some of the properties during the winter season.

In the late after-noon of January 3rd, in Denver, after I had filed both applications, the Hostess of a down-town Cafe, said to me - "do you mind having a gentleman share your table?" She brought to me a very fine young man - probably in his thirties. We exchanged greetings and confidences, he being interested in Oil - I in mining. I told him of filing our applications, and saying - "I hope that we do not have to go through what we and other Mica men had to go through in our District, during World War II", and we talked about that a little. Then it was that he said - "I know Mr. James Boyd intimately - he is as fine a man as I have ever known - he and I have worked together. You can depend upon it that he has the interests of the people at heart. If you should have a problem, tell it to him personally. He will give it careful consideration." I am sorry that I did not write down the young man's name.

Irrespective of our own interests, because under a lease with the Government, if we get fair treatment, we may be as well, or better off, than to operate, but in the Government interest, from the standpoint of defense, and the preparation for defense, I sincerely believe that the modest exploration program that we asked for, should be carried out. Last week, and again yesterday, I had a talk with the son of one of the owners from whom we purchased, who is a graduate Engineer and Geologist, with practical mining experience. He agreed with me in that and I have not talked with a single party who knows that property, who does not. And I think that the Army, itsself, is blind to its own interests, in demanding that the property be taken over before knowing as nearly as can be ascertained, what is in the property.

We have had assay after assay of the Fluorspar. The lowest being 96.16, and from that up to 99.60, and it was not picked sampling. One of the great Engineer's and Geologists of this, or any other country, said when visiting me there - "My company sends me all over the world. In all of my travels, I have never seen anything like it before." He advised further development and exploration in order to try to get the extent of it.

A Geologist sent out by one of the largest consumers of barite in the United States, advised core drilling and exploration, and carefully explained how he would do it.

In the next to the last paragraph of the Report that we filed with our application, made by Owen M. Clippinger, Field Engineer, and Philip F. McKinley,

Geologist, for the New Mexico Bureau of Mines and Mineral Resources, recommended that "Barite lenses and bodies along the fault should be further prospected for pure barite and for possible concentration of galena. The presence of such a quantity of galena crystals and casts as disseminated through the lowerpart of the fault zone, indicates excellent possibilities for lead ore in minable quantities." The Engineer who was here last week and again yesterday, agrees with them perfectly.

At the suggestion of Mr. Clippinger, following their examination, we had the whole area prospected with geophysic instruments - three of them all in one day. The results were even better than we had imagined.

As to the Copper prospect, I would not have advised that exploration, if full equipment for core drilling and prospecting had to be purchased, but it is within about two miles of the Fluorspar, so it can be done with the same equipment, with only the labor cost. An Arizona Mining man said to me - "a friend and I more than twenty-five years ago located a prospect not as promising as that one, which has been mined almost continuously since. Our assays were much lower than yours, yet ore up into the millions have been taken out."

Our properties are close to the west edge -(northwest) of the White Sands Proving Grounds, where up to this time, nothing has been done by the army in it. We are advised that as promised, Sierra County has made a road into and down Sulphur Canyon, so that the road work would undoubtedly cost less than our estimate.

It seems to me that it is just as important, if not more important, for the Army and our Government, to know where and how much minerals are available for the propelling of our Jet Missels and Jet Planes, as are the Jet Missils and Jet Planes, for without just that kind of material, those planes and missils cannot get off of the ground. And if great Geologists and Engineer's cannot say, without exploration, how much of such minerals there are there, they have no basis for a fair appraisal, nor more important than that, they have no basis upon which to evaluate the possibilities for use of a potential, essential war and construction, mineral, or/and/ minerals.

I am sending you this information, because as the Head of the Defense Administration, I feel that you should be informed. Our Bureau of Land Management of the Interior Department, Albuquerque, N.M., has already certified some of our properties to the Army division, as mineral claims. The fore part of July, their Engineer and Geologist are to meet me at the properties to examine some of the others for certification. When all that are certified are to be appraised by a Government appraiser, before a lease is entered into. I will not sign any lease until I advised by you, our Defense Minerals Administrator, that such action is approved by you.

Sincerely yours,

A. G. Schumacher

A. G. Schumacher, President,
The American Fluorspar Group, Inc.
The Cooperative Mines, Inc.

CC to -
Hon. Clinton P. Anderson
U.S. Senator.
Mr. J. F. East, Regional Director,
Region IV.

COPY

La Ladera, N.M., May 23, 1951

Mr. James A. Barr, Sr., Chief
Industrial Minerals Branch,
Defense Minerals Administration,
Department of the Interior,
Washington 25, D.C.

Dear Mr. Barr:

Subject DMA -388

Supplementiong the information given to you in my letter of the twenty-first, I made an error in the list of the five largest stockholders, because that has changed since the issue of stock mentioned at "(a)", as follows:

Mr. L. C. Butler, Retired Miner and Engineer,
1746 Richmond Ave.,
Staten Island 2, New York City, N.Y.

a n d

Mr. Henry Cross, Minerals,
15 Beckman Street,
New York 38, N.Y.,

replace Vilma Kathrine Tietjen and Mona L. Schmoker, for fourth and fifth largest, respecively.

Yours very truly,

The Cooperative Mines, Inc.,

A. C. Bohrnstedt, President

CC to -
Mr. J. H. East, Regional Director,
Defense Minerals Administration,
Region IV, Denver 2, Colorado.

COPY

PME

The Cooperative Mines, Inc.

La Madera, N. M.

May 21, 1951

Mr. James A. Barr, Sr., Chief
Industrial Minerals Branch,
Defense Minerals Administration,
Department of the Interior,
Washington 25, D.C.

Subject DMA-388

REGIONAL DIRECTOR
OFFICE
REGION IV
MAY 23 1951
BUREAU OF MINES
SALT LAKE CITY, UTAH

File DMA
attached

Dear Mr. Barr:

Thank you for your letter of the eleventh, enclosing Forms MF-103. These forms have been completed and four of them enclosed herein.

Our application of January 2, 1951 contains all of the information asked for I think, except for the following additions, and/or/changes:

(a) The outstanding Capital Stock now stands at $96,485.00, instead of $87,125.00. $8,840.00 addition was made possible by a transfer of a like amount of stock for a Contract of purchase covering five Mineral Fluorite-Barite Claims, purchased by the American Fluorspar Group, Inc., in which we already had acquired a $4,410.00 interest. We also hold clear title to the claims, which we consider very valuable. The Stock of The American Fluorspar Group, Inc., is held very largely by the stockholders of this Corporation, and it has the same Board of Directors and Officers.

(b) We do not have the cash to put up for our one-tenth contribution, but on the properties under consideration, mined ore in dumps of more than estimated 3,000 tons, which under laboratory tests shown in our application, contain 38% or more of mica, for which we have a ready market of $30.00 a ton, f.o.b. cars Santa Fe, N.M. This will be available as fast as it can be run when the Plant applied for in "Step 1" is completed.

(c) The five largest stockholders are as follows:
A. C. Bohrnstedt, La Madera, N.M.
Ethel M. Bohrnstedt, La Madera, N.M.
Lewis A. Cleveland, Beuna Park, California
Vilma Kathrine Fietjen, Columbia, Mo.
Mona L. Schmoker, Santa Fe, New Mexico.

(d) Mr. Joe M. Maestas, La Madera, New Mexico, considered and acknowledged by those who know him, to be the best experienced miner of mica in the Petaca Mining District, will be our Production foreman. A salary has not been agreed upon, but it will be reasonable and subject to Defense Minerals Administration approval, if our application is approved.

(e) Our project need not take more than two years for its completion. In fact, if we can get going promptly, we should be able to complete it much within the two year period.

We are proud of our properties, and we are always proud to show them to Engineer's , Geologists, or others. but on account of the time element and of our anxiety to get started at the earliest possible time, I was gratified by your statement in your letter in refereance to our application - "which may or may not require a field examination."

file

COPY

In substantiation of our application, we tried to give you the most recent, authentic information available upon our properties and upon the District, as well as the most conservative, when we sent you Bulletin #25 of our New Mexico Bureau of Mines and Mineral Resources, of which the Director was Mr. E. C. Anderson, and the eminent Geologist in charge, Mr. Richard H. Jahns, now with the California Institute of Technology, Pasadena, California. It was prepared by the Geological Survey of your own U. S. Department of the Interior, and supported with complete maps of the mines surveyed and Geologized. The survey team took the better part of two working seasons in its preparation, and consulted with miners, Geologists and Engineers. Our properties, with the exception of the Black Fang, are described in it. One Geologist of note said to me - "that does not show up well at the surface on account of the overburden, but look at the quality of the mica (pulling some out of his pocket which he had picked off of the dump) - that may prove as good, or better, for the production of plate and punch Mica of any of your properties, or of any in the district that I have seen."

Mr. Gabino Alire, mentioned by Mr. Jahns as one with whom he consulted, gives the local color and estimate of the mines, from a life long acquaintance with them, and during his life time, considered to be one of the most successful and reliable mica men in the district. He it was who gave me the courage to go on in our darkest days.

There must also be reportsavailable in Washington by others, because at the beginning of World War II, I, myself, carried around two of the Engineer's sent out to investigate the possibilities of production, which were used as a basis for the Government's road building program within the mining district, and which are still a credit to the district.

If more information is necessary, we will gladly assist the Department in getting it, but if not, we will be glad to get going, account for every penny and try to use it wisely, and do everything that we know how to do, to cooperate with the Government and other producers within the district, in getting out the mica and other much needed strategic minerals which our War emergency now demands.

Sincerely yours,

A. C. Bohrnstedt, President

CC to -

Mr. J. H. East, Regional Director,
District IV,
NewCustomhouse , Denver 2, Colo.

Mining Division
Region IV

358

May 16, 1951

Mr. A. C. Bornstedt
The Cooperative Mines, Inc.
La Madera, New Mexico

Dear Mr. Bornstedt:

This acknowledges receipt of your post card dated May 14. We have not received information from Washington regarding examination of your property. However, if we are advised investigation is required in the field, you will be advised when the investigators can contact you.

Sincerely yours,

P. T. Allsman
Chief, Mining Division

PTA/el
~~cc-dma~~ Files

Copy to Storms

Inactive Prospect
Albuquerque, N.M.
May 14, 1951

Dear Mr. Boyd -

Yesterday received word today that you are authorized to have our property examined. Have been [illegible], but appear to get home [illegible] and help the [illegible] thoughts.

Sincerely,

R. D. Bohannon

REGIONAL DIRECTOR'S OFFICE
REGION IV
MAY 15 1951
BUREAU OF MINES
DENVER, COLORADO

A. A. Schrumpf
La Madera, N.M.

ALBUQUERQUE
N. MEX.
7 PM
1951

THIS SIDE OF CARD IS FOR ADDRESS

Mr. J. N. Reed, Regional Director
Defense Mineral Adm.,
Denver 2, Colo

Wm. Ben Oudenhoven

May 1, 1951

Honorable Clinton P. Anderson
344 Senate Office Building
Washington 25, D. C.

Subject: DMA-388
DMA-604

Dear ~~Mr. Anderson~~ Clint

We have your letters of January 29, and March 18, in regard to the applications of Mr. Bohrnstedt.

Application of the Cooperative Mines docketed as DMA-388 is being referred to the Field Team, Region IV for examination, having been delayed pending formulation of a pegmatite program.

Application of the American Fluorspar Group Inc., docketed as DMA-604 is considered withdrawn in compliance with request of Mr. J. H. East, Region Director at Denver, Colorado, in a letter dated March 21, 1951 which states "You will note that he has been unable to have his land withdrawn from the bombing range and that his application may be considered as withdrawn."

Exploration participation forms are being mailed to Mr. Bohrnstedt in response to his later inquiry of April 4, 1951.

Sincerely,

JAMES BOYD

Administrator

JAB:sgl

cc: Administrator's Reading
Mr. Douglas
Mr. Strobel
Mr. Barr
2 - Field Team, Region IV
FILES

Western Mica Corporation

WET AND DRY GROUND MICA

MILL:
2611 N. Sylvania Ave.
Fort Worth, Texas
Tel. 8-1662

General Offices
20 So. Central Ave.
Tel. - PArkview 5323
Clayton 5, Missouri

November 11, 1949

Mr. A. C. Bohnstedt
Cooperative Mines
La Madera, N. M.

Dear Mr. Bohnstedt:

During the second week in October, 1949, I spent four days with you and your Engineer, Mr. Ferranti, examining your various mining properties in the La Madera and Petaca mining districts. At that time, we also discussed a mill which you intend to build for the production of scrap mica.

As you know, this examination was made because of our desire to secure a reliable source of good scrap mica as close to our Fort Worth plant as possible. We are now operating a wet ground mica plant, but intend to add a dry ground unit whenever our source of scrap will permit.

At the time of our meeting, I also agreed to help you, in a consulting capacity, with your mining program and the design, construction and finally the operation of your scrap mica plant. With this in view, the following report is submitted.

The fourteen mining claims which you now have, together with the Joseph and Globe properties which you are in the process of acquiring, should furnish you with an ample supply of crude ore.

The mica-rich dumps at these properties would supply enough ore to operate your plant for several months. This mica was rejected in searching for coarser material of higher quality, and in most instances, represents a large proportion of the mica that was removed from the pegmatite. During the time your plant is operating on dump material, a full scale development program should be undertaken on your mining properties so that no shutdown would occur when dump material was all used.

Another source of mica-bearing ore could probably be obtained from the many individuals who own mining properties but as yet have no market for their lower grade mica ore.

PROPOSED MILL

LOCATION

The most logical location for your mill would be at the Star Mine, which is adjacent to the Joseph properties and is within easy trucking distance from your other properties.

MILL BUILDING

The mill building would consist of standard wood construction covered with corrugated roofing. I don't think it will be necessary to completely enclose the mill at this time. A roof should furnish ample protection for the machinery and men. There will be a dust hazard, since all crushing and screening will be done dry, and open sides would tend to lessen this.

POWER

The total connected horse-power will be about 65. You have one unit on hand capable of delivering 28, this means an additional 40 kilowatt unit will have to be purchased.

FLOWSHEET

The following flowsheet is based on test work done by the Denver Equipment Company, and follows the flowsheet they recommended except in one respect, an additional screening operation has been added between the primary crusher and the first set of rolls, which would remove all large mica books before entering the rolls. The balance of the flowsheet consists of two rolls, each being followed by vibrating screens. The minus 8 mesh material from each of the above screening operations is then further sized before feeding to the air seperating units, which is nothing more than a wind tunnel.

This flowsheet, based on data from the Denver Equipment Company's test, would account for approximately 70 to 75% of the total mica.

One item that has not been included in the flowsheet, which you may find necessary, is a set of corrugated rolls in mesh to break up the mica books. I am referring to the fact that the thick mica books may force the rolls apart, allowing coarse quartz and feldspar to enter the final mica product.

The following pages show a drawing of the flowsheet together with an estimated cost of the entire mill which should not vary more than 10% from the actual cost. A detailed plan will be made as soon as a definite construction program is decided upon.

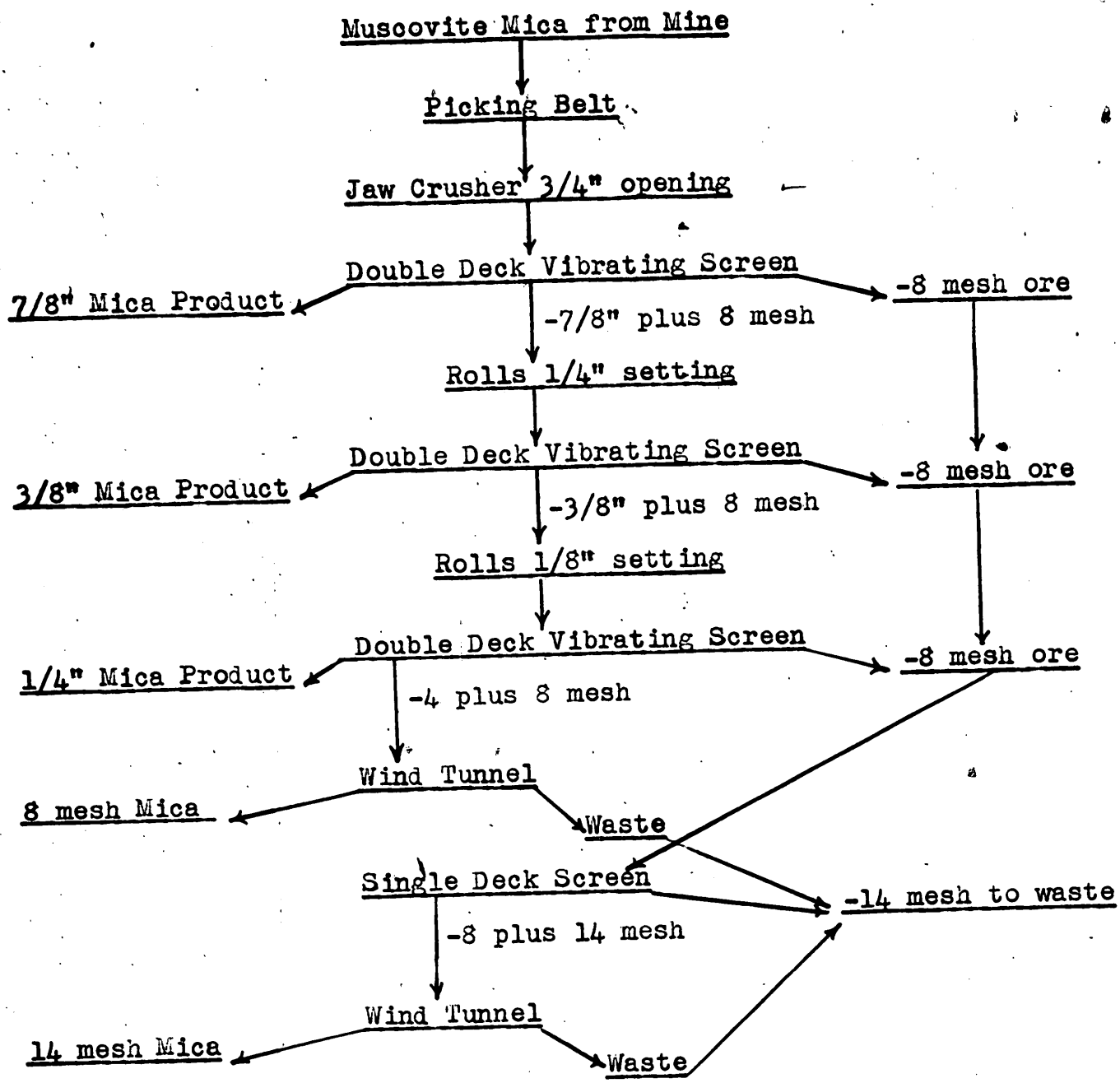
I trust this report will be of help to you and that it will serve as a starting point for your mining program.

Yours truly,

H. J. Long

Western Mica Corp.
H. J. Long

The flow sheet of the plant is as follows:



Plant capacity is designed to handle about 100 tons of crude ore per eight hours and produce from 10 to 20 tons of finished mica products, depending on grade of crude ore.

Equipment on Hand

	Balance Due
1 - only, 3' x 6' Vibrating screen, with Motor.....	$ 825.00
1 - only, 28 HP Gasoline Electric Set, 60 cycle, 220 Volts, Complete with all Assessories	2250.00
1 - only, Pioneer Jaw Crusher, 12" x 24" Complete with Motor	2250.00
1 - only, 1938 International truck	800.00
1 - only, 2500 CFM Buffelo Blower, with Motor	None
1 - only, Assortment of Belts and Pulleys	150.00
1 - only, 24" Belt Conveyor, 30' Centers, Complete with Drive and Motor	None
3 - only, 2 HP Electric Motors, Plus Wiring in present Building	1250.00
Approximately 10,000 Bd Ft Rough Lumber Various Dimensions	None
Total	$5525.00
Bridge, Labor and Grading	1160.00
Total Debt	$6685.00

Equipment Needed to Complete Mill

1 - only, 3' x 6' Grizzly, 3/4" Spacing.....	486 lbs.	$ 133.00
1 - only, 24" x 8' Belt Feeder, Complete with drive and Motor	1725	743.00
2 - only , Double Deck Vibrating Screens, Complete with Motors	2400	2400.00
1 - only, Single Deck Vibrating Screen, Complete with Motor	785	1035.00
1 - only, 16" x 10" Crushing Rolls, Complete with Drive and Motor	2460	1880.00
1 - only, 24" x 14" Crushing Rolls, Complete with drive and Motor	5200	2200.00
2 - only, 4" x 6" Bucket Elevators, 12' Centers, Complete with Drives and Motors	1000	450.00
1 - only, Diesel Electric Set, Three Phase, 60 cycle, 220 Volts, 40 Kilowatt Generator, Complete with all Assessories.....	5210	4969.00
Totals	20,268 lbs.	$13,810.00

Cost Estimate of Proposed Scrap Mica Mill

1	Machinery Needed to Complete Mill - f.o.b. Factory....	$13,810.00
2	Mill Building, Roof Covered Only, 20' by 80'	1,500.00
3	Three Ore Bins, Wood Construction.....	1,500.00
4	Labor, Installing Machines	1,385.00
5	Electrical Wiring Installed.....	750.00
6	Tools	350.00
7	Drafting and Engineering.....	500.00
8	Stairways, Platforms and Launders.....	300.00
9	Excavation at Mill Site, 200 yds. @ $2.00	400.00
10	General Expense	2,000.00
11	Emergency Expenses	1,200.00
12	Freight, Machinery to Mill Site	700.00
	Total	$24,395.00
	Amount still owed on present machinery & labor	6,685.00
	Total amount needed.....	$31,080.00

The amount needed to build your proposed mill will be approximately thirty one thousand dollars, of this amount $6,685.00 would be used to pay off your present outstanding debts. **(Unpaid balances on present equipment)**

All machinery will be mounted on heavy timbers and no concrete will be used. The timbers you now have on hand will serve this purpose very well. There will also be enough lumber to partially build the three ore bins, the balance can be purchased from the local saw mill delivered to the mill site for $70.00 per thousand.

Item 10 in the cost estimate listed as general expense covers the cost of superintendent, timekeeper, fire insurance, liability insurance, field office and traveling expenses.

Item 11 in the cost estimate listed as emergency expense covers all emergencies; such as delays in shipment, extremely bad weather, and other unforseen expenses.

THE CORRALITOS MINES, INC.,
A New Mexico Corporation.

* * * * *

Authorized Capital - $200,000.00

Capital issued - - $87,125.00

* * * * *

Officers and Directors

L. C. Lehrenkrauss, President.

Lisel M. Lehrenkrauss, Vice-President.

Vera L. Schaefer, Secretary.

Ralph L. Kaskina, Director.

Application by -
Mr. John M. Nash, Jr.,
Regional Director, Region II
U. S. Bureau of Mines,
224 New Customhouse,
Denver 2, Colorado.

INDEX

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" #3 - " #4.
" #4 - " #5.
Summaries - " #6.
Answering Regional Director questions-- Page 6.
" " " " - Concluded - Page 7.

EXHIBITS

#1 - Western Mica Corp.- 5 Page Recommendations, Plant Flow Sheet, Cost estimates, etc.
#2 - Unattached - Eastern Equipment Company - Laboratory tests, Flow Sheet, Cost Estimates, etc. (Letter copies which run 1A to 3 Mines Equipment estimates, are included.)
#3- Sutton, Steele and Steele 2 page laboratory tests upon Dump materials, results.
#4- L. S. Bagley assays #T232 to T241 inclusive, showing Mica content of ore veins and some of the Mines dump materials.
#5- Copy of R. A. Parks Co. Analysis of Feldspar samples taken from dikes.
#6- Copy of statement Daniel Kaplowed, retired Mica miner and ex Mine Owner Francis (Red) Mine.
#7- 3 Page copy of statement of the late Quince Alley, who spent his whole life time of 75 years in the Petaca Mining District, as a mine worker, foreman and owner.
#8- Photostat Copy of letter giving views upon some of the mines inspected by Mr. Wood, recommendations thereto, and cost estimate of a proper Mill Plant, equipped.
#9- Photostat Copy of Western Mica Corporation statement relative to the purchase of the Scrap Mica production. (Agreed segment price $30.00 a ton f.o.b. cars Santa Fe)
#10-Bulletin #23 of the New Mexico Bureau of Mines and Mineral Resources, upon the Mica Deposits of the Petaca District Rio Arriba County, New Mexico, frequently referred to in this application, together with Geologic Maps. Published under the direction of Mr. S. C. Anderson, Director, by Richard H. Jahns, Geologist, and prepared by the Geological Survey, U. S. Department of the Interior. (Bulletin unattached)

THE COOPERATIVE MINES, Inc.,

A New Mexico Corporation

La Madera, New Mexico.

January second, 1951

Mr. John H. East, Jr.,
Regional Director, Region IV
U. S. Bureau of Mines,
224 New Customhouse,
Denver 2, Colorado.

Dear Mr. East:

We being unable to secure finances for our uses and purposes through the usual channels for financial assistance, hereby make application to you under the Defense Production Act of 1950, for financial assistance in the sums and purposes hereinafter stated, to-wit:

OPERATIONAL, PROCESSING, MILLING, CRUDE ORE RECEIVING HEADQUARTERS

Location and property

Upon a very good, Government constructed Mines Road leading to all of the principal Mica Mines of the Petaca Mining District in the Carson National Forest, at the foot of the mountain, upon a mountain stream 1.6 miles North of La Madera, New Mexico. The property is divided into three parts and is commonly known as "the Herrera 32 acres." It has upon it a full two story, abode house with iron roofing, in a fair state of preservation. It is approximately 20' x 52'. It will make a fine building for the storage, and if desired, the cutting and trimming of strategic mica, as well as the rarer minerals of Columbium, Tantalite, Tantalum, Monazite, and possibly, Uranium ores. Also, Beryllium.

There is a good well, which needs cleaning and pumping equipment installed. Approximately 14 acres are under irrigation and cultivable, of excellent quality.

STEP #1

The first need for ourselves and for all other small and large operators in the District, is a good, up-to-the-minute processing and milling plant, so that the old hand methods can be discarded and practically all of the mica now unmined, as well as several thousands of tons of mined mica dumps, can all be saved. Our proposed Plant and Mill is designed to handle about 100 tons of crude ore per eight hours and to produce from 15 to 30 tons of finished mica products, depending on grade of crude ore. In addition, we aim to save all mica of Plate, Sheet and Punch grade, before crushing, upon the picking belt, and to also sort out the smaller supply of rarer minerals, such as Beryllium, Columbian, Tantalite, Tantalum, Monazite, and possibly, Uranium ores, by sorters trained for that purpose.

We, of course, will take care of our own production needs first, but we are also anxious to serve the district by taking care of the prospector who may not bring in more than a few hundred pounds at first, to get "beans and sow-belly" money, to the small producer with a ton up to a carload at a time. If necessary to do it in order to serve the district, we will run extra shifts to do it, at as low a cost as possible after taking care of labor, repairs and machinery depreciation items. If granted the program herein outlined and hereinafter stated, by the Government, we will purchase the finished products at figures and standards approved by the Governmental Agency in charge of such matters.

The Plant/and/or/Mill

Subject to the fact that by changing the first proposed location from the Star Mine to the present location, that a haul of the unfinished product of 8.5 miles can be saved, with various other advantages, and that we will undoubtedly put in a Sutton, Steele and Steele Specific Gravity Dry Cleaner, instead of the Wind Tunnel first proposed, for greater capacity and and more efficient savings of mica content, our present plan, subject to any Engineering changes, is to use practically in its entirety, the flow sheet and plans drawn up for us by the Western Mica Corporation Plant foreman and Plant Engineer, Mr. H. J. Long. See Exhibit #1, for detailed Plans, Flow sheet, machinery and equipment needs. See Exhibit #2, Denver Equipment Company Plans, Laboratory runs, etc.

Step #1 concluded upon page 2 hereof.

See Sutton, Steele and Steele (Exhibit #3, Dump materials Laboratory Tests.

Step #1 - Page 2. The Cooperative Mines, Inc., Application.

Finances needed for Step #1 fulfillment, estimated at $54,000.00, as follows, to-wit:

To close option for purchase of the Herrera 32 acres -	$ 3,200.00
Install electrical equipment and current, pump for well, Repair and modernize house - -	1,800.00
Engineering costs - - -	1,000.00
Purchase and installation of a 24', 30 ton scales -	3,000.00
Mill and separation plant, fully equipped and installed, with proper housing and shed facilities (See Chapman & Wood, Consulting Engineer's estimate) - -	40, 000.00
Total - -	$49,000.00
Operating Fund, as explained in paragraph 2, Step 1,Page 1 -	5,000.00
Grand Total - Step #1 -	$54,000.00

Step #2 - Mining, Production, Supervision, Mechanical and Conveyance Needs.

Mines Group #1

The Mines in one production and supervisory unit:

The Francis #1.(Commonly known as the "Old Red Mine) See N.M. Bureau of Mines Bulletin 25, by Richard N. Jahns. Page 228 -Map Pg.230. One also attached this report. Also, see letter of Daniel Espinosa, Exhibit #4, and the Gabino Alire report, Exhibit #5, bottom of Page 1 thereof -"The Francis #1" property.

The Francis #2.(Commonly known as the "WHITE" and/or/ "LYONS" Deposit. See N.M.Bureau of Mines Bulletin 25, page 219 -Map Pg.221. One also attached this report. See also, the Chapman & Wood heretofore refered to letter, and the Gabino Alire report, Page 1 thereof.

The N.M. Bureau of Mines estimate of Dump tonnage available upon the Francis #2 as 2089 ton. Our estimate of the Dump tonnage upon Francis #1, 350 ton. These estimates do not take into consideration ~~of~~ the tonnage in the shafts and stopes not brought to the surface, which will be available through the mines cleaning process. The available mica content (Denver Equipment Company Laboratory test - see their full report - 38%) The dump materials are immediately available for milling.

The Triple EEE-A.See N.M.Bureau of Mines Bulletin 25, Page 227 for description. This has one of the finest exposed dykes in the District.

The Red and White Mines have always been known as heavy producers, and the Red and Triple EEE-A are in close proximity to the Globe Mine, one of the Big producers of the Petaca Mining District, with lots of Plate, Sheet and Punch available, when operated. See also theGabino Alire report - Page 3 thereof.

Operational proceedure proposed

One foreman to be incharge of the three properties, working under the Mines operation and Production Manager, using one compressor, connecting the three mines by pipe lines. Two units to alternate in the drilling, and the third unit to work from the compressor upon a 4 P.M. to midnight shift.

Distances from Plant

Francis #1 - Downhill grade, good road -5.7 miles. (Approx. .7 miles dirt)
Francis #2 - Downhill grade, good road -6.6 miles (" 1.6 " ")
Triple EEE-A - Downhill grade, good road -5.5 miles

Step #2 - Mines Group #1 - Concluded upon Page 3 hereof.

First Production Unit - Step 2. In our opinion should be coordinated with Step #1 and carried on simultaneously therewith.

Francis #1 (Red)

Run an intersecting tunnel an estimated 125' to connect up with old workings. (See Map) - - -	$2,500.00
Timbering, cleaning and mucking out old workings - -	1,000.00

Francis #2 (White)

Cleaning, timbering and development - -	2,000.00
Purchase of interest of Dave Gist and Ed Niederstadt in 2,089 ton (N.M. Bureau of Mines Estimate) assaying 39.6% mica content -	2,000.00

Triple EEE-A

Dewater and clean 38' shaft.
Clean and extend 100' tunnel to connect up with shaft and main ore body - Estimated - 1,500.00
Total - $9,000.00

Machinery and Equipment needs - First production unit -Step 2.

Sahram Compressor - -	$2,000.00	
7,800' 1½" pipe connecting compressor with the 3 mines-	3,120.00	
Fittings for pipe @ 30¢ each 20' - -	1,200.00	
1,100' track @ 30¢ - - -	330.00	
3 Jack Hammers @ $225.00 - -	675.00	
300' air hose @ 5¢ - -	15.00	
Power Water Pump for dewatering mines and cleaning well -	260.00*	
Ore loading bins, ore cars and miscellaneous mining tools- Estimated	3,000.00	
16" Bucket Loader - -	1,700.00*	
Small 2nd Hand Cletrac or Catapillar dozer -	1,500.00*	
Total (Estimated)		13,800.00

Transportation and Utility Truck needs

One(1) General Hauling 2 to 3 ton truck -	$2,115.00*	
One(1) 1 ton 4 W.D. Jeep Pickup fully equipped with heater and radio -	2,085.00*	
One(1) 4 W.D. Jeep Station Wagon, fully equipped with Oil filter, heater and radio -	2,500.00*	

(Radio very essential, because there are no telephones at the mines, therefore in an emergency, through arrangement with Western Union and local radio, messages may be sent)

Total (Estimated)	6,700.00
Engineering and Miscellaneous - -	1,500.00
Total -	$31,000.00

Sub-totals

Step #1 -	$54,000.00
Step #2 - -	31,000.00
Total -	$85,000.00

Notes:

* These items all interchangeable between Step #1 and #2, as well as between them and Steps #3 and #4, to follow, when/and if/ taken on, which we advise as soon as steps 1 and 2 fully working satisfactorily.

There is enough mined dump materials at our properties, as well as other properties in the district, to keep the Plant (Step1) working continuously from the time it starts to operate.

A composite assay of the dump materials of several mines dumps, shows a net mica content of 38% plus. (Denver Equipment Company Laboratory -Exhibit -2)

It is our aim that the Plant serve in-so-far as possible the whole Petaca Mining District, putting the mining upon a permanent, profitable basis for the first time in its history - at least in recent years, because by hand sorting methods, an average of 36% of the mica has not been saved after it was mined.

In order to save investment and maintainance, we aim to contract all ore hauling from the mines to Plant, and from Plant to Railroad car loading, which can be done reasonably.

Step #3 - Mines Group #2. Page 4. The Cooperative Mines, Inc. Application.

Mines in Mines Group #3

The -

Queen	-	10.3 miles to Plant site.
Miller Group in which is the Mary, Etter and Werner		11.0 " " " "
Conquestador.		12.7 " " " "

Production will also be available to us, and under our supervision, from the Pino Alto and the California - Western minesboth inside of the Mines Group #3 area.

Mines Group #2 all in one production and supervisory unit:

The Queen. See the N.M.Bureau of Mines Bulletin #25, By Richard H. Jahns,page 172 for description and Geologic Map. Map also attached to this report. See also the Gabino Alire report, Exhibit 5, page 3, thereof.

The Miller Group. Description of Mary and Etter, which includes a part of the North Star, shown at pages 144 and 146, with the Werner at page 149, of the N.M. Bureau of Mines Bulletin #25. Also Maps thereof therein, and also attached to this report. Also Page 2 of the Gabino Alire report, Exhibit 5.

This Group is known to have produced, and to still contain, Tantalite, Tantalum, Columbian, Monozite, and indications of other rare minerals and Earth's.

The Conquestador. See Pages 152 and 153, N.M,Bureau of Mines Bulletin #25 for description and report, as well as Map. Map also attached hereto. Described also in the Gabino Alire statement, Page 2 thereof.(Exhibit 5. Approximately 900 ton of mined dump materials containing 34% of mica at this property)

Step #3, procedure and needs

Queen				
Cleaning, timbering and development	-		$1,500.00	
Machinery				
Schram Compressor - -		$2,000.00		
Jack Hammer - -		225.00		
Power Hoist, Ore leading bin, Pipe, Fittings, cable, track, bucket, etc.,estimated	-	2,000.00	2,225.00	$5,725.00
Miller Group				
Dewatering, cleaning,timbering and development	-		$1,500.00	
Machinery				
Hoist, cable and bucket at Werner -		$1,000.00		
Schram Compressor -		2,000.00		
3 Jack Hammer's - -		675.00		
Pipe lines -5,200' @ 40¢ - -		2,080.00		
Fittings - 260 @ 30¢ - -		780.00	(780.00)	
300' track @ 30¢ -		90.00		
200' air hose, miscellaneou tools, etc	-	100.00	6,725.00	8,225.00
Conquestador				
Cleaning, timbering and development -Est. $1,500.00				
Machinery and Equipment				
Schram Compressor - $2,000.00				
Jack Hammer - - 225.00				
Hoist, track, pipe, fittings,air hose, ore car, etc. - -		1,000.00	3,225.00	- 4,725.00
Engineering and Miscellaneous	-		-	1,325.00
Total Step #3, Mines Group #2	-			$ 20,000.00

Step #4 - Mine Group #3. Page 5. The Cooperative Mines, Inc., Application.

Mines in Mines Group #3.

The -

ALMA	-	Approximately	15 Miles to Plant site. *
Black Fang	-	"	17 " " " " " *
Silver Spur	- -	"	17½ " " " " " *

*There is a possibility worth considering of putting in an aerial tramway from the Silver Spur and loading at Las Tables, instead of the longer route above shown.

Mines Group #3 all in one production and supervisory unit.

The Alma

See the N.M. Bureau of Mines Bulletin #25 , By Richard H. Jahns, page 125 for description, with Geologic Map at page 126. Map also attached to this report. See also the Sabino Alire report, Exhibit 5, pages 2 and 3 thereof. Note that this mine has a good showing of Beryllium also.

The Black Fang

This may be described by some other unrecognizable name in the N.M. Bureau of Mines Bulletin, so for reference the Sabino Alire report only, is referred to. See page 3 thereof, Exhibit 5. A Geologist for one of the largest Corporations in the U.S., said to the writer - "this to me has in it some of the finest mica, and possibility of going deep, of any of your properties. There should be good plate and punch here. My recommendation is - do not pass this up in any plans for future development. Its possibilites have not been scratched."

The Silver Spur

See N.M. Bureau of Mines Bulletin #25, page 121 thereof. See also Exhibit 5, Page 2 thereof - the Sabino Alire report. This property has a showing of one of the finest pegmatite dykes in the Petaca Mining District.

This property is close enough to the Black Fang that the two can be operated with one compressor.

Step #4. Mines Group #3. procedure and needs:

Alma:

Cleaning, timbering and development	-	$1,500.00	

Machinery

Sebrom Compressor	-	$2,000.00		
Jack Hammer	- -	225.00		
Track, ore car, fittings, pipe, hose, etc. (Some road work)	-	775.00	3,000.00	- $4,500.00

Silver Spur

Cleaning, dewatering, timbering, extending present fine tunnel to ore body and shafts, exploration and development	-	4,500.00	

Black Fang

Cleaning, dewatering, mucking, exploration and development	-	1,000.00	2,500.00

Machinery and Equipment -
Silver Spur and Black Fang

Sebrom Compressor	-	2,000.00		
Two(2) Jack Hammers	-	450.00		
5,200' 1½" pipe @ 40¢	-	2,080.00		
Fittings - 260 @ 30¢	-	780.00		
300' track @ 30¢	-	90.00		
Air hose and tools	- -	100.00	5,500.00	8,000.00

Engineering, Road work and miscellaneous	- -	2,500.00
Total Step #4, Mines Group #3	-	$ 15,000.00

Summary of Needs And Steps Thereto.

Step #1:

Processing Plant and Mill
Location therefor
Engineering Supervision , Labor, Machinery and Equipment
Operating Fund therefor.
Total Estimated Needs from Government therefor - $54,000.00

Step #2:
Mines Group #1:

Conditioning of Mines in the Group
Production
Supervision
Engineering
Mechanical
Conveyance
Trucking
Needs Estimated from Government therefor - $31,000.00

Total Concurrent Estimated Needs Steps #1 and #2-$85,000.00

Step #3
Mines Group #2

The same items as listed for Step #2 -Total estimated - $20,000.00

Step #4
Mines Group #3

The same items as listed for Step #2 - Total estimated - $15,000.00

Total Estimated needs to put full program into Operation - $120,000.00

Answering the Regional Director's questions

a, b, c, f, g, answered in preface and in Steps numbered 1, 2, 3 and 4 hereof.

Employees at present:
"d" None at present.

Employees to carry out full program
"e"

General Superintendant and Manager - The President
Superintendant and Engineer in charge of Plant Construction, Mr. H. J. Long, Superintendant, Western Mica Corporation Plant, Fort Worth, Texas, Step #1.

A general foreman and 3 employees in addition.

Step #2

The Corporation's Mines Production Manager, with a foreman and three to five assistants.

Good , mostly experienced, labor can be obtained in the District at the minimum Government wage therefor.

"h" If machinery and equipment can be made available promptly, production should commence within 90 days to four months from the date that the funds therefor are made available.

"i" All of the mines, except those in Group #3 are accessible to good access Mines Roads, built by the Government during 1943. Those in Group #3 accessible over dirt road, after some work, for short distances to the Government road. This road, principally a down grade road to and past the Plant site.

Answering the Regional Director's Questions - concluded.

"j. The prices f.o.b. cars at the Plant should be comparable to the prices prevailing at the close of World War III plus an allowance for increased labor, machinery and equipment costs, for the strategic grades of Plate, Sheet and Punch.

If the Government cannot use the resulting Scrap and Fines grades from the processing, we have a good market for the Scrap as is shown in the Exhibit of the Western Mica Corporation letter, the price to us being $30.00 a ton f.o.b. cars Santa Fe, N.M., or Estelline, Colorado. If permitted to build such a Plant as is herein outlined, so that even the fines of the mica are saved, these will bring an estimated price of close to $15.00 a ton, f.o.b. cars, washed.

We want to repeat - we are not seeking the layout outlined simply for ourselves - we want to - at - far as possible serve our district in a way that prospecting and mining will be stimulated and made economically sound. We have satisfied ourselves by careful surveys, engineered mistakes, laboratory tests, and through the experiences of others, that it is possible to save and be utilize, all of the mica, and make it economically sound through proper mechanical processes.

The Superintendent of Production at the Mines is an extra important position. Through him much of the success of the undertaking depends. We have the promise of the best man for the work in the district, in our opinion, for that position. He has grown up through his mature years in that work. He knows where to find and to follow the mica in the most economical way, and furthermore, he knows how to train his men to place their shots, so that his percentages of marketable strategic mica obtained, is far above the average. That the best results to the whole defense effort in this District may be obtained, we will gladly allow him to train others in the procedure. In other words, we most sincerely want to do our utmost to serve the Defense Effort in our District.

We have talked with our Bank - the Santa Fe National Bank, Santa Fe, New Mexico, about financing, as well as others in similar circumstances to us, but they, nor we, know of no financed available, except the Government. We are proud of our holdings and will be glad to Cooperate in every way possible with the Governmental Agencies in charge. It is not a question with us as to how much money we can make, but rather, how much we can serve, and how fair we can be. If those who are in charge will meet us upon that basis, we are confident that we shall be able to serve well, and HAPPY.

Respectfully submitted,

The Cooperative Mines, Inc.

Address:
La Madera, New Mexico

A. C. Bahrenstedt, President

References:

Our neighbors and Co-workers within the District.
Hon. Clinton P. Anderson, United States Senate, Washington, D.C.
Hon. John E. Miles, former Congressman from New Mexico, as well as former Governor and Land Commissioner of this State.
Walcott E. Russell, Vice-President, Santa Fe National Bank, Santa Fe, N.M.

Spr

C O P Y
C O P Y

August 29, 1949

Kullberg-Lakeside
Flow Sheet - Lakeside
Tests, etc.
Folder
Original
A.B.

Cooperative Mines
% Hotel Montezuma
Santa Fe, New Mexico

Subject: Ore Test No. AC-12189
Quotation No. C-2195
Attention: Mr. A. C. Bohrnstedt,
President

Gentlemen:

Enclosed in duplicate are copies of the completed report covering the ore test which we have recently conducted on your sample of mica ore. This report contains complete information on the test work we have conducted on a dry basis for the recovery of the mica, together with the recommended flow sheet for your particular operation.

As previously discussed with you we are enclosing our proposal C-2193, which covers the various items of equipment which will be necessary to complete your flow sheet taking into the account the equipment which you already have on hand. This proposal does not include any ore or storage bins as the information which you have previously given us indicates that additional bins will not be required. Our calculations indicate that approximately CS MP must be supplied to handle thie operation. As the smaller units which you have on hand are capable of delivering 28, we have submitted our proposal on an additional 40 kilowatt unit.

As pointed out on the flowsheet there is a considerable amount of values present in the minus 14 mesh size. At some later date you may wish to install an air separating device for the recovery of those values. For your information on this type equipment we are enclosing a bulletin which generally illustrates and describes an air tabling device.

As we understand it you have some blower equipment available from your previous operation. Upon hearing from you considering your further requirements along this line, we will be more than pleased to submit our proposal on additional blowers, if required.

We have enjoyed submitting this proposal and assure you that we are very anxious to work closely with you in supplying the necessary equipment for your new milling operation. Your purchase order in the very near future covering this equipment will certainly be appreciated.

Yours very truly,
DENVER EQUIPMENT COMPANY

(Signed)
James E. Quinn

Bln

C O P Y
C O P Y

August 31, 1949

Mr. A. C. Bohrnstedt
Cooperative Mines
c/o Hotel Montezuma
Santa Fe, New Mexico

Subject: Ore Test AC-12189
Reference: Quotation C-2193

Dear Mr. Bohrnstedt:

We certainly have appreciated your paying us a visit during the past week at which time we discussed the recent ore test conducted on your sample of ore.

In as much as there has been some question as to our recommending the use of crushing rolls for the handling of your particular operation for the recovery of mica we are pleased to give the following explanation. Upon discussing this matter with our testing laboratory they have informed us that the purpose of the crushing rolls is not to reduce the size of the mica but to free the mica from the feldspar and silica with which it is associated.

By the ore test it was proven that this separation could be effected by the use of the crushing rolls and that the recovery of the mica product could be made by the use of a vibrating screen on the coarser sizes and a blower on the finer sizes.

Future regarding our quotation covering the additional equipment that will be required you will notice that we have quoted on a bucket elevator. This item may or may not be required depending of course upon the layout of your mill. In order to keep costs at a mainimum your mill designed should draw up the plans in order to promote essentially a gravity flow of the mica throughout the milling process.

As you have previously corresponded with Mr. Lintner of our El Paso office, we would suggest that you continue to do so regarding further information which you might require. This will definitely eleminate a loss of time which is so valuable in getting your operation under way.

Yours very truly,

DENVER EQUIPMENT COMPANY

(Signed)
James E. Quinn,
Field Engineer

C O P Y C O P Y

Bfn

December 1, 1949

Mr. A. C. Bohrnstedt
La Madera, New Mexico

Dear Mr. Bohrnstedt

Thank you for stopping by our office November 30 at which time you informed us that the installation of your mica plant may possibly be delayed pending further discussions withR. F. C. We are sorry that this additional delay is necessary as we realize how hard you have worked during the past couple of years in trying to get your mica plant under way.

As discussed with you on your recent visit, the additional representative samples of your mica ore from the Joseph Mine and the Francis No. 1 Mine were examined by our Laboratory and the following report was made:

The ore from the Joseph Mine contained 29.2% mica and the ore from the Francis No. 1 Mine contained 38.6%; it was the opinion of our Laboratory Staff that this material will be treated by the same process as recommended by the previous ore test report, our reference AC-12189.

This should be good news to you to know that the ore on all of your properties is essentially the same and will be able to be treated by the same type of mill.

As you know, we are anxious to be of the very best possible service to you in helping you to get your plans for your new mill under way as quickly as possible. Please let us know what we can do to help you and keep us advised of any new developments in your future plans. Thank you.

Yours very truly,

DENVER EQUIPMENT COMPANY

(Signed)
James E. Quinn
Field Engineer

C O P Y O F -

Assay Certificate - Oregon Assay Office
L. B. Bentley

Organ, N.M., March 2, 1942

Mine - Hoyt-Bohrnstedt Mines

Shipper - A. C. Bohrnstedt

Address - Las Cruces, N.M.

Resultper ton of 2,000 pounds.

No.	Class	Mica Per Cent	Feldspar & Quartz -Per Cent
7232	1	42.oo	58.00 (Composite 7 Locations) (veins composite)
7233	2	66.34	33.66 (Alma Ore Vein)
7234	3	66.20	33.80 (Conquestador Ore Vein)
7235	4	18.75	8125 (81.25) Alma Dump
7236	5	47.50	52.50 Lone Wolf Dump
7237	6	35.72	64.28 Black Fang Dump
7238	7	23.10	76.90 Silver Spur Dump
7239	8	47.10	52.90 Miller Group Dump
7240	9	46.67	53.33 Conquestador Dump
7241	10	52.00	48.00 Queen Dump

Charges - $10.00 Paid

Organ Assay Office

(Signed) L. B. Bentley

(Copy of assays of composite samples of both white and pink feldspar from the mines of The Cooperative Mines, Inc., Petaca District, Rio Arriba County, New Mexico)

R. A. PEREZ CO.
Assayers -Engineers - Metallurgists
120 North Main Street,
Los Angeles, Calif.

January 15, 1942

Analysis made for:

A. C. Bohrnstedt
Los Angeles, California.

ANALYSIS CERTIFICATE

Laboratory Number	Your Mark	Determined	
9749	Feldspar White	Silica (SiO2)	68.2%
		Alumina and Iron (Al2o3) (Fe 203)	22.40%
		Lime (CaO)	1.00%
		Magnesia (MgO)	trace
		Alkalies (K20 & Na20)	8.15%
		Ignition loss	0.15%
9750(9750)	Feldspar Pink	Silica (SiO2)	64.8%
		Alumina and iron (Al203) (Fe203)	23.2%
		Lime (CaO)	0.80%
		Magnesia (MgO)	trace
		Alkalies (K20) &(Na20)	10.8%
		Ignition loss	0.22%

9749	Sample	White Feldspar	Iron (Fe203)	2.14%
9750	"	Pink " "	Iron (Fe203)	2.86%
9749	"	Fe203 plus Al203 22.40%	- (Al203)	20.26%
9750	"	Fe203 " Al203 23.2%	(Al203)	20.34%

(Signed) Otto Ellerman
Assayer and Chemist

A COPY Mr. Sabino Alire of Petaca, Rio Arriba County, New Mexico, now very ill, a gentleman born and having lived his whole life-time of 73 years in Petaca, which is nearly at the heart of what is commonly known as the Petaca Mining District of Rio Arriba County, New Mexico, interviewed at his bed-side, gave out the following information relative to the Mica industry of his District, some of the properties therein, and his vision of its future possibilities. Mr. Alire was one of the very first pioneers of the industry and chief authority on the industry over the years, and in which most of his mature years have been spent. He has worked in it as a laborer, a foreman over men, as a Consultant and as a mine owner. Recently his mines ownership has been transfered to his son, Richard Alire.

Questioned as to whether he thought the mines were worn out in the district, or whether there were still large deposits and reserves of ore in most of the mines, Mr. Alire said:

"The mines decidedly are not worn out, and considering that they can now be worked with modern machinery and methods, instead of our former methods of entirely hand labor, the possibilities of the properties throughout the whole district, have hardly been scratched. In our old hand methods, even up to the present time, from 25% to as high as 50%, of the small sizes and fines went into the dumps. Such a cleaning and processing mill is now proposed for the district. In my opinion, such a mill in operation, showing in a practical way what can be done will make possible the reopening and development of all of the worth while properties of the district. There is undoubtedly mica in the dumps in the daitrict now which can be recovered, to a value of at least $250,000.00. That in itself would be a God-send, but in addition, it will revive the whole mica industry of this State.

Questioned as to his opinion of some of the various properties, he replied as follows, to-wit:

The Globe (Not copied because not pertinent to this report. A.C.B.)

TheFrancis #2 (Commonly known as "The White Mine.")

"I have worked in this property and have been in it since it was shut down by Mr. Johnson. It has been a good producer of high grade scrap mica, with a small percentage of punch and plate. There is also some very high grade feldspar in it. There is a large part of the pegmatite dyke there that has not been touched at all, and in my mind, there is no question but there are high grade deposits of mica to be secured by following the known veins and veins. Some development work will need to be done before full scale mining work there is resumed, but along with it much mica will be recovered. That was high, and I think will be, one of the best producers of high grade scrap mica in the District. There is there also, a fine dump with hundreds of tons of high grade sized mica in them, which with modern methods can be nearly all recovered."

The Francis #1. (Commonly known as "The Red Mine.)

"I also know this property intimately, have worked in it and have been in it since it was shut down by Mr. Johnson.

It must be understood and taken into consideration, that economic conditions had more than anything else to do with the frequent shut down of the properties throughout these years. Scrap mica has been sold for as low as $6.00 a ton. Much for from $9.00 to $11.00 a ton. Mr. Johnson had an additional handicap, for he was sick and physically handicapped for several years previous to his death about two years ago. One only has to go into the Red Mine, to see the evidences all about him, that this property has possibilities of high production. It, too, has been a producer of the collateral minerals of Beryllium, Columbite, Tantalum and Tantalite in small quantities. Much of the feldspar in the pegmatites is high grade."

The Joseph (Commonly called by some the "Caliente Mine) Not copied because not pertinent to this report.

The Star. Not copied because not pertinent to this report.

The -

Conquestador - Queen - Mary, Etter and Werner, commonly known as "the Miller Group". - Lone Wolf - Alma - Black Fang and Silver Spur properties. Also, the Triple KKK-A.

"I have know known all of these properties quite intimately all of my life, and have worked in some of them. At times, I have been foreman or Superintendant in charge of the work. July 4, 1943, at the request of A. C. Bohrnstedt, President of The Cooperative Mines, Inc., I accompanied him upon an inspection trip of these properties, for the purpose of advising him frankly, relative to the best manner of operating these properties, and also, to advise him whether in my opinion, any of these mines should be dropped. I did not advise dropping any of them. The Etter, upon which work had been stopped because they were not getting sufficient product, was in my opinion the weakest possibility of any. However, I felt that the main mica bearing veins had been missed, therefore advised further prospecting before dropping even it. I indicated to Mr. Bohrnstedt where I thought that work should be done."

"During the time that Mr. Miller owned and operated the Miller Group, and started to open up the Triple MEE-A, then known by a different name, I was Mine Foreman for Mr. Miller. Mr. Miller was a good mines operator and made money on the Miller Group, and I have no doubt but that he would have made money on the Triple MEE-A, because there is a wonderful pegmatite there, there was fine Mica taken out of the shaft and the 225' tunnel was being driven in to connect up with the shaft and known mica deposit at its bottom. On both the Mary and the Werner - the Werner then also known by a different name, production was good, and as stated, Miller was making money. The intimate reason for his quitting, can now be told, undoubtedly known only to me and a few intimates. His wife, whom he loved very, very much, left him. Within a few days, he stopped all operations, disposed or gave away much valuable equipment. He made a present of some fine engineering and other like equipment, saying - 'when a man's home is broken and he has no one to work for, what's the use of going on?' With that he quit. The ~~mica~~ mines were alright - HE WAS MAKING MONEY."

"The Conquestador, in my opinion has been a good mine and still is. There are offshoots from the main tunnel, now covered by dump materials of good value, which will produce. The more than 100' long and six to 8' wide shaft, has excellent showings of mica for the full distance. The shaft is at an approximate 45 degree angle. The pegmatite at the top for the full distance and width, has fine showings of mica. Undoubtedly from the top wall of the shaft to the top of the pegmatite, the same quality and quantity of mica, exists. Philip S. Hoyt worked the shaft last and reportedly took 300 ton of mica out of it. There are mica rich dumps there of several hundred ton, inside of the shaft and outside in the exposed dumps."

"The Alma has been a good mine, and in my opinion, still is. It has one of the largest pegmatite dykes in the district. When last operated, high test Beryl was produced there."

"The Silver Spur, situated above Lake Tables, has pegmatite dykes averaging more than 30' wide. Some of the whitest and finest feldspar in the whole district is exposed there. The shafts are now filled with water, but of my own knowledge, I knew that good mica came out of them and that at the time, Philip S. Hoyt considered it one of his very finest properties. It has fine possibilities."

The Queen

"This has been a good producer of scrap, punch and plate mica of high quality. The feldspar there is of outstanding quality. The old mine workings on the principal mica vein, is full of muck and water, but if cleaned out and modern equipment used, should produce large quantities of high grade mica. However, there is a large, untouched dyke, known to have fine quality of mica in it, which should produce as fine mica as the old workings ever did."

The Black Fang

"Those who are not familiar or fully acquainted with this property, might consider it to be of little value. Very little of the dyke shows, and the vein dips downward at an angle of about 45 degrees for approximately 45', which is about the extent of the workings there. It, too, is full of muck and water. However, some of the highest quality mica in the whole Petaca District, can be found in this property. I understand that one of the Geologist's for one of the larger Mining Corporations of this country said of it - 'by all means continue the development here. It goes downward, but shows evidence of someday being a fine mine." (This property in close enough proximity to the Silver Spur, to be operated ~~###~~ in connection with it."

The Lone Wolf (Not of consideration in this present report.)

The Triple EEE-A - (A further statement made by Mr. Allire about ft. A.C.B.)

"This property has not been developed sufficiently to show its full potentialities. It however, has a long, wide pegmatite dyke, with excellent showings of mica upon the surface along its entire length of the claim. It is in the District of good producers, such as the Globe, Francis (Old Red Mine), Francis #2(Old White Mine. Some of these had better showings at the start than it. I predict that it too, will be a fine producer of high grade mica."

Questioned as to the best method of mining and mining development, or whether out of his experience and observation, he would follow the so called blocking ~~[illegible]~~ out of ore, or the method most in use in the district throughout the years, of a combined mining and development program, Mr. Allire said:

"The so-called blocking out system for mica, has not, and in my opinion, will never work. It costs too much money and those who have tried it throughout the years, have either had to give it up or go out of business. The tried and true method - the method that has been successful under good and careful management, has been the combined, simultaneous, development and mining. Under that system, with experienced miners in charge, one should be successful."

Questioned as to whether, after a life time of effort and experience in mica mining in the Petaca Mining District, he would recommend it to others, Mr. Allire said:

"We were pioneers - producers of mica when the principal product of mica was known as 'Isok Stock'. The uses for scrap mica were little known. We went through years of depression, and we had to stop often for lack of markets. Yet we have lived, I have raised a family, have a small place and a home, all paid for. We have got much more than scratched the surface. Now all grades of mica bring three times or more, as much as the average over past years. The demand is greater than the supply. In my opinion it will continue, because now there are ten uses for mica to one at the time we started. I predict a fine future for it and the district. I sincerely hope that future generations will not let us pioneers down by not continuing that which we started, and which has been dear to our hearts."

Dated and signed at Petaca, Rio Arriba County, New Mexico this 22nd day of December, 1949.

(Signed) Gabino Allire

Richard Allire, a son of Gabino Allire says that previous to the signing of the foregoing statement, he read it to Mr. Allire and asked him if it was a true and correct statement of his views as dictated by him. He said that it was.

(Signed) Richard Allire

E. P. CHAPMAN, JR.

JOHN A. WOOD

CHAPMAN AND WOOD
MINING ENGINEERS AND GEOLOGISTS
LINCOLN BUILDING
312 SOUTH THIRD STREET
ALBUQUERQUE, NEW MEXICO

February 13, 1950

Mr. A.C. Bohmnstedt
La Madera, New Mexico

Dear Mr. Bohrnstedt:

In going over the data which we have on hand for the Petaca district, we have come to the conclusion that there is not sufficient information to permit us to clearly define any available tonnage estimates such as might be required by RFC.

My own personal impression remains much as it was when I was up there last year. There may be some dikes which I have not seen which would have good potentialities; but from what I have seen, I think you very definitely would need to have a combination of three properties in order to obtain a sufficient tonnage of adequate mica content for a dry grinding operation. The ones that looked the best to me were the RED, WHITE and CALIENTE. I estimated that the Caliente could be mined with practically no sorting at about 25% mica by volume and that assured and partially assured ore would total a minimum of 10,000 tons.

My recommendations to Pumice Corporation were that a mill be located near the Caliente area and that this property be used as a basis for operation, with miscellaneous amounts of sorted ore being furnished from the other two properties plus what could be obtained from leasers.

Your best markets continue to be in sizes finer than 20 mesh and particularly finer than 100 mesh and this requires the very best in grinding equipment. The separation of the mica is not too difficult, but reduction of the material past 100 mesh is rather costly and we are not satisfied that the best method has been determined as yet. A rough estimate of the cost for a 7 tons per day of product plant, exclusive of mining equipment, is $40,000.

I sincerely hope that you may be able to get the proper type of operation started up there, as I think there is a good chance for success. It does, however, depend on having the right properties and the right equipment.

Sincerely yours,

CHAPMAN and WOOD

John Wood

John A. Wood

Western Mica Corporation

WET AND DRY GROUND MICA

MILL:
2611 N. Sylvania Ave.
Fort Worth, Texas
Tel. 8-1662

General Offices
20 So. Central Ave.
Tel. - PArkview 5323
Clayton 5, Missouri

November 25, 1949

Mr. A. C. Bohrnstedt, President
Cooperative Mines, Inc.
La Madera, New Mexico

Dear Mr. Bohrnstedt:

With reference to your note of November 23rd, we wish to go on record confirming our Mr. Long's statement to you relative to the tonnages of mica which our company would purchase from you.

As you recall, our original agreement with you called for a minimum of one 40 ton carload of scrap mica per week. Our position is now improved to the point where we would require a minimum of two 40 ton carloads per week and would be very happy to receive from you any and all mica which you are able to produce over and above this minimum requirement up to 200 tons per week.

As you know, we are principally wet grinders and at the present time are serving but one customer in the Texas area. However, our shipments to this account are but a portion of what they desire to purchase from us. There are other customers of wet ground mica in our neighborhood who have contacted us with reference to their requirements, but we have been unable to serve them due to our limited raw materials.

In the meantime we have had made available to us dry grinding equipment; capacity of which would exceed the 200 tons mentioned in the previous paragraph. There is a ready market for this material in and around Fort Worth.

You can assure any and all who are interested, that the tonnages about which I speak are not wishful thinking but are based on market surveys, which, if anything, are very conservative.

We sincerely hope that you will be able to have your mines and mill underway and in operation at an early date.

Yours very truly,

WESTERN MICA CORP.
Ernest Kretschmar

Ernest Kretschmar