IMEA Form 9

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration

OFFICIAL DOCKET FILE

IMEA NO. 4642

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(~~Withdrawn~~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
✓Application and attachments
(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)
✓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

9775

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

OFFICIAL FILE COPY
DMEA
RECEIVED FEB 15 1957

DATE	INITIALS	CODE

1605 Evans Avenue
Reno, Nevada

February 13, 1957

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Loan Application - Uranium
Hillen-Holding Mining Corporation
Sonora Uranium Mine
Mono 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.

S. Ricker

S. Ricker

Encl.

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WASHINGTON, D. C.
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MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED FEB 15 1957 D.M.E.A.

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. 4642
Metal or Mineral Uranium
Date Received ~~FEB 11 1957~~ 2-15-57
Estimated Cost $9,050.00
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:

Hillen-Holding Mining Corporation
19 Campo Bello
Menlo Park, California

(*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 4 mining claims known as Margaret Bryant No. 1,4,5, & 8, Known as Sonora Uranium Mine. Located in Sect. 17, 18, 19 & 20 T.6N. R.23E. MDB&M. Mono County, California. Two miles west of Junction of Cal. No. 108 & U.S. No. 395, 1/2 mile south of concrete bridge across West Walker River.

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

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

(*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. Volume 14, Pages 416 & 417, Location Notices, Mono County, Cal. Bridgeport, California.

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 See attached typed sheet.

(*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 ..... days and be completed within ..... 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?

[X] 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 February 6, 1957

Heller-Hoeding Mining Corporation
(Applicant)

By W. C. Hoeding
President

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

HILLEN-HOLDING MINING CORPORATION

19 CAMPO BELLO
MENLO PARK, CALIFORNIA

OFFICIAL FILE COPY
D M E A
RECEIVED FEB 15 1957

DATE	INITIALS	CODE

February 6 1957

United States
Department of the Interior
Defense Minerals Exploration
Washington, D. C.

Gentlemen;

The following is data relative to Application For Aid In An Exploration Project.

1. Name of Applicant. Hillen-Holding Mining Corporation
19 Campo Bello
Menlo Park, California.

(b). Incorpora ted in State of California, September 7 1955.

(c).

President	William C. Holding	19 Campo Bello, Menlo Park, Cal.
Vice.Pres.	Pearl C. Hillen	1039 Mango St. Sunnyvale, California
Secretary	Kieth Petty	159 Walter Hays Dr. Palo Alto, Cal.
Treasurer	Kieth Garner	1555 Bay Laurel, Menlo Park, California

3. Property Rights. 4 legal size mining claims located as the Margaret Bryant No's. 1, 4, 5, & 8. Known as the Sonora Uranium Mine. Located in Sections 17, 18, 19, & 20, T.6N. R.23E. MDB&M. Mono County, California. Two miles west of Junction of California Highway No. 108 and U.S. Highway No. 395, 1/2 mile south of concrete bridge across the West Walker River, 1 mile S.E. of U.S. Marine Corps Cold Weather Batallion Camp located on West Walker River and California Highway No. 108.

3.(b). Property is known as Sonora Uranium Mine.

(c). Corporation owns the mining claims by virtue of mining claims filed on National Forest Land.

(e). Claims are free of all Liens & Encumbrances.

(f). Unpatented Filing Data. Volume 14, Pages 416 & 417 of Location Notices, Mono County, Bridgeport, California.

4. (a) Physical Description. Exploration work to date consists of having built 2 miles of access road from California Highway No. 108 to the claims. Removal of 0 to two feet of overburden, trenching of the deposit where possiable with bulldozer, thst holes dug by hand. All operations carried on by the corporation. Property is available for inspection , snow conditions permitting, which will be May 1st.

HILLEN-HOLDING MINING CORPORATION
19 CAMPO BELLO
MENLO PARK, CALIFORNIA

DMEA Application for Aid.

4 (b). There has been no production to date from the mine. Assay reports have been received as follows-

U.S.Breau of Mines,Reno,Nev. Ref.B15877	July 25/55	e U_3O_8	0.45%
U.S.Breau of Mines,Salt Lake. 1095 230 Lab.on above	11/11/55	C	0.423%
Abbott A Hanks, San Francisco, Cal.	Sept. 1/55	C	0.50%
Minerals Assay Labratory, Grand Junction,Col.	Aug. 15/55	C	0.50%
U.S.Geological Survey, Menlo Park, Cal.	July 11/55	e	0.22%
Minerals Assay Lab. Grand Junction, Colorado.	July 11/55	C	0.35%
U.S.Bureau of Mines,Reno,Nev. Ref. A-15718	June 22/55	C	0.17%
Vitro Uranium Company, Salt Lake City.	Oct. 31/55	C	0.29%
(The above was a 100 pound sample taken as a grab sample from the entire area of the outcrop at 3 foot intervals in a grid pattern).			
Brown Laboratory, Grand Junction, Colo.	Aug. 16/56	C	1.05%
(This sample obtained from 10 foot depth of bulldozer trench)			

Since the last above assay was received I have run radiometric assays myself from the new exposed faces which go from e U_3O_8 0.24% to 1.697%.

Assay reports show small amounts of gold, silver, Molybdenum and ocassionally small pieces of native copper.

The above mentioned sample sent to Vitro Uranium Company at Salt Lake City was identified as Torbernite and they offered a contract to receive the ore providing a grade of 0.25% could be maintained. That is the point in question, how much ore of any given grade is available and it is for the purpose of determining the ore available by core drilling that this application for aid is being submitted to your office.

4.(c). The radio-active deposit is located in the south side of the West Walker River, east of an area known as Pickle Meadows, it is 1,700 feet above the river bed on the side of a granite mass, the country rock of the area is granite and volcanic extrusives. Small amounts of radio-active petrified wood were found near the river which lead to the discovery of the deposit. The area was prospected by plane one day while I was working there and the plane landed near by and the operators came to the deposit and stated that their readings were very strong and that two other areas very close by showed fair to good readings, which we had previously located ourselves.

Samples from the mine have been identified by the California Division of Mines at San Francisco as follows-

HILLEN-HOLDING MINING CORPORATION
19 CAMPO BELLO
MENLO PARK, CALIFORNIA

4.(c). Cont. (copy of report from California Division of Mines) Dated September 21 1956. NO. G 1611. Signed by Charles W. Chesterman, Senior Mining Geologist.

Your specimens have been examined and classified as follows: The harder rock designated as "vein material" is classified as quartzite, a metamorphosed sandstone composed principally of reconsolidated quartz sand grains. The rock also contains yellow pyrite (iron sulfide), brown limonite (hydrous iron oxide), and pale green torbernite (phosphate of uranium and copper).

The friable rock designated as"sidewall" is classified as a partially decomposed fine grained granodiorite, an igneous rock. It is composed of quartz, feldspar, biotite, and small amounts of limonite and plae green torbernite.

Both rock specimens show evidence of shearing. It, therefore, is evident that the samples were taken from a fault zone.
END OF QUOTE.

The findings of Mr. Chesterman were very exact in regards to the deposit being located on a fault zone. This fault can be traced from the valley floor up the side of the hill for a distance of 1,500 feet and where the fault appears to terminate is where the deposit of redio-active material has been found. It appears that the mineralization reached the surface by way of the fault. In addition to the main outcrop where the work has been done to date there are two other smaller areas some 1000 feet to the east which give favorable readings on the counters, one and three quarters of a mile away are two other areas which give good counter readings, which might be on the continuation of the fault but such evidence is not readilly identified from surface examinations.

It is the purpose of this application for aid to determine the volume of radio-active material below the exposed surface. That which has been exposed to date by bulldozer will average 0.29% CU_3O_8 for an area 100 x 100 feet, whether the ore body gets wider with depth, and the radio-active count increases with depth are what we wish to determine by core drilling. We do know that the first assays taken from the top of the deposit upon discovery went only 0.17% chemical and that in ten feet of depth the samples taken from the same area have gone up to 1.05% chemical. Core Drilling will tell us the story.

The radio-active torbernite vein material appears to follow the fault which as far as can be determined is straight up and down with an east-west trend.

HILLEN-HOLDING MINING CORPORATION
19 CAMPO BELLO
MENLO PARK, CALIFORNIA

4.(d). Mine access road of two miles is in which takes off from California Highway No. 108 which is black topped road kept open all year. There are two rail connections for shipping ore, one at Reno, Nevada, a distance of 98 miles and the other is at Wybuska, Nevada a distance of 78 miles, both points of shipping are reached over black topped roads in their entireity.

4.(e). Manpower is available locally at the town of Bridgeport, a distance of 17 miles. The closest point of supplies is Reno, Nevada a distance of 98 miles. No power is available in the immediate area. Water would have trucked from the West Walker River at the bottom of the mine access road, a distance of 2 miles.

5.a The mineral for which application is made is radio-active torbernite, and or other types of radio active materials which may be encountered.

5.(b) The proposed work covered by this application is -
1. To recondition the access road after the winter storms.
2. To Core Drill six (6) holes to a depth of 400 feet to determine the ore body expected.

Attached sketch to give details.

(c). The proposed work could start about May 15, snow conditions permitting. No more than 20 days would be required to complete the work.

(d). The supervision of the proposed work would be under the direction of Wm. C. Holding, president of the corporation, who has had 15 years mining and prospecting experience and has recently visited the Colorado Plateau area to observe mining methods employed there. The bulldozing of the road will be hired by day and the core drilling will be contracted out.

6. The estimated costs are as follows-
1. Three days of bulldozer work to recondition access road at $100.00 per day. Total $300.00.
2. six core drill holes of 400 feet each at $3.50 per foot. Total of $8,400.00
3. Maximum of 100 assay reports on cores obtained at $3.50 each. Total of $350;00.

Contract-	Bulldoze & recondition access road	$300.00
Contract-	Six drill core holes	8,400.00
	Assay reports	350.00
TOTAL ESTIMATED COST OF AID PROJECT		$9,050.00

No contingencies or miscellaneous anticipated.

7.(a). The Corporation will furnish its share of the cost of the project by an assesment on stock of the corporation and pay by cash when due.

DMEA Form 7
(12-56)

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Date	Surname	Code
7-15	Ching	700
7-15	Knorst	700
7/15	Martin	130
7/15	Yoges	130
7/15	Kilsgaard	130
7/15	Johnson	110
"	Patterson	100
7/16	C O	220
		225

JUL 15 1957

Mr. William C. Holding, President
Hillen-Holding Mining Corporation
19 Campo Bello
Menlo Park, California

Re: Docket No. DMEA-4642 (Uranium)
Margaret Bryant Claims
Mono County, California

Dear Mr. Holding:

Your application for aid in an exploration project and other information available to us in Washington concerning the above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, 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 some uranium mineralization on your property, indicates that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Brittendorf (fw)

Administrator

MChing/izm 7-15-57
cc to: Mr. Ching
Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
DMEA FT REG. 2 (2)

8623

Docket

Ching

July 15, 1957

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No.: DMEA-4642

Commodity: Uranium

Applicant: Hillen-Holding Mining Corp.
19 Campo Bello
Menlo Park, California

Property: Margaret Bryant Nos. 1, 4, 5 and 8 unpatented lode mining claims, situated in secs. 17, 18, 19 and 20, T. 6 N., R. 23 E., M.D.B.&M., Mono County, California. Applicant is the owner by location.

Date of Application: February 6, 1957

Amount of Application: $9,050.00

Referred to Region II: March 1, 1957

Field Examination made: May 16 and 17, 1957

Field Team Report received: June 28, 1957

Work Proposed: Explore a uranium-bearing fault zone in granite by 6 core drill holes.

Estimated Cost:

3 days bulldozing access roads and drill sites	$300.00	
2,400 ft. core drilling @ $3.50/ft.	8,400.00	
100 chemical analyses @ $3.50/each	350.00	
Estimated Total Cost of Project		$9,050.00
Government Participation @ 75%		$6,787.50

Field Team Report: June 20, 1957, H. W. Jones, USBM & H. K. Stager, USGS:

A small remnant of hornfels and altered diorite ~~are~~ is bounded on all sides and below by granodiorite of the Sierra Nevada batholith on the subject property. The metamorphosed rocks are cut by two intersecting faults along which secondary uranium minerals occur. The only uranium mineral identified was torbernite which occurs as sparsely disseminated pale green crystals and as thin coatings on fracture surfaces. The quantity of uranium approaches ore grade only at the junction of the two faults where a zone about 6 feet thick and 20 feet long may contain material averaging about 0.15% U_3O_8.. Indicated reserves of about 50 tons and inferred reserves of about 140 tons were estimated.

Several other small areas of anomalous radioactivity were examined and tested radiometrically. The radioactivity was found to be only slightly above background and was confined to small scattered fragments of volcanic rocks in the slope wash and alluvium.

Eleven samples were taken of the most highly radioactive material exposed. Two samples taken from the mineralized zone described above represented thicknesses of 6 and 5 feet, and contained 0.18 and 0.13% eU_3O_8, respectively. The other 9 samples, taken over thicknesses ranging from 3 to 9.7 feet, ran from 0.01 to 0.09% eU_3O_8.

Aside from the one small deposit there are no indications of significant mineralization elsewhere on the property. About 10 tons of material have been stockpiled, but no shipments have been made. It is recommended that the application be denied.

Commodity Group Comments:

USGS, N. E. Nelson, July 2, 1957:

A small deposit of possibly 200 tons of 0.15% U_3O_8 material would hardly be called ore. Since the quantity is limited to a maximum depth of 30 feet, denial of the application is in order.

USBM, James Paone, July 3, 1957:

Agrees with the Field Team and advises denial of the application.

Div. of Rare & Misc. Metals, Michael Ching, July 15, 1957:

The potential of the property is limited to a shear zone in a small remnant of hornfels and altered diorite. The surface area of the deposit is well exposed by extensive bulldozer trenching. Further exploration by the Government is not warranted.

Conclusions and Recommendations:

The chances of making a significant discovery on this property are poor. It is recommended that the application be denied.

F. L. Knouse

F. L. Knouse, Acting Director
Division of Rare and
Miscellaneous Metals

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July 3, 1957

4642

Uranium
Hillen-Holding Mining Corp.
Margaret Bryant Claims
Mono County, California
$9,050

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
James Paone, Bureau of Mines Member JP
Uranium Commodity Committee

Field Team Report

[illegible] 6/26/57 [illegible] 7/2/57

[illegible] Yes / / No / /

[illegible] Yes / / No / /

[illegible] Yes / / No / /

[illegible] Yes / / No / /

[illegible]

[illegible]
a. [illegible] / /
b. [illegible] / /
c. [illegible] / /
d. [illegible] / /
e. Proposed exploration method / /
f. Alternate exploration method / /
g. Costs / /
h. ______________________ / /

[illegible]
a. [illegible] / /
b. [illegible] / /
c. [illegible] /x/
d. [illegible] /x/
e. [illegible] / /
f. Suggest alternate plan / /
g. Request another examination / /
h. Approval / /
[illegible] at ______________ AEC office.

[illegible] (Use back of page if necessary)

IN REPLY REFER TO:

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

July 2, 1957
Re: DMEA 4642
Hillen-Holding Mining Corp.
Margaret Bryant Claims
Mono County, California
$9,050.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report

The applicant requested assistance in exploring a wide torbernite-bearing shear zone in granite.

The examiners found the radioactive material occurs in 2 fault zones in altered hornfels and diorite. The hornfels is a small, thin remnant patch resting on granodiorite. At the junction of the two non-parallel faults is a concentration of torbernite-bearing rock a few square feet in area.

The examiners estimate the thickness of the patch as 30 feet and that dimension would be the depth to which the uranium mineral would extend. The tonnage estimate is:-

Class	Tons	Percent eU_3O_8
Measured	10	0.15
Indicated	50	0.15
Inferred	140	0.15
Total	200	0.15

Such material, in small quantities, is not ore, and as the quantity is limited by the depth of the hornfels, the examiners recommend that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

DMEA

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

June 26, 1957

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-4642 (Uranium)
Hillen-Holding Mining Corporation
Margaret Bryant Claims
Mono County, California

Reference is made to your letter of March 1, 1957 on above subject.

Enclosed are four copies of a report by H. W. Jones, Bureau of Mines, and H. K. Stager, Geological Survey, which recommended that the application for Government exploration aid be denied.

Roscoe Smith and I concur in the recommendation.

ON-SITE EXAM.

S. Ricker

Encls.

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	China	700

Reviewed by
DMEA OPERATING COMMITTEE
7-3-57
(date)

BUREAU OF MINES
WASHINGTON, D.C.
JUN 28 9 33 AM '57

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

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION II

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APPLICATION REPORT

DMEA-4642 (Uranium)
Hillen-Holding Mining Corporation
Margaret Bryant claims (Sonora Uranium prospect)
Mono County, California

by

H. W. Jones
U. S. Bureau of Mines

H. K. Stager
U. S. Geological Survey

June 20, 1957

Reviewed by
DMEA OPERATING COMMITTEE
7-3-57
(date)

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Ore Deposits	5
Sampling	7
Ore Reserves	8

ILLUSTRATIONS

Figure 1 . . . . . Index map

2 . . . . . Geologic sketch map

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INTRODUCTION

The Hillen and Holding Mining Corporation, 19 Campo Bello, Menlo Park, California, applied to the Defense Minerals Exploration Administration, docket DMEA-4642, for Government assistance in a $9,050 program to explore for uranium on the Margaret Bryant claims, also known as the Sonora Uranium mine, Mono County; California.

A field examination was requested by the Operating Committee and was made by H. W. Jones, U. S. Bureau of Mines, and H. K. Stager, U. S. Geological Survey, on May 16 and 17, 1957, accompanied by Mr. Hayward Baker, lessee.

A careful inspection was made of the mineralized exposures using a Detectron, model DG-2, geiger counter and a Precision, model 111B, scintillation counter. A sketch map was made of the surface exposures and eleven samples were taken of the mineralized material.

The property was examined by representatives of the U. S. Atomic Energy Commission, in 1955, and a report (No. PRR-R-27) prepared for the A.E.C. files states in part: "Ore seems restricted along dike; the depth of the deposit is unknown. Further development to determine lateral extent of ore." The operators have completed extensive bulldozer trenching since the A.E.C. examination and the deposit is now well exposed.

CONCLUSIONS AND RECOMMENDATIONS

The deposit at the Sonora Uranium prospect consists of two narrow, low-grade, uranium-bearing fracture zones in a small remnant of metamorphic rocks resting on granodiorite. The deposit is well exposed by trenches and the tonnage and grade can be closely estimated. Reserves of 200 tons of material, having an average grade of about 0.15 percent eU_3O_8, are estimated. There are no indications of other deposits of larger size or higher grade elsewhere on the property.

It is recommended that the application for Government assistance be denied.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The Margaret Bryant claims are in secs. 17, 18, 19, and 20, T. 6 N., R. 23 E., M.D.B.&M., Mono County, California (fig. 1), on the east flank of the Sierra Nevada at an altitude of 7,300 feet.

To reach the mine, which is 15 miles northwest of Bridgeport, go northwest on paved highway US 395 for 18.2 miles, turn left (west) on paved State highway 108 for 2.1 miles to the West Walker River, turn left at bridge on unimproved dirt road along south side of river for 2.2 miles to claims at end of road on a ridge overlooking the river. The last mile has steep grades and is passable by

pick-up truck when dry but requires a Jeep when wet or icy (November-May). The drive from Bridgeport usually requires about 45 minutes. Road maintenance and snow removal is provided by the State except for the last two miles.

The working season is about six months per year. Common labor is available in Bridgeport, and experienced miners can be hired in Bishop (115 miles). Water is available from springs on the property and from the West Walker River (1 mile). The claims are in a large stand of yellow pine; dimension timber can be purchased in Bridgeport. Mail, telephone, and truck service is available in Bridgeport. The nearest railroad sidings are at Reno, Nevada (98 miles) and at Wabuska, Nevada (85.7 miles).

HISTORY, PROPERTY, DEVELOPMENT, AND PRODUCTION

The deposit was discovered by Mr. Hillen and the claims were located by him in 1955. The property consists of four claims, known as the Margaret Bryant Nos. 1, 4, 5, and 8 claims. They are recorded at the Mono County courthouse, Bridgeport, California, in Volume 14, pages 416 and 417 of Location Notices.

The property is developed by a two-mile access road, by several shallow trenches and pits along the trend of the mineralized structure, and by extensive bulldozer cuts (fig. 2).

There has been no uranium ore produced from the property or elsewhere in the district.

GEOLOGIC SETTING

The Margaret Bryant claims are on the shoulder of a small ridge in an area of high relief. The rocks exposed in the vicinity of the prospect are granodiorite, diorite, and hornfels. The hornfels and diorite compose a small remnant of metamorphic rock bounded on all sides by granodiorite of the Sierra Nevada batholith of Cretaceous age.

The hornfels that underlies the central part of the Margaret Bryant No. 1 claim is a light-buff to dark-gray, fine-grained, highly altered rock. It crops out as an egg-shaped body about 150 feet long and 100 feet wide at its widest part. It has a vertical exposure of about 20 feet and probably is underlain by granodiorite at about 30 feet. Bedding strikes north or northeast and dips 45° west to 45° east. Much of the hornfels has been metamorphosed and partly assimilated by granodiorite to a light-gray, fine-grained diorite. It is cut by numerous thin veinlets of quartz.

The granodiorite is a light- to dark-reddish-brown, medium-grained rock and is part of a large plutonic body of the Sierra Nevada batholith. There are two sets of joints in the

granodiorite; a N 25° E set that dips 60° SE and a N 75° W set that dips 85° NE.

Much of the granodiorite and hornfels is covered by slope wash and alluvium composed of coarse fragments, and some large boulders, of basalt and andesite derived from thick flows of these volcanic rocks that overly the granodiorite outside of the claim area.

The metamorphic rocks are cut by a fault that strikes about N 70° E and is vertical or dips steeply south. A second vertical fault diverges to the northeast near the center of the body and strikes north (fig. 2). It is along these faults that the uranium minerals occur.

ORE DEPOSITS

The deposit consists of secondary uranium minerals localized along two vertical or steeply-dipping fractures in altered hornfels and diorite.

The only uranium mineral identified was torbernite that occurs as sparsely disseminated pale green crystals and as thin crusts that coat fracture surfaces in altered hornfels and diorite. Gangue minerals are quartz, pyrite, limonite, and biotite.

The uranium is concentrated along the faults and extends out into the intensely fractured and altered walls for several feet. The faults are mineralized for their entire exposed lengths but only at the junction of the two faults does the quantity of uranium approach ore grade. At this point abundant torbernite and pyrite are visible in a zone about 6 feet thick and 20 feet long. The hornfels and diorite in the walls of the faults are brecciated and are locally silicified. The silicified zones are hard and resistant masses but along most of the fault length the mineralized material is highly altered and soft. The uranium content ranges from a trace to as much as one percent but the highest grade of material that could be considered of minable width averages about 0.15 percent U_3O_8. To obtain ore of acceptable grade will require careful mining and sorting.

A few tons of low grade ore has been mined from shallow pits and bulldozer cuts near the center of the deposit but there has been no ore shipped from the claims.

Several other small areas of anomalous radioactivity, indicated as "hot spots" on the applicant's sketch east and west of the main deposit, were examined and tested with a scintillation counter. The radioactivity in these areas is only slightly above the background count and is confined to small scattered fragments

of volcanic rocks in the slope wash and alluvium. No uranium minerals are visible in these areas.

SAMPLING

Eleven samples were taken of the most highly radioactive material exposed. The locations of these samples are shown on figure 2 and the thickness and equivalent uranium content are shown in the following table:

Sample No.	Thickness, feet	Grade, Percent eU_3O_8
463	4.5	0.01
464	7.0	0.09
465	3.8	0.08
466	4.1	0.03
467	5.2	0.02
468	6.0	0.18
469	5.0	0.13
470	9.7	0.02
471	6.8	0.04
472	4.3	0.03
473	3.0	0.01

Samples Nos. 468 and 469 were the only ones that showed visible torbernite and were taken from the area of highest radioactivity on the claims (a high geiger counter reading of 0.5 MR/Hr. over a background of 0.013 MR/Hr.). The high assays reported in the application were probably from hand specimens of high-grade material and do not represent minable quantities of ore.

Three samples taken by the A.E.C. representatives assayed as follows:

Sample No.	Thickness, feet	Grade, Percent eU_3O_8	Percent cU_3O_8	Remarks
1363	10.	0.12	0.089	Horizontal chip sample.
1364	8.	0.02	--	Spot chip sample.
1365	grab	0.06	--	Select chip sample.

A sample (No. 1060) submitted to the A.E.C. by the applicant assayed 0.17 percent eU_3O_8 and 0.126 percent cU_3O_8.

ORE RESERVES

There are no minable reserves of uranium-bearing material of ore grade (0.2 percent U_3O_8) at the Sonora Uranium prospect. Reserves of material containing 0.1 percent or more eU_3O_8 total about 200 tons having an average grade of 0.15 percent eU_3O_8.

Summary of Reserves

Class	Tons	Percent eU_3O_8
Measured	10	0.15
Indicated	50	0.15
Inferred	140	0.15
Total:	200	0.15

The measured reserves are in a stockpile of material that was removed from a pit 3 feet deep, 5 feet wide, and 8 feet long near the center of the deposit (fig. 2). The indicated reserves are in a block of ground 6 feet deep, 6 feet wide, and 20 feet long

below the indicated reserves. It is inferred that the deposit will bottom at the granodiorite contact about 20 feet below the outcrop.

DMEA Form 7
(12-56)

700

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Date	Surname	Code
2-28	Ching	700
2-28	Kaynard	700
3/1	Selfridge	130
"	Johnson	110
"	Mittendorf	100
3/4	C	220

700

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

MAR - 1 1957

Re: Docket No. DMEA-4642 (Uranium)
Hillen-Holding Mining Corporation
Margaret Bryant Claims
Mono County, California

Dear Mr. Ricker:

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

Enclosed are memoranda, dated February 20 and 25, 1957, by John B. Crawford, USBM, and N. E. Nelson, USGS, respectively, relating to the application, for your information. Also enclosed is a copy of the application for the use of the Field Team.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JB)

Enclosures

APPROVED:

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

N. E. Nelson (JB)
Member, Geological Survey

MChing/izm 2-28-57
cc to: Admr.'s Reading File
Operating Committee
THKiilsgaard, 5224
JKratchman, AEC
Mr. Ching

8623

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(12-56)

700

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Date	Surname	Code
2-28	Ching	700
2-28	Kogeski	700
3/1	Selfridge	130
"	Johnson	110
"	Mittendorf	100
		220

Lamb
Nelson

MAR - 1 1957

Mr. William C. Holding, President
Hillen-Holding Mining Corporation
19 Campo Bello
Menlo Park, California

Re: Docket No. DMEA-4642 (Uranium)
Margaret Bryant Claims
Mono County, California

Dear Mr. Holding:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

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

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,

G. O. Mittendorf (fw)

Administrator

MChing/izm 2-28-57
cc to: Mr. Ching
Admr.'s Reading File
DMEA FT, Reg. 2 (2)

8623

IN REPLY REFER TO:

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

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DMEA
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DATE	INITIALS	CODE
2/26	C	220
2/26	~~Ellis~~	700
	Ching	

Comments Complete

February 25, 1957

Re: DMEA 4642
Hillen-Holding Mining Corp.
Sonora Uranium Mine
Mono County, California
$9,050 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application

The applicant requests assistance in exploring a wide torbernite-bearing shear zone in granite. The application says the outcrop area is 100 x 100 feet and from the outcrop at least 9 samples have been taken which assayed, chemically and radiometrically, from 0.77% U_3O_8 to 1.69% U_3O_8. A 100-pound grab sample assayed 0.29% U_3O_8.

The work proposed consists of road work and core drilling. The drilling is designed to sample the 100 x 100 block and indicate the probable tonnage of 0.25% + material. The estimated cost of the core drilling appears to be low.

Referral of the application to the Field Team is recommended.

N. E. Nelson

N. E. Nelson

FIELD OFFICE
Department of the Interior
Bureau of Mines
Washington 25, D. C.

Date February 20, 1957

DMEA Docket No. 4642
DMEA Contract No.
Commodity Uranium
Name of applicant Hillen-Holding Mining Corp.
Name of property Sonora Uranium Mine
Location of property Mono County, California
Estimated cost of project $9,050.00

Ernest William Ellis, DMEA Member
Uranium Commodity Committee
John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Application
(Application, DMEA Form Report, etc.)

1. Date of DMEA: 2/15/57 2. Date received by reviewer: 2/15/57

3. Is application on this property known to reviewer: Yes ☐ No ☐

4. Is report on mining operation known to reviewer: Yes ☐ No ☐

5. Is information available on past production: Yes ☐ No ☐

6. Is any pertinent factual data known to reviewer: Yes ☐ No ☐

7. Is plotted from method you chose:

8. Problems meriting special consideration:
a. Location ☐
b. Ownership ☐
c. Evidence of mineralization ☐
d. Geology ☐
e. Proposed exploration method ☐
f. Alternate exploration method ☐
g. Costs ☐
h. _____ ☐

9. Action recommended:
a. Obtain information from applicant ☐
b. Refer to Field Team ☒
c. Reject ☐
d. Agree with Field Team ☐
e. Consult with Mr. _____ of _____ AEC office.
f. Disagree with Field Team ☐
g. Suggest alternate plan ☐
h. Request another consultation ☐
i. Approval ☐

10. Remarks: (Use back of page if necessary)

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2/21	C	320
7.	[illegible]	700

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

February 18, 1957

Hillen-Holding Mining Corporation
19 Campo Bello
Menlo Park, California

Subject: DMEA-4642

Gentlemen:

Your application for exploration assistance, dated February 6, 1957 submitted to our office at Reno, Nevada has been assigned Docket Number DMEA-4642 and referred to the Rare & Miscellaneous 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 XI
Code 700

6416

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA-4642
(Uranium)

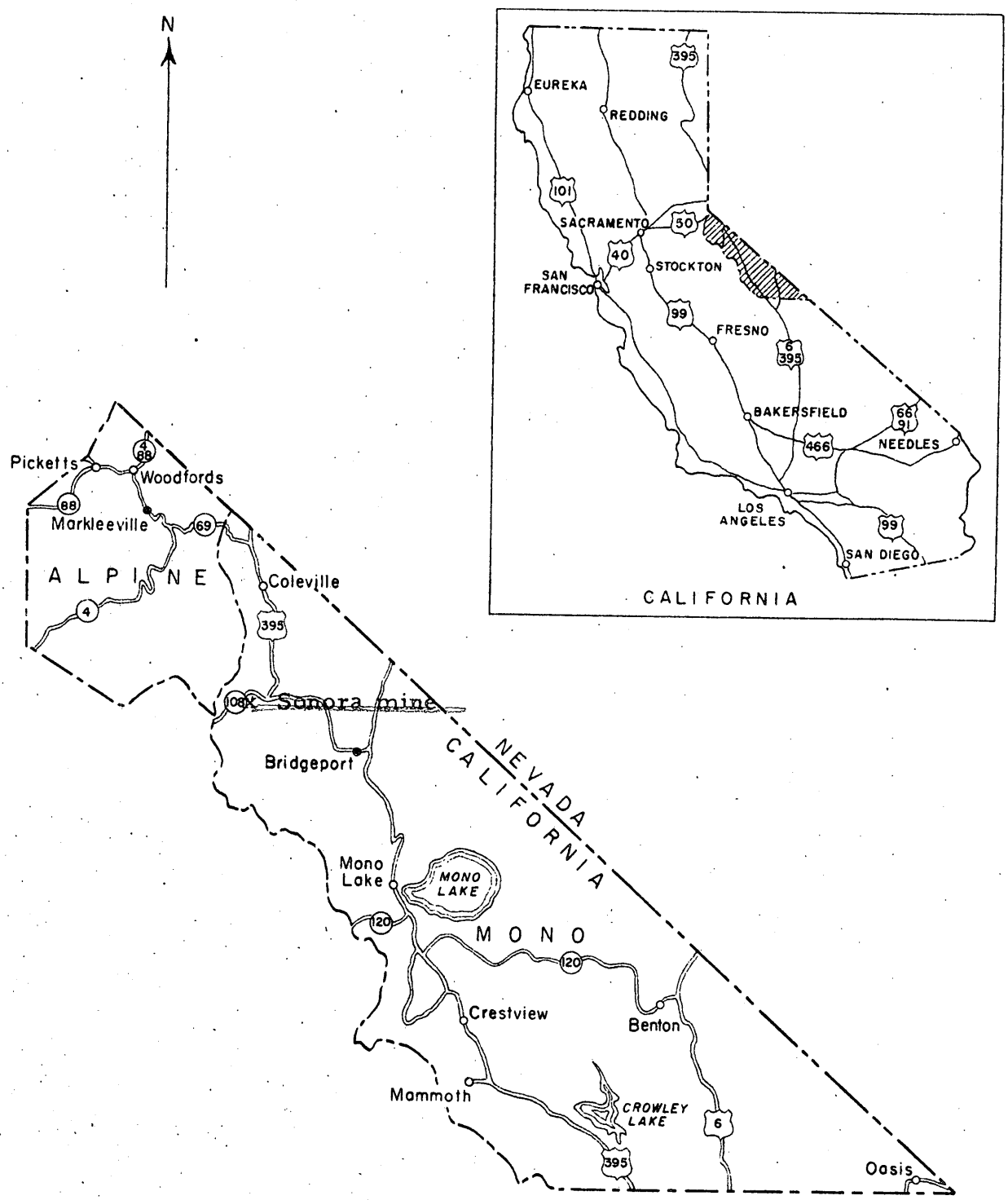

Figure 1. INDEX MAP OF ALPINE AND MONO COUNTIES, CALIFORNIA

0 20 40 60 Miles

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RECEIVED JUN 28 1957

DATE	INITIALS	CODE

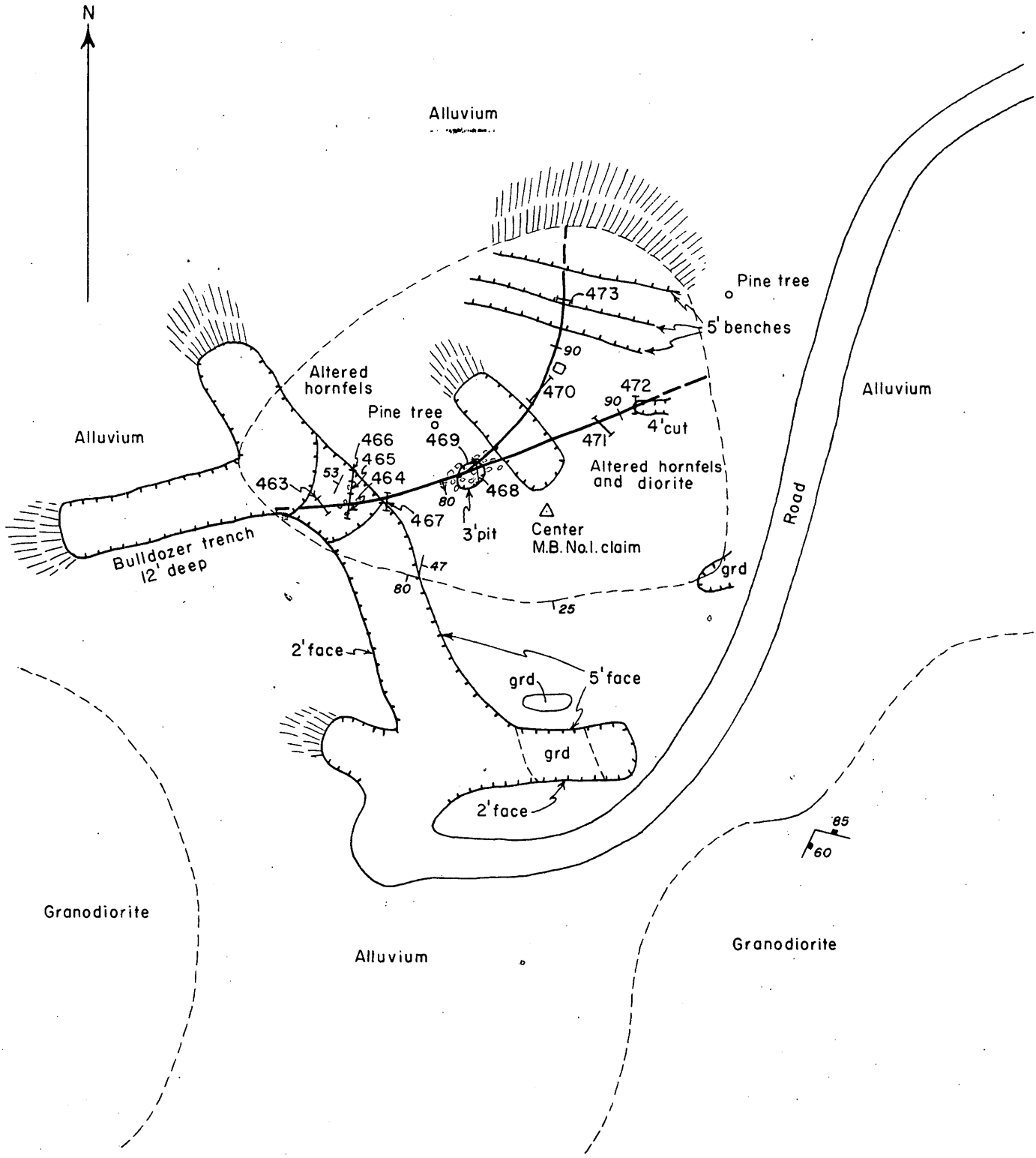
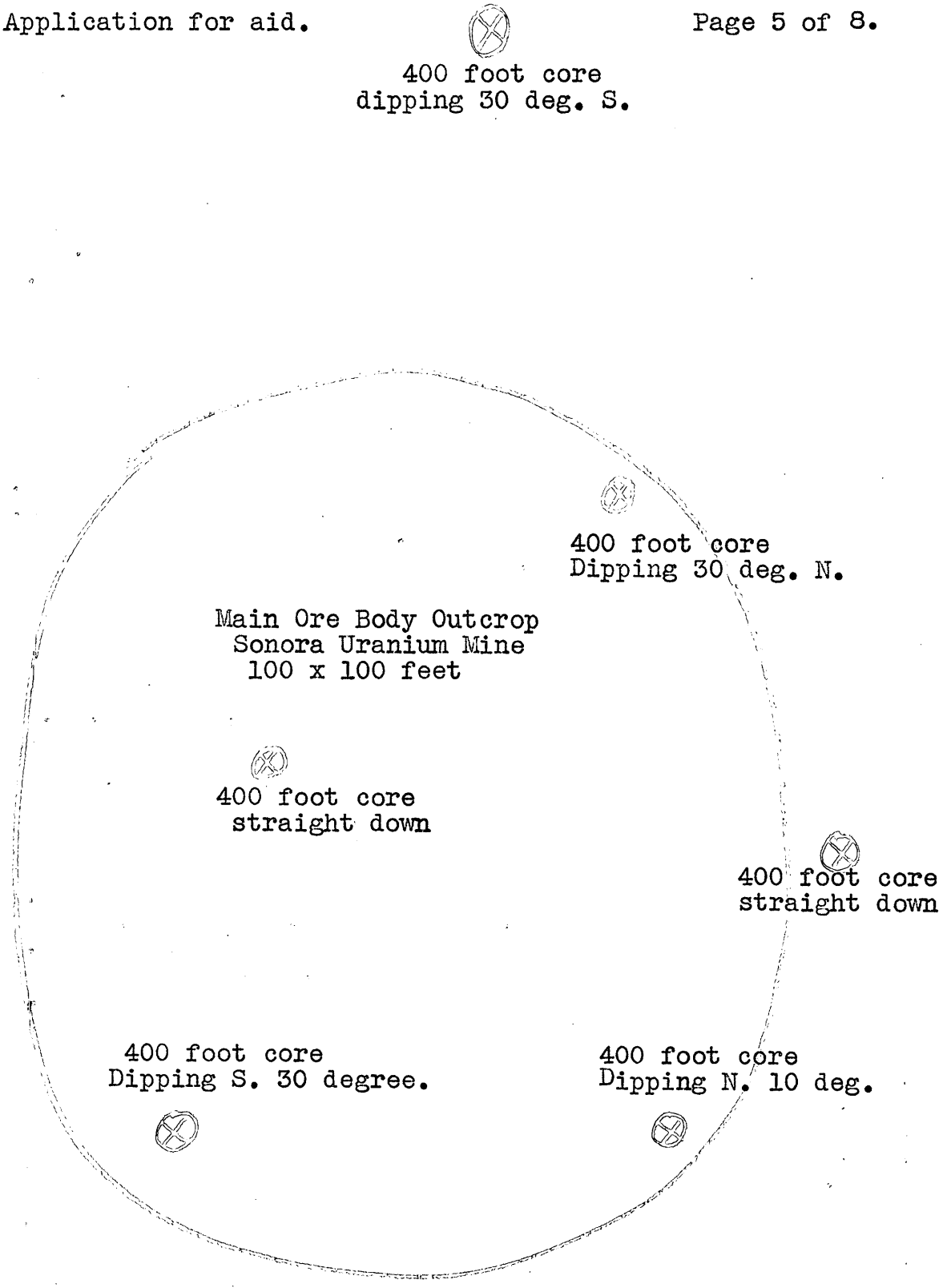


Figure 2. GEOLOGIC SKETCH MAP OF THE SONORA URANIUM PROSPECT
MONO COUNTY, CALIFORNIA

0 40 80 120 feet

RECEIVED
DATE

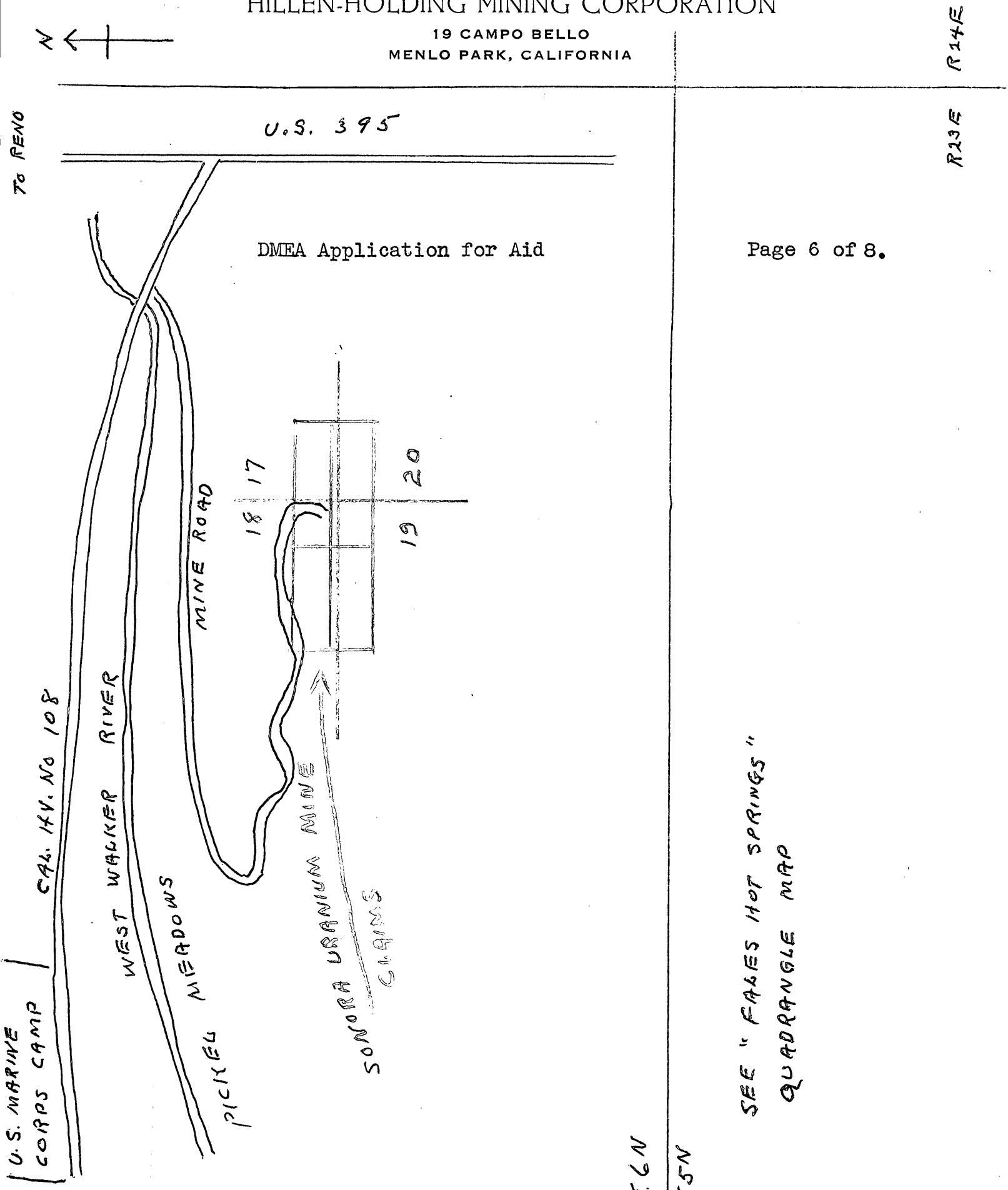
HILLEN-HOLDING MINING CORPORATION
19 CAMPO BELLO
MENLO PARK, CALIFORNIA



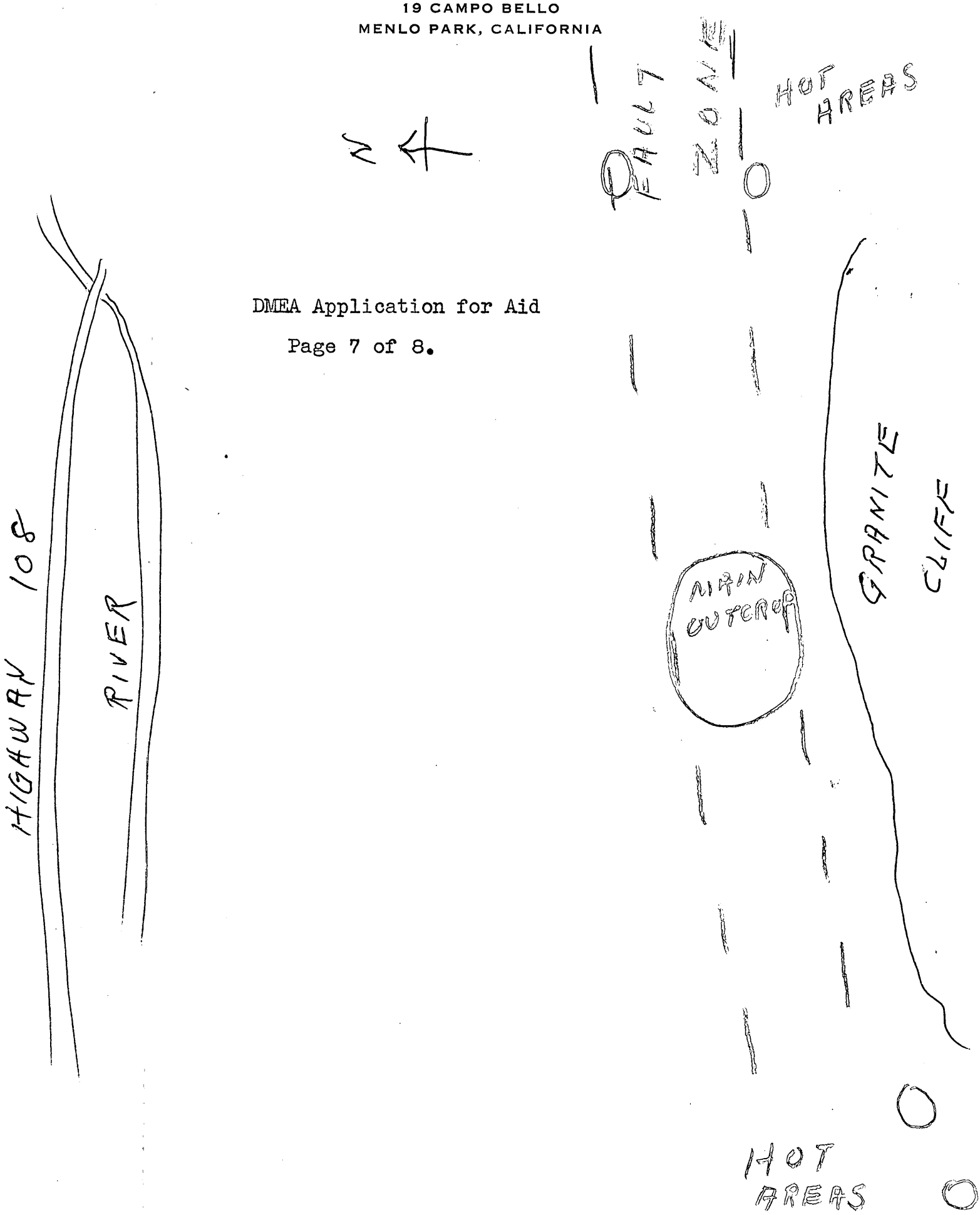
HILLEN-HOLDING MINING CORPORATION

19 CAMPO BELLO
MENLO PARK, CALIFORNIA

DMEA Application for Aid



HILLEN-HOLDING MINING CORPORATION
19 CAMPO BELLO
MENLO PARK, CALIFORNIA



DMEA Application for Aid

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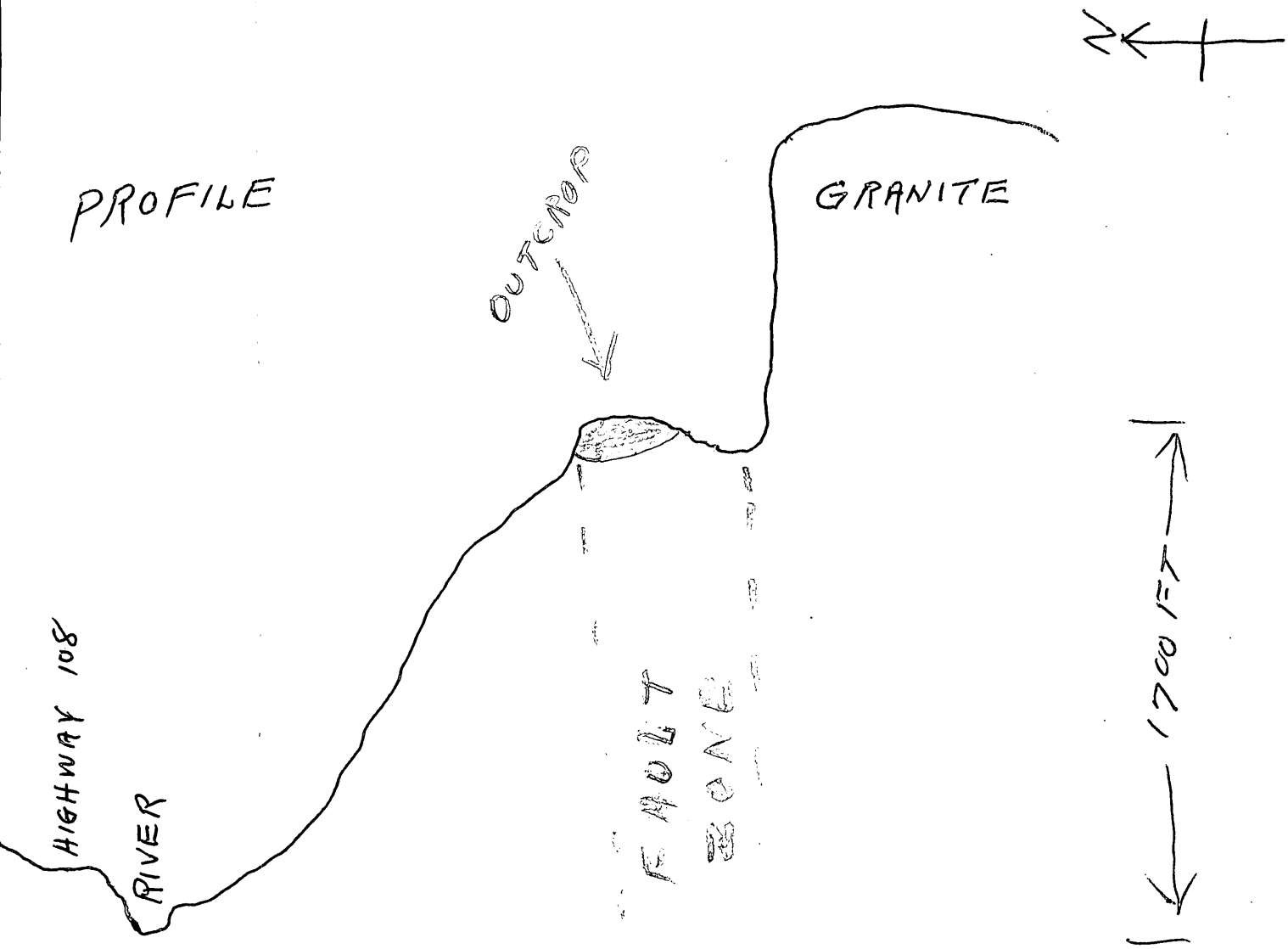
D.M.E.A

HILLEN-HOLDING MINING CORPORATION
19 CAMPO BELLO
MENLO PARK, CALIFORNIA



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