CW

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700

Murphy
Ellis

Kulgaard
Lamb
Selfridge

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

Carl E. Enlow
1517 Washington Street
Golden, Colorado

SEP 12 1956

Leona L. Haines
4100 W. 29th Avenue
Denver 15, Colorado

Leslie R. Evans
South Star Route
Granada, Colorado

Re: Docket No. DMEA-4355 (Uranium)
E & H Exploration and Mining Co.
(a joint venture)
E & H — Jelly Roll Mine
Gilpin County, Colorado

Dear Sirs and Madam:

Your application for aid in an exploration project and other information available to us in Washington concerning the above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting some uranium mineralization on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied. However, this denial is made without prejudice to the property. In the event further work on your part discloses new and more favorable evidence of ore deposition on the property, we shall be pleased to consider a new application.

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

Sincerely yours,

Frank E. Johnson
ACTING Administrator

FMMurphy/gla 9-10-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5221
JOHosted, Rm. 3210, GSA
Code 700 Mr. Murphy
DMEA Field Team, Region III (2)

R.G.V.

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

September 10, 1956

Summary of Proposed Project

Object: Denial of application for exploration aid.

Docket No.: DMEA-4355

Commodity: Uranium

Applicant: E&H Exploration and Mining Co., a joint venture consisting of Carl E. Enlow, Leona L. Haines, and Leslie R. Evans.
c/o Mr. Carl E. Enlow
1517 Washington Street
Golden, Colorado

Property: Owners by location of 3 adjoining and overlapping lode mining claims, situated in the NW½ of sec. 17, T. 3 S., R. 72 W., 6th PM, Gilpin County, Colorado

Application: Undated - received June 22, 1956

Amount of application: $58,800.00

Referred to Region III: July 6, 1956

Field Team Report received: August 27, 1956

Work Proposed: The Applicant proposes a two-stage project to explore a fault zone. Stage I to consist of surface trenching and diamond drilling, and Stage II to consist of drifting, crosscutting and rehabilitating an old tunnel.

Estimated Costs:

Diamond drilling 2,400 feet @ $7.00/ft.	$16,800.00
520 feet of driting and crosscutting @ $50.00/ft.	26,000.00
Rehabilitate old tunnel 440 feet	4,000.00
Road construction	600.00
Constructing new building	1,500.00
Materials and Supplies	300.00
Installation of power and water lines	400.00
Supervision, consultants, and labor	5,500.00
Miscellaneous	900.00
Contingencies	2,800.00
Total	$58,800.00

Excerpts from Field Team report:

The claims are in an area of Precambrian schists and gneisses of the Idaho Springs formation. Small masses of Precambrian pegmatite and narrow perphyry dikes of Tertiary age are present.

A prospect trench 150 feet long, 4 to 6 feet wide, and 8 to 12 feet deep, following a strong northwest-trending fault, probably the Blackhawk fault, has been opened by the Applicant. The fault zone is 6 to 8 feet wide and dips nearly vertical. The portal of the upper adit of an abandoned silver mine is 730 feet southwest of the trench and is 330 feet lower in elevation. The adit is about 465 feet long and is narrow and irregular. About 25 percent of the adit has been stoped to a maximum height of about 60 feet. These sections are stulled, lagged, and partly gobbed. The timber is in poor condition. The bottom has been stoped in a few places, apparently from the lower adit which is now caved near the portal.

Northwest-trending faults along the east edge of the Colorado Front Range contain significant uranium deposits in places where favorable host rocks, such as hornblende gneiss or garnetiferous lime-silicate gneiss, are intersected by uranium-bearing veins. The rocks exposed in the workings of the subject mine are pegmatite, a rock type considered unfavorable for the occurrence of uranium ore deposits.

Although the applicant submitted several samples of ore-grade material, the analyses of samples cut across the fault zone by the examining team were well below ore grade.

There is no evidence to indicate the probable occurrence of significant quantities of uranium on the property from present exposures, but significant deposits might be found should further prospecting by the applicant indicate that the uranium-bearing fault is likely to intersect favorable host rocks.

The field examiners recommend the application be denied without prejudice, and the Field Team concurs.

Commodity Members' comments (excerpts):

U. S. Bureau of Mines, J. E. Crawford, August 29, 1956

Mr. Crawford concurs in the Field Team's recommendation.

U. S. Geological Survey, N. E. Nelson, September 6, 1956

Mr. Nelson concurs in the Field Team's recommendation to deny the subject application without prejudice and that a new application should receive consideration if future work by the Applicant discloses a favorable host rock adjacent to the fault zone.

Rare and Miscellaneous Metals Division, F. M. Murphy, September 10, 1956

In the opinion of the field examiners, the pegmatite masses exposed along the fault zone are unfavorable for the occurrence of significant uranium deposits. However, they also note that if future work by the Applicant exposes a more favorable type of host rock adjacent to the fault zone, then the claims might have possibilities for the occurrence of significant ore deposits.

Conclusion and Recommendation:

This Division concurs in the Field Team's recommendation to deny the subject application without prejudice, and if future work by the Applicant exposes rocks, such as hornblende gneiss or garnetiferous lime silicate gneiss adjacent to the fault zone, then a new application should receive consideration.

Ernest Wm. Ellis

Ernest Wm. Ellis

9-7-56

IN REPLY REFER TO:

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

RECEIVED
SEP - 7 1956

Sept. 6, 1956

Re: DMEA 4355
E. & H. Exploration & Mining Co.,
Jelly Roll Mine
Gilpin Co., Colorado
$58,800 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of Field Team report.

The applicant requested assistance in exploring by diamond drilling, crosscutting and drifting, a fault zone within which radioactive material occurs.

The examiners found the radioactive material is confined to a narrow silicified zone. The best exposure is 2 inches wide and 10 feet long in pegmatite. The pegmatite is considered an unfavorable host rock by the examiners.

The mineralization is associated with the Blackhawk fault, a strong structure. The examiners conclude a combination of a rock, more favorable than the pegmatite, and the fault might result in stronger mineralization than that so far encountered and suggest the applicant search for such a place. They recommend denial without prejudice of the application.

I agree with the conclusions of the examiners and concur with the recommendation.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

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

RECEIVED
SEP 7 1956

Sept. 6, 195

Re: [illegible] 4355
[illegible] & H. Exploration & Mining Co.,
Jelly Roll Mine
Gilpin Co., Colorado
$58,500 - Uranium

Memorandum

To: [illegible] Ellis, Defense Minerals Exploration Administration

From: [illegible] Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

The applicant requested assistance in exploring by diamond drilling, crosscutting and drifting, a fault zone within which radioactive material occurs.

The examiners found the radioactive material is confined to a narrow silicified zone. The best exposure is 2 inches wide and 10 feet long in pegmatite. The pegmatite is considered an unfavorable host rock by the examiners.

The mineralization is associated with the Blackhawk fault, a strong structure. The examiners conclude a combination of a rock, more favorable than the pegmatite, and the fault might result in stronger mineralization than that so far encountered and suggest the applicant search for such a place. They recommend denial without prejudice of the application.

I agree with the conclusions of the examiners and concur with the recommendation.

W. E. Nelson

W. E. Nelson

WENelson:btr
G 9/6/56

cc: J. L. Crawford, 3641
J. O. Hosted, 3210 GSA
Director's reading file (4212)
Branch reading file (4212)
DMEA (3)
Chron. file
Docket file

IN REPLY REFER TO:

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

RECEIVED
SEP - 7 1956

Sept. 6, 1956

Re: [illegible] 4355
[illegible] H. Exploration Mining Co.,
Jelly Roll Mine
Gilpin Co., Colorado
$58,800 - Uranium

Memorandum

To: [illegible] Ellis, Defense Minerals Exploration Administration

From: [illegible] Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

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I agree with the conclusions of the examiners and concur with the recommendation.

M. E. Nelson

M. E. Nelson

M.Nelson:btr
G 9/6/56

cc: J. [illegible] Crawford, 3641
J. O. Hosted, 3210 GSA
Director's reading file (4212)
Branch reading file (4212)
DMEA (3)
Chron. file
Docket file

IN REPLY REFER TO:

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

RECEIVED
SEP - 7 1956

Sept. 6, 195

No: N 4355
F. & R. Exploration Mining Co.,
Jolly Well Mine
Wilpin Co., Colorado
$58,800 - Uranium

Memorandum

To: S. . Ellis, Defense Minerals Exploration Administration

From: W. . Nelson, U. . Geological Survey

Subject: Review of field team report.

The applicant requested assistance in exploring by diamond drilling, crosscutting and drifting, a fault zone within which radioactive material occurs.

The examiners found the radioactive material is confined to a narrow silicified zone. The best exposure is 2 inches wide and 10 feet long in pegmatite. The pegmatite is considered an unfavorable host rock by the examiners.

The mineralization is associated with the Blackhawk fault, a strong structure. The examiners consider a combination of a rock, more favorable than the pegmatite, and the fault might result in stronger mineralization than that so far encountered and suggest the applicant search for such a place. They recommend denial without prejudice of the application.

I agree with the conclusions of the examiners and concur with the recommendation.

W. S. Nelson

W. . Nelson

WNelsen:btr
9/6/56

cc: J. . Crawford, 3541
J. O. Hosted, 3210 GSA
Director's reading file (4212)
Branch reading file (4212)
DMEA (3)
Chron. file
Docket file

8/30/56

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

August 29, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 4355 (Uranium) E & H Exploration and Mining Company (E & H-Jelly Roll Mine), Gilpin County, Colorado

I have reviewed the report of examination, DMEA Docket 4355, E & H Exploration and Mining Company (E & H-Jelly Roll Mine), Gilpin County, Colorado, dated August 21 and received in this office August 29, 1956. I have also discussed it with Jack Kratchman, Atomic Energy Commission.

We concur with the Field Team that the application for assistance be denied because of lack of evidence that the exploration project would result in a significant discovery of uranium.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E. Crawford
John E. Crawford

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

August 29, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

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John E. Crawford

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

August 29, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

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The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

John E. Crawford

8/30/56

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

August 24, 1956

224 New Customhouse
Denver 2, Colorado

RECEIVED
AUG 27 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4355 (Uranium) E & H Exploration and Mining Company (E & H-Jelly Roll Mine), Gilpin County, Colorado

Enclosed are four copies of a joint engineering and geologic Report of Examination on the subject property.

Samples reported by the Applicant were of ore-grade but represented only small widths of the mineralized fault. Representative samples across the fault by the examiners resulted in consistently low-grade assays. Host rocks in the vicinity of the proposed project are generally unfavorable.

Because of the lack of evidence that the exploration proposed by the Applicant would result in a significant discovery, the examining team recommends denial of the application. However, they further state that there is a possibility that additional prospecting might expose favorable host rocks and possibly better ore deposits where they are intersected by the uranium bearing fault.

The Field Team concurs with the recommendation for denial of the application.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
8-29-56
(date)

TRANSMITTED

AUG 24 1956

AUG 27 1956

DMEA
Date Rec'd.

AUG 23 1956

BUREAU OF MINES
Denver, Colorado

REGION III

Memorandum

Building 20
Denver Federal Center
Denver 2, Colorado
August 22, 1956

To: Executive Officer, DMEA Field Team, Region III

From: E. N. Hershman
John F. Shaw

Subject: Joint Engineering and Geological Report, Docket DMEA 4355 (Uranium) E & N Exploration and Mining Company (E & N Jelly Roll Mine) Gilpin County, Colorado.

Enclosed are the original and nine copies of an examination report by Frank H. Moore, Geologist and Stephen Otter, Mining Engineer covering Docket DMEA 4355.

The E & N Exploration and Mining Company applied for DMEA assistance to explore the Jelly Roll Mine by diamond drilling, crosscutting, and drifting at an estimated cost of $58,500.00.

The property was examined by Frank H. Moore, Geologist and Stephen Otter, Mining Engineer on August 2, 1956. The examining team concluded that there was little possibility of discovering a significant amount of uranium. As a result of the proposed examination, it is recommended that the application be denied.

E. N. Hershman

E. N. Hershman
Member Field Team

John F. Shaw

John F. Shaw
Supervising Mining Engineer

JFS/ah

cc: 9
DMEA 4355
Chron.
EHHershman

Reviewed by
DMSA OPERATING COMMITTEE
8-29-56
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATION, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
AUG 24 1956

CONFIDENTIAL
NOT FOR PUBLIC INSPECTION OR QUOTATION

DMEA 4355

E & H Exploration and Mining Company

E & H Jelly Roll Mine

Gilpin County, Colorado

Uranium

Joint Engineering and Geological Report

By

Frank B. Moore, Geologist
Geological Survey

Stephen Utter, Mining Engineer
Bureau of Mines

August 21, 1956

Reviewed by
DMEA OPERATING COMMITTEE
8-29-56
(date)

DMEA 4355

E & H Exploration & Mining Company
E & H Jelly Roll Mine
Gilpin County, Colorado

CONTENTS

Joint engineering and geological report — Page

Summary and introduction.....1
Acknowledgments.....2
Location, topography, and physical features.....2
History and production.....3
Ownership and extent.....3
Geology.....4
Ore reserves.....6
Present status.....6
Exploration and development.....6
Mining and milling equipment and other facilities.....6
Project proposals and costs.....6
Conclusions and recommendations.....8

ILLUSTRATIONS

Figure — Follows page

1. Location map, E & H Exploration and Mining Company, E & H - Jelly Roll mine, Gilpin County, Colorado. DMEA 4355.....2

2. Sketch map of claims, and mine workings with applicant's proposed exploration, E & H Exploration and Mining Company, E & H - Jelly Roll mine, Gilpin County, Colorado. DMEA 4355.....9

3. Geologic map of the prospect trench, E & H - Jelly Roll mine, Gilpin County, Colorado. DMEA 4355.....5

DMEA 4355

E & H EXPLORATION AND MINING COMPANY
E & H JELLY ROLL MINE
GILPIN COUNTY, COLORADO

SUMMARY AND INTRODUCTION

The E & H Exploration and Mining Company (a joint venture) of Colorado, has applied for Defense Minerals Exploration Administration assistance in the amount of $58,800 to explore the E & H Jelly Roll Mine for uranium on three contiguous mining claims in the NW 1/2 sec. 17, T. 3 S., R. 72 W., 6th principal meridian, Gilpin County, Colorado.

The property was examined by F. B. Moore, Geologist, and Stephen Utter, Mining Engineer on August 2, 1956.

The exploration program proposed by the applicant consists of diamond drilling 2,400 feet at an estimated cost of $7 per foot, 320 feet of crosscutting and 200 feet of drifting at $50 per foot, rehabilitation of 440 feet of old tunnel at $4,000, road construction at $600, constructing a building at $1,500, for utilities at $400, and supervision and engineering services at $5,500.

Uranium occurs at the surface in a silicified zone in the Blackhawk fault. The largest occurrence exposed is about 10 feet long and less than 2 inches thick. Structures similar to the Blackhawk fault in other areas are favorable for uranium where favorable rock types of hornblende gneiss or garnetiferous lime silicate gneiss are intersected. The wall rock at the E & H Jelly Roll mine, however, is pegmatite - a rock type not especially

favorable for significant uranium deposits. It is concluded that the chance of making a significant discovery of uranium is poor in the pegmatite host rocks, but the chance would be improved should further prospecting by the applicant disclose favorable host rocks in the vicinity of the mineralized fault. It is, therefore, recommended that the application for DMEA assistance to explore for uranium be denied without prejudice.

ACKNOWLEDGMENTS

Mr. E. B. Waggoner, consulting geologist for the E & H exploration and Mining Company conducted the examiners to the property and gave all information at his disposal.

The examining team conferred with Mr. Robert U. King, who had made an examination of the property on April 22, 1955, in connection with the Trace Elements Investigations Program of the Geological Survey.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The E & H Jelly Roll mine is in the northwest half of sec. 17, T. 3 S., R. 72 W., 6th P. M., Enterprise mining district, Gilpin County, Colorado (figs. 1 and 2). The property is in a rugged area of the Front Range at altitudes from 7,800 to 8,400 feet. It is about 1-1/2 miles southeast of Blackhawk, 19-1/2 miles west of Golden, and 35 miles west of Denver. Paved State Highway 119 crosses the southwest part of the property. A rough

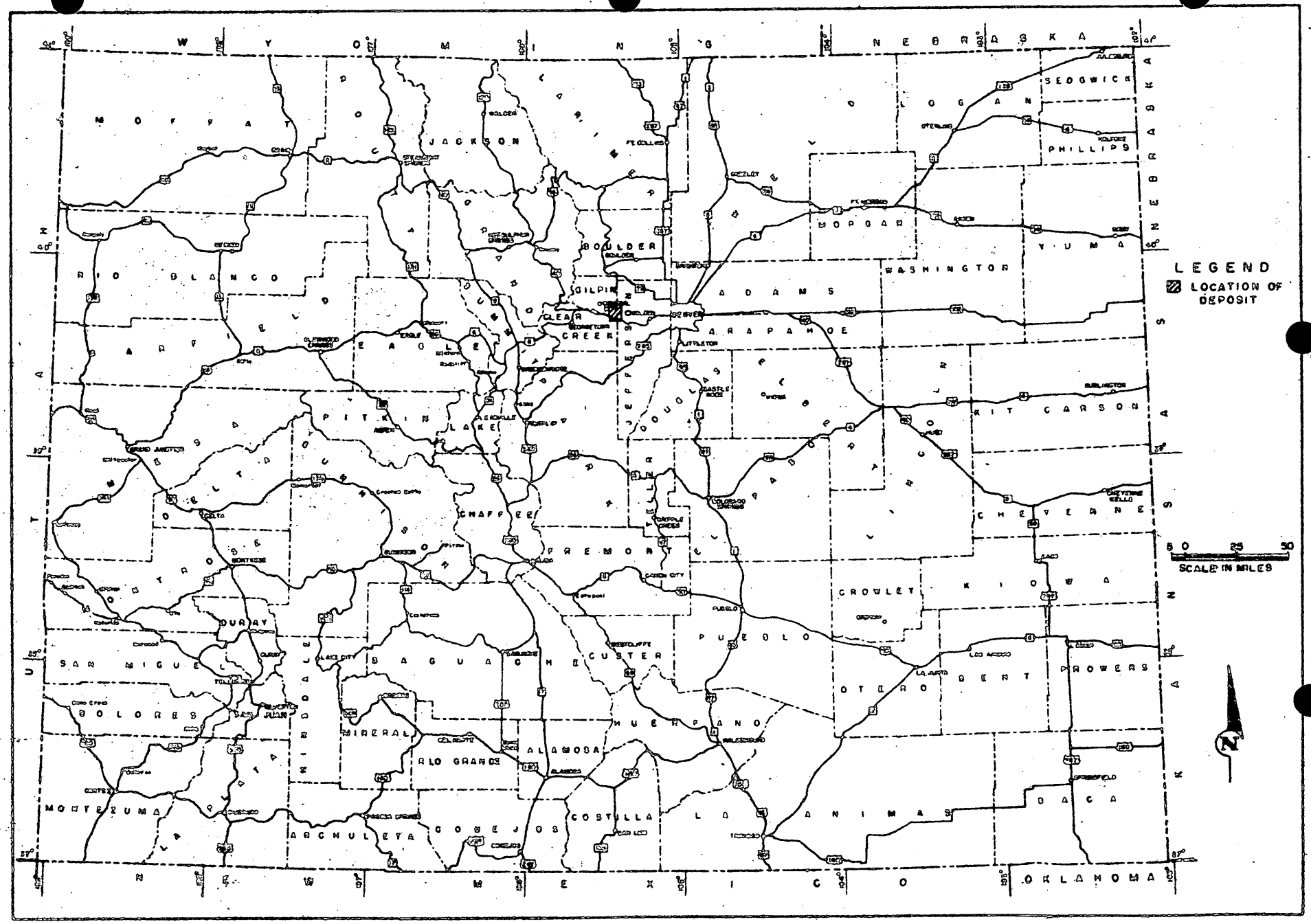

FIGURE 1 - LOCATION MAP, E. AND H. EXPLORATION AND MINING COMPANY, E. AND H. JELLY ROLL MINE, GILPIN COUNTY, COLO. DMEA 4355

road, passable to jeeps or trucks, has been bulldozed from the highway for about 1/2-mile to the discovery pit. Water is available from North Clear Creek which parallels the highway. Electric power is available from the nearby power line to Blackhawk. The nearest railroad is at Golden.

Labor, equipment, materials and supplies can be obtained in nearby towns.

HISTORY AND PRODUCTION

Mine workings consist of two abandoned tunnels and several prospect pits. Mr. Waggoner stated that these were the workings of a silver mine operated prior to 1900 but that no production records are available.

In 1955, radioactive float was discovered which was traced to what appears to be the Blackhawk fault, a prominent structural feature in the district.

A prospect trench was excavated along the strike of the fault for 150 feet, and radioactive material was found in place in the fault zone.

No uranium ore has been produced from this property.

OWNERSHIP AND EXTENT

The E & H - Jelly Roll mine is owned by the E & H Exploration and Mining Company (a joint venture) of Colorado. The Company consists of the following members:

Carl E. Enlow - 1517 Washington Street, Golden, Colorado,
Leona L. Haines - 6100 W. 29th Avenue, Denver 15, Colorado, and
Leslie R. Evans - South Star Route, Granada, Colorado.

The property consists of three adjoining and overlapping lode claims, the Dorothy, Priscilla, and Sunshine, which are recorded in the Gilpin County Courthouse, book 229, pages 491, 492, and 493. The claims contain about 53 acres. A 100-foot right-of-way for State Highway 119 crosses the Dorothy claim. Patented mining claim Milton No. 13027 overlaps about one acre of the Sunshine claim.

GEOLOGY

The Dorothy, Priscilla, and Sunshine claims are in an area of Precambrian schists and gneisses of the Idaho Springs formation. Small masses of Precambrian pegmatite and narrow porphyry dikes of Tertiary age are present in the claim area.

The E & H - Jelly Roll mine consists of a prospect trench 150 feet long covering parts of all three claims. The trench is on a strong northwest trending fault, probably the Blackhawk fault. This fault is 6 to 8 feet wide and nearly vertical. Where exposed in the trench, it consists of two gouge and breccia zones 1/2 to 2 feet wide with crushed rock between. At the southeast end of the trench, a 1- to 2-foot rib of massive quartz separates the gouge zones. The southwest wall of the trench is formed by a nearly straight, highly silicified zone 2 feet wide which in places

consists of massive quartz. The northeast wall of the trench is irregular; the irregularity being caused by a series of eastward trending fractures branching from the fault. A small (2- to 6-inch) porphyry dike is in contact with the silicified wall zone for 6 to 8 feet.

No uranium minerals can be seen in the fault. Aside from quartz, iron oxide and radioactivity, there is no evidence of mineralization. The uranium occurs along the surface of the silicified zone mostly in an area 8 to 10 feet long; its width is not apparent. Random radiometric assays on samples taken by the applicant showed 0.10, 0.17, 0.40, 0.07, 0.13, 0.14, and 0.46 equivalent U_3O_8. A chemical assay on the last sample showed 0.50 percent U_3O_8. Channel samples cut by the applicant along the radioactive surface parallel to the fault gave radiometric assays of 0.115, 0.215, 0.33, 0.56, 0.13, 0.25, 0.21, and 0.23 percent eU_3O_8. These samples represent a width of 1 to 2 inches across the fault. A sample submitted to the A. E. C. assayed 0.283 percent U_3O_8 both radiometrically and chemically. Samples cut across the fault by the Bureau of Mines gave the following results:

Sample Number	Width	U_3O_8 %
1	0.8 ft.	0.003
2	5.2 ft.	0.043
3	1.0 ft.	0.018
4	0.1 ft.	0.016

The locations of these samples are shown on figure 3.

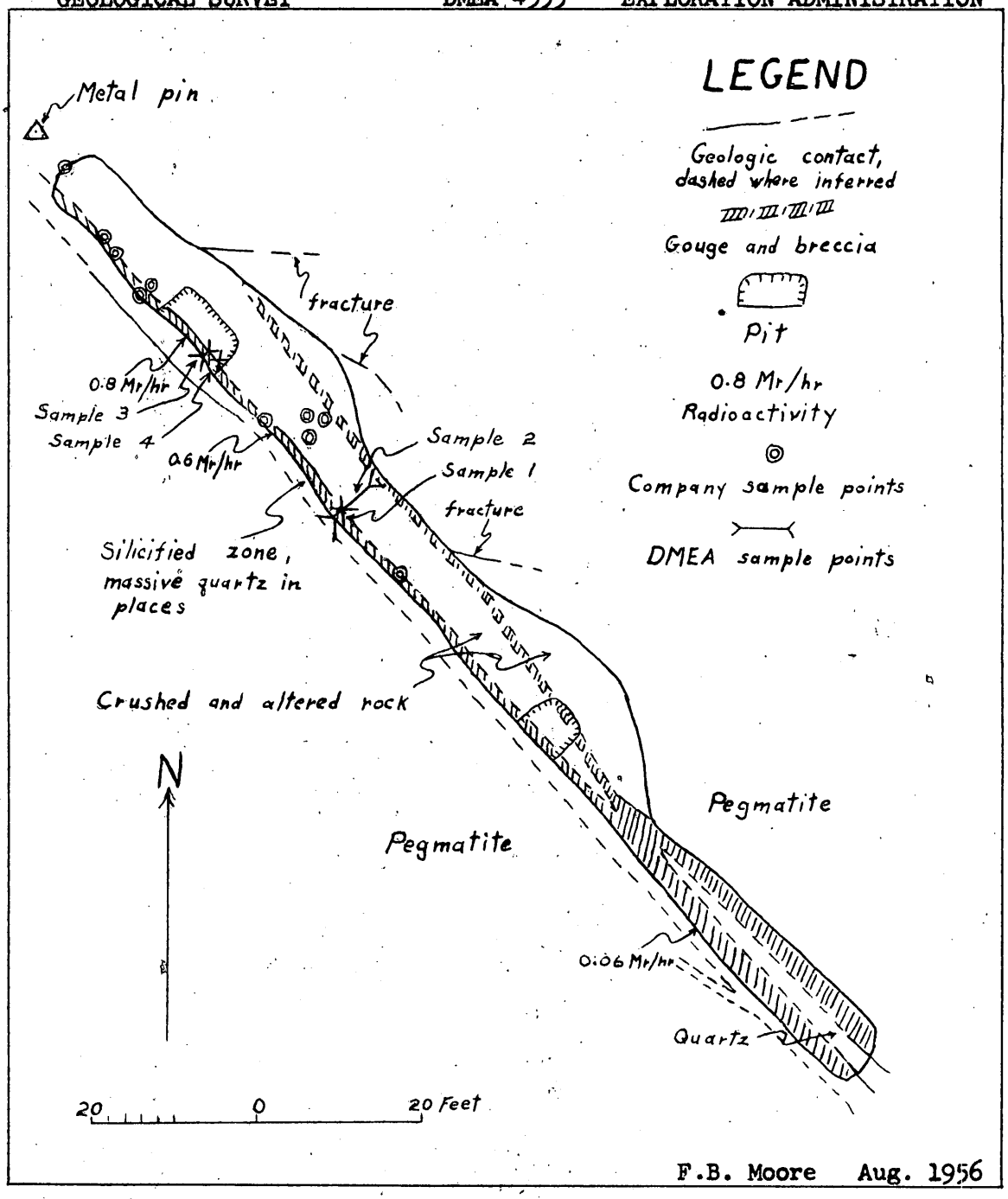

FIGURE 3 - GEOLOGIC MAP OF THE PROSPECT TRENCH, E AND H - JELLY ROLL MINE, GILPIN COUNTY, COLORADO.

ORE RESERVES

No estimate is made of ore reserves because of insufficient information.

PRESENT STATUS

Exploration and Development

The applicant has excavated a prospect trench 4 to 6 feet wide, 8 to 12 feet deep, for 150 feet along the strike of the fault.

The portal of the upper adit of an abandoned silver mine is 730 feet southwest of the trench and is 330 feet lower in elevation. This adit, as surveyed by the applicant, is about 465 feet long. It is narrow and irregular. About 25 percent of the adit has been stoped to a maximum height of approximately 60 feet. These sections are stulled, lagged, and partly gobbed. The timber is in poor condition. The bottom has been stoped in a few places, apparently from the lower adit.

The lower adit was caved near the portal.

Mining and Milling Equipment and other Facilities

There are no mining, milling or other facilities on the property. Equipment would either have to be purchased or rented if the work were not contracted.

PROJECT PROPOSALS AND COSTS

The applicant proposes a two-stage project. Stage I consists of diamond drilling and surface trenching. At least eight holes would be drilled along the southwest side of the fault zone to

intersect the fault at depths of 100 and 200 feet. The drilling which totals 2,400 feet, is estimated to cost $7 per foot. The prospect trench would be extended for 100 feet at each end and deepened for an additional 2 feet. No cost estimate for this work was submitted.

Stage II consists of 320 feet of crosscut drifting to intersect the fault at depth and 200 feet of drifting along the fault. The cost of 520 feet of crosscutting and drifting is estimated at $50 per foot. Two locations for this work are proposed. The upper adit of the old silver mine could be rehabilitated at a total estimated cost of $4,000. This adit would then be advanced 320 feet to intersect the fault about 330 feet below the surface. As an alternate to rehabilitation of the old adit, the applicant proposes to drive a new adit 320 feet to intersect the fault about 150 feet below the surface.

The applicant's estimated costs of the project follow:

<u>Exploration</u>	
Diamond drilling 2,400 ft. at $7/ft.	$16,800.00
Drifting and crosscutting 320 ft. at $50/ft.	26,000.00*
Rehabilitation 440 ft.	4,000.00
<u>Supervision</u>	
1 man at $500/mo. for 6 mos.	$3,000.00
<u>Engineering & geologic consultants</u>	
1 man at $100/day for 25 days	2,500.00

Operating Materials, supplies, utilities	
at $50/mo. for 6 months	$300.00
New buildings, improvements & installations	
Change house & tool room combined	$1,500.00
Power & water lines	400.00
Roads	600.00
Miscellaneous	
Accounting	$300.00
Insurance	600.00
Contigencies	$2,800.00
Total Cost	$58,800.00

*A discrepancy is apparent in the applicant's cost estimate for drifting and crosscutting. This cost should total $16,000 which would decrease the total of the application to $48,800.00.

CONCLUSIONS AND RECOMMENDATIONS

Northwest-trending faults along the east edge of the Colorado Front Range contain significant uranium deposits in places where favorable host rocks, such as hornblende gneiss or garnetiferous lime silicate gneiss, are intersected by uranium-bearing veins. The wall rocks exposed in the workings of the E & H - Jelly Roll mine are pegmatite, a rock type considered unfavorable for the occurrence of uranium ore deposits.

Although several of the samples submitted by the applicant contained ore-grade uranium, none represents a significant width on the mineralized fault. Analyses of samples cut across the

fault by the examining team were well below ore grade.

There is no evidence to indicate the probable occurrence of significant quantities of uranium on the property from present exposures, but significant deposits might be found should further prospecting by the applicant indicate that the uranium-bearing fault is likely to intersect favorable host rocks.

Therefore, it is recommended that the application for DMEA assistance to explore for uranium at the E & H - Jelly Roll mine be denied without prejudice.

8/27/56

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

August 24, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4355 (Uranium) E & H Exploration and Mining Company (E & H-Jelly Roll Mine), Gilpin County, Colorado

Enclosed are four copies of a joint engineering and geologic Report of Examination on the subject property.

Samples reported by the Applicant were of ore-grade but represented only small widths of the mineralized fault. Representative samples across the fault by the examiners resulted in consistently low-grade assays. Host rocks in the vicinity of the proposed project are generally unfavorable.

Because of the lack of evidence that the exploration proposed by the Applicant would result in a significant discovery, the examining team recommends denial of the application. However, they further state that there is a possibility that additional prospecting might expose favorable host rocks and possibly better ore deposits where they are intersected by the uranium bearing fault.

The Field Team concurs with the recommendation for denial of the application.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
8-29-56
(date)

TRANSMITTED

AUG 24 1956

DMEA
Date Rec'd.

AUG 23 1956

REGION III

BUREAU OF MINES
Denver, Colorado

Building 20
Denver Federal Center
Denver 2, Colorado
August 22, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: E. H. Harshman
John F. Shaw

Subject: Joint Engineering and Geological Report, Docket DMEA 4355 (Uranium) H & H Exploration and Mining Company (H & H Jolly Ball Mine) Gilpin County, Colorado.

Enclosed are the original and nine copies of an examination report by Frank B. Moore, Geologist and Stephen Utter, Mining Engineer covering Docket DMEA 4355.

The H & H Exploration and Mining Company applied for DMEA assistance to explore the Jolly Ball Mine by diamond drilling, crosscutting, and drifting at an estimated cost of $56,000.00.

The property was examined by Frank B. Moore, Geologist and Stephen Utter, Mining Engineer on August 2, 1956. The examining team concluded that there was little possibility of discovering a significant amount of uranium. As a result of the proposed examination, it is recommended that the application be denied.

E. H. Harshman

E. H. Harshman
Member Field Team

John F. Shaw

John F. Shaw
Supervising Mining Engineer

JFS/sh

cc: 9
DMEA 4355
Chron.
EHHarshman

Reviewed by
DMEA OPERATING COMMITTEE
8-29-56
(date)

TRANSMITTED
AUG 24 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

CONFIDENTIAL
NOT FOR PUBLIC INSPECTION OR QUOTATION

DMEA 4355

E & H Exploration and Mining Company

E & H Jelly Roll Mine

Gilpin County, Colorado

Uranium

Joint Engineering and Geological Report

By

Frank B. Moore, Geologist
Geological Survey

Stephen Utter, Mining Engineer
Bureau of Mines

August 21, 1956

8-29-56
(date)

DMEA 4355

E & H Exploration & Mining Company
E & H Jelly Roll Mine
Gilpin County, Colorado

CONTENTS

Joint engineering and geological report — Page

Summary and introduction....1
Acknowledgments....2
Location, topography, and physical features....2
History and production....3
Ownership and extent....3
Geology....4
Ore reserves....6
Present status....6
Exploration and development....6
Mining and milling equipment and other facilities....6
Project proposals and costs....6
Conclusions and recommendations....8

ILLUSTRATIONS

Figure — Follows page

1. Location map, E & H Exploration and Mining Company, E & H - Jelly Roll mine, Gilpin County, Colorado. DMEA 4355....2

2. Sketch map of claims, and mine workings with applicant's proposed exploration, E & H Exploration and Mining Company, E & H - Jelly Roll mine, Gilpin County, Colorado. DMEA 4355....9

3. Geologic map of the prospect trench, E & H - Jelly Roll mine, Gilpin County, Colorado. DMEA 4355....5

DMEA 4355

E & H EXPLORATION AND MINING COMPANY
E & H JELLY ROLL MINE
GILPIN COUNTY, COLORADO

SUMMARY AND INTRODUCTION

The E & H Exploration and Mining Company (a joint venture) of Colorado, has applied for Defense Minerals Exploration Administration assistance in the amount of $58,800 to explore the E & H Jelly Roll Mine for uranium on three contiguous mining claims in the NW 1/2 sec. 17, T. 3 S., R. 72 W., 6th principal meridian, Gilpin County, Colorado.

The property was examined by F. B. Moore, Geologist, and Stephen Utter, Mining Engineer on August 2, 1956.

The exploration program proposed by the applicant consists of diamond drilling 2,400 feet at an estimated cost of $7 per foot, 320 feet of crosscutting and 200 feet of drifting at $50 per foot, rehabilitation of 440 feet of old tunnel at $4,000, road construction at $600, constructing a building at $1,500, for utilities at $400, and supervision and engineering services at $5,500.

Uranium occurs at the surface in a silicified zone in the Blackhawk fault. The largest occurrence exposed is about 10 feet long and less than 2 inches thick. Structures similar to the Blackhawk fault in other areas are favorable for uranium where favorable rock types of hornblende gneiss or garnetiferous lime silicate gneiss are intersected. The wall rock at the E & H Jelly Roll mine, however, is pegmatite - a rock type not especially

favorable for significant uranium deposits. It is concluded that the chance of making a significant discovery of uranium is poor in the pegmatite host rocks, but the chance would be improved should further prospecting by the applicant disclose favorable host rocks in the vicinity of the mineralized fault. It is, therefore, recommended that the application for DMEA assistance to explore for uranium be denied without prejudice.

ACKNOWLEDGMENTS

Mr. E. B. Waggoner, consulting geologist for the E & H exploration and Mining Company conducted the examiners to the property and gave all information at his disposal.

The examining team conferred with Mr. Robert U. King, who had made an examination of the property on April 22, 1955, in connection with the Trace Elements Investigations Program of the Geological Survey.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The E & H Jelly Roll mine is in the northwest half of sec. 17, T. 3 S., R. 72 W., 6th P. M., Enterprise mining district, Gilpin County, Colorado (figs. 1 and 2). The property is in a rugged area of the Front Range at altitudes from 7,800 to 8,400 feet. It is about 1-1/2 miles southeast of Blackhawk, 19-1/2 miles west of Golden, and 35 miles west of Denver. Paved State Highway 119 crosses the southwest part of the property. A rough

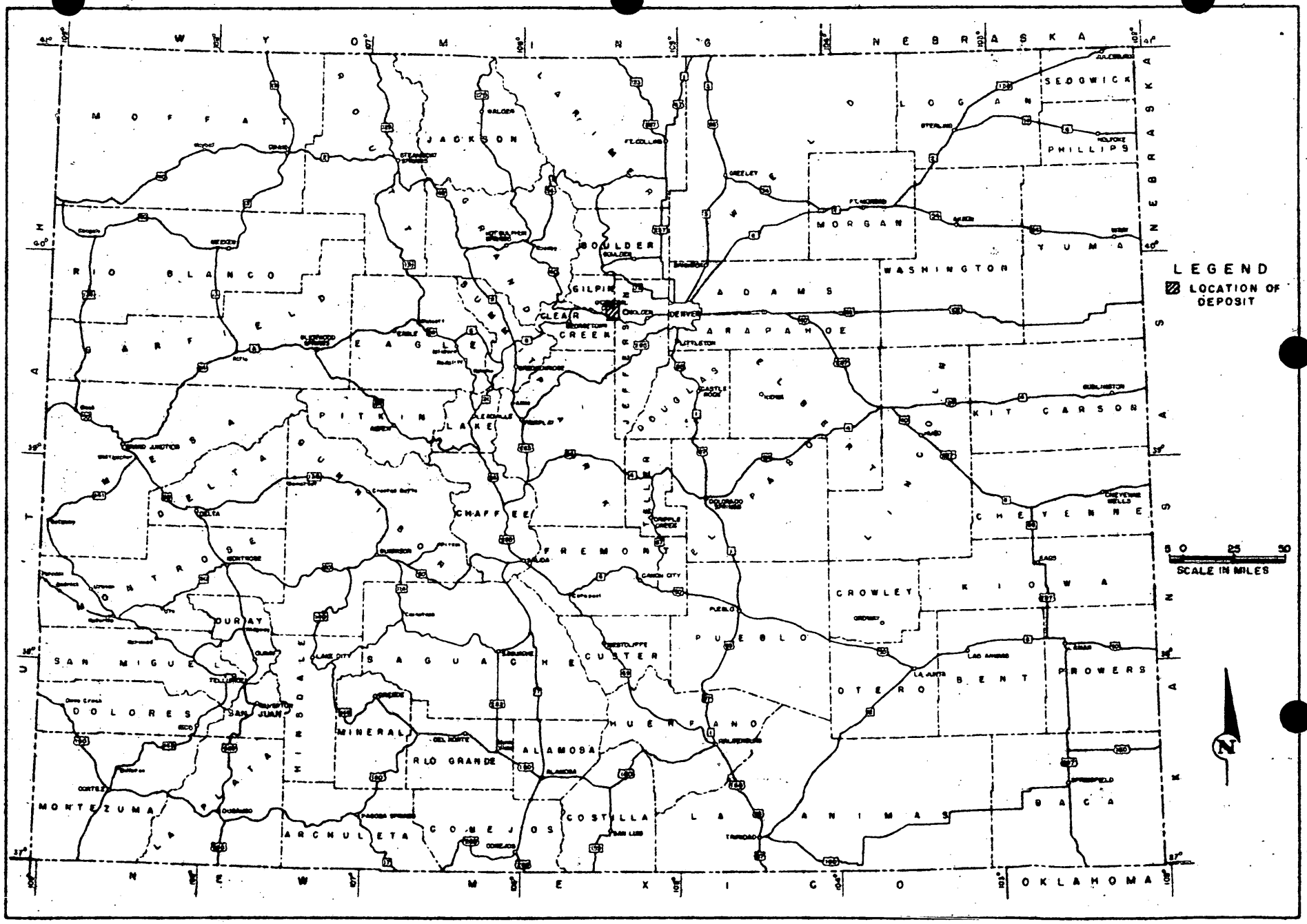

FIGURE 1 - LOCATION MAP, E. AND H. EXPLORATION AND MINING COMPANY, E. AND H. JELLY ROLL MINE, GILPIN COUNTY, COLO. DMEA 4355

road, passable to jeeps or trucks, has been bulldozed from the highway for about 1/2-mile to the discovery pit. Water is available from North Clear Creek which parallels the highway. Electric power is available from the nearby power line to Blackhawk. The nearest railroad is at Golden.

Labor, equipment, materials and supplies can be obtained in nearby towns.

HISTORY AND PRODUCTION

Mine workings consist of two abandoned tunnels and several prospect pits. Mr. Waggoner stated that these were the workings of a silver mine operated prior to 1900 but that no production records are available.

In 1955, radioactive float was discovered which was traced to what appears to be the Blackhawk fault, a prominent structural feature in the district.

A prospect trench was excavated along the strike of the fault for 150 feet, and radioactive material was found in place in the fault zone.

No uranium ore has been produced from this property.

OWNERSHIP AND EXTENT

The E & H - Jelly Roll mine is owned by the E & H Exploration and Mining Company (a joint venture) of Colorado. The Company consists of the following members:

Carl E. Enlow - 1117 Washington Street, Golden, Colorado,

Leona L. Haines - 6100 W. 29th Avenue, Denver 15, Colorado, and

Leslie R. Evans - South Star Route, Granada, Colorado.

The property consists of three adjoining and overlapping lode claims, the Dorothy, Priscilla, and Sunshine, which are recorded in the Gilpin County Courthouse, book 229, pages 491, 492, and 493. The claims contain about 53 acres. A 100-foot right-of-way for State Highway 119 crosses the Dorothy claim. Patented mining claim Milton No. 13027 overlaps about one acre of the Sunshine claim.

GEOLOGY

The Dorothy, Priscilla, and Sunshine claims are in an area of Precambrian schists and gneisses of the Idaho Springs formation. Small masses of Precambrian pegmatite and narrow porphyry dikes of Tertiary age are present in the claim area.

The E & H - Jelly Roll mine consists of a prospect trench 150 feet long covering parts of all three claims. The trench is on a strong northwest trending fault, probably the Blackhawk fault. This fault is 6 to 8 feet wide and nearly vertical. Where exposed in the trench, it consists of two gouge and breccia zones 1/2 to 2 feet wide with crushed rock between. At the southeast end of the trench, a 1- to 2-foot rib of massive quartz separates the gouge zones. The southwest wall of the trench is formed by a nearly straight, highly silicified zone 2 feet wide which in places

consists of massive quartz. The northeast wall of the trench is irregular; the irregularity being caused by a series of eastward trending fractures branching from the fault. A small (2- to 6-inch) porphyry dike is in contact with the silicified wall zone for 6 to 8 feet.

No uranium minerals can be seen in the fault. Aside from quartz, iron oxide and radioactivity, there is no evidence of mineralization. The uranium occurs along the surface of the silicified zone mostly in an area 8 to 10 feet long; its width is not apparent. Random radiometric assays on samples taken by the applicant showed 0.10, 0.17, 0.40, 0.07, 0.13, 0.14, and 0.46 equivalent U_3O_8. A chemical assay on the last sample showed 0.50 percent U_3O_8. Channel samples cut by the applicant along the radioactive surface parallel to the fault gave radiometric assays of 0.115, 0.215, 0.33, 0.56, 0.13, 0.25, 0.21, and 0.23 percent eU_3O_8. These samples represent a width of 1 to 2 inches across the fault. A sample submitted to the A. E. C. assayed 0.283 percent U_3O_8 both radiometrically and chemically. Samples cut across the fault by the Bureau of Mines gave the following results:

Sample Number	Width	U_3O_8 %
1	0.8 ft.	0.003
2	5.2 ft.	0.043
3	1.0 ft.	0.018
4	0.1 ft.	0.016

The locations of these samples are shown on figure 3.

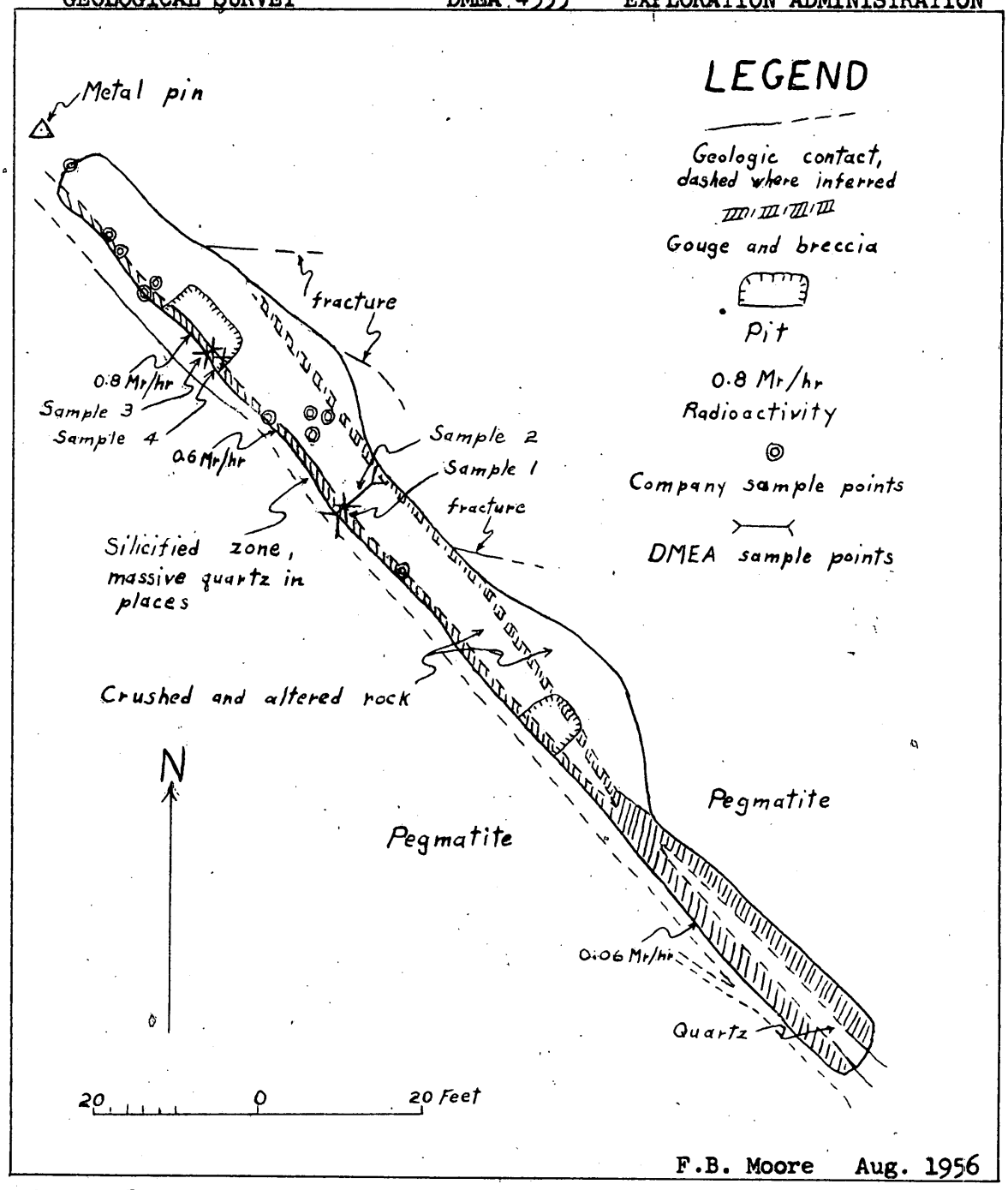

FIGURE 3 - GEOLOGIC MAP OF THE PROSPECT TRENCH, E AND H - JELLY ROLL MINE, GILPIN COUNTY, COLORADO.

ORE RESERVES

No estimate is made of ore reserves because of insufficient information.

PRESENT STATUS

Exploration and Development

The applicant has excavated a prospect trench 4 to 6 feet wide, 8 to 12 feet deep, for 150 feet along the strike of the fault.

The portal of the upper adit of an abandoned silver mine is 730 feet southwest of the trench and is 330 feet lower in elevation. This adit, as surveyed by the applicant, is about 465 feet long. It is narrow and irregular. About 25 percent of the adit has been stoped to a maximum height of approximately 60 feet. These sections are stulled, lagged, and partly gobbed. The timber is in poor condition. The bottom has been stoped in a few places, apparently from the lower adit.

The lower adit was caved near the portal.

Mining and Milling Equipment and other Facilities

There are no mining, milling or other facilities on the property. Equipment would either have to be purchased or rented if the work were not contracted.

PROJECT PROPOSALS AND COSTS

The applicant proposes a two-stage project. Stage I consists of diamond drilling and surface trenching. At least eight holes would be drilled along the southwest side of the fault zone to

intersect the fault at depths of 100 and 200 feet. The drilling which totals 2,400 feet, is estimated to cost $7 per foot. The prospect trench would be extended for 100 feet at each end and deepened for an additional 2 feet. No cost estimate for this work was submitted.

Stage II consists of 320 feet of crosscut drifting to intersect the fault at depth and 200 feet of drifting along the fault. The cost of 520 feet of crosscutting and drifting is estimated at $50 per foot. Two locations for this work are proposed. The upper adit of the old silver mine could be rehabilitated at a total estimated cost of $4,000. This adit would then be advanced 320 feet to intersect the fault about 330 feet below the surface. As an alternate to rehabilitation of the old adit, the applicant proposes to drive a new adit 320 feet to intersect the fault about 150 feet below the surface.

The applicant's estimated costs of the project follow:

Exploration	
Diamond drilling 2,400 ft. at $7/ft.	$16,800.00
Drifting and crosscutting 320 ft. at $50/ft.	26,000.00*
Rehabilitation 440 ft.	4,000.00
Supervision	
1 man at $500/mo. for 6 mos.	$3,000.00
Engineering & geologic consultants	
1 man at $100/day for 25 days	2,500.00

Operating Materials, supplies, utilities	
at $50/mo. for 6 months	$300.00
New buildings, improvements & installations	
Change house & tool room combined	$1,500.00
Power & water lines	400.00
Roads	600.00
Miscellaneous	
Accounting	$300.00
Insurance	600.00
Contigencies	$2,800.00
Total Cost	$58,800.00

*A discrepancy is apparent in the applicant's cost estimate for drifting and crosscutting. This cost should total $16,000 which would decrease the total of the application to $43,800.00.

CONCLUSIONS AND RECOMMENDATIONS

Northwest-trending faults along the east edge of the Colorado Front Range contain significant uranium deposits in places where favorable host rocks, such as hornblende gneiss or garnetiferous lime silicate gneiss, are intersected by uranium-bearing veins. The wall rocks exposed in the workings of the E & H - Jelly Roll mine are pegmatite, a rock type considered unfavorable for the occurrence of uranium ore deposits.

Although several of the samples submitted by the applicant contained ore-grade uranium, none represents a significant width on the mineralized fault. Analyses of samples cut across the

fault by the examining team were well below ore grade.

There is no evidence to indicate the probable occurrence of significant quantities of uranium on the property from present exposures, but significant deposits might be found should further prospecting by the applicant indicate that the uranium-bearing fault is likely to intersect favorable host rocks.

Therefore, it is recommended that the application for DMEA assistance to explore for uranium at the E & H - Jelly Roll mine be denied without prejudice.

7-16-56

RECEIVED
JUL 1 3 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
July 12, 1956

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4355 (Uranium) E. & H. Exploration and Mining Company (E & H - Jelly Roll Mine) Gilpin County, Colorado

The application for E & H Exploration and Mining Company, DMEA 4355, in the amount of $58,800.00 was received in this office on July 11.

A field examination will be made and suitable report prepared by an engineer from the Denver Office.

JOHN F. SHAW

John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
Sec. Op. Com (2)

RECEIVED
JUL 13 1956

REGION III

Building 20
Denver Federal Center
Denver 2, Colorado
July 12, 1956

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4355 (Uranium) E. & H. Exploration and Mining Company (E & H - Jelly Roll Mine) Gilpin County, Colorado

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John F. Shaw

cc: W. M. Traver (2)
E. N. Harshman
J. F. Shaw
Sec. Op. Com (2)

7-13-56

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

RECEIVED
JUL 12 1956

July 10, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
E. N. Karshman

From: Field Team, Region III

Subject: Docket DMEA 4355 (Uranium) E & H Exploration and Mining Company (E & H - Jelly Roll Mine) Gilpin County, Colorado

Enclosed is the subject application in the amount of $58,800.00. A field examination and suitable report are requested.

Enclosed is a copy of a letter from the Chairman of the Operating Committee dated July 6, 1956 with attached memoranda of review of the application by N. E. Nelson and J. E. Crawford. Please note in the Chairman's letter that the estimated costs submitted by the Applicant appear to be high.

Please return the brochure with the report of examination.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

WMT:ab

cc: Chair. Op. Comm. (2)
Docket 4355
Chron.

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

RECEIVED
JUL 12 1956

July 10, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
E. H. Harsimon

From: Field Team, Region III

Subject: Docket DMEA 4355 (Uranium) E & H Exploration and Mining Company (E & H - Jelly Roll Mine) Gilpin County, Colorado

Enclosed is the subject application in the amount of $58,800.00. A field examination and suitable report are requested.

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Please return the brochure with the report of examination.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

WMT:ab

cc: Chair. Op. Comm. (2)
Docket 4355
Chron.

700

Surname copy

Murphy
J Murphy
Kilsgaard
Gehon
Selfridge

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

JUL 6 - 1956

E & H Exploration and Mining Company
c/o Mr. Carl K. Salew
1517 Washington Street
Golden, Colorado

Re: Docket No. DMEA-4355 (Uranium)
E & H Jolly Roll Mine
Gilpin County, Colorado

Gentlemen:

The application for assistance in exploring your property, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred to:

Mr. K. M. Travey
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado.

The Regional Office will contact you in regard to your project if additional information is required.

Sincerely yours,
C. O. Mittendorf

Administrator

cc to: Leona L. Haines
Leslie R. Evans

FMMurphy:ai 6-29-56
cc to: Admr. Reading File
Oper. Comm.
Docket
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Murphy

RJ

700

Surname copy

Murphy
Selfridge

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

JUL 6 1956

Mr. W. M. Traver
Executive Officer,
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Re: Docket No. DMEA-4355 (Uranium)
E & H Exploration and Mining Company
E & H — Jelly Roll Mine
Gilpin County, Colorado

Dear Mr. Traver:

The captioned application is referred to Region III Field Team for investigation, a field examination if deemed advisable, and recommendation.

Enclosed are copies of memoranda, dated June 26 and 27, 1956, by N. E. Nelson, USGS, and J. E. Crawford, USBM, respectively, relating to the application.

We note that the estimated costs submitted by the applicant for drilling, drifting etc., are quite high in comparison to costs for similar items in DMEA contracts.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

/s/ Robert W. Geehan (GCS)

Member, Bureau of Mines

Thor H. Kiilsgaard (GCS)

Member, Geological Survey

FMMurphy:ai 6-29-56
cc to: Admr. Reading File
Docket
Operating Comm.
Messrs. JECrawford, Rm. 3463
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3200, GSA
Code 700
Mr. Murphy

6/28/56

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

RECEIVED
JUN 28 1956

June 27, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Application for Assistance, DMEA Docket 4355, E & H Exploration and Mining Co., Gilpin County, Colorado

I have reviewed the attached application for assistance, DMEA Docket 4355, E & H Exploration and Mining Co., Gilpin County, Colorado, dated June 22 and received in this office on June 22, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The applicant is desirous of exploring for uranium by rehabilitating 440 feet of old tunnel in the Jelly Roll mine, driving and timbering 320 feet of tunnel and 2,400 feet of diamond drilling, all at a total estimated cost of $58,800.

The assay reports of samples taken from the subject claims which lie within the Front Range Mineral Belt indicate that the property merits further consideration.

We recommend that the application be sent to the field team and that they consult with E. E. Thurlow, Manager, Denver Area Office, AEC.

John E Crawford
John E. Crawford

Attachment

6/27/56

IN REPLY REFER TO:

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

RECEIVED
JUN 27 1956

June 26, 1956

Re: DMEA 4355
E. & H. Exploration and Mining Co.,
Jelly Roll Mine
Gilpin Co., Colorado
$58,800.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application

The applicant requests assistance in exploring by diamond drilling, crosscutting and drifting a fault zone within which occurs radioactive material.

The fault zone has been explored by open cut along strike for a distance of 150 feet. At a depth of from 5 to 10 feet and for a distance of 45 feet a chert breccia in contact with Bostonite shows radioactivity. A number of samples taken along different sections of the face of the chert-Bostonite contact showed radiometric values of from 0.115% to 0.33% U_3O_8, Chemical assays of some samples confirmed the U_3O_8 content. A 100-foot continuation of the chert layer shows little or no radioactivity and it is inferred that the association of the fault, the chert layer and the Bostonite has something to do with the radioactivity. At the moment the showing appears to be small unless the channel samples were taken across rather than along the chert (p. 5 geologists' report).

Perhaps some work is warranted, somewhat as outlined in Stage I of the application, (5b).

Referral of the application to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. NELSON

IN REPLY REFER TO:

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

RECEIVED
JUN 27 1956

June 26, 1956

Re: DMEA 4355
E. & H. Exploration and
Mining Co.,
Jelly Roll Mine
Gilpin Co., Colorado
$58,800.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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

Subject: Review of application

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Perhaps some work is warranted, somewhat as outlined in Stage I of the application, (5b).

Referral of the application to the Field Team for appropriate action is recommended.

NENelson:btr
G 6/26/56

N. E. Nelson

J. E. Gawlick

cc: Director's reading file (4212)
J. E. Crawford, Rm. 3641
J. O. Hosted, Rm. 3210.
Branch reading file

DMEA(3)

Chron. file
Docket file

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

RECEIVED
JUN 22 1956

June 20, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium) E & H Exploration and Mining Company (E & H-Jelly Roll Mine), Gilpin County, Colorado

Enclosed are three copies of the subject application in the amount of $58,800.00. One copy of the application is being retained in our file.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

[redacted] [redacted]

RECEIVED
JUN 22 1956

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

June 20, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Uranium) E & E Exploration and Mining Company (E & E-Jelly Roll Mine), Gilpin County, Colorado

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DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

June 22, 1956

E & H Exploration Project
c/o Mr. Carl E. Enlow
1517 Washington Street
Golden, Colorado

Subject: DMEA 4355
Re: Exploration Assistance
E & H Jelly Roll Mine

Dear Mr. Enlow

The receipt of your application dated (No Date Given), for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 4355 and referred to the Rare & Misc. Metals Division.

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

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

60932

June 22, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA
-4355 E & H Exploration & Mining Company

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

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DMEA
Date Rec'd
Form Approved.
Budget Bureau No. 42-R1035.2.

RECEIVED JUN 20 1956

JUN 22 1956 BUREAU OF MINES
Denver, Colorado

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

Not to be filled in by applicant

Docket No. [redacted] 4355
Metal or Mineral Uranium
Date Received 6/22/56
Estimated Cost $58,800.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: E & H Exploration and Mining Co. (a joint venture) of Colorado.
Carl E. Enlow 1517 Washington St., Golden, Colorado
Leona L. Haines 6100 W. 29th Ave., Denver 15, Colorado
Leslie R. Evans South Star Route, Granada, Colorado

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract That portion of Section 17, T 3 S, R 72 W shown on the attached drawing of Priscilla, Sunshine and Dorothy Claims. Recorded in Gilpin County Courthouse, Boox 229, Pages 491, 492 and 493.

(*b*) State any mine name by which the property is known. E & H - Jelly Roll Mine

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

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Copy of claim filings attached

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

See attached supplemental sheets

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

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

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

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

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.
All are available in Denver area

16—66551-1

See attached supplemental sheets

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

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

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

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

See attached supplemental sheets

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

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

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

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

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

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

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

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

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

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

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

(*b*) How do you propose to furnish your share of the costs? See attached supplemental sheets

[X] Money [ ] Use of equipment owned by you [X] Other Supervision

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated _____, 195__

E + H Exploration & Mng. Co
(Applicant)

By Leslie R Evans

Earl E Eulow

Leona L Haines

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

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

Supplemental Sheet #1

RECEIVED
JUN 22 1956

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

4. Physical Description

(a) Existing mine workings are the abandoned workings of the old silver mine shown on the survey of the Dorothy claim. This mining was done prior to the year 1900 and the old records are lost. The attached drawing (#5) of mine survey shows the extent of this mine. The E & H property owners have done nothing with this mine. The mine can be examined if a short caved-in area approximately 50 feet in from the portal is bridged. No mining facilities are left at the mine.

Current exploration operations performed on the E. & H. properties are described in the attached geologic report.

(b) No uranium ore has been produced from these properties.

(c) See attached complete geologic report.

(d) Information contained in geologic report.

(e) Adequate manpower plus a satisfactory supply of materials, supplies, equipment, water and power are available within a range of 40 miles, which includes the city of Denver.

Supplemental Sheet #2

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

5. The Exploration Project

(a) Uranium.

(b) A two phase plan of exploration is proposed. The first stage is a combination of diamond drilling and lateral and vertical extension of the existing discovery pit. The diamond drilling would consist of a group of holes located as shown on the attached "Proposed Exploration" map and drilled at various angles to intercept the fault zone at different depths. At least eight holes are recommended with the fault being intercepted at levels of 100 feet and 200 feet, if the results are favorable as drilling ~~por~~ progresses. The extension of the discovery pit for an additional 100 feet at each end and an additional deepening of approximately 2 feet is also recommended.

Phase two of the investigation would be the driving of a tunnel into the fault zone from a point southwest of the discovery pit to intercept the fault zone below the surface. There would then be drifting along the fault zone for 100 feet in each direction along the strike. This would require approximately 320 feet of tunnel into the hill and 200 feet of drifting.

Phase two above could be accomplished by an extension of the old silver mine shown on the Dorothy claim which would encounter the fault at approximately 330 feet below the surface or by a new tunnel located southwest of the discovery pit at an elevation approximately 150 feet lower.

Supplemental Sheet #3

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

5. The Exploration Project (cont.)

The old tunnel followed a vein of rich silver mineralization northeastward toward the discovery pit. The tunnel entrance is 330 feet lower than the discovery pit and about 730 feet to the southwest. At present the tunnel extends approximately 430 feet toward the fault zone and allowing for 20 feet migration of the fault zone toward the northeast due to dip, an extension of this tunnel by 320 feet should intercept the fault zone. Although extension of the old tunnel would entail the additional expense of repair on the old tunnel plus longer tunnel haulage, it would have the advantage of following an actual zone of mineralization to it's intersection with the Blackhawk fault, a point which would be favorable to uranium mineralization. Extension of the old tunnel is recommended.

Included on supplemental sheet #4 is an itemized list indicating the estimated amounts and costs of the above planned exploration, together with required facilities, equipment and services.

If rehabilitation of the old tunnel is considered too costly by the DMEA, the cost can be eliminated and the remaining charges assigned to excavating a new 320 foot tunnel at the 150 foot Depth level.

(c) The work will begin within thirty days and completed within six months from the date of an exploration project contract.

(d) The applicant has no background of experience, but will hire experienced drilling and mining personnel and the project will be under the supervision of consulting geologists of many years experience.

Supplemental Sheet #4

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

6. Estimate of Costs

(a)	Exploration			
	Diamond Drilling	2400 feet @ $ 7.00 ft.		$16,800.00
	Driving 320 feet of tunnel & timbering and drifting 200 feet laterally	50.00/ft.		26,000.00
	Rehabiliatation of 440 feet of old tunnel			4,000.00
	Road Construction			600.00
			Total	$47,400.00
(b)	Supervision - 1 man at $500.00/mo. for 6 months			$ 3,000.00
	Engineering & Geologic Consultants - 1 man at $100.00/day for 25 days			2,500.00
			Total	$ 5,500.00
(c)	Operating Materials & Supplies			
	Utilities (water, lights, fuel) @ $50.00/mo. for 6 months			$ 300.00
			Total	$ 300.00
(d)	Rehabilitation and Repairs			None
(e)	New Buildings, Improvement and Installations			
	Combination office, bunkhouse, toolhouse			$ 1,500.00
	Installation of power and water lines			400.00
			Total	$ 1,900.00
(f)	Miscellaneous			
	Accounting			$ 300.00
	Liability Insurance			600.00
			Total	$ 900.00
(g)	Contingencies - 5% of above Total			
(h)	Total Loan Requested			
	Sum of (a) through (f)			$56,000.00
	Contingencies			2,800.00
				$58,800.00

Supplemental Sheet #5

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

7.

(a) Yes

(b) Our share of expenses will be furnished by cash plus the supervisory services of Mr. L. R. Evans, one of the owners. This is shown as a supervision expense in item (6) Sheet No. 1.

No. 288. AMENDED LOCATION CERTIFICAT[illegible] Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver.

STATE OF COLORADO,
County of GILPIN } ss.

JUN 22 1958

KNOW ALL MEN BY THESE PRESENTS: That CARL E. ENLOW, ~~LESTER~~ LESLIE R. EVANS, AND LEONA L. HAINES

the undersigned, have this 8th day of February, 1955, amended, located and claimed, and by these presents do amend, locate, and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the SUNSHINE lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the SOUTHWESTERLY side, and 300 feet on the NORTHEASTERLY side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 1480 feet running SOUTH 50° 06' EAST from center of discovery OUT and 20 feet running NORTH 50° 06' WEST from center of discovery OUT said discovery OUT being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in ENTERPRISE Mining District, County of GILPIN and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1. FROM WHICH CORNER THE SOUTH ¼ CORNER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 72 WEST OF THE 6TH PRINCIPAL MERIDIAN BEARS SOUTH 28° 18' WEST A DISTANCE OF 3512.4 FEET, AND FURTHERMORE CORNER NO. 2 OF PATENTED CLAIM NO. 13027 (MILTON) BEARS NORTH 19° 03' 30" EAST A DISTANCE OF 444 FEET;

THENCE NORTH 39° 54' EAST A DISTANCE OF 600 FEET TO CORNER NO. 2;

THENCE NORTH 50° 06' WEST A DISTANCE OF 1500 FEET; TO CORNER NO. 3;

THENCE SOUTH 39° 54' WEST A DISTANCE OF 600 FEET TO CORNER NO. 4;

THENCE SOUTH 50° 06' EAST A DISTANCE OF 1500 FEET TO CORNER NO. 1, THE POINT OF BEGINNING

BEARINGS GIVEN ARE TRUE AZIMUTH

MAGNETIC VARIATION IS NORTH 14° 30' EAST

This being the same lode originally located on the ..... day of ....., 1....., and recorded on the ..... day of ....., 1....., in Book ....., Page ....., in the office of the Recorder of ..... County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record.

Said lode was discovered the .....
day of ....., A. D. 19.....
Attest:

Date of Amended Location, ...
....., A. D. 19.....
Date of Amended Certificate, ...
....., A. D. 19.....

Carl E. Enlow [SEAL]
Leslie R. Evans [SEAL]
Leona L. Haines [SEAL]
[SEAL]
[SEAL]
[SEAL]

AMENDED LOCATION CERTIFICATE

On the.....

Mining Claim of.....

.....

In .....

.....Mining District,

..... County,

State of Colorado.

STATE OF COLORADO,
County of Gilpin } ss.

I hereby certify that this Amended Location Certificate was filed for record in my office at 2:00 o'clock P.M. May 7, 19 57, and is duly recorded in Book 229 Page 493

Barbara Fallnsith
Recorder.

By.....
Deputy.

Fees, $.....

4-55 BRADFORD-ROBINSON PTG. CO., DENVER

No. 288. AMENDED LOCATION CERTIFICATE. Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver.

RECEIVED
JUN 22 1956

STATE OF COLORADO,
County of GILPIN } ss.

KNOW ALL MEN BY THESE PRESENTS: That CARL E. ENLOW, ~~LESTER~~ LESLIE R. EVANS, AND LEONA L. HAINES

the undersigned, have this 7th day of February, 1955, amended, located and claimed, and by these presents do amend, locate, and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the DOROTHY lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the NORTHWESTERLY side, and 300 feet on the SOUTHEASTERLY side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 207 feet running NORTH 64° 20' EAST from center of discovery OUT and 1293 feet running SOUTH 64° 20' WEST from center of discovery OUT said discovery OUT being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in THE NORTH ½ OF SECTION 17, T. 3 S., R 72 W., ENTERPRISE Mining District, County of GILPIN and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1. FROM WHENCE THE SOUTH ¼ CORNER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 72 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEARS SOUTH 03° 28' EAST A DISTANCE OF 3520.7 FEET;

THENCE NORTH 64° 20' EAST A DISTANCE OF 1500 FEET TO CORNER NO. 2;
THENCE NORTH 50° 06' WEST A DISTANCE OF 659.06 FEET TO CORNER NO. 3;
THENCE SOUTH 64° 20' WEST A DISTANCE OF 1500 FEET TO CORNER NO. 4;
THENCE SOUTH 50° 06' EAST A DISTANCE OF 659.06 FEET TO CORNER NO. 1, THE POINT OF BEGINNING.

BEARINGS GIVEN ARE TRUE AZIMUTH
MAGNETIC VARIATION IS NORTH 14° 30' EAST.

This being the same lode originally located on the ..... day of ....., 1....., and recorded on the ..... day of ....., 1....., in Book ....., Page ....., in the office of the Recorder of ..... County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record.

Said lode was discovered the ..... day of ....., A. D. 19.....
Attest:

Date of Amended Location, ...
....., A. D. 19.....
Date of Amended Certificate, ...
....., A. D. 19.....

Carl E. Enlow [SEAL]
Leslie R. Evans [SEAL]
Leona L. Haines [SEAL]
..... [SEAL]
..... [SEAL]
..... [SEAL]

AMENDED LOCATION CERTIFICATE

On the.....

Mining Claim of.....

.....

In .....

.....Mining District,

..... County,

State of Colorado.

STATE OF COLORADO,
County of Gilpin } ss.

I hereby certify that this Amended Location Certificate was filed for record in my office at 2:05 o'clock P.M. May 7, 1956, and is duly recorded in Book 229 Page 491

Barbara Fallsitch
Recorder.

By.....
Deputy.

Fees, $.....

4-55 BRADFORD-ROBINSON PTG. CO., DENVER

No. 288. AMENDED LOCATION CERTIFICATE. —Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver

RECEIVED
JUN 22 1956

STATE OF COLORADO,
County of GILPIN } ss.

KNOW ALL MEN BY THESE PRESENTS: That CARL E. ENLOW, ~~LESTER~~ LESLIE R EVANS, AND LEONA L. HAINES

the undersigned, have this 7th day of February, 19[illegible], amended, located and claimed, and by these presents do amend, locate, and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the PRISCILLA lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the SOUTHWESTERLY side, and 300 feet on the NORTHEASTERLY side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 1480 feet running NORTH 50° 06' WEST from center of discovery OUT and ~~XXXXXXX~~ 20 feet running SOUTH 50° 06' EAST from center of discovery OUT said discovery OUT being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in ENTERPRISE Mining District, County of GILPIN and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1, FROM WHENCE THE SOUTH ¼ CORNER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 72 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEARS SOUTH 06° 47' WEST A DISTANCE OF 4094.1 FEET;

THENCE NORTH 43° 45' EAST A DISTANCE OF 601.35 FEET, TO CORNER NO. 2, WHICH CORNER IS IDENTICAL WITH CORNER NO. 3 OF THE SUNSHINE CLAIM;

THENCE NORTH 50° 06' WEST A DISTANCE OF 1500 FEET TO CORNER NO. 3;

THENCE SOUTH 43° 45' WEST A DISTANCE OF 601.35 FEET TO CORNER NO. 4;

THENCE SOUTH 50° 06' EAST A DISTANCE OF 1500 FEET TO CORNER NO. 1, THE POINT OF BEGINNING.

BEARINGS GIVEN ARE TRUE AZIMUTH

MAGNETIC VARIATION IS NORTH 14° 30' EAST

This being the same lode originally located on the ..... day of ....., 1....., and recorded on the ..... day of ....., 1....., in Book ....., Page ....., in the office of the Recorder of ..... County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record.

Said lode was discovered the .....
day of ....., A. D. 19.....
Attest:

.....

Date of Amended Location, ...
....., A. D. 19.....
Date of Amended Certificate, ...
....., A. D. 19.....

Carl E. Enlow [SEAL]
Leslie R. Evans [SEAL]
Leona L. Haines [SEAL]
..... [SEAL]
..... [SEAL]
..... [SEAL]

AMENDED LOCATION CERTIFICATE

On the.....

Mining Claim of.....

.....

In .....

.....Mining District,

..... County,

State of Colorado.

STATE OF COLORADO,
County of Gilpin } ss.

I hereby certify that this Amended Location Certificate was filed for record in my office at 2:10 o'clock P M. May 7, 1956, and is duly recorded in Book 229 Page 492

Barbara Gellineth
Recorder.

By..... Deputy.

Fees $ 1.55

C. F. Haines

4-56 BRADFORD-ROBINSON PTG. CO., DENVER

6100 N. 29th Ave
Denver, Colo.

Exploration & mining.

E. & H. ~~URANIUM~~ CO.

GEOLOGIC REPORT

RECEIVED
JUN 22 1956

Introduction

This geologic report describes the geologic conditions on three claims owned by the E. & H. ~~Uranium~~ Exploration & mining. Co. The report is based on surface examination of several days extent, plus data obtained by subsurface explorations made between November 1, 1955, and March 1, 1956. The three claims are named Dorothy, Priscilla and Sunshine. A total of approximately 53 acres is involved. The subsurface exploration and the sampling for assaying was done under the direction of the writer.

Location

The E & H properties, generally speaking, are located in the northwest portion of Section 17, Township 3 South, Range 72 West, as indicated on the general location map (drawing No. 1). The detailed location is shown on the attached (drawing No. 2) survey of the claims made by State Registered Surveyor Kurt O. Linn.

General Appearance and Access

The claims area is one of considerable topographic relief with a thin mantle of overburden and a moderately heavy forest cover. Access to the claims and exploration pits is by means of a rough, steep, ½-mile long bulldozer road from state highway 119. At present, the road is suitable only for jeep or truck use. The takeoff from State Highway 119 is about 1½ miles southeast of Blackhawk and approximately 35 miles from Denver.

E. + [illegible] Exploration & Mining Co.

The nearest rail connection would be at Golden, Colorado, a distance of 19½ miles by excellent, paved highway.

Title Conditions

All three claims have been filed according to mining regulations and are classified as standard lode mining claims. The corners have been surveyed and placed by a licensed and registered surveyor. No known title conflicts exist. More than sufficient work has been done to validate and preserve the identity of the claims.

Facilities

No housing facilities exist on the claims as yet. When extensive exploration is undertaken, it will be necessary to construct storage and equipment housing and perhaps some simple domestic housing. It will also be necessary to make some improvement on the access road. Water for drilling, mining and domestic purposes will have to be hauled or pumped from North Clear Creek which crosses the northwest end of the Dorothy claim close to the access road takeoff point.

General Geology

The E & H claims lie within the Front Range Mineral Belt in the northeastern portion of the Central City - Idaho Springs Mining District. The principal rocks are those of the Pre-Cambrian complex of metamorphics and igneous intrusives classified as the Idaho Springs formation. Structurally, the rocks are faulted, sheared and contorted to a condition of considerable complexity. A major Pre-Cambrian shear zone of several hundred feet width and fifteen or more miles length

E.+H. Exploration & Mining Co

passes along the south east portion of the claims along a northeast-southwest trend. The general direction of gneissic foliation is north-south but locally it varies from northwest-southeast to northeast-southwest.

A major, partially obscured, fault believed to be part of the "Blackhawk" fault passes down the center of and parallel to the length of the Priscilla and Sunshine claims. In fact, the fault is the facal point of the current exploration and the discovery pit lies upon the fault. Gold, Silver, lead, zinc and copper mining in past years in the area has been primarily along northeast-southwest trending mineralized veins which lie on the southwest side of the Blackhawk fault and appear to terminate against the fault.

Of lesser extent, but still of significance are the granite pegmatite and the quartz Bostonite dikes found in the area. The pegmatite dikes vary greatly in thickness and length, but quite consistently strike northeast-southwest. They are of medium coarseness and light in color and contain predominantly quartz and feldspar. Commonly they show somewhat highwr radiomentric readings than the surrounding rock. The Bostonite dikes are of a volcanic type, possibly Rhyolitic. They are fine to medium-grained, purplish brown and hard. The strike of the dikes, so far examined, has not shown a predominant trend.

The overall areal and structural geologic picture of the region covering the E & H properties is shown on the attached photographic copies of portions of maps contained in the U.S.G.S. Professional Paper 223 "Geology and Ore Deposits of the Front Range, Colorado". (Drawings Nos. 3 & 4)

E & H. Exploration & mining Co

Geology of the Discovery Area

Drawing 5. attached, shows a geologic sketch of the discovery pit which lies upon portions of all three E & H claims. This sketch will be referred to in the following discussions.

The original basis for exploratory work performed on the E & H property came from the finding of large pieces of reddish brown, quartzite-like float which exhibited strong radioactivity. Careful search of the area revealed the presence of a sharply defined fault now believed to be part of the Blackhawk fault. The fault zone varies from three to ten feet width and consists of crushed and brecciated rocks of all types found in the area. Prominent slickensides found on both the foot wall and hanging wall indicate a vertical movement. Although it has not been positively determined, it is believed that the upthrow side is on the southwest. Since no radioactive float was found uphill from the fault, it was decided that the radioactive rocks came from the fault zone. This was supported by the high radiation anomaly over the fault zone for a distance of approximately 150 feet. Several shallow trenches were dug across the fault zone and normal to the strike. In each case, the radioactivity increased strongly (10 to 20 times background) and many fragments of the brown radioactive quartzite-like rock were found within the brecciated rock of the fault zone. Samples were taken at random from the walls of an 8 foot deep trench and from the walls of a preliminary pit dug along the fault. Radiometric assays on the N.Y.O.O. machine by a qualified assayer showed assays of .10, .07, and .40 percent U_3O_8 for

E. Exploration + Mining Co.

the trench samples and .07, .13, .14 and .46 percent U_3O_8 on the pit samples. A wet assay on the .46 percent assay sample showed .50 percent U_3O_8. A spectrographic analysis of this sample (#5) is attached.

The main exploratory pit was then dug by means of blasting and back hoe work along the fault zone as indicated on the attached sketch map (Drawing #5). As a result of this excavation, the nature of uranium occurrence began to take shape and it was possible to perform more realistic sampling.

At the north end of the pit about 10 feet below the surface a vein or layer of the radioactive brownish quartzite-like rock was found in place. The layer lies along the southwest wall of the fault zone and in the plane of the fault. It appears that the loose radioactive breccia was torn from this ledge by fault movement. Petrographic analysis of the rock ledge defined it as chert and cert breccia. The dip of the chert layer, which is believed to be of bedded sedimentary origin, is, like the fault zone, almost vertical. In contact with the chert layer is a thin 3 to 6 inch wide dike of quartz Bostonite. The area of greatest radioactivity in the exploratory pit lies along the contact of the Bostonite dike with the chert ledge. Assays of the Bostonite showed approximately .09% U_3O_8. Channel samples 2 to 5 feet long, 2 inches wide and 1 to 2 inches deep were taken along different sections of the contact face of the chert ledge and were checked radiometrically with the following results: .115%, .215%, .23%, .56%, .13%, .25%, .21% and .32%. A part of one sample (#13) which had been checked at .21% radiometrically was given to the A.E.C. in Denver and assigned Field No. F-43815.. The subsequent A.E.C. report showed an assay of .283% U_3O_8, both radio-

E. & H. Exploration & Mining Co'

metrically and chemically. The form of the U_3O_8 occurrence is so finely disseminated that it has not yet been determined.

From the above data, it appears that the uranium occurrence is related to the close union of faulting, Bostonite intrusion, and the presence of a brecciated chert layer which serves as a host. The fact that the fault is a major one, already associated with other types of mineralization, the presence of a Bostonite dike which appears to be widening with depth, and the proven existence of some uranium along the Bostonite contact in amounts which show definite possibilities indicates to me that the prospect should be explored at depth. It is with such further exploration in mind that I recommend submittal of an application for a D.M/E.A. loan.

Date:

Eugene B Waggoner

EUGENE B. WAGGONER
Consulting Engineering Geologist
State Registered Engineer #1775

PETROX LABORATORIES
Petrographic and X-Ray Diffraction Analyses
Geologic Examinations

Richard C. Mielenz
N. Cyril Schieltz
Myrle E. King

Our reports are submitted confidentially to clients; authorization for publication of our reports or of excerpts therefrom or of statements concerning them is reserved pending our written approval.

1260 South York Street
Denver 10, Colorado
Telephone: RAce 3923

Mr. Eugene B. Waggoner, Consulting Geologist
670 Garland
Lakewood, Colorado.

Our No. 561001

January 25, 1956

PETROGRAPHIC EXAMINATION OF A ROCK SAMPLE

INTRODUCTION

Following is a petrographic description and identification of a rock sample received on January 23, 1956. The sample was examined under the stereoscopic microscope and a thin section was examined under the petrographic microscope. A microchemical test was performed to identify the main component of a metallic mineral in the rock.

The specimen comprised one piece of rock approximately 7/8- by 1½- by 2 inches in size.

RESULTS

The rock is a light to dark brown, very fine-grained, very hard chert and chert breccia. The specimen examined includes a layer of dense chert about 3/8 inch thick; a brecciated zone up to 1/8 inch thick; and a zone of sandy chert up to about 1/2 inch thick. Fracture surfaces are partially coated by black, dull to metallic deposits of intermixed magnetite and one or more manganese oxides. The identification of the manganese oxides was confirmed by a microchemical test with nitric acid and sodium bismuthate.

Under the microscope, the rock is identified definitely as a chert and chert breccia. The chert varies from a dense, colorless to brown, chalcedonic type to a sandy type in which quartz sand grains are embedded in a matrix of chalcedonic chert. The chalcedonic chert contains microscopical patches and minute lenses suggestive of original fossils. Abundant fractures are filled by fibrous chalcedony and microcrystalline quartz. The chert breccia is composed of angular fragments of chalcedonic chert, sandy chert, and fine-grained quartzite in a matrix of chalcedony and microcrystalline quartz.

The rock contains frequent patches, grains, and thin lenses of magnetite and manganese oxides. Other opaque minerals may be present as well. Portions of the magnetite are partially altered to brown limonite.

Petrographic Classification: Sedimentary chert and chert breccia.

Richard C. Mielenz

Minerals .. Ores .. Rock Cores .. Ceramics .. Clays .. Bentonites .. Metals .. Alloys .. Aggregates .. Cements .. Pozzolans .. Chemicals .. Biochemicals .. Soils .. Dust .. Pigments
Identifications .. Geologic Examinations and Mapping .. Process Research .. Reaction Studies .. Impurity Detection .. Particle Size

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OSCAR N. BRIBACH
1439 Blake Street
Denver 2, Colorado

Date

TO: Eugene Waggner
9635 West Colfax

Sample #5 Submitted by Leslie Evans

Charge 10.00 Paid

Qualitative Spectrographic

ANALYSIS

Antimony		Holmium		Ruthenium	
Arsenic		Indium		Scandium	
Aluminum	5	Iron	5	Silicon	Major
Boron		Iridium		Samarium	.01
Barium	1	Lanthanum	.01	Strontium	1
Beryllium	.001	Lead	1	Silver	1 ounce
Bismuth		Lithium		Sodium	.01
Calcium	.1	Lutecium		Tantalum	
Columbium	.01	Magnesium	.1	Terbium	
Cadmium		Manganese		Thallium	
Cerium	.01	Mercury		Thulium	
Cobalt	.001	Molybdenum	.01	Thorium	Not detected.
Chromium	.001	Neodymium	.01	Tin	
Caesium		Nickel	.001	Titanium	.01
Copper	.01	Osmium		Tungsten	
Dysprosium	.01	Palladium		Uranium	.5
Erbium	.01	Potassium	.01	Vanadium	.01
Europium		Praseodymium	.01	Yttrium	.1
Gallium		Platinum		Ytterbium	.01
Gadolinium		Radium		Zinc	
Germanium		Rubidium		Zirconium	.1
Gold		Rhenium			
Hafnium		Rhodium			

Remarks: Mr. H. M. Ochs spectrographer.
The numbers indicate the element is present and a visual approximation of the % amount.

Oscar N. Bribach
Signature

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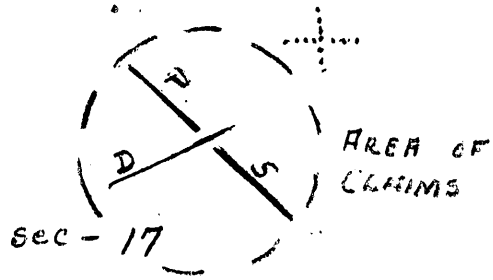
JUN 2

GENERAL GEOLOGY
E & H CLAIMS
GILPIN CO, COLORADO



Legend

I.S.	IDAHO SPRINGS FM
gn	GRANITE GNEISS
bcg	BOULDER CR. GRANITE
mg	QUARTZ MONZONITE GNEISS
sg	SWANDYKE HORNBLENDE GNEISS
pt	PEGMATITE

E.B.W.

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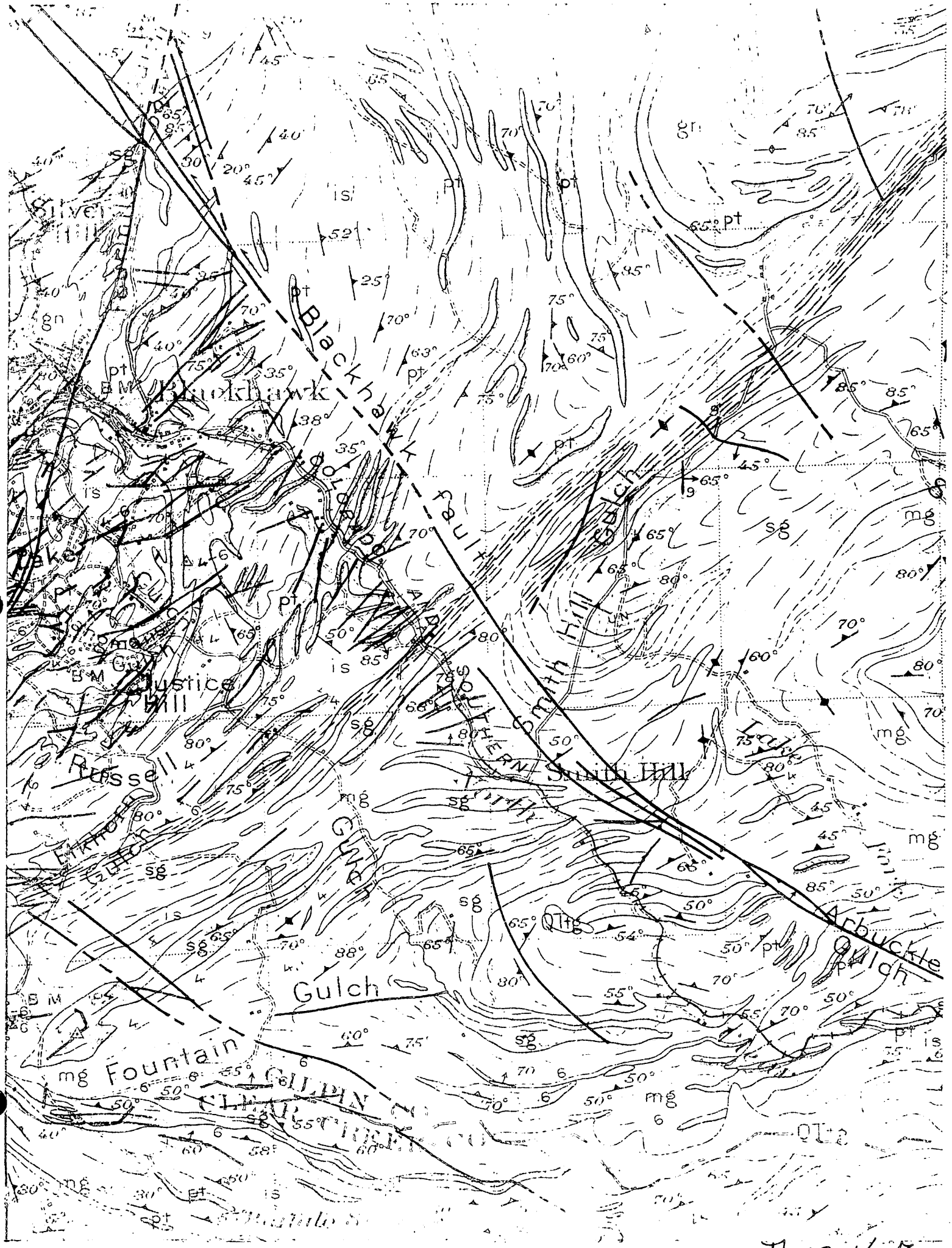
Silver Hill
Buckhawk
Blackhawk fault
Colorado fault
Baker
Justice Hill
Russell
Elkhorn Gulch
Gulch
Smith Hill
Smith Hill
Arbuckle Gulch
Fountain
Gulch
gr
pt
is
sg
mg
QTtg
BM

Dwg No. 3

6/22/56

DMEA Date Rec'd. JUN 20 1956

BUREAU OF MINES Denver, Colorado

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED JUN 22 1956

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

Not to be filled in by applicant

Docket No. [redacted] 4355
Metal or Mineral Uranium
Date Received 6/22/56
Estimated Cost $38,800.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: E & H Exploration and Mining Co. (a joint venture) of Colorado.
Carl E. Enlow 1517 Washington St., Golden, Colorado
Leona L. Haines 6100 W. 29th Ave., Denver 15, Colorado
Leslie R. Evans South Star Rte, Granada, Colorado

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract That portion of Section 17, T 3 S, R 72 W, shown on the attached drawing of Priscilla, Sunshine and Dorothy Claims. Recorded in Gilpin County Courthouse, Book 229, Pages 491, 492 and 493.

(*b*) State any mine name by which the property is known. E & H - Jelly Roll Mine

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

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. Copy of claim filings attached

(*e*) If you own the land, describe any liens or encumbrances on it land now owned

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

See attached supplemental sheets

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

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

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

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

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

All are available in Denver area

16—66551-1

See attached supplemental sheets

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

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

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

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

See attached supplemental sheets

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

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

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

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

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

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

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

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

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

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

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

(*b*) How do you propose to furnish your share of the costs? See attached supplemental sheets

[X] Money [ ] Use of equipment owned by you [X] Other Supervision

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated _____, 195__

E & H Exploration & Mng Co.
(Applicant)

By Leslie R Evans

Earl E. Gordon

Leona L. Haines

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

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

E & H Exploration &
Mining Co.

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Supplemental Sheet No. 1

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

4. Physical Description

(a) Existing mine workings are the abandoned workings of the old silver mine shown on the survey of the Dorothy claim. This mining was done prior to the year 1900 and the old records are lost. The attached drawing (#5) of mine survey shows the extent of this mine. The E. & H. property owners have done nothing with this mine. The mine can be examined if a short caved-in area approximately 50 feet in from the portal is bridged. No mining facilities are left at the mine.

Current exploration operations performed on the E & H properties are described in the attached geologic report.

(b) No uranium ore has been produced from these properties.

(c) See attached complete geologic report.

(d) Information contained in geologic report.

(e) Adequate manpower plus a satisfactory supply of materials, supplies, equipment, water and power are available within a range of 40 miles, which includes the city of Denver.

E & H Exploration &
Mining Co.

Supplemental Sheet #2

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

5. The Exploration Project

(a) Uranium.

(b) A two phase plan of exploration is proposed. The first stage is a combination of diamond drilling and lateral and vertical extension of the existing discovery pit. The diamond drilling would consist of a group of holes located as shown on the attached "Proposed Exploration" map and drilled at various angles to intercept the fault zone at different depths. At least eight holes are recommended with the fault being intercepted at levels of 100 feet and 200 feet, if the results are favorable as drilling progresses. The extension of the discovery pit for an additional 100 feet at each end and an additional deepening of approximately 2 feet is also recommended.

Phase two of the investigation would be the driving of a tunnel into the fault zone from a point southwest of the discovery pit to intercept the fault zone below the surface. There would then be drifting along the fault zone for 100 feet in each direction along the strike. This would require approximately 320 feet of tunnel into the hill and 200 feet of drifting.

Phase two above could be accomplished by an extension of the old silver mine shown on the Dorothy claim which would encounter the fault at approximately 330 feet below the surface or by a new tunnel located southwest of the discovery pit at an elevation approximately 150 feet lower.

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Supplemental Sheet #3

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

5. The Exploration Project (cont.)

The old tunnel followed a vein of rich silver mineralization northeastward toward the discovery pit. The tunnel entrance is 330 feet lower than the discovery pit and about 730 feet to the southwest. At present the tunnel extends approximately 430 feet toward the fault zone and allowing for 20 feet migration of the fault zone toward the northeast due to dip, an extension of this tunnel by 320 feet should intercept the fault zone. Although extension of the old tunnel would entail the additional expense of repair on the old tunnel plus longer tunnel haulage, it would have the advantage of following an actual zone of mineralization to it's intersection with the Blackhawk fault, a point which would be favorable to uranium mineralization. Extension of the old tunnel is recommended.

Included on supplemental sheet #4 is an itemized list indicating the estimated amounts and costs of the above planned exploration, together with required facilities, equipment and services.

If rehabilitation of the old tunnel is considered too costly by the DMEA, the cost can be eliminated and the remaining charges assigned to excavating a new 320 foot tunnel at the 150 foot Depth level.

(c) The work will begin within thirty days and completed within six months from the date of an exploration project contract.

(d) The applicant has no background of experience, but will hire experienced drilling and mining personnel and the project will be under the supervision of consulting geologists of many years experience.

Supplemental Sheet #4

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

6. Estimate of Costs

(a)	Exploration			
	Diamond Drilling	2400 feet @ $ 7.00 ft.		$16,800.00
	Driving 320 feet of tunnel & timbering and drifting 100 feet laterally	50.00/ft.		26,000.00 ?
	Rehabilitation of 440 feet of old tunnel			4,000.00
	Road Construction			600.00
			Total	$47,400.00
(b)	Supervision - 1 man at $500.00/mo. for 6 months			$ 3,000.00
	Engineering & Geologic Consultants - 1 man at $100.00/day for 25 days			2,500.00
			Total	$ 5,500.00
(c)	Operating Materials & Supplies			
	Utilities (water, lights, fuel) @ $50.00/mo. for 6 months			$ 300.00
			Total	$ 300.00
(d)	Rehabilitation and Repairs			None
(e)	New Buildings, Improvement and Installations			
	Combination office, bunkhouse, toolhouse			$ 1,500.00
	Installation of power and water lines			400.00
			Total	$ 1,900.00
(f)	Miscellaneous			
	Accounting			$ 300.00
	Liability Insurance			600.00
			Total	$ 900.00
(g)	Contingencies - 5% of above Total			
(h)	Total Loan Requested			
	Sum of (a) through (f)			$56,000.00
	Contingencies			2,800.00
				$58,800.00

Supplemental Sheet #5

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

7.

(a) Yes

(b) Our share of expenses will be furnished by cash plus the supervisory services of Mr. L. ~~E.~~ R. Evans, one of the owners. This is shown as a supervision expense in item (6) Sheet No. 1.

No. 288. AMENDED LOCATION CERTIFICATE. —Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver.

STATE OF COLORADO,
County of GILPIN } ss.

JUN 22 1956

KNOW ALL MEN BY THESE PRESENTS: That CARL E. ENLOW, ~~LESTER~~ LESLIE R. EVANS, AND LEONA L. HAINES

the undersigned, have this 8th day of February, 1955, amended, located and claimed, and by these presents do amend, locate, and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the SUNSHINE lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the SOUTHWESTERLY side, and 300 feet on the NORTHEASTERLY side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 1480 feet running SOUTH 50° 06' EAST from center of discovery OUT and 20 feet running NORTH 50° 06' WEST from center of discovery OUT said discovery OUT being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in ENTERPRISE Mining District, County of GILPIN and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1. FROM WHICH CORNER THE SOUTH ¼ CORNER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 72 WEST OF THE 6TH PRINCIPAL MERIDIAN BEARS SOUTH 28° 18' WEST A DISTANCE OF 3512.4 FEET, AND FURTHERMORE CORNER NO. 2 OF PATENTED CLAIM NO. 13027 (MILTON) BEARS NORTH 19° 03' 30" EAST A DISTANCE OF 444 FEET;

THENCE NORTH 39° 54' EAST A DISTANCE OF 600 FEET TO CORNER NO. 2;

THENCE NORTH 50° 06' WEST A DISTANCE OF 1500 FEET; TO CORNER NO. 3;

THENCE SOUTH 39° 54' WEST A DISTANCE OF 600 FEET TO CORNER NO. 4;

THENCE SOUTH 50° 06' EAST A DISTANCE OF 1500 FEET TO CORNER NO. 1, THE POINT OF BEGINNING

BEARINGS GIVEN ARE TRUE AZIMUTH

MAGNETIC VARIATION IS NORTH 14° 30' EAST

This being the same lode originally located on the ..... day of ....., 1....., and recorded on the ..... day of ....., 1....., in Book ....., Page ....., in the office of the Recorder of ..... County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record.

Said lode was discovered the .....
day of ....., A. D. 19.....
Attest:

Date of Amended Location, ...
....., A. D. 19.....
Date of Amended Certificate, ...
....., A. D. 19.....

Carl E. Enlow [SEAL]
Leslie R. Evans [SEAL]
Leona L. Haines [SEAL]
[SEAL]
[SEAL]
[SEAL]

AMENDED LOCATION CERTIFICATE

On the.....

Mining Claim of.....

.....

In .....

.....Mining District,

..... County,

State of Colorado.

STATE OF COLORADO,
County of Gilpin } ss.

I hereby certify that this Amended Location Certificate was filed for record in my office at 2:00 o'clock P.M. May 7, 19 56, and is duly recorded in Book 229 Page 493

Barbara Fellsmith
Recorder.

By.....
Deputy.

Fees, $.....

4-05 CRAFORD-ROBINSON PTG. CO., DENVER

No. 288. AMENDED LOCATION CERTIFICATE. —Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver.

STATE OF COLORADO,
County of GILPIN } ss.

RECEIVED
JUN 22 1956

KNOW ALL MEN BY THESE PRESENTS: That CARL E. ENLOW, ~~LESTER~~ LESLIE R. EVANS, AND LEONA L. HAINES

the undersigned, have this 7th day of February, 19[illegible], amended, located and claimed, and by these presents do amend, locate, and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the DOROTHY lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the NORTHWESTERLY side, and 300 feet on the SOUTHEASTERLY side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 207 feet running NORTH 64° 20' EAST from center of discovery OUT and 1293 feet running SOUTH 64° 20' WEST from center of discovery OUT said discovery OUT being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in THE NORTH ½ OF SECTION 17, T. 3 S., R 72 W., ENTERPRISE Mining District, County of GILPIN and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1. FROM WHENCE THE SOUTH ¼ CORNER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 72 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEARS SOUTH 03° 28' EAST A DISTANCE OF 3520.7 FEET;

THENCE NORTH 64° 20' EAST A DISTANCE OF 1500 FEET TO CORNER NO. 2;
THENCE NORTH 50° 06' WEST A DISTANCE OF 659.06 FEET TO CORNER NO. 3;
THENCE SOUTH 64° 20' WEST A DISTANCE OF 1500 FEET TO CORNER NO. 4;
THENCE SOUTH 50° 06' EAST A DISTANCE OF 659.06 FEET TO CORNER NO. 1, THE POINT OF BEGINNING.

BEARINGS GIVEN ARE TRUE AZIMUTH
MAGNETIC VARIATION IS NORTH 14° 30' EAST.

This being the same lode originally located on the ..... day of ....., 1....., and recorded on the ..... day of ....., 1....., in Book ....., Page ....., in the office of the Recorder of ..... County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record.

Said lode was discovered the .....
day of ....., A. D. 19.....
Attest:

Date of Amended Location, ...
....., A. D. 19.....
Date of Amended Certificate, ...
....., A. D. 19.....

Carl E. Enlow [SEAL]
Leslie R. Evans [SEAL]
Leona L. Haines [SEAL]
[SEAL]
[SEAL]
[SEAL]

AMENDED LOCATION CERTIFICATE

On the.....

Mining Claim of.....

.....

In.....

.....Mining District,

..... County,

State of Colorado.

STATE OF COLORADO,
County of Gilpin } ss.

I hereby certify that this Amended Location Certificate was filed for record in my office at 2:05 o'clock P.M. May 7, 1956, and is duly recorded in Book 229 Page 491

Barbara Fallsgraff
Recorder.

By.....
Deputy.

Fees, $.....

4-55 BRADFORD-ROBINSON PTG. CO., DENVER

No. 288. AMENDED LOCATION CERTIFICATE. —Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, Denver.

STATE OF COLORADO,
County of GILPIN } ss.

RECEIVED JUN 22 1956

KNOW ALL MEN BY THESE PRESENTS: That CARL E. ENLOW, ~~LESTER~~ LESLIE R EVANS, AND LEONA L. HAINES

the undersigned, have this 7th day of February, 19[illegible], amended, located and claimed, and by these presents do amend, locate, and claim, by right of discovery and this amended location certificate 1500 linear feet and horizontal measurement on the PRISCILLA lode, vein, ledge or deposit, along the vein thereof, with all its dips, angles and variations, as allowed by law, together with 300 feet on the SOUTHWESTERLY side, and 300 feet on the NORTHEASTERLY side of the middle of said vein at the surface, so far as can be determined from present developments; and all veins, lodes, ledges or deposits and surface ground within the lines of said claim, 1480 feet running NORTH 50° 06' WEST from center of discovery OUT and ~~XXXXXXXX~~ 20 feet running SOUTH 50° 06' EAST from center of discovery OUT said discovery OUT being situate upon said lode, vein, ledge, or deposit, and within the lines of said claim in ENTERPRISE Mining District, County of GILPIN and State of Colorado, described by metes and bounds as follows, to-wit:

Beginning at Corner No. 1: FROM WHENCE THE SOUTH ¼ CORNER OF SECTION 17, TOWNSHIP 3 SOUTH, RANGE 72 WEST OF THE 6TH PRINCIPAL MERIDIAN, BEARS SOUTH 06° 47' WEST A DISTANCE OF 4094.1 FEET;

THENCE NORTH 43° 45' EAST A DISTANCE OF 601.35 FEET, TO CORNER NO. 2, WHICH CORNER IS IDENTICAL WITH CORNER NO. 3 OF THE SUNSHINE CLAIM;

THENCE NORTH 50° 06' WEST A DISTANCE OF 1500 FEET TO CORNER NO. 3;

THENCE SOUTH 43° 45' WEST A DISTANCE OF 601.35 FEET TO CORNER NO. 4;

THENCE SOUTH 50° 06' EAST A DISTANCE OF 1500 FEET TO CORNER NO. 1, THE POINT OF BEGINNING.

BEARINGS GIVEN ARE TRUE AZIMUTH

MAGNETIC VARIATION IS NORTH 14° 30' EAST

This being the same lode originally located on the ..... day of ....., 1....., and recorded on the ..... day of ....., 1....., in Book ....., Page ....., in the office of the Recorder of ..... County, this further and amended certificate of location is made without waiver of any previously acquired rights, but for the purpose of correcting any errors in the original location, description or record.

Said lode was discovered the ..... day of ....., A. D. 19.....
Attest:

Date of Amended Location, ..., A. D. 19.....
Date of Amended Certificate, ..., A. D. 19.....

Carl E. Enlow [SEAL]
Leslie R. Evans [SEAL]
Leona L. Haines [SEAL]
[SEAL]
[SEAL]
[SEAL]

AMENDED LOCATION CERTIFICATE

On the.....

Mining Claim of.....

.....

In .....

.....Mining District,

..... County,

State of Colorado.

STATE OF COLORADO,
County of Gilpin } ss.

I hereby certify that this Amended Location Certificate was filed for record in my office at 2:10 o'clock P.M. May 7, 1956, and is duly recorded in Book 229 Page 492

Barbara Fellmeth
Recorder.

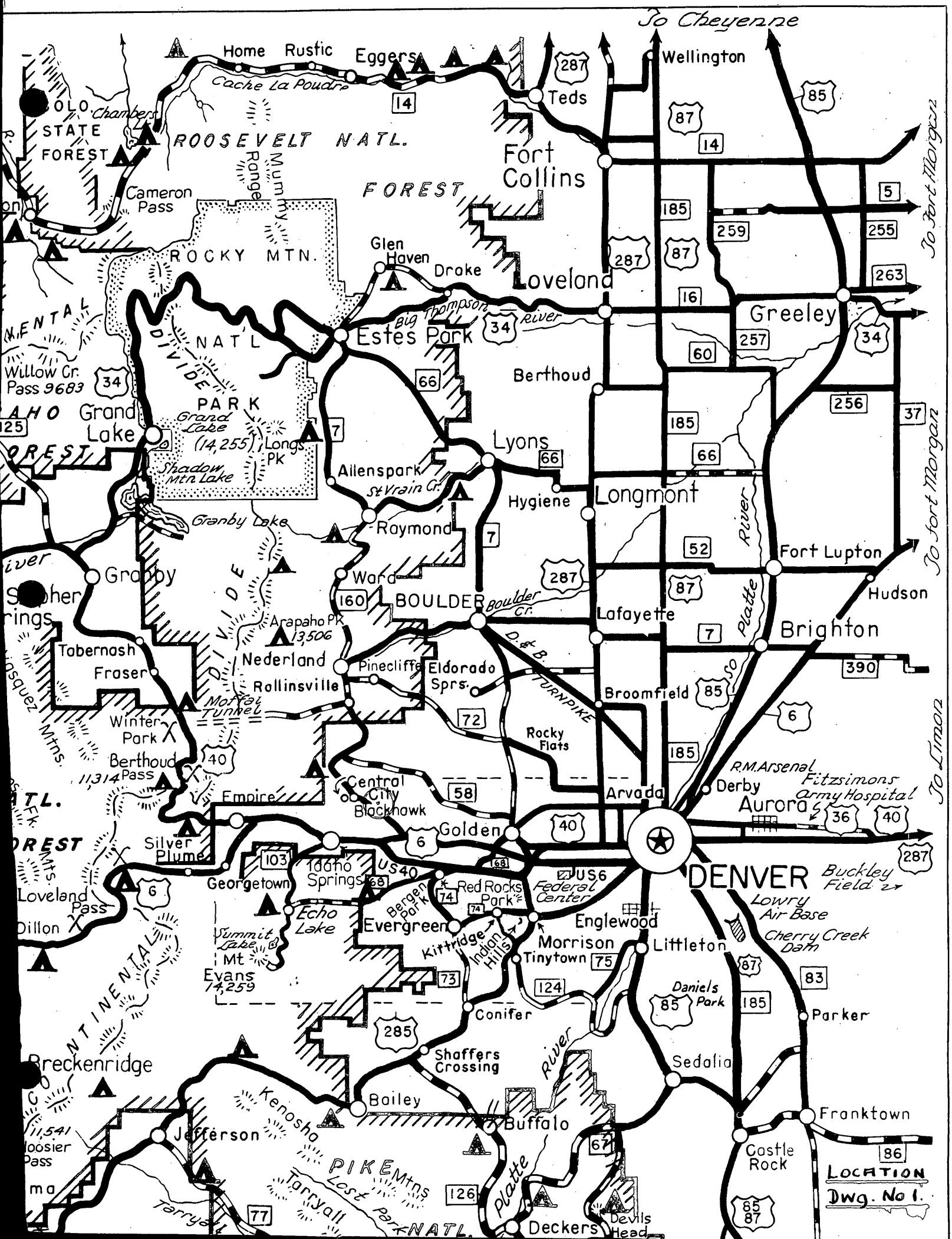
By..... Deputy.

Fee, $ 1.55

C. F. Haines

4-55 BRADFORD-ROBINSON PTG. CO., DENVER

6100 N. 29th Ave
Denver, Colo.


To Cheyenne
Home
Rustic
Eggers
Cache La Poudre
Teds
Wellington
Chambers
STATE FOREST
ROOSEVELT NATL.
FOREST
Fort Collins
Cameron Pass
Mummy Range
ROCKY MTN.
Glen Haven
Drake
Loveland
Big Thompson River
Estes Park
Greeley
To Fort Morgan
NAT'L
DIVIDE
PARK
Willow Cr. Pass 9683
Grand Lake
Grand Lake (14,255)
Longs Pk
Shadow Mtn Lake
Granby Lake
Berthoud
Lyons
Ailenspark
St Vrain Cr.
Hygiene
Longmont
Raymond
Granby
Ward
BOULDER
Boulder Cr.
Fort Lupton
Hudson
Brighton
Platte River
Lafayette
Arapaho Pk 13,506
Tabernash
Fraser
Nederland
Pinecliffe
Eldorado Sprs.
Rollinsville
Moffat Tunnel
D. & B. TURNPIKE
Broomfield
Winter Park
Berthoud Pass 11,314
Rocky Flats
Central City
Blackhawk
Empire
Arvada
Derby
Aurora
R.M. Arsenal
Fitzsimons Army Hospital
To Limon
Golden
Silver Plume
Georgetown
Idaho Springs
US 40
Red Rocks Park
US 6
Federal Center
DENVER
Buckley Field
Lowry Air Base
Cherry Creek Dam
Loveland Pass
Dillon
Echo Lake
Summit Lake
Mt Evans 14,259
Bergen Park
Evergreen
Kittridge
Indian Hills
Morrison
Tinytown
Englewood
Littleton
Daniels Park
Parker
Conifer
Shaffers Crossing
Sedalia
Breckenridge
Bailey
Buffalo
Franktown
Jefferson
Kenosha
PIKE Mtns
Tarryall
Lost Park
NATL.
Deckers
Devils Head
Castle Rock
LOCATION
Dwg. No 1.

on Highway 68 to Squaw
along aspen-lined paved
nd playgrounds for the
. Bergen's Ranch was a
and from gold diggings.
acation-center Evergreen.
nver's Evergreen Munic-
homes, rustic mountain
rts. Church services avail-
e on Highway 74 down

Park of the Red Rocks,
Parks System. Visit the
open-air natural theatre,
nrise Service and concerts
world. Great sandstone
e were pushed up by slow
ocean bottom. Leaving
h Highway 93, *turn right*
rd, crossing the Hogback.
ake-jewelled plains below.
s of Bureau of Rec-
S. Forest Service to
rd to Colfax Avenue, *then*
nter.

...CITY TRIP

— 97 Miles
e — 4 Hours

ROLLINSVILLE • BLACKHAWK
ENVER

(U.S. 40) over viaduct to
77th Avenue and Federal
der Turnpike (toll 25c per
mountains, fertile foothills
panorama of ever-changing
stling home of University
beautiful campuses in the
used in the construction of
tured University buildings

19 past the Flatirons, up-
the precipitous foothills.
nyon Highway sweeps by
ker Reservoir, which feeds
erous camping and picnic

ten mining town pocketed
e horses for rent, refresh-
are profuse in tree-ringed
ny willow-fringed streams
R ville.
wn and former shipping
t Tunnel, Rollinsville was
crossing the Continental

y 279, was named for an
e between Blackhawk and

Central City is on site of John H. Gregory's great strike May 6, 1859. Soon after, thousands of gold seekers were crowded into the narrow confines of Gregory's Diggings. A total of $85 million was mined from this district. Sluices and rockers were counted by the hundreds. Mine shafts dotted the slopes, and the gulch was spotted with tents and log cabins.

Central City, together with Blackhawk, was known as the Gregory Diggings, "the richest square mile on earth." Miners' cabins were perched one above the other on the walls of the gulch. The Central City Opera House attracted the foremost actors of the day. Teller House, famous old hotel, had pavement of silver bricks laid before it to honor General Grant's visit in 1872. During the fire of 1874, the entire business district was destroyed, except the brick Teller House, the stone Register Call Building and one brick and stone office building. In 1931 the Opera House Association initiated the Central City Play Festival which features Metropolitan Opera stars, thus annually reviving this glamorous old tradition. Many special attractions vie for visitor's interest. The Coeur d'Alene Mining Museum, the Central City Historical Museum, the Old West Picture Gallery, the Opera House Theatre Museum, Old "71," one of the early narrow-gauge trains, the McFarlane Foundry, the yawning Glory Hole Mine and Opera House and Teller House tours will fill many interesting hours. Leaving Blackhawk, *go right* on Highway 119 along high-canyoned walls, noticing the placer mining operations which have piled up giant "ant hills" in the stream bed. *Turn left* into new Clear Creek Highway and descend from the ruggedness of massive granite country into the softness of the smooth, gently undulating foothills fertilely carpeted with rich grasses. At junction with U.S. 40 (Colfax Avenue) bear left and return by original route.

TRIP No. 3 . . . ROCKY MOUNTAIN NATIONAL PARK-LONGS PEAK TRIP

Approximate Mileage — 224 Miles
Approximate Driving Time — 9 Hours

DENVER • ESTES PARK • GRAND LAKE • GRANBY • DENVER
SUGGESTED PARK TRIPS: BEAR LAKE • FALL RIVER PASS • TRAIL RIDGE ROAD

3 ALTERNATE ROUTES

Denver to Estes Park via Big Thompson: Take U.S. 287 to Longmont, center of a prosperous sugar beet, vegetable and small grain area. The Great Western Beet Sugar Factory is located here. Continue north to Loveland, a cherry-growing area and sugar beet section. Take U.S. 34 *left* and follow the Big Thompson Canyon winding among aspen-clothed forests and rock-crested hills of tremendous height. The road plunges deep into the mountains, providing spectacular views at every turn, making an abrupt entrance to the highlands of Estes Park through a portal of towering peaks.

Denver to Estes Park via Lyons: Follow U.S. 287 to Longmont. *Turn left* on Highway 379 and continue along the foothills into Lyons, gateway to Roosevelt National Forest. Route 66 north follows the North St. Vrain Canyon directly through the rugged mountains into Estes Park. Highway 7, left, follows South St. Vrain Canyon, winding between the jagged cliffs of the Narrows into rock-torn slopes, dark with evergreens. The stream bed is littered with grotesquely shaped boulders, one being named Elephant Rock for its mammoth size. The rugged basin of the South St. Vrain gives way to pine-dotted ascents and at the ridge affords a spectacular view of Longs Peak ahead, with the Arapaho Peaks to the west. Piney slopes line the weaving course through a resort area and shortly merge into a panorama of singular beauty as the principal entrance to Rocky Mountain National Park is reached.

Denver to Estes Park via Boulder: Follow same directions as Trail No. 2 to Boulder, taking Highway 7 *north* past the well-tended farmlands, to Lyons. At Lyons take Highway 7 along the South St. Vrain Canyon or Highway 66 along the North St. Vrain Canyon.

Estes Park Village is surrounded on all sides by densely forested hills and craggy summits. Cabins, hotels, motels, lodges and ranches are plentiful. At the rustic wooden gateway marking the eastern entrance to Rocky Mountain National Park (admission $1.00 per car, good all year) U.S. 34 becomes Trail Ridge Road, the world's highest modern highway (11 miles of which are above timberline). For over 62 miles, this road presents the visitor with alpine panoramas which rival any to be seen in Europe or Asia. More than 405 square miles of awe-inspiring scenery, 65 peaks more than 10,000 feet high, and lofty 14,255-ft. Longs Peak are visible. The road curves past deep aspen groves, into high flat grasslands profuse with blooming wild flowers, ascends the side of a lateral moraine, crosses trickling mountain streams, and sweeps upward parallel to famous Mummy Range. Longs Peak, stark and unreal with its sheer granite face, lies to the south. Periodic parking spaces provide broad views of the mountains, forests and valleys. At timberline, with its tortuous wind-gnarled scrub pines, the road reaches a 2 miles-above-sea-level point. Bluebells and alpine flowers are visible in high grasslands. Iceberg Lake with its great bobbing cakes of ice becomes visible in a glacial cirque. At Milner Pass, the highway crosses the Continental Divide, continues westward down a sweeping slope, blanketed with heavy timber. Melting snow forms the small streams which trickle through the forest.

At Grand Lake Village, a summer resort on the shore of one of Colorado's largest and deepest lakes, headwaters of the Colorado River, highest yachting anchorage in the world, scene of the annual Lipton cup races, the highway again becomes U.S. 34 and winds through an evergreen wonderland past Shadow Mountain Dam, skirting Granby Lake, one of Colorado's leading lake fishing areas, location of a growing recreation area. The dam is one of the highest earthen-rock-fill dams in the country with approximately 60 miles of shoreline. Part of the Colorado-Big Thompson Project, the Granby Dam will store 546,000 acre feet of water, pump 1,100 cubic feet of water per second up 185 feet to canal to Shadow Mountain Lake, later to be transferred via Continental Divide Tunnel to Estes Park. Strategically located power plants will provide power for eastern Colorado and western Nebraska, irrigation facilities will be improved, flood danger reduced.

At Granby, growing town noted for mountain head lettuce, *turn left* into U.S. 40 and follow the tumbling streams across the grassy level plain into a rich ranching, farming and logging area. Sweep up the smooth broad turns of Berthoud Pass to the 11,314-ft. crest of the Continental Divide, popular ski center, with ski lift operating throughout the year. Denver-owned Winter Park, famous for its skiing facilities for novice and expert, is opposite the western entrance of Moffat Tunnel, built at $18 million cost. Continue along Clear Creek Canyon, through Idaho Springs and over the rolling foothills via Clear Creek Road or U.S. 40 into Denver.

TRIP No. 4 . . . PIKES PEAK TRIP

Approximate Mileage — 160 Miles
Approximate Driving Time — 6½ Hours

DENVER • SEDALIA • RAMPART RANGE • COLORADO SPRINGS • DENVER
SUGGESTED TRIPS: CHEYENNE MOUNTAIN • UTE CANYON • ROYAL GORGE

Go east on Colfax Avenue to Broadway, *turn right* on Broadway and follow U.S. 85 down through a pleasant rural area with a spectacular view of the glistening cone of Mt. Evans to the west.

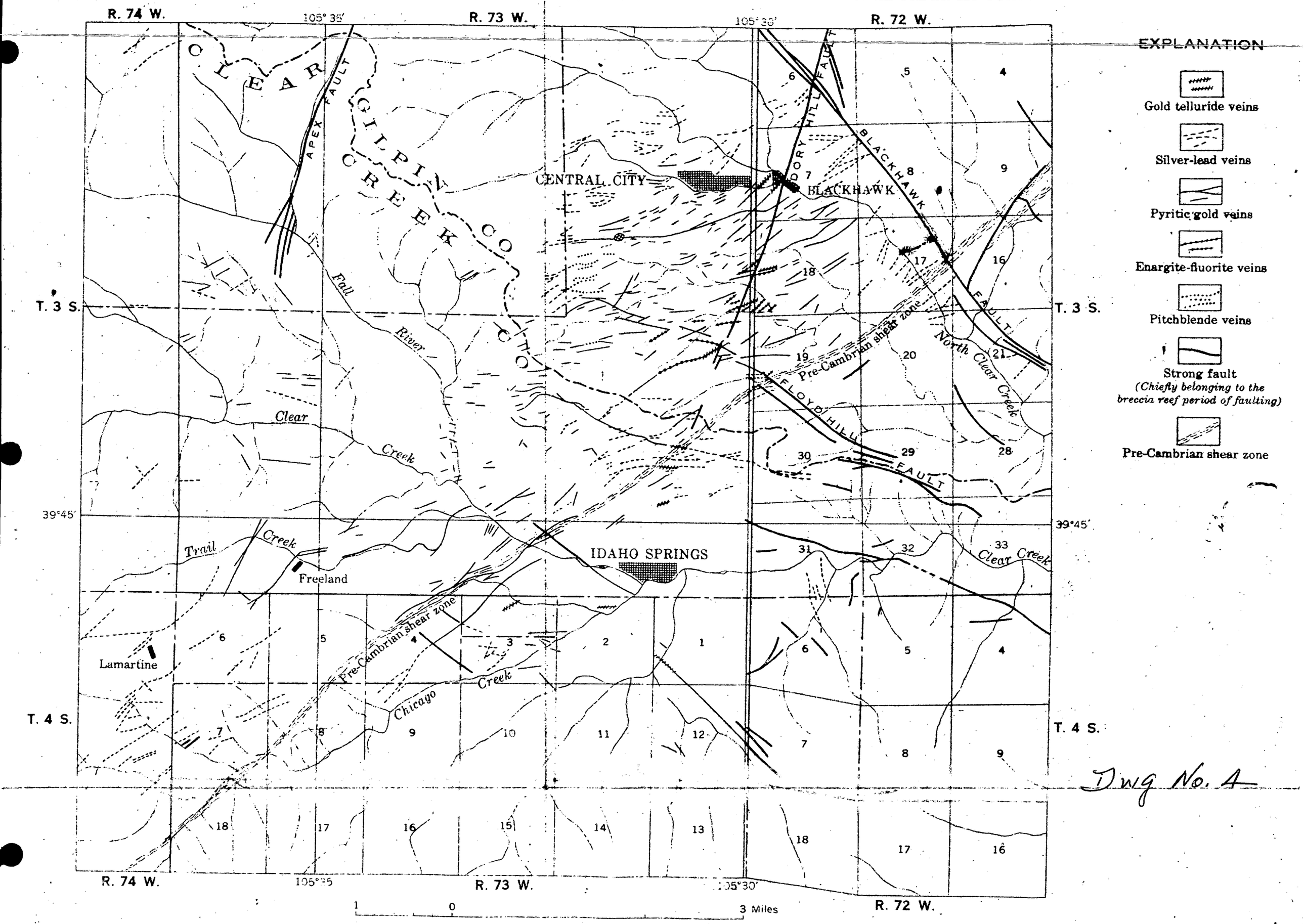
At Sedalia, a former meeting place for the Plains Indians and location of one of Colorado's first sawmills, *turn right* at Johnson's corner into Highway 67 and ascend the rolling hills into pine-dotted and sweet-scented Jarre Canyon. Approximately 10 miles, *turn left* into forest road and continue south past Devil's Head, a jutting mass of grotesque weathered rock, crowned with a Forest Service fire lookout station, over

his guests, a philosopher, and poet who left no written record of his thoughts, a despiser of women who gave all he had to one, an aristocrat, a proletarian, a pagan, an arcadian, an atheist, a lover of beauty, and, inadvertently, the stepfather of domestic science of America." The rank and fashion of East and West and of the Continent registered at his Hotel—if he let them in —to eat the fine food, drink the wine and argue on anything from art to socialism. West of Georgetown, U.S. 6 begins a long ascent, passing on the left the site of the Georgetown Loop, where the narrow-gauge railway looped its way through the mining area.

At Silver Plume, another formerly prosperous mining town, the highway follows the South Fork of Clear Creek, now a thin sparkling stream meandering through willow and aspen thickets. Towering Grays Peak, the state's ninth tallest, and Torreys Peak, the tenth highest, overshadow the highway.

Loveland Pass, the state's second highest motor traverse, rises to 11,992 feet on the Continental Divide and is one

South of Buena
Colorado State Reforma
sparsely populated area
continue to Fairplay, and
burro, symbol of the C
water and to have work
here. The mines nea
Leadville, were sup
friendly dwarfish creatu
the mines. These hardr
picking and tapping aw
of disaster or foretold
belief! Continuing alo
hurries through Como
grassy, saddleback Ken
gold seekers on the
through a deeply-notch
of the South Platte thr



Dwg No. 4

MAP, SHOWING THE ZONAL ARRANGEMENT OF THE ORES OF THE CENTRAL CITY—IDAHO SPRINGS MINING DISTRICT

862135 O - 50 (In pocket)

RECEIVED
JUN 22 1956

MAP OF THE

DOROTHY, PRISCILLA, & SUNSHINE CLAIMS

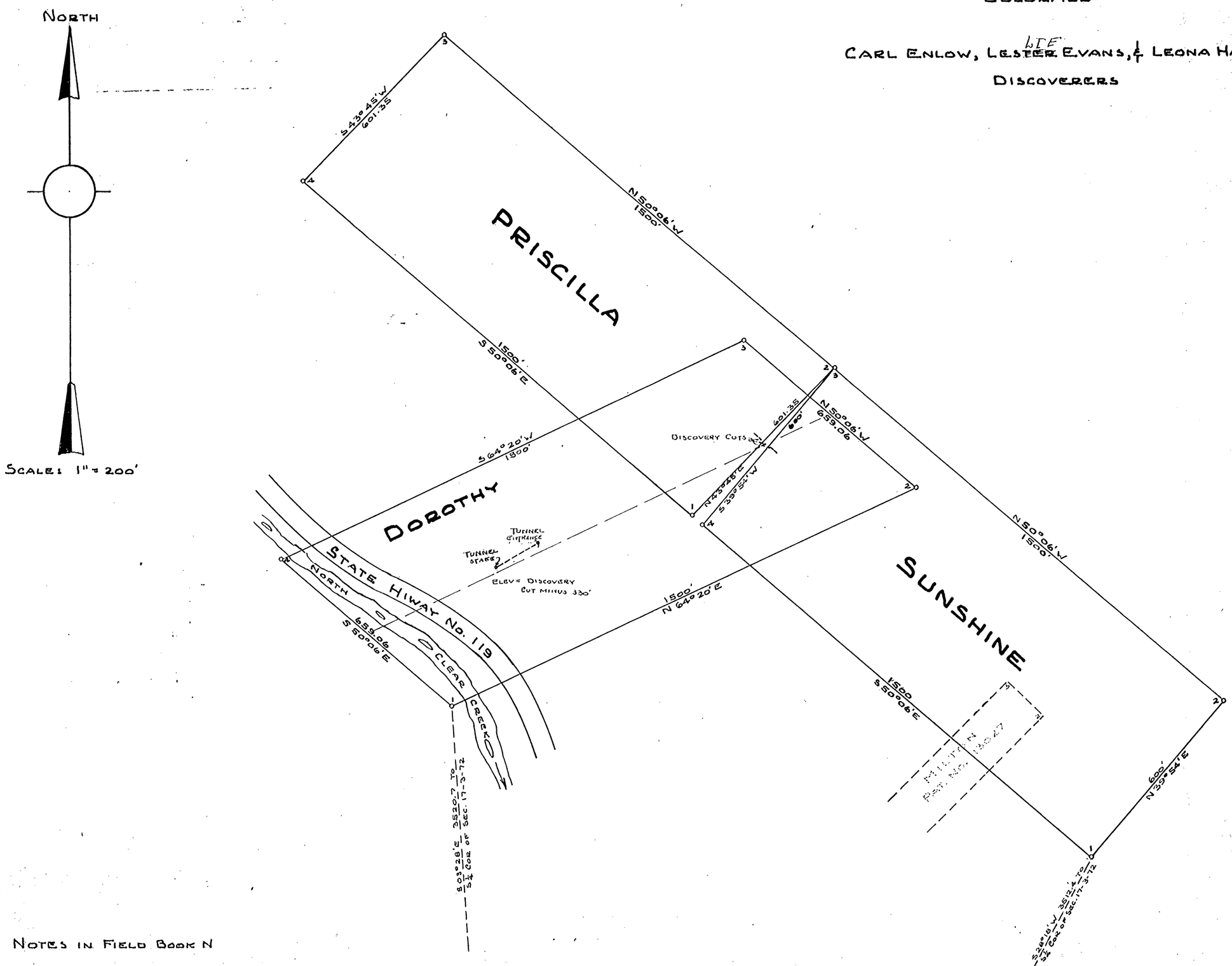
IN SECTION 17, T. 3S., R. 72 W.

GILPIN COUNTY

COLORADO

CARL ENLOW, LESTER EVANS, & LEONA HAINES

DISCOVERERS



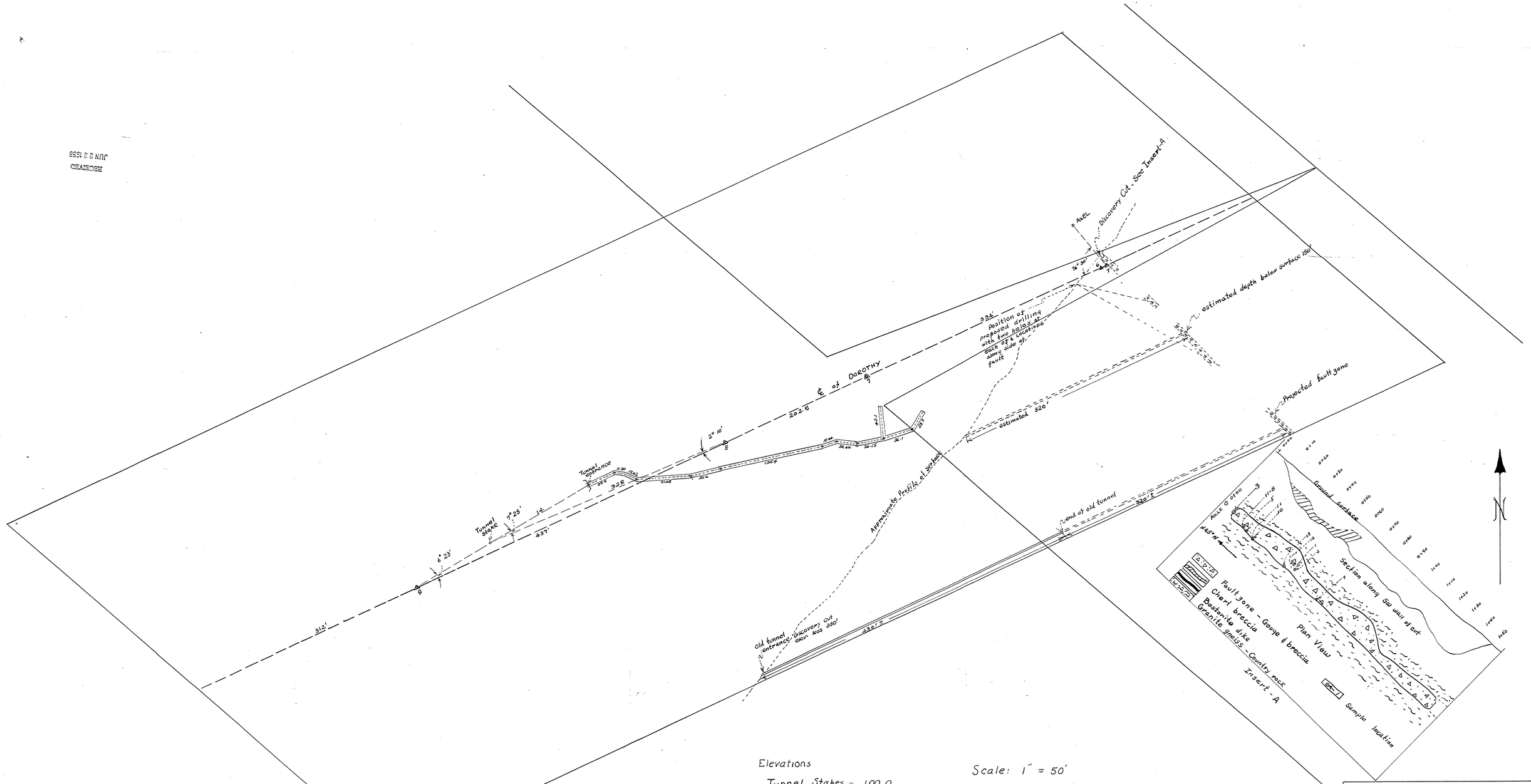
SURVEYED IN MARCH 1956

Kurt O. Linn

NOTES IN FIELD BOOK N

Dwg. No. 2.

RECEIVED
JUN 2 2 1955



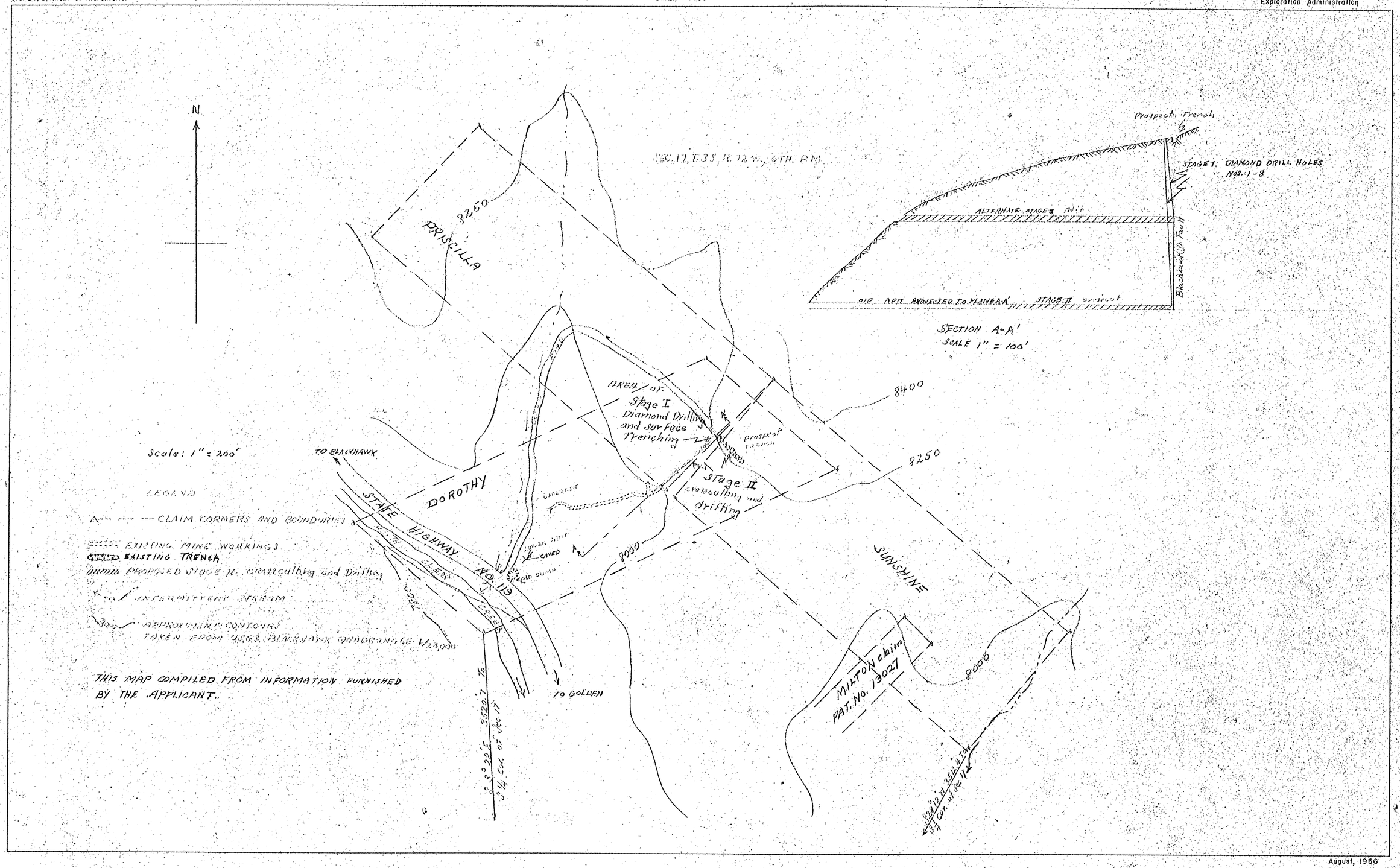
Elevations

Tunnel Stakes	=	100.0
△8	=	210.0
△7	=	285.5
△6	=	428.0
△1	=	428.0

Scale: 1" = 50'

LOCATION AND GEOLOGIC SKETCH OF E & H MINING CLAIMS EXPLORATION CUT with PROPOSED EXPLORATIONS INDICATED

DRAWING No. 5



August, 1966

FIG. 2 -SKETCH MAP OF CLAIMS AND MINE WORKINGS, WITH APPLICANT'S PROPOSED EXPLORATION, E. + H. EXPLORATION AND MINING CO., E. + H. -JELLY ROLL MINE, GILPIN COUNTY, COLORADO