DMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

DMEA NO. 4488.

Application (Denied
(Withdrawn
(After disposition, delete items not applicable)

Contract (Terminated - not Certified
(Cancelled
(Terminated - Certified
(Royalty Agreement

This is the official contract file containing all official records of the project. The records contained in the files are checked and are arranged in this order:

**Left Side**

Interim Royalty Audits
Reports of Royalty Review
Certification of Discovery
Certificate of Audit (Final)
Interim Audit(s)
Report of Review
Termination Notice or Agreement
Recision Notice
Assignment of Contract
Contract Amendments (latest on top)
Contract with all exhibits and annexes
Owner's Consent to Lien
Subordination Agreement
Leases and assignments of leases
X Application and attachments X
(3) Envelope for maps

**Right Side**

Project summary
Work completed analysis
All other material is filed in chronological order with correspondence including the following reports as checked:

Final Field Team Report (Tab)
Operator's Final Report
(2R) Interim Reports
(2R) Operator's monthly reports and all attachments (latest on top)
X On-site Exam Report(s) (Tab)
(4) Settlement Sheets

When the volume of records is expected to warrant additional folders, or when convenience of reference warrants separate folders for certain records, they should be set up in this order:

**Left Side**

Folder No. 2: (In chron. order) Interim Summary Reports by W. O. Engineers

**Right Side**

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

Folder No. 3: Maps (Use pocket folder or envelope. Fold maps with title block out and show reference to related document or correspondence.)

Folder No. 4: Settlement Sheets

Folder No. 5: Drill Logs

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R m E a

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

RECEIVED
OCT - 3 1956

1605 Evans Avenue
Reno, Nevada

October 1, 1956

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Loan Application (Lead-Zinc)
L. D. Foreman, Mary R. Foreman, and
Ida L. Cannon, Partners
Defense Mine
Inyo County, California

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

This property was originally explored under Docket No. DMEA-2441, Contract No. Idm-E 424, and the Government's participation has been repaid.

S. Ricker

Attachs.

MF-103
(Revised April 1952)

# UNITED STATES DEPARTMENT OF THE INTERIOR
## DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 47-R1085.2.

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

*Not to be filled in by applicant*

Docket No. 4488
Metal or Mineral Lead-Zinc
Date Received 10/3/56
Estimated Cost $29,877.50
Participation (Government %)

## INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: L. D. Foreman, Mary R. Foreman and Ida L. Cannon, DBA Foreman & Foreman Partnership, California
P. O. Box 489, Lone Pine, Calif.

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Following unpatented mining claims

| | | | | |
|---|---|---|---|---|
| Defense | Volume | 55 | Page | 205 |
| Defense No. 1 | " | 55 | " | 470 |
| Defense No. 2 | " | 55 | " | 470 |

(*b*) State any mine name by which the property is known. Defense Mine

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Owners

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

(*e*) If you own the land, describe any liens or encumbrances on it None

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

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

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

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

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

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

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

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within 10 days and be completed within 8 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

## CERTIFICATION

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

Dated ....., 195__

**Foremen & Foreman**
(Applicant)

By L H Foreman
Mary R. Foreman
Ida L. Cannon

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

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

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4 Physical description -

A Property worked continuously since 1947 - approximately 3000 Ft. of Tunnels, Drifts and Raises - Fully equipped with trackage, Ore chutes, Ore Bin, Etc. - All operations conducted by this partnership at their expense - Fully accessable for examination and operating purposes.

B Past production from October 1947 to October 1956 13856 Dry tons - Average grade 24.5% Lead 23.7 Ozs. Silver - Estimated present ore reserves 600 tons of approximately the same grade.

C The controls existing which made ore deposits are a series of parallel fissures dipping 65 to 80 degrees and going through flat shear zones they received the mineral solutions and made ore deposits by limestone replacements - maps enclosed herewith.

D Mine located eleven miles South of Panamint Springs, Calif. in the Argus Range readily accessable by gravel road. 46 miles to railroad shipping point at Trona, Calif. Residence for employees at property - Managers residence Lone Pine, Calif.

E Manpower, materials, supplies, equipment, water and power present or available in local area.

5 The exploration project -

A Lead - Zinc

B Propsed work: Nine drifts totaling 760 Ft. and two raises totaling 65 Ft. to be followed by 1250 Ft. of Diamond Drilling. The drifting is to cross cut and expose known fissures and allow for stations for proposed diamond drilling. The raises are to explore known fissures intersections. All above work indicated on maps enclosed herewith.

C The work will start within ten days and be completed within eight months from the date of an exploration project contract.

D Project will be under the supervision of R. L. Foreman who has been in charge of the property for the past nine years. Applicants have had the property for the past nine years and have previously completed IDM-E 424 project.

6 Estimate of costs:

A Drifting will be contracted at $26.00 per ft. - Total $19760.00.
Raises will be contracted at $22.00 per Ft. - Total 1430.00.
Diamond Drilling will be contracted at $5.00 per Ft. - 6250.00, plus applicants allowance of seventy five cents per Ft. to cover Air and Water supplied.

B Prevailing miner's wages $90.00 per week Minimum. Supervision $120.00 per week. Engineering and geological consultants total $1000.00.

C Items of equipment costing less than $50.00 - None
Power, Water and Fuel included in contract price.

RECEIVED
OCT - 3 1956

D Operating equipment already on hand and paid for will be used without charge.

E None

F None

G None

H $1500.00 for contingencies not included in above.

7

A Yes

B From funds on hand and available.

Total cost of propsed work:

| | | |
|---|---|---|
| Drifting | 760 Ft. @ $26.00 per ft. | $19760.00 |
| Raises | 65 Ft. @ $22.00 per ft. | 1430.00 |
| Diamond Drilling | 1250 Ft. @ $ 5.75 per ft. | 7187.50 |
| Contingencies | | 1500.00 |
| | | $29877.50 |

L. D. FOREMAN

R. L. FOREMAN

DEFENSE MINE

P. O. BOX 489

TELEPHONE 2371

LONE PINE, CALIFORNIA

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OCT - 3 1956

# Developement Recomendations

## INTERMEDIATE LEVEL
## 135-xx

1. Raise to 4278 elevation (23 feet) from 135-12 drift at approximate coordinates 10,955 N; 9,870 E.- then drift S. 55 W. for 65 feet.

   Object: To follow exposed structure in 135-14 stope to determine if mineralization is continuous to the Upper level elevation- then to crosscut trend of favorable structures.

2. Continue 135-10 drift N.22 E. for 90 feet.

   Object; To intersect mineralized structure (porphry dike) exposed in 135-14 stope: to crosscut trend of bedded ore, and to intersect structure (porphry Dike) exposed near end of 230-7 drift.

3. Continue 135-15 drift for 50 feet.

   Object: To determine if mineralized structure exposed in drift will increase in lead values.

4. Drift opposite 135-15 drift for 50 feet (N. 50 W.) along mineralized structure.

   Object: Same as recomended number3.

5. Raise from 135-14 stope at approximate coordinates 10,942 N, 9,900 E. Raise to be 40 feet.

   Object: To follow intersection of fissures in 135-14 stope in search for more ore deposition.

6. Continue 135- 13 drift for 90 feet.

   Object: TO crosscut known parallel fissures and exhisting flat mineralized structure.

7. Drift N. 70 W. for 90 feet, from 135-12 drift at approximate coordinates 10,959 N; 9,865 E.

   Object: To follow mineralized fissure northwest along its strike.

8. Drift S. 35 E. for 65 feet, from 135-16 stope into 135-17 stope.

   Object: To attempt to tie mineralization in 136-16 and 135-17 stopes through unexplored zone.

L. D. FOREMAN

R. L. FOREMAN

DEFENSE MINE
P. O. BOX 489
TELEPHONE 2371
LONE PINE, CALIFORNIA

RECEIVED
OCT - 3 1956

Developement Recomendations Continued

LOWER LEVEL
230-xx

9. Continue 230-4 drift N. 65 E. for 80 feet then turn S. 70 E. for 100 feet.

   Object: To intersect strong porphry fissure seen at end of 230-7 drift and follow this fissure to its point of intersection with the fissure from 230-12 drift. This will provide station area for favorable diamond drilling.

10. Drift N. 72 W. for 90 feet, from 230-11 drift at approximate coordinates 10,965 N; 9,894 E.

    Object: To follow porphry dike which is known to be mineralized on the Intermediate Level (135-xx).

11. Diamond drill hole from 230-2 drift at approximate coordinates 10,820 N; 9,810 E. bearing N. 45 E. at a 40 degree dip for 130 feet.

12. Diamond drill hole from 230-2 drift at approximate coordinates 10,820 N; 9,810 E. bearing N. 45 E. at a 20 degree dip for 190 feet.

13. Diamond drill hole from 230-2 drift at approximate coordinates 10,780 N; 9,875 E. bearing N.45 E. at a 40 degree dip for 130 feet.

    Object: To dertermine continuity of structures in North section and search for mineralization.

14. To allow for eight (8) one hundred foot diamond drill holes to be drilled from projects one thru ten and to be located after completion of those projects inorder to use information gained to place said holes to the better advantage to continue search for mineralization. It is assumed these diamond drill holes will be drilled parallel to the fissure zones in a search for mineralization in the fissures and also mineralization going out into the flat shear zones in replacement.

Randall J. Weege
Consulting Geologist

Randall J. Weege

DMEA Form 7
(12-56)

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| Date | Surname | Code |
|---|---|---|
| 3/13 | Griswold | 500 |
| 3/13 | Selfridge | 120 |
| " | Johnson | 110 |
| " | Mittendorf | 100 |
| | | 225 |
| | | |

MAR 12 1957

Mr. L. D. Foreman
Foreman and Foreman
Post Office Box 489
Lone Pine, California

Re: Docket No. DMEA-4488 (Lead-Zinc)
Foreman and Foreman
Defense Mine
Inyo, California

Dear Mr. Foreman:

Referring to the cited application, we have been advised by Mr. Spangler Ricker, Executive Officer, DMEA Field Team, Region II, that a large part of the work covered by the application has already been completed. He further advises us that you are not interested, at this time, in an exploration program of wider scope than had been proposed.

We shall therefore consider the present application as having been withdrawn. If at some future time you should care to undertake an exploration project of a more comprehensive nature, you should get in touch with Mr. Ricker again. You may be sure that any such request would be given full consideration.

Sincerely yours,

C. O. Mittendorf

Administrator

WRGriswold/er 3/13/57
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region II (2)
Chron.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

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| Date | Surname | Code |
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March 13, 1957

Memorandum

To: Chief, Operations Control & Statistics Division

From: Chief, Base Metals Division

Subject: Withdrawal of An Application, Docket No. DMEA-4488, Foreman and Foreman, Defense Mine, Inyo County, California (Lead-Zinc)

Will you please withdraw the cited application from the active files in view of the Field Team's memorandum of March 1, 1957, to the Operating Committee

W. R. Griswold

W. R. Griswold

WRG/er

Copy to: Docket
Chron.

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

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| 3/5 | WRH | 500 |
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March 1, 1957

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4488 (Lead-Zinc)
Foreman and Foreman
Defense Mine
Inyo County, California

Our engineer, B. H. Sheahan, discussed the subject docket with the Applicant on February 13, 1957. It was learned that a large part of the work, or comparable work that had been proposed, had been completed by the Applicant and that he intends to eventually do the balance at his own expense. In the area where proposed DMEA work has not been started, the Applicant intends to lease a part of the mine that he would expect to be excluded from royalty payments. This would further complicate matters in the proposed project area. In addition, the Applicant does not appear to be interested, at this time, in an exploration program of larger scope than that already proposed.

In the meantime, the mine is producing high grade 45-percent lead ore from discovery in the proposed project area.

We would suggest you advise the Operator if, at any future time, he wishes to explore on a larger scope than originally proposed that he write this office and discuss a longer range program than that previously proposed.

The enclosed maps show the status of the property at this time.

S. Ricker

Encls.

DMEA Form 7
(12-56)

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| Date | Surname | Code |
|---|---|---|
| | Drinnon | 500 |
| 1/14 | Selfridge | 130 |
| | | |
| | | |
| 1/14 | Fleman | 110 |
| 1/14 | Whitenack | 100 |
| 1-15 | CW | 225 |
| | | 500 |

JAN 15 1957

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

Re: Docket No. DMEA-4488 (Lead-Zinc)
Foreman and Foreman
Defense Mine
Inyo, California

Dear Mr. Ricker:

Referring to the cited application, we are enclosing copies of memoranda dated January 8, 1957, by O. M. Bishop, Bureau of Mines, and N. E. Nelson, Geological Survey.

In essence, the opinion of the reviewers, in which we concur, is that the property warrants a project but that the proposed work program is not well conceived. They feel that much of the proposed drifting and crosscutting possesses but little exploratory advantage over equivalent diamond drilling, and that the entire program could well be revamped to be of a broader and more comprehensive nature.

We refer you to the last paragraph on the first page of Mr. Bishop's memorandum.

Our feeling is that we are not inclined to definitely refuse the present request, but we emphatically do believe that the program could be improved. Will you kindly take up this matter with the Applicant. Meanwhile we shall hold the application in abeyance.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

WRGriswold/der 1/11/57

APPROVED:

Frank D. Lamb (GCS)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

R.C.S.

8623

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

January 8, 1957

Re: DMEA 4488; Lead-zinc;
$29,550.00
Foreman and Foreman
Defense Mine
Inyo County, California

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Branch of Base Metals

Subject: Field Team review of December 28, 1956 on subject application; received January 4, 1957.

As a result of DMEA diamond drilling under Contract Idm-E 424 the applicant was successful during 1952-3 in finding new reserves of ore. Production since then has repaid the Government's share of the exploration, but has depleted the reserves to the point that applicants estimate but 600 tons of 50 percent lead ore to remain "in sight." The applicant now proposes a new exploration program which has been worked out with the field examiners as follows:

Stage I - 5 drifts and crosscuts totaling 550 feet (180 feet on the lowest workings to explore Fault B, and 370 feet from the intermediate workings) and Stage II to consist of 100 feet of raising and 2,000 feet of drilling at locations to be jointly agreed to after completion of Stage I.

This work is planned to explore a northwesterly trending zone lying between Faults A and B. Although the zone has limited areal extent it requires and warrants intensive, closely-spaced exploration as the ore bodies are both small and rich.

I am inclined to believe work of this nature is almost part of day by day mining program and that much of the program outlined in both stages I and II should be undertaken by long-hole drilling or diamond drilling from the stopes and drifts as part of a prudent program to assure that all reasonable close-at-hand bets are covered as mining progresses.

Does not the geology of the immediate area and district warrant work outside Faults A or B or beyond the silicated zone mapped? Perhaps bolder thinking would find another ore zone instead of another pod of ore in the presently discovered zone.

I recommend that the Field Team confer with the applicant to determine if a program cannot be developed that offers a discovery potential beyond that of the work outlined.

O. M. Bishop.

O. M. Bishop

Copy to: Division of Minerals
Mr. Kiilsgaard
Mr. Lamb
Mr. Bishop
Files

IN REPLY REFER TO:

JAN 10 1957

500

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

January 8, 1957
Re: DMEA 4488
Foreman and Foreman
Defense Mine
Inyo County, California
Applicant's Estimate $
Recommended $29,550.00 - Lead-silver

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team Report

The applicants requested assistance in further exploring, by drifting, crosscutting, raising and underground diamond drilling, a lead-zinc bearing silicated limestone-marble zone. The zone was explored by diamond drilling under Contract Idm-E 424 (DMEA 2441) in 1952 and 1953. Two holes cut ore, most of which has been mined. The $6,120.00 royalty liability was liquidated.

The orebodies found to this time are associated with well brecciated inclined bedding or near bedding faults and practically flat crosscutting faults. The examiners and the Field Team recommend a staged work program consisting of:- Stage I, 550 feet of drifting and crosscutting, and Stage II, 100 feet of raising and 2,000 feet of diamond drilling in about 20 holes. Of the proposed drifting, 350 feet would be done on an intermediate level. Three drifts would radiate from the New Ore Body and a fourth appears to have no specific target. The area it would prospect was explored by drill holes 7A, 8, 9, 10 and 12 of the earlier work. Probably a flat fault which marks the lower limit of the ore control zone will also make the floor of the workings. A 70-foot crosscut to and a 110-foot drift in the 'B' breccia fault on the Lower level would complete the 550-foot Stage I work. Stage II work has not been laid out.

If the upper and lower limits of the 'ore control fault zone' are as definite and regular as indicated in the Geologic Section, P-P' Fig. 5, it appears diamond drilling could be used to probe for the small orebodies in place of the radiating drifts. As laid out the proposed 120-foot drift would penetrate the 'B' breccia zone at the intermediate level and afford a 'window', from which by diamond drilling a 'look' for the 'control zone' could be had beyond that fault, a worthy project, but the crosscut and drift on the lower level will afford a like observation post. The fault was probably also pierced by the long crosscut.

Reference to maps in the docket of DMEA 2441 shows that considerable drilling (13 holes) has been done from the lower tunnel level, 2 of which encountered ore, and 2 cut mineralization. Only one flat or near flat hole, No. 12, was drilled from the intermediate level.

If it has not been done, I recommend that several N 35° E geologic sections be made incorporating the information obtained by the previous drilling. By using such sections, in my opinion, a diamond drilling program rather than the drifting-crosscutting program will appear advisable as for the intermediate horizon. The crosscut to the 'B' fault at the lower level and drilling appear warranted.

It is not difficult to justify assisted work at this property, but I recommend that an alternative work program be considered.

N. E. Nelson

N. E. Nelson

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

RECEIVED DEC 31 1956 D.M.E.A.

ON SITE FIELD RPT

1605 Evans Avenue
Reno, Nevada

December 28, 1956

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4488 (Lead-Zinc)
Foreman and Foreman
Defense Mine
Inyo County, California

Reference is made to your letter of October 15, 1956, relative to the above subject docket.

Attached are four copies of a report by B. H. Sheahan, Bureau of Mines, and H. K. Stager, Geological Survey, in which an exploration loan of $29,550.00 to the Applicant is recommended.

Roscoe Smith and I concur in the recommendation.

Glenn F. Gentry
/for/ S. Ricker

Attachs.

Reviewed by
DMEA OPERATING COMMITTEE
1/4/57
(date)

BUREAU OF MINES
WASHINGTON, D. C.

DEC 31 9 04 AM '56

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-4488 (Lead-Zinc)
Foreman and Foreman
Defense mine
Inyo County, California

by

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

H. K. Stager
U. S. Geological Survey

December 26, 1956

Reviewed by
DMEA OPERATING COMMITTEE
4/4/57
(date)

DECLASSIFIED
DEC 31 1973
DMEA

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## ILLUSTRATIONS


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3 . . . . . Geologic map (surface)

4 . . . Composite mine map showing proposed work

5 . . . . . Geologic section

## INTRODUCTION

The partnership of Foreman and Foreman, P. O. Box 489, Lone Pine, California, applied to the Defense Minerals Exploration Administration, docket DMEA-4488, for Government assistance to explore for lead and zinc at the Defense mine, Inyo County, California. The applicants estimate that only 600 tons of ore with an average grade of about 50 percent lead and 50 ounces of silver per ton is in sight and wish to further explore the deposit to determine if sufficient ore reserves can be found to support a continuing mining operation.

A field examination was requested by the Operating Committee on October 15 and was made by B. H. Sheahan, U. S. Bureau of Mines, and H. K. Stager, U. S. Geological Survey on November 7 and 8, 1956, accompanied by Mr. Robert L. Foreman, mine superintendent.

The property was explored under contract Idm-E424 (DMEA-2441), in 1952 and 1953. The exploration was successful in finding new ore reserves, the project was certified as a discovery, and the Government loan was repaid in full by production royalties.

Inasmuch as the mine workings and surface geology were mapped in detail during the previous DMEA contract and adequate level maps were included in the application no attempt was made to

remap the property other than to bring the underground maps up to date and to add the claim lines to the surface map. As the average grade of the ore bodies in the deposit has been determined by ore shipments the examiners did not attempt to sample the ore exposures.

## CONCLUSIONS AND RECOMMENDATIONS

The Defense mine contains numerous high-grade lead-silver ore bodies. The results of the examination and of previous exploration indicate that the deposit contains other ore bodies similar to those that have been mined.

The applicants propose to explore the favorable area near known ore bodies by drifting, crosscutting, raising, and underground diamond drilling. Following the examination the program was discussed and several changes in the location, type, and order of work were considered desirable but with little change in the overall cost of the program. The revised program, which is acceptable to the applicants, is well suited to explore the deposit, and the applicants are qualified to do the work. The project site is readily accessible and facilities for accomplishing the work are available. The program, consisting of 550 feet of drifts and crosscuts, 100 feet of raises, and 2,000 feet of diamond drilling, will require about one year to complete and the Government's share of the estimated total cost of $29,550 would be $14,775.

It is recommended that the Government enter into a DMEA contract with Foreman and Foreman to provide 50 percent of the cost of the program. It is recommended that all work be based on unit costs rather than actual costs, and the location of the drill holes and raises provided under Stage II be subject to the approval of the field team.

## LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The property is in sec. 31, T. 19 S., R. 42 E., M.D.B.&M., at an altitude of 4,300 feet on the eastern slope of the Argus Range, Modoc mining district, Inyo County, California.

Trona, California, the nearest railroad shipping point and source of supplies is 46 miles by road south of the mine. Labor is available at Darwin or at Lone Pine.

A road log from Panamint Springs, California, follows:

| Place | Cumulative mileage | Distance, | Direction | Road Condition |
|---|---|---|---|---|
| Panamint | 0.0 Start | ----- | East | State Highway 190 |
| Springs, | 3.0 Rt. turn | 3.0 | East | Paved |
| California | 10.1 Rt. turn | 7.1 | South | Paved |
| | 14.1 Rt. turn | 4.0 | West | Dirt road |
| | 16.1 Left turn | 2.0 | North | Dirt road |
| | 19.0 Rt. turn | 2.9 | West | Steep, dirt |
| Defense mine | 19.6 End of road | 0.6 | North | Steep, rocky |

The mine is accessible all year, however, operations are usually suspended during summer months because of hot weather.

## PROPERTY AND OWNERSHIP

The property consists of five unpatented mining claims; location certificates are recorded at Independence as follows:

| Claim Name | Book | Page |
|---|---|---|
| Defense | Vol. 55 | 205 |
| Defense No. 1 | Vol. 55 | 470 |
| Defense No. 2 | Vol. 55 | 470 |
| Defense No. 3 | Vol. 85 | 579 (recent location) |
| Defense No. 4 | Vol. 85 | 580 (recent location) |

The mine is owned and operated by the applicants: L. D. Foreman, Mary R. Foreman, and Ida L. Cannon, a partnership doing business as Foreman and Foreman. Mr. R. D. Foreman is superintendent.

Housing facilities are adequate for a crew of ten workmen. Most of the equipment at the mine is in good operating condition and the applicant plans to provide it without charge to the exploration contract.

| Equipment | Condition |
|---|---|
| 1 Air Compressor, 500 c.f.m. | fair |
| 1 Mucking machine | fair |
| 3 Drifters, 2 stopers with steel | fair |
| 5 Mine cars, 1 ton | good |
| 3 Tuggers, double drum | good |
| 3 Trucks, 2 ton, 3/4 ton, 1/2 ton | fair |
| 1 Airplane, Cessna 172 | new |
| 1 Aerial tramway (not used) | poor |
| 1 Machine shop and tools | good |
| Miscellaneous mine tools | good |
| 2,000 ft. 16lb. rail | good |
| 2,000 ft. 1 inch and 2 inch pipe | good |

## HISTORY AND PRODUCTION

The Defense mine was discovered in the 1930's and 225 tons of 18 percent lead ore was mined. In 1941 C. C. King and J. C. Hodge relocated the property. They did a small amount of work at the outcrop and shipped 179 tons of ore which contained approximately 16 percent lead, 30 percent combined manganese and iron, and 3.0 ounces silver per ton.

Mr. L. D. Foreman and Mr. W. V. Skinner purchased the mine under bond and lease in 1946-1947. In April 1951, Mr. L. D. Foreman and family obtained control of the entire property.

Production from October 1947 through 1951 amounted to 8,621.2 dry tons of ore averaging 20 percent lead and 12 ounces silver per ton.

The mine was explored by 2,057.5 feet of diamond drilling under contract Idm-E424, docket DMEA-2441, which was signed October 27, 1952 and work was completed May 20, 1953. The Government's share of the loan was repaid January 21, 1955.

Mining activities following this exploration work increased total production and from October 1947 to October 1956 amounted to 13,856 dry tons having an average grade of 24.5 percent lead and 23.7 ounces silver per ton. Total recorded production from 13,337 dry tons is 160 ounces gold, 225,265 ounces silver, 41,763 pounds copper, 5,375,449 pounds lead, and 131,845 pounds zinc. Gross

value of production since the completion of contract Idm-E424 amounts to approximately $500,000.00.

## DEVELOPMENT

The mine was developed in 1942 by sinking 50 feet on the outcrop at the main shaft. A crosscut was driven below the collar of the discovery shaft in 1946 and ore was transported to a bin at the access road by a 700-foot gravity tramway. In 1949 a lower haulage adit was started and approximately 1,500 feet of workings were driven. Raise connections were made with the intermediate stopes. Total footage of underground workings amounts to about 4,000 feet.

Practically no timber is needed for ground support. Mining is done by open stope methods with efficient use of slushers to transfer ore to chutes leading to the haulage level.

The average crew includes four workmen and a superintendent.

## GENERAL GEOLOGY

The Defense mine is in an area of high relief on the east slope of the Argus range. The rocks in the mine area are chiefly marble and silicated limestone and have been tentatively correlated with the Tin Mountain formation of lower Mississippian age. These rocks are on the nose of a large northward plunging anticline. A quartz monzonite batholith of probable Cretaceous age forms the core of the anticline and crops out a few miles south of the mine area.

Diorite dikes cut the meta-sedimentary rocks in the mine area and may be offshoots of the quartz monzonite mass.

White, coarsely recrystallized limestone is the commonest rock type in the marble. Blue-gray, medium-grained marble is abundant in the northeast part of the mine area, and banded marble, consisting predominantly of 4- to 6-inch white marble layers intercalated with 1- to 2-inch dark-gray bands occur locally throughout the area. Much of the white marble contains white chert lenses 1- to 3-inches thick traceable for several feet parallel with the bedding. In some places chert is sufficiently abundant to constitute about a fourth of the rock.

The silicated limestone occurs as salients in the marble and consists mainly of a white to grayish-white, hard dense rock, rich in diopside and tremolite. Chert lenses in the silicated limestone are generally altered to hornfels minerals. Light-brown tactite, a lesser constituent of the silicated limestone near the diorite, contains abundant garnet and calcite, lesser idocrase, chlorite, oxidized iron minerals, and minor amounts of scheelite.

The meta-sedimentary rocks strike N 50° - 80° W and dip steeply northeast except for local vertical and steep southwest dips in the western part of the mine area.

Diorite occurs as dikes, commonly along faults. It is a light-gray, plagioclase-rich rock speckled with elongate black hornblende and augite phenocrysts.

The rocks are cut by several nearly parallel faults that range in strike from N 45° W to N 80° W and dip 70° - 80° northeast. The faults are marked by conspicuous breccia zones, most of which are 2 to 3 feet thick but locally as much as 30 feet thick. The breccia zones contain comminuted meta-sedimentary rocks and podlike masses of jasper, oxidized manganese minerals, and local quartz and limonite. A nearly flat fault zone, which does not crop out at the surface, is confined to an area between the two northernmost northwest-trending faults (faults A and B, fig. 3). This zone is about 50 feet thick. Faults in this zone strike about north and dip 6° - 12° east. It is along these gently dipping faults that the ore bodies occur.

## ORE DEPOSITS

The deposit consists of replacement-type ore bodies of silver-bearing galena in marble, localized along flat to gently dipping faults.

The principal ore minerals are argentiferous galena and cerusite with minor amounts of anglesite and pyromorphite. Traces

of chrysocolla and other secondary copper minerals are present in the ore and assays show some zinc although no zinc minerals have been observed. Gangue minerals are calcite, quartz, pyrite, and oxides of manganese and iron.

The ore bodies are flat or gently dipping, elongate lenses 30- to 260-feet long, 10- to 20-feet wide, 5- to 20-feet thick and contain from a few tons to as much as 5,000 tons of ore each. The grade of the ore bodies ranges from 5 to 60 percent lead and 10 to 100 ounces of silver per ton with an average grade of about 25 percent lead and 25 ounces of silver per ton.

The ore bodies are locallized in crestal parts of corrugations or rolls in faults that strike about north and dip 6° - 12° east. These faults are probably a manifestation of differential movements on the steeply dipping boundary faults. Movement on these steep faults evidently produced flexures within the plane of the low angle faults and created open spaces that provided access to lead-bearing solutions. The trend of the ore bodies is about the same as the strike of the enclosing marble beds but the nearly flat ore bodies cut across the steeply dipping beds.

The favorable area that contains all of the known ore bodies is between faults A and B, about 300 feet wide, 50 feet thick, and more than 350 feet long. Only the southwestern part of the area, about 200 feet wide and 350 feet long, has been explored.

The ore body that is presently being mined was discovered since the completion of the previous DMEA contract. It is on the same level and north of the body discovered by DMEA work (fig. 4). The body is about 12 feet thick, has been exposed for about 30 feet along the strike, has been mined for about 15 feet down a gentle dip and tested by drill holes in the face for another 6 feet. It is massive galena and is of much higher average grade than other ore bodies in the deposit. More than 1,000 tons of ore having an average grade of about 50 percent lead and 50 ounces of silver per ton has been mined and shipped from this body. It is probable that the amount of ore remaining in the body is equal to or exceeds the amount that has been mined.

Past production has come from seven ore bodies and totals about 14,000 tons of ore with an average grade of 24.5 percent lead and 23.7 ounces of silver per ton. Two of these ore bodies have yielded about 5,000 tons of ore each and the remaining five bodies have yielded from a few hundred tons to about two thousand tons of ore each.

## SAMPLING

Recent carload shipments of ore produced from the mine were judged to be the best sample that would indicate the grade of the ore reserve. Only a few specimen samples were taken and these were not assayed, as the ore is practically solid galena.

Previous sample and production data was used in the computation of reserves.

## ORE RESERVES

The applicants estimate that the ore reserves available for mining are about 600 tons of measured ore assaying 50 to 60 percent lead and 50 ounces of silver per ton, and 4,000 tons of measured and indicated marginal ore assaying about 5 percent lead and 10 ounces of silver per ton. A review of the applicants' maps and sections and measurements of the ore in place reveals that this estimate of reserves is conservative.

The reserves estimated by the examiners are summarized in the following table:

| Class | Tons | Percent lead | Ounces silver | Location and remarks |
|---|---|---|---|---|
| Measured | 600 | 50 | 50 | New ore body (being mined). |
| Indicated | 400 | 50 | 50 | New ore body (being mined). |
| Inferred | 500 | 50 | 50 | New ore body (being mined). |
| Measured | 1,500 | 5 | 10 | Marginal ore body. |
| Indicated | 2,500 | 5 | 10 | Marginal ore body. |
| Inferred | 1,000 | 5 | 10 | Marginal ore body. |
| Inferred | 4,000 | 25 | 25 | Unexplored ground. |

Except for the 4,000 tons inferred in unexplored ground, these reserves are in two ore bodies exposed by mine workings on the intermediate level (fig. 4). It is inferred that two or more ore bodies similar in size and grade to those that have been mined will be found in the areas to be explored by the proposed work.

## PROPOSED EXPLORATION

The applicants propose to explore for other ore bodies by drifting, crosscutting, raising, and underground diamond drilling.

Part of the work proposed by the applicants, items 3, 4, 8, 10, 11, 12, and 13 of the application, are either development in nature or explore ground that has already been partly explored by other workings and/or drilling. The operator considers this work necessary for the proper development of the mine and will probably do it at his own expense. The balance of the work proposed is well planned and will explore favorable ground near known ore bodies. Exploration by drifting and crosscutting at favorable horizons, followed by diamond drilling and raising, has been used successfully by the operators in finding new ore bodies in the past and it is the most efficient and economical means of finding the small, flat, high-grade ore bodies that are characteristic of the deposit.

In conference with the applicants several changes in the location, type, and order of work were suggested and agreed upon. The work should be divided into two stages; Stage I to consist of 5 drifts and crosscuts totaling 550 feet, and Stage II to consist of 100 feet of raising in 2 or more raises and 2,000 feet of diamond drilling in about 20 holes. The work proposed as Stage I is shown on figure 4 and the work proposed as Stage II will be done after Stage I is completed and will be in the sites agreed upon by the operators and the field team.

Of the five drifts and crosscuts proposed under Stage I, four are on the intermediate level and will explore for ore bodies in the unexplored northern and eastern parts of the favorable area near known ore bodies. They will also provide favorable sites for drilling and raising to test for ore bodies above and below the level. The crosscut and drift proposed on the lower level will explore for ore bodies along, or near, fault B in the eastern part of the favorable area and will provide sites for uphole drilling to explore for flat-lying ore bodies in the favorable area east of known ore bodies on the upper and intermediate levels.

## Estimated Exploration Costs

Stage I - Drifts and crosscuts, 550 ft. @ $27.00/ft. $14,850.00

Size 5 ft. by 7 ft. clear of timber.
Crew: Superintendent @ $120.00/wk.
3 miners @ $90.00/wk.
Rate of advance estimated one 5-ft. round per shift, 5 days per week, time 110 shifts.

Unit Cost Estimate

| | |
|---|---|
| (a) Labor and supervision | $15.60/ft. |
| (b) Supplies | |
| Explosives and carbide | 2.61/ft. |
| Diesel fuel and lubricants | 2.32/ft. |
| 2 inch air and 1 inch water pipe | 0.62/ft. |
| Track (complete) | 0.90/ft. |
| Ventilation tube | 1.00/ft. |
| Timber | 0.78/ft. |
| (c) Industrial insurance - Social Security $13.54/100 | 2.95/ft. |
| (d) 30 Assays @ $4.00/ea. | 0.22/ft. |
| | $27.00/ft. |

Cost, Stage I. . . . . $14,850.00

Stage II - Raises, 100 ft. @ $23.00/ft. $2,300.00

Size 4 ft. by 6-1/2 ft. - one compartment and manway.
Crew: Superintendent @ $120/wk.
2 miners @ $90/wk.

Unit Cost Estimate

| | |
|---|---|
| (a) Labor and supervision | $12.00/ft. |
| (b) Supplies | |
| Explosives and carbide | 2.61/ft. |
| Diesel fuel and lubricants | 2.32/ft. |
| 2 inch air and 1 inch water pipe | 0.62/ft. |
| Timber for manway | 2.29/ft. |
| Ventilation tube | 1.00/ft. |
| 5 assays @ $4.00/ea. | 0.20/ft. |
| (c) Industrial insurance - Social Security $13.54/100 | 1.96/ft. |
| | $23.00/ft. |

Stage II Independent contract

Diamond drilling, 2,000 ft. @ $6.20/ft. $12,400.00
20 holes, AX size, average depth 100 ft.
Estimated rate of drilling 25 ft. per shift.

Unit Cost Estimate

| | |
|---|---|
| (a) Supervision - Surveying - logging core | $0.80/ft. |
| (b) Supplies | |
| Power and water | 0.75/ft. |
| Drill bits | 0.80/ft. |
| Core boxes | 0.05/ft. |
| (c) Labor | |
| Driller and helper | 2.40/ft. |
| (d) Drilling equipment | 0.93/ft. |
| (e) Industrial Insurance | 0.35/ft. |
| (f) 60 assays @ $4.00/ea. | 0.12/ft. |
| | $6.20/ft. |

| | |
|---|---|
| Cost, Stage II | $14,700.00 |
| Total cost of project: | $29,550.00 |

## Cost Summary on Unit Cost Basis

| | | |
|---|---|---|
| Stage I - Drifts and crosscuts, 550 ft. @ $27.00/ft. | | $14,850.00 |
| Stage II - Raises, 100 ft. @ $23.00/ft. | $2,300.00 | |
| Diamond drilling, 2,000 ft. @ $6.20/ft. | 12,400.00 | |
| | | $14,700.00 |
| Total estimated cost . . . . . | | $29,550.00 |
| Government's share at 50 percent . . . . . | | $14,775.00 |
| Applicant's share at 50 percent. . . . . | | $14,775.00 |

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA-4488
(Lead-Zinc)

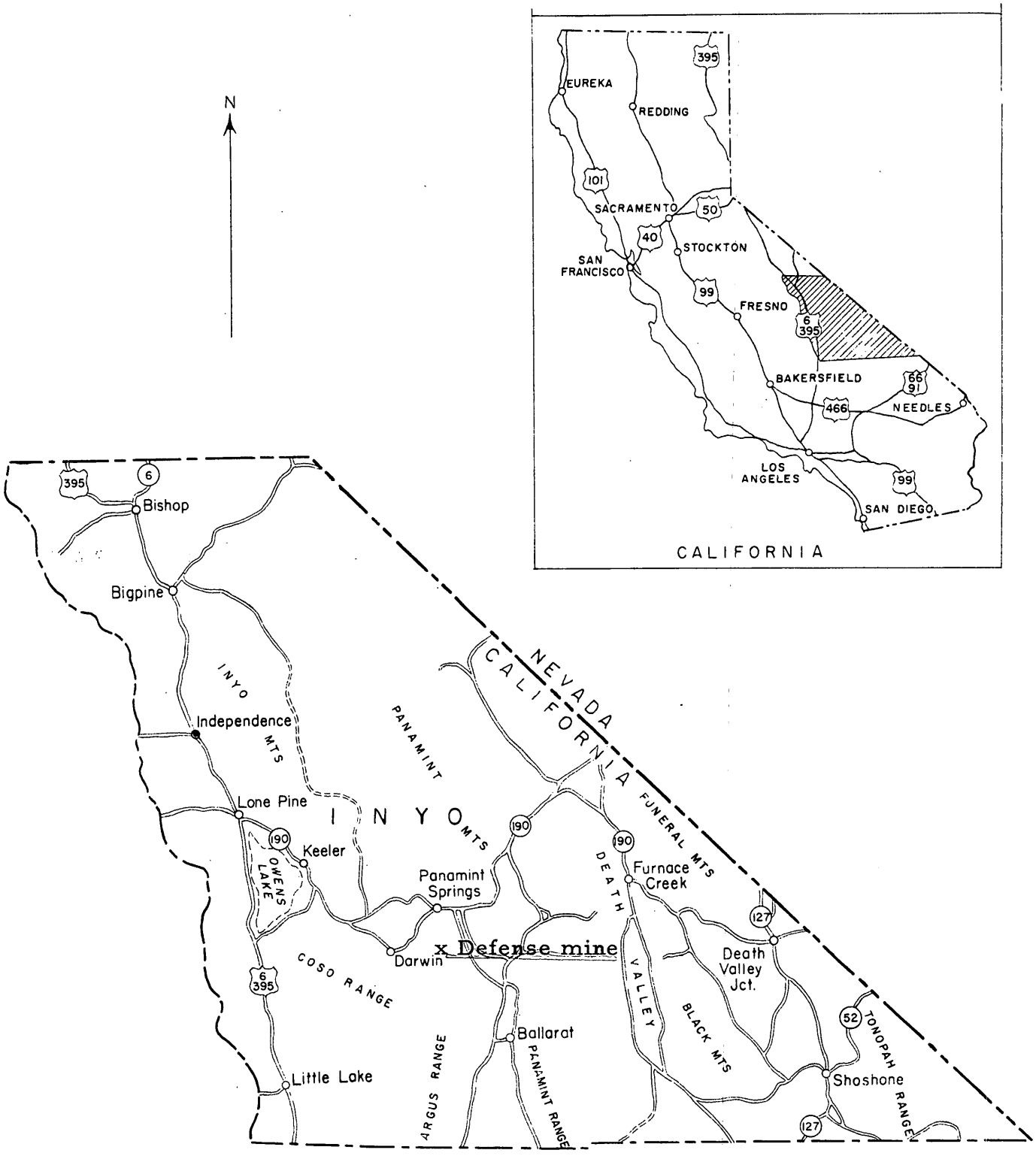



Figure I. INDEX MAP OF INYO COUNTY, CALIFORNIA

0 25 50 75 Miles

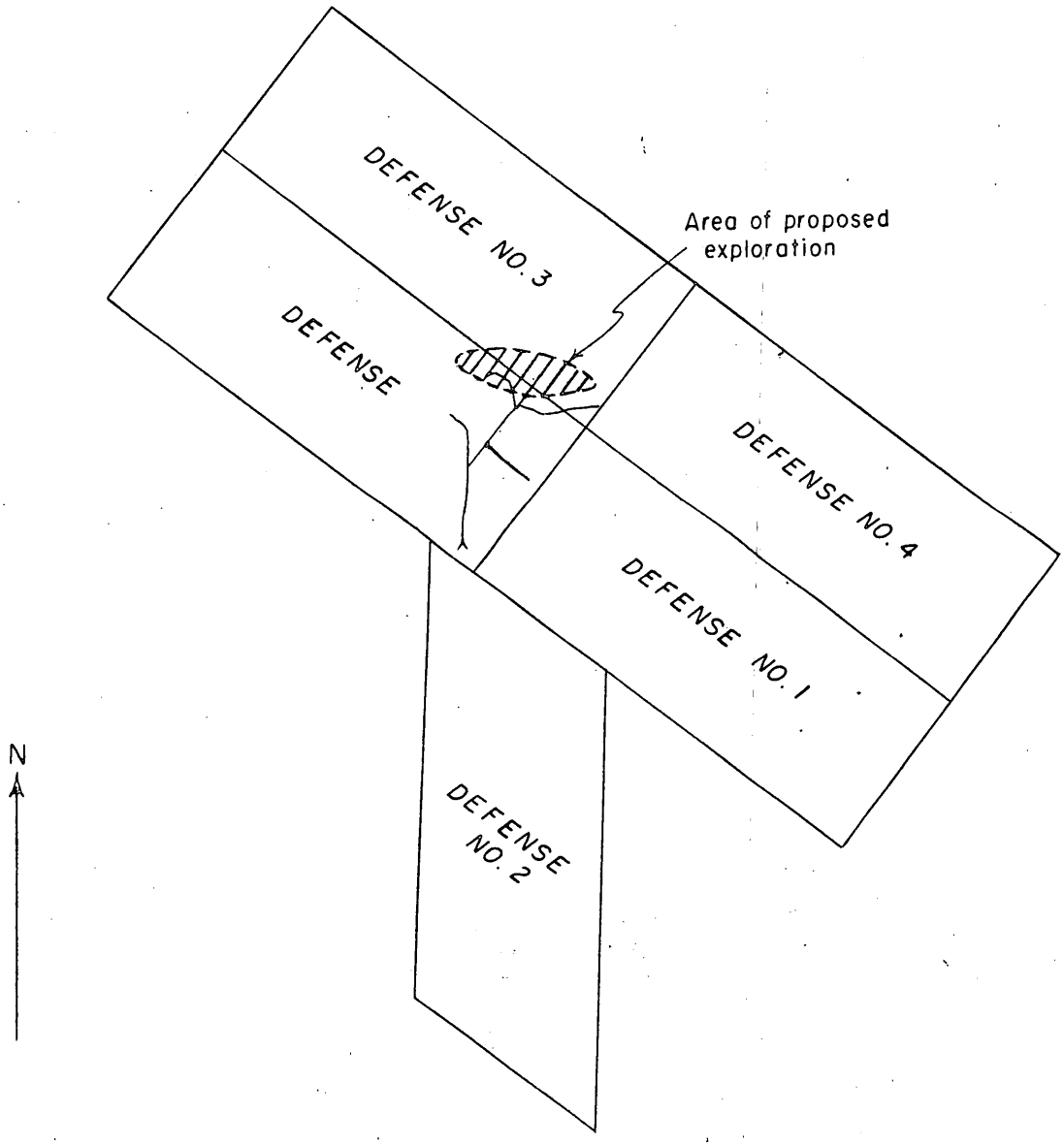
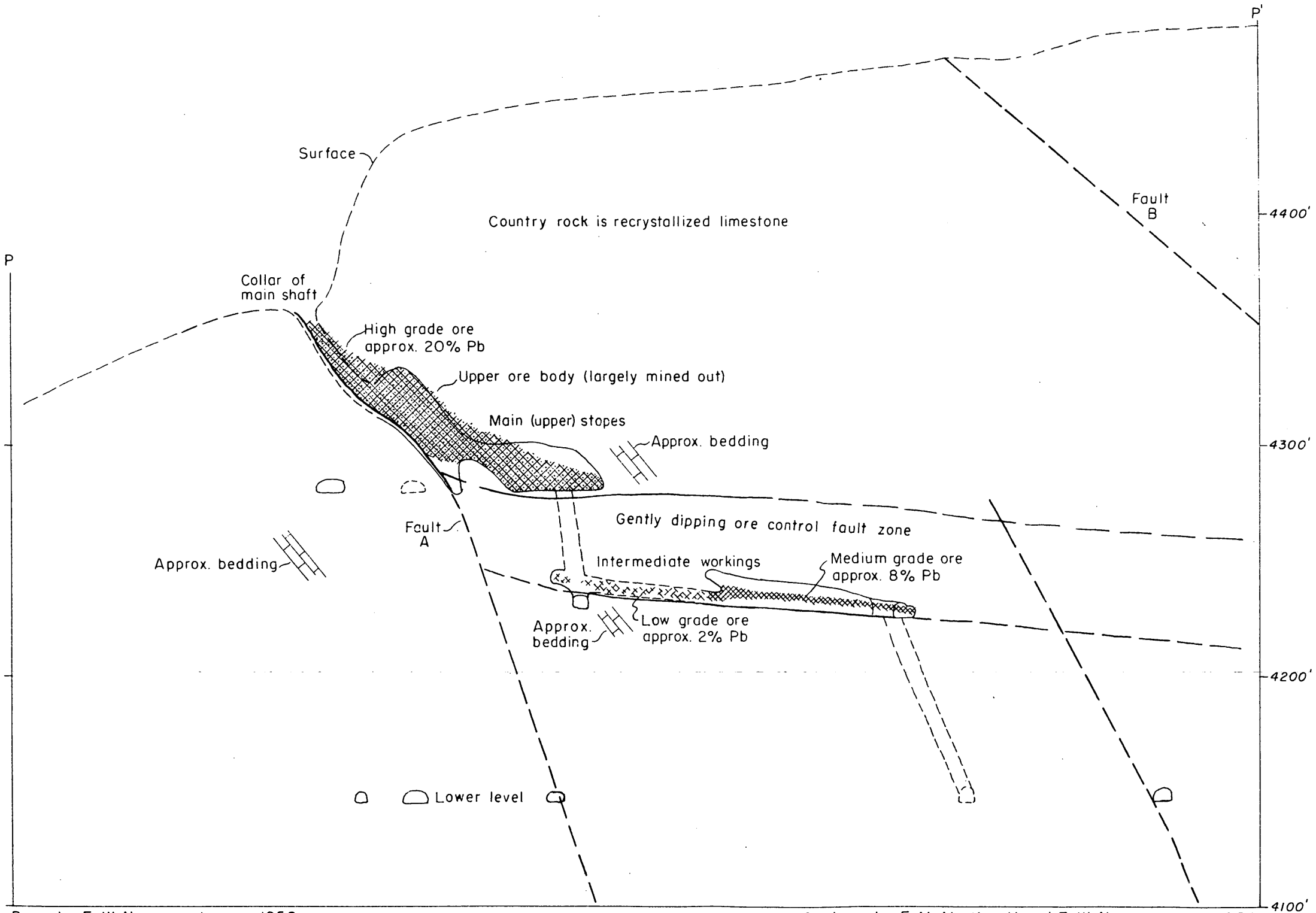



Figure 2. CLAIM MAP OF DEFENSE CLAIMS
INYO COUNTY, CALIFORNIA

0 600 1200 1800 Feet




Base by E. W. Newman, January 1952

Geology by E. M. MacKevett and E. W. Newman, June 1952

GEOLOGIC SECTION P-P', DEFENSE MINE, INYO COUNTY, CALIFORNIA

50 0 50 100 FEET

Figure 5

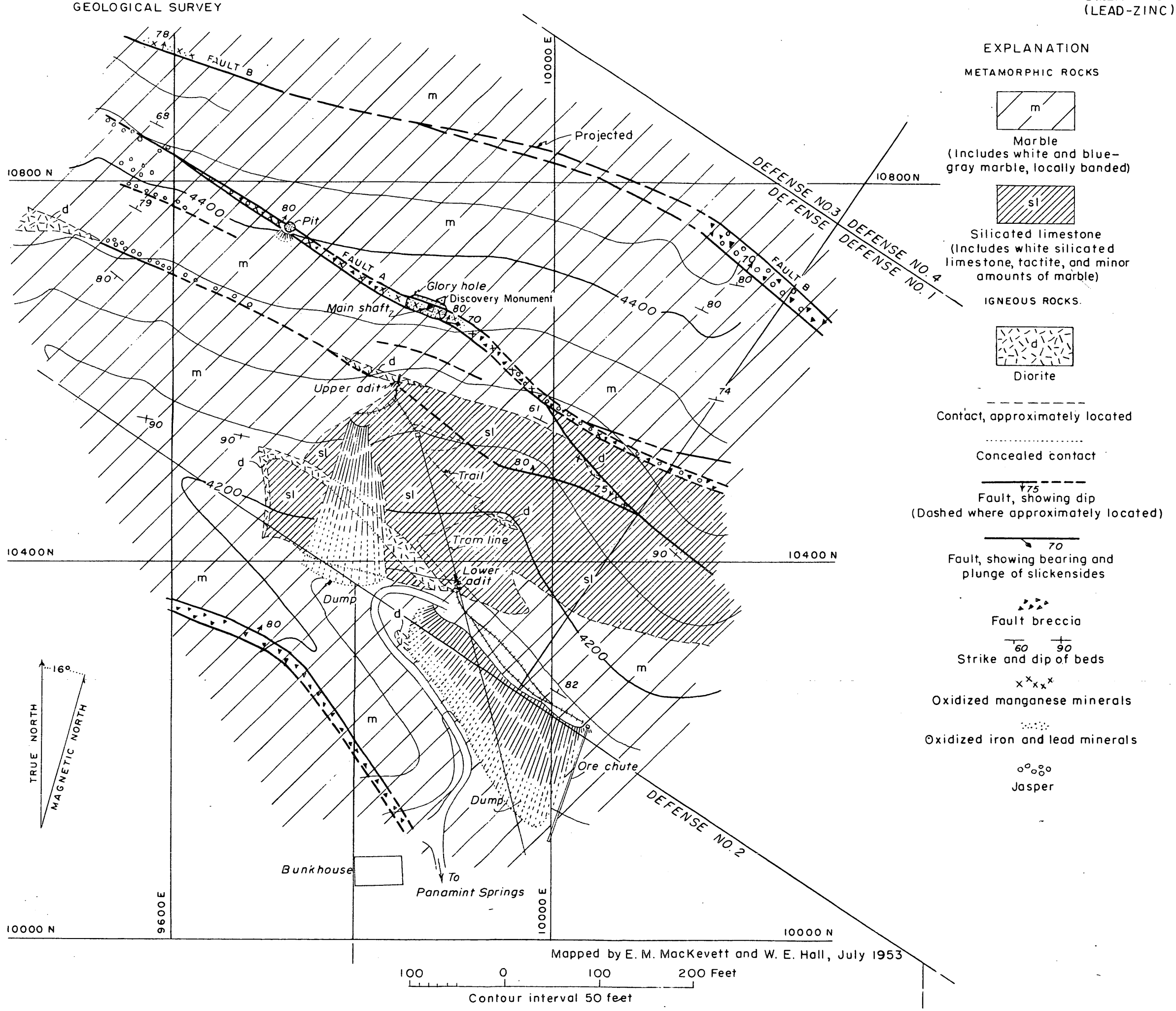



Figure 3. GEOLOGIC MAP OF DEFENSE AREA
INYO COUNTY, CALIFORNIA

File Copy
Surname

Kilsgaard
Lamb
Selfridge
Griswold

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

OCT 15 1956

Mr. L. D. Foreman
Post Office Box 489
Lone Pine, California

Re: Docket No. DMEA-4488 (Lead-Zinc)
Foreman and Foreman
Defense Mine
Inyo County, California

Dear Mr. Foreman:

Your application for Government assistance to explore the cited property has been reviewed by the Base Metals Division of the Defense Minerals Exploration Administration and is being referred to:

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

If additional information concerning your application is needed, the Field Team will get in touch with you at an early date.

Sincerely yours,

C. O. Mittendorf

Administrator

WRGriswold/er 10/12/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Region II (2)
Chron.

R.C.K.

File Copy
Surname

Griswold
Mathewson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION 500
WASHINGTON 25, D. C.

OCT 15 1956

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

Re: Docket No. DMEA-4488 (Lead-Zinc)
Foreman and Foreman
Defense Mine
Inyo County, California

Dear Mr. Ricker:

The cited application is being referred to your office for consideration, a field examination of the property if warranted, and recommendations.

Copies of memoranda dated October 8 by W. P. Williams, Geological Survey, and O. M. Bishop, Bureau of Mines, relating to the project are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

WRGriswold/er 10/12/56
Copy to: Docket
Admr R File
Op. Committee
Base Metals
Mr. Bishop, USBM
Mr. Kiilsgaard, USGS
Chron.

APPROVED:

Frank D. Lamb (GCS)
Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)
Member, Geological Survey

R.C.S.

IN REPLY REFER TO:

Griswold
Reply

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

RECEIVED
OCT - 9 1956

October 8, 1956

Memorandum

To: W. R. Griswold, Defense Minerals Exploration Administration

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

Subject: Review of application, DMEA 4488, Foreman & Foreman, Defense Mine, Inyo County, California, (lead-zinc).

The applicant proposes to explore for ore extensions in the Defense mine. The proposed project would consist of a total of 825 feet of underground drifting and raising and 1,250 feet of diamond drilling. Estimated total cost of the work is $29,878.

The Defense mine was the site of DMEA 2441, Idm-E 424, in which the present applicant was the operator. The former project was successful in finding new ore reserves, the project was certified as a discovery, and the operator repaid in full by production royalties the Government's financial participation.

The proposed work would seem to have an excellent chance of discovering new ore reserves. Judging from the applicant's performance under the previous contract, there seems to be reasonable assurance that work under a new DMEA contract would be efficiently and competently performed.

I recommend that the application be referred to the Field Team for review and report. There may be some question that some of the proposed work represents mine development rather than pure exploration, as for example, the applicant's 'development recommendation' no. 8. Perhaps drilling could take the place of some of the underground work.

W. P. Williams

W. P. Williams

Transmit Betty

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

RECEIVED
OCT - 9 1956

October 8, 1956

Re: DMEA 4488; Lead-Zinc;
$29,877.50
L. D. Foreman et al in partnership
Defense and Defense Nos. 1 & 2 Claims
Inyo County, California

Memorandum

To: W. R. Griswold, DMEA

From: O. M. Bishop, Branch of Base Metals

Subject: Review of undated application for exploration aid, received by DMEA October 3, 1956.

The applicant reports the Defense Mine which has about 3,000 feet of workings, produced from October 1947 to October 1956, 13,856 dry tons of ore which average 24.5 percent lead and 23.7 ounces of silver. The ore occurs as replacements in flat shear zones in the limestone and has been mined on the 4,278- and 4,244-foot levels and possibly on the 4,146 level.

The applicant proposes to drive nine drifts totaling 760 feet, two raises totaling 65 feet and 1,250 feet of diamond drilling. The work is located to explore the ore-bearing beds where intersected by known fractures.

Although the maps are reasonably good, I find it impossible to evaluate the merit of the proposal wholly on the basis of the application and hence, recommend that the application be referred to the field for examination on the ground.

O. M. Bishop

O. M. Bishop

Copy to: Division of Minerals
Mr. Kiilsgaard
Mr. Lamb
Mr. Bishop
Files

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

October 5, 1956

Foreman & Foreman
P. O. Box 489
Lone Pine, California

Subject: DMEA-4490
Re: Exploration Assistance
Defense Mine

Gentlemen

Your application for exploration assistance, dated ( undated ) submitted to our office at Reno, has been assigned Docket Number DMEA-4490 and referred to the Rare Metals Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

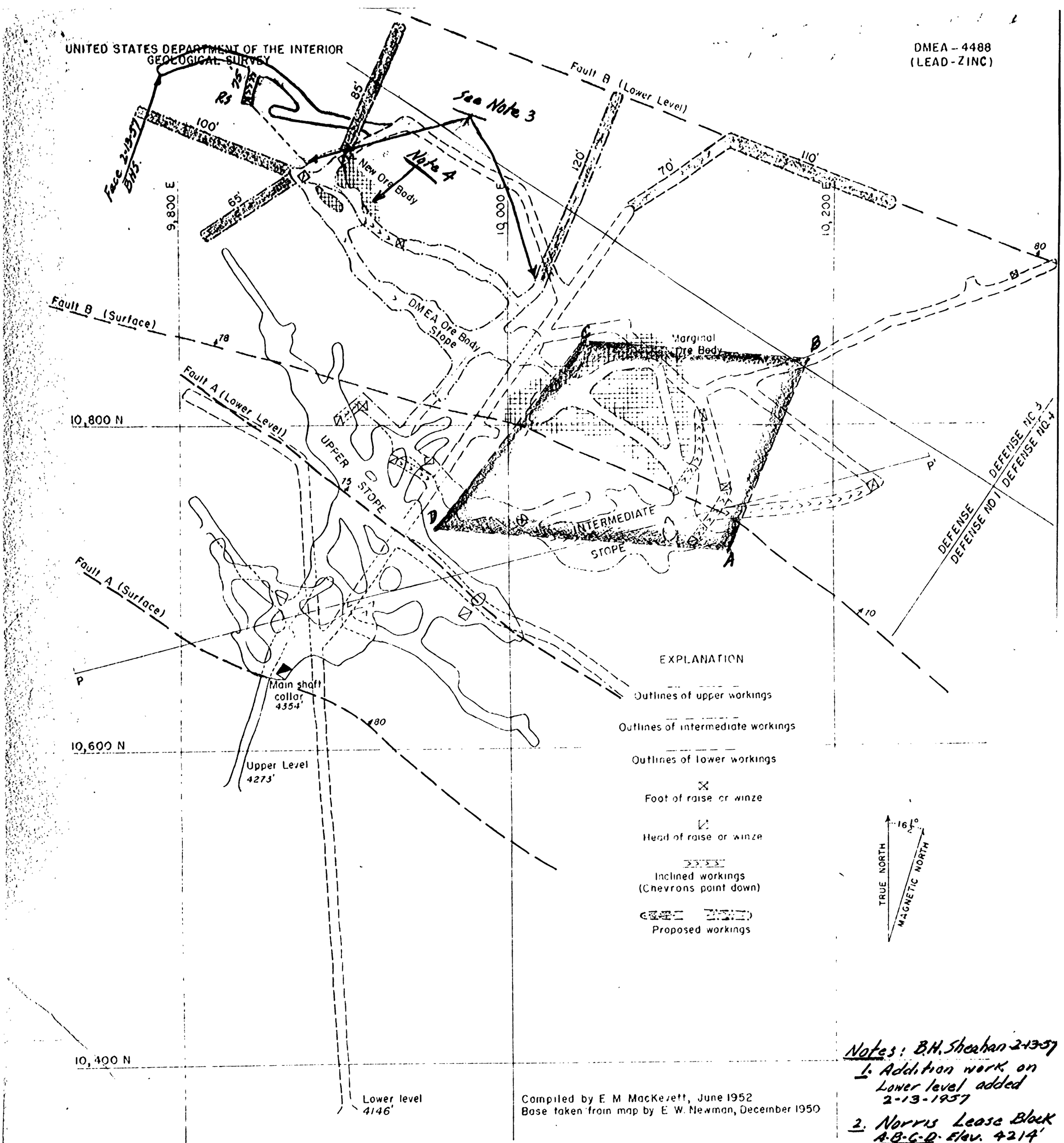
Allen S. Dakan, Chief
Operations Control and
Statistics Division

Copy to:

Region II. Reno, Nevada

Code 500

3571




Notes: B.H. Sheahan 2-13-57

1. Addition work on Lower level added 2-13-1957

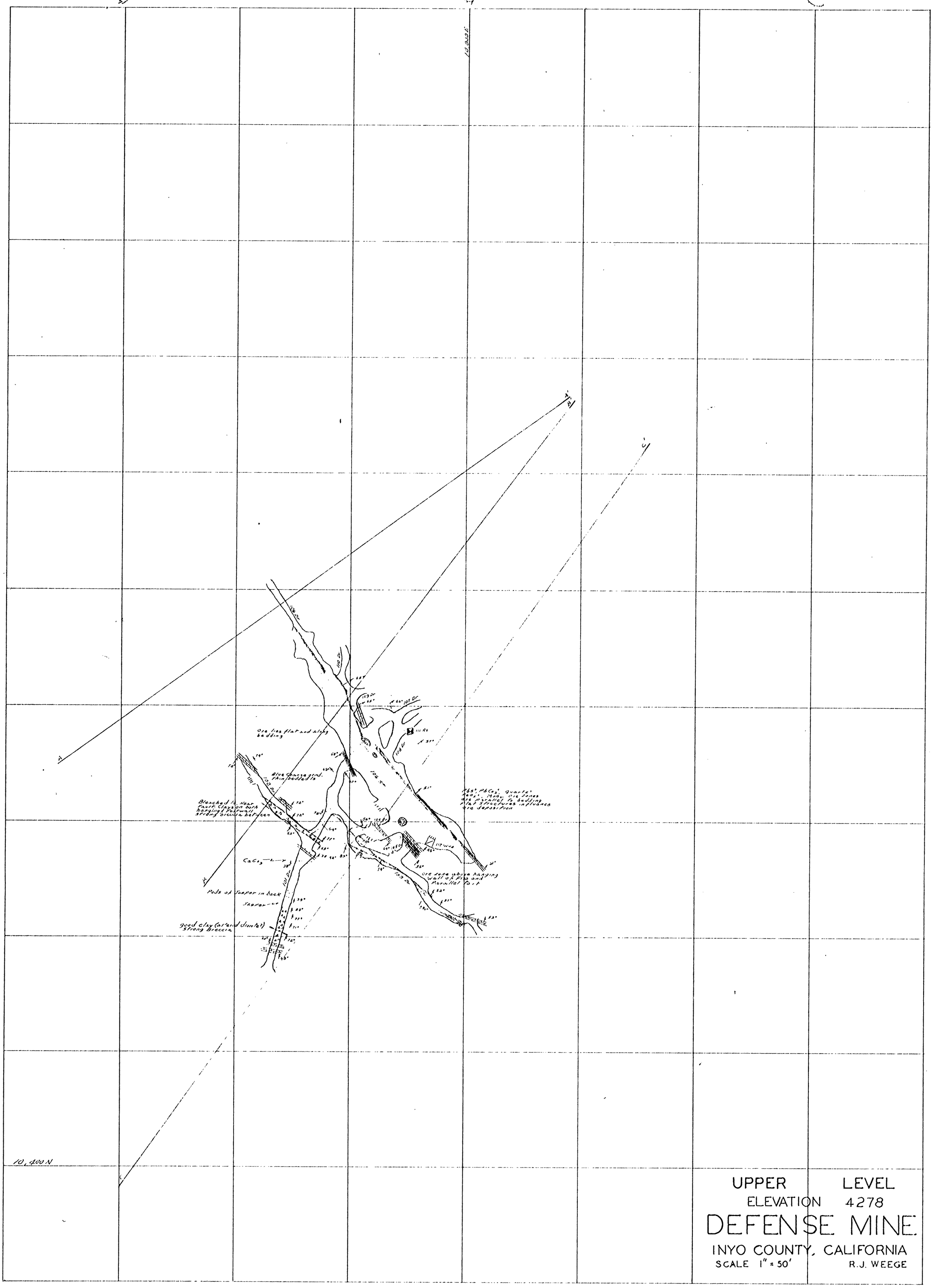
2. Norris Lease Block A-B-C-D. Elev. 4214' to Elev. 4274'

3. Drift and x-cut being started by company.

4. Mining ore.

COMPOSITE OF UNDERGROUND WORKINGS SHOWING LOCATIONS OF PROPOSED DRIFTS AND CROSSCUTS
DEFENSE MINE, INYO COUNTY, CALIFORNIA

Figure 4



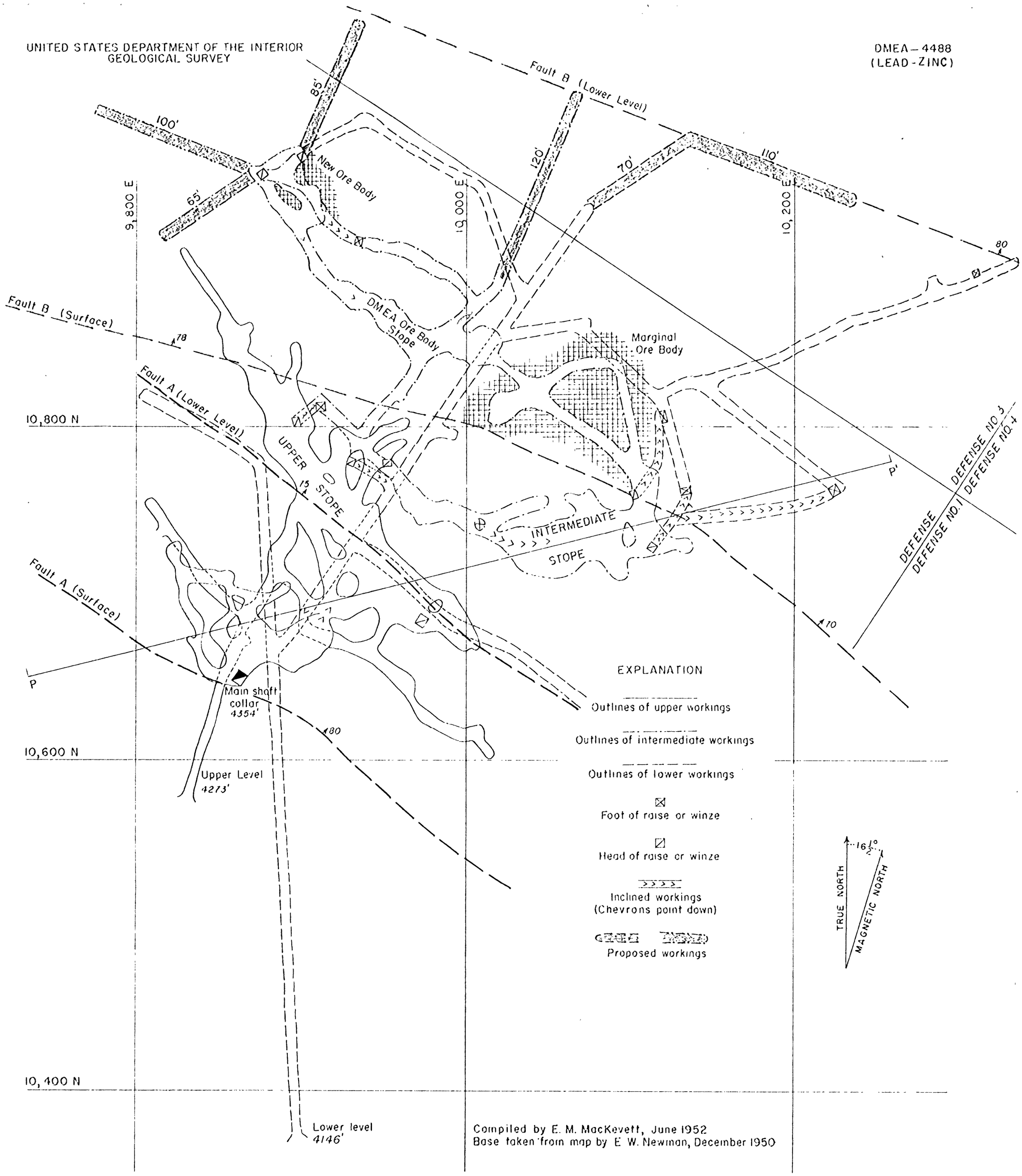

UPPER LEVEL
ELEVATION 4278

# DEFENSE MINE

INYO COUNTY, CALIFORNIA

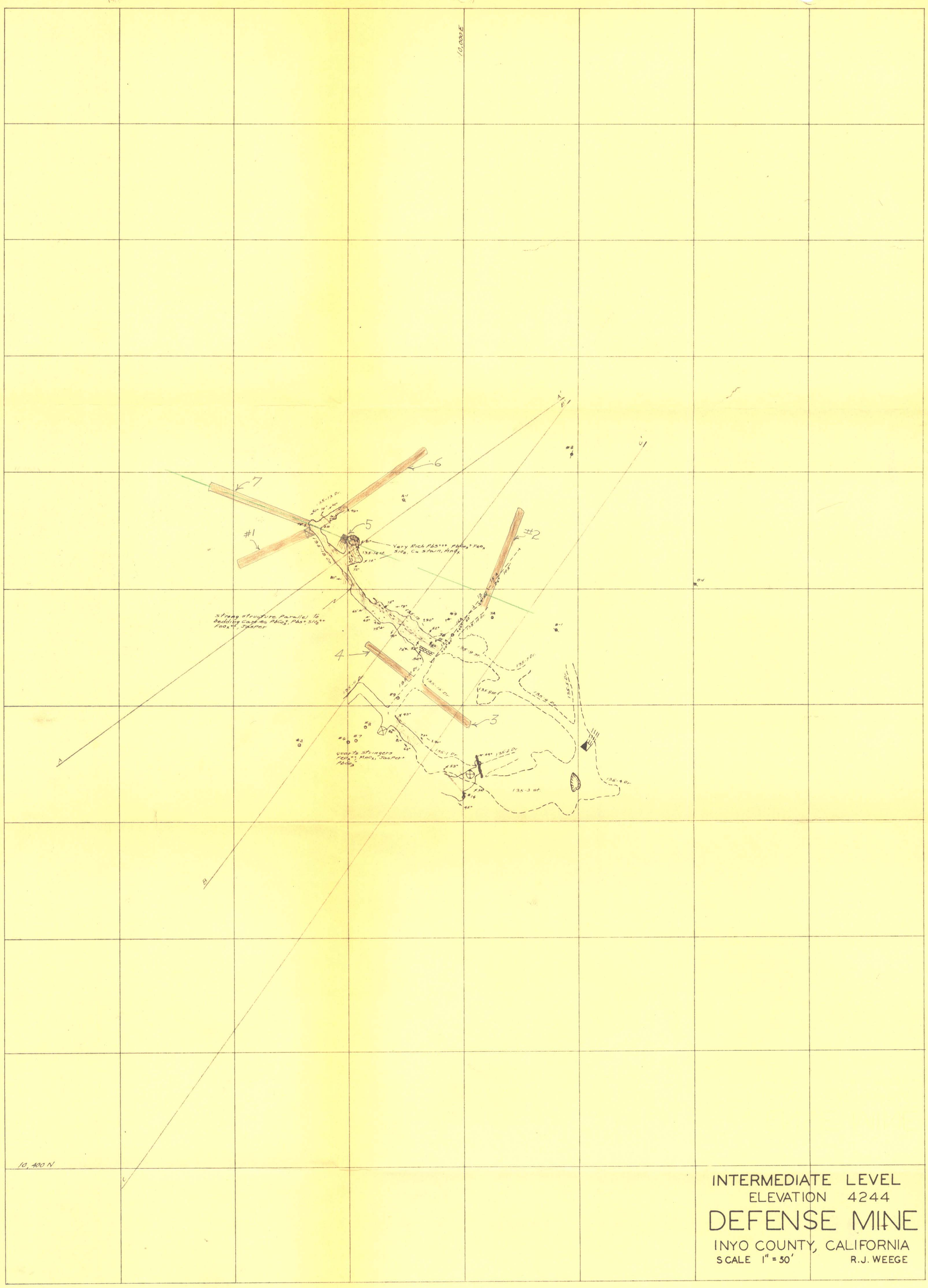
SCALE 1" = 50'

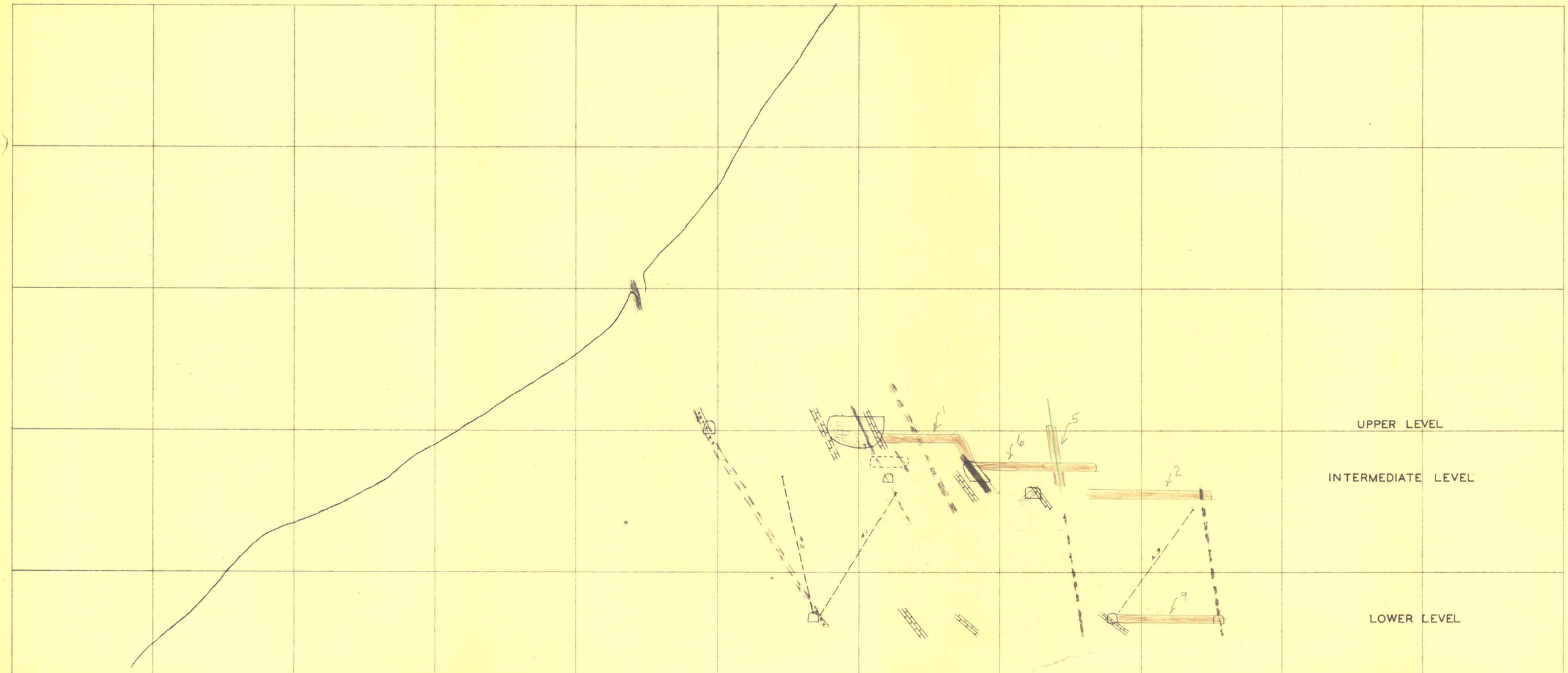
R.J. WEEGE




COMPOSITE OF UNDERGROUND WORKINGS SHOWING LOCATIONS OF PROPOSED DRIFTS AND CROSSCUTS
DEFENSE MINE, INYO COUNTY, CALIFORNIA

Figure 4


10,000E
10,400 N
A
B
A'
B'
#1
#2
3
4
5
6
7
Very Rich Pb S+++ PbCO3+ FeOx SiO2, Cu Stain, MnOx
Strong structure Parallel to bedding Carries PbCO3+, PbS+, SiO2++ FeOx++, Jasper
Quartz Stringers FeO++, MnOx, Jasper+ PbCO3
135-13 Dr.
135-12 Dr.
135-14 st.
135-9 st.
135-10 Dr.
135-11 Dr.
135-8 st.
135-7 Dr.
135-6 Dr.
135-5 Dr.
135-4 Dr.
135-3 st.
135-2 Dr.
135-1 Dr.
INTERMEDIATE LEVEL
ELEVATION 4244
DEFENSE MINE
INYO COUNTY, CALIFORNIA
SCALE 1" = 50'
R.J. WEEGE



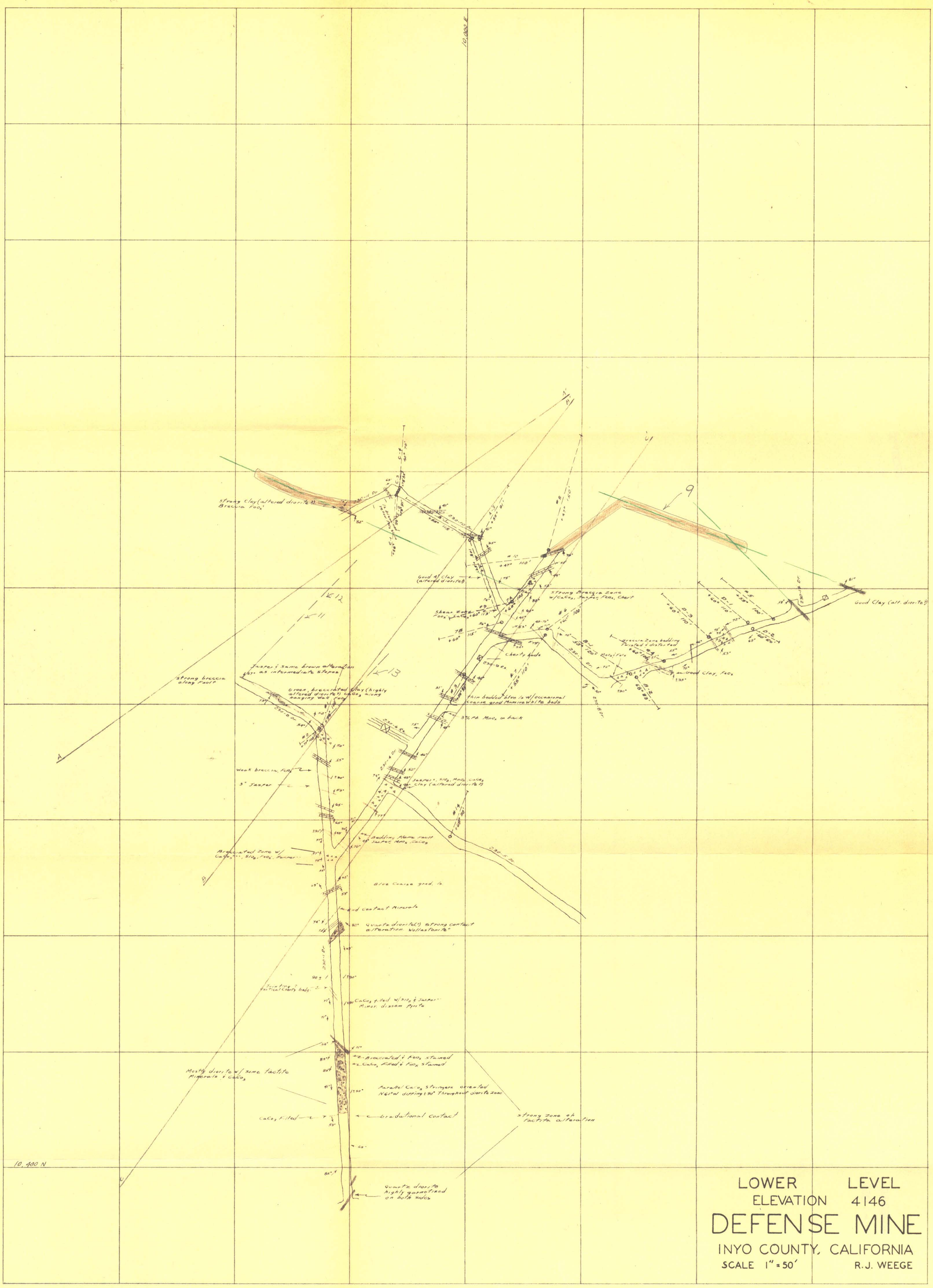

SECTION B-B'
LOOKING NW

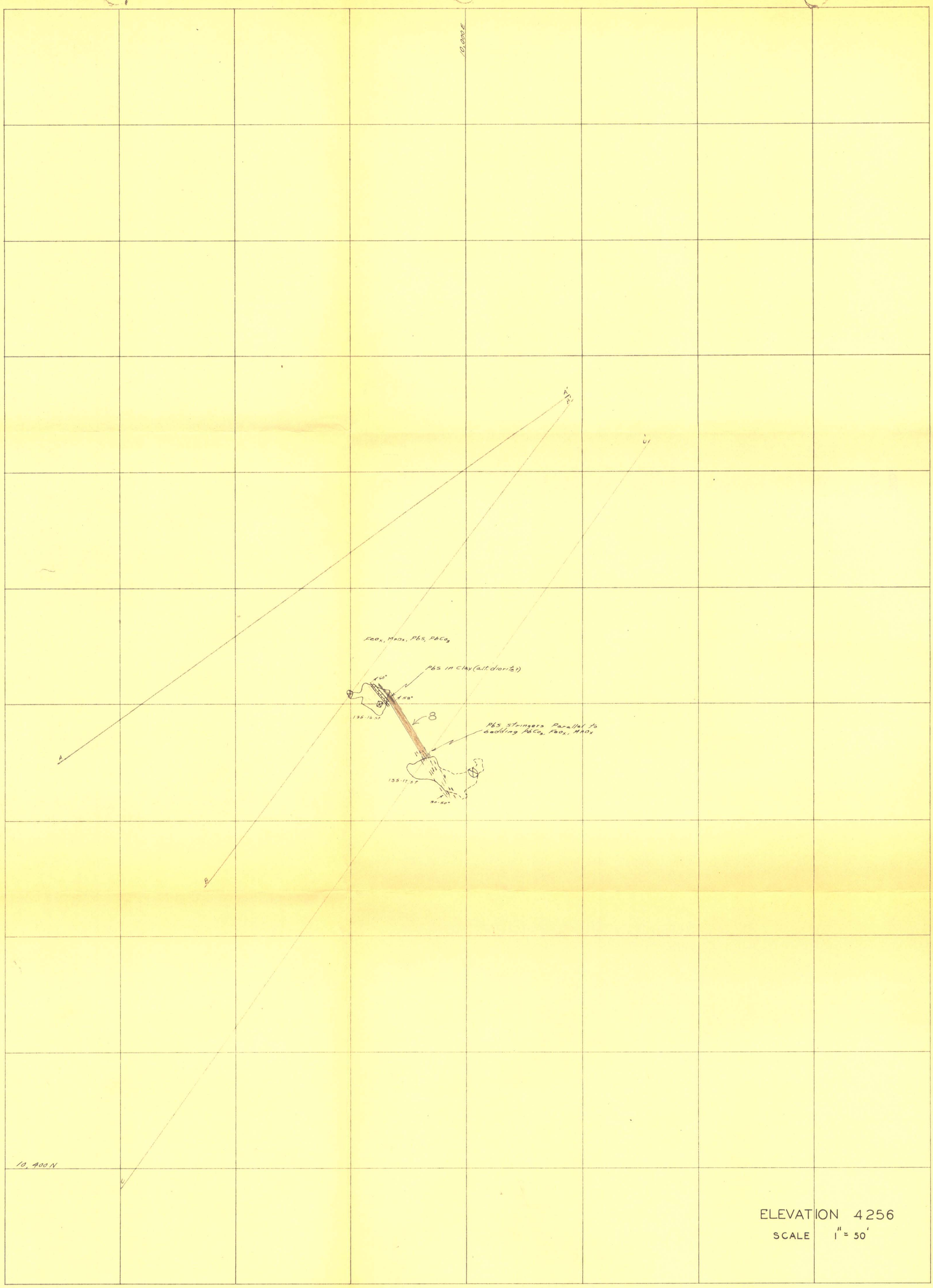
# DEFENSE MINE

INYO COUNTY, CALIFORNIA

SCALE 1" = 50'

R. J. WEEGE


10,000 E
10,400 N
LOWER LEVEL
ELEVATION 4146
DEFENSE MINE
INYO COUNTY, CALIFORNIA
SCALE 1" = 50'
R.J. WEEGE
Strong Clay (altered diorite?) Breccia FeOx
Good Clay (altered diorite)
Strong Breccia Zone w/CaCO3, Jasper, FeOx, Chert
Good Clay (alt. diorite?)
Shear Zone FeOx, CaCO3
Cherty beds
Breccia Zone bedding Twisted & distorted
Good Clay, FeOx
Strong breccia along fault
Jasper & some brown alteration FeOx as intermediate stepes
Green, brecciated clay (highly altered diorite?) CaCO3 along hanging wall FeOx
thin bedded lime ls w/occasional coarse grad Massive White beds
3% Pb MnO2 in back
Weak breccia, FeOx
3" Jasper
Jasper, SiO2, MnO2, CaCO3
Clay (altered diorite?)
Bedding Plane fault Jasper, MnO2, CaCO3
Brecciated Zone w/ CaCO3, SiO2, FeOx, Jasper
Blue Coarse grad. ls.
Red contact Minerals
Quartz diorite(?) Strong contact alteration Wollastonite
Jointing? Vertical Cherty beds
CaCO3 filled w/SiO2 & Jasper Minor. dissem Pyrite
Brecciated & FeOx stained
CaCO3 Filled & FeOx stained
Mostly diorite w/ some tactite Minerals & CaCO3
Parallel CaCO3 stringers oriented N60°W dipping 90° throughout diorite zone
CaCO3 Filled
gradational contact
strong zone of tactite alteration
quartz diorite highly quartzified on both sides


10,000E
A'
B'
C'
A
B
C
FeOx, MnOx, PbS, PbCO3
PbS in Clay (alt. diorite?)
60°
58°
135-16 SF
8
PbS stringers Parallel to bedding PbCO3, FeOx, MnOx
135-17 SF
30-50°
10,400N
ELEVATION 4256
SCALE 1" = 50'