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

224 New Customhouse
Denver 2, Colorado

August 6, 1952

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 210

From: Field Team, Region IV

Subject: Final Report, DMA Docket 1470X (Lead-Zinc), Dutchman Zinc-Lead Mine, Utah County, Utah

Enclosed are four copies of the final report on DMA-1470X.

The operator requested that his application be cancelled.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

Mining Division
Region IV

September 24, 1958

Memorandum

To: RMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, RMA Docket 1478-I, Bohemian Mine Lessors, applicants, Maximilian Lemon, Bohemian Mine-Lead Mine, American Peak Mining District, Wash County, Utah.

The original application of the subject docket was for an exploration loan of $20,000. Examination by the field team determined that the expenditure of $20,000 would permit a more comprehensive program, and this cost is approved by the applicants.

There are not any obvious reserves, but the possibility of finding ore is promising. The proposed work will consist primarily of advancing the present adit 300 feet with approximately 125 feet of raises and crosscuts.

The examining team recommends approval of the loan, with which we concur.

As this project falls within the prerogative of the executive officer of Region IV, a contract will be prepared.

Paul T. Allemann

Mining Division
Date Rec'd
SEP 24 1951
BUREAU OF MINES
Denver, Colorado

September 21, 1951

Memorandum

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

From: Chief, Utah-Wyoming Branch, Mining Division

Subject: DMA 1470X, Dutchman Mine Lessers Whirlwind Mine, American Fork District, Utah County, Utah

Attached are 8 copies of the subject report with the joint section Summary, Conclusions and Recommendations. The geologic report was submitted by the Survey September 13, 1951. The original brochure is also enclosed.

Stephen R. Wilson

Stephen R. Wilson

Enclosures 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Administration
200 New Customhouse
Denver 2, Colorado

September 17, 1951

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 1470X, Dutchman Mine, American Fork Mining District, Utah County, Utah.

Enclosed are eight copies of the geologic report by R. L Middleton of the U. S. Bureau of Mines and J. T. Hasler of the U. S. Geological Survey, covering the above docket.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

Room 307, 320 South Main
Salt Lake City 1, Utah
13 September 1951

Memorandum

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

From: Ralph J. Roberts

Subject: Docket DMA 1470X, Dutchman Mine, American Fork Mining District, Utah County, Utah.

Enclosed are eight copies of a geologic report on the Dutchman mine (Whirlwind Lease), Docket DMA 1470X, which was made in response to a request for a field examination.

The Dutchman mine workings are in Devonian and Mississippian limestone which are complexly faulted. The ore bodies follow fault zones in the Mississippian limestone and consist mainly of lead and zinc carbonates.

There are no minable ore reserves, but the outlook for the discovery of new ore bodies in faulted blocks of limestone is promising.

It is therefore recommended that the Defense Minerals Administration enter into an exploration contract with the applicant to do the proposed work. On a matching fund basis the government's share will be $10,000.

I concur with the conclusions and recommendations of the examining geologist and engineer.

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

Docket DMA 1470I, Dutchman Mine,

American Fork Mining District

Utah County, Utah

R. L. Middleton, Mining Engineer
U. S. Bureau of Mines

J. W. Imsler, Geologist
U. S. Geological Survey

September 12, 1951

DUTCHMAN MINE LEASERS
WHIRLWIND MINE
UTAH COUNTY, UTAH

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By J. W. Hasler and
R. L. Middleton

Dutchman Mine Leasers, owner of the Whirlwind mine in Utah County, Utah, has requested a DMA loan of $10,000 to conduct underground exploration. The property was examined by members of the Geological Survey and Bureau of Mines during August 1951.

The predominant rocks in the area are quartzite, shale and limestone of Cambrian age and limestone of Devonian (?) and Mississippian age. The Dutchman mine workings adjacent to the Whirlwind lie in a wedge of Devonian and Mississippian limestone outlined on the north and west by two faults, the Dutchman and the Whirlwind. Repetition of the ore-bearing Mississippian limestone by overthrusting is suggested, for the Cambrian Ophir and Maxfield formations lie above Mississippian limestone exposed in the Whirlwind tunnel. If this is true, the likelihood of discovering ore in the area of Block A, figure 2 of the Survey report, is considered promising.

The amount proposed by the applicant, $10,000, is too little to conduct the proper program. It is believed that $20,000 will be necessary to complete the exploration as outlined in this report. The possibilities of finding ore in the above-mentioned block are favorable; therefore, it is recommended that a loan of $20,000 be granted.

TABLE OF CONTENTS

	Page
Geology	1
Ore Deposits	3
Ore Reserves	4
Proposed Exploration	4
Summary and Conclusions	5

LIST OF ILLUSTRATIONS

Figure 1. Index map of the Dutchman Mine, American Fork Mining District, Utah County, Utah.

Figure 2. Claim map.

Figure 3. Geologic map of Upper No. 1 Tunnel and Whirlwind Tunnel.

Figure 4. Composite of levels, Dutchman Mine.

Docket DMA 1470X, Dutchman Mine,

American Fork mining District,

Utah County, Utah

GEOLOGY

The rocks in the vicinity of the Dutchman mine are quartzite, shale, and limestone of Cambrian age, and limestone of Devonian and Mississippian age.

The Dutchman workings [1] (pl. 49) are in a wedge of Devonian and Mississippian limestone bounded on the north and west by two faults, the Dutchman fault which may be part of the Silver Fork Fault and the Whirlwind fault. The limestone penetrated by the workings was apparently dislocated by several other faults, and the structure is far from being thoroughly understood.

[1] Callins, F. C., Butler, B. S., Geology and ore deposits of the Cottonwood-American Fork areas, Utah: U. S. Geol. Survey, Prof. Paper 201, p. 138, 1943.

The greater part of the ore produced by the mine has been taken from the No. 1 tunnel (fig. 3). The workings on this level have a northeastward trend, but do not follow the bedding, nor any persistant fissure. They seem to extend along a rather ill-defined fracture zone in which most of the individual fissures strike at angles to the general trend. Most of the fissures are fairly steep. The general dip of the limestone in this level is eastward, and the workings pass first through the Madison, then into the Deseret whose base is marked by characteristic black shaly beds.

The country rocks in the lower workings correspond to the rocks in the No. 1 level. The portion south of the first Fork is in Madison limestone.

The westward crosscuts are in the Jefferson (?) dolomite. The rock in the north-northeast drift is largely concealed, but some of it appears to be Jefferson (?) dolomite. The most remarkable feature of this level is the fact that its most northerly spurs are blocked by soft black clay which was formed from the black shale at the base of the Deseret. The distribution of this clay suggests that it lies along a fault, possibly a thrust fault of low southward dip that rises through the floor of the lower level and has not been reached by even the northernmost spurs on the upper level. Such a fault, later than the Dutchman fault, might account for the absence of the Dutchman fault on the upper level.

The Whirlwind tunnel, just west of the Dutchman No. 1, was driven N. 20° W. for a distance reported to be about 1,100 feet. It is now blocked 600 feet from the portal by the same kind of black clay that is so abundant in the lower Dutchman workings [1]. The tunnel terminates in quartzite, which

---

[1] Calkins, F. C., Butler, B. S., op. cit.

---

is in contact with limestone at the Dutchman fault. The Whirlwind fault parallels the Whirlwind Tunnel not far to the west, but it has not been reached by the workings.

G. F. Treasder of the International Smelting and Refining Company considers that some thrust faulting could possibly be present because the Cambrian Ophir shale and Maxfield limestone overly the Dutchman upper level workings, which are in Mississippian, Deseret-Madison limestones.

The operator believes that he will encounter the ore-bearing Mississippian beds in the hanging wall of the Dutchman fault beyond the Wild Dutchman Claim 100 feet above the Whirlwind Tunnel and 100 feet to the east (fig. 2) providing,

of course, that the overthrust brings Cambrian Ophir shale and Maxfield limestones on top of the Mississippian Deseret-Madison limestones.

ORE DEPOSITS

The principal vein of the Dutchman mine strikes N. 40° E. and dips vertically or steeply southeastward [1]. Its width ranged from a mere streak

---

[1] Butler, B. S. and Loughlin, G. F., A reconnaissance of the Cottonwood-American Fork mining region, Utah: U. S. Geol. Survey Bull. 620, p. 206, 1915.

---

up to 8 feet and was widest in a dark-blue limestone bed which overlies argillaceous beds. The vein, lies along the contact of a narrow porphyry dike for most of its course; it ends abruptly on the northeast against a dense, blocky argillaceous limestone which probably marks a northwestward trending fault. A minor vein parallels the main vein. Both have been followed up to the cemented talus that caps the bedrocks, and several masses of ore are said to have been found in the talus.

The ore mined from the veins is mostly a sandy, mixed lead and zinc carbonate. Remnants of primary ore are composed of galena and sphalerite in a barite and carbonate gangue. Quartz is inconspicuous. Ore mined by lessees in recent years is said to have averaged about 30 percent of lead, 9 to 17 percent of zinc, and 50 ozs. of silver to the ton. The ore is reported to have had an average value of $22.00 a ton.

The only ore mined in 1939 was a mass of coarsely crystalline sulfide ore a few feet in diameter, consisting mainly of galena and sphalerite. It was in a breccia of limestone, blue black clay, and altered dike rock; the dike is evidently part of the same dike exposed on the No. 1 level. Similar ore was

mined in 1942 at a deeper level. These masses may be parts of a large vein that has been broken into many pieces as a result of complex faulting.

The black clay so prevalent throughout the Dutchman workings is now thought to be an alteration gouge, rather than a bedding plane gouge. It accompanies the ore associated with the porphyry dikes and limestone replacement pods and pipes as well. Large, irregular quartzite blocks are caught up in the complex Dutchman Fault, and give the fault a warped and undulating surface.

ORE RESERVES

There are no known minable ore reserves on the Whirlwind lease of the Dutchman mine as all the ore that has been discovered has been stoped. The life of this mine as well as others throughout the American Fork area has depended upon the finding of these sporadic ore bodies of rather high grade. Exploratory work has proved to be quite expensive, but production has more than equaled the cost of exploration thus making the operations profitable.

PROPOSED EXPLORATION

The applicant proposed a 500-foot crosscut to be located 100 feet east of and 100 feet higher than the Whirlwind Tunnel (fig. 2). The crosscut is designed to cut probable northeast veins in the hangingwall of the Dutchman fault. He estimated that the total cost of the work would be $10,000.

Repetition of the ore-bearing Mississippian limestones by overthrusting is suggested by the normal sequence of Cambrian Ophir and Maxfield formations which apparently overlie Mississippian limestones exposed in the Whirlwind Tunnel. If this geologic picture is true, the probability of discovering ore in the hangingwall of the Dutchman fault is promising.

The examining geologist and engineer are of the opinion that additional work will be needed to explore the block of ground to the southwest of the Dutchman mine when it is reached. They therefore suggest additional raising and crosscutting in the designated block (Block "A" fig. 2), if promising showings are obtained during the exploration work. This additional work is estimated to cost about $10,000, making the total project cost about $20,000.

SUMMARY AND CONCLUSIONS

The country rock in the vicinity of the Dutchman mine are quartzite, shale, and limestone of Cambrian age and limestone of Devonian (?) and Mississippian age.

The Dutchman workings are in a wedge of Devonian and Mississippian limestones bounded on the north and west by two faults, the Dutchman and the Whirlwind faults. The structure is very complicated and repetition of the ore-bearing Mississippian limestones by overthrusting is suggested because the Cambrian Ophir and Maxfield formations are apparently above Mississippian limestones exposed in the Whirlwind Tunnel.

If this is true, the likelihood of discovering ore in Block "A" figure 2 is promising. The proposed 500-foot crosscut and additional crosscuts and raises are designed to explore northeastward-trending veins, and ore zones adjacent to the Dutchman fault, in the Mississippian limestones.

It is concluded that possibilities of finding ore in this block of ground are favorable and it is therefore recommended that the Defense Minerals Administration enter into a contract with the applicant to do the proposed work. The Defense Minerals Administration's share on a matching fund basis will be $10,000.

DUTCHMAN MINE LEASERS
WHIRLWIND MINE
UTAH COUNTY, UTAH

Engineering Report

By R. L. Middleton
Mining engineer
U. S. Bureau of Mines

DUTCHMAN MINE LEASERS
WHIRLWIND MINE
UTAH COUNTY, UTAH

CONTENTS

	Page
Engineering report	
Introduction	2
Acknowledgments	2
Location	2
History and production	3
Ownership and extent	3
Description of the deposits	4
Minable ore reserves	4
Present status	4
Project proposals with costs	5
Summary of project costs	7
Conclusions	8

ILLUSTRATIONS

Fig. 1 Location map, Dutchman Mine Leasers, Utah County, Utah

INTRODUCTION

A preliminary examination of the Dutchman Mine Leasers property was made August 22, 1951 by J. W. Hasler of the U. S. Geological Survey and R. L. Middleton of the U. S. Bureau of Mines. The field team was accompanied to the property by Willard Cleghorn, managing partner of the Dutchman Mine Leasers.

The application for exploration, DMA Docket 1470-X, asked approval of a $10,000 loan with Government participation of $5,000 in matching funds. Examination by the field team determined a $20,000 project would allow a more comprehensive exploration, and this cost is agreeable to the Dutchman Mine Leasers.

ACKNOWLEDGMENTS

Data obtained from U. S. Geological Survey Professional Paper 201, By F. C. Calkins and B. S. Butler, and from O. S. Tresider, engineer for International Smelting and Refining Co., Salt Lake City, Utah, were used in preparation of this report.

LOCATION

The Dutchman Mine Leasers property is in sec. 27, T. 3 S., R. 3 E., S.L.B.M., American Fork mining district, Utah County, Utah (fig. 1). A hard-surfaced road extends 15 miles northeast from American Fork, Utah, and from this point 7 miles of graveled, moderate-grade mountain road passes within 1/4 mile of the mine. The property, at

an altitude of 8,000 feet, is situated on the north slope of American Fork Canyon, 1/2 mile northeast of Mary Ellen Gulch.

Topography is moderately steep and rugged. The property is well supplied with standing mine timber, and American Fork creek insures adequate water.

HISTORY AND PRODUCTION

The Dutchman Mine Leasers property, though located in an active lead, silver and zinc mining district, has had no production. The southeast side line of the Dutchman Mine Leasers property is adjacent to the Dutchman mine, which has been an intermittent producer of good grade lead, silver and zinc ores since 1872. From 1946 to 1949, the Dutchman mine, then operated by the applicant, Dutchman Mine Leasers, produced 8,000 tons of ores which averaged 9.8 percent lead, 21.8 percent zinc, 0.21 percent copper, 9 ounces of silver, and a small amount of gold.

OWNERSHIP AND EXTENT

The Dutchman Mine Leasers property consists of 14 unpatented mining claims, Pearl claims 1 to 10 inclusive, and the Camp Bird claims 1, 2, 7 and 8. The property is owned by a partnership. Willard Cleghorn, 254 West 1st South, American Fork, Utah, is managing partner. Mr. Cleghorn stated that a subordination agreement for $28,358.16, a property lien in favor of United States Smelting, Refining and Mining Company, can be obtained.

DESCRIPTION OF THE DEPOSITS

The underground area, which the applicant wishes to explore, is blanketed to a large extent by post-mineralization thrust faulting. Therefore, no surface outcrops of fissures or bedded deposits were seen above this area. Description of anticipated deposits is possible by correlation with the mineralization in the adjacent Dutchman mine. Ore was mined from the Dutchman mine within 190 feet of the boundary of the Dutchman Mine Leasers property.

The ore mined in the Dutchman property occurs along an ill-defined northeasterly fracture zone. The fissures within this zone dip steeply to the southeast, and due to complex faulting, are not consistent with depth. At favorable horizons in the limestone, replacement has formed bedded deposits. Ore mined near the surface is composed of argentiferous lead and zinc carbonates. Ore mined at depth is mainly argentiferous lead and zinc sulfides in a gangue of barite and carbonate. The percentage of zinc in the ore increases with depth.

MINABLE ORE RESERVES

There are no minable ore reserves on the Dutchman Mine Leasers property.

PRESENT STATUS

The Whirlwind tunnel, the portal of which is located on Dutchman mine property, was driven at an early date to develop the ground now

owned by the Dutchman Mine Leasers. The tunnel is not accessible, but maps show approximately 1,200 feet, 200 feet of crosscut and 300 feet of raises. No ore was developed in any of the Whirlwind workings, and the main adit is located at an elevation too low to be beneficial to the proposed exploratory program. The estimated cost of rehabilitating the tunnel is $7,000.

The Dutchman Mine Leasers have sufficient mine equipment to do the proposed work. There are no milling equipment or surface facilities of any kind on the property.

PROJECT PROPOSALS WITH COSTS

The proposed project consists of driving an adit approximately 500 feet and constructing an access road approximately 1,200 yards to the adit portal. Location of the portal is approximately 100 feet above and 300 feet N. 8° W. of the Whirlwind tunnel. The adit will be advanced northwest 500 feet or less, depending upon mineralization encountered. When favorable indications for ore occurrence are encountered, the remaining project funds should be utilized in lateral or vertical exploration. Costs of adit advance are calculated at $50 per foot, while costs of raising will depend upon various circumstances. The Dutchman Mine Leasers will do exploratory raising at $30 per foot.

Cost of Drifting or Crosscutting 3.5 ft./8-hr. shift

Labor (4 men /8-hr. shift, including supervisor)	$ 58.93
Power (gasoline and lubrication)	10.00
Explosives	15.00
Timber	8.75
Equipment depreciation	5.46
Equipment repair, maintenance, parts	3.74
Miscellaneous	3.12
Gross cost /8-hr. shift /3.5 ft. advance	$ 105.00
Cost /ft. advance	30.00

500 ft. of adit at $30 /ft. — $15,000

Labor Cost

3 miners at $1.65 /hr., 48-hr. work week with 8 hrs. overtime	257.40
1 miner and supervisor at $1.85 /hr., 48-hr. work week with 8 hrs. overtime	96.20
Gross cost, 4 miners /48-hr. week	$ 353.60
Gross cost, 4 miners / 8-hr. shift	58.93

Access Road

Approximately 1,200 yards of road construction and excavation at adit portal site is required. This work will be done by contract bulldozer.

12 8-hr. days at $10 /hr. — $ 960

Equipment

Following is a list of equipment to be furnished by the Dutchman Mine Leasers on a depreciation basis:

	Cost
1 WB Gardner-Denver compressor, 115 cfm., powered by a U-6 International gasoline engine	$ 2,340
1 Stoper, 99# class	645
1 D-73 Gardner-Denver Drifter	550
1 S 45 " " jackhammer	325
1 C-10 Cleveland spader	250
1 Chevrolet 1949 2-ton flat rack truck for hauling equipment and supplies	2,300
1 American blower powered by 20 H.P. gasoline engine	500
Mine car, 12. cu. ft.	150
Air and water hose with couplings	83
Pipe, 4" black iron, 500 ft. at $.97	534
Track, 16#, 500' with splicer bars, bolts and spikes	450
Blower pipe, 500', 12" diameter	550
Drill column and cross arm	206
Drill steel:	
Jackhammer	41
Drifter	49
Stoper	46
Total	$ 8,519
Yearly depreciation over 5-year period	$ 1,703.80
Montaly depreciation	$ 141.98

Facilities

No new facilities or rehabilitation of facilities are required for this project.

Purchases

It will be necessary to purchase small hand tools, picks, shovels, blacksmith coal, and drill bits — $ 250

SUMMARY OF PROJECT COSTS

500 feet adit advance at $30 /ft.	$15,000
Contract for approximately 1,200 yards road	960
Purchases	250
Approximately 126 ft. raise or crosscut at $30 /ft.	3,790
Total	$20,000

The Government should evaluate the results of the adit advance and determine if the expenditure of the remaining $3,790 of project funds is justified.

Because of winter conditions, this project should be started before the latter part of October, or it must be delayed until May of the following year. Time for completion of the exploratory project is estimated at 8 months.

CONCLUSIONS

The engineering aspects of this project proposal are feasible. The field team is impressed by the apparent ability of the Dutchman Mine Leasers manager to proceed with the project satisfactorily. The experience gained by the management in mining on the adjacent property will be of value in operation of the proposed project.

It is recommended that a loan of $20,000 for exploration on the Dutchman Mine Leasers property be approved.

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

224 New Customhouse
Denver 2, Colorado

July 25, 1952

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Cancellation of Exploration Project, DMA 1470X, Willard Cleghorn (Lead-Zinc)

Enclosed is a copy of a letter from Willard Cleghorn requesting that application, Docket DMA 1470X, be cancelled. We have accordingly placed the application in our inactive file.

W. H. King

W. H. King

Enclosure

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration
WASHINGTON
JUL 28 1952

SJS
7-28-52

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

224 New Customhouse
Denver 2, Colorado

July 25, 1952

Memorandum

To: Secretary to the Operating Committee
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Cancellation of Exploration Project, DMA 1470X, Willard Cleghorn (Lead-Zinc)

Enclosed is a copy of a letter from Willard Cleghorn requesting that application, Docket DMA 1470X, be cancelled. We have accordingly placed the application in our inactive file.

W. H. King

W. H. King

Enclosure

[illegible]

cc: Docket, chron.
Kouchmann
Wilson

DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration
Denver
JUL 28 1952

C O P Y

American Fork, Utah
July 21, 1952

Mr. Wilson
Bureau of Mines
1600 East 1st South Street
Salt Lake City, Utah

Re: Dutchman Mine Leasers

Dear Mr. Wilson

I am finding it difficult to raise our share of the money to complete the development work that was proposed in the plan submitted with our application for a loan to the DMEA for the development of our property in American Fork Canyon.

Please cancel the application for the loan. If we are able to raise the money in the future we will resubmit it.

Yours truly

Dutchman Mine Leasers

By /S/ Willard Cleghorn General partner

DEPARTMENT OF THE INTERIOR
Bureau of Mines
JUL 28 1952

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

224 New Customhouse
Denver 2, Colorado

January 28, 1952

Memorandum

To: D. E. Moulds, Acting Chief, Base Metals Division
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Docket 1470X, Willard Cleghorn, Miller Mine, American Fork, Utah, Your memorandum January 15, 1952.

During October we requested information concerning the partnership involved in the subject docket. Upon receipt of this information we will proceed with the preparation of the contract.

J. H. East, Jr.

DEFENSE MINERALS
ADMINISTRATION
WASHINGTON, D.C.
FEB 1 1 16 PM '52

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

224 New Customhouse
Denver 2, Colorado

January 28, 1952

Memorandum

To: D. E. Moulds, Acting Chief, Base Metals Division
Defense Minerals Exploration Administration

From: Executive Officer, Field Team, Region IV

Subject: Docket 1470X, Willard Cleghorn, Miller Mine, American Fork, Utah, Your memorandum January 15, 1952.

During October we requested information concerning the partnership involved in the subject docket. Upon receipt of this information we will proceed with the preparation of the contract.

J. H. East, Jr.

WHK:ld

cc: Docket, chron.
Koschmann
Wilson

FILE COPY
SURNAME:

Moulds

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

JAN 15 1952

Mr. J. H. East, Jr.
Executive Officer, Region IV
224 New Customhouse Building
Denver 2, Colorado

Re: Docket 1470X
Willard Cleghorn
Miller Mine
American Fort, Utah

Dear Mr. East:

We have your memorandum of October 8, 1951, stating that contract is awaiting Form MF-201 from the applicant.

In order to bring our records up-to-date, we will appreciate information as to the present status of the application.

Sincerely yours,

Signed 1-15-52

D. E. Moulds, Acting Chief
Base Metals Division
Defense Minerals Exploration
Administration

DEMoulds/hmj
1-11-52
cc to: Adm. R. File
Docket File Copy
Mr. Bishop
Mr. McKnight
Mr. Moulds
Region IV

FILE COPY
SURNAME:

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

Code 210
October 12, 1951

Memorandum

To: Mr. C. O. Mittendorf, Acting Administrator
Defense Minerals Administration

Through: Mr. John Smith

From: Mr. Robert E. Adams, Chief
Reports and Records Unit

Subject: DMA 1470X - Dutchman Mine

Mr. Blakemore left with me a copy of a memorandum from Mr. East, Regional Director, Region IV, regarding the delay in forwarding the exploration project contract on the Dutchman Mine, DMA 1470X. The question arose as to the manner in which the contract numbers will be assigned the exploration project contracts originating in Region IV. It is noted that Mr. East stated in his letter that he would forward the original and one copy of the exploration project contract to this office upon completion.

It is recommended that the procedure upon completion of an exploration project contract be as follows: all copies of the exploration project contract be forwarded to the Washington office after signature by both Mr. East and the applicant. Contract numbers would then be assigned the exploration project contract by the Production Expansion Division and obligation incurred on the books for exploration projects. The original and two copies of the contract for distribution to the GAO, the docket file and PED file would be retained and the remaining copies returned to Mr. East for distribution to the applicant, Bureau of Mines Field Fiscal Office and for the Regional Office files.

Signed 10/15

Robert E. Adams, Chief
Reports and Records Unit

READAMS/cmb
Copy to: Mr. Smith
DMA Files ✓

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

224 New Customhouse
Denver 2, Colorado

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 1 51951

October 10, 1951

Memorandum

To: Executive Secretary, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: Final Report, DMA Docket 1470-X, Dutchman Mine Leasers, applicants, Whirlwind Lease, Dutchman Zinc-Lead Mine, American Fork Mining District, Utah County, Utah.

The subject report has been approved by us and an exploration loan of $20,000.00 is being processed.

Your copies of the report and the brochure are being held here until the execution of the exploration project contract.

J. H. East, Jr.

for A. H. Koschmann

OCT 16 1951

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

224 New Customhouse
Denver 2, Colorado

October 10, 1951

Memorandum

To: Executive Secretary, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: Final Report, DMA Docket 1470-X, Dutchman Mine Leasers, applicants, Whirlwind Lease, Dutchman Zinc-Lead Mine, American Fork Mining District, Utah County, Utah

The subject report has been approved by us and an exploration loan of $20,000.00 is being processed.

Your copy of the report and the brochure are being held here until the execution of the exploration project contract.

J. H. EAST, JR.

J. H. East, Jr.

A. H. Koschmann

A. H. Koschmann

cc: SRWilson w/copy of final report
R.Roberts " " " "
FTAllsman " " " "
AHKoschmann " " " "
DMA Final Report

Mining Division
Region IV

September 26, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMA Docket 1470-X, Dutchman Mine Lessors, applicants, Airlaird Lease, Dutchman Zinc-Lead Mine, American Fork Mining District, Utah County, Utah.

The original application of the subject docket was for an exploration loan of $10,000. Examination by the field team determined that the expenditure of $20,000 would permit a more comprehensive program, and this cost is approved by the applicants.

There are not any minable reserves, but the possibility of finding ore is promising. The proposed work will consist primarily of advancing the present adit 500 feet with approximately 126 feet of raise and crosscut.

The examining team recommends approval of the loan, with which we concur.

As this project falls within the prerogative of the executive officer of Region IV, a contract will be prepared.

Paul T. Allsman

M
Form
SEP 21 1951
BUREAU OF MINES
Denver, Colorado

September 21, 1951

Memorandum

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

From: Chief, Utah-Wyoming Branch, Mining Division

Subject: DMA 1470X, Dutchman Mine Lessers Whirlwind Mine, American Fork District, Utah County, Utah

Attached are 6 copies of the subject report with the joint section Summary, Conclusions and Recommendations. The geologic report was submitted by the Survey September 13, 1951. The original brochure is also enclosed.

Stephen R. Wilson

Stephen R. Wilson

Enclosures 3

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Administration
200 New Customhouse
Denver 2, Colorado

September 17, 1951

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 1470X, Dutchman Mine, American Fork Mining District, Utah County, Utah.

Enclosed are eight copies of the geologic report by R. L. Middleton of the U. S. Bureau of Mines and J. T. Hasler of the U. S. Geological Survey, covering the above docket.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

Room 307, 320 South Main
Salt Lake City 1, Utah
13 September 1951

Memorandum

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

From: Ralph J. Roberts

Subject: Docket DMA 1470X, Dutchman Mine, American Fork Mining District, Utah County, Utah.

Enclosed are eight copies of a geologic report on the Dutchman mine (Whirlwind Lease), Docket DMA 1470X, which was made in response to a request for a field examination.

The Dutchman mine workings are in Devonian and Mississippian limestone which are complexly faulted. The ore bodies follow fault zones in the Mississippian limestone and consist mainly of lead and zinc carbonates.

There are no minable ore reserves, but the outlook for the discovery of new ore bodies in faulted blocks of limestone is promising.

It is therefore recommended that the Defense Minerals Administration enter into an exploration contract with the applicant to do the proposed work. On a matching fund basis the government's share will be $10,000.

I concur with the conclusions and recommendations of the examining geologist and engineer.

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

Docket DMA 1470X, Dutchman Mine,
American Fork Mining District
Utah County, Utah

R. L. Middleton, Mining Engineer
U. S. Bureau of Mines

J. W. Hasler, Geologist
U. S. Geological Survey

September 12, 1951

DUTCHMAN MINE LEASERS
WHIRLWIND MINE
UTAH COUNTY, UTAH

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By J. W. Hasler and
R. L. Middleton

Dutchman Mine Leasers, owner of the Whirlwind mine in Utah County, Utah, has requested a DMA loan of $10,000 to conduct underground exploration. The property was examined by members of the Geological Survey and Bureau of Mines during August 1951.

The predominant rocks in the area are quartzite, shale and limestone of Cambrian age and limestone of Devonian (?) and Mississippian age. The Dutchman mine workings adjacent to the Whirlwind lie in a wedge of Devonian and Mississippian limestone outlined on the north and west by two faults, the Dutchman and the Whirlwind. Repetition of the ore-bearing Mississippian limestone by overthrusting is suggested, for the Cambrian Ophir and Maxfield formations lie above Mississippian limestone exposed in the Whirlwind tunnel. If this is true, the likelihood of discovering ore in the area of Block A, figure 2 of the Survey report, is considered promising.

The amount proposed by the applicant, $10,000, is too little to conduct the proper program. It is believed that $20,000 will be necessary to complete the exploration as outlined in this report. The possibilities of finding ore in the above-mentioned block are favorable; therefore, it is recommended that a loan of $20,000 be granted.

TABLE OF CONTENTS

	Page
Geology	1
Ore Deposits	3
Ore Reserves	4
Proposed Exploration	4
Summary and Conclusions	5

LIST OF ILLUSTRATIONS

Figure 1. Index map of the Dutchman Mine, American Fork Mining District, Utah County, Utah.

Figure 2. Claim map.

Figure 3. Geologic map of Upper No. 1 Tunnel and Whirlwind Tunnel.

Figure 4. Composite of levels, Dutchman Mine.

Docket DMA 1470X, Dutchman Mine,

American Fork mining district,

Utah County, Utah

GEOLOGY

The rocks in the vicinity of the Dutchman mine are quartzite, shale, and limestone of Cambrian age, and limestone of Devonian and Mississippian age.

The Dutchman workings [1] (pl. 49) are in a wedge of Devonian and Missis-

---

[1] Calkins, F. C., Butler, B. S., Geology and Ore deposits of the Cottonwood-American Fork area, Utah: U. S. Geol. Survey, Prof. Paper 201, p. 138, 1943.

---

sippian limestone bounded on the north and west by two faults, the Dutchman fault which may be part of the Silver Fork Fault and the Whirlwind fault. The limestone penetrated by the workings was apparently dislocated by several other faults, and the structure is far from being thoroughly understood.

The greater part of the ore produced by the mine has been taken from the No. 1 tunnel (fig. 3). The workings on this level have a northeastward trend, but do not follow the bedding, nor any persistent fissure. They seem to extend along a rather ill-defined fracture zone in which most of the individual fissures strike at angles to the general trend. Most of the fissures are fairly steep. The general dip of the limestone in this level is eastward, and the workings pass first through the Madison, then into the Deseret whose base is marked by characteristic black shaly beds.

The country rocks in the lower workings correspond to the rocks in the No. 1 level. The portion south of the first Fork is in Madison limestone.

The westward crosscuts are in the Jefferson (?) dolomite. The rock in the north-northeast drift is largely concealed, but some of it appears to be Jefferson (?) dolomite. The most remarkable feature of this level is the fact that its most northerly spurs are blocked by soft black clay which was formed from the black shale at the base of the Deseret. The distribution of this clay suggests that it lies along a fault, possibly a thrust fault of low southward dip that rises through the floor of the lower level and has not been reached by even the northernmost spurs on the upper level. Such a fault, later than the Dutchman fault, might account for the absence of the Dutchman fault on the upper level.

The Whirlwind tunnel, just west of the Dutchman No. 1, was driven N. 20° W. for a distance reported to be about 1,100 feet. It is now blocked 600 feet from the portal by the same kind of black clay that is so abundant in the lower Dutchman workings [1]. The tunnel terminates in quartzite, which

---

[1] Calkins, F. C., Butler, B. S., op. cit.

---

is in contact with limestone at the Dutchman fault. The Whirlwind fault parallels the Whirlwind Tunnel not far to the west, but it has not been reached by the workings.

Q. F. Treseder of the International Smelting and Refining Company considers that some thrust faulting could possibly be present because the Cambrian Ophir shale and Maxfield limestone overly the Dutchman upper level workings, which are in Mississippian, Deseret-Madison limestones.

The operator believes that he will encounter the ore-bearing Mississippian beds in the hanging wall of the Dutchman fault beyond the Wild Dutchman Claim 100 feet above the Whirlwind Tunnel and 100 feet to the east (fig. 2) providing,

of course, that the overthrust brings Cambrian Ophir shale and Maxfield limestones on top of the Mississippian Deseret-Madison limestones.

ORE DEPOSITS

The principal vein of the Dutchman mine strikes N. 40° E. and dips vertically or steeply southeastward [1]. Its width ranged from a mere streak

---

[1] Butler, B. S. and Loughlin, G. F., A reconnaissance of the Cottonwood-American Fork mining region, Utah: U. S. Geol. Survey Bull. 620, p. 208, 1915.

---

up to 8 feet and was widest in a dark-blue limestone bed which overlies argillaceous beds. The vein, lies along the contact of a narrow porphyry dike for most of its course; it ends abruptly on the northeast against a dense, blocky argillaceous limestone which probably marks a northwestward trending fault. A minor vein parallels the main vein. Both have been followed up to the cemented talus that caps the bedrocks, and several masses of ore are said to have been found in the talus.

The ore mined from the veins is mostly a sandy, mixed lead and zinc carbonate. Remnants of primary ore are composed of galena and sphalerite in a barite and carbonate gangue. Quartz is inconspicuous. Ore mined by lessees in recent years is said to have averaged about 30 percent of lead, 9 to 17 percent of zinc, and 50 ozs. of silver to the ton. The ore is reported to have had an average value of $22.00 a ton.

The only ore mined in 1939 was a mass of coarsely crystalline sulfide ore a few feet in diameter, consisting mainly of galena and sphalerite. It was in a breccia of limestone, blue black clay, and altered dike rock; the dike is evidently part of the same dike exposed on the No. 1 level. Similar ore was

mined in 1942 at a deeper level. These masses may be parts of a large vein that has been broken into many pieces as a result of complex faulting.

The black clay so prevalent throughout the Dutchman workings is now thought to be an alteration gouge, rather than a bedding plane gouge. It accompanies the ore associated with the porphyry dikes and limestone replacement pods and pipes as well. Large, irregular quartzite blocks are caught up in the complex Dutchman Fault, and give the fault a warped and undulating surface.

ORE RESERVES

There are no known minable ore reserves on the Whirlwind lease of the Dutchman mine as all the ore that has been discovered has been stoped. The life of this mine as well as others throughout the American Fork area has depended upon the finding of these sporadic ore bodies of rather high grade. Exploratory work has proved to be quite expensive, but production has more than equaled the cost of exploration thus making the operations profitable.

PROPOSED EXPLORATION

The applicant proposed a 500-foot crosscut to be located 100 feet east of and 100 feet higher than the Whirlwind Tunnel (fig. 2). The crosscut is designed to cut probable northeast veins in the hangingwall of the Dutchman fault. He estimated that the total cost of the work would be $10,000.

Repetition of the ore-bearing Mississippian limestones by overthrusting is suggested by the normal sequence of Cambrian Ophir and Maxfield formations which apparently overlie Mississippian limestones exposed in the Whirlwind Tunnel. If this geologic picture is true, the probability of discovering ore in the hangingwall of the Dutchman fault is promising.

The examining geologist and engineer are of the opinion that additional work will be needed to explore the block of ground to the southwest of the Dutchman mine when it is reached. They therefore suggest additional raising and crosscutting in the designated block (Block "A" fig. 2), if promising showings are obtained during the exploration work. This additional work is estimated to cost about $10,000, making the total project cost about $20,000.

SUMMARY AND CONCLUSIONS

The country rock in the vicinity of the Dutchman mine are quartzite, shale, and limestone of Cambrian age and limestone of Devonian (?) and Mississippian age.

The Dutchman workings are in a wedge of Devonian and Mississippian limestones bounded on the north and west by two faults, the Dutchman and the Whirlwind faults. The structure is very complicated and repetition of the ore-bearing Mississippian limestones by overthrusting is suggested because the Cambrian Ophir and Maxfield formations are apparently above Mississippian limestones exposed in the Whirlwind Tunnel.

If this is true, the likelihood of discovering ore in Block "A" figure 2 is promising. The proposed 500-foot crosscut and additional crosscuts and raises are designed to explore northeastward-trending veins, and ore zones adjacent to the Dutchman fault, in the Mississippian limestones.

It is concluded that possibilities of finding ore in this block of ground are favorable and it is therefore recommended that the Defense Minerals Administration enter into a contract with the applicant to do the proposed work. The Defense Minerals Administration's share on a matching fund basis will be $10,000.

DUTCHMAN MINE LEASERS
WHIRLWIND MINE
UTAH COUNTY, UTAH

Engineering Report

By R. L. Middleton
Mining engineer
U. S. Bureau of Mines

DUTCHMAN MINE LEASERS
WHIRLWIND MINE
UTAH COUNTY, UTAH

CONTENTS

Engineering report	Page
Introduction	2
Acknowledgments	2
Location	2
History and production	3
Ownership and extent	3
Description of the deposits	4
Minable ore reserves	4
Present status	4
Project proposals with costs	5
Summary of project costs	7
Conclusions	8

ILLUSTRATIONS

Fig. 1 Location map, Dutchman Mine Leasers, Utah County, Utah

INTRODUCTION

A preliminary examination of the Dutchman Mine Leasers property was made August 22, 1951 by J. W. Mealer of the U. S. Geological Survey and R. L. Middleton of the U. S. Bureau of Mines. The field team was accompanied to the property by Willard Clagbern, managing partner of the Dutchman Mine Leasers.

The application for exploration, DMA Docket 1470-X, asked approval of a $10,000 loan with Government participation of $5,000 in matching funds. Examination by the field team determined a $20,000 project would allow a more comprehensive exploration, and this cost is agreeable to the Dutchman Mine Leasers.

ACKNOWLEDGMENTS

Data obtained from U. S. Geological Survey Professional Paper 201, By F. C. Calkins and B. S. Butler, and from O. S. Traeider, engineer for International Smelting and Refining Co., Salt Lake City, Utah, were used in preparation of this report.

LOCATION

The Dutchman Mine Leasers property is in sec. 27, T. 3 S., R. 3 E., S.L.B.M., American Fork mining district, Utah County, Utah (fig. 1). A hard-surfaced road extends 15 miles northeast from American Fork, Utah, and from this point 7 miles of graveled, moderate-grade mountain road passes within 1/4 mile of the mine. The property, at

an altitude of 8,000 feet, is situated on the north slope of American Fork Canyon, 1/2 mile northeast of Mary Ellen Gulch.

Topography is moderately steep and rugged. The property is well supplied with standing mine timber, and American Fork creek insures adequate water.

HISTORY AND PRODUCTION

The Dutchman Mine Leasers property, though located in an active lead, silver and zinc mining district, has had no production. The southeast side line of the Dutchman Mine Leasers property is adjacent to the Dutchman mine, which has been an intermittent producer of good grade lead, silver and zinc ores since 1872. From 1946 to 1949, the Dutchman mine, then operated by the applicant, Dutchman Mine Leasers, produced 8,000 tons of ores which averaged 9.8 percent lead, 21.8 percent zinc, 0.21 percent copper, 9 ounces of silver, and a small amount of gold.

OWNERSHIP AND EXTENT

The Dutchman Mine Leasers property consists of 14 unpatented mining claims, Pearl claims 1 to 10 inclusive, and the Camp Bird claims 1, 2, 7 and 8. The property is owned by a partnership. Willard Clagnorn, 254 West 1st South, American Fork, Utah, is managing partner. Mr. Clagnorn stated that a subordination agreement for $23,358.16, a property lien in favor of United States Smelting, Refining and Mining Company, can be obtained.

DESCRIPTION OF THE DEPOSITS

The underground area, which the applicant wishes to explore, is blanketed to a large extent by post-mineralization thrust faulting. Therefore, no surface outcrops of fissures or bedded deposits were seen above this area. Description of anticipated deposits is possible by correlation with the mineralization in the adjacent Dutchman mine. Ore was mined from the Dutchman mine within 190 feet of the boundary of the Dutchman Mine Lessors property.

The ore mined in the Dutchman property occurs along an ill-defined northeasterly fracture zone. The fissures within this zone dip steeply to the southeast, and due to complex faulting, are not consistent with depth. At favorable horizons in the limestone, replacement has formed bedded deposits. Ore mined near the surface is composed of argentiferous lead and zinc carbonates. Ore mined at depth is mainly argentiferous lead and zinc sulfides in a gangue of barite and carbonate. The percentage of zinc in the ore increases with depth.

MINABLE ORE RESERVES

There are no minable ore reserves on the Dutchman Mine Lessors property.

PRESENT STATUS

The Whirlwind tunnel, the portal of which is located on Dutchman mine property, was driven at an early date to develop the ground now

owned by the Dutchman Mine Leasers. The tunnel is not accessible, but maps show approximately 1,200 feet, 200 feet of crosscut and 300 feet of raises. No ore was developed in any of the Whirlwind workings, and the main adit is located at an elevation too low to be beneficial to the proposed exploratory program. The estimated cost of rehabilitating the tunnel is $7,000.

The Dutchman Mine Leasers have sufficient mine equipment to do the proposed work. There are no milling equipment or surface facilities of any kind on the property.

PROJECT PROPOSALS WITH COSTS

The proposed project consists of driving an adit approximately 500 feet and constructing an access road approximately 1,200 yards to the adit portal. Location of the portal is approximately 100 feet above and 300 feet N. 8° W. of the Whirlwind tunnel. The adit will be advanced northwest 500 feet or less, depending upon mineralization encountered. When favorable indications for ore occurrence are encountered, the remaining project funds should be utilized in lateral or vertical exploration. Costs of adit advance are calculated at $50 per foot, while costs of raising will depend upon various circumstances. The Dutchman Mine Leasers will do exploratory raising at $50 per foot.

Cost of Drifting or Crosscutting 3.5 ft./8-hr. shift

Labor (4 men /8-hr. shift, including supervisor)	$ 58.93
Power (gasoline and lubrication)	10.00
Explosives	15.00
Timber	8.75
Equipment depreciation	5.46
Equipment repair, maintenance, parts	3.74
Miscellaneous	3.12
Gross cost /8-hr. shift /3.5 ft. advance	$ 105.00
Cost /ft. advance	30.00
500 ft. of adit at $30 /ft.	$15,000

Labor Cost

3 miners at $1.65 /hr., 48-hr. work week with 8 hrs. overtime	257.40
1 miner and supervisor at $1.85 /hr., 48-hr. work week with 8 hrs. overtime	96.20
Gross cost, 4 miners /48-hr. week	$ 353.60
Gross cost, 4 miners / 8-hr. shift	58.93

Access Road

Approximately 1,200 yards of road construction and excavation at adit portal site is required. This work will be done by contract bulldozer.

12 8-hr. days at $10 /hr. — $ 960

Equipment

Following is a list of equipment to be furnished by the Dutchman Mine Lessees on a depreciation basis:

	Cost
1 WB Gardner-Denver compressor, 115 cfm., powered by a U-6 International gasoline engine	$ 2,340
1 Stoper, 99# class	645
1 D-73 Gardner-Denver Drifter	550
1 S 45 " " jackhammer	325
1 C-10 Cleveland spader	250
1 Chevrolet 1949 2-ton flat rack truck for hauling equipment and supplies	2,300
1 American blower powered by 20 H.P. gasoline engine	500
Mine car, 12. cu. ft.	150
Air and water hose with couplings	83
Pipe, 4" black iron, 500 ft. at $.97	534
Track, 16#, 500' with splicer bars, bolts and spikes	450
Blower pipe, 500', 12" diameter	550
Drill column and cross arm	206
Drill steel:	
Jackhammer	41
Drifter	49
Stoper	46
Total	$ 8,519
Yearly depreciation over 5-year period	$ 1,703.80
Monthly depreciation	$ 141.98

Facilities

No new facilities or rehabilitation of facilities are required for this project.

Purchases

It will be necessary to purchase small hand tools, picks, shovels, blacksmith coal, and drill bits — $ 250

SUMMARY OF PROJECT COSTS

500 feet adit advance at $30 /ft.	$15,000
Contract for approximately 1,200 yards road	960
Purchases	250
Approximately 126 ft. raise or crosscut at $30 /ft.	3,790
Total	$20,000

The Government should evaluate the results of the adit advance and determine if the expenditure of the remaining $3,790 of project funds is justified.

Because of winter conditions, this project should be started before the latter part of October, or it must be delayed until May of the following year. Time for completion of the exploratory project is estimated at 8 months.

CONCLUSIONS

The engineering aspects of this project proposal are feasible. The field team is impressed by the apparent ability of the Dutchman Mine Leasers manager to proceed with the project satisfactorily. The experience gained by the management in mining on the adjacent property will be of value in operation of the proposed project.

It is recommended that a loan of $20,000 for exploration on the Dutchman Mine Leasers property be approved.

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

DEFENSE MINERALS ADMINISTRATION WASHINGTON, D. C.
OCT 12 10 47 AM '51

224 New Customhouse
Denver 2, Colorado

October 8, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division
Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: DMA Docket 1470X (1471X) Dutchman Mine, American Fork Mining District, Utah County, Utah

Referring to my letter of September 26, 1951, this application has been approved and the final report will be submitted with the contract, which is being prepared in this office.

The contract is awaiting receipt of Mortgagee's Subordination Agreement, Form MF-201, from the applicant.

J. H. East, Jr.

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

224 New Customhouse
Denver 2, Colorado

October 8, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division
Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: DMA Docket 1470X (1471X) Dutchman Mine, American Fork Mining District, Utah County, Utah

Referring to my letter of September 26, 1951, this application has been approved and the final report will be submitted with the contract, which is being prepared in this office.

The contract is awaiting receipt of Mortgagee's Subordination Agreement, Form MF-201, from the applicant.

J. H. East, Jr.

J. H. East, Jr.

JFS:ld

cc: DMA
Koschmann
Wilson

Amerikan

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

DEPARTMENT OF THE INTERIOR
RECEIVED
OCT 1 1951
Defense Minerals Administration,
Production Expansion Division.

224 New Customhouse
Denver 2, Colorado

September 26, 1951

Memorandum

To: C. O. Mittendorf, Director, Production Expansion Division
Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: DMA Docket 1470X (1471X) Dutchman Mine, American Fork Mining District, Utah County, Utah

The information requested by telephone recently regarding this application is presented in the formal report which is being mailed to you under separate cover today. — not yet rec'd.

J. H. East, Jr.

J. H. East, Jr.

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.
OCT 1 10 36 AM '51

OFFICAL FILE COPY

To	Init.	Date
400	Q. E. C.	10-1
210		

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

224 New Customhouse
Denver 2, Colorado

September 26, 1951

Memorandum

To: C. C. Mittendorf, Director, Production Expansion Division
Defense Minerals Administration

From: Executive Officer, DMA Field Team, Region IV

Subject: DMA Docket 1470X (1471X) Dutchman Mine, American Fork Mining District, Utah County, Utah

The information requested by telephone recently regarding this application is presented in the formal report which is being mailed to you under separate cover today.

J. H. East, Jr.

J. H. East, Jr.

JTA:ld

cc: DMA
Koschmann

FILE COPY
SURNAME:

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

Bodenlos by Probow
for McKnight
Herrod
Moon
McKnight for Rowe

June 21 1951

Docket mailed 6/26/51

Re: Docket DMA-1470X

lead, zinc + silver

Dutchman Mine Leasers
c/o Willard Cleghorn
254 West 1st Street
American Fork, Utah

Gentlemen:

Your application (Docket DMA-1470X) for an exploration loan under the provisions of the Defense Production Act of 1950 has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration. Before final decision can be taken on your request it will be necessary to obtain additional information on your property. Your application, therefore, has been referred to Mr. J. H. East, Jr., Executive Officer of the Field Team, 224 New Customhouse, Denver 2, Colorado, for further information and advice.

Very truly yours,

Tom Lyon, Director
Supply Division

CJBodenlos:emp
G 6/21/51

Copies to: Chief, Lead-Zinc Br.
J. H. East, Jr. Region IV (2)
E. T. McKnight 4204 GSA
R. H. Mote
L. F. Strobel
Directors r. file 4214 GSA
Br. r. file 4214 GSA
Files

a.E.C.

JUN 26 1951

June 21, 1951

Re: Docket [illegible]-11,703

Gutchman Mine Lessors
c/o Millard Gleghorn
254 West 1st Street
American Fork, Utah

Gentlemen:

Your application (Docket [illegible]-11,703) for an exploration loan under the provisions of the Defense Production Act of 1950 has been reviewed by the Lend-Lease Branch of the Defense Minerals Administration. Before final decision can be taken on your request it will be necessary to obtain additional information on your property. Your application, therefore, has been referred to Mr. J. H. East, Jr., Executive Officer of the Field Term, Old Post Customhouse, Denver 2, Colorado, for further information and advice.

Very truly yours,

Jim Lyon, Director
Supply Division

CJBodenlosamp
6/21/51
Copies to: Chief, Lend-Lease Br.
J. H. East, Jr. Region IV (2)
R. C. Knight [illegible]
R. H. Mote
L. F. Strobel
Directors r. file [illegible]
Br. r. file [illegible]
Files

FILE COPY
SURNAME:

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

June 14, 1951

Mr. Willard Cleghorn
254 West 1st South
American Fork, Utah

Subject: DMA-1470X
Re: Exploration Loan -
Pearl and Camp Bird Groups

My dear Mr. Cleghorn:

Receipt is acknowledged of your application and attachments of May 12, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1470X and referred to Mr. Otto Herres, Chief, Lead-Zinc Branch on June 6, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1470X.

Sincerely yours,

LANDON F. STROBEL

jc

Landon F. Strobel
Executive Secretary

L. F. Strobel:jc
cc: Strobel
✓ File
Herres
Lyon

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA FOR USE UNDER THE DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dma-1470X

Date received 6/4/51

Dutchman Mine Lessors
254 West 1st South   c/o Willard Cloghorn, Managing Partner
American Fork, Utah

Name and address of applicant

Date May 12, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) ~~Necessity certificate pursuant to the provisions of Section 124A (Amortization Deduction) of Internal Revenue Code, 1950, (5)~~ priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and ~~(6)~~ 5 other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).
   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - [x] Owner.
   - [x] Lessee.
   - [ ] Contractor.
5. Number of years in production ______
   If not in production or operation, estimated date when production will begin ______
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
Willard Stephens 254 West 1st S. American Fork, Utah	managing partner	none	25,000.00	none	none	none	
D. Grant Ingersol American Fork, Utah	partner	0		0	0	0	
Harry Allen RD. American Fork, Utah	partner	0		0	0	0	
Frank Ingersol Washington, D. C.	partner	0		0	0	0	
Stanley Stephens San Francisco, California	partner	0		0	0	0	
Kenneth Stephens Cherry Creek, Nevada	partner	0		0	0	0	
Blake Hoffman Estate Provo, Utah	partner	0		0	0	0	
William J. Heath Estate Provo, Utah	partner	0		0	0	0	
Tom Squire Salt Lake City, Utah	partner	0		0	0	0	
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	no production under present lease				
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

Ref. U. S. Geol. Survey Ref. Paper 211

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Dutchman Mine Lessers
(Name of company)

By Willard Clagham
(Signature of authorized official)

May 20 1951
(Date)

Managing partner
(Title)

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—63792-1

Supplement to MF-100

Dutchman Mine Leasers
254 West 1st South
American Fork, Utah

1. a. It is expected that lead, zinc, copper and silver bearing ores will be produced.

   b. None

2. Underground mine. Vein and bedding deposits anticipated. The Pearl group and Camp Bird group of mining claims owned by the Dutchman Mine Leasers, a partnership, originally known as the Whirlwind mine.

   a. None

   b. 200

   c. 1200

   d. 300 feet exploratory raises. No openings extend below the adit level, hence mine is drained. The adit tunnel is open about 500 feet and is caved in beyond that point. This tunnel in our opinion is in the wrong place for the development of the ore zone. We do not propose to use it. It is proposed some work be done on the surface with a bulldozer to remove overburden at point of ore croppings and to extend tunnel westerly along ore zone. No pumping problems are anticipated.

3. a. 20 miles Northeast of American Fork, Utah.

   b. American Fork Mining District

   c.

   d. Utah County, Utah

4. a. Only assessment work has been done. Mine is idle at present. Work is planned to begin in June 1951.

   b. Owner. Land was purchased from locators.

5. None. It is reported a small amount of ore was mined in early days when property was in the name of Whirlwind.

6. See attached statement.

7. a. A 1200 foot tunnel, 200 cross cuts and approximately 300 feet of raises have been driven but the work was done southerly from what appears to be the ore channel, with nothing of importance being developed. Judging from our experience of mining the ore bodies from the Dutchman Mine, the ore should continue westerly into this property and should be found at a higher elevation in the mountain than where the original work on this property was done.

Dutchman Mine Leasers
254 West 1st South
American Fork, Utah

7. b. The Wild Dutchman property forms the easterly sidelines to this group and has a substantial production dating from the 1870's with much of it since 1946. The following amounts have been mined by myself and associated during the period 1946 to 1949 while the Dutchman property was held under lease: 8,000 tons of ore were mined containing 1,564,107 pounds of lead, 3,483,839 pounds of zinc, 33,477 pounds of copper with about 72,000 ounces of silver and some gold of lesser value. The Dutchman ore chute made in an east-westerly fault zone which extends into the Pearl group of claims where this development is proposed. It is expected that metals of the same nature will be developed there.

c. Most of the ore produced in the Dutchman mine property has been within one hundred ninety feet of the sidelines of the Pearl group. The properties are so situated geologically and physically that they have to be considered as one. The engineers of the International Smelting and Refining Company and those of the United States Smelting, Refining and Mining Company have examined both properties during the periods of production for their respective companies, but submitted no written reports. A sheaf of mine maps showing geological conditions, mine arrangement, probable extensions, etc., is in my possession and should be examined by your engineer. They seem too voluminous to send in with this application. A small map is included herewith showing claim positions, etc.

8 - 12 Answered on Form MF-100

13. Hard surfaced road extends approximately twelve miles toward the property from American Fork, then three miles graded and graveled, with the last five miles improved mountain roads which will accomodate large trucks.

14. Ample good water is available for culinary use. No other use contemplated.

15. 11,000 volt high tension Utah Power & Light Company line to property.

16. Ample labor has been available in the past. Seems to be sufficient at present.

17. All necessary equipment for the development is now on hand. The equipment consists of compressor, pneumatic drills, pipe rails, cars, drill steel, hose, etc.

18. None

STATEMENT OF EXPERIENCE OF OPERATORS:

The applicant has been mining for over thirty years:

1917 to 1921 - Globe Consolidated Mining Company of American Fork Canyon (miner machine runner)

1921 to 1929 - contracting tunnel and shaft at Park Utah Mine, Park City, Utah

1929 to 1931 - contracting all development work - Yankee Mines Company, American Fork Canyon

1932 to 1940 - Lessee-Operator Yankee Mine

1941 to 1944 - Operator-Owner - Cherry Creek Tungsten Mining Company, Cherry Creek, Nevada

1945 to 1949 - Lessee-Operator of Dutchman Mine, American Fork, Utah.

All of the above mentioned mines have a substantial production record. I personally managed the last three mentioned.

Willard Elgthorn

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. dma - 1470 X

Date received 6/4/51

Participation

Butcher Mine Lessers
c/o Willard Gleghorn, Managing Partner
254 West 1st South
American Fork, Utah

Name and address of applicant

Date May 22, 1951

FILL IN THIS BLOCK

Date of application May 22, 1951

Estimated cost 10,000.00

Mineral or metal Lead, silver, zinc, copper

Percentage of Government participation 90%

Location of mine Amarto & Fort Canyon

Date of filing MF-100 May 22, 1951

DMA Docket Number, if available none

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Dutchman Mine Lessors (Name of company) By Willard Clighorn (Signature of authorized official)

May 20 1951 (Date) Managing Partner (Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Supplement to MF-103

Dutchman Mine Leasers
254 West 1st South
American Fork, Utah

1. Partnership

2. Explained in MF-100 - No. 8

4. Applicant will manage the project. His mining experience is explained in Supplement to MF-100 No. 6

5. Owner

6. Lien in favor of United States Smelting, Refining and Mining Company in the amount of 28,358.46 Money borrowed for final development of Dutchman Mine, a property held under lease by above named partnership. Dutchman mine has since been abandoned and returned to its owner. The indebtedness still stands against Pearl and Camp Bird groups of claims owned by above named partnership.

7. Does not apply

8. Attached

9. $5,000.00 cash or its equivalent in equipment rental and/or labor to equal D.M.A. matching funds.

10. a. and b. The following lode mining claims constitute the area held in one parcel by the Dutchman Mine Leasers on which the proposed work for which application for matching funds for development is hereby made:

Pearl group of mining claims #1 to 10 both inclusive unpatented lode claims held by Dutchman Mine Leasers under quit claim deed dated April 17, 1948, from R. W. Smith and H. C. Nichols, situate and adjacent to and northwesterly from Wild Dutchman Lot No. 68 including the following space:

Pearl No. 1, 2, and 3, the location notices of which claims are recorded in the records of the County Recorder of Utah County in Book 325 at page 323.

Pearl No. 4 and 5, the location notices of which claims are recorded in records of Utah County Recorder of Utah County in Book 325 at page 324.

Pearl No. 6, the location notice of which claim is recorded in the records of the County Recorder of Utah County in Book 325 at page 324-5.

A group of claims located in the name of Dutchman Mine Leasers by Millard Cleghorn which form a northwesterly extension of the above named Pearl claims and form a part of them, namely:

Dutchman Mine Leasers
254 West 1st South
American Fork, Utah

Pearl No. 7, 8, 9 and 10, the location notices of which claims are recorded in the records of the County Recorder of Utah County in Book No. 506 pages 153, 154, 155, 156 and 157.

All of the Camp Bird group of unpatented lode mining claims held by Dutchman Mine Leasers under quitclaim deed dated April 12, 1948 and recorded in the records of the County Recorder of Utah County, Mining Section Book 464 at page 510, from Camp Bird Mining Company situated southerly from Dutchman Flat, Survey No. 5800, including the following named claims:

Camp Bird No. 1 and 2, the location notices of which claims are recorded in the records of the County Recorder of Utah County in Book 325 at page 421.

Camp Bird No. 7 and 8, the location notices of which claims are recorded in the records of the County Recorder of Utah County in Book 325 page 505.

11. The recorded name of the partnership under which this work will be carried on and in whose name title to the above named mining claims rests, is Dutchman Mine Leasers. The property was originally known as the Whirlwind.

12. Explained in Supplement to MF-100 No. 3 a. b. and d. and in No. 13.

13. Spring water coming from tunnel is sufficient for all purposes.

14. All the equipment needed for the exploration work proposed is on hand including compressor, rock drills, pipe rails, and supplementary material.

15. Ore would be delivered by truck and rail to one of the custom mills or smelters in the Salt Lake Valley.

16. The property has no production record but one or two tunnels were driven into it because it is adjacent to Dutchman Mine which has been producing a good grade of lead, silver, zinc, copper ore. All of the work was done south and underneath what seems to us to be the ore channel. See also Supplement to MF-100 No. 7 a to c.

17. Not in production.

18. There are no developed reserves.

a. The ore that was mined in the adjoining property, Wild

Dutchman Mine Leasers
254 West 1st South
American Fork, Utah

Dutchman, occurred in an east-west fault zone where an intrusive mass had expanded the distance between foot and hang wall. The ore was a part of or had settled down in the porphyry. Some of the higher grade carbonate ores which were mined in early days were found in the limestones directly above the primary ore deposits which have been mined recently from the porphyries. See U. S. Geological Survey, Professional Paper 201, page 137, Dutchman Mine, and page 138 Whirlwind.

19. It is thought by the writer, the Whirlwind fault lying west of the tunnel is flat or nearly so, and that the Dutchman ore could continue westerly underneath this flat fault. If this assumption be true, vast amounts of ore could exist there. It is this probability that prompts us to explore it.

20. Lead, silver, zinc, copper in veins and/or beddings.

21. It is proposed that a road be built from the Yankee Mine road to a point where surface croppings of lead, zinc ore are apparent, a distance of about fifteen hundred yards, then remove the overburden with the use of a caterpillar bulldozer to determine if ore is coming to the surface at this point and to extend a tunnel westward from the Dutchman Mine croppings into the Pearl group of claims.

22. The reason for expecting ore to be found is explained in the three preceeding paragraphs. Small maps are included herewith to supplement the foregoing.

23. Construction of road and removing overburden. Contract proposal:

12 days work with D-7 caterpillar tractor @ $10.00 per hour.	960.00
200 feet tunnel @ $25.00 per foot	5,000.00
150 feet crosscuts @ $25.00 per foot.	3,750.00
Miscellaneous	290.00
Total	$10,000.00

Tunnel advance per shift - approximately 4 feet with four men required @ $14.00 per shift. 56.00

Power per day	10.00
Per round for explosives.	15.00
Per set of timber	10.00
Miscellaneous	9.00
Gross cost per shift with advance 4 feet or $25.00 per foot of advance	100.00

Dutchman Mine Leasers
254 West 1st South
American Fork, Utah

24. This work can be completed by September or October of 1951, provided work is authorized to begin in June.

DUTCHMAN MINE LEASERS

254 West 1st South
American Fork, Utah

FINANCIAL STATEMENT

Purchase price of Pearl Group and Camp Bird Group of mining claims. . . . . $ 3,700.00

Amount owed to United States Smelting, Refinin & Mining Company, Salt Lake City, Utah 28,358.46

This amount advanced by the United States Smelting, Refining & Mining Company was spent on the Dutchman Mine claims and these above claims were used as collateral. Since that transaction, the Dutchman claims have been dropped and returned to their owner. The total obligation is now charged against the above group of mining claims, which, however, is not repayable unless ore is developed and profit in sufficient amount derived therefrom to repay this indebtedness to the United States Smelting, Refining & Mining Company.

There has been no work done on the above group by the Dutchman Mine Leasers; hence there has no profit or loss.

DUTCHMAN MINE LEASERS

254 West 1st South
American Fork, Utah

I have talked with the lien holders concerning the subordination of their claim in favor of the D.M.A. loan and they indicate to me that they are willing to subordinate if this becomes necessary.

The proper forms for filing this subordination of lien were not available in Salt Lake City at the time of filing, and if it is required, they will be provided at a later date.

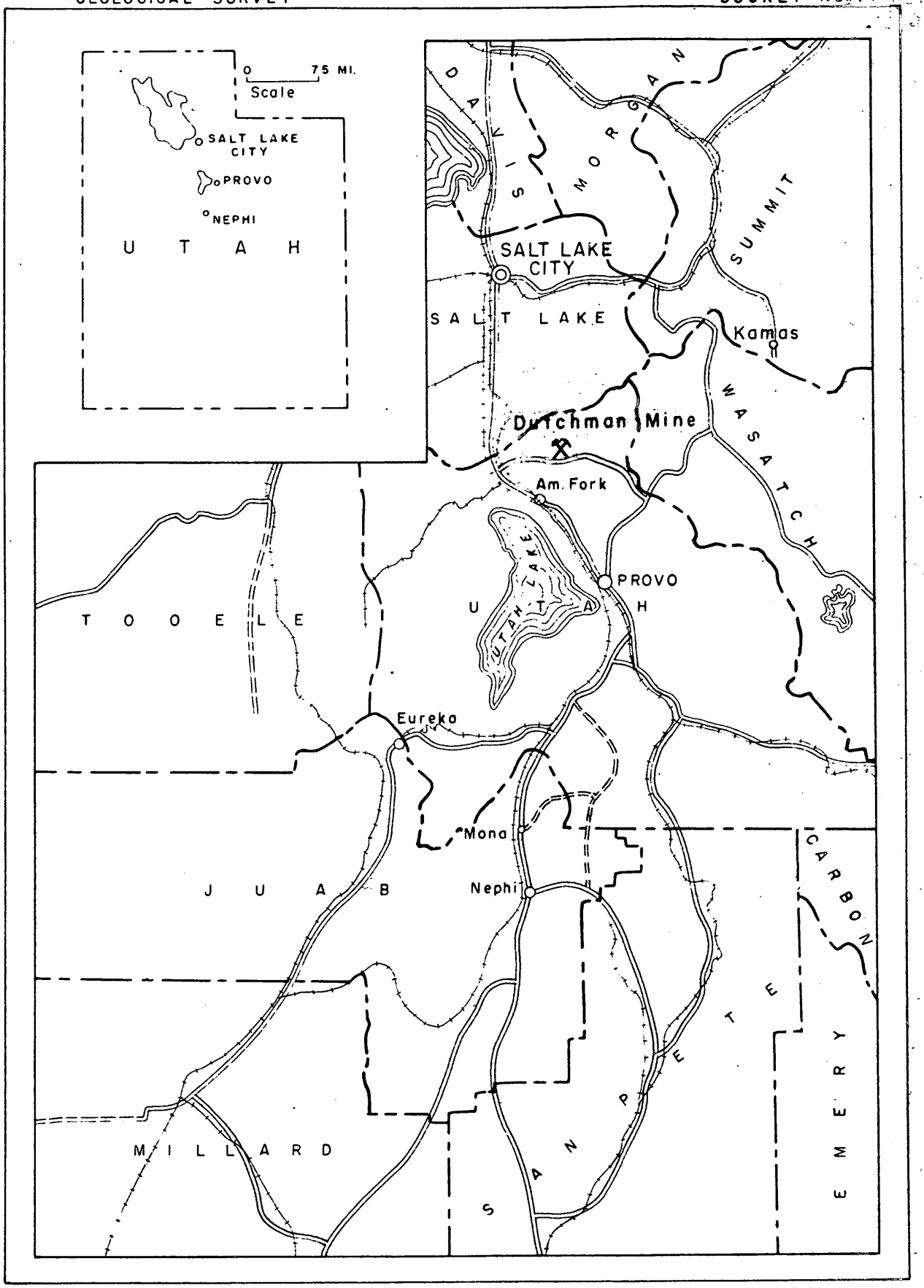
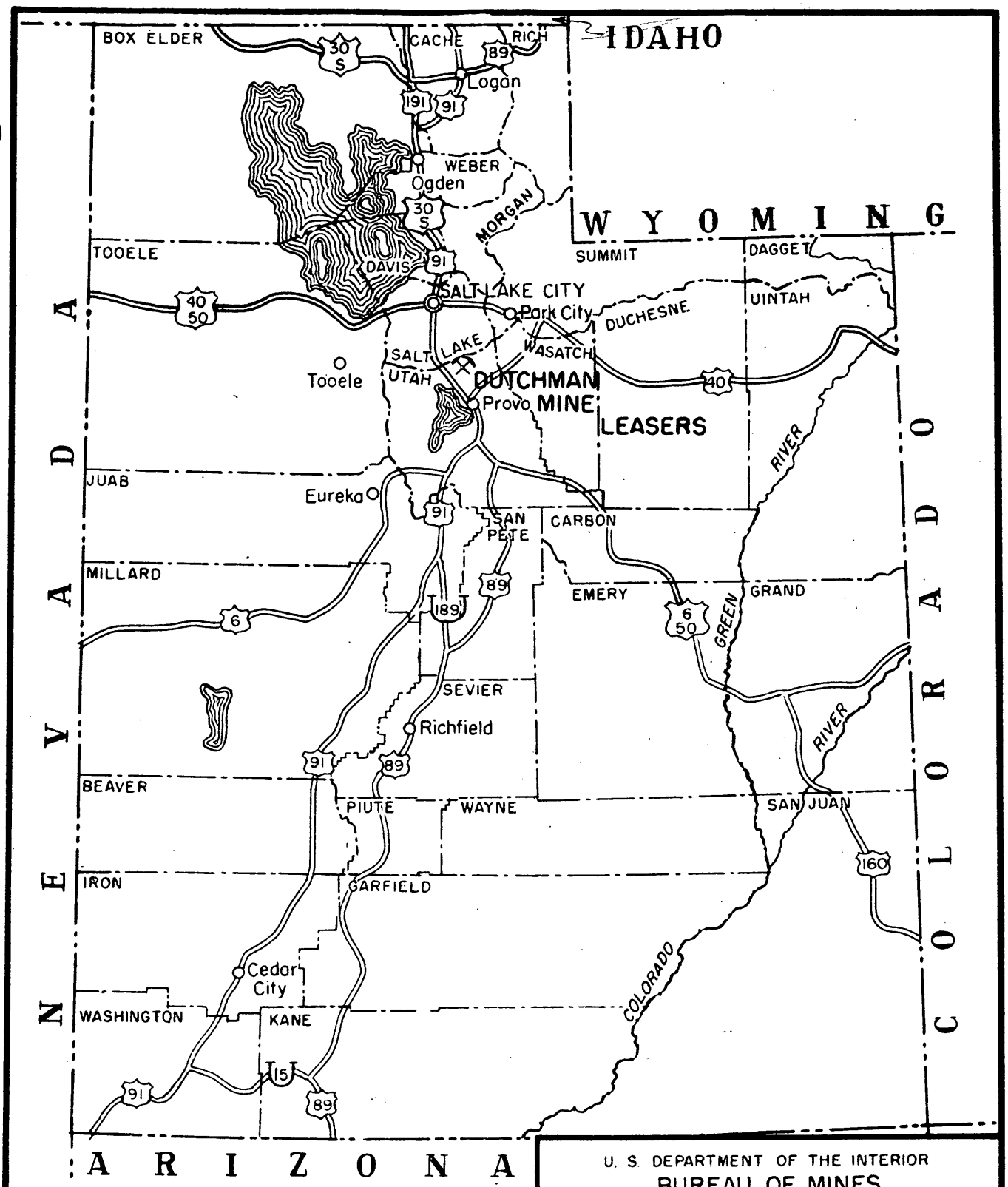


FIG. 1 INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Fig. 1 Proj. No.

Location Map

DUTCHMAN MINE LEASERS

UTAH COUNTY, UTAH.

ENGINEER: R. L. MIDDLETON	DATE: SEPT. 11, 1951
TRACED: SEPT. 51; A.P.T.S.	1500-1073-E
CHECKED:	

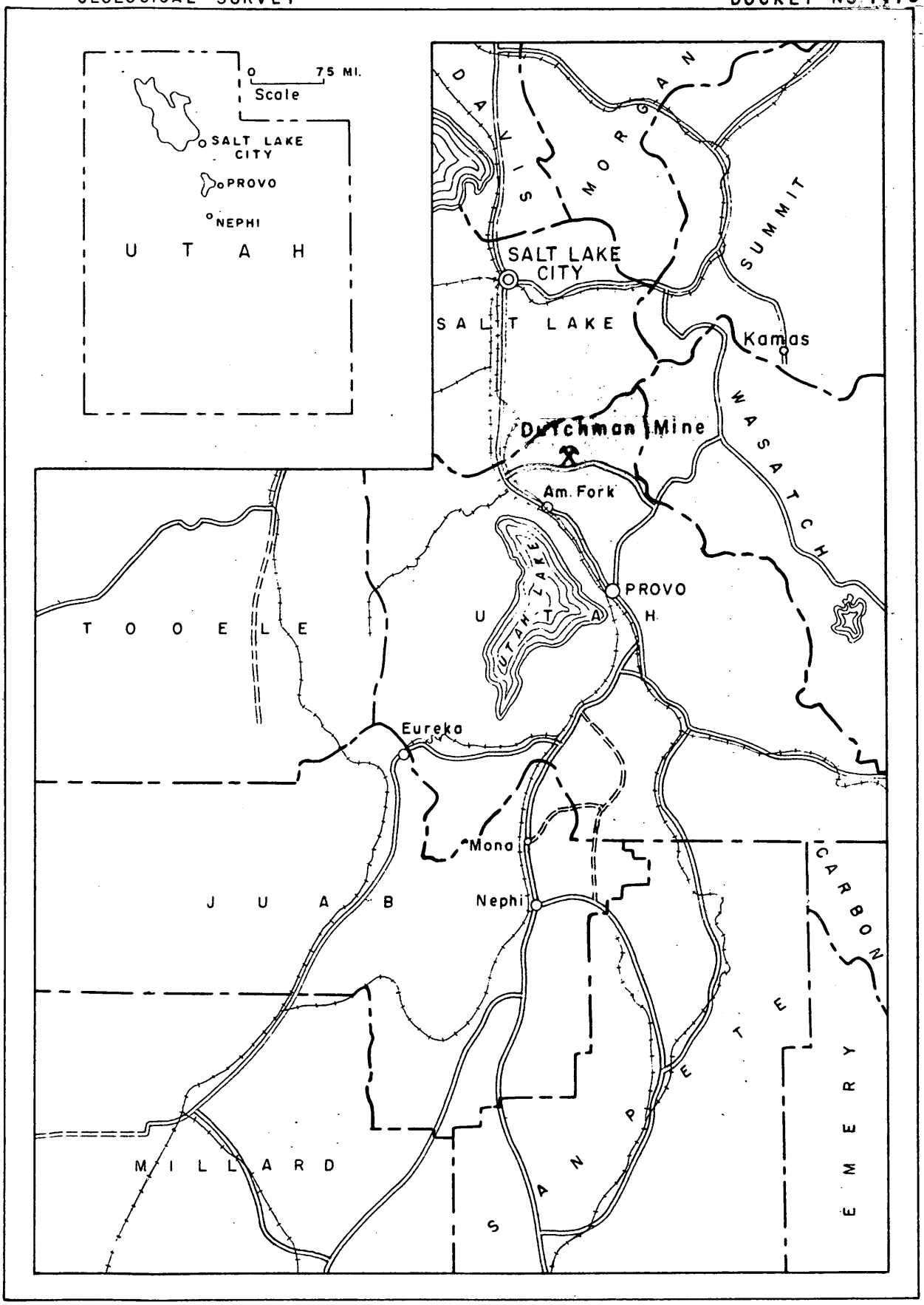
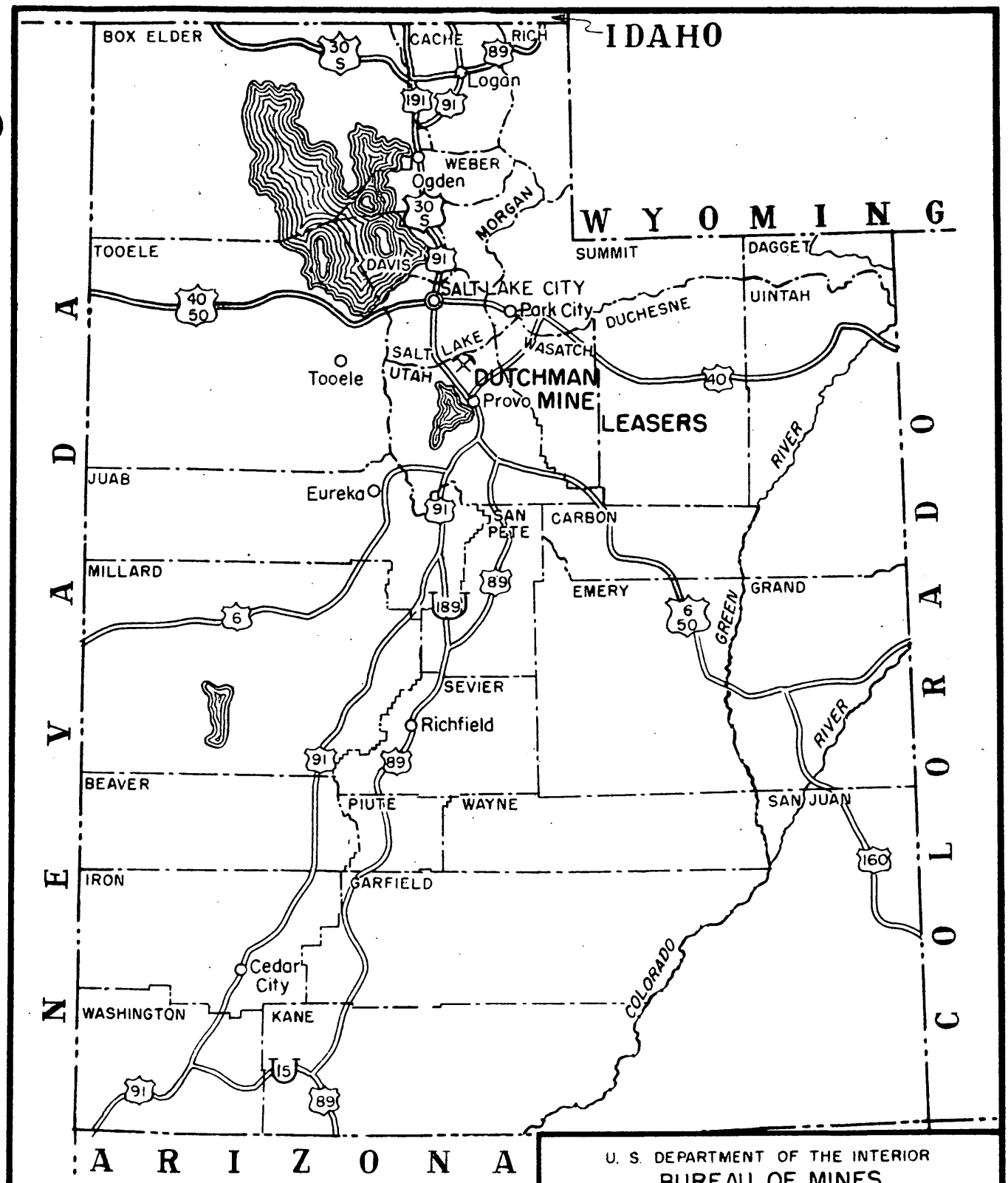


FIG. 1 INDEX MAP OF UTAH

0 5 10 15 20 MILES
Scale



U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Fig. 1 Proj. No.

Location Map

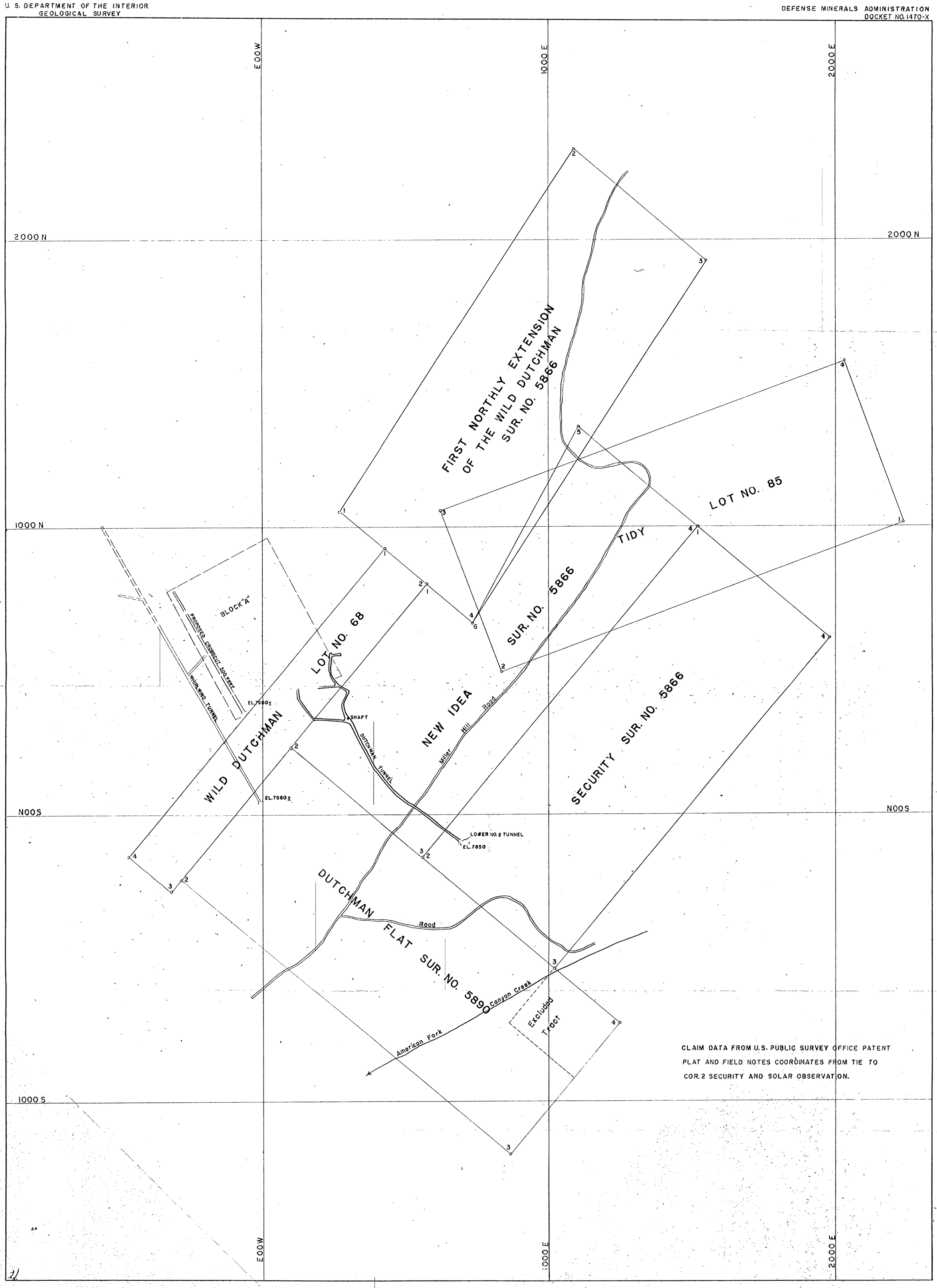
DUTCHMAN MINE LEASERS

UTAH COUNTY, UTAH.

ENGINEER: R. L. MIDDLETON	DATE: SEPT. 11, 1951
TRACED: SEPT. 51; A.P.T.S.	1500-1073-E
CHECKED:	

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

DEFENSE MINERALS ADMINISTRATION
DOCKET NO. 1470-X



CLAIM DATA FROM U.S. PUBLIC SURVEY OFFICE PATENT PLAT AND FIELD NOTES COORDINATES FROM TIE TO COR. 2 SECURITY AND SOLAR OBSERVATION.

FIG. 2

CLAIM MAP
DUTCHMAN MINE
AMERICAN FORK CANYON
UTAH COUNTY, UTAH

0 200 400 FEET
Scale

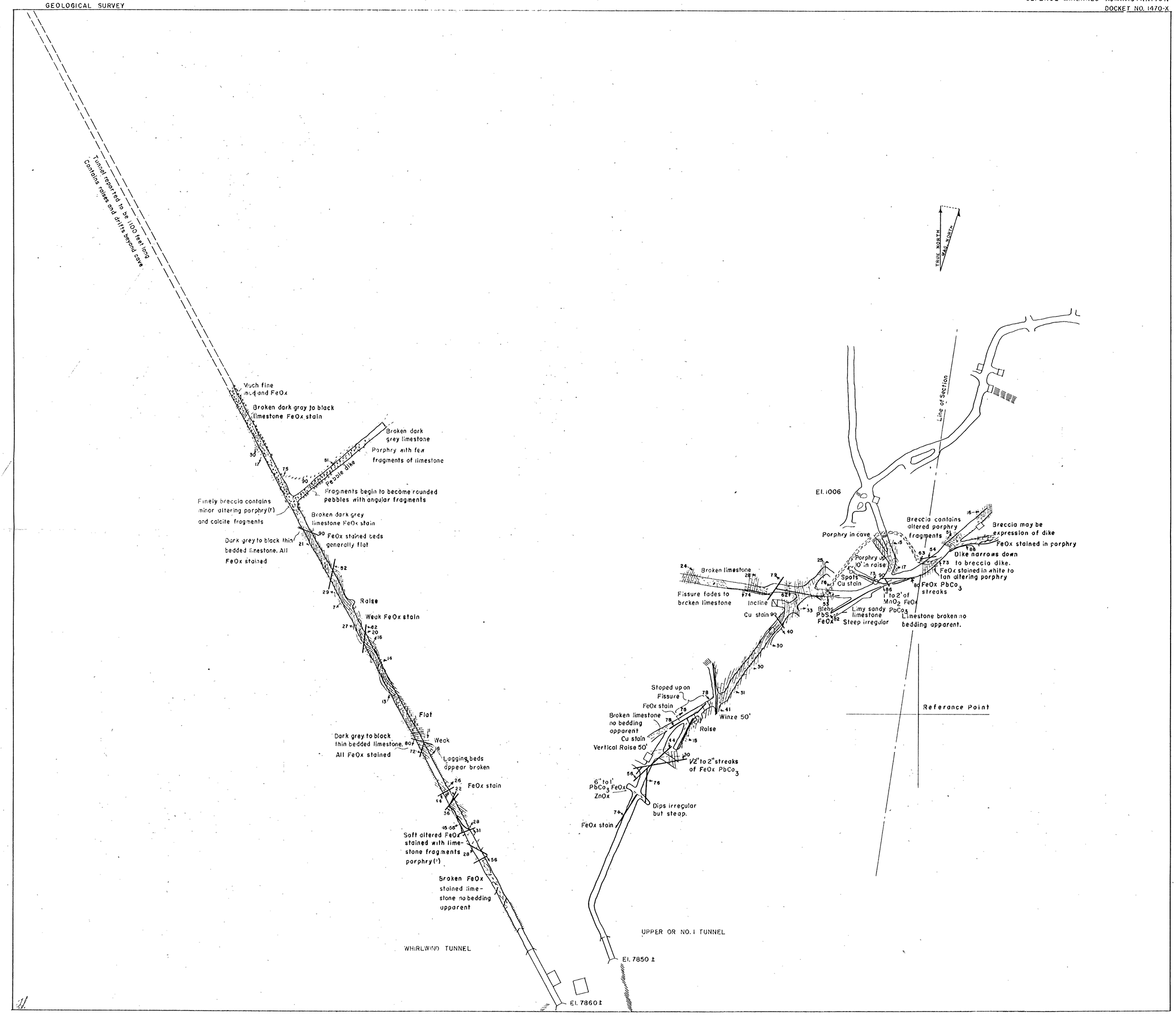


FIG. 3

UPPER OR NO. 1 TUNEL AND WHIRLWIND TUNNEL
DUTCHMAN MINE
AMERICAN FORK MINING DISTRICT
UTAH COUNTY, UTAH

0 50 100 FEET
Scale

Q. F. Treseder July 1946

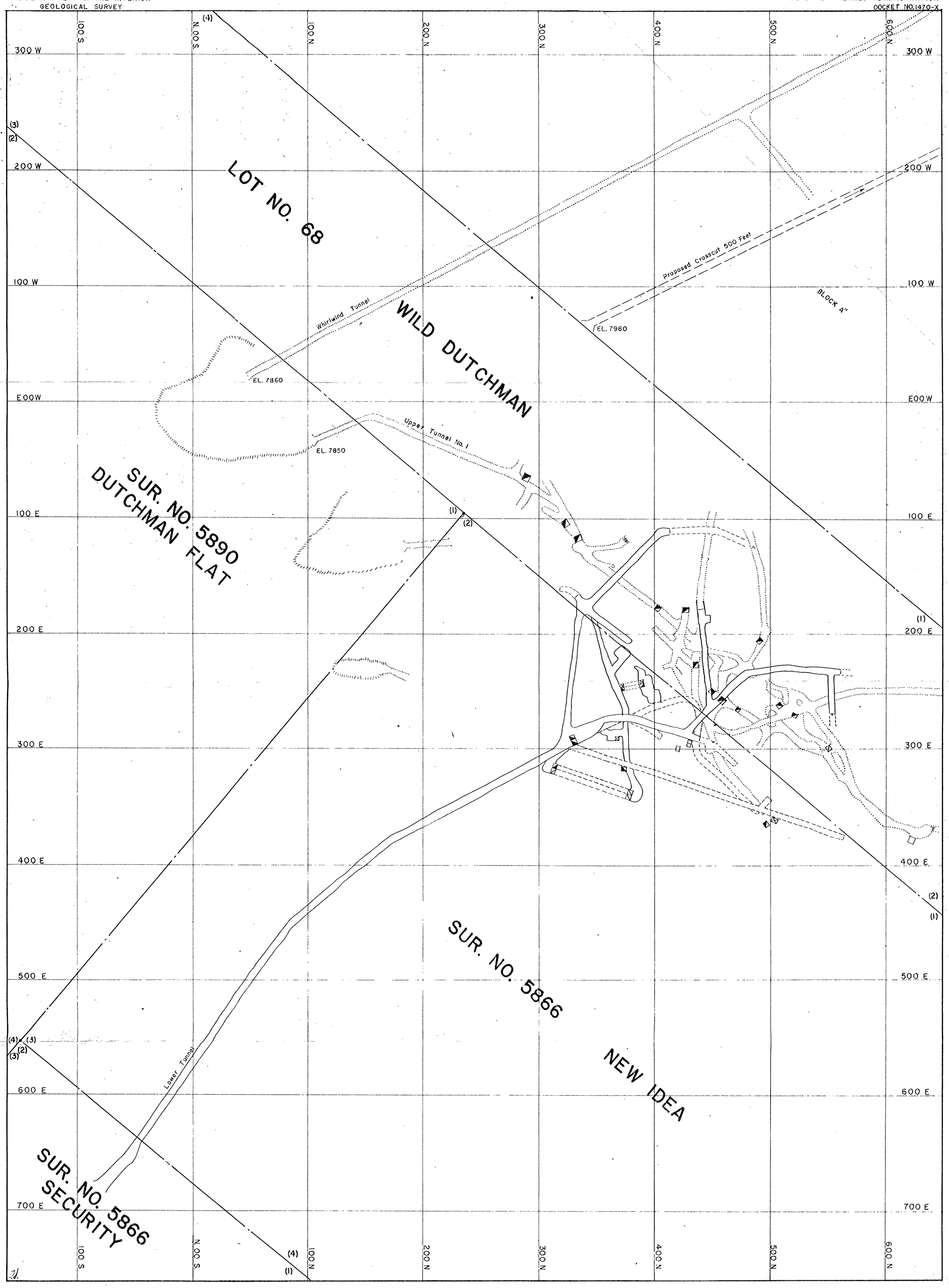


FIG. 4

COMPOSITE OF LEVELS
DUTCHMAN MINE
AMERICAN FORK CANYON
UTAH COUNTY, UTAH

0 50 100 FEET
Scale

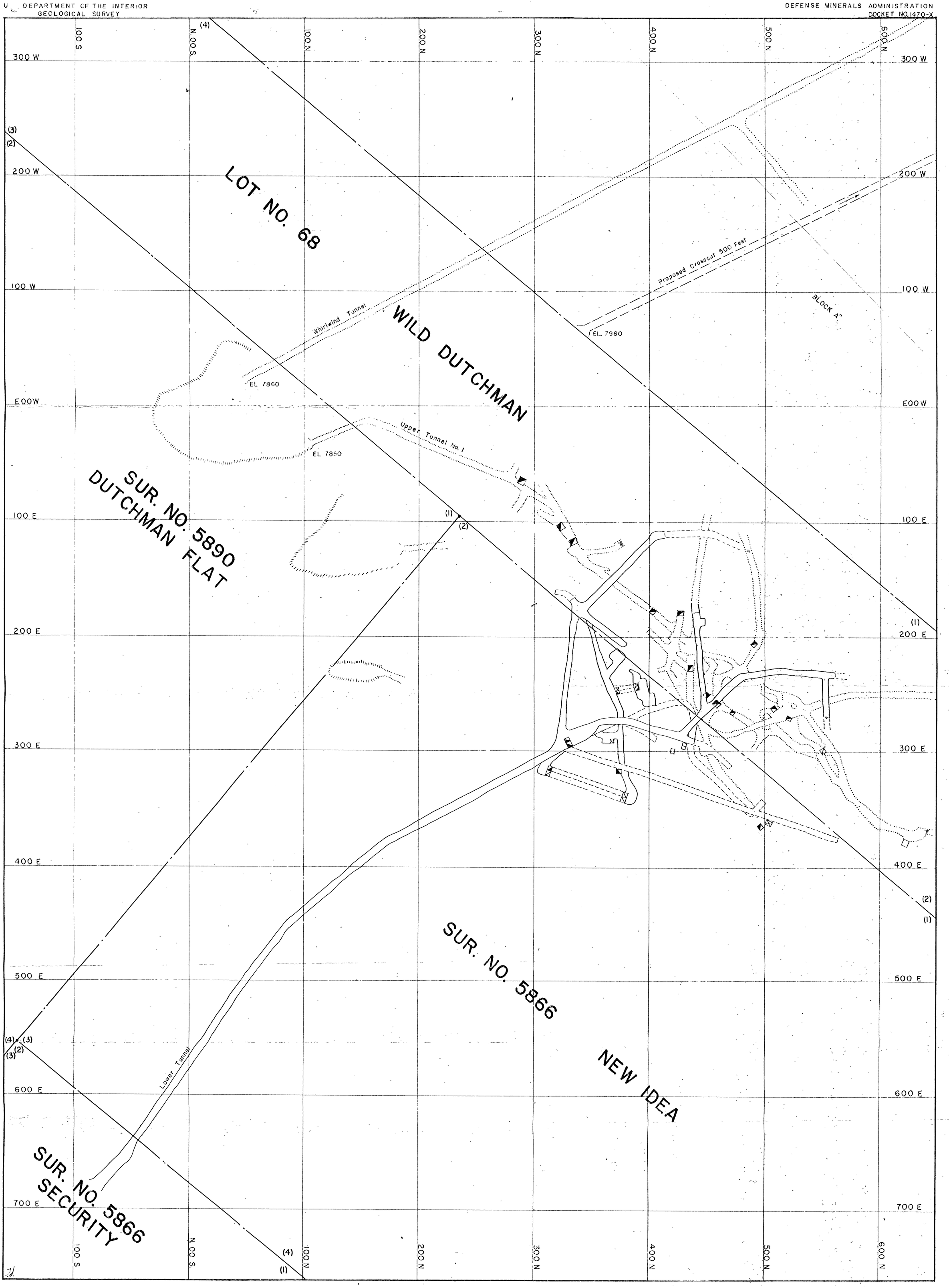


FIG. 4

COMPOSITE OF LEVELS
DUTCHMAN MINE
AMERICAN FORK CANYON
UTAH COUNTY, UTAH

0 50 100 FEET
Scale

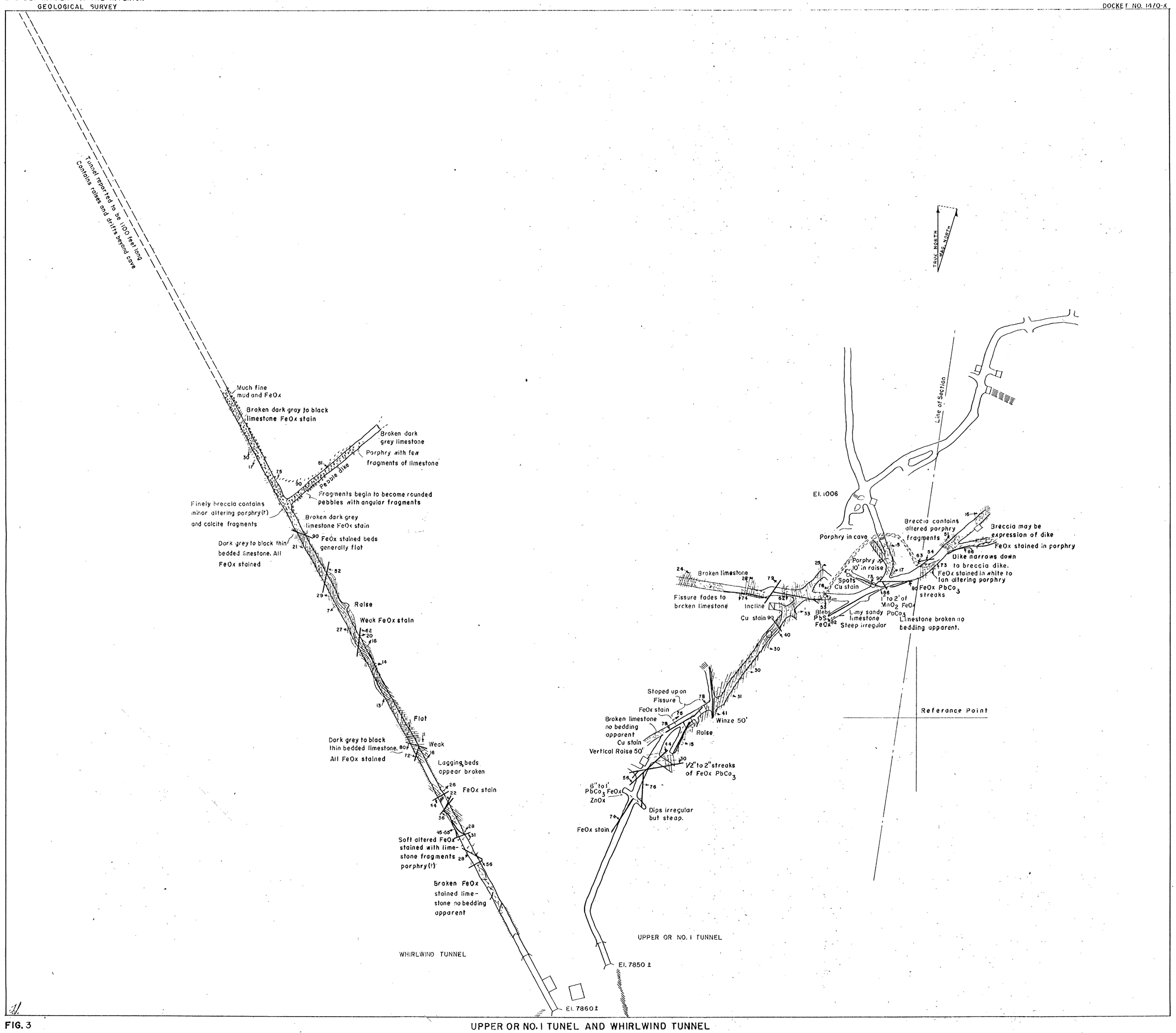
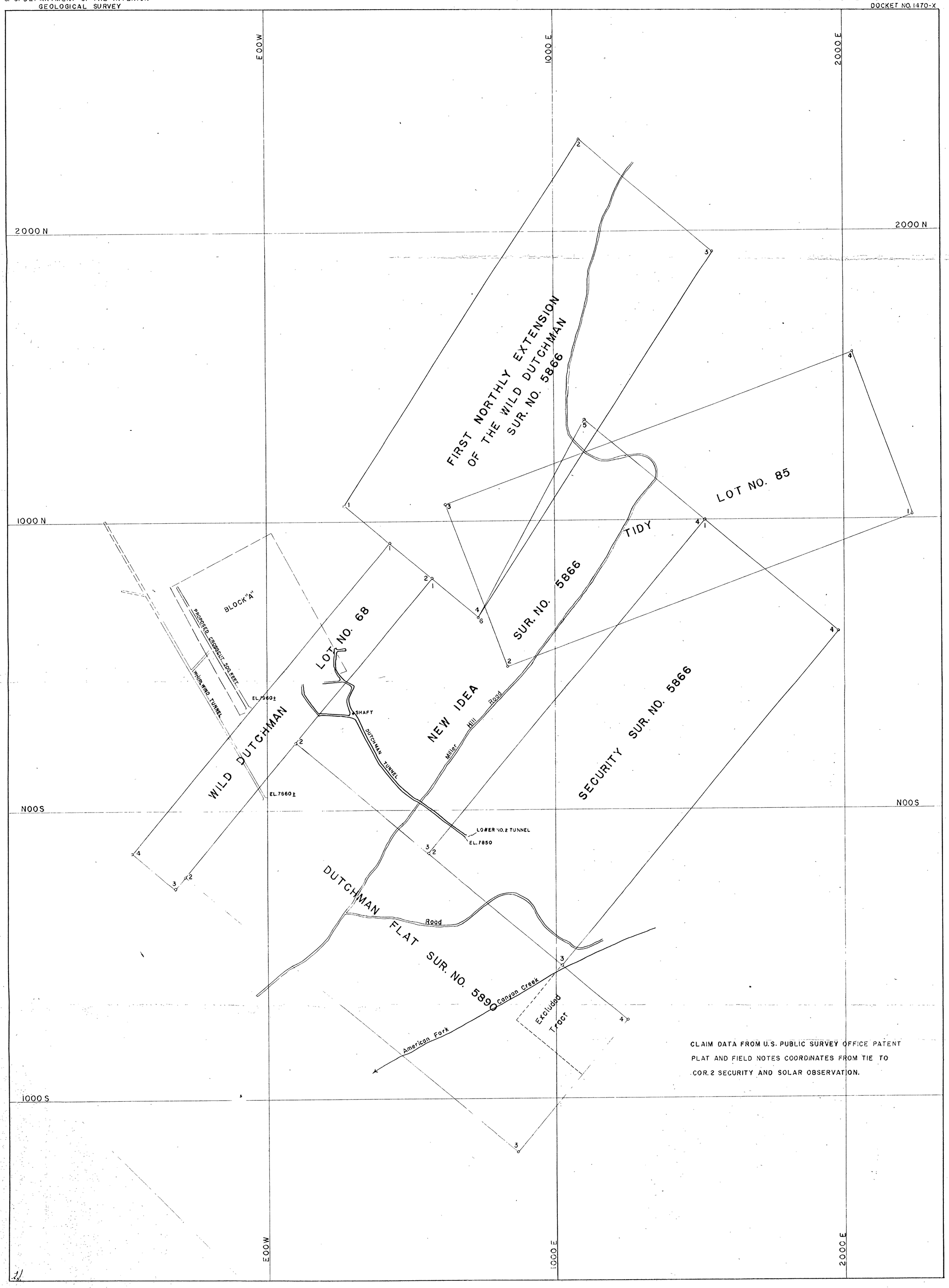


FIG. 3

UPPER OR NO. 1 TUNEL AND WHIRLWIND TUNNEL
DUTCHMAN MINE
AMERICAN FORK MINING DISTRICT
UTAH COUNTY, UTAH

0 — 50 — 100 FEET
Scale

Q. F. Treseder July 1946



CLAIM DATA FROM U.S. PUBLIC SURVEY OFFICE PATENT PLAT AND FIELD NOTES COORDINATES FROM TIE TO COR. 2 SECURITY AND SOLAR OBSERVATION.

FIG. 2

CLAIM MAP

DUTCHMAN MINE

AMERICAN FORK CANYON

UTAH COUNTY, UTAH

0 200 400 FEET
Scale