MME Form 9
Rev. Nov. 65

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey

OFFICIAL DOCKET FILE Contract No. _____ Docket No. 6784

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [x] Owner's Consent to Lien and Subordination Agreement
- [x] Application and Attachments

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam. Report (Tab) 4/78
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. _____: Reports

- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

Right Side

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with Transmittal, Narrative and Maps

Folders No. _____: Maps (Use pocket folder or envelope)

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty Material

72195-65

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

OFFICIAL COPY
O. M. E.
RECEIVED
APR 17 1969

INITIALS	CODE

April 14, 1969

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: Free Gold Mining Company (Gold)
Free Gold and Emerald Properties
Colfax County, New Mexico

Transmitted herewith is an application for financial assistance in minerals exploration on the above-stated properties. One copy of like material has been retained for the OME Region III field office files, with the exception of the five Form 52's (Lien and Subordination Agreements) which are enclosed with the Washington office copy.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosures

LOUDEN CATTLE COMPANY

R. D. (DICK) LOUDEN
PHONE 946-5522
RICHARD H. LOUDEN
PHONE 946-5513

TAZ
BRAND

JACK W. GILSTRAP
PHONE 946-5528
WILLARD C. LOUDEN
PHONE 946-5522

BRANSON, COLORADO
81027

March 28, 1969,

RECEIVED
APR 3 X 1969
Denver, Colorado

Mr. James L. Gualtieri
Office of Mineral Exploration
Denver Federal Center
Denver, Colorado

Dear Mr. Gualtieri:

Enclosed are two copies of our revised application for an OME loan. Four copies of the Lien and Subordination agreements are included in the one application and the fifth copy in the other application.

If other details need attention please advise. Should a visitation to the mine be needed I would appreciate a few days notice prior to the proposed visit.

Sincerely yours,

Richard H. Louden

Richard H. Louden

Enclosures

MME Form
Jan. 65

Budget Bureau No. 42-R1306
Approval expires Dec. 31, 1968

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85-701 (72 Stat. 700; 30 U.S.C. 641)

NAME OF APPLICANT *(Full legal name and mailing address as they should appear on contract if one is executed.)*

FREE GOLD MINING COMPANY
C/O RICHARD H. LOUDEN
LOUDEN CATTLE CO.
BRANSON, COLO. 81027

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER: 6784
DATE RECEIVED: 4/17/69
REGION: III
DIVISION CODE:

BUSINESS ORGANIZATION *(Check one)*

- INDIVIDUAL [ ]
- CORPORATION [ ]
- PARTNERSHIP [X]
- OTHER *(Specify)* [ ]

STATE IN WHICH FIRM IS ORGANIZED:

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
R. O POTTS	Box 142, Folson, N. M.	Partner
Richard H. Louden,	Louden Cattle Co., Branson, Colo.	Partner

MINERAL(s) FOR WHICH YOU WISH TO EXPLORE: Gold

ESTIMATED COST OF PROJECT: $ 50,000.00

PROPERTY NAME	LOCATION COUNTY	STATE
Free Gold & Emerald (241)	Colfax (242)	N. M.

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit two copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior,* ~~[illegible]~~ Washington, D. C., 20242, or with the nearest OME Field Office.

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, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

2/20/1969
DATED

Richard H. Louden
BY *(Signature)*

partner
TITLE

A willfully false statement or certification to any Department or Agency of the United States Government is a criminal offense.

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

(a) Submit evidence of efforts made within 90 days preceding the filing of this application to obtain credit from your bank of account and at least one other banking institution or other private source of credit. Such evidence shall include true copies of correspondence which show: (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from credit sources. If the loan was offered under terms which you consider unreasonable, state why you consider them so.

(b) List names and addresses of affiliated, parent, or controlling companies or organizations and state extent and nature of their interest.

(c) State how you propose to furnish your share of the cost of the exploration work.

2. Applicant's Rights in Land:

(a) State your interest in the land and mineral rights, whether owner, lessee, purchaser under contract, or other. If you are not the owner, submit one true copy of the lease, contract, or other document (with address of owner) under which you control the property. Describe all liens, mortgages, or other encumbrances on the land and state book and page number and official place where recorded.

(b) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all adjacent land which you own or control. Describe any part of the land or workings which should not be subject to Government royalty and liens. If the land consists of unpatented claims, state book and page number for each recorded location notice, including amended locations, and official place where recorded. State all the names by which you know the property.

(c) For all land or mineral rights encumbered or not owned, submit five copies of Lien and Subordination Agreements on MME Form 52. If the agreements cannot be obtained, state reasons and provide copies of letters of refusal.

3. Physical Description:

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the land. Include existing mine workings and all production facilities.

(b) State your interest, if any, in operations described in (a).

(c) State, if you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves, giving quantities and grades and sampling methods used. Support your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you have, indicating whether you require their return.

4. Accessibility of Property:

(a) To aid the OME representative who may examine the property, state name and address of person who will meet him; give directions for reaching the property; and describe accessibility of property and of any mine workings.

(b) Name the shipping and supply points and state the distances to the property.

5. Exploration Work:

(a) Describe fully the pro[illegible]ed exploration work giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and sections as necessary. Show location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *land boundaries* or to the closest identifiable corner.

(b) If an access road must be built, show the proposed location on the property map and state the length, type and construction methods proposed.

(c) If an OME contract is executed, state how soon thereafter work would be started and finished. State your anticipated average daily or monthly rate of progress for each type of work.

6. Experience:

State your operating experience and background to conduct this exploration work and also that of the person who will supervise the work.

7. Estimate of Costs:

Furnish detailed estimates of the necessary costs *for each item of the work proposed in 5(a)* under the headings listed below with a total for each heading and the estimated total cost of the work. Costs for any work to be performed by an independent contractor should be listed separately under category (a) below. Costs for any work that is not to be performed by an independent contractor should be listed under categories (b) through (g).

(a) Independent contracts. State the total cost of any proposed independent contract for all or any part of the work, and the number of units and the unit cost for each type of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, or per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. (*Note*—If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. The cost of supervision, engineering and geological services; outside consultants, and labor should be itemized by numbers and classes of employees; rates of wages, salaries or fees; and periods of employment. State whether these services are available.

(c) Operating materials and supplies. List items of material and supplies giving quantity and cost of each. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of equipment and tools costing $50 or more per unit. Give specifications and indicate how each item is to be acquired—i.e., rented, purchased or provided by the applicant. If rented or purchased, state the estimated rental or purchase price. If furnished by the applicant, state condition and present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant which will be used in the exploration work.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration work, stating specifications and cost including labor, materials, and supervision.

(g) Miscellaneous. Describe the type and estimate the cost of repairs and maintenance of the operating equipment listed in 7(d). Do not repeat initial repairs listed in 7(e). Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories. [*Note*—The Government will not contribute to costs incurred before the date of the contract, or to costs of or incident to: (1) acquiring, using, or possessing land and any existing improvements, facilities, buildings, installations, and appurtenances, or the depreciation and depletion thereof; (2) general overhead, corporate management, interest and taxes (other than payroll and sales taxes); (3) insurance (other than employees' liability insurance); and (4) damages [illegible] persons or property (other than authorized repair to or [illegible]cement of equipment or other property used in the work).]

INT.—DUP. SUP., WASH., D.C

Attachment 2(b)

SITUATED IN WEST MORENO FREE GOLD MINING DISTRICT, SURVEY # 241 BY L.S.PRESTON SURVEYOR FOR MAXWELL LAND GRANT COMPANY, 7th and 8th NOVEMBER, 1899. BEGINNING AT COR. #1 MARKED 1/241 WHENCE COR. 1 OF SURVEY # 103 GOLD BELLE BEARS S 6-49-10 E 7578.4 FEET. THENCE S 88-17 E 300 FEET TO N.E. COR.# 2 2/241. COR. 1/242 EMERALD BEARS S 1-43 W 60 FEET. THENCE S 1-43 W 1500 FEET TO S.E. COR. # 3 3/241 ALSO MARKED MX 2/241 WHENCE COR. # 4/242 EMERALD BEARS S 1-43 W 60 FEET. THENCE N 88-17 W 300 FEET TO S.W. COR.#4 MARKED 4/241 ALSO MARKED MX 1/241. THENCE N 1-43 E 1500 FEET TO N.W. COR. # 1 PLACE OF BEGINNING. CLAIM CONTAINS 10.33 ACRES.

MINING LOCATION BOOK, PAGE 249, #739, Book 1

SITUATED IN WEST MORENO EMERALD MINING DISTRICT, SURVEY # 242 BY L.S.PRESTON SURVEYOR FOR MAXWELL LAND GRANT COMPANY, 9th and 10th NOVEMBER, 1899. BEGINNING N.W. COR. # 1 1/242 WHENCE COR. 2/241 OF FREE GOLD BEARS N 1-43 E 60 FEET. THENCE S 88-17 E 300 FEET TO N.E. COR.# 2 2/242. THENCE S1-43 W 1500 FEET TO S.E. COR.# 3 3/242. THENCE N 88-17 W 300 FEET TO COR. # 4 THE S.W. COR. 4/242, WHENCE COR. 3/241 BEARS N 1-43 E 60 FEET. THENCE N 1-43 E 1500 FEET TO N.W. COR. # 1 PLACE OF BEGINNING.

CLAIM CONTAINS 10.33 ACRES.

MINING LOCATION BOOK, Page 221, #743, Book 1

NOTE:

SECTION: TOWNSHIP,AND RANGE,DO NOT APPEAR IN RECORDS OF COLFAX COUNTY. SURVEY MADE IN TERRITORY OF NEW MEXICO, 1899.

FREE GOLD MINING COMPANY
C/O Richard H. Louden
Branson, Colo. 81027

FREE GOLD MINING COMPANY
C/O RICHARD H. LOUDEN
ERANSON, COLO. 81027

3. Physical Description

(a)
Original underground workings were conducted by B. F. Groomer, father of one of the present owners, Zelle G. Potts, around 1900 or shortly before, but no known records of productions are available. Some sampling by members of Mrs. Potts' family and the lessees has been conducted sporadically over the past eleven years.

(See attachment 3 (a) for map of workings).

No existing production facilities.

(b)
Operators made brief, limited attempt at sampling by core drilling and surface working in 1966 with no conclusive results.

(c)
(See assay attachments 3 (c-1) & 3 (c-2)).

(d)
(3 (c-1) & 3 (c-2) only available data).

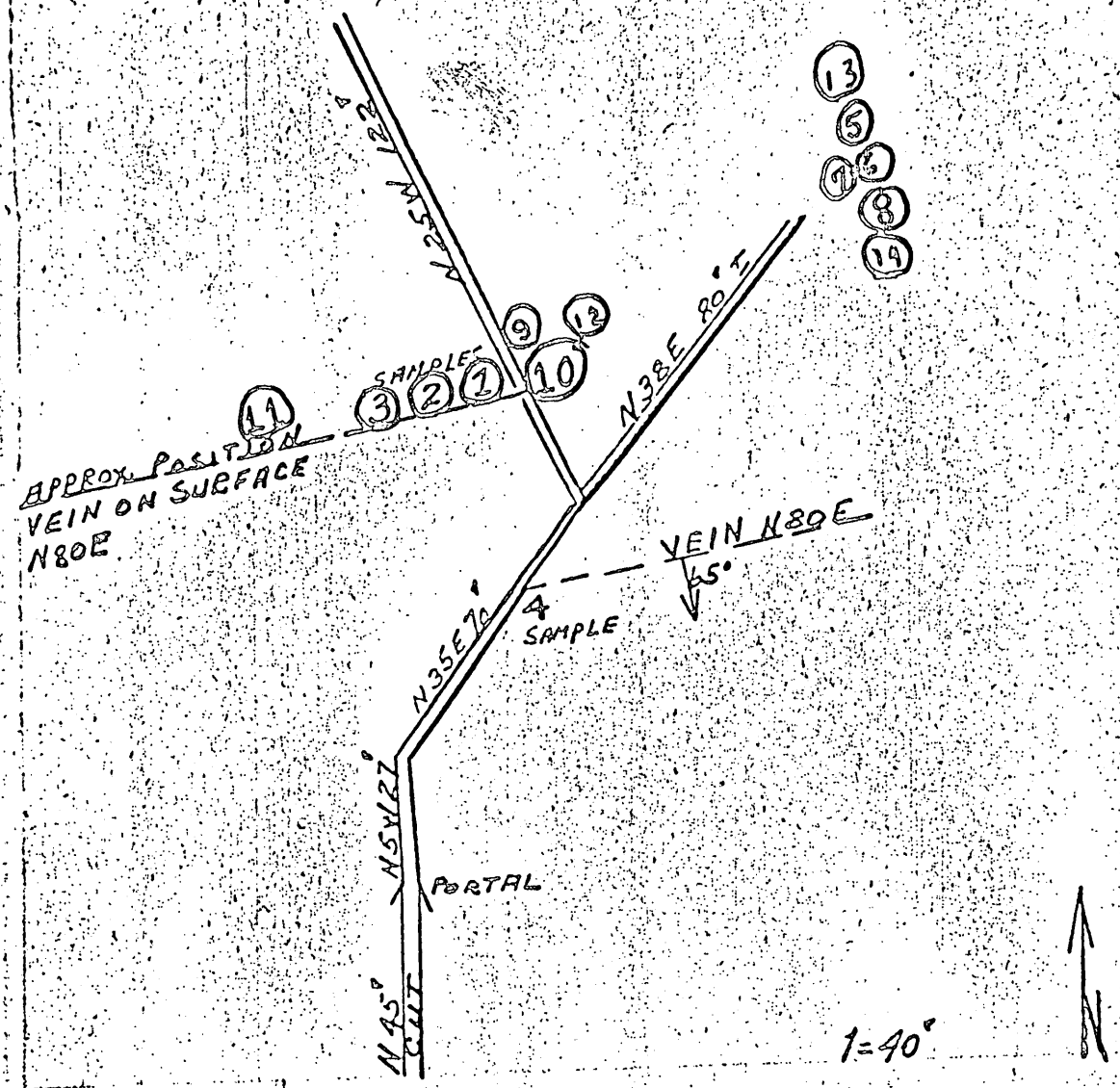
(e)
(See attachment 3(e). Section (a)).

(f)
(See plat 3 (a) for sampling locations).

As previously indicated, the presence of gold ore has been established by assays made of samplings. Exploration will be required to determine if it occurs in commercially feasible quantities.

Sample # 1 was a 500# sample taken from the exposed vein in the old shaft. Samples #2 & #3 were selected samples of about 5# from the vein near the old shaft. All other samples taken were attempted channel samples, probably averaging about a pound in weight. No.s 9, 10, 11, 12 were samples along the main vein where exposed. Samples 5, 6, 7, 8, 13 & 14 are efforts to test for a major vein paralleling the dike along the eastern boundary of the claim. Sample #4 was taken from a small vein encountered inside the old mine tunnel.

(g)
(See 3(e))



SURFACE AND UNDERGROUND WORKINGS OF FREE GOLD-EMERALD GROUP, WEST MORENO MINING DISTRICT, COLFAX COUNTY N.M. SAMPLES NUMBERED 1-2-3, WERE OBTAINED FROM AN OPEN CUT ON A VEIN APPROXIMATELY 80 FEET VERTICALLY ABOVE THE UNDERGROUND WORKINGS. ASSAY CERTIFICATES ACCOMPANY THE PLAT.

SAMPLE NUMBERED 4 WAS TAKEN FROM A VEIN IN THE UNDERGROUND WORKINGS AT THE POINT INDICATED, AND CONTAINED 3.12 OUNCES AU PER TON.

PLAT BY GEO.W.GILMORE.
3/5/68.

3 (C-1)

AMERICAN SMELTING AND REFINING COMPANY
ARKANSAS VALLEY PLANT
P. O. BOX 973, LEADVILLE, COLORADO

THOS. P. FAHEY
SUPERINTENDENT

July 26, 1957

1

Mr. Charles Potts
Marcos, Colo.

Dear Sir:

Following are results obtained on the sample you left at the plant recently:

Gold	4.13
Silver	0.1
Lead	0.0
Copper	0.0

Based on our open schedule this material would pay our $118.97 per ton at the plant from which you would have to deduct transportation charges.

If I can be of further help, please advise.

Very truly yours,

Thos. P. Fahey, Supt.

500 lb Sample

EJK:d

3 (C-3)

L. B. STEWARD, Mgr.

ROOT & NORTON

ASSAYERS AND CHEMISTS
UMPIRE AND CONTROL WORK
Durango, Colorado. 81301

Telephone 247-3766 — Area Code 303
Mailing Address — Route 1, Box 359

CERTIFICATE OF ASSAY

Assayed for Westley Potts

NO.	DESCRIPTION	Ozs. Per Ton 2,000 Lbs. GOLD	SILVER	Per Cent Lead (wet)	Per Cent Copper (wet)	Per Cent Zinc	Per Cent Iron	Per Cent	Per Cent	Per Cent
1		8.34	0.6	(2)						
2		0.06	Trace	(3)						

Durango, Colorado June 29, 1957

Charges $

Copy of Original Certificate.

ASSAYERS

L. B. STEWARD, Mgr.

ROOT & NORTON

ASSAYERS AND CHEMISTS
UMPIRE AND CONTROL WORK
Durango, Colorado. 81301

Telephone 247-3766 — Area Code 303
Mailing Address — Route 1, Box 359

CERTIFICATE OF ASSAY

Assayed for Charles Potts

NO.	DESCRIPTION	Ozs. Per Ton 2,000 Lbs. GOLD	SILVER	Per Cent Lead (wet)	Per Cent Copper (wet)	Per Cent Zinc	Per Cent Iron	Per Cent	Per Cent	Per Cent
1		7.24	(4)							

July 13, 1957

ASSAYERS

3(c-3)

TEL 244-3223

METALLURGICAL CHEMISTS AND ASSAYERS
DENVER, CO RADO 0218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
Charley Potts	Rock

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	V_2O_5 PER CENT	U_3O_8 PER CENT	PER CENT	PER CEN
0.001	#1 (5)							
1.7	#2 (6)							
0.02	#3 (7)							
0.04	#4 (8)							

DATE 7/18/68 CHARGES $ 14.00

Paid C.H.R.

Root & Simpson, Inc.

ROOT & SIMPSON, Inc.

TEL. 244-3223

METALLURGICAL CHEMISTS AND ASSAYERS
DENVER, COLORADO 80218

P. O. BOX 18329

SPECIMEN ASSAY

ASSAYED FOR	MARKS
Charlie Potts	#1 & #2

GOLD OZS. PER TON	SILVER OZS. PER TON	WET LEAD PER CENT	COPPER PER CENT	ZINC PER CENT	V_2O_5 PER CENT	U_3O_8 PER CENT	PER CENT	PER CEN
3.355	0.35	#1	(13)		-			
0.001	0.01	#2	(14)					

DATE 8/15/68 CHARGES $ 10.00

Paid C.H.R.

Root & Simpson, Inc.

B. STEWARD, Mgr.

ROOT & NORTON

ASSAYERS AND CHEMISTS
UMPIRE AND CONTROL WORK
Durango, Colorado. 81301

Telephone 247-3705 — Area Code 303
Mailing Address — Route 1, Box 259

3 (C-4)

CERTIFICATE OF ASSAY

ssayed for Chas. Potts

DESCRIPTION	Ozs. Per Ton 2,000 Lbs. GOLD	SILVER	Per Cent Lead (wet)	Per Cent Copper (wet)	Per Cent Zinc	Per Cent Iron	Per Cent	Per Cent	Per Cent
	0.02	9							
		11							
	1.46	10							
	0.02	11							
	Trace	12							

Durango, Colorado July 30, 1968
Charges $ 14.00

ASSAYERS

FREE GOLD AND EMERALD LODE MINING CLAIMS
TITLE 30--MINERAL RESOURCES 301.7 CRITERIA.

(a) GEOLOGIC PROBABILITY.
THE KNOWN GOLD OCCURRENCES ARE CONTAINED IN STEEPLY DIPPING QUARTZ FILLED FISSURES TRAVERSING PRECAMBRIAN ROCKS.

TWO NORTH TRENDING DIKES SIX HUNDRED FEET APART FROM WEST TO EAST, APPARENTLY INTRUDE THE PRECAMBRIAN COMPLEX. THESE DIKES WHICH CLOSELY PARALLEL THE WEST AND EAST SIDE LINE BOUNDARIES OF THE FREE GOLD AND THE EMERALD CLAIMS RESPECTIVELY, ARE MOST PROBABLY TERTIARY IN ORIGIN.

THE QUARTZ VEINS WHERE SAMPLED ON THE SURFACE AND UNDERGROUND, ARE ENRICHED BETWEEN THE TWO DIKES ON AN EAST-WEST COURSE. NO EXPLORATION HAS BEEN UNDERTAKEN TO DETERMINE THE GENETIC RELATIONSHIP BETWEEN DIKES AND ORE DEPOSITION, NOR HAS IT BEEN DEMONSTRATED WHETHER OR NOT THE VEINS MAY ULTIMATELY ADOPT, AND FOLLOW THE COURSES OF THE DIKES.

INITIALLY, HOWEVER; A FULL EXPLORATION OF THE VEINS OCCURRING IN THE PRECAMBRIAN BETWEEN THE TWO DIKES IS INDICATED. THE MAJOR PORTION OF THE PROPOSED EXPLORATORY PROJECT SHOULD BE CONFINED TO THOSE AREAS WHICH EXHIBIT THE BEST GOLD ASSAYS.

(b) ESTIMATED COST.
(see schedule).

(c) EXPLORATION PLAN.
ACCORDING TO RELIABLE REPORT; THE FIRST DISCOVERY OF GOLD BEARING ORES ON THE PROPERTY WAS MADE BY MR. B.F.GROOMER, WHO IN 1898 MINED AND MARKETED SEVERAL TONS OF ORE WHICH ASSAYED IN EXCESS OF FIFTEEN OUNCES PER TON IN GOLD. THIS PRODUCTION WAS OBTAINED FROM A SHALLOW SHAFT OPENING ON THE SURFACE. LATER, A CROSS CUT TUNNEL WAS DRIVEN TO INTERSECTT THE SHAFT POSITION UNDERGROUND, BUT THIS PROJECT WAS APPARENTLY UNSUCCESSFUL.

DURING THE COURSE OF THIS EXPLORATORY WORK, AN ADDITIONAL QUARTZ VEIN WAS ENCOUNTERED WHICH ASSAYED 3.12 OUNCES GOLD PER TON (SEE PLAT SAMPLE #4) BUT WAS NEVER DEVELOPED.

IT IS THE PURPOSE OF THIS PROPOSED EXPLORATION PLAN TO FULLY PROVE OR DISPROVE THE EXISTENCE OF COMMERCIAL QUANTITIES OF GOLD ORES WITHIN THE CONFINES OF THE FREE GOLD AND EMERALD PROPERTIES BY BOTH UNDERGROUND AND SURFACE INVESTIGATIONS. THE MOST SIGNIFICANT AND IMPORTANT UNDERTAKINGS WOULD BE CONDUCTED UNDERGROUND IN THE MANNER OF DRIFTING AND RAISING ON VARIOUS VEINS, STRINGERS, OR "NAKES" WHICH BY ASSAY, WOULD PROVE WORTHY OF REASONABLE EXPENDITURES. (see schedule).

(d) ACCESSIBILITY.
THE FREE GOLD AND EMERALD LODE MINING CLAIMS, PATENT NUMBERS 241 AND 242 RESPECTIVELY; ARE SITUATED IN THE WEST MORENO MINING DISTRICT, COLFAX COUNTY, NEW MEXICO.

THE PROPERTY LIES APPROXIMATELY FIFTEEN MILES NORTH WEST OF EAGLE NEST, NEW MEXICO AND ONE MILE EAST OF THE TAOS-COLFAX COUNTY LINE. ACCESS IS BY PAVED N.M. STATE HIGHWAY # 38, AND A SHORT MINE ROAD.

TITLE 30 MINERAL RESOURCES
(CONTINUED) RE: 301.7 CRITERIA

(b) THE ESTIMATED COST OF EXPLORATION IS FIFTY THOUSAND DOLLARS.

1.	UNDERGROUND EXPLORATION: 800 FEET OF DRIFTS, RAISES, WINZES AND INCLINES AT THIRTY DOLLARS PER FOOT.	$ 24,000.00
2.	SURFACE EXPLORATION: OPEN CUTS	6,000.00
3.	EQUIPMENT AND SUPPLIES	$ 15,000.00
4.	ENGINEERING AND SUPERVISION	5,000.00
	TOTAL	$ 50,000.00

(e) THE BACKGROUND AND OPERATING EXPERIENCE OF THE APPLICANTS IS LARGELY ADEQUATE TO WARRANT THIS LOAN.

HOWEVER, IN LIEU OF ANY LACK OF EXPERIENCE; APPLICANTS HAVE ENLISTED THE SERVICES OF THE UNDERSIGNED TO ASSIST IN THE GENERAL CONDUCT AND SUPERVISION OF MINING OPERATIONS.

BACKGROUND OF UNDERSIGNED:
ENGINEERING TRAINING, COLORADO SCHOOL OF MINES.
42 YEARS OF MINE OPERATIONS IN ALL PHASES.

GEO. W. GILMORE. BOX 205 MANCOS, COLORADO.

(f) THE RIGHT OR TITLE TO POSSESSION OF SAID PROPERTY IS EXHIBITED IN THE FORM OF THE LEASE COPY ACCOMPANYING THIS APPLICATION.

FALL GOLD MINING COMPANY
C/O RICHARD H. LOUDEN
BRANSON, COLO. 81027

4. Accessibility of Property

(a) For examination of the property, contact Richard H. Louden at Louden Cattle Co. east of Branson, Colo. (81027). A check by the OME representative, either by phone (946-5513) or by mail for the arrangement of a time and meeting might save considerable time and mileage for the inspector.

The property lies approximately fifteen miles north west of Eagle Nest, New Mexico and one mile east of the Taos-Colfax County line. Access is by paved New Mexico State Highway # 38 and a short, bulldozed mine road leaving the highway on the south west side of the road about one mile above the Le Sage ranch headquarters.

(b) Most ore could be loaded at the mine for shipment to a processing plant. Ordinary living supplies are available at Eagle Nest as is lumber and mine props, about fifteen miles. Other supplies would be available at Taos Cimarron, Santa Fe, and albuquerque--the furthest point with a distance of approximately 150 miles.

FREE GOLD MINING COMPANY
C/O RICHARD H. LOUDEN
BRANSON, COLO. 81027

5. EXPLORATION WORK

(a)
See Attachments 3(a); 3(e), Sections a & c; and 5(a).

It is our intent to enlarge and timber the existing tunnel to a 6' x 7' dimension. If the vein indicated by Sample #4 (about 70' into the tunnel) should prove worthy we will begin a drift here. Depending upon potential of this vein, we might find it desirable to extend this drift to the dike some 450' to the northeast. Raising or winzing from this drift would seem to be dependent upon whatever exploration will reveal. Should this Sample 4 Vein prove to be a spur from a main vein, which we suspect parallels the dike (although preliminary sampling attempting to verify this have not been too encouraging), we would naturally plan to follow this.

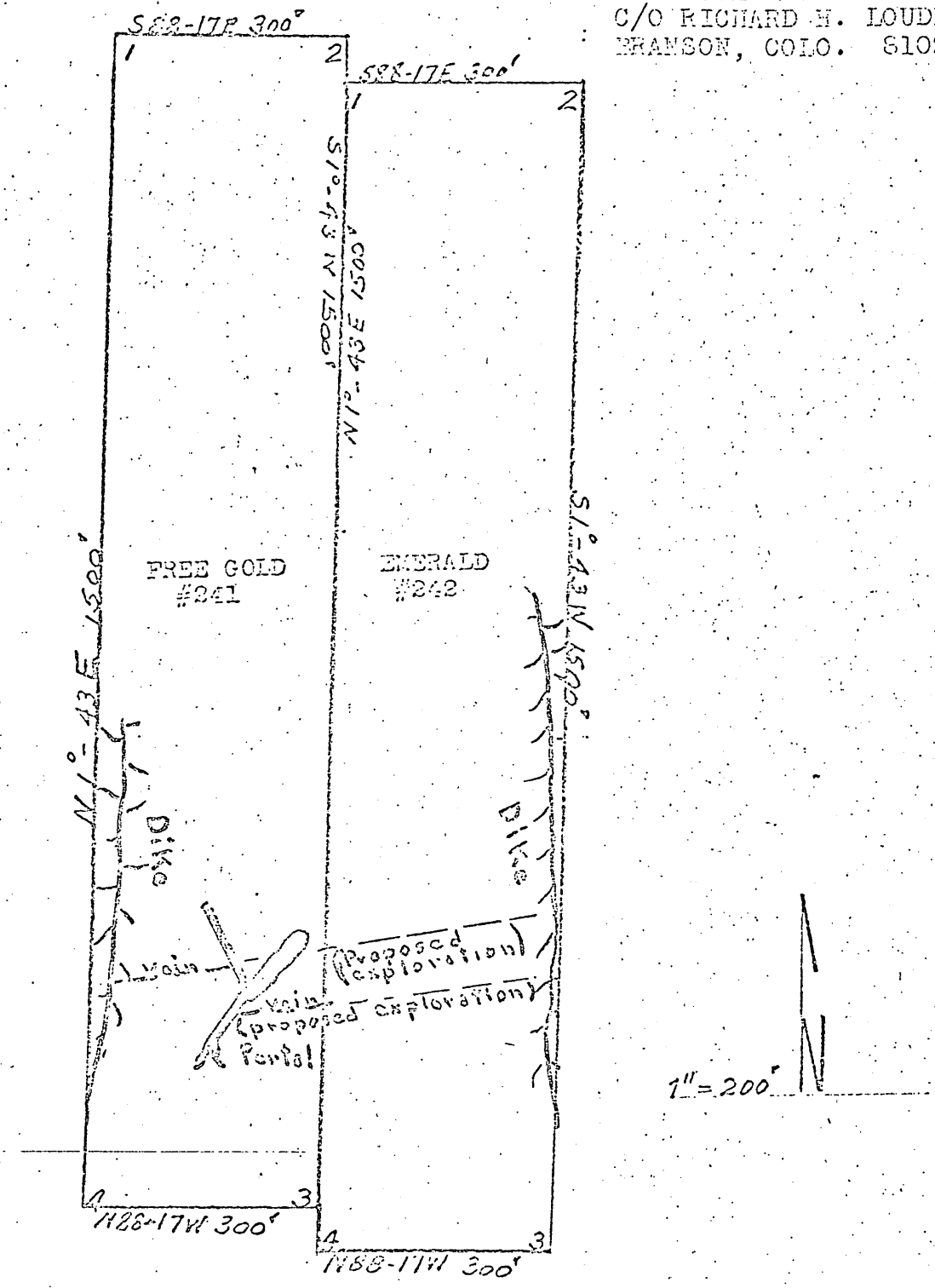
(b)

Basic road construction for access has already been completed. Some refinement would be required should we begin shipping ore, or possibly before in order to feasibly move large vehicles over the road. For this work we estimate a cost of 15 road equipment hours @ $12 per hour, or a total of $180.00.
Paved road exists within one mile of the mine.

(c)
It is the desire of the producers to begin work as soon as an OME contract is executed. It is desirous that as much work as possible be accomplished during the snow-free months of this area.

Document 5(a)

FREE GOLD MINING COMPANY
C/O RICHARD M. LOUDEN
BRANSON, COLO. 81027



PLAT OF FREE GOLD AND EMERALD LODE MINING CLAIMS SURVEY NUMBERS 241 and 242 SITUATED IN THE WEST MORENO MINING DISTRICT, COLFAX COUNTY, NEW MEXICO. SURVEY BY L.S.PRESTON FOR THE MAXWELL LAND GRANT COMPANY, TERRITORY OF NEW MEXICO, ON THE 7-8-9-10 DAYS OF NOVEMBER, 1899. SURVEY NOTES ACCOMPANY MAP. PLAT BY

GEO. W. GILMORE.
3/3/88.

(Super-imposing of proposed exploration and location

FREE GOLD MINING COMPANY
C/O RICHARD H. LOUDEN
BRANSON, COLO. 81027

6. Experience

(a)
While the mining experience and geologic knowledge of the operators is of a limited nature, we expect through the utilization of competent and experienced help and advisors to conduct a satisfactory exploration of the property.

We expect to lean heavily on the direction and experience of Mr. George Gilmore who received his engineering training at Colorado School of Mines and has 42 years of experience in all phases of mining. He is the majority stockholder and operator of the Red Arrow Mine of Mancos Colorado.

It is also our intent to call upon Mr. Charles Potts who has had some mining experience and has interests in mining property near Mancos. Mr. R. O. Potts has had some experience as a hard rock miner and a great deal of experience with a variety of equipment.

FREE GOLD MINING COMPANY
C/O RICHARD H. LOUDEN
BRANSON, COLORADO 81027

7. Estimate of Cost

(a) & (b)
It is our intent to contract the work to be done on the FREE GOLD MINE. Mr. Charles Potts, whose wife is one of the owners of the claims, will act in a supervisory capacity, because of his vested interest in the project, for his actual expenses, not to exceed $150 per month for an estimated period of 24 months, for a total cost of $3600.00. Mr. George Gilmore, our geologist, who will serve as professional consultant and adviser is expected to cost approximately $5000, depending upon the need for his services.

(See bid attachments (7a(1) & 7a(2))

With a bid of $34.00 per foot for cleaning and widening of the old tunnel, including timbering, an estimated 70 feet should cost $2380.00. An estimated 700 feet of drifting would cost $33,600.00 at the low bid rate of $48.00 per foot.

It is expected that a minimal outlay of about $2500.00 will be needed for a small tool and general purpose building.

As previously mentioned in 5 (b), about $180.00 will be required for road repair.

Asummary of costs follows:

Supervision	$3600.00
Professional assistance	5000.00
Tunnel renovating	2380.00
Driving new tunnel	33600.00
small Building	2500.00
	180.00

Mancos, Colo.
July 8, 1968

Gentlemen:

I offer this proposal to clean out and enlarge the existing mine shaft for bid price, $32.75 per ft.-
Drive new shaft for bid price of $47.50 per ft.

All work will be done and completed to plans and specifications set forth by Richard Louden.

Jesse Crawford
Thank you,

Mancos, Colorado
June 20, 1968

Richard H Louden
Branson, Colo.

I wish to submit the following bid on the Red River Mine Property. As to experience, I have had 20 years mining experience.

I have seen the viens and taken samples from the property and I think they have prospects for a very good mine.

I will furnish all timbering material and equipment for widening the old tunnel for $36.00 per running foot and drive the new drift (6x7) and furnish any timber needed for $55.00 per running foot.

Lyen Mining Co.
By:
Warren E Lyon

Region III: We have made a xerox copy of the application except for legal documents.

United States Department of the Interior

GEOLOGICAL SURVEY
RESTON, VIRGINIA 22092

March 24, 1976

Mr. Charles Potts
6201 Southwood Drive
Littleton, Colorado 80121

Re: OME-6784 (Gold)
Free Gold Mining Company
Free Gold and Emerald Claims
Colfax County, New Mexico

Dear Mr. Potts:

This is in reply to your letter of March 19, 1976, requesting that we return your application for financial assistance to explore the Free Gold and Emerald Claims, and inquiring about the reason for denial of this application.

Your application is returned herewith.

The application was denied because the examining geologist was unable to find geologic evidence on the property to justify Government participation in the proposed exploration work. The partially-caved mine workings and the debris-filled trenches prevented an adequate examination of the vein. Assays of the few check samples obtained in the limited areas that could be examined did not verify the assays reported for samples obtained by the applicant. However, denial of the application was made without prejudice to the property. If the applicant had performed additional work and reasonably established the presence of a well mineralized target vein, a new application would have been considered.

The OME program is not funded to handle new contracts at this time so no new applications are being processed.

Sincerely yours,

Harold Kirkemo, Chief
Office of Minerals Exploration

cc: Letter & application sent to Mr. Potts at Littleton.
Copy of letter sent to Mr. Potts at Mancos, Colorado 81328

cc: DRF
MR Rdg.
OME Rdg./OME Files Mr. Kirkemo
Region III

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

March 19, 1976

Mr. Harold Kirkemo
Chief, Office of Mineral Exploration
U.S. Geological Survey
National Center - Mail Stop 953
12201 Sunrise Valley Drive
Reston, Virginia 22092

Dear Mr. Kirkemo:

I am presently involved in a suit to quiet the title to my land located outside of Eagle Nest, in Colfax County, New Mexico. For several years, the surrounding land owner has denied me access to my land and the mines located on it.

One of the things I have to prove is that my mines are worth exploring and working. In 1969, I applied for a loan for exploration from the O.M.E. Office in Denver. Mr. J. William Hasler examined my mine on July 29, 1969 and he sent his report to your office on April 30, 1970. I would like to know, if you are permitted to release the information, what Mr. Hasler's appraisal or estimate was of the feasibility of further exploration of my mines and the reason my loan application was denied.

I would also like to request that you return my loan application along with the assays and samples that accompanied it. I will need these records and I no longer have any copies of them.

My file in your office is known as O.M.E. Docket No. 6784.

Thank you for the time, consideration and help you can possibly give me.

Sincerely,

Charles Potts
6201 Southwood Drive
Littleton, Colorado 80121

Charles L. Potts

Home address Mancos Colo. 81328

MMI Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/6/70	Peterson	120
	Kirkemo	120
5/7/70	Kilgaard	
		220

MAY 8 1970

AIRMAIL

Free Gold Mining Company
c/o Richard H. Louden
Louden Cattle Company
Branson, Colorado 81027

Re: OME-6784 (Gold)
Free Gold Mining Company
Free Gold and Emerald Claims
Colfax County, New Mexico

Gentlement

Careful study of your application for financial assistance to explore the subject property and of other information available to us indicates that the probability of disclosing significant ore reserves on the property is not sufficiently promising to justify Government participation in the proposed exploration. Accordingly, we must inform you that your application for exploration assistance is denied.

We regret the necessity for this action, which, however, is taken without prejudice to the property. Should you perform additional work on the property which discloses evidence that could materially change this opinion, we shall be pleased to consider a new application at that time.

We wish to thank you for your interest in the minerals exploration program and for bringing your property to our attention.

Sincerely yours,

Harold Kirkemo

Harold Kirkemo
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Mineral Resources File
OME Docket
OME Reading File
OME Region III
Mr. Peterson

ECPeterson/bsl 5/6/70

MMI Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/6/70	Kirkemo	120
		120
		220

May 6, 1970

Memorandum

To: The File

From: Edward C. Peterson

Subject: OME-6784 (Gold)
Free Gold Mining Company
Free Gold and Emerald Claims
Colfax County, New Mexico

Justification for Denial of Application

The Applicant proposes to explore for gold-bearing ore bodies on the subject property by underground mine rehabilitation, drifting, and raising at a total estimated cost of $50,000.00.

The OME field examiner found no geologic evidence on the property to justify Government participation in the proposed exploration work. Perhaps geologic evidence supporting such a project may exist in old partially caved mine workings and debris filled surface trenches; however, no effort had been made by the Applicant to reopen any of these areas to enable the OME representative to examine them.

Although assay data submitted by the Applicant indicated commercial values of gold occurring in some portions of the target vein, check sampling of the vein by the field examiner in the limited areas that were accessible failed to verify these high values. It appears the Applicant's sampling may have been quite selective and not representative. There has been no recorded production from the property, and no ore reserves are inferred.

Under these circumstances, I concur with the examiner's recommendation to deny the application for assistance without prejudice to the property. Should the Applicant perform additional work to reasonably establish that the target vein is indeed a strong and well mineralized structure, the OME could consider a new application at that time.

Edward C. Peterson
Edward C. Peterson

cc: Director's Reading File
Mineral Resources File
OME Docket - OME Reading File

Peterson/bsl 5/6/70

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
FEDERAL CENTER, DENVER, COLORADO 80225

Office of Minerals Exploration
Building 53 Room 200

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 4 1970

INITIALS	DATE
Ga	130
Bel	20
HK	130
GL	120p

May 1, 1970

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region III

Subject: OME-6784 (Gold)
Free Gold Mining Company
c/o Richard H. Louden
Branson, Colorado

Transmitted herewith is a Report of Examination of the Free Gold and Emerald patented claims in Colfax County, New Mexico leased by Messers Richard H. Louden and R. O. Potts.

Conclusions and recommendations indicates that the application be denied without prejudice.

J. William Hasler

J. William Hasler,
Field Officer, Region III
Office of Minerals Exploration

Enclosure

Report of Examination

of the

Free Gold and Emerald Claims

OME-6784 (Gold)

Free Gold Mining Company

c/o Richard H. Louden

Branson, Colorado

By

J. William Hasler, Geologist

U. S. Geological Survey

April 1970

On-Site Exam Report

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Summary and Conclusions

The Free Gold Mining Company, c/o Mr. Richard H. Louden, Branson, Colorado applied to the Office of Minerals Exploration on April 17, 1968 for financial assistance in minerals exploration to explore for gold on the Free Gold and Emerald Claims, Colfax County, New Mexico. The application was referred to the field and an examination was made by J. W. Hasler on July 29 and 30, 1969 accompanied by Mr. Richard N. Louden and R. O. Potts, Folsom, New Mexico. The subject claims are held by lease to the applicants from Madge Groomer and Zelle Potts.

At the time of the examination the bulldozer trenches were still partly filled with debris, making a thorough examination of the vein material quite difficult. The shaft was caved and not accessible for examination and the mine tunnel was very badly caved beyond the vein, and was in too dangerous a condition for entry due to heavy unsupported rotted timber, and intermittent caving as far as one could see. The applicant himself had not ventured beyond the vein where it is exposed on the east side of the drift some seventy feet from the portal.

Even though the shaft, mine workings, and trenches were quite inaccessible, it is not thought that a significant discovery of new reserves could be established as a result of an exploration loan at this time. The applicant was so advised at the time of the field examination, and was also advised to do enough additional work to further explore the vein system, on his own account, as the property at that

time was essentially in a prospect stage.

The results of a field examination indicate that the application should be denied without prejudice as it is not likely that significant new and undiscovered reserves of gold in commercial quantities, would be found as a result of the exploration program proposed by the applicant.

Introduction

The Free Gold Mining Company, c/o Richard H. Louden of Branson, Colorado applied to the Office of Minerals Exploration for financial assistance in minerals exploration to explore for gold on their leased Free Gold and Emerald Claims, Colfax County, New Mexico. The estimated cost of the proposed exploration program is $50,000.00.

Location

The Free Gold and Emerald Claims are patented claims and are located in the West Moreno Mining District, some 11 miles northwest of Eagle Nest, New Mexico, one mile east of the Taos-Colfax County line along the old state highway leading over Red River Pass northwest of Moreno Valley. The patented claim, Free Gold No. 241, and the patented claim Emerald No. 242 are held by lease agreement from Madge Groomer and Zelle Potts as of March 5, 1968. There are no liens, attachments, mortgages or other encumbrances on the Free Gold or Emerald patented claims.

Geology

General

The Free Gold and Emerald patented claims lie as stated previously, some 11 miles northwest of Eagle Nest, Colorado and northwest of

Moreno Valley, one mile east of the Taos-Colfax County line along the old state highway leading over Red River Pass. Moreno Valley and adjacent areas are unique geologically, consequently a general discussion will be given below for background material. Where "quoted" the material is taken verbatim from the following paper by Ray, Louis L., and Smith, J. Fred, Jr. "Geology of the Moreno Valley, New Mexico," Geological Society of America, Vol. 52, No. 2, pp. 177-210, February 1941.

"The Moreno Valley is the broad northern part of a topographic and structural depression in the mountainous portion of north-central New Mexico. It is nestled between the high Taos Range of the Sangre de Cristo Mountains on the west and the Cimarron Range on the east. The Taos Range culminates in Wheeler Peak (elev. 13, 150+ feet). Peaks in the Cimarron Range rise to elevations of more than 12,000 feet. Relief in this region is great, for Baldy Peak in the Cimarron Range rises some 4300 feet above the village of Eagle Nest in a distance of about 7 miles, and Wheeler Peak rises more than 5000 feet above the village in a distance of 10 miles."

"The depression, of which the Moreno Valley is the northern portion, strikes almost due north, parallel to the trend of the Sangre de Cristo Mountains, near the plains near Mora (Fig. 1) into the region of the high peaks near Costilla Pass (elev. 9700+ feet)."

"An unnamed divide (elev. 8851 feet) separates the Moreno Valley from the Valley of Coyote Creek, the southern part of the depression. The Moreno Valley has a maximum width of more than 5 miles and a length of about 25 miles, from Costilla Pass to the divide at the

southern limit of the valley drainage. Midway between these divides, at an elevation of approximately 8000 feet, Moreno Creek, which drains the northern half of the valley, joins Cieneguilla Creek, which drains the southern half. The combined drainage of these two streams form the Cimarron River which leaves the Moreno Valley through the picturesque Cimarron River. The river follows a southeastward course to the Canadian River. At the head of the Cimarron Canyon, where the drainage leaves the Moreno Valley, a dam has been constructed which permits the flooding of a portion of the lowlands of the valley floor and the formation of Eagle Nest Lake (Fig. 1)."

Stratigraphy

General Considerations

"The rocks of the Moreno Valley range in age from pre-Cambrian through Tertiary and into the Quaternary. Coarse red granite, granite gneiss, and white quartzite are the dominant pre-Cambrian rocks of the undifferentiated basal complex and the mountain core."

"Sandstone, limestone, and conglomerate of the Magdalena formation (Pennsylvanian) rest unconformably on the pre-Cambrian. The Magdalena is in turn overlain unconformably on the pre-Cambrian. The Magdalena is in turn overlain unconformably by the coarse white Dakota sandstone, which, with the overlying soft black shales and thin limestone beds of the Benton and Pierre formations, is Upper Cretaceous."

"Unconformably above the Pierre shale is the Eocene Raton sandstone and quartzite-pebble conglomerate. A relatively unconsolidated Tertiary formation, correlated with the Picuris, unconformably overlies

the Raton and is tentatively assigned to the Late Miocene or possibly Early Pliocene."

"Along the floor and eastern valley wall of the northern portion of the Moreno Valley are outcrops of an unconsolidated formation, composed of local angular to subangular debris, with interbedded sands, clays, and tuffs. This has been named the Eagle Nest formation and is believed to be Pliocene, with sedimentation possibly extending into the Quaternary. Unconsolidated Quaternary alluvium occurs along all the streams and capping Pleistocene pediments."

"North of Eagle Nest Lake the sedimentary rocks of Eocene age and older have been cut by intrusions of monzonite porphyry and rhyolite. Basalt flows in the southern portion of the Moreno Valley region rest on an erosion surface of low relief high above the valley floor. Faulting has carried some of the basalt into the bottom of the valley. These lava flows are believed to be mid-Tertiary."

Pre-Cambrian

"Pre-Cambrian rocks are best exposed along the eastern valley wall from Eagle Nest Lake dam to American Creek (Pl. 1). They consist primarily of a coarse red granite and a finer-grained granite gneiss, together with minor amounts of chlorite schist. North of Apache Peak, on the west side of the valley, a similar red granite crops out. The deeply weathered exposures in this region form pinnacled outcrops. Similar exposures occur in the vicinity of Comanche Creek and northward."

"In the floor of the valley near the mouth of American Creek are several large outcrops of a coarsely crystalline pre-Cambrian quartzite,

colorless to gray, or dark reddish-purple, which has been faulted and later folded. Curved fault surfaces on casual observation may be taken for roches moutonees (Pl. 3, fig. 1). Similar quartzite has been described by Gruner (1920, p. 734-735), who has assigned it the name Pueblo quartzite. He believes it to be older than the intrusive granites."

"No attempt was made by the writers to differentiate the various pre-Cambrian rocks in the field, and they have been mapped as a single unit (Pl. 1)."

Igneous rocks and mineralization of the Moreno Valley

"All the formations in the Moreno Valley, up to and including the Raton formation, have been cut by intrusive igneous rocks. Dikes and sills are especially common in the region north of Eagle Nest Lake, where the sedimentary rocks have been deformed and metamorphosed by the intrusives (Pl. 1). Mineralization has occurred in association with many of the intrusive bodies (Lindgren, Graton, Gordon, 1910, p. 82-108). Gold and copper have been mined in the Moreno Valley and adjacent regions. In 1939 a little gold was being mined, and a small tungsten prospect had been opened on the southeastern side of Iron Mountain. A few miles to the west, in the Red River Valley, molybdenum, associated with Tertiary intrusives, is being mined (Larsen and Ross, 1920; Vanderwilt, 1933)."

"The intrusive rocks of the Moreno Valley may be classified in two major groups: rhyolite and quartz monzonite porphyry. The rhyolite is usually white to buff with a very fine texture. Quartz phenocrysts are small, and mafic minerals rare. The rhyolite forms small irregularly

shaped bodies cutting Mesozoic sediments along the eastern valley wall near Eagle Nest Lake dam and north of the highway (Pl. 1). Along the north wall of Comanche Creek Canyon, about 1-1/2 miles above its mouth, small irregular bodies of rhyolite cut pre-Cambrian granite and granite gneiss. To the south, near the Klondike Mine at Idlewild, numerous small rhyolite bodies occur. These outcrops are too small to be shown on the geologic map. Many prospects have been opened near these outcrops, but no mineralizaton of sufficient value has been discovered to warrant mining."

"The most important intrusive rocks are the quartz monzonite porphyries which are common throughout the Elizabethtown district. The texture of the porphyry may vary, but considered as a whole there is a singular uniformity of appearance in the many dikes and sills of this rock type. The larger bodies tend to be in general more porphyritic than the smaller with phenocrysts of feldspar and quartz occasionally attaining diameters of more than a centimeter. At the head of Willow Creek, east of Iron Mountain, the porphyry has a finer and more uniform texture. It frequently contains much magnetite. In the Cimarron Canyon there is exposed, just east of the Moreno Valley, a large sill-like body of the quartz monzonite porphyry, about 400 feet in thickness."

"Where the porphyry is in contact with the Pierre shale, considerable contact metamorphism has occurred, frequently with the introduction of gold and the production of skarn minerals, especially epidote. In Willow Creek valley east of Iron Mountain where the best examples of contact metamorphism are exposed the Pierre shale near the contact

has been highly metamorphosed with the production of skarn minerals. There is a pronounced baking of the shales, which are frequently so silicified that on casual observation the rock might be mistaken for a quartzite."

"The Aztec Mine on the eastern slope of Baldy Mountain is a good example of a characteristic mineral deposit formed where mineralizing solutions spread from the intrusive mass and penetrated the country rock, occasionally depositing rich concentrations of gold (Lee, 1916; Chase, 1922)."

"Near the mouth of Agua Fria Canyon and at Mills Divide (Pl. 1) small sills are exposed. The first, intruded into the Magdalena formation, is so highly weathered that no attempt has been made to name the rock. At Mills Divide, a dacite porphyry sill, slightly more than a foot thick, intrudes the Pierre shale. Contact metamorphism at both localities is almost negligible."

"The period of intrusion cannot be closely dated, but it is post-Raton and pre-Picuris (?), for cobbles of the intrusive rocks are found in the Picuris (?) formation. Emplacement was prior to the Mid-Tertiary faulting which outlined the Moreno Valley. It is possible that the igneous activity in the Moreno Valley region is closely related to that in the Spanish Peaks region, some 60 miles to the north and east, recently described in detail by Knopf (1936)."

"South of American Creek, within the valley and above the eastern valley wall, are extensive basaltic lava flows. In general

the basalt is homogeneous. However, occasional porous zones and frequent amygdules of calcite are present. No attempt was made to differentiate between the various lava flows. It should be noted, however, that several of the flows contain phenocrysts of quartz and may be termed quartz basalt."

"The basalt flows are older than the major faulting, which outlined the Moreno Valley, but younger than some of the minor faulting. Field relations indicate that they are somewhat younger than the intrusive rocks and are related to the earliest lava flows of the Ocate region, with which they are continous (Fig. 2)."

Geology of Mine Area

The Free Gold and Emerald patented claims lie entirely in Pre-Cambrian rocks that are traversed by two northerly trending quartz monzonite dikes. A quartz vein from 6 - 8 inches wide strikes N. 80° E. and dips south 65 degrees and lies between the two north trending monzonite dikes. (Fig. 1, Report of Examination). The vein has been offset some 70 feet to the north along a northerly trending minor fault as shown in the tunnel. (Fig. 2, Report of Examination). A tunnel has been driven along this fault however the the quartz vein was not drifted on to any great extent. The tunnel beyond the quartz vein where the No. 4 sample had been taken was in such a dangerous state that no further investigation was made beyond that point. The vein, at the No. 4 sample station, assayed 3.12 oz. gold per ton, according to the applicant. A trench was bulldozed along

the vein some 80 feet above the tunnel and sample Nos. 1, 2 and 3 taken by the applicant from this cut assayed the following:

Table 1

		oz. Au	oz. Ag
No. 1	500 lb. sample	4.13	0.10
2	5 lb. sample	8.34	0.60
3	5 lb. sample	0.06 oz.	Tr

Sample No. 1 was reportedly cut from the vein as it was exposed in the old shaft, however, the old shaft was caved and inaccesible at the time of the field examination. Samples 2 and 3 were from the vein near the old shaft. Samples Nos. 4, 9, 10, 11 and 12 along the quartz vein showed the following assay. (Fig. 2 and Table 2). Samples 5, 6, 7, 8, 13 and 14 were taken along the north-south trending dike that lies along the eastern boundary of the Emerald claim (Fig. 2). These samples showed assays as follows:

Table 2

Sample No.	oz. Au	oz. Ag
5	0.001	------
6	1.70	------
7	0.02	------
8	0.04	------
13	3.355	0.35
14	0.001	0.01

The samples along the east trending quartz vein showed some good but varying values, ranging from as much as 7.24 oz. Au in the vein, but sample No. 4 to only a trace at sample station 12, as follows:

Table 3

Sample No.	oz. Au	oz. Ag
4 (surface sample vein)	7.24	------
9	0.02	------
10	1.46	-----
11	0.02	-----
12	Tr	-----

Samples cut by the examining geologist were taken to check the values at some of the areas sampled by the applicant. These samples yielded the following assays:

Table 4

USGS Sample No.	oz. Au	oz. Ag	%Cu	Remarks
1	0.001	0.1	0.03	3' FW vein on surface
2	0.001	0.06	0.03	6" - 8" quartz vein, south portal.
3	0.001	0.08	0.03	Surface sample dozer cu near No. 5 of applicant
4	0.005	0.17	0.06	Tunnel same as # 4 sample of applicant.

The samples taken by the applicant from time to time shows the vein to average 3.08 oz. gold and a trace of silver. At a current gold price of $35.00 per oz. this ore would gross approximately

$107.80 per ton, however, check samples taken by the examining geologist do not confirm these values. The vein was undoubtedly more accessible at the time the applicants sampled it. Certainly maximum exposures along the vein were not afforded the examining geologist, except where the quartz vein was exposed in the tunnel. The examining geologists samples averaged 0.002 oz. Au, 0.102 oz. Ag, and 0.03% Cu per ton.

The gold-bearing quartz vein has a strike length of some 510 feet from the west side of the Free Gold claim to the east side of the Emerald Claim, which does not give it much potential insofar as the discovery of significant reserves of gold are concerned.

History

The original underground workings, according to the applicant were conducted by B. F. Groomer, father of one of the present owners, Zelle G. Potts, around 1898 - 1900 or shortly before. Several tons of ore, assaying in excess of 15 oz. Au per ton was reported to have been mined at that time. Only sporadic attempts have been made to core drill on the property and to sample or to thoroughly prospect the claims since 1900. There have been little or no conclusive results as a result of this work.

Proposed Exploration

The applicant proposes to explore for the existence of commercial quantities of gold ore along the quartz vein within the Free Gold and Emerald claims, at an estimated cost of $50,000.00. He

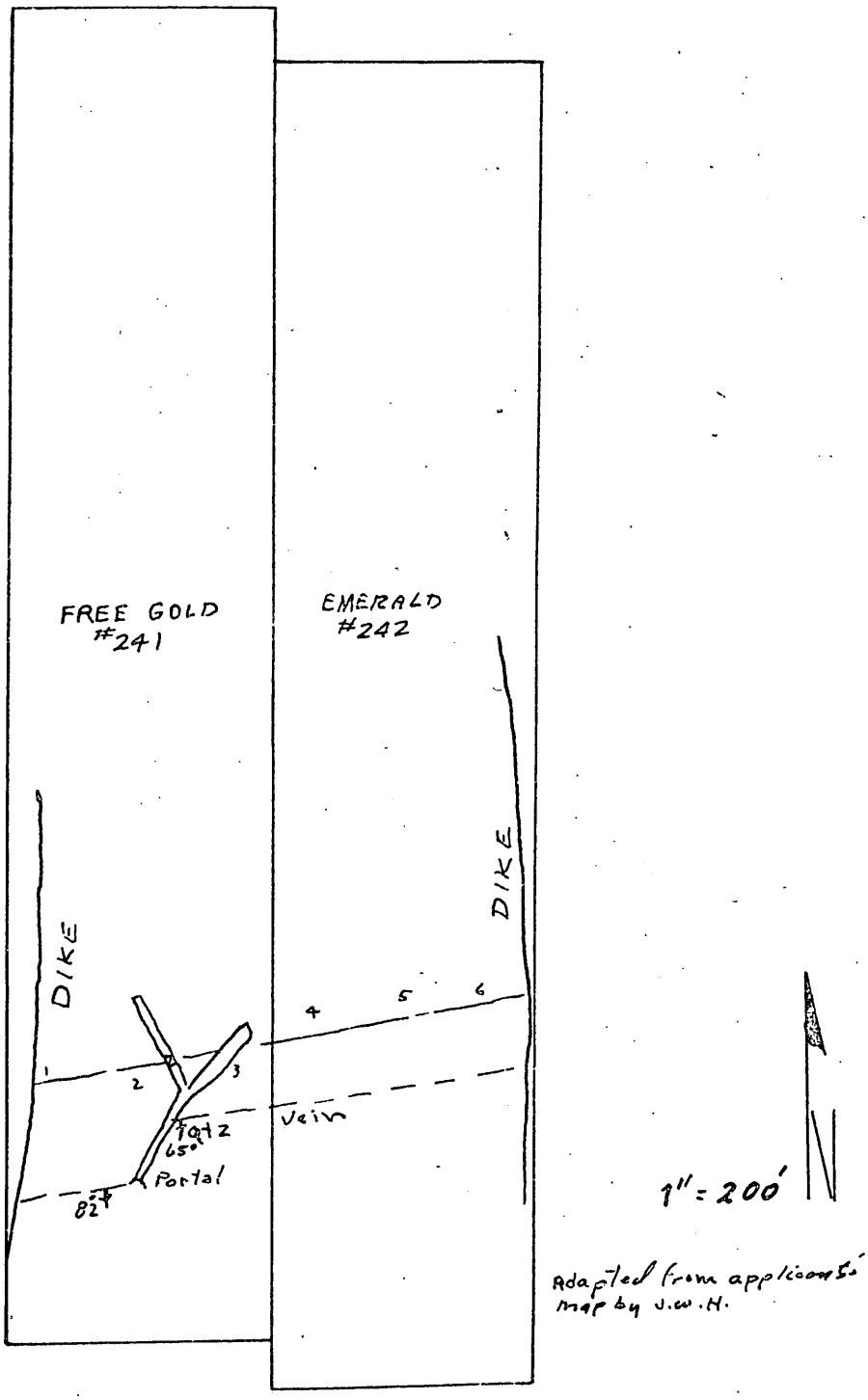
proposes to drift easterly along the quartz vein that was exposed in the tunnel some seventy feet from the portal to its junction with the north-trending quartz monzonite dike, a distance of an estimated 400 feet, provided the vein contains commercial quantities of gold ore, as well as to drive raises and winzes to further explore the quartz vein at depth.

Conclusions and Recommendations

The field examination, resultant assays of vein material, extent of the quartz vein and its relationship to the monzonite dikes, as well as low gold values indicates that the possibility of discovering moderate or even large reserves of gold ore on the Free Gold and Emerald patented claims are not good. It is therefore recommended that the application be denied without prejudice.

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
OME DOCKET 6784



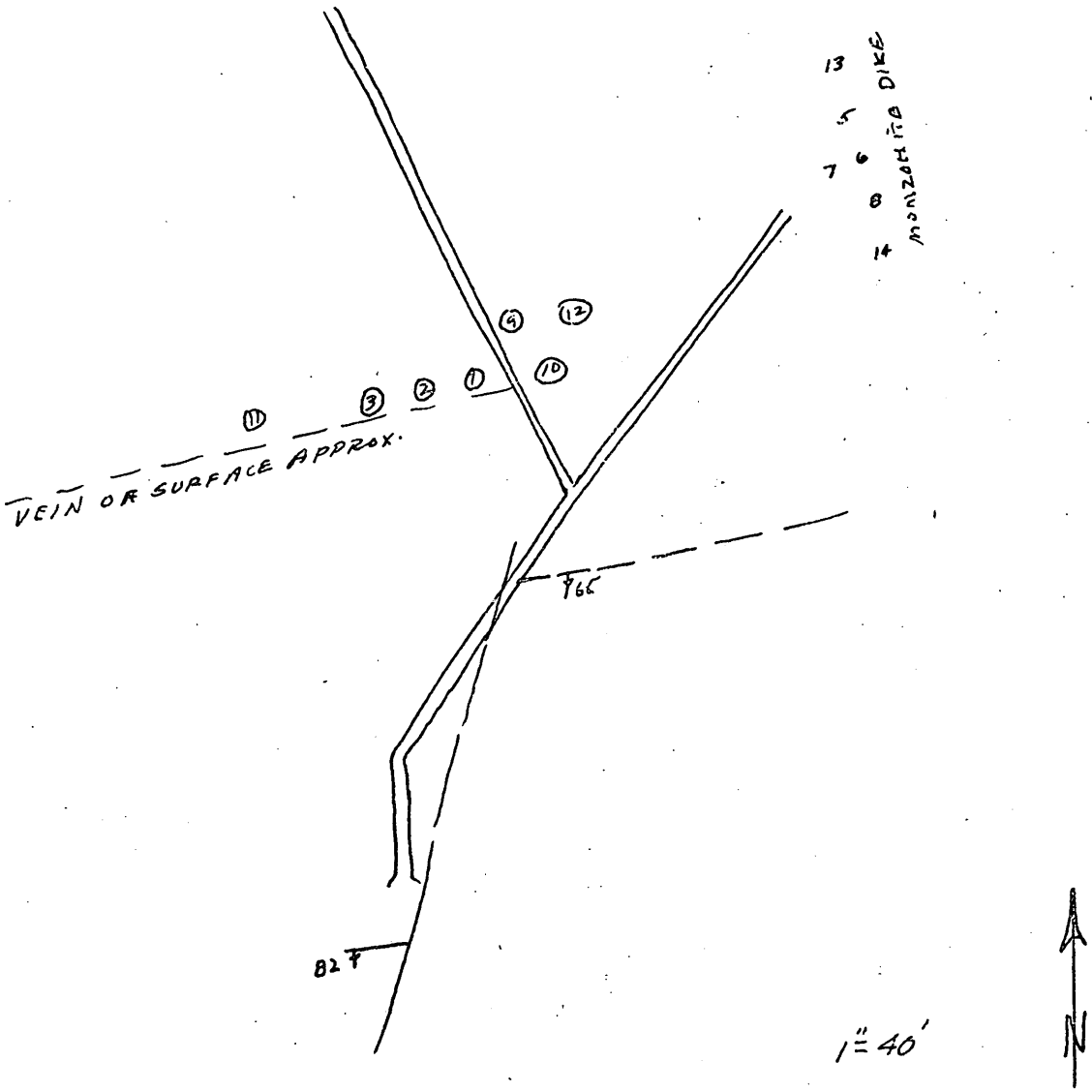
Adapted from applicant's map by J.W.H.

FREE GOLD MINING COMPANY
FREE GOLD AND EMERALD CLAIMS
COLFAX COUNTY, NEW MEXICO

FIGURE 1

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION
DOCKET No. 6784



Adapted by J.W.H.
from
Geo. W. Gilmore

MAP SHOWING UNDERGROUND WORKINGS
AND SURFACE EXPOSURES, FREE GOLD
AND EMERALD CLAIMS
COLFAX COUNTY, NEW MEXICO

FIGURE 2

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/5/69	Peterson	120
		120
		220
		120M

AIRMAIL

MAY 5 1969

Memorandum

To: Field Officer, Region III

From: Chief, Office of Minerals Exploration

Subject: OME-6784 (Gold)
Free Gold Mining Company
Free Gold and Emerald Claims
Colfax County, New Mexico

The subject application is referred to you for further consideration, a field examination if warranted, and recommendations.

The application lacks much of the geologic evidence to support the view that significant ore reserves would be discovered by the proposed work. However, the assay data furnished indicates several interesting gold values, and if these are considered representative, perhaps some exploration is warranted. Other than the lack of geologic support, the application is complete and reasonably well prepared.

A review of the Applicant's cost estimate indicates that allowances for professional assistance and building construction are considered high. The estimate should be more detailed, and the individual cost items listed separately instead of grouped under the one heading of miscellaneous.

Harold Kirkemo (glu)

Harold Kirkemo

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Peterson
120

ECPeterson/bsl 5/5/69

MME Form 7
(2/63)

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Date	Surname	Code
5/5/69	Peterson	120
		120
		220
		120M

MAY 5 1969

AIRMAIL

Free Gold Mining Company
c/o Richard H. Louden
Louden Cattle Company
Branson, Colorado 81027

Re: OME-6784 (Gold)
Free Gold Mining Company
Free Gold and Emerald Claims
Colfax County, New Mexico

Gentlemen:

Your application for exploration assistance has been reviewed in our Washington office and referred to Mr. J. William Hasler, Field Officer, Region III, Office of Minerals Exploration, Room 203 - Building 53, Denver Federal Center, Denver, Colorado 80225.

Mr. Hasler will notify you if additional information concerning the application is needed, and possibly to make arrangements for a field examination.

As Mr. Hasler is responsible for making OME field examinations in eleven states, a visit to your property necessarily will have to be scheduled well in advance.

Sincerely yours,

Harold Kirkemo (gla)

Harold Kirkemo, Chief
Office of Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Region III
Mr. Peterson

ECPeterson/bsl 5/5/69

April 17, 1969

Free Gold Mining Company
c/o Richard H. Louden
Louden Cattle Company
Branson, Colorado 81027

Subject: OME-6784

Gentlemen:

Your application for exploration assistance, dated February 20, 1969, submitted to our office at Denver, Colorado, has been assigned Docket No. OME-6784.

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

Sincerely yours,

Harold Kirkemo
Chief, Office of
Minerals Exploration

Copy to R-III