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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

Office of
Executive Officer
DMEA Field Team
Region III

1012 Flood Building
870 Market Street
San Francisco 2, Calif.

October 9, 1952

Mr. Bert C. Austin
Mining Engineer
Mills Building
San Francisco 4, California

Re: Red Acres Quicksilver,
Stanislaus County, California
Docket DMA 1163X (Mercury)

Dear Mr. Austin:

Your letter of October 3 to which you attached a map, assay reports, and a report on the Red Acres Quicksilver Mine by Charles M. Heron is acknowledged.

Our records show that an application for a Defense Minerals Exploration Administration loan, made in May 1951 by Mr. H. L. Spencer for $15,000 to explore the Red Acres Quicksilver Mine by tunneling, drifting and raising, was denied by the Administration in June 1951. The reason for denial was that geological conditions indicate the probability of discovering new mercury ore only in such small amounts as not to justify the expenditures involved.

We have no copy of Mr. Spencer's application in this office, but if as a result of work done since May 1951, or if evidence is available that might tend to change our geologists' conclusions, there is no reason why Mr. Spencer should not reapply for a loan. If that is done, the material you sent us should be submitted with the application. The material, therefore, is being returned to you. Thank you for your interest in this matter.

H. C. MILLER

H. C. Miller
Executive Officer
DMEA Field Team, Region III

Enclosure
Copy to DMEA, Interior Bldg., Washington 25, D. C.
E. H. Bailey, USGS

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H. C. Miller
Executive Officer
DMEA Field Team, Region III

Enclosure
Copy to DMEA, Interior Bldg., Washington 25, D. C.
E. H. Bailey, USGS

FILE COPY
SURNAME

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

June 25, 1951

Mr. H. L. Spencer
2050 Ashbourne Drive
South Pasadena, California

Re: Red Acres Quicksilver
Stanislaus County, California
DMA docket 1163x

Dear Mr. Spencer:

After careful review, we regret to advise that we must deny your application, DMA-1163x for an exploration project at this time. The basis for this decision is that in the opinion of the Geological Survey and Defense Minerals Administration, geological conditions indicate the probability of discovering new mercury ore only in such small amount as not to justify the expenditure involved.

Enclosed please find the Rhodimet report, photograph and U.S.G.S. Bulletin, return of which you requested.

Yours very truly,

Tom Lyon
Tom Lyon, Director
Supply Division

Enclosure

WBourret/mh
cc: Adm. Read. File
Lyon
Strobel
Field Team, III
Bourret
McKnight
Files

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

R. E. C.

June 25, 1951

Memorandum

To: Landon F. Strobel, Executive Secretary

Through: Director, Supply Division

From: Minor and Rare Metals Branch

Subject: Red Acres Quicksilver, Stanislaus County, California
DMA docket - 1163x

Underdate of May 10, 1951, H. L. Spencer, 2050 Ashbourne Drive, South Pasadena, California, applied for a DMA exploration project in the amount of $15,000 to cover estimated expenses of tunneling, drifting and raising on a mercury prospect.

Attached hereto please find copy of letter of even date advising Mr. Spencer that his loan is denied on the grounds of too little probability of discovering new mercury ore in any appreciable amount.

Herewith we are returning the complete docket, which includes:

(a) Two copies of form MF-103, with submittal letter, bank reference, assay certificate and acknowledgement of receipt.
(b) Letter and report from Edgar H. Bailey, U.S.G.S., to E.T. McKnight, U. S. G. S.
(c) Mr. McKnights memorandum regarding subject application.
(d) Letter requesting submittal of form MF-200 exhibits A to E inclusive, together with five sets of those exhibits and applicant's submittal letter regarding same.

Weston Bourret
Weston Bourret, Chairman
Mercury Committee

Approved:
Tom Lyon
Director, Supply Division

FILE COPY
SURNAME:

Bourret
Jordan
Meyer

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

June 25, 1951

Memorandum

To: Landon F. Strobel, Executive Secretary

Through: Director, Supply Division

From: Minor and Rare Metals Branch

Subject: Red Acres Quicksilver, Stanislaus County, California
DMA Docket - 1163x

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Weston Bourret, Chairman
Mercury Committee

WBourret/mh
cc: Adm. Read. File
Strobel
Lyon
Field Team III
McKnight
Files
Bourret

Approved:

Director, Supply Division

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

A. E. C.

June 25, 1951

Memorandum

To: Leonon F. Strobel, Executive Secretary

Through: Director, Supply Division

From: Minor and Rare Metals Branch

Subject: Mud Springs Quicksilver, Stanislaus County, California
DF Docket - 1163x

Effective of May 10, 1951, H. L. Spencer, 2050 Ashburne Drive, South Pasadena, California, applied for a DMA exploration project in the amount of $15,000 to cover estimated expenses of tunneling, drifting and raising on a mercury prospect.

Attached hereto please find copy of letter of even date advising Mr. Spencer that his loan is denied on the grounds of too little probability of discovering new mercury ore in any appreciable amount.

Herewith we are returning the complete docket, which includes:

(a) Two copies of Form DF-103, with submittal letter, bank reference, assay certificate and acknowledgement of receipt.
(b) Letter and report from Edgar H. Bailey, U.S.G.S., to L.H. McKnight, U. S. A. E. C.
(c) Mr. McKnights memorandum regarding subject application.
(d) Letter requesting submittal of Form DF-200 exhibits A to E inclusive, together with five sets of those exhibits and applicant's submittal letter regarding same.

Weston Bourret, Chairman
Mercury Committee

Approved:

Director, Supply Division

WBourret/mh
cc: Adm. Read. File
Strobel
Lyon
Field Team III
McKnight
Files
Bourret

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CAL.

Dma - 1163X

June 7, 1951.

Re: Red Acres Quicksilver,
Stanislaus Co., Cal.
DMA Docket No. 1163X.

Defense Minerals Administration,
Department of the Interior,
Washington 25, D. C.
Gentlemen: Att. Mr. Tom Lyon,
Director, Supply Division.

Replying to yours of June 5th in which you enclosed form of Exploration Project Contract to be used if your department approves such project on the above property, I have examined this contract and it appears to be fair and equitable.

In accordance with your request am enclosing six copies of Exhibits A to E inclusive, together with maps, which I understand are to be attached to and made a part of such contract. If you need any further information please advise.

I believe this small exploration job can be handled far better and cheaper for both the government and the operator if a responsible mining contractor who has the necessary equipment can be found to take it.

These contractors are very busy now and quite reluctant to take small jobs in remote areas. Am trying to locate a satisfactory man who would be interested and any early information you can give me as to probable approval or disproval of this project will be helpful.

Yours very truly,

S-Enc.

FILE COPY
SURNAME:

Bourret

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

June 5, 1951

AIR MAIL

Mr. H. L. Spencer
2050 Ashbourne Drive
South Pasadena, California

Re: Red Acres Quicksilver
Stanislaus County, California
DMA Docket No. 1163X

Dear Mr. Spencer:

Your application, DMA-1163X, for an exploration project in the amount of $15,000 has been received by the Minor and Rare Metals Branch of the Supply Division. Before a final decision can be reached on your request it will be necessary to obtain additional information.

I am attaching hereto contract form (MF-200) which I suggest you review carefully at this time. In the event your project is approved the next step is execution of the contract; unless all exhibits referred to (Exhibits A to E inclusive) are completed in detail, including maps, unnecessary delays will of course result. I would suggest therefore that you prepare this material immediately and forward six copies to this office.

Please contact Mr. H. C. Miller in the San Francisco office of DMA if you are in doubt regarding any of the points covered by the contract.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

Enclosures
WBourret/GMcC
cc: Files
Mr. Mittendorf
Field Team , Region III
Mr. Lyon
Mr. McKnight, USGS
Miss Helena Meyer, USBM
Mr. Bourret (2)—(Appl. etc. retained by Mr. Bourret)
Adm. Reading File

FILE COPY
SURNAME:

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

May 23, 1951

Mr. H. L. Spencer
2050 Ashbourne Drive
So. Pasadena, California

Subject: DMA-1163X
Re: Exploration Loan -
Red Acres Mine

My dear Mr. Spencer:

Receipt is acknowledged of your application and attachments of May 10, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1163X and was referred to Mr. Weston G. Bourret, Chief, Minor and Rare Metals Branch on May 17, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1163X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

LFSTROBEL:mab
cc: Strobel
Files
Bourret
Lyon

May 16, 1951

H. L. SPENCER

CALIFORNIA

DMA 1163

mercury

Dma 1163

856

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CAL.

Dma - 1183X

May 10, 1951.

Rec'd WB May 18 '51

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

The enclosed application for government aid in prospecting for mercury is forwarded on instruction from Mr. H. C. Miller, Regional Director of Bureau of Mines in San Francisco after a personal consultation with him on the matter.

May I ask that the Rhodimer report with photograph and U.S.G.S. Bulletin be returned when you are through with them. You may keep map for your files if you need it.

If any further information is desired please advise me.

Yours very truly,

S-Enc.

6617

THE FARMERS AND MERCHANTS NATIONAL BANK OF LOS ANGELES

OLDEST BANK IN SOUTHERN CALIFORNIA

V. H. ROSSETTI,
PRESIDENT

LOS ANGELES 54, CALIFORNIA

May 9, 1951

Defense Minerals Administration
Bureau of Mines
U. S. Department of the Interior
Washington, D. C.

In re: Mr. H. L. Spencer
2050 Ashbourne Drive
South Pasadena, California

Gentlemen:

At the instance of our valued client, Mr. H. L. Spencer, and on his behalf, we are pleased to record that we have been favored with a depository relationship with him for many years. He has always maintained with us average balances in substantial amount but has never had occasion to approach us for accommodation.

We regard him very highly, consider him a man of the best of character and integrity and one who, we are satisfied, would not indulge or undertake a contract beyond his ability of fulfillment.

We have no hesitancy in commending him to you in connection with any transaction you have in contemplation with him.

Yours very truly,

V H Rossetti

President

VHR:rr

80 Anniversary The FARMERS and MERCHANTS National Bank of Los Angeles

ORE TESTING
SAMPLING
and
SUPERVISION OF
ORE SHIPMENTS

Phone
VAndike 9328

ED. EISENHAUER, Jr.

ASSAYER -- METALLURGIST -- CHEMIST

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

May 5/51

Mr.H.L.Spencer
Pasadena
Calif

Subject : Assays of Rock.

Marked :	Mercury(Hg)	lbs. per ton
Upper tunnel dump-coarse ore	.31 %	6.2
Upper tunnel dump	1.15 %	23.0
Shaft dump	.90 %	18.0
Top of stope	.53 %	10.6

Charges : $ 8.00

Respectfully submitted

Ed. Eisenhauer, Jr

Ed.Eisenhauer,Jr

Assayer

Spencer H. L.

DMA-1163X

Re: Red Acres Quicksilver,
Stanislaus Co., Cal.
DMA Docket No. 1163X

Exhibit "A"

Exploration project and work to be performed. The above mentioned quicksilver prospect was discovered and partly developed in the 1880-90s. A small discovery shaft was sunk on the ore, then an upper tunnel was driven in to cut the ore body and some quantity of ore was removed from a narrow vertical stope about 50 ft. in length. To the left of the drift is an old underhand stope, now filled with water, which extends back under a dangerous and overhanging roof for 50 ft. or more further. This stope shows that the orebody has made a turn and widened out to 15-20 ft. The early miners then dropped down the hill and started a lower tunnel directed to under cut the ore found in underhand stope but all work was abandoned when this entry was in about 60 ft. (probably on account of low price of metal) and no further work underground has been done since. It would appear that a considerable part of the ore mined was packed over and treated at reduction plant at the nearby Phoenix mine then owned by the same parties.

As a result of an examination of this property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, the present owner and others, the following two stage proposal for further development was submitted:

Stage 1. Continue lower tunnel approximately 200 ft. to cross cut probable extension in depth of ore body found in upper workings. This entry should be continued in the same direction as started to undercut what appears to be good ore found in underhand stope. The last work done at the upper level obviously was in this underhand stope. Any part of ore from this stope not removed from property would probably be on top of dump at portal of upper tunnel. A grab sample of top of this dump showed 23 lbs. Hg. Probable cost of stage 1 development about $6000. Estimated time 60 days. If results of this work are not satisfactory project would terminate.

Stage 2. If sufficient width of good grade ore is encountered in extension of lower tunnel, then drift 100 ft. each way to right and left on the ore and raise 80 ft. to upper level. If this work is successful and an orebody 150'x 80'x20' is developed (an optimum estimate) the Hg values proven would justify installation of a small reduction plant. If results exceed the optimum estimate there would be no question as to installation of plant. If results are below optimum it would then be a matter of judgement, in consultation with Mr. H. C. Miller of the DMA office in San Francisco, as to further procedure.

Exhibit "B"

No facilities, buildings or fixtures to be purchased, installed or erected in stages 1 and 2 of prospecting and development program.

Exhibit "C"

The best and cheapest method of doing the above work for both the government and the operator is by contract if a responsible mining contractor who has the necessary equipment can be obtained. Before a firm bid from a contractor can be had it will be necessary to know if project is to be approved by government. Mining contractors are very busy now and, for such a small job, will not take the time to go into this matter until a

a contract is ready to be let. Would suggest that approval of arrangement between operator and a responsible mining contractor be left to Mr. H. C. Miller of your San Francisco office as best and quickest way to expedite action. If it is not possible to secure responsible contractor and operators undertakes this work, the estimated costs for equipment are as follows:

1st stage

1. Rental 210 ft. compressor @ $200 per month		$400.00
2. Purchase 400 ft. 2" pipe @ .35 per ft.		140.00
3. Rental jackhammer, steel and bits		150.00
4. Tents and camp equipment, purchase		200.00
5. Truck rental @$250 per mo.		500.00
6. Mine car rental and track purchase @80cents ft.		450.00
7. Blacksmith equipment, purchase		100.00
8. Purchase small tools		100.00
9. Powder and misc. expense,		400.00
	Total	2440.00

2nd stage

1. Rental 210' compressor - 3 months		$600.00
2. Purchase 300 ft. 2" pipe		105.00
3. Jackhammer, steel and bits, rental		225.00
4. Truck rental		750.00
5. Mine car rental, purchase track		380.00
6. Lumber		200.00
7. Powder and misc. exp.,		700.00
	Total	2960.00

Exhibit "D" - Labor.

1st stage

1. 2 miners @ $25.00 per day - 60 days		$3000.00
2. Supervisor, 1 man @ $400.00 per month		800.00
	Total	3800.00

2nd stage

1. 2 miners @ $25.00 per day - 90 days		4500.00
2. Supervisor, 1 man @ $400.00 per month		1200.00
	Total	5700.00

Exhibit "E"

There are no existing facilities, buildings, installations or fixtures on the property.

NOTE. The above costs are estimated on the basis of no underground timbering being necessary. In the upper workings ground has stood up for many years but if timbering is necessary the above cost figures will have to be materially increased. The going rate for miners is about $20.00 per day at established properties with good camps. At this remote location and living in tents we may have trouble in keeping good men evanat above figure.

Pages 1 and 2 hereof, together with attached map, are made part of that certain contract known as "Exploration Project Contract" between the United States of America and H. L. Spencer dated the ___ day of _____, 1951.

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTER
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma-1163 X

Date received 5/16/51

Participation

H. L. Spencer,
2050 Ashbourne Drive,
So. Pasadena, Cal.

Name and address of applicant

Date May 10, 1951

FILL IN THIS BLOCK

Date of application May 10, 1951

Estimated cost 1st stage - $6000.00
2nd stage - $9000.00

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Sec. 25, Twp. 6S., R. 5E.,
Stanislaus Co., California.

Date of filing MF-100

DMA Docket Number, if available Dma-1163 X

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

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

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

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

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons. State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

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

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

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

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

I [redacted], hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)	By [redacted]
May 10, 1951.	
(Date)	(Title)

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

*Same as footnote on page 1.

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

1. Individual.

4. Graduate U.S.Naval Academy, served in Navy 10 years, resigned, studied mining engineering and geology at Michigan College of Mines, Superintendent, Crosby Exploration Co., Crosby, Minn. iron mining and exploration, 2 years, engaged in oil exploration and production Oklahoma, Kansas and Texas 20 years, operated Gibson Quicksilver Mine, Colusa Co., Cal. 1941-42.

5. Owner.

6. No liens, claims or encumbrances against property.

8. See letter, Farmers and Merchants Nat. Bank, Los Angeles.

9. In driving cross cut prospect tunnel (stage 1) $1500.00. This should be enough to cover my part of cost. In subsequent drifting along ore body and raising (stage 2) $2250.00. This should be enough to cover my part of cost of stage 2.

10. (a) Section 25, Township 6 South, Range 5 East, Stanislaus Co., California on which is located the Red Acres Quicksilver prospect.
(b) Same.

11. Red Acres Mine was once known as Orestimba Mine, later as the Wineger Prospect.

12. Located 28 miles west of Patterson, Cal., which is on So. Pac. R.R. Good gravel road to within 3 miles. Rest of road rough but passable for prospecting equipment. To install furnace and heavy equipment about 3/4 mile of improved access road would be necessary.

13. Present underground workings make enough water for prospecting. Nearby springs, ½ mile, would have to be developed to provide water for reduction plant. Electric power not available.

14. No buildings or equipment now on property.

15. Ore would be treated in rotary furnace reduction plant to be installed 150 ft. below lower tunnel if sufficient ore is developed to justify.

16. (a) The California Journal of Mines and Geology states, "Phoenix Mines (including Summit, Grayson and Orestimba groups) first produced in the 1870s. Alvinza Hayward purchased property in 1901 and installed a 50 Ton Scott furnace. After 2 years of production, activity ceased and mines were idle until 1915. At that time they were reopened and production continued through 1918. Operations then ceased and the mines have remained idle to date". No record of amount of production is given.

Cinnabar was discovered on the Red Acres (Orestimba) property in these early operations and a shallow shaft was carried down on the ore. (See map) Later the upper tunnel was driven in to intersect orebody which was stoped out for a distance of 50 ft. or more. A

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF.

drift was driven to the left at the level and a winze sunk at end of drift. To the left of drift is an underhand stope that was then opened in which ore body widened out to 15-20 ft. This underhand stope extends back parallel to drift under an overhanging roof for 50 ft. or more and is filled with water. The ore body makes a right angle turn from the vertical stope into underhand stope and widens out. This pinching turn may constitute a trap which would retard ascending solutions so that best values would be found below the trap.

The early miners evidently found some good ore in this underhand stope. This was probably the last work they did at that level and the last ore taken out would logically be on top of the dump at upper tunnel. A grab sample of the top of this dump taken on May 1, 1951 showed 23 lbs. Hg per ton. (See Eisenhauer assay May 5, 1951) The 6 lb. assay was from large pieces the size of two fists (no fines) of what appeared to be country rock showing practically no cinnabar to the eye. The early miners were probably handicapped by water accumulation and the difficulty of underhand stoping so they dropped down the hill and started a lower tunnel headed for this underhand stope with the idea of undercutting it. After getting in about 60 ft. the whole operation was abandoned and no work has been done since. From the amount of ore mined underground and the amount on dump, it is evident that the greater amount was removed, probably to Scott furnace at Phoenix mine. Suspension of operations was no doubt due to inadequate price of Hg.

(b) Adobe Mine in Sec. 24 about 2 miles to the northeast was operated from 1884 to 1888, also in 1941-42. No record of production.

(c) Report and map by T. A. Rhodimer enclosed.

17. Mine not in production.

18. (a) The ore is cinnabar, the red sulphide of mercury which contains 86% Hg. It is deposited in the porous phases of the faulted and brecciated fracture zones of the Franciscan shales and sandstones which lie, sharply tilted, up against a large mass of intruded serpentine (altered peridotite)

(b) See Rhodimer map and report.

(c) No estimate of grade or tonnage of ore can be made until further prospecting is completed.

20. The exploration is for mercury ores deposited in fault zone adjacent to a large mass of intruded serpentine.

21. As a result of further examination of the property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, owner of the property and others, the following four stage proposal for further exploration and development work on this property is submitted:

1. Continue lower tunnel 200 Ft. to cross cut probable extension in depth of ore body found in underhand stope above. Cost about $6000., time approximately 60 days.
2. If sufficient width of good grade ore is encountered, drift on ore to right and left for 100 ft. each way and raise 80 ft. to upper level. Cost about $9000., time approximately 90 days.
3. If sufficient ore of commercial grade is blocked out to justify installation of furnace, make application for access road of 3/4

H. L. SPENCER
2050 ASHBOURNE DRIVE
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miles adequate to move in heavy equipment and furnace. Cost about $3200, time approximately 40 days.
4. Make application for development loan to install rotary furnace with condensers, ore shute, bins, crushers, ½ mile water line and pump, oil and water tanks, bunk house and camp. Rough estimated cost $35,000. Time will depend on availability of material, maybe 4 months.

22. Geological basis. Regional. The California coast range is one of the important quicksilver provinces in the world, by far the most important in this country. Enclosed U. S. G. S. Bulletin 936-D on the Del Puerto Area gives the general geology of the region under discussion. On page 108,9,10 Red Acres is discussed under name of Winegar Prospect. In the envelope in back will be found geological map of Del Puerto area, also, for comparison, a map of the New Almaden district. On a rough brown sheet the Del Puerto map is extended to tie in with Red Acres. Attention is called to the fact that the Del Puerto serpentine mass is fully as extensive as the one in New Almaden area. Since this serpentine mass is the surface evidence of deep seated magmatic intrusion from which come the hot mineralizing solutions that deposit quicksilver, the size and extent of this Del Puerto intrusion is, in itself, important. When prospected more thoroughly, the Del Puerto area may prove to be important.

Local. The old workings on Red Acres prove existence of a small narrow ore body in the upper workings. The underhand stope gives evidence that this ore body has made a turn and widened out. It is recognized that extension of lower tunnel to undercut ore in this lower stope is a pure gamble. No assumption as to width, length or values of this ore shoot below are justified. But, to assume that it will have the same characteristics below as in upper workings above, may be just as much in error as to assume that it will be much wider, longer and richer below. The truth is that no one can possibly know and the only way to find out is to go in with lower tunnel and take a look. It may be well to mention here that some California quicksilver mines have extended to considerable depth. At New Almaden continuous ore bodies were found to the 1600 ft. level and the deepest workings went to 2450 ft. below outcrop. At New Idria the work was carried to 1400 ft. below outcrop.

From a practical standpoint, the early miners probably knew more about this property than we will be able to find out in its present condition. The evidence indicates they thought that in the under hand stope they had just reached the top of the real ore body and that they thought well enough of it to go down the hill and start another entry to under cut it. To continue their work where they left off would appear to be the cheapest and most practical approach.

23. Requirements and costs. First Stage.

(a)	2 miners at $30.00 per day - 60 days	3600.00
(b)	Supervisor, 1 man @ $400.00 per month	800.00
(c)	No necessary repairs	
(d)	No construction, will use tents for camp	100.00
(e)	No purchase of equipment	
(f)	Rental of equipment	400.00
(g)	Rental own equipment	700.00
(h)	Cost of material and supplies less than $50 each	400.00
(i)	No cost for power, water, utilities	
	Total	6000.00

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

Requirements and costs, Contd. Second stage.

(a)	2 miners @ 30.00 per day	5400.00
(b)	Supervisor, 1 man @ $400.00 per month	1200.00
(c)	No necessary repairs	
(d)	No construction - will use tents for camp	
(e)	Purchase of equipment, lumber	200.00
(f)	Rent of equipment	600.00
(g)	Rental own equipment	1000.00
(h)	Cost of materials and supplies less than $50. ea.	600.00
(i)	No cost for power, water or utilities	
	Total	$9000.00

24. Time schedule.

First stage	2 months		$6000.00
Second stage	3 "		9000.00
Third stage, Tentative estimate		40 days	3200.00
Fourth stage, "	"	4 months	35000.00

It is understood that third stage would require firm commitment from road contractor. Fourth stage would require more complete and detailed estimate from engineering firm that manufactures and installs mercury furnaces and equipment.

Addenda to section 22.
A successful exploration campaign at Red Acres and development of a paying mine would undoubtedly stimulate further prospecting for quicksilver in the Del Puerto area. On both flanks of the great serpentine mass here present there is five mile long zone of sharply tilted and folded Franciscan beds which might be productive at any point. The reason this area has not been studied more closely is that until recent years it has been difficult of access. This is largely new virgin territory and, with a little encouragement, it might produce important results. The fact that no important quicksilver ore bodies have been developed in Del Puerto is no reason to condemn the district as a whole.

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma-1163X

Date received 5/16/51

Participation

H. L. Spencer,
2050 Ashbourne Drive,
So. Pasadena, Cal.

Name and address of applicant

Date May 10, 1951.

FILL IN THIS BLOCK

Date of application May 10, 1951

Estimated cost 1st stage - $6000.00
2nd Stage - $9000.00

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Sec. 25, Twp. 6S., R. 5E.,
Stanislaus Co., California.

Date of filing MF-100

DMA Docket Number, if available Dma-1163X

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

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

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

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

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

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

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property, not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

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

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

I [redacted], hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)	By [redacted]
May 10, 1950.	
(Date)	(Title)

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

*Same as footnote on page 1.

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

1. Individual.

4. Graduate U.S.Naval Academy, served in Navy 10 years, resigned, studied mining engineering and geology at Michigan College of Mines, Superintendent, Crosby Exploration Co., Crosby, Minn. iron mining and exploration, 2 years, engaged in oil exploration and production Oklahoma, Kansas and Texas 20 years, operated Gibson Quicksilver Mine, Colusa Co., Cal. 1941-42.

5. Owner.

6. No liens, claims or encumbrances against property.

8. See letter, Farmers and Merchants Nat. Bank, Los Angeles.

9. In driving cross cut prospect tunnel (stage 1) $1500.00. This should be enough to cover my part of cost. In subsequent drifting along ore body and raising (stage 2) $2250.00. This should be enough to cover my part of cost of stage 2.

10. (a) Section 25, Township 6 South, Range 5 East, Stanislaus Co., California on which is located the Red Acres Quicksilver prospect.
(b) Same.

11. Red Acres Mine was once known as Orestimba Mine, later as the Winegar Prospect.

12. Located 28 miles west of Patterson, Cal., which is on So. Pac. R.R. Good gravel road to within 3 miles. Rest of road rough but passable for prospecting equipment. To install furnace and heavy equipment about 3/4 mile of improved access road would be necessary.

13. Present underground workings make enough water for prospecting. Nearby springs, ½ mile, would have to be developed to provide water for reduction plant. Electric power not available.

14. No buildings or equipment now on property.

15. Ore would be treated in rotary furnace reduction plant to be installed 150 ft. below lower tunnel if sufficient ore is developed to justify.

16. (a) The California Journal of Mines and Geology states, "Phoenix Mines (including Summit, Grayson and Orestimba groups) first produced in the 1870s. Alvinza Hayward purchased property in 1901 and installed a 50 Ton Scott furnace. After 2 years of production, activity ceased and mines were idle until 1915. At that time they were reopened and production continued through 1916. Operations then ceased and the mines have remained idle to date". No record of amount of production is given.

Cinnabar was discovered on the Red Acres (Orestimba) property in these early operations and a shallow shaft was carried down on the ore. (See map) Later the upper tunnel was driven in to intersect orebody which was stoped out for a distance of 50 ft. or more. A

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

drift was driven to the left at the level and a winze sunk at end of drift. To the left of drift is an underhand stope that was then opened in which ore body widened out to 15-20 ft. This underhand stope extends back parallel to drift under an overhanging roof for 50 ft. or more and is filled with water. The ore body makes a right angle turn from the vertical stope into underhand stope and widens out. This pinching turn may constitute a trap which would retard ascending solutions so that best values would be found below the trap.

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(b) Adobe Mine in Sec. 24 about 2 miles to the northeast was operated from 1884 to 1888, also in 1941-42. No record of production.

(c) Report and map by T. A. Rhodimer enclosed.

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21. As a result of further examination of the property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, owner of the property and others, the following four stage proposal for further exploration and development work on this property is submitted:

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23. Requirements and costs. First stage

(a)	2 miners at $30.00 per day - 60 days	3600.00
(b)	Supervisor, 1 man @ $400.00 per month	800.00
(c)	No necessary repairs	
(d)	No construction, will use tents for camp	100.00
(e)	No purchase of equipment	
(f)	Rental of equipment	400.00
(g)	Rental own equipment	700.00
(h)	Cost of material and supplies less than $50 each	400.00
(i)	No cost for power, water, utilities	
	Total	6000.00

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

Requirements and costs, Contd. Second stage.

(a)	2 miners @ 30.00 per day	5400.00
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24. Time schedule.

First stage	2 months		$6000.00
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Fourth stage, "	"	4 months	35000.00

It is understood that third stage would require firm commitment from road contractor. Fourth stage would require more complete and detailed estimate from engineering firm that manufactures and installs mercury furnaces and equipment.

Addenda to section 22.
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SOUTH PASADENA, CALIF.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma - 1163X

Date received 5/16/51

Participation

H. L. Spencer,
2050 Ashbourne Drive,
So. Pasadena, Cal.

Name and address of applicant

Date May 10, 1951.

FILL IN THIS BLOCK

Date of application May 10, 1951.

Estimated cost 1st stage - $6000.00
2nd stage - $9000.00

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Sec. 25, Twp. 6S., R. 5E.,
Stanislaus Co., California.

Date of filing MF-100

DMA Docket Number, if available Dma - 1163X

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

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

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

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State amount of power to be used, rate per hour or other cost, and source.

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15. State in detail how the ore could be shipped and how and where milled.

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(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

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

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

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THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

I

[redacted], hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)

By [redacted])

May 10, 1951.
(Date)

(Title)

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

*Same as footnote on page 1.

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

1. Individual.

4. Graduate U.S.Naval Academy, served in Navy 10 years, resigned, studied mining engineering and geology at Michigan College of Mines, Superintendent, Crosby Exploration Co., Crosby, Minn. iron mining and exploration, 2 years, engaged in oil exploration and production Oklahoma, Kansas and Texas 20 years, operated Gibson Quicksilver Mine, Colusa Co., Cal. 1941-42.

5. Owner.

6. No liens, claims or encumbrances against property.

8. See letter, Farmers and Merchants Nat. Bank, Los Angeles.

9. In driving cross cut prospect tunnel (stage 1) $1500.00. This should be enough to cover my part of cost. In subsequent drifting along ore body and raising (stage 2) $2250.00. This should be enough to cover my part of cost of stage 2.

10. (a) Section 25, Township 6 South, Range 5 East, Stanislaus Co., California on which is located the Red Acres Quicksilver prospect.
(b) Same.

11. Red Acres Mine was once known as Orestimba Mine, later as the Winegar Prospect.

12. Located 28 miles west of Patterson, Cal., which is on So. Pac. R.R. Good gravel road to within 3 miles. Rest of road rough but passable for prospecting equipment. To install furnace and heavy equipment about 3/4 mile of improved access road would be necessary.

13. Present underground workings make enough water for prospecting. Nearby springs, ½ mile, would have to be developed to provide water for reduction plant. Electric power not available.

14. No buildings or equipment now on property.

15. Ore would be treated in rotary furnace reduction plant to be installed 150 ft. below lower tunnel if sufficient ore is developed to justify.

16. (a) The California Journal of Mines and Geology states, "Phoenix Mines (including Summit, Grayson and Orestimba groups) first produced in the 1870s. Alvinza Hayward purchased property in 1901 and installed a 50 Ton Scott furnace. After 2 years of production, activity ceased and mines were idle until 1915. At that time they were reopened and production continued through 1916. Operations then ceased and the mines have remained idle to date". No record of amount of production is given.

Cinnabar was discovered on the Red Acres (Orestimba) property in these early operations and a shallow shaft was carried down on the ore. (See map) Later the upper tunnel was driven in to intersect orebody which was stoped out for a distance of 50 ft. or more. A

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

drift was driven to the left at the level and a winze sunk at end of drift. To the left of drift is an underhand stope that was then opened in which ore body widened out to 15-20 ft. This underhand stope extends back parallel to drift under an overhanging roof for 50 ft. or more and is filled with water. The ore body makes a right angle turn from the vertical stope into underhand stope and widens out. This pinching turn may constitute a trap which would retard ascending solutions so that best values would be found below the trap.

The early miners evidently found some good ore in this underhand stope. This was probably the last work they did at that level and the last ore taken out would logically be on top of the dump at upper tunnel. A grab sample of the top of this dump taken on May 1, 1951 showed 23 lbs. Hg per ton. (See Eisenhauer assay May 5, 1951) The 6 lb. assay was from large pieces the size of two fists (no fines) of what appeared to be country rock showing practically no cinnabar to the eye. The early miners were probably handicapped by water accumulation and the difficulty of underhand stoping so they dropped down the hill and started a lower tunnel headed for this underhand stope with the idea of undercutting it. After getting in about 60 ft. the whole operation was abandoned and no work has been done since. From the amount of ore mined underground and the amount on dump, it is evident that the greater amount was removed, probably to Scott furnace at Phoenix mine. Suspension of operations was no doubt due to inadequate price of Hg.

(b) Adobe Mine in Sec. 24 about 2 miles to the northeast was operated from 1884 to 1888, also in 1941-42. No record of production.

(c) Report and map by T. A. Rhodimer enclosed.

17. Mine not in production.

18. (a) The ore is cinnabar, the red sulphide of mercury which contains 86% Hg. It is deposited in the porous phases of the faulted and brecciated fracture zones of the Franciscan shales and sandstones which lie, sharply tilted, up against a large mass of intruded serpentine (altered peridotite)

(b) See Rhodimer map and report.

(c) No estimate of grade or tonnage of ore can be made until further prospecting is completed.

20. The exploration is for mercury ores deposited in fault zone adjacent to a large mass of intruded serpentine.

21. As a result of further examination of the property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, owner of the property and others, the following four stage proposal for further exploration and development work on this property is submitted:

1. Continue lower tunnel 200 Ft. to cross cut probable extension in depth of ore body found in underhand stope above. Cost about $6000., time approximately 60 days.
2. If sufficient width of good grade ore is encountered, drift on ore to right and left for 100 ft. each way and raise 80 ft. to upper level. Cost about $9000., time approximately 90 days.
3. If sufficient ore of commercial grade is blocked out to justify installation of furnace, make application for access road of 3/4

H. L. SPENCER
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miles adequate to move in heavy equipment and furnace. Cost about $3200, time approximately 40 days.
4. Make application for development loan to install rotary furnace with condensers, ore shute, bins, crushers, ½ mile water line and pump, oil and water tanks, bunk house and camp. Rough estimated cost $35,000. Time will depend on availability of material, maybe 4 months.

22. Geological basis. Regional. The California coast range is one of the important quicksilver provinces in the world, by far the most important in this country. Enclosed U. S. G. S. Bulletin 936-D on the Del Puerto Area gives the general geology of the region under discussion. On page 108,9,10 Red Acres is discussed under name of Winegar Prospect. In the envelope in back will be found geological map of Del Puerto area, also, for comparison, a map of the New Almaden district. On a rough brown sheet the Del Puerto map is extended to tie in with Red Acres. Attention is called to the fact that the Del Puerto serpentine mass is fully as extensive as the one in New Almaden area. Since this serpentine mass is the surface evidence of deep seated magmatic intrusion from which come the hot mineralizing solutions that deposit quicksilver, the size and extent of this Del Puerto intrusion is, in itself, important. When prospected more thoroughly, the Del Puerto area may prove to be important.

Local. The old workings on Red Acres prove existence of a small narrow ore body in the upper workings. The underhand stope gives evidence that this ore body has made a turn and widened out. It is recognized that extension of lower tunnel to undercut ore in this lower stope is a pure gamble. No assumption as to width, length or values of this ore shoot below are justified. But, to assume that it will have the same characteristics below as in upper workings above, may be just as much in error as to assume that it will be much wider, longer and richer below. The truth is that no one can possibly know and the only way to find out is to go in with lower tunnel and take a look. It may be well to mention here that some California quicksilver mines have extended to considerable depth. At New Almaden continuous ore bodies were found to the 1600 ft. level and the deepest workings went to 2450 ft. below outcrop. At New Idria the work was carried to 1400 ft. below outcrop.

From a practical standpoint, the early miners probably knew more about this property than we will be able to find out in its present condition. The evidence indicates they thought that in the under hand stope they had just reached the top of the real ore body and that they thought well enough of it to go down the hill and start another entry to under cut it. To continue their work where they left off would appear to be the cheapest and most practical approach.

23. Requirements and costs. First Stage.

(a) 2 miners at $30.00 per day - 60 days	3600.00
(b) Supervisor, 1 man @ $400.00 per month	800.00
(c) No necessary repairs	
(d) No construction, will use tents for camp	100.00
(e) No purchase of equipment	
(f) Rental of equipment	400.00
(g) Rental own equipment	700.00
(h) Cost of material and supplies less than $50 each	400.00
(i) No cost for power, water, utilities	
Total	6000.00

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Requirements and costs, Contd. Second stage.

(a)	2 miners @ 30.00 per day	5400.00
(b)	Supervisor, 1 man @ $400.00 per month	1200.00
(c)	No necessary repairs	
(d)	No construction - will use tents for camp	
(e)	Purchase of equipment, lumber	200.00
(f)	Rent of equipment	600.00
(g)	Rental own equipment	1000.00
(h)	Cost of materials and supplies less than$50. ea.	600.00
(i)	No cost for power, water or utilities	
	Total	$9000.00

24. Time schedule.

First stage	2 months		$6000.00
Second stage	3 "		9000.00
Third stage, Tentative estimate		40 days	3200.00
Fourth stage, "	"	4 months	35000.00

It is understood that third stage would require firm commitment from road contractor. Fourth stage would require more complete and detailed estimate from engineering firm that manufactures and installs mercury furnaces and equipment.

Addenda to section 22.

A successful exploration campaign at Red Acres and development of a paying mine would undoubtedly stimulate further prospecting for quicksilver in the Del Puerto area. On both flanks of the great serpentine mass here present there is five mile long zone of sharply tilted and folded Franciscan beds which might be productive at any point. The reason this area has not been studied more closely is that until recent years it has been difficult of access. This is largely new virgin territory and, with a little encouragement, it might produce important results. The fact that no important quicksilver ore bodies have been developed in Del Puerto is no reason to condemn the district as a whole.

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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

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

DO NOT FILL IN THIS BLOCK

Docket No. Dma-1163 X

Date received 5/16/51

Participation

H. L. Spencer,
2050 Ashbourne Drive,
So. Pasadena, Cal.

Name and address of applicant

Date May 10, 1951

FILL IN THIS BLOCK

Date of application May 10, 1951

Estimated cost 1st stage - $6000.00
2nd stage - $9000.00

Mineral or metal Mercury

Percentage of Government participation 75%

Location of mine Sec. 25, Twp. 6S., R. 5E.,
Stanislaus Co., California.

Date of filing MF-100

DMA Docket Number, if available Dma-1163 Y

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

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

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

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

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

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

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

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

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

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

I, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)

By ---
(Signature)

May 10, 1951.
(Date)

(Title)

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

*Same as footnote on page 1.

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

Dma-1163X

Re: Red Acres Quicksilver,
Stanislaus Co., Cal.
DMA Docket No. 1163X

Exhibit "A"

Exploration project and work to be performed. The above mentioned quicksilver prospect was discovered and partly developed in the 1880-90s. A small discovery shaft was sunk on the ore, then an upper tunnel was driven in to cut the ore body and some quantity of ore was removed from a narrow vertical stope about 50 ft. in length. To the left of the drift is an old underhand stope, now filled with water, which extends back under a dangerous and overhanging roof for 50 ft. or more further. This stope shows that the orebody has made a turn and widened out to 15-20 ft. The early miners then dropped down the hill and started a lower tunnel directed to under cut the ore found in underhand stope but all work was abandoned when this entry was in about 60 ft. (probably on account of low price of metal) and no further work underground has been done since. It would appear that a considerable part of the ore mined was packed over and treated at reduction plant at the nearby Phoenix mine then owned by the same parties.

As a result of an examination of this property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, the present owner, and others, the following two stage proposal for further development was submitted:

Stage 1. Continue lower tunnel approximately 200 ft. to cross cut probable extension in depth of ore body found in upper workings. This entry should be continued in the same direction as started, to undercut what appears to be good ore found in underhand stope. The last work done at the upper level obviously was in this underhand stope. Any part of ore from this stope not removed from property would probably be on top of dump at portal of upper tunnel. A grab sample of top of this dump showed 23 lbs. Hg. Probable cost of stage 1 development about $6000. Estimated time 60 days. If results of this work are not satisfactory project would terminate.

Stage 2. If sufficient width of good grade ore is encountered in extension of lower tunnel, then drift 100 ft. each way to right and left on the ore and raise 80 ft. to upper level. If this work is successful and an orebody 150'x 80'x20' is developed (an optimum estimate) the Hg values proven would justify installation of a small reduction plant. If results exceed the optimum estimate there would be no question as to installation of plant. If results are below optimum it would then be a matter of judgement, in consultation with Mr. H. C. Miller of the DMA office in San Francisco, as to further procedure.

Exhibit "B"

No facilities, buildings or fixtures to be purchased, installed or erected in stages 1 and 2 of prospecting and development program.

Exhibit "C"

The best and cheapest method of doing the above work for both the government and the operator is by contract if a responsible mining contractor who has the necessary equipment can be obtained. Before a firm bid from a contractor can be had it will be necessary to know if project is to be approved by government. Mining contractors are very busy now and, for such a small job, will not take the time to go into this matter until a

a contract is ready to be let. Would suggest that approval of arrangement between operator and a responsible mining contractor be left to Mr. H. C. Miller of your San Francisco office as best and quickest way to expedite action. If it is not possible to secure responsible contractor and operator undertakes this work, the estimated costs for equipment are as follows:

1st stage

1. Rental 210 ft. compressor @ $200 per month		$400.00
2. Purchase 400 ft. 2" pipe @ .35 per ft.		140.00
3. Rental jackhammer, steel and bits		150.00
4. Tents and camp equipment, purchase		200.00
5. Truck rental @$250 per mo.		500.00
6. Mine car rental and track purchase @80cents ft.		450.00
7. Blacksmith equipment, purchase		100.00
8. Purchase small tools		100.00
9. Powder and misc. expense,		400.00
	Total	2440.00

2nd stage

1. Rental 210' compressor - 3 months		$600.00
2. Purchase 300 ft. 2" pipe		105.00
3. Jackhammer, steel and bits, rental		225.00
4. Truck rental		750.00
5. Mine car rental, purchase track		380.00
6. Lumber		200.00
7. Powder and misc. exp.,	Total	700.00
		2960.00

Exhibit "D" - Labor.

1st stage

1. 2 miners @ $25.00 per day - 60 days		$3000.00
2. Supervisor, 1 man @ $400.00 per month		800.00
	Total	3800.00

2nd stage

1. 2 miners @ $25.00 per day - 90 days		4500.00
2. Supervisor, 1 man @ $400.00 per month		1200.00
	Total	5700.00

Exhibit "E"

There are no existing facilities, buildings, installations or fixtures on the property.

NOTE. The above costs are estimated on the basis of no underground timbering being necessary. In the upper workings ground has stood up for many years but if timbering is necessary the above cost figures will have to be materially increased. The going rate for miners is about $20.00 per day at established properties with good camps. At this remote location and living in tents we may have trouble in keeping good men evanat above figure.

Pages 1 and 2 hereof, together with attached map, are made part of that certain contract known as "Exploration Project Contract" between the United States of America and H. L. Spencer dated the ___ day of _____, 1951.

Re: Red Acres Quicksilver,
Stanislaus Co., Cal.
DMA Docket No. 1163X

Exhibit "A"

Exploration project and work to be performed. The above mentioned quicksilver prospect was discovered and partly developed in the 1880-90s. A small discovery shaft was sunk on the ore, then an upper tunnel was driven in to cut the ore body and some quantity of ore was removed from a narrow vertical stope about 50 ft. in length. To the left of the drift is an old underhand stope, now filled with water, which extends back under a dangerous and overhanging roof for 50 ft. or more further. This stope shows that the orebody has made a turn and widened out to 15-20 ft. The early miners then dropped down the hill and started a lower tunnel directed to under cut the ore found in underhand stope but all work was abandoned when this entry was in about 60 ft. (probably on account of low price of metal) and no further work underground has been done since. It would appear that a considerable part of the ore mined was packed over and treated at reduction plant at the nearby Phoenix mine then owned by the same parties.

As a result of an examination of this property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, the present owner, and others, the following two stage proposal for further development was submitted:

Stage 1. Continue lower tunnel approximately 200 ft. to cross cut probable extension in depth of ore body found in upper workings. This entry should be continued in the same direction as started to undercut what appears to be good ore found in underhand stope. The last work done at the upper level obviously was in this underhand stope. Any part of ore from this stope not removed from property would probably be on top of dump at portal of upper tunnel. A grab sample of top of this dump showed 23 lbs. Hg. Probable cost of stage 1 development about $6000. Estimated time 60 days. If results of this work are not satisfactory project would terminate.

Stage 2. If sufficient width of good grade ore is encountered in extension of lower tunnel, then drift 100 ft. each way to right and left on the ore and raise 80 ft. to upper level. If this work is successful and an orebody 150'x 80'x20' is developed (an optimum estimate) the Hg values proven would justify installation of a small reduction plant. If results exceed the optimum estimate there would be no question as to installation of plant. If results are below optimum it would then be a matter of judgement, in consultation with Mr. R. C. Miller of the DMA office in San Francisco, as to further procedure.

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The best and cheapest method of doing the above work for both the government and the operator is by contract if a responsible mining contractor who has the necessary equipment can be obtained. Before a firm bid from a contractor can be had it will be necessary to know if project is to be approved by government. Mining contractors are very busy now and, for such a small job, will not take the time to go into this matter until a

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2. Purchase 400 ft. 2" pipe @ .35 per ft.		140.00
3. Rental jackhammer, steel and bits		150.00
4. Tents and camp equipment, purchase		200.00
5. Truck rental @$250 per mo.		500.00
6. Mine car rental and track purchase @80cents ft.		450.00
7. Blacksmith equipment, purchase		100.00
8. Purchase small tools		100.00
9. Powder and misc. expense		400.00
	Total	2440.00

2nd stage

1. Rental 210' compressor - 3 months		$600.00
2. Purchase 300 ft. 2" pipe		105.00
3. Jackhammer, steel and bits, rental		225.00
4. Truck rental		750.00
5. Mine car rental, purchase track		380.00
6. Lumber		200.00
7. Powder and misc. exp.		700.00
	Total	2960.00

Exhibit "D" - Labor.

1st stage

1. 2 miners @ $25.00 per day - 60 days		$3000.00
2. Supervisor, 1 man @ $400.00 per month		800.00
	Total	3800.00

2nd stage

1. 2 miners @ $25.00 per day - 90 days		4500.00
2. Supervisor, 1 man @ $400.00 per month		1200.00
	Total	5700.00

Exhibit "E"

There are no existing facilities, buildings, installations or fixtures on the property.

NOTE. The above costs are estimated on the basis of no underground timbering being necessary. In the upper workings ground has stood up for many years but if timbering is necessary the above cost figures will have to be materially increased. The going rate for miners is about $20.00 per day at established properties with good camps. At this remote location and living in tents we may have trouble in keeping good men evenat above figure.

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As a result of an examination of this property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, the present owner, and others, the following two stage proposal for further development was submitted:

Stage 1. Continue lower tunnel approximately 200 ft. to cross cut probable extension in depth of ore body found in upper workings. This entry should be continued in the same direction as started to undercut what appears to be good ore found in underhand stope. The last work done at the upper level obviously was in this underhand stope. Any part of ore from this stope not removed from property would probably be on top of dump at portal of upper tunnel. A grab sample of top of this dump showed 23 lbs. Hg. Probable cost of stage 1 development about $6000. Estimated time 60 days. If results of this work are not satisfactory project would terminate.

Stage 2. If sufficient width of good grade ore is encountered in extension of lower tunnel, then drift 100 ft. each way to right and left on the ore and raise 80 ft. to upper level. If this work is successful and an orebody 150'x 80'x80' is developed (an optimum estimate) the Hg values proven would justify installation of a small reduction plant. If results exceed the optimum estimate there would be no question as to installation of plant. If results are below optimum it would then be a matter of judgement, in consultation with Mr. H. C. Miller of the DMA office in San Francisco, as to further procedure.

Exhibit "B"

No facilities, buildings or fixtures to be purchased, installed or erected in stages 1 and 2 of prospecting and development program.

Exhibit "C"

The best and cheapest method of doing the above work for both the government and the operator is by contract if a responsible mining contractor who has the necessary equipment can be obtained. Before a firm bid from a contractor can be had it will be necessary to know if project is to be approved by government. Mining contractors are very busy now and, for such a small job, will not take the time to go into this matter until a

a contract is ready to be let. Would suggest that approval of arrangement between operator and a responsible mining contractor be left to Mr. H. C. Miller of your San Francisco office as best and quickest way to expedite action. If it is not possible to secure responsible contractor and operators undertakes this work, the estimated costs for equipment are as follows:

1st stage

1. Rental 210 ft. compressor @ $200 per month		$400.00
2. Purchase 400 ft. 2" pipe @ .35 per ft.		140.00
3. Rental jackhammer, steel and bits		150.00
4. Tents and camp equipment, purchase		200.00
5. Truck rental @$250 per mo.		500.00
6. Mine car rental and track purchase @80cents ft.		450.00
7. Blacksmith equipment, purchase		100.00
8. Purchase small tools		100.00
9. Powder and misc. expense, [illegible]		400.00
	Total	$2440.00

2nd stage

1. Rental 210' compressor - 3 months		$600.00
2. Purchase 300 ft. 2" pipe		105.00
3. Jackhammer, steel and bits, rental		225.00
4. Truck rental		750.00
5. Mine car rental, purchase track		380.00
6. Lumber		200.00
7. Powder and misc. exp., [illegible]		700.00
	Total	2960.00

Exhibit "D" - Labor.

1st stage

1. 2 miners @ $25.00 per day - 60 days		$3000.00
2. Supervisor, 1 man @ $400.00 per month		800.00
	Total	3800.00

2nd stage

1. 2 miners @ $25.00 per day - 90 days		4500.00
2. Supervisor, 1 man @ $400.00 per month		1200.00
	Total	5700.00

Exhibit "E"

There are no existing facilities, buildings, installations or fixtures on the property.

NOTE. The above costs are estimated on the basis of no underground timbering being necessary. In the upper workings ground has stood up for many years but if timbering is necessary the above cost figures will have to be materially increased. The going rate for miners is about $30.00 per day at established properties with good camps. At this remote location and living in tents we may have trouble in keeping good men evenat above figure.

Pages 1 and 2 hereof, together with attached map, are made part of that certain contract known as "Exploration Project Contract" between the United States of America and H. L. Spencer dated the ___ day of _____, 1951.

Re: Red Acres Quicksilver,
Stanislaus Co., Cal.
DMA Docket No. 1163X

Exhibit "A"

Exploration project and work to be performed. The above mentioned quicksilver prospect was discovered and partly developed in the 1880-90s. A small discovery shaft was sunk on the ore, then an upper tunnel was driven in to cut the ore body and some quantity of ore was removed from a narrow vertical stope about 50 ft. in length. To the left of the drift is an old underhand stope, now filled with water, which extends back under a dangerous and overhanging roof for 50 ft. or more further. This stope shows that the orebody has made a turn and widened out to 15-20 ft. The early miners then dropped down the hill and started a lower tunnel directed to under cut the ore found in underhand stope but all work was abandoned when this entry was in about 60 ft. (probably on account of low price of metal) and no further work underground has been done since. It would appear that a considerable part of the ore mined was packed over and treated at reduction plant at the nearby Phoenix mine then owned by the same parties.

As a result of an examination of this property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, the present owner, and others, the following two stage proposal for further development was submitted:

Stage 1. Continue lower tunnel approximately 200 ft. to cross cut probable extension in depth of ore body found in upper workings. This entry should be continued in the same direction as started, to undercut what appears to be good ore found in underhand stope. The last work done at the upper level obviously was in this underhand stope. Any part of ore from this stope not removed from property would probably be on top of dump at portal of upper tunnel. A grab sample of top of this dump showed 23 lbs. Hg. Probable cost of stage 1 development about $6000. Estimated time 60 days. If results of this work are not satisfactory project would terminate.

Stage 2. If sufficient width of good grade ore is encountered in extension of lower tunnel, then drift 100 ft. each way to right and left on the ore and raise 80 ft. to upper level. If this work is successful and an orebody 150'x 80'x20' is developed (an optimum estimate) the Hg values proven would justify installation of a small reduction plant. If results exceed the optimum estimate there would be no question as to installation of plant. If results are below optimum it would then be a matter of judgement, in consultation with Mr. H. C. Miller of the DMA office in San Francisco, as to further procedure.

Exhibit "B"

No facilities, buildings or fixtures to be purchased, installed or erected in stages 1 and 2 of prospecting and development program.

Exhibit "C"

The best and cheapest method of doing the above work for both the government and the operator is by contract if a responsible mining contractor who has the necessary equipment can be obtained. Before a firm bid from a contractor can be had it will be necessary to know if project is to be approved by government. Mining contractors are very busy now and, for such a small job, will not take the time to go into this matter until a

a contract is ready to be let. Would suggest that approval of arrangement between operator and a responsible mining contractor be left to Mr. H. C. Miller of your San Francisco office as best and quickest way to expedite action. If it is not possible to secure responsible contractor and operator undertakes this work, the estimated costs for equipment are as follows:

1st stage

1. Rental 210 ft. compressor @ $200 per month		$400.00
2. Purchase 400 ft. 2" pipe @ .35 per ft.		140.00
3. Rental jackhammer, steel and bits		150.00
4. Tents and camp equipment, purchase		200.00
5. Truck rental @$250 per mo.		500.00
6. Mine car rental and track purchase @80cents ft.		450.00
7. Blacksmith equipment, purchase		100.00
8. Purchase small tools		100.00
9. Powder and misc. expense		400.00
	Total	2440.00

2nd stage

1. Rental 210' compressor - 3 months		$600.00
2. Purchase 300 ft. 2" pipe		105.00
3. Jackhammer, steel and bits, rental		225.00
4. Truck rental		750.00
5. Mine car rental, purchase track		380.00
6. Lumber		200.00
7. Powder and misc. exp.	Total	700.00
		2960.00

Exhibit "D" - Labor.

1st stage

1. 2 miners @ $25.00 per day - 60 days		$3000.00
2. Supervisor, 1 man @ $400.00 per month		800.00
	Total	3800.00

2nd stage

1. 2 miners @ $25.00 per day - 90 days		4500.00
2. Supervisor, 1 man @ $400.00 per month		1200.00
	Total	5700.00

Exhibit "E"

There are no existing facilities, buildings, installations or fixtures on the property.

NOTE. The above costs are estimated on the basis of no underground timbering being necessary. In the upper workings ground has stood up for many years but if timbering is necessary the above cost figures will have to be materially increased. The going rate for miners is about $20.00 per day at established properties with good camps. At this remote location and living in tents we may have trouble in keeping good men evenat above figure.

Pages 1 and 2 hereof, together with attached map, are made part of that certain contract known as "Exploration Project Contract" between the United States of America and H. L. Spencer dated the ___ day of _____, 1951.

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Stanislaus Co., Cal.
DMA Docket No. 1163X

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As a result of an examination of this property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, the present owner and others, the following two stage proposal for further development was submitted:

Stage 1. Continue lower tunnel approximately 200 ft. to cross cut probable extension in depth of ore body found in upper workings. This entry should be continued in the same direction as started to undercut what appears to be good ore found in underhand stope. The last work done at the upper level obviously was in this underhand stope. Any part of ore from this stope not removed from property would probably be on top of dump at portal of upper tunnel. A grab sample of top of this dump showed 23 lbs. Hg. Probable cost of stage 1 development about $6000. Estimated time 60 days. If results of this work are not satisfactory project would terminate.

Stage 2. If sufficient width of good grade ore is encountered in extension of lower tunnel, then drift 100 ft. each way to right and left on the ore and raise 80 ft. to upper level. If this work is successful and an orebody 150'x 80'x20' is developed (an optimum estimate) the Hg values proven would justify installation of a small reduction plant. If results exceed the optimum estimate there would be no question as to installation of plant. If results are below optimum it would then be a matter of judgement, in consultation with Mr. H. C. Miller of the DMA office in San Francisco, as to further procedure.

Exhibit "B"

No facilities, buildings or fixtures to be purchased, installed or erected in stages 1 and 2 of prospecting and development program.

Exhibit "C"

The best and cheapest method of doing the above work for both the government and the operator is by contract if a responsible mining contractor who has the necessary equipment can be obtained. Before a firm bid from a contractor can be had it will be necessary to know if project is to be approved by government. Mining contractors are very busy now and, for such a small job, will not take the time to go into this matter until a

a contract is ready to be let. Would suggest that approval of arrangement between operator and a responsible mining contractor be left to Mr. H. C. Miller of your San Francisco office as best and quickest way to expedite action. If it is not possible to secure responsible contractor and operator undertakes this work, the estimated costs for equipment are as follows:

1st stage

1. Rental 210 ft. compressor @ $200 per month		$400.00
2. Purchase 400 ft. 2" pipe @ .35 per ft.		140.00
3. Rental jackhammer, steel and bits		150.00
4. Tents and camp equipment, purchase		200.00
5. Truck rental @$250 per mo.		500.00
6. Mine car rental and track purchase @80cents ft.		450.00
7. Blacksmith equipment, purchase		100.00
8. Purchase small tools		100.00
9. Powder and misc. expense.		400.00
	Total	2440.00

2nd stage

1. Rental 210' compressor - 3 months		$600.00
2. Purchase 300 ft. 2" pipe		105.00
3. Jackhammer, steel and bits, rental		225.00
4. Truck rental		750.00
5. Mine car rental, purchase track		380.00
6. Lumber		200.00
7. Powder and misc. exp.	Total	700.00
		2960.00

Exhibit "D" - Labor.

1st stage

1. 2 miners @ $25.00 per day - 60 days		$3000.00
2. Supervisor, 1 man @ $400.00 per month		800.00
	Total	3800.00

2nd stage

1. 2 miners @ $25.00 per day - 90 days		4500.00
2. Supervisor, 1 man @ $400.00 per month		1200.00
	Total	5700.00

Exhibit "E"

There are no existing facilities, buildings, installations or fixtures on the property.

NOTE. The above costs are estimated on the basis of no underground timbering being necessary. In the upper workings ground has stood up for many years but if timbering is necessary the above cost figures will have to be materially increased. The going rate for miners is about $20.00 per day at established properties with good camps. At this remote location and living in tents we may have trouble in keeping good men evanat above figure.

Pages 1 and 2 hereof, together with attached map, are made part of that certain contract known as "Exploration Project Contract" between the United States of America and H. L. Spencer dated the ___ day of _____, 1951.

1. Individual.

4. Graduate U.S.Naval Academy, served in Navy 10 years, resigned, studied mining engineering and geology at Michigan College of Mines, Superintendent, Crosby Exploration Co., Crosby, Minn. iron mining and exploration, 2 years, engaged in oil exploration and production Oklahoma, Kansas and Texas 20 years, operated Gibson Quicksilver Mine, Colusa Co., Cal. 1941-42.

5. Owner.

6. No liens, claims or encumbrances against property.

8. See letter, Farmers and Merchants Nat. Bank, Los Angeles.

9. In driving cross cut prospect tunnel (stage 1) $1500.00. This should be enough to cover my part of cost. In subsequent drifting along ore body and raising (stage 2) $2250.00. This should be enough to cover my part of cost of stage 2.

10. (a) Section 25, Township 6 South, Range 5 East, Stanislaus Co., California on which is located the Red Acres Quicksilver prospect.
(b) Same.

11. Red Acres Mine was once known as Orestimba Mine, later as the Winegar Prospect.

12. Located 28 miles west of Patterson, Cal., which is on So. Pac. R.R. Good gravel road to within 3 miles. Rest of road rough but passable for prospecting equipment. To install furnace and heavy equipment about 3/4 mile of improved access road would be necessary.

13. Present underground workings make enough water for prospecting. Nearby springs, ½ mile, would have to be developed to provide water for reduction plant. Electric power not available.

14. No buildings or equipment now on property.

15. Ore would be treated in rotary furnace reduction plant to be installed 150 ft. below lower tunnel if sufficient ore is developed to justify.

16. (a) The California Journal of Mines and Geology states, "Phoenix Mines (including Summit, Grayson and Orestimba groups) first produced in the 1870s. Alvinza Hayward purchased property in 1901 and installed a 50 Ton Scott furnace. After 2 years of production, activity ceased and mines were idle until 1915. At that time they were reopened and production continued through 1916. Operations then ceased and the mines have remained idle to date". No record of amount of production is given.

Cinnabar was discovered on the Red Acres (Orestimba) property in these early operations and a shallow shaft was carried down on the ore. (See map) Later the upper tunnel was driven in to intersect orebody which was stoped out for a distance of 50 ft. or more. A

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

Mines 1163 (Page 1)

256

drift was driven to the left at the level and a winze sunk at end of drift. To the left of drift is an underhand stope that was then opened in which ore body widened out to 15-20 ft. This underhand stope extends back parallel to drift under an overhanging roof for 50 ft. or more and is filled with water. The ore body makes a right angle turn from the vertical stope into underhand stope and widens out. This pinching turn may constitute a trap which would retard ascending solutions so that best values would be found below the trap.

The early miners evidently found some good ore in this underhand stope. This was probably the last work they did at that level and the last ore taken out would logically be on top of the dump at upper tunnel. A grab sample of the top of this dump taken on May 1, 1951 showed 23 lbs. Hg per ton. (See Eisenhauer assay May 5, 1951) The 6 lb. assay was from large pieces the size of two fists (no fines) of what appeared to be country rock showing practically no cinnabar to the eye. The early miners were probably handicapped by water accumulation and the difficulty of underhand stoping so they dropped down the hill and started a lower tunnel headed for this underhand stope with the idea of undercutting it. After getting in about 60 ft. the whole operation was abandoned and no work has been done since. From the amount of ore mined underground and the amount on dump, it is evident that the greater amount was removed, probably to Scott furnace at Phoenix mine. Suspension of operations was no doubt due to inadequate price of Hg.

(b) Adobe Mine in Sec. 24 about 2 miles to the northeast was operated from 1884 to 1888, also in 1941-42. No record of production.

(c) Report and map by T. A. Rhodimer enclosed.

17. Mine not in production.

18. (a) The ore is cinnabar, the red sulphide of mercury which contains 86% Hg. It is deposited in the porous phases of the faulted and brecciated fracture zones of the Franciscan shales and sandstones which lie, sharply tilted, up against a large mass of intruded serpentine (altered peridotite)

(b) See Rhodimer map and report.

(c) No estimate of grade or tonnage of ore can be made until further prospecting is completed.

20. The exploration is for mercury ores deposited in fault zone adjacent to a large mass of intruded serpentine.

21. As a result of further examination of the property on May 1, 1951 by Mr. Edgar Bailey of the U. S. Geological Survey, H. L. Spencer, owner of the property and others, the following four stage proposal for further exploration and development work on this property is submitted:

1. Continue lower tunnel 200 Ft. to cross cut probable extension in depth of ore body found in underhand stope above. Cost about $6000., time approximately 60 days.
2. If sufficient width of good grade ore is encountered, drift on ore to right and left for 100 ft. each way and raise 80 ft. to upper level. Cost about $9000., time approximately 90 days.
3. If sufficient ore of commercial grade is blocked out to justify installation of furnace, make application for access road of 3/4

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

miles adequate to move in heavy equipment and furnace. Cost about $3200, time approximately 40 days.
4. Make application for development loan to install rotary furnace with condensers, ore shute, bins, crushers, ½ mile water line and pump, oil and water tanks, bunk house and camp. Rough estimated cost $35,000. Time will depend on availability of material, maybe 4 months.

22. Geological basis. Regional. The California coast range is one of the important quicksilver provinces in the world, by far the most important in this country. Enclosed U. S. G. S. Bulletin 936-D on the Del Puerto Area gives the general geology of the region under discussion. On page 108,9,10 Red Acres is discussed under name of Winegar Prospect. In the envelope in back will be found geological map of Del Puerto area, also, for comparison, a map of the New Almaden district. On a rough brown sheet the Del Puerto map is extended to tie in with Red Acres. Attention is called to the fact that the Del Puerto serpentine mass is fully as extensive as the one in New Almaden area. Since this serpentine mass is the surface evidence of deep seated magmatic intrusion from which come the hot mineralizing solutions that deposit quicksilver, the size and extent of this Del Puerto intrusion is, in itself, important. When prospected more thoroughly, the Del Puerto area may prove to be important.

Local. The old workings on Red Acres prove existence of a small narrow ore body in the upper workings. The underhand stope gives evidence that this ore body has made a turn and widened out. It is recognized that extension of lower tunnel to undercut ore in this lower stope is a pure gamble. No assumption as to width, length or values of this ore shoot below are justified. But, to assume that it will have the same characteristics below as in upper workings above, may be just as much in error as to assume that it will be much wider, longer and richer below. The truth is that no one can possibly know and the only way to find out is to go in with lower tunnel and take a look. It may be well to mention here that some California quicksilver mines have extended to considerable depth. At New Almaden continuous ore bodies were found to the 1600 ft. level and the deepest workings went to 2450 ft. below outcrop. At New Idria the work was carried to 1400 ft. below outcrop.

From a practical standpoint, the early miners probably knew more about this property than we will be able to find out in its present condition. The evidence indicates they thought that in the under hand stope they had just reached the top of the real ore body and that they thought well enough of it to go down the hill and start another entry to under cut it. To continue their work where they left off would appear to be the cheapest and most practical approach.

23. Requirements and costs. First stage.

(a)	2 miners at $30.00 per day - 60 days	3600.00
(b)	Supervisor, 1 man @ $400.00 per month	800.00
(c)	No necessary repairs	
(d)	No construction, will use tents for camp	100.00
(e)	No purchase of equipment	
(f)	Rental of equipment	400.00
(g)	Rental own equipment	700.00
(h)	Cost of material and supplies less than $50 each	400.00
(i)	No cost for power, water, utilities	
	Total	6000.00

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

Requirements and costs, Contd. Second stage.

(a)	2 miners @ 30.00 per day	5400.00
(b)	Supervisor, 1 man @ $400.00 per month	1200.00
(c)	No necessary repairs	
(d)	No construction - will use tents for camp	
(e)	Purchase of equipment, lumber	200.00
(f)	Rent of equipment	600.00
(g)	Rental own equipment	1000.00
(h)	Cost of materials and supplies less than $50. ea.	600.00
(i)	No cost for power, water or utilities	
	Total	$9000.00

24. Time schedule.

First stage	2 months		$6000.00
Second stage	3 "		9000.00
Third stage, Tentative estimate		40 days	3200.00
Fourth stage, "	"	4 months	35000.00

It is understood that third stage would require firm commitment from road contractor. Fourth stage would require more complete and detailed estimate from engineering firm that manufactures and installs mercury furnaces and equipment.

Addenda to section 22.
A successful exploration campaign at Red Acres and development of a paying mine would undoubtedly stimulate further prospecting for quicksilver in the Del Puerto area. On both flanks of the great serpentine mass here present there is five mile long zone of sharply tilted and folded Franciscan beds which might be productive at any point. The reason this area has not been studied more closely is that until recent years it has been difficult of access. This is largely new virgin territory and, with a little encouragement, it might produce important results. The fact that no important quicksilver ore bodies have been developed in Del Puerto is no reason to condemn the district as a whole.

H. L. SPENCER
2050 ASHBOURNE DRIVE
SOUTH PASADENA, CALIF

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

May 31, 1951

Memorandum

Re: Docket DMA-1163

To: Mr. Weston Bourret

From: Mr. Edwin T. McKnight

Subject: DMA-1163 application of H. L. Spencer for exploration loan of $15,000 (in 2 stages) for exploration of Red Acres quicksilver mine, Stanislaus County, California.

This application was anticipated by Edgar Bailey, commodity geologist of the Geological Survey for quicksilver, and we have a memo dated May 8 from him concerning the project.

Bailey believes that the best that proposed crosscutting from the lower tunnel and drifting on the vein could prove up would be about 1000 tons of 10 lb. ore containing roughly 130 flasks of quicksilver worth about $26,000 as of May 8. In addition, the dumps contain a few hundred tons of furnace grade ore. The maximum inferred tonnage in the underground block assumes the full stope ~~width~~ length (40 feet) exposed on the upper level, full extent of the ore shoot to the new level, 65 feet below the workings of the upper level, and a thickness of 5 feet, which may be liberal.

There is a widening of the stope width in the underhand stope on the upper level, which underhand stope is now filled with water so that a geological examination cannot be made. Bailey believes that this widening is due to a roll in the minor fault which localizes the ore and that the thickness below this roll will approximate that in the stope above the roll. This upper thickness, which can be examined in accessible workings, is only a few inches, and confined to the main fracture zone, although a mining thickness of 3-5 feet has to be used. Applicant, on the other hand, assumes that the stope widening in the underhand stope represents an increase in the ore thickness to 15 or 20 feet that will persist downward, so that he expects to cut a much thicker and richer ore body in the proposed crosscut.

Applicant states that if exploration is successful, he will apply for a development loan of $35,000 to produce from the ore found by the exploration.

In view of Bailey's familiarity with the geology of quicksilver deposits, it is recommended that his interpretation be accepted and that the loan be denied on the grounds that the ore likely to be found will be inadequate to repay the Government its share of the cost of exploration; pointing out to the applicant that the final stage in the financing for production from any ore discovered cannot be made by the DMA as quicksilver is not in short enough supply to justify advancing public funds to increase its output.

Edwin T. McKnight

Edwin T. McKnight
Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
102 Old Mint Building
San Francisco 3, California

May 8, 1951

Mr. E. T. McKnight
Mineral Deposits Branch
U. S. Geological Survey
Washington 25, D. C.

Dear Mac:

Enclosed is a short report on the Red Acres quicksilver mine, formerly known as the Winegar prospect and the Orestimba mine in part.

The report results from a brief visit to the property with the owner and an interested mining engineer who contacted Ward for some assistance in drawing up a request for an exploration loan. After examining the property I did my best to discourage them from applying, but as I think this failed I am sending in the report for your guidance in case an application comes in.

Briefly, they propose to extend a lower adit 225 feet to strike the downward extension of an ore body mined above. The cost is likely to be about $5,000 and I believe the chances are good the exploration proposed will find ore. However, the tonnage will be small, and little of the ore is rich enough to retort profitably. Because of the remoteness of the mine, and the lack of water, the installation of a furnace will be costly, and I do not see how the anticipated quantity of ore will justify such an installation. If ore is found by the exploration the owner anticipates requesting Government aid to help in financing the installation of a camp and furnace. Thus the granting of an exploration request even for a small sum is likely later to lead to a situation wherein the Government financed a successful exploration project, but will not feel justified in granting additional funds to finance equipment necessary to treat it.

The ore occurs as a very narrow zone along a shear or fault of small displacement. Unfortunately the fault has a favorable roll which may widen the ore width in the lowest part of the ore body, and this area is flooded and cannot be examined. The owner strongly believes the ore will continue to widen downward, whereas I regard the roll as a small local irregularity and feel it will not persist. Even if it does, the cinnabar is so closely related to the shear that I would expect it to follow the rolls without appreciable widening of the mineable ore.

Whether or not the request is granted is, I feel, largely a matter of policy. The initial request will probably be small and the amount of

1. ~~McBaghurst~~
2. McKnight

420f

ore that may result from the exploration likewise will be small. I do not feel the mine has any potential for becoming a large producer, and expected production will be inconsequential insofar as the national picture is concerned. On the other hand, if it is accepted policy to assist the small mine operators, and we are to judge solely on the basis of whether or not ore will be found by the proposed exploration, the proposal to extend the lower adit has merit.

Sincerely yours,

Edgar

Edgar H. Bailey

Enclosure (1)

Red Acres quicksilver mine
(formerly Winegar prospect and Orestimba mine)
Stanislaus Co., California

May 1, 1951

The Red Acres quicksilver mine was visited on May 1, 1951 by E. H. Bailey and R. F. Johnson accompanied by Mr. H. L. Spencer, the owner, and Victor L. Zimmerhakl, a young mining engineer interested in developing the mine. The purpose of the visit was to advise the owner and potential operator as to whether or not their proposal to extend the lower adit to the ore zone had sufficient merit to be considered as a government participation exploration project under the DMA. The property had previously been examined in 1940 by Survey geologists, and it is briefly described in U. S. Geological Survey Bull. 936-D on page 109.

The property is in sec. 25, T. 6 S., R. 5 E. in the central part of the Mt. Boardman quadrangle. It is most easily reached from the center of town in Patterson by the following route:

	Mileage
Leave town on Del Puerto Rd.	0.0
Turn right onto Sperry Ave.	0.5
Follow main road up Del Puerto Canyon	
Turn left from main road and cross creek	23.3
Turn right at fork	27.1
Turn right along ridge	27.6
Follow up very steep road to saddle and turn left	28.2 est.
Park in canyon at end of road	29.0 est.

Several locked gates must be passed. The owner of the Gerber Ranch, shown on the west edge of the Mt. Boardman quadrangle, has some of the keys; others are presumably held by the State Division of Forestry and possibly can be obtained at the Stanislaus County Road Camp in Del Puerto Canyon.

The property is now idle, and no buildings or reduction equipment have ever been constructed there. The principle workings are 200 feet above the road in a branch of Orestimba Creek, and if sufficient ore can be developed the owner proposes establishing a camp and erecting a furnace in a small flat by the creek. When visited the creek was dry at this point, but according to Mr. Spencer, this is the first time it has dried up in many years. Because of the remoteness of the property and the steepness of the roads, the erection of a camp and a reduction plant would be exceptionally costly.

The Red Acres quicksilver mine has no recorded production, but possibly a little ore has been packed elsewhere for retorting. The workings, as shown on the accompanying sketch map, consists of a lower adit 55 feet long, an upper adit penetrating the hill 130 feet and connected to a drift about 90 feet long, and a shaft 84 feet above the upper adit. A narrow stope extends down from the shaft and apparently once connected with a stope that lies above the drift from the upper adit but now is partly blocked by caving. The stope length in the drift is about 30 feet, and an extension of the drift 10 feet higher, exposes some cinnabar for an additional 20 feet. The extent of the sublevel stope could not be determined as it was flooded, but it is believed to have comparable dimensions.

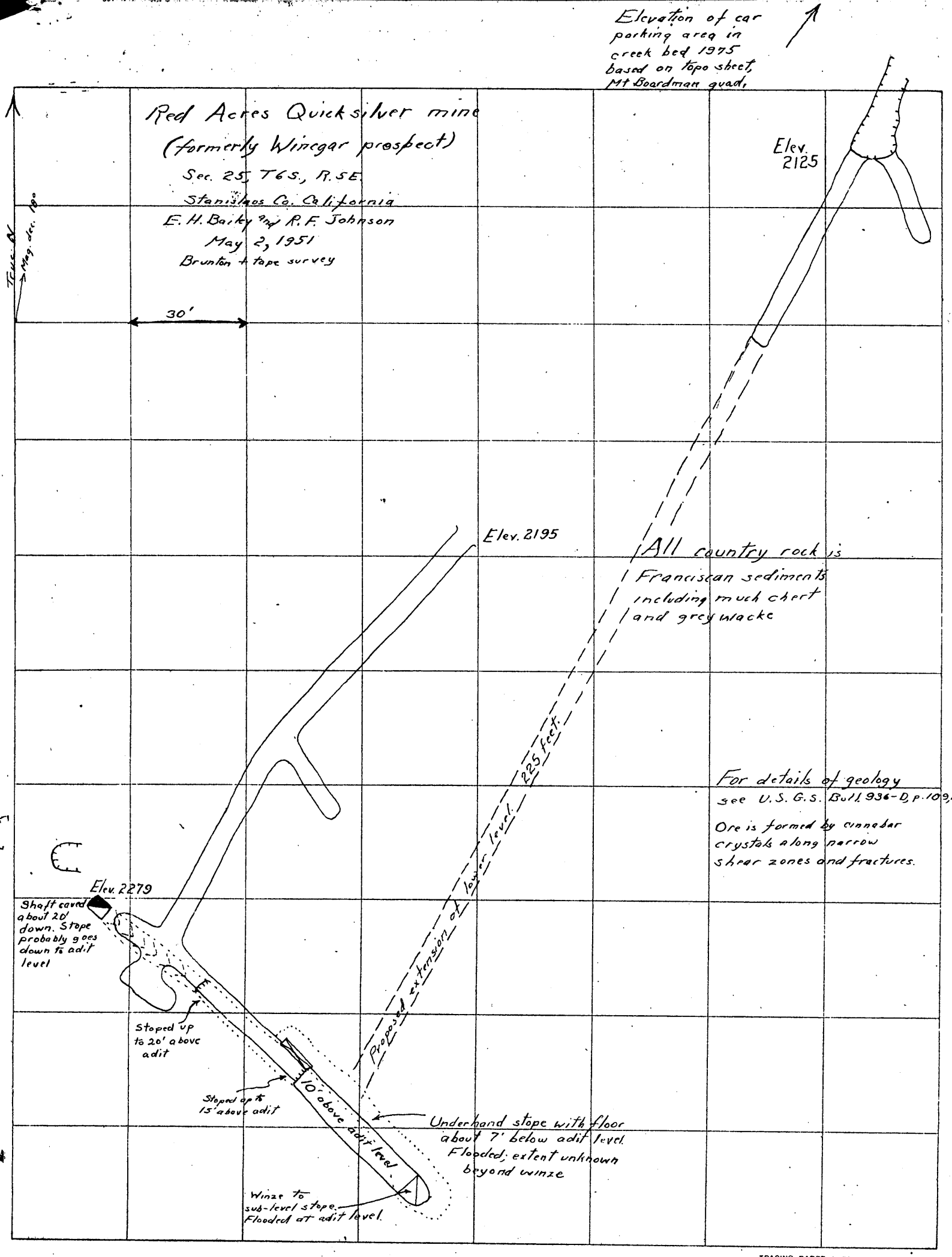
Cinnabar occurs as small crystals along fractures in chert, in somewhat argillized greywacke, and to a lesser extent in shale. The principle ore zone is a northwesterly trending shear zone that appears to have had little movement along it as it dies out in the Western part of the upper adit. The ore is richest over a width of a few inches, and it is doubtful if the wall rocks a foot from the main fracture contain more than traces of cinnabar. The narrow zone along the fractures

probably is retort grade ore containing over 20 pounds of quicksilver to the ton, but the rock that must be removed to mine in even the narrow 3-5 foot stopes probably will be so diluted that only locally will it contain 5 pounds of quicksilver to the ton.

The owner proposes to extend the lower adit 225 feet to intersect the ore body 70 feet below the upper level. The ore persisted from the shaft to a few feet below the upper level, and there is no reason to suppose it will not continue to the depth of the lower adit. However, if the known ore shoot persists with dimensions as above it will form a block of ore 40x5x65 feet, equivalent to about 1,000 tons. The overall grade will probably not exceed 10 pounds to the ton at the most; thus, the block can be estimated to contain no more than 10,000 pounds or roughly 130 flasks of quicksilver. With present prices this is worth about $26,000 and the cost of the proposed exploration is estimated by the owner at about $5,000. In addition to this ore, the dumps by the shaft and by the portal of the upper adit contain a few hundred tons of furnace grade ore.

The proposed exploration has some merit, and the writers believe the chances of developing some ore by this means are good. However, the cost of recovering the quicksilver from the ore will be high, and may well exceed its value. Only a small part of the ore will be of retort grade, if the body continues downward with the same character it had above. The owners contemplate installing a furnace, but the expectable tonnage is so small that this seems to be a risky venture.

Furthermore, because of the remoteness of the mine, the extreme steepness of the access road, and the problem of water supply, the installation of even a small furnace and condensation plant will be costly, and probably will amount to more than the value of the mercury contained in the extension of the ore shoot between the upper level and the proposed extension of the lower level.



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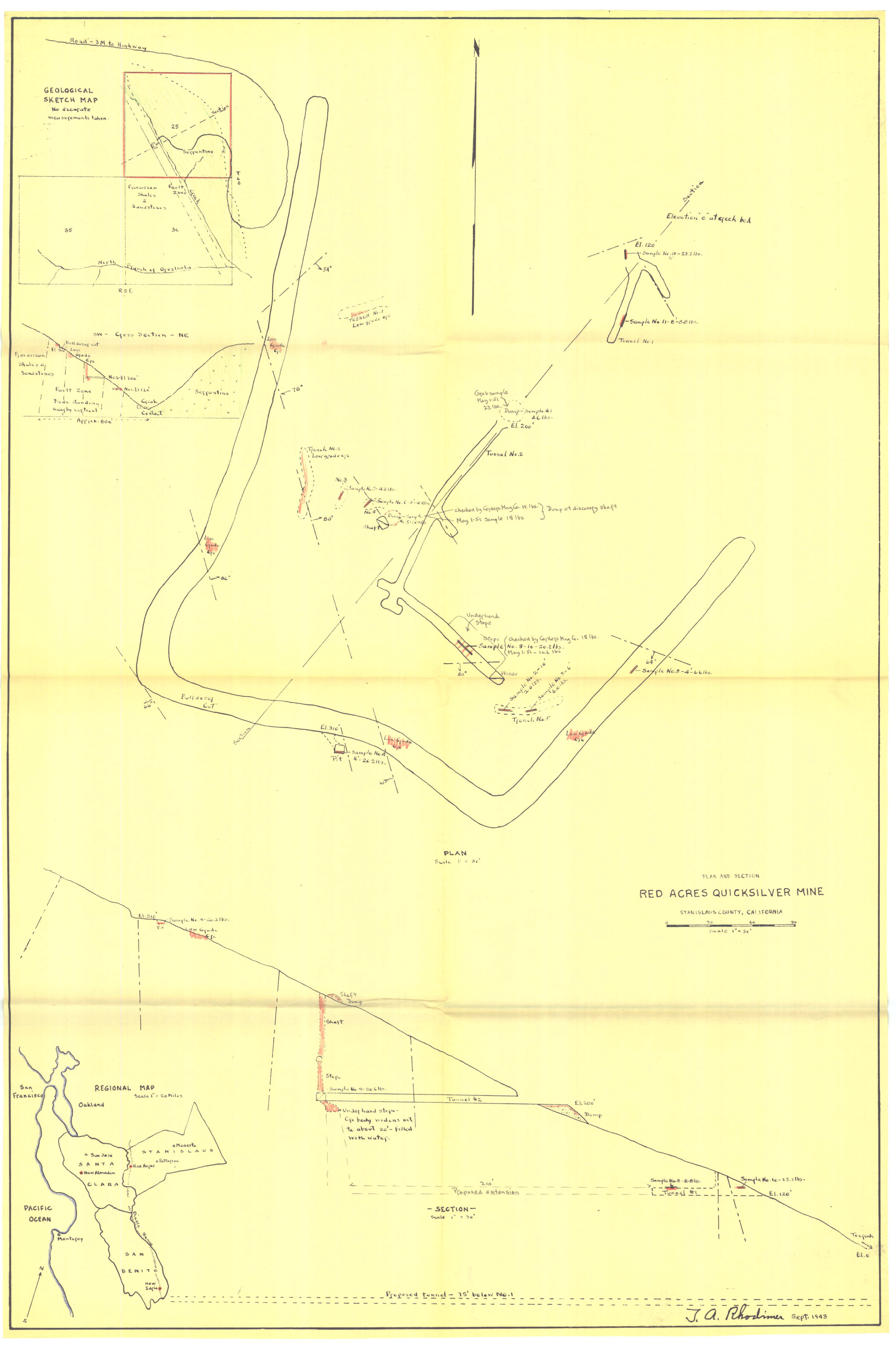
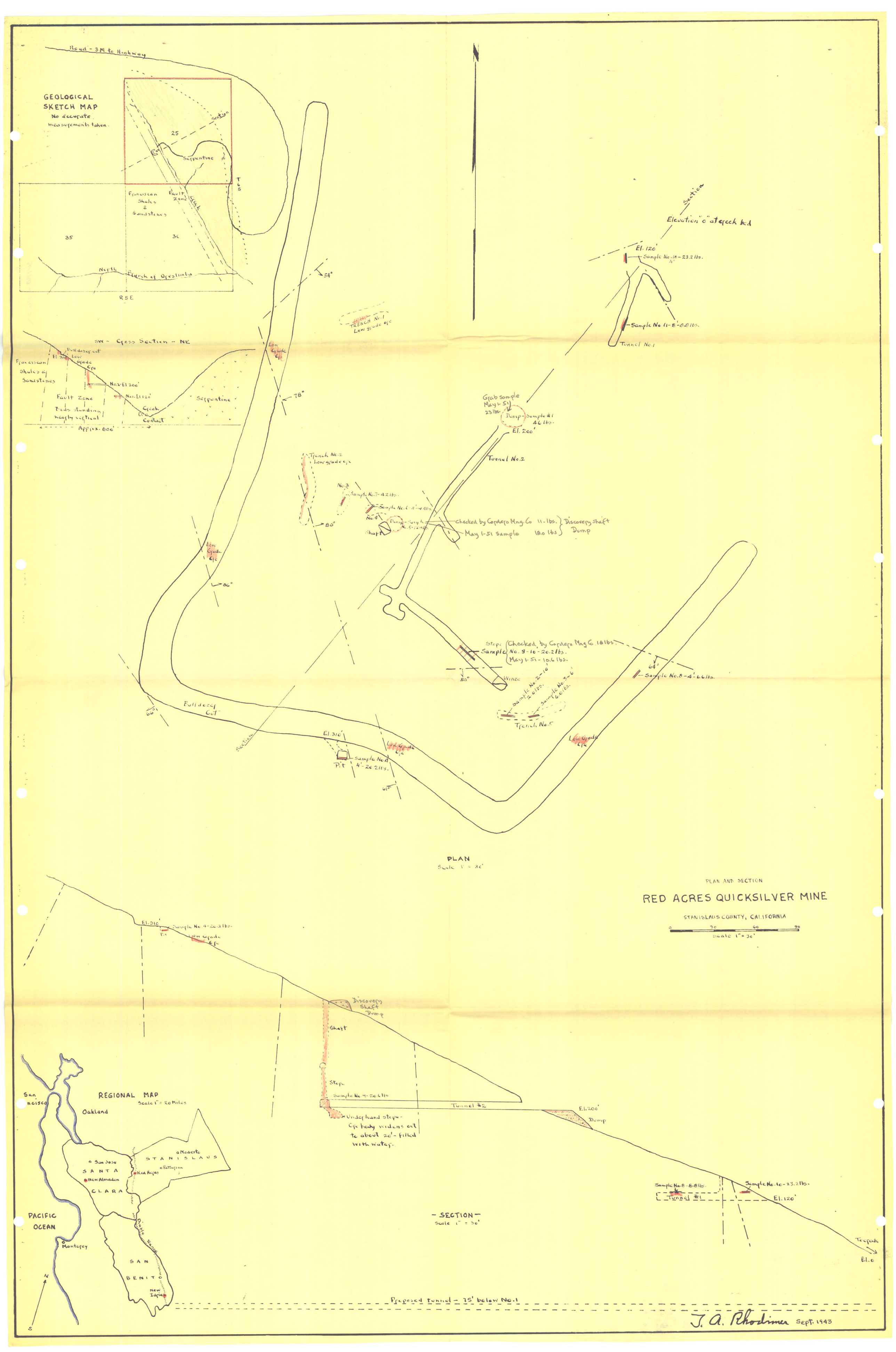
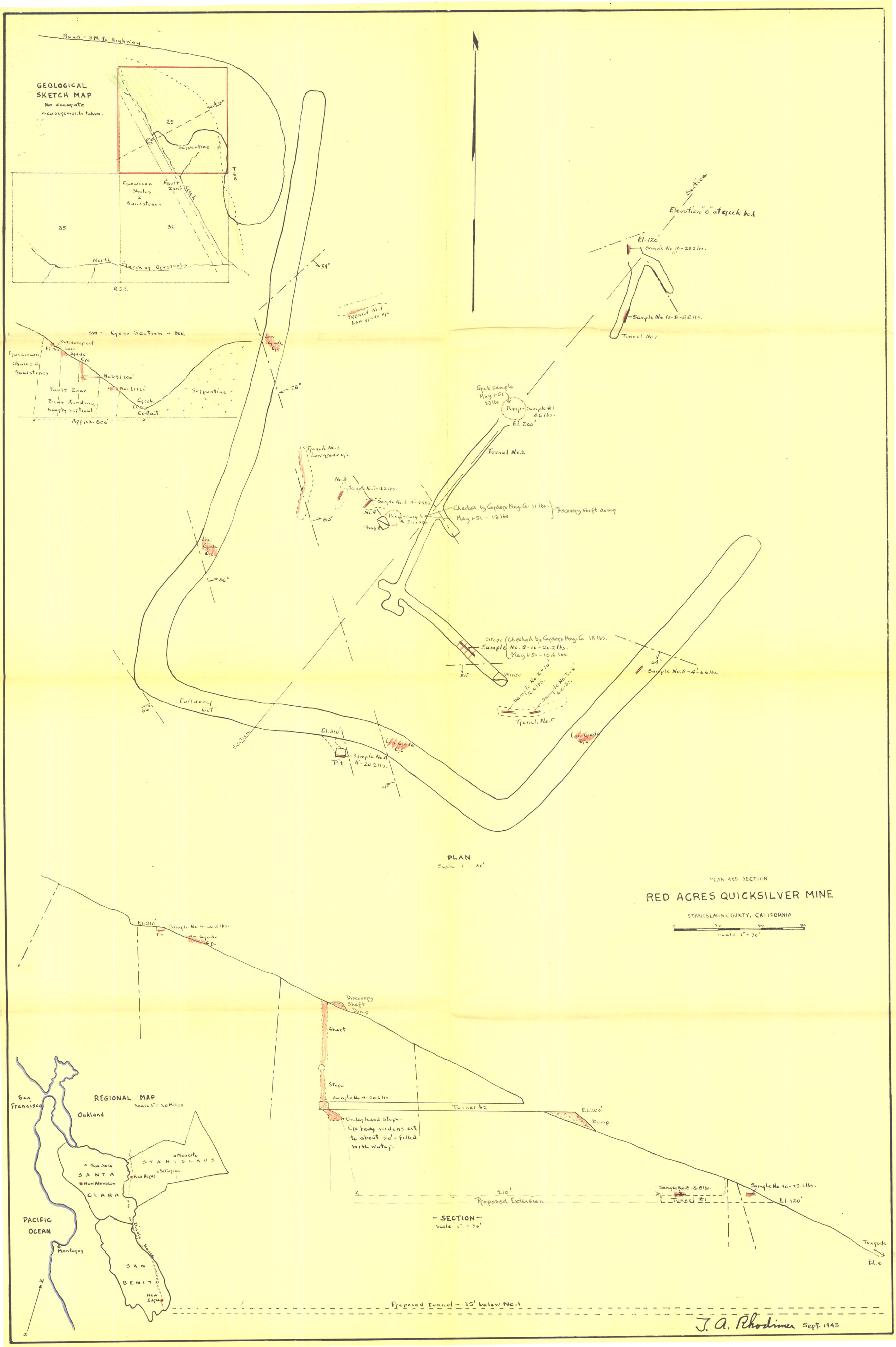

Road - 3M to Highway
GEOLOGICAL SKETCH MAP
No accurate measurements taken.
25
Section
Serpentine
T 6 S
Franciscan Shales & Sandstones
Fault Zone
Creek
35
36
North Branch of Orestimba
R 5 E.
54°
TRENCH No.1 Low grade ore
SW - Cross Section - NE
Bulldozer cut
El 310'
Low Grade Ore
Franciscan Shales & Sandstones
No.2-El 200'
No.1-El 120'
Fault Zone
Beds standing nearly vertical
Creek
Contact
Serpentine
Approx. 800'
Low Grade Ore
78°
Elevation "0" at creek bed
El. 120'
Sample No.10-23.2 lbs.
Sample No 11-8'-8.8 lbs.
Tunnel No.1
Grab sample May 1-51 23 lbs.
Dump - Sample #1 46 lbs.
El. 200'
Tunnel No.2
Trench No.2 Low grade ore
No.3
Sample No.7-4.2 lbs.
Sample No.6-4'-4.9 lbs.
No.4
Dump - Sample No.5-12.4 lbs.
Shaft
80°
checked by Cordero Mng Co. 18 lbs.
May 1-51 sample 18 lbs.
Dump at discovery shaft
Low Grade Ore
86°
Underhand Stope
Stope
Sample
checked by Cordero Mng Co. 18 lbs.
No. 9-10'-20.2 lbs.
May 1-51 - 10.6 lbs
50°
Winze
64°
Sample No.8-4'-6.6 lbs.
Sample No.2-10' 2.6 lbs.
Sample No.3-6' 6.0 lbs.
Trench No.5
66°
Bulldozer Cut
Section
El. 310'
Pit
Sample No.4 4'-20.2 lbs.
Low Grade Ore
61°
Low Grade Ore
PLAN
Scale 1" = 30'
PLAN AND SECTION
RED ACRES QUICKSILVER MINE
STANISLAUS COUNTY, CALIFORNIA
0 30 60 90
Scale 1" = 30'
El. 310'
Sample No.4-20.2 lbs.
Pit
Low Grade Ore
Shaft Dump
Shaft
Stope
Sample No.4-20.6 lbs.
Tunnel #2
Underhand stope - Ore body widens out to about 20' - filled with water.
El. 200'
Dump
Sample No.8-8.8 lbs.
Sample No.10-23.2 lbs.
Tunnel #1
El. 120'
210'
Proposed extension
- SECTION -
Scale 1" = 30'
Tocpock
El. 0
Proposed tunnel - 75' below No.1
REGIONAL MAP
Scale 1" = 20 Miles
San Francisco
Oakland
Modesto
STANISLAUS
San Jose
SANTA CLARA
Patterson
Red Acres
New Almaden
PACIFIC OCEAN
Monterey
Diablo Range
SAN BENITO
New Idria
N
S
J. A. Rhodimer Sept. 1943


Road - 3 M to Highway
GEOLOGICAL SKETCH MAP
No accurate measurements taken.
25
Section
Serpentine
T 6 S
Franciscan Shales & Sandstones
Fault Zone
Creek
35
36
North Fork of Orestimba
R 5 E
54°
TRENCH No. 1
Low grade cpc
SW - Cross Section - NE
Bulldozer cut
El. 310'
Low Grade Cpc
Franciscan Shales & Sandstones
No. 2 - El. 200'
No. 1 - El. 112'
Fault Zone
Beds standing nearly vertical
Creek
Cpc
Contact
Serpentine
Appox. 800'
Low Grade Cpc
78°
Trench No. 2
Low grade cpc
No. 3
Sample No. 7 - 4.2 lbs.
Sample No. 6 - 4' - 4.4 lbs.
No. 4
Dump - Sample No. 5 - 12.4 lbs.
Shaft
80°
Low Grade Cpc
86°
Grab sample May 1-51 23 lbs.
Dump - Sample #1 4.6 lbs.
El. 200'
Tunnel No. 2
Checked by Cordero Mng. Co 11. lbs.
May 1-51 sample 18.0 lbs
Discovery Shaft Dump
Stope Sample
Checked by Cordero Mng Co. 18 lbs.
No. 9 - 10 - 20.2 lbs.
May 1-51 - 10.6 lbs.
50°
Winze
64°
Sample No. 8 - 4' - 6.6 lbs.
Sample No. 2 - 10' 2.0 lbs.
Sample No. 3 - 6' 6.0 lbs.
Trench No. 5
Bulldozer Cut
66°
Section
El. 310'
Low Grade Cpc
Sample No. 4 4' - 20.2 lbs.
Pit
61°
Low Grade Cpc
Section
Elevation "0" at creek bed
El. 120'
Sample No. 10 - 23.2 lbs. 4'
Sample No. 11 - 8' - 8.8 lbs.
Tunnel No. 1
PLAN
Scale 1" = 30'
PLAN AND SECTION
RED ACRES QUICKSILVER MINE
STANISLAUS COUNTY, CALIFORNIA
0 30 60 90
Scale 1" = 30'
El. 310'
Pit
Sample No. 4 - 20.2 lbs.
Low Grade Cpc
Discovery Shaft Dump
Shaft
Stope
Sample No. 4 - 20.4 lbs.
Tunnel #2
Underhand stope - Cpc body widens out to about 20' - filled with water.
El. 200'
Dump
Sample No. 8 - 8.8 lbs.
Tunnel #1
Sample No. 10 - 23.2 lbs.
El. 120'
Teepees
El. 0
- SECTION -
Scale 1" = 30'
Proposed tunnel - 15' below No. 1
REGIONAL MAP
Scale 1" = 20 Miles
San Francisco
Oakland
San Jose
SANTA CLARA
New Almaden
Red Acres
Modesto
STANISLAUS
Patterson
Diablo Range
SAN BENITO
New Idria
Monterey
PACIFIC OCEAN
N
S
J. A. Rhodimer Sept. 1943


Road - 3M to Highway
GEOLOGICAL SKETCH MAP
No accurate measurements taken.
Section
25
Serpentine
T 6 S
Franciscan Shales & Sandstones
Fault Zone
Creek
35
36
North Fork of Orestimba
R 5 E.
54°
TRENCH No. 1
Low grade ore
SW - Cross Section - NE
Bulldozer cut
El. 310'
Low Grade Ore
Franciscan Shales & Sandstones
No. 2 - El. 200'
No. 1 - El. 120'
Fault Zone
Beds standing nearly vertical
Creek
Ore
Contact
Serpentine
Approx. 800'
78°
Elevation "0" at creek bed
El. 120'
Sample No. 10 - 23.2 lbs.
Sample No. 11 - 8' - 8.8 lbs.
Tunnel No. 1
Grab sample May 1-51 23 lbs
Dump - Sample #1 4.6 lbs.
El. 200'
Tunnel No. 2
Trench No. 2 Low grade ore
No. 3
Sample No. 7 - 4.2 lbs.
Sample No. 6 - 4' - 4.4 lbs.
No. 4
Dump - Sample No. 5 - 12.4 lbs.
Shaft
80°
Checked by Copacopa Mng. Co. 11 lbs.
May 1-51 - 18 lbs.
Discovery shaft dump.
Low Grade Ore
86°
Stope (Checked by Copacopa Mng. Co. 18 lbs.
Sample No. 9 - 10' - 20.2 lbs.
May 1-51 - 10.6 lbs.
50°
Winze
Sample No. 2 - 10' - 2.6 lbs.
Sample No. 3 - 6' - 6.0 lbs.
Trench No. 5
64°
Sample No. 8 - 4' - 6.6 lbs.
Bulldozer Cut
66°
Section
El. 310'
Sample No. 4 4' - 20.2 lbs.
Pit
Low Grade Ore
61°
Low Grade Ore
PLAN
Scale 1" = 30'
PLAN AND SECTION
RED ACRES QUICKSILVER MINE
STANISLAUS COUNTY, CALIFORNIA
0 30 60 90
Scale 1" = 30'
El. 310'
Sample No. 4 - 20.2 lbs.
Pit
Low Grade Ore
Discovery Shaft Dump
Shaft
Stope
Sample No. 4 - 20.6 lbs.
Tunnel #2
Underhand stope - Ore body widens out to about 20' - filled with water.
El. 200'
Dump
Sample No. 8 - 8.8 lbs.
Sample No. 10 - 23.2 lbs.
210'
Proposed Extension
Tunnel #1
El. 120'
- SECTION -
Scale 1" = 30'
Tenpeck
El. 0
Proposed tunnel - 15' below No. 1
REGIONAL MAP
Scale 1" = 20 Miles
San Francisco
Oakland
Modesto
STANISLAUS
San Jose
SANTA CLARA
Patterson
Red Acres
New Almaden
PACIFIC OCEAN
Monterey
Diablo Range
SAN BENITO
New Idria
N
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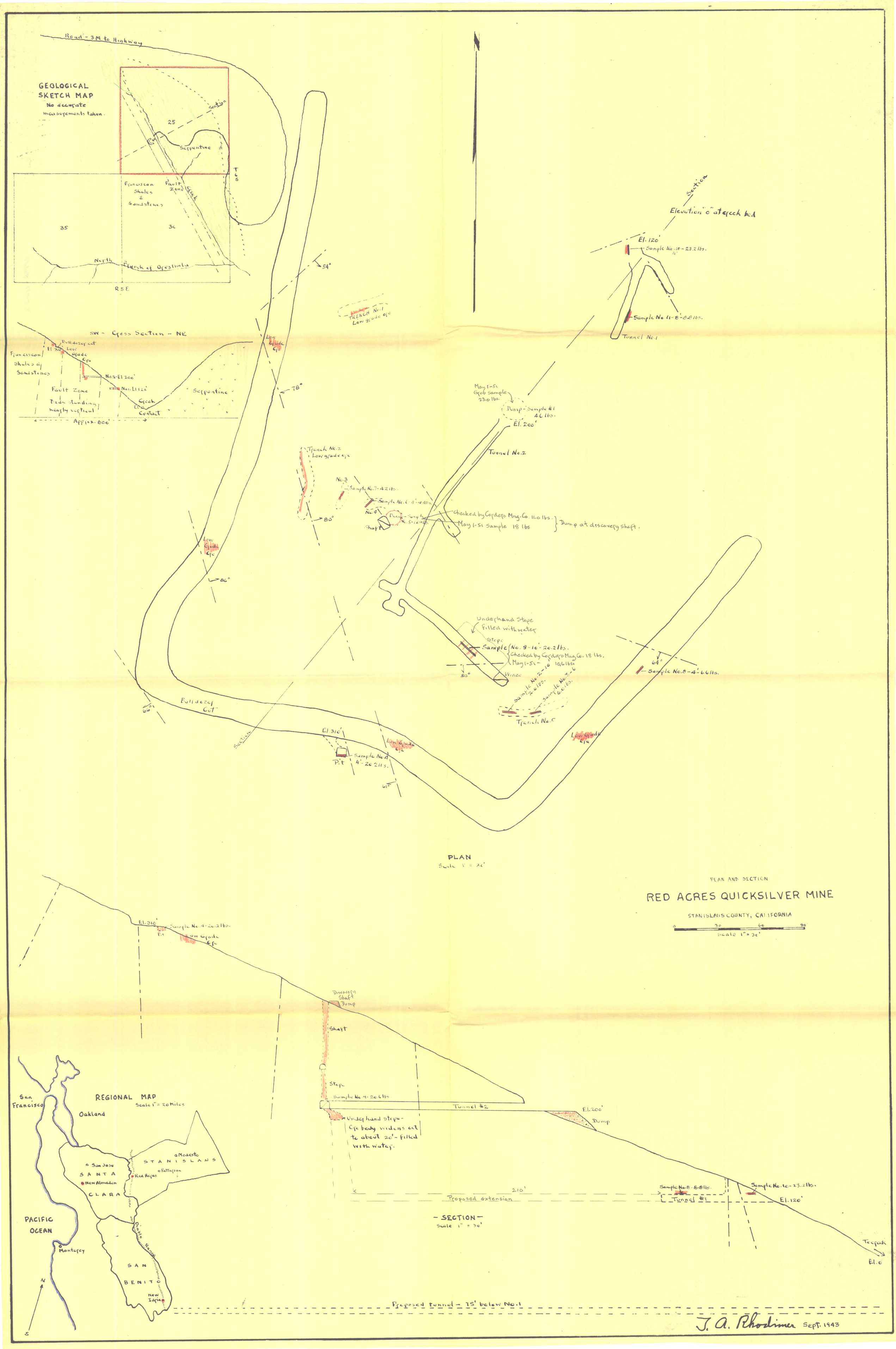
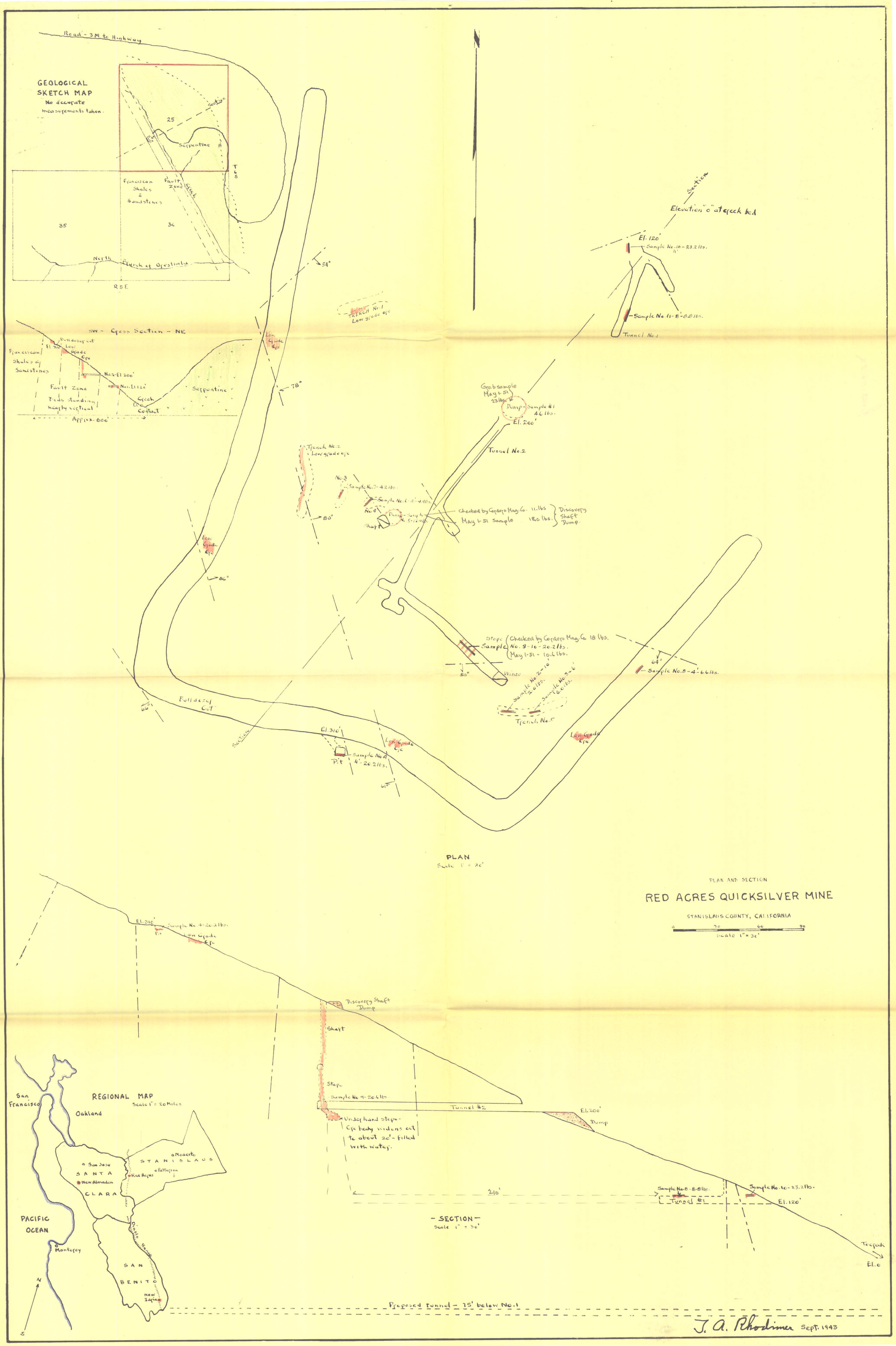

Road - 3M to Highway
GEOLOGICAL SKETCH MAP
No accurate measurements taken.
25
Serpentine
Section
T 6 S
Franciscan Shales & Sandstones
Fault Zone
Creek
35
36
North Branch of Orestimba
R 5 E
54°
TRENCH No. 1 Low grade c/c
SW - Cross Section - NE
Bulldozer cut
El 310'
Low Grade Cr
Franciscan Shales & Sandstones
No 2 - El 200'
No 1 - El 120'
Fault Zone
Beds standing nearly vertical
Creek
Contact
Serpentine
Approx. 800'
Low Grade Cr
78°
Low Grade Cr
86°
66°
Bulldozer Cut
Section
El. 310'
Pit
Sample No 4 4' - 20.2 lbs.
Low Grade Cr
61°
Elevation "0" at creek bed
Section
El. 120'
Sample No. 10 - 23.2 lbs.
Sample No 11 - 8' - 8.8 lbs.
Tunnel No. 1
May 1-51 Grab sample 23.0 lbs.
Dump - Sample #1 4.6 lbs.
El. 200'
Tunnel No. 2
Trench No. 2 Low grade c/c
No. 3
Sample No. 7 - 4.2 lbs.
Sample No. 6 - 4' - 4.4 lbs.
No. 4
Dump - Sample No. 5 - 12.4 lbs.
Shaft
Checked by Cordero Mng. Co. 11.0 lbs.
May 1-51 Sample 18 lbs
Dump at discovery shaft.
80°
Underhand Stope filled with water
Stope
Sample No. 9 - 10' - 20.2 lbs.
Checked by Cordero Mng Co. 18 lbs.
May 1-51 - 10.6 lbs.
Winze
50°
Sample No. 2 - 10' 2.6 lbs.
Sample No. 3 - 6' 6.0 lbs.
Trench No. 5
64°
Sample No. 8 - 4' - 6.6 lbs.
Low Grade c/c
PLAN
Scale 1" = 30'
PLAN AND SECTION
RED ACRES QUICKSILVER MINE
STANISLAUS COUNTY, CALIFORNIA
0 30 60 90
Scale 1" = 30'
El. 310'
Pit
Sample No. 4 - 20.2 lbs.
Low Grade c/c
Discovery Shaft Dump
Shaft
Stope
Sample No. 4 - 20.6 lbs
Tunnel #2
El. 200'
Dump
Underhand stope - Ore body widens out to about 20' - filled with water.
210'
Proposed extension
Sample No. 8 - 8.8 lbs.
Sample No. 10 - 23.2 lbs.
Tunnel #1
El. 120'
- SECTION -
Scale 1" = 30'
Tecpack
El. 0
Proposed tunnel - 15' below No. 1
REGIONAL MAP
Scale 1" = 20 Miles
San Francisco
Oakland
San Jose
SANTA CLARA
New Almaden
Red Acres
Modesto
STANISLAUS
Patterson
PACIFIC OCEAN
Monterey
Diablo Range
SAN BENITO
New Idria
N
S
J. A. Rhodimer Sept. 1943


Road - 3M to Highway
GEOLOGICAL SKETCH MAP
No accurate measurements taken.
25
Section
Serpentine
T 6 S
Franciscan Shales & Sandstones
Fault Zone
Creek
35
36
North Branch of Orestimba
R 5 E.
54°
SW - Cross Section - NE
Bulldozer cut
El 310'
Low Grade Cre
Franciscan Shales & Sandstones
No.2 - El 200'
No.1 - El 120'
Fault Zone
Beds standing nearly vertical
Creek
Ecc Contact
Serpentine
Approx. 800'
Trench No.1
Low Grade Cre
78°
Trench No.2
Low grade cre
No.3
Sample No.7 - 4.2 lbs.
Sample No.6 - 4' - 4.4 lbs.
No.4
Dump - Sample No.5 - 12.4 lbs.
Shaft
80°
Checked by Cordero Mng. Co. 11. lbs
May 1-51 Sample 18.0 lbs.
Discovery Shaft Dump.
Low Grade Cre
86°
Grab sample May 1-51 23 lbs.
Dump - Sample #1 4.6 lbs.
El. 200'
Tunnel No.2
Stope Sample
Checked by Cordero Mng. Co. 18 lbs.
No. 9 - 10 - 20.2 lbs.
May 1-51 - 10.6 lbs.
50°
Winze
Sample No.2 - 10' 20.6 lbs.
Sample No.3 - 6' 16.0 lbs.
Trench No.5
64°
Sample No.8 - 4' - 6.6 lbs.
Bulldozer Cut
66°
Section
El. 310'
Pit
Sample No.4 4' - 20.2 lbs.
Low Grade Cre
61°
Low Grade Cre
PLAN
Scale 1" = 30'
PLAN AND SECTION
RED ACRES QUICKSILVER MINE
STANISLAUS COUNTY, CALIFORNIA
0 30 60 90
Scale 1" = 30'
El. 310'
Sample No 4 - 20.2 lbs.
Pit
Low Grade Cre
Discovery Shaft Dump
Shaft
Stope
Sample No 4 - 20.6 lbs.
Tunnel #2
Underhand stope - Ore body widens out to about 20' - filled with water.
El. 200'
Dump
210'
Sample No.8 - 8.8 lbs.
Tunnel #1
Sample No.10 - 23.2 lbs.
El. 120'
Tresjack
El. 0
- SECTION -
Scale 1" = 30'
Proposed tunnel - 15' below No.1
REGIONAL MAP
Scale 1" = 20 Miles
San Francisco
Oakland
San Jose
SANTA CLARA
New Almaden
Red Acres
Modesto
STANISLAUS
Patterson
PACIFIC OCEAN
Monterey
Diablo Range
SAN BENITO
New Idria
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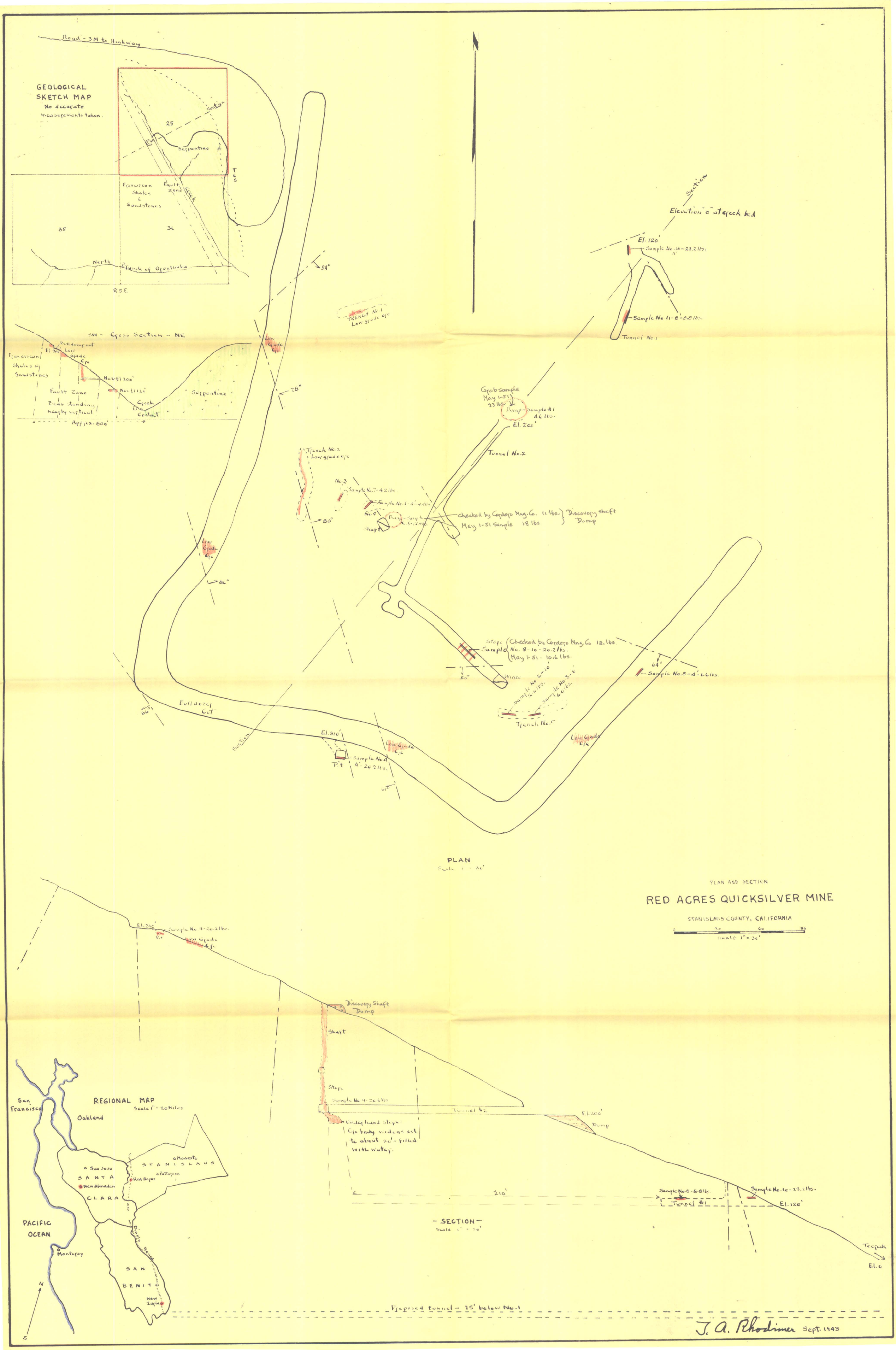
Road - 3M to Highway
GEOLOGICAL SKETCH MAP
No accurate measurements taken.
25
Serpentine
Franciscan Shales & Sandstones
Fault Zone
Creek
35
36
North Branch of Orestimba
R 5 E.
T 6 S
54°
SW - Cross Section - NE
Bulldozer cut
El 310'
Low Grade Cpa
Franciscan Shales & Sandstones
No 2 - El 200'
No 1. El 120'
Fault Zone
Beds standing nearly vertical
Creek
Contact
Serpentine
Approx. 800'
TRENCH No. 1
Low grade c/p
78°
Trench No. 2
Low grade c/p
No. 3
Sample No. 7 - 4.2 lbs.
Sample No. 6 - 4' - 4.4 lbs.
No. 4
Dump - Sample No. 5 - 12.4 lbs.
Shaft
80°
Low Grade Cpa
86°
Checked by Cordero Mng. Co. 11 lbs.
May 1-51 Sample 18 lbs
Discovery shaft Dump
Stope Sample
Checked by Cordero Mng. Co 18. lbs.
No. 9 - 10' - 20.2 lbs.
May 1-51 - 10.6 lbs.
Winze
60°
Sample No 2 - 10' 2.6 lbs.
Sample No 3 - 6' 6.0 lbs.
Trench No. 5
64°
Sample No. 8 - 4' - 6.6 lbs.
Low Grade Cpa
Bulldozer Cut
66°
Section
El. 310'
Pit
Sample No 4 4' - 20.2 lbs.
Low Grade Cpa
61°
Section
Elevation "0" at creek bed
El. 120'
Sample No. 10 - 23.2 lbs.
Sample No 11 - 8' - 8.8 lbs.
Tunnel No. 1
Grab sample May 1-51 23 lbs.
Dump - Sample #1 46 lbs.
El. 200'
Tunnel No. 2
PLAN
Scale 1" = 30'
El. 310'
Sample No. 4 - 20.2 lbs.
Pit
Low Grade Cpa
Discovery Shaft Dump
Shaft
Stope
Sample No. 4 - 20.6 lbs
Tunnel #2
Underhand stope - Cpa body widens out to about 20' - filled with water.
El. 200'
Dump
210'
Sample No. 8 - 8.8 lbs.
Sample No. 10 - 23.2 lbs.
Tunnel #1
El. 120'
- SECTION -
Scale 1" = 30'
Tesjack
El. 0
Proposed tunnel - 75' below No. 1
REGIONAL MAP
Scale 1" = 20 Miles
San Francisco
Oakland
San Jose
SANTA CLARA
New Almaden
Red Acres
Modesto
STANISLAUS
Patterson
PACIFIC OCEAN
Monterey
Diablo Range
SAN BENITO
New Idria
N
S
PLAN AND SECTION
RED ACRES QUICKSILVER MINE
STANISLAUS COUNTY, CALIFORNIA
0 30 60 90
Scale 1" = 30'
J. A. Rhodimer Sept. 1943