DMEA Form 9
Rev. 6/57

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE Idm-E NO. _____ DMEA NO. 4851

Application
- [x] Denied
- [ ] Withdrawn

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

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

Folder No. 1:

Left Side

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

Right Side

- [ ] Project summary (final)
- [ ] Work Comoleted analysis (final)

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

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

Additional Folders:

Left Side

Folders No. _____: Reports

- [ ] Analysis of Semi-Annual Inspection Reports
- [ ] Project Summary (Interim) by DMEA Engineers

Right Side

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

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

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty material

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

1605 Evans Avenue
Reno, Nevada

October 14, 1957

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Acting Executive Officer, DMEA Field Team,
Region II

Subject: Loan Application (Mercury)
Jasper Newton Durham
Merchrome No. 2-7, inclusive.
Santa Barbara County, California

Enclosed are three sets of MF-103, Application for Aid forms, relative to above subject. The fourth set has been retained in our files.

Roscoe M. Smith

Roscoe M. Smith,
Acting Executive Officer, Region II

Attachments

OFFICIAL FILE COPY
DMEA
RECEIVED OCT 16 1957
DATE | INITIALS | COMM
10/16 | WSM | 400

Form MF–103
Revised Feb. 1957

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Budget Bureau No. 42–R1035.3
Approval expires June 30, 1958

RECEIVED OCT 16 D.M.E.A.

APPLICATION FOR AID IN AN EXPLORATION PROJECT

PURSUANT TO DMEA ORDER I, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

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

JASPER NEWTON DURHAM
GENERAL DELIVERY
SOLVANG, CALIFORNIA

APPLICANT NOT TO USE THIS BLOCK

Docket Number: DMEA-4851
Date Received: 10/16/57
Government Participation %:
Region: II
Division Code: 400

BUSINESS ORGANIZATION (Check one)

- Individual [X]
- Corporation [ ]
- Partnership [ ]
- Other (Specify) [ ]

State in which firm is organized:

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

Name	Address	Title
NONE		

Mineral(s) for which you wish to explore: MERCURY

Estimated Cost of Project: $ 10,144.20

LOCATION OF PROPERTY

Name	County	State
MERCHROME NO. 2-NO. 7 INCLUSIVE	Santa Barbara,	Calif.

GENERAL INSTRUCTIONS

Before filling out this application, please read DMEA Order–I, Amended, "Government Aid in Defense Exploration Projects." To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit four copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 1, existing mine workings and geology in item 2, and the proposed exploration project in item 4. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 2(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest DMEA Field Office.*

CERTIFICATION

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

October 8, 1957
Dated

Jasper Newton Durham
BY (Signature)
JASPER NEWTON DURHAM
Individual
Title

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

INFORMATION REQUIRED WITH THIS APPLICATION

1. *Applicant's Property Rights:*

(a) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all land adjacent to the proposed project area which you own or control. Describe any part of the project land or workings which should not be subject to Government lien for royalty payments. If the land consists of unpatented claims, state the book and page number for each recorded location notice, including amended locations, and the place where recorded (courthouse, recorder's office, county, and state).

(b) State all the names by which you know the property.

(c) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise. If you are not the owner, submit with this application one exact copy of the lease, contract, or other document (with address of owner) under which you control the property.

(d) Describe all liens, mortgages, or other encumbrances on the property.

2. *Physical Description:*

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

(b) State your interest, if any, in operations stated in 2*(a)*.

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

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

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

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

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

3. *Accessibility of Project:*

(a) To aid DMEA representatives who may be required to examine the property, state the name and address of the person who will meet the DMEA representative; give directions for reaching the property; and describe accessibility of the property including the mine workings.

(b) Name the shipping and supply points and places where employees reside and state the distances between them and the property.

4. *The Exploration Project:*

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

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

(c) In the event that an exploration contract with DMEA is executed, how soon will the work start and how many months will be required to complete it? State your anticipated average daily or monthly rate of progress for each type of work.

5. *Experience:*

State your operating experience and background with relation to your ability to carry out this exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of Costs:*

Furnish detailed estimates of the costs *for each item of the work proposed in 4(a)* under the headings listed below with a total for each heading and the estimated total cost of the project. Costs for any work to be performed by an independent contractor should be shown separately under category *(a)* below. Costs for any work that is not to be performed by an independent contractor should be given in detail under categories *(b)* through *(g)*.

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

(b) Personal services. For necessary supervision, engineering and geological services, and labor, include an itemized schedule of numbers, classes, rates of wages, salaries or fees, and periods of employment. State whether these technicians and employees are available.

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

(d) Operating equipment. List items of operating equipment to be used giving specifications and indicating how each item is to be acquired – i.e., rented, purchased, or provided by the applicant. If it is rented or purchased, state the estimated rental or purchase price. If it is to be furnished by the applicant, give its present fair market value.

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

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

(g) Miscellaneous. For the operating equipment listed in 6*(d)*, describe the type and estimate the cost of repairs and maintenance expected during project operations. Do not repeat initial repairs listed in 6*(e)*. Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories.

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

7. *(a)* State whether you are prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation stated in Sec. 7 of DMEA Order–I, Amended.

(b) Explain to what extent you propose to furnish your share of the costs by providing money, by use of equipment owned by you, or otherwise.

* * * * *

INT.-DUP. SEC., WASH., D.C. 15539

J. N. Durham
General Delivery
Solvang, Calif.

1. (a) Project land consists of six unpatented lode claims in in SE¼ and SW¼, Section 3 T7N R29W, Santa Barbara County, California.

Name:	Book:	Page:
Merchrome No. 2	1449	93
Merchrome No. 3	1449	95
Merchrome No. 4	1449	97
Merchrome No. 5	1449	99
Merchrome No. 6	1449	101
Merchrome No. 7	1449	103

Recorded in office of County Recorder, Santa Barbara, California.

1. (b) Merchrome No. 2 - No. 7 inclusive.

1. (c) Sole owner of lode location rights.

1. (d) None.

2. (a) Existing mining or exploration workings by former operators are labeled on sketch and consist of following:

A1 is an adit in shale with an estimated length of 100 feet; entrance caved.

A2 is an adit in shale with an estimated length of 50 feet; entrance caved.

A3 is an adit in carbonate-silica rock, approximately 10 feet in length.

A4 is an adit in carbonate-silica rock, approximately 10 feet in length.

A5 is an adit in shale, estimate 15 feet in length; entrance caved.

T1 is a trench approximately 4 ft. x 4 ft.

T2 is a trench approximately 2 ft. x 2 ft.

T3 is a trench approximately 6 ft. x 6 ft.

2. (a) Cont.

Aerial tram cables about 1000 feet in length.

Current exploration work performed by undersigned include road building, trenching, rock examination and sampling and core drill holes DD-1 -- DD-9 incl. DD-1 = 19 ft. at 40°. DD-2 = 24 ft. at 45°. DD-3 = 8 ft. at 60°. DD-4 = 18 ft. at 30°. DD-5 = 10 ft. at 30°. Angles are approximate. DD-6 -- DD-9 inc. were in shale to benefit two tunnel sites, as shown on sketch and total 135 feet.

Production facilities consist of road and water from Cachuma Creek.

2. (b) 100 % interest.

2. (c) None.

2. (d) None.

2. (e) An ultra-basic intrusive of approximate Jurassic age hydrothermally altered to serpentine, locally altered to carbonate-silica rock, forming a dike with strike Northwesterly-Southeasterly and steep Easterly dip of 70° plus. Easterly-Westerly cross faulting appear to localize ore. The less resistant shales have eroded from the East face of dike leaving a sheer exposure from 50-100 ft. vertically. The cinnabar occurs in near vertical veins, finely disseminated as well as fracture plane coatings. The ore zone appears to be 8-10 ft. off the shale contact, particularly where manganese is an associate.

2. (f) A selected piece of clean ore from locality indicated on sketch assayed 0.95% mercury. DD-1, DD-2 and DD-4 yielded cores of apparent ore greade. The numerous cinnabar outcrops as indicated on sketch.

2. (g) None.

3. (a) Have a camp on property. Property is located in Cachuma Mining District, Santa Barbara County, California. Approximately one-half mile South and on the West-side of canyon from the Red Rock Mine. From U. S. Highway 101 turn East at Buellton on Calif. Highway 150, proceed thru Solvang, Santa Ynez. Two miles east of Santa Ynez there is a junction with Armour Rd. Proceed east on Armour Rd. past Rancho Piocha, Rancho Felicia, Hidden River Ranch, continuing on Forest-County Road past Cachuma Forest Camp. The distance Armour Rd. junction - Cachuma Forest Camp is about fifteen miles. The turn-off from Forest-County Road to property is on West-side of road, about six-tenths of a mile north of Cachuma

J. N. Durham
General Delivery
Solvang, Calif.

3. (a) Cont.

Forest Camp. Camp is visible from Forest-County Road, less than one hundred yards on the West.

Property is accessible in part by road, the remainder on foot.

3. (b)

Solvang, Calif.	-----	21	miles.
Santa Maria, Calif.	-----	49	"
Santa Barbara, Calif.	----	46	"
Los Angeles, Calif.	-----	143	"

4. (a) Plan to cross-cut dike by utilizing adit site marked A2 on sketch. Estimate 125 ft. of 5 ft. x 7 ft. cross-cut. From cross-cut drift Southerly on dike 75 ft. of 5 ft. x 7 ft. drift, and Northerly 150 ft. of 5 ft. x 7 ft. drift. Cross-cutt to penetrate dike approximately 80 ft. below DD-3 -- DD-4. Total 350 ft. of 5 ft. x 7 ft. tunnel.

4. (b) None.

4. (c) Work to start within one month. Seven months required for completion at 50 ft. per month.

5. Eight months at silver-lead mine in Colo. Three and one-half years prospecting, developing and mining uranium in Utah. Eighteen months exploring subject property. Plan to hire experienced miner to assist in proposed project.

6. (a) None.

6. (b) 2 miners at $1.86/hr. 22 days/month for 7 months $5728.80
Personnel available.

6. (c)

Powder	----------	$ 600.00
Caps & fuze	----------	96.00
Carbide bits	----------	280.00
Gas & oil	----------	220.00
200 ft. 2 in. air line	-----	50.00
300 ft. water line	-------	41.40
35 ft. 1 in. drill steel	---	35.00
8# sledge hammer	----------	8.00
2 shovels	----------	10.00
1 hand saw	----------	10.00
Timber	----------	125.00
Spikes & nails	----------	25.00
Socket wrenches	----------	20.00
Ventilation pipe	----------	45.00
500 ft. mine track	--------	200.00
Mine car	---------	25.00
2 picks	---------	10.00
Total	.....	$1800.40

J. N. Durham
General Delivery
Solvang, Calif.

6. (d) Rental - purchase:

1 125 CFM air compressor
1 45# Jackhammer w/jackleg
2 Starter steels
100 ft. air hose
1 Slusher
Estimate $300.00/Mo. for 7 months $2100.00

To be provided by Applicant:

1 1955 Jeep w/winch	-----	$1000.00
1 Gas-driven water pump	-----	80.00
1 31# Jackhammer w/ 20 ft. drill steel and 10 bits	-----	75.00
1 Utility trailer	-----	25.00
Total.....		($1180.00)

6. (e) None.

6. (f)

1 8' x 10' umbrella tent for tool Shed	--------	$45.00
1 10 ' x 12' Tarp	--------	20.00
Construct portal	--------	50.00
Construct slusher ramp	--------	100.00
Total.....		$ 215.00

6. (g)

Machine work	----	$ 25.00
Welding	----	25.00
Replacement parts	----	50.00
Accounting, workmens' compensation, employees' liability insurance, and payroll taxes	----	200.00
Total.....		$ 300.00

GRAND TOTAL..... $10,144.20

7. (a) Yes.

7. (b) Labor and Equipment -- 75%
Money -- 25%

FORM A-8

REPORT OF ASSAY

ABBOT A. HANKS, INC.

ASSAYERS, CHEMISTS, ENGINEERS
624 SACRAMENTO STREET
SAN FRANCISCO.

March 6, 1957

DEPOSITED BY J. N. Durham
General Delivery
Solvang, California

SAMPLE OF ORE

Labty. No.	Mark	GOLD, per ton of 2,000 lbs.		SILVER, per ton of 2,000 lbs.		Percentages
		Troy Ounces	Value @ $35.00 oz.	Troy Ounces	Value @	
					$	MERCURY
11047						0.95 %

bob

ABBOT A. HANKS, INC.
MARTIN P. QUIST

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3-7	Chapman	400
3-7	Martin	400
3/12	Selfridge	130
3/12	Lamb	130
3/12	Kiilsgaard	130
"	Johnson	110
"	Butterworth	108
		270

MAR 12 1958

Mr. Jasper Newton Durham
General Delivery
Solvang, California

Re: Docket No. DMEA 4851 - Mercury
Merchrome No. 2, et al., claims
Santa Barbara County, California

Dear Mr. Durham:

Your application for exploration assistance and other data available to us in Washington concerning the referenced property have been reviewed.

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

Careful study of all our information, although noting the occurrence of mercury mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Exploration program and for bringing this property to our attention.

Sincerely yours,

R. D. Mondorf (for)

Administrator

TLCHAPMAN/dlm 3-7-58
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
3-10	Chapman	400
3-10	Martin	400
		100
		110

March 10, 1958

MEMORANDUM

To: Administrator, DMEA

From: Division of Iron and Ferro-Alloys, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $10,144.20
Docket No. DMEA 4851 - Mercury
Jasper Newton Durham
Merchrome No. 2, et al., claims
Santa Barbara County, California

A denial of the subject application for exploration assistance is recommended by this Division based on the following information.

The above-noted property was the subject of a request dated October 8, 1957, for exploration assistance at an estimated cost of $10,144.20 for 350 feet of drifting and crosscutting. The property was examined by B.H. Sheahan, Bureau of Mines, and R. H. Campbell, Geological Survey, on November 20 and 21, 1957, accompanied by Mr. Durham.

Applicant: Mr. Jasper Newton Durham
General Delivery
Solvang, California

Property Ownership: The Applicant is the owner of six unpatented lode mining claims, located in the Cachuma Mining District, Santa Barbara County, California, and recorded as follows:

Claim Name	Book No.	Page No.
Merchrome No. 2	1449	93
Merchrome No. 3	1449	95
Merchrome No. 4	1449	97
Merchrome No. 5	1449	99
Merchrome No. 6	1449	101
Merchrome No. 7	1449	103

Geology: The sedimentary rocks of the area are thin bedded shale, siltstone and sandstone, of Jurassic age, which have been folded, faulted and intruded by sill like bodies of dunitic serpentine. Locally parts of the dunitic bodies have been altered to silica-carbonate rock.

The mineral deposits at the Merchrome claims are silica-carbonate rock and thin discontinuous lenses of chromite-bearing serpentine. The cinnabar occurs chiefly as very fine-grained crystals disseminated in silica-carbonate rocks. The occurrences are irregular, but may be oriented

along individual bands and fractures.

Chromite occurs as disseminated fine to coarse crystals in silica-carbonate rocks as well as in massive pods in vein-like lenses in serpentine.

Development:

Work on the property consists of two adits, 10 feet in length, and three adits, caved at the portals, with estimated lengths of 15, 50 and 100 feet. Nine diamond drill holes from 8 to 65 feet in depth found no core of ore grade.

Ore Values and Tonnage:

No ore reserves can be calculated from the work on the property. Samples taken indicate little possibility of finding any minable ore bodies, although within the area there may be some good lenses.

Of the nine diamond drill holes, only cores from 1, 2 and 4 were sampled and assayed, the best assay being 1.6 pounds of mercury per ton.

Three picked specimen samples showed 16.2, 2.1 and 5.0 pounds of mercury per ton. A cut sample of massive chromite after concentration assayed 48.4 percent Cr_2O_3.

History and Production:

The earliest records of mining in the District cover production from Red Rock mine near the property. This mine produced mercury ores over a number of years starting in 1867. The Merchrome claims were apparently prospected over the same period, but there is no record of production.

Applicant's Proposal:

The Applicant proposed to explore the southern end of the main silica-carbonate body by 350 feet of crosscutting and drifting. The examining team does not believe that this area has any better possibilities than any other part of the property. They proposed drilling 4 to 7 diamond drill holes at a 30 degree dip to explore a larger area, but the Applicant was not agreeable.

Comments and Conclusions:

The Examining Team believe there may be some hidden lenses of ore in the area, but do not think any significant ore bodies will be found to warrant the necessary expenditures for exploration, and recommends denial. The Field Team

concurs in this recommendation.

The Commodity Divisions of the Geological Survey, and the Bureau of Mines, concur in the recommendations and conclusions of the Field Team.

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

TLCHAPMAN/dlm 3-10-58
cc to: Code 400
Admr. R. File
Oper. Comm.

IN REPLY REFER TO:

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

Memorandum

February 20, 1958

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of Field Examination Report, DMEA 4851 (mercury), J. N. Durham, Merchrome claims, Santa Barbara County, California.

The examining team report that the applicant's proposed plan of exploration does not fit well with the geological conditions on the property.

Cinnabar is found on the property in a silica-carbonate host rock. Chromite is found in serpentine associated with the silica-carbonate rock. The applicant wishes to explore for hidden ore bodies by driving 350 linear feet of drifts and crosscuts.

Sampling by the examiners afforded assays as high as 16.2 lbs. Hg/ton and a heavy media, magnetically scalped, concentrate, that ran 48.24 percent Cr_2O_3. Material with those grades would be marketable at present prices. The examining team point out, however, that the samples were selected and the material represented by them amounted to only a few tens of tons at most.

The inspecting team indicate that a revised program of core drilling would explore much more ground than the applicant's proposal, and would have some chance for success. The applicant, however, does not seem to want to alter his plans. I agree that the adits and crosscuts would have small chance for success. Under the conditions, then, there seems to be no recourse but to deny the application, as recommended by the Field Team.

W. P. Williams

W. P. Williams

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DMEA
RECEIVED FEB 27 1958
DATE
CODE
2/21
WSM
220
400

DMEA
RECEIVED FEB 20 1958

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

2/20 C 220
WSM 400

February 19, 1958

Memorandum

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

From: Assistant Chief, Branch of Base Metals

Subject: Review of Field Team examination report, Docket No. DMEA 4851 (mercury), Jasper Newton Durham, Merchrome No. 2, et al claims, Santa Barbara County, California. $10,144.20.

The applicant proposed to explore a small part of a silica-carbonate body for mercury mineralization by 350 feet of crosscutting and drifting at an estimated total cost of $10,144.20.

Examination of the property revealed that areas weakly mineralized with cinnabar are distributed throughout the silica-carbonate body; yet, they are small, irregularly shaped, and generally below ore grade.

The examiners suggest that the exploration could be accomplished more effectively by drilling the property. However, they conclude that geologic evidence fails to indicate a promising exploration target and recommend that the application for aid be denied.

I concur with this recommendation.

J. W. Pennington

cc: Division of Minerals
Branch of Base Metals
Thor Kiilsgaard, U.S.G.S.
F. D. Lamb
F I L E S

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
1605 Evans Avenue
Reno, Nevada

February 11, 1958

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 13 1958

DATE		CODE
2/13	C	220
2/19	JHB	130
2-19	C	220
	WSM	400

Memorandum

To: Operating Committee, DMEA, Interior Building
Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4851 (Mercury)
Jasper Newton Durham
Merchrome No. 2, et al. Claims
Santa Barbara County, California
(Your memorandum, October 28, 1957)

Enclosed are three copies of a field examination report by B. H. Sheahan, Bureau of Mines, and R. H. Campbell Geological Survey.

Roscoe Smith and I concur in the recommendation that the application for exploration assistance be denied.

ON SITE EXAM

S. Ricker

Attachments ____

Reviewed by
DMEA OPERATING COMMITTEE
2-19-58
(date)

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 13 1958
DATE | INITIALS | CODE
2/19 | 2HB | 220
220

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

APPLICATION REPORT

DMEA-4851 (Mercury)
Mr. J. N. Durham
Merchrome claims
Santa Barbara County, California

by

B. H. Sheahan
U. S. Bureau of Mines

R. H. Campbell
U. S. Geological Survey

February 10, 1958

Reviewed by
DMEA OPERATING COMMITTEE
2-19-58
(date)

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2 . . . . . District geologic map

3 . . . . . Geologic map of claims area

4 . . . . . Detailed geologic sketches

INTRODUCTION

Mr. Jasper Newton Durham, General Delivery, Solvang, California, applied to the Defense Minerals Exploration Administration, docket DMEA-4851, for Government assistance in a $10,144.20 program to explore for mercury on the Merchrome No. 2 - No. 7, inclusive, claims, Cachuma mining district, Santa Barbara County, California.

The application was received October 16, 1957. A field examination was requested by the Operating Committee and was made by B. H. Sheahan, U. S. Bureau of Mines, and R. H. Campbell, U. S. Geological Survey, on November 20 and 21, 1957, accompanied by Mr. Durham.

The examination consisted of inspecting and mapping surface exposures, logging, splitting, and sampling diamond drill core, and discussions with the applicant.

CONCLUSIONS AND RECOMMENDATIONS

The mineral deposits at the Merchrome claims consist of cinnabar disseminated in silica-carbonate rock, and massive chromite in thin lenticular pods in lenses of serpentine included in the silica-carbonate rock body.

Although areas weakly mineralized with cinnabar are sporadically distributed throughout the entire silica-carbonate body; they are small, irregularly shaped, and generally below ore grade. A hidden ore body might be inferred, but there is little geologic evidence to indicate its most probable position in the silica-carbonate body.

The applicant proposed to explore a small part of the silica-carbonate body near its southern end by 350 feet of crosscutting and drifting. Although a few weakly mineralized areas are more closely spaced there than elsewhere, there is no geologic evidence to suggest that it contains the most promising exploration target. We recommend that the application be denied.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The claims are 19.1 miles by road northeast of Solvang, California, at an altitude of 2,500 to 3,000 feet in the San Rafael Mountains, and within the Cachuma mining district, Los Padres National Forest, in the SE. 1/4 and SW. 1/4 of sec. 3, T. 7 N., R. 29 W., S.B.B.&M., Santa Barbara County, California (fig. 1).

The property usually can be reached all year with a passenger car. A four-wheel-drive vehicle is needed for travel on about one mile of mine trails; or the prospect pits can be reached by a short walk.

Road Log

	Miles	Remarks
Solvang, California (start)	0.0	Travel east on Santa Inez paved road.
Intersection State Highway 150	05.0	Travel straight ahead on paved road.
Left turn	06.6	Travel east and north on paved road.
Rancho Riocha	07.0	Travel northeast on paved Happy Canyon road.
Intersection	08.9	Travel straight ahead on paved road.
Rancho Felicia	09.6	Travel easterly on paved road.
End of pavement	13.8	Travel northeasterly on gravel road--grades ± 8 percent.
Cachuma Public Camp Grounds	18.1	Travel northerly on gravel road.
J. N. Durham's camp, near road, elev: 2,500 feet	19.1	Trail to camp 0.2 mile.

Climate:	Rainy season from December to May.
Labor:	Scarce--wage scale: $1.86 per hour.
Water:	Creek at property.
Power:	No electric power available.
Supplies:	Santa Barbara, California (46 miles).
Mail:	U. S. Post Office at Solvang, California.
Telephone:	At Solvang.
Railroad:	Buellton, California.
Freight rate:	Trucking charge from Solvang to property is estimated to be $0.10 per ton per mile.

There is a rotary furnace plant, D-retort and camp at the idle Red Rock quicksilver mine near the property. There is only a temporary camp at the Merchrome property.

HISTORY AND PRODUCTION

The earliest recorded history of mining in the district was of the nearby Red Rock quicksilver mine in 1867. It is reasonable to assume that adjacent land that is now covered by the Merchrome claims was also prospected at that time. Several shallow prospect pits and cuts along the silica-carbonate outcrop were probably made as recently as 1930.

There is no recorded production from the property. Mr. Durham commenced prospecting in this area in November 1955 when he became interested in occurrences of chromite in serpentine. In May 1957 he located the claims and constructed approximately one mile of access roads and diamond drilled nine shallow holes. He financed and performed almost all of the work himself. An estimate of his expenditures follows:

Road construction, rented bulldozer, @ $11.00/hr.	$2,400.00
Camp expenditures and supplies	920.00
Total:	$3,320.00

PROPERTY AND OWNERSHIP

The applicant is a competent prospector. He has a few years experience in mining lead-silver ores, and prospecting, developing, and mining uranium in Colorado and Utah. He has the equivalent of a few years of college training and education. He states that he is financially able to provide his share of the cost of exploration and plans to hire an experienced miner.

The following lode claims are held by the applicant by right of location:

Claim name	Book	Page
Merchrome No. 2	1449	93
Merchrome No. 3	1449	95
Merchrome No. 4	1449	97
Merchrome No. 5	1449	99
Merchrome No. 6	1449	101
Merchrome No. 7	1449	103

Certificates of location are recorded at the office of the County Recorder, Santa Barbara, California.

The following is a list of camp facilities and equipment owned by the applicant:

	Item	Condition
1	Tent, 8 feet by 8 feet	fair
1	Jeep, 1955, with winch	good
1	Utility trailer, 1/4-ton, 2-wheel	fair
1	Jackhammer, drill steel and bits	fair
1	Diamond drill, Ex Ray, 100 ft. rods	good, but too light for efficient exploration in silica-carbonate rock.
1	Water pump, 10 gpm., 2 hp, gasoline engine	good
	Miscellaneous tools	poor to good

DEVELOPMENT

Prospect pits, access roads, and the location of exploratory diamond drill holes in mineralized silica-carbonate rock are indicated on figures 3 and 4. Most of the workings are on the Merchrome No. 2 and No. 3 claims.

Adits	Length, feet (est.)	Remarks
A-1	100	In shale, portal caved.
A-2	50	In shale, portal caved.
A-3	10	In silica-carbonate rock, open.
A-4	10	In silica-carbonate rock, open.
A-5	15	In shale, portal caved.

A few shallow surface trenches and pits are not shown on the maps.

DD Holes	Inclination (approximate)	Depth, feet	Core Recovery	Remarks
D-1	-40°	19	good	In silica-carbonate rock.
D-2	-45°	24	good	In silica-carbonate rock.
D-3	-30°	8	poor	In silica-carbonate rock.
D-4	-30°	18	good	In silica-carbonate rock.
D-5	-30°	10	no core	In silica-carbonate rock.
D-6	vertical	20	no core and little sludge	In Knoxville formation and overburden (location approximate).
D-7	vertical	25	no core and little sludge	In Knoxville formation and overburden (location approximate).
D-8	-30°	25	no core and little sludge	In Knoxville formation and overburden (location approximate).
D-9	-30°	65	no core and little sludge	In Knoxville formation and overburden (location approximate).

The applicant excavated an open cut on the Merchrome No. 7 claim to explore for chromite. About 400 cubic yards of material was removed with a bulldozer, but ore was not found.

Although previous prospectors made numerous cuts, pits, and adits, the underground workings probably aggregate less than 200 feet. The portals of all of the adits that are collared in shale

are caved. It is assumed that most of the old workings in shale or serpentine would be caved, while those in silica-carbonate rock might be open.

The tram cable (fig. 3) is in operating condition but the reason for its installation is not known to the applicant.

GENERAL GEOLOGY

The geologic setting of the area has been described in considerable detail in Quicksilver Deposits of the Cachuma District, Santa Barbara County, California, by Donald L. Everhart; Calif. Jour. Mines and Geol., vol. 46, No. 4, 1950, pp. 509-532, and much of the material in the sections on General Geology and Ore Deposits in this report has been taken from the publication.

The Merchrome claims are in an area of high relief to the west of Cachuma Creek near its headwaters, and is approximately 2,000 feet southwest of the old Red Rock mine which is the largest producer of the Cachuma district. The sedimentary rocks of the area are thin-bedded shale, siltstone, and sandstone of the Knoxville formation of Jurassic age, which have been folded, faulted, and intruded by sill-like bodies of dunitic serpentine. Locally parts of the serpentine bodies have been altered to silica-carbonate rock (fig. 2). In the southwest part of the Merchrome area (fig. 3) the Knoxville formation and included serpentine sills are in fault contact

with shales of the Monterey formation of Middle or Upper Miocene age. In general the rocks of the Knoxville formation trend approximately N. 30° to 45° W. and dip from 45° NE. to 87° SW., and the rocks of the Monterey formation strike N. 15° E. to N. 60° W. and commonly dip from 10° to 85° SW.

Several strong faults cut the rocks of the area. A fault striking north and northwest and dipping steeply, separates the Knoxville formation on the northeast from the Monterey formation on the southwest. In the western part of the Merchrome area the fault-contact intersects a steeply dipping fault that trends northeast across the northernmost Merchrome claim and continues northeast through the area of the Red Rock mine. Two prominent faults, trending north to northwest and dipping steeply northeast, terminate against the south side of the northeast-trending fault. The Red Rock mine is at the easternmost of these intersections; the Merchrome area includes the western intersection. Another set of faults striking nearly due east and dipping steeply south has been described by Everhart, but in the Merchrome area it is expressed only by prominent joints in the silica-carbonate rock.

The Merchrome claims area contains a large silica-carbonate body which formed along the east side of a sill or dike of serpentine that trends north to N. 20° W. The silica-carbonate body crops out

prominently on the ridge crest to the west of Cachuma Creek and the steep dipping fault scarp along its eastern side is exposed for heights of from 50 to 100 feet. Less well altered serpentine to the west of the silica-carbonate body crops out intermittently but the shale on the lower slopes to the east and the west is generally covered with talus, colluvium, soil, and brush. Thin, discontinuous lenses of silica-carbonate rock also crop out along the west side of the serpentine sill, near its southern end. The north end of the silica-carbonate body is terminated at the strong northeast-trending fault and to the south it pinches out in the fault zone which, according to Everhart, continues a short distance south. Another serpentine sill containing a few small silica-carbonate bodies is exposed to the southwest of the main north-trending sill.

The silica-carbonate rock is commonly banded and locally sheared and fractured. Banding and shearing are commonly parallel to the north-trending fault, but locally the banding is intricately contorted. Generally north-trending lenses of relatively unaltered serpentine are locally abundant within the silica-carbonate body, chiefly along its west side near its contact with the unaltered remainder of the serpentine sill.

ORE DEPOSITS

The mineral deposits at the Merchrome claims are cinnabar bearing silica-carbonate rock and thin discontinuous lenses of chromite-bearing serpentine.

The cinnabar occurs chiefly as very fine-grained crystals or crystalline aggregates disseminated in the silica-carbonate rock. The disseminations are commonly irregular but locally some crystals are oriented along individual bands and minute fractures in the silica-carbonate rock. In the lower pit near the head of the tram cable (fig. 4-B), dendritic cinnabar was found on limonite-stained fracture surfaces in silica-carbonate float. Only rarely are cinnabar crystals and crystalline aggregates large enough to be visible to the naked eye, and much apparently barren rock was found to contain sparsely disseminated fine-grained cinnabar on examination with a hand lens. Chromite occurs as disseminated fine to coarse crystals in silica-carbonate rock and in the less altered serpentine as well as in massive pods in north-trending vein-like serpentine lenses within the silica-carbonate rock. Unlike the cinnabar, which is irregularly distributed throughout nearly all of the silica-carbonate rock, the chromite appears to be most abundant along the western edge of the southern part of the main silica-carbonate body.

Small areas, 1 to 5 feet in diameter, containing variable but generally minor amounts of cinnabar are irregularly and sporadically distributed throughout the entire exposed part of the silica-carbonate body. Assays of selected specimens of material with the most abundant visible cinnabar show from 2.1 to 16.2 pounds mercury per ton. The exposed areas containing material of this grade are too small and too widely separated from each other by less well mineralized and barren rock to constitute an economic ore body. It is possible, however, to infer that somewhere within the silica-carbonate body similar areas may be of larger size or more closely spaced and have formed an ore body. By analogy with the setting of the ore body at the nearby Red Rock mine, the northern end of the silica-carbonate body might be inferred to be the most favorable area for such a hidden ore body, and indeed, the best grade specimens were picked from this area; however, the demonstrated widespread distribution of mineralized areas throughout the silica-carbonate body suggests that other parts of it might be equally favorable.

There are two areas a few tens of feet across at nearly opposite ends of the main silica-carbonate body in which small mineralized areas are more abundant. One of these areas is

as much as 50 feet high and 25 feet wide on the fault scarp that forms the east face of the cliff of silica-carbonate rock near its junction with the northeast-trending cross fault. Except for a few old open cuts 10 feet or less in length, this area has not been explored. Within this small area the amounts of visible cinnabar vary widely and much of the rock is barren. A sample from this area (S-664) represents picked material of the best grade exposed in several small areas and contains 16.2 pounds of mercury per ton.

Near the southern end of the silica-carbonate body at the end of the access road cut there are a few scattered, small, irregularly shaped areas, each perhaps as much as five feet in diameter, select specimens of which contain 2.1 to 5.0 pounds of mercury per ton. The applicant has drilled five short diamond drill holes at this prospect (fig. 4-A). Core from holes number 1, 2, and 4 contain some scattered, fine-grained cinnabar but in generally minute quantities. Hole No. 4 contains the most abundant visible cinnabar in a relatively continuous interval between the 13- and 17-foot depths, but the highest assays for drill core samples, 1.6 and 2.9 pounds of mercury per ton respectively, came from the 6- to 9-foot interval of hole No. 2.

Although these two areas contain ore- and sub-ore-grade material locally, they are too small and low grade to constitute ore bodies. Moreover, there is no geologic evidence that they might

increase in size or grade at depth, nor do they follow any geologic structures along which they might be projected into unexposed areas. These mineralized areas, therefore, do not appear to be good leads to hidden ore bodies. The old workings at the head of the tram cable (fig. 4-B) expose only a few scattered crystals of cinnabar locally, and float from the lower cut contains minor amounts of cinnabar as a dendritic fracture coating accompanied by limonite and minor amounts of manganese oxide in silica-carbonate rock.

Another serpentine body to the southwest of the main one (fig. 3) contains a small silica-carbonate body about 30 feet long and perhaps as much as 20 feet thick, which appears to be generally flat-lying and tabular in shape. Locally in small areas of one to five feet in diameter it contains sparse irregularly distributed fine-grained cinnabar crystals.

Because its structural setting is similar to that of the nearby Red Rock mine, the largest mine known in the district, it seems reasonable to infer that the Merchrome silica-carbonate body is in a structurally favorable setting. Although the ore body at the Red Rock mine formed in sandstone and shale of the Knoxville formation, silica-carbonate rock is known to be a good host rock for quicksilver

deposits in other California districts, and its weakly mineralized exposures indicate that the Merchrome area was accessible to ore solutions.

The largest and most continuous of the chromite-bearing layers occurs along the western side of the main silica-carbonate body near its south end. Massive chromite, veined with and locally surrounded by relatively unaltered serpentine, is in a north-northwest trending nearly vertical lens possibly as much as 20 feet long and six inches to one foot thick. It is exposed vertically for as much as three feet. Samples of this material indicate that it contains approximately 25 percent chromite.

SAMPLING

There is practically no ore-grade material exposed. Samples of the silica-carbonate rock were carefully split by the engineer from diamond drill core, which had been carefully wrapped and labelled by the applicant, from holes number 1, 2, and 4. No samples were taken of core or sludge from holes 3, 5, 6, 7, 8, and 9 because core recovery was very poor and holes 6 through 9 were entirely in overburden and unmineralized Knoxville rocks.

A select sample, taken by the applicant and listed in his application, was similar to sample S-667.

Select specimen samples and several hand specimens were taken of silica-carbonate rock that contained visible cinnabar crystals. The following samples were assayed for mercury:

S-664	16.2 lbs. Hg/ton	Specimen, silica-carbonate with HgS.
S-666	2.1 lbs. Hg/ton	Specimen, silica-carbonate with HgS.
S-667	5.0 lbs. Hg/ton	Specimen, silica-carbonate with HgS.

One chip-channel sample, S-665, was taken across a 10-inch vein of massive chromite, but represents only a few tons of material:

> Sample S-665 was ground to -65 mesh and the heavy media concentrate weighed approximately 20 percent of the total weight of the sample. This concentrate was cleaned with a hand magnet to remove magnetite and the cleaned concentrate contained 48.24 percent Cr_2O_3 and 13.95 percent Fe, or a Cr/Fe ratio of 2.36.

The locations of the mercury samples are shown on the maps and on the following drill logs, and assay results of split core samples are tabulated with the logs.

DDH 1

Depth feet	Sample Interval	Sample No.	Lbs. Hg/ton
0.0			
1.0	1.5 ft.	S-638	0.1
2.0			
3.0	1.4 ft.	S-639	<0.1
4.0	1.4 ft.	S-640	<0.1
5.0			
6.0	1.3 ft.	S-641	<0.1
7.0	No recovery?(or error)		
8.0	1.3 ft.	S-642	<0.1
9.0			
10.0	1.4 ft.	S-643	<0.1
11.0	1.4 ft.	S-644	0.1
12.0			
13.0	1.3 ft.	S-645*	0.9
14.0	1.4 ft.	S-646	0.5
15.0			
16.0	1.4 ft.	S-647*	0.1
17.0	No recovery ?		
18.0	1.4 ft.	S-648*	0.4
19.0	Bottom of hole		

*Traces of visible cinnabar

DDH 2

Depth, feet	Sample Interval	Sample No.	Lbs. Hg/ton
0			
1	1.4 ft.	S-649	0.1
2	1.0 ft.	S-650	1.3
3			
4	1.0 ft.	S-651*	0.7
5	0.8 ft.	S-652*	0.4
6			
7	1.0 ft.	S-653	1.6
8	1.4 ft.	S-654	2.9
9			
10	1.4 ft.	S-655	0.2
11	1.3 ft.	S-656*	0.5
12			
13	1.3 ft.	S-657*	0.2
14	1.3 ft.	S-658*	1.0
15			
16	2.5 ft.	S-659	<0.1
17			
18			
19			
20			
21	4.3 ft. core	S-660*	0.1
22			
23			
24	Bottom of hole		

*Traces of visible cinnabar

DDH 4

Depth, feet	Sample Interval	Sample No.	Lbs. H_2O/ton
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11	1.3 ft. core	S-661	0.2
12			
13			
14	1.4 ft. core	S-662	0.7
15			
16			
17	1.2 ft. core	S-663	0.2
18	Bottom of hole		

ORE RESERVES

Measured and indicated reserves for all the known mineralized areas appear to total several tens of tons of mineralized material from which a few tons of low-grade ore might be sorted. Judging from the similarity of the structural settings of the Merchrome area and the Red Rock mine, and from the fact that silica-carbonate rock is a favorable host for ore in many of the quicksilver deposits of the California coast ranges, one or more hidden ore bodies of significant size and grade may be inferred in the Merchrome area.

Measured and indicated reserves of chromite ore are a few tens of tons of material containing about 25 percent chromite. The material presently exposed would have to be selectively mined or hand-sorted and the tonnage is insufficient to provide a significant exploration target. There are, however, chromite mines in the area to the south of the Merchrome property and a hidden ore body of significant size and grade may be inferred in this area. Additional prospecting would be necessary to determine a target area for exploration.

EXPLORATION

The applicant proposed to explore part of the southern end of the main silica-carbonate body by crosscutting and drifting a total of 350 linear feet from an old adit site, the portal of which is

now caved. There is no geologic evidence that this area is more likely to contain a significant exploration target than the remainder of the silica-carbonate body.

The geologic setting of the main silica-carbonate body in conjunction with the applicant's access roads form an attractive situation for a diamond drilling program which, if designed to explore the entire silica-carbonate body, has a reasonable chance of locating a hidden ore body in the silica-carbonate rock. The applicant is unwilling to consider such an ambitious program, chiefly because of financial reasons. For nearly the same amount as the applicant estimated his program would cost he could drill 4 to 7 holes at say minus 30 degrees which would explore considerably more ground than his drifts and crosscuts, especially if the holes were concentrated at the north and south ends. In underground exploration, however, the applicant could supply much of his share of the cost by his own labor and equipment, which he could not do in a drilling program.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA-4851
(Mercury)

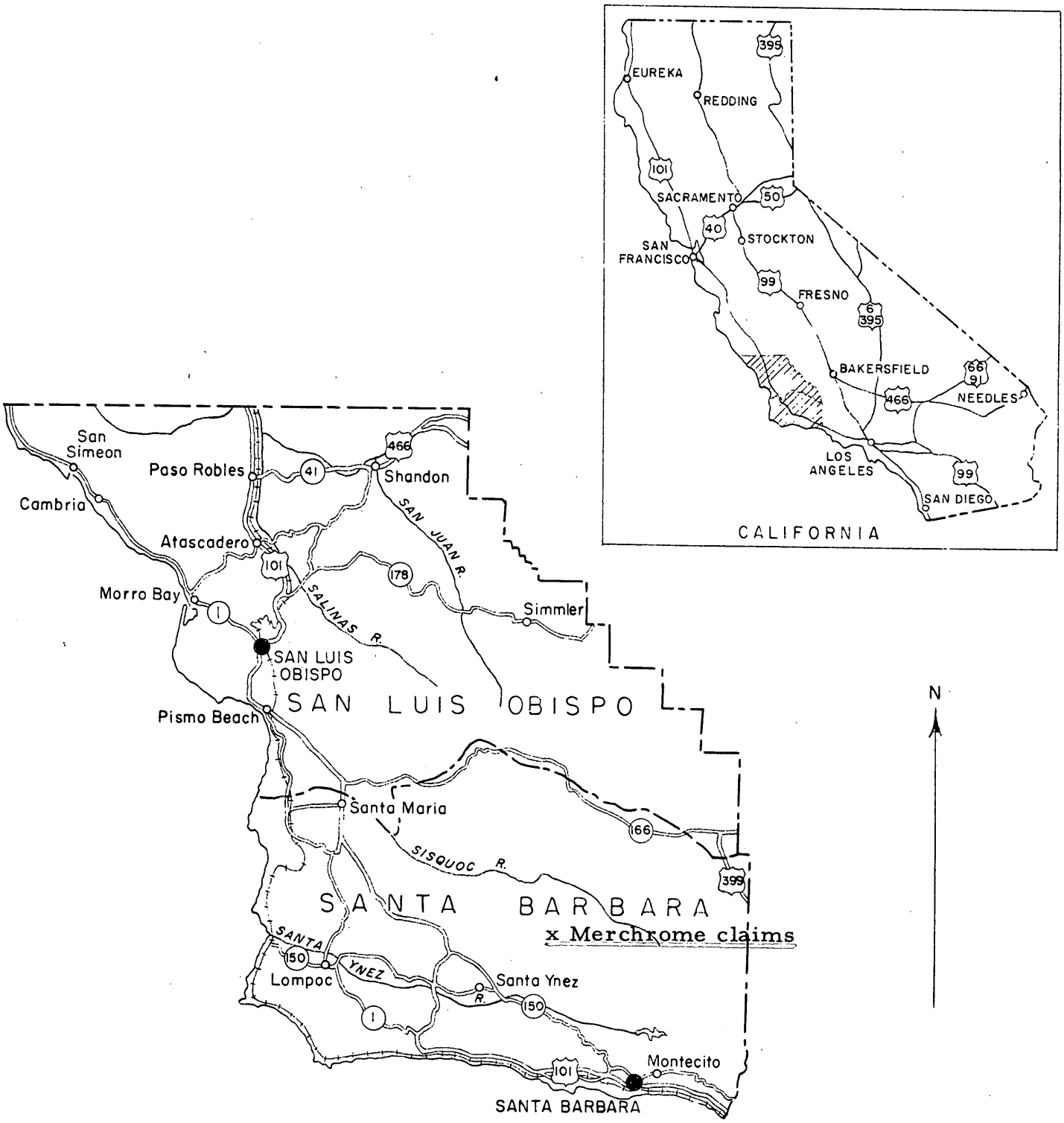

Figure. 1. INDEX MAP OF SAN LUIS OBISPO AND SANTA BARBARA COUNTIES, CALIFORNIA

0 20 40 60 Miles

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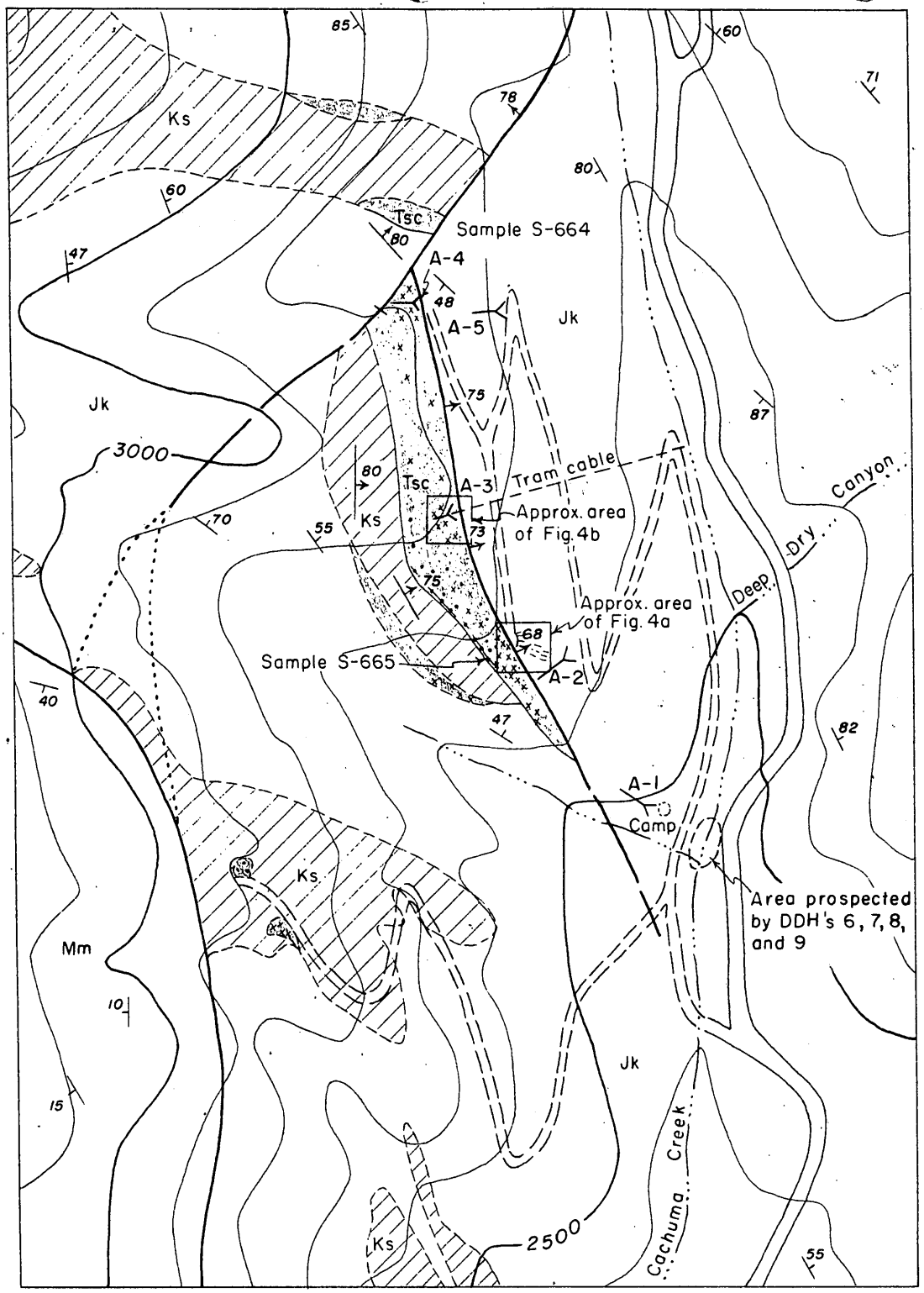
DMEA
RECEIVED FEB 13 1958

DATE	[illegible]	CODE



EXPLANATION

Tsc — Silica-carbonate rock

Mm — Monterey formation

Ks — Serpentine intrusives

Jk — Knoxville formation

Disseminated HgS in Tsc

Chromite veins and disseminated in Tsc and Ks

Geology after D.L. Everhart, 1950
with additions by R.H. Campbell

Figure 3. GEOLOGIC MAP OF THE MERCHROME CLAIMS AREA
SANTA BARBARA COUNTY, CALIFORNIA

0 400 800 1200 Feet

Contour interval 100 feet
Datum is mean sea level

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RECEIVED FEB 13 1958

DATE	INITIALS	CODE

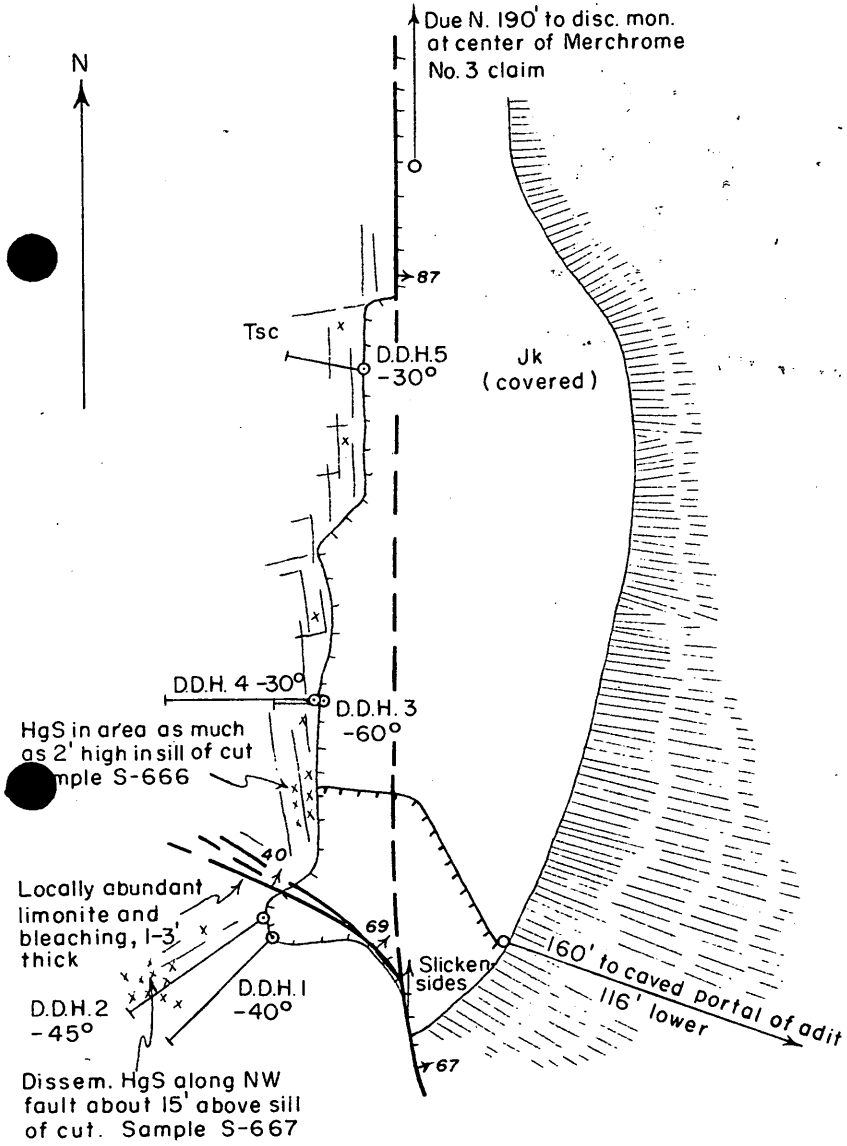

Figure 4a
PROSPECT AT DRILL SITE

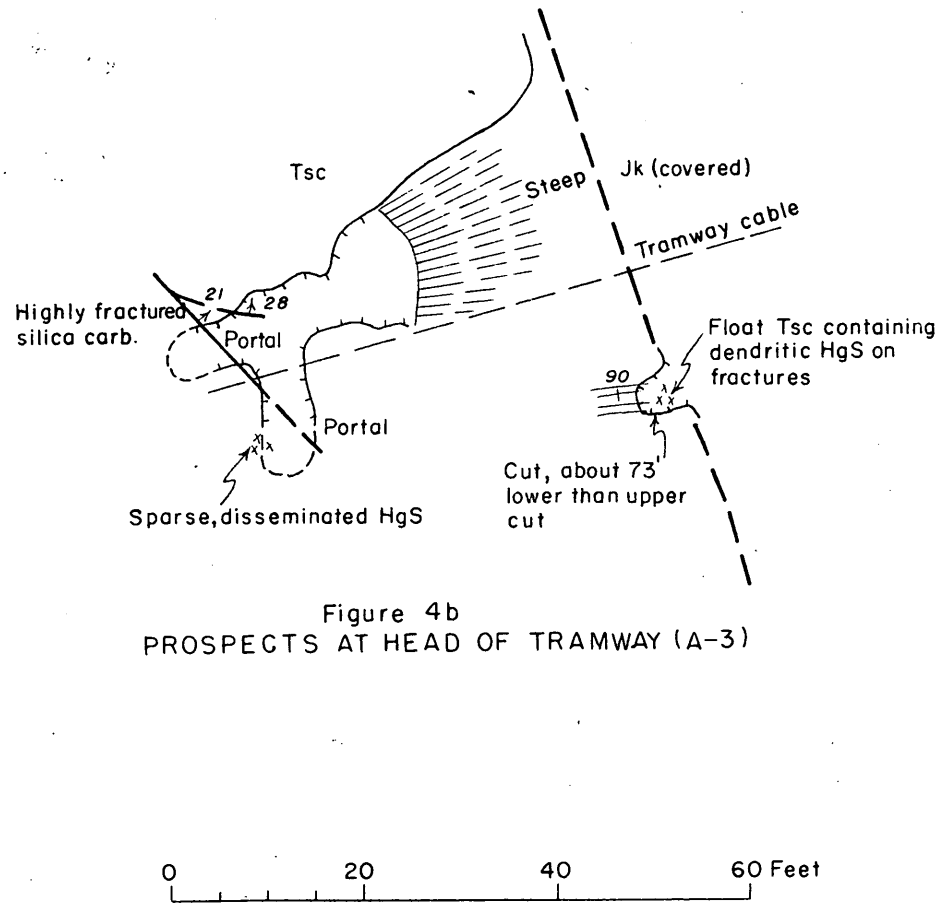

Figure 4b
PROSPECTS AT HEAD OF TRAMWAY (A-3)

Figure 4. MERCHROME PROSPECT, SANTA BARBARA COUNTY, CALIFORNIA

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RECEIVED FEB 13 1958

DATE	INITIALS	CODE

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10-24	Chapman	400
10-24	Martin	400
10/28	Selfridge	130
10/28	[illegible]	130
10/28	[illegible]	130
		~~[illegible]~~
		~~[illegible]~~
10/29	gb	~~[illegible]~~
		400

OCT 28 1957

Mr. Jasper Newton Durham
General Delivery
Solvang, California

Re: Docket No. DMEA 4851 - Mercury
Merchrome No. 2, et al., claims
Santa Barbara County, California

Dear Mr. Durham:

The above-referenced application for exploration assistance for mercury ores has been reviewed by the Washington office of the Defense Minerals Exploration Administration and referred to Mr. Spangler Ricker, Executive Officer, DMEA Field Team, Region II, 1605 Evans Avenue, Reno, Nevada, for a field examination of the property.

Any assistance you can give the members of the Field Team will be appreciated.

Sincerely yours,

Frank E. Johnson
ACTING Administrator

TLChapman/dlm 10-24-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
10-24	Chapman	400
10-24	Martin	400
10/28	[illegible]	130
"	[illegible]	110
		~~400~~
10/29	[illegible]	~~220~~ 220
		400

OCT 28 1957

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region II
1605 Evans Avenue
Reno, Nevada

Re: Docket No. DMEA 4851 - Mercury
Jasper Newton Durham
Merchrome No. 2, et al., claims
Santa Barbara County, California

Dear Mr. Ricker:

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

Copies of memoranda dated October 17 and 21, 1957, by J. W. Pennington, Bureau of Mines and W. P. Williams, Geological Survey, respectively, relating to the project are enclosed. Also enclosed is an extra copy of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

P. F. Yopes

Member, Bureau of Mines (GCS)

W. P. Williams

Member, Geological Survey (GCS)

TLChapman/dlm 10-24-57
cc to: Code 400
Admr. R. File
Oper. Comm.
FT. REG. II
Messrs. J. W. Pennington, USBM
T. H. Kiilsgaard, USGS

Enclosures

8623

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

OFFICIAL FILE COPY
IN REPLY REFER TO:
RECEIVED OCT 22 1957

DATE	INITIALS	CODE
10/22	gb	220
10/22	WSM	400

October 21, 1957

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of application, DMEA 4851 (mercury), Jasper Newton Durham, Merchrome claims, Santa Barbara County, California

The applicant proposes to explore for mercury ore deposits on a tract of six unpatented mining claims. The applicant states that no ore has been produced from the property, and there are no ore reserves.

The applicant submits an assay certificate that shows a grade of 0.95 percent mercury for a "selected piece of clean ore."

The proposed project would consist of a total of 350 feet of adit-crosscut and drift, at a total estimated cost of $10,144.

I recommend that the property be examined by the Field Team in order to evaluate the geologic conditions and the practicability of the applicant's proposals.

W. P. Williams

W. P. Williams

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

October 17, 1957

Memorandum

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

From: Assistant Chief, Branch of Base Metals

Subject: Review of application, Docket No. DMEA 4851 (mercury), Jasper Newton Durham, Merchrome No. 2 - No. 7, Inclusive, Santa Barbara County, California. $10,144.20

The applicant proposes to explore a mineralized dike by 350 feet of drifting and crosscutting at an estimated total cost of $10,144.20.

Although it is stated that a selected sample assayed 0.95 percent mercury and that the cores of three diamond drill holes were of apparent ore grade, no information is furnished that will permit an evaluation of the mineralization.

Perhaps additional data could be obtained from the applicant, but it is believed that only the Field Team would provide the adequate and necessary information.

It is recommended that the application be referred to the Field Team for appropriate action.

The application is returned herewith.

Jos Pennington
J. W. Pennington

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DATE		CODE
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Attachment

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Branch of Base Metals (2)
Thor Kiilsgaard, U.S.G.S.
F. D. Lamb
Files

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

October 16, 1957

Mr. Jasper Newton Durham
General Delivery
Solvang, California

Dear Mr. Durham:

Subject: DMEA-4851

Your application for exploration assistance, dated October 8, 1957 submitted to our office at Reno, Nevada has been assigned Docket Number DMEA-4851 and referred to the Iron and Ferro-Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Director
Operations Control and
Statistics Division

Copy to:

Region II

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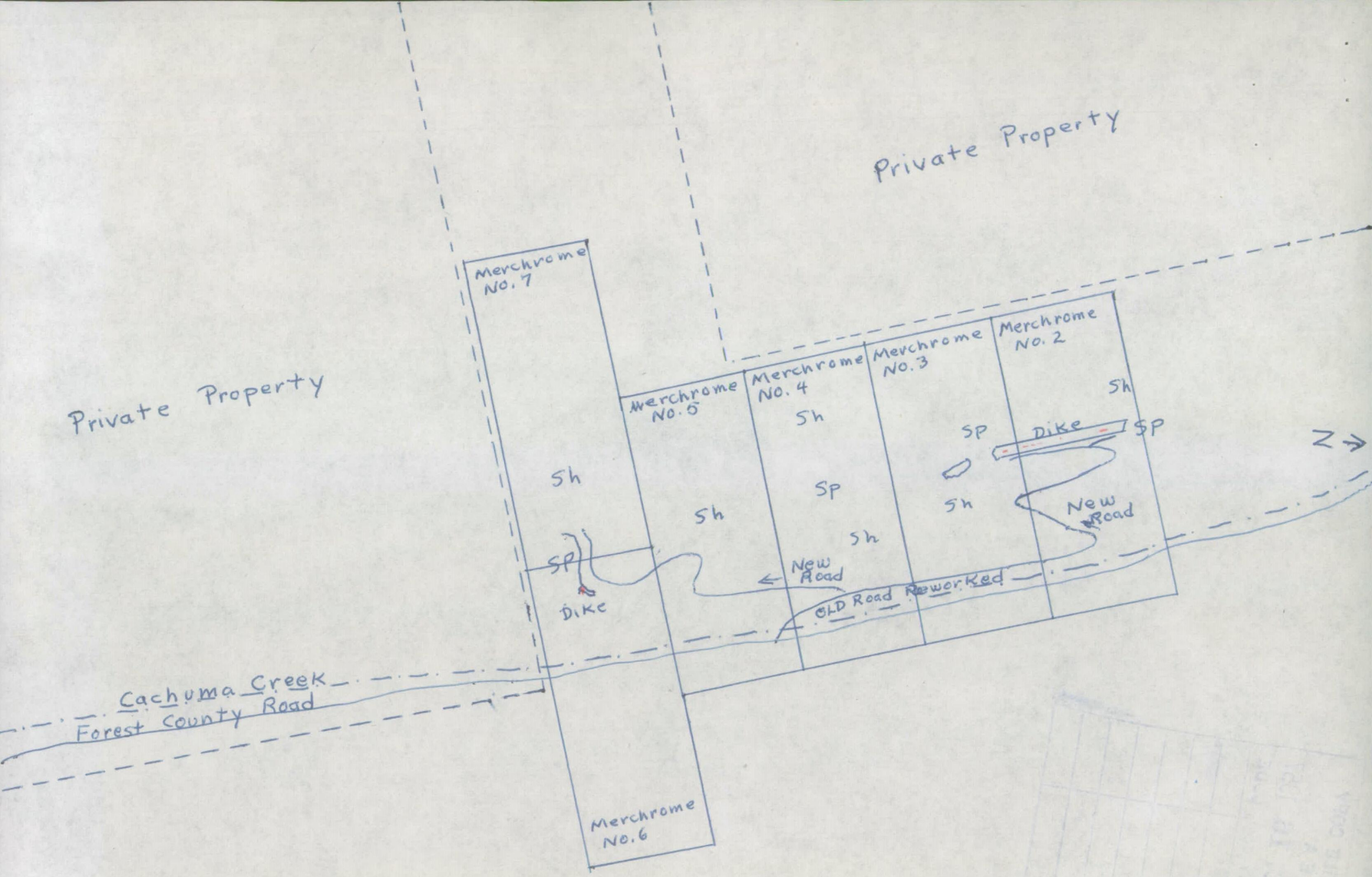

Sh = Shale
Sp = Serpentine
1" = 600'
— = Cinnabar in outcrop

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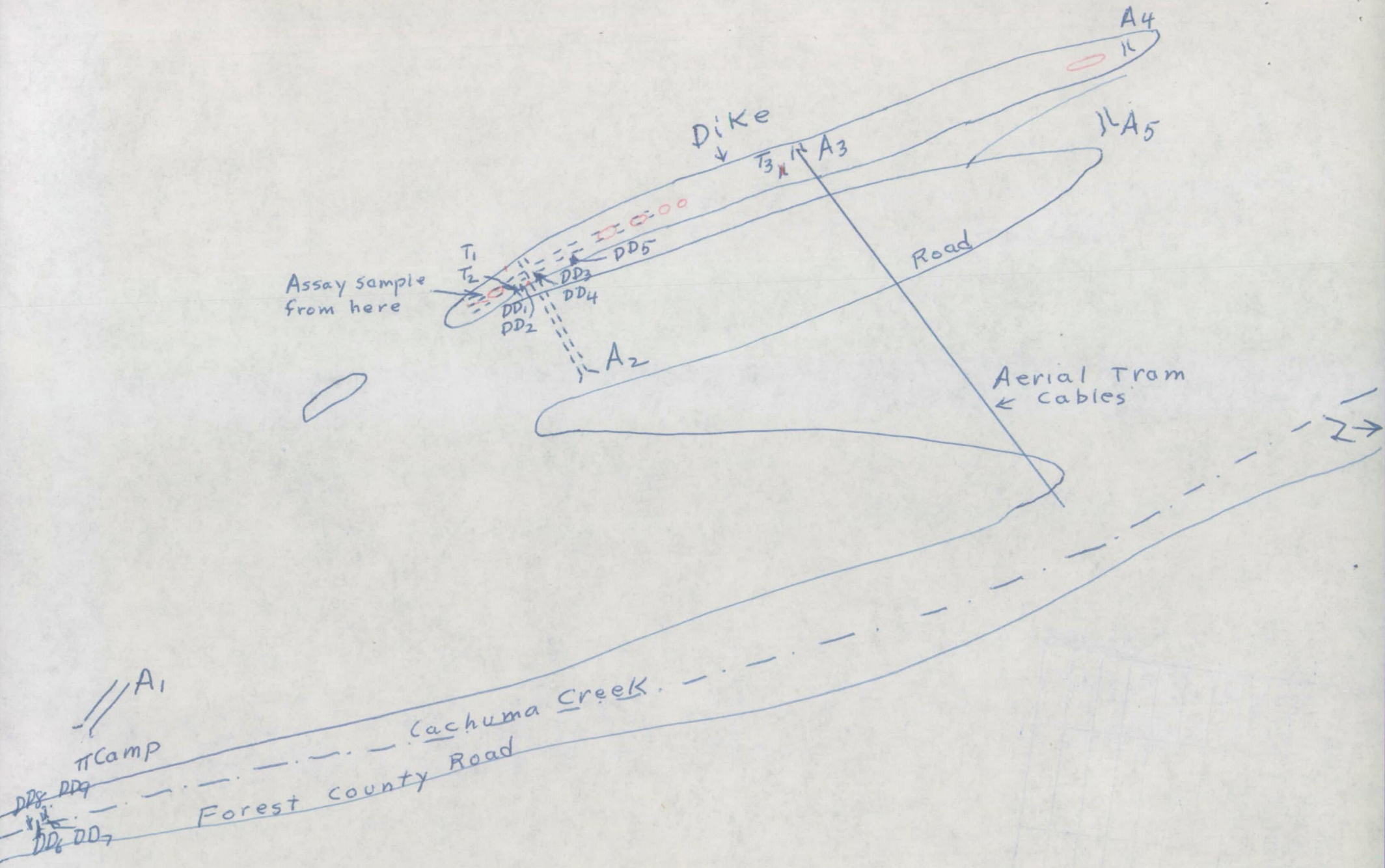

1" = 125'

Proposed Project in dotted lines

○ = cinnabar in outcrop

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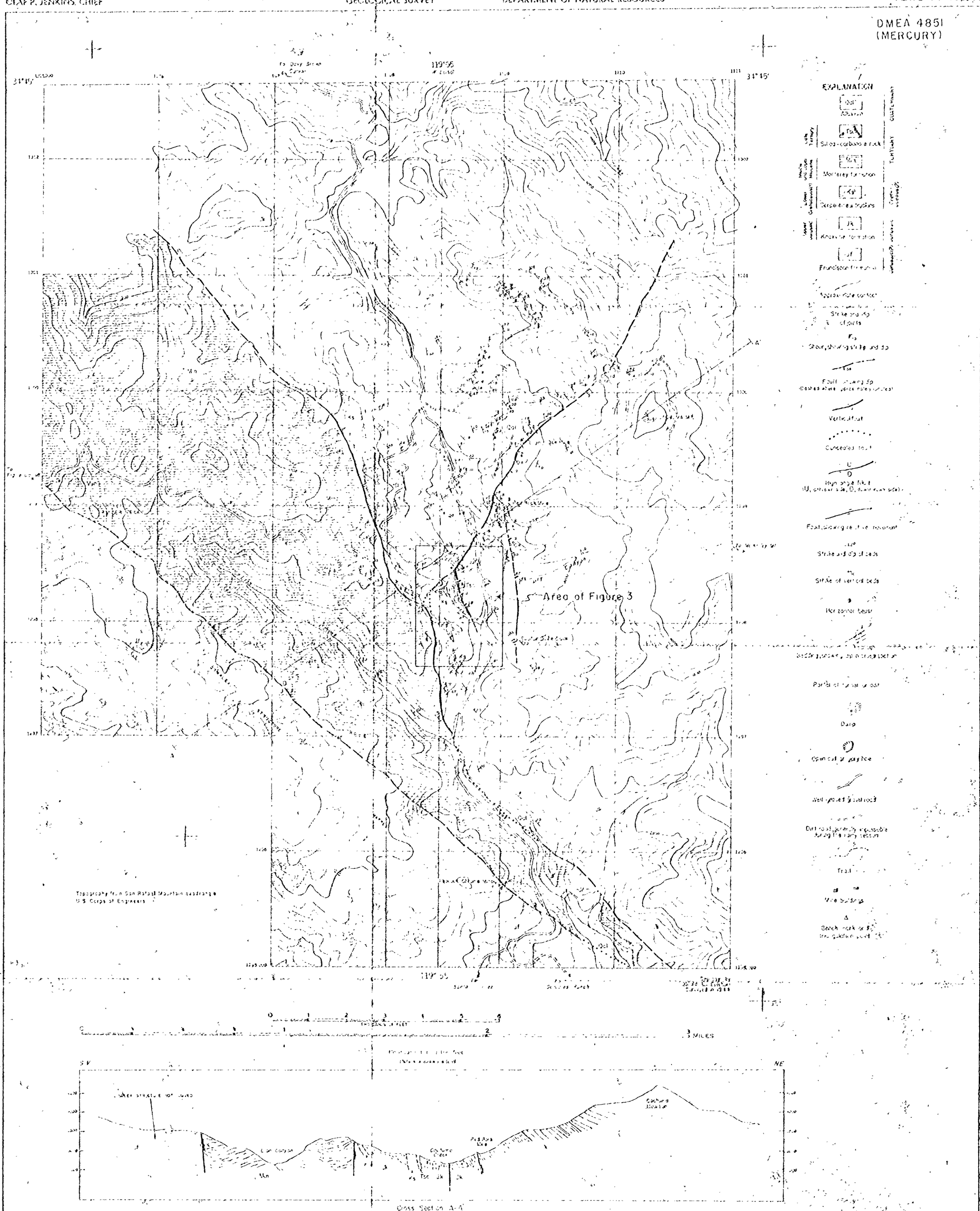

Figure 2. GEOLOGIC AND TOPOGRAPHIC MAP OF THE CACHUMA QUICKSILVER DISTRICT
SANTA BARBARA COUNTY, CALIFORNIA