DOCKET:
Rutledge
Martin
Davis

July 14, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of request for exploration assistance in the amount of $190,100, later reduced to $130,810
Docket No. DMEA 3395 - Nickel and Manganese
Hogle Bros., Partnership
Niganz mine (Gibellini mine)
Eureka County, Nevada

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

1. The exploration project was designed to explore a "combination vein and bedded" deposit of nickel and manganese by sinking a 1500-foot inclined shaft along the footwall of a low-angle fault to be followed by drifting and crosscutting on three levels approximately 500 feet apart along the incline. The applicant believed that the mineralization was localized within a brecciated area along the intersection of two faults in conjunction with a limestone bed.

2. A field examination of the property during July 1954 resulted in the recommendation that an exploration project on a reduced scale be entered into. The approved program consisted of sinking 300 feet along the flat-lying structure "overlying" the ore zone followed by 200 feet of drifting and crosscutting.

   Approximately 20,000 tons of measured ore with an average grade of 9.53% Mn, 1.22% Ni, and 2.83% Zn was premised as the result of prior exploration and development.

3. The Commodity Division of the Geological Survey recommended denial of the application as the amount of ore which might be found by the proposed exploration was limited.

4. The Commodity Division of the Bureau of Mines recommended approval of the exploration program on a reduced scale as suggested by the Field Team.

5. A proposed contract embodying the Field Team's recommended program was transmitted to the field by letter dated October 20, 1954.

6. As this Administration was notified prior to the transmittal of the proposed contract to the field that the inclined shaft had already been sunk nearly 300 feet, the Field Team was advised that consideration would be given to an amendment allowing sinking of 300 feet of shaft beyond the footage already completed at the date of execution of the contract provided the mineralization at the shaft bottom was no less encouraging than the mineralization at the shaft collar.

7. The applicant by letter dated November 3, 1954, advised that more work would be completed before the proposed contract was signed.

8. The Field Team on January 12, 1955, requested the return of the proposed contract pending completion of the applicant's program.

9. On March 31, 1955, the applicant requested the subject application be reopened.

10. Field Team report dated June 16, 1955, recommends denial of the application because:

11. (1) The uneconomic grade of the ore.
The value of the ore being mined is less than the mining and expected milling costs.

(2) The size of the present ore occurrences indicates that the geological target is much too small to justify the expense of the requested exploration. There is no geologic evidence that the low grade ore body will extend downward for 600 feet, and there is no geologic evidence exposed to indicate that a sulphide zone exists beneath the rubbly material.

12. The underground work completed to date indicates three separate mineralized zones containing small amounts of nickel. The ore, which appears to have filled open fissures or solution cavities in the

limestone, is a black to tan rubbly mass of clay and rounded limestone fragments. No structural patterns were evident during the last field examination and no nickel minerals were seen.

13. The applicant's revised program of sinking another inclined shaft is unrealistic if the mineralized zones are vertical as indicated on the section attached to Mr. Hickley's letter dated March 31, 1955. However, it is reported that the applicant's sinking of an incline was influenced by the equipment available.

14. The mineralization at the Niganz mine is complex. To date no economic method has been found to recover the nickel, zinc, and manganese separately.

15. The Commodity Division of the Geological Survey recommends denial of the subject application.

16. The Commodity Division of the Bureau of Mines concurs in the denial.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

cc: Docket
Code 400
Adm. Reading File
Oper. Committee

FARutledge/ls
7/14/55

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

July 14, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of request for exploration assistance in the amount of $190,100, later reduced to $130,810
Docket No. DMEA 3395 - Nickel and Manganese
Hogle Bros., Partnership
Niganz mine (Gibellini mine)
Eureka County, Nevada

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14. The mineralization at the Niganz mine is complex. To date no economic method has been found to recover the nickel, zinc, and manganese separately.

15. The Commodity Division of the Geological Survey recommends denial of the subject application.

16. The Commodity Division of the Bureau of Mines concurs in the denial.

W S Martin
W. S. Martin, Chief
Iron and Ferro-Alloys Division

Docket

IN REPLY REFER TO:

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

RECEIVED JUL - 6 1955

Recommendation executed

July 5, 1955

Re: DMEA 3395, Idm-E731
J. A. Hogle & Co.
Niganz Mine
Eureka Co., Nevada
$130,810.00 - Manganese, nickel and zinc

Copy retained 400

Memorandum

WSM

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

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

Subject: Review of Field Team Report.

The map which accompanies the Field Team report of May 25, 1955, lacks points for referencing with earlier maps. I conclude that the Gibellini shaft of the June 16 map is the one shown on the Surface map of July 1954, as having a collar at 7045'. If such is the case the incline and the drifting make a roundabout route to points under the discovery pit, the adit and the workings from it. And is the low-grade material encountered on the 140-L known to be related as shown to the good grade material of the upper workings? The locations of the holes drilled by the U. S. Bureau of Mines in 1946, if known, should be shown on the maps.

Apparently conceptions as to the attitude of the ore body vary very much, otherwise the incline would not have been driven as it was. Perhaps the six-stage program was not too much out of line considering the uncertainty as to dip and/or plunge.

The revised program submitted by the applicant seems to be anything but realistic, but unless something is known that is not told us, diamond drilling though not too satisfactory, sampling and level work at 140 would help to justify the first reason for denial.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
JUL - 6 1955

July 5, 1955

Re: DMEA 3395, Idm-E731
J. A. Kogle & Co.
Nigana Mine
Eureka Co., Nevada
$130,810.00 - Manganese, nickel and zinc

Memorandum

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

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

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N. E. Nelson

N. E. Nelson

NENelson:iml
G-7/5/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
G. DeNuff, 3521

IN REPLY REFER TO:

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

RECEIVED
JUL - 6 1955

July 5, 1955

Re: DMEA 3395, Xdm-8731
J. A. Eagle & Co.
Higgins Mine
Eureka Co., Nevada
$130,810.00 - Manganese,
nickel and zinc

Memorandum

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

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

Subject: Review of Field Team Report.

The map which accompanies the Field Team report of May 25, 1955, lacks points for referencing with earlier maps. I conclude that the Gibellini shaft of the June 16 map is the one shown on the Surface map of July 1954, as having a collar at 7045'. If such is the case the incline and the drifting make a roundabout route to points under the discovery pit, the adit and the workings from it. And is the low-grade material encountered on the 140-L known to be related as shown to the good grade material of the upper workings? The locations of the holes drilled by the U. S. Bureau of Mines in 1946, if known, should be shown on the maps.

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N. E. Nelson

N. E. Nelson

NENelson:iml
G-7/5/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
G. DeRuff, 3521

400

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

RECEIVED
JUN 20 1955

1605 Evans Avenue
Reno, Nevada

June 16, 1955

Memorandum

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

WSM

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-3395 - Nickel & Manganese
Hogle Bros., Partnership
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Relative to your letter of April 13, 1955 on above subject, I am attaching 4 copies of memoranda by E. H. Pampeyan and Glenn G. Gentry giving comments on the result of their visit to the Niganz mine on April 23, 1955.

Both of the memoranda recommend that exploration assistance by the DMEA be denied and Roscoe Smith and I concur in the recommendation.

The suggestion by Mr. Pampeyan that any shaft sinking be preceded by diamond drilling is a reasonable approach to any future exploration work. We do not feel, however, that work done thus far warrants any financial assistance by the Government in that phase of the work.

Work similar to the first stage of the exploration recommended in our report dated September 1, 1954 by R. R. Trengove and E. H. Pampeyan has been completed by the applicant and in our opinion the results have been discouraging. The report suggested the possibility of discovering ore deposits with the fol-

Cleared OC
6-24-55

LS

OC copy can go to Docket, but the other two should go to GS & BM
Maybe Mrs. B – has arranged that already
Please check

WBM
6/21/55

BUREAU OF MINES
WASHINGTON, D. C.
JUN 20 10 14 AM '55

lowing grade or better: 9.53% Mn, 1.22% Ni.; and 2.83% Zn. Samples taken by the Combined Metals Reduction Co., Pioche, Nevada in the upper workings were reported to average 23.3% Mn and 2.52% Ni. Mr. Gentry's summation on mineral content of mineralization found on the 140 foot level indicates 3.78% Mn, 2.66% Zn, and 0.56% Ni. This clearly shows a decrease in manganese and nickel content in depth.

Only recent metallurgical work done on this ore was by Dithionate ($S_2O_6$), $H_2SO_4$, and Roast - $H_2SO_4$, leaching methods resulting in the following results:

Heads percent - 36.8 Mn, 2.68 Ni, 1.08 Co, 1.30 $V_2O_5$, 4.45 Zn.

| Method | Recovery | | | | |
|---|---|---|---|---|---|
| | Mn | Ni | Co | $V_2O_5$ | Zn |
| Dithionate | 96 | 91 | 78 | 58 | 90 |
| $H_2SO_4$ | | 48 | | | |
| Roast - $H_2SO_4$ | 98 | 41 | 36 | 90 | 96 |

Magnetic separation - 2 to 1 concentration - showed a percentage recovery of 80 Mn, 71 Ni, 70 Zn, 79 $V_2O_5$ and 75 Co on a head sample carrying in percent 18.5 Mn, 1.7 Ni, 3.2 Zn, 0.88 $V_2O_5$, and 0.3 Co.

The metallurgical processes involved in the treatment of these ores would be costly and the possibilities are meagre of developing sufficient ore reserves to justify further exploration on metallurgical research on this property.

S. Ricker

Attach.

SRicker:gh
cc: H. C. Miller
R. M. Smith
File

S. Ricker, Executive Officer, DMEA Field Team, Region II 6/16/55

Glenn G. Gentry, Mining Engineer, DMEA, Reg. II

DMEA-3395 - Manganese-zinc-nickel
Niganz Mine
Eureka County, Nevada
Contract No. Idm-E731

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Under date of March 31, 1955, Mr. Sherman B. Hinckley, representing the J. A. Hogle & Co. of Salt Lake City, Utah, advised by letter addressed to the U. S. Department of the Interior, DMEA, Washington, D. C., that his company now desired to re-open their application for exploration assistance at the Niganz Mine, Eureka County, Nev.

Pursuant to receipt of this request, the Niganz mine was examined on April 23, 1955 by H. K. Stager and E. H. Pampeyan, geologists of the U. S. Geological Survey and Glenn G. Gentry, mining engineer of the U. S. Bureau of Mines. The applicant has submitted a revised program as follows:

| | |
|---|---|
| Shaft sinking - 1,200 feet @ $64.05/ft. | $ 76,860.00 |
| Drifting off bottom of shaft - 1,000 feet @ $41.95/ft. | 41,950.00 |
| Diamond drilling off bottom of shaft - 2,000 feet @ $6.00/ft. | 12,000.00 |
| Total estimated cost | $130,810.00 |

During the re-examination of the mine, two samples were secured which are considered to be representative of the exposed

ore occurrence on the 140 level (see fig. 1). These samples show the following analyses:

| Sample No. | Width, feet | %, Mn | %, Zn | %, Ni |
|---|---|---|---|---|
| BM-1573 | 7.0 | 2.3 | 2.5 | 0.32 |
| BM-1574 | 10.8 | 7.8 | 4.0 | 0.97 |

Car samples reported by the applicant, and indicated on Figure 1, show the following analyses:

| | | | | |
|---|---|---|---|---|
| Leached zone | 34.0 | Trace | Trace | 0.085 |
| Southeast portion of drift | 56.0 | 6.8 | 2.6 | 0.625 |
| South portion of ore deposit | 30.0 | 2.0 | 4.2 | 0.828 |
| Along narrow fault* | .5 | 6.3 | 3.0 | 2.05 |
| Along narrow fault* | .33-1/3 | 6.2 | 3.5 | 2.06 |

*Channel cut samples.

Eliminating the two samples of 4 inches and 6 inches respectively, the assay data indicates the following average grade:

| %, Mn | %, Zn | %, Ni |
|---|---|---|
| 3.78 | 2.66 | 0.566 |

It appears evident that it would not be possible to mine, transport and mill ore of this grade at a profit to the operator.

The examining team recommend that the applicants request be denied for the following reasons:

1. The size of the present ore occurrences indicate that the geological target is much too small to justify the expense of the required exploration.

2. The uneconomic grade of the ore.

Glenn G. Gentry
Mining Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
JUN 20 1955

Mineral Deposits Branch
4 Homewood Place
Menlo Park, California

May 25, 1955

Memorandum

To: DMEA Field Team, Region II

From: E. H. Pampeyan, Geologist, U. S. Geological Survey

Subject: DMEA-3395, Niganz mine, Eureka County, Nevada
Contract Idm-E731

The Niganz mine was visited on April 23, 1955 by E. H. Pampeyan and H. K. Steger of the U. S. Geological Survey and G. G. Gentry of the U. S. Bureau of Mines to inspect the new workings and to discuss with the Operator a request for reactivating the previously approved DMEA contract. The Operator has sunk the originally proposed incline 300 feet and has crosscut about 760 feet on a level 140 feet below the outcrop (fig. 1). Three separate mineralized zones have been cut on the 140-level, each containing small amounts of nickel. The ore is a black to tan rubbly mass of clay and rounded limestone fragments which appears to have filled open fissures or solution cavities in the limestone. No structural patterns were evident during this visit. No nickel minerals were seen.

The Operator has requested Government aid in a new project wherein an inclined shaft would be sunk to explore the ground about 500 feet below the 140-level (see fig. 2). The incline would be collared almost 1,000 feet east of, and 175 feet lower than the present shaft collar. It will be sunk 1,200 feet or to ground water level, which ever comes first. The Operator believes that the water table is about 700-750 feet below the outcrop and there he hopes to find a sulphide zone. One thousand feet of drifting would be done on this level to explore the ore zone and 2,000 feet of diamond drilling would be done to explore below this level.

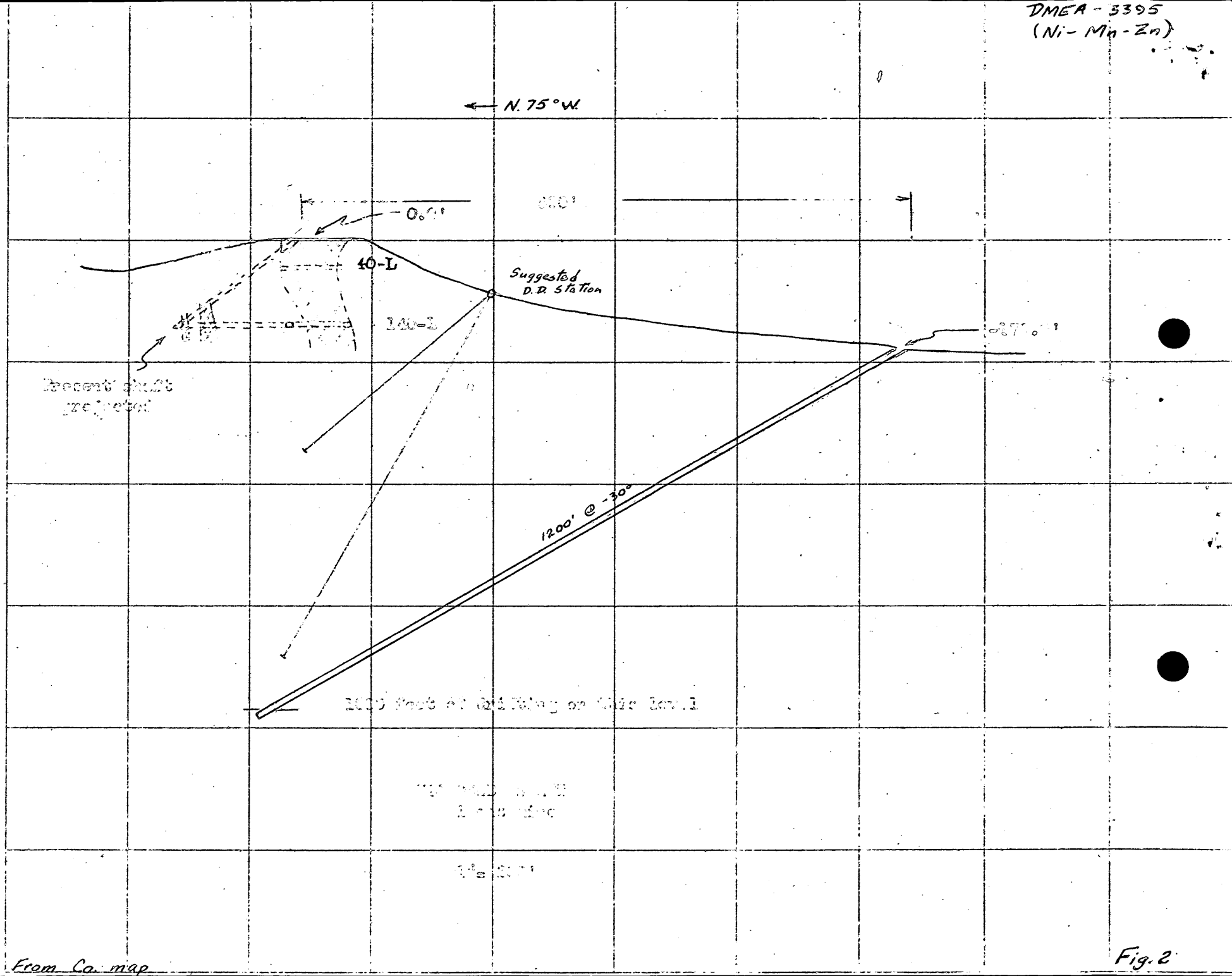
A revised program was suggested in which 1,200-2,500 feet of surface diamond drilling would be done as a first stage to test the ore shoot below the 140-level. Two or three holes, inclined 45°, would determine the location of the shoot about 200 feet below the 140-level. If the ore shoot was not cut in any of these holes no

more drilling would be done. If the mineralized zone was cut, then one or two holes inclined 60° would test the shoot about 500 feet below the 140-level (see fig. 2). If the 60° holes yielded unsatisfactory results the project would be terminated and no shaft would be sunk. The remainder of the program would be essentially the same as proposed by the applicant although the footage requested for drifting and diamond drilling from the bottom of the shaft seem excessive.

It is recommended that the applicant's request for Government aid be denied because: The value of ore being mined is less than mining and expected milling costs; there is no geologic evidence that this low grade ore body will extend downward for 600 feet; and there is no geologic evidence exposed to indicate that a sulphide zone exists beneath the rubbly material. When the nickel can be profitably recovered, perhaps then this deposit will justify an exploratory program as proposed.

Distribution:
Field Team, Reg.II (5)
Pampeyan
File

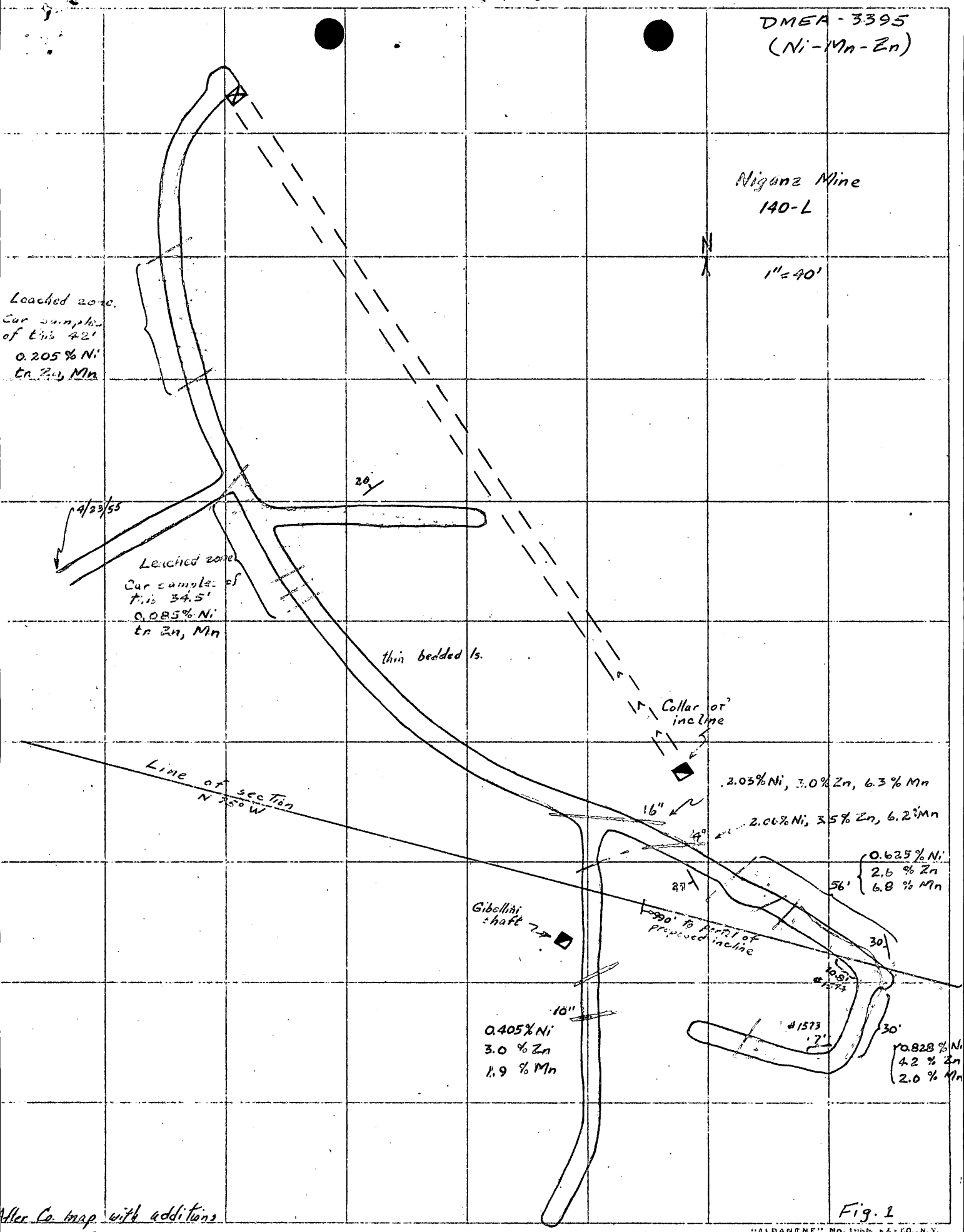
DMEA - 3395
(Ni - Mn - Zn)




From Co. map

Fig. 2

RECEIVED
JUN 20 1955




Aller Co. map with additions

Fig. 1

"ALBANENE" No. 1066 K&E CO., N.Y.
REG. U.S. PAT. OFF

EXPLORATION PROJEC
HOGLE BROS.
DOCKET NO. EMRA

ANNEX I

The following unpatented mini
operator under a lease-option agreement
Louis P. Gibellini and Joseph Gibellin
in Article 2 of the contract form, a
Recorder, Eureka County, as follows

| Mini | Recor | |
|---|---|---|
| Black Hill No. 1 | I | |
| " " " 2 | I | |
| " " " 4 | I | |
| " " " 7 | I | |
| " " " 9 | I | |
| Black Iron No. 1 | I | 252 |
| " " " 3 | I | 252 |
| " " " 4 | I | 269 |
| " " " 5 | I | 270 |
| Flat No. 1 | I | 250 |
| " " 2 | I | 259 |
| Manganese No. 1 | I | 254 |
| " " 2 | I | 254 |
| " " 3 | I | 253 |

The land is shown on the claim map attached to Exhibit "A".

IN REPLY REFER TO:

| REFER TO | NOTED | DATE |
|---|---|---|
| [illegible] | [illegible] | 5/27/55 |
| Gentry | | |
| Files | | |
| | | |
| | | |
| ANSWERED | | |

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Mineral Deposits Branch
4 Homewood Place
Menlo Park, California

May 25, 1955

Memorandum

RECEIVED
JUN 20 1955

To: DMEA Field Team, Region II

From: E. H. Pampeyan, Geologist, U. S. Geological Survey

Subject: DMEA-3395, Niganz mine, Eureka County, Nevada
Contract Idm-E731

The Niganz mine was visited on April 23, 1955 by E. H. Pampeyan and H. K. Stager of the U. S. Geological Survey and G. G. Gentry of the U. S. Bureau of Mines to inspect the new workings and to discuss with the Operator a request for reactivating the previously approved DMEA contract. The Operator has sunk the originally proposed incline 300 feet and has crosscut about 760 feet on a level 140 feet below the outcrop (fig. 1). Three separate mineralized zones have been cut on the 140-level, each containing small amounts of nickel. (The ore is a black to tan rubbly mass of clay and rounded limestone fragments which appears to have filled open fissures or solution cavities in the limestone. No structural patterns were evident during this visit. No nickel minerals were seen.)

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Reviewed by
DMEA OPERATING COMMITTEE
6-24-55
(date)

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED

'85 MAY 26 PM 1:40

RENO, NEVADA

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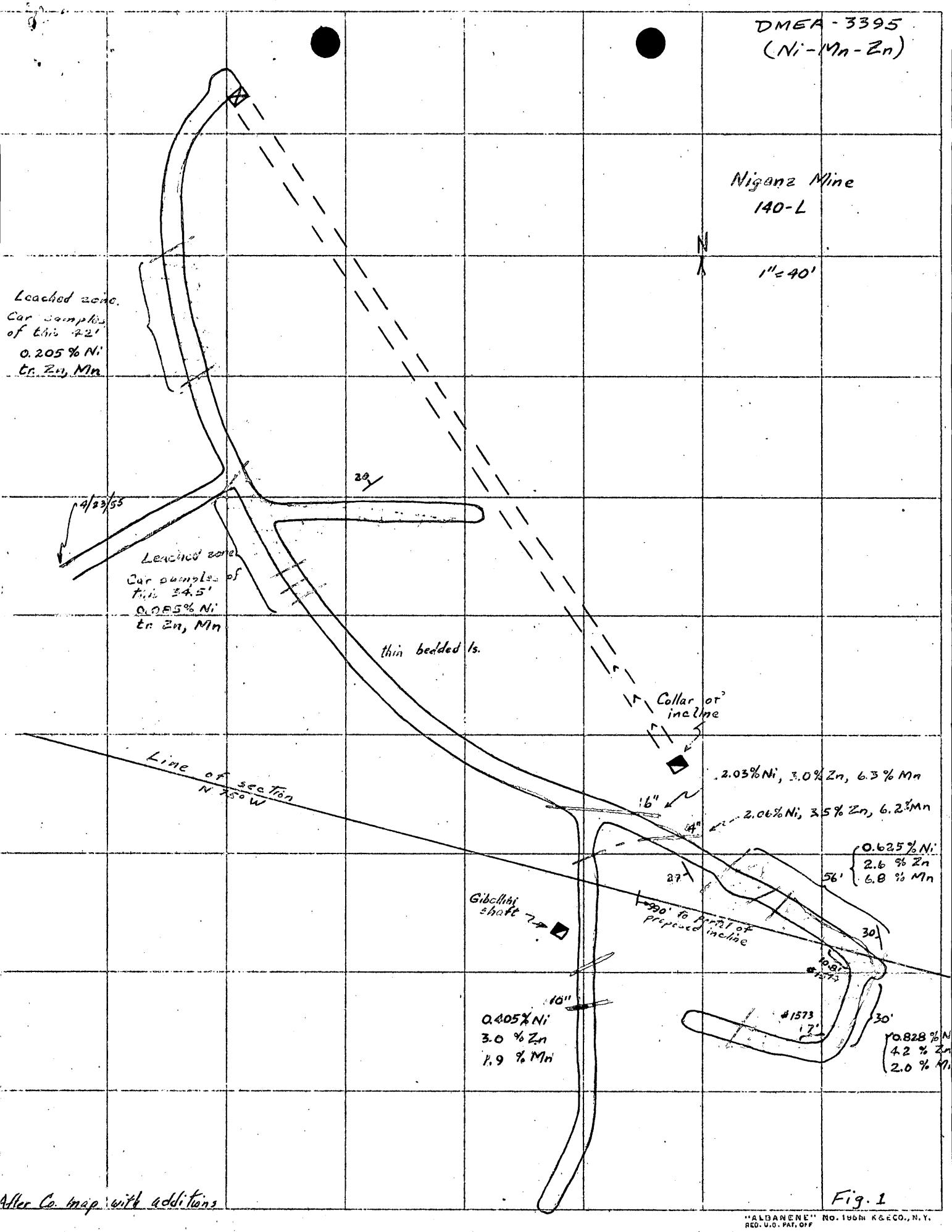
It is recommended that the applicant's request for Government aid be denied because: The value of ore being mined is less than mining and expected milling costs; there is no geologic evidence that this low grade ore body will extend downward for 600 feet; and there is no geologic evidence exposed to indicate that a sulphide zone exists beneath the rubbly material. When the nickel can be profitably recovered, perhaps then this deposit will justify an exploratory program as proposed.

E. A. Pampeyan

Distribution:
Field Team, Reg.II (5)
Pampeyan
File



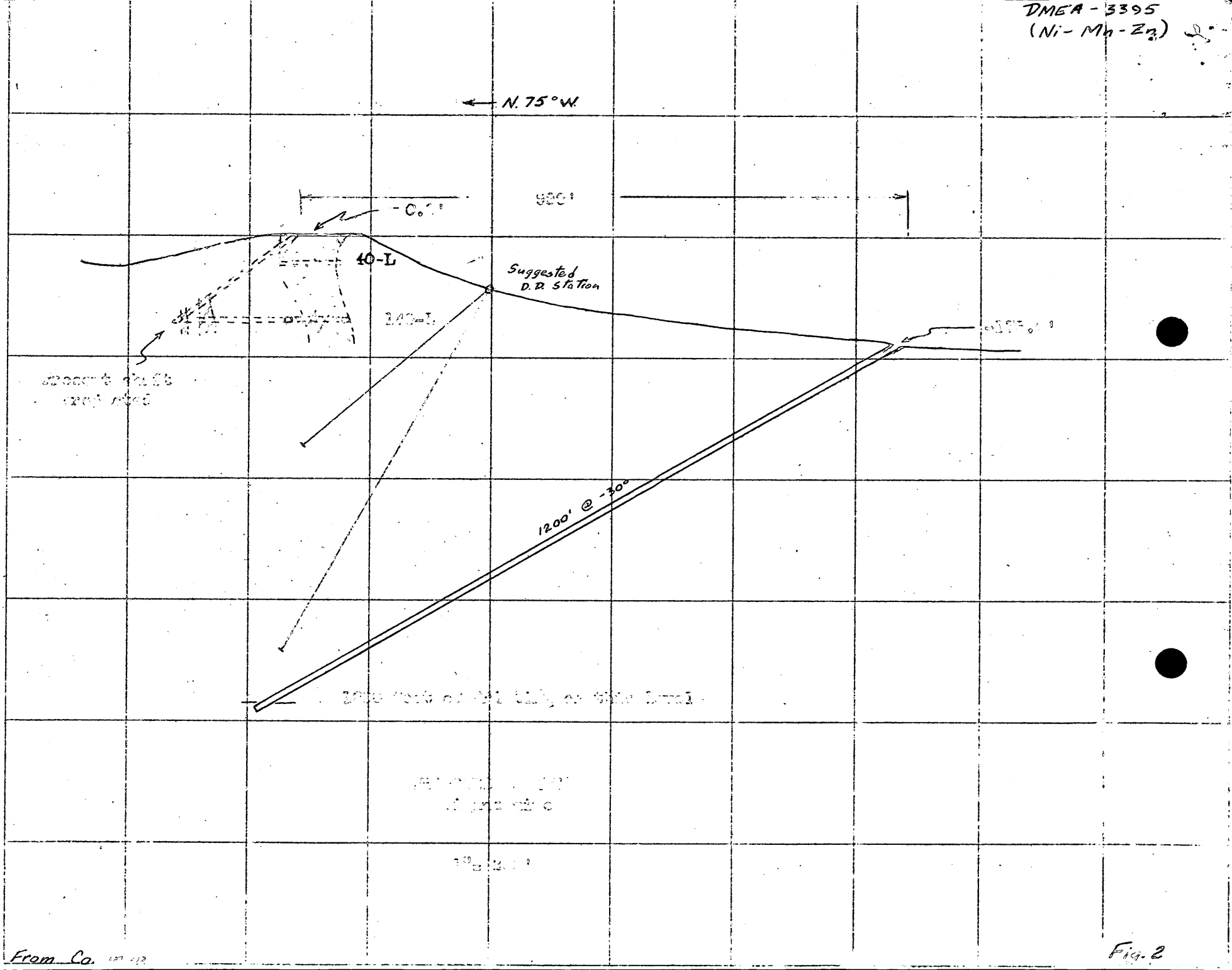

After Co. map with additions

Fig. 1

"ALBANENE" No. 196M K&E CO., N.Y.
REG. U.S. PAT. OFF

RECEIVED
JUN 20 1955

DMEA - 3395
(Ni - Mn - Zn)




From Co.

Fig. 2

RECEIVED
JUN 20 1955

DARD FORM NO. 64

# Office Memorandum • UNITED STATES GOVERNMENT

TO : S. Ricker, Executive Officer, DMEA Field Team, Region II DATE: 6/16/55

FROM : Glenn G. Gentry, Mining Engineer, DMEA, Reg. II

SUBJECT: DMEA-3395 - Manganese-zinc-nickel
Niganz Mine
Eureka County, Nevada
Contract No. Idm-E731

RECEIVED

Under date of March 31, 1955, Mr. Sherman B. Hinckley, representing the J. A. Hogle & Co. of Salt Lake City, Utah, advised by letter addressed to the U. S. Department of the Interior, DMEA, Washington, D. C., that his company now desired to re-open their application for exploration assistance at the Niganz Mine, Eureka County, Nev.

Pursuant to receipt of this request, the Niganz mine was examined on April 23, 1955 by H. K. Stager and E. H. Pampeyan, geologists of the U.S. Geological Survey and Glenn G. Gentry, mining engineer of the U.S. Bureau of Mines. The applicant has submitted a revised program as follows:

| | |
|---|---|
| Shaft sinking - 1,200 feet @ $64.05/ft. | $ 76,860.00 |
| Drifting off bottom of shaft - 1,000 feet @ $41.95/ft. | 41,950.00 |
| Diamond drilling off bottom of shaft - 2,000 feet @ $6.00/ft. | 12,000.00 |
| Total estimated cost | $130,810.00 |

During the re-examination of the mine, two samples were secured which are considered to be representative of the exposed

Reviewed by
DMEA OPERATING COMMITTEE
6-24-55
(date)

ore occurrence on the 140 level (see fig. 1). These samples show the following analyses:

| Sample No. | Width, feet | %, Mn | %, Zn | %, Ni |
|---|---|---|---|---|
| BM-1573 | 7.0 | 2.3 | 2.5 | 0.32 |
| BM-1574 | 10.8 | 7.8 | 4.0 | 0.97 |

Car samples reported by the applicant, and indicated on Figure 1, show the following analyses:

| | | | | |
|---|---|---|---|---|
| Leached zone | 34.0 | Trace | Trace | 0.085 |
| Southeast portion of drift | 56.0 | 6.8 | 2.6 | 0.625 |
| South portion of ore deposit | 30.0 | 2.0 | 4.2 | 0.828 |
| Along narrow fault* | .5 | 6.3 | 3.0 | 2.05 |
| Along narrow fault* | .33-1/3 | 6.2 | 3.5 | 2.06 |

*Channel cut samples.

Eliminating the two samples of 4 inches and 6 inches respectively, the assay data indicates the following average grade:

| %, Mn | %, Zn | %, Ni |
|---|---|---|
| 3.78 | 2.66 | 0.566 |

It appears evident that it would not be possible to mine, transport and mill ore of this grade at a profit to the operator.

The examining team recommend that the applicants request be denied for the following reasons:

1. The size of the present ore occurrences indicate that the geological target is much too small to justify the expense of the required exploration.

2. The uneconomic grade of the ore.

Glenn G. Gentry
Mining Engineer

DMEA
Docket

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

RECEIVED
JUN 20 1955

1605 Evans Avenue
Reno, Nevada

June 16, 1955

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-3395 - Nickel & Manganese
Hogle Bros., Partnership
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Relative to your letter of April 13, 1955 on above subject, I am attaching 4 copies of memoranda by E. H. Pampeyan and Glenn G. Gentry giving comments on the result of their visit to the Niganz mine on April 23, 1955.

Both of the memoranda recommend that exploration assistance by the DMEA be denied and Roscoe Smith and I concur in the recommendation.

The suggestion by Mr. Pampeyan that any shaft sinking be preceded by diamond drilling is a reasonable approach to any future exploration work. We do not feel, however, that work done thus far warrants any financial assistance by the Government in that phase of the work.

Work similar to the first stage of the exploration recommended in our report dated September 1, 1954 by R. R. Trengove and E. H. Pampeyan has been completed by the applicant and in our opinion the results have been discouraging. The report suggested the possibility of discovering ore deposits with the fol-

Reviewed by
DMEA OPERATING COMMITTEE
6-24-55
(date)

lowing grade or better: 9.53% Mn, 1.22% Ni.; and 2.83% Zn. Samples taken by the Combined Metals Reduction Co., Pioche, Nevada in the upper workings were reported to average 23.3% Mn and 2.52% Ni. Mr. Gentry's summation on mineral content of mineralization found on the 140 foot level indicates 3.78% Mn, 2.66% Zn, and 0.56% Ni. This clearly shows a decrease in manganese and nickel content in depth.

Only recent metallurgical work done on this ore was by Dithionate ($S_2O_6$), $H_2SO_4$, and Roast - $H_2SO_4$, leaching methods resulting in the following results:

Heads percent - 36.8 Mn, 2.68 Ni, 1.08 Co, 1.30 $V_2O_5$, 4.45 Zn.

| Method | Recovery | | | | |
|---|---|---|---|---|---|
| | Mn | Ni | Co | $V_2O_5$ | Zn |
| Dithionate | 96 | 91 | 78 | 58 | 90 |
| $H_2SO_4$ | | 48 | | | |
| Roast - $H_2SO_4$ | 98 | 41 | 36 | 90 | 96 |

Magnetic separation - 2 to 1 concentration - showed a percentage recovery of 80 Mn, 71 Ni, 70 Zn, 79 $V_2O_5$ and 75 Co on a head sample carrying in percent 18.5 Mn, 1.7 Ni, 3.2 Zn, 0.88 $V_2O_5$, and 0.3 Co.

The metallurgical processes involved in the treatment of these ores would be costly and the possibilities are meagre of developing sufficient ore reserves to justify further exploration on metallurgical research on this property.

S. Ricker

Attach.

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

400

DOCKET
SURNAME
Rutledge
Martin
Davis
Newcomb
Selfridge
F. Johnson

APR 13 1955

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

Re: Docket No. DMEA 3395 - Nickel & Manganese
Hogle Bros., Partnership
Nigara mine (Gibellini mine)
Eureka County, Nevada

Dear Mr. Ricker:

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

A proposed contract on the same property was withdrawn at the applicant's request in order that the applicant could complete work then in progress. This work has now been completed and Mr. Sherman B. Hinckley by letter dated March 31, 1955, requested the Defense Minerals Exploration Administration to reopen the referenced application.

If any further metallurgical investigations of the complex mineralization have been completed we would appreciate a report on the results.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (SHB)

APPROVED:

J. H. Hedges (SHB)
Member, Bureau of Mines

Trnor H. Kiilsgaard (SHB)
Member, Geological Survey

This is not a withdrawal, contract being held awaiting info

FARutledge:fcc
4-12-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. II
H. W. Davis, USBM
T. H. Kiilsgaard, USGS

R.C.B.

DOCKET
SURNAME

400

Rutledge
Martin
Davis
Newcomb
Hedges
Kiilsgaard
Selfridge
Johnson

APR 13 1955

Hogle Bros.
132 South Main Street
Salt Lake City, Utah

Re: Docket No. DMEA 3395 - Nickel & Manganese
Wigsum mine (Gibellini mine)
Eureka County, Nevada

Gentlemen:

This will acknowledge Mr. Sherman B. Hinckley's letter of March 31, 1955, requesting that the above-docketed application for exploration assistance be reopened.

The referenced application has been referred to Mr. Spangler Ricker, Executive Officer, DMEA Field Team, Region II, 1605 Evans Avenue, Reno, Nevada, for his recommendations and possibly a hasty field examination.

Should a field examination be made, any assistance that you can render the examining engineers will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

FARutledge:foc
4-12-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. II
H. W. Davis, USBM
T. H. Kiilsgaard, USGS

R.C.S.

Docket

# HOGLE BROTHERS

132 MAIN STREET
SALT LAKE CITY 1, UTAH

March 31, 1955

3395 - Nim

WSM

United States Department of The Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Attention: Mr. W. S. Martin

Gentlemen:

In line with our telephone conversation of last week, we wish to re-open our application for exploration assistance at the Niganz Mine, Eureka County Nevada. The original application dated June 15, 1954 was given a docket #DMEA 3395. Because of technical difficulty, we were unable to secure a consent to lien from the owners of the property. However, we have now been assured that an equitable solution can be found to this hurdle.

Herewith are two up-to-date sketches which will be of value to you in considering the application. One is a plan of the 140 foot level which we have driven since this property was examined by your Field Team. As shown by this sketch, we have sunk an inclined shaft approximately 300 feet long and driven a level off from the bottom of it which has intersected two badly leached zones, and another zone which shows fair mineralization. The country rock in this level is a hard resistant shaley limestone. There has been quite a little faulting and considerable solution action in some areas. The better ore zone projects nearly vertically up into the old workings and appears to be an extension of that area mined and explored by others in years gone by. The best car samples we have had from this zone have carried approximately 2½% nickel. All three of these areas could make into profitable ore at the sulphide zone. It is estimated that ground water level is about 700 feet below the surface.

The other sketch is a vertical section along a line running north 75° West which shows the present workings and their relation to the proposed shaft. It is our plan to sink this shaft at a 30° angle for 1,200 feet or to ground water level whichever is reached first. At the bottom of this shaft a station would be cut from which approximately 1,000 feet of drifting would be done. To further explore the ore, diamond drilling would be done below this bottom level. Inasmuch as we anticipate pumping water from these workings eventually, the location of this proposed shaft will reduce

the pump head by approximately 175 feet which is quite an item under power costs in the State of Nevada. This proposed incline shaft would also allow the ore body to be explored for less money than similar work could be done if a vertical shaft were put down.

From our experience in sinking the shaft we now have, this proposed 1,200 foot shaft could be sunk for $64.05 per foot and for a total expenditure of $76,860.00. A break down of these costs would be:

| | Per ft. | |
|---|---|---|
| Labor (Includes supervision and payroll taxes) | $ 35.00 | |
| Oil and Fuel | 5.00 | |
| Timber | 1.50 | |
| Powder Fuse and Caps | 3.30 | |
| Rails and Accessory | 2.50 | |
| Air and Water Lines | 1.30 | |
| Ventilation Line | 1.75 | |
| Bell Line | .20 | |
| Steel and Bits | 1.00 | |
| Water | 2.00 | |
| Maintenance Equipment | 1.25 | |
| Hand Tools | .30 | |
| Sampling and Assaying | .20 | |
| | $ 55.30 | |
| Rental of Equipment or Depreciation of Equipment | 8.75 | |
| | $ 64.05 | per foot |

Drifting costs for the 1,000 foot of drifting would be $41.95 per foot. These costs reflect our expense to date on this property and for the total of 1,000 feet, will mean an expenditure of $41,950.00. A break down of these costs are:

| | | |
|---|---|---|
| Labor and Supervision | 20.80 | |
| Oil and Fuel | 3.75 | |
| Powder Fuse and Caps | 3.10 | |
| Rail and Accessories | 1.75 | |
| Drill Steel and Bits | 1.00 | |
| Air and Water Lines | 1.30 | |
| Ventilation Line | 1.25 | |
| Hauling water | 1.00 | |
| Equipment Maintenance | .75 | |
| Hand Tools | .25 | |
| Sampling and Assaying | 1.00 | |
| | $ 35.95 | |
| Rental of Equipment or Depreciation | 6.00 | |
| | $ 41.95 | per foot |

We believe that diamond drilling from this bottom level can be done for $6.00 per foot, therefore, to drill 2,000 feet of holes it will cost $12.00.

130,810.00

The total expenditure for this completed project would therefore be $133,810.00. Hogle Brothers are in a position to take care of their cost under this project with cash they now have on hand. Work on the project will be commenced immediately on its being approved. It would take approximately two weeks time for the procurement and installation of the necessary equipment. Progress of actual sinking should be made at the rate of 200 feet per month. Drifting can be done at the rate of approximately 250 feet. Diamond drilling can be done at approximately 30 feet per day.

If there is any additional information which you need to process this application, we will gladly furnish it to you. Since time is quite important in this matter, we know that you will give it your immediate attention.

Yours very truly,

HOGLE BROTHERS

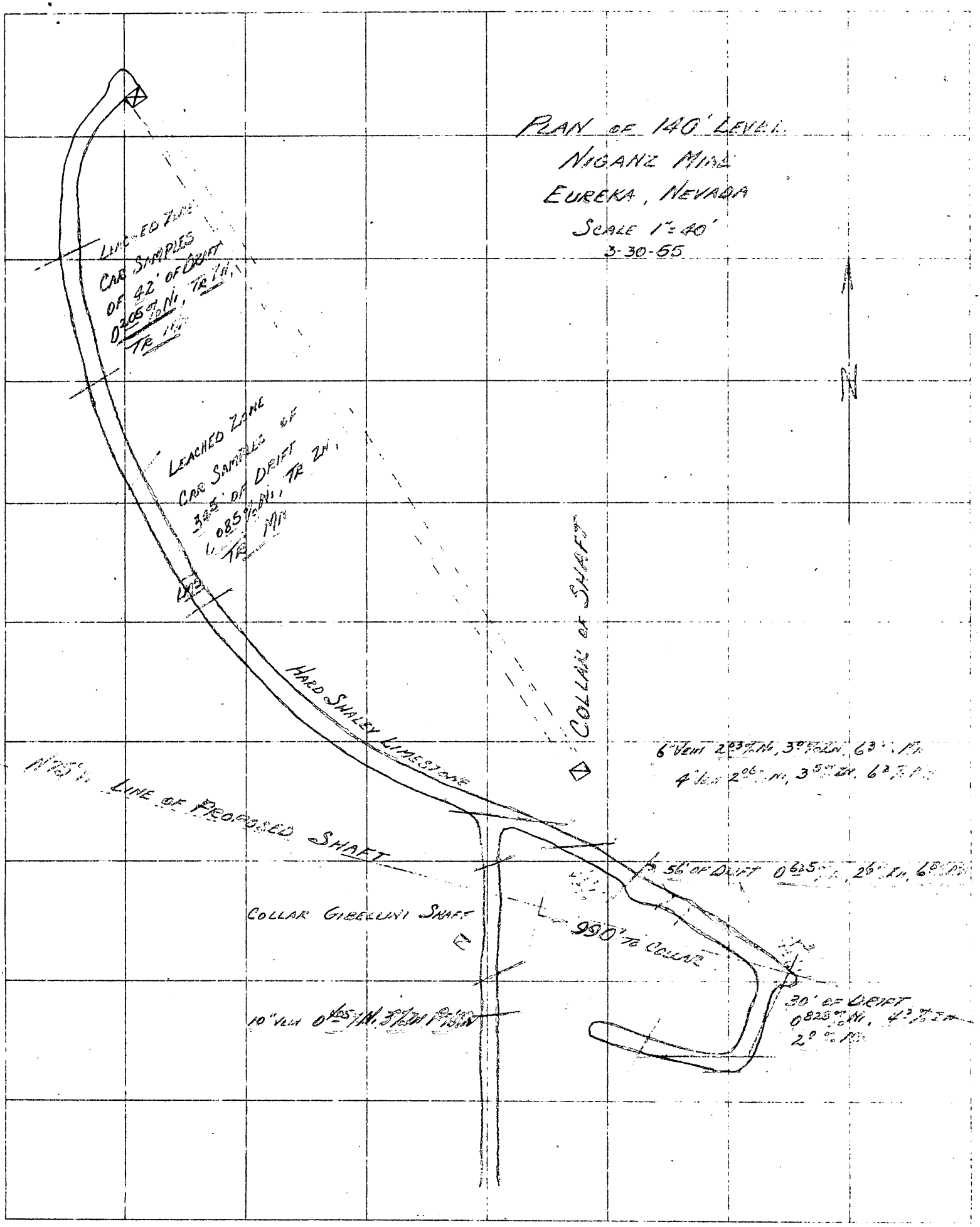
Sherman B. Hinckley

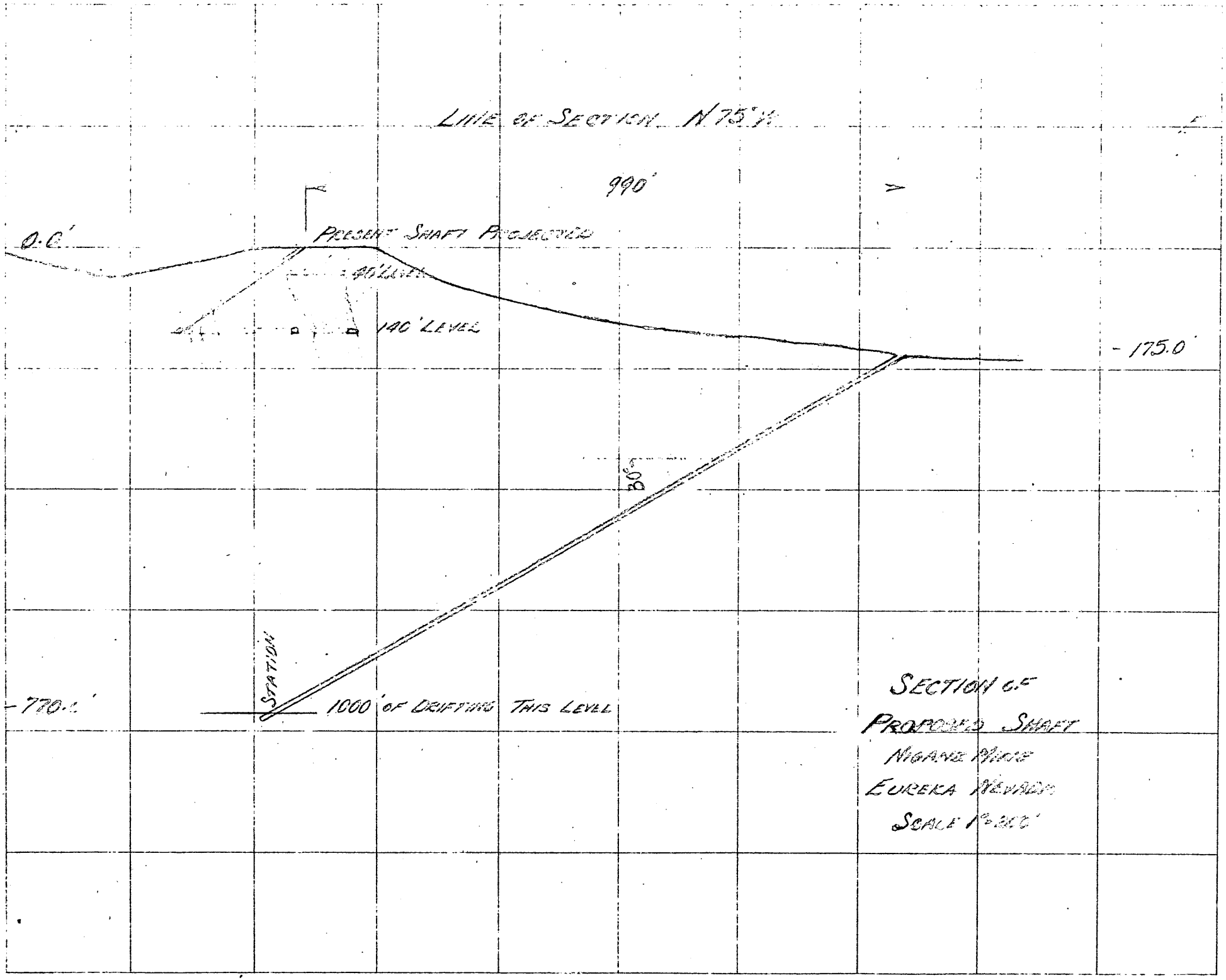
Sherman B. Hinckley

Enc. 2

to: Mr. Spangler Ricker
Reno, Nevada

FORM 16-G


PLAN OF 140' LEVEL
NIGANZ MINE
EUREKA, NEVADA
SCALE 1" = 40'
3-30-55
N
LEACHED ZONE
CAR SAMPLES
OF 42' OF DRIFT
0.205% Ni, TR Zn,
TR Mn
LEACHED ZONE
CAR SAMPLES OF
34.5' OF DRIFT
0.085% Ni, TR Zn,
TR Mn
HARD SHALEY LIMESTONE
COLLAR OF SHAFT
6" VEIN 2.03% Ni, 3.0% Zn, 63% Mn
4" VEIN 2.06% Ni, 3.55% Zn, 62% Mn
WEST LINE OF PROPOSED SHAFT
56' OF DRIFT 0.625% Ni, 2.6% Zn, 6.0% Mn
COLLAR GIBELLINI SHAFT
990' TO COLLAR
10" VEIN 0.105% Ni, 3.7% Zn, 1.8% Mn
30' OF DRIFT
0.828% Ni, 4.3% Zn
2.0% Mn


LINE OF SECTION N 75° W
990'
0.0'
PRESENT SHAFT PROJECTED
40' LEVEL
140' LEVEL
-175.0'
80°
STATION
-770.0'
1000' OF DRIFTING THIS LEVEL
SECTION OF
PROPOSED SHAFT
NIGHAWK MINE
EUREKA NEVADA
SCALE 1" = 200'

FORM 16-G

Hinckley
phoned to
say Hogle Bros
would like to
bring the contract
back to life
3/22/55
WSM

Told him to write to us
and send a copy to Ricker
to speed things up

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

Docket

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 18, 1955

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-3395 - Manganese and Nickel
Hogle Bros.
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Put in official docket

Attached are the original and five copies of the proposed contract on above-subject docket. This contract has not been signed by the applicant.

The applicant has been doing preliminary exploration work on his own account, but at a later date he may wish to again apply for exploration aid.

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: Roscoe Smith, USGS

Docket copy

MF-200A
(Revised June 1954)

Docket No. DMEA 3395

Commodity Manganese-Nickel

Contract No. Idm-E - 731

# UNITED STATES OF AMERICA
# DEPARTMENT OF THE INTERIOR
## DEFENSE MINERALS EXPLORATION ADMINISTRATION
## EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this 20th day of October, 1954, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] James H. Hogle, George H. Hogle, and Sherman D. Hinckley, a partnership d/b/a Hogle Bros.,

whose mailing address is 132 So. Main, Salt Lake City, Utah,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Nevada, County of Eureka, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee-optionee of [5] mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] Lease-Option agreement recorded in Book ____, page ____, official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Owner's Consent to Lien

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

16—70618-1

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Manganese and Nickel The work to be performed is described in Exhibit "A." The Operator on or before shall commence the work, and on or before 8 months from date of contract (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $27,570.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $20,677.50: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Hogle Bros.
(Operator)

By C O Mitchell
Administrator, Defense Minerals Exploration Administration

By ..... (Partner)

By ..... (Partner)

By ..... (Partner)

Boteir
Hoffman
Rutledge
Martin
Chandler
Selfridge
Fleshman

I, ....., certify ~~that I am the~~ ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[ CORPORATE SEAL ]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

## Estimated Costs of the Project

### Fixed Unit Costs

| | | |
|---|---|---|
| Sink shaft 300 feet @ $64.40/ft. | $19,320.00 | |
| Excavate temporary shaft station 1000 cu. ft. @ $1.00/cu. ft. | 1,000.00 | |
| Drift 200 feet @ $36.25/ft. | 7,250.00 | |
| Estimated Total Cost of Project | | $27,570.00 |
| Government participation @ 75% | | $20,677.50 |

EXPLORATION PROJECT CONTRACT
NOBLE BROS.
DOCKET NO. DMSA 3395

ANNEX I

The following unpatented mining claims held by operator under a lease-option agreement dated May 6, 1954, with Louis P. Sibellini and Joseph Sibellini is the land referred to in Article 2 of the contract form, and is recorded with County Recorder, Eureka County, as follows:

| | Mining Location Records - Book | Page |
|---|---|---|
| Black Hill No. 1 | I | 258 |
| " " " 2 | I | 258 |
| " " " 4 | I | 270 |
| " " " 7 | I | 271 |
| " " " 9 | I | 272 |
| Black Iron No. 1 | I | 252 |
| " " " 3 | I | 252 |
| " " " 4 | I | 269 |
| " " " 5 | I | 270 |
| Flat No. 1 | I | 259 |
| " " 2 | I | 259 |
| Manganese No. 1 | I | 254 |
| " " 2 | I | 254 |
| " " 3 | I | 353 |

The land is shown on the claim map attached to Exhibit "A".

EXPLORATION PROJECT CONTRACT
HOGLE BROS., PARTNERSHIP

DOCKET NO. DMEA 3395

EXHIBIT "A"

Description of the Work

The work to be performed is indicated on the maps attached hereto and made a part hereof entitled, "Claim Map Hogle Bros. Nigger Mine, Eureka County, Nevada" and "Fig. 2, Surface map of Nigger (Sibellini) mine, Eureka County, Nevada."

Sink an inclined shaft N. 30° W., -25° a distance of 300 feet along a flat-lying structure which overlies the ore zone. The shaft shall follow the limestone hanging wall and, if necessary, shall dip vertically to follow the ore. The shaft shall be not less than 6½ feet by 7 feet in the clear of the end and wall plate timbers and shall be divided into manway and skipway compartments. The vertical component of the depth of the shaft shall not exceed 130 feet.

If, in the opinion of the Government, sufficient mineralization is encountered, and the Government grants prior written approval, excavate a temporary shaft station approximately 10 feet by 10 feet by 10 feet (but not to exceed [illegible] cu. ft. of excavation) in mineralization, and drift [illegible] feet to determine if a commercial ore body is present.

The drift and shaft station shall be timbered as necessary and not less than 4 feet by 6½ feet in the clear of timber.

The location, direction, and extent of all work are subject to the approval of the Government.

If a change in dip of the shaft [illegible] require stage hoisting, a partial or [illegible] may be made for the necessary offset, as approved by the Government.

Time Schedule: 0 - 180 days.

## Estimated Costs of the Project

### Fixed Unit Costs

| | | |
|---|---|---|
| Sink shaft 300 feet @ $64.40/ft. | $19,320.00 | |
| Excavate temporary shaft station 1000 cu. ft. @ $1.00/cu. ft. | 1,000.00 | |
| Drift 200 feet @ $36.25/ft. | 7,250.00 | |
| Estimated Total Cost of Project | | $27,570.00 |
| Government participation @ 75% | | $20,677.50 |

Extra c

MF-200A
(Revised June 1954)

Docket No. DMEA 3395

Commodity Manganese-Nickel

Contract No. Idm-E - 731

# UNITED STATES OF AMERICA
# DEPARTMENT OF THE INTERIOR
## DEFENSE MINERALS EXPLORATION ADMINISTRATION
## EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this 20th day of October, 1954 between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] James L. Hogle, George H. Hogle, and Thermon B. Hinckley, a partnership d/b/a Hogle Bros.,

whose mailing address is 132 So. Main, Salt Lake City, Utah,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and .....

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Nevada, County of Eureka, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee-optionee of [5] mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] Lease-Option agreement [7] recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Owner's Consent to Lien

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

16—70618-1

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Manganese and Nickel. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before 2 months from date of contract unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $27,570.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $20,677.50: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Hogle Bros.
(Operator)

By C. O. Mittendorf
Administrator, Defense Minerals Exploration Administration

By (Partner)

By (Partner)

By (Partner)

I, ....., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[ CORPORATE SEAL ]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

COPY

HOGLE BROTHERS
132 Main Street
Salt Lake City 1, Utah

July 26, 1955

Mr. C. O. Mittendorf
Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA 3395 - Nickel
and Manganese
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Dear Mr. Mittendorf:

We have your letter of July 18, regarding our application for the above Docket Exploration project. We sincerely appreciate the interest you have shown in this project and are sorry that you cannot go along with us on this Exploration.

Sincerely yours,

HOGLE BROTHERS

Signed: Sherman B. Hinckley

Sherman B. Hinckley

sbh/d

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

400

JUL 1 8 1955

Hogle Bros.
132 South Main Street
Salt Lake City, Utah

Re: Docket No. DMEA 3395- Nickel
and Manganese
Niganz mine (Gibellini mine)
Eureka County, Nevada

Gentlemen:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced 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 the occurrence of complex manganese and nickel mineralization on your property, indicates to us that the probability of disclosing minable ore reserves of manganese and nickel by your proposed amended program is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

cc: Docket
Code 400
Oper. Comm.
T. Kiilsgaard, USGS
H. W. Davis, USBM
Adm. Read. File
Field Team, Region 2-Reno

FARutledge/ls
7/14/55

July 14, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of request for exploration assistance in the amount of $190,100, later reduced to $130,810
Docket No. DMEA 3395 - Nickel and Manganese
Hogle Bros., Partnership
Niganz mine (Gibellini mine)
Eureka County, Nevada

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

1. The exploration project was designed to explore a "combination vein and bedded" deposit of nickel and manganese by sinking a 1500-foot inclined shaft along the footwall of a low-angle fault to be followed by drifting and crosscutting on three levels approximately 500 feet apart along the incline. The applicant believed that the mineralization was localized within a brecciated area along the intersection of two faults in conjunction with a limestone bed.

2. A field examination of the property during July 1954 resulted in the recommendation that an exploration project on a reduced scale be entered into. The approved program consisted of sinking 300 feet along the flat-lying structure "overlying" the ore zone followed by 200 feet of drifting and crosscutting.

   Approximately 20,000 tons of measured ore with an average grade of 9.53% Mn, 1.22% Ni, and 2.83% Zn was premised as the result of prior exploration and development.

3. The Commodity Division of the Geological Survey recommended denial of the application as the amount of ore which might be found by the proposed exploration was limited.

4. The Commodity Division of the Bureau of Mines recommended approval of the exploration program on a reduced scale as suggested by the Field Team.

5. A proposed contract embodying the Field Team's recommended program was transmitted to the field by letter dated October 20, 1954.

6. As this Administration was notified prior to the transmittal of the proposed contract to the field that the inclined shaft had already been sunk nearly 300 feet, the Field Team was advised that consideration would be given to an amendment allowing sinking of 300 feet of shaft beyond the footage already completed at the date of execution of the contract provided the mineralization at the shaft bottom was no less encouraging than the mineralization at the shaft collar.

7. The applicant by letter dated November 3, 1954, advised that more work would be completed before the proposed contract was signed.

8. The Field Team on January 12, 1955, requested the return of the proposed contract pending completion of the applicant's program.

9. On March 31, 1955, the applicant requested the subject application be reopened.

10. Field Team report dated June 16, 1955, recommends denial of the application because:

11. (1) The uneconomic grade of the ore.
The value of the ore being mined is less than the mining and expected milling costs.

(2) The size of the present ore occurrences indicates that the geological target is much too small to justify the expense of the requested exploration. There is no geologic evidence that the low grade ore body will extend downward for 600 feet, and there is no geologic evidence exposed to indicate that a sulphide zone exists beneath the rubbly material.

12. The underground work completed to date indicates three separate mineralized zones containing small amounts of nickel. The ore, which appears to have filled open fissures or solution cavities in the

limestone, is a black to tan rubbly mass of clay and rounded limestone fragments. No structural patterns were evident during the last field examination and no nickel minerals were seen.

13. The applicant's revised program of sinking another inclined shaft is unrealistic if the mineralized zones are vertical as indicated on the section attached to Mr. Hickley's letter dated March 31, 1955. However, it is reported that the applicant's sinking of an incline was influenced by the equipment available.

14. The mineralization at the Higans mine is complex. To date no economic method has been found to recover the nickel, zinc, and manganese separately.

15. The Commodity Division of the Geological Survey recommends denial of the subject application.

16. The Commodity Division of the Bureau of Mines concurs in the denial.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

cc: Docket
Code 400
Adm. Reading File
Oper. Committee

FARutledge/ls
7/14/55

had already been encountered in the face of the crosscut. We also went into an earlier adit driven from a portal perhaps 10 feet lower than the shaft collar and cutting a mineralized zone visible for at least 50 feet, although there was no way to determine the true width. The ore for the shipment described in the application was gophered from workings beside and below the adit. The new crosscut is being driven at a labor contract of $13.50 per foot. Three men, one on the hoist and two below, making about $24.00 each per day, and a boy whose day's pay comes out of their contract price, work on each of two shifts, breaking about 6 feet per shift with an 11-hole round which they then muck out with a machine. Carbide bits and jackhammers with an air feed are used. Augur type steel was tried, but was entirely unsuited to the work. They work 6 days per week. The operator lets them ride the power wagon to and from work or gives them 5 gallons of gas per day if they choose to drive their own cars. Giving the gas is more economical for the management.

Inasmuch as the operator has returned without execution the contract provided by DMEA, we had no official status, but we were shown all the courtesy that any visitor could expect. My only comment was that the work being done seemed eligible for exploration assistance under our program and that DMEA would be glad to consider any reasonable proposals for revising the first proposed contract. Presumably the problem of obtaining Owner's Consent to Lien influences the applicant's opinion of the relative advantages of doing the work with or without DMEA aid.

DMEA 3395 - Nickel, Mn.

Hogle Bros.

Extract from Mr. Martin's memo of 12/15/54 re his field trip thru Region 3. For complete memo see "Region 3 - General" file.

Leaving Reno Saturday morning, we reached Eureka at lunch time and our telephone call caught Mr. Roger M. Caywood, mine superintendent for two Hogle Bros. properties, at home at the Diamond Mine (Consolidated Eureka Mining Co., Docket DMEA 2392-Lead-Zinc). We met at the turnoff to Route 20, east of Eureka about 10 miles on U. S. 50, and drove south to the Miganz Mine, on the Gibellini property (Docket DMEA 3395 - Nickel, Manganese). We went down the 300-foot inclined shaft which has run off into the hanging wall shaft and saw the 30-foot crosscut being driven from the shaft bottom toward the ore zone. A 4-inch stringer of what was said to be good manganese

IN REPLY REFER TO:

400

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

RECEIVED
JUL - 6 1955

July 5, 1955

Re: DMEA 1395, Yam-2731
J. A. Magle & Co.
Higgins Mine
Eureka Co., Nevada
$139,810.00 - Manganese, nickel and zinc

Memorandum

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

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

Subject: Review of Field Team Report.

The map which accompanies the Field Team report of May 25, 1955, lacks points for referencing with earlier maps. I conclude that the Gibellini shaft of the June 16 map is the one shown on the Surface map of July 1954, as having a collar at 7045'. If such is the case the incline and the drifting make a roundabout route to points under the discovery pit, the adit and the workings from it. And is the low-grade material encountered on the 140-L known to be related as shown to the good grade material of the upper workings? The locations of the holes drilled by the U. S. Bureau of Mines in 1946, if known, should be shown on the maps.

Apparently conceptions as to the attitude of the ore body vary very much, otherwise the incline would not have been driven as it was. Perhaps the six-stage program was not too much out of line considering the uncertainty as to dip and/or plunge.

The revised program submitted by the applicant seems to be anything but realistic, but unless something is known that is not told us, diamond drilling though not too satisfactory, sampling and level work at 140 would help to justify the first reason for denial.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-7/5/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
G. DeRuff, 3521

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

400

APR 13 1955

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

Re: Docket No. DMEA 3395 - Nickel & Manganese
Magie Bros., Partnership
Rigans mine (Gibellini mine)
Eureka County, Nevada

Dear Mr. Ricker:

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

A proposed contract on the same property was withdrawn at the applicant's request in order that the applicant could complete work then in progress. This work has now been completed and Mr. Sherman B. Hinckley by letter dated March 31, 1955, requested the Defense Minerals Exploration Administration to reopen the referenced application.

If any further metallurgical investigations of the complex mineralization have been completed we would appreciate a report on the results.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Thor H. Kiilsgaard
Member, Geological Survey

FARutledge:foc
4-12-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. II
H. W. Davis, USBM
T. H. Kiilsgaard, USGS

400

APR 13 1955

Eagle Bros.
132 South Main Street
Salt Lake City, Utah

Re: Docket No. DMEA 3395 - Michael & Shugarman
Bigman mine (Gilbellini mine)
Nye Co., Nevada

Gentlemen:

This will acknowledge Mr. Sherman E. Hinckley's letter of March 31, 1955, requesting that the above-docketed application for exploration assistance be reopened.

The referenced application has been referred to Mr. Spangler Richter, Executive Officer, DMEA Field Team, Region II, 1605 Evans Avenue, Reno, Nevada, for his recommendations and possibly a hasty field examination.

Should a field examination be made, any assistance that you can render the examining engineers will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

FARutledge:foo
4-12-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. II
H. W. Davis, USBM
T. H. Killagaard, USGS

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

400

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 18, 1955

Memorandum

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

From: Executive Officer, DMEA Field Team, Region II

Subject: Docket No. DMEA-3395 - Manganese and Nickel
Hogle Bros.
Nigans Mine (Gibellini Mine)
Eureka County, Nevada

Attached are the original and five copies of the proposed contract on above-subject docket. This contract has not been signed by the applicant.

The applicant has been doing preliminary exploration work on his own account, but at a later date he may wish to again apply for exploration aid.

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Attachments

Copy to: Roscoe Smith, USGS

402

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 12, 1955

Mr. Sherman B. Hinckley
132 Main Street
Salt Lake City, Utah

Re: Docket No. DMEA-3395 - Manganese and Nickel
Hogle Bros.
Ninganz Mine (Gibellini Mine)
Eureka County, Nevada
Contract No. Idm-E731

Dear Mr. Hinckley:

Reference is made to my letter of November 9, 1954, relative to above-subject docket.

We would appreciate it if you would return to this office the original and all copies of the proposed contract as suggested in my letter of that date. This request is made without prejudice to your property and is purely for administrative reasons . A rewriting rather than an amendment to the contract will now probably be necessary in case a DMEA project is desired.

Sincerely yours,

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Copy to: DMEA, Washington, D. C.
Roscoe Smith, USGS

JAN - 6 1955

Mr. Spangler Ricker, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Manganese and Nickel
Hogle Bros.
Nigans mine (Odbellini mine)
Eureka County, Nevada

Dear Mr. Ricker:

Reference is made to the subject docket and our letter of November 10, 1954, which crossed in the mail with your letter of November 9, 1954, to Mr. Sherman B. Hinkley.

It would be appreciated if you would inform Mr. Hinckley that for administrative reasons we require the return of the original and all copies of the proposed contract whether it is signed or unsigned. Please explain to him that your request is made without prejudice to the property, and because rewriting rather than an amendment will now be necessary in case a DMEA project is desired.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

APPROVED:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

FARutledge:foc
1-4-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. III
Mr. DeHuff, USBM
Mr. Kiilsgaard, USGS

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

402

RECEIVED
NOV 1 0 1954

420 Custom House
555 Battery Street
San Francisco 11, California

November 9, 1954

Mr. Sherman E. Hinckley
132 Main Street
Salt Lake City, Utah

RE: Docket No. DMEA-3395 (Manganese-Nickel)
Hogle Bros.
Nigans Mine (Sibellini Mine)
Eureka County, Nevada
Contract No. Idm-3731

Dear Mr. Hinckley:

Reference is made to your letter of November 3, 1954 relative to above subject docket.

We note that you would prefer doing some more work on your own account before signing the proposed contract. This arrangement meets with our approval but, in the meantime, we would suggest that you return to us the original and five copies of the proposed contract.

After you have concluded your proposed work on your own account it may be that it would be better to consider a new contract based on geological results of your exploration. In any case, it would probably be desirable for our engineers to re-examine the property before remodeling the contract.

Sincerely yours,

S. Ricker
S. Ricker
Executive Officer
DMEA Field Team, Region III

Copy to: DMEA-Washington
J. E. Smith-DMEA

NOV 1 0 1954

Mr. Spangler Richer, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Manganese and Nickel
Eagle Area,
Nigum mine (Ohalikini mine)
Humboldt County, Nevada

Dear Mr. Richer:

Reference is made to Mr. Sherman R. Hinckley's letter of November 3, 1954, to Mr. Miller, Executive Officer, DMEA Field Team, Region III, requesting permission to hold up the proposed contract pending completion of exploration now in progress.

In case you have not already done so, please advise Mr. Hinckley that the original and all copies of the proposed contract, if not executed, are to be returned to your office for transmittal to Washington. The contract will be held in Washington for a reasonable period in order that the applicant may file an amended request for exploration assistance.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

E. L. Newcomb
Member, Geological Survey

FARutledge:fec
11-10-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
Ft. RMO, III
Mr. DeHaff, USBM
Mr. Kiilsgaard, USGS

Estin

400

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

OCT 29 1954

420 Custom House
555 Battery Street
San Francisco 11, California

October 25, 1954

Hogle Bros.
132 South Main
Salt Lake City, Utah

RE: Docket No. DMEA-3395 (Manganese)(Nickel)
Hogle Bros.
Niganz Mine (Gibellini Mine)
Eureka County, Nevada
Contract No. Idm-E731

Gentlemen:

Enclosed are the original and five copies of a proposed contract for an exploration program at the above-mentioned property, signed by the Administrator for the Government, together with Exhibit "A" (2 pages), two maps and Annex 1 (1 page).

The Owner's Consent to Lien form from Louis P. Gibellini and Josephine Gibellini is not attached to the contract though the contract states that it is. It is my understanding that Mr. Sherman B. Hinckley telephoned the Washington Office on October 18, 1954, at which time it was suggested that he might wish to submit a guaranty substantiated by the usual financial information in lieu of Owner's Consent to Liens. However, the contract form contains a guaranty so that if the Administrator should decide possibly to waive the requirements for an Owner's Consent to Lien, no further guaranty would be needed.

In that same conversation with the Washington Office, it was understood that the shaft already has been sunk nearly 300 feet. If such work already has been accomplished by you at your own expense, and provided the mineralization at the bottom of the shaft is no less encouraging than the mineralization at the collar of the shaft, our Washington Office will give immediate consideration to an amendment allowing sinking of 300 feet of shaft beyond the footage already completed at the date of execution of the contract.

Extra

Sinking would be followed by drifting to test the lateral extent of the ore at depth. Metallurgical testing following such drifting would be a prerequisite to any further amendments that allowed more funds for deeper work.

With the above in mind you may wish to sign the six copies of the proposed contract. If you sign the copies, you may keep the copy marked "Operator's Copy" for your files. The original and other four copies should be returned to this office. If you do not wish to sign the proposed contract, the original and all copies should be returned to this office together with any changes which you might wish us to consider.

Sincerely yours,

H. C. MILLER

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

Enclosures

Copy to: DMEA--Washington, D.C.
A. C. Johnson--Reno
R. M. Smith--USGS

COPY

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

September 24, 1954

Memorandum

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

From: H. W. Davis, Ferrous Metals & Alloys Branch, Bureau of Mines

Subject: DMEA-3395, Niganz (Gibellini) Mine, Eureka County, Nevada. Manganese-Nickel - $190,000.

Inasmuch as the Field Team reports that economic amounts of nickel occur in the ore and as the engineer and geologist are in agreement that additional work to determine the extent of the mineralization on the property is warranted, I concur with the Field Team in recommending only the first stage for approval. If no mineralization of any importance is encountered, the contract should be terminated. However, in the event that a commercial ore body is present, before the second stage of the exploration is undertaken beneficiation tests should be made to determine whether or not the nickel and zinc can be recovered economically.

Signed: H. W. DAVIS

H. W. Davis

400

SEP 27 1954

Hogle Bros.
132 South Main
Salt Lake City, Utah

Re: Docket No. DMEA 3395 - Manganese
and Nickel
Nigans mine (Cibellini mine)
Eureka County, Nevada

Gentlemen:

Reference is made to your application for exploration assistance under the subject docket.

Six Owner's Consent to Lien forms covering all of the claims set forth in the "Lease and Option to Purchase" agreement between Louis P. Cibellini and Josephine Cibellini and Hogle Bros. are required to process the referenced application. MF-203 forms are enclosed.

Further processing of the above-docketed application, therefore, will be held in abeyance until the executed Owner's Consent to Lien is received.

Sincerely yours,

SIGNED

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Enclosure

FARUTLEDGE:FOC
9-24-54
cc to: Docket
Code 400
Adm. Reading File
Mr. DeHuff, USBM
Mr. Kiilsgaard, USGS

Extra

400

C
O
P
Y

TELETYPE

WP 033 RX PD-WUX SALTLAKECITY UTAH 24 1035 AM

C O MITTENDORF

DEFENSE MINERALS EXPLORATION ADMN DEPT OF INTERIOR

HAVE NOT RECEIVED INFORMATION REGARDING STATUS DOCKET

NO.DMEA 3395 MUST SET UP WINTER PROGRAM VERY SOON WOULD

APPRECIATE YOUR ADVISING US OF PROGRESS OF THIS

APPLICATION REGARDS

JAMES E HOGLE

DMEA 3395

Extra

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

October 13, 1954

Memorandum

To: The Administrator, DMEA
Attention: Mr. W. S. Martin

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA 3395, Hogle Bros., Manganese-Nickel

Attached hereto is a contract covering the above-described project in satisfactory legal form for execution, subject to the attachment of Owner's Consent to Lien executed by Louis P. Gibellini and Josephine Gibellini.

J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachments 8

Copy to: DMEA Docket
Solicitor's Docket
W. S. Martin (2)
H. C. Rubin
J. L. Hofflund
chron.

HCRubin:bbh
10/13/54

OCT 2 0 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Manganese and Nickel
Hogle Bros.
Niganz mine (Gibellini mine)
Eureka County, Nevada

Dear Mr. Miller:

Enclosed are the original and five copies of a proposed contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Exhibit "A" (2 pages), two maps, and Annex I (1 page).

Mr. Sherman B. Hinckley telephoned on October 18 to our Iron and Ferro-Alloys Division and discussed his difficulties in obtaining an Owner's Consent to Lien from Louis P. Gibellini and Josephine Gibellini. It was suggested that he might care to submit a guaranty which would, of course, have to be substantiated by the usual financial information. However, the contract form contains a guaranty so that if we should possibly decide to waive the requirement for an Owner's Consent to Lien, no further guaranty would be needed.

In the same conversation we were informed that the shaft has already been sunk nearly 300 feet. If so much work has already been accomplished by the Operator at his own expense, and provided the mineralization at the shaft bottom is no less encouraging than the mineralization at the shaft collar, we would give immediate consideration to an amendment allowing sinking of 300 feet of shaft beyond the footage already completed at the date of execution of the contract.

Sinking would be followed by drifting to test the lateral extent of the ore at depth. Metallurgical testing following such drifting would be a prerequisite to any further amendments that allowed more funds for deeper work.

Accordingly, the Operator may wish to sign all six copies of the proposed contract and have the usual distribution made; or else the original and all copies should be returned to this office, together with any other changes suggested either by you or the Operator for our consideration.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosure

Approved:

J. H. Hedges

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

cc: DOCKET
CODE 400
FIELD TEAM, REG. III
ADM. READ. FILE
OPER. COMMITTEE
G. DeHUFF, USBM
THOR KIILSGAARD, USGS

WSMartin/ls
10-20-54

Letter to Field Team

1st paragraph -- same

However,

Mr. Sherman B. Hinckley telephoned on October 18 to our Iron and Ferro-Alloys Division and discussed his difficulties in obtaining an Owner's Consent to Lien from Louis P. Gibellini and Josephine Gibellini. It was suggested that he might care to submit a guaranty which would, of course, have to be substantiated by the usual financial information. ~~We find now that~~ the contract form contains ~~a guaranty so that if we were to waive the requirement for an Owner's Consent to Lien, no further guaranty would be needed.~~

Should possibly decide

In the same conversation we were informed that the shaft has already been sunk nearly 300 feet. If so much work has already been accomplished by the Operator at his own expense, and provided the mineralization at the shaft bottom is no less encouraging than the mineralization at the shaft collar, we would give immediate consideration to an amendment allowing sinking of 300 feet of shaft beyond the footage already completed at the date of execution of the contract.

Sinking would be followed by drifting to test the lateral extent of the ore at depth. Metallurgical testing following such drifting would be a prerequisite to any further amendments that allowed more funds for deeper work.

Accordingly, the Operator may wish to sign all six copies of the proposed contract and have the usual distribution made; or else the original and all copies should be returned to this office, together with any other changes suggested either by you or the Operator for our consideration.

IN REPLY REFER TO:

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

September 20, 1954

Re: DMEA-3395
Higgins (Gibellini) Mine
Eureka County, Nevada
$190,100 - Manganese-Nickel

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of Field Team Report

The operator proposes to sink an inclined shaft 1,500 feet, to crosscut and drift a total of 2,000 feet at 500, 1000 and 1500 foot levels, and then diamond drill 2,000 feet of hole from the 1500 level.

The Field Team has recommended a six (6) stage program for approval. A program with this number of stages is not reasonable, and is not considered to be adequately justified in their report. By their own statement at the bottom of page 2 -- "the present ore exposures are considered sufficient to justify stage 1", the Field Team is actually recommending only the first stage for approval.

In 1953, two shipments of ore were made from this property. In August, 95.4 tons of 31.65 percent manganese ore was shipped to the Combined Metals' Castleton mill, but was not milled. The second shipment was made in September to the Wenden, Arizona purchasing depot, but was rejected because of high copper content. About 45.9 tons containing 36.05 percent manganese was reported for this shipment. Inasmuch as these hand sorted ores were apparently unacceptable and were typical of the mine-run material, there is some question as to whether further exploration is warranted. Copper is not reported by the Field Team to be present in the ore, however, it was a penalizing factor on at least one shipment. If we are dealing with a "problem" ore of limited tonnage which will require extensive metallurgical testing, we may not be justified in exploring this property.

Measured ore reserves have been estimated by the Field Team to be 20,000 tons where the vertical shaft is in ore for 70 feet. Indicated ore may be 5,000 tons and inferred reserves possibly several tens of thousands of tons. If we use 9.53 percent manganese, 1.22 percent nickel and 2.83 percent zinc (from International Smelting and

Refining Co. assays) as the average grade of the ore deposit, then we are dealing with low grade manganese ore. The nickel and zinc occur in significant amounts, but whether they are recoverable is unknown. It seems apparent however that beneficiation testing will be needed before this ore can be considered economic.

As the amount of ore which may be found by the proposed exploration is limited, I recommend this application be denied.

E. L. Newcomb

ELNewcomb:hlm
G-9/20/54

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
Gilbert DeHuff, 3523

IN REPLY REFER TO:

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

September 20, 1954

Re: DMEA-3395
Bigness (Gibellini) Mine
Eureka County, Nevada
$190,100 - Manganese-Nickel

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of Field Team Report

The operator proposes to sink an inclined shaft 1,500 feet, to crosscut and drift a total of 2,000 feet at 500, 1000 and 1500 foot levels, and then diamond drill 2,000 feet of hole from the 1500 level.

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As the amount of ore which may be found by the proposed exploration is limited, I recommend this application be denied.

E. L. Newcomb

ELNewcomb:hlm
G-9/20/54

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
Gilbert DeHuff, 3523

400

September 24, 1954

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Exploration Project Contract
Docket No. DMEA 3395 - Manganese, Nickel
Hogle Bros. - Partnership
Miganz mine (Gibellini mine)
Eureka County, Nevada

Transmitted herewith are the photostatic copies of the two maps referred to in our memorandum of September 16, 1954.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

FARUTLEDGE:foc
9-24-54
cc to: Docket
Code 400
Adm. Reading File

IN REPLY REFER TO:

400

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

September 29, 1954

Re: DMRA-3395
Higgins (Gibellini) Mine
Eureka County, Nevada
$190,100 - Manganese-Nickel

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

Subject: Review of Field Team Report

The operator proposes to sink an inclined shaft 1,500 feet, to crosscut and drift a total of 2,000 feet at 500, 1000 and 1500 foot levels, and then diamond drill 2,000 feet of hole from the 1500 level.

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Refining Co. assays) as the average grade of the ore deposit, then we are dealing with low grade manganese ore. The nickel and zinc occur in significant amounts, but whether they are recoverable is unknown. It seems apparent however that beneficiation testing will be needed before this ore can be considered economic.

As the amount of ore which may be found by the proposed exploration is limited, I recommend this application be denied.

E. L. Newcomb

ELNewcomb:hlm
G-9/20/54

Copy to: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
Gilbert DeHuff, 3523

Interior Department
Defense Minerals Exploration Administration

SEP 9 1954

14X4401(01) Revolving Fund, Defense Production Act, Interior
(Allocated Working Fund to the Office of the Secretary)

TELETYPE

To: H. C. Miller, Executive Officer, DMEA Field Team, Region 3, San Francisco, California

Hogle Bros. pressing for early action on DMEA 3335, in view of their present heavy expenditures.

Please advise when we may expect Field Team report.

Chairman, Operating Committee

Confirmation to FT, Reg. 3

cc: DOCKET
CODE 400
ADM. READ. FILE
OPER. COMMITTEE
THOR KIILSGAARD, USGS
H. W. DAVIS, USBM

SOMittendorf/ls
9-9-54

JUN 30 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Customhouse Building
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Nickel & Manganese
Hogle Bros., Partnership
Wigans mine (Gibellini mine)
Eureka County, Nevada

Dear Mr. Miller:

The subject application for exploration assistance is being referred to your office for a field examination of the property if required. We have been informed by Mr. Hogle that many of the data necessary for a review are already in the Bureau of Mines' files.

In reviewing the application and the data available here in Washington, it was noted that no analyses, with the exception of that for manganese, were given for the ore shipped to the Ore Buying Depot at Weaudon, Arizona. If available, it would be appreciated if these could be obtained.

A Bureau of Mines Report of Investigation, R. I. 4162, "Gibellini Manganese-Zinc-Nickel Deposits, Eureka County, Nevada." by E. O. Minyon described an exploration project by the Bureau of Mines on the subject deposit during 1946. This report states that the metallurgy for the recovery of the nickel, zinc, and other commodities in the ore beside the manganese remains to be further investigated. If more data are now available on such tests, it will be appreciated if they are included in the Field Team report.

Two copies of a relevant memorandum by Louis Pavlides, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

APPROVED:

J. H. Hedges
Member, Bureau of Mines

Philip W. Guild
Member, Geological Survey

Enclosure

FARUTEDGE:foc
6-30-54
dc to: Docket cc: Adm. Reading File cc: E. L. Newcomb, USGS, Rm. 5227
Code 400 Operating Comm.
FT. Reg. 3 Bureau of Mines, 3519

JUN 30 1954

Eagle Bros.
132 South Main
Salt Lake City, Utah

Re: Docket No. DMEA 3395 - Nickel & Manganese
Eagle Bros., Partnership
Wigham mine (Cibellini mine)
Eureka County, Nevada

Gentlemen:

The above-docketed application for exploration assistance for nickel and manganese has been reviewed by the Iron and Ferro Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. R. C. Miller, Executive Officer, DMEA Field Team, Region III, 420 Customhouse Building, 555 Battery Street, San Francisco 11, California, for a field examination of the property.

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

Sincerely yours,

D. O. Mittendorf

Administrator

FARUTLEDGE:foc
6-29-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. Reg. 3
Bureau of Mines
T. A. Newcomb, USGS

400

IN REPLY REFER TO:

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

June 29, 1954

Memorandum

To: Mr. W. S. Martin, IMEA

From: Louis Pavlides, USGS

Subject: IMEA 3395, (Manganese) Hogle Bros. Nigans Mine, Eureka County, Nevada.

The applicants propose to explore what they state to be "a combination vein and bedded deposit." They believe that the metalization is localized within a brecciated area "along the intersection of two faults in conjunction with a limestone bed."

The mineralization is thought to follow the trace of the intersection of a limestone bed and the fault zone, and that there is "an excellent possibility that enough oxidized ore - to warrant a treatment plant - will be found above the permanent water table" (item 4c).

The applicants presumably also estimate (item 4b) that there is in the order of 20,000 tons of "ore" on the property within the area of present workings which assays 23 percent Mn and 2.25 percent Ni.

They propose to explore the property by sinking an inclined shaft 1500 feet along the footwall of a low-angle fault down to the water table, cutting 3 stations at approximately 500-foot intervals down the shaft, from which approximately 2000 feet of drifting and crosscutting will be run. To explore the possible downward extension of theore body below the water table, 2000 feet of diamond drilling is planned to be done from the lower level.

The U. S. Bureau of Mines explored the subject property, then known as the Gibellini deposits, by 6 diamond drill holes, which developed only spotty showings of manganese. 1/ However, a supplementary report based on later development work 2/, W. T. Benson of

1/ Binyon, E. O., 1948, Gibellini manganese - zinc - nickel deposits, Eureka, Nevada: U. S. Bur. Mines R. I. 4162, 9 p.

2/ Benson, W. T., 1953, Gibellini Manganese - nickel deposit, Eureka County, Nevada: Supplementary Rept., U. S. Bur. Mines, 4 p.

the Bureau of Mines believes the ore is controlled by an eastward trending thrust fault that dips 20-40° north; the ore body underlying the thrust fault. Benson also believes the upward continuation of the ore zone terminates against a major faulted crush zone (idem, p. 2). The manganese minerals reported for this deposit are psilomelane and pyrolusite, with the high values of Ni, Zn, Mo, V and Ba chemically bonded to these minerals (Binyon, 1948, p. 5). Binyon (1948, p. 5-6), concluded "that a 30 to 35 percent Mn product would be the optimum to be obtained by ore dressing methods" and that "the ultimate recovery of auxiliary metals would mean the (use) of hydrometallurgical processes. Presumably he was referring to "ore" that assayed about 18.5 percent Mn (idem, p. 5). The recent development work described by Benson, however, lists assays of "ore" running appreciably higher and these are the assays furnished by the applicants as item 5C.

Two shipments of ore have been made since Aug. 1953 from the property and these are as follows:

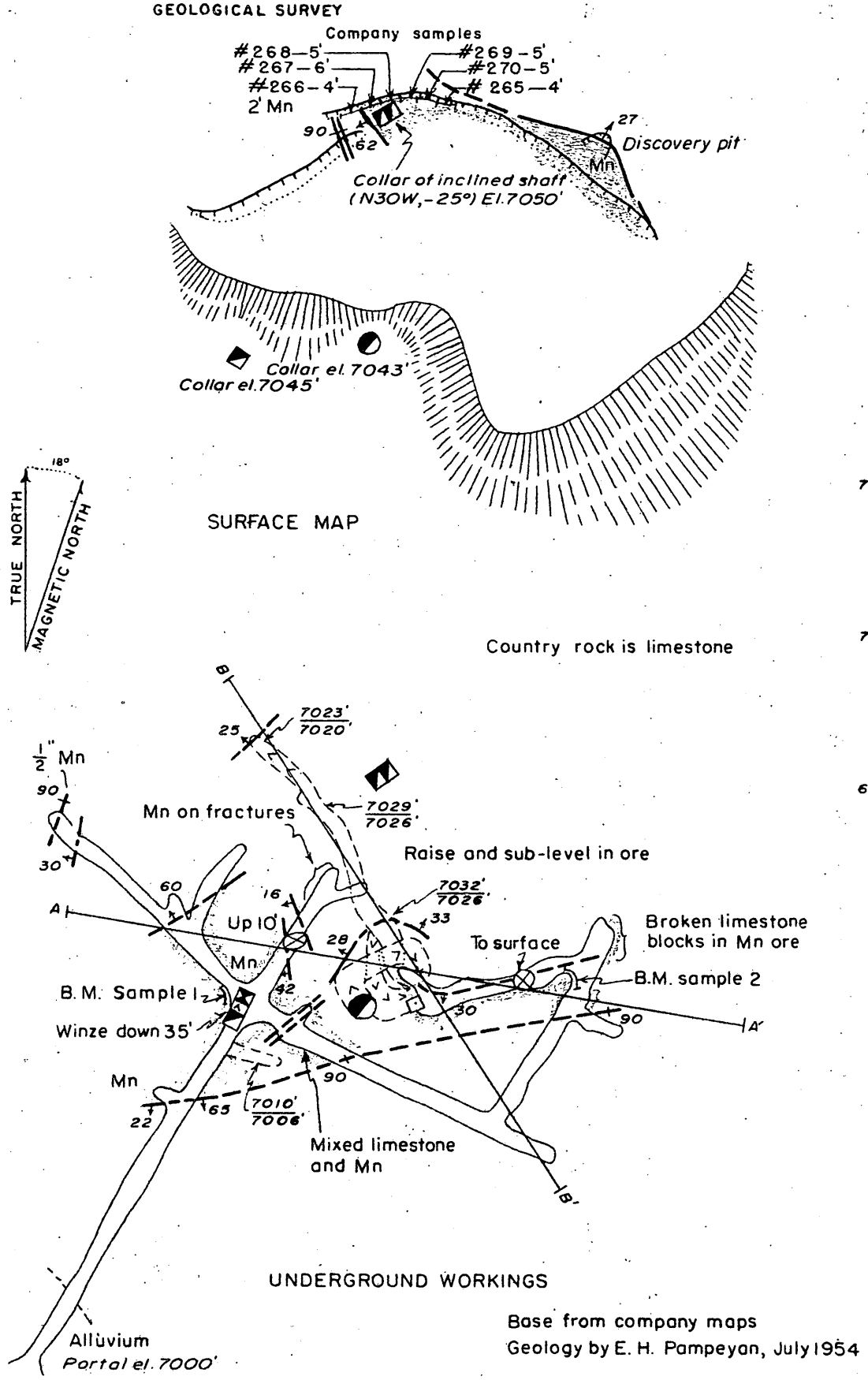
| | Tons (dry) | Mn (%) | Destination |
|---|---|---|---|
| (1) | 85.86 | 31.65 | Combined Metals Reduction Plant, Caselton, Nevada |
| (2) | 45.9 | 36.05 | Wenden, Arizona |

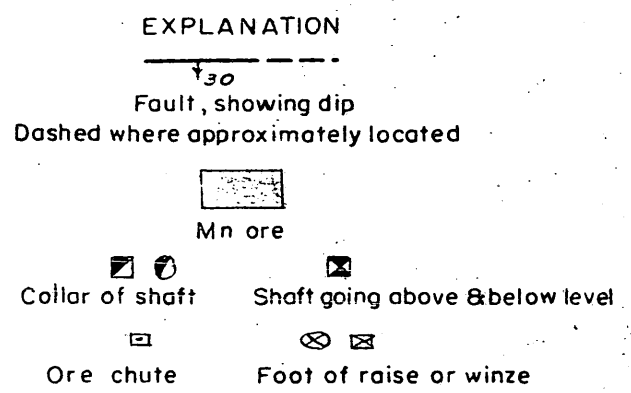
In view of the tenor of assays cited by Benson and that of the above shipments, the subject property is of interest. However, the application as it now stands is in need of revision and paring down as much of the work proposed overlaps into development rather than exploration. I recommend that a field team examination be made in which both a geologist and engineer take part in order to resolve the geologic as well as engineering aspects of this proposal for exploration. Specifically, more geologic information is needed to evaluate the potential of the deposit, as well as orient the exploration program. The present program is predicated on fault control for the localization of the ore, whereas Binyon had earlier stated (1948, p. 8), "the deposits are the sedimentary type formed by precipitation of the ore minerals from concentrated mineral-bearing solutions in the depressions or traps in limestone." The possibilities of exploring by diamond drilling rather than by the extensive inclined shaft and drifts and cross cuts as now proposed should be investigated.

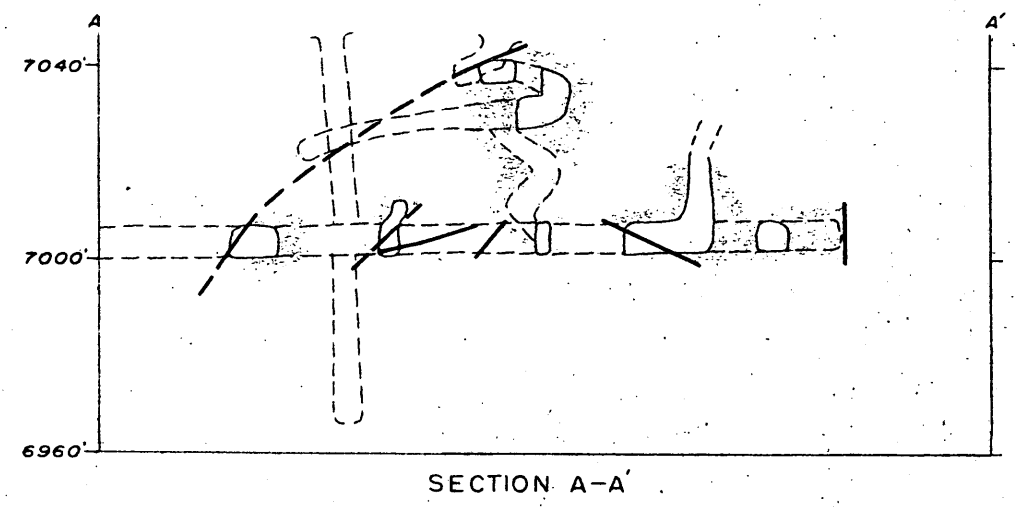
The application should be considered also as a possible base metal loan in view of the fact that the applicants refer to

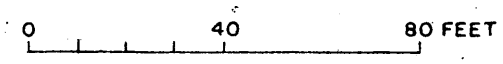
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA—3395
(Mn -Ni)



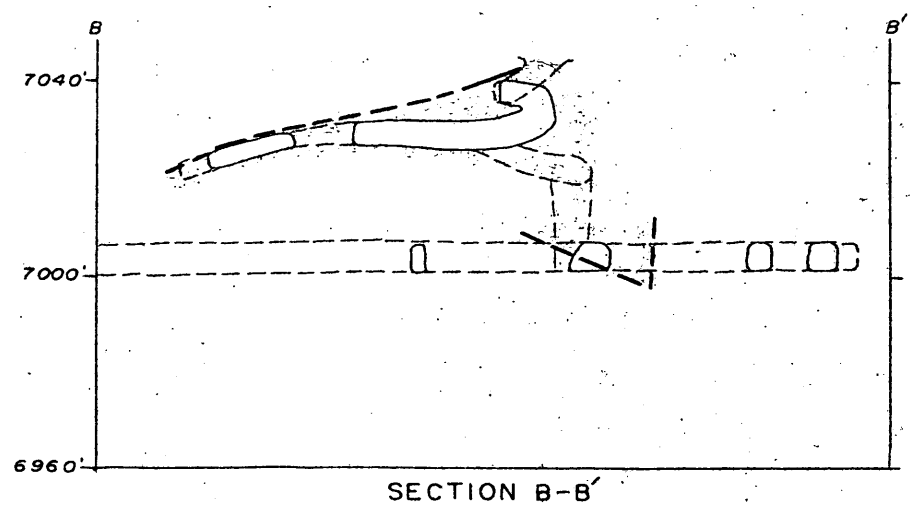




Fig. 3 Working of the Niganz (Gibellini) mine, Eureka County, Nevada

the possibility of "a good commercial ore body in the sulfide zone" (item 4C). In this eventuality the loan should be prorated on the amount of manganese or base metals present.

Louis Pavlides
Geologist

# HOGLE BROTHERS

132 MAIN STREET
SALT LAKE CITY 1, UTAH

July 26, 1955

RECEIVED
JUL 29 1955

Told Com of FE
about this
WSM
7/29/55

Mr. C. O. Mittendorf
Department of the Interior
Defense Minerals Exploration Administration
Washington 25, D. C.

Re: Docket No. DMEA 3395 - Nickel
and Manganese
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Dear Mr. Mittendorf:

We have your letter of July 18, regarding our application for the above Docket Exploration project. We sincerely appreciate the interest you have shown in this project and are sorry that you cannot go along with us on this Exploration.

Sincerely yours,

HOGLE BROTHERS

Sherman B. Hinckley

Sherman B. Hinckley

SBH/d

Copy made & retained 400

400

DOCKET
Surname:
Rutledge
Martin
Davis
Gichon
Kilsgaard
Selfridge
Johnson

JUL 18 1955

Hogle Bros.
132 South Main Street
Salt Lake City, Utah

Re: Docket No. DMEA 3395- Nickel and Manganese
Niganz mine (Gibellini mine)
Eureka County, Nevada

Gentlemen:

Your application for aid for an exploration project and other data available to us in Washington concerning the above-referenced 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 the occurrence of complex manganese and nickel mineralization on your property, indicates to us that the probability of disclosing minable ore reserves of manganese and nickel by your proposed amended program is not sufficiently promising to justify Government participation. Under these circumstances, we regret to advise you that your application is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

cc: Docket
Code 400
Oper. Comm.
T. Kiilsgaard, USGS
H. W. Davis, USBM
Adm. Read. File
Field Team, Region 2-Reno

FARutledge/ls
7/14/55

R.C.L.

Hogle Bros.
132 South Main
Salt Lake City, Utah

4a. 1943 Anaconda Copper Mining Co. had a lease and option on this ground, and did approximately 500' of drifting and cross cutting. Since that time the owner has done some raising and winzing on the property. These workings are shown on the enclosed sketch and are now open for mine examination. All of these workings are embraced within the ground covered by our lease and option. In addition, we have done some bull dozing work on the surface to outline the outcrop of the ore body.

4b. To date this property has shipped two cars of manganese ore. The first lot, weighing 85.86 dry tons, was shipped to the Combined Metals Reduction Plant at Caselton, Nevada in August, 1953, and assayed 31.65% manganese. The second lot, containing 45.9 dry tons, was shipped to the Ore Buying Depot at Wendon, Arizona in September, 1953, and assayed 36.05% manganese. This ore, as well as that still in the mine, contains about 2% nickel.

Approximately 20,000 tons of ore, as shown on the enclosed sketch, will average 23% manganese and 2.25% nickel. This material is not commercial under present conditions, but if sufficient quantity of similar ore is developed then the metallurgy, no doubt, can be worked out.

4c. This property lies near the southern end of Fishcreek Range, close to the Eureka-Nye Co. line. The Fishcreek Range consists of a series of limestone beds with some shale and sandstone. The zone we wish to explore is a large brecciated area which has been mineralized along the intersection of two faults in conjunction with a limestone bed. This mineralization is a combination vein and bedded deposit. The mineralization should follow down the trace of the intersection of a lime bed and the fault zone. This area is big enough that it could make a good commercial ore body in the sulphide zone. There is also an excellent possibility that enough oxidized ore - to warrant a treatment plant - will be found above the permanent water level.

4d. This property, located at an elevation of approximately 7,000', is accessible on a county maintained gravel and dirt road which branches off from U. S. Highway 50 at a point approximately 11 miles southeast of Eureka, Nevada. The mine is located approximately 85 miles from the Nevada Northern Railroad, and approximately 115 miles from the sidings of the Southern Pacific & Western Pacific Railroad at Palisade, Nevada. The closest town for residence is Eureka, which is approximately 27 miles distant. Supplies for this project can be secured at Eureka, Nevada, Ely, Nevada, and/or Salt Lake City, Utah. This property is approximately 330 miles from Salt Lake City.

4e. Manpower for this project can be secured in Eureka. Materials, supplies and equipment can be secured in Salt Lake City, Ely and Eureka. Water will have to be trucked from springs or wells which are located along the road between Eureka and the property. Power will come from diesel driven equipment.

5b. The work proposed on this project is:

I. To sink an inclined shaft down on the ore showing, using the flat fault as a hanging wall. This shaft, with a direction of about N 30° W and a dip of about 25° from the horizontal, will be driven with a cross section large enough for a skipway and man-way pipeway. Track of heavy rail, along with air, water and ventilation lines, will be carried. Timber will be necessary in some sections. To reach the permanent water table will require approximately 1500' of shaft.

II. Cut three stations at approximately 500' intervals down the shaft, from which drifting and cross cutting can be done.

III. Drive 2000' of drifts and crosscuts off from the levels to determine if a commercial ore body is present. These drifts would be driven with a section of about 5½x7'.

IV. Since quite a volume of water is anticipated at the permanent water table, diamond drilling will be done from the lowest level to determine the ore possi-

bility below this level. 2000' of diamond drilling should be sufficient to give the needed information.

5d. The applicants have been connected with mining directly, and indirectly, for the last 20 years. They do have, and have had for a good many years, controlling interest in the Rico Argentine Mining Co., which is a successful operation at Rico, Colorado. The work will be under the direct supervision of Sherman B. Hinckley, who is president and general manager of Rico Argentine Mining Co. The man on the property, who will have charge of the work, is Mr. Roger Caywood, who is now at Consolidated Eureka Mining Co. of Eureka, Nevada.

6. To do the work proposed will require the purchase and installation of the following equipment:

| Item | Installed Cost (Including Freight) |
|---|---|
| Oil Tanks | $ 500.00 |
| Water Tank | 500.00 |
| Hoist House and Change Room | 2,500.00 |
| Head Frame, Surface Track & Surface Piping | 2,700.00 |
| Small Tools | 700.00 |
| Ventilating Fan | 575.00 |
| Diesel Driven Compressor | 9,500.00 |
| Diesel Driven Hoist | 6,500.00 |
| 2 Jack Hammers w/Air Legs | 1,320.00 |
| Air Hoses | 295.00 |
| Used Mine Cars | 320.00 |
| Mucking Machine | 3,650.00 |
| Total | $29,060.00 |

PROJECT I

The cost per foot of preparing the first portion of this project, which consists of sinking 1500' feet of inclined shaft, will be as follows:

| Item | Cost Per Foot |
|---|---|
| Labor, supervision, engineering and their taxes | $ 29.50 |
| Oil and fuel | 5.10 |
| Timber, including sets and ties | 6.15 |
| Powder, fuse and caps | 3.10 |

| Item | Cost Per Foot |
|---|---|
| Rails, spikes and accessories | $ 2.10 |
| Air and water lines | 1.30 |
| Ventilation pipe | 2.00 |
| Bell line | .20 |
| Drill steel and bits | .95 |
| Hauling water | 2.05 |
| Equipment maintenance | 1.25 |
| Hand tools | .60 |
| Sampling and assaying | .35 |
| Sub-total | $ 54.65 |
| Rental of equipment or amortization of equipment, if purchased | 9.75 |
| Total | $ 64.40 |
| | X1500 |
| | $96,600.00 |

PROJECT II

Three shaft stations consisting of 1,500 cubic feet of excavation, with timbering, each cost $2.00 per cubic foot, for a total cost of $3,000.00 each, $9,000.00 total.

PROJECT III

To explore horizontally from the shaft stations a total of 2,000' drifting and cross cutting will be driven at the following cost per foot:

| Item | Cost Per Foot |
|---|---|
| Labor and supervision w/taxes | $ 18.20 |
| Oil and fuel | 3.50 |
| Powder, fuses and caps | 2.95 |
| Rail and accessories, inc. ties | 1.75 |
| Air and water lines | .55 |
| Drill steel and bits | 1.10 |
| Hauling water | 1.00 |
| Equipment maintenance | .75 |
| Hand tools | .25 |
| Sampling and assaying | .20 |
| Sub-total | $ 30.25 |
| Rental of equipment or depreciation on items purchased | 6.00 |
| Total | $ 36.25 |
| | X2000 |
| | $72,500.00 |

PROJECT IV

2,000' of diamond drilling would be done down from the bottom level of this shaft. The cost of drilling would be $6.00 per foot, total cost of project $12,000.00. We have included in these costs all miscellaneous items such as analytical work, accounting, workmen's compensation, employer's liability insurance, payroll taxes. If a different breakdown is wanted on this tabulation, it will gladly be furnished.

Total cost of complete project is $190,100.00.

MF-103
(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. 3395
Metal or Mineral Nickel & Manganese
Date Received
Estimated Cost $190,100
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: Hogle Bros., 132 So. Main, Salt Lake City, Utah, Partnership,
James E. Hogle, 132 So. Main, Salt Lake City, Utah
George H. Hogle, 132 So. Main, Salt Lake City, Utah
Sherman B. Hinckley, 132 So. Main, Salt Lake City, Utah

(*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 See attached schedule.

(*b*) State any mine name by which the property is known. Niganz (formerly Gibellini Property)

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

(*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. See attached copy of lease.

(*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. See attached schedule.

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. See attached schedule.

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

(*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. See attached schedule.

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

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

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

(*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. See attached schedule.

(*c*) The work will start within 10 days and be completed within 24 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. See attached schedule.

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. See attached schedule.

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)? Yes

(*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 June 15, 1954

Hogle Bros., Partnership
(Applicant)

By Thurman E. Hogle Partner

**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

Gibellini Sample July 27, 1953

| No. | Description | Mn % | Ni % |
|---|---|---|---|
| 1 | 5' Vert. Cut | 24.9 | 2.6 |
| 2 | 5' Vert. Cut | 16.1 | 1.9 |
| 3 | 5' Vert. Cut | 6.2 | 1.1 |
| 4 | 5' Vert. Cut | 1.9 | .40 |
| 5 | 7' Vert. Cut | 22.5 | 3.3 |
| 6 | 10' Hor. Cut | 1.5 | .44 |
| 7 | 3' Vert. Cut | 3.1 | 1.3 |
| 8 | 5' Vert. Cut | 25.3 | 2.6 |
| 9 | 6' Vert. Cut | 24.7 | 2.4 |
| 10 | 7' Vert. Cut | 35.1 | 2.8 |
| 11 | 6' Vert. Cut | 10.5 | 1.6 |
| 12 | 7' Vert. Cut | 38.4 | 2.5 |
| 13 | 8' Vert. Cut | 43.2 | 2.75 |
| 14 | 9' Vert. Cut | 35.1 | 3.1 |
| 15 | 8' Vert. Cut | 25.4 | 2.9 |
| 16 | 5' Vert. Cut | 37.6 | 3.3 |
| 17 | 12' Vert. Cut | 35.3 | 3.4 |
| 18 | 4' Vert. Cut | 29.6 | 3.1 |
| 19 | 5' Vert. Cut | 10.7 | 1.7 |
| 20 | 5' Vert. Cut | 33.0 | 2.3 |

1c.
5b.

Hogle Bros.
132 South Main Street
Salt Lake City, Utah

3a.
3d.
3f.

# LEASE AND OPTION TO PURCHASE

THIS INDENTURE, made and entered into this 6th day of May, 1954, by and between LOUIS P. GIBELLINI and JOSEPHINE GIBELLINI, his wife, of Eureka, Nevada, hereinafter called "First Parties", and HOGLE BROS., a partnership of Salt Lake City, Utah, hereinafter called "Second Party";

WITNESSETH :

In consideration of the sum of One Thousand Dollars ($1,000.00) this day in hand paid by Second Party to First Parties, receipt whereof First Parties hereby acknowledge, and in consideration of the covenants and agreements of Second Party hereinafter set forth, the said First Parties hereby grant to Second Party the exclusive right and option to purchase upon the terms and conditions and for the purchase price hereinafter specified, the following unpatented lode mining claims situated approximately eight miles south of the Fish Creek Ranch in Eureka County, Nevada, to-wit;

| Claim | Mining Location Records - Book | Page |
|---|---|---|
| Black Hill No. 1 | I | 258 |
| Black Hill No. 2 | I | 352 |
| Black Hill No. 4 | I | 270 |
| Black Hill No. 7 | I | 271 |
| Black Hill No. 9 | I | 272 |
| Black Iron No. 1 | I | 252 |
| Black Iron No. 3 | I | 252 |
| Black Iron No. 4 | I | 269 |
| Black Iron No. 5 | I | 270 |
| Flat No. 1 | I | 259 |
| Flat No. 2 | I | 259 |
| Manganese No. 1 | I | 254 |
| Manganese No. 2 | I | 254 |
| Manganese No. 3 | I | 353 |

Together with any and all right, title and interest of said First Parties in or to any and all veins, lodes or mineral deposits extending into or contained in said lode mining claims, together with the dips, spurs, angles, and variations thereof and in or to any and all rights-of-way, easements, water, water rights, waste and ore dumps, tenements, hereditaments, privileges, appropriations and appurtenances of every kind and nature belonging to First Parties and located at or in the vicinity of said lode mining claims or either of them in any wise appertaining to said lode mining claims or either of them.

The purchase price of the above described property is Two Hundred Ninety-Nine Thousand Dollars ($299,000.00), payable without interest in installments as follows:

Nine Thousand Dollars ($9,000.00) on or before June 1, 1954

Fifteen Thousand Dollars ($15,000.00) on or before June 1, 1955

Ten Thousand Dollars ($10,000.00) on or before September 1, 1955

Ten Thousand Dollars ($10,000.00) on or before December 1, 1955

Ten Thousand Dollars ($10,000.00) on or before March 1, 1956

Forty-Five Thousand Dollars ($45,000.00) on or before June 1, 1956

Fifty Thousand Dollars ($50,000.00) on or before June 1, 1957

Fifty Thousand Dollars ($50,000.00) on or before June 1, 1958

Fifty Thousand Dollars ($50,000.00) on or before June 1, 1959

Fifty Thousand Dollars ($50,000.00) on or before June 1, 1960

All payments on account of purchase price shall be made by deposit to the credit of First Parties at the Ely National Bank at Ely, Nevada.

First Parties represent that they have good and marketable title, free and clear of all liens and encumbrances, subject only to the paramount title of the United States to the above described mining claims, and agree that they will on or before June 1, 1954, procure and deliver to Second Party an abstract of title prepared either by a licensed abstracter or by the County Recorder of Eureka County, Nevada, covering such mining claims and showing title to be so vested in First Parties. Second Party shall have thirty (30) days in which to examine such abstract of title and if it shall appear from such examination that there exists any defect to the title of First Parties to any of said mining claims, or that any lien or encumbrances thereon exist, First Parties agree promptly upon notice thereof by Second Party to clear the title of such defect or encumbrances and should it subsequently appear that any defect of title or encumbrances exist not shown upon such abstract, First Parties likewise agree upon notice thereof by Second Party to clear the title of such defect or encumbrances and further agree that in the event of their failure promptly so to do, Second Party

may at its own expense do so and any moneys necessarily expended by Second Party in so doing shall be credited upon the next installment of the purchase price and the amount thereof be certified by Second Party to First Parties and to said Ely National Bank.

First Parties further agree that they will on or before the first day of June, 1954, duly execute and deposit in escrow with said Ely National Bank of Ely, Nevada, a grant, bargain, and sale deed conveying the above described property to Second Party free from any encumbrances or transfers of title caused or permitted by any act or omission of First Parties, and with instructions to said bank to deliver said deed to Second Party or its successors or assigns when the payments on account of the purchase price shall aggregate the said sum of Two Hundred Ninety-Nine Thousand Dollars ($299,000.00).

If any payment herein specified to be made by Second Party to First Parties is not made within the time herein provided or within thirty (30) days thereafter, said bank shall upon request of First Parties and after notice of such request given to Second Party, return said deed to First Parties.

In consideration of the payment made by Second Party, and of the covenants and agreements of Second Party herein contained, First Parties hereby grant unto Second Party the right to forthwith enter upon and take exclusive possession of said mining claims and each of them, and while this Indenture remains in force to carry on such exploration work and mining operations therein as to Second Party may seem desirable, and to mine, extract, concentrate, mill or otherwise treat any ore or minerals lying beneath the surface of said mining claims or any of them or stored below or upon the surface thereof and to ship and sell any ore, concentrates or other material extracted or produced from said claims in the course of said mining or milling operations. Provided, however, and Second Party hereby agrees that in consideration of the right given it to so enter upon and work said mining claims that it will pay to First Parties to be applied upon the next installment of purchase price, twenty-five per cent (25%) of the

net smelter return on all ores or concentrates from ores extracted from said mining claims above a horizontal plane 8 feet above the present tunnel located thereon, and ten per cent (10%) of the net smelter return on all ores or concentrates from ores extracted from said mining claims below the above mentioned horizontal plane.

By "net smelter returns" as used herein, is meant the amount paid by the mill, smelter or reduction plant for such ores or concentrates and remaining after all assaying,sampling and treatment charges and all truck or railroad transportation charges have been deducted.

All such payments shall be made to First Parties by deposit to their credit at said Ely National Bank of Ely as soon after receipt of proceeds from sale of ore or concentrates as can conveniently be done. In the event any such payments exceed the amount of the next installment of purchase price hereinabove provided to be made, then the excess shall be applied upon the next succeeding installment or installments of such purchase price.

IT IS EXPRESSLY UNDERSTOOD AND AGREED:

1. That Second Party shall, beginning June 1, 1954, cause to be spent not less than Twenty-Five Hundred Dollars ($2,500.00) per month each month to and including the month of May, 1956, for labor and supplies upon or within the above described mining claims unless prevented from so doing by strikes, fires, weather, lack of available labor, acts of God or other causes beyond the control of Second Party. During any period in which Second Party is prevented from performing work upon said mining claims for any of the above causes, this requirement shall be suspended.

During each annual assessment year in which this agreement remains in force for nine (9) months, Second Party shall at its own cost do and perform upon or for the benefit of said unpatented lode mining claims any annual labor and improvements required by the laws of the United States and the State of Nevada, to keep and maintain such unpatented lode mining claims in good standing as unpatented lode mining claims.

2. That all work or mining operations carried on by Second Party shall

be conducted in a good and minerlike fashion; that Second Party will comply with all laws of the State of Nevada relative to workmen's compensation insurance or the conduct of such operations; that Second Party will promptly pay all wages of its employees and all bills for supplies, material and equipment purchased by it, and that Second Party will not permit any liens or encumbrances to be made upon said mining claims by reason of any act or default on its part.

3. That Second Party shall maintain and keep posted on said property continuously during the term of this agreement such notice of non-responsibility as First Parties may prepare for work, labor, materials or supplies or any of them, and immediately after such posting shall cause affidavit of such posting when furnished to it by First Parties to be recorded as required by law to make the same effective.

4. Second Party agrees to indemnify and save First Parties harmless against any and all claims for taxes assessed against the above described property including bullion taxes during the period while Second Party is in possession thereof or arising by reason of Second Party's operations thereon or therein during the period while this Indenture is in force and effect or by reason of any default on the part of Second Party in failing to comply with any State or Federal law relative to work or operations carried on by Second Party in or upon said property, including Workmen's Compensation and Social Security laws, or existing by reason of any tort or other wrongful act committed by Second Party in the course of its operations in or upon said property.

IT IS MUTUALLY UNDERSTOOD AND AGREED:

1. That Second Party may at any time hereafter terminate this Option and Agreement and be freed from any and every obligation and liability hereunder or in any manner arising out of any term, covenant or condition hereof, excepting only its obligation to make the payments on account of ore or concentrates theretofore shipped by it to mill, smelter or other

reduction works, its obligation to keep said property free of any lien or encumbrance occasioned by its act or default and its obligation to indemnify First Parties as hereinabove provided. In the event Second Party elects so to terminate this agreement, it shall give First Parties written notice thereof by letter signed by or in behalf of Second Party and either delivered personally to one of First Parties or deposited in the United States mail in a sealed envelope with postage prepaid and addressed to First Parties at Eureka, Nevada.

2. That in the event Second Party elects to terminate this agreement, it will convey to First Parties by quitclaim deed any and all mining claims located by it or for its benefit and lying within a radius of one mile from the portal of the tunnel now existing on the above described property.

3. That in the event this agreement is terminated either by Second Party exercising its right so to do or by forfeiture by First Parties on account of any default on the part of Second Party, Second Party may remove any tools, machinery, equipment and supplies placed by it upon the above described mining claims or any of them, such removal to be at the cost of Second Party and to be completed within sixty (60) days following its surrender of possession of said mining claims, but all timber, tracks, piping, wiring and surface buildings installed on said claims shall remain thereon and become the property of First Parties.

4. That First Parties, or their agents authorized in writing, shall at their own risk have the right, at all reasonable times, to enter into and upon said premises or workings therein for the purpose of examining and inspecting the same and ascertaining whether the terms and conditions of this agreement are being carried out and performed by Second Party; and First Parties, or their agents so authorized, shall at all reasonable times have access to the records of production from said premises and such records as will show compliance on the part of Second Party with the provisions of this agreement.

5. Time is of the essence of this agreement and in the event Second

Party fails to make any payment to First Parties at the time and in the manner herein provided, and if such default continues for a period of thirty (30) days after such payment becomes due and is unpaid, all of the rights of Second Party hereunder except its right to remove its property from mining claims as hereinabove provided, shall terminate and become forfeited and moneys theretofore paid to First Parties shall be by them kept and retained as liquidated damages for any and every breach hereof by Second Party.

6. Second Party may not without the consent of First Parties assign this agreement or any of its rights hereunder.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands the day and year first hereinabove written.

Louis P. Gibellini (Signed)

Josephine Gibellini (Signed)

FIRST PARTIES

HOGLE BROS.

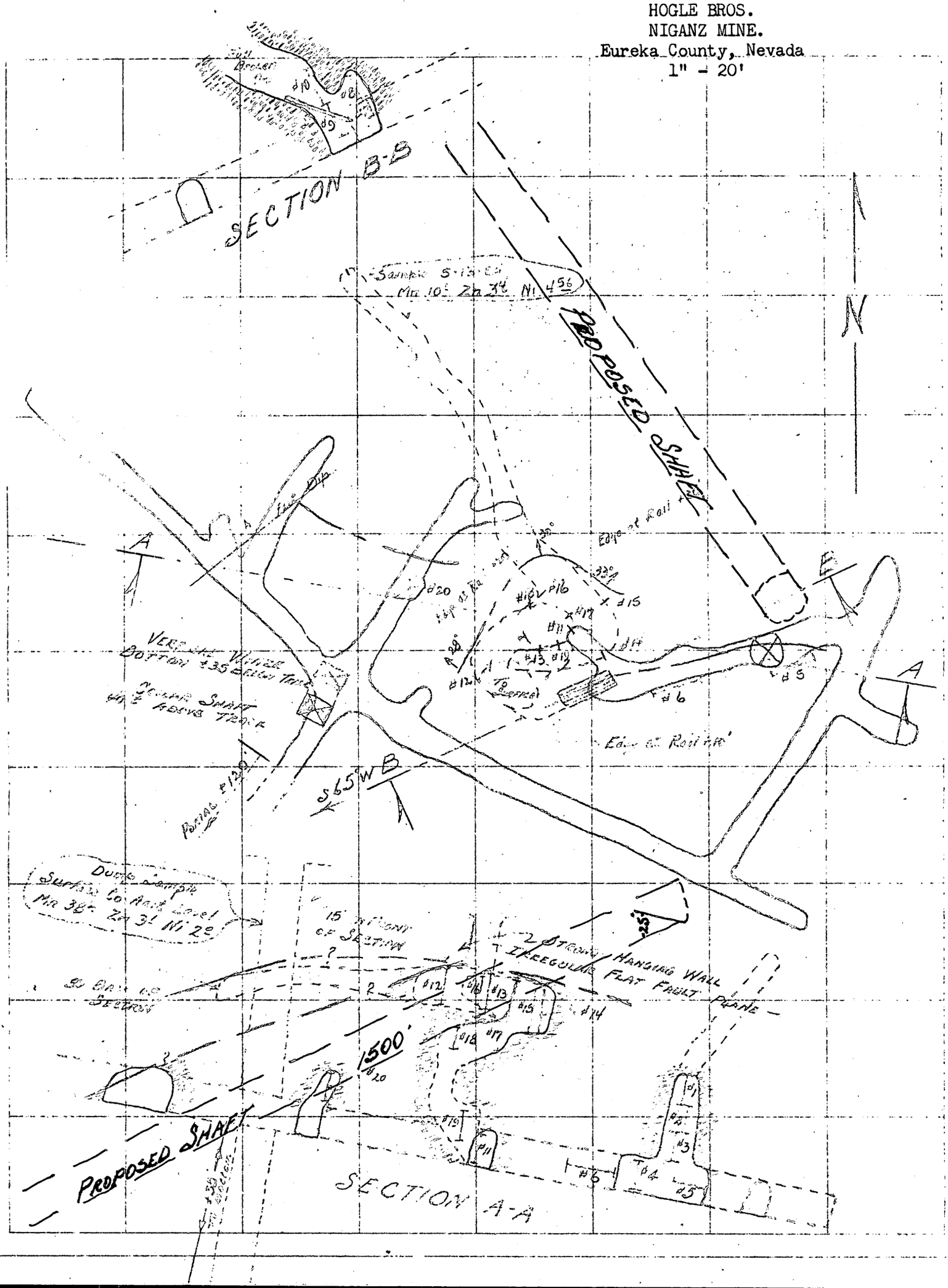
By James E. Hogle (Signed)
A general partner

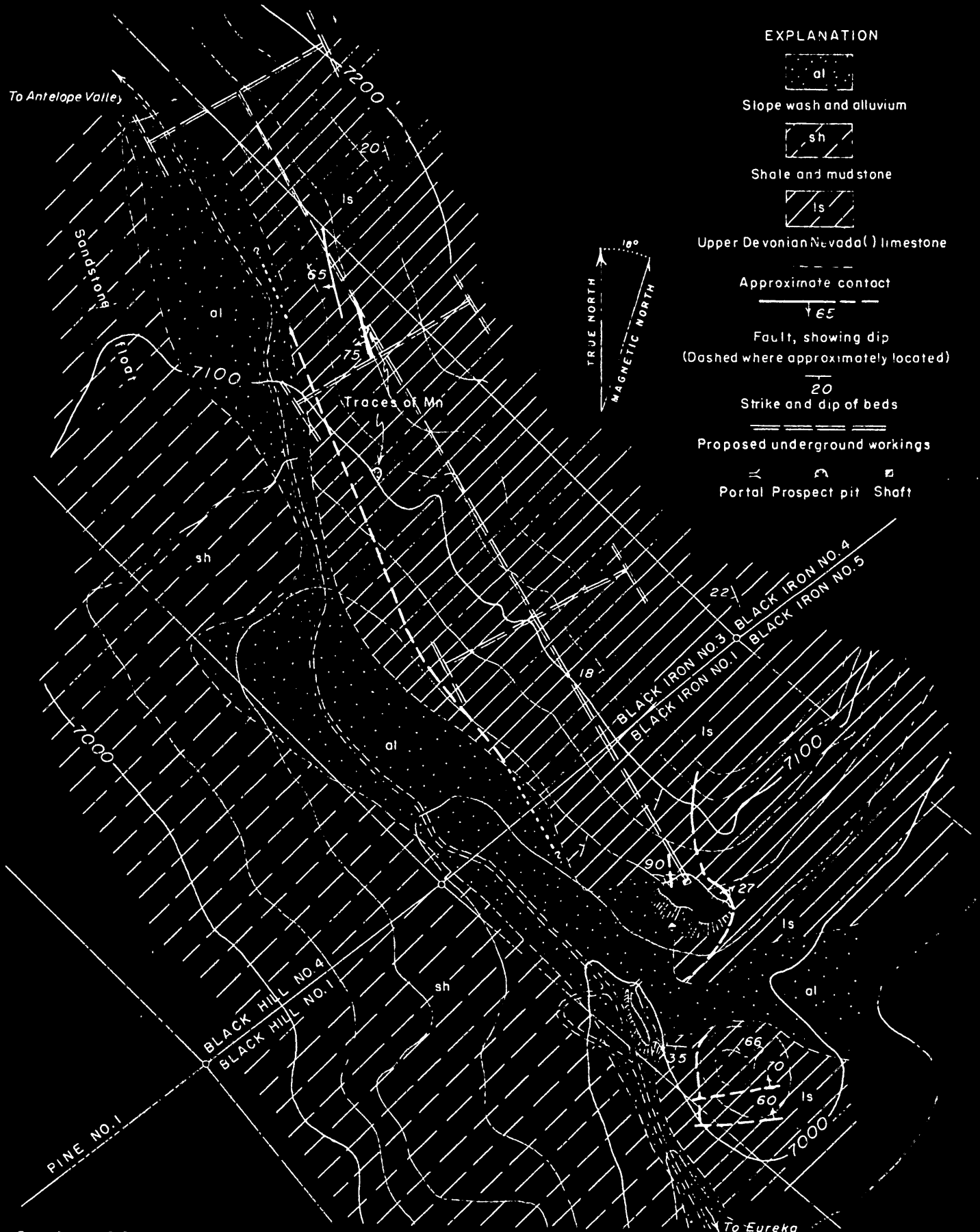
SECOND PARTY

4c.
5b.

FORM 16-G

HOGLE BROS.
NIGANZ MINE.
Eureka County, Nevada
1" - 20'



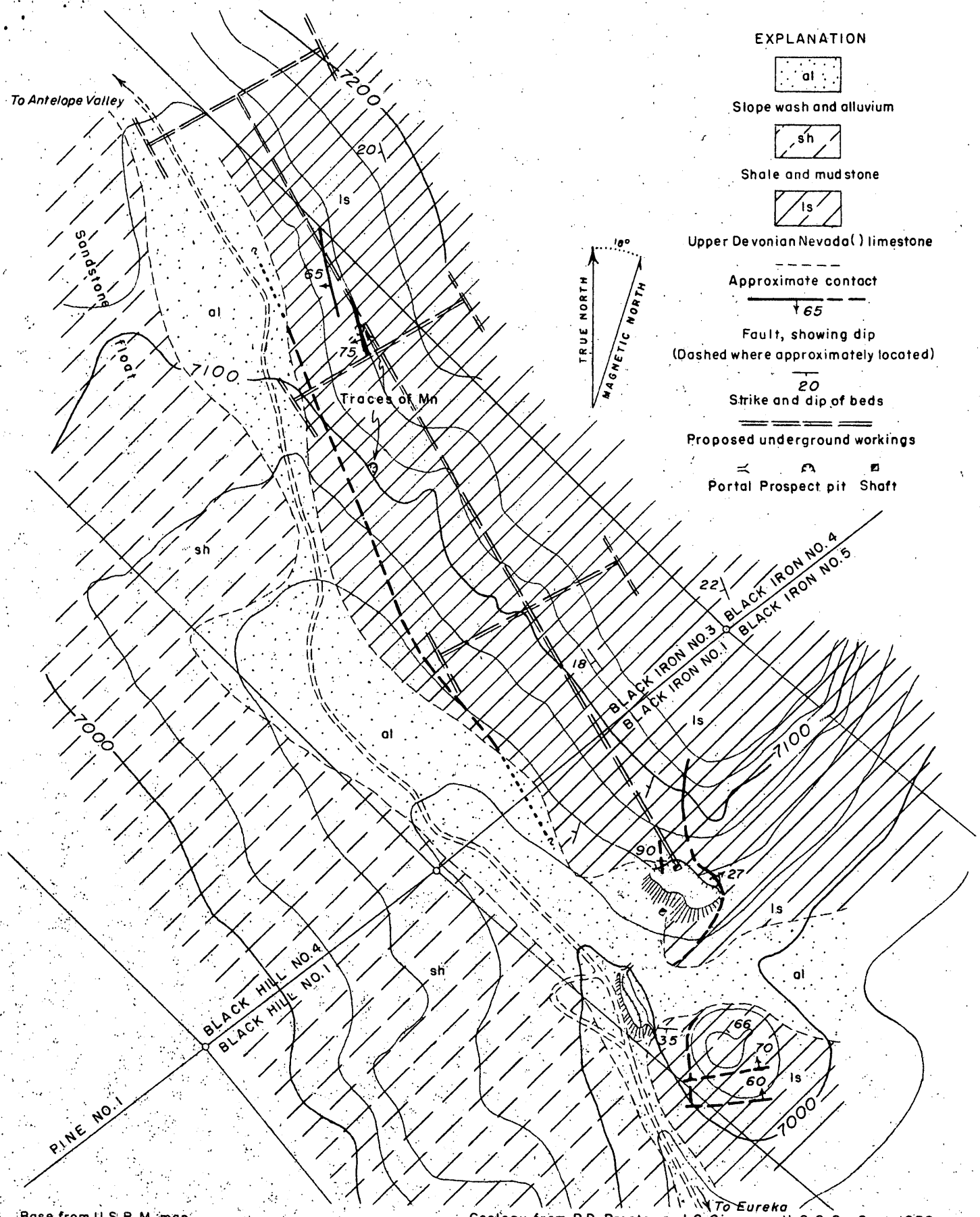



Base from U.S.B.M. map

Geology from P.D. Proctor and G. Simmons, U.S.G.S., Sept. 1952
with additions by E.H. Pampeyan, U.S.G.S., July 1954

Fig. 2. Surface map of the Niganz (Gibellini) mine, Eureka County, Nevada.

0 200 400 FEET




Base from U.S.B.M. map

Geology from P.D. Proctor and G. Simmons, U.S.G.S., Sept. 1952
with additions by E.H. Pampeyan, U.S.G.S., July 1954

Fig. 2. Surface map of the Niganz (Gibellini) mine, Eureka County, Nevada.

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

402

September 24, 1954

Memorandum

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

From: H. W. Davis, Ferrous Metals & Alloys Branch, Bureau of Mines

Subject: DMEA-3395, Niganz (Gibellini) Mine, Eureka County, Nevada. Manganese-Nickel - $190,000.

Inasmuch as the Field Team reports that economic amounts of nickel occur in the ore and as the engineer and geologist are in agreement that additional work to determine the extent of the mineralization on the property is warranted, I concur with the Field Team in recommending only the first stage for approval. If no mineralization of any importance is encountered, the contract should be terminated. However, in the event that a commercial ore body is present, before the second stage of the exploration is undertaken beneficiation tests should be made to determine whether or not the nickel and zinc can be recovered economically.

H. W. Davis

HWDAVIS:hs

Copy to: Files
Ferrous Metals
H. W. Davis

EXPLORATION PROJECT CONTRACT
NOGLE BROS., PARTNERSHIP

DOCKET NO. DMEA 3395

EXHIBIT "A"

Description of the Work

The work to be performed is indicated on the maps attached hereto and made a part hereof entitled, "Claim Map Nogle Bros. Nignon Mine, Eureka County, Nevada" and "Fig. 2, Surface map of Nignon (Gibellini) mine, Eureka County, Nevada."

Sink an inclined shaft N. 30° W., -85° a distance of 300 feet along a flat-lying structure which overlies the ore zone. The shaft shall follow the limestone hanging wall and, if necessary, shall dip vertically to follow the ore. The shaft shall be not less than 5½ feet by 7 feet in the clear of the end and wall plate timbers and shall be divided into manway and skipway compartments. The vertical component of the depth of the shaft shall not exceed 130 feet.

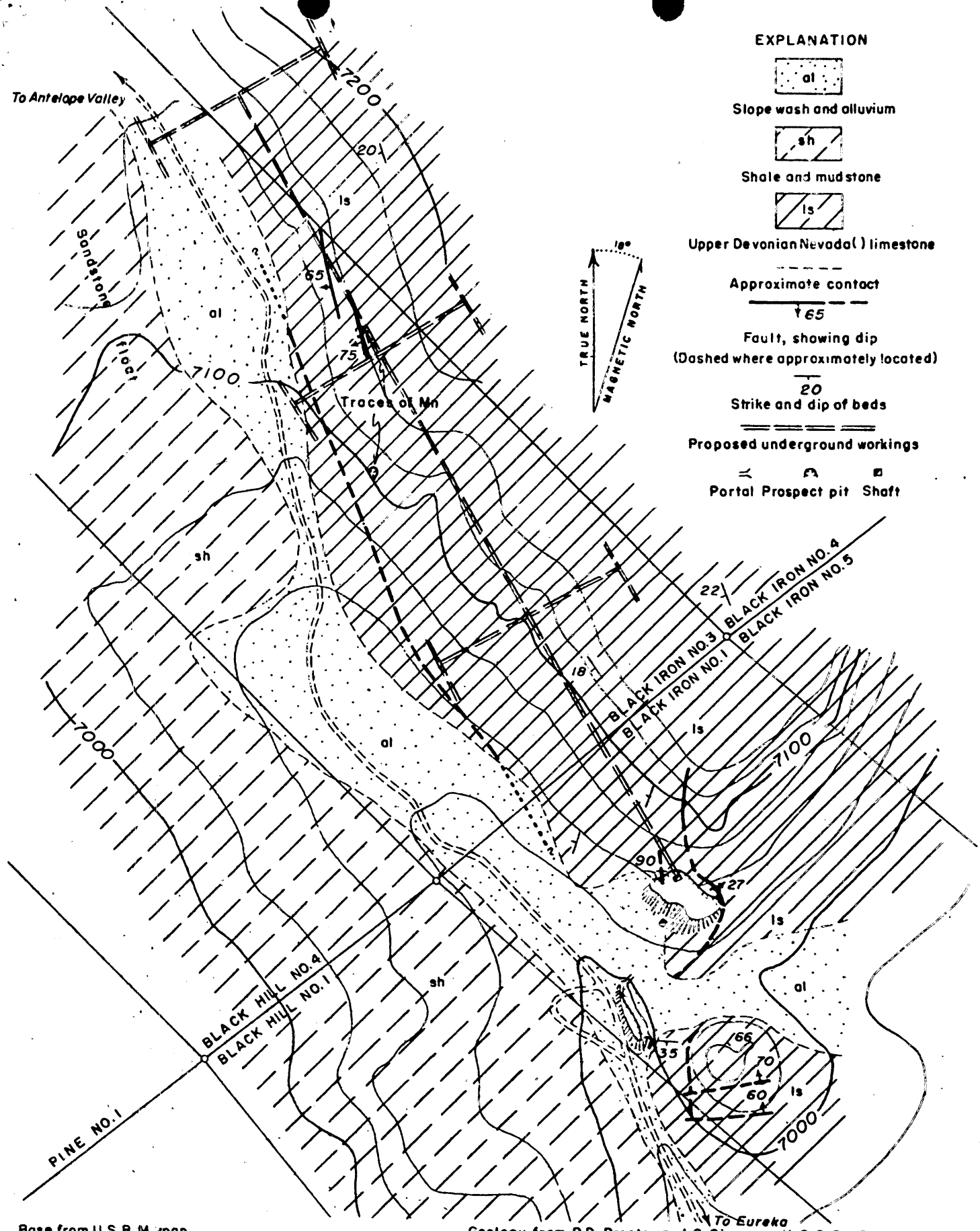
If, in the opinion of the Government, sufficient mineralization is encountered, and the Government grants prior written approval, excavate a temporary shaft station approximately 10 feet by 10 feet by 10 feet (but not to exceed 1000 cu. ft. of excavation) in mineralization, and drift 200 feet to determine if a commercial ore body is present.

The drift and shaft station shall be timbered as necessary and not less than 4 feet by 6½ feet in the clear of timber.

The location, direction, and extent of all work are subject to the approval of the Government.

If a change in dip of the shaft should require stage hoisting, a portion of drift footage may be used for the necessary offset, as approved by the Government.

Time Schedule: 0 - 180 days.




Base from U.S.B.M. map

Geology from P.D. Proctor and G. Simmons, U.S.G.S., Sept. 1952
with additions by E.H. Pampeyan, U.S.G.S., July 1954

Fig. 2. Surface map of the Niganz (Gibellini) mine, Eureka County, Nevada.

0 200 400 FEET

Docket

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

420 Custom House
555 Battery Street
San Francisco 11, Calif.

January 12, 1955

Mr. Sherman B. Hinckley
132 Main Street
Salt Lake City, Utah

Re: Docket No. DMEA-3395 - Manganese and Nickel
Hogle Bros.
Winganz Mine (Gibellini Mine)
Eureka County, Nevada
Contract No. Idm-E731

Dear Mr. Hinckley:

Reference is made to my letter of November 9, 1954, relative to above-subject docket.

We would appreciate it if you would return to this office the original and all copies of the proposed contract as suggested in my letter of that date. This request is made without prejudice to your property and is purely for administrative reasons. A rewriting rather than an amendment to the contract will now probably be necessary in case a DMEA project is desired.

Sincerely yours,

S. RICKER

S. Ricker
Executive Officer
DMEA Field Team, Region II

Copy to: DMEA, Washington, D. C.
Roscoe Smith, USGS

Copy retained 400

DOCKET
SURNAME
Rutledge
Martin
Selfridge
Feldman
Whitenday

400

JAN - 6 1955

Mr. Spengler Ricker, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Manganese
and Nickel
Hogle Bros.
Nigans mine (Gibellini mine)
Eureka County, Nevada

Dear Mr. Ricker:

Reference is made to the subject docket and our letter of November 10, 1954, which crossed in the mail with your letter of November 9, 1954, to Mr. Sherman B. Hinkley.

It would be appreciated if you would inform Mr. Hinckley that for administrative reasons we require the return of the original and all copies of the proposed contract whether it is signed or unsigned. Please explain to him that your request is made without prejudice to the property, and because rewriting rather than an amendment will now be necessary in case a DMEA project is desired.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

APPROVED:

J. H. Hedges (JHB)
Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)
Member, Geological Survey

FARutledge:foc
1-4-55
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. III
Mr. DeHuff, USBM
Mr. Kiilsgaard, USGS

R.C.S.

Docket

3395 Mojing Mine
P.S. Hoge Bros.

December 15, 1954

MEMORANDUM

To: Administrator, DMEA

From: Chief, Iron and Ferro-Alloys Division

Subject: Inspection of selected projects in Region III (November 16 - 26, 1954)

The subject trip had the following more or less related purposes:

(1) To allow an engineer from the Washington office:
   (a) To see some typical DMEA projects, and
   (b) To meet and recognize some of the every-day problems of the field engineers and geologists.

(2) To help maintain cordial relations through personal conversations:
   (a) With DMEA project operators, and
   (b) With executives and members of DMEA field teams.

(3) To allow first-hand observation of a few properties covered by new applications having such features as:
   (a) Unusual geologic occurrences, or
   (b) Exploration programs that include essential workings which could, however, also be expected to serve subsequently as mine development openings.

Four of the proposed inspections were omitted:

(1) Helmke, Thomas, and Jansson - Docket DMEA 3407, Chromium,
(2) The Brownstone Mining Co. - Docket DMEA 3455, Tungsten,
(3) Wm. L. Peterson, et al. - Docket DMEA 3478, Manganese, and
(4) Valle's Mining Syndicate - (Contract Idm-E678) Docket DMEA 3261, Nickel.

Travel plans previously made by the Field Team prevented any visit to the first property named above, but during a luncheon at the Engineers' Club in San Francisco with Messrs. Helmke, Jansson, and S. Rieker, we learned that the Owner's Consent to Lien forms required for the proposed contract had already been forwarded to Washington.

Snow and road conditions at the time prevented the second proposed inspection. The third had just been visited by Mr. Glenn G. Gentry, who will recommend only a limited amount of surface work. The fourth had been listed tentatively, but conversation with Mr. Roscoe Smith indicated that all work at the property had stopped and the operator had no desire or intention to drill any additional footage.

The time schedule for the trip is given below:

| Date Nov. | Travel | Projects visited | DMEA Docket |
|---|---|---|---|
| 16 | Washington, D. C., to San Francisco, Calif. | - | - |
| 17 | At San Francisco | Office of S. Ricker | |
| | | Office of H. C. Carlisle (Wah Chang) | 3512 |
| | | Office of George Mayer | 2686 |
| 18 | San Francisco, Calif., to Grass Valley, Calif. | Idaho-Maryland Mill, and Brunswick Mine and Mill | 3347 |
| 19 | At Reno, Nevada | Office of A. C. Johnson | - |
| 20 | Reno to Eureka, Nevada<br>Eureka to Ely, Nevada | Nigans Mine (Hogle Bros.) | 3395 |
| 21 | Ely to Mt. Wheeler, Nevada | Mt. Wheeler Mine | 2082 |
| | | Stopper Mill | - |
| 22 | Ely to Minerva Mine, Nevada<br>Minerva Mine to Castleton, Nevada<br>Castleton to Pioche, Nevada | Minerva & Silver Bell mines | 2686 |
| | | Office of P. Gemmell (M.I.A. Mining Co.) | 2686 |
| 23 | Pioche to Tem Piute, Nevada<br>Tem Piute to Glendale, Nevada | (Lincoln Mine [Wah Chang] | 3512 |
| | | (Z.Z. Mine [Larry M.Frey] | 3273 |
| 24 | Glendale to Riverside, Nev.<br>Riverside to Las Vegas, Nev.<br>Las Vegas to Salt Lake City, Utah | Kay West Mine | 3479 |
| 25 | At Salt Lake City, Utah | Office of J. D. Williams (Mt. Wheeler Mines, Inc.) | 2082 |
| | | Office of S. S. Arentz (M.I.A. Mining Co.) | 2686 |
| 26 | Salt Lake City, Utah, to Washington, D. C. | | |

The most gratifying feature of the trip was the whole-hearted cooperation of Mr. Spangler Richer and the DMEA Field Team.

My plane left Washington at noon Tuesday and arrived at San Francisco shortly after dinner that evening. On Wednesday morning, after we reviewed some correspondence which Mr. Richer had held at the San Francisco office for discussion, he accompanied me to call on Mr. Henry C. Carlisle, who shares offices at 315 Montgomery Street with Ira H. and Peter Jarolemen and Rogers Peale.

Mr. Carlisle had the necessary Wah Chang mine plans and sections and showed us ore reserve and production figures that substantiated the need for prompt and extensive exploration at the Black Rock Mine, but especially at the Lincoln Mine. There were some questions not covered at our morning meeting and we returned to conclude our conference in the afternoon.

At the Engineers' Club, as previously mentioned, Mr. Malmke talked about his project and reported that Comer's Cement to Lien forms had been obtained after some temporary difficulty. With another group at an adjoining table was Mr. W. Church Malmos, manager of Sunshine Mining Company's Exploration Division, and we took the opportunity to speak to him later, although Sunshine has now relinquished its interest in the Garnet Tungsten Mine (our docket DMEA 2620). On the way out we thanked Mr. Granville S. Morden for arranging to have not only the manager and mine engineer but also his consulting geologist present at Grass Valley during my proposed visit.

These seemingly inconsequential meetings are believed to be typical examples of the close but informal contacts that can be maintained most easily with mining company managements from an office in San Francisco. It should be recognized, however, that our Executive Officer, Region III, with a geological staff operating out of Menlo Park, California, and a mine engineering staff operating out of Reno, Nevada, faces operational difficulties that would not occur, for example, in Region II. There the same two divisions of the Field Team are within a mile or so of each other; furthermore, the Executive Officer, Region II, has his own office in one of these divisions in Spokane, Washington.

Thursday morning, as planned before my arrival, Mr. Roscoe Smith, drove me to Grass Valley. On the way, there was an excellent opportunity to discuss a number of DMEA projects and problems.

Immediately upon arrival we went underground at the Brunswick Mine of the Idaho-Maryland Co. (Docket DMEA 3347-Tungsten). With us were mine staff members: Edmond F. Lawrence, Geologist; Neil Whiting, Engineer and Mine Superintendent; Sam Veale, Mine Foreman; and the Safety Engineer.

The route was:

Down Brunswick Shaft to 800 Level;

Up and down a raise to see scheelite showings on, or dipping into footwall of stope on 19 Vein closest to the Union Hill area;

Down a raise to 900 Level;

Down and up a raise to see showings in stope on 45 Vein;

Down a raise to 1000 Level to see showing in 65 D and 12 XC (site of raise proposed on basis of sampling only, but insufficient information on dips and strikes of tungsten stringers and veinlets);

Down a raise to 1100 Level to see best showings on 44 Vein;

Return to surface.

Without asking about the mine ore reserves or costs, we were told that 3 feet of $3.00 ore is not worth stoping. One possible limitation on our proposed exploration program is the reluctance of the mine management to hoist any avoidable waste rock. By choice, waste is dumped into old stopes as fill, but few such areas are available below the 1100 Level convenient to the prospective DMEA drives. The maps available in Washington are lacking in several respects desirable for making a sound choice here of any alternative exploration workings:

(1) Geology is not shown;
(2) Development is not up to date;
(3) Stoped areas are not all shown; and
(4) Areas of caved hanging wall over old open stopes are not indicated.

The maps do not show how much minor rehabilitation would be required in such worked-out areas as might be used now for access to a project area. Pencilled "Manway Open" signs, and many other indications of an active mine safety department were in evidence. However, where raises came up on the hanging wall side, or close to the center of some drifts we walked through, the admonition was "Keep on the footwall," or "Walk on the track," because the planks laid for a walkway were obviously affected by rot. In at least one place, we walked over recently fallen ground. Some of the ladders and stulls in the manways seen, especially the wet ones, might require replacement or maintenance.

The Brunswick Mill, visited next, has a jaw crusher followed by a Traylor cone and jigs, with hutch product to Wilfley tables and overflow through Ball mills and Classifiers in closed circuit to two banks of flotation cells. The proposed new scheelite section, designed by Western Machinery Company to be cut in or out as the mill feed shifts between tungsten rich and tungsten poor ore reserve blocks, will have a conditioner followed by flotation, using a bank of cells now idle in the mill.

On our way out, we stopped at the Idaho-Maryland Mill where the experimental equipment was installed for testing purposes after May 30, 1953, when an earlier application, Docket DMEA 2783, was denied. All the mill feed for such tests had to be trucked from the Brunswick shaft. The new flexible proposal, with the milling at only one shaft, seems deservedly to have met with no question.

Mr. Rieker picked me up at Colfax, California; we drove to Reno, Nevada, and arrived shortly after dark. Friday morning we called on Mr. A. C. Johnson, Chief, at the new Reno office of the Mining Division, Region III, Bureau of Mines. Four engineers in that division who have previously worked at least part time on DMEA examinations and reports - Messrs. W. T. Benson, R. R. Trengrove, F. J. Riebelt, and G. H. Holman, Jr. - are now assigned to research or related non-DMEA work. All but Holman, who was in the field, were at the office.

The Bureau of Mines, as we were informed, has no more exploration projects in that area, although some DMEA work is now being done at or near former Bureau of Mines project sites. In such cases, if DMEA issues a certification of discovery or development, any public announcement thereof might well mention the earlier work, especially if the results of the same earlier work helped to establish our justification for exploration programs at these sites.

Messrs. H. W. Jones, B. H. Sheahan, and J. D. Warne, three of the four engineers on DMEA work, were out in the field. Mr. Glenn G. Gentry, who had returned the evening before from a 2000-mile trip, cheerfully agreed to take me in his car as far as Las Vegas, Nevada, and to introduce me to the DMEA operators whom we were to meet on the way. After our schedule had been planned to take advantage of the then open roads, and follow a route that would take us through the highest summits first, Mr. Johnson made as many of my necessary appointments as he could by telephone. The other appointments we made later from points along the route.

Leaving Reno Saturday morning, we reached Eureka at lunch time and our telephone call caught Mr. Roger K. Caywood, mine superintendent for the Eagle Bros. properties, at home at the Diamond Mine (Consolidated EAGLE Mining Co., Docket DMEA 2992-Lead-Zinc). We met at the turnoff to Route 20, east of Eureka about 10 miles on U. S. 50, and drove south to the Minnie Mine, on the Gibellini property (Docket DMEA 3305 - Nickel, Manganese). We went down the 300-foot inclined shaft which has run off into the hanging wall shaft sinker the 30-foot crosscut being driven from the shaft bottom toward the ore zone. A 4-inch stringer of what was said to be good manganese

had already been encountered in the face of the crosscut. We also went into an earlier adit driven from a portal perhaps 10 feet lower than the shaft collar and cutting a mineralized zone visible for at least 50 feet, although there was no way to determine the true width. The ore for the shipment described in the application was gophered from workings beside and below the adit. The new crosscut is being driven at a labor contract of $13.50 per foot. Three men, one on the hoist and two below, making about $24.00 each per day, and a boy whose day's pay comes out of their contract price, work on each of two shifts, breaking about 6 feet per shift with an 11-hole round which they then muck out with a machine. Carbide bits and jackhammers with an air feed are used. Augur type steel was tried, but was entirely unsuited to the work. They work 6 days per week. The operator lets them ride the power wagon to and from work or gives them 5 gallons of gas per day if they choose to drive their own cars. Giving the gas is more economical for the management.

Inasmuch as the operator has returned without execution the contract provided by DMEA, we had no official status, but we were shown all the courtesy that any visitor could expect. My only comment was that the work being done seemed eligible for exploration assistance under our program and that DMEA would be glad to consider any reasonable proposals for revising the first proposed contract. Presumably the problem of obtaining Owner's Consent to Lien influences the applicant's opinion of the relative advantages of doing the work with or without DMEA aid.

Shortly after dark we reached Ely, Nevada, and tried, without success, to make an appointment with Mr. James D. Williams to see the Mt. Wheeler Mine (Docket DMEA 20[illegible]2-Tungsten). For the record, his telephone numbers are: Office, 4[illegible] Felt Building, Salt Lake 22-0533; and home, 13[illegible] South 5th East, Apt. 310, Salt Lake [illegible]-2397.

Information reached us, however, that the mine was working that week end and on Sunday we found the foreman, Lew Yelland, and a miner threading pipe at the Pole adit portal, with two more miners in the Pole heading. In the company's jeep we drove the short distance to the North adit and inspected the work there. It was recognized that your letter of November 16, 1954, advised Mr. Williams the work accomplished to October 25, 1954, would be accepted as substantial compliance with the work required by the contract. Mr. Gentry's lamping, however, showed about 2 feet of good scheelite at one point in the west wall of the lateral. Accordingly, Mr. Yelland was told that a few rounds driven to determine whether this last ore showing has any appreciable continuity, would be allowable

work against the contract funds remaining if the operator cared to comply that much more closely with the terms of Amendment No. 4, Exhibit "A", Stage III(b) of Contract Idm-5246.

Meantime the crew in the Pole adit advance had blasted and we did not go all the way into the heading. Instead an inspection was made of the broken ore on the floor of, and ore showing in the walls and face of, the East drift and stope off No. 5 North lateral, source of the best production found by this DMEA project. The ore seemed to be pinching down into the floor as the drift advanced, and apparently sorted ore only was shipped from the workings examined. On top of the broken ore was one piece noticed to contain an unexploded dynamite cartridge from a missed hole, or perhaps from a hole loaded to the collar, as it seems to be the district custom to use no tamping material. Generally speaking, however, everything about the project is well kept up and in good order; consequently, a visitor is most likely to receive a favorable impression of the operation.

Because of snow, the jeep trail from the Pole adit portal to the lead showings on the St. Lawrence fissure was impassible; some of the turns are reportedly so tight that the jeep must be backed once or twice to get around. By taking a road that turns easterly from the north-south road that connects the Stopper Mill and the Mineral Mine, we were able to drive about 2 miles up Lawrence Canyon. Beyond that the road up the canyon rapidly became more steep and narrow and the washouts were deeper.

The Stopper Mill treats about 25 tons per day of scheelite ore from the Canary Yellow Mine. The flow sheet, includes picking belt, crusher, trommel, screens, rod mill, and two Wilfley tables. A home-made jig, or perhaps more properly a hindered settling device, for which the mill helper, Mr. Martin Lintsch, has applied for patent, followed each table and scalped a unit or one and one-half units per day of scheelite out of the slimes. The device was about the size of a shallow desk drawer and had a head motion improvised from a household washing machine. Mr. Hebert Stopper had offered to treat the Minerva ore on a toll basis, but his terms were not accepted.

On Monday we visited the Minerva Mine of the M.I.A. Mining Co. (Docket DMEA 2688-Tungsten), and saw most of the DMEA project work, accompanied by Mr. R. G. Lee, Engineer and Mine Superintendent, and Mr. Jim Mulse, Mine Foreman. The trip through the Scheelite Chief adit was made in the ore train as far as the 43-24-D raise; up that ladderless raise in the steel bucket, which holds two men; to and from each

end of three levels, each driven on the vein both ways from the raise; and then from the top of the raise and through an old stope along the Silver Bell 400 level to the Silver Bell shaft, where we were hoisted to surface. Our visit concluded with an inspection of the sorting plant where two men up-graded the product under black light by picking waste from the hummer screen oversize off a moving belt.

Mr. Gentry lamped any workings which he had not inspected previously and in at least one instance picked up, in place in the wall behind the heading, a showing of scheelite that had been assumed to be no more than a layer of fine ore thrown against barren rock. A round or two will be taken out to determine what extent the showing has.

During our inspection a timberman came to Mr. Lee and asked for 8 X 8 timbers for a chute. The answer was that there were plenty of 10 X 10's available, but only a few 8 X 8's and that these were needed at Castleton. The timberman said that 8 X 8's were heavy enough for the job, but that if he could not get them he would use 10 X 10's. This seems to be characteristic of the project. The operator is doing an excellent mine development job while successfully completing our exploration project.

The operator is incurring non-reimbursable costs in two ways. Certain raise work, for an example of the first such way, is frankly recognized as stope preparation and is not charged to the DMEA project, nor will any request be made for inclusion of such work in our project. Other project work, for an example of the second way, is being completed either on a scale or with a permanence that is not necessary so far as the exploration program itself is concerned. Inasmuch as the allowable costs in the contract were not set up to include any work not directly required for exploration alone, the operator's share of the total cost in such instances is more than 25 percent of the actual cost.

That evening after driving to Bisbee, we called at the Combined Metals Reduction Company office at Castleton and talked to Mr. Paul Gemmill and Mr. R. G. Lee about the proposed amended contract and further proposed amendments to the R.I.A. contract. The conversation was far from a success, and proved clearly that the longer a misunderstanding about a contract is allowed to go uncorrected the more awkward can be the results. Mr. Frank Anderson, the accountant, was not available for the meeting.

On Tuesday we drove to Tempiute to inspect the project north of the Lincoln Mine covered by the application of Wah Chang Mining Company, Docket DMEA 3512-Tungsten. Neither Mr. J. J. Stutzel, Jr. (whose phone number is 6911, Bishop, California) nor Mr. George Reed were present, but we discussed the proposed project with Mr. C. M. Dise, Executive Vice President, Mr. Robert Kirthman, Mine Superintendent, and the company's geologist, Mr. Armand R. Santoire. After reviewing the geologic surface plan, we visited the adit, which had then been driven about 80 feet from the portal. A relatively short tunnel, with one end about 50 feet from the adit portal, will have its other end about 40 feet above and 50 feet from the mill.

Subsequently an inspection of the open cut at the outcrop of the Lincoln showed that a typical plan of the ore body can be seen in the pit floor, while a typical cross section is exposed in the south end of the pit and the steep hillside below the north end. Topographic considerations limit stringently the choice of a center line for the adit. The best line for minimum length with adequate backs and closeness to the projected position of the potential ore zones northeast and northwest of the Lincoln, is also almost inevitably the best line for a haulage adit from the Lincoln to the existing mill.

An inspection of the Y. Z. Mining Company project (Docket DMEA 3273-Tungsten) indicates strongly that the Lincoln mineralization is persistent toward the south and could well be expected because of its intensity to persist toward the northeast or northwest, or both. Finding water for a mill could easily become a greater problem to Mr. Lory M. Free than finding more tungsten ore, but he told us he is interested in doing further exploration work to determine whether the vertical continuity of the ore is on any such scale as the horizontal extent. His workings are at a higher elevation than the active part of the Lincoln and his additional exploration would have a good probability of success.

That afternoon we drove to Glendale and on Wednesday morning went to Riverside, where we met Mr. A. F. Carper and accompanied him to the Key West Mine of Key West Nickel & Copper Corporation (Docket No. DMEA 3479-Nickel). The regular DMEA field examination had already been completed, with the report in preparation, and we, therefore, made our inspection brief. The general information obtained will be useful to us in Washington when the Field Team's recommendations are received here.

Wednesday afternoon we reached Las Vegas. Mr. Gentry expected by hard driving all the next day to be back in Reno in time for his Thanksgiving dinner. Thanks to a cancellation, there was a seat for me on an evening plane that reached Salt Lake City, Utah, at midnight.

Mr. James D. Williams of Mt. Wheeler Tungsten Mines came down to his office to meet me Thursday morning, and we discussed what had been seen at his DMEA project and what had been said to his foreman there, as mentioned above. He then arranged in the illuminated viewer a few pairs of air photos, selected from the many made of the same claims by Mr. F. A. Laylander, to show especially the upper part of Lawrence Canyon.

The offices of Combined Metals Reduction Company are also in the Felt Building and Mr. Sam S. Arentz (whose home address is 1850 Orchard Drive, Salt Lake City, telephone 87-3197) came in to talk about the proposed amended M.I.A. Mining Company's contract. We had already discussed the matter at some length by telephone from the above-mentioned meeting at Castleton, and he had talked afterwards to Mr. Gemmill and to our Washington office. Our meeting was short and amicable. The final understanding was that a further amendment, allowing a unit cost as requested, would be considered here after the proposed amended contract was executed.

Many flights had been cancelled because of the holiday, but a 2:00 a.m. plane brought me back to Washington just before lunch time Friday.

Generally speaking, no one should count on being able to duplicate the foregoing trip in the same amount of time at this season of the year. Any rough weather at all could have delayed us or made road conditions difficult during the 1200 miles of automobile travel. No amount of good weather would have helped much had the Field Team not been so thoroughly cooperative. Finally, it seems appropriate to express my great satisfaction at having had the pleasant personal associations which were incidental to the official purposes of the trip.

400

DOCKET
SURNAME

Rutledge
Martin
Selfridge
Whitenday

NOV 1 0 1954

Mr. Spangler Richer, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Manganese and Nickel
Eagle Rock.
Bigness mine (Gibellini mine)
Ravalli County, Nevada

Dear Mr. Richer:

Reference is made to Mr. Sherman R. Hinckley's letter of November 3, 1954, to Mr. Miller, Executive Officer, DMEA Field Team, Region III, requesting permission to hold up the proposed contract pending completion of exploration now in progress.

In case you have not already done so, please advise Mr. Hinckley that the original and all copies of the proposed contract, if not executed, are to be returned to your office for transmittal to Washington. The contract will be held in Washington for a reasonable period in order that the applicant may file an amended request for exploration assistance.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee GCS

APPROVED:

J. H. Hedges
Member, Bureau of Mines (SHB)

E. L. Newcomb
Member, Geological Survey (SHB)

FARutledge:fcc
11-10-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
FT. REG. III
Mr. DeHuff, USBM
Mr. Kiilsgaard, USGS

R.C.L.

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

Docket
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
NOV 12 1954

420 Custom House
555 Battery Street
San Francisco 11, California

November 9, 1954

Mr. Sherman B. Hinckley
132 Main Street
Salt Lake City, Utah

WSM

RE: Docket No. DMEA-3395 (Manganese-Nickel)
Hogle Bros.
Niganz Mine (Gibellini Mine)
Eureka County, Nevada
Contract No. Idm-E731

Dear Mr. Hinckley:

Reference is made to your letter of November 3, 1954 relative to above subject docket.

We note that you would prefer doing some more work on your own account before signing the proposed contract. This arrangement meets with our approval but, in the meantime, we would suggest that you return to us the original and five copies of the proposed contract.

After you have concluded your proposed work on your own account it may be that it would be better to consider a new contract based on geological results of your exploration. In any case, it would probably be desirable for our engineers to re-examine the property before remodeling the contract.

Sincerely yours,

S. RICKER
S. Ricker
Executive Officer
DMEA Field Team, Region III

Copy to: DMEA-Washington
R. M. Smith-USGS

400

132 Main Street
Salt Lake City, Utah
November 3, 1954

3395

Mr. H. C. Miller
Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

WSM

Dear Mr. Miller:

We wish to acknowledge the receipt of the original and the five copies of the proposed contract you submitted to us along with your letter of October 25.

At the present time the shaft we are sinking at the Niganz is down approximately 300 feet with an average inclination of 26°. This shaft appears to be over the top of the main mineralized zone, though there are numerous fissures with some manganese filling cutting up through the shaft.

Since we have not been able to persuade Mr. Gibellini to sign the Owner's Consent to Liens, we would prefer to do some more work on our own account in order to check the trend of the main mineralization before we sign your contract. We plan on cutting the station and doing several hundred feet of drifting at the level we are now on to check this mineralization. If this work discloses sufficiently good possibilities of the ore going down, then we would consider renewing the sinking. If it is agreeable with you, we would prefer holding the government contract until the completion of this work; and at the time of completion, we would then sign the contract or seek an amendment to said contract for government participation. If this arrangement does not meet with your approval, we would appreciate any suggestions you might have.

Sincerely yours,

HOGLE BROTHERS

Sherman B. Hinckley

Sherman B. Hinckley

SBH:es

cc: W. S. Martin

CLAIM MAP
HOGLE BROS. NIGANZ MINE
EUREKA COUNTY, NEVADA
SCALE 1" = 400'
CONTOUR INTERVAL 25'
N
PROPOSED SHAFT
BLACK HILL No 3
BLACK HILL No 2
PIKE No 3
PIKE No 2
PIKE No 1
BLACK HILL No 4
BLACK IRON No 4
BLACK IRON No 3
BLACK IRON No 5
FLAT No 5
FLAT No 2
BLACK HILL No 9
BLACK HILL No 7
BLACK HILL No 6
RATTLER No 1
RATTLER No 2
RATTLER

400

DOCKET
Surname:
Rutledge
Martin
Newcomb
Chandler
Selfridge
Kjhmann

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Manganese and Nickel
Hogle Bros.
Niganz mine (Gibellini mine)
Eureka County, Nevada

Dear Mr. Miller:

Enclosed are the original and five copies of a proposed contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Exhibit "A" (2 pages), two maps, and Annex I (1 page).

If the terms and conditions of this proposed contract are satisfactory to you and the Operator, all six copies should be signed and the usual distribution made, subject to the attachment of Owner's Consent to Lien executed by Louis P. Gibellini and Josephine Gibellini.

If any part of this proposed contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, the original and all copies of the proposed contract are to be returned to this office, together with the proposed changes for consideration.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (SHB)

Enclosures

APPROVED:

J. H. Hedges
Member, Bureau of Mines (SHB)

Thor H. Kiilsgaard
Member, Geological Survey

cc: DOCKET
FT, REG. III
CODE 400
OPER. COMMITTEE
ADM. READ. FILE
G. DeHuff, USBM
THOR KIILSGAARD, USGS

FARutledge/ls 10/15/54

Accordingly, the Operator may wish to sign all six copies of the proposed contract and have the usual distribution made; or else the original and all copies should be returned to this office, together with any other changes suggested either by you or the Operator for our consideration.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JHB)

Enclosure

Approved:

J. H. Hedges (JHB)

Member, Bureau of Mines

Thor H. Kiilsgaard (JHB)

Member, Geological Survey

cc: DOCKET
CODE 400
FIELD TEAM, REG. III
ADM. READ. FILE
OPER. COMMITTEE
G. DeHUFF, USBM
THOR KIILSGAARD, USGS

WSMartin/ls
10-20-54

DOCKET
SURNAME:
Martin
Chandler
Selfridge
Kylman

OCT 20 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Custom House
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395-Manganese and Nickel
Hogle Bros.
Niganz mine ( Gibellini mine)
Eureka County, Nevada

Dear Mr. Miller:

Enclosed are the original and five copies of a proposed contract for an exploration program at the above-referenced property, signed by the Administrator for the Government, together with Exhibit "A" (2 pages), two maps, and Annex I (1 page).

Mr. Sherman B. Hinckley telephoned on October 18 to our Iron and Ferro Alloys Division and discussed his difficulties in obtaining an Owner's Consent to Lien from Louis P. Gibellini and Josephine Gibellini. It was suggested that he might care to submit a guaranty which would, of course, have to be substantiated by the usual financial information. However, the contract form contains a guaranty so that if we should possibly decide to waive the requirement for an Owner's Consent to Lien, no further guaranty would be needed.

In the same conversation we were informed that the shaft has already been sunk nearly 300 feet. If so much work has already been accomplished by the Operator at his own expense, and provided the mineralization at the shaft bottom is no less encouraging than the mineralization at the shaft collar, we would give immediate consideration to an amendment allowing sinking of 300 feet of shaft beyond the footage already completed at the date of execution of the contract.

Sinking would be followed by drifting to test the lateral extent of the ore at depth. Metallurgical testing following such drifting would be a prerequisite to any further amendments that allowed more funds for deeper work.

DMEA-Washington, D.C.

Docket

OCT 29 1954

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

420 Custom House
555 Battery Street
San Francisco 11, California

October 25, 1954

WSM

Hogle Bros.
132 South Main
Salt Lake City, Utah

RE: Docket No. DMEA-3395 (Manganese)(Nickel)
Hogle Bros.
Niganz Mine (Gibellini Mine)
Eureka County, Nevada
Contract No. Idm-2731

Gentlemen:

Enclosed are the original and five copies of a proposed contract for an exploration program at the above-mentioned property, signed by the Administrator for the Government, together with Exhibit "A" (2 pages), two maps and Annex 1 (1 page).

The Owner's Consent to Lien form from Louis P. Gibellini and Josephine Gibellini is not attached to the contract though the contract states that it is. It is my understanding that Mr. Sherman B. Hinckley telephoned the Washington Office on October 18, 1954, at which time it was suggested that he might wish to submit a guaranty substantiated by the usual financial information in lieu of Owner's Consent to Liens. However, the contract form contains a guaranty so that if the Administrator should decide possibly to waive the requirements for an Owner's Consent to Lien, no further guaranty would be needed.

In that same conversation with the Washington Office, it was understood that the shaft already has been sunk nearly 300 feet. If such work already has been accomplished by you at your own expense, and provided the mineralization at the bottom of the shaft is no less encouraging than the mineralization at the collar of the shaft, our Washington Office will give immediate consideration to an amendment allowing sinking of 300 feet of shaft beyond the footage already completed at the date of execution of the contract.

Sinking would be followed by drifting to test the lateral extent of the ore at depth. Metallurgical testing following such drifting would be a prerequisite to any further amendments that allowed more funds for deeper work.

With the above in mind you may wish to sign the six copies of the proposed contract. If you sign the copies, you may keep the copy marked "Operator's Copy" for your files. The original and other four copies should be returned to this office. If you do not wish to sign the proposed contract, the original and all copies should be returned to this office together with any changes which you might wish us to consider.

Sincerely yours,

H. C. MILLER

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

Enclosures

Copy to: DMEA--Washington, D.C.
A. C. Johnson--Reno
R. M. Smith--USGS

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

October 13, 1954

Memorandum

To: The Administrator, DMEA
Attention: Mr. W. S. Martin

WSM

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA 3395, Hogle Bros., Manganese-Nickel

Attached hereto is a contract covering the above-described project in satisfactory legal form for execution, subject to the attachment of Owner's Consent to Lien executed by Louis P. Gibellini and Josephine Gibellini.

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachments 8

Rubin

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF THE SOLICITOR
WASHINGTON 25, D. C.

October 13, 1954

Memorandum

To: The Administrator, DMEA
Attention: Mr. W. S. Martin

From: Acting Assistant Solicitor, Defense Minerals

Subject: Docket No. DMEA 3395, Hogle Bros., Manganese-Nickel

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J. L. Hofflund

J. L. Hofflund
Acting Assistant Solicitor
Defense Minerals

Attachments 8

Copy to: DMEA Docket ✓
Solicitor's Docket
W. S. Martin (2)
H. C. Rubin
J. L. Hofflund
chron.

HCRubin:bbh
10/13/54

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

# WESTERN UNION

W. P. MARSHALL, PRESIDENT

FX-1201

1954 SEP 24 PM 1 34

Docket

| SYMBOLS |
|---|
| DL=Day Letter |
| NL=Night Letter |
| LT=Int'l Letter Telegram |
| VLT=Int'l Victory Ltr. |

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

WP033 RX PD=WUX SALTLAKECITY UTAH 24 1035AMM=

C O MITTENDORF=

DEFENSE MINERALS EXPLORATION ADMN DEPT OF INTERIOR=

HAVE NOT RECEIVED INFORMATION REGARDING STATUS DOCKET NO DMEA 3395 MUST SET UP WINTER PROGRAM VERY SOON WOULD APPRECIATE YOUR ADVISING US OF PROGRESS OF THIS APPLICATION REGARDS=

JAMES E HOGLE=

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1954

DMEA 3395=

no other [illegible] has been [illegible] letter [illegible] of [illegible] since [illegible]

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

Docket

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

September 24, 1954

Memorandum

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

From: H. W. Davis, Ferrous Metals & Alloys Branch, Bureau of Mines

Subject: DMEA-3395, Niganz (Gibellini) Mine, Eureka County, Nevada. Manganese-Nickel - $190,000.

Inasmuch as the Field Team reports that economic amounts of nickel occur in the ore and as the engineer and geologist are in agreement that additional work to determine the extent of the mineralization on the property is warranted, I concur with the Field Team in recommending only the first stage for approval. If no mineralization of any importance is encountered, the contract should be terminated. However, in the event that a commercial ore body is present, before the second stage of the exploration is undertaken beneficiation tests should be made to determine whether or not the nickel and zinc can be recovered economically.

H. W. Davis

H. W. Davis

Copy retained 203

COPY

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

September 24, 1954

Memorandum

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

From: H. W. Davis, Ferrous Metals & Alloys Branch, Bureau of Mines

Subject: DMEA-3395, Niganz (Gibellini) Mine, Eureka County, Nevada. Manganese-Nickel - $190,000.

Inasmuch as the Field Team reports that economic amounts of nickel occur in the ore and as the engineer and geologist are in agreement that additional work to determine the extent of the mineralization on the property is warranted, I concur with the Field Team in recommending only the first stage for approval. If no mineralization of any importance is encountered, the contract should be terminated. However, in the event that a commercial ore body is present, before the second stage of the exploration is undertaken beneficiation tests should be made to determine whether or not the nickel and zinc can be recovered economically.

Signed: H. W. DAVIS

H. W. Davis

400

Docket
Surname
Rutledge
Martin
Johnson

SEP 27 1954

Hogle Bros.
132 South Main
Salt Lake City, Utah

Re: Docket No. DMEA 3395 - Manganese
and Nickel
Niganz mine (Gibellini mine)
Eureka County, Nevada

Gentlemen:

Reference is made to your application for exploration assistance under the subject docket.

Six Owner's Consent to Lien forms covering all of the claims set forth in the "Lease and Option to Purchase" agreement between Louis P. Gibellini and Josephine Gibellini and Hogle Bros. are required to process the referenced application. MF-203 forms are enclosed.

Further processing of the above-docketed application, therefore, will be held in abeyance until the executed Owner's Consent to Lien is received.

Sincerely yours,

SIGNED

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Enclosure

FARUTLEDGE:FOC
9-24-54
cc to: Docket
Code 400
Adm. Reading File
Mr. DeHuff, USBM
Mr. Kiilsgaard, USGS

400

Docket
Surname
Rutledge
Martin

September 24, 1954

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Exploration Project Contract
Docket No. DMEA 3395 - Manganese, Nickel
Hogle Bros. - Partnership
Niganz mine (Gibellini mine)
Eureka County, Nevada

Transmitted herewith are the photostatic copies of the two maps referred to in our memorandum of September 16, 1954.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

FARUTLEDGE:foc
9-24-54
cc to: Docket
Code 400
Adm. Reading File

400

DOCKET
Surname:
Martin

September 16, 1954

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Chief, Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Exploration Project Contract
Docket No. DMEA 3395, Manganese-Nickel
Hogle Bros. - Partnership
Nigang Mine (Gibellini Mine)
Eureka County, Nevada

Transmitted herewith is a rough draft of a proposed contract for your use in preparing the final draft.

Photostatic copies are being made of the two maps referred to in the proposed contract and will be forwarded to you as soon as received.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachments

CC: DOCKET
ADM. READ. FILE
CODE 400

ls 9/20/54

MF-200A
(Revised June 1954)

Note
2 mos

Docket No. DMEA 3395

Commodity Manganese-Nickel

Contract No. Idm-E

# UNITED STATES OF AMERICA
# DEPARTMENT OF THE INTERIOR
## DEFENSE MINERALS EXPLORATION ADMINISTRATION
## EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] ~~Hogle Bros., 132 So. Main, Salt Lake City, Utah - Partnership~~ James E. Hogle, George H. Hogle, and Sherman B. Hinckley, a partnership ~~All of 132 So. Main, Salt Lake City, Utah~~ d/b/a Hogle Bros., whose mailing address is ....., hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and ~~Owner's Consent to Lien, Annex II~~

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Nevada, County of Eureka, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee-optionee of [5] ~~Exclusive~~ mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] Lease ~~or~~ Option ~~to~~ agreement, [7] unrecorded in Book ....., page ....., official records of said County; and ~~purchase~~

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Owner's Consent to Lien

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Manganese and Nickel. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before 8 months from date of contract (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $ 27,570.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $ 20,677.50 : *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

.....
(Operator)

By .....

By .....

.....

---

I, ....., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[ CORPORATE SEAL ]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

EXPLORATION PROJECT CONTRACT
HOGLE BROS., PARTNERSHIP

DOCKET NO. DMEA 3395

EXHIBIT "A"

Description of the Work

The work ~~is~~ to be done ~~in six stages and~~ is indicated on the maps attached hereto and made a part hereof entitled, "Claim Map Hogle Bros. Niganz Mine, Eureka County, Nevada" and "Fig. 2, Surface Map of Niganz (Gibellini) mine, Eureka County, Nevada."

All drifts shall be not less than 4 feet by 6½ feet in the clear and timbered where necessary. ~~The aggregate~~ footage of drifts shall not exceed 1000 feet.

The work in each succeeding stage shall not begin before the completion of the work under the preceding stage and then only upon written approval of the Government.

The shaft shall be not less than 6½feet by 7 feet in the clear of the end and wall plate timbers and divided into a manway and a skipway compartment. The ~~total~~ vertical component of the depth of the shaft shall not exceed ~~1500~~ 1500 feet.

The shaft shall follow the limestone hanging wall and dip vertically, if necessary, to follow the ore.

The shaft station~~s~~ shall be approximately 10 feet by 10 feet by 10 feet in size and timbered if necessary.

The location, direction, and extent of all work are subject to the approval of the Government.

If a change in dip of the shaft should require stage hoisting, a portion of drift footage may be used for the necessary offset.

All drill holes shall be not less than EX in size.

The Operator shall provide a room for sampling cores and suitable core boxes for storing the cores obtained from drilling.

Actual location, order of drilling, inclination and depth of each hole shall be subject to approval by the Government, but the aggregate footage of drilling shall not be in excess of the total footage specified in Stage VI.

The project consists of the following:

STAGE I

Time Schedule: 0 - 180 days

Sink a 7-foot by 6½-foot inclined shaft N. 30° W., -25°, 300 feet along a flat-lying structure which overlies ore zone.

If no mineralization of any importance is encountered, contract will terminate; if sufficient mineralization is encountered, excavate temporary shaft station approximately 10 feet by 10 feet by 10 feet (1000 cu. ft.) in mineralization and drift 200 feet to determine if a commercial ore body is present.

If no commercial ore body is present, contract will be terminated.

STAGE II

Time Schedule: 180 - 360 days

Same as Stage I.

STAGE III

Time Schedule: 360 - 540 days

Same as Stage I

STAGE IV

Time Schedule: 540 - 720 days

Same as Stage I

STAGE V

Time Schedule: 720 - 900 days

Same as Stage I.

STAGE VI

Time Schedule: 900 - 1080 days

At points on 1500-foot level approved by the Government, drill diamond drill holes for an aggregate depth of not more than 2000 feet.

Estimated Costs of the Project

Agreed Unit Costs

STAGE I

| | |
|---|---|
| Sink shaft 300 feet @ $64.40/ft. | $19,320.00 |
| Excavate temporary shaft station approximately 10' x 10' x 10'; 1000 cu. ft. @ $1.00/cu. ft. | 1,000.00 |
| Drift 200 feet @ $36.25/ft. | 7,250.00 |
| Total Stage I | $27,570.00 |

STAGE II

| | |
|---|---|
| Same as Stage I | |
| Total Stage II | $27,570.00 |

## STAGE III

| | | |
|---|---|---|
| Same as Stage I | | |
| | Total Stage III | $27,570.00 |

## STAGE IV

| | | |
|---|---|---|
| Same as Stage I | | |
| | Total Stage IV | $27,570.00 |

## STAGE V

| | | |
|---|---|---|
| Same as Stage I | | |
| | Total Stage V | $27,570.00 |

## STAGE VI

| | | |
|---|---|---|
| Drill 2000 feet D.C. holes @ $6.00 (Includes all costs incident to drilling) | $12,000.00 | |
| Total Agreed Unit Costs | $149,850.00 | $27,570.00 |
| Government participation @ 75% | $112,387.50 | $20,677.50 |

EXPLORATION PROJECT CONTRACT
HOGLE BROS., PARTNERSHIP

DOCKET NO. DMEA 3395

EXHIBIT "A"

Description of the Work

The work to be ~~done~~ performed is indicated on the maps attached hereto and made a part hereof entitled, "Claim Map Hogle Bros. Niganz Mine, Eureka County, Nevada" and "Fig. 2, Surface Map of Niganz (Gibellini) mine, Eureka County, Nevada."

Insert from next page

~~All~~ The drifts and shaft station headings shall be not less than 4 feet by 6½ feet in the clear ~~and~~ of timber~~ed where necessary~~.

The shaft shall be not less than 6½ feet by 7 feet in the clear of the end and wall plate timbers and shall be divided into ~~a~~ manway and ~~a~~ skipway compartments. The vertical component of the ~~depth of the~~ shaft shall not exceed 130 feet.

~~The shaft shall follow the limestone hanging wall and dip vertically, if necessary, to follow the ore.~~

~~The shaft station shall be approximately 10 feet by 10 feet by 10 feet in size and timbered if necessary.~~

The location, direction, and extent of all work are subject to the approval of the Government.

If a change in dip of the shaft should require stage hoisting, a portion of drift footage may be used for the necessary offset, if approved by the Govt.

Time Schedule: 0 - 180 days.

The shaft will follow the limestone horizon, the ore wall and the shaft will follow the ore zone.

Sink a 7-foot by $6\frac{1}{2}$-foot inclined shaft N. 30° W., -25°, a distance of 300 feet along a flat-lying structure which overlies the ore zone.

~~If no mineralization of any importance is encountered, contract will terminate.~~ No further work shall be performed. If sufficient mineralization is encountered, (in the opinion of the Govt.) excavate a temporary shaft station approximately 10 feet by 10 feet by 10 feet (1000 cu. ft. but not to exceed 1000 cu. ft. of excavation) in mineralization (and the Govt. grants prior written approval) and drift 200 feet to determine if a commercial ore body is present.

Estimated Costs of the Project

~~Agreed~~ Filed Unit Costs

| | |
|---|---|
| Sink shaft 300 feet @ $64.40/ft. | $19,320.00 |
| Excavate temporary shaft station ~~approximately 10' x 10' x 10';~~ 1000 cu. ft. @ $1.00/cu. ft. | 1,000.00 |
| Drift 200 feet @ $36.25/ft. | 7,250.00 |
| ~~Total~~ Estimated total cost of project | $27,570.00 |
| ~~Total Agreed Unit Costs~~ | ~~$27,570.00~~ |
| Government participation @ 75% | $20,677.50 |

EXPLORATION PROJECT CONTRACT
HOGLE BROS.
DOCKET NO. DMEA 3395

ANNEX I

The following ~~mining property was leased to Hogle~~ unpatented mining claims held by Gibellini

~~Bros. by~~ Louis P. Gibellini and Joseph Gibellini ~~in an instrument~~ under a lease-option agreement with Hogle dated May 6, 1954, ~~and~~ is the land referred to in Article 2 of the contract form, ~~and in Annex II,~~ and is recorded with County Recorder, Eureka County, as follows:

| | Mining Location Records - Book | Page |
|---|---|---|
| Black Hill No. 1 | I | 258 |
| " " " 2 | I | 352 |
| " " " 4 | I | 270 |
| " " " 7 | I | 271 |
| " " " 9 | I | 272 |
| space Black Iron No. 1 | I | 252 |
| " " " 3 | I | 252 |
| " " " 4 | I | 269 |
| " " " 5 | I | 270 |
| space Flat No. 1 | I | 259 |
| " " 2 | I | 259 |
| space Manganese No. 1 | I | 254 |
| " " 2 | I | 254 |
| " " 3 | I | 353 |

The land is shown on the claim map attached to Exhibit "A."

Docket

IN REPLY REFER TO:

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

September 20, 1954

Re: DMEA-3395
Niganz (Gibellini) Mine
Eureka County, Nevada
$190,100 - Manganese-Nickel

Memorandum

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

From: E. L. Newcomb, U. S. Geological Survey

WSM

Subject: Review of Field Team Report

The operator proposes to sink an inclined shaft 1,500 feet, to crosscut and drift a total of 2,000 feet at 500, 1000 and 1500 foot levels, and then diamond drill 2,000 feet of hole from the 1500 level.

The Field Team has recommended a six (6) stage program for approval. A program with this number of stages is not reasonable, and is not considered to be adequately justified in their report. By their own statement at the bottom of page 2 -- "the present ore exposures are considered sufficient to justify stage 1", the Field Team is actually recommending only the first stage for approval.

In 1953, two shipments of ore were made from this property. In August, 95.4 tons of 31.65 percent manganese ore was shipped to the Combined Metals' Castleton mill, but was not milled. The second shipment was made in September to the Wenden, Arizona purchasing depot, but was rejected because of high copper content. About 45.9 tons containing 36.05 percent manganese was reported for this shipment. Inasmuch as these hand sorted ores were apparently unacceptable and were typical of the mine-run material, there is some question as to whether further exploration is warranted. Copper is not reported by the Field Team to be present in the ore, however, it was a penalizing factor on at least one shipment. If we are dealing with a "problem" ore of limited tonnage which will require extensive metallurgical testing, we may not be justified in exploring this property.

Measured ore reserves have been estimated by the Field Team to be 20,000 tons where the vertical shaft is in ore for 70 feet. Indicated ore may be 5,000 tons and inferred reserves possibly several tens of thousands of tons. If we use 9.53 percent manganese, 1.22 percent nickel and 2.83 percent zinc (from International Smelting and

Refining Co. assays) as the average grade of the ore deposit, then we are dealing with low grade manganese ore. The nickel and zinc occur in significant amounts, but whether they are recoverable is unknown. It seems apparent however that beneficiation testing will be needed before this ore can be considered economic.

As the amount of ore which may be found by the proposed exploration is limited, I recommend this application be denied.

E. L. Newcomb

E. L. Newcomb

400

Revised Draft sent begalon 9/27.

MF-200A
(Revised June 1954)

Docket No. DMEA 3395

Commodity Manganese-Nickel

Contract No. Idm-E

# UNITED STATES OF AMERICA
# DEPARTMENT OF THE INTERIOR
## DEFENSE MINERALS EXPLORATION ADMINISTRATION
## EXPLORATION PROJECT CONTRACT[1]
### (Short Form)

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Hogle Bros., 132 So. Main, Salt Lake City, Utah, Partnership, James E. Hogle, George H. Hogle and Sherman B. Hinckley, All of 132 So. Main, Salt Lake City, Utah, whose mailing address is ....., hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and Owner's Consent to Lien, Annex II

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Nevada, County of Eureka, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] Exclusive right in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] Lease and Option to purchase recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Owner's Consent to Lien ~~to be attached by San Francisco Office~~

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

draft

16—70618-1

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Manganese and Nickel The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before ..... (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $ ~~112,850.00~~ 27,570.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $ ~~112,387.50~~ 20,677.50 *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

.....
(Operator)

By .....

By .....

.....

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I, ....., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[ CORPORATE SEAL ]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

EXPLORATION PROJECT CONTRACT
HOGLE BROS., PARTNERSHIP

DOCKET NO. DMEA 3395

EXHIBIT "A"

Description of the Work

The work to be done is indicated on the maps attached hereto and made a part hereof entitled, "Claim Map Hogle Bros. Niganz Mine, Eureka County, Nevada" and "Fig. 2, Surface Map of Niganz (Gibellini) mine, Eureka County, Nevada."

All drifts shall be not less than 4 feet by 6½ feet in the clear and timbered where necessary.

The shaft shall be not less than 6½ feet by 7 feet in the clear of the end and wall plate timbers and divided into a manway and a skipway compartment. The vertical component of the depth of the shaft shall not exceed 130 feet.

The shaft shall follow the limestone hanging wall and dip vertically, if necessary, to follow the ore.

The shaft station shall be approximately 10 feet by 10 feet by 10 feet in size and timbered if necessary.

The location, direction, and extent of all work are subject to the approval of the Government.

If a change in dip of the shaft should require stage hoisting, a portion of drift footage may be used for the necessary offset.

Time Schedule: 0 - 180 days.

Sink a 7-foot by $6\frac{1}{2}$-foot inclined shaft N. 30° W., -25°, 300 feet along a flat-lying structure which overlies ore zone.

If no mineralization of any importance is encountered, contract will terminate; if sufficient mineralization is encountered, excavate temporary shaft station approximately 10 feet by 10 feet by 10 feet (1000 cu. ft.) in mineralization and drift 200 feet to determine if a commercial ore body is present.

Estimated Costs of the Project

Agreed Unit Costs

| | |
|---|---|
| Sink shaft 300 feet @ $64.40/ft. | $19,320.00 |
| Excavate temporary shaft station approximately 10' x 10' x 10'; 1000 cu. ft. @ $1.00/cu. ft. | 1,000.00 |
| Drift 200 feet @ $36.25/ft. | 7,250.00 |
| Total | $27,570.00 |
| | |
| Total Agreed Unit Costs | $27,570.00 |
| Government participation @ 75% | $20,677.50 |

September 16, 1954

MEMORANDUM

To: Acting Assistant Solicitor, Defense Minerals

From: Chief, Iron and Ferro-Alloys Division, DMEA

Subject: Preparation of Exploration Project Contract
Docket No. DMEA 3395, Manganese-Nickel
Hogle Bros. - Partnership
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Transmitted herewith is a rough draft of a proposed contract for your use in preparing the final draft.

Photostatic copies are being made of the two maps referred to in the proposed contract and will be forwarded to you as soon as received.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

Attachments

CC: DOCKET
ADM. READ. FILE
CODE 400

ls 9/20/54

400

MF-200A
(Revised June 1954)

Docket No. DMEA 3395

Commodity Manganese-Nickel

Contract No. Idm-E

# UNITED STATES OF AMERICA
# DEPARTMENT OF THE INTERIOR
## DEFENSE MINERALS EXPLORATION ADMINISTRATION
## EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this ..... day of ....., 195...., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Hogle Bros., 132 So. Main, Salt Lake City, Utah, Partnership, James E. Hogle, George H. Hogle and Sherman B. Hinckley, All of 132 So. Main, Salt Lake City, Utah, whose mailing address is ....., hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and Owners Consent to Line, Annex II

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of Nevada, County of Eureka, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] Exclusive right in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] Lease and Option to purchase recorded in Book ....., page ....., official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: Owner's Consent to Lien to be attached by San Francisco Office

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with names of partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, particularly excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

draft

16—70618-1

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of Manganese and Nickel. The work to be performed is described in Exhibit "A." The Operator on or before ..... shall commence the work, and on or before ..... (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $149,850.00. The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $112,387.50: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) percent of such amounts.

(For instance: the royalty on an amount of five dollars ($5.00) per ton would be one and one-half (1½) percent; on an amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

.....
(Operator)

By .....

By .....

.....

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I, ....., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[ CORPORATE SEAL ]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

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EXPLORATION PROJECT CONTRACT
HOGLE BROS., PARTNERSHIP

DOCKET NO. DMEA 3395

EXHIBIT "A"

Description of the Work

The work is to be done in six stages and is indicated on the maps attached hereto and made a part hereof entitled, "Claim Map Hogle Bros. Niganz Mine, Eureka County, Nevada" and "Fig. 2, Surface Map of Niganz (Gibellini) mine, Eureka County, Nevada."

All drifts shall be not less than 4 feet by 6½ feet in the clear and timbered where necessary. The aggregate footage of drifts shall not exceed 1000 feet.

The work in each succeeding stage shall not begin before the completion of the work under the preceding stage and then only upon written approval of the Government.

The shaft shall be not less than 6½feet by 7 feet in the clear of the end and wall plate timbers and divided into a manway and a skipway compartment. The total depth of shaft shall not exceed 1500 feet.

The shaft shall follow the limestone hanging wall and dip vertically, if necessary, to follow the ore.

The shaft stations shall be approximately 10 feet by 10 feet by 10 feet in size and timbered if necessary.

The location, direction, and extent of all work are subject to the approval of the Government.

If a change in dip of the shaft should require stage hoisting, a portion of drift footage may be used for the necessary offset.

All drill holes shall be not less than EX in size.

The Operator shall provide a room for sampling cores and suitable core boxes for storing the cores obtained from drilling.

Actual location, order of drilling, inclination and depth of each hole shall be subject to approval by the Government, but the aggregate footage of drilling shall not be in excess of the total footage specified in Stage VI.

The project consists of the following:

STAGE I

Time Schedule: 0 - 180 days

Sink a 7-foot by 6½-foot inclined shaft N. 30° W., -25°, 300 feet along a flat-lying structure which overlies ore zone.

If no mineralization of any importance is encountered, contract will terminate; if sufficient mineralization is encountered, excavate temporary shaft station approximately 10 feet by 10 feet by 10 feet (1000 cu. ft.) in mineralization and drift 200 feet to determine if a commercial ore body is present.

If no commercial ore body is present, contract will be terminated.

STAGE II

Time Schedule: 180 - 360 days

Same as Stage I.

## STAGE III

Time Schedule: 360 - 540 days

Same as Stage I

## STAGE IV

Time Schedule: 540 - 720 days

Same as Stage I

## STAGE V

Time Schedule: 720 - 900 days

Same as Stage I.

## STAGE VI

Time Schedule: 900 - 1080 days

At points on 1500-foot level approved by the Government, drill diamond drill holes for an aggregate depth of not more than 2000 feet.

### Estimated Costs of the Project

### Agreed Unit Costs

## STAGE I

| | |
|---|---|
| Sink shaft 300 feet @ $64.40/ft. | $19,320.00 |
| Excavate temporary shaft station approximately 10' x 10' x 10'; 1000 cu. ft. @ $1.00/cu. ft. | 1,000.00 |
| Drift 200 feet @ $36.25/ft. | 7,250.00 |
| Total Stage I | $27,570.00 |

## STAGE II

| | |
|---|---|
| Same as Stage I | |
| Total Stage II | $27,570.00 |

## STAGE III

| | |
|---|---|
| Same as Stage I | |
| Total Stage III | $27,570.00 |

## STAGE IV

| | |
|---|---|
| Same as Stage I | |
| Total Stage IV | $27,570.00 |

## STAGE V

| | |
|---|---|
| Same as Stage I | |
| Total Stage V | $27,570.00 |

## STAGE VI

| | |
|---|---|
| Drill 2000 feet D.C. holes @ $6.00 (Includes all costs incident to drilling) | $12,000.00 |
| Total Agreed Unit Costs | $149,850.00 |
| Government participation © 75% | $112,387.50 |

EXPLORATION PROJECT CONTRACT
HOGLE BROS.
DOCKET NO. DMEA 3395

ANNEX I

The following mining property was leased to Hogle Bros. by Louis P. Gibellini and Joseph Gibellini in an instrument dated May 6, 1954, and is the land referred to in Article22 of the contract form and in Annex II.

| | Mining Location Records - Book | Page |
|---|---|---|
| Black Hill No. 1 | I | 258 |
| 2 | I | 352 |
| 4 | I | 270 |
| 7 | I | 271 |
| 9 | I | 272 |
| Black Iron No. 1 | I | 252 |
| 3 | I | 252 |
| 4 | I | 269 |
| 5 | I | 270 |
| Flat No. 1 | I | 259 |
| 2 | I | 259 |
| Manganese No. 1 | I | 254 |
| 2 | I | 254 |
| 3 | I | 353 |

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

# REFERENCE SLIP

DATE 4/5/55

REFERRED TO:

1. ~~Mr. H.W. Davis, USBM~~
2. ~~Room - 3519~~
3. Mr. Thor Kiilsgaard, USGS
4. Room - 5222

Mr. W.S.Martin - 3538

FOR:

| | | | |
|---|---|---|---|
| | Action | | Recommendation |
| | Approval | | Record |
| XXX | Comment | | of |
| | Conference | | Referring |
| XXXX | Consideration | | to |
| | Filing | | Reply for signa- |
| | Instructions | | ture of |
| | Investigation | | Rewriting |
| | Initials | | Signature |
| | Mailing | | Suggestions |
| | Previous correspondence | | Your information |

REMARKS: This is the ONLY copy of Mr. Hinckley's letter received in Washington, so prompt handling will be appreciated. Fortunately, a copy was sent direct to Mr. Ricker, Exec. Officer, FT Region 2.

Check (X) before the items needing attention.

W. S. MARTIN

*Initials of sender.*

GPO 16—63815-1

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

Docket
DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 13 1954

420 Custom House
555 Battery Street
San Francisco 11, Calif.

September 8, 1954

Memorandum

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

WSM

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3395 - Nickel and Manganese
Hogle Bros., Partnership
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Reference is made to your letter dated June 30, 1954, requesting a field examination of the subject property.

Attached are the original and three copies of a report entitled "DMEA-3395, Niganz (Gibellini) Manganese-Nickel Mine, Eureka County, Nevada," by Russell R. Trengove, Mining Engineer, U. S. Bureau of Mines, and Earl H. Pampeyan, Geologist, U. S. Geological Survey, dated September 1, 1954, covering the examination of the property.

The engineer and geologist are in agreement that additional work to determine the extent of the mineralization on the property is warranted. However, they do not believe that the ore showings on the property merit the full loan and have divided the work into six stages - each stage dependent on the previous stage. The work would consist of sinking the shaft at 500 foot stages and crosscutting or drifting to determine the extent of mineralization. In the event that the mineralization does not go to any depth, the contract could be terminated.

The report has been discussed with Mr. Roscoe Smith of the U. S. Geological Survey and we are of the opinion that an exploration loan is warranted.

Reviewed by
DMEA OPERATING COMMITTEE
9-17-54
(date)

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

Attachment

Copy to: Roscoe Smith, USGS

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 13 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

# REPORT OF EXAMINATION BY FIELD TEAM
REGION III

## DMEA-3395, Niganz (Gibellini) Manganese-Nickel Mine

Eureka County, Nevada

Russell R. Trengove, Mining Engineer
U. S. Bureau of Mines

Earl H. Pampeyan, Geologist
U. S. Geological Survey

September 1, 1954

Reviewed by
DMEA OPERATING COMMITTEE
9-17-54
(date)

# EXAMINATION REPORT

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 13 1954

Docket No.: DMEA-3395 (Manganese, nickel, zinc)

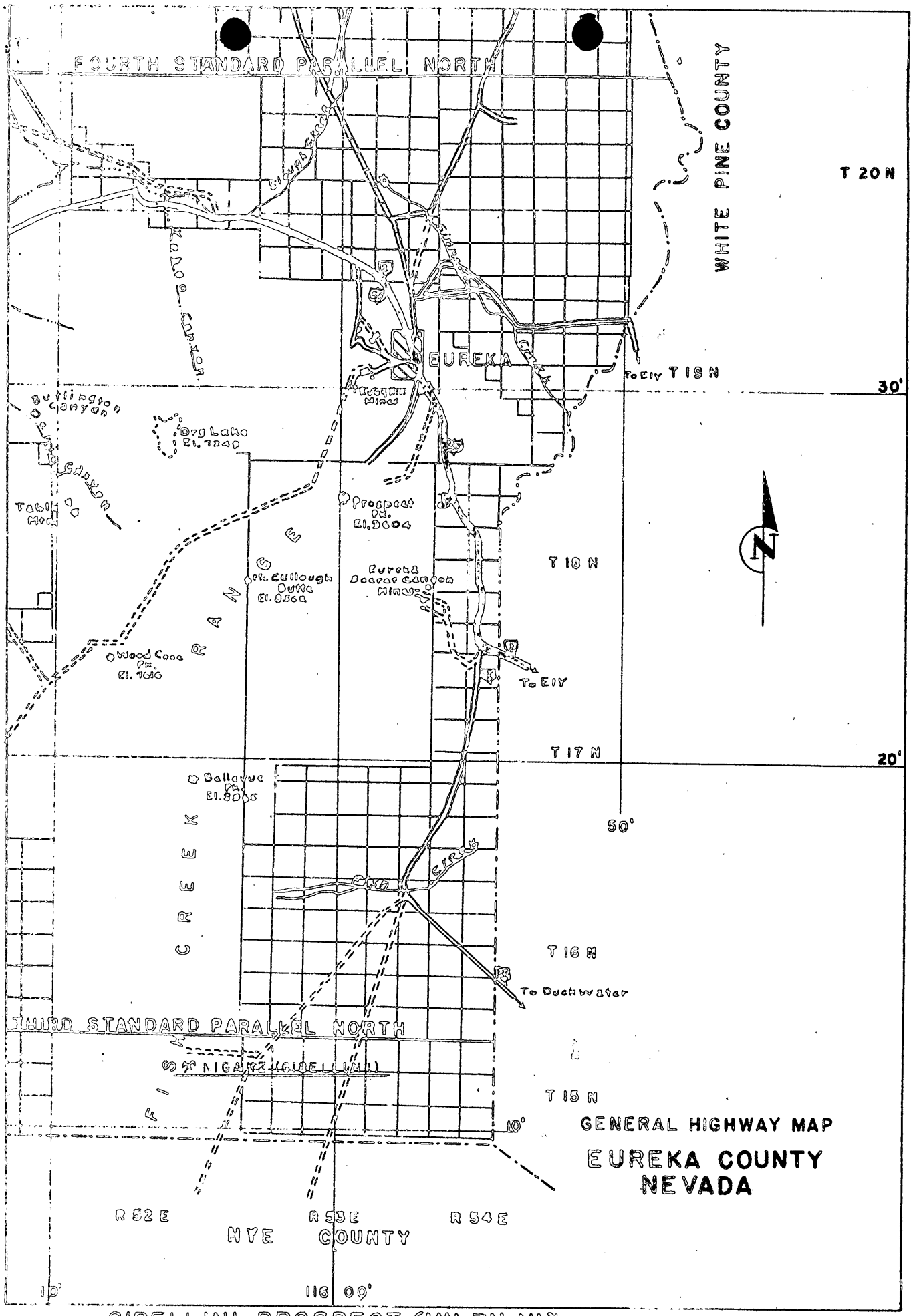
Name and address of applicant: Sherman B. Hinckley/for
Hogle Bros.,
132 So. Main Street,
Salt Lake City, Utah.

Name and location of property: Niganz (Gibellini) Manganese-Nickel Mine
Eureka County, Nevada

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

An engineer of the Bureau of Mines and a geologist of the Geological Survey made a joint examination of the Niganz (Gibellini) manganese nickel mine in July 1954. The property is situated 27.6 miles south of Eureka, Nev. (fig. 1). The purpose of the examination was to determine if the geological conditions, extent and the grade of mineralization were favorable to justify approval of an application for a Government loan. The applicant's estimated cost of his proposed exploration is $190,100.00. In his application, dated June 15, 1954, he proposes to explore the deposit by sinking an inclined shaft 1,500 feet, cutting stations on the 500, 1000, and 1500 levels, drifting and crosscutting on these levels a total distance of 2,000 feet and diamond drilling amounting to 2,000 feet of hole from the 1500 level to explore in the sulphide zone.

This deposit is composed essentially of manganese oxides. Economic amounts of nickel and zinc occur in the ore but no minerals incorporating these elements have been found. The origin of the deposit is not known.




GIBELLINI PROSPECT (MN. ZN. NI.)

FIG. 1

Workings on the adit level expose a triangular ore body 120 feet long and about 60 feet wide (fig. 3). The sub-level drift is in ore which near the winze is more than 43 feet thick. The shaft which reaches 35 feet below the adit level is in ore for its entire depth of 70 feet.

Production figures from the Bureau of Mines show that in 1953 two shipments of ore were made from this mine. In August, 95.4 dry short tons of 31.65% manganese ore was shipped to Combined Metals Reduction Company's Caselton mill near Pioche, Nev., and to date has not been reported as milled. In September, the second shipment (reported as 45.9 tons of 36.05% Mn) was sent to the Wenden, Arizona stockpile and was rejected because of high copper content. All of this production came from the underground workings shown on fig. 3 and is presumably sorted ore. Based upon the ore exposures and assay data from International Smelting and Refining Co., Combined Metals Reduction Co., and U. S. Bureau of Mines, there is approximately 20,000 tons with an average grade of 9.53% Mn, 1.22% Ni, and 2.83% Zn. Indicated ore from recent surface work might equal another 5,000 tons.

The property does not have merit, on the basis of the amount and grade of ore showing, for approval of the applicant's request. However, if this request is broken down into six stages, making each succeeding stage dependent on the results obtained from the preceding stage, the present ore exposures are considered sufficient to justify stage 1.

Approval is recommended for the following revised program:

| | | |
|---|---|---|
| Stage 1. - | Sink inclined shaft N. 30° W., -25° 300 feet along a flat-lying structure which overlies ore zone; - 300 feet @ $64.40/ft. | $19,320 |

If no mineralization of any importance is encountered, contract would terminate; if sufficient mineralization is encountered, cut station at mineralization and drift 200 feet to determine if a commercial ore body is present.

| | |
|---|---|
| Cutting temporary station or crosscutting | 1,000 |
| 200 feet of drifting/@ $36.25/ft. | 7,250 |
| Total | $27,570 |

If no commercial ore body is present contract is terminated.

| | | |
|---|---|---|
| Stage 2. - | Same as stage 1 | $27,570 |
| Stage 3. - | " " " 1 | $27,570 |
| Stage 4. - | " " " 1 | $27,570 |
| Stage 5. - | " " " 1 | $27,570 |
| Stage 6. - | 2,000 feet of diamond drilling from the 1500-level - 2,000 feet @ $6.00/ft. | $12,000 |
| | Total | $149,850 |

The shaft would follow the limestone hanging wall and dip vertically if necessary to follow the ore. If the shaft is steeper than 25°, then only an amount of sinking necessary to reach the equivalent depth should be allowed. The project, therefore, could conceivably be completed for a fraction of the estimated cost.

Government participation, if shaft continues on a 25° slope, would be $112,387.50.

An engineer of the Bureau of Mines and a geologist of the Geological Survey spent one day making a joint examination of the property. They were accompanied by Roger Caywood, who is in charge of the project and who is also the superintendent of Hogle Bros. Diamond silver-lead mine at Eureka, Nev.; interviewed Sherman B. Hinckley, applicant for Hogle Bros., the following day at the Diamond Mine.

The property was formerly known as the Gibellini Manganese; it is now named the Niganz Manganese-Nickel Deposit.

The property is situated in unsurveyed land, in T. 15 N., R. 52 E., at an elevation of about 7,000 feet. To reach the property from Eureka, Nevada, U.S. Highway 50 is followed southeast a distance of 9.9 miles to the Fish Creek road on the right. This gravel road is followed 9.4 miles to FishCreek. At this point, a dirt road to the right is followed 6.3 miles to its intersection with a road under construction. At this intersection, turn right and follow a dirt road westward 3 miles to the mine; a total distance of 27.6 miles from Eureka.

This property is in Eureka County, Nevada.

Climatic conditions are generally moderate; and except for short periods during the winter months when an occasional heavy fall of snow occurs, mining operations can be carried on throughout the year.

The applicant is financially able to pay for his share of the cost of the proposed exploration. He also employs competent mining engineers and geologists. On May 6, 1954, Hogle Bros. obtained a lease and option

to purchase the property which comprises 14 unpatented lode claims.

## DESCRIPTION OF PROPERTY

The deposit is situated on the east slope of the Fish Creek Range. There is no water, transmitted power, or buildings on the property. Mine workings, shown on fig. 3, are accessible by adit, shaft and stope. These workings were thoroughly sampled by engineers and geologists of the Combined Metals Reduction Co., Pioche, Nev. The average vertical heights of 18 samples is 6.2 feet. The manganese averaged 26.3%, and the nickel 2.52%.

Samples 265 to 270 inclusive (fig. 3) were taken by the applicant when the mineralization was uncovered by a bulldozer and they analyzed as follows:

| Sample No. | Width, feet | %, Zn | %, Mn | %, Ni |
|---|---|---|---|---|
| 265 | 4 | 0.6 | 1.37 | 1.02 |
| 266 | 4 | 2.8 | 3.36 | 1.96 |
| 267 | 6 | 0.3 | 0.60 | 3.26 |
| 268 | 4 | 0.4 | 1.56 | 3.45 |
| 269 | 5 | 1.7 | 3.12 | 3.69 |
| 270 | 5 | 1.3 | 6.00 | 2.11 |

Two check samples, numbers 1 and 2, taken by the Bureau engineer and shown on figure 3, analyzed as follows:

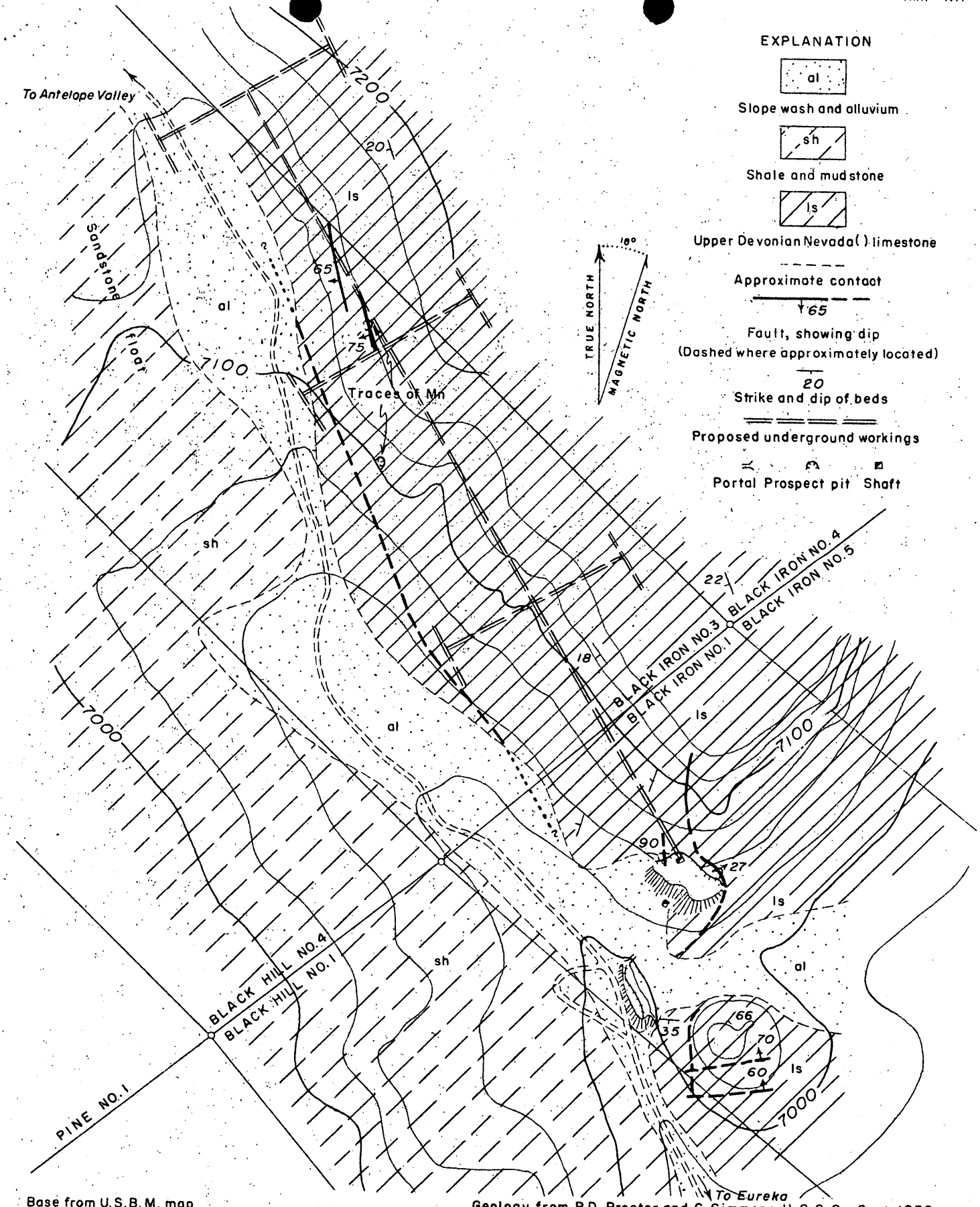
| | | | | |
|---|---|---|---|---|
| 1 | 5 | - | 14.6 | 1.59 |
| 2 | 10 | - | 7.0 | 1.03 |

## GEOLOGY

The southern end of the Fish Creek Range, in the vicinity of the Niganz mine, is composed of Paleozoic limestone, mudstone and shale,

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DMEA-3395
(Mn-Ni)




Base from U.S.B.M. map

Geology from P.D. Proctor and G. Simmons, U.S.G.S., Sept. 1952
with additions by E.H. Pampeyan, U.S.G.S., July 1954

Fig. 2. Surface map of the Niganz (Gibellini) mine, Eureka County, Nevada.

0 200 400 FEET

and sandstone. The limestone, being more resistant to weathering, is better exposed than the other units.

The ridge on which the Niganz mine lies is underlain by yellowish-gray, fine-grained limestone. This limestone is well bedded with beds averaging two feet thick. A fossiliferous horizon containing abundant Bryozoa crops out on the ridge about 100 feet higher than the mine. The lithologic and faunal evidence suggest that this unit is part of the Upper Devonian Nevada limestone. The beds strike N. 18° E. to N. 32° W. and dip 18° to 22° west. The ore bodies are in this unit.

A yellow to brown silicified mudstone crops out on the west side of a small canyon running parallel to, and on the west side of the limestone ridge. The contact between these two units is covered by slope wash and alluvium; therefore, stratigraphic and structural relations of the units are not known.

Up the canyon, about 1500 feet northwest from the mine, some tan to red-brown sandstone float was found; none of this rock was seen in place. Binyon 1/ reports sandstone in a drill hole which might indicate that the sandstone underlies the mudstone and shale unit.

Alluvium up to 10 feet thick overlies part of the area, and is composed mostly of limy detritus from the high ridge north of the mine.

Minor faulting has taken place in the limestone near the mine. The

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1/ Binyon, E.O., Gibellini Manganese-Zinc-Nickel deposits, Eureka County, Nevada: U.S. Bureau of Mines R.I. 4162, fig. 4, 1948.

only structural feature which appeared to be related to the ore was seen in the back of the sub-level drift (section B-B', fig. 3). Here the contact between the ore and overlying limestone strikes northeast and dips 25° northwest. This may be either a normal sedimentary contact or a fault contact; it was not possible to determine the nature of the contact from the exposures available during this examination. This contact is postulated as a thrust fault by the operators (first reported by W. T. Benson 2/, U. S. Bureau of Mines), but the evidence is inconclusive.

## ORE DEPOSITS

This deposit is composed essentially of manganese oxides. Economic amounts of zinc and nickel occur in the ore but no minerals incorporating these elements have been found. The origin of the deposit is not known. The ore zone might represent a hydrothermal deposit in a favorable, porous bed which has since been leached leaving only the manganese oxides. It may also represent a residual concentration derived from the erosion of nearby manganese-rich rocks. Another alternative is that the deposit may have a sedimentary origin, with the manganese oxides having been directly precipitated during a given period of deposition. Although no conclusive evidence for the mode of origin was seen, the sedimentary origin seems to be the most likely because of small lenses of bedded gravel in the ore, a general bedded appearance of the ore itself,

2/ Benson, W. T., Gibellini Manganese-Nickel deposit, Eureka County, Nevada, Supplementary Report, U.S. Bureau of Mines, Oct. 1953.

and the lack of any primary manganese minerals in the deposit.

Pyrolusite and psilomelane are the manganese ore minerals at the Niganz mine. They occur together as a mixture of black, earthy material with dense, metallic layers showing botryoidal structures. No silicates or carbonates of manganese were seen on the property or in the samples brought to the laboratory for study.

Nickel is said to be concentrated in lenses of buff to orange-brown colored clayey material which are distributed irregularly through the black manganese ore. Previous assays show that nickel mineralization, though slight, extends beyond the manganese ore into the limestone. No nickel minerals were identified on the property or in the lab samples.

Although assays show that zinc values are greater than nickel, no zinc minerals have been identified from this property.

Workings on the adit level expose a triangular ore body 120 feet long and about 60 feet wide (fig. 3). The sub-level drift is in ore which near the winze is more than 43 feet thick. The shaft, which reaches 35 feet below the adit level, is in ore for its entire depth of 70 feet. The ore, where exposed in the drifts, is bounded by faults whose displacements are unknown but appear to be small.

The contact between ore and limestone in the sub-level drift is postulated by the operators as a low-angle thrust fault. If this is so, the thrust fault may be the structural control for this deposit. If the deposit has a sedimentary origin, the strike and dip of the limestone would form the lithologic control for the ore. It seems more than likely that the at-

titude of the beds controls the deposit; whatever the origin, the ore dips 25° NW where exposed.

Production figures from the Bureau of Mines show that in 1953 two shipments of ore were made from this mine. In August 95.4 dry short tons of 31.65% manganese ore was shipped to Combined Metals Reduction Company's Caselton mill and to date has not been reported as milled. In September the second shipment (reported as 45.9 tons of 36.05% Mn) was sent to the Wenden, Arizona stockpile and was rejected because of high copper content. All of this production came from the underground workings shown on fig. 3 and is presumably sorted ore. Ore in place may contain no more than 9.53% Mn, 1.22% Ni, and 2.83% Zn as shown by assay maps of the International Smelting and Refining Company and the Bureau of Mines, although assays of samples taken by Combined Metals Reduction Company average 26.3% Mn and 2.52% Ni. Assuming the lower average grade, the gross value of the ore would be about $40 per ton.

## ORE RESERVES

On the adit level, manganese ore is exposed in a triangular area equalling about 4,100 square feet. Using a factor of 15 cubic feet per ton, as suggested by Mr. Hinkley, consulting engineer, this would amount to about 273 tons per vertical foot. The vertical shaft is in ore for 70 feet; measured ore, therefore, is in the neighborhood of 20,000 tons with an average grade of 9.53% Mn, 1.22% Ni, and 2.83% Zn (assay data from

International Smelting and Refining Company, Combined Metals Reduction Company, and U. S. Bureau of Mines). Indicated ore, estimated from exposures in the sub-level drift, and recent surface work around the portal of the new inclined shaft, might equal another 5,000 tons. If the ore body extends along the dip of the limestone to ground water level, some 500-600 feet below, inferred ore would equal several tens of thousands of tons.

The current gross value of the measured and indicated ore, assuming that the Mn, Ni, and Zn could be successfully recovered, would be about $1,000,000. The cost of working out the metallurgy of the ore and the cost of erecting a mill to process the ore could, however, exceed this amount. Only if the exploration program reveals additional reserves totalling several times the present measured and indicated reserves would it be feasible to undertake the metallurgical problem.

## PREVIOUS EXPLORATION

The Bureau of Mines drilled the Niganz (Gibellini) property in 1946 and had little success in finding ore.[3/] This drilling program however, was designed to explore an ore zone which was thought to strike N. 80° E. and dip steeply north. Now, after more development work has been done, the ore appears to be controlled by a flat-lying fault which dips 25° NW and corresponds with the bedding in the limestone. Hole 2A penetrated the ore zone beneath the mine workings. Hole 4A probably passed through

3/ op. cit.

the projected structure and was bottomed about 100 feet below it. The only other hole (5A) which came close to the down dip projection of the ore zone was bottomed about 10 feet above the upper limestone-ore contact.

## PROPOSED EXPLORATION

Mr. Sherman Hinkley, consulting engineer for the applicant, has proposed an exploration program:

| | | |
|---|---|---|
| 1. | Sink an inclined shaft, N. 30° W., -25°, 1500 feet to the water table following a flat fault which overlies the ore ..... | $ 96,600 |
| 2. | Cut three stations along the shaft with the lowest at water level ..... | 9,000 |
| 3. | Drift and crosscut a total of 2000 feet on the three levels to determine the lateral extent of the ore ..... | 72,500 |
| 4. | Diamond drill 2000 feet of hole from the lowest level to explore for sulphides below the water table ..... | 12,000 |
| | Total cost of the project ..... | $190,100 |
| | Government's share (75%) of cost ..... | $142,575 |

The operator proposes to sink the shaft inclined 25° NW along the hanging wall of the postulated thrust fault. If this deposit is controlled either by a thrust fault or by bedding which continues to dip 25° NW, the proposed work would explore ground which has not yet been tested by diamond drilling or underground workings. At -25° inclination, 1500 feet of sinking would be necessary to reach water level--which has been pro-

jected from wells and springs in nearby Little Smoky Valley. Although the application reads that the shaft will be inclined -25°, Mr. Hinkley said that the shaft would follow the limestone hanging wall and dip vertically if necessary to follow the ore. The project, therefore, could conceivably be completed for a fraction of the estimated cost.

A vertical shaft 500-600 feet deep could be sunk to the proposed target area, but a large element of chance would be involved in projecting the surface showings to that depth.

A few diamond drill holes to test the downward continuation of the ore body were considered but previous diamond drilling by the Bureau of Mines was costly and did not yield satisfactory information. Core recovery averaged 50% and was very poor in the porous ore zone. It seems likely that further diamond drilling would give similar results. Churn drilling along the trace of the proposed underground workings might produce more favorable results but would require several deep holes for an accurate picture. The lack of water is a factor which would hamper either type of drilling operation.

Although the best method of exploration would be underground work along a favorable structure, the property is not yet worthy of such a large scale program. It would be better to divide the proposed program into several stages, each of which would be dependent upon the outcome of the preceding stage. In this way it would be possible to reappraise the property after it was better exposed before approving further work. A suggested

revision of the program is outlined below:

| | | |
|---|---|---|
| Stage 1. - | Sink inclined shaft N. 30° W., -25°, 300 feet along a flat-lying structure which overlies ore zone - 300 feet @ $64.40/ft. | $19,320 |

If no mineralization of any importance is encountered, contract would terminate; if sufficient mineralization is encountered, cut station at mineralization and drift 200 feet to determine if a commercial ore body is present.

| | |
|---|---|
| Cutting temporary station | 1,000 |
| 200 feet of drifting @ $36.25/ft. | 7,250 |
| Total | $27,570 |

If no commercial ore body is present, contract is terminated.

| | | |
|---|---|---|
| Stage 2. - | Same as stage 1 | 27,570 |
| Stage 3. - | " " " 1 | 27,570 |
| Stage 4. - | " " " 1 | 27,570 |
| Stage 5. - | " " " 1 | 27,570 |
| Stage 6. - | 2,000 feet of diamond drilling from the 1500-level - 2,000 feet @ $6.00/ft. | 12,000 |
| | Total | $149,850 |

The shaft would follow the limestone hanging wall and dip vertically if necessary to follow the ore. If the shaft is steeper than 25°, then only an amount of sinking necessary to reach the equivalent depth should be allowed. The project, therefore, could conceivably be completed for a fraction of the estimated cost.

Government participation, if shaft continues on a 25° slope, would be $112,387.50.

Hogle Bros. have started sinking the inclined shaft and it was reported to be down 20 feet on August 17, 1954. If application is approved,

starting date will be date of receipt of approval, and project completed in 24 months if not terminated because of lack of mineralization.

To do the work proposed will require the purchase and installation of the following equipment:

| Item | Installed cost incl. freight | Status on 7/22/54 |
|---|---|---|
| Oil tanks | $ 500.00 | 2 oil tanks installed, 3,000 gallon each |
| Water tank | 500.00 | 2 water tanks (old) 40 inch diameter, 8 feet deep |
| Hoist house and change room | 2,500.00 | To be constructed |
| Headframe, surface track and piping | 2,700.00 | Piping and track in use |
| Small tools | 700.00 | Misc. tools on hand |
| Ventilating fan | 575.00 | |
| Compressor, Diesel driven | 9,500.00 | 1 Gardner Denver, 500 cfm with Catterpiller Diesel (new) in use |
| Hoist, Diesel driven | 6,500.00 | Old steam converted to air hoist in use 20-inch diameter drum, 15-horse-power |
| Jackhammer with air legs | 1,320.00 | 2 in use; 1 new - 1 old |
| Air hoses | 295.00 | In use |
| Mine cars | 320.00 | 2 antique ore cars in use; 42 cubic feet |
| Mucking machine | 3,650.00 | 1 Eimco, 12B loader (new) |
| Total | $29,060.00 | |

Other equipment on the property (7/22/54):

1 Air Receiver (old)
1 Dodge power wagon
40-lb. rail
Misc. tools
1 Joy, double drum tugger hoist
Shaft timber and lagging
Old 4-inch pipe for air, new 1-inch pipe for water
1 Leland gasoline driven alternator, 120 volts, 72 amps

Procurement of equipment and supplies was started May 10, 1954.

For sinking the 7-foot high by 6.5-foot wide exploratory inclined shaft, the applicants estimated costs are as follows:

| Item | Cost per foot |
|---|---|
| Labor, supervision, engineering & taxes | $29.50 |
| Oil and fuel | 5.10 |
| Timber, including sets and ties | 6.15 |
| Powder, fuse and caps | 3.10 |
| Rails, spikes and accessories | 2.10 |
| Air and water lines | 1.30 |
| Ventilation pipe | 2.00 |
| Bell line | .20 |
| Drill steel and bits | .95 |
| Hauling water | 2.05 |
| Equipment maintenance | 1.25 |
| Hand tools | .60 |
| Sampling and assaying | .35 |
| Sub-total | $54.65 |
| Rental of equipment or amortization of equipment, if purchased | 9.75 |
| Total cost per foot | $64.40 |

Cutting shaft stations:

The applicant proposes three shaft stations of 1,500 cubic feet of excavation, with timbering, each cost $2.00 per cubic foot, for a total cost of $3,000 each; total $9,000.

This figure of $3,000 per station is considered too high for a small exploration drift with a probable maximum length of 200 feet. If the drift is put in a mineralized zone, which is not at the shaft bottom, a bulkhead would have to be constructed in the 7- by 6-1/2-foot shaft, a little extra headroom would have to be made at the station to dump the cars. A figure of $1,000 per station is considered ample.

Drifting and crosscutting (5-1/2 feet by 7 feet):

If the drifting in stage 1 discloses 200 feet of good mineralization, it would be sufficient to justify the approval of stage 2 without fully exploring the immediate area of stage 1. Therefore, it is recommended that the drifting be limited to 200 feet for each stage. The applicant's detailed cost estimate is as follows:

| Item | Cost per foot |
|---|---|
| Labor and supervision with taxes | $18.20 |
| Oil and fuel | 3.50 |
| Powder, fuses and caps | 2.95 |
| Rail and accessories, including ties | 1.75 |
| Air and water lines | .55 |
| Drill steel and bits | 1.10 |
| Hauling water | 1.00 |
| Equipment maintenance | .75 |
| Hand tools | .25 |
| Sampling and assaying | .20 |
| Sub-total | $30.25 |
| Rental of equipment or depreciation on items purchased | 6.00 |
| Total cost per foot | $36.25 |

Diamond drilling:

2,000 feet of diamond drilling has been proposed to be drilled from the bottom or 1500 level. The applicants estimated cost of $6.00 per foot is considered reasonable.

There will be no camp established at the property. The employees will live in Eureka, Nev. The only building proposed would house the compressor and hoist and would also be used as a change house for the employees. The applicant's estimated cost of $2,500 for this building is thought to be reasonable.

## Estimated Cost Per Stage

| Item | Cost | Government Participation |
|---|---|---|
| 300 feet of shaft @ $64.40/ft. | $19,320.00 | $14,490.00 |
| Cutting temporary station | 1,000.00 | 750.00 |
| 200 feet of drifting @ $36.25/ft. | 7,250.00 | 5,437.50 |
| Totals | $27,570.00 | $20,677.50 |

### Summary

| | |
|---|---|
| 5 stages @ $27,570 | $137,850.00 |
| 2,000 feet of diamond drilling @ $6.00/ft. | 12,000.00 |
| | $149,850.00 |

Government participation would be $112,387.50.

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

# REFERENCE SLIP

DATE 9-14

REFERRED TO:

1. ~~[illegible]~~
2. ~~Operating Committee~~
3. ~~Miss Curtin, Rm. 4539~~
4. 400

FOR:

| | |
|---|---|
| ..... Action | ..... Recommendation |
| ..... Approval | ..... Record of ..... |
| ..... Comment | ..... Referring to ..... |
| ..... Conference | ..... Reply for signature of ..... |
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REMARKS: Field Exam. Report
~~For Agenda 9/17/54~~
Mr Martin is anxious to get this back

Check (X) before the items needing attention.

ROBERT E. ADAMS
*Initials of sender.*

GPO 16—63815-1

Stop

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

402

SEP 13 1954

420 Custom House
555 Battery Street
San Francisco 11, Calif.

September 8, 1954

WSM

Memorandum

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

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket No. DMEA-3395 - Nickel and Manganese
Hogle Bros., Partnership
Niganz Mine (Gibellini Mine)
Eureka County, Nevada

Reference is made to your letter dated June 30, 1954, requesting a field examination of the subject property.

Attached are the original and three copies of a report entitled "DMEA-3395, Niganz (Gibellini) Manganese-Nickel Mine, Eureka County, Nevada," by Russell R. Trengove, Mining Engineer, U. S. Bureau of Mines, and Earl H. Pampeyan, Geologist, U. S. Geological Survey, dated September 1, 1954, covering the examination of the property.

The engineer and geologist are in agreement that additional work to determine the extent of the mineralization on the property is warranted. However, they do not believe that the ore showings on the property merit the full loan and have divided the work into six stages - each stage dependent on the previous stage. The work would consist of sinking the shaft at 500 foot stages and crosscutting or drifting to determine the extent of mineralization. In the event that the mineralization does not go to any depth, the contract could be terminated.

300 ?

The report has been discussed with Mr. Roscoe Smith of the U. S. Geological Survey and we are of the opinion that an exploration loan is warranted.

S. RICKER
S. Ricker for
H. V. Miller
Executive Officer
DMEA Field Team, Region III

Attachment

Copy to: Roscoe Smith, USGS

SEP 13 1954
9/22/54

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

# DMEA-3395, Niganz (Gibellini) Manganese-Nickel Mine

## Eureka County, Nevada

Russell R. Trengove, Mining Engineer
U. S. Bureau of Mines

Carl H. Pampeyan, Geologist
U. S. Geological Survey

September 1, 1954

# EXAMINATION REPORT

SEP 13 1954

Docket No.: DMEA-3395 (Manganese, nickel, zinc)

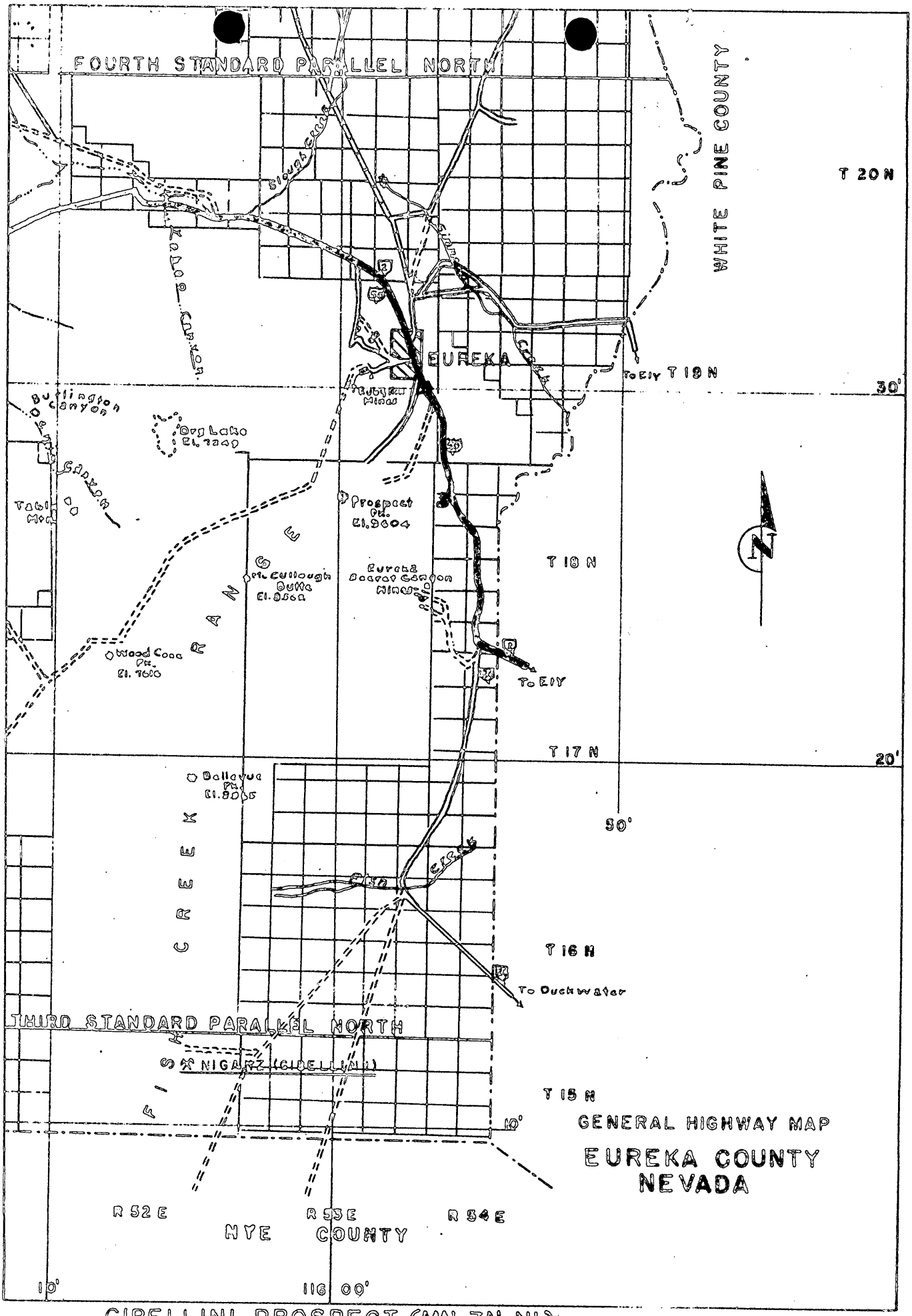
Name and address of applicant: Sherman B. Hinckley/for Hogle Bros., 132 So. Main Street, Salt Lake City, Utah.

Name and location of property: Niganz (Gibellini) Manganese-Nickel Mine, Eureka County, Nevada

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

An engineer of the Bureau of Mines and a geologist of the Geological Survey made a joint examination of the Niganz (Gibellini) manganese nickel mine in July 1954. The property is situated 27.6 miles south of Eureka, Nev. (fig. 1). The purpose of the examination was to determine if the geological conditions, extent and the grade of mineralization were favorable to justify approval of an application for a Government loan. The applicant's estimated cost of his proposed exploration is $190,100.00. In his application, dated June 15, 1954, he proposes to explore the deposit by sinking an inclined shaft 1,500 feet, cutting stations on the 500, 1000, and 1500 levels, drifting and crosscutting on these levels a total distance of 2,000 feet and diamond drilling amounting to 2,000 feet of hole from the 1500 level to explore in the sulphide zone.

This deposit is composed essentially of manganese oxides. Economic amounts of nickel and zinc occur in the ore but no minerals incorporating these elements have been found. The origin of the deposit is not known.




GIBELLINI PROSPECT (MN 7N N1)

FIG. 1

Workings on the adit level expose a triangular ore body 120 feet long and about 60 feet wide (fig. 3). The sub-level drift is in ore which near the winze is more than 43 feet thick. The shaft which reaches 35 feet below the adit level is in ore for its entire depth of 70 feet.

Production figures from the Bureau of Mines show that in 1953 two shipments of ore were made from this mine. In August, 95.4 dry short tons of 31.65% manganese ore was shipped to Combined Metals Reduction Company's Caselton mill near Pioche, Nev., and to date has not been reported as milled. In September, the second shipment (reported as 45.9 tons of 36.05% Mn) was sent to the Wenden, Arizona stockpile and was rejected because of high copper content. All of this production came from the underground workings shown on fig. 3 and is presumably sorted ore. Based upon the ore exposures and assay data from International Smelting and Refining Co., Combined Metals Reduction Co., and U. S. Bureau of Mines, there is approximately 20,000 tons with an average grade of 9.53% Mn, 1.22% Ni, and 2.83% Zn. Indicated ore from recent surface work might equal another 5,000 tons.

The property does not have merit, on the basis of the amount and grade of ore showing, for approval of the applicant's request. However, if this request is broken down into six stages, making each succeeding stage dependent on the results obtained from the preceding stage, the present ore exposures are considered sufficient to justify stage 1.

Approval is recommended for the following revised program:

| | | |
|---|---|---|
| Stage 1. - | Sink inclined shaft N. 30° W., -25° 300 feet along a flat-lying structure which overlies ore zone; - 300 feet @ $64.40/ft. | $19,320 |

If no mineralization of any importance is encountered, contract would terminate; if sufficient mineralization is encountered, cut station at mineralization and drift 200 feet to determine if a commercial ore body is present.

| | |
|---|---|
| Cutting temporary station or crosscutting | 1,000 |
| 200 feet of drifting @ $36.25/ft. | 7,250 |
| Total | $27,570 |

If no commercial ore body is present contract is terminated.

| | | |
|---|---|---|
| Stage 2. - | Same as stage 1 | $27,570 |
| Stage 3. - | 1 | $27,570 |
| Stage 4. - | 1 | $27,570 |
| Stage 5. - | 1 | $27,570 |
| Stage 6. - | 2,000 feet of diamond drilling from the 1500-level - 2,000 feet @ $6.00/ft. | $12,000 |
| | Total | $149,850 |

The shaft would follow the limestone hanging wall and dip vertically if necessary to follow the ore. If the shaft is steeper than 25°, then only an amount of sinking necessary to reach the equivalent depth should be allowed. The project, therefore, could conceivably be completed for a fraction of the estimated cost.

Government participation, if shaft continues on a 25° slope, would be $112,387.50.

An engineer of the Bureau of Mines and a geologist of the Geological Survey spent one day making a joint examination of the property. They were accompanied by Roger Caywood, who is in charge of the project and who is also the superintendent of Hogle Bros. Diamond silver-lead mine at Eureka, Nev.; interviewed Sherman B. Hinckley, applicant for Hogle Bros., the following day at the Diamond Mine.

The property was formerly known as the Gibellini Manganese; it is now named the Niganz Manganese-Nickel Deposit.

The property is situated in unsurveyed land, in T. 15 N., R. 52 E., at an elevation of about 7,000 feet. To reach the property from Eureka, Nevada, U.S. Highway 50 is followed southeast a distance of 9.9 miles to the Fish Creek road on the right. This gravel road is followed 9.4 miles to FishCreek. At this point, a dirt road to the right is followed 6.3 miles to its intersection with a road under construction. At this intersection, turn right and follow a dirt road westward 3 miles to the mine; a total distance of 27.6 miles from Eureka.

This property is in Eureka County, Nevada.

Climatic conditions are generally moderate; and except for short periods during the winter months when an occasional heavy fall of snow occurs, mining operations can be carried on throughout the year.

The applicant is financially able to pay for his share of the cost of the proposed exploration. He also employs competent mining engineers and geologists. On May 6, 1954, Hogle Bros. obtained a lease and option

to purchase the property which comprises 14 unpatented lode claims.

## DESCRIPTION OF PROPERTY

The deposit is situated on the east slope of the Fish Creek Range. There is no water, transmitted power, or buildings on the property. Mine workings, shown on fig. 3, are accessible by adit, shaft and stope. These workings were thoroughly sampled by engineers and geologists of the Combined Metals Reduction Co., Pioche, Nev. The average vertical heights of 18 samples is 6.2 feet. The manganese averaged 26.3%, and the nickel 2.52%.

Samples 265 to 270 inclusive (fig. 3) were taken by the applicant when the mineralization was uncovered by a bulldozer and they analyzed as follows:

| Sample No. | Width, feet | %, Zn | %, Mn | %, Ni |
|---|---|---|---|---|
| 265 | 4 | 0.6 | 1.37 | 1.02 |
| 266 | 4 | 2.8 | 3.36 | 1.96 |
| 267 | 6 | 0.3 | 0.60 | 3.26 |
| 268 | 4 | 0.4 | 1.56 | 3.45 |
| 269 | 5 | 1.7 | 3.12 | 3.69 |
| 270 | 2 | 1.3 | 6.00 | 2.11 |

Two check samples, numbers 1 and 2, taken by the Bureau engineer and shown on figure 3, analyzed as follows:

| | | | | |
|---|---|---|---|---|
| 1 | 8 | - | 14.6 | 1.59 |
| 2 | 10 | - | 7.0 | 1.03 |

## GEOLOGY

The southern end of the Fish Creek Range, in the vicinity of the Niganz mine, is composed of Paleozoic limestone, mudstone and shale,

and sandstone. The limestone, being more resistant to weathering, is better exposed than the other units.

RECEIVED SEP 13 1954

The ridge on which the Niganz mine lies is underlain by yellowish-gray, fine-grained limestone. This limestone is well bedded with beds averaging two feet thick. A fossiliferous horizon containing abundant Bryozoa crops out on the ridge about 100 feet higher than the mine. The lithologic and faunal evidence suggest that this unit is part of the Upper Devonian Nevada limestone. The beds strike N. 18° E. to N. 32° W. and dip 18° to 22° west. The ore bodies are in this unit.

A yellow to brown silicified mudstone crops out on the west side of a small canyon running parallel to, and on the west side of the limestone ridge. The contact between these two units is covered by slope wash and alluvium; therefore, stratigraphic and structural relations of the units are not known.

Up the canyon, about 1500 feet northwest from the mine, some tan to red-brown sandstone float was found; none of this rock was seen in place. Binyon [1/] reports sandstone in a drill hole which might indicate that the sandstone underlies the mudstone and shale unit.

Alluvium up to 10 feet thick overlies part of the area, and is composed mostly of limy detritus from the high ridge north of the mine.

Minor faulting has taken place in the limestone near the mine. The

1/ Binyon, E.O., Gibellini Manganese-Zinc-Nickel deposits, Eureka County, Nevada: U.S. Bureau of Mines R.I. 4162, fig. 4, 1948.

only structural feature which appeared to be related to the ore was seen in the back of the sub-level drift (section B-B', fig. 3). Here the contact between the ore and overlying limestone strikes northeast and dips 25° northwest. This may be either a normal sedimentary contact or a fault contact; it was not possible to determine the nature of the contact from the exposures available during this examination. This contact is postulated as a thrust fault by the operators (first reported by W. T. Benson 2/, U. S. Bureau of Mines), but the evidence is inconclusive.

## ORE DEPOSITS

This deposit is composed essentially of manganese oxides. Economic amounts of zinc and nickel occur in the ore but no minerals incorporating these elements have been found. The origin of the deposit is not known. The ore zone might represent a hydrothermal deposit in a favorable, porous bed which has since been leached leaving only the manganese oxides. It may also represent a residual concentration derived from the erosion of nearby manganese-rich rocks. Another alternative is that the deposit may have a sedimentary origin, with the manganese oxides having been directly precipitated during a given period of deposition. Although no conclusive evidence for the mode of origin was seen, the sedimentary origin seems to be the most likely because of small lenses of bedded gravel in the ore, a general bedded appearance of the ore itself,

2/ Benson, W. T., Gibellini Manganese-Nickel deposit, Eureka County, Nevada, Supplementary Report, U.S. Bureau of Mines, Oct. 1953.

and the lack of any primary manganese minerals in the deposit.

Pyrolusite and psilomelane are the manganese ore minerals at the Niganz mine. They occur together as a mixture of black, earthy material with dense, metallic layers showing botryoidal structures. No silicates or carbonates of manganese were seen on the property or in the samples brought to the laboratory for study.

Nickel is said to be concentrated in lenses of buff to orange-brown colored clayey material which are distributed irregularly through the black manganese ore. Previous assays show that nickel mineralization, though slight, extends beyond the manganese ore into the limestone. No nickel minerals were identified on the property or in the lab samples.

Although assays show that zinc values are greater than nickel, no zinc minerals have been identified from this property.

Workings on the adit level expose a triangular ore body 120 feet long and about 60 feet wide (fig. 3). The sub-level drift is in ore which near the winze is more than 43 feet thick. The shaft, which reaches 35 feet below the adit level, is in ore for its entire depth of 70 feet. The ore, where exposed in the drifts, is bounded by faults whose displacements are unknown but appear to be small.

The contact between ore and limestone in the sub-level drift is postulated by the operators as a low-angle thrust fault. If this is so, the thrust fault may be the structural control for this deposit. If the deposit has a sedimentary origin, the strike and dip of the limestone would form the lithologic control for the ore. It seems more than likely that the at-

titude of the beds controls the deposit; whatever the origin, the ore dips 25° NW where exposed.

Production figures from the Bureau of Mines show that in 1953 two shipments of ore were made from this mine. In August 95.4 dry short tons of 31.65% manganese ore was shipped to Combined Metals Reduction Company's Caselton mill and to date has not been reported as milled. In September the second shipment (reported as 45.9 tons of 36.05% Mn) was sent to the Wenden, Arizona stockpile and was rejected because of high copper content. All of this production came from the underground workings shown on fig. 3 and is presumably sorted ore. Ore in place may contain no more than 9.53% Mn, 1.22% Ni, and 2.83% Zn as shown by assay maps of the International Smelting and Refining Company and the Bureau of Mines, although assays of samples taken by Combined Metals Reduction Company average 26.3% Mn and 2.52% Ni. Assuming the lower average grade, the gross value of the ore would be about $40 per ton.

## ORE RESERVES

On the adit level, manganese ore is exposed in a triangular area equalling about 4,100 square feet. Using a factor of 15 cubic feet per ton, as suggested by Mr. Hinkley, consulting engineer, this would amount to about 273 tons per vertical foot. The vertical shaft is in ore for 70 feet; measured ore, therefore, is in the neighborhood of 20,000 tons with an average grade of 9.53% Mn, 1.22% Ni, and 2.83% Zn (assay data from

International Smelting and Refining Company, Combined Metals Reduction Company, and U. S. Bureau of Mines). Indicated ore, estimated from exposures in the sub-level drift, and recent surface work around the portal of the new inclined shaft, might equal another 5,000 tons. If the ore body extends along the dip of the limestone to ground water level, some 500-600 feet below, inferred ore would equal several tens of thousands of tons.

The current gross value of the measured and indicated ore, assuming that the Mn, Ni, and Zn could be successfully recovered, would be about $1,000,000. The cost of working out the metallurgy of the ore and the cost of erecting a mill to process the ore could, however, exceed this amount. Only if the exploration program reveals additional reserves totalling several times the present measured and indicated reserves would it be feasible to undertake the metallurgical problem.

## PREVIOUS EXPLORATION

The Bureau of Mines drilled the Niganz (Gibellini) property in 1946 and had little success in finding ore.[3/] This drilling program however, was designed to explore an ore zone which was thought to strike N. 80° E. and dip steeply north. Now, after more development work has been done, the ore appears to be controlled by a flat-lying fault which dips 25° NW and corresponds with the bedding in the limestone. Hole 2A penetrated the ore zone beneath the mine workings. Hole 4A probably passed through

3/ op. cit.

the projected structure and was bottomed about 100 feet below it. The only other hole (5A) which came close to the down dip projection of the ore zone was bottomed about 10 feet above the upper limestone-ore contact.

## PROPOSED EXPLORATION

Mr. Sherman Hinkley, consulting engineer for the applicant, has proposed an exploration program:

| | | |
|---|---|---|
| 1. | Sink an inclined shaft, N. 30° W., -25°, 1500 feet to the water table following a flat fault which overlies the ore ..... | $ 96,600 |
| 2. | Cut three stations along the shaft with the lowest at water level ..... | [illegible],000 |
| 3. | Drift and crosscut a total of 2000 feet on the three levels to determine the lateral extent of the ore ..... | 72,500 |
| 4. | Diamond drill 2000 feet of hole from the lowest level to explore for sulphides below the water table ..... | 12,000 |
| | Total cost of the project ..... | $1[illegible]0,100 |
| | Government's share (75%) of cost ..... | $142,575 |

The operator proposes to sink the shaft inclined 25° NW along the hanging wall of the postulated thrust fault. If this deposit is controlled either by a thrust fault or by bedding which continues to dip 25° NW, the proposed work would explore ground which has not yet been tested by diamond drilling or underground workings. At -25° inclination, 1500 feet of sinking would be necessary to reach water level--which has been pro-

jected from wells and springs in nearby Little Smoky Valley. Although the application reads that the shaft will be inclined -25°, Mr. Hinkley said that the shaft would follow the limestone hanging wall and dip vertically if necessary to follow the ore. The project, therefore, could conceivably be completed for a fraction of the estimated cost.

A vertical shaft 500-600 feet deep could be sunk to the proposed target area, but a large element of chance would be involved in projecting the surface showings to that depth.

A few diamond drill holes to test the downward continuation of the ore body were considered but previous diamond drilling by the Bureau of Mines was costly and did not yield satisfactory information. Core recovery averaged 50% and was very poor in the porous ore zone. It seems likely that further diamond drilling would give similar results. Churn drilling along the trace of the proposed underground workings might produce more favorable results but would require several deep holes for an accurate picture. The lack of water is a factor which would hamper either type of drilling operation.

Although the best method of exploration would be underground work along a favorable structure, the property is not yet worthy of such a large scale program. It would be better to divide the proposed program into several stages, each of which would be dependent upon the outcome of the preceding stage. In this way it would be possible to reappraise the property after it was better exposed before approving further work. A suggested

revision of the program is outlined below:

| | | |
|---|---|---|
| Stage 1. - | Sink inclined shaft N. 30° W., -25°, 300 feet along a flat-lying structure which overlies ore zone - 300 feet @ $64.40/ft. | $19,320 |

If no mineralization of any importance is encountered, contract would terminate; if sufficient mineralization is encountered, cut station at mineralization and drift 200 feet to determine if a commercial ore body is present.

| | |
|---|---|
| Cutting temporary station | 1,000 |
| 200 feet of drifting @ $36.25/ft. | 7,250 |
| Total | $27,570 |

If no commercial ore body is present, contract is terminated.

| | | |
|---|---|---|
| Stage 2. - | Same as stage 1 | 27,570 |
| Stage 3. - | " " 1 | 27,570 |
| Stage 4. - | " " 1 | 27,570 |
| Stage 5. - | " " 1 | 27,570 |
| Stage 6. - | 2,000 feet of diamond drilling from the 1500-level - 2,000 feet @ $6.00/ft. | 12,000 |
| | Total | $149,850 |

The shaft would follow the limestone hanging wall and dip vertically if necessary to follow the ore. If the shaft is steeper than 25°, then only an amount of sinking necessary to reach the equivalent depth should be allowed. The project, therefore, could conceivably be completed for a fraction of the estimated cost.

Government participation, if shaft continues on a 25° slope, would be $112,387.50.

Hogle Bros. have started sinking the inclined shaft and it was reported to be down 20 feet on August 17, 1954. If application is approved,

starting date will be date of receipt of approval, and project completed in 24 months if not terminated because of lack of mineralization.

To do the work proposed will require the purchase and installation of the following equipment:

| Item | Installed cost incl. freight | Status on 7/22/54 |
|---|---|---|
| Oil tanks | $ 500.00 | 2 oil tanks installed, 3,000 gallon each |
| Water tank | 500.00 | 2 water tanks (old) 40 inch diameter, 8 feet deep |
| Hoist house and change room | 2,500.00 | To be constructed |
| Headframe, surface track and piping | 2,700.00 | Piping and track in use |
| Small tools | 700.00 | Misc. tools on hand |
| Ventilating fan | 575.00 | |
| Compressor, Diesel driven | 9,500.00 | 1 Gardner Denver, 500 cfm with Catterpiller Diesel (new) in use |
| Hoist, Diesel driven | 6,500.00 | Old steam converted to air hoist in use 20-inch diameter drum, 15-horse-power |
| Jackhammer with air legs | 1,320.00 | 2 in use; 1 new - 1 old |
| Air hoses | 295.00 | In use |
| Mine cars | 320.00 | 2 antique ore cars in use; 42 cubic feet |
| Mucking machine | 3,650.00 | 1 Eimco, 12B loader (new) |
| Total | $25,060.00 | |

Other equipment on the property (7/22/54):

1 Air Receiver (old)
1 Dodge power wagon
40-lb. rail
Misc. tools
1 Joy, double drum tugger hoist
Shaft timber and lagging
Old 4-inch pipe for air, new 1-inch pipe for water
1 Leland gasoline driven alternator, 120 volts, 72 amps

Procurement of equipment and supplies was started May 10, 1954.

For sinking the 7-foot high by 6.5-foot wide exploratory inclined shaft, the applicants estimated costs are as follows:

| Item | Cost per foot |
|---|---|
| Labor, supervision, engineering & taxes | $29.50 |
| Oil and fuel | 5.10 |
| Timber, including sets and ties | 6.15 |
| Powder, fuse and caps | 3.10 |
| Rails, spikes and accessories | 2.10 |
| Air and water lines | 1.30 |
| Ventilation pipe | 2.00 |
| Bell line | .20 |
| Drill steel and bits | .95 |
| Hauling water | 2.05 |
| Equipment maintenance | 1.25 |
| Hand tools | .60 |
| Sampling and assaying | .35 |
| Sub-total | $54.65 |
| Rental of equipment or amortization of equipment, if purchased | 9.75 |
| Total cost per foot | $64.40 |

Cutting shaft stations:

The applicant proposes three shaft stations of 1,500 cubic feet of excavation, with timbering, each cost $2.00 per cubic foot, for a total cost of $3,000 each; total $9,000.

This figure of $3,000 per station is considered too high for a small exploration drift with a probable maximum length of 200 feet. If the drift is put in a mineralized zone, which is not at the shaft bottom, a bulkhead would have to be constructed in the 7- by 6-1/2-foot shaft, a little extra headroom would have to be made at the station to dump the cars. A figure of $1,000 per station is considered ample.

Drifting and crosscutting (5-1/2 feet by 7 feet):

If the drifting in stage 1 discloses 200 feet of good mineralization, it would be sufficient to justify the approval of stage 2 without fully exploring the immediate area of stage 1. Therefore, it is recommended that the drifting be limited to 200 feet for each stage. The applicant's detailed cost estimate is as follows:

| Item | Cost per foot |
|---|---|
| Labor and supervision with taxes | $18.20 |
| Oil and fuel | 3.50 |
| Powder, fuses and caps | 2.95 |
| Rail and accessories, including ties | 1.75 |
| Air and water lines | .55 |
| Drill steel and bits | 1.10 |
| Hauling water | 1.00 |
| Equipment maintenance | .75 |
| Hand tools | .25 |
| Sampling and assaying | .20 |
| Sub-total | $30.25 |
| Rental of equipment or depreciation on items purchased | 6.00 |
| Total cost per foot | $36.25 |

Diamond drilling:

2,000 feet of diamond drilling has been proposed to be drilled from the bottom or 1500 level. The applicants estimated cost of $6.00 per foot is considered reasonable.

There will be no camp established at the property. The employees will live in Eureka, Nev. The only building proposed would house the compressor and hoist and would also be used as a change house for the employees. The applicant's estimated cost of $2,500 for this building is thought to be reasonable.

## Estimated Cost Per Stage

| Item | Cost | Government Participation |
|---|---|---|
| 300 feet of shaft @ $64.40/ft. | $19,320.00 | $14,490.00 |
| Cutting temporary station | 1,000.00 | 750.00 |
| 200 feet of drifting @ $36.25/ft. | 7,250.00 | 5,437.50 |
| Totals | $27,570.00 | $20,677.50 |

### Summary

| | |
|---|---|
| 5 stages @ $27,570 | $137,850.00 |
| 2,000 feet of diamond drilling @ $6.00/ft. | 12,000.00 |
| | $149,850.00 |

Government participation would be $112,387.50.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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BUR - COMMUNICATIONS

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SAN FRANCISCO CALIF 9-10-54 821A

GEORGE C SELFRIDGE CHAIRMAN

OPERATING COMMITTEE DEFENSE MINERALS EXPLORATION ADMN

INTERIOR BLDG WA

REURTEL 9/9 THE REPORT ON DMEA-3395, HOGLE BROS., SENT TO YOU SEPTEMBER 8.

S RICKER FOR H C MILLER EXECUTIVE OFFICER DMEA FIELD TEAM REGION III

9/9 3395 8

AC 829A

No reply necessary
WSM

DOCKET
Surname:
Rutledge
Martin
Selfridge

Interior Department
Defense Minerals Exploration
Administration
14X4401(01) Revolving Fund, Defense
Production Act, Interior
(Allocated working Fund to the
Office of the Secretary)

SEP 9 1954

T E L E T Y P E

To: M. C. Miller, Executive Officer, DMEA Field Team, Region 3,
San Francisco, California

Hogle Bros. pressing for early action on DMEA 3555,
in view of their present heavy expenditures.

Please advise when we may expect Field Team report.

SIGNED
Chairman, Operating Committee

Confirmation to FT, Reg. 3

cc: DOCKET
CODE 400
ADM. READ. FILE
OPER. COMMITTEE
THOR KIILSGAARD, USGS
H. W. DAVIS, USBM

SOMittendorf/ls
9-9-54

R.C.G.

400

DOCKET
SURNAME
Rutledge
Davis
Martin
Hedges
Guild
Selfridge
Johnson

JUN 30 1954

Hogle Bros.
132 South Main
Salt Lake City, Utah

Re: Docket No. DMEA 3395 - Nickel & Manganese
Hogle Bros., Partnership
Migana mine (Mibellini mine)
Eureka County, Nevada

Gentlemen:

The above-docketed application for exploration assistance for nickel and manganese has been reviewed by the Iron and Ferro Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. H. C. Miller, Executive Officer, DMEA Field Team, Region III, 420 Customhouse Building, 555 Battery Street, San Francisco 11, California, for a field examination of the property.

Any assistance that you can render the members of the field team will be appreciated.

Sincerely yours,

C. O. Mittenderf

Administrator

FARUTL:DAL:foo
6-29-54
cc to: Docket
Code 400
Adm. Reading File
Operating Comm.
PT. Reg. 3
Bureau of Mines
E. L. Newcomb, USGS

R.C.G.

400

Docket
Surname

Rutledge
Davis
Martin
Selfridge
Johnson

JUN 30 1954

Mr. H. C. Miller, Executive Officer
DMEA Field Team, Region III
420 Customhouse Building
555 Battery Street
San Francisco 11, California

Re: Docket No. DMEA 3395 - Nickel & Manganese
Hogle Bros., Partnership
Nigant mine (Gibellini mine)
Eureka County, Nevada

Dear Mr. Miller:

The subject application for exploration assistance is being referred to your office for a field examination of the property if required. We have been informed by Mr. Hogle that many of the data necessary for a review are already in the Bureau of Mines' files.

In reviewing the application and the data available here in Washington, it was noted that no analyses, with the exception of that for manganese, were given for the ore shipped to the Ore Buying Depot at Wendon, Arizona. If available, it would be appreciated if these could be obtained.

A Bureau of Mines Report of Investigation, R. I. 4162, "Gibellini Manganese-Zinc-Nickel Deposits, Eureka County, Nevada." by E. O. Binyon described an exploration project by the Bureau of Mines on the subject deposit during 1946. This report states that the metallurgy for the recovery of the nickel, zinc, and other commodities in the ore beside the manganese remains to be further investigated. If more data are now available on such tests, it will be appreciated if they are included in the Field Team report.

Two copies of a relevant memorandum by Louis Pavlides, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

APPROVED:

J. H. Hedges (GCS)
Member, Bureau of Mines

Philip W. Guild (GCS)
Member, Geological Survey

Enclosure

cc: E. L. Newcomb, USGS, Rm. 5227

FARUTIEDGE:foc
6-30-54
dc to: Docket cc: Adm. Reading File
Code 400 Operating Comm.
FT. Reg. 3 Bureau of Mines, 3519

R.C.J.

Note:

See section under Metallurgy, page 5, attached R. I. 4162, Gibellini Manganese Zinc-Nickel Deposits, Eureka County, Nev., by E. O. Binyon.

Docket

IN REPLY REFER TO:

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

June 29, 1954

Memorandum

To: Mr. W. S. Martin, DMEA

From: Louis Pavlides, USGS

Subject: DMEA 3395, (Manganese) Hogle Bros. Niganz Mine, Eureka County, Nevada.

The applicants propose to explore what they state to be "a combination vein and bedded deposit." They believe that the metalization is localized within a brecciated area "along the intersection of two faults in conjunction with a limestone bed."

The mineralization is thought to follow the trace of the intersection of a limestone bed and the fault zone, and that there is "an excellent possibility that enough oxidized ore - to warrant a treatment plant - will be found above the permanent water table" (item 4c).

The applicants presumably also estimate (item 4b) that there is in the order of 20,000 tons of "ore" on the property within the area of present workings which assays 23 percent Mn and 2.25 percent Ni.

They propose to explore the property by sinking an inclined shaft 1500 feet along the footwall of a low-angle fault down to the water table, cutting 3 stations at approximately 500-foot intervals down the shaft, from which approximately 2000 feet of drifting and crosscutting will be run. To explore the possible downward extension of theore body below the water table, 2000 feet of diamond drilling is planned to be done from the lower level.

The U. S. Bureau of Mines explored the subject property, then known as the Gibellini deposits, by 6 diamond drill holes, which developed only spotty showings of manganese. 1 / However, a supplementary report based on later development work 2 /, W. T. Benson of

1 / Binyon, E. O., 1948, Gibellini manganese - zinc - nickel deposits, Eureka, Nevada: U. S. Bur. Mines R. I. 4162, 9 p.

2 / Benson, W. T., 1953, Gibellini Manganese - nickel deposit, Eureka County, Nevada: Supplementary Rept., U. S. Bur. Mines, 4 p.

the Bureau of Mines believes the ore is controlled by an eastward trending thrust fault that dips 20-40° north; the ore body underlying the thrust fault. Benson also believes the upward continuation of the ore zone terminates against a major faulted crush zone (idem, p. 2). The manganese minerals reported for this deposit are psilomelane and pyrolusite, with the high values of Ni, Zn, Mo, V and Ba chemically bonded to these minerals (Binyon, 1948, p. 5). Binyon (1948, p. 5-6), concluded "that a 30 to 35 percent Mn product would be the optimum to be obtained by ore dressing methods" and that "the ultimate recovery of auxiliary metals would mean the (use) of hydrometallurgical processes. Presumably he was referring to "ore" that assayed about 18.5 percent Mn (idem, p. 5). The recent development work described by Benson, however, lists assays of "ore" running appreciably higher and these are the assays furnished by the applicants as item 5C.

Two shipments of ore have been made since Aug. 1953 from the property and these are as follows:

| | Tons (dry) | Mn (%) | Destination |
|---|---|---|---|
| (1) | 85.86 | 31.65 | Combined Metals Reduction Plant, Caselton, Nevada |
| (2) | 45.9 | 36.05 | Wenden, Arizona |

In view of the tenor of assays cited by Benson and that of the above shipments, the subject property is of interest. However, the application as it now stands is in need of revision and paring down as much of the work proposed overlaps into development rather than exploration. I recommend that a field team examination be made in which both a geologist and engineer take part in order to resolve the geologic as well as engineering aspects of this proposal for exploration. Specifically, more geologic information is needed to evaluate the potential of the deposit, as well as orient the exploration program. The present program is predicated on fault control for the localization of the ore, whereas Binyon had earlier stated (1948, p. 8), "the deposits are the sedimentary type formed by precipitation of the ore minerals from concentrated mineral-bearing solutions in the depressions or traps in limestone." The possibilities of exploring by diamond drilling rather than by the extensive inclined shaft and drifts and cross cuts as now proposed should be investigated.

The application should be considered also as a possible base metal loan in view of the fact that the applicants refer to

the possibility of "a good commercial ore body in the sulfide zone" (item 4C). In this eventuality the loan should be prorated on the amount of manganese or base metals present.

Louis Pavlides (C.L.N.)
Louis Pavlides
Geologist

Mr. Davis

Hogle has talked to Mittendorf
Gave him to understand that Bureau of
Mines has done considerable work on
property and results favorable

Hogle has already started to move in
equipment.

May I have your comments on proposed
project

J. A. Rutledge

Davis furnished reports by Bureau of Mines

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

June 21, 1954

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA - 3395 Hogle Bros.

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

June 21, 1954
DMEA-3395

Hogle Bros.
132 So. Main
Salt Lake City, Utah

Subject: Exploration Assistance
Re: Niganz

Gentlemen:

The receipt of your application dated June 15, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3395 and referred to the Iron and Ferro Alloys Division.

Kindly refer to in any future correspondence relating to your application.

Sincerely yours,

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

420 Custom House
555 Battery Street
San Francisco 11, California

June 17, 1954

Memorandum

To: Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for loan - Nickel and Manganese
Niganz Mine
Hogle Bros., Partnership
Eureka County, Nevada

Attached are three of the four copies of an application for an exploration loan received in this office today.

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

Attachment

Copy to: R. M. Smith (USGS)

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

420 Custom House
555 Battery Street
San Francisco 11, California

June 17, 1954

Memorandum

To: Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for loan - Nickel and Manganese
Nigans Mine
Hogle Bros., Partnership
Eureka County, Nevada

Attached are three of the four copies of an application for an exploration loan received in this office today.

S. RICKER

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

Attachment

Copy to: R. M. Smith (USGS)

BUREAU OF MINES
1012 Flood Building
870 Market Street
San Francisco 2, Calif.
OFFICIAL BUSINESS

SAN FRANCISCO, CALIF.
RINCON ANNEX

Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

FIRST CLASS