DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2671

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION PROJECT

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

Copies to USBM, USGS, and Region III.

To:	Code 400, Rm. 3538	Date	8-25-52
To:	Op Comm	Date	8-29-52
To:	Oper. Comm.	Date	10-24-52
To:		Date	
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DO NOT DETACH

CONTROLLED DOCUMENT

OCT 27 1952

2671

Mr. Gerald C. Marks
Y.M.C.A. Hotel
351 Turk Street
San Francisco, California

Re: Docket No. DMA 2671 - Nickel
Gerald C. Marks
Sec. 20, T. 4 N., R. 11 E.
Valley Springs District
Calaveras County, California

Dear Mr. Marks:

We have now reviewed the reports on the field examinations recently made on the above-noted property.

These show that the serpentine body contains nickel only in the amount which is more or less common to serpentine bodies throughout the world. Because the nickel occurs in a refractory type of deposit and is so minor in amount, it is our opinion that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman-GCSelfridge'lm
10/22/52

cc: Adm. Reading File
Docket
H. W. Davis, USBM
T. P. Thayer, USGS
Field Team Reg. III
Operating Committee
G. C. Selfridge
T. L. Chapman

OCT 6 1952

Mr. Gerald G. Burke
300 Old Mint Building
San Francisco, California

Re: Docket No. [illegible] 2671 - Mineral
Section 20, T. 4 N., R. 11 E.
Valley Springs District
Calaveras County, California

Dear Mr. Burke:

This will acknowledge receipt of your letter of September 26, 1952, reporting that in one side of the shaft mentioned in the subject application there is a gouge that assays [illegible] percent nickel.

We thank you for this information.

Sincerely yours,

C. O. Mittendorf

Administrator

WSMartin:lm
10/3/52

cc: Admn. Reading File
Docket
H. W. Davis, USBM
T. P. Thayer, USGS
Field Team Reg. III
G. C. Selfridge
W. S. Martin

AUG 29 1952

Mr. Gerald G. Burke
YMCA Hotel
351 Turk Street
San Francisco, California

Re: Docket No. DMEA 2671 - Nickel
Section 29, T. 4 N., R. 11 W.
Valley Springs District
Calaveras County, California

Dear Mr. Burke:

Your application for assistance in exploring the above mentioned property has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. R. C. Miller, Executive Officer, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

The Regional Office will contact you at an early date in regard to the examination of your property. Any aid which you can render the members of the field team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf

Acting Administrator

TLChapman:lm
8/28/52

cc: Admn. Reading File
Docket
H. W. Davis, DMEM
T. P. Thayer, USGS
Field Team Reg. III
W. S. Martin
T. L. Chapman

IN REPLY REFER TO:
G-10-CF

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

400

August 26, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration application 14,850 DMEA 2671 - Nickel
Gerald C. Burke
YMCA Hotel
351 Turk Street
San Francisco, California

Property: Sec. 20, T. 4 N., R. 11 E.
Valley Springs district
Calaveras County, California

Proposal: The applicant proposes to core drill 8 holes 70 feet deep on 2 mining claims to sample the serpentine for nickel. He apparently expects to do his own assaying (60 assays at $5 each), and to "check" the results by 11 spectrographic analyses. He states the only working on the property is a shaft 18 feet deep. The following assays are reported:

0.43, 0.47, and 0.58 % Ni	Three shaft samples analyzed by U.S.V.
0.38 % Ni	Surface sample, by M. A. Hanna
0.28 % Ni	Shaft sample, by Fixa Co.

Comment: The content of Ni quoted by the applicant is not unusually high for ultrabasic rocks. Rankama and Sahama (1950), p. 682 quote Goldschmidt's analysis of 0.3 percent Ni in dunite. They state that olivine may contain up to 0.5 percent Ni. Where the nickel is contained in such small amounts in the ferro-magnesian silicates (as in serpentine), the metal cannot be recovered economically by any known process.

Although the applicant states that the nickel is contained in magnetite, and hence can be concentrated, such an occurrence in ultrabasic rocks would be geologically unusual and requires proof.

The applicant's theory that the content of Ni will increase with depth is also of dubious merit.

Several Congressional requests have been received in recent months concerning this property. Apparently Mr. Burke believes he has discovered something unique and very valuable, and is annoyed that he has received no Governmental encouragement.

Recommendation: It is suggested that this application be referred to the Field Team for examination of the property and discussion with the applicant. Although the possibility of finding workable nickel ore is poor and the applicant has not presented adequate data, a thorough field examination is needed to provide a factual basis for answering Congressional and other inquiries and criticism.

DMLemmon:gt

Jas

351 Turk Street
San Francisco, California

10/30/52

Mr.C.O.Mittendprf
Administrator
Defense Minerals Exploration Administration
U.S Department of the Interior
Washington 25, D.C.

Docket No. DMEA.2671.

Dear Mr. Mittendorf:

The chief function of your organization appears to be that of keeping certain people in the mining business and others out of it.

Yours truly,

Gerald C. Burke

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 3 1952

FILE COPY 400
SURNAME:

Chapman
Selfridge
Thayer
Davis
Merrill
Kimball
H. Johnson

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

OCT 27 1952

Mr. Gerald C. Burke
Y.M.C.A. Hotel
351 Turk Street
San Francisco, California

Re: Docket No. DMEA 2671 - Nickel
Gerald C. Burke
Sec. 20, T. 4 N., R. 11 E.
Valley Springs District
Calaveras County, California

Dear Mr. Burke:

We have now reviewed the reports on the field examinations recently made on the above-noted property.

These show that the serpentine body contains nickel only in the amount which is more or less common to serpentine bodies throughout the world. Because the nickel occurs in a refractory type of deposit and is so minor in amount, it is our opinion that the probability of disclosing mineable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret, therefore, to inform you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf (Kw)

Administrator

TLChapman-GCSelfridge'lm
10/22/52

cc: Admn. Reading File
Docket
H. W. Davis, USBM
T. P. Thayer, USGS
Field Team Reg. III
Operating Committee
G. C. Selfridge
T. L. Chapman

10-27-52

STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT

TO : Administrator, DMEA DATE: Oct. 20, 1952

FROM : Iron and Ferro-Alloy Division, DMEA

SUBJECT: Denial of exploratory project in the amount of $4,850.00
Docket No. DMEA 2671 - Nickel
Gerald C. Burke, Applicant
Valley Spring District, Calaveras County, California

The denial of the subject application by this Division is based on the following information:

1. The main rock of this area is a serpentine which carries low grade nickel values probably in the form of a silicate.

2. Ores of this type are not amenable to concentration and no economic method of handling ores of this type and grade has been developed.

3. The only work on the property is a pit about 12 feet deep.

4. The showings on this property indicate little probability of disclosing any minable ore bodies and is not sufficiently promising to justify Government participation in the proposed exploration program.

5. The field team of Region III recommends denial.

6. A consultant of the Defense Materials Procurement Agency recommends denial.

G. C. Selfridge

G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

FILE COPY 400
SURNAME:

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

Administrator, DMEA

Oct. 20, 1952

Chapman
Selfridge
Hayes
Dapra

Iron and Ferro-Alloy Division, DMEA

Denial of exploratory project in the amount of $4,850.00
Docket No. DMEA 2671 - Nickel
Gerald C. Burke, Applicant
Valley Spring District, Calaveras County, California

The denial of the subject application by this Division is based on the following information:

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5. The field team of Region III recommends denial.

6. A consultant of the Defense Materials Procurement Agency recommends denial.

George C. Selfridge

G. C. Selfridge, Chief
Iron and Ferro-Alloy Division

TLChapman'lm
10/20/52

cc: Admn. Reading File
Docket
G. C. Selfridge
T. L. Chapman

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

Office of
Executive Officer
DMEA Field Team
Region III

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

October 8, 1952

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA 2671 (Nickel) Section 20, T. 4W., R. 11 E., Valley Springs District, Calaveras County, California

Reference is made to your "Review of Application for Exploration Assistance," dated August 29, 1952, requesting an examination of the subject property.

Attached are four copies of a memorandum report, prepared by Mr. Edgar H. Bailey of the Geological Survey, dated October 3, 1952. A map accompanying each copy of the memorandum shows the distribution of the serpentine which contains a little nickel in the vicinity of the Burke prospect.

The geologists recommend that no financial assistance under the DMEA program be granted.

For your additional information, the Burke prospect was thoroughly examined by Mr. James S. Wroth, Consultant, DMPA, and Mr. Pesonen of the Washington Office of DMPA, and from what I was told they recommended against giving any further consideration to the Burke prospect as a likely source of nickel. Their report on the property may, undoubtedly, be borrowed from the DMPA files, if desired.

The docket is being returned herewith.

Reviewed by
DMEA OPERATING COMMITTEE
10-17-52.
(date)

H. C. MILLER

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

Attachments

Copy to E. H. Bailey, USGS
A. C. Johnson, Reno, Nevada (with copy of report and map)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

October 3, 1952

MEMORANDUM

To: H. C. Miller, Executive Officer, Region III

From: Edgar H. Bailey, U. S. Geological Survey

Subject: DMEA 2671, Gerald C. Burke, Calaveras County, California (Nickel)

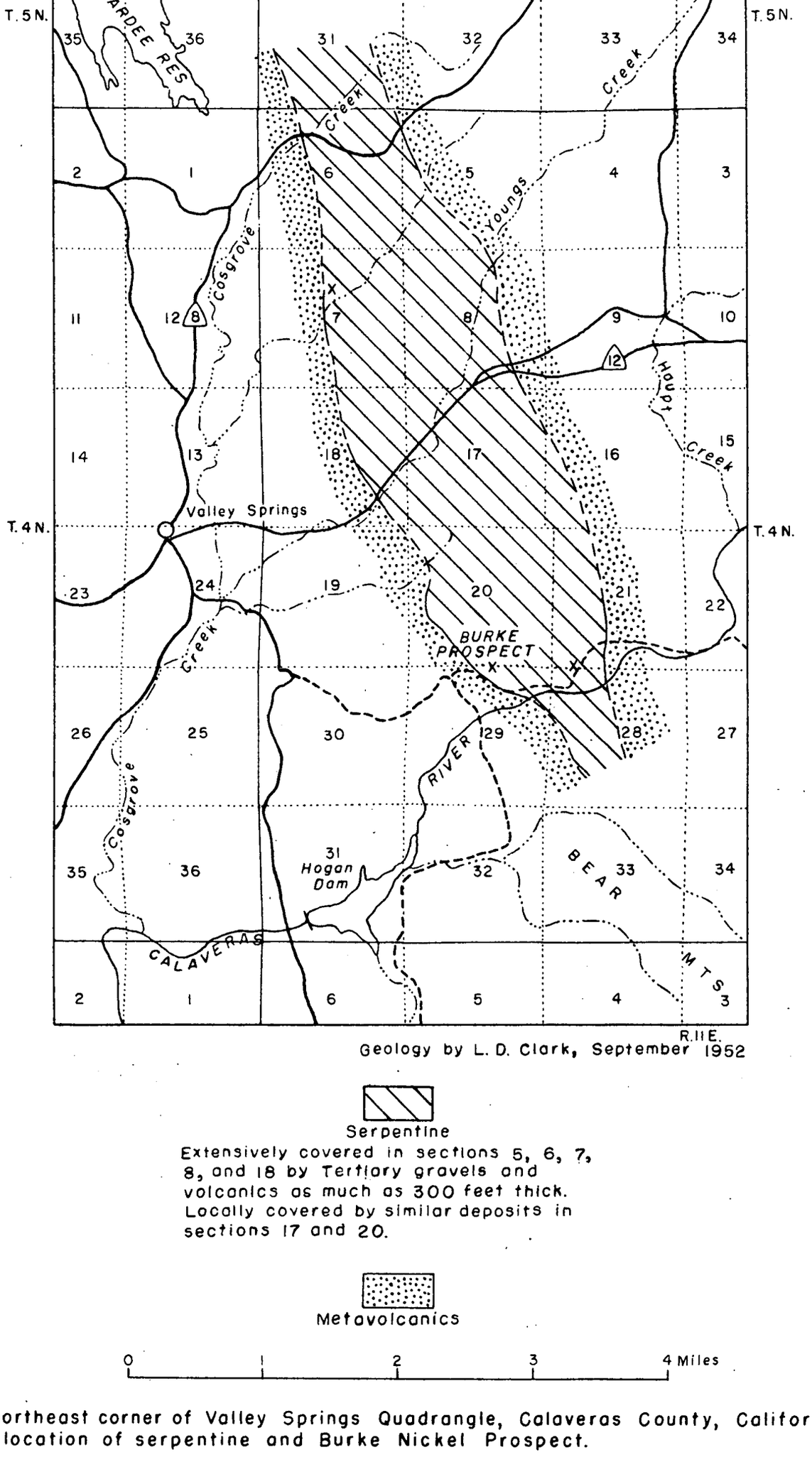
The Burke nickel deposit in Calaveras County, California was examined on the week of September 15-20, 1952 by Lorin Clark and Don Tatlock of the Geological Survey and the accompanying maps show the distribution of the serpentine, which locally contains a little nickel.

Burke's test pit, the only exploration of consequence on the property is only 10 feet deep. The geologists noted that it is in sec. 29, T. 4 N., R. 11 E., rather than in section 20 as described by Burke. Because Mr. Burke has claimed the serpentine in the area is different from that elsewhere in the Foothill Belt, I asked the geologists to comment on this point. They report the serpentine is typical except that locally it is opalized, as it is in several other places on the flank of the Sierra. The geologists were apparently not able to distinguish any nickel minerals, and it is likely that the nickel content of the serpentine penetrated by the shaft is representative of the entire serpentine mass.

The nickel content of the three representative samples cut by Mr. J. S. Wroth, consultant for DMEA, ranges from 0.27 percent to 0.30 percent. These values are within the range of the percentage of nickel in normal ultrabasic rocks as found throughout the world. Because Burke claimed the nickel was contained in the magnetite a magnetic fraction amounting to 6 to 9.3 percent was separated from each of his samples and assayed by the Bureau of Mines for nickel. The nickel content of each magnetic fraction was roughly 50 percent higher than the nickel content of the serpentine, indicating a slight concentration of the nickel in magnetite; however, the bulk of the total quantity of nickel in the rock is in the non-magnetic fraction. The richest magnetic fraction contained only 0.47 percent nickel, and therefore there is no reason to believe that the nickel-bearing serpentine can be upgraded to provide a workable nickel ore by magnetic separation.

It is recommended that no financial assistance under the DMEA program be given Mr. Burke. It also should be pointed out that since the nickel content of the serpentine is not abnormal the granting of a loan to explore this mass for nickel would establish a precedent under which virtually every serpentine mass in California would warrant similar exploration.

Edgar H. Bailey



Geology by L. D. Clark, September 1952

Serpentine

Extensively covered in sections 5, 6, 7, 8, and 18 by Tertiary gravels and volcanics as much as 300 feet thick. Locally covered by similar deposits in sections 17 and 20.

Metavolcanics

0 1 2 3 4 Miles

Map of northeast corner of Valley Springs Quadrangle, Calaveras County, California, showing location of serpentine and Burke Nickel Prospect.

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Tom Lyon, Director
Domestic Expansion Division

October 3, 1952

Paul E. Pesonen, Chief
Iron and Nickel Ores Branch

Gerald C. Burke Nickel Prospect, Calaveras County, California
Summary and Conclusion

Mr. Gerald C. Burke, an analytic chemist employed by the Bureau of Standards in San Francisco, has made numerous requests for a loan to explore his nickel prospect in Calaveras County, California.

He reports that his analyses indicate an average of .5 percent nickel in a range of serpentine hills at the base of the western foothills of the Sierra Nevada Mountains. He also reports that, according to the Reno Bureau of Mines Office, the nickel is contained in magnetite. Samples taken by Mr. James S. Wroth and myself at the best exposures as shown to us by Mr. Burke indicate an average of .29 percent nickel. A 2-foot channel sample at the base of a 12-foot shaft from the most likely looking zone indicated a nickel content of .30 percent. The samples were sent to the Reno Laboratory of the Bureau of Mines with a request to make a magnetic concentrate to determine the nickle content. The magnetic concentrate assayed .36 percent and .37 percent, and a concentrate from the channel sample assayed .47 percent nickel. The magnetic concentrate is only 6.0 to 9.3 percent by weight of the crude sample.

It is apparent that the prospect has no possibilities of developing into a commercial deposit and that no further work by any Government agency is warranted. The owner of the property was so advised and, being an eccentric, he has determined to continue his own prospect work, feeling that the numerous mining companies to whom he has written and the Government are not interested in developing his deposit but will pick up the property if he does not continue his assessment work and loses the property by default.

The detailed report of Mr. James S. Wroth, Consultant, is attached.

Paul E. Pesonen

PEPesonen:md
Copy to: Mr. Pesonen
DMPA Files

C
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San Francisco, Calif.
September 15, 1952

Mr. Howard I. Young, Deputy Administrator
Defense Materials Procurement Agency
Washington 25, D. C.

Dear Mr. Young:

Attached hereto please find a memorandum on the Burke Nickel prospect in Calaveras County, California.

This property was visited by me on September 6th in company with Mr. Paul E. Pesonen of your staff. We were accompanied by Mr. Gerald Burke, the owner.

Unless the samples sent to Reno for analysis and test show wholly unexpected and very surprising percentages of nickel, the property, in my opinion, does not merit any consideration whatever.

Yours respectfully,

/s/ James S. Wroth

James S. Wroth

C
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San Francisco, Calif.
September 15, 1952

MEMORANDUM

To: Mr. Howard I. Young, Deputy Administrator, DMPA
Washington, D. C.

From: James S. Wroth

Subject: Gerald C. Burke nickel prospect
Calaveras County, California

SUMMARY AND CONCLUSION

Low grade nickel mineralization has been found in serpentine. Samples taken in April, 1952, and reported to the DMPA indicated an average nickel content of 0.21%. Other samples showed somewhat higher values. Such a nickel content is not uncommon in rocks as basic as serpentine. In such cases, the nickel usually occurs as silicates for which no known process of recovery on this low grade material is economically feasible. It is claimed that in this case the nickel occurs associated with magnetite which is readily recoverable. Such an association of nickel with magnetite is reported to be so unusual as to require proof. Tests on samples taken by the writer to determine the amount of magnetite recoverable from the serpentine and its nickel content are in progress but results are not yet available. However, careful visual inspection of the rock suggests that the amount of magnetite present is so small that even though the magnetite carried an appreciable percentage of nickel, the property does not merit any consideration whatever at this time.

* * * * * * * *

The property is located about 3 miles southeast of the village of Valley Springs, in Sec. 20, T. 4 N., R. 11 E., Calaveras County, California.

The property is held under unpatented mining location by Mr. Gerald C. Burke, an analytical chemist employed by the Bureau of Standards in San Francisco. Mr. Burke is something of an eccentric and a student of mining and geological literature but without practical mining experience.

Mr. Burke has brought his property to the attention of many different mining companies. He feels strongly that these companies and the commercial laboratories do not know how to make correct analyses for nickel. His statement of the grade of his deposit is based on his

own analysis of his own samples which he admits were selected from what he determined to be the best showings. He feels that the important mining companies and, now the Government, are not interested in helping small domestic nickel prospects but are conspiring to keep nickel deposits such as his in reserve.

Mr. Burke has on two previous occasions applied for an exploration loan, Nos. DMA 2321X, Nickel and DMA 2394X Nickel. Both applications were withdrawn following request for certain information. Mr. Burke has now filed a new application, DMEA-2671 Nickel, for a loan of $4,850.00 with which to drill 8 diamond drill holes to depths of 70 feet. This application has been forwarded by the DMEA in Washington to the Region III office in San Francisco with a request for a field team examination. I understand that this examination is being delayed pending the returns from samples taken by the writer and Mr. Paul E. Pesonen but that a brief field investigation will be made.

Mr. Burke's mining claims cover the southern part of a large area of serpentine. Such serpentine areas occur frequently along the western base of the Sierra Nevada in and along the West Belt of the "Mother Lode" region. I am informed that these serpentine bands and the serpentines of Northern California and Oregon all carry traces of nickel.

The serpentine on Mr. Burke's property is fractured and weathered and contains small quantities of what appears to be magnetite along fractures and seams and to a less extent disseminated in the rock itself.

Correspondence sent to Mr. Howard I. Young, by Mr. C. D. Williams reveals that the property was investigated by a Mr. Max Saltzman, 415 Lexington Ave., New York 17, N. Y., in April, 1952. Mr. Saltzman took five 25-pound samples at random. These samples showed the nickel content to range from 0.18% to 0.28% and averaged 0.21% nickel.

Mr. Burke sent a Sample of his ore to the Bureau of Mines laboratory at Boulder City, Nevada. A copy of the report on this sample is attached hereto. This report suggests the possibility that whatever nickel is present in the sample may occur with magnetite. The report does not indicate that the nickel content is of no significant importance.

Mr. Burke's property is wholly undeveloped. The only work done is the sinking of a small shaft some 10 to 12 feet deep. No sulphide minerals could be seen in the material from this shaft. A dark mineral which could be magnetite was noted in seams and fractures but this mineral was not present in sufficient quantity to permit positive identification.

Three samples were taken from this shaft, as follows:

No. 1 - A carefully cut sample across the east wall of the shaft at depth of 10 feet where recent blasting had exposed comparatively fresh rock. 18 inches of this sample was fairly solid serpentine; 18 inches were broken and fractured by rusty, iron stained seams and cracks.

No. 2 - Grab of the freshest looking serpentine that could be found in the recently blasted material in the shaft.

No. 3 - Grab sample of serpentine from the shaft dump.

These samples have been sent to the Bureau of Mines laboratory in Reno, Nevada for analysis. A test will be made to determine the quantity and nickel content of whatever magnetite concentrate may be recovered from the rock.

The returns from these samples are not as yet available. They will be reported when received.

However, I have no reason to question the grade of the material as reported by Mr. Saltzman. This grade was 0.21% nickel. Mr. Burke claims that his analyses show a grade of 0.5% nickel and upward and that this value is disseminated throughout the serpentine.

A nickel content up to 0.2% and even somewhat higher is not uncommon in ultra basic rocks but the nickel usually occurs as a silicate for which no method of recovering the nickel has been developed. Magnetite is, however, readily recoverable by a simple process and if the nickel is associated with the magnetite, it will be recoverable. The amount of magnetite observed in these rocks is so small that in my opinion the property does not merit consideration even though the nickel is found to actually occur with the magnetite.

I am almost certain that the returns from the samples sent to Reno will not alter or change this conclusion. Should they do so, however, I shall be happy to admit my error and write a supplementary report.

Respectfully submitted,

/s/ James S. Wroth

James S. Wroth

(Copy furnished by Mr. Burke)

C
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UNITED STATES

DEPARTMENT OF THE INTERIOR

BUREAU OF MINES

BOULDER CITY, NEVADA

May 29, 1952

Mr. Gerald Burke
209 Old Mint Building
San Francisco, Calif.

My dear Mr. Burke:

Reference is made to your letter of May 22 and the sample which we received for examination.

Mr. Schenk reports that the pieces of serpentine contain nickel-bearing magnetite. The occurrence of nickel in magnetite is not uncommon; in fact, the latest edition of Dana lists a "nickelien magnetite as a variety of magnetite in which nickel substitutes for Fe but usually only in minor amounts." The crushed material appears to be a highly weathered phase of serpentine; consequently, what nickel-bearing constituent is present is highly problematic. No sulfide could be detected in either sample.

It is quite possible that minor amounts of garnierite, the hydrated silicate or magnesium and nickel or the nickelien antigorite neponite may be present as these minerals do occur in serpentine rocks. However, their presence could not be substantiated by microscopic observation.

Sincerely yours,

R. R. Lloyd, Chief
Electrometallurgical Branch
Metallurgical Division
Region III

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NOTE:

Since the report was written returns from the samples referred to on page three have been received from the Bureau of Mines laboratory in Reno, Nevada and are as follows:

Burke Prospect	Ni.%	Weight, percent
Fresh serpentine from shaft	0.27	100.0
Magnetic conc't.	0.37	9.3
Nonmagnetic	0.27	90.7
Cut sample from shaft	0.30	100.0
Magnetic conc't.	0.47	8.7
Nonmagnetic	0.28	91.3
Grab sample from shaft	0.29	100.0
Magnetic conc't.	0.36	6.0
Nonmagnetic	0.31	94.0

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

Office of
Executive Officer
DMEA Field Team
Region III

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

October 8, 1952

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: DMEA 2671 (Nickel) Section 20, T. 4W., R. 11 E., Valley Springs District, Calaveras County, California

Reference is made to your "Review of Application for Exploration Assistance," dated August 29, 1952, requesting an examination of the subject property.

Attached are four copies of a memorandum report, prepared by Mr. Edgar H. Bailey of the Geological Survey, dated October 3, 1952. A map accompanying each copy of the memorandum shows the distribution of the serpentine which contains a little nickel in the vicinity of the Burke prospect.

The geologists recommend that no financial assistance under the DMEA program be granted.

For your additional information, the Burke prospect was thoroughly examined by Mr. James S. Wroth, Consultant, DMPA, and Mr. Pesonen of the Washington Office of DMPA, and from what I was told they recommended against giving any further consideration to the Burke prospect as a likely source of nickel. Their report on the property may, undoubtedly, be borrowed from the DMPA files, if desired.

The docket is being returned herewith.

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

Attachments

Copy to E. H. Bailey, USGS
A. C. Johnson, Reno, Nevada (with copy of report and map)

October 3, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 13 1952

MEMORANDUM

To: H. C. Miller, Executive Officer, Region III

From: Edgar H. Bailey, U. S. Geological Survey

Subject: DMEA 2671, Gerald C. Burke, Calaveras County, California (Nickel)

The Burke nickel deposit in Calaveras County, California was examined on the week of September 15-20, 1952 by Lorin Clark and Don Tatlock of the Geological Survey and the accompanying maps show the distribution of the serpentine, which locally contains a little nickel.

Burke's test pit, the only exploration of consequence on the property is only 10 feet deep. The geologists noted that it is in sec. 29, T. 4 N., R. 11 E., rather than in section 20 as described by Burke. Because Mr. Burke has claimed the serpentine in the area is different from that elsewhere in the Foothill Belt, I asked the geologists to comment on this point. They report the serpentine is typical except that locally it is opalized, as it is in several other places on the flank of the Sierra. The geologists were apparently not able to distinguish any nickel minerals, and it is likely that the nickel content of the serpentine penetrated by the shaft is representative of the entire serpentine mass.

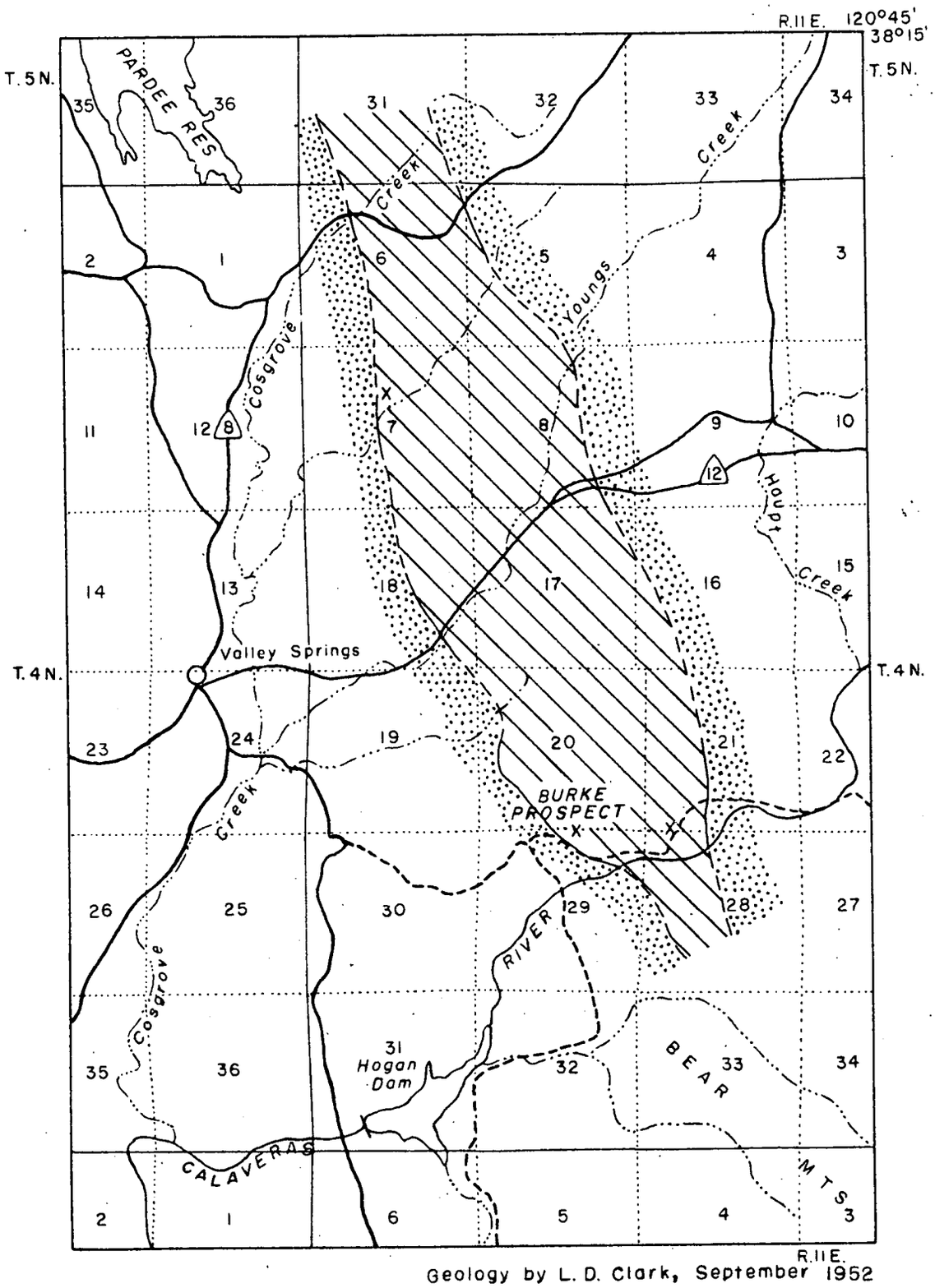
The nickel content of the three representative samples cut by Mr. J. S. Wroth, consultant for DMPA, ranges from 0.27 percent to 0.30 percent. These values are within the range of the percentage of nickel in normal ultrabasic rocks as found throughout the world. Because Burke claimed the nickel was contained in the magnetite a magnetic fraction amounting to 6 to 9.3 percent was separated from each of his samples and assayed by the Bureau of Mines for nickel. The nickel content of each magnetic fraction was roughly 50 percent higher than the nickel content of the serpentine, indicating a slight concentration of the nickel in magnetite; however, the bulk of the total quantity of nickel in the rock is in the non-magnetic fraction. The richest magnetic fraction contained only 0.47 percent nickel, and therefore there is no reason to believe that the nickel-bearing serpentine can be upgraded to provide a workable nickel ore by magnetic separation.

It is recommended that no financial assistance under the DMEA program be given Mr. Burke. It also should be pointed out that since the nickel content of the serpentine is not abnormal the granting of a loan to explore this mass for nickel would establish a precedent under which virtually every serpentine mass in California would warrent similar exploration.

Edgar H. Bailey

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA 2671
(NICKEL)



Geology by L. D. Clark, September 1952

Serpentine

Extensively covered in sections 5, 6, 7, 8, and 18 by Tertiary gravels and volcanics as much as 300 feet thick. Locally covered by similar deposits in sections 17 and 20.

Metavolcanics

0 1 2 3 4 Miles

Map of northeast corner of Valley Springs Quadrangle, Calaveras County, California, showing location of serpentine and Burke Nickel Prospect.

IN REPLY REFER TO:

G-MD-CF

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

August 26, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration application $4,850 DMEA 2671 - Nickel
Gerald C. Burke
YMCA Hotel
351 Turk Street
San Francisco, California

Property: Sec. 20, T. 4 N., R. 11 E.
Valley Springs district
Calaveras County, California

Proposal: The applicant proposes to core drill 8 holes 70 feet deep on 2 mining claims to sample the serpentine for nickel. He apparently expects to do his own assaying (60 assays at $5 each), and to "check" the results by 11 spectrographic analyses. He states the only working on the property is a shaft 18 feet deep. The following assays are reported:

0.43, 0.47, and 0.58 % Ni	Three shaft samples analyzed by U.S.V.
0.38 % Ni	Surface sample, by M. A. Hanna
0.28 % Ni	Shaft sample, by Fixa Co.

Comment: The content of Ni quoted by the applicant is not unusually high for ultrabasic rocks. Rankama and Sahama (1950), p. 682 quote Goldschmidt's analysis of 0.3 percent Ni in dunite. They state that olivine may contain up to 0.5 percent Ni. Where the nickel is contained in such small amounts in the ferro-magnesian silicates (as in serpentine), the metal cannot be recovered economically by any known process.

Although the applicant states that the nickel is contained in magnetite, and hence can be concentrated, such an occurrence in ultrabasic rocks would be geologically unusual and requires proof.

The applicant's theory that the content of Ni will increase with depth is also of dubious merit.

Several Congressional requests have been received in recent months concerning this property. Apparently Mr. Burke believes he has discovered something unique and very valuable, and is annoyed that he has received no Governmental encouragement.

Recommendation: It is suggested that this application be referred to the Field Team for examination of the property and discussion with the applicant. Although the possibility of finding workable nickel ore is poor and the applicant has not presented adequate data, a thorough field examination is needed to provide a factual basis for answering Congressional and other inquiries and criticism.

DMLemmon:gt

Field Team Reg. III

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

AUG 29 1952

Mr. H. C. Miller
Executive Officer, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant Gerald C. Burke

Docket No. DMEA 2671

Commodity Nickel

Amount $ 4,850.00

Please expedite consideration of the application with particular reference to the points raised in the attached "Review".

Sincerely yours,

ACTING Chairman, Operating Committee
Defense Minerals Exploration
Administration

APPROVED:

C. W. Johnson
Member, Bureau of Mines

D. M. Lemmon
Member, Geological Survey

13759

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1952 SEP 2 AM 9:19

SAN FRANCISCO, CALIFORNIA

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2671

Commodity Nickel

Total Amount $4,850.00

Govt. Participation $4,365.00

1. Name and Address of Applicant Gerald C. Burke, YMCA Hotel, 351 Turk Street, San Francisco, California

2. Location of Property Section 20, T. 4 N., R. 11 E. Valley Springs District Calaveras County, California

3. Mineral or metal Nickel Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination Yes

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached?

Does the lease have sufficient time to run to cover a future productive period? Leases should be looked into.

*question numbers are those of MF-103

7. Are subordination agreements necessary? _____

a) MF-201? _____

b) MF-202? _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower **Yes**

b) Equipment and supplies **Yes**
(question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* **Yes**

d) Water (question 13)* **Yes**

e) Power (question 13)* **Yes**

Is a field check needed on any of these points? _____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* _____

_____

Is a field check needed on this point? **Yes**

10. Exhibit A. (question 21 and 22)*

a) Is the project adequately described? **Yes**

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? _____

_____

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? **Yes**

If not, what part of it is? _____

_____

_____

_____

Is this part a worthwhile exploration project? ??

d) Are the cost estimates detailed? Yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? _____ If so, attach a draft.

e) Are the cost estimates reasonable? Yes

f) Should more information be requested from applicant? _____

g) Is a field examination necessary to complete Exhibit A? Yes

11. Exhibit B (question 23-d)*

a) Is it applicable? _____

b) If so, are sufficient data furnished? _____ If so, attach a draft.

c) Is a field check needed? _____

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? _____

b) Sufficient data? _____ If so, attach a draft.

c) Are rents and charges reasonable? _____

d) Is a field check needed? _____

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? _____

b) Is the schedule adequate for the work proposed? _____

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? _____

e) Is a field check needed? _____

14. Exhibit E (question 23-c)*

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? The form in which the nickel occurs should be looked into carefully. If it occurs with the magnetite, there is a possibility it can be concentrated. This property should be looked into carefully to be able to answer Congressional inquiry and criticism.

TLChapman'lm
8/28/52

Reviewed by: T. L. Chapman

Enclosures:

2 - Copies memo by D.M.Lemmon, USGS, dated 8/26/52.

Date 8/28/52

Field Team Reg. III

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

AUG 29 1952

Mr. H. C. Miller
Executive Officer, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant Gerald C. Burke

Docket No. DMEA 2671

Commodity Nickel

Amount $ 4,850.00

Please expedite consideration of the application with particular reference to the points raised in the attached "Review".

Sincerely yours,

W. F. Keller

ACTING Chairman, Operating Committee
Defense Minerals Exploration
Administration

APPROVED:

C. W. Johnson
Member, Bureau of Mines

D. M. Lemmon
Member, Geological Survey

13759

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2671

Commodity Nickel

Total Amount $4,850.00

Govt. Participation $4,365.00

1. Name and Address of Applicant Gerald C. Burke, YMCA Hotel, 351 Turk Street, San Francisco, California

2. Location of Property Section 20, T. 4 N., R. 11 E. Valley Springs District Calaveras County, California

3. Mineral or metal Nickel Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good _____

b) Poor _____

c) None _____

d) Don't know—needs field examination Yes

e) Is there an alternative and favorable project? _____ (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? _____

Does the lease have sufficient time to run to cover a future productive period? Leases should be looked into.

*question numbers are those of MF-103

7. Are subordination agreements necessary? _____

a) MF-201? _____

b) MF-202? _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes

b) Equipment and supplies Yes
(question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes

d) Water (question 13)* Yes

e) Power (question 13)* Yes

Is a field check needed on any of these points? _____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* _____

_____

Is a field check needed on this point? Yes

10. Exhibit A. (question 21 and 22)*

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? _____

_____

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

_____

_____

_____

Is this part a worthwhile exploration project? ??

d) Are the cost estimates detailed? Yes

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? _____ If so, attach a draft.

e) Are the cost estimates reasonable? Yes

f) Should more information be requested from applicant? _____

g) Is a field examination necessary to complete Exhibit A? Yes

11. Exhibit B (question 23-d)*

a) Is it applicable? _____

b) If so, are sufficient data furnished? _____ If so, attach a draft.

c) Is a field check needed? _____

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? _____

b) Sufficient data? _____ If so, attach a draft.

c) Are rents and charges reasonable? _____

d) Is a field check needed? _____

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? _____

b) Is the schedule adequate for the work proposed? _____

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? _____

e) Is a field check needed? _____

14. Exhibit E (question 23-c)*

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? The form in which the nickel occurs should be looked into carefully. If it occurs with the magnetite, there is a possibility it can be concentrated. This property should be looked into carefully to be able to answer Congressional inquiry and criticism.

TLChapman'lm
8/28/52

Reviewed by: T. L. Chapman

Enclosures:

2 - Copies memo by D.M.Lemmon, USGS, dated 8/26/52.

Date 8/28/52

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 8-25-52

REFERRED TO:

1. Region III
2.
3.
4.

FOR:

---------- Action	---------- Recommendation
---------- Approval	---------- Record of ----------
---------- Comment	---------- Referring to ----------
---------- Conference	---------- Reply for signature of ----------
---------- Consideration	---------- Rewriting
---------- Filing	---------- Signature
---------- Instructions	---------- Suggestions
---------- Investigation	X Your information
---------- Initials	
---------- Mailing	
---------- Previous correspondence	

REMARKS: Enclosed you will find 1 copy MF-103 which was received in our Washington office in accordance with the Operating Committee's Memorandum No. II, dated 2-4-52. (Also, 1 sketch)

Check (X) before the items needing attention.

ROBERT E. ADAMS
Initials of sender.

GPO 16—63815-1

sd

MI-103
(Revised April 1952)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 25 1952

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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. DMEA-2671
Metal or Mineral
Date Received 8-25-52
Estimated Cost
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: Gerald C. Burke
Y.M.C.A. Hotel, 351 Turk Street, San Francisco, 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

(*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

(*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

(*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 Nickel

(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 20 days and be completed within 90 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 August 21, 1952, 195

Gerald C. Burke
(Applicant)

By Gerald C. Burke

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

G.C. Burke
San Francisco, California.

The E. ½ and the W. ½ of the S.W. ¼ of the S.E. ¼ of Section 20, T 4N., R 11 E.
Valley Springs Mining District, Calaveras County, California.
Unpatented claims, p. 314, pp 336-337, Mining Claims, San Andreas, County Recorder, Calaveras County, California.

4. Sunk an eighteen foot shaft with atwo foot tunnel at its base. Collected and assayed several hundred samples of ore. Shaft easily reached via ten minute walk from road.

c. Claims located in an area of serpentine. Nickel is disseminated in serpentine.

Via diamond drilling expect to prove nickel to depth of seventy feet, also that higher value ore is available.

d. Dirt roads extend to claims themselves. R.R. two miles distant. Town three miles away.

e. Ample manpower in district, river half mile away, high tension line two miles, gas line one mile. City forty miles.

5. Nickel, will have eight holes diamond drilled to depth of seventy feet on claims Nine and Ten. Four will be on each claim. I will run about sixty nickel assays on the core and sludge material form theses holes. Abour eleven spectrographic analysis will be had to check my work.

The U.S. Vanadium Company lab. gives 0.43%, 0.47% and 0.58% nickel values from three ten pound samples from this shaft. The M.A. Hanna Company got 0.38% from a surface sample taken nearby. The Fixa Company got 0.28% from material taken at depth of six feet. The U.S. Bureau of Mines reported no garnierite found but that the material bearing the nickel was magnetite. The U.S. Vanadium reported Fe_3O_4, or magnetite.

Diamond drilling	$ 4030
Labor man to watch, receive cores and sludge	250
Survey of one claim to be sure of position.	100
Eleven spectrographic analyses	110
Sixty nickel assays	300
Brush clearing	60
Total	$ 4850

My share via nickel assays and field work	$ 485

Either Mr. Fred Field of Valley Springs or I will be prsent during drilling.

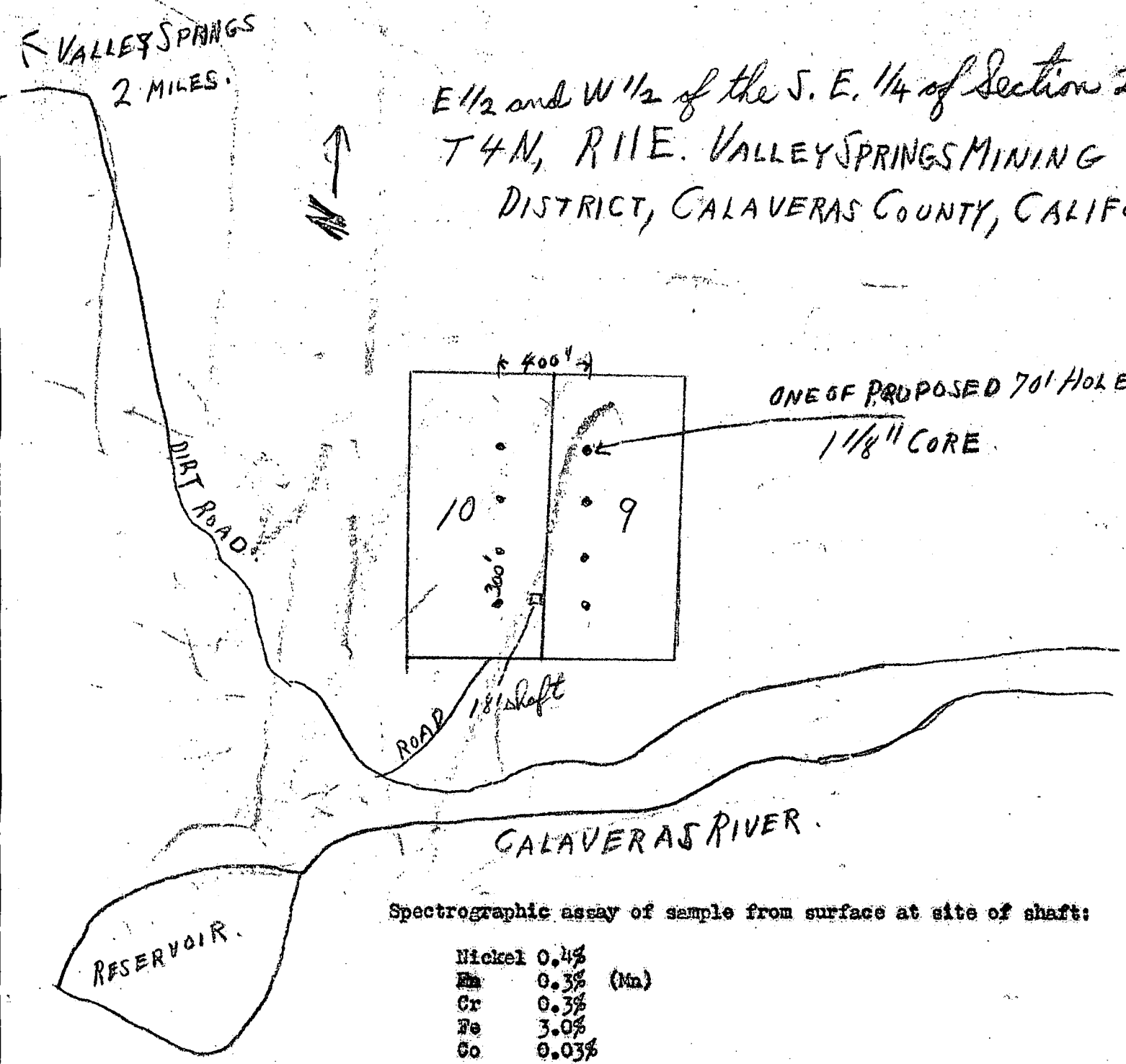
DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1952 AUG 28 PM 1:44

SAN FRANCISCO, CALIFORNIA

G.C. Burke
San Francisco, California.

E 1/2 and W 1/2 of the S. E. 1/4 of Section 20, T4N, R11E. Valley Springs Mining District, Calaveras County, California



Spectrographic assay of sample from surface at site of shaft:

Nickel	0.4%	
Mn	0.3%	(Mn)
Cr	0.3%	
Fe	3.0%	
Co	0.03%	

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

1952 AUG 28 PM 1:44

SAN FRANCISCO, CALIFORNIA

FILE COPY 400
SURNAME:

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

Martin
Selfridge

OCT 6 1952

Mr. Gerald C. Burke
209 Old Mint Building
San Francisco, California

Re: Docket No. DMEA 2671 - Nickel
Section 20, T. 4 N., R. 11 E.
Valley Springs District
Calaveras County, California

Dear Mr. Burke:

This will acknowledge receipt of your letter of September 26, 1952, reporting that in one side of the shaft mentioned in the subject application there is a gouge that assays 0.68 percent nickel.

We thank you for this information.

Sincerely yours,

C. O. Mittendorf

Administrator

10.6.52

WSMartin'lm
10/3/52

cc: Admn. Reading File
Docket
H. W. Davis, USBM
T. P. Thayer, USGS
Field Team Reg. III
G. C. Selfridge
W. S. Martin

Ras

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 30 1952

209 Old Mint Building
San Francisco, California

September 26, 1952

re: Docket No. DMEA.2671-Nickel

Mr. C.O. Mittendorf
Administrator
Defense Minerals Exploration Administration
U.S. Department of The Interior
Washington,D.C.

Dear Mr. Mittendorf:

I would like to state that in one side of the shaft of which I have spoken in my application there is a gouge that gives 0.68% nickel values. Also that I've just received a letter from a mining and metallurgical engineering firm that represents one of the largest mining companies in this country. In this letter they say that the area shows indications of development possibilities and express hope that I will get capital necessary to develop it. They say they are pretty well loaded with two development and research projects at present that have put them under very heavy expenses. This was their reason for not coming into the area.

Yours truly,
Gerald C. Burke.

sample .27% Ni.
magnetite less than 10% of rock
mag concen .37% Ni.
best showing shaft .30% Ni magnetic .47% Ni.
Examined and sampled by Pesonen. Says no chance of ore. N.G.
G C Selfridge 10/2/52

FILE COPY 400
SURNAME:

Chapman
Martin
Davis
Lemmon
Johnson
Miller

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

AUG 29 1952

Mr. Gerald C. Burke
YMCA Hotel
351 Turk Street
San Francisco, California

Re: Docket No. DMEA 2671 - Nickel
Section 20, T. 4 N., R. 11 E.
Valley Springs District
Calaveras County, California

Dear Mr. Burke:

Your application for assistance in exploring the above mentioned property has been reviewed by the Iron and Ferro-Alloy Division of the Defense Minerals Exploration Administration and has been referred to Mr. H. C. Miller, Executive Officer, Region III, 1012 Flood Building, 870 Market Street, San Francisco 2, California, for a field examination.

The Regional Office will contact you at an early date in regard to the examination of your property. Any aid which you can render the members of the field team during the examination will be appreciated.

Sincerely yours,

H. O. Mittendorf (for)

Acting Administrator

J.H.
8-29-52

TLChapman'lm
8/28/52

cc: Admn. Reading File
Docket
H. W. Davis, USBM
T. P. Thayer, USGS
Field Team Reg. III
W. S. Martin
T. L. Chapman

Docket

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

PH Chapman
Martin

AUG 29 1952

Mr. H. C. Miller
Executive Officer, Region III
1012 Flood Building
870 Market Street
San Francisco 2, California

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Applicant Gerald C. Burke

Docket No. DMEA 2671

Commodity Nickel

Amount $ 4,850.00

Please expedite consideration of the application with particular reference to the points raised in the attached "Review".

J.N. 8-29-52

Sincerely yours,

ACTING Chairman, Operating Committee
Defense Minerals Exploration
Administration

APPROVED:

C. W. Johnson
Member, Bureau of Mines

S. M. Lemmon
Member, Geological Survey

13759

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMEA 2671

Commodity Nickel

Total Amount $4,850.00

Govt. Participation $4,365.00

1. Name and Address of Applicant Gerald C. Burke, YMCA Hotel, 351 Turk Street, San Francisco, California

2. Location of Property Section 20, T. 4 N., R. 11 E. Valley Springs District Calaveras County, California

3. Mineral or metal Nickel Is it listed in Section 9 of MO-5? Yes

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good

b) Poor

c) None

d) Don't know—needs field examination Yes

e) Is there an alternative and favorable project? (If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes (question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached?

Does the lease have sufficient time to run to cover a future productive period? Leases should be looked into.

*question numbers are those of MF-103

7. Are subordination agreements necessary? _____

a) MF-201? _____

b) MF-202? _____

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Yes

b) Equipment and supplies Yes
(question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Yes

d) Water (question 13)* Yes

e) Power (question 13)* Yes

Is a field check needed on any of these points? _____

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* _____

_____

Is a field check needed on this point? Yes

10. Exhibit A. (question 21 and 22)*

a) Is the project adequately described? Yes

If not, are there sufficient data given so that you can describe the project? _____ If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? _____

_____

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes

If not, what part of it is? _____

_____

_____

_____

Is this part a worthwhile exploration project? ?? _____

d) Are the cost estimates detailed? Yes _____

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? _____ If so, attach a draft.

e) Are the cost estimates reasonable? Yes _____

f) Should more information be requested from applicant? _____

g) Is a field examination necessary to complete Exhibit A? Yes _____

11. Exhibit B (question 23-d)*

a) Is it applicable? _____

b) If so, are sufficient data furnished? _____ If so, attach a draft.

c) Is a field check needed? _____

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? _____

b) Sufficient data? _____ If so, attach a draft.

c) Are rents and charges reasonable? _____

d) Is a field check needed? _____

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? _____

b) Is the schedule adequate for the work proposed? _____

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? _____

e) Is a field check needed? _____

14. Exhibit E (question 23-c)*

a) Is it applicable?

b) Sufficient data?

c) Reasonable?

d) Field check needed?

15. In your judgment, can the proposed work be done in the proposed time? Yes

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? The form in which the nickel occurs should be looked into carefully. If it occurs with the magnetite, there is a possibility it can be concentrated. This property should be looked into carefully to be able to answer Congressional inquiry and criticism.

TLChapman'lm
8/28/52

Reviewed by: T. L. Chapman

T.L. Chapman

Enclosures:

2 - Copies memo by D.H.Lemmon, USGS, dated 8/26/52.

Date 8/28/52

IN REPLY REFER TO:
G-MD-CF

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

August 26, 1952

Memorandum

To: George C. Selfridge, DMEA

From: D. M. Lemmon, USGS

Subject: Exploration application $4,850 DMEA 2671 - Nickel
Gerald C. Burke
YMCA Hotel
351 Turk Street
San Francisco, California

Property: Sec. 20, T. 4 N., R. 11 E.
Valley Springs district
Calaveras County, California

Proposal: The applicant proposes to core drill 8 holes 70 feet deep on 2 mining claims to sample the serpentine for nickel. He apparently expects to do his own assaying (60 assays at $5 each), and to "check" the results by 11 spectrographic analyses. He states the only working on the property is a shaft 18 feet deep. The following assays are reported:

0.43, 0.47, and 0.58 % Ni	Three shaft samples analyzed by U.S.V.
0.38 % Ni	Surface sample, by M. A. Hanna
0.28 % Ni	Shaft sample, by Fixa Co.

Comment: The content of Ni quoted by the applicant is not unusually high for ultrabasic rocks. Rankama and Sahama (1950), p. 682 quote Goldschmidt's analysis of 0.3 percent Ni in dunite. They state that olivine may contain up to 0.5 percent Ni. Where the nickel is contained in such small amounts in the ferro-magnesian silicates (as in serpentine), the metal cannot be recovered economically by any known process.

Although the applicant states that the nickel is contained in magnetite, and hence can be concentrated, such an occurrence in ultrabasic rocks would be geologically unusual and requires proof.

The applicant's theory that the content of Ni will increase with depth is also of dubious merit.

Copy retained 400

Several Congressional requests have been received in recent months concerning this property. Apparently Mr. Burke believes he has discovered something unique and very valuable, and is annoyed that he has received no Governmental encouragement.

Recommendation: It is suggested that this application be referred to the Field Team for examination of the property and discussion with the applicant. Although the possibility of finding workable nickel ore is poor and the applicant has not presented adequate data, a thorough field examination is needed to provide a factual basis for answering Congressional and other inquiries and criticism.

D. M. Lemmon

Mr. Gerald C. Burke
Y.M.C.A. Hotel
351 Turk Street
San Francisco, California

Subject: DMEA-2671
Re: Exploration Assistance
August 25, 1952

My dear Mr. Burke:

The receipt of your application dated August 21, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2671 and referred to the Iron and Ferro-Alloys Division.

Kindly refer to DMEA-2671 in any future correspondence relating to your application.

Sincerely yours,

SIGNED
Wingfield Chamberlain
Acting Chief, Operation's
Control and Statistics Division

previously
Annex 2-32
4-39A

25451

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 25 1952

MF-1035
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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. DMEA-2671
Metal or Mineral
Date Received 8-25-52
Estimated Cost
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: Gerald C. Burke
Y.M.C.A. Hotel, 351 Turk Street, San Francisco, 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

(*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

(*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

(*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.

3659

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

(*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 20 days and be completed within 90 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.

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(*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 August 21, 1952, 195__

Gerald C. Burke
(Applicant)

By Gerald C. Burke

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

O.C. Burke
San Francisco, California.

The E. ½ and the W. ½ of the S.W. ¼ of the S.E. ¼ of Section 20, T 4N., R 11 E.
Valley Springs Mining District, Calaveras County, California.
Unpatented claims, p. 314, pp 336-337, Mining Claims, San Andreas, County Recorder, Calaveras County, California.

4. Sunk an eighteen foot shaft with atwo foot tunnel at its base. Collected and assayed several hundred samples of ore. Shaft easily reached via ten minute walk from road.

c. Claims located in an area of serpentine. Nickel is disseminated in serpentine.

Via diamond drilling expect to prove nickel to depth of seventy feet, also that higher value ore is available.

d. Dirt roads extend to claims themselves. R.R. two miles distant. Town three miles away.

e. Ample manpower in district, river half mile away, high tension line two miles, gas line one mile. City forty miles.

5. Nickel, will have eight holes diamond drilled to depth of seventy feet on claims Nine and Ten. Four will be on each claim. I will run about sixty nickel assays on the core and sludge material form theses holes. Abour eleven spectrographic analysis will be had to check my work.

The U.S. Vanadium Company lab. gives 0.43%, 0.47% and 0.58% nickel values from three ten pound samples from this shaft. The M.A. Hanna Company got 0.36% from a surface sample taken nearby. The Fixa Company got 0.25% from material taken at depth of six feet. The U.S. Bureau of Mines reported no garnierite found but that the material bearing the nickel was magnetite. The U.S. Vanadium reported Fe_3O_4, or magnetite.

Diamond drilling	$ 4030
Labor man to watch, receive cores and sludge	250
Survey of one claim to be sure of position.	100
Eleven spectrographic analyses	110
Sixty nickel assays	300
Brush clearing	60
Total	$ 4850

My share via nickel assays and field work	$ 485

Either Mr. Fred Field of Valley Springs or I will be present during drilling.

MF-1 (Revised April 1952)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 25 1952

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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. DMEA-2671
Metal or Mineral
Date Received 8-25-52
Estimated Cost
Participation (Government %)

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Dated August 21, 1952, 195--

Gerald C. Burke
(Applicant)

By Gerald C. Burke

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

G.C. Burke
San Francisco, California.

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Unpatented claims, p. 314, pp 336-337, Mining Claims, San Andreas, County Recorder, Calaveras County, California.

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Eleven spectrographic analyses	110
Sixty nickel assays	300
Brush clearing	60
Total	$ 48 50

My share via nickel assays and field work $ 485

Either Mr. Fred Field of Valley Springs or I will be prsent during drilling.

DIAMOND BITS, DRILLS
AND
DRILLING EQUIPMENT

Telephone SUTTER 1-6850

DIAMOND TOOLS FOR
INDUSTRIAL AND
SCIENTIFIC PURPOSES

Processed Diamond Bit & Tool Company
INCORPORATED
66 RITCH STREET
San Francisco 7, California

August 20, 1952

Mr. J. C. Burke
209 Old Mint Building
San Francisco, California

Dear Mr. Burke:

We would be willing to do the diamond drilling contemplated at your property near San Andreas, California at the price of $5.50 per foot for AX Hole or 1 1/8" Core.

We would guarantee 60% core recovery. At this price the minimum footage must be at least 1000 feet. In the event that the footage does not reach 1000 feet, there will be a mobilization and demobilization charge of $400.00.

Very truly yours,

PROCESSED DIAMOND BIT AND TOOL CO. INC.

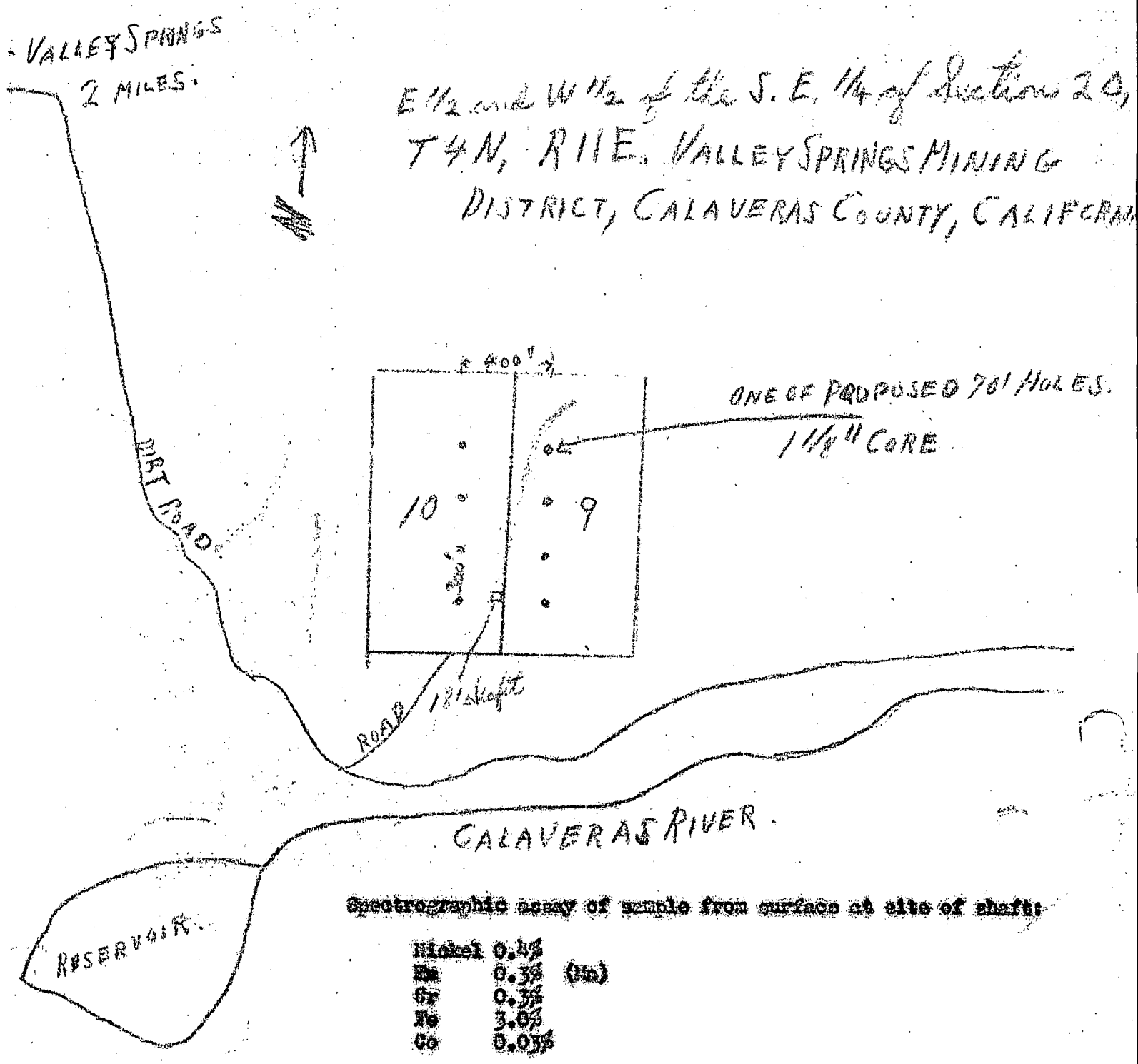
Fred W. Rolland

Fred W. Rolland

FWR:bb

Please return.

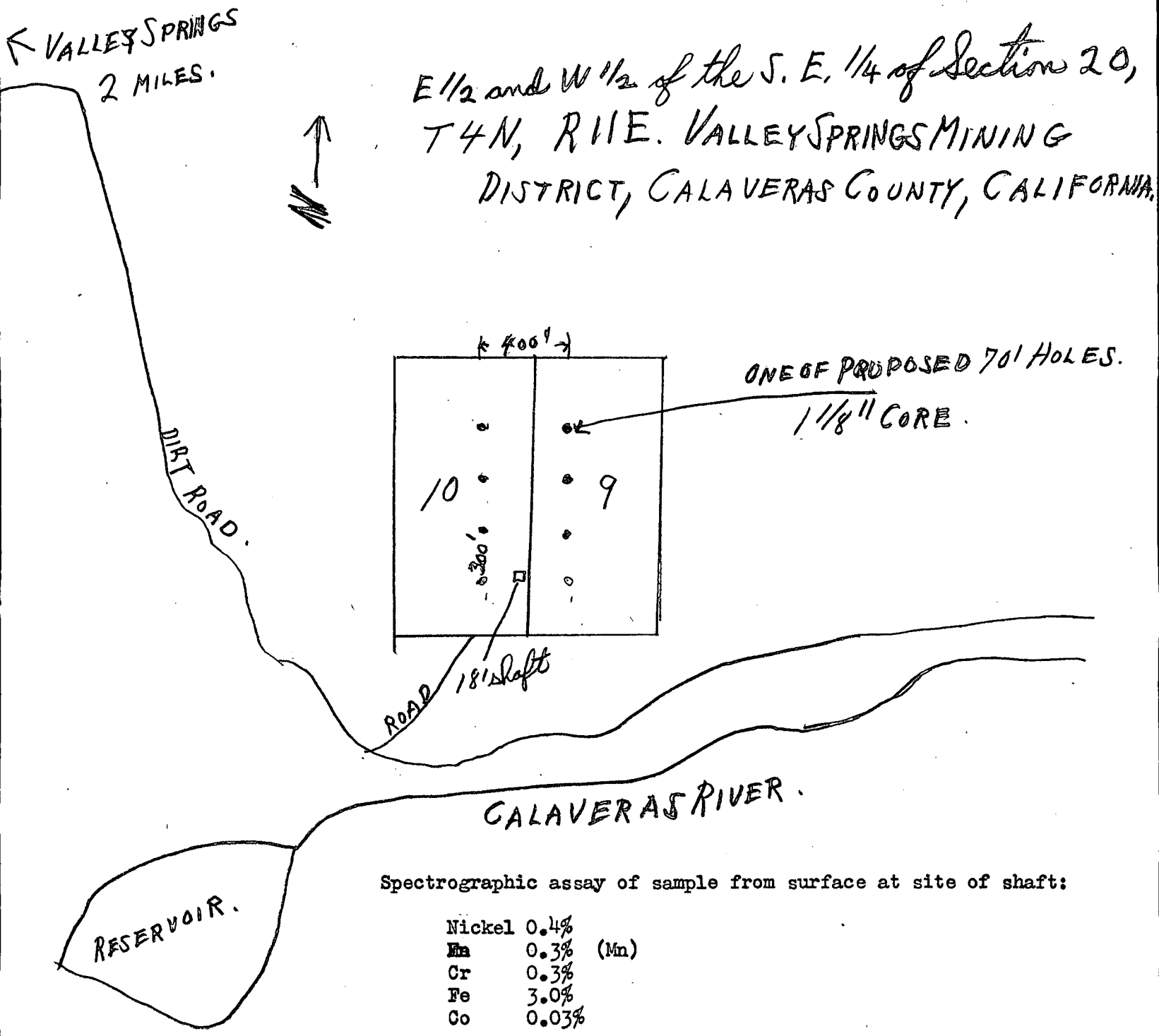
C.C. Burke
San Francisco, California.



Spectrographic assay of sample from surface at site of shaft:

Nickel	0.4%	
Zn	0.3%	(in)
Cr	0.3%	
Fe	3.0%	
Co	0.03%	

G.C. Burke
San Francisco, California.



Spectrographic assay of sample from surface at site of shaft:

Nickel	0.4%	
Mn	0.3%	(Mn)
Cr	0.3%	
Fe	3.0%	
Co	0.03%	

[redacted]