REGIONAL DIRECTOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

August 31, 1951

Memorandum

To: Executive Secretary, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: Docket No. DMA-1401X, Wilson Mining Co., Carnation Lead-Silver Mine, Fish Springs District, Juab County, Utah.

Enclosed herewith is original and two copies of the report as indicated above.

We concur with the conclusions and recommendations of the examining team.

J. H. East, Jr.

A. H. Koschmann

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

August 29, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Docket No. DMA-1401X, Wilson Mining Co., Carnation Lead-Silver Mine, Fish Springs District, Juab County, Utah

Examination of the subject docket with application for an exploration loan of $21,847 has shown that the ore bodies are irregular and of small size, and that the mine does not present any geologic evidence of discovering a commercial ore body.

The examining team recommends denial of the application, with which we concur.

W. H. King

W. H. King
for Paul T. Allsman

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1600 EAST FIRST SOUTH STREET
SALT LAKE CITY 1, UTAH

August 15, 1951

Mining Division
Date Rec'd.
AUG 16 1951
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Paul T. Allsman, Chief, Mining Division, Region IV

From: Chief, Utah-Wyoming Branch, Mining Division

Subject: J. R. Wilson, Carnation mine, Fish Springs district, Juab County, Utah, Docket 1401-X

Enclosed are eight copies of the engineering report covering the subject property. The section on Summary, Conclusions, and Recommendations by Roscoe M. Smith and H. K. Thurber, Jr. also is included.

Stephen R. Wilson

Stephen R. Wilson

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Administration
200 New Customhouse
Denver 2, Colorado

August 24, 1951

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 1401X, Wilson Mining Company, Salt Lake City, Utah.

Enclosed are 8 copies of the geologic report by R. M. Smith of the U. S. Geological Survey and H. K. Thurber of the U. S. Bureau of Mines covering the above docket.

A. H. Koschmann

A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (11)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Room 307, 320 South Main
Salt Lake City 1, Utah
22 August 1951

Memorandum

To: A. H. Koschmann, Field Team, Region IV

From: Ralph J. Roberts

Subject: Docket DMA 1401X, Lead-silver, Wilson Mining Company, Salt Lake City, Utah.

Enclosed are 8 copies of the geologic section of a report on Docket DMA 1401X, Lead-silver, Wilson Mining Company, Salt Lake City, Utah.

The Summary, Conclusions and Recommendations section was prepared jointly by the examining engineer and geologist and has been included in the engineering report sent to Mr. Allsman.

Sincerely

Bonnie M. Stagg

for - Ralph J. Roberts

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

Docket DMA 1401X, Wilson Mining Company, Salt Lake City, Utah

(Lead-silver)

H. K. Thurber, Mining Engineer
U. S. Bureau of Mines

R. M. Smith, Geologist
U. S. Geological Survey

August 22, 1951

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By Reeves M. Smith and E. K. Thurber, Jr.

The Wilson Mining Co. mine, Fish Springs district, Juab County, Utah, is in fresh, fractured limestone that has been weakly mineralized with argentiferous galena. Ores occur as pods along fractures and in small pipes. One pipe is said to have attained a diameter of 3 feet, and to have been mined from the surface to the 200-foot level.

A program is proposed by the applicant to explore occurrences of galena exposed on the 55- and 63-foot levels for unspecified distances in the hope of encountering additional ores.

It is concluded that the program has possibilities of finding small tonnage, but that a significant discovery is unlikely. It therefore is recommended that the application be denied.

GEOLOGY

The area is underlain by limestone of the Ordovician or Silurian age and quartzite of Ordovician age.[1] The sedimentary rocks dip gently to the

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[1] Butler, B.S., The Ore Deposits of Utah: U.S.G.S. Prof. Paper 111, p. 467.

---

west and are cut by faults, the more important of which strike north and east. The north-striking faults are of large displacement; the east-striking faults are of smaller displacement and some are occupied by rhyolite porphyry dikes. In addition the rocks are broken by numerous irregular fractures and small faults, many of which strike northeast and south west.

ORE DEPOSITS

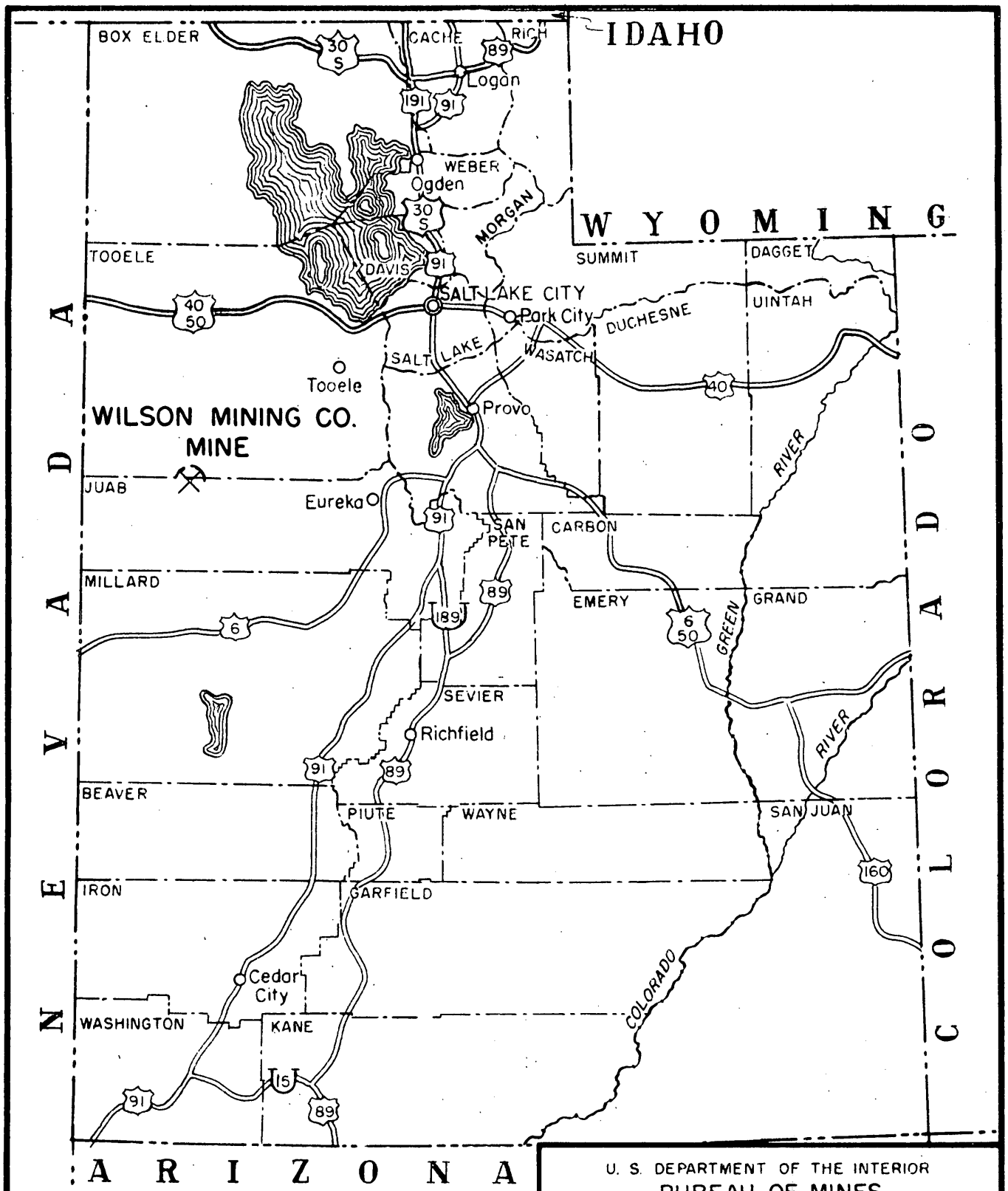
The lead-silver ore bodies in the district are mainly found in the east-striking faults and dikes. The ore mineral is galena, which is oxidized to cerusite and anglesite near the surface. The high grade ore is reported to contain as much as 100 oz. of silver per ton.

In the Carnation mine, the lead-silver ore occurs as pods 6 inches long in non-persistent narrow fractures that strike northwestward and dip steeply southwestward, and also as pipes as much as 3 feet in diameter at the intersections of these fractures with another set that strikes northeast and dips southeast. One pipe is reported to have been followed from the surface to the 200-foot level.

Wall rock alteration is slight adjacent to the ore bodies.

ORE RESERVES

There are no blocked out ore reserves in the Carnation mine. All the easily accessible ore bodies have been mined. A few tons of high-grade ore may be left in the blocks between levels, but the outlook for development of ore bodies of significant size is not promising.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Fig. 1 Proj. No.

Location Map

WILSON MINING CO. MINE

JUAB COUNTY, UTAH

ENGINEER: H. K. THURBER	DATE: AUG. 14, 1951
TRACED: AUG. 1951, A.P.T.S.	1500-1070-E
CHECKED:	

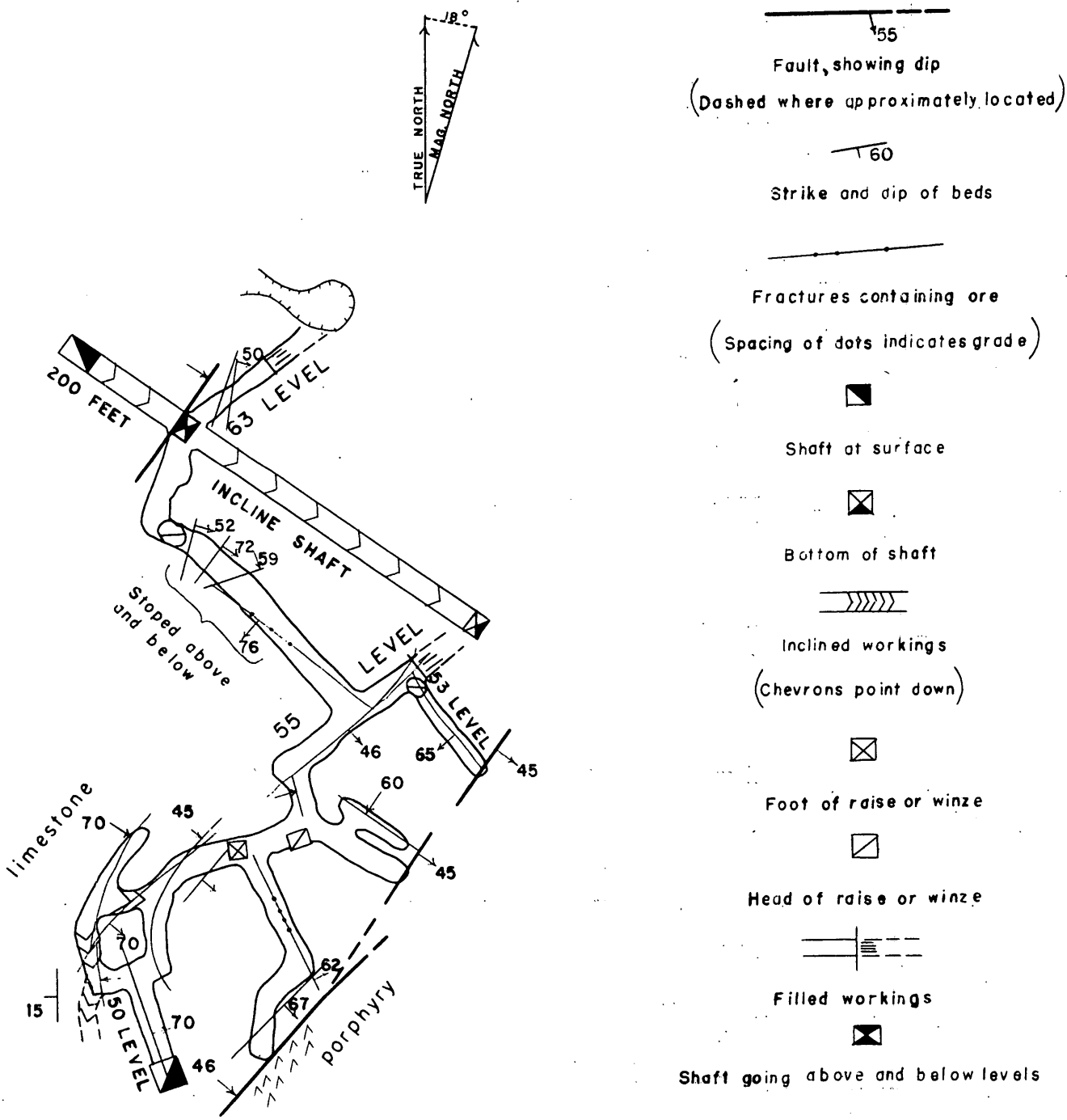
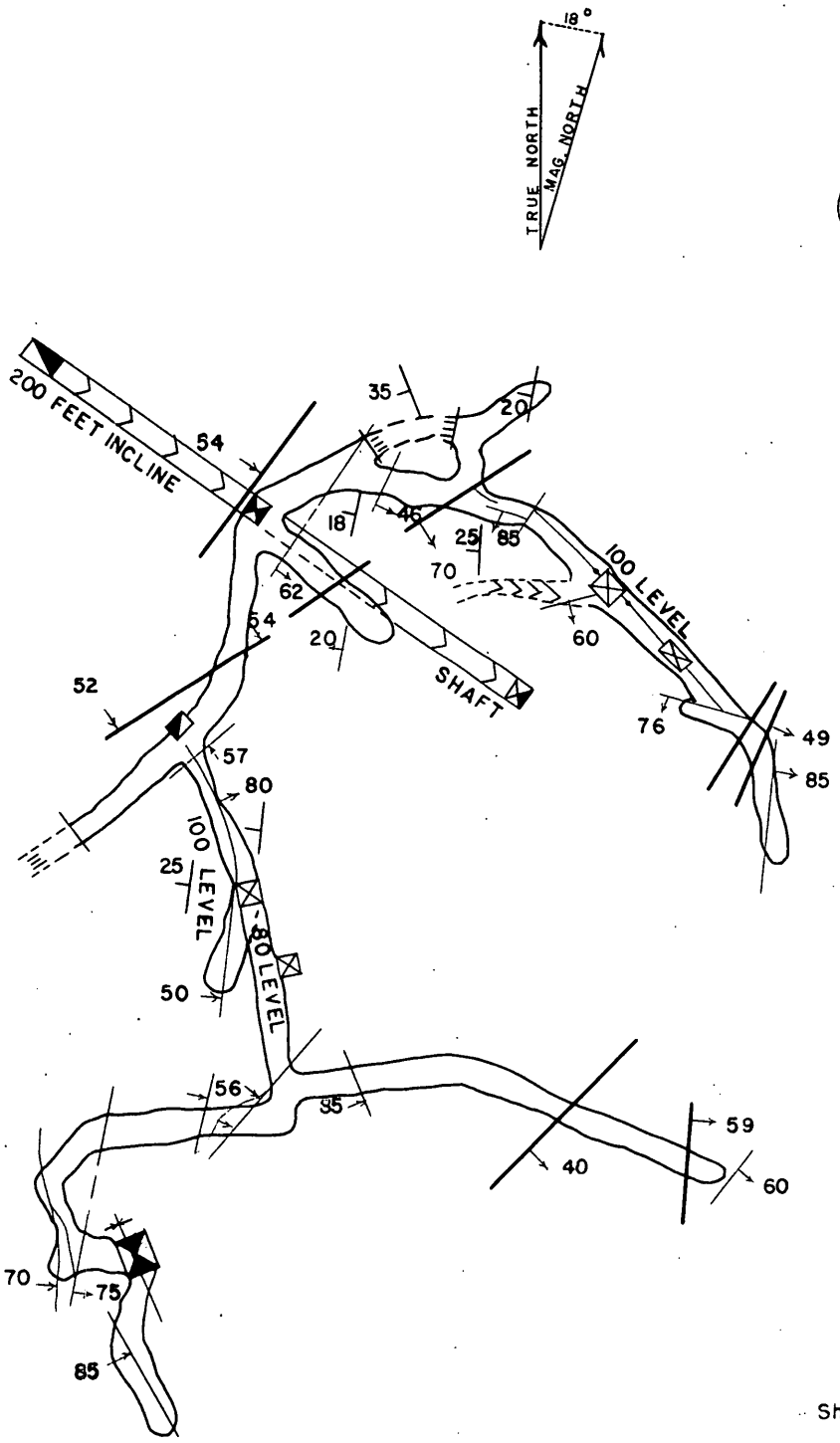


FIG. 2 GEOLOGIC MAP OF 55- AND 63-FOOT LEVELS
CARNATION MINE, FISH SPRINGS DISTRICT
TOOELE COUNTY, UTAH

0 40 80
Scale

GEOLOGY BY R. M. SMITH
JULY, 1951



EXPLANATION

55
Fault, showing dip
(Dashed where approximately located)

60
Strike and dip of beds

Fractures containing ore
(Spacing of dots indicates grade)

Shaft at surface

Bottom of shaft

Inclined workings
(Chevrons point down)

Foot of raise or winze

Head of raise or winze

Filled workings

Shaft going above and below levels

FIG. 3 GEOLOGIC MAP OF 80-AND 100-FOOT LEVELS
CARNATION MINE, FISH SPRINGS DISTRICT
TOOELE COUNTY, UTAH

0 40 80
Scale

GEOLOGY BY R.M. SMITH
JULY, 1951

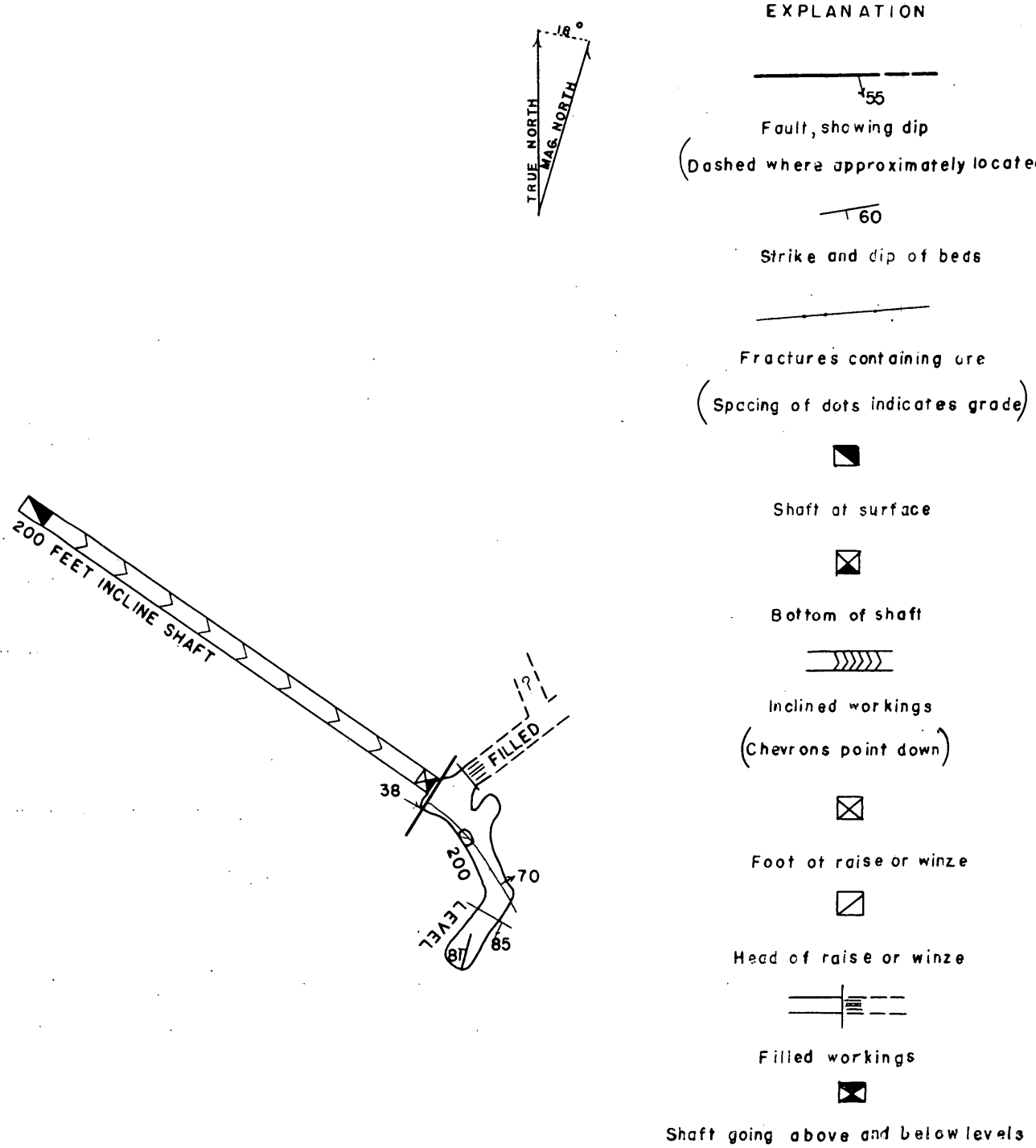


FIG. 4 GEOLOGIC MAP OF 200-FOOT LEVEL
CARNATION MINE, FISH SPRINGS DISTRICT
TOOELE COUNTY, UTAH

0 40 80
Scale

GEOLOGY BY R.M. SMITH
JULY. 1951

WILSON MINING CO. MINE
FIRE SPRINGS DISTRICT
JUAB COUNTY, UTAH

Engineering Report

By H. K. Thurber, Jr.
Mining Engineer
U. S. Bureau of Mines

WILSON MINING CO. MINE
FISH SPRINGS DISTRICT
JUAB COUNTY, UTAH

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Present status	4
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Cost of project	6
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ILLUSTRATIONS

Fig. 1 - Location map, Wilson Mining Co. mine, Fish Springs district, Juab County, Utah.

Fig. 2 - Claim map, Wilson Mining Co., Fish Springs district, Juab County, Utah.

Fig. 3 - View looking approximately S. 10° W. showing surface of Wilson Mining Co. mine. Figure in the center of picture is standing at the collar of the inclined shaft. Vertical shaft shown in the right background.

Fig. 4 - View of the collar of the inclined shaft indicating the poor condition of the collar sets.

INTRODUCTION

The Wilson Mining Co., J. R. Wilson of Salt Lake City, owner, has requested a DMA exploration loan of $21,847, Docket 1401-X, to rehabilitate existing mine workings, purchase equipment, and drive exploration headings on property owned by the company.

An examination of the property was made July 5 and 6, 1951, by a team consisting of a geologist of the U. S. Geological Survey and a mining engineer of the Bureau of Mines. This report is a result of the examination, and appraises the feasibility of the applicant's proposal.

ACKNOWLEDGMENTS

The Bureau of Mines wishes to acknowledge the aid given the team by J. R. Wilson. Mr. Wilson provided maps of the property and supplied information pertaining to the history and production.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Wilson Mining Co. property lies on the west slope of Fish Springs Range near the northern end of the range in unsubdivided T. 11 S., R. 14 W., S.L.B.M., Juab County, Utah. The mine is approximately 17 miles by county-maintained road from Callao, Utah, 41 miles from Gold Hill, Utah, and 86 miles from Vernon, Utah, on State Highway 36 (fig. 1).

The Fish Springs Range exhibits steep, broken topography with vertical cliffs evident at higher elevations in the range. The lower slopes are, for the most part, talus covered, but outcrops of limestone making up this part of the range are prominent features. The immediate mine area is gently sloping and a few small limestone outcrops are evident (fig. 3).

HISTORY AND PRODUCTION

Recorded production from the property dates from 1901. A total of 372 tons of ores containing an average of 39.6 percent lead, 97 ounces silver per ton, and 0.042 ounce of gold per ton is known to have been mined during intermittent periods between 1907 and 1949. The mine has not produced since the latter date.

The company applied for an R.F.C. loan in 1943, but was denied. This is recorded in R.F.C. Docket MD-3444.

OWNERSHIP AND EXTENT

The Wilson Mining Co., J. R. Wilson, owner, holds three claims by location. These claims, the Carnation 1, 2, and 3, were originally located in 1904 and surveyed for patent in 1908 but the patent procedure was not completed. The collar of the main inclined shaft and most of the underground workings are on Carnation 1 claim (fig. 2).

DESCRIPTION OF THE DEPOSITS

The broken limestone observed in the mine workings strikes N. 5° to 10° E. and dips 15° to 25° west. The main inclined shaft was sunk using the well-defined footwall of a fault as the bottom of the incline. The dip of the fault ranges from 54° at the surface to 45° at the bottom of the incline. This fault strikes N. 35° E. and represents the main displacement in the area.

Ores have been mined from roughly parallel fissures that strike approximately N. 45° W. and dip steeply to the southwest. The ore shoots were apparently small and irregular, sometimes taking the form of "pipes" raking steeply to the east. One such "pipe" is reported to have extended

from the surface to the 200-foot level. The total reported production from the workings is only 372 tons.

Although some iron oxide mineralization was observed in the fissures throughout the mine, no minable ores were found, thus no ore reserves exist.

The geology was mapped by the team and the resulting maps are included in the report written by the geologist.

PRESENT STATUS

No mining has been done on the property in the last 12 to 15 years, thus the ladders, bucket skids, and timbers in the main incline and on the levels are in poor repair. All the timber, ladders, and skids below the 100-foot level in the main incline have been removed making it necessary to reach the 200-foot level by means of a cable hanging in the shaft.

In general, the mine openings stand well, but some have been made inaccessible by caving, intentional gobbing of waste, or flow of loose rock from the stope areas.

With the exception of a few hundred feet of 12-pound mine rail in track and stacked on the levels, there is no mining equipment on the property. The only other facility that would aid a mining operation is a two-track cabin in good repair.

PROJECT PROPOSALS

The applicant proposes to drive openings on the 55-foot level and 63-foot level to follow small fissures containing some sulfide mineralization. No statement is made as to definite mine except that the fissures

be explored along their strike lengths to determine the presence or absence of commercial ores. The time estimated by the applicant for the completion of the work is 12 to 18 months.

Considerable rehabilitation on the surface and underground would be required before any new work would be started. A headframe, hoist, compressor, and shop would be necessary in addition to living facilities for underground personnel and surface employees. Air and water lines would be required in the shaft and some replacement of timber and ladders necessary. A view of the surface is shown in figure 3 and a view of the shaft collar in figure 4.

The mine is accessible by truck throughout the entire year because snowfalls are not great enough to preclude use of the existing roads. A county-maintained road from the Thomas Ranch to Callao passes within 2 miles of the property. It is 86 miles by this road and connecting roads to the paved Utah Highway 36 at Vernon, Tooele County, thence approximately 30 miles to the Tooele smelter to which the applicant proposes to ship any ore encountered.

Manpower sufficient for the limited program proposed is available in Eureka, Tooele, or other mining camps in Tooele County.

No electric power is available in the area thus any power required would be generated at the mine.

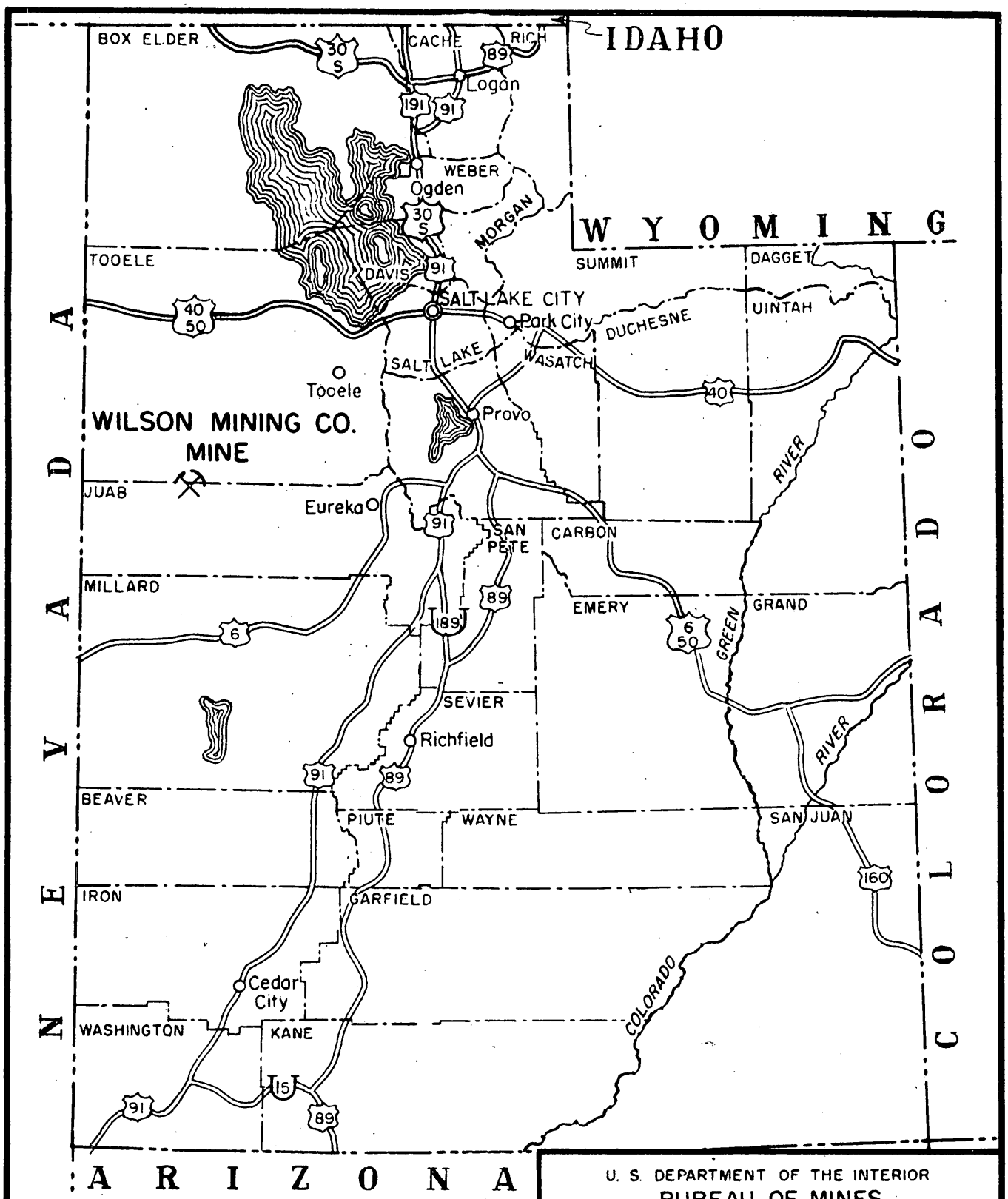
The applicant proposes to haul culinary water from Callao, 37 miles distant, and haul other water from one of the saline springs near the north end of Fish Springs Range.

COST OF PROJECT

A surveyor calculation shows that the applicant's cost estimate for the work outlined ($21,847) is probably reasonable. The applicant is apparently able to supply the necessary capital required under DMA exploration agreements.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the record of minor production of the past operation of the mine, the small size and irregularity of ore bodies mined, and the lack of geologic evidence of the possibility of a commercial ore body on the property, it is concluded that the applicant's proposed exploration program has little chance of developing ore in sufficient quantity to justify a DMA loan. It therefore is recommended that the application be denied.



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

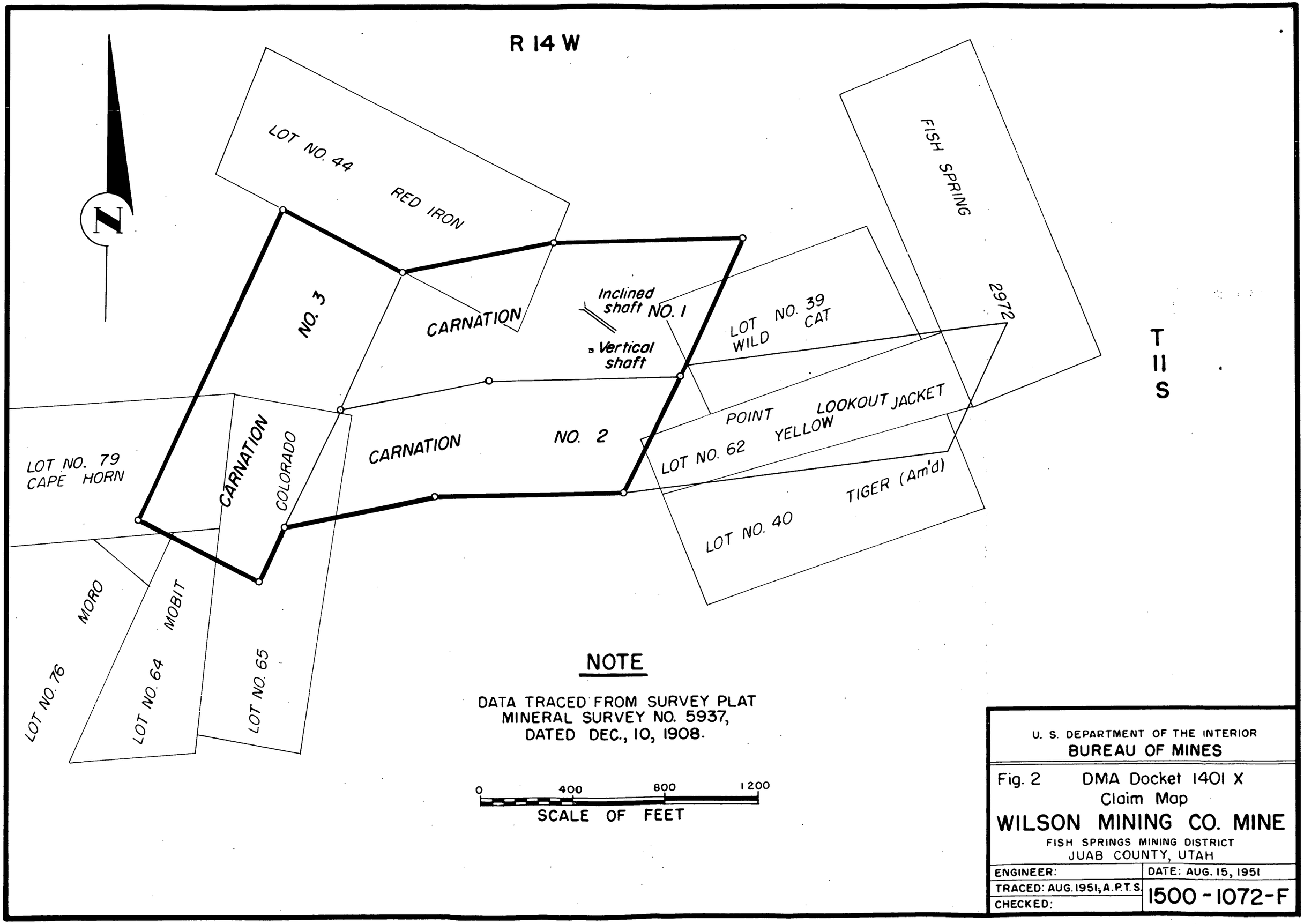
Fig. 1 Proj. No.

Location Map

WILSON MINING CO. MINE

JUAB COUNTY, UTAH

ENGINEER: H. K. THURBER	DATE: AUG. 14, 1951
TRACED: AUG. 1951, A.P.T.S.	1500-1070-E
CHECKED:	



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Fig. 2 DMA Docket 1401 X
Claim Map

WILSON MINING CO. MINE

FISH SPRINGS MINING DISTRICT
JUAB COUNTY, UTAH

ENGINEER:	DATE: AUG. 15, 1951
TRACED: AUG. 1951, A.P.T.S.	1500-1072-F
CHECKED:	

Fig. 3 - View looking approximately S. 10° W. showing surface of Wilson Mining Co. mine. Figure in the center of picture is standing at the collar of the inclined shaft. Vertical shaft shown in the right background.

Fig. 4 - View of the collar of the inclined shaft indicating the poor condition of the collar sets.

SECTION ON GEOLOGY FOR PROPOSED EXPLORATION

The applicant proposes an exploration program consisting of three projects:

Project No. 1. Drift 90 feet No. 20 W. from the shaft on the 63-foot level to a point directly below a caved surface pit reported to contain ore showings.

The objective of this project is to determine whether the showings continue to depth. As the strike and dip of the ore and size of the ore body are not known this project is highly speculative.

Project No. 2. Raise on galena showings in the back of the south drift on the 55-foot level (fig. 2).

As these showings are small and the fracture small and irregular, the project has little chance of opening up significant reserves.

Project No. 3. Clean fill out of north drift on the 55-foot level (directly above bottom of incline shaft) and drift on galena showings exposed in face (fig. 2).

Because the exposed galena occurs in a non-persistent fracture in fresh limestone, the proposed exploration has little chance of revealing a significant amount of ore.

SECTION ON GEOLOGY FOR CONCLUSIONS AND RECOMMENDATIONS

It is concluded that although the exploration projects proposed by the applicant might reveal a small tonnage of high-grade lead-silver ore, there is little chance that ore bodies of significant size would be discovered. It is therefore recommended that the application be denied.

350

SEP 13 1951

Re: DMA-1401X

REGIONAL DIRECTOR'S
OFFICE
REGION IV
SEP 17 1951
BUREAU OF MINES
DENVER, COLORADO

Mr. J. R. Wilson
Wilson Mining Company
535 Garden Avenue
Salt Lake City, Utah

Dear Mr. Wilson:

Your application (DMA-1401X) for an exploration loan of $21,847 for work at the Carnation Mine, Juab County, Utah, has been reviewed again by the Defense Minerals Administration after a report of an examination of your property by our field staff was received.

From this report, we conclude that the exploration work which you propose does not show promise of finding a significant tonnage of strategic minerals. The Defense Minerals Administration does not consider that the chances of finding such minerals are good enough to warrant the expenditure of public funds which you request. I regret, therefore, that your application must be declined.

We wish to thank you for bringing this property to our attention.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

ABCampbell:emp
G 9-11-51

Copies to: J. H. East, Jr. Region IV (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. Bishop
Directors r. files 4214 GSA
Mr. r. files 4214 GSA
Administrators r. file
DMA docket files

FILE

REGIONAL DIRECTOR'S
OFFICE
REGION IV
SEP 17 1951
BUREAU OF MINES
DENVER, COLORADO

SEP 13 1951 350

Memorandum

Re: DMA-1401X
Carnation Mine
Juab County, Utah
Exploration loan, $21,847
Lead,silver

To: Reports and Records Unit
Administrative Management Div.

From: Chief, Lead-Zinc Branch

Subject: Denial of exploration loan

The applicant has requested an exploration loan of $21,847 (Government participation, 50%) for drifting on two levels of the Carnation Mine, Juab County, Utah.

The property was examined by the Field Team Region IV, and their report states the following conclusions and recommendations:

> "Based upon the record of minor production of the past operation of the mine, the small size and irregularity of ore bodies mined, and the lack of geologic evidence of the possibility of a commercial ore body on the property, it is concluded that the applicant's proposed exploration program has little chance of developing ore in sufficient quantity to justify a DMA loan. It therefore is recommended that the application be denied".

The Lead-Zinc Branch concurs with the field team's recommendation.

Returned herewith are:

1 copy of field team report
2 copies of "Review of Application for Exploration Assistance"
4 copies Form MF-103 and attachments
Mine map and claim map.

File
FVE

ABCampbell:emp
G 9-11-51

T. P. Billings, Chief
Lead-Zinc Branch

Approved:
Tom Lyon
Director, Supply Division

Copies to: J. H. East, Jr. Region IV (2)
Chief, Lead-Zinc Br.
E. T. McKnight 4204 GSA
O. Bishop
Directors r. files 4214 GSA
Br. r. files 4214 GSA
Administrators r. file
DMA docket file

August 31, 1951

Memorandum

To: Executive Secretary, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: Contract No. DMA-14011, Wilson Mining Co., Cottonwood Lead-Silver Mine, Fish Springs District, Juab County, Utah.

Enclosed herewith is original and two copies of the report on indicated mine.

We concur with the conclusions and recommendations of the examining team.

J. H. Eccles, Jr.

A. H. Kaufmann

Enclosures

oj

DMA Subject & Chron.

Mining Division
Region IV

August 29, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Docket No. DMA-1-CR-I, Wilson Mining Co., Connection Lead-Silver Mine, Fish Springs District, Juab County, Utah

Examination of the subject docket with application for an exploration loan of $21,047 has shown that the ore bodies are irregular and of small size, and that the mine does not present any geologic evidence of discovering a commercial ore body.

The examining team recommends denial of the application, with which we concur.

W. H. King
for Paul T. Allaman

WHK:oj

cc: DMA files
Subject
Chronological

224 New Customhouse
Denver, Colorado

June 28, 1951

Memorandum

To: Ralph Roberts (with brochure)

S. R. Wilson

(Through Chief, Mining Division)

From: DMA Field Team, Region IV

Subject: DMA 1401X, Wilson Mining Company, Salt Lake City, Utah

The brochure and review on the above docket is being submitted to you for field examination and report.

P. T. Allsman, Alternate

A. H. Koschmann

Attachments

File
co-dmc files, koschmann