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DMA Docket No. 4284

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cy USGS; Cy B Mines

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DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1-29	Anderson	600
1/30	Houk	600
"	Johnson	110
"	Mittendorf	100
		220

600

JAN 30 1957

Mr. D. G. Gibson, Jr.

Elizabethtown, Illinois

Re: Docket No. DMEA-4284
Fluorspar, lead, zinc
D. G. Gibson, Jr.
Ingram Tract
Hardin County, Illinois

Dear Mr. Gibson:

Reference is made to your letter of January 5, 1957, indicating that you have no interest in continuing with the processing of the subject application.

Accordingly we are considering your application as having been withdrawn and are placing it in our inactive files.

If at some future time you desire to reopen this case, you may do so by filing a new application, referring to the subject application by the DMEA docket number, and furnishing the information previously requested, together with any other information that you think might be helpful.

Sincerely yours,

C. O. Mittendorf

Administrator

WCAnderson:gad 1/29/57
Copy to: Admr. R. File
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk

8623

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

January 29, 1957

Memorandum

To: Mr. Allen S. Dakan, Operations, Control and Statistics Division

From: Lawrence G. Houk, Chief, Nonmetallic Minerals Division

Subject: Withdrawal of application
Docket No. DMEA-4284-Fluorspar, Lead, Zinc
D. G. Gibson, Jr.
Ingram Tract
Hardin County, Illinois

We are notifying the applicant that since he has no interest in continuing the processing of the subject application, we are considering the matter closed.

The subject application may be withdrawn from the pending category and placed in the inactive files.

W. C. Anderson

W. C. Anderson
Nonmetallic Minerals Division

DODD GIBSON
ELIZABETHTOWN
ILLINOIS

ORIGINAL FILE COPY
DMEA
RECEIVED JAN 9 1957

DATE	INITIALS	CODE
1-9	Houk	600
1-10	Hopkins	600

January 5, 1957

Mr. Lawrence G. Houk, Chief
Department of the Interior,
Defense Minerals Exploration Administration,
Washington 25,
D. C.

Re: Docket No. Dmea 4284
Fluorspar, lead, zinc.

Dear Mr. Houk,

In reply to your letter of December 19th in regard to development on the Ingram Tract:

Two holes were started. Both holes, though located 150' apart normal to the structure, encountered highly fractured ground just a short distance below the top of the Bethel sandstone contact. Attempts to deepen these holes were unsuccessful and the drill contractor refused to continue at contract price. His demand for guaranteed daily price was unreasonable as far as I was concerned. The structure looks promising to me but further exploration is going to be too costly for an individual to undertake.

I appreciate your interest.

Sincerely,

D. G. Gibson Jr.

CW

DOCKET COPY
Surname:

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

600

DEC 19 1956

Mr. D. G. Gibson, Jr.

Elizabethtown, Illinois

Re: Docket No. DMEA-4284 - fluorspar, lead, zinc
D. G. Gibson, Jr.
Ingram Tract
Hardin County, Illinois

Dear Mr. Gibson:

Reference is made to our letter dated August 6, 1956, advising that processing of the subject application would be held in abeyance pending receipt of the drilling results on land adjoining your lease.

If this work has been completed, we will greatly appreciate receiving a report on what was found in the drill holes.

Sincerely yours,

SIGNED
Lawrence G. Houk, Chief
Nonmetallic Minerals Division

JHopkins:ms 12/19/56
Copy to: Docket
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk
Admr. R. File

cw

DOCKET COPY
Surname: Hopkins
Houk
Nelson
Geehan
Martin
Hefleman

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

600

Mr. D. G. Gibson, Jr.

AUG - 6 1956

Elizabethtown, Illinois

Re: Docket No. DMEA-4284-fluorspar, lead, zinc
D. G. Gibson, Jr.
Ingram Tract
Hardin County, Illinois

Dear Mr. Gibson:

Your application for aid for an exploration project and other reports available to us in Washington relating to the subject property have been reviewed.

A careful study of your proposed drilling program indicates to us that Government participation is not justified at this time. Since you plan to participate in a drilling program with another company, on land adjoining your lease, we will be pleased to receive any information on the results of this work. Processing of your application, therefore, will be held in abeyance until the results of this work have been received and appraised by members of the Field Team, Region V. If there should happen to be any necessary delays in completing this work, we will appreciate being advised promptly.

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

Sincerely yours,

C. O. Mittendorf

Administrator

JHopkins:ms 8/2/56
Copy to: Docket
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk
Admr. R. File
Robert D. Trace

R.C.S.

IN REPLY REFER TO:

RECEIVED
JUL 27 1956

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

July 26, 1956

Re: DMEA 4284
D. G. Gibson, Jr.
Ingram Tract
Hardin County, Illinois
Fluorspar

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

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

Subject: Review of Field Team report

The applicant requested assistance in exploring possible faults and the beds near them by churn and core drilling.

The examiners found the evidence of faulting, on which the application largely rests, is too obscure to qualify the proposed work as exploration. The applicant agrees and proposes to do prospective drilling after which, depending on the results obtained, the application will be altered or withdrawn.

I concur with the arrangement effected by the examiners.

N. E. Nelson

N. E. Nelson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM POST OFFICE BLDG.
WASHINGTON 25, D.C.
KNOXVILLE 2, TENN.

RECEIVED
JUL 2 3 1956

July 23, 1956

Memorandum

To: Operating Committee, DMEA - Washington

From: DMEA Field Team, Region V - Knoxville, Tennessee

Subject: Field Examination Report - DMEA-4284 (Fluorspar,lead,zinc)
D. G. Gibson, Jr., Elizabethtown, Illinois
Ingram Tract- Hardin County, Illinois

Enclosed are four copies of the subject examination report.

We agree with the conclusion that contract should not be approved now, and recommend that a final decision be withheld until completion of the Applicant's additional work and a re-evaluation based on that work.

Robert A. Laurence
Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V

Wm. A. Beck
Wm. A. Beck, for
V. J. Lynch, Member
Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
7/27/56
(date)

Field Team Report on Examination of Property

by

Robert D. Trace and H. L. Burmeister[1/]

Reviewed by
DMEA OPERATING COMMITTEE
7/27/56
(date)

RECEIVED
JUL 25 1956

Docket No. DMEA-4284 (fluorspar, lead & zinc)
Ingram Tract, Hardin County, Illinois.
Applicant: Mr. D. G. Gibson, Jr. Elizabethtown, Ill.

Summary

The Ingram Tract was examined on July 3 and 6, 1956. The known fault was observed in the creek and at the abandoned shaft in section 23 as shown in Fig. 2. Conclusive evidence of faulting in the area proposed for drilling was not found.

No fluorspar, zinc or lead mineralization has been found on the Ingram Tract or on the Minerva Oil Co. property to the west which is traversed by the known fault, Fig. 2. All evidence indicates that any work done at this time would be prospecting rather than exploration. The Applicant indicated that he is of the same opinion.

The Applicant suggested that this application be held until he completes certain drilling as indicated under "Alternate Proposal" in this report. If results of this prospecting are not encouraging, the Applicant will withdraw the present application. If results are encouraging he will furnish additional data toward reopening the application. The cost structure would also be revised.

Conclusions and Recommendations

Based on examination of the ground and other available information, it is concluded that any work done on the Ingram Tract at this time would be prospecting and not qualified for assistance in exploration under the DMEA program.

The Applicant volunteers to do additional drilling for his own account toward the end of qualifying for DMEA exploration.

1/Robert D. Trace, geologist, U.S.Geological Survey
H. L. Burmeister, engineer, U.S.Bureau of Mines

It is recommended that this application be held subject to either withdrawal by the Applicant or his furnishing additional data as a result of his prospecting, which would qualify his application for exploration under the DMEA program.

Time Spent on Property

The examiners spent six hours on the property in company with Mr. D. G. Gibson, the Applicant, and Mr. Bert Ingram, owner of the property. In addition the geologist returned for 4 hours to check details.

Name and Location of Property

This property is known as the Ingram Tract and is located in Sections 23 and 26, T. 11 S, R. 8 E., in Hardin County, Illinois. It is reached by proceeding northward from the village of Elizabethtown, Ill. on State Rt. 146 for a distance of 1.7 miles. At this point leave Rt. 146 and proceed due north on a good graveled road for a distance of 5.2 miles to the southwestern corner of the Ingram Tract. At this point turn due east on a graveled road for slightly less than 1/4 mile, to the home of Mr. Ingram, the owner of the Tract. (Fig.1). Access to the property may also be had by way of Karbers Ridge road. All roads are in good condition in all seasons.

Competency of Applicant

The applicant is a mining engineer and has been actively engaged in fluorspar mining in this district for many years. In this area he is considered to be financially responsible.

Applicant's Property Rights

The applicant holds the Ingram Tract (Fig.1), under a 25-year lease dated May 4, 1954. A clause in the lease requiring mining work within 24 months of the date of lease, or forfeiture of lease, has been satisfied by drilling two churn drill holes referred to in the application. A friendly

relationship exists between the owner and the applicant. Six copies of "Owner's Consent to Lien", were furnished with the application. The examiners were informed that no mortgages or liens attach to the property.

None of the land described in the lease is withheld from participation in DMEA exploration.

Description of Property

The surface is gently rolling and about 2/3 of the tract consists of grazing and farm land, while the other 1/3 is wooded. Exploration as outlined in the application would be on open ground.

There are no mine workings on the property and total exploration work consists of the 2 churn drill holes shown on the applicant's map and on Fig.2 of this report.

Availability of man-power, supplies, & equipment

Men and equipment necessary for either churn drilling or diamond drilling are easily obtained. These methods of exploration are in constant use in this area. Gasoline or diesel power would have to be used for exploration work. Water is usually flowing in a creek very near the exploration area, but at the present time the creek is dry.

Wage rates are not of consequence in this application as all drilling is planned to be done under contract.

GEOLOGY
Gibson Lease

The ore deposits of the general area consist of fluorite with subordinate quantities of sphalerite and galena. Calcite and barite are the principal gangue minerals. The ore deposits occur 1) as veins along steeply dipping normal faults that displace relatively flat or shallow-dipping shale, sandstone, and limestone beds of Mississippian age, and 2) as bedding

replacement deposits commonly at the base of the Rosiclare sandstone member of the Ste. Genevieve formation or at the base of the Bethel sandstone. The Ste. Genevieve formation is in the Meramec group and the Bethel sandstone is in the Chester group, both of Mississippian age. Faults of small displacement generally are associated with the bedding replacement deposits.

The applicant's property is in the northern part of the Illinois fluorspar district, in the vicinity of the Lee mine. (see: Geology of the fluorspar deposits of Illinois, by J. M. Weller, R. M. Grogan, and F. E. Tippie, Ill. Geol. Survey Bull. 76, 1952.) A relatively small amount of mining and exploration has been done in this area. In general, the area is characterized by a few relatively good "gravel spar" deposits but the unweathered vein deposits are narrow. ("Gravel spar" deposits usually extend no more than 100 feet below the surface, and are formed from veins along faults by the weathering and solution of wall rock limestone and vein calcite, leaving a concentration of relatively insoluble fluorite.) A small quantity of bedding replacement ore has been reported at the Renfrew prospect.

The only known exception to the above characterization is the Goose Creek deposit in sec. 17, T. 11 S., R. 9 E., where a high grade fluorspar vein up to 20 feet wide has been mined. More typical of the area is the Lee mine (see U.S.Bureau of Mines R.I. 3996) which is primarily a "gravel spar" deposit. Exploration by the U.S.Bureau of Mines beneath the "gravel spar" zone was unsuccessful. The Renfrew deposit, in sec. 23, T. 11 S., R. 8 E., probably was weathered bedding replacement ore. Several holes were drilled recently by the Ozark-Mahoning Company around the Renfrew deposit; no ore was found. The Renfrew deposit is noted only for the presence of small bud-like fossils (Pentremites) completely replaced by purple fluorite.

Alcoa (Aluminum Company of America) did considerable drilling on the Cook property in the east half of sec. 23 and the west half of sec. 24, T. 11 S., R. 8 E., on the Wolrab Mill fault. (See Ill. Geol. Survey Bull. 76.) No ore was found. Alcoa geologists' describe this fault as "full of gouge and shale." Directly southwest of the Goose Creek mine, Alcoa also drilled about 70 holes in secs. 19 and 20, T. 11 S., R. 9 E. The best fluorspar cut by drilling was less than one foot wide.

The geology of the applicant's property and neighboring properties is incompletely known. The fault pattern shown in Illinois Geol. Survey Bull. 76 is rather generalized and undoubtedly does not show all the faults in the area. As usual in the fluorspar district, outcrops are scarce and a good large scale geologic map of a small area is possible only after considerable exploration has been done.

The geology that can be seen on the applicant's and adjoining Minerva Oil Company's property is shown on figure 2. These data show that at least one fault is present, and that it trends about N. 30° E. The dip cannot be determined. At the surface, the southeast wall of the fault probably is Cypress sandstone and, based on the fossils present, the northwest wall is probably Golconda limestone and shale. This fault can be located in the field in two places: 1) limestone and shale can be seen near the surface in the west wall of the pull holes around the caved shaft, and sandstone in a small draw about 20 feet south of the caved shaft. 2) In the Creek near the center of the NE$\frac{1}{4}$, NW$\frac{1}{4}$, sec. 26, fractured, sheeted, and silicified sandstone crops out dipping 25° NW. Within 25 feet west of the sandstone but at the same elevation, limestone and shale crops out dipping 50° NW.

A fault obviously is present in both the Creek and the caved shaft. The direction of fracturing in the sandstone in the Creek, and the position and lithology of the outcrops near the caved shaft and in the Creek, suggest that the two fault outcrops are on the same fault.

The applicant, on the basis of two churn drill holes, Nos. 1 and 2, and jointed and possibly fractured sandstone in the Creek and east of the known fault, believes that one or more faults of minor displacement are present in the Cypress sandstone in the southeast wall of the known fault. (See Section A-A' in application.) In the writers' opinion, the field evidence is inconclusive. If the Cypress beds dip as much as 7-8° east, no minor fault need be inferred. Furthermore, a shallow eastward dip would not be unlikely as the applicant's property is only 4 miles east of Hicks Dome. The evidence for faulting also is inconclusive east of the known fault in the Creek. For about 50 feet east of the known fault outcrop in the Creek, the sandstone beds dip as high as 25° NW; further east, however, the beds appear to flatten somewhat and have only a slight dip. Because of obvious "rolling" cross bedding, the exact amount and direction of dip cannot be determined. The sandstone has an unusually large number of NE- and NW-trending "joints" spaced from an inch to a foot apart. Whether or not displacement has taken place along one or more of these "joints" cannot be determined. It is well known in the district that little or no evidence of faulting commonly can be seen where the displacement is small and both walls are sandstone.

In summary, one fault is known to be present. No mineralization has been found, however, either in the caved shaft or at the Creek outcrop. The evidence for other fault to the east is weak. Further evidence should be found before DMEA participation. The possibility of finding sizeable

deposits of bedding replacement ore cannot be evaluated. Until more is known about the area, test drilling for bedding replacement ore is prospecting.

Applicant's Proposal

The applicant proposes to drill 3 or more churn drill holes in the vicinity of completed holes Nos. 1 and 2 to an approximate depth of 150 feet each. The object of drilling these holes is to more accurately determine the location of the fault suggested by completed holes Nos. 1 and 2. The churn drill holes "C", alternate "C" and "D", would be drilled to the top of the Paint Creek formation and if favorable structures were encountered, would be deepened to penetrate 40' or 50' of the Renault formation to test the possibility of the presence of bedded ore.

If favorable structures were encountered by churn drill holes, the applicant proposes a number of diamond core drill holes to cut the fault structure located by churn drill holes at points below the Rosiclare sand in the footwall of the fault structure.

The applicant does not specify the number of core drill holes, their individual lengths or total feet of core drilling. No bids were requested for either churn or core drilling from contract drillers. Engineering and clerical costs are not broken down nor is any cost included for core boxes or supervision.

Alternate Proposal

It is believed that the applicant's proposal is incomplete in many respects and also that it represents prospecting rather than exploration. The applicant indicated that he believes this view may be justified and suggested that he take the following course: Reopen a previous agreement to share churn drilling costs with Minerva Oil Co. which owns adjoining ground crossed by the possible fault structure and in no way change his lease terms.

UN 4-3100

Mr. Gibson hopes that this would locate the fault structure and bring his application into the category of exploration.

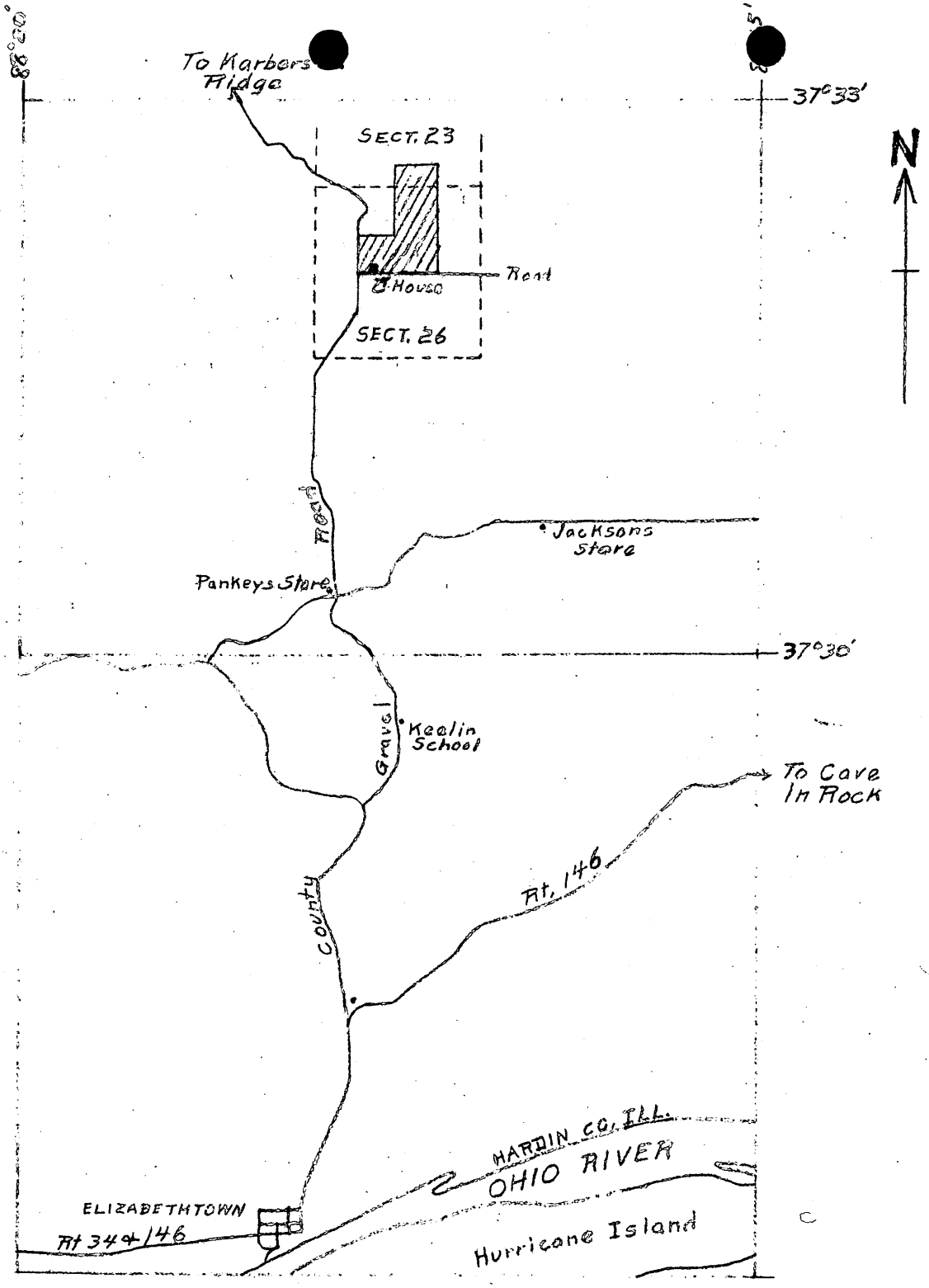
Mr. Gibson requests that the present application be held without prejudice pending results of the joint churn drilling for structure. If results are not encouraging, Mr. Gibson will withdraw his application. If encouraging results are obtained he wishes to furnish the additional data obtained, to justify revision of the present application. In this event he would also furnish a definite revised program including number and locations of drill holes, lengths of holes, bids from contractors, and all other details not properly submitted in the present application.

The examining team agree that the above-outlined program has merit and should be followed to the end that the application may be revised and become one representing exploration rather than prospecting.

John B. Hanley
John B. Hanley, geologist
for Robert D. Trace

H. L. Burmeister
H. L. Burmeister,
engineer

July 12, 1956



INGRAM TRACT

DMEA-4284
D. G. Gibson, Jr.
INGRAM TRACT, HARDIN CO. ILL.

0 miles 1

7/3/56

FIG. 1

Fig. 2 DMEA 4284

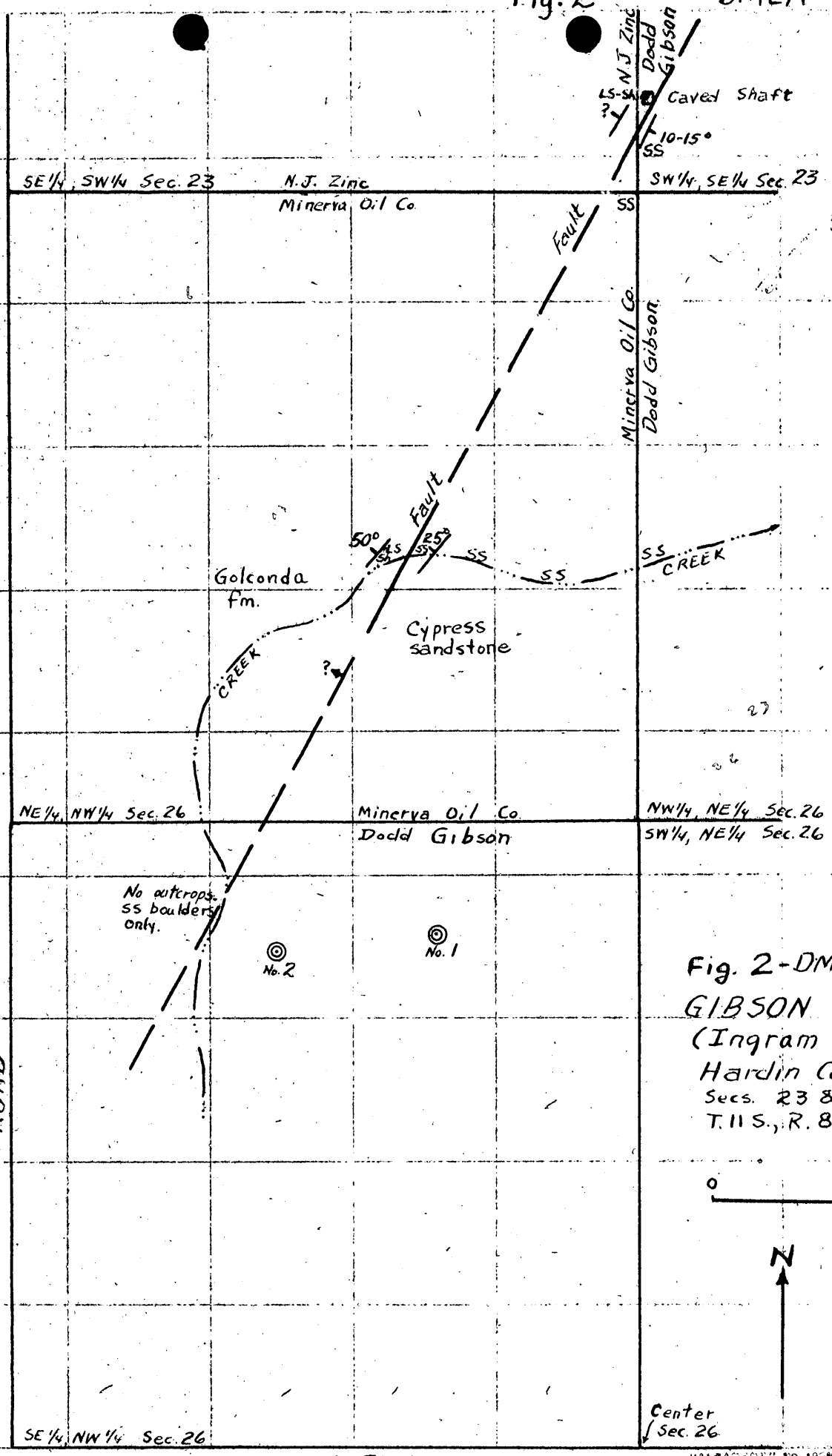


Fig. 2 - DMEA 4284:
GIBSON LEASE
(Ingram tract)
Hardin Co., Ill.
Secs. 23 & 26
T. 11 S., R. 8 E.

R.D.T.

RECEIVED
MAY 28 1956

May 25, 1956

Mr. D. G. Gibson, Jr.
Barra Nada Ranch
6180 East Pima Avenue
Tucson, Arizona

Re: DMEA-4284 (Fluorspar)
Ingram Tract, Hardin County, Ill,

Dear Mr. Gibson:

Thanks for your letter of May 20, advising me that you will be away from the fluorspar district until June 10.

According to our present plan, the examination of your application will be made by Mr. Robert Trace, of the U. S. Geological Survey and Mr. Harry Burmeister of the U. S. Bureau of Mines. They will arrange with you to visit the property some time after June 10.

Very truly yours,

Robert A. Laurence,
Executive Officer, DMEA
Region V

RAL/sm
cc:
Miller
Trace
Lynch
Files
Opr. Com.-2

DOCKET COPY
Surname:

Hopkins
Houk
Kiilsgaard
Gerhan
Selfridge
Hoffman

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

MAY 18 1956

Mr. D. G. Gibson, Jr.

Elizabethtown, Illinois

Re: Docket No. DMEA-4284-fluorspar, lead, zinc
D. G. Gibson, Jr.
Ingram Tract
Hardin County, Illinois

Dear Mr. Gibson:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville, 2, Tennessee, for further consideration and possibly a field examination.

The Regional Office will contact you at an early date if an examination is to be made. Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JHopkins:ms 5/17/56
Copy to: Docket
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk
Admr. R. File

DOCKET COPY
Surname:

Hopkins
Houk
Selfridge
Hyman

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C. 600

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Building
Knoxville, 2, Tennessee

MAY 18 1956

Re: Docket No. DMEA-4284-fluorspar, lead, zinc
D. G. Gibson, Jr.
Ingram Tract
Hardin County, Illinois

Dear Mr. Laurence:

Please review the subject application and arrange for a field examination if you deem it necessary.

Copies of memoranda dated May 11 and 14, 1956, by Mr. N. E. Nelson, USGS, and Mr. R. B. McDougal, USBM, respectively, relating to the project are enclosed.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

/s/ Robert W. Geehan

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

Enclosures:4

JHopkins:ms 5/17/56
Copy to: Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. McDougal, 3522
Mr. Houk
Admr. R. File

R.C.L.

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

RECEIVED
MAY 16 1956

May 14, 1956

Memorandum

To: Lawrence G. Houk, Chief, Non-Metallic Minerals Division, Defense Minerals Exploration Administration

From: Commodity Specialist, Branch of Construction and Chemical Materials

Subject: Review of Application, DMEA Docket No. 4284, Fluorspar Lead Zinc, D. G. Gibson, Jr., Ingram Tract, Hardin County, Illinois, Estimated cost not given.

The subject application has been reviewed and from the information presented appears to justify further investigation by the field team.

The applicant proposes to cable tool drill three or more holes to a depth of 150 feet in an area in which two holes have previously been drilled to determine fault displacement. These holes will be drilled to more closely determine the location of the fault between two previously drilled holes and to determine also the presence of minor faults within the shear zone. Contingent upon the success of the first stage, the applicant proposes to diamond drill a number of holes to cut faults located by first stage drilling. If ore is located as a result of cable tool drilling, diamond drilling will not be undertaken.

Although the estimated cost was not given, it is believed the minimum cost to be $1,080 for drilling three 150 foot holes in the first stage. An additional cost of $268 - $360 would result should these holes be deepened another 40 - 50 feet as proposed by the applicant.

This project is in a relatively unknown area. From indications on the geologic maps of the fluorspar district of Southern Illinois, 1950, in Geology of the Fluorspar Deposits of Illinois, State Geological Survey Bulletin 76, 1952, a fault cuts the Mississippian formations of the Renault limestone and shale, the Levias limestone and the Rosiclare sandstone. However, these formations are ore bearing elsewhere and it is possible this zone might also contain bedded deposits.

Possibly additional information on samples taken while drilling holes one and two might be furnished.

In view of the applicant's long experience in fluorspar mining operations, it is recommended that the application and such other information as is furnished be referred to the field teams for evaluation and appropriate action.

Sincerely yours,

Robert B. McDougal

Robert B. McDougal

Copy to: F I L E S
Division of Minerals
Br. of Const. & Chem. Mats. (2)
Mr. Thor H. Kiilsgaard, Room 5222
Geological Survey
Mr. Robert W. Geehan, Room 3608

IN REPLY REFER TO:

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

RECEIVED
MAY 11 1956

May 11, 1956

Re: DMEA 4284 H
D. G. Gibson, Jr.
Bert Ingram Tract
Hardin Co., Illinois
Fluorspar

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

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

Subject: Review of application.

The applicant requests assistance in locating an inferred fault by cable-tool drill holes and exploration by angle diamond drill holes of favorably regarded beds near the fault if it is located.

As shown on the Geologic Map of The Fluorspar District of Southern Illinois, 1950, Illinois State Geological Survey, the locality to be prospected is 2½ miles south of the Lee mine, the nearest fluorspar mine. The applicant reasons that the beds (Renault), whose erosion remnants show fluorspar mineralization where exposed at the surface, may be mineralized where downthrown and protected from erosion on the downthrow side of the inferred fault.

The extent of the mineralization in the remnants is not stated. The upper part of the Renault beds are fluorspar-bearing in at least two mines of the Ozark-Mahoning group, six to eight miles to the east of the project area. The replacement deposits lie along one or both sides of minor fractures and faults of small displacement. Widths of 50 to 150 feet and thicknesses of 3 to 15 feet are typical.

Correlations of the beds intersected in two cable tool holes, 550 feet apart, suggest the existence of the inferred NE-SW fault and its trace is believed to be observable in the bed of a creek 1000 feet from the drill holes. The vertical movement is estimated to be 50 feet.

As shown on the map referred to above, the full thickness of the Renault-Levias-Rosiclare formation crops out on the strike of the fault about a quarter of a mile from the drilled section. Unless the overburden is very deep signs of mineralization should be present. If zinc accompanies the fluorspar, geochemical tests should detect it in the overburden.

The information given in support of the application is not as convincing as might be desired.

Referral of the application and data to the Field Team for appraisal is recommended.

N. E. Nelson

N. E. Nelson

BUREAU OF MINES
WASHINGTON, D. C.

MAY 11 3 13 PM '56

RECEIVED
MAY 9 - 1956

MF-203
(Revised July 1, 1954)

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of ILLINOIS, County of HARDIN, described as

~~follows~~ in a lease dated 4th day of May, 1954, and recorded in Book 5, on page 405 official records of said County.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ D. G. Gibson, Jr. of Elizabethtown, Hardin County, Illinois

hereinafter called the "Operator"; and

WHEREAS, under the provisions of said contract the Government is entitled to a percentage royalty on production and to other rights and equities which do or may conflict with or be adverse to the rights of the undersigned:

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract or any amendment thereof shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production 3/ provided for under the terms of said exploration project contract or any amendment thereof there is hereby granted to the Government a lien upon the land above referred to and upon any production of minerals therefrom until said royalty is fully paid or ten years have elapsed from the date of the contract, whichever occurs first.

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2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

(OVER)

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

4. Changes and added provisions _____

_____

_____

_____

Dated this 6th day of March, 1956.

Bert Ingram [Seal]

Irene Ingram [Seal]

_____ [Seal]

RECEIVED

MAY 9 - 1956

MF-203
(Revised July 1, 1954)

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Bert Ingram [Seal]

Irene Ingram [Seal]

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MF-203
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MAY 9 - 1956

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_____

Dated this 6th day of March, 1956.

Bert Ingram [Seal]

Irene Ingram [Seal]

_____ [Seal]

May 9, 1956

Mr. D. G. Gibson, Jr.
Elizabethtown, Illinois

Subject: DMEA-4284
Re: Exploration

Dear Mr. Gibson:

The receipt of your application dated April 14, 1956 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 4284 and referred to the Non Metallics Minerals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

May 9, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region V.

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 V.

DMEA - 4284 D. G. Gibson, Jr.

Robert E. Adams
Chief, Operation's Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 25, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
MAY 9 - 1956

May 7, 1956

Memorandum

To: Operating Committee, DMEA - Washington

From: Acting Executive Officer, DMEA - Region V - Knoxville

Subject: Application: D. G. Gibson, Jr. Elizabethtown, Illinois

Transmitted are three copies of form MF-103, 6 copies of Form MF-203, and copy of the mining lease on the subject application. A sketch map of the property is also enclosed.

This application was received today from W. T. Miller, Mining Engineer, College Park, Md.

V. J. Lynch

V. J. Lynch

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

RECEIVED
MAY 9 - 1956

May 3, 1956

Memorandum

To: V. J. Lynch, Bureau of Mines member, DMEA Field Team, Region V

From: Mining Engineer, Eastern Experiment Station

Subject: DMEA Application from D. G. Gibson, Jr.

Transmitted herewith are four copies of an application and six copies of "Owner's Consent to Lien" from D. G. Gibson, Jr., submitted to this office.

Obviously, the application needs considerable rehashing which will be in order after a review by the Washington Office.

W. T. Millar

W. T. Millar

RECEIVED
MAY 7 1956
U. S. BUREAU OF MINES
DEF. MIN ADM.
Knoxville, Tennessee

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
MAY 9 - 1956

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

Not to be filled in by applicant

Docket No. DMEA 4284
Metal or Mineral Thermofax Red-Jack
Date Received 5/9/56
Estimated Cost Not given
Participation (Government %)

RECEIVED
MAY 1956
U. S. BUREAU OF MINES
DEF. MIN. ADM.
Knoxville, Tennessee

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: D. G. Gibson, Jr., Elizabethtown, Illinois

(*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. Not Applicable

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Not Applicable

(*d*) If a partnership, add to the above statement the names and addresses of all partners. Not Applicable

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 SE $\frac{1}{4}$ NW $\frac{1}{4}$; SW $\frac{1}{4}$ NE $\frac{1}{4}$; NW$\frac{1}{4}$ NE$\frac{1}{4}$ Section 26; S3/4 SW$\frac{1}{4}$ SE$\frac{1}{4}$ Section 23, T 11 S, R 8 E.

(*b*) State any mine name by which the property is known. No mining has been done

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

(*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. Copy of lease is included herewith

(*e*) If you own the land, describe any liens or encumbrances on it Not Applicable

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Not Applicable

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. No mining has been done.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. None

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

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

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

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

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

(*c*) The work will start within 30 days and be completed within 6 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? 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 April 14, 1956

H. G. Gibson Jr.
(Applicant)

By

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

D. G. Gibson, Jr.,
Elizabethtown, Ill.

 RECEIVED
MAY 1959

Instruction 4C

The main geologic feature is a fault striking S29W. This trend is indicated by an outcrop in the creek bed which shows a quartzite dike adjacent to an outcrop of limestone. This outcrop occures near the center of NE¼ NW¼, Sec. 26. A similar exposure is seen near the SW Corner, SW¼ SE¼, Sec. 23.

To the Southeast of the fault contact there is a shear zone some 400' in width with strong indications of several minor faults within this zone. Two cable tool holes drilled in early 1956 which are indicated on the accompany map as Hole No. 1 and Hole No. 2 have definitely proved a displacement of 50' within this shear zone.

The surface indications are similar in many respects to the exposures normaly found in connection with the bedded deposits of the Cave-In-Rock area. Since remanents of a bedded deposit which has been nearly completely removed by erosion are found in the south part of SW¼ NW¼, Sec. 23, the possible occurence of a bedded deposit is suggested, based on the proximity of bedded ore and the structural pattern indicated by the surface exposure in the shear zone adjacent to the fault.

Instruction 4D

The area is accessible by a good gravel road a distance of 6 miles from Elizabethtown, Illinois.

Instruction 4E

This property is located in a district that has been operating for many years. All facilities for operation are available.

Instruction 5B

The writer proposes to drill three or more cable tool holes in the vicinity of the existing holes to an approximate depth of 150' in an effort (1) to determine more closely the location of the fault between Holes No. 1 and No. 2 and (2) to determine whether there are other minor faults within the shear zone. These holes (shown as "C", alternate "C" and "D" on plan and section) would be drilled to the top of the Paint Creek formation which is an excellent marker bed. If favorable structures were encountered, the holes would be deepened to cut the upper 40' or 50' of the Renault formation where the bedding ore is likely to occur. (It has been established that the mineralization referred to in SW¼ NW¼, Sec. 23 is a replacement of Renault limestone)

After the completion of these holes, it is proposed that a number of diamond drill holes be located to cut the fault structures located by the cable tool holes. If favorable structures were not indicated by the results of the cable tool holes, the diamond drilling would not be undertaken. Or, if ore were found as a result of the vertical drilling, the diamond drilling would not be undertaken.

A sketch is enclosed showing the location of the proposed holes.

Instruction 5D

The applicant is a graduate of Missouri School of Mines '23 and University of Arizona '31. Engaged as Mining Engineer, Rosiclare Lead & Fluorspar Mining Company, 1929-1930. Engaged as Co-Manager Crystal Fluorspar Company 1932-1953. As Co-Manager, Crystal Fluorspar Company, in complete charge of all exploration, development and mining and milling operations.

D. G. Gibson, Jr.,
Elizabethtown, Ill.

Instruction 6

Cable Tool Cost	$2.25	per ft. of drilling
	.15	Engineering & Clerical
	$2.40	Total
Diamond Drill Cost	$2.75	per ft. of drilling
	.15	Engineering & Clerical
	$2.90	Total

Instruction 6A to 6H

Not applicable

RECEIVED
MAY 9 - 1956

MINING LEASE

This agreement made and entered into this 4th day of May, 1954 by and between BERT INGRAM AND IRENE INGRAM, his wife, both of Hardin County, Illinois, party of the first part, hereinafter designated as Lessor, and D. G. GIBSON, JR. of Elizabethtown, Hardin County, Illinois, party of the second part, hereinafter designated as Lessee,

WITNESSETH, that Lessor for and in consideration of the sum of One Dollar ($1.00) cash in hand paid, the receipt of which is hereby acknowledged, and of the agreements herein contained on the part of Lessee to be paid, kept, and performed, has granted, demised, leased and let, and by these presents does grant, demise, lease and let unto Lessee the following described real estate, TO-WIT:

THE SE ¼ NW ¼; THE SW ¼ NE ¼; THE NW ¼ NE ¼ SECTION TWENTY-SIX (26) TOWNSHIP ELEVEN (11) SOUTH RANGE EIGHT (8) EAST THE S 3/4, SW ¼ SE ¼ SECTION TWENTY-THREE (23) TOWNSHIP ELEVEN (11) SOUTH RANGE EIGHT (8) EAST

situated in Hardin County, Illinois and containing one hundred fifty (150) acres more or less, it being the purpose of the Lessor to lease all the lands, however described, owned by the Lessor in the sections herein specified, hereby releasing and waiving all rights under and by virtue of the Homestead Exemption Laws and the laws of Dower and Descent, of the State of Illinois.

It is agreed that this lease will remain in full force and effect for a period of twenty-five (25) years from the date hereof.

In consideration thereof, Lessee agrees to pay Lessor ten (10) percent of the selling price of any and all minerals removed and sold from the property. Payment of royalties shall be made the first day of the second month following the date of the sale. Lessor shall have the right to examine the records of the Lessee that pertain to sale transactions at any reasonable time.

Lessee agrees to start mining operations within six months of the date of this lease. If Lessee fails to start mining operations within the said six months period, Lessee shall pay Lessor a minimum royalty of

One Hundred Fifty ($150.00) Dollars. If Lessee fails to start mining operations within a period of twelve (12) months from the date of this lease, Lessee shall pay Lessor a further minimum royalty of Three Hundred ($300.00) Dollars. If Lessee fails to start mining operations within a period of eighteen months from the date of this lease, Lessee shall pay Lessor a minimum royalty of Four Hundred Fifty ($450.00) Dollars. If mining operations are not started within a period of twenty-four (24) months from the date of this lease, said lease shall become null and void. All minimum royalty payments shall be deductible from tonnage royalty payments of ten (10) percent of the sale price of minerals removed and sold from the property. It is agreed that all development operations such as drilling, shaft sinking, drifting, trenching or stripping shall constitute "mining operations" within the meaning of this lease.

Lessee further agrees to continue mining operations for at lease six months of each year. If Lessee fails to operate the minimum six months period, Lessee agrees to pay Lessor Fifty ($50.00) Dollars per month for each month in excess of six months that Lessee fails to operate. For the purpose of calculating said payments, the anniversary date of this lease shall constitute the beginning of the year.

It is further agreed that the Lessee shall have the right to surrender this lease upon giving the Lessor thirty (30) days' notice of his intention. Lessee shall not be liable for any damages beyond the liability for payments due under the terms of this lease up to the date of the surrender of the lease.

It is further agreed that the Lessee shall have the right of ingress and egress. Lessee agrees to consult the Lessor before establishing permanent roads and further agrees to establish cattle guards at any or all entrances from county roads and to erect and maintain gates wherever access roads cross interior established fence lines.

Lessee shall have the right to remove any and all buildings, machinery, and equipment from the premises either during the life of this lease or within a period of one hundred twenty (120) days of the date of surrender thereof.

Lessee shall be liable for any damages to fences, buildings, crops or pastures if claim for such damages is asserted within ninety (90) days of the occurrence of said damages.

This contract and agreement shall be binding on all heirs, assigns, successors in title, and legal representatives of both Lessor and Lessee.

IN WITNESS WHEREOF, the parties hereto have set their hand and seal on the date above mentioned and for uses herein set forth.

Bert Ingram

Irene Ingram

RECEIVED
MAY 9 - 1956

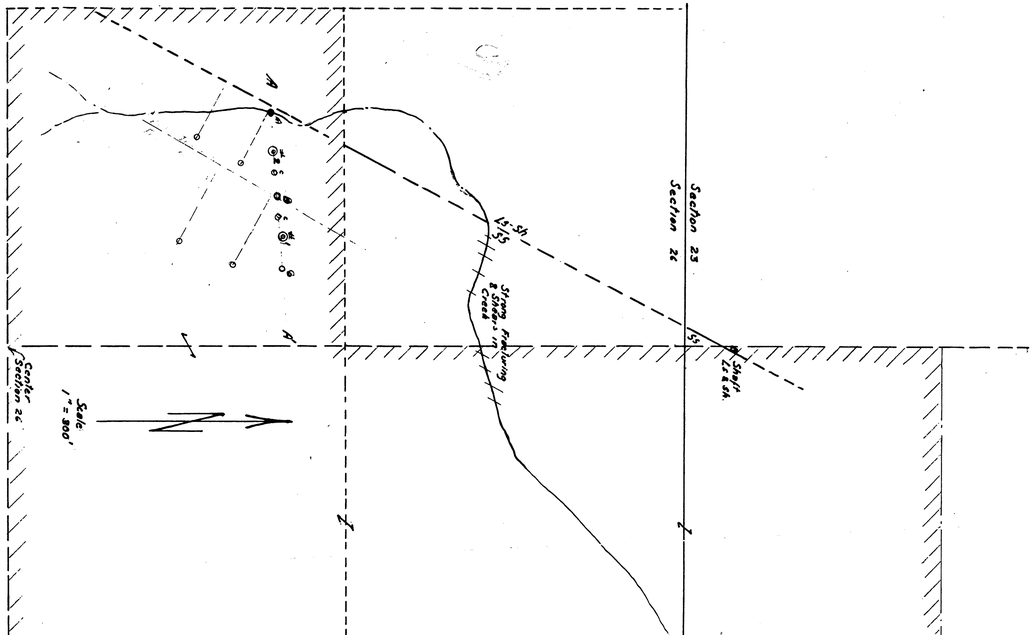
STATE OF ILLINOIS)
) ss
COUNTY OF HARDIN)

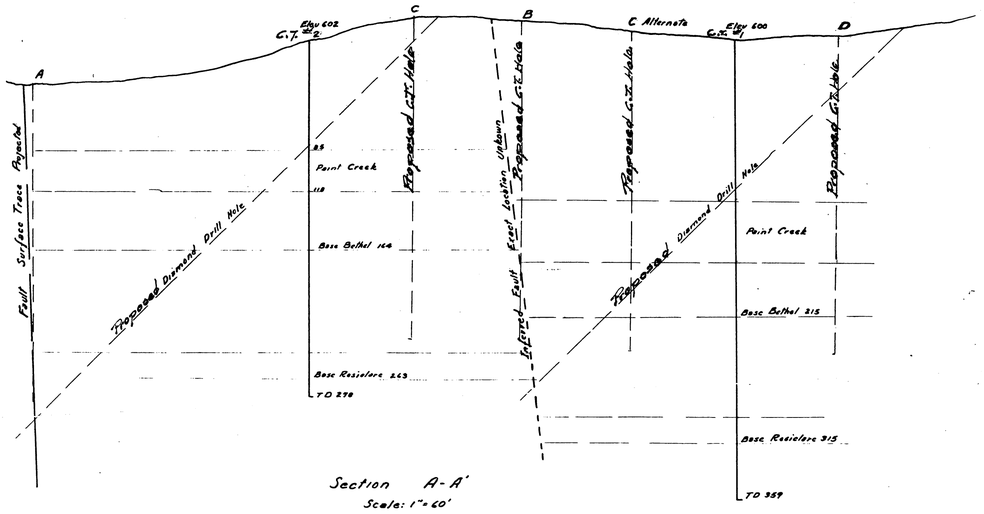
I, Eva C. Bousman, a Notary Public in for said County and State, do hereby certify that BERT INGRAM, IRENE INGRAM, his wife, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument as their free and voluntary act, for the uses and purposes therein set forth, including the release and waiver of the rights under the Homestead Exemption laws, and the laws of Dower and Descent of the State of Illinois.

Given under my hand and Notarial seal this 4th day of May, 1954.

Eva C. Bousman
Notary Public

My Commission Expires March 20, 1958
(SEAL)





Section A-A'
Scale: 1" = 60'

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

11/2/55

Mr. Lawrence G. Houk
Chief, Nonmetallic Minerals Division
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Sent at request of RUN_____STOP_____

Interior—Duplicating Section, Washington, D. C.